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Project # 24005 – SJCPL LaSalle Branch Renovation/Addition
3232 Ardmore Trail, South Bend, IN 46628

**ADDENDUM No. 1**
April 16th, 2025

This addendum and MEP addendum hereby becomes part of the Contract Documents. Each bidder shall acknowledge receipt of this addendum by number on the Bid Form.

It is each Prime Contractor's responsibility to notify all subcontractors of this addendum and provide copies for all sets of plans in their possession.

Item Description

1. **General Items:**
   - (a) Pre-bid meeting occurred on site on April 02, 2025. The pre-bid agenda and sign-in sheet are attached to this addendum. Questions and answers from the pre-bid meeting are listed here:
     - (i) Question: Who is required to cover Builders Risk Insurance?
     - (ii) Answer: Owner
     - (iii) Question: Who will be removing the book sorter?
     - (iv) Answer: Contractor to remove book sorter.
     - (v) Question: Will all the books be going into off-site storage during construction?
     - (vi) Answer: Yes.
     - (vii) Question: Is the owner or contractor responsible for removing collection from shelves as needed?
     - (viii) Answer: The owner will remove and store collection off site.
     - (ix) There was discussion focused on whether the owner would be occupying the building or not during construction, with a handful of questions centered around that topic. Be advised that the owner will be closing the building down to all public patrons and staff during construction.
       a. There are currently no identified locations for dumpster(s) or contractor materials storage. Any damage to the exterior sidewalk, parking spaces, or lawn shall be repaired by the contractor at completion of the work.

2. **Specification 012300 – Alternates**
   - (a) **Modification:** Modified language in Alternate #1 to use storefront door leafs instead of wood door leafs.

3. **Specification 042000 – Unit Masonry**
   - (a) **Addition:** Add this specification section in its entirety to the construction documents.

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4. **Specification 073113 – Asphalt Shingles**
    (a) **Addition:** Add approved alternate manufacturer and product:
        i. Malarkey Roofing Products – Vista AR architectural shingles

5. **Specification 083513.13 – Multi-panel Folding Aluminum-Framed Glass Doors**
    (a) **Addition:** Add approved alternate manufacturer and product:
        i. Corflex G602 Series Frameless Glass Wall – Paired Panel

6. **Specification 095426 – Suspended Wood Ceilings**
    (a) **Addition:** Add approved alternate manufacturer and product:
        i. 9Wood - 1100 Cross Piece Grill Ceiling
            1. Product shall match sizing and spacing of the basis of design product. Provide acoustic sound absorbing material above grilles. Provide Caddy Clip Locks at 20% of the ceiling panels for owner access above ceiling. Exact locations for the access panels to be coordinated with the owner on site.

7. **Specification 098433 – Sound Absorbing Wall Units**
    (a) **Addition:** Add approved alternate manufacturer and product:
        i. Frasch Brik Flow 4x8 – Chevron 2 pattern

8. **Specification 328800 – Planting Irrigation**
    (a) **Addition:** Add this specification section in its entirety to the construction documents.

9. **Sheet A-101 – First Floor Demolition Plan**
    (a) **Addition:** Demolition plan notes 3.28 and 3.29.
    (b) **Addition:** Add note regarding floor slab demolition at the existing restrooms: “ASSUME FLOOR SLAB DEMOLITION WITHIN THE EXISTING RESTROOMS TO PROPERLY REMOVE PLUMBING FIXTURES AND PREP FOR NEW FLOOR FINISH. NEW FLOOR SLAB AND EXISTING RECESSED SLAB TO BE MADE FLUSH WITH ADJACENT SLAB ELEVATION FOR FLAT TRANSITION IN FLOORING.”
    (c) **Delete:** Demolition notes 3.11 and 3.22 shall be removed from the project.
    (d) **Modification:** Demolition notes 3.03 and 3.14 added to the Demolition Plan.

10. **Sheet A-121 – First Floor Notation Plan**
    (a) **Addition:** Storefront elevation view A-601/9.
    (b) **Delete:** Plan notes 3.04 and 12.03 shall be removed from the project.

11. **Sheet A-131 – First Floor Reflected Ceiling Plan**
    (a) **Modification:** Reflected Ceiling Plan Note #10 to be modified to read “NEW PRE-FINISHED VENTED METAL SOFFIT”.

12. **Sheet A-141 – First Floor Finish Plan**
    (a) **Deletion:** Removed corner guards in the break room and in the youth collection children’s benches.

13. **Sheet A-201 – Building Elevations & Sections**
    (a) **Deletion:** Remove building elevation note 14.
    (b) **Modification:** Replace building elevation note 9 in place of note 14 on view A-201/1.

14. **Sheet A-312 – Wall Sections**
    (a) **Modification:** Wall section 4/A-312 has been modified to correctly reflect the paved area east of the addition doorway.

15. **Sheet A-402 – Interior & Casework Elevations**
    (a) **Deletion:** View 2, corner guards are deleted.
    (b) **Clarification:** View 5, dimensions cleaned up in this view.
    (c) **Clarification:** View 11, updated basis of design note for window film.
    (d) **Addition:** View 13, casework elevation notes 47.
    (e) **Modification:** View 14, dimension modifications to tall storage cabinets.

16. **Sheet A-501 – Exterior Plans and Details**
    (a) **Addition:** Foundation Details 3, 4, and 5 added to the sheet.

17. **Sheet A-601 – Door & Glazing Schedule/Details & Elevations**
    (a) **Modifications:** Door schedule modifications: Door 102 width; Removed duplicate door 126; Added alternate doors 130A & B; and added door schedule note 3.
    (b) **Modifications**: View 1, 2, 5, & 6 to have a 4.5” sills.
    (c) **Addition:** View 9, storefront elevation H; added storefront elevation for Alternate #1 scope between LOUNGE 127 and LARGE MEETING ROOM 130.
    (d) **Addition:** Storefront details 11 – 15.

18. **Attachments:**
    (a) Pre-Bid Sign-in sheet and agenda.
    (b) **Architectural Specifications:** 012300, 042000, 087100
    (c) **Landscape Specifications:** 328800
    (d) **Architectural Sheets:** A-101, A-121, A-141, A-201, A-312, A-402, A-501, A-601
    (e) **Mechanical Addendum Coversheet**
    (f) **Mechanical Sheets:** M-101, M-201, M-301, M-401, M-402, M-601, M-701

End of Addendum 1

Sincerely,

MKM architecture + design

Benjamin D. McHugh, AIA,
Associate

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# SJCPL LaSALLE RENOVATION & ADDITION - PRE-BID MEETING AGENDA

**St. Joe County Public Library – LaSalle Branch**
**3232 Ardmore Trail, South Bend, IN 46628**

**April 02, 2025 | 10:00 AM**

A. *Description of Project*: The project consists of interior renovations consisting of new rooms, finishes, casework, and MEP improvements as well as a small addition on the building's south facade. The project also includes exterior renovations consisting of landscape upgrades and sidewalk / parking lot repair. The work extents are indicated in the Contract Documents.

B. *Bid Submission*: Bids will be due no later than **3:00 PM on Wednesday, April 23, 2025** at the SJCPL Main Branch Library, located at 304 S. Main Street, South Bend, IN 46601 at the Third Floor Administrative Offices. Bid envelopes shall contain the project name, bidder's name, address, account number, and shall be addressed to the St. Joe County Public Library. Bids shall be guaranteed for sixty (60) days and should be submitted in duplicate on the Account Bid Proposal Form and Indiana State Board of Accounts Form 96 with attached Financial Statements, properly signed and notarized Non-Collusion Affidavit, as well as all other requirements. See specifications for more information. Bids will be opened publicly immediately afterward at 3:00 PM and read aloud at the Third Floor Administrative Offices.

C. *Schedule*: Mobilization can begin after contract has been awarded and signed. Construction assumed to begin May 19, 2025.

D. *Notice to Bidders*: This project does not have a pre-defined wage scale.

E. *Questions and Clarifications*: Questions are to be emailed to Ben McHugh (BMcHugh@MKMdesign.com).

F. *Access to the Building:* All bidders are free to access the public area of the Library during regularly scheduled hours. If any bidder would like to schedule a time to visit the building to review non-public areas, requests should be filed with the Architect via email.

G. *Access to Project Documents*: All contract documents can be accessed by contacting the Eastern Engineering Planroom, located at 1239 North Wells Street, Fort Wayne, Indiana 46808 (260-426-3119). Prints can be purchased through http://easternengineering.com

H. *Addenda*: All official addenda will be issued through the Eastern Engineering virtual plan room. Hardcopies will also be available at the library for reference and review.

I. *Bonds*: The cost of the bonds is to be included within the base bid. Performance, Labor, and Material Payment Bonds will be required by the Owner for 100% of the contract amount.

J. *Tax Exemption*: The Owner is exempt of all state and local taxes. Therefore, the state and local taxes are not to be included within bids. The Owner's Tax Exempt Number will be supplied to the successful bidder.

*K. Questions*

cc: Stephanie Murphy, All Plan Holders, MKM File

*P:\25004 St. Joe County Public Library LaSalle Branch\Drawing\4Contract\Pre-Bid\2025-04-02 LaSalle Pre-Bid Agenda.docx*

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**ST. JOE COUNTY PUBLIC LIBRARY – LaSALLE BRANCH RENOVATION & ADDITION**
**PRE-BID MEETING SIGN-IN**
April 02, 2025 at 10:00 AM

| NAME | REPRESENTING | |
|---|---|---|
| | | GHICKS@GL.NCEUSA |
| | | Email EVANOVERBERGHE@GL.NCEUSA |
| ERIC VAN OVERBERGHE | GIBSON-LEWIS | phone 574-532-8967 |
| | | Email MKanouse@Ryodlerconstruction.com |
| Mike Kanouse | R. Yoder | phone 574-275-2809 |
| | | Email Tim@BBGC.US |
| Tim Moore | Brown & Brown | phone 574-862-2171 |
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**ST. JOE COUNTY PUBLIC LIBRARY – LaSALLE BRANCH RENOVATION & ADDITION**
**PRE-BID MEETING SIGN-IN**
April 02, 2025 at 10:00 AM

| NAME | REPRESENTING | |
|---|---|---|
| Bob Banaszak | IBEW 153 | Email BBanaszak@IBEW153.com<br>phone 574 287 8655 |
| Anthony Lara | Larson-Danielson | Email ABL@LDconstruction.com<br>phone 219-575-6120 |
| Zachery Harrison | DLZ | Email zharrison@dlz.com<br>phone 574-245-1655 |
| Matt Coleman | TRHC | Email mcoleman@robertmeyercorp.com<br>phone 574-232-2091 |
| MICHAEL KRIZMAN | DLZ | Email mkrizman@dlz.com<br>phone 574-245-1720 |
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# SECTION 012300 – ALTERNATES (Addendum 1)

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

### 1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

### 1.3 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other work of the Contract.

C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 SCHEDULE OF ALTERNATES

**A. Alternate No. 1: Operable Walls (Deduct)**

1. ***Base Bid:*** Provide the two operable walls as shown on the drawings.
2. ***Alternate*****:** Deduct to change these openings to stationary aluminum storefront frames and swinging storefront aluminum doors.

**B. Alternate No. 2: Wood Ceiling (Deduct)**

1. ***Base Bid:*** Provide the wood ceiling as shown on the drawings.
2. ***Alternate*****:** Deduct – Retain the existing acoustical tile ceiling grid to match the adjacent acoustical tile grid to remain. The alternate shall assume that the designed linear pendant lights shall remain pendants, but the diffusers and can lights shall be modified to ceiling recessed versions of the designed fixture/product.

**C. Alternate No. 3: Full Ceiling Replacement (Add)**

1. ***Base Bid:*** Provide new ceiling tiles throughout but only replace the existing ceiling grid where shown on drawings.
2. ***Alternate*****:** Add work and materials required to remove and replace all of the existing acoustical tile ceiling grid.

**D. Alternate No. 4: Parking Lot Mill & Resurface (Add)**

1. ***Base Bid:*** Provide patching of the existing asphalt parking lot adjacent to sidewalk & curb replacement as shown on drawings.
2. ***Alternate*****:** Add the scope to mill and resurface the entire parking lot owned by the library. Full restriping of the parking lot shall also be included in this cost.

**E. Alternate No. 5: Full Sidewalk Replacement (Add)**

1. ***Base Bid:*** Provide partial replacement of existing sidewalk as shown on the drawings.
2. ***Alternate*****:** Add the scope to replace all of the existing library owned sidewalks in place.

**F. Alternate No. 6: Irrigation System (Add)**

1. ***Base Bid:*** Remove the existing irrigation system.
2. ***Alternate*****:** Add – Provide Delegated Design, procurement, and installation of a new irrigation system for all landscape beds.

END OF SECTION 012300

# SECTION 042000 - UNIT MASONRY

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Face brick (Brick Veneer).

### 1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples for Verification: For each type and color of exposed masonry unit and colored mortar.

### 1.3 QUALITY ASSURANCE

A. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.

B. Mockups: Build mockups of face brick assembly to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
   1. Build mockups for typical exterior wall in sizes approximately 48 inches (1200 mm) long by 48 inches (1200 mm)] high by full thickness, including face and backup wythes and accessories.
      a. Include a sealant-filled joint at least 16 inches (400 mm) long in each mockup.
      b. Include through-wall flashing installed for a 24-inch (600-mm) length in corner of exterior wall mockup approximately 16 inches (400 mm) down from top of mockup, with a 12-inch (300-mm) length of flashing left exposed to view (omit masonry above half of flashing).
      c. Include wood studs, sheathing, water-resistive barrier sheathing joint-and-penetration treatment air barrier, veneer anchors, flashing, cavity drainage material, and weep holes in exterior masonry-veneer wall mockup.
      d. Include transition to pre-cast concrete water table and fiber cement lap siding above.
   2. Clean exposed faces of mockups with masonry cleaner as indicated.
   3. Protect accepted mockups from the elements with weather-resistant membrane.
   4. Approval of mockups is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; and aesthetic qualities of workmanship.

a. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

5. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion..

1.4 PROJECT CONDITIONS

A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MASONRY UNITS, GENERAL

A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.

B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

2.2 FACE BRICK

A. General: Provide shapes indicated and as follows:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
2. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

B. Face Brick: Facing brick complying with ASTM C 216.

1. *Basis of Design*: TBD – Cream colored to match existing facing brick veneer.

2. Approved manufacturers:

a. Acme Brick Co (Fort Worth, Texas)

b. Belden Brick Co (Canton, Ohio)
c. Endicott Clay Products Co (Fairbury, Nebraska)
d. Glen-Gery Corp (Wyomissing, Pennsylvania)
e. Sioux City Brick (Sioux City, Iowa)

3. Initial Rate of Absorption: Less than 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested per ASTM C 67.
4. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
5. Standard Modular Brick (Actual Dimensions): 3-5/8 inches (92 mm) wide by 2-1/4 inches (57 mm) high by 7-5/8 inches (194 mm) long.

## 2.3 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

B. Hydrated Lime: ASTM C 207, Type S.

C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

D. Masonry Cement: ASTM C 91.

E. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979. Use only pigments with a record of satisfactory performance in masonry mortar. Architect to select from manufacturer’s full color range.

F. Colored Cement (as applicable): Packaged blend made from portland cement and hydrated lime or masonry cement and mortar pigments, all complying with specified requirements, and containing no other ingredients.

G. Aggregate for Mortar: ASTM C 144.

1. White-Mortar Aggregates: Natural white sand or crushed white stone.
2. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.

H. Aggregate for Grout: ASTM C 404.

A. Cold-Weather Admixture: Cold-Weather Admixtures are not permitted.

B. Water: Potable.

2.4 REINFORCEMENT

A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60 (Grade 420).

B. Masonry Joint Reinforcement, General: ASTM A 951/A 951M.

1. Interior Walls: Hot-dip galvanized, carbon steel.
2. Exterior Walls: Hot-dip galvanized, carbon steel.
3. Wire Size for Side Rods: 0.148-inch (3.77-mm) diameter.
4. Wire Size for Cross Rods: 0.148-inch (3.77-mm) diameter.
5. Wire Size for Veneer Ties: 0.148-inch (3.77-mm) diameter.
6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches (407 mm) o.c.
7. Provide in lengths of not less than 10 feet (3 m), with prefabricated corner and tee units.

C. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.

2.5 TIES AND ANCHORS

A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.

1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 153/A 153M, Class B-2 coating.
2. Steel Sheet, Galvanized after Fabrication: ASTM A 1008/A 1008M, Commercial Steel, with ASTM A 153/A 153M, Class B coating.
3. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

B. Wire Ties, General: Unless otherwise indicated, size wire ties to extend at least halfway through veneer but with at least 5/8-inch (16-mm) cover on outside face. Outer ends of wires are bent 90 degrees and extend 2 inches (50 mm) parallel to face of veneer.

C. Adjustable Masonry-Veneer Anchors:

1. General: Provide anchors that allow vertical adjustment but resist tension and compression forces perpendicular to plane of wall, for attachment over sheathing to wood or metal studs, and as follows:

a. Structural Performance Characteristics: Capable of withstanding a 100-lbf (445-N) load in both tension and compression without deforming or developing play in excess of 0.05 inch (1.3 mm).

b. Basis of Design: DW-10HS Adjustable Veneer Anchor; HB, Inc. , Hauppauge, NY 11788, (631) 234-0600, www.h-b.com
1) Hot-dipped galvanized, 12 ga.

D. Anchor Bolts: Headed steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153/A 153M, Class C; of dimensions indicated.

## 2.6 EMBEDDED FLASHING MATERIALS

A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual", Section 076200 "Sheet Metal Flashing and Trim" and as follows:

1. Metal Drip Edge: Fabricate from stainless steel. Extend at least 3 inches (76 mm) into wall and 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.
2. Metal Sealant Stop: Fabricate from stainless steel. Extend at least 3 inches (76 mm) into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch (19 mm) and down into joint 1/4 inch (6 mm) to form a stop for retaining sealant backer rod.

B. Flexible Flashing: Use one of the following unless otherwise indicated:

1. Copper-Laminated Flashing: 5-oz./sq. ft. (1.5-kg/sq. m) copper sheet bonded between 2 layers of glass-fiber cloth. Use only where flashing is fully concealed in masonry.
2. Rubberized-Asphalt Flashing: Composite flashing product consisting of a pliable, adhesive rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 0.040 inch (1.02 mm).

C. Solder and Sealants for Sheet Metal Flashings: As specified in Section 076200 "Sheet Metal Flashing and Trim."

D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

## 2.7 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; formulated from neoprene.

B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D 2000, Designation M2AA-805 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.

C. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).

D. Weep/Vent Products: Use the following unless otherwise indicated:

1. Mesh Weep/Vent: Free-draining mesh; made from polyethylene strands, full height and width of head joint and depth 1/8 inch (3 mm) less than depth of outer wythe; in color selected from manufacturer's standard.

E. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity.
1. Basis of Design: Mortar Net Solutions®, 326 Melton Road, Burns Harbor, IN 46304, (800)664-6638, www.MortarNet.com

2. Provide the following configurations:

a. Strips, full-depth of cavity and min 12 inches (250 mm) high, with dovetail shaped notches 7 inches (175 mm) deep.

## 2.8 MASONRY CLEANERS

A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

## 2.9 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Use portland cement-lime or masonry cement mortar unless otherwise indicated.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.

1. For masonry below grade or in contact with earth, use Type M.
2. For reinforced masonry, use Type S.
3. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.

D. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.

1. Pigments shall not exceed 10 percent of portland cement by weight.
2. Pigments shall not exceed 5 percent of masonry cement by weight.
3. Application: Use pigmented mortar for exposed mortar joints.

E. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.

F. Grout for Unit Masonry: Comply with ASTM C 476.

1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

A. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.

C. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

### 3.2 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation do not vary by more than plus 1/2 inch (12 mm) or minus 1/4 inch (6 mm).
2. For location of elements in plan do not vary from that indicated by more than plus or minus 1/2 inch (12 mm).
3. For location of elements in elevation do not vary from that indicated by more than plus or minus 1/4 inch (6 mm) in a story height or 1/2 inch (12 mm) total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than 1/4 inch in 10 feet (6 mm in 3 m), or 1/2 inch (12 mm) maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.
3. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet (6 mm in 3 m), 3/8 inch in 20 feet (9 mm in 6 m), or 1/2 inch (12 mm) maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.
5. For lines and surfaces do not vary from straight by more than 1/4 inch in 10 feet (6 mm in 3 m), 3/8 inch in 20 feet (9 mm in 6 m), or 1/2 inch (12 mm) maximum.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3 mm), with a maximum thickness limited to 1/2 inch (12 mm).
2. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch (9 mm) or minus 1/4 inch (6 mm).
3. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3 mm).

## 3.3 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.

C. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

D. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

E. Fill cores in hollow CMUs with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

## 3.4 MORTAR BEDDING AND JOINTING

A. Lay hollow CMUs as follows:

1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
3. With webs fully bedded in mortar in grouted masonry, including starting course on footings.
4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.

B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

## 3.5 MASONRY JOINT REINFORCEMENT

A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch (16 mm) on exterior side of walls, 1/2 inch (13 mm) elsewhere. Lap reinforcement a minimum of 6 inches (150 mm).

1. Space reinforcement not more than 16 inches (406 mm) o.c.
2. Provide reinforcement not more than 8 inches (203 mm) above and below wall openings and extending 12 inches (305 mm) beyond openings.

B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.

C. Provide continuity at wall intersections by using prefabricated T-shaped units.

D. Provide continuity at corners by using prefabricated L-shaped units.

## 3.6 ANCHORING MASONRY VENEERS

A. Anchor masonry veneers to wall framing with masonry-veneer anchors to comply with the following requirements:

1. Fasten anchors through sheathing to wall framing with metal fasteners of type indicated. Use two fasteners unless anchor design only uses one fastener.
2. Embed tie sections in masonry joints. Provide not less than 2 inches (50 mm) of air space between back of masonry veneer and face of sheathing.
3. Locate anchor sections to allow maximum vertical differential movement of ties up and down.
4. Space anchors as indicated, but not more than 32 inches (406 mm) o.c. vertically and 24 inches (610 mm) o.c. horizontally with not less than 1 anchor for each 2.67 sq. ft. (0.25 sq. m) of wall area. Install additional anchors within 12 inches

(305 mm) of openings and at intervals, not exceeding 36 inches (914 mm), around perimeter.

## 3.7 FLASHING, WEEP HOLES, CAVITY DRAINAGE, AND VENTS

A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.

B. Install flashing as follows unless otherwise indicated:

1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
2. At lintels and shelf angles, extend flashing a minimum of 6 inches (150 mm) into masonry at each end. At heads and sills, extend flashing 6 inches (150 mm) at ends and turn up not less than 2 inches (50 mm) to form end dams.
3. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal drip edge.
4. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal flashing termination.

C. Install weep holes in head joints in exterior wythes of first course of masonry immediately above embedded flashing and as follows:

1. Use specified weep/vent products to form weep holes.
2. Space weep holes 24 inches (600 mm) o.c. unless otherwise indicated.

D. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.

E. Install vents in head joints in exterior wythes at spacing indicated. Use specified weep/vent products to form vents.

1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

## 3.8 REINFORCED UNIT MASONRY INSTALLATION

A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.

1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.

B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.

C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.

1. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
2. Limit height of vertical grout pours to not more than 60 inches (1520 mm).

## 3.9 REPAIRING, POINTING, AND CLEANING

A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes.
2. Protect surfaces from contact with cleaner.
3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
4. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
6. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.

## 3.10 MASONRY WASTE DISPOSAL

A. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.

1. Do not dispose of masonry waste as fill within 18 inches (450 mm) of finished grade.

B. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042000

# SECTION 08710 - DOOR HARDWARE

## PART 1- GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

### 1.2 SUMMARY

A. This section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.

B. This section includes the following:

1. Hinges.
2. Lock cylinders and keys.
3. Lock and latch sets.
4. Wall, Floor Stops, & Bolts.
5. Exit Devices.
6. Push/pull units.
7. Overhead Closers and Automatic Door Operators.
8. Overhead Stops & Holders.
9. Kick, Mop, and Armor Plates.
10. Gasketing & Seals.

C. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 6 Section “Interior Architectural Woodwork” for cabinet hardware.
2. Division 8 Section “Standard Steel Doors and Frames” for silencers integral with hollow metal frames.
3. Division 8 Section “Flush Wood Doors” for factory prefitting and factory premachining of doors for door hardware.

### 1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.

B. Product data including manufacturer’s 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.

Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into "hardware sets" indicating complete designations of every item required for each door or opening. Include the following information:

    a. Type, style, function, size, and finish of each hardware item.
    b. Name and manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of each hardware set cross referenced to indications on Drawings both on floor plans and in door and frame schedule.
    e. Explanation of all abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for hardware.
    g. Door and frame sizes and materials.
    h. Keying information.

2. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of schedule

3. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.

C. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawing of other work to confirm that adequate provision are made for locating and installing door hardware to comply with indicated requirements.

D. When matching an existing facility, an onsite coordinated walk through by door hardware supplier and general contractor shall take place. Lever style of locksets, lengths of hardware such as push bars & pull handles or any other unique hardware applications that may deviate from the specified hardware, shall be noted during the submittal to match for approval. Verification of these existing conditions, with intent to remain with the same hardware manufacturers and finishes, are required prior to procurement.

1.4 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) From a single manufacturer

B. Supplier Qualification: A recognized architectural door hardware supplier, with warehousing facilities within 50 miles of the job site that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced architectural hardware consultant who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.

1. Require supplier to meet with Owner to finalize keying requirements and to obtain final instructions in writing.

C. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to Protect tested by UL, Warnock Hersey, FM, or other testing and inspecting organization acceptable to authorities having jurisdiction for use on types and sizes of door indicated in compliance with requirements of fire-rated door and door frame labels

1.5 PRODUCT HANDLING

A. Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.

B. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set number of approved hardware schedule. Two or more identical sets may be packed in same container.

C. Inventory door hardware jointly with representative of hardware supplier and hardware installer until each is satisfied that count is correct.

D. Deliver individually packaged door hardware items promptly to place of installation (shop or Project site).

E. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.6 MAINTENANCE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include the following: (Manufacturer whose name is prefixed with an asterisk *, indicates the manufacturer whose products are listed in the schedule at the end of this section.)

1. Hinges:
   a. * Ives
   b. Stanley

c. Hager

2. Lock Cylinders and Keys:
   a. *BEST

3. Lock and Latchsets:
   a. *BEST

4. Wall, Floor Stops, & Bolts:
   a. * Ives
   b. Rockwood

5. Exit Devices
   a. *Von Duprin
   b. Sargent

6. Push/Pull Units:
   a. * Ives
   b. Rockwood

7. Overhead Closers and Automatic Door Operators:
   a. *LCN
   b. Sargent

8. Overhead Stops & Holders:
   a. * Glynn Johnson

9. Kick, Mop, and Armor Plates:
   a. * Ives
   b. Rockwood

10. Gasketing & Seals:
    a. * NGP
    c. Pemko

## 2.2 SCHEDULED HARDWARE

A. Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of finish hardware are indicated in the “Hardware Schedule” at the end of this Section. Products are identified by using hardware designation numbers of the following:

1. Manufacturer’s Product Designation: The product designation and name of one manufacturer are listed for each hardware type required for the purpose of establishing minimum requirements. Provide either the product designated or, where more than one manufacturer is specified under the Article “Manufacturers” in Part 2 for each hardware type, the comparable product of one of the other manufacturers that complies with requirements.

2.3 MATERIALS AND FABRICATION

A. Manufacturer's Name Plate: Do not use manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise acceptable to Architect.

1. Manufacturer's identification will be permitted on rim of lock cylinders only.

B. Base Metals: Produce hardware units of basic metal and forming method indicated using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware unit for finish designations indicated.

C. Fastener: provide hardware manufactured to conform to published templated, generally prepared for machine screw installation. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.

D. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.

2.4 HINGES, BUTTS, AND PIVOTS

A. Templates: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.

B. Screws: Provide Phillips flat-head screws complying with the following requirements:

1. For metal doors and frames install machine screws into drilled and tapped holes.
2. For wood doors and frames install wood screws.
3. For fire-rated wood doors install #12 x 1 1/4-inch (32mm), threaded-to-the-head steel wood screws.
4. Finish screw heads to match surface of hinges or pivots

C. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

1. Out-Swing Exterior Doors: Nonremovable pins.
2. Interior Doors: Non rising pins.
3. Tips: Flat button and matching plug, finished to match leaves, except where hospital tip (HT) indicated.

D. Number of Hinges: Provide number of hinges indicated but not less than 3 hinges per door leaf for doors 90 inches (2250mm) or less in height and one additional hinge for each 30 inches (750mm) of additional height.

