SPARANO + MOONEY **ARCHITECTURE**

ADDENDUM #2

PROJECT:	Caine Lyric Theatre – Fly Loft and Stage Improvements Project	PROJECT NO.	C001541
OWNER:	Utah State University 6550 Old Main Hill Logan, UT 84322-6605	Phone: 435.797.3771 Contact: Thomas Graham	
ARCHITECT:	Sparano + Mooney Architecture 57 West 2100 S Salt Lake City, Utah 84115	Phone: 801.746.0234 Contact: Seth Striefel	
DATE OF ISSUANCE:	April 16, 2025		

Notice to all Plan Holders: The following modifications, additions, deletions, clarifications and/or information are hereby made part of the Contract Documents and shall be fully binding. Addendum must be acknowledged as part of the Bid Form.

Item #1 – Responses to Contractor Questions:

A. Who is responsible for special inspections and testing? Particularly the steel.
Response: Special Inspections will be contracted by USU and are not the responsibility of the contractor.

B. Will the lead paint require abatement?
Response: Since the issuing of the construction documents, TCLP testing has been completed and the lead content is below the threshold for requiring abatement. Abatement of lead will not be required. See attached TCLP Testing Information from Chemtech-Ford dated 3/25/2025.

C. Can you define the scope of fall protection? The specs refer to roof anchors which we would assume to be on the high roof. Also, will interior steel ladders require fall protection, and will it be required anywhere else?
Response: Please see the specifications. Interior ladders require fall protection via beam clamps with retractable devices, and the exterior wall mount ladder requires fall protection.

D. Some areas like the west stage area call out epoxy sealer on the floors. These floors may have years of coating and grime - the epoxy may not bond to the existing surfaces. Please advise.
Response: The existing slab is to be prepped per manufacturer requirements so that the epoxy coating adheres to the slab.

E. *Regarding the micropiles.* Is the earthquake load a max shear load or is it a shear load in 2 different directions? Also, some of the micropiles look like they are notched into the existing structure. Generally, with micropiles I need a minimum of 18" from center of pile to face of wall and 48" from center of pile to face of corner. Will these areas be fully demoed and do the micropiles need to be in the exact locations or is there ability to shift the piles as needed for install.
Response: 1) The loads provided are total loads on the pile cap (as indicated in the drawings). To find the load on a single pile, for example, if (3) micropiles are used, each would take a 1/3 of the loads indicated. However, the contractor decides the final layout of the micropiles which may affect the load in each pile, and is up to them to determine in the

end as they are the micropile designer.

2) The earthquake loads shown are NOT shear loads, they are vertical loads (downward/upward) as indicated in the MicroPile plan notes on S101. The drawings do not require the micropiles to resolve horizontal shear loads.

3) It is anticipated the contractor will need to demo part of the existing walls to install the pile cap (and micropiles). The extent of that demolition will need to be determined by the micropile designer and the contractor. Again, this is covered in the drawings S101 Keynote C. If the field requires some modification, we can discuss as needed.

F. *Sheet F501 wet riser keyed notes #12 and #16 are typed over. Please clarify.*
Response: See updated and attached drawing sheet F501 with issue resolved.

G. Can helical piers be substituted for micropiles as long as the load requirements are met?
Response: Not at this time. Helical piers would require more extensive demolition, larger pile caps, and geotechnical review and input.

H. Please confirm that this project is subject to the Build America, Buy America Act requirements as stated in Spec Section 016000 2.02.
Response: The Build America, Buy America Act, requirement is to be omitted and is not required.

I. There are no stage drapes called out anywhere. Are new stage drapes required, or are these to be owner provided?
Response: They will be owner provided and installed.

J. Is there a theater rigging distributor you can suggest? Is the rigging performance lighting typically provided by a rigging manufacturer or is it lighting that can be provided by an electrical subcontractor?
Response: Manufacturers are noted in the Theatrical Rigging specifications. Some potential contractors that do both rigging and theatrical lighting include:

- Oasis Stage Werks: https://www.oasisstage.com/
- Westview: https://westviewinnovates.com/architectural-theatrical-lighting-rigging/
- Norcostco: https://norcostco.com/norcostco-denver/?srsltid=AfmBOooOeuatEXuTmqSgecmyJ8cMV9j9gThm4J1BJ2wUE262rx6aR2rR
- LVH: https://lvhent.com/
- Protech: https://www.protechlv.com/
- Pointwright: https://www.pwrigging.com/ (Rigging Only)

K. Does the apartment floor receive carpet or is it just painted plywood?
Response: It is just plywood, and it is not painted.

L. A number of scope related questions were asked regarding the stucco/plaster work with associated images and drawings provided. Please see the attached PDF with questions and answers within the attached documentation.

Item #2 –Dust Protection and Final Cleaning
Please note that the design team cannot dictate the means and methods of the project, but dust protection of the existing Caine Lyric Theatre auditorium space will be a necessity, as will a final cleaning of the space. The expectation is that auditorium space and all seating, carpet, and ornamental plaster detailing is returned to the owner in the same condition and level of cleanliness as per the start of construction.

Item #3 – Allowance for Construction Staging
USU is in negotiation with adjacent property owners to procure access for construction staging in the parking area to the southwest of the site. This negotiation is ongoing and given is not yet resolved, may require space to be rented or fees to be paid to adjacent owners. Please provide a $20,000 allowance within your bid to cover this cost. If determined that it is not required, the allowance is to be returned to the owner.

Item #4 – Roofings System Revision
The roofing system is to be mechanically fastened versus fully adhered to match the roofing system installed on the building in 2014. See attached revised specification section 07 5400, and associated drawings noting this revision.

Item #5 – Existing Roofing Warranty Info
See attached roofing warranty information from the install in 2024. All new roofing work must maintain the warranty and must be compatible with the existing roofing.

Item #6 – Roofing Product Alternatives
We have received a number of roofing system alternatives to review. Given the PVC roofing specified was installed on the rest of the building in 2024, and that have numerous tie-ins to the existing roofing, and we need to maintain the roofing warranty; we will not except alternative products.

Item #7 – Electrical Revisions
See attached electrical narrative and drawings from Spectrum Engineering noting electrical scope revisions.

Item #8 – Fire Curtain Asbestos Testing
Since the issuing of the Construction Documents further testing of the existing fire curtain has been completed showing asbestos as not detected in the existing fire curtain. See attached Fire Curtain Asbestos Survey from Dixon Information Inc. dated 3/17/2025. Fire curtain and associated track and structure is to be demolished by the contractor per the revised attached demolition drawing sheet.

Attachments:

- (4) Pages: TCLP Testing Information from Chemtech-Ford dated 3/25/2025
- (3) Pages: Fire Curtain Asbestos Survey from Dixon Information Inc. dated 3/17/2025
- (4) Pages: Application for Roofing Membrane System Warranty from 2024 roofing installation
- (10) Pages: Specification Section 07 5400 Thermoplastic Membrane Roofing
- (3) Pages: Question and answer response on Stucco/Plaster work
- (3) Architectural Drawings Sheets: AD102, AE109, and AE501
- (1) Fire Drawing Sheet: F501
- (1) Page: Electrical Narrative noting revisions
- (6) Electrical Drawings Sheets: ES101, ED101, ED104, ED301, EP103, and EP651

ISSUED BY:	Sparano + Mooney Architecture
PROJECT ARCHITECT:	Seth Striefel

CHEMTECH-FORD
LABORATORIES

3/25/2025

Work Order: 25C1618
Project: [none]

R & R Environmental, Inc.
Attn: Dallin Smith
47 West 9000 South Suite #2
Sandy, UT 84070

Client Service Contact: 801.262.7299

The analyses presented on this report were performed in accordance with the National Environmental Laboratory Accreditation Program (NELAP) unless noted in the comments, flags, or case narrative. If the report is to be used for regulatory compliance, it should be presented in its entirety, and not be altered.

NELAP ACCREDITED TNI LABORATORY

Approved By:

Mark Broadhead, Project Manager

Chemtech-Ford Laboratories
Serving the Intermountain West Since 1953

9632 South 500 West
Sandy, UT 84070
O:(801) 262-7299 F: (866) 792-0093
www.ChemtechFord.com

Certificate of Analysis

R & R Environmental, Inc.
Dallin Smith
47 West 9000 South Suite #2
Sandy, UT 84070

PO#:
Receipt: **3/20/25 14:00 @ 22.3** °C
Date Reported: 3/25/2025
Project Name: **[none]**

Sample ID: **Lyric Theater TCLP**

Matrix: **Solid**
Lab ID: **25C1618-01**

Date Sampled: **3/18/25 12:00**
Sampled By: **Dallin Smith**

	Result	Units	Minimum Reporting Limit	Method	Preparation Date/Time	Analysis Date/Time	Flag(s)
TCLP Metals							
Lead, TCLP	5.13	mg/L	0.20	EPA 6010D/3010A	3/24/25	3/24/25	

Certificate of Analysis

R & R Environmental, Inc.
Dallin Smith
47 West 9000 South Suite #2
Sandy, UT 84070

PO#:
Receipt: **3/20/25 14:00 @ 22.3** °C
Date Reported: 3/25/2025
Project Name: **[none]**

Report Footnotes

Abbreviations

ND = Not detected at the corresponding Minimum Reporting Limit (MRL).
1 mg/L = one milligram per liter or 1 mg/kg = one milligram per kilogram = 1 part per million.
1 ug/L = one microgram per liter or 1 ug/kg = one microgram per kilogram = 1 part per billion.
1 ng/L = one nanogram per liter or 1 ng/kg = one nanogram per kilogram = 1 part per trillion.
On calculated parameters, there may be a slight difference between summing the rounded values shown on the report vs the unrounded values used in the calculation.

CHAIN OF CUSTODY - SAMPLE SUBMITTAL FORM

COMPANY: R&R Environmental
ADDRESS: 47 West 9000 South, Suite #2
CITY/STATE/ZIP: Sandy, UT 84070
PHONE #: 801-725-4473
CONTACT: Dallin Smith
EMAIL: dallin@rrenviro.com
PROJECT:
PO Number:
INVOICE EMAIL ADDRESS:

3-DAY RUSH
3/25 Due
DL1744
OK Mike

QC Level

QC levels definition:
QC1: none (default if blank)
QC2: Batch QC, random sample
QC3: 25% surcharge. Narrative plus Batch QC, your sample selected
QC4: 40% surcharge. Add raw data

CHEMTECH-FORD LABORATORIES

Chemtech-Ford, Inc
9632 South 500 West
Sandy, UT 84070
Phone: 801-262-7299
www.chemtechford.com

Sample condition					
	Custody Seal	✓	Correct Containers		
✓	Container Intact	✓	Sufficient Sample Volume	Delivery Method	
	COC/Labels Agree		Headspace Present (VOC)	UPS	USPS
	Received on Ice		Temperature Blank	FedEx	Chemtech-Ford Courier
		✓	Received within Holding Time	X Walk-in	Customer Courier

25C | 6 | 8

Lab Use Only	CLIENT SAMPLE INFORMATION			
	LOCATION / IDENTIFICATION	DATE	TIME	MATRIX
01	1. Lyric Theater TCLP	3-18-25	12:00	
	2.			
	3.			
	4.			
	5.			
	6.			
	7.			
	8.			
	9.			
	10.			

TESTS REQUESTED

TCLP Lead
X
9

Bottle type
Lot #

Sampled by: [print] Dallin Smith
Sampled by: [signature] Dallin Smith

ON ICE NOT ON ICE Temp (C°): 22.3

Samples received outside the EPA recommended temperature range of 0-6 C° may be rejected.

Special Instructions:

Relinquished by: [signature]	Date/Time	Received by: [signature]	Date/Time
Dallin Smith	3-20-25 14:00	[signature]	3/20/25 1400
Relinquished by: [signature]	Date/Time	Received by: [signature]	Date/Time
Relinquished by: [signature]	Date/Time	Received by: [signature]	Date/Time

Payment Terms are net 30 days OAC. 1.5% interest charge per month (18% per annum). Client agress to pay collection costs and attorney's fees.

DIXON INFORMATION INC.

MICROSCOPY, ASBESTOS ANALYSIS & CONSULTING
AIHA-LAP LLC ACCREDITED LABORATORY #101579
NVLAP LAB CODE 101012-0

March 17, 2025

Utah State University
Environmental Health & Safety
8315 Old Main
Logan, UT 84321-8315

Ref: Batch # 215222, Lab # USU5375 - USU5377
Received March 13, 2025
Test report, Page 1 of 2
Lyric Theater, Logan Center St.
Lyric Theater
Sampled by on 3-13-25

Dear Utah State University:

Samples USU5375 through USU5377 have been analyzed using the qualitative analysis of bulk samples by polarized light microscopy (PLM), and the quantitation of asbestos content by calibrated visual estimate (CVE) based on EPA -- 40 CFR Appendix E to Subpart E of Part 763 (EPA 600/M4-82-020), Interim Method of the Determination of Asbestos in Bulk Insulation Samples, and EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, as well as guidance from the OSHA ID-191 method. Appendix "A" contains statements which an accredited laboratory must make to meet the requirements of accrediting agencies. It also contains additional information about the method of analysis. Appendix "A" must be included as an essential part of this test report. This analysis is accredited under NVLAP Lab Code: 101012-0. It does not contain data or calibrations for tests performed under AIHA-LAP LLC Lab Code: 101579.

