

ADDENDUM #1

Date: October 7, 2026

Project: New Locker Room Facility and Renovations to the
Existing Concession and Tennis Facilities Project at the
Merrillville High School
276 E 68th Place
Merrillville, Indiana 46410

Architect's Project #26027

To: Prospective Bidders

This addendum forms a part of the Bid Documents and modifies the original Bid Documents dated October 2, 2026 as noted below. Acknowledge receipt of this addendum in the space on the Bid Form. Failure to do so may subject bidder to disqualification.

SPECIFICATIONS

1. Omit Specification Section 00 0002 Project Manual Index and replace with attached Specification Section 00 0002 Project Manual index which shall become part of the Project Manual.
2. Omit Specification Section 08 4200 Aluminum Entrances.
3. Omit Specification Section 10 1116 Markerboards.
4. The attached Specification Section 09 9100 Painting shall become part of the Project Manual.
5. The attached Specification Section 10 4413 Fire Extinguishers and Cabinets shall become part of the Project Manual.
6. The attached Specification Section 10 5113 Metal Lockers shall become part of the Project Manual.
7. The attached Specification Section 26 0000 Electrical shall become part of the Project Manual.
8. The attached Specification Section 26 0923 Lighting Control Devices shall become part of the Project Manual.
9. The attached Specification Section 26 3613 Manual Transfer Switches shall become part of the Project Manual.
10. The attached Specification Section 27 2100 Data and Voice Infrastructure Wiring shall become part of the Project Manual.

DRAWINGS

11. See attached Revised Drawing Sheet A1.1.0-A – FLOOR PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
12. See attached Revised Drawing Sheet A1.1.1-A – PARTIAL FLOOR PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
13. See attached Revised Drawing Sheet A1.1.2-A – PARTIAL FLOOR PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
14. See attached Revised Drawing Sheet A2.1.1-A – PARTIAL REFLECTED CEILING PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.

15. See attached Revised Drawing Sheet A2.1.2-A – PARTIAL REFLECTED CEILING PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
16. See attached Revised Drawing Sheet A7.1.0-A – INTERIOR ELEVATIONS - This plan shows clouded and tagged revisions dated 10/7/2026.
17. See attached Revised Drawing Sheet S1.1.1-A – PARTIAL FOUNDATION PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
18. See attached Revised Drawing Sheet S1.1.2-A – PARTIAL FOUNDATION PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
19. See attached Revised Drawing Sheet S1.1.3-A – FOUNDATION DETAILS - This plan shows clouded and tagged revisions dated 10/7/2026.
20. See attached Revised Drawing Sheet S2.1.2-A – PARTIAL STRUCTURAL PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
21. See attached Revised Drawing Sheet A1.0.1-B – FLOOR PLAN – DEMOLITION - This plan shows clouded and tagged revisions dated 10/7/2026.
22. See attached Revised Drawing Sheet A1.1.0-B – FLOOR PLAN – NEW CONSTRUCTION - This plan shows clouded and tagged revisions dated 10/7/2026.
23. See attached Revised Drawing Sheet A3.1.0-B – ROOF PLAN - This plan shows clouded and tagged revisions dated 10/7/2026.
24. See attached Revised Drawing Sheet A7.1.0-B – INTERIOR ELEVATIONS - This plan shows clouded and tagged revisions dated 10/7/2026.

Attached to Addendum #1

- Specification Section 00 0002 Project Manual Index
- Specification Section 09 9100 Painting
- Specification Section 10 4413 Fire Extinguishers and Cabinets
- Specification Section 10 5113 Metal Lockers
- Specification Section 26 0000 Electrical
- Specification Section 26 0923 Lighting Control Devices
- Specification Section 26 3613 Manual Transfer Switches
- Specification Section 27 2100 Data and Voice Infrastructure Wiring
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- Revised Drawing Sheet A1.1.0-A – FLOOR PLAN
- Revised Drawing Sheet A1.1.1-A – PARTIAL FLOOR PLAN
- Revised Drawing Sheet A1.1.2-A – PARTIAL FLOOR PLAN
- Revised Drawing Sheet A2.1.1-A – PARTIAL REFLECTED CEILING PLAN
- Revised Drawing Sheet A2.1.2-A – PARTIAL REFLECTED CEILING PLAN
- Revised Drawing Sheet A7.1.0-A – INTERIOR ELEVATIONS
- Revised Drawing Sheet S1.1.1-A – PARTIAL FOUNDATION PLAN
- Revised Drawing Sheet S1.1.2-A – PARTIAL FOUNDATION PLAN
- Revised Drawing Sheet S1.1.3-A – FOUNDATION DETAILS
- Revised Drawing Sheet S2.1.2-A – PARTIAL STRUCTURAL PLAN
- Revised Drawing Sheet A1.0.1-B – FLOOR PLAN – DEMOLITION
- Revised Drawing Sheet A1.1.0-B – FLOOR PLAN – NEW CONSTRUCTION
- Revised Drawing Sheet A3.1.0-B – ROOF PLAN
- Revised Drawing Sheet A7.1.0-B – INTERIOR ELEVATIONS

END OF ADDENDUM #1

PROJECT MANUAL INDEX

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CERTIFICATION PAGE
PROJECT MANUAL INDEX

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SECTION 09 9100

PAINTING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The following specifications cover the complete painting and finishing of all surfaces, interior and exterior, as shown on the Drawings and described in the specifications except as otherwise specified. Paint all existing painted surfaces.
- B. Work not included:
 - 1. Copper, bronze, chromium plate, nickel, stainless steel, aluminum, lead and bright metals.
 - 2. Factory applied finishes.
 - 3. Shop painting of structural and miscellaneous iron and steel.
 - 4. Others.
- C. The Painting Contractor shall supply all labor, materials, tools, ladders, scaffolding and equipment necessary for the completion of this work according to the Drawings and Specifications.
- D. The Painting Contractor shall refer to the Bidding Documents that form a part of the Contract and to the alternates that affect the work under this section. Examine the specifications under other divisions and thoroughly familiarize himself with all provisions regarding their painting.
- E. The Painting Contractor is responsible for inspecting the work of others prior to the application of any paint or finishing material. If any surface to be finished cannot be put in proper condition for finishing by customary cleaning, sanding and puttying operations, the Painting Contractor will immediately notify the General Contractor or the Architect in writing; or assume responsibility for and rectify any unsatisfactory finish resulting.
- F. Before proceeding with any painting, the Painting Contractor shall prepare and finish a sample room complete or in part, as directed by the Architect. Finish all areas or items in accordance with the specification and in colors selected by the Architect. The Architect and/or his representative will inspect these areas or items. If such areas or items are not approved, finish other sample room. When approved, they shall serve as a standard for workmanship, appearance and materials approved for similar areas or items throughout this project.
- G. Fire walls and vertical fire barriers called out on the drawings shall be effectively and permanently identified with stenciling by the painter. Such identification shall:
 - 1. be located in accessible concealed floor, floor-ceiling or attic spaces
 - 2. be located within 15 feet of the end of each wall and at intervals not exceeding 30 feet measured horizontally along the wall or partition
 - 3. include lettering not less than 3 inches in height with a minimum 3/8 inch stroke in a contrasting color incorporating the suggested wording, "FIRE WALL or FIRE BARRIER PROTECT ALL OPENINGS" or similar wording in accordance with Section 703.7, IBC (675 IAC 13-2.6).

1.02 DEFINITIONS

- A. Conform to ANSI/ASTM D16 for interpretation of terms used in this Section.

1.03 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing quality paint and finish products with 10 years' experience.
- B. Applicator: Company specializing in commercial painting and finishing with 5 years' experience.

1.04 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for flame/fuel/smoke rating requirements for finishes.
- B. All paint shall be 100% Lead-Free.
- C. All products shall be VOC free.

1.05 SUBMITTALS

- A. Submit product data under provisions of Division 1.
- B. Provide product data on all finishing products.
- C. Submit samples under provisions of Division 1.
- D. Submit color schedule illustrating range of colors and textures available for each surface-finishing product scheduled, for selection by Architect.
- E. Submit manufacturer's application instructions under provisions of Division 1.

1.06 FIELD SAMPLES

- A. Provide samples under provisions of Division 1.
- B. Before proceeding with any painting, prepare and finish a sample room, complete or in part, as directed by the Architect, illustrating coating color, texture, and finish for approval by Architect. When approved this work shall serve as a standard for workmanship, appearance and materials approved for similar areas throughout the project.
- C. Locate where directed.
- D. Accepted sample may remain as part of the Work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Division 1.
- B. Store and protect products under provisions of Division 1.
- C. Deliver products to site in sealed and labeled containers; inspect to verify acceptance.

- D. Container labeling to include manufacturer's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, cleanup, color designation, and instructions for mixing and reducing.
- E. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in well ventilated area, unless required otherwise by manufacturer's instructions.
- F. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 50 degrees F for 24 hours before, during, and 48 hours after application of finishes, unless required otherwise by manufacturer's instructions.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is above 50 percent, unless required otherwise by manufacturer's instructions.
- C. Minimum Application Temperatures: 50 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

1.09 EXTRA STOCK

- A. Supply one unopened carton of each color and type of paint used to the Owner.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Standard for this specification: PPG Paints
 - 1. Shawn Faulkner. 312.286.6082. shawn.faulkner@ppg.com
- B. Other acceptable manufacturers offering equivalent products:
 - 1. Sherwin-Williams.
 - 2. Fuller-O-Brien.
 - 3. MAB
- C. Substitutions: Under provisions of Division 1.

2.02 MATERIALS

- A. No attempt will be made to define the physical properties or composition of the painting materials; however, provide manufacturer's "top-of-the-line brands".
- B. Coatings: Ready mixed. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
- C. Coatings: Good flow and brushing properties; capable of drying or curing free of streaks or sags.
- D. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality, acceptable to manufacturer.

2.03 FINISHES

- A. Refer to schedule at end of Section for surface finish schedule.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Beginning of installation means acceptance of existing surfaces.

3.02 PREPARATION

- A. Remove electrical plates, hardware, light fixture trim, and fittings prior to preparing surfaces or finishing.
- B. Correct minor defects and clean surfaces which affect work of this Section.
- C. Shellac and seal marks which may bleed through surface finishes.
- D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- E. Gypsum Board Surfaces: Latex fill minor defects. Spot prime defects after repair.
- F. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- G. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
- H. Plaster Surfaces: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
- I. Uncoated Steel and Iron Surfaces: Remove grease, scale, dirt, and rust. Where heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
- J. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
- K. Interior Wood Items Scheduled to Receive Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.

- L. Exterior Wood Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied.
- M. Paint Wood and Metal Doors, Door Frames and Window Frames.
- N. Seal top and bottom edges of wood doors with primer.
- O. Paint all exterior exposed to view gas piping, electrical conduit, boxes, etc., plumbing vents, flues, and galvanized hoods.

3.03 PROTECTION

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.
- D. Remove empty paint containers from site.

3.04 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish.
- D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- E. Sand lightly between coats to achieve required finish.
- F. Allow applied coat to dry before next coat is applied.
- G. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- H. Prime back surfaces of interior and exterior woodwork with primer paint.
- I. Prime back surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.

3.05 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Paint shop primed equipment.
- B. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- C. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, etc., except where items are prefinished.

- D. Replace identification markings on mechanical or electrical equipment when painted accidentally.
- E. Paint interior surfaces of air ducts, and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to limit of sight line. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- F. Paint exposed conduit and electrical equipment occurring in finished areas.
- G. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
- H. Color code equipment, piping, conduit, and exposed ductwork in accordance with color schedule.
- I. Replace electrical plates, hardware, light fixture trim, and fittings removed prior to finishing.

3.06 CLEANING

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect cotton waste, cloths, and material, which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.07 SCHEDULE - EXTERIOR SURFACES

All exterior surfaces shall be finished as follows except as otherwise called for:

- A. Concrete Block / Concrete
 - 1. One coat PPG Speedhide Int/Ext Masonry Latex Block Filler 6-7
 - 2. Two coats PPG Speedhide Exterior 100% Acrylic Latex Flat 6-610xi Series
- B. Existing Concrete Block / Concrete
 - 1. Power wash all existing surfaces to be painted
 - 2. One coat primer compatible with existing base coat of paint and new topcoat
 - 3. Two coats PPG Speedhide Exterior 100% Acrylic Latex Flat 6-610xi Series
- C. Steel
 - 1. One coat PPG Multiprime 4360
 - 2. Two coats PPG 7 Line Industrial Gloss Enamel 7-282 Series
- D. Existing Steel
 - 1. Same as above except sand existing steel, spot prime before applying paint.
 - 2. One coat PPG Multiprime 4360
 - 3. Two coats PPG 7 Line Industrial Gloss Enamel 7-282 Series
- E. Steel - Galvanized
 - 1. One coat PPG Pitt-Tech DTM Primer 90-712 Series
 - 2. Two coats PPG Pitt-Tech DTM Gloss Industrial Enamel 90-374

3.08 SCHEDULE - INTERIOR SURFACES

- A. Wood / Existing Wood - Painted
 - 1. One coat PPG Seal Grip Int/Ext Acrylic Universal Primer/Sealer 17-921xi Series
 - 2. Two coats PPG Speedhide Interior Latex Semi-Gloss 6-500 Series
- B. Wood - Transparent
 - 1. One coat PPG Deft Interior Oil Wood Stain DFT400 Series
 - 2. One coat PPG Deft Sanding Sealer DFT61
 - 3. Two coats PPG Deft Polyurethane Interior WB Acrylic Satin DFT159 Series
 - 4. Lightly sand with steel wool between coats
- C. Existing Concrete and Concrete Block – Painted
 - 1. One coat primer compatible with existing base coat of paint and new topcoat
 - 2. Two coats PPG Speedhide Interior Latex Eggshell 6-411 Series
- D. Concrete and Concrete Block
 - 1. One coat PPG Speedhide Int/Ext Masonry Latex Block Filler 6-7
 - 2. Two coats PPG Speedhide Interior Latex Eggshell 6-411 Series
- E. Existing Wood Doors
 - 1. Sand existing doors and repair chips and gouges with filler
 - 2. Touch up stain with PPG Deft Interior Oil Wood Stain DFT400 Series
 - 3. Two coats PPG Deft Polyurethane Interior WB Acrylic Satin DFT159 Series
 - 4. Lightly sand with steel wool between coats
- F. Steel
 - 1. One coat PPG Pitt-Tech DTM Primer 90-712 Series
 - 3. Two coats PPG Pitt-Tech DTM Satin 90-474 Series
 - 2. Apply one coat of PPG Pitt-Tech DTM Primer 90-712 Series to all galvanized metal prior to above applications.
 - 3. All handrails shall be semi-gloss.
- G. Existing Steel
 - 1. Same as above except sand existing steel, spot prime before applying paint.
 - 2. Two coats PPG Pitt-Tech DTM Satin 90-474 Series
 - 3. Apply one coat of PPG Pitt-Tech DTM Primer 90-712 Series to all galvanized metal prior to above applications.
- H. Plaster and Gypsum Board
 - 1. One coat PPG Speedhide Interior Latex Sealer Quick-Drying 6-2. Use PPG Perma-Crete Alkali Resistant Primer 4-603xi PermaCrete Alkali for new plaster.
 - 2. Two coats PPG Speedhide Interior Latex Eggshell 6-411 Series
 - 3. All cemented and taped joints shall be spot primed with PPG Speedhide Interior Latex Sealer Quick-Drying 6-2 before proceeding with the above specifications
 - 4. All ceilings and soffits shall be flat, PPG Speedhide Interior Latex Flat 6-70 Series
 - 5. All walls and ceilings in toilet rooms shall be semi-gloss, PPG Speedhide Interior Latex Semi-Gloss 6-500 Series

- I. Existing Plaster and Gypsum Board
 - 1. Same as above except patch all holes, gouges, etc. and spot prime prior to painting.
 - 2. Two coats PPG Speedhide Interior Latex Eggshell 6-411 Series
 - 3. All cemented and taped joints shall be spot primed with PPG Speedhide Interior Latex Sealer Quick-Drying 6-2 before proceeding with the above spec

3.09 SCHEDULE

- A. The Architect will select and/or approve colors and determine the number of colors to be used on the job.
- B. Each room shall have up to two different colors for the walls. The Contractor shall include costs for such in their bid.
- C. Refer to Room Finish Schedule on the Drawings.

END OF SECTION

SECTION 10 4413

FIRE EXTINGUISHERS AND CABINETS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish all material, labor and equipment necessary to complete all fire extinguisher cabinets as indicated on the Drawings and herein specified.

1.02 SUBMITTALS

- A. Submit product data under provisions of Division 1.
- B. Include physical dimensions, operational features, color and finish, anchorage details, rough-in measurements, location, and details.

PART 2 - PRODUCTS

2.01 CABINET ACCEPTABLE MANUFACTURERS

- A. J.L. Industries.
- B. Larsen's Manufacturing Co.
- C. Potter-Roemer, Inc.
- D. Substitutions: under provisions of Division 1.

2.02 CABINETS

- A. Cabinet: Formed sheet steel, 18 gage cold-rolled steel, flush mounted, recessed, inside dimensions 27" x 12" x 8".
- B. Trim: Flat, 1-1/4" inches wide face, 1" face trim on door.
- C. Door: 18 gauge thick, reinforced for flatness and rigidity; full glass access.
- D. Glass: Clear wire glass.
- E. Mounting Hardware: Appropriate to cabinet.
- F. Graphic Identification: "Fire Extinguisher" vertically in die cut red letters (1" min).

2.03 FIRE EXTINGUISHERS

- A. Kidde
- B. Substitutions: under provisions of Division 1.

2.03 FIRE EXTINGUISHERS

- A. Kidde – ABC Multi-purpose dry chemical 10 pound UL rating 4A:60B:C

2.03 FABRICATION

- A. Form body of cabinet with tight inside corners and seams.
- B. Predrill holes for anchorage.
- C. Form perimeter trim and door stiles by welding, filling, and grinding smooth.
- D. Hinge doors for 180 degree opening with continuous piano hinge. Provide roller type catch.
- E. Glaze doors with resilient channel gasket glazing.

2.04 FINISHES

- A. Cabinet Trim and Door: Satin baked white enamel.
- B. Cabinet Interior: White enamel.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify rough openings for cabinet are correctly sized and located.
- B. Beginning of installation means acceptance of existing conditions.

3.02 INSTALLATION

- A. Install cabinets plumb and level in wall openings in accordance with all applicable codes.
- B. Secure rigidly in place in accordance with manufacturer's instructions.

END OF SECTION

SECTION 10 5113

METAL LOCKERS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish all labor, materials and equipment necessary to complete all single tier sheet metal lockers as indicated on the Drawings and specified herein.

1.02 QUALITY ASSURANCE

- A. Acceptable manufacturers:
 - 1. Lyon Metal Products, Inc.
 - 2. Republic Steel, Storage Systems Division
 - 3. Penco Products, Inc.
 - 4. Medart.
 - 5. Substitutions under provisions of Division 1.
- B. Lockers shall be manufactured as units, each to have its own door and frame, in accordance with FS AA-L-486, including latest amendments thereto.
- C. Locker and its components shall be manufactured, assembled and installed to provide a safe, sturdy, low-maintenance and durable locker which can withstand the intended use in a public elementary school. If any locker or its components specified herein or proposed by the Contractor does not meet the above qualifications, the Contractor shall notify the Architect.

1.03 SUBMITTALS

- A. Contractor shall submit the following:
 - 1. Manufacturer's literature: Materials description, color chart and installation instructions.
 - 2. Shop Drawings: Show locker layout based on field measurements, elevations and installation details.
 - 3. Pieces of sheet metal in color or colors selected.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Sizes & Types: as called for on the drawings.
- B. Sheet Steel: ASTM A366-72, cold-rolled, commercial quality, free from imperfections and capable of taking a high grade enamel finish.
- C. Bolts: Steel, cadmium plated.
- D. Hardware:
 - 1. Hinges: Steel, minimum .050 in. thick, 2 in. wide, five knuckle, full loop, tight pin (removal resistant), finished with frame.

- 2. Locking Device: Recessed pocket for pad locks.
- E. Number plates: Polished or satin aluminum, with not less than 3/8 in. high black etched numerals, numbered consecutively through group or groups as directed by Owner.
- F. Interior Equipment:
 - 1. Shelves: Each locker shall have a shelf located nine inches below top of locker, attached at a minimum of two points on each side.
 - 2. Hooks:
 - a. Hooks shall be 1/4 in. diameter zinc or cadmium plated steel with ball points.
 - b. Each locker shall have one double-prong ceiling hook and three single-prong wall hooks (one on back and one on each side of locker).
- G. Recessing and Finishing Strips and Other Accessories: End and top finishing strips for lockers shall be 18 gauge formed steel with a min. 2-3/4 in. wide face and shall be bolted to locker frames. Top finishing strips shall be approximately five foot lengths with a formed splice cap to cover joints and to hold top finishing strips in alignment. End finishing strips to be 2-3/4 in. higher than lockers and to lap over ends of top finishing strips for a neat joint at top of corners.
- H. Fillers: Shall be provided where necessary to fill space in order to provide a neat installation.
- I. Finish: All steel parts shall be thoroughly cleaned, given a bonding and rust-resisting phosphate treatment, followed by a coat of enamel applied by electrostatic method at the proper temperature-time relationship to insure a thorough curing and to result in a tough, durable finish. Color selections to be chosen by Architect and Owner from manufacturer's standard colors.
- J. All materials necessary for a complete installation shall be provided even though not specifically mentioned.

2.02 FABRICATION

- A. Fabricate lockers in sizes and arrangements shown.
- B. Door frame members shall be channel shaped of not less than 16 gauge steel. Corners shall be tenoned and electrically welded, making a rigid one-piece structure. Vertical members to have an additional flange to provide a continuous door strike. The frame construction shall permit full door width entry. Frames shall be constructed so as to prevent twisting out of alignment.
- C. Doors shall be 16 gauge one-piece steel suitably flanged with one right angle band at top and bottom, and a channel formation at the vertical flanges on the lock and hinge side. Doors shall be constructed so as to prevent twisting out of alignment.
- D. Locker sides, backs, shelves and tops shall be of 24 gauge steel edges suitably formed to provide a rigid assembly when bolted together. Locker bottoms shall be of 20 gauge steel.

- E. Ventilation:
 - 1. Locker backs shall be perforated for ventilation with standard top and bottom perforations (holes). (Ventilation holes shall match those of existing lockers).
- F. Hinges shall be welded to frame and bolted to door with two bolts to each hinge. Doors shall have three hinges.
- G. Each locker shall have a number plate, attached to top of door with pop rivets at same location on each locker.
- H. Hooks shall be attached to locker body with no less than two bolts.
- I. Locker top shall be as follows: Flat top for recessed lockers.
- J. Locker base shall be as follows: Concrete with wood sleeper by others.
- K. Locker and its components shall be manufactured to provide a quiet operation with silencers on jambs and handles.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Contractor shall protect existing finish surfaces.
- B. Examine all surfaces to receive the parts of the Work specified herein. Verify all dimensions of in-place and subsequent construction. Installation of lockers constitutes acceptance of existing conditions.
- C. Build new lockers complete and install at the locations shown in accordance with the manufacturer's instructions, anchoring securely to supporting construction. Lockers shall be floor and wall anchored.
- D. Install necessary fillers and trim.
- E. Install locker numbers. Lockers shall be numbered as directed by Owner.
- F. Adjust doors and locking devices for proper operation. Instruct school personnel in proper operation and maintenance of lockers. Submit three sets of operation and maintenance instructions to the Architect.

END OF SECTION

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SECTION 26 0000

ELECTRICAL

1.01 WORK INCLUDED

- A. This specification is designed to govern the furnishings and complete installation ready for satisfactory service, of all material and apparatus necessary to complete the lighting and power wiring and special systems indicated on the drawings and as described hereinafter.

1.02 RULES AND REGULATIONS

- A. All work shall be installed in strict accordance with all applicable rules and regulations of local, state, and federal governments, or other authorities having lawful jurisdiction.
- B. This Contractor shall cooperate with and assist other Contractors on the job in conformity with all trade jurisdictions. He shall perform all work covered by the drawings and specifications which properly comes under the jurisdiction of the trade that he represents. Where jurisdictional rules require the assistance of electrical mechanics in the moving or setting of electrically powered equipment, the Contractor shall provide such assistance.
- C. The Contractors attention is called to the fact that it is not the intent of these specifications or accompanying drawings to interpret the meaning of, or show all requirements of the national or local codes. It shall be this contractor's responsibility to compile his bid to include such monies as may be necessary to complete said job in accordance with all codes.

1.03 LOCAL CONDITIONS

- A. The Contractor shall visit the site and determine all existing local conditions affecting work in his contract. He shall examine the Bid Documents to familiarize himself with the type of construction to be used for all new work and how it will affect the installation work in his contract.
- B. Failure to determine existing conditions or the nature or new construction will not be considered a basis for the granting of additional compensation.

1.04 APPROVAL OF MATERIALS

- A. Within 10 days of notification of contract, the contractor shall submit to the Architect for approval, a list of manufacturers of equipment proposed for the work.
- B. All equipment and materials shall be of the general type and quality herein specified. Wherever the words "or approved equal" appear in the specification, the Architect's decision as to quality and relative merit shall be final.
- C. Each item of equipment shall be a standard catalog product of a reputable manufacturer. Selection of major items of equipment shall be confined to manufacturers listed in the specifications. Should equipment of lesser cost than the herein specified be proposed by the Contractor and be acceptable to both the Architect and Owner, a Corresponding credit shall be granted by the Contractor to the Owner unless approved during bidding.

