ADDENDUM NO. 1

September 22, 2023

Carmel High School Polytechnic Addition & Renovation
520 East Main Street
Carmel, IN 46032

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated August 31, 2023, by Fanning Howey Associates. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 through ADD 1-2 and attached Fanning Howey Associates Addendum No. 1, dated September 21, 2023, consisting of 18 items and 5 pages; New Project Manual Section: 22 34 00 – Fuel Fired Domestic Water Heaters; Revised Project Manual Sections: 27 1 00 – Communications Equipment Room Fittings and 27 11 00 TM – Manufacturer's Material List; and 52 Revised Drawing Sheets.

A. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

Paragraph 3.03 BID CATEGORIES

A. BID CATEGORY NO. 1 – GENERAL TRADES

Add the following General Clarifications:

17. Responsible for all wood framing required for lockers.
18. Responsible for offsite storage for any lockers or equipment that is called out to be salvaged and reinstalled.

J. BID CATEGORY NO. 10 – MECHANICAL & PLUMBING

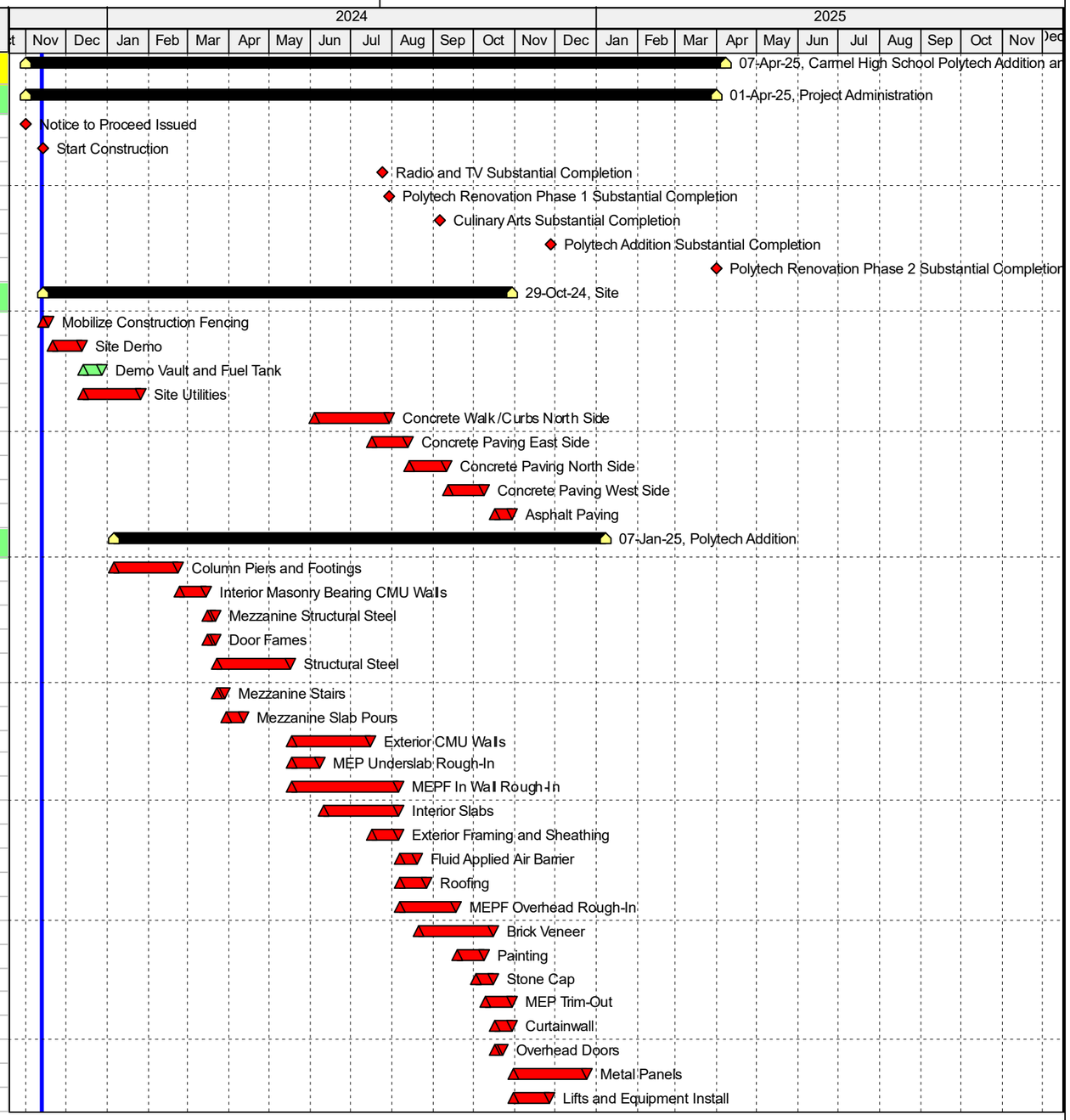
Add the following Specification Section:
Section 22 34 00 – Fuel Fired Domestic Water Heaters

B. **SPECIFICATION SECTION 01 32 00 - SCHEDULES AND REPORTS**

Paragraph 1.03 GUIDELINE SCHEDULE

C. CHS Polytechnic Addition and Renovation Guideline Schedule for Contractor reference.

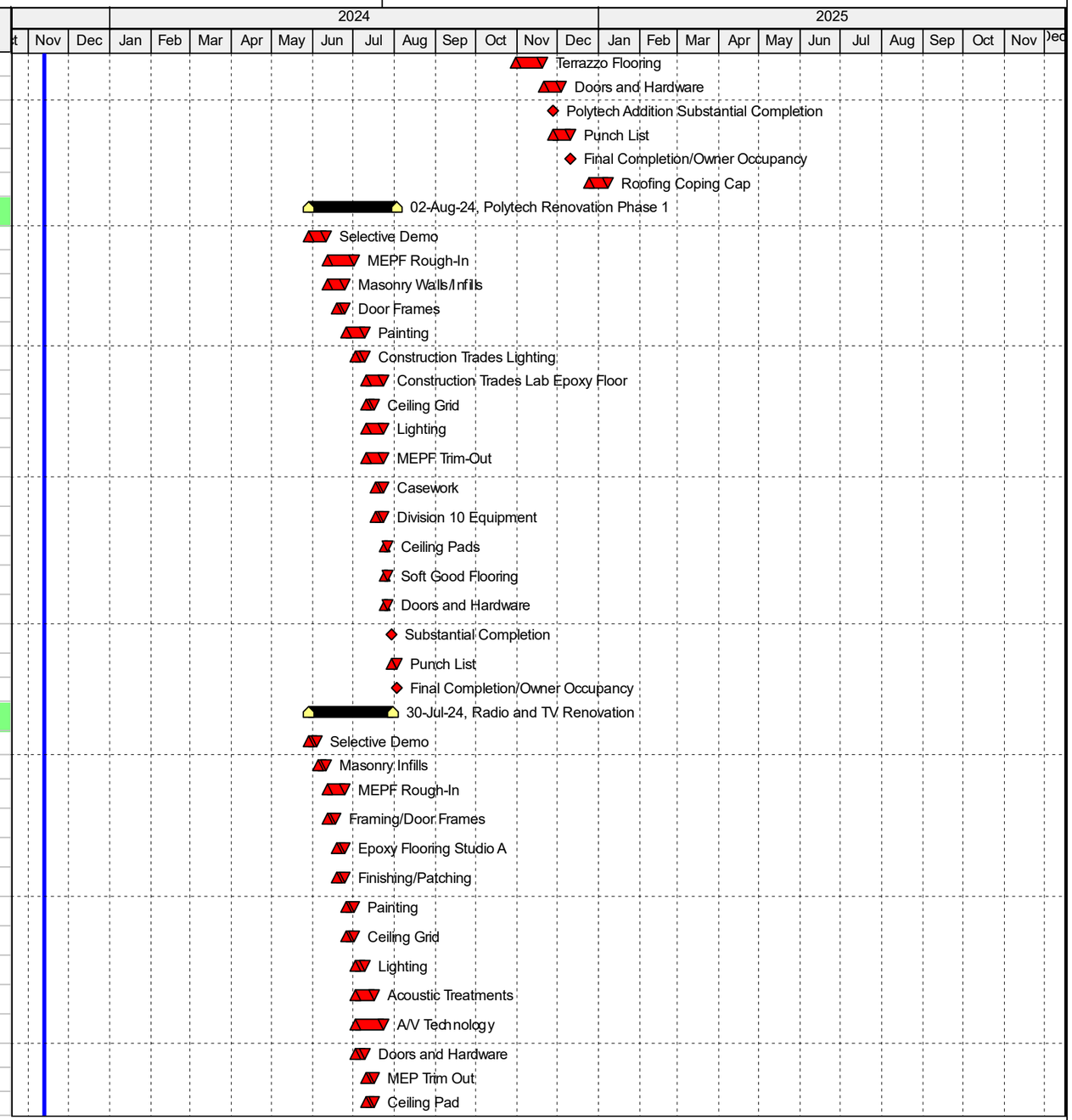
Activity Name	Original Duration	Start	Finish
Carmel High School Polytech Addition and Renovation	368	31-Oct-23	07-Apr-25
Project Administration	363	31-Oct-23	01-Apr-25
Notice to Proceed Issued	0	31-Oct-23*	
Start Construction	0	13-Nov-23	
Radio and TV Substantial Completion	0		24-Jul-24
Polytech Renovation Phase 1 Substantial Completion	0		29-Jul-24
Culinary Arts Substantial Completion	0		05-Sep-24
Polytech Addition Substantial Completion	0		27-Nov-24
Polytech Renovation Phase 2 Substantial Completion	0		01-Apr-25
Site	245	13-Nov-23	29-Oct-24
Mobilize Construction Fencing	5	13-Nov-23	17-Nov-23
Site Demo	15	20-Nov-23	12-Dec-23
Demo Vault and Fuel Tank	10	13-Dec-23	27-Dec-23
Site Utilities	30	13-Dec-23	25-Jan-24
Concrete Walk/Curbs North Side	40	03-Jun-24*	29-Jul-24
Concrete Paving East Side	20	16-Jul-24	12-Aug-24
Concrete Paving North Side	20	13-Aug-24	10-Sep-24
Concrete Paving West Side	20	11-Sep-24	08-Oct-24
Asphalt Paving	10	16-Oct-24	29-Oct-24
Polytech Addition	260	05-Jan-24	07-Jan-25
Column Piers and Footings	35	05-Jan-24	22-Feb-24
Interior Masonry Bearing CMU Walls	15	23-Feb-24	14-Mar-24
Mezzanine Structural Steel	5	15-Mar-24	21-Mar-24
Door Fames	5	15-Mar-24	21-Mar-24
Structural Steel	40	22-Mar-24	16-May-24
Mezzanine Stairs	5	22-Mar-24	28-Mar-24
Mezzanine Slab Pours	10	29-Mar-24	11-Apr-24
Exterior CMU Walls	40	17-May-24	15-Jul-24
MEP Underslab Rough-In	15	17-May-24	07-Jun-24
MEPF In Wall Rough-In	55	17-May-24	05-Aug-24
Interior Slabs	40	10-Jun-24	05-Aug-24
Exterior Framing and Sheathing	15	16-Jul-24	05-Aug-24
Fluid Applied Air Barrier	10	06-Aug-24	19-Aug-24
Roofing	15	06-Aug-24	26-Aug-24
MEPF Overhead Rough-In	30	06-Aug-24	17-Sep-24
Brick Veneer	40	20-Aug-24	15-Oct-24
Painting	15	18-Sep-24	08-Oct-24
Stone Cap	10	02-Oct-24	15-Oct-24
MEP Trim-Out	15	09-Oct-24	29-Oct-24
Curtainwall	10	16-Oct-24	29-Oct-24
Overhead Doors	5	16-Oct-24	22-Oct-24
Metal Panels	40	30-Oct-24	24-Dec-24
Lifts and Equipment Install	20	30-Oct-24	26-Nov-24



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SKILLMAN

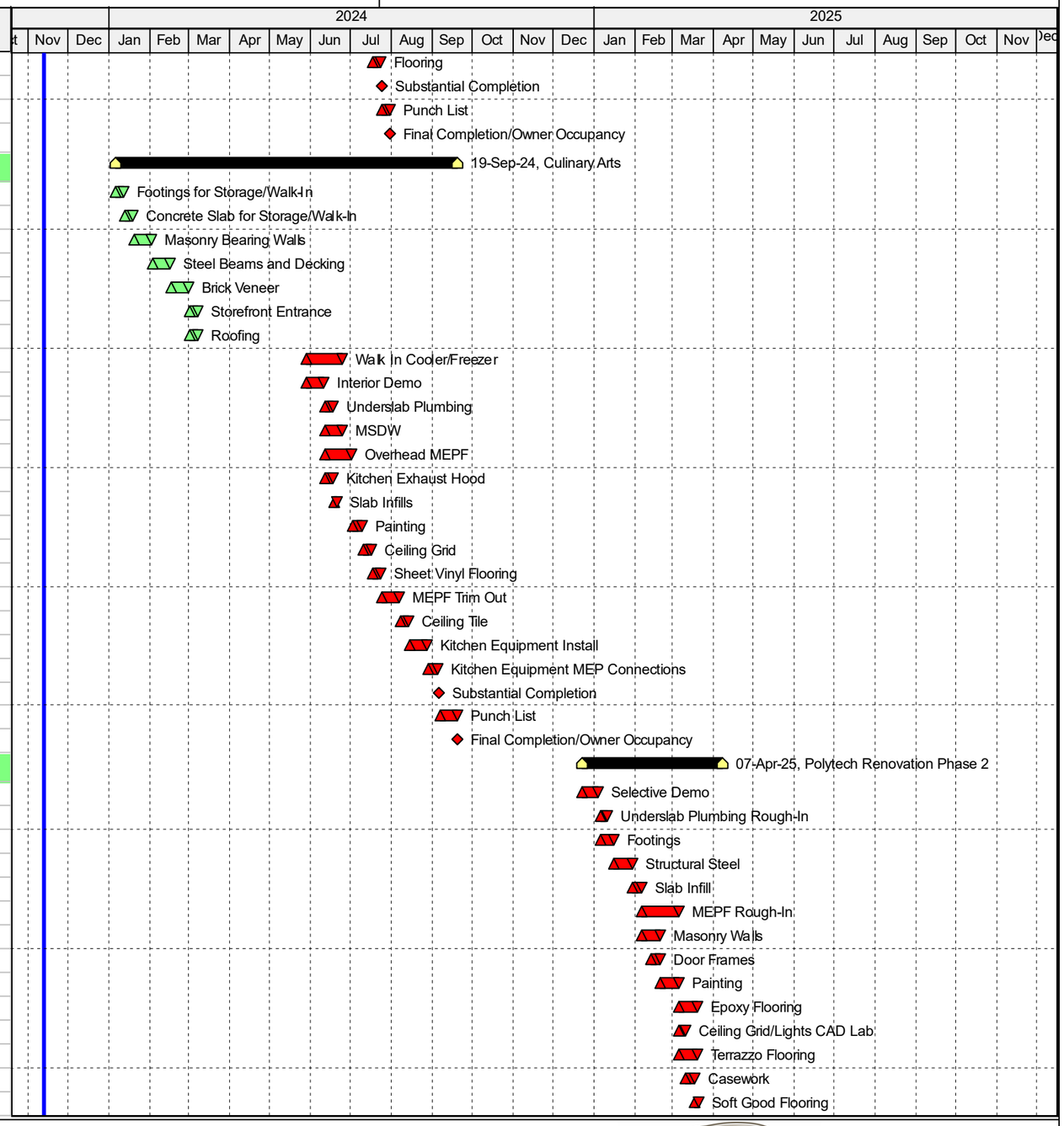
Activity Name	Original Duration	Start	Finish
Terrazzo Flooring	15	30-Oct-24	19-Nov-24
Doors and Hardware	10	20-Nov-24	03-Dec-24
Polytech Addition Substantial Completion	0	27-Nov-24	
Punch List	10	27-Nov-24	10-Dec-24
Final Completion/Owner Occupancy	0		10-Dec-24
Roofing Coping Cap	10	25-Dec-24	07-Jan-25
Polytech Renovation Phase 1	48	28-May-24	02-Aug-24
Selective Demo	10	28-May-24*	10-Jun-24
MEPF Rough-In	15	11-Jun-24	01-Jul-24
Masonry Walls/Infills	10	11-Jun-24	24-Jun-24
Door Frames	5	18-Jun-24	24-Jun-24
Painting	10	25-Jun-24	09-Jul-24
Construction Trades Lighting	5	02-Jul-24	09-Jul-24
Construction Trades Lab Epoxy Floor	10	10-Jul-24	23-Jul-24
Ceiling Grid	5	10-Jul-24	16-Jul-24
Lighting	10	10-Jul-24	23-Jul-24
MEPF Trim-Out	10	10-Jul-24	23-Jul-24
Casework	5	17-Jul-24	23-Jul-24
Division 10 Equipment	5	17-Jul-24	23-Jul-24
Ceiling Pads	3	24-Jul-24	26-Jul-24
Soft Good Flooring	3	24-Jul-24	26-Jul-24
Doors and Hardware	3	24-Jul-24	26-Jul-24
Substantial Completion	0	29-Jul-24	
Punch List	5	29-Jul-24	02-Aug-24
Final Completion/Owner Occupancy	0		02-Aug-24
Radio and TV Renovation	45	28-May-24	30-Jul-24
Selective Demo	5	28-May-24*	03-Jun-24
Masonry Infills	5	04-Jun-24	10-Jun-24
MEPF Rough-In	10	11-Jun-24	24-Jun-24
Framing/Door Frames	5	11-Jun-24	17-Jun-24
Epoxy Flooring Studio A	5	18-Jun-24	24-Jun-24
Finishing/Patching	5	18-Jun-24	24-Jun-24
Painting	5	25-Jun-24	01-Jul-24
Ceiling Grid	5	25-Jun-24	01-Jul-24
Lighting	5	02-Jul-24	09-Jul-24
Acoustic Treatments	10	02-Jul-24	16-Jul-24
A/V Technology	15	02-Jul-24	23-Jul-24
Doors and Hardware	5	02-Jul-24	09-Jul-24
MEP Trim Out	5	10-Jul-24	16-Jul-24
Ceiling Pad	5	10-Jul-24	16-Jul-24



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

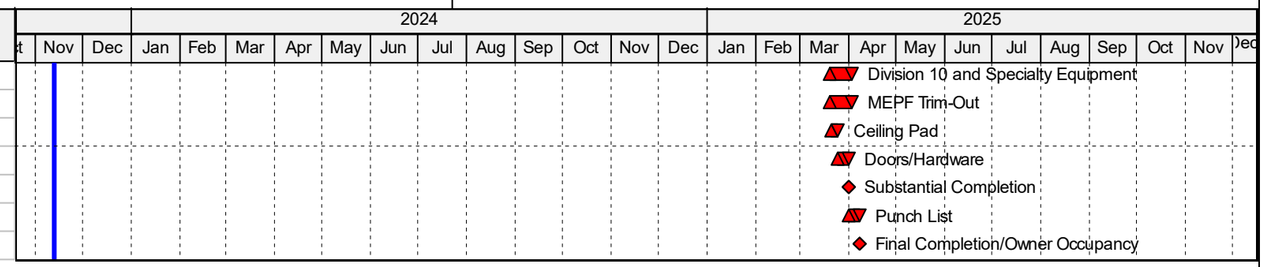
SKILLMAN

Activity Name	Original Duration	Start	Finish
Flooring	5	17-Jul-24	23-Jul-24
Substantial Completion	0	24-Jul-24	
Punch List	5	24-Jul-24	30-Jul-24
Final Completion/Owner Occupancy	0		30-Jul-24
Culinary Arts	182	05-Jan-24	19-Sep-24
Footings for Storage/Walk-In	5	05-Jan-24	11-Jan-24
Concrete Slab for Storage/Walk-In	5	12-Jan-24	18-Jan-24
Masonry Bearing Walls	10	19-Jan-24	01-Feb-24
Steel Beams and Decking	10	02-Feb-24	15-Feb-24
Brick Veneer	10	16-Feb-24	29-Feb-24
Storefront Entrance	5	01-Mar-24	07-Mar-24
Roofing	5	01-Mar-24	07-Mar-24
Walk In Cooler/Freezer	20	28-May-24*	24-Jun-24
Interior Demo	10	28-May-24*	10-Jun-24
Underslab Plumbing	5	11-Jun-24	17-Jun-24
MSDW	10	11-Jun-24	24-Jun-24
Overhead MEPF	15	11-Jun-24	01-Jul-24
Kitchen Exhaust Hood	5	11-Jun-24	17-Jun-24
Slab Infills	3	18-Jun-24	20-Jun-24
Painting	5	02-Jul-24	09-Jul-24
Ceiling Grid	5	10-Jul-24	16-Jul-24
Sheet Vinyl Flooring	5	17-Jul-24	23-Jul-24
MEPF Trim Out	10	24-Jul-24	06-Aug-24
Ceiling Tile	5	07-Aug-24	13-Aug-24
Kitchen Equipment Install	10	14-Aug-24	27-Aug-24
Kitchen Equipment MEP Connections	5	28-Aug-24	04-Sep-24
Substantial Completion	0	05-Sep-24	
Punch List	10	06-Sep-24*	19-Sep-24
Final Completion/Owner Occupancy	0		19-Sep-24
Polytech Renovation Phase 2	76	23-Dec-24	07-Apr-25
Selective Demo	10	23-Dec-24*	03-Jan-25
Underslab Plumbing Rough-In	5	06-Jan-25	10-Jan-25
Footings	8	06-Jan-25	15-Jan-25
Structural Steel	10	16-Jan-25	29-Jan-25
Slab Infill	5	30-Jan-25	05-Feb-25
MEPF Rough-In	20	06-Feb-25	05-Mar-25
Masonry Walls	10	06-Feb-25	19-Feb-25
Door Frames	5	13-Feb-25	19-Feb-25
Painting	10	20-Feb-25	05-Mar-25
Epoxy Flooring	10	06-Mar-25	19-Mar-25
Ceiling Grid/Lights CAD Lab	3	06-Mar-25	10-Mar-25
Terrazzo Flooring	10	06-Mar-25	19-Mar-25
Casework	5	11-Mar-25	17-Mar-25
Soft Good Flooring	3	18-Mar-25	20-Mar-25



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Activity Name	Original Duration	Start	Finish
Division 10 and Specialty Equipment	10	20-Mar-25	02-Apr-25
MEPF Trim-Out	10	20-Mar-25	02-Apr-25
Ceiling Pad	2	21-Mar-25	24-Mar-25
Doors/Hardware	5	25-Mar-25	31-Mar-25
Substantial Completion	0	01-Apr-25	
Punch List	5	01-Apr-25	07-Apr-25
Final Completion/Owner Occupancy	0		07-Apr-25



A D D E N D U M N O. 1

Carmel High School Polytechnic Addition and Renovation

Project No. 221165.01

Carmel Clay Schools
Carmel, Indiana

Index of Contents

Addendum No. 1, 18 items, 5 pages
New Project Manual Section: 22 34 00 – Fuel Fired Domestic Water Heaters
Revised Project Manual Sections: 27 11 00 – Communications Equipment Room Fittings, 27 11 00 TM – Manufacturer's Material List
Revised Drawing Sheets: S1.02, S1.03, S2.01, S2.02, S2.03, S3.03, S4.01, S4.03, S5.01, S5.02, AD2.01, A1.01, A1.02, A1.03, A1.06, A2.01, A3.01, A5.02, A5.03, A5.04, A5.05, A6.01, A9.01, A9.03, PD.01, PD.02, P2.00, P2.01, P2.02, P2.03, P2.04, P3.01, P3.02, P4.01, M3.01, M3.02, M5.01, M5.04, ED.01, ED.02, E1.01, E3.01, E3.05, E4.01, E4.02, E5.01, E5.02, E6.01, E6.02, E7.02, E8.01and T3.01

Date: September 21, 2023

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS/CONSULTANTS

Paul A. Miller, License No. AR10800161
Expiration Date: 12/31/2023

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 1 to Drawings and Project Manual, dated August 31, 2023 for Carmel High School Polytechnic Addition and Renovations for Carmel Clay Schools, 5201 East Main Street, Carmel, Indiana 46033; as prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana.
This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. PROJECT MANUAL, TABLE OF CONTENTS

A. Book 3, Page 00 01 10-1, DIVISION 23: Change Section Title of 23 36 00 – Air Terminal Units to "Section 23 36 00 – Variable Air Volume Terminals".

B. Book 3, Page 00 01 10-2, DIVISION 27: Change Section Title of 27 01 00 – Operation and Maintenance of Communication Systems to "Section 27 01 00 – Operation Manuals of Communication Systems".

C. Book 3, Page 00 01 10-2, DIVISION 27: Change Section Title of 27 51 17 – Classroom Sound Systems to "Section 27 51 17 – Sound Reinforcement Systems".

ITEM NO. 2. NEW PROJECT MANUAL SECTION(S)

A. New Project Manual Section 22 34 00 – Fuel Fired Domestic Water Heaters is included with and hereby made a part of this Addendum.

ITEM NO. 3. REVISED PROJECT MANUAL SECTIONS

A. Section 27 11 00 – Communications Equipment Room Fittings has been revised, dated 9/21/23, and is included with an hereby made a part of this Addendum.

B. Section 27 11 00 TM – Manufacturers Material List has been revised, dated 9/21/23, and is included with and hereby made a part of this Addendum. This Manufacturer's Material List replaces original List identified as 27 15 53 TM included in Project Manaul.

ITEM NO. 4. PROJECT MANUAL, SECTION 04 20 00 – UNIT MASONRY

A. Add 2.4, D., as follows:

D. Integral Water Repellent: Provide units made with integral water repellent for exterior exposed units. Water repellent concrete masonry units shall comply with performance criteria of NCMA TEK 19-07. Any deviations from the information included in this TEK should be clearly articulated.

1. Integral Water Repellent: Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive according to ASTM E 514, with test period extended to 24 hours, show no visible water or leaks on the back of test specimen.

a. Products:
1) Dry-Block; GCP Applied Technologies, Inc.
2) MasterPel 240; Master Builder Solutions.
3) Acme-Hardesty Co., Acme-Shield Plus Admixture; Cargill.
4) KreteControl 202 or KreteGuard 300; Krete Industries.
5) Eucon Blocktite; Euclid Chemical Co.
6) RainBloc; ACM Chemistries Inc.

C. Add 2.6, B., 3., a., as follows:

"a. Provide 7-5/8 inch long units where soldier course is indicated on Drawings."

D. Add 2.7, M., as follows:

M. Water-Repellent Admixture: In the mortar used to place concrete masonry units that have an integral water-repellent admixture, provide water-repellent admixture that conforms to ASTM C1384 and is of the same brand and manufacturer as the concrete masonry unit's integral water-repellent. Coordinate the selection with the masonry unit manufacturer.
1. Products: Subject to compliance with requirements, provide products by one of the following:
a. Dry-Block Mortar Admixture; GCP Applied Technologies.
b. MasterPel 240MA or MasterPel 210D; Master Builders Solutions.
c. Gard Mortar Mix; Krete Industries.
d. Blocktite Mortar Admixture; Euclid Chemical Co.
e. Rain Bloc; ACM Chemistries Inc.
f. Acme-Hardesty Co., Acme-Shield Plus Admixture; Cargill.
2. Use mortar admixture, matched with CMU admixture, should be used in all mortar to ensure the highest level of water repellency of CMU masonry wall. Contractor shall document proper usage.

E. Add 2.15, J., as follows:

J. Use integral water repellent admixture in mortar at all exterior concrete masonry unit wythe locations.

ITEM NO. 5. PROJECT MANUAL, SECTION 06 16 00 - SHEATHING

A. Article 2.6, C: Add ", Class A," between "thermal insulation" and "with" in paragraph."

ITEM NO. 6. PROJECT MANUAL, SECTION 06 64 00 – PLASTIC PANELING

A. Article 2.3: Add "(PSP)" at end of Article title.

ITEM NO. 7. PROJECT MANUAL, SECTION 07 42 13.23 – METAL COMPOSITE MATERIAL WALL PANELS

A. Add 2.3, B., 1., as follows:

"1. Steel strapping: Manufacturer's standard steel strapping as required for attachment of system components when substrate material is not solid."

ITEM NO. 8. PROJECT MANUAL, SECTION 07 71 00 – ROOF SPECIALTIES

A. Add 2.8, A., 6., a., as follows:

"a. Fascia Extension: Formed of same material and profile to match existing. Provide continuous hold-down cleat."

ITEM NO. 9. PROJECT MANUAL, SECTION 09 66 23 – RESINOUS MATRIX TERRAZZO FLOORING

A. Add 2.5, C., 2., as follows:

"2. Sloped transition edge strip for exposed edge of terrazzo system where adjacent finish floor is below top of new terrazzo."

ITEM NO. 10. PROJECT MANUAL, SECTION 09 67 10.10 – FLUID-APPLIED EPPOXY FLOORING

A. Add 1.1, A., 1., b., as follows:

"b. Clear epoxy coating."

B. Replace 2.1, A., as follows:

A. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.
1. Stonhard, Inc.
2. Key Resin Company
3. Sherwin Williams
4. Dur-A-Flex Inc.
5. Tnemec
6. PPG Flooring

C. Article 2.2, A: Delete "Basis of Design" product in its entirety.

D. Add 2.2, A., 1., a., as follows:

"a. Provide clear products where indicated in List of Finishes."

F. Add 2.2, C., 2., a., as follows:

"a. Provide non-pigmented aggregate where clear product finish is indicated in List of Finishes."

G. Add 2.2, D., 1., as follows:

"1. Provide clear epoxy top coat where clear product finish is indicated in List of Finishes."

ITEM NO. 11. PROJECT MANUAL, SECTION 09 96 00 – HIGH PERFORMANCE COATINGS

A. Delete 3.9, A., and C., in their entirety.

ITEM NO. 12. PROJECT MANUAL, SECTION 10 51 13 – METAL LOCKERS

A. Add 1.1, A., 2., as follows:

"2. Removal and reinstallation of existing lockers including construction of new wood base."

B. Add 2.3, E., as follows:

"E. Wood Framing: Treated wood blocking, framing members, and fasteners as outlined in Division 06 Section "Rough Carpentry" for new locker base assembly."

C. Add 2.4, P., 1., b., as follows:

"b. Provide custom color to match existing lockers where indicated."

ITEM NO. 13. PROJECT MANUAL, SECTION 12 32 16 – MANUFACTURED PLASTIC-LAMINATE FACED (EDUCATIONAL) CASEWORK

A. Delete 2.7, A., 2., and 3., in their entirety.

B. Replace 2.7, A., 4., as follows:

"4. Specialty Countertop Support: Rakks Bracket EH series and Richelieu Heavy Duty Brackets as indicated on Drawings."

ITEM NO. 14. PROJECT MANUAL, SECTION 22 13 16 – SANITARY, WASTE, AND VENT PIPING SYSTEM

A. Add 2.4, L., as follows:

"L. Floor Sink "FS-1": Provide a 12 inch by 12 inch by 8 inch floor drain sink with square nickel bronze top with deep seal 'P' trap, 1/2 inch grate, aluminum sediment bucket. Size as described on the Drawings."

ITEM NO. 15. PROJECT MANUAL, SECTION 22 13 23 – SANITARY WASTE INTERCEPTORS

A. Article 2.2: Change "Model: GB-75" at beginning to "Model: GB-500".

ITEM NO. 16. REVISED DRAWING SHEETS

A. Drawing Sheets: S1.02, S1.03, S2.01, S2.02, S2.03, S3.03, S4.01, S4.03, S5.01, S5.02, AD2.01, A1.01, A1.02, A1.03, A1.06, A2.01, A3.01, A5.02, A5.03, A5.04, A5.05, A6.01, A9.01, A9.03, PD.01, PD.02, P2.00, P2.01, P2.02, P2.03, P2.04, P3.01, P3.02, P4.01, M3.01, M3.02, M5.01, M5.04, ED.01, ED.02, E1.01, E3.01, E3.05, E4.01, E4.02, E5.01, E5.02, E6.01, E6.02, E7.02, E8.01and T3.01 have been revised, dated 9/21/22 and are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

ITEM NO. 17. DRAWING SHEETS NO. A7.01 – A7.02

A. Equipment General Notes: Revise notes to read as follows:

"F. (MH) indicates mop holder refer to A1.07.

N. Removal and temporary placement of all existing vocational shop equipment to be provided under separate contract."

B. Equipment Notes: Revise keynotes to read as follows:

"2. Existing lockers to remain. Electrostatically repaint inside and out to match new lockers.

10. Fabric wrapped acoustic wall panels on all walls, refer to interior elevations for details.

19. Remove and store existing lockers for reinstallation. Demolish existing wood base and construct new wood base to match existing height. Recess new wood base approximately ½ inch on sides and 1 inch on front to accept new terrazzo base. Reinstall existing lockers in same location.

20. Remove and store existing lockers for reinstallation. Demolish existing wood base and construct new wood base to match existing height. Recess new wood base approximately ½ inch on sides and 1 inch on front to accept new terrazzo base. Reinstall existing lockers in same location."

ITEM NO. 18. DRAWING SHEET NO. A8.03

A. C124A: Wall finish shall read "W:P-1".

END OF ADDENDUM

SECTION 22 34 00 - FUEL-FIRED DOMESTIC WATER HEATERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following fuel-fired water heaters:
   1. Natural gas-fired condensing tankless water heaters.

1.3 ACTION SUBMITTALS

A. Product Data: For each type and size of water heater indicated. Include rated capacities, operating characteristics, furnished specialties, and accessories.

B. Shop Drawings: Diagram power, signal, and control wiring.

1.4 INFORMATIONAL/QUALITY ASSURANCE/CONTROL SUBMITTALS

A. Product Certificates: For each type of commercial and instantaneous water heater, signed by product manufacturer.

B. Source quality-control test reports.

C. Field quality-control test reports.

D. Warranty: Special warranty specified in this Section.

1.5 CLOSEOUT DOCUMENTS

A. General: Closeout Submittals are to be submitted with O and M Manuals only. Do not submit with other ACTION and INFORMATIONAL Submittals:
   1. Operation and Maintenance Data: For water heaters to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

A. Source Limitations: Obtain same type of water heaters through one source from a single manufacturer.

B. Product Options: Drawings indicate size, profiles, and dimensional requirements of water heaters and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements."

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. ASME Compliance:
   1. Where ASME-code construction is indicated, fabricate and label commercial water heater storage tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 01.
   2. Where ASME-code construction is indicated, fabricate and label commercial, finned-tube water heaters to comply with ASME Boiler and Pressure Vessel Code: Section IV.

E. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9" for all components that will be in contact with potable water.

1.7 COORDINATION

A. Coordinate size and location of concrete bases with Architectural and Structural Drawings.

1.8 WARRANTY

A. Warranty Period(s): From date of Substantial Completion:
   1. Provide basis-of-design manufacturer's standard warranty but no less than 8 years heat exchanger parts and labor and 5 year parts only for remainder of the unit.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

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

2.2 NATURAL GAS-FIRED CONDENSING TANKLESS WATER HEATER

A. Natural gas-fired, condensing, wall-mounted water heaters:
   1. Steel chassis with dual stainless steel heat exchangers, premixed burner, negative pressure gas valve, dual venturi, water holding reservoir, and a condensate collector.
   2. Certified by CSA to the latest edition of ANSI Standard Z21.10.3/CSA 4.3.
   3. Forced draft, direct vent.
   4. Electronic ignition.
   5. 15-150 PSI water pressure.
   6. 3.5-10.5 inches W.C. inlet gas pressure.
   7. Low NOx: less than 20 PPM at 3% oxgygen.
   8.

B. Controls:
   1. Internal factory installed electronic operating and safety controls complete with keypad and LCD display and diagnostics.
      a. Monitor inlet and outlet temperatures.
      b. Sensing and controlling flow rate to setpoint.
      c. Control air-fuel ratio to maintain combustion efficiency.
      d. Cascade controls to control up to 16 units
      e. Safeties.
         1) Flame Sensor.
         2) High limit sensors.
         3) Overheat prevention.
         4) Freeze protection.
         5) Fan motor rotation detection.

C. Venting
   1. Provide complete venting and direct vent combustion air Complete system, ASTM A 959, Type 29-4C stainless steel, CPVC, PVC, or polypropylene as recommended by water heater manufacturer, pipe, vent terminal, thimble, indoor plate, vent adapter, condensate trap and dilution tank, and sealant.
   2. Combustion-Air Intake: Complete system, stainless steel, CPVC, PVC, or polypropylene as recommended by water heater manufacturer, pipe, vent terminal with screen, inlet air coupling, and sealant.

D. Start-Up:
   1. Complete operating and start-up instructions shall be furnished with system. Manufacturer to provide factory authorized start-up at job site. System shall meet or exceed ASHRAE 90.1-2010. Installation shall meet and/or exceed all factory requirements and recommendations.
   2. Refer to Drawings for heater location and orientation. Each Heater shall be equipped with its own aquastat and capable of operating by itself.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install and place in operation the water heater system as shown on the Drawings, complete with piping, supports, circulating pumps, etc., and as recommended by the manufacturer. System shall meet or exceed state and local codes.

B. Provide shut-off valves and unions entering and leaving heater. In addition, provide for multiple heaters, balancing valves in entering line with entering and leaving gauges, and balance for equal flow through each heater.

C. Provide all piping specialties as denoted on details, or as required by water heater manufacturer.

D. Install water heaters level and plumb, according to layout drawings, original design, and referenced standards. Maintain manufacturer's recommended clearances. Arrange units so controls and devices needing service are accessible.

E. Install gas water heaters according to NFPA 54.

F. Install gas shutoff valves on gas supplies to gas water heaters without shutoff valves.

G. Install gas pressure regulators on gas supplies to gas water heaters without gas pressure regulators if gas pressure regulators are required to reduce gas pressure at burner.

H. Install automatic gas valves on gas supplies to gas water heaters, if required for operation of safety control.

I. Install combination temperature and pressure relief valves as required by water heater manufacturer. Use relief valves with sensing elements that extend into tanks. Extend commercial-water-heater, relief-valve outlet full size with copper piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.

J. Install water heater drain piping as required by water heater manufacturer to and discharge by positive air gap into open drains or over floor drains. Install hose-end drain valves at low points in water piping for water heaters that do not have tank drains. Refer to Division 22 Section "Domestic Water Piping Specialties" for hose-end drain valves.

K. Install thermometer on outlet piping of water heaters. Refer to Division 22 Section "Meters and Gauges for Plumbing Piping" for thermometers.

L. Install pressure gauge(s) on inlet and outlet piping of commercial, fuel-fired water heater piping. Refer to Division 22 Section "Meters and Gauges for Plumbing Piping" for pressure gauges.

M. Install piping-type heat traps on inlet and outlet piping of water heater storage tanks without integral or fitting-type heat traps.

N. Fill water heaters with water.

O. Charge expansion tanks tanks with air.

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 22 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to water heaters to allow service and maintenance. Arrange piping for easy removal of water heaters.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections. Report results in writing.

B. Perform the following field tests and inspections and prepare test reports:
   1. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
   2. Operational Test: After electrical circuitry has been energized, confirm proper operation.
   3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Remove and replace water heaters that do not pass tests and inspections and retest as specified above.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain instantaneous and commercial water heaters. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 22 34 00

SECTION 27 11 00 - COMMUNICATIONS EQUIPMENT ROOM FITTINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes, but is not limited to the following:
1. Free-standing equipment cabinets
2. Server cabinet
3. Wall-mount hinged sectional equipment cabinet
4. Hinged floor equipment cabinet
5. Equipment racks
6. Uninterruptible Power Supply (UPS)
7. Power strip
8. Four post rack
9. Power distribution system
10. File server equipment
11. Consolidation point
12. Telecom rooms cable trays
13. Miscellaneous items

B. Related section includes the following:
1. Division 01 General Requirements
2. Division 26 Electrical
3. Division 27 Communications
4. Division 28 Electronics Safety and Security

1.3 DESCRIPTION OF WORK

A. Provide labor, material, equipment, cabinets, racks, UPS's, wire managements, shelves, tie wraps, Velcro and accessories necessary for a complete installation of the communication equipment rooms as described in this section and as shown on the drawings.

B. The Contractor shall coordinate the extension of the electrical service to each communications cabinet or rack with the Electrical Contractor.

1.4 QUALITY ASSURANCE

A. See section - "Common Work Results for Communications" for more information.

B. All equipment must be UL listed.

C. All equipment and installation shall comply with latest ANSI/NFPA-70 National Electric Code.

D. All equipment shall comply with the latest ANSI-J-STD-607 grounding and bonding standards.

E. All equipment installations shall comply with the latest BISCI (TDMM) standards.

F. All equipment racks and cabinets shall comply with the latest ANSI-EIA-310 standard.

G. All UPS shall meet IEEEC62.41 standard.

H. Provide labeling per ANSI/EIA/TIA-606 requirement and in accordance with the Owner and the Technology Consultant.

1.5 SUBMITTALS / RECORD DRAWINGS / MAINTENANCE MANUAL

A. Shop Drawings
1. The Contractor shall provide shop drawings of all equipment. Drawings shall indicate the interconnection of equipment and wiring external to the various patch panels (MC/ER and TRs). These drawings shall be included in the submittal to the Architect/Engineer for approval.
2. Complete and comprehensive shop drawings shall be submitted to the Architect/Engineer for review.
3. Drawings shall be provided in latest revision of AutoCAD.
4. Provide equipment isometric with labeling.
5. Every port shall be labeled per specs.

B. See Common Work Results For Communications section 270500 for more submittal requirements.

C. Provide record drawings and maintenance manual, per the section titled "Operation and Maintenance of Communications Systems".

1.6 WARRANTY

A. Components, parts, and assemblies supplied by the Cabling Contractor/manufacturer shall be guaranteed against defects in materials and workmanship as specified in the section titled "Demonstration, Training, and Warranty of Communications Systems", commencing upon system start. Warranty services shall be provided by the installer of the equipment manufacturer during normal working hours.

1.7 TRAINING

A. Provide training as specified in the section titled "Demonstration, Training, and Warranty of Communications Systems.

PART 2 - PRODUCTS

2.1 TECHNOLOGY EQUIPMENT CABINET

A. All communications equipment shall be housed in free-standing steel protective cabinets.

B. The equipment cabinets shall have solid sides, plexi-glass front doors and vented rear doors. Doors shall be lockable with all locks keyed alike.

C. The equipment cabinets shall be 24 inches or 30 inches wide by 42 inches deep and 83-1/8 inches high with leveling feet.

D. The equipment cabinets shall be steel construction with fully welded corners.

E. The equipment cabinets shall have black powder coat finish.

F. Provide integrated, top-mounted fan rated at 450 - 550 CFM in each equipment cabinet. Provide internal and external fan guards. Fan noise rating shall be less than 49 dBA.

G. Provide one vertical power strip with 20 amp receptacles in each cabinet.

H. Provide horizontal wire management devices between each patch panel and switch. Horizontal and vertical slotted openings and plastic wire holding clips.

I. Provide vertical wire management panels as show. Provide three (3) extra wire management units in each TR/MC/ER room.

J. If equipment cabinets are ganged together the inner side panels are not required. Cabinets shall be securely bolted together both front and back. Cables within the cabinets shall be properly supported.

K. Provide copper bus bar (1/8 inch thick and threaded 10-32, 1 inch wide x 44 space) in each cabinet.

L. Provide 100 spare mounting screws for each equipment cabinet.

M. Provide 100 spare cage nuts for each equipment cabinet.

N. Provide mounting rails. (Confirm mounting rail type, EIA tapped or cage nuts)

O. Provide vented panels

P. Provide blank panels

Q. Provide three spare adjustable vented shelves in the MC/ER. Shelf shall adjust from 23 to 32 inches, with a weight capacity of 200 Lbs, steel with black powder finish.
   1. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

R. Provide three spare telescoping full depth heavy duty vented shelves in the MC/ER. Shelf shall adjust from 16 to 44 inches, with a weight capacity of 500 Lbs, 16 GA steel with durable black powder finish.
   1. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

S. Provide one heavy duty sliding shelf for MC/ER, full 14 " extension, heavy gauge steel with black powder finis, weight capacity of 50 Lbs.
   1. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

T. Equipment cabinets shall be UL listed.

U. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.2 WALL-MOUNTED HINGED SECTIONAL CABINET

A. All communications equipment shall be housed in steel wall-mounted hinged sectional protective cabinets.

B. The equipment cabinets shall have solid sides, plexi-glass front doors and vented rear doors. Doors shall be lockable with all locks keyed alike.

C. The wall-mounted hinged sectional equipment cabinets shall be 24-1/4 inches wide by 26 inches deep and 39" inches high with dual pivoting system.

D. The wall-mounted hinged sectional equipment cabinets shall be steel construction with fully welded corners.

E. The wall-mounted hinged sectional equipment cabinets shall have powder coat finish, finish shall be black.

F. Provide ultra quiet fans with 100 CFM in each wall-mounted hinged sectional equipment cabinet , fan shall have less than 27 dBA noise rating.

G. Provide vertical power strip with 20 amp receptacles in each cabinet.

H. At each wall-mounted hinged sectional equipment cabinet provide wire management devices between each patch panel. Horizontal and vertical slotted openings and plastic wire holding clips.

I. Provide wire management panels as shown on the drawing. Provide two (2) extra wire management units in each wall hinged cabinet.

J. Provide copper bus bar (1/8 inch thick and threaded 10-32, 2 inch wide x 12 space).

K. Provide 100 spare mounting screws/cage nuts for each equipment cabinet.

L. Wall-mounted hinged sectional equipment cabinet shall be UL listed.

M. Provide mounting rails.

N. Provide blocking in the walls as needed.

O. Mount unit on painted 3/4" thick plywood.

P. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.3 TECHNOLOGY EQUIPMENT RACK

A. All communication equipment shall be housed in steel or aluminum equipment racks.

B. The equipment racks shall be 11 gauge steel channels.

C. The equipment racks shall have powder coat black finish.

D. The equipment racks shall be 19 inches wide.

E. The equipment racks shall be 84 inches high.

F. Provide wire management panels as shown on the drawing. Provide three (3) extra wire management units in each TR/MC/ER room.

G. Provide copper bus bar (1/8 inch thick and threaded 10-32, 1 inch wide x 44 space) on each rack.

H. Provide vertical power strip with 20A receptacle on each rack.

I. The equipment racks shall have vertical cable management. (One on each side)

J. The equipment racks shall have 3RU shelves.
   1. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

K. Provide wire management devices between each patch panel. Horizontal and vertical slotted openings and plastic wire holding clips.

L. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.4 4-POST TECHNOLOGY/SERVER RACK

A. All switches and patch panels shall be housed in 4 post racks.

B. The server racks shall be aluminum or steel construction.

C. The server racks shall have powder coat black finish.

D. The server racks shall be 19 inches wide.

E. The server racks shall be 42 inches deep.

F. The server racks shall be 84 inches high.

G. Provide wire management panels as shown on the drawing. Provide three (3) extra units in each four post rack.

H. Provide copper bus bar (1/8 inch thick and threaded 10-32, 1 inch wide x 44 space) bonded to rack.

I. At each server rack, provide vertical wire management devices between each equipment rack. Front and rear horizontal slotted openings and plastic wire holding clips.

J. Provide (5) 4-point vented shelves.

K. Provide vertical power strip with 20 amp receptacles.

L. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.5 TECHNOLOGY RACK/CABINET MOUNTED UNINTERRUPTABLE POWER SUPPLY

A. Provide rack mounted UPS in each TR or MC/ER cabinet or rack as specified.

B. UPS shall be on-line double conversion type.

C. UPS shall have an output voltage of 120 volts or 208V, as needed (verify in the field).

D. UPS shall have an input voltage of 120 volts or 208V, as needed.

E. The UPS shall have output receptacles as follows:
1. 2000VA - (4) NEMA 5 – 20R
2. 3000VA - (4) NEMA 5 – 20R
- (1) NEMA L5 – 30R
3. 2700VA – (2) NEMA L6 - 15R
- (1) NEMA L6 – 20R

F. UPS shall have sine wave waveform.

G. UPS shall have maintenance free sealed lead acid battery.

H. UPS shall have DB-9, RS-232; Smart SNMP card.

I. Provide PC computer network card in the UPS for connection of the UPS to the data network.

J. UPS shall have management software.

K. UPS shall have control panel with LED status display.

L. UPS shall have audible alarm.

M. Provide rear mounted rails to support the UPS in the MC/ER cabinets and provide center mount shelf for equipment racks in each TR.

N. UPS shall have two years warranty for labor and material.

O. UPS shall be UL Listed 1778.

P. Power cord on the 2,000VA to have a 5-20P plug with 5-20R receptacle.

Q. Power cord on the 3,000VA to have L5-30P plug with L5-30R receptacle.

R. Battery run time (minimum):
1. 2000VA – 6 minutes at full load
- 14 minutes at 50% load
2. 3000VA – 5 minutes at full load
- 16 minutes at 50% load
3. 2700VA – 5 minutes at full load
- 16 minutes at 50% load

S. Provide external battery cabinet, as shown in the telecommunication room/MC/ER Schedule.

T. Provide one (1) spare 2,000 VA UPS.

U. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.6 POWER STRIPS

A. Provide vertical power strip in each cabinet/rack as follows:
1. 12-20 amp receptacles, 120 volts.
2. Cord with NEMA 5-20P plug.
3. 50 to 60 inches long.
4. Single circuit.
5. UL listed 1363.

B. Provide horizontal power strip as follows (in the sound system cabinets):
1. 6 – 20 amp receptacles
2. Cord with NEMA 5 – 20 plug
3. Single circuit
4. UL listed 1419

C. Unit shall be rack or cabinet mounted.

D. Provide one (1) spare vertical power strip and one (1) spare horizontal power strip.

E. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.7 LADDER TRAY

A. Provide 18 inch wide by 1-1/2 inch high sectional ladder tray under the ceiling and above the TR and MC/ER cabinet.

B. Run ladder tray from the equipment cabinet/racks to the telephone terminal board.

C. Provide factory fittings, and supports.

D. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.8 WATERFALL ACCESSORIES

A. Provide cable management waterfall at each location where cable exits or enters the cable tray.

B. See Manufacturers List Section 27 11 00TM for approved manufacturers and part numbers.

2.9 STACKABLE CABLE RACK SPACERS

A. Provide stackable cable rack spacers in each telecommunication room in cable tray.

B. Approved Manufacturer:
   1. Panduit CRx – xx Series
   2. Hubbell
   3. CPI
   4. Commscope
   5. B-Line

2.10 GROUNDING COMPONENTS

A. Provide #4 green grounding conductors from the grounding bus on the TTB to each telecommunications cabinet/rack.

B. Provide two hole ground lugs to meet J-STD-607A requirements

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install communications equipment room fittings as specified herein and as shown on the drawings.

3.2 LABELING AND MARKING

A. Provide labeling and markings for all communications equipment cabinets/racks.

B. Provide labeling for telecommunications rooms as follows:
   1. Black on white with TR # for each cabinet. (for example, TR.A1.1 fed from MC/ER-C1.1 panel A6-12)

C. Section titled "Identifications for Communications Systems" for more information.

3.3 EQUIPMENT CABINETS

A. At each telecommunication room provide communications equipment cabinets or racks as shown on the drawings and as specified here.

B. The communication equipment cabinets shall be arranged as shown on the drawings:

C. Provide complete equipment cabinet layout showing patch panels, wire management, and switches.

D. Coordinate the extension of the electrical service from the electrical junction box located in the room to each communications cabinet/rack.

3.4 COMMUNICATION GROUNDING AND BONDING

A. Provide grounding and bonding to each cabinet or rack with ground cable from the grounding bus bar in the TR and MC/ER to each cabinet/rack.

B. The grounding conductor shall be insulated copper with minimum of #4 AWG.

C. The grounding conductor shall be marked by distinctive green color.

D. Provide a minimum of #4 ground cable from the communications room busbar to the following:
   1. Each communication cabinet/rack

2. Each file server cabinet/rack
3. Each audio-video cabinet/rack
4. Each voice communication switch (telephone)
5. Each service entrance device
6. Any other communications systems provided by this Contractor.

3.5 TELECOMMUNICATION ROOMS

A. The data cable, the telephone cable, and the video control cable shall be terminated on RJ45 copper patch panels.

B. The video coax cable shall be terminated with F-connectors on each end of the cable.

C. Provide fire-rated plywood terminal board, (quantity as shown) 4 foot by 8 foot by 3/4 inches (minimum of 1) in each telecommunication room. (Paint to match wall.)

D. Provide two (2) 4 inch sleeves with plastic bushings above each terminal board. (Verify exact location in the field).

E. Provide ladder trays, as shown on the drawings.

3.6 MAIN CROSS CONNECT/EQUIPMENT ROOM (MC/ER)

A. The data cable, the telephone cable, and the video control cable shall be terminated on RJ45 copper patch panels.

B. Provide fire-rated plywood terminal board, two (2) 4 foot by 8 foot by 3/4 inches or four (4) 4 foot by 8 foot by 3/4 inches in the main MC/ER room. (Paint to match wall.)

C. Provide two (2) 4 inch sleeves with plastic bushings above each terminal board. (Verify exact location in the field).

D. Provide ladder trays, as shown on the drawings.

E. Room A101A, MC/ER: Provide the following:
1. Provide (1) four post technology / server equipment "racks" with all miscellaneous items.
2. Bond to the building grounding system with #6 copper insulated ground wire.
3. Provide ground bus.
4. Provide (1) 12 port fiber optic patch panels. (SM)
5. Provide (1) 12 port SC fiber coupling panels. (SM)
6. Provide (1) 48 port copper patch panels for work area outlets.
7. Provide (1) 24 port copper patch panels for IP cameras.
8. Provide (1) 24 port copper patch panels for WAP.
9. Provide (1) 2,000VA, 120V, 60Hz UPS, rack mounted.
10. Provide horizontal and vertical wire management panels.
11. Provide wire duct or wire management duct to bring cables from the ceiling to the equipment rack. (Conduits to be painted black to match cabinets).
12. Provide (1) rack mounted vertical power strip, per cabinet.
13. Provide shelves as specified.
14. Provide space for data switches and chassis.
15. Provide space for VoIP file server.
16. Provide space for wireless controller.
17. Provide one (1) 48 ports and two (2) 24 port spare copper patch panel(s).
18. Provide ten (10) 1 meter SM fiber patch cords and ten (10) 3 meter SM fiber patch cords. (SC to SC)

END OF SECTION 27 11 00

FANNING HOWEY

PROJECT NAME	Carmel High School Performing Arts Additions and Renovations											
PROJECT NO.	220114.00				DATE	3/8/2021						
271100 Communications Equipment Room Fittings (Items in bold are standard of quality and performance)												
Racks/Cabinets												
	Panduit	Middle Atlantic	**CPI**	**Hoffman**	**Hubbell**	**Leviton**	**Belden**	**B-Line**	**Lowell**	**Emerson (Liebert)**	**Siemon**
24"W x 36"D x 7' H Cabinet	**S6519B**	WMRK 4536	GF-2A120-CB	PS1C2179B			XH2M451140000	V452436ACVXTNNSB	LGR-4436		V61B-0AB121-45
24"W x 42"D x 7' H Cabinet	**S6519B**	WMRK 4542	GF-2A320-CB	PS1S21611B	H3N4242		XH3M451140000	V452442ACVXTNNSB		F8611	V61B-0AB121-45
24"W x 48"D x 7' H Cabinet	**S6529B**	WMRK 4548	GF-2A520-CB	PS1S21612B	H3N4248		XH4M451140000	V452448ACVXTNNSB		F8612	V62B-0AB121-45
30"W x 36"D x 7'H Cabinets	**S8512B SERIES**	DRK19-44-36	GF-2C120-CB	PS1C2189B			XH6M451220100	V452936BCNSSNN1B & VVCMC45FB			V81A-2AB111-45
30"W x 42"D x 7'H Cabinets	**S8512B SERIES**	DRK19-44-42	GF-2B320-CB	PS1C21810B			XH7M451220100	V452942BCNSSNN1B & VVCMC45FB		F8811	V81A-2AB111-45
7' Cabinet Fans/Guards		FAN-10/GUARD-10		A6AXFNPG/AFLTR6LD	H3FT110		Included in above XHM	VTP1BB			VP-FAN
Free-Standing 4' Equipment Cabinet											
22"W x 25"D x 51" H Cabinet		ERK-2725					XMF282413022				
22"W x 25"D x 41" H Cabinet		ERK-2125		PS1C1278B			XMF212413012				
22"W x 25"D x 36" H Cabinet		ERK-1825					XMF192413012				
Cabinet Fans/Guards		FAN/GUARD					Included in above XMF cabinets				
Wall-Mount Hinged Sectional											
35U spaces, 24"W 26"D x 68"H	**S7229B**	DWR-35-26PD	13495-772				N/A		LWR-2423		
24U spaces, 24"W 26"D x 49"H		DWR-24-26PD	11900-748	EWMWG482425	HSQ4826		XWM-4824-GD-3	VLWM4825PB			WC3-(X)101-24
18U spaces, 24"W 26"D x 39"H	**PZWMC18P**	DWR-18-26PD	11900-736	EWMWG362425	HSQ3626		XWM-3624-GD-3	VLWM3625PB			WC3-(X)101-18
12U spaces, 24"W 26"D x 28"H	**PZWMC12P**	DWR-12-26PD	11900-724	EWMWG242425	HSQ2426		XWM-2424-GD-3	VLWM2425PB		202637G2	WC3-(X)101-12
Wall Mt Fan/Guards	**PZCFK**	DWR-FK26	12804-701 & 12805-701	EWMF2	HWKF120		XWM-9312-1600	VLWMFKB			VP-FAN
21U spaces, 24"W x 22"D x 44"H		DWR-21-22	11900-748	EWMW482425			XWM-4824-SD-3	VLWM4820PB			WC2-(X)101-24
16U spaces, 24"W x 22"D x 35"H	**PZC12S**	DWR-16-22	11900-736	EWMW362425			XWM-3624-SD-3	VLWM3620PB			WC2-(X)101-18
10U spaces, 24"W x 22"D x 25"H	**PZC12W**	DWR-10-22	11900-724	EWMW242425			XWM-2424-SD-3	VLWM2420PB			WC2-(X)101-12
Wall Mt Fan/Guards	**PZCFK**	DWR-FK22	12804-701 & 12805-701	EWMF2			XWM-9312-1600	VLWMFKB			VP-FAN
Hinged Floor Cabinet											
40U, Space, 24"W x 32"D x 90 3/4"H		SR-40-32	13496-772				N/A		LWBR-4032		
Hinged Floor Cabinet		SR-24-32	13496-772				N/A		LWBR-4032		
Hinged Cabinet Fans/Guards	**PZCFK**	QFAN/GUARD	12804-701		HWKF230		N/A				
Wall Mt Fan/Guards	**PZCFK**	DWR-FK32	12804-701				N/A				
Technology Equipment Rack											
2-post Equipment Racks	**R2P**	RLA19-1245B	55053-703	EDR19FM45U	HPW84RR19	NB191-BLU SERIES	BHRR194	SB556084XUFB	LRR-4515		RS1-07-S
4-post Adjustable Comm Racks 12/24, 19"Wx42"Dx84"H	**ER4P29**	R4XX-XXXXB	15218-703	E4DR19FM45U	SF841942T		XDR8419-3102836	SB838084DFB			RSQ1-07-S
4-post Adjustable Server Racks Square Punched, 19"Wx42"Dx84"H	**R4PCN**	WMRK-4236SVR	15214-703	E4DRS19FM45U	SF841942		XH2M421121220 w/ (1) HVMP014201 and (1)	SB838086BFB			RSQ1-07C-S
Wall Mounted Swing Rack		SFR-20-24	11791-718				XWR-4819-18				SBH-6 (4ea = 42" height)
Hardware Kit	**CNWS1224-C**	HP	12639-001				(2) 8915-0100				
Low Profile Wall Cabinet		WRP-6	13050-712	DBS242412G	RE4X		N/A				
Adjustable Vented Shelf	**SRM19FM1**	VDS	15255-702	ESHVA19			N/A				V-SHV1-01-1U
Heavy Duty Adjustable Vented Shelf	**SRM19X18A1**	VSA-2744	16350-719	P19VSH810B	CKTSD		N/A		VDS-2		V-SHV2-01-1U
Sliding Shelf		SS	12338-719	P19SHP68B/ P19SHP810B			9013-1924	SB742M19FB	RSD-116	535809G1	
Vertical Wire Mangement	**WMPVHC45E**	CK-45	13911-703	EC6D7	VS76H	4980L-VFR	BHVH006	SB86166DFB		10200078	VCM-6D
Horizontal Wire Mangement	**NMF2**	HCM-2	13930-702	DCHD2	HM277C	492RU-HFO	9511-1902	SB87019D2FB			HCM-4-2U-D
Vertical Power Strips	**CMRPSV20**	PDT-20xxC-NS	12848-705	DP1N622420	PR20620	P1043-10S	9BG1-201004			35351051	8BV01-AA20Z-K1A
Horizontal Power Strips		PD-915R	13239-757	DP1N191020	PR10120	P1021-125	9BF1-101002				8BH01-AA08Z-K1A
Light Duty Rack Shelf	**SRM19FM2**	U2	40074-700	ESHA19	MCCCS19		9012-1918	SB747S1915SFB	US-114		SH-S19-01
Vented Light Duty Rack Shelf	**SRM19CMV3**	RC-3	11231-719		CKSSD		9011-1918	E2SHH4P1930FB	RMK3-14 SERIES		SH-S19V-01
Ground Strip	**RGS134-1Y**	BB-44-1	40172-001	DG72	HBBBVR76KT		N/A	SBVB72			VP-GRD
Ladder Tray											
12" Cable Tray	**WG12BL10**	CLxx series	10250-712	LSS12BLK	HLS0612B		BLRS250-12B	SB17U12BFB			
Waterfall Accessory	**WGBTMWFBL**	CLH-EDxx	12100-712	LRD12BLK	HLCD12		BLRRD100-12B	SB212912FB			
Rack Mounting Kit	**WGSTRKTBL**	MK-LA	10595-712	LRRMPBLK12	HLMPK19		BLRTR595-9B	SB213312FB			
UPS										**Emerson (Liebert)**	
		Middle Atlantic	**Minuteman**	**TrippLite**	**APC**	**Cyber Power**	**Xtreme**			GXT3-1500RT-120	
1500VA		UPS-OL1500R	ED1500RM2U	SU1500RTXL2U	SRT1500RMXLA	OL1500RTXL2U	P90-1500			GXT3-2000RT-120	
2000VA		UPS-OL2200R	ED2000RM2U	SU2200RTXL2UA	SRT2200RMXLA	OL2200RTXL2UA	P90-2000			GXT3-3000RT-120	
3000VA		UPS-OL3000R	ED3000RM2U	SU3000TRXL2U	**SRT3000RMXLA**	OL3000RTXL2U	P90-3000				
External Battery										GXT3-48VBATT	
2000 VA		UPS-EBPR	EDBP48XL	BP48V24-2U	SURTA48RMXLBP	BP72V60ART2U				GXT3-72VBATT	
3000VA		103002836-6591	EDBP72XL	BP72V28RT-3U	**SURT192RMXLBP3U**	BP72V60ART2U					

The bidder is responsible to verify that all part numbers meet the specifications. The bidder shall notify the Architect of any specification or part number discrepancies prior to bid date
PLEASE NOTE: Not all products are used, see plans and specifications for more information.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1552
TLF Job No: 2023-119

UNIT A - SLAB AND MASONRY PLAN

1/8" = 1'-0"

NORTH

SLAB AND MASONRY PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE S3.03, S3.04 AND S4.01 THROUGH S4.03 FOR TYPICAL SLAB AND MASONRY DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS, BUT APPLY UNLESS OTHERWISE NOTED.
3. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
4. SLAB-ON-GRADE SHALL BE 6" THICK AND FLUSH WITH EXISTING FIRST FLOOR SLAB, U.O.N. 6" SLAB-ON-GRADE SHALL BE REINFORCED WITH 6x6-W2.9xW2.9 WIRE MESH REINFORCING IN SHEET FORM. 8" SLAB-ON-GRADE SHALL BE REINFORCED WITH #4 AT 12" o.c. EACH WAY. 10" SLAB ON GRADE SHALL BE REINFORCED WITH #5 AT 12" o.c. EACH WAY. ALL SLABS SHALL BE PLACED ON VAPOR BARRIER OVER A MINIMUM OF 6" GRANULAR MATERIAL.
5. ALL MASONRY WALLS AND MASONRY WALL INFILL SHALL BE LAID IN A STACKED BOND PATTERN.
6. L, ML, SML INDICATES MASONRY LINTEL. SEE SHEET S4.03.
7. LBX INDICATES STEEL ANGLE LINTEL. SEE SHEET S4.03.
8. SL-X INDICATES STEEL LINTEL. SEE SHEET S4.03. FOR SCHEDULE. VERIFY MASONRY OPENING AND ELEVATION WITH ARCHITECTURAL PLANS.
9. BPX INDICATES BEARING PLATE REQUIRED. SEE S5.01.
10. MPX INDICATES MASONRY PILASTER. SEE SHEET S4.01.
11. CJ INDICATES CONTROL JOINT IN CMU. COORDINATE LOCATION WITH BONDING PATTERN AND WALL ELEVATION (SEE S4.02).
12. (*) INDICATES LINTEL REQUIRED FOR MECHANICAL OPENING. ONLY A PORTION OF THESE LINTELS REQUIRED FOR MASONRY OPENINGS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS REQUIRED TO FURNISH AND INSTALL LINTELS REQUIRED FOR MECHANICAL OPENINGS WHETHER OR NOT SHOWN ON THE PLANS. COORDINATE NUMBER, SIZE, ELEVATION, AND LOCATION OF ALL LINTELS FOR MECHANICAL OPENINGS.

    SEE S4.03 FOR LINTELS IN NON-BEARING WALLS. SUBMIT SHOP DRAWINGS FOR REVIEW FOR LINTELS REQUIRED AT MECHANICAL OPENINGS IN BEARING WALLS AND OUTSIDE LIMITS OF S4.03.
13. FOR MULTI-SPAN CONTINUOUS LINTELS, MAINTAIN 16" MINIMUM CMU BETWEEN OPENINGS (U.O.N.).
14. SEE S4.01 FOR MASONRY WALL BRACING REQUIREMENTS.
15. SEE MASONRY WALL ELEVATIONS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
16. SEE THE PROJECT MANUAL FOR CONTRACTION AND CONSTRUCTION JOINT SPACING. THE CONTRACTOR IS ENCOURAGED TO SUBMIT A SLAB PLAN SHOWING ALTERNATE SPACINGS AND LOCATIONS THAT ADAPTS TO THEIR PLANNED CONSTRUCTION SEQUENCE.
17. SEE ARCHITECTURAL PLANS FOR RAISED LOCKER BASES.
18. PROVIDE LINTEL AT RECESSED FIRE EXTINGUISHER CABINET AND/OR ELECTRICAL PANEL BOARD. SEE TYPICAL CMU WALL OPENING AT RECESSED EQUIPMENT ON S4.02.
19. LEGEND:

INDICATES SLAB DEPRESSION FROM FINISHED FLOOR ELEVATION. SEE THE PROJECT MANUAL FOR REQUIRED DEPRESSION.

PANEL XX

INDICATES MASONRY WALL SUPPORTED ON FOOTING. SEE S4.01 FOR MASONRY WALL PANEL SCHEDULE

INDICATES THICKENED SLAB. SEE 6C-S3.03.

INDICATES END OF LINTEL SUPPORTED AT STEEL COLUMN.

NEW ADDITION

UNIT A

PLAN NORTH

KEY PLAN

100% CONSTRUCTION DOCUMENTS

TRACY A. CHARITON REGISTERED No. 10700203 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JDR

PROJECT NUMBER: 221165.01

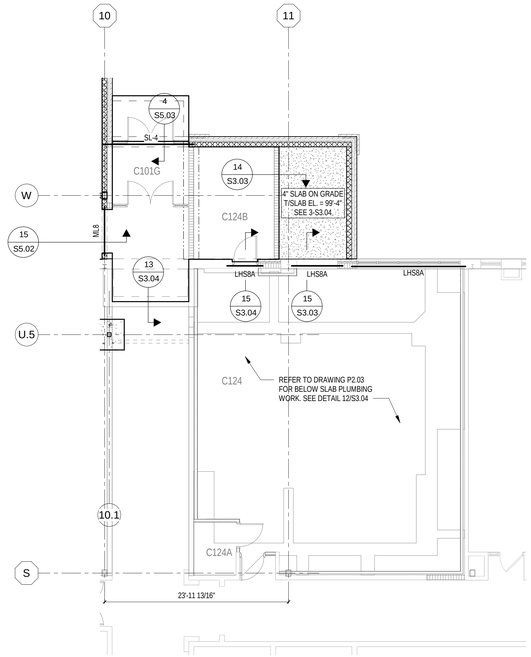
PROJECT ISSUE DATE: 08/31/2023

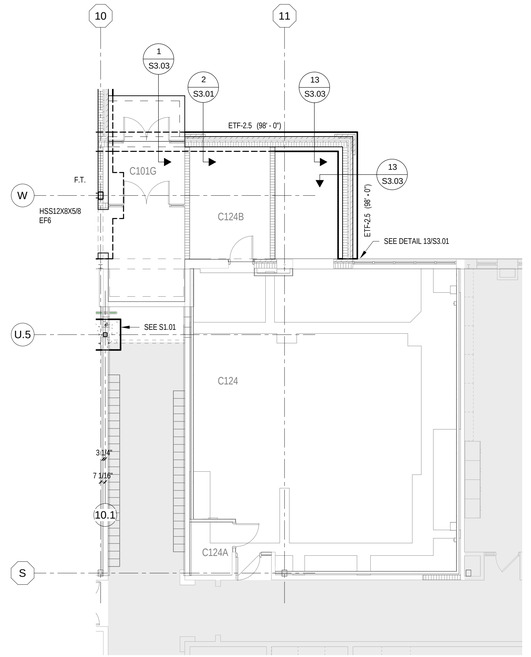
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - SLAB AND MASONRY PLAN

S1.02

C:\Users\charitont\Documents\2021_STRC_221165.01_Carmel HS Polytechnic_tcharitonCLENT.rvt
9/20/2023 12:03:12 PM





UNIT B - SLAB AND MASONRY PLAN

1/8" = 1'-0"

NORTH

SLAB AND MASONRY PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE S3.03, S3.04 AND S4.01 THROUGH S4.03 FOR TYPICAL SLAB AND MASONRY DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS, BUT APPLY UNLESS OTHERWISE NOTED.
3. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
4. SLAB-ON-GRADE SHALL BE 6" THICK AND FLUSH WITH EXISTING FIRST FLOOR SLAB, U.O.N. 6" SLAB-ON-GRADE SHALL BE REINFORCED WITH 6x6-W2.9xW2.9 WIRE MESH REINFORCING IN SHEET FORM. 8" SLAB-ON-GRADE SHALL BE REINFORCED WITH #4 AT 12" o.c. EACH WAY. 10" SLAB ON GRADE SHALL BE REINFORCED WITH #5 AT 12" o.c. EACH WAY. ALL SLABS SHALL BE PLACED ON VAPOR BARRIER OVER A MINIMUM OF 6" GRANULAR MATERIAL.
5. ALL MASONRY WALLS AND MASONRY WALL INFILL SHALL BE LAID IN A STACKED BOND PATTERN.
6. L.ML.SML INDICATES MASONRY LINTEL. SEE SHEET S4.03.
7. LBX INDICATES STEEL ANGLE LINTEL. SEE SHEET S4.03.
8. SL-X INDICATES STEEL LINTEL. SEE SHEET S4.03. FOR SCHEDULE. VERIFY MASONRY OPENING AND ELEVATION WITH ARCHITECTURAL PLANS.
9. BPX INDICATES BEARING PLATE REQUIRED. SEE S5.01.
10. MPX INDICATES MASONRY PILASTER. SEE SHEET S4.01.
11. CJ INDICATES CONTROL JOINT IN CMU. COORDINATE LOCATION WITH BONDING PATTERN AND WALL ELEVATION (SEE S4.02).
12. (*) INDICATES LINTEL REQUIRED FOR MECHANICAL OPENING. ONLY A PORTION OF THESE LINTELS REQUIRED FOR MASONRY OPENINGS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS REQUIRED TO FURNISH AND INSTALL LINTELS REQUIRED FOR MECHANICAL OPENINGS WHETHER OR NOT SHOWN ON THE PLANS. COORDINATE NUMBER, SIZE, ELEVATION, AND LOCATION OF ALL LINTELS FOR MECHANICAL OPENINGS.

    SEE S4.03 FOR LINTELS IN NON-BEARING WALLS. SUBMIT SHOP DRAWINGS FOR REVIEW FOR LINTELS REQUIRED AT MECHANICAL OPENINGS IN BEARING WALLS AND OUTSIDE LIMITS OF S4.03.
13. FOR MULTI-SPAN CONTINUOUS LINTELS, MAINTAIN 16" MINIMUM CMU BETWEEN OPENINGS (U.O.N.).
14. SEE S4.01 FOR MASONRY WALL BRACING REQUIREMENTS.
15. SEE MASONRY WALL ELEVATIONS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
16. SEE THE PROJECT MANUAL FOR CONTRACTION AND CONSTRUCTION JOINT SPACING. THE CONTRACTOR IS ENCOURAGED TO SUBMIT A SLAB PLAN SHOWING ALTERNATE SPACINGS AND LOCATIONS THAT ADAPTS TO THEIR PLANNED CONSTRUCTION SEQUENCE.
17. SEE ARCHITECTURAL PLANS FOR RAISED LOCKER BASES.
18. PROVIDE LINTEL AT RECESSED FIRE EXTINGUISHER CABINET AND/OR ELECTRICAL PANEL BOARD. SEE TYPICAL CMU WALL OPENING AT RECESSED EQUIPMENT ON S4.02.
19. LEGEND:

INDICATES SLAB DEPRESSION FROM FINISHED FLOOR ELEVATION. SEE THE PROJECT MANUAL FOR REQUIRED DEPRESSION.

