

Addendum No.[2]

Project Name:

Pattengill - Bid Package 2 – Footings & Foundations

Project No.: 221125-190

Architect: Kingscott

Date: 4/12/24

Bid Package No.:	2
Bid Due Date:	4/18/2024 @ 2:00PM

This Addendum is issued to inform the bidders of modifications in the scope of work being bid for this project.

A. Documents included in this Addendum:

- Kingscott Addendum 2 Writeup
- Updated Work Scopes
 - o WC I0 Structural Concrete
 - Add Specific Note and Detail #3
 - Provide and install concrete footings and foundations that were changed from CMU to concrete in BP2 addendum #2. Include all accessories for a complete installation, including but not limited to steel reinforcement and steel embeds.
 - o WC II Masonry
 - Add Specific Notes & Details #1 A.
 - Provide and install brick assembly including but not limited to brick, weeps, vents, mortar net, spray foam insulation, flashing, termination bar, grout, drip edge, cast stone sills, backer rod/caulking, lintels, and brick ties.
 - Add Related Work by Others #2
 - CMU foundations changed to concrete foundations per BP2 addendum #2, concrete foundations by WC 10.

B. Other modifications:

- Remove Scope Clarification Diagram Detail 6/S2.0.
- C. Bids are due 4/18/2024 @ 2:00PM.
 - Include in your bid the increase or decrease for all materials, labor, supervision, overhead and profit required to properly and completely execute the work described in this Addendum.
 - Acknowledge receipt of this Addendum on the Bid Proposal Form.

The applicable provisions of the Contract Documents shall govern all work included herein unless specifically noted otherwise.

END OF ADDENDUM NO. [2]



Date: April 11, 2024

Project: Pattengill Modular Classroom Building

Owner: Lansing School District

Location: Lansing, MI

A/E #: 2616.05

ADDENDUM NO. 2

SPECIAL NOTE:

The Notice to Bidders, Instructions to Bidders, General Conditions of the Contract for Construction, Supplementary Conditions of the Contract for Construction, and all modifications and previously issued Contract Documentation are a part of this Addendum.

SCOPE OF WORK:

The following items are changes, additions, deletions, clarifications and/or errors and omissions in plans & specifications and shall be considered by each Bidder in making up and submitting their proposal. All items shall be considered a part of the Contract Documents.

NOTICE TO ALL BIDDERS:

All Bidders shall take note of all items covered by this Addendum. Each Bidder shall review the total scope of his responsibilities with respect to his contract work and his interface with the work of others, as well as his required interface with their work.

ARCHITECTURAL/ STRUCTURAL:

ATTACHMENTS: G0.1, A3.1, A4.1, S0.1, S1.0, S2.0, MODULAR DRAWINGS (FOR REFERENCE)

Drawings (General/ Architectural):

G0.1 Title Sheet

• Updated sheet index to include Architectural sheets.

A3.1 Exterior Elevations

Exterior Elevations Sheet added.

A4.1 Wall Sections

Wall Sections Sheet added.

Drawings (Structural):

S0.1: Structural Notes and Special Inspections

• Design Criteria updated to listed the design loads provided by the pre-manufactured unit supplier. Note that the supplier declined to provide reactions itemized for each load case as is customary with delegated design packages. Therefore, RDA has had to make assumptions in the design revisions to the foundations and take no responsibility for the adequacy of any pre-manufactured unit design or construction.

S1.0: Foundation and Lintel Framing Plans

- 1/S1.0 "Foundation Plan" added disclaimer stating the pre-manufactured unit supplier has declined to provide necessary reactions and RDA waives any responsibility for pre-manufactured unit design.
- 1/S1.0 "Foundation Plan" adjust footing sizes and locations based on updated pre-manufactured unit plans provided. Also changed from reinforced CMU foundations to reinforced concrete foundations and added a portion of backfilled area within the crawl space below water meter room (Detail 3/S1.0).

S2.0: Sections and Details

- 1/S2.0, revised section from reinforced CMU foundations to reinforced concrete foundations.
- 2/S2.0, revised section from reinforced CMU foundations to reinforced concrete foundations.
- 3/S2.0, revised detail from reinforced CMU to reinforced concrete.
- 4/S2.0, revised detail from reinforced CMU to reinforced concrete.
- 5/S2.0, revised detail from reinforced CMU to reinforced concrete, and added ventilation louvers.
- 6/S2.0, revised detail from reinforced CMU to reinforced concrete.
- 13,14,15/S2.0, removed typical CMU details and provided additional typical concrete details.

Drawings (Modular):

Attached are the modular drawings provided for the Modular scope of work, for reference for coordination as needed only.





EARLY FOUNDATION WORK BP#2 03.22.2024

DIRECTORY

CLIENT:

LANSING SCHOOL DISTRICT 519 WEST KALAMAZOO ST LANSING, MI P. (517) 755-1000

ARCHITECT & CIVIL ENGINEER:

KINGSCOTT ASSOCIATES INC. 259 E MICHIGAN AVE, SUITE 308 KALAMAZOO, MI 49007 TEL. (800) 632-7815

CONSTRUCTION MANAGER:

THE CHRISTMAN COMPANY 208 N CAPITOL AVENUE LANSING, MI 48933 P. (517) 482-1488

STRUCTURAL ENGINEER:

ROBERT DARVAS ASSOCIATES 440 S MAIN ST ANN ARBOR, MI 48104 P. (734) 761-8713

MEP ENGINEER:

SES ENGINEERING 4000 WEST 11 MILE ROAD BERKLEY, MI 48072 (248) 399-1900

TECHNOLOGY:

BARTON MALOW 26500 AMERICAN DR SOUTHFIELD, MI 48034 (248) 436-5000

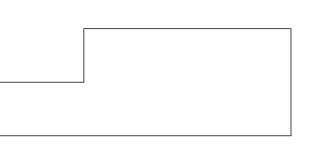
SHEET INDEX:

	NO.	NAME	
	G0.1	TITLE SHEET	
	CIVIL - BP01 - FOR F C0.0 C1.0 C2.0 C4.0 C5.0 C6.0 C7.0 C8.0 C8.1	REFERENCE COVER TOPOGRAPHICAL SURVEY EXISTING CONDITIONS & DEMOLITION PLAN UTILITY PLAN STORMWATER MANAGEMENT DETAILS SITE LAYOUT PLAN DETAILS AND SPECIFICATIONS GRADING PLAN GROUND IMPROVEMENTS SOIL EROSION AND SEDIMENTATION CONTRO	L PLA
\frac{1}{2}	STRUCTURAL-BP 02 S0.1 S1.0 S2.0	STRUCTURAL NOTES AND SPECIAL INSTRUCT FOUNDATION AND LINTLE FRAMING PLANS SECTIONS AND DETAILS	IONS
2	ARCHITECTURAL - E A3.1 A4.1	BP 02 EXTERIOR ELEVATIONS WALL SECTIONS	
	P3.1 S0.0 S1.1 S2.1 S3.1 S4.1 S4.2 S5.1 S5.2 S5.3	COVER SHEET SPECIFICATIONS EXTERIOR ELEVATIONS FLOOR PLAN PRODUCTION FLOOR PLAN MOD 1-9 PRODUCTION FLOOR PLAN MOD 10 PRODUCTION FLOOR PLAN MOD 11-18 REFLECTIVE CEILING PLAN SEAM CLOSURE FLOOR PLAN ELECTRICAL PLAN JUNCTION BOX PLAN ELECTRICAL SCHEDULE MECHANICAL PLAN DUCT DETAILS DWV SCHEMATICS SUPPLY SCHEMATICS SUPPLY SCHEMATICS SUGGESTED BLOCKING PLAN CROSS SECTION FRAME PLATE FLOOR FRAMING PLAN WALL FRAMING ELEVATIONS WALL FRAMING ELEVATIONS ROOF FRAMING PLAN W10x22 MATE BEAM DETAILS	





ISSUANCES	DAT
EARLY FOUNDATION WORK BP#2	03.22.202
ADDENDUM 02	04.11.202



KEY PLAN



TITLE SHEET





5 SSRO

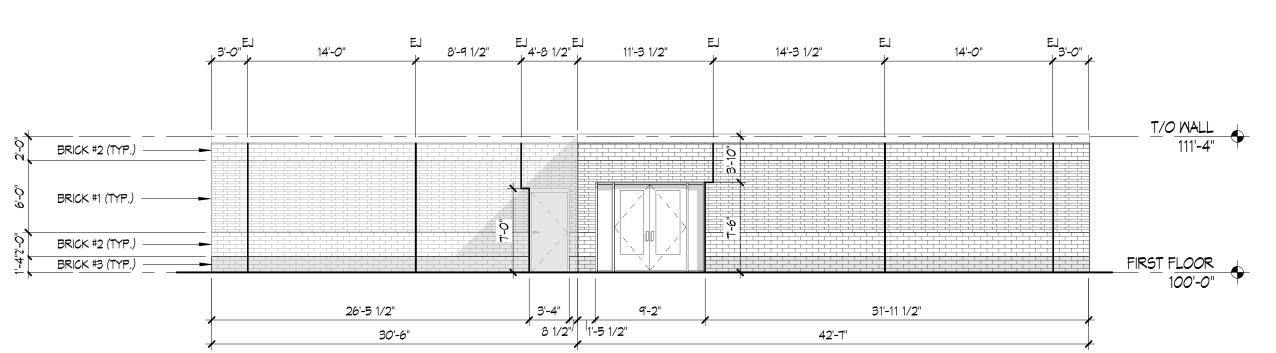
14'-0"

10'-0" 4'-0" 10'-0" 4'-0" 5'-6 1/2"

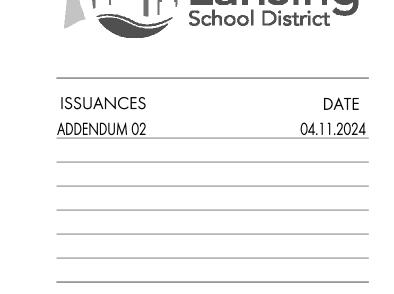
EJ 8'-9 1/2" EJ 4'-8 1/2" EJ 11'-3 1/2" FJ 14'-3 1/2" T/O WALL 111'-4" BRICK #2 (TYP.) BRICK #1 (TYP.) ----BRICK #2 (TYP.)

14'-0"

10'-0"



10'-0"

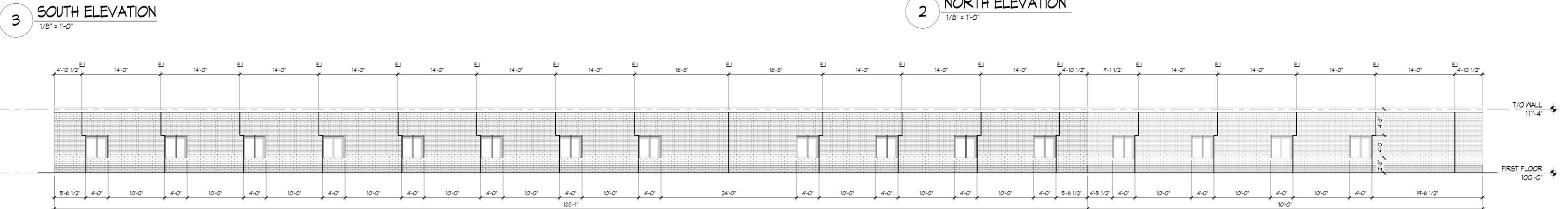




14'-0"

14'-0"

10'-0"



14'-0"

4'-0"

10'-0" 4'-0"

4'-0" 10'-0"

14'-0"

31'-11 1/2"

4'-0" 10'-0" 4'-0" 10'-0"

14'-3 1/2"

10'-6"

9'-2"

73'-1"

14'-3 1/2"

31'-11 1/2"

4'-0" 10'-0"

FIRST FLOOR 100'-0"

16'-8"

SHEET TITLE EXTERIOR ELEVATIONS

KEY PLAN

JOB NO. 2616.05

EAST ELEVATION

1/8" = 1'-0"

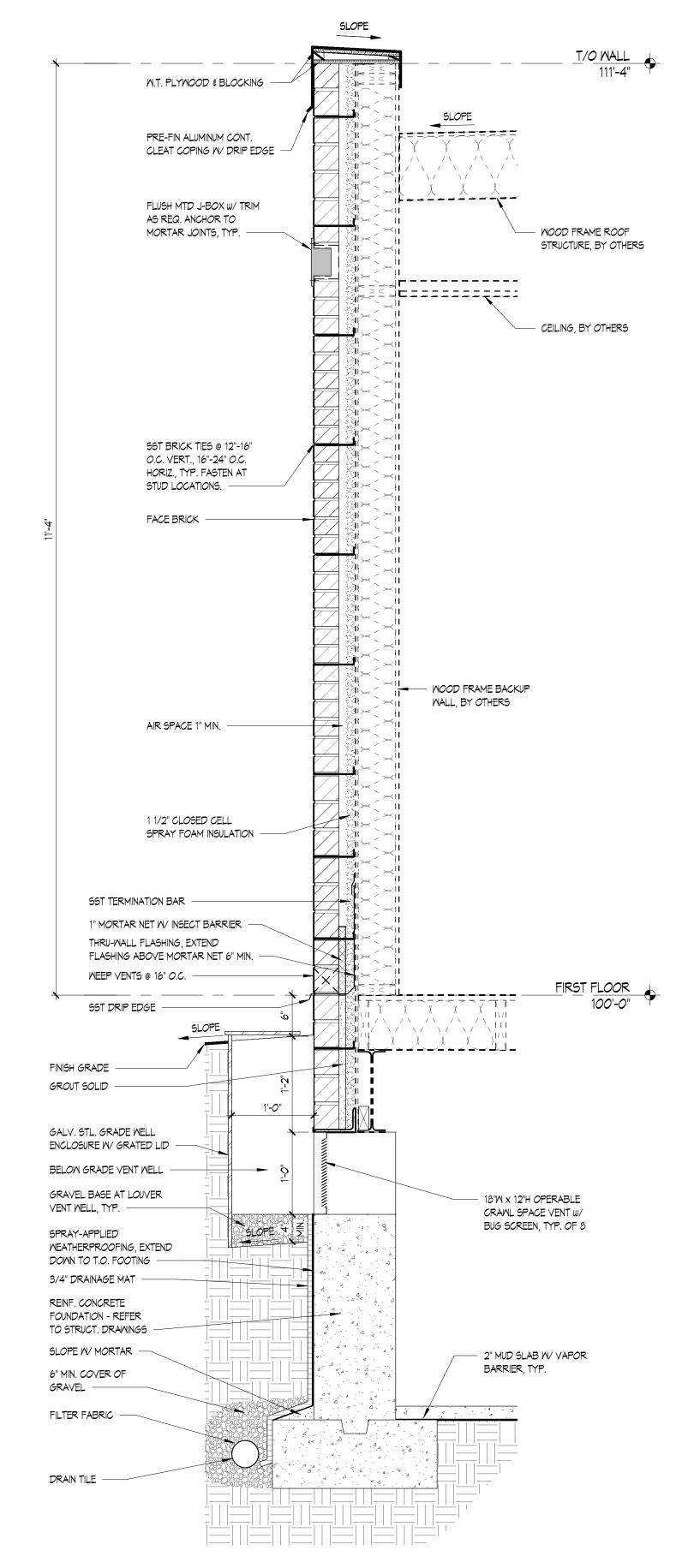
5'-6 1/2" 4'-0"

4 MEST ELEVATION

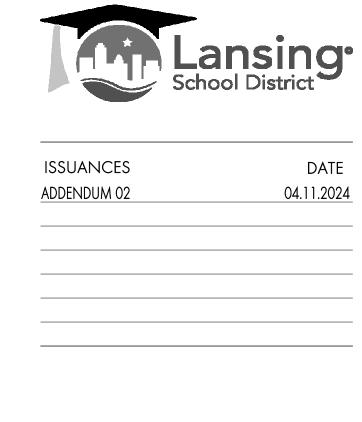
1/8" = 1'-0"

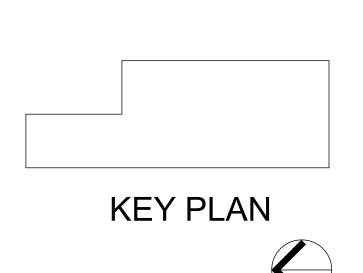


M.T. PLYMOOD & BLOCKING -ROOF DRAIN (BEYOND) (Caracalana) PRE-FIN ALUMINUM CONT. CLEAT COPING W/ DRIP EDGE SST BRICK TIES @ 12"-16" O.C. VERT., 16"-24" O.C. HORIZ., TYP. FASTEN AT STUD LOCATIONS. — - WOOD FRAME ROOF STRUCTURE, BY OTHERS 1 1/2" CLOSED CELL SPRAY FOAM INSULATION -FACE BRICK -SST TERMINATION BAR 1" MORTAR NET W/ INSECT BARRIER - CEILING, BY OTHERS THRU-WALL FLASHING, EXTEND FLASHING ABOVE NOOD FRAME BACKUP MORTAR NET 6" MIN. — WALL BY OTHERS WEEP VENTS @ 16" O.C. SST DRIP EDGE — STL ANGLE LINTEL - REF. TO STRUCTURAL DRAWINGS — SEALANT ON BACKER ROD, ALL AROUND WINDOW BY OTHERS -SST FLASHING -CAST STONE SILL W/ KERF CUT 1 1/2" CLOSED CELL SPRAY FOAM INSULATION -AIR SPACE 1" MIN. -SST TERMINATION BAR 1" MORTAR NET W/ INSECT BARRIER MEEP VENTS @ 16" O.C. THRU-WALL FLASHING, EXTEND FLASHING ABOVE MORTAR NET 6" MIN. — SST DRIP EDGE -FINISH GRADE -GROUT SOLID -SPRAY-APPLIED MEATHERPROOFIN G, EXTEND DOWN TO T.O. FOOTING 3/4" DRAINAGE MAT REINF. CONCRETE FOUNDATION - REFER TO STRUCT. DRAWINGS -SLOPE W/ MORTAR -2" MUD SLAB W/ VAPOR BARRIER, TYP. 6" MIN. COVER OF GRAVEL -FILTER FABRIC

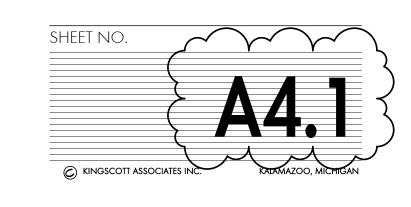


PATTENGILL MODULAR CLASSROOM BUILDING









STRUCTURAL NOTES

GENERAL

- 1. THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE DRAWINGS AND THE WRITTEN SPECIFICATIONS. IN THE EVENT OF CONFLICT BETWEEN THE INFORMATION ON THE WRITTEN SPECIFICATIONS, THE DRAWINGS, AND THESE NOTES, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
- 2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING DURING CONSTRUCTION TO ACCOUNT FOR ALL FORCES, INCLUDING BUT NOT LIMITED TO: GRAVITY, WIND, EARTH PRESSURE, AND UNBALANCED FORCES DUE TO CONSTRUCTION SEQUENCE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND JOB SAFETY.
- 3. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES, OR OTHER PROPERTIES.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING WORK, AS WELL AS ANY OTHER APPLICABLE TRADES. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES AND/OR INTERFERENCES IMMEDIATELY.
- 5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND BE RESPONSIBLE FOR SAME.
- 6. IN CASES OF CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND/OR PROCEEDING WITH
- 7. THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS, AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES. OPENINGS REQUIRED BUT NOT SHOWN ON STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF
- 8. APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE, OR NOTE.
- 9. DO NOT SCALE DRAWINGS. ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS.
- 10. ISOMETRIC VIEWS, IF INCLUDED, ARE TO GIVE A GENERAL SENSE OF THE STRUCTURE AND MASSING. THEY DO NOT SUPERSEDE THE STRUCTURAL DRAWINGS AND ARE PROVIDED AS SUPPLEMENTAL INFORMATION ONLY. THE STRUCTURE SHALL BE PROVIDED PER THE STRUCTURAL DRAWINGS, DETAILS, NOTES, AND SPECIFICATIONS.
- 11. CENTERLINES OF FOUNDATIONS COINCIDE WITH COLUMN LOCATIONS, UNLESS NOTED OTHERWISE. 12. THE CONTRACTOR SHALL OBTAIN COPIES OF THE LATEST CONTRACT DOCUMENTS INCLUDING ALL BULLETINS AND ADDENDA, AND SHALL PROVIDE THE RELEVANT PORTIONS TO ALL SUBCONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS,
- FABRICATION, AND ERECTION OF STRUCTURAL MEMBERS.
- 14. NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, OR OTHERWISE REDUCED IN STRENGTH UNLESS SPECIFICALLY SHOWN ON

13. STRUCTURAL ENGINEER OF RECORD'S ACCEPTANCE MUST BE SECURED FOR ALL STRUCTURAL SUBSTITUTIONS.

THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.

- 15. THE GENERAL CONTRACTOR IS TO PROVIDE AN APPROPRIATE NUMBER OF COPIES OF ONE COMPLETE COORDINATED DRAWING SET SHOWING ALL SLEEVES, CONDUITS, BOXOUTS, DUCT OPENINGS, ETC. AS REQUIRED FOR ALL TRADES FOR THE STRUCTURAL ENGINEER OF RECORD'S APPROVAL. THIS SHALL BE DONE A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTING AFFECTED SLABS, BEAMS, WALLS, COLUMNS, OR FOOTINGS.
- 16. SUPPORT DETAILS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT IS BASED UPON AVAILABLE INFORMATION OF MANUFACTURER. CONTRACTOR SHALL COORDINATE REQUIREMENTS OF ACTUAL EQUIPMENT SUPPLIED WITH DETAILS AND SHALL PROVIDE ANY ADDITIONAL FRAMING REQUIRED.
- 17. PERIODIC SITE OBSERVATION VISITS MAY BE PROVIDED BY THE ARCHITECT/ENGINEER. THE SOLE PURPOSE OF THESE OBSERVATIONS IS TO REVIEW THE GENERAL CONFORMANCE OF THE CONSTRUCTION WITH THE CONTRACT DOCUMENTS. THESE LIMITED OBSERVATIONS SHOULD NOT BE CONSIDERED AS CONTINUOUS OR EXHAUSTIVE INVESTIGATIONS TO VERIFY THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

REFERENCED CODES AND STANDARDS

- 1. PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE LATEST EDITIONS OF THE BUILDING AND DESIGN CODES REFERENCED 5. THE USE OF CALCIUM CHLORIDE AND/OR OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED WITHIN THESE DOCUMENTS. THE CONTRACT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, LATEST EDITIONS AS REFERENCED IN THE CURRENT BUILDING CODE IN THE STATE OF THE PROJECT, UNLESS NOTED OTHERWISE:
- 2015 MICHIGAN BUILDING CODE ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- TMS 402/602. BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES HOT AND COLD WEATHER MASONRY CONSTRUCTION BY THE MASONRY INDUSTRY COUNCIL
- AISC 303, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES
- AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS

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7	DES	SIGN CRITERIA	,
	1.	GENERAL CONCRETE DESIGN STEEL DESIGN RISK CATEGORY	LRFD LRFD III
	2.	DEAD LOADS (PER UNIT MANUFACTURER) CORRIDOR CLASSROOMS ROOF	10.0 PSF 10.0 PSF 10.0 PSF
	3.	LIVE LOADS (PER UNIT MANUFACTURER) CORRIDOR CLASSROOMS ROOF	100.0 PSF 50.0 PSF 30.0 PSF
	4.	SNOW LOADS (NOT PROVIDED BY MANUFACTURER) GROUND SNOW LOAD (PG) SNOW EXPOSURE FACTOR (CE) SNOW IMPORTANCE FACTOR (IS) THERMAL FACTOR (CT) FLAT ROOF SNOW LOAD (PF) MINIMUM SNOW LOAD (PMIN)	30.0 PSF 0.9 1.1 1.0 21.0 PSF 22.0 PSF
	5.	WIND LOADS (NOT PROVIDED BY MANUFACTURER) BASIC WIND SPEED (V) EXPOSURE CATEGORY (SEE WIND LOAD DIAGRAMS)	115 MPH B
	6.	SEISMIC LOADS (NOT PROVIDED BY MANUFACTURER) SEISMIC SITE CLASS DESIGN SPECTRAL ACCELERATION (SDS) BESIGN SPECTRAL ACCELERATION (SD1) SEISMIC DESIGN CATEGORY SEISMIC IMPORTANCE FACTOR (IE) WOOD WALLS SHEATHED WITH WOOD PANELS (R) SEISMIC RESPONSE COEFFICIENT (CS)	D 0.098 0.074 B 1.25 6.5 0.018
	•	PRE-MANUFACTURED UNIT SUPPLIER DECLINED TO PROVIDE REACTIONS ITE FOR EACH LOAD CASE (DEAD, LIVE, ROOF LIVE, SNOW, WIND (N-S, E-W, AND LAND SEISMIC (N-S, E-W, AND UPLIFT). ASSUMPTIONS WERE THEREFORE MADIDESIGN FOUNDATIONS. SUPPLIER TO PROVIDE FINAL ENGINEERED PLANS, S AND DETAILS, WITH CALCULATIONS, ALL SIGNED AND SEALED BY A PROFES STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN AS A SEPARADELEGATED DESIGN PACKAGE FOR WHICH RDA TAKES NO RESPONSIBILITY	UPLIFT), E TO ECTIONS, SIONAL ATE

ADEQUACY OF ANY PRE-MANUFACTURED UNIT DESIGN OR CONSTRUCTION.

SUBMITTAL

- 1. THE CONTRACTOR SHALL SUBMIT FOR ARCHITECT/ENGINEER REVIEW A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SUBMITTALS, AND THE DATE THEY WILL BE RECEIVED, AT LEAST TWENTY (20) WORKING DAYS PRIOR TO THE FIRST SUBMITTAL. THE 3. CONCRETE MASONRY ASSEMBLAGE SHALL DEVELOP 2,500 PSI COMPRESSIVE STRENGTH IN 28-DAYS, UNLESS NOTED OTHERWISE. SCHEDULE SHOULD ACCOUNT FOR AT LEAST TEN (10) WORKING DAYS OF REVIEW TIME BY THE ARCHITECT/ENGINEER FOR EACH
- 2. SHOP DRAWINGS AND/OR DETAILS THAT ARE PREPARED FROM REPRODUCTIONS OF THE STRUCTURAL ENGINEER OF RECORD'S
- DESIGN DOCUMENTS, IN WHOLE OR IN PART, SHALL NOT BE USED AND WILL BE REJECTED.
- 3. THE ARCHITECT/ENGINEER MAY RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE PROJECT REQUIREMENTS.
- 4. THE CONSTRUCTION, MANUFACTURE, AND/OR FABRICATION OF ANY ITEMS PRIOR TO THE ARCHITECT/ENGINEER REVIEW WILL BE ENTIRELY AT THE RISK OF THE CONTRACTOR.
- 5. ARCHITECT'S/ENGINEER'S REVIEW IS FOR GENERAL CONFORMANCE AND COMPLIANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENTS. ANY ACTION NOTED DOES NOT WAIVE ANY REQUIREMENT OF CONTRACT DOCUMENTS, COORDINATION OF TRADES, AND SATISFACTORY PERFORMANCE OF THEIR WORK WHICH ARE THE CONTRACTOR'S COMPLETE RESPONSIBILITY.
- 6. FOR COMPONENTS THAT REQUIRE A SPECIALTY ENGINEER, THE SUBMITTAL SHALL BE SEALED BY THE ENGINEER RESPONSIBLE FOR THE DESIGN. "SPECIALTY ENGINEER" IS DEFINED AS THE STRUCTURAL ENGINEER EMPLOYED BY THE SUPPLIER TO DESIGN PRODUCTS TO MEET THE SPECIFIC CRITERIA OUTLINED IN THE CONTRACT DOCUMENTS. SEALING OF THE SUBMITTAL IMPLIES THAT THE SPECIALTY ENGINEER HAS REVIEWED THE CONTRACT DOCUMENTS AND HAS, TO THE BEST OF THEIR KNOWLEDGE,
- INCORPORATED ALL OF THE SPECIAL DESIGN CRITERIA CONTAINED THEREIN. 7. ITEMS THAT REQUIRE SUBMITTAL FOR STRUCTURAL REVIEW ARE:
- CONCRETE MIX DESIGNS CONCRETE REINFORCING LAYOUT
- MASONRY UNIT STRENGTHS

ANCHOR RODS

- MORTAR/GROUT MIX DESIGNS MASONRY REINFORCING LAYOUT
- STRUCTURAL STEEL PRE-FABRICATED BUILDING LOADS

SAW CUTTING EXISTING CONCRETE AND/OR MASONRY

1. SAW CUTTING OF NEW OPENINGS IN EXISTING CONCRETE AND/OR MASONRY WALLS SHALL BE DONE WITHOUT OVERCUTTING BEYOND THE BOUNDARIES OF THE INTENDED OPENING. ANY STRUCTURAL REPAIRS REQUIRED BY THE STRUCTURAL ENGINEER OF RECORD AS A RESULT OF OVERCUTTING BEYOND THE BOUNDARIES OF AN OPENING SHALL BE PAID FOR BY THE SAW CUTTING CONTRACTOR. SEE DRAWINGS FOR ADDITIONAL INFORMATION.