This report may be reproduced but all reproduction must be in full unless written approval is received from the laboratory for partial reproduction. The results of analysis are as follows:

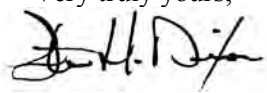
Lab USU5375, Field LT-01 Stage Stage Fire Curtain, Black
This is cross-woven fiberglass in black resin. **Asbestos is none detected.**

Lab USU5376, Field LT-02 STAGE Stage Fire Curtain, Stuffing
This is 95% fiberglass in yellow resin with a trace of black resin debris. **Asbestos is none detected.**

Lab USU5377, Field LT-03 STAGE Stage Side Curtains Black
This is inter-woven black synthetic fiber cloth. **Asbestos is none detected.**

In order to be sure reagents and tools used for analysis are not contaminated with asbestos, blanks are tested. Asbestos was none detected in the blanks tested with this bulk sample set.

Very truly yours,



Steve H. Dixon, President

Analyzed by Taylor Smith on March 14, 2025

78 WEST 2400 SOUTH | SOUTH SALT LAKE, UTAH 84115-3013
PHONE 801-486-0800 | FAX 801-486-0849 | info@dixoninformation.com

APPENDIX "A"

"This report relates only to the items tested. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST, AIHA-LAP LLC, or any agency of the US government."

NVLAP and AIHA-LAP LLC require laboratories to state the condition of the samples received for testing. The condition of these samples is acceptable for analysis unless there is a characteristic indicating otherwise. If a test item is not acceptable, requires a modification to the standard method, or has cause for analysis sensitivity, it will be identified by a note for that particular test item under the laboratory number on the final report. If the samples are non- homogenous, a statement will be included with the sample result. Each component or sub-sample is analyzed separately. The reported results and percentages of each material type are based on the sample received by the laboratory and may not be representative of the parent material. Orientation of top and bottom may not be specified due to uncertainty of orientation.

METHODS OF ANALYSIS AND LIMIT OF DETECTION

For air count analysis, samples are not blank corrected unless otherwise noted.

For air count analysis, the results may be biased when interferences are noted.

The accuracy of asbestos analysis in bulk samples increases with increasing concentration of asbestos. Pigments, binders, small sample size, and multiple layers may affect the analysis sensitivity.

There are two methods for analysis of asbestos in a bulk test sample: *Visual Estimation* and *Point Count*. Visual estimation with gravimetry is the most sensitive method. If an analyst makes a patient search, 0.1% or less asbestos can be detected in a bulk sample. Point count analysis is a method with a statistical approach.

Government agencies regulate asbestos containing materials (ACM) whenever the ACM is more than 1%. EPA will not accept visual estimation to verify that trace amounts of asbestos are less than 1%. EPA requires point count to verify less than 1% asbestos content. OSHA requirements apply on samples containing any amount of asbestos.

Due to higher charge for a point count analysis, Dixon Information Inc. does not perform a point count unless authorized to do so by the customer. If a sample is point counted, when possible, various chemical and/or physical means may be used to concentrate the asbestos in the sample. This is permitted by the EPA method and it increases the accuracy of the analysis.

RUSH

UTAH STATE UNIVERSITY
ENVIRONMENTAL HEALTH AND SAFETY
8315 Old Main Hill – Logan, Utah 84321-8315
(435) 797-2892 (435) 797-3864 Fax

USU
Batch# 215222

ASBESTOS BULK SAMPLE ANALYSIS REQUEST FORM & COLLECTION LOG

Project: Lyric Theater	Contact: Kirt Poulsen	
Location: Lyric Theater, Logan Center Street	Phone: 435-770-1306	Date Submitted: 3/13/2025
Laboratory: Dixon	Laboratory Turnaround: Priority Rush	

Lab ID #	Sample Number	Location	Description	% Asbestos
5375	LT-01	Stage	Stage Fire Curtain, Black	
5376	LT-02	Stage	Stage Fire Curtain, Stuffing	
5377	LT-03	Stage	Stage Side Curtains Black	

USU
Batch# 215222

USU
Batch# 215222

Special Instructions & Comments:	
Submitted By: Kirt Poulsen	Relinquished To: OM 3/13/25 1610 via courier
Received By, Analyst: Tyler	Completed By, Analyst: Tyler

Application for Roofing Membrane System Warranty Applicator Copy

Apr 10, 2025
JOB Number: 1648646

General Information

Project Status: Job File Closed

Name Of Project : USU CAINE THEATER
Address : 30 W CENTER STREET
LOGAN, UT 84321 US

Store No. :

County : CACHE

Owner Information
UTAH STATE UNIVERSITY
6550 OLD MAIN HILL
LOGAN, UT 84322
Email: tom.graham@usu.edu
Telephone: (435) 797 - 3771 Fax:

Authorized Applicator's Information
MOUNTAIN PEAK ROOFING
135 SOUTH 700 WEST
LOGAN, UT 84321
Email: office@mtpeakroofing.com
Telephone: 435-787-4174 Fax: 435-213-3160

General Contractor's Information

,
Email:
Telephone: Fax:

Property Manager's Information:

,
Email:
Telephone: Fax:

Architect's/Consultant's Information

,
Email:
Telephone: Fax:

Roof Consultant's Information

,
Email:
Telephone: Fax:

Warranty Information

Material Warranty :
System Warranty : Total System Warranty
Material Warranty Term :
System Warranty Term : 30
Wind Speed : 110
Quote Number :

Warranty Options

Warranty options :
Manhattan Job : No
Overburden : NO

Other Project Information

Ladder Required : NO
Security Clearance : NO
Job Start Date : 8/5/2024
Job Completion Date : 10/24/2024

Metal Warranty Information

Metal: NONE
LF: 0.0
Metal Product:

PV Information

PV System : NO
Solar : NO
Attachment Method :

Roof Garden Information

Roof Garden : NO
Type :
Overburden : NO

Special Warranty Instructions:

ISSUE AS REGULAR WARRANT AS THIS IS NOT A DFCM JOB - CW DESIGN 2: ROOF DECK IS A NEW LAYER OF 5/8" OSB OVER THE EXISTING PLYWOOD DECK.

Corrections Posted

Drawing
Roof Plan.pdf.pdf
Approval Comments : Reviews By John Souders

This is to notify Versico that we have been awarded a contract to install the Versico Roof that has been specified for this building The membrane system may only be installed on a commercial, nonresidential building by a Versico Authorized Applicator according to Versico Incorporated's written specifications and must be warranted for either five (5), ten (10), fifteen (15), twenty (20) or thirty (30) years.

Application for Roofing Membrane System Warranty Applicator Copy

Apr 10, 2025

JOB Number: 1648646

Approval Code Number	Approval Code	Description	Job Design
AC-310155		Cover Board fastened at 16 fasteners/plates per 4x8 board [Minimum warranty requirements]	869231
AC-310153		Cover Board fastened at 16 fasteners/plates per 4x8 board [Minimum warranty requirements]	869230

This is to notify Versico that we have been awarded a contract to install the Versico Roof that has been specified for this building The membrane system may only be installed on a commercial, nonresidential building by a Versico Authorized Applicator according to Versico Incorporated's written specifications and must be warranted for either five (5), ten (10), fifteen (15), twenty (20) or thirty (30) years.

Application for Roofing Membrane System Warranty Applicator Copy

Apr 10, 2025
JOB Number: 1648646

DESIGNS FOR THIS PROJECT **Design Number - 01**

Product type: PVC
Deck Type: STEEL 22 GA. OR HEAVIER
If Plywood Deck Type Thickness:

Project Size: 2,300 **Number of Roof Levels:** 2
Maximum Height: 25 **Number of penetration:** 20
Roof Slope: 1/2:12
System Type: ADHERED
Membrane Type: 80-MIL VERSIFLEX KEE HP PVC **Membrane Color:** LIGHT GRAY
Membrane Adhesive: CAV-GRIP PVC ADHESIVE
Top Covering:
Paver Brand:
Roof Status: RE-ROOF / TEAR OFF
Existing Roof Membrane Type:
Total Thickness of Existing Roof System:
Controlled Environment: NO **High Humidity:** NO
Special Conditions:

Design Specifications

Membrane Fastener

Manufacturer	Type	Brand	Length	Plates Bar
VERSICO	STEEL/WOOD	HPVX #15	VARIES	HPVX PLATES

Coverboard

Seq.No.	Manufacturer	Type	Brand	Thickness
1	VERSICO	GYPSUM	DENSDECK PRIME	5/8"

Insulation Layer

Seq.No.	Manufacturer	Type	Brand	Board Size	Thickness
1	VERSICO	POLYISOCYANURATE	VERSICORE 25-PSI		2.6"
2	VERSICO	POLYISOCYANURATE	VERSICORE 25-PSI		2.6"

Thermal Barrier

Seq.No.	Manufacturer	Type	Brand	Thickness
1	VERSICO	GYPSUM	DENSDECK PRIME	5/8"

Insulation Fastener/ Adhesive (From membrane to deck, including coverboard or thermal barrier if used)

Seq.No.	Fastener/Adhesive Manufacturer	Type	Brand	Thickness
1	VERSICO	STEEL/WOOD	INSULTITE #12	VARIES

Air/Vapor Barrier

Seq.No.	Substrate	Manufacturer	Brand	Primer/Fastener

This is to notify Versico that we have been awarded a contract to install the Versico Roof that has been specified for this building The membrane system may only be installed on a commercial, nonresidential building by a Versico Authorized Applicator according to Versico Incorporated's written specifications and must be warranted for either five (5), ten (10), fifteen (15), twenty (20) or thirty (30) years.

Application for Roofing Membrane System Warranty Applicator Copy

Apr 10, 2025
JOB Number: 1648646

DESIGNS FOR THIS PROJECT — **Design Number - 02**

Product type: PVC
Deck Type: OSB
If Plywood Deck Type Thickness: 5/8

Project Size: 4,350 — **Number of Roof Levels:** 3
Maximum Height: 38 — **Number of penetration:** 20
Roof Slope: 1/2:12
System Type: ADHERED
Membrane Type: 80-MIL VERSIFLEX KEE HP PVC — **Membrane Color:** LIGHT GRAY
Membrane Adhesive: CAV-GRIP PVC ADHESIVE
Top Covering:
Paver Brand:
Roof Status: RE-ROOF / TEAR OFF
Existing Roof Membrane Type:
Total Thickness of Existing Roof System:
Controlled Environment: NO — **High Humidity:** NO
Special Conditions: Design 2: Roof deck is a new layer of 5/8" OSB over the existing plywood deck.

Design Specifications

Membrane Fastener

Manufacturer	Type	Brand	Length	Plates Bar
VERSICO	STEEL/WOOD	HPVX #15	VARIES	HPVX PLATES

Coverboard

Seq.No.	Manufacturer	Type	Brand	Thickness
1	VERSICO	GYPSUM	DENSDECK PRIME	5/8"

Insulation Layer

Seq.No.	Manufacturer	Type	Brand	Board Size	Thickness
1	VERSICO	POLYISOCYANURATE	VERSICORE 25-PSI		2.6"
2	VERSICO	POLYISOCYANURATE	VERSICORE 25-PSI		2.6"

Thermal Barrier

Seq.No.	Manufacturer	Type	Brand	Thickness
1	NONE	NONE	NONE	NONE

Insulation Fastener/ Adhesive (From membrane to deck, including coverboard or thermal barrier if used)

Seq.No.	Fastener/Adhesive Manufacturer	Type	Brand	Thickness
1	VERSICO	STEEL/WOOD	INSULTITE #12	VARIES

Air/Vapor Barrier

Seq.No.	Substrate	Manufacturer	Brand	Primer/Fastener

This is to notify Versico that we have been awarded a contract to install the Versico Roof that has been specified for this building The membrane system may only be installed on a commercial, nonresidential building by a Versico Authorized Applicator according to Versico Incorporated's written specifications and must be warranted for either five (5), ten (10), fifteen (15), twenty (20) or thirty (30) years.

SECTION 07 5400
THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Thermoplastic roofing membrane, mechanically fastened conventional application.
   1. Insulation, flat and tapered.
   2. Vapor retarder.
   3. Deck sheathing.
   4. Cover boards.
   5. Flashings.
   6. Roofing stack boots and walkway pads.

B. Design of roofing system attachment to building structure to comply with specified requirements.

1.02 DEFINITIONS

A. DFCM - State of Utah - Department of Administrative Services; Division of Facilities Construction Management.

1.03 REFERENCE STANDARDS

A. DFCM (RDR) - Roofing Design Standards; December 2018 Update.

B. ANSI/SPRI/FM 4435/ES-1 - Test Standard for Edge Systems Used with Low Slope Roofing Systems.

C. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.

D. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

E. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

F. ASTM D2136 - Standard Test Method for Coated Fabrics—Low-Temperature Bend Test.

G. ASTM D4434/D4434M - Standard Specification for Poly(Vinyl Chloride) Sheet Roofing.

H. ASTM D5635/D5635M - Standard Test Method for Dynamic Puncture Resistance of Roofing Membrane Specimens 1.1.

I. ASTM D6754/D6754M - Standard Specification for Ketone Ethylene Ester Based Sheet Roofing.

J. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.

K. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

L. ASTM E907 - Standard Test Method for Field Testing Uplift of Adhered Membrane Roofing Systems.

M. ASTM G153 - Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials.

N. ASTM G155 - Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials.

O. FM (AG) - FM Approval Guide.

P. FM 4450 - Class I Insulated Steel Roof Decks.

Q. FM 4470 - Approval Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction.

R. FM 4880 - Approval Standard for Class 1 Fire Rating of Building Panels or Interior Finish Materials.

S. FM DS 1-28 - Wind Design.

T. NRCA (RM) - The NRCA Roofing Manual.

U. UL 1256 - Fire Test of Roof Deck Constructions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate with installation of associated counterflashings and roof drainage components installed under other Sections as the work of this Section proceeds.

B. Pre-installation Meeting: Convene one week before starting work of this Section.
   1. Convene under general provisions of Section 01 7000.
   2. Submit pre-installation notice signed by manufacturer's authorized representative prior to commencement of work. Owner may request attendance by an independent roofing consultant at its descretion.
      a. Include confirmation that membrane and all accessories meet requirements of the specifications in all respects.
      b. Include confirmation that scope of roofing work is in accordance with manufacturer's published technical data.
      c. Include confirmation that a warranty has been requested and will be issued on DFCM warranty form upon completion of roofing work.
   3. Require attendance of parties directly concerned with the work of this Section, including those who are required to coordinate with the work, and those who are required to protect the work upon completion. Include the manufacturer's technical representative and USU Roofing Project Manager.
   4. Review preparation and installation procedures and coordinating and scheduling required with related work.

1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.

C. Shop Drawings: Submit drawings that indicate all required joint or termination detail conditions, conditions of interface with other materials, setting plan for primary and tapered insulation, mechanical fastener layout, and walkway pad layout.
   1. Shop drawings are required to represent project-specific conditions, and prepared specifically for this project; shop drawings will not be accepted for review if drawings only include manufacturer's "standard" details.
   2. Clearly indicate corner and perimeter wind zones as defined by ASCE 7 and FM (AG), and associated roofing components required to comply with specified wind-resistance requirements.

D. Manufacturer's Installation Instructions: Indicate membrane seaming precautions, special procedures, and perimeter conditions requiring special attention.

E. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.

F. Warranty Documentation:
   1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
   2. Submit installer's written verification that installation complies with warranty conditions for waterproof membrane.
   3. Include confirmation that a warranty has been requested and will be issued on DFCM warranty form upon completion of roofing work.
   4. Documentation of manufacturer's commitment to provide specified warranty, and its plan to meet warranty obligations.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Obtain roofing materials including sheets, adhesives, system accessories, and flexible flashings from a single manufacturer who publishes complete information on the specified system, and which has produced the specified system successfully for a minimum of five years. Provide materials and accessories not manufactured by the membrane manufacturer from sources acceptable to the membrane manufacturer, complying with warranty provisions.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with minimum 10 years of documented experience.
   1. Roofing System: Documented minimum 5 year successful performance and service history.

C. Installer Qualifications: Company specializing in performing the work of this Section with at least 10 years of documented experience and approved by manufacturer.
   1. Provide current manufacturer's written certification of proposed installer before start of roofing work; certification must document participation in manufacturer's certified training program for installation of specified roofimng systens.

D. Obtain periodic and final inspection of completed roofing installation by roofing manufacturer for acceptance and warrantability.

1.07 REGULATORY REQUIREMENTS

A. Conform to applicable Building Code requirements for roof insulation in conjunction with roof assembly classifications.

B. Provide insulation materials which are identical to those whose fire performance characteristics have been determined by UL or other testing agency acceptable to jurisdictional authorities.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact.

B. Store materials in weather protected environment, clear of ground and moisture.

C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

D. Protect foam insulation from direct exposure to sunlight.

1.09 FIELD CONDITIONS

A. Do not apply roofing membrane during unsuitable weather.

B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above 100 degrees F.

C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

E. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

1.10 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within 10 years after installation.

C. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
   1. Project-Specific Warranty Provisions: Warranty must be issued to cover design wind speeds as specified or required by applicable code for project-specific conditions of wind exposure; manufacturer's "standard" warranty provisions are not acceptable.
   2. Warranty Form: State of Utah (DFCM) manufacturer's warranty; by signing State of Utah warranty form, manufacturer agrees to relinquish terms and conditions of manufacturer's standard warranty.
      a. Warranty Term: 30 years, minimum.
   3. Include coverage of roofing system and insulation materials provided by membrane manufacturer, including installation, resulting from failure to resist penetration of moisture, and failure to comply with specified performance requirements.
   4. For repair and replacement include costs of both material and labor in warranty.
   5. Exceptions NOT Permitted:
      a. Damage due to roof traffic.
      b. Damage due to wind speed greater than 56 miles per hour but less than 110 miles per hour.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design Manufacturer - Membrane Materials: Existing roof membrane; field verify.
   1. Versico Roofing Systems; VersiFlex-E KEE HP: www.versico.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Other Acceptable Manufacturers - Membrane Materials:
   1. Mule-Hide Products Co, Inc.: www.mulehide.com/#sle.
   2. Sika Corporation Roofing; Sarnafil PVC: usa.sika.com/sarnafil/#sle.
   3. Siplast, Inc.; Parasolo KEE: wwwsiplast.com.
   4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 ROOFING ASSEMBLIES

A. Thermoplastic Membrane Roofing: One ply membrane, fully adhered, over insulation.

B. General Requirements: Comply with minimum assembly requirements for new construction, low slope, thermoplastic roof systems in accordance with DFCM (RDR18 Edition), whether or not specified in this Section.
   1. In the event of discrepancy between the specifications and DFCM (RDR), the more stringent requirements will be required, as determined by Architect or USU Roofing Project Manager.

C. Roofing Assembly Requirements:
   1. General: Provide installed roofing membrane and base flashing system that will remain watertight, will not permit the passage of water, and resist specified uplift pressures, thermally induced movement, and exposure to weather, without failure.
   2. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.
   3. Uplift Pressure Resistance: Provide installed insulation, roofing membrane, and base flashing system that will resist uplift pressures calculated according to ASCE 7 and applicable building code requirements, as demonstrated by manufacturer’s independent testing.
      a. Uplift Pressure Resistance Requirements: As specified on structural Drawings for field, perimeter, and corner areas.
   4. Factory Mutual (FM) Listing: Provide membrane, base flashings, and component materials that comply with requirements in FM DS 1-28 and FM 4450 as part of a roofing system, and that are listed by FM for Class I or non-combustible construction, as applicable. Identify materials with FM markings.
      a. Windstorm Classification: Class I-110 minimum, or as otherwise required by local code.
      b. Hail Resistance: SH.
   5. Fire-Test Response Characteristics: Provide roofing materials with fire-resistance-response characteristics as determined by testing identical products by UL, FM, or other independent testing agency acceptable to jurisdictional authority, according to following test methods. Identify materials with applicable testing agency markings.
      a. ASTM E108, Class A; for application and slopes indicated.
      b. ASTM E119; fire-resistance-rated roof assemblies of which roofing materials are a part.
   6. Physical Properties: Demonstrate physical integrity over working life of roof based on 2,000 hours of exposure to accelerated weathering tests in accordance with ASTM G153.
   7. Impact Resistance: Comply with FM 4470; Section 5.5 "Resistance to Foot Traffic Test."
   8. Edge Securement: Tested in accordance with ANSI/SPRI/FM 4435/ES-1, RE-1, RE-2, and RE-3 as applicable to positive and negative design wind pressure as defined by applicable code.

2.03 MEMBRANE ROOFING AND ASSOCIATED MATERIALS

A. Membrane Roofing Materials:
   1. PVC: Polyvinyl chloride (PVC) complying with ASTM D4434/D4434M, Type II, sheet contains reinforcing fibers or reinforcing fabrics.
      a. Thickness: 80 mil, 0.080 inch, nominal; 77 mil, 0.077 inch minimum.
   2. KEE: Ketone ethylene ester (KEE) complying with ASTM D6754/D6754M, sheet reinforced with fabric.
      a. Thickness: 80 mil, 0.080 inch, nominal; 77 mil, 0.077 inch minimum.
   3. Sheet Width: Factory fabricated into widest possible sheets.

4. Xenon-Arc Weathering Resistance: Passes ASTM G155; minimum of 17,460 kJ/m2 or 14,000 hours at irradiance of 0.35 W/m2.
5. Linear Dimensional Change (Heat Aging): Meets or exceeds ASTM D4434/D4434M.
6. Dynamic Impact Resistance: Meets or exceeds ASTM D5635/D5635M.
7. Low Temperature Flexibility: Meets or exceeds ASTM D2136.
8. Color: Light gray.

B. Seaming Materials: As recommended by membrane manufacturer.

C. Membrane Fasteners: As recommended and approved by membrane manufacturer.
1. Disc Washers and Screws: Appropriate to purpose intended and approved by UL and FM to comply with specified fire and insurance ratings; length required for thickness of material corrosion resistant with metal washers; type recommended by manufacturer.
a. Membrane-surfaced washers and screws.

D. Vapor Retarder Membrane: Self-adhering polymer-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil total thickness; with strippable treated release paper and polyethylene sheet top surface.
1. Acceptable Products:
a. Roofing system manufacturer's proprietary or recommended product required to maintain specified warranty; compatible with specified underlayment materials.
b. Substitutions: See Section 01 6000 - Product Requirements.

E. Flexible Flashing Material: Material recommended by membrane manufacturer.

F. Separation Sheet: Manufacturer's required or recommended sheet product, compatible with primary membrane and other system materials, and suitable for indicated or required applications; 2 mil, 0.002 inch thick, minimum.

2.04 DECK SHEATHING AND COVER BOARD

A. Deck Sheathing and Cover Board: Faced, and with high compressive strength polyisocyanurate (ISO) insulation complying with ASTM C1289, and the following characteristics:
1. Classifications: Type II, Class 4 - Faced with coated or uncoated glass fiber mat facers on both major surfaces of the core foam.
2. Grade and Compressive Strength: Grade 1, 80 psi.
3. Board Size: 48 by 48 inches.
4. Board Thickness: 1/2 inch, maximum.
5. Acceptable Product: Product approved by roofing system manufacturer complying with specified requirements.

2.05 INSULATION

A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289; aged r-values in accordance with Long Term Thermal Resistance (LTTR) Method.
1. Comply with UL 1256, and FM 4450, and FM 4880 as applicable.
2. Type II, Class 1 - Faced with glass fiber reinforced cellulosic facers on both major surfaces of the core foam.
a. Compressive Strength: Classes 1-2-3, Grade 3 - 25 psi (172 kPa), minimum.
b. Thermal Resistance, R-value: At 1-1/2 inches thick; Class 1, Grades 1-2-3, 8.4 (1.48), minimum, at 75 degrees F.

3. Board Size: 48 by 48 inch, unless larger boards are permitted for specified attachment method.
4. Total Primary Board Thickness: As indicated on Drawings.
5. Minimum R-value (Primary Boards Only): As specified on Drawings.
6. Board Edges: Square.
7. Acceptable Product: Approved for use in specified roofing system by roofing system manufacturer.

B. Tapered Insulation System: Provide isocyanurate foam tapered units where indicated in conjunction with other non-tapered boards.
1. Cricket Slope: 1/2 inch per foot.
2. Sumps at Roof Drains: 1/2 inch per foot.
3. All Other Areas: 1/4 inch per foot minimum.

2.06 ACCESSORIES

A. Warranty Signs: Comply with DFCM requirements for metal sign with vinyl lettering; containing information required by DFCM.
1. Minimum 20 gauge sheet metal, round corners, no sharp edges or protrusions; size as required by DFCM standards.

B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.

C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
1. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers.

D. Liquid Flashing: Manufacturer's proprietary liquid-applied flashing, compatible with primary membrane and other system materials, and suitable for indicated or required special flashing conditions.

E. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.

F. Cleaners: As recommended by adhesive manufacturer, compatible with membrane.

G. Sealants: As recommended by membrane manufacturer.

H. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
1. Composition: Roofing membrane manufacturer's standard; non-slip surface.
2. Roll Width: 36 inche.
3. Surface Color: Light gray.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces and site conditions are ready to receive work.

B. Verify deck is supported and secure.

C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.

D. Verify deck surfaces are dry and free of snow or ice.

E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION - METAL AND WOOD DECK

A. Wood Deck:
   1. Verify flatness and tightness of joints in wood decking; fill knot holes with latex filler.
   2. Confirm dry deck by moisture meter with 12 percent moisture maximum.