1. Fire-Rated Doors: Not less than 3 hinges per door leaf for doors 86 inches (2150mm) or less in height with same rule for additional hinges.

2.5 LOCK CYLINDERS AND KEYING

A. Provide DormaKaba BEST IC interchangeable cores integrated into Owner's existing master key system. Allow for 3 change keys per lock/cylinder and a total of 6 master keys.

2.6 LOCKS, LATCHES, AND BOLTS

A. Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt, with curved lip extended to protect frame, finished to match hardware set, unless otherwise indicated.

1. Provide flat lip strikes for locks with 3-piece, antifriction latch bolts as recommended by manufacturer.
2. Provide extra-long strike lips for locks used on frames with applied wood casing trim.
3. Provide recess type top strikes for bolts locking into head frames, unless otherwise indicated.

B. Lock Throw: Provide 5/8-inch (16mm) minimum throw of latch on pairs of doors. Comply with UL requirements for throw of bolts and latch bolts on rated fire openings.

1. Provide ½-inch (13mm) minimum throw of latch for other bored and preassembled types of locks and 3/4-inch (19mm) minimum throw of latch for mortise locks. Provide 1-inch (25mm) minimum throw for all dead bolts.

C. Flush Bolt Heads: Minimum of ½-inch (13mm) diameter rods of brass, bronze, or stainless steel with minimum 12-inch (300mm) long rod for doors up to 84 inches (2100mm) in heights. Provide longer rods as necessary for doors exceeding 84 inches (2100mm) in height.

D. Exit Device Dogging: Except on fire-rated doors where closers are provided on doors equipped with exit devices, equip the unit with keyed dogging device to keep the latch bolt retracted, when engaged.

2.7 PUSH/PULL UNITS

A. Exposed Fasteners: Provide manufacturer's standard exposed fasteners for installation, thru-bolted for matched pairs but not for single units.

B. Concealed Fasteners: Provide manufacturer's special concealed fastener system for installation, thru-bolted for matched pairs but not for single units.

2.8 CLOSERS AND DOOR CONTROL DEVICES

A. Size of Units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit depending on size of door, exposure to weather, and anticipated frequency of use.

1. Where parallel arms are indicated for closers, provide closer unit one size larger than recommended for use with standard arms.
2. Provide parallel arms for all overhead closers, except as otherwise indicated.

B. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ANSI A117.1 provisions for door opening force and delayed action closing.

C. Combination Door Closers and Holders: Provide units designed to hold door in open position under normal usage and to release and close door automatically under fire conditions. Incorporate an integral electromagnetic holder mechanism designed for use with UL listed fire detectors, provided with normally closed switching contacts.

2.9 DOOR TRIM UNITS

A. Fasteners: Provide manufacturer's standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.

B. Fabricate edge trim of stainless steel to fit door thickness in standard lengths or to match height of protection plates.

C. Fabricate protection plates not more than 2 inches less than door width on the push side by the height indicated.

1. Metal Plates: Stainless Steel, .050 inch (U.S. 16 gage) (1.6mm).

2.10 HARDWARE FINISHES

A. Match items to the manufacturer's standard color and texture finish for the latch and lock sets (for push-pull units if no latch or lock sets).

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

C. The designations used in schedules and elsewhere to indicate hardware finishes are the industry recognized standard commercial finishes, except as otherwise noted.

1. Rust-Resistant Finish: For iron and steel base metal required for exterior work and in areas shown as "High Humidity" areas (and also when designed with the suffix-RR), provide 0.2ml (0.005mm) thick copper coating on base metal before applying brass, bronze, nickel, or chromium plated finishes.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Mount hardware units at heights indicated in following applicable publication, except as specifically indicated or required to comply with governing regulation and except as otherwise directed by Architect.

1. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.

B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Section. Do not install surface mounted items until finishes have been completed on the substrates involved.

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

D. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

E. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7 Section "Joint Sealers."

F. Weatherstripping and Seals: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.2 ADJUSTING, CLEANING, AND DEMONSTRATING

A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.

B. Clean adjacent surfaces soiled by hardware installation.

C. Instruct Owner's personnel in proper adjustment and maintenance of door hardware and hardware finishes.

3.3 ELECTRONIC DOOR HARDWARE (RESPONSIBILITY)

A. Hardware supplier is responsible to furnish and install all low voltage wiring for all electronic door hardware provided in this section, including electronic exit devices, power supplies, power transfers, electric strikes, electric locks, automatic door operators, operator push button or hands-free actuators, and other electronic door hardware specified and provided as part of this specification section. Hardware supplier is also required to install automatic door operators and actuators with factory trained installers and return at completion of project to make final adjustments and instruct owner in use/adjustment of equipment.

B. Installers are required to be factory trained/certified by manufacturers of electronic door hardware.

C. Electrical Contractor (EC) is responsible to furnish and install 120VAC power to all power supplies, automatic operator headers, and other locations required, noted herein, and/or shown on the electrical drawings.
   1. EC is also responsible to provide and install all conduit and/or wire chases for low voltage wiring and all required electrical boxes and junction boxes for electronic hardware – including, but not limited

to: Electric Strikes, Electric Power Transfers (EPT), Key Switches, Automatic Door Operators, Push or Hands-Free Actuators.

2. EC is also responsible for all low voltage wiring of Door Position Switches (DPS). Frame and door contacts to be factory concealed/mortised, but will not be installed or wired by frame/door supplier.

D. Hardware Supplier is to meet with Electrical Contractor (EC) early during the construction period to instruct EC in requirements for power and for low voltage conduit/chases. Hardware supplier and EC are to communicate continually during construction as necessary to coordinate power with low voltage electronic hardware requirements.

E. Access Control System and all materials by the Division 28 security contractor are to be furnished, installed and wired by that contractor for all access control and security hardware devices – including, but not limited to: All Power Supplies. Credential Readers (CR) where mounted on frame jamb faces, or door integrated hardware access CRs. All templates for concealed/mortised hardware in frames and doors need to be provided to the Architect and returned with frame/door/hardware submittals to be included during procurement of Division 08 materials.

3.4 HARDWARE SCHEDULE

A. General: Provide hardware for each door to comply with requirements of Section “Door Hardware,” hardware set numbers indicated in door schedule, and in the following schedule of hardware sets.

# Hardware Sets

## Set #001

Doors: 100A

| | | | | |
|---|---|---|---|---|
| 1 | Continuous Hinge | 112HD 83" EPT | 628 | IV |
| 1 | Continuous Hinge | 112HD 83" | 628 | IV |
| 1 | Steel Mullion | KR4954 7'6" | SP28 | VO |
| 1 | Exit Device | SD-QEL 99NL-OP x 110MD-NL | US26D | VO |
| 1 | Exit Device | CD 99EO | US26D | VO |
| 1 | Rim Cylinder | 12E-72 PATD | 626 | BE |
| 3 | Mortise Cylinder | 1E-74 PATD | 626 | BE |
| 2 | Door Pull | 8190EZHD-2 | US32D316 | IV |
| 1 | Closer | 4040XP RWPA | AL | LC |
| 1 | Adapter Plate | 4040XP-18PA | AL | LC |
| 1 | Automatic Operator | 9542 REGARM HDR2 | AL | LC |
| 2 | Overhead Stop | 104S | US32D | GL |
| 1 | Power Supply | PS902 900-2RS | | VO |
| 1 | Electric Power Transfer | EPT 10 | SP28 | VO |
| 1 | Time Delay | TDM | | MSED |
| 2 | Door Sweep | D698 A 36" | | NA |
| 1 | Threshold | 896 V 72" | AL | NA |

NOTE: Perimeter seal by door manufacturer. Operation: Ingress by pull handles when exit devices are dogged by key cylinder during normal business hours or by RHR active automatic operator actuator button from outside. Doors locked after business hours by undogging cylinders. Free egress during business hours by RHR vestibule automatic operator actuator button, only when exit devices are cylinder dogged. When undogged, automatic operator will not allow ingress or egress. Free egress by exit device at all times. See contract plans for actuator locations.

## Set #002

Doors: 100B

| | | | | |
|---|---|---|---|---|
| 2 | Continuous Hinge | 112HD 83" | 628 | IV |
| 2 | Push/Pull Combo | 9190EZHD-2 32" | US32D316 | IV |
| 1 | Closer | 4040XP RWPA | AL | LC |
| 1 | Automatic Operator | 9542 REGARM HDR2 | AL | LC |
| 2 | Overhead Stop | 104S | US32D | GL |
| 1 | Actuator | 59HSS | | MSED |
| 1 | Wall Actuator-Double | 59V-HSS | | MSED |

NOTE: Operation: Ingress by pull handles or by LHR active automatic operator actuator button from vestibule. Free egress by push bar or lobby actuator button at all times. See contract plans for actuator locations.

## Set #003

Doors: 101

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 5 x 4 1/2 | 652 | IV |
| 1 | Lockset | 9K3-7D16C PATD S3 | 626 | BE |
| 1 | Overhead Stop | 105S | US32D | GL |
| 1 | Protection Plate | 8400 4" x 40" B-CS | US32D | IV |

## Set #004

Doors: 102

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 4 1/2 x 4 1/2 NRP | 630 | IV |
| 1 | Lockset | 9K3-7D16C PATD S3 | 626 | BE |
| 1 | Closer | 4040XP RW62A | AL | LC |
| 1 | Overhead Stop | 904S | US32D | GL |
| 1 | Latch Protector | PLP-211-EBF | DU | DJ |
| 1 | Gasketing | A626 A 1 x 36" 2 x 84" | | NA |
| 1 | Drip Cap | 16 A 40" | | NA |
| 1 | Door Sweep | D698 A 36" | | NA |
| 1 | Threshold | 896 V 36" | AL | NA |

## Set #005

Doors: 107

| | | | | |
|---|---|---|---|---|
| 1 | Electric Strike | 6211 | US32D | VO |
| 1 | Closer | 1461 REGARM | AL | LC |
| 1 | Power Supply | PS902 | | VO |

NOTE: Existing opening to receive new CR. Credential Reader (CR) by others. Operation: Ingress by CR or key. Free egress at all times. Verify the following prior to procurement: 1. Existing BEST lockset is storeroom function, 626 finish. If yes, do not procure new (in this set) and leave existing. 2. Existing door has closer. If yes, do not procure new (in this set).

## Set #006

Doors: 108A

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 4 1/2 x 4 1/2 | 652 | IV |
| 1 | Exit Device | 99L x 996L-R&V 99-ALK-RX | US26D | VO |
| 1 | Rim Cylinder | 12E-72 PATD | 626 | BE |
| 1 | Mortise Cylinder | 1E-74 PATD | 626 | BE |
| 1 | Closer | 1461 RWPA | AL | LC |
| 1 | Protection Plate | 8400 8" x 34" B-CS | US32D | IV |
| 1 | Protection Plate | 8400 4" x 34" B-CS | US32D | IV |
| 1 | Wall Stop | WS406/407CCV | US32D | IV |
| 1 | Electric Power Transfer | EPT 10 | SP28 | VO |
| 1 | Power Supply | PS902 900-2RS | | LO |

NOTE: Verify cylinder requirements (including cam, size and finish) prior to procurement for ALK shunt in exit.

## Set #007

Doors: 110, 111, 112, 113, 114

NOTE: Existing hardware to remain.

## Set #008

Doors: 115, 131

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 4 1/2 x 4 1/2 | 652 | IV |
| 1 | Lockset | 9K3-7D16C PATD S3 | 626 | BE |
| 1 | Protection Plate | 8400 8" x 34" B-CS | US32D | IV |
| 1 | Wall Stop | WS406/407CCV | US32D | IV |

## Set #009

Doors: 117, 118, 126

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 4 1/2 x 4 1/2 | 652 | IV |
| 1 | Deadbolt | B572 | 626 | SC |
| 1 | Passage Set | 9K3-0N16C S3 | 626 | BE |
| 1 | Protection Plate | 8400 8" x 34" B-CS | US32D | IV |
| 1 | Wall Stop | WS406/407CCV | US32D | IV |

## Set #010

Doors: 121, 123

| | | | | |
|---|---|---|---|---|
| 4 | Hinges | 5BB1 4 1/2 x 4 1/2 | 652 | IV |
| 1 | Protection Plate | 8400 8" x 34" B-CS | US32D | IV |
| 1 | Wall Stop | WS406/407CCV | US32D | IV |

NOTE: Owner provided RemoteLok 6500 series. Coordinate with Owner for templating for frame/door preps prior to procurement.

## Set #011

Doors: 129

| | | | | |
|---|---|---|---|---|
| 6 | Hinges | 5BB1 4 1/2 x 4 1/2 | 652 | IV |
| 1 | Manual Flush Bolt | FB358 | US26D | IV |
| | NOTE: Manual flush bolt for wood door applications. | | | |
| 1 | Lockset | 9K3-7D16C PATD S3 | 626 | BE |
| 1 | Overhead Stop | 104S | US32D | GL |
| 2 | Protection Plate | 8400 8" x 34" B-CS | US32D | IV |
| 2 | Protection Plate | 8400 4" x 34" B-CS | US32D | IV |
| 1 | Wall Stop | WS406/407CCV | US32D | IV |

## Set #012

Doors: 130

| | | | | |
|---|---|---|---|---|
| 3 | Hinges | 5BB1 4 1/2 x 4 1/2 NRP | 630 | IV |
| 1 | Lockset | 9K3-7D16C PATD S3 | 626 | BE |
| 1 | Closer | 4040XP RW62A | AL | LC |
| 1 | Overhead Stop | 904S | US32D | GL |
| 1 | Latch Protector | PLP-211-EBF | DU | DJ |
| 1 | Gasketing | A626 A 1 x 36" 2 x 84" | | NA |
| 1 | Drip Cap | 16 A 40" | | NA |
| 1 | Door Sweep | D698 A 36" | | NA |
| 1 | Threshold | 896 V 36" | AL | NA |

# Manufacturer List

| Code | Name |
|---|---|
| BE | Best Access Systems |
| DJ | Don-Jo |
| GL | Glynn Johnson |
| IV | Ives |
| LC | LCN Closers |
| LO | Schlage Electronics |
| MSED | MS Sedco |
| NA | National Guard |
| SC | Schlage |
| VO | Von Duprin |

# Option List

| Code | Description |
|---|---|
| 900-2RS | 2 Relay Board Output |
| 900-2RS | 2 Relay Boards for Von Duprin EL |
| 99-ALK-RX | ALARM KIT |
| B-CS | 4 BEVELED EDGES -COUNTERSUNK HOLES (STD) |
| CD | CYLINDER DOGGING |
| EPT | Electric Power Transfer Prep |
| NRP | NRP (Steel&SS HNG - 4-1/2 x 4-1/2 only) |
| S3 | ANSI Strike Package |
| SD-QEL | Center Case Dogging (for QEL Option) |

# Finish List

| Code | Description |
|---|---|
| 626 | Satin Chromium Plated |
| 628 | Satin Aluminum, Clear Anodized |
| 630 | Satin Stainless Steel |
| 652 | Satin Chromium Plated |
| AL | Aluminum |
| AL | Aluminum (BHMA 689) |
| DU | Duro Coated |
| SP28 | Lacquer Sprayed Aluminum |
| US26D | Chromium Plated, Dull |
| US32D | Stainless Steel, Dull |
| US32D316 | Satin Stainless 316 Steel |

# SECTION 32 88 00 – PLANTING IRRIGATION

## 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 delegated design of new irrigation system.
   1. Removal of existing system shall be included in base bid.
   2. Alternate bid item shall include:
      a. Design of new irrigation system to provide coverage to all proposed landscape planting beds. See below for further description.
      b. Complete installation of new system.
      c. Testing, startup service, adjusting, As-Built drawings, and owner training.

B. Related Requirements:
   1. Section 31 10 00 "Site Clearing" for topsoil stripping and stockpiling.
   2. Section 32 92 00 "Turf and Grasses" for placing planting soil for turf and grasses.
   3. Section 32 93 00 "Plants" for placing planting soil for plantings.

### 1.3 ACTION SUBMITTALS

A. Product Data:

   1. Pipes, tubes, and fittings.
   2. Automatic control valves.
   3. Automatic drain valves.
   4. Transition fittings.
   5. Dielectric fittings.
   6. Sprinklers.
   7. Quick couplers.
   8. Controllers.
   9. Boxes for automatic control valves.
   10. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Wiring Diagrams: For power, signal, and control wiring.

C. Delegated Design Submittals: For irrigation systems indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Irrigation systems, drawn to scale, on which components are indicated and coordinated with each other, using input from Installers of the items involved. Also include adjustments necessary to avoid plantings and obstructions, such as signs and light standards.

B. Zoning Chart: Indicate each irrigation zone and its control valve.

C. Controller Timing Schedule: Indicate timing settings for each automatic controller zone.

D. Field Quality-Control Submittals:

1. Field quality-control reports.

E. Qualification Statements: For Installer.

F. Delegated design engineer qualifications.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For controllers and automatic control valves to include in operation and maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Extra Stock Material: Furnish extra materials to Owner that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Spray Sprinklers: Equal to 5 percent of amount installed for each type and size indicated, but no fewer than 2 units.

1.7 QUALITY ASSURANCE

A. Qualifications:

1. Installers: Entity that employs a Certified Irrigation Designer - Landscape qualified by the Irrigation Association.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and entrance of dirt, debris, and moisture.

B. Store plastic piping protected from direct sunlight. Support piping to prevent sagging and bending.

1.9 FIELD CONDITIONS

A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:

1. Notify Architect no fewer than two days in advance of proposed interruption of water service.
2. Do not proceed with interruption of water service without Architect's written permission.

1.10 PERFORMANCE REQUIREMENTS

A. Irrigation Zone Control: Automatic operation with controller and automatic control valves.

B. Delegated Design: Design 100 percent coverage irrigation system, including comprehensive engineering analysis by a Certified Irrigation Designer - Landscape qualified by the Irrigation Association, using performance requirements and design criteria indicated.
1. All landscape beds to be irrigated with sprinklers (i.e. sprays, rotors, etc. as appropriate).
2. Separate zones shall be provided, including at minimum separation of the rain garden planting island south of the new addition from the other planting areas.

C. Minimum Working Pressures:

1. Delegated Designer shall verify available pressure before beginning design. Report any concerns immediately regarding meeting available pressures to the Architect.

2. System design to set minimum working pressures in conjunction with manufacturer recommendations for optimum operation of components selected.

D. Work and materials shall be in accordance with the latest rules, code, ordinances, and other applicable state or local laws. Nothing in the Contract Documents is to be construed to permit work not conforming to these codes. Materials, equipment, and methods of installation shall comply with the following codes and standards:
1. National Fire Protection Association (NFPA)
2. National Electric Code (NEC)
3. American Society for Testing and Materials (ASTM)
4. The Irrigation Association (IA)
5. American Water Works Association (AWWA)

1.11 Warranty

a. The Contractor shall furnish a manufacturer's written warranty to the effect that all heads, valves, and controllers will be warranted for a period of one year (or as determined to be more than one year by the manufacturer) , to be free from defects and faulty workmanship, and that any defective heads, valves, or controllers shall be promptly repaired or replaced without additional cost to the Owner in accordance with that warranty.

b. All materials other than those referred to in Paragraph A above shall be warranted for a period of one full year from the date of final acceptance by the Owner.

c. All installation labor used on this project will be warranted for one full year from date of final acceptance by the Owner.

PART 2 - MATERIALS (NOT USED – DELEGATED DESIGN)

PART 3 - EXECUTION

3.1 EARTHWORK

A. Locate underground utilities prior to commencing work.

B. Excavating, trenching, and backfilling are specified in Section 312000 "Earth Moving."

C. Install warning tape directly above pressure piping, 12 inches (below finished grades, except 6 inches below subgrade under pavement and slabs.

D. Provide minimum cover over top of underground piping according to the following:
1. Irrigation Main Piping: Minimum depth of 18 inches
2. Circuit Piping: 12 inches
3. Sleeves: 24 inches

E. Perform all excavations as required for the installation of the work. All lateral pipe (2” and smaller) shall be pulled with a vibratory plow. If trenching, trenches shall be wide enough to allow a minimum of 6" between parallel pipe lines. If pulling, the same lateral distance shall be observed.

F. All irrigation trenches shall be back-filled and compacted by mechanical means in 6" lifts to a minimum of 90% of the original density. Backfill material shall be of the same soil mix as excavated and free of any rocks or debris larger than 3/4" in diameter. It shall be the Contractor's responsibility to remove all larger debris from the premises and to furnish any additional soil which may be necessary to level the trenches. All disturbed areas are to be re-seeded as specified by owners authorized representative.

G. Contractor shall be responsible for repair of any irrigation trench settling which occurs during the first year after final acceptance by the Owner.

3.2 PREPARATION

A. Set stakes to identify locations of proposed irrigation system. Obtain Architect's approval before excavation.

3.3 INSTALLATION OF PIPING

A. Install piping free of sags and bends.

B. Install groups of pipes parallel to each other, spaced to permit valve servicing.

C. Install fittings for changes in direction and branch connections.

D. Install unions adjacent to valves and to final connections to other components with NPS 2 (DN 50) or smaller pipe connection.

E. Install flanges adjacent to valves and to final connections to other components with NPS 2-1/2 (DN 65) or larger pipe connection.

F. Option in first paragraph below may be withdrawn. If retaining option, verify availability.

G. Install expansion loops in control-valve boxes for plastic piping.

H. Lay piping on solid subbase, uniformly sloped without humps or depressions.

I. Install PVC piping in dry weather when temperature is above 40 deg F. Allow joints to cure at least 24 hours at temperatures above 40 deg F before testing.

J. Install water regulators with shutoff valve and strainer on inlet and pressure gage on outlet. Install shutoff valve on outlet. Install aboveground or in control-valve boxes.

K. Water Hammer Arresters: Install between connection to building main and circuit valves aboveground or in control-valve boxes.

L. Install piping in sleeves under parking lots, roadways, and sidewalks.

M. Install sleeves made of Schedule 40, PVC pipe and socket fittings, and solvent-cemented joint under all pavements.

N. Unless otherwise indicated, comply with requirements of the Local Plumbing Code.

3.4 JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

C. PVC Piping Solvent-Cemented Joints: Clean and dry joining surfaces. Join pipe and fittings in accordance with the following:

1. Comply with ASTM F402 for safe-handling practice of cleaners, primers, and solvent cements.
2. PVC Pressure Piping: Join schedule number, ASTM D1785, PVC pipe and PVC socket fittings in accordance with ASTM D2672. Join other-than-schedule-number PVC pipe and socket fittings in accordance with ASTM D2855.
3. PVC Nonpressure Piping: Join in accordance with ASTM D2855.

3.5 INSTALLATION OF VALVES AND SPRINKLERS

A. Install sprinklers after hydrostatic test is completed.

B. Install sprinklers at manufacturer's recommended heights.

C. Locate part-circle sprinklers to maintain a minimum distance of 12 inches from walls and 6 inches from other boundaries unless otherwise indicated.

D. Use only Teflon tape for sealing all heads and riser assemblies.

3.6 Install circuit valves in valve box, arranged for easy adjustment and removal.

A. Adjust automatic control valves to provide flow at rated operating pressure required for each sprinkler circuit. If an over pressure condition exists, Contractor shall install, at his expense, such pressure compensation devices as are necessary to bring the circuit or heads into proper operating range.

B. Install thrust blocks or Leemco Joint Restraints behind elbows/tees and gate valves along 3” or larger mainlines.

C. Use dielectric fittings at connection where pipes of dissimilar metal are joined.

D. Cap or plug all openings as soon as lines have been installed to prevent the entrance of materials that would obstruct the pipe. Leave in place until removal is necessary for completion of the installation.

E. Thoroughly flush out all main water lines before installing valves.

F. Thoroughly flush out all lateral lines after installation and before attaching heads.

3.7 INSTALLATION OF AUTOMATIC IRRIGATION CONTROL SYSTEM

A. Equipment Mounting, Interior: Install controllers in existing location on interior wall.

1. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor bolts to elevations required for proper attachment to supported equipment.

B. Install control cable in same trench as irrigation piping and at least 2 inches below or beside piping. Provide conductors of size not smaller than recommended by controller manufacturer. Install cable in separate sleeve under paved areas.

C. All communication circuitry shall be run, wherever possible, with the main pipe line. All splices shall be made at a valve box for easy access. Operational testing after backfill is completed and sprinkler heads are adjusted to final position. A minimum of 12" of either control wire shall be coiled at each valve.

## 3.8 CONNECTIONS

A. Install piping adjacent to equipment, valves, and devices to allow service and maintenance.

B. Connect wiring between controllers and automatic control valves.

## 3.9 IDENTIFICATION

A. Identify system components.

B. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on each automatic controller.

1. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

C. Arrange for installation of continuous, underground, detectable warning tapes or wire over underground piping during backfilling of trenches.
1. A single strand of 14-1 wire, yellow in color, shall be run with all main line from the point of connection to the end of the main line. This single strand of wire shall be available for main line tracking.

## 3.10 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

B. Tests and Inspections:

1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.

2. Operational Test: After electrical circuitry has been energized, operate controllers and automatic control valves to confirm proper system operation.
3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
4. Irrigation system will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

D. After completion of grading, planting, and mulching, Contractor shall return to the job site to perform any final adjustments to the system which might be deemed necessary.

## 3.11 STARTUP SERVICE

A. Perform startup service.

1. Complete installation and startup checks in accordance with manufacturer's written instructions.
2. Verify that controllers are installed and connected in accordance with the Contract Documents.
3. Verify that electrical wiring installation complies with manufacturer's submittal.

## 3.12 ADJUSTING AND CLEANING

A. Adjust settings of controllers.

B. Adjust automatic control valves to provide flow rate at rated operating pressure required for each sprinkler circuit.

C. Adjust sprinklers and devices, except those intended to be mounted aboveground, so they will be flush with, or not more than 1/2 inch above, finish grade.

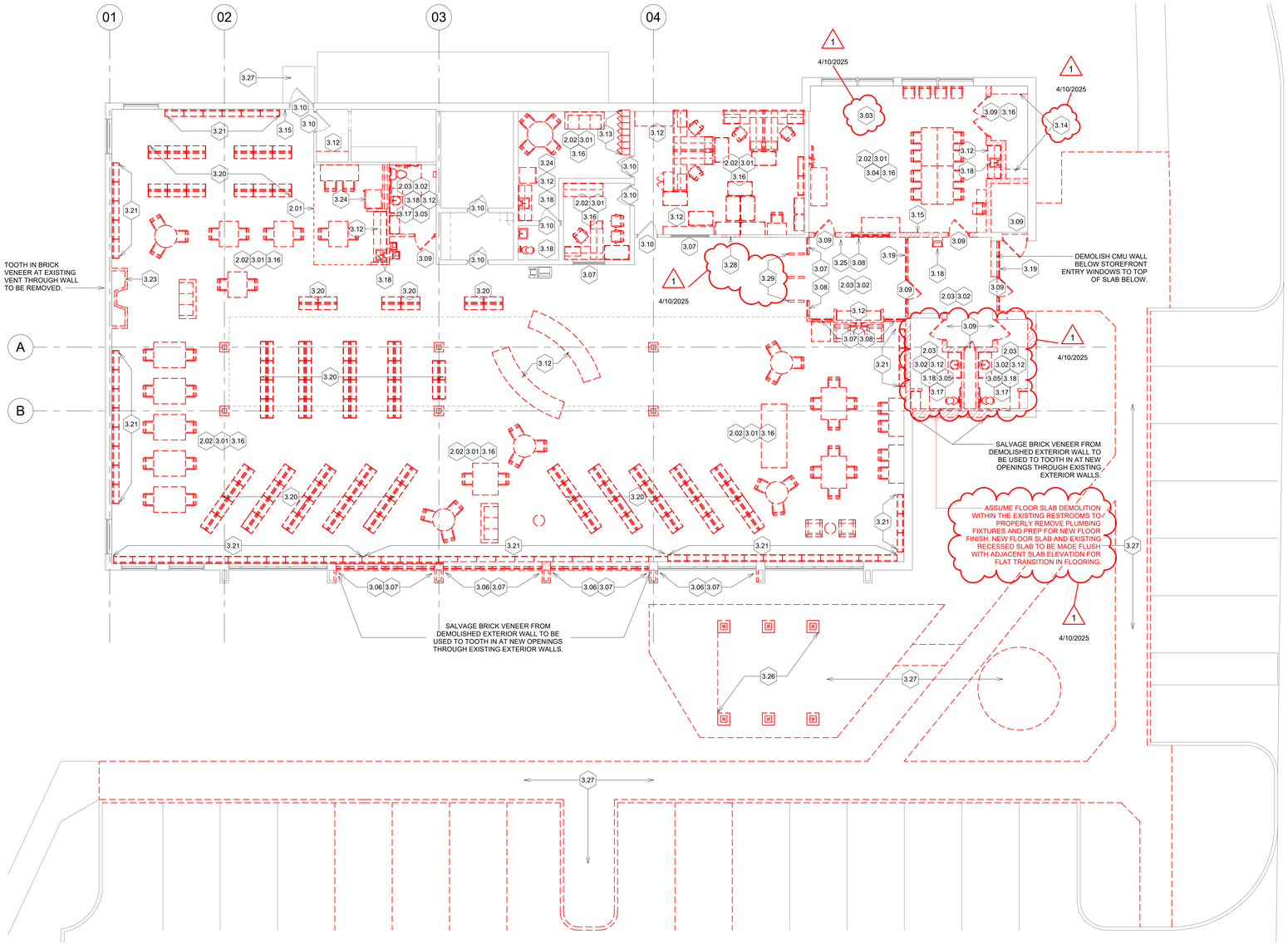
D. Flush dirt and debris from piping before installing sprinklers and other devices.