FOUNDATIONS

- RAPIDS ROAD, LANSING, MICHIGAN DATED MARCH 5, 2024 (SME JOB NO. 095629.00). THE CONTRACTOR SHALL OBTAIN A COPY OF THE SOIL REPORT AND BECOME FAMILIAR WITH THE REQUIREMENTS AND RECOMMENDATIONS THEREIN.
- A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE CONTRACTOR TO VERIFY FOUNDATION INSTALLATION AND CONSTRUCTION IS IN CONFORMANCE WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL INVESTIGATION REPORT.

1. FOUNDATION CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SOIL REPORT BY SOIL AND MATERIALS ENGINEER, 2663 EATON

- 3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, HAVING A MINIMUM SAFE BEARING CAPACITY OF 3,000 PSF.
- CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN EXCAVATIONS ARE COMPLETED SO THAT CONDITIONS MAY BE INSPECTED PRIOR TO PLACEMENT OF ANY FILL, REINFORCING, OR CONCRETE, NOTIFY ARCHITECT/ENGINEER OF ANY VARIATION FROM THE ANTICIPATED BEARING CAPACITY FOR APPROPRIATE REDESIGN OR LOWERING OF FOOTING.
- THE BOTTOMS OF ALL FOOTINGS SHALL BE MINIMUM 3'-6" BELOW FINISHED GRADE. IF SUCH ADDITIONAL FOOTING DEPTH WILL CAUSE UNDERMINING OF ADJACENT EXISTING FOOTINGS OR STRUCTURES, PROVIDE SHORING, BRACING, OR UNDERPINNING AS REQUIRED, OR LEAVE FOOTING ELEVATION AS DESIGNED AND PROVIDE CONTINUED PROTECTION AND HEAT TO PREVENT FORMATION OF FROST BELOW FOOTING AND ADJACENT TO FOOTING.
- 6. EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 VERTICAL TO 2 HORIZONTAL SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION, UNLESS UNDERPINNING OR SHORING AND BRACING OF EXISTING FOOTING OR EXCAVATION IS PROVIDED. UNDERPINNING SHALL BE DONE SO AS NOT TO CAUSE SETTLEMENTS OF EXISTING STRUCTURE AND SHALL BE SUCH THAT COMPLETE CONTACT IS ACHIEVED BETWEEN NEW UNDERPINNING AND EXISTING CONCRETE.
- DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL CONCRETE HAS ATTAINED 100 PERCENT OF ITS DESIGN STRENGTH. DO NOT PLACE BACKFILL AGAINST FOUNDATION WALLS UNTIL BASEMENT SLAB ON GRADE AND FIRST FLOOR STRUCTURE ARE IN PLACE. SHORE AND BRACE WALLS AS REQUIRED IF BACKFILLING OPERATIONS ARE TO BE CARRIED OUT PRIOR TO PLACEMENT OF BASEMENT SLAB AND/OR FLOOR STRUCTURE.
- NO FOUNDATIONS OR SLABS SHALL BE PLACED ON OR AGAINST SUB-GRADE CONTAINING WATER, FROST, OR ICE. CONTRACTOR SHALL FURNISH ALL REQUIRED DE-WATERING EQUIPMENT TO MAINTAIN A DRY EXCAVATION UNTIL BACKFILL IS COMPLETE.
- 9. CONTRACTOR SHALL BE RESPONSIBLE TO ADEQUATELY PROTECT EXCAVATIONS AND SUB-GRADES OF COMPLETED NON-FROST PROTECTED FOUNDATIONS AND SLABS FROM DAMAGE DUE TO FREEZING CONDITIONS UNTIL THE FULL BUILDING ENCLOSURE IS COMPLETED AND HEATED.
- 10. SLABS ON GRADE SHALL REST ON GRANULAR FILL PER GEOTECHNICAL REPORT. ALL BACKFILL WITHIN BUILDING LINES SHALL BE ENGINEERED GRANULAR FILL PLACED UNDER THE FULL-TIME SUPERVISION OF A SOIL ENGINEER AND SHALL BE COMPACTED TO ACHIEVE 95% MODIFIED PROCTOR DENSITY (AS DEFINED BY ASTM D1557 MODIFIED PROCTOR TEST). FILL SHALL BE PLACED IN 9"
- 11. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS, ADJACENT STRUCTURES, PAVEMENTS, AND UTILITIES. DO NOT REMOVE SHORING, SUCH AS SHEET PILING, IF IT WILL CAUSE SETTLEMENT OR DAMAGE TO EXISTING OR NEW STRUCTURES, PAVEMENT, AND/OR UTILITIES.
- 12. MAXIMUM LENGTH OF FOUNDATION WALL PLACED IN ONE OPERATION SHALL NOT EXCEED 60 FEET
- 13. THE FOUNDATION CONTRACTOR SHALL REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS OF TRENCHES, PITS, CONDUITS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.

SHALL BE AIR-ENTRAINED.

1.	ALL	. CONCRETE SHALL BE MADI	E WITH PORTL	AND CEM	ENT AND STOP	NE AGGREGAT	ΓΕ, WITH MIXES DESIGNED TO MEET 28-DA`
	MIN	IIMUM COMPRESSIVE STREM	NGTHS IN VAR	IOUS ELEI	MENTS OF THE	STRUCTURE	AS FOLLOWS, UNLESS NOTED OTHERWISE
	•	ELEMENT	F'C	TYPE	MAX. AGG.	MAX. W/C	MAX. SLUMP
	•	FOOTINGS	3,000	1/11	1 1/2"	0.49	4" (+/- 1")
	•	WALLS	4,500	1/11	3/4"	0.46	4" (+/- 1")
	•	SLABS ON GRADE	4,500	1/11	3/4"	0.46	4" (+/- 1")

- 2. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE ACI 301, 318, AND SP-66 (315 INCLUDED AS A CHAPTER), LATEST EDITIONS.
- 3. PROVIDE NORMAL WEIGHT CONCRETE WITH CURED DENSITY OF 145 PCF AND AGGREGATE CONFORMING TO ASTM C33.
- 4. CONCRETE EXPOSED TO MOISTURE AND FREEZING-AND-THAWING CYCLES (WITH OR WITHOUT EXPOSURE TO DE-ICING CHEMICALS)
- CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS AND CONCRETE IS PROHIBITED. NO CONCRETE SHALL BE PLACED UNTIL CONCRETE DESIGN MIXES AND PREVIOUS TESTS HAVE BEEN SUBMITTED FOR EACH CLASS OF CONCRETE NOTED ABOVE AND HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. CONCRETE PROPORTIONS SHALL BE BASED UPON FIELD EXPERIENCE AND/OR TRIAL BATCHES PER ACI 301 AND ACI 318. THE CONTROLLED CONCRETE TO BE USED SHALL CONFORM TO THE APPROVED DESIGN MIX. THE USE OF ANY ADDITIVES NOT PRESENT IN THE DESIGN MIX IS

PROHIBITED. REPRESENTATIVE TEST CYLINDERS WILL BE TAKEN FROM THE CONCRETE PLACED EACH DAY IN ACCORDANCE WITH

- THE CONCRETE SPECIFICATIONS. 7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DRAWINGS FOR REVIEW OF ALL JOINTS IN THE CONCRETE WORK INCLUDING CONSTRUCTION, EXPANSION, CONTRACTION, AND MOVEMENT JOINTS. DRAWINGS SHALL BE SUBMITTED AT LEAST TWO WEEKS PRIOR TO EXPECTED START OF WORK. JOINT LOCATIONS SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS
- 8. ALL CONCRETE STRUCTURAL MEMBERS SHALL BE PLACED FOR THEIR FULL DEPTHS IN ONE OPERATION. CONSTRUCTION JOINTS, SUCH AS DAY'S END PLACEMENT JOINTS, SHALL BE LOCATED IN THE MIDDLE THIRD OF THE SPAN AND BE ROUGHENED.
- REINFORCING TO RUN THROUGH THE JOINT, BULKHEAD, AND/OR KEY JOINTS. REMOVE LAITANCE PRIOR TO NEXT POUR. 9. CONTRACTOR SHALL CALCULATE AND INCLUDE ALL ADDITIONAL CONCRETE THAT MAY BE REQUIRED DURING PLACING DUE TO DEFLECTION OF STRUCTURE AND PROVIDE A LEVEL CONCRETE SURFACE. THICKNESS OF SLAB CALLED OUT ON DRAWINGS IS THE
- 10. ALL CONCRETE SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, VERIFY WITH THE STRUCTURAL ENGINEER OF RECORD.
- 11. CONCRETE SHALL NOT BE PLACED UNTIL PREPARATIONS HAVE BEEN APPROVED BY THE TESTING AND INSPECTION AGENCY INCLUDING FORMWORK, REINFORCEMENT, EMBEDMENTS, AND ACCESSORIES.

CONCRETE REINFORCEMENT

DEFORMED BARS

- REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES.
- 2. UNLESS NOTED OTHERWISE, THE CONCRETE COVER FOR REINFORCEMENT IN CAST-IN-PLACE CONCRETE SHALL NOT BE LESS THAN THE FOLLOWING: CAST AGAINST EARTH

ASTM A615, GRADE 60

 EXPOSED TO EARTH/WEATHER SLABS, WALLS, AND JOISTS

MINIMUM THICKNESS AND SHALL BE MEASURED AT COLUMNS.

- 3. DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENTS, ACI 318, ACI 315R, AND THE ACI DETAILING MANUAL SP-066,
- 4. WHERE A 90-DEGREE, 135-DEGREE, OR 180-DEGREE HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STANDARD HOOKS, UNLESS NOTED OTHERWISE.
- 5. DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT, UNLESS NOTED OTHERWISE.
- 6. LAP WELDED WIRE REINFORCEMENT TWO PANEL SPACES. WIRE MESH SHALL BE SUPPORTED ON CHAIRS SO PROPER COVER IS
- MAINTAINED. DO NOT USE METHOD OF PULLING UP WITH A HOOK DURING CONCRETE POURING TO POSITION THE REINFORCING. 7. UNLESS NOTED OTHERWISE, TERMINATE BARS AT DISCONTINUOUS ENDS WITH STANDARD HOOKS.

- LOAD BEARING AND BACKUP WALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:
- CONCRETE BLOCK MORTAR
- GROUT REINFORCEMENT JOINT REINFORCEMENT
- ASTM C270, TYPE M OR S PORTLAND/LIME ASTM C476 (3,000 PSI AT 28-DAYS) ASTM A615, GRADE 60, (MIN. 24" LAP) ASTM A951, LADDER TYPE, (MIN 9-GAGE), GALV.

ASTM C90, NORMAL WEIGHT, TYPE 1

 MASONRY FACE EXPOSED TO WEATHER MASONRY FACE NOT EXPOSED TO WEATHER 1 1/2" GALVANIZED WIRE JOINT REINFORCING

UNLESS NOTED OTHERWISE, THE MASONRY COVER FOR REINFORCEMENT SHALL NOT BE LESS THAN THE FOLLOWING:

- 4. MORTAR FOR CONCRETE MASONRY SHALL BE TYPE M FOR ALL BELOW GRADE UNITS AND TYPE S AT ABOVE GRADE UNITS.
- CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT.
- 6. LAY MASONRY IN RUNNING BOND, UNLESS NOTED OTHERWISE.
- 7. HOLLOW-UNIT MASONRY SHALL HAVE FACE SHELL BEDDING EXCEPT AT PIERS, COLUMNS, PILASTERS, THE COURSE IMMEDIATELY ABOVE FOUNDATIONS, AND WHERE CONTAINMENT OF GROUT OR LOOSE FILL INSULATION REQUIRES THAT WEB AND FACE SHELLS BE MORTARED. IN FULLY GROUTED OR UN-GROUTED MASONRY, ONLY THE FACE SHELLS NEED TO BE MORTARED.
- 8. PROVIDE A CONTINUOUS BOND BEAM WITH (2) #5 BARS CONTINUOUS IN THE TOP COURSE OF ALL BLOCK WALLS, AT LOCATIONS WHERE FRAMING MEMBERS ARE BOLTED TO FACE OF CMU WALLS, BELOW BEAM BEARINGS, AND AT LOCATIONS INDICATED ON THE DRAWINGS. BOND BEAMS SHALL HAVE CORNER BARS AROUND CORNERS AND AT WALL INTERSECTIONS.
- 9. FILL ALL VOIDS AND BLOCK CELLS LOCATED BELOW GRADE SOLIDLY WITH GROUT. GROUT SHALL BE VIBRATED AND RE-VIBRATED AFTER INITIAL WATER LOSS TO ENSURE COMPLETE FILLING OF CORES.

- 1. BRICK MASONRY CONSTRUCTION SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS: BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES, TMS 402/602. TECHNICAL NOTES ON BRICK CONSTRUCTION, TECHNICAL NOTES 1-48, BIA. GUIDE SPECIFICATION FOR BRICK MASONRY, TECHNICAL NOTES 11A-E, BIA.
- HOT AND COLD WEATHER MASONRY CONSTRUCTION BY THE MASONRY INDUSTRY COUNCIL. 2. BRICK UNITS FOR EXTERIOR USE AS A VENEER SHALL CONFORM TO ASTM C216 GRADE SW, WITH THE FOLLOWING EXCEPTIONS: THE SATURATION COEFFICIENT (C/B) REQUIREMENT SHALL NOT BE WAIVED AS ALLOWED IN SECTIONS 5.1 AND 5.2 UNLESS. ENGINEERING DATA AND FIELD RECORDS CAN BE PROVIDED WHICH DEMONSTRATES THE UNITS TO BE SUFFICIENTLY DURABLE
- AND RESISTANT TO FREEZE-THAW DETERIORATION. INITIAL RATE OF ABSORPTION (IRA) SHALL NOT EXCEED 20 GRAMS PER MINUTE PER 30 SQUARE INCHES OF FACE AREA. FOR COLD WEATHER CONSTRUCTION, THE BRICKS SHALL HAVE A MINIMUM IRA OF 6 GRAMS PER MINUTE PER 30 SQUARE INCHES OF
- APPROVAL HAS BEEN RECEIVED FROM THE ARCHITECT. 4. MORTAR FOR BRICK MASONRY SHALL CONFORM TO ASTM C270. MORTAR SHALL BE TYPE M FOR ALL BELOW GRADE UNITS AND TYPE N ABOVE GRADE.

WITH ASTM C216 GRADE SW, AND THE ABOVE NOTED EXCEPTIONS. BRICK UNITS SHALL NOT BE SHIPPED TO THE SITE UNTIL

BRICK MANUFACTURER OR DISTRIBUTOR SHALL PROVIDE THE ARCHITECT WITH BRICK TEST DATA, CERTIFICATE OF COMPLIANCE

STRUCTURAL STEEL

- STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE: W-SHAPES ASTM A992, MIN 50 KSI
- HSS-SHAPES ASTM A500, GRADE C, MIN 50 KSI PIPES ASTM A53, GRADE B, MIN 35 KSI
- ALL OTHER ASTM A36, MIN 36 KSI 2. CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR CONNECTION DESIGN:
- ANGLES & PLATES ASTM A36, MIN 36 KSI WT-SHAPES ASTM A992, MIN 50 KSI BOLTS ASTM F3125 NUTS ASTM A563
- WASHERS ASTM F436 THREADED RODS ASTM A36, MIN 36 KSI ANCHOR RODS ASTM F1554 WELDABLE, GRADE 55 WELD ELECTRODES
- ALL CONNECTIONS NOT SPECIFICALLY DETAILED, SHALL BE BEARING TYPE CONNECTIONS DESIGNED AND DETAILED BY THE FABRICATOR TO SUPPORT THE END REACTIONS NOTED ON THE DRAWINGS. SHEAR TAB CONNECTIONS ARE PERMISSIBLE FOR SECONDARY BEAMS, PRIMARY GIRDERS REQUIRE DOUBLE CLIP ANGLES, TYP.
- 4. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE STRUCTURAL ENGINEER OF RECORD.
- 5. DO NOT USE OVERSIZED OR SLOTTED HOLES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
- 6. STEEL THAT MAY ACCUMULATE WATER SHALL HAVE DRAIN HOLES. ALL DRAIN PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1-INCH IN DIAMETER AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.
- SHOW ALL COPES, HOLES, OPENINGS, AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS.
- 8. ALL WELDING SHALL BE DONE BY CERTIFIED, LICENSED WELDERS AND SHALL BE IN CONFORMANCE WITH THE STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY ANSI/AWS D1.1, LATEST EDITION.
- NO PENETRATIONS ARE PERMITTED THROUGH STRUCTURAL STEEL MEMBERS UNLESS INDICATED ON STRUCTURAL DRAWINGS OR
- APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. 10. APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD SHALL BE MANDATORY FOR THE USE OF CUTTING TORCH IN THE FIELD.
- 11. ALL GROUT UNDER STEEL PLATES SHALL BE NON-SHRINK "PRE-MIX" TYPE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI, TESTED IN ACCORDANCE WITH CONCRETE SPECIFICATIONS. USE NON-STAINING GROUT AT EXPOSED LOCATIONS.

2. THE STEEL FABRICATOR MAY SUBSTITUTE HEAVIER SECTIONS IN PLACE OF THE SECTIONS SHOWN ON THE DRAWINGS TO ACHIEVE

ECONOMY OF REPETITION, FOR AVAILABILITY, OR TO TAKE ADVANTAGE OF ROLLING MILL PRODUCTION SCHEDULES SO LONG AS THE CHANGES ARE MADE KNOWN TO THE ARCHITECT AND STRUCTURAL ENGINEER, AND ARE ACCEPTABLE TO BOTH. 13. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP-APPLIED COAT OF RUST INHIBITING PRIMER AFTER SURFACE PREPARATION BY THE SOCIETY FOR PROTECTIVE COATINGS (SSPC) SP3 "POWER TOOL CLEANING", UNLESS NOTED OTHERWISE

DO NOT PAINT PORTIONS OF STEEL MEMBERS THAT ARE TO RECEIVE SPRAY-ON FIREPROOFING, NOR SURFACES TO RECEIVE WELDED SHEAR STUDS. STEEL STRUCTURE THAT IS PERMANENTLY EXPOSED TO THE EXTERIOR SHALL BE HOT DIP GALVANIZED

14. FOR MISCELLANEOUS STEEL CONSTRUCTION NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, AND

FIELD DRILLED ADHESIVE ANCHORS

ACCORDING TO ASTM A123.

ELECTRICAL DRAWINGS.

- BASIS OF DESIGN FOR FIELD DRILLED ADHESIVE ANCHORS AND REBAR IN CONCRETE SHALL BE HILTI HIT-HY 200 V3 AS MANUFACTURED BY HILTI, OR EQUIVALENT PRODUCT. BASIS OF DESIGN FOR FIELD DRILLED ADHESIVE ANCHORS AND REBAR IN MASONRY SHALL BE HILTI HIT-HY 270 AS MANUFACTURED BY HILTI, OR EQUIVALENT PRODUCT. FOR HOLLOW OR MULTI-WYTHE MASONRY, PROVIDE APPROPRIATELY SIZED SCREEN TUBE PER INSTALLATION INSTRUCTIONS. FOR SUBSTITUTION PURPOSES, SIGNED AND SEALED CALCULATIONS SHALL BE PROVIDED FOR REVIEW, INDICATING THE SUBSTITUTED ANCHOR MEETS THE CAPACITY REQUIREMENTS OF THE DETAILED ANCHOR.
- ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE OR MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE
- USE ONLY CODE-APPROVED ANCHORS WITH VALID EVALUATION REPORT FOR USE IN THE BASE MATERIAL SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMIT EVALUATION REPORT TO STRUCTURAL ENGINEER OF RECORD AND SPECIAL INSPECTION AGENT FOR APPROVAL. DO NOT INSTALL ANCHORS UNTIL SUBMITTAL IS RETURNED "REVIEWED WITHOUT COMMENT."
- ONLY ONE LENGTH ANCHOR SHALL BE PRESENT ON THE JOB SITE FOR A GIVEN ANCHOR DIAMETER, UNLESS OTHERWISE
- ALL FIELD INSTALLED ADHESIVE ANCHORS SHALL CONFORM TO AC-308. INSTALLER OF FIELD INSTALLED ADHESIVE ANCHORS SHALL BE TRAINED BY ANCHOR MANUFACTURER TO ENSURE PROPER INSTALLATION REQUIREMENTS SUCH AS HOLE CLEANING, HORIZONTAL AND OVERHEAD APPLICATIONS, EMBEDMENT DEPTHS GREATER THAN 10 INCHES, AND WATER FILLED HOLES.
- ADHESIVE ANCHORS OF THE DIAMETER AND EMBEDMENT SHOWN ON THE DRAWINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNDER THE CONTINUOUS SUPERVISION OF AN INDEPENDENT TESTING AGENCY. WHERE THE PROVISIONS OF THE ABOVE REFERENCED DOCUMENTS ARE IN CONFLICT, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. AT LOCATIONS WHERE ANCHORAGE IS NOT SPECIFIED, CONSULT STRUCTURAL ENGINEER OF
- CLEAN EXISTING CONCRETE SURFACE TO SOLID STRUCTURAL CONCRETE. GRIND SMOOTH FOR FULL STEEL CONTACT AND TO PREVENT GAPS BETWEEN STEEL AND CONCRETE. ALTERNATIVELY, PROVIDE NON-SHRINK GROUT IN ALL VOIDS BETWEEN STEEL AND BASE MATERIAL. FOREIGN MATERIAL SHALL NOT BE PLACED IN THE HOLES THAT RECEIVE ADHESIVE ANCHORS. ALL ABANDONED HOLES DRILLED IN CONCRETE SHALL BE COMPLETELY FILLED WITH STRUCTURAL GRADE EPOXY. 8. THE CONTRACTOR SHALL CREATE A TEMPLATE AT EACH ADHESIVE ANCHOR CONNECTION LOCATION PRIOR TO FABRICATING HOLES IN CONNECTING PLATES OR ROLLED SHAPES. TEMPLATES SHALL BE MADE BY FIRST LOCATING EXISTING REINFORCING

STEEL USING NON-DESTRUCTIVE TESTING EQUIPMENT, AND THEN DRILLING ANCHOR HOLES SUCH THAT NO CONFLICT EXISTS

- WITH THE EXISTING REINFORCING. ANCHOR LOCATIONS IN THE FIELD MAY BE RELOCATED A MAXIMUM OF 1 1/2 INCHES FROM THE DIMENSIONS SHOWN ON THE DRAWINGS TO AVOID CONFLICTS WITH THE EXISTING REINFORCING STEEL. HOWEVER, DO NOT EXCEED MINIMUM ANCHOR SPACINGS OR EDGE DISTANCES PER MANUFACTURER'S REQUIREMENTS. 9. ADHESIVE ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE FACE OF THE SURFACE BEING DRILLED. THE MAXIMUM OLERANCE FOR DEVIATION FROM PERPENDICULAR SHALL BE 6 DEGREES. ALL ADHESIVE ANCHORS INSTALLED OUTSIDE OF THE
- ANCHOR HOLES REQUIRES APPROVAL FROM STRUCTURAL ENGINEER OF RECORD PRIOR TO DRILLING. 10. HOLES IN CONNECTION PLATES SHALL BE NO MORE THAN 3/16 INCH LARGER THAN THE ADHESIVE ANCHOR ROD DIAMETER. IF LARGER DIAMETER HOLES ARE USED FOR ERECTION PURPOSES, THE CONTRACTOR MUST PROVIDE PLATE WASHERS WITH HOLES NO MORE THAN 1/16 INCH LARGER THAN THE ANCHOR. PLATE WASHERS MUST BE WELDED TO THE CONNECTION PLATE TO TRANSFER THE LOAD. WELDING MUST TAKE PLACE AFTER HOLES ARE DRILLED, BUT PRIOR TO ADHESIVE INSTALLATION TO AVOID

SPECIFIED TOLERANCE SHALL BE CONSIDERED UNACCEPTABLE. USE OF DIAMOND CORE BIT WITH ROUGHENING TOOL FOR

BURNING OR MELTING THE ADHESIVE.

- FIELD DRILLED MECHANICAL ANCHORS BASIS OF DESIGN FOR FIELD DRILLED MECHANICAL ANCHORS IN CONCRETE AND SOLID GROUTED MASONRY SHALL BE HILTI KWIK BOLT TZ2 ANCHORS AS MANUFACTURED BY HILTI, OR EQUIVALENT PRODUCT. FOR SUBSTITUTION PURPOSES, SIGNED AND SEALED CALCULATIONS SHALL BE PROVIDED FOR REVIEW, INDICATING THE SUBSTITUTED ANCHOR MEETS THE CAPACITY REQUIREMENTS
- OF THE DETAILED ANCHOR. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE OR MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE
- 3. USE ONLY CODE-APPROVED ANCHORS WITH VALID EVALUATION REPORT FOR USE IN THE BASE MATERIAL SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMIT EVALUATION REPORT TO STRUCTURAL ENGINEER OF RECORD AND SPECIAL INSPECTION AGENT FOR APPROVAL. DO NOT INSTALL ANCHORS UNTIL SUBMITTAL IS RETURNED "REVIEWED WITHOUT COMMENT."
- 4. ONLY ONE LENGTH ANCHOR SHALL BE PRESENT ON THE JOB SITE FOR A GIVEN ANCHOR DIAMETER, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. 5. ALL FIELD INSTALLED MECHANICAL ANCHORS SHALL CONFORM TO AC-193. INSTALLER OF FIELD INSTALLED MECHANICAL ANCHORS SHALL BE TRAINED BY ANCHOR MANUFACTURER TO ENSURE PROPER INSTALLATION REQUIREMENTS SUCH AS DRILLING METHODS,
- HOLE CLEANING, AND INSTALLATION TORQUE. 6. MECHANICAL ANCHORS OF THE DIAMETER AND EMBEDMENT SHOWN ON THE DRAWINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNDER THE CONTINUOUS SUPERVISION OF AN INDEPENDENT TESTING AGENCY. WHERE THE PROVISIONS OF THE ABOVE REFERENCED DOCUMENTS ARE IN CONFLICT, THE MOST RESTRICTIVE

REQUIREMENT SHALL GOVERN. AT LOCATIONS WHERE ANCHORAGE IS NOT SPECIFIED, CONSULT STRUCTURAL ENGINEER OF

- 7. CLEAN EXISTING CONCRETE SURFACE TO SOLID STRUCTURAL CONCRETE. GRIND SMOOTH FOR FULL STEEL CONTACT AND TO PREVENT GAPS BETWEEN STEEL AND CONCRETE. ALTERNATIVELY, PROVIDE NON-SHRINK GROUT IN ALL VOIDS BETWEEN STEEL AND BASE MATERIAL. FOREIGN MATERIAL SHALL NOT BE PLACED IN THE HOLES THAT RECEIVE MECHANICAL ANCHORS. ALL
- ABANDONED HOLES DRILLED IN CONCRETE SHALL BE COMPLETELY FILLED WITH STRUCTURAL GRADE EPOXY. THE CONTRACTOR SHALL CREATE A TEMPLATE AT EACH MECHANICAL ANCHOR CONNECTION LOCATION PRIOR TO FABRICATING HOLES IN CONNECTING PLATES OR ROLLED SHAPES. TEMPLATES SHALL BE MADE BY FIRST LOCATING EXISTING REINFORCING STEEL USING NON-DESTRUCTIVE TESTING EQUIPMENT, AND THEN DRILLING ANCHOR HOLES SUCH THAT NO CONFLICT EXISTS WITH THE EXISTING REINFORCING. ANCHOR LOCATIONS IN THE FIELD MAY BE RELOCATED A MAXIMUM OF 1 1/2 INCHES FROM THE DIMENSIONS SHOWN ON THE DRAWINGS TO AVOID CONFLICTS WITH THE EXISTING REINFORCING STEEL. HOWEVER, DO NOT
- MECHANICAL ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE FACE OF THE SURFACE BEING DRILLED. THE MAXIMUM TOLERANCE FOR DEVIATION FROM PERPENDICULAR SHALL BE 6 DEGREES. ALL MECHANICAL ANCHORS INSTALLED OUTSIDE OF THE SPECIFIED TOLERANCE SHALL BE CONSIDERED UNACCEPTABLE. USE OF DIAMOND CORE BIT WITH ROUGHENING TOOL FOR ANCHOR HOLES REQUIRES APPROVAL FROM STRUCTURAL ENGINEER OF RECORD PRIOR TO DRILLING.