B. Install deck sheathing on metal and wood deck:
   1. Lay with long side at right angle to flutes; stagger end joints; provide support at ends.
   2. Cut sheathing cleanly and accurately at roof breaks and protrusions to provide smooth surface.
   3. Mechanically fasten sheathing to roof deck, in accordance with roofing manufacturer's instructions, specified wind uplift requirements, and specified wind uplift requirements.
      a. Over entire roof area, fasten sheathing using minimum 8 fasteners with washers per sheathing board.
      b. At roof perimeter to a distance of 4 ft in from edges, fasten sheathing using minimum 8 fasteners with washers per board.

3.03 INSTALLATION - GENERAL

A. Perform work in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.

B. Do not apply roofing membrane during cold or wet weather conditions.

C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day. Dry-in edges of exposed roofing system installations at the end of each work day. If damage occurs, remove all damaged materials completely and replace with new dry materials.

F. Remove and discard insulation and cover board materials that have been exposed to water or moisture.

G. Install conductive primer for electronic leak detection (ELD) as required by ELD manufacturer and in accordance with manufacturer's instructions in all respects.

3.04 INSTALLATION - INSULATION UNDER MEMBRANE

A. Install vapor retarder to deck sheathing surface with adhesive in accordance with manufacturer's instructions.
   1. Extend vapor retarder under cant strips and blocking to deck edge.
   2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
   3. Separate vapor retarder materials from thermoplastic membrane materials as recommended by roofing system manufacturer to prevent deterioration due to incompatibility of asphaltic and elastomeric roofing materials.
   4. Terminate vapor retarder membrane at edges and penetrating items to properly seal vapor retarder membrane to intersecting items and other vapor retarder membranes as detailed on Drawings.
      a. If not detailed, terminate as recommended by the roofing system manufacturer.
   5. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.

B. Attachment of Insulation: Mechanically fasten each layer of insulation to deck in accordance with roofing manufacturer's instructions and FM (AG) Factory Mutual requirements.
   1. Use minimum 2 fasteners per board.
   2. Use minimum one fastener per 4 sq ft.

C. Lay subsequent layers of insulation with joints staggered minimum 6 inches from joints of preceding layer.

D. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
   1. Install tapered boards over primary flat insulation boards; maintain smooth transition at changes of slope.
   2. Provide sumps, depressed into primary insulation layer, at roof drains and scuppers using tapered boards for a minimum distance of 24 inches back from roof drains and scuppers for positive drainage.

E. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

F. Do not apply more insulation than can be covered and made watertight with membrane in same day.

3.05 INSTALLATION - MEMBRANE

A. Roll out membrane and allow to relax, free from wrinkles or tears, before adhering to substrates. Place sheet into place without stretching.

B. Shingle joints on sloped substrate in direction of drainage. Avoid "T" seams; patch "T" seams with 12 by 12 inch square membrane patch and completely seal as recommended by manufacturer.

C. Minimize seams in general, and wrinkles, fishmouths, and bubbles where possible.

D. Overlap edges and ends and seal seams by heat welding, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.

E. Mechanical Attachment: Install membrane and mechanical attachment devices in accordance with manufacturer's instructions.
   1. Install mechanical fasteners at spacing required to comply with specified performance requirements.

F. At intersections with vertical surfaces:
   1. Install membrane up parapet walls continuously, and extend over top of parapet walls, and turn down over cap nailer minimum 1 inch, as detailed on Drawings and as required by roofing manufacturer's requirements.
   2. Fully adhere flexible flashing over membrane and up to detailed terminations; minimum 8 inches vertically, unless roofing manufacturer's recommendations require greater dimension.

G. Around roof penetrations, seal flanges and flashings with flexible flashing.

3.06 INSTALLATION - WARRANTY SIGNS

A. Warranty Signs: Install warranty sign next to all roof access points as directed by DFCM.

3.07 INSTALLATION - WALKWAY PADS

A. Install walkway pads on primary membrane in accordance with manufacturer's instructions by heat-welding.

3.08 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements for additional requirements.

B. Require site attendance of roofing and insulation material manufacturers periodic during installation of the Work.
   1. USU Roofing Project Manager will be present at all periodic inspections, and at final inspection of roofing system installation.

C. Uplift Testing: Test in-place roofing installations for uplift resistance in accordance with ASTM E907.
   1. Conduct minimum of three tests; random locations including at least one corner zone and one perimeter zone location on building.

3.09 CLEANING

A. Remove bituminous markings from finished surfaces.

B. In areas where finished surfaces are soiled by work of this Section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.

C. Repair or replace defaced or damaged finishes caused by work of this Section.

3.10 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

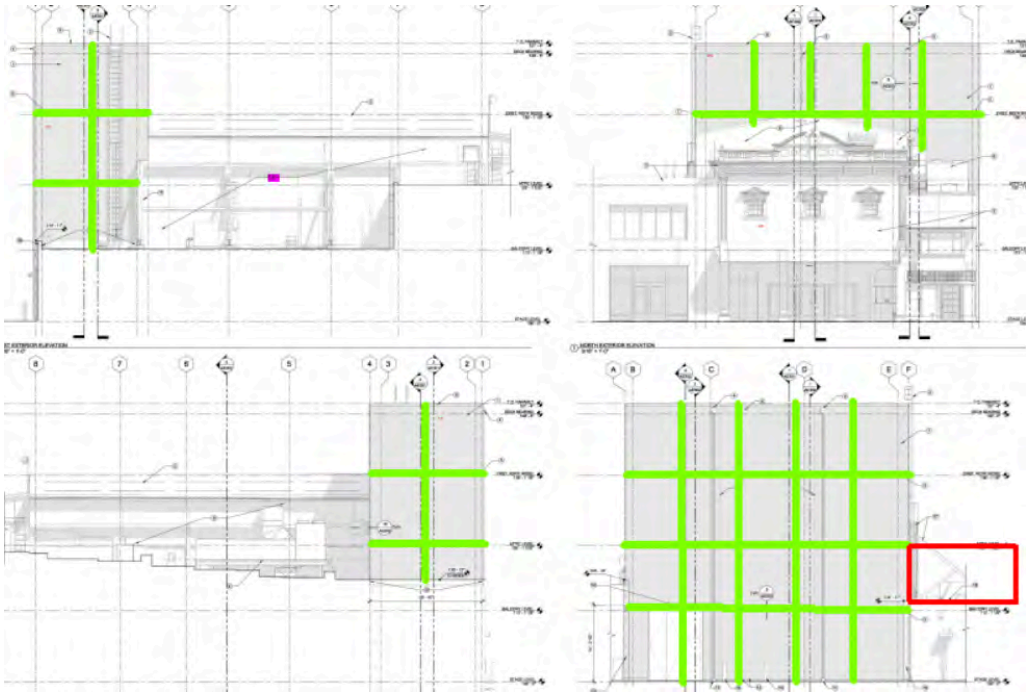
END OF SECTION

Project-Logan Theatre
RFI Date-4/11/2025
Job Location- Logan, Utah
Estimator- Clinton Phillips (rphillipsclint@gmail.com) **Cell: 801-830-9124**

Logan Theatre RFI

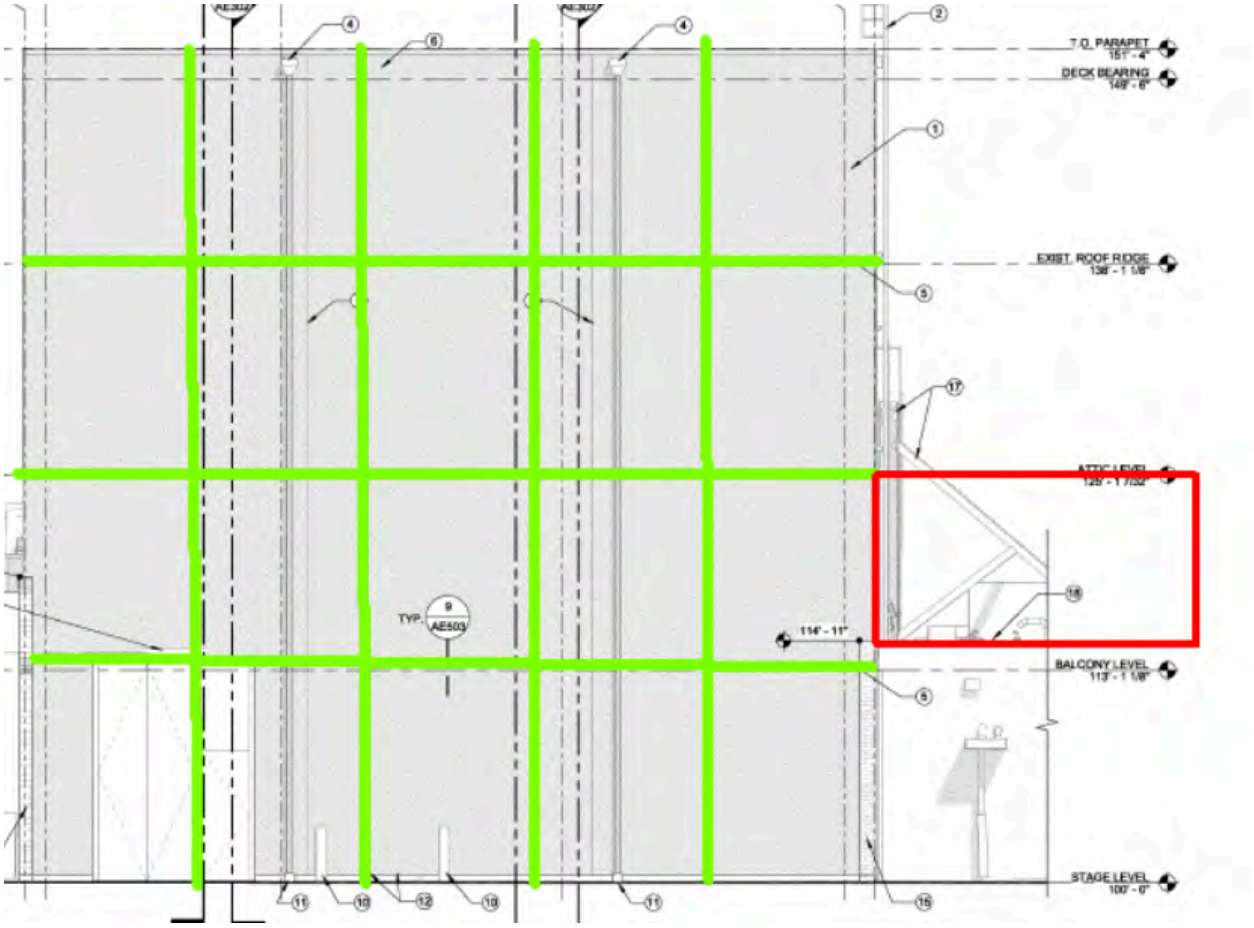
After attending the job walk on 4/10/25 R Phillips has a few questions for the exterior scope:

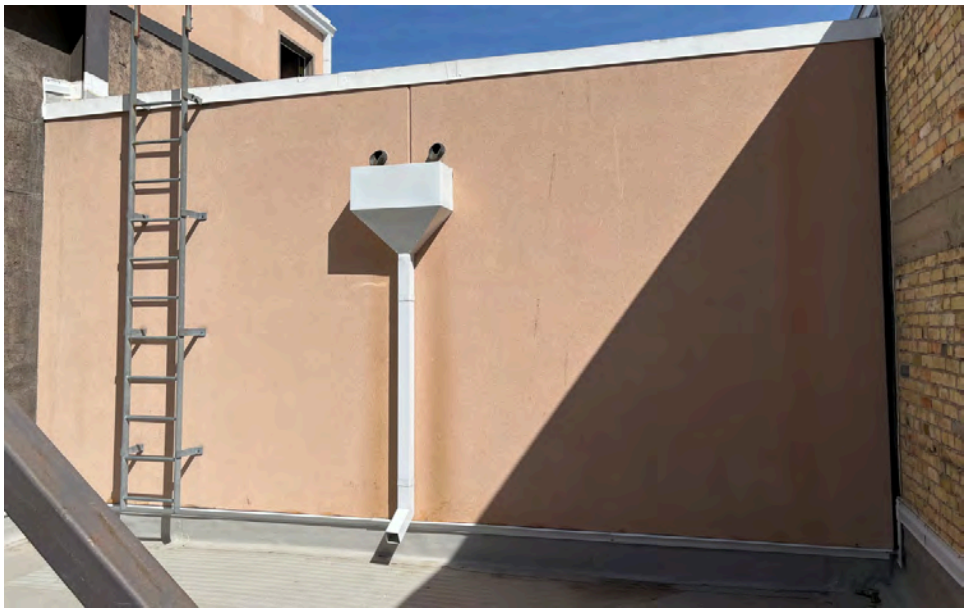
1. **R Phillips proposes the following expansion joint layout highlighted below in green. Please verify and confirm this layout is acceptable.**



Response: For bidding purposes, the layout is acceptable. Final layout can be determined during the submittal phase of the project and we may be able to reduce the number of control joints per standards.

2. The highlight area in red is an EIFS wall on the south elevation. The drawings do not indicate a re-coat of this area. Please provide direction for this area. Is it going to receive a re-coat or not?





Response: Yes, this area should receive a recoat.

