ADDENDUM No. 1 June 2, 2017

Little Sisters of the Poor Lobby and Canopy Renovations 601 Maiden Choice Lane, Baltimore MD 21228

Project No: 17000.00

ARCHITECT:

Gaudreau, Inc. 810 Light Street Baltimore, Maryland 21230 410.837.5040

This Addendum forms part of the Contract Documents and modifies the original Bidding Documents dated May 5, 2017. Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

#### **CHANGES TO SPECIFICATIONS:**

- 1. See attached new Specification sections 074213 Metal Composite Material Wall Panels and 075423 Thermoplastic Polyolefin (TPO) Roofing.
- 2. Section 04200 Unit Masonry
  - a. Paragraph 2.4 B 1: basis of design is Belden Brick, Modular No. 8632 A.
  - b. New brick shall be used for canopy piers and low walls for the pergolas. For brick infill in the existing building, existing brick shall be reused.
- 3. Section 124813 Carpet Tile Walk-off Mat: provide the following basis of design for the vestibule: Shaw Contract Group; Steppin Out; Style Bon Jour II Tile, Style No. 5T032, Color: to be determined.:

#### **CHANGES TO DRAWINGS:**

- 1. Civil Drawing 1 of 1:
  - a. Change the paving material for the car drop-off, including under the canopy to colored concrete.
  - b. Change the concrete pavers that are indicated under the canopy and the 7'-6' wide walkway that extends to the two trellises to colored concrete. The concrete pavers shall only remain under the trellises and the 5'-0" wide curved paths.
- 2. Structural Drawings S-101 & S-200
  - a. See revised drawing S-101 for updates to detail references; footings for the vestibule and added Foundation Plan note.
  - b. Drawing S-200: Detail B: change detail reference to read F/ S-200.
- 3. Drawing AL-101
  - a. Detail A4: Detail references at bulkheads should read A4/ AL-301 & A5/ AL-301.
  - b. All partitions along corridors, lobby and waiting area shall have abuse resistant gypsum board for lower 4'-0' of partitions.
- 4. Drawing AL-102: see attached revised drawing:
  - Roof details A1 & A2: Added insulation to deck, deleted drips at eave detail & added dimension at bulkhead.
  - c. Roof detail A4: added reveals and detailed the recess in the soffit.
  - d. Roof Plan C1: added rain diverter as indicated on roof plan.

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- Drawing AL-103: see attached revised drawing:
  - a. Install corner guards at all exposed corners as indicated.
  - b. See new plan and elevation detail for typical pilaster (4 total).
- 6. Drawing AL-104: see attached revised drawing:
  - a. See revised sheet for revised and added notes/ dimensions and added details.
- 7. Drawing AL-201: Exterior Elevations
  - a. See updated drawing for added notes and revised entry doors (changed to automatic sliding doors)
  - b. See elevations for new wall mounted lights. Install (6) new decorative lights along the front elevation: basis of design by Franklin Iron Works, 12" h x 6 ¾" w x 6" d Style #P3309, in oil rubbed bronze, provide LED light bulb. Install a total of (6) architectural wall packs to match building standard on the side and courtyard elevation, see attached cut sheet by Cooper, ISC fixture.
- 8. Drawing AL-301: Building Sections
  - a. See updated drawing for revisions to the vestibule doors, changing from swinging doors to automatic sliding doors.
  - b. Detail A3: see revised detail for changes to the insulation and flashing details.
- 9. Drawing AL-501: Plan & Wall Details
  - a. See updated drawing for revisions to the vestibule doors and metal panel details.
- 10. Drawing AL-601: Door and Frame Schedule
  - a. See revised drawing for updated details.
  - b. See revised drawing for changes to the window, door & hardware schedules.
- 11. Drawing P-001: Plumbing Fixture Schedule
  - a. P-3A: change vanity bowl to integral solid surface to match the vanity.
  - b. HB (new): Added designation for a Hose Bibb, with 3/4" CW line, manufactured by Woodford, Model 25; frost-proof with backflow preventer; notes 1 & 2 apply.
- 12. Drawing P-101:
  - a. See revised drawing for new 3/4" cold water line for added hose bibb.
- 13. Drawing M-101:
  - a. See revised drawing for added note regarding dry sprinkler for canopy.
  - b. See plan for shifted LS-1 to be located in bulkhead; UH-1 in Vestibule shall be centered, see the architectural reflected ceiling plan.
- 14. Drawing E-101;
  - a. First Floor Plan Lighting: see attached revised drawing for updated lighting in the corridors. Provide all power and connections for the new exterior lights shown on the architectural elevations.
  - b. First Floor Plan Power: see attached revised drawing for added nurse call, connections for automatic door operators and emergency power outlets. Provide (2) exterior/ wet rated electrical outlets on the front and courtyard elevations; run all power and connections.
- 15. Drawing E-501:
  - a. See attached sketch SK-E501-01 for revisions to the panel schedules.

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#### Attachments:

- 1. (2) New specification sections, 074213 Metal Composite Material Wall Panels and 075423 Thermoplastic Polyolefin (TPO) Roofing
- 2. Cut sheet for exterior lights
- 3. (1) sketch SK-E501-01
- 4. (11) Revised drawings as follows: S-101, AL-102, AL-103, AL-104, AL-201, AL-301, AL-501, AL-601, P-101, M-101 & E-101

END OF ADDENDUM No. 1

#### SECTION 074213.23

#### METAL COMPOSITE MATERIAL WALL PANELS

#### 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 metal composite material wall panels.

#### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
  - 1. Meet with Owner, Architect, and Owner's insurer if applicable, metal composite material panel Installer, structural-support Installer, and installers whose work interfaces with or affects metal composite material panels, including installers of doors, windows, and louvers.
  - 2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 3. Review methods and procedures related to metal composite material panel installation, including manufacturer's written instructions.
  - 4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
  - 5. Review flashings, special siding details, wall penetrations, openings, and condition of other construction that affect metal composite material panels.
  - 6. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
  - 7. Review temporary protection requirements for metal composite material panel assembly during and after installation.
  - 8. Review procedures for repair of panels damaged after installation.
  - 9. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.
- B. Shop Drawings:

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- 1. Include fabrication and installation layouts of metal composite material panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment assembly, trim, flashings, closures, and accessories; and special details.
- 2. Accessories: Include details of the flashing, trim and anchorage, at a scale of not less than 1-1/2 inches per 12 inches.
- C. Samples for Initial Selection: For each type of metal composite material panel indicated with factory-applied color finishes.
  - 1. Include similar Samples of trim and accessories involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.
  - 1. Metal Composite Material Panels: 12 inches long by actual panel width. Include fasteners, closures, and other metal composite material panel accessories.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each product, tests performed by a qualified testing agency.
- C. Field quality-control reports.
- D. Sample Warranties: For special warranties.

#### 1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal composite material panels to include in maintenance manuals.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
  - 1. Build mockup of typical metal composite material panel assembly as shown on Drawings, including corner, soffits, supports, attachments, and accessories.
  - 2. Water-Spray Test: Conduct water-spray test of mockup of metal composite material panel assembly, testing for water penetration according to AAMA 501.2.
  - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components, metal composite material panels, and other manufactured items so as not to be damaged or deformed. Package metal composite material panels for protection during transportation and handling.
- B. Unload, store, and erect metal composite material panels in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack metal composite material panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal composite material panels to ensure dryness, with positive slope for drainage of water. Do not store metal composite material panels in contact with other materials that might cause staining, denting, or other surface damage.
- D. Retain strippable protective covering on metal composite material panels during installation.

#### 1.9 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal composite material panels to be performed according to manufacturers' written instructions and warranty requirements.

#### 1.10 COORDINATION

A. Coordinate metal composite material panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

#### 1.11 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal composite material panel systems that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - Structural failures including rupturing, cracking, or puncturing.
    - b. Deterioration of metals and other materials beyond normal weathering.
  - 2. Warranty Period: Two years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal composite material panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 20 years from date of Substantial Completion.

#### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal composite material panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 330:
  - 1. Wind Loads: As indicated on Drawings.
  - 2. Other Design Loads: As indicated on Drawings.
  - 3. Deflection Limits: For wind loads, no greater than 1/175 of the span.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.
- C. Fire-Resistance Ratings: Comply with ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.
- A. Fire Propagation Characteristics: Metal composite material wall panel system passes NFPA 285 testing.

#### 2.2 METAL COMPOSITE MATERIAL WALL PANELS

- A. Metal Composite Material Wall Panel Systems: Provide factory-formed and -assembled, metal composite material wall panels fabricated from two metal facings that are bonded to a corrugated thermoplastic core; formed into profile for installation method indicated. Include attachment assembly components, and accessories required for weathertight system.
  - 1. Basis of Design Product: Subject to compliance with requirements, provide Petersen Aluminum Corp.; PAC-3000 RS Rain-Screen System, or comparable product by one of the following:
    - a. 3A Composites USA, Inc.; Alucobond.
    - b. Alcoa Inc.: Revnobond FR.
    - c. Laminators, Inc.
- B. Aluminum-Faced Composite Wall Panels:
  - 1. Panel Thickness: 3 mm.
  - 2. Core: Standard.
  - 3. Exterior Finish/Colors: To match medium bronze anodized aluminum storefront.

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C. Attachment Assembly Components: Formed from extruded aluminum or material compatible with panel facing.

D. Attachment Assembly: Manufacturer's standard Rainscreen system.

#### 2.3 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C 645, cold-formed, metallic-coated steel sheet ASTM A 653/A 653M, G90 coating designation or ASTM A 792/A 792M, Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal composite material panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, gaskets, fillers, closure strips, and similar items. Match material and finish of metal composite material panels unless otherwise indicated.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal composite material panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, end walls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal composite material panels.
- D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal composite material panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.

#### 2.4 FABRICATION

- A. General: Fabricate and finish metal composite material panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
  - 1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
  - 2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
  - 3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
  - 4. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
  - 5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.

6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

 Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal wall panel manufacturer for application but not less than thickness of metal being secured.

#### 2.5 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Aluminum Panels and Accessories:
  - 1. Exposed Anodized Finish:
    - Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal composite material panel supports, and other conditions affecting performance of the Work.
  - 1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal composite material wall panel manufacturer.
  - 2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal composite material wall panel manufacturer.
    - a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Examine roughing-in for components and assemblies penetrating metal composite material panels to verify actual locations of penetrations relative to seam locations of metal composite material panels before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

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#### 3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal composite material panel manufacturer's written recommendations.