PANEL XX

INDICATES MASONRY WALL SUPPORTED ON FOOTING. SEE S4.01 FOR MASONRY WALL PANEL SCHEDULE

INDICATES THICKENED SLAB. SEE 6C-S3.03.

INDICATES END OF LINTEL SUPPORTED AT STEEL COLUMN.

UNIT B - FOUNDATION PLAN

1/8" = 1'-0"

NORTH

PLAN NOTES:

1. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
2. TOP OF FOOTING (T/FOOTING) ELEVATION = 98'-8" (U.O.N.).
3. (XXX'-X") INDICATES TOP OF FOOTING OR PIER ELEVATION.
4. TAKE CARE NOT TO CUT EXISTING 4" BELOW SLAB SANITARY LINE DURING DEMOLITION OF EXISTING SLAB ON GRADE. NOTIFY EOR IF EXISTING SANITARY IS WITHIN FOOTPRINT OF NEW FOOTING(S) SO SIZE/LOCATION OF FOOTINGS CAN BE REEAVLUATED FOR THE CONFLICT.

FOUNDATION PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE S3.01 THROUGH S3.03 FOR FOUNDATION DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS, BUT APPLY UNLESS OTHERWISE NOTED.
3. CENTER WALL FOOTINGS UNDER WALLS UNLESS NOTED OTHERWISE.
4. FX, EFX INDICATES INTERIOR FOUNDATION F"X" OR EXTERIOR FOUNDATION EF"X". SEE COLUMN FOOTING SCHEDULE ON S3.01.
5. ETF-X INDICATES EXTERIOR TRENCH FOOTING ETF-"X". SEE TYPICAL EXTERIOR TRENCH FOOTING DETAIL ON S3.01.
6. WF-X, INDICATES INTERIOR WALL FOOTING WF-"X". TYPICAL INTERIOR WALL FOOTING DETAIL ON S3.01.
7. RWFX INDICATES RETAINING WALL FOOTING RWF"X" SEE TYPICAL RETINING WALL DETAIL ON S3.01.
8. P1, P2, ETC. INDICATES CONCRETE PIER. SEE TYPICAL PIER DETAIL ON S3.01. TOP OF PIER ELEVATION = 98'-8" (U.O.N.).
9. MP1, MP2, ETC. INDICATES MASONRY PILASTER. SEE MASONRY PILASTER (MP).
10. SEE S3.01 FOR TYPICAL INTERIOR COLUMN FOOTING DETAIL.
11. SEE 5-S3.01 FOR TYPICAL COLUMN BASE.
12. SEE 3-S3.01 FOR TYPICAL COLUMN BASE PLATE.
13. FOOTINGS MAY BE EARTH-FORMED WHERE COHESIVE SOILS EXIST AT FOUNDATION ELEVATION. REFER TO THE PROJECT MANUAL. THE CONTRACTOR SHALL INCLUDE IN THEIR BID FORMING OF FOOTINGS WHERE REVIEW OF THE GEOTECHNICAL ENGINEERING REPORT INDICATES EARTH-FORMING MAY NOT BE POSSIBLE.
14. VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND PLUMBING LINES. SEE SHEET S3.02 FOR REQUIREMENTS WHEN PLUMBING LINES CROSS FOUNDATIONS AT ALL ELEVATIONS.
15. SEE 6-S3.03 FOR TYPICAL SLAB ON GRADE.
16. SEE 7-S3.03 FOR SLAB ISOLATIONS.
17. SEE ARCHITECTURAL PLANS FOR RAISED LOCKER BASES.
18. F.T. INDICATES FOOTING TRANSITION. SEE 11-S3.01.
19. F.S. INDICATES STEPPED FOOTING. SEE S3.01 FOR DETAILS
20. LEGEND:

INDICATES UNDERGROUND PLUMBING OR UTILITY LINE. VERIFY LOCATION AND ELEVATIONS. SEE S3.02 FOR REQUIREMENTS WHEN PLUMBING LINES CROSS FOUNDATIONS AT ALL ELEVATIONS.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

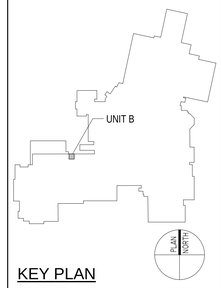
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119



KEY PLAN

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

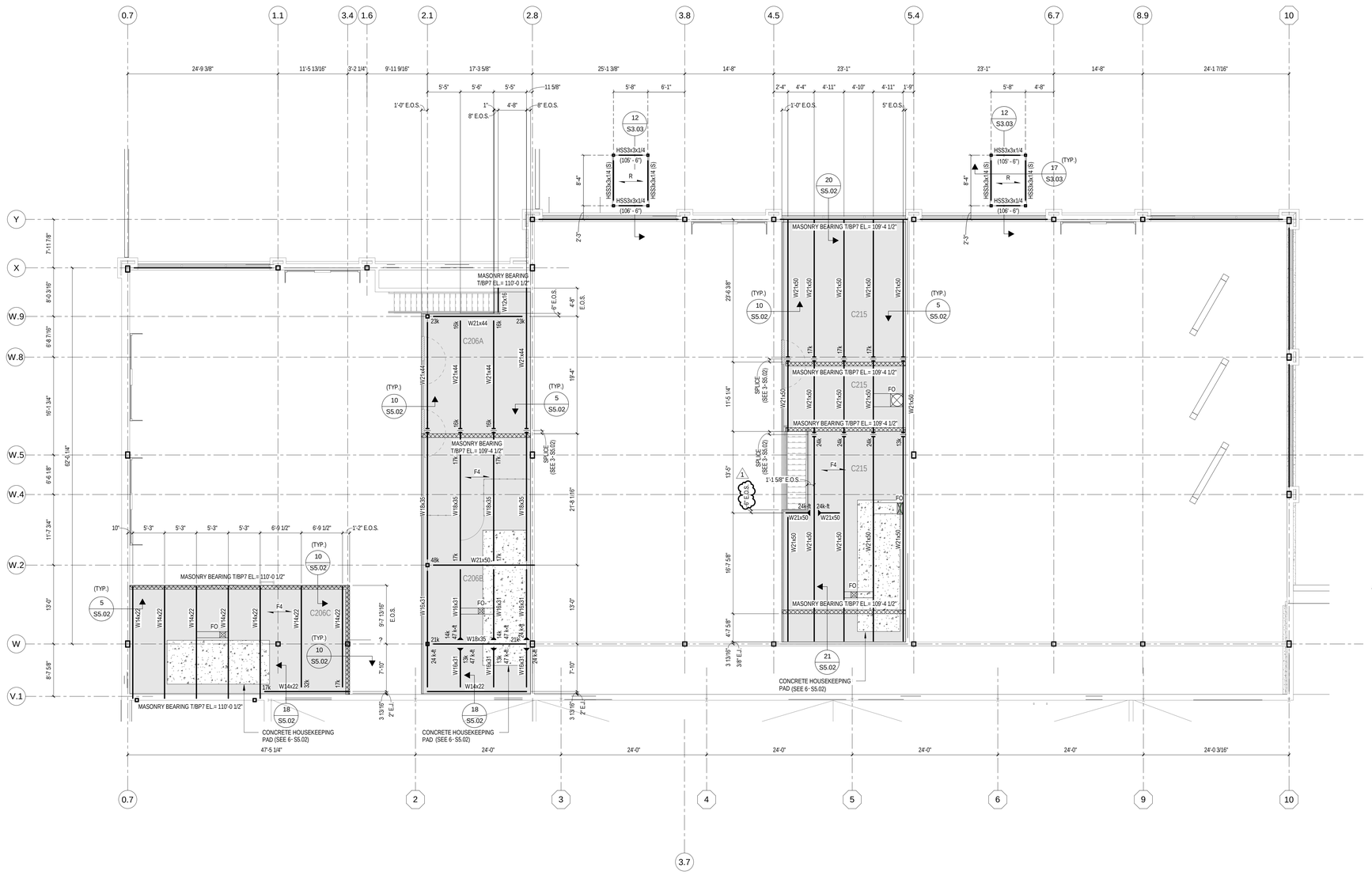
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B - FOUNDATION PLAN / SLAB AND MASONRY PLAN

S1.03



UNIT A - MEZZANINE FRAMING PLAN

1/8" = 1'-0"

NORTH

PLAN NOTES:

1. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
2. TOP OF STEEL (T/STEEL) ELEVATION = 110'-8" (U.O.N.).

FRAMING PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE DRAWINGS S5.01 THROUGH S5.02 FOR STEEL FRAMING DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS BUT APPLY UNLESS OTHERWISE NOTED.
3. SEE S5.01 FOR TYPICAL STEEL FRAMING CONNECTIONS.
4. SEE S4.01 FOR MASONRY WALL BRACING REQUIREMENTS
5. PROVIDE MINIMUM L3x3x1/4 (U.O.N.) ROOF EDGE SUPPORT ANGLES AT ALL ROOF EDGES AND ROOF EXPANSION JOINTS.

BEAM LEGEND:

(*) INDICATES DECK SUPPORT REQUIRED BETWEEN JOISTS. SEE EDGE OF DECK SUPPORT.

(S) INDICATES SLOPED BEAM. ELEVATIONS AT ENDS ARE TOP OF SLOPED BEAM AT CENTERLINE COLUMN OR AT INTERSECTION WITH OTHER BEAMS.

(E) INDICATES EXISTING FRAMING MEMBER.

BP INDICATES BEARING PLATE. SEE BEARING PLATE SCHEDULE.

(TCX) INDICATES THAT THE TOP CHORD OF THE JOIST IS TO BE EXTENDED. (SEE PLAN FOR LENGTH)

(DJB) INDICATES DEEP JOIST BEARING.

(BC) INDICATES BOLTED CONNECTION AT JOIST BEARING.

RV INDICATES FRAME REQUIRED FOR ROOF VENT. SEE TYP OPENING FRAME (RV). (VERIFY LOCATION WITH ROOF PLAN)

RD INDICATES FRAME REQUIRED FOR ROOF DRAIN. SEE TYP OPENING FRAME (RD). (VERIFY LOCATION WITH ROOF PLAN)

RH INDICATES FRAME REQUIRED FOR ROOF HATCH. SEE TYP OPENING FRAME (RH).

FO INDICATES FRAME REQUIRED FOR FLOOR OPENING. SEE TYP OPENING FRAME (FO).

PB INDICATES FRAME REQUIRED FOR POUR BOX OPENING.

INDICATES BEAM SPLICE. SEE TYPICAL STEEL FRAMING DETAIL S5.01-1F

INDICATES DIRECTION OF FLOOR DECK SPAN (4" COMP. CONC., U.O.N.).

INDICATES DIRECTION OF 1 1/2" ROOF DECK SPAN (WR20, U.O.N.).

INDICATES BEAM MOMENT CONNECTION.

10k W12x16 10k (110'-8 1/2") — INDICATES THAT THE W12x16 BEAM IS LEVEL WITH THE TOP PLANGE AT ELEVATION 110'-8 1/2" WITH A 10 KIP REACTION AT EACH END.

W12x16 (S) (110'-0) (110'-11") — INDICATES THAT THE W12x16 BEAM IS SLOPED WITH THE TOP OF ITS FLANGE AT ELEVATION 110'-0" AND ELEVATION 110'-11", RESPECTIVELY, AT THE CENTERLINE OF THE TWO COLUMNS. THE BEAM FRAMES OVER THE TOP OF THE RIGHT COLUMN AND INTO THE SIDE OF THE LEFT COLUMN.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

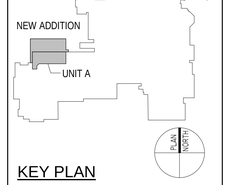
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119



KEY PLAN

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

PROJECT NUMBER: 221165.01

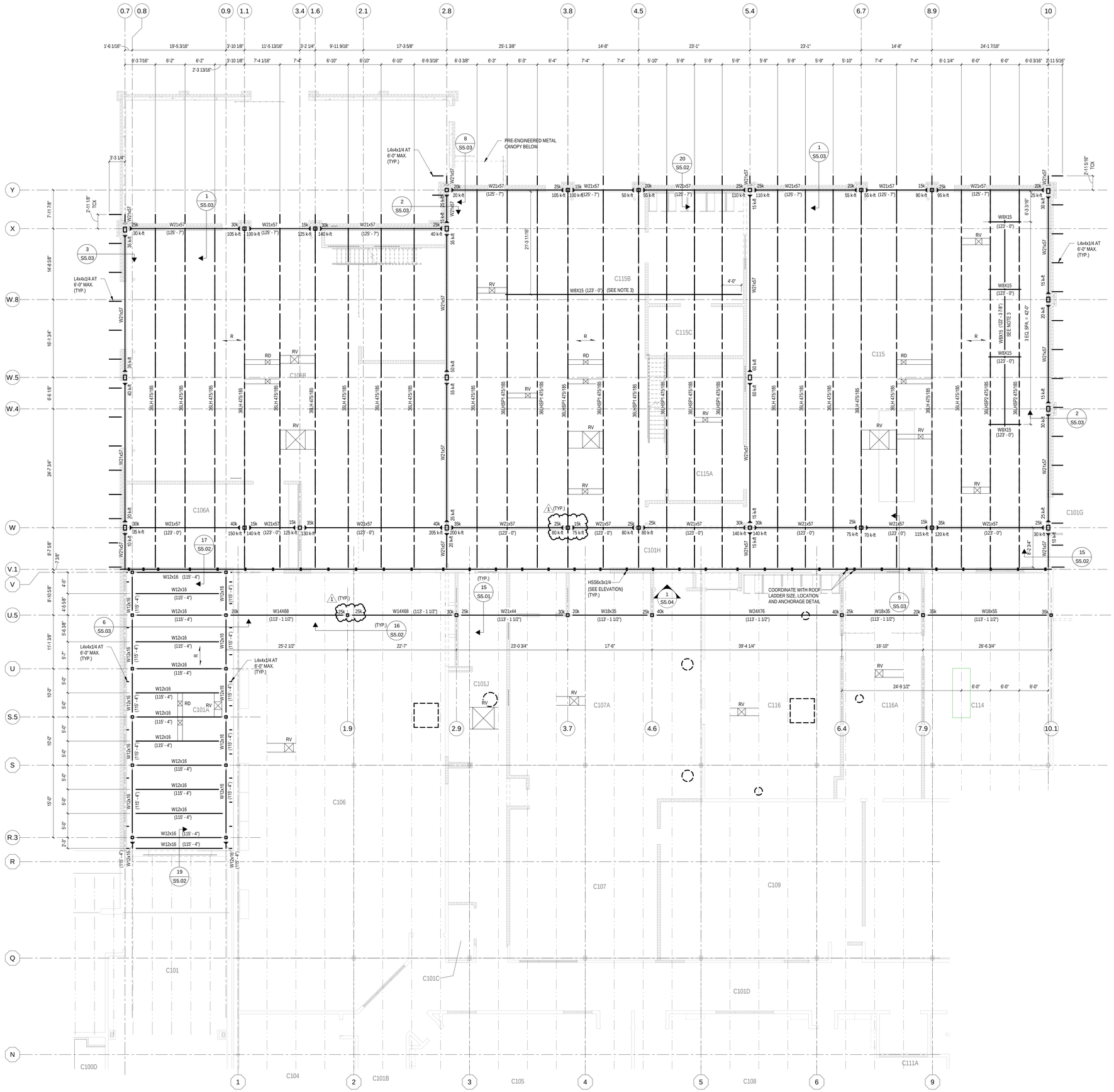
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - MEZZANINE FRAMING PLAN

S2.01

C:\Users\chariton\Documents\2021_STRC_221165.01_Carmel HS Polytechnic_schariton\CLIENT.rvt
9/26/2023 12:03:14 PM



UNIT A - ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH

PLAN NOTES:

1. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
2. TOP OF STEEL (T/STEEL) ELEVATION = 126'-0" (U.O.N.).
3. COORDINATE LENGTH AND LOCATION OF HOIST SUPPORT BEAM WITH EQUIPMENT PROVIDER.

FRAMING PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE DRAWINGS S5.01 THROUGH S5.02 FOR STEEL FRAMING DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS BUT APPLY UNLESS OTHERWISE NOTED.
3. SEE S5.01 FOR TYPICAL STEEL FRAMING CONNECTIONS.
4. SEE S4.01 FOR MASONRY WALL BRACING REQUIREMENTS
5. PROVIDE MINIMUM L3x3x1/4 (U.O.N.) ROOF EDGE SUPPORT ANGLES AT ALL ROOF EDGES AND ROOF EXPANSION JOINTS.

BEAM LEGEND:

(*) INDICATES DECK SUPPORT REQUIRED BETWEEN JOISTS. SEE EDGE OF DECK SUPPORT.

(S) INDICATES SLOPED BEAM. ELEVATIONS AT ENDS ARE TOP OF SLOPED BEAM AT CENTERLINE COLUMN OR AT INTERSECTION WITH OTHER BEAMS.

(E) INDICATES EXISTING FRAMING MEMBER.

BP INDICATES BEARING PLATE. SEE BEARING PLATE SCHEDULE.

(TCX) INDICATES THAT THE TOP CHORD OF THE JOIST IS TO BE EXTENDED. (SEE PLAN FOR LENGTH)

(DJB) INDICATES DEEP JOIST BEARING.

(BC) INDICATES BOLTED CONNECTION AT JOIST BEARING.

RV INDICATES FRAME REQUIRED FOR ROOF VENT. SEE TYP OPENING FRAME (RV). (VERIFY LOCATION WITH ROOF PLAN)

RD INDICATES FRAME REQUIRED FOR ROOF DRAIN. SEE TYP OPENING FRAME (RD). (VERIFY LOCATION WITH ROOF PLAN)

RH INDICATES FRAME REQUIRED FOR ROOF HATCH. SEE TYP OPENING FRAME (RH).

FO INDICATES FRAME REQUIRED FOR FLOOR OPENING. SEE TYP OPENING FRAME (FO).

PB INDICATES FRAME REQUIRED FOR POUR BOX OPENING.

INDICATES BEAM SPLICE. SEE TYPICAL STEEL FRAMING DETAIL S5.01-1F.

INDICATES DIRECTION OF FLOOR DECK SPAN (4" COMP. CONC., U.O.N.).

INDICATES DIRECTION OF 1 1/2" ROOF DECK SPAN (WR20, U.O.N.).

INDICATES BEAM MOMENT CONNECTION.

10k W12x16 10k (110'-8 1/2") — INDICATES THAT THE W12x16 BEAM IS LEVEL WITH THE TOP FLANGE AT ELEVATION 110'-8 1/2" WITH A 10 KIP REACTION AT EACH END.

W12x16 (S) (110'-0) (110'-11") — INDICATES THAT THE W12x16 BEAM IS SLOPED WITH THE TOP OF ITS FLANGE AT ELEVATION 110'-0" AND ELEVATION 110'-11", RESPECTIVELY, AT THE CENTERLINE OF THE TWO COLUMNS. THE BEAM FRAMES OVER THE TOP OF THE RIGHT COLUMN AND INTO THE SIDE OF THE LEFT COLUMN.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

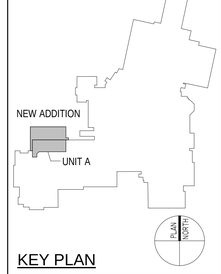
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1552
TLF Job No: 2023-119



KEY PLAN

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

PROJECT NUMBER: 221165.01

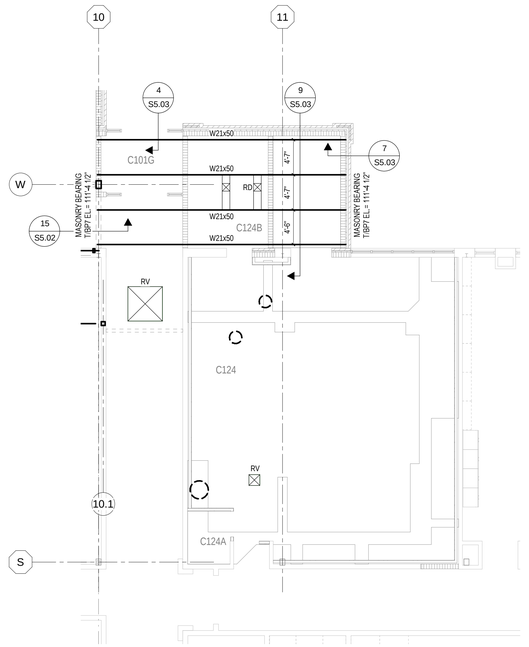
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - ROOF FRAMING PLAN

S2.02

C:\Users\tchariton\Documents\2021_STRC_221165.01_Carmel HS Polytechnic_tchariton_CLIENT.rvt
9/26/2023 12:03:15 PM



UNIT B - ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH

PLAN NOTES:

1. REFERENCE ELEVATION = TOP OF EXISTING FINISH FLOOR = 100'-0" (852.88' U.S.G.S.).
2. TOP OF STEEL (T/STEEL) ELEVATION = 113'-0" (U.O.N.).

FRAMING PLAN NOTES:

1. SEE SHEET S0.01 FOR GENERAL NOTES.
2. SEE DRAWINGS S5.01 THROUGH S5.02 FOR STEEL FRAMING DETAILS. TYPICAL DETAILS MAY NOT BE CUT ON PLANS BUT APPLY UNLESS OTHERWISE NOTED.
3. SEE S5.01 FOR TYPICAL STEEL FRAMING CONNECTIONS.
4. SEE S4.01 FOR MASONRY WALL BRACING REQUIREMENTS
5. PROVIDE MINIMUM L3x3x1/4 (U.O.N.) ROOF EDGE SUPPORT ANGLES AT ALL ROOF EDGES AND ROOF EXPANSION JOINTS.

BEAM LEGEND:

(*) INDICATES DECK SUPPORT REQUIRED BETWEEN JOISTS. SEE EDGE OF DECK SUPPORT.

(S) INDICATES SLOPED BEAM. ELEVATIONS AT ENDS ARE TOP OF SLOPED BEAM AT CENTERLINE COLUMN OR AT INTERSECTION WITH OTHER BEAMS.

(E) INDICATES EXISTING FRAMING MEMBER.

BP INDICATES BEARING PLATE. SEE BEARING PLATE SCHEDULE.

(TCX) INDICATES THAT THE TOP CHORD OF THE JOIST IS TO BE EXTENDED. (SEE PLAN FOR LENGTH)

(DJB) INDICATES DEEP JOIST BEARING.

(BC) INDICATES BOLTED CONNECTION AT JOIST BEARING.

RV INDICATES FRAME REQUIRED FOR ROOF VENT. SEE TYP OPENING FRAME (RV). (VERIFY LOCATION WITH ROOF PLAN)

RD INDICATES FRAME REQUIRED FOR ROOF DRAIN. SEE TYP OPENING FRAME (RD). (VERIFY LOCATION WITH ROOF PLAN)

RH INDICATES FRAME REQUIRED FOR ROOF HATCH. SEE TYP OPENING FRAME (RH).

FO INDICATES FRAME REQUIRED FOR FLOOR OPENING. SEE TYP OPENING FRAME (FO).

PB INDICATES FRAME REQUIRED FOR POUR BOX OPENING.

INDICATES BEAM SPLICE. SEE TYPICAL STEEL FRAMING DETAIL S5.01-F

F4 INDICATES DIRECTION OF FLOOR DECK SPAN (4" COMP. CONC., U.O.N.).

R INDICATES DIRECTION OF 1 1/2" ROOF DECK SPAN (WR20, U.O.N.).

INDICATES BEAM MOMENT CONNECTION.

10k W12x16 10k (110'-8 1/2") — INDICATES THAT THE W12x16 BEAM IS LEVEL WITH THE TOP FLANGE AT ELEVATION 110'-8 1/2" WITH A 10 KIP REACTION AT EACH END.

W12x16 (S) (110'-0) (110'-11") — INDICATES THAT THE W12x16 BEAM IS SLOPED WITH THE TOP OF ITS FLANGE AT ELEVATION 110'-0" AND ELEVATION 110'-11", RESPECTIVELY, AT THE CENTERLINE OF THE TWO COLUMNS. THE BEAM FRAMES OVER THE TOP OF THE RIGHT COLUMN AND INTO THE SIDE OF THE LEFT COLUMN.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

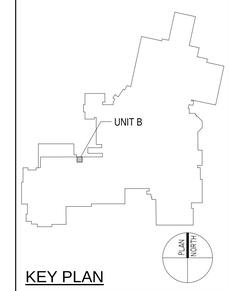
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF, INC.

3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1552
TLF Job No: 2023-119



KEY PLAN

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

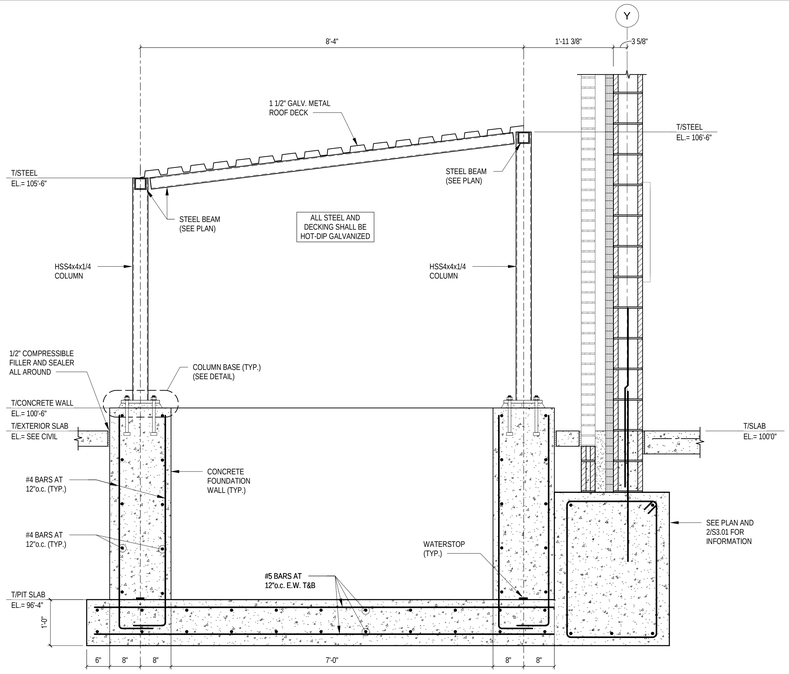
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

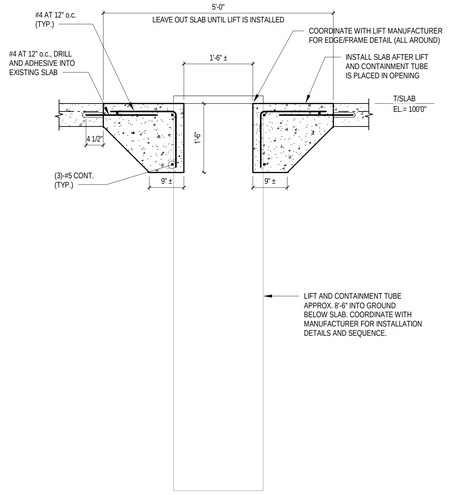
UNIT B - ROOF FRAMING PLAN

S2.03



12 OIL WASTE TANK PIT SECTION

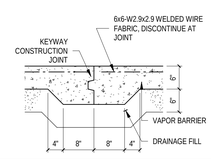
SCALE: 3/4" = 1'-0"



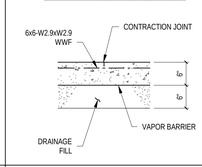
9 RECESSED LIFT SLAB DETAIL

N.T.S.

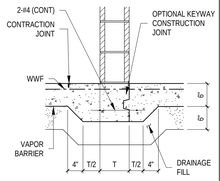
A. TYPICAL CONSTRUCTION JOINT



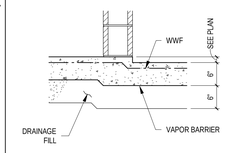
B. TYPICAL CONTRACTION JOINT



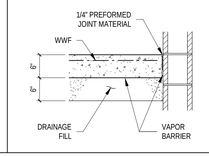
C. TYPICAL THICKENED SLAB



D. TYP. DEPRESSED SLAB EDGE AT WALL



E. TYPICAL SLAB AT WALL

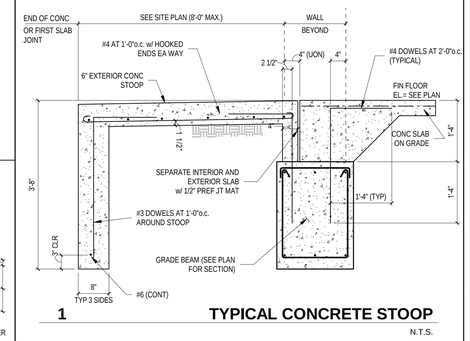


NOTES:

1. ALL CONCRETE FOR SLAB ON GRADE SHALL BE F'c = 3500 PSI AT 28 DAYS.
2. WELDED WIRE FABRIC TO BE DEPRESSED OR LAPPED AT ALL DEPRESSIONS.

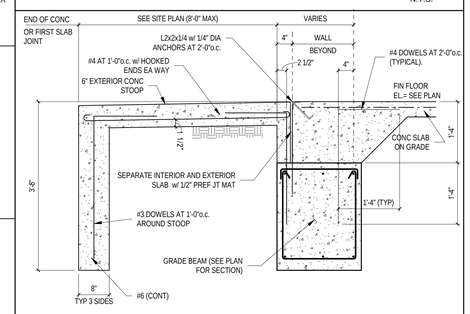
6 TYPICAL 6" CONCRETE SLAB ON GRADE

N.T.S.



1 TYPICAL CONCRETE STOOP

N.T.S.



2 CONCRETE STOOP AT OVERHEAD DOOR

N.T.S.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

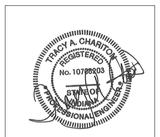
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119

100% CONSTRUCTION DOCUMENTS

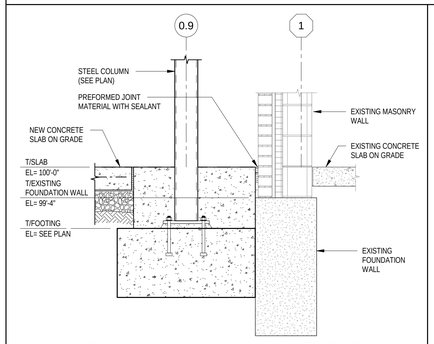


DRAWN BY: JDR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

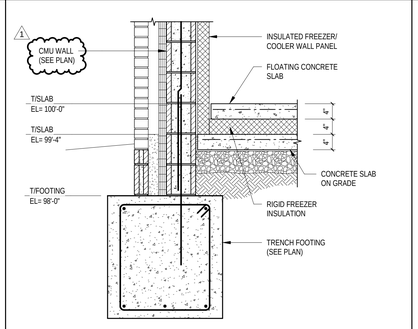
FOUNDATION AND SLAB DETAILS

S3.03



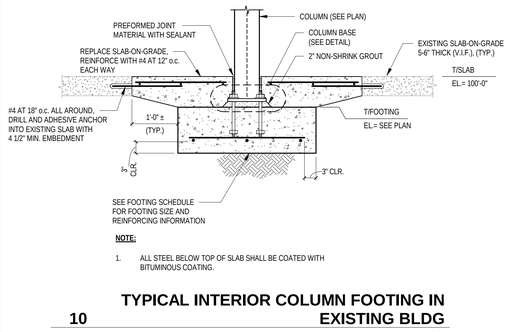
16 SECTION

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



13 SECTION

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



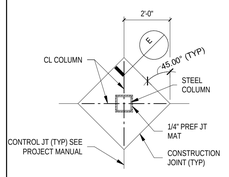
NOTE:

1. ALL STEEL BELOW TOP OF SLAB SHALL BE COATED WITH BITUMINOUS COATING.

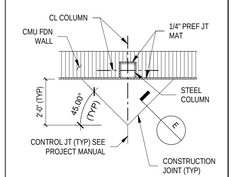
10 TYPICAL INTERIOR COLUMN FOOTING IN EXISTING BLDG

N.T.S.

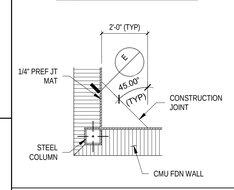
A. COLUMN ON ISOLATED FOOTING



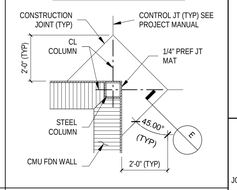
B. COLUMN ALONG FOUNDATION WALL



C. COLUMN AT OUTSIDE CORNER



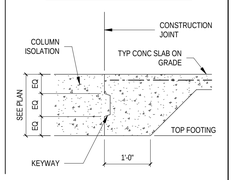
D. COLUMN AT INSIDE CORNER



NOTES:

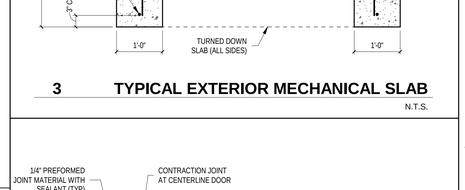
1. SEE THE PROJECT MANUAL FOR CONTROL JOINT AND CONSTRUCTION JOINT REQUIREMENTS
2. THICKEN SLAB WITHIN ISOLATION AT COLUMNS TO FULLY ENCASE COLUMN BASE PLATES AND ANCHOR RODS IN CONCRETE
3. 24" DIAMETER FORM WITH KEYWAY MAY BE SUBSTITUTED FOR SQUARE CONSTRUCTION JOINT SHOWN

E. CONSTRUCTION JT AT FOOTING



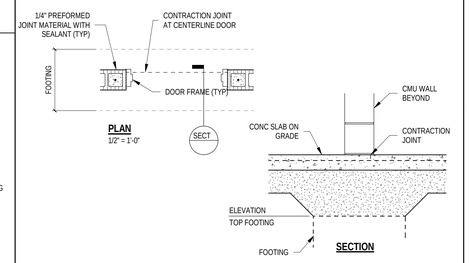
7 TYPICAL SLAB ISOLATION

N.T.S.



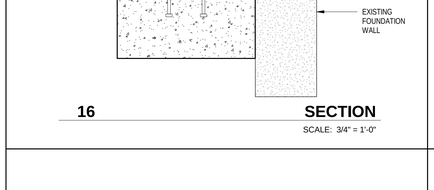
3 TYPICAL EXTERIOR MECHANICAL SLAB

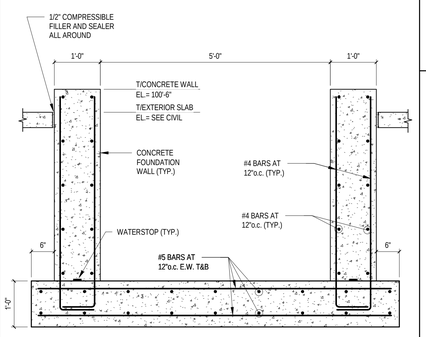
N.T.S.



4 TYPICAL SLAB AT INTERIOR OPENING

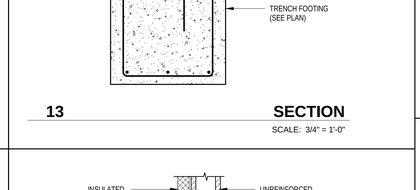
SCALE: 3/4" = 1'-0"





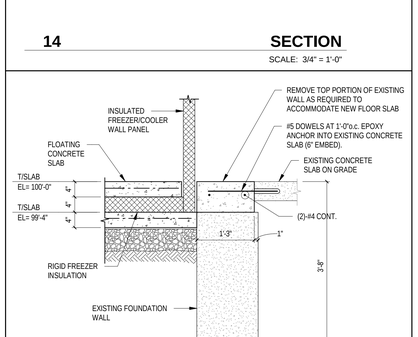
17 OIL WASTE TANK PIT SECTION

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



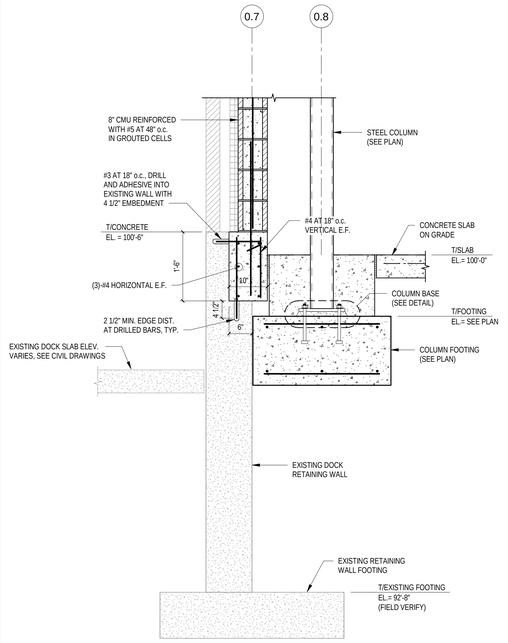
14 SECTION

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



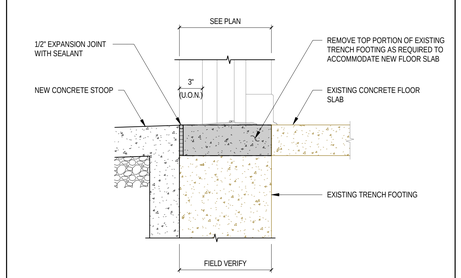
15 SECTION

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



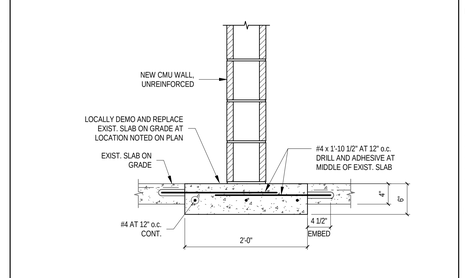
11 FOUNDATION ALONG EXISTING DOCK WALL

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



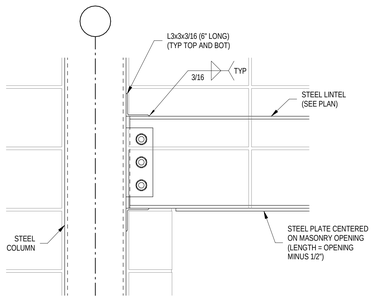
8 SLAB AT EXISTING FOOTING

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



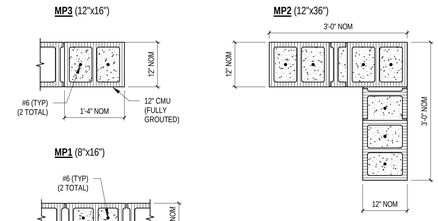
5 SLAB REPLACEMENT AT NEW CMU WALL

SCALE: 1" = 1'-0"



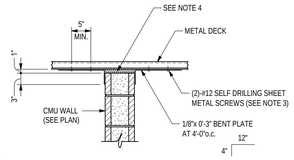
9 **TORSION END CONNECTION (TE)**

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



10 **MASONRY PILASTERS (MP)**

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

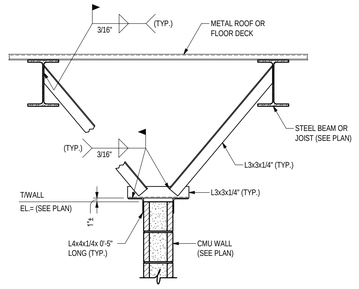


NOTE:

1. PROVIDE LATERAL SUPPORT FOR CMU WALL AT 4'-0"o.c. ALONG THE LENGTH OF THE WALL FOR ALL MASONRY WALLS THAT EXTEND FOR MORE THAN 18 TIMES THE WALL THICKNESS BETWEEN BRACING INSTERSECTING WALLS OR THAT DO NOT HAVE BRACING INTERSECTING WALLS AT BOTH ENDS.
2. ADDITIONAL LATERAL SUPPORT IS NOT REQUIRED WITHIN 6'-0" OF BRACING INTERSECTING WALLS.
3. PROVIDE A SINGLE 3/8" DIA. EXPANSION ANCHOR (2 1/2" EMBED.) ON EITHER SIDE OF CMU WALL AT LOCATIONS WHERE METAL DECK SUPPORTS A CONCRETE FLOOR SLAB.
4. FILL DECK FLUTES WITH BATT INSULATION. PACK FIRE SAFING MATERIAL TIGHT INTO EACH DECK FLUTE AT FIRE RATED WALLS.

6 **MASONRY WALL LATERAL SUPPORT DETAIL AT METAL DECK**

N.T.S.

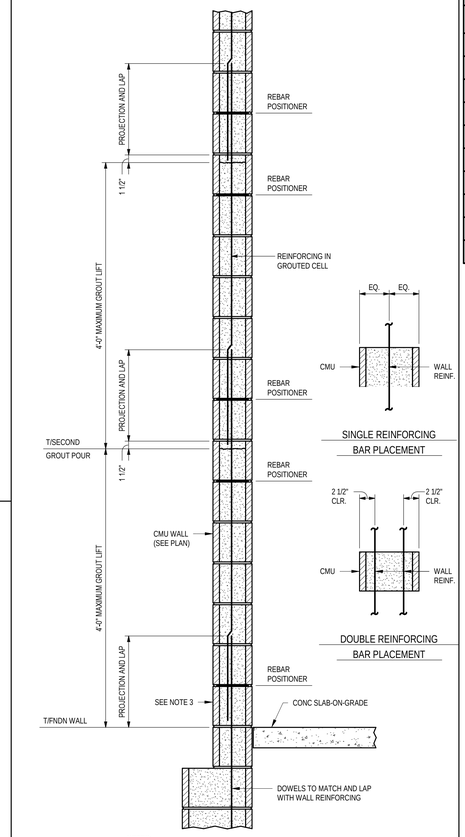


NOTE:

1. PROVIDE LATERAL SUPPORT FOR CMU WALL AT 4'-0"o.c. ALONG THE LENGTH OF THE WALL FOR ALL MASONRY WALLS THAT EXTEND FOR MORE THAN 18 TIMES THE WALL THICKNESS BETWEEN BRACING INSTERSECTING WALLS OR THAT DO NOT HAVE BRACING INTERSECTING WALLS AT BOTH ENDS.
2. ADDITIONAL LATERAL SUPPORT IS NOT REQUIRED WITHIN 6'-0" OF BRACING INTERSECTING WALLS.

7 **MASONRY WALL LATERAL SUPPORT DETAIL AT PARTIAL HEIGHT WALLS**

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



NOTES:

1. SEE PLANS FOR REINFORCING REQUIREMENTS.
2. MULTI-WYTHE WALLS MAY REQUIRE REINFORCING IN EACH WYTHE.
3. 3"x 3" MINIMUM CUT MASONRY INSPECTION AND CLEANOUT HOLE AT REINFORCING (REQUIRED FOR GROUT POUR HEIGHTS GREATER THAN 5'-0").
4. SEE GENERAL NOTES FOR MASONRY REINFORCING LAP LENGTHS.

3 **TYPICAL REINFORCED CMU WALL DETAIL**

N.T.S.

MASONRY WALL PANEL SCHEDULE

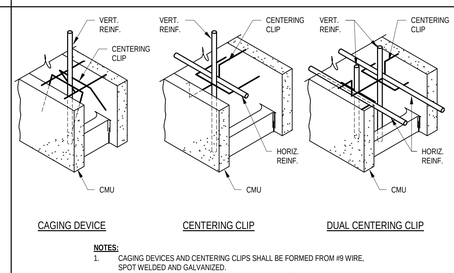
MARK	NOM. CMU	VERTICAL REINFORCING		TOP/BOND BEAM ELEVATION	REMARKS
		SIZE	SPACING		
A1	8"	#6	32"	103'-4", 107'-4", 111'-4", 115'-4", 119'-4", 123'-4"	NOTES 1, 4
A2	8"	#5	48"	103'-2", 106'-6", 110'-6", 114'-6", 117'-10"	NOTES 1, 4
A3	8"	#4	48"	102'-8", 106'-8", 110'-8", 123'-4"	NOTES 1, 4
A4	8"	#4	48"	104'-0", 108'-0", 112'-0", 116'-0", 120'-8"	NOTES 1, 4
A5	8"	#4	48"	109'-4", 112'-0", 116'-0", 120'-8"	NOTES 1, 4
A6	8"	#4	48"	104'-0", 108'-8", 110'-8"	NOTES 1, 4
A7	8"	#4	32"	102'-8", 106'-0", 109'-4"	NOTES 1, 4, 5
A8	8"	#4	32"	102'-8" 106'-0", 110'-0"	NOTES 1, 4, 5
A9	8"	#4	32"	102'-8", 106'-0", 110'-0", 112'-8", 115'-4"	NOTES 1, 4, 5

NOTES:

1. GROUT SOLID FROM HIGHEST BOND BEAM TO TOP OF WALL.
2. GROUT WALL SOLID BETWEEN TOP TWO BOND BEAMS.
3. GROUT WALL SOLID.
4. GROUT ALL COURSES BELOW FINISHED FLOOR.
5. CELL IMMEDIATELY BELOW OR ADJACENT TO MEZZANINE BEARING SHALL BE GROUTED/ REINFORCED.

1 **MASONRY WALL PANEL SCHEDULE**

N.T.S.



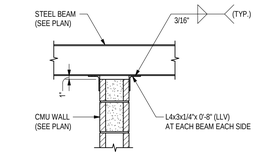
CAGING DEVICE CENTERING CLIP DUAL CENTERING CLIP

NOTES:

1. CAGING DEVICES AND CENTERING CLIPS SHALL BE FORMED FROM #9 WIRE, SPOT WELDED AND GALVANIZED.
2. REINFORCEMENT SHALL BE CENTERED IN CELLS (U.O.N.).

4 **TYPICAL CMU REINFORCEMENT POSITIONING DETAILS**

N.T.S.

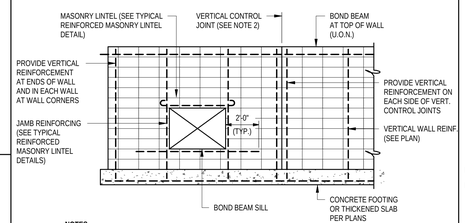


NOTE:

1. PROVIDE LATERAL SUPPORT FOR CMU WALL AT 4'-0"o.c. ALONG THE LENGTH OF THE WALL FOR ALL MASONRY WALLS THAT EXTEND FOR MORE THAN 18 TIMES THE WALL THICKNESS BETWEEN BRACING INSTERSECTING WALLS OR THAT DO NOT HAVE BRACING INTERSECTING WALLS AT BOTH ENDS.
2. ADDITIONAL LATERAL SUPPORT IS NOT REQUIRED WITHIN 6'-0" OF BRACING INTERSECTING WALLS.

5 **MASONRY WALL LATERAL SUPPORT DETAIL AT STEEL BEAMS**

N.T.S.

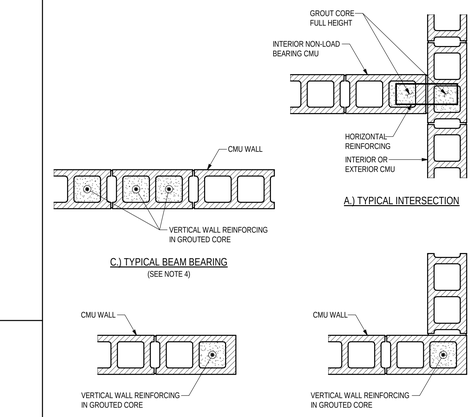


NOTES:

1. IN ADDITION TO THE MASONRY WALL REINFORCEMENT SHOWN, ALL MASONRY WALLS SHALL HAVE CONTINUOUS GALVANIZED LADDER TYPE HORIZONTAL JOINT REINFORCING WITH MINIMUM 9 GAUGE SIDE RODS AT 16"o.c. UNLESS OTHERWISE NOTED.
2. CONTROL JOINTS FOR REINFORCED CMU WALLS SHALL BE LOCATED AT NO MORE THAN 20'-0" o.c., AT 1.5 x WALL HEIGHT AND AT CHANGES IN WALL HEIGHT OR THICKNESS.
3. SEE TYPICAL HORIZONTAL JOINT REINFORCING DETAILS FOR ADDITIONAL REQUIREMENTS.
4. SEE PLANS AND WALL PANEL SCHEDULE FOR VERTICAL REINFORCING BAR SIZE AND SPACING.
5. SEE TYPICAL LINTEL BEARING DETAILS FOR MASONRY REINFORCING AT OPENINGS WITH LINTELS.
6. PROVIDE BOND BEAMS AT TOP OF WALL AND AT 4' o.c. U.O.N.
7. PROVIDE (2) BARS EACH SIDE OF ALL OPENINGS ON WALLS GREATER THAN 20 FEET TALL.

2 **TYPICAL CMU WALL REINFORCEMENT ELEVATION**

N.T.S.



NOTES:

1. REINFORCING SHOWN IN ADDITION TO REINFORCING SHOWN ON PLANS AND SPECIAL DETAILS.
2. REINFORCING TO BE SAME SIZE AS ADJACENT WALL REINFORCING INDICATED ON PLANS.
3. TYPICAL DETAILS APPLIES TO ALL EXTERIOR WALLS, INTERIOR LOAD BEARING WALLS, AND ALL WALLS SCHEDULED TO BE REINFORCED.
4. SEE TYPICAL STEEL BEAM BEARING ON NEW MASONRY DETAIL FOR ADDITIONAL REQUIREMENTS.

8 **TYPICAL VERTICAL CMU WALL REINFORCING DETAILS**

N.T.S.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1552
TLF Job No: 2023-119

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

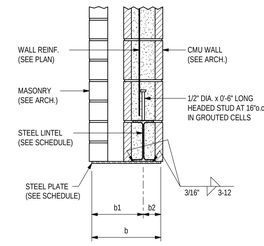
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

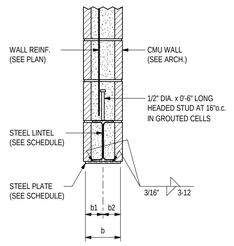
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

MASONRY DETAILS

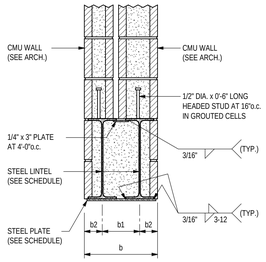
S4.01



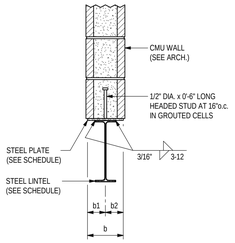
TYPE "B" LINTEL



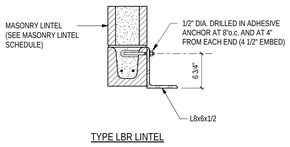
TYPE "A" LINTEL



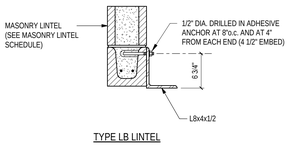
TYPE "D" LINTEL



TYPE "C" LINTEL



TYPE LBR LINTEL



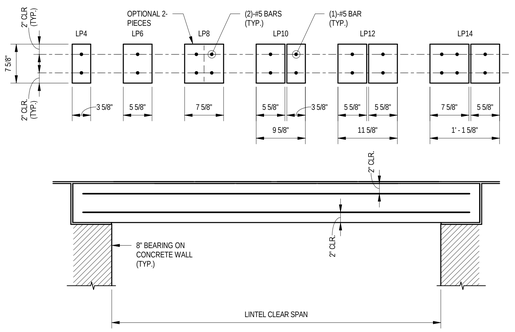
TYPE LB LINTEL

NOTES:

1. LINTELS SHALL BEAR ON SOLID MASONRY. PROVIDE 8" BEARING AT EACH END.
2. FURNISH AND INSTALL ALL LOOSE LINTELS REQUIRED FOR ALL OPENINGS IN MASONRY, INCLUDING MECHANICAL AND ELECTRICAL WORK, WHETHER SPECIFICALLY NOTED ON DRAWINGS OR NOT.
3. ALL LINTELS AT EXTERIOR LOCATIONS OR OTHERWISE SUBJECT TO WEATHER OR CORROSIVE ATMOSPHERE SHALL BE HOT DIPPED GALVANIZED.

6 TYPICAL STEEL LINTEL DETAILS

SCALE: 1" = 1'-0"



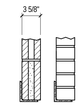
SHORT SPAN LINTELS (MAXIMUM CLEAR SPAN 8'-0")

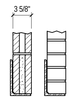
NOTES:

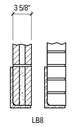
1. LINTELS SHALL BEAR ON SOLID CONCRETE PER PLANS.
2. MAXIMUM CLEAR SPAN IS DEFINED AS THE CLEAR OPENING WIDTH BETWEEN VERTICAL FACES OF CONCRETE.
3. FACE OF THE LINTEL SHALL BE SMOOTH TO MATCH ADJACENT WALL.
4. LINTELS SHALL BE FABRICATED OUT OF CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
5. SEE ARCHITECTURAL DRAWING FOR LINTEL ELEVATIONS.

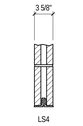
7 TYPICAL PRECAST CONCRETE LINTEL DETAILS

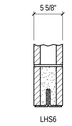
SCALE: 1" = 1'-0"

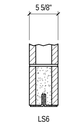


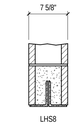


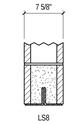


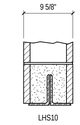


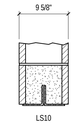


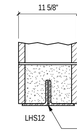


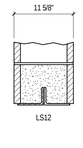


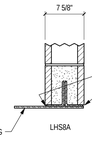










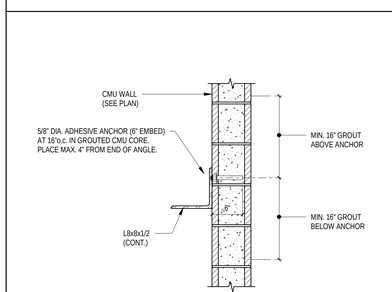


NOTES:

1. LINTELS SHALL BEAR ON BRICK OR SOLID CONCRETE MASONRY THAT IS FULLY GROUTED BELOW THE BEARING POINT. PROVIDE A MINIMUM OF 8" OF BEARING LENGTH AT EACH END OF THE LINTEL. PROVIDE A MINIMUM OF 12" OF BEARING LENGTH AT EACH END OF THE LINTEL FOR SPANS OF 10'-0" OR LARGER.
2. FURNISH AND INSTALL ALL LOOSE LINTELS REQUIRED FOR ALL OPENINGS IN MASONRY, INCLUDING MECHANICAL AND ELECTRICAL WORK, WHETHER SPECIFICALLY NOTED ON DRAWINGS OR NOT.
3. ALL LINTELS AT EXTERIOR LOCATIONS OR OTHERWISE SUBJECT TO WEATHER OR CORROSIVE ATMOSPHERE SHALL BE GALVANIZED.
4. TYPICAL STEEL ANGLE LINTELS SHOWN ARE FOR USE IN NON-LOAD BEARING WALLS ONLY UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE PLANS.
5. MAXIMUM CLEAR SPANS SHOWN APPLY ONLY TO NON-LOAD BEARING WALLS THAT ARE NOT GROUTED AND ARE CONSTRUCTED IN STACKED BOND WHERE THE HEIGHT OF WALL ABOVE THE LINTEL IS LESS THAN OR EQUAL TO 1/2 OF THE LINTEL CLEAR SPAN. CONTACT THE ENGINEER FOR OTHER CASES WHERE LINTELS ARE NOT SPECIFIED ON THE PLANS. (1)
6. MAXIMUM CLEAR SPAN IS DEFINED AS THE CLEAR OPENING WIDTH BETWEEN GROUTED CELLS BELOW THE LINTEL.

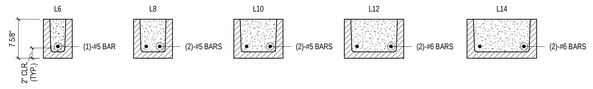
4 TYPICAL STEEL ANGLE LINTEL DETAILS

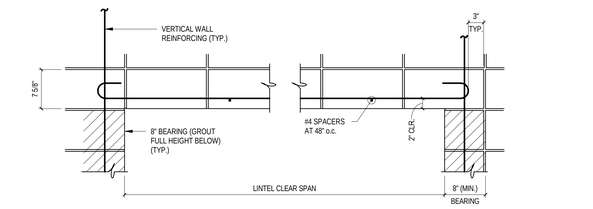
SCALE: 1" = 1'-0"



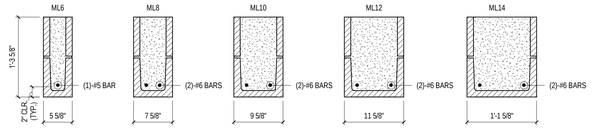
5 BRICK SHELF ANGLE DETAIL

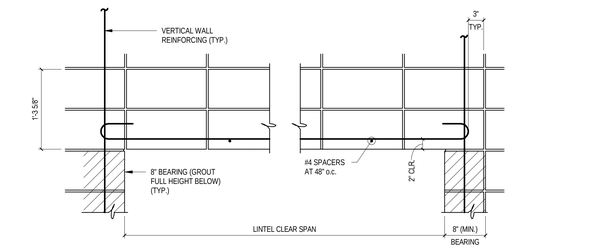
N.T.S.



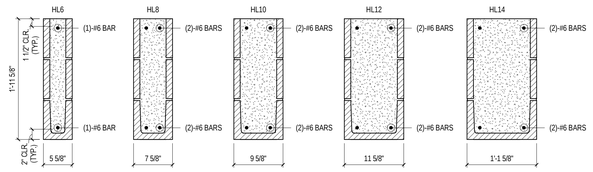


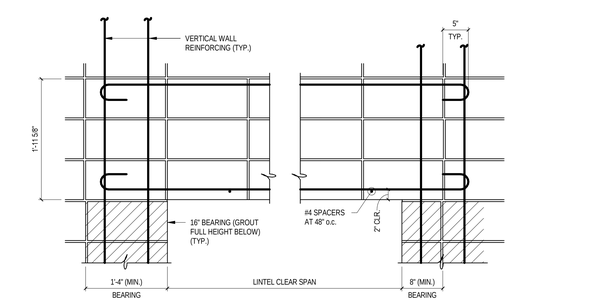
SHORT SPAN REINFORCED MASONRY LINTELS (MAXIMUM CLEAR SPAN 7'-4")





MEDIUM SPAN REINFORCED MASONRY LINTELS (MAXIMUM CLEAR SPAN 12'-0")





LONG SPAN REINFORCED MASONRY LINTELS (MAXIMUM CLEAR SPAN 15'-0")

NOTES:

1. GROUT SOLID ALL MASONRY UNITS.
2. ALL REINFORCING BARS SHALL BE HOOKED AT THE ENDS.
3. FOR TYPE OF CMU AND TYPE OF BOND BEAM SEE SPECIFICATIONS.
4. LINTELS SHALL BEAR ON SOLID CONCRETE MASONRY THAT IS FULLY GROUTED BELOW THE BEARING POINT.
5. MAXIMUM CLEAR SPANS SHOWN APPLY ONLY TO NON-LOAD BEARING WALLS THAT ARE NOT GROUTED AND ARE CONSTRUCTED IN STACKED BOND WHERE THE HEIGHT OF WALL ABOVE THE LINTEL IS LESS THAN OR EQUAL TO 1/2 THE LINTEL CLEAR SPAN. CONTACT THE ENGINEER FOR OTHER CASES WHERE LINTELS ARE NOT SPECIFIED ON THE PLANS. (1)
6. BOND PATTERN OF LINTEL TO MATCH ADJACENT WALL.
7. BOTTOM OF LINTEL SHALL BE SOLID MASONRY (LINTEL BLOCK REQUIRED).
8. MAXIMUM CLEAR SPAN IS DEFINED AS THE CLEAR OPENING WIDTH BETWEEN GROUTED CELLS BELOW THE LINTEL.
9. REINFORCED MASONRY LINTELS SHALL BE CONSTRUCTED OF BLOCK WITH A COMPRESSIVE STRENGTH f'm OF 2000 PSI OR GREATER.
10. REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LINTEL ELEVATIONS. NOTIFY ENGINEER IF OPENINGS DEVIATE FROM INFORMATION SHOWN ON PLAN.
11. (*) INDICATES TWO COURSES ABOVE OPENING TO BE 2" WIDER CMU.

3 TYPICAL REINFORCED MASONRY LINTEL DETAILS

SCALE: 1" = 1'-0"

STEEL BEAM LINTEL SCHEDULE

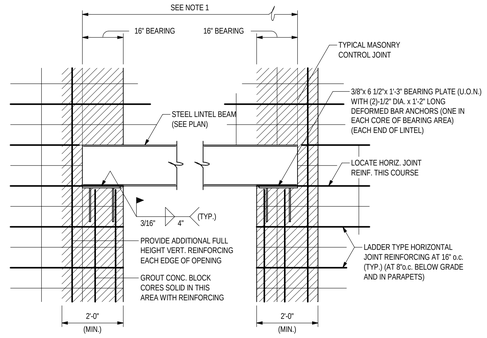
MARK	SIZE	CONTINUOUS PLATE				TYPE	REMARKS
		t	b	b1	b2		
SL-1	W12x22	3/8"	1'-4"	1'-0"	0'-4"	-	-
SL-2	W21x57	3/8"	0'-7"	0'-3 1/2"	0'-3 1/2"	-	-
SL-3	W10x15	3/8"	1'-2"	0'-10"	0'-4"	-	-
SL-4	W10x15	3/8"	1'-4"	1'-0"	0'-4"	-	-
SL-45	W8x18	3/8"	1'-2"	0'-10"	0'-4"	-	-

NOTES:

1. LINTELS SHALL BEAR ON FULLY GROUTED AND REINFORCED CORES FULL HEIGHT. SEE TYPICAL STEEL BEAM LINTEL BEARING DETAIL.
2. ALL LINTELS AT EXTERIOR LOCATIONS OR OTHERWISE SUBJECT TO WEATHER OR CORROSIVE ATMOSPHERE SHALL BE GALVANIZED.
3. PLATE LENGTH TO BE MASONRY OPENING MINUS 1/4" EA END (1/2" TOTAL).
4. SEE STEEL BEAM LINTEL BEARING DETAIL FOR ADDITIONAL INFORMATION.
5. REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LINTEL ELEVATIONS. NOTIFY ENGINEER IF OPENINGS DEVIATE FROM INFORMATION SHOWN ON PLAN.

1 STEEL BEAM LINTEL SCHEDULE

SCALE: 12" = 1'-0"



NOTE:

1. PROVIDE LINTELS OF SUFFICIENT LENGTH TO COMPLETELY COVER FULLY GROUTED BEARING CELLS.

2 TYPICAL STEEL BEAM LINTEL 16" BEARING DETAIL

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

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.
3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119

100% CONSTRUCTION DOCUMENTS

DRAWN BY: JDR

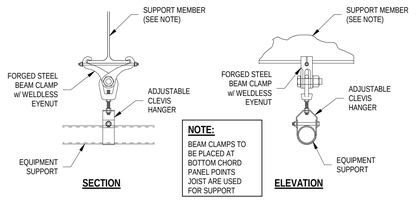
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

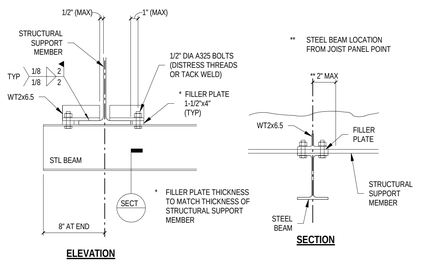
MASONRY LINTELS

S4.03



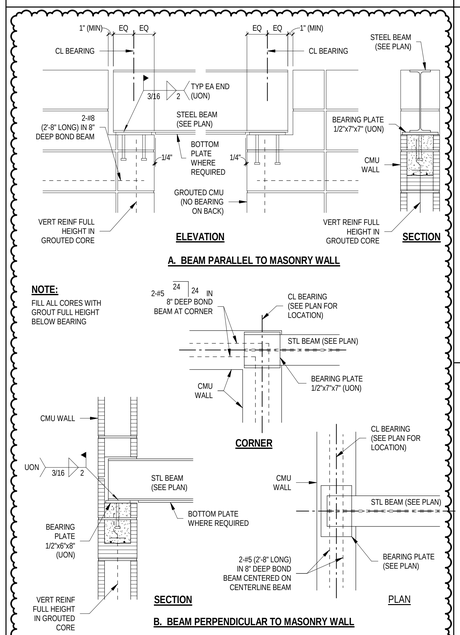
12 EQUIPMENT SUPPORT

N.T.S.



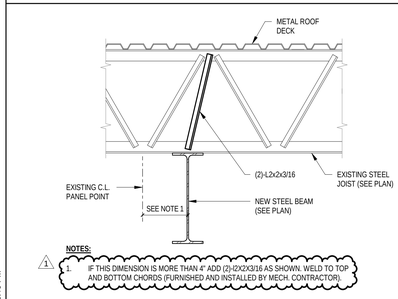
13 EQUIPMENT HANGER CONNECTION

N.T.S.



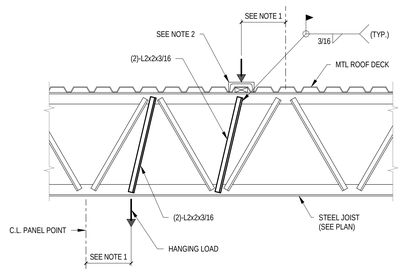
14 BEAM BEARING ON MASONRY

SCALE: 1" = 1'-0"



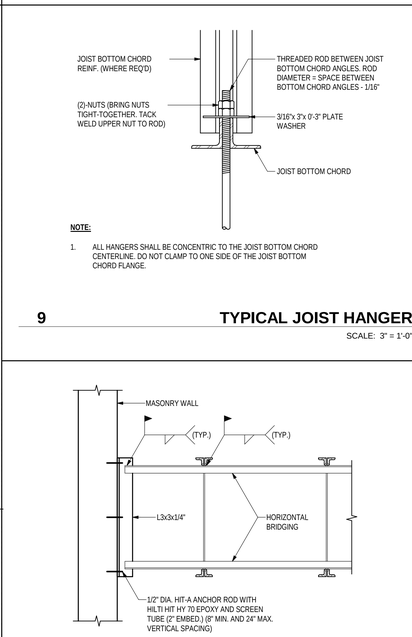
15 TYPICAL JOIST REINFORCING AT NEW BEAM

SCALE: 1" = 1'-0"



8 TYPICAL JOIST REINFORCING AT CONCENTRATED LOADS

SCALE: 1" = 1'-0"

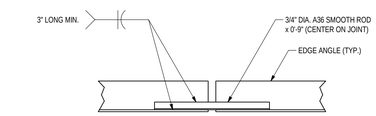


9 TYPICAL JOIST HANGER

SCALE: 3" = 1'-0"

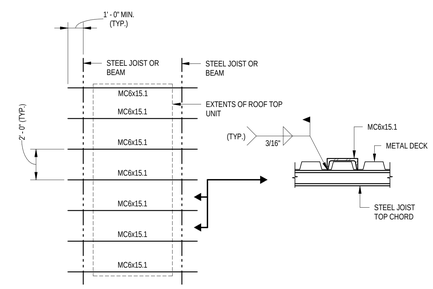
10 TYPICAL HORIZONTAL BRIDGING ANCHORAGE

SCALE: 1" = 1'-0"



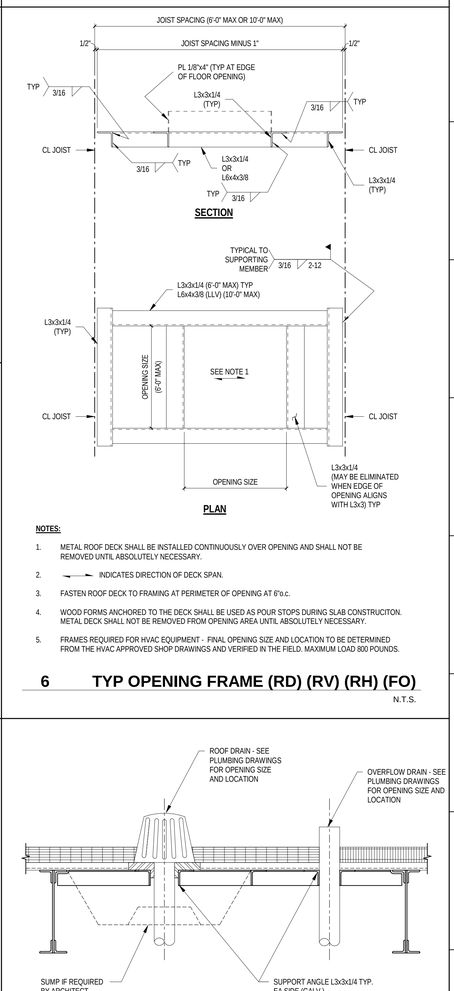
4 TYPICAL EDGE ANGLE SPLICE DETAIL

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



5 TYPICAL ROOFTOP UNIT SUPPORT DETAIL

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



6 TYP OPENING FRAME (RD) (RV) (RH) (FO)

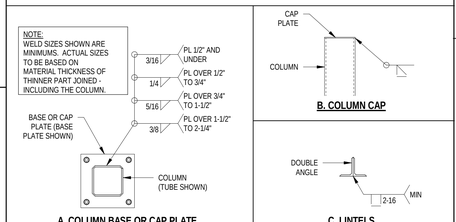
N.T.S.

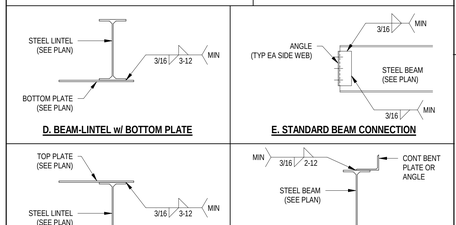
11 TYPICAL JOIST BRIDGING AT MECHANICAL INTERFERENCES DETAIL

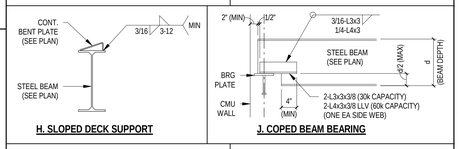
SCALE: 1/2" = 1'-0"

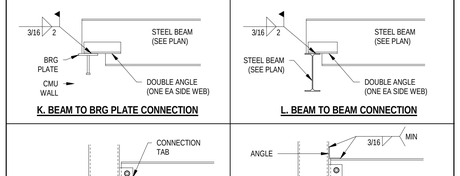
7 TYPICAL ROOF DRAIN SUPPORT WITH OVERFLOW DRAIN

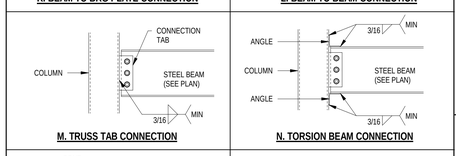
N.T.S.

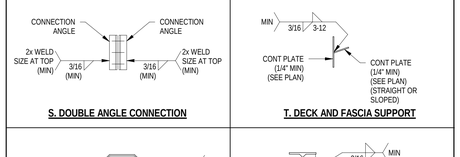


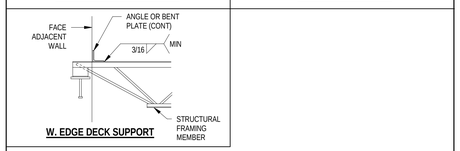








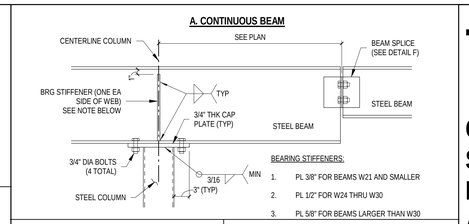


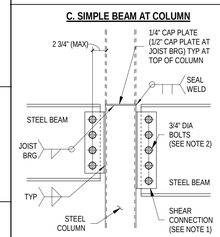


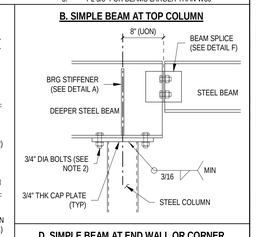
NOTES
1. ALL WELDS TO BE E70XX

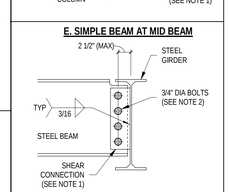
3 WELDING DETAILS

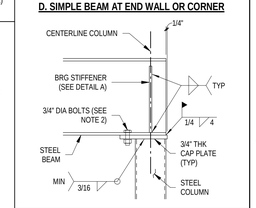
N.T.S.









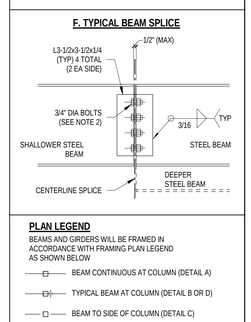


NOTES:
1. BEAM TO GIRDER AND BEAM OR GIRDER TO COLUMN SHEAR CONNECTIONS:

   THE FABRICATOR HAS THE OPTION TO USE WT, SHEAR PLATE, OR DOUBLE ANGLE CONNECTIONS, UON
2. ALL CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC "SIMPLE SHEAR CONNECTIONS," AND "HOLLOW STRUCTURAL SECTIONS CONNECTION MANUAL," USING BEAM END REACTIONS SHOWN ON THE FRAMING PLAN, UON

   1 BEAM SHEAR REACTIONS SHOW ON PLAN ARE USING ASD LOAD COMBINATIONS. WHERE REACTIONS ARE NOT SHOWN, DESIGN CONNECTIONS FOR 10 KIPS, MINIMUM.