EXCEED MINIMUM ANCHOR SPACINGS OR EDGE DISTANCES MANUFACTURER'S REQUIREMENTS.

10. HOLES IN CONNECTION PLATES SHALL BE NO MORE THAN 3/16 INCH LARGER THAN THE MECHANICAL ANCHOR ROD DIAMETER. II LARGER DIAMETER HOLES ARE USED FOR ERECTION PURPOSES, THE CONTRACTOR MUST PROVIDE PLATE WASHERS WITH HOLES NO MORE THAN 1/16 INCH LARGER THAN THE ANCHOR. PLATE WASHERS MUST BE WELDED TO THE CONNECTION PLATE TO TRANSFER THE LOAD.

MASONRY CONSTRUCTION REQUIREMENTS PER TMS 602/ACI 530.1/ASCE 6 TMS 602 - TABLE 3 - MINIMUM VERIFICATION REQUIREMENTS Minimum Verification Prior to construction, verification of compliance of submittals Prior to construction, verification of f'm and f'AAC, except where specifically exempted by the Code During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to the project site During construction, verification of f'm and f'AAC for every 5,000 sq. ft. During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout

or preblended mortar, prestressing grout, and grout other than self-consolidating grout.			
TMS 602 - TABLE 4 - MINIMUM SPECIAL INSPECTION REQUIREMENT	TS		
Minimum Verification	LVL 1	LVL 2	LVL
As masonry construction begins, verify that the following are in compliance:			
Proportions of site-prepared mortar	NR	Р	Р
Grade, type, and size of reinforcement, connectors, anchor bolts	NR	Р	Р
Prior to grouting, verify that the following are in compliance:			
Grout space	NR	Р	С
Placement of reinforcement, connectors, and anchor bolts	NR	Р	С
Proportions of site-prepared grout	NR	Р	Р
Verify compliance of the following during construction:			
Materials and procedures with the approved submittals	NR	Р	Р
Placement of masonry units and mortar joint construction	NR	Р	Р
Minimum Verification asonry construction begins, verify that the following are in compliance: Proportions of site-prepared mortar Grade, type, and size of reinforcement, connectors, anchor bolts to grouting, verify that the following are in compliance: Grout space Placement of reinforcement, connectors, and anchor bolts Proportions of site-prepared grout compliance of the following during construction: Materials and procedures with the approved submittals		Р	Р
	NR	Р	С
Welding of reinforcement	NR	С	С
	NR	Р	Р
Observe preparation of grout specimens, mortar specimens, and/or prisms	NR	Р	С

MICHIGAN BUILDING CODE 2015						
TABLE 1705.3 - REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION						
ТҮРЕ	CONTINUOUS	PERIODIC				
Inspect reinforcement, including prestressing tendons, and verify placement.		Х				
Reinforcing bar welding:						
Verify weldability of reinforcing bars other than ASTM A706		Χ				
Inspect single-pass fillet welds, maximum 5/16"		Х				
Inspect all other welds	X					
Inspect anchors cast in concrete		Х				
Inspect anchors post-installed in hardened concrete members						
Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	Х					
Mechanical anchors and adhesive anchors not defined above		X				
Verify use of required design mix		X				
Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	Х					
Inspect concrete and shotcrete placement for proper application techniques	Х					
Verify maintenance of specified curing temperature and techniques		Х				
Verify in-situ concrete strength, prior to removal of shores from beams and structure slabs		Х				
Inspect formwork for shape, location, and dimensions of the concrete member being formed		Х				

Inspect formwork for shape, location, and dimensions of the concrete member being formed		Х
TABLE 1705.6 - REQUIRED SPECIAL INSPECTIONS AND TE	STS OF SOILS	
ТҮРЕ	CONTINUOUS	PERIODIC
Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		Х
Verify excavations are extended to proper depth and have reached proper material.	-	Х
Perform classification and testing of compacted fill materials		Х
Verify use of proper materials, densities, and lift thicknesses during placement and compaction of compacted fill.	Х	
Prior to placement of compacted fill, observe subgrade and verify that the site has been prepared properly.		Х

MAIN WIND FORCE RESISTING SYSTEM (psf) **PRESSURES** PRESSURES PRESSURES Eoh Goh B C D E F G H

ZONE	10	SF	20) SF	50) SF	100 SF	
1	16.0	-25.9	16.0	-25.2	16.0	-24.4	16.0	-23
2	16.0	-43.5	16.0	-38.8	16.0	-32.7	16.0	-28
3	16.0	-65.4	16.0	-54.2	16.0	-39.3	16.0	-28
4	25.9	-28.1	24.7	-26.9	23.2	-25.4	22.0	-24
5	25.9	-34.7	24.7	-32.4	23.2	-29.3	22.0	-26
2 ROH	-	-37.5	-	-36.8	-	-35.9	-	-3
3 ROH	-	-61.7	-	-48.4	-	-30.9	-	-1

COMPONENTS AND CLADDING





ISSUANCE	DAT
Early Foundation Work BP #2	03.22.2024
Addendum #2	04.11.2024

JOB NO. 24013 SHEET TITLE STRUCTURAL NOTES AND

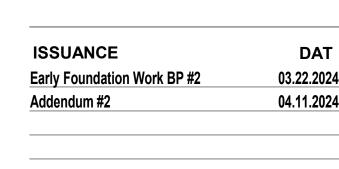
SPECIAL INSPECTIONS

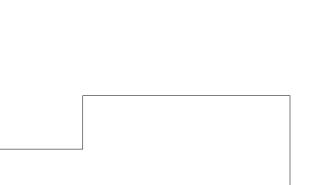
SHEET NO.



PATTENGILL MODULA CLASSROOM BUILDIN







KEY PLAN

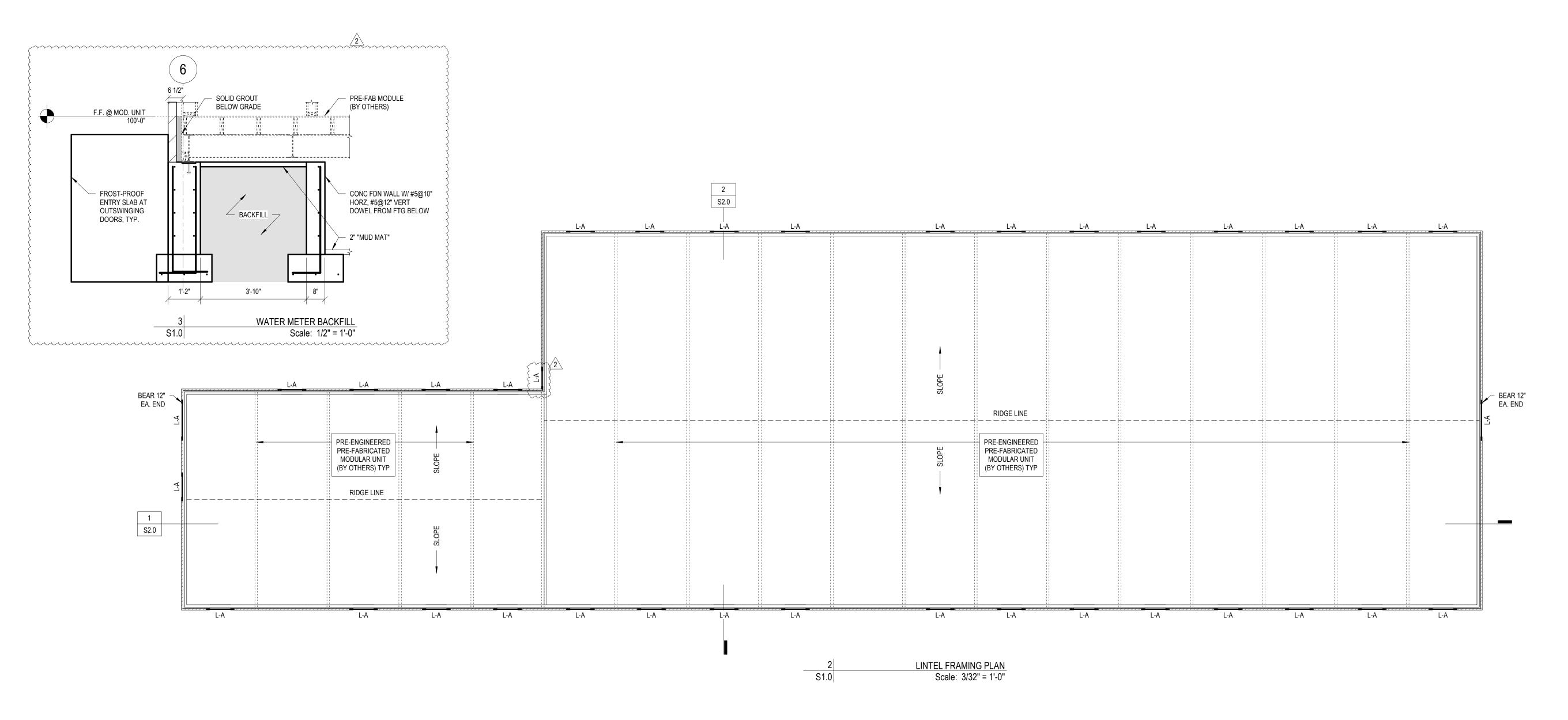
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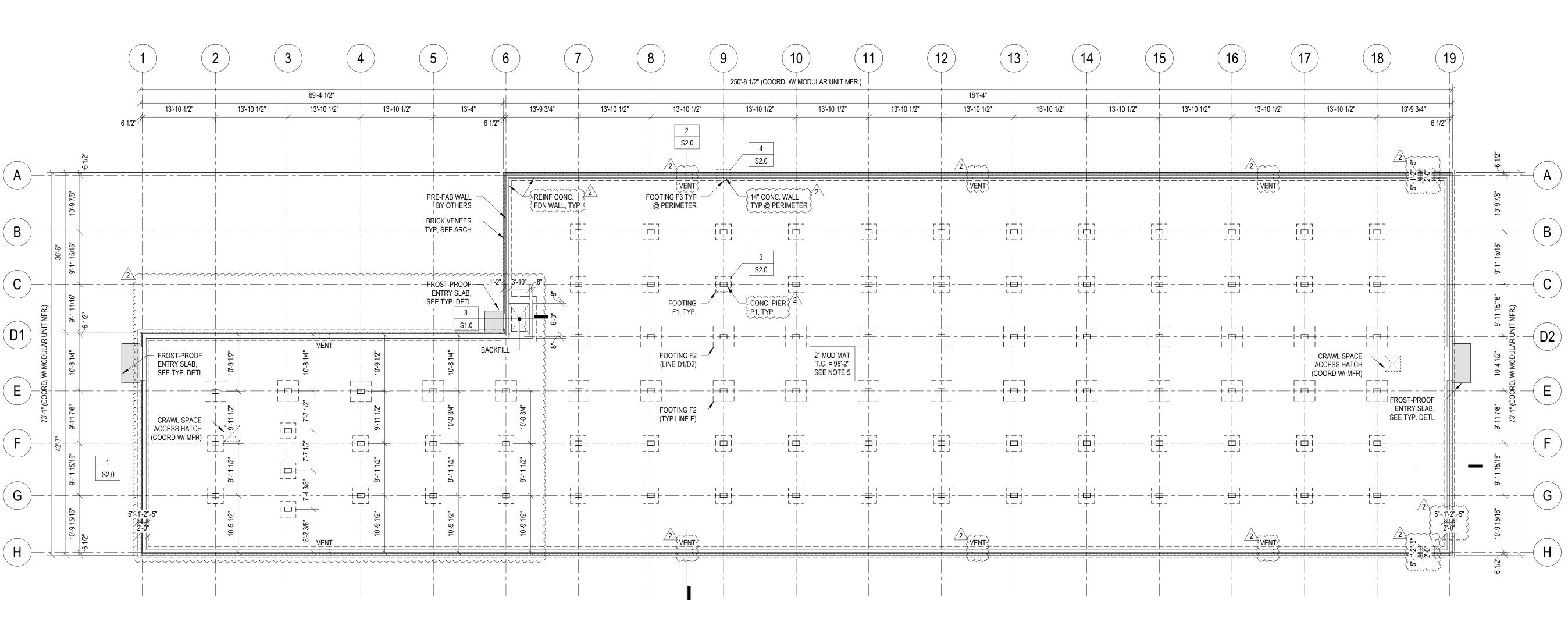
SHEET TITLE
FOUNDATION AND LINTEL

FRAMING PLANS

SHEET NO.

S1.





MARK

TYPE

CONC COL FTG

CONC COL FTG

CONC STRIP FTG

CONC PIER

CONC PIER

TYPE

2'-0"x1-0"

10"x16"

3'-0"x3'-0"x1-0" (4) #5 BOT, EACH WAY

4'-0"x4'-0"x1-0" (5) #5 BOT, EACH WAY

(3) #5 BOT, CONT.

NOT USED

(4) #6 VERT, DOWEL FROM FTG

W/ #3 TIES, 3@3" OC TOP, BAL @12" OC

FOUNDATION PLAN

Scale: 3/32" = 1'-0"

PLAN NOTES:

1. SEE SHEET S0.1 FOR STRUCTURAL NOTES AND TYPICAL DETAILS.

PROVIDE BOND BREAKER BETWEEN SLAB & FOUNDATION ELEMENTS.

7. ALL MASONRY CORES AND VOIDS BELOW GRADE TO BE SOLID GROUTED.

ADEQUACY OF ANY PRE-MANUFACTURED UNIT DESIGN OR CONSTRUCTION.

5. SLAB ON GRADE TO BE 2" THICK (MINIMUM) "MUD MAT".

9. ALL STEEL TO BE HOT-DIP GALVANIZED.

GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

PRE-MANUFACTURED UNIT SUPPLIER DECLINED TO PROVIDE REACTIONS ITEMIZED FOR EACH LOAD CASE (DEAD, LIVE, ROOF LIVE, SNOW, WIND (N-S, E-W, AND UPLIFT), AND SEISMIC (N-S, E-W, AND UPLIFT). ASSUMPTIONS WERE THEREFORE MADE TO DESIGN FOUNDATIONS. SUPPLIER TO PROVIDE FINAL ENGINEERED PLANS, SECTIONS, AND DETAILS, WITH

CALCULATIONS, ALL SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN AS A SEPARATE DELEGATED DESIGN PACKAGE FOR WHICH RDA TAKES NO RESPONSIBILITY FOR THE

4. ALL FOUNDATION CONDITIONS ARE TO BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND MODULAR UNIT DRAWINGS.

REBAR AND CONCRETE PLACEMENT, MINIMUM ALLOWABLE BEARING PRESSURE = 3,000 PSF.

8. STEEL LINTEL AT OPENINGS IN BRICK VENEER TO BE L6 x3-1/2 x3/8" (L-A). BEAR 8" EACH END.

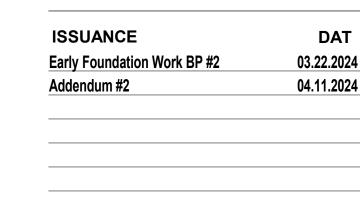
10. ALL FRAMING CLIPS, STRAPS, AND HANGERS TO BE SIMPSON STRONG-TIE OR APPROVED EQUAL, U.O.N.

11. ALL HANGERS, FASTENERS, NAILS, SCREWS, ETC. TO BE STAINLESS STEEL AT EXTERIOR CONDITIONS.









JOB NO. 24013
SHEET TITLE

SECTIONS AND DETAILS

SHEET NO.

PRE-FAB STEEL FRAME

W/ (2)3/4"Ø x4" STUDS,

TYP. AT EA. SUPPORT

(COORD. W/ PRE-FAB)

(BY OTHERS)

— 6" x6" x1/2" EMBED

1 1/2" 3" 1 1/2"

5 FOUNDATION DETAIL AT EXTERIOR WALL

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

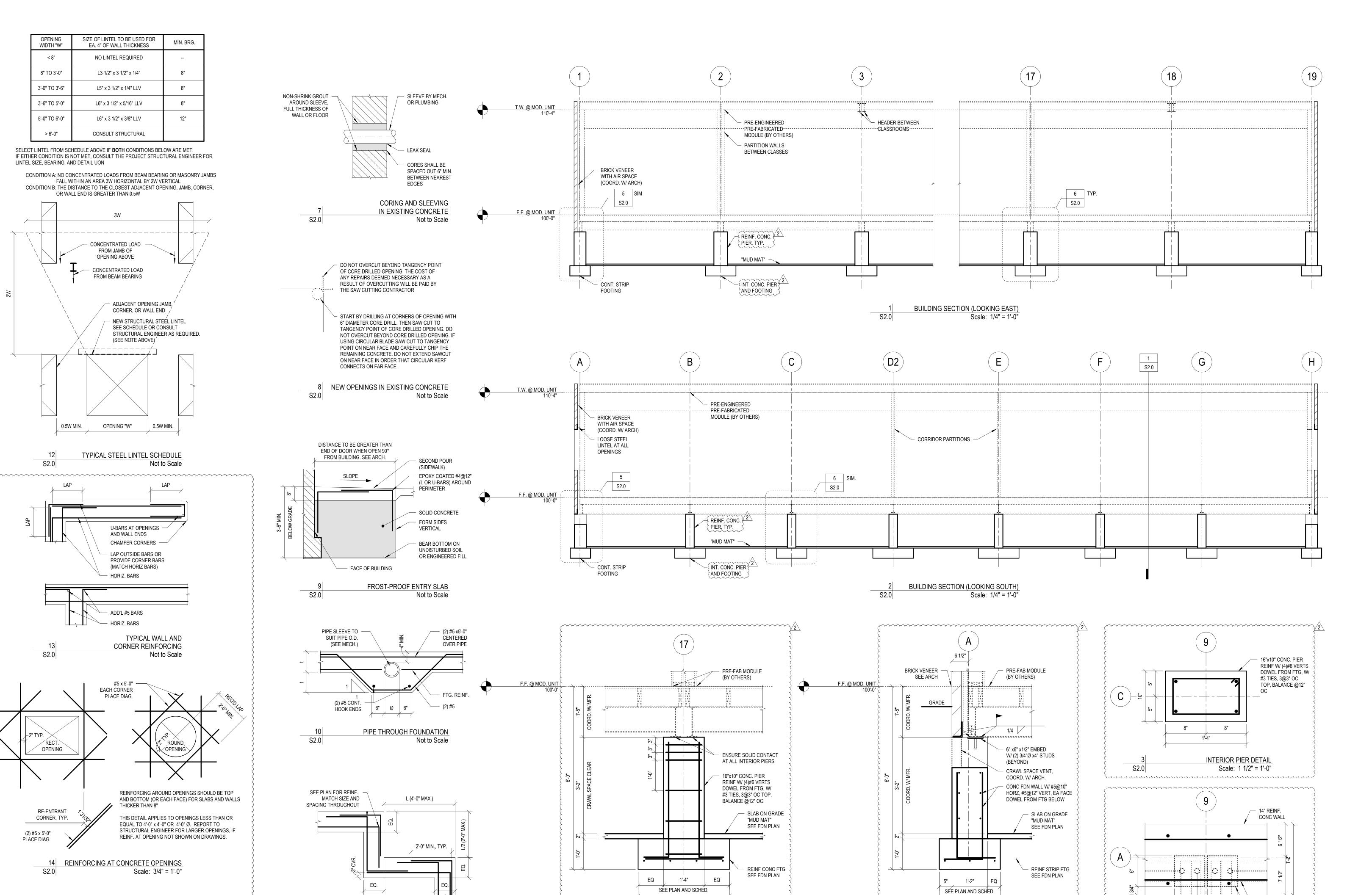
6" 1/2" 6"

COORD. EMBED PL.

W/ PRE-FAB SUPPLIER

EXTERIOR PIER DETAIL
Scale: 1 1/2" = 1'-0"

S2.(



FOUNDATION DETAIL AT INTERIOR PIER

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

STEPPED FOUNDATION DETAIL

Not to Scale

S2.0

PROVIDE WATERSTOPS

IF BELOW GRADE

1'-0"

2'-0" LAP

S2.0

SHEAR KEY

WALL CONSTRUCTION JOINT

 4'-0" MIN TO FACE OF WALL OR OPENING

60'-0" MAX BETWEEN JOINTS

Scale: 1/2" = 1'-0"

MICHIGAN DESIGN CODES: BU 2015 MICHIGAN BUILDING CODE 2015 MICHIGAN MECHANICAL CODE 2018 MICHIGAN PLUMBING CODE 2017 NFPA - 70 NATIONAL ELECTRICAL CODE 2015 MICHIGAN ENERGY CODE (2013 ASHRAE) 2015 MICHIGAN BUILDING CODE 2015 INTERNATIONAL FUEL GAS CODE 2015 MICHIGAN BUILDING CODE 2015 MICHIGAN BUILDING CODE

N.F.P.A. "LIGHT HAZARD" SPRINKLER SYSTEM:

- SCHED. 40 BLACK OR GALV. STEEL PIPE; - 165°F EXPOSED HEADS w/ESCUTCHEONS;ABOVE AND BELOW CEILING - CROSS-SEAM PIPING BY OTHERS ON SITE; - FACTORY-INSTALLED PIPING STUBBED THRU EXTERIOR

- SPRINKLER SYSTEM (INCL. SITE-WORK) TO BE BY LICENSED FIRE-PROTECTION CONTRACTOR.

WALL; ALARM, RISER, AND FLOW SWITCH BY OTHERS

<u>UNIT LABELS:</u>

DATA PLATES AND LABELS LOCATED ABOVE SUSPENDED CEILING ON THE "FRONT" WALL OF THE MODULE

MBI LABEL LIST STATE LABELS HERE

SEALED DRAWINGS:

REGISTERED ARCHITECT **MODEL APPROVAL:** FOR THE STATE OF MICHIGAN

BUILDING INFORMATION:

BUILDING USE GROUP -----TYPE OF CONSTRUCTION ----VB (WOOD FRAME - PROTECTED) SQUARE FOOTAGE -----15857 SQ FT OCCUPANT LOAD OF BUILDING -----317, OR LESS

BUILDING DESIGN LOADS:

FLOOR LIVE LOAD UNIFORM ------FLOOR LIVE LOAD CONCENTRATED ------2000 LBS FLOOR IMPACT LOAD -----FLOOR LIVE LOAD (CORRIDOR)-----100 PSF FLOOR DEAD LOAD -----10 PSF 30 PSF ROOF LIVE LOAD (SNOW) -----ROOF DEAD LOAD ------10 PSF GROUND SNOW LOAD -----30 PSF 21 PSF FLAT ROOF SNOW LOAD ------BUILDING RISK CATEGORY -----SNOW IMPORTANCE FACTOR Is-----SEISMIC IMPORTANCE FACTOR le-----SNOW EXPOSURE FACTOR ------THERMAL FACTOR -----115 MPH BASIC WIND SPEED -----

WIND EXPOSURE -----DESIGN WIND PRESSURE -----SEE WIND/SEISMIC CALC SPECTRAL RESPONSE COEFFICIENT SDS----- 0.087 SPECTRAL RESPONSE COEFFICIENT S^{D1} ----- 0.072

SITE CLASS -----BASIC SEISMIC-FORCE-RESISTING SYSTEM - A.13 DESIGN BASE SHEAR ------SEE WIND/SEISMIC CALC

SEISMIC DESIGN CATEGORY ------

GENERAL SPECIFICATION NOTES:

- BUILDING NOT TO BE LOCATED IN A DESIGNATED FIRE ZONE.
- THIS BUILDING SHALL BE LOCATED MORE THAN 10 FEET AWAY FROM ANY PROPERTY LINE OR ANY INTERIOR LOT LINE BETWEEN IT AND ANY OTHER
- THIS BUILDING NOT TO BE LOCATED IN A FLOOD PRONE AREA.
- WHITLEY MFG. CO., INC. IS NOT RESPONSIBLE FOR THE LOCAL BUILDING CODE REQUIREMENTS OVER AND ABOVE THE ENCLOSED SPECIFICATIONS. THE SPECIFICATIONS ARE BASED ON THE DESIGN PARAMETERS OF THE CODES LISTED ABOVE.
- DRINKING FOUNTAINS AND SERVICE SINKS SHALL BE PROVIDED AND INSTALLED BY OTHERS ON SITE. BOTTLED WATER MAY BE PROVIDED IN LIEU OF A DRINKING FOUNTAIN.
- DUPLICATES OF THIS BUILDING CAN BE BUILT AS A MIRROR IMAGE
- DUPLICATES OF THIS BUILDING CAN BE BUILT AS A SHELL
- THIS BUILDING DOES NOT HAVE FIRE-RATED EXTERIOR WALLS

Description

THIS BUILDING SHALL NOT BE LOCATED IN AREAS WITH SNOW, WIND, AND /OR SEISMIC LOADS IN EXCESS OF THOSE NOTED ABOVE IN BUILDING DESIGN LOADS...

WINDOW, AND ROOF PENETRATORS.

- 1. ATTIC VENTILATION SHALL COMPLY WITH APPLICABLE CODES. 2. ALL LOCKS TO BE UNLOCKABLE FROM INTERIOR WITHOUT THE USE OF A KEY. 3. CORROSION RESISTANT FLASHING REQUIRED AT TOP AND SIDES OF DOORS,
- 4. SAFETY GLAZING SHALL BE INSTALLED PER APPLICABLE CODES. 5. EXTERIOR EGRESS ELEMENTS TO BE SITE PROTECTED FROM SNOW AND ICE
- 6. DEALER SHALL BE RESPONSIBLE FOR ON SITE BARRIER FREE PROVISIONS INCLUDING ALL: ADA REQUIRED STEPS, RAMPS, HANDRAILS, PARKING, ETC. AND APPLICABLE SIGNAGE (INTERIOR AND EXTERIOR) FOR THE VISUALLY IMPAIRED

BUILDING CODE FIELD NOTES: 1. TIE-DOWN ANCHORING TO BE INSTALLED ON SITE PER DEALER CONTRACTUAL

- 2. PLUMBING AND ELECTRICAL CONNECTIONS TO BE PROVIDED AND INSTALLED ON
- SITE PER DEALER CONTRACTUAL AGREEMENT. 3. ALL ADA REQUIRED STEPS, RAMPS, HANDRAILS, PARKING, ETC... AND APPLICABLE SIGNAGE. (INTERIOR AND EXTERIOR) FOR THE VISUALLY IMPARED AND NON-AMBULATORY

TO BE PROVIDED AND INSTALLED ON SITE PER DEALER CONTRACTUAL AGREEMENT.

. ALL RECEPTACLES TO BE GROUNDING TYPE.