#### 3.3 METAL COMPOSITE MATERIAL PANEL INSTALLATION

- A. General: Install metal composite material panels according to manufacturer's written instructions in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to supports unless otherwise indicated. Anchor metal composite material panels and other components of the Work securely in place, with provisions for thermal and structural movement.
  - 1. Shim or otherwise plumb substrates receiving metal composite material panels.
  - 2. Flash and seal metal composite material panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal composite material panels are installed.
  - 3. Install screw fasteners in predrilled holes.
  - 4. Locate and space fastenings in uniform vertical and horizontal alignment.
  - 5. Install flashing and trim as metal composite material panel work proceeds.
  - 6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
  - 7. Align bottoms of metal composite material panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
  - 8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

#### B. Fasteners:

- 1. Aluminum Panels: Use aluminum or stainless-steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.
- C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal composite material panel manufacturer.
- D. Attachment Assembly, General: Install attachment assembly required to support metal composite material wall panels and to provide a complete weathertight wall system, including subgirts, perimeter extrusions, tracks, drainage channels, panel clips, and anchor channels.
  - 1. Include attachment to supports, panel-to-panel joinery, panel-to-dissimilar-material joinery, and panel-system joints.
- E. Installation: Attach metal composite material wall panels to supports at locations, spacings, and with fasteners recommended by manufacturer to achieve performance requirements specified.
  - 1. Rain screen Systems: Do not apply sealants to joints unless otherwise indicated.
- F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

- Install components required for a complete metal composite material panel assembly including trim, copings, corners, seam covers, flashings, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal composite material panel manufacturer; or, if not indicated, provide types recommended in writing by metal composite material panel manufacturer.
- G. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.
  - 1. Install exposed flashing and trim that is without buckling and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof performance.
  - 2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with mastic sealant concealed within joints.

#### 3.4 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal composite material wall panel units within installed tolerance of 1/4 inch in 20 feet, non-accumulative, on level, plumb, and location lines as indicated, and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

#### 3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified independent testing agency to perform field tests and inspections.
- B. Water-Spray Test: After installation, test area of assembly as directed by Architect for water penetration according to AAMA 501.2.
- C. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect completed metal composite material wall panel installation, including accessories.
- D. Metal composite material wall panels will be considered defective if they do not pass test and inspections.
- E. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.
- F. Prepare test and inspection reports.

#### 3.6 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal composite material panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal composite material panel installation, clean finished

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surfaces as recommended by metal composite material panel manufacturer. Maintain in a clean condition during construction.

- B. After metal composite material panel installation, clear weep holes and drainage channels of obstructions.
- C. Replace metal composite material panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

**END OF SECTION** 

#### **SECTION 075423**

#### THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

#### A. Section Includes:

- 1. Adhered thermoplastic polyolefin (TPO) roofing system.
- 2. Roof insulation.

#### 1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

#### 1.4 PREINSTALLATION MEETINGS

- A. Preliminary Roofing Conference: Before starting roof deck construction, conduct conference at Project site.
  - 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  - 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Review deck substrate requirements for conditions and finishes, including flatness and fastening.
  - 5. Review structural loading limitations of roof deck during and after roofing.
  - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
  - 7. Review governing regulations and requirements for insurance and certificates if applicable.
  - 8. Review temporary protection requirements for roofing system during and after installation.
  - 9. Review roof observation and repair procedures after roofing installation.
- B. Preinstallation Roofing Conference: Conduct conference at Project site.

- 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
- 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
- 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- 4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
- 5. Review structural loading limitations of roof deck during and after roofing.
- 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
- 7. Review governing regulations and requirements for insurance and certificates if applicable.
- 8. Review temporary protection requirements for roofing system during and after installation.
- 9. Review roof observation and repair procedures after roofing installation.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
  - 1. Base flashings and membrane terminations.
  - 2. Tapered insulation, including slopes.
  - 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastening spacings, and patterns for mechanically fastened roofing.
  - 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
  - 1. Sheet roofing, of color specified, including T-shaped side and end lap seam.
  - 2. Roof insulation.
  - 3. Metal termination bars.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of compliance with performance requirements.
- C. Product Test Reports: For components of roofing system, tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Research/Evaluation Reports: For components of roofing system, from ICC-ES.

- E. Field quality-control reports.
- F. Sample Warranties: For manufacturer's special warranties.

#### 1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

#### 1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is FM Global approved for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
  - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

#### 1.10 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

#### 1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

- 1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, roofing accessories and other components of membrane roofing system.
- 2. Warranty Period: 20 years from date of Substantial Completion.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Carlisle SynTec Incorporated.
  - b. Firestone Building Products Company.
  - c. GAF Materials Corporation.
  - d. Johns Manville.
- B. Source Limitations: Obtain components including roof insulation, and fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

#### 2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
  - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
  - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
  - 1. Fire/Windstorm Classification: Class 1A-90.
  - 2. Hail-Resistance Rating: MH.

#### 2.3 TPO ROOFING

- A. Fabric-Reinforced TPO Sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible TPO sheet.
  - 1. Thickness: 60 mils, nominal.

2. Exposed Face Color: White unless indicated otherwise.

#### 2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
  - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, 55 mils thick, minimum, of same color as TPO sheet.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- E. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roofing to substrate, and acceptable to roofing system manufacturer.
- F. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

#### 2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by TPO roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade, felt or glass-fiber mat facer on both major surfaces.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches unless otherwise indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

#### 2.6 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
  - 1. Full-spread spray-applied, low-rise, two-component urethane adhesive.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
  - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
  - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
  - 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Section 053100 "Steel Decking."
  - 4. Verify deck is dry and ready to receive roofing work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Install insulation strips according to acoustical roof deck manufacturer's written instructions.

#### 3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition.

#### 3.4 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

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- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
  - 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- G. Mechanically Fastened and Adhered Insulation: Install each layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
  - Fasten first layer of insulation according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
  - Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
  - 3. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

#### 3.5 ADHERED ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing and allow to relax before retaining.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer, and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roofing and sheet flashings according to manufacturer's written instructions, to ensure a watertight seam installation.

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- 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet.
- 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
- 3. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.
- H. Spread sealant bed over deck-drain flange at roof drains, and securely seal roofing in place with clamping ring.

#### 3.6 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings.

#### 3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- C. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

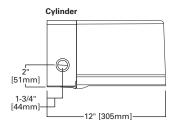
#### 3.8 PROTECTING AND CLEANING

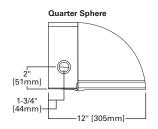
- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

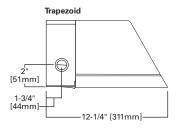
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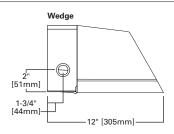
**END OF SECTION** 

#### THRUWAY BACK BOX









#### POWER AND LUMENS BY BAR COUNT

LUMEN N	IAINTE	NANCE
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#### **LUMEN MULTIPLIER**

Normalian	f I :b4D A D	E01	E02	F01	F02
Number of LightBARs		21 LED LightBAR		7 LED LightBAR	
Drive Curr	ent	350	mA	1	A
Power (Watts)	120-277V	25W	47W	26W	50W
Current	120V	0.22	0.40	0.22	0.42
(A)	277V	0.10	0.18	0.10	0.19
Power (Watts)	347V or 480V	31W	52W	32W	55W
Current	347V	0.11	0.16	0.11	0.17
(A)	480V	0.16	0.18	0.16	0.18
Optics					
BI 2	Lumens	2,738	5,476	2,260	4,521
BLZ	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
BL3	Lumens	2,702	5,405	2,231	4,462
DL3	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
BL4	Lumens	2,613	5,225	2,157	4,313
DL4	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
G7W	Lumens	2,785	5,570	2,299	4,598
GZVV	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2
SLR/SLL	Lumens	2,435	4,869	2,010	4,020
OLN/OLL	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

101 100 99 98 Lumen Maintenance (Percent) 97 96 95 94 93 92 91 90 0 10 20 30 40 50 60 70 80 90 100 Hours (Thousands) 25°C -40°C — 50°C -

#### ORDERING INFORMATION

Sample Number: ISC-E02-LED-E1-BL3-GM

Product Family <sup>1</sup>	Number of LightBARs 2,3	Lamp Type	Voltage	Distribution	Color 5
ISC=Impact Elite LED Small Cylinder ISS=Impact Elite LED Small Quarter Sphere IST=Impact Elite LED Small Trapezoid ISW=Impact Elite LED Small Wedge	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V <sup>4</sup>	BL2=Type II w/Back Light Control BL3=Type III w/Back Light Control BL4=Type IV w/Back Light Control GZW=Wall Grazer Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)	Accessories (Order Separately) 11				
2L=Two Circuits <sup>6</sup> 7030=70 CRI / 3000K CCT <sup>7</sup> 7050=70 CRI / 5000K CCT <sup>7</sup> 7060=70 CRI / 5700K CCT <sup>7</sup> 8030=80 CRI / 3000K CCT <sup>7</sup> P=Button Type Photocontrol (Available in 12) OSB=Occupancy Sensor with Back Box (Spectify CWB-XX=Battery Pack with Back Box (Spectify CWB-XX=Cold Weather Battery Pack with BablM=0-10V Dimming Drivers LCF=LightBAR Cover Plate Matches Housing ULG=Uplight Glow TR=Tamper Resistant Hardware	cify 120V or 277V) <sup>8</sup> 120V or 277V) <sup>9</sup> ck Box (Specify 120V or 277V)	,		MA1253=10kV Circuit Module Replace MA1254-XX=Thruway Back Box - Impa MA1255-XX=Thruway Back Box - Impa MA1256-XX=Thruway Back Box - Impa MA1257-XX=Thruway Back Box - Impa	act Elite Trapezoid act Elite Cylinder act Elite Quarter Sphere

- NOTES:

  1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

  2. Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.

  3. 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.

  4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).

  5. Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.

  6. Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Available with two bars (E02 or F02) only.

  7. Extended lead times apply.

- r. exeruseu lead times apply.
   8. Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8" mounting height, 360" coverage, maximum 48" diameter. Not available in all configurations or with BBB or CWB options.
   9. Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
   10. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
   11. Replace XX with color suffix.



#### DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightBAR™ technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

Catalog #	Туре
Project	
Comments	Date
Prepared by	

#### SPECIFICATION FEATURES

#### Construction

Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

#### Optics

Choice of six patented, highefficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

#### Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common and differential - mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Quarter Sphere

#### Mounting

Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

#### **Finish**

Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

#### Warranty

Five-year warranty.

[229mm]



McGraw-Edison







#### ISC/ISS/IST/ISW IMPACT ELITE LED



1 - 2 LightBARs Solid State LED

WALL MOUNT LUMINAIRE

#### CERTIFICATION DATA

UL/cUL Listed LM79 / LM80 Compliant IP66 LightBARs ISO 9001

DesignLights Consortium® Qualified\*

#### ENERGY DATA Electronic LED Driver

>0.9 Power Factor

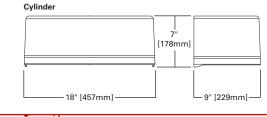
<20% Total Harmonic Distortion 120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz

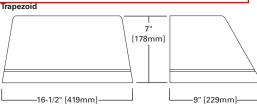
-40°C Minimum Temperature 40°C Ambient Temperature Rating

SHIPPING DATA Approximate Net Weight: 18 lbs. (8 kgs.)



