ADDENDUM NO. 2

December 26, 2023

MEMORIAL OPERA HOUSE – BID PACKAGE #2 (GENERAL TRADES, PLUMBING, MECHANICAL, AND ELECTRICAL PACKAGES)

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated December 1, 2023 by Schmidt Associates. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Page ADD 2-1 through ADD 2-2 and attached Addendum No. 2 from Schmidt Associates dated December 22, 2023 and consisting of 61 page and 23 drawings.

A. SPECIFICATION SECTION 00 00 20 - TABLE OF CONTENTS

1. **ADD:**

   Specification Section 05 52 13 – Pipe and Tube Railings
   Specification Section 06 16 00 – Sheathing
   Specification Section 08 71 00 – Door Hardware
   Specification Section 09 51 13 – Acoustical Panel Ceilings
   Specification Section 09 91 13.99 – Exterior Painting

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

A. BID CATEGORY NO. 1 – GENERAL TRADES/SITEWORK

1. **ADD:**

   Specification Section 05 52 13 – Pipe and Tube Railings
   Specification Section 06 16 00 – Sheathing
   Specification Section 08 71 00 – Door Hardware
   Specification Section 09 51 13 – Acoustical Panel Ceilings
   Specification Section 09 91 13.99 – Exterior Painting

Clarification No. 11:
Reference Drawing Sheet CL501.2; The **Bid Category No. 1 Contractor** shall provide the Metal Grate Landing and Metal Stair as indicated on construction documents.

Clarification No. 12:
The **Bid Category No. 1 Contractor** shall include 40 man-hours for plaster repairs to be performed by a skilled carpenter at the direction of the Construction Manager throughout the duration of the project. At the end of the project, unused hours will be converted into a dollar amount and returned to the Owner as a deduct Change Order.

ADDENDUM NO. 2
DECEMBER 22, 2023

PREPARED BY SCHMIDT ASSOCIATES FOR:
RENOVATION OF MEMORIAL OPERA HOUSE
PORTER COUNTY BOARD OF COMMISSIONERS

This Addendum consists of 8 Addendum pages and 76 attachment pages totaling 84 pages.

Acknowledge receipt of this Addendum by inserting its number on the Bid Form. Failure to do so may subject the Bid to disqualification. This Addendum is part of the Contract Documents.

Bidder is encouraged to verify with reprographer of record all Addenda issued (do not rely exclusively on third party plan room services).

PART 1 - CHANGES TO PRIOR ADDENDA (NOT APPLICABLE)

PART 2 - CHANGES TO THE PROJECT MANUAL

Modifications described herein shall be incorporated in the Project Manual. All other Work shall remain unchanged.

2.1 DIVISION 05 – METALS

A. **Section 055213 "PIPE AND TUBE RAILINGS"**

1. ADD Section in its entirety.

2.2 DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

A. **Section 061600 "SHEATHING"**

1. ADD Section in its entirety.

2.3 DIVISION 08 – OPENINGS

A. **Section 085200 "WOOD WINDOWS"**

1. DELETE AND REPLACE Section in its entirety.

B. **Section 087100 "DOOR HARDWARE"**

1. ADD Section in its entirety.

2.4 DIVISION 09 – FINISHES

A. **Section 095113 "ACOUSTICAL PANEL CEILINGS"**

1. ADD Section in its entirety.

B. **SECTION 099113.99** "**EXTERIOR PAINTING**"

1. ADD Section in its entirety.

2.5 DIVISION 10 – SPECIALTIES

A. **Section 102800 "TOILET, BATH, AND LAUNDRY ACCESSORIES"**

1. DELETE Paragraph 2.2,D. in its entirety.

   "D. Liquid Soap Dispenser"

B. Section 102800 "**TOILET, BATH, AND LAUNDRY ACCESSORIES**"

1. MODIFY Text 2.2, C. as follows:

   C. Paper Towel Dispenser/Waste Receptacle
      1. Basis -of Design Product: Bobrick; B-3942
      2. Mounting: Semi Recessed
      3. Minimum Capacity: 600 C-fold or 800 multifold towels

PART 3 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain un-changed.

3.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

	DRAWING NO.	INDICATE ACTION: ADD (A), DELETE (D), DELETE & REPLACE (R),
C-SERIES DRAWINGS		
	CL501.2	DELETE AND REPLACE
A-SERIES DRAWINGS		
	A-001.2	DELETE AND REPLACE
	A-600.2	DELETE AND REPLACE
I-SERIES DRAWINGS		
	IN100.3	ADD
	IN101.3	ADD
	IN102.3	ADD
M-SERIES DRAWINGS		
	M-401.2	DELETE AND REPLACE
E-SERIES DRAWINGS		
	E-001.2	DELETE AND REPLACE
	ED100.2	DELETE AND REPLACE

ED101.2	DELETE AND REPLACE
EL100.2	DELETE AND REPLACE
EL101.2	DELETE AND REPLACE
EL102.2	DELETE AND REPLACE
EL103.2	DELETE AND REPLACE
EP100.2	DELETE AND REPLACE
EP101.2	DELETE AND REPLACE
EP102.2	DELETE AND REPLACE
E-401.2	DELETE AND REPLACE
E-601.2	DELETE AND REPLACE
E-603.2	DELETE AND REPLACE
E-604.2	DELETE AND REPLACE
E-605.2	DELETE AND REPLACE
E-606.2	DELETE AND REPLACE

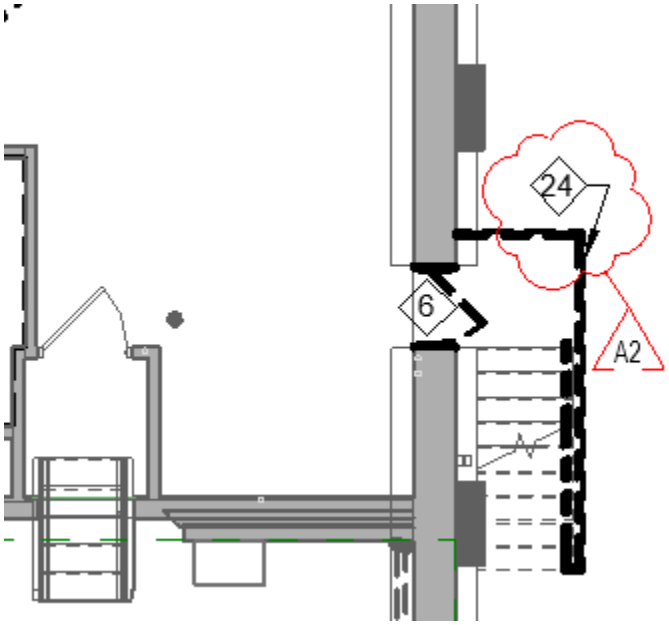
3.2 A-SERIES DRAWINGS

A. **Drawing Number AD101.2**

1. ADD DEMOLITION FLOOR PLAN NOTE 24 as follows:

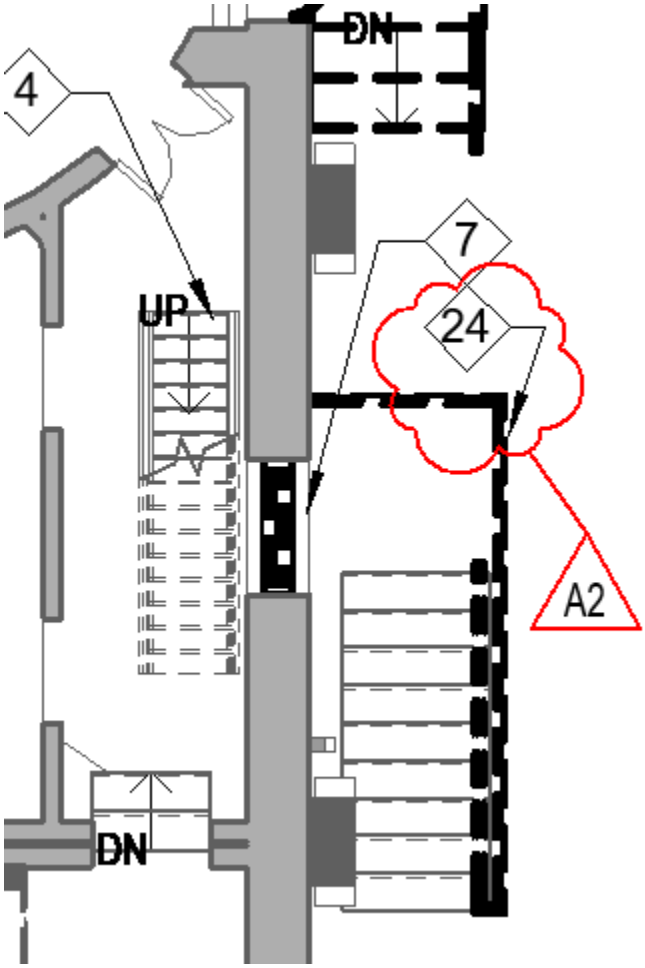
   "REMOVE EXISTING GUARDRAIL IN ITS ENTIRETY"

2. MODIFY Plan 2A as follows:



3. MODIFY Plan 3A as follows:

4.

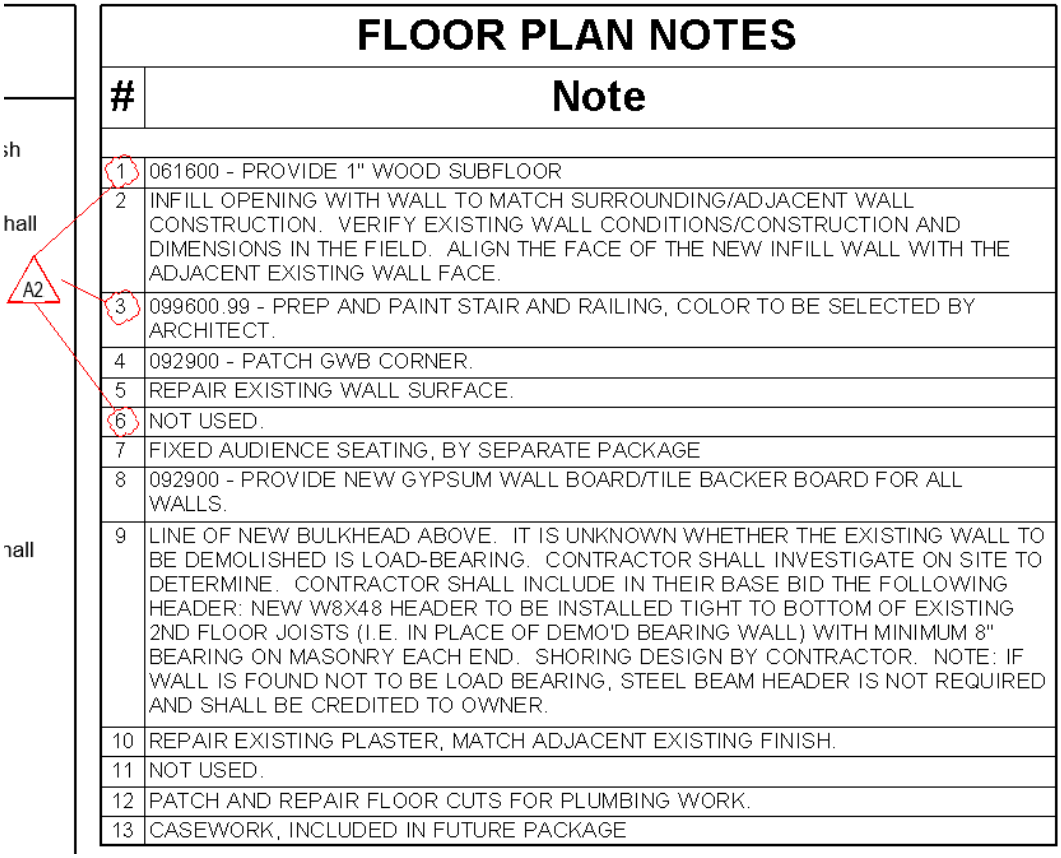


B. **Drawing Number AF101.2**

1. ADD General Plan Note J. as follows:

   "J. Patch and repair drywall/plaster walls as required. Reference allowance to cover this scope of work."

2. MODIFY Schedule FLOOR PLAN NOTES as follows:

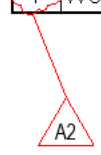


FLOOR PLAN NOTES	
#	Note
1	061600 - PROVIDE 1" WOOD SUBFLOOR
2	INFILL OPENING WITH WALL TO MATCH SURROUNDING/ADJACENT WALL CONSTRUCTION. VERIFY EXISTING WALL CONDITIONS/CONSTRUCTION AND DIMENSIONS IN THE FIELD. ALIGN THE FACE OF THE NEW INFILL WALL WITH THE ADJACENT EXISTING WALL FACE.
3	099600.99 - PREP AND PAINT STAIR AND RAILING, COLOR TO BE SELECTED BY ARCHITECT.
4	092900 - PATCH GWB CORNER.
5	REPAIR EXISTING WALL SURFACE.
6	NOT USED.
7	FIXED AUDIENCE SEATING, BY SEPARATE PACKAGE
8	092900 - PROVIDE NEW GYPSUM WALL BOARD/TILE BACKER BOARD FOR ALL WALLS.
9	LINE OF NEW BULKHEAD ABOVE. IT IS UNKNOWN WHETHER THE EXISTING WALL TO BE DEMOLISHED IS LOAD-BEARING. CONTRACTOR SHALL INVESTIGATE ON SITE TO DETERMINE. CONTRACTOR SHALL INCLUDE IN THEIR BASE BID THE FOLLOWING HEADER: NEW W8X48 HEADER TO BE INSTALLED TIGHT TO BOTTOM OF EXISTING 2ND FLOOR JOISTS (I.E. IN PLACE OF DEMO'D BEARING WALL) WITH MINIMUM 8" BEARING ON MASONRY EACH END. SHORING DESIGN BY CONTRACTOR. NOTE: IF WALL IS FOUND NOT TO BE LOAD BEARING, STEEL BEAM HEADER IS NOT REQUIRED AND SHALL BE CREDITED TO OWNER.
10	REPAIR EXISTING PLASTER, MATCH ADJACENT EXISTING FINISH.
11	NOT USED.
12	PATCH AND REPAIR FLOOR CUTS FOR PLUMBING WORK.
13	CASEWORK, INCLUDED IN FUTURE PACKAGE

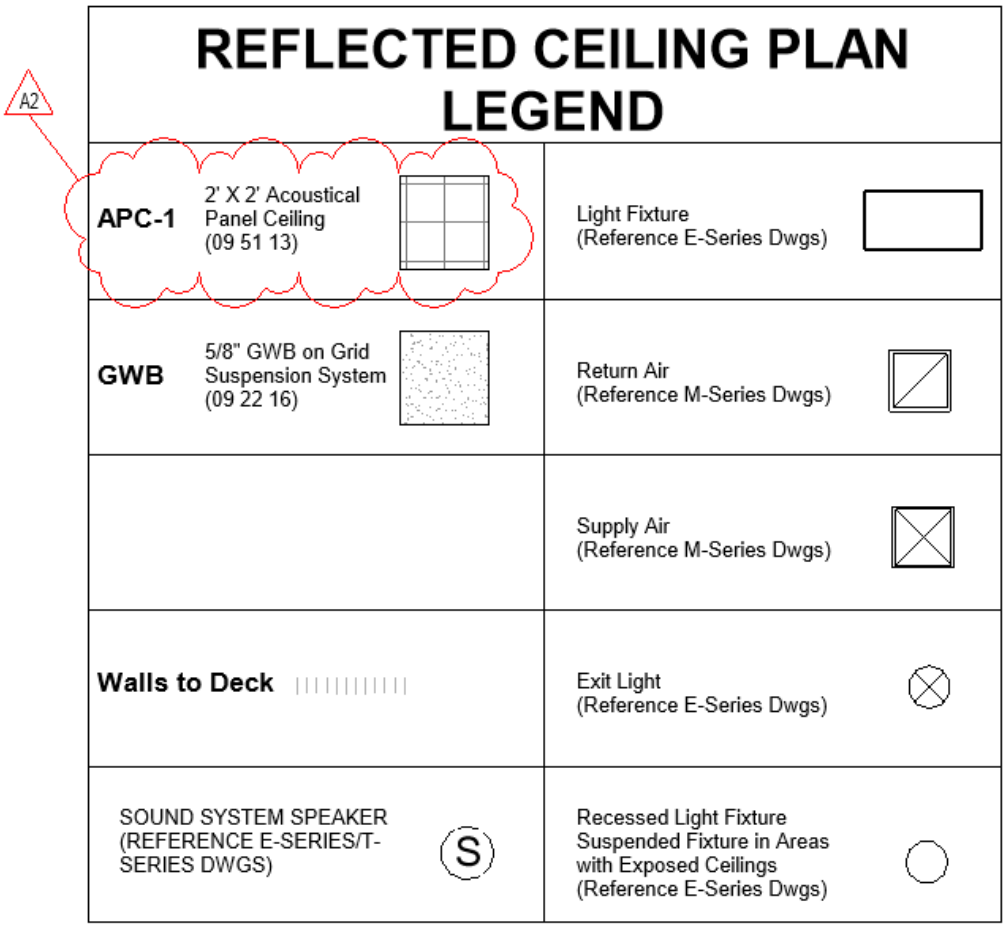
C. **Drawing Number AC101.2**

1. MODIFY Schedule REFLECTED CEILING PLAN NOTES as follows:

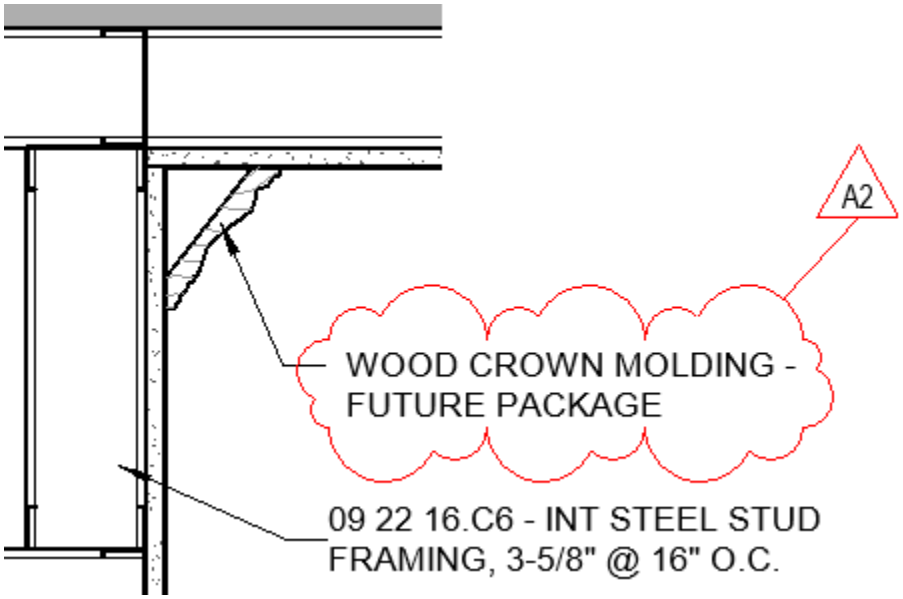
REFLECTED CEILING PLAN NOTES	
#	NOTE
1	EXISTING CEILING TO REMAIN
2	CLEAN EXISTING CEILING AROUND DIFFUSERS
3	NOT USED
4	WOOD CROWN MOLDING - FUTURE PACKAGE



2. MODIFY Schedule REFLECTED CEILING PLAN LEGEND as follows:



3. MODIFY Detail 4E as follows:



D. **Drawing Number A-210.2**

1. MODIFY Note 8 as follows:

   "099600.99 – PREP AND PAINT DOWNSPOUT."

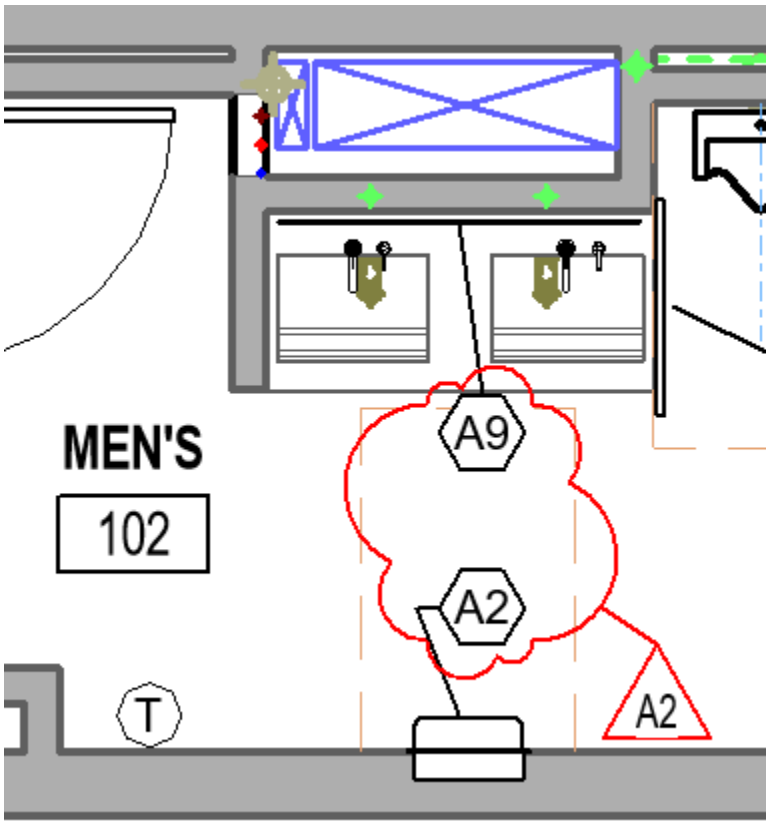
E. **Drawing Number A-400.2**

1. MODIFY Schedule 5.4.401 – RESTROOM ACCESSORY SCHEDULE as follows:

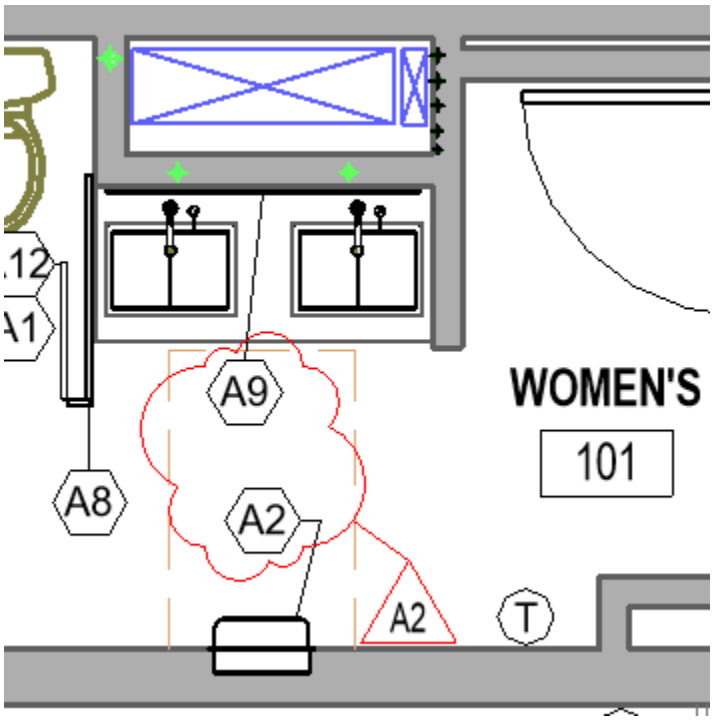
5.4.401 - RESTROOM ACCESSORY SCHEDULE

Type Mark	Keynote	Description	Mounting	Furnished By	Installed By
A1	10 28 00	TOILET TISSUE DISPENSER - DOUBLE	BOTTOM @ 1'-6 AFF	CONTRACTOR	CONTRACTOR
A2	10 28 00	PAPER TOWEL DISPENSER AND DISPOSAL	DISPENSER OPENING @ 3'-10" MAX AFF	CONTRACTOR	CONTRACTOR
A3	10 28 00	PAPER TOWEL DISPENSER	DISPENSER OPENING @ 42" AFF	CONTRACTOR	CONTRACTOR
A4	10 21 13	URINAL SCREEN	--	CONTRACTOR	CONTRACTOR
A5	10 28 00	GRAB BAR - 18" VERTICAL	BOTTOM @ 40" AFF	CONTRACTOR	CONTRACTOR
A6	10 28 00	GRAB BAR - 36" HORIZONTAL	TOP @ 2'-11" AFF	CONTRACTOR	CONTRACTOR
A7	10 28 00	GRAB BAR - 42" HORIZONTAL	TOP @ 2'-11" AFF	CONTRACTOR	CONTRACTOR
A8	10 21 13	TOILET PARTITION	--	CONTRACTOR	CONTRACTOR
A9	10 28 13	MIRROR - 42" X 36"	BOTTOM @ 4" ABOVE FIXTURE	CONTRACTOR	CONTRACTOR
A10	10 28 00	SOAP DISPENSER	BOTTOM @ 4" ABOVE FIXTURE	CONTRACTOR	CONTRACTOR
A11	10 28 13	MIRROR - 24" X 36"	BOTTOM @ 4" ABOVE FIXTURE	CONTRACTOR	CONTRACTOR
A12	10 28 00	SANITARY NAPKIN DISPOSAL - SURFACE	TOP @ 30" AFF	CONTRACTOR	CONTRACTOR

2. MODIFY Plan 1B as follows:



3. MODIFY Plan 2B as follows:



END OF ADDENDUM 2

AVAILABLE PROJECT INFORMATION

The following Bidder Questions and Answers is being made available to Bidders for informational purposes only and is not a part of the Addendum.

Contractor Questions Prior to Addendum #2 (Responses are for reference only and unless the addenda includes the change this document does not change the contract documents) 12/22/2023

1. 233113-16 calls for elastomeric 1" liner for supply and return ducts. 230713-18 calls for board/wrap for supply and return ducts. Note 18 on MH drawings calls for internal fibrous lining.
    a. Note 4 (Transfer Air Jumper ducts) : 1" Fibrous Liner.
    b. Note 18 (FCU-2 & FCU-3 supply duct) : 1" Fibrous Liner. No external insulation.
    c. AHU-1 Outdoor Air duct: No liner. 1-1/2" board or 3" blanket external insulation.
    d. AHU-1 Return Air duct: 1" Fibrous Liner.
    e. AHU-1 Supply Air duct, in basement (short run of duct, if any): 1-1/2" board or 3" blanket external insulation.
    f. FCU-1 Supply and Return and Outdoor Air duct, all are in attic space: 3" blanket insulation. Option for 1-1/2" board on rectangular ducts.

2. Radius units are shown on sheet A-600.2 for W2 & W3 call numbers. Will non-radius units be considered as an alternate? Currently vendor source would be all wood unit in and out and 18+ week lead time. No alternate for non-radius. Window shall be aluminum clad.
3. What is the exterior trim or brickmould profile that we need to match to. Is a detail available for this? Profile shown on A-600.2.
4. Will exterior extrusions be a different color than the sashes? Reference Project Manual 2, 2.2 Materials (B3A) The exterior will be the Almond color and the interior shall be stained wood.
5. Is there a sill/subsill profile that we need to match, Is a detail available for this? The window needs to transition from the existing sill to the limestone sill shown on A-600.2.
6. During pre-bid site visit we noticed that various Half-round units had what appears to be stained glass. Is this to be stained glass or spandrel or will clear IG glass be accepted. Stained glass is not required.
7. Are the grille patterns on sheet A-600.2 to be followed per window call number. During pre-bid site visit we noticed grille pattern discrepancies. Elevation drawings differ from door and frame schedule on sheet A-600.2 and actual site conditions differ from plans as well. See attached pictures that show current site grille patterns. Follow the elevation drawings on A-600.2.
8. Various windows with half-rounds attached have a mix of grilles with clear glass and stained/spandrel glass. Reference Unit call numbers W15,W14,W13,W9. Will stained/spandrel glass be required to match current site conditions. See attached pictures for examples. Stained glass is not required.
9. Sheet A-600.2 has a note stating "Surface Applied Muntins".
    a. 8.1. What is the width of the muntin? Manufacturers standard.
    b. 8.2. Will muntin be applied to both sides? Muntin will be center glazed.
    c. 8.3. If applied to both sides will a spacer bar be required? NA
    d. 8.4. If spacer bar required, what color? NA
10. Window elevations as shown on sheet A-600.2 indicate IG-1 glass and spec's on project manual volume 2 3.8 titled Insulating Glass Schedule show the same. Can we do ¾" glass if we still meet the other conditions. 1" glass with your spec's will push glass to triple pane. The spec requires 1" glass that is double pane. Triple pane is not required by the spec.

11. What's the Design Pressure rating that we need to meet? See Addendum #2
12. Is there an interior hardware color selection? All windows will be fixed. Hardware not required.
13. Is there a sash lock style requirement? Hardware not required.
14. Will sash lifts be required? Hardware not required.
15. Will Window Opening Control devices be required Not required.
16. Will screens be required Not required.
17. Will interiors be pre-stained as spec's state on page # 085200-8 (Dark Mahogany) Yes

18. The door schedule lists hardware set numbers for each door, however there is not a spec section in the project manual for door hardware. Please advise. Spec Section included in addenda.

19. Please confirm the painting scope as follows:
    a. Exterior steel stairs Yes
    b. Exterior sides of HM Door frames and doors. Yes, Exterior and Interior
    c. Exterior steel guard rails and handrails. Yes
    d. Exterior roof trims which are currently "yellow". Yes
    e. The paint spec lists interior painting for the following: No interior painting is included in this package.
    f. Interior steel, where indicated (can't find mention for this on any drawings).
    g. Interior steel stairs and handrails (can't find these items).
    h. Should there be any other items painted? Anything in the documents needs to be covered.

20. Section 21 05 23 is listed in the General Trades Category, but there isn't a fire suppression plan sheet. Please provide a plan sheet and/or information on the scope of work for section 21 05 23. The scope covered by this section is on PP101.2 and pertains to note 9.

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Steel pipe and tube railings.

B. Related Sections:

1. Section 099600.99 "High-performance Coatings" for requirements for preparing priming, and topcoating handrails.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design railings, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. General: In engineering railings to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:

1. Steel: 72 percent of minimum yield strength.

C. Structural Performance: Railings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails and Top Rails of Guards:

a. Uniform load of 50 lbf/ ft. applied in any direction.
b. Concentrated load of 200 lbf applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Infill of Guards:

a. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft..
b. Infill load and other loads need not be assumed to act concurrently.

D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.4 ACTION SUBMITTALS

A. Product Data with Shop Drawings and Delegated-Design Submittal:

1. Product Data: For the following:

a. Manufacturer's product lines of mechanically connected railings.
b. Railing brackets.
c. Grout, anchoring cement, and paint products.

2. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
3. Delegated-Design Submittal: For installed products indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified professional engineer.

B. Welding certificates.

1.6 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of railing from single source from single manufacturer.

B. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1.8 COORDINATION AND SCHEDULING

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

C. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by means that do not satisfy structural performance requirements.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.2 STEEL AND IRON

A. Tubing: ASTM A 500 (cold formed) or ASTM A 513.

B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

2.3 FASTENERS

A. General: Provide the following:

1. Ungalvanized-Steel Railings: Plated steel fasteners complying with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5 for zinc coating.

B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.

C. Fasteners for Interconnecting Railing Components:

1. Provide concealed fasteners for interconnecting railing components and for attaching them to other work, unless otherwise indicated.

D. Post-Installed Anchors: Torque-controlled expansion anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

1. Material for Exterior Locations and Where Stainless Steel is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.4 MISCELLANEOUS MATERIALS

A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.

B. Shop Primers: Provide primers that comply with Section 099600 "High-Performance Coatings.".

C. Intermediate Coats and Topcoats: Provide products that comply with Section 099600 "High-Performance Coatings.".

D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.5 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.

B. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.

C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

D. Form work true to line and level with accurate angles and surfaces.

E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.

G. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.
4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.

H. Form changes in direction as follows:

1. By radius bends of radius indicated.

I. Bend members in jigs to produce uniform curvature for each configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

J. Close exposed ends of railing members with prefabricated end fittings.

K. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch or less.

L. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers, or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.

M. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.

N. For railing posts set in concrete, provide sleeves not less than 6 inches long with inside dimensions not less than 1/2 inch greater than outside dimensions of post, with metal plate forming bottom closure.

2.6 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

2.7 STEEL AND IRON FINISHES

A. For nongalvanized steel railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves, except galvanize anchors to be embedded in exterior concrete or masonry.

B. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below:

1. Railings Indicated to Receive Primers Specified in Section 099600 "High-Performance Coatings": SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."

C. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

1. Shop prime uncoated railings with unless primers specified in Section 099600 "High-Performance Coatings" are indicated.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Fit exposed connections together to form tight, hairline joints.

B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

C. Corrosion Protection: Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

D. Adjust railings before anchoring to ensure matching alignment at abutting joints.

E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.2 RAILING CONNECTIONS

A. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.

3.3 ANCHORING POSTS

A. Form or core-drill holes not less than 5 inches deep and 3/4 inch larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Leave anchorage joint exposed with 1/8-inch buildup, sloped away from post.

3.4 ATTACHING RAILINGS

A. Anchor railing ends at walls with round flanges anchored to wall construction and welded to railing ends.

B. Attach railings to wall with wall brackets. Provide brackets with 1-1/2-inch clearance from inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.

1. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
2. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.

C. Secure wall brackets and railing end flanges to building construction as follows:

1. For steel-framed partitions, use toggle bolts installed through flanges of steel framing or through concealed steel reinforcements.

3.5 ADJUSTING AND CLEANING

A. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 099600 "High-Performance Coatings".

3.6 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF SECTION

SECTION 061600 - SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Subflooring.
2. Sheathing joint-and-penetration treatment materials.

1.2 ACTION SUBMITTALS

A. Product Data,:

1. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 SUBFLOORING

A. Plywood Subflooring: DOC PS 1, Exposure 1, Structural I single-floor panels or sheathing.

1. Span Rating: Not less than 24 or 48/24.
2. Nominal Thickness: Not less than 1 inch.

2.2 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

B. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.

2.3 MISCELLANEOUS MATERIALS

A. Adhesives for Field Gluing Panels to Wood Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with the following:

1. Table 2304.10.1, "Fastening Schedule," in the ICC's International Building Code.
2. ICC-ES evaluation report for fastener.

D. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

3.2 INSTALLATION OF WOOD STRUCTURAL PANEL

A. General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.

B. Fastening Methods: Fasten panels as indicated below:

1. Subflooring:

a. Glue and screw to wood framing.
b. Space panels 1/8 inch apart at edges and ends.