3. Upon inspection of the existing stucco/EIFS there are several areas that are in need of repairs prior to the re-coat. Is the intent to fix and repair prior to the re-coat or simply apply a new color coat?

Response: Yes, repairs of damaged stucco/EIFS and abandoned penetrations should be done prior to the recoat.

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 AND ASSOCIATED HOUSING AND TRACK SYSTEM TO BE DEMOLISHED.
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.

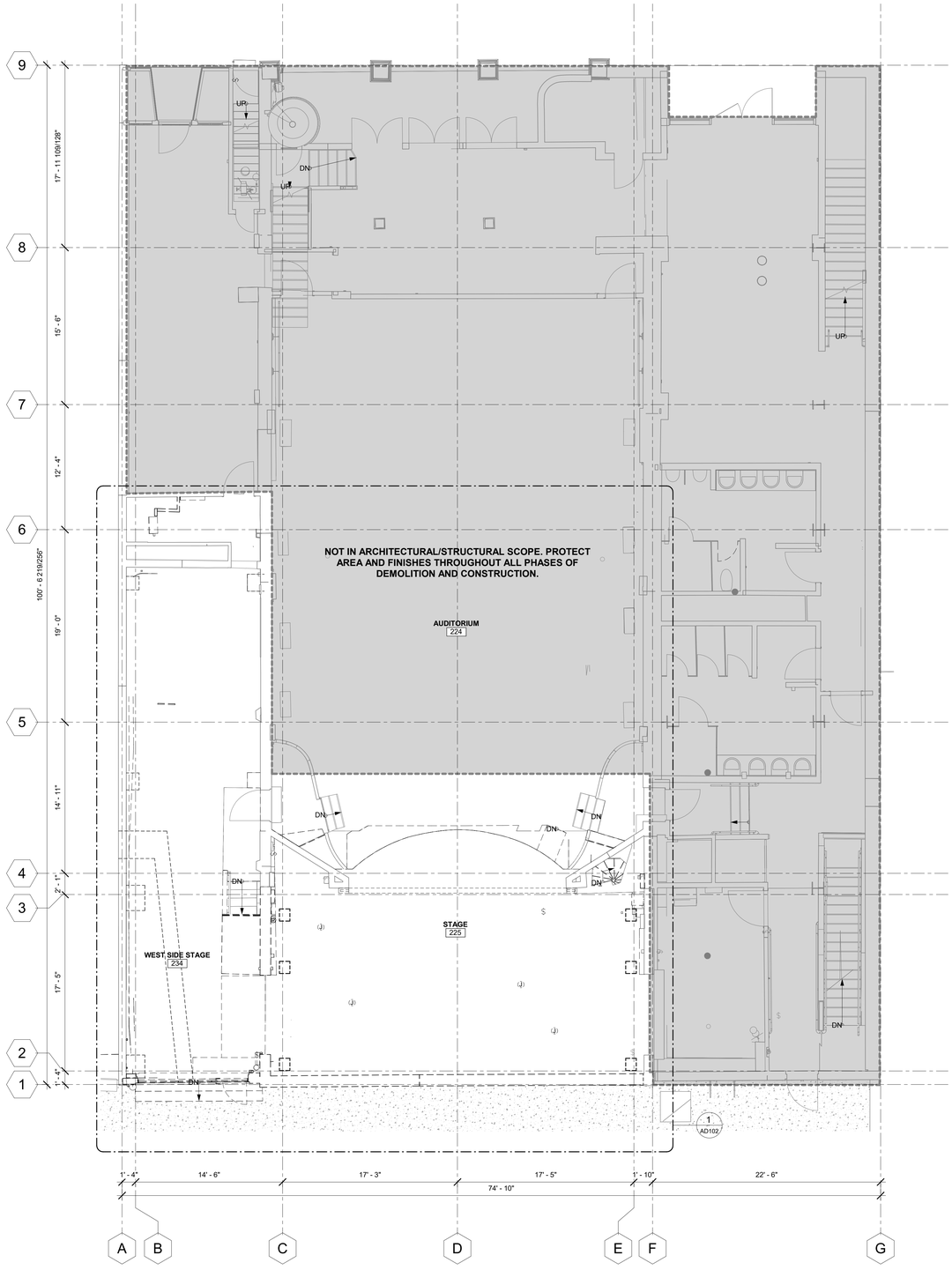
GRAPHIC LEGEND

(E) ELEMENT TO REMAIN.

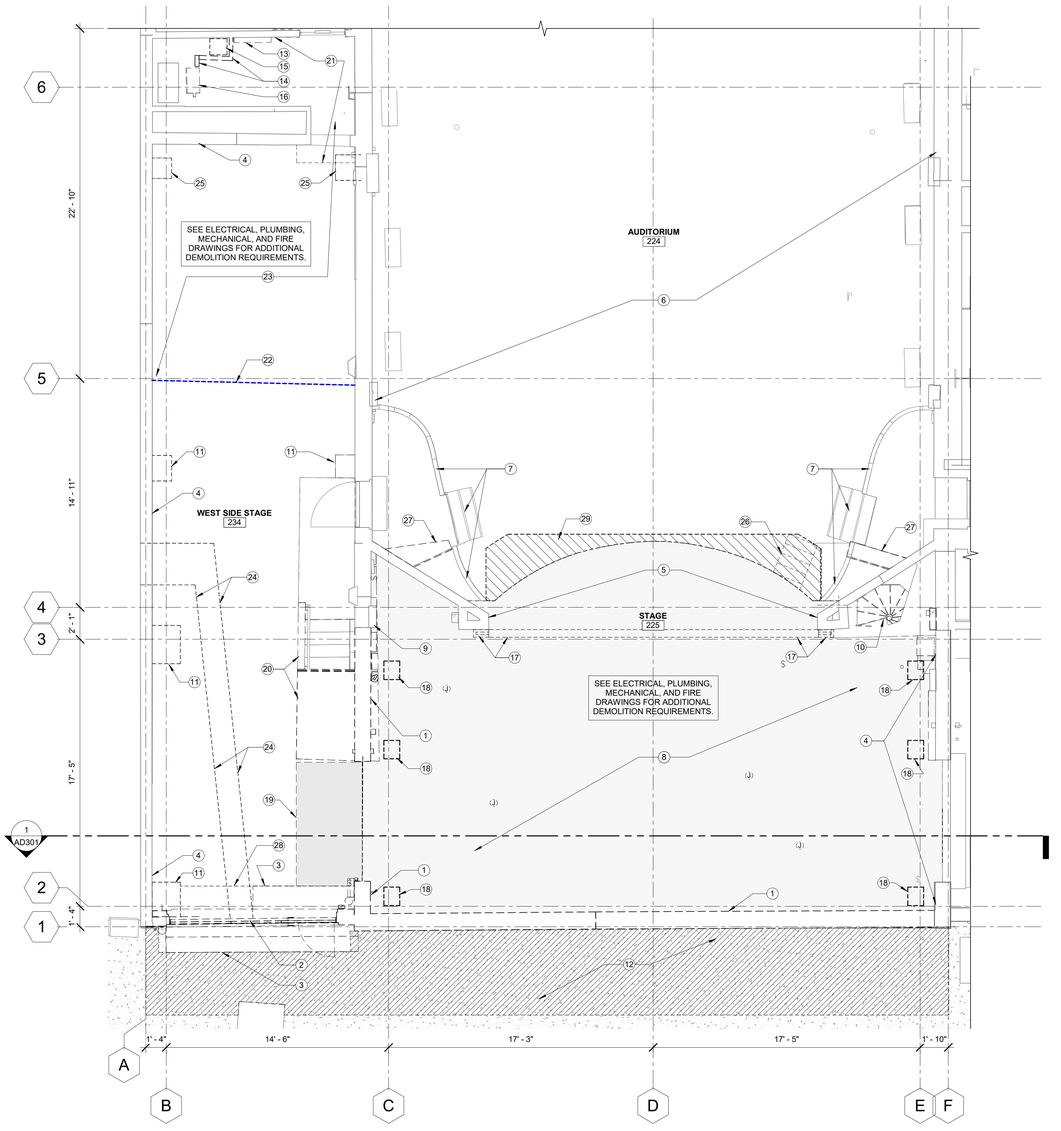
(E) ELEMENT TO BE DEMOLISHED SHOWN DASHED, LINE TYPE VARIES. SEE SPECIFIC KEYED NOTES FOR ADDITIONAL INFORMATION.

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

NOTE: SEE CONSULTANT DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.



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



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

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ARCHITECTURE

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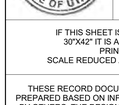
USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL



SEAL

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	4/16/25	ADDENDUM #1

DEMOLITION STAGE LEVEL FLOOR PLAN AND ENLARGED PLAN

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

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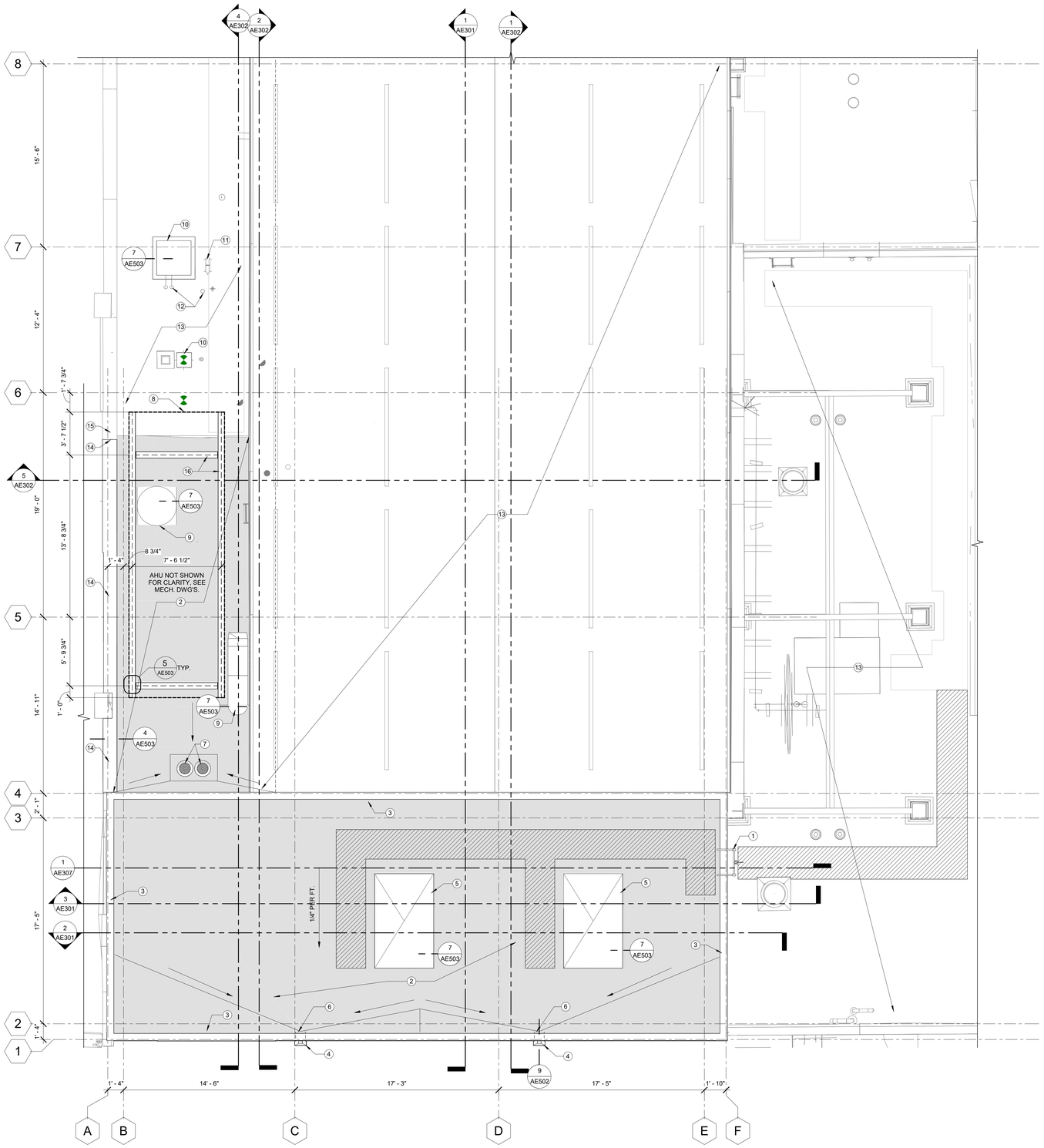

1 ROOF PLAN
1/4" = 1'-0"

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. MECHANICALLY FASTENED 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. COMMERCIAL 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 MEMBRANE ROOFING TO REMAIN (INSTALLED IN 2024). TIE-IN AND MODIFICATIONS MUST MEET MANUFACTURER REQUIREMENTS 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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30 WEST CENTER STREET
LOGAN, UT 84321

USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL

SEAL

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

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	4/16/25	ADDENDUM #1

ROOF PLAN

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

SHEET NO.
AE109

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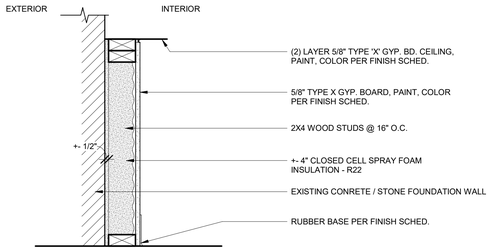
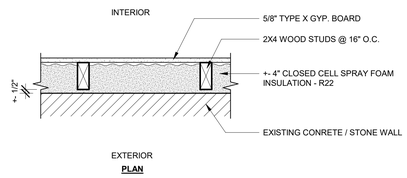
EXTERIOR WALL ASSEMBLIES



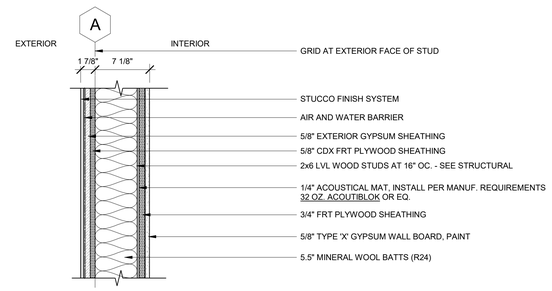
SECTION



PLAN

EW3 ...