2. ALL WIRING TO BE PER N.E.C. TYPE MC METAL CLAD CABLE, THHN COPPER w/ GROUND; 90°C RATED. 3. MAIN PANEL TO BE MARKED "SUITABLE FOR USE AS SERVICE EQUIPMENT", AND TO HAVE

MAIN BREAKER TYPE OVERCURRENT PROTECTION. 4. PROPER THERMAL OVERLOAD PROTECTION TO BE PROVIDED FOR ALL MOTORS.

5. DISCONNECTING MEANS WITHIN SIGHT REQUIRED FOR ALL MOTORS. 6. WEATHERPROOF PROTECTION REQUIRED FOR ALL OUTDOOR LIGHTS AND RECEPTACLES.

7. PROPER WORKING CLEARANCES TO BE PROVIDED AND MAINTAINED ABOUT ALL ELECTRICAL

8. ALL FLUORESCENT FIXTURES REQUIRE THERMAL PROTECTION. 9. COMBINATION EXHAUST FAN/LIGHT AND ALL RECESSED INCANDESCENT FIXTURES

TO BE WITH THERMAL PROTECTION. 10. ALL EMERGENCY LIGHTING (IF REQUIRED) AND EXIT SIGNS WILL BE CONNECTED

AHEAD OF ANY LOCAL SWITCHES PER NEC SECTION 700-12 (f). 11. ALL EMERGENCY LIGHTING HAS A BATTERY PACK TO ASSURE CONTINUED ILLUMINATION.

12. GROUNDING ELECTRODE SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250 N.E.C. 13. MAIN DISTRIBUTION PANEL(S) SHALL BE INSTALLED ON SITE PER DEALER CONTRACTUAL

14. SERVICE ENTRANCE CONDUCTORS TO BE MINIMUM 75°C RATED TYPE THWN COPPER 15. WATER HEATER (IF APPLICABLE) TO HAVE LOCKABLE BREAKER OR PROVIDE

DISCONNECTING MEANS WITHIN SIGHT OF W.H. PER NEC 422.21 (b) 16. RECEPTS UP 18" TO BOTTOM OF BOX.

1. ELECTRICAL SERVICE ENTRANCE CONDUCTORS TO BE PROVIDED AND INSTALLED ON SITE PER DEALER CONTRACTUAL AGREEMENT.

2. GROUNDING ELECTRODES TO BE PROVIDED AND INSTALLED ON SITE PER DEALER CONTRACTUAL AGREEMENT.

1. VENTILATION AIR, EXHAUST FANS AND VENTING EQUIPMENT PROVIDED IN

ACCORDANCE WITH APPLICABLE CODES. 2. EXHAUST FANS TO BE INSTALLED PER APPLICABLE CODES.

3. RETURN AIR VIA RETURN AIR DUCT OR THRU GRILLE AT UNIT. 3. RETURN AIR VIA CEILING CAVITY PLENUM.

4. MECHANICAL VENTILATION PER APPLICABLE CODES 5. DUCT COVERINGS SHALL COMPLY WITH APPLICABLE CODES. 6. DUCTS SHALL BE CONSTRUCTED PER APPLICABLE CODES.

1. TRUSSES, IF INSTALLED, TO BE DESIGNED FOR REQUIRED LOADS AND APPLICATION. 2. INTERIOR PARTITIONS TO BE CONSTRUCTED TO WITHSTAND A 5 PSF HORIZONTAL

3. ALL LUMBER TO BE GRADED AND MARKED.

4. COMPRESSION PLATES REQUIRED TO ENSURE WOOD TO WOOD CONTACT @ BEARING WALL TO ROOF JOINTS.

5. DADOS AND NOTCHING SHALL NOT OCCUR IN CENTER 1/3 OF LENGTH OF WALL STUDS

6. EXTERIOR BRACING MAY BE PROVIDED WITH WOOD SIDING, 7/16 HARDBOARD SIDING, 3/8" CDX PLYWOOD W/ EXTERIOR GLUES, OR ANY APPROVED STRUCTURAL GRADE SHEATHING.

<u>DWV:</u> 1. DWV PIPING TO BE SCHEDULE 40 PVC.

2. PVC PIPE TO BE SECURED @ 4'-0" O.C. HORIZONTALLY & 5'-0" O.C. VERTICALLY FOR 2" DIA. AND SMALLER PIPE OR 10'-0" O.C. VERTICALLY FOR PIPE LARGER THAN 2" DIA.

3. ALL CLEAN-OUTS SHALL BE ACCESSIBLE, PROVIDED @ THE BASE OF ALL WASTE AND SOIL STACKS, AND PROVIDED SO THAT ALL HORIZONTAL PIPING CAN BE REACHED BY A CLEANOUT TOOL WITHOUT PASSING THROUGH MORE THAN 45 DEGREES OF TURN.

4. HORIZONTAL BRANCH PIPES 2 1/2" AND SMALLER IN DIAMETER TO HAVE A MINIMUM 1/4" PER FOOT SLOPE; PIPES 3" TO 6" DIAMETER TO HAVE A MINIMUM OF 1/8" PER FOOT

5. VENTS SHALL BE A MINIMUM OF 3" IN DIAMETER FOR 12" ABOVE AND 24" BELOW ROOF AND SHALL NOT BE LOCATED WITHIN 10' HORIZONTALLY OF ANY BUILDING

AIR INTAKE OPENING. 6. ALL VERTICAL TO HORIZONTAL OR HORIZONTAL TO HORIZONTAL CHANGE OF DIRECTION SHALL BE THROUGH A LONG TURN T-Y OR COMBINATION WYE AND EIGHTH BEND.

7. ALL HORIZONTAL TO VERTICAL CHANGE OF DIRECTION SHALL BE THROUGH A SANITARY TEE, OR IF @ THE SAME LEVEL ON A VERTICAL STACK, THROUGH AN APPROVED DOUBLE FIXTURE FITTING.

8. IN CONCEALED LOCATIONS AT PLUMBING PIPING, PROTECTIVE SHIELD PLATES SHALL BE INSTALLED THAT ARE A MINIMUM 1/16" THICK STEEL AND SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED AND SHALL EXTEND A MINIMUM OF 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES.

1. WATER SUPPLY LINES TO BE PEX. 2. PEX PIPE 1" DIA., OR SMALLER, TO BE SECURED @ 2'-8" O.C. HORIZONTALLY.

COPPER PIPE LARGER THAN 1" DIA., TO BE SECURED @ 4'-0" O.C. HORIZONTALLY. PEX PIPE 2" DIA., OR SMALLER, TO BE SECURED @ 5'-0" O.C. VERTICALLY. PEX PIPE LARGER THAN 2" DIA. TO BE SECURED @ 10'-0" O.C. VERTICALLY.

3. WATER TEMPERATURE FACTORY SET @ 120 DEGREES F. (CONTROLS BEHIND COVER

4. A SHUT-OFF VALVE IS REQUIRED FOR EACH FIXTURE. 5. WATER HAMMER ARRESTORS SHALL BE PROVIDED AS REQUIRED WITH QUICK-

CLOSING VALVES.

6. WATER HEATER TO BE EQUIPPED WITH DRAIN COCK. 7. DIELECTRIC UNIONS TO BE USED @ CONNECTIONS OF WATER LINES TO WATER HEATER 8. COLD WATER INLET TO HAVE A SHUT-OFF VALVE ABOVE FLOOR & NEAR WATER HEATER. 9. FULL SIZE SHUT-OFF VALVE TO BE PROVIDED BETWEEN BUILDING & WATER MAIN (METER).

10. SUPPLY SYSTEM DESIGNED FOR INLET PRESSURES OF 60 TO 80 PSI. 11. WATER HEATERS WITH BOTTOM AND/OR SIDE INLET SHALL HAVE A VACUUM RELIEF VALVE INSTALLED IN THE COLD WATER INLET LINE, LOCATED ABOVE THE TOP OF

THE WATER HEATER, PER MANUFACTURER'S RECOMMENDED INSTRUCTIONS. 12. IN CONCEALED LOCATIONS AT PLUMBING PIPING, PROTECTIVE SHIELD PLATES SHALL BE INSTALLED THAT ARE A MINIMUM 1/16" THICK STEEL AND SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED AND SHALL EXTEND A MINIMUM OF 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES.

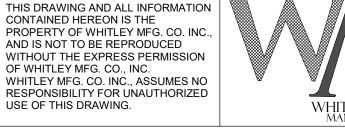
FIELD NOTE:

Description

Date No.

1. ALL LINES REPRESENTED BY A BROKEN LINE ON SCHEMATIC DRAWINGS SHALL BE PROVIDED AND INSTALLED ON SITE PER DEALER CONTRACTURAL AGREEMENT.

FOR REFERENCE



OF WHITLEY MFG. CO., INC.

USE OF THIS DRAWING.



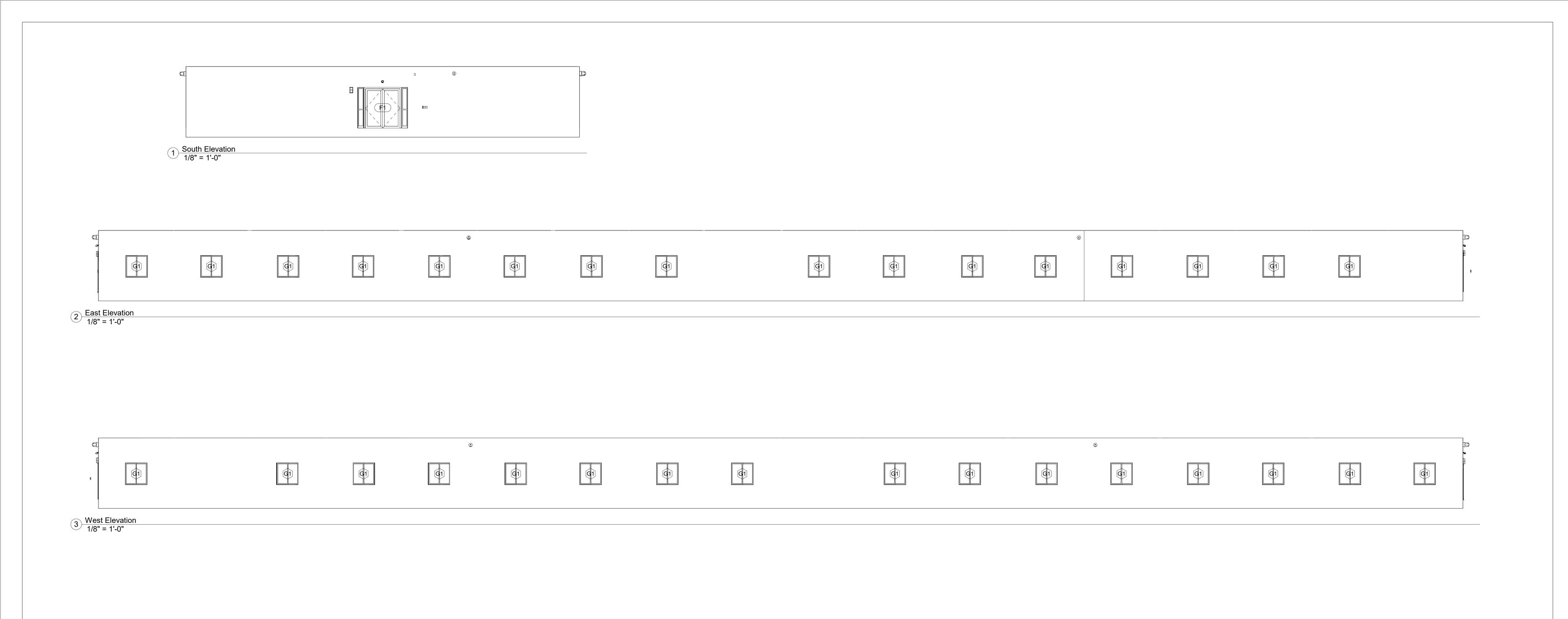
E. FORT WAYNE ROAD

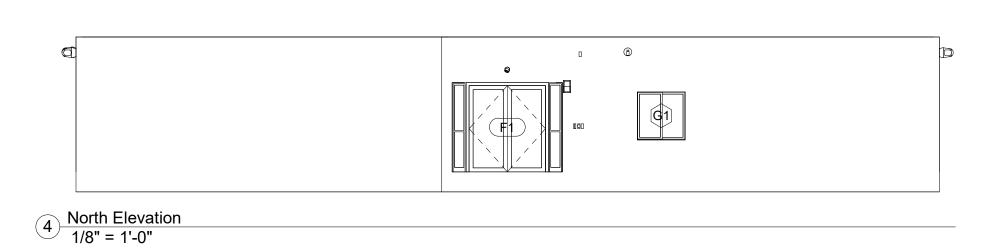
Drawn By RLH Checked By: AP/DL

COVER SHEET MOBILE MODULAR PATTENGILL BIOTECHNICAL MAGNET SCHOOL (13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES 5448-5465 50589C-18 Model No. 8092 Job No.

1/4" = 1'-0"

A-FRAME NOTE	E: FRAME(S) TO BE MIG WELDED, INCLUDING SPRING HANGER	<u>oors</u>				U SI SOTDIOAL.	
1 TYPE:	ATTACHMENT AND HITCH CONSTRUCTION PERIMETER 1	EXT. DOOR:	72"W X 84"H COMMERCIAL GLASS DOOR W/ SIDELITES R.O. 110 1/4" X 88" SET 1:	F-DOORS CONT.: 7 EXT. DOOR:	36"W X 80"H FLUSH FRP DOOR IN ALUMINUM FRAME R.O. 37 3/4"W X 80 3/4" FRAME THROAT: 6 3/4"	H-ELECTRICAL: 1 PANELBOARD: 2 SERV. ENT.:	208/120 V,3-PH, 60Hz,4-WIRE MAIN SIZED AS REQUIRED 2" CONDUIT STUBBED THRU FLOOR
2 MAIN BEAM: 3 X-MEMBER: 5 HITCH:	W12"x14# BEAM W10 X 12# @ 48" O.C. BOLT-ON	a: b:	IVES (112XY EPT) CONTINUOUS HINGE VON DUPRIN (EPT10 CON) POWER TRANSFER	HARDWAI a:	RE: IVES (112XY) CONTINUOUS HINGE	3 WIRING:	MC CABLE w/ INTERLOCKING TAPE SHEATH (#12 MIN WIRE SIZE) - TYPE THHN 90oC RING: PIGTAIL AND JUNCTION BOX
6 AXLES: 7 SPRINGS:	AS REQUIRED MULTI-LEAF, OVERSLUNG W/ HANGERS AND AXLE ATTACHING PARTS(NO EQUALIZERS)	c: d: e:	VON DUPRIN(LX-RX-QEL-98-NL-OP-110MD-CON) ELECTRIC PANIC BEST (1E72 (LESS CORE) RIM CYLINDER SCHLAGE (80-035) SFIC CONST. CORE	c: b:	SCHLAGE (L9024 03A) EXIT LOCK GLYNN-JOHNSON (100S) OVERHEAD STOP LCN (4040XP EDA) SURFACE CLOSER	4 INT. LIGHTS:	24" x 48" L.E.D. (LAY-IN) w/ DIFFUSER AND EMERGENCY BALAST
8 TIRES: 9 MISC:	8:00 X 14.5, 14 PLY I BEAM CLAMPS 15'-0" O.C. MAX. (SHIPLOOSE)	f: g:	IVES (VR914 NL) DOOR PULL GLYNN-JOHNSON (100S) OVERHEAD STOP	e: f:	LCN (4040XP-61) BLADE STOP SPACER ZERO-INTERNATIONAL (8192AA) DOOR SWEEP ZERO-INTERNATIONAL (655 A) THRESHOLD	5 INT. LIGHTS: 6 EXT. LIGHTS:	24" x 48" L.E.D. (LAY-IN) w/ DIFFUSER LED WALL PACK (WEATHERPROOF) - UP 74"TO BOTTOM
10 MISC: 11 UNDER COATING:	THIS UNIT WILL HAVE STEEL TUBE COLUMNS RUST INHIBITIVE LATEX TYPE PAINT, BLACK: 100% COVERAGE OF STRUCTURAL MEMBERS.	n: i: j:	LCN (4642) SURF. AUTO OPERATOR LCN (8310-801) WEATHER RING LCN (8310-853T) WALL MOUNT ACTUATOR)	y. h:	SENTINEL (1076D-G) DOOR CONTACT	7 EGRESS LIGHTS:	ÈXIT/EMERGENCY LIGHT W/ BATTERY PACK & EXTERIOR REMOTE HEAD (W.P.) - UP 84" TO BOTTOM
<u>B-FLOOR</u>		k: :	LCN (8310-867S) SURFACE MOUNT BOX ZERO INTERNATIONAL (8192AA) DOOR SWEEP	8 INT. DOOR:	36"W X 80"H S.C. WOOD R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 5/8"	NC 8 RECEPTS:	OTE: EXT. HEAD SHIPPED LOOSE, FOR INSTALLATION BY OTHERS ON SITE. 125V/20A DUPLEX
1 BOTTOM BOARD: 2 INSULATION: 3 JOISTS:	FS-25, CLASS A, SHEPWEAVE II R-30 KRAFT FACED FIBERGLASS BATT 2 x 8 (#2 SPF) AT 16-IN O.C. NOMINAL	m: n:	ZERO-INTERNATIONAL (655A) THRESHOLD SCHLAGE (CON-XX/XXP) WIRE HARNESS ELECTRIFIED HARDWARE TO POWER TRANSFER	FI Hardwai	RAME COLOR: BROWNTONE	9 RECEPTS:	UP 18" TO BOTTOM OF BOX UNLESS NOTED 125V/20A DUPLEX GFCI - UP 18" TO BOTTOM OF BOX UNLESS NOTED OTHER-WISE
	LONGITUDINAL JOISTS (NO WHEEL WELLS)	0:	SHLAGE (CON-192P) WIRE HARNESS WIRE EXTENSION FROM POWER TRANSFER TO POWER SUPPLY SENTINEL (1076D-G) DOOR CONTACT	a: b:	IVES (5BB1HW 4.5 X 4.5) HINGES VON DUPRIN (EPT10) POWER TRANSFER SCHLAGE (AD300-MS-70-MT-TLR-B) ELECTRIC CLASSROOM LOCK	10 HEAT TAPE RECP [*] 11 RECEPTS: NO	T: 125V/20A DUPLEX GFI (DEDICATED), INSTALLED BELOW FLOOR 125V/20A QUAD - UP 18" TO BOTTOM OF BOX UNLESS NOTED OTHER-WISE DTE: ALL RECEPTS ARE TO BE GROUNDING TYPE
4 DECKING: 5 COVERING:	3/4" T&G UNDERLAYMENT PLYWOOD (RATED 48/24) (HOLD BACK DECKING 10 1/2" AT MATELINE) NONE	d:	VON DUPRÌN (PS902 900-4RL) POWER SUPPLY	e:	(PROVIDED BY ACCESS CONTROL CONTRACTOR) LCN (4040XP RW/PA TBSRT) CLOSER	12 SWITCHES: 13 SWITCHES: 14 SWITCHES:	120V/20A SINGLE POLE - UP 44" TO BOTTOM 120V/20A 3-WAY - UP 44" TO BOTTOM 120V OCCUPANCY/VACANCY SENSOR, WALL-MOUNTED -
5a COVERING:	EPOXY FLOORING WITH INTEGRAL BASE IN BATHS ONLY DR: CRASHING WAVE	HARDWARE a: h·	SET 2: IVES (112XY EPT) CONTINUOUS HINGE VON DUPRIN (EPT10 CON) POWER TRANSFER	f: g: h:	LCN (4040XP-18PA) PA MOUNTING PLATE IVES (8400 10" X 2" LDW B-CS) KICK PLATE IVES (WS406/407CVX) WALL STOP	15 SWITCHES:	UP 44" TO BOTTOM 120V OCCUPANCY/VACANCY SENSOR, CEILING-MOUNTED
C-EXTERIOR WALLS	: AT OPEN MATELINE AREAS TO BE COVERED W/VISQUEEN, INSTALL	c: d:	VON DUPRIN(LX-RX-QEL-98-NL-OP-110MD-CON) ELECTRIC PANIC BEST (1E72 (LESS CORE) RIM CYLINDER	i:	ZERO INTERNATIONÁL(488S) GASKETING 36"W X 80"H S.C. WOOD	16 DATA DROPS:17 DATA DROPS:	2x4 JUNCTION BOX, UP 18"TO BOTTOM, UNLESS OTHER-WISE NOTED w/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 42" TO BOTTOM, FOR SOUND FIELD DEVICES
NOTE	PANELING STRIPS @ 2' O.C. VERTICALLY, FOR THE FIRST SIX- FEET LENGTH OF OPEN AREA. E: DO NOT REMOVE TEMPORARY ROOF BRACING SUPPORTS AT MODULE	e: f: g:	IVES (VR914 NL) DOOR PULL GLYNN-JOHNSON (100S) OVERHEAD STOP LCN (4040XP EDA) CLOSER	9 INT. DOOR:	R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 5/8"	18 DATA DROPS:	W/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 96" TO BOTTOM, FOR DIGITAL CLOCK
1 STUDS:	SIDES UNTIL MODULE IS SET ON PERMANENT FOUNDATION. 2 x 6 (SPF STUD) @ 16" O.C.	h: i: :-	LCN (4040XP-18PÁ) PA MOUNTING PLATE LCN (4040XP-61) BLADE STOP SPACER ZERO INTERNATIONAL (8192AA) DOOR SWEEP	FF HARDWAI	RAME COLOR: BROWNTONE RE: IVES (5BB1HW 4.5 X 4.5) HINGES	19 DATA DROPS:	w/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 84" TO BOTTOM, FOR PROJECTOR w/ 1/2" EMT TO CEILING CAVITY
SIDE WALL HT: END WALL HT:	9'-7 5/16" STUD LENGTH: 110 13/16 IN. 9'-7 5/16" STUD LENGTH: 110 13/16 IN. W/DBL. STUDS EACH END OF SIDEWALLS (SPF #3).	ј. k: l:	ZERO-INTERNATIONAL (655A) THRESHOLD SCHLAGE (CON-XX/XXP) WIRE HARNESS	b: d:	SCHLAGE (LV9070BDC 03A) CLASSROOM LOCK GLYNN-JOHNSON (100S) OVERHEAD STOP	20 DATA DROPS:	2x4 JUNCTION BOX, UP 96" TO BOTTOM, FOR SECURITY CAMERA w/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 42" TO BOTTOM, FOR VIDEO INTERCOM
	SGL. JAMBSTUD AT DOORS & WINDOWS (SPF #2); SGL. JACKSTUD UNDER WINDOW HEADERS (SPF #2);	m:	ELECTRIFIED HARDWARE TO POWER TRANSFER SHLAGE (CON-192P) WIRE HARNESS WIRE EXTENSION FROM POWER TRANSFER TO POWER SUPPLY	e: f: a:	LCN (4040XP RW/PA TBSRT) CLOSER LCN (4040XP-18PA) PA MOUNTING PLATE IVES (8400 10" X 2" LDW B-CS) KICK PLATE	21 DATA DROPS:22 DATA DROPS:	W/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 120" TO BOTTOM, FOR PA SPEAKER
	DBL. JACKSTUD UNDER DOOR HEADERS (SPF #2); W/ DBL. 2 x 4 HEADERS (SPF #2), [DBL. 2 x 6 (SPF #2) HEADERS IF OVER 48" ROUGH OPENING.]	n:	SENTINEL (1076D-G) DOOR CONTACT	i:	IVES (SR64) SILENCER	23 DATA DROPS:	w/ 1/2" EMT TO CEILING CAVITY 2x4 JUNCTION BOX, UP 120" TO BOTTOM, FOR PA HORN w/ 1/2" EMT TO CEILING CAVITY
NOTE 2 BOTTOM PLATE:	:: INSTALL CONTINUOUS BLOCKING BETWEEN STUDS UP 102" TO BOTTOM OF BLOCK (1) 2 x 6 (#3 SPF)	INT. DOOR: HARDWARE	72"W X 84"H COMMERCIAL GLASS DOOR W/ SIDELITES R.O. 110 1/4" X 88" E SET 3:	10 INT. DOOR:	36"W X 80"H S.C. WOOD R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 5/8"	24 CARD READER:	2x4 JUNCTION BOX, UP 42" TO BOTTOM, FOR PA HORN w/ 1/2" EMT TO CEILING CAVITY
3 TOP PLATE:	(2) 2x6 (#3 SPF) E: TRIPLE (2X_) TAPERS ABOVE SIDE WALLS	a: b:	IVES (112XY EPT) CONTINUOUS HINGE VON DUPRIN (EPT10 CON) POWER TRANSFER	FF HARDWAI a·	RAME COLOR: BROWNTONE	25 PUSH BUTTON:26 FIRE ALARM:	2x4 JUNCTION BOX, UP 42" TO BOTTOM, FOR PA HORN w/ 1/2" EMT TO CEILING CAVITY REMOTE POWER SUPPLY
	TAPER FROM 9", TO 0" AT LOW END 1/2" VINYL COV. GYP. BOARD (CLASS I F.S.) : MATCHING VINYL COVERED BATTENS AT VERTICAL SEAMS	c: d: e:	VON DUPRIN(LX-RX-QEL-98-NL-OP-110MD-CON) ELECTRIC PANIC BEST (1E72 (LESS CORE) RIM CYLINDER SCHLAGE (80-035) SFIC CONST. CORE	a: b:	SCHLAGE (LV9456BDC 03A 09-544 OS-OCC) CORRIDO W/DEADBOLT AND OUTSIDE INDICATOR	27 FIRE ALARM:	UP 44" TO BOTTOM ROUGH-IN ONLY FOR PULL STATION 2x4 BOX UP 44" TO BOTTOM, w/3/4" CONDUIT TO CEILING CAVITY
COLO	OR: NORTHWOOD MINERAL (HOLD BACK COVERING AT MATE LINE)	f: g: b:	IVES (VR914 NL) DOOR PULL GLYNN-JOHNSON (100S) OVERHEAD STOP LCN (4642) SURF. AUTO OPERATOR	c: d:	LCN (4040XP RW/PA TBSRT) CLOSER LCN (4040XP-18PA) PA MOUNTING PLATE IVES (8400 10" X 2" LDW B-CS) KICK PLATE	28 FIRE ALARM:	ROUGH-IN ONLY FOR AUDIO/VISUAL DEVICE 4x4 BOX UP 80" TO BOTTOM, w/ 1/2" EMT
5 SHEATHING: 5a SHEATHING: NOTE	3/8" CDX PLYWOOD OR OSB (RATED 24/0) WATER/WEATHER-RESISTIVE BARRIER (TYVEK OR EQUAL) STAGGER SHEATHING SEAMS FROM INT. WALL COVERING	i: k:	LCN (8310-853T) WALL MOUNT ACTUATOR) LCN (8310-867S) SURFACE MOUNT BOX	f: g:	IVES (WS406/407CVX) WALL STOP ZERO INTERNATIONAL(488S) GASKETING		2" CONDUIT STUBBED THRU WALL OTE: SEE FIRE ALARM PLAN FOR EMT SIZE(S) & LAYOUT OTE: FIRE ALARM SYSTEM TO BE PROVIDED AND INSTALLED
6 INSULATION: 6a INSULATION:	SEAMSSIDEWALLS ONLY. R-21 KRAFT FACED FIBERGLASS BATT (R-9.3) 1 1/2" RIGID FOAM INSULATION	l: m:	SCHLAGE (CON-XX/XXP) WIRE HARNESS ELECTRIFIED HARDWARE TO POWER TRANSFER SHLAGE (CON-192P) WIRE HARNESS	11 INT. DOOR:	36"W X 80"H S.C. WOOD R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS)		ON SITE BY OTHERS, NOT BY FACTORY. OTHER ALL CONDUIT ROUGH-INS TO HAVE PULL WIRES INSTALLED.
7 SIDING: 9 SKIRTING:	NONE (BY OTHERS ON SITE) NONE, SUPPLIED AND INSTALLED BY OTHERS ON SITE	n:	WIRE EXTENSION FROM POWER TRANSFER TO POWER SUPPLY SENTINEL (1076D-G) DOOR CONTACT VON DUPRIN (PS902 900-4RL) POWER SUPPLY	FI HARDWAI	FRAME THROAT: 4 5/8" RAME COLOR: BROWNTONE RE:	J-PLUMBING:	TANK TYPE (HANDICARPED) W// ELONGATED DOWL AND
D-INTERIOR WALLS 1 STUDS:	2 x 4 (SPF STUD) @ 16" O.C.	o. p: q:	LCN (4040XP ÈDA) CLOSER ÉLCN (4040XP-18PA) PA MOUNTING PLATE	a: b:	IVES (5BB1HW 4.5 X 4.5) HINGES SCHLAGE (LV9070BDC 03A) CLASSROOM LOCK	1 WTR CLST:	TANK TYPE (HANDICAPPED) W/ ELONGATED BOWL AND OPEN FRONT SEAT - UP 18" TO SEAT w/ AUTOMATIC FLUSH CONTROL
INT. WALL HT: MT. WALL HT:	8'-6" STUD LÉNGTH: 97 1/2" 9'-7 5/16" STUD LENGTH: 110 13/16"	r: HARDWARE a:	LCN (4040XP-61) BLADE STOP SPACER E SET 4: IVES (112XY EPT) CONTINUOUS HINGE	C: c: e:	GLYNN-JOHNSON (100S) OVERHEAD STOP LCN (4040XP SCUSH TBSRT) CLOSER IVES (8400 10" X 2" LDW B-CS) KICK PLATE	2 MOD PART: 2a MOD PART: CC 3 URINAL SCREEN:	SOLID PLASTIC FLOOR MOUNTED OVERHEAD BRACED DLOR: 3010 DOVE GRAY SOLID PLASTIC DEPTH-24"
2 BOTTOM PLATE:	CORRIDOR WALLS TO BE KNEWALLED TO UNDERSIDE OF ROOF TO FORM SMOKE COMPARTMENT (1) 2 x 4 (#3 SPF)	b: c:	VON DUPRIN (EPT10 CON) POWER TRANSFER VON DUPRIN(LX-RX-QEL-98-NL-OP-110MD-CON) ELECTRIC PANIC	g:	ZERO INTERNATIONAL(488S) GASKETING	CC 4 URINAL:	OLOR: 3010 DOVE GRAY WALL HUNG w/ FLUSH VALVE & INTEGRAL TRAP
3 TOP PLATE: 4 COVERING: NOTE:	(2) 2 x 4 (#3 SPF) 1/2" VINYL COV. GYP. BOARD (CLASS I F.S.) MATCHING VINYL COVERED BATTENS AT VERTICAL SEAMS	d: e: f:	BEST (1E72 (LESS CORE) RIM CYLINDER SCHLAGE (80-035) SFIC CONST. CORE IVES (VR914 NL) DOOR PULL	12 CASED OPENING: 43	3 3/4"W X 83 3/4"H	5 LAVATORY: NO	CHINA WALL HUNG UP 34" TO RIM OTE: SINGLE-FIXTURE TEMPERING VALVE REQUIRED FOR ALL ACCESSIBLE HAND WASHING FACILITIES: MAX. WATER TEMPERATURE 110oF
COLO	OR: NORTHWOOD MINERAL (HOLD BACK COVERING AT SEAM LINE)	g: h: i·	GLYNN-JOHNSÓN (100S) OVERHEAD STOP LCN (4040XP EDA) CLOSER LCN (4040XP-18PA) PA MOUNTING PLATE	G-WINDOWS:		6 WTR HTR:	40 GALLON ELECTRIC (4500W./ 208V.) OTE: WATER HEATER INLET & OUTLET CONNECTIONS SHALL HAVE A DIELECTRIC UNITON AND SHUT OFF VALVE.
4b COVERING: COLO 5 INSULATION:	ALTRO TEGULIS SUBWAY PATTERN IN BATHS OVER 1/2" UNFINISHED GYPSUM DR: 201 FLINT R-11 UNFACED FIBERGLASS BATT	j: k :	LCN (4040XP-61) BĹADE STOP SPACER SCHLAGE (CON-XX/XXP) WIRE HARNESS	1 SIZE:	48"W X 48"H H.S. R.O. 48 1/2"W X 48 1/4"H, UP: 32" ALUMINUM FRAME	9 SUPPLY:	OTE: WATER HTR. TO HAVE A 2-GAL. EXPANSION TANK PEX
		l:	ELECTRIFIED HARDWARE TO POWER TRANSFER SHLAGE (CON-192P) WIRE HARNESS WIRE EXTENSION FROM POWER TRANSFER TO POWER SUPPLY	GLAZING: MISC:	DOUBLE INSULATED - CLEAR NO BLINDS	NC 10 DWV:	OTE: INSULATE HOT WATER & HOT WATER RETURN PIPING; INSULATE COLD WATER PIPING IN CEILING CAVITY SCHEDULE 40 PVC
E-ROOF 1 RAFTERS: 2 MATE BEAM:	2 x 10 (#2SPF) AT 16" O.C. W10" x 22LB/FT MAX. SPAN: 30'	m:	SENTINEL (1076D-G) DOOR CONTACT	MISC:	INSECT SCREENS	14 MISC.	GRAB BARS (SEE FLOOR PLAN) SIDE BAR: 42"L. BACK BAR: 36"L. VERTICAL BAR: 18"L.
NOTE:	INSTALL 12"L SECTIONS OF LUMBER IN WEB AS BLOCKING TO ATTACH ROOF SIDE RAIL	INT. DOOR:	36"W X 80"H S.C. WOOD R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 7/8"			16 MISC:	HORIZONTAL GRAB BARS ARE UP 33"H TO 36"H TO TOP; VERTICAL BAR IS UP 39" - 41" TO BOTTOM 18"Wx36"H STAINLESS STEEL EDGED MIRROR - UP 38"
NOTE: NOTE:	1/2" HOLES @ 32" O.C. IN BOTTOM FLANGE TO FASTEN SHIPPING WALLS 1/2" DIA HOLES 48" O.C. IN TOP FLANGE TO ATTACH SILL PLATE BE PROTECTED w/ (2) LAYERS 5/8" TYPE-X GYPSUM BOARD (CLASS I F.S.)	FRA HARDWARE	ME COLOR: BROWNTONE E: IVES (5BB1HW 4.5 X 4.5) HINGES			17 MISC: 19 MISC: 20 MISC:	TOILET PAPER DISPENSER - UP 24" FIBERGLASS MOP BASIN PVC FLOOR DRAIN 3" DIA. WITH TRAP PRIMER
4 CEILING:	SUSPENDED T-GRID w/ 2'x 2' LAY-IN TILE FINISH CEILING HT: 8'-6" CEILING TILE. GRID TEES. & WALL ANGLE FOR MATE LINE	b: b:	SCHLAGE (LV9070BDC 03A) CLASSROOM LOCK GLYNN-JOHNSON (100S) OVERHEAD STOP			K-H.V.A.C.	FVCT LOOK DIVAIN 3 DIA. WITH THAP FRIMER
NOTE:	SHIPPED LOOSE FOR INSTALLATION BY OTHERS ON SITE. CEILING TILE, GRID TEES, & WALL ANGLE FOR CORRIDOR	c: INT. DOOR:	IVES (SR64) SILENCER 36"W X 80"H S.C. WOOD			1 HEAT/COOL:	(10) 3 TON PACKAGE UNIT, 12EER/14SEER, 208/230V 3 PHASE 50 MBH GAS(CLASSROOMS) (1) 3 TON PACKAGE UNIT, 12EER/14SEER, 208/230V 3 PHASE 100 MBH GAS(RESTROOM/CORRIDOR)
5 TRUE CEILING: 5a TRUE CEILING:	SHIPPED LOOSE FOR INSTALLATION BY OTHERS ON SITE. FS-25, CLASS A, SHEPWEAVE II, ATTACHED TO UNDERSIDE (2) LAYER 5/8" TYPE "X" UNFINISHED GYPSUM BOARD	EDA	R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 5/8" ME COLOR: BROWNTONE				(1) 7.5 TON HP 230-3-60 180 MBH GAS (CAFETERIA) (1) 3 TON PACKAGE UNIT, 12EER/14SEER, 208/230V 3 PHASE 50 MBH GAS(OFFICE) 3 PHASE ROOF MOUNT A/C W/ NATURAL GAS HEAT (UNIT WILL SHIPLOOSE W/
NOTE:	SMOKE COMPARTMENT(CORRIDOR ONLY) CUT OUT CEILING BOARD FOR PLYWOOD COMPRESSION PLATE ABOVE ANY BEARING WALL AND/OR COLUMN. COMPRESSION	HARDWARE a:	:: IVES (5BB1HW 4.5 X 4.5) HINGES				PERMANENT CURB AND FLASHING FOR INSTALLATION BY OTHERS AT THE SITE. ALL ACCESSORIES (INCLUDING HEAT STRIPS) WILL BE SHIPPED LOOSE AND WILL NEED TO BE SITE INSTALLED ALONG WITH START-UP. TESTING.
6 INSULATION:	PLATE TO BE 1/8" THICKER THAN TOTAL CEILING THICKNESS. R-38 UNFACED FIBERGLASS BATT	b: c: d:	SCHLAGE (LV9082BDC 03A) INSTITUTION LOCK VON DUPRIN (6211 FSE CON) ELECTRIC STRIKE LCN (4040XP RW/PA TBSRT) CLOSER			a CURRINARIOT	AND BALANCING OF THE SYSTEM BY CUSTOMER'S HVAC SUB-CONTRACTOR.) ALL GAS LINES TO BE BY OTHERS
6a INSULATION: 7 SHEATHING: 8 ROOFING:	R-38 KRAFT FACED FIBERGLASS BATT (CORRIDOR) 7/16" OSB w/ MULE-HIDE FR ADHESIVE OR 7/16" CLASS C FR DECKING EPDM RUBBER 1-PC. MEMBRANE, 45 mil, BLACK	e: f:	LCN (4040XP-18PA) PA MOÚNTING PLATE IVES (8400 10" X 2" LDW B-CS) KICK PLATE IVES (WS406/407CVX) WALL STOP			3 SUPPLY DUCT: 4 DIFFUSERS: 5 RETURN AIR DUC	SINGLE 13/16" FIBERGLASS DUCTBOARD IN ROOF 24" X 24" LAY-IN w/ADJ. DAMPER (CEILING) T: 13/16" FIBERGLASS TRANSFER DUCT IN CEILING
11 VENTS:	AURA VENT SYSTEM	y. h: i:	IVES (SR64) SILENCÉR SCHLAGE (CON-192P) WIRE HARNESS			6 GRILLES: 8 EXH. FAN: 8a EXH. FAN:	24" X 24" LAY-IN (NO DAMPER) 75 CFM 300 CFM
		j:	WIRE EXTENSION FROM ELECTRIC STRIKE TO POWER SUPPLY SENTINEL (1076D-G) DOOR CONTACT			9 GRILLES: 11 THERMOSTAT:	24" X 24" LAY-IN FOR CENTRAL H.V.A.C. UNIT - UP 48"
	5	INT. DOOR:	36"W X 80"H S.C. WOOD R.O. 37 3/4"W X 80 3/4"H (STEEL JAMBS) FRAME THROAT: 4 5/8"			12 MISC: 13 MISC:	PROGRAMMABLE, CO2 SENSOR - UP 48" GALVANIZED DUCT AND FIRE/SMOKE DAMPERS AS REQUIRED
		FRA HARDWARE	ME COLOR: BROWNTONE			L-FURNITURE & INTERIOF	
		a: b: d:	IVES (5BB1HW 4.5 X 4.5) HINGES SCHLAGE (LV9082BDC 03A) STOREROOM LOCK LCN (4040XP RW/PA TBSRT) CLOSER			1 FIRE EST.	CSST-010201 SURFACE MOUNTED FIRE ESTINGUISHER CABINET 4" DEEP W/ FULL ACRYLIC WINDOW WITH LOCK UP 35 1/2" TO BOTTOM DLOR: WHITE
		f: g:	IVES (8400 10" X 2" LDW B-CS) KICK PLATE IVES (WS406/407CVX) WALL STOP IVES (SR64) SILENCER				
		i:	ZERO INTERNATIONAL(488S) GASKETING			TRIM PACKAGE #3 (VINYL	_ GYPSUM W/ VINYL COVE BASE)
	6	INT. DOOR:	72"W X 80"H S.C. WOOD R.O. 73 3/4" X 80 3/4" (STEEL JAMBS) FRAME THROAT: 4 5/8"			BASE MOLDING: INSIDE CORNER:	NONE VINYL COVERED (MATCH GYPSUM)
		FRA HARDWARE	w/ 5"X20" VISION PANEL (SAFETY GLAZED) ME COLOR: BROWNTONE			OUTSIDE CORNER: WALL @ CEILING: WALL @ CEILING:	VINYL COVERED TRI-MOLD (MATCH GYPSUM) 1 1/4" RANCH MOLDING (PRE-PAINTED) SUSPENDED CEILING WALL ANGLE, WHITE
		HARDWARE a: b:	IVES (224XY) CONTINUOUS HINGE VON DUPRIN (KR4954 STAB) REMOVABLE MULLION			PANEL SEAMS (WALLS): CEILING:	VINYL COVERED (MATCH GYPSUM) NONE
		c: d: e [:]	VON DUPRIN (LD-98-EO) PANIC HARDWARE BEST (IE74 LESS CORE) MORTISE CYLINDER LCN (4040XP EDA TBSRT) CLOSER			CEILING: INT. DOOR JAMB/TRIM: CO	SUSPENDED CEILING TEE GRID, WHITE PAINTED STEEL, DLOR: BROWNTONE
		f: g:	LCN (4040XP-18 PA) PA MOUNTING PLATE IVES (8400 10" X 2" LDW B-CS) KICK PLATE			EXT. DOOR JAMB/TRIM:	PAINTED STEEL. OLOR: BRO 5/8" P PAINTED //B STC
		h: i:	LCN (SEM7850) FIRE/LIFE WALL MAG IVES (SR64) SILENCER			WINDOW TRIM:	2 1/4" NCH MOL IG (PRE- NT) L PRE-PAIN D WOOD LOR: #C' AN 3 GRAY OR V
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				USE OF THIS	ILITY FOR UNAUTHORIZED	P.O. BOX 505 ROCHESTER, IN 46975 PHONE: 574.223.4934	(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES Job No. 2024-005-WR AO. 1