END OF SECTION

SECTION 085200 - WOOD WINDOWS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes fixed and operable wood-framed windows of the following type:

1. Aluminum clad.

1.3 DEFINITIONS

A. Performance class designations according to AAMA/WDMA 101/I.S.2/NAFS:

1. AW: Architectural.

B. Performance grade number according to AAMA/WDMA 101/I.S.2/NAFS:

1. Design pressure number in pounds force per square foot used to determine the structural test pressure and water test pressure.

C. Structural Test Pressure: For uniform load structural test, is equivalent to 150 percent of the design pressure.

D. Minimum Test Size: Smallest size permitted for performance class (gateway test size). Products must be tested at minimum test size or at a size larger than minimum test size to comply with requirements for performance class.

1.4 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide wood windows capable of withstanding the effects of the following loads based on testing units representative of those indicated for Project that pass AAMA/WDMA 101/I.S.2/NAFS, Uniform Load Structural Test:

1. Design Wind Loads: Determine design wind loads applicable to Project from basic wind speed indicated in miles per hour at 33 feet above grade, according to ASCE 7, Section 6.5, "Method 2-Analytical Procedure," based on mean roof heights above grade indicated on Drawings.

a. Basic Wind Speed: 85 mph.

2. Deflection: Design glass framing system to limit lateral deflections of glass edges to less than 1/175 of glass-edge length or 3/4 inch, whichever is less, at design pressure based on testing performed according to AAMA/WDMA 101/I.S.2/NAFS, Uniform Load Deflection Test or structural computations.

B. Windborne-Debris Resistance: Provide glazed windows capable of resisting impact from windborne debris, based on the pass/fail criteria as determined from testing glazed windows identical to those specified, according to ASTM E 1886 and testing information in ASTM E 1996 and requirements of authorities having jurisdiction.

1.5 ACTION SUBMITTALS

A. Product Data with Shop Drawings and Schedule:

1. Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of wood window indicated.
2. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances, installation details, and the following:

    a. Mullion details, including reinforcement and stiffeners.
    b. Joinery details.
    c. Expansion provisions.
    d. Flashing and drainage details.
    e. Thermal-break details.
    f. Glazing details.
    g. Window cleaning provisions.
    h. For installed products indicated to comply with design loads, include structural analysis data prepared by or under the supervision of a qualified professional engineer detailing fabrication and assembly of wood windows and used to determine the following:

        1) Structural test pressures and design pressures from basic wind speeds indicated.
        2) Deflection limitations of glass framing systems.

3. Product Schedule: For wood windows. Use same designations indicated on Drawings.

B. Samples for Verification: For wood windows and components required, prepared on Samples of size indicated below.

1. Window Corner Fabrication: 12--by-12-inch- long, full-size window corner including full-size sections of window frame with factory-applied color finish, weather stripping, and glazing.

1.6 INFORMATIONAL SUBMITTALS

A. Warranty: Special warranty specified in this Section.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An installer acceptable to wood window manufacturer for installation of units required for this Project.

1. Installer's responsibilities include providing professional engineering services needed to assume engineering responsibility.
2. Engineering Responsibility: Preparation of data for wood windows, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

B. Manufacturer Qualifications: A manufacturer capable of fabricating wood windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.

C. Source Limitations: Obtain wood windows through one source from a single manufacturer.

D. Product Options: Information on Drawings and in Specifications establishes requirements for wood windows' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.

E. Product Options: Drawings indicate size, profiles, and dimensional requirements of wood windows and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements." Do not modify size and dimensional requirements.

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

F. Fenestration Standard: Comply with AAMA/WDMA 101/I.S.2/NAFS, "North American Fenestration Standard Voluntary Performance Specification for Windows, Skylights and Glass Doors," for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

1. Provide AAMA -certified wood windows with an attached label.

G. Glazing Publications: Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.

H. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to wood windows including, but not limited to, the following:

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

2. Review, discuss, and coordinate the interrelationship of wood windows with other exterior wall components. Include provisions for structural anchorage, glazing, flashing, weeping, sealants, and protection of finishes.
3. Review and discuss the sequence of work required to construct a watertight and weathertight exterior building envelope.
4. Inspect and discuss the condition of substrate and other preparatory work performed by other trades.

1.8 PROJECT CONDITIONS

A. Field Measurements: Verify wood window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Failure to meet performance requirements.
b. Structural failures including excessive deflection, water leakage, air infiltration, or condensation.
c. Faulty operation of movable sash and hardware.
d. Deterioration of wood, metals, vinyl, other materials, and finishes beyond normal weathering.
e. Failure of insulating glass.

2. Warranty Period:

a. Window: Three years from date of Substantial Completion.
b. Glazing: 10 years from date of Substantial Completion.
c. Metal Finish: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Aluminum-Clad Wood Windows:

a. Kolbe & Kolbe Millwork Co., Inc.
b. Marvin Windows and Doors.
c. Pella Corporation.
d. Pozzi Custom Collection; JELD-WEN, Inc.

e. Weather Shield Mfg., Inc.

2.2 MATERIALS

A. Wood: Clear ponderosa pine or another suitable fine-grained lumber; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch deep by 2 inches wide; water-repellent preservative treated.

B. Aluminum Extrusions and Rolled Aluminum for Cladding (Exterior Window Finish): Manufacturer's standard formed sheet or extruded-aluminum cladding, mechanically bonded to exterior exposed wood members. Provide aluminum alloy and temper recommended by wood window manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi ultimate tensile strength, and not less than 16,000-psi minimum yield strength.

1. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
2. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
3. Baked-Enamel Finish for Extrusions and Sheet: Manufacturer's standard baked enamel complying with AAMA 2603 and paint manufacturer's written specifications for cleaning, conversion coating, and painting.

    a. Color: Pella; Almond .

C. Clad Trim and Glazing Stops: Hollow extrusions and finish to match clad frame members.

D. Fasteners: Aluminum, nonmagnetic stainless steel, epoxy adhesive, or other materials warranted by manufacturer to be noncorrosive and compatible with wood window members, cladding, trim, hardware, anchors, and other components.

1. Exposed Fasteners: Unless unavoidable for applying hardware, do not use exposed fasteners. For application of hardware, use fasteners that match finish of member or hardware being fastened, as appropriate.

E. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.

F. Reinforcing Members: Aluminum, or nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.

2.3 WINDOW

A. Window Type: As indicated on Drawings.

B. AAMA/WDMA Performance Requirements: Provide wood windows of performance indicated that comply with AAMA/WDMA 101/I.S.2/NAFS unless more stringent performance requirements are indicated.

1. Performance Class: AW.

C. Condensation-Resistance Factor (CRF): Provide wood windows tested for thermal performance according to AAMA 1503, showing a CRF of 52.

D. Air Infiltration: Maximum rate not more than indicated when tested according to AAMA/WDMA 101/I.S.2/NAFS, Air Infiltration Test.

1. Maximum Rate: 0.3 cfm/sq. ft. of area at an inward test pressure of 6.24 lbf/sq. ft..

E. Water Resistance: No water leakage as defined in AAMA/WDMA referenced test methods at a water test pressure equaling that indicated, when tested according to AAMA/WDMA 101/I.S.2/NAFS, Water Resistance Test.

1. Test Pressure: 20 percent of positive design pressure, but not more than 15 lbf/sq. ft..

F. Life-Cycle Testing: Test according to AAMA 910 and comply with AAMA/WDMA 101/I.S.2/NAFS.

2.4 GLAZING

A. Glass and Glazing Materials: Refer to Division 08 Section "Glazing" for glass units and glazing requirements applicable to glazed wood window units.

2.5 FABRICATION

A. Fabricate wood windows in sizes indicated. Include a complete system for assembling components and anchoring windows.

B. Factory machine windows for openings and for hardware that is not surface applied.

C. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.

D. Factory-Glazed Fabrication: Except for light sizes in excess of 100 united inches, glaze wood windows in the factory where practical and possible for applications indicated. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA 101/I.S.2/NAFS.

E. Glazing Stops: Provide nailed or snap-on glazing stops coordinated with Division 08 Section "Glazing" and glazing system indicated. Provide glazing stops to match sash and ventilator frames.

F. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation. Allow for scribing, trimming, and fitting at Project site.

2.6 WOOD FINISHES

A. Factory-Finished Windows (Interior Window Finish): Provide manufacturer's standard factory finish complying with WDMA T.M. 12. Apply finish to exposed interior wood surfaces.

1. Color: Pelle; Dark Mahogany .

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate, and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weathertight window installation.

1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches of opening.
3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.

B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill members in bed of sealant or with gaskets, as indicated, for weathertight construction.

D. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

3.3 ADJUSTING, CLEANING, AND PROTECTION

A. Clean exposed surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean factory-glazed glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

D. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

END OF SECTION

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical door hardware

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 Section ''Alternates'' for alternates affecting this section.
2. Division 06 Section ''Rough Carpentry''
3. Division 06 Section ''Finish Carpentry''
4. Division 07 Section ''Joint Sealants'' for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
   a. ''Metal Doors and Frames''
   b. ''Flush Wood Doors''
   c. ''Stile and Rail Wood Doors''
   d. ''Aluminum-Framed Entrances and Storefronts''

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
2. NFPA 101 – Life Safety Code

3. NFPA 105 – Smoke and Draft Control Door Assemblies
4. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
   a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
   b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
   a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

3. Door Hardware Schedule:
   a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
   b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
   c. Indicate complete designations of each item required for each opening, include:
      1) Door Index: door number, heading number, and Architect's hardware set number.
      2) Quantity, type, style, function, size, and finish of each hardware item.
      3) Name and manufacturer of each item.
      4) Fastenings and other pertinent information.
      5) Location of each hardware set cross-referenced to indications on Drawings.
      6) Explanation of all abbreviations, symbols, and codes contained in schedule.
      7) Mounting locations for hardware.
      8) Door and frame sizes and materials.

9) Degree of door swing and handing.

4. Key Schedule:
   a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
   b. Use ANSI/BHMA A156.28 ''Recommended Practices for Keying Systems'' as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
   c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
   d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
   e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
   f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:
   a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
   b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
   a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
   b. Catalog pages for each product.
   c. Final approved hardware schedule edited to reflect conditions as installed.
   d. Final keying schedule
   e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
   a. Fire door assemblies, in compliance with NFPA 80.
   b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
   a. For door hardware: DHI certified AHC or DHC.
   b. Can provide installation and technical data to Architect and other related subcontractors.
   c. Can inspect and verify components are in working order upon completion of installation.

4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:
   a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
   b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.

2. Smoke and Draft Control Door Assemblies:
   a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
   b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.

3. Accessibility Requirements:
   a. Comply with governing accessibility regulations cited in ''REFERENCES'' article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

1. Keying Conference
   a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
      1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
      2) Preliminary key system schematic diagram.
      3) Requirements for key control system.

4) Address for delivery of keys.

2. Pre-installation Conference
   a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
   b. Inspect and discuss preparatory work performed by other trades.
   c. Review required testing, inspecting, and certifying procedures.
   d. Review questions or concerns related to proper installation and adjustment of door hardware.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.

C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

1.07 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.

   1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
   2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.

a. Mechanical Warranty
   1) Locks: 10 Years
   2) Exit Devices: 10 Years
   3) Closers: 10 Years

1.08 MAINTENANCE

A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: ''No Substitute.''

   1. Where ''No Substitute'' is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as ''Scheduled Manufacturer'' or ''Acceptable Manufacturers'' in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in ''Acceptable Manufacturers'' is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.

D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fabrication

   1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
   2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.

3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.
2. For closers and panic devices: Verify with Architect and/or Owner if thru-bolts are required at specific door materials.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Ives 5BB series

2. Acceptable Manufacturers and Products:
   a. Hager BB series
   b. McKinney TB series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. Hinge Height:
   a. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide: 4-1/2 inches (114 mm) high
   b. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide: 5 inches (127 mm) high
   c. 2 inches or thicker doors: 5 inches (127 mm) high, regardless of door width
4. Hinge Width: 4-1/2 inches (114 mm) wide typical. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
5. Hinge quantity: Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
   a. Steel Hinges: Steel pins
   b. Non-Ferrous Hinges: Stainless steel pins
   c. Out-Swinging Exterior Doors: Non-removable pins
   d. Out-Swinging Interior Lockable Doors: Non-removable pins
   e. Interior Non-lockable Doors: Non-rising pins

2.04 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:

a. Select
b. Pemko

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.
7. Adjust hinge model/width as required for door thickness or construction.

2.05 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
   a. Von Duprin EPT-10

2. Acceptable Manufacturers and Products:
   a. Securitron CEPT-10

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.06 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:
   a. Rockwood
   b. Trimco

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.07 COORDINATORS

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:
   a. Trimco
   b. Rockwood

B. Requirements:

1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.08 CYLINDRICAL LOCKS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Schlage ND series

2. Acceptable Manufacturers and Products:
   a. Corbin Russwin 3300 Series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to ''KEYING'' article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
   a. Lever Design: Schlage Athens (ATH).

2.09 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Falcon 25 series

2. Acceptable Manufacturers and Products:
   a. Sargent 19-43-GL-80 series
   b. Precision Apex series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to ''KEYING'' article, herein.
3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide flush end caps for exit devices.
6. Provide exit devices with manufacturer's approved strikes.
7. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
8. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
9. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
10. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
11. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
12. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.10 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer and Product:
   a. Corbin

2. Acceptable Manufacturers and Products:
   a. No Substitute

B. Requirements:

1. Provide cylinders/cores to match Owner’s existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer’s series as indicated. Refer to “KEYING” article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
   a. Match owner's existing system.

3. Construction Cores/Cylinder.
   a. Provide temporary construction cores/cylinders replaceable by permanent cores, furnished in accordance with the following requirements.
      1) 3 construction control keys (if interchangeable core)
      2) 12 construction change (day) keys.

4. Verify with Owner where permanent cores/cylinders are to be shipped to.

2.11 KEYING

A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

1. Provide keying system capable of multiplex masterkeying.
2. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
   a. Master Keying system as directed by the Owner.
   b. Match owner's existing system.
   c. (Great)Grand Master Key System: Cylinders/cores operated by change(day) keys and subsequent masters (including grand/great grand) keys.

3. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
4. Provide keys with the following features:
   a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)

5. Identification:
   a. Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
   b. Identification stamping provisions must be approved by the Architect and Owner.
   c. Stamp cylinders/cores and keys with Owner’s unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with “DO NOT DUPLICATE”.
   d. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.

6. Quantity: Furnish in the following quantities.
   a. Change (Day) Keys: 3 per cylinder/core.
   b. Permanent Control Keys: 3 (only applicable to interchangeable core).
   c. Master Keys: 6/ea (per master).
   d. Unused balance of key blanks shall be provided to Owner with cut keys.

7. Verify with Owner where permanent keys are to be shipped to.

2.12 KEY CONTROL SYSTEM

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Telkee

2. Acceptable Manufacturers:
   a. HPC
   b. Lund

B. Requirements:

1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
   a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
   b. Provide hinged-panel type cabinet for wall mounting.

2.13 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Falcon SC70A series

2. Acceptable Manufacturers and Products:
   a. Sargent 351 series
   b. Dorma 8900 series.

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with aluminum cylinder.
3. Closer Body: 1-1/2-inch (38 mm) diameter with 5/8-inch (16 mm) diameter heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.14 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:

a. Trimco
b. Rockwood

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.15 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:
   a. Trimco
   b. Rockwood

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.16 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
   a. Glynn-Johnson

2. Acceptable Manufacturers:
   a. Rixson

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
2. Provide friction type at doors without closer and positive type at doors with closer.

2.17 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:

a. Trimco
b. Rockwood

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.18 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Zero International

2. Acceptable Manufacturers:
   a. National Guard
   b. Reese
   c. Pemko

B. Requirements:

1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.19 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
   a. Ives

2. Acceptable Manufacturers:
   a. Rockwood
   b. Trimco

B. Requirements:

1. Provide ''push-in'' type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.

3. Omit where gasketing is specified.

2.20 FINISHES

A. Provide finish for each item as indicated in the sets.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.

B. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
2. Custom Steel Doors and Frames: HMMA 831.
3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.

C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.

I. Lock Cylinders:

1. Install construction cores to secure building and areas during construction period.
2. Replace construction cores with permanent cores as indicated in keying section.

J. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

K. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

L. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

M. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section ''Joint Sealants.''

N. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

O. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

P. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

Q. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items per manufacturer's instructions to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.

C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

76223 OPT0289263 Version 3

HARDWARE GROUP NO. 01

For use on Door #(s):
101 102

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQ'D)	652	IVE
1	EA	PUSH PLATE	8200 4" X 16"	630	IVE
1	EA	PULL PLATE	8303 10" 4" X 16"	630	IVE
1	EA	SURFACE CLOSER	SC71A REG	689	FAL
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

FOR OPENINGS WITH EXISTING FRAMES: VERIFY EXISTING HINGE TYPE/PREPS AND PROVIDE HINGES THAT EXISTING PREPS ACCOMMODATE. PREP EXISTING FRAME ACCORDINGLY FOR NEW SPECIFIED HARDWARE. PROVIDE FILLERS/PLATES AS NECESSARY TO FILL/COVER UNUSED OR EXPOSED EXISTING PREPS.

HARDWARE GROUP NO. 02

For use on Door #(s):
001

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 (NRP AS REQ'D)	652	IVE
1	EA	ENTRANCE LOCK	ND53D-CO ATH (VERIFY CYL/CORE TYPE)	626	SCH
1	EA	CYLINDER/CORE	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	SURFACE CLOSER	SC71A REG	689	FAL
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	RAIN DRIP	11A (EXTERIOR BOTTOM DOOR FACE)	A	ZER
1	EA	RAIN DRIP	142AA (EXTERIOR FRAME HEAD)	AA	ZER
1	SET	WEATHERSTRIPPING	429AA-S	AA	ZER
1	EA	DOOR BOTTOM, INSWING HMD	381A	A	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER

HARDWARE GROUP NO. 03

For use on Door #(s):
008

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY	628	IVE
1	EA	ENTRANCE LOCK	ND53D-CO ATH (VERIFY CYL/CORE TYPE)	626	SCH
1	EA	CYLINDER/CORE	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	CYLINDER/CORE	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	SURFACE CLOSER (W/ STOP)	SC71A DS	689	FAL
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	WEATHERSTRIPPING	429AA-S	AA	ZER
1	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER

HARDWARE GROUP NO. 04

For use on Door #(s):
007

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQ'D)	652	IVE
1	EA	STOREROOM LOCK	ND80D-CO ATH (VERIFY CYL/CORE TYPE)	626	SCH
1	EA	CYLINDER/CORE	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	SURFACE CLOSER (W/ STOP & HO)	SC71A DSHO	689	FAL
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 05

For use on Door #(s):
100A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 4.5 X 4.5 (NRP AS REQ'D)	652	IVE
1	EA	AUTO FLUSH BOLT	FB31T/FB41T (AS REQ'D)	630	IVE
1	EA	STOREROOM LOCK	ND80D-CO ATH (VERIFY CYL/CORE TYPE)	626	SCH
1	EA	CYLINDER/CORE	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	COORDINATOR	COR X FL (MB AS REQ'D)	628	IVE
2	EA	SURFACE CLOSER (W/ STOP & HO)	SC71A DSHO	689	FAL
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 06

For use on Door #(s):
103.1 103.4 104 105 205

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY	628	IVE
1	EA	PANIC HARDWARE	LD-25-R-NL	626	FAL
1	EA	MORTISE CYLINDER	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
1	EA	SURFACE CLOSER (W/ STOP)	SC71A DS	689	FAL
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	WEATHERSTRIPPING	429AA-S	AA	ZER
1	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER

HARDWARE GROUP NO. 07

For use on Door #(s):
100.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	224XY	628	IVE
1	EA	PANIC HARDWARE	CD-25-V-DT-LBR	626	FAL
1	EA	PANIC HARDWARE	CD-25-V-NL-LBR	626	FAL
3	EA	MORTISE CYLINDER	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
2	EA	SURFACE CLOSER	SC71A PA	689	FAL
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP/HOLDER	WS45/WS45X	626	IVE
2	EA	SILENCER	SR64	GRY	IVE

PREP EXISTING FRAME ACCORDINGLY FOR NEW SPECIFIED HARDWARE. PROVIDE FILLERS/PLATES AS NECESSARY TO FILL/COVER UNUSED OR EXPOSED EXISTING PREPS.

HARDWARE GROUP NO. 08

For use on Door #(s):
103.2 103.3

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	224XY	628	IVE
1	EA	PANIC HARDWARE	LD-25-C-DT	626	FAL
1	EA	PANIC HARDWARE	LD-25-C-NL	626	FAL
1	EA	MORTISE CYLINDER	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
2	EA	SURFACE CLOSER (W/ STOP)	SC71A SS	689	FAL
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	WEATHERSTRIPPING	429AA-S	AA	ZER
2	EA	ASTRAGAL, MEETING STILE	8195AA	AA	ZER
2	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER

HARDWARE GROUP NO. 09

For use on Door #(s):
100.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	CD-25-C-DT	626	FAL
1	EA	PANIC HARDWARE	CD-25-C-NL	626	FAL
3	EA	MORTISE CYLINDER	CORBIN L4, VERIFY CYL/CORE TYPE REQUIRED (MATCH EXISTING)	626	C-R
2	EA	SURFACE CLOSER (W/ STOP)	SC71A SS	689	FAL
2	EA	MOUNTING PLATE	SC70A-18PA	689	FAL
2	EA	CUSH SHOE SUPPORT	SC70A-30	689	FAL
2	EA	BLADE STOP SPACER	SC70A-61	689	FAL
1	EA	WEATHERSTRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
2	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER

END OF SECTION

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for interior ceilings.

B. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Acoustical Ceiling Units: Full-size panels equal to 2 percent of quantity installed.
2. Suspension-System Components: Quantity of each exposed component equal to 2 percent of quantity installed.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Firm with not less than three years of successful experience in installation of acoustical ceilings similar to requirements for this Project and which is acceptable to manufacturer of acoustical units, as indicated by current written statement from manufacturer.

B. Coordination of Work: Coordinate layout and installation of acoustical ceiling units and suspension system components with other Work suspended in the ceiling plane, or penetrating through ceilings, including light fixtures, HVAC equipment, fire-suppression system components, and partition system.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension-system components, and accessories to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: Class A according to ASTM E 1264.
2. Smoke-Developed Index: 50 or less.

B. Fire-Resistance Ratings: Comply with ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL or from the listings of another qualified testing agency.

2.3 ACOUSTICAL PANELS, GENERAL

A. Source Limitations:

1. Acoustical Ceiling Panel: Obtain each type from single source from single manufacturer.
2. Suspension System: Obtain each type from single source from single manufacturer.

B. Glass-Fiber-Based Panels: Made with binder containing no urea formaldehyde.

C. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances unless otherwise indicated.

1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface according to ASTM E 795.

D. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.

1. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

2.4 NON-DIRECTIONAL FISSURED PANEL FOR ACOUSTICAL PANEL CEILING APC-1

A. Products:

1. Fine Fissured, Armstrong World Industries, Inc.
2. Fine Fissured; HHF-157, CertainTeed Corp. (The).
3. Radar High-NRC, 22421, USG Interiors, Inc.

B. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:

1. Type and Form: Type III, mineral base with painted finish; Form 2.
2. Pattern: As indicated by manufacturer's designation.

C. Color: White.

D. LR: Not less than 0.80.

E. NRC: Not less than 0.50.

F. CAC: Not less than 33.

G. Edge Detail: Square.

H. Size: As indicated on Drawings.

I. Suspension System: Provide suspension system that complies with requirements in Part 2 "Non-Fire-Resistance-Rated, Direct-Hung Suspension Systems", Article for wide-face, capped, double-web, steel suspension system.

2.5 METAL SUSPENSION SYSTEM

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Armstrong World Industries, Inc.
2. CertainTeed Corporation.
3. Rockfon
4. United States Gypsum Company.

B. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, metal suspension system and accessories according to ASTM C 635/C 635M and designated by type, structural classification, and finish indicated.

1. High-Humidity Finish: Where indicated, provide coating tested and classified for "severe environment performance" according to ASTM C 635/C 635M.

C. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet; prepainted, electrolytically zinc coated, or hot-dip galvanized, G30 coating designation; with prefinished 15/16-inch- wide metal caps on flanges.

1. Structural Classification: Intermediate-duty system.
2. End Condition of Cross Runners: Override (stepped) or butt-edge type.
3. Face Design: Flat, flush.
4. Cap Material: Cold-rolled steel.
5. Cap Finish: Painted white.

2.6 ACCESSORIES

A. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.

B. Wire Hangers, Braces, and Ties: Provide wires as follows:

1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
2. Size: Wire diameter sufficient for its stress at three times hanger design load (ASTM C 635/C 635M, Table 1, "Direct Hung") will be less than yield stress of wire, but not less than 0.135-inch- iameter wire.

C. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.

B. Layout openings for penetrations centered on the penetrating items.

3.3 INSTALLATION

A. Install acoustical panel ceilings according to ASTM C 636/C 636M and manufacturer's written instructions.

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
8. Do not attach hangers to steel deck tabs.
9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
10. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.

C. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

D. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.

1. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
2. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
3. Install hold-down clips in areas indicated; space according to panel manufacturer's written instructions unless otherwise indicated.

    a. Hold-Down Clips: Space 24 inches o.c. on all cross runners.
4. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

3.4 ERECTION TOLERANCES

A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8 inch in 12 feet, non-cumulative.

B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8 inch in 12 feet, non-cumulative.

3.5 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.

B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

SECTION 099113.99 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes surface preparation and the application of paint systems on the following exterior substrates:

1. Aluminum (not anodized or otherwise coated).
2. Wood Trim

1.2 ACTION SUBMITTALS

A. Product Data with Samples for Verification and Product List:

1. Product Data: For each type of product. Include preparation requirements and application instructions.

a. Indicate VOC content.

2. Samples for Verification: For each type of paint system and each color and gloss of topcoat.

a. Submit Samples on rigid backing, 8 inches square.
b. Apply coats on Samples in steps to show each coat required for system.
c. Label each coat of each Sample.
d. Label each Sample for location and application area.

3. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

1.3 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.4 QUALITY ASSURANCE

A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system.

    a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft..
    b. Other Items: Architect will designate items or areas required.

2. Final approval of color selections will be based on mockups.

    a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups, unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. PPG Architectural Finishes, Inc.
2. Sherwin-Williams Company (The).

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Materials for use within each paint system shall be compatible with each other and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

B. Colors: As selected by Architect from manufacturer's full range.

2.3 SOURCE QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
2. Testing agency will perform tests for compliance with product requirements.
3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.

C. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations.

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.

B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.

1. Contractor shall touch up and restore painted surfaces damaged by testing.
2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 EXTERIOR PAINTING SCHEDULE

A. Provide one manufacturer's products as listed below:

1. Aluminum Paint System:

a. Prime Coat:

1) Spot Prime Bare Aluminum

a) S-W, B66W00310-Pro Industrial Pro-Cryl Universal Acrylic Primer, Off White.
b) PPG Paints; 90-912 Pitt-Tech Plus DTM Industrial Primer.

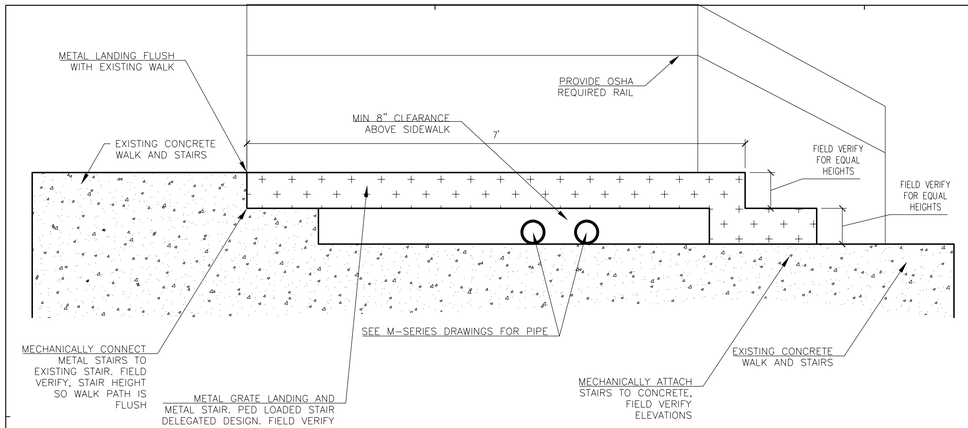
2) Aluminum - Previously Coated

a) 2 Coats
b) S-W, B66W01251 - Pro Industrial DTM Acrylic Eg-Shel Extra White.
c) PPG Paints; 90-1110 Pitt-Tech Plus Int/Ext DTM Satin Industrial Enamel.

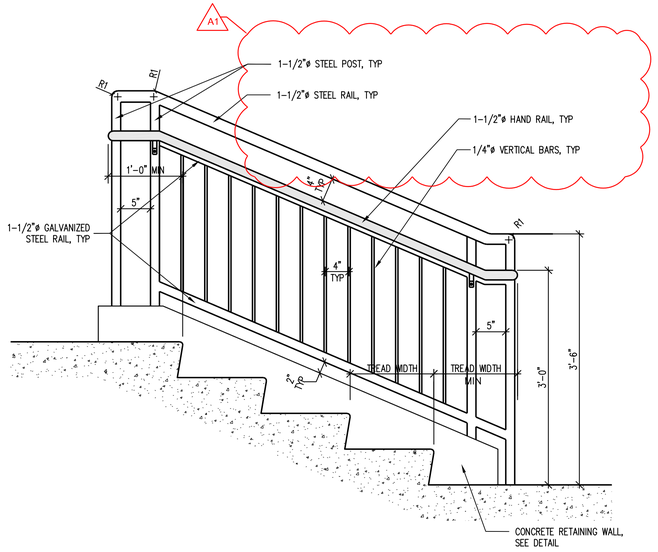
2. Wood Paint System:

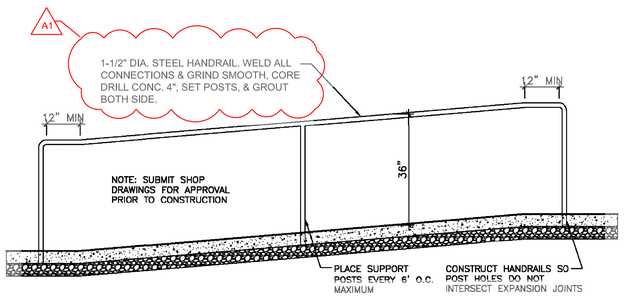
a. S-W, SuperPaint Exterior Latex Satin

END OF SECTION

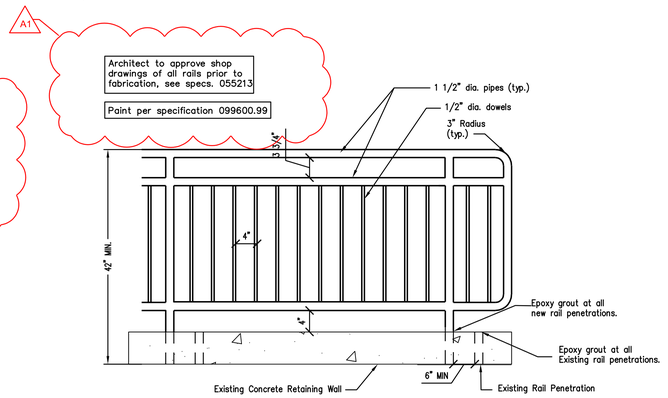


Metal Landing and Stair
n.t.s.