## 3.13 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain automatic control valves and controllers.

B. Demonstrate to the owner that the system meets coverage requirements and that automatic controls function properly.

END OF SECTION 32 88 00




# FIRST FLOOR DEMOLITION PLAN

1/8" = 1'-0"

NORTH

## RENOVATION GRAPHIC LEGEND

- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE REMOVED
- NEW DOOR (100)
- EXISTING WINDOW TO REMAIN
- EXISTING WINDOW TO BE REMOVED
- NEW WINDOW (A)

## DEMOLITION GENERAL NOTES

A. THIS DEMOLITION PLAN SHALL SERVE TO AID THE CONTRACTORS IN EVALUATION OF THE WORK AND EXTENT OF DEMOLITION. BUT WILL NOT BE HELD TO BE ALL INCLUSIVE. THE CONTRACTORS ARE RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING CONDITIONS, DEMOLITION AND REMOVALS AS REQUIRED FOR THE INSTALLATION OF THE NEW WORK AND FINISHES INDICATED WHETHER OR NOT IT IS SPECIFICALLY NOTED IN THESE DRAWINGS

B. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED WORK. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK WITH OTHER CONTRACTORS.

C. DEMOLITION WORK AFFECTING OCCUPIED AREAS OF THE FACILITY WILL BE SCHEDULED IN ADVANCE WITH THE OWNER THROUGH CONSTRUCTION/PROJECT MANAGER. REFER TO SPECIFICATIONS.

D. OFFER REMOVED ITEMS SUCH AS DOORS, HARDWARE, PLUMBING FIXTURES, AND TOILET ACCESSORIES TO OWNER BEFORE REMOVAL FROM THE SITE. DETERMINE SALVAGE ITEMS WITH THE OWNER BEFORE DEMOLITION BEGINS.

E. ALL CONTRACTORS ARE RESPONSIBLE FOR SECURING CHASES AND RISERS BEFORE DEMOLITION WORK PROCEEDS TO PREVENT DEBRIS FROM FALLING THROUGH INTO OCCUPIED SPACES BELOW.

F. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED WORK AND ITEMS TO BE REMOVED OR RE-INSTALLED IN NEW CONSTRUCTION. TEMPORARY LIGHTING, COMMUNICATION AND MECHANICAL SYSTEMS WILL BE COORDINATED WITH OTHER CONTRACTORS. MAINTAIN ALL LIFE SAFETY DEVICES.

G. HOLES LEFT IN THE CONCRETE FLOOR FROM REMOVED ITEMS SUCH AS PLUMBING PIPES, CONDUITS, ETC. WILL BE PATCHED BY RESPECTIVE CONTRACTOR PERFORMING THAT PORTION OF THE WORK.

H. FINISH REMOVAL NOTES APPLY TO PARTITIONS/WALLS THAT REMAIN. REMOVE ALL FINISHES FROM WALLS THAT REMAIN WITHIN THE LIMIT OF CONSTRUCTION.

I. INTERIOR PARTITIONS AND/OR WALLS SHALL BE REMOVED ENTIRELY FROM DECK ABOVE TO DECK BELOW

J. REFER TO DEMOLITION TYPICAL DETAILS SHEET FOR ADDITIONAL DEMOLITION DETAILS.

## DEMOLITION PLAN NOTES

CEILING DEMOLITION

1.01 REMOVE AND DISPOSE OF EXISTING ACOUSTICAL LAY-IN CEILING SYSTEM: TILES, GRID AND ALL RELATED HANGERS AND SUPPORTS.

1.02 REMOVE AND DISPOSE OF EXISTING DRYWALL/PLASTER CEILING AND ALL RELATED BLACK IRON FRAMING AND SUPPORTS.

1.03 REMOVE AND DISPOSE OF EXISTING DRYWALL BULKHEADS AND ALL RELATED FRAMING AND SUPPORTS.

1.04 EXISTING ACOUSTICAL LAY-IN CEILING SYSTEM TO REMAIN. PROTECT DURING CONSTRUCTION. REPLACE DAMAGED CEILING AREAS (MATCH EXISTING) AT CONCLUSION OF THE WORK.

1.05 EXISTING DRYWALL/PLASTER CEILING TO REMAIN. PROTECT DURING CONSTRUCTION. REPLACE DAMAGED CEILING AREAS (MATCH EXISTING) AT CONCLUSION OF THE WORK.

1.06 REMOVE AND SALVAGE PORTION OF EXISTING ACOUSTICAL LAY-IN CEILING SYSTEM AS REQUIRED FOR ABOVE CEILING ARCHITECTURAL/ STRUCTURAL/ MEP SCOPE OF WORK. REINSTALL CEILING SYSTEM AT COMPLETION OF WORK. REPLACED ANY DAMAGED TILE AND GRID (MATCH EXISTING) AS REQUIRED.

1.07 REMOVE AND DISPOSE PORTION OF EXISTING BULKHEAD CEILING SYSTEM AS REQUIRED. REPLACE ANY DAMAGED TILE AND GRID (MATCH EXISTING) AS REQUIRED.

1.08 MODIFY PORTION OF EXISTING LAY-IN CEILING SYSTEM AS REQUIRED. REPLACE ANY DAMAGED TILE AND GRID (MATCH EXISTING) AS REQUIRED.

FLOORING DEMOLITION

2.01 REMOVE AND DISPOSE OF EXISTING VINYL FLOORING (SHEET/VCT) AND ALL RELATED MASTIC/ADHESIVE. CLEAN/ PREP/ PATCH/ REPAIR SUBFLOOR TO ACCEPT NEW FLOORING AS SCHEDULED. SUBFLOOR NEEDS TO BE COMPLETELY LEVEL AND SMOOTH PRIOR TO INSTALLATION OF NEW FINISHES AS SCHEDULED.

2.02 REMOVE AND DISPOSE OF EXISTING CARPET AND ALL RELATED ADHESIVE. CLEAN/ PREP/ PATCH/ REPAIR SUBFLOOR TO ACCEPT NEW FLOORING AS SCHEDULED. SUBFLOOR NEEDS TO BE COMPLETELY LEVEL AND SMOOTH PRIOR TO INSTALLATION OF NEW FINISHES AS SCHEDULED.

2.03 REMOVE AND DISPOSE OF EXISTING CERAMIC TILE FLOORING. CLEAN/ PREP/ PATCH/ REPAIR SUBFLOOR TO ACCEPT NEW FLOORING AS SCHEDULED. SUBFLOOR NEEDS TO BE COMPLETELY LEVEL AND SMOOTH PRIOR TO INSTALLATION OF NEW FINISHES AS SCHEDULED.

PARTITION DEMOLITION

3.01 REMOVE AND DISPOSE OF EXISTING WALL BASE. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED.

3.02 REMOVE AND DISPOSE OF EXISTING CERAMIC TILE WALL BASE. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED.

3.03 REMOVE AND DISPOSE OF EXISTING VINYL WALL COVERING. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED. SKIM-COAT WALL TO ACCEPT NEW WALL FINISH AS SCHEDULED.

3.04 REMOVE AND DISPOSE OF EXISTING FABRIC WALL COVERING. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED.

3.05 REMOVE AND DISPOSE OF EXISTING CERAMIC WALL TILE. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED.

3.06 REMOVE AND DISPOSE OF EXISTING EXTERIOR WINDOW SYSTEM. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW WORK AS SCHEDULED.

3.07 REMOVE ALL REMAINING WINDOW TREATMENTS SUCH AS MINI-BLINDS, CURTAINS, AND RELATED HANGERS. OFFER TO OWNER BEFORE DISPOSING. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED. NOTE: MINI-BLINDS INTEGRAL WITH AND IN BETWEEN PANES OF GLASS OF EXISTING WINDOWS SHALL REMAIN.

3.08 REMOVE AND DISPOSE OF EXISTING INTERIOR WINDOW SYSTEM. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE OR JAMBS TO ACCEPT NEW WORK AS SCHEDULED.

3.09 REMOVE EXISTING DOOR(S), HARDWARE, AND FRAME. OFFER DOOR(S) AND HARDWARE TO OWNER BEFORE DISPOSING. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW WORK AS SCHEDULED.

3.10 EXISTING DOOR(S), HARDWARE, AND FRAME TO REMAIN. PROTECT DURING CONSTRUCTION. REPAIR/REPLACE DAMAGED COMPONENTS AT CONCLUSION OF THE WORK.

3.11 NOTE REMOVED

3.12 REMOVE EXISTING BASE CABINET(S), COUNTERTOP, WALL CABINET(S), AND MISCELLANEOUS TASK LIGHTING. OFFER TO OWNER BEFORE DISPOSING. CLEAN/ PREP/ PATCH/ REPAIR WALL SURFACE TO ACCEPT NEW FINISHES AS SCHEDULED.

3.13 REMOVE AND DIPOSE OF EXISTING LOCKERS. OFFER TO OWNER BEFORE DISPOSING.

3.14 REMOVE EXISTING MISCELLANEOUS SHELVES, RODS, ETC. OFFER TO OWNER BEFORE DISPOSING.

3.15 REMOVE EXISTING FIRE EXTINGUISHER CABINET. OFFER TO OWNER BEFORE DISPOSING.

3.16 EXISTING FURNITURE/ EQUIPMENT TO BE REMOVED BY OWNER. ANY REMAINING FURNITURE WITHIN THE BUILDING AT START OF CONSTRUCTION SHALL BE DEMOLISHED BY THE CONTRACTOR.

3.17 REMOVE ALL EXISTING TOILET ACCESSORIES. OFFER TO OWNER BEFORE DISPOSING.

3.18 REMOVE EXISTING PLUMBING FIXTURE(S). OFFER TO OWNER BEFORE DISPOSING. SEE PLUMBING DRAWINGS FOR MORE INFORMATION.

3.19 REMOVE EXISTING STOREFRONT SYSTEM. OFFER PARTS TO OWNER BEFORE DISPOSING. CLEAN/ PATCH/ PREP/ REPAIR WALLS AND FLOORS TO RECEIVE NEW STOREFRONT SYSTEM OR NEW FINISH.

3.20 CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY REMAINING LIBRARY FLOOR MOUNT SHELVING WITHIN THE BUILDING.

3.21 CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY REMAINING LIBRARY WALL MOUNT SHELVING WITHIN THE BUILDING.

3.22 NOTE REMOVED

3.23 REMOVE EXISTING FIRE PLACE. CLEAN/ PREP/ PATCH/ REPAIR FLOOR AND WALL SURFACES TO RECEIVE NEW FINISHES AS SCHEDULED.

3.24 REMOVE EXISTING REFRIGERATOR. OFFER TO OWNER BEFORE DISPOSING.

3.25 REMOVE EXISTING MAGAZINE SHELF. OFFER TO OWNER BEFORE DISPOSING.

3.26 RELOCATE EXISTING EXTERIOR PAVILION ON SITE. SEE SITE PLAN(S) FOR MORE INFORMATION. SALVAGE STONE BASE VENEER TO BE REUSED.

3.27 EXTERIOR SITE WORK DEMOLITION. SEE EXTERIOR PLANS AND DETAILS.

3.28 REMOVE AND DISPOSE OF AUTOMATIC BOOK SORTER. OFFER TO OWNER BEFORE DISPOSING.

3.29 REMOVE AND DISPOSE OF RFID GATES. OFFER TO OWNER BEFORE DISPOSING.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Certification:

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Consultant Logo:

Key Plan:

SCOPE OF WORK

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**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

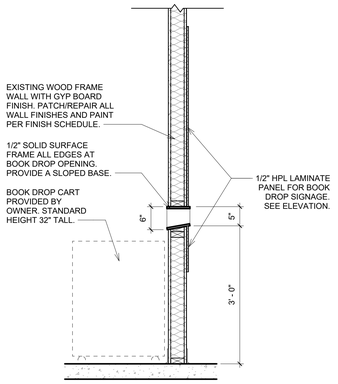
| REVISION | | |
|---|---|---|
| No. | Date | Revision |
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
FIRST FLOOR
DEMOLITION PLAN

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

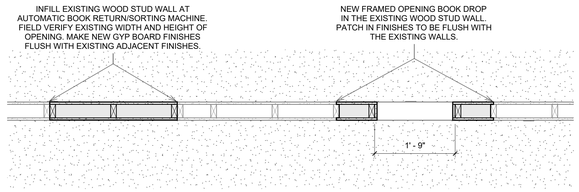
DRAWING NO.
A-101

File Path: C:\Revit Files\25004_LASALLE_R24_CENTRAL_sjcpl_jmcdonald.rvt
Drawing Name: A-101 - FIRST FLOOR DEMOLITION PLAN
Plot Date/Time: 4/16/2025 11:12:43 AM
Template.rte



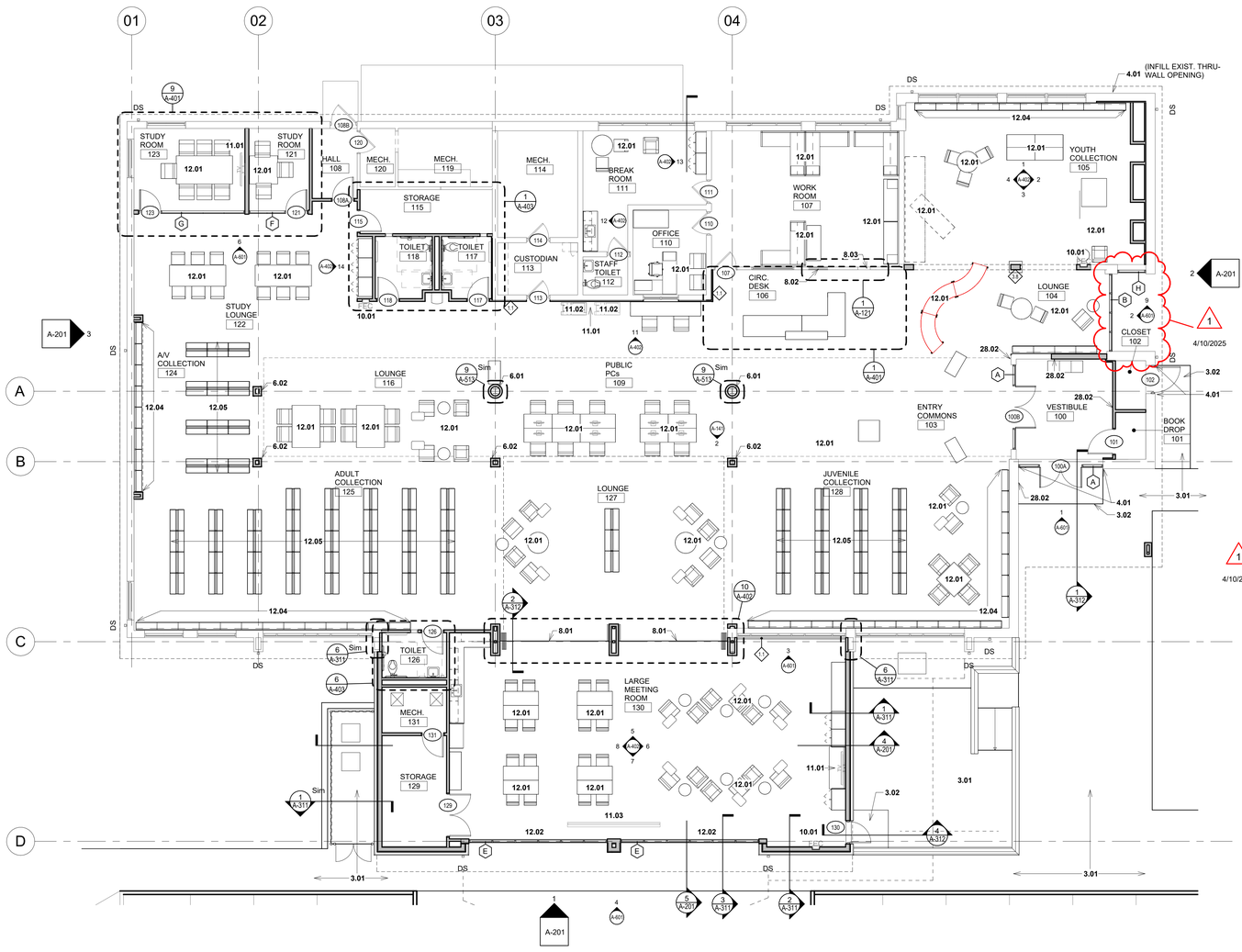

## 2 BOOK DROP SECTION

3/4" = 1'-0"




## 1 BOOK DROP DTL

3/4" = 1'-0"




## FIRST FLOOR NOTATION PLAN

1/8" = 1'-0"

NORTH

### FLOOR PLAN GENERAL NOTES

A. THE WORK SHOWN ON THESE DOCUMENTS AND THE CORRESPONDING SPECIFICATIONS, INTERFACES WITH OTHER TRADES, WHETHER OR NOT SHOWN ON THESE DOCUMENTS, WHICH IMPACTS THE WORK SHOWN HEREIN. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUCH WORK SO AS TO BE IN COMPLIANCE WITH THE INTENT OF ALL THE PROJECT DOCUMENTS.

B. GENERAL CONTRACTOR TO PROVIDE SOLID BLOCKING FOR ALL WALL MOUNTED CASEWORK, EQUIPMENT, AND ACCESSORIES, INCLUDING TOILET ACCESSORIES AS REQUIRED.

C. REFER TO CODE REVIEW PLAN FOR RATED PARTITIONS AND ASSEMBLIES. SEE TYPICAL DETAIL SHEETS FOR FRAMING INFORMATION RELATED TO INTERSECTING SYSTEMS AND INSTALLATION CONDITIONS.

D. GENERAL CONTRACTOR TO PATCH ALL CONCRETE SLABS AT MECH/ELEC PENETRATIONS. PATCH SLAB FLUSH WITH EXISTING SLAB AND PROVIDE #4 DOWELS INTO EXISTING SLAB AS REQUIRED.

E. DAMAGED WALLS AND FINISHES TO BE REPAIRED AS REQUIRED TO MATCH EXISTING ADJACENT WALLS.

F. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PATCH ALL CRACKS AND RESEAL JOINTS IN EXISTING SUBSTRATES SCHEDULED TO RECEIVE NEW FINISHES.

G. UNLESS NOTED OTHERWISE, NEW INTERIOR WALLS TO BE 2X4 WOOD STUDS @ 16" O.C. WITH (1) LAYER OF 5/8" TYPE "X" GYPSUM BOARD EACH SIDE. EXTEND STUD AND GYPSUM BOARD TO DECK ABOVE. SEAL AS REQUIRED FOR WALL RATINGS INDICATED ON THE CODE REVIEW PLAN. SEE INTERIOR WALL TYPE LEGEND SHEET FOR ADDITIONAL INFORMATION.

H. INSTALL CONTROL/EXPANSION JOINTS PER TYPICAL DETAILS UNLESS NOTED OTHERWISE. FREQUENCY SHOULD MATCH INDUSTRY STANDARD AS NOTED ON DETAILS.

I. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING CONSTRUCTION. FOR FURTHER DIMENSIONING SEE ENLARGED PLANS, SECTIONS, AND ELEVATIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE ARCHITECT MUST BE NOTIFIED OF ANY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION AND/OR INSTALLATION.

J. WALL DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD OR EXISTING FINISH TO FACE-OF-STUD. SEE TYPICAL DETAIL FOR MORE INFORMATION.

K. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE REFLECTED CEILING PLAN WITH THE LIGHTING PLANS AND MECHANICAL SUPPLY, RETURN AND EXHAUST PLANS. REPORT IN WRITING TO THE ARCHITECT ANY INCONSISTENCY HEREIN.

L. THE CONTRACTOR SHALL VERIFY AND PROVIDE ACCESS PANELS IN WALLS AND CEILINGS WHERE SERVICE AND ADJUSTMENTS TO MECHANICAL, PLUMBING, OR ELECTRICAL MAY BE REQUIRED. ACCESS PANELS SHALL BE THE FIRE RATED TYPE EQUAL TO THE WALL OR CEILING IN WHICH THEY OCCUR AND FINAL LOCATION SHOULD BE VERIFIED WITH ARCHITECT PRIOR TO INSTALLATION. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

M. PIPING INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES WITH THE EXCEPTION OF PIPING IN MECHANICAL AND SERVICE ROOMS. CHASES SHALL PROVIDED FOR ALL MECHANICAL, ELECTRICAL, AND PLUMBING AS REQUIRED. SEE RESPECTIVE PLAN & ELEVATION DRAWINGS FOR COORDINATION.

N. SEE ELECTRICAL DRAWINGS AND/OR COMMUNICATIONS DRAWINGS FOR LOCATIONS OF CEILING MOUNTED SMOKE DETECTORS, SPEAKERS, NURSE CALL SYSTEMS, FIRE ALARM DEVICES, EXIT SIGNAGE, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THESE ITEMS WITH THE REFLECTED CEILING PLAN(S)

O. SEE FINISH SCHEDULE, PLANS, & ELEVATIONS FOR LOCATIONS OF SPECIFIC FINISHES, MATERIALS, AND ACCENT WALLS

P. THE INSTALLATION OF ALL PLUMBING FIXTURES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE ANSI ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT, WHICHEVER IS MORE STRINGENT.

### FLOOR PLAN NOTES

DIV 3 - CONCRETE
3.01 NEW CONCRETE SIDEWALK.
3.02 NEW CONCRETE STOOP.
3.03 EXISTING CONCRETE SIDEWALK TO REMAIN.

DIV 4 - MASONRY
4.01 TOOTH IN SALVAGED BRICK VENEER AT NEW OPENING IN EXISTING WALL.

DIV 6 - WOOD, PLASTICS, AND COMPOSITES
6.01 NEW G.R.F.G. COLUMN ENCLOSURE. PROVIDE FLAT FACE FOR INSTALLATION OF POWER RECEPTACLE WITHIN CURVED SURFACE.
6.02 MODIFIED COLUMN ENCLOSURE FRAMING AND GYP BOARD. MAKE FACE FLUSH WITH THE FACE OF THE CLERESTORY FINISH ABOVE.

DIV 8 - OPENINGS
8.01 OPERABLE GLASS WALL SYSTEM. BASIS-OF-DESIGN: NANA WALL CSW75 - SINGLE SWING DOOR WITH REMAINING PAIRED PANELS COLLAPSING TO OPPOSITE WALL.
8.02 CONTRACTOR TO INFILL EXISTING BOOK DROP OPENING.
8.03 NEW BOOK DROP OPENING.

DIV 9 - FINISHES
9.01 GYPSUM BOARD BULKHEAD. SEE REFLECTED CEILING AND FINISH PLANS FOR MORE INFORMATION.
9.02 (ENTIRE ROOM) ALL EXISTING GYPSUM BOARD WALLS/ CEILING/ BULKHEAD SCHEDULED TO REMAIN SHALL RECEIVE A SKIM-COAT PRIOR TO NEW FINISHES BEING INSTALLED AS SCHEDULED.

DIV 10 - SPECIALTIES
10.01 SEMI-RECESSED FIRE EXTINGISHER CABINET AND EXTINGUISHER. SEE SPECIFICATION.
10.02 PROVIDE TOILET ACCESSORIES PER TYPICAL TOILET ACCESSORIES PLAN AND SCHEDULE.

DIV 11 - EQUIPMENT
11.01 CONTRACTOR TO INSTALL OWNER PROVIDED WALL MOUNT TV AND MOUNTING BRACKET. CONTRACTOR TO PROVIDE WALL BLOCKING PER TYPICAL TV BLOCKING DETAIL ON A-500 SHEETS. SEE ELECTRICAL DRAWINGS FOR POWER AND DATA REQUIREMENTS.
11.02 CONTRACTOR TO INSTALL OWNER PROVIDED FLOOR COPIER/SCANNER. SEE ELECTRICAL DRAWINGS FOR POWER AND DATA REQUIREMENTS.
11.03 CEILING RECESSED, MOTORIZED PROJECTION SCREEN.

DIV 12 - FURNISHINGS
12.01 OWNER PROVIDED FURNITURE TO BE SUPPLIED UNDER SEPARATE VENDOR CONTRACT.
12.02 NEW MOTORIZED DUAL ROLLER WINDOW SHADES. SEE SPECIFICATIONS.
12.03 NOTE REMOVED
12.04 NEW SINGLE-SIDED LIBRARY SHELVING. SUPPLIED AND INSTALLED BY OWNER VENDOR. CONTRACTOR SHALL ASSIST IN COORDINATION OF DELIVERY AND INSTALLATION TIMING.
12.05 NEW DOUBLE-SIDED LIBRARY SHELVING. SUPPLIED AND INSTALLED BY OWNER VENDOR. CONTRACTOR SHALL ASSIST IN COORDINATION OF DELIVERY AND INSTALLATION TIMING.