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



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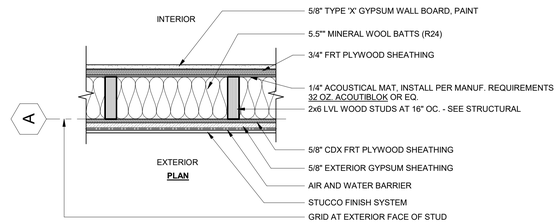
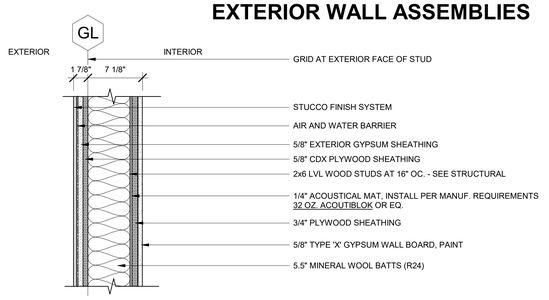


PLAN

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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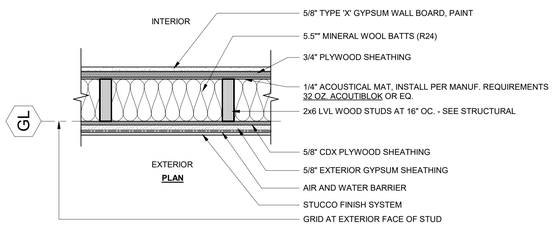
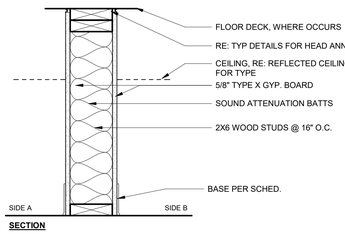


PLAN

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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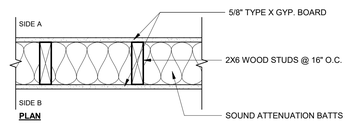
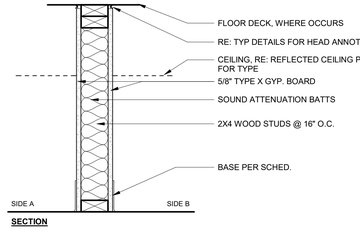


PLAN

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	--	--	--



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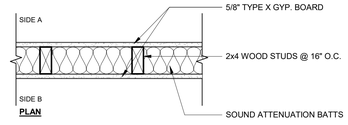
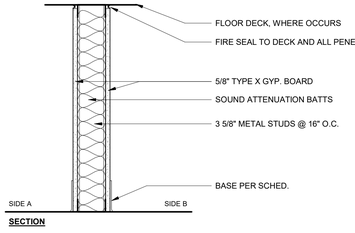


PLAN

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	--	--	--



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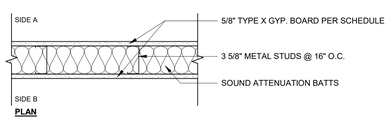
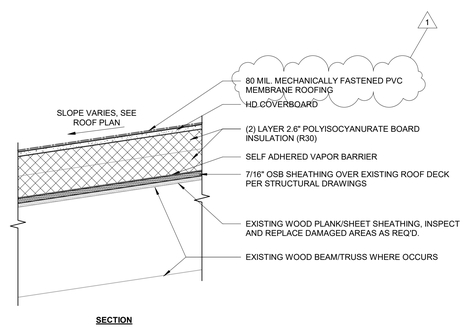


PLAN

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.	--

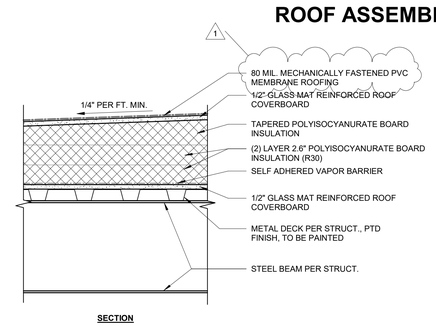
ROOF ASSEMBLIES



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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FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

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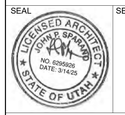

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	4/16/25	ADDENDUM #1

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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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.

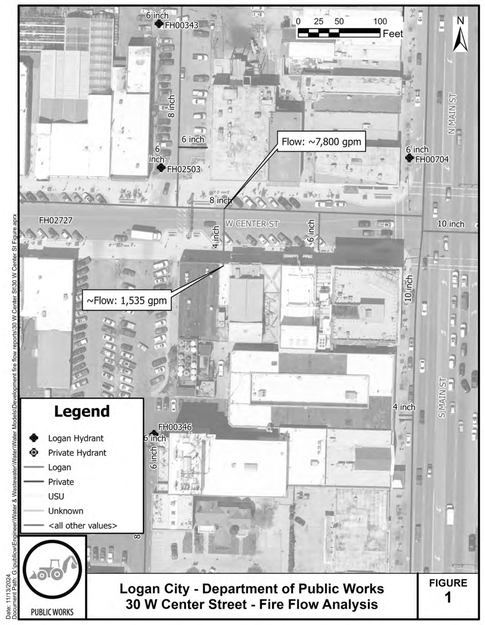
Table 3 - Results at Existing 8" Waterline at Approximately 30 W Center St

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

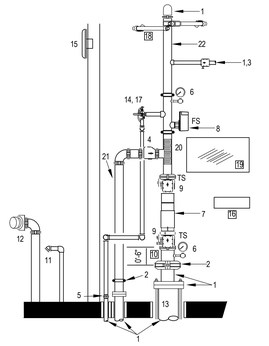
* Fire flows are additive with Peak Day flows for total flow at the farthest point affecting the proposed development. Negative pressures represent a flow that is not possible under the analyzed conditions.

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
Drawing Path: 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. EXISTING TO REMAIN.
2. POINT OF CONNECTION @ NEW FLEXIBLE GROOVED PIPE COUPLING.
3. POINT OF CONNECTION IS AT THREADED INLET OF VALVE. ANTIFREEZE VALVE TO REMAIN.
4. NEW FDC SWING CHECK VALVE.
5. POINT OF CONNECTION AT EXISTING THREADED UNION.
6. 3 1/2" DIAMETER WATER GAUGE WITH 1/4" TEST AND ISOLATION VALVE.
7. NEW DOUBLE CHECK BACKFLOW PREVENTER WITH RELATED TRIM AND GAUGES.
8. VANE TYPE WATER FLOW SWITCH.
9. GROOVED BUTTERFLY VALVE WITH INTEGRAL SUPERVISORY SWITCH.
10. GALVANIZED SPOOL PIECE WITH PRESSURE GAUGE.
11. 2" MAIN DRAIN. EXISTING TO REMAIN.
12. REMOTE FIRE DEPARTMENT CONNECTION EXISTING TO REMAIN.
13. SUPPLY TO WET PIPE FIRE SPRINKLER SYSTEM.
14. COMBINATION INSPECTOR'S TEST & MAIN DRAIN VALVE. - PIPED TO OUTSIDE.
15. EXISTING WATER FLOW ALARM. EXISTING TO REMAIN.
16. SPARE HEAD CABINET WITH SPARE SPRINKLER HEADS AND WRENCHES.
17. PRESSURE RELIEF VALVE SET AT 175 PSI, WITH DIRECT DRAIN CONNECTION.
18. SEISMIC BRACING REQUIRED. PROVIDE 4-WAY.
19. LAMINATED SYSTEM MAP WITH SYSTEM START-UP AND SHUT-DOWN INSTRUCTIONS.
20. HYDRAULIC CALCULATION PLACARDS
21. NEW GALVANIZED FDC PIPING ABOVE GRADE, IN RISER ROOM.
22. NEW BLACK STEEL SPRINKLER RISER PIPING ABOVE GRADE, IN RISER ROOM.

THIS DETAIL IS SCHEMATIC IN NATURE. VERIFY ALL DIMENSIONS IN THE FIELD. PROVIDE FITTINGS, OFFSETS, AND SUPPORTS AS REQUIRED.
ALL CONNECTIONS OF WIRING FOR TAMPER SWITCHES, FLOW SWITCHES, ALARMS, AND ELECTRICAL MONITORING COMPONENTS BY DIVISION 28.

1 FIRE RISER DETAIL
NOT TO SCALE

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL

SEAL

No. 9388545-2202
JEDEDIAH L. JENKINS
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	4/16/2025	Addendum 01

FIRE PROTECTION DETAILS

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

SHEET NO.
F501

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Electrical Addendum 1

Date:	April 14, 2025		
To:	Seth Striefel	**From:**	Matt Haverkamp
Company:	Sparano + Mooney Architecture	**Email:**	matt.haverkamp@speceng.com
Job:	USU Caine Lyric Theater Fly Loft and Stage Improvements Projects	**Phone:**	801-401-8474
Job No:	23-05 / SE:230174	**Re:**	Addendum 1
Cc:			

This Addendum shall be considered part of the Contract Documents and Project Manual for the above mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents and Project Manual, the Addendum shall govern and take precedence.

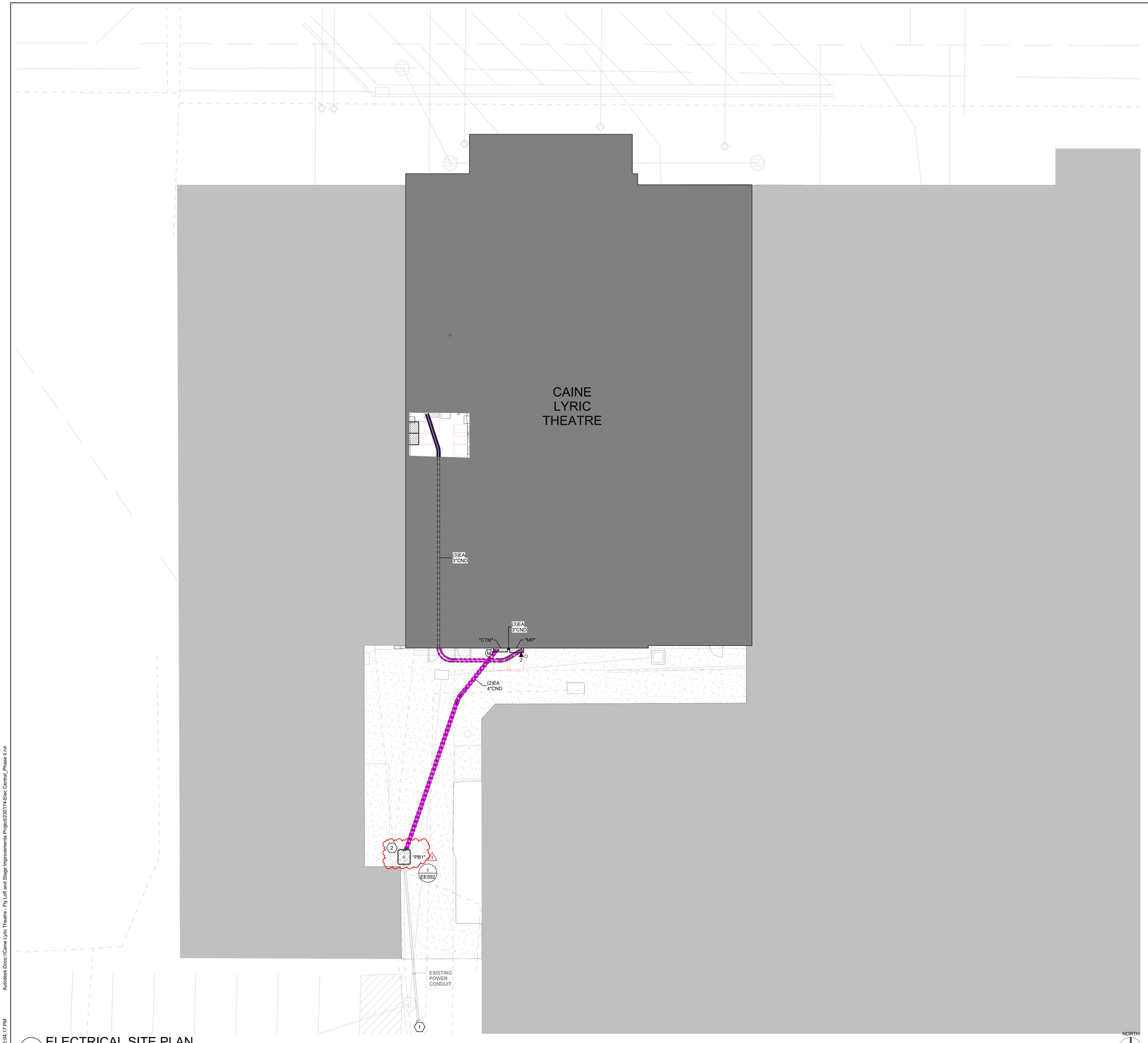
Electrical Addendum

Drawings

1. ES101 – Relocated pull box "PB1". See attached sheet.
2. ED101 – Revised sheet keyed note #4. See attached sheet.
3. ED104 – Added j-box for demolition on roof. See attached sheet.
4. ED301 – Revised notes on Existing South Exterior Wall Elevation View3. See attached sheet.
5. EP103 – See attached sheet for the following:
    a. Added sheet keynote #2.
    b. Added junction box for IT network.
6. EP651 – Revised Telecom Conduit Riser Diagram. See attached sheet.