- D. Light fixtures may be substituted only if the request provided is approved by the Architect prior to bid.

1.05 MINOR DEVIATIONS

- A. The dimensions and ratings of equipment herein specified or indicated on the drawings are intended to establish the outlines and characteristics of such equipment generally. Minor deviations will be permitted to allow the manufacturers specified to bid on their nearest stock equipment.
- B. Where manufacturers catalog numbers or types are mentioned in the specifications or indicated on the drawings, they are intended to be used as a guide only and shall not be interpreted as taking precedence over the basic rating and duty specified. In all cases manufacturers shall verify the duty specified with the particular characteristics of the equipment they intend to offer for approval.
- C. Product suppliers and bidders are required to verify all catalog numbers for specified items are current and accurate.

1.06 SHOP DRAWINGS

- A. After receiving approval on the equipment manufacturers, the Contractor shall submit without delay five (5) copies each of drawings or cuts of all equipment for the approval of the Architect.
- B. Such submittals must contain outline dimensions, operation clearances and sufficient engineering data to indicate substantial compliance with the specifications and indicate deviation from those specified.
- C. The contract drawings contain information to a degree of detail which is considered to be both consistent with their scales and adequate to accomplish their purpose. Beyond this point they are diagrammatic.
- D. Where the equipment furnished differs materially from that indicated on the contract drawings essential to the proper fabrication or installation of equipment, such drawings shall be prepared with five (5) copies for approval.
- E. Approval granted on shop drawings is rendered as a service only and shall not be considered as a guarantee of measurements or building conditions and shall not be construed as relieving the Contractor of basic responsibilities under the Contract.
- F. Submit shop drawings for the following items:
 - 1. Panels (All)
 - 2. Lighting Fixtures
 - 3. Parking and Area Lighting
 - 4. TVSS

1.07 IDENTIFICATION

- A. Provide plastic laminate identification tags on all panels, switch gear, starters, disconnects, etc.
- B. Provide typed panel schedules in all panels.

1.08 INTERFERENCES

- A. The Contractor shall confer with other Contractors at the site to avoid interference, so that a minimum of head room and clearance may be obtained. In the event that interferences develop, the Architect's decision will be final and no additional compensation will be allowed for the moving of misplaced wiring, lighting fixtures, or equipment.
- B. The Contractor shall furnish all necessary scaffolding, staging, or cribbing required for the completion of the work. All such scaffolding, etc. shall be removed from the premises when its use is no longer required on the job.

1.09 SLEEVES

- A. Where conduits pass through concrete floors, galvanized sheet metal sleeves shall be set.
- B. Where conduits pass through concrete floors likely to become wetted with water occasionally, galvanized steel pipe sleeves shall be set. Tops of such sleeves shall project 1-1/2" above the surfaces of finished floors.

1.10 CUTTING AND PATCHING

- A. This Contractor shall do all cutting of building materials required for the installation of work herein specified. No structural members shall be cut without the approval of the Architect and all such cuttings shall be done in a manner directed by him.
- B. All patching shall be done in a neat and workmanlike manner meeting with the approval of the Architect, by mechanics of the particular trade involved.
- C. The Contractor shall employ current technology to locate existing conduits below slabs and exterior below grade buried conduits prior to saw cutting of floors or excavating.

1.11 HANGERS AND SUPPORTS

- A. All suspended conduits shall be rigidly supported from the construction by means of approved conduit hangers or clamps firmly anchored in place and spaced at intervals of not to exceed standard construction practices as called for in the National Electrical Code.

1.12 ELECTRIC SERVICE

- A. The Electrical Contractor shall furnish and install an electrical service complete as required and/or as shown on the drawings.
- B. The service entrance equipment shall be of the type, quality, and capacity as indicated on the plan and shall be Square D. All work shall be in complete accordance with the state and local codes and the utility company standards.

1.13 TELEPHONE AND CABLE SERVICE

- A. The Electrical Contractor shall furnish and install two (2) 2" diameter PVC empty conduits for the telephone/cable service complete as required and/or as shown on the drawings from below the D-Mark/MDF to the property line or nearest utility pole/pedestal.
- B. Provide a 3/4" x 4' X 8' painted plywood D-Mark panel. Provide minimum 3/4" X 4' X 8' painted plywood D-Mark panel unless shown larger on the drawings.

1.15 BRANCH CIRCUIT PANELBOARDS

- A. This Contractor shall furnish and install all branch circuit panelboards of size and capacity as indicated on the drawings.
- B. Branch circuits for lighting and small single phase motors shall be of the molded case bolted-on type with thermal magnetic trips, of the NQ type.
- C. Circuit breakers shall be as manufactured by Square D Co.
- D. Panel board equipment shall be as manufactured by Square D Co.
- E. Contractor shall rough in the capacity of the panel to an accessible space with 3/4" conduits.
- F. Acceptable Manufacturers offering equal products:
 - 1. Siemens
 - 2. General Electric
 - 3. Eaton
 - 4. ITE

1.16 BRANCH LIGHTING WIRING

- A. From the branch circuit panelboard, provide wiring in conduit to each outlet indicated on the drawings and herein specified.

1.17 UTILITY COMPANY CHARGES

- A. The Electrical Contractor shall confer with utility company before submitting his bid to insure that all details of their requirements are complied with. The electrical contractor shall not include in his bid any costs incurred for NIPSCO.

1.18 FIXTURES

- A. Electrical Contractor shall furnish all lighting fixtures in accordance with the fixture schedule.
- C. Contractor attention is called to the type of ceiling construction so that he can furnish proper and sufficient support for all fixtures and appropriate trim.

1.19 BRANCH POWER WIRING

- A. Unless otherwise specified or indicated others will furnish and set certain motors in connection with equipment drives. Each such motor shall be furnished with a motor disconnect, a motor starter with thermal overcurrent protection, and a push button station or other pilot device and all requirements of the building automation system. All motor starters/disconnect switches required for equipment furnished by the Mechanical Contractor shall be furnished by the Mechanical Contractor and install by the Electrical Contractor.
- B. The Contractor shall cooperate and assist in the setting of motors in compliance with all jurisdictional rulings, mount all switches, starters and pilot devices and do all electrical wiring from motor to source of energy as indicated on the drawings.
- C. Where a feed is indicated for a piece of equipment provided by others. The contractor shall provide a feeder from the source of energy to the immediate vicinity of the motor equipment, terminating as required.
- D. In general all conduit shall be concealed in the construction. In certain unfinished areas, exposed conduit will be permitted.
- E. The final 18" of connections to motors shall be made with flexible metal conduit. In damp or wet areas liquid tight flexible metal conduit shall be used.
- F. No conduit less than 1/2" shall be used.
- G. Exposed conduit work shall be neatly run parallel to the building walls in inconspicuous location generally on the bottom of structural members, and held in place with neat inconspicuous clamps.
- H. Conduit fittings shall be standard set screw cast type above floor.

1.20 BLOWER AND FAN WIRING

- A. All power wiring in conjunction with fans and blowers shall be done by this Contractor.

1.21 OUTLET BOXES

- A. Outlets in an interior location shall be provided with a galvanized stamped steel outlet box of a type and size suitable to the device or fixture with which it is to be used.
- B. Outlet boxes in locations exposed to moisture or to the weather shall be of galvanized cast iron with tapped openings for conduits, and watertight gasketed covers.
- C. Where necessary, outlet boxes shall be provided with covers or rings to bring them flush with the finished surface in which they are mounted. Where outlets are located in walls with glazed tile, concrete, brick or similar finished use special boxes manufactured for the purpose by Raco, Steel City and Identified as Graybar No. GS-135 single or gang as required, to permit close fitting of the wall material.
- D. All outlets shall be mounted a minimum of 15" above the floor.

1.22 PULL BOXES AND JUNCTION BOXES

- A. Provide pull boxes or junction boxes in conduit runs where indicated or where required to facilitate the pulling of wires or the making of connections. All pull boxes and junction boxes shall be provided with plain blank removable covers held in place with screws. The covers of all shall be accessible.

1.23 CONDUIT

- A. In general, all interior wiring shall be encased in metal conduit. Flexible types of conduits are not acceptable unless specified elsewhere in this specification for connections to motors and light fixtures. All conduit shall be as manufactured by N.E., Allied Tube, International Rue, Triangle or General Electric.
- B. At the Contractor's option, where conduit work is roughed-in in dry locations above suspended ceilings, standard galvanized electric metallic tubing or thin wall conduit may be used. Rigid galvanized conduit shall be used where conduits are laid in concrete slabs or in damp locations, or for exposed work. PVC conduit is acceptable when conduit is laid in or below concrete floor on grade when it meets the approval of local Electrical Inspector. PVC conduit must have additional ground wire installed.
- C. Furnish all brackets, hangers and supports per National Electric Code.
- D. Conduit fittings in dry locations may be set screw type fittings.

1.24 WIRE

- A. In general, all wire and cable for use within the building shall be of code grade type THHN 600 volt insulated copper wire of sizes indicated on the drawings and per the National Electric Code.
- B. All wiring in buried conduit on the exterior of the building shall be code grade type XHHW-2 600 volt insulated copper wire of sizes indicated on the drawings and per the National Electric Code.
- C. No wire smaller than No. 12 shall be used for lighting or power wiring. Where the distance from the panel board to the load center of any lighting circuits exceeds 75 feet, No. 10 wire shall be used.

1.25 SWITCHES

- A. Single pole switches unless otherwise specified shall each be equal to Leviton or Hubbell as called for on the drawings.
- B. Three-way or multiple pole switches, where required, shall be of the same type and rating as specified for single pole switches.
- C. Where a switch and pilot lamp is indicated for lighting control it shall be equal to Leviton or Hubbell switch with pilot lamp all mounted in a single plate.
- D. All dimmer switches shall be Lutron "Nova" type or Leviton preset slide dimmers in capacity as required.

- D. Catalog numbers specified herein or on the drawings are taken from the current catalogs of established manufacturers. Devices of equal quality and merit as manufactured by Leviton, Harvey Hubbell, Bryant, Pass and Seymour or General Electric Co. will be acceptable.

1.26 SWITCH AND RECEPTACLE PLATES

- A. All switch and receptacle and blank cover plates shall consist of .040" thick stainless steel in a dull brushed finish.
- B. Provide cover plates at all J-boxes.
- C. Where groups of devices are set adjacent to each other they shall be mounted in single continuous gang plate.

1.27 TIME CLOCKS

- A. Time clocks shall be Intermatic ET 1105C or ET1125C Series time clocks of the appropriate voltage and amp ratings as required for application.

1.28 OUTLET AND SWITCH LOCATIONS

- A. Before roughing in outlet boxes the Contractor shall verify the locations of all outlets with the Architectural plans and interior room elevations.
- B. In all cases ceiling outlets shall be coordinated with other devices or projections in the ceiling surfaces and with the work of other trades to the end that a symmetrical, neat appearing arrangement of ceiling outlets and fixtures result. Where discrepancies occur notify Architect before proceeding with the work. In general wall receptacles are intended to be mounted 15" above the floor. This Contractor shall install any outlet within 15 feet of location shown in plans at no extra charge by being notified previous to installing rough-in.
- C. Where built-in counters or tables occur, receptacles shall be mounted flush with their tops, or as called for on the plans.
- E. In general the center lines of switches are intended to be located 48" above the floor.

1.29 CONDUCTOR INSTALLATION AND CONNECTIONS

- A. No conductors shall be pulled into the conduit system until all plastering work has been completed.
- B. Joints in small branch circuit conductors, No. 10 and smaller, shall be twisted tight so as to be electrically continuous and mechanically secured with wire nuts. Joints and taps in conductors larger than No. 10 shall be made with approved pressure type connectors, T and B color keyed or Burndy Gydent. All joints shall be insulated with a wrapping of rubber equivalent to that on the original conductors.
- E. Connections to terminals with No. 8 or smaller wire may be made to binding posts. Connections to terminals with conductors larger than No. 8 shall be made using approved cast or forged copper pressure type bolted terminal lugs.
- F. All lighting and other small branch circuit wiring shall be color coded to identify the phasing of the circuit conductors as follows: Black wire shall be used for Phase A, Red wire for Phase B, Blue wire for Phase C, and White wire for neutral.

1.30 TEMPORARY POWER AND LIGHTING

- A. Provide temporary power and lighting as called for in Division I.

1.31 RECEPTACLES

- A. All receptacles shall be 20 AMP specification grade self grounding duplex outlet, Nema 5-20R, manufactured by Hubbell or approved equal.

1.32 GROUNDING

- A. The wiring system and the conduit system shall be permanently and effectively grounded in accordance with the requirements of the National Electric Code and the local inspecting authority having jurisdiction.

1.33 REMOVAL OF RUBBISH

- A. This Contractor shall remove all his rubbish as fast as it accumulates, keep the building and premises clean during progress of the work and the premises at completion in perfect condition as far as his work is concerned.
- B. In the case of disputes concerning the ownership of rubbish, the Architect will decide and his decision will be final. Should the Contractor refuse, neglect or otherwise fail to remove the rubbish, the Owner will do so and the cost of the work will be deducted from the amount due to the Contractor under his contract.

1.34 INSPECTIONS AND TESTS

- A. All work under this Contract shall be subject to the inspection and approval of the Architect whose decision shall be binding on all parties.
- B. The Contractor shall test all wiring and connections for continuity and grounds before any equipment and fixtures are connected, and when so directed by the Architect the Contractor shall demonstrate by meggar test the insulation resistance of any circuit or group of circuits. Where such insulation resistance test shall indicate the possibility of faulty insulation, he shall pull out the conductor at fault, replace same with new and all such work and replacement to be at the Contractor's sole expense.

1.35 DRAWINGS

- A. The drawings which accompany these specifications constitute a part of this Contract and indicate the general arrangement of circuits, feeders, location of switches, conduits and other work. The drawings and specifications are complementary to each other and what is called for by one shall be as binding as if called for by both.
- B. Data presented in these drawings are as accurate as preliminary surveys and planning can determine, but accuracy is not guaranteed, and field verification of all dimensions are directed.
- C. The specifications and drawings are for guidance, but the exact locations, distances and levels will be governed by actual field conditions. Deviation from the design is not permitted unless approved by the Architect.

- D. Electrical Contractor shall also review architectural, plumbing and mechanical trade drawings to pick up any equipment not shown on his drawings as well as to adjust his work to conform to all conditions shown thereon.
- E. Discrepancies shown on different plans or between drawings and actual field conditions or between plans and specifications shall be promptly brought to the attention of the Architect prior to submitting bid. These drawings may be superseded by later addenda or revisions as required by the construction and/or discrepancies, and the Contractor shall conform to all reasonable changes without extra cost to the Owner or Architect.

1.36 MOTOR STARTERS AND DISCONNECT SWITCHES

- A. Motor Starters and Disconnect Switches required for equipment furnished by other contractor's such as mechanical equipment shall be furnished by the contractor supplying the equipment and installed by the electrical contractor.

END OF SECTION

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SECTION 26 0923

LIGHTING CONTROL DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A Standalone daylight-harvesting switching and dimming controls.
- B Indoor occupancy and vacancy sensors.
- C Switchbox-mounted occupancy sensors.
- D Power interfaces.

1.02 RELATED SECTIONS

- A Section 26 0000 – Electrical.

1.03 ADMINISTRATIVE REQUIREMENTS

- A Coordinate placement of daylight and occupancy sensors to achieve optimum performance. Proper sensor placement should be coordinated with others in order to avoid obstructions that would interfere with maintaining prescribed light levels.
- B Coordinate the work to provide luminaires and lamps that are compatible with the lighting controls to be installed.
- C Notify architect of any conflicts or deviations from the contract documents to obtain direction prior to proceeding with work.

1.04 SUBMITTALS

- A Comply with Submittal Procedures under provisions of Division 1.
- B Product Datasheets (general device descriptions, dimensions, electrical specifications, wiring details, nomenclature).
- C Riser Diagrams – typical per room type (detailed drawings showing device interconnectivity of devices).
- D Other Diagrams – as needed for special operation or interaction with other system(s).

1.05 PROJECT CLOSEOUT DOCUMENTATION

- A Provide a factory published operation and maintenance manual for each type of lighting control device.
 - 1. Warranty
 - 2. Technical support contact
 - 3. Electronic manual on manufacturer's website for free download

1.06 QUALITY ASSURANCE

- A Manufacturer: Minimum 10 years of experience designing and assembling architectural lighting controls.
- B All devices are 100% factory function tested prior to delivery.
- C Compliant with the requirements of NFPA 70.
- D All power components UL listed for required loads.

1.07 DELIVERY, STORAGE AND HANDLING

- A Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B Store materials in a clean dry area in accordance with manufacturer's instructions.

1.08 ENVIRONMENTAL REQUIREMENTS

- A Only install equipment after the following site conditions are maintained:
 - 1. Ambient Temperature 14 to 105 degrees F (-10 to 40 degrees C).
 - 2. Relative Humidity less than 90% non-condensing.
- B Standard electrical enclosures are permanently installed.
- C Equipment is protected from dust, debris and moisture.

1.09 WARRANTY

- A Manufacturer's Warranty: Five (5) year 100% parts replacement.

1.10 MAINTENANCE & SUSTAINABILITY

- A Provide new parts, upgrades, and/or replacements available for a minimum of 5 years available to the end user.
- B Provide free telephone technical support.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A Source Limitations for Products: Obtain products from single source from single manufacturer.
- B Basis of Design: Subject to compliance with requirements provide Sensorswitch by Acuity Brands, One Lithonia Way, Conyers GA 30012.

C Substitutions: Not Permitted:

1. Request for substitutions must be submitted in writing for approval at least 14 days prior to bid date.
2. Proposed substitute products must be documented with a line by line compliance review.

2.02 GENERAL

- A Provide system hardware that is designed, tested, manufactured, warranted by a single manufacturer.
- B Operational Life: At least 10 years expected life while operating within the specified ambient temperature and humidity range.
- C Power Failure Memory: automatically store system settings and recover from a power failure without requiring user input.
- D Wireless devices:
1. Automatically sync for system operation without addressing
 2. Send and receive messages for real-time operation and feedback
 3. Use industry standard RF protocols
 4. Be in compliance with FCC and IEE standards

2.03 OCCUPANCY DETECTION TECHNOLOGY REQUIREMENTS

- A The occupancy sensor system shall sense the presence of human activity within the desired space and fully control the on/off function of the lights.
- B Sensors shall utilize passive infrared (PIR) technology, which detects occupant motion, to initially turn lights on from an off state; thus preventing false on conditions. Ultrasonic or Microwave based sensing technologies shall not be accepted.
- C For applications where a second method of sensing is necessary to adequately detect maintained occupancy (such as in rooms with obstructions), a sensor with an additional "dual" technology shall be used.
- D Dual technology sensors shall have one of its two technologies not require motion to detect occupancy. Acceptable dual technology includes PIR/Microphonics (also known as Passive Dual Technology or PDT) which both looks for occupant motion and listens for sounds indicating occupants. Sensors where both technologies detect nothing (PIR/Ultrasonic) shall not be acceptable.
- E All sensing technologies shall be acoustically passive meaning they do not transmit sound waves of any frequency (for example in the Ultrasonic range), as these technologies have the potential for interference with other electronic devices within the space (such as electronic white board readers). Acceptable detection technologies include Passive Infrared (PIR), and/or Microphonics technology. Ultrasonic or Microwave based sensing technologies shall not be accepted.

2.04 OCCUPANCY SENSOR OPERATION REQUIREMENTS

- A Sensors shall offer a minimum on timer of at least 15 minutes, in order to prevent all cycling of lamps before they have burned for the lamp manufacturers minimum recommended time period. This timer shall be in addition to the regular occupancy time delay that keeps lights on after last detected occupancy. User shall be able to disable/enable and change the value of this timer.
- B Sensors shall utilize an occupancy time delay that keeps lights on after last detected occupancy. Factory default setting of the occupancy time delay shall be 10 minutes. Sensors with a longer factory default setting shall not be permitted as they greatly restrict energy savings potential.
- C Manual adjustment to the occupancy time delay so as to increase it shall be accommodated, but shall not be allowed unless a calculation showing the resulting energy savings loss is presented to the building owner and specifying engineer.
- D Automatic adjustments to the occupancy time delay shall only be permitted if the controlling algorithm maximizes both lamp life and energy savings. For example a shorter more energy saving time delay setting shall only be allowed if the resulting lamp life is also improved.
- E Installer, in accordance with manufacturer's recommendation, shall determine final sensor location. All sensors shall be factory calibrated for optimum performance for its installed PIR lens, and shall not require initial or subsequent field adjustment of detection sensitivity.
- F All sensor setting adjustments shall be digital and made using a push-button. Dip switches, analog dials, and/or the need for tools of any kind shall not be accepted.
- G The installing contractor shall be responsible for a complete and functional system in accordance with all applicable local and national codes.

2.05 WALL SWITCH OCCUPANCY SENSORS – SMALL AREAS

- A Sensor shall provide wall-to-wall PIR detection such that small hand motions are detected out to 20 ft (6.10 m).
- B In areas with periodic or permanent obstruction to a sensor's field of view, sensors that utilize dual technology (PIR/Microphonics) detection shall be used (as specified in above section 1.1, Occupancy Sensor Technology Requirements).
- C For applications requiring independent control of two loads, a sensor with two dual relays and dual override switches shall be required. Each relay shall have independent programmable occupancy time delays.
- D Sensors shall be capable of switching both 120 VAC and 277 VAC and run off of 50/60 Hz power. A version capable of switching 347 VAC shall also be available. Load ratings shall be 800 W @ 120 VAC, 1200 W @ 277 VAC, 1500 W @ 347 VAC, and ¼ HP motor load.
- E Sensor shall recess into single gang switch box and fit a standard GFI opening.

- F Sensor shall meet NEC grounding requirements by providing a dedicated ground connection and intrinsically grounding through its mounting strap.
- G Line and load wire connections shall be interchangeable, such that installer cannot make an improper connection to a line/load in a manner that will cause malfunction or damage to the sensor.
- H Sensor shall not require a neutral connection regardless of number of poles and/or detection technology (only exception is versions with lighted push-buttons).
- I Sensor shall not allow any leakage of current to pass to the load when sensor is in the unoccupied (off) condition. Sensor shall not require a minimum load to be connected in order to function.
- J Sensor shall have optional features for photocell/daylight override, vandal resistant lens, low temperature/high humidity operation.
- K All sensor settings, including time delay and photocell settings shall be digital and accessible for adjustment via a push-button without requiring removal of cover plate or tools of any kind.
- L Wall Switch sensors shall have field programmable adjustments for selecting operational modes, occupancy time delays, minimum on time, and photocell set-point as applicable.
- M All models shall be capable of both Auto-On and Manual On operation.
- N All models shall be capable of a "Reduced Turn On" operation where the initial PIR turn on level is higher in order to eliminate PIR from reflective surfaces from being detected. PIR shall be returned to normal levels upon initial PIR detection.
- O All models shall have a "Predictive Off" mode where user can manually turn the lights off when leaving the room and still have them come on automatically when they return to space.
- P All models shall be capable of disabling override switch.

2.06 WALL SWITCH OCCUPANCY SENSORS – LARGE AREAS

- A Sensor shall provide wall-to-wall PIR detection such that small hand motions are detected out to 40 ft (12.19 m).
- B In areas with periodic or permanent obstruction to a sensor's field of view, sensors that utilize dual technology (PIR/Microphonics) detection shall be used (as specified in above section 1.1, Occupancy Sensor Technology Requirements).
- C For applications requiring independent control of two loads, a sensor with two dual relays and dual override switches shall be required. Each relay shall have independent programmable occupancy time delays.

- D Sensors shall be capable of switching both 120 VAC and 277 VAC and run off of 50/60 Hz. A version capable of switching 347 VAC shall also be available. Load ratings shall be 13A each pole, ¼ HP motor load.
- E Sensor shall meet NEC grounding requirements by providing a dedicated ground connection and intrinsically grounding through its mounting strap.
- F Line and load wire connections shall be interchangeable, such that installer cannot make an improper connection to a line/load in a manner that will cause malfunction or damage to the sensor.
- G Sensor shall not require a neutral connection regardless of number of poles and/or detection technology.
- H Sensor shall not allow any leakage of current to pass to the load when sensor is in the unoccupied (Off) condition. Sensor shall not require a minimum load to be connected in order to function.

2.07 LOW VOLTAGE OCCUPANCY SENSORS

- A The installing contractor shall install one or more sensors with PIR coverage areas that cover the entire space and all entrance points. Exact placement and quantity required shall be per manufacturer's best practice recommendations.
- B In areas with periodic or permanent obstruction to a sensor's field of view, sensors that utilize dual technology (PIR/Microphonics) detection shall be used (as specified in above section 1.1, Occupancy Sensor Technology Requirements).
- C Sensors shall utilize a digital PIR detector (dual element pyro-electric detector) component, so as to provide a high degree of RF immunity.
- D Sensors shall interconnect with other sensors and power/relay packs with class 2, three-conductor wire.
- E Sensors shall operate on 12 to 24 VAC or VDC and consume no more than 5 mA so that up to 14 sensors may be connected to a single power pack.
- F Upon initial power up, sensors must immediately turn on. Power packs may be wired on the line or load side of local switching and must not exhibit any delays when switch is energized.
- G Each designated zone shall contain one sensor with a SPDT class 2 auxiliary relay, providing an input to building automation system (BAS). All sensors in designated zone shall communicate to sensor with relay for status to BAS. Sensor relay coil shall energize in the unoccupied state to load share the low voltage current from power pack. Note that power pack must be installed on the Line side of the local toggle switch for auxiliary relay to work properly.