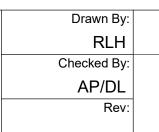


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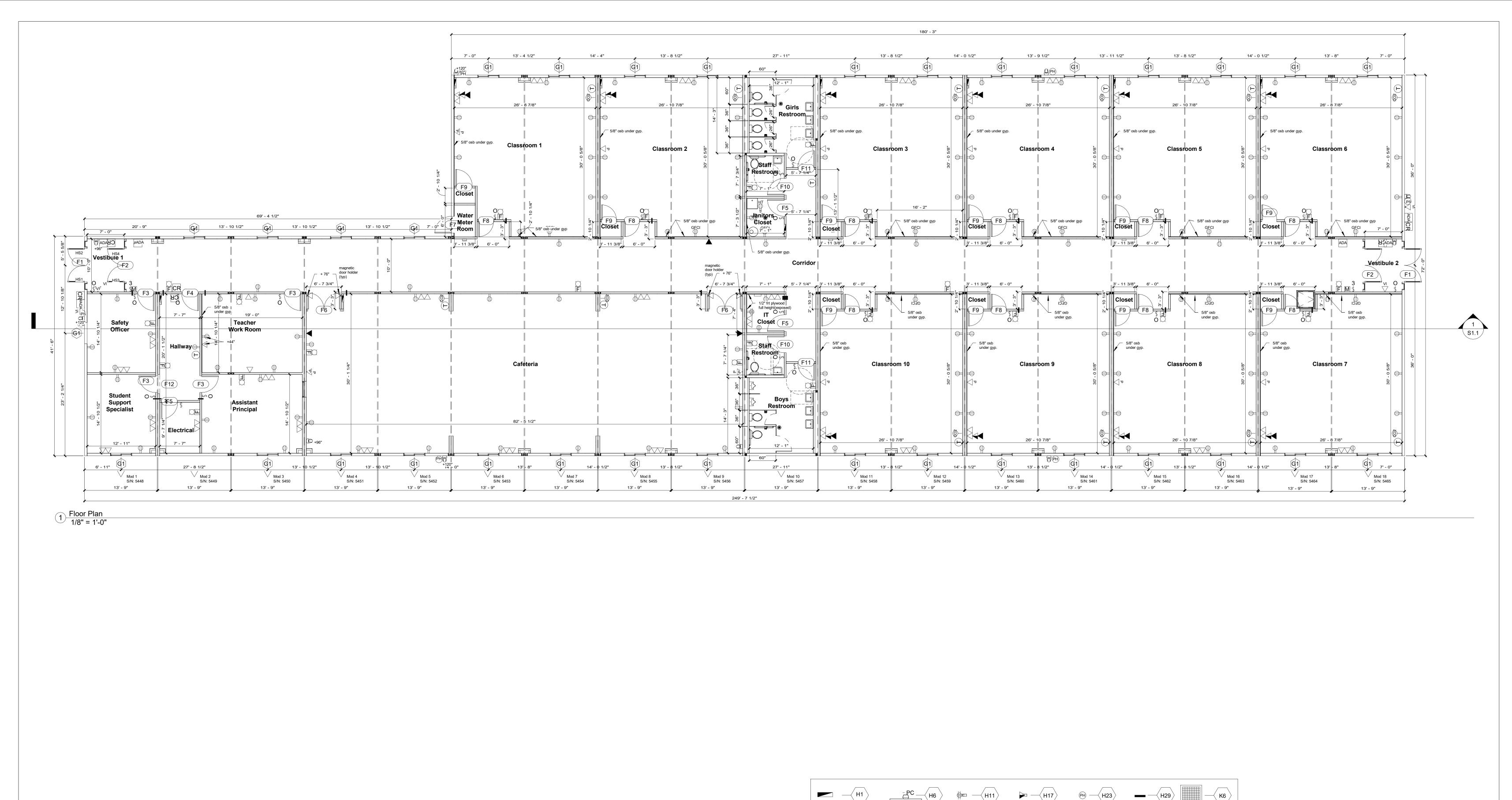
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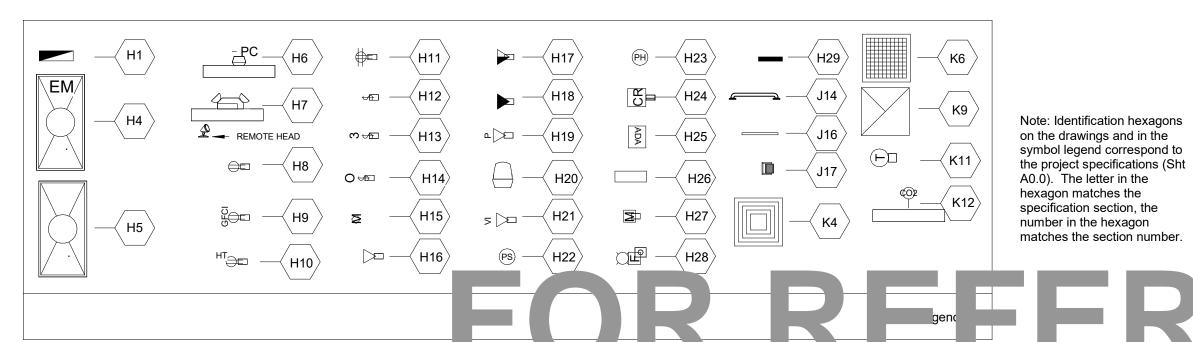




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5448-5465
Quote No.
50589C-18
Model No.
8092
Job No.
2024-005-WR

Date:
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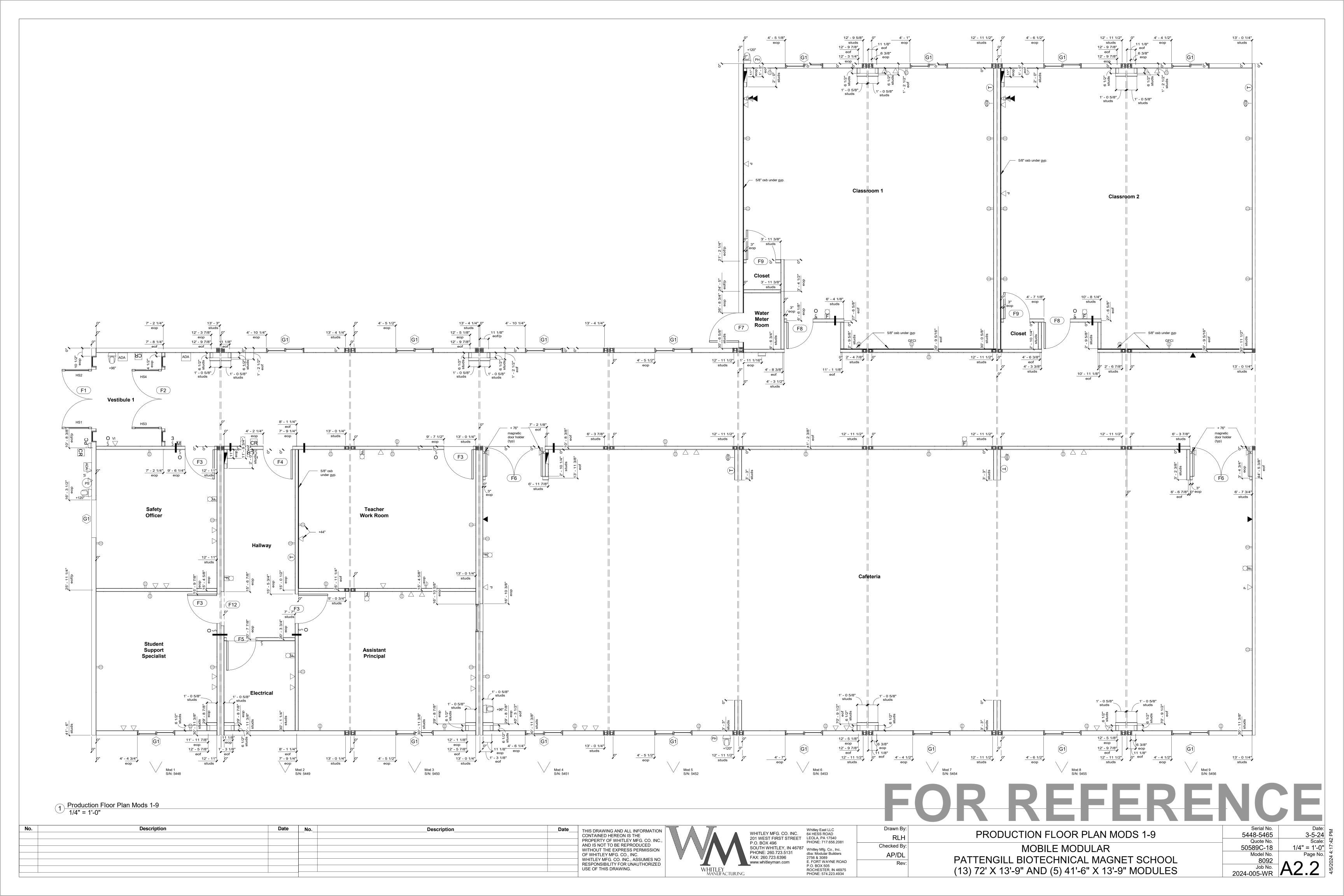
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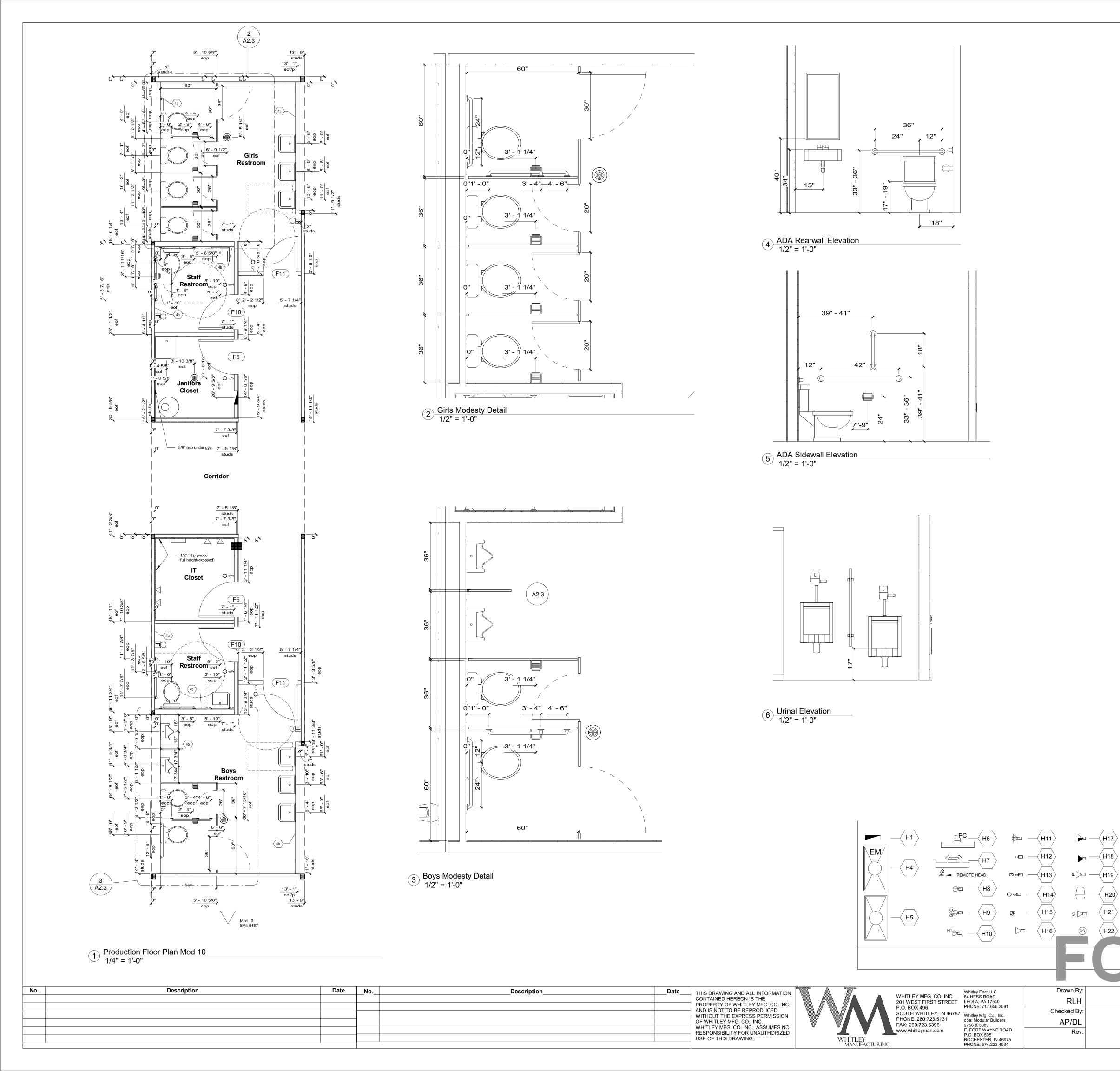
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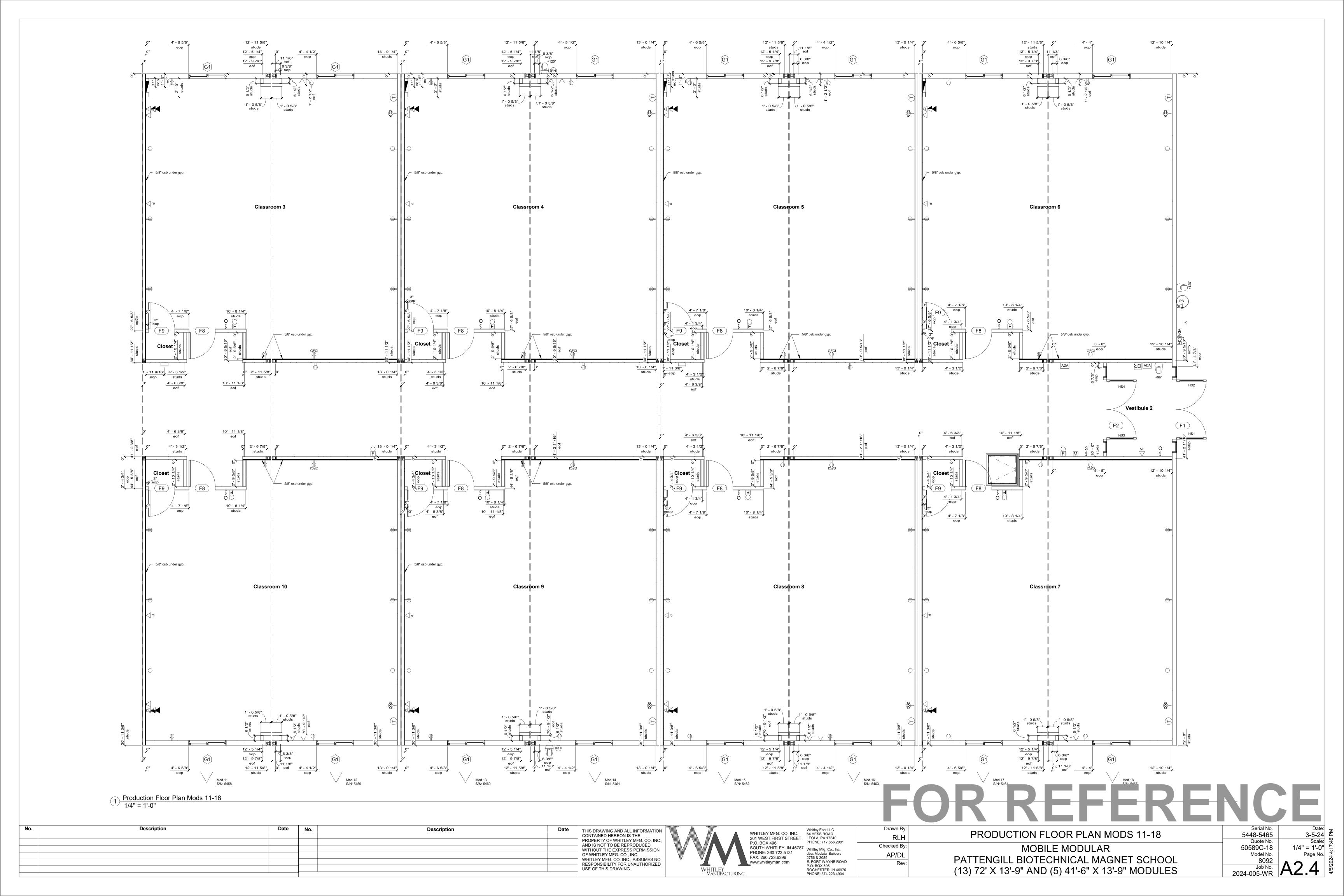