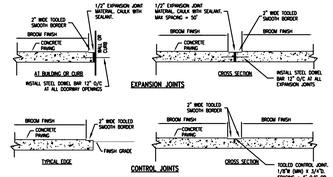




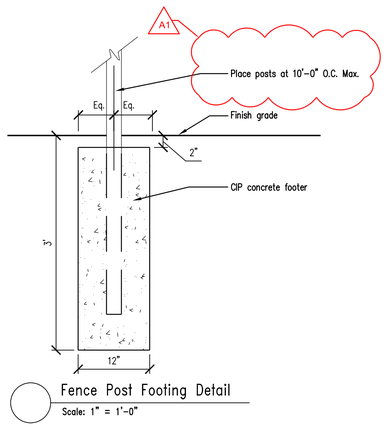
STAINLESS HANDRAILS– ADA RAMP
SCALE: 1/2"= 1'–0"



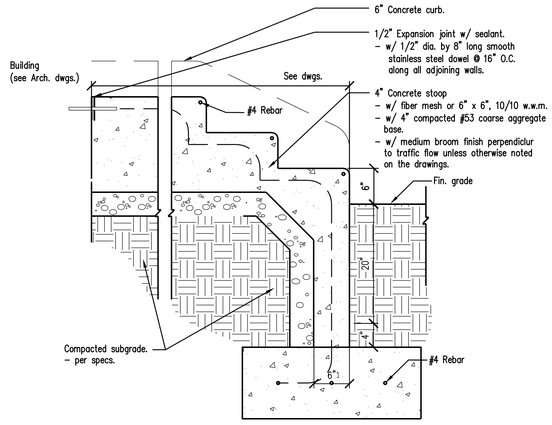
Pipe Guardrail
Scale: 1" = 1'-0"



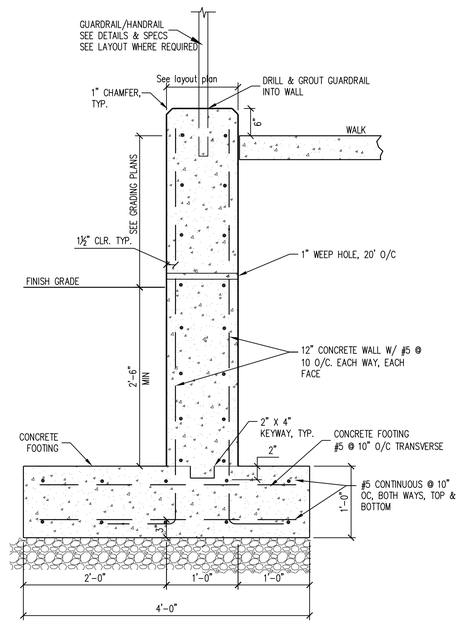
Concrete Finishing Detail
Scale: 1" =1'-0"



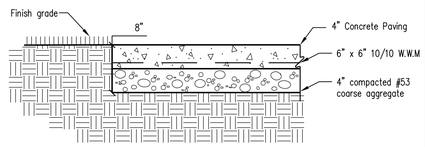
Fence Post Footing Detail
Scale: 1" = 1'-0"



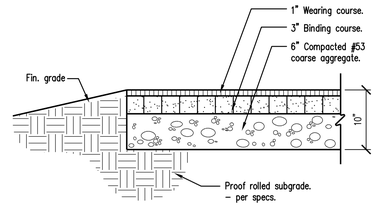
Concrete Stoop Detail
Scale: 1" = 1'-0"



Concrete Retaining Wall
Scale: 1"= 1'-0"



Standard Concrete Paving
Scale 1"=1'-0"



Standard Asphalt Paving Detail
Scale: 1" = 1'-0"

SCHMIDT
ASSOCIATES
415 Massachusetts Avenue
Indianapolis, IN 46204
www.schmidt-arch.com

Project No. 2023-084.RMO
Project Date 12.01.2023
Produced SG

WILLIE E. MILLER REGISTERED NO. 19900465 STATE OF INDIANA PROFESSIONAL ENGINEER

#	Addendum	Date
A1	Addendum 1	12.22.2023

104 Indiana Ave.
Valparaiso, IN 46383

N

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE

SITE LAYOUT DETAILS

CL501.2

ABBREVIATIONS

A/E	ARCHITECT/ENGINEER	MB	MARKER BOARD
ADA	AMERICANS WITH DISABILITIES ACT	MC	MECHANICAL CONTRACTOR
ADD	ADDENDUM	MDO	MEDIUM DENSITY OVERLAY
ADJ	ADJACENT	MECH	MECHANICAL
ADMIN	ADMINISTRATION	MED	MEDIUM
AFF	ABOVE FINISHED FLOOR	MEMB	MEMBRANE
ALUM	ALUMINUM	MEP	MECHANICAL, ELECTRICAL, PLUMBING
APPROX	APPROXIMATE	MEZZ	MEZZANINE
APC	ACOUSTICAL PANEL CEILING	MFD	MANUFACTURED
APT	APARTMENT	MFG	MANUFACTURING
ARCH	ARCHITECT	MFR	MANUFACTURER
ASSN	ASSOCIATION	MGT	MANAGEMENT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MIN	MINIMUM
A/V	AUDIO/VISUAL	MISC	MISCELLANEOUS
AVG	AVERAGE	ML	METAL LATH
AWI	ARCHITECTURAL WOODWORKING INSTITUTE	MO	MASONRY OPENING
		MT	MOUNT
BD	BOARD	MTD	MOUNTED
BITUM	BITUMINOUS	MTG	MOUNTING
BLDG	BUILDING	MTL	METAL
BLKHD	BULKHEAD	MULL	MULLION
BOT	BOTTOM		
BSMT	BASEMENT	NA	NOT APPLICABLE
		NIC	NOT IN CONTRACT
CAB	CABINET	NO	NUMBER
CB	CHALK BOARD	NOM	NOMINAL
CD	CONSTRUCTION DOCUMENTS	NTS	NOT TO SCALE
CD	CONTRACT DOCUMENTS		
CIP	CAST-IN-PLACE	O/O	OUT TO OUT
CJ	CONTROL JOINT	OC	ON CENTER
CL	CENTER LINE	OD	OUTSIDE DIAMETER
CLG	CEILING	OPG	OPENING
CLO	CLOSET	OPP	OPPOSITE
CLR	CLEAR	ORIG	ORIGINAL
CMU	CONCRETE MASONRY UNIT	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
COL	COLUMN		
CONC	CONCRETE	PART	PARTIAL
CONF	CONFERENCE	PBD	PARTICLEBOARD
CONST	CONSTRUCTION	PERF	PERFORATED
COORD	COORDINATE	PKG	PACKAGE
CORR	CORRIDOR	PLAS LAM	PLASTIC LAMINATE
CPT	CARPET	PLYWD	PLYWOOD
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE	PNL	PANEL
CTR	CENTER	PORC	PORCELAIN
CU FT	CUBIC FEET	PR	PAIR
CU IN	CUBIC INCH	PREFAB	PREFABRICATED
CUST	CUSTODIAN	PREFIN	PREFINISH
CW	CURTAINWALL	PREP	PREPARATION
		PROJ	PROJECT
DBL	DOUBLE	PT	PAINT
DEFS	DIRECT-APPLIED FINISH SYSTEM		
DEG	DEGREE	R	RADIUS
DEMO	DEMOLITION	RCP	REFLECTED CEILING PLAN
DEPT	DEPARTMENT	RD	ROOF DRAIN
DET	DETAIL	REBAR	REINFORCING STEEL BARS
DF	DRINKING FOUNTAIN	RECPT	RECEPTACLE
DH	DOUBLE HUNG (DOOR, WINDOW)	REF	REFERENCE
DIA	DIAMETER	REF	REFRIGERATOR
DIAG	DIAGONAL	REINF	REINFORCED
DIM	DIMENSION	REQD	REQUIRED
DISP	DISPENSER	REST	RESTROOM
DIV	DIVISION	RM	ROOM
DN	DOWN	RO	ROUGH OPENING
DS	DOWN SPOUT	RTG	RATING
DWG	DRAWING	RTU	ROOF TOP UNIT
EA	EACH	SCHED	SCHEDULE
EC	ELECTRICAL CONTRACTOR	SCHEM	SCHEMATIC
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	SCWD	SOLID CORE WOOD DOOR
EJ	EXPANSION JOINT	SECT	SECTION
EL/ELEV	ELEVATION	SF	SQUARE FOOT (FEET)
ELEC	ELECTRIC	SHR	SHOWER
ELEV	ELEVATOR	SHT	SHEET
EOS	EDGE OF SLAB	SIM	SIMILAR
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	SM	SMALL
EQ	EQUAL	SPEC	SPECIFICATION
EQUIP	EQUIPMENT	SPKLR	SPRINKLER
EST	ESTIMATE	SQ	SQUARE
ETC	ET CETERA	SQ YD	SQUARE YARD
EXIST	EXISTING	SS	STAINLESS STEEL
		ST	STREET
FD	FLOOR DRAIN	STD	STANDARD
FE	FIRE EXTINGUISHER	STL	STEEL
FEC	FIRE EXTINGUISHER CABINET	STOR	STORAGE
FIN	FINISH	STRUCT	STRUCTURAL
FIN FLR	FINISH FLOOR	SURR	SURROUND
FIN GR	FINISH GRADE	SUSP	SUSPEND
FIXT	FIXTURE	SUSP CLG	SUSPENDED CEILING
FLASH	FLASHING	SV	SHEET VINYL
FLR	FLOOR	SVC	SERVICE
FR	FIRE RESISTANT	SYS	SYSTEM
FRC	FIBER REINFORCED CONCRETE		
FRG	FIBER REINFORCED GYPSUM	T&G	TONGUE AND GROOVE
FRP	FIBERGLASS REINFORCED PLASTIC	T/O	TOP OF
FRZ	FREEZER	TB	TACK BOARD
FT	FEET, FOOT	TD	TOWEL DISPENSER
FTG	FOOTING	TECH	TECHNICAL
FURG	FURRING	TEMP	TEMPORARY
FURN	FURNITURE	TFF	TOP OF FINISHED FLOOR
FWC	FABRIC WALL COVERING	TG	TEMPERED GLASS
		THK	THICKNESS
GA	GAUGE	THRU	THROUGH
GAL	GALLON	TI	TAPERED INSULATION
GALV	GALVANIZED	TOS	TOP OF STEEL
GC	GENERAL CONTRACTOR	TOM	TOP OF MASONRY
GFRC	GLASS-FIBER-REINFORCED CONCRETE	TRANS	TRANSOM
GFRG	GLASS-FIBER-REINFORCED GYPSUM	TYP	TYPICAL
GFRP	GLASS-FIBER-REINFORCED PLASTER		
GL BLK	GLASS BLOCK	UL	UNDERWRITERS LABORATORIES
GLU LAM	GLUE LAMINATED WOOD	UNO	UNLESS NOTED OTHERWISE
GOVT	GOVERNMENT	UPS	UNINTERRUPTIBLE POWER SUPPLY
GWB	GYPSUM WALLBOARD	UTIL	UTILITY
HAZ	HAZARD	VAR	VARIES
HAZ MAT	HAZARDOUS MATERIALS	VB	VINYL BASE
HDBD	HEAVY DUTY HARDBOARD	VCT	VINYL COMPOSITION TILE
HDW	HARDWARE	VEH	VEHICLE
HM	HOLLOW METAL	VERT	VERTICAL
HORIZ	HORIZONTAL	VEST	VESTIBULE
HR	HOUR	VIF	VERIFY IN FIELD
HT	HEIGHT	VOL	VOLUME
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	VR	VAPOR RETARDER
		VWC	VINYL WALL COVERING
IBC	INTERNATIONAL BUILDING CODE	VWF	VINYL WALL FABRIC
ID	INSIDE DIAMETER		
IN	INCH/ INCHES	W/	WITH
INSTR	INSTRUMENT	W/O	WITHOUT
INSUL	INSULATION, E, (ED)	WC	WALL COVERING
INT	INTERIOR	WD	WOOD
		WP	WORKING POINT
JAN	JANITOR	WT	WEIGHT
KD	KNOCK DOWN		
KIT	KITCHEN		
KO	KNOCKOUT		
LAM	LAMINATE		
LG	LAMINATED GLASS		
LAV	LAVATORY		
LED	LIGHT EMITTING DIODE		
LF	LINEAR FEET (FOOT)		
LKR RM	LOCKER ROOM		
LRG	LARGE		
LT	LIGHT		
LT GA	LIGHT GAUGE		
MAINT	MAINTENANCE		
MAN	MANUAL		
MATL	MATERIAL		
MAX	MAXIMUM		

General Demolition Notes

A. Contractor shall field-verify all existing conditions, dimensions, and arrangements.

B. Contractor is responsible for protection of all existing surfaces, materials, and components to remain or be relocated. Damage to these resulting from performance of Work shall be repaired by Contractor to satisfaction of Owner and Architect at no additional expense to Owner.

C. Contractor shall provide temporary dust protection as required to prevent construction debris and dust from migrating out of Project Area. Owner/Architect shall confirm all dust prevention measures/locations and shall determine changes to these measures.

D. All existing equipment and fixtures shall remain property of Owner. All reusable items salvaged during demolition operations shall be retained for Owner's inspection. Only items so inspected and rejected by Owner shall be disposed. All other such items shall be turned over to Owner for disposition.

E. All existing surfaces located adjacent to, or exposed by demolition work and scheduled to receive new construction shall be patched and repaired as required to cleanly receive new work.

F. All existing surfaces located adjacent to, or exposed by demolition work and scheduled to remain exposed after completion of new const. shall be repaired and patched as required to receive new finishes.

G. Owner will be responsible for removal/rearrangement of all existing loose furnishings during construction, unless noted otherwise.

H. Refer to Mech./Elec. Drawings for additional patching and preparation work related to M.E.P. demolition items.

I. Existing sleeves, holes, and other penetrations or new damage of existing building structure above grade exposed by demolition and removal of piping, appurtenances, equipment shall be patched and repaired as part of the Work. Maintain fire ratings of all and adjacent construction affected.

J. Cap all piping to remain or abandoned in accordance with requirements of authority having jurisdiction and in accordance with all local and state plumbing and health codes. Utilize only pre-manufactured and approved fittings to cap existing piping.

K. Each Contractor is responsible for all demolition work required or noted for installation of new Work. Demolition may include associated distribution systems, appurtenances, equipment supporting controls, and miscellaneous supports, unless noted otherwise.

L. Coordinate all demolition with Project sequencing as directed by General Contractor or Construction Manager.

General Plan Notes

A. All dimensions shown are to face of stud or masonry, unless noted otherwise. Dimensions designated as "CLR or "clear" indicate a clear dimension from face of finish to face of finish. Dimensions of exterior walls are to outside edge of foundation.

B. Dimensions for all openings for Mechanical, Plumbing, Fire Protection and Electrical shall be fire stopped at each floor penetration.

C. Provide bracing and blocking as required in walls supporting casework, tackboards, markerboards, and restroom accessories.

D. All door frames are located 4" from adjacent wall, unless noted otherwise.

E. Seal all joints between dissimilar materials.

F. All gypsum wallboard is 5/8" Type "X", unless noted otherwise.

G. Where new floors meet existing floors, a smooth, straight, and flush transition shall be constructed. Verify in field existing floor elevations and conditions where a new floor shall be constructed adjacent. Trim and patch existing floor as required to achieve desired transition.

H. All interior walls are Type "S4ID", unless noted otherwise.

I. Hatching within walls shown in plans and sections indicates new construction.

J. Patch and repair drywall/plaster walls as required. Reference allowance to cover this scope of work.

General Refl. Ceiling Plan Notes

A. All exposed ductwork, piping etc. shall be painted. Color selected by Architect.

REFLECTED CEILING PLAN LEGEND

APC-1	2' X 2' Acoustical Panel Ceiling (09 51 13)	Light Fixture (Reference E-Series Dwgs)	
GWB	5/8" GWB on Grid Suspension System (09 22 16)	Return Air (Reference M-Series Dwgs)	
		Supply Air (Reference M-Series Dwgs)	
Walls to Deck		Exit Light (Reference E-Series Dwgs)	
SOUND SYSTEM SPEAKER (REFERENCE E-SERIES/T-SERIES DWGS)	S	Recessed Light Fixture Suspended Fixture in Areas with Exposed Ceilings (Reference E-Series Dwgs)	

Material Symbols

CONCRETE MASONRY UNIT

FACE BRICK

EARTH

CONCRETE

PLYWOOD

METAL/STEEL

FINISHED WOOD TRIM

WOOD BLOCKING

WOOD SHIM

INSULATION (LOOSE OR BATT.)

INSULATION (RIGID)

GYPSUM BOARD / PLASTER

Reference Symbols

TITLE MARK

1 **View Name**
1/8" = 1'-0"

SECTION MARK — 1 / A101 — SIM

ELEVATION MARK — Ref / A101 / Ref / Ref — DETAIL REFERENCE — SHEET REFERENCE

CUT LINE

DETAIL MARK — 1 / A101 — SIM

PLAN NOTE DESIGNATION — #

WHEELCHAIR CLEARANCE RADIUS — ADA

WALL DESIGNATION — 1i

DOOR NUMBER — 101 — Door Number / Hardware Set / Door Label / Panel Type

WINDOW NUMBER — 1i

FURNITURE — FM

COLUMN DESIGNATION — FB / FB

NORTH ARROW — N

ROOM TAG — Room name / 101

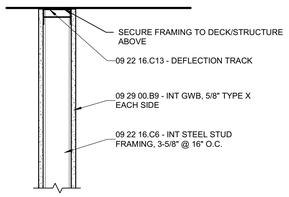
UNIT MATCHLINE — UNIT A / UNIT B

DEMOLITION NOTE — #

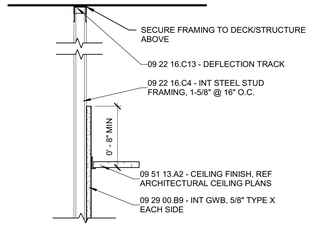
REVISION TAG — A2

DATUM POINT

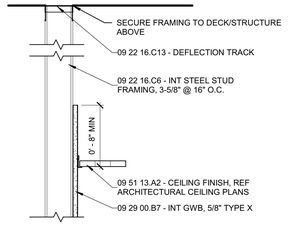
KEYNOTE LABEL — A2 — Specification Reference — Unique Identifier (Not A Reference) — 00 00 00.B9



4A **S4-D WALL TYPE**
1 1/2" = 1'-0"



3A **S2-C' WALL TYPE**
1 1/2" = 1'-0"



2A **S4-C' WALL TYPE**
1 1/2" = 1'-0"

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Project No. 2023-084.RMO
Project Date 12.01.2023
Produced BGB

SARAH KATHLEEN HEMPSTEAD REGISTERED NO. AR10400134 STATE OF INDIANA ARCHITECT

Sarah K Hempstead

#	Revision	Date
A2	Addendum 2	12.22.2023

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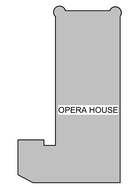
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE

ARCHITECTURAL GENERAL NOTES AND ABBREVIATIONS

A2

A-001.2

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2023-084.RMO_PORTER COUNTY BOARD OF COMMISSIONERS_MEMORIAL OPERA HOUSE
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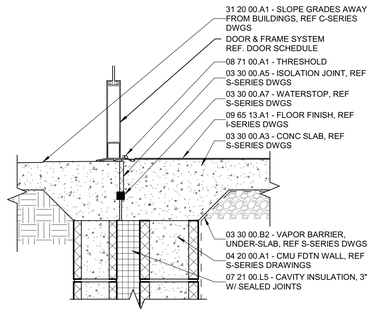
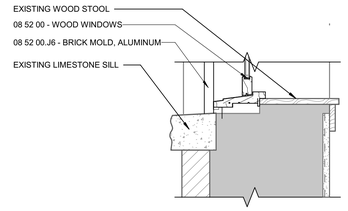
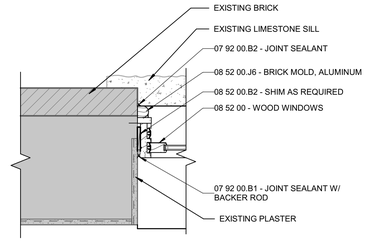


6E FOUNDATION - THRESHOLD
1 1/2" = 1'-0"



5E TYPICAL WINDOW SILL
1 1/2" = 1'-0"



4E TYPICAL WINDOW JAMB/HEAD
1 1/2" = 1'-0"

DOOR & FRAME SCHEDULE

MARK	DOOR PANEL TYPE	QTY	MATL	GLAZ	SIZE H	SIZE W	SIZE TH	FRAME MARK	FRAME MATL	FRAME GLAZ	LABEL	HDWR SET	NOTES	MARK
001	2P	1	HM	--	7' - 0"	3' - 0"	0' - 1 3/4"	F1	HM	--		02		001
007	F	1	WD	--	6' - 8"	3' - 0"	0' - 1 3/4"	F1	HM	--		04		007
008	F	1	HM	--	7' - 0"	2' - 8"	0' - 1 3/4"	F1	HM	--		03		008
100.1	DG	2	AL	IG-1	7' - 0"	6' - 0"	0' - 2 1/4"	F3	AL	IG-1		09		100.1
100.2	2P	2	WD	--	7' - 0"	6' - 0"	0' - 1 3/4"	F4	WD	--		07		100.2
100A	2P	2	WD	--	7' - 0"	6' - 0"	0' - 1 3/4"	F4	WD	--		05		100A
101	2P	1	WD	--	7' - 0"	3' - 0"	0' - 1 3/4"	F4	WD	--		01		101
102	2P	1	WD	--	7' - 0"	3' - 0"	0' - 1 3/4"	F4	WD	--		01		102
103.1	2P	1	HM	--	7' - 0"	2' - 8"	0' - 1 3/4"	F2	HM	IG-1		06		103.1
103.2	2P	2	WD	--	7' - 0"	6' - 0"	0' - 1 3/4"	F1	HM	--		08		103.2
103.3	2P	2	HM	--	7' - 0"	6' - 0"	0' - 1 3/4"	F1	HM	--		08		103.3
103.4	2P	1	HM	--	7' - 0"	2' - 8"	0' - 1 3/4"	F2	HM	IG-1		06		103.4
104	2P	1	HM	--	6' - 10"	2' - 8"	0' - 1 3/4"	F1	HM	--		06		104
105	2P	1	HM	--	6' - 10"	2' - 8"	0' - 1 3/4"	F1	HM	--		06		105
205	2P	1	HM	--	7' - 0"	3' - 0"	0' - 1 3/4"	F1	HM	--		06		205

GENERAL NOTES

A. This Door Schedule(s) is furnished for whatever assistance it may afford the Contractor. Do not consider it as entirely inclusive. Carefully examine the Drawings (especially the Floor Plans) and the Specifications to determine the extent of door and frame quantities required (including interior borrowed lite or sidelite openings). Should any particular door, frame, or interior borrowed lite or sidelite shown on the Drawings be inadvertently omitted from this Schedule, supply same as required for similar openings.

B. The "QTY" column designates the number of leaves in the opening. The "Door Width" column designates the total width of all leaves. In multiple leaf conditions, the leaves shall equally divide the "Door Width" unless noted otherwise; however, the active leaf shall not be less than 3'-0" wide.

C. Door Type "X" denotes a frame with no door such as a borrowed lite, reference Frame Elevations.

D. An asterisk (*) in a dimension denotes a width that varies, reference plans, elevations, details and schedules.

E. Verify locksets with the Owner during submittals.

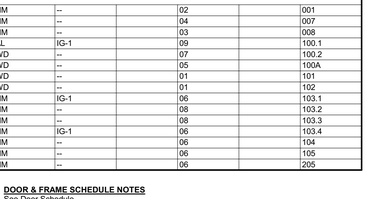
F. Verify all existing opening sizes prior to ordering doors.

ABBREVIATIONS

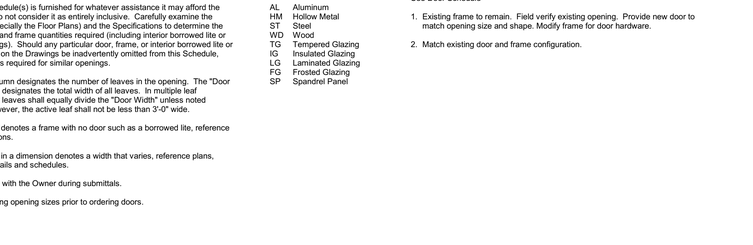
AL Aluminum
HM Hollow Metal
ST Steel
WD Wood
TG Tempered Glazing
IG Insulated Glazing
LG Laminated Glazing
FG Frosted Glazing
SP Spandrel Panel

DOOR & FRAME SCHEDULE NOTES
See Door Schedule

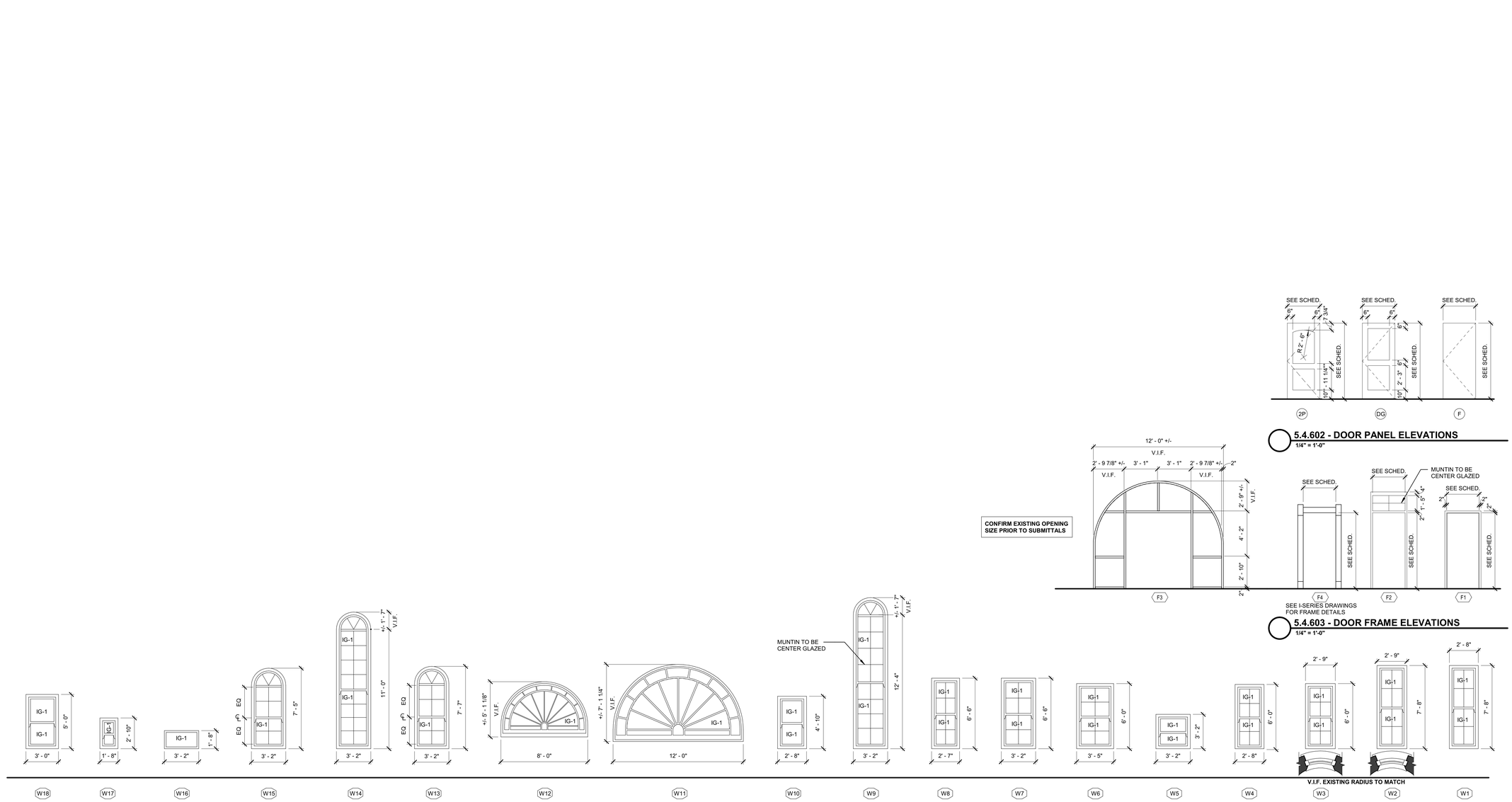
1. Existing frame to remain. Field verify existing opening. Provide new door to match opening size and shape. Modify frame for door hardware.
2. Match existing door and frame configuration.



5.4.602 - DOOR PANEL ELEVATIONS
1/4" = 1'-0"



5.4.603 - DOOR FRAME ELEVATIONS
1/4" = 1'-0"



CONFIRM EXISTING OPENING SIZE PRIOR TO SUBMITTALS, TYP.

5.4.603 - WINDOW FRAME ELEVATIONS
1/4" = 1'-0"

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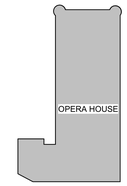

KEY PLAN

N

PORTER COUNTY BOARD OF COMMISSIONERS

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DOOR & FRAME SCHEDULE
A2
A-600.2

A-600_1 DOOR & FRAME SCHEDULE
2023-084.RMO_PORTER COUNTY BOARD OF COMMISSIONERS_MEMORIAL OPERA HOUSE_
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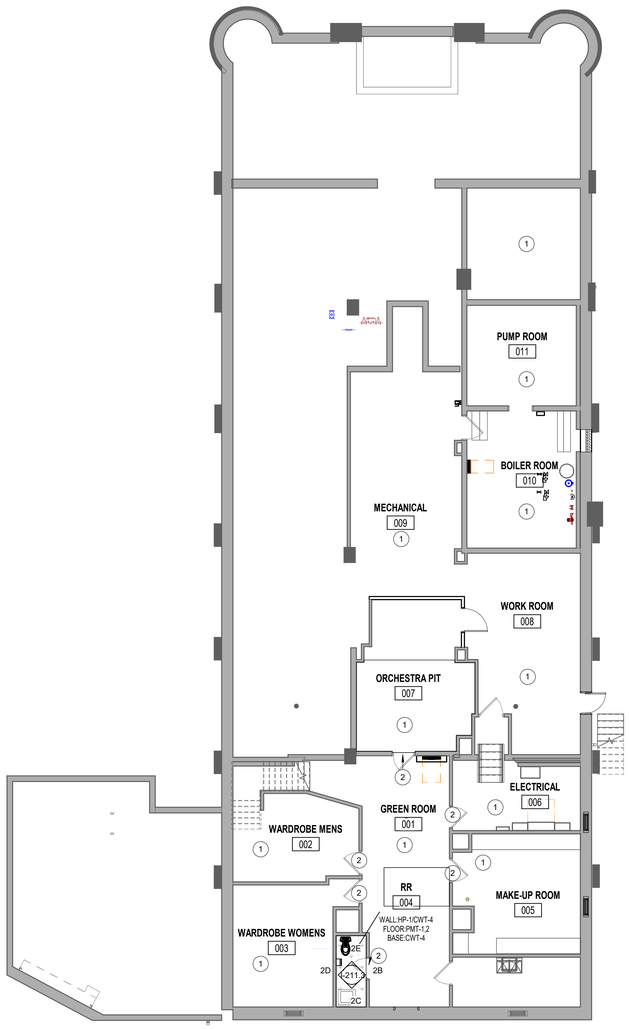
5.5.100 - INTERIOR FINISH LEGEND

SPEC.	MARK	DESCRIPTION	MANUFACTURER	COLLECTION/PATTERN	COLOR	COMMENTS
FLOORING						
06 40 23	WD-1	WOOD BASE	SEE SPECIFICATION	SEE SPECIFICATION	STAINED - TO MATCH EXISTING	STAIN TO MATCH EXISTING STAINED WOOD. TO BE MATCHED ONSITE.
09 30 00	PFT-1	PORCELAIN FLOOR TILE	DALTILE	PERPETUO/UNPOLISHED	PT22	LOCATION(S): GENERAL LOBBY FLOOR. SIZE:12 BY 24 INCHES; INSTALL: ASHLAR
09 30 00	PFT-2	PORCELAIN FLOOR TILE	DALTILE	QUARTETTO	WARM CIRCOLO QU13	LOCATION(S): ACCENT LOBBY FLOOR. SIZE: 8 BY 8 INCHES DECORATIVE FLOOR TILE. INSTALL: BORDER WIDTH SHALL BE 4 TILES PUT TOGETHER TO CREATE FULL PATTERN.
09 30 00	PFT-3	PORCELAIN FLOOR TILE	DALTILE	ARTICULO/EDITORIAL WHITE RECTANGLE	AR06	SIZE: 12 BY 24 INCHES; INSTALL: HERRINGBONE.
09 30 00	PMT-1	PORCELAIN MOSAIC TILE	DALTILE	KEYSTONE	DK16 ARCTIC WHITE/BLACK	SIZE:STANDARD SHEET SIZE. INSTALL: STANDARD PATTERN SP8408 ; LOCATION(S): SINGLE RESTROOM FLOORS
09 65 13	RST-1	RUBBER STAIR TREAD	NORA	NORAMENT, ROUND AND HAMMERED	PLATINUM GREY 0882	SIZE: LENGTHS AND DEPTHS TO FIT EACH STAIR TREAD IN ONE PIECE.
09 65 19	LVT-1	LUXURY VINYL TILE	INTERFACE	TEXTURED STONES	POLISHED CEMENT	SIZE: 19.685 BY 19.685 INCHES; INSTALL: ASHLAR. LOCATION(S): SECOND FLOOR LOUNGE, FIRST FLOOR BAR
09 68 13	CPT-1	CARPET TILE (FIELD)	JJ FLOORING	APERTURE II 7770	WARM TONED 2255	SIZE: 24 BY 24 INCHES; INSTALL: MONOLITHIC
09 68 13	WOC-1	WALK-OFF CARPET	INTERFACE	STEP REPEAT SR899	SMOKE 104938	SIZE: 24 BY 24 INCHES; INSTALL: ASHLAR.
FURNISHINGS						
	SS-1	SOLID SURFACE	WILSONART	--	ARCTIC DUNE 9253CM	LOCATION(S): RESTROOM VANITY COUNTERTOP
06 40 23	SH-1	GLASS SHELVING	GALLERY METALWORKS	CUSTOM	CUSTOM	CUSTOM DESIGN FOR GLASS AND BRASS BAR SHELVING FOR FIRST FL. BAR 102
12 24 13	RWS-1	ROLLER WINDOW SHADES	SEE SPECIFICATION	SEE SPECIFICATION	SEE SPECIFICATIONS	LOCATION(S): AUDITORIUM WINDOWS
12 32 00	PL-1	PLASTIC LAMINATE	WILSONART	SOFTGRAIN FINISH	BRUSHED WALNUT Y0643	LOCATION(S): 2ND FLOOR BAR AND CASEWORK; 1ST FLOOR BAR CASEWORK
12 36 61.19	QT-1	QUARTZ SOLID SURFACE	CORIAN	--	CALACATTA NATURA	LOCATION(S): BAR TOPS, TRANSACTION TOPS
WALLS						
08 83 00	MR-1	SMOKED MIRROR GLASS	DREAM WALLS	6MM - 1/4"	TBD	LOCATION(S): 1ST FLOOR BAR WALL
09 30 00	CWT-1	CERAMIC WALL TILE	ERGON	TR3ND/MAJOLICA 13F71	IVORY SHINY	SIZE: 4.75 BY 9.75 INCHES; 9MM, INSTALL: BRICK
09 30 00	CWT-2	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	CENTENNIAL WHITE RV08	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-3	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	JUBILEE BEIGE RV10	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-4	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	ARTISTIC REFLECTIONS- GLOSS	AE10 ONYX	SIZE: 2 BY 10 INCHES; INSTALL: BRICK
09 30 00	TR-1	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	JOLLY TRIM PIECE S1/210J	AE10 ONYX	SIZE: 1/2 BY 10 INCHES;
09 72 00	VWC-1	VINYL WALLCOVERING	CUSTOM	CUSTOM	CUSTOM IMAGE PER OWNER	SIZE: TO FIT DIMENSIONS OF WALL. REFER TO ELEVATION 1E/I-210.
09 91 23.99	CP-1	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1229 (SILVER)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED SILVER DETAILS
09 91 23.99	CP-2	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1237 (GOLD)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED GOLD DETAILS
09 91 23.99	P-1	PAINT (FIELD)	SHERWIN WILLIAMS	--	SW 9166 DRIFT OF MIST	LOCATION(S): GENERAL PAINT, AUDITORIUM WALLS (TO REPLACE AREAS CONTAINING EXISTING GREEN)
09 91 23.99	P-2	PAINT (ACCENT)	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): ALL STAINED WOODWORK IN AUDITORIUM
09 96 00.99	HP-1	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): SINGLE RESTROOMS
09 96 00.99	HP-2	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 0037 MORRIS ROOM GREY	LOCATION(S): MENS/WOMENS GANGED RESTROOMS
09 96 00.99	HP-3	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 7074 SOFTWARE	LOCATION(S): EXTERIOR HOLLOW METAL DOORS
09 96 00.99	HP-4	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 9166 DRIFT OF MIST	LOCATION(S): EXPOSED STEEL STRUCTURE IN CONNECTOR



2A **BASEMENT FLOOR INTERIOR PLAN**
1/8" = 1'-0"

INTERIOR GENERAL NOTES

A. Scope includes removal of existing fixed auditorium seats.

B. Provide new fixed auditorium seating per floor plan. Reference specification 12 61 00 for additional information.

INTERIOR FLOOR PLAN NOTES

#	NOTE
1	EXISTING TO REMAIN. N0 NEW FINISHES.
2	EXISTING DOOR TO RECEIVE NEW PAINT, COLOR TO BE HP-2.
5	EXISTING BRICK WALL SHALL BE EXISTING TO REMAIN. NO NEW FINISHES.
7	06 40 23 - STAIR RAILINGS TO BE STAINED TO MATCH DOOR/TRIM/MOLDING SPECIFIED COLOR.
8	09 91 23.99 - ALL EXISTING AUDITORIUM WINDOW SILLS ARE TO RECEIVE PAINT, P-2.
9	EXISTING WINDOW SHUTTERS AND FABRIC WINDOW SHADING TO BE PERMANENTLY REMOVED.
10	EXISTING FABRIC VALANCES (BLUE WITH GOLD TRIM) ARE TO BE REMOVED DURING CONSTRUCTION, STORED IN A DRY, CLEAN AREA AND REINSTALLED IN THEIR EXISTING LOCATION(S) UPON CONSTRUCTION COMPLETION.
11	12 24 13 - WINDOWS TO RECEIVE ROLLER WINDOW SHADES, RWS-1. SEE SPECIFICATION FOR DETAILS.
12	09 30 00 - WALLS TO RECEIVE CWT-1,2,3. REFERENCE SHEET I-211/2B FOR DETAILS.
13	09 91 23.99 - BOTH SIDES OF BALCONY WALL ARE TO RECEIVE PAINT, P-2. BRASS GUARD RAIL SHALL BE EXISTING TO REMAIN.
14	09 30 00 - REF. DETAIL IN101.3/5C FOR DETAILS OF INLAY.