#### DIMENSIONS

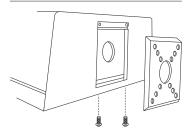




# 18" [457mm] 9" [229mm] Wedge

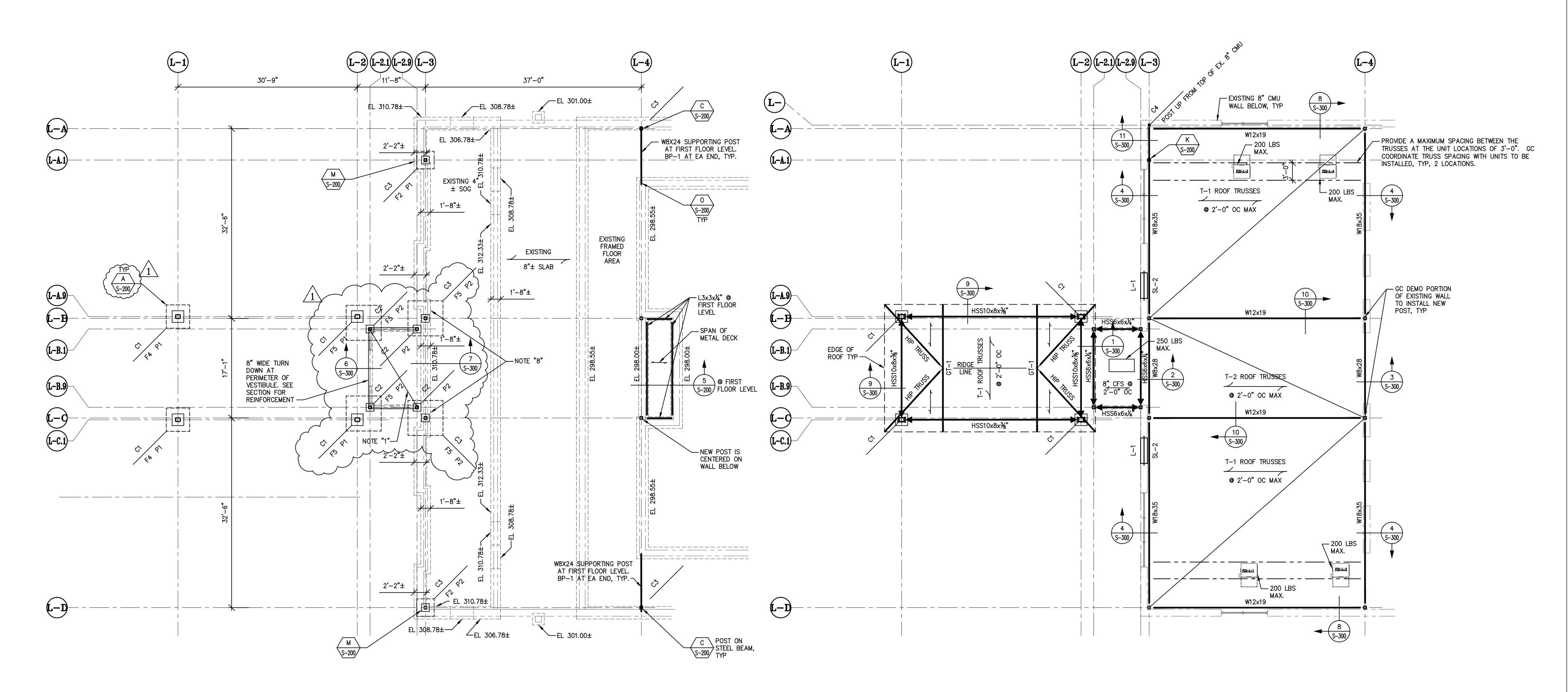
-16-1/2" [419mm]

#### **HOOK-N-LOCK MOUNTING**





-8-1/4" [210mm]



	PIER S	CHEDULE
MARK	SIZE	REINFORCING
P1	2'-0"x2'-0"	6-#5 VERT AND #4 TIES @ 10" OC
P2	1'-4"x1'-4"	4-#5 VERT AND #4 TIES @ 10" OC

EGGENIO	0011501115
FOOTING	SCHEDULE
SIZE	REINFORCING
2'-0"x2'-0"x1'-0"	2-#5 BARS EWB
3'-0"x3'-0"x1'-0"	3-#5 BARS EWB
4'-0"x4'-0"x1'-0"	4-#5 BARS EWB
4'-0"x4'-0"x2'-0"	4-#5 BARS EW TOP & BOTT
6'-0"x6'-0"x2'-0"	6-#5 BARS EW TOP & BOTT
	SIZE  2'-0"x2'-0"x1'-0"  3'-0"x3'-0"x1'-0"  4'-0"x4'-0"x1'-0"  4'-0"x4'-0"x2'-0"

	COLUMN SCHEDULE				
MARK	SIZE	BASE PLATE			
C1	HSS10x8x⅓	1'-4"x½"x0'-9" W/4-¾" DIA AB			
C2	HSS6x6x <b>1</b> ⁄4	1'-0"x¾"x0'-7" W/4-¾" DIA AB			
C3	HSS6x6x¾	1'-0"x¾"x0'-7" W/4-¾" DIA AB			
C4	HSS4x4x <b>1</b> ⁄4	6"x1/2"x1'-4" W/4-1/2" DIA AB			

## Foundation Plan

1. ENTIRE FLOOR TO BE 4" CONCRETE SLAB ON GRADE REINFORCED WITH 1- LAYER OF 6x6-W2.9xW2.9 WELDED WIRE MESH. JOINTS IN MESH TO LAP 6" MINIMUM. SLAB SUB-GRADE TO BE 4" WASHED STONE OR GRAVEL COVERED WITH 10 MIL. POLYETHYLENE VAPOR RETARDER. LAP AND TAPE JOINTS.

2. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION TOP OF CONCRETE.

3. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR DEPRESSIONS, TRENCHES,

4. ELEVATION TOP OF EXTERIOR FOOTINGS SHALL BE 1'-6" BELOW FINISH GRADE UNLESS OTHERWISE NOTED IN PLAN THUS (00.00').

5. (00.00') INDICATES ELEVATION TOP OF FOOTING ADJUST AS REQUIRED TO MEET

MASONRY COURSE LINES.

6. PROVIDE CONTROL JOINTS IN SLAB PER DETAIL "N/S-200".

7. STEP NEW FOOTINGS TO MEET EXISTING FOOTINGS SEE TYPICAL DETAIL "I/S-200".

FOUNDATION. EPOXY USING HILTI HIT HY 200, EMBED 6" BOTTOM OF NEW FOOTING=BOTTOM OF EXISTING FOOTINGS. GENERAL CONTRACTOR TO VERIFY IN FIELD /1 ELEVATION OF EXISTING FOOTING. 

FOUNDATION AND PIERS. DOWEL NEW FOUNDATION REINFORCEMENT INTO EXISTING

Roof Framing Plan

1. ENTIRE ROOF SHALL BE 1 1/2" MINIMUM 22 GA. GALV. DECK.

MIN.  $S = 01.86 \text{ IN}^3$ , MIN.  $I = 0.155 \text{ IN}^4$  1 SPAN

MIN.  $S = 0.372 \text{ IN}^3$ , MIN.  $I = 0.31 \text{ IN}^4$  2 SPAN MIN.  $S = 0.558 \text{ IN}^3$ , MIN.  $I = 0.465 \text{ IN}^4$  3 SPAN.

2. SEE ARCHITECTURAL DRAWINGS FOR ELEVATION TOP OF DECK. 3. TOP OF TRUSSES 1 1/2" BELOW TOP OF METAL DECK UNLESS OTHERWISE

NOTED IN PLAN THUS (-0).

4. TOP OF STEEL BEAMS= 10.83' A.F.F. FOR LOBBY AND 13.67' A.F.F. FOR DRIVE

5. PROVIDE JOIST ON CENTER LINE COLUMN (TYPICAL).

6. ► - INDICATES MOMENT CONNECTION, TYP. PROVIDE FULL PENN BUTT WELD ALL AROUND, FOR TUBE TO TUBE COLUMNS, TYP.

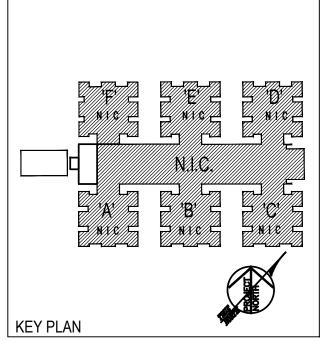
**Little Sisters of the Poor** 

601 Maiden Choice Lane Baltimore, MD 21228

Gaudreau, Inc. 810 Light Street, Baltimore, MD 21230

**JennErik Engineering, Inc.** 8833 Belair Road, Notingham, MD 21236

Skarda And Associates, Inc. 2439 North Charles Street, Baltimore, MD 21218 410.366.9384



Gaudreau, Inc. ARCHITECTS I PLANNERS 810 Light Street | Baltimore | Maryland 21230 410 . 837 . 5040 | www.gaudreauinc.com

<u>Professional Certification</u>: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No: 16519