- H Sensors shall have test mode that temporarily shortens/disable all time delays (e.g., minimum on, occupancy, photocell transition, dimming rates) such that an installer can quickly test operation of sensor. Test mode shall time out and return sensor to normal operation should the installer forget to disable test mode after installation.
- I Sensors shall have optional features for on/off photocell control, automatic dimming control photocell, high/low occupancy based dimming, and usage in low temperature/high humidity environments.

2.08 POWER PACKS

- A Power packs shall accept and switch 120 or 277 VAC, be plenum rated, and provide class 2 power for up to 14 remote sensors.
- B Power pack shall securely mount to junction location through a threaded ½ inch chase nipple. Plastic clips into junction box shall not be accepted. All class 1 wiring shall pass through chase nipple into adjacent junction box without any exposure of wire leads. Note: UL Listing under Energy Management or Industrial Control Equipment automatically meets this requirement, whereas Appliance Control Listing does not meet this safety requirement.
- C When required by local code, power pack must install inside standard electrical enclosure and provide UL recognized support to junction box. All class 1 wiring is to pass through chase nipple into adjacent junction box without any exposure of wire leads.
- D Power pack shall incorporate a Class 1 relay and an AC electronic switching device. The AC electronic switching device shall make and break the load, while the relay shall carry the current in the on condition. This system shall provide full 20 Amp switching of all load types, and be rated for 400,000 cycles.
- E Power packs shall be single circuit, or two circuits. Slave packs may be used to control additional circuits. When two circuit power packs, or slave packs are used, the power packs must be wired directly to circuit breaker. Otherwise, power packs may be wired on the line or load side of the local switch.

2.09 LINE VOLTAGE OCCUPANCY SENSORS

- A Sensors shall be self-contained and accept Class 1 wiring directly without the use of a power pack.
- B The installing contractor shall install one or more sensors with PIR coverage areas that cover the entire space and all entrance points. Exact placement and quantity required shall be per manufacturer's best practice recommendations.
- C In areas with periodic or permanent obstruction to a sensor's field of view, sensors that utilize dual technology (PIR/Microphonics) detection shall be used (as specified in above section 1.1, Occupancy Sensor Technology Requirements).
- D Sensors shall utilize a digital PIR detector (dual element pyro-electric detector) component, so as to provide a high degree of RF immunity.

- E Line and load wire connections shall be interchangeable, such that installer cannot make an improper connection to a line/load in a manner that will cause malfunction or damage to the sensor.
- F Multiple sensors controlling the same load shall be wired in parallel.
- G For applications requiring independent control of two loads, a sensor with two dual relays shall be required. Each relay shall have independent programmable occupancy time delays.
- H Dual relay sensors shall have an optional operational mode called "Alternating On" where when during unoccupied periods, one relay is always left closed (thus one load is always on). The particular relay that is left closed alternates each cycle so that the aging of the connected lamps is even.
- I Sensors shall be capable of switching both 120 VAC and 277 VAC and run off of 50/60 Hz power. A version capable of switching 347 VAC shall also be available. Load ratings shall be 800 W @ 120 VAC, 1200 W @ 277 VAC, 1500 W @ 347 VAC, and ¼ HP motor load.
- J Specific sensors capable of switching 5 Amps of two phase power (208/240 or 480 VAC) shall be available. These sensors shall always simultaneously switch both phases as per NEC guidelines.
- K Wall mounted sensors must be installed at 7 to 8 feet above the floor. Single and two circuit units shall be available.
- L High bay sensors controlling HID Bi-Level must incorporate a "Start to High" timer on initial power up to provide full light output for up to 20 minutes to prevent shortened lamp life.
- M Sensors shall have test mode that temporarily shortens/disable all time delays (e.g., minimum on, occupancy, photocell transition, dimming rates) such that an installer can quickly test operation of sensor. Test mode shall time out and return sensor to normal operation should the installer forget to disable test mode after installation.
- N Sensors shall have optional features for on/off photocell control, automatic dimming control photocell, high/low occupancy based dimming, and usage in low temperature/high humidity environments.

PART 3 EXECUTION

3.01 EXAMINATION

- A Examine lighting control devices before installation. Reject lighting control devices that are wet, moisture damaged, or mold damaged.
- B Examine walls and ceilings for suitable conditions where lighting control devices will be installed.
- C Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A Follow manufacturer's instructions for all installation steps.
- B Comply with NECA 1.
- C Coordinate layout and installation of ceiling-mounted devices with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, smoke detectors, fire-suppression systems, and partition assemblies.
- D Install and aim sensors in locations to achieve not less than 90-percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.
- E Provide a complete installation per Contract Documents.

3.03 WIRING INSTALLATION

- A Comply with NECA 1.
- B Comply with Section 260000 "Electrical." Minimum conduit size is 1/2 inch (13 mm).
- C Wiring within Enclosures: Comply with NECA 1. Separate power-limited and nonpower-limited conductors according to conductor manufacturer's written instructions.
- D Size conductors according to lighting control device manufacturer's written instructions unless otherwise indicated.

3.04 FIELD QUALITY CONTROL

- A Perform the following tests and inspections:
 - 1. Operational Test: After installing time switches and sensors, and after electrical circuitry has been energized, start units to confirm proper unit operation.
 - 2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - 3. Lighting control devices will be considered defective if they do not pass tests and inspections.

3.05 ADJUSTING

- A Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting lighting control devices to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.
- B For occupancy and motion sensors, verify operation at outer limits of detector range. Set time delay to suit Owner's operations.

- C For daylighting controls, adjust set points and deadband controls to suit Owner's operations.

3.06 DEMONSTRATION

- A Coordinate demonstration of products specified in this Section with demonstration requirements for low-voltage, programmable lighting control systems specified in Section 260943.
- B Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain lighting control devices.

END OF SECTION

SECTION 26 3613

MANUAL TRANSFER SWITCH – GENERATOR DOCKING STATION

1.01 WORK INCLUDED

- A. This specification is designed to govern the furnishings and complete installation ready for satisfactory service, of all material and apparatus necessary to complete the Manual Transfer Switch – Generator Docking Station Installation indicated on the drawings and as described hereinafter.
- B. Manual Transfer Switch Generator Docking Station- ASCO model: 300MTQ Manual Transfer Switch with quick connects, solid neutral, 3 phase poles, rated 800 amps, 480 volt. Furnished with strip heater with thermostat, option 135L Digital Power Meter, option 170 auxiliary contacts, LED annunciator and I/O module, two wire engine start, Floor Mounted, 3RX secure Stainless Steel enclosure.

1.02 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- C. ICC-ES AC156 - Acceptance Criteria for Seismic Certification by Shake-Table Testing of Nonstructural Components; 2010, with Editorial Revision (2015).
- D. ISO 9001 - Quality Management Systems — Requirements; 2015.
- E. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2015.
- F. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- G. NFPA 99 - Health Care Facilities Code; 2021, with Amendment.
- H. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations; Current Edition, Including All Revisions.
- I. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations; Current Edition, Including All Revisions.
- J. UL 891 - Switchboards; Current Edition, Including All Revisions.
- K. UL 1008 - Transfer Switch Equipment; Current Edition, Including All Revisions.
- L. UL 1449 - Standard for Surge Protective Devices; Current Edition, Including All Revisions.

1.03 SUBMITTALS

- A. Submit shop drawings and product data for the Manual Transfer Switch (Docking Station) per Division I requirements. Shop drawings to include dimensioned plan views and sections indicating locations of system components, required clearances, and field connection locations. Include system interconnection schematic diagrams showing factory and field connections and sequence of operation.
- B. Submit Close-Out Documents per Division I requirements.

- C. Operational Readiness Report
1. Document test results, including assumptions, conditions, allowances, and corrections made.
 2. Provide listing of field modifications and adjustments made including settings/parameters not identified as factory defaults within equipment's operations and maintenance manual documentation.
 3. Include certification, signed by Contractor and manufacturer's representative that equipment and associated system have been installed, configured, and tested in accordance with manufacturer's recommendations, conforms to requirements of Contract Documents, and is ready for operation
- D. Maintenance Materials and Spare Parts: Furnish three (3) copies of the following for Owner's use in maintenance of project:
1. See Section 016000 - Product Requirements for additional provisions.
 2. Spare Parts: For each type and size of unit installed.
 3. Provide minimum spare parts recommended by manufacturer.
 4. Identify the following:
 5. Contact information for closest parts stocking location to the Owner.
 6. Critical spare parts associated with long lead times and/or critical to unit's operation.
 7. Maintenance spares required to regularly perform scheduled maintenance, including but not limited to, consumable spares that are required to be exchanged during scheduled maintenance periods.
 8. Fuses: One set of each type of power and control fuse installed within equipment.
 9. Package and mark spare parts for long-term storage. Provide separate anti-static containers for printed circuit boards.
 10. Tools: Provide manufacturer-specific special tools required to install, remove, test, and maintain transfer switch components.
- E. Warranty: Provide manufacturer warranty for defects in material and workmanship for 60 months from date of shipment. Complete forms in Owner's name and register with manufacturer.

1.04 MANUAL TRANSFER SWITCH (DOCKING STATION)

- A. MANUFACTURERS
1. Schneider Electric; ASCO 300 Series; www.ascopower.com
 2. Substitutions: not permitted unless approved in advance by architect in accordance with procedure described elsewhere herein.
 3. Basis of Design: Schneider Electric; ASCO 300 Series; Catalog # H 03MTQ A 3 800 N OX S with above stated accessories.
www.ascopower.com.
 4. Description: Transfer switches consisting of three-position, center-off mechanically held power transfer switch unit for manual operation.
 5. Double-throw safety switches or other equipment not specifically designed for power transfer applications will not be accepted.
 6. Status Indication: Provide yellow mechanical position indicators visible to operator for SOURCE 1 Generator, SOURCE 2 alternate, and CENTER OFF.
 7. List and label as complying with UL 1008 and, for systems with integrated circuit breakers, UL 891.

8. Transfer Switch Ratings/Configurations: 800 amp, Generator Docking Station.
9. Manual Transfer Switch:
 - a. Frame: 800 A to 1,200 A.
 - b. Configuration: Manual transfer switch with quick connects.
 - c. Neutral Configuration: Solid neutral.
 - d. Phase Poles: Three.
 - e. Ampere Rating: 800 amps.
 - f. Voltage: 480V.
 - g. Enclosure: Type 3RX secure, 316 stainless steel.
 - h. Provide the following accessories:
 - i. Strip heater with thermostat.
 - ii. Surge protection device.
 - iii. User interface/annunciation bundle.
10. Transfer Switch Construction:
 - a. Mechanically interlocked to allow only one of three possible positions:
 - i. Connected to SOURCE 1 (preferred) Label "Generator".
 - ii. Connected to SOURCE 2 (alternate). Label "Temporary Source".
 - iii. CENTER OFF (disconnected position).
 - b. Provide capability to pad-lock switch when connected to SOURCE 1 or SOURCE 2.
 - c. Main Contacts: Silver composition.
 - d. Switches: Provide segmented, blow-on construction for high withstand and close-on capability, protected by separate arcing contacts.
 - e. Designed to allow inspection of contacts from front without disassembly of operating linkages and disconnection of power conductors.
 - f. Devices utilizing components of molded-case circuit breakers, contactors, or parts thereof, which are not intended for continuous duty, repetitive switching or transfer between two active power sources are not acceptable.
 - g. Manual Operating Handle: Capable of external operation without opening enclosure door.
 - h. Provide same contact-to-contact speed as automatic operation.
11. Withstand and Closing Ratings: Rate to close on and withstand available RMS symmetrical short circuit current at terminals with overcurrent protection indicated.
12. Quick Connects:
 - a. Provide 16 Series camlock single-pole connectors.
 - b. Color Code:
 - i. Phases, 480 V: Brown, orange, and yellow.
 - ii. Neutral: White.
 - iii. Ground: Green.
13. Neutral Configuration: Solid Neutral: Provide neutral conductor plate with fully rated AL-CU pressure connectors.
14. Endurance Ratings: 3,000 cycles.
15. Enclosures:
 - a. Construction: Stainless Steel.
 - b. Mounting: Free-standing, floor-mounted.

- c. Comply with UL 50. UL 50E Rating, Unless Otherwise Indicated: Provide nameplate with drawing numbers and serviceable part numbers to facilitate maintenance.
- 16. Status Indication: Provide yellow mechanical position indicators visible to operator for SOURCE 1 Generator, SOURCE 2 alternate, and CENTER OFF.
- 17. Enclosure Heater: Provide thermostat and terminal block and connect to Panel PPEM-PH.
- 18. Surge Protective Device:
 - a. Listed as complying with UL 1449.
 - b. Surge Current Rating: 100 kA per mode, 200 kA per phase.
 - c. Provide individually matched fused metal oxide varistors (MOVs).
 - d. Provide LED status indication of normal operation, under voltage, power loss, phase loss, and component failure.
 - e. Provide From C dry contacts for external alarm/monitoring.
- 19. User Interface/Annunciation Bundle:
 - a. Provide LED indicators for SOURCE 1 (preferred) and SOURCE 2 (alternate).
 - b. Provide auxiliary position indicating contacts, rated 10 A, 250 VAC - one closed when connected to SOURCE 1 and one closed when connected to SOURCE 2.
 - c. Provide Form A contact to indicate switch in CENTER OFF position.
 - d. Provide Form A contact to indicate Source 1 (preferred) in closed position and one Form A contact to indicate switch in Source 2 (alternate) position.
 - e. Provide keyed maintained engine start switch/output with common alarm input/LED/contact.
 - f. Provide phase rotation monitor.
 - g. Provide I/O module.

1.05 EXAMINATION

- A. Examine equipment exterior and interior for damage, including but not limited to, structure, moisture, and mildew.
- B. Examine for conditions detrimental to completion of work.
- C. Do not proceed with work until unsatisfactory conditions have been corrected.

1.06 INSTALLATION

- A. Install equipment in accordance with manufacturer's written instructions.
- B. Install transfer switches in accordance with NECA 1.
- C. Install and anchor floor-mounted transfer switches on raised concrete pad.
- D. All fasteners and mounting hardware shall be stainless Steel 316.

1.07 FIELD QUALITY CONTROL

- A. Manufacturer Services: Provide services of manufacturer's field representative to perform functional testing, commissioning, and first parameter adjusting.
 - 1. Include necessary material, equipment, labor, and technical supervision.
 - 2. Replace damaged or malfunctioning equipment and report discrepancies or installation issues.
 - 3. Identify transfer switches with label indicating inspection/testing agency and date of service.
- B. Operational Readiness Testing: Inspect and test equipment and associated systems for conformance to Contract Documents, including equipment manufacturer's recommendations, and readiness for operation.
 - 1. Visually inspect for physical damage and proper installation.
 - 2. Perform tests in accordance with manufacturer's instructions.
 - 3. Perform tests to verify compliance with Contract Documents.
 - 4. Perform tests to verify equipment is ready for operation.
 - 5. Touch-up paint chips and scratches with manufacturer-supplied paint.
- C. Correct deficiencies and replace damaged or defective transfer switches or associated components.

1.08 PROTECTION

- A. Protect installed transfer switches from subsequent construction operations.

1.09 SIGNAGE

- A. Provide permanent weather-proof warning sign: Danger High Voltage.
- B. Provide permanent sign: Danger; For access contact Building Superintendent or HVAC Manager.
- C. Provide permanent sign: Warning – tampering with this device may be a violation of Federal Law.
- D. Provide Permanent Engraved Bakelite or Plastic label identifying device voltage and fuse size. Specific size and Lettering approved by project architect.

END OF SECTION

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SECTION 27 2100

DATA AND VOICE INFRASTRUCTURE WIRING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Data Infrastructure.
- B. Voice Infrastructure.
- C. All network electronics shall be by the owner.

1.02 SYSTEM DESCRIPTION

- A. The structured data and voice cabling system will support three systems, voice, video, and data. All systems will be star wired.
 - 1. Data and Voice Infrastructure:
 - a. The data and voice cabling will consist of one - 6 strand 62.5/125 MM fiber cable plenum rated from the MDF to each of the IDF. This will be the backbone cable for the data network. Each data/voice jack will have two CAT 6A Plenum Rated UTP cable installed from each jack location to the associated MDF or IDF as per the matrix, unless called for otherwise on the drawings.

1.03 PERFORMANCE

- A. The copper data and voice infrastructure will be CAT6A and capable of 10,000 mbps and will be tested and verified at 500 Mhz.

1.04 WARRANTY

- A. Furnish a copy of the warranty together with the operating instructions and maintenance data for the complete system. Warranty period for all labor and materials (by a single manufacturer) shall be fifteen (15) years from date of acceptance.
- B. System defects and failures occurring during the warranty period are to be corrected and repaired within a reasonable time after notification of such defects and failures.
- C. If the work of this Contract causes equipment manufacturers warranties to become void, this Contractor shall assume the responsibility for all manufacturers' warranties and all materials and labor to remove, replace, and reconnect this equipment for the term established by the manufacturer's warranties.

1.05 SUBMITTALS

- A. Submit shop drawings and product data under provisions of Division 1.

- B. Submit complete floor plans indicating all devices and wiring.
- C. Submit shop drawings, product data, manufacturer's installation instructions, instrumentation list, and all system Rough-In drawings.
- D. Shop drawings and product data to include:
 - 1. A complete list of materials with model and part numbers and reference to the specification paragraph number.
- E. A complete set of detailed manufacturers specifications describing and illustrating standard and special components and materials.
- F. A complete set of drawings of special items.
- G. A single line block diagram showing exactly the manner in which the contractor proposes to engineer the system.
- H. Illustrations and scale drawing of the equipment rack and special cabinets.
 - 1. Drawings shall include designations, dimensions, etc.
- I. Manufacturer's Instructions
 - 1. Indicate application conditions and limitations of use stipulated by the product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and maintenance of the product.
 - 2. Submit a list of the instrumentation currently possessed by the Contractor that is required for system test measurements.
- J. Samples
 - 1. Submit samples of proposed material and equipment substitutions when requested by the Owner. All Samples will be returned to the Contractor not later than the project completion date.
 - 2. The contractor shall show proof that he is a factory authorized distributor of the submitted equipment and in general meets all of the requirements.
- K. Submit manufacturer's installation instructions under provisions of Division 1.
- L. Submit manufacturer's certificate under provisions of Division 1 that system meets or exceeds specified requirements.
- M. A letter from the manufacturer stating that the bidder is an authorized distributor for the system bid upon.
- N. The owner may request that the bidder demonstrate that all the equipment submitted performs as specified.

1.06 PROJECT RECORD DRAWINGS

- A. Submit documents under the provisions of Division 1.

- B. All Rough-In drawings to be revised to "As-Built" status at the project completion. Submit three (3) complete sets of prints, one (1) set of reproducible Mylar sepias, and all files on AutoCAD, Release 13 or 14. Drawings are to show:
 - 1. All changes to the Contract Documents.
 - 2. Actual locations of all equipment, pull boxes, terminal cabinets, terminations, and wiring.
 - 3. Tag numbers of all of the cables.
 - 4. A matrix for the MDF and the IDF indicating the room number and for each outlet an identifying number or code that is unique to all other outlets throughout the system.
 - 5. Cabling schematic of each closet.
- C. Provide verification, signed by the Owner's designated representative, stating that instruction periods have been completed and system manuals have been received.

1.07 REGULATORY REQUIREMENTS

- A. All work shall conform to or exceed the minimum requirements of the current state amendments, and all federal, state, local municipal codes and ordinances. This Contractor shall comply with the directors of all properly appointed authorities having jurisdiction.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purposes specified and shown.

1.08 EQUIPMENT AND MATERIALS

- A. All equipment and materials are to be new and of modern design.
- B. If any specified equipment model number is obsolete or superseded, provide the newest equivalent model.
- C. All equipment shall conform to appropriate UL/CSA listings.

1.09 OPERATION AND MAINTENANCE DATA

- A. Submit data under provisions of Division 1.
- B. Include operating instructions, maintenance, and repair procedures.
- C. Include manufacturer representatives letter stating that system is operational.
- D. Submit operation and maintenance requirements data.
- E. Refer to "OPERATION, MAINTENANCE, SET-UP, AND TEST DATA MANUALS," for further instructions on the quantities and the format of this data.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Division 1.
- B. Store and protect products under provisions of Division 1.
- C. Protect the equipment during storage according to the manufacturer's instructions. All material shall be protected from damage, and stored indoors at all times, unless other storage arrangements are approved by the Owner. This Contractor shall keep materials stored in such manner so as not to interface with the process of the work of other Contractors or with the operation of existing facilities.

1.11 SUBSTITUTIONS

- A. The structural cabling system shall be provided and installed by a competent, experienced contractor. Products shall be provided in a proper manner such that manufacturer's warranties and factory support remain intact and in force.
- B. Substitutions are strongly discouraged, except in instances where strictly, literally equal products exist.
- C. In order to permit quotations by qualified bidders who might lack access to a particular specified product, certain substitution offered as literal equal may be acceptable.
- D. The Architect/Engineer, or Owner shall be the sole judge of equivalence. The Architect/Engineer reserves the right to delegate evaluations of equivalence to an outside consultant.
- E. All proposed substitutions shall be submitted in accordance with specifications. Each proposed substitution shall be supported by complete technical substitutes with the bid submittal shall bind the bidder to provide the specified equipment. Bidder offering a substitute product accepts responsibility for any additional engineering or design work necessitated by the substitution.
- F. Equipment and materials of manufacturers other than those specified may be furnished only by permission of the owner. Request for such permission must be submitted in writing to the Owner at least ten (10) days prior to the bid date. The request must include complete descriptive literature of the equipment and materials showing laboratory measured data proving equivalence of quality, performance as well as the location of five installed systems with all of the specified features.
- G. Equipment and materials of other manufacturers will be considered only if judged by the Owner to be equal to or superior to specified items in all respects as to quality, performance, and comparability with the system presently in place. Features, functions, and performance of equipment and materials of other manufacturers are to be equal to or better than that of specified equipment.
- H. The Owner reserves the sole right for the approval of proposed material or equipment.

1.12 QUALIFICATIONS

- A. Company specializing in performing the work of this section and approved by the manufacturer.

- B. Maintain a service department and stock sufficient replacement parts and equipment to provide the specified warranty service.
- C. Demonstrate proof of after-hours service arrangements and provide the telephone number being used for such service. Contractor shall provide warranty service during normal business hours, but shall also demonstrate full capability of providing 24-hour local service for emergency calls, after hours. After hours emergency service shall be charged at the Contractor's standard published service rate.
- D. The authorized distributor of equipment supplied.
- E. BICSI certified installer.

PART 2 - PRODUCTS

DESCRIPTION OF COMPONENTS

2.01 DATA AND VOICE INFRASTRUCTURE

A. Data and Voice Cable:

1. The data and voice cable will be plenum rated 4 pair 24 gauge CAT 6A UTP cable – Berk-Tek LANmark-XTP or equal by, Belden, CommScope, or other preapproved manufacture. Phone cables shall be yellow in color and data cables shall be blue in color unless otherwise specified by owner.

B. Patch Panels

1. The patch panels will be 24 or 48 port CAT 6A RJ45 to 110 IDC wired 568B by Leviton 6A586-U24 or 6A586-U48 or equal by AMP, Hubbell, KRONE, Panduit, or other pre-approved manufacture. All Category 6A patch panels shall support 10,000 Mbps and verified at 500 MHz ANSI/TIA-568-C.2

C. Data and Voice Jacks

1. The CAT 6A jacks will be modular Panduit RJ45, 8 position, 8 wire, 10GB/s UTP Mini-Com universal jack. All data jacks are required for 10 Gigabit Ethernet (10 Gigabit) transmission. Data jacks will be red in color voice jacks will be ivory in color.

D. Faceplates:

1. The faceplates will be modular Panduit mini-com executive series flush mounted faceplates with the necessary number of openings for the application. Faceplates shall be ivory in color.

I. MDF/IDF Cabinets

1. The MDF/IDF cabinets will be provided by the Owner.

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform this work in accordance with acknowledged industry and professional standards and practices, and the procedures specified herein.

- B. Furnish and install all materials, devices, components, and equipment for a complete, operational system.
- C. Maintain a competent supervisory and supporting technical personnel during the entire installation. Change of the supervisor during the project shall not be acceptable without prior written approval from the Owner.

3.02 INSTALLING CONTRACTOR/PERSONNEL

- A. This system is to be installed only by contractors and/or personnel authorized to do so by the manufacturer of the equipment being provided.
- B. The installing contractor must have a minimum of five (5) years experience in audio/visual systems and telecommunications systems. Installing contractor for the fiber optic cable and terminations must have three years previous experience. Upon request, the owner, or the owners agent, may request the contractor supply project references which substantiate the above experience.
- C. All system equipment installations and tests are to be made by workmen skilled in the specific trade.
- D. Submit to the Owner, a list of a minimum of five (5) systems with all features specified, as installed by the contractor.