DIV 28 - ELECTRONIC SAFETY AND SECURITY
28.01 CARD READER ACCESS. CONFIRM FINAL LOCATION WITH OWNER.
28.02 ADA ACTUATOR. CONFIRM FINAL LOCATION WITH OWNER.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REGISTERED
No. AR11200057
STATE OF INDIANA
ARCHITECT

Consultant Logo:

Key Plan:




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ST. JOE COUNTY

## SJCPL - LASALLE BRANCH

RENOVATION & ADDITION

3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

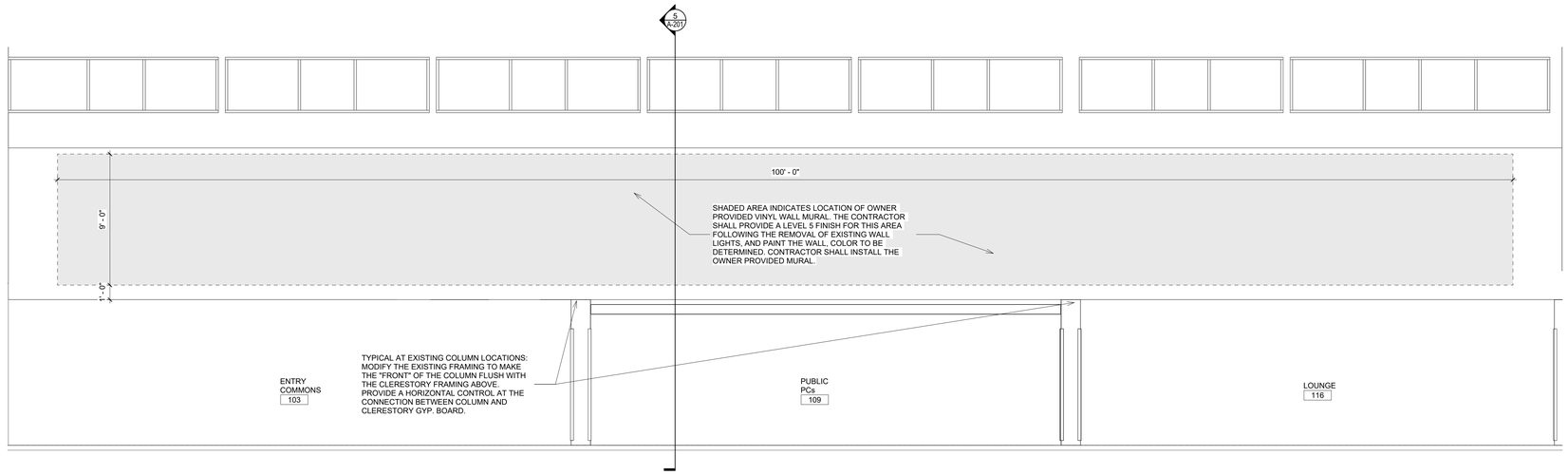
| REVISION | | |
|---|---|---|
| No. | Date | Revision |
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
FIRST FLOOR NOTATION PLAN

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

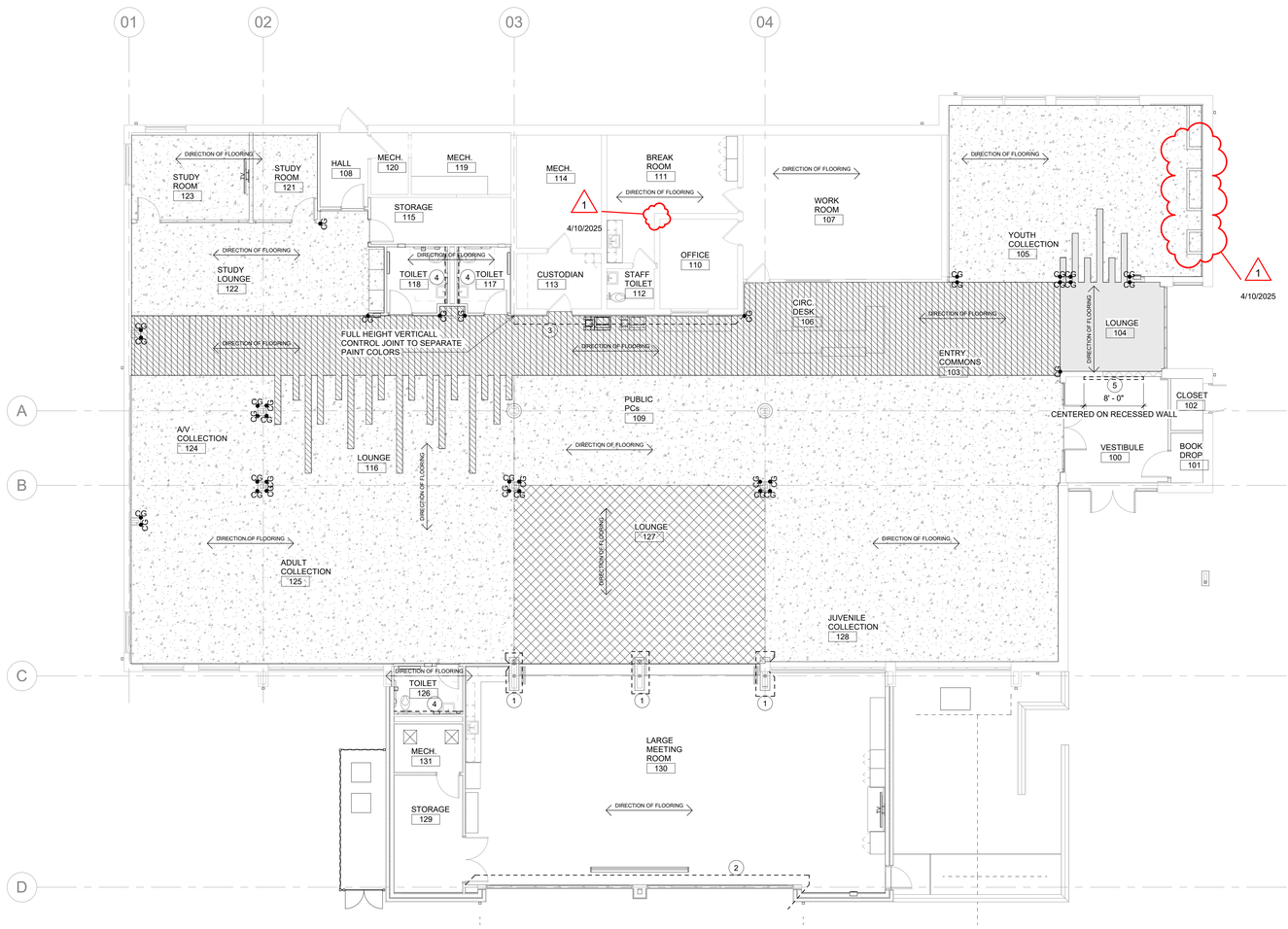
DRAWING NO.
A-121


Plot Date/Time: 4/16/2025 11:12:55 AM
Drawing Name: Template.rte




## 2 MURAL ELEVATION

1/4" = 1'-0"




## FIRST FLOOR FINISH PLAN

1/8" = 1'-0"

NORTH

### FINISH PLAN GENERAL NOTES

A. SEE FINISH FLOOR PLAN AND STANDARD INTERIOR DETAILS FOR TRANSITION LOCATIONS AND DETAILS.

B. ALL TRANSITIONS TO MEET ADA REQUIREMENTS. CONTRACTOR RESPONSIBLE FOR FEATHERING FLOOR FOR FLUSH TRANSITION BETWEEN MATERIALS.

C. SEE FINISH FLOOR PLAN FOR FLOOR PATTERN AND INDICATION OF FLOORING MATERIAL TRANSITIONS.

D. SEE REFLECTED CEILING PLAN FOR CEILING MATERIAL LIST, CEILING HEIGHTS, BULKHEAD PAINT COLOR, AND CUBICLE CURTAINS.

E. SEE WINDOW ELEVATIONS FOR LOCATIONS OF SPECIALTY GLASS, ROLLER SHADES, AND INTEGRAL BINDS.

F. SEE WALL PROTECTION PLAN FOR LOCATIONS AND DETAILS.

G. SEE CASEWORK DRAWINGS FOR STANDARD WINDOW SILL DETAILS.

H. TERMINATE WALL COVERING AT ALL INSIDE CORNERS.

I. FOR ADDITIONAL INFORMATION SEE INTERIOR ELEVATIONS, AND FOR CEILING HEIGHTS SEE REFLECTED CEILING PLANS.

J. ALL NEW AND EXISTING BULKHEADS PROJECTING 4" OR MORE FROM FINISHED CEILING TO BE PAINTED TO MATCH ADJACENT WALL FINISH (U.N.O.)

K. ALL NEW AND EXISTING BULKHEADS PROJECTING LESS THAN 4" FROM FINISHED CEILING TO BE PAINTED TO MATCH CEILINGS. (U.N.O.)

L. ALL DOOR FRAMES NEW AND EXISTING TO BE PREPPED AND PAINTED. SEE FINISH LEGEND FOR MORE INFORMATION.

### FINISH PLAN NOTES

1 WALLS MARKED BY DASHED LINE TO BE PAINTED PT-4, ON ALL SIDES FULL HEIGHT (PAINT COLOR TO MATCH BULKHEAD ABOVE)

2 WALLS MARKED BY DASHED LINE TO BE PAINTED PT-4, FULL HEIGHT ENDING IN INSIDE CORNERS

3 WALLS MARKED BY DASHED LINE TO BE PAINTED PT-3, FULL HEIGHT ENDING IN INSIDE CORNERS

4 WALLS MARKED BY DASHED LINE TO BE FULL HEIGHT WALL TILE CWT-1, STOP WALL TILE AT TOP OF RUBBER BASE. SEE COLOR LEGEND FOR TRIM AT ALL EXPOSED TILE EDGES.

5 INSTALL CWT-2 FROM ABOVE BASE TO CEILING; 8'-0" WIDE (TO THE NEAREST FULL TILE). SEE COLOR LEGEND FOR TRIM AT EXPOSED EDGES. SEE FINISH SHEET FOR TILE PATTERN.

### FINISH LEGEND PATTERN LEGEND

CPT-1

CPT-2

CPT-3

CPT-4

DIRECTION OF FLOORING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**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

| REVISION | | |
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| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
FIRST FLOOR FINISH PLAN

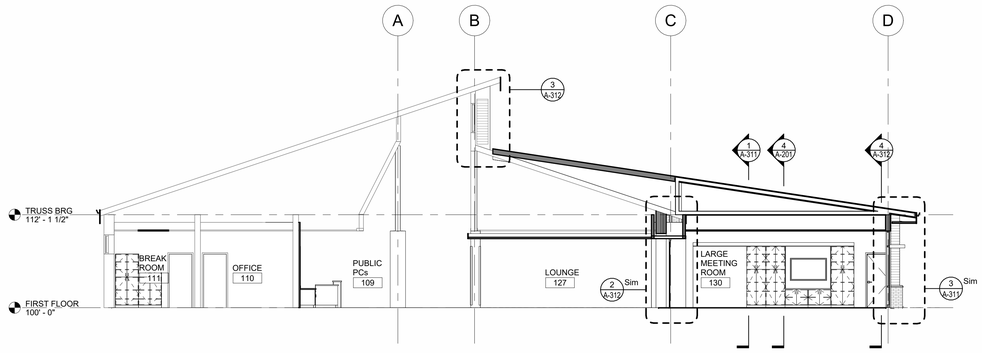
ISSUE DATE: 03.27.2025
PROJECT NO. 25004

DRAWING NO.
A-141

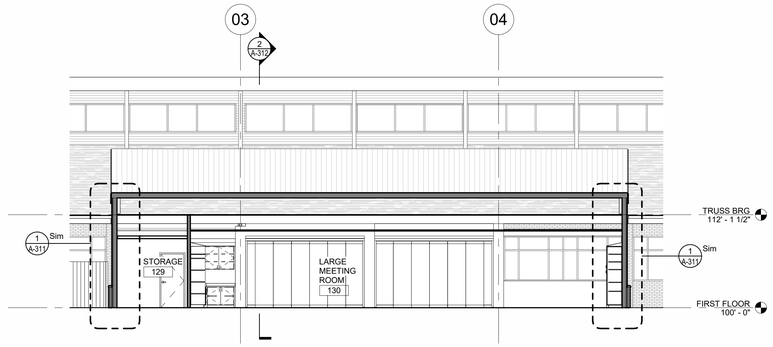
Plot Date/Time: 4/8/2025 11:35:19 AM
Drawing Name: 1-FIRST FLOOR FINISH PLAN.rvt

## BUILDING ELEVATION NOTES

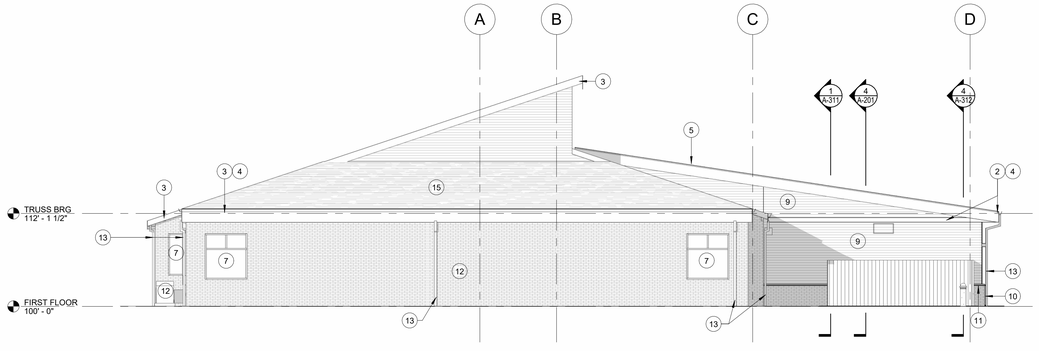
1 EXISTING WINGWALLS TO REMAIN. REPLACE SIDING ON EACH SIDE OF ALL WINGWALLS. COORDINATE WITH CONTRACTOR ON NEW ROOF LOCATION.
2 NEW FASCIA.
3 EXISTING FASCIA - REFINISH.
4 NEW GUTTER.
5 NEW METAL ROOF.
6 NEW STOREFRONT WINDOW SYSTEM
7 EXISTING WINDOW/GLAZING TO REMAIN.
8 NEW PRE-FINISHED ALUMINUM WRAPPED COLUMN.
9 NEW FIBER CEMENT SIDING.
10 NEW BRICK VENEER.
11 NEW PRE-CAST WATER TABLE.
12 EXSITING BRICK VENEER.
13 NEW DOWNSPOUT.
15 NEW ASPHALT SHINGLE ROOF.



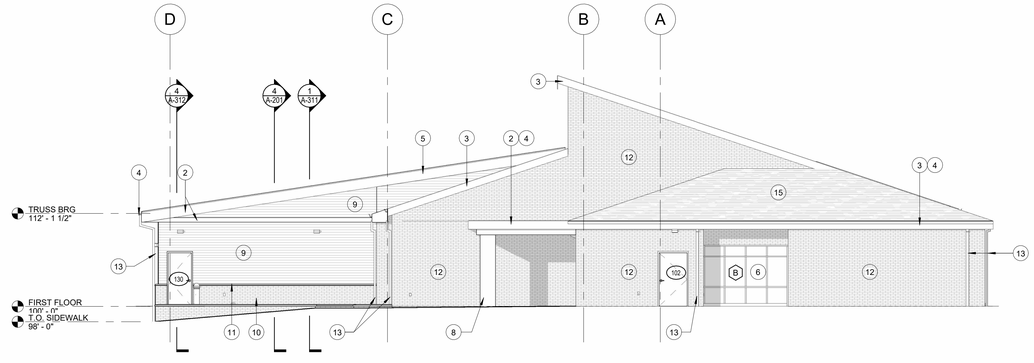

## 5 N-S BUILDING SECTION
1/8" = 1'-0"



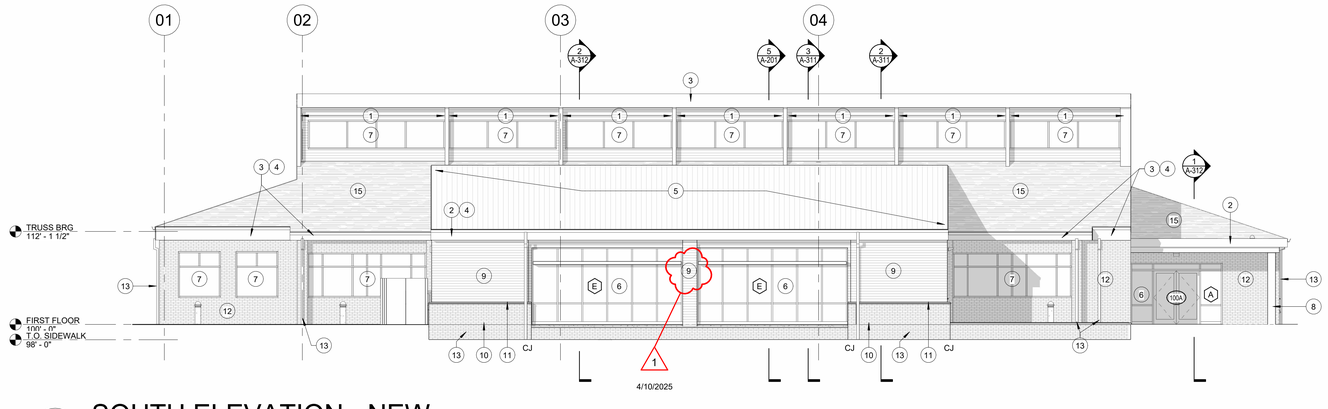

## 4 E-W BUILDING SECTION
1/8" = 1'-0"




## 3 WEST ELEVATION - NEW
1/8" = 1'-0"




## 2 EAST ELEVATION - NEW
1/8" = 1'-0"




## 1 SOUTH ELEVATION - NEW
1/8" = 1'-0"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**SJCPL - LASALLE BRANCH**
RENOVATION & ADDITION
3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

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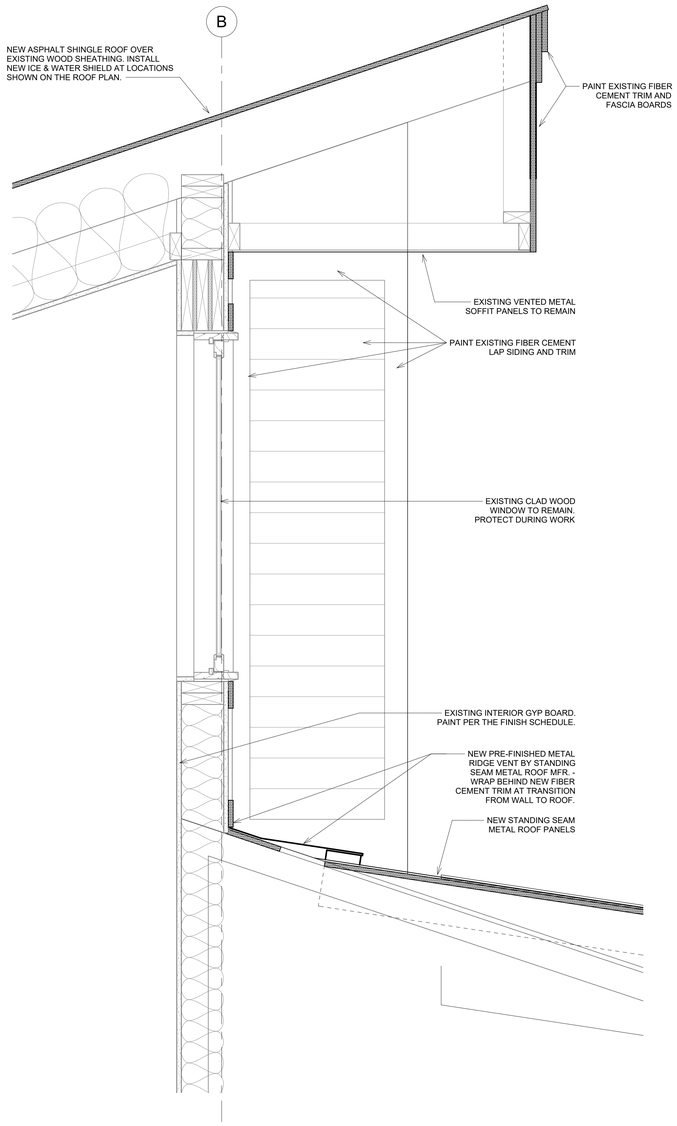
| No. | Date | Revision |
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
BUILDING ELEVATIONS & SECTIONS

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

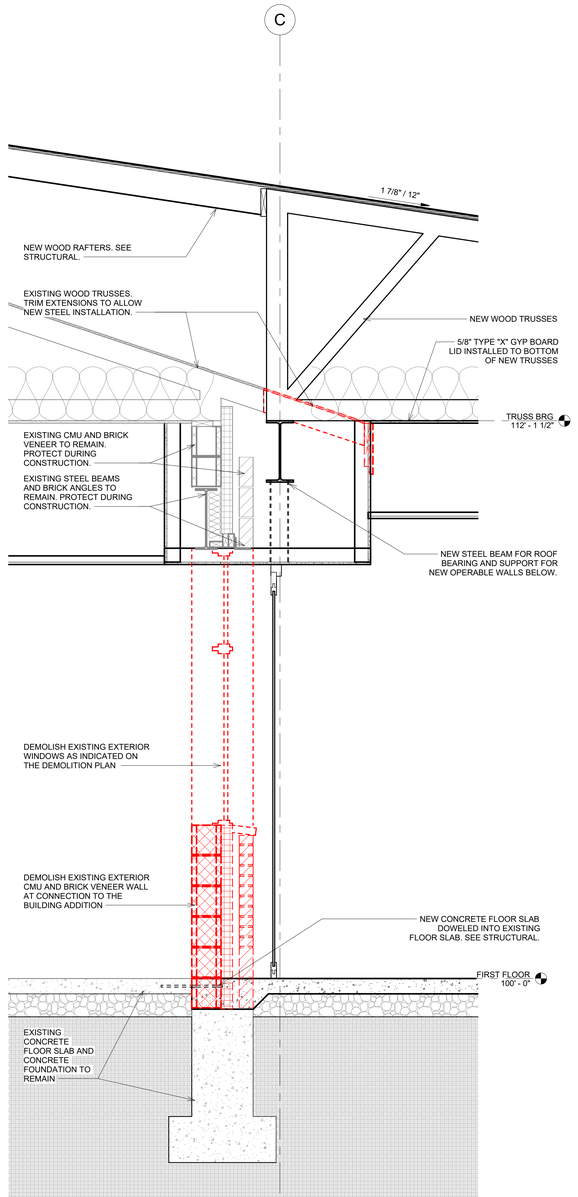
DRAWING NO.
A-201

Plot Time/Date: 4/30/2025 11:40:26 AM
Drawing Name: 1st-floor.rfa



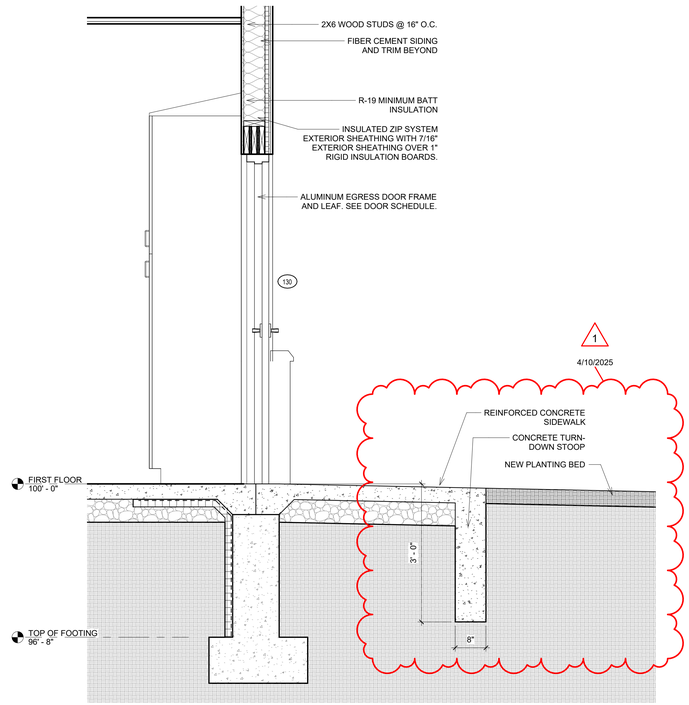

## 3 CLERESTORY ROOF DETAIL

1 1/2" = 1'-0"



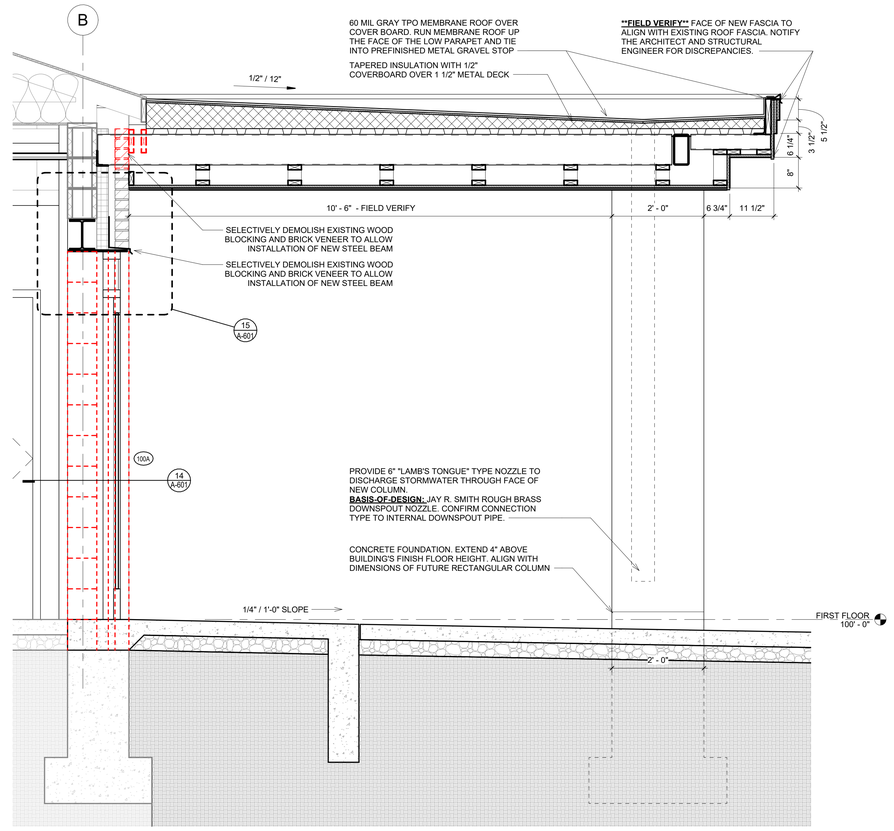

## 2 WALL SECTION

3/4" = 1'-0"




## 4 WALL SECTION

3/4" = 1'-0"




## 1 CANOPY SECTION

3/4" = 1'-0"

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SOUTH BEND, IN 46628

**REVISION**

| No. | Date | Revision |
|---|---|---|
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
WALL SECTIONS

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

DRAWING NO.
A-312

Plot Date/Time: 4/4/2025 8:53:17 AM
Drawing Name: Template.rte

## CASEWORK/ INTERIOR ELEVATION NOTES

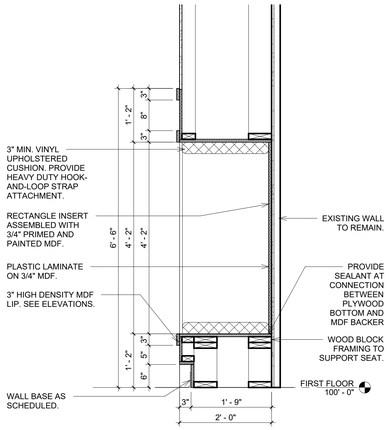
1 PLASTIC LAMINATE COUNTERTOP. SEE CASEWORK FINISH LEGEND.
2 PLASTIC LAMINATE COUNTERTOP WITH STAINLESS STEEL SINK. SEE CASEWORK FINISH LEGEND AND PLUMBING DRAWINGS.
3 SOLID SURFACE COUNTERTOP. SEE CASEWORK FINISH LEGEND.
4 SOLID SURFACE COUNTERTOP WITH INTEGRAL SINK. SEE CASEWORK FINISH LEGEND, INTEGRAL SINK BASE DETAIL ON CASEWORK DETAILS SHEET AND PLUMBING DRAWINGS.
5 SOLID SURFACE COUNTERTOP WITH STAINLESS STEEL SINK. SEE CASEWORK FINISH LEGEND AND PLUMBING DRAWINGS.
6 SURFACE MOUNTED STEEL COUNTERTOP SUPPORTS. SEE TYPICAL DETAIL ON CASEWORK DETAILS SHEET FOR BLOCKING AND SPACING REQUIREMENTS.
7 SLOPED TOP TO MATCH UPPER CASEWORK.
8 FINISHED END PANEL.
9 WALL BASE AS SCHEDULED. SEE FINISH SCHEDULE AND LEGEND.
10 PROVIDE REMOVABLE ACCESS PANEL IN KNEE SPACE FOR POWER AND DATA WORK.
11 3" TOE KICK.
12 BOOK DROP SIGNAGE.
13 NEW BOOK DROP.
14 EXISTING IN-FILLED BOOK DROP.
15 WALL MOUNTED TV. COORDINATE WITH OWNER FOR FINAL LOCATION.
16 MOBILE LIBRARY SHELVES.
17 CUSTOM MILLWORK BENCH SEAT WITH UPHOLSTERED CUSHION. SEE DETAILS.
18 LIBRARY SINGLE-SIDED SHELVING.
19 24" PLASTIC LAMINATE TALL CABINET WITH DOUBLE DOOR STORAGE WITH ADJUSTABLE SHELVING.
20 LIBRARY DOUBLE-SIDED SHELVING.
21 OPERABLE GLASS WALL SYSTEM. BASIS-OF-DESIGN: NANA WALL CSW75 - SINGLE SWING DOOR WITH REMAINING PAIRED PANELS COLLAPSING TO OPPOSITE WALL.
22 15" DEEP PLASTIC LAMINATE UPPER CABINETS.
23 24" DEEP PLASTIC LAMINATE STORAGE CABINETS WITH ADJUSTABLE SHELVING.
24 24" DEEP PLASTIC LAMINATE SINK BASE WITH LOCKING DOORS AND BLANK DRAWER PANEL.
25 24" DEEP PLASTIC LAMINATE STORAGE CABINETS WITH DOOR(S) & ADJUSTABLE SHELVING.
26 24" DEEP PLASTIC LAMINATE BASE CABINETS WITH 4 DRAWERS.
27 24" DEEP PLASTIC LAMINATE STORAGE CABINETS WITH HORIZONTAL SLIDING FRONT DOORS.