END OF ADDENDUM

Attachments < ES101, ED101, ED104, ED301, EP103, EP651 >



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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ELECTRICAL SITE PLAN

SCALE	1/8" = 1'-0"
JOB NO.	23-05
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 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 DEMOLISH 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.

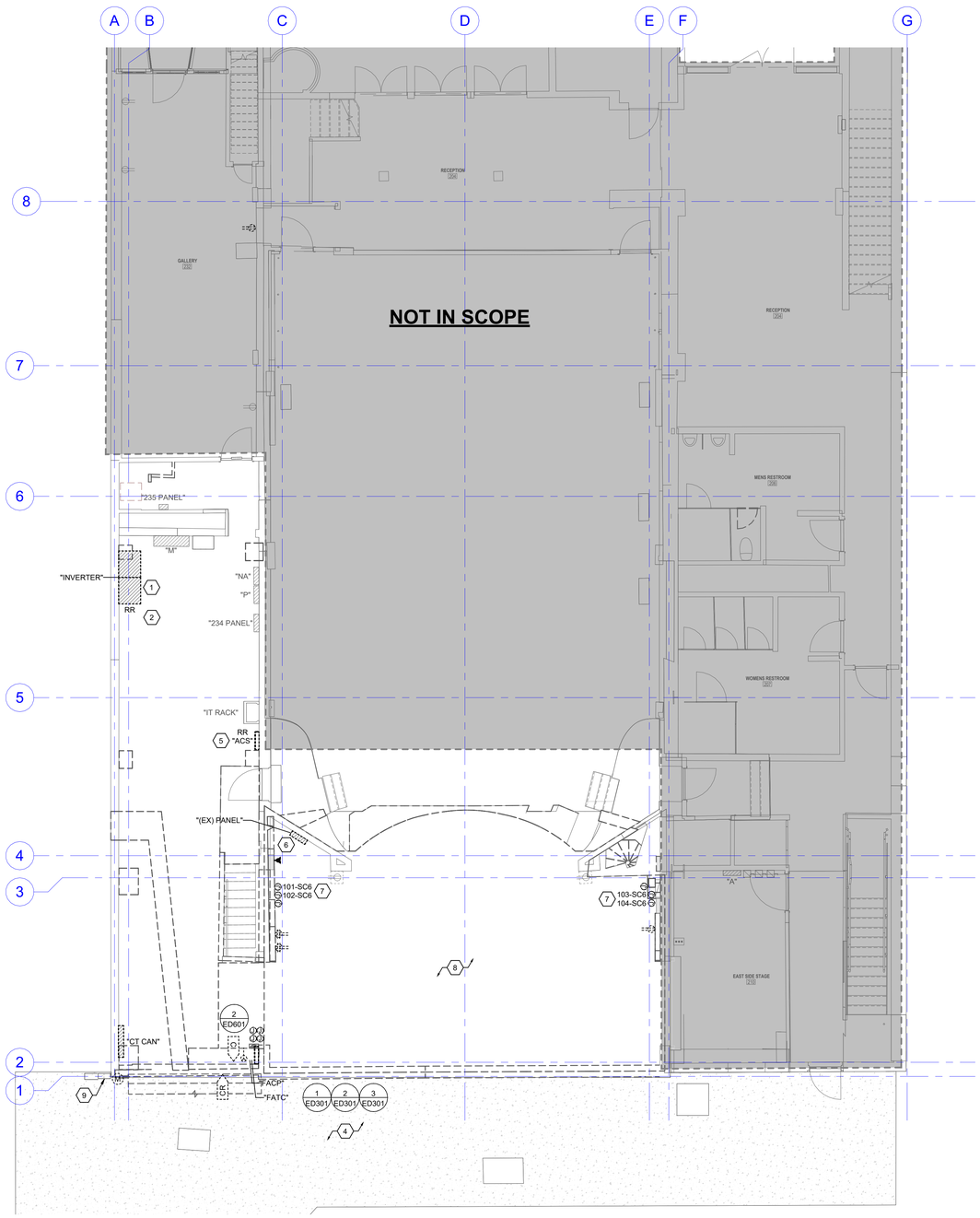
5 CONTRACTOR SHALL PROVIDE A CONDUIT GUTTER TO INTERCEPT EXISTING SECURITY WIRING, SPLICE AND EXTEND TO NEW LOCATION.

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.

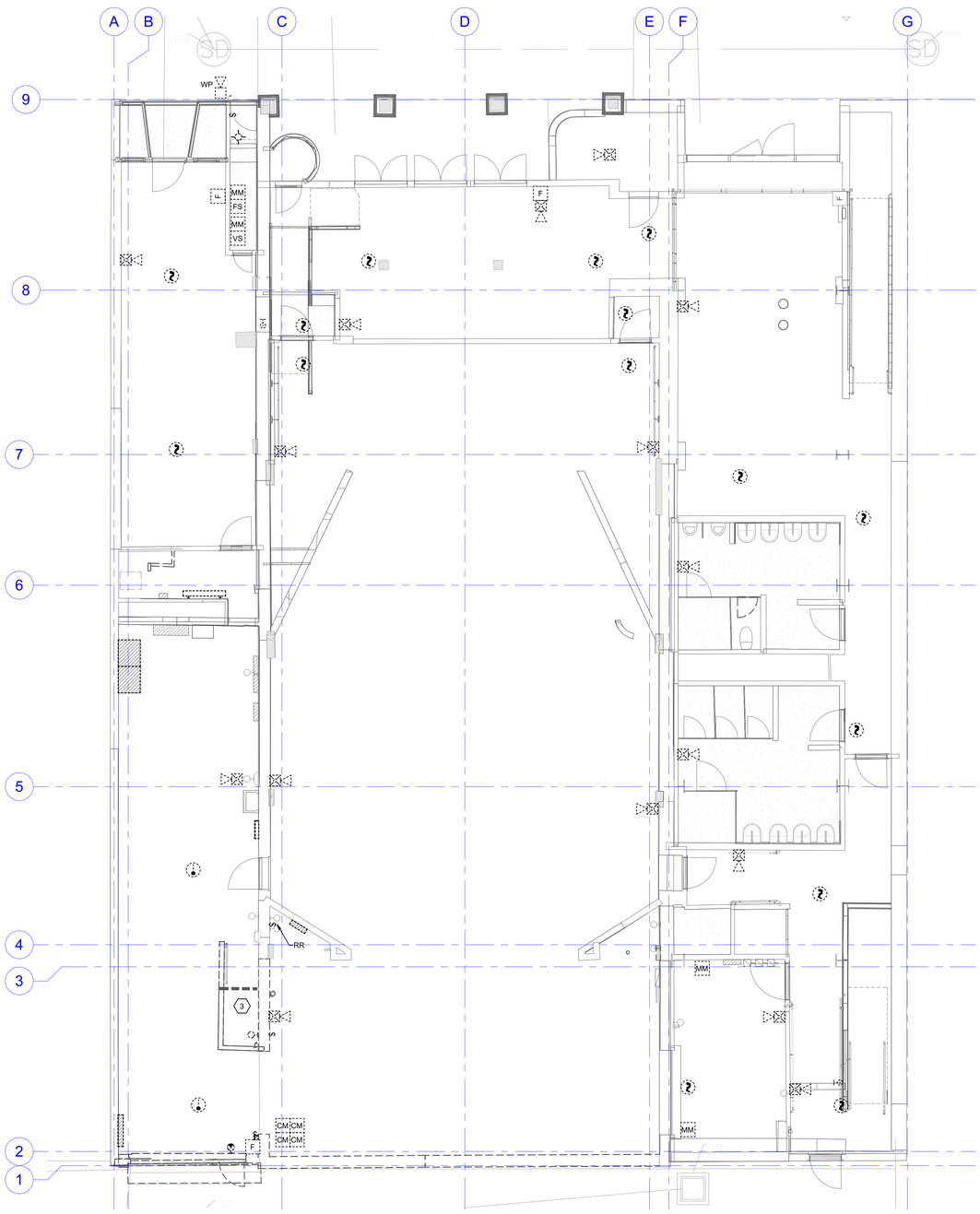


2 STAGE LEVEL ELECTRICAL DEMOLITION PLAN

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

NORTH

0 2' 4' 8'



1 STAGE LEVEL CEILING DEMOLITION PLAN

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

NORTH

0 2' 4' 8'

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STAGE LEVEL DEMOLITION PLANS