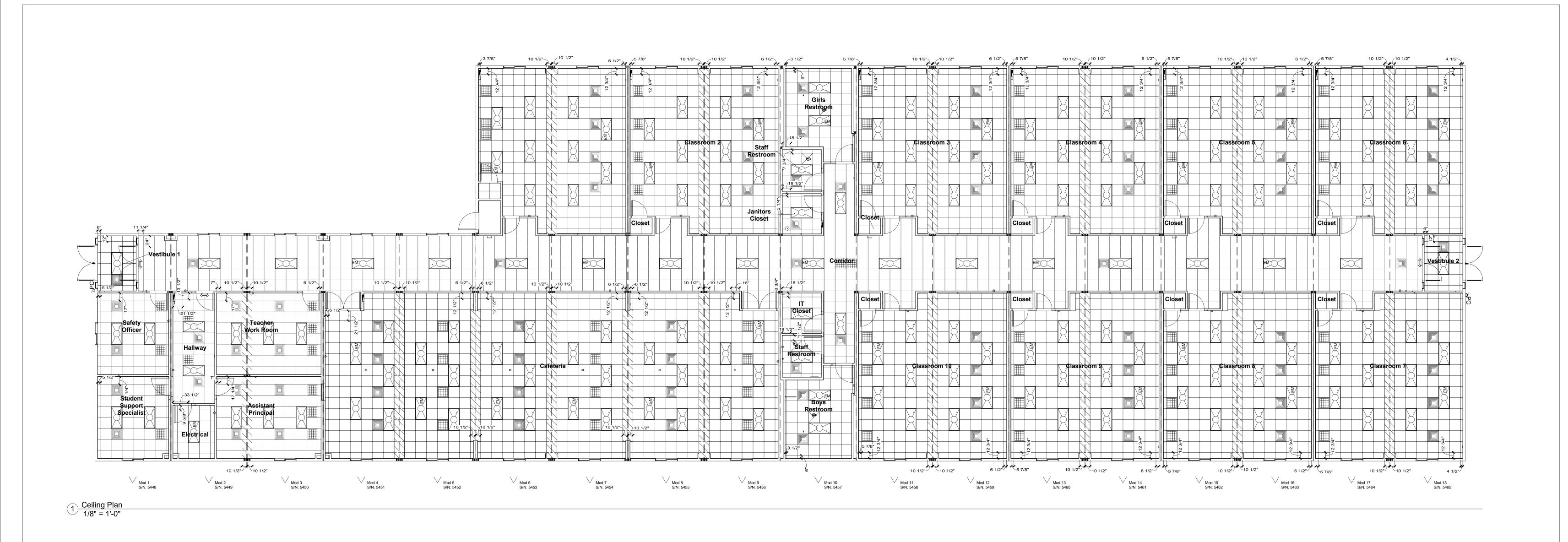


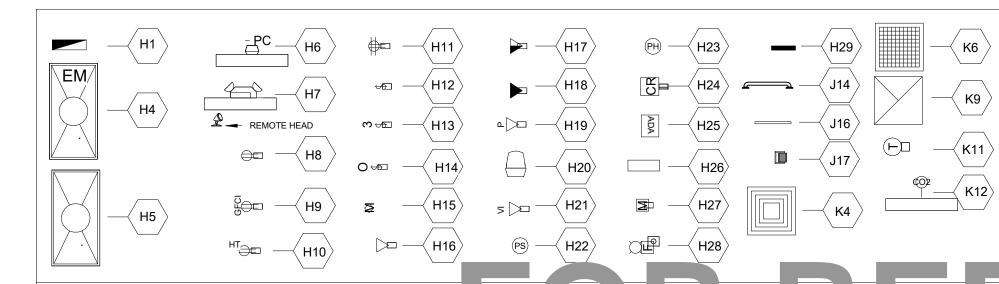
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Note: Identification hexagons

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5448-5465
Quote No.
50589C-18
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Note: Identification hexagons

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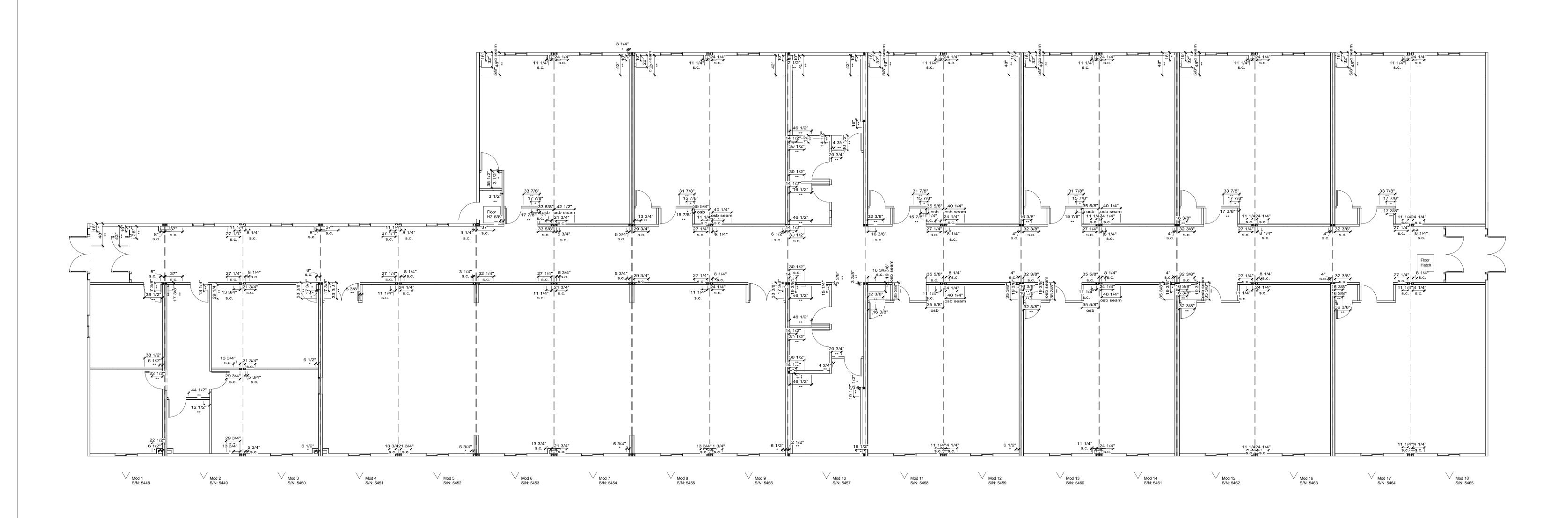
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Serial No. Date: 5448-5465 3-5-24
Quote No. Scale: As indicated Page No. 8092
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1 Gyp Seam Plan 1/8" = 1'-0"

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SEAM CLOSURE FLOOR PLAN

MOBILE MODULAR

PATTENGILL BIOTECHNICAL MAGNET SCHOOL
(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

Serial No.

5448-5465

Quote No.

50589C-18

Model No.

8092

Job No.

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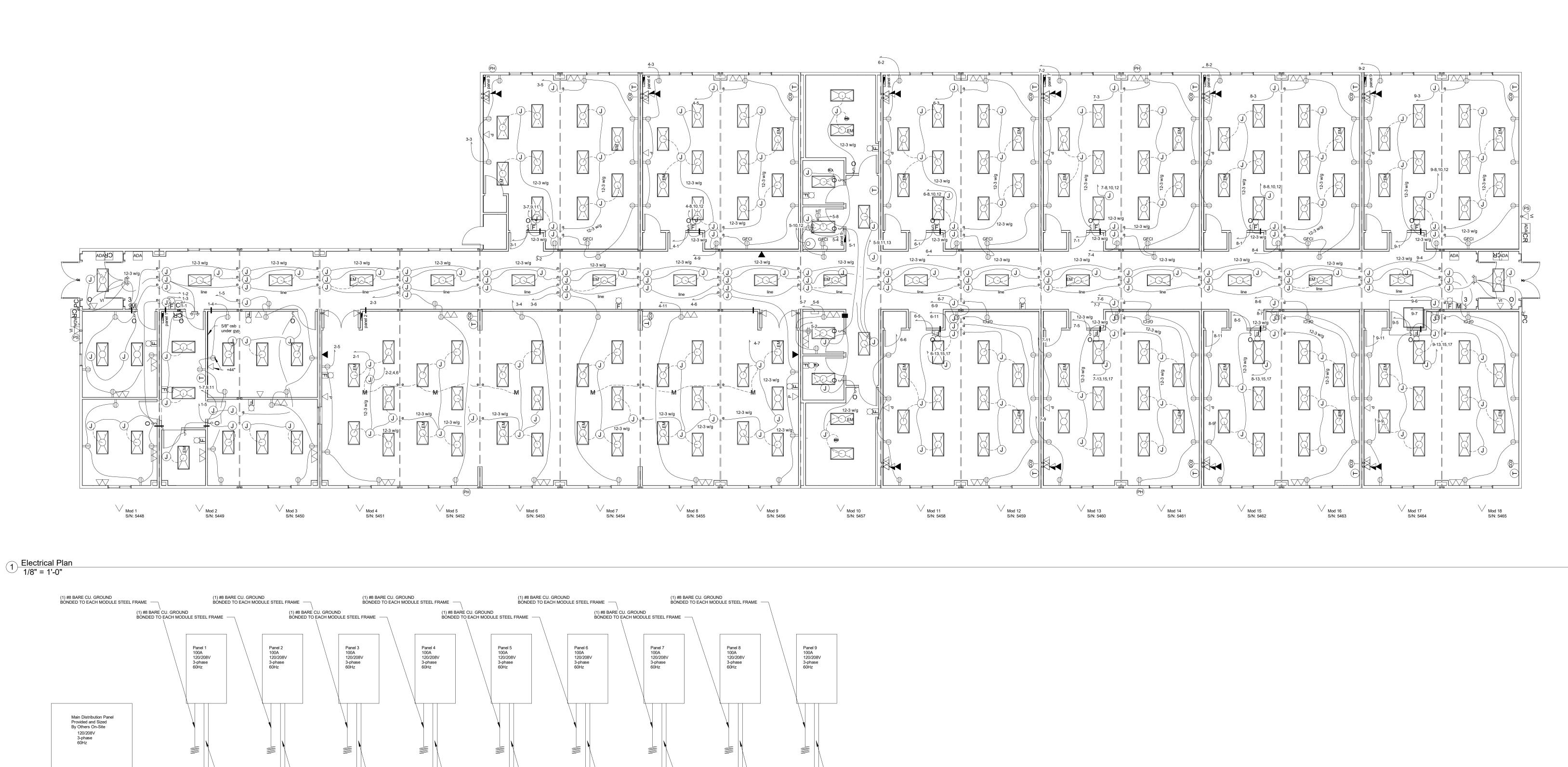
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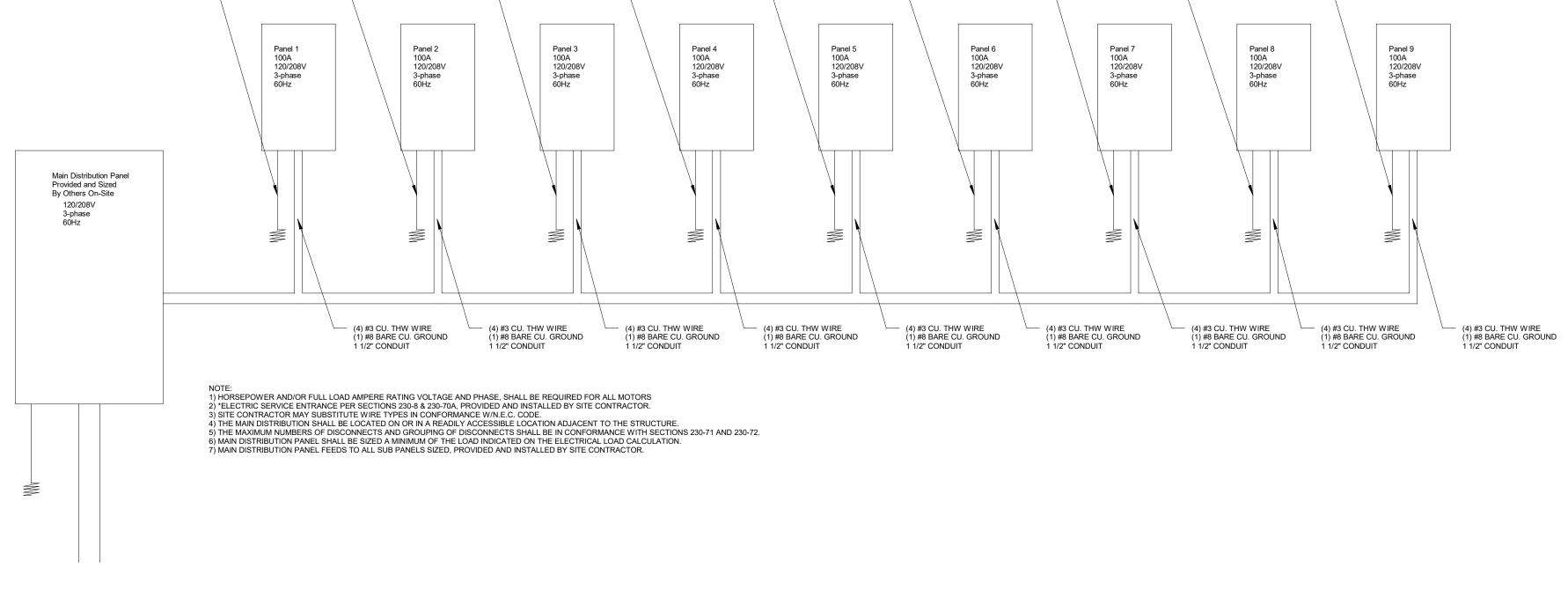
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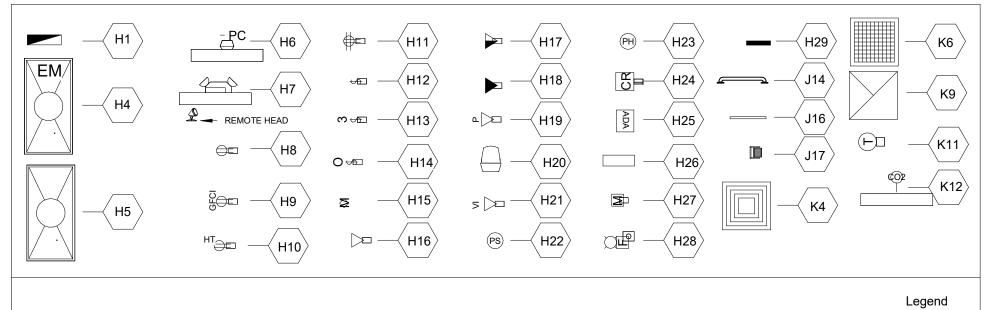
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2 Riser Diagram 3/4" = 1'-0"

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787	Whitley Mfg. Co., Inc. dba: Modular Builders 2756 & 3089	
	E. FORT WAYNE ROAD P.O. BOX 505 ROCHESTER, IN 46975 PHONE: 574.223.4934	

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Checked By:
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Rev:

ELECTRICAL PLAN

MOBILE MODULAR

PATTENGILL BIOTECHNICAL MAGNET SCHOOL

(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

Serial No.
5448-5465
Quote No.
50589C-18
Model No.

50589C-18 As indicated

Model No.
8092
Job No.
2024-005-WR

Scale:
As indicated
Page No.
Page No.



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Whitley East LLC
64 HESS ROAD
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Whitley Mfg. Co., Inc.
dba: Modular Builders
2756 & 3089
E. FORT WAYNE ROAD
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ROCHESTER, IN 46975
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JUNCTION BOX PLAN

MOBILE MODULAR

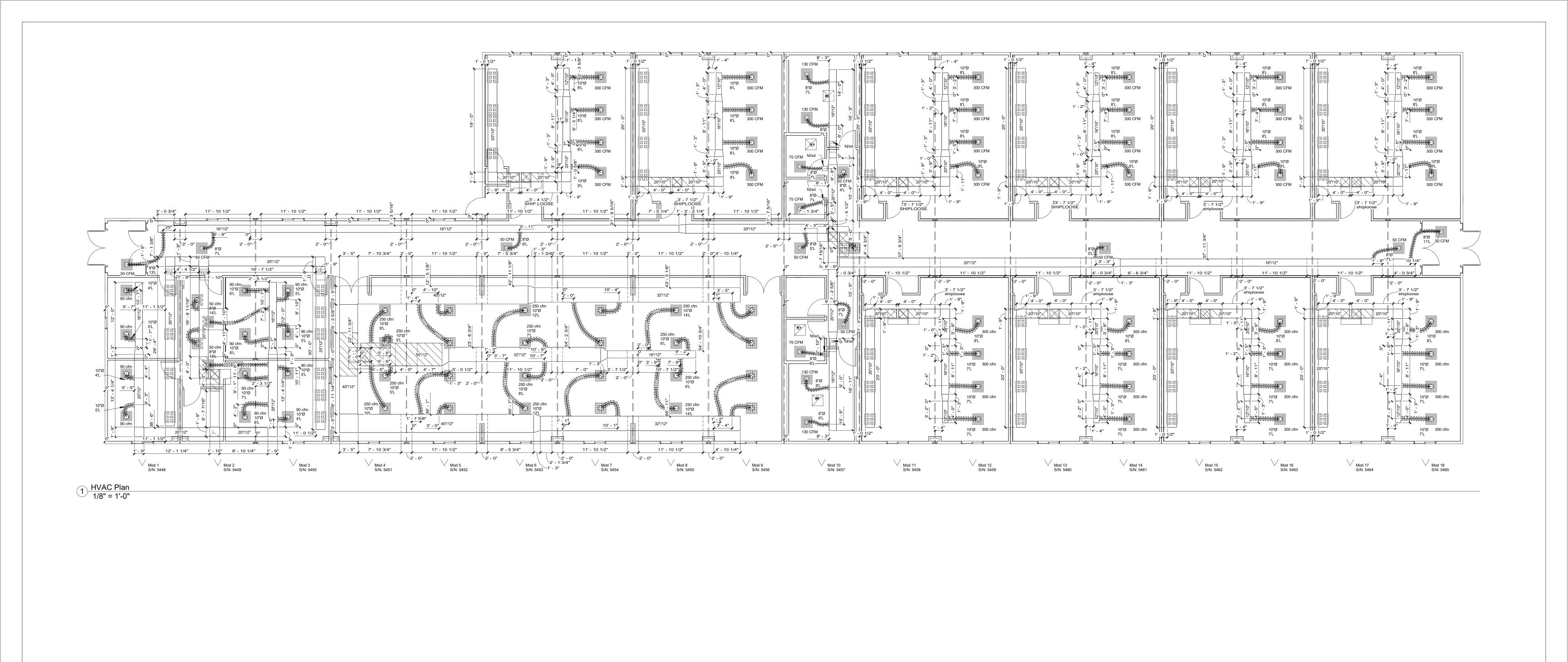
PATTENGILL BIOTECHNICAL MAGNET SCHOOL
(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

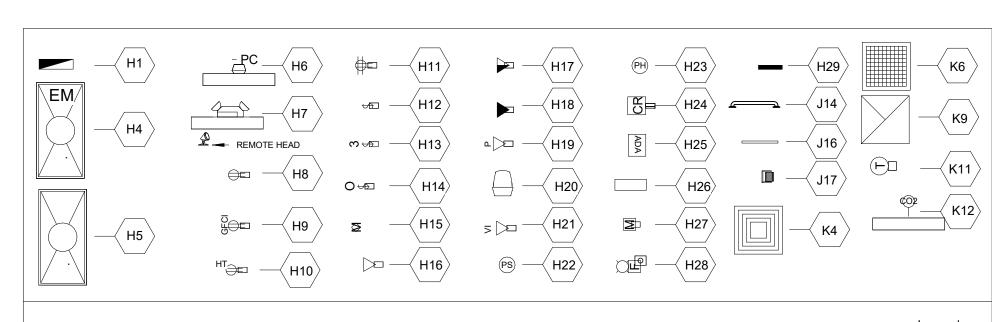
Serial No.
5448-5465
Quote No.
50589C-18
Model No.
8092
Job No.
2024-005-WR

#8-5465 3-5-24 Scale: 99: 1/8" = 1'-0" Fage No. 8092 Job No. 005-WR

#8-5465 3-5-24 Scale: 99: 1/8" = 1'-0" Fage No. 1/9" Fage No.

WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION MODEL # 8092 UNIT WIDTH: 41.5 FT.	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION
MODEL # 8092 PANEL # 1 SERVICE TYPE: 3 -PHASE, 208 VOLTS TOTAL CALCULATED LIGHTING LOAD 6027.875 WATTS TOTAL CONNECTED LIGHTING LOAD 2640 WATTS TOTAL WATTS (w/ FACTOR) FOR PANEL: 16977.18 WATTS	MODEL # 8092 MODH 2 SERVICE TYPE: 3 -PHASE, 208 VOLTS UNIT WIDTH: 27.625 FT. UNIT LENGTH: 41.5 FT. TOTAL SQUARE FOOTAGE: 1146.438 SQ. FT TOTAL CALCULATED LIGHTING LOAD 4012.531 WATTS TOTAL CONNECTED LIGHTING LOAD 1050 WATTS TOTAL WATTS (w/ FACTOR) FOR PANEL: 21592.74 WATTS	MODEL # 8092 MODH 3 SERVICE TYPE: 3 -PHASE, 208 VOLTS UNIT WIDTH: 27.625 FT. UNIT LENGTH: 41.5 FT. TOTAL SQUARE FOOTAGE: 1146.438 SQ. FT TOTAL CALCULATED LIGHTING LOAD 4012.531 WATTS TOTAL CONNECTED LIGHTING LOAD 700 WATTS TOTAL WATTS (w/ FACTOR) FOR PANEL: 13701.84 WATTS	MODEL # 8092 MOD # 4 SERVICE TYPE: 3 - PHASE, 208 VOLTS UNIT WIDTH: 27.625 FT. UNIT LENGTH: 72 FT. TOTAL SQUARE FOOTAGE: 1989 SQ. FT TOTAL CALCULATED LIGHTING LOAD 6961.5 WATTS TOTAL CONNECTED LIGHTING LOAD 1750 WATTS TOTAL WATTS (w/ FACTOR) FOR PANEL: 16830.8 WATTS
WIRE PNL.CIRC BRKR. DESCRIPTION OTY (BLACK) (RED) (RED) (BLUE) WATTAGE WATTS FACTOR FAC	WIRE	WIRE PNLCIRC BRKR DESCRIPTION DEVICE A B C DEVICE TOTAL DEMAND WATTS W	Wire PNLCIRC BRKR, DESCRIPTION QTY (BLACK) (RED) WATTAGE WATTS FACTOR FACTOR FACTOR FACTOR WATTS FACTOR FACTOR WATTS FACTOR FACTOR WATTS FACTOR FACTOR WATTS FACTOR WATTS FACTOR FACTOR WATTS WATTS
WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION MODEL # 8092 MOD # 5 SERVICE TYPE: 3 -PHASE, 208 VOLTS WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION UNIT WIDTH: 13.75 FT. VINIT LENGTH: 72 FT. TOTAL SQUARE FOOTAGE: 990 SQ. FT TOTAL CALCULATED LIGHTING LOAD 3465 WATTS TOTAL CONNECTED LIGHTING LOAD 560 WATTS TOTAL WATTS (W/ FACTOR) FOR PANEL: 19196.9 WATTS	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION MODEL # 8092	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION MODEL # 8092 MOD # 7 SERVICE TYPE: 3 -PHASE, 208 VOLTS WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION UNIT WIDTH: 27.625 FT. UNIT LENGTH: 72 FT. TOTAL SQUARE FOOTAGE: 1989 SQ. FT TOTAL CALCULATED LIGHTING LOAD 6961.5 WATTS TOTAL CONNECTED LIGHTING LOAD 1400 WATTS TOTAL WATTS (w/ FACTOR) FOR PANEL: 26274.99 WATTS	WHITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCULATION MODEL # 8092 MOD # 8 UNIT WIDTH: 27.625 FT. UNIT LENGTH: 72 FT. SERVICE TYPE: TOTAL SQUARE FOOTAGE: 1989 SQ. FT 3 -PHASE, TOTAL CALCULATED LIGHTING LOAD 6961.5 WATTS 208 VOLTS TOTAL CONNECTED LIGHTING LOAD 1400 WATTS TOTAL WATTS (W/ FACTOR) FOR PANEL: 24900.11 WATTS
WIRE PNL CIRC BRKR SIZE # # AMPS DESCRIPTION OTY (BLOK) (RED) (BLUE) WATTAGE WATTS FACTOR FACT	/ WIRE PNL.CIRC BRKR. DEVICE A B C DEVICE TOTAL NEC WATTS w/	Wire Philodox Ph	Wire PNL Circ BRKR SIZE # # AMPS DESCRIPTION OTY (BLOCK) (RED) (BLUE) WATTAGE WATTS FACTOR FACTOR
WIIITLEY MANUFACTURING CO., INC. ELECTRICAL LOAD CALCELATION UNIT WIDTH: 27,825 FT. UNIT WIDTH: 72,71. 17,725 FT. UNIT WIDTH: 72,71. 17,725 FT. UNIT LENGTH: 72,71. 189 SQ. FT 10,725 FT. 10,725 FT.		HILLEY MFG. CO. INC. WHITLEY MFG. CO. INC. WHITLEY MFG. CO. INC. OH HES ROAD OTHER TOTAL THE TOTAL CO. INC. OH HES ROAD OH AND TOTAL CO. INC. OH HES ROAD RLH RLH	REFERENCE ELECTRICAL SCHEDULES Serial No. 5448-5465 3-5- Serial No. 5448-5465 3-5- Serial No. 5448-5465 3-5-
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symbol legend correspond to the project specifications (Sht A0.0). The letter in the hexagon matches the specification section, the number in the hexagon matches the section number.