INTERIOR FLOOR GENERAL NOTES

REFERENCE A-001 FOR GENERAL PLAN NOTES. All notes may not apply to this sheet.

A. Coordinate all expansion joints and flooring transitions as they relate to the floor pattern shown.

B. Where floor finish transitions between rooms, align transition centered with threshold of door unless noted otherwise.

INTERIOR FLOOR PATTERN LEGEND

Luxury Vinyl Tile
- LVT-1 (20" X 20") INSTALL: ASHLAR

Porcelain Tile
- PFT-1 (12" X 24") INSTALL: 1/3 RUNNING BOND
- PFT-2 (8" X 8") INSTALL: 4 TILE REPEAT
- PFT-3 (12" X 24") INSTALL: HERRINGBONE

Porcelain Mosaic Tile
- PMT-1 (2" X 2") INSTALL: AS PATTERN INDICATED

SP8408 94% 6%

FLOOR PATTERN PLAN NOTES

#	NOTE
F1	09 65 13 - STAIR TREADS AND LANDINGS TO RECEIVE RST-1 & RFT-1. ALL EXPOSED STEEL ASSEMBLIES TO BE PAINTED HP-X, UNLESS NOTED OTHERWISE.
F2	09 30 00 - STAIR RAMP AND TREADS TO RECEIVE PFT-1. STAIR TO RECEIVE SCHLUTER SYSTEMS TREP-C-GK. REFER TO SHEET I-301 FOR ADDITIONAL DETAILS.

SCHMIDT ASSOCIATES
415 Massachusetts Avenue
Indianapolis, IN 46204
www.schmidt-arch.com

Project No. 2023-084.RMO
Project Date 01.05.2024
Produced KER

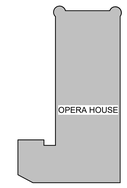
FOR REFERENCE ONLY

SARAH KATHLEEN HEMPSTEAD REGISTERED N0. AR10400134 STATE OF INDIANA ARCHITECT

Sarah K Hempstead

#	Revision	Date

104 Indiana Avenue,
Valparaiso, IN 46383



KEY PLAN N

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE

BASEMENT FLOOR INTERIOR PLAN

IN100.3

IN100.3_BASEMENT FLOOR INTERIOR PLAN
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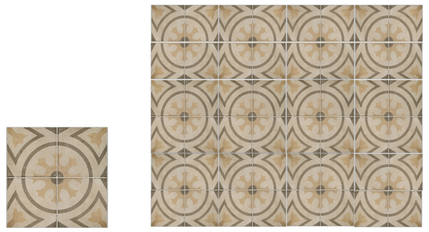
5.5.100 - INTERIOR FINISH LEGEND

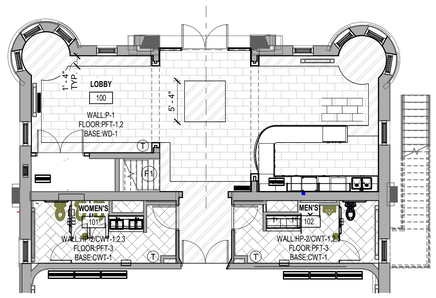
SPEC.	MARK	DESCRIPTION	MANUFACTURER	COLLECTION/PATTERN	COLOR	COMMENTS
FLOORING						
06 40 23	WD-1	WOOD BASE	SEE SPECIFICATION	SEE SPECIFICATION	STAINED - TO MATCH EXISTING	STAIN TO MATCH EXISTING STAINED WOOD. TO BE MATCHED ONSITE.
09 30 00	PFT-1	PORCELAIN FLOOR TILE	DALTILE	PERPETUO/UNPOLISHED	PT22	LOCATION(S): GENERAL LOBBY FLOOR. SIZE:12 BY 24 INCHES; INSTALL: ASHLAR
09 30 00	PFT-2	PORCELAIN FLOOR TILE	DALTILE	QUARTETTO	WARM CIRCOLO QU13	LOCATION(S): ACCENT LOBBY FLOOR. SIZE: 8 BY 8 INCHES DECORATIVE FLOOR TILE. INSTALL: BORDER WIDTH SHALL BE 4 TILES PUT TOGETHER TO CREATE FULL PATTERN.
09 30 00	PFT-3	PORCELAIN FLOOR TILE	DALTILE	ARTICULO/EDITORIAL WHITE RECTANGLE	AR06	SIZE: 12 BY 24 INCHES; INSTALL: HERRINGBONE.
09 30 00	PMT-1	PORCELAIN MOSAIC TILE	DALTILE	KEYSTONE	DK16 ARCTIC WHITE/BLACK	SIZE:STANDARD SHEET SIZE. INSTALL: STANDARD PATTERN SP8408 ; LOCATION(S): SINGLE RESTROOM FLOORS
09 65 13	RST-1	RUBBER STAIR TREAD	NORA	NORAMENT, ROUND AND HAMMERED	PLATINUM GREY 0882	SIZE: LENGTHS AND DEPTHS TO FIT EACH STAIR TREAD IN ONE PIECE.
09 65 19	LVT-1	LUXURY VINYL TILE	INTERFACE	TEXTURED STONES	POLISHED CEMENT	SIZE: 19.685 BY 19.685 INCHES; INSTALL: ASHLAR. LOCATION(S): SECOND FLOOR LOUNGE, FIRST FLOOR BAR
09 68 13	CPT-1	CARPET TILE (FIELD)	JJ FLOORING	APERTURE II 7770	WARM TONED 2255	SIZE: 24 BY 24 INCHES; INSTALL: MONOLITHIC
09 68 13	WOC-1	WALK-OFF CARPET	INTERFACE	STEP REPEAT SR899	SMOKE 104938	SIZE: 24 BY 24 INCHES; INSTALL: ASHLAR.
FURNISHINGS						
	SS-1	SOLID SURFACE	WILSONART	--	ARCTIC DUNE 9253CM	LOCATION(S): RESTROOM VANITY COUNTERTOP
06 40 23	SH-1	GLASS SHELVING	GALLERY METALWORKS	CUSTOM	CUSTOM	CUSTOM DESIGN FOR GLASS AND BRASS BAR SHELVING FOR FIRST FL. BAR 102
12 24 13	RWS-1	ROLLER WINDOW SHADES	SEE SPECIFICATION	SEE SPECIFICATION	SEE SPECIFICATIONS	LOCATION(S): AUDITORIUM WINDOWS
12 32 00	PL-1	PLASTIC LAMINATE	WILSONART	SOFTGRAIN FINISH	BRUSHED WALNUT Y0643	LOCATION(S): 2ND FLOOR BAR AND CASEWORK; 1ST FLOOR BAR CASEWORK
12 36 61.19	QT-1	QUARTZ SOLID SURFACE	CORIAN	--	CALACATTA NATURA	LOCATION(S): BAR TOPS, TRANSACTION TOPS
WALLS						
08 83 00	MR-1	SMOKED MIRROR GLASS	DREAM WALLS	6MM - 1/4"	TBD	LOCATION(S): 1ST FLOOR BAR WALL
09 30 00	CWT-1	CERAMIC WALL TILE	ERGON	TR3ND/MAJOLICA 13F71	IVORY SHINY	SIZE: 4.75 BY 9.75 INCHES; 9MM, INSTALL: BRICK
09 30 00	CWT-2	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	CENTENNIAL WHITE RV08	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-3	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	JUBILEE BEIGE RV10	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-4	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	ARTISTIC REFLECTIONS- GLOSS	AE10 ONYX	SIZE: 2 BY 10 INCHES; INSTALL: BRICK
09 30 00	TR-1	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	JOLLY TRIM PIECE S1/210J	AE10 ONYX	SIZE: 1/2 BY 10 INCHES;
09 72 00	VWC-1	VINYL WALLCOVERING	CUSTOM	CUSTOM	CUSTOM IMAGE PER OWNER	SIZE: TO FIT DIMENSIONS OF WALL. REFER TO ELEVATION 1E/I-210.
09 91 23.99	CP-1	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1229 (SILVER)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED SILVER DETAILS
09 91 23.99	CP-2	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1237 (GOLD)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED GOLD DETAILS
09 91 23.99	P-1	PAINT (FIELD)	SHERWIN WILLIAMS	--	SW 9166 DRIFT OF MIST	LOCATION(S): GENERAL PAINT, AUDITORIUM WALLS (TO REPLACE AREAS CONTAINING EXISTING GREEN)
09 91 23.99	P-2	PAINT (ACCENT)	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): ALL STAINED WOODWORK IN AUDITORIUM
09 96 00.99	HP-1	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): SINGLE RESTROOMS
09 96 00.99	HP-2	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 0037 MORRIS ROOM GREY	LOCATION(S): MENS/WOMENS GANGED RESTROOMS
09 96 00.99	HP-3	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 7074 SOFTWARE	LOCATION(S): EXTERIOR HOLLOW METAL DOORS
09 96 00.99	HP-4	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 9166 DRIFT OF MIST	LOCATION(S): EXPOSED STEEL STRUCTURE IN CONNECTOR



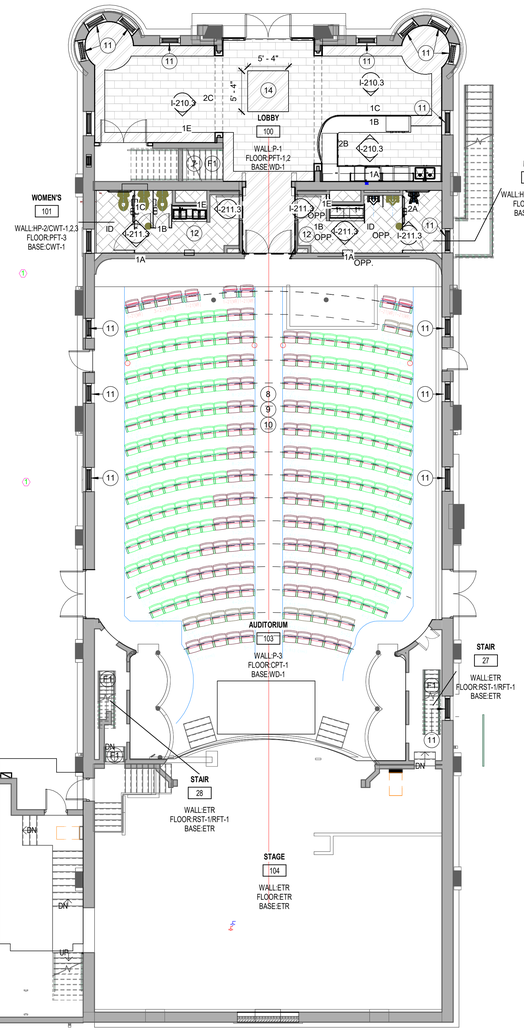
16 x 16 INCHES CONFIGURATION

64 x 64 INCHES CONFIGURATION

5C TYP. CONFIGURATIONS FOR FLOOR TILE PFT-2
1/8" = 1'-0"



5B FIRST FLOOR PATTERN PLAN - LOBBY
1/8" = 1'-0"



2A FIRST FLOOR INTERIOR PLAN
1/8" = 1'-0"

INTERIOR GENERAL NOTES

A. Scope includes removal of existing fixed auditorium seats.

B. Provide new fixed auditorium seating per floor plan. Reference specification 12 61 00 for additional information.

INTERIOR FLOOR PLAN NOTES

#	NOTE
1	EXISTING TO REMAIN. N0 NEW FINISHES.
2	EXISTING DOOR TO RECEIVE NEW PAINT. COLOR TO BE HP-2
5	EXISTING BRICK WALL SHALL BE EXISTING TO REMAIN. NO NEW FINISHES.
7	06 40 23 - STAIR RAILINGS TO BE STAINED TO MATCH DOOR/TRIM/MOLDING SPECIFIED COLOR.
8	09 91 23.99 - ALL EXISTING AUDITORIUM WINDOW SILLS ARE TO RECEIVE PAINT, P-2.
9	EXISTING WINDOW SHUTTERS AND FABRIC WINDOW SHADING TO BE PERMANENTLY REMOVED.
10	EXISTING FABRIC VALANCES (BLUE WITH GOLD TRIM) ARE TO BE REMOVED DURING CONSTRUCTION, STORED IN A DRY, CLEAN AREA AND REINSTALLED IN THEIR EXISTING LOCATION(S) UPON CONSTRUCTION COMPLETION.
11	12 24 13 - WINDOWS TO RECEIVE ROLLER WINDOW SHADES, RWS-1. SEE SPECIFICATION FOR DETAILS.
12	09 30 00 - WALLS TO RECEIVE CWT-1,2,3. REFERENCE SHEET I-211/2B FOR DETAILS.
13	09 91 23.99 - BOTH SIDES OF BALCONY WALL ARE TO RECEIVE PAINT, P-2. BRASS GUARD RAIL SHALL BE EXISTING TO REMAIN.
14	09 30 00 - REF. DETAIL IN101.3/5C FOR DETAILS OF INLAY.

INTERIOR FLOOR GENERAL NOTES

REFERENCE A-001 FOR GENERAL PLAN NOTES. All notes may not apply to this sheet.

A. Coordinate all expansion joints and flooring transitions as they relate to the floor pattern shown.

B. Where floor finish transitions between rooms, align transition centered with threshold of door unless noted otherwise.

INTERIOR FLOOR PATTERN LEGEND

Luxury Vinyl Tile

LVT-1 (20" X 20")
INSTALL: ASHLAR

Porcelain Tile

PFT-1 (12" X 24")
INSTALL: 1/3 RUNNING BOND

PFT-2 (8" X 8")
INSTALL: 4 TILE REPEAT

PFT-3 (12" X 24")
INSTALL: HERRINGBONE

Porcelain Mosaic Tile

PMT-1 (2" X 2")
INSTALL: AS PATTERN INDICATED

SP8408 — 94% — 6%

FLOOR PATTERN PLAN NOTES

#	NOTE
F1	09 65 13 - STAIR TREADS AND LANDINGS TO RECEIVE RST-1 & RFT-1. ALL EXPOSED STEEL ASSEMBLIES TO BE PAINTED HP-X, UNLESS NOTED OTHERWISE.
F2	09 30 00 - STAIR RAMP AND TREADS TO RECEIVE PFT-1. STAIR TO RECEIVE SCHLUTER SYSTEMS TREP-G-GK. REFER TO SHEET I-301 FOR ADDITIONAL DETAILS.

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Project No. 2023-084.RMO
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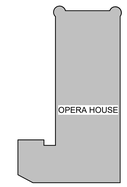
SARAH KATHLEEN HEMPSTEAD REGISTERED No. AR10400134 STATE OF MARYLAND ARCHITECT

#	Revision	Date

104 Indiana Avenue,
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE

FIRST FLOOR INTERIOR PLAN

IN101.3

IN101.3_FIRST FLOOR INTERIOR PLAN
2023-084_PORTER COUNTY BOARD OF COMMISSIONERS_MEMORIAL OPERA HOUSE_
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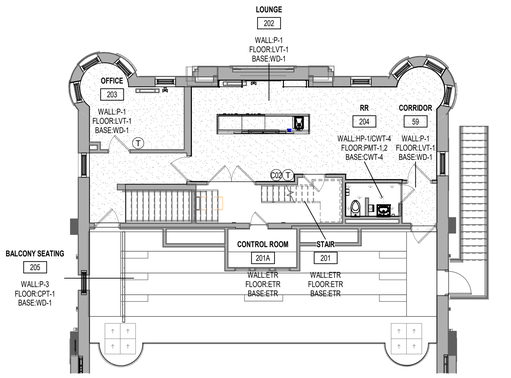
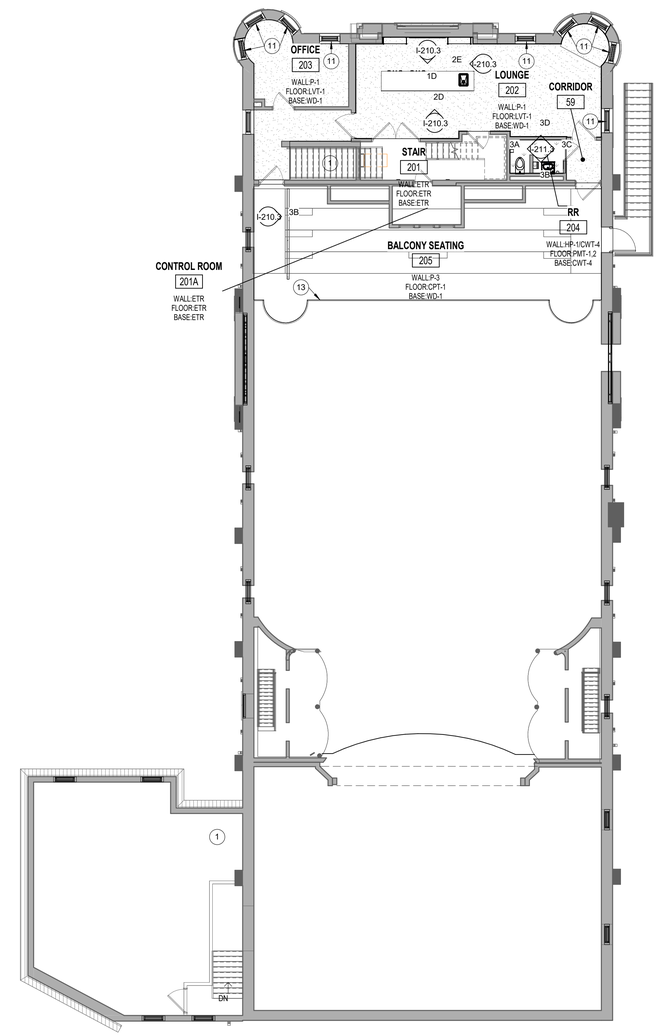
5.5.100 - INTERIOR FINISH LEGEND

SPEC.	MARK	DESCRIPTION	MANUFACTURER	COLLECTION/PATTERN	COLOR	COMMENTS
FLOORING						
06 40 23	WD-1	WOOD BASE	SEE SPECIFICATION	SEE SPECIFICATION	STAINED - TO MATCH EXISTING	STAIN TO MATCH EXISTING STAINED WOOD. TO BE MATCHED ONSITE.
09 30 00	PFT-1	PORCELAIN FLOOR TILE	DALTILE	PERPETUO/UNPOLISHED	PT22	LOCATION(S): GENERAL LOBBY FLOOR. SIZE:12 BY 24 INCHES; INSTALL: ASHLAR
09 30 00	PFT-2	PORCELAIN FLOOR TILE	DALTILE	QUARTETTO	WARM CIRCOLO QU13	LOCATION(S): ACCENT LOBBY FLOOR. SIZE: 8 BY 8 INCHES DECORATIVE FLOOR TILE. INSTALL: BORDER WIDTH SHALL BE 4 TILES PUT TOGETHER TO CREATE FULL PATTERN.
09 30 00	PFT-3	PORCELAIN FLOOR TILE	DALTILE	ARTICULO/EDITORIAL WHITE RECTANGLE	AR06	SIZE: 12 BY 24 INCHES; INSTALL: HERRINGBONE.
09 30 00	PMT-1	PORCELAIN MOSAIC TILE	DALTILE	KEYSTONE	DK16 ARCTIC WHITE/BLACK	SIZE:STANDARD SHEET SIZE. INSTALL: STANDARD PATTERN SP8408 ; LOCATION(S): SINGLE RESTROOM FLOORS
09 65 13	RST-1	RUBBER STAIR TREAD	NORA	NORAMENT, ROUND AND HAMMERED	PLATINUM GREY 0882	SIZE: LENGTHS AND DEPTHS TO FIT EACH STAIR TREAD IN ONE PIECE.
09 65 19	LVT-1	LUXURY VINYL TILE	INTERFACE	TEXTURED STONES	POLISHED CEMENT	SIZE: 19.685 BY 19.685 INCHES; INSTALL: ASHLAR: LOCATION(S): SECOND FLOOR LOUNGE, FIRST FLOOR BAR
09 68 13	CPT-1	CARPET TILE (FIELD)	JJ FLOORING	APERTURE II 7770	WARM TONED 2255	SIZE: 24 BY 24 INCHES; INSTALL: MONOLITHIC.
09 68 13	WOC-1	WALK-OFF CARPET	INTERFACE	STEP REPEAT SR899	SMOKE 104938	SIZE: 24 BY 24 INCHES; INSTALL: ASHLAR.
FURNISHINGS						
	SS-1	SOLID SURFACE	WILSONART	--	ARCTIC DUNE 9253CM	LOCATION(S): RESTROOM VANITY COUNTERTOP
06 40 23	SH-1	GLASS SHELVING	GALLERY METALWORKS	CUSTOM	CUSTOM	CUSTOM DESIGN FOR GLASS AND BRASS BAR SHELVING FOR FIRST FL. BAR 102
12 24 13	RWS-1	ROLLER WINDOW SHADES	SEE SPECIFICATION	SEE SPECIFICATION	SEE SPECIFICATIONS	LOCATION(S): AUDITORIUM WINDOWS
12 32 00	PL-1	PLASTIC LAMINATE	WILSONART	SOFTGRAIN FINISH	BRUSHED WALNUT V0643	LOCATION(S): 2ND FLOOR BAR AND CASEWORK; 1ST FLOOR BAR CASEWORK
12 36 61.19	QT-1	QUARTZ SOLID SURFACE	CORIAN	--	CALACATTA NATURA	LOCATION(S): BAR TOPS, TRANSACTION TOPS
WALLS						
08 83 00	MR-1	SMOKED MIRROR GLASS	DREAM WALLS	6MM - 1/4"	TBD	LOCATION(S): 1ST FLOOR BAR WALL
09 30 00	CWT-1	CERAMIC WALL TILE	ERGON	TRSND/MAJOLICA 13F71	IVORY SHINY	SIZE: 4.75 BY 9.75 INCHES; 9MM. INSTALL: BRICK
09 30 00	CWT-2	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	CENTENNIAL WHITE RV08	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-3	CERAMIC WALL TILE	DALTILE	REVALIA REMIX/BEVEL BRICK JOINT	JUBILEE BEIGE RV10	SIZE: 2 BY 6 INCHES; INSTALL: BRICK
09 30 00	CWT-4	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	ARTISTIC REFLECTIONS- GLOSS	AE10 ONYX	SIZE: 2 BY 10 INCHES; INSTALL: BRICK
09 30 00	TR-1	CERAMIC WALL TILE	MARAZZI, DIV. OF DALTILE	JOLLY TRIM PIECE S1/210J	AE10 ONYX	SIZE: 1/2 BY 10 INCHES;
09 72 00	VWC-1	VINYL WALLCOVERING	CUSTOM	CUSTOM	CUSTOM IMAGE PER OWNER	SIZE: TO FIT DIMENSIONS OF WALL. REFER TO ELEVATION 1E/I-210.
09 91 23.99	CP-1	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1229 (SILVER)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED SILVER DETAILS
09 91 23.99	CP-2	PAINT (ACCENT)	MDC	LIQUAPEARL	LP1237 (GOLD)	LOCATION(S): AUDITORIUM, SHALL REPLACE EXISTING PAINTED GOLD DETAILS
09 91 23.99	P-1	PAINT (FIELD)	SHERWIN WILLIAMS	--	SW 9166 DRIFT OF MIST	LOCATION(S): GENERAL PAINT, AUDITORIUM WALLS (TO REPLACE AREAS CONTAINING EXISTING GREEN)
09 91 23.99	P-2	PAINT (ACCENT)	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): ALL STAINED WOODWORK IN AUDITORIUM
09 96 00.99	HP-1	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 7641 COLONNADE GRAY	LOCATION(S): SINGLE RESTROOMS
09 96 00.99	HP-2	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS	--	SW 0037 MORRIS ROOM GREY	LOCATION(S): MENS/WOMENS GANGED RESTROOMS
09 96 00.99	HP-3	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 7074 SOFTWARE	LOCATION(S): EXTERIOR HOLLOW METAL DOORS
09 96 00.99	HP-4	HIGH PERFORMANCE PAINT	SHERWIN WILLIAMS		SW 9166 DRIFT OF MIST	LOCATION(S): EXPOSED STEEL STRUCTURE IN CONNECTOR



5B **SECOND FLOOR PATTERN PLAN - LOUNGE**
1/8" = 1'-0"



2A **SECOND FLOOR INTERIOR PLAN**
1/8" = 1'-0"

INTERIOR GENERAL NOTES

A. Scope includes removal of existing fixed auditorium seats.

B. Provide new fixed auditorium seating per floor plan. Reference specification 12 61 00 for additional information.

INTERIOR FLOOR PLAN NOTES

#	NOTE
1	EXISTING TO REMAIN. N0 NEW FINISHES.
2	EXISTING DOOR TO RECEIVE NEW PAINT. COLOR TO BE HP-2.
5	EXISTING BRICK WALL SHALL BE EXISTING TO REMAIN. NO NEW FINISHES.
7	06 40 23 - STAIR RAILINGS TO BE STAINED TO MATCH DOOR/TRIM/MOLDING SPECIFIED COLOR.
8	09 91 23.99 - ALL EXISTING AUDITORIUM WINDOW SILLS ARE TO RECEIVE PAINT, P-2.
9	EXISTING WINDOW SHUTTERS AND FABRIC WINDOW SHADING TO BE PERMANENTLY REMOVED.
10	EXISTING FABRIC VALANCES (BLUE WITH GOLD TRIM) ARE TO BE REMOVED DURING CONSTRUCTION, STORED IN A DRY, CLEAN AREA AND REINSTALLED IN THEIR EXISTING LOCATION(S) UPON CONSTRUCTION COMPLETION.
11	12 24 13 - WINDOWS TO RECEIVE ROLLER WINDOW SHADES, RWS-1. SEE SPECIFICATION FOR DETAILS.
12	09 30 00 - WALLS TO RECEIVE CWT-1,2,3. REFERENCE SHEET I-211/2B FOR DETAILS.
13	09 91 23.99 - BOTH SIDES OF BALCONY WALL ARE TO RECEIVE PAINT, P-2. BRASS GUARD RAIL SHALL BE EXISTING TO REMAIN.
14	09 30 00 - REF. DETAIL IN101.3/5C FOR DETAILS OF INLAY.

INTERIOR FLOOR GENERAL NOTES

REFERENCE A-001 FOR GENERAL PLAN NOTES. All notes may not apply to this sheet.

A. Coordinate all expansion joints and flooring transitions as they relate to the floor pattern shown.

B. Where floor finish transitions between rooms, align transition centered with threshold of door unless noted otherwise.

INTERIOR FLOOR PATTERN LEGEND

Luxury Vinyl Tile

LVT-1 (20" X 20")
INSTALL: ASHLAR

Porcelain Tile

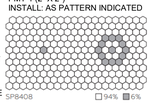
PFT-1 (12" X 24")
INSTALL: 1/3 RUNNING BOND

PFT-2 (8" X 8")
INSTALL: 4 TILE REPEAT

PFT-3 (12" X 24")
INSTALL: HERRINGBONE

Porcelain Mosaic Tile

PMT-1 (2" X 2")
INSTALL: AS PATTERN INDICATED



FLOOR PATTERN PLAN NOTES

#	NOTE
F1	09 65 13 - STAIR TREADS AND LANDINGS TO RECEIVE RST-1 & RFT-1. ALL EXPOSED STEEL ASSEMBLIES TO BE PAINTED HP-X, UNLESS NOTED OTHERWISE.
F2	09 30 00 - STAIR RAMP AND TREADS TO RECEIVE PFT-1. STAIR TO RECEIVE SCHLUTER SYSTEMS TREP-C-GK. REFER TO SHEET I-301 FOR ADDITIONAL DETAILS.

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Project No. 2023-084.RMO
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SARAH KATHLEEN HEMPSTEAD REGISTERED NO. AR10400134 STATE OF INDIANA ARCHITECT

Sarah K Hempstead

#	Revision	Date

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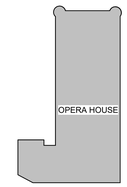

KEY PLAN

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE

SECOND FLOOR INTERIOR PLAN

IN102.3

IN102.3 - SECOND FLOOR INTERIOR PLAN
2023-084.RMO_PORTER COUNTY BOARD OF COMMISSIONERS_MEMORIAL OPERA HOUSE_
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GENERAL HVAC NOTES

A. **DARK LINES** INDICATE NEW WORK.

B. **LIGHT SOLID LINES** INDICATE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND/OR MECHANICAL ACCESSORIES TO REMAIN AS-IS. CONTRACTOR TO FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO BIDDING.

C. GROUND-MOUNTED EQUIPMENT MOUNTED ON 4" HOUSKEEPING PAD UNLESS NOTED OTHERWISE.

GENERAL PIPING NOTES

A. **DARK LINES** INDICATE NEW WORK.

B. **LIGHT SOLID LINES** INDICATE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND/OR MECHANICAL ACCESSORIES TO REMAIN AS-IS. CONTRACTOR TO FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO BIDDING.

C. PROVIDE **SHUTOFF VALVES** AT EVERY BRANCH CONNECTION TO A MAIN AND AT COIL CONNECTIONS PER COIL PIPING DETAILS ON M-500 SHEETS.

D. GROUND-MOUNTED EQUIPMENT SHALL BE MOUNTED ON 4" HOUSKEEPING PAD UNLESS NOTED OTHERWISE.

ENLARGED COMBINED PLAN NOTES

#	NOTE
1	EXISTING FLUE IN CHIMNEY. NEW BOILER COMBINATION FLUE SHALL BE INSTALLED WITHIN EXISTING FLUE WITHOUT REMOVING EXISTING FLUE. REMOVE CONCRETE AS NECESSARY TO ROUTE NEW BOILER FLUE PER MANUFACTURER'S REQUIREMENTS.
2	CONDENSING BOILER(S) INSTALLED PER DETAIL 5D/M-501.2. COORDINATE LOCATION WITH CLEARANCES AND SUMP PIT.
3	CHEMICAL SHOT FEEDER INSTALLED PER DETAIL 5C/M-501.2.
4	FLOOR MOUNTED IN-LINE PUMP INSTALLED PER DETAIL 3E/M-501.2.
5	BASE-MOUNTED PUMP INSTALLED PER DETAIL 3A/M-502.2.
6	HYDRONIC TANK(S) INSTALLED PER DETAIL 3E/M-501.2.
7	THREE-WAY PUMPED PREHEAT COIL, PIPED PER DETAILS 3A/M-502.2.
8	FIELD VERIFY DIMENSIONS OF EXISTING DOORWAYS PRIOR TO ORDERING ANY LARGE EQUIPMENT.
9	1-1/2" AHU CONDENSATE DRAIN PIPED TO FLOOR DRAIN PER DETAIL 5A/M-502.2.
10	GLYCOL FILL SYSTEM INSTALLED PER DETAIL 1E/M-501.2.
11	WATER SEDIMENT FILTER INSTALLED PER DETAIL 1E/M-502.2.
12	TIGHT CONDITIONS IN MECHANICAL ROOM SPACE SHALL BE COORDINATED BY ALL TRADES.
13	EXTEND 4" CONCRETE HOUSEKEEPING PAD AS NECESSARY FOR NEW AHU DIMENSIONS.
14	INSTALL FIN TUBE RADIATION AT +2'-0" AFF. THREE-WAY PIPING PER DETAIL 3D/M-502.2.
15	REFER TO PLUMBING DRAWINGS.
16	HHW PIPING UP TO EXISTING FIN TUBE RADIATION. CONTINUED ON MP1A1.2.
17	HDPE EXHAUST DUCT FROM TRANSITION TO EXTERIOR GOOSENECK. SEAL WATERTIGHT.
18	12" ROUND OR 12"X12" TRANSFER OPENING THROUGH CHILLER ROOM WALL, HIGH UP NEAR CEILING.
19	CONDENSATE DRAIN ROUTED TO FLOOR DRAIN. CLEANOUTS AT CHANGE IN DIRECTION.
20	FIELD VERIFY EXISTING HHW PIPING. DO NOT PLACE ELECTRICAL EQUIPMENT BENEATH PIPING.
21	AHU PER DETAIL 4A/M-503.2. COORDINATE AHU SECTIONS AS NECESSARY FOR TIGHT INSTALLATION CONDITIONS.
22	THREE-WAY AIR HANDLING UNIT COIL PIPING PER DETAIL 3C/M-502.2.

GENERAL DEMOLITION NOTES

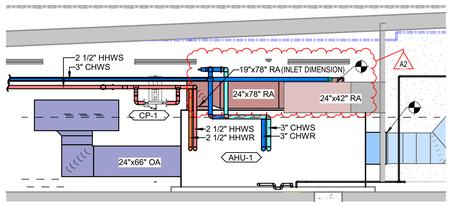
A. **DARK DASHED LINES** INDICATE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND/OR MECHANICAL ACCESSORIES DEMOLISHED COMPLETE. CONTRACTOR TO FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO BIDDING AND DEMOLITION. CONTRACTOR TO INCLUDE ALL COST TO REMOVE ITEMS MADE OBSOLETE DUE TO NEW HVAC WORK INCLUDING HANGERS, SUPPORTS, AND ELECTRICAL/CONTROLS WIRING.

B. CONTRACTOR GIVES OWNER **FIRST RIGHTS OF REFUSAL** ON ANY EXISTING EQUIPMENT THE OWNER MAY WANT TO KEEP. IF OWNER DECIDES SAID ITEM IS TO BE REMOVED, THEN CONTRACTOR IS TO REMOVE FROM PROJECT SITE AS REQUIRED.