1 4/10/2025

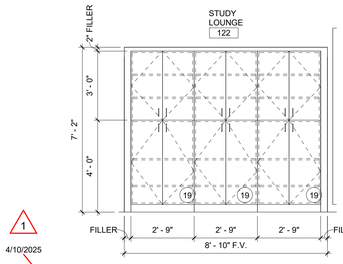
## CASEWORK/ INTERIOR ELEVATION NOTES

28 24" DEEP PLASTIC LAMINATE STORAGE CABINETS WITH SINGLE DRAWER, DOOR(S), AND ADJUSTABLE SHELVING. SEE CASEWORK FINISH LEGEND
29 24" DEEP PLASTIC LAMINATE CASEWORK WITH SINGLE FILE CABINET AND 2 EQUAL DRAWERS ABOVE.
30 24" DEEP PLASTIC LAMINATE COUNTERTOP AND BACKSPLASH WITH DROP-IN STAINLESS STEEL SINK.
31 NEW FLOOR PRINTER/COPIER FURNISHED AND INSTALLED BY OWNER. PROVIDE DATA AND POWER.
32 EXISTING FLOOR PRINTER/COPIER FURNISHED AND INSTALLED BY OWNER. PROVIDE DATA AND POWER.
33 EXISTING REFRIGERATOR INSTALLED BY OWNER. PROVIDE DATA AND POWER.
34 EXISTING DOUBLE STACKED LOCKERS.
35 2" APRON AND UNDER CABINET ACCENT LIGHTING.
36 EXISTING WINDOW TO REMAIN, PROVIDE NEW ONE WAY FILM.
37 TRIM ACOUSTIC PANELS TO FIT AROUND TV MOUNT AND POWER / DATA OUTLETS.
38 ACOUSTIC WALL PANELS DIRECT ADHERED TO WALL. SEE SPECS.
39 STAINED WOOD TRIM AT BOTTOM OF ACOUSTIC PANELS.
40 TABLE PROVIDED BY OWNER.
41 OWNER PROVIDED CUSTOM FURNITURE.
42 COAT RACK AND SHELF.
43 PLASTIC LAMINATE END PANELS, BACK PANEL, AND SLOPED TOP SURROUNDING WALL MOUNT TV.
44 24" PLASTIC LAMINATE TALL CABINET WITH OPEN ADJUSTABLE SHELVING. PROVIDE 1 PERMANENT SHELF AND 10 ADJUSTABLE SHELVES FOR ART STORAGE.
46 OWNER PROVIDED MODULAR LOCKER SYSTEM.
47 MODIFY LOWER CABINET DOOR TO RECEIVE PERSONAL PADLOCK IN LIEU OF STANDARD DOOR LOCK
CJ DRYWALL CONTROL JOINT.

ALL PUBLIC FACING CABINET DOORS AND DRAWERS (INCLUDING THE DRAWERS AT THE CIRCULATION DESK) SHALL HAVE LOCKS PROVIDED. COORDINATE KEYING WITH THE OWNER.

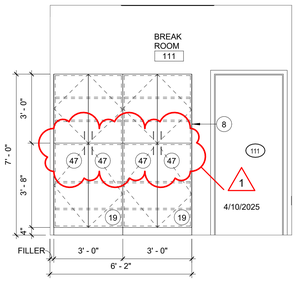



15 BENCH DTL.
3/4" = 1'-0"

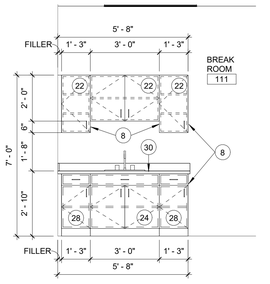



1 4/10/2025

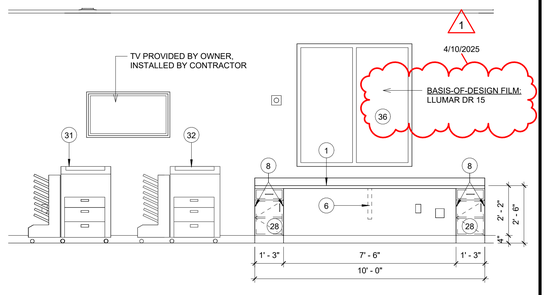
14 STUDY LOUNGE CASEWORK
3/8" = 1'-0"



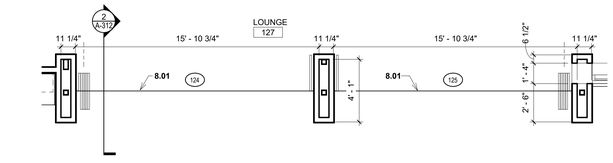

13 BREAK RM. CASEWORK
3/8" = 1'-0"




12 BREAK RM CASEWORK
3/8" = 1'-0"

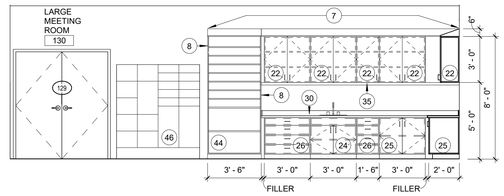



11 COPY CENTER ELEV.
3/8" = 1'-0"

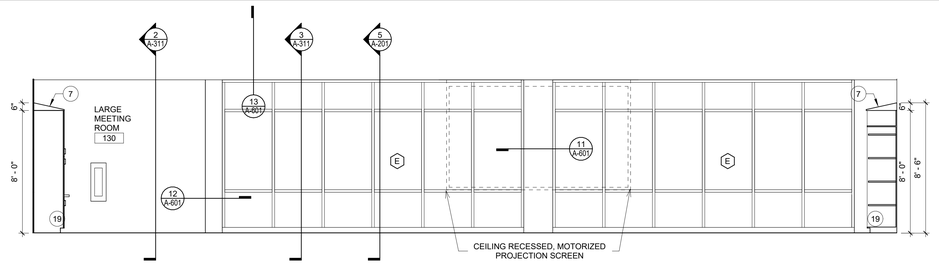



NORTH

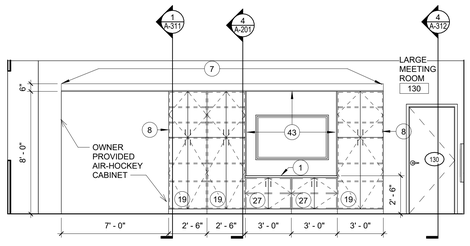
10 LOUNGE - OPERABLE WALL PLAN
1/4" = 1'-0"



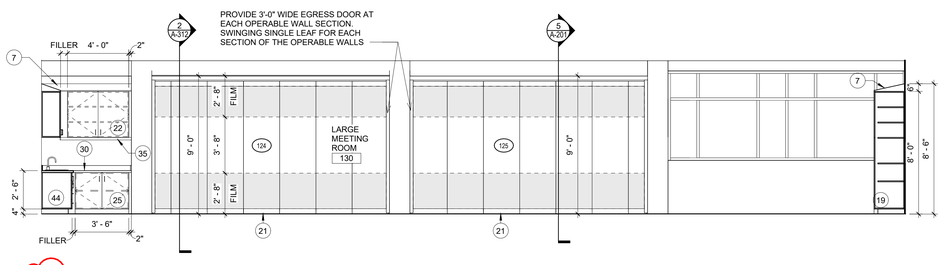

8 LARGE MTG ROOM ELEVATION
1/4" = 1'-0"




7 LARGE MTG ROOM ELEVATION
1/4" = 1'-0"

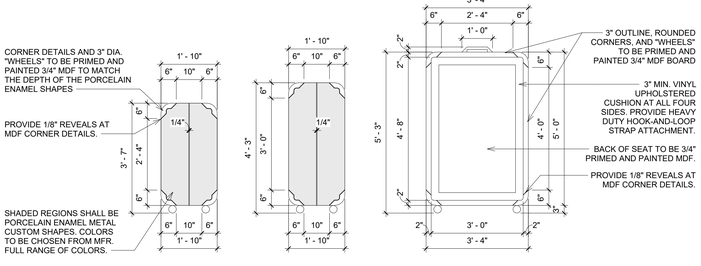



6 LARGE MTG ROOM ELEVATION
1/4" = 1'-0"




1 4/10/2025

5 LARGE MTG ROOM ELEVATION
1/4" = 1'-0"




9 WALL SHAPES
1/2" = 1'-0"




4 YOUTH COLLECTION ELEV.
1/4" = 1'-0"




3 YOUTH COLLECTION ELEV.
1/4" = 1'-0"




1 4/10/2025

2 YOUTH COLLECTION ELEV.
1/4" = 1'-0"




1 YOUTH COLLECTION ELEV.
1/4" = 1'-0"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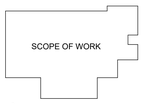
Certification:

ZACHARY R. BENEDICT REGISTERED No. AR11200057 STATE OF INDIANA ARCHITECT

Consultant Logo:

Key Plan:



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ST. JOE COUNTY

**SJCPL - LASALLE BRANCH**
RENOVATION & ADDITION
3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

REVISION

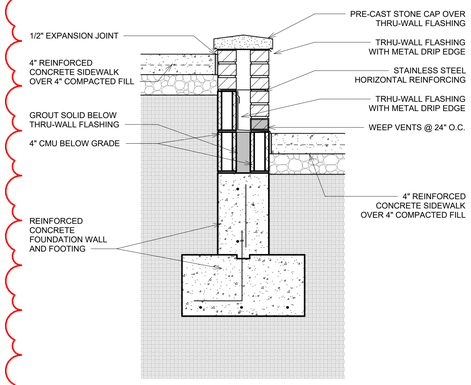
| No. | Date | Revision |
|---|---|---|
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
INTERIOR & CASEWORK ELEVATIONS

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

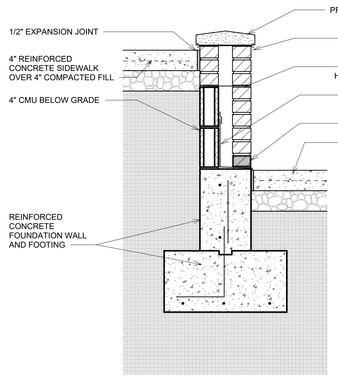
DRAWING NO.
A-402

Plot By: Plotted Date: 4/9/2025 11:40:28 AM
Drawing Name: 1x1=50.00 x 1.5



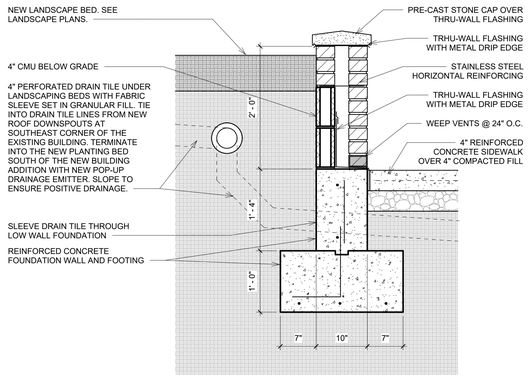

## 5 EXTERIOR WALL DTL

1" = 1'-0"




## 4 EXTERIOR WALL DTL

1" = 1'-0"

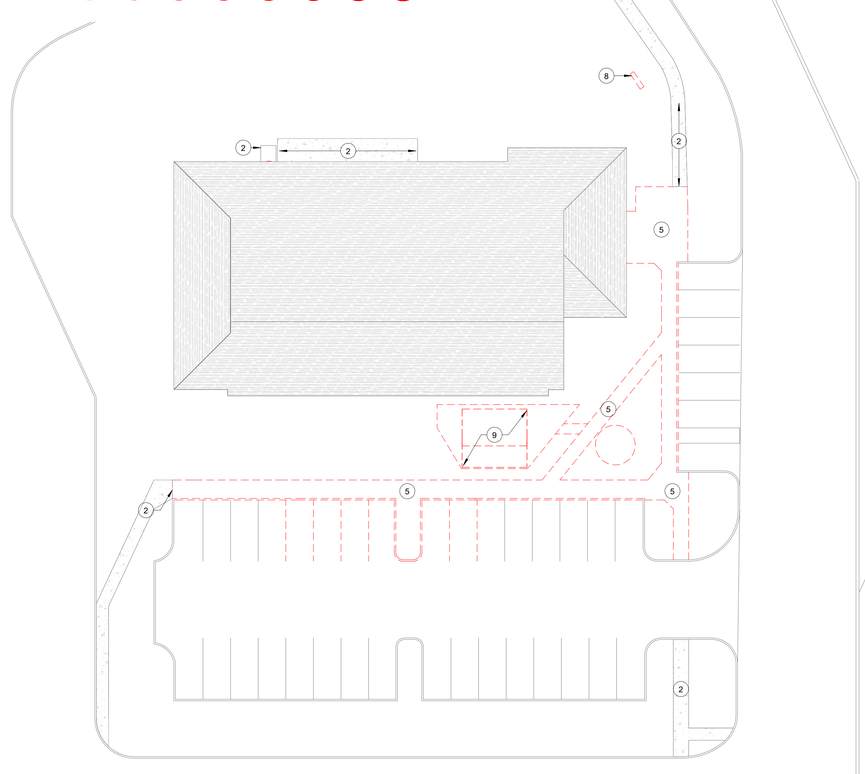



## 3 EXTERIOR WALL DTL AT PLANTER

1" = 1'-0"


1

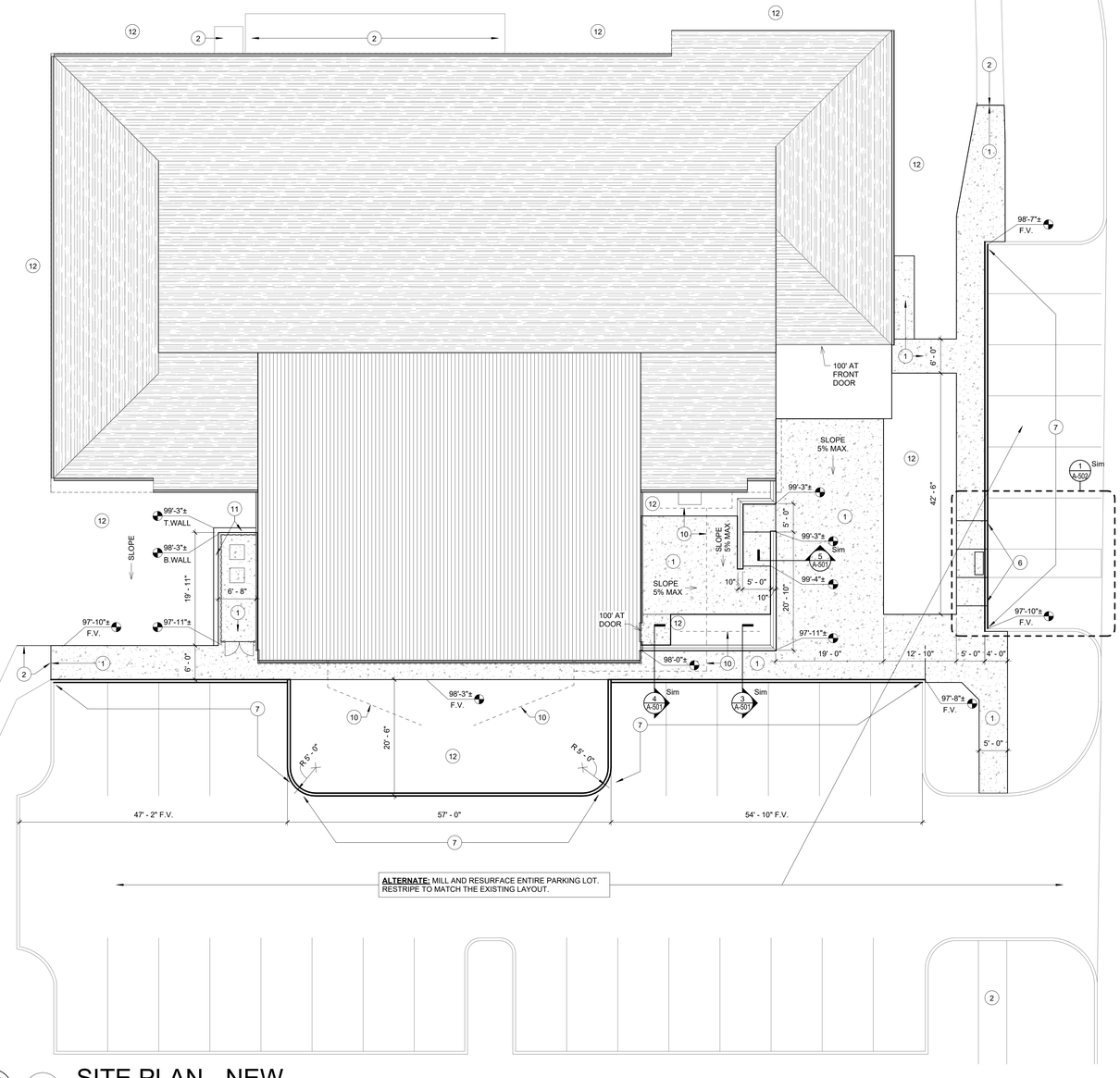
4/10/2025




NORTH

## 2 SITE DEMOLITION PLAN

1" = 20'-0"




**ALTERNATE:** MILL AND RESURFACE ENTIRE PARKING LOT. RESTRIPE TO MATCH THE EXISTING LAYOUT.

NORTH

## 1 SITE PLAN - NEW

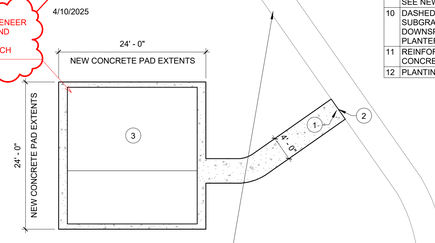
1" = 10'-0"

VERIFY WITH A.H.J. 30' SETBACK FOR NEW SIGNAGE BOUNDARY

REBUILD STONE VENEER COLUMN BASES AND SEAT WITH NEW MASONRY TO MATCH EXISTING SCOPE.

1

4/10/2025




**ALTERNATE:** REPLACE ALL EXISTING SIDEWALK BETWEEN THE BUILDING AND ARDMORE TRAIL.

### SITE PLAN NOTES

| | |
|---|---|
| 1 | NEW CONCRETE SIDEWALK. |
| 2 | EXISTING CONCRETE SIDEWALK TO REMAIN. |
| 3 | RELOCATED PAVILION. FIELD VERIFY. PROVIDE NEW FOUNDATION PIERS TO SUPPORT RELOCATED STRUCTURE. |
| 4 | NEW LIBRARY DIGITAL SIGNAGE. CONFIRM MANDATORY SETBACKS FROM THE ROAD WITH LOCAL AHJ. EXTEND POWER AND DATA FROM THE EXISTING DIGITAL SIGN PER ELECTRICAL DRAWINGS. |
| 5 | REMOVE EXISTING CONCRETE SIDEWALK. |
| 6 | REBUILD ACCESSIBLE CURB RAMP AT THE EXISTING LOCATION. |
| 7 | NEW CONCRETE CURB. |
| 8 | REMOVE AND DISPOSE OF EXISTING DIGITAL SIGNAGE. PREP EXISTING POWER & DATA LINES TO BE EXTENDED TO NEW DIGITAL SIGNAGE. |
| 9 | REMOVE AND SALVAGE EXISTING WOOD FRAMED PAVILLION TO BE RELOCATED ON THE EXISTING SITE. SEE NEW LOCATION ON PROPOSED SITE PLAN. |
| 10 | DASHED LINE INDICATES PROPOSED LOCATIONS OF SUBGRADE PERFORATED DRAIN TILE CONNECTING NEW DOWNSPOUTS TO A YARD OUTLET WITHIN THE NEW PLANTER BED SOUTH OF THE ADDITION. |
| 11 | REINFORCED RETAINING WALL SURROUNDING NEW CONCRETE SLAB. |
| 12 | PLANTING BED - SEE LANDSCAPE ARCHITECTURE PLANS. |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Certification:

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REGISTERED
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STATE OF INDIANA
ARCHITECT

Consultant Logo:

Key Plan:




Public Library
ST. JOE COUNTY

**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

**REVISION**

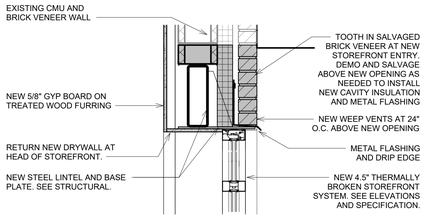
| No. | Date | Revision |
|---|---|---|
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
EXTERIOR PLANS & DETAILS

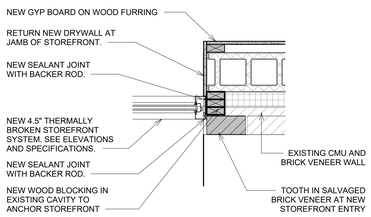
ISSUE DATE: 03.27.2025
PROJECT NO. 25004

DRAWING NO.
A-501

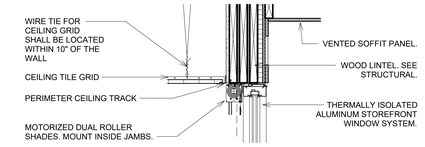
Plot Time/Date: 4/10/2025 11:17:53 AM
Drawing Name: Template.rte



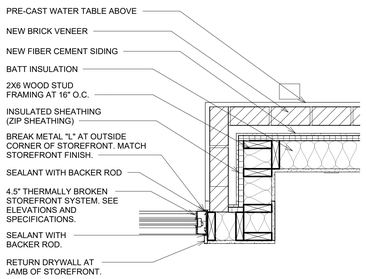

## 15 STOREFRONT HEAD DTL.
1" = 1'-0"



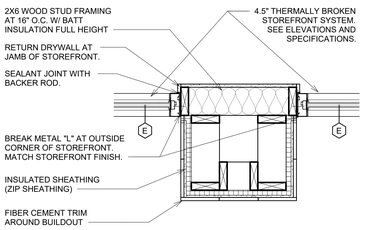

## 14 STOREFRONT JAMB DTL.
1" = 1'-0"



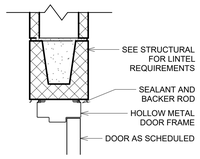

## 13 STOREFRONT E HEAD DTL.
1" = 1'-0"



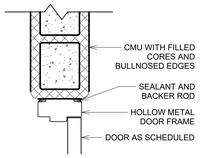

## 12 STOREFRONT E JAMB DTL.
1" = 1'-0"




## 11 STOREFRONT E JAMB DTL.
1" = 1'-0"



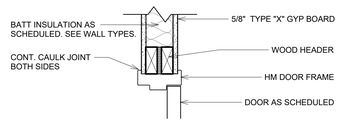

**HEAD**



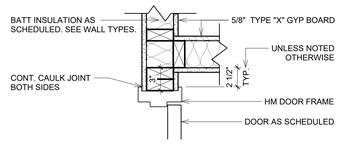

**JAMB**

**CONCRETE BLOCK - INTERIOR**

## 8 DOOR FRAME DTL.
1 1/2" = 1'-0"



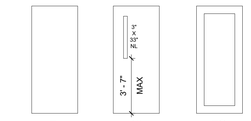

**HEAD**




**JAMB**

**WOOD STUD - INTERIOR (TYPICAL)**

## 7 DOOR FRAME DTL.
1 1/2" = 1'-0"



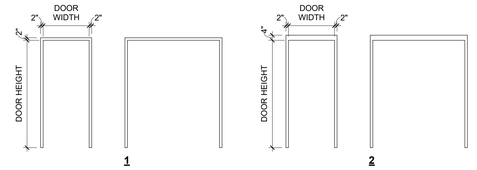

**DOOR LEAF ABBREVIATIONS:**

| | | | |
|---|---|---|---|
| F | - FLUSH | HG | - HALF GLASS |
| V | - VISION LITE | FG | - FULL GLASS |
| NL | - NARROW LITE | | |

**ADDITIONAL ABBREVIATIONS:**

| | | | |
|---|---|---|---|
| ALUM | - ALUMINUM | WD | - WOOD |
| ANOD | - ANODIZED | PT | - PAINT |
| HM | - HOLLOW METAL | ST | - STAIN |
| | | KYR | - KYNAR |

## DOOR LEAF ELEVATIONS




## DOOR FRAME ELEVATIONS

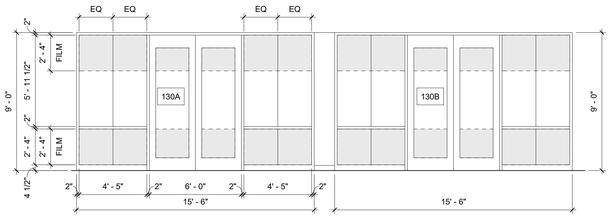
1 4/10/2025

- MODIFIED DOOR 102 WIDTH
- REMOVED DUPLICATE DOOR 126
- ADDED ALTERNATE DOORS 130A & B

**DOOR SCHEDULE**

| DOOR NUMBER | LABEL | LEAF SIZE W | LEAF SIZE H | LEAF THICKNESS | LEAF TYPE | LEAF MATERIAL | LEAF FINISH | FRAME TYPE | FRAME MATERIAL | FRAME FINISH | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FIRST FLOOR | | | | | | | | | | | |
| 100A | | 6' - 0" | 7' - 0" | | FG | ALUM | KYNAR | 1 | ALUM | KYNAR | |
| 100B | | 6' - 0" | 7' - 0" | | FG | ALUM | KYNAR | 1 | ALUM | KYNAR | |
| 101 | | 3' - 6" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 102 | | 3' - 8" | 7' - 0" | 1 3/4" | F | HM | PT | 2 | HM | PT | |
| 107 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1, 2 |
| 108A | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 110 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1 |
| 111 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1 |
| 112 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1 |
| 113 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1 |
| 114 | | 3' - 0" | 7' - 0" | 1 3/4" | - | - | - | - | HM | PT | 1 |
| 115 | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 117 | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 118 | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 121 | | 3' - 0" | 7' - 10" | | FG | WD | ST | 1 | ALUM | KYNAR | |
| 123 | | 3' - 0" | 7' - 10" | | FG | WD | ST | 1 | ALUM | KYNAR | |
| 126 | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 129 | | 6' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |
| 130 | | 3' - 0" | 7' - 0" | 1 3/4" | F | HM | PT | 1 | HM | PT | |
| 130A | | 6' - 0" | 9' - 0" | 1 3/4" | FG | ALUM | KYNAR | 1 | ALUM | KYNAR | 3 |
| 130B | | 6' - 0" | 9' - 0" | 1 3/4" | FG | ALUM | KYNAR | 1 | ALUM | KYNAR | 3 |
| 131 | | 3' - 0" | 7' - 0" | 1 3/4" | F | WD | ST | 1 | HM | PT | |

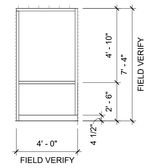
1. PAINT EXISTING H.M. FRAME PER FINISH SCHEDULE. PROTECT EXISTING DOOR LEAF AND HARDWARE.
2. OWNER VENDOR TO INSTALL A NEW ELECTRIC STRIKE IN THE EXISTING HM FRAME FOR NEW ACCESS CONTROL.
3. STOREFRONT DOUBLE DOUBLE DOORS AS PART OF ALTERNATE #1.