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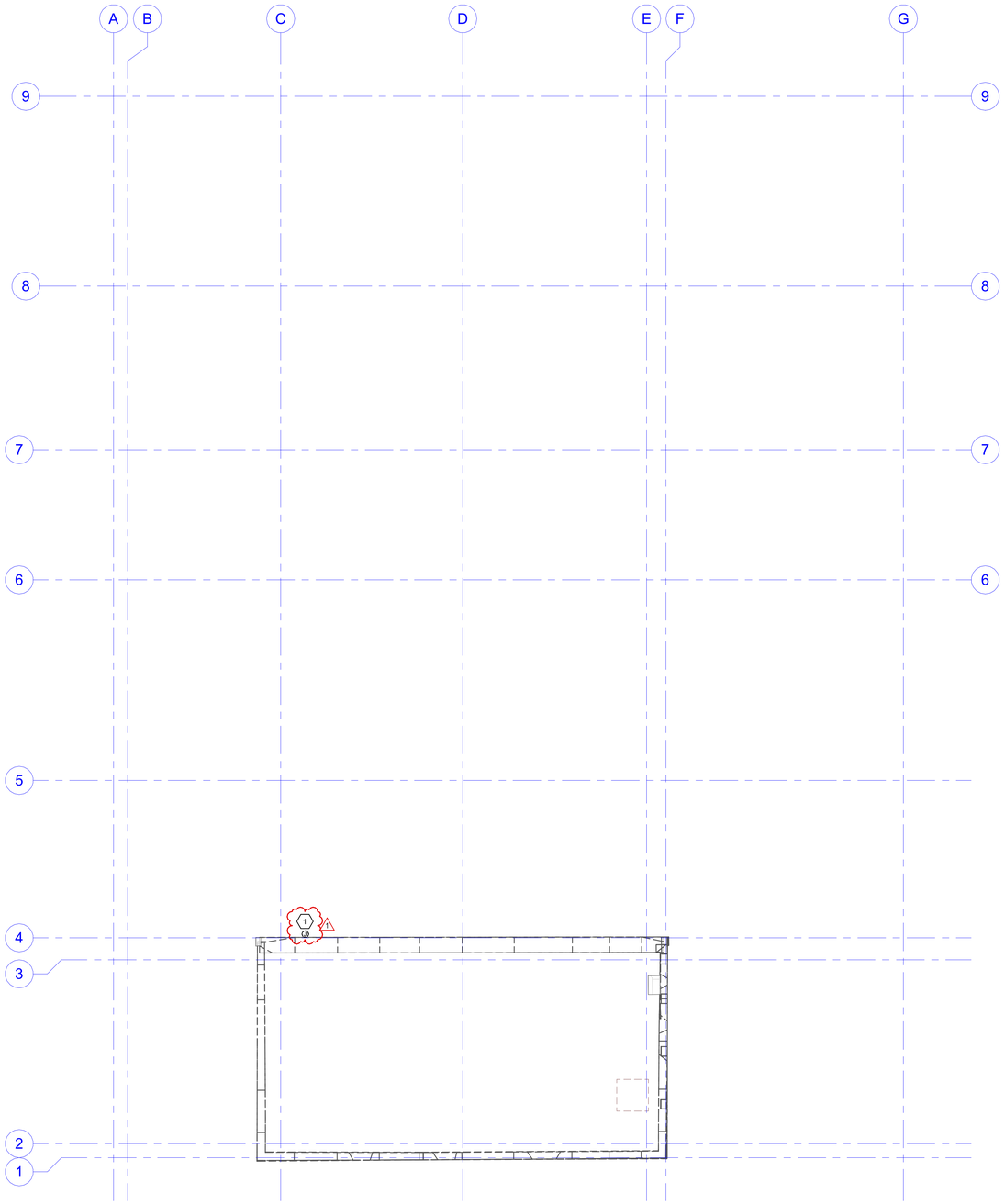
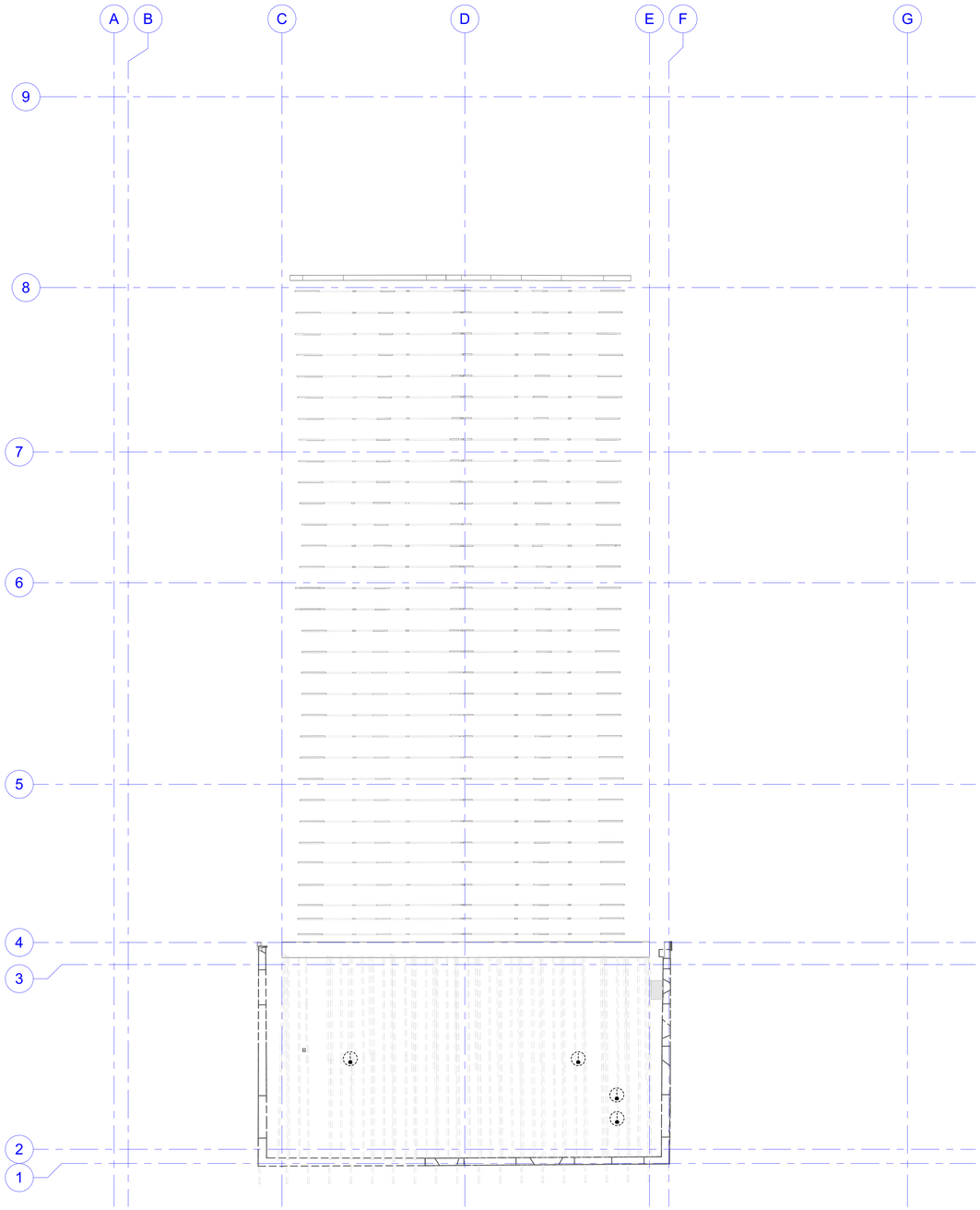
SHEET KEYNOTES

1 CONDUIT ANTENNA MAST AND JUNCTION BOX ON EXISTING FLYLOFT SHALL BE DEMOLISHED AT THIS LOCATION. COORDINATE WITH USU IT FOR REMOVAL OF DATA CABLE IN JUNCTION BOX.



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



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

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ROOF DEMOLITION PLANS

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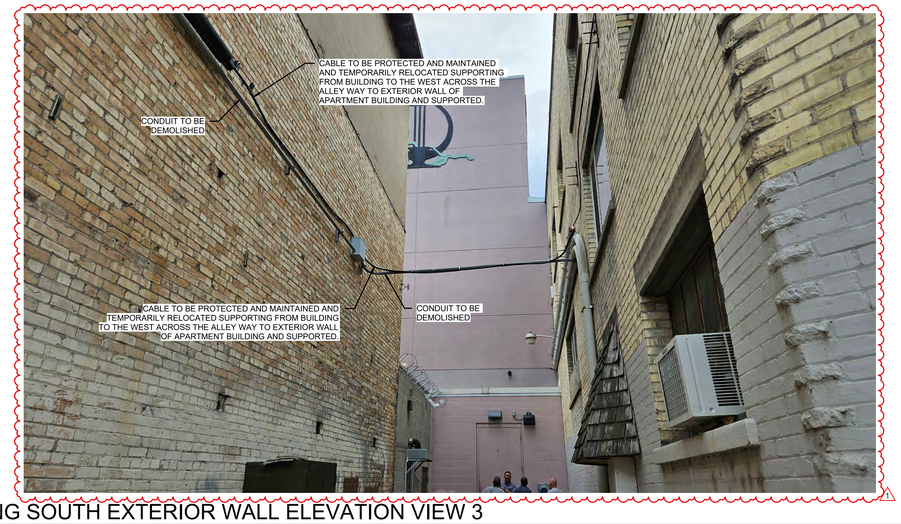

3 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 3
SCALE: NTS

2 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 2
SCALE: NTS

1 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 1
SCALE: NTS

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EXISTING SECTION VIEWS

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

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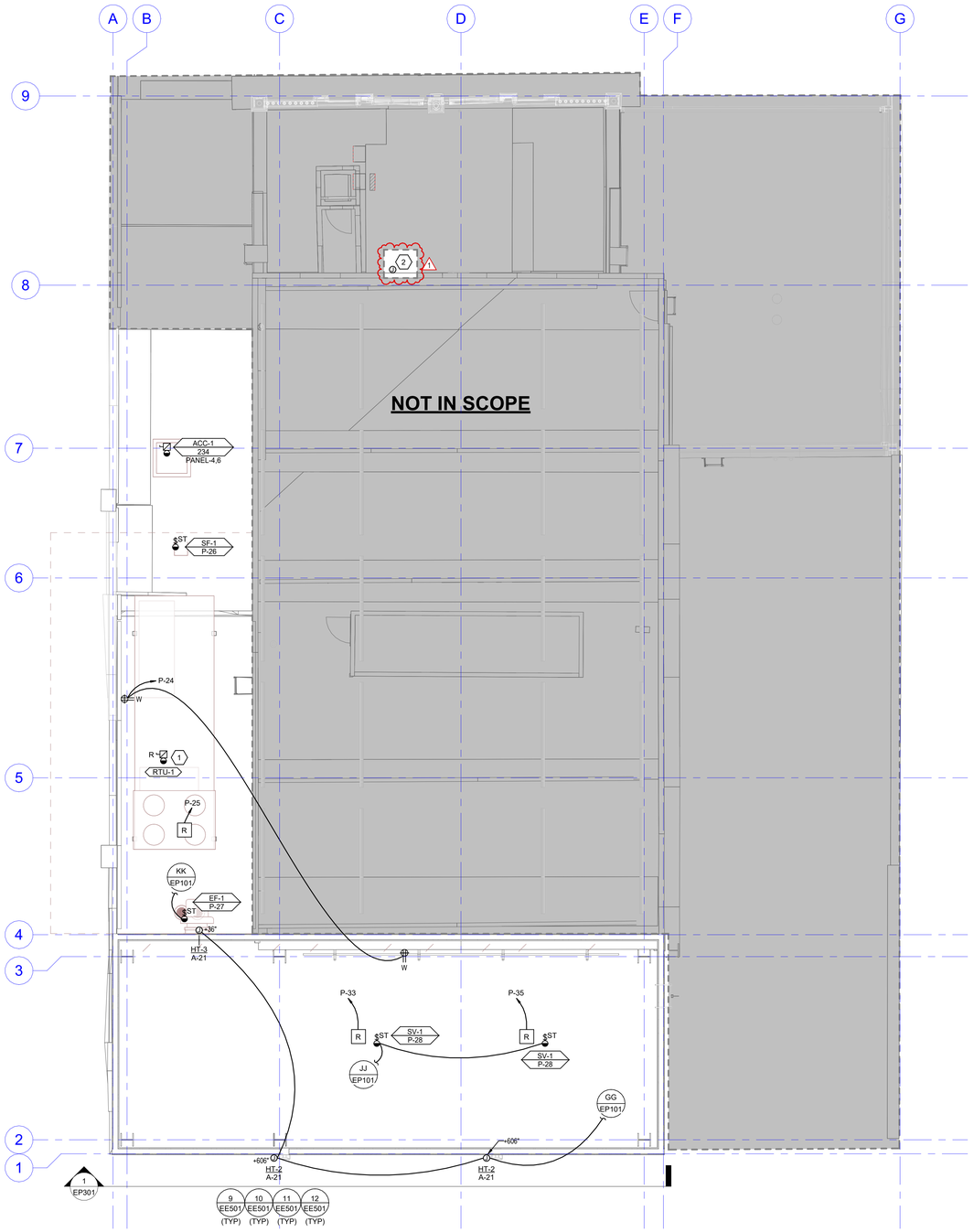

1 ROOF POWER PLAN

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.
2. EXISTING USU IT NETWORK ANTENNA. PROVIDE 1" CONDUIT FROM EXISTING WALL MOUNTED IT RACK THROUGH ATTIC SPACE TO NEW 6"X6" JUNCTION BOX. /1

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USU PROJECT NO: C001541

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	04/14/2025	ADDENDUM 1

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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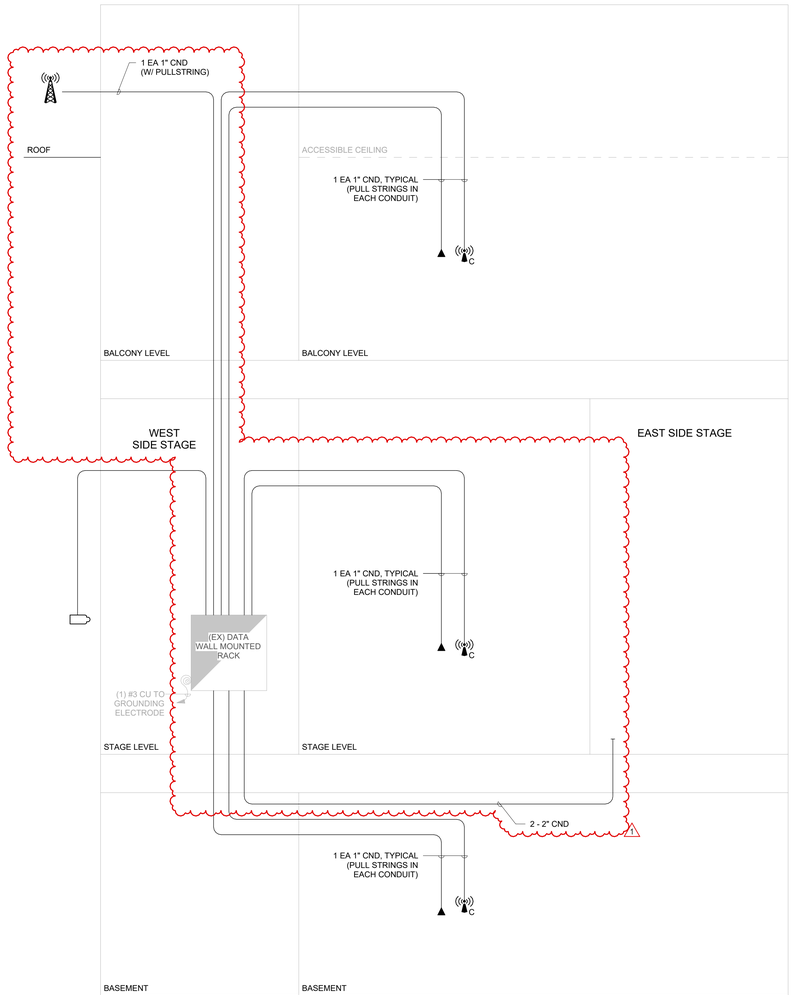

1 TELECOM CONDUIT RISER DIAGRAM
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	04/14/2025	ADDENDUM 1

TELECOM CONDUIT RISER DIAGRAM

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

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EP651

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