CONSTRUCTION DOCUMENTS

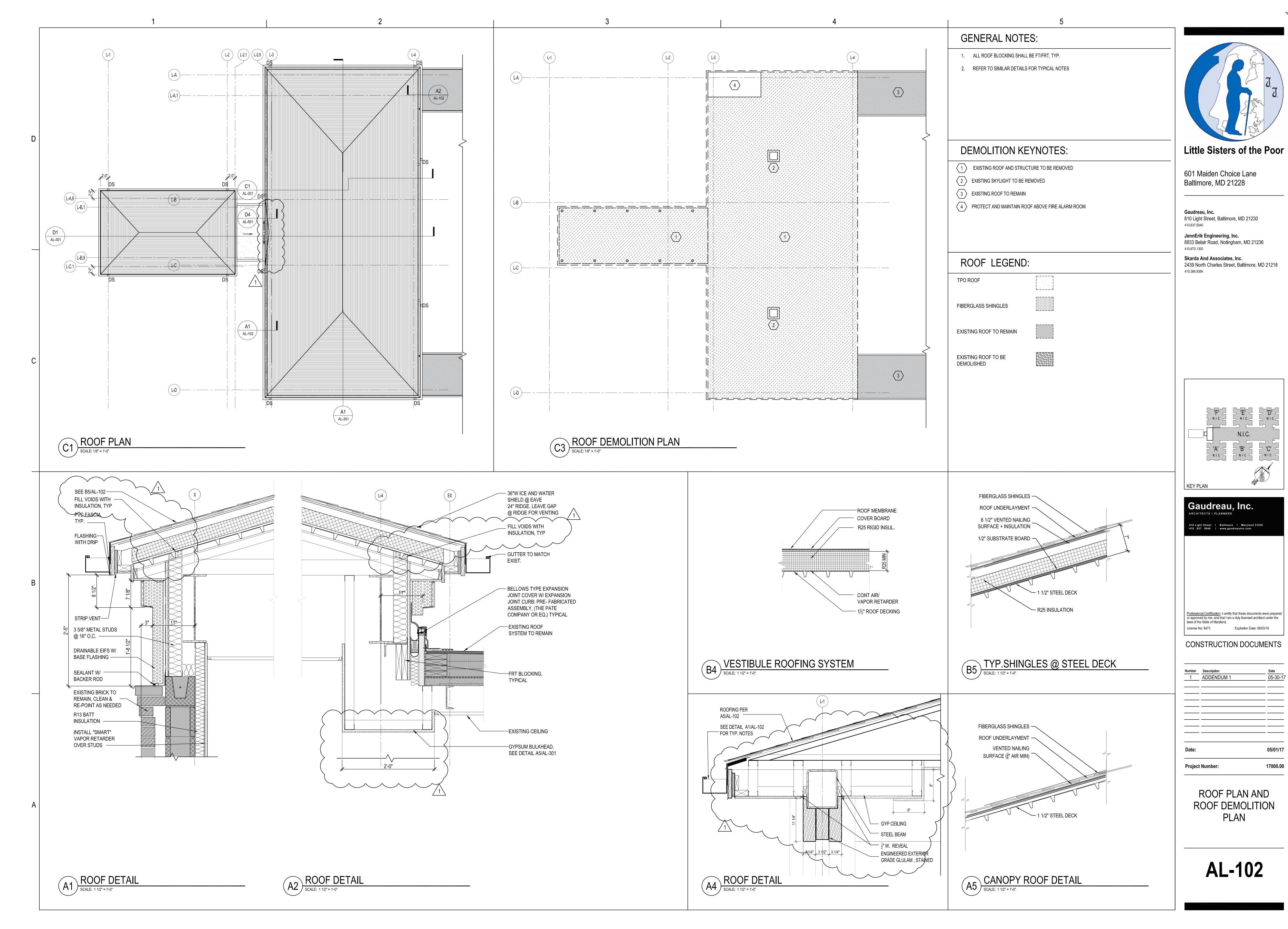
5/26/17 ADDENDUM 1 05/01/17

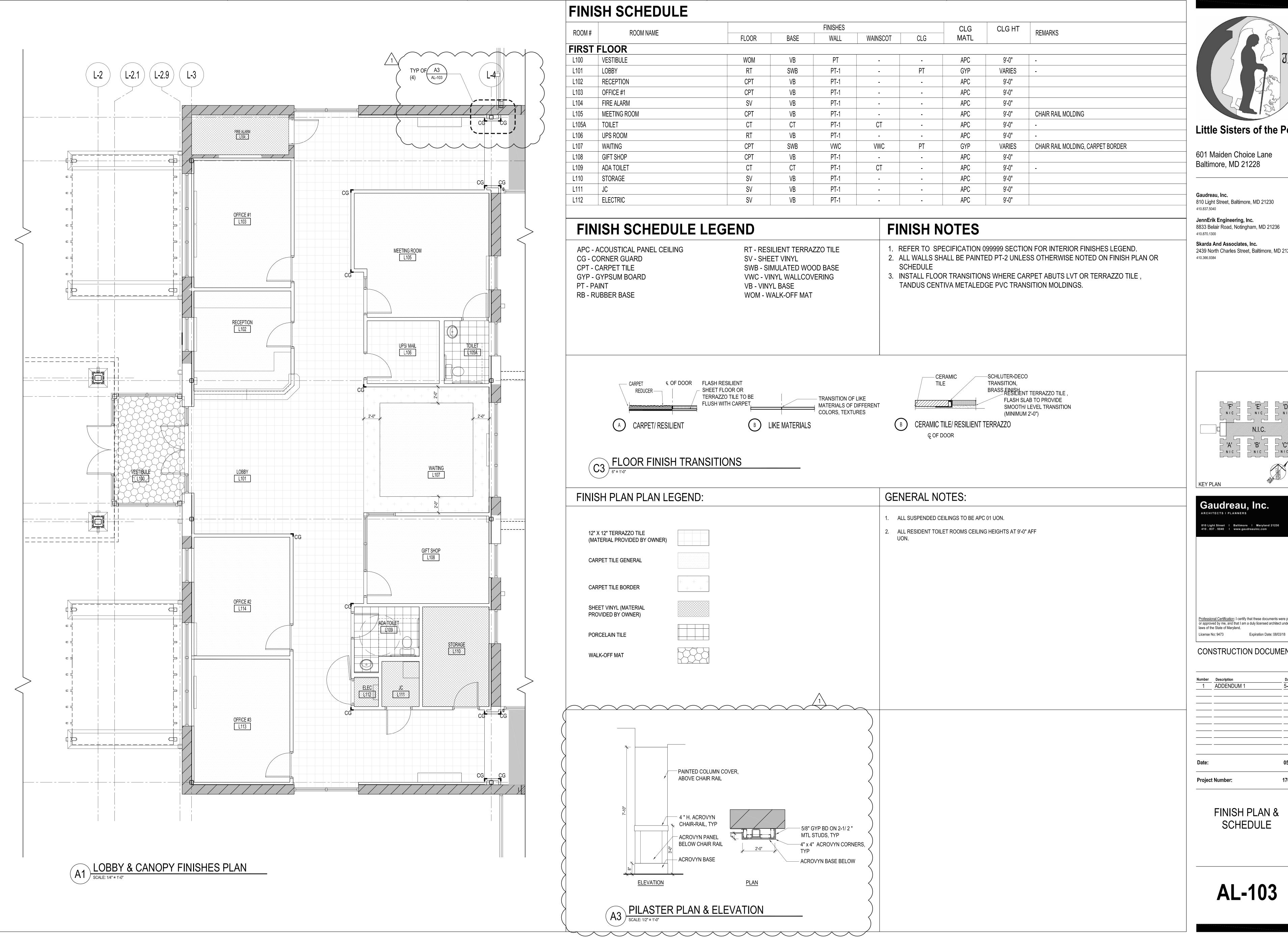
> Foundation And Roof Framing Plan

**Project Number:** 

1/8"=1'-0

S-101



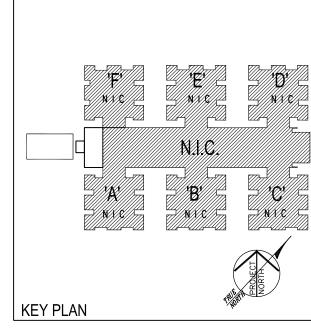


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2439 North Charles Street, Baltimore, MD 21218

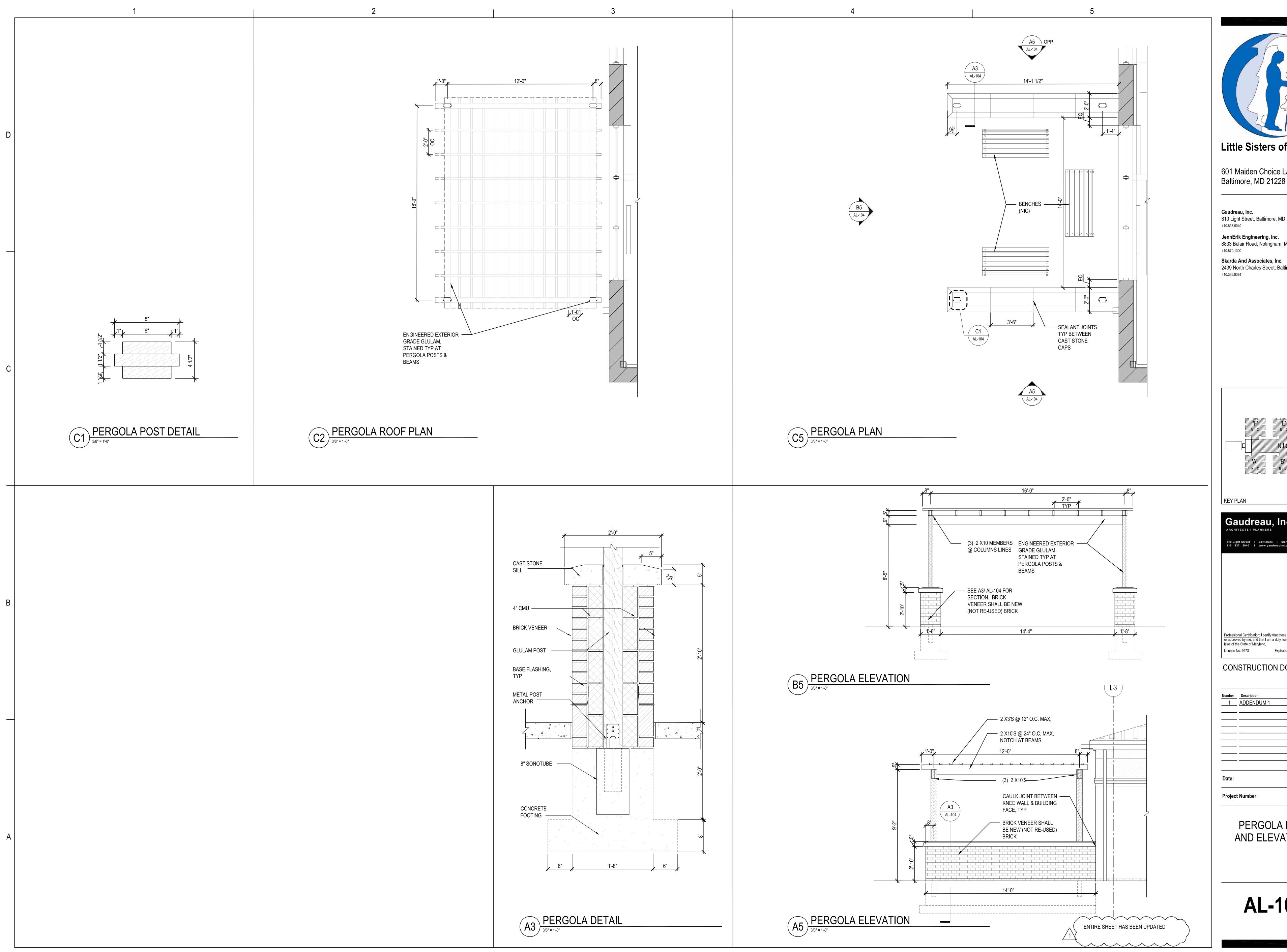


Gaudreau, Inc.