   ALL CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS
3. USE DOUBLE ANGLES OR PLATES OR LARGER DIAMETER BOLTS IN LIEU OF ADDING A SECOND ROW OF BOLTS ON ANY CONNECTION. UON



PLAN LEGEND

BEAMS AND GIRDERS WILL BE FRAMED IN ACCORDANCE WITH FRAMING PLAN LEGEND AS SHOWN BELOW

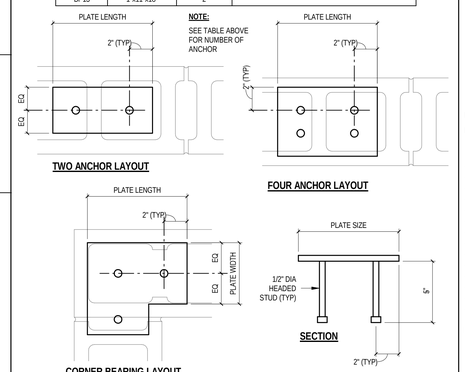
- BEAM CONTINUOUS AT COLUMN (DETAIL A)
- TYPICAL BEAM AT COLUMN (DETAIL B OR D)
- BEAM TO SIDE OF COLUMN (DETAIL C)

1 TYPICAL STEEL FRAMING DETAILS

N.T.S.

BEARING PLATE SCHEDULE

BEARING PLATE MARK	SIZE THK x W x L	NUMBER ANCHOR RODS	REMARKS
BP1	1/2" x 4" x 8"	2	SINGLE BEARING K SERIES JOIST
BP2	1/2" x 7-1/2" x 8"	2	DOUBLE BEARING K SERIES JOIST
BP3	1/2" x 7" x 10"	2	SINGLE BEARING LH SERIES JOIST
BP4	1/2" x 10" x 12"	2	DOUBLE BEARING LH SERIES JOIST
BP5	3/4" x 9" x 12"	2	SINGLE BEARING DLH SERIES JOIST
BP6	3/4" x 11" x 18"	4	DOUBLE BEARING DLH SERIES JOIST
BP7	1/2" x 7" x 7"	2	TYPICAL BEAM BEARING
BP8	1/2" x 6" x 9"	3	CORNER BEAM BEARING
BP9	3/8"x11"x15"	2	
BP10	3/4"x7"x12"	2	
BP11	3/4"x7"x10"	2	
BP12	3/8"x7 1/2"x15"	2	
BP13	1"x11"x18"	2	



2 BEARING PLATE SCHEDULE

N.T.S.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.

3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119

100% CONSTRUCTION DOCUMENTS

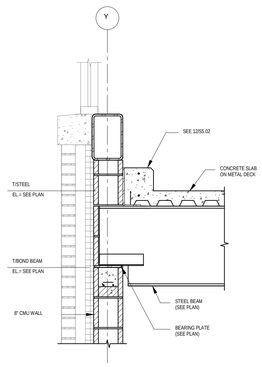
TRACY A. CHARITON REGISTERED No. 10700203 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JDR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

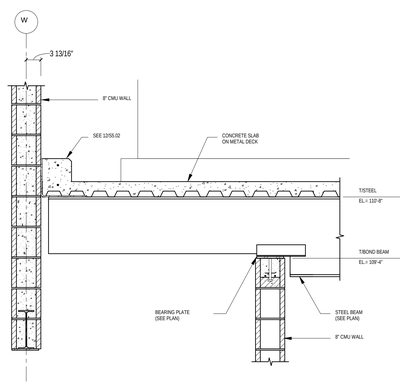
FRAMING DETAILS

S5.01



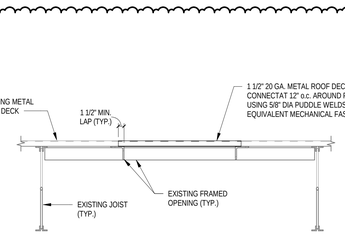
20 **SECTION**

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



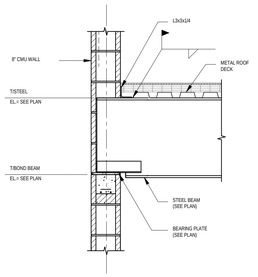
21 **SECTION**

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



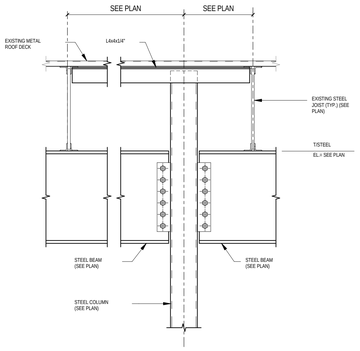
22 **TYPICAL ROOF OPENING INFILL DETAIL**

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



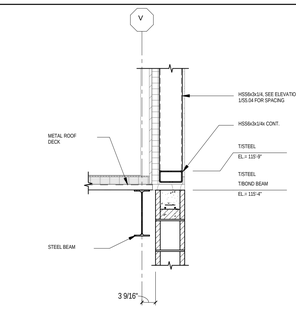
15 **SECTION**

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



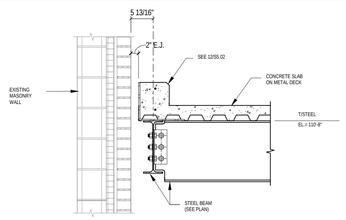
16 **SECTION**

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



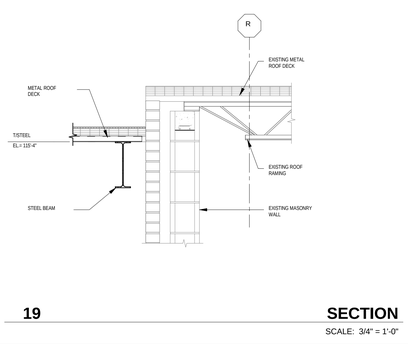
17 **SECTION**

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



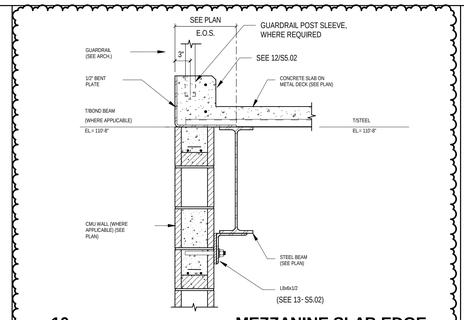
18 **SECTION**

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



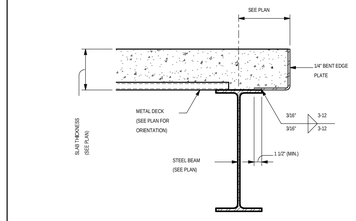
19 **SECTION**

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



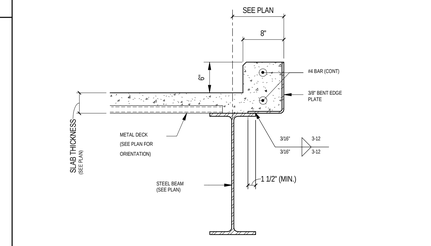
10 **MEZZANINE SLAB EDGE**

SCALE: 1" = 1'-0" 1



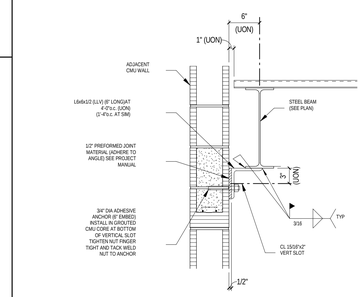
11 **SLAB EDGE DETAIL**

SCALE: 1" = 1'-0"



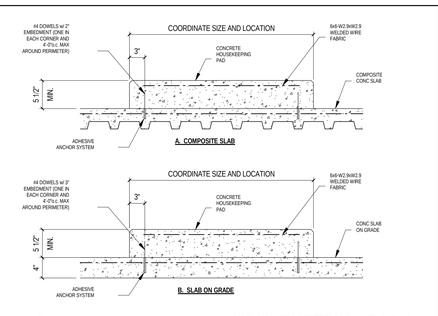
12 **SLAB EDGE DETAIL**

SCALE: 1" = 1'-0"



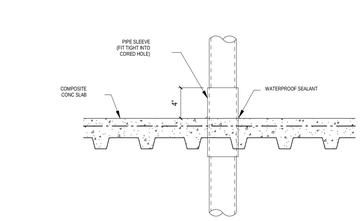
13 **TYPICAL ROOF EDGE CONNECTION**

SCALE: 1" = 1'-0"



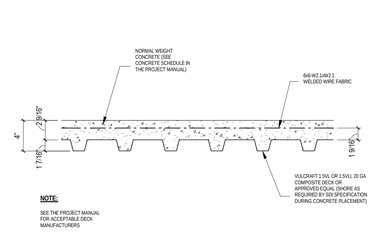
6 **HOUSEKEEPING PADS**

N.T.S.



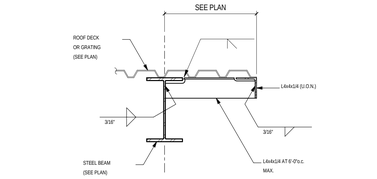
7 **PIPE SLEEVE THRU CONCRETE SLAB**

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



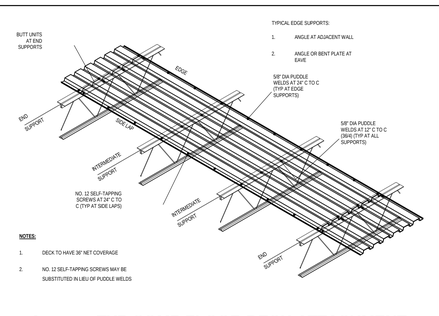
8 **4" COMPOSITE CONCRETE SLAB**

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



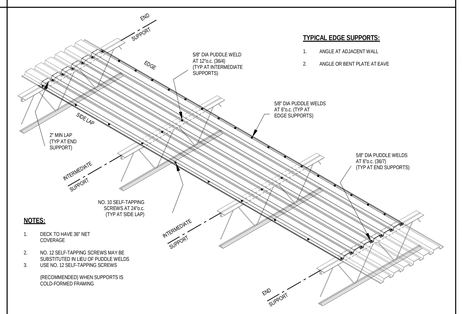
9 **OVERHANG ROOF DECK EDGE SUPPORT DETAILS**

SCALE: 1" = 1'-0"



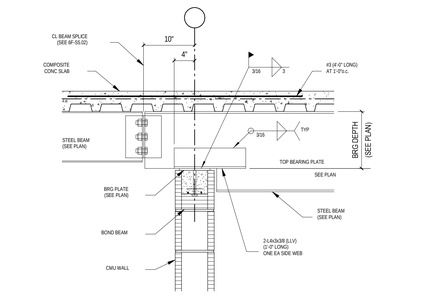
1 **TYP COMP FLOOR DECK ATTACHMENT**

N.T.S.



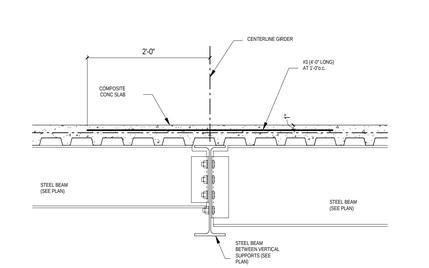
2 **TYPICAL ROOF DECK ATTACHMENT**

N.T.S.



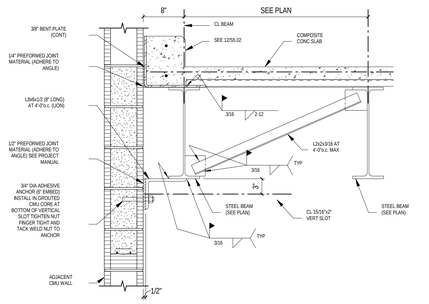
3 **BEAM TO BEAM CONNECTIONS**

SCALE: 1" = 1'-0"



4 **TYPICAL SLAB REINFORCEMENT AT GIRDER**

SCALE: 1" = 1'-0"



5 **TYPICAL FLOOR EDGE CONNECTION**

SCALE: 1" = 1'-0"

14 **BEAM TO MASONRY WALL CONNECTION**

SCALE: 1" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

STRUCTURAL ENGINEER

TLF

TLF, INC.

3901 West 86th Street, Suite 200
Indianapolis, Indiana 46268
Phone: 317-334-1500
Fax: 317-334-1562
TLF Job No: 2023-119

100% CONSTRUCTION DOCUMENTS

TRACY A. CHARITON REGISTERED No. 10700203 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JDR

PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

FRAMING DETAILS

S5.02

UNIT A - ROOF DEMOLITION

SCALE: 1/8" = 1'-0"

ARCHITECTURAL DEMOLITION GENERAL NOTES

A. DEMOLITION IS TO FOLLOW ESTABLISHED CONSTRUCTION SEQUENCE. CONTRACTOR IS TO VERIFY THEIR WORK IN THE FIELD WITH THE DEMOLITION DRAWINGS, NEW CONSTRUCTION DRAWINGS, AND THE EXISTING IN-FIELD CONDITIONS. REPORT DISCREPANCIES TO THE ARCHITECT.
B. "FLOORING" DENOTES FLOOR COVERING MATERIALS INCLUDING BACKINGS, ADHESIVES, BASES, DOWN TO BUT EXCLUSIVE OF FLOOR SLABS AND STRUCTURAL MATERIALS, UNLESS NOTED OTHERWISE.
C. "CEILING" DENOTES CEILING MATERIALS INCLUDING SUSPENSION SYSTEMS ADHESIVE RESIDUES, MOLDINGS, UP TO BUT EXCLUSIVE OF STRUCTURAL MATERIALS.
D. WALLS TO BE REMOVED SHALL BE REMOVED TO A POINT 2" (MIN.) BELOW THE EXISTING FLOOR SLAB (UNLESS SETTING ON SLAB). PATCH WITH NEW CONCRETE TO BE FLUSH WITH THE EXISTING FLOOR SLAB.
E. WHEN OPENINGS ARE CUT INTO AN EXISTING WALL, THE OPENING SHALL BE A MINIMUM OF 1'-4" LONGER THAN THE FINISHED OPENING REQUIRED TO ALLOW FOR 8" (MIN) OF NEW CMU TOOTHED-IN AT EDGES.
F. AFTER THE DEMOLITION OF MATERIALS, THE RESULTING EXPOSED SURFACE SHALL BE SMOOTH AND FLUSH WITH EXISTING CONDITIONS.
G. MECHANICAL AND ELECTRICAL ITEMS THAT ARE CAPPED AND ABANDONED SHALL BE LOCATED BEHIND FINAL FINISH SYSTEMS.
H. COORDINATE THIS WORK WITH DEMOLITION WORK ON SITE, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL.
I. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING, OR SUPPORT TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING STRUCTURES.
J. CONTRACTOR TO FIELD VERIFY PORTIONS OR SECTIONS OF EXISTING WALLS TO BE FILLED IN AND SALVAGE NECESSARY MATERIAL.
K. MATERIALS OF DEMOLITION SHALL BE DISPOSED OF OFF-SITE UNLESS OTHERWISE DIRECTED BY OWNER.
L. OWNER TO REMOVE EXISTING FURNITURE AND MISCELLANEOUS ITEMS NOT SHOWN AND NOT TO BE DEMOLISHED. CONTRACTOR TO NOTIFY OWNER IN ADVANCE WHEN ITEMS NEED TO BE REMOVED. CONTRACTOR IS RESPONSIBLE FOR OTHER ITEMS TO BE REMOVED.
M. ITEMS TO BE PATCHED: REMOVE ALL LOOSE OR DAMAGED MATERIAL. REFINISH TO LIKE NEW CONDITION, OR IF CONDITION WARRANTS REPLACE IN ENTIRETY.
N. THE OWNER SHALL RESERVE RIGHT TO CLAIM ANY MATERIALS THAT ARE BEING DEMOLISHED PRIOR TO THE CONTRACTOR DISPOSING OF THEM OFF SITE.
O. "TURNED OVER TO THE OWNER" DENOTES: 1) TAG AND IDENTIFY ITEMS; 2) STORE IN AN ORDERLY FASHION IN A LOCATION DESIGNATED BY THE OWNER.
P. ITEMS MADE OBSOLETE TO ACCOMODATE NEW CONSTRUCTION OR RENOVATION SHALL BE REMOVED.
Q. ITEMS TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY.
R. AFTER REMOVAL OF ITEMS, THE EXISTING WALL SURFACES (IF EXPOSED) SHALL BE REPAIRED/PATCHED AS REQUIRED TO RECEIVE NEW FINISHES.

DEMOLITION PLAN NOTES

(X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
AD1	REMOVE METAL GRAVEL STOP AND METAL FASCIA IN IT'S ENTIRETY. PREPARE EXISTING WALL FOR NEW CONSTRUCTION.
AD2	REMOVE METAL COPING IN IT'S ENTIRETY. WALL STRUCTURE BELOW TO REMAIN. PREPARE FOR NEW CONSTRUCTION.
AD3	REMOVE PORTION OF EXISTING MEMBRANE ROOF SYSTEM IN IT'S ENTIRETY DOWN TO EXISTING ROOF DECK, INCLUDING MEMBRANE, COVER BOARD, INSULATION AND SUBSTRATE BOARD. PREPARE ROOF DECK AS REQUIRED FOR NEW CONSTRUCTION.
AD4	EXISTING ROOF SYSTEM TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
AD5	TEMPORARILY DISCONNECT EXISTING ROOF / OVERFLOW DRAIN AS REQUIRED FOR REMOVAL AND INSTALLATION OF NEW ROOFING SYSTEM. SALVAGE AND RE-INSTALL IN NEW ROOFING ASSEMBLY.
AD6	EXISTING MECHANICAL EQUIPMENT TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
AD7	EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. SEE MECHANICAL FOR ADDITIONAL INFORMATION. PREPARE AREA FOR NEW WORK.
AD8	EXISTING GRAVEL STOP / FASCIA TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
AD9	REMOVE PORTION OF EXISTING ROOF EXPANSION JOINT AS REQUIRED FOR INSTALLATION OF NEW ROOFING SYSTEM.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

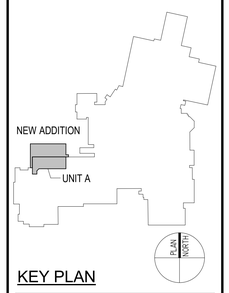
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

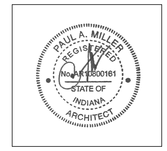
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS



DRAWN BY: DSR

PROJECT NUMBER: 221165.01

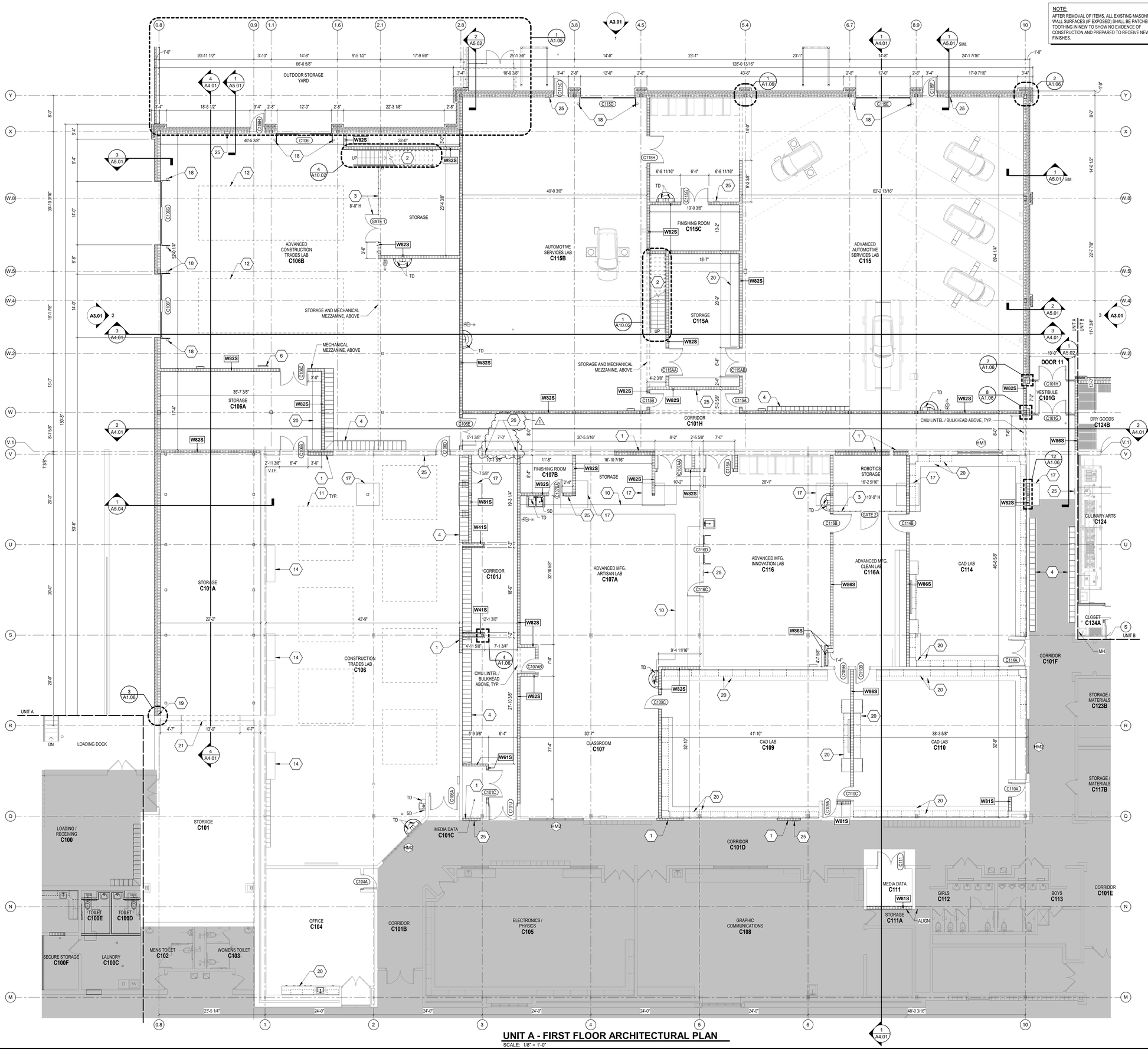
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

ROOF DEMOLITION PLAN

AD2.01

C:\Users\dsnan\Documents\2021_ARCH_221165.01_dnaeR3Y2M.rvt
9/20/2023 10:42:25 AM



UNIT A - FIRST FLOOR ARCHITECTURAL PLAN

SCALE: 1/8" = 1'-0"

C:\Users\dnash\Documents\2021_ARCH_221165.01_dnashR3Y2M.rvt
9/20/2023 10:39:49 AM

ARCHITECTURAL PLAN GENERAL NOTES

A. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
B. WHERE DISSIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR, UNLESS NOTED OTHERWISE.
C. THERE SHALL BE PERIMETER INSULATION CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE BUILDING EXTENDING 2'-0" MINIMUM BELOW GRADE.
D. THE BASE FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
E. ALL INTERIOR MASONRY WALLS THAT RUN TO UNDERSIDE OF DECK ABOVE SHALL HAVE A 2" JOINT (U.N.O.) AT THE DECK TO BE FILLED WITH FIRE STOPPING AT RATED WALLS PER PROJECT MANUAL, AND MINERAL WOOL AT THE NON-RATED WALLS, TO ALLOW FOR DEFLECTION.
F. FOR TYPICAL COMMON JOINT DETAILS AND CONSTRUCTION MOVEMENT JOINT DETAILS REFER TO DETAILS ON SHEET XX.
G. ALL DIMENSIONS ON FLOOR PLANS ARE TO FINISH FACE OF CMU, CONCRETE, BRICK OR FINISH FACE OF GWB AT METAL STUD WALLS, UNLESS NOTED OTHERWISE. EXCEPTION: EXTERIOR METAL STUD WALLS ARE TO FACE OF METAL STUDS.
H. HINGE SIDE DOOR JAMB AT WALLS WILL TYPICALLY BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
I. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSE, EXCEPT AT BULKHEADS, WINDOW AND DOOR HEADS.
J. SEE REFLECTED CEILING PLANS FOR BULKHEAD LOCATIONS AND DETAIL REFERENCES.
K. REFER TO ROOM FINISH SCHEDULE OR PLAN AND EQUIPMENT PLANS FOR LOCATION AND EXTENT OF FINISH FLOOR MATERIALS.
L. PROVIDE WOOD BLOCKING AS REQUIRED. WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
M. REFER TO MASTERCODE PLANS FOR CODE INFORMATION AND FIRE RATED WALL LOCATIONS.
N. PROVIDE SPRAY FOAM INSULATION AND THERMAL BARRIER CONTINUOUS AT INTERSECTION OF EXTERIOR WALLS AND DECK.

ARCHITECTURAL PLAN NOTES

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

—— W### INDICATES WALL TYPE. REFER TO DRAWING A1.00 FOR WALL THICKNESS, HEIGHT AND COMPOSITION.

NO.	DESCRIPTION
1	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
2	CONCRETE FILLED, METAL PAN STAIRS. SEE A10.02 FOR ADDITIONAL INFORMATION.
3	WIRE MESH PARTITION SYSTEM. INCORPORATE MORTISE LOCK CYLINDER AND CORE IN GATE. SEE DOOR SCHEDULE AND SPECIFICAITONS.
4	PRE-FINISHED STEEL LOCKERS. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
5	PROVIDE NEW ACOUSTICAL WALL TREATMENT. SEE FINISH PLANS, INTERIOR ELEVATIONS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6	24" WIDE, FIXED ALUMINUM ACCESS LADDER. SEE DETAIL 8/A10.02.
7	MEMBRANE ROOF SYSTEM. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
8	METAL PIPE GUARDRAIL SYSTEM. SEE A10.02.
9	KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
10	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE PLUMBING FOR ADDITIONAL INFORMATION.
11	INDICATES 12' x 12' AREA FOR STUDENT-BUILT HOUSE BUILD. (FOR REFERENCE ONLY)
12	INDICATES 12' x 32' AREA FOR STUDENT-BUILT TINY HOMES. (FOR REFERENCE ONLY)
13	ACOUSTICALLY SEAL ALL WALL PENETRATIONS ABOVE CEILING, BOTH SIDES OF WALL. INFILL MASONRY OPENINGS WITH CMU SOAP / MORTAR AS REQUIRED.
14	EXISTING STEEL BASE AND WOOD TOP WORKBENCHES. COORDINATE FINAL LOCATION WITH OWNER UPON COMPLETION OF OTHER FINISHES.
15	2-LAYERS OF 5/8" TYPE "X" GYP. BOARD OVER EXISTING METAL FURRING. EXTEND GYP. BOARD AND SEAL TOP EDGE TO CONCRETE DECK ABOVE.
16	PROVIDE WOOD FLOOR FRAMING TO MATCH EXISTING DEPTH AND REPLACE TILE ACCESS FLOOR. SEE DETAIL 2/A1.07.
17	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
18	CONCRETE FILLED STEEL PIPE BOLLARD WITH COVER. SEE DETAIL 7/A1.07 FOR ADDITIONAL INFORMATION.
19	1 1/2" PRE-COMPRESSED BUILDING EXPANSION JOINT WITH CONTINUOUS SEALANT.
20	PLASTIC LAMINATE CASEWORK. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
21	13'W x 12'H MASONRY OPENING. SEE STRUCTURAL.
22	GUARDRAIL GATE - SEE 5.7/A10.01.
23	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. GROUND FACE CMU TO MATCH EXISTING, FULL HEIGHT. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
24	PAINT BOOTH EXHAUST, UP THROUGH ROOF. SEE EQUIPMENT PLANS AND SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION, DIMENSIONS AND OPENINGS BETWEEN ALL TRADES AND EQUIPMENT MANUFACTURER.
25	SEMI-RECESSED FIRE EXTINGUISHER CABINET. SEE 3/A1.07 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	SALVAGE EXISTING BRICK VENEER FROM DEMOLITION AND RE-USE TO WRAP BRICK TO CMU AT JAMBS.

PLAN LEGEND

- NEW DOOR
- EXISTING DOOR TO REMAIN
- DEMO DOOR
- NEW WALL
- EXISTING WALL TO REMAIN
- DEMO WALL

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

NEW ADDITION
UNIT A
PLAN NORTH

KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED No. 11300161 STATE OF INDIANA ARCHITECT

DRAWN BY: DSR

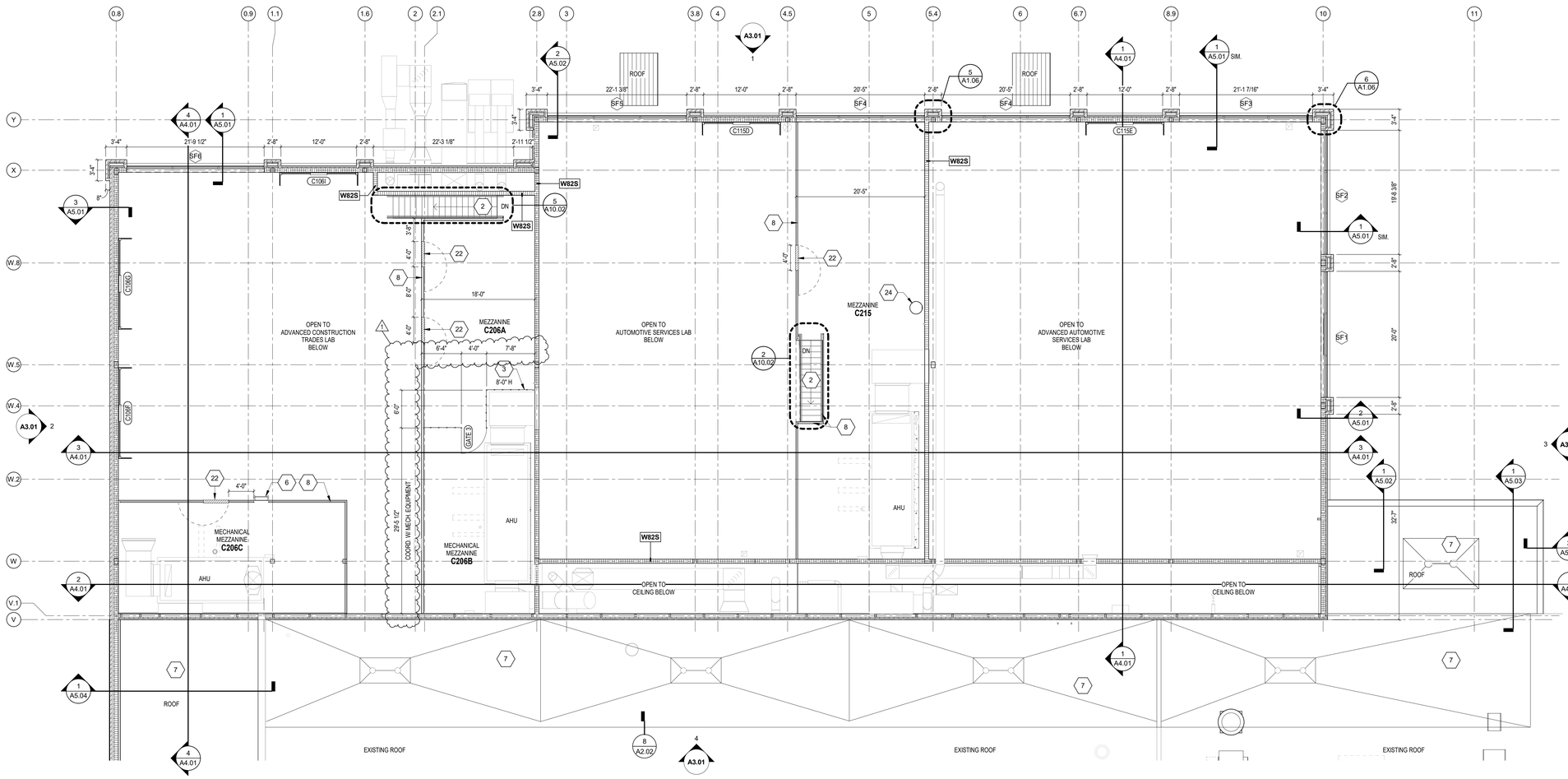
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - FIRST FLOOR ARCHITECTURAL PLAN

A1.01



UNIT A - MEZZANINE ARCHITECTURAL PLAN

SCALE: 1/8" = 1'-0"

ARCHITECTURAL PLAN GENERAL NOTES

A. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
B. WHERE DISSIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR, UNLESS NOTED OTHERWISE.
C. THERE SHALL BE PERIMETER INSULATION CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE BUILDING EXTENDING 2'-0" MINIMUM BELOW GRADE.
D. THE BASE FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
E. ALL INTERIOR MASONRY WALLS THAT RUN TO UNDERSIDE OF DECK ABOVE SHALL HAVE A 2" JOINT (U.N.O.) AT THE DECK TO BE FILLED WITH FIRE STOPPING AT RATED WALLS PER PROJECT MANUAL, AND MINERAL WOOL AT THE NON-RATED WALLS, TO ALLOW FOR DEFLECTION.
F. FOR TYPICAL COMMON JOINT DETAILS AND CONSTRUCTION MOVEMENT JOINT DETAILS REFER TO DETAILS ON SHEET XX.
G. ALL DIMENSIONS ON FLOOR PLANS ARE TO FINISH FACE OF CMU, CONCRETE, BRICK OR FINISH FACE OF GWB AT METAL STUD WALLS, UNLESS NOTED OTHERWISE. EXCEPTION: EXTERIOR METAL STUD WALLS ARE TO FACE OF METAL STUDS.
H. HINGE SIDE DOOR JAMB AT WALLS WILL TYPICALLY BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
I. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSE, EXCEPT AT BULKHEADS, WINDOW AND DOOR HEADS.
J. SEE REFLECTED CEILING PLANS FOR BULKHEAD LOCATIONS AND DETAIL REFERENCES.
K. REFER TO ROOM FINISH SCHEDULE OR PLAN AND EQUIPMENT PLANS FOR LOCATION AND EXTENT OF FINISH FLOOR MATERIALS.
L. PROVIDE WOOD BLOCKING AS REQUIRED. WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
M. REFER TO MASTERCODE PLANS FOR CODE INFORMATION AND FIRE RATED WALL LOCATIONS.
N. PROVIDE SPRAY FOAM INSULATION AND THERMAL BARRIER CONTINUOUS AT INTERSECTION OF EXTERIOR WALLS AND DECK.

ARCHITECTURAL PLAN NOTES

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET) X

—— W### INDICATES WALL TYPE. REFER TO DRAWING A1.00 FOR WALL THICKNESS, HEIGHT AND COMPOSITION.

NO.	DESCRIPTION
1	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
2	CONCRETE FILLED, METAL PAN STAIRS. SEE A10.02 FOR ADDITIONAL INFORMATION.
3	WIRE MESH PARTITION SYSTEM. INCORPORATE MORTISE LOCK CYLINDER AND CORE IN GATE. SEE DOOR SCHEDULE AND SPECIFICAITONS.
4	PRE-FINISHED STEEL LOCKERS. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
5	PROVIDE NEW ACOUSTICAL WALL TREATMENT. SEE FINISH PLANS, INTERIOR ELEVATIONS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6	24" WIDE, FIXED ALUMINUM ACCESS LADDER. SEE DETAIL 8/A10.02.
7	MEMBRANE ROOF SYSTEM. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
8	METAL PIPE GUARDRAIL SYSTEM. SEE A10.02.
9	KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
10	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE PLUMBING FOR ADDITIONAL INFORMATION.
11	INDICATES 12' x 12' AREA FOR STUDENT-BUILT HOUSE BUILD. (FOR REFERENCE ONLY)
12	INDICATES 12' x 32' AREA FOR STUDENT-BUILT TINY HOMES. (FOR REFRENCE ONLY)
13	ACOUSTICALLY SEAL ALL WALL PENETRATIONS ABOVE CEILING, BOTH SIDES OF WALL. INFILL MASONRY OPENINGS WITH CMU SOAP / MORTAR AS REQUIRED.
14	EXISTING STEEL BASE AND WOOD TOP WORKBENCHES. COORDINATE FINAL LOCATION WITH OWNER UPON COMPLETION OF OTHER FINISHES.
15	2-LAYERS OF 5/8" TYPE "X" GYP. BOARD OVER EXISTING METAL FURRING. EXTEND GYP. BOARD AND SEAL TOP EDGE TO CONCRETE DECK ABOVE.
16	PROVIDE WOOD FLOOR FRAMING TO MATCH EXISTING DEPTH AND REPLACE TILE ACCESS FLOOR. SEE DETAIL 2/A1.07.
17	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
18	CONCRETE FILLED STEEL PIPE BOLLARD WITH COVER. SEE DETAIL 7/A1.07 FOR ADDITIONAL INFORMATION.
19	1 1/2" PRE-COMPRESSED BUILDING EXPANSION JOINT WITH CONTINUOUS SEALANT.
20	PLASTIC LAMINATE CASEWORK. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
21	13'W x 12'H MASONRY OPENING. SEE STRUCTURAL.
22	GUARDRAIL GATE - SEE 5-7/A10.01.
23	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. GROUND FACE CMU TO MATCH EXISTING, FULL HEIGHT. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
24	PAINT BOOTH EXHAUST, UP THROUGH ROOF. SEE EQUIPMENT PLANS AND SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION, DIMENSIONS AND OPENINGS BETWEEN ALL TRADES AND EQUIPMENT MANUFACTURER.
25	SEMI-RECESSED FIRE EXTINGUISHER CABINET. SEE 3/A1.07 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	SALVAGE EXISTING BRICK VENEER FROM DEMOLITION AND RE-USE TO WRAP BRICK BACK TO CMU AT JAMBS.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

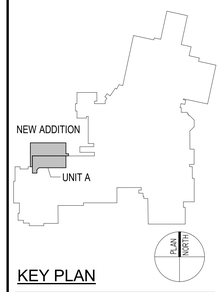
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

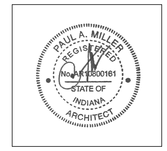
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS



DRAWN BY: DSR

PROJECT NUMBER: 221165.01

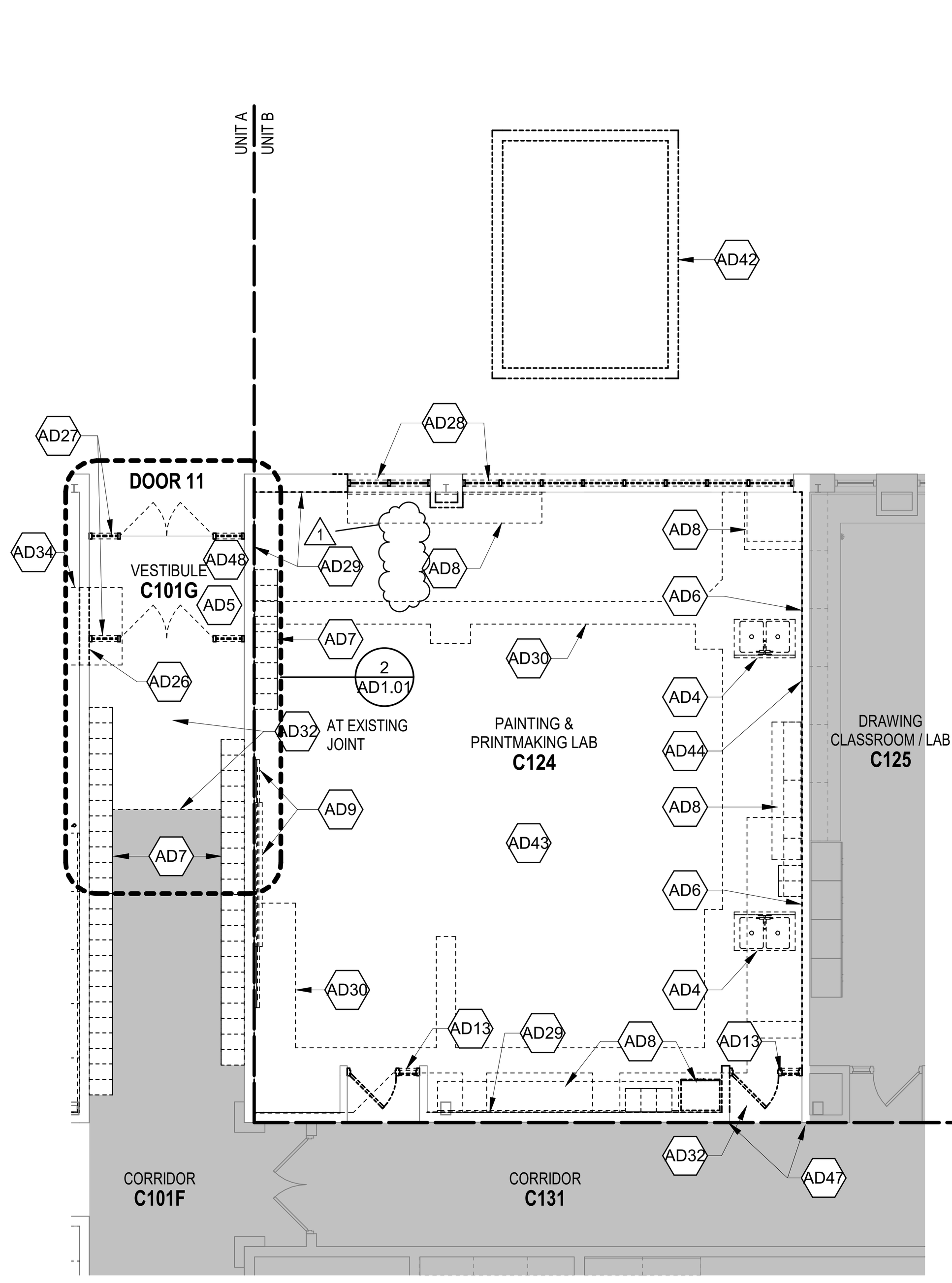
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

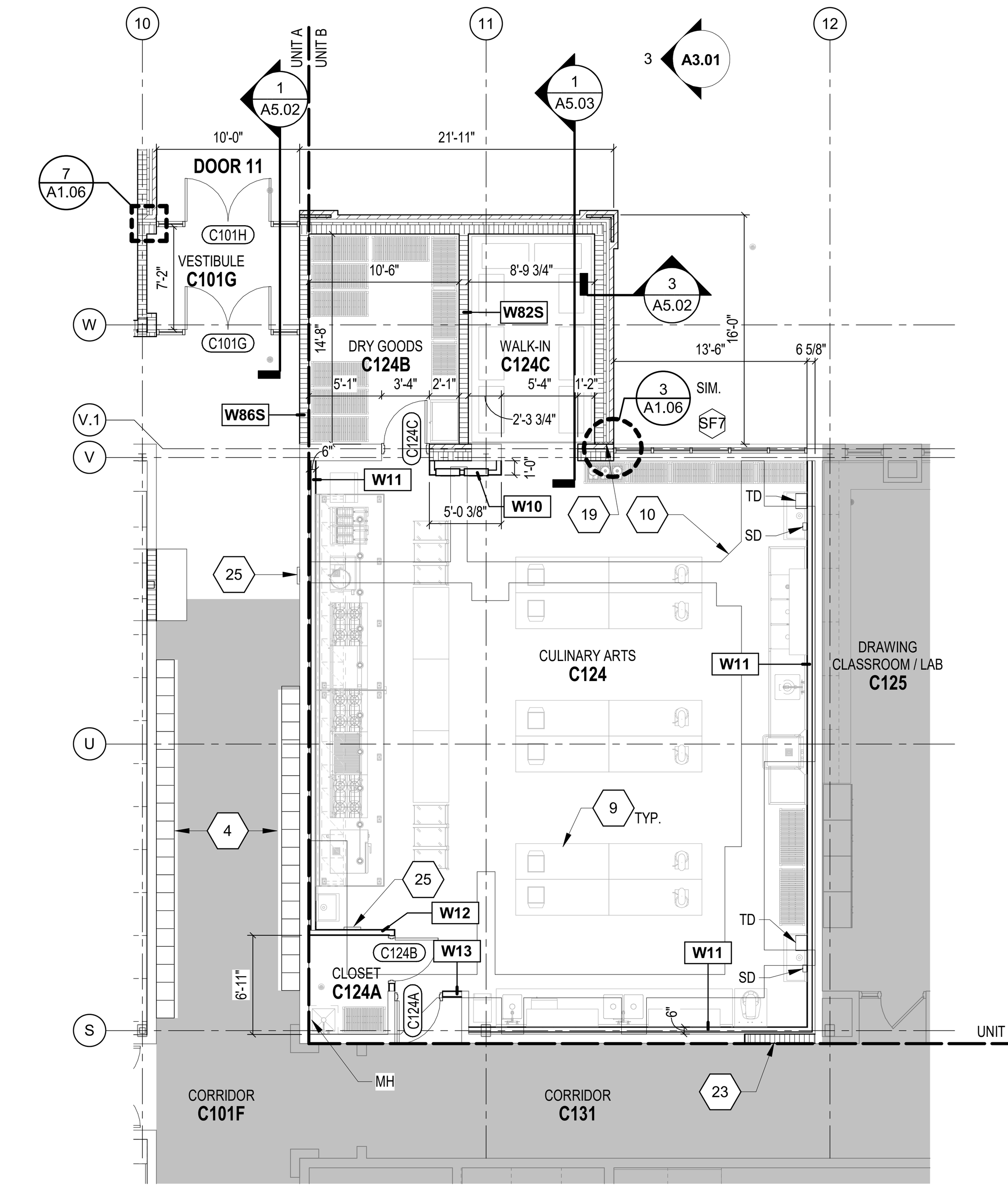
UNIT A - MEZZANINE ARCHITECTURAL PLAN

A1.02

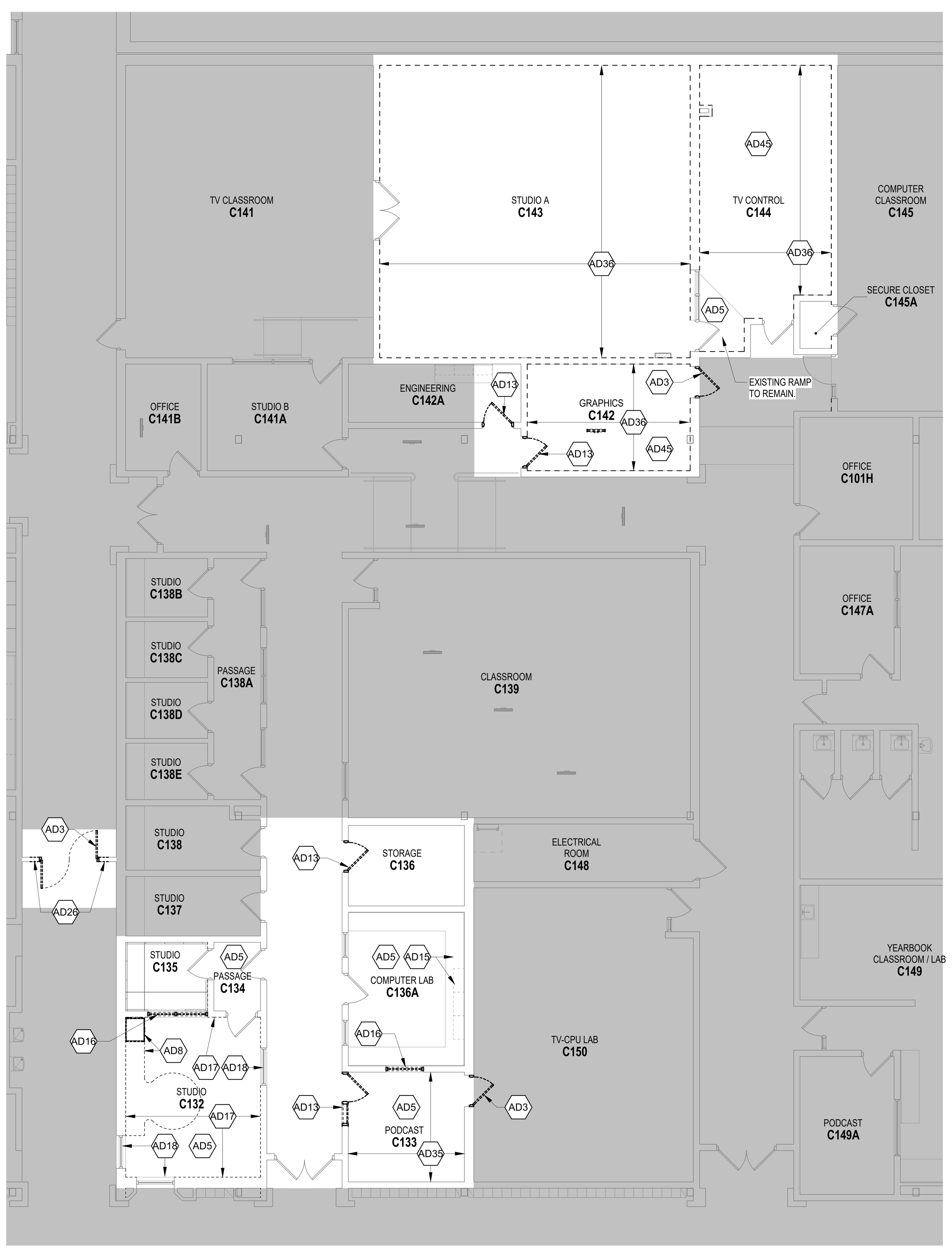
C:\Users\drowan\Documents\2021_ARCH_221165.01_drowanR3Y2M.rvt
9/20/2023 10:38:56 AM



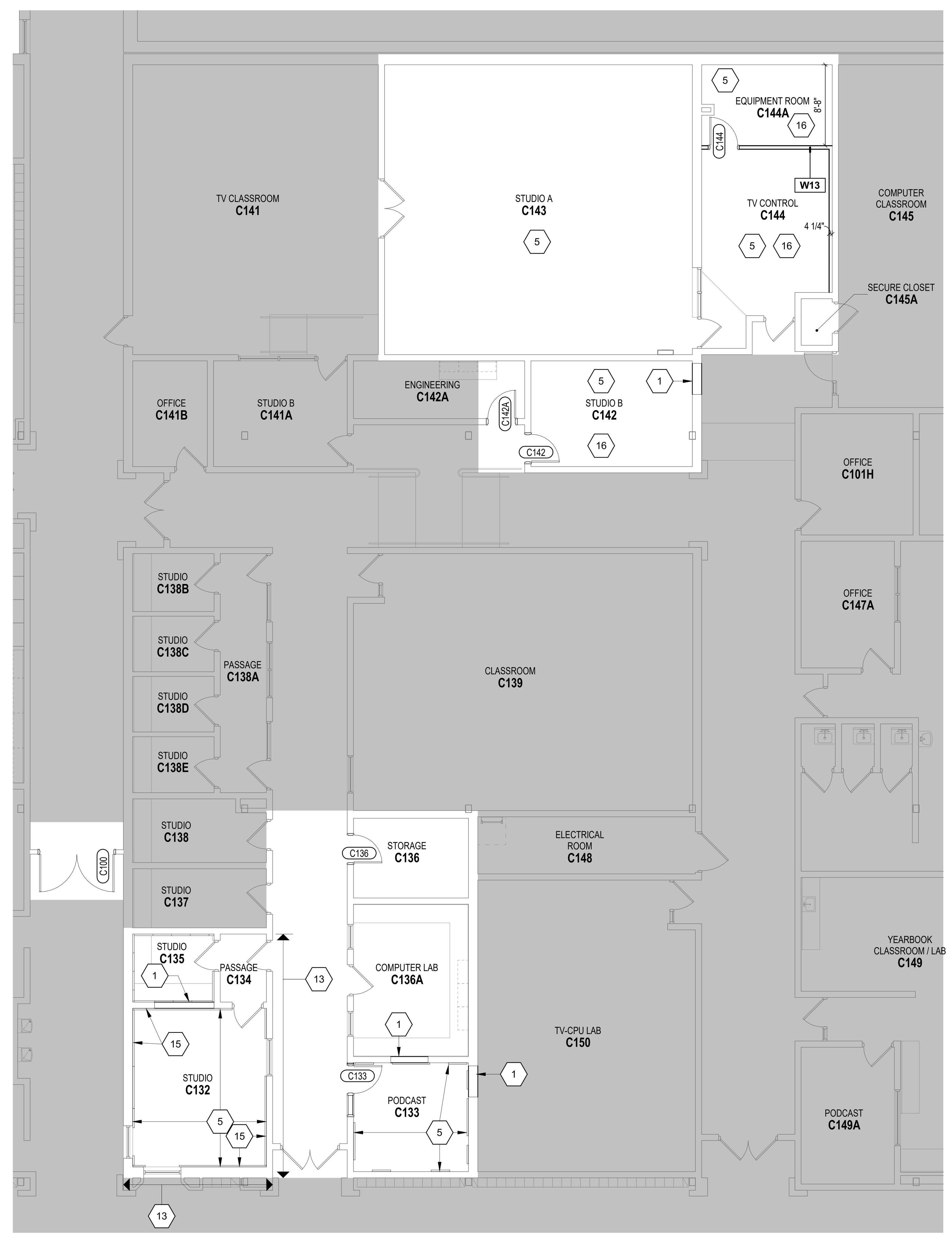
UNIT B - FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



UNIT B - FIRST FLOOR ARCHITECTURAL PLAN
SCALE: 1/8" = 1'-0"



UNIT C - FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



UNIT C - FIRST FLOOR ARCHITECTURAL PLAN
SCALE: 1/8" = 1'-0"

DEMOLITION PLAN NOTES (CONTINUED)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
AD35	REMOVE ACOUSTICAL WALL PANELS IN THEIR ENTIRETY. EXISTING CMU WALL TO REMAIN. PREPARE CMU TO RECEIVE NEW FINISHES.
AD36	REMOVE WALL CARPET IN IT'S ENTIRETY. REMOVE ADHESIVES BACK TO EXISTING CMU SUBSTRATE. GRINDING MAY BE REQUIRED TO REMOVE ADHESIVE AND CREATE A SMOOTH SUBSTRATE SUITABLE FOR NEW MATERIAL.
AD37	SALVAGE EXISTING STEEL BASE AND WOOD TOP WORK BENCHES. RELOCATE AS REQUIRED FOR INSTALLATION OF NEW WORK. COORDINATE NEW LOCATION WITH OWNER.
AD38	EXISTING DISPLAY BOARD / CASE / PROJECTION SCREEN TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION. REMOVE AND RE-INSTALL AS REQUIRED FOR NEW WORK.
AD39	DISCONNECT AND REMOVE EXISTING VEHICLE LIFT IN IT'S ENTIRETY.
AD40	REMOVE EXISTING WALL MOUNTED RED TOOL CABINETS. SALVAGE AND PROVIDE TO OWNER.
AD41	REMOVE VINYL WALL COVERING AND TACK SURFACE / CORK, BACK TO CMU SUBSTRATE. REMOVE ADHESIVES BACK TO EXISTING CMU SUBSTRATE. GRINDING MAY BE REQUIRED TO REMOVE ADHESIVE AND CREATE A SMOOTH SUBSTRATE SUITABLE FOR NEW MATERIAL.
AD42	REMOVE EXISTING PRE-CAST BUILDING IN IT'S ENTIRETY, INCLUDING ANY BELOW GRADE FOUNDATIONS. SEE CIVIL FOR ADDITIONAL INFORMATION.
AD43	REMOVE EXISTING VCT FLOORING, WALL BASE AND TRANSITIONS. REMOVE ADHESIVES DOWN TO EXISTING SLAB. PREPARE SURFACE TO RECEIVE NEW FINISHES.
AD44	REMOVE GYP. BOARD IN IT'S ENTIRETY BACK TO METAL STUD FRAMING. METAL STUD FRAMING TO REMAIN.
AD45	REMOVE EXISTING ACCESS FLOORING AND ALL SUPPORTS / ACCESSORIES DOWN TO EXISTING SLAB. PREPARE SURFACE TO RECEIVE NEW FINISHES.
AD46	EXISTING CONCRETE SLAB TO REMAIN. REMOVE EXISTING FLOOR SEALER AND WALL BASE IN IT'S ENTIRETY. PREPARE SURFACES TO RECEIVE NEW FINISHES.
AD47	REMOVE BULLNOSE GROUND FACE CMU AT CORNERS. PREPARE ADJACENT SURFACES FOR NEW WORK.
AD48	REMOVE PORTION OF EXISTING SLAB-ON-GRADE IN IT'S ENTIRETY TO EXISTING STONE BASE. PREPARE FOR NEW CONSTRUCTION. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.

ARCHITECTURAL DEMOLITION GENERAL NOTES

A. DEMOLITION IS TO FOLLOW ESTABLISHED CONSTRUCTION SEQUENCE. CONTRACTOR IS TO VERIFY THEIR WORK IN THE FIELD WITH THE DEMOLITION DRAWINGS, NEW CONSTRUCTION DRAWINGS, AND THE EXISTING IN-FIELD CONDITIONS. REPORT DISCREPANCIES TO THE ARCHITECT.
B. "FLOORING" DENOTES FLOOR COVERING MATERIALS INCLUDING BACKINGS, ADHESIVES, BASES, DOWN TO BUT EXCLUSIVE OF FLOOR SLABS AND STRUCTURAL MATERIALS, UNLESS NOTED OTHERWISE.
C. "CEILING" DENOTES CEILING MATERIALS INCLUDING SUSPENSION SYSTEMS ADHESIVE RESIDUES, MOLDINGS, UP TO BUT EXCLUSIVE OF STRUCTURAL MATERIALS.
D. WALLS TO BE REMOVED SHALL BE REMOVED TO A POINT 2" (MIN.) BELOW THE EXISTING FLOOR SLAB (UNLESS SETTING ON SLAB). PATCH WITH NEW CONCRETE TO BE FLUSH WITH THE EXISTING FLOOR SLAB.
E. WHEN OPENINGS ARE CUT INTO AN EXISTING WALL, THE OPENING SHALL BE A MINIMUM OF 1'-4" LONGER THAN THE FINISHED OPENING REQUIRED TO ALLOW FOR 8" (MIN) OF NEW CMU TOOTHED-IN AT EDGES.
F. AFTER THE DEMOLITION OF MATERIALS, THE RESULTING EXPOSED SURFACE SHALL BE SMOOTH AND FLUSH WITH EXISTING CONDITIONS.
G. MECHANICAL AND ELECTRICAL ITEMS THAT ARE CAPPED AND ABANDONED SHALL BE LOCATED BEHIND FINAL FINISH SYSTEMS.
H. COORDINATE THIS WORK WITH DEMOLITION WORK ON SITE, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL.
I. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING, OR SUPPORT TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING STRUCTURES.
J. CONTRACTOR TO FIELD VERIFY PORTIONS OR SECTIONS OF EXISTING WALLS TO BE FILLED IN AND SALVAGE NECESSARY MATERIAL.
K. MATERIALS OF DEMOLITION SHALL BE DISPOSED OF OFF-SITE UNLESS OTHERWISE DIRECTED BY OWNER.
L. OWNER TO REMOVE EXISTING FURNITURE AND MISCELLANEOUS ITEMS NOT SHOWN AND NOT TO BE DEMOLISHED. CONTRACTOR TO NOTIFY OWNER IN ADVANCE WHEN ITEMS NEED TO BE REMOVED. CONTRACTOR IS RESPONSIBLE FOR OTHER ITEMS TO BE REMOVED.
M. ITEMS TO BE PATCHED. REMOVE ALL LOOSE OR DAMAGED MATERIAL. REFINISH TO LIKE NEW CONDITION, OR IF CONDITION WARRANTS REPLACE IN ENTIRETY.
N. THE OWNER SHALL RESERVE RIGHT TO CLAIM ANY MATERIALS THAT ARE BEING DEMOLISHED PRIOR TO THE CONTRACTOR DISPOSING OF THEM OFF SITE.
O. "TURNED OVER TO THE OWNER" DENOTES: 1) TAG AND IDENTIFY ITEMS: 2) STORE IN AN ORDERLY FASHION IN A LOCATION DESIGNATED BY THE OWNER.
P. ITEMS MADE OBSOLETE TO ACCOMODATE NEW CONSTRUCTION OR RENOVATION SHALL BE REMOVED.
Q. ITEMS TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY.
R. AFTER REMOVAL OF ITEMS, THE EXISTING WALL SURFACES (IF EXPOSED) SHALL BE REPAIRED/PATCHED AS REQUIRED TO RECEIVE NEW FINISHES.

DEMOLITION PLAN NOTES

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
AD1	REMOVE BRICK VENEER / CMU SCREEN WALL IN ITS ENTIRETY, INCLUDING ALL STONE CAPS AND ALL BELOW-GRADE FOUNDATIONS. SEE CIVIL FOR ADDITIONAL INFORMATION.
AD2	REMOVE MASONRY WALL IN IT'S ENTIRETY. PREPARE ADJACENT SURFACES FOR NEW CONSTRUCTION.
AD3	REMOVE DOOR, FRAME AND ALL ASSOCIATED HARDWARE IN IT'S ENTIRETY. PREPARE OPENING AND ADJACENT SURFACES FOR NEW WORK.
AD4	REMOVE PLUMBING FIXTURE IN IT'S ENTIRETY. SEE PLUMBING FOR ADDITIONAL INFORMATION.
AD5	REMOVE EXISTING CARPET, WALL BASE AND TRANSITIONS. REMOVE ADHESIVES DOWN TO EXISTING SLAB. PREPARE SURFACE TO RECEIVE NEW FINISHES.
AD6	REMOVE ALL WALL MOUNTED ACCESSORIES IN THEIR ENTIRETY, INCLUDING MIRRORS, SOAP DISPENSERS, PAPER TOWEL DISPENSERS, FEMININE NAPKIN DISPOSALS, TOILET PAPER DISPENSERS AND FIRE EXTINGUISHER CABINETS.
AD7	REMOVE EXISTING LOCKERS AND BASE IN THEIR ENTIRETY.
AD8	REMOVE EXISTING CASEWORK, SHELVING AND / OR MILLWORK ITEMS, ALONG WITH ALL RELATED ACCESSORIES. PATCH AND REPAIR ADJACENT WALL AND FLOOR SURFACES AND PREPARE TO ACCEPT NEW FINISHES.
AD9	REMOVE WALL MOUNTED DISPLAY BOARD / CASE / PROJECTION SCREEN IN IT'S ENTIRETY.
AD10	REMOVE EXISTING CONCRETE PAVING IN IT'S ENTIRETY TO EXISTING STONE BASE. PREPARE FOR NEW CONSTRUCTION. SEE CIVIL / STRUCTURAL FOR ADDITIONAL INFORMATION.
AD11	REMOVE EXISTING CONCRETE CURB IN IT'S ENTIRETY. PROTECT ADJACENT WALL FROM DAMAGE DURING CONSTRUCTION. SEE CIVIL.
AD12	REMOVE EXISTING GUARDRAIL IN IT'S ENTIRETY. PREPARE TOP OF EXISTING, RETAINING WALL FOR NEW CONSTRUCTION. SEE STRUCTURAL AND CIVIL FOR ADDITIONAL INFORMATION.
AD13	REMOVE DOOR, FRAME AND ALL ASSOCIATED HARDWARE IN IT'S ENTIRETY. PREPARE OPENING FOR NEW DOOR / FRAME.
AD14	REMOVE CHAIN LINK FENCE / GATE IN IT'S ENTIRETY.
AD15	EXISTING CASEWORK TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
AD16	REMOVE HOLLOW METAL FRAME / WINDOW UNIT IN ITS ENTIRETY. PREPARE WALL FOR NEW WORK.
AD17	REMOVE ACOUSTICAL WALL PANELS AND WOOD DIFFUSER PANELS IN THEIR ENTIRETY. REMOVE GYP. BOARD BACK TO METAL STUD WALL FRAMING / FURRING. METAL STUD FRAMING / FURRING TO REMAIN. PREPARE TO RECEIVE NEW FINISHES.
AD18	REMOVE EXISTING WOOD TRIM IN IT'S ENTIRETY. EXISTING WINDOW / FRAME TO REMAIN. PREPARE TO RECEIVE NEW FINISHES.
AD19	REMOVE EXISTING 2X WOOD FRAMED AND PLYWOOD FLOOR STORAGE MEZZANINE AND RAILING IN IT'S ENTIRETY.
AD20	REMOVE EXISTING STEEL FRAMED AND CONCRETE / METAL DECK WITH STEEL BEAM STORAGE MEZZANINE IN IT'S ENTIRETY, INCLUDING METAL GRATING STAIRS AND PIPE RAILINGS.
AD21	REMOVE WOOD FRAMED STAIRS AND RAILING IN THEIR ENTIRETY.
AD22	REMOVE PORTION OF EXISTING MASONRY / BRICK VENEER WALL. PREPARE FOR NEW OPENING. PROVIDE ALL NECESSARY SHORING / SUPPORT FOR REMAINING WALL DURING CONSTRUCTION. SEE STRUCUTRAL FOR ADDITIONAL INFORMATION.
AD23	REMOVE WOOD FRAMED WINDOW UNIT IN IT'S ENTIRETY. PREPARE OPENING FOR NEW WORK.
AD24	REMOVE METAL ACCESS LADDER IN IT'S ENTIRETY.
AD25	REMOVE WELDING CURTAIN, HOOD AND ALL ASSOCIATED ACCESSORIES. SEE MECHANICAL FOR ADDITIONAL INFORMATION.
AD26	REMOVE PORTION OF EXISTING MASONRY WALL. PREPARE FOR NEW OPENING. PROVIDE ALL NECESSARY SHORING / SUPPORT FOR REMAINING WALL DURING CONSTRUCTION. SEE STRUCUTRAL FOR ADDITIONAL INFORMATION.
AD27	REMOVE ALUMINUM STOREFRONT DOOR / GLAZING SYSTEM IN IT'S ENTIRETY, INCLUDING ALL ASSOCIATED SUPPORTS / BRACING. PREPARE ADJACENT SURFACES FOR NEW FINISHES.
AD28	REMOVE ALUMINUM FRAMED GLAZING SYSTEM IN IT'S ENTIRETY. PREPARE ADJACENT SURFACES FOR NEW FINISHES.
AD29	REMOVE VINYL WALL COVERING AND GYP. BOARD BACK TO CMU SUBSTRATE. PREPARE CMU FOR NEW FINISHES.
AD30	SAWCUT AND REMOVE PORTION OF EXISTING SLAB FOR NEW PLUMBING PIPING. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
AD31	REMOVE PAINT BOOTH IN IT'S ENTIRETY, INCLUDING ALL ASSOCIATED DUCTWORK AND EQUIPMENT. SEE MECHANICAL FOR ADDITIONAL INFORMATION.
AD32	REMOVE PORTION OF TERAZZO FLOORING DOWN TO CONCRETE SLAB BELOW TO ACOMMODATE NEW CONSTRUCTION. PROVIDE SELF-LEVELING FLOOR PATCH AS REQUIRED AND PREPARE SLAB FOR NEW FINISHES.
AD33	EXISTING LOCKERS TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
AD34	SAWCUT AND REMOVE PORTION OF EXISTING SLAB FOR NEW FOOTING. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

ARCHITECTURAL PLAN GENERAL NOTES

A. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
B. WHERE DISSIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR, UNLESS NOTED OTHERWISE.
C. THERE SHALL BE PERIMETER INSULATION CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE BUILDING EXTENDING 2'-0" MINIMUM BELOW GRADE.
D. THE BASE FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
E. ALL INTERIOR MASONRY WALLS THAT RUN TO UNDERSIDE OF DECK ABOVE SHALL HAVE A 2" JOINT (U.N.O.) AT THE DECK TO BE FILLED WITH FIRE STOPPING AT RATED WALLS PER PROJECT MANUAL., AND MINERAL WOOL AT THE NON-RATED WALLS, TO ALLOW FOR DEFLECTION.
F. FOR TYPICAL COMMON JOINT DETAILS AND CONSTRUCTION MOVEMENT JOINT DETAILS REFER TO DETAILS ON SHEET XX.
G. ALL DIMENSIONS ON FLOOR PLANS ARE TO FINISH FACE OF CMU, CONCRETE, BRICK OR FINISH FACE OF GWB AT METAL STUD WALLS, UNLESS NOTED OTHERWISE. EXCEPTION: EXTERIOR METAL STUD WALLS ARE TO FACE OF METAL STUDS.
H. HINGE SIDE DOOR JAMB AT WALLS WILL TYPICALLY BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
I. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSE, EXCEPT AT BULKHEADS, WINDOW AND DOOR HEADS.
J. SEE REFLECTED CEILING PLANS FOR BULKHEAD LOCATIONS AND DETAIL REFERENCES.
K. REFER TO ROOM FINISH SCHEDULE OR PLAN AND EQUIPMENT PLANS FOR LOCATION AND EXTENT OF FINISH FLOOR MATERIALS.
L. PROVIDE WOOD BLOCKING AS REQUIRED. WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
M. REFER TO MASTER/CODE PLANS FOR CODE INFORMATION AND FIRE RATED WALL LOCATIONS.
N. PROVIDE SPRAY FOAM INSULATION AND THERMAL BARRIER CONTINUOUS AT INTERSECTION OF EXTERIOR WALLS AND DECK.

ARCHITECTURAL PLAN NOTES

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

W### INDICATES WALL TYPE. REFER TO DRAWING A1.00 FOR WALL THICKNESS, HEIGHT AND COMPOSITION.