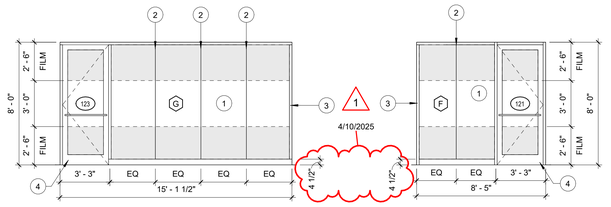

**THE STOREFRONT FRAMES AND DOORS SHOWN IN THIS VIEW ARE INCLUDED IN ALTERNATE #1 TO REPLACE THE OPERABLE GLASS WALLS AT THE SAME LOCATION. THE OPERABLE WALLS ARE THE BASE BID DESIGN.**

- MEETING ROOM DOORS TO BE FULL GLASS ALUMINUM STOREFRONT LEAFS SET IN ALUMINUM STOREFRONT FRAMES
- DOOR LEAF GLAZING: 1/4" CLEAR TEMPERED
- SIDELITE GLAZING: LAMINATED WITH ACOUSTIC INTERLAYER (BASIS-OF-DESIGN: SAFLEX ACOUSTIC PVB)
  - PROVIDE STANDARD STOREFRONT MFR SETTING BLOCKS AND GASKETS FOR BUTT GLAZE JAMB CONNECTIONS
- WINDOW FILM BASIS-OF-DESIGN: 3M FASARA GLASS FINISHES STRIPE SH2DGST-F, SEATTLE FINE

## 10 ALTERNATE - LOUNGE STOREFRONT
1/4" = 1'-0"




## 9 STOREFRONT H
1/4" = 1'-0"

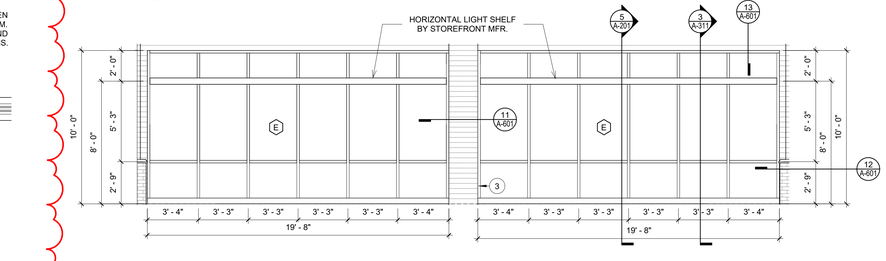



- STUDY ROOM DOORS TO BE FULL GLASS WOOD DOOR LEAFS SET IN ALUMINUM STOREFRONT FRAMES
- DOOR LEAF GLAZING: 1/4" CLEAR TEMPERED
- SIDELITE GLAZING: LAMINATED WITH ACOUSTIC INTERLAYER (BASIS-OF-DESIGN: SAFLEX ACOUSTIC PVB)
  - PROVIDE STANDARD STOREFRONT MFR SETTING BLOCKS AND GASKETS FOR BUTT GLAZE JAMB CONNECTIONS
- WINDOW FILM BASIS-OF-DESIGN: 3M FASARA GLASS FINISHES STRIPE SH2DGST-F, SEATTLE FINE

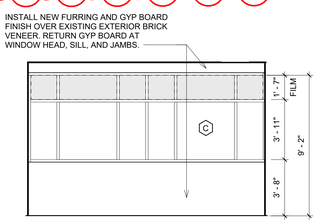
## 6 STOREFRONT G
1/4" = 1'-0"

## 5 STOREFRONT F
1/4" = 1'-0"

1 4/10/2025

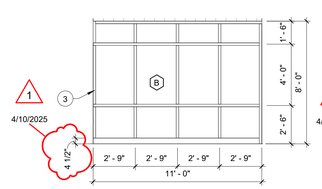



## 4 STOREFRONT E
1/4" = 1'-0"

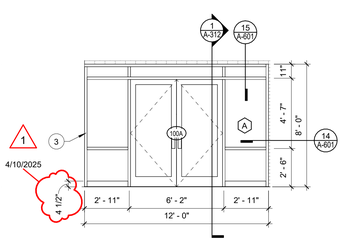



- EXISTING WOOD WINDOW TO REMAIN
- ADD WINDOW FILM TO UPPER WINDOW PANES
  - WINDOW FILM BASIS-OF-DESIGN: 3M FASARA GLASS FINISHES STRIPE SH2DGST-F, SEATTLE FINE

## 3 EXISTING WINDOWS
1/4" = 1'-0"




## 2 STOREFRONT B
1/4" = 1'-0"




## 1 STOREFRONT A
1/4" = 1'-0"

**STOREFRONT ELEVATION NOTES**

1 GLAZING LAMINATED WITH ACOUSTIC INTERLAYER (BASIS OF DESIGN: SAFELEX ACOUSTIC PVB)
2 BUTT GLAZED JOINT.
3 ALUMINUM FRAME.
4 WOOD DOORS.
5 EXISTING STOREFRONT TO REMAIN.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**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

3232 ARDMORE TRAIL,
SOUTH BEND, IN 46628

**REVISION**

| No. | Date | Revision |
|---|---|---|
| 1 | 4/10/2025 | Addendum 1 |

DRAWING CONTENTS:
DOOR & GLAZING SCHEDULE/ DETAILS & ELEVATIONS

ISSUE DATE: 03.27.2025
PROJECT NO. 25004

DRAWING NO.
A-601

Plot Date/Time: 4/10/2025 11:40:31 AM
Drawing Name: 1e=pdf\25\A-601.dwg

DLZ INDIANA, LLC
2211 East Jefferson Blvd
South Bend, Indiana 46615

April 10, 2025

**ADDENDUM NO. 1**

RE: **SJCPL**
**LaSalle Branch**

TO: All Bidders and others to whom Plans and Specifications for the above referenced Project have been issued.

The items included in this Addendum are to become a part of the original Drawings and Project Manual as if included herein. Only these items are to be altered. The remainder of the original Drawings and Project Manual remain valid in their entirety.

**PROJECT MANUAL**

| Section | Article | Action |
|---|---|---|
| None | | |

**DRAWINGS**

| Drawing No. | Detail/Item | Action |
|---|---|---|
| M-101 | 1 | ADD locations of existing exhaust fans EF-6, 7, 10, and 11. |
| M-201 | 1 | ADD locations of existing exhaust fans EF-6, 7, 10, and 11. |
| M-301 | 1 | ADD locations of existing temperature control panels.<br>ADD locations of existing exhaust fans EF-6, 7, 10, and 11.<br>REMOVE verbiage for connecting heater CUH-1 to building management system from keynote 238701. |
| M-401 | 1 | ADD locations of existing temperature control panels and keynote calling for reuse of panel enclosure |
| M-402 | 2 | ADD location of existing temperature control panel |
| M-601 | AHU/Pumps Sched. | REMOVE schedule note for providing BACNET cards and communicating BAS control points for air handling units, hydronic pump, and ECM pumps schedules. |
| M-601 | Boilers Sched. | REMOVE schedule note for connecting to existing building management system.<br>CHANGE schedule note 2 to read “MANUFACTURER PROVIDED CONTROLS TO BE CONNECTED TO BUILDING MANAGEMENT SYSTEM.” |
| M-701 | 1 | REMOVE note for wiring by electrical contractor. |
| M-701 | 6 | REMOVE exhaust fans 1 and 2 from DDC Control System Point List. |

**CLARIFICATIONS**

1. Intent of drawings is to replace existing controllers. Existing temperature control panel enclosures can be reused. Provide additional control panels as needed.
2. New electric unit heater CUH-1 will not be connected to the building management system.
3. General contractor is responsible for determining individual scope of work assigned to all sub-contractors/trades, including but not limited to thermostat rough-ins, power for temperature control panels, and dampers.
4. Intent of hot water system is for building management system to enable/disable boilers only and internal boiler controls to stage boilers as needed and as indicated in detail 1/M-701.

**ATTACHMENTS:**
M-101, M-201, M-301, M-401, M-402, M-601, M-701

**END OF ADDENDUM No. 1**

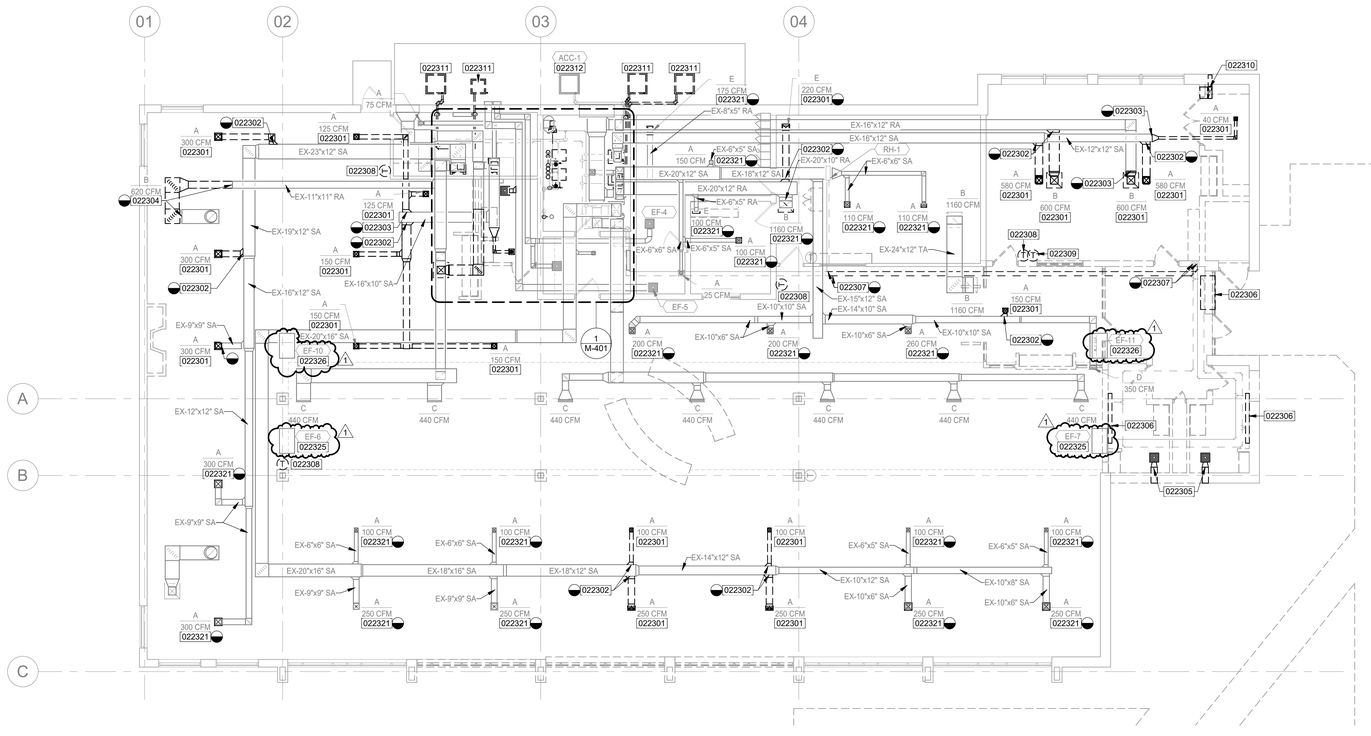
## GENERAL NOTES

A. REFER TO G SHEETS AND M-001 FOR ADDITIONAL GENERAL NOTES AND INFORMATION. REFER TO SPECIFICATIONS FOR ALTERNATES.

B. REPLACE ALL EXISTING CONTROLLERS. CONNECT EXISTING AND NEW MECHANICAL EQUIPMENT TO EXISTING BUILDING MANAGEMENT SYSTEM "NIAGARA N4" PROVIDED BY TCS BUILDING CONTROLS. REFER TO 6/M-701.

## KEYNOTES

| | |
|---|---|
| 022301 | REMOVE EXISTING DIFFUSER/GRILLE AND ASSOCIATED DUCTWORK AND ACCESSORIES TO POINT INDICATED |
| 022302 | REMOVE EXISTING DUCTWORK BACK TO POINT INDICATED. PATCH EXISTING DUCT OPENING |
| 022303 | REMOVE EXISTING DUCTWORK BACK TO POINT INDICATED. EXISTING DUCT OPENING TO BE REUSED |
| 022304 | DISCONNECT AND REMOVE EXISTING RELIEF AIR GRILLE AND ASSOCIATED DUCTWORK BACK TO POINT INDICATED. EXISTING GRILLE TO BE REUSED AND RELOCATED |
| 022305 | REMOVE EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK AND CONTROLS. PATCH EXTERIOR WALL AS REQUIRED TO MATCH ADJACENT CONDITIONS |
| 022306 | REMOVE EXISTING HEATER AND ASSOCIATED CONTROLS AND HYDRONIC PIPING LOCATED ABOVE FLOOR. PERMANENTLY CAP AND ABANDON HYDRONIC PIPING AT FINISHED FLOOR. PATCH FLOOR OPENINGS TO MATCH ADJACENT CONDITIONS |
| 022307 | REMOVE EXISTING HYDRONIC PIPING TO POINTS INDICATED. EXISTING HYDRONIC PIPING LOCATED IN WALL TO BE PERMANENTLY CAPPED AND ABANDONED IN PLACE. PERMANENTLY CAP OPEN ENDS OF PIPING |
| 022308 | DISCONNECT AND REMOVE THERMOSTAT/TEMPERATURE SENSOR. EXISTING CONTROL WIRING TO BE REUSED |
| 022309 | REMOVE EXISTING CONTROLLER FOR REMOVED EXHAUST FAN |
| 022310 | REMOVE EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK. PATCH AND REPAIR EXTERIOR WALL AS REQUIRED TO MATCH ADJACENT CONDITIONS |
| 022311 | REMOVE EXISTING CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING AND EQUIPMENT PAD |
| 022312 | EXISTING CONDENSING UNIT TO REMAIN. REMOVE ALL EXTERIOR REFRIGERANT PIPING INSULATION FOR REPLACEMENT |
| 022321 | DISCONNECT AND REMOVE EXISTING DIFFUSER/GRILLE. EXISTING DUCTWORK AND ACCESSORIES TO BE REUSED |
| 022325 | EXISTING EXHAUST FAN LOCATED AT CLERESTORY PEAK |
| 022326 | EXISTING EXHAUST FAN LOCATED IN ATTIC |




1 **FIRST FLOOR MECHANICAL REMOVAL PLAN**
SCALE: 1/8" = 1'-0"
NORTH

SCALE: 1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"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ST. JOE COUNTY

## SJCPL - LASALLE BRANCH

RENOVATION & ADDITION

3233 ADRMORE TRAIL,
SOUTH BEND, IN 46628

**REVISION**

| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
FIRST FLOOR MECHANICAL REMOVAL PLAN

ISSUE DATE: 03.27.2025
PROJECT NO. 2561-4061-50 / 25004

DRAWING NO.
M-101

Plot Time/Date: 4/10/2025 8:52:01 AM
Drawing Number: M-101

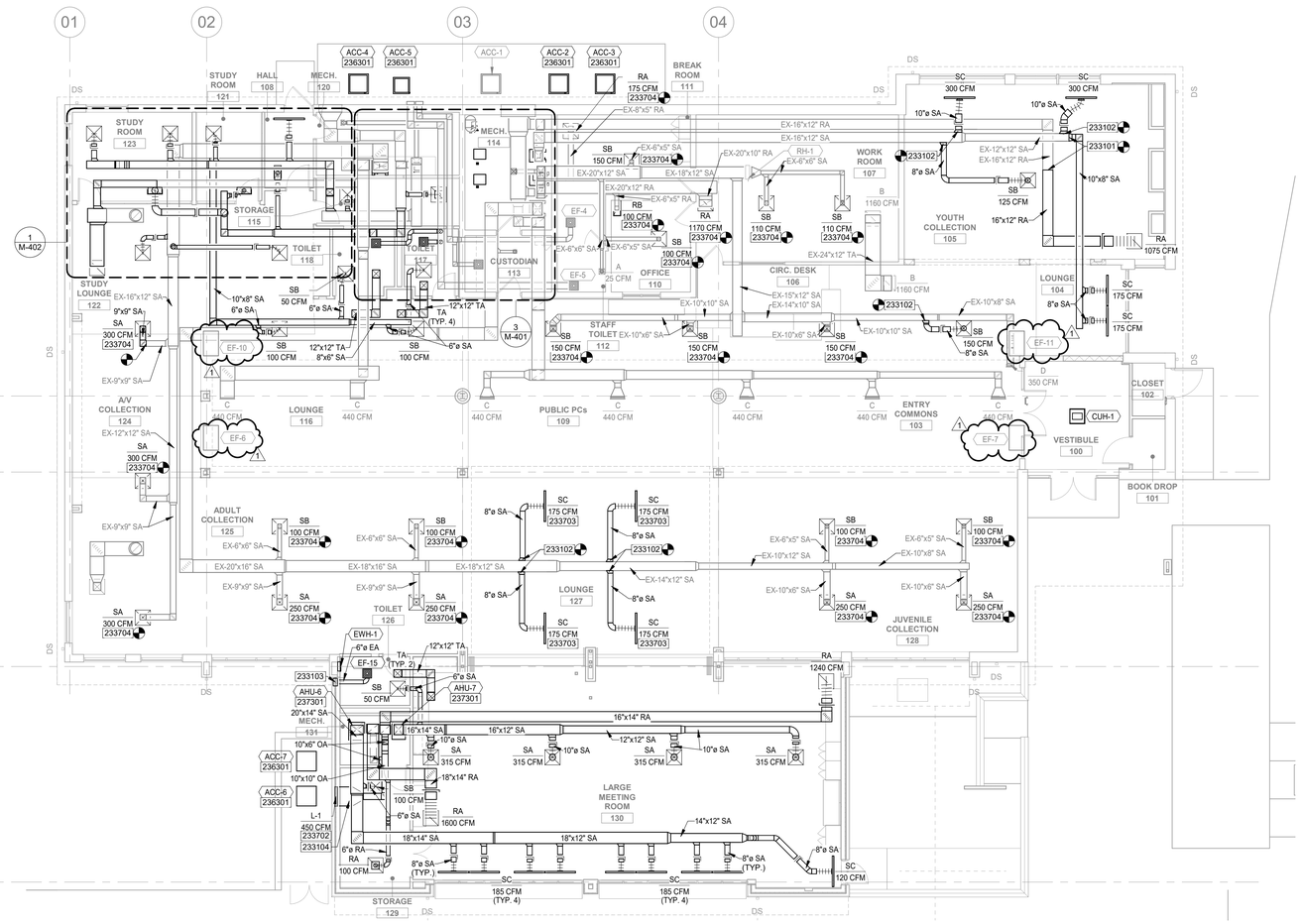
## GENERAL NOTES

A. REFER TO G SHEETS AND M-001 FOR ADDITIONAL GENERAL NOTES AND INFORMATION. REFER TO SPECIFICATIONS FOR ALTERNATES.

B. REPLACE ALL EXISTING CONTROLLERS. CONNECT EXISTING AND NEW MECHANICAL EQUIPMENT TO EXISTING BUILDING MANAGEMENT SYSTEM "NIAGARA N4" PROVIDED BY TCS BUILDING CONTROLS. REFER TO 6/M-701.

## KEYNOTES

| | |
|---|---|
| 233101 | CONNECT NEW DUCTWORK TO EXISTING DUCT OPENING. ADJUST OPENING AS NEEDED FOR NEW CONNECTION |
| 233102 | PROVIDE NEW OPENING ON EXISTING DUCTWORK TO CONNECT NEW DUCTWORK |
| 233103 | 6"Ø SIDEWALL EXHAUST DISCHARGE. PROVIDE SIDEWALL VENT WITH RAIN HOOD AND BACKDRAFT DAMPER |
| 233104 | 24" LONG PLENUM. SLOPE BOTTOM OF PLENUM TO LOUVER. PLENUM TO MATCH LOUVER SIZE |
| 233702 | ALL SOURCES OF INTAKE AIR TO BE AT LEAST 10' AWAY FROM EXHAUST AIR DEVICES |
| 233703 | PROVIDE FRONT OPERATED DAMPER |
| 233704 | ADJUST EXISTING DUCTWORK AND PROVIDE NEW DUCTWORK AS NEEDED TO CONNECT NEW DIFFUSER/GRILLE TO EXISTING DUCTWORK |
| 236301 | PROVIDE NEW EQUIPMENT PAD FOR CONDENSING UNIT |
| 237301 | CONNECT NEW AIR HANDLING UNIT TO NEW HYDRONIC PIPING. PROVIDE MOTORIZED DAMPER ON OUTSIDE AIR DUCT CONNECTION TO RETURN AIR DUCTWORK. INTERCONNECT TO ASSOCIATED AIR HANDLING UNIT. REFER TO CONTROLS DRAWINGS FOR OUTSIDE AIR DAMPER OPERATION |




1 MECHANICAL DUCTWORK INSTALLATION PLAN
SCALE: 1/8" = 1'-0"

NORTH

SCALE: 1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"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**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

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| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
FIRST FLOOR MECHANICAL DUCTWORK PLAN

ISSUE DATE: 03.27.2025
PROJECT NO: 2561-40611-50 / 25004

DRAWING NO.
M-201

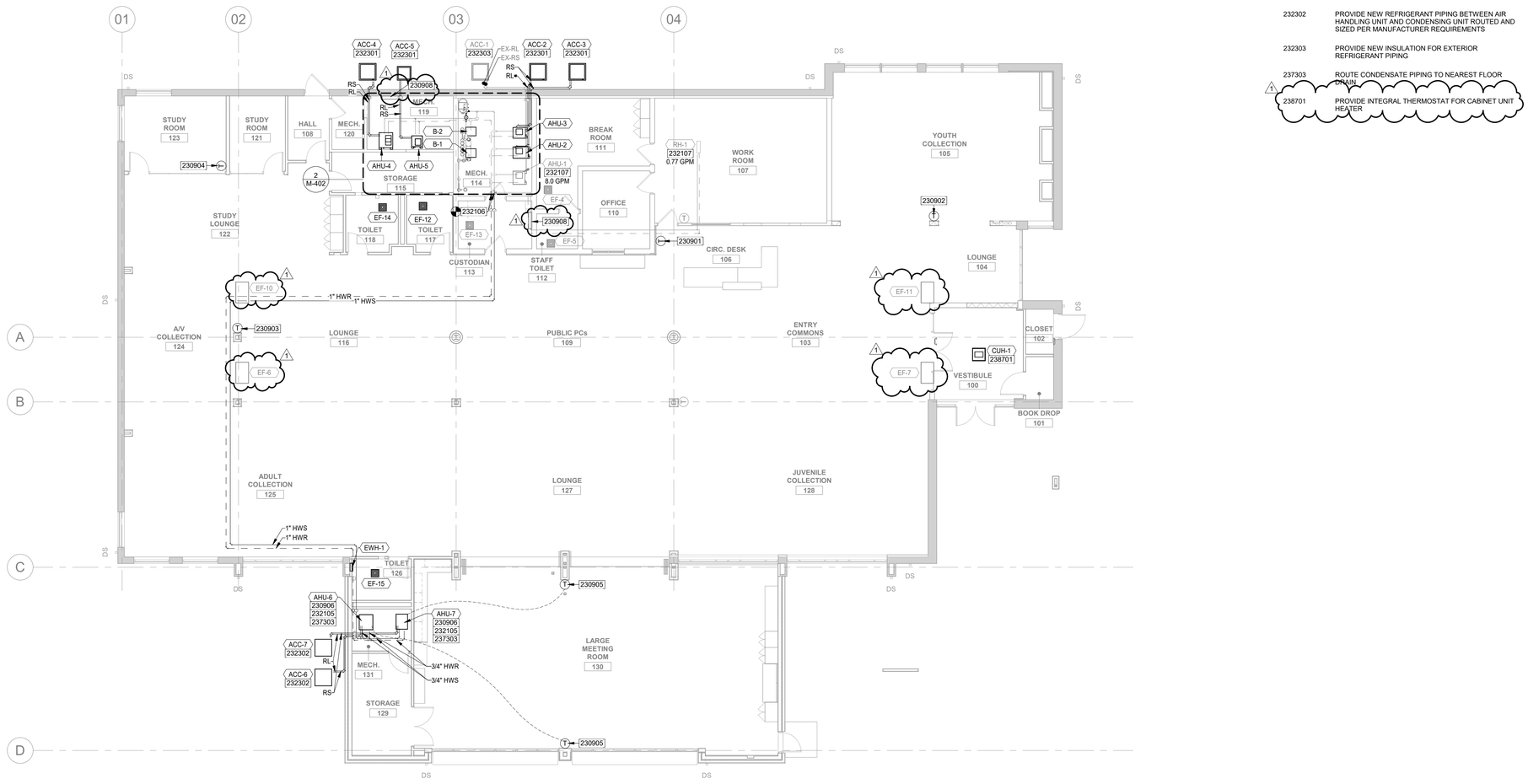
## GENERAL NOTES

A. REFER TO G SHEETS AND M-001 FOR ADDITIONAL GENERAL NOTES AND INFORMATION. REFER TO SPECIFICATIONS FOR ALTERNATES.

B. REPLACE ALL EXISTING CONTROLLERS. CONNECT EXISTING AND NEW MECHANICAL EQUIPMENT TO EXISTING BUILDING MANAGEMENT SYSTEM "NIAGARA N4" PROVIDED BY TCS BUILDING CONTROLS. REFER TO 6/M-701.

## KEYNOTES

| | |
|---|---|
| 230901 | NEW THERMOSTAT/TEMPERATURE SENSOR FOR AIR HANDLING UNIT AHU-2. PROVIDE NEW CONTROL WIRING AS NEEDED TO RECONNECT TO ASSOCIATED AHU AND BUILDING MANAGEMENT SYSTEM |
| 230902 | NEW THERMOSTAT/TEMPERATURE SENSOR FOR AIR HANDLING UNIT AHU-3. PROVIDE NEW CONTROL WIRING AS NEEDED TO RECONNECT TO ASSOCIATED AHU AND BUILDING MANAGEMENT SYSTEM |
| 230903 | NEW THERMOSTAT/TEMPERATURE SENSOR FOR AIR HANDLING UNIT AHU-4. PROVIDE NEW CONTROL WIRING AS NEEDED TO RECONNECT TO ASSOCIATED AHU AND BUILDING MANAGEMENT SYSTEM |
| 230904 | NEW THERMOSTAT/TEMPERATURE SENSOR FOR AIR HANDLING UNIT AHU-5. PROVIDE NEW CONTROL WIRIING AS NEEDED TO RECONNECT TO ASSOCIATED AHU AND BUILDING MANAGEMENT SYSTEM |
| 230905 | PROVIDE NEW THERMOSTAT/TEMPERATURE SENSOR FOR NEW AIR HANDLING UNIT. CONNECT TO EXISTING BUILDING MANAGEMENT SYSTEM |
| 230906 | PROVIDE NEW CONTROLLERS FOR NEW AIR HANDLING UNIT. CONNECT NEW AIR HANDLING UNIT AND ASSOCIATED CONTROLS TO EXISTING BUILDING MANAGEMENT SYSTEM. REFER TO 6/M-701 FOR ALL CONTROL POINTS |
| 230908 | EXISTING TEMPERATURE CONTROL PANEL ENCLOSURE TO BE REUSED |
| 232105 | CONNECT HYDRONIC SUPPLY AND RETURN PIPING PER MANUFACTURER REQUIREMENTS. REFER TO DETAIL 4/M-501 |
| 232106 | CONNECT NEW HYDRONIC SUPPLY AND RETURN PIPING TO EXISTING HYDRONIC PIPING. PROVIDE NEW FITTINGS AS NEEDED |
| 232107 | CONTRACTOR TO BALANCE EXISTING EQUIPMENT TO GPM INDICATED |
| 232301 | PROVIDE NEW REFRIGERANT PIPING BETWEEN AIR HANDLING UNIT AND CONDENSING UNIT ROUTED AND SIZED PER MANUFACTURER REQUIREMENTS. EXISTING WALL PENETRATION TO BE REUSED |
| 232302 | PROVIDE NEW REFRIGERANT PIPING BETWEEN AIR HANDLING UNIT AND CONDENSING UNIT ROUTED AND SIZED PER MANUFACTURER REQUIREMENTS |
| 232303 | PROVIDE NEW INSULATION FOR EXTERIOR REFRIGERANT PIPING |
| 237303 | ROUTE CONDENSATE PIPING TO NEAREST FLOOR DRAIN |
| 238701 | PROVIDE INTEGRAL THERMOSTAT FOR CABINET UNIT HEATER |