<u>Professional Certification</u>: I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the

CONSTRUCTION DOCUMENTS

05/01/17





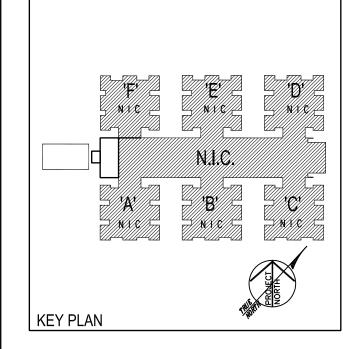
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Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the

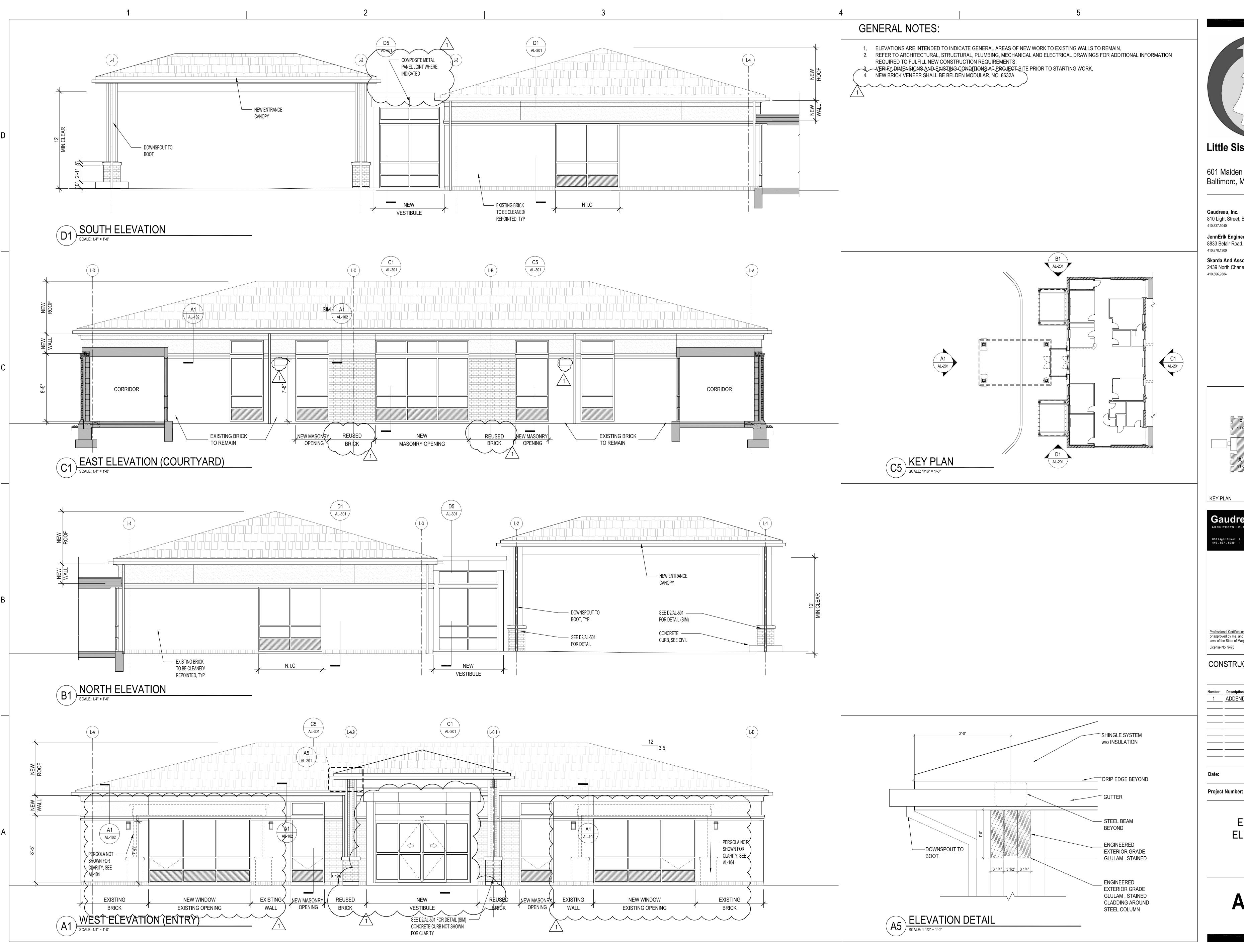
Expiration Date: 08/03/18

CONSTRUCTION DOCUMENTS

Number	Description	Date
1	ADDENDUM 1	05-30-17
	_	
Date:		05/01/17
Projec	t Number:	17000.00

PERGOLA PLAN AND ELEVATIONS

**AL-104** 



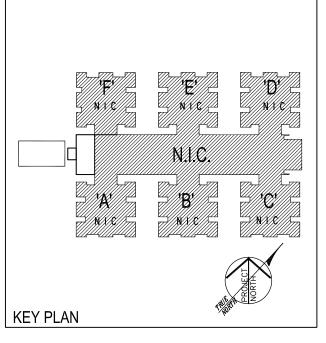
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601 Maiden Choice Lane Baltimore, MD 21228

810 Light Street, Baltimore, MD 21230

JennErik Engineering, Inc. 8833 Belair Road, Notingham, MD 21236

Skarda And Associates, Inc. 2439 North Charles Street, Baltimore, MD 21218



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Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the laws of the State of Maryland.