NO.	DESCRIPTION
1	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
2	CONCRETE FILLED, METAL PAIN STAIRS. SEE A10.02 FOR ADDITIONAL INFORMATION.
3	WIRE MESH PARTITION SYSTEM. INCORPORATE MORTISE LOCK CYLINDER AND CORE IN GATE. SEE DOOR SCHEDULE AND SPECIFICAITONS.
4	PRE-FINISHED STEEL LOCKERS. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
5	PROVIDE NEW ACOUSTICAL WALL TREATMENT. SEE FINISH PLANS, INTERIOR ELEVATIONS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6	24" WIDE, FIXED ALUMINUM ACCESS LADDER. SEE DETAIL 8/A10.02.
7	MEMBRANE ROOF SYSTEM. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
8	METAL PIPE GUARDRAIL SYSTEM. SEE A10.02.
9	KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
10	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE PLUMBING FOR ADDITIONAL INFORMATION.
11	INDICATES 12' x 12' AREA FOR STUDENT-BUILT HOUSE BUILD. (FOR REFERENCE ONLY)
12	INDICATES 12' x 32' AREA FOR STUDENT-BUILT TINY HOMES. (FOR REFERENCE ONLY)
13	ACOUSTICALLY SEAL ALL WALL PENETRATIONS ABOVE CEILING, BOTH SIDES OF WALL. INFILL MASONRY OPENINGS WITH CMU SOAP / MORTAR AS REQUIRED.
14	EXISTING STEEL BASE AND WOOD TOP WORKBENCHES. COORDINATE FINAL LOCATION WITH OWNER UPON COMPLETION OF OTHER FINISHES.
15	2-LAYERS OF 5/8" TYPE "X" GYP. BOARD OVER EXISTING METAL FURRING. EXTEND GYP. BOARD AND SEAL TOP EDGE TO CONCRETE DECK ABOVE.
16	PROVIDE WOOD FLOOR FRAMING TO MATCH EXISTING DEPTH AND REPLACE TILE ACCESS FLOOR. SEE DETAIL 2/A1.07.
17	INFILL PORTION OF CONCRETE SLAB. FINISH FLUSH WITH EXISTING. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
18	CONCRETE FILLED STEEL PIPE BOLLARD WITH COVER. SEE DETAIL 7/A1.07 FOR ADDITIONAL INFORMATION.
19	1 1/2" PRE-COMPRESSED BUILDING EXPANSION JOINT WITH CONTINUOUS SEALANT.
20	PLASTIC LAMINATE CASEWORK. SEE EQUIPMENT PLANS FOR ADDITIONAL INFORMATION.
21	13'W x 12'H MASONRY OPENING. SEE STRUCTURAL.
22	GUARDRAIL GATE - SEE 5-7/A10.01.
23	INFILL OPENING TO MATCH EXISTING WALL CONSTRUCTION. GROUND FACE CMU TO MATCH EXISTING, FULL HEIGHT. FINISH FLUSH WITH ADJACENT SURFACES TO SHOW NO EVIDENCE OF CONSTRUCTION. TOOTH-IN MASONRY WITH EXISTING.
24	PAINT BOOTH EXHAUST, UP THROUGH ROOF. SEE EQUIPMENT PLANS AND SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION, DIMENSIONS AND OPENINGS BETWEEN ALL TRADES AND EQUIPMENT MANUFACTURER.
25	SEMI-RECESSED FIRE EXTINGUISHER CABINET. SEE 3/A1.07 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
26	SALVAGE EXISTING BRICK VENEER FROM DEMOLITION AND RE-USE TO WRAP BRICK BACK TO CMU AT JAMBS.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

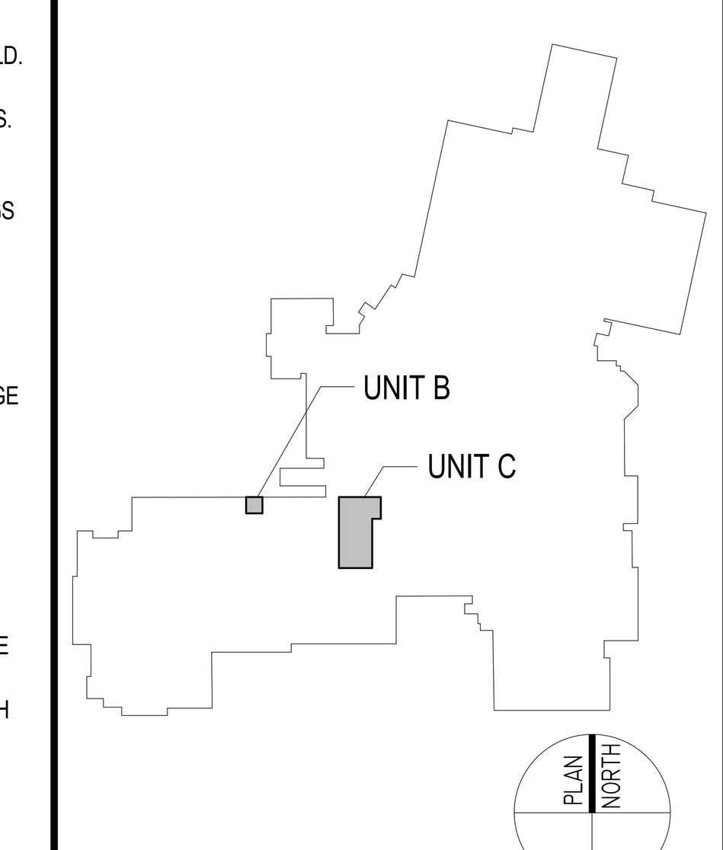
CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED No. AR10300161 STATE OF INDIANA ARCHITECT

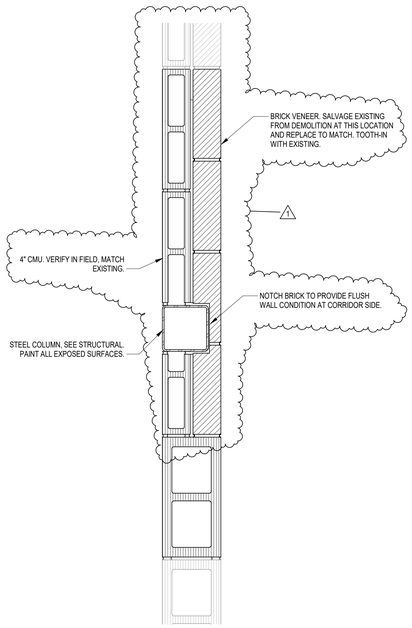
DRAWN BY: DSR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B AND C - DEMOLITION AND FIRST FLOOR ARCHITECTURAL PLAN

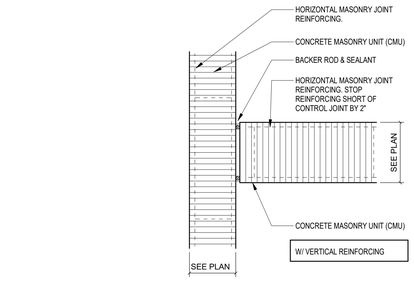
A1.03

C:\Users\dnoe\Documents\2021_ARCH_221165.01_dnoeR2V2M.rvt
9/20/2023 10:40:21 AM



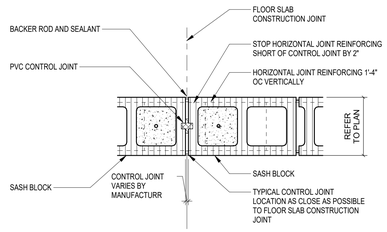
12 PLAN DETAIL

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



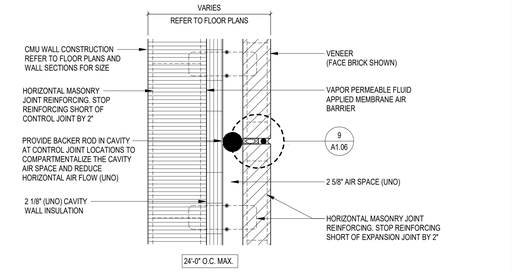
15 TYPICAL CONTROL JOINT

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

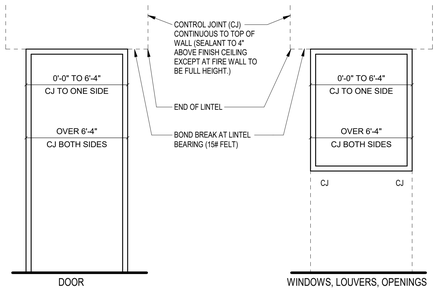


14 CMU CONTROL JOINT (CJ) @ FLOOR

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

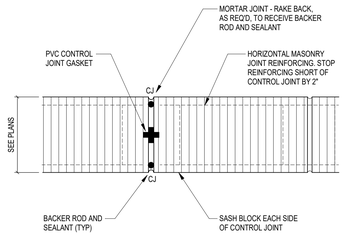


13 BRICK EXPANSION JOINT (EJ) AT CMU CAVITY WALL



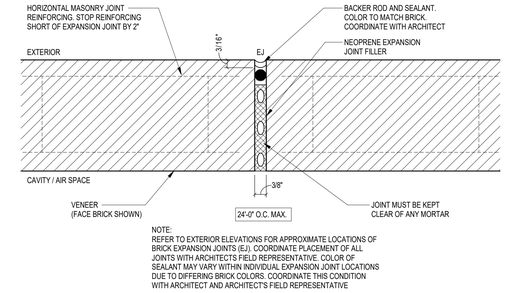
NOTE: INTERIOR CONCRETE MASONRY WALLS ONLY

11 TYPICAL PLACEMENT OF CONTROL JOINTS IN CMU WALLS AT OPENINGS



10 CMU CONTROL JOINT (CJ)

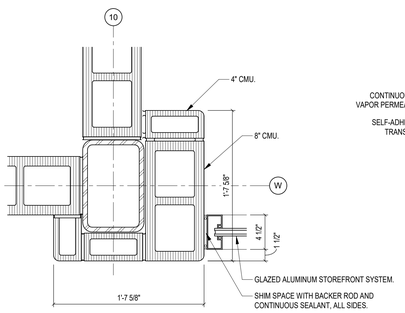
SCALE: 1 1/2" = 1'-0"



NOTE:
REFER TO EXTERIOR ELEVATIONS FOR APPROXIMATE LOCATIONS OF BRICK EXPANSION JOINTS (EJ). COORDINATE PLACEMENT OF ALL JOINTS WITH ARCHITECTS FIELD REPRESENTATIVE. COLOR OF SEALANT MAY VARY WITHIN INDIVIDUAL EXPANSION JOINT LOCATIONS DUE TO DIFFERING BRICK COLORS. COORDINATE THIS CONDITION WITH ARCHITECT AND ARCHITECT'S FIELD REPRESENTATIVE

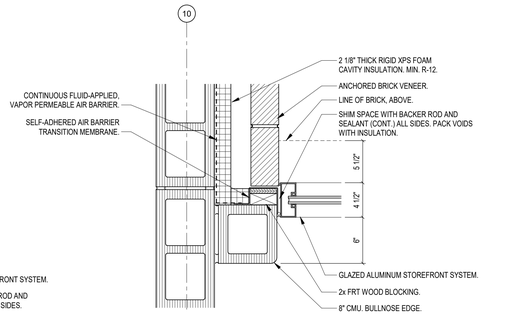
9 BRICK EXPANSION JOINT (EJ)

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



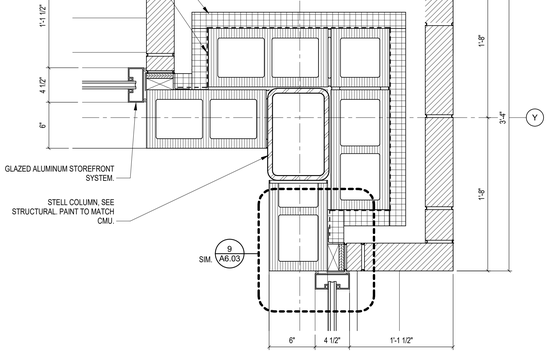
8 PLAN DETAIL

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



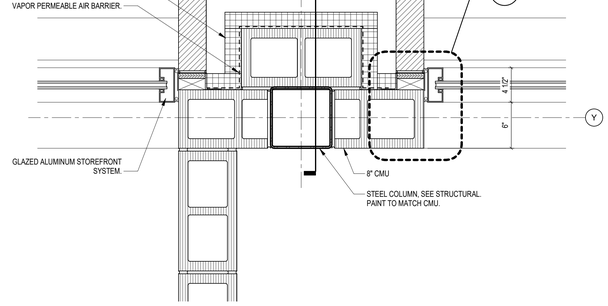
7 PLAN DETAIL

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



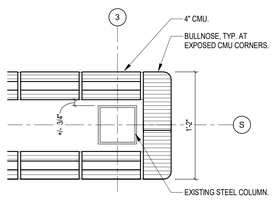
6 PLAN DETAIL

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



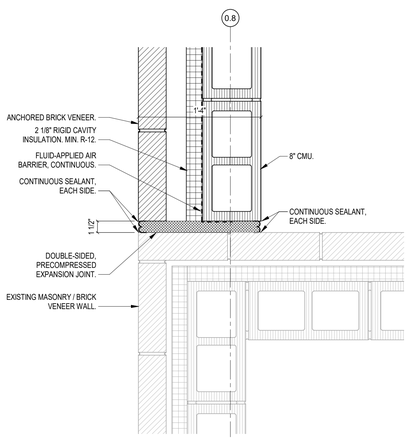
5 PLAN DETAIL

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



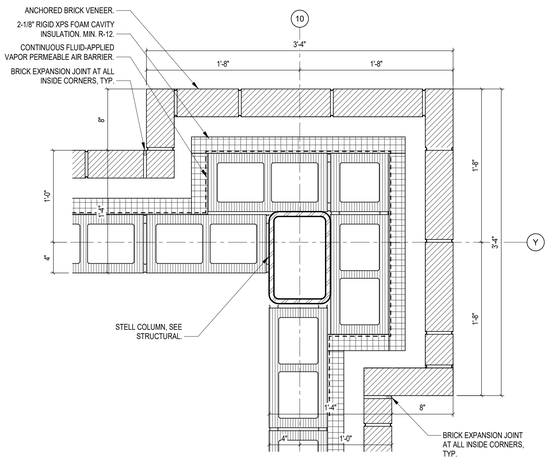
4 PLAN DETAIL

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



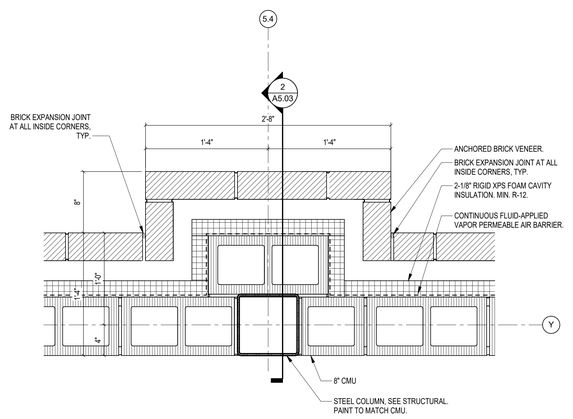
3 PLAN DETAIL

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



2 PLAN DETAIL

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



1 PLAN DETAIL

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

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

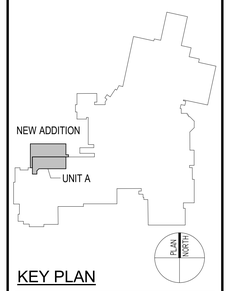
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

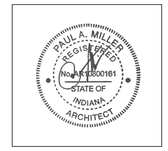
FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS



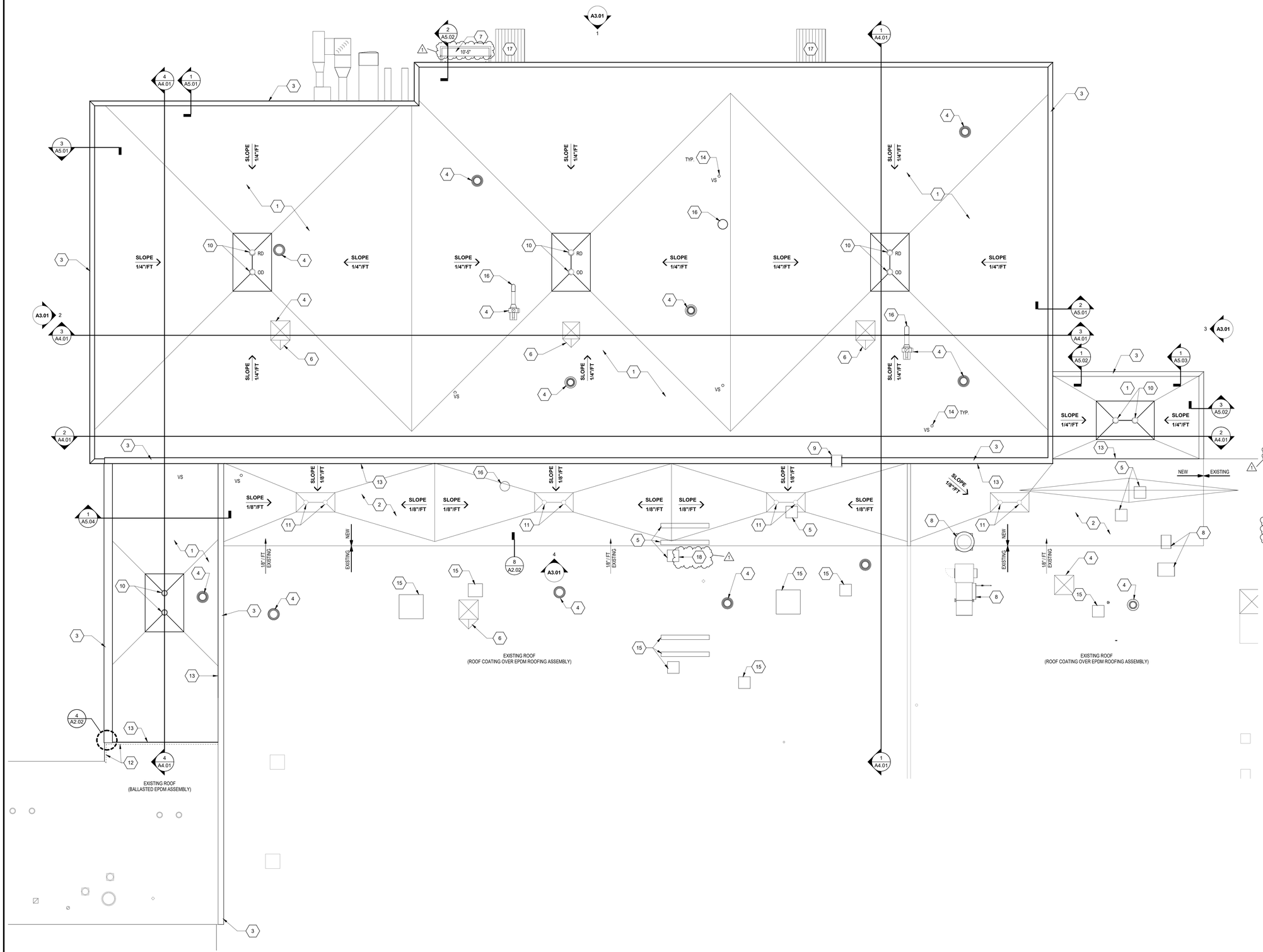
DRAWN BY: DSR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

PLAN DETAILS AND TYPICAL MASONRY DETAILS

A1.06

C:\Users\dnam\Documents\2021_ARCH_221165.01_dnamRSYZM.rvt
9/20/2023 10:40:30 AM



UNIT A - ROOF PLAN

SCALE: 1/8" = 1'-0"

ROOF PLAN GENERAL NOTES

A. ALL DETAILS SHOWN ARE FOR GENERAL INFORMATION. ALL FINAL FLASHING CONDITIONS SHALL BE THE RESPONSIBILITY OF THE ROOF INSTALLER, AND SHALL MEET APPROVAL OF ROOF MANUFACTURER.

B. ALL DETAIL MODIFICATIONS MUST HAVE SHOP DRAWINGS APPROVAL. CONTRACTOR SHALL INSPECT AND VERIFY ALL EXISTING FIELD CONDITIONS, CLEARANCES, AND DIMENSIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT ARCHITECT BEFORE PROCEEDING WITH ANY FURTHER WORK.

C. OPENINGS IN ROOF WILL BE CUT BY ROOF CONTRACTOR. MECHANICAL CONTRACTOR TO COORDINATE LOCATION OF OPENING IN ROOF WITH ROOF CONTRACTOR. CURB TO BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ROOF CONTRACTOR.

D. PROVIDE FLASHING AND SADDLES FOR ALL EQUIPMENT PROVIDED UNDER MECHANICAL.

E. SADDLES AND TAPERED INSULATION SYMBOLS INDICATE DESIGN INTENT TO SLOPE TO DRAIN. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS FOR TAPERED INSULATION AND SADDLES TO INSURE POSITIVE SLOPE.

F. THE ROOF CONTRACTOR SHALL PROTECT ALL ROOF DRAINS, SCUPPERS, AND DOWNSPOUTS FROM DEBRIS CREATED DURING DEMOLITION AND CONSTRUCTION. THE ROOF CONTRACTOR SHALL INSPECT AND CLEAR ALL DRAINS, SCUPPERS, AND DOWNSPOUTS PRIOR TO COMPLETION OF WORK AND TO ENSURE THAT THEY ARE FREE OF DEBRIS AND ARE FUNCTIONING PROPERLY.

ROOF PLAN NOTES

* MECHANICAL, ELECTRICAL AND PLUMBING INFORMATION SHOWN ON THIS PLAN IS GENERAL IN NATURE. REFER TO P, M AND E DRAWINGS FOR FURTHER INFORMATION AND COORDINATE ALL REQUIRED ROOF OPENINGS OR ROOF MOUNTED EQUIPMENT.

NO.	DESCRIPTION
1	MEMBRANE ROOFING SYSTEM (ADHERED) ON 1/4" COVER BOARD OVER FLAT AND TAPERED ROOF INSULATION (1/4" PER FT) OVER VAPOR BARRER ON METAL ROOF DECK.
2	MEMBRANE ROOFING SYSTEM (ADHERED) ON 1/4" COVER BOARD OVER FLAT AND TAPERED ROOF INSULATION TO MATCH EXISTING ROOF THICKNESS AND SLOPES INDICATED.
3	PRE-FINISHED METAL COPING SYSTEM.
4	MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS AND 5/A2.02.
5	PATCH EXISTING ROOF PENETRATION. SEE STRUCTURAL FOR METAL DECK PATCHING DETAILS / REQUIREMENTS.
6	PROVIDE TAPERED SADDLE AT MECHANICAL EQUIPMENT.
7	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS.
8	KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS. PROVIDE INSULATED CURB SYSTEM.
9	24" WIDE FIXED ALUMINUM ACCESS LADDER WITH PLATFORM OVER PARAPET, SIMILAR TO O'KEEFES MODEL 503.
10	ROOF DRAIN / OVERFLOW DRAIN. SEE 1/A2.02 AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
11	RE-INSTALL EXISTING ROOF DRAIN ASSEMBLY. INSTALL PER DETAIL 1/A2.01.
12	PRE-FINISHED METAL FASCIA TO MATCH ADJACENT PROFILE AND COLOR OF EXISTING BUILDING. FLASH IN WITH EXISTING, BALLASTED, MEMBRANE ROOF SYSTEM.
13	2" ROOF EXPANSION JOINT ASSEMBLY. SEE WALL SECTIONS AND DETAILS.
14	VENT STACK. SEE PLUMBING DRAWINGS AND 6/A2.02.
15	PROVIDE INSULATED, STAINLESS STEEL CAP OVER EXISTING ROOF CURB. RE-FLASH EXISTING ROOF MEMBRANE AND RE-COAT AS REQUIRED FOR WEATHER-PROOF SEAL.
16	METAL DUCT / FLUE. SEE 7/A2.02
17	STANDING SEAM METAL ROOF ASSEMBLY OVER FULL COVERAGE SELF-ADHERED SHEET UNDERLAYMENT OVER 5/8" SUBSTRATE BOARD OVER METAL ROOF DECK. SEE 5/A2.02
18	PATCH EXISTING ROOF PENETRATION WITH METAL DECK AND FLAT AND TAPERED INSULATION TO MATCH EXISTING ROOF THICKNESS / SLOPE. ADHERE NEW MEMBRANE TO EXISTING AND RE-COAT TO MATCH EXISTING.

ROOF PLAN SYMBOL LEGEND

12'-0" (UNO) / 12'-0" (UNO)	INDICATES ROOF DRAIN (RD) AND OVERFLOW DRAIN (OD). (FLASH IN ACCORDANCE WITH ROOF MEMBRANE MANUFACTURER'S RECOMMENDATION.) REFER TO DETAIL 1/A2.02.
VS	INDICATES VENT STACK - REFER TO PLUMBING DRAWINGS AND 6/A2.02.
FL	INDICATES FLUE - REFER TO MECHANICAL DRAWINGS AND ?-A2.??
	INDICATES MECHANICAL EQUIPMENT - REFER TO MECHANICAL DRAWINGS AND 5/A2.02.
SLOPE 7 / 12	INDICATES ROOF SLOPE
	INDICATES ROOF SADDLE - REFER TO PROJECT MANUAL.
	INDICATES EXPANSION JOINT - REFER TO ROOF PLAN AND WALL SECTIONS.
	INDICATES WALL LINE BELOW - REFER TO ARCHITECTURAL FLOOR PLANS
DS	INDICATES METAL DOWNSPOUT. REFER TO ROOF PLAN AND BUILDING ELEVATIONS FOR LOCATIONS
	INDICATES WALKWAY PADS -REFER TO PROJECT MANUAL
	INDICATES ICE AND WATER SHIELD MEMBRANE FLASHING -REFER TO PROJECT MANUAL

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

NEW ADDITION
UNIT A
PLAN NORTH

KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED No. A 11500161 STATE OF INDIANA ARCHITECT

DRAWN BY: DSR

PROJECT NUMBER: 221165.01

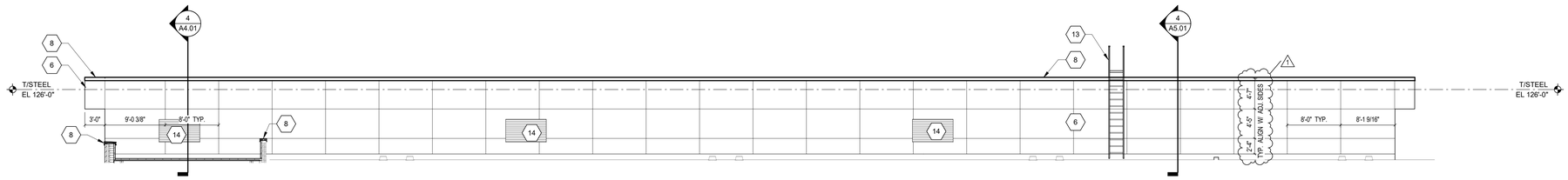
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - ROOF PLAN

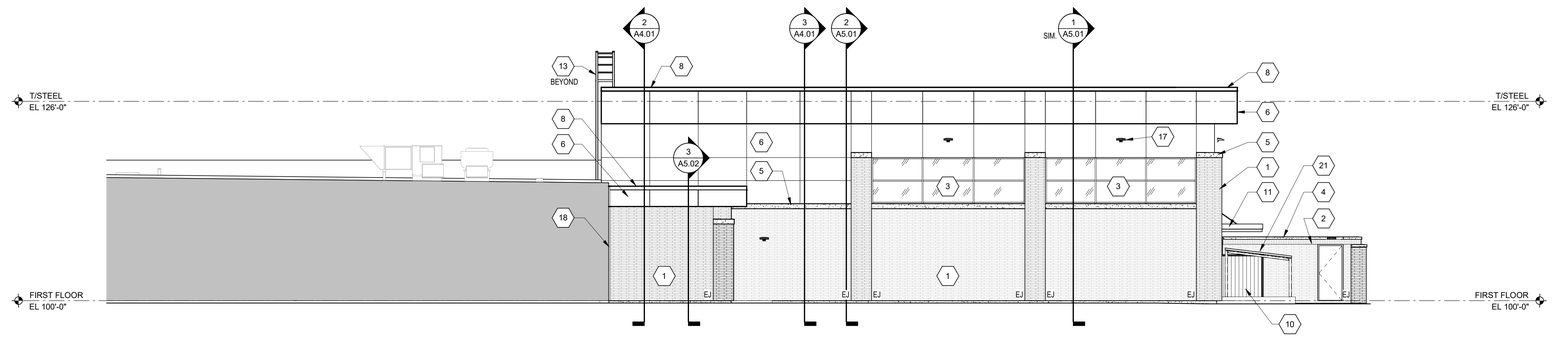
A2.01

C:\Users\dsr\Documents\2021_ARCH_221165.01_dsrarR23*2M.rvt
9/20/2023 10:40:56 AM



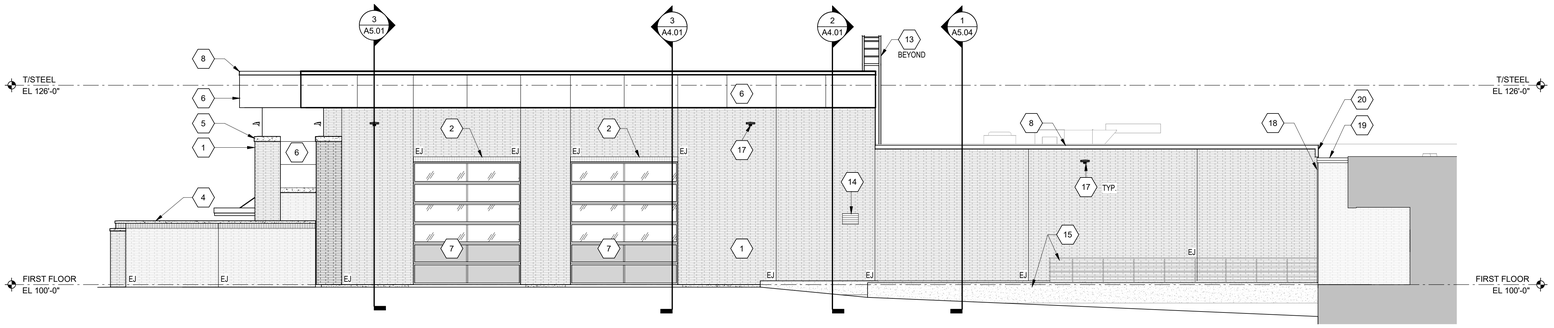
4 BUILDING ELEVATION - SOUTH

SCALE: 1/8" = 1'-0"



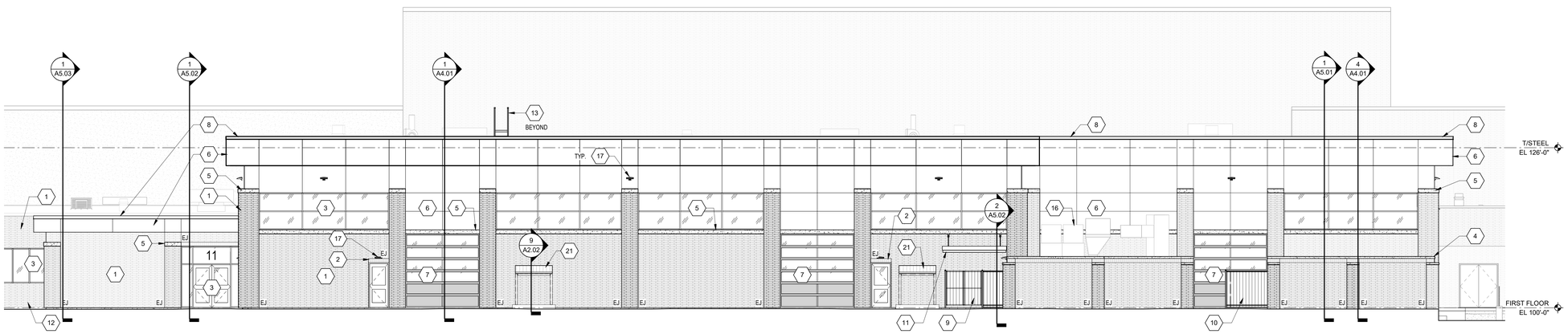
3 BUILDING ELEVATION - EAST

SCALE: 1/8" = 1'-0"



2 BUILDING ELEVATION - WEST

SCALE: 1/8" = 1'-0"



1 BUILDING ELEVATION - NORTH

SCALE: 1/8" = 1'-0"

ELEVATION GENERAL NOTES

1. REFER TO THE ELECTRICAL AND TECHNOLOGY DRAWINGS FOR CAMERA, LOCATIONS, SECURITY DEVICES, RECEPTACLES, LIGHT FIXTURES, ETC. COORDINATE LOCATIONS WITH VENEER COURSING TO PROVIDE CONSISTENT MOUNTING HEIGHTS.
2. REFER TO PLUMBING DRAWINGS FOR EXTERIOR WALL HYDRANTS, SECONDARY ROOF DRAIN OUTLETS, ETC. COORDINATE PENETRATIONS THROUGH EXTERIOR ENVELOPE WITH OTHER TRADES. PROVIDE TRANSITION MEMBRANE TO MAINTAIN AIR BARRIER SYSTEM.
3. REFER TO MECHANICAL DRAWINGS FOR EXTERIOR LOUVER LOCATIONS LOCATED IN EXTERIOR WALL AND EXTERIOR SOFFITS. COORDINATE PENETRATIONS THROUGH EXTERIOR ENVELOPE WITH OTHER TRADES. PROVIDE TRANSITION MEMBRANE TO MAINTAIN AIR BARRIER SYSTEM.

BUILDING ELEVATION NOTES

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
1	ANCHORED BRICK VENEER.
2	BRICK VENEER SOLDIER COURSE AT DOOR HEADS. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION.
3	ALUMINUM FRAMED STOREFRONT SYSTEM.
4	4" TALL CAST STONE BAND / CAP WITH CUT DRIP EDGE. PROVIDE BACKER ROD AND CONTINUOUS SEALANT AT ALL JOINTS.
5	8" TALL CAST STONE BAND / CAP WITH CUT DRIP EDGE. PROVIDE BACKER ROD AND CONTINUOUS SEALANT AT ALL JOINTS.
6	METAL COMPOSITE MATERIAL (MCM) WALL PANEL SYSTEM.
7	GLAZED SECTIONAL DOOR SYSTEM. SEE DOOR SCHEDULE FOR ADDITIONAL INFORMATION.
8	PRE-FINISHED METAL COPING SYSTEM.
9	VERTICAL SLAT FENCE ENCLOSURE WITH SWING GATE. SEE CIVIL FOR ADDITIONAL INFORMATION.
10	VERTICAL SLAT ROLLING GATE. SEE CIVIL FOR ADDITIONAL INFORMATION.
11	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS.
12	EXISTING BRICK VENEER / CMU WALL TO REMAIN. MODIFY ONLY AS REQUIRED FOR INSTALLATION OF NEW EXTERIOR WALL AND NEW ALUMINUM STOREFRONT WINDOW.
13	24" WIDE FIXED ALUMINUM ACCESS LADDER WITH PLATFORM OVER PARAPET, SIMILAR TO O'KEEFES MODEL 503.
14	PRE-FINISHED METAL LOUVER. SEE MECHANICAL FOR ADDITIONAL INFORMATION.
15	EXISTING CONCRETE RETAINING WALL AND METAL GUARDRAIL TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION.
16	MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
17	LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
18	PREFORMED JOINT SEAL. SEE PLAN DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
19	PRE-FINISHED METAL COPING SYSTEM TO MATCH ADJACENT PROFILE AND COLOR ON EXISTING BUILDING.
20	TURN METAL COPING VERTICALLY AT END WALL TO CAP WALL AND SHED OVER ADJACENT, LOWER COPING.
21	STANDING SEAM METAL ROOF ASSEMBLY. SEE ROOF PLANS FOR ADDITIONAL INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

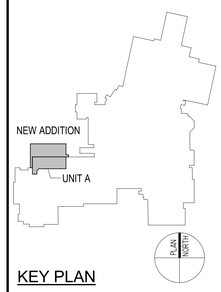
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS

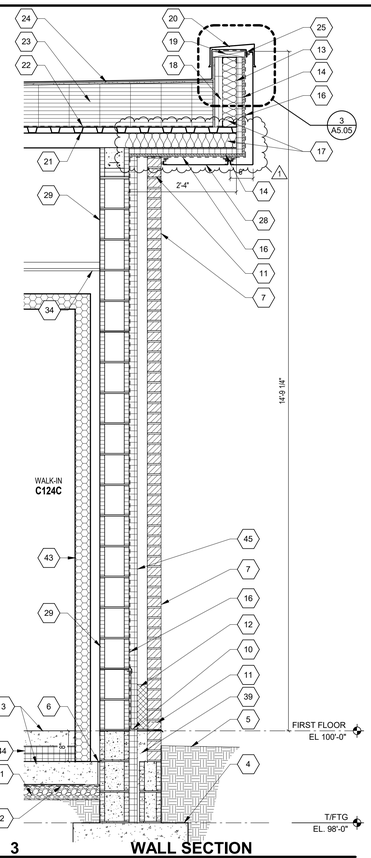
PAUL A. MILLER
REGISTERED
No. A 11800161
STATE OF
INDIANA
ARCHITECT

DRAWN BY: DSR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

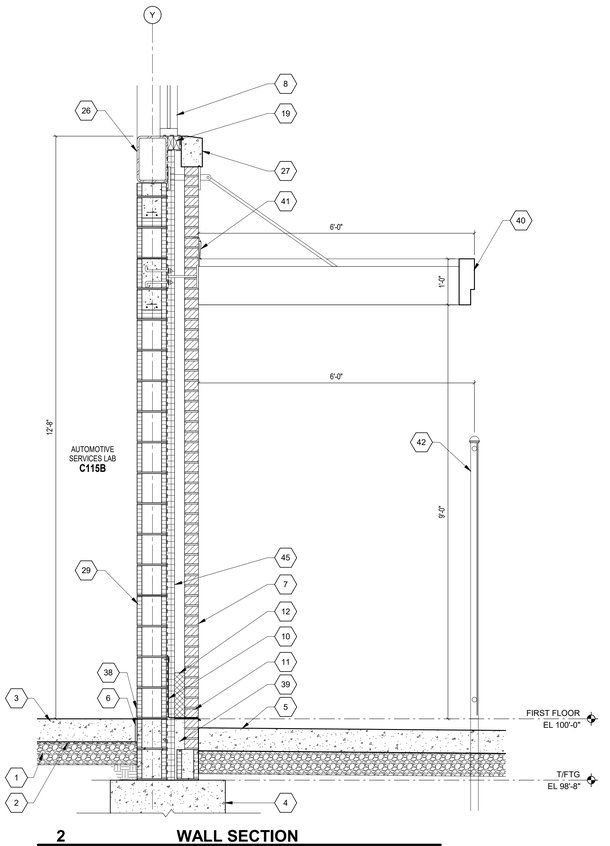
UNIT A - BUILDING ELEVATIONS

A3.01



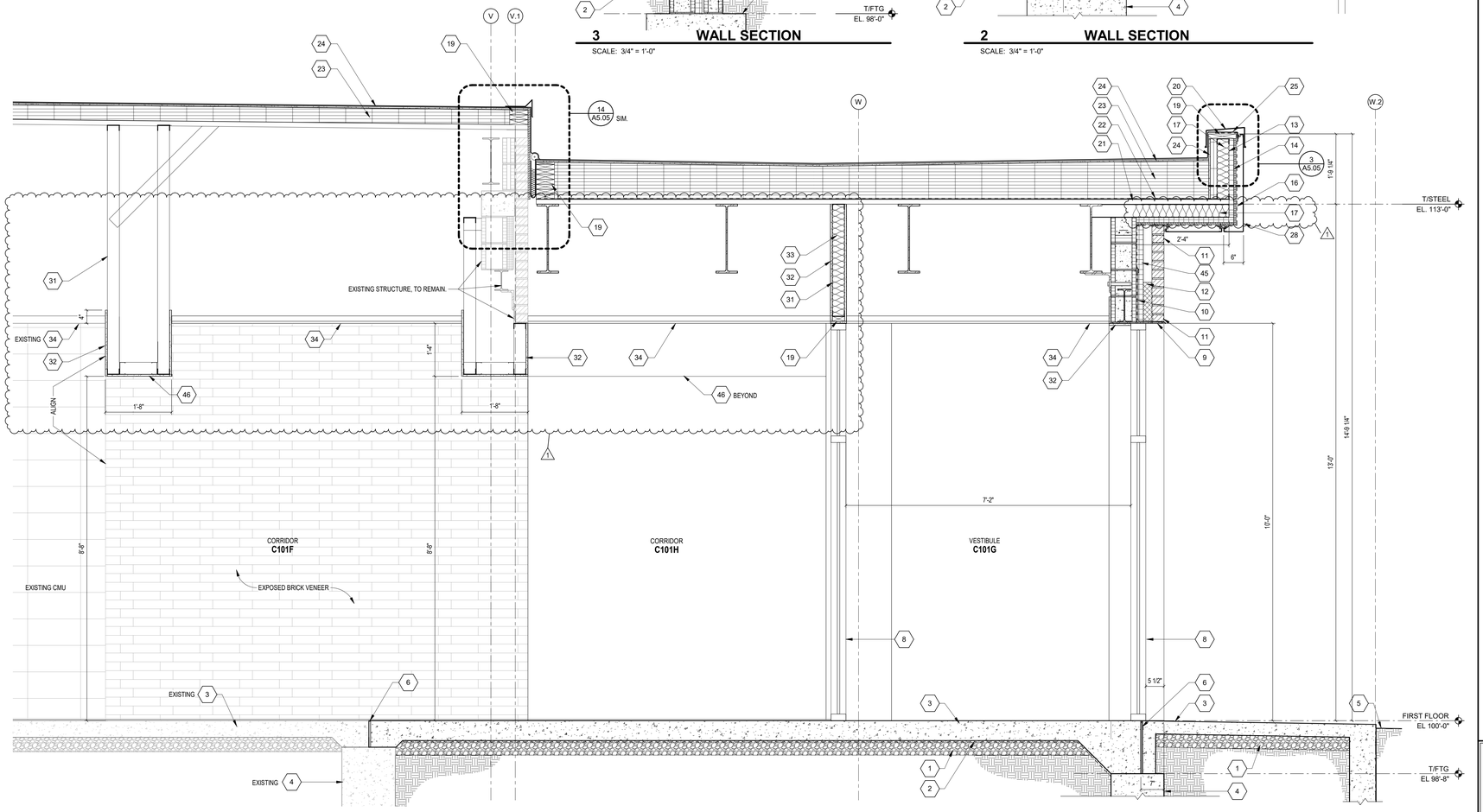
3 WALL SECTION

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



2 WALL SECTION

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



1 WALL SECTION

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

GENERAL NOTES

A. COORDINATE ALL LINTEL AND BOND BEAM REQUIREMENTS WITH STRUCTURAL DRAWINGS AND PROJECT MANUAL.
B. REFER TO THE STRUCTURAL DRAWINGS FOR ALL FOUNDATION AND FOOTING CONDITIONS.
C. PROVIDE HORIZ. JOINT REINFORCING, TIES, AND OTHER ANCHORAGE/REINFORCEMENT ITEMS AS REQ'D. PER PROJECT MANUAL.
D. ROOF TO EXTERIOR WALL JUNCTIONS: REFER TO DIVISION 07 SECTION "THERMAL INSULATION" FOR SPRAY POLYURETHANE INULATION REQUIRED AT THESE LOCATIONS.
E. WALL INSULATION PENETRATIONS: PROVIDE SPRAY POLYURETHANE INSULATION OR SEALANT AROUND ALL PENETRATIONS OF THE WALL INSULATION BY PIPING, CONDUITS, FRAMING, STRUCTURE, ETC.

WALL SECTION NOTES

(X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
1	COMPACTED GRANULAR FILL. SEE STRUCTURAL.
2	UNDERSLAB VAPOR BARRIER, CONTINUOUS.
3	REINFORCED CONCRETE SLAB-ON-GRADE. SEE STRUCTURAL.
4	REINFORCED CONCRETE FOUNDATION. SEE STRUCTURAL.
5	FINISH GRADE. SEE CIVIL.
6	1/2" FIBER EXPANSION MATERIAL WITH CONTINUOUS SEALANT. SEE SPECIFICATIONS.
7	ANCHORED BRICK VENEER.
8	ALUMINUM FRAMED STOREFRONT SYSTEM.
9	GALVANIZED STEEL LINTEL. SEE STRUCTURAL. PRIME AND PAINT ALL EXPOSED SURFACES.
10	FLEXIBLE, STAINLESS STEEL THROUGH WALL FLASHING WITH HEMMED EDGE STAINLESS STEEL DRIP EDGE SET IN 3 ROWS OF CONTINUOUS MASTIC.
11	CELL VENT WEEPS AT 24" O.C.
12	CONTINUOUS OPEN MESH, CAVITY MORTAR PROTECTION WITH INSECT BARRIER.
13	3-5/8" COLD FORMED METAL STUD FRAMING AT 16" O.C.
14	2-1/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-9.8.
15	2-5/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-12.9.
16	CONTINUOUS FLUID-APPLIED, VAPOR PERMEABLE AIR BARRIER. DETAIL ALL PENETRATIONS PER MANFUCATURER INSTRUCTIONS.
17	UNFACED, FIBERGLASS BATT INSULATION. MIN. R-13.
18	5/8" FRT PLYWOOD SHEATHING.
19	CONTINUOUS 2x FRT WOOD BLOCKING.
20	PRE-FINISHED METAL COPING SYSTEM.
21	1-1/2" METAL ROOF DECK, PAINT ALL EXPOSED SURFACES. SEE STRUCTURAL.
22	CONTINUOUS VAPOR BARRIER. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
23	POLYISO ROOF INSULATION. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
24	1/4" COVER BOARD. SEE ROOF PLAN AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
25	ADHERED ROOF MEMBRANE. OVERLAP WITH AIR BARRIER AS SHOWN.
26	HSS TUBE STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED SURFACES.
27	8" TALL CAST STONE BAND WITH CUT DRIP EDGE. PROVIDE BACKER ROD AND CONTINUOUS SEALANT AT ALL JOINTS.
28	METAL COMPOSITE MATERIAL (MCM) PANEL SYSTEM.
29	8" CMU WALL.
30	STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED STRUCTURAL STEEL.
31	METAL STUD FRAMING. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
32	5/8" TYPE "X" GYP. BOARD. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
33	SOUND ATTENUATING BATT INSULATION. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
34	ACOUSTICAL CEILING SYSTEM. SEE RELFECTED CEILING PLANS FOR ADDITIONAL INFORMATION.
35	6" COLD FORMED METAL STUD FRAMING AT 16" O.C.
36	EXISTING COATED MEMBRANE ROOF SYSTEM TO REMAIN. REMOVE / MODIFY ONLY AS REQUIRED FOR INSTALLATION OF NEW WORK. REPLACE AND RE-COAT TO MATCH EXISTING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
37	EPOXY TERRAZZO BASE. SEE FINISH PLANS.
38	RUBBER BASE. SEE FINISH PLANS.
39	GROUT CAVITY AND CMU SOLID BELOW FLOOR LINE.
40	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS. SEE STRUCTURAL FOR CONNECTION DETAILS.
41	METAL FLASHING AND COUNTERFLASHING, BY METAL CANOPY MANUFACTURER.
42	VERTICAL SLAT FENCE ENCLOSURE AND GATE. SEE CIVIL.
43	RECESSED KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER FOR THRESHOLD AND FLUSH FLOOR TRANSITION.
44	2 LAYERS URETHANE INSULATION. SEE FOODSERVICE DRAWINGS AND COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER.
45	2-1/8" THICK RIGID XPS FOAM CAVITY INSULATION. MIN. R-12.
46	5/8" TYPE "X" GYP. BOARD ON 3-5/8" METAL STUD FRAMING AT 16" O.C. SEE REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

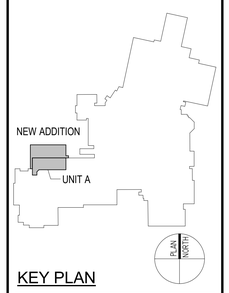
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER
REGISTERED
No. A 19900161
STATE OF
INDIANA
ARCHITECT

DRAWN BY: DSR

PROJECT NUMBER: 221165.01

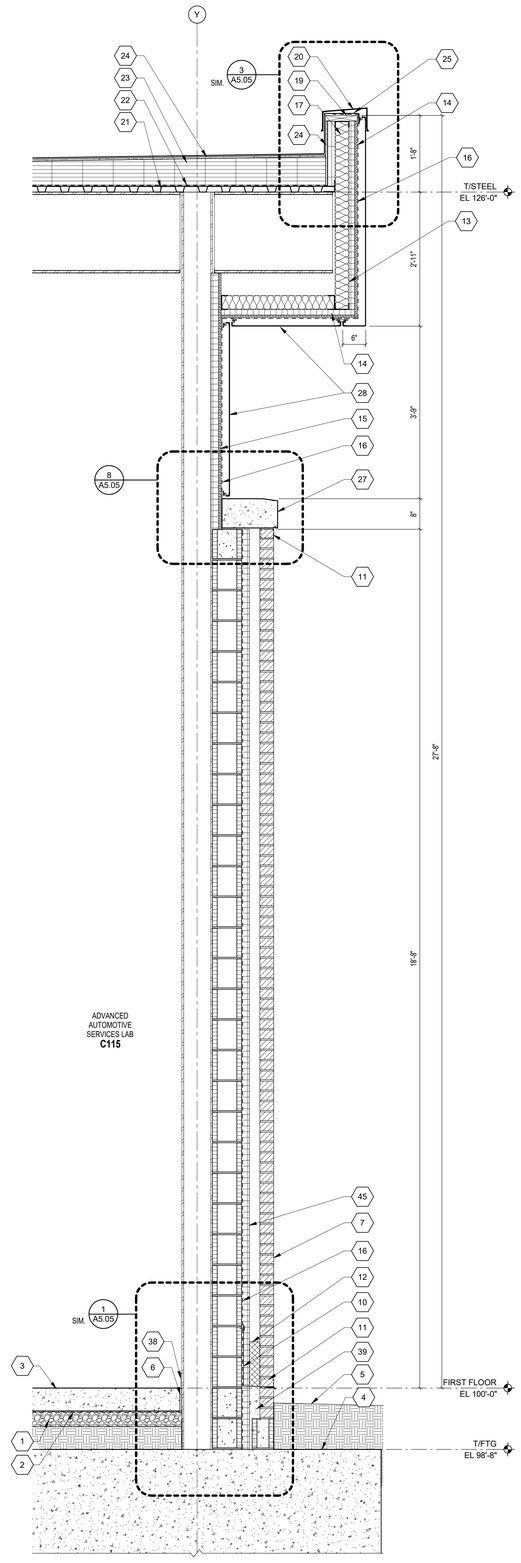
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

WALL SECTIONS

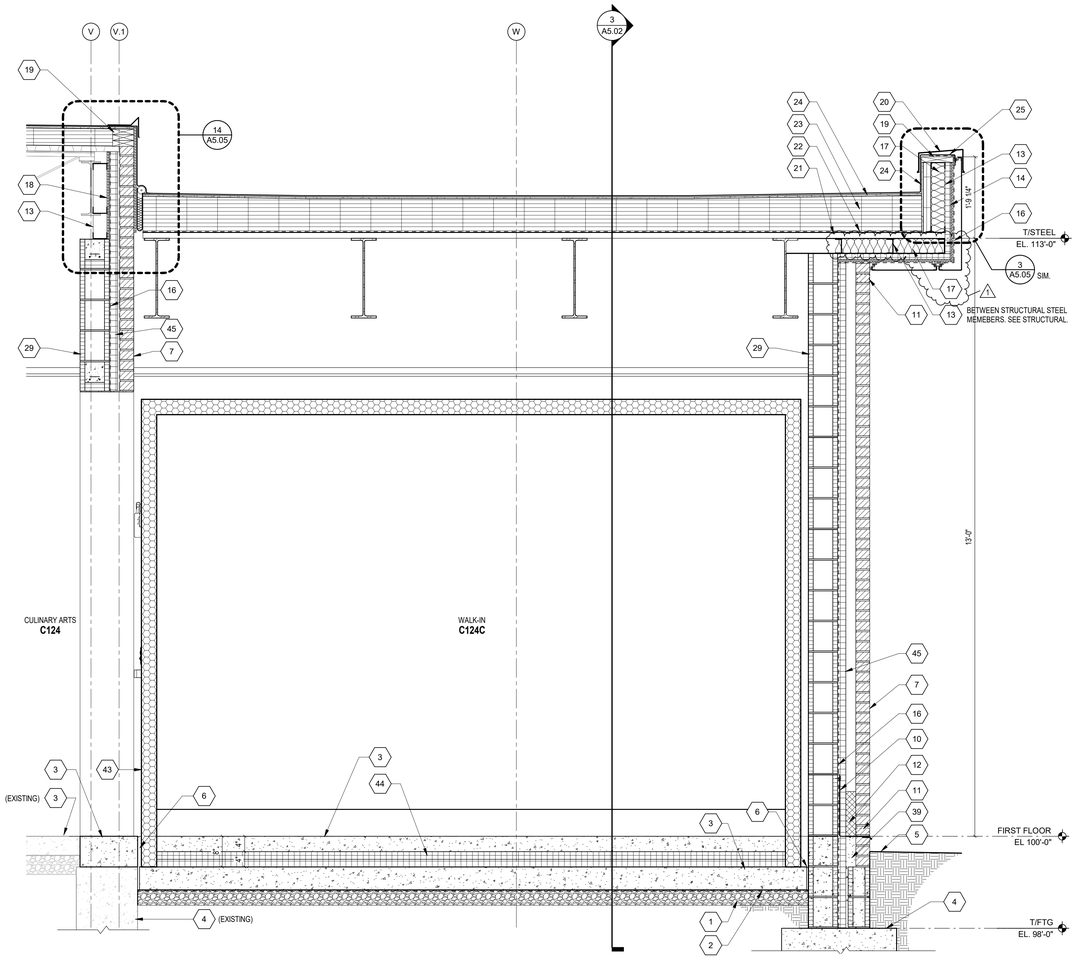
A5.02

C:\Users\drsan\Documents\2021_ARCH_221165.01_drsanRSYZM.rvt
9/20/2023 10:41:23 AM



2 **WALL SECTION**

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



1 **WALL SECTION**

GENERAL NOTES

A. COORDINATE ALL LINTEL AND BOND BEAM REQUIREMENTS WITH STRUCTURAL DRAWINGS AND PROJECT MANUAL.
B. REFER TO THE STRUCTURAL DRAWINGS FOR ALL FOUNDATION AND FOOTING CONDITIONS.
C. PROVIDE HORIZ. JOINT REFINFORCING, TIES, AND OTHER ANCHORAGE/REINFORCEMENT ITEMS AS REQ'D. PER PROJECT MANUAL.
D. ROOF TO EXTERIOR WALL JUNCTIONS: REFER TO DIVISION 07 SECTION "THERMAL INSULATION" FOR SPRAY POLYURETHANE INULATION REQUIRED AT THESE LOCATIONS.
E. WALL INSULATION PENETRATIONS: PROVIDE SPRAY POLYURETHANE INSULATION OR SEALANT AROUND ALL PENETRATIONS OF THE WALL INSULATION BY PIPING, CONDUITS, FRAMING, STRUCTURE, ETC.

WALL SECTION NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
1	COMPACTED GRANULAR FILL. SEE STRUCTURAL.
2	UNDERSLAB VAPOR BARRIER, CONTINUOUS.
3	REINFORCED CONCRETE SLAB-ON-GRADE. SEE STRUCTURAL.
4	REINFORCED CONCRETE FOUNDATION. SEE STRUCTURAL.
5	FINISH GRADE. SEE CIVIL.
6	1/2" FIBER EXPANSION MATERIAL WITH CONTINUOUS SEALANT. SEE SPECIFICATIONS.
7	ANCHORED BRICK VENEER.
8	ALUMINUM FRAMED STOREFRONT SYSTEM.
9	GALVANIZED STEEL LINTEL. SEE STRUCTURAL. PRIME AND PAINT ALL EXPOSED SURFACES.
10	FLEXIBLE, STAINLESS STEEL THROUGH WALL FLASHING WITH HEMMED EDGE STAINLESS STEEL DRIP EDGE SET IN 3 ROWS OF CONTINUOUS MASTIC .
11	CELL VENT WEEPS AT 24" O.C.
12	CONTINUOUS OPEN MESH, CAVITY MORTAR PROTECTION WITH INSECT BARRIER.
13	3-5/8" COLD FORMED METAL STUD FRAMING AT 16" O.C.
14	2-1/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-9.8.
15	2-5/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-12.9.
16	CONTINUOUS FLUID-APPLIED, VAPOR PERMEABLE AIR BARRIER. DETAIL ALL PENETRATIONS PER MANFUCATURER INSTRUCTIONS.
17	UNFACED, FIBERGLASS BATT INSULATION. MIN. R-13.
18	5/8" FRT PLYWOOD SHEATHING.
19	CONTINUOUS 2x FRT WOOD BLOCKING.
20	PRE-FINISHED METAL COPING SYSTEM.
21	1-1/2" METAL ROOF DECK, PAINT ALL EXPOSED SURFACES. SEE STRUCTURAL.
22	CONTINUOUS VAPOR BARRIER. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
23	POLYISO ROOF INSULATION. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
24	1/4" COVER BOARD. SEE ROOF PLAN AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
25	ADHERED ROOF MEMBRANE. OVERLAP WITH AIR BARRIER AS SHOWN.
26	HSS TUBE STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED SURFACES.
27	8" TALL CAST STONE BAND WITH CUT DRIP EDGE. PROVIDE BACKER ROD AND CONTINUOUS SEALANT AT ALL JOINTS.
28	METAL COMPOSITE MATERIAL (MCM) PANEL SYSTEM.
29	8" CMU WALL.
30	STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED STRUCTURAL STEEL.
31	METAL STUD FRAMING. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
32	5/8" TYPE "X" GYP. BOARD. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
33	SOUND ATTENUATING BATT INSULATION. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
34	ACOUSTICAL CEILING SYSTEM. SEE RELFECTED CEILING PLANS FOR ADDITIONAL INFORMATION.
35	6" COLD FORMED METAL STUD FRAMING AT 16" O.C.
36	EXISTING COATED MEMBRANE ROOF SYSTEM TO REMAIN. REMOVE / MODIFY ONLY AS REQUIRED FOR INSTALLATION OF NEW WORK. REPLACE AND RE-COAT TO MATCH EXISTING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
37	EPOXY TERRAZZO BASE. SEE FINISH PLANS.
38	RUBBER BASE. SEE FINISH PLANS.
39	GROUT CAVITY AND CMU SOLID BELOW FLOOR LINE.
40	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS. SEE STRUCTURAL FOR CONNECTION DETAILS.
41	METAL FLASHING AND COUNTERFLASHING, BY METAL CANOPY MANUFACTURER.
42	VERTICAL SLAT FENCE ENCLOSURE AND GATE. SEE CIVIL.
43	RECESSED KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER FOR THRESHOLD AND FLUSH FLOOR TRANSITION.
44	2 LAYERS URETHANE INSULATION. SEE FOODSERVICE DRAWINGS AND COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER.
45	2-1/8" THICK RIGID XPS FOAM CAVITY INSULATION. MIN. R-12.
46	5/8" TYPE "X" GYP. BOARD ON 3-5/8" METAL STUD FRAMING AT 16" O.C, SEE REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

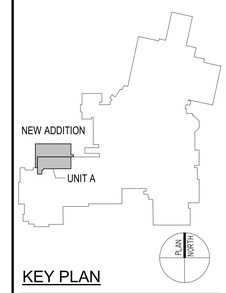
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

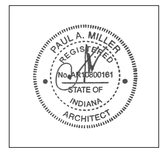
317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS



DRAWN BY: DSR

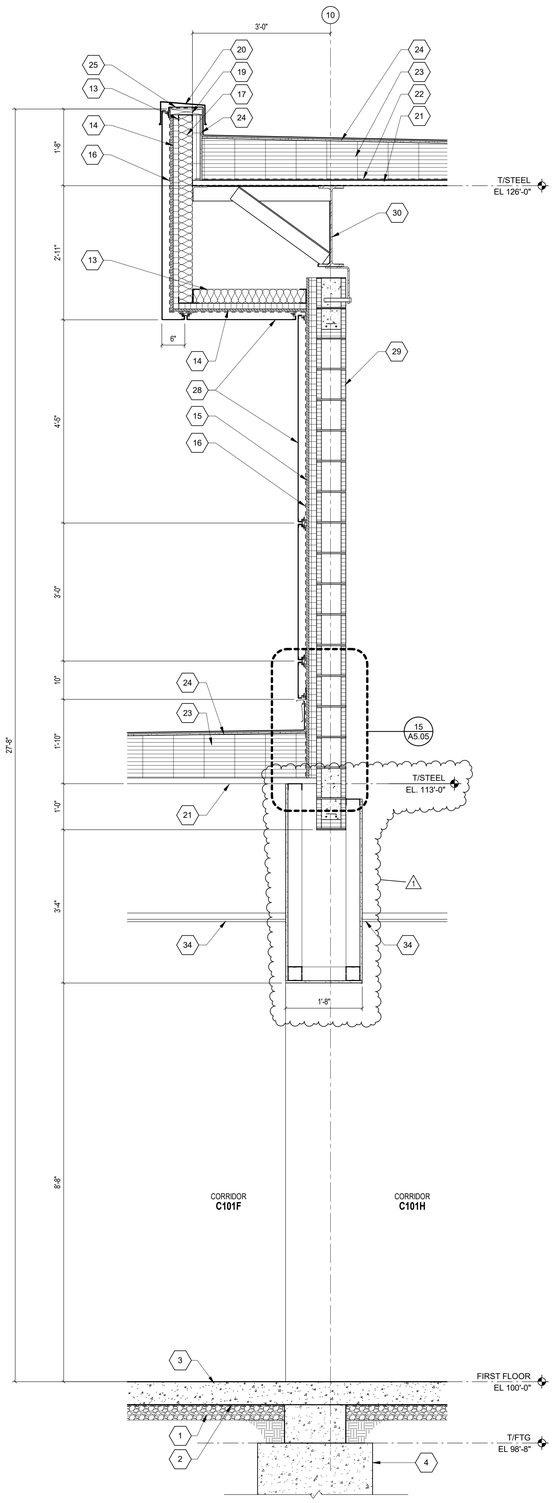
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

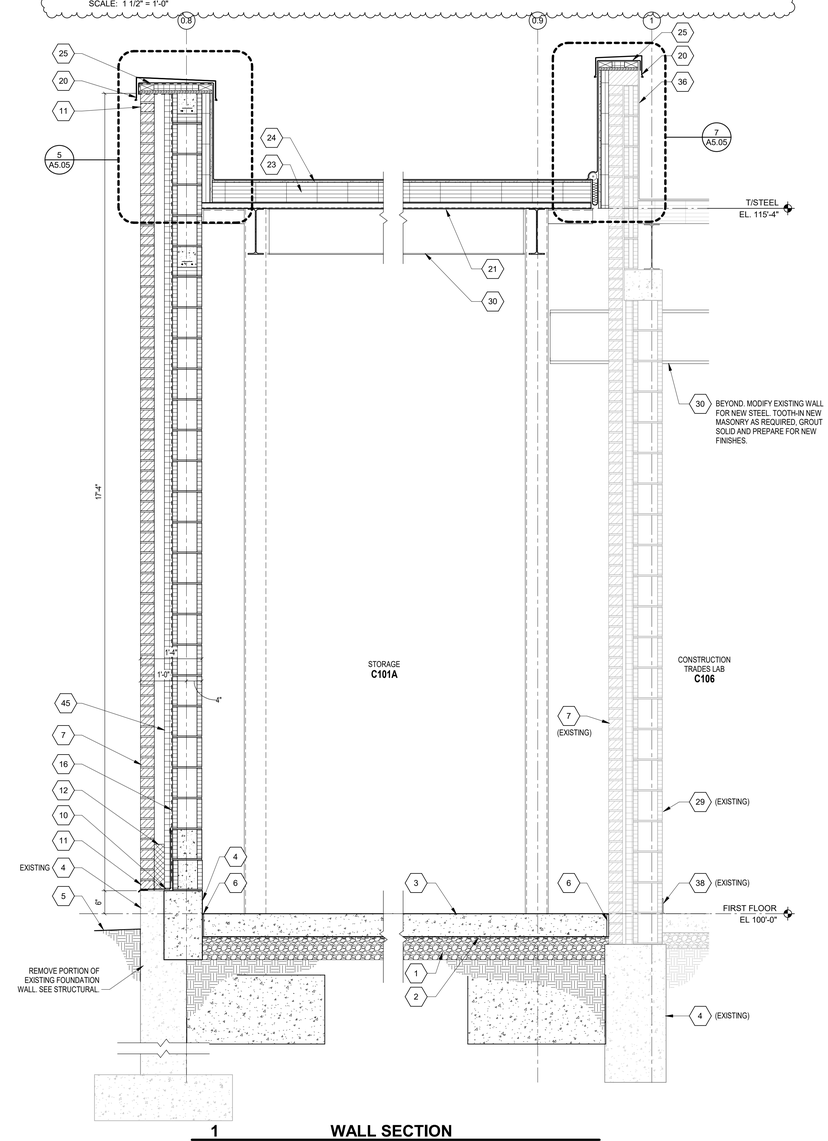
WALL SECTIONS

A5.03



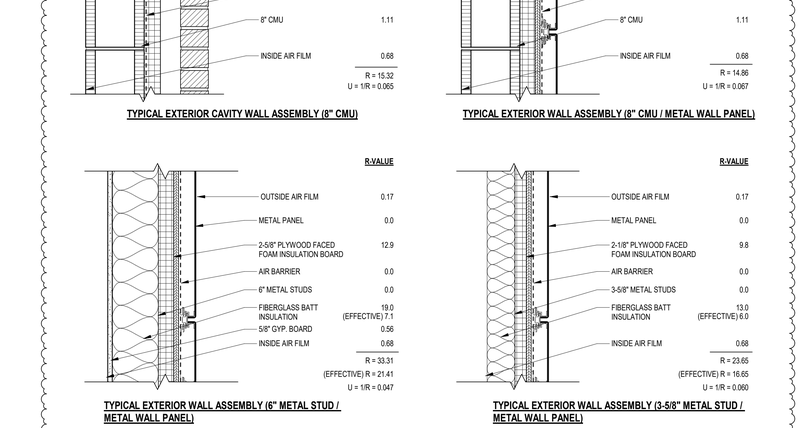
2 WALL SECTION

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



1 WALL SECTION

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



3 EXTERIOR WALL ASSEMBLIES

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

GENERAL NOTES

A. COORDINATE ALL LINTEL AND BOND BEAM REQUIREMENTS WITH STRUCTURAL DRAWINGS AND PROJECT MANUAL.
B. REFER TO THE STRUCTURAL DRAWINGS FOR ALL FOUNDATION AND FOOTING CONDITIONS.
C. PROVIDE HORIZ. JOINT REFINFORCING, TIES, AND OTHER ANCHORAGE/REINFORCEMENT ITEMS AS REQ'D. PER PROJECT MANUAL.
D. ROOF TO EXTERIOR WALL JUNCTIONS: REFER TO DIVISION 07 SECTION "THERMAL INSULATION" FOR SPRAY POLYURETHANE INULATION REQUIRED AT THESE LOCATIONS.
E. WALL INSULATION PENETRATIONS: PROVIDE SPRAY POLYURETHANE INSULATION OR SEALANT AROUND ALL PENETRATIONS OF THE WALL INSULATION BY PIPING, CONDUITS, FRAMING, STRUCTURE, ETC.