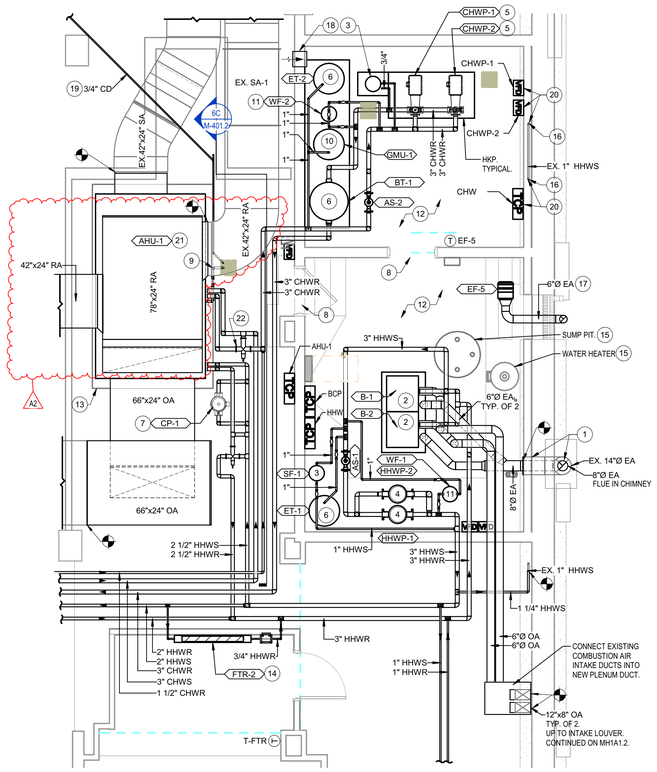
C. **LIGHT SOLID LINES** INDICATE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND/OR MECHANICAL ACCESSORIES TO REMAIN AS-IS. CONTRACTOR TO FIELD VERIFY ACTUAL EXISTING CONDITIONS PRIOR TO DEMOLITION AND BIDDING.

DEMOLITION ENLARGED PLAN

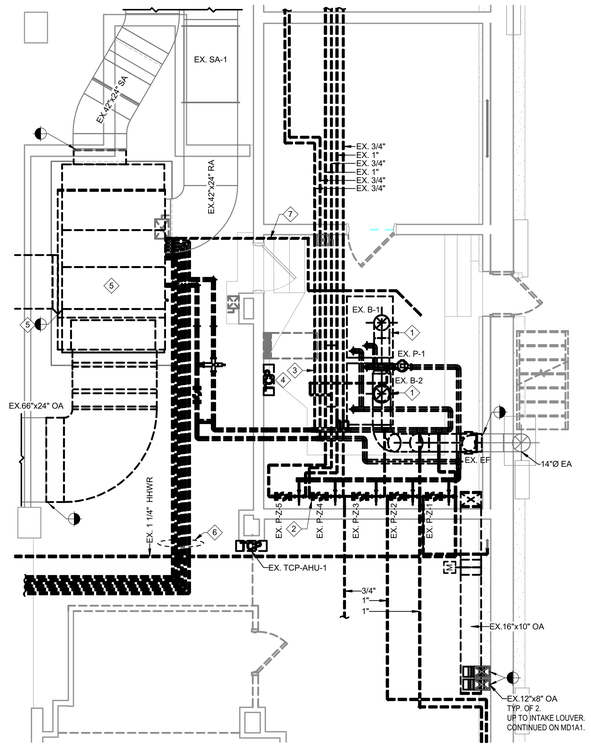
#	NOTE
1	REMOVE EXISTING BOILER, PIPING, AND WIRING COMPLETELY.
2	REMOVE EXISTING ZONE CIRCULATION PUMPS. TYPICAL ALL CIRCULATOR PUMPS IN THIS SPACE.
3	REMOVE EXISTING EXPANSION TANK, AIR SEPARATOR, AND ASSOCIATED PIPING. TEMPORARILY CAP MAKEUP WATER CONNECTION.
4	REMOVE EXISTING BOILER CONTROL PANEL AND WIRING COMPLETELY.
5	REMOVE EXISTING AIR HANDLING UNIT COMPLETELY. DISCONNECT EXISTING DUCTWORK IN PREPARATION FOR CONNECTING TO NEW AHU.
6	REMOVE EXISTING REFRIGERANT PIPING AND SUPPORTS COMPLETELY.
7	REMOVE EXISTING PVC CONDENSATE DRAIN COMPLETELY.



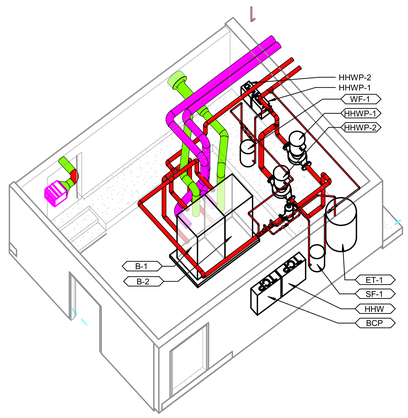
6C **AHU-1 SECTION**
1/4" = 1'-0"



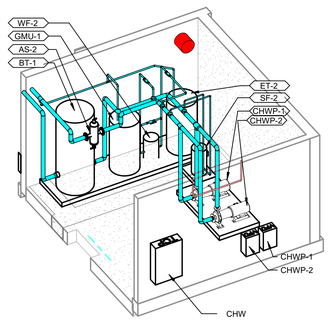
4A **BASEMENT ENLARGED MECHANICAL PLAN**
1/4" = 1'-0"



2A **BASEMENT MECHANICAL DEMOLITION PLAN**
1/4" = 1'-0"



6A **HEATING HOT WATER PLANT ISOMETRIC**
NOT TO SCALE



5A **CHILLED WATER PLANT ISOMETRIC**
NOT TO SCALE

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#	Revision	Date
A2	ADDENDUM #2	12.29.2023

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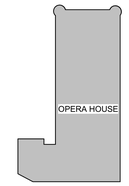

KEY PLAN

N

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE

ENLARGED MECHANICAL ROOM PLAN

M-401.2

M-401.2_ENLARGED MECHANICAL ROOM PLAN
2023-084.RMO_PORTER COUNTY BOARD OF COMMISSIONERS_MEMORIAL OPERA HOUSE_
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ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
AF	AMPERES FRAME (BREAKER RATING)
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AT	AMPERES TRIP (BREAKER SETTING)
ATS	AUTOMATIC TRANSFER SETTING
AUX	AUXILIARY
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DISC	DISCONNECT
DL	DOUBLE LUGS
DP	POWER DISTRIBUTION PANEL
DWG	DRAWING
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
ELEC	ELECTRIC/ELECTRICAL
EM/EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EO	ELECTRICALLY OPERATED
F	FUSE
FA	FIRE ALARM
FB	FLOOR BOX
FDR	FEEDER
FL	FLOOR
FLEX	FLEXIBLE
FTL	FEED THRU LUGS
G	GROUND
GRND	GROUND
HP	HORSEPOWER
HOA	HAND-OFF-AUTOMATIC
JB	JUNCTION BOX
KV	KILOVOLTS
KVA	KILOVOLTS-AMPERES
KVAR	KILOVOLTS-AMPERES-REACTIVE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LA	LIGHTNING ARRESTOR
LP	LIGHTING PANELBOARD
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO.	NUMBER
N.T.S.	NOT TO SCALE
OC	ON CENTER
OL'S	OVERLOADS
P	POLE
PB	PUSH BUTTON
PH/Ø	PHASE
PT	POTENTIAL TRANSFORMER
RCLP	REMOTE CONTROL LIGHTING PANEL
RECEPT.	RECEPTACLE
RF	RETURN FAN
RP	RECEPTACLE PANELBOARD
RSC	RIGID STEEL CONDUIT
SCHED	SCHEDULE
SF	SUPPLY FAN
ST	SHUNT TRIP
STB	SHUNT TRIP BREAKER
SW	SWITCH
SWBD	SWITCHBOARD
TB	TERMINAL BLOCK
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
W	WIRE

ELECTRICAL LEGEND & SYMBOLS

LIGHTING

SUBSCRIPTS FOR LIGHTING FIXTURES INDICATE THE FOLLOWING, U.O.N.
NL - NIGHT LIGHT, PANEL SWITCHED, U.O.N.

	LIGHTING FIXTURE - TYPE AS INDICATED
	WALL MOUNTED FIXTURE - TYPE AS INDICATED
	LIGHTING FIXTURE - TYPE AS INDICATED
	POLE MOUNTED LIGHTING FIXTURE - TYPE AS INDICATED
	TRACK LIGHTING FIXTURE
	EMERGENCY BATTERY WALL PACK LIGHTING FIXTURE - TYPE AS INDICATED
	SHADING INDICATES EMERGENCY FIXTURE CONNECTED TO BATTERY INVERTER OR GENERATOR. CONNECT TO UNSWITCHED SOURCE IN ADDITION TO SWITCHING INDICATED
EXIT	EXIT LIGHT - WALL/CEILING MOUNTED - DIRECTIONAL ARROWS AS INDICATED. SHADING INDICATES ILLUMINATED FACE. CONNECT TO UNSWITCHED BRANCH CIRCUIT INDICATED

POWER DISTRIBUTION

(2C)25	POWER DISTRIBUTION PANELBOARD - 480Y/277V, 3Ø, 4W & GRD, U.O.N.
	POWER DISTRIBUTION PANELBOARD - 208Y/120V, 3Ø, 4W & GRD, U.O.N.
	BRANCH CIRCUIT PANELBOARD 208Y/120V OR 480Y/277V, 3Ø, 4W & GRD, U.O.N. (FLUSH/SURFACE)
	TERMINAL CABINET, TYPE AS NOTED ON DRAWINGS (FLUSH/SURFACE)
	TRANSFORMER - TYPE AND RATING AS INDICATED, NL INDICATES NON-LINEAR TYPE
MCB	SWITCHBOARD W/MAIN CIRCUIT BREAKER SECTION
ATS	AUTOMATIC TRANSFER SWITCH
	WORKING CLEARANCE ABOUT ELECTRICAL EQUIPMENT
UG	UNDERGROUND CONDUIT/DUCTBANK
FB	FEEDER BUSWAY
PB	PLUG-IN BUSWAY
G	GROUND CABLE, SIZE AS INDICATED
GB	GROUND BUS
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
M EMH	ELECTRIC MANHOLE
	HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED
	GROUND WIRE
	PHASE WIRE
	NEUTRAL WIRE
	GROUND ROD
M	MOTOR - "M" INDICATES HORSEPOWER
	HEAVY-DUTY DISCONNECT SWITCH, NON-FUSED, NUMBER OF POLES AS REQUIRED FOR APPLICATION, PROVIDE SWITCH AMPACITY AS INDICATED (DS-#)
	HEAVY-DUTY DISCONNECT SWITCH, FUSED, NUMBER OF POLES AS REQUIRED FOR APPLICATION, PROVIDE SWITCH AMPACITY AS INDICATED (DS-#)
	COMBINATION MOTOR STARTER (MS-#)
	VARIABLE FREQUENCY DRIVE (MS-#)
$_{MS}	MOTOR RATED SWITCH (120V, SINGLE PHASE, HORSEPOWER RATED TOGGLE SWITCH)
C P	CAPACITOR - WHERE "P" INDICATES KVAR SIZE.
	EMERGENCY SHUTOFF PUSHBUTTON
	PUSH BUTTON CONTROL STATION

PANELBOARD NAMING

BRANCH PANELBOARDS

1 2 A 1
- SEQUENCIAL PANEL NUMBER
- FLOOR PLAN UNIT: A - UNIT A, B - UNIT B
- VOLTAGE: 2 - 208Y/120V, 4 - 480Y/277V
- FLOOR NUMBER: B - BASEMENT, 1 - 1ST FLOOR, 2 - 2ND FLOOR

DISTRIBUTION PANELBOARDS

1 2 DP A 1
- SEQUENCIAL PANEL NUMBER
- FLOOR PLAN UNIT: A - UNIT A, B - UNIT B, "DISTRIBUTION PANEL"
- VOLTAGE: 2 - 208Y/120V, 4 - 480Y/277V
- FLOOR NUMBER: B - BASEMENT, 1 - 1ST FLOOR, 2 - 2ND FLOOR

WIRING DEVICES

SUBSCRIPTS FOR RECEPTACLES, JUNCTION BOXES AND OTHER DEVICES INDICATE THE FOLLOWING, U.O.N

F - FLUSH IN FLOOR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
H - HORIZONTALLY MOUNTED
IG - ISOLATED GROUND

L - LOCKING TYPE
TP - TAMPER RESISTANT
USB - USB CHARGING STATION
WP - WEATHERPROOF IN-USE
X - MOUNTED IN EXISTING OUTLET BOX

	125V, 20A., (WALL)+2" ABOVE BACKSPLASH OR COUNTERTOP TO BOTTOM) SIMPLEX RECEPTACLE, 2 POLE, 3 WIRE (NEMA 5-20R)
GFCI GFCI	125V, 20A., (WALL)+2" ABOVE BACKSPLASH OR COUNTERTOP TO BOTTOM) DUPLEX RECEPTACLE, 2 POLE, 3 WIRE (NEMA 5-20R)
	125V, 20A., (WALL)+2" ABOVE BACKSPLASH OR COUNTERTOP TO BOTTOM) DOUBLE DUPLEX (QUADRAPLEX) RECEPTACLE, 2 POLE, 3 WIRE (NEMA 5-20R)
GFCI	125V, 20A., (CEILING, MOUNTED) DUPLEX RECEPTACLE, 2 POLE, 3 WIRE (NEMA 5-20R)
	125V, 20A., (WALL)+2" ABOVE BACKSPLASH OR COUNTERTOP TO BOTTOM) EMERGENCY DUPLEX RECEPTACLE, 2 POLE, 3 WIRE (NEMA 5-20R)
GFCI GFCI	125V, 20A., (WALL)+2" ABOVE BACKSPLASH OR COUNTERTOP TO BOTTOM) DOUBLE DUPLEX (QUADRAPLEX) RECEPTACLE, CONNECTED TO EMERGENCY POWER SYSTEM, 2 POLE, 3 WIRE (NEMA 5-20R)
	SPECIAL RECEPTACLE - NEMA CONFIGURATION AS INDICATED ON DRAWING
	JUNCTION BOX (RECESSED/SURFACE)
	DIRECT CONNECTION TO EQUIPMENT
FB	PULLBOX. PROVIDE PULLBOXES INDICATED AS A MINIMUM. PROVIDE ADDITIONAL PULLBOXES, SIZED PER NEC, AS REQUIRED
	FLUSH JUNCTION BOX WITH FURNITURE FEED ADAPTING CONNECTOR MOUNTED AT 6" A.F.F.
GFCI GFCI GFCI	SURFACE-MOUNTED RACEWAY WITH RECEPTACLES IN LOCATIONS INDICATED
	WIREWAY - WALL MOUNTED U.O.N.
FB	FLOOR BOX
$	SINGLE POLE SWITCH
$_3	THREE-WAY SWITCH
$_4	FOUR-WAY SWITCH
$_P	SINGLE POLE SWITCH W/ PILOT LIGHT
$_3P	THREE-WAY SWITCH WITH PILOT LIGHT
$_K	KEY OPERATED SINGLE POLE SWITCH
$_3K	KEY OPERATED THREE-WAY SWITCH

FIRE ALARM SYSTEM

SUBSCRIPTS FOR FIRE ALARM SYSTEM DEVICES INDICATE THE FOLLOWING, U.O.N:

S - SURFACE MOUNTED
WP - WEATHERPROOF
X - MOUNTED IN EXISTING OUTLET BOX

FACP FACP	FIRE ALARM CONTROL PANEL (FLUSH/SURFACE)
RACP RACP	REMOTE FIRE ALARM CONTROL PANEL (FLUSH/SURFACE)
FAAP FAAP	FIRE ALARM ANNUNCIATOR PANEL (FLUSH/SURFACE)
M	MANUAL PULLSTATION
S	SPEAKER
S	SPEAKER/STROBE
H	HORN
H	HORN/STROBE
V	VISUAL STROBE
B	BELL WITH VISUAL INDICATOR
S	SMOKE DETECTOR
H	HEAT DETECTOR
D	DUCT DETECTOR - SUPPLY DUCT
D	DUCT DETECTOR - RETURN DUCT
D	DOOR HOLD RELEASE DEVICE
AR	ADDRESSABLE RELAY
TS	SPRINKLER SYSTEM TAMPER SWITCH
FS	SPRINKLER SYSTEM FLOW SWITCH
PS	SPRINKLER SYSTEM PRESSURE SWITCH
P	POST INDICATOR VALVE

LIGHTING CONTROL DEVICES

SYMBOL	MOUNTING	DIMMING TYPE	OCCUPANCY SENSOR TYPE	SWITCH/ BUTTONS	CONTROL DESCRIPTION
D	WALL	0-10V	N/A	(1)	- (1) MANUAL SWITCH ON (TO SELECTED LIGHT LEVEL)/OFF. - (1) MANUAL LIGHT LEVEL WITH SLIDER.
D 0-10	WALL	0-10V	DUAL TECH.	(1)	- (1) MANUAL SWITCH ON (TO SELECTED LIGHT LEVEL)/OFF. - (1) MANUAL LIGHT LEVEL WITH SLIDER. - MANUAL ON / AUTO OFF.
D LV	WALL	LINE VOLT.	N/A	(1)	- (1) MANUAL SWITCH ON (TO SELECTED LIGHT LEVEL)/OFF. - (1) MANUAL LIGHT LEVEL WITH SLIDER.
D DMX	WALL	DMX	N/A	MULTI.	- DMX COLOR CHANGING CONTROLLER. - NICOLAUDIE STICK-CU4.
$ OS1	WALL	N/A	DUAL TECH.	(1)	- (1) MANUAL SWITCH ON/OFF. - MANUAL ON / AUTO OFF.
$ OS2	WALL	N/A	DUAL TECH.	(2)	- (2) MANUAL SWITCH ON/OFF. - MANUAL ON / AUTO OFF.
$ OS3	WALL	N/A	DUAL TECH.	(1)	- (1) MANUAL SWITCH ON/OFF. - AUTO ON / AUTO OFF.
XX	CEILING	N/A	DUAL TECH.	N/A	- AUTO-ON / AUTO-OFF - 1000 SQFT COVERAGE. - TWO RELAYS IN POWER PACK. - DISTRIBUTION COVERAGE AS REQUIRED FOR SPACE SIZE.
XX	CEILING	N/A	DUAL TECH.	N/A	- AUTO-ON / AUTO-OFF - 2000 SQFT COVERAGE. - TWO RELAYS IN POWER PACK. - DISTRIBUTION COVERAGE AS REQUIRED FOR SPACE SIZE.
XX	CEILING	N/A	DUAL TECH.	N/A	- AUTO-ON / AUTO-OFF - 2000 SQFT COVERAGE. - TWO RELAYS IN POWER PACK. - DISTRIBUTION COVERAGE AS REQUIRED FOR SPACE SIZE.
HB	CEILING	N/A	PIR	N/A	- MANUAL OR AUTO-ON / AUTO-OFF - HIGHBAY COVERAGE. - TWO RELAYS IN POWER PACK. - DISTRIBUTION COVERAGE AS REQUIRED FOR SPACE SIZE.
XX	CEILING	N/A	N/A	N/A	- REFER TO THEATRICAL DIMMING SYSTEM DRAWINGS FOR OCCUPANCY SENSOR INFORMATION

(NOTES APPLY TO ALL ELECTRICAL DRAWINGS)

THEATRICAL LIGHTING SYSTEM SYMBOLS

SYMBOL	DESCRIPTION
##	THEATRICAL LIGHTING EQUIPMENT TAG (REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS)

GENERAL SYMBOLS & ABBREVIATIONS NOTES

#	NOTES
A	CONNECT ALL LIGHTING FIXTURES WITHIN ROOM TO INDICATED SWITCH AND BRANCH CIRCUIT, U.O.N.
B	WHERE MULTIPLE SWITCHES, RECEPTACLES, AND OTHER OUTLETS (EXCEPT PHONES) ARE INDICATED, PROVIDE MULTI-GANGEBACK OUTLET BOXES WITH GANG BARRIERS AND A COMMON FACEPLATE FOR SIMILAR DEVICES.
C	WHERE EXIT SIGNS ARE INDICATED ABOVE DOOR, MOUNT AS FOLLOWS: IF THE DISTANCE BETWEEN THE TOP OF THE DOOR FRAME AND THE CEILING IS 24 INCHES OR LESS, CENTER THE EXIT SIGN BETWEEN TOP OF DOOR FRAME AND CEILING, OTHERWISE, MOUNT BOTTOM OF EXIT SIGN 6 INCHES ABOVE TOP OF DOOR FRAME. MOUNT OTHER WALL MOUNTED EXIT SIGNS LOCATED WITHIN THE SAME AREA AT THE SAME HEIGHT.
D	WHERE DIFFERENT RECESSED ELECTRICAL DEVICES WITH THE SAME MOUNTING HEIGHTS ARE INDICATED SIDE-BY-SIDE, MOUNT THE DEVICES SO THAT THERE IS FOUR INCHES BETWEEN ADJACENT VERTICAL EDGES.
E	WHERE ELECTRICAL DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE LOCATED IN THE SAME AREA ALIGN DEVICES VERTICALLY THROUGH THEIR CENTERLINES.
F	INSTALL SEPARATE INDEPENDENT NEUTRAL CONDUCTORS FOR ALL 120V AND 277V CIRCUITS. DO NOT SHARE NEUTRALS.
G	ALL EXIT FIXTURES AND FIXTURES INDICATED WITH "NL" SHALL BE UNSWITCHED.
H	INSTALL NO MORE THAN THREE PHASE CONDUCTORS (PLUS NEUTRALS AND GROUND) PER CONDUIT UNLESS T310-15 NEC IS FOLLOWED.
I	NUMBER OF WIRES INDICATED ON DRAWINGS, IN PANEL SCHEDULES AND CIRCUIT SIZING SCHEDULES APPLIES TO CURRENT CARRYING CONDUCTORS INCLUDING NEUTRALS. IN ADDITION TO THE NUMBER OF WIRES INDICATED, PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR SIZED AS SCHEDULED OR SIZED BY NEC 250.
J	UNLESS OTHERWISE NOTED, PROVIDE FEEDERS AND BRANCH CIRCUITS WHICH HAVE AN AMPACITY EQUAL TO OR GREATER THAN THE CIRCUIT OVERCURRENT PROTECTIVE DEVICE RATING SERVING THE CIRCUIT. REFER TO CIRCUIT SIZING SCHEDULE FOR SIZES OF FEEDERS AND BRANCH CIRCUITS.
K	COORDINATE LOCATION OF CEILING MOUNTED FIRE ALARM DEVICES WITH OTHER EQUIPMENT TO AVOID INTERFERENCE. LOCATE FIRE ALARM DEVICES AS NEAR TO LOCATION INDICATED WHILE AVOIDING INTERFERENCES.
L	MAKE FINAL CONNECTION BETWEEN DISCONNECT AND EQUIPMENT BEING SERVED BY FEEDER OR BRANCH CURRENT.
M	DIVISION 26 CONTRACTOR SHALL REFER TO LIFE SAFETY PLAN FOR FIRE-RATING REQUIREMENTS. DIVISION 26 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FIRE-RATED DEVICES/SEALS AS SHOWN ON ELECTRICAL DRAWINGS AND AS REQUIRED BASED ON LIFE SAFETY PLAN INFORMATION.
N	PER NEC ARTICLE 110.26(A) AND 110.26(F) THE DEDICATED ELECTRICAL SPACE INCLUDES THE SPACE DEFINED BY EXTENDING THE FOOTPRINT OF THE ELECTRICAL EQUIPMENT (INCLUDING BUT NOT LIMITED TO SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, MOTOR CONTROLLERS) FROM THE FLOOR TO A HEIGHT OF 6'-0" ABOVE THE HEIGHT OF THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICH EVER IS LOWER. THE DEDICATED ELECTRICAL SPACE MUST BE CLEAR OF ANY PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION. PLUMBING, HEATING, VENTILATION, AND AIR-CONDITIONING PIPING, DUCTS, AND EQUIPMENT MUST BE INSTALLED OUTSIDE THE WIDTH AND DEPTH ZONE. CONTRACTOR SHALL MAKE SURE NO PIPING OR DUCT WORK IS INSTALLED ABOVE THE ELECTRICAL EQUIPMENT. COORDINATE THESE REQUIREMENTS WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
O	CONTRACT DOCUMENTS CONSISTS OF BOTH A PROJECT MANUAL AND DRAWINGS. BOTH ARE MEANT TO BE COMPLEMENTARY - ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.

FEEDER & BRANCH CIRCUIT SCHEDULE (COPPER)

FEEDER/BRANCH CIRCUIT LABEL	CONDUCTOR SIZE PER CONDUIT: PHASE & NEUTRAL	CONDUCTOR SIZE PER CONDUIT: EQUIP/SERV GROUND	CONDUIT SIZE & QUANTITY: 1P,1N,1G ~~3P,1G~~	2P,1N,1G ~~3P,1G~~	3P,1N,1G ~~4P,1N~~	3P,2N,1G	3P,3N,1G	3P,1N,2G
F20	12	12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F30	10	10	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F40	8	10	3/4"	3/4"	1"	1"	1"	1"
F50	6	10	1"	1"	1"	1-1/4"	1-1/4"	1"
F60	4	10	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
F70	4	8	1"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/4"
F80	3	8	1"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/4"
F90	2	8	1"	1-1/4"	1-1/2"	1-1/2"	2"	1-1/2"
F100	1	8	1-1/4"	1-1/2"	1-1/2"	2"	2"	2"
F110	1	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F125	1/0	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F150	1/0	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F175	2/0	6	1-1/2"	2"	2"	2-1/2"	2-1/2"	2"
F200	3/0	6	1-1/2"	2"	2"	2-1/2"	3"	2-1/2"
F225	4/0	4	2"	2"	2-1/2"	3"		2-1/2"
F250	250	4	2"	2-1/2"	3"	3"		3"
F300	350	4	2"	2-1/2"	3"	3-1/2"		3"
F350	500	3	2-1/2"	3"	3-1/2"	4"		3-1/2"
F400	3/0	3	(2) 1-1/2"	(2) 2"	(2) 2-1/2"	(2) 2-1/2"		(2) 2-1/2"
F450	4/0	2	(2) 2"	(2) 2"	(2) 2-1/2"	(2) 3"		(2) 2-1/2"
F500	250	2	(2) 2"	(2) 2-1/2"	(2) 3"	(2) 3"		(2) 3"
F600	350	1	(2) 2-1/2"	(2) 3"	(2) 3"	(2) 3-1/2"		(2) 3"
F700	500	1/0	(2) 2-1/2"	(2) 3"	(2) 3-1/2"	(2) 4"		(2) 3-1/2"
F800	350	2/0	(3) 2-1/2"	(3) 3"	(3) 3"	(3) 3-1/2"		(3) 3"
F900	350	2/0	(3) 2-1/2"	(3) 3"	(3) 3"	(3) 3-1/2"		
F1000	500	2/0	(3) 2-1/2"	(3) 3"	(3) 3-1/2"	(3) 4"		
F1200	350	3/0	(4) 2-1/2"	(4) 3"	(4) 3"	(4) 3-1/2"		
F1600	500	4/0	(5) 3"	(5) 3"	(5) 3-1/2"	(5) 4"		
F2000	500	250	(6) 3"	(6) 3"	(6) 3-1/2"	(6) 4"		
F2500	500	350	(7) 4"	(7) 3-1/2"	(7) 3-1/2"	(7) 4"		
F3000	500	500	(8) 4"		(8) 4"	(8) 4"		

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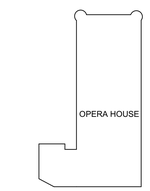
Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD REGISTERED No. AR10400134 STATE OF INDIANA ARCHITECT

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

SYMBOLS & ABBREVIATIONS

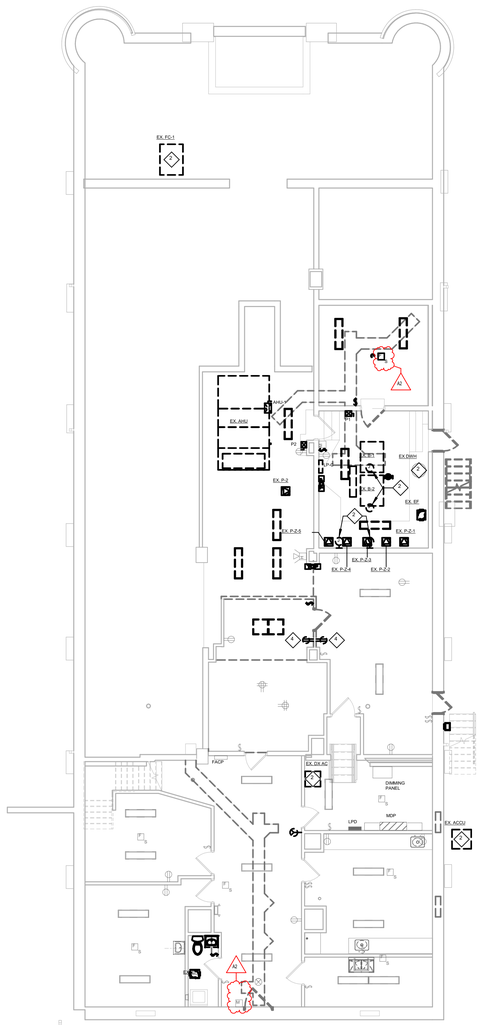
E-001.2

GENERAL DEMOLITION NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	THIS DRAWING REPRESENTS INFORMATION OBTAINED FROM ORIGINAL CONTRACT DRAWINGS AND FIELD SURVEY. VERIFY BY ON-SITE OBSERVATION THE EXTENT OF WORK PRIOR TO SUBMISSION OF BID.
C	CONTRACT DOCUMENTS CONSIST OF BOTH PROJECT MANUAL AND DRAWINGS AND ARE MEANT TO BE COMPLEMENTARY. ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
D	THOROUGHLY EXAMINE THE WORK OF OTHER CONTRACTORS AND PROPERLY INSTALL ALL WORK REQUIRED FOR THE PROJECT.
E	THE OWNER HOLDS RIGHT OF FIRST REFUSAL FOR ALL DEMOLISHED ELECTRICAL EQUIPMENT.
F	ALL ELECTRICAL ITEMS SHOWN WITH LIGHT LINEWORK ARE EXISTING TO REMAIN.
G	REMOVE ALL ELECTRICAL ITEMS SHOWN WITH BOLD/DASHED LINEWORK COMPLETE.
H	COORDINATE AND DISCONNECT ALL ARCHITECTURAL, MECHANICAL, AND PLUMBING EQUIPMENT AS NOTED FOR REMOVAL BY OTHERS. REMOVE ALL ASSOCIATED ELECTRICAL EQUIPMENT, RACEWAYS, CONDUCTORS, ETC. SERVING THE EQUIPMENT.
I	PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR THE REMOVAL OF EXISTING ELECTRICAL EQUIPMENT. REFER TO SPECIFICATIONS.
J	PROVIDE A BLANK COVERPLATE FOR ALL EXISTING WALL OPENINGS WHERE ELECTRICAL EQUIPMENT HAS BEEN REMOVED AND NOT REPLACED. IN AREAS RECEIVING NEW WALL TREATMENTS, PATCH THE EXISTING OPENING.
K	REFER TO A, M, AND P-SERIES DRAWINGS FOR AREAS WITH ABOVE CEILING WORK AND/OR CEILING REMOVAL. TEMPORARILY SUPPORT ALL ELECTRICAL DEVICES, FIXTURES, ETC. AS REQUIRED. RE-INSTALL ELECTRICAL ITEMS FOLLOWING THE COMPLETION OF WORK IN THE NEW OR EXISTING CEILINGS.

DEMOLITION PLAN NOTES

#	NOTES
1	REMOVE ALL LIGHT FIXTURES, LIGHTING CONTROLS , CONDUIT, AND WIRING BACK TO POWER PANEL COMPLETE IN THIS ROOM.
2	DISCONNECT AND REMOVE EXISTING CIRCUITS COMPLETE TO MECHANICAL EQUIPMENT BEING REMOVED FROM THIS SPACE.
3	REMOVE ALL WIRING DEVICES, WIRING, AND CONDUIT BACK TO POWER PANEL COMPLETE IN THIS ROOM.
4	DISCONNECT AND REMOVE EXISTING RECEPTACLES COMPLETE. EXISTING RECEPTACLE CIRCUIT TO REMAIN FOR EXTENSION TO NEW REPLACMENT RECEPTACLES.
5	REMOVE HOUSE LIGHT FIXTURE. PRESERVE CIRCUIT FOR REUSE IN NEW WORK.
6	CHANDELIER EXISTING TO REMAIN. RELAMP CHANDALIER WITH DIMMABLE LAMPS IN NEW WORK.
7	REMOVE EXIT SIGN AND WIRING COMPLETE. PROVIDE BROWN COVERPLATE.
8	DISCONNECT, REMOVE, AND STORE EXISTING FIRE ALARM ANNUNCIATOR PANEL FOR RELOCATION.
9	DISCONNECT, REMOVE, AND STORE EXISTING HOUSE LIGHTING CONTROLS OVERRIDE FOR RELOCATION.
10	AT CHILLER, DISCONNECT AND REMOVE DISCONNECT SWITCH, WIRING, AND CIRCUIT BREAKER AT MDP. EXISTING CONDUIT TO REMAIN FOR THE PULLING OF NEW CONDUCTORS FOR REPLACEMENT CHILLER.