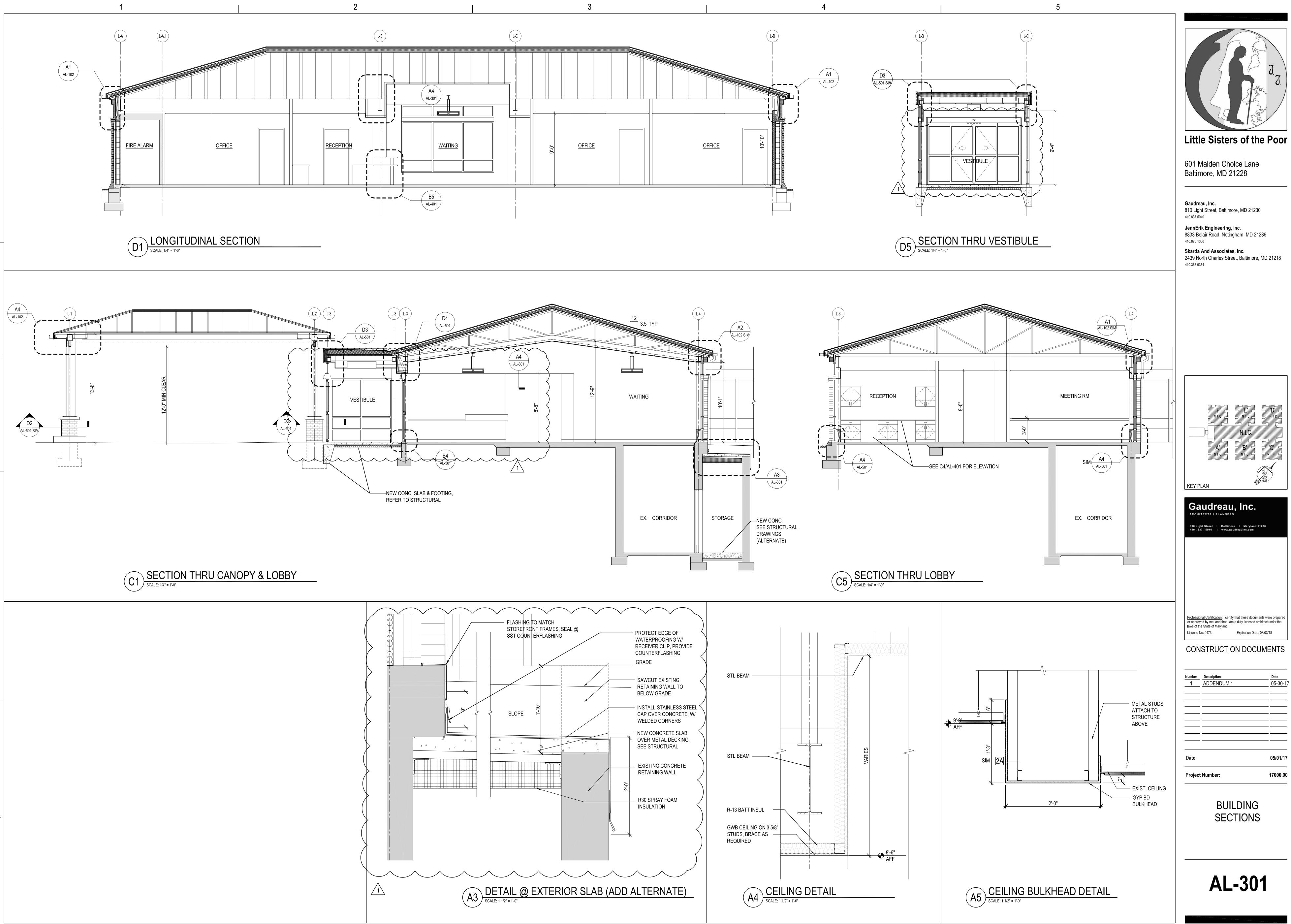
CONSTRUCTION DOCUMENTS

Expiration Date: 08/03/18

1 ADDENDUM	05-30-17
Date:	05/01/17
Project Number	17000 00

**EXTERIOR ELEVATIONS** 

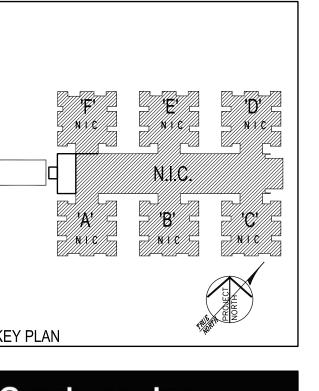
**AL-201** 



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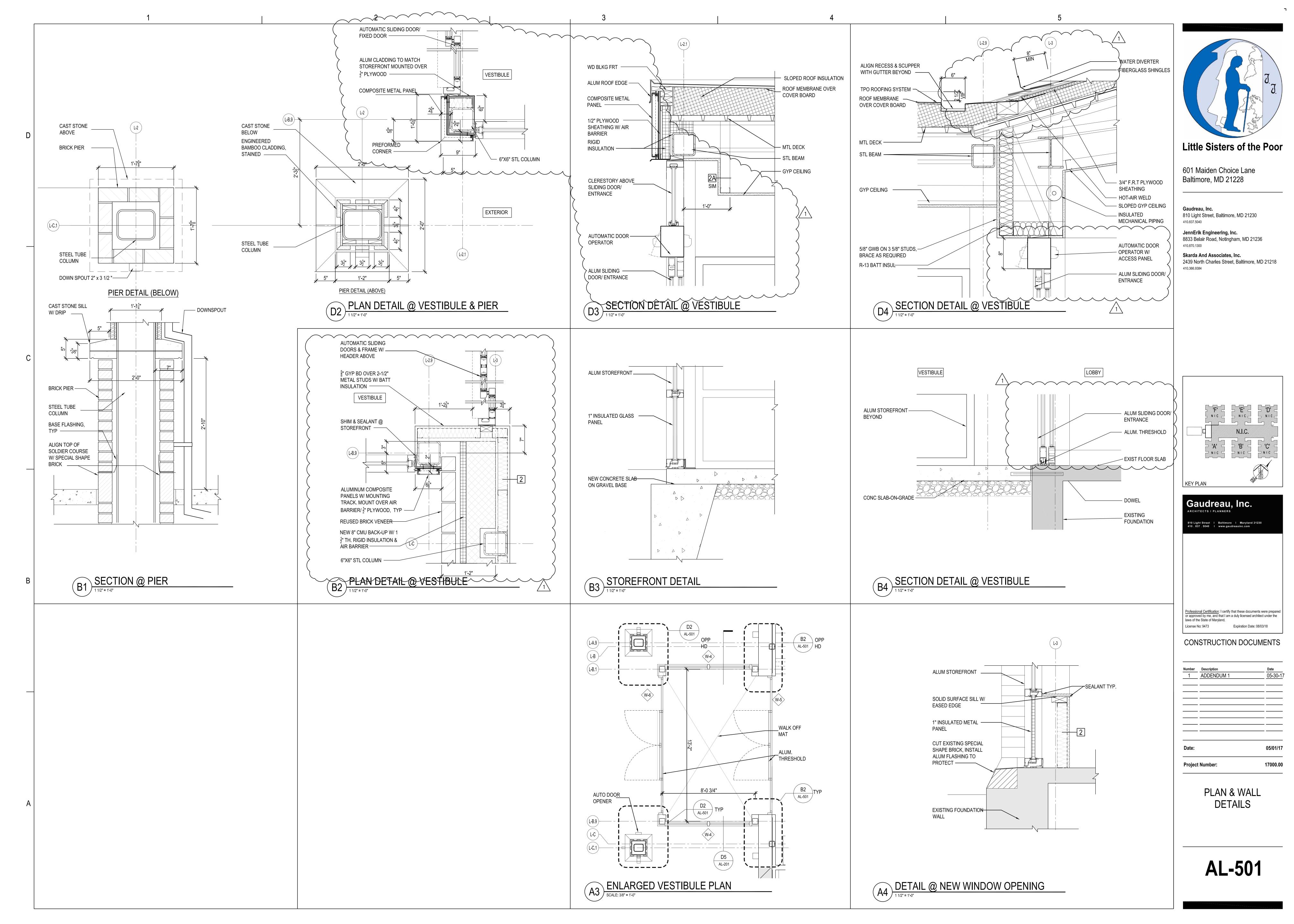
CONSTRUCTION DOCUMENTS

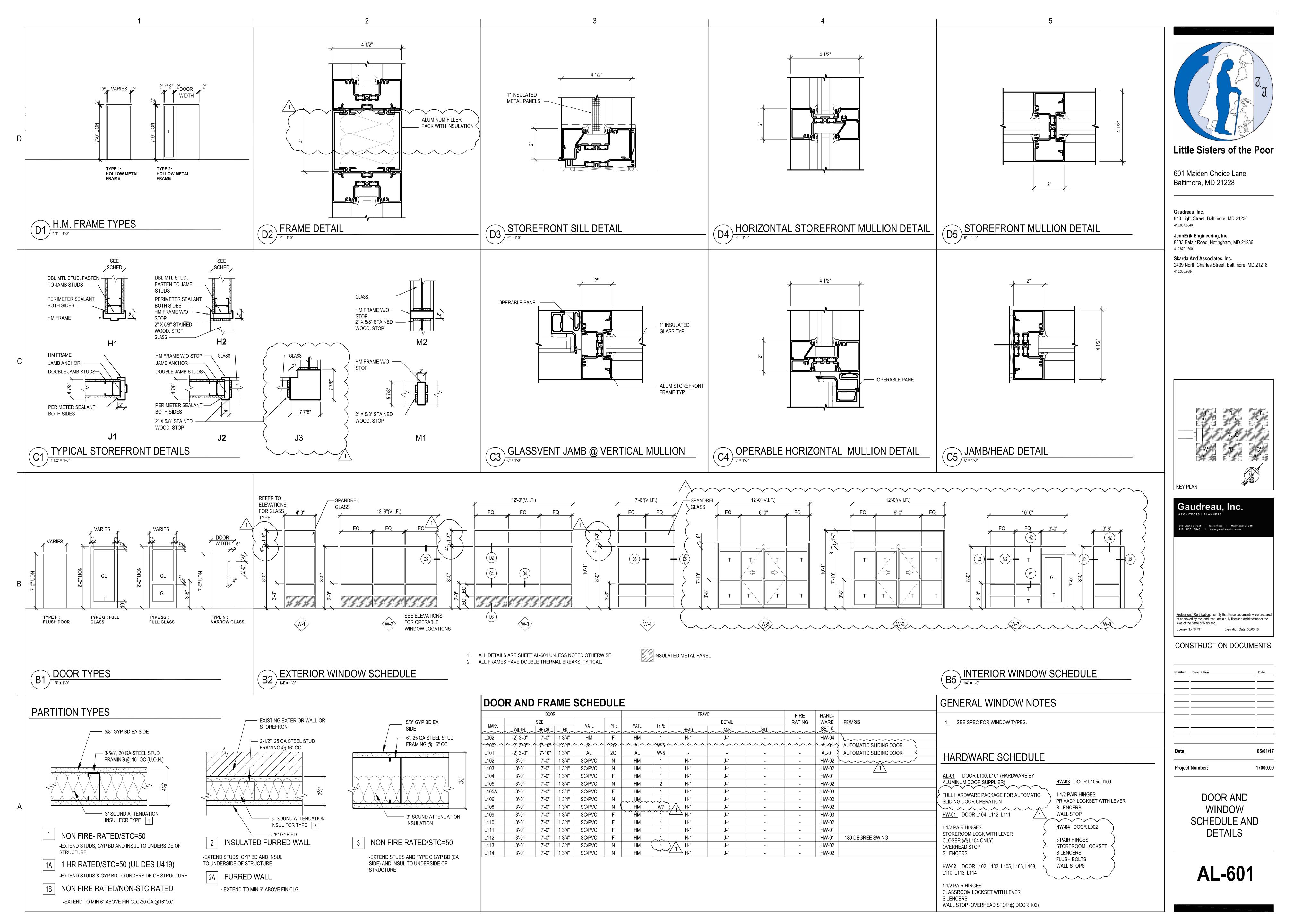
Expiration Date: 08/03/18

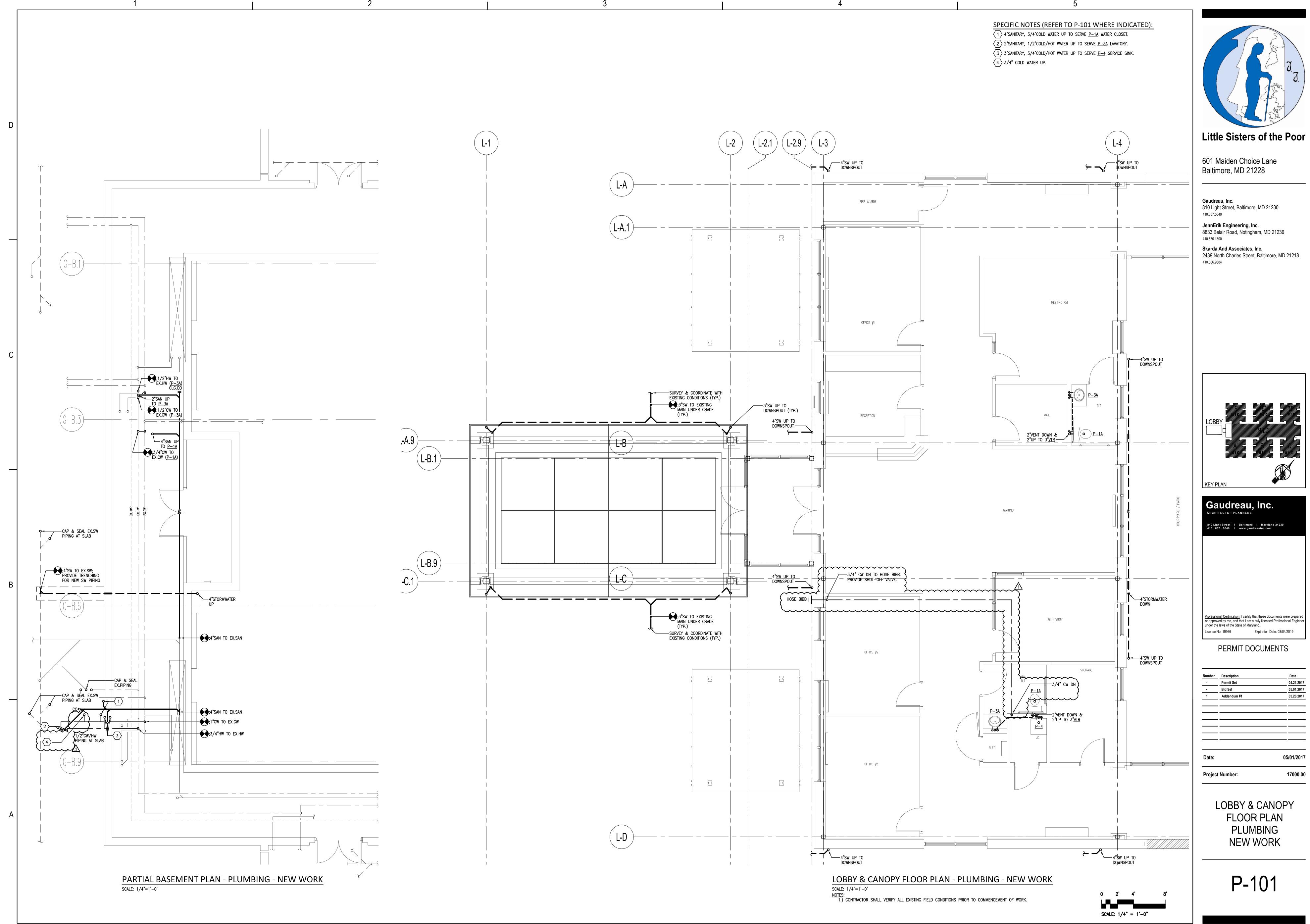
Number	Description	Date
1	ADDENDUM 1	05-30-17
Date:		05/01/17