WALL SECTION NOTES

(X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
1	COMPACTED GRANULAR FILL, SEE STRUCTURAL.
2	UNDERSLAB VAPOR BARRIER, CONTINUOUS.
3	REINFORCED CONCRETE SLAB-ON-GRADE. SEE STRUCTURAL.
4	REINFORCED CONCRETE FOUNDATION. SEE STRUCTURAL.
5	FINISH GRADE. SEE CIVIL.
6	1/2" FIBER EXPANSION MATERIAL WITH CONTINUOUS SEALANT. SEE SPECIFICATIONS.
7	ANCHORED BRICK VENEER.
8	ALUMINUM FRAMED STOREFRONT SYSTEM.
9	GALVANIZED STEEL LINTEL, SEE STRUCTURAL. PRIME AND PAINT ALL EXPOSED SURFACES.
10	FLEXIBLE, STAINLESS STEEL THROUGH WALL FLASHING WITH HEMMED EDGE STAINLESS STEEL DRIP EDGE SET IN 3 ROWS OF CONTINUOUS MASTIC .
11	CELL VENT WEEPS AT 24" O.C.
12	CONTINUOUS OPEN MESH, CAVITY MORTAR PROTECTION WITH INSECT BARRIER.
13	3-5/8" COLD FORMED METAL STUD FRAMING AT 16" O.C.
14	2-1/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-9.8.
15	2-5/8" PLYWOOD FACED FOAM INSULATION BOARD. MIN. R-12.9.
16	CONTINUOUS FLUID-APPLIED, VAPOR PERMEABLE AIR BARRIER. DETAIL ALL PENETRATIONS PER MANFUCATURER INSTRUCTIONS.
17	UNFACED, FIBERGLASS BATT INSULATION. MIN. R-13.
18	5/8" FRT PLYWOOD SHEATHING.
19	CONTINUOUS 2x FRT WOOD BLOCKING.
20	PRE-FINISHED METAL COPING SYSTEM.
21	1-1/2" METAL ROOF DECK, PAINT ALL EXPOSED SURFACES. SEE STRUCTURAL.
22	CONTINUOUS VAPOR BARRIER. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
23	POLYISO ROOF INSULATION. SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
24	1/4" COVER BOARD. SEE ROOF PLAN AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
25	ADHERED ROOF MEMBRANE. OVERLAP WITH AIR BARRIER AS SHOWN.
26	HSS TUBE STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED SURFACES.
27	8" TALL CAST STONE BAND WITH CUT DRIP EDGE. PROVIDE BACKER ROD AND CONTINUOUS SEALANT AT ALL JOINTS.
28	METAL COMPOSITE MATERIAL (MCM) PANEL SYSTEM.
29	8" CMU WALL.
30	STEEL FRAMING, SEE STRUCTURAL. PAINT ALL EXPOSED STRUCTURAL STEEL.
31	METAL STUD FRAMING. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
32	5/8" TYPE "X" GYP. BOARD. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
33	SOUND ATTENUATING BATT INSULATION. SEE WALL TYPES FOR ADDITIONAL INFORMATION.
34	ACOUSTICAL CEILING SYSTEM. SEE RELFECTED CEILING PLANS FOR ADDITIONAL INFORMATION.
35	6" COLD FORMED METAL STUD FRAMING AT 16" O.C.
36	EXISTING COATED MEMBRANE ROOF SYSTEM TO REMAIN. REMOVE / MODIFY ONLY AS REQUIRED FOR INSTALLATION OF NEW WORK. REPLACE AND RE-COAT TO MATCH EXISTING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
37	EPOXY TERRAZZO BASE. SEE FINISH PLANS.
38	RUBBER BASE. SEE FINISH PLANS.
39	GROUT CAVITY AND CMU SOLID BELOW FLOOR LINE.
40	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS. SEE STRUCTURAL FOR CONNECTION DETAILS.
41	METAL FLASHING AND COUNTERFLASHING, BY METAL CANOPY MANUFACTURER.
42	VERTICAL SLAT FENCE ENCLOSURE AND GATE. SEE CIVIL.
43	RECESSED KITCHEN EQUIPMENT. SEE FOOD SERVICE DRAWINGS. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER FOR THRESHOLD AND FLUSH FLOOR TRANSITION.
44	2 LAYERS URETHANE INSULATION. SEE FOODSERVICE DRAWINGS AND COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT PROVIDER.
45	2-1/8" THICK RIGID XPS FOAM CAVITY INSULATION. MIN. R-12.
46	5/8" TYPE "X" GYP. BOARD ON 3-5/8" METAL STUD FRAMING AT 16" O.C. SEE REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

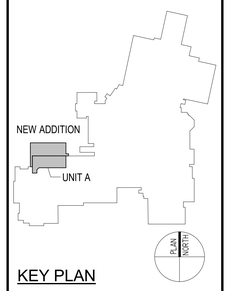
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED ARCHITECT No. AR10800161 STATE OF INDIANA

DRAWN BY: DSR

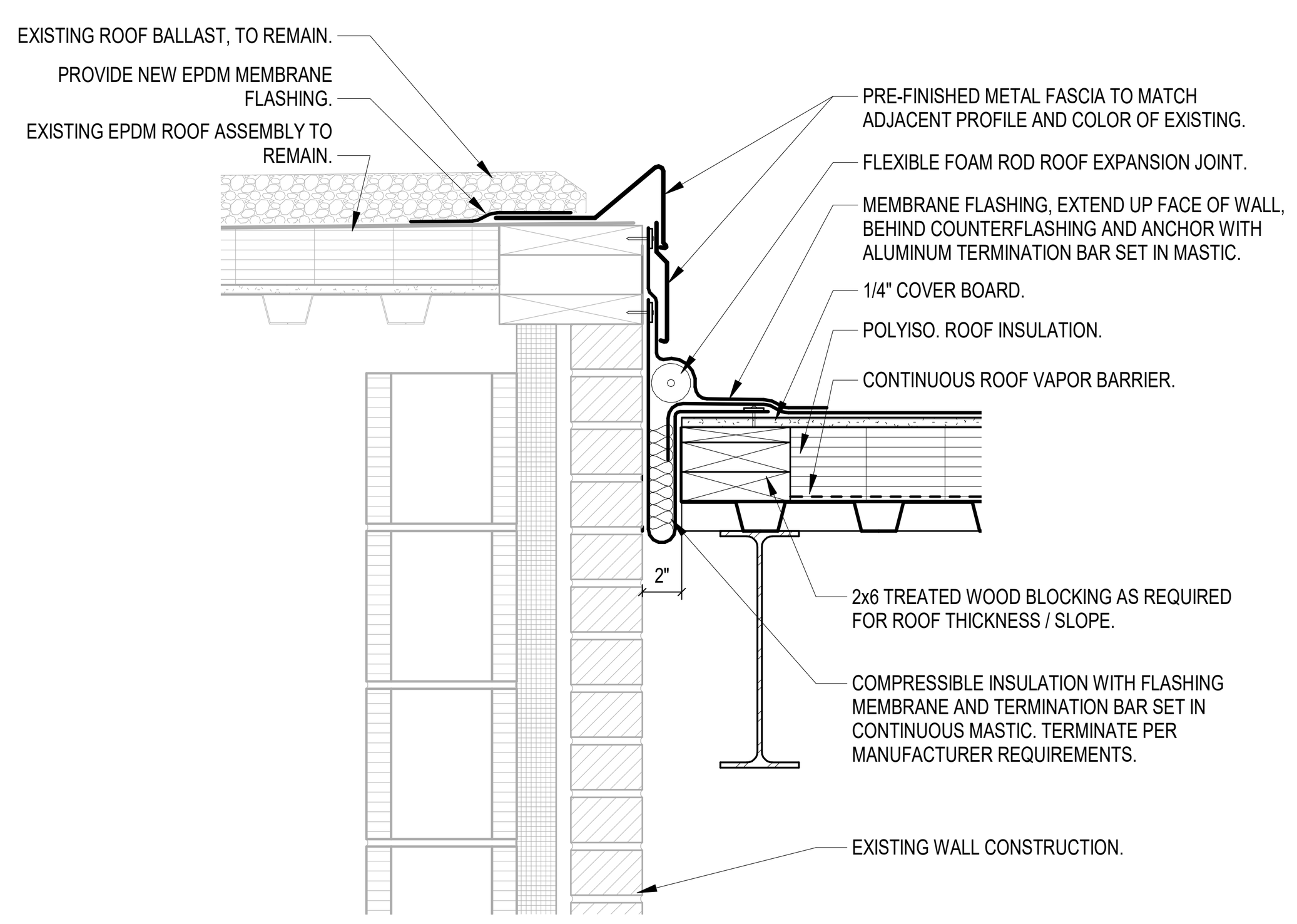
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

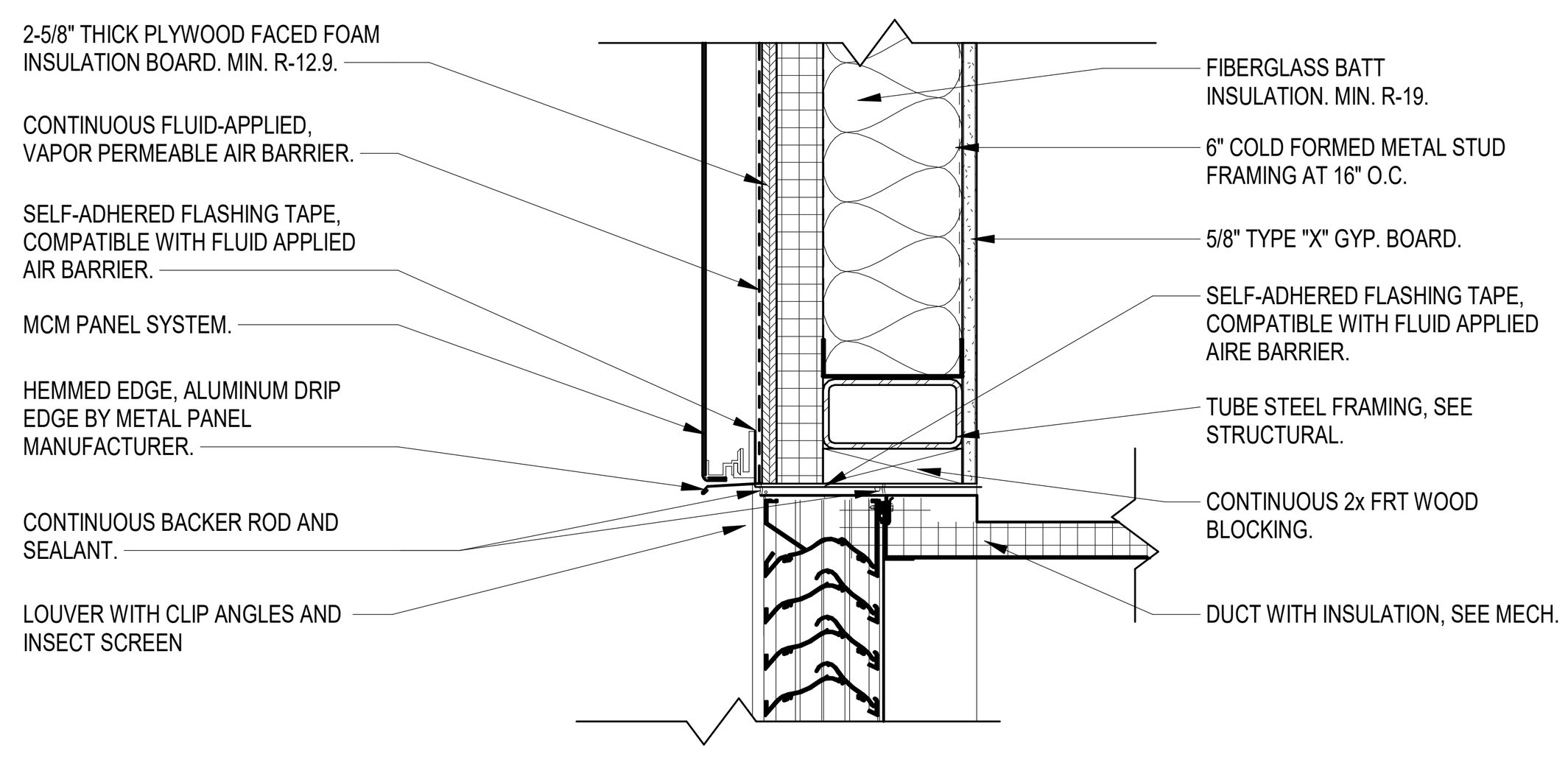
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

WALL SECTIONS

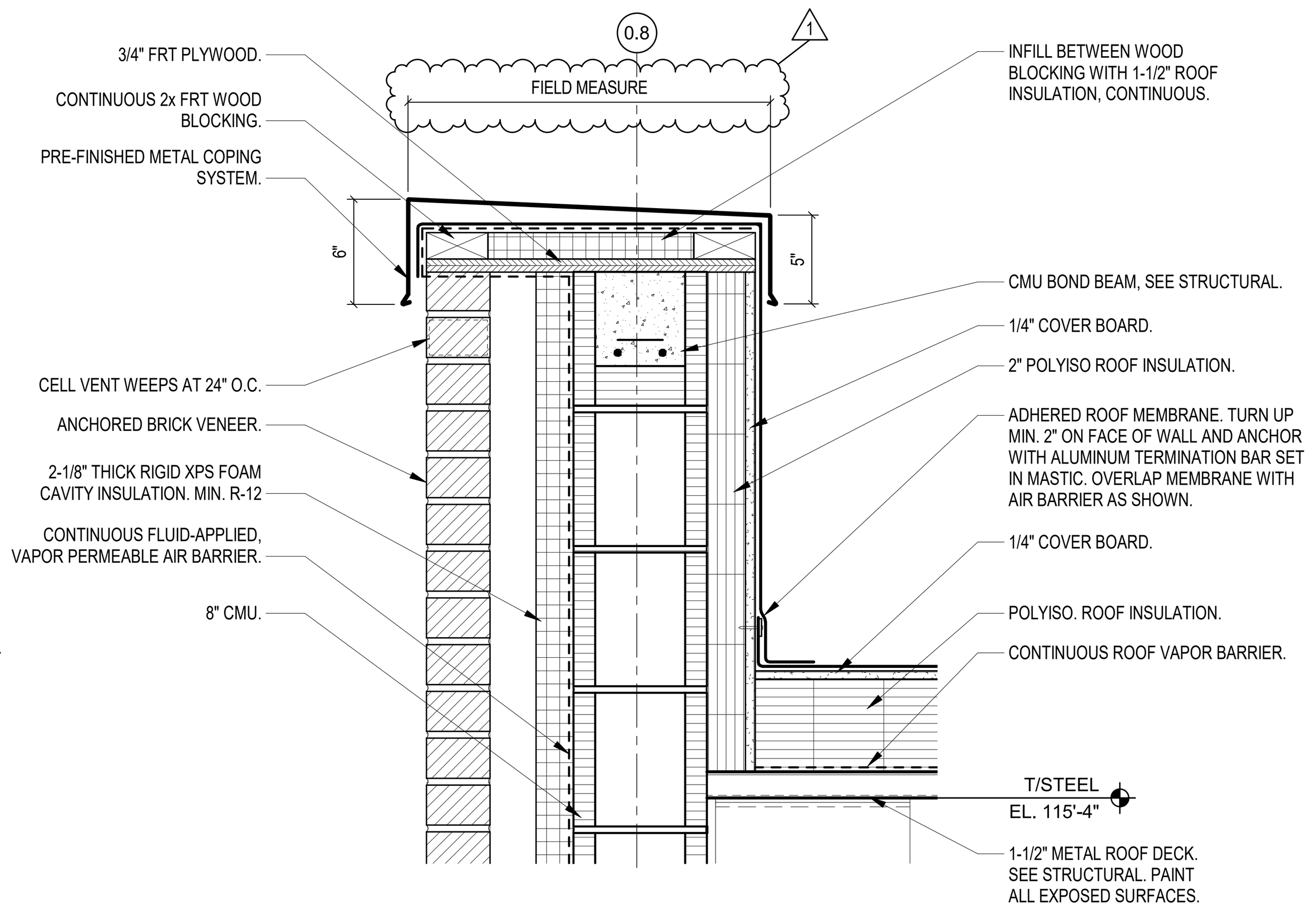
A5.04



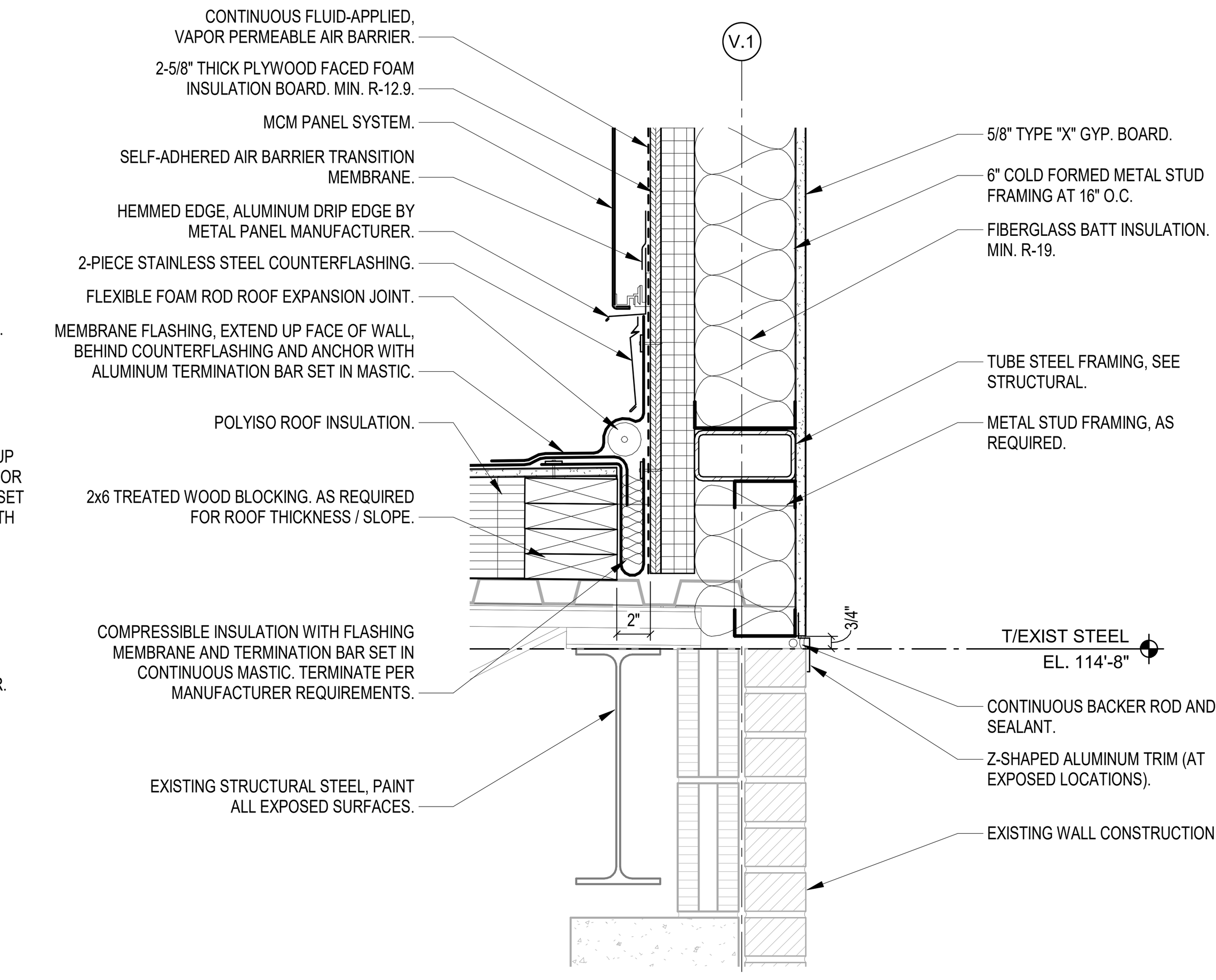
13 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



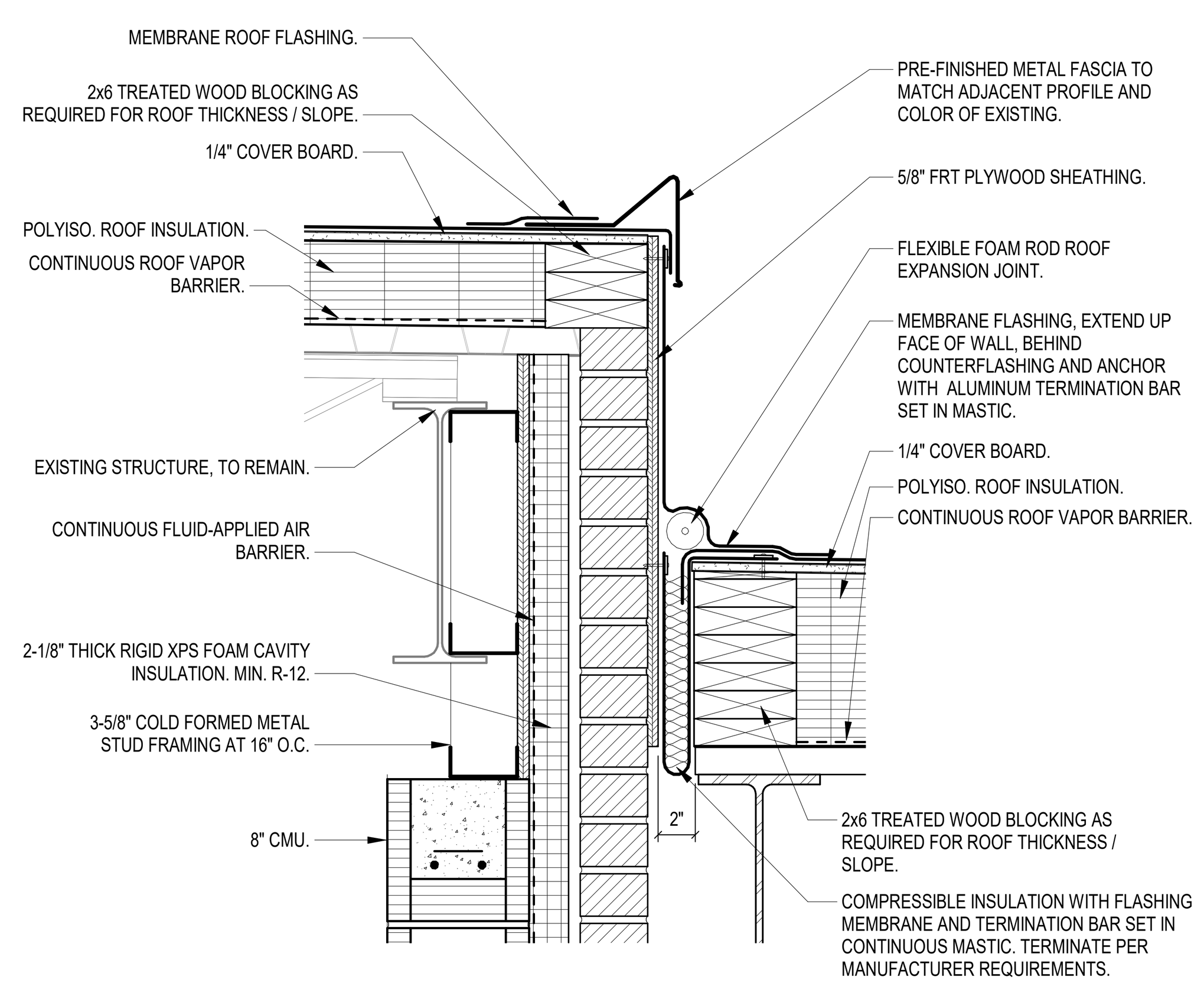
9 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



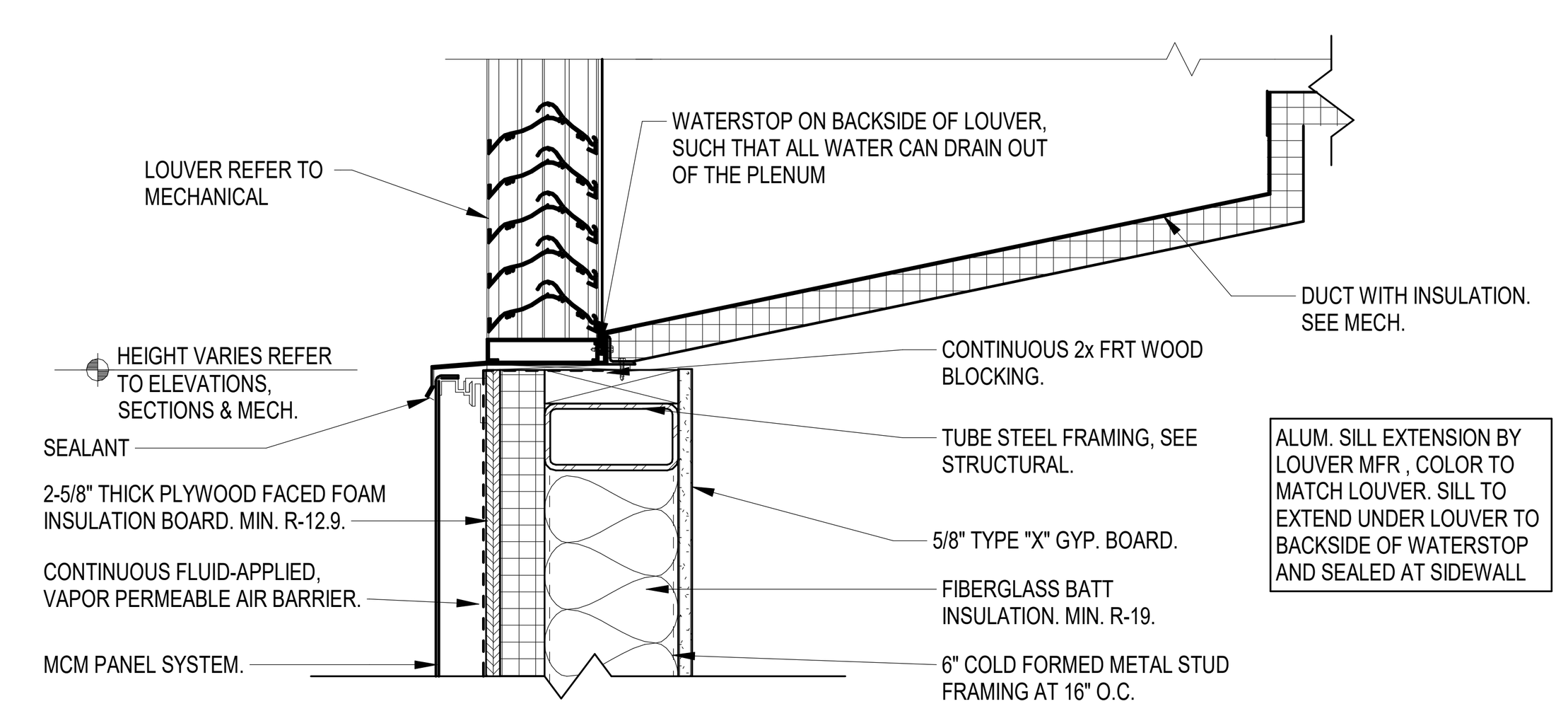
5 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



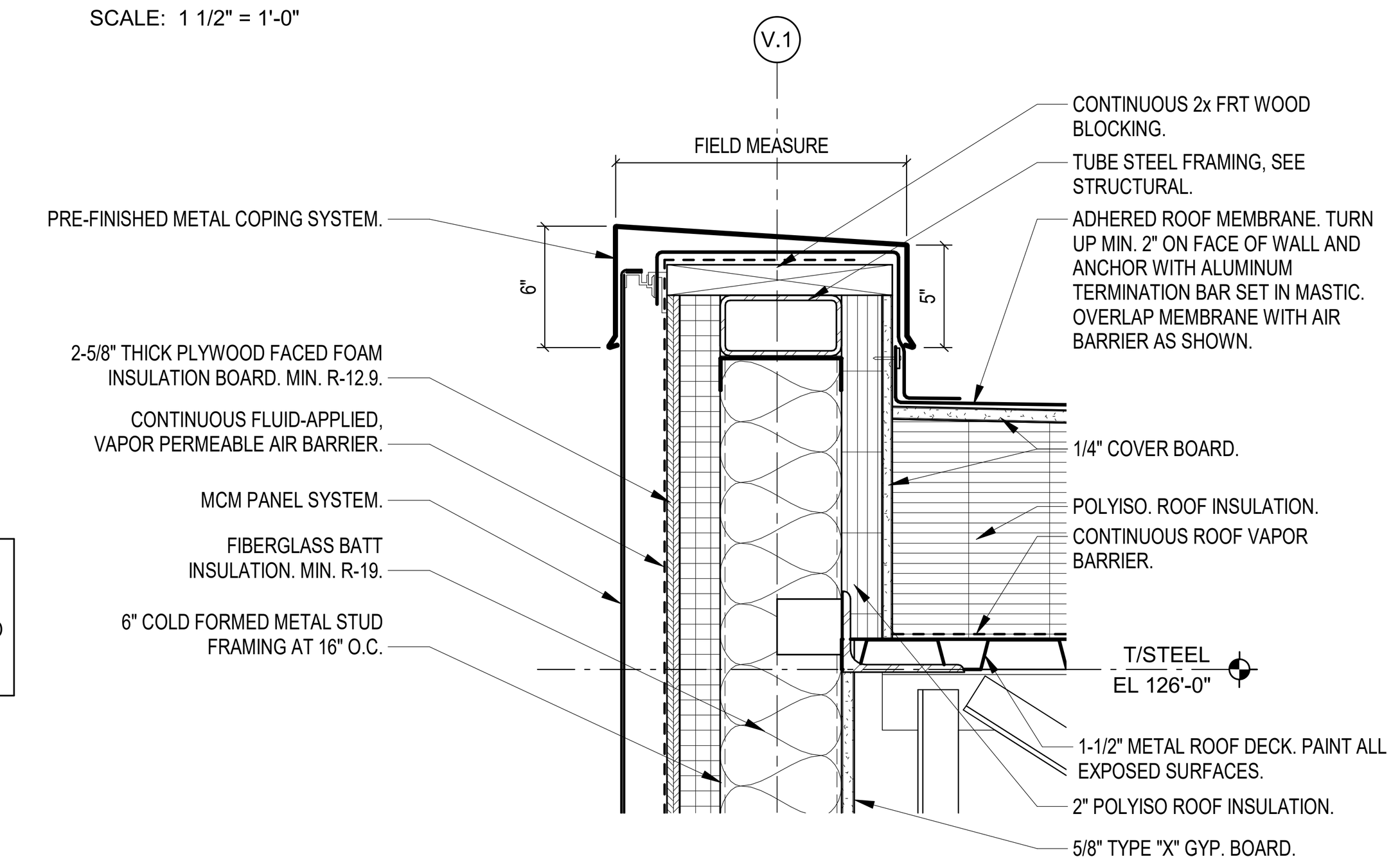
4 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



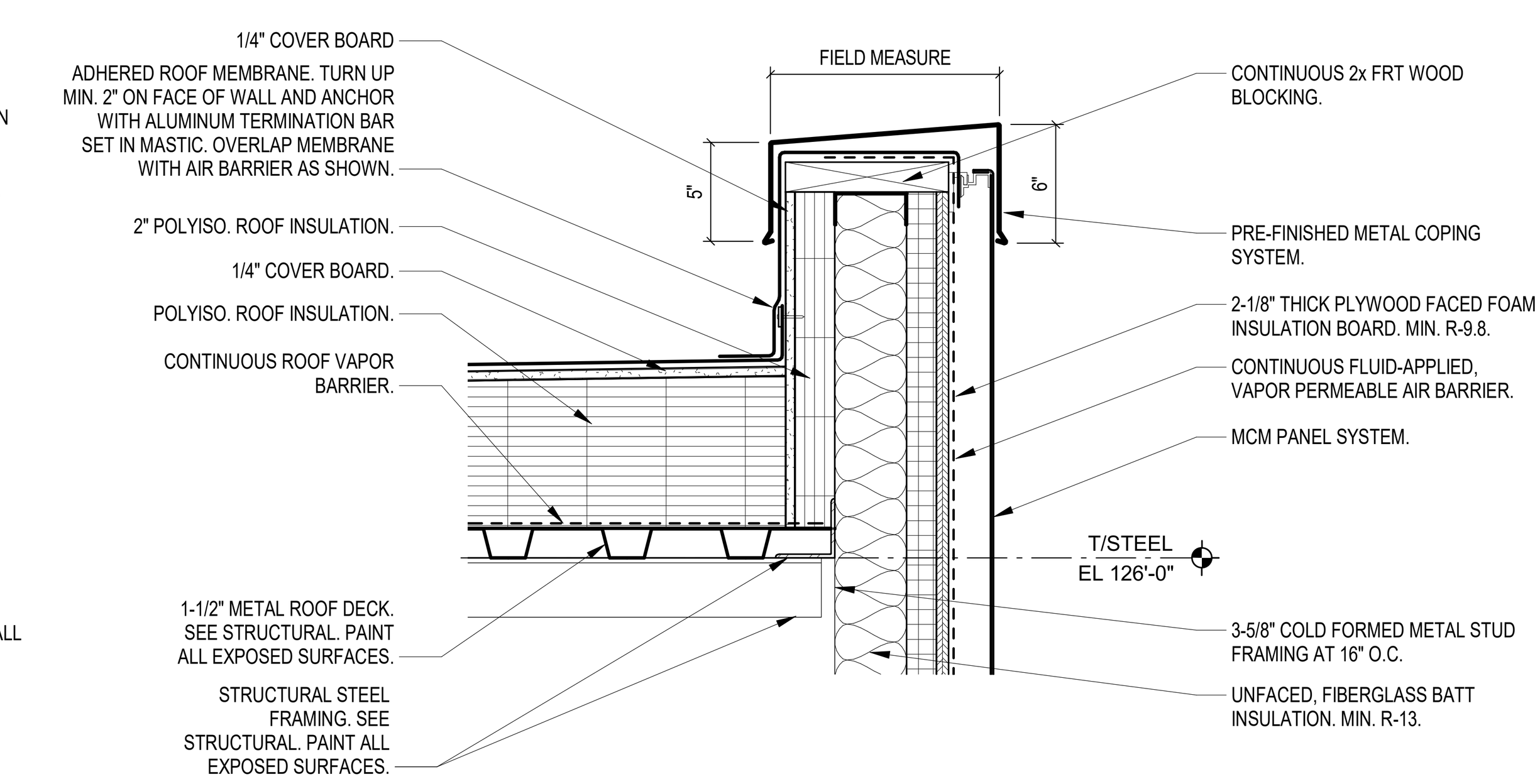
14 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



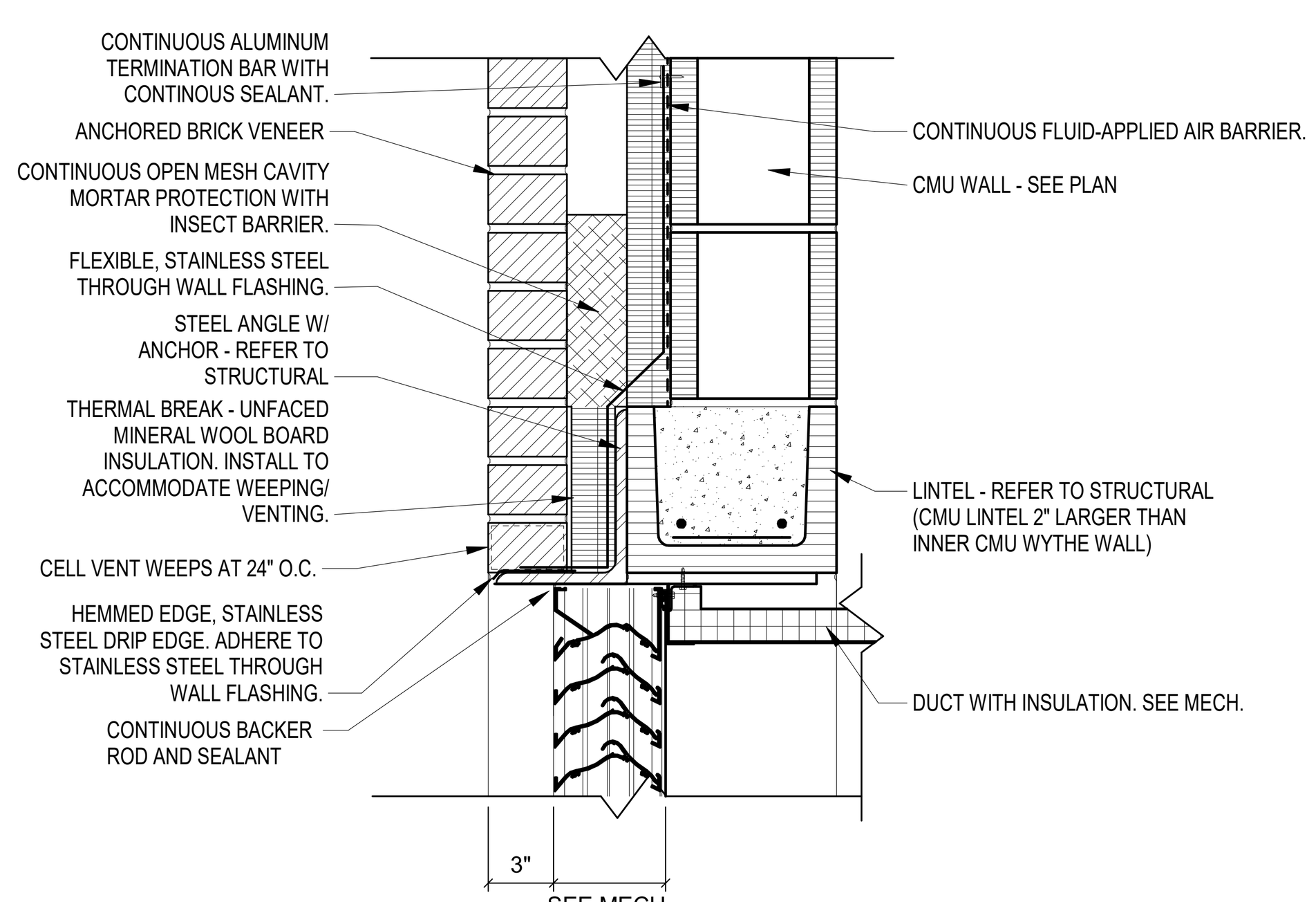
10 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



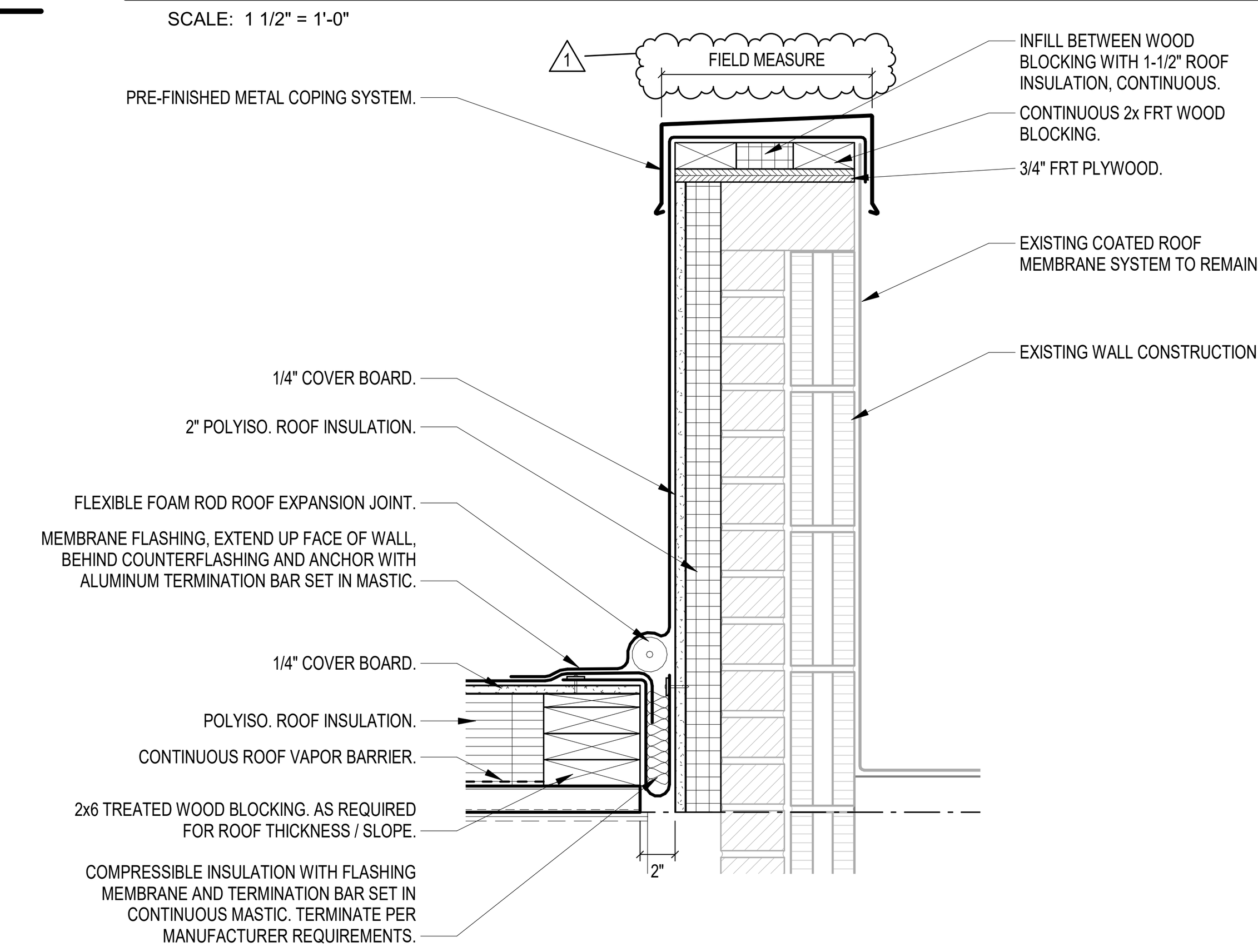
6 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



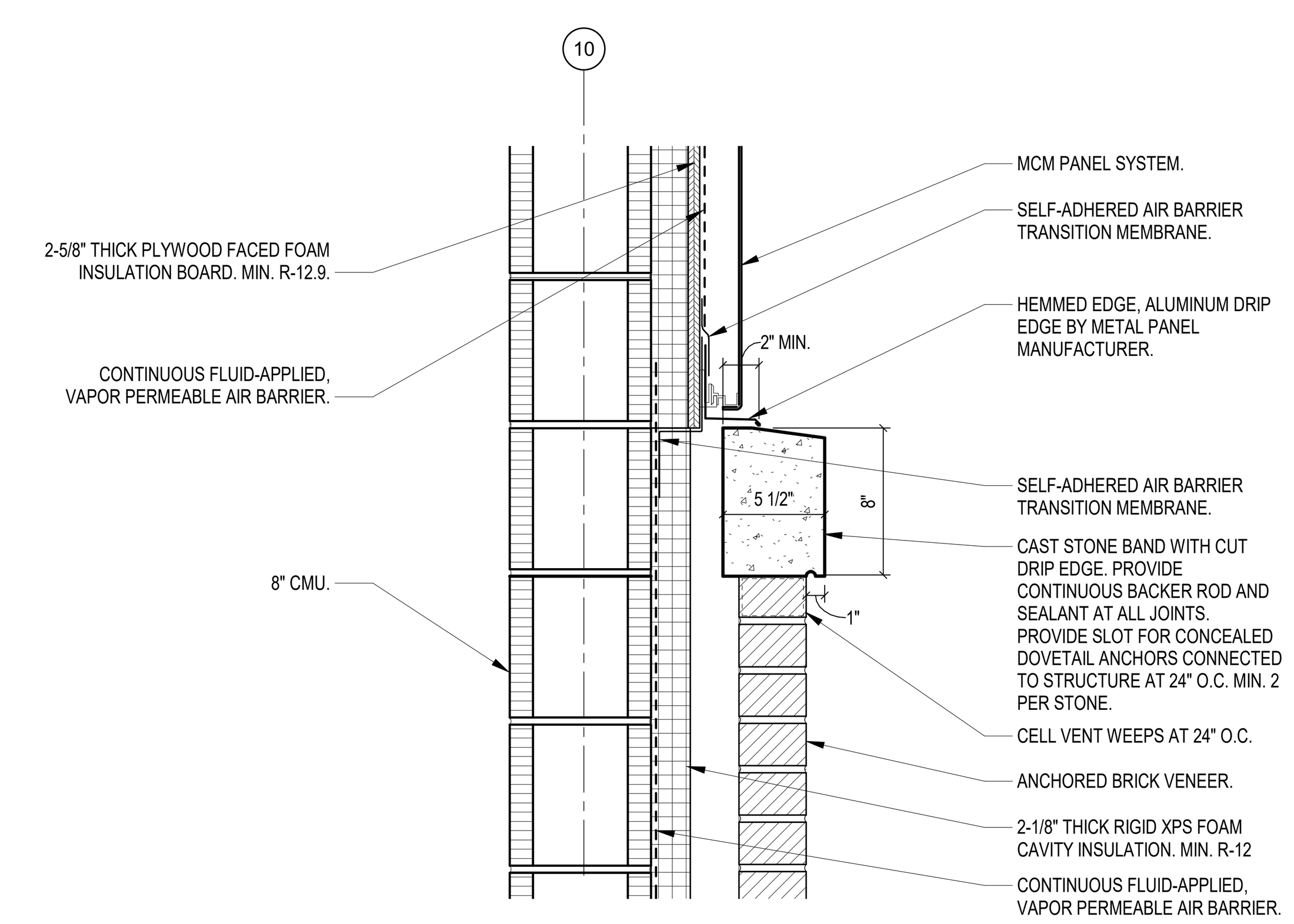
3 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



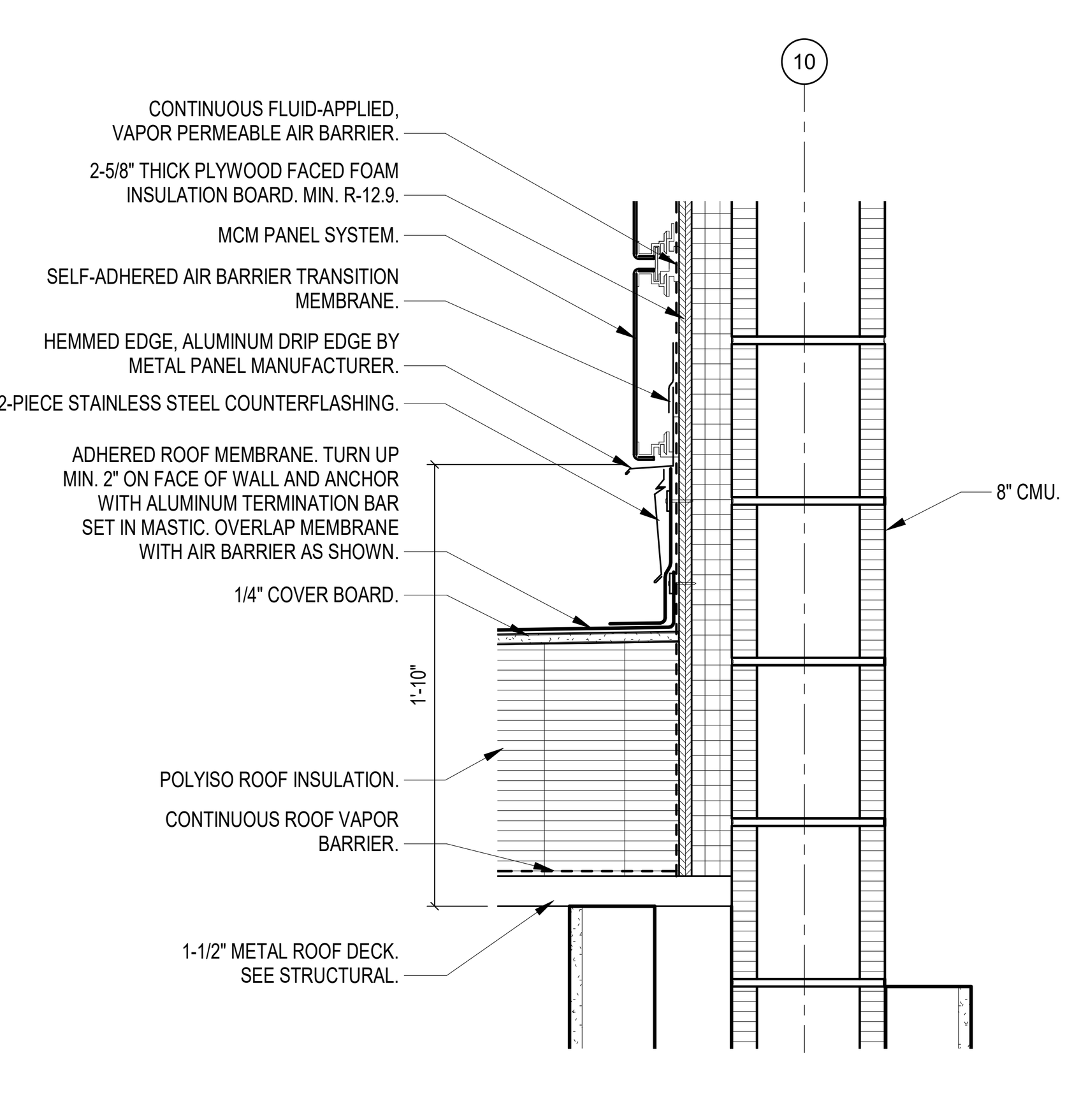
11 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



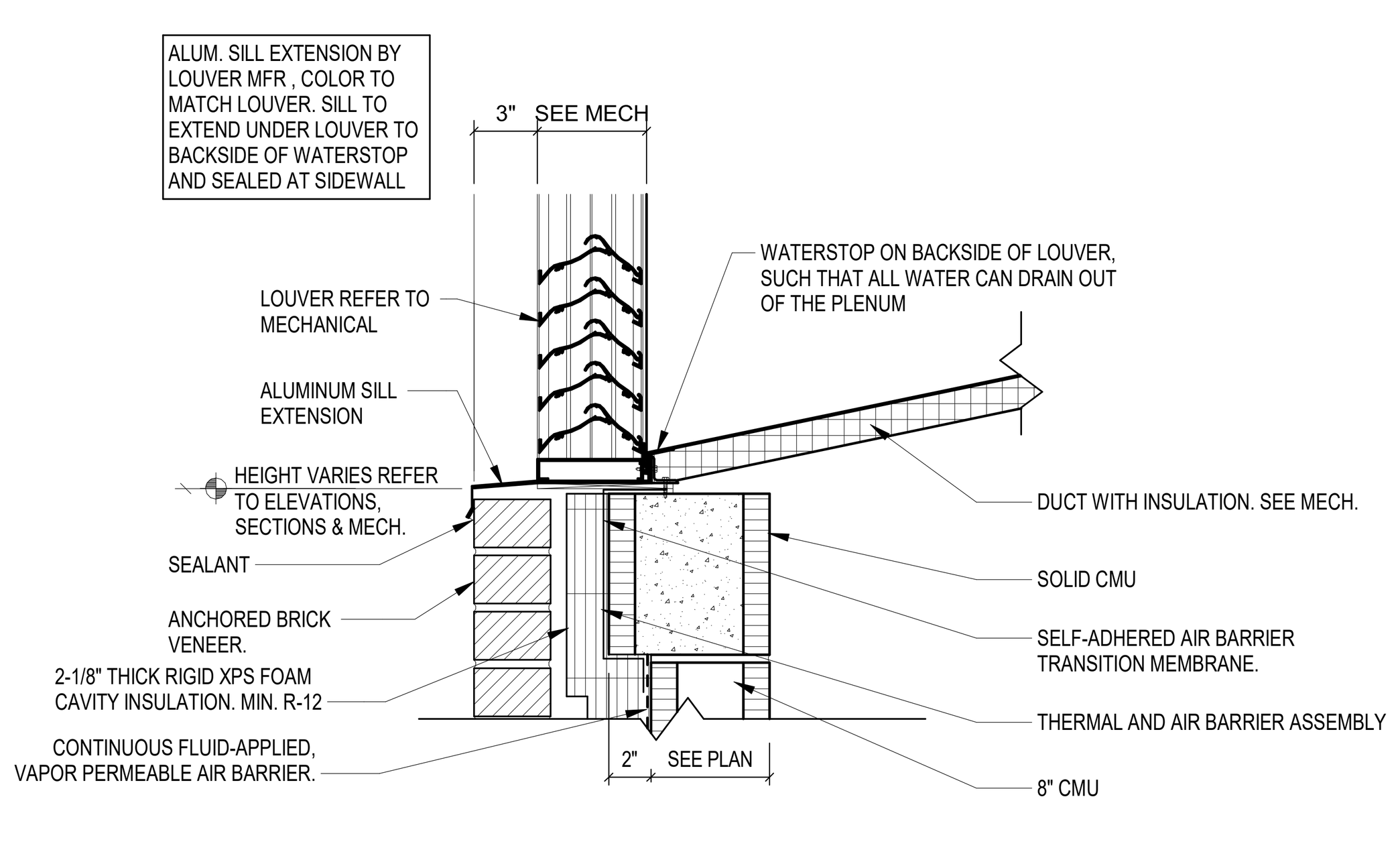
7 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



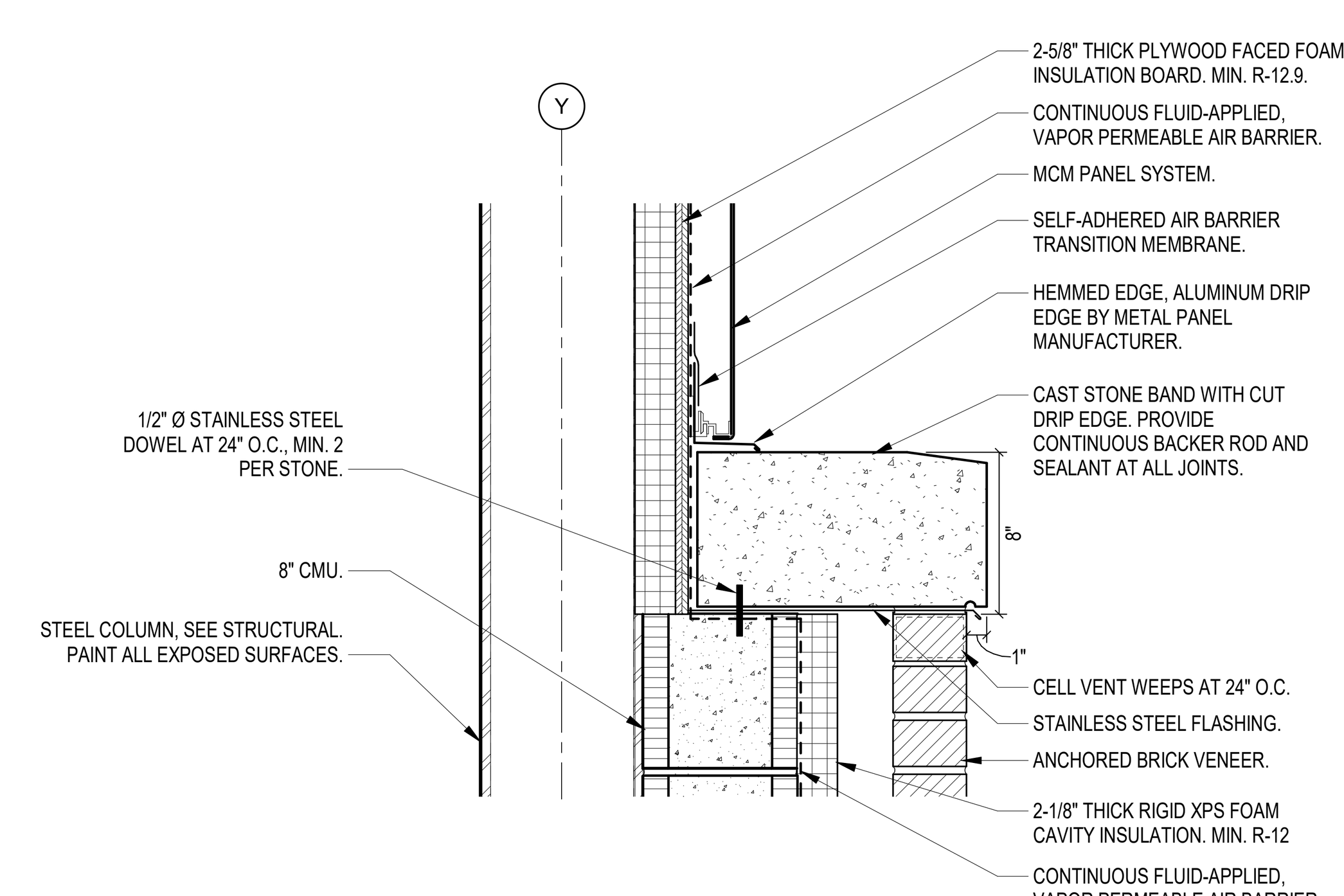
2 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



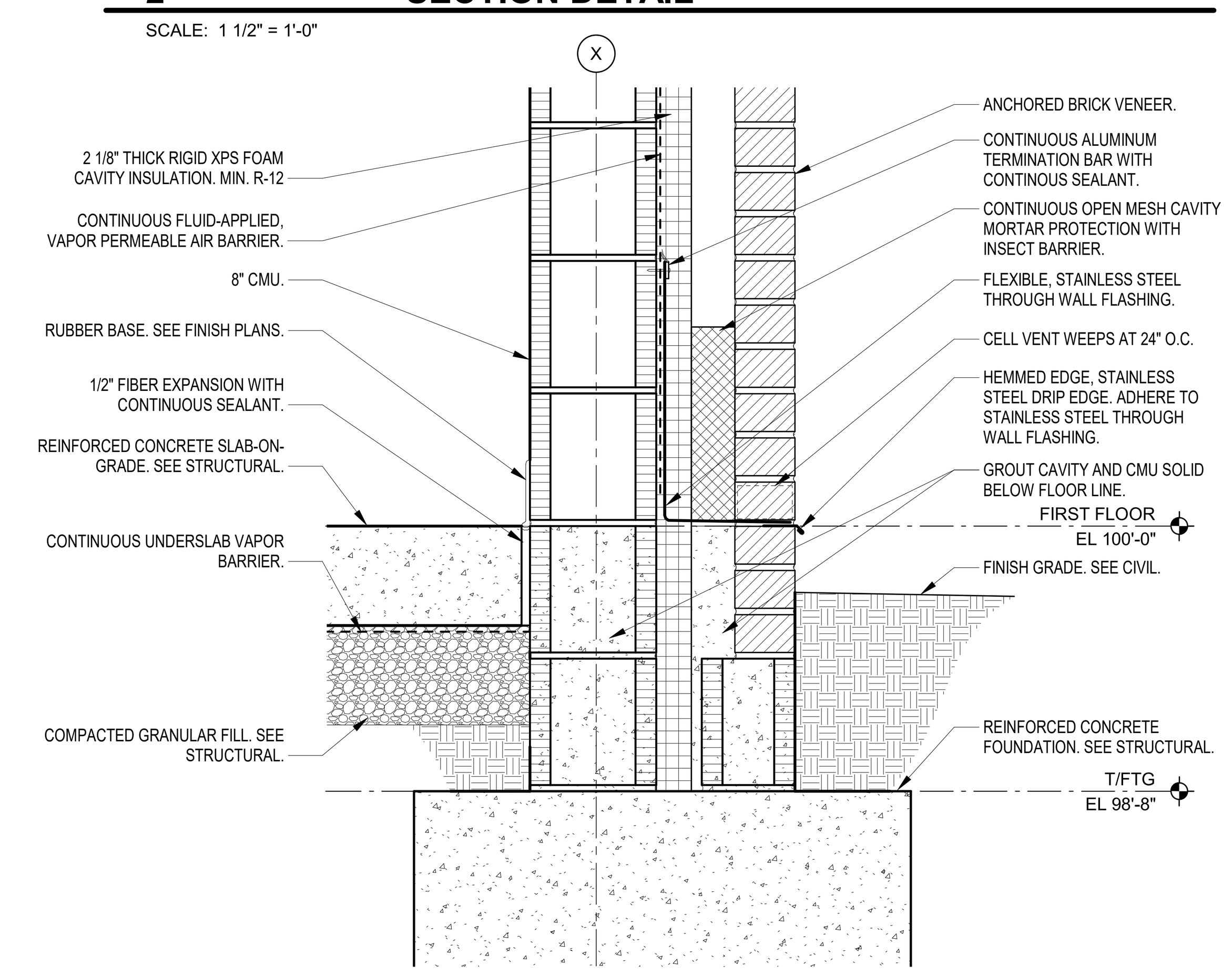
15 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



12 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



8 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



1 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

NEW ADDITION
UNIT A
KEY PLAN

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED No. AR10800161 STATE OF INDIANA ARCHITECT

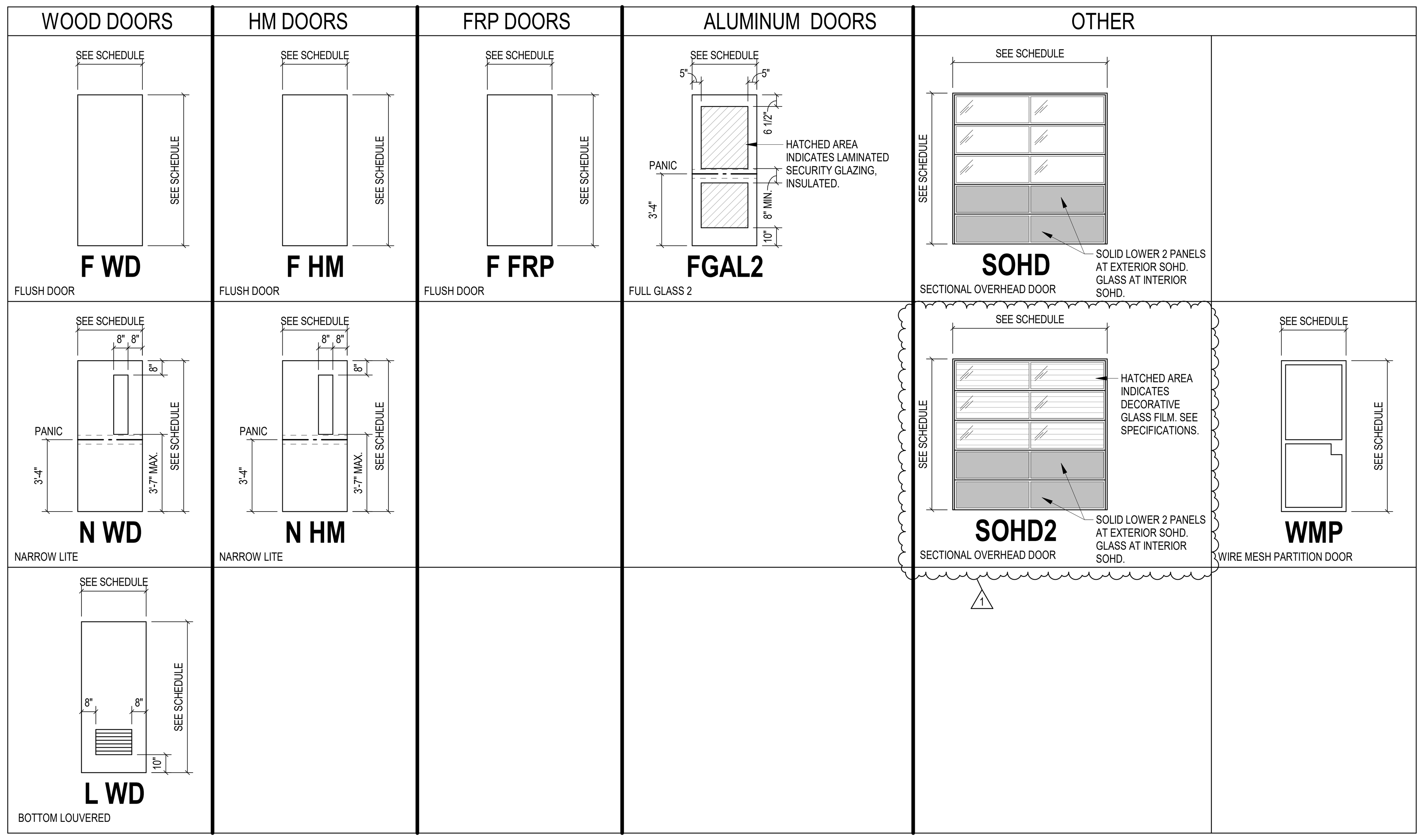
DRAWN BY: DSR/CLP
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

SECTION DETAILS

A5.05

C:\Users\dnoan\Documents\2021_ARCH_221165.01_dnoanR3Y2M.rvt
9/20/2023 10:41:47 AM



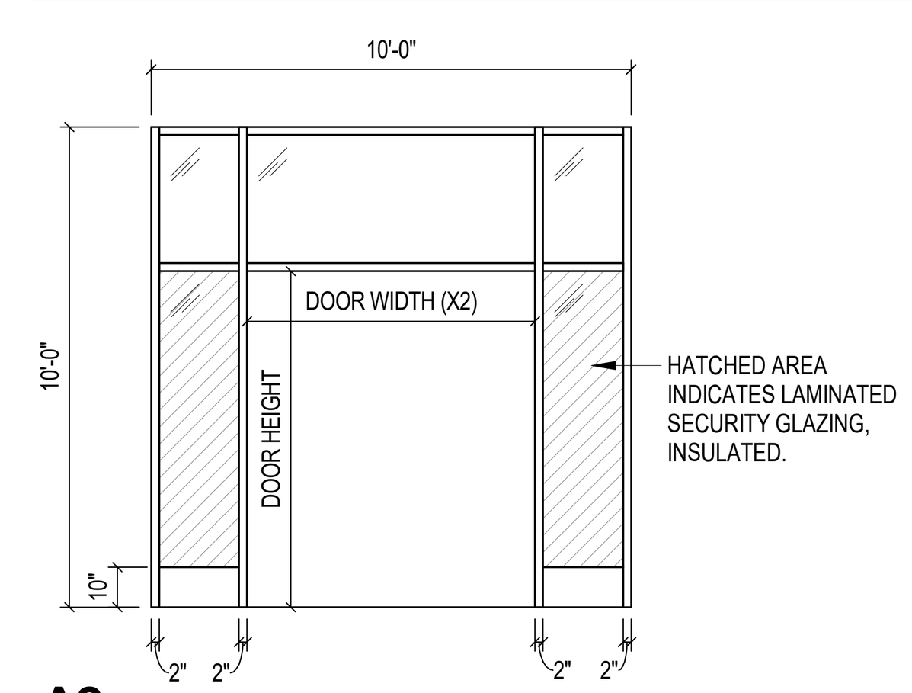
DOOR TYPES

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

DOOR AND FRAME SCHEDULE

DOOR NUMBER	DOORS: DOOR SIZE (WxH)	DOORS: DOOR TYPE	FRAME: FRAME MATERIAL	FRAME: FRAME ELEVATION	FRAME: JAMB DEPTH	FRAME DETAILS: HEAD	FRAME DETAILS: JAMB	FRAME DETAILS: SILL	FIRE RATING IN MINS.	SET NO	HARDWARE: KEYSIDE ROOM	STC RATING	REMARKS	DOOR NUMBER
C100	PR 4'-0" x 7'-0"	F HM	HM	F2	6 3/4"	H1	J1		90	4.2	EXT		CONNECT TO FIRE ALARM SYSTEM.	C100
C101C	PR 3'-0" x 7'-2"	F WD	HM	F2	6 3/4"	H1	J1			6.0	C101J			C101C
C101G	PR 3'-0" x 7'-0"	FGAL2	AL	A2	4 1/2"	H8	J6			3.0	EXT			C101G
C101H	PR 3'-0" x 7'-0"	FGAL2	AL	A2	4 1/2"	H3	7/A1.06	T1		1.0	EXT			C101H
C101J	PR 3'-0" x 7'-2"	N WD	HM	F6	6 3/4"	H7	J7			4.0	C101D			C101J
C104A	3'-0" x 7'-2"	N WD	HM	F5	6 3/4"	H7	J7			12.0	C101D			C104A
C106A	PR 3'-0" x 7'-2"	N WD	HM	F6	8 3/4"	H7	J7			4.1	C101D			C106A
C106B	PR 3'-0" x 7'-2"	F HM	HM	F2	1'-2 3/4"	H7	J7	T3		13.0	C106			C106B
C106C	PR 3'-0" x 7'-2"	F HM	HM	F2	8 3/4"	H1	J1			8.0	C106A			C106C
C106D	3'-0" x 7'-2"	N WD	HM	F1	1'-2 3/4"	H7	J7	T3		18.0	C106B			C106D
C106E	PR 3'-0" x 7'-2"	N WD	HM	F2	8 3/4"	H1	J1			4.1	C101H			C106E
C106F	14'-0" x 16'-0"	SOHD2	STL			H5	J5	T2		20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON.DECORATIVE GLASS FILM OVERLAY.	C106F
C106G	14'-0" x 16'-0"	SOHD2	STL			H5	J5	T2		20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON.DECORATIVE GLASS FILM OVERLAY.	C106G
C106H	3'-0" x 7'-2"	FGAL2	AL	A1	6"	H2	J2, J4	T1		2.0	EXT			C106H
C106I	12'-0" x 12'-0"	SOHD	STL			H6	J4	T2		20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON.	C106I
C106J	3'-0" x 7'-2"	F FRP	AL	A1	4 1/2"	H9	J8			2.0	EXT			C106J
C107AA	PR 3'-0" x 7'-2"	N WD	HM	F2	8 3/4"	H1	J1			4.1				C107AA
C107AB	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			5.0				C107AB
C107BA	3'-0" x 7'-2"	F HM	HM	F1	8 3/4"	H1	J1			15.0	C107B			C107BA
C109A	3'-0" x 7'-2"	N WD	HM	F5	8 3/4"	H1	J1			17.0	C101D			C109A
C109B	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			15.1	C109			C109B
C109C	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			16.1	C107			C109C
C110A	3'-0" x 7'-2"	N WD	HM	F5	8 3/4"	H1	J1			17.0	C101F			C110A
C110B	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			15.1	C110			C110B
C110C	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			16.0	C109			C110C
C111	PR 3'-0" x 7'-2"	F WD	WD	F6	8 3/4"	H7	J7			6.0	C101D			C111
C114A	PR 2'-10" x 7'-2"	N WD	HM	F6	8 3/4"	H7	J7			13.0	C101F			C114A
C114B	4'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			16.0	C116A			C114B
C115A	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			5.0				C115A
C115AA	PR 3'-0" x 7'-2"	F HM	HM	F2	8 3/4"	H1	J1			8.1	C115A			C115AA
C115AB	PR 3'-0" x 7'-2"	F HM	HM	F2	8 3/4"	H1	J1			8.1	C115A			C115AB
C115B	3'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			5.0				C115B
C115C	3'-0" x 7'-2"	FGAL2	AL	A1	6"	H2	J2, J4	T1		2.0	EXT			C115C
C115D	12'-0" x 12'-0"	SOHD	STL			H6	J4	T2		20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON.	C115D
C115E	12'-0" x 12'-0"	SOHD	STL			H6	J4	T2		20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON.	C115E
C115F	3'-0" x 7'-2"	FGAL2	AL	A1	6"	H2	J2, J4			2.0	EXT			C115F
C115G	PR 3'-0" x 7'-2"	F HM	HM	F2	8 3/4"	H1	J1			14.0	C115			C115G
C115H	PR 3'-0" x 7'-2"	N HM	HM	F2	8 3/4"	H1	J1			14.0	C115			C115H
C116A	PR 3'-0" x 7'-2"	N WD	HM	F2	8 3/4"	H1	J1			13.0				C116A
C116B	4'-0" x 7'-2"	N WD	HM	F1	8 3/4"	H1	J1			16.0	C116A			C116B
C116C	3'-0" x 7'-2"	N WD	HM	F1	6 3/4"	H7	J7			16.0	C107A			C116C
C116D	6'-0" x 8'-0"	SOHD	STL			H10	J9			20.0			MOTORIZED; SAFETY EDGE PUSH BUTTON; EXTERIOR MOUNT	C116D
C124A	3'-0" x 7'-2"	N WD	HM	F1	6 3/4"	H7	J7			17.1	C131			C124A
C124B	3'-0" x 7'-2"	F WD	HM	F1	5 3/4"	H4	J3			10.0	C124			C124B
C124C	3'-0" x 7'-2"	F WD	HM	F1	8 3/4"	H1	J1			11.0	C124B			C124C
C133	3'-0" x 7'-2"	F WD	HM	F7	8 3/4"	H7	J7			19.0	C133	STC 40	SOUND GASKETING	C133
C136	3'-0" x 7'-2"	L WD	HM	F1	8 3/4"	H7	J7			7.0	C136			C136
C142	3'-0" x 7'-8"	N WD	HM	F1	8 3/4"	H7	J7			19.0			SOUND GASKETING	C142
C142A	3'-0" x 7'-2"	F WD	HM	F1	8 3/4"	H7	J7			7.1				C142A
C144	3'-0" x 7'-2"	F WD	HM	F1	5 3/4"	H4	J3			9.0				C144
GATE 1	PR 3'-0" x 6'-0"									21			STORAGE LOCKER GATE. PROVIDE LOCK CORE.	GATE 1
GATE 2	4'-0" x 6'-0"									21			STORAGE LOCKER GATE. PROVIDE LOCK CORE.	GATE 2
GATE 3	4'-0" x 6'-0"									21			STORAGE LOCKER GATE. PROVIDE LOCK CORE.	GATE 3

ALUMINUM DOOR FRAME ELEVATIONS



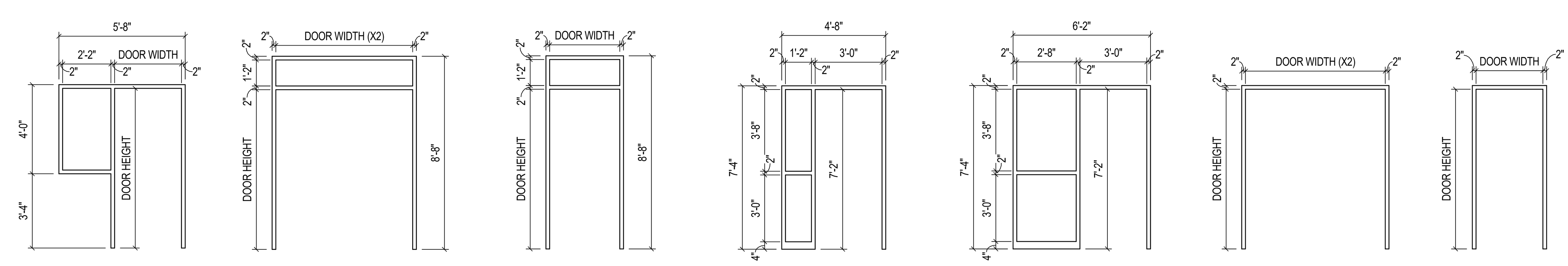
A2
SCALE: 1/4" = 1'-0"

A1
SCALE: 1/4" = 1'-0"

FRAME ELEVATION NOTES

1. ALL DIMENSIONS SHOWN ARE NOMINAL (UNO). FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
2. REFER TO DOOR AND FRAME SCHEDULE FOR ADDITIONAL INFORMATION.

HOLLOW METAL DOOR FRAME ELEVATIONS



F7 SCALE: 1/4" = 1'-0"
F6 SCALE: 1/4" = 1'-0"
F5 SCALE: 1/4" = 1'-0"
F4 SCALE: 1/4" = 1'-0"
F3 SCALE: 1/4" = 1'-0"
F2 SCALE: 1/4" = 1'-0"
F1 SCALE: 1/4" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT
FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER REGISTERED No. AR10300161 STATE OF INDIANA ARCHITECT

DRAWN BY: CLP
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

DOOR AND FRAME SCHEDULE AND ELEVATIONS

A6.01

C:\Users\dnoan\Documents\2021_ARCH_221165.01_dnoanR3Y2M.rvt
9/20/2023 10:43:32 AM

UNIT A - FIRST FLOOR REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

C:\Users\dnoel\Documents\2021_ARCH_221165.01_dnoelR2V2M.rvt
9/20/2023 10:42:17 AM

REFLECTED CEILING PLAN LEGEND

A. PROVIDE REVEAL DRYWALL TRIM AT ALL LOCATIONS WHERE GYPSUM WALL BOARD (GWB) ABUTS A DISSIMILAR MATERIAL. TYPICAL UNLESS NOTED OTHERWISE. REFER TO DETAIL ??-A9.1.

B. BULKHEAD FRAMING SHALL BE ATTACHED TO STRUCTURAL SUPPORTS AND NOT TO THE ROOF DECK

REFLECTED CEILING PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
1	PAINT EXPOSED STRUCTURE ABOVE, REFER TO FINISH PLANS AND/OR INTERIOR ELEVATIONS FOR DETAILS
2	PAINT ALL EXPOSED DUCT, PIPING AND CONDUIT.
3	STEEL BEAM FOR OVERHEAD CHAIN HOIST. SEE EQUIPMENT PLANS / SCHEDULE FOR ADDITIONAL INFORMATION.
4	METAL PANEL SOFFIT. SEE WALL SECTIONS FOR ADDITIONAL INFORMATION. ALIGN SOFFIT JOINTS WITH VERTICAL WALL JOINTS. SEE BUILDING ELEVATIONS.
5	OVERHEAD DOOR
6	PRE-ENGINEERED METAL WALKWAY COVERING SYSTEM WITH INTEGRAL DOWNSPOUTS
7	5/8" GYP. BOARD CEILING ON 3 5/8" METAL STUD FRAMING AT 16" O.C. W/ SOUND ATTENUATING BATT INSULATION BETWEEN FRAMING.
8	KITCHEN HOOD. SEE FOOD SERVICE DRAWINGS.
9	PAINT BOOTH EXHAUST, UP THROUGH ROOF. SEE EQUIPMENT PLANS AND SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION, DIMENSIONS AND OPENINGS BETWEEN ALL TRADES.
10	SOUND DIFFUSING PANELS IN ACOUSTICAL GRID SYSTEM. ACT-3. SEE FINISH PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11	SOUND ABSORBING PANEL IN GRID SYSTEM AT 9'4'" AFF TO BOTTOM OF GRID. ACT-6. SEE FINISH PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12	SOUND ABSORBENT PAD INSULATION LAID ABOVE CEILING.

REFLECTED CEILING PLAN LEGEND

- 10'-4" — INDICATES ELEVATION HEIGHT
- 9'-0" — INDICATES CEILING HEIGHT
- A 9'-0" — INDICATES ACOUSTIC PANEL CEILING TYPE AND HEIGHT. REFER TO PROJECT MANUAL FOR "TYPE"
- LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CLOCK - REFER TO TECHNOLOGY DRAWINGS
- MECHANICAL DIFFUSER - REFER TO MECHANICAL DRAWINGS
- MECHANICAL RETURN AIR GRILLE - REFER TO MECHANICAL DRAWINGS
- CEILING MOUNTED MECHANICAL UNIT - REFER TO MECHANICAL DRAWINGS
- MECHANICAL UNIT HEATER - REFER TO MECHANICAL DRAWINGS
- IC — RECESSED CEILING SPEAKER
- M — MOTION DETECTOR
- CEILING MOUNTED EXIT LIGHT
- CAM — CEILING MOUNTED CAMERA
- W — WIRELESS ACCESS POINT (WAP)
- CJ — CONTROL JOINT IN GYPSUM BOARD CEILING OR BULKHEAD
- S — SOUND REINFORCEMENT SPEAKER
- H — FIRE ALARM HEAT DETECTOR
- F — FIRE ALARM HORN STROBE
- S — FIRE ALARM SPEAKER STROBE
- V — FIRE ALARM STROBE
- P — FIRE ALARM SMOKE DETECTOR
- OCCUPANCY SENSOR
- ACOUSTICAL CEILING TILE (ACT)
- ACOUSTICAL CEILING TILE (ACT)
- GYPSUM WALL BOARD BULKHEAD / CEILING EXTERIOR FINISH SYSTEM (E.F.S.) EXTERIOR INSULATION FINISH SYSTEM (E.I.F.S.)
- INTERIOR FINISH SYSTEM (I.F.S.)
- METAL SOFFIT PANELS

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

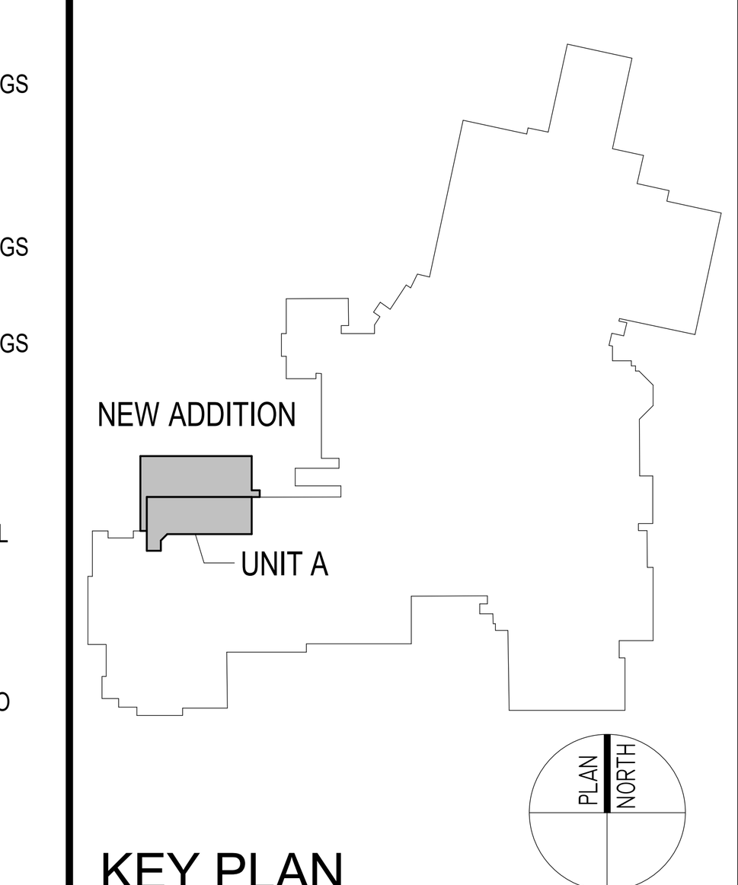
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

100% CONSTRUCTION DOCUMENTS

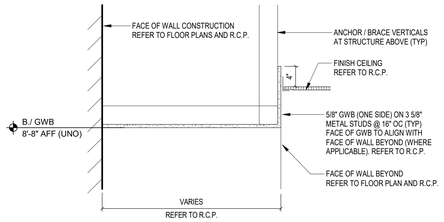
PAUL A. MILLER
REGISTERED
No. AR10800161
STATE OF INDIANA
ARCHITECT

DRAWN BY: CLP
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

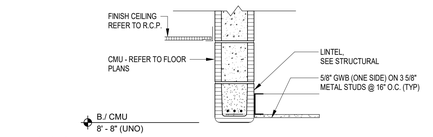
UNIT A - FIRST FLOOR REFLECTED CEILING PLAN

A9.01



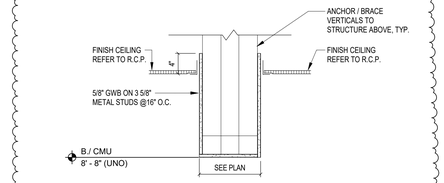
1 SECTION - BULKHEAD

SCALE: 1" = 1'-0"



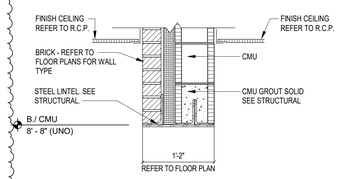
2 SECTION - BULKHEAD

SCALE: 1" = 1'-0"



3 SECTION - BULKHEAD

SCALE: 1" = 1'-0"



4 SECTION - BULKHEAD

SCALE: 1" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

PLAN NORTH

100% CONSTRUCTION DOCUMENTS

PAUL A. MILLER
REGISTERED
No. A01300161
STATE OF
INDIANA
ARCHITECT

DRAWN BY: CLP

PROJECT NUMBER: 221165.01

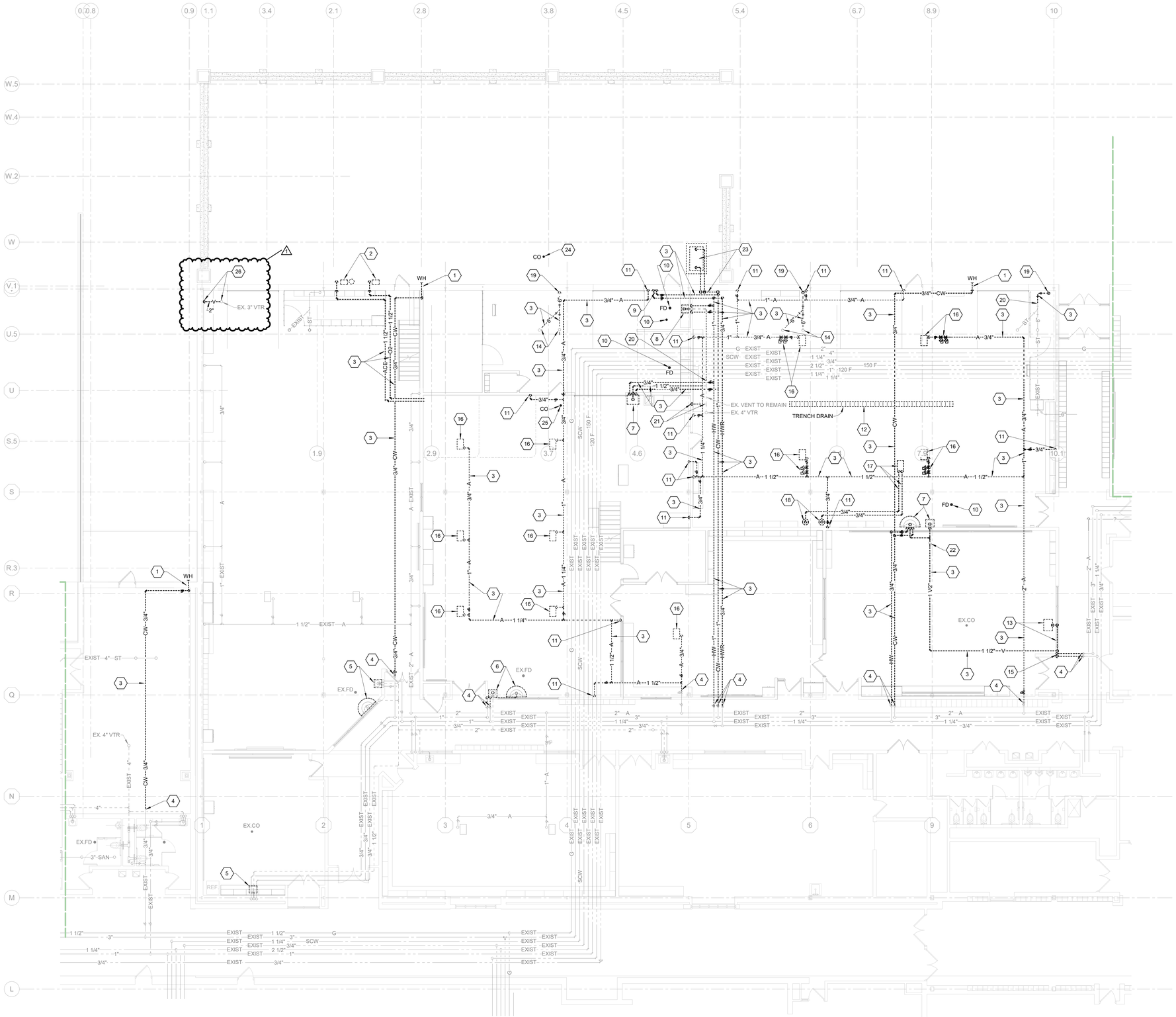
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

CEILING DETAILS

A9.03

C:\Users\rdrown\Documents\2021_ARCH_221165.01_drownR3Y2M.rvt
9/20/2023 10:42:19 AM



UNIT A - FIRST FLOOR PLUMBING DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL PROVIDE CUTTING AND PATCHING OF EXISTING CONCRETE SLAB AS REQUIRED TO ACCOMMODATE INSTALLATION OF UNDERSLAB PIPING SYSTEMS. PATCH CONCRETE SLAB TO MATCH EXISTING FINISHES.