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DEMOLITION PLAN NOTES

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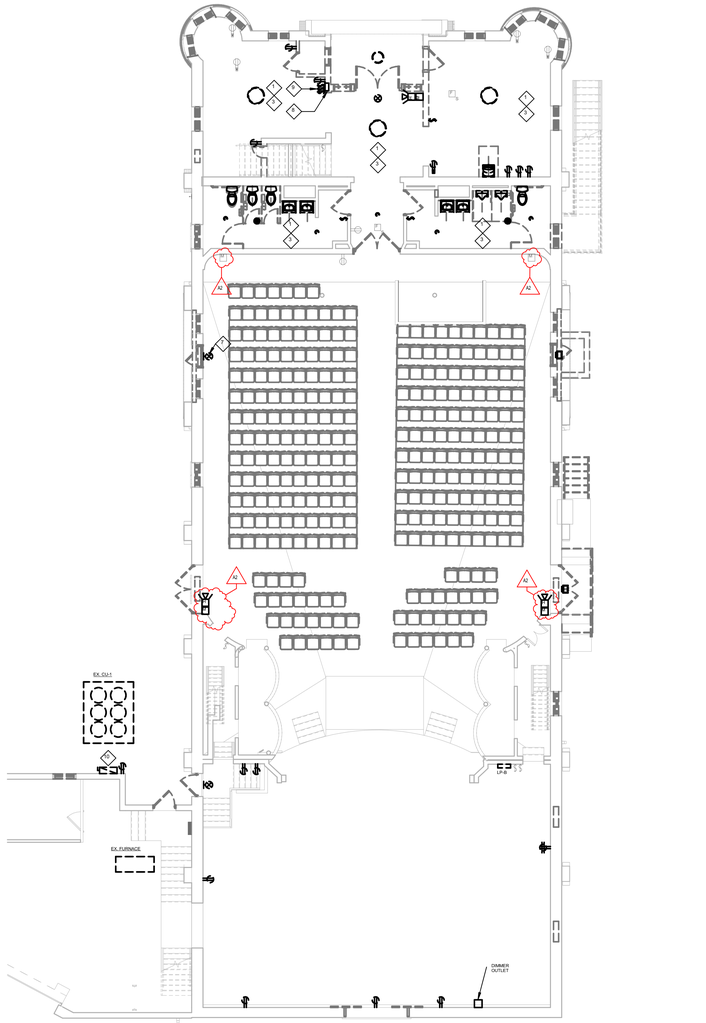

2A FIRST FLOOR DEMOLITION PLAN
1/8" = 1'-0"

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STATE OF
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ARCHITECT

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A2	Addendum #2	12.22.2023

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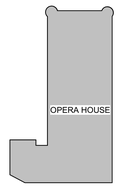

KEY PLAN

N

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL
OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA
HOUSE - MAIN
PACKAGE - MAIN
PACKAGE

FIRST FLOOR
DEMOLITION PLANS

ED101.2

GENERAL LIGHTING NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	AT STAGE AREA, PROVIDE BLACK LIGHTING CONTROL DEVICES AND FACEPLATES. PAINT CONDUIT, FITTINGS, AND BOXES BLACK.
C	EMERGENCY LIGHT FIXTURES NOTED WITH "MI-MOH" (MINI INVERTER - MEMORIAL OPERA HOUSE) ARE SERVED BY INVERTER AS PART OF THEATRICAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LIGHTING PLAN NOTES

#	NOTES
1	FEED POWER FOR AISLE LIGHTS IN HOUSE FLOOR FROM BASEMENT.
2	REUSE EXISTING LIGHT FIXTURE ROUGH IN TO SERVE NEW LIGHT FIXTURE.
3	SWITCH SERVES LIGHT FIXTURES IN SPACE ON ONE BUTTON INCLUDING LIGHT FIXTURE OF EXHAUST FAN / LIGHT COMBO UNIT AND EXHAUST FAN ON OTHER BUTTON.
4	CIRCUIT EMERGENCY BATTERY PACK TO EXISTING LIGHTING CIRCUIT SERVING THIS ROOM / AREA.
5	EXTEND HOUSE LIGHTING CONTROLS CABLING AND REINSTALL EXISTING HOUSE LIGHTING CONTROLS OVERRIDE RECESSED IN WALL AT NEW LOCATION.
6	CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT SERVING THIS ROOM / AREA.
7	DMX PLUG-IN STATION. REFER TO THEATRICAL LIGHTING MATRIX FOR ADDITIONAL INFORMATION.
8	ALTERNATE: DMX PLUG-IN STATION UNDER STAGE LIGHTING ALTERNATE BID ONLY. REFER TO THEATRICAL LIGHTING MATRIX FOR ADDITIONAL INFORMATION.
9	OCCUPANCY SENSOR SERVING ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10	LIGHTING CONTROL STATION SERVING ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11	BATTERY INVERTER AND EMERGENCY SENSOR. REFER TO THEATRICAL LIGHT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12	ALTERNATE: ARC LAMP DRIVER. REFER TO THEATRICAL LIGHT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13	LOCATE GLASS GLOBE ACCENT LIGHT FIXTURES AT +8'-0" A.F.F. TO BOTTOM OF FIXTURE GLOBE. CENTER GROUP OF THREE FIXTURES OVER BAR COUNTER. SPACE LIGHT FIXTURES 4'-0" ON CENTER.
14	COORDINATE RECESSED STAIR AND STAGE EDGE LIGHTS WITH A-SERIES DRAWINGS.
15	PROVIDE 3" CONDUIT TO CONTROL BOOTH ON FIRST FLOOR.
16	WIRELESS ACCESS POINT. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
17	PORTABLE TOUCH SCREEN FOR CONTROL OF ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
18	DMX DRIVER. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
19	ALTERNATE: DMX GRIDIRON JUNCTION BOX UNDER STAGE LIGHTING ALTERNATE BID ONLY. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
20	SIMPLE NETWORK BOX POE. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
21	COORDINATE STAGE EDGE LIGHTS WITH PIT LIFT DRAWINGS AND THEATRICAL LIGHTING SYSTEM DRAWINGS.
22	ALTERNATE: PROVIDE ARCLAMP TO SERVE THIS LIGHT FIXTURE UNDER ARCHITECTURAL LIGHTING ALTERNATE BID. REFER TO THEATRICAL LIGHTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
23	NET PLUG-IN STATION. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
24	STAGE EDGE AND AISLE LIGHTING COTROLLED BY UFR2. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
25	CIRCUIT STAGE LIGHT FIXTURES TO EXISTING CIRCUITS FROM EXISTING STRAND DIMMER RACK. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	GLASS GLOBE ACCENT LIGHT FIXTURES CONTROLLED BY UFD MODULE. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
27	PROVIDE LIGHT FIXTURE SURFACE MOUNTED TO FACE OF MULLION DIRECTLY ABOVE DOOR. COORDINATE WIRING THROUGH STOREFRONT SYSTEM.
28	PROVIDE EXTERIOR WALL PACK AT SAME LOCATION AS PREVIOUSLY REMOVED FIXTURE.
29	SUSPEND FIXTURES IN THIS SPACE +8'-0" A.F.F. TO BOTTOM OF FIXTURES.

2A **BASEMENT LIGHTING PLAN**
1/8" = 1'-0"

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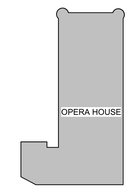
Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
REGISTERED
NO. AR10400134
STATE OF INDIANA
ARCHITECT

Sarah K Hempstead

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL
OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA
HOUSE - MAIN
PACKAGE - MAIN
PACKAGE

BASEMENT LIGHTING
PLAN

EL100.2

GENERAL LIGHTING NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
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LIGHTING PLAN NOTES

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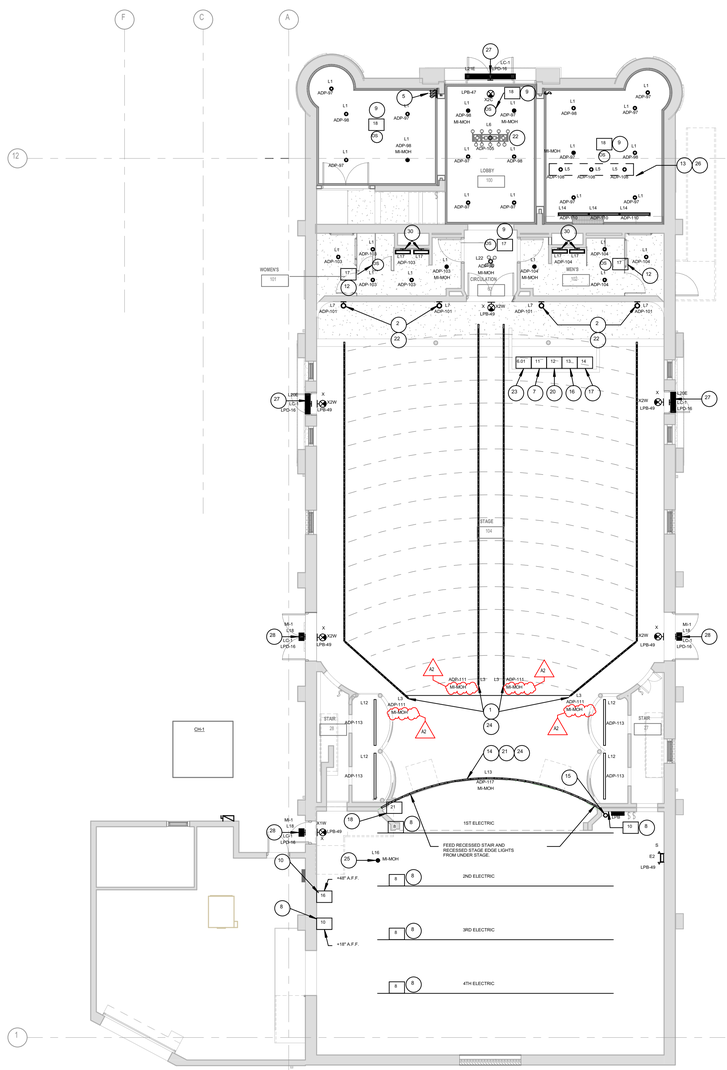

2A **FIRST FLOOR LIGHTING PLAN**
1/8" = 1'-0"

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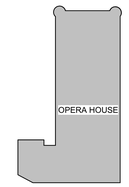

KEY PLAN

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FIRST FLOOR LIGHTING
PLAN

EL101.2

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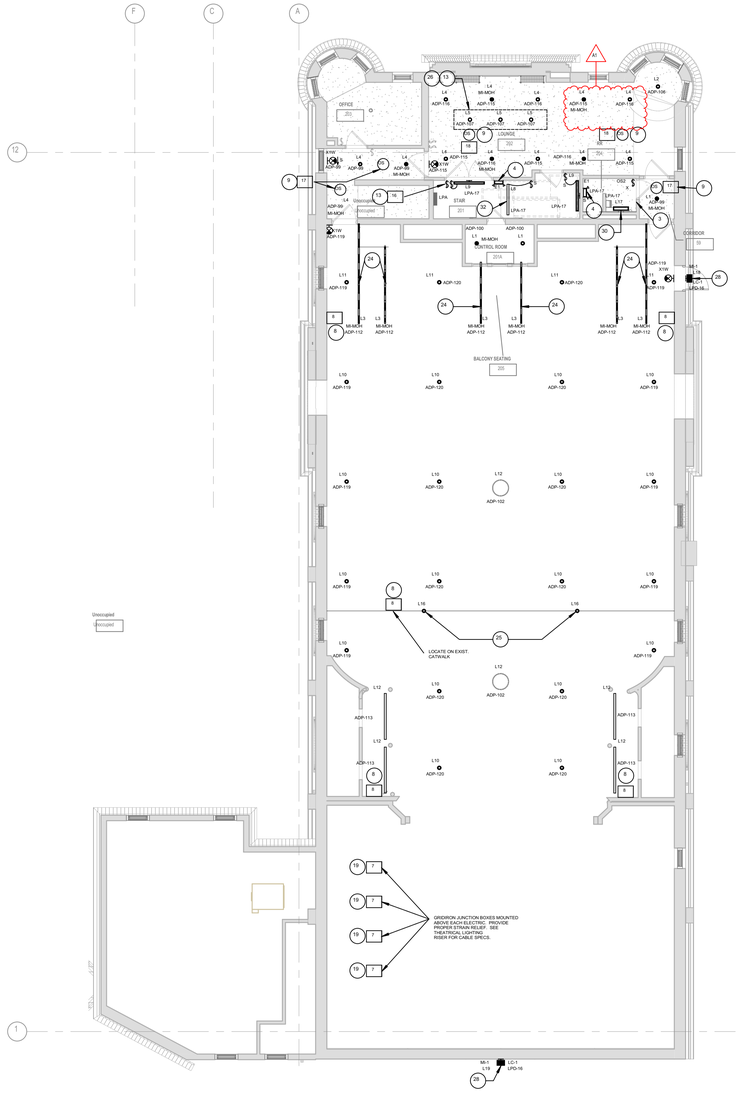
C	EMERGENCY LIGHT FIXTURES NOTED WITH "MI-MOH" (MINI INVERTER - MEMORIAL OPERA HOUSE) ARE SERVED BY INVERTER AS PART OF THEATRICAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LIGHTING PLAN NOTES

#	NOTES
1	FEED POWER FOR AISLE LIGHTS IN HOUSE FLOOR FROM BASEMENT.
2	REUSE EXISTING LIGHT FIXTURE ROUGH IN TO SERVE NEW LIGHT FIXTURE.
3	SWITCH SERVES LIGHT FIXTURES IN SPACE ON ONE BUTTON INCLUDING LIGHT FIXTURE OF EXHAUST FAN / LIGHT COMBO UNIT AND EXHAUST FAN ON OTHER BUTTON.
4	CIRCUIT EMERGENCY BATTERY PACK TO EXISTING LIGHTING CIRCUIT SERVING THIS ROOM / AREA.
5	EXTEND HOUSE LIGHTING CONTROLS CABLING AND REINSTALL EXISTING HOUSE LIGHTING CONTROLS OVERRIDE RECESSED IN WALL AT NEW LOCATION.
6	CIRCUIT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT SERVING THIS ROOM / AREA.
7	DMX PLUG-IN STATION. REFER TO THEATRICAL LIGHTING MATRIX FOR ADDITIONAL INFORMATION.
8	ALTERNATE: DMX PLUG-IN STATION UNDER STAGE LIGHTING ALTERNATE BID ONLY. REFER TO THEATRICAL LIGHTING MATRIX FOR ADDITIONAL INFORMATION.
9	OCCUPANCY SENSOR SERVING ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10	LIGHTING CONTROL STATION SERVING ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11	BATTERY INVERTER AND EMERGENCY SENSOR. REFER TO THEATRICAL LIGHT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12	ALTERNATE: ARC LAMP DRIVER. REFER TO THEATRICAL LIGHT DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13	LOCATE GLASS GLOBE ACCENT LIGHT FIXTURES AT +8'-0" A.F.F. TO BOTTOM OF FIXTURE GLOBE. CENTER GROUP OF THREE FIXTURES OVER BAR COUNTER. SPACE LIGHT FIXTURES 4'-0" ON CENTER.
14	COORDINATE RECESSED STAIR AND STAGE EDGE LIGHTS WITH A-SERIES DRAWINGS.
15	PROVIDE 3" CONDUIT TO CONTROL BOOTH ON FIRST FLOOR.
16	WIRELESS ACCESS POINT. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
17	PORTABLE TOUCH SCREEN FOR CONTROL OF ARCHITECTURAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
18	DMX DRIVER. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
19	ALTERNATE: DMX GRIDIRON JUNCTION BOX UNDER STAGE LIGHTING ALTERNATE BID ONLY. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
20	SIMPLE NETWORK BOX POE. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
21	COORDINATE STAGE EDGE LIGHTS WITH PIT LIFT DRAWINGS AND THEATRICAL LIGHTING SYSTEM DRAWINGS.
22	ALTERNATE: PROVIDE ARCLAMP TO SERVE THIS LIGHT FIXTURE UNDER ARCHITECTURAL LIGHTING ALTERNATE BID. REFER TO THEATRICAL LIGHTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
23	NET PLUG-IN STATION. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
24	STAGE EDGE AND AISLE LIGHTING COTROLLED BY UFR2. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
25	CIRCUIT STAGE LIGHT FIXTURES TO EXISTING CIRCUITS FROM EXISTING STRAND DIMMER RACK. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	GLASS GLOBE ACCENT LIGHT FIXTURES CONTROLLED BY UFD MODULE. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
27	PROVIDE LIGHT FIXTURE SURFACE MOUNTED TO FACE OF MULLION DIRECTLY ABOVE DOOR. COORDINATE WIRING THROUGH STOREFRONT SYSTEM.
28	PROVIDE EXTERIOR WALL PACK AT SAME LOCATION AS PREVIOUSLY REMOVED FIXTURE.
29	SUSPEND FIXTURES IN THIS SPACE +8'-0" A.F.F. TO BOTTOM OF FIXTURES.



2A **SECOND FLOOR LIGHTING PLAN**
1/8" = 1'-0"

SCHMIDT
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415 Massachusetts Avenue
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Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
REGISTERED
NO.
AR10400134
STATE OF
INDIANA
ARCHITECT

#	Revision	Date
A1	Addendum #1	12.15.2023
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383

OPERA HOUSE

KEY PLAN

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

SECOND FLOOR
LIGHTING PLAN

EL102.2

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12/22/2023 10:22:28 AM

GENERAL LIGHTING NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	AT STAGE AREA, PROVIDE BLACK LIGHTING CONTROL DEVICES AND FACEPLATES. PAINT CONDUIT, FITTINGS, AND BOXES BLACK.
C	EMERGENCY LIGHT FIXTURES NOTED WITH "MI-MOH" (MINI INVERTER - MEMORIAL OPERA HOUSE) ARE SERVED BY INVERTER AS PART OF THEATRICAL LIGHTING SYSTEM. REFER TO THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LIGHTING PLAN NOTES

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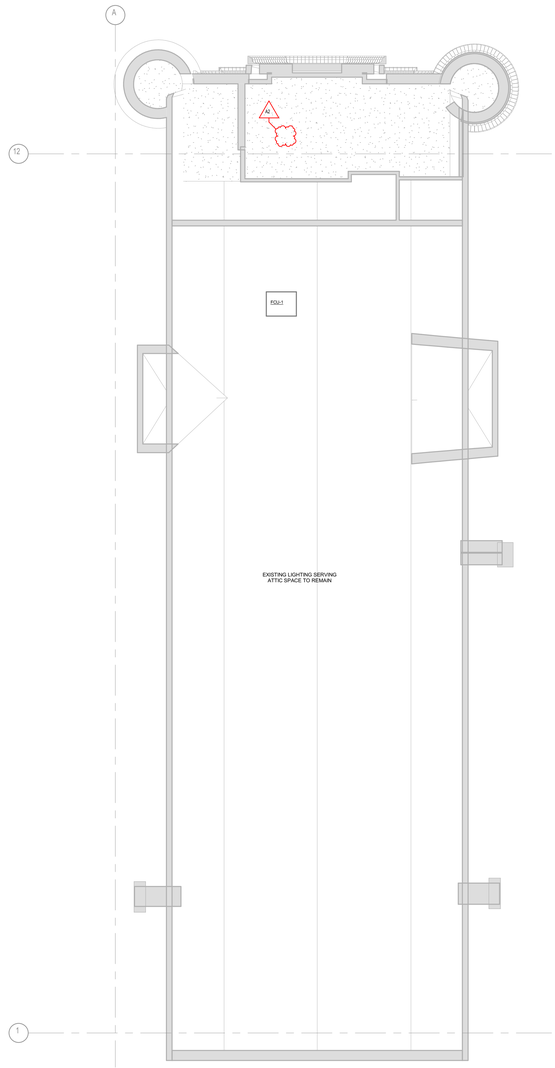
29	SUSPEND FIXTURES IN THIS SPACE +8'-0" A.F.F. TO BOTTOM OF FIXTURES.



2A **ATTIC LIGHTING PLAN**
1/8" = 1'-0"

SCHMIDT
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415 Massachusetts Avenue
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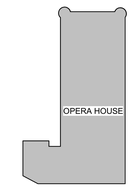
Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
REGISTERED
NO. AR10400134
STATE OF INDIANA
ARCHITECT

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL
OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA
HOUSE - MAIN
PACKAGE - MAIN
PACKAGE

ATTIC LIGHTING PLAN

EL103.2

GENERAL POWER NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	AT STAGE AREA, PROVIDE BLACK ELECTRICAL DEVICES AND FACEPLATES. PAINT CONDUIT, FITTINGS, AND BOXES BLACK.

POWER PLAN NOTES

#	NOTES
1	EXISTING FIRE-LITE MS-10UD FIRE ALARM CONTROL UNIT TO REMAIN. MODIFY AS REQUIRED TO ACCOMODATE CHANGES TO FIRE ALARM SYSTEM.
2	EXTEND EXISTING RECEPTACLE CIRCUIT IN THIS AREA TO NEW RECEPTACLES.
3	PROVIDE RECEPTACLE TO SERVE DISPLAY. COORDINATE FINAL RECEPTACLE LOCATION WITH T-SERIES DRAWINGS PRIOR TO ROUGH IN.
4	EXHAUST FAN IS PART OF LIGHT / FAN COMBINATION UNIT. CIRCUIT EXHAUST FAN TO CIRCUIT SERVING LIGHT FIXTURE AND CONTROL THROUGH SECOND BUTTON OF WALL OCCUPANCY SENSOR SWITCH SHOWN ON LIGHTING PLAN.
5	EXTEND FIRE ALARM CABLING TO NEW LOCATION AND REINSTALL EXISTING FIRE ALARM ANNUNCIATOR PANEL RECESSED IN WALL AT NEW LOCATION.
6	PROVIDE WIREMOLD V700. FEED RACEWAY VERTICAL FROM ROOM BELOW. PROVIDE FLOOR PENETRATION TRANSITION FITTING AT FLOOR.
7	FEED RECEPTACLES FROM CEILING BELOW.
8	FEED RECEPTACLE AND DATA FROM FLOOR IN CORNER. PROVIDE WIREMOLD V700 RACEWAY SYSTEM TO SERVE SEPARATE POWER AND DATA OUTLETS. PAINT RACEWAY TO MATCH WALL COLOR.
9	PROVIDE HORIZONTAL RECEPTACLE ON SIDE OF ISLAND 12" BELOW TOP OF COUNTERTOP TO C.L. OF RECEPTACLE.
10	PROVIDE AUDIO EQUIPMENT RECEPTACLES. COORDINATE FINAL RECEPTACLE ROUGH-IN LOCATION PIOR TO INSTALLATION.
11	PROVIDE RECEPTACLE TO SERVE PROJECTOR. CONFIRM FINAL RECEPTACLE ROUGH-IN LOCATION WITH OWNER PRIOR TO INSTALLATION.
12	FLOOR BOX. REFER TO EQUIPMENT SCHEDULES, THEATRICAL LIGHTING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
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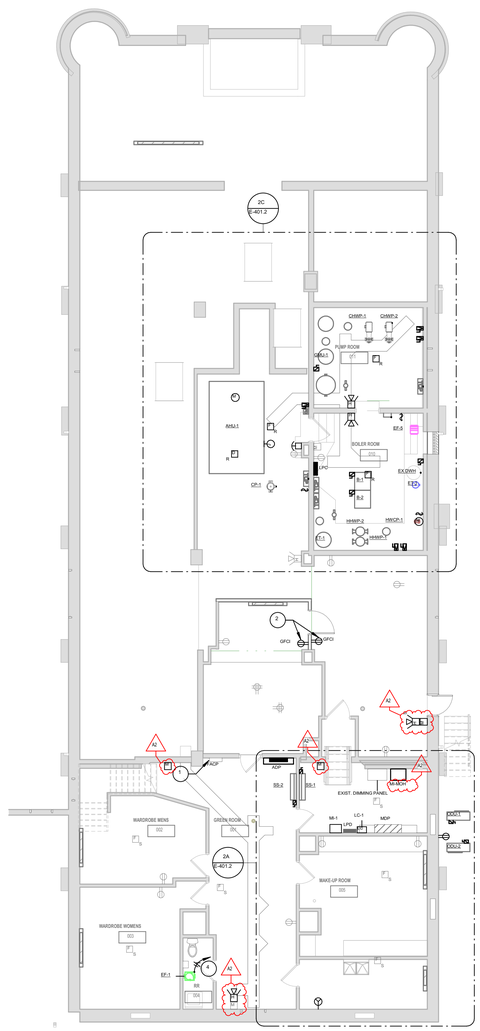
18	PROVIDE CIRCUIT AND CONNECT TO MANUFACTURER PROVIDED DISCONNECT SWITCH.



2A BASEMENT POWER PLAN
1/8" = 1'-0"

SCHMIDT
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415 Massachusetts Avenue
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Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
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NO.
AR10400134
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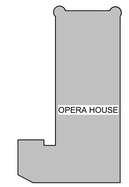
INDIANA
ARCHITECT

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

BASEMENT POWER PLAN

EP100.2

Plotted: 12/22/2023 8:58 AM
Plot Scale: 1:1
Plot Device: ARCH E1 36in.pltg
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GENERAL POWER NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	AT STAGE AREA, PROVIDE BLACK ELECTRICAL DEVICES AND FACEPLATES. PAINT CONDUIT, FITTINGS, AND BOXES BLACK.

POWER PLAN NOTES

#	NOTES
1	EXISTING FIRE-LITE MS-10UD FIRE ALARM CONTROL UNIT TO REMAIN. MODIFY AS REQUIRED TO ACCOMODATE CHANGES TO FIRE ALARM SYSTEM.
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4	EXHAUST FAN IS PART OF LIGHT / FAN COMBINATION UNIT. CIRCUIT EXHAUST FAN TO CIRCUIT SERVING LIGHT FIXTURE AND CONTROL THROUGH SECOND BUTTON OF WALL OCCUPANCY SENSOR SWITCH SHOWN ON LIGHTING PLAN.
5	EXTEND FIRE ALARM CABLING TO NEW LOCATION AND REINSTALL EXISTING FIRE ALARM ANNUNCIATOR PANEL RECESSED IN WALL AT NEW LOCATION.
6	PROVIDE WIREMOLD V700. FEED RACEWAY VERTICAL FROM ROOM BELOW. PROVIDE FLOOR PENETRATION TRANSITION FITTING AT FLOOR.
7	FEED RECEPTACLES FROM CEILING BELOW.
8	FEED RECEPTACLE AND DATA FROM FLOOR IN CORNER. PROVIDE WIREMOLD V700 RACEWAY SYSTEM TO SERVE SEPARATE POWER AND DATA OUTLETS. PAINT RACEWAY TO MATCH WALL COLOR.
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10	PROVIDE AUDIO EQUIPMENT RECEPTACLES. COORDINATE FINAL RECEPTACLE ROUGH-IN LOCATION PIOR TO INSTALLATION.
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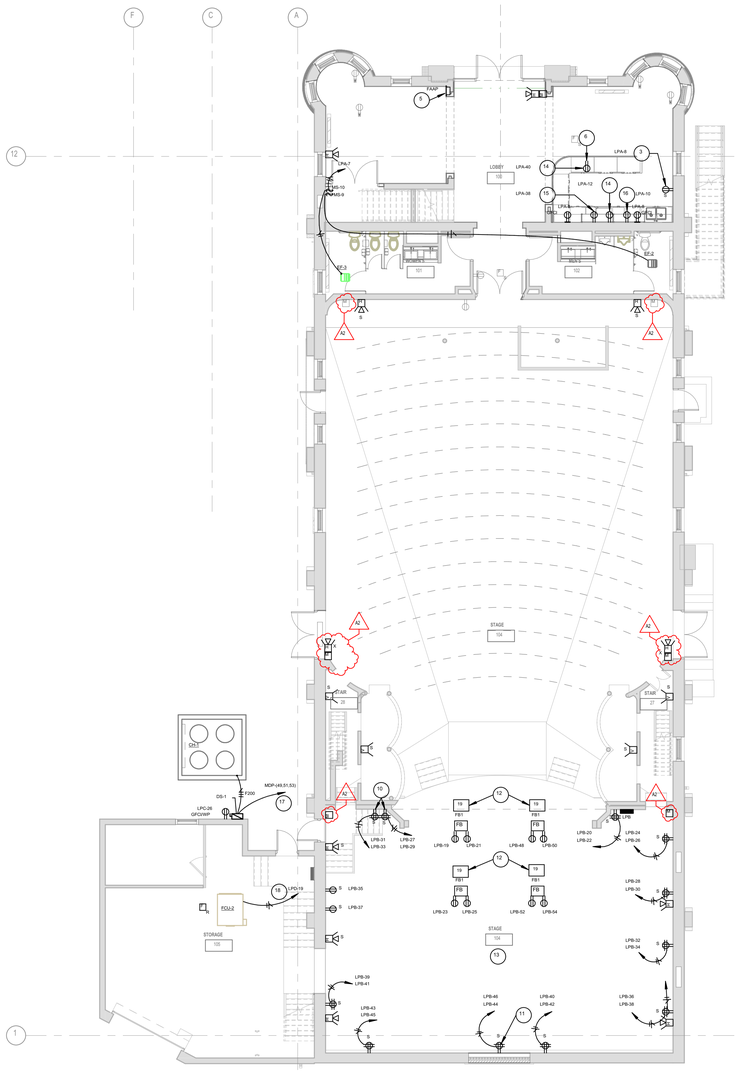

2A **FIRST FLOOR POWER PLAN**
1/8" = 1'-0"

SCHMIDT
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Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
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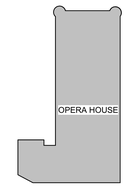
NO.
AR10400134
STATE OF
INDIANA
ARCHITECT

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL
OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA
HOUSE - MAIN
PACKAGE - MAIN
PACKAGE

FIRST FLOOR POWER
PLAN

EP101.2

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GENERAL POWER NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.
B	AT STAGE AREA, PROVIDE BLACK ELECTRICAL DEVICES AND FACEPLATES. PAINT CONDUIT, FITTINGS, AND BOXES BLACK.

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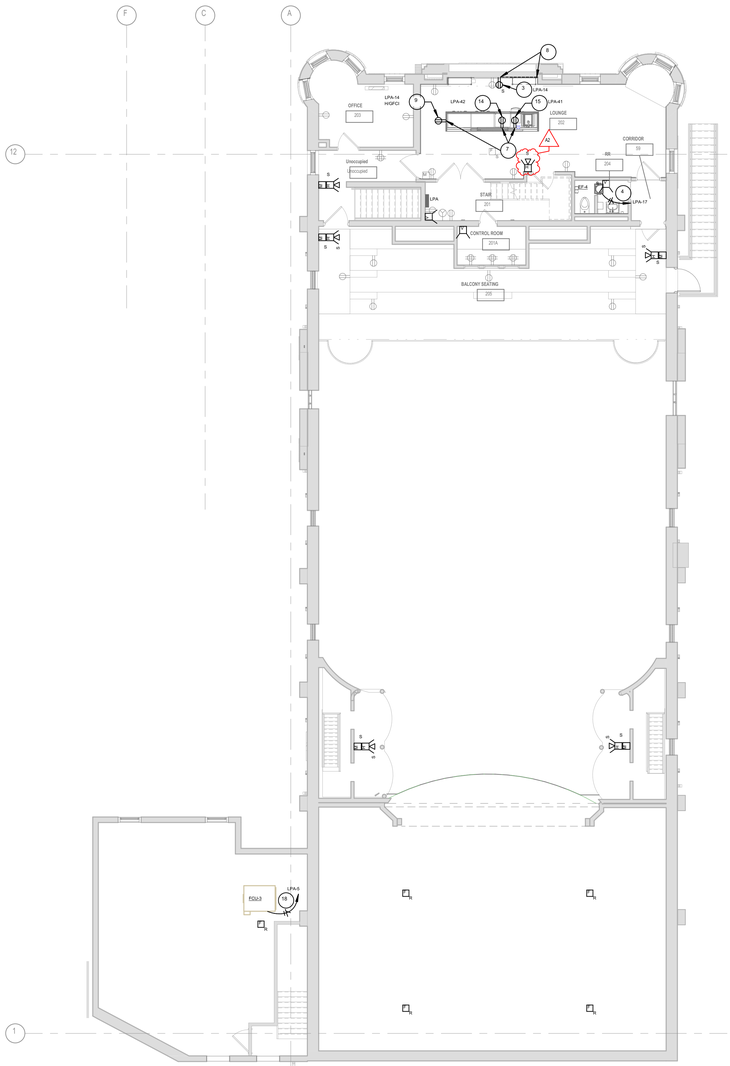

2A **SECOND FLOOR POWER PLAN**
1/8" = 1'-0"

SCHMIDT
ASSOCIATES
415 Massachusetts Avenue
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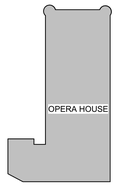
Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

SARAH KATHLEEN HEMPSTEAD
REGISTERED
NO.
AR10400134
STATE OF
INDIANA
ARCHITECT

Sarah K Hempstead

#	Revision	Date
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

N

PORTER COUNTY
BOARD OF
COMMISSIONERS

MEMORIAL
OPERA HOUSE
Where the Arts Create Community

MEMORIAL OPERA
HOUSE - MAIN
PACKAGE - MAIN
PACKAGE

SECOND FLOOR POWER
PLAN

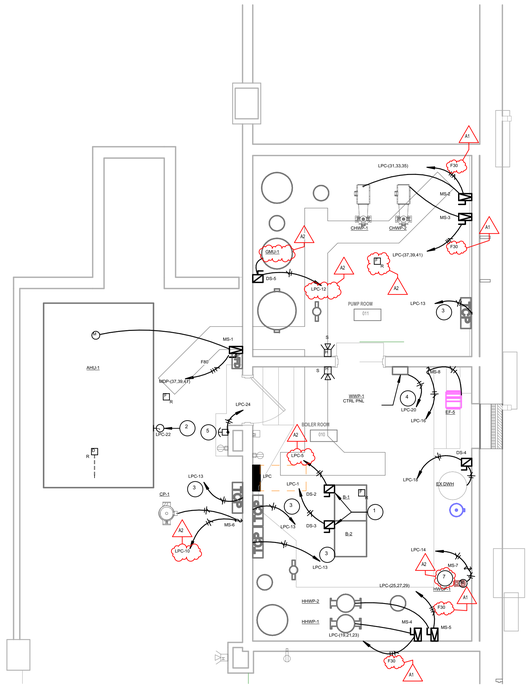
EP102.2

GENERAL ENLARGED LIGHTING NOTES	
#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.

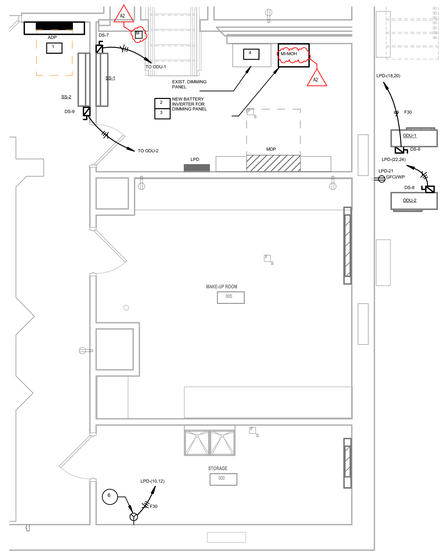
ENLARGED LIGHTING PLAN NOTES	
#	NOTES

GENERAL ENLARGED POWER NOTES	
#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.