Note: Identification hexagons on the drawings and in the

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No.	Description	Date	No.	 Date
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MECHANICAL PLAN

MOBILE MODULAR

PATTENGILL BIOTECHNICAL MAGNET SCHOOL
(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

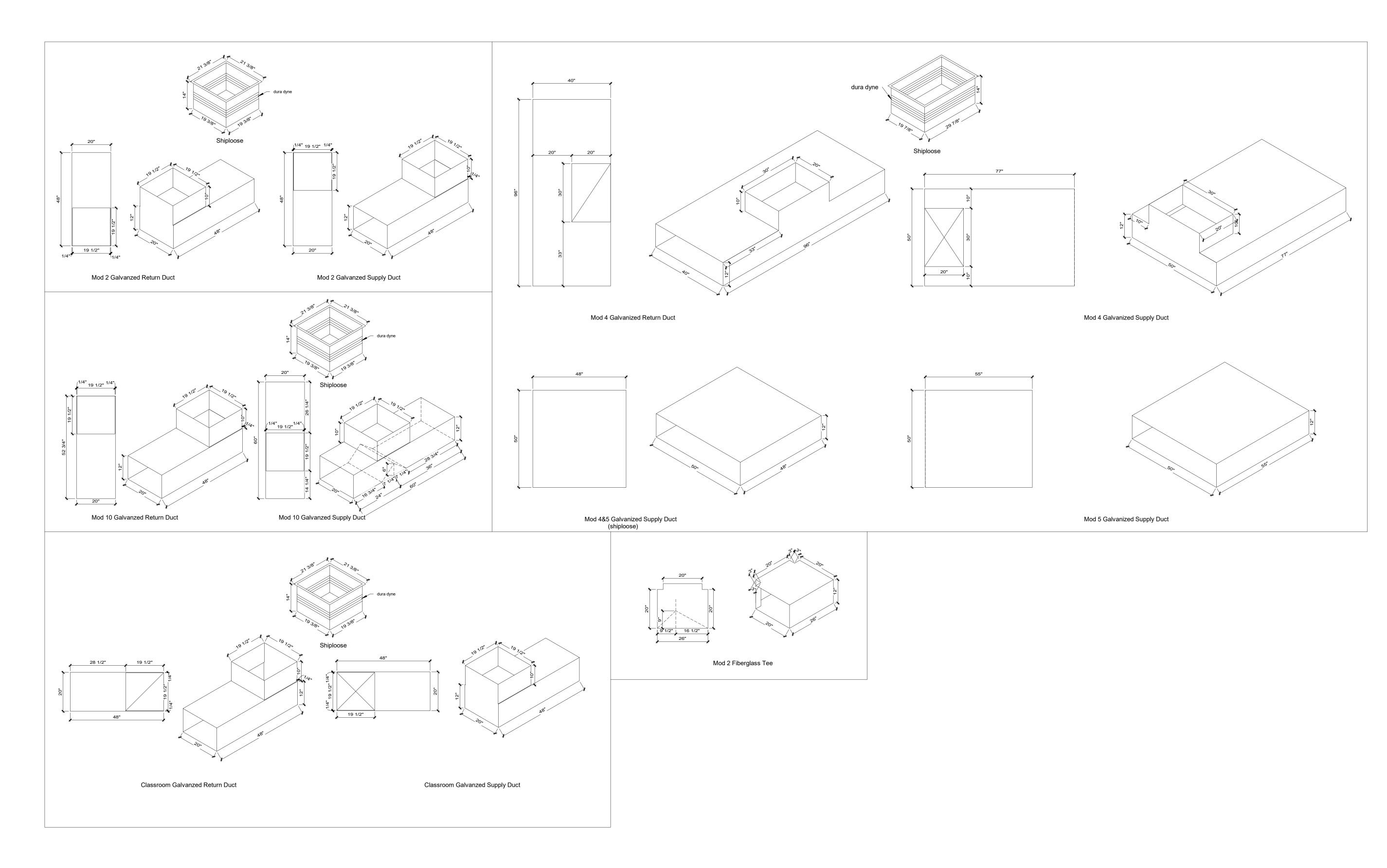
Serial No. 5448-5465 Quote No. 50589C-18 As Model No. 8092

50589C-18 As indicated

Model No.
8092
Job No.
2024-005-WR

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As indicated
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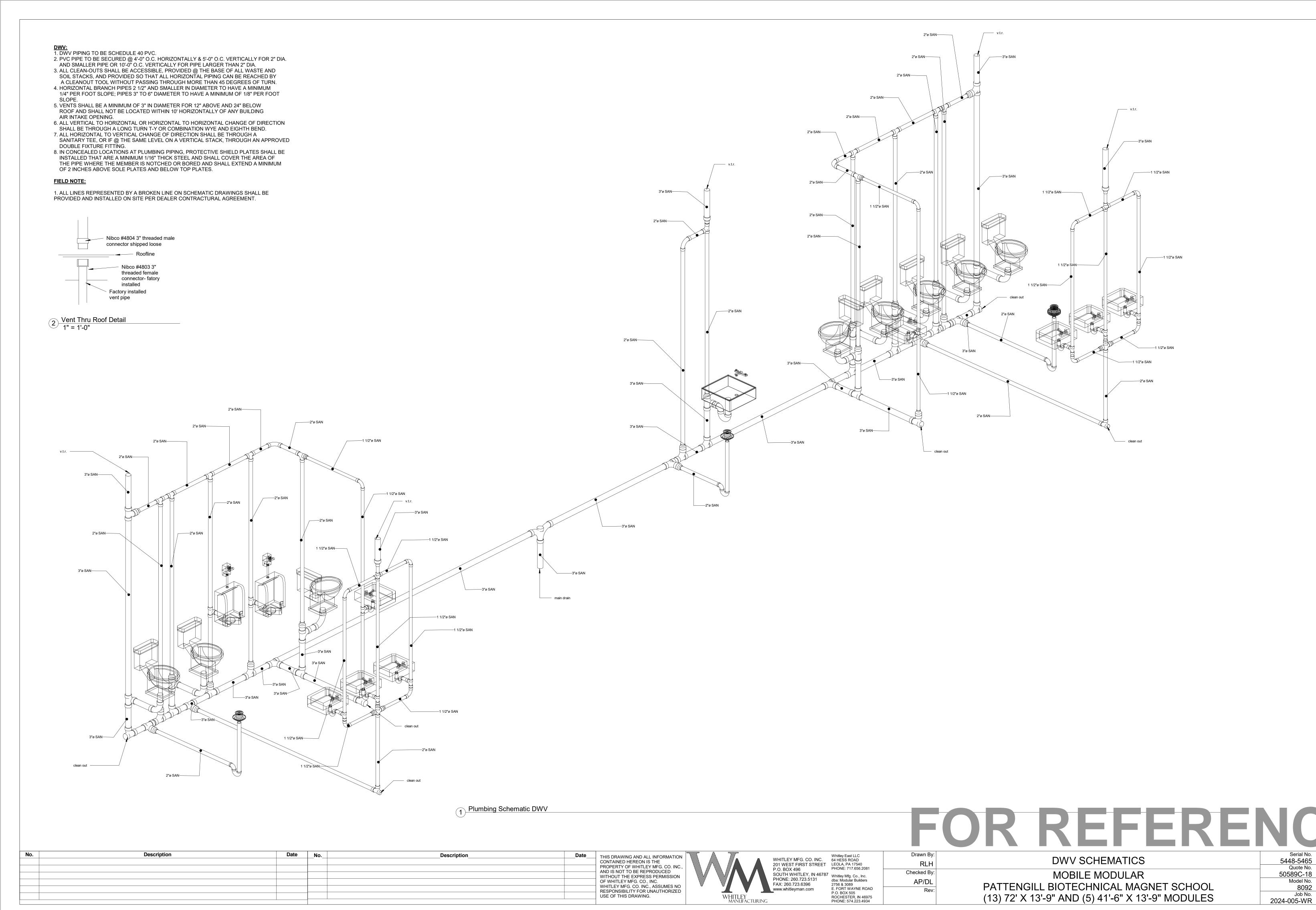
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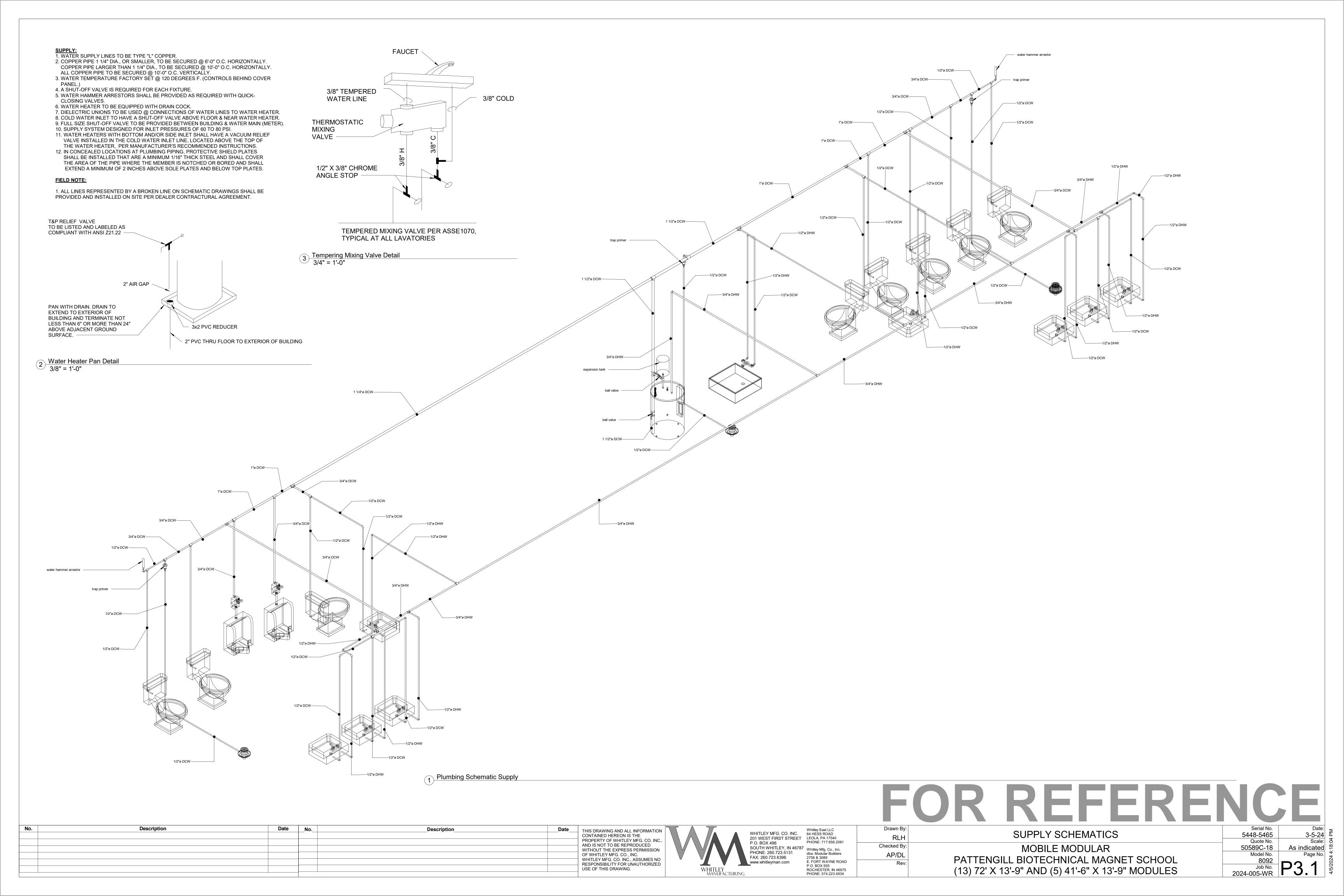
1 Duct Details
1/2" = 1'-0"

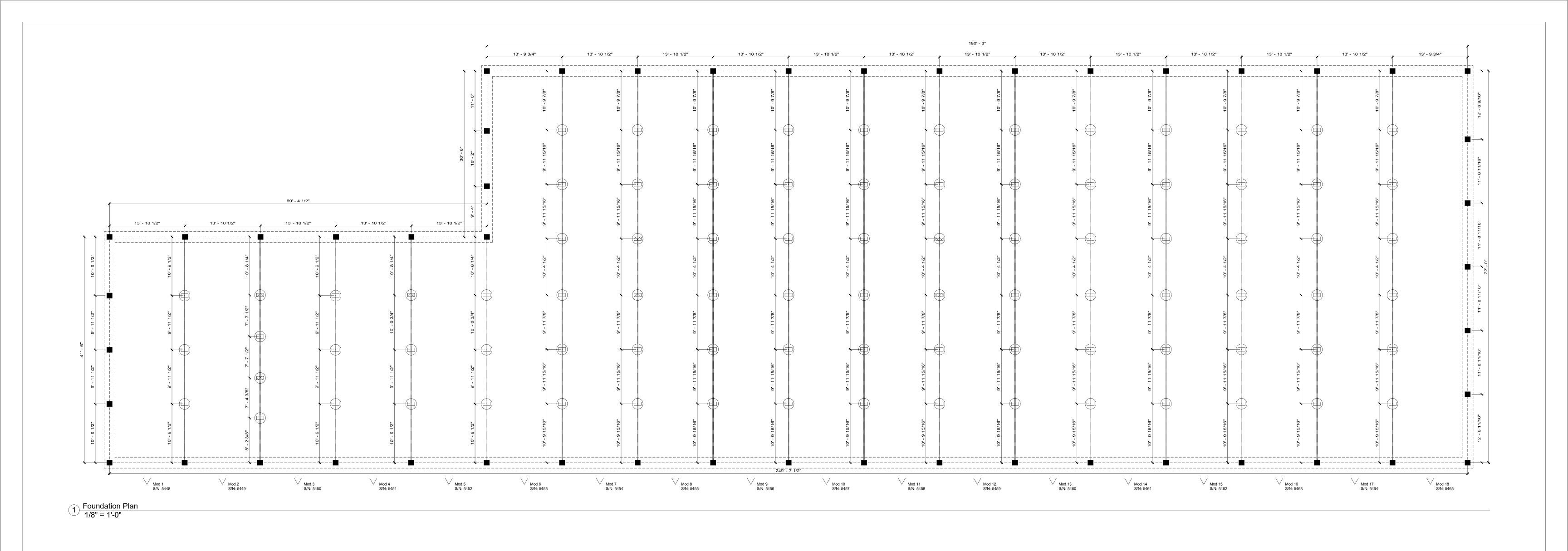
| Drawn By: RLH | DUCT DETAILS | Serial No. 5448-5465 | 3-5-24 | Quote No. 50381e; AP/DL | Rev: | PATTENGILL BIOTECHNICAL MAGNET SCHOOL (13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES | MODULES

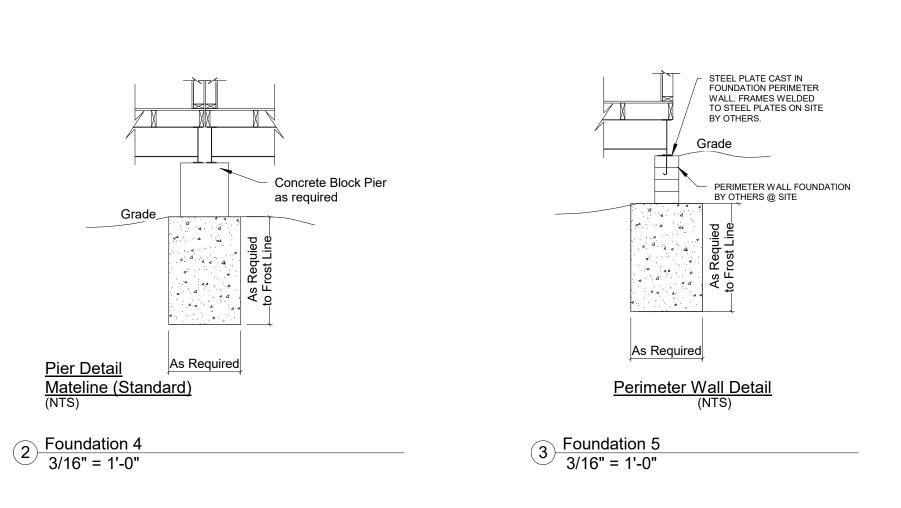
Description	Date	NoDe	scriptionDate	THIS DRAWING AND ALL INFORMATION CONTAINED HEREON IS THE PROPERTY OF WHITLEY MFG. CO. INC.,		WHITLEY MFG. CO. INC. 201 WEST FIRST STREE	Whitley East LLC 64 HESS ROAD ET LEOLA, PA 17540 PHONE: 717, 656, 2081	Drawn By: RLH	DUCT DETAILS
				AND IS NOT TO BE REPRODUCED WITHOUT THE EXPRESS PERMISSION OF WHITLEY MFG. CO., INC. WHITLEY MFG. CO. INC., ASSUMES NO		P.O. BOX 496 SOUTH WHITLEY, IN 467 PHONE: 260.723.5131 FAX: 260.723.6396	787 Whitley Mfg. Co., Inc. dba: Modular Builders 2756 & 3089	Checked By: AP/DL	MOBILE MODULAR PATTENGILL BIOTECHNICAL MAGNET SCHOOL
				RESPONSIBILITY FOR UNAUTHORIZED USE OF THIS DRAWING.	WHITLEY	TIR ING	P.O. BOX 505 ROCHESTER, IN 46975 PHONE: 574.223.4934	Rev:	(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES



Date:
3-5-24
Scale:
1" = 1'-0"
Page No.







Foundation Notes:
1. Loads in 1000 lbs.
2. Crawl space ventilation shall not be less than 1/150th of the crawl space Crawn space Ventilation shall not be less than 17130th of the crawns horizontal area.
 This is a suggested plan only. Foundations to be designed by a professional engineer per local soil and climate conditions.
 Provide access to crawl space, Minimum 22" x 24".
 Minimum footing depth 3'-6"; or as required by local conditions. Field Notes:

1. All foundation work shown on this drawing to be provided and installed on site per dealer under contractural agreement.

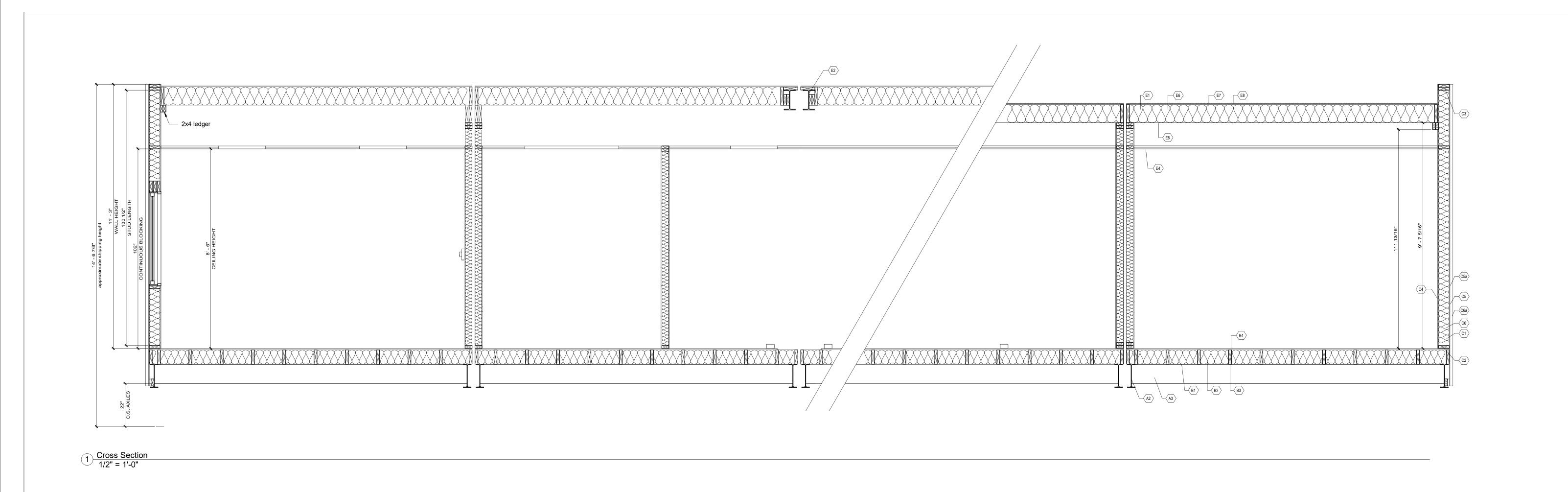
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						AND IS NOT TO BE REPRODUCED				P.O. BOX 496 SOUTH WHITLEY, IN 4678	PHONE: 717.656.2081	Checked By:
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						WHITLEY MFG. CO. INC., ASSUMES NO RESPONSIBILITY FOR UNAUTHORIZED	₩			www.whitleyman.com	E. FORT WAYNE ROAD P.O. BOX 505	Rev:
						USE OF THIS DRAWING.		WHIT Man	LEY NUFACTURII	NG	ROCHESTER, IN 46975 PHONE: 574.223.4934	

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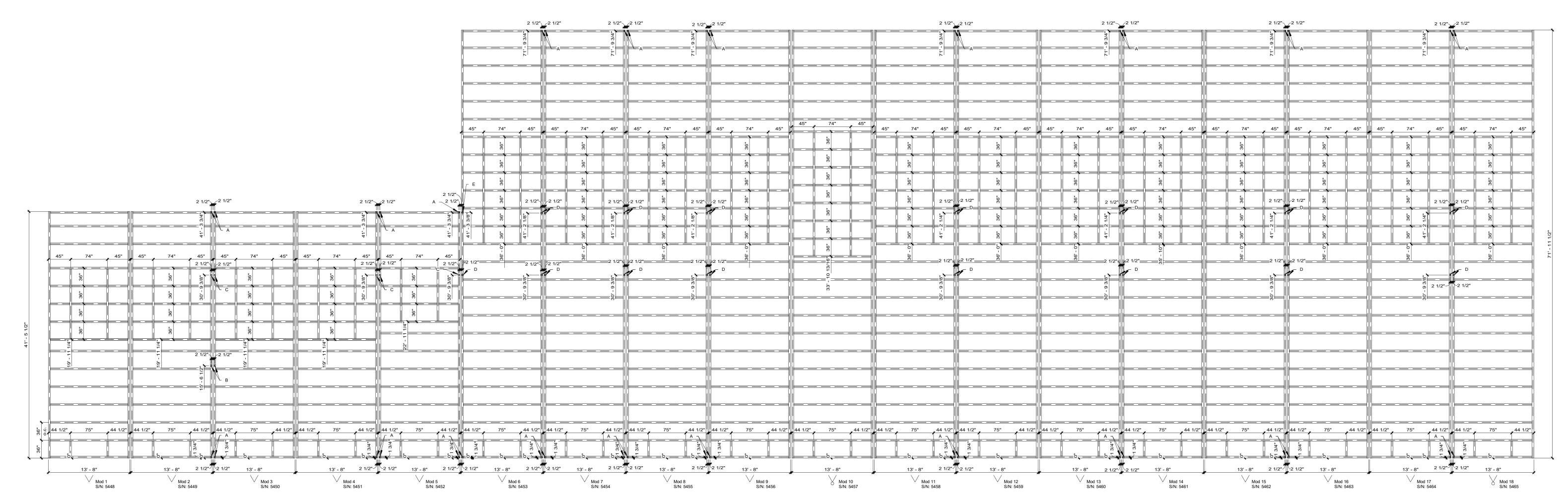
PATTENGILL BIOTECHNICAL MAGNET SCHOOL (13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

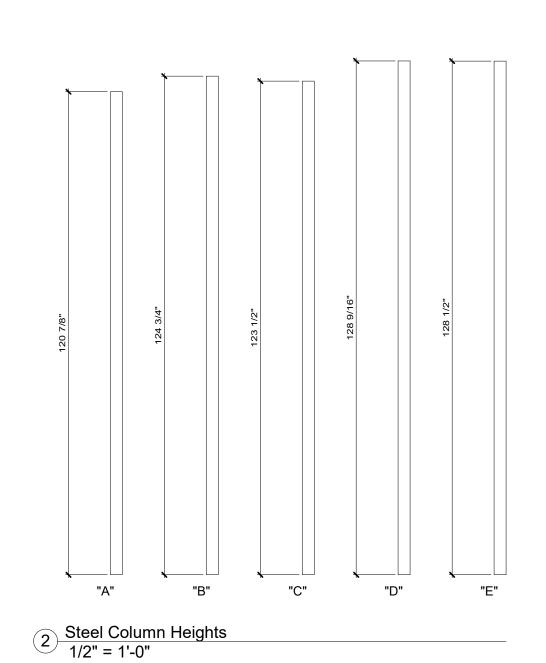
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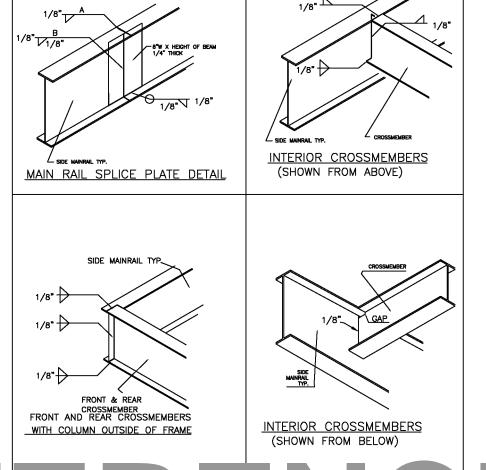


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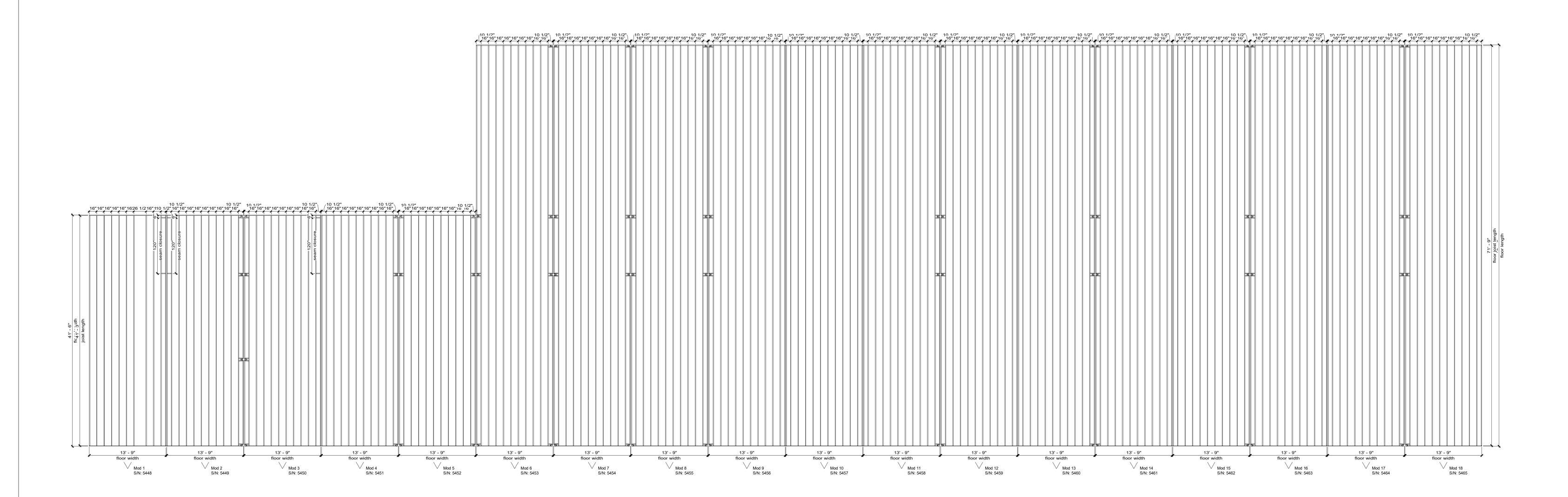
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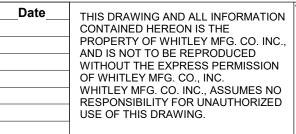
FRAME PLAN MOBILE MODULAR PATTENGILL BIOTECHNICAL MAGNET SCHOOL (13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES Serial No. 5448-5465 Quote No. 50589C-18 Model No. 8092 Job No. 2024-005-WR Date:
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1) Floor Framing Plan 1/8" = 1'-0"