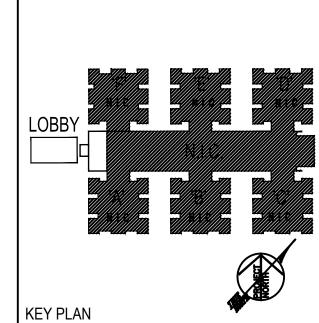
BUILDING

**AL-301** 





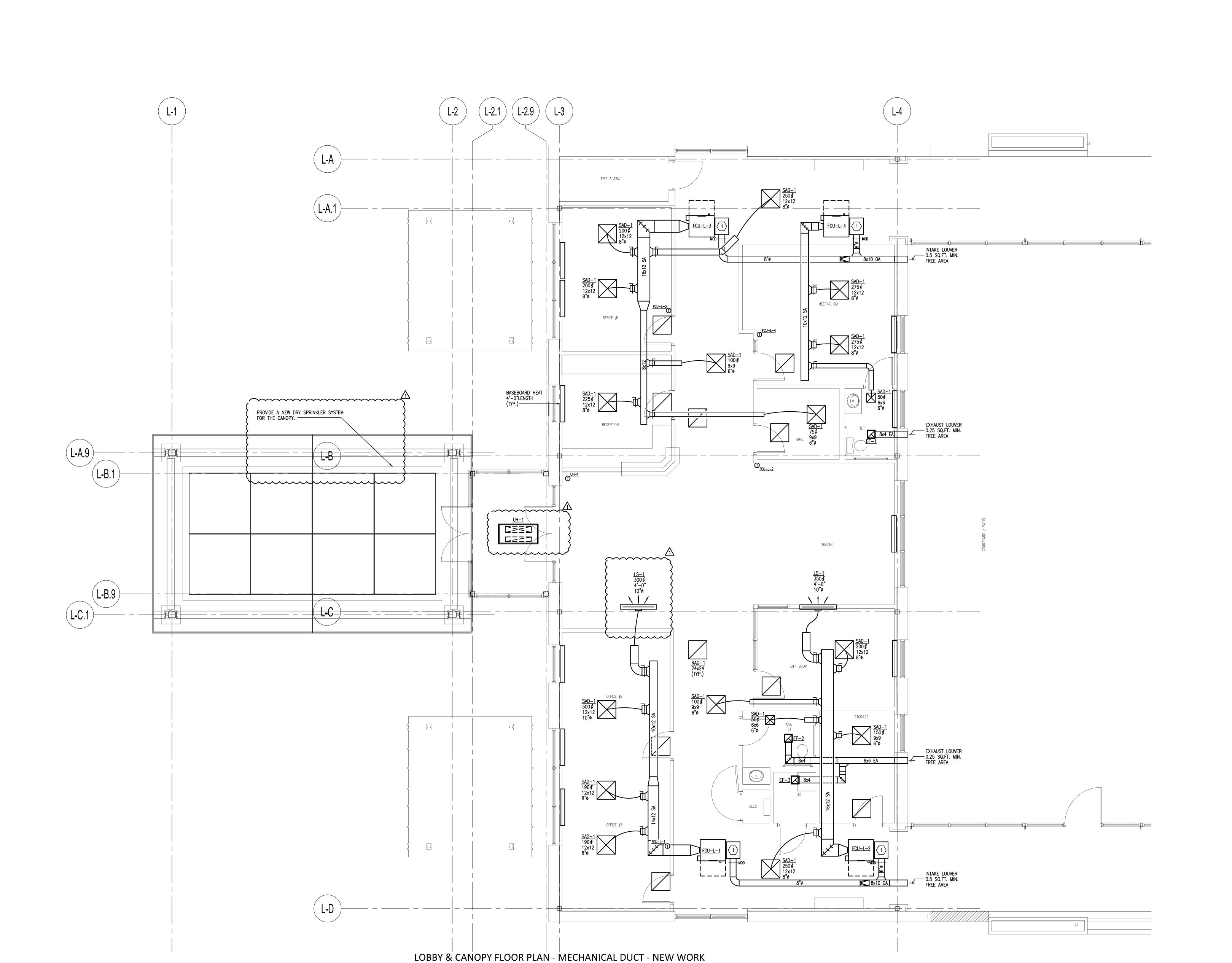




Date:		05/01/2017
	-	
		<del></del>
1	Addendum #1	05.26.2017
•	Bid Set	05.01.2017
-	Permit Set	04.21.2017

SPECIFIC NOTES (REFER TO M-101 WHERE INDICATED):

(1) FIELD FABRICATED SHEET METAL PLENUM BOX; FULL SIZE OF FAN COIL UNIT RETURN AIR OPENING.



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

NOTES:

1.) CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF WORK.



## Little Sisters of the Poor

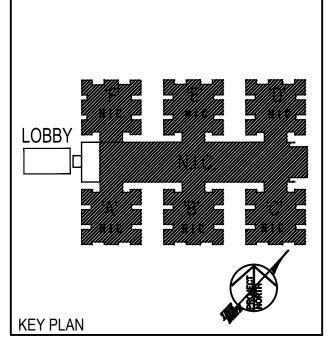
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10.870.1300

Skarda And Associates, Inc. 2439 North Charles Street, Baltimore, MD 21218 410.366.9384



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ARCHITECTS | PLANNERS

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410 . 837 . 5040 | www.gaudreauinc.com

Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland.

PERMIT DOCUMENTS

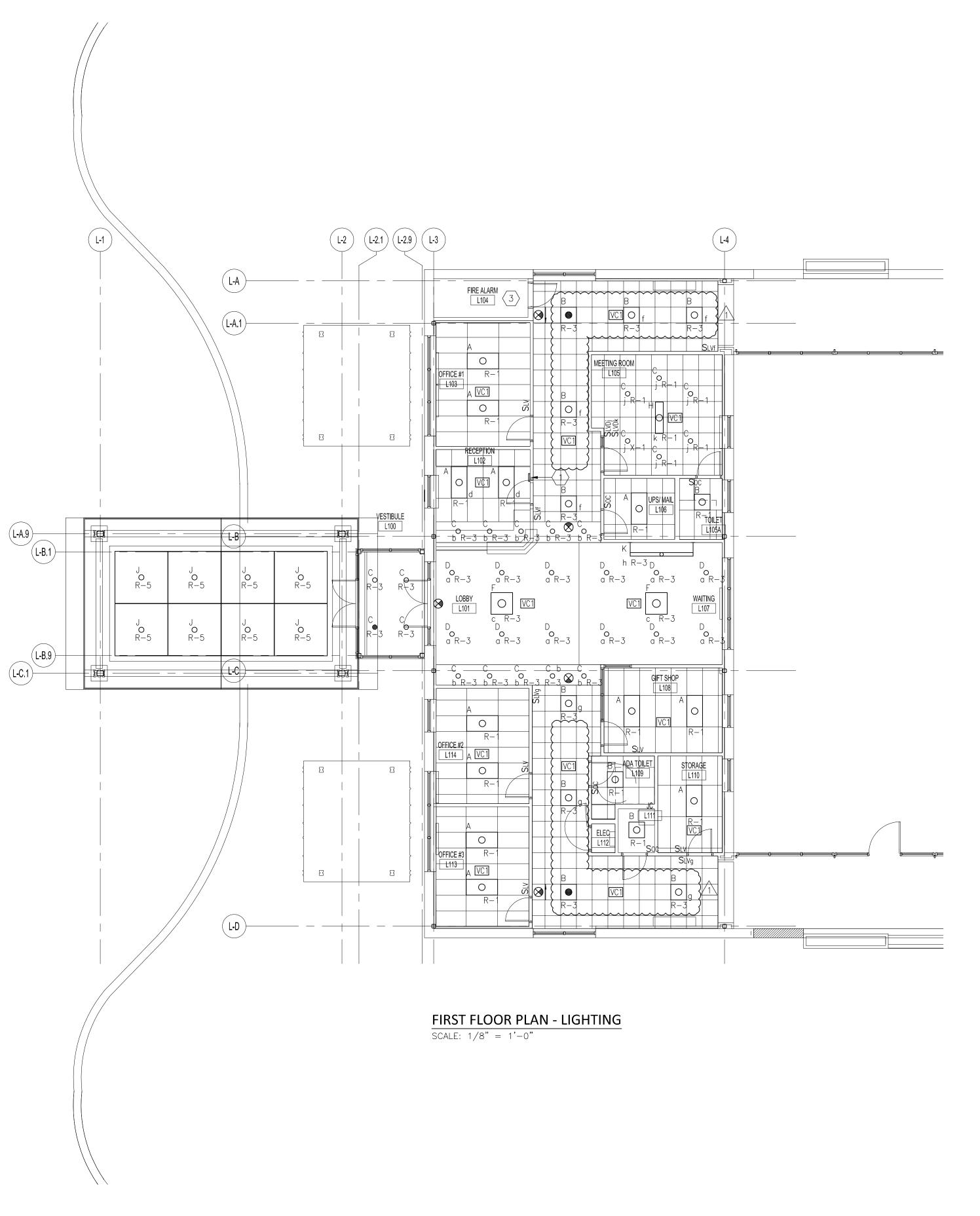
-	Permit Set	04.21.2017
-	Bid Set	05.01.2017
1	Addendum #1	05.26.2017
Date:		05/01/201
Project	Number:	17000.0

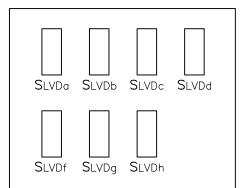
LOBBY & CANOPY
FLOOR PLAN
MECHANICAL DUCT
NEW WORK

M-101

0 2' 4' 8'

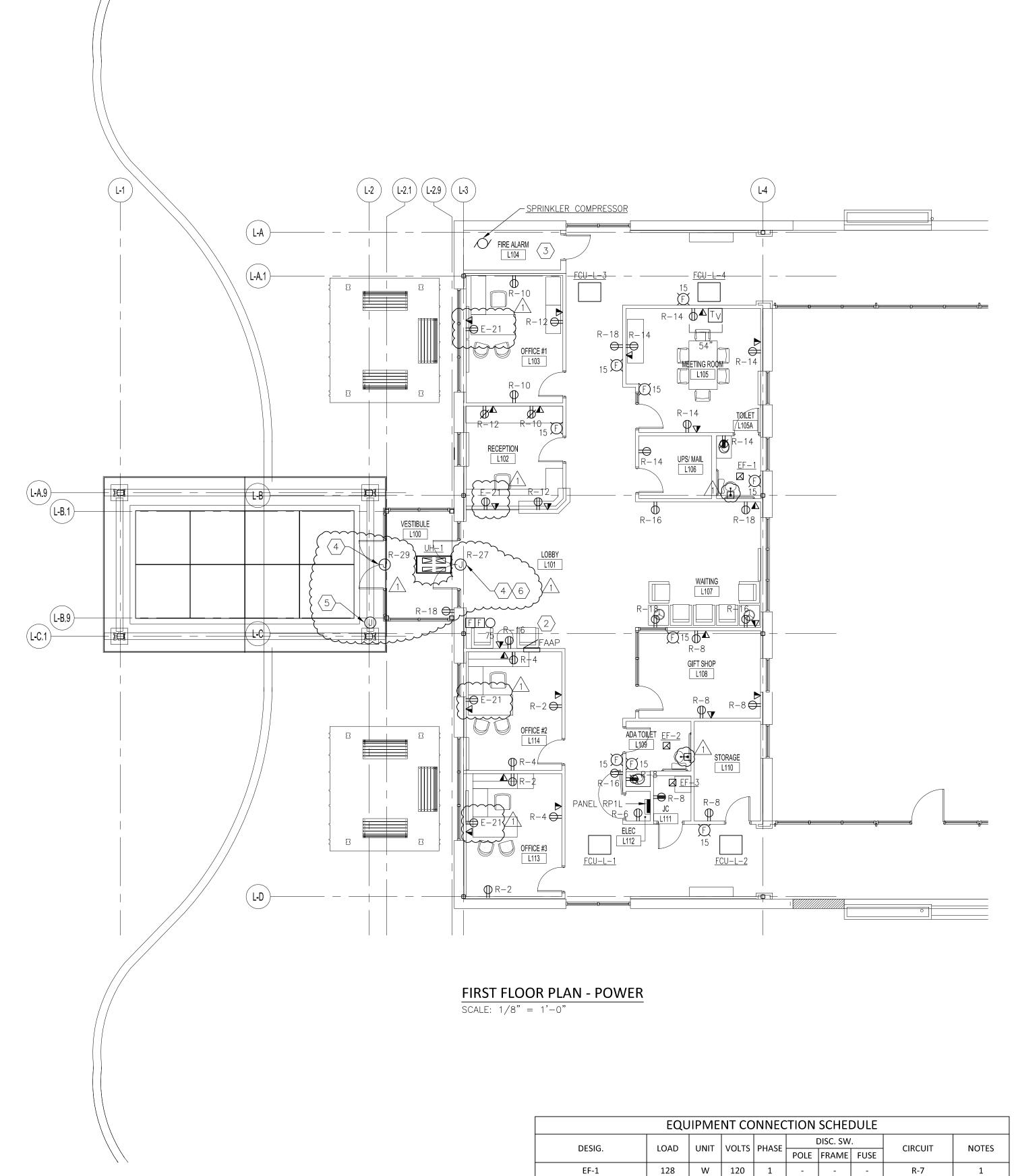
SCALE: 1/4" = 1'-0"