3.03 INSTALLATION OF THE SYSTEM

- A. Obtain and pay for all permits and inspections required by all legal authorities and agencies having jurisdiction for the work. This shall be a part of the work of the contractor performing the work requiring the permit or inspection.
- B. Provide and make connections to all the specified system equipment unless indicated otherwise in the Contract Documents.
- C. Install all of the equipment in accordance with manufacturer's instructions. The written specifications shall take precedence over the project drawings in all instances. This does not alleviate the contractor from the responsibility of meeting other portions of the specifications.
- D. Install all of the equipment in the locations and mounting heights as indicated in the Contract Documents.
- E. Securely mount equipment plumb and square in place. Where equipment is installed in cabinets, provide mounting bolts in all equipment fastening holes.
- F. The omission of express reference to any parts necessary for, or reasonably incidental to, a complete installation shall not be construed as a release from furnishing such parts. No exclusion from, or limitations in, the language used in the drawings or specifications shall be interpreted as meaning that the accessories necessary to complete any required system or item of equipment are to be omitted.
- G. Device Locations
 - 1. Locate all of the apparatus requiring adjustments, cleaning, or similar attention so that it is accessible for such attention. Equipment racks shall be positioned

to permit full access for operation and service. All jacks will be located as shown on prints.

H. Supports

1. Furnish and install brackets, braces, and supports as required. Minimum fastening and/or support safety factor shall be at least three (3). Design shall be as approved by the Architect.
2. All copper cabling will be supported by bridle rings not more than four (4) feet apart. All fiber cabling will be installed in innerduct that will be supported every five feet.

I. Cable

1. All CAT 6A cable will be installed in accordance with EIA/TIA 568A standards. Each jack will have one cable installed to the associated wiring closet. These cables will not exceed 100 meters in length and all four pairs will be terminated on each end. Cable is required to run parallel to existing building and structure.

J. Sleeves:

1. Provide sleeves through all wall and floor penetrations as required. Sleeves shall be conduit with bushings.

K. Cabinets

1. All cabinets will be securely fastened and will be grounded in accordance with EIA/TIA 569.

L. Wire Management

1. All cabinets will have wire management installed above and below each patch panel, unless the patch panel has wire management as an integral part of the assembly.

M. Painting

1. All supporting structures and enclosures supplied by this Contractor not having a standard factory paint finish shall be painted. Paint shall be as approved by the Owner.

N. Paint Color

1. Provide, as may be required, custom color and/or finish for any of the equipment or materials supplied, which are exposed to public view. Color and finish of all such equipment or materials shall be approved in writing by the Owner. This excludes equipment or materials where standard colors and finishes are specified herein, unless otherwise noted.

O. Markings

1. Switches, connectors, jacks, receptacles, outlets, cables and cable terminations shall be logically and permanently marked. Custom panel

nomenclature shall be engraved, etched, or screened. Submit details of markings, type size, and placement to the Owner for approval.

P. Environment

1. The equipment specified herein is designed to operate in environments of normal indoor humidity, dust, and temperature. Protect all equipment and related wiring where extreme environmental conditions can occur.

Q. Reference Standards

1. The standard references for the layout and construction of the system shall be:
 - a. Handbook for Sound Engineers The New Audio Cyclopedia (Howard W. Sams, Indianapolis, Indiana 1987)
 - b. Sound System Engineering
Davis
Second Edition
(Howard W. Sams, Indianapolis, Indiana 1987)
 - c. Siecor Universal Transport System (UTS)
Design Guide, Siecor Corp., 1988
Brochure #CC-110
 - d. Refer to the fiber optic cable manufacturers design guide:
Also refer to the following standards committees:
 - e. ANSI: Proposed Fiber Distributed Data Interface (FDDI) Physical Media Documents.
 - f. Institute of Electrical & Engineers (IEEE)
802.5 and 802.8.
 - g. Electronic Industries Association/Telecommunications Industries Assn. (EIA/TIA) Committees
 1. All Standards
 2. R4 1.8.1: Working Group on Commercial & Industrial Building Wiring Standard
 3. FO-6: Fiber Optic Committee
 4. FO-6.7: Fiber Optic Cable Sub-committee
 5. FO-2: Fiber Optic Systems Committee
 - h. Insulated Cable Engineers Association Inc. (ICEA)
WG 596: Fiber Optic Premises Distribution Cable.
 - i. American Society for Testing Materials (ASTM):
Sub-committee DO9.18, TG-12: Task Group on Fiber Optics.
 - j. National Electrical Code (NEC) Current Edition.
 - k. National Fire Protection Association (NFPA).

2. UL Listing

- a. All material and equipment shall be listed, labeled, or certified by Underwriter's Laboratories, Inc. where such standards have been established.

3. FCC Approval

- a. The system shall be approved for direct interconnection to the utility services under Part 68 of the FCC rules and regulations. Those systems which are not FCC approved or utilize an intermediary device for connection, will not be considered. Provide the FCC registration number of the system being proposed with the submittals.

3.04 SYSTEM ADJUSTMENTS, TESTS AND MEASUREMENTS

A. General

1. Perform all equipment and system adjustments, tests and measurements as specified in the Contract Documents. Perform the specified adjustments, tests and measurements to the system specified in this section unless indicated otherwise in the Contract Documents. Testing is the sole responsibility of the Contractor.
2. Make measurements at the Contractor's facilities or the project site. Manufacturer published specification data or curves and measurements of typical models are not considered as meeting the requirement of the specifications. The system must meet all of the above specifications.
3. Owner will test all system specifications on site and will sign off final acceptance after all the system specifications are met.

B. Test Equipment

1. Provide all of the testing instruments required for the equipment and system tests. Testing apparatus as manufactured by Microtest, Wirescope, Tektronix, Laser precision, Lucent Technologies, Fotec, and Wavetek, are indicative as to type and quality of instrumentation required and acceptable for performance of the required testing. Only those instruments of recent manufacture and/or calibration are considered acceptable.
2. Provide the following testing instruments in good working order as a minimum for system adjustments and testing:
 - a. Level II compliant CAT 6A Scanner
 - b. Fiber Optic Time Domain Reflectometer
 - c. Fiber Optic Power Meter and Light Source

C. Adjustments, Tests and Measurements:

1. Test all CAT 6A cables and certify compliance with EIA/TIA for the appropriate level. Test all fiber optic strands with an OTDR and Fiber power meter/light source. Furnish test instrument generated test reports of all test as part of the maintenance manuals.

3.05 VERIFICATION TEST REPORT

- A. Submit a written report detailing the results of the initial adjustments and verification tests including all of the relevant drawings, charts, and photographs. This report shall be completed and submitted for review at least five (5) days prior to acceptance testing.

3.06 FINAL TESTING AND DEMONSTRATION

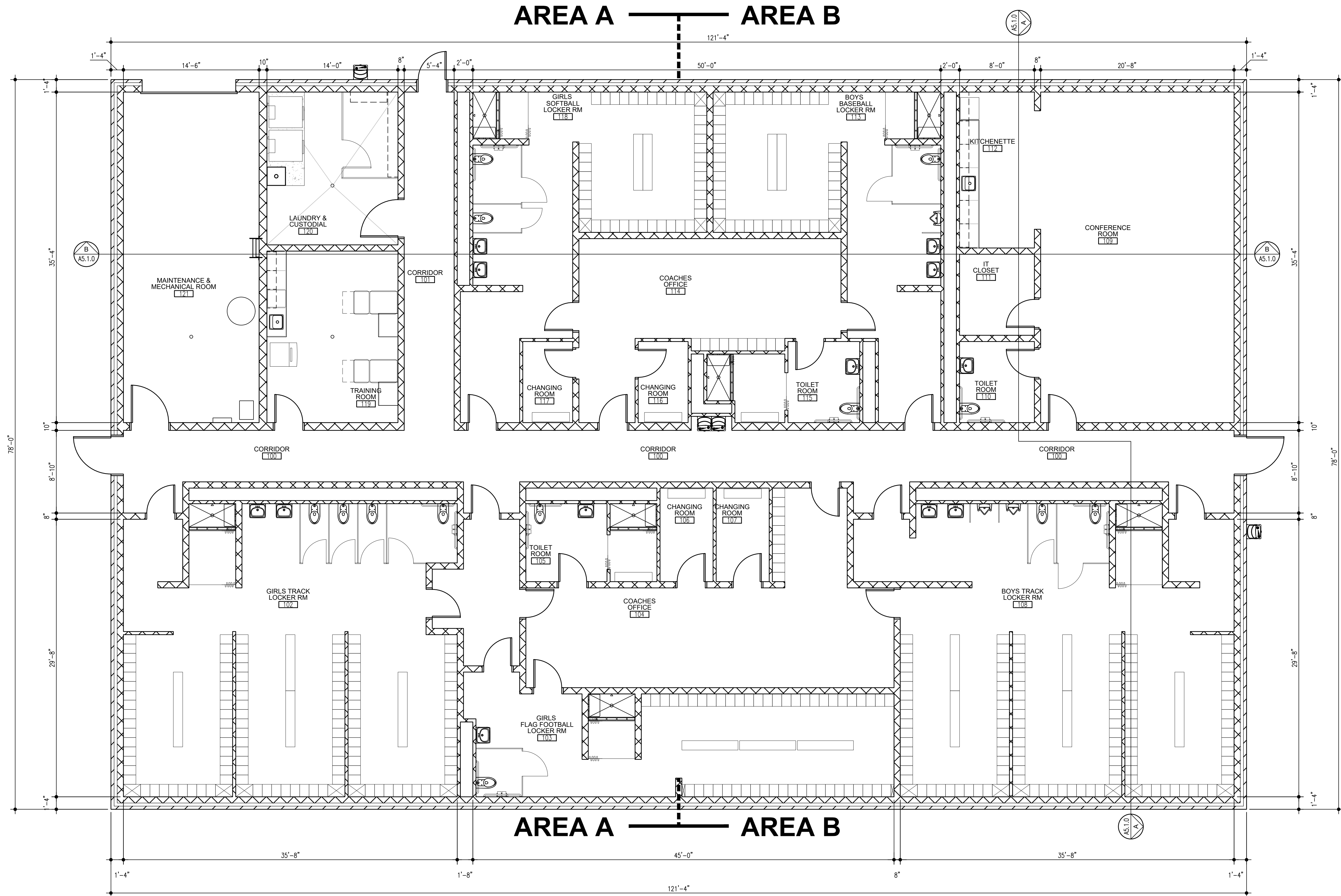
- A. Upon completion of the system installation and preliminary testing, notify the Architect that the system is ready for final testing and demonstration.
- B. At this time, the system manual is to be presented to the Owner for prior evaluation.
- C. The Owner, at his option, may select a specific time and date, suitable to all parties so they may have a representative in attendance during the entire final testing and demonstrations.
- D. Conduct all final tests and demonstrations in the presence of the Owner.
- E. Demonstrate that all system functions perform as specified.
- F. Test and demonstrate that the systems equal or exceed the specified system criteria.
- G. Upon request by the Owner, the contractor will repeat any of the specified system tests at the final testing and demonstration in the presence of the Owner.
- H. At the end of the final testing, demonstration and acceptance of the system, the contractor will turn over to the Owners designated representatives, all of the equipment cabinet keys and non-installed equipment as specified in the Contract Documents

3.07 ACCEPTANCE BY OWNER

- A. System approval and acceptance will occur at the end of the final testing and demonstration of each system.
- B. In the event that during the final testing and demonstration, the system requires further adjustments or work, the Contractor is to provide the Owner with a new expected completion date. Any additional costs, including additional consulting fees, to provide an acceptable system will be at the expense of the Contractor.

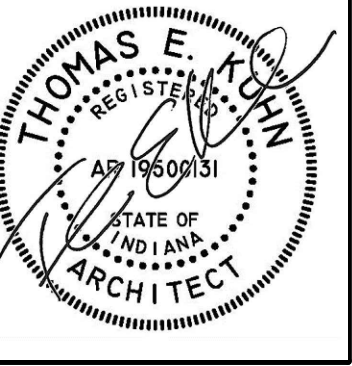
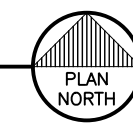
END OF SECTION

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FLOOR PLAN

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



DATE
10-02-2026
10-07-2026

NEW LOCKER ROOM FACILITY & RENOVATIONS TO
THE EXISTING CONCESSION & TENNIS FACILITY AT
MERRILLVILLE HIGH SCHOOL
276 E. 68TH PLACE
MERRILLVILLE, IN 46410

CSK ARCHITECTS, P.C.

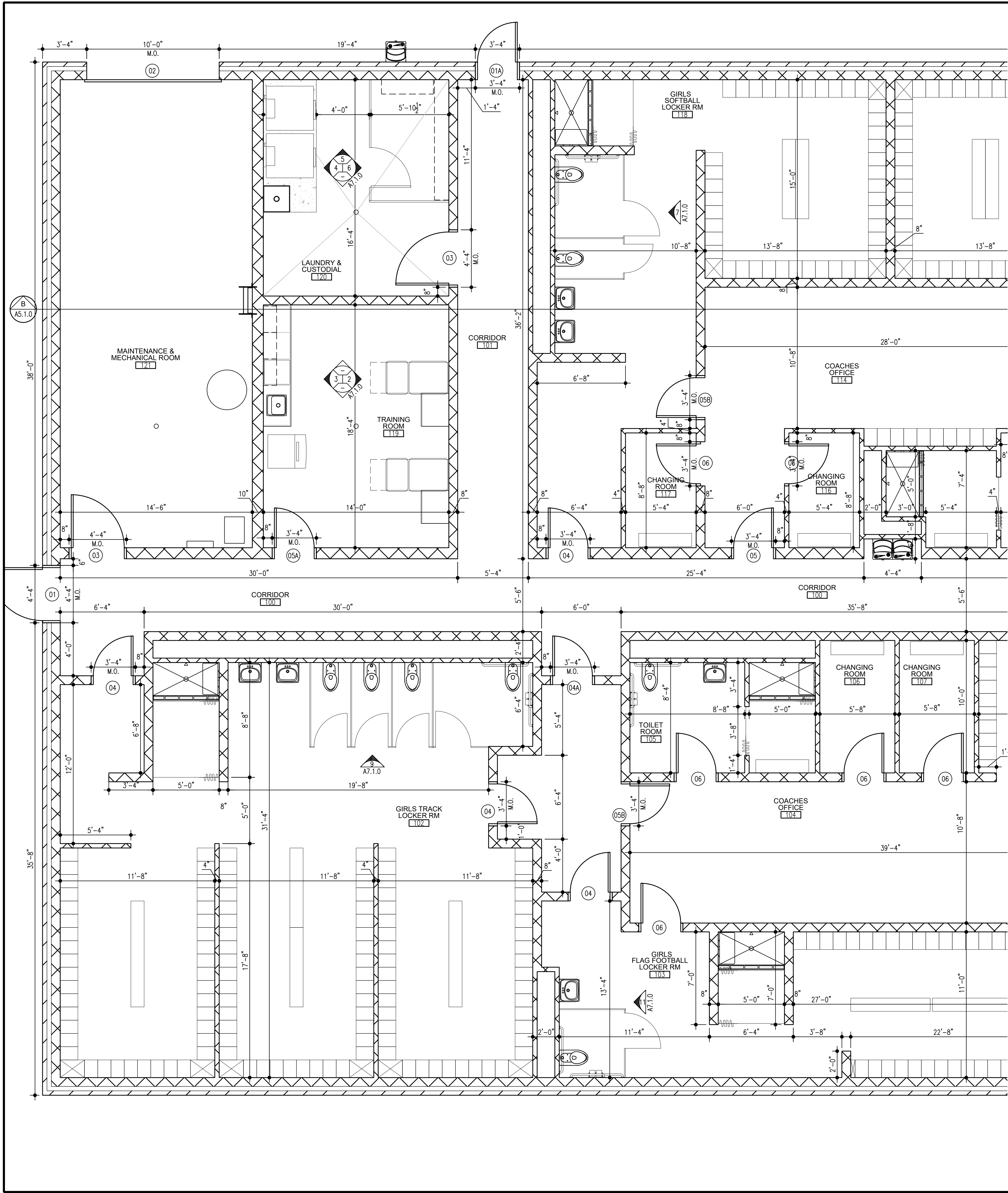
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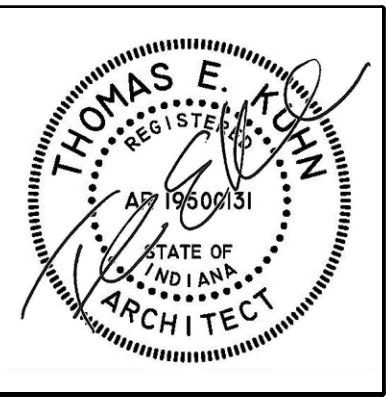
PARTIAL FLOOR PLAN
AREA A

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



WALL LEGEND:

- W1 4" CMU w/ HORZ JOINT REINF @ 16" OC VERT
- W2 8" CMU w/ HORZ JOINT REINF @ 16" OC VERT
- W3 10" CMU w/ HORZ JOINT REINF @ 16" OC VERT, W/ #5 @24" O.C. GROUT SOLID
- W4 4" FACE BRICK w/ ADJUSTABLE TIES @ 16" OC EACH WAY, 1 3/4" AIR CAVITY, 3" RIGID EXTRUDED POLYSTYRENE (XPS) THERMAL AIR/WATER BARRIER WALL SYSTEM INSUL (R-16) ON 8" REINF CMU w/ EYE-WIRE JOINT REINF @ 16" OC VERT & #3 BARS VERT GROUT SOLID @ 48" OC, LAP BARS 48" AS REQUIRED
- W5



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10-07-2026

NEW LOCKER ROOM FACILITY & RENOVATIONS TO
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MERRILLVILLE, IN 46410

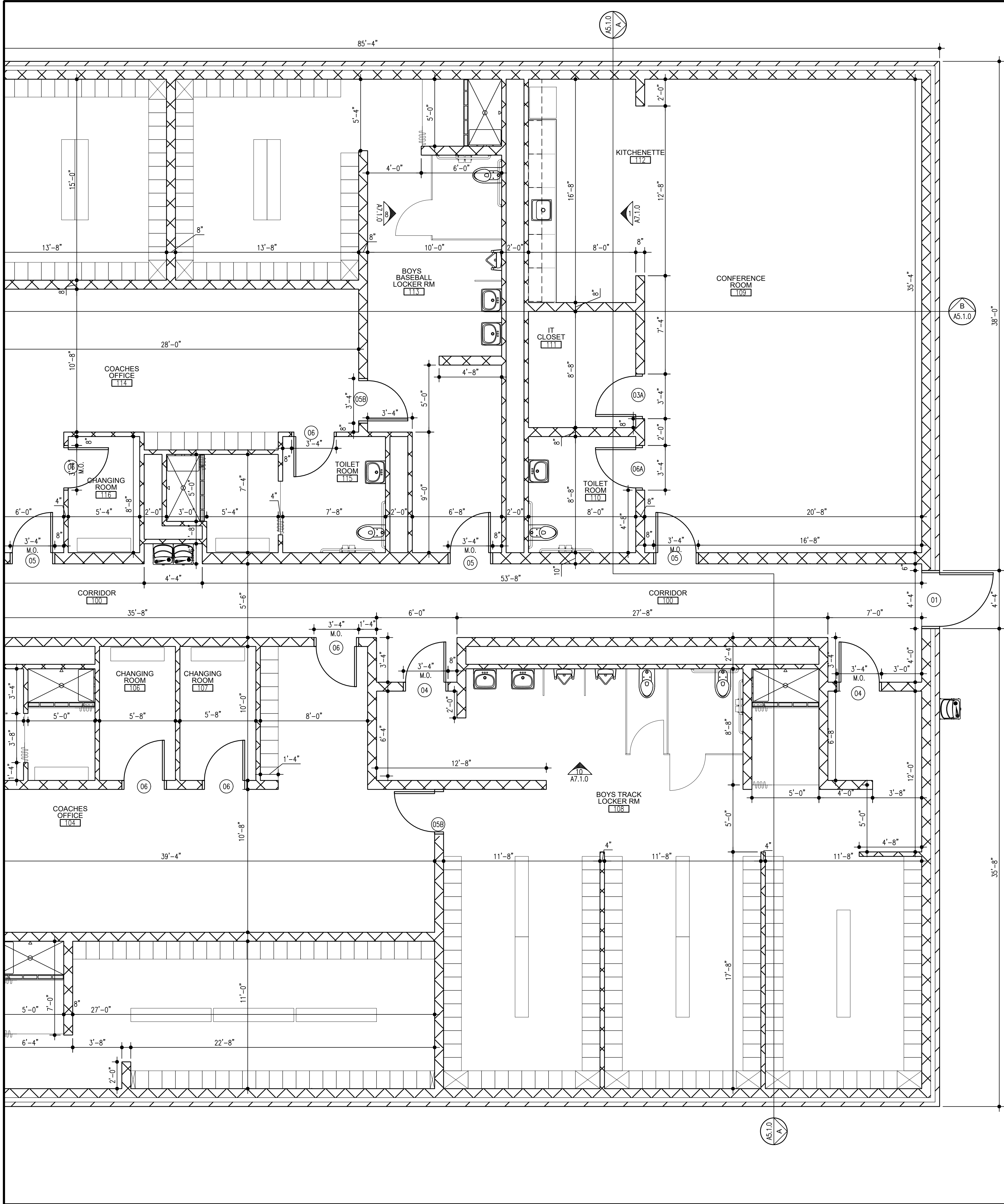
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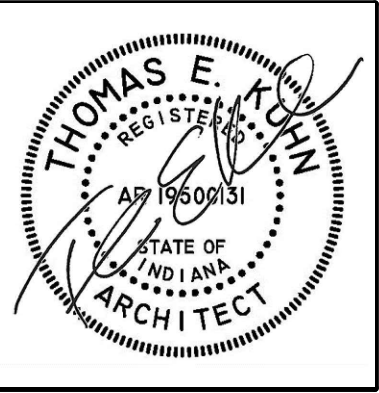
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PARTIAL FLOOR PLAN
AREA B

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



DATE
10-02-2026
10-07-2026

NEW LOCKER ROOM FACILITY & RENOVATIONS TO
THE EXISTING CONCESSION & TENNIS FACILITY AT
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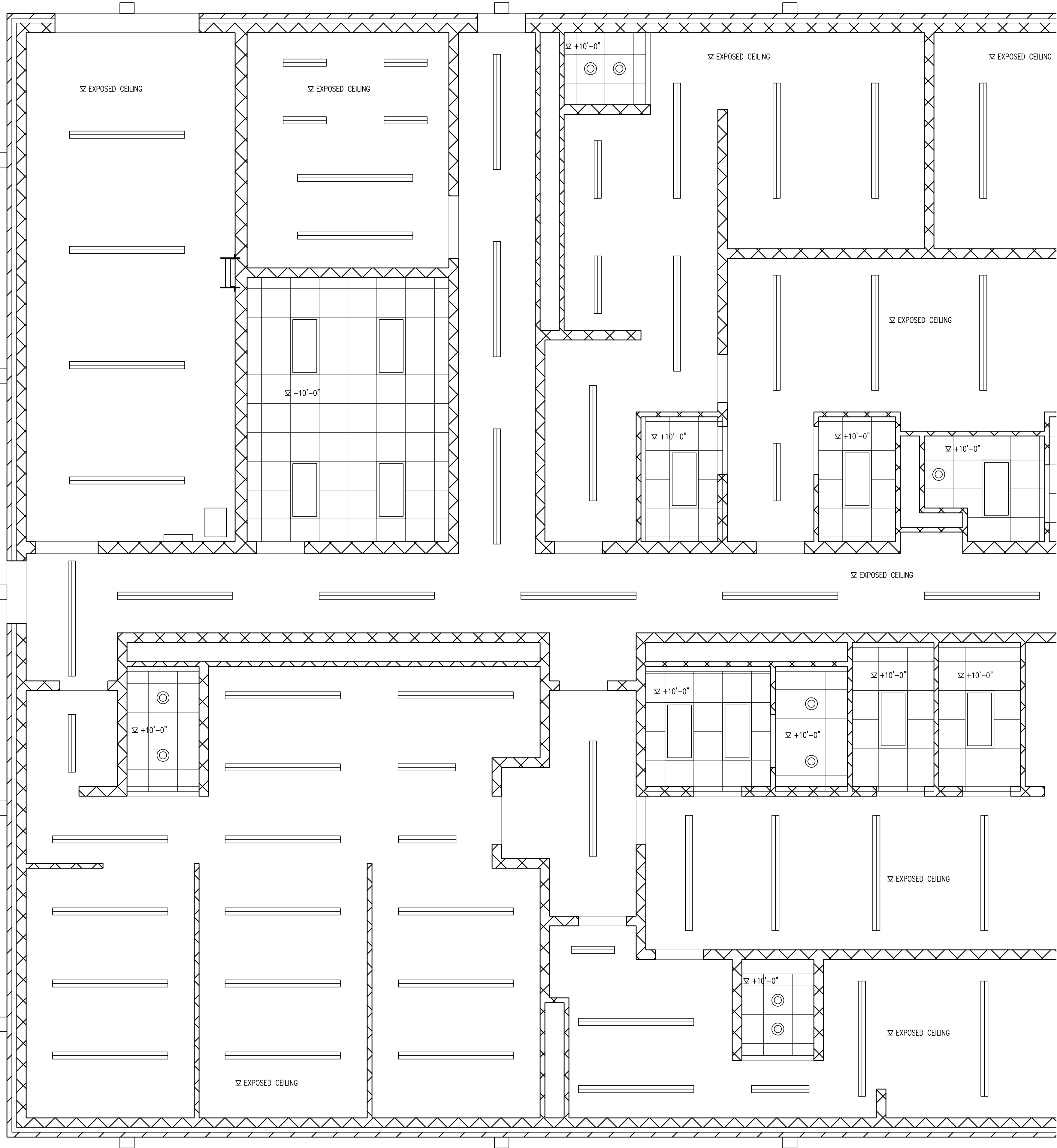
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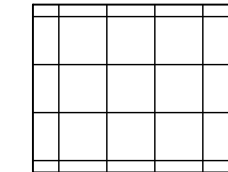
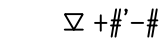
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- REFLECTED CEILING PLAN GENERAL NOTES:**
1. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO INSTALLATION.
 2. COORDINATE WORK WITH ALL OTHER DRAWINGS.
 3. CONTRACTOR SHALL REVIEW AND COORDINATE WITH ELECTRICAL LIGHTING PLANS, AND MECHANICAL DUCTWORK PLANS. ALL OMISSIONS AND/OR INCONSISTENCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.