1 **MECHANICAL PIPING INSTALLATION PLAN**
SCALE: 1/8" = 1'-0"
NORTH

SCALE: 1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"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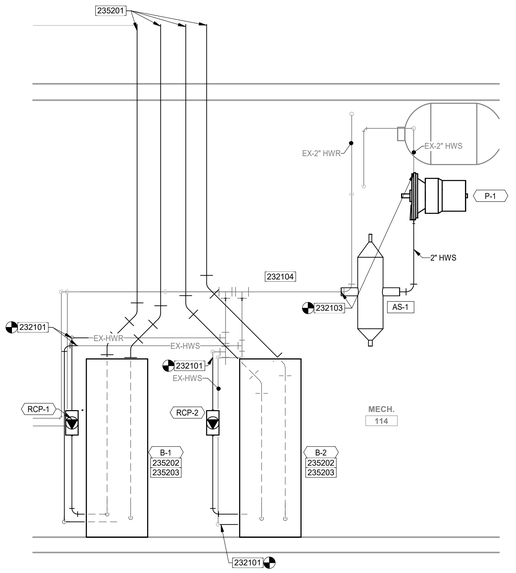
**REVISION**

| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

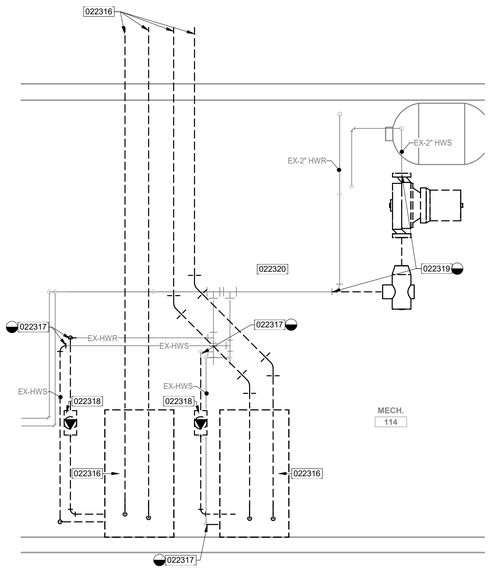
DRAWING CONTENTS:
FIRST FLOOR MECHANICAL PIPING PLAN

ISSUE DATE: 03.27.2025
PROJECT NO. 2561-4061-50 / 25004

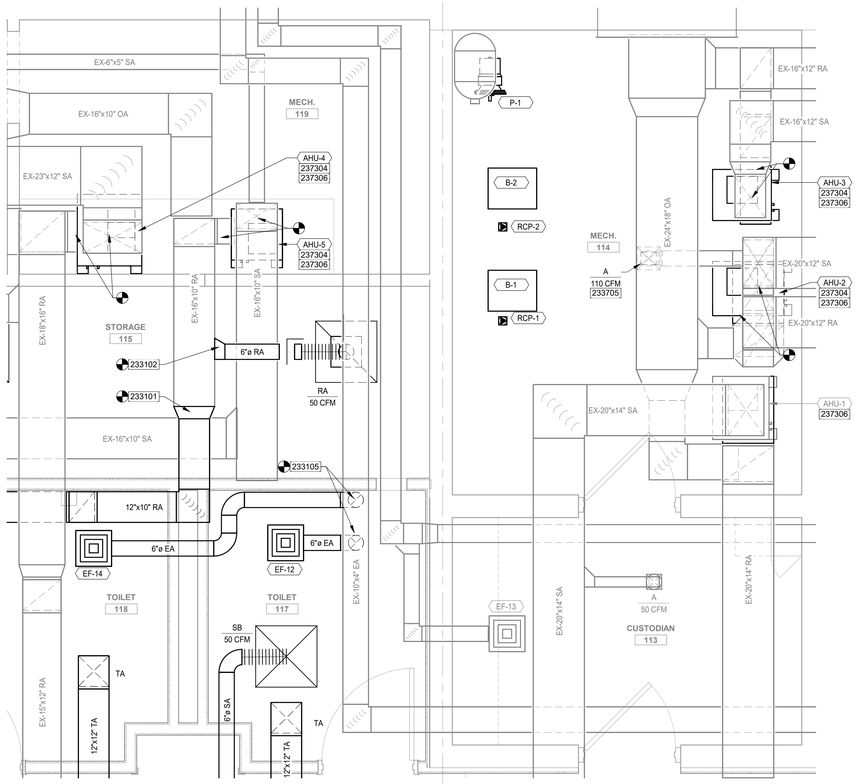
DRAWING NO.
M-301



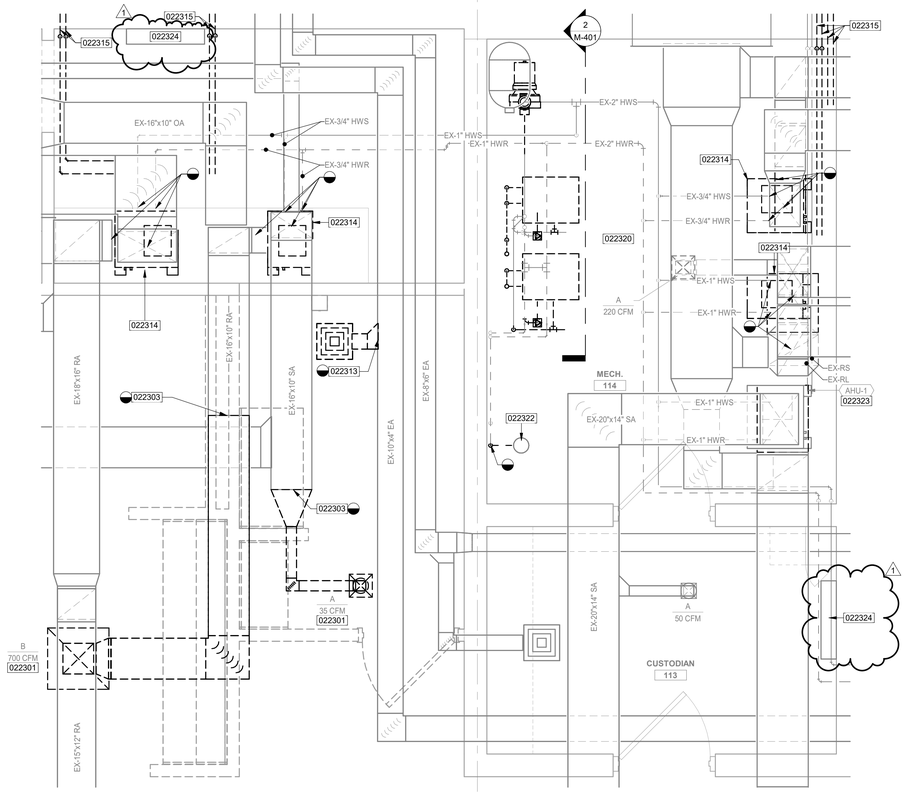

**4 BOILER INSTALLATION SECTION**
SCALE: N.T.S.




**2 BOILER REMOVAL SECTION**
SCALE: N.T.S.




**3 ENLARGED MECHANICAL ROOMS DUCTWORK INSTALLATION PLAN**
SCALE: 1/2" = 1'-0"
NORTH




**1 ENLARGED MECHANICAL ROOMS MECHANICAL REMOVAL PLAN**
SCALE: 1/2" = 1'-0"
NORTH

SCALE: 1/2" = 1'-0"
0 1'-0" 2'-0" 4'-0"

## GENERAL NOTES

A. REFER TO G SHEETS AND M-001 FOR ADDITIONAL GENERAL NOTES AND INFORMATION. REFER TO SPECIFICATIONS FOR ALTERNATES.

B. REPLACE ALL EXISTING CONTROLLERS. CONNECT EXISTING AND NEW MECHANICAL EQUIPMENT TO EXISTING BUILDING MANAGEMENT SYSTEM "NIAGARA N4" PROVIDED BY TCS BUILDING CONTROLS. REFER TO 6/M-701.

## KEYNOTES

| | |
|---|---|
| 022301 | REMOVE EXISTING DIFFUSER/GRILLE AND ASSOCIATED DUCTWORK AND ACCESSORIES TO POINT INDICATED |
| 022303 | REMOVE EXISTING DUCTWORK BACK TO POINT INDICATED. EXISTING DUCT OPENING TO BE REUSED |
| 022313 | REMOVE EXISTING EXHAUST FAN AND ASSOCIATED CONTROLS AND DUCTWORK BACK TO POINT INDICATED. PATCH EXISTING DUCT OPENING |
| 022314 | REMOVE EXISTING AIR HANDLING UNIT AND ASSOCIATED REFRIGERANT PIPING AND CONTROLLERS. DISCONNECT HYDRONIC PIPING FROM HEATING COIL AND TEMPORARILY CAP FOR FUTURE RECONNECTION. DISCONNECT SUPPLY AND RETURN AIR DUCTWORK |
| 022315 | REMOVE ALL REFRIGERANT PIPING FOR ASSOCIATED AIR HANDLING UNIT. EXISTING WALL PENETRATION TO BE REUSED |
| 022316 | REMOVE EXISTING BOILER AND ASSOCIATED COMBUSTION AND INTAKE FLUES. EXISTING ROOF PENETRATIONS TO BE REUSED |
| 022317 | REMOVE HYDRONIC PIPING TO POINTS INDICATED. CONTRACTOR TO DOCUMENT EXISTING PIPE SIZES AND TEMPORARILY CAP FOR FUTURE RECONNECTION |
| 022318 | REMOVE EXISTING BOILER CIRCULATING PUMP AND ASSOCIATED CONTROLS |
| 022319 | DISCONNECT AND REMOVE EXISTING AIR SEPARATOR AND HYDRONIC SUPPLY PUMP FROM HYDRONIC PIPING. TEMPORARILY CAP PIPING FOR FUTURE RECONNECTION. DISCONNECT AIR SEPARATOR FROM EXISTING CEILING MOUNTED EXPANSION TANK AND TEMPORARILY CAP PIPING FOR FUTURE RECONNECTION |
| 022320 | REMOVE ALL HYDRONIC PIPING INSULATION LOCATED IN MECHANICAL ROOM FOR REPLACEMENT |
| 022322 | DISCONNECT EXISTING CHEMICAL FEEDER FROM HYDRONIC PIPING FOR RELOCATION. TEMPORARILY CAP PIPING AND DOCUMENT EXISTING SIZES FOR RECONNECTION |
| 022323 | REPLACE EXISTING CONTROLLERS FOR EXISTING AIR HANDLING UNIT |
| 1 022324 | EXISTING TEMPERATURE CONTROL PANEL ENCLOSURE TO BE REUSED |
| 232101 | CONNECT NEW HYDRONIC SUPPLY AND RETURN PIPING TO EXISTING HYDRONIC PIPING. MATCH EXISTING PIPE SIZES |
| 232103 | PROVIDE NEW HYDRONIC PIPING AS NEEDED TO CONNECT NEW AIR SEPARATOR AND HYDRONIC SUPPLY PUMP TO EXISTING HYDRONIC PIPING. CONNECT NEW AIR SEPARATOR TO EXISTING CEILING MOUNTED EXPANSION TANK. MATCH EXISTING PIPE SIZES |
| 232104 | PROVIDE NEW INSULATION FOR ALL HYDRONIC PIPING LOCATED IN MECHANICAL ROOM |
| 233101 | CONNECT NEW DUCTWORK TO EXISTING DUCT OPENING. ADJUST OPENING AS NEEDED FOR NEW CONNECTION |
| 233102 | PROVIDE NEW OPENING ON EXISTING DUCTWORK TO CONNECT NEW DUCTWORK |
| 233105 | CONNECT EXHAUST DUCT FOR NEW EXHAUST FAN TO EXISTING EXHAUST DUCTWORK |
| 233705 | BALANCE EXISTING DIFFUSER TO MATCH NEW CFM INDICATED ON DRAWINGS |
| 235201 | PROVIDE NEW COMBUSTION AND INTAKE FLUES FOR NEW BOILERS SIZED AND INSTALLED PER MANUFACTURER REQUIREMENTS. REUSE EXISTING ROOF PENETRATIONS AND ADJUST AS NEEDED |
| 235202 | CONNECT NEW BOILERS AND ALL ASSOCIATED CONTROLS AND PUMP CONTROLS TO EXISTING BUILDING MANAGEMENT SYSTEM |
| 235203 | ADJUST EXISTING CONCRETE PADS AS NEEDED TO MOUNT NEW BOILERS IN COMPLIANCE WITH CLEARANCE REQUIREMENTS. PROVIDE CONDENSATE NETRALIZATION KIT FOR NEW BOILER. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN |
| 237304 | PROVIDE NEW DUCTWORK AS NEEDED TO CONNECT NEW AIR HANDLING UNIT TO EXISTING DUCTWORK |
| 237306 | REBALANCE AIR HANDLING UNIT TO MATCH EXISTING AND NEW CFMS SHOWN ON DRAWINGS |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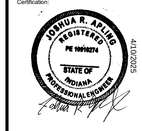


07/30/25

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## SJCPL - LASALLE BRANCH

RENOVATION & ADDITION

3233 ADRMORE TRAIL,
SOUTH BEND, IN 46628

REVISION

| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
MECHANICAL ENLARGED PLANS - 1

ISSUE DATE: 03.27.2025
PROJECT NO. 2561-4061-50 / 25004

DRAWING NO.
M-401

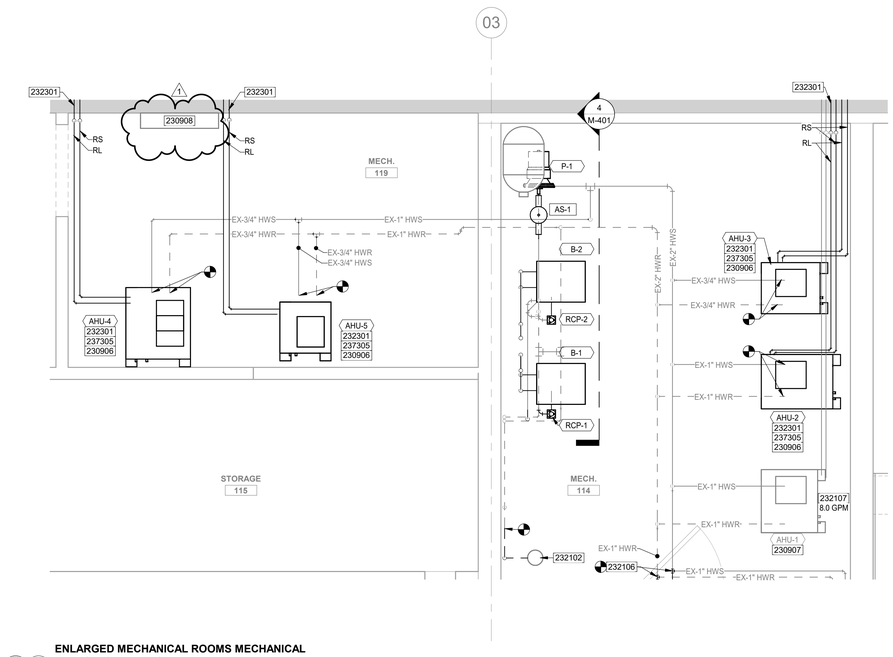
## GENERAL NOTES

A. REFER TO G SHEETS AND M-001 FOR ADDITIONAL GENERAL NOTES AND INFORMATION. REFER TO SPECIFICATIONS FOR ALTERNATES.

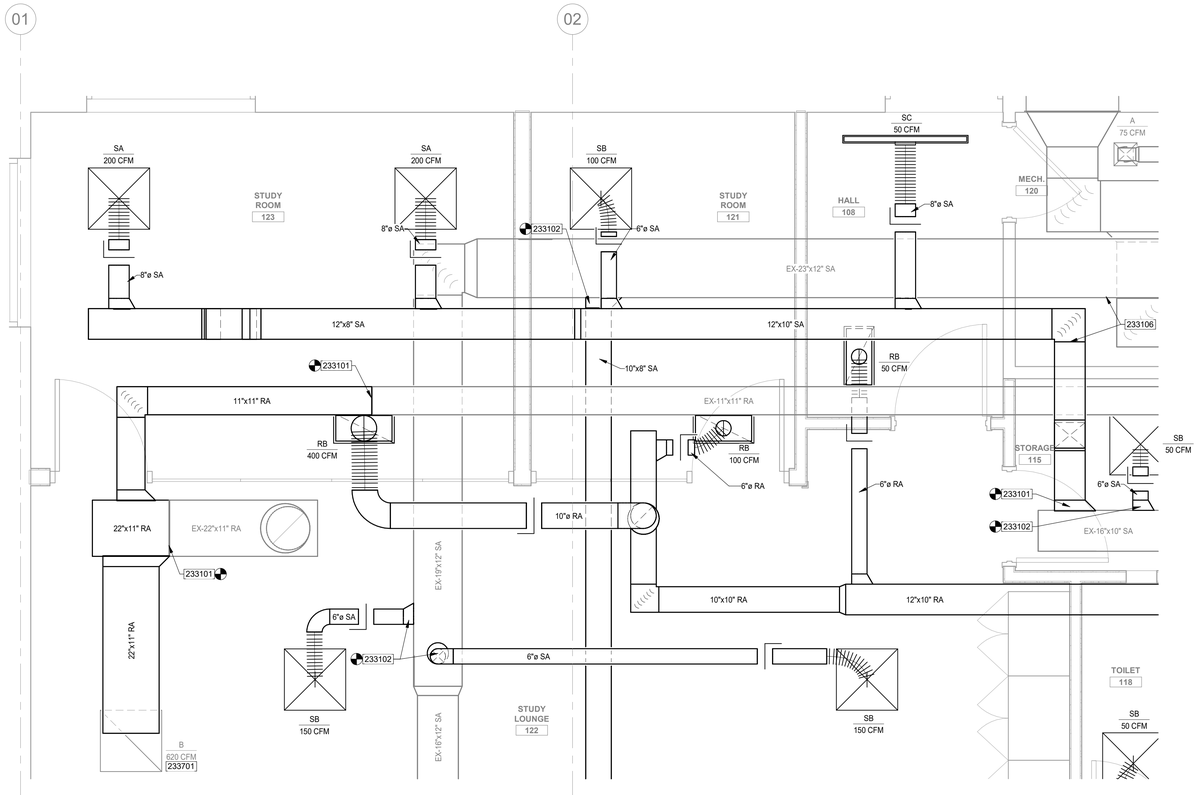
B. REPLACE ALL EXISTING CONTROLLERS. CONNECT EXISTING AND NEW MECHANICAL EQUIPMENT TO EXISTING BUILDING MANAGEMENT SYSTEM "NIAGARA N4" PROVIDED BY TCS BUILDING CONTROLS. REFER TO 6/M-701.

## KEYNOTES

| | |
|---|---|
| 230906 | PROVIDE NEW CONTROLLERS FOR NEW AIR HANDLING UNIT. CONNECT NEW AIR HANDLING UNIT AND ASSOCIATED CONTROLS TO EXISTING BUILDING MANAGEMENT SYSTEM. REFER TO 6/M-701 FOR ALL CONTROL POINTS |
| 230907 | PROVIDE NEW CONTROLLERS FOR EXISTING AIR HANDLING UNIT. RECONNECT EXISTING AIR HANDLING UNIT AND ASSOCIATED CONTROLS TO EXISTING BUILDING MANAGEMENT SYSTEM. REFER TO 6/M-701 FOR ALL CONTROL POINTS |
| 230908 | EXISTING TEMPERATURE CONTROL PANEL ENCLOSURE TO BE REUSED |
| 232102 | RELOCATED CHEMICAL FEEDER. PROVIDE NEW HYDRONIC PIPING AS NEEDED TO RECONNECT TO EXISTING PIPING. MATCH EXISTING PIPE SIZES |
| 232106 | CONNECT NEW HYDRONIC SUPPLY AND RETURN PIPING TO EXISTING HYDRONIC PIPING. PROVIDE NEW FITTINGS AS NEEDED |
| 232107 | CONTRACTOR TO BALANCE EXISTING EQUIPMENT TO GPM INDICATED |
| 232301 | PROVIDE NEW REFRIGERANT PIPING BETWEEN AIR HANDLING UNIT AND CONDENSING UNIT ROUTED AND SIZED PER MANUFACTURER REQUIREMENTS. EXISTING WALL PENETRATION TO BE REUSED |
| 233101 | CONNECT NEW DUCTWORK TO EXISTING DUCT OPENING. ADJUST OPENING AS NEEDED FOR NEW CONNECTION |
| 233102 | PROVIDE NEW OPENING ON EXISTING DUCTWORK TO CONNECT NEW DUCTWORK |
| 233106 | PROVIDE DRAIN PAN BELOW DUCTWORK TO PROTECT RELOCATED IT RACK |
| 233701 | RELOCATED RELIEF AIR GRILLE. PROVIDE NEW DUCTWORK AS NEEDED FOR RECONNECTION TO EXISTING DUCTWORK |
| 237305 | PROVIDE NEW HYDRONIC PIPING AS NEEDED TO CONNECT NEW AIR HANDLING UNIT HOT WATER COIL TO EXISTING HYDRONIC PIPING. CONFIRM EXISTING SIZES OF PIPING FOR RECONNECTION |




**ENLARGED MECHANICAL ROOMS MECHANICAL PIPING INSTALLATION PLAN**
SCALE: 1/2" = 1'-0"




**ENLARGED STUDY ROOMS MECHANICAL INSTALLATION PLAN**
SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"
0 1'-0" 2'-0" 4'-0"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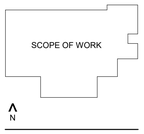
Key Plan:



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ST. JOE COUNTY

## SJCPL - LASALLE BRANCH

RENOVATION & ADDITION

3233 ADRMORE TRAIL,
SOUTH BEND, IN 46628

REVISION

| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
MECHANICAL ENLARGED PLANS - 2

ISSUE DATE: 03.27.2025
PROJECT NO. 2561-4061-50 / 25004

DRAWING NO.
M-402

## BOILER SCHEDULE

| TAG | | MANUFACTURER | MODEL | SIZE | FUEL TYPE | INPUT (MBH) | OUTPUT (MBH) | WATER TEMPERATURE (°F) | | FLOW RATE (GPM) | CAPACITY (GAL) | GAS INLET CONNECTION (IN) | DIRECT VENTING | | EFFICIENCY (%) | TURNDOWN RATIO | DIMENSION (IN) | | | | | | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ENTERING | LEAVING | | | | AIR INTAKE | EXHAUST | | | VOLTAGE | PHASE | FLA | LENGTH | WIDTH | HEIGHT | | |
| B | 1 | LOCHINVAR | KHB285 | 285 | NATURAL GAS | 285 | 270 | 145 | 180 | 16 | 4.9 | 1/2" | 3" | 3" | 95 | 10:1 | 120 | 1 | 3.6 | 19" | 16" | 43-1/2" | 205 | 1,2,3,4,5,6,7,8 |
| B | 2 | LOCHINVAR | KHB285 | 285 | NATURAL GAS | 285 | 270 | 145 | 180 | 16 | 4.9 | 1/2" | 3" | 3" | 95 | 10:1 | 120 | 1 | 3.6 | 19" | 16" | 43-1/2" | 205 | 1,2,3,4,5,6,7,8 |

NOTES:
1. PROVIDE STARTER/DISCONNECT PER DIVISION 26 SPECIFICATIONS.
2. MANUFACTURER PROVIDED CONTROLS TO BE CONNECTED TO BUILDING MANAGEMENT SYSTEM.
3. PROVIDE CONDENSATE NEUTRALIZING KIT.
4. REFER TO DETAIL 5/M-501.
5. REFER TO DETAIL 10/M-501.
6. REFER TO DETAIL 11/M-501.
7. REFER TO 1/M-701 FOR CONTROLS.
8. REFER TO 6/M-701 FOR CONTROLS.

## INDOOR AIR HANDLING UNIT W/ HYDRONIC HEATING SCHEDULE

| TAG | | MANUFACTURER | MODEL | CFM | | ESP (IN WG) | UNIT ELECTRICAL PARAMETERS | | | DX COOLING COIL | | | | HOT WATER COIL | | | | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | AIR TEMPERATURE (°F) ENTERING | | TOTAL CAPACITY (MBH) | SENSIBLE CAPACITY (MBH) | REFRIGERANT TYPE | WATER TEMPERATURE (°F) | | AIR TEMPERATURE (°F) | | REQUIRED HEATING (MBH) | GPM | MAX WPD (FT) | |
| | | | | TOTAL | MIN. O.A. | | VOLTAGE/ PHASE | MCA | MOCP | DRY BULB | WET BULB | | | | ENTERING | LEAVING | ENTERING DB | LEAVING DB | | | | |
| AHU | 2 | CARRIER | 42HCXW302 | 1555 | 305 | 0.5 | 230/1 | 13.38 | 15 | 79.9 | 64.2 | 40.9 | 31.0 | R-454B | 180 | 145 | 48.3 | 77.2 | 34.0 | 2.0 | 1 | 1,2,3,4,5,6,7,8,11 |
| AHU | 3 | CARRIER | 36HCXW302 | 1075 | 175 | 0.5 | 230/1 | 10.63 | 15 | 77.4 | 62.1 | 34.8 | 29.5 | R-454B | 180 | 145 | 58.4 | 80.8 | 25.9 | 1.5 | 1 | 1,2,3,4,5,6,7,8,11 |
| AHU | 4 | CARRIER | 60HCXW302 | 1500 | 400 | 0.5 | 230/1 | 14.38 | 15 | 79.2 | 63.9 | 51.5 | 39.0 | R-454B | 180 | 145 | 65.0 | 93.7 | 41.3 | 2.5 | 1 | 1,2,3,4,5,6,7,9,11 |
| AHU | 5 | CARRIER | 24HCXW302 | 675 | 170 | 0.5 | 230/1 | 6.38 | 15 | 78.9 | 64.2 | 22.8 | 16.9 | R-454B | 180 | 145 | 65.0 | 99.0 | 20.1 | 1.5 | 1 | 1,2,3,4,5,6,7,9,11 |
| AHU | 6 | CARRIER | 60HCXW302 | 1700 | 225 | 0.5 | 230/1 | 14.38 | 15 | 76.8 | 62.2 | 52.2 | 45.3 | R-454B | 180 | 145 | 59.3 | 75.3 | 31.0 | 2 | 1 | 1,2,3,4,5,6,7,10,11 |
| AHU | 7 | CARRIER | 48HCXW302 | 1310 | 225 | 0.5 | 230/1 | 13.38 | 15 | 76.8 | 62.2 | 43.7 | 34.6 | R-454B | 180 | 145 | 59.3 | 75.3 | 21.0 | 1.5 | 1 | 1,2,3,4,5,6,7,10,11 |

NOTES:
1. FURNISH WITH INTEGRAL STARTER.
2. CONNECT TO EXISTING BUILDING MANAGEMENT SYSTEM.
3. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.
4. REFER TO DETAIL 2/M-501.
5. REFER TO DETAIL 3/M-501.
6. REFER TO DETAIL 4/M-501.
7. REFER TO DETAIL 12/M-501.
8. REFER TO 2/M-701 FOR CONTROLS.
9. REFER TO 3/M-701 FOR CONTROLS.
10. REFER TO 4/M-701 FOR CONTROLS.
11. REFER TO 6/M-701 FOR CONTROLS.

## AIR COOLED CONDENSING UNIT SCHEDULE

| TAG | | MANUFACTURER | MODEL | EQUIPMENT SERVED | NOMINAL TONS | DESIGN AMBIENT TEMP. (°F) | SEER | REF. TYPE | ELECTRICAL DATA | | | | | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | VOLTAGE | PHASE | FREQUENCY (HZ) | MCA | MOCP | | |
| ACC | 2 | CARRIER | 26SCA442N003 | AHU-2 | 3.5 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 19.8 | 30 | 173 | 1,2,3,4 |
| ACC | 3 | CARRIER | 26SCA436N003 | AHU-3 | 3.0 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 17.5 | 30 | 134 | 1,2,3,4 |
| ACC | 4 | CARRIER | 26SCA460N003 | AHU-4 | 5.0 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 31.1 | 50 | 184 | 1,2,3,4 |
| ACC | 5 | CARRIER | 26SCA424N003 | AHU-5 | 2.0 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 12.1 | 20 | 120 | 1,2,3,4 |
| ACC | 6 | CARRIER | 26SCA460N003 | AHU-6 | 5.0 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 31.1 | 50 | 184 | 1,2,3,4 |
| ACC | 7 | CARRIER | 26SCA448N003 | AHU-7 | 4.0 | 95.0 | 13.4 | R-454B | 230 | 1 | 60 | 22.7 | 40 | 174 | 1,2,3,4 |

NOTES:
1. FURNISH WITH INTEGRAL STARTER.
2. PROVIDE CRANKCASE HEATER, LOW-AMBIENT KIT, WINTER START KIT, HAIL GUARD AND WIND BAFFLE.
3. REFER TO DETAIL 2/M-501. SIZE REFRIGERANT PIPING PER MANUFACTURER RECOMMENDATION.
4. REFER TO 6/M-701 FOR CONTROLS.

## HYDRONIC PUMP SCHEDULE

| TAG | | MANUFACTURER | MODEL | GPM | HEAD (FT) | MOTOR HP | MOTOR RPM | ELECTRICAL DATA | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | VOLTAGE | PHASE | FREQUENCY (HZ) | |
| P | 1 | BELL & GOSSETT | ECOCIRC XL 55-45 | 25 | 30 | 1/2 | 3855 | 230 | 1 | 60 | 1,2,3,4,5,6 |

NOTES:
1. PROVIDE STARTER/DISCONNECT PER DIVISION 26 SPECIFICATIONS.
2. REFER TO DETAIL 9/M-501.
3. REFER TO DETAIL 10/M-501.
4. REFER TO DETAIL 1/M-701.
5. REFER TO DETAIL 6/M-701.
6. CONNECT TO EXISTING BUILDING MANAGEMENT SYSTEM.

## ECM HYDRONIC PUMP SCHEDULE

| TAG | | MANUFACTURER | MODEL | GPM | HEAD (FT) | MIN POWER (WATTS) | MAX POWER (WATTS) | ELECTRICAL DATA | | | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | VOLTAGE | PHASE | FREQUENCY (HZ) | | |
| RCP | 1 | GRUNDFOS | UPMXL 25-124 | 16 | 30 | 25 | 180 | 230 | 1 | 60 | 9 | 1,2,3,4,5,6 |
| RCP | 2 | GRUNDFOS | UPMXL 25-124 | 16 | 30 | 25 | 180 | 230 | 1 | 60 | 9 | 1,2,3,4,5,6 |

NOTES:
1. PROVIDE STARTER/DISCONNECT PER DIVISION 26 SPECIFICATIONS.
2. REFER TO DETAIL 9/M-501.
3. REFER TO DETAIL 10/M-501.
4. REFER TO DETAIL 1/M-701.
5. CONNECT TO EXISTING BUILDING MANAGEMENT SYSTEM.
6. PROVIDED BY BOILER MANUFACTURER PAIRED WITH ASSOCIATED BOILER.