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING REMOVAL AND REPLACEMENT AS REQUIRED THROUGHOUT EXISTING AREAS TO ACCOMMODATE NEW PIPING INSTALLATION. DAMAGED TILES SHALL BE REPLACED WITH NEW MATCHING EXISTING TILES WHERE REMOVED TILES ARE DAMAGED.

UNIT A DEMO PLAN NOTES

1 REMOVE EXTERIOR WALL HYDRANT AND ASSOCIATED PIPING COMPLETE. PATCH EXISTING WALL PENETRATION TO MATCH EXISTING FINISHES.

2 REMOVE ACETYLENE AND OXYGEN EQUIPMENT, CYLINDER CONNECTORS AND ALL ASSOCIATED PIPING COMPLETE. PATCH WALL PENETRATION TO MATCH EXISTING FINISHES.

3 REMOVE PIPING SYSTEM AND ACCESSORIES BACK TO ACTIVE MAIN OR POINT OF NEW CONNECTION.

4 REMOVE PIPING BACK TO THIS POINT AND CAP.

5 REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED PIPING COMPLETE. EXISTING WASTE AND WATER ROUGH-INS TO REMAIN. PREPARE ROUGH-INS FOR CONNECTION TO NEW.

6 REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED PIPING COMPLETE. REMOVE HORIZONTAL WASTE FROM WASHFOUNTAIN BACK TO SANITARY DROP AND CAP. REMOVE WASTE BACK INTO WALL AND CAP. REMOVE WATER SUPPLY PIPING UP TO ABOVE CEILING. PATCH WALL TO MATCH EXISTING FINISHES.

7 REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED PIPING COMPLETE. REMOVE WASTE TO BELOW SLAB AND CAP. REMOVE WATER AND VENT PIPING UP TO ABOVE CEILING.

8 REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED PIPING COMPLETE. REMOVE WASTE BACK INTO WALL AND CAP. REMOVE WATER PIPING UP TO ABOVE CEILING.

9 REMOVE SHOWER VALVE, HEAD AND ALL ASSOCIATED PIPING COMPLETE.

10 REMOVE FLOOR DRAIN GRATE AND PLUG OUTLET. FILL DRAIN BODY WITH FLOWABLE CONCRETE TO FLUSH WITH EXISTING SLAB. PATCH SLAB TO MATCH EXISTING FINISHES.

11 REMOVE COMPRESSED AIR OUTLET STATION AND ALL ASSOCIATED VALVES AND PIPING COMPLETE.

12 REMOVE TRENCH DRAIN GRATE AND DRAIN BODY COMPLETE. PLUG WASTE OUTLET BELOW SLAB. PATCH CONCRETE SLAB TO MATCH EXISTING FINISHES.

13 REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED PIPING COMPLETE. REMOVE HORIZONTAL WASTE FROM SINK BACK TO SANITARY DROP AND CAP. REMOVE WATER SUPPLY PIPING WITHIN WALL COMPLETE. PATCH WALL TO MATCH EXISTING FINISHES.

14 REMOVE STORM PIPING BACK TO DRAIN OUTLET. EXISTING DRAIN OUTLET TO REMAIN. PREPARE DRAIN OUTLET FOR CONNECTION TO NEW.

15 REMOVE WASTE DOWN TO ABOVE SLAB AND CAP. REMOVE WATER AND VENT PIPING UP TO ABOVE CEILING.

16 REMOVE COMPRESSED AIR HOSE REEL, AIR FILTER, LUBRICATOR AND ALL ASSOCIATED PIPING AND VALVES COMPLETE.

17 REMOVE MOTOR OIL / ANTI-FREEZE DISTRIBUTION HOSE REEL AND ALL ASSOCIATED VALVES AND PIPING COMPLETE.

18 REMOVE DRUM MOUNTED PUMPS, FLEX CONNECTORS AND ALL ASSOCATED PIPING AND VALVES COMPLETE.

19 REMOVE 6" STORM DOWN TO BELOW SLAB AND CAP. PATCH SLAB TO MATCH EXISTING FINISHES.

20 REMOVE PIPING BACK TO THIS POINT AND PREPARE REMAINING PIPING FOR CONNECTION TO NEW.

21 REMOVE 3" VENT PIPING DOWN TO BELOW SLAB AND CAP. PATCH SLAB TO MATCH EXISTING FINISHES. CAP VENT AT VENT MAIN ABOVE CEILING.

22 REMOVE VENT PIPING UP TO BELOW ROOF STRUCTURE AND CAP. CAP VENT THRU ROOF AT ROOF LEVEL.

23 REMOVE USED ENGINE OIL AND ANTI-FREEZE CONTAINMENT TANK AND CONCRETE PIT COMPLETE. REMOVE ASSOCIATED PIPING AND VALVES COMPLETE. PATCH WALL PENETRATION TO MATCH EXISTING FINISHES.

24 REMOVE EXTERIOR CLEANOUT ASSEMBLY COMPLETE. PLUG TOP OF REMAINING PIPE. PATCH CONCRETE SLAB TO MATCH NEW FLOOR FINISHES. REFER TO INTERIOR DRAWINGS FOR FLOOR FINISH INFORMATION.

25 REMOVE INTERIOR CLEANOUT ASSEMBLY COMPLETE. PLUG TOP OF REMAINING PIPE. PATCH CONCRETE SLAB TO MATCH NEW FLOOR FINISHES. REFER TO INTERIOR DRAWINGS FOR FLOOR FINISH INFORMATION.

1 26 REMOVE EXISTING 2" VENT DOWN TO BELOW SLAB AND CAP. REMOVE VENT PIPING UP TO VENT THRU ROOF AND PREPARE REMAINING PIPING FOR CONNECTION TO NEW. EXISTING 3" VENT THRU ROOF TO REMAIN.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

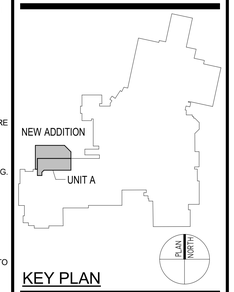
ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JE

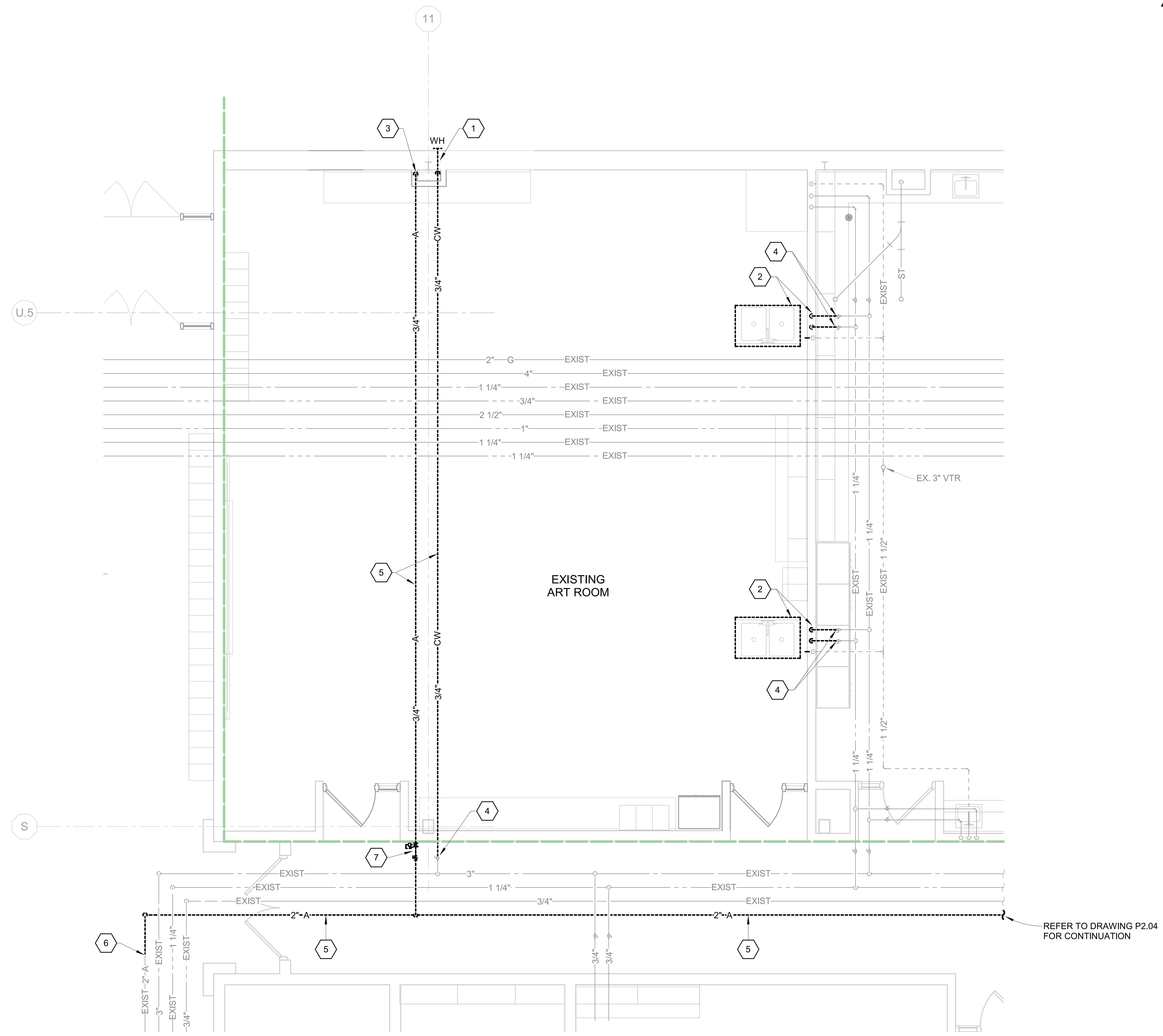
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - FIRST FLOOR PLUMBING DEMOLITION PLAN

PD.01



UNIT B - FIRST FLOOR PLUMBING DEMOLITION PLAN

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

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING REMOVAL AND REPLACEMENT AS REQUIRED THROUGHOUT EXISTING AREAS TO ACCOMMODATE NEW PIPING INSTALLATIONS. DAMAGED TILES SHALL BE REPLACED WITH NEW MATCHING EXISTING TILES WHERE REMOVED TILES ARE DAMAGED.

UNITS B & C DEMO PLAN NOTES

1 REMOVE EXTERIOR WALL HYDRANT AND ASSOCIATED PIPING COMPLETE. SEAL WALL PENETRATION WEATHERTIGHT. PATCH EXISTING WALL PENETRATION TO MATCH EXISTING EXTERIOR FINISHES.

2 REMOVE ART SINK AND ALL ASSOCIATED PIPING AND VALVES COMPLETE. REMOVE EXISTING SOLIDS INTERCEPTOR AND ALL ASSOCIATED PIPING. REMOVE WASTE PIPING BACK INTO WALL AND CAP. REMOVE WATER PIPING UP TO ABOVE CEILING.

3 REMOVE COMPRESSED AIR OUTLET STATION AND ALL ASSOCIATED VALVES AND PIPING COMPLETE.

4 REMOVE PIPING BACK TO THIS POINT AND CAP.

5 REMOVE PIPING COMPLETE.

6 REMOVE PIPING BACK TO THIS POINT AND PREPARE REMAINING PIPING FOR CONNECTION TO NEW.

7 REMOVE AIR PRESSURE REGULATOR AND SHUTOFF VALVE COMPLETE.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

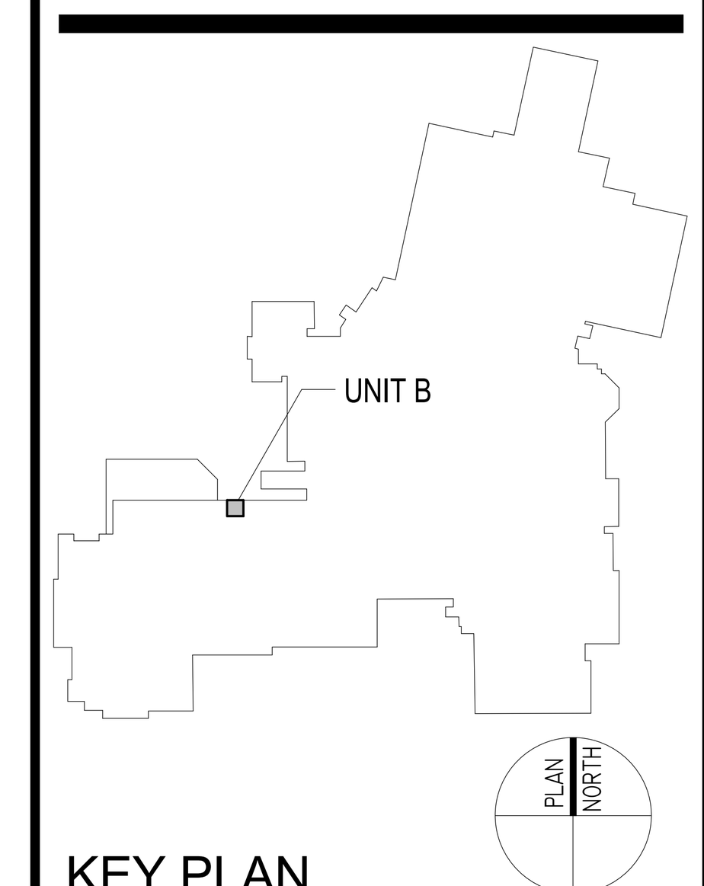
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

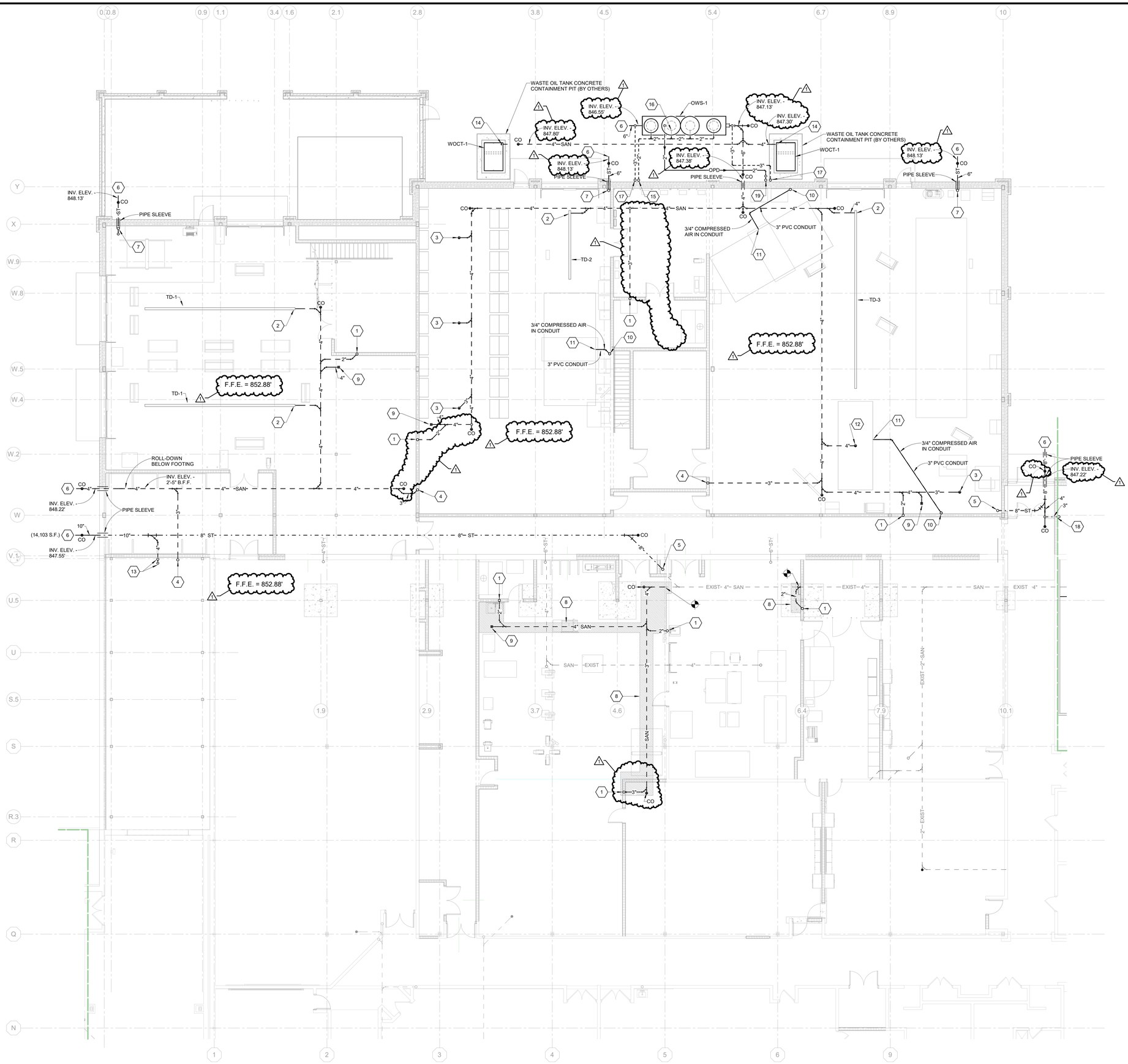
DRAWN BY: JE
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B - FIRST FLOOR PLUMBING DEMOLITION PLAN

PD.02

\\data1\citrixprofiles$\jelkins\upm_profile\documents\2021_PLUM_221165.01_jelkinsHZQQL.rvt
9/20/2023 7:22:43 AM



UNIT A - FOUNDATION PLUMBING PLAN

SCALE: 1/8" = 1'-0"

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL PROVIDE CUTTING AND PATCHING OF EXISTING CONCRETE SLAB AS REQUIRED TO ACCOMMODATE INSTALLATION OF UNDERSLAB PIPING SYSTEMS. PATCH CONCRETE SLAB TO MATCH EXISTING FINISHES.

UNIT A FOUNDATION PLAN NOTES

1 2" WASTE FROM ABOVE.

2 4" WASTE WITH DEEP SEAL P-TRAP FROM TRENCH DRAIN ABOVE.

3 3" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE.

4 3" WASTE FROM ABOVE.

5 8" STORM FROM ABOVE.

6 REFER TO SITE/CIVIL DRAWINGS FOR CONTINUATION.

7 6" STORM FROM ABOVE.

8 EXISTING CONCRETE SLAB SAWCUT LIMITS. FIELD VERIFY EXISTING SANITARY CONNECTION POINTS.

9 4" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE.

10 3" CONDUIT AND 3/4" COMPRESSED AIR FROM ABOVE.

11 EXTEND 3/4" COMPRESSED AIR FROM CONDUIT TO VEHICLE LIFT COMPRESSED AIR CONNECTION. MAKE FINAL CONNECTION AS REQUIRED. SEAL END OF CONDUIT AS REQUIRED.

12 4" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE. FLOOR DRAIN TO BE LOCATED IN CENTER, BOTTOM OF VEHICLE LIFT PIT.

13 4" STORM FROM ABOVE.

14 4" WASTE WITH DEEP SEAL P-TRAP FROM CONCRETE CONTAINMENT PIT DRAIN.

15 2" VENT UP TO ABOVE GRADE.

16 CONNECT 2" VENT TO OWS VENT PORT CONNECTION ((1) 2" VENT FOR EACH RISER; TOTAL OF 4 LOCATIONS).

17 3" VENT UP TO ABOVE GRADE.

18 3" STORM FROM ABOVE.

19 2" OIL PUMP DISCHARGE UP TO ABOVE GRADE.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT

KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOFF REGISTERED No. PE 12005001 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JE

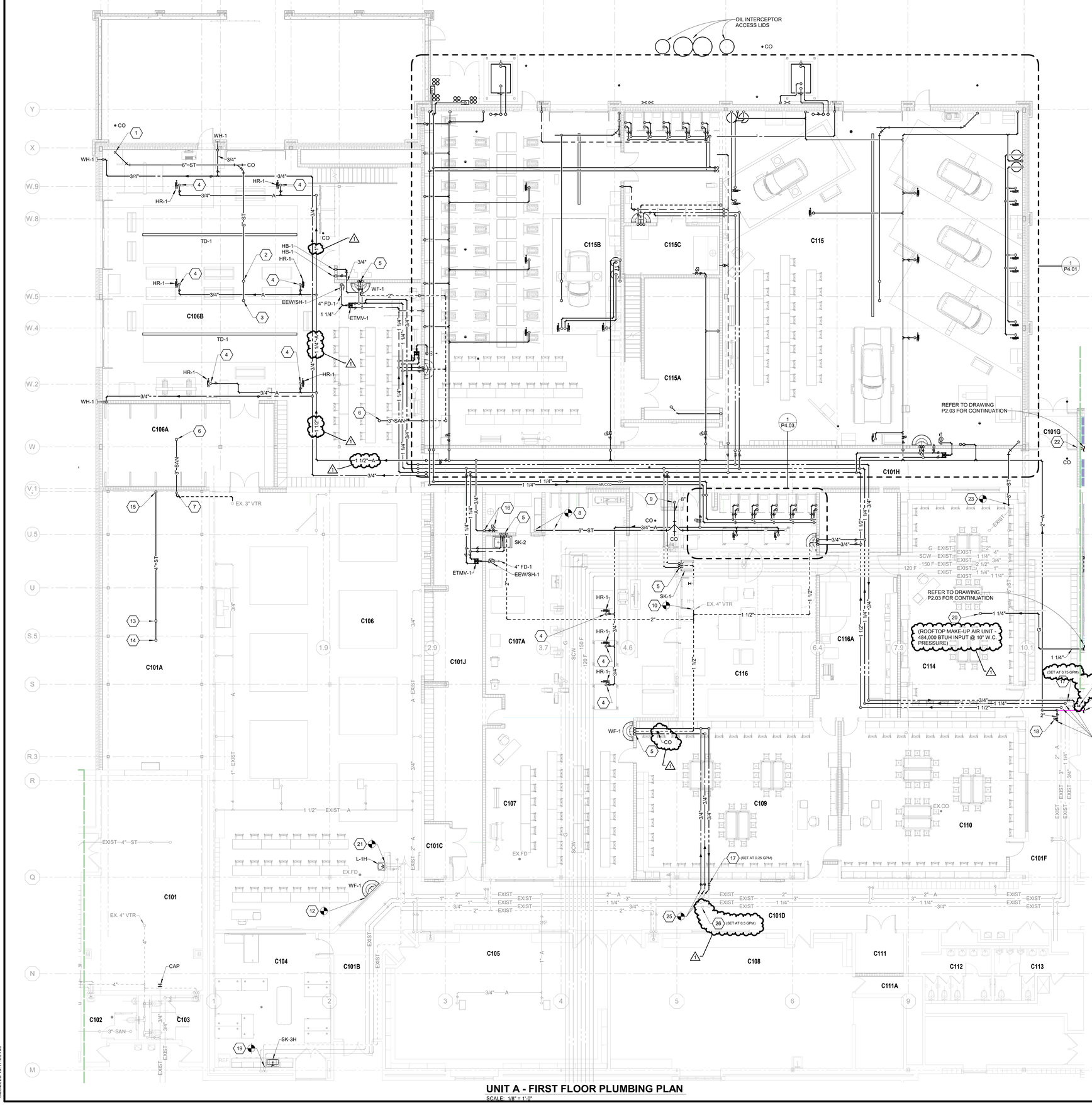
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - FOUNDATION PLUMBING PLAN

P2.00



UNIT A - FIRST FLOOR PLUMBING PLAN

SCALE: 1/8" = 1'-0"

UNIT A PLAN NOTES

1. 6" STORM DOWN TO BELOW SLAB. PROVIDE CLEANOUT AT BASE OF RISER.
2. 6" STORM FROM ROOF DRAIN ABOVE.
3. 6" STORM FROM OVERFLOW ROOF DRAIN ABOVE.
4. 3/4" COMPRESSED AIR DROP TO HOSE REEL.
5. 3/4" HOT AND COLD WATER DOWN. 2" WASTE DOWN TO BELOW SLAB, 2" VENT UP.
6. 3" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE.
7. 3" WASTE DOWN TO BELOW SLAB, 2" VENT UP TO 3" VENT THRU ROOF.
8. CONNECT 6" STORM TO EXISTING STORM DRAIN OUTLETS.
9. 8" STORM DOWN TO BELOW SLAB. PROVIDE CLEANOUT AT BASE OF RISER.
10. CONNECT 2" VENT TO EXISTING 4" VENT THRU ROOF.
12. EXTEND 3/4" HOT AND COLD WATER TO EXISTING WATER ROUGH-INS AND MAKE FINAL CONNECTIONS AS REQUIRED. EXTEND 2" WASTE TO EXISTING WASTE ROUGH-IN AND MAKE FINAL CONNECTION AS REQUIRED.
13. 4" STORM FROM ROOF DRAIN ABOVE.
14. 4" STORM FROM OVERFLOW ROOF DRAIN ABOVE.
15. 4" STORM DOWN TO BELOW SLAB. PROVIDE CLEANOUT AT BASE OF RISER.
16. 3/4" COMPRESSED AIR DOWN IN WALL. TURN OUT INTO PAINT BOOTH AT 48" A.F.F. PROVIDE SHUTOFF VALVE, 3-STAGE AIR DRYING SYSTEM WHICH INCLUDES A PARTICULATE FILTER, COALESCING FILTER, DESICANT DRYER AND AIR REGULATOR EQUAL TO NANPU FRPD44. CONNECT EQUIPMENT AND PIPING COMPLETE AS REQUIRED TO ACCOMMODATE PAINT BOOTH SPRAY GUN CONNECTION POINT.
17. HOT WATER RETURN BALANCE STATION. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION.
18. AIR PRESSURE REGULATOR. SET OUTLET PRESSURE AT100 PSIG.
19. EXTEND 1/2" HOT AND COLD WATER TO EXISTING WATER ROUGH-INS AND MAKE FINAL CONNECTIONS AS REQUIRED. EXTEND 1 1/2" WASTE TO EXISTING WASTE ROUGH-IN AND MAKE FINAL CONNECTION AS REQUIRED. ROUTE 1 1/2" WASTE PIPING ALONG BACK OF CASEWORK, AS TIGHT AS POSSIBLE.
20. 1 1/4" GAS UP THRU ROOF TO KITCHEN MAKE-UP AIR UNIT. EXTEND TO UNIT WITH SHUTOFF VALVE, MIN. 6" DIRT LEG AND UNION. MAKE FINAL CONNECTION AS REQUIRED.
21. EXTEND 1/2" HOT AND COLD WATER TO EXISTING WATER ROUGH-INS AND MAKE FINAL CONNECTIONS AS REQUIRED. EXTEND 1 1/2" WASTE TO EXISTING WASTE ROUGH-IN AND MAKE FINAL CONNECTION AS REQUIRED.
22. 3" STORM DOWN TO BELOW SLAB. PROVIDE A CLEANOUT AT BASE OF RISER FACING TOWARDS THE CORRIDOR.
23. CONNECT 8" STORM TO EXISTING 6" STORM AT THIS POINT.
24. CONNECT 1 1/2" COLD WATER, 1 1/4" HOT WATER AND 3/4" HOT WATER RETURN TO EXISTING MAINS AT THIS LOCATION. FIELD VERIFY EXISTING MAIN LOCATIONS. CONNECT 2" COMPRESSED AIR TO EXISTING COMPRESSED AIR MAIN. FIELD VERIFY EXISTING COMPRESSED AIR MAIN LOCATION.
25. CONNECT 3/4" HOT WATER, COLD WATER AND HOT WATER RETURN TO EXISTING WATER MAINS AT THIS LOCATION.
26. EXISTING HOT WATER RETURN BALANCE STATION. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION. SET FLOW RATE AT NOTED GPM.
27. NEW HOT WATER RETURN BALANCE STATION. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION. SET FLOW RATE AT NOTED GPM.

ROOM LEGEND - FIRST FLOOR UNIT C

ROOM NO.	ROOM NAME	AREA (SF)
C100	LOADING / RECEIVING	1202 SF
C100A	BREAK ROOM	640 SF
C100B	ELECTRICAL	825 SF
C100C	LAUNDRY	157 SF
C100D	TOILET	52 SF
C100E	TOILET	52 SF
C100F	SECURE STORAGE	91 SF
C100G	OFFICE	132 SF
C100H	KITCHEN	177 SF
C101	STORAGE	1015 SF
C101A	STORAGE	1287 SF
C101B	CORRIDOR	174 SF
C101C	MEDIA DATA	61 SF
C101D	YEARBOOK CLASSROOM / LAB	Not Placed
C101D	CORRIDOR	1860 SF
C101E	CORRIDOR	177 SF
C101F	CORRIDOR	976 SF
C101G	JOURNALISM CLASSROOM	Not Placed
C101G	VESTIBULE	70 SF
C101H	OFFICE	156 SF
C101H	CORRIDOR	992 SF
C101J	CORRIDOR	832 SF
C102	MENS TOILET	124 SF
C103	WOMENS TOILET	119 SF
C104	OFFICE	638 SF
C105	ELECTRONICS / PHYSICS	1251 SF
C106	CONSTRUCTION TRADES LAB	3699 SF
C106A	STORAGE	622 SF
C106B	ADVANCED CONSTRUCTION TRADES LAB	3867 SF
C107	CLASSROOM	1015 SF
C107A	ADVANCED MFG. ARTISAN LAB	1695 SF
C107B	FINISHING ROOM	97 SF
C108	GRAPHIC COMMUNICATIONS	1385 SF
C109	CAD LAB	1347 SF
C110	CAD LAB	1217 SF
C111	MEDIA DATA	83 SF
C111A	STORAGE	101 SF
C112	GIRLS	188 SF
C113	BOYS	163 SF
C114	CAD LAB	1188 SF
C115	ADVANCED AUTOMOTIVE SERVICES LAB	4790 SF
C115A	STORAGE	458 SF
C115B	AUTOMOTIVE SERVICES LAB	2828 SF
C115C	FINISHING ROOM	201 SF
C116	ADVANCED MFG. INNOVATION LAB	1278 SF
C116A	ADVANCED MFG. CLEAN LAB	762 SF
C117	CERAMIC CLASSROOM / LAB	1387 SF
C117A	STORAGE	145 SF
C117B	STORAGE / MATERIALS	150 SF
C118	INDEPENDENT STUDY / COMMERICAL ART	1425 SF
C119	PHOTOGRAPHY	992 SF
C119A	DARKROOM	309 SF
C120	COMPUTER ART ROOM	442 SF
C122	TEACHERS WORKROOM	672 SF
C122A	DEPT. HEAD OFFICE	104 SF
C123	CERAMICS CLASSROOM / LAB	1205 SF
C123A	STORAGE	145 SF
C123B	STORAGE / MATERIALS	150 SF
C124	CULINARY ARTS	1299 SF
C124A	CLOSET	39 SF
C124B	DRY GOODS	154 SF
C124C	WALK-IN	129 SF
C125	DRAWING CLASSROOM / LAB	1173 SF
C126	DRAWING CLASSROOM / LAB	1182 SF
C127	DRAWING CLASSROOM / LAB	1182 SF
C128	JEWELRY CLASSROOM / LAB	953 SF
C129	PHOTOGRAPHY	1023 SF
C129A	DARKROOM	232 SF
C131	CORRIDOR	1363 SF
C131A	STORAGE	166 SF
C131B	MEDIA DATA	60 SF
C131C	CORRIDOR	476 SF
C132	STUDIO	244 SF
C133	PODCAST	144 SF
C134	PASSAGE	36 SF
C135	STUDIO	63 SF
C136	STORAGE	105 SF
C136A	COMPUTER LAB	201 SF
C137	STUDIO	91 SF
C138	STUDIO	93 SF
C138A	PASSAGE	127 SF
C138B	STUDIO	54 SF
C138C	STUDIO	52 SF
C138D	STUDIO	52 SF
C138E	STUDIO	52 SF
C139	CLASSROOM	984 SF
C141	TV CLASSROOM	819 SF
C141A	STUDIO B	165 SF
C141B	OFFICE	91 SF
C142	STUDIO B	196 SF
C142A	ENGINEERING	114 SF
C143	STUDIO A	1026 SF
C144	TV CONTROL	251 SF
C144A	EQUIPMENT ROOM	120 SF
C145	COMPUTER CLASSROOM	851 SF
C145A	SECURE CLOSET	17 SF
C146	COMPUTER SERVER STORAGE	303 SF
C147	JOURNALISM CLASSROOM	1468 SF
C147A	OFFICE	136 SF
C148	ELECTRICAL ROOM	143 SF
C149	YEARBOOK CLASSROOM / LAB	1350 SF
C149A	PODCAST	147 SF
C150	TV-CPU LAB	714 SF
C151	MECHANICAL	5687 SF
C152	-	927 SF

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING REMOVAL AND REPLACEMENT AS REQUIRED THROUGHOUT EXISTING AREAS TO [illegible]. DAMAGED TILES SHALL BE REPLACED WITH NEW MATCHING EXISTING TILES WHERE REMOVED TILES ARE DAMAGED.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

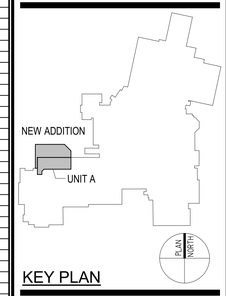
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JE

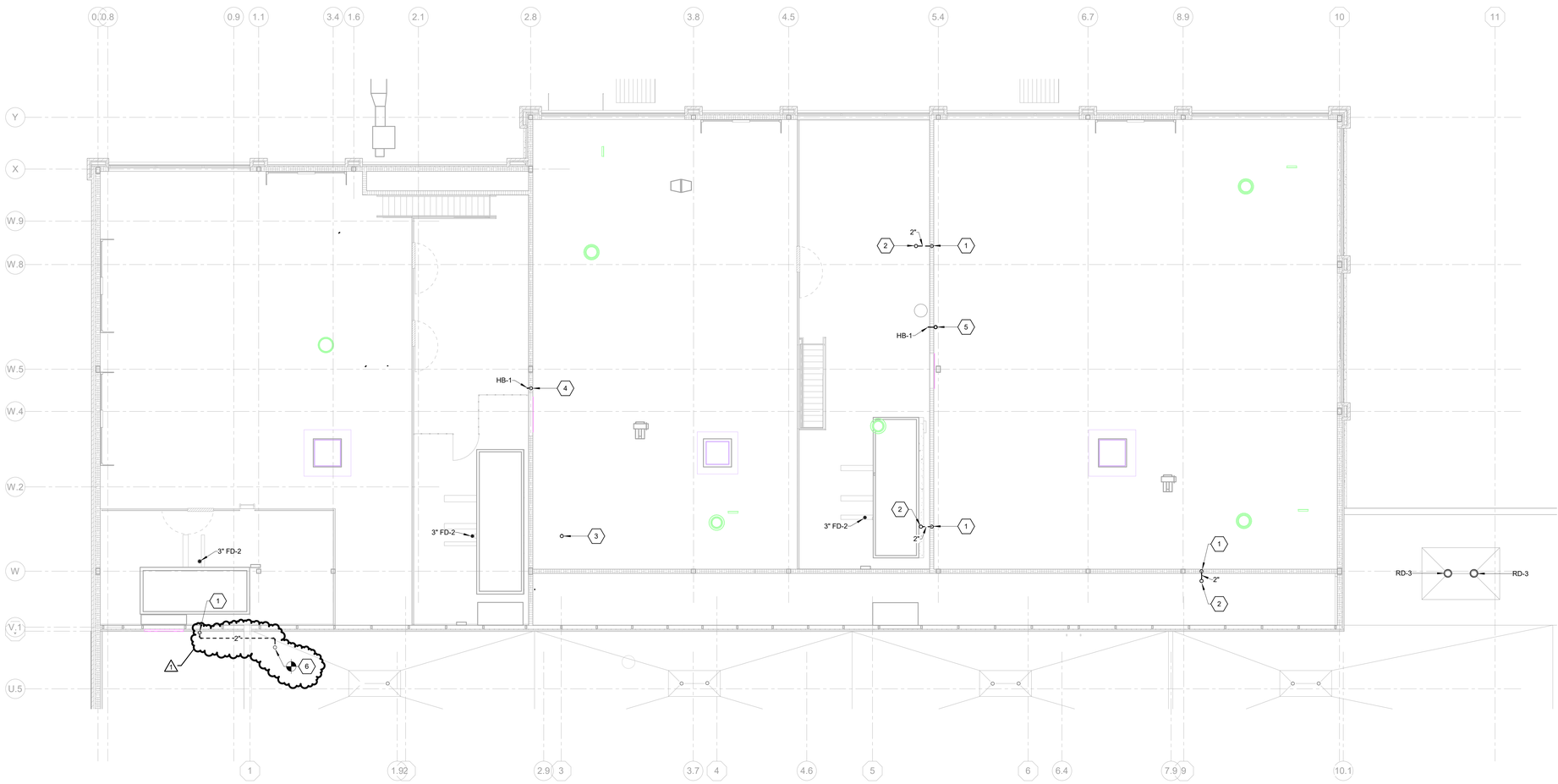
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - FIRST FLOOR PLUMBING PLAN

P2.01



UNIT A - MEZZANINE PLUMBING PLAN

SCALE: 1/8" = 1'-0"

UNIT A MEZZANINE PLAN NOTES

1. 2" VENT UP FROM BELOW.
2. 2" VENT UP TO 3" VENT THRU ROOF.
3. 2" VENT FROM BELOW UP TO 3" VENT THRU ROOF.
4. 3/4" COLD WATER FROM BELOW UP TO HOSE BIBB.
5. 3/4" COLD WATER FROM ABOVE.
6. CONNECT 2" VENT TO EXISTING 3" VENT THRU ROOF.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

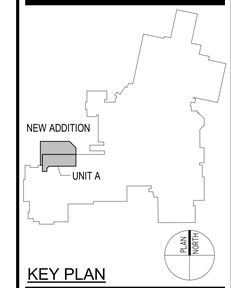
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JE

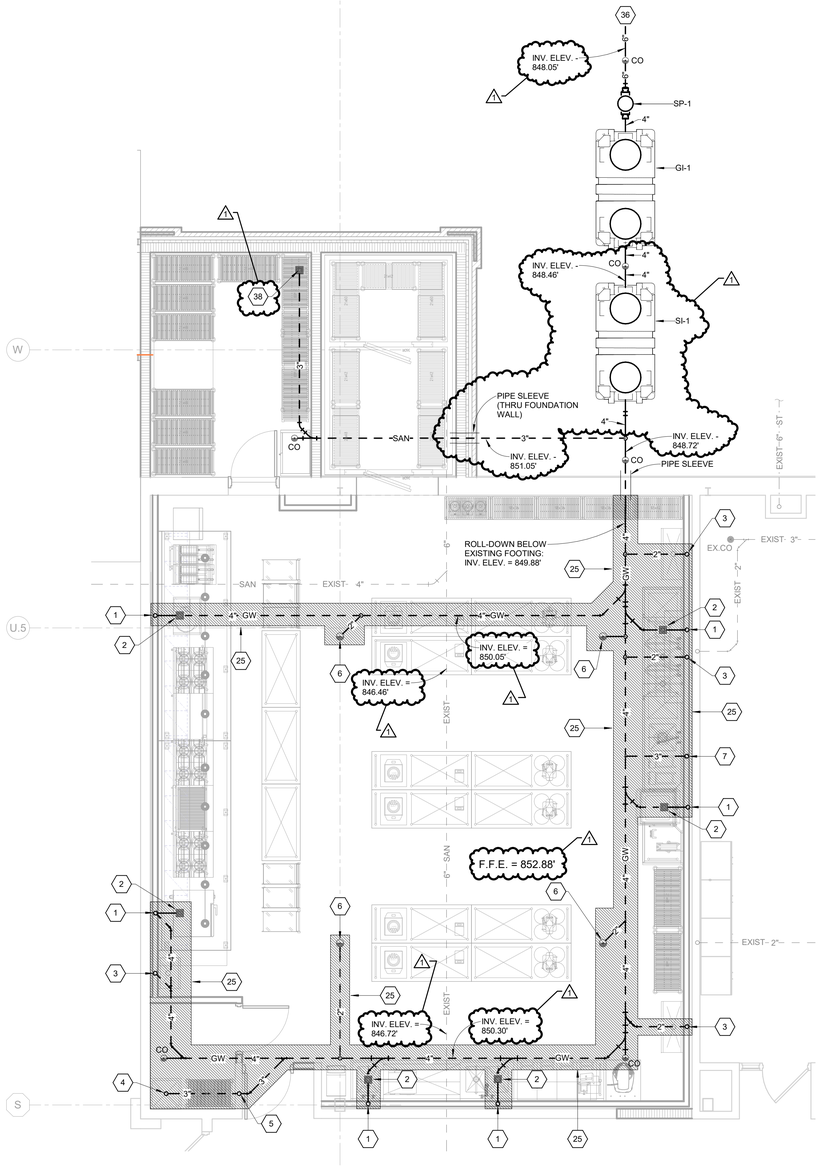
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

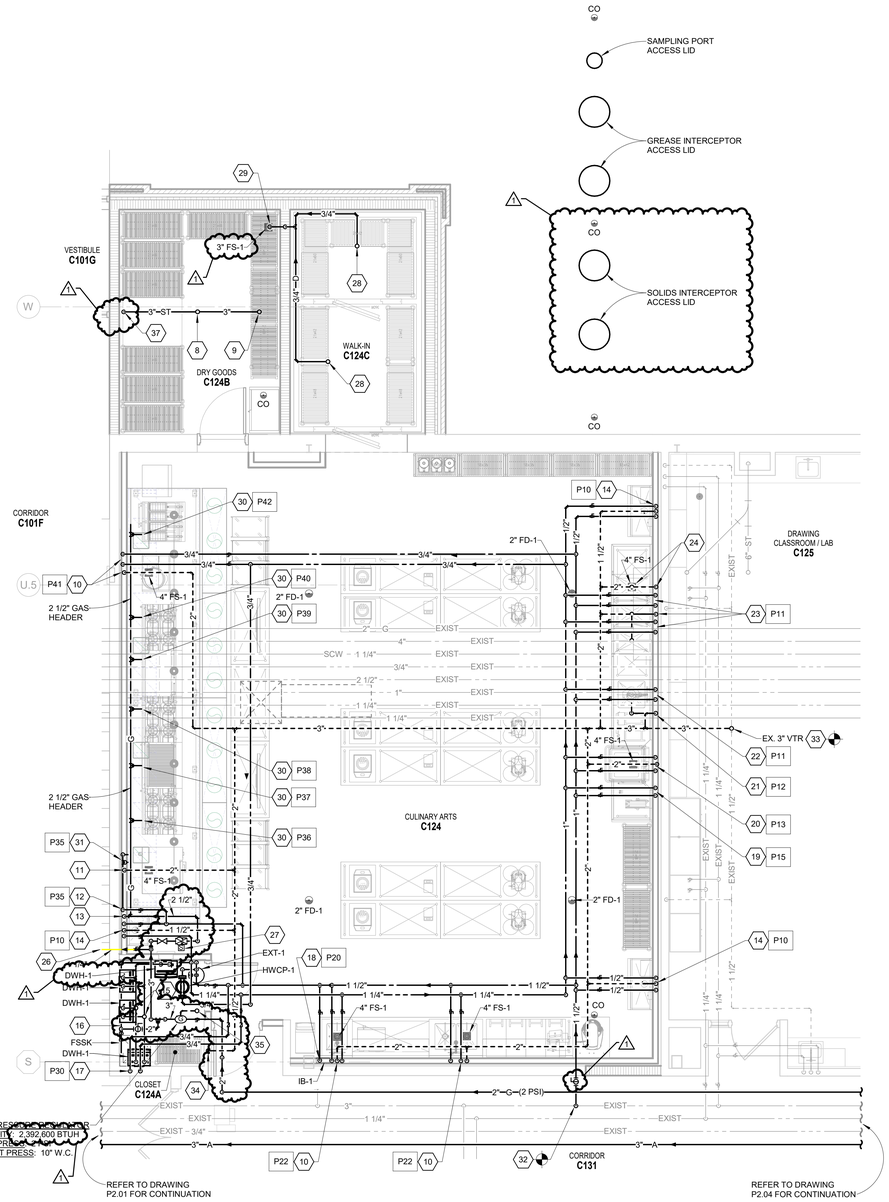
UNIT A - MEZZANINE PLUMBING PLAN

P2.02



UNIT B - FOUNDATION PLUMBING PLAN

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



UNIT B - FIRST FLOOR PLUMBING PLAN

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

GENERAL KITCHEN PLUMBING NOTES

INSTALL ALL FAUCET ASSEMBLIES, PRE-RINSE SPRAY ASSEMBLIES, QUICK-DISCONNECT ASSEMBLIES, HOSE ASSEMBLIES, POT FILLER ASSEMBLIES, VACUUM BREAKERS, CHECK VALVES, FLOW CONTROL VALVES, SOLENOID VALVES, WATER PRESSURE REDUCING VALVES, GAS PRESSURE REDUCING VALVES, TEMPERATURE GAUGES, PRESSURE GAUGES, WATER HAMMER SHOCK ABSORBERS & WATER FILTRATION SYSTEMS FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR.

FURNISH & INSTALL ALL WATER, GAS & STEAM SUPPLY LINES, DRAIN MANIFOLDS & TAILPIECES, TRAPS, SHUT-OFF VALVES, VENT PIPING, GAS SUPPLY LINE STRAINERS/FILTERS, BACK FLOW PREVENTION DEVICES, FLOOR DRAINS & FLOOR SINKS AS REQUIRED FOR EQUIPMENT INSTALLATION AND ANY CODE REQUIREMENTS. ALL SUPPLY LINES SERVICING EQUIPMENT ADJACENT TO AN EXTERIOR WALL ARE TO BE RAN ALONG INTERIOR FACE OF WALL TO AVOID POTENTIAL FREEZING.

FURNISH & INSTALL CHROME PLATED, OR PAINTED, PIPING ON ALL EXPOSED WATER OR GAS PIPING ABOVE COUNTER HEIGHT OR IN "DIRECT" LINE OF SIGHT TO THE OWNER/OPERATOR. FURNISH & INSTALL STAINLESS STEEL OR CHROME PLATED BRASS ESCUTCHEONS OR FLANGES FOR ALL PENETRATING UTILITY LINES AND SEAL PENETRATIONS WATER-TIGHT AND VERMIN PROOF.

FURNISH & INSTALL TYPE "L" COPPER TUBING DRAIN LINES FROM ALL APPLICABLE EQUIPMENT TO FLOOR SINKS (INCLUDING WALK-IN COOLER AND FREEZER COILS) AND TO INSULATE ALL DRAIN LINES AS REQUIRED. INSTALL DRAIN LINES SO THEY DO NOT AFFECT UNDERCOUNTER STORAGE AND OTHER OPERATIONAL FUNCTIONS OF THE FIXTURES.

FURNISH & INSTALL ALL 12"x12"x8" FLOOR SINKS WITH HALF GRATES. FLOOR SINKS TO BE MOUNTED IN FLOOR SUCH THAT THE TOP OF THE RIM WILL BE FLUSH WITH FINISHED FLOOR ELEVATION UNLESS OTHERWISE DIRECTED BY STATE & LOCAL CODES. FLOOR SINKS FOR DISHMACHINES AND ALL COOKING EQUIPMENT TO HAVE A MINIMUM OF 3" DRAIN CONNECTION. DO NOT SLOPE FLOOR TO FLOOR DRAINS OR FLOOR SINKS IN THIS AREA!!!

UTILIZE EXISTING FLOOR DRAINS, FLOOR SINKS, DIRECT PLUMBING DRAINS, GAS CONNECTIONS & WATER CONNECTIONS WHERE POSSIBLE FOR NEW EQUIPMENT AND CAP OFF ANY EXISTING SERVICES MADE OBSOLETE BY THESE DRAWINGS.

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL PROVIDE CUTTING AND PATCHING OF EXISTING CONCRETE SLAB AS REQUIRED TO ACCOMMODATE INSTALLATION OF UNDERSLAB PIPING SYSTEMS. PATCH CONCRETE SLAB TO MATCH EXISTING FINISHES.

GENERAL CONSTRUCTION NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING REMOVAL AND REPLACEMENT AS REQUIRED THROUGHOUT EXISTING AREAS TO [illegible] DAMAGED TILES SHALL BE REPLACED WITH NEW MATCHING EXISTING TILES WHERE REMOVED TILES ARE DAMAGED.

UNITS C PLAN NOTES

1 4" WASTE DOWN, 2" VENT UP.

2 4" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR SINK ABOVE.

3 2" WASTE FROM ABOVE.

4 3" WASTE WITH DEEP SEAL P-TRAP FROM MOP BASIN ABOVE.

5 1 1/2" VENT UP.

6 2" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE.

7 3" WASTE FROM ABOVE.

8 3" STORM FROM ROOF DRAIN ABOVE.

9 3" STORM FROM OVERFLOW ROOF DRAIN ABOVE.

10 3/4" HOT AND COLD WATER DOWN. 2" VENT FROM BELOW SLAB UP TO ABOVE CEILING.

11 2" VENT FROM BELOW SLAB UP TO ABOVE CEILING.

12 3/4" COLD WATER DOWN IN WALL. ROUTE HORIZONTALLY THRU WALL TO KITCHEN EQUIPMENT.

13 2 1/2" GAS DOWN IN WALL. TURN OUT EXPOSED AND ROUTE FULL SIZE ALONG WALL.

14 1/2" HOT AND COLD WATER DOWN. 2" WASTE DOWN TO BELOW SLAB, 1 1/2" VENT UP TO ABOVE CEILING.

15 3" INTAKE / EXHAUST FLUE UP THRU ROOF. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION.

16 2" GAS DOWN ALONG WALL. EXTEND TO EACH INSTANTANEOUS WATER HEATER. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION.

17 3/4" HOT AND COLD WATER WITH SHUTOFF VALVES AND CHECK VALVES IN SUPPLIES DOWN TO MOP BASIN FAUCET.

18 1/2" COLD WATER DOWN TO ICE MAKER SUPPLY BOX.

19 3/4" HOT AND COLD WATER DOWN TO WALL MOUNTED MIXING FAUCET. EXTEND OUTLET OF MIXING FAUCET TO WALL MOUNTED HOSE-REEL. MAKE FINAL CONNECTION AS REQUIRED.

20 3/4" HOT AND COLD WATER DOWN. EXTEND HOT WATER TO DISHMACHINE INTERNAL BOOSTER HEATER THRU KEC PROVIDED INLINE WATER FILTER. MAKE FINAL CONNECTION AS REQUIRED. EXTEND COLD WATER TO WATER TEMPERING DEVICE. MAKE FINAL CONNECTION AS REQUIRED.

21 3" WASTE DOWN TO BELOW SLAB, 2" VENT UP TO ABOVE CEILING. EXTEND 2" WASTE TO GARBAGE DISPOSAL SYSTEM.

22 3/4" HOT AND COLD WATER DOWN.

23 3/4" HOT AND COLD WATER DOWN. EXTEND TO 3-COMPARTMENT SINK FAUCET. MAKE FINAL CONNECTIONS AS REQUIRED. MANIFOLD TWO SINK BAYS TOGETHER AND ROUTE TO WALL. 2" WASTE DOWN TO BELOW SLAB, 1 1/2" VENT UP TO ABOVE CEILING.

24 2" VENT FROM BELOW SLAB UP TO ABOVE CEILING. 2" WASTE FROM SINK BAY. TERMINATE OVER FLOOR SINK WITH AIR GAP.

25 EXISTING CONCRETE SLAB SAWCUT LIMITS. FIELD VERIFY EXISTING SANITARY CONNECTION POINTS.

26 1 1/4" GAS TO CULINARY LAB MAKE-UP AIR UNIT. REFER TO DRAWING P2.01 FOR CONTINUATION. REFER TO FOODSERVICE EQUIPMENT DRAWINGS FOR MORE INFORMATION.

27 EMERGENCY GAS SHUT-OFF SOLENOID VALVE. INTERLOCK WITH HOOD FIRE SUPPRESSION SYSTEM. LOCATE VALVE AND EMERGENCY SHUTOFF VALVE BELOW CEILING FOR ACCESS.

28 CONNECT 3/4" CONDENSATE TO EVAPORATOR COIL DRAIN PAN.

29 3/4" CONDENSATE DOWN. TERMINATE OVER FLOOR DRAIN WITH P-TRAP ASSEMBLY AND AIR GAP.

30 EXTEND 3/4" GAS FROM HEADER TO EQUIPMENT THRU SHUTOFF VALVE, KEC PROVIDED FLEXIBLE CONNECTOR AND QUICK-DISCONNECT FITTING. MAKE FINAL CONNECTION AS REQUIRED.

31 EXTEND 3/4" COLD WATER TO EACH COMBI OVEN THRU KEC PROVIDED IN-LINE WATER FILTER. MAKE FINAL CONNECTIONS AS REQUIRED.

32 CONNECT 1 1/2" COLD WATER TO EXISTING 3" COLD WATER MAIN AT THIS POINT.

33 CONNECT 3" VENT TO EXISTING 3" VENT THRU ROOF. MODIFY/REPLACE PIPING AS REQUIRED.

34 1 1/2" VENT FROM BELOW SLAB UP TO ABOVE CEILING.

35 GAS PRESSURE REGULATOR VENT UP THRU ROOF. SEAL ROOF PENETRATION WEATHERTIGHT. TERMINE VENT PER GAS PRESSURE REGULATOR MANUFACTURERS REQUIREMENTS. COORDINATE ROOF PENETRATION WITH EXISTING ROOF TOP EQUIPMENT.

36 REFER TO SITE / CIVIL DRAWING FOR CONTINUATION OF PIPING.

37 3" STORM DOWN TO BELOW SLAB.

38 3" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR SINK ABOVE.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

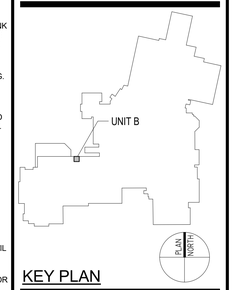
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12005001 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JE

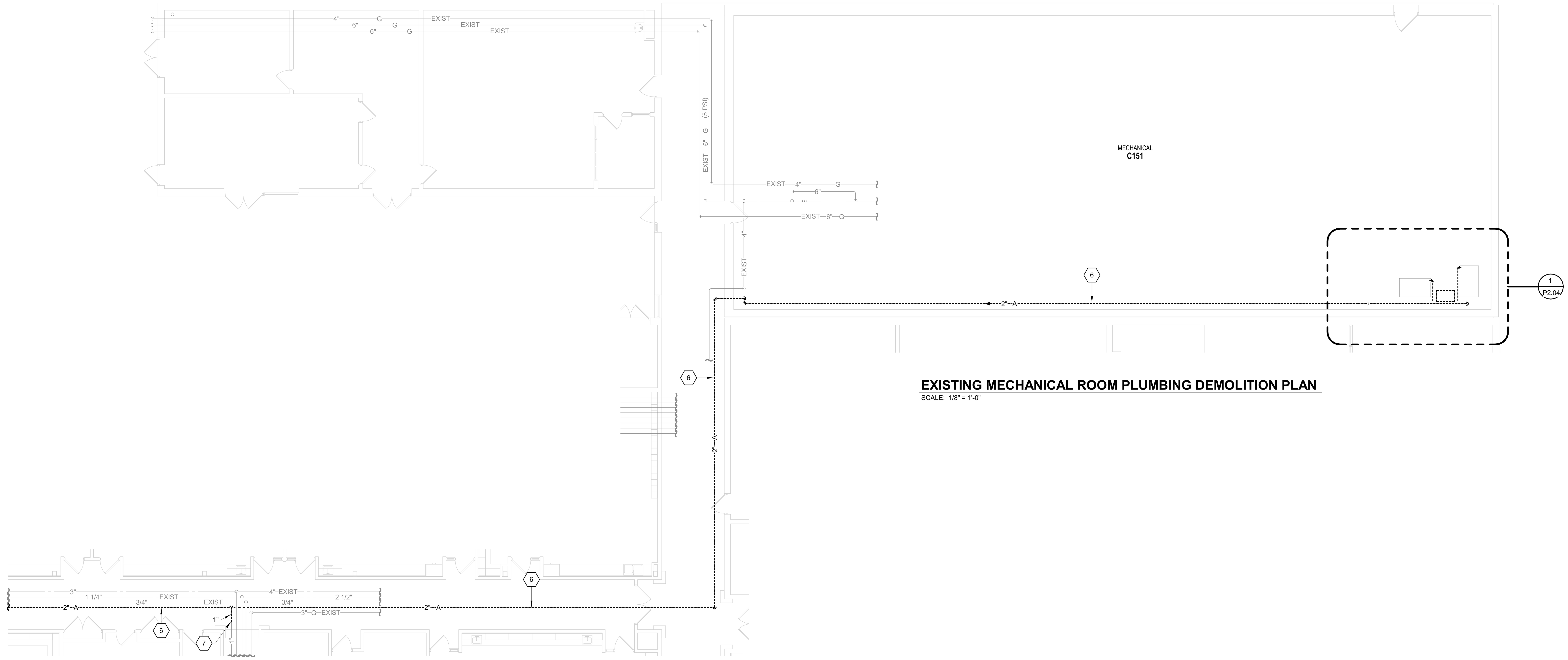
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

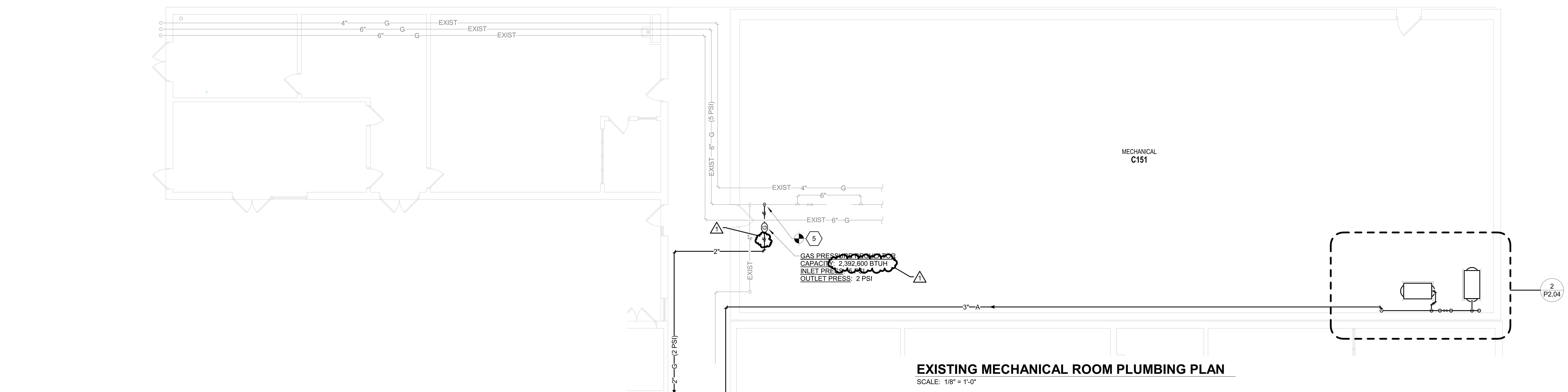
UNIT B - FOUNDATION AND FIRST FLOOR PLUMBING PLANS

P2.03



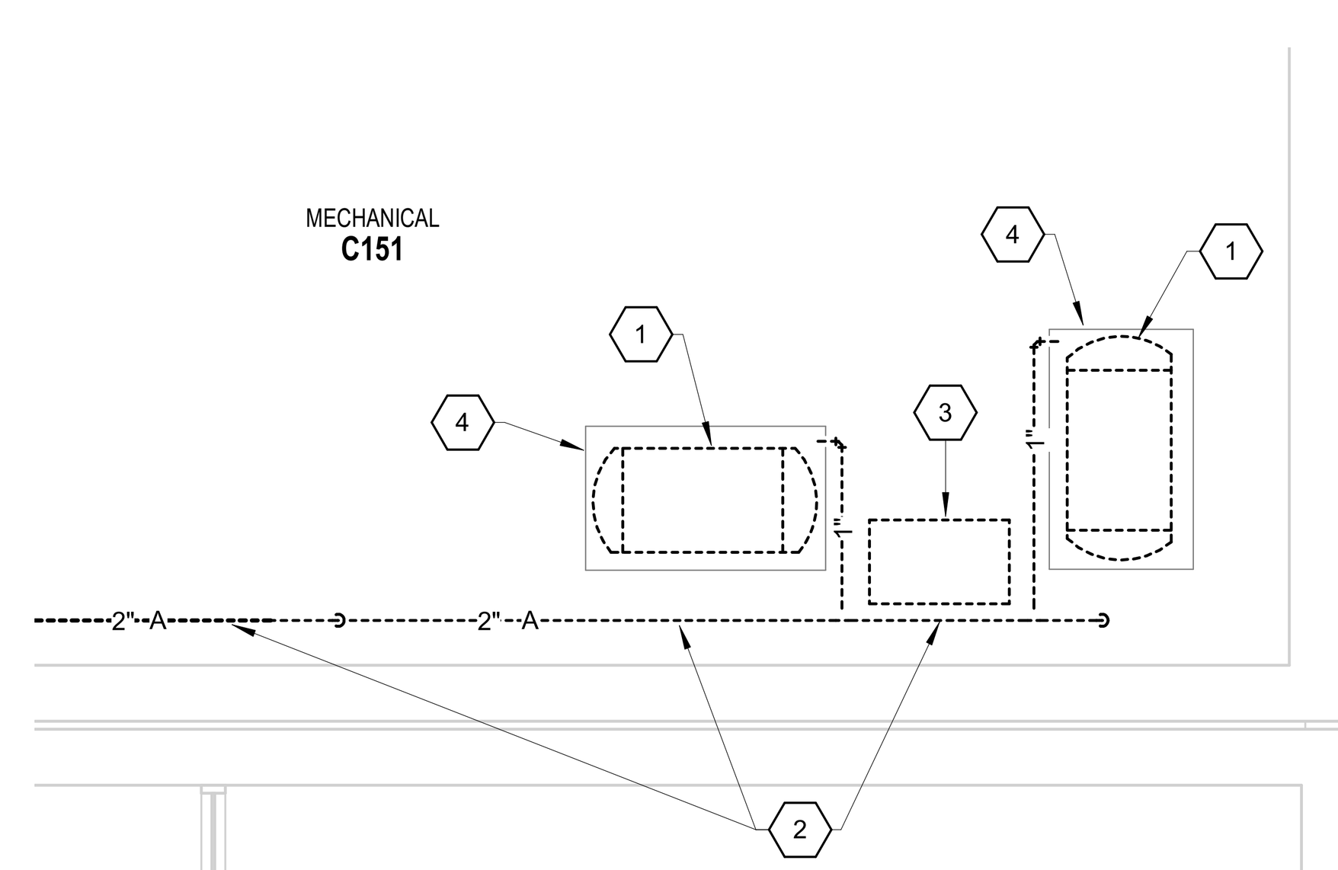
EXISTING MECHANICAL ROOM PLUMBING DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



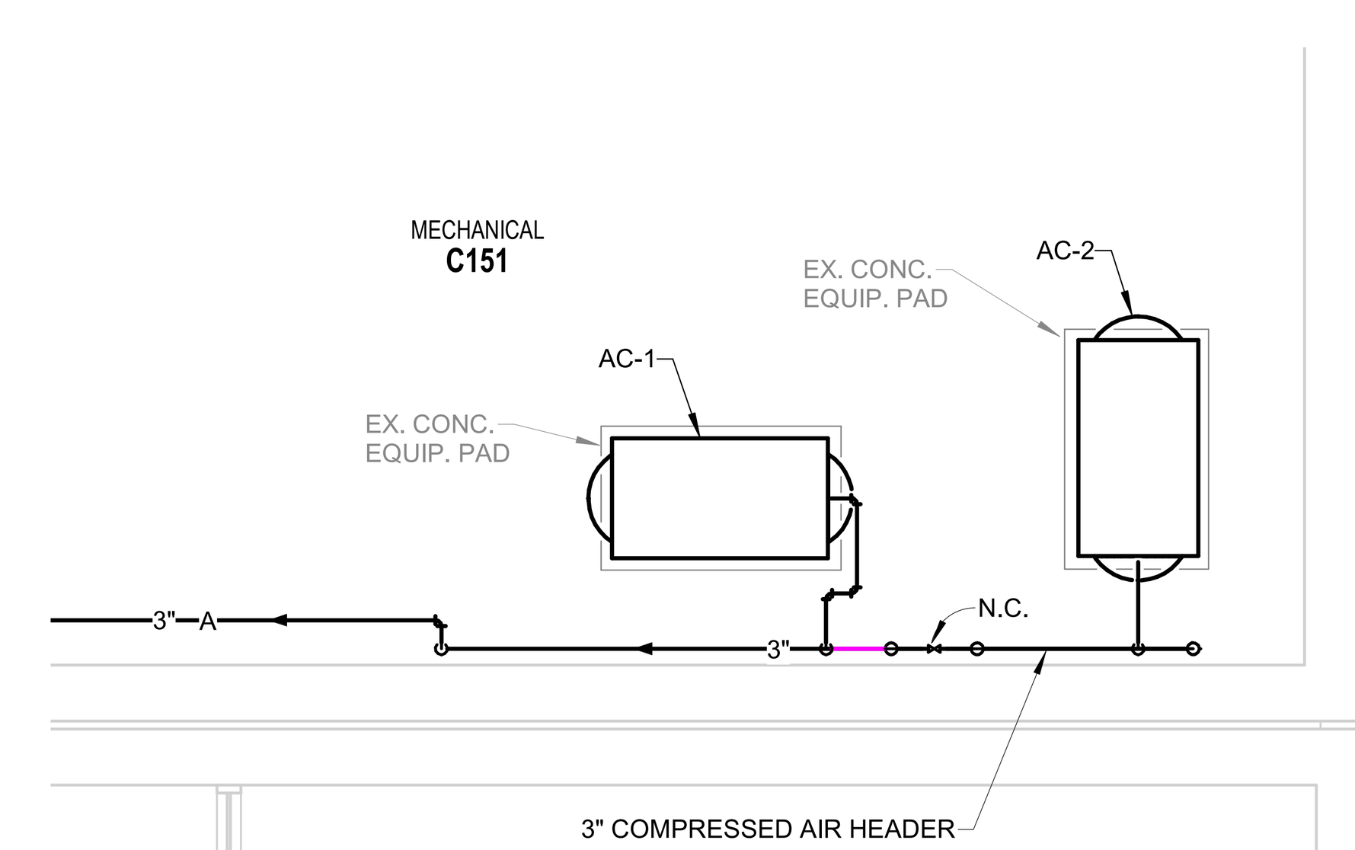
EXISTING MECHANICAL ROOM PLUMBING PLAN

SCALE: 1/8" = 1'-0"



1 ENLARGED COMPRESSED AIR AREA PLUMBING DEMOLITION PLAN

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



2 ENLARGED COMPRESSED AIR AREA PLUMBING PLAN

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

MECH ROOM PLAN NOTES

1 REMOVE EXISTING AIR COMPRESSOR AND RECEIVER TANK COMPLETE.

2 REMOVE COMPRESSED AIR PIPING COMPLETE. REMOVE ALL VALVES, PRESSURE REGULATORS AND PRESSURE GAUGES COMPLETE.

3 REMOVE EXISTING AFTERCOOLER/AIR DRYER AND ALL ASSOCIATED VALVES AND PIPING COMPLETE.

4 EXISTING CONCRETE EQUIPMENT PAD TO REMAIN.

5 CONNECT 2" GAS (2 PSI) TO EXISTING 6" GAS MAIN (5 PSI) AT THIS POINT.

6 REMOVE COMPRESED AIR PIPING COMPLETE.

7 REMOVE COMPRESSED AIR PIPING BACK TO THIS POINT AND PREPARE REMAINING PIPE FOR CONNECTION TO NEW.

8 AIR PRESSURE REGULATOR. SET AT 15 PSIG.

9 CONNECT 1" COMPRESSED AIR TO EXISTING COMPRESSED AIR AT THIS POINT. FIELD VERIFY EXISTING COMPRESSED AIR PIPE SIZE.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

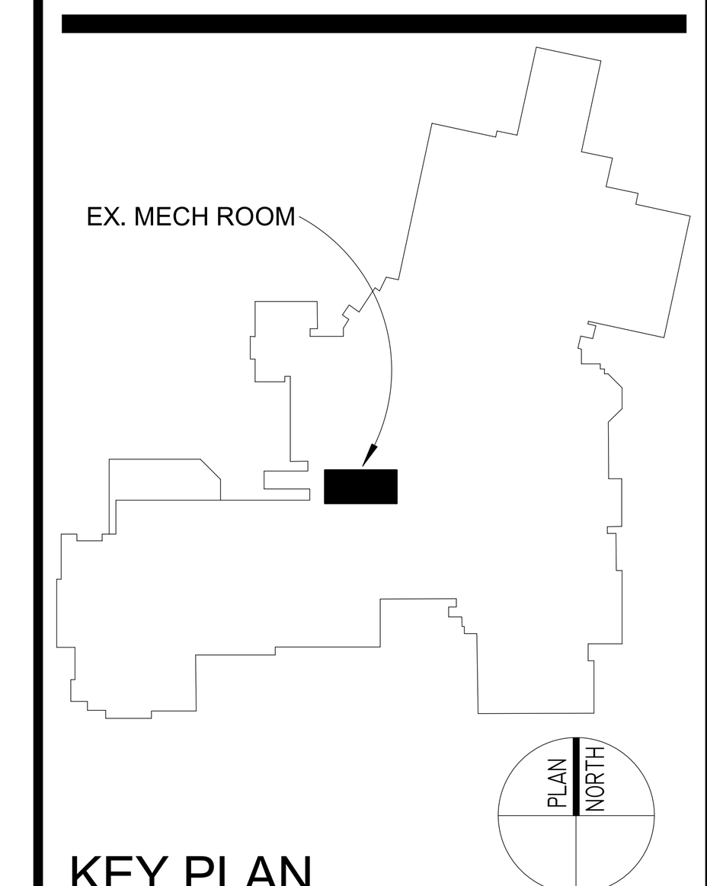
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JE

PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

EXISTING MECHANICAL ROOM PLUMBING PLANS

P2.04

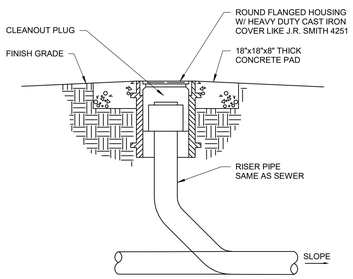
\\data1\ctrxprofiles$\jelkins\upm_profile\documents\2021_PLUM_221165.01_jelkinsHZ0QL.rvt
9/20/2023 7:22:25 AM

PLUMBING FIXTURE SCHEDULE

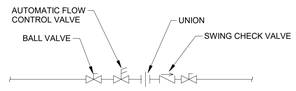
MARK	FIXTURE ITEM	FIXTURE MFGR	FIXTURE MODEL	FIXTURE MATERIAL	FIXTURE TYPE	FIXTURE COLOR	TRIM ITEM	TRIM MFGR	TRIM MODEL	ACCESSORIES ITEM	ACCESSORIES MFGR	ACCESSORIES MODEL	CONNECTIONS CW	CONNECTIONS HW	CONNECTIONS W	CONNECTIONS V	COMMENTS
EEW/SH-1	EMERGENCY EYE WASH / SHOWER ASSEMBLY	GUARDIAN	GB1950	STAINLESS/POLYMER	FLOOR MOUNTED	-	-	-	-	EMERGENCY TMV	GUARDIAN	G6040	1 1/4"	1 1/4"	0"	0"	
FSSK	MOP SERVICE BASIN	FIAT	TSB-3000	TERAZZO	FLOOR MOUNTED	-	FAUCET	CHICAGO	897-CCP	-	-	-	3/4"	3/4"	3"	1 1/2"	PROVIDE CHECK VALVES IN WATER SUPPLIES
GI-1	GREASE INTERCEPTOR	SCHIER PRODUCTS	GB-500	POLYETHYLENE	BELOW GRADE										4"		4" INLET / OUTLET; 510 GAL. LIQUID CAPACITY; 1,859 LBS. GREASE CAPACITY AT 250 GPM; 128 GAL. SOLIDS; PROVIDE FCR2 RISER FOR ACCESS TO GRADE
HB-1	HOSE BIBB	CHICAGO	387-E27CP	ROUGH BRONZE	WALL MOUNTED	-	-	-	-	-	-	-	3/4"	0"			
IB-1	ICE MAKER SUPPLY BOX	GUY GRAY	MIB 1	STAINLESS	WALL MOUNTED	-	-	-	-	-	-	-	1/2"				
SI-1	SOLIDS INTERCEPTOR	SCHIER PRODUCTS	SI-500	POLYETHYLENE	BELOW GRADE										4"		4" INLET / OUTLET; 510 GAL. LIQUID CAPACITY; 457 GAL. SOLIDS/SEDIMENT CAPACITY; PROVIDE FCR2 RISER FOR ACCESS TO GRADE
SK-1	2-COMPARTMENT SERVICE SINK	ADVANCE TABCO	93-62-24	STAINLESS	FLOOR MOUNTED	-	FAUCET	T&S BRASS	S-0231	DRAIN	-	-	1/2"	1/2"	2"	2"	
SK-2	2-COMPARTMENT SERVICE SINK	ADVANCE TABCO	93-62-36	STAINLESS	FLOOR MOUNTED	-	FAUCET	T&S BRASS	S-0231	DRAIN	-	-	1/2"	1/2"	2"	2"	
SK-3H	SINGLE COMP. SINK - ADA	ELKAY	LRAD1918-5.5	STAINLESS	COUNTERTOP	-	FAUCET	CHICAGO	201-AGN8AE2805FAB	-	-	-	1/2"	1/2"	2"	1 1/2"	PROVIDE CENTERED REAR DRAIN TO ACCOMMODATE ADA APPROACH
WF-1	54" SEMI-CIRCULAR WASHFOUNTAIN	BRADLEY	WF2704	STAINLESS	WALL MOUNTED	-	-	-	-	POINT-OF-USE TMV	POWERS	LFG480	3/4"	3/4"	2"	2"	LESS SOAP AND TOWEL DISPENSER; SET POINT-OF-USE TMV OUTLET TEMP AT 105 DEG. F.; SIZE TMV FOR 0.25 GPM
WH-1	NON-FREEZE WALL HYDRANT	J.R. SMITH	5509QT	ROUGH BRONZE	WALL MOUNTED	-	-	-	-	-	-	-	3/4"				MOUNT AT 18" A.F.G.