- REFLECTED CEILING PLAN LEGEND**
-  SUSPENDED ACOUSTICAL TILE CEILING; ARMSTRONG 2x2 SQUARE WATER RESISTANT TILES W/ ALUMINUM LAY-IN 1 5/8" GRID
 -  ±#'-#" CEILING HEIGHT
 -  LIGHT FIXTURE - REFER TO ELECTRICAL LIGHTING PLAN.
 -  SUPPLY REGISTER - REFER TO MECHANICAL PLAN.
 -  RETURN REGISTER - REFER TO MECHANICAL PLAN
 -  EXHAUST FAN GRILLE - REFER TO MECHANICAL PLAN

PARTIAL CEILING PLAN
AREA A

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



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10-02-2026
10-07-2026

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MERRILLVILLE, IN 46410

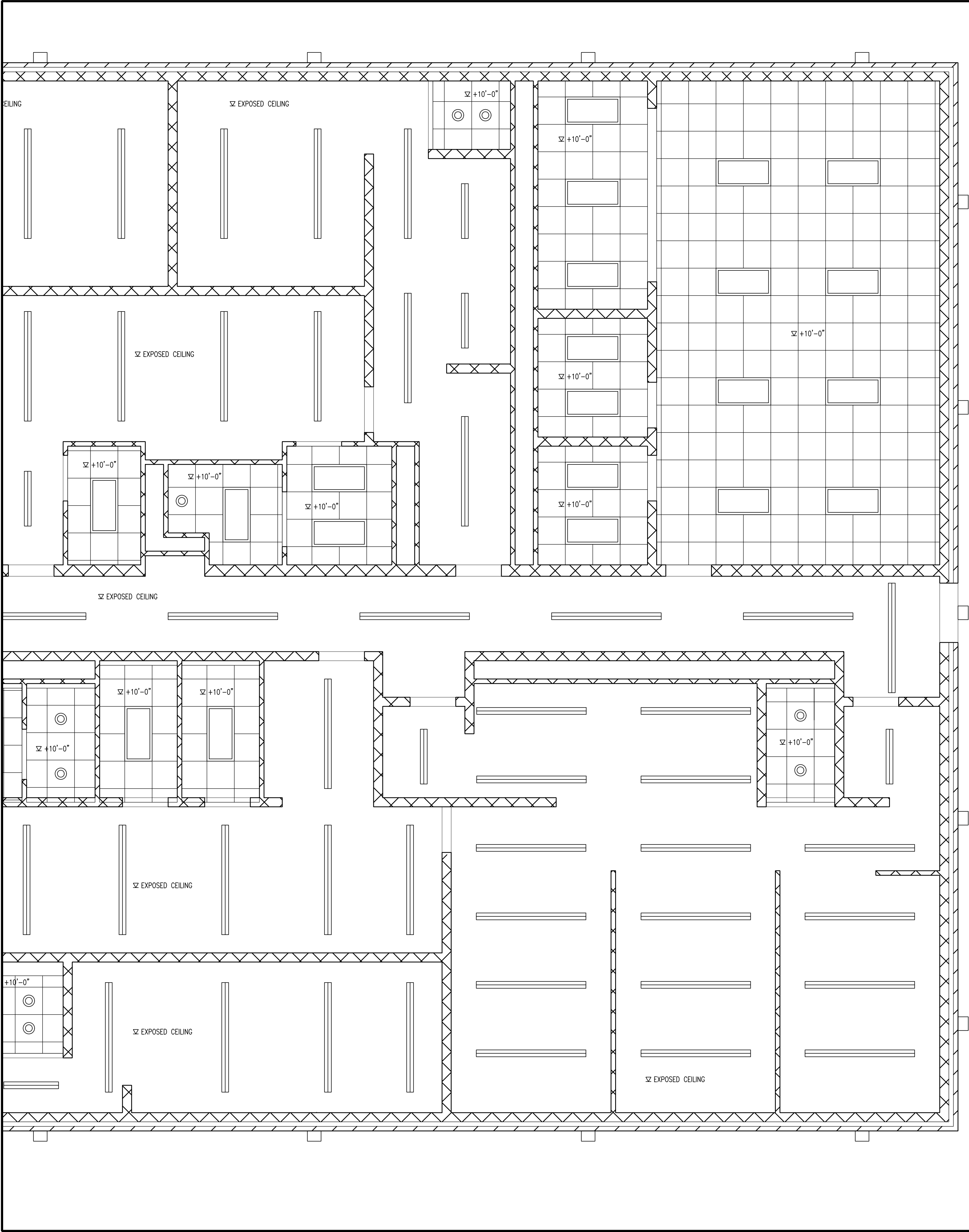
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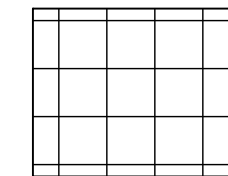
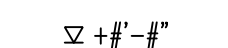
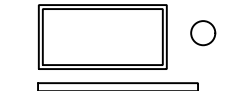
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- REFLECTED CEILING PLAN GENERAL NOTES:**
1. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO INSTALLATION.
 2. COORDINATE WORK WITH ALL OTHER DRAWINGS.
 3. CONTRACTOR SHALL REVIEW AND COORDINATE WITH ELECTRICAL LIGHTING PLANS, AND MECHANICAL DUCTWORK PLANS. ALL OMISSIONS AND/OR INCONSISTENCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.

REFLECTED CEILING PLAN LEGEND

-  SUSPENDED ACOUSTICAL TILE CEILING; ARMSTRONG 2x2 SQUARE WATER RESISTANT TILES W/ ALUMINUM LAY-IN 1 5/8" GRID
-  ∇ +8'-8" CEILING HEIGHT
-  LIGHT FIXTURE - REFER TO ELECTRICAL LIGHTING PLAN.
-  SUPPLY REGISTER - REFER TO MECHANICAL PLAN.
-  RETURN REGISTER - REFER TO MECHANICAL PLAN
-  EXHAUST FAN GRILLE - REFER TO MECHANICAL PLAN

PARTIAL CEILING PLAN
AREA B

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



DATE
10-02-2026
10-07-2026

NEW LOCKER ROOM FACILITY & RENOVATIONS TO
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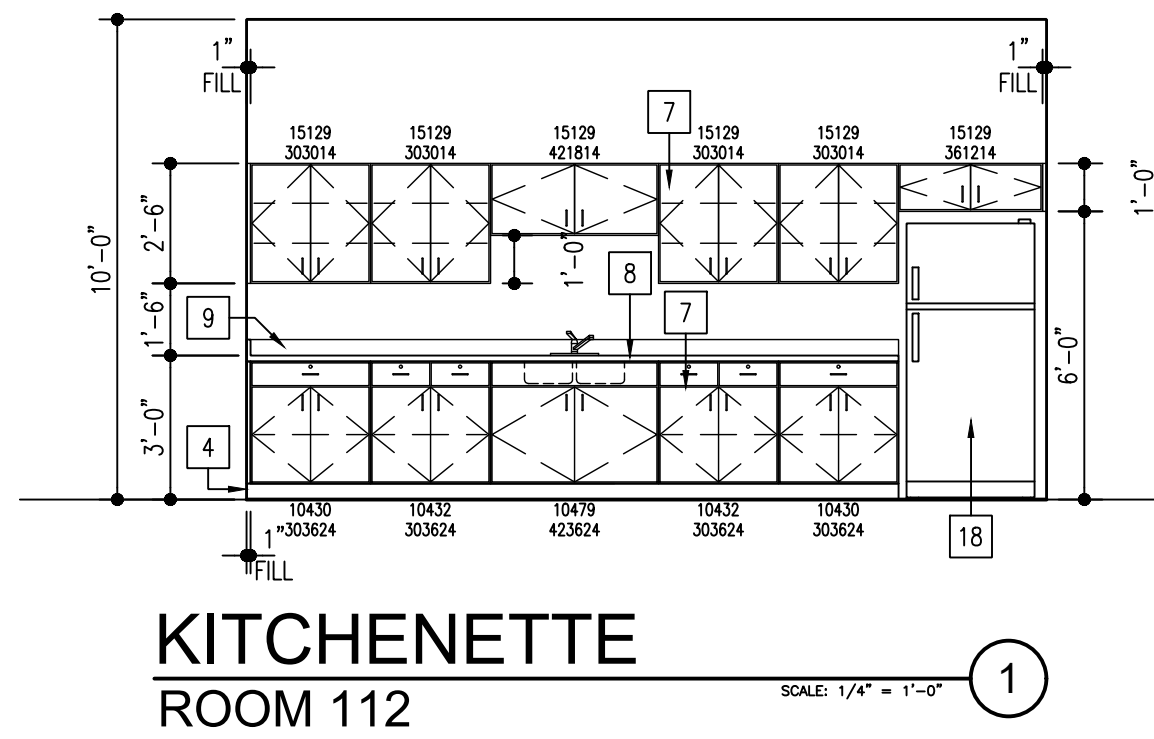
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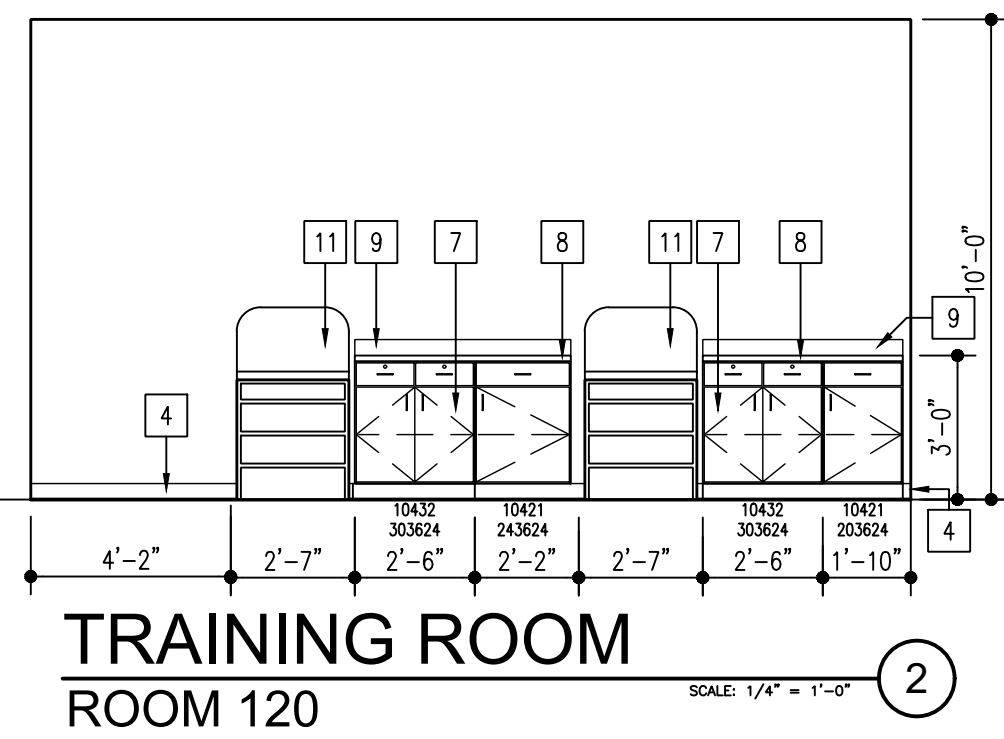
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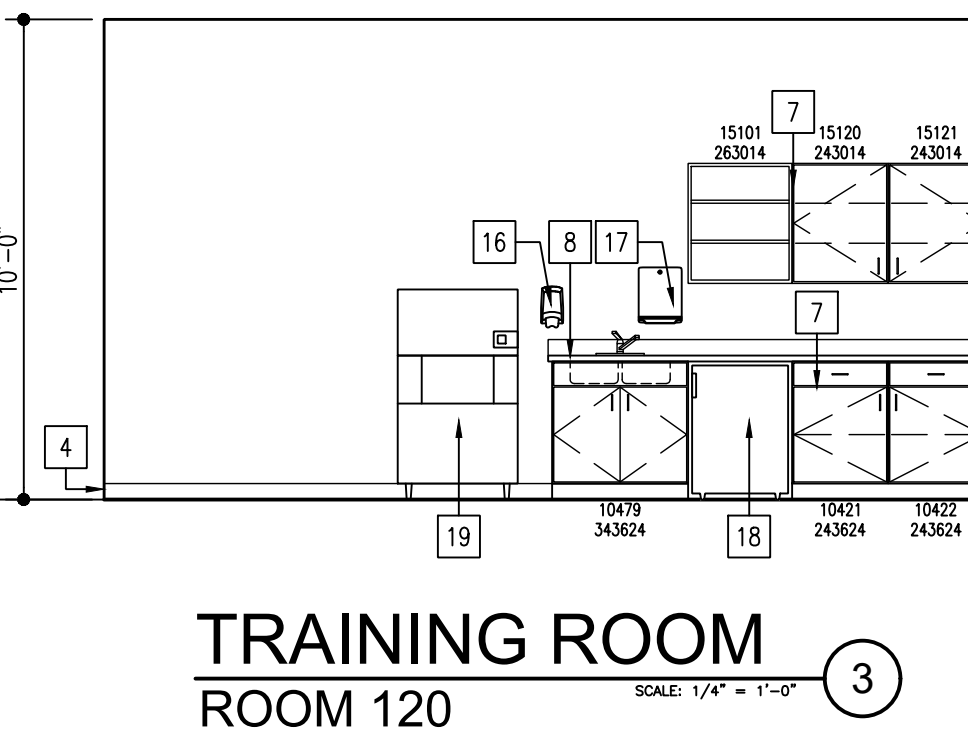
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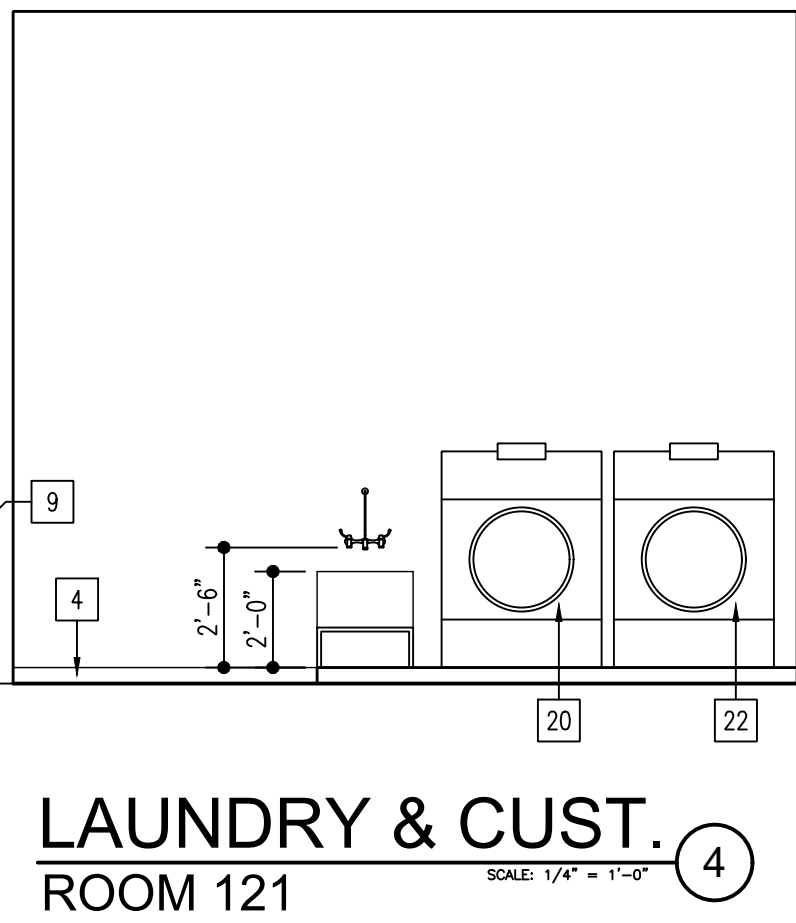
KITCHENETTE
ROOM 112
SCALE: 1/4" = 1'-0" ①



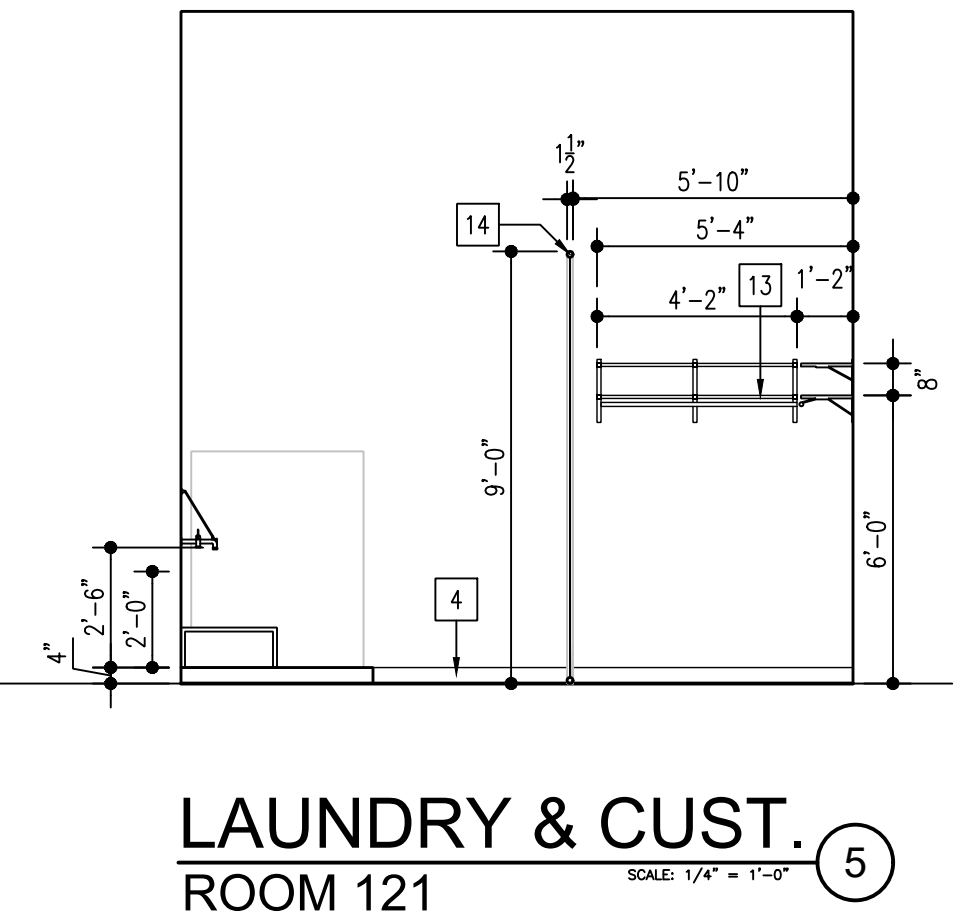
TRAINING ROOM
ROOM 120
SCALE: 1/4" = 1'-0" ②



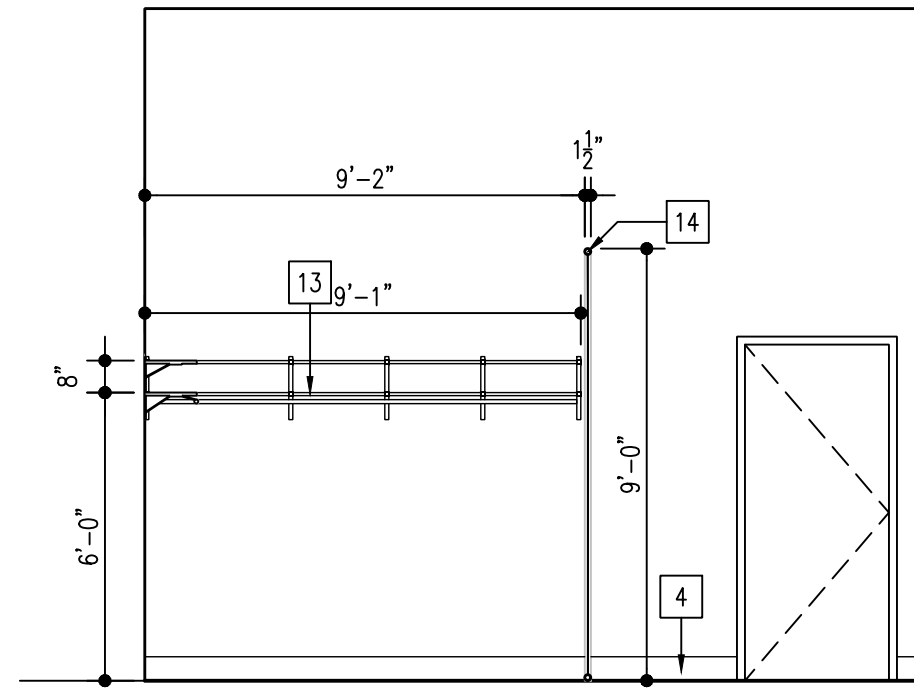
TRAINING ROOM
ROOM 120
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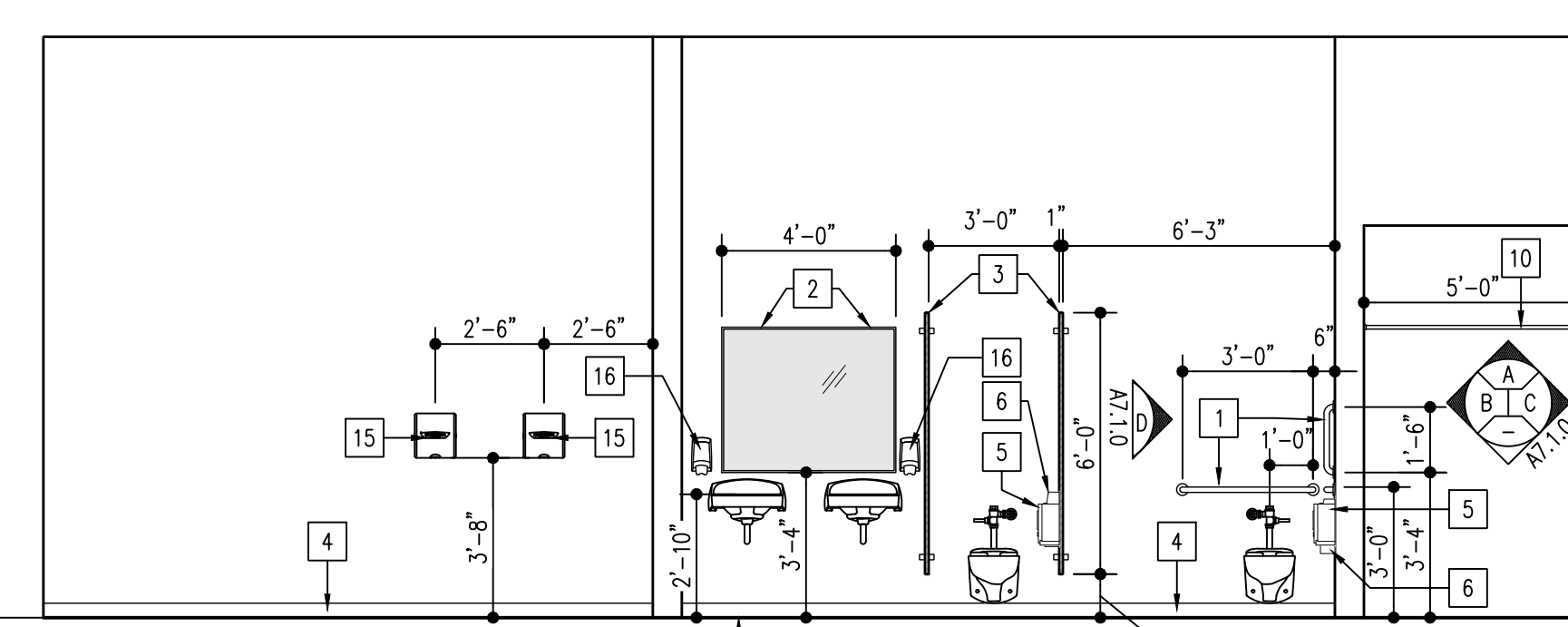
LAUNDRY & CUST.
ROOM 121
SCALE: 1/4" = 1'-0" ④