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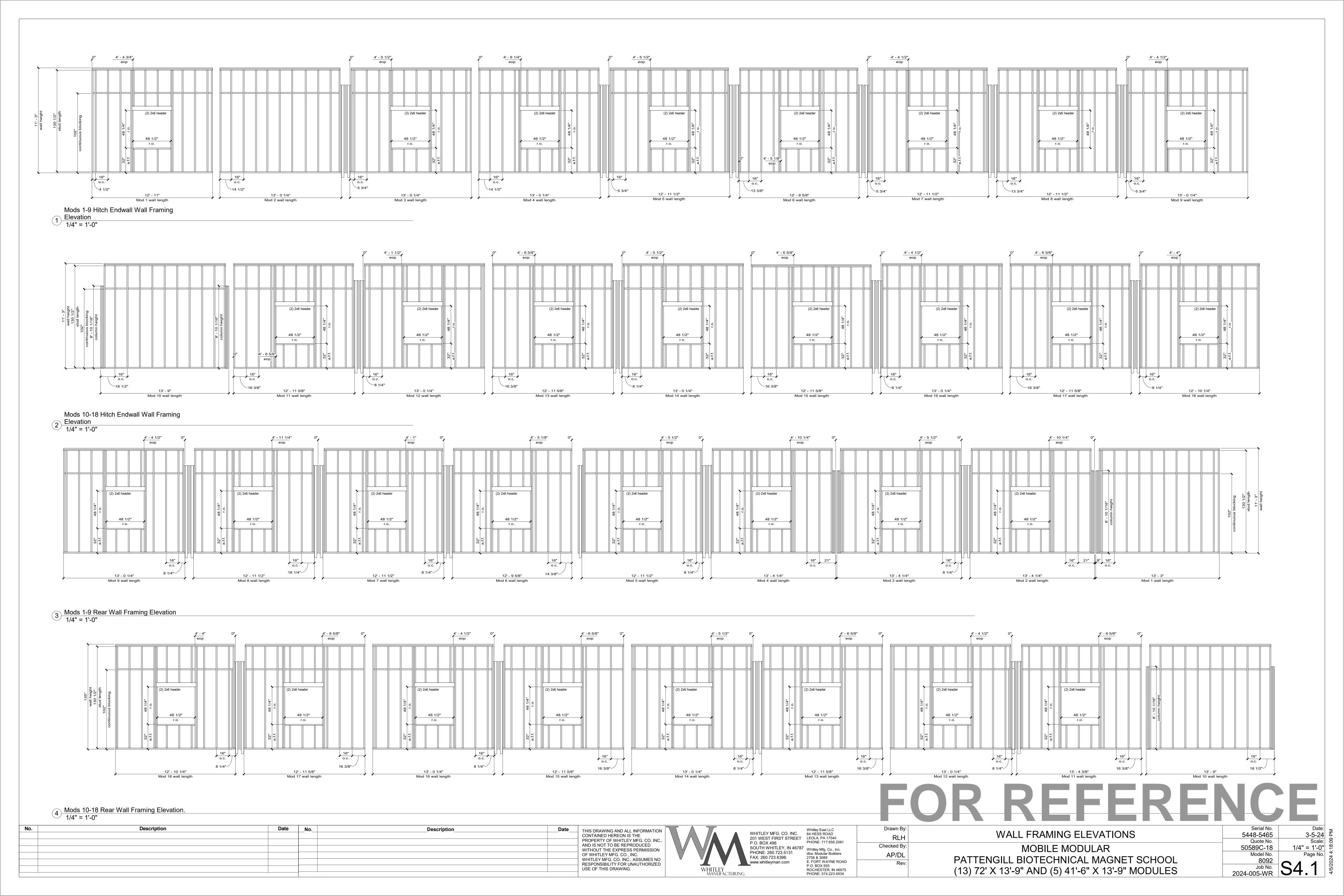
FLOOR FRAMING PLAN

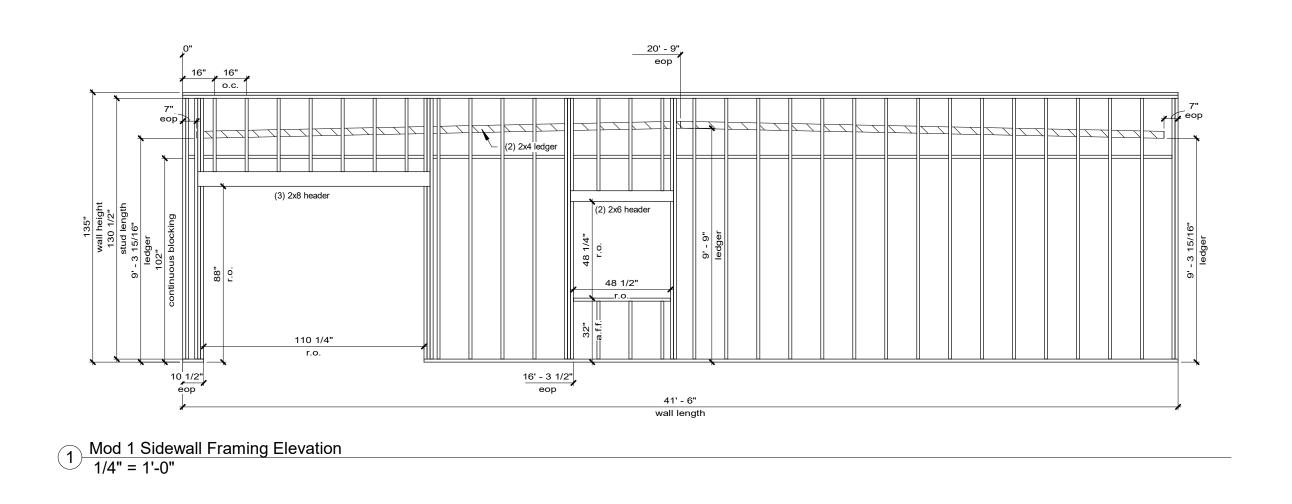
MOBILE MODULAR

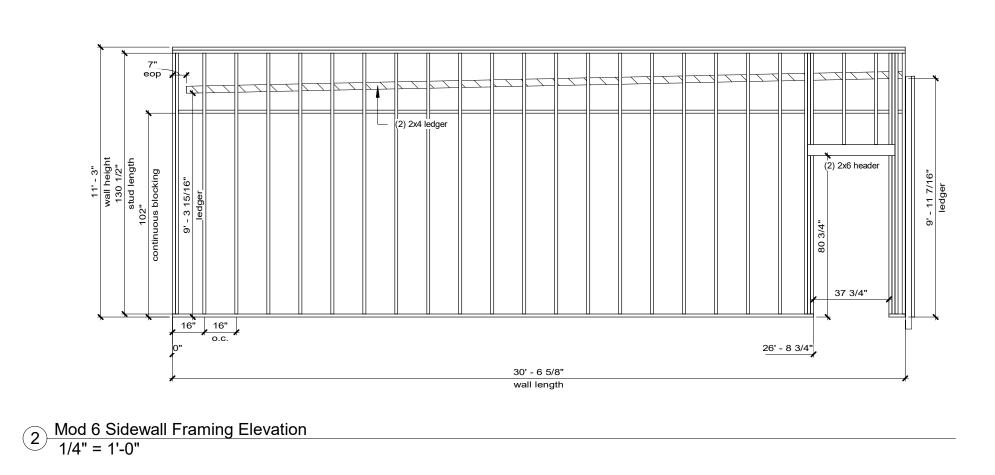
PATTENGILL BIOTECHNICAL MAGNET SCHOOL
(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

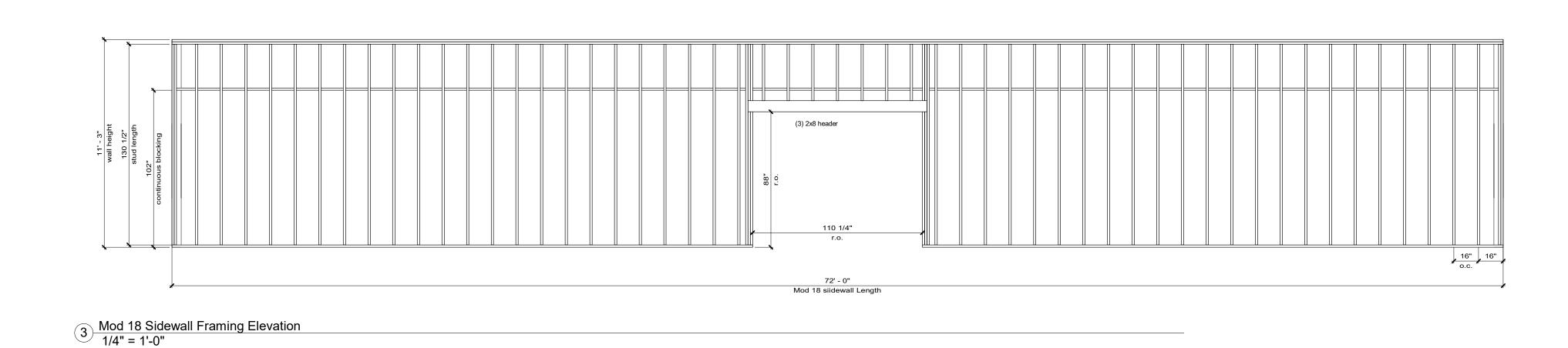
Serial No.
5448-5465
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8092
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Date:
3-5-24
Scale:
1/8" = 1'-0"
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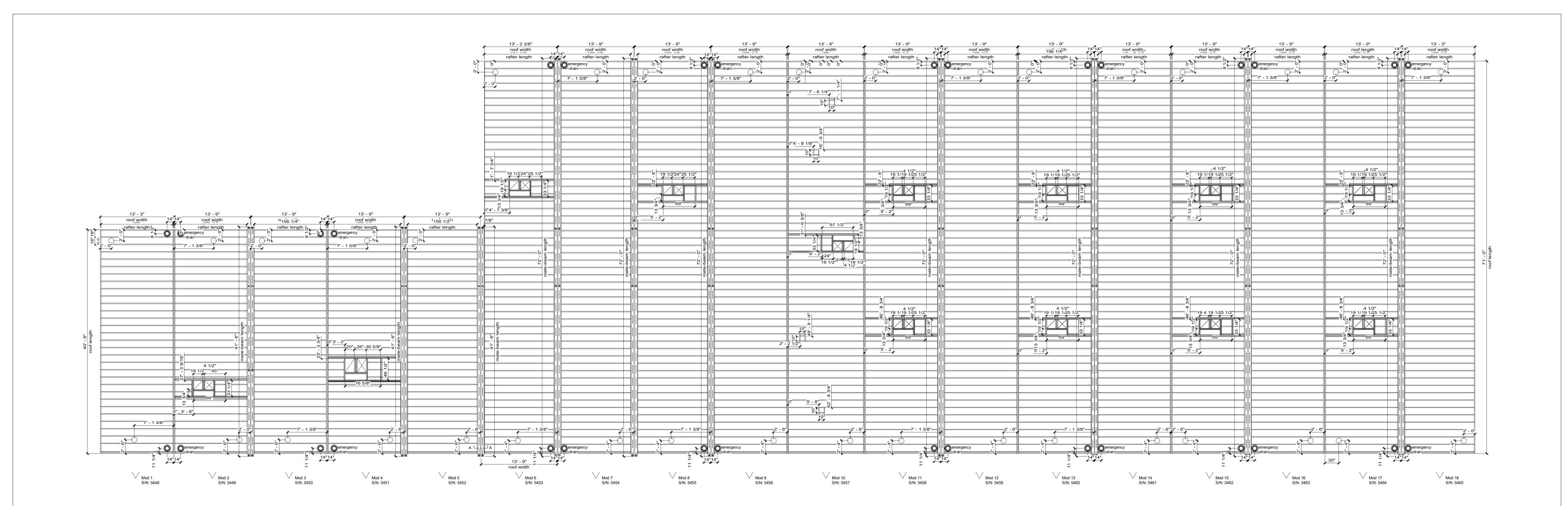
WALL FRAMING ELEVATIONS

MOBILE MODULAR

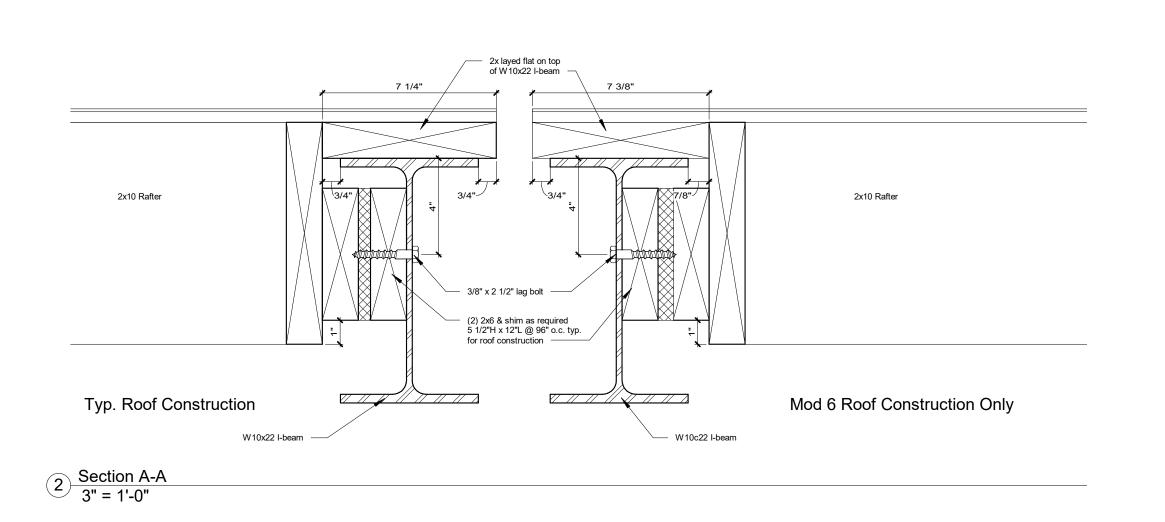
PATTENGILL BIOTECHNICAL MAGNET SCHOOL
(13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

Serial No.
5448-5465
Quote No.
50589C-18
Model No.
8092
Job No.
2024-005-WR

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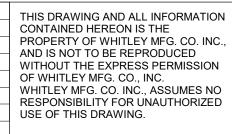


1 Roof Framing Plan
1/8" = 1'-0"



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						WHITLEY MFG. CO. INC., ASSUMES NO			/
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						USE OF THIS DRAWING.		WHITLEY MANUFAC	`TI I



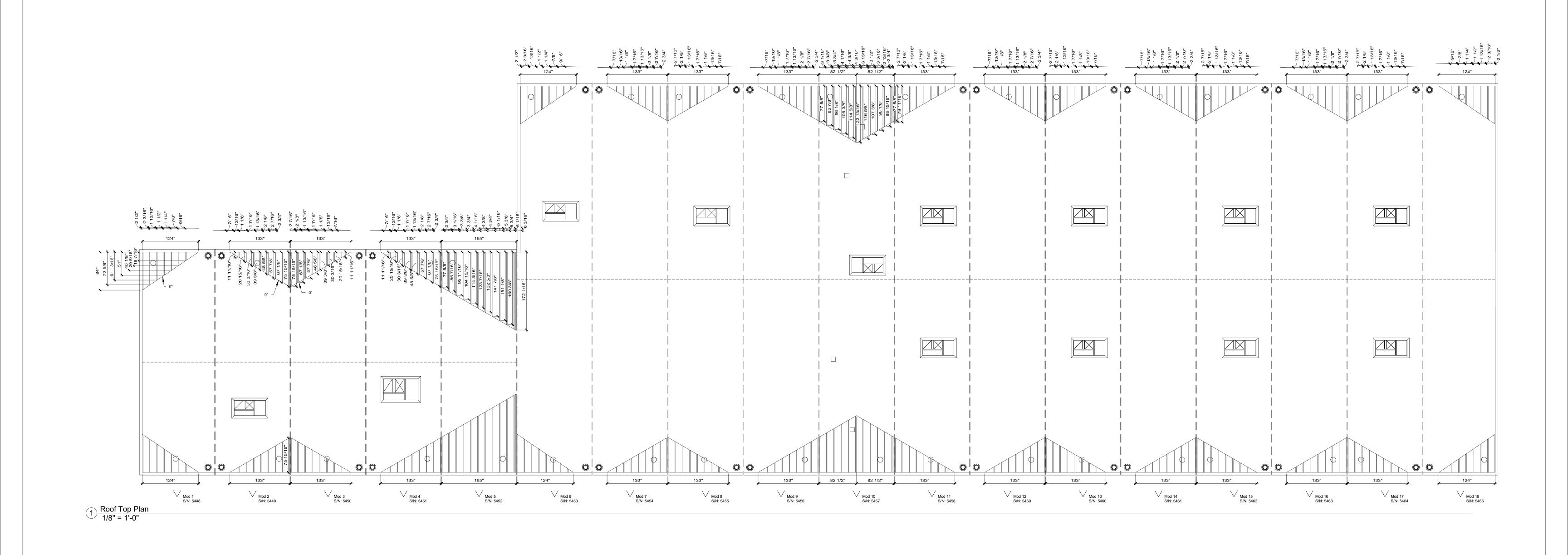


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ROOF FRAMING PLAN MOBILE MODULAR PATTENGILL BIOTECHNICAL MAGNET SCHOOL (13) 72' X 13'-9" AND (5) 41'-6" X 13'-9" MODULES

Serial No. 5448-5465 Quote No. 50589C-18 Model No. 8092 Job No. 2024-005-WR

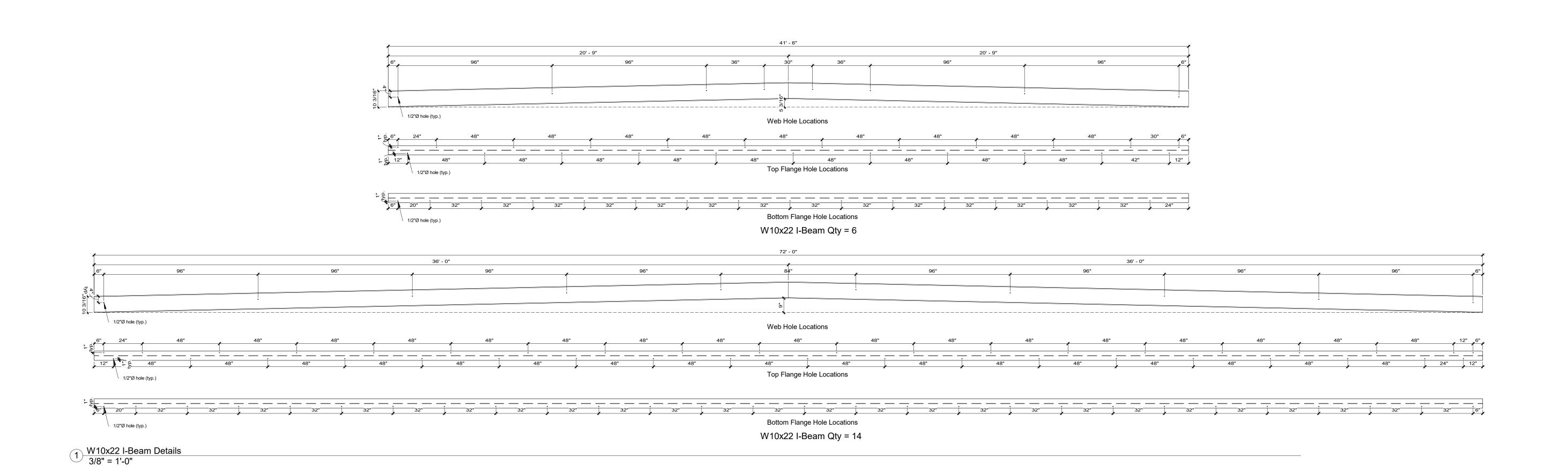
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201 WEST FIRST STREET
P.O. BOX 496

Whitley East LLC
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LEOLA, PA 17540
PHONE: 717.656.2081 _Description_ THIS DRAWING AND ALL INFORMATION **ROOF TOP PLAN** CONTAINED HEREON IS THE RLH PROPERTY OF WHITLEY MFG. CO. INC., AND IS NOT TO BE REPRODUCED P.O. BOX 496 P.O. BOX 496
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FAX: 260.723.6396
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dba: Modular Builders
2756 & 3089
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PATTENGILL BIOTECHNICAL MAGNET SCHOOL

Serial No.
5448-5465
Quote No.
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2024-005-WR

Date:
3-5-24
Scale:
3/8" = 1'-0"
Page No.
Page No. Date: 3-5-24 Scale: 3/8" = 1'-0"



Pattengill Modular Classroom Building Lansing, MI

Work Category No. 10 - Structural Concrete

Work Included:

The subcontractor shall timely perform all Structural Concrete work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

Reference Work Category Index

Work Category Notes:

- I. Furnish and install all cast-in-place concrete as shown and/or specified including but not limited to foundations, slab-on-grade, elevated slabs and elevated slabs on metal decks, and mud mats.
- 2. Includes re-steel, foundation waterproofing, waterstops, pre-molded joint filler, bonding agents, vapor barriers, perimeter foundation and below slab rigid insulation, grouting of structural steel leveling & base plates, expansion and control joints, floor sealers and hardeners, curing compounds, drilling and grouting of dowels, fine grading under slabs-on-grade.
- 3. All grouting as shown and specified including pump/equipment bases, steel base plates, and grouting of steel beam floor reinforcing.
- 4. Includes installation of anchor bolts, embeds, dovetail anchors, floor doors, unitstrut, and sleeves embedded in structural concrete supplied by others. Coordinate and assist other trades in setting sleeves in formwork.
- 5. Includes all forming, placing, finishing, reinforcement, finishing as required, setting, shoring, recesses for other work, dowels, manhole steps, epoxy adhesives.
- 6. Includes all required layouts for the performance of this W.C. All surveying necessary to establish proper layout and elevations are the responsibility of this work category.
- 7. Provide block outs for other trades as shown in contract documents and approved by the construction manager.
- 8. Floor finish tolerances (i.e. flatness and levelness requirements) to be installed to meet requirements of specifications.
- 9. This contractor is responsible for the subgrade protection from frost, water, etc once excavation for concrete is complete and forming is to proceed. This includes dewatering.
- 10. Provide engineered shoring system for supported cast in place concrete walls and formed supported slabs as specified, including all engineering of and installation of any required reshoring.
- II. All concrete embedded items, which are furnished by others, shall be installed, received, inventoried, unloaded, handled and protected by this work category, i.e. Steel, Pre-cast and Curtain wall embedded items, inserts, anchor bolts, Elevator embeds, misc. iron embeds etc., shall be clearly marked and labeled per approved and previously provided erection drawings, and be appropriately delivered (FOB jobsite) to this subcontractor for installation.
- 12. Any saw cutting, grinding, chipping and patching work etc. generating concrete dust, shall be approved in advance by the Construction Manager. Dust control and safety procedures will be reviewed and enforced during this activity.



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- 13. Drill and epoxy dowels into existing concrete structures as required.
- 14. Create, maintain, and remove concrete waste from concrete wash out pit(s) in a location agreed to with the Construction manager for the duration of this trades work.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

- 1. Furnish and install frost-proof entry slabs (sidewalk already bought out in BPI Earthwork).
- 2. Provide and install mud mat.
- 3. Provide and install concrete footings and foundations that were changed from CMU to concrete in BP 2 addendum #2. Include all accessories for a complete installation, including but not limited to steel reinforcement and steel embeds. (BP2 ADD 2)

Related Work by Others:

- 1. Furnish anchor bolts and leveling bases by Vesta Modular.
- 2. Concrete materials testing and periodic "in progress" field inspections by Owner. However, if excessive re-testing is required, this subcontractor will be assessed re-testing costs.
- 3. Site concrete pavements & curb/gutter by WC 02 (Bid Package 1).
- 4. Excavation and backfill for footings by WC 02 (Bid Package 1).
- 5. Cavity wall insulation by WC 11.
- 6. Reinforcing steel contained entirely within unit masonry by W.C. 11.
- 7. Embedded items in concrete furnished by others.
- 8. De-watering of all excavations to be performed by WC 02 until forming begins.
- 9. Perimeter draining by W.C. 02.
- 10. Grouting of precast concrete planks and masonry by others. Precast hollowcore ends should be either grouted or dammed by the precast contractor prior to WC 10.

Allowances:

This Contractor shall include in their Base Bid a Construction Manager's allowance of \$10,000. Reference Section 01020 for specific instructions on allowances. Intent is for final connections of utilities to the building once that information is known.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 10

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Work Category No. 11 - Masonry

Work Included:

The subcontractor shall timely perform all Masonry work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

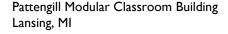
Refence Work Category Index

Work Category Notes, including, but not limited to:

- I. Furnish and install all brick/masonry assemblies, stone assemblies, concrete masonry units, cast stone caps, necessary anchoring of unit masonry work to structural and miscellaneous steel, weeps, and vents. Includes all labor, material, accessories, and equipment for a complete installation.
- 2. Furnish and install horizontal and vertical masonry wall reinforcement, anchors, through wall flashing, bond beams, insulation, dampproofing, fire safing (including perimeter of walls), top of wall plates, sealants, caulking, expansion joints assemblies and covers, compressible fillers, expansion joint fillers, and isolation material.
- 3. All through wall flashings shall be inspected by local building authority (if applicable) and Construction Manager prior to being concealed.
- 4. Receive and install all metal embedded lintels, masonry wall angle supports, bearing plates, anchors, steel lintels, counter flashing reglets, roof counter flashing, etc. as supplied by others to be installed in masonry. Includes final adjustment of items including where masonry walls abut metal deck or steel members.
- 5. Cooperate and coordinate masonry Work with other trades for proper locations of rough-ins and penetrations thru masonry walls. Required preparation of openings including cutting of block, grouting of walls, and installation of bearing plates by this contractor.
- 6. Include sawcutting and necessary patching where the removal of brick is required for structural tie-in or for corridor penetrations. All saw cutting needs to be wet cut to help reduce dust.
- 7. This work category will be responsible for review/coordination of approved shop drawings such as the curtain wall system, door and window openings, etc, prior to work taking place. These documents can be obtained for review from the Construction Manager.
- 8. Provide required brick and stone samples as well as a mock-up wall as indicated in the specifications, to be reviewed and approved by the architect and owner prior to construction starting for this work category.
- 9. Masonry wall cavities and top of walls shall be covered and protected each day.
- 10. Clean and wash all masonry and stone as specified and in accordance with approved sample. Protect any finished products from the cleaning agents.
- 11. Protect any new and/or existing adjacent surfaces, including from overspray of insulation, waterproofing, dampproofing, or mortar droppings.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted



Proposal Section Work Category Description

below and does not exclude other details or otherwise limit the scope of work for this Work Category.

- I. Brick veneer details, elevations, specifications, etc. to follow up in upcoming addendum. Brick work scope to be included in this work category.
 - A. Provide and install brick assembly including but not limited to brick, weeps, vents, mortar net, spray foam insulation, flashing, termination bar, grout, drip edge, cast stone sills, backer rod/caulking, lintels, and brick ties. (BP2 ADD2)
- 2. Provide and install steel embeds and lintels in masonry walls.

Related Work by Others:

- 1. Foundation insulation by WC 10.
- CMU foundations changed to concrete foundations per BP2 addendum #2, concrete foundations by WC 10. (BP2 ADD2)

Allowances:

This Contractor shall include in their Base Bid a Construction Manager's allowance of \$10,000. Reference Section 01020 for specific instructions on allowances.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 11