ENLARGED POWER PLAN NOTES	
#	NOTES
1	PROVIDE UNISTRUT MOUNTING FRAME FOR DISCONNECT SWITCHES.
2	CIRCUIT CONNECTION TO SERVE AHU RECEPTACLE.
3	PROVIDE CIRCUIT INDICATED FOR TEMPERATURE CONTROL PANEL. CONNECT COMPLETE.
4	PROVIDE CIRCUIT INDICATED FOR WASTE WATER PUMP. CONNECT COMPLETE THROUGH CONTROL PANEL.
5	PROVIDE EMERGENCY SHUT-OFF BUTTON FOR ALL BOILERS AT +46" A.F.F. TO C.L. AT EACH EXIT FROM THE MECHANICAL SPACE USING 120V CIRCUIT INDICATED. PROVIDE SHUNT TRIP ACCESSORY TO ALL BOILER CIRCUIT BREAKERS. PROVIDE PLACARD SIGN ABOVE BUTTON TO INDICATE LOCATION OF SHUT-OFF. REFER TO BOILER EMERGENCY STOP DIAGRAM ON SHEET E-602.
6	NEMA 10-30R FOR DRYER AT +36" A.F.F. TO C.L. COORDINATE LOCATION WITH OWNER.
7	REFER TO P-SERIES DRAWINGS FOR CIRCULATION PUMP AND AQUASTAT DETAIL.



2C **ENLARGED BASEMENT POWER PLAN - NORTH PORTION**
1/4" = 1'-0"



2A **ENLARGED BASEMENT POWER PLAN - SOUTH PORTION**
1/4" = 1'-0"

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#	Revision	Date
A1	Addendum #1	12.15.2023
A2	Addendum #2	12.22.2023

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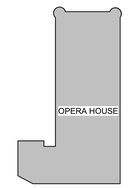

KEY PLAN

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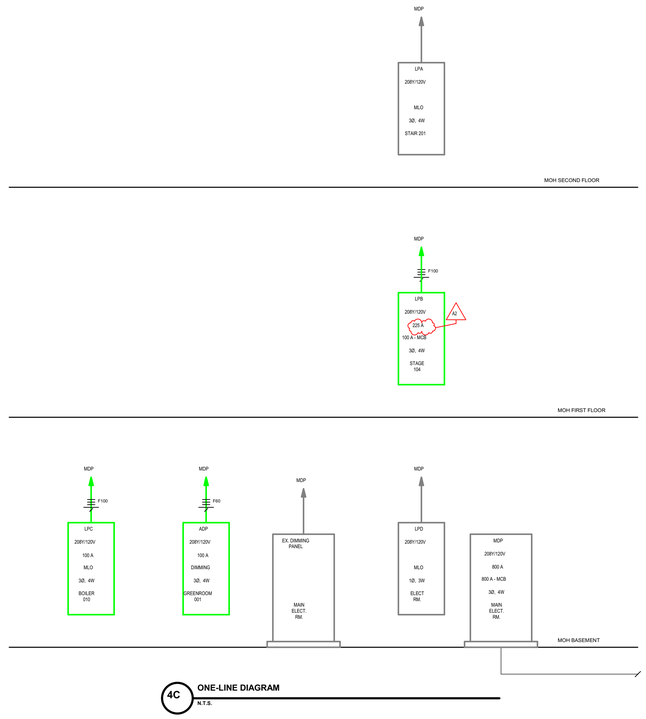
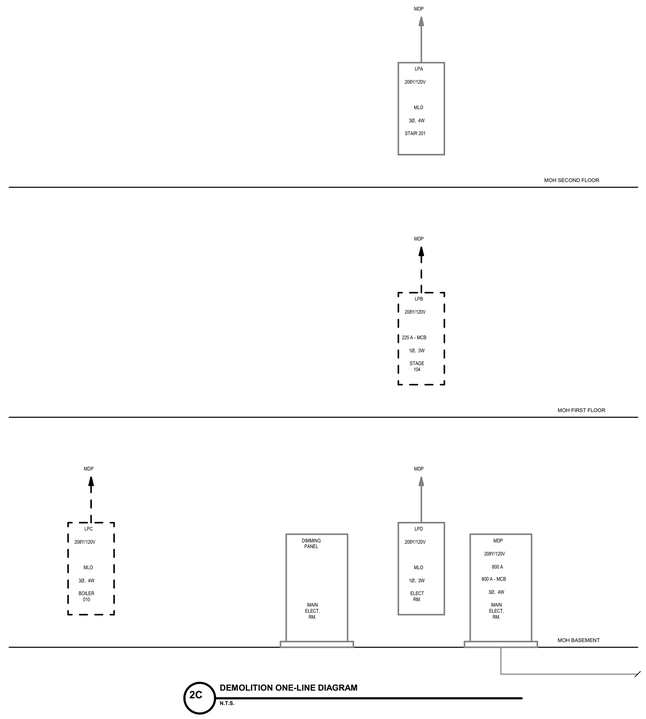
MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

ENLARGED PLANS

E-401.2



4C **ONE-LINE DIAGRAM**
N.T.S.



2C **DEMOLITION ONE-LINE DIAGRAM**
N.T.S.

GENERAL DEMOLITION ONE-LINE DIAGRAM NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.

DEMOLITION ONE-LINE DIAGRAM NOTES

#	NOTES

FEEDER & BRANCH CIRCUIT SCHEDULE (COPPER)

	CONDUCTOR SIZE PER CONDUIT		CONDUIT SIZE & QUANTITY					
FEEDER/BRANCH CIRCUIT LABEL	PHASE & NEUTRAL	EQUIP/SERV GROUND	~~3P,1N,1G (3P,1G ...~~	~~2P,1N,1G (2P,1G ...~~	~~3P,1N,1G (3P,1N ...~~	3P,2N,1G	3P,3N,1G	3P,1N,2G
F20	12	12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F30	10	10	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F40	8	10	3/4"	3/4"	1"	1"	1"	1"
F50	6	10	1"	1"	1"	1-1/4"	1-1/4"	1"
F60	4	10	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
F70	4	8	1"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/4"
F80	3	8	1"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/4"
F90	2	8	1"	1-1/4"	1-1/2"	1-1/2	2"	1-1/2"
F100	1	8	1-1/4"	1-1/2"	1-1/2"	2"	2"	2"
F110	1	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F125	1/0	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F150	1/0	6	1-1/4"	1-1/2"	2"	2"	2-1/2"	2"
F175	2/0	6	1-1/2"	2"	2"	2-1/2"	2-1/2"	2"
F200	3/0	6	1-1/2"	2"	2"	2-1/2"	3"	2-1/2"
F225	4/0	4	2"	2"	2-1/2"	3"		2-1/2"
F250	250	4	2"	2-1/2"	3"	3"		3"
F300	350	4	2"	2-1/2"	3"	3-1/2"		3"
F350	500	3	2-1/2"	3"	3-1/2"	4"		3-1/2"
F400	3/0	3	(2) 1-1/2"	(2) 2"	(2) 2-1/2"	(2) 2-1/2"		(2) 2-1/2"
F450	4/0	2	(2) 2"	(2) 2"	(2) 2-1/2"	(2) 3"		(2) 2-1/2"
F500	250	2	(2) 2"	(2) 2-1/2"	(2) 3"	(2) 3"		(2) 3"
F600	350	1	(2) 2-1/2"	(2) 3"	(2) 3"	(2) 3-1/2"		(2) 3"
F700	500	1/0	(2) 2-1/2"	(2) 3"	(2) 3-1/2"	(2) 4"		(2) 3-1/2"
F800	350	2/0	(3) 2-1/2"	(3) 3"	(3) 3"	(3) 3-1/2"		(3) 3"
F900	350	2/0	(3) 2-1/2"	(3) 3"	(3) 3"	(3) 3-1/2"		
F1000	500	2/0	(3) 2-1/2"	(3) 3"	(3) 3-1/2"	(3) 4"		
F1200	350	3/0	(4) 2-1/2"	(4) 3"	(4) 3"	(4) 3-1/2"		
F1600	500	4/0	(5) 3"	(5) 3"	(5) 3-1/2"	(5) 4"		
F2000	500	250	(6) 3"	(6) 3"	(6) 3-1/2"	(6) 4"		
F2500	500	350	(7) 4"	(7) 3-1/2"	(7) 3-1/2"	(7) 4"		
F3000	500	500	(8) 4"		(8) 4"	(8) 4"		

GENERAL ONE-LINE DIAGRAM NOTES

#	NOTES
A	REFER TO SHEET E-001 FOR ADDITIONAL INFORMATION.

ONE-LINE DIAGRAM NOTES

#	NOTES

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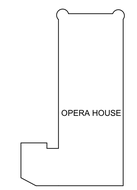

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ONE-LINE DIAGRAMS

E-601.2

GENERAL LIGHT FIXTURE SCHEDULE NOTES

#	NOTES
A	PROVIDE LAMPS FOR ALL LIGHT FIXTURES SPECIFIED.
B	REFER TO LIGHT FIXTURE SCHEDULE AND REFLECTED CEILING PLANS FOR MOUNTING REQUIREMENTS, CEILING TYPES, AND FINAL LOCATIONS. PROVIDE APPROPRIATE MOUNTING TRIM REQUIRED FOR CEILING TYPE.
C	PROVIDE FACTORY INSTALLED DISCONNECTS FOR ALL LINEAR FIXTURES.
D	PROVIDE SELF-DIAGNOSTICS AND SELF-TESTING FOR ALL LIFE SAFETY FIXTURES (EXIT FIXTURES, WALL PACKS, INVERTERS BALLASTS, ETC.)
E	ALLOWANCE PRICING LISTED IN LIGHT FIXTURE SCHEDULE ARE PROVIDED FROM LIGHTING SUPPLIER DURING THE DESIGN. CONTRACTOR TO VERIFY FINAL NUMBER FROM LIGHTING SUPPLIER PRIOR TO BID.

265119/265619/26213.1 - INTERIOR/EXTERIOR/EMERGENCY & EXIT LIGHT FIXTURES SCHEDULE

LABEL	DESCRIPTION	VOLTAGE	SOURCE TYPE	SOURCE LUMENS	SOURCE WATTS	SOURCE CCT	MOUNTING	LENS/REFLECTOR	CERTIFICATIONS	ACCEPTABLE MANUFACTURERS	LABEL
E1	LED EMERGENCY LIGHT. 25' ON CENTER COVERAGE. ADJUSTABLE OPTICS. SELF DIAGNOSTIC. WHITE FINISH. SEALED NICKEL CADMIUM BATTERY.	120 V	LED	N/A	10 W	4000 K	SURFACE/WALL	N/A	N/A	SURE-LITES SEL25 DUAL-LITE EV LITHONIA ELM2	E1
E2	LED EMERGENCY LIGHT. 25' ON CENTER COVERAGE. ADJUSTABLE OPTICS. SELF DIAGNOSTIC. BLACK FINISH. SEALED NICKEL CADMIUM BATTERY.	120 V	LED	N/A	10 W	4000 K	SURFACE/WALL	N/A	N/A	SURE-LITES SEL25 DUAL-LITE EV LITHONIA ELM2	E2
L1	4" ROUND LED DOWNLIGHT. SELF-FLANGED TRIM. WIDE DISTRIBUTION (75°). 0-10V DIMMING.	120 V	LED	2,000 LM	22 W	2700 K	RECESSED IN DRYWALL	SEMI-SPECULAR CLEAR	ES	PORTFOLIO LD4B PRESCOLITE LTR-4RD GOTHAM EVO	L1
L2	6-7 LAMP PENDANT CHANDELIER. BLACK FINISH. BLACK CANOPY. 1-10V DIMMING.	120 V	LED	922 LM	23 W	2700 K	SURFACE / CEILING	SEMI-SPECULAR CLEAR	N/A	BOVER CANDLE Si6L OCL GS1-P7CE	L2
L3	CARPET-TO-CARPET LED AISLE LIGHT. 6" LED SPACING. 0-10V DIMMING. 0.5 W/LINEAR FOOT.	120/277 V	LED	N/A	1 W	RED	FLOOR MOUNTED IN CARPET	CLEAR LENS	N/A	CELESTIAL LIGHTING GEMINI 2000 MICO LIGHTING NLA-1880 TIVOLI SOFT AISLE TITANIUM	L3
L4	4" ROUND LED DOWNLIGHT. SELF-FLANGED TRIM. WIDE DISTRIBUTION (75°). 0-10V DIMMING.	120 V	LED	4,000 LM	42 W	3500 K	RECESSED IN DRYWALL	SEMI-SPECULAR CLEAR	ES	PORTFOLIO LD4B PRESCOLITE LTR-4RD GOTHAM EVO	L4
L5	5" DIAMETER SPHERICAL LED PENDANT. 0-10V DIMMING DRIVER. BLACK FINISH.	120 V	LED	500 LM	6 W	2700 K	SURFACE / CEILING	FROSTED CURVED ACRYLIC	N/A	OCL GB1-P1CF CAMMAN P9346-5	L5
L6	DECORATIVE CHANDELIER. OPAL GLASS GLOBES. BRASS FINISH. DIMMABLE. (25) 5 WATT, G9 PIN LAMPS.	120 V	(25) G9 PIN, 5 WATT MAX.	9,000 LM	125 W	2700 K	SURFACE / CEILING	OPAL GLASS	N/A	VISUAL COMFORT & CO. 700LSVGO PROVIDE AN ALLOWANCE OF $2,840 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L6
L7	15" WIDE DECORATIVE WALL SCONCE. WHITE GLASS SHADE. ANTIQUE BRASS FINISH. (2) 8W A LAMPS. DIMMABLE.	120 V	LED	1,500 LM	16 W	3000 K	SURFACE/WALL	WHITE GLASS	N/A	VISUAL COMFORT SIENA SS 2002HAB-WG PROVIDE AN ALLOWANCE OF $600 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L7
L8	4' LENSED LED STRIP LIGHT. 0-10V DIMMING, WHITE FINISH.	120 V	LED	5,400 LM	45 W	3500 K	SURFACE MOUNTED	SEMI-FROSTED LENS	4 DLC	METALUX SNLED COLUMBIA MPS LITHONIA ZL1D	L8
L8E	4' LENSED LED STRIP LIGHT. 0-10V DIMMING, WHITE FINISH. INTEGRAL BATTERY INVERTER. 0-10V DIMMING.	120 V	LED	5,400 LM	45 W	3500 K	CHAIN MOUNTED TO STRUCTURE	SEMI-FROSTED LENS	DLC	METALUX SNLED COLUMBIA MPS LITHONIA ZL1D	L8E
L9	4' LENSED LED STRIP LIGHT. 0-10V DIMMING, WHITE FINISH.	120/277 V	LED	3,000 LM	27 W	3500 K	SURFACE/WALL	SEMI-FROSTED CURVED LENS	DLC	METALUX SNLED COLUMBIA MPS LITHONIA CLX	L9
L10	LED RETROFIT HOUSE LIGHT. LINE VOLTAGE DIMMING. E11 1-3/4" BASE. SAFETY CABLE.	120 V	LED	6024 LM	49 W	3000 K	RECESSED IN DRYWALL	SHORT 70	ES	CANTO RETRO-FUSION 500 R500-F PROVIDE AN ALLOWANCE OF $1,000 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L10
L11	LED RETROFIT HOUSE LIGHT. LINE VOLTAGE DIMMING. E26 BASE. SAFETY CABLE. DIFFUSER.	120 V	LED	2217 LM	15 W	3000 K	RECESSED IN DRYWALL	SHORT 74	ES	CANTO RETRO-FUSION 150 R150 TALL-F PROVIDE AN ALLOWANCE OF $800 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L11
L12	6' MICRO PROFILE LED FIXTURE. WHITE FINISH. 0-100% DIMMING.	120 V	LED	588 LM	6 W	3000 K	SURFACE MOUNTED, HINGE	120 DEGREE OPTIC, CLEAR LIGHT DIFFUSE, NO REFLECTOR	N/A	BOCA FLASHER NANOLUME PROVIDE AN ALLOWANCE OF $600 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L12
L13	STAGE EDGE LED LIGHT. 12" LED SPACING. COORDINATE LENGTH IN FIELD. DMX DIMMING.	120/277 V	LED	N/A	1 W	2700 K	RECESSED IN FLOOR	CLEAR LENS	4 N/A	FUTURE LIGHT INC. EDGE-LYTE CALI ALS50T-C TIVOLI STAGE EDGE (STEG)	L13
L14	4"X4" EXTRUDED ALUMINUM LED. 0-10V DIMMING.	120 V	LED	2500 LM	26 W	2700 K	RECESSED IN DRYWALL	FLAT WHITE ACRYLIC LENS	DLC	FOCAL POINT FSM4LS FINELITE HP4 PINNACLE EDGE	L14
L15	4' LENSED LED STRIP LIGHT. 0-10V DIMMING, WHITE FINISH.	120 V	LED	5,400 LM	45 W	3500 K	CHAIN MOUNTED TO STRUCTURE	SEMI-FROSTED LENS	DLC	METALUX SNLED COLUMBIA MPS LITHONIA ZL1D	L15
L16	FRONT OF HOUSE STAIR LIGHT FIXTURE. PAR RGBL, BLACK FINISH. 20A TWIST LOCK PLUG. SAFETY CABLE.	120 V	LED	5708 LM	50 W	NA	C-CLAMP	CLEAR LENS	N/A	ETC COLORSOURCE SPOT JR. CSSPOTJR2550 PROVIDE AN ALLOWANCE OF $1,500 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L16
L17	DECORATIVE THREE-LAMP VANITY. VINTAGE BRASS FINISH.	120 V	LED	1,000 LM	15 W	3000 K	SURFACE/WALL	OPAL GLASS	N/A	ALORA WV320323VB PROVIDE AN ALLOWANCE OF $485 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L17
L18	LED WALL LIGHT. DIE-CAST ALUMINUM HOUSING. DARK BRONZE FINISH. U.L. LISTED FOR WET LOCATIONS.	120/277 V	LED	2,000 LM	15 W	4000 K	SURFACE/WALL	TYPE III DISTRIBUTION	DLC	BEACON RWL1 SPITZER WPFP LITHONIA WST	L18
L19	LED WALL LIGHT. DIE-CAST ALUMINUM HOUSING. DARK BRONZE FINISH. U.L. LISTED FOR WET LOCATIONS.	120/277 V	LED	4,500 LM	37 W	4000 K	SURFACE/WALL	TYPE III DISTRIBUTION	DLC	BEACON RWL1 LUMARK AXCS4A LITHONIA WST	L19
L20E	24" EXTERIOR SURFACE MOUNTED EXTRUDED ALUMINUM LED FIXTURE. U.L. LISTED WET LOCATION. BRONZE FINISH. REMOTE MICRO INVERTER OPERATING 25W LOAD FOR 90 MINUTES.	120/277 V	LED	900 LM	10 W	4000 K	SURFACE/WALL	DIFFUSED POLYCARBONATE	N/A	LUMINAIRE AEL24 PROVIDE AN ALLOWANCE OF $1,032 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L20E
L21E	72" EXTERIOR SURFACE MOUNTED EXTRUDED ALUMINUM LED FIXTURE. INTEGRAL BATTERY INVERTER. U.L. LISTED WET LOCATION. BRONZE FINISH. SELF-TESTING, SELF-CONTAINED 90 MINUTE EMERGENCY BATTERY PACK.	120/277 V	LED	3,000 LM	30 W	4000 K	SURFACE/WALL	DIFFUSED POLYCARBONATE	N/A	LUMINAIRE AEL72 PROVIDE AN ALLOWANCE OF $1,697 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L21E
L22	DECORATIVE CEILING FLUSH MOUNT FIXTURE. OPAL GLASS GLOBES. BRASS FINISH. DIMMABLE. (5) 5 WATT, G9 PIN LAMPS.	120/277 V	(5) G9 PIN, 5 WATT MAX.	1,960 LM	25 W	2700 K	SURFACE / CEILING	OPAL GLASS	N/A	VISUAL COMFORT & CO. 700LSVGO PROVIDE AN ALLOWANCE OF $690 PER FIXTURE FOR MATERIAL ONLY, ADD LABOR REQUIRED FOR INSTALLATION.	L22
L23	2X2 LED FLAT PANEL. 0-10V DIMMING. SELECTABLE COLOR TEMPERATURE AND LUMEN OUTPUT. SET TO 3500K AND 2,500 LM.	120/277 V	LED	2,500/3,200/4,000 LM SELECTABLE	40 W	3500K/4000K/5000K SELECTABLE	RECESSED IN GRID	SATIN WHITE	DLC	METALUX CGTS COLUMBIA CBT LITHONIA CPX	L23
X1W	LED EXIT LIGHT, MATTE BLACK DIE-CAST ALUMINUM HOUSING, BRUSHED ALUM. SINGLE FACE. STENCIL FACE, GREEN LETTERS. SELF-POWERED. NICKEL-CADMIUM BATTERY. SELF-DIAGNOSTIC/SELF-TESTING MODULE.	120 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	SURE-LITES CX DUAL-LITE SE LITHONIA LE	X1W
X2C	LED GLASS EXIT LIGHT, MATTE BLACK DIE-CAST ALUMINUM HOUSING, BRUSHED ALUM. SINGLE FACE. GREEN LETTERS. SELF-POWERED. NICKEL-CADMIUM BATTERY. SELF-DIAGNOSTIC/SELF-TESTING MODULE.	120 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	SURE-LITES EUR DUAL LITE LESC LITHONIA EDGR	X2C
X2W	LED GLASS EXIT LIGHT, MATTE BLACK DIE-CAST ALUMINUM HOUSING, BRUSHED ALUM. SINGLE FACE. GREEN LETTERS. SELF-POWERED. NICKEL-CADMIUM BATTERY. SELF-DIAGNOSTIC/SELF-TESTING MODULE.	120 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	SURE-LITES EUS DUAL LITE LESW LITHONIA EDG	X2W

263323.1 - CENTRAL BATTERY EQUIPMENT FOR EMERGENCY LIGHTING SCHEDULE

LABEL	LOCATION NUMBER	LOCATION NAME	EQUIPMENT RATINGS VOLTAGE	MINIMUM OUTPUT FOR 90-MINUTES (W/VA)	MOUNT	NEMA ENCL	INPUT/OUTPUT CIRCUIT PANEL	INPUT/OUTPUT CIRCUIT CIRCUIT	ACCESSORIES	REMARKS
MI-1	006	ELECTRICAL	120/277V	220	SURFACE	1	LPD	23	SELF-DIAGNOSTICS OVERRIDE FOR 0-10V DIMMING SYSTEM	

262913.1 - LIGHTING CONTACTORS SCHEDULE

LABEL	LOCATION NUMBER	LOCATION NAME	EQUIPMENT RATINGS VOLTAGE	AMPERAGE	POLES	NEMA ENCL	ACCESSORIES	COIL CIRCUIT VOLTAGE	COIL CIRCUIT PANEL	COIL CIRCUIT CIRCUIT	CONTROL	CIRCUIT(S) CONTROLLED	REMARKS
LC-1	006	ELECTRICAL	600 V	30 A	8	NEMA 1	H-O-A PILOT LIGHT DDC INTEGRATION	120 V	LPD	14	PHOTOCELL LOCATED ON ROOF		

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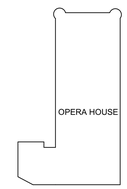

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LIGHTING SCHEDULES

E-603.2

262816.1 - ENCLOSED SWITCHES & CIRCUIT BREAKERS SCHEDULE

LABEL	LOCATION NUMBER	LOCATION NAME	EQUIPMENT SERVED	EQUIPMENT RATINGS VOLTAGE	POLES	AMPERAGE	FUSED	FUSE SIZE	NEMA ENCL	ACCESSORIES AUX. CONTACTS	ACCESSORIES SOLID NEUTRAL	REMARKS
DS-1			CH-1	240 V	3	200 A	Yes	200 A	3R	(1) N.O. / N.C.	No	
DS-2	010	BOILER ROOM	B-1	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	Yes	
DS-3	010	BOILER ROOM	B-2	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	Yes	
DS-4	010	BOILER ROOM	EX. DWH	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	Yes	
DS-5	011	PUMP ROOM	GMU-1	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	Yes	
DS-6			ODU-1	208V	2	30 A	Yes	20 A	3R	(1) N.O. / N.C.	No	
DS-7	006	ELECTRICAL	SS-1	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	No	
DS-8			ODU-2	208V	2	30 A	Yes	20 A	3R	(1) N.O. / N.C.	No	
DS-9	001	CORRIDOR	SS-2	208V	2	30 A	Yes	20 A	1	(1) N.O. / N.C.	No	

262913/262923.1 - ENCLOSED & VARIABLE-FREQUENCY MOTOR CONTROLLERS SCHEDULE

LABEL	LOCATION NUMBER	LOCATION NAME	EQUIPMENT SERVED	EQUIPMENT RATINGS VOLTAGE	PHASE	HP	FLA	NEMA ENCL	STARTER TYPE	STARTER NEMA SIZE	DISCONNECT SWITCH TYPE	DISCONNECT SWITCH FUSE SIZE	REMOTE CAPACITOR	REMARKS
MS-1			AHU-1 SF	208 V	3	10	32.2 A	1	VFD	-	-	-	-	FURNISHED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR.
MS-2	011	PUMP ROOM	CHWP-1	208 V	3	5	17.5 A	-	VFD	-	-	-	-	FURNISHED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR.
MS-3	011	PUMP ROOM	CHWP-2	208 V	3	5	17.5 A	-	VFD	-	-	-	-	FURNISHED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR.
MS-4	010	BOILER ROOM	HHWP-1	208 V	3	5	17.5 A	-	VFD	-	-	-	-	FURNISHED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR.
MS-5	010	BOILER ROOM	HHWP-1	208 V	3	5	17.5 A	-	VFD	-	-	-	-	FURNISHED BY DIVISION 23 CONTRACTOR, INSTALLED BY DIVISION 26 CONTRACTOR.
MS-6			CP-1	120 V	1	1/2	9.8 A	1	MSS	-	-	-	-	FRACTIONAL HORSEPOWER RATED MANURAL TOGGLE SWITCH WITH THERMAL OVERLOADS.
MS-7	010	BOILER ROOM	HWCP-1	120 V	1	1/12	1.6 A	1	MSS	-	-	-	-	FRACTIONAL HORSEPOWER RATED MANURAL TOGGLE SWITCH WITH THERMAL OVERLOADS.
MS-8	010	BOILER ROOM	EF-5	120 V	1	1/4	0.7 A	1	MSS	-	-	-	-	FRACTIONAL HORSEPOWER RATED MANURAL TOGGLE SWITCH WITH THERMAL OVERLOADS.
MS-9			EF-2	120 V	1	1/12	1.6 A	1	MSS	-	-	-	-	FRACTIONAL HORSEPOWER RATED MANURAL TOGGLE SWITCH WITH THERMAL OVERLOADS.
MS-10			EF-3	120 V	1	1/12	1.6 A	1	MSS	-	-	-	-	FRACTIONAL HORSEPOWER RATED MANURAL TOGGLE SWITCH WITH THERMAL OVERLOADS.

262719.1 - MULTI-OUTLET ASSEMBLIES

LABEL	DESCRIPTION	ELECTRICAL REQUIREMENTS P	N	G	POWER	TELECOM REQUIREMENTS DATA	AV	REMARKS
FB1	6-GANG FLOOR BOX.	1	1	1	(2) DUPLEX RECEPTACLES	(1) 2-PORT DATA OUTLET	REFER TO EL101 AND THEATER RISER.	

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Project No. 2023-084.RMO
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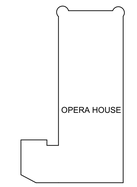
INDIANA
ARCHITECT

#	Revision	Date
A1	Addendum #1	12.15.2023
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

PORTER COUNTY
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Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

EQUIPMENT SCHEDULES

E-604.2

NEW BRANCH PANELBOARD SCHEDULE

DESIGNATION: LPB | **VOLTS:** 208Y/120 V | **MAINS RATING:** 225 A
LOCATION: Space 122 | **PHASES:** 3 | **MAINS TYPE:** MCB
MOUNTING: SURFACE | **WIRES:** 4 | **MCB RATING:** 100 A
SUPPLY FROM: MDP | **AIC RATING:** 10,000 A | **MCB OPTIONS:**

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		C		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
--	1	EXISTING		20 A	1	0.00	0.00					1	20 A		EXISTING	2	--
--	3	EXISTING		20 A	1			0.00	0.00			1	20 A		EXISTING	4	--
--	5	EXISTING		20 A	1					0.00	0.00	1	20 A		EXISTING	6	--
--	7	EXISTING		20 A	1	0.00	0.00					1	20 A		EXISTING	8	--
--	9	EXISTING		20 A	1			0.00	0.00			1	20 A		EXISTING	10	--
--	11	EXISTING		20 A	1					0.00	0.00	1	20 A		EXISTING	12	--
--	13	EXISTING		20 A	1	0.00	0.00					1	20 A		EXISTING	14	--
--	15	EXISTING		20 A	1			0.00	0.00			1	20 A		EXISTING	16	--
--	17	EXISTING		20 A	1					0.00	0.00	1	20 A		EXISTING	18	--
	19	STAGE FLOOR BOX	RECEPT	20 A	1	0.18	0.36					1	20 A	RECEPT	STAGE NE CORNER	20	
	21	STAGE FLOOR BOX	RECEPT	20 A	1			0.18	0.36			1	20 A	RECEPT	STAGE NE CORNER	22	
	23	STAGE FLOOR BOX	RECEPT	20 A	1					0.18	0.36	1	20 A	RECEPT	STAGE NE CORNER	24	
	25	STAGE FLOOR BOX	RECEPT	20 A	1	0.18	0.36					1	20 A	RECEPT	STAGE NE CORNER	26	
	27	STAGE LEFT AUDIO	RECEPT	20 A	1			0.36	0.36			1	20 A	RECEPT	STAGE EAST	28	
	29	STAGE LEFT AUDIO	RECEPT	20 A	1					0.36	0.36	1	20 A	RECEPT	STAGE EAST	30	
	31	STAGE LEFT AUDIO	RECEPT	20 A	1	0.36	0.36					1	20 A	RECEPT	STAGE EAST	32	
	33	STAGE LEFT AUDIO	RECEPT	20 A	1			0.36	0.36			1	20 A	RECEPT	STAGE EAST	34	
	35	STAGE LEFT	RECEPT	20 A	1					0.18	0.36	1	20 A	RECEPT	STAGE SE CORNER	36	
	37	STAGE LEFT	RECEPT	20 A	1	0.18	0.36					1	20 A	RECEPT	STAGE SE CORNER	38	
	39	STAGE SW CORNER	RECEPT	20 A	1			0.36	0.36			1	20 A	RECEPT	STAGE SE CORNER	40	
	41	STAGE SW CORNER	RECEPT	20 A	1					0.36	0.36	1	20 A	RECEPT	STAGE SE CORNER	42	
	43	STAGE SW CORNER	RECEPT	20 A	1	0.36	0.36					1	20 A	RECEPT	REAR CENTER STAGE PROJ	44	
	45	STAGE SW CORNER	RECEPT	20 A	1			0.36	0.36			1	20 A	RECEPT	REAR CENTER STAGE PROJ	46	
	47	EXTERIOR EAST, LOBBY EXITS	LIGHTING	20 A	1					0.01	0.18	1	20 A	RECEPT	STAGE FLOOR BOX	48	
	49	HOUSE / STAGE EXITS, BATT...	LIGHTING	20 A	1	0.04	0.18					1	20 A	RECEPT	STAGE FLOOR BOX	50	
--	51	SPARE		20 A	1			0.00	0.18			1	20 A	RECEPT	STAGE FLOOR BOX	52	
--	53	SPARE		20 A	1					0.00	0.18	1	20 A	RECEPT	STAGE FLOOR BOX	54	
				TOTAL LOAD:		3.28 kVA		3.60 kVA		2.89 kVA							
				TOTAL AMPS:		28 A		31 A		24 A							

TOTAL CONNECTED LOAD: 9.77 kVA — 9.78 kVA **TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS: 31 A — 27 A **TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)		LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
		Receptacle - General	9720 VA	100.00%	9720 VA
C	CONTACTOR CONTROLLED	Lighting - Interior	50 VA	125.00%	63 VA
G	GFCI PROTECTED				
P	HANDLE LOCKING DEVICE				
S	SHUNT TRIP				
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI				
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI				
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG				
	FEED THROUGH LUGS (FTL)				
	SUB FEED LUGS (SFL)				

NOTES:

NEW BRANCH PANELBOARD SCHEDULE

DESIGNATION: LPC | **VOLTS:** 208Y/120 V | **MAINS RATING:** 100 A
LOCATION: BOILER ROOM 010 | **PHASES:** 3 | **MAINS TYPE:** MLO
MOUNTING: SURFACE | **WIRES:** 4
SUPPLY FROM: MDP | **AIC RATING:** 10,000 A

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		C		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
S	1	B-2	BOILER	20 A	1	1.56	0.09					1	20 A	LIGHTING	FLAGPOLE LTG, WALKWAY LTG	2	
--	3	SHUNT TRIP UNIT		--	1			--	0.52			1	20 A	LIGHTING	SITE POLES, BOILER 010, PLUMB	4	
S	5	B-1	BOILER	20 A	1					1.56	0.55	1	20 A	LIGHTING	BASEMENT LIGHTING	6	
--	7	SHUNT TRIP UNIT		--	1	--	0.00					1	20 A	LIGHTING	EXISTING FLAG POLE LIGHT	8	--
--	9	RECEPTS, AHU 1 AND CU 1		20 A	1			0.00	1.18			1	20 A	MOTOR	CP-1	10	
--	11	EXISTING		20 A	1					0.00	0.12	1	20 A	POWER	GMU-1	12	
	13	TCPs	POWER	20 A	1	0.72	0.19					1	20 A	MOTOR	HWCP-1	14	
--	15	EXISTING OUTSIDE OUTLET		20 A	1			0.00	0.38			1	20 A	MOTOR	EF-5	16	
--	17	EXTERIOR SIGNAGE LTG	LIGHTING	20 A	1					0.50	0.96	1	20 A	HEAT	EX. DWH	18	
	19	HHWP-1	MOTOR	25 A	3	2.10	1.16					1	20 A	MOTOR	WWP-1	20	
--	21	--	--	--	--			2.10	0.50			1	20 A	RECEPT	AHU RECEPT	22	
--	23	--	--	--	--					2.10	0.18	1	20 A	EPO	EMERGENCY BOILER SHUT-OFF	24	
	25	HHWP-2	MOTOR	25 A	3	0.00	0.18					1	20 A	RECEPT	CHILLER, EXTERIOR	26	
--	27	--	--	--	--			0.00	0.00			1	20 A		SPARE	28	--
--	29	--	--	--	--					0.00	0.00	1	20 A		SPARE	30	--
	31	CHWP-1	MOTOR	25 A	3	2.10	0.00					1	20 A		SPARE	32	--
	33	--	--	--	--			2.10	0.00			1	20 A		SPARE	34	--
--	35	--	--	--	--					2.10	0.00	1	20 A		SPARE	36	--
	37	CHWP-2	MOTOR	25 A	3	0.00	0.00					1	20 A		SPARE	38	--
--	39	--	--	--	--			0.00	0.00			1	20 A		SPARE	40	--
--	41	--	--	--	--					0.00	0.00	1	20 A		SPARE	42	--
				TOTAL LOAD:		8.10 kVA		6.78 kVA		8.07 kVA							
				TOTAL AMPS:		69 A		56 A		69 A							

TOTAL CONNECTED LOAD: 22.95 kVA — 22.19 kVA **TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS: 69 A — 62 A **TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)		LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
		Receptacle - General	1400 VA	100.00%	1400 VA
C	CONTACTOR CONTROLLED	Lighting - Interior	1062 VA	125.00%	1328 VA
G	GFCI PROTECTED	Lighting - Exterior	50 VA	100.00%	50 VA
P	HANDLE LOCKING DEVICE	Mechanical - Motor	15637 VA	100.00%	15637 VA
S	SHUNT TRIP	Mechanical - Heating	4080 VA	75.00%	3060 VA
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI	Power - Continuous	180 VA	100.00%	180 VA
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI	Spare	500 VA	100.00%	500 VA
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG				
	FEED THROUGH LUGS (FTL)				
	SUB FEED LUGS (SFL)				

NOTES:

EXISTING BRANCH PANELBOARD SCHEDULE

DESIGNATION: LPD | **VOLTS:** 120/208 V | **MAINS RATING:** 200 A
LOCATION: ELECTRICAL 006 | **PHASES:** 1 | **MAINS TYPE:** MLO
MOUNTING: SURFACE | **WIRES:** 3
SUPPLY FROM: MDP | **AIC RATING:**

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
--	1	EX. WORK LIGHT		20 A	1	0.00	0.00			1	20 A		EX. CIRCUIT	2	--
--	3	EX. WORK LIGHT		20 A	1			0.00	0.00	1	20 A		EX. CIRCUIT	4	--
--	5	EX. CIRCUIT		20 A	1	0.00	0.00			1	20 A		EX. CIRCUIT	6	--
--	7	EX. CIRCUIT		20 A	1			0.00	0.00	1	20 A		EX. CIRCUIT	8	--
--	9	EX. CIRCUIT		20 A	1	0.00	2.25			2	30 A	DRYER	STORAGE 000	10	
--	11	EX. CIRCUIT		20 A	1			0.00	2.25	--	--	--	--	12	--
--	13	SPARE - NOTE 1		20 A	1	0.00	0.25			1	20 A	LC-1	ELECTRICAL 006 - NOTE 1	14	
--	15	SPARE - NOTE 1		20 A	1			0.00	0.16	1	20 A	LIGHTING	EXTERIOR - NOTE 1	16	
	17	ELECTRICAL 006 - NOTE 1	NETWORK	20 A	1	0.36	1.56			2	20 A	ODU/SS-1	006, EXTERIOR - NOTE 1	18	
	19	STORAGE 105 - NOTE 1	FCU-2	20 A	1			1.28	1.56	--	--	--	--	20	--
	21	EXTERIOR - NOTE 1	RECEPT	20 A	1	0.18	1.56			2	20 A	ODU/SS-2	001, EXTERIOR - NOTE 1	22	
	23	ELECTRICAL 006 - NOTE 1	MI-1	20 A	1			0.29	1.56	--	--	--	--	24	--
				TOTAL LOAD:		6.16 kVA		7.10 kVA							
				TOTAL AMPS:		59 A		67 A							

TOTAL CONNECTED LOAD: 13.26 kVA — 13.26 kVA **TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS: 67 A — 64 A **TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)		LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
		Receptacle - General	5040 VA	100.00%	5040 VA
C	CONTACTOR CONTROLLED	Lighting - Exterior	697 VA	100.00%	697 VA
G	GFCI PROTECTED	Mechanical - Motor	7524 VA	100.00%	7524 VA
P	HANDLE LOCKING DEVICE				
S	SHUNT TRIP				
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI				
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI				
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG				
	FEED THROUGH LUGS (FTL)				
	SUB FEED LUGS (SFL)				

NOTES:
1. EXISTING PANELBOARD AND CIRCUIT BREAKERS TO REMAIN UNO.
1. PROVIDE NEW CIRCUIT BREAKER AND CONNECT TO LOAD INDICATED.