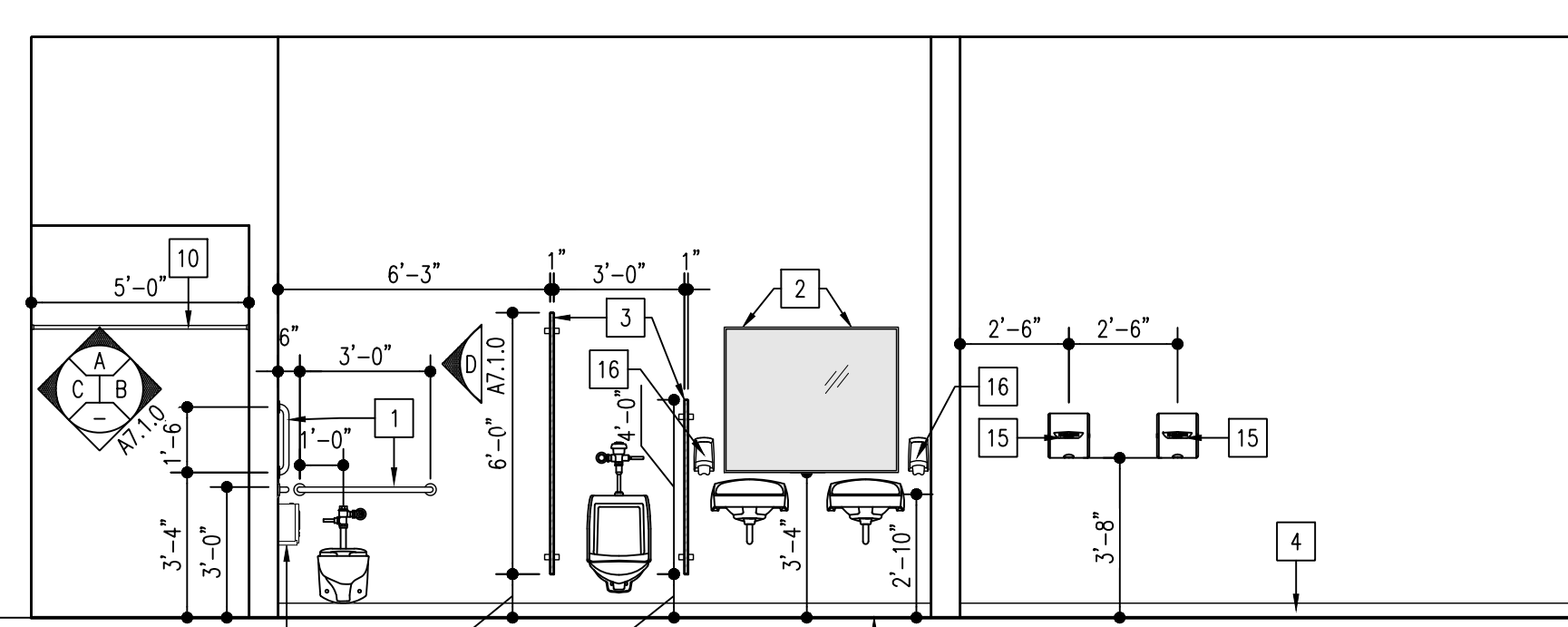
LAUNDRY & CUST.
ROOM 121
SCALE: 1/4" = 1'-0" ⑤



LAUNDRY & CUST.
ROOM 121
SCALE: 1/4" = 1'-0" ⑥

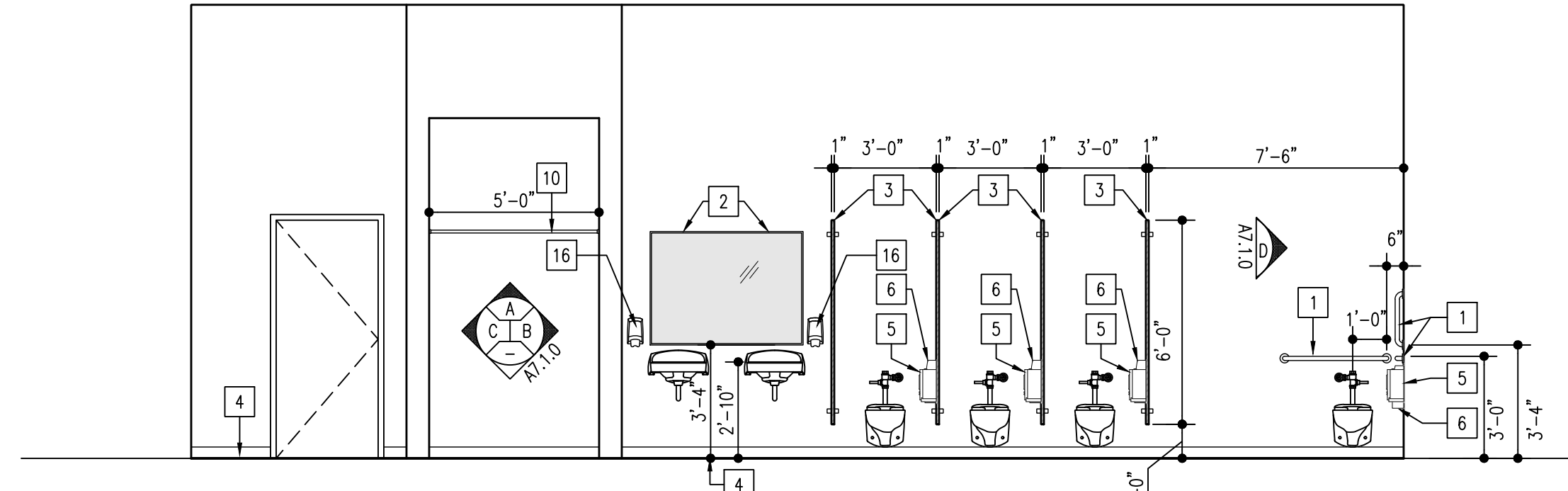


SOFTBALL LOCKER ROOM
ROOM 119
SCALE: 1/4" = 1'-0" ⑦

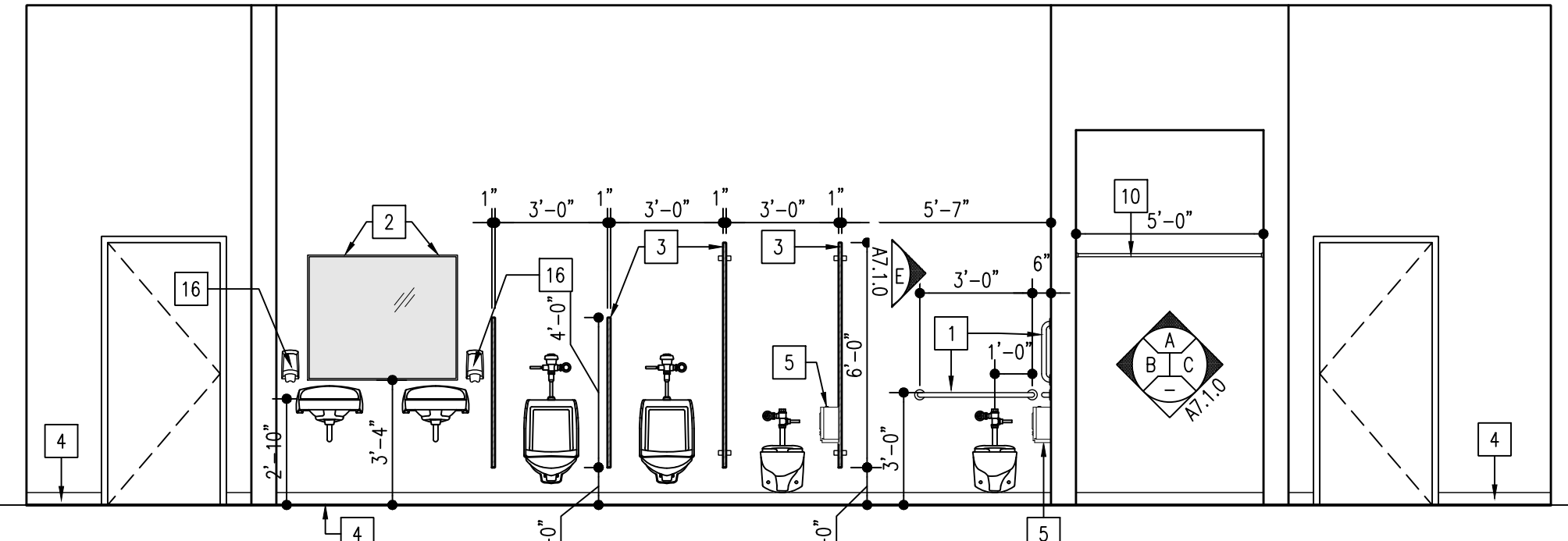


BASEBALL LOCKER ROOM
ROOM 113
SCALE: 1/4" = 1'-0" ⑧

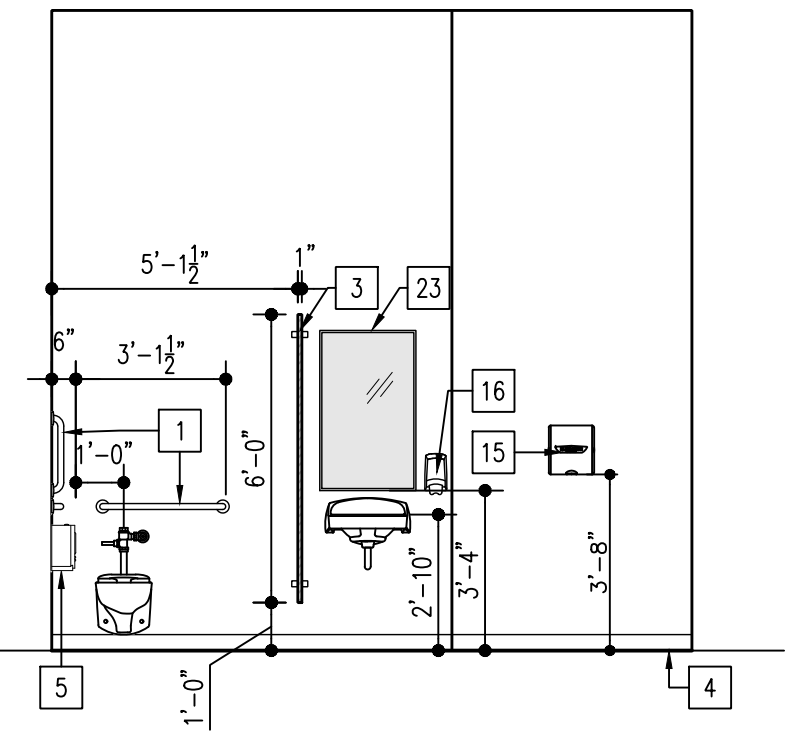
- INTERIOR ELEVATIONS KEY NOTES
- 1. ADA GRAB BARS - BOBRICK MODEL B5806
 - 2. MIRRORS - BOBRICK MODEL B-165 MIRROR - 48"x40"
 - 3. PLASTIC TOILET PARTITIONS
 - 4. BASE - REFER TO ROOM FINISH SCHEDULED (TYP)
 - 5. TOILET TISSUE DISPENSER - BOBRICK MODEL B-2888
 - 6. SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL - BOBRICK MODEL B-254
 - 7. CASEWORK
 - 8. COUNTER TOP
 - 9. 4" BACK SPLASH
 - 10. SHOWER ROD & CURTAIN
 - 11. EXAM CHAIRS
 - 12. WALL MOUNTED ADA FOLDING BENCH
 - 13. METAL SHELVES
 - 14. CHAIN LINK FENCING
 - 15. ELECTRIC HAND DRYERS - MODEL: XL-W-ECO-BN-110/120V.
 - 16. SOAP DISPENSER - BOBRICK MODEL B-4112
 - 17. PAPER TOWEL DISPENSER - PROVIDED BY OWNER// INSTALLED BY CONTRACTOR
 - 18. REFRIGERATOR
 - 19. ICE MACHINE
 - 20. WASHING MACHINE - PROVIDED & INSTALLED BY CONTRACTOR
 - 21. ROBE HOOKS - BOBRICK B-76727
 - 22. DRYER - PROVIDED & INSTALLED BY CONTRACTOR
 - 23. MIRRORS - BOBRICK MODEL B-165 MIRROR - 24"x40"



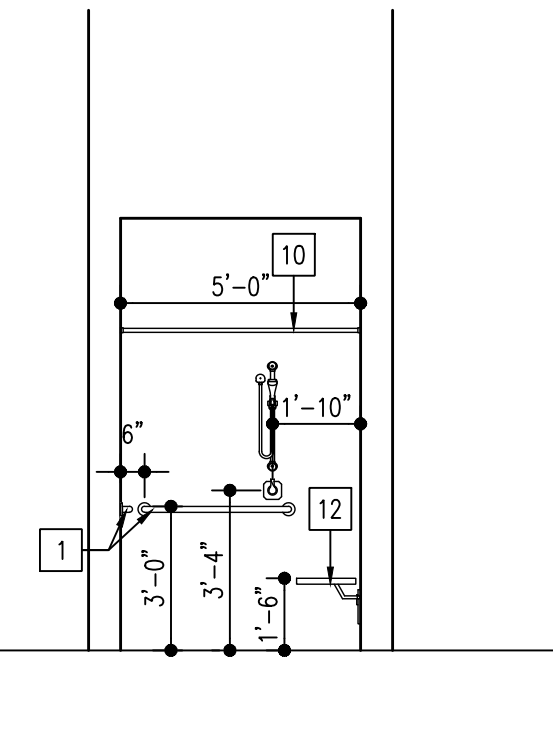
GIRLS TRACK LOCKER ROOM
ROOM 102
SCALE: 1/4" = 1'-0" ⑨



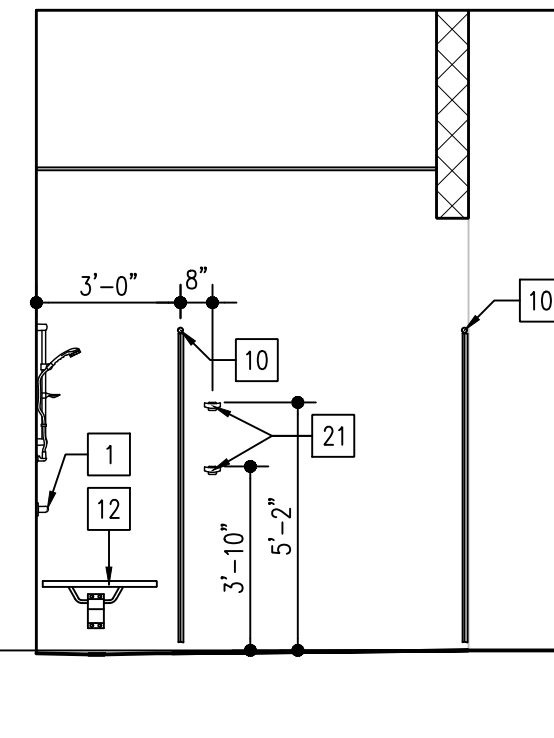
BOYS TRACK LOCKER ROOM
ROOM 108
SCALE: 1/4" = 1'-0" ⑩



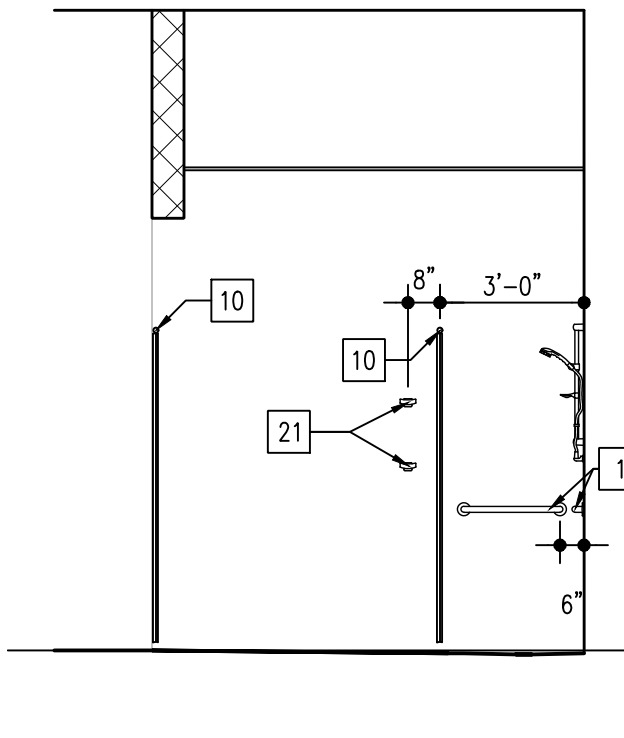
FLAG FOOTBALL LOCKER ROOM
ROOM 103
SCALE: 1/4" = 1'-0"



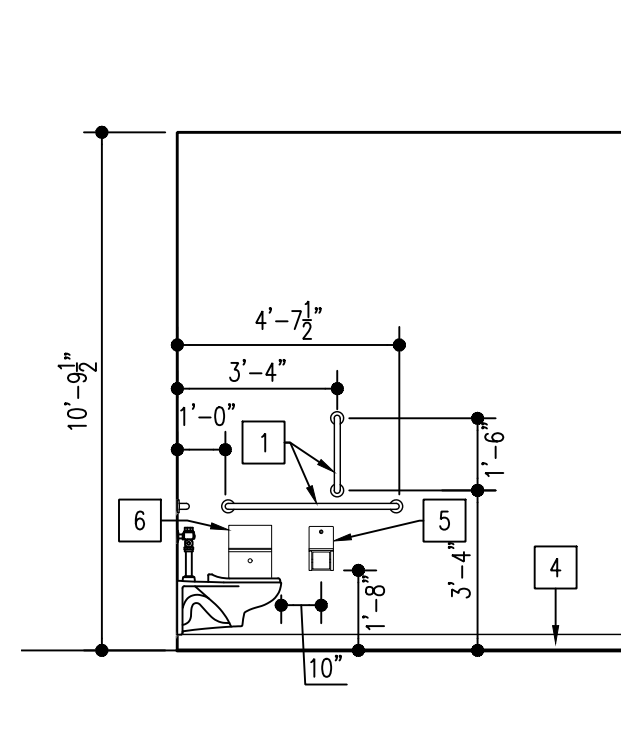
SHOWER
TYPICAL
SCALE: 1/4" = 1'-0" A



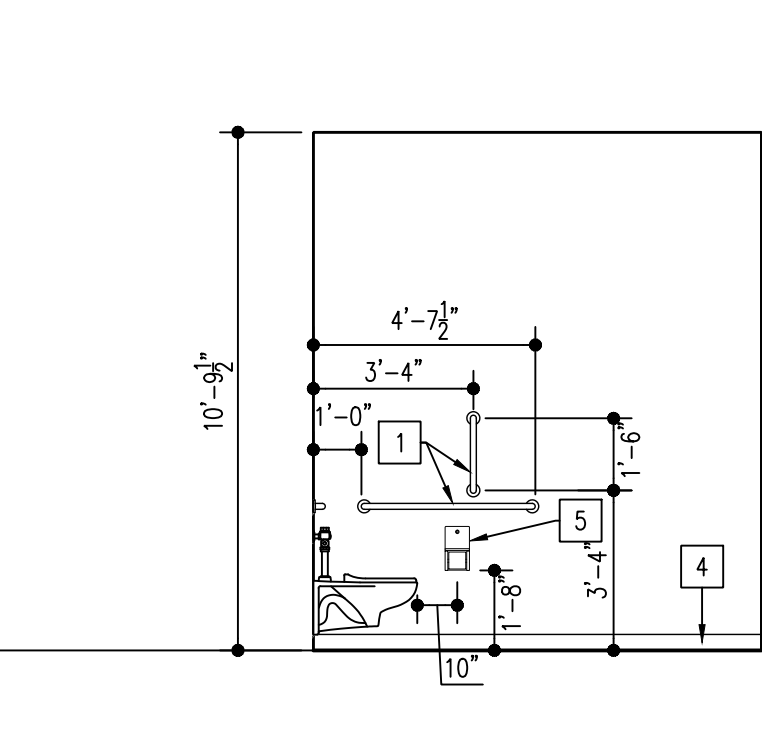
SHOWER
TYPICAL
SCALE: 1/4" = 1'-0" B



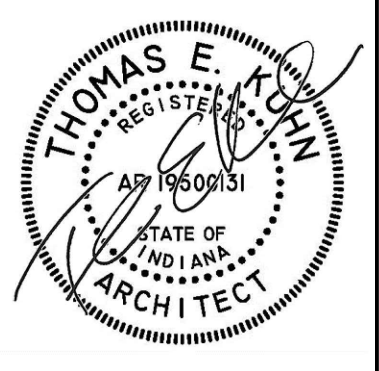
SHOWER
TYPICAL
SCALE: 1/4" = 1'-0" C



ADA MOUNTING
TYP. LADIES
SCALE: 1/4" = 1'-0" D



ADA MOUNTING
TYP. MEN
SCALE: 1/4" = 1'-0" E
INTERIOR ELEVATIONS
SCALE: NOTED



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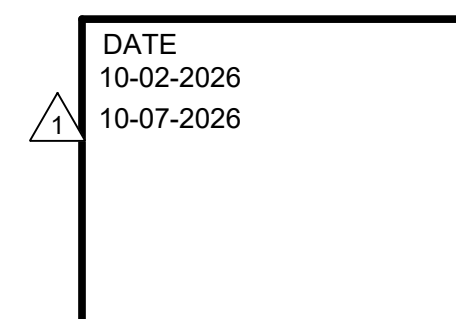
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1. PITCH ALL CONCRETE FLOORS TO FLOOR DRAINS.
2. SEE WALL SECTIONS DRAWINGS FOR ADDITIONAL FOOTING AND FOUNDATION WALL DETAILS
3. CONTRACTOR TO POUR CONCRETE BETWEEN EXISTING FOUNDATION AND NEW FOUNDATION AT THE NORTHWEST CORNER AS REQUIRED

- 1 16" POURED CONCRETE FOUNDATION WALL w/ 2-#5 T & B CONTINUOUS & 2" RIGID PERIMETER INSULATION INBOARD SIDE. (TYP - UNO) - SEE FOUNDATION DETAIL #1 ON S11.3
1/4" WALL EL: +100'-0"
- 2 1'-0"x2'-0" POURED CONCRETE FOOTING w/ 3-#5 CONTINUOUS & 5" VERTICAL @ 4'-0" O.C UP INTO FOUNDATION WALL. (TYP - UNO)
B/FOOTING EL: +96'-0"
- 3 10" POURED CONCRETE FOUNDATION WALL w/ 2-#5 T & B CONTINUOUS - SEE FOUNDATION DETAIL #2 ON S11.3,
1/4" WALL EL: +100'-0".
- 4 8" CONCRETE STOOP WALL w/2-#5 T & B & 8" X 16" CONCRETE FOOTING w/ 2-#5 CONTINUOUS & 5" VERTICAL @ 2'-4" O.C.
1/4" WALL EL: +100'-0". B/FOOTING EL: +96'-0".
- 5 4" CONCRETE SLAB W/ WATER VAPOR REDUCING ADMIXTURE (WVRD); VAPOR LOCK 20/20; & 6x6 W14/W14 WWR ON 15 MIL. VAPOR RETARDER ON 6" MIN COMP. GRANULAR FILL.
1/SLAB EL: +100'-0".
- 6 12"x24"W THICKENED SLAB W/ (2) #5 CONT.
- 7 12"x12"W THICKENED SLAB W/ (2) #5 CONT.
- 8 12"x40"W THICKENED SLAB AT PLUMBING CHASE
- 9 12"x44"W THICKENED SLAB AT PLUMBING CHASE
- 10 CONTROL JOINT (TYP) IN SLAB
- 11 AT FOUNDATION WALL DOORS - RECESS T/FOUND. WALL B" (EL: +96'-0") & POUR CONCRETE SLAB THRU