PLUMBING EQUIPMENT SCHEDULE

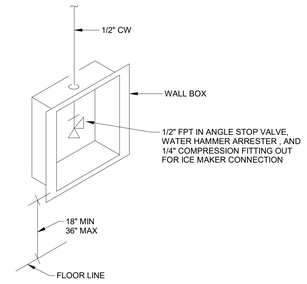
MARK	DESCRIPTION	LOCATION	MANUFACTURER/MODEL NUMBER	CAPACITY	REMARKS	ELECTRICAL DATA HP	KW	V	AMP	PH	COMMENTS
AC-1	AIR COMPRESSOR	MECHANICAL ROOM C151	KAESER - SK20 AIR CENTER	217 PSIG OPERATING PRESS.; 62.5 CFM CAPACITY AT OPERATING PRESS.	ROUTE RELIEF/DISCHARGE PIPING TO NEAREST FLOOR DRAIN WITH AIR GAP	20		460		3	ROTARY SCREW TYPE AIR COMPRESSOR - PRE-PACKAGED UNIT; PROVIDE KAESER OIL/WATER SEPARATOR FOR CONDENSATE DISCHARGE, KAESER MODEL KCF 50.
AC-2	AIR COMPRESSOR	MECHANICAL ROOM C151	KAESER - SK20 AIR CENTER	217 PSIG OPERATING PRESS.; 62.5 CFM CAPACITY AT OPERATING PRESS.	ROUTE RELIEF/DISCHARGE PIPING TO NEAREST FLOOR DRAIN WITH AIR GAP	20		460		3	ROTARY SCREW TYPE AIR COMPRESSOR - PRE-PACKAGED UNIT; PROVIDE KAESER OIL/WATER SEPARATOR FOR CONDENSATE DISCHARGE, KAESER MODEL KCF 50.
ADP-1	ANTI-FREEZE/COOLANT DRUM PUMP	AUTOMOTIVE LABS	MACNAUGHT R-SERIES R300S-01		AIR OPERATED ANTI-FREEZE PUMP; MOUNT TO ANTI-FREEZE DRUM						UNIT SUPPLIED WITH IN-LINE AIR LUBRICATOR; PROVIDE 5 MICRON AIR FILTER FOR AIR INLET TO AIR TO PUMP
AR-1	ARGON STATION DROP	WELDING BOOTH	REXARC - MODEL 2-04-1604A								
AR/CO2-1	ARGON/CO2 MIX STATION DROP	WELDING BOOTH	REXARC - MODEL 2-04-1604AC								
DWH-1	INSTANTANEOUS DOMESTIC WATER HEATER	CULINARY CLOSET C124A	NAVIEN NPE-240	5.8 GPM @ 67 DEG. T.R.			.35 MAX	120		1	3" INTAKE - 3" EXHAUST FLUE
ETMV-1	EMERGENCY THERMOSTATIC MIXING VALVE	VARIOUS LOCATIONS	GUARDIAN G6040	20 GPM @ 7 PSI PRESSURE DROP	1" INLETS / 1-1/4" OUTLETS	-	-	-	-	-	
EXT-1	DOMESTIC HOT WATER EXPANSION TANK	CULINARY CLOSET C124A	AMTROL MODEL NO. ST-12-C	3.2 GAL. MAX ACCEPT VOLUME 6.4 GAL. TOTAL VOLUME	A.S.M.E. RATED - SECTION VIII	-	-	-	-	-	
FOST-1	FUEL OIL STORAGE TANK MODEL HT-1069	EXTERIOR - ADJACENT TO EXISTING NATURAL GAS ENCLOSURE	HIGHLAND TANK	750 GALLONS							ABOVE GROUND, U.L. 142 LISTED, DOUBLE-WALL FUEL OIL STORAGE TANK
HR-1	CEILING - STRUCTURE MOUNTED COMPRESSED AIR HOSE REEL	AUTOMOTIVE AND ADVANCED AUTOMOTIVE LABS	MACNAUGHT M3D-SSAW-5050								PROVIDE 50' OF FLEXIBLE SUPPLY HOSE WITH QUICK-DISCONNECT FITTING
HR-2	CEILING - STRUCTURE MOUNTED ENGINE OIL / ANTI-FREEZE DISTRIBUTION HOSE REEL	AUTOMOTIVE AND ADVANCED AUTOMOTIVE LABS	MACNAUGHT M3D-SSCO-5050								PROVIDE 50' OF FLEXIBLE SUPPLY HOSE; PROVIDE OIL GUN
HWCP-1	HOT WATER RETURN PUMP	CULINARY CLOSET C124A	BELL AND GOSSETT MODEL NO. PL-30B	2 GPM @ 24' T.D.H.	ALL BRONZE CONSTRUCTION	1/12	-	120	-	1	
ODP-1	ENGINE OIL DRUM PUMP	AUTOMOTIVE LABS	MACNAUGHT R-SERIES R300S-01		AIR OPERATED OIL PUMP; MOUNT TO OIL DRUM						UNIT SUPPLIED WITH IN-LINE AIR LUBRICATOR; PROVIDE 5 MICRON AIR FILTER FOR AIR INLET TO PUMP
OWS-1	UNDERGROUND OIL-WATER SEPARATOR	EXTERIOR OF AUTOMOTIVE LAB	HIGHLAND TANK - MODEL UL-HTC-H-1000-HG-SW	1000 GALLON - 100 GPM FLOW RATE	PROVIDE SUBMERSIBLE OIL PUMP AND SENSOR EQUIPMENT - PROVIDE WITH HIGH-LINK LEVEL SHEILD - HT-6117 'P' SERIES, WIRELESS	-	-	208	-	3	PROVIDE AND MOUNT PUMP CONTROLLER ON EXTERIOR WALL. PROVIDE NECESSARY CONDUIT FOR WIRING TO/FROM THE OWS
SOM-AR	ARGON SWITCHOVER MANIFOLD	EXTERIOR CYLINDER STORAGE AREA	REXARC - MODEL 4-04-0136HPA-8	200 PSIG DELIVERY PRESSURE; 550 SCFH							
SOM-AR/CO2	ARGON/CO2 MIX SWITCHOVER MANIFOLD	EXTERIOR CYLINDER STORAGE AREA	REXARC - MODEL 4-04-013HPAC-8	200 PSIG DELIVERY PRESSURE; 550 SCFH							
SP-1	WASTE WATER SAMPLING PORT	EXTERIOR NORTH SIDE OF CULINARY LAB	SCHIER - MODEL SV10		PROVIDE SCHIER FIELD CUT RISER FCR10						4" INLET / OUTLET SIZE
WOCT-1	WASTE OIL / ANTI-FREEZE CONTAINMENT TANK	EXTERIOR OF AUTOMOTIVE LABS	HIGHLAND TANK - 500 GALLON, 48" DIA. AG DW HORIZONTAL SPLIT-TANK	250 GALLON FOR EACH SIDE - TOTAL 500 GALLON STORAGE	DOUBLE-WALL, ABOVEGROUND, UL 142 LISTED - SET IN DEPRESSED CONCRETE CONTAINMENT PIT						PROVIDE WITH HIGH-LINK LEVEL SHEILD - HT-6117 'P' SERIES, WIRELESS



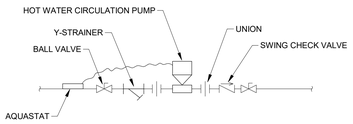
1 EXTERIOR CLEANOUT DETAIL
N.T.S.



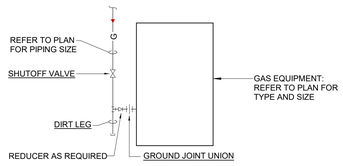
2 HWR BALANCING STATION DETAIL
N.T.S.



5 ICE MAKER BOX DETAIL
N.T.S.



3 HWR PUMP PIPING DIAGRAM
N.T.S.



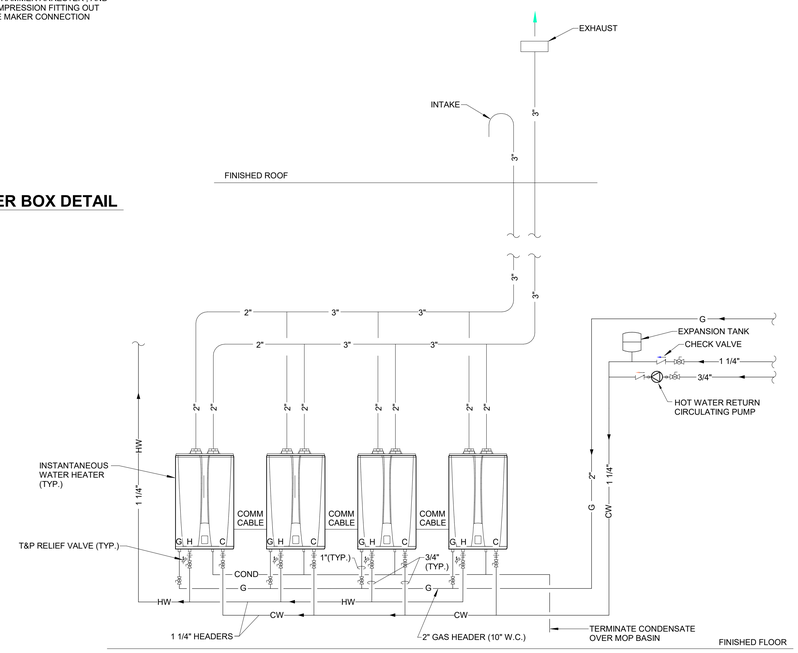
4 GAS DIRT LEG PIPING DETAIL
N.T.S.

WELDING GAS PIPING SPECIFICATION:

WELDING GAS PIPING - ARGON AND CARBON DIOXIDE

A. Hard Copper Tube: ASTM B88, Type K or L water tube, drawn temper

1. Cast-Copper Solder-Joint Fittings: ASME B16.22, pressure fittings.
2. Wrought-Copper Solder-Joint Fittings: ASME B16.22, wrought-copper pressure fittings.
3. Copper Unions: MSS SP-125, cast-copper-alloy, hexagonal stock body, with ball and socket, metal-to-metal seating surfaces, and solder-joint or threaded ends.



6 WATER HEATER PIPING DETAIL 3 (INSTANTANEOUS GAS-FIRED)
N.T.S.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT

PLAN NORTH

CONSTRUCTION DOCUMENTS

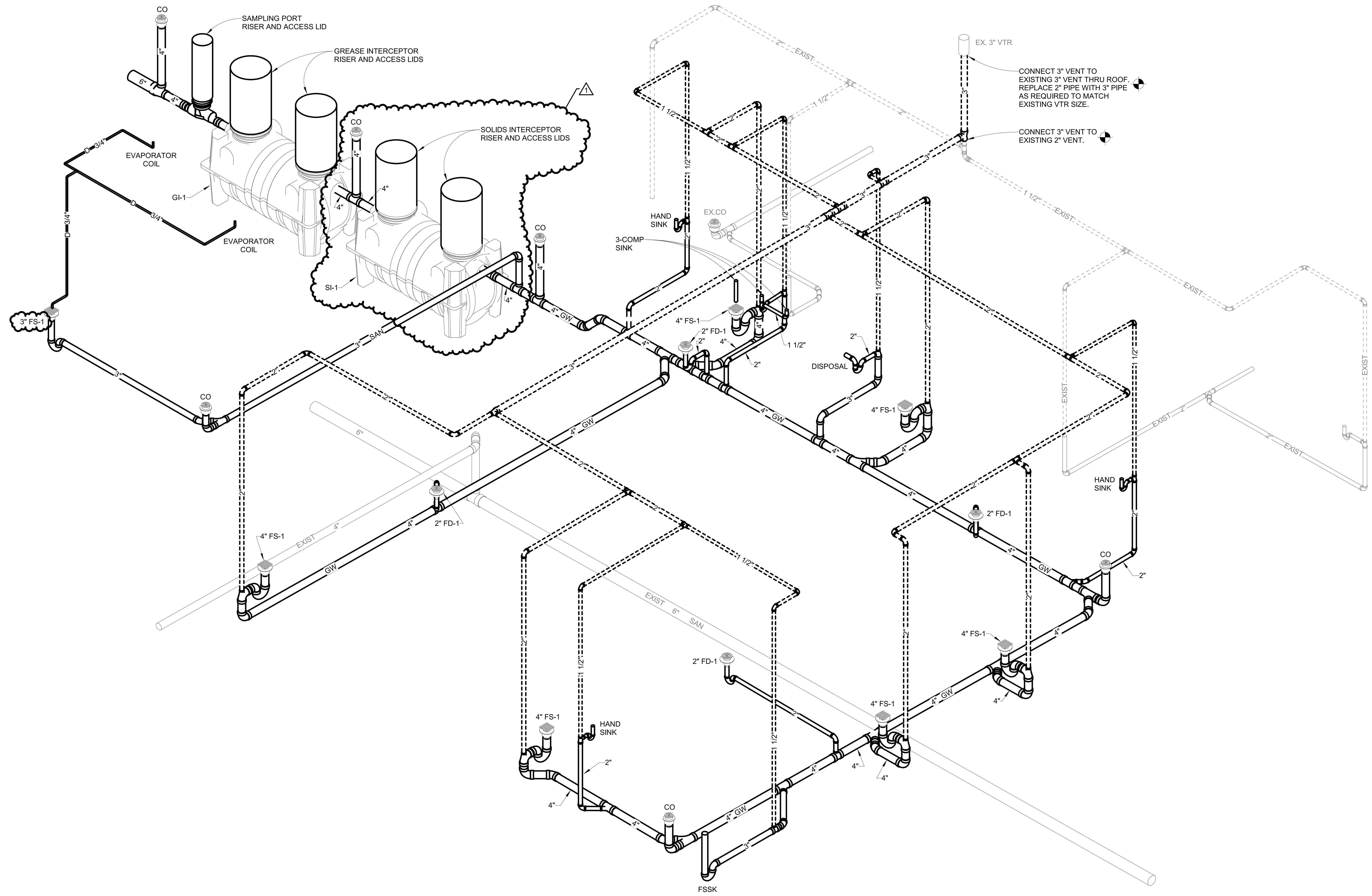
MARK Z. HOPT REGISTERED No. PE 12000301 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JE
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

PLUMBING SCHEDULES AND DETAILS

P3.01



CULINARY LAB WASTE AND VENT ISOMETRIC

1

N.T.S.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT

PLAN NORTH

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: JE
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

PLUMBING ISOMETRICS

P3.02

\\data1\ctlmgprofiles$\jelkins\upm_profile\documents\2021_PLUM_221165.01_jelkinsHZQQL.rvt
9/20/2023 7:22:32 AM

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

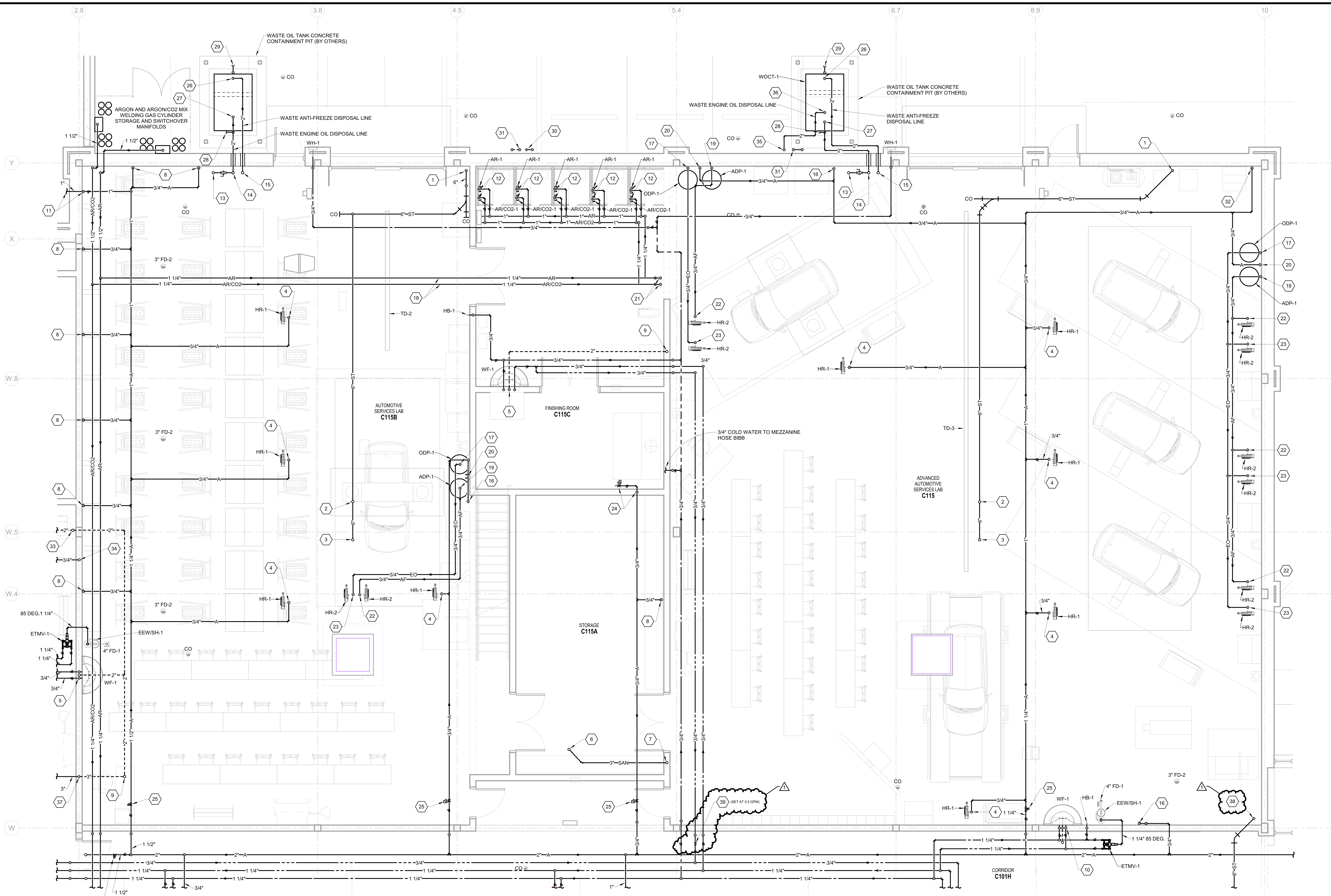
CARMEL CLAY SCHOOLS

ARCHITECT

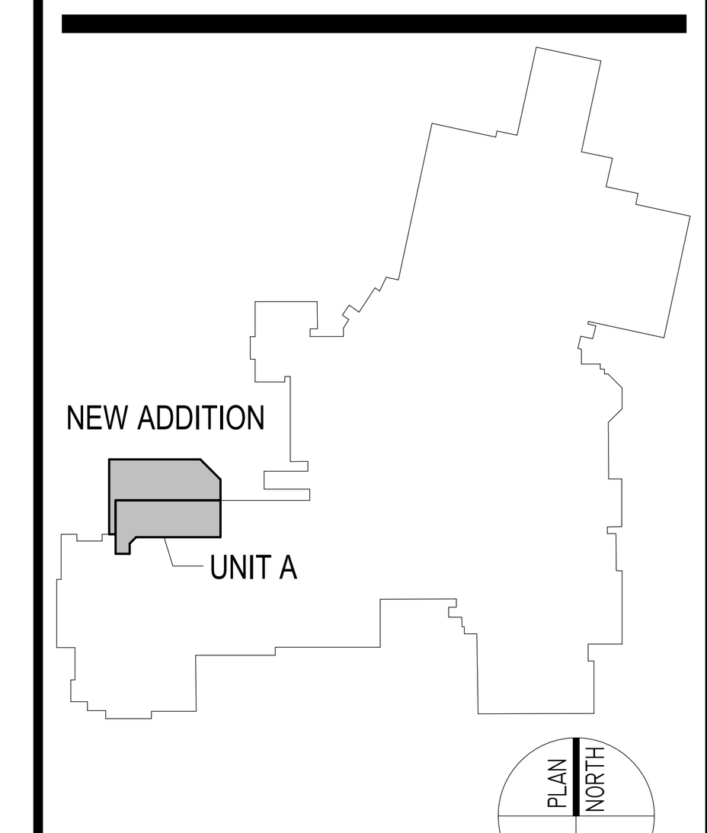
FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN



CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED PROFESSIONAL ENGINEER No. PE 12000601 STATE OF INDIANA

1 **UNIT A - ENLARGED AUTOMOTIVE LABS PLUMBING PLAN**

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

ENLARGED AUTOMOTIVE LABS PLAN NOTES

1 6" STORM DOWN TO BELOW SLAB. PROVIDE CLEANOUT AT BASE OF RISER.

2 6" STORM FROM ROOF DRAIN ABOVE.

3 6" STORM FROM OVERFLOW ROOF DRAIN ABOVE.

4 3/4" COMPRESSED AIR DROP TO HOSE REEL. PROVIDE SHUTOFF VALVE PRIOR TO CONNECTION TO HOSE REEL.

5 3/4" HOT AND COLD WATER DOWN. 2" WASTE DOWN TO BELOW SLAB, 2" VENT UP.

6 3" WASTE WITH DEEP SEAL P-TRAP FROM FLOOR DRAIN ABOVE.

7 3" WASTE DOWN TO BELOW SLAB, 2" VENT UP TO 3" VENT THRU ROOF.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

8 3/4" COMPRESSED AIR DOWN ALONG FACE OF WALL TO SHUTOFF VALVE AND QUICK DISCONNECT AIR HOSE FITTING.

9 2" VENT UP TO 3" VENT THRU ROOF.

10 3/4" HOT AND COLD WATER DOWN. 2" WASTE DOWN TO BELOW SLAB, 2" VENT UP TO 3" VENT THRU ROOF.

11 1" COMPRESSED AIR DROP ALONG WALL. ROUTE THRU EXTERIOR WALL AND EXTEND TO WELDING UNIT. PROVIDE SHUTOFF VALVE, UNION AND MAKE FINAL CONNECTION AS REQUIRED. SEAL WALL PENETRATION WEATHERTIGHT.

12 3/4" ARGON AND ARGON/CO2 MIX SUPPLY PIPING DOWN TO WELDING BOOTH GAS OUTLETS. COORDINATE FINAL LOCATION AND ARRANGEMENT WITH OWNER.

13 12" DIA. OIL FILTER DRAIN FUNNEL WITH MESH SCREEN AND CLOSING TOP. 2" DRAIN.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

14 6" DIA. OPEN FUNNEL FOR WASTE OIL DISPOSAL. 2" DRAIN DOWN AND OUT TO USED OIL CONTAINMENT TANK. SEAL WALL PENETRATION WEATHERTIGHT.

15 6" DIA. OPEN FUNNEL FOR WASTE ANTI-FREEZE DISPOSAL. 2" DRAIN DOWN AND OUT TO USED ANTI-FREEZE CONTAINMENT TANK. SEAL WALL PENETRATION WEATHERTIGHT.

16 3/4" COMPRESSED AIR DOWN INTO 3" CONDUIT TO BELOW SLAB. 3" CONDUIT DOWN TO BELOW SLAB. SEAL CONDUIT OPENING AS REQUIRED. PROVIDE SHUTOFF VALVE AND AIR PRESSURE REGULATOR AT 4'-0" A.F.F.

17 CONNECT 3/4" FLEXIBLE HOSE TO DRUM PUMP OUTLET. EXTEND FLEXIBLE HOSE TO ENGINE OIL DISTRIBUTION PIPE CONNECTION AT WALL. 3/4" ENGINE OIL UP.

18 ROUTE WELDING GAS PIPING UP AND OVER MEZZANINE. KEEP PIPING AS HIGH AS POSSIBLE.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

19 CONNECT 3/4" FLEXIBLE HOSE TO DRUM PUMP OUTLET. EXTEND FLEXIBLE HOSE TO ANTI-FREEZE DISTRIBUTION PIPE CONNECTION AT WALL. 3/4" ANTI-FREEZE UP.

20 3/4" COMPRESSED AIR DOWN ALONG WALL. TERMINATE WITH AIR PRESSURE REGULATOR AND SHUTOFF VALVE. EXTEND 1/2" COMPRESSED AIR TO ENGINE OIL AND ANTI-FREEZE DRUM PUMPS. PROVIDE 'STOP' VALVE COMPRESSED AIR COCK PRIOR TO AIR CONNECTION. REFER TO DRUM PUMP MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.

21 1 1/4" WELDING GAS DOWN THRU MEZZANINE FLOOR. ROUTE PIPING TO WELDING BOOTHS. KEEP PIPING AS HIGH AS POSSIBLE TO UNDERSIDE OF MEZZANINE.

22 3/4" ANTI-FREEZE DOWN TO HOSE REEL.

23 3/4" ENGINE OIL DOWN TO HOSE REEL.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

24 3/4" COMPRESSED AIR DOWN IN WALL. TURN OUT INTO PAINT BOOTH AT 48" A.F.F. PROVIDE SHUTOFF VALVE, 3-STAGE AIR DRYING SYSTEM WHICH INCLUDES A PARTICULATE FILTER, COALESCING FILTER, DESICANT DRYER AND AIR REGULATOR EQUAL TO NANPU FRPD44. CONNECT EQUIPMENT AND PIPING COMPLETE AS REQUIRED TO ACCOMMODATE PAINT BOOTH SPRAY GUN CONNECTION POINT.

25 AIR PRESSURE REGULATOR. SET OUTLET PRESSURE AT100 PSIG.

26 2" WASTE ANTI-FREEZE DOWN INTO CONTAINMENT TANK. MAKE FINAL CONNECTION AS REQUIRED.

27 2" WASTE ENGINE OIL DOWN INTO CONTAINMENT TANK. MAKE FINAL CONNECTION AS REQUIRED.

28 2" WASTE ENGINE OIL PUMP OUT PORT. COORDINATE PUMP OUT PORT CONNECTION COUPLING WITH OWNERS PUMP-OUT CONTRACTOR.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

29 2" WASTE ANTI-FREEZE PUMP OUT PORT. COORDINATE PUMP OUT PORT CONNECTION COUPLING WITH OWNERS PUMP-OUT CONTRACTOR.

30 2" VENT UP FROM BELOW GRADE. TERMINATE VENT WITH (2) 90 DEG. ELBOWS, TURNED DOWN WITH BUG SCREEN. TERMINATE AT +36" A.F.G. PROVIDE PIPE SUPPORT ATTACHED TO EXTERIOR WALL.

31 3" VENT UP FROM BELOW GRADE. TERMINATE VENT WITH (2) 90 DEG. ELBOWS, TURNED DOWN WITH BUG SCREEN. TERMINATE AT +36" A.F.G. PROVIDE PIPE SUPPORT ATTACHED TO EXTERIOR WALL.

32 3/4" COMPRESSED AIR DOWN ALONG FACE OF WALL TO SHUTOFF VALVE AND QUICK DISCONNECT AIR HOSE FITTING. PROVIDE POINT-OF-USE AIR PRESSURE REGULATOR.

33 2" VENT UP.

34 3/4" COLD WATER UP.

ENLARGED AUTOMOTIVE LABS PLAN NOTES

35 2" PUMPED WASTE OIL UP FROM BELOW GRADE.

36 2" PUMPED WASTE OIL DOWN IN TO CONTAINMENT TANK. MAKE FINAL CONNECTION AS REQUIRED.

37 3" WASTE DOWN, 3" VENT UP.

1

38 8" STORM DOWN TO BELOW SLAB. PROVIDE CLEANOUT AT BASE OF RISER.

39 HOT WATER RETURN BALANCE STATION. REFER TO DETAIL ON DRAWING P3.01 FOR MORE INFORMATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

DRAWN BY: JE

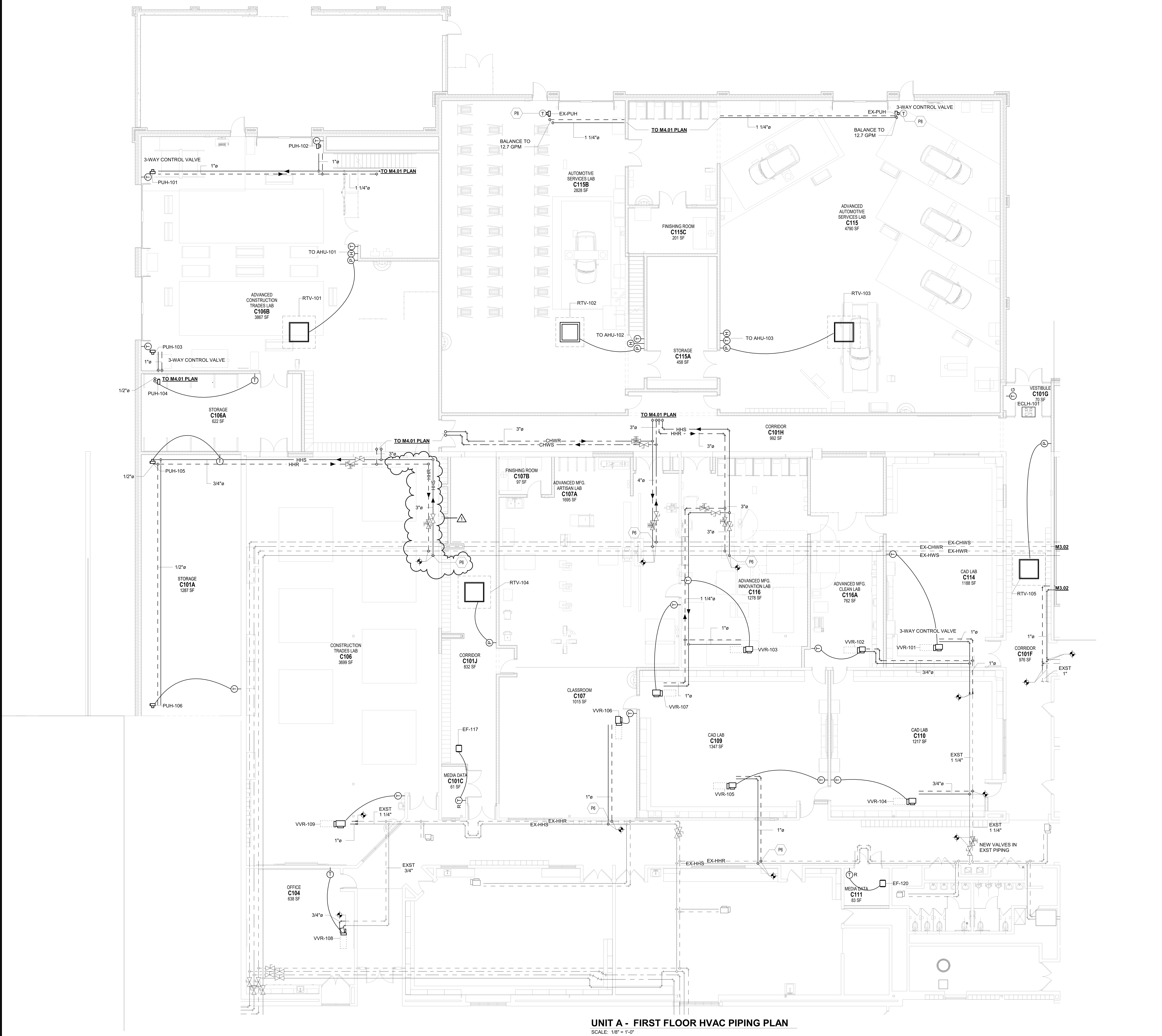
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

ENLARGED AUTOMOTIVE LABS PLUMBING PLAN

P4.01



UNIT A - FIRST FLOOR HVAC PIPING PLAN

SCALE: 1/8" = 1'-0"

HVAC PIPING PLAN GENERAL NOTES

A. ALL PIPING AND VALVES SHALL BE CONCEALED ABOVE THE CEILING AND WITHIN WALLS, UNLESS OTHERWISE NOTED.

B. REFER TO THE SPECIFICATIONS FOR REQUIREMENTS RELATED TO EQUIPMENT QUALITY, CONSTRUCTION AND FINISH OF MATERIALS.

C. ARRANGE PIPING, ETC. TO ALLOW FOR EASY ACCESS TO COILS, VALVES, DAMPERS AND CONTROLS. KEEP AREAS ADJACENT TO ACCESS PANELS FREE AND CLEAR OF ANY OPSTRUCTIONS.

D. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR HIS RESPECTIVE WORK FOR REPAIRING AND PATCHING TO MATCH EXISTING SURFACES, SIDEWALKS, STREETS, FLOORS, WALLS, ROOFS, CEILING AND PAVEMENT.

E. HYDRONIC SUPPLY AND RETURN PIPING SHALL BE THE SAME SIZE UNLESS OTHERWISE NOTED.

HVAC PIPING PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
P6	CONNECT NEW PIPING ON TOP SIDE OF EXISTING PIPING. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS AND WITH ALL TRADES.
P8	PROVIDE NEW LOW VOLTAGE CONTROLS AND LOW VOLTAGE TEMPERATURE SENSOR FOR CONTROL OF EXISTING PROPELLER UNIT HEATER.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

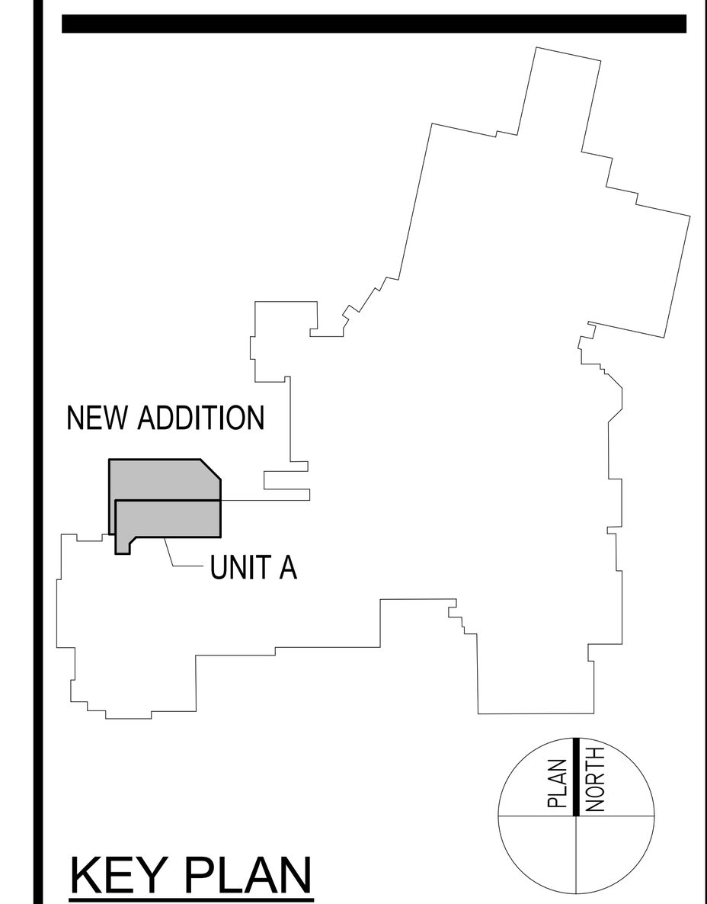
ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000501 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: DRV

PROJECT NUMBER: 221165.01

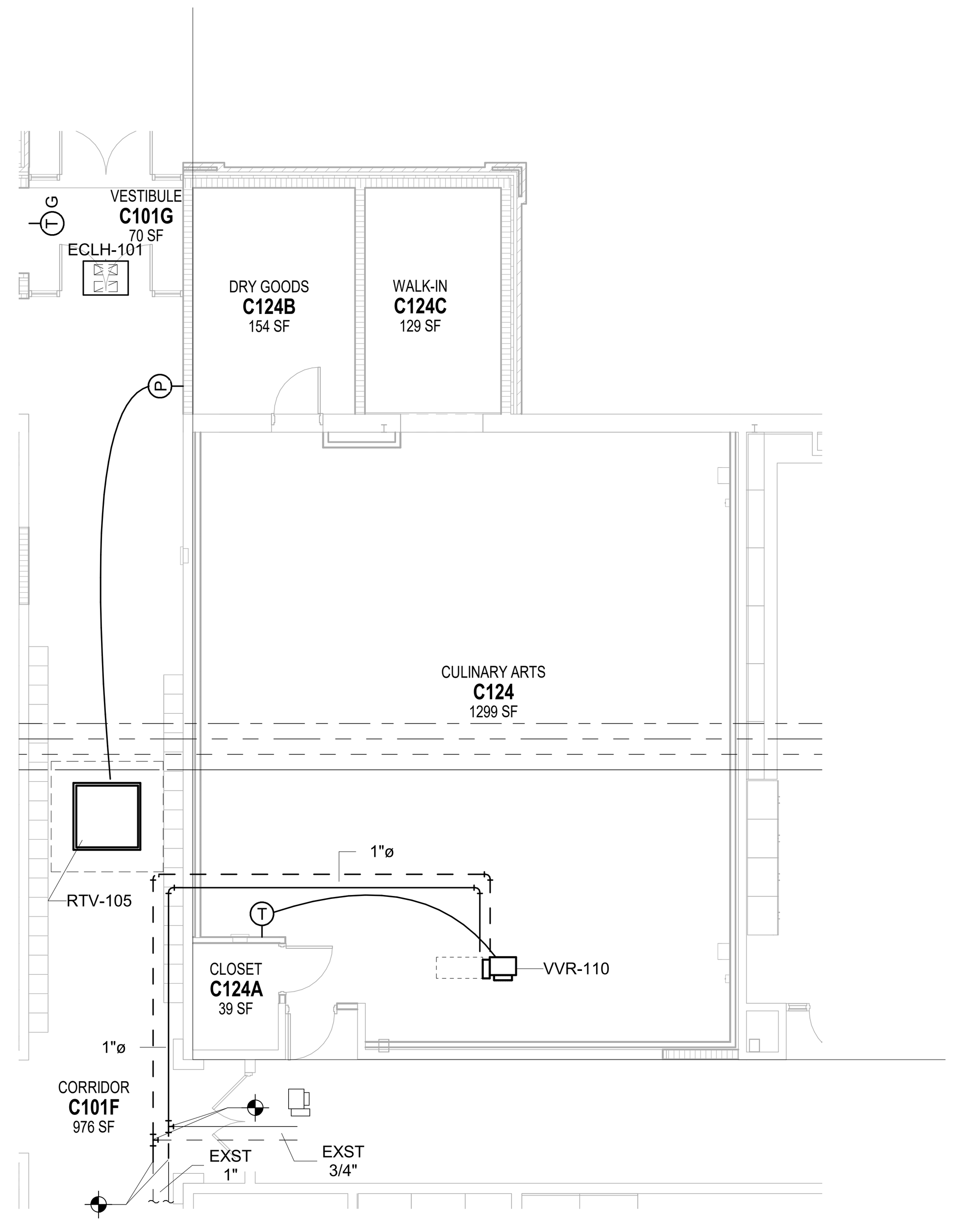
PROJECT ISSUE DATE: 8/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

FIRST FLOOR HVAC PIPING PLAN - UNIT A

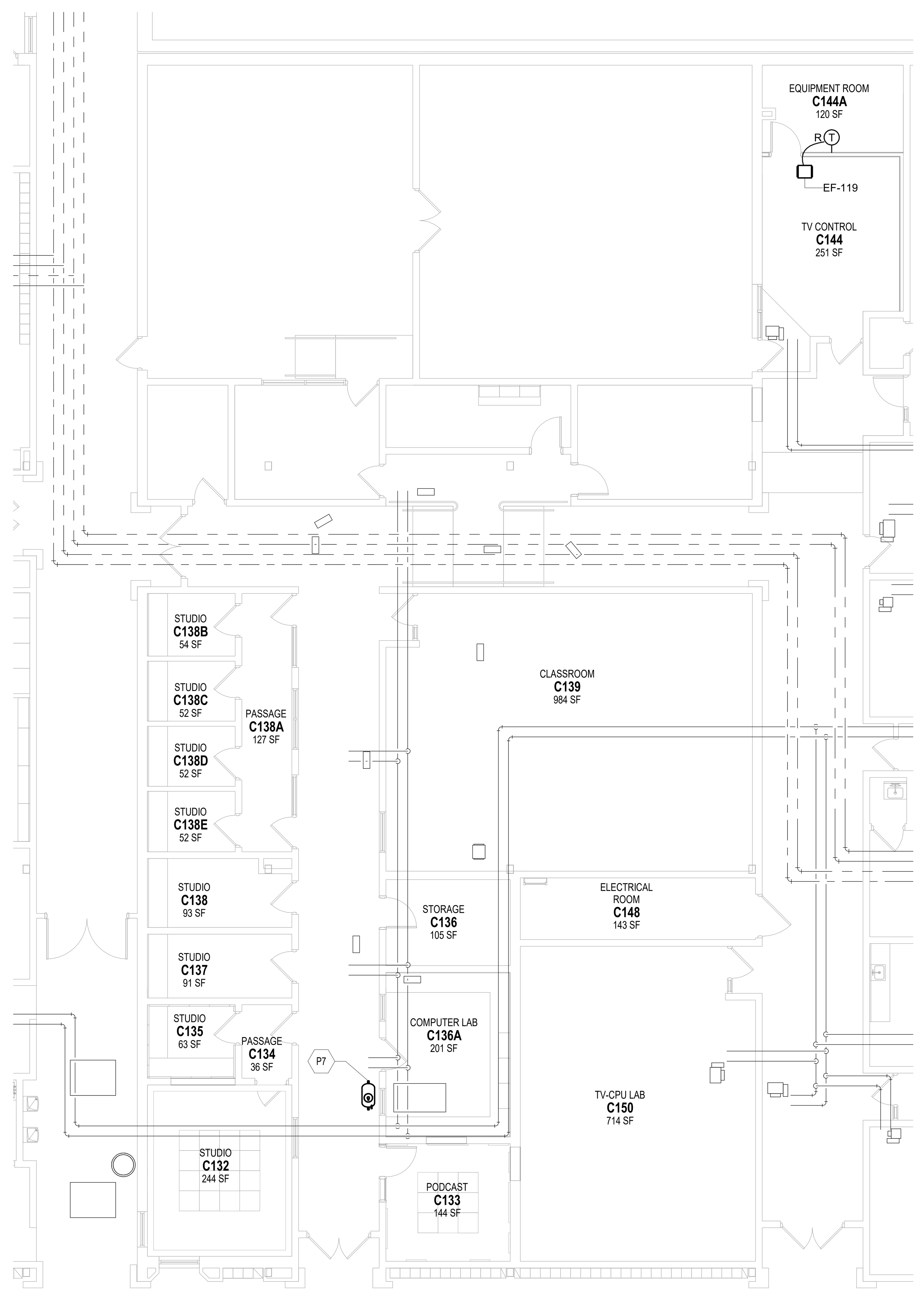
M3.01

\\data1\ctrxprofiles$\jslechta\upm_Profile\Documents\2021_MECH_221165.01_jslechtaXE4KT.rvt
9/20/2023 11:27:09 AM



UNIT B - FIRST FLOOR HVAC PIPING PLAN

SCALE: 1/8" = 1'-0"



UNIT C - FIRST FLOOR HVAC PIPING PLAN

SCALE: 1/8" = 1'-0"

HVAC PIPING PLAN GENERAL NOTES

A. ALL PIPING AND VALVES SHALL BE CONCEALED ABOVE THE CEILING AND WITHIN WALLS, UNLESS OTHERWISE NOTED.
B. REFER TO THE SPECIFICATIONS FOR REQUIREMENTS RELATED TO EQUIPMENT QUALITY, CONSTRUCTION AND FINISH OF MATERIALS.
C. ARRANGE PIPING, ETC. TO ALLOW FOR EASY ACCESS TO COILS, VALVES, DAMPERS AND CONTROLS. KEEP AREAS ADJACENT TO ACCESS PANELS FREE AND CLEAR OF ANY OPSTRUCTIONS.
D. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR HIS RESPECTIVE WORK FOR REPAIRING AND PATCHING TO MATCH EXISTING SURFACES, SIDEWALKS, STREETS, FLOORS, WALLS, ROOFS, CEILING AND PAVEMENT.
E. HYDRONIC SUPPLY AND RETURN PIPING SHALL BE THE SAME SIZE UNLESS OTHERWISE NOTED.

HVAC PIPING PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
P7	PROVIDE NEW CONDENSATE PUMP EQUAL TO EXISTING REMOVED CONDENSATE PUMP. RECONNECT EXISTING CONDENSATE PIPING AS REQUIRED. RECONNECT TO EXISTING ELECTRICAL SERVICE. (1)

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

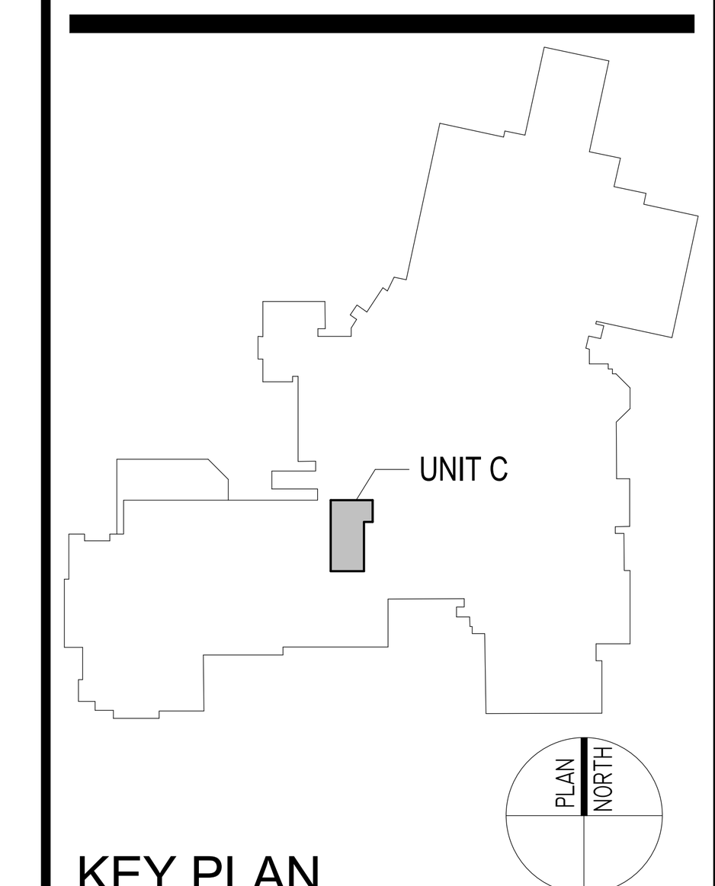
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF
REGISTERED
No.
PE 12000501
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: DRV
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 8/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

FIRST FLOOR HVAC PIPING PLAN - UNIT C

M3.02

\\data1\citrixprofiles$\jslechta\upm_Profile\Documents\2021_MECH_221165.01_jslechtaXE4KT.rvt
9/20/2023 11:27:13 AM

AIR HANDLING UNIT SCHEDULE

MARK	FANS SUPPLY CFM	MIN. O.A. CFM	EXT. S.P.	TOTAL S.P.	BHP	HP	TYPE	RPM	ELEC.	COOLING COIL (CHILLED WATER) EAT	LAT	COOLING LOAD SENS.	COOLING LOAD TOTAL	GPM	EWT / LWT	APD	WPD	PRE HEATING COIL EAT	LAT	MBH	GPM	EWT / LWT	APD	WPD	REHEAT HEATING COIL EAT	LAT	MBH	GPM	EWT / LWT	APD	WPD	MODEL NO.	NOTES
AHU-101	7,000	1,750	1.25	3.95	6.5	(2)3.8	ECM FAN ARRAY EC450 1X2:2	2,109	460/3	78.8 / 65.3	54.2 / 53.5	188.26	248.58	41.3	42.0 / 54.0	0.85	4.2	-	-	-	-	- / -	-	-	51.0	95.9	343.53	22.5	180.0 / 149.4	0.20	8.5	CAH016GDCM	1,2,3,4,5,6,7,8,9,10,11
AHU-102	6,000	2,100-6,000	1.25	3.34	4.8	(2)3.8	ECM FAN ARRAY EC450 1X2:2	1,906	460/3	90.0 / 74.0	53.5 / 53.0	239.64	418.34	68.3	42.0 / 54.2	0.23	10.7	0.0	47.2	305.60	19.8	180.0 / 148.9	0.20	7.16	45.0	95.7	332.43	21.9	180.0 / 149.6	0.12	7.4	CAH017GDCM	1,2,3,4,5,6,7,8,9,10,11
AHU-103	7,000	2,450-7,000	1.25	3.63	6.0	(2)3.8	ECM FAN ARRAY EC450 1X2:2	2,044	460/3	90.0 / 74.0	53.6 / 53.2	278.97	483.56	79.7	42.0 / 54.1	0.31	6.9	0.0	47.3	356.80	23.1	180.0 / 148.9	0.32	9.33	45.0	97.8	404.31	25.5	180.0 / 148.3	0.13	2.2	CAH018GDCM	1,2,3,4,5,6,7,8,9,10,11

NOTES

1. UNITS SCHEDULED ARE AS MANUFACTURED BY DAIKIN.
2. REFER TO PROJECT MANUAL SECTION 237313.
3. REFER TO SHEET M5.06 FOR AIR HANDLING UNIT DETAILS.
4. SUPPLY FAN MOTOR(S) - INTEGRATED DRIVE WITH MOTOR STARTER/DISCONNECT.
5. INCLUDE FACTORY MOUNTED CONTROL AIR DAMPER(S).
6. MAXIMUM FILTER FACE VELOCITY SHALL BE 500 FPM.
7. TOTAL UNIT STATIC PRESSURE REFLECTS AVERAGE DIRTY FILTERS.
8. MAXIMUM COIL FACE VELOCITY SHALL BE 500 FPM.
9. COOLING COIL SHALL BE SELECTED WITH 100% H20.
10. HEATING COIL SHALL BE SELECTED WITH 100% WATER.
11. PROVIDE FACTORY MOUNTED CONVENIENCE OUTLET AND INTERNAL LIGHTS.

SUMMER:
INDOOR: 75° db/60% RH
OUTDOOR: 90.0° db/74.0° wb
WINTER:
INDOOR: 70° db
OUTDOOR: 0° db

ROOFTOP VENTILATOR/INTAKE HOOD SCHEDULE

MARK	THROAT LENGTH	THROAT WIDTH	BACKDRAFT DAMPER	RELIEF CONTROL DAMPER	CFM	DRIP PAN	MODEL
RTV-101	48"	48"	BAROMETRIC	YES	7,000	YES	FABRA HOOD - FGR
RTV-102	42"	42"	BAROMETRIC	YES	6,000	YES	FABRA HOOD - FGR
RTV-103	48"	48"	BAROMETRIC	YES	7,000	YES	FABRA HOOD - FGR
RTV-104	48"	48"	BAROMETRIC	YES	6,600	YES	FABRA HOOD - FGR
RTV-105	48"	48"	BAROMETRIC	YES	6,600	YES	FABRA HOOD - FGR

GENERAL NOTES

1. REFER TO SPECIFICATION SECTION 233723.
2. HOODS SCHEDULED ARE AS MANUFACTURED BY GREENHECK.
3. HOODS TO BE MOUNTED ON MINIMUM 12" HIGH ROOF CURB.
4. COLOR(S) TO BE SELECTED BY THE ARCHITECT/ENGINEER.
5. TEMPERATURE CONTROL CONTRACTOR TO PROVIDE RELIEF CONTROL DAMPER FOR ALL ROOFTOP VENTILATORS UNLESS NOTED OTHERWISE.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE

MARK	TYPE	EXAMPLE MANUFACTUER MODEL NO.	NECK SIZE	OVERALL SIZE L"xW"	MAX CORE/ NECK VEL.(FPM)	MAX. CFM	MAX. NOISE CRITERIA	FRAME/ MOUNTING	REMARKS
A	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	6"x6"	8"x8"	500	100	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
B	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	10"x10"	12"x12"	500	300	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
C	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	12"x12"	14"x14"	500	425	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
D	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	14"x14"	16"x16"	500	600	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
E	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	16"x16"	18"x18"	500	800	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
F	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	22"x22"	24"x24"	500	1250	20	REFER TO REFLECTED CEILING PLAN	PROVIDE ALUMINUM SURFACE MOUNT BORDER FOR DUCTED INSTALLATIONS.
G	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	5"	12"x12"	800	100	18	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
H	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	6"	12"x12"	800	150	21	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
I	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	6"	24"x24"	900	175	17	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
J	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	8"	24"x24"	900	300	20	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
K	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	10"	24"x24"	800	425	20	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
L	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	12"	24"x24"	800	625	23	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
M	SQUARE PLAQUE CEILING DIFFUSER	TITUS OMNI	14"	24"x24"	700	750	20	REFER TO REFLECTED CEILING PLAN	4-WAY BLOW DIFFUSERS, UNLESS INDICATED OTHERWISE ON DRAWINGS.
N	RETURN/AIR TRANSFER GRILLE	TITUS 355-FL	SEE FLOOR PLANS FOR SIZE	-	500	PER PLANS	20	DUCT OR SIDEWALL OR CEILING	FIXED 35(DEGREE), 1/2" SPACING DEFLECTION BLADES
O	HEAVY DUTY RETURN GRILLE	TITUS 33-RL	SEE FLOOR PLANS FOR SIZE	-	—	PER PLANS	20	DUCT OR SIDEWALL	FIXED 38(DEGREE), 1/2" SPACING DEFLECTION BLADES
P	SIDEWALL SUPPLY DIFFUSER	TITUS 300-FL	SEE FLOOR PLANS FOR SIZE	-	300	PER PLANS	20	DUCT OR SIDEWALL	DOUBLE DEFLECTION, ADJUSTABLE BLADES 1/2" FRONT SPACING, 3/4" REAR SPACING
Q	HEAVY DUTY SUPPLY DIFFUSER	TITUS 300RL-HD	SEE FLOOR PLANS FOR SIZE	-	400	PER PLANS	20	DUCT OR SIDEWALL	DOUBLE DEFLECTION, ADJUSTABLE BLADES 1/2" FRONT SPACING, 3/4" REAR SPACING
R	LINEAR SLOT DIFFUSER	TITUS FL-20-HT	SEE FLOOR PLANS FOR SIZE	2-SLOT X 48"L	—	PER PLANS	20	REFER TO REFLECTED CEILING PLAN	HIGH THROW WITH INSULATED PLENUM 2-2" SLOT WITH DIA." INLET
S	LINEAR SLOT DIFFUSER	TITUS FL-10-JT	SEE FLOOR PLANS FOR SIZE	1-SLOT X 48"L	—	PER PLANS	20	REFER TO REFLECTED CEILING PLAN	JET THROW WITH INSULATED PLENUM 1-1" SLOT WITH DIA." INLET
T	SUPPLY DIFFUSER	TITUS 300-FS	SEE FLOOR PLANS FOR SIZE	-	450	PER PLANS	25	DUCT OR SIDEWALL	DOUBLE DEFLECTION, ADJUSTABLE BLADES 1/2" FRONT SPACING, 3/4" REAR SPACING
U	LINEAR SLOT DIFFUSER	TITUS FL-15-JT	SEE FLOOR PLANS FOR SIZE	1-SLOT X 48"L	—	PER PLANS	20	REFER TO REFLECTED CEILING PLAN	JET THROW WITH INSULATED PLENUM 1-1.5" SLOT WITH DIA." INLET
V	SPIRAL SUPPLY DUCT GRILLE	TITUS S300-FL	SEE FLOOR PLANS FOR SIZE	-	450	PER PLANS	20	DUCT	DOUBLE DEFLECTION, ADJUSTABLE BLADES 3/4" SPACING, AIR SCOOP DEVICE
W	ROUND SUPPLY DIFFUSER	AIR CONCEPTS RDDW & RDDW-RD	SEE FLOOR PLANS FOR SIZE	-	550	PER PLANS	15	CEILING AND DUCT	ADJUSTABLE DOUBLE DEFLECTION VERTICAL AND HORIZONTAL
X	LINEAR SLOT DIFFUSER	TITUS FL-10-HT	SEE FLOOR PLANS FOR SIZE	1-SLOT X 48"L	—	PER PLANS	20	REFER TO REFLECTED CEILING PLAN	HIGH THROW WITH INSULATED PLENUM 1-1.0" SLOT WITH DIA." INLET

CABINET/PROPELLER UNIT HEATER SCHEDULE

MARK	CFM	FAN SPEED (RPM)	HP	HEATING 180° EWT MBH	EAT	LAT	GPM	WPD	LWT	COIL	ELEC SERV	MODEL NO.	NOTES
PUH-101	1,240	LOW	1/8	56.9	60	101.4	5.7	0.4	160.0	-	120/60/1	RH-108	6,7,8,9,13
PUH-102	1,240	LOW	1/8	56.9	60	101.4	5.7	0.4	160.0	-	120/60/1	RH-108	6,7,8,9,13
PUH-103	1,240	LOW	1/8	56.9	60	101.4	5.7	0.4	160.0	-	120/60/1	RH-108	6,7,8,9,13
PUH-104	310	LOW	1/30	9.1	60	86.6	0.9	0.2	160.0	-	120/60/1	RH-18	6,7,8,9,13
PUH-105	310	LOW	1/30	9.1	60	86.6	0.9	0.2	160.0	-	120/60/1	RH-18	6,7,8,9,13
PUH-106	310	LOW	1/30	9.1	60	86.6	0.9	0.2	160.0	-	120/60/1	RH-18	6,7,8,9,13

NOTES

1. COLOR TO BE SELECTED BY ARCHITECT.
2. INCLUDE FACTORY MOUNTED DISCONNECT.
3. HORIZONTAL CEILING RECESSED UNIT.
4. HORIZONTAL PARTIALLY CEILING RECESSED UNIT.
5. UNIT SCHEDULED WITH BOTTOM SUPPLY AND BOTTOM RETURN.
6. SUPPORT HEATER FROM STRUCTURE ABOVE WITH MINIMUM OF TWO (2), 3/8" DIAMETER THREADED RODS.
7. UNIT FURNISHED WITH ADJUSTABLE LOUVER FIN DIFFUSERS TO PROVIDE FOUR-DIRECTION AIR FLOW CONTROL.
8. UNITS SCHEDULED ARE AS MANUFACTURED BY RITTLING.
9. REFER TO SPECIFICATION SECTION 238239.
10. UNIT SCHEDULED WITH BOTTOM SUPPLY AND BACK RETURN.
11. UNIT SCEDULED WITH DUCTED SUPPLY AND BOTTOM RETURN. SUPPLY FAN MOTOR E.S.P AT 0.15".
12. UNIT SHALL BE PROVIDED WITH A CEILING TRIM KIT.
13. DISCONNECT BY THE ELECTRICAL CONTRACTOR.

COIL CIRCULATOR SCHEDULE

MARK	MEDIUM	GPM	TDH	HP	SERVICE	NOTES
AHU-101	CHILLED WATER	15.0	3.0	1/4	115/1	1,2,3,4
AHU-102	CHILLED WATER	25.0	5.0	1/4	115/1	1,2,3,4
AHU-103	CHILLED WATER	30.0	4.0	1/4	115/1	1,2,3,4

NOTES:

1. SEE COIL PIPING DIAGRAMS FOR INSTALLATION DETAIL.
2. CONTROL OF PUMPS BY TEMPERATURE CONTROL CONTRACTOR, REFER TO SPECIFICATIONS.
3. REFER TO SPECIFICATION SECTION 232123.
4. PUMP SELECTED WITH 100% H2O.

ELECTRIC CEILING MOUNTED UNIT HEATER SCHEDULE

MARK	CFM	ELECTRIC HEATING BTUH	EAT	LAT	KW	ELEC SERV	MODEL NO.	NOTES
ECLH-101	600	17,000	60	75	5.0	460/3	RCH 3480 SERIES	1,2,3,4,5,6

NOTES

1. UNITS SCHEDULED ARE AS MANUFACTURED BY RAYWALL.
2. RECESSED CEILING MOUNTED.
3. REFER TO SPECIFICATION SECTION 238239.
4. LOW VOLTAGE WALL MOUNTED TEMPERATURE SENSOR BY THE TCC.
5. FACTORY DISCONNECT SWITCH.
6. WHITE POWDER COATED GRILLE.

VEHICLE EXHAUST HOSE REEL SCHEDULE

MARK	HOSE LENGTH	HOSE DIAMETER	APD	NOTES:
HR-101	30'-0"	5"	2.80	1,2,3
HR-102	30'-0"	5"	2.80	1,2,3
HR-103	30'-0"	5"	2.80	1,2,3
HR-104	30'-0"	5"	2.80	1,2,3
HR-105	30'-0"	5"	2.80	1,2,3
HR-106	30'-0"	5"	2.80	1,2,3
HR-107	30'-0"	5"	2.80	1,2,3
HR-108	30'-0"	5"	2.80	1,2,3

NOTES:

1. REFER TO SPECIFICATION SECTION 238056.
2. PROVIDE TAILPIPE ADAPTOR WITH VISE GRIP.
3. MOUNT HOSE REEL PER MANUFACTURERS REQUIREMENTS.

MAXIMUM ALLOWABLE SOUND LEVELS

MARK	UNIT SOUND	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz
AHU-101	UNIT SUPPLY DISCHARGE	80	85	87	82	87	80	74	71
AHU-102	UNIT SUPPLY DISCHARGE	78	82	81	79	86	76	71	68
AHU-103	UNIT SUPPLY DISCHARGE	79	84	83	80	87	77	72	69

EXHAUST FAN SCHEDULE

MARK	TYPE	CFM	FRPM	EXT. S.P.	MAX. SONES	ELEC HP	ELEC SERV	CONTROL	MODEL	DRIVE	NOTES
EF-101	IN-LINE	600	1,053	0.33	4.8	1/4	115/1	A	SQ-100-VG	DIRECT	1,2,3,4,6,7
EF-102	ROOF	1,250	1,206	0.33	9.2	1/2	115/1	A	G-120-VG	DIRECT	1,2,4,5,6,7,8
EF-103	ROOF	2,000	1,216	0.33	11.5	3/4	115/1	B.1	G-140-VG	DIRECT	1,2,4,5,6,7,8
EF-104	ROOF	1,850	1,134	0.30	10.2	1/2	115/1	B.1	G-140-VG	DIRECT	1,2,4,5,6,7,8
EF-105	ROOF	800	1,223	0.38	6.3	1/4	115/1	G	G-100-VG	DIRECT	1,2,4,5,6,7,8,17
EF-106	CENTRIFUGAL	900	3,116	5.0	30.0	1-1/2	208/3	E	USF-12	DIRECT	1,2,6,8,12,13,14,15,16
EF-107	ROOF	800	1,223	0.38	6.3	1/4	115/1	G	G-100-VG	DIRECT	1,2,4,5,6,7,8,17
EF-108	NOT USED										
EF-109	ROOF	1,750	1,098	0.33	9.6	1/2	115/1	B.1	G-140-VG	DIRECT	1,2,4,5,6,7,8
EF-110	NOT USED										
EF-111	ROOF	450	1,397	0.38	6.2	1/10	115/1	A	G-090-VG	DIRECT	1,2,4,5,6,7,8
EF-112	CENTRIFUGAL	1,500	3,103	5.0	30.0	2.0	208/3	E	USF-12	DIRECT	1,2,6,8,12,13,14,15,16
EF-113	ROOF	1,100	1,536	0.43	9.3	1/4	115/1	G	G-100-VG	DIRECT	1,2,4,5,6,7,8,18
EF-114	ROOF	1,100	1,536	0.43	9.3	1/4	115/1	G	G-100-VG	DIRECT	1,2,4,5,6,7,8,18
EF-115	ROOF	1,300	1,240	0.33	9.8	1/2	115/1	B.1	G-120-VG	DIRECT	1,2,4,5,6,7,8
EF-116	ROOF	800	1,223	0.38	6.3	1/4	115/1	B.1	G-100-VG	DIRECT	1,2,4,5,6,7,8
EF-117	IN-LINE	200	1,350	0.35	5.8	1/10	115/1	C	SQ-080-VG	DIRECT	1,2,3,4,6,7
EF-118	ROOF	75	1,539	0.33	3.5	1/15	115/1	A	G-060-VG	DIRECT	1,2,4,5,6,7,8
EF-119	IN-LINE	500	1,373	0.33	6.8	1/4	115/1	C	SQ-95-VG	DIRECT	1,2,3,4,6,7
EF-120	IN-LINE	200	1,313	0.33	5.5	1/10	115/1	C	SQ-080-VG	DIRECT	1,2,3,4,6,7

NOTES

1. INCLUDE DISCONNECT SWITCH.
2. INCLUDE BACKDRAFT DAMPER.
3. SUPPORT FROM STRUCTURE ABOVE WITH THREADED ROD AND VIBRATION ISOLATORS. (1)
4. REFER TO SPECIFICATION SECTION 233423 FOR ADDITIONAL REQUIREMENTS.
5. MOUNT ON 12" HIGH ROOF CURB.
6. ALL FAN MODELS SPECIFIED AS MANUFACTURED BY GREENHECK.
7. INCLUDE FIELD MOUNTED AND WIRED SPEED CONTROL.
8. COLOR(S) TO BE SELECTED BY ARCHITECT/ENGINEER.
9. INSTALL DRIP PAN UNDER UNIT.
10. ALUMINUM WHITE ENAMEL GRILLE, ISOLATION KIT AND HOODED WALL CAP.
11. HI-PRO POLYESTER FINISH FOR HOUSING, FAN WHEEL, BACK DRAFT DAMPER AND ACCESSORIES.
12. INCLUDE FACTORY MOUNTED AND WIRED VFC FOR UNIT SOFT START AND BALANCING AID.
13. REFER TO SPECIFICATION SECTION 238056 FOR ADDITIONAL REQUIREMENTS.
14. FAN SHALL BE ROOF MOUNTED ON EQUIPMENT SUPPORT RAILS AND VIBRATION ISOLATORS.
15. PROVIDE WEATHER HOOD TO PROTECT FAN AND MOTOR ASSEMBLY.
16. FAN SHALL BE CONFIGURED WITH A VERTICAL DISCHARGE.
17. EF-105 AND EF-107 SHALL BE INTERLOCKED SO BOTH FANS ARE COMMANDED ON AT THE SAME TIME FOR SIMULTANEOUS OPERATION.
18. EF-113 AND EF-114 SHALL BE INTERLOCKED SO BOTH FANS ARE COMMANDED ON AT THE SAME TIME FOR SIMULTANEOUS OPERATION.

CONTROL KEY:
A. AUTOMATIC OCCUPIED OPERATION BY LOCAL TEMPERATURE CONTROL ZONE.
B. MANUAL CONTROLS BY DIVISION 26.
.1 WITH TIMER SWITCH.
.2 WITH ON/OFF SWITCH.
.3 WITH ROOM LIGHT SWITCH.
C. AUTOMATIC OPERATION BY REVERSE-ACTING THERMOSTAT.
D. 24 HOUR CONTINUOUS OPERATION.
E. PUSH BUTTON PROVIDED BY DIVISION 26.
F. PRESURE SENSING SWITCH PROVIDED BY EXAHUST FAN MANUFACTURER.
G. TIMER SWITCH CONTROL BY DIVISION 26 AND AUTOMATIC OPERATION BY CARBON MONOXIDE DETECTOR BY THE TEMPERATURE CONTROL CONTRACTOR.

AIR CLEANING UNIT SCHEDULE

MARK	AIRFLOW	MOTOR INFO HP	ELEC INFO	DRIVE	MODEL	NOTES
AC-101	2,200	3/4	115/1	DIERCT	UAS - DA	1,2,3,4,5,6,7

GENERAL NOTES

1. REFER TO SPECIFICATION SECTION 234100 FOR ADDITIONAL REQUIREMENTS.
2. INCLUDE 4 INCH PLEATED PRE-FILTER, 95% EFFICIENT BAG FILTER AND FILTER CONDITION INDICATOR.
3. INCLUDE DIRECTIONAL OUTLET VANES.
4. PROVIDE HINGED ACCESS DOORS ON THE BOTTOM OF THE UNIT.
5. PROVIDE SUPPLEMENTAL STEEL, VIBRATION ISOLATORS AND THREADED ROD HANGERS ON ALL FOUR CORNERS OF THE UNIT.
6. BOTTOM OF UNIT TO BE MOUNTED AT 10'-0" AFF. COORDINATE FINAL LOCATION OF UNIT WITH ALL TRADES.
7. TOGGLE SWITCH ON/OFF CONTROL PROVIDED BY DIVISION 26.