PANELBOARD ABBREVIATIONS

#	NOTES
FTL	FEED THROUGH LUGS
MCB	MAIN CIRCUIT BREAKER
MFS	MAIN FUSED SWITCH
MLO	MAIN LUGS ONLY
SFL	SUB-FEED LUGS
SPD	SURGE PROTECTION DEVICE

SWITCHBOARD/PANELBOARD NOTES

#	NOTES
A	VERIFY SIZE AND QUANTITY OF LUGS REQUIRED PER ONE-LINE DIAGRAM.
B	VERIFY PANEL / LUG SIZE REQUIRED FOR FEEDERS INDICATED ON ONE-LINE DIAGRAM. MODIFY AS REQUIRED FOR LARGER FEEDERS.
C	VERIFY CONDUIT ENTRY LOCATION ON EACH PANEL.
D	CONFIRM FINAL ROOM NAMES AND NUMBERS WITH OWNER PRIOR TO CREATING FINAL PANELBOARD DIRECTORIES.
E	MODIFY AIC RATINGS INDICATED ON SCHEDULES, AS REQUIRED, PER SPECIFICATION SECTION 260574.99.

CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS) ABBREVIATIONS

#	NOTES
C	CONTACTOR CONTROLLED
G	GFCI PROTECTED
P	HANDLE LOCKING DEVICE
S	SHUNT TRIP
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI.
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI.
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG.

EXISTING POWER DISTRIBUTION PANELBOARD SCHEDULE

DESIGNATION: MDP | **VOLTS:** 208Y/120 V | **MAINS RATING:** 800 A
LOCATION: ELECTRICAL 006 | **PHASES:** 3 | **MAINS TYPE:** MCB
MOUNTING: SURFACE | **WIRES:** 4 | **MCB RATING:** 800 A
SUPPLY FROM: | **AIC RATING:** | **MCB OPTIONS:**

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		C		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
--	1	SPARE		20 A	3	0.00	0.00					3	30 A		SPARE	2	--
--	3	--	--	--	--			0.00	0.00			--	--	--	--	4	--
--	5	--	--	--	--					0.00	0.00	--	--	--	--	6	--
--	7	SPARE		30 A	3	0.00	0.00					2	100 A		EX. STAGE PANEL	8	--
--	9	--	--	--	--			0.00	0.00			--	--	--	--	10	--
--	11	--	--	--	--					0.00	--	1	--		SPACE	12	--
--	13	SPARE		100 A	2	0.00	0.00					3	60 A		EX. CU-2	14	--
--	15	--	--	--	--			0.00	0.00			--	--	--	--	16	--
--	17	SPACE		--	1					--	0.00	--	--	--	--	18	--
	19	ADP - NOTE 1	PANEL	60 A	3	1.29	8.10					3	100 A		LPC - NOTE 1	20	
--	21	--	--	--	--			0.51	6.78			--	--	--	--	22	--
--	23	--	--	--	--					1.21	8.07	--	--	--	--	24	--
--	25	SPACE		--	1	--	6.16					2	100 A	PANEL	EX. LPD	26	
--	27	SPARE		100 A	2			0.00	7.10			--	--	--	--	28	--
--	29	--	--	--	--					0.00	--	1	--		SPACE	30	--
--	31	SPACE		--	1	--	3.28					3	100 A	PANEL	LPB - NOTE 1	32	
--	33	SPARE		100 A	2			0.00	3.60			--	--	--	--	34	--
--	35	--	--	--	--					0.00	2.89	--	--	--	--	36	--
	37	AHU-1 - NOTE 1		80 A	3	3.87	5.36					3	100 A	PANEL	EX.LPA	38	
--	39	--	--	--	--			3.87	6.11			--	--	--	--	40	--
--	41	--	--	--	--					3.87	7.79	--	--	--	--	42	--
--	43	SPACE		--	1	--	--					1	--		SPACE	44	--
--	45	SPACE		--	1			--	--			1	--		SPACE	46	--
--	47	SPACE		--	1					--	--	1	--		SPACE	48	--
	49	SITE - NOTE 1	CH-1	200 A	3	21.86	0.00					3	400 A		EX. DIMMER CABINET	50	--
--	51	--	--	--	--			21.86	0.00			--	--	--	--	52	--
--	53	--	--	--	--					21.86	0.00	--	--	--	--	54	--
				TOTAL LOAD:		49.91 kVA		49.82 kVA		45.68 kVA							
				TOTAL AMPS:		421 A		420 A		381 A							

TOTAL CONNECTED LOAD: 145.42 kVA — 135.41 kVA **TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS: 421 A — 376 A **TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)		LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
		Receptacle - General	30100 VA	66.61%	20050 VA
C	CONTACTOR CONTROLLED	Lighting - Interior	4230 VA	125.00%	5287 VA
G	GFCI PROTECTED	Lighting - Exterior	747 VA	100.00%	747 VA
P	HANDLE LOCKING DEVICE	Mechanical - Motor	103328 VA	100.00%	103328 VA
S	SHUNT TRIP	Mechanical - Heating	4080 VA	75.00%	3060 VA
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI	Power - Continuous	180 VA	100.00%	180 VA
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI	Spare	2680 VA	100.00%	2680 VA
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG				
	FEED THROUGH LUGS (FTL)				
	SUB FEED LUGS (SFL)				

NOTES:
EXISTING DISTRIBUTION PANELBOARD AND CIRCUIT BREAKERS TO REMAIN UNO.
1. PROVIDE NEW CIRCUIT BREAKER AND CIRCUIT TO LOAD INDICATED.

EXISTING BRANCH PANELBOARD SCHEDULE

DESIGNATION: LPA | **VOLTS:** 208Y/120 V | **MAINS RATING:** 125 A
LOCATION: STAIR 201 | **PHASES:** 3 | **MAINS TYPE:** MLO
MOUNTING: SURFACE | **WIRES:** 4
SUPPLY FROM: MDP | **AIC RATING:**

O	CKT NO.	CIRCUIT ROOM #	CIRCUIT TYPE	TRIP	P	A		B		C		P	TRIP	CIRCUIT TYPE	CIRCUIT ROOM #	CKT NO.	O
	1	EX. 201, 202	RECEPT	20 A	1	0.72	0.00					1	20 A		SPARE	2	--
--	3	SPARE - NOTE 3		20 A	1			0.00	0.00			1	20 A		SPARE	4	--
	5	2ND FLOOR STORAGE - NOTE 4	FCU-3	20 A	1					1.28	1.28	1	20 A	FCU-1	ATTIC - NOTE 4	6	
	7	101, 102	EF-2,3	20 A	1	0.38	0.54					1	20 A	RECEPT	BAR 100 - NOTE 4	8	
	9	EX. LOBBY	RECEPT	20 A	1			0.72	1.20			1	20 A	RECEPT	BAR 100 DISHWASHER - NOTE 2	10	G
--	11	SPARE - NOTE 3		20 A	1					0.00	1.20	1	20 A	RECEPT	BAR 100 REFRIGERATOR - NOTE 2	12	G
	13	EX. WIREMOLD 205	RECEPT	20 A	1	0.36	0.36					1	20 A	RECEPT	DISPLAY, CONV OUTLET - NOTE 4	14	
	15	EX. AT PANEL LP-A	RECEPT	20 A	1			0.18	0.36			1	20 A	RECEPT	EX. WIREMOLD 205	16	
	17	EX. 2ND FLR	LTS/RCP	20 A	1					0.74	0.36	1	20 A	RECEPT	EX. WIREMOLD 205	18	
--	19	SPARE - NOTE 3		20 A	1	0.00	0.00					2	20 A		SPARE - NOTE 3	20	--
--	21	EX. W CROWS NEST CURTAIN		20 A	1			0.25	0.00			--	--	--	--	22	--
--	23	EX. E CROWS NEST CURTAIN		20 A	1					0.25	0.18	1	20 A		EX. CIRCUIT	24	--
--	25	SPARE		15 A	3	0.00	0.50					3	20 A		EX. CIRCUIT	26	--
--	27	--	--	--	--			0.00	0.50			--	--	--	--	28	--
--	29	--	--	--	--					0.00	0.50	--	--	--	--	30	--
--	31	SPARE		15 A	3	0.00	0.00					3	15 A		SPARE	32	--
--	33	--	--	--	--			0.00	0.00			--	--	--	--	34	--
--	35	--	--	--	--					0.00	0.00	--	--	--	--	36	--
	37	EX. 201	COPIER	20 A	2	1.70	0.80					1	20 A	RECEPT	BAR 100 ICE MAKER - NOTE 1	38	G
--	39	--	--	--	--			1.70	1.20			1	20 A	RECEPT	BAR 100 REFRIG. - NOTE 1	40	G
G	41	BAR 202 ICE MAKER - NOTE 1	RECEPT	20 A	1					0.80	1.20	1	20 A	RECEPT	BAR 202 REFRIGERATOR - NOTE 1	42	G
				TOTAL LOAD:		5.36 kVA		6.11 kVA		7.79 kVA							
				TOTAL AMPS:		45 A		52 A		66 A							

TOTAL CONNECTED LOAD: 19.26 kVA — 17.33 kVA **TOTAL DEMAND LOAD:**
TOTAL CONNECTED AMPS: 66 A — 48 A **TOTAL DEMAND AMPS:**

PANELBOARD & CIRCUIT BREAKER OPTIONS ("O" COLUMN / MCB OPTIONS ABBREVIATIONS)		LOAD CLASSIFICATION	CONNECTED LOAD (VA)	DEMAND FACTOR	ESTIMATE DEMAND (VA)
		Receptacle - General	13940 VA	85.87%	11970 VA
C	CONTACTOR CONTROLLED	Lighting - Interior	145 VA	125.00%	181 VA
G	GFCI PROTECTED	Mechanical - Motor	2998 VA	100.00%	2998 VA
P	HANDLE LOCKING DEVICE	Spare	2180 VA	100.00%	2180 VA
S	SHUNT TRIP				
X	80% RATED MAIN CIRCUIT BREAKER WITH LSI				
Y	100% RATED MAIN CIRCUIT BREAKER WITH LSI				
Z	100% RATED MAIN CIRCUIT BREAKER WITH LSIG				
	FEED THROUGH LUGS (FTL)				
	SUB FEED LUGS (SFL)				

NOTES:
EXISTING PANELBOARD AND CIRCUIT BREAKERS TO REMAIN UNO.
1. PROVIDE NEW CIRCUIT BREAKER AND CONNECT TO LOAD INDICATED.
2. REMOVE AND REPLACE EXISTING CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER AND CONNECT TO LOAD INDICATED.
3. WHERE ALL DEVICES AND FIXTURES ARE REMOVED FROM EXISTING CIRCUIT, DISCONNECT AND REMOVE CIRCUIT COMPLETE. RELABLE CIRCUIT BREAKER SPARE.
4. CONNECT NEW CIRCUIT TO EXISTING SPARE CIRCUIT BREAKER.

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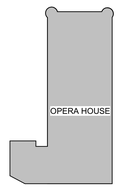
Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

#	Revision	Date
A1	Addendum #1	12.15.2023
A2	Addendum #2	12.22.2023

104 Indiana Ave,
Valparaiso, IN 46383



KEY PLAN

PORTER COUNTY BOARD OF COMMISSIONERS

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

PANELBOARD SCHEDULES

E-605.2

ARCHITECTURAL CONTROL - BASE

Item	Qty	MANF.	Model/Part #	Description	Location	Theatrical Integrator: Provide New	Theatrical Integrator: Install	Theatrical Integrator: Low Voltage Terminate	Electrical Contractor: Provide New	Electrical Contractor: Install	Electrical Contractor: Line Voltage Terminate
1.00	1	ETC	DRd12-24-120	DRd12 100-120V Enclosure	BASEMENT	X		X		X	X
1.01	1	ETC	P-ACP3	Paradigm Architectural Control Processor	BASEMENT	X	X				
1.02	1	ETC	P-SPM-E	Paradigm Station Power Module	BASEMENT	X	X				
1.03	1	ETC	DRD-FLO	DRd 4 Wire Option Kit	BASEMENT	X	X				
1.03	1	ETC	URTO	Unison DRd RideThru Option kit	BASEMENT	X	X				
1.04	9	ETC	R20	Dual 20A Relay module	BASEMENT	X	X				
1.05	1	ETC	LED10	Dual 120V PhaseAdept Module	BASEMENT	X	X				
1.06	2	ETC	D20	Dual 20A 120V Dimmer Module	BASEMENT	X	X				
2.00	1	ETC	EBDK	Emergency Bypass Detection Kit	BASEMENT	X		X		X	X
2.01	1	ETC	EBDK-TAP	Unison DRd Emergency Bypass Tap Kit	BASEMENT	X		X		X	X
3.00	1	EVL	LM-3000-3P-LC-IF-OF	3-PHASE STANDBY INVERTER	BASEMENT	X		X		X	X
4.00	1	STR	CD-80	EXISTING DIMMER RACK - CLEANED AND INSPECTED BY T.I.	BASEMENT						
5.00	1	ETC	SNB-8	8-port PoE simple network box	BASEMENT	X		X		X	X
6.00	1	ETC	DIN24	Large DIN rail Enclosure – Vertical	BASEMENT	X		X		X	X
6.01	1	ETC	PWPP DIN P4	Pathway 4 Port DIN-Mount Gateway Terminal	BOOTH	X	X	X			
11.00	1	ETC	ECPB DMXIN-2IN	DMX 1-In / DMX 2-In Plug-in station (2 gang)	BOOTH	X	X	X			
11.01	1	ETC	ECPB PB1	ETC 1-gang, 2.5" deep back box, surface mount	BOOTH	X				X	
12.00	1	ETC	ECPB NET/NET	ECPB; NET / NET Plug-in station (2 gang)	BOOTH	X	X	X			
12.01	1	ETC	ECPB PB2	ETC 2-gang, 2.5" deep back box, surface mount	BOOTH	X				X	
13.00	1	ETC	WAP-POE	Cisco wireless access point, 802.11ac/n, internal antennas, PoE powered	BOOTH	X	X	X			
14.00	1	ETC	P-TS7-PE	P-TS7 PARADIGM 7" ETHERNET PORTABLE	BOOTH	X	X	X			
15.00	1	ETC	P-TS7-4	P-TS7 PARADIGM 7" WM TOUCHSCREEN-BLACK	BOX OFFICE	X	X	X			
15.01	1	ETC	P-LCD-FBB	PLCD PARADIGM FLSH MNT TOUCHSCREEN BBOX	BOX OFFICE	X				X	
16.00	3	ETC	UH10010	1-gang, 10-button electronics assembly	STAGE LEFT, BAR, LOUNGE	X	X	X			
16.01	3	ET C	UH10010-41	Black 1-gang faceplate assembly to accept 10 Buttons (Preset 1-9, Off)	STAGE LEFT, BAR, LOUNGE	X	X				
16.02	3	MISC		1-GANG BACKBOX	STAGE LEFT, BAR, LOUNGE				X	X	
17.00	5	ETC	P-DOC-C-SR-5	Paradigm Dual-Tech Occupancy Sensor for small rooms	VARIOUS FOH, SEE RISER	X		X		X	
18.00	5	ETC	P-DOC-C-LR-5	Paradigm Dual-Tech Occupancy Sensor for large rooms	VARIOUS FOH, SEE RISER	X		X		X	
19.00	4	ETC	COVER	Floor Pocket Cover	STAGE	X				X	
19.01	4	ETC	WELDMENT	Floor Pocket Weldment	STAGE	X				X	
19.02	4	ETC	8502AD	INSERT WITH 2 -20A EDISON	STAGE	X				X	X
20.00	1	ETC	CT-5900	City Theatrical Multiverse SHoW Baby 2.4GHz wireless DMX transceiver	STAGE	X					
20.01	2	ETC	CSR-M	ColorSource Relay Multiverse Receiver	STAGE	X					
20.02	2	ETC	CSR-YM	ColorSource Relay universal yoke mount kit	STAGE	X					
21.00	1	FTLT		EDGELYTE DMX DRIVER	STAGE	X		X		X	X
21.01	1	MISC		2-GANG BACKBOX	STAGE				X	X	

ARCHITECTURAL LIGHTING - BASE

Item	Qty	MANF.	Model/Part #	Description	Location	Theatrical Integrator: Provide New	Theatrical Integrator: Install	Theatrical Integrator: Low Voltage Terminate	Electrical Contractor: Provide New	Electrical Contractor: Install	Electrical Contractor: Line Voltage Terminate
L7	6	MISC		Dimmable LED 19lamp, compatible with ETC LED10 module (spares included)	HOUSE SCONCES	X				X	
L12	12	MISC		Dimmable LED 19lamp, compatible with ETC LED10 module (spares included)	HOUSE CHANDELIERS	X				X	
L10	18	CANTO	R500-F-3K-80-70	Dimmable LED retrofit module to fit existing housing.	HOUSE	X				X	X
L11	4	CANTO	R150S-F-3K-80-70-D	Dimmable LED retrofit module to fit existing housing.	BALCONY	X				X	X
L12	8	BOCA	NL-6-3-120-W-H-CLD-N-SD	Dimmable LED linear strip, adjustable	COVES	X				X	X
L14	1	FTLT	EL/F/24/12/R-B/DX	DMX controlled stage edge lighting. Red LEDs on 1', Blue LED on center	STAGE	X				X	X

ARCHITECTURAL CONTROL & LIGHTING - ALTERNATE

Item	Qty	MANF.	Model/Part #	Description	Location	Theatrical Integrator: Provide New	Theatrical Integrator: Install	Theatrical Integrator: Low Voltage Terminate	Electrical Contractor: Provide New	Electrical Contractor: Install	Electrical Contractor: Line Voltage Terminate
22.00	1	ETC	RRCLMDRDM150CV24WUL	Arclamp driver, 150w, 4 chan, RDM/DMX (use spare circuit in DRd)	BASEMENT	X		X		X	X
L7	6	ETC	ARCLE26G24C3000	Arclamp 3000K 24V Clear Globe E26	HOUSE SCONCES	X	X				
L12	12	ETC	RRCLMDRDM150CV24WUL	Arclamp 3000K 24V Clear Globe E26	HOUSE CHANDELIERS	X		X		X	X

THEATRICAL CONTROL & LIGHTING - ALTERNATE

Item	Qty	MANF.	Model/Part #	Description	Location	Theatrical Integrator: Provide New	Theatrical Integrator: Install	Theatrical Integrator: Low Voltage Terminate	Electrical Contractor: Provide New	Electrical Contractor: Install	Electrical Contractor: Line Voltage Terminate
4.01	1	JS	CD-3000+SV	CONTROL PROCESSOR	BASEMENT	X	X				
4.02	18	JS	CD80CM-SV	DUAL 20A NON-DIM POWER MODULE	BASEMENT	X					
7.00	4	SSRC		DMX GRIDIRON JUNCTION BOX	GRID - OVER STAGE	X		X		X	
8.00	9	ETC	ECPB DMXOUT	ECPB; DMX Output Plug-In Station	ELECTRICS, CATWALK, COVES, BALCONY	X	X	X			
8.01	9	ETC	ECPB PB1	ETC 1-gang, 2.5" deep back box, surface mount	ELECTRICS, CATWALK	X				X	
8.02	9	ETC	ECPB PB-U	U-Bolt Kit for ECPB Plug-in station (1 and 2 gang)	ELECTRICS, CATWALK	X				X	
10.00	2	ETC	ECPB DMXOUT/NET	ECPB; DMX OUT/ NET	STAGE LEFT, RIGHT	X	X	X			
10.01	2	ETC	ECPB PB2	ETC 2-gang, 2.5" deep back box, surface mount	STAGE LEFT, RIGHT	X				X	
L16	2	ETC	CSSPOTJR2550	ColorSource Spot jr, Original, black, ETL, twist lock (FOH STAIR LIGHTS)	CATWALK	X	X	X			
	2	ETC	DPA-C	1.4m powerCON to twist lock cable (included with fixture)	CATWALK	X	X				
	2	ETC	4005C	Safety Cable, 30in, black	CATWALK	X	X				
	2	ETC	4000CC	C-Clamp, black	CATWALK	X	X				
	1	MISC		5' XLR DMX CABLE	ELECTRICS	X	X	X			
	1	MISC		25' DMX CABLE	ELECTRICS	X	X	X			

UNISON DRd12 PANEL: ADP

JOB NUMBER: ***** | JOB NAME: Memorial Opera House | DATE: 8/17/2022 | SUB | NOTE: *****

SLOT	CIRCUIT	MODULE TYPE	ADDRESS UNI	ADDRESS ADD	ZONE	DESCRIPTION	FIXTURE CALLOUT	FIXTURE TYPE	FIXTURE QTY	FIXTURE LOAD	EM	LOAD PHASING A	LOAD PHASING B	LOAD PHASING C
1	97	R20	1	97	100	0-10v Downlight - Lobby	L2	0-10V	12	22.0		264		
2	98		1	98	100	0-10v Downlight - Lobby	L2	0-10V	9	22.0	X	198		
3	103	R20	1	103	101	0-10V Downlight - Box Office	L2	0-10V	6	22.0	X	132		
4	104		1	104	102	0-10V Downlight - Bar	L2	0-10V	6	22.0	X	132		
5	109	R20	1	109	100	0-10v Accent - Lobby	L12	0-10V	1	204.0		204		
6	110		1	110	102	0-10v Accent - Bar	L26	0-10V	2	204.0		408		
7	115	R20	1	115	202	0-10v Downlight - Lounge	L9	0-10V	6	42.0		252		
8	116		1	116	202	0-10v Downlight - Lounge	L9	0-10V	6	42.0	X	252		
9	99	R20	1	99		0-10v Downlight - Light Locks	L9	0-10V	2	42.0		84	84	
10	100		1	100		0-10v Downlight - Booth	L9	0-10V	2	42.0	X		84	
11	105	R20	1	105	100	0-10V Chandelier - Lobby	L14	0-10V	2	100.0			200	
12	106		1	106	202	0-10v Pendant - Lounge	L3	0-10V	2	46.0			92	
13	111	R20	1	111	104	0-10V Carpet Edge	L8	0-10V	10	200.0			2000	
14	112		1	112		0-10V Strip - Booth	L17, L18	0-10V	3	50.0			150	
15	117	R20	1	117		DMX Stage Edge Safety Light	L24	DMX	1	100.0			100	
16	118		1	118		SPARE							0	
17	101	LED10	1	101	104	Sconces - House	L15	ELV	8	8.0				64
18	102		1	102	104	Chandelier - House		ELV	8	20.0				160
19	107	LED10	1	107	202	Glowball Pendant - Lounge	L10	ELV	3	6.0				18
20	108		1	108		Sconces - Lobby	L7	ELV	2	8.0				16
21	113	LED10	1	113	104	Linear - House Left Boxes	L20	MLV	4	40.0				160
22	114		1			SPARE								0
23	119	D20	1	119	104	Retro 500 (8) & 150 (2) - House	L18 & L19	MLV	10	50.0				500
24	120		1	6	104	Retro 500 (10) & 150 (2) - House	L18 & L19	MLV	12	50.0	X			600

TOTAL WATTS: 1926 2710 1518
TOTAL AMPS: 16.05 22.58 12.65

ADDRESSING: | PM: *****
SEQUENCING: BALANCED | AE: *****
CIRCUIT: 97
UNIVERSE: 1
ADDRESS: 97

ACCESSORY OPTIONS:

EBDK DRd TAP KIT (7180A1202)	1
UNISON RIDE-THRU OPTION KIT (7180A1008)	1
UNISON BATTERY PACK OPTION KIT (7180A1355)	0
DRd 4 WIRE FLUORESCENT OPTION KIT (7183A1069)	1
DRd DALI OPTION KIT (7183A1070)	0

LOAD TYPE KEY:

INC = LINE VOLTAGE INCANDESCENT (D20)
FL2 = 2-WIRE FLUORESCENT DIMMING (D20)
FL3 = 3-WIRE FLUORESCENT DIMMING (D20F)
FLB = FLUORESCENT W/EMG FEED (D20FB)
ND = NON DIM CIRCUIT (CC20)
MLV = MAGNETIC LOW VOLTAGE (D20)
ELV = ELECTRONIC LOW VOLTAGE (ELV10)
FLND = FLUORESCENT NON-DIM
SW = SWITCHED/NON-DIMMING (R20AF)
0-10V = LOW VOLTAGE DIMMING

RACK CONTENTS:

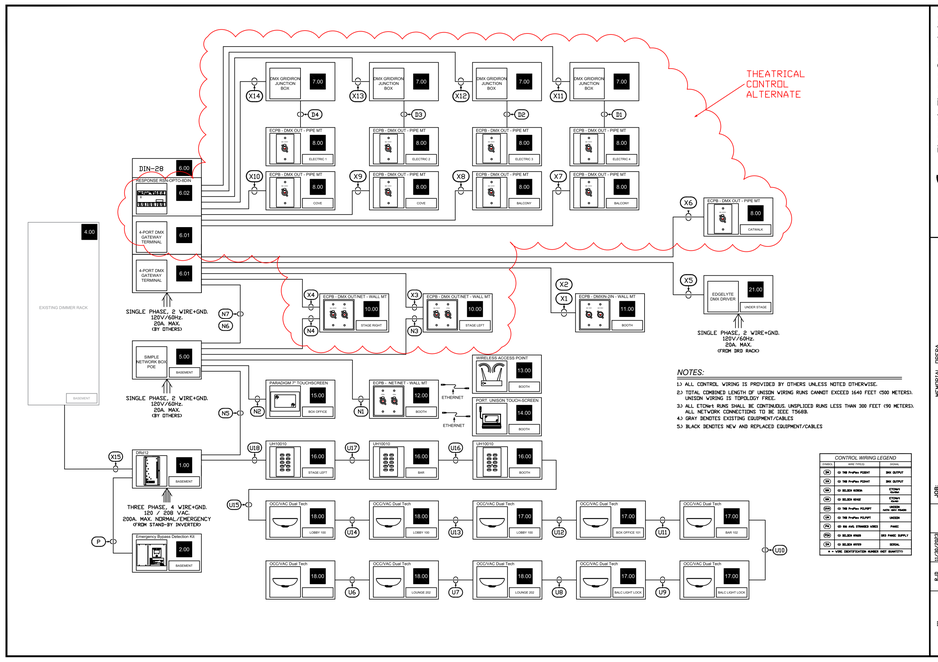
DRd12 100-120V ENCLOSURE (7183A1001)	1
(BY OTHER) MAIN BREAKER	0
PARADIGM STATION POWER MODULE MK2 (7182A1701)	1
PARADIGM ARCHITECTURAL CNTRL PROCESSOR 3 (7180A1029)	1
PARADIGM DRd TERMINATION KIT (7180A1007)	1
AFM AIRFLOW MODULE (7083A1072)	0
CC15 DUAL 15A CONSTANT CB (7083A1021)	0
CC20 DUAL 20A CONSTANT CB (7083A1025)	0
D15 DUAL 1.8KW DIMMER MODULE (7083A1018)	0
D20 DUAL 2.4KW 350US (7083A1022)	1
D15E DUAL1.8KW DIMMER MODULE (7083A1019)	0
D20E DUAL 2.4KW DIMMER MODULE (7083A1023)	0
D15F FLUORESCENT DIMMER MODULE (7083A1020)	0
D20F SGL 2.4KW FLUORESCENT SEN (7083A1024)	0
D15FB EM FLUORESCENT/CONSTANT MODULE (7183A1073)	0
D20FB EM FLUORESCENT/CONSTANT MODULE (7183A1074)	0
ELV10 DUAL 1.2KW REVERSE PHASE MODULE (7183A1017)	0
R15 DUAL RELAY MODULE 120V (7083A1084)	0
R20 DUAL RELAY MODULE 120V (7083A1085)	8
LED10 DUAL 1.2 KW 120V REVERSE PHASE MOD (7050A1296)	3
D15AF DUAL 1.8KW 500US SENSE (7050A1002)	0
D20AF DUAL 2.4KW 500US SENSE (7050A1004)	0

4c

ARCHITECTURAL AND THEATRICAL CONTROL AND LIGHTING BASE BID AND ALTERNATE NOTES:

1. ARCHITECTURAL LIGHTING CONTROL - BASE BID
   A. THE THEATRICAL INTEGRATOR IS RESPONSIBLE FOR MAINTAINING THE CONNECTION BETWEEN THE EXISTING CONSOLE AND THE EXISTING DMX NETWORK. THIS INCLUDES PROVIDING AND INSTALLING ANY DMX SPLITTERS AND CABLE NECESSARY TO ENSURE DMX COMMUNICATION FROM THE CONSOLE TO THE ARCHITECTURAL CONTROL.
2. ARCHITECTURAL CONTROL AND LIGHTING - ALTERNATE BID
   A. COORDINATION IS REQUIRED TO ENSURE SYSTEM FUNCTIONALITY:
      a. THE CONDITION OF ALL WIRING AND SOCKETS SHOULD BE VERIFIED. THIS SYSTEM REQUIRES WIRING AND SOCKETS IN EXCELLENT CONDITION. CONTRACTOR TO REPLACE ANY WIRING AND SOCKETS NOT IN EXCELLENT CONDITION.
      b. THE ELECTRICAL CONTRACTOR AND LIGHTING INTEGRATOR ARE RESPONSIBLE FOR COORDINATING THE DRIVER LOCATION BASED ON WIRING RUN LENGTH.
3. THEATRICAL CONTROL AND LIGHTING - ALTERNATE BID
   A. THE EXISTING DMX NETWORK IS TO BE REMOVED/DEMOLISHED AND REPLACED WITH THE BOM IN THE ALTERNATE.

ALL BIDDERS SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO BID.



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UNLESS OTHERWISE SPECIFIED - ALL DIMENSIONS ARE IN INCHES.

JOB: MEMORIAL OPERA HOUSE
LOCATION:
DRAWN FOR: SCHMIDT ASSOCIATES
MANUFACTURER: ELECTRONIC THEATER CONTROLS
TITLE: CONTROL RISER
CLI PROJECT #: *****
APPD
REV: D

DATE	BY	DESIGN DOCS
8.4.23	JS/DW/JNW	
8.4.23	PV/DK/JNW	
8.4.23	BK/CT/DSW	BID SET
8.4.23	BK/CT/DSW	---
8.4.23	BK/CT/DSW	---

ENGL TYPE
DRAWING: 1/1

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Project No. 2023-084.RMO
Project Date 12.01.2023
Produced EAG

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STATE OF INDIANA
ARCHITECT
Sarah K Hempstead

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#	Revision	Date
A2	Addendum #2	12.22.2023

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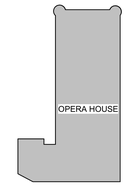

KEY PLAN

PORTER COUNTY
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Where the Arts Create Community

MEMORIAL OPERA HOUSE - MAIN PACKAGE - MAIN PACKAGE

THEATRICAL DIMMING
RISERS AND SCHEDULES

E-606.2