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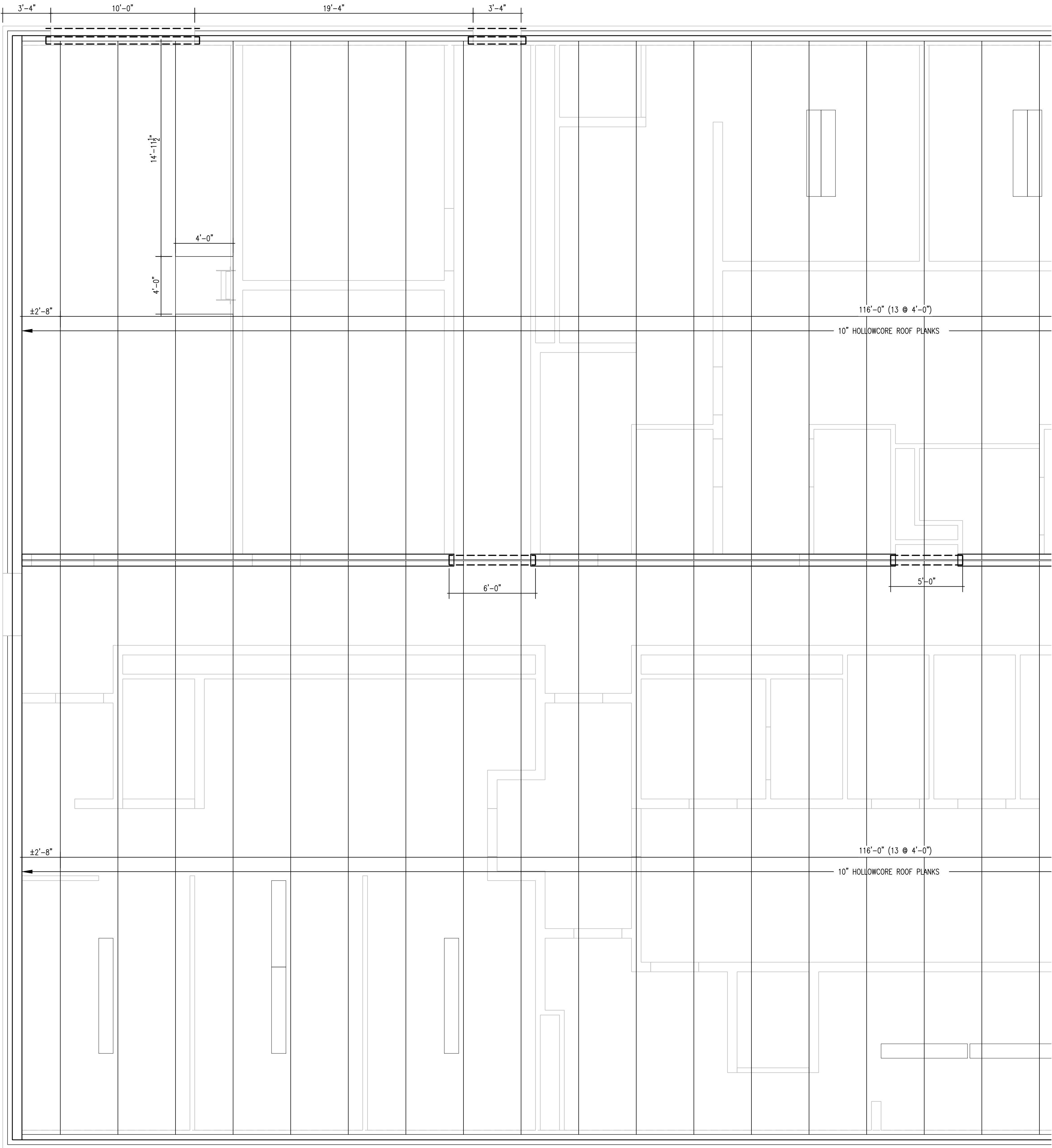
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SCALE: 1/4" = 1'-0"





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PARTIAL STRUCTURAL PLAN
AREA A

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



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NEW LOCKER ROOM FACILITY & RENOVATIONS TO
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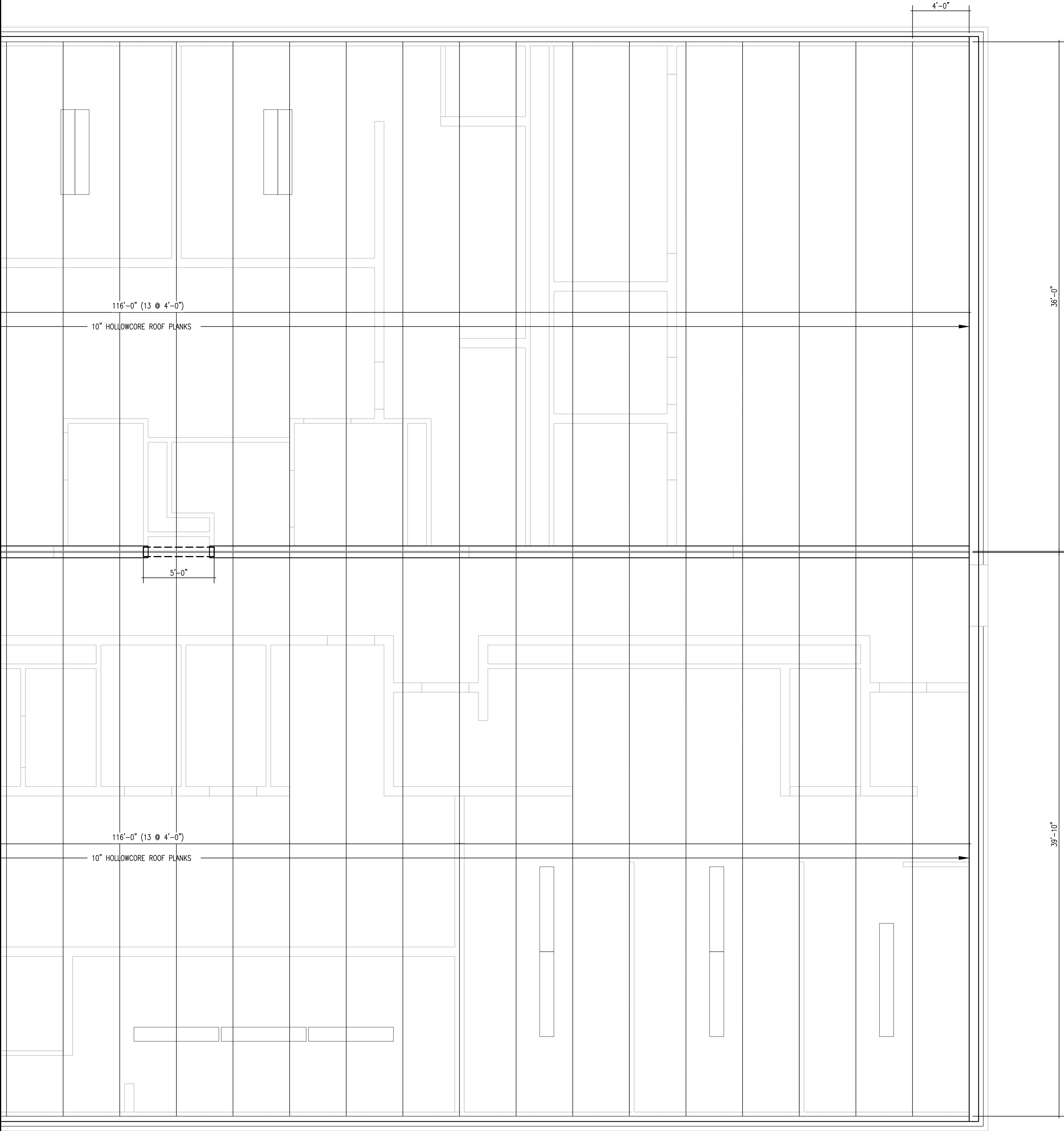
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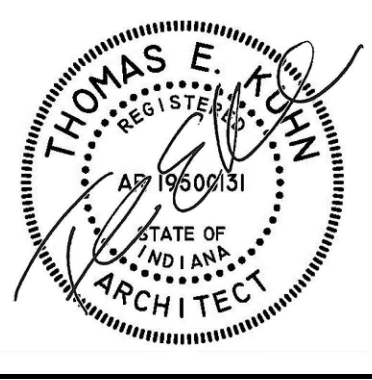
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PARTIAL SRUCTURAL PLAN
AREA B

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



DATE
10-02-2026
10-07-2026

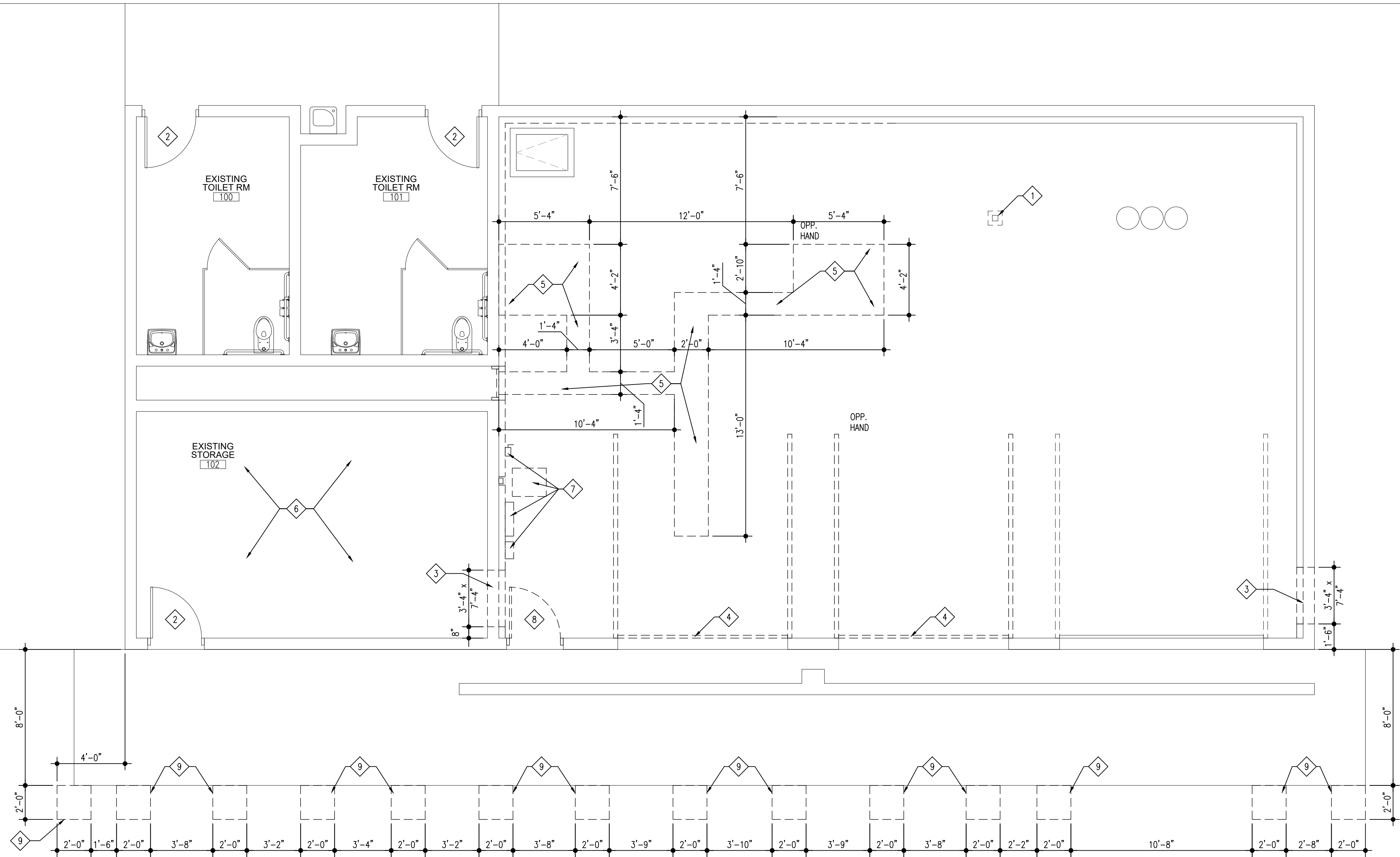
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THE EXISTING CONCESSION & TENNIS FACILITY AT
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FLOOR PLAN

DEMOLITION - TENNIS COURT FACILITY

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

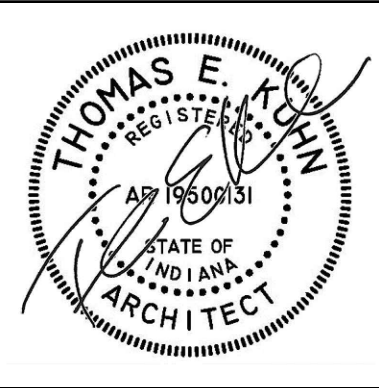


DEMOLITION GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. DO NOT SCALE THE DRAWINGS.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WORK FROM DAMAGE DURING CONSTRUCTION.
4. VERIFY ANY ELECTRICAL/MECHANICAL/PLUMBING REMOVAL PRIOR TO DEMOLITION.

DEMOLITION KEYED NOTES:

1. EXISTING STEEL COLUMN SHALL REMAIN.
2. EXISTING DOOR SHALL REMAIN.
3. REMOVE PORTION OF WALL FOR NEW OPENING. SIZE NOTED ON DRAWING.
4. REMOVE EXISTING OVERHEAD DOOR COMPLETELY.
5. REMOVE AREA OF CONCRETE FLOOR FOR NEW PLUMBING LINES. MATCH & PATCH FLOOR AS REQUIRED.
6. REMOVE EXISTING FLOOR FINISH COMPLETELY.
7. REMOVE EXISTING ELECTRICAL EQUIPMENT - REFER TO ELECTRICAL PLAN.
8. REMOVE EXISTING DOOR, FRAME AND HARDWARE.
9. REMOVE EXISTING ASPHALT AS REQUIRED TO INSTALL BALLARD - SEE DETAIL SHEET A1.1.0-B.



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10-07-2026

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MERRILLVILLE, IN 46410

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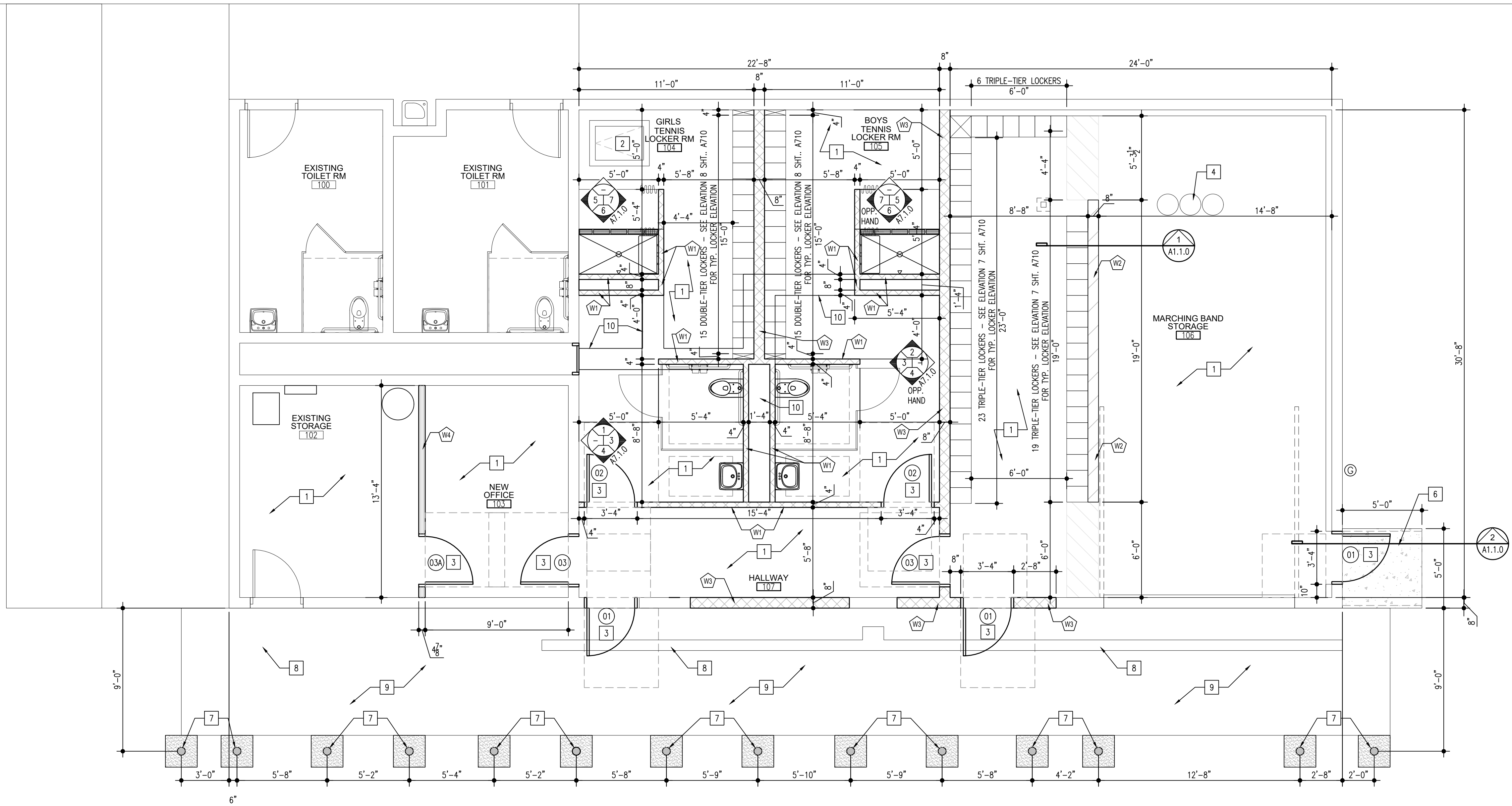
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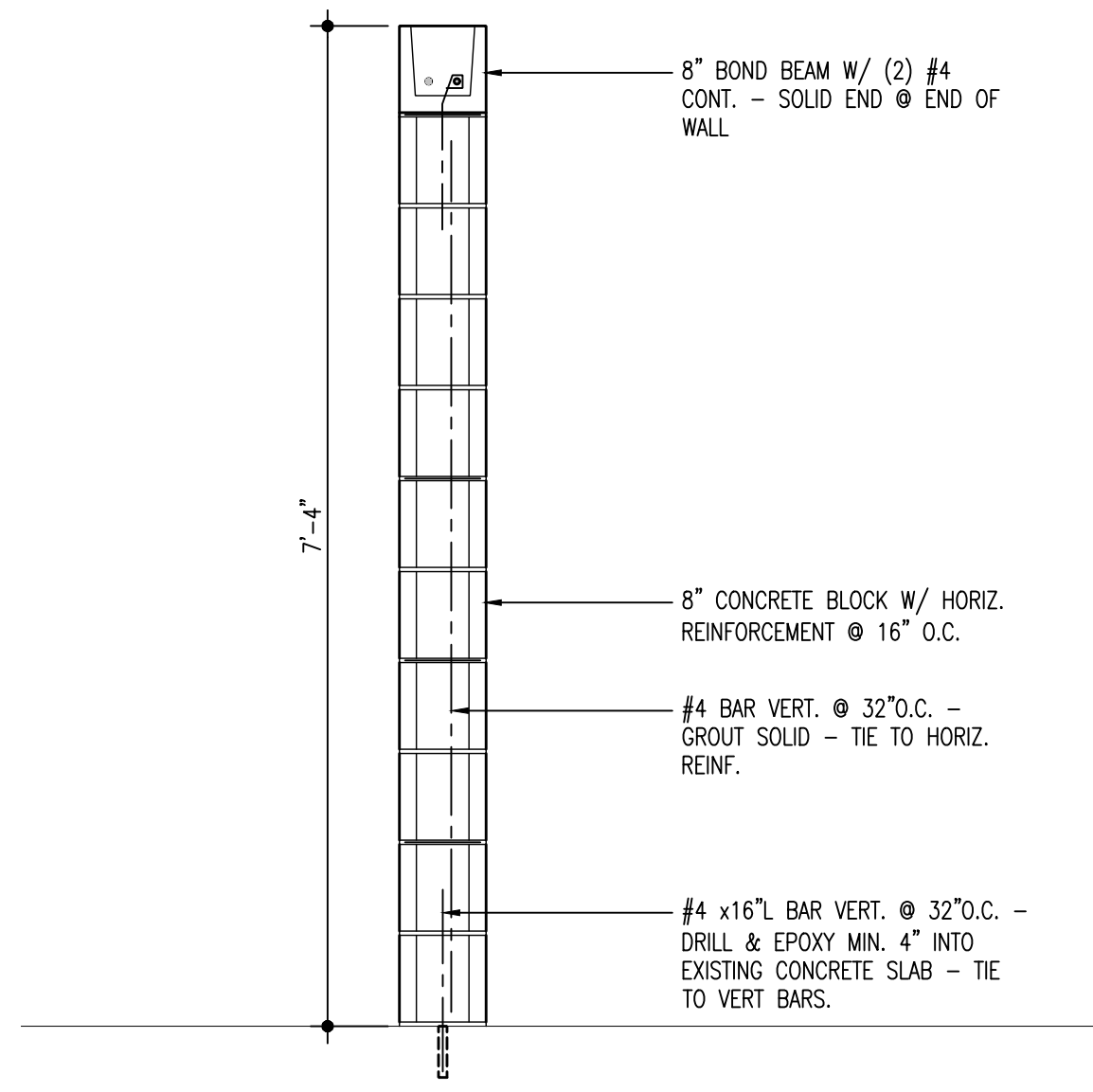


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FLOOR PLAN

TENNIS COURT FACILITY SCALE: 1/4" = 1'-0"



SECTION

SCALE: 3/4" = 1'-0"

1
A1.1.0B

WALL LEGEND:

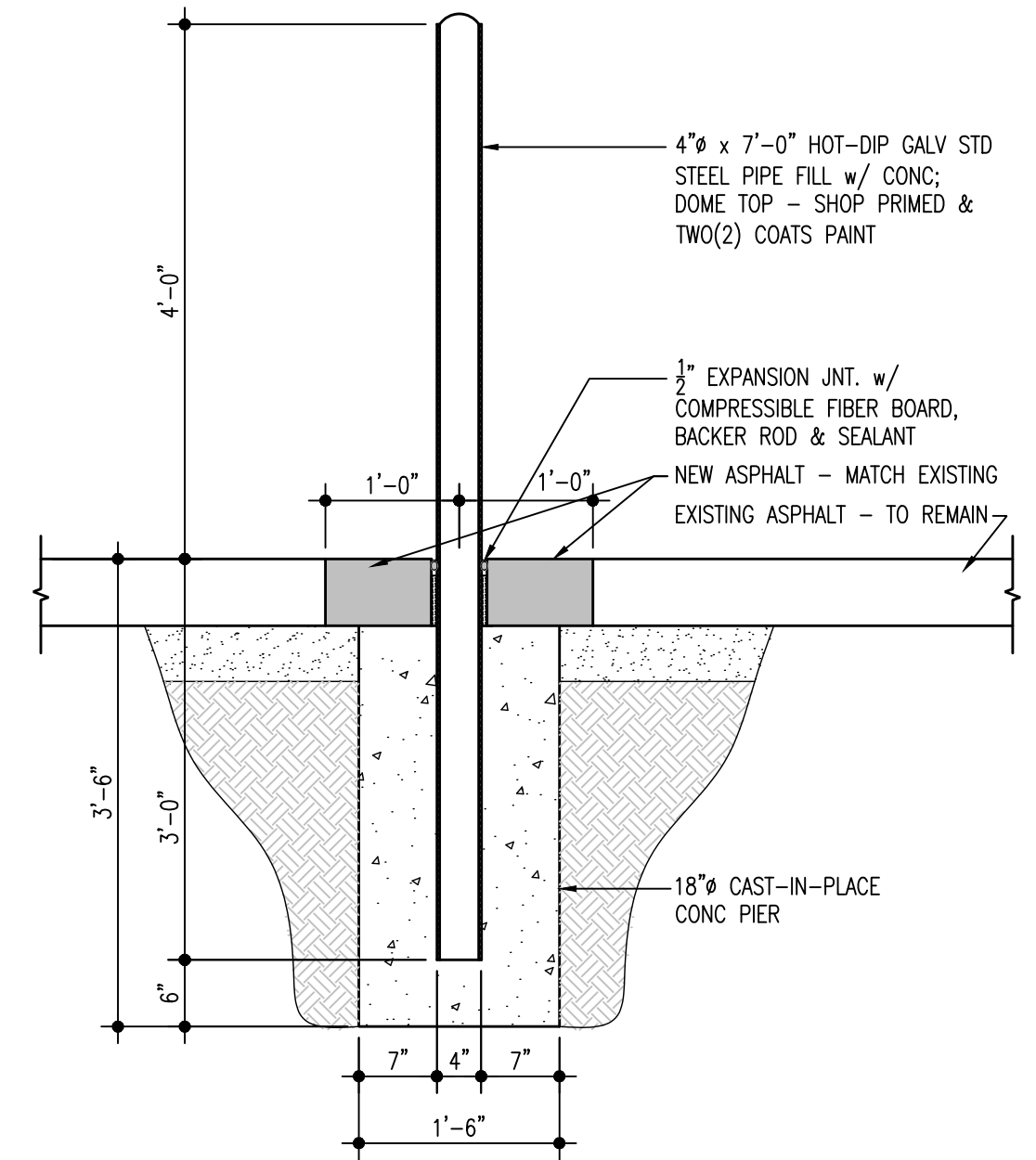
- W1 4" CMU w/ HORZ JOINT REINF @ 16" OC VERT
- W2 8" CMU HALF WALL (HEIGHT 7'-4") w/ HORZ JOINT REINF @ 16" OC & #4 VERT @ 32" O.C. (TIE HORZ. REINF. & VERT BARS), GROUT BARS SOLID - SEE SECTION 1/A1.1.0 FOR ADDITIONAL DETAILS.
- W3 8" CMU w/ HORZ JOINT REINF @ 16" OC VERT
- W4 5/8" IMPACT RESISTANCE GYPSUM BOARD ON BOTH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH SOUND BATT INSULATION. EXTEND STUDS TO BOTTOM OF STRUCTURE. EXTEND GYPSUM BOARD 12" ABOVE DROP CEILING.

NEW CONSTRUCTION PLAN GENERAL NOTES:

- FIELD VERIFY ALL EXISTING DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
- PROVIDE BULLNOSE BLOCK AT ALL EXPOSED MASONRY CORNERS.
- ALL OF THE FLOOR PLAN NEW CONSTRUCTION NOTES LISTED MAY NOT APPEAR ON EACH INDIVIDUAL NEW CONSTRUCTION PLAN.