## EXHAUST FAN SCHEDULE

| TAG | | MANUFACTURER | MODEL | TYPE | AIRFLOW (CFM) | EXTERNAL SP (IN WG) | MOTOR (RPM) | WATTS | ELECTRICAL DATA | | | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | VOLTAGE | PHASE | FLA | | |
| EF | 12 | GREENHECK | SP-B110ES | DIRECT DRIVE CEILING MOUNTED | 70 | 0.51 | 650 | 30 | 115 | 1 | 0.27 | 10 | 1,2,3,4 |
| EF | 14 | GREENHECK | SP-B110ES | DIRECT DRIVE CEILING MOUNTED | 70 | 0.51 | 650 | 30 | 115 | 1 | 0.27 | 10 | 1,2,3,4 |
| EF | 15 | GREENHECK | SP-B110ES | DIRECT DRIVE CEILING MOUNTED | 70 | 0.51 | 650 | 30 | 115 | 1 | 0.27 | 10 | 1,2,3,4 |

NOTES:
1. MANUFACTURER PROVIDED STARTER/DISCONNECT PER DIVISION 26 SPECIFICATIONS.
2. FLUSH CEILING MOUNTED EXHAUST FAN.
3. PROVIDE BACKDRAFT DAMPER ON OUTLET DUCT COLLAR.
4. REFER TO 6/M-701 FOR CONTROLS.

## ELECTRIC WALL HEATER

| TAG | | MANUFACTURER | MODEL | CAPACITY (MBH) | AIRFLOW (CFM) | MOUNTING HEIGHT (A.F.F.) | ELECTRICAL DATA | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | VOLTAGE | PHASE | KW | |
| EWH | 1 | QMARK | AWH3150F | 5.12 | 100 | 8" | 120 | 1 | 1.5 | 1,2 |

NOTES:
1. RECESSED UNIT. PROVIDE INTEGRAL THERMOSTAT WITH LABEL, THERMAL OVERLOAD PROTECTION, BUILT-IN DISCONNECT SWITCH AND FAN DELAY SWITCH.
2. MOUNTING HEIGHTS ARE MEASURED FROM FLOOR TO BOTTOM OF UNIT.

## ELECTRIC UNIT HEATER SCHEDULE

| TAG | | MANUFACTURER | MODEL | CAPACITY (MBH) | AIRFLOW (CFM) | ELECTRICAL DATA | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VOLTAGE | PHASE | KW | AMPS | |
| CUH | 1 | QMARK | CDF542 | 6.8 | 300 | 240 | 1 | 2 | 9.6 | 1,2, |

NOTES:
1. PROVIDE INTEGRAL THERMOSTAT, THERMAL OVERLOAD PROTECTION, BUILT-IN DISCONNECT SWITCH AND FAN DELAY SWITCH.
2. CEILING MOUNTED UNIT. PROVIDE RECESS MOUNTING ENCLOSURE. PROVIDE WITH WIDE AIRFLOW PATTERN.

## LOUVER SCHEDULE

| TAG | MANUFACTURER | MODEL | DESIGNATION | WIDTH / HEIGHT (IN.) | FREE AREA (SQ FT) | CFM | VELOCITY (FPM) | MOUNTING HEIGHT | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| L-1 | GREENHECK | EHH-401 | INTAKE | 30" / 14" | 0.9 | 450 | 499 | 9'-6" | 1,2,3,4,5 |

NOTES:
1. LOUVER COLORS TO MATCH ADJACENT WALL SYSTEM, SELECTED BY ARCHITECT FROM FULL RANGE.
2. PROVIDE INSECT SCREEN.
3. REFER TO DETAIL 7/M-501.
4. INTAKE LOUVER TO BE LOCATED AT LEAST 10' AWAY FROM ANY EXHAUST OUTLET OR SOURCE.
5. PROVIDE 24" PLENUM IN FRONT OF THE LOUVER AS INDICATED ON THE PLANS. SLOPE BOTTOM OF THE PLENUM TO THE LOUVER.

## AIR TERMINAL SCHEDULE

| TAG | MANUFACTURER | MODEL | CFM RANGE | PANEL SIZE (IN) | NECK SIZE (IN) | STYLE | INSTALLATION | FINISH | PRESSURE (IN.) | NC | THROW | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RA | TITUS | 355RL | 0-1875 | 24" X 24" | - | STEEL LOUVERED GRILLE, 1/2" BLADE SPACING | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.071 | <20 | - | 1,3 |
| RB | TITUS | 355RL | 0-900 | 24" X 12" | - | STEEL LOUVERED GRILLE, 1/2" BLADE SPACING | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.071 | <20 | - | 1,3 |
| SA | TITUS | TMS | 0-315 | 24" X 24" | 8" | SQUARE 3-CONE | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.062 | 26 | 13 | 1,3 |
| SB | TITUS | TMS | 0-200 | 24" X 24" | 6" | SQUARE 3-CONE | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.090 | 28 | 11 | 1,3 |
| SC | TITUS | FT-10 | 0-300 | 48" LENGTH | 8" | LINEAR 2 SLOT DIFFUSER, 1" SLOT | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.099 | 23 | 21 | 1,3 |
| TA | TITUS | 355RL | 0-400 | 12" X 12" | - | STEEL LOUVERED GRILLE, 1/2" BLADE SPACING | CEILING SURFACE/LAY-IN MOUNT | WHITE POWDER COAT | 0.071 | <20 | - | 1,2,3 |

NOTES:
1. COORDINATE FINAL MOUNTING TYPE OF ALL DIFFUSERS, REGISTERS, AND GRILLES WITH ARCHITECTURAL ROOM FINISH SCHEDULE.
2. REFER TO DETAIL 8/M-501.
3. ARCHITECT TO SELECT FINISH FROM MANUFACTURER'S FULL RANGE OF COLORS. INCLUDE FULL RANGE OF COLOR OPTIONS WITH SUBMITTAL.

## AIR SEPARATOR SCHEDULE

| TAG | | MANUFACTURER | MODEL | MAX FLOW (GPM) | PRESSURE DROP (FT WG) | SYSTEM SERVED | NOTES |
|---|---|---|---|---|---|---|---|
| AS | 1 | BELL & GOSSETT | CRSN-2F | 62 | 0.27 | HEATING HOT WATER | 1,2 |

NOTES:
1. COALESCING, STANDARD VELOCITY, NON-REMOVABLE HEAD.
2. REFER TO DETAIL 10/M-501.


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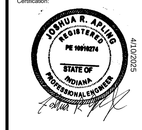


07/2025

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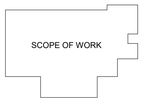
Key Plan:



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**SJCPL - LASALLE BRANCH**

RENOVATION & ADDITION

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REVISION

| No. | Date | Revision |
|---|---|---|
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
MECHANICAL EQUIPMENT SCHEDULES

ISSUE DATE: 03.27.2025
PROJECT NO: 2561-4061-50 / 25004

DRAWING NO.
M-601

# DDC CONTROL SYSTEM POINT LIST

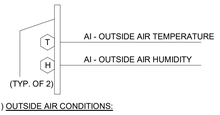
(MINIMUM REQUIRED, REFER TO INDIVIDUAL SEQUENCES FOR ADDITIONAL INFORMATION POINTS)

| | | ANALOG INPUTS | | | DIGITAL INPUTS | | | ANALOG OUTPUTS | | | DIGITAL OUTPUTS | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TEMPERATURE | PRESSURE | HUMIDITY | FLOW SWITCH | STATUS | ALARM | CONTROL | HWS TEMP | MIN. POSITION | START/STOP | ENABLE/DISABLE | |
| CONDENSING UNITS | ON-OFF STATUS | | | | | X | | | | | | X | |
| | | | | | | | | | | | | | |
| HEATING HOT WATER SYSTEM | BOILERS 1, 2 | X | | | | X | X | | X | | | X | |
| | CIRC PUMP P-1 | | | | X | X | X | | | | X | | STATUS FROM CURRENT X FORMER |
| | HOT WATER SUPPLY | X | | | | | X | | | | | | |
| | HOT WATER RETURN | X | | | | | X | | | | | | |
| | OUTDOOR AIR TEMP | X | | | | | | | | | | | |
| | HOT WATER SUPPLY FLOW | | | | X | | X | | | | | | |
| | MANUAL OVERRIDE (IN PANEL) | | | | | | X | X | | | X | | |
| | | | | | | | | | | | | | |
| AIR HANDLING UNITS 1 (EXISTING) AND 2 THRU 7 | SUPPLY FAN | | | | | X | X | | | | X | | |
| | EXHAUST FAN 6 & 7 | | | | | X | X | | | | X | | AHU-1, 2, 3 ONLY |
| | MASTER OA DAMPER | | | | | | | X | | | | | AHU-1, 2, 3 ONLY |
| | MIXED AIR | X | | | | | X | X | | X | | | |
| | RETURN AIR | X | | | | | | X | | | | | |
| | PRESSURE RELIEF | | X | | | | | X | | | | | AHU-4, 5 ONLY. |
| | SUPPLY AIR | X | | | | X | X | X | | | | | |
| | HEATING VALVE | | | | | X | | X | | | | | |
| | COOLING CONTROL | | | | | X | | X | | | | | |
| | LOW LIMITS (2) | | | | | | X | | | | | | |
| | OUTSIDE AIR | X | | | | | | X | | X | | | |
| | ROOM SENSOR/SETPOINT | X | | | | | X | X | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| BUILDING | TCP/IP/WEB | | | | | | | | | | | | COORDINATE CONNECTION WITH SJCPL |
| | BAS OVERRIDE (OCCUPIED PUSHBUTTON) | | | | | | | X | | | X | | PROVIDE INTEGRAL WITH EACH TEMP SENSOR. |
| | SUMMER/WINTER (BAS PROGRAMMING) | X | | | | | | X | | | | | PROVIDE MANUAL OVERRIDE IN PANEL. |
| | OUTSIDE AIR | X | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | EXHAUST FAN 10 AND 11 (ATTIC) | | | | | X | | | | | | | |
| | EXHAUST FAN 13 (EXISTING) 1 | | | | | X | | | | | X | | PROVIDE RELAY INTERLOCK FOR CONTROL. |
| | EXHAUST FAN 12, 14 AND 15 (NEW) | | | | | X | | | | | X | | PROVIDE RELAY INTERLOCK FOR CONTROL. |
| | HVAC ALARM (HI/LO PRIORITY) | | | | | | X | | | | | | PROVIDE TWO RELAY CONTACTS TO INTERFACE TO SECURITY SYSTEM. |
| | WATER LEAK SENSOR | | | | | | X | | | | | | MOISTURE SENSOR, LOCATE IN BOILER ROOM. |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

## TEMPERATURE CONTROL NOTES

1. REPLACE ALL EXISTING DDC CONTROLLERS IN KIND. NETWORK ALL DDC CONTROLLERS TOGETHER. EXISTING SYSTEM IS "NIAGARGA N4" PROVIDED BY TCS BUILDING CONTROLS.
   A. CONTACT: CORY SCHWEIZER
      a. PHONE: 260-410-3748
      b. EMAIL: CORY@TCSFORCOMFORT.COM
2. ALL HEATING VALVES AND DAMPERS TO FAIL IN FAILSAFE POSITION (FULL HEAT TO COIL, FULL RETURN AIR, NO OUTSIDE AIR).
3. MECHANICAL CONTRACTOR IS TO COORDINATE, AND INCLUDE AS NEEDED, ALL WORK FOR TEMPERATURE CONTROLS WITH OTHER TRADES. INCLUDE ALL WIRING (POWER AND CONTROL), CONDUIT, TRANSFORMERS, AND CONTROLS FOR A COMPLETE AND FUNCTIONAL INSTALLATION
4. ALL BAS PROGRAMMING POINTS SHALL BE ADJUSTABLE.
5. UPDATE EXISTING PORTABLE COMPUTER INTERFACE CONNECTION AT THE TCP AS NEEDED.

### 6 EXISTING & NEW DDC CONTROL SYSTEM POINT LIST
SCALE: N.T.S.




1) OUTSIDE AIR CONDITIONS:

THE CONTROLLER SHALL MONITOR THE OUTSIDE AIR TEMPERATURE AND HUMIDITY AND CALCULATE THE OUTSIDE AIR ENTHALPY ON A CONTINUAL BASIS. THESE VALUES SHALL BE MADE AVAILABLE TO THE SYSTEM AT ALL TIMES.

A) ALARM SHALL BE GENERATED AS FOLLOWS:

I) SENSOR FAILURE: SENSOR READING INDICATES SHORTED OR DISCONNECTED SENSOR. IN THE EVENT OF A SENSOR FAILURE, AN ALTERNATE OUTSIDE AIR CONDITION SENSOR SHALL BE MADE AVAILABLE TO THE SYSTEM WITHOUT INTERRUPTION IN SENSOR READINGS.

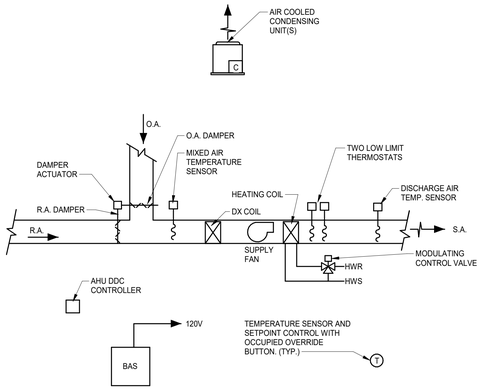
II) IF AN OUTSIDE AIR TEMPERATURE SENSOR CANNOT BE READ, LAST KNOWN OUTSIDE AIR TEMPERATURE SHALL BE USED AS A DEFAULT VALUE.

III)IF AN OUTSIDE AIR HUMIDITY SENSOR CANNOT BE READ, A DEFAULT VALUE OF 50% WILL BE USED.

2) OUTSIDE AIR TEMPERATURE HISTORY:

THE CONTROLLER SHALL MONITOR AND RECORD THE HIGH AND LOW TEMPERATURE READINGS FOR THE OUTSIDE AIR. THESE READINGS SHALL BE RECORDED ON A DAILY, MONTHLY, AND YEARLY BASIS.

### 5 OUTSIDE AIR CONDITIONS CONTROL SCHEMATIC
SCALE: N.T.S.




AIR HANDLING UNITS AHU-6, AHU-7 SEQUENCE OF CONTROL

OCCUPIED CYCLE:

THE UNIT SHALL BE INDEXED TO THE OCCUPIED MODE BASED ON PROGRAMMED OCCUPIED/UNOCCUPIED SCHEDULE OR THE LOCAL OVERRIDE PUSHBUTTON. THE UNIT FAN MOTOR SHALL RUN CONTINUOUSLY. AFTER A WARM-UP CYCLE, THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL OPEN IN UNISON TO THE MINIMUM OUTSIDE AIR POSITION. A DISCHARGE AIR SENSOR SHALL INSURE THAT THE DISCHARGE TEMPERATURE DOES NOT DROP BELOW 52 DEG-F.

THE HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT. ON A CALL FOR COOLING, THE CONDENSING UNIT SHALL CYCLE TO MAINTAIN SPACE TEMPERATURE.

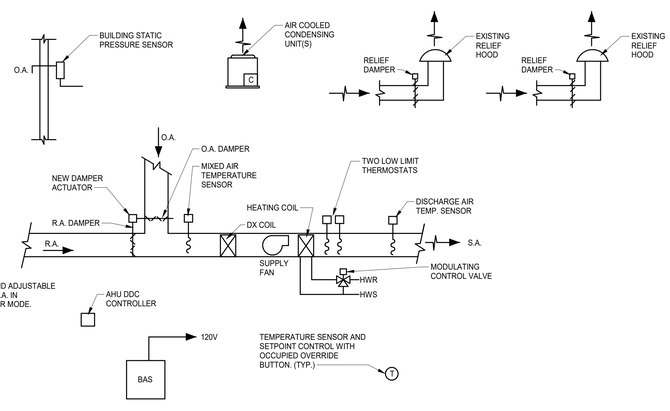
UNOCCUPIED CYCLE:

THE OUTSIDE AIR DAMPER SHALL BE FULLY CLOSED AND THE RETURN AIR DAMPER SHALL BE OPEN. THE HEATING VALVE SHALL BE FULL OPEN IF THE OUTSIDE AIR TEMPERATURE IS BELOW 45 DEG-F. WHENEVER THE SPACE TEMPERATURE REQUIRES HEATING OR COOLING BY THE "UNOCCUPIED" SETPOINT, THE UNIT FAN SHALL START AND OPERATE ON A RECIRCULATING BASIS UNIT THE "UNOCCUPIED" SETPOINT IS SATISFIED. BAS SHALL DICTATE HEATING AND COOLING MODES. IN COOLING MODE, THE CONDENSING UNIT SHALL CYCLE WHEN THE FAN IS IN OPERATION TO MAINTAIN SETPOINT.

NOTES;

1. ALL SENSOR INPUTS AND CONTROL OUTPUTS SHALL BE THROUGH THE AHU CONTROLLER TIED TO THE BAS.
2. LOW LIMIT THERMOSTAT SHALL STOP THE FAN ANYTIME THE DISCHARGE AIR TEMPERATURE FALL BELOW 40 DEG-F AND ALARM THE BAS.
3. UPON FAN SHUTDOWN, THE OUTDOOR AIR DAMPER SHALL BE CLOSED.
4. THE OCCUPIED OVERRIDE SWITCH SHALL PLACE THE ASSOCIATED UNIT INTO OCCUPIED CYCLE.

### 4 AIR HANDLING UNIT SCHEMATIC - AHU-6,7
SCALE: N.T.S.




AIR HANDLING UNITS AHU-4, AHU-5 SEQUENCE OF CONTROL

OCCUPIED CYCLE:

THE UNIT SHALL BE INDEXED TO THE OCCUPIED MODE BASED ON PROGRAMMED OCCUPIED/UNOCCUPIED SCHEDULE OR THE LOCAL OVERRIDE PUSHBUTTON. THE UNIT FAN MOTOR SHALL RUN CONTINUOUSLY. AFTER A WARM-UP CYCLE, THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL OPEN IN UNISON TO THE MINIMUM OUTSIDE AIR POSITION. A DISCHARGE AIR SENSOR SHALL INSURE THAT THE DISCHARGE TEMPERATURE DOES NOT DROP BELOW 52 DEG-F.

THE HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT. BETWEEN 55 DEG-F & 65 DEG-F O.A. AND WHEN THE SPACE TEMPERATURE EXCEEDS SETPOINT BY 3 DEG-F, THE UNIT OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO PROVIDE ECONOMIZER COOLING. BUILDING STATIC PRESSURE SENSOR SHALL MODULATE RELIEF DAMPERS TO MAINTAIN SLIGHTLY POSITIVE BUILDING PRESSURE WHEN IN ECONOMIZER COOLING. OUTSIDE OF ECONOMIZER COOLING, RELIEF DAMPERS SHALL REMAIN CLOSED. PROVIDE A MAXIMUM OUTSIDE AIR LIMIT ADJUSTMENT BASED ON THE BUILDINGS LIMITED RELIEF CAPABILITY. FIELD VERIFY ACTUAL REQUIREMENTS, AND ADJUST SETPOINTS TO MAINTAIN BUILDING PRESSURE. ON A CALL FOR COOLING ABOVE THE ECONOMIZER CONTROL POINTS, THE CONDENSING UNIT SHALL CYCLE TO MAINTAIN SPACE TEMPERATURE.

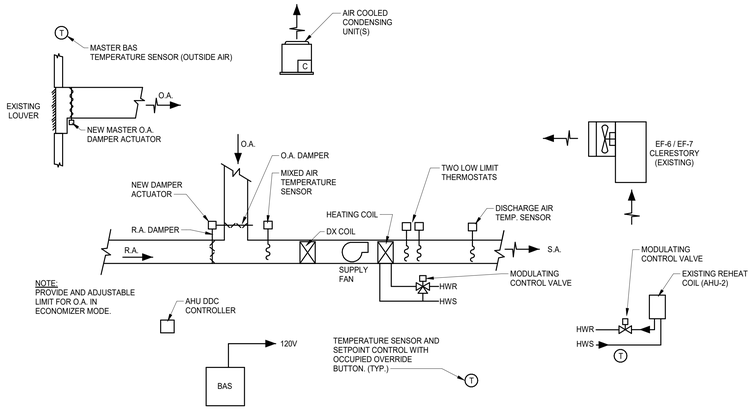
UNOCCUPIED CYCLE:

THE OUTSIDE AIR DAMPER SHALL BE FULLY CLOSED AND THE RETURN AIR DAMPER SHALL BE OPEN. THE HEATING VALVE SHALL BE FULL OPEN IF THE OUTSIDE AIR TEMPERATURE IS BELOW 45 DEG-F. WHENEVER THE SPACE TEMPERATURE REQUIRES HEATING OR COOLING BY THE "UNOCCUPIED" SETPOINT, THE UNIT FAN SHALL START AND OPERATE ON A RECIRCULATING BASIS UNIT THE "UNOCCUPIED" SETPOINT IS SATISFIED. BAS SHALL DICTATE HEATING AND COOLING MODES. IN COOLING MODE, THE CONDENSING UNIT SHALL CYCLE WHEN THE FAN IS IN OPERATION TO MAINTAIN SETPOINT.

NOTES;

1. ALL SENSOR INPUTS AND CONTROL OUTPUTS SHALL BE THROUGH THE AHU CONTROLLER TIED TO THE BAS.
2. LOW LIMIT THERMOSTAT SHALL STOP THE FAN ANYTIME THE DISCHARGE AIR TEMPERATURE FALL BELOW 40 DEG-F AND ALARM THE BAS.
3. UPON FAN SHUTDOWN, THE OUTDOOR AIR DAMPER SHALL BE CLOSED.
4. THE OCCUPIED OVERRIDE SWITCH SHALL PLACE THE ASSOCIATED UNIT INTO OCCUPIED CYCLE.
5. EXISTING DAMPER ACTUATORS, CONTROL VALVES, LOW LIMIT THERMOSTATS, SENSORS AND CONTROLS TO BE REPLACED.

### 3 AIR HANDLING UNIT SCHEMATIC - AHU-4,5
SCALE: N.T.S.




AIR HANDLING UNITS AHU-1 (EXISTING), AHU-2, AHU-3 SEQUENCE OF CONTROL

OCCUPIED CYCLE:

THE UNIT SHALL BE INDEXED TO THE OCCUPIED MODE BASED ON PROGRAMMED OCCUPIED/UNOCCUPIED SCHEDULE OR THE LOCAL OVERRIDE PUSHBUTTON. THE UNIT FAN MOTOR SHALL RUN CONTINUOUSLY. AFTER A WARM-UP CYCLE, THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL OPEN IN UNISON TO THE MINIMUM OUTSIDE AIR POSITION. A DISCHARGE AIR SENSOR SHALL INSURE THAT THE DISCHARGE TEMPERATURE DOES NOT DROP BELOW 52 DEG-F.

THE HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT. BETWEEN 55 DEG-F & 65 DEG-F O.A. AND WHEN THE SPACE TEMPERATURE EXCEEDS SETPOINT BY 3 DEG-F, THE MASTER OUTSIDE AIR DAMPER SHALL OPEN AND THE UNIT OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO PROVIDE ECONOMIZER COOLING. END SWITCH AT THE AHU-1 OUTSIDE AIR DAMPER SHALL CONTROL THE START/STOP OF EF-6 WHEN THE DAMPER IS 50% OPEN, AND EF-7 WHEN DAMPER IS 100% OPEN. PROVIDE A MAXIMUM OUTSIDE AIR LIMIT ADJUSTMENT BASED ON THE BUILDINGS LIMITED RELIEF CAPABILITY. FIELD VERIFY ACTUAL REQUIREMENTS, AND ADJUST SETPOINTS TO MAINTAIN BUILDING PRESSURE. ON A CALL FOR COOLING ABOVE THE ECONOMIZER CONTROL POINTS, THE CONDENSING UNIT SHALL CYCLE TO MAINTAIN SPACE TEMPERATURE.

ON A CALL FOR HEAT FROM ZONE SENSOR, THE REHEAT COIL HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE (AHU-2 ONLY).

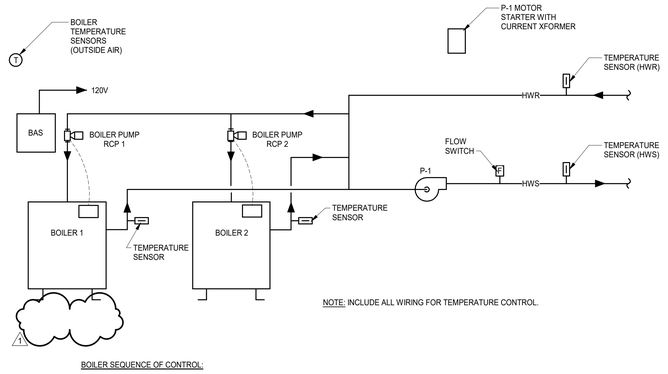
UNOCCUPIED CYCLE:

THE OUTSIDE AIR DAMPER SHALL BE FULLY CLOSED AND THE RETURN AIR DAMPER SHALL BE OPEN. THE HEATING VALVE SHALL BE FULL OPEN IF THE OUTSIDE AIR TEMPERATURE IS BELOW 45 DEG-F. WHENEVER THE SPACE TEMPERATURE REQUIRES HEATING OR COOLING BY THE "UNOCCUPIED" SETPOINT, THE UNIT FAN SHALL START AND OPERATE ON A RECIRCULATING BASIS UNIT THE "UNOCCUPIED" SETPOINT IS SATISFIED. BAS SHALL DICTATE HEATING AND COOLING MODES. IN COOLING MODE, THE CONDENSING UNIT SHALL CYCLE WHEN THE FAN IS IN OPERATION TO MAINTAIN SETPOINT.

NOTES;

1. ALL SENSOR INPUTS AND CONTROL OUTPUTS SHALL BE THROUGH THE AHU CONTROLLER TIED TO THE BAS.
2. LOW LIMIT THERMOSTAT SHALL STOP THE FAN ANYTIME THE DISCHARGE AIR TEMPERATURE FALL BELOW 40 DEG-F AND ALARM THE BAS.
3. UPON FAN SHUTDOWN, THE OUTDOOR AIR DAMPER SHALL BE CLOSED.
4. THE OCCUPIED OVERRIDE SWITCH SHALL PLACE THE ASSOCIATED UNIT INTO OCCUPIED CYCLE.
5. EXISTING DAMPER ACTUATORS, CONTROL VALVES, LOW LIMIT THERMOSTATS, SENSORS AND CONTROLS TO BE REPLACED. AHU-1 AND ACC-1 ARE EXISTING TO REMAIN

### 2 AIR HANDLING UNIT SCHEMATIC - AHU-1,2,3
SCALE: N.T.S.




NOTE: INCLUDE ALL WIRING FOR TEMPERATURE CONTROL.

BOILER SEQUENCE OF CONTROL:

THE HOT WATER SYSTEM SHALL BE ACTIVATED AUTOMATICALLY AS DESCRIBED BELOW.

BAS SHALL START PUMP P-1 WHEN IN WINTER MODE, SELECTED EITHER TO RUN IN "WINTER" OR THROUGH OUTSIDE AIR TEMPERATURE. BELOW 45 DEG-F OUTSIDE, BAS SHALL BE IN WINTER MODE.

UPON PROOF OF FLOW, THE LEAD BOILER SHALL BE ENABLED. ALARM UPON FAILURE OF PUMP P-1. UPON FAILURE OF LEAD BOILER TO MAINTAIN DESIRED HWS SETPOINT, ENABLE LAG BOILER.

CONNECT NEW BOILERS AND PUMPS TO EXISTING MANUAL OVERRIDE SWITCHES AT BAS PANEL (INSIDE) TO SWITCH TO WINTER MODE, AND START PUMP. READ HWS/HWR, P-1 PUMP STATUS, BOILER STATUS THROUGH BAS. LEAD/LAG CONTROL OF BOILERS, AND WINTER MODE CONTROL THROUGH BAS. BOILER STAGING CONTROL AND HWS O.A. RESET FROM BOILER CONTROLS. (HWS TEMP AT 180 DEG-F AT 0 DEG-F OUTSIDE AIR AND 140 DEG-F AT 50 DEG-F OUTSIDE AIR, ADJUSTABLE). COORDINATE SETUP WITH OWNER/ENGINEER, AND BOILER MANUFACTURER.

### 1 HYDRONIC HOT WATER CONTROL SCHEMATIC
SCALE: N.T.S.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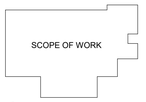
Key Plan:



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| No. | Date | Revision |
| 1 | 04.10.2025 | ADDENDUM 1 |

DRAWING CONTENTS:
CONTROL SCHEMATICS

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