SWITCHBANK DETAIL "A"

NO SCALE



## SPECIFIC NOTES (REFER TO E-101 WHERE INDICATED):

1) SEE SWITCHBANK DETAIL "A" ON THIS SHEET

2 RELOCATED FAAP (RECESSED)

3 EXISTING POWER & LIGHTING TO REMAIN IN THIS ROOM.

ELECTRICAL CONNECTION FOR DOOR OPENER. COORDINATE FINAL CONNECTION WITH MANUFACTURER'S REQUIREMENTS.

5 JUNCTION BOX FOR AUTO DOOR OPENER. PROVIDE 1"C TO DOOR OPENERS.

6 PROVIDE 1"C TO RECEPTION DESK FOR SWITCH. COORDINATE SWITCH LOCATION WITH ARCHITECT.

R-7 EF-2 128 | W | 120 | 1 | -21 | W | 120 | 1 | -EF-3 R-7 EF-4 R-9,11 FCU-L-1 6.7A A 208 1 -R-13,15 FCU-L-2 R-17,19 FCU-L-3 6.7A A 208 1 -6.7A | A | 208 | 1 | -FCU-L-4 R-21,23 0.3 MCA 120 1 -R-25 UH-1

 SPRINKLER COMPRESSOR
 5
 HP
 208
 3
 3
 30
 R-20,22,24

PROVIDE MANUAL MOTOR STARTER.
 DISCONNECT PROVIDED WITH UNIT.

DISCONNECT PROVIDED WITH UNIT.
 CONNECT TO EXISTING LIGHTING CIRCUIT IN ADJACENT CORRIDOR.
 DISCONNECTS SHALL BE IN A NEMA 3R ENCLOSURE.



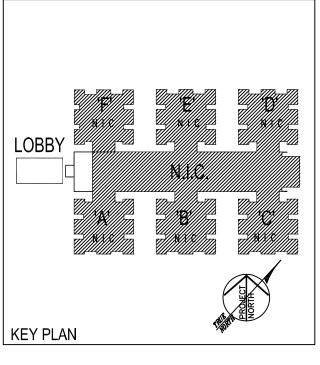
## **Little Sisters of the Poor**

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## PERMIT DOCUMENTS

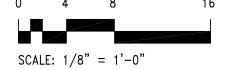
Expiration Date: 03/04/2019

Number	Description	Date
•	Permit Set	04.21.201
-	Bid Set	05.01.201
1	Addendum #1	05.30,201
	-	-
	-	

Date:	05/01/20
Project Number:	17000.

FIRST FLOOR POWER PLAN LOBBY

E-101



### LSOP Lobby & Canopy

### Addendum 01

						PA	NEL R	P1L (F	R-CIRC	UIT N	UMBI	ER)						
Volts:	208/120			Bus:	200A			Poles: 42 Remarks:										
Phase:	3			Main:	175A M	СВ			Mtg:	SURFAC	Œ							
Wire:	4		AIC: 10,000															
CKT	FOR		CIRCUITING			BREAKER			LOAD			BREAKER		CIRCU	ITING		FOR	c
		SETS	NO	SIZE	C.	POLE	AMP	KVA	Phase	KVA	AMP	POLE	C.	SIZE	NO	SETS		
1	LTS OFFICES	1	2/1	12/12	3/4"	1	20A	0.74	a	0.72	20A	1	3/4"	12/12	2/1	1	REC OFFICE 2 & 3	
3	LTS WAITING/CORRIDOR	1	2/1	12/12	3/4"	1	20A	1.18	b	0.72	20A	1	3/4"	12/12	2/1	1	REC OFFICE 2 & 3	
5	LTS FRONT CANOPY	1	2/1	12/12	3/4"	1	20A	0.58	С	0.18	20A	1	3/4"	12/12	2/1	1	REC ELEC	
7	EF-1, 2 & 3	1	2/1	12/12	3/4"	1	20A	0.28	a	1.08	20A	1	3/4"	12/12	2/1	1	REC GIFT/STOR/JC/TOILET	
9	FCU-L-1	1	2/1	12/12	3/4"	2	15A	0.70	b	0.72	20A	1	3/4"	12/12	2/1	1	REC OFFICE 1/RECEPTION	
11	-	-	-	-	-	-	-	0.70	С	0.72	20A	1	3/4"	12/12	2/1		REC OFFICE 1/RECEPTION	
13	FCU-L-2	1	2/1	12/12	3/4"	2	15A	0.70	a	1.08	20A	1	3/4"	12/12	2/1		REC CONF/MAIL/TOILET	
15	-	-	-	-	-	-	-	0.70	b	0.72	20A	1	3/4"	12/12	2/1	-	REC WAITING/CORRIDOR	
17	FCU-L-3	1	2/1	12/12	3/4"	2	15A	0.70	С	0.72	20A	1	3/4"	12/12	2/1	1	REC WAITING/CORRIDOR	
19	-	-	-	-		-	-	0.70	a	2.01	30A	3	3/4"	10/10	3/1	1	SPRINKLER COMPRESSOR	
21	FCU-L-4	1	2/1	12/12	3/4"	2	15A	0.70	b	2.01	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	0.70	С	2.01	-	-	-	-	-	-	-	
~25~	UH-1	~1~	~2/1~	12/12	~3/4"~	~1~	~20A~	0:04	a		-	-	-	-	-	-		
27	DOOR OPENER	1	2/1	12/12	3/4"	1	20A	1.00			-	-	-	-	-	-		
29	DOOR OPENER	1	2/1	12/12	3/4"	1	20A	1.00	} c		-	-	-	-	-	-		
~31~		سيسا	سيسا	سيسا	سيب	سيس	سيب		a		-	-	-	-	-	-		
33		-	-	-	-	-	-		b		-	-	-	-	-	-		
35		-	-	-	-	-	-		С		-	-	-	-	-	-		
37		-	-	-	-	-	-		a		-	-	-	-	-	-		
39		-	-	-	-	-	-		b		-	-	-	-	-	-		
41		-	-	-	-	-	-		С		-	-	-	-	-	-		

 7.35
 Connected kVa
 Phase A Amps: 61.00

 8.45
 Connected kVa
 Phase B Amps: 70.00

 7.31
 Connected kVa
 Phase C Amps: 61.00

 23.10
 Connected kVa
 Average Connected Amps: 65.91

 23.73
 Demanded Kva
 Average Demand Amps: 65.91

 125% Connected Amps: 80.21
 80.21

					EX	KISTIN	G PAI	NEL EF	LA (E	-CIRC	UIT NU	JMBE	R)					
Volts:	208/120		Bus: <b>100A</b>						Poles:	es: <b>30</b>			emarks:					
Phase:	3		Main: <b>100A MCB</b> AIC: <b>10,000</b>								CE							
Wire:	4																	
CKT	FOR		CIRC	JITING	ITING BREAKER			LOAD			BREAKER		CIRCUITING				FOR	СК
		SETS	NO	SIZE	C.	POLE	AMP	KVA	Phase	KVA	AMP	POLE	C.	SIZE	NO	SETS		
1	EX. COTTAGE A CNTL					1	20A		a		20A	1				1	EX. FP-1	
3	EX. COTTAGE A CNTL					1	20A		b		20A	1				1	EX. FP-2	
5	SPARE					1	20A		С		20A	1				1	SPARE	Г
7	SPARE					1	20A		a		20A	1				1	SPARE	
9	EX. BB-A-201NE-1					1	20A		b		20A	1				1	EX. BB-A-246E-1	
11	EX. BB-A-201NE-2					1	20A		с		20A	1				1	EX. BB-A-246E-2	
13	EX. BB-A-201SW-1					1	20A		a		20A	1				1	EX. BB-A-246S-1	
15	EX. BB-A-201SW-2					1	20A		b		20A	1				1	EX. BB-A-246S-2	
17	SPARE					1	20A		С		20A	1				1	SPARE	
~19~	EX. COTTAGE A CNTL		<del></del>	<del></del>	~~~	~1~	~20A~	~~~	a		-	-	-	-	-	-	SPACE	
21	REC-LOBBY	1	2/1	12/12	3/4"	1	20A	0.72	{ b		-	-	-	-	-	-	SPACE	
~23~	SPACE	سيب	ميم	سيم	ميم	سيما	ىيى		$\bigcirc$ .		-	-	-	-	-	-	SPACE	
25	SPACE	-	-	-	-	-	-		a		-	-	-	-	-	-	SPACE	
27	SPACE	-	-	-	-	-	-		b		-	-	-	-	-	-	SPACE	
29	SPACE	-	-	-	-	-	-		С		-	-	-	-	-	-	SPACE	
NOTES:									Total	0.00	Connec	ted kVa					Phase A Amps:	

 0.00
 Connected kVa
 Phase A Amps:
 0.00

 0.72
 Connected kVa
 Phase B Amps:
 6.00

 0.00
 Connected kVa
 Phase C Amps:
 0.00

 0.72
 Connected kVa
 Average Connected Amps:
 2.00

 0.72
 Demanded Kva
 Average Demand Amps:
 2.50

 125% Connected Amps:
 2.50