NEW CONSTRUCTION KEYNOTES:

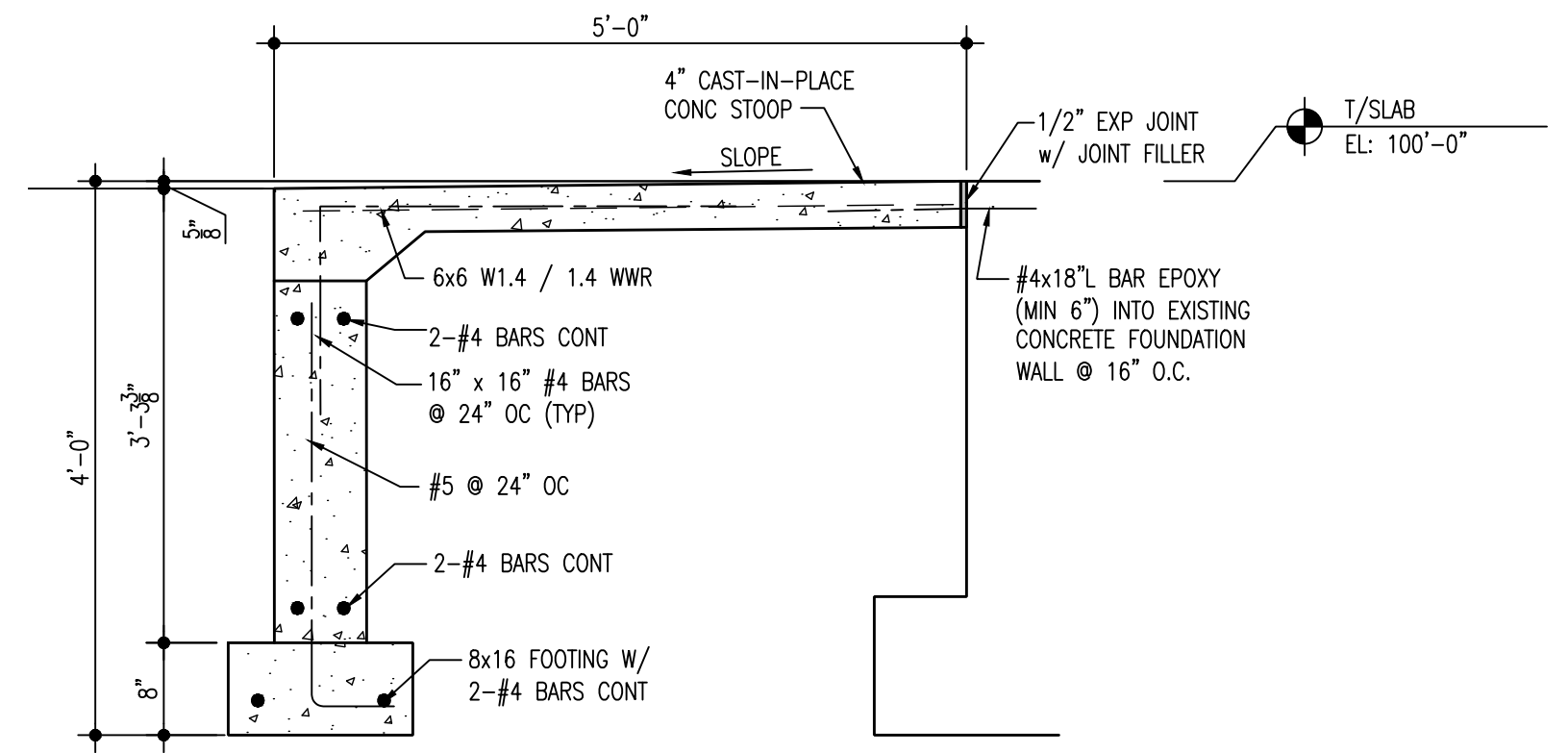
- FLOOR FINISHES & BASE - REFER TO FLOOR FINISH PLAN.
- EXISTING FLOOR HATCH DOOR - TO REMAIN.
- NEW DOOR - REFER TO DOOR SCHEDULE.
- TRIPLE GARAGE BASIN.
- NEW LOCKERS.
- NEW STOOP.
- NEW BOLLARDS - SEE DETAIL "A" THIS PAGE. MATCH & PATCH ASPHALT AROUND BOLLARD AS REQUIRED.
- EXISTING TRENCH DRAINS TO REMAIN.
- EXISTING CONCRETE STOOP TO REMAIN.
- NEW CONCRETE FLOOR - SEE DEMOLITION PLAN SHEET A1.0.1-B FOR LAYOUT AND DETAILS.



DETAIL

SCALE: 3/4" = 1'-0"

A
A1.1.0B

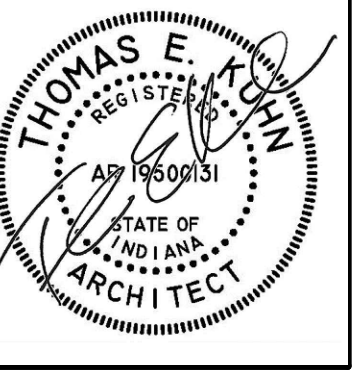


SECTION

SCALE: 3/4" = 1'-0"

2
A1.1.0B

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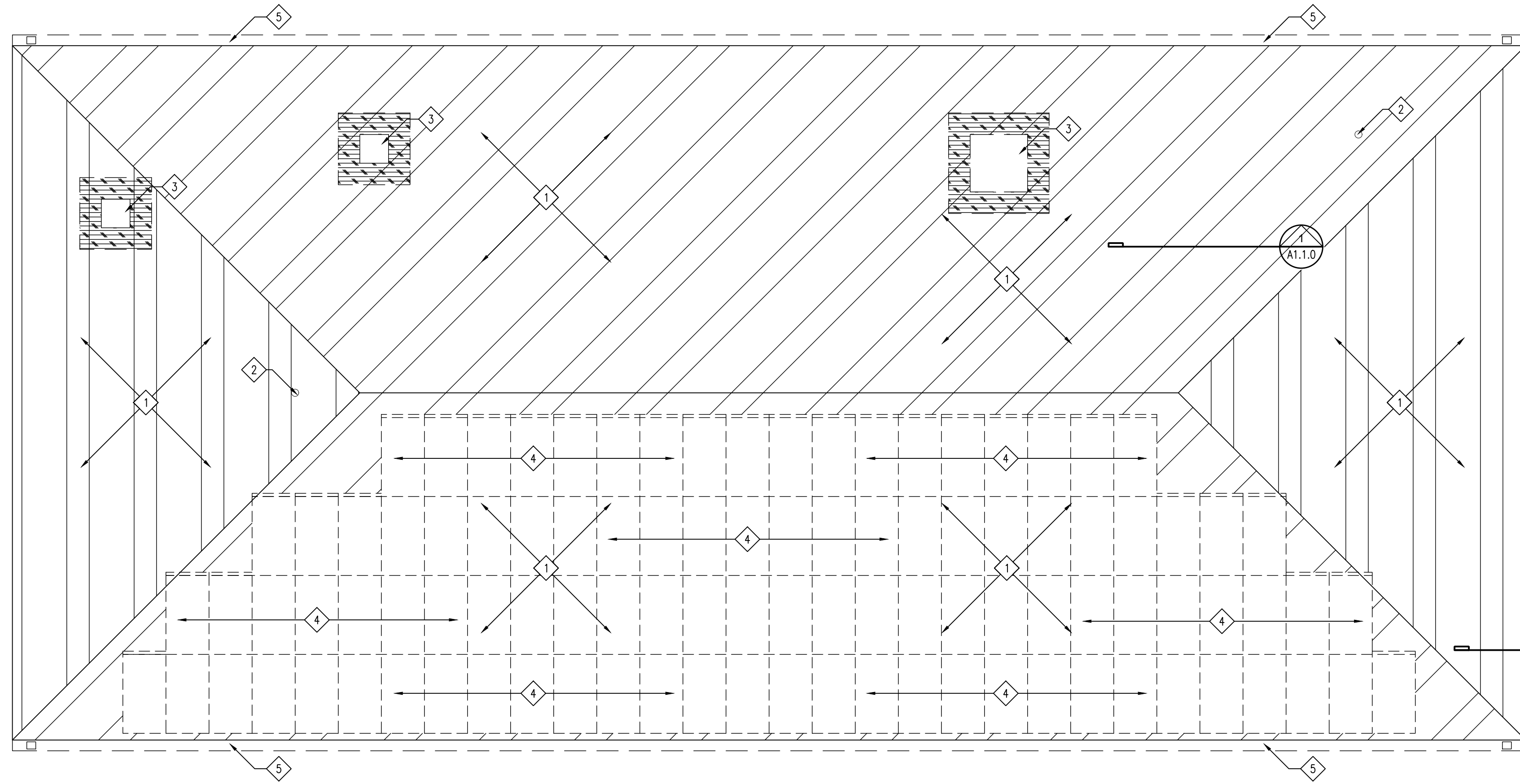
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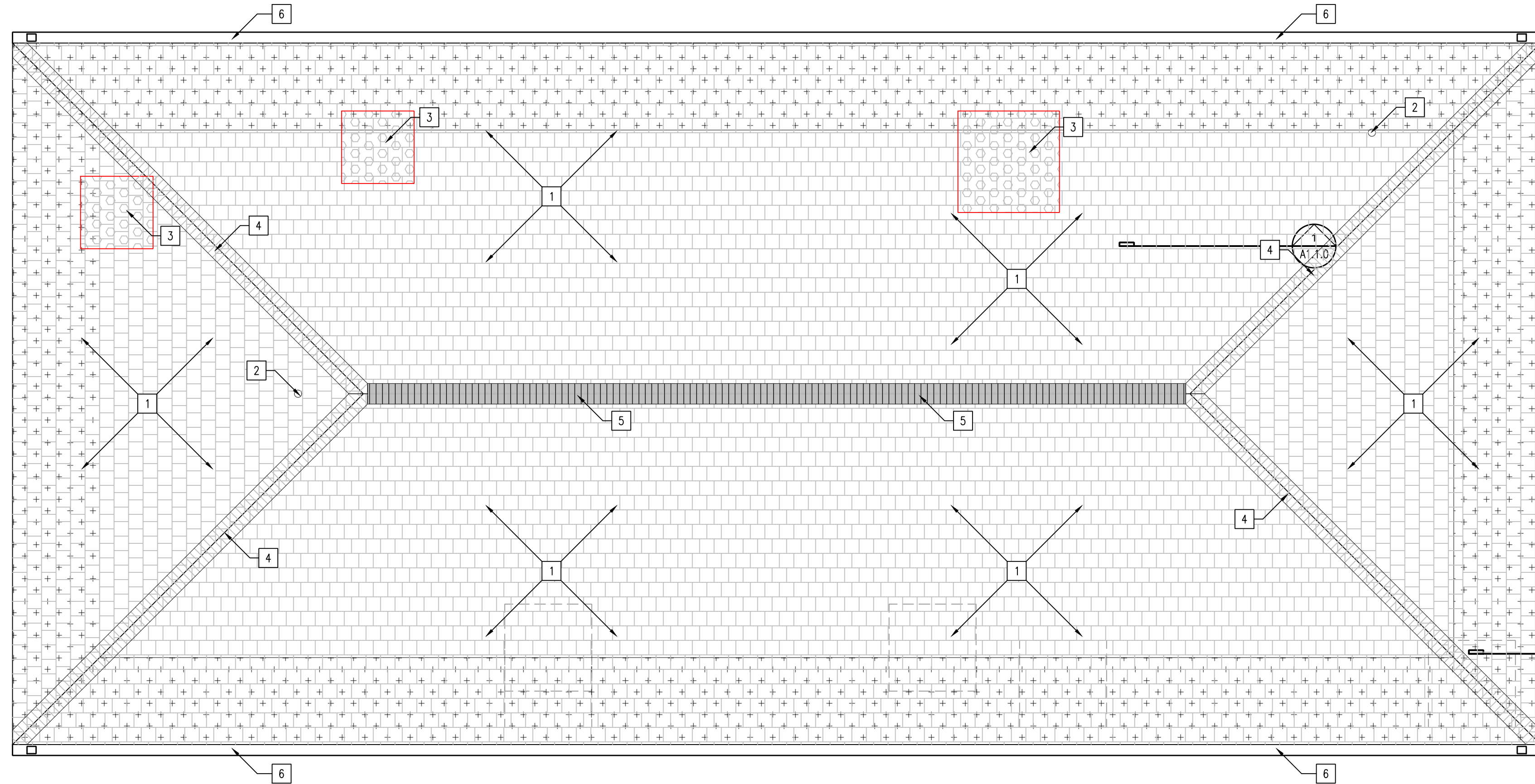
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ROOF PLAN
DEMOLITION
SCALE: 1/4" = 1'-0"
PLAN NORTH

- DEMO ROOF LEGEND**
- ASPHALT FIBERGLASS SHINGLE TO BE REMOVED COMPLETELY.
 - REMOVE AREA OF PLYWOOD DECKING COMPLETELY

- KEYED ROOFING DEMOLITION NOTES:**
- 1 REMOVE EXISTING SHINGLE ROOF AND DRIP EDGE
 - 2 EXISTING VENTS - SHALL REMAIN
 - 3 REMOVE EXISTING MECHANICAL EXHAUST AND SURROUNDING DAMAGED PLYWOOD ROOF DECKING.
 - 4 REMOVE EXISTING SOLAR PANELS COMPLETELY.
 - 5 REMOVE EXISTING GUTTERS AND DOWNSPOUTS

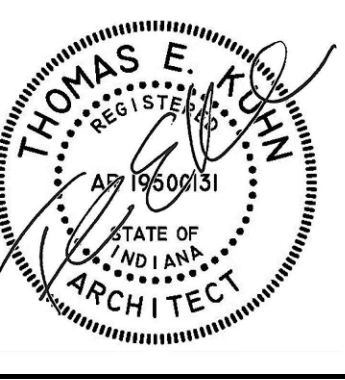


ROOF PLAN
NEW CONSTRUCTION
SCALE: 1/4" = 1'-0"
PLAN NORTH

- NEW ROOF LEGEND**
- ASPHALT FIBERGLASS SHINGLE
 - ICE DAM PROTECTION (OVERLAPPING EACH ROW 6" MIN.)
 - RIDGE VENT
 - RIDGE CAP SHINGLES

- KEYED ROOFING NEW CONSTRUCTION NOTES:**
- 1 INSTALL NEW ASPHALT FIBERGLASS SINGLES, UNDERLAYMENT, & ICE DAM PROTECTION ON ROOF SHEATHING. INSTALL NEW METAL DRIP EDGE
 - 2 EXISTING VENTS. PROVIDE NEW FLASHING.
 - 3 PROVIDE NEW PLYWOOD SHEATHING IN AREA.
 - 4 INSTALL NEW RIDGE CAP SHINGLES
 - 5 INSTALL NEW SHINGLE RIDGE VENT
 - 6 INSTALL NEW PRE-FINISHED METAL GUTTERS AND DOWNSPOUTS, CONNECT TO EXISTING STORM WATER PIPES AS REQUIRED

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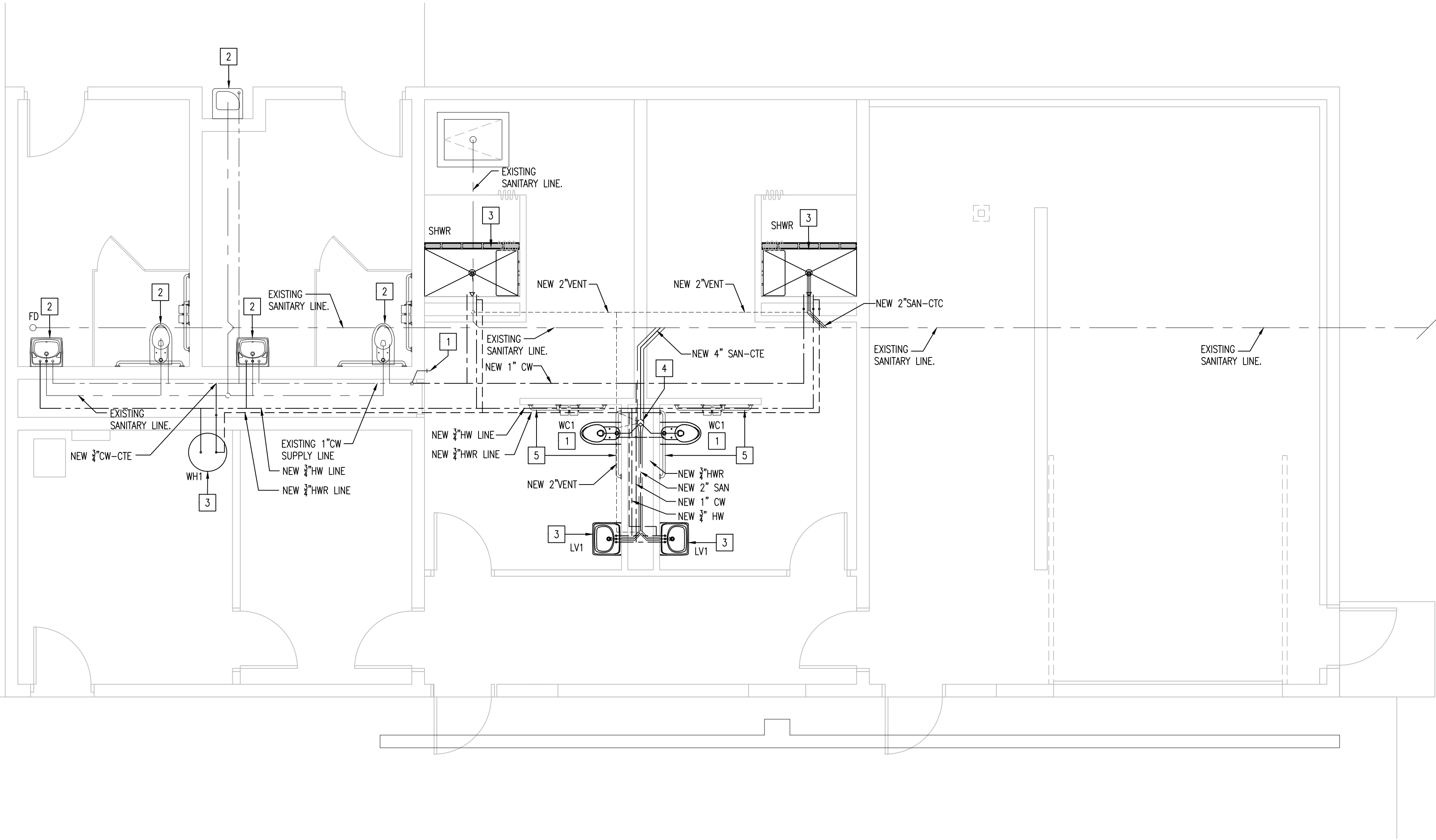
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PLUMBING PLAN
NEW CONSTRUCTION SCALE: 1/4" = 1'-0" PLAN NORTH

PLUMBING PLAN GENERAL NOTES:

1. FIELD VERIFY ALL DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL WORK, NEW PIPING SIZE AND MATERIAL SHALL BE IN FULL ACCORDANCE WITH THE PLUMBING CODE.
3. ALL PLUMBING FIXTURE VENTS TO TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10'-00" FROM OR 3'-00" ABOVE ANY MECHANICAL EQUIPMENT OUTSIDE AIR INTAKE.
4. EXTEND AND FLASH ALL PLUMBING VENTS AS REQUIRED.
5. FIRE CAULK AT ALL PIPE OPENINGS THRU FLOORS, WALLS AND ROOFS.
6. INSULATE COLD WATER LINES AT UNCONDITIONED SPACE.
7. PROVIDE PVC P-TRAPS FOR DRAIN LINES OF ALL NEW SINKS.
8. PIPING LAYOUT IS SCHEMATIC ONLY, EXACT ROUTING AND INSTALLATION OF PIPES TO BE COORDINATED WITH THE BUILDING STRUCTURE AND THE WORK OF OTHER CONTRACTORS. NO WATER OR DRAIN LINES ARE PERMITTED TO BE INSTALLED OVER OR UNDER ELECTRICAL PANEL.

PLUMBING PLAN KEYNOTES:

- 1 REMOVE EXISTING HOSE BIB AND ASSOCIATED WATER LINES AS REQUIRED. CAP AND SEAL FOR A COMPLETE WATER TIGHT.
- 2 EXISTING PLUMBING FIXTURE SHALL REMAIN.
- 3 NEW PLUMBING FIXTURE CONNECT VIA NEW WATER SUPPLY LINES AND AND SANITARY SYSTEM. REFER TO PLUMBING FIXTURE SCHEDULE THIS SHEET.
- 4 NEW 4" DIA. PVC VENT THRU ROOF (VTR) - PROVIDE ROOF FLASHING AS REQUIRED.
- 5 NEW ADA GRAB BARS - REFER TO INTERIOR ELEVATIONS

PLUMBING PIPE LEGEND

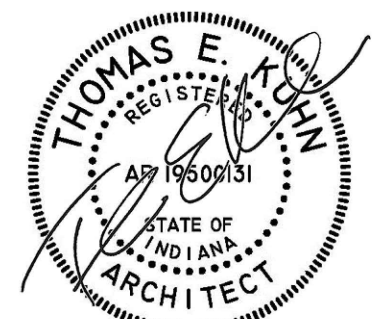
COLD WATER SUPPLY PIPING	CW
HOT WATER SUPPLY PIPING	HW
HOT WATER RETURN PIPING	HWR
SANITARY SEWER PIPING	SAN
UNDER FLOOR SANITARY SEWER PIPING	SAN
PVC VENT PIPING	VENT
CTC	CONNECT TO EXISTING

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	SPECIFICATION	PROVIDE THE FOLLOWING SIZE BRANCH TO THE DISTRIBUTION MAIN (UNLESS OTHERWISE SPECIFIED)				
			CW	HW	DRAIN	VENT	REMARKS
WC1	WALL HUNG WATER CLOSET	AMERICAN STANDARD 'AFWALL' #3351, WALL MOUNTED ELONGATED, WHITE VITREOUS CHINA WITH EVERCLEAN, TOILET 1.6 GPF, PROVIDE BOLT CAPS. ZURN FLUSH VALVE MODEL: ZER6003-AV-TM-HET-1.28; PROVIDE LITHIUM BATTERY. BEMIS 'OLSONITE' #95SSCT, WHITE, ELONGATED, OPEN FRONT, S.S. EXTERNAL CHECK HINGE. ZURN Z1200 SERIES, ADJUSTABLE CLOSET CARRIER.	1"	--	4"	2"	
UR1	URINAL	AMERICAN STANDARD 'WASHBROOK FLOWISE' #6590, WALL MOUNTED, WHITE VITREOUS CHINA WITH EVERCLEAN, URINAL 1.0 GPF. ZURN FLUSH VALVE MODEL: ZER6003AV-TM-0.125; PROVIDE LITHIUM BATTERY. ZURN Z1221, ADJUSTABLE URINAL CARRIER.	3/4"	--	2"	2"	
LAV1	WALL HUNG LAVATORY	AMERICAN STANDARD #0355.012 WHITE "LUCERNE" WALL-HUNG LAVATORY. SLOAN FAUCET MODEL: EAF350-ISM-0.5; PROVIDE 8" COVER PLATE MODEL ETF-510-A. BRASSCRAFT #KTSOR19X-C 1/2" COMP x 3/8" COMP CHROME 1/4 TURN ANGLE STOPS w/ LOOSE KEY. CAST BRASS "P" TRAP WITH CLEAN OUT. ZURN #Z1231 CONCEALED ARM CARRIER.	1/2"	1/2"	2"	1 1/2"	TRUEBRO "LAV GUARDZ" ADA-COMPLIANT UNDERSINK PIPE PROTECTION, ANTIMICROBIAL RESILIENT MOLDED VINYL.
SHWR	SHOWER	AMERICAN STANDARD 1662.211 FLOWISE COMMERCIAL SHOWER SYSTEM KIT WITH PRESSURE BALANCING VALVE, 1.5 GPM, HAND SHOWER, METAL HOSE, CAST BRASS VALVE BODY, ADA COMPLIANT, POLISHED CHROME. ZURN #ZN415S -3" CAST IRON FLOOR DRAIN w/ 6" x 6" SQUARE TYPE 'S' POLISHED NICKEL BRONZE STRAINER.	1/2"	1/2"	3"	1 1/2"	
WH1	WATER HEATER	AO SMITH CONSERVATION 75-GAL POWER DIRECT VENT WATER-HEATER; MODEL: AO_BTF-80 310, 76,000 BTU, PVC POWER VENT W/EXPANSION TANK, THERMOSTATIC MIXING VALVE, 28"ø x 2" DRAIN PAN, 3/4" IN LINE CIRCULATING PUMP - BELL & GOSSETT; SERIES 4-60 ECM. (SIZE BY MANUFACTURER FOR APPLICATION) & AQUASTAT AS REQUIRED.					PROVIDE THERMAL EXPANSION TANK PER THE SPECIFICATION.

NOTES:

1. ALL NEW PLUMBING EQUIPMENT SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE.
2. PROVIDE TEMPERING MIXING VALVE AT EACH LAVATORY & SINK.
3. FOR EACH BRANCH FROM THE MAIN PIPING PROVIDE VALVE AND TAG.
4. PROVIDE AIR CHAMBERS AT ALL NEW PLUMBING FIXTURES.
5. ALL VENTS TO EXTEND 12" ABOVE THE ROOF LINE AND SHALL BE PROVIDED WITH REGULAR ROOF TERMINATION TO RECEIVE FLASHING AS REQUIRED.
6. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.



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