VAV REHEAT TERMINAL SCHEDULE

MARK	PRIMARY CFM	MIN PRIMARY CFM	MBH	GPM	INLET DIA	AVAIL. INLET SP	RAD. N.C.	DIS. N.C.	LWT	LAT	# ROWS
VVR-101	1,450	725	64.12	4.2	12	1.42	18	-	148.6	95.8	2
VVR-102	800	400	33.62	1.9	10	1.32	-	-	143.0	93.7	2
VVR-103	1,500	750	64.10	4.0	12	1.58	20	16	146.8	94.4	2
VVR-104	1,300	650	58.05	3.4	12	1.93	24	20	145.3	96.2	2
VVR-105	1,400	700	62.63	4.0	12	1.81	24	20	148.3	96.2	2
VVR-106	1,450	725	64.12	4.2	12	1.49	18	15	148.6	95.8	2
VVR-107	2,150	1,075	91.32	4.7	14	1.87	22	20	139.7	94.2	2
VVR-108	550	275	23.22	1.4	8	2.18	22	20	145.9	93.9	4
VVR-109	3,000	1,500	135.2	6.5	19	2.21	38	32	137.3	96.6	2
VVR-110	2,050	1,025	94.80	5.8	14	1.58	20	18	146.2	97.6	2

GENERAL NOTES:

1. COILS SHALL BE SELECTED WITH 1' WPD MAXIMUM.
2. HEATING COIL DESIGN BASED ON HIGH-EFFICIENCY, HOT WATER COIL.
3. HEATING COIL LOADS CALCULATED WITH 180° EWT, 55° EAT AT TOTAL PRIMARY AIR FLOW.
4. UNIT MANUFACTURER SHALL PROVIDE REQUIRED HANGING BRACKETS TO PROPERLY SUPPORT UNIT. REFER TO DETAILS.
5. UNITS SCHEDULED ARE AS MANUFACTURED BY ETI.
6. UNIT SELECTION MUST ALLOW FOR A MINUMUM 0.50" DOWNSTREAM STATIC PRESSURE.
7. 277/1 VOLT ELECTRICAL SERVICE WILL BE SUPPLIED TO EACH UNIT BY THE ELECTRICAL CONTRACTOR.
8. REFER TO SPECIFICATION SECTION 233600.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

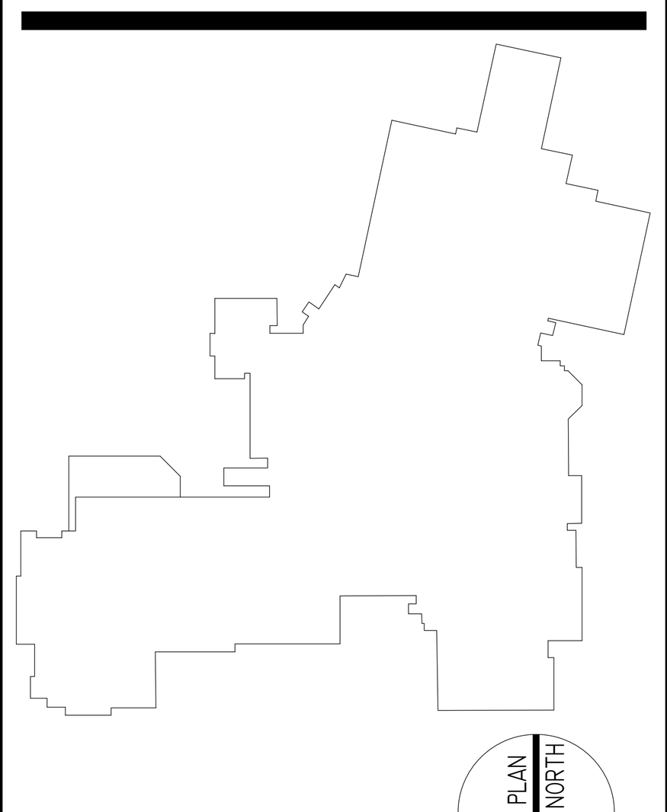
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

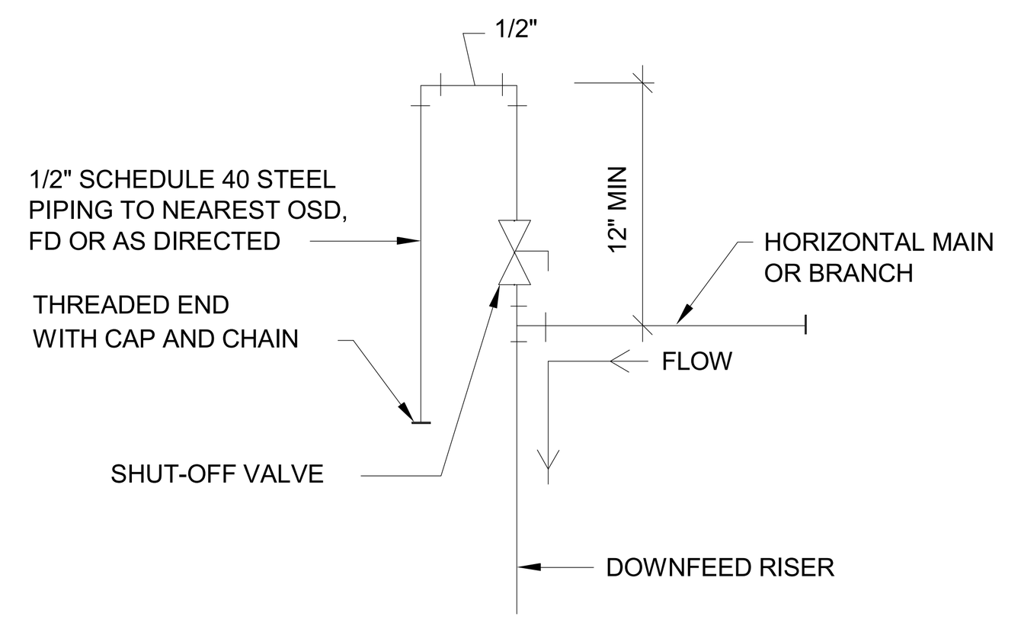
MARK Z. HOPF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: DRV
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 8/31/2023

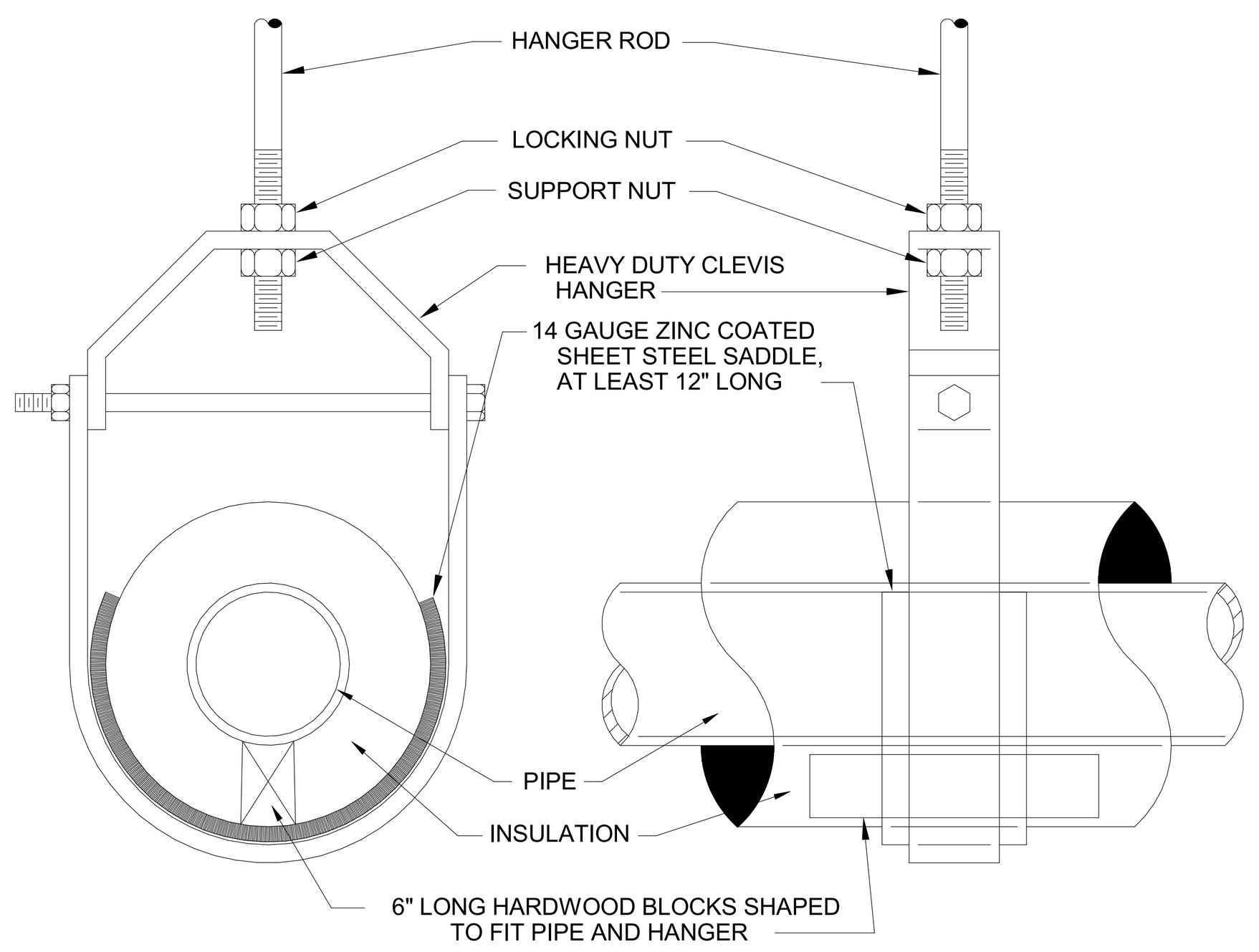
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

MECHANICAL SCHEDULES

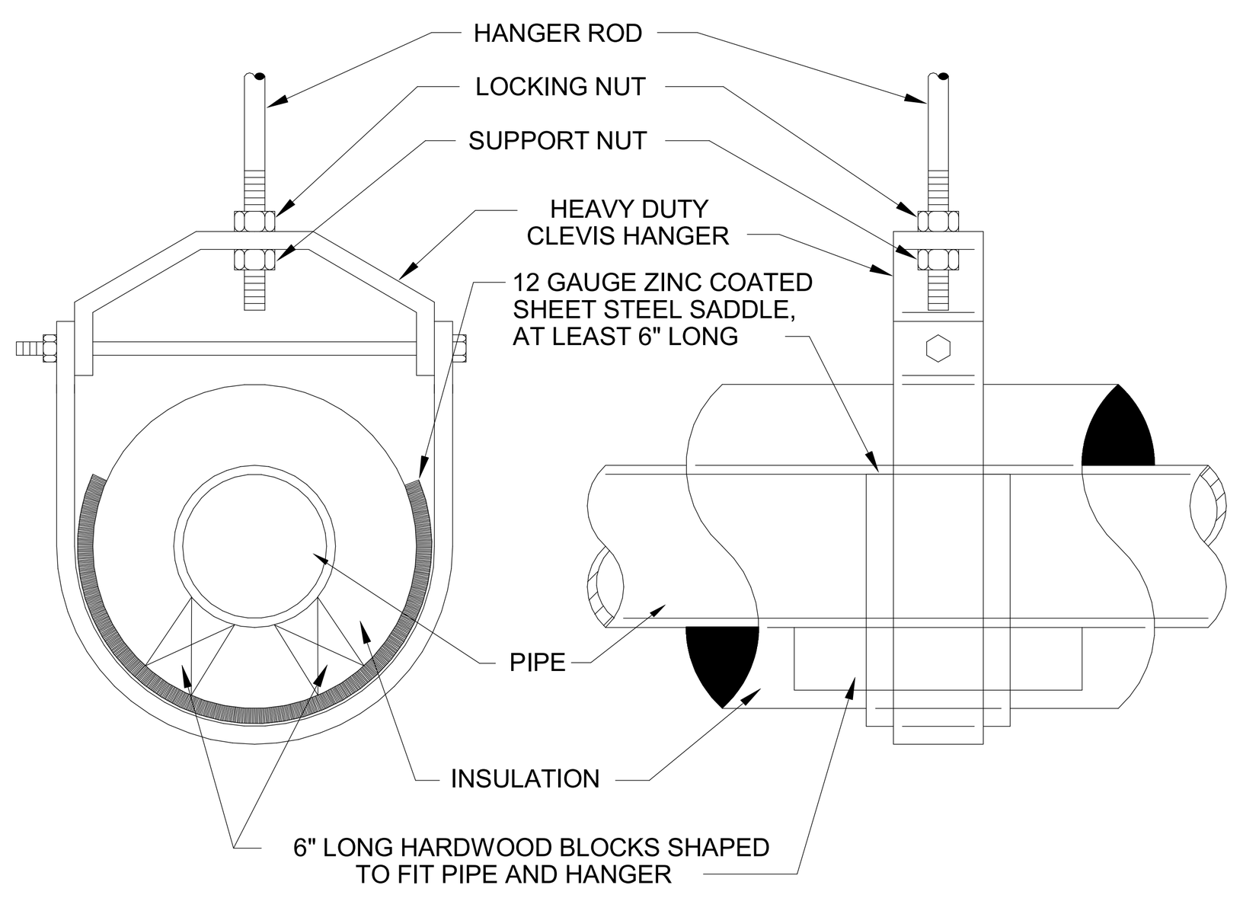
M5.01



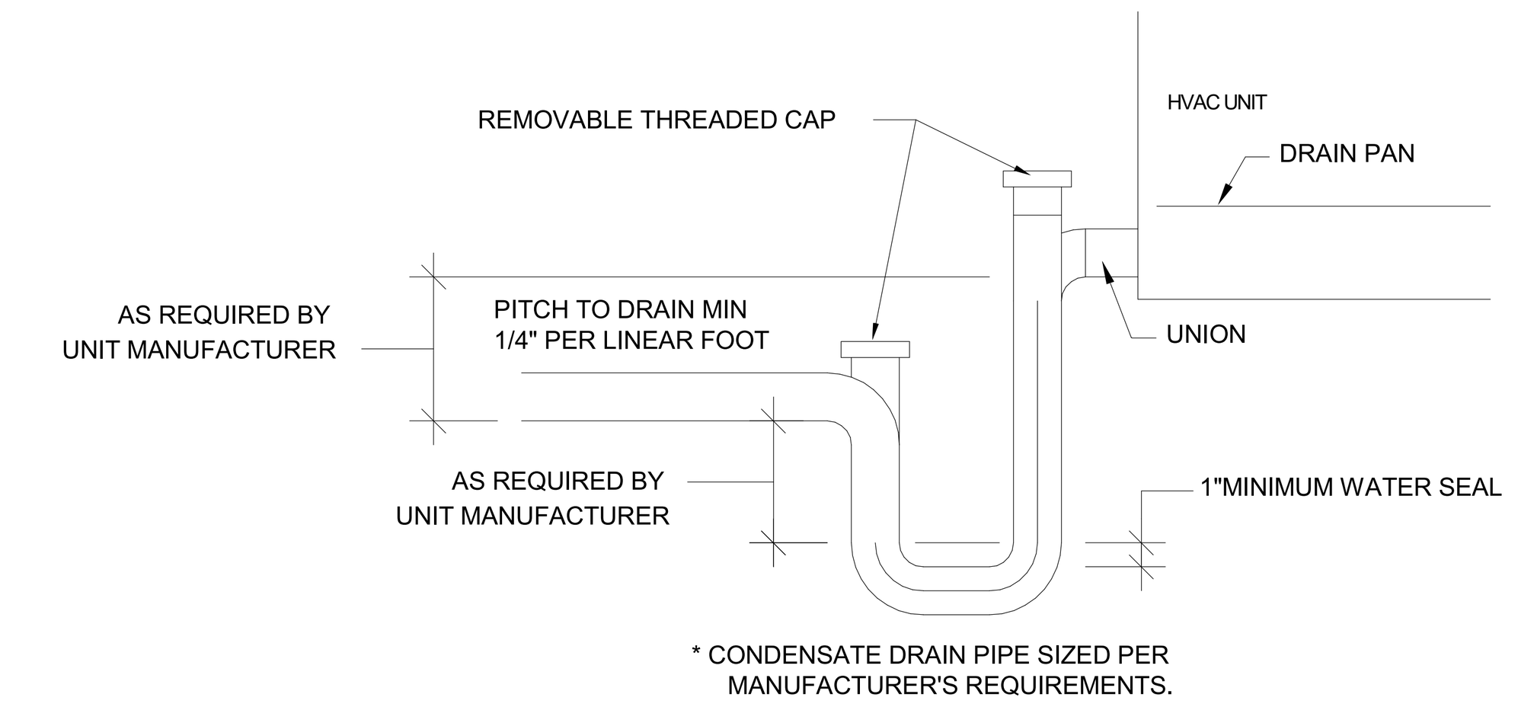
1 MANUAL AIR VENT DIAGRAM
NO SCALE



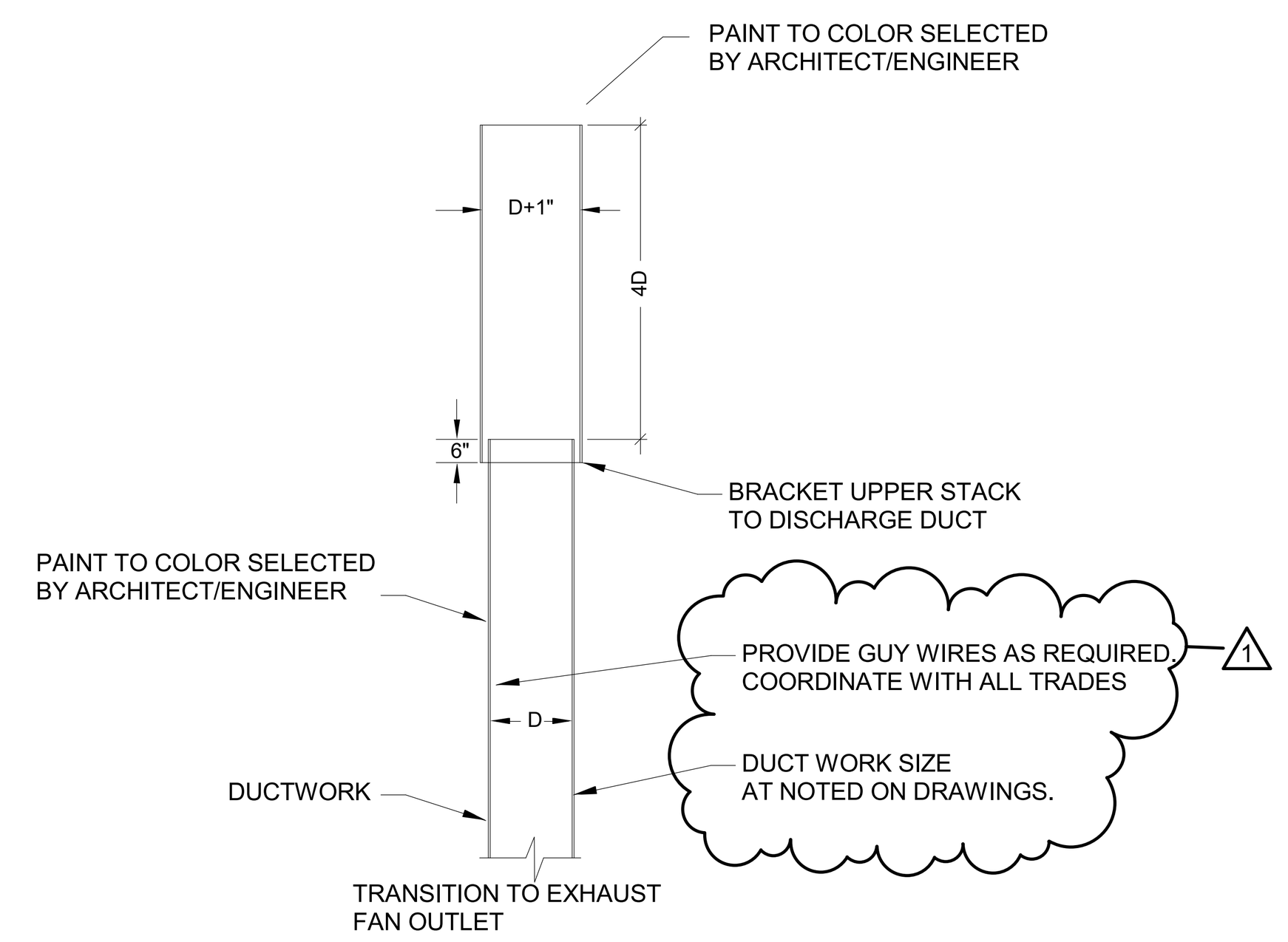
2 PIPE HANGERS (6" AND SMALLER)
NO SCALE



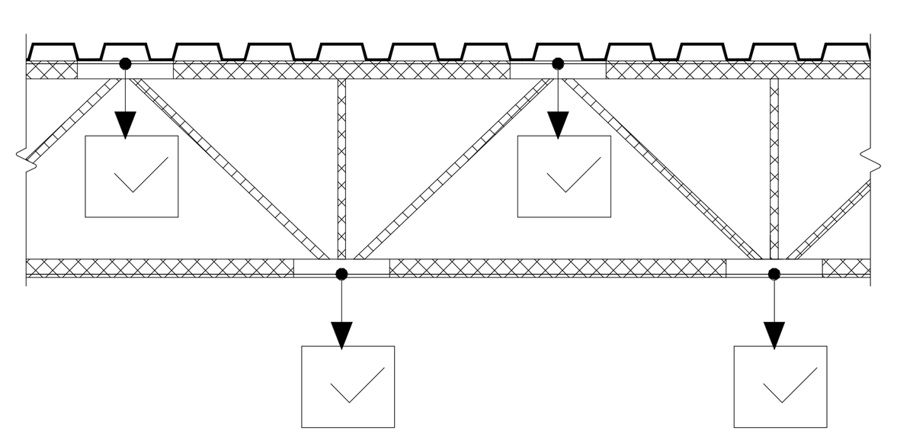
3 PIPE HANGERS (8" AND LARGER)
NO SCALE



4 CONDENSATE TRAP PIPING DIAGRAM
NO SCALE

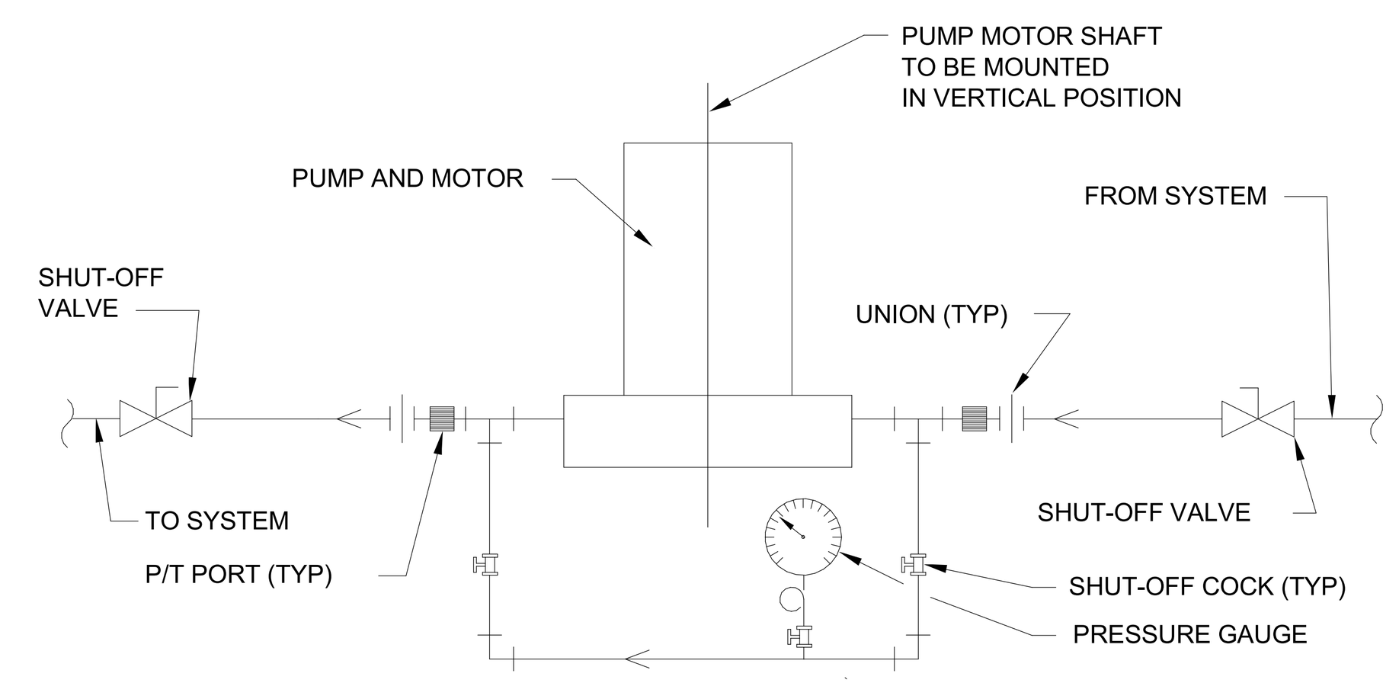


5 STACK HEAD VERTICAL DISCHARGE DETAIL
NO SCALE

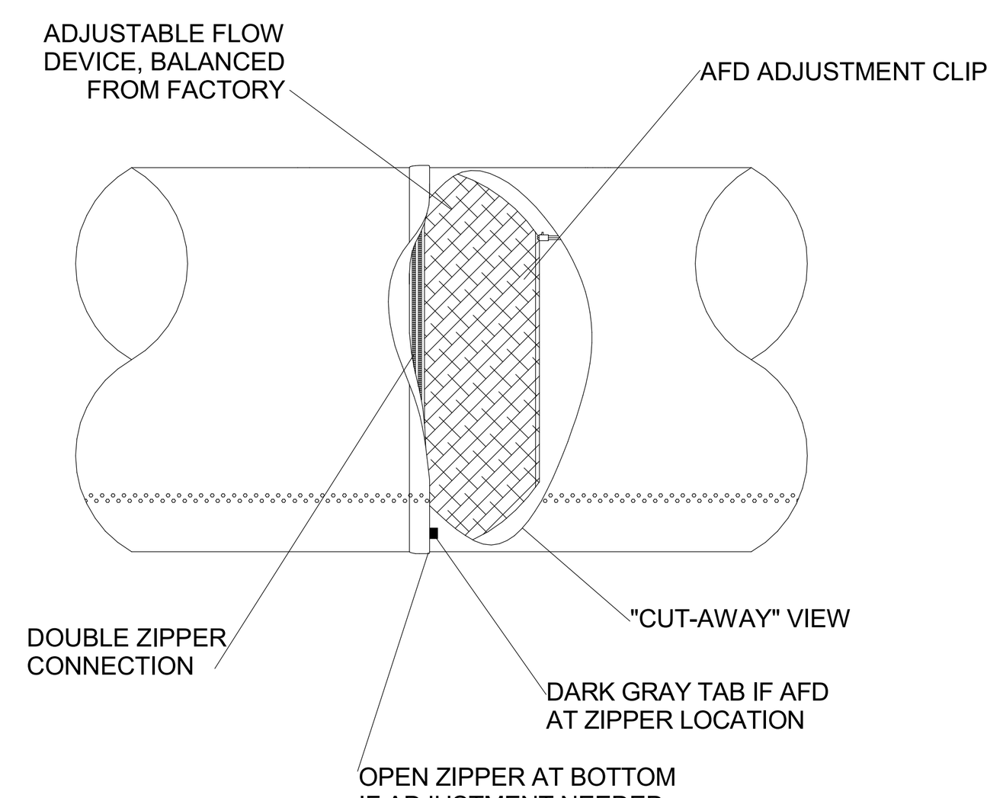


1. ALL LOADS IN EXCESS OF 100 LBS MAY ONLY BE HUNG FROM THE STEEL JOISTS AT THE LOCATIONS INDICATED WITH A CHECK MARK.
2. DO NOT HANG LOADS IN EXCESS OF 100 LBS FROM LOCATIONS AND/OR MEMBERS INDICATED WITH DIAGONAL HATCHING UNLESS ADDITIONAL REINFORCING ANGLES ARE INSTALLED PER THE STRUCTURAL DRAWINGS.
3. LOADS LESS THAN 100 LBS MAY BE HUNG ANYWHERE ALONG THE HORIZONTAL MEMBERS. DO NOT HANG ANY LOADS FROM THE DIAGONAL NOR VERTICAL MEMBERS.
4. THIS SECTION APPLIES TO LOADS HUNG FROM BOTH NEW JOISTS AND FROM EXISTING JOISTS.
5. SPACE HANGERS OUT SO THAT NOT ALL HANGERS ARE ATTACHED TO THE SAME JOIST.

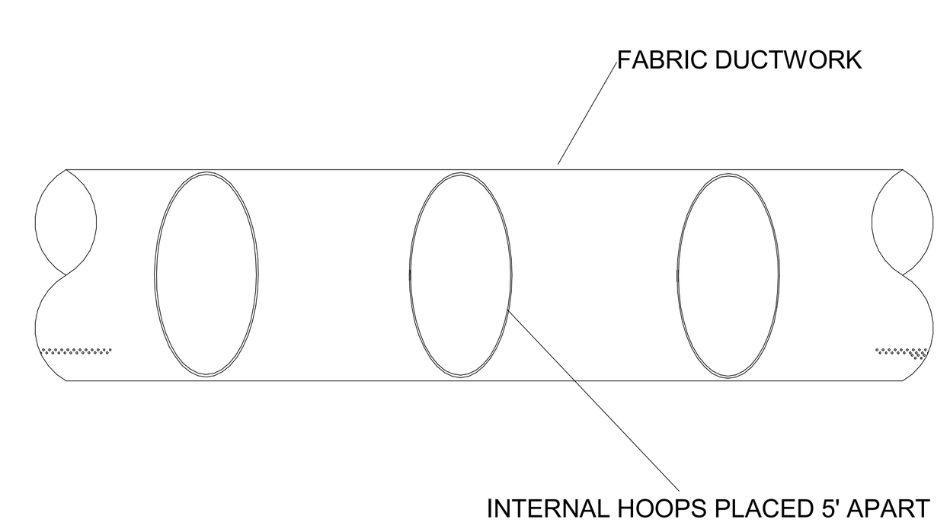
6 ACCEPTABLE LOCATION TO HANG LOADS FROM STEEL JOISTS
NO SCALE



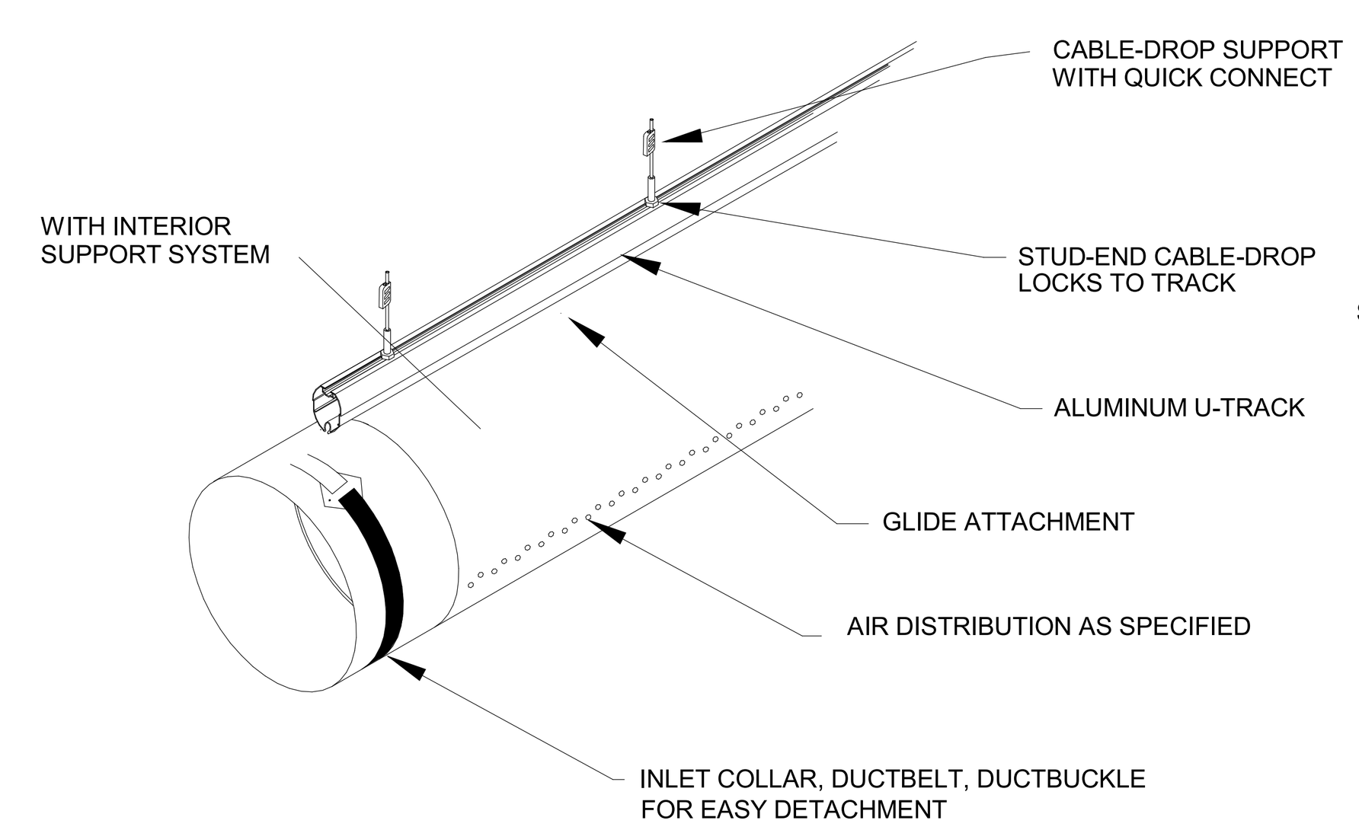
7 PIPING MOUNTED IN-LINE PUMP PIPING DIAGRAM
NO SCALE



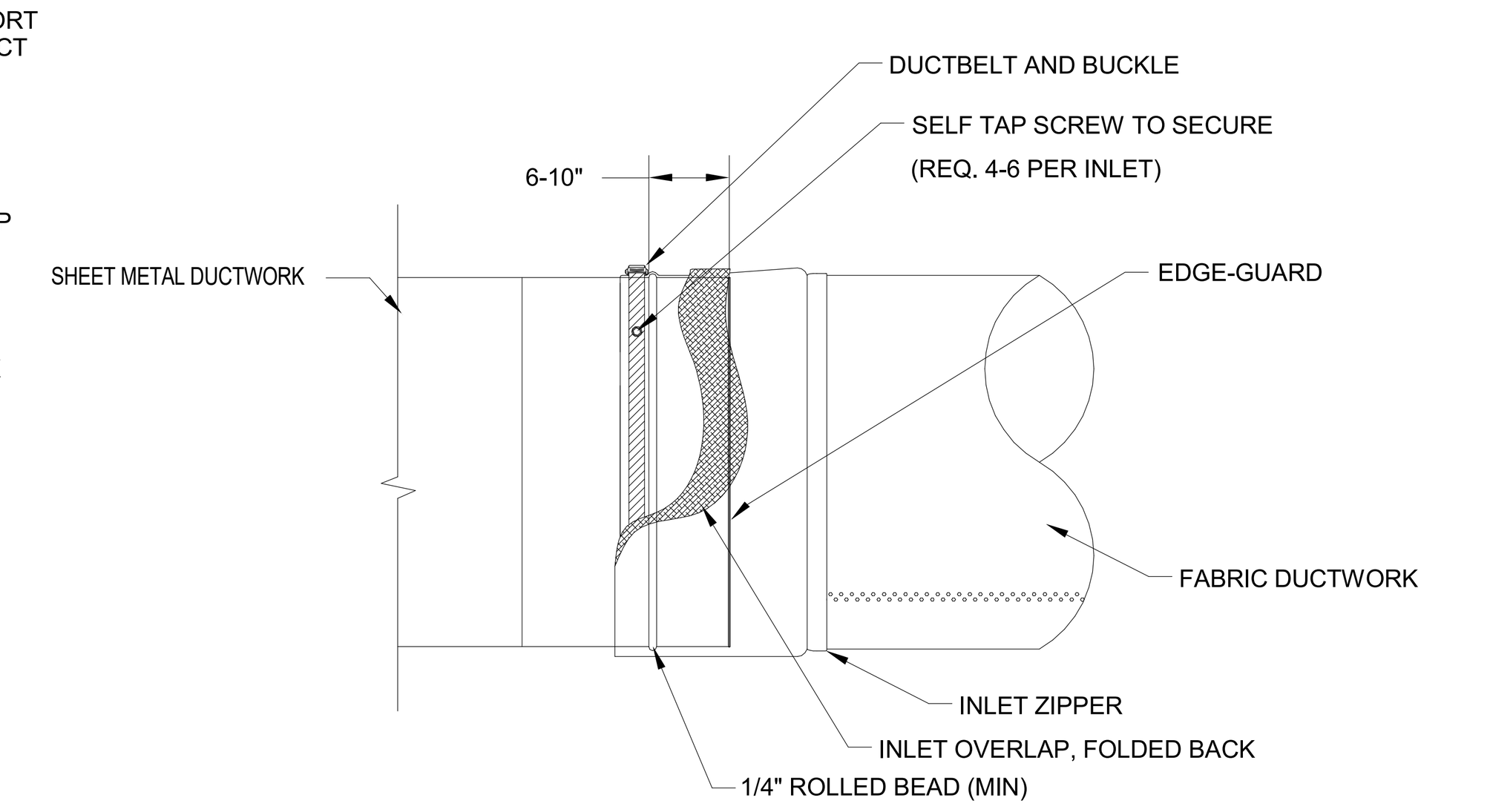
8 ADJUSTABLE FLOW DEVICE DETAIL
EXTERNAL LABEL INDENTIFIES LOCATION. ZIPPER TO ZIPPER CONNECTION.



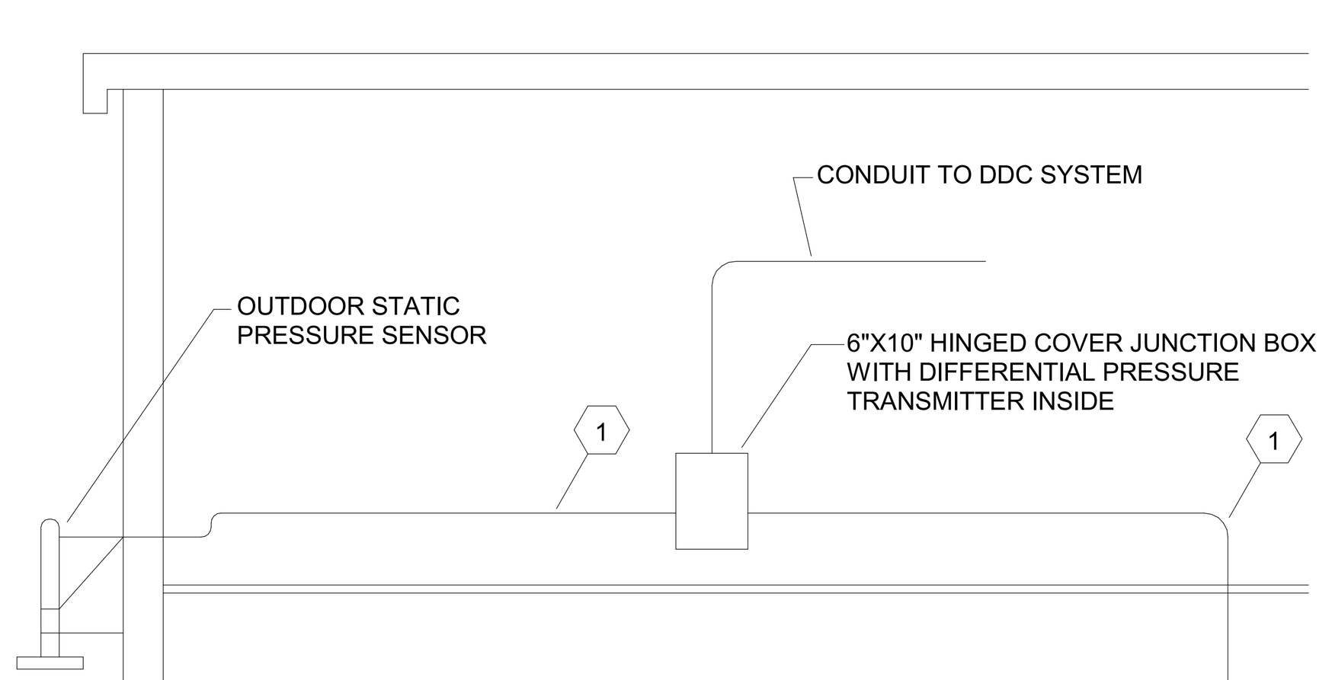
9 FABRIC DUCT SUSPENSION DETAIL
1 ROW SUSPENSION AT 12 O'CLOCK WITH INTERNAL HOOP SUPPORT SYSTEM
NO SCALE



10 FABRIC DUCT SUSPENSION DETAIL
1 ROW U-TRACK SUSPENSION AT 12 O'CLOCK WITH INTERNAL HOOP SUPPORT SYSTEM
NO SCALE



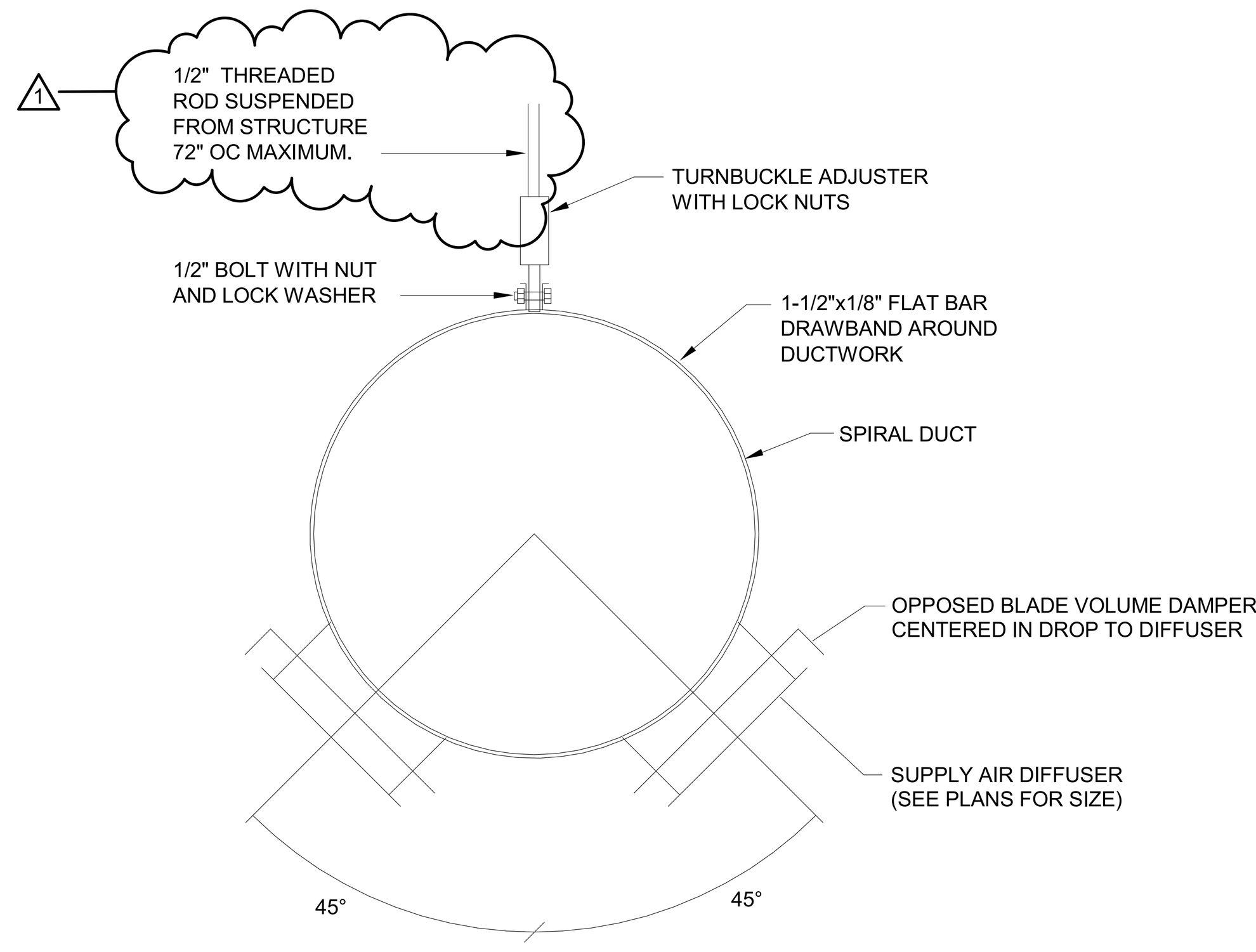
11 FABRIC DUCT INLET ATTACHMENT DETAIL
FABRIC WITH ZIPPER AND OVERLAP
NO SCALE



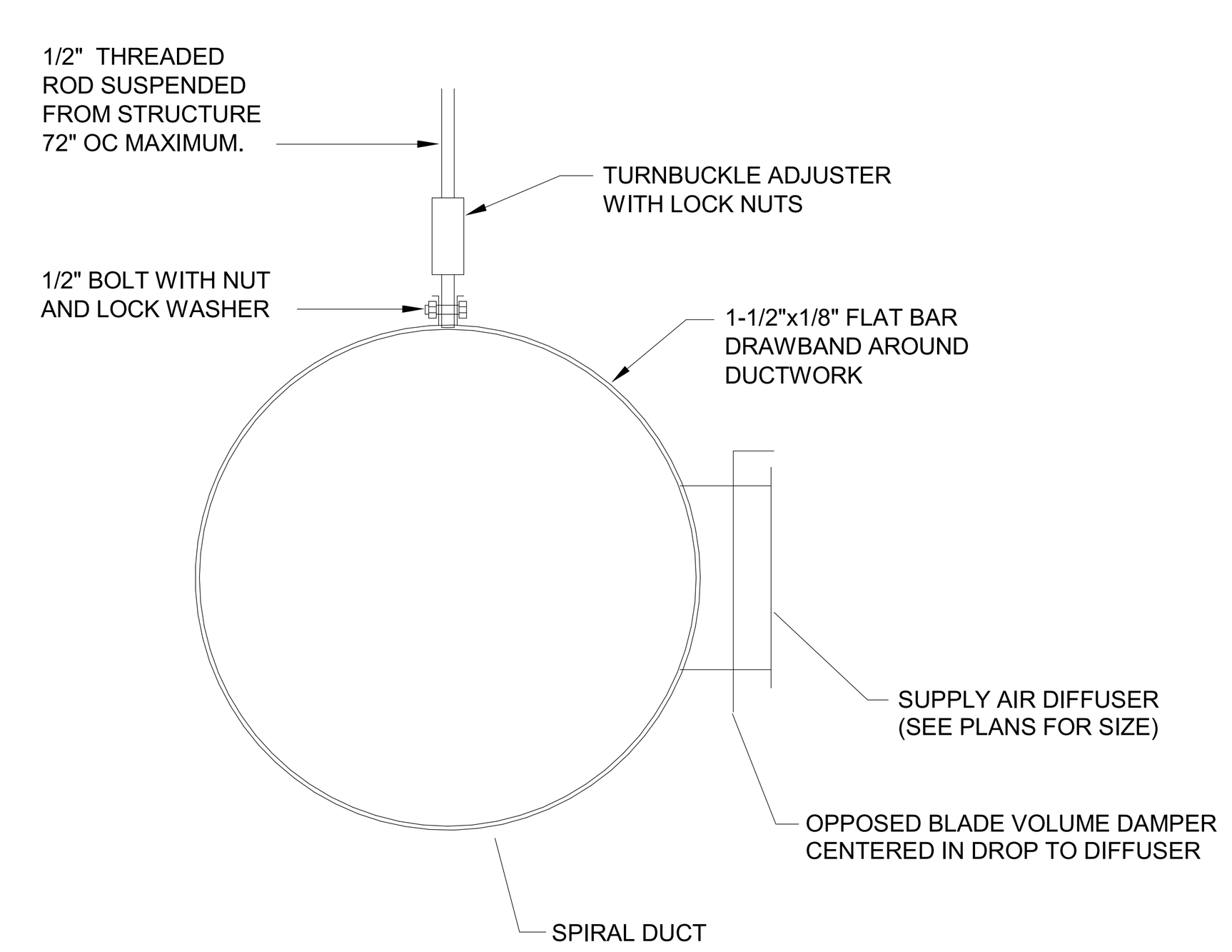
NOTES:

1. MINIMUM 3/8" O.D. TUBING. EQUALIZE LENGTH OF SENSOR TUBES.
2. TERMINATE TUBING IN AN EMPTY THERMOSTAT COVER. LOCATED AS SHOWN ON THE DRAWINGS.

12 BUILDING STATIC PRESSURE SENSOR DETAIL
NO SCALE



13 SUPPLY AIR DUCT DETAIL
(ROOM C106, C107, C107A, C116)
NO SCALE



14 SUPPLY AIR DUCT DETAIL
(ROOM C106B CLASSROOM AREA)
NO SCALE

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

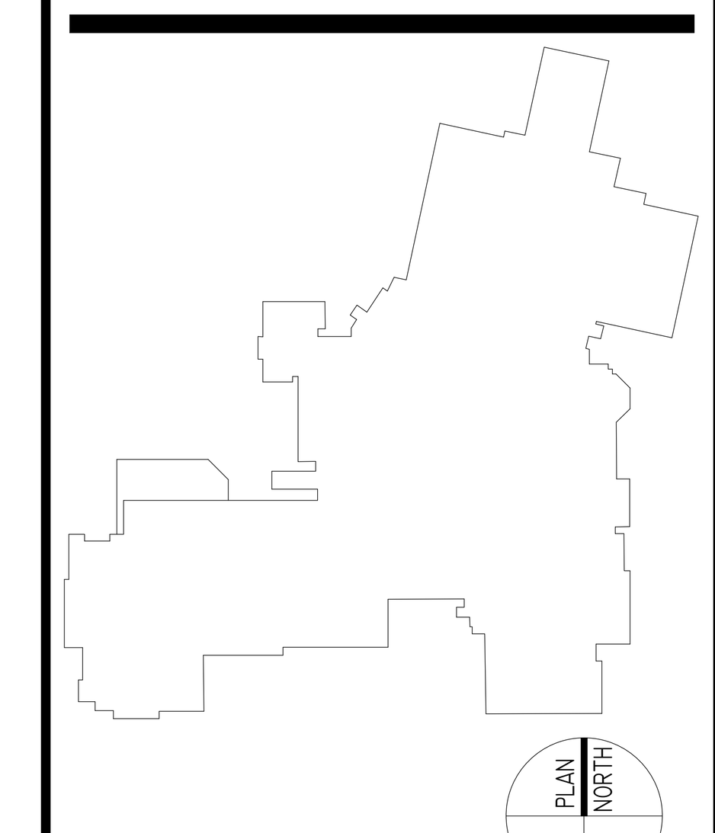
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000801 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: DRV
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 8/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

MECHANICAL DETAILS

M5.04

\\data1\ctmprofiles$\jalechta\upm_Profile\Documents\2021_MECH_221165.01_jalechtaXE4KT.rvt
9/20/2023 11:27:15 AM

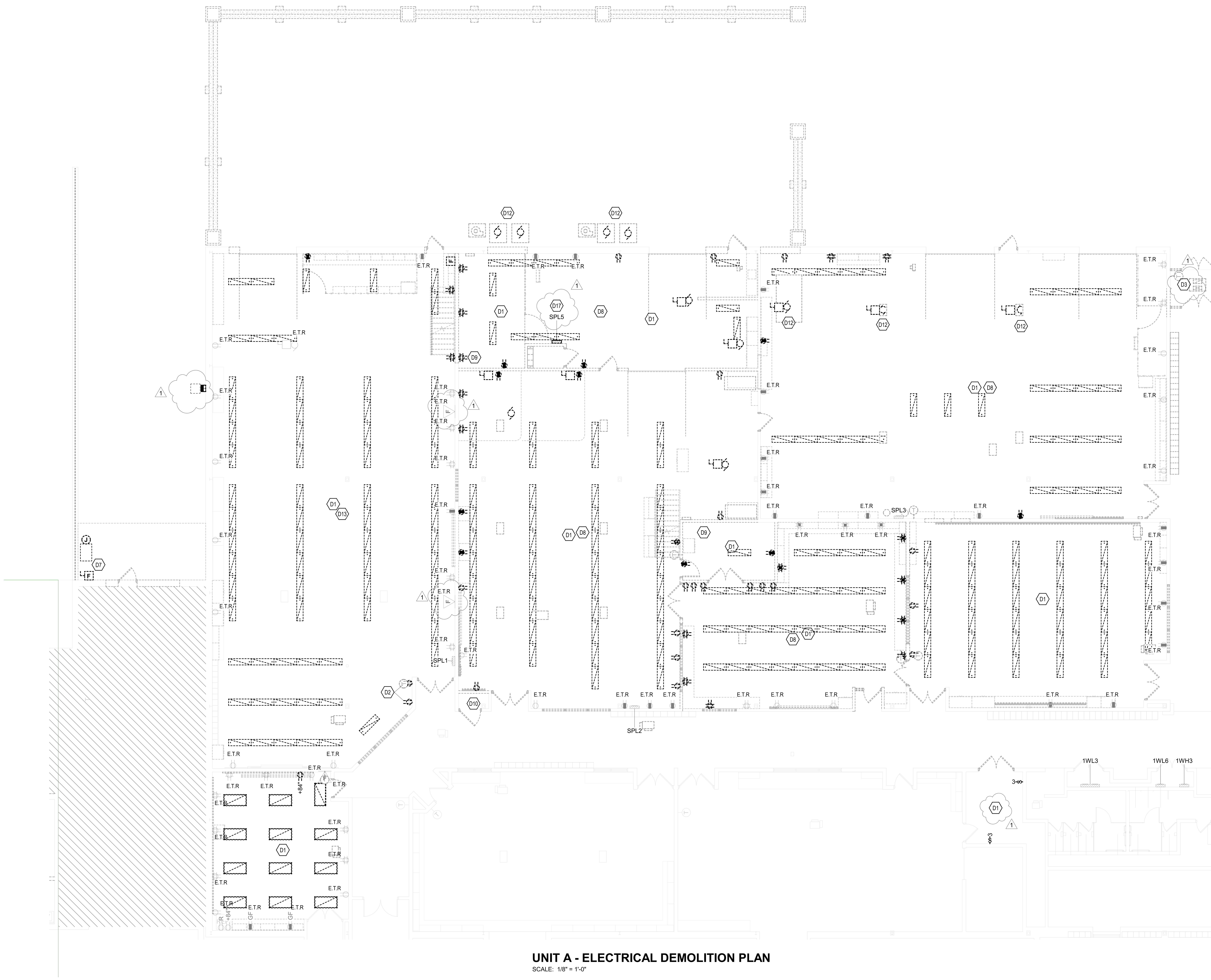
GENERAL NOTES - DEMOLITION

1. REFER TO ELECTRICALSPECIFICANTS SECTIONS 260005 "ELECTRICAL DEMOLITION" FOR ADDITIONAL REQUIREMNETS THAT APPLY TO THIS DRAWING SHEET.
2. REMOVE ELECTRICAL EQUIPMENT COMPLETE WHERE REQUIRED TO BE REMOVED.
3. DISCONNECT AND REMOVE EXISTING CEILING MOUNTED DUPLEX RECEPTACLES IN ALL ROOMS WHERE THE EXISTING CEILINGS ARE BEING REPLACED.

1

KEYNOTES	
D1	REMOVE LIGHTING AND CONTROLS IN THIS SPACE. TIE BACK AND PROTECT CIRCUITS FOR REUSE.
D2	REMOVE EXISTING RECEPTACLE AT THIS LOCATION. TIE BACK AND PROTECT EXISTING CIRCUIT FOR REUSE.
D3	REMOVE EXISTING ELECTRICAL EQUIPMENT AND RECEPTACLES IN THIS AREA. TIE BACK EXISTING CIRCUITS FOR REUSE.
D5	REMOVE ANY ELECTRICAL DEVICES, CONDUIT AND WIRING IN PORTION OF WALL THAT IS TO BE DEMOLISHED. REMOVE CONDUIT AND WIRING BACK TO SOURCE COMPLETE.
D7	HYDRAULIC TRASH COMPACTOR MOTOR AND CONTROLS - DISCONNECT POWER AND SALVAGE MOTOR. DISCONNECT ALL ASSOCIATED COMPONENTS FOR RELOCATION. REMOVE EXISTING CONDUIT FROM EXTERIOR WALL SURFACE.
D8	DISCONNECT AND REMOVE BUSWAYS IN THIS SPACE. TIE BACK AND PROTECT CIRCUIT FOR REUSE. REUSE (2) OF THE 400A RATED BUSWAYS THAT ARE IN THE BEST CONDITION FOR BUSWAYS BWC107A AND BWC116 SHOWN ON NEW WORK PLANS. TURN THE OTHER BUSWAYS OVER TO THE OWNER.
D9	REMOVE DISCONNECTS AND/OR STARTERS AT THIS LOCATION. RELOCATE DISCONNECTS FOR EQUIPMENT TO REMAIN IF APPLICABLE.
D10	DISCONNECT AND REMOVE DATA RACK RECEPTACLES IN THIS SPACE. TIE BACK AND PROTECT CIRCUITS FOR REUSE IN THE NEW DATA ROOM AT THIS LOCATION.
D12	DISCONNECT AND REMOVE CONDUIT AND WIRING FOR MECHANICAL EQUIPMENT BACK TO SOURCE.
D13	EXISTING FIRE ALARM STROBES IN THIS SPACE ARE TO REMAIN.
D17	DISCONNECT AND REMOVE PANEL SPL5. CONNECT BRANCH CIRCUITS TO REMAIN TO AVIALABLE SPARES IN PANELS SERVING THE AREAS THE CIRCUITS ARE WITHIN.

1



UNIT A - ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

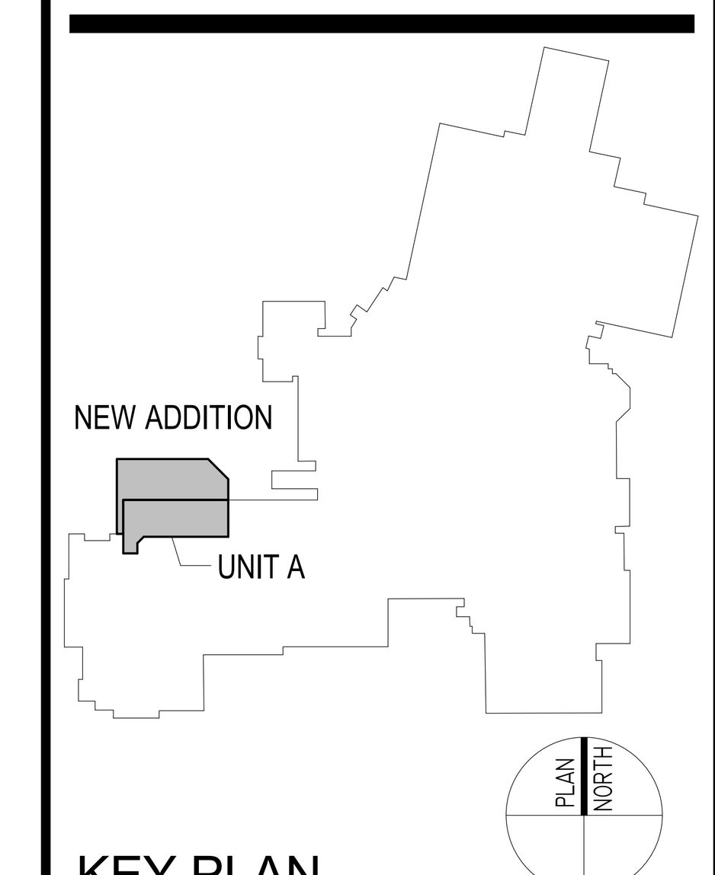
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 **WWW.FHAI.COM**
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER
REGISTERED
No. PE 11600305
STATE OF INDIANA
PROFESSIONAL ENGINEER

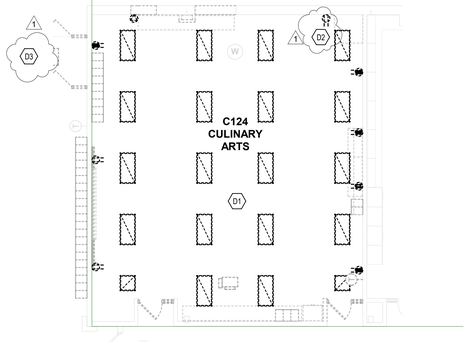
DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - ELECTRICAL DEMOLITION PLAN

ED.01

\\data1\ctxprofiles$\anieman\upm_profile\documents\2021_ELEC_221165.01_aniemannMFNSN.rvt
9/20/2023 9:35:22 AM



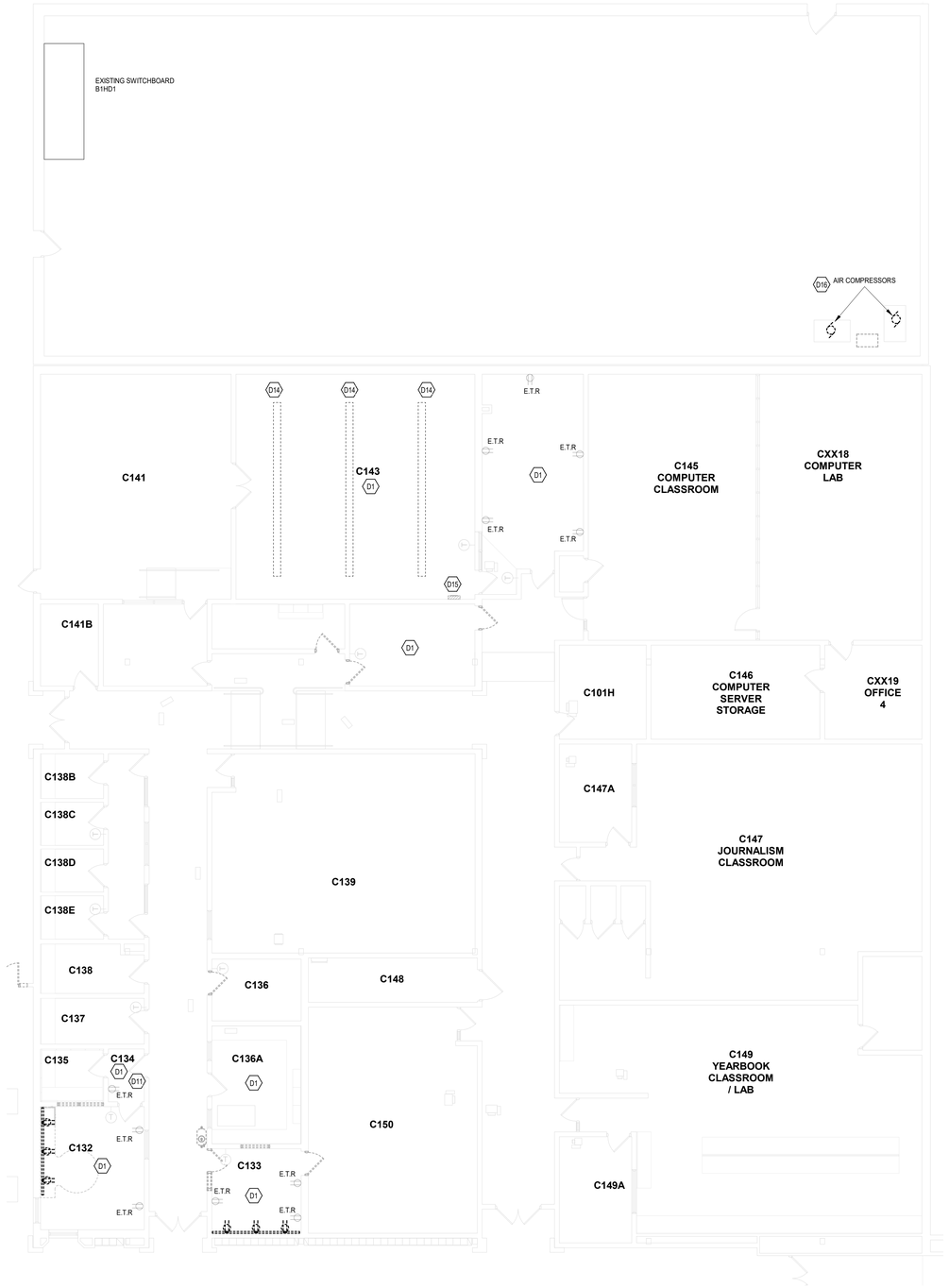
UNIT B - ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES - DEMOLITION

1. REFER TO ELECTRICALSPECIFICANTS SECTIONS 260005 "ELECTRICAL DEMOLITION" FOR ADDITIONAL REQUIREMNETS THAT APPLY TO THIS DRAWING SHEET.
2. REMOVE ELECTRICAL EQUIPMENT COMPLETE WHERE REQUIRED TO BE REMOVED.
3. DISCONNECT AND REMOVE EXISTING CEILING MOUNTED DUPLEX RECEPTACLES IN ALL ROOMS WHERE THE EXISTING CEILINGS ARE BEING REPLACED.

KEYNOTES	
D1	REMOVE LIGHTING AND CONTROLS IN THIS SPACE. TIE BACK AND PROTECT CIRCUITS FOR REUSE.
D2	REMOVE EXISTING RECEPTACLE AT THIS LOCATION. TIE BACK AND PROTECT EXISTING CIRCUIT FOR REUSE.
D3	REMOVE EXISTING ELECTRICAL EQUIPMENT AND RECEPTACLES IN THIS AREA. TIE BACK EXISTING CIRCUITS FOR REUSE.
D11	REMOVE EMPTY SURFACE MOUNTED BOX AND RACEWAY IN THIS ROOM.
D14	DISCONNECT AND REMOVE CEILING MOUNTED RACEWAY. REMOVE WIRING BACK TO SOURCE. CONDUIT TO REMAIN FOR NEW RACEWAY AND WIRING.
D15	DISCONNECT AND REMOVE EXISTING PANEL C2 AT THIS LOCATION. TIE BACK AND PROTECT ALL FEEDER AND BRANCH CIRCUITS FOR CONNECTION TO NEW PANEL AT THIS LOCATION.
D16	DISCONNECT AIR COMPRESSORS TO BE REMOVED. REMOVE DISCONNECT FOR AIR COMPRESSORS. TIE BACK AND PROTECT AIR COMPRESSOR CIRCUIT FOR REUSE.



UNIT C - ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

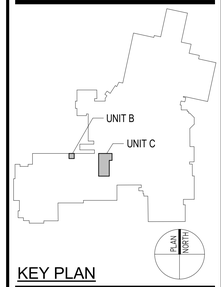
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

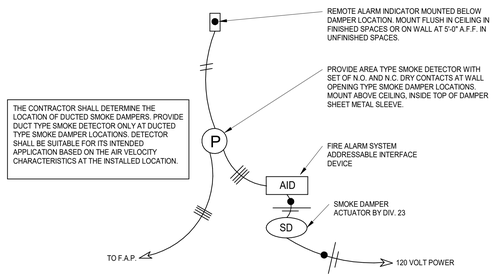
CONSTRUCTION DOCUMENTS

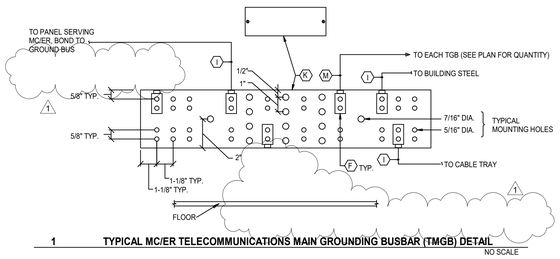
DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

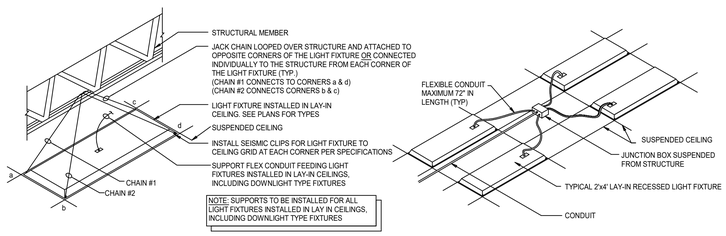
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B AND C - ELECTRICAL DEMOLITION PLANS

ED.02







FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION	MH
AID	ADDRESSABLE INTERFACE DEVICE	-
H	HEAT DETECTOR, 190 DEGREES F FIXED TEMPERATURE (UNO), CEILING MOUNTED	CLG
C	CARBON MONOXIDE DETECTOR, CEILING MOUNTED	CLG
P D	ROUND INDICATES CEILING MOUNTED,SQUARE INDICATES DUCT MOUNTED, PHOTOELECTRIC SMOKE DETECTOR	
FAA	FIRE ALARM ANNUNCIATION PANEL	56"
FAP	FIRE ALARM CONTROL PANEL	-
F F	AUDIBLE AND VISIBLE NOTIFICATION APPLIANCE (HORN/STROBE), CEILING MOUNTED, EXTRA LINE INDICATES WALL MOUNTING AT 80" AFF	CLG
S S	VOICE/ALARM COMMUNICATION AUDIBLE AND VISIBLE NOTIFICATION DEVICE (SPEAKER/STROBE), CEILING MOUNTED, EXTRA LINE INDICATES WALL MOUNTING AT 80" AFF	CLG
V V	VISIBLE NOTIFICATION APPLIANCE (STROBE), CEILING MOUNTED, EXTRA LINE INDICATES WALL MOUNTING AT 80" AFF	CLG
L L	VOICE/ALARM COMMUNICATIONS LOUDSPEAKER, CEILING MOUNTED, EXTRA LINE INDICATES WALL MOUNTING AT 96" AFF	CLG
F	MANUAL FIRE ALARM PULL STATION, AND AUDIBLE AND VISIBLE NOTIFICATION APPLIANCE ABOVE (HORN/STROBE), WALL MOUNTED	44"/80"
F	MANUAL FIRE ALARM PULL STATION, WALL MOUNTED	44"
S S	VOICE/ALARM COMMUNICATIONS HORN TYPE LOUDSPEAKER, CEILING MOUNTED, EXTRA LINE INDICATES WALL MOUNTING AT 96" AFF	CLG
FH	SURFACE FIRE ALARM MAGNETIC DOOR HOLDER	6" BELOW TOP OF DOOR
SH	SURFACE SECURITY ALARM MAGNETIC DOOR HOLDER	6" BELOW TOP OF DOOR
S	ELECTRONIC RELEASE DOOR CLOSER	-
B	FIRE ALARM BELL, WALL MOUNTED, WEATHERPROOF WHERE EXTERIOR MOUNTED	96"
PV	POST INDICATOR VALVE TAMPER SWITCH	
SD	SMOKE DAMPER ACTUATOR	

POWER SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO BOTTOM
———	CONDUIT CONCEALED ABOVE CEILING OR IN WALL	
- - - - -	CONDUIT CONCEALED IN OR BELOW FLOOR, OR UNDER GROUND	
X 1AL1-1	20 AMP, 125 VOLT, NEMA 5-20R DUPLEX RECEPTACLE WITH COMMON COVER PLATE MOUNTED VERTICALLY +16" TO BOTTOM. LETTER(S) IN FRONT INDICATES LOAD TYPE, SEE BELOW. SINGLE LINE INDICATES HORIZONTAL MOUNTING, DOUBLE LINE INDICATE QUAD, DARK CENTER INDICATES ABOVE COUNTERTOP MOUNTING (44") NEMA 5-20R, UNO. CIRCUIT NUMBER (e.g. "1AL1-1") ADJACENT TO THE SYMBOL ON PLANS INDICATES PANELBOARD/CIRCUIT NUMBER SERVING RECEPTACLE, UNO. CO COPY MACHINE CM COFFEE MAKER GF GROUND FAULT CIRCUIT INTERRUPTING TYPE M MONITOR - 60" AFF MW MICROWAVE R REFRIGERATOR - 48" AFF S DUPLEX RECEPTACLE IN SURFACE MOUNTED "FS" TYPE CAST DEVICE BOX TL TWIST LOCK TR TAMPER RESISTANT U DUPLEX RECEPTACLE WITH (2) USB PORTS UR UNDER COUNTER REFRIGERATOR V VENDING MACHINE, FEED FROM 30 mA GFCI BREAKER IN PANELBOARD. VP WALL MOUNTED VIDEO PROJECTOR, 96" AFF UNO WC ELECTRIC WATER COOLER. FEED FROM 5 mA GFCI BREAKER IN PANELBOARD. WF WASHFOUNTAIN/LAVATORY. CONNECT TO NEAREST THROUGH FEED GFCI RECEPTACLE. WM WASHING MACHINE. FEED FROM 30 mA GFCI BREAKER IN PANELBOARD. WP WEATHER RESISTANT GFCI WITH IN-USE TYPE WEATHERPROOF COVER HINGED AT TOP	
	20 AMP DUPLEX RECEPTACLE FLUSH CEILING MOUNTED , NEMA 5-20R	CLG
W	SINGLE STRAIGHT BLADE, WELDING RECEPTACLE, 50A, 125/250 VOLT, 3P, 4W, NEMA 14-50R	16"
	SPECIAL POWER RECEPTACLE, AMPS, VOLTS AND NEMA CONFIGURATION AS DEFINED ON PLANS BY CODED NOTE	16"
	SINGLE STRAIGHT BLADE, SPECIAL RECEPTACLE, 20A, 125/250 VOLT, 3P, 4W, NEMA 14-20R	16"
T	30 AMP, 120 VOLT, SINGLE TWIST LOCK RECEPTACLE, UNO, NEMA L5-30R	16"
F	20 AMP DUPLEX RECEPTACLE IN FLUSH FLOOR MOUNTED BOX,NEMA 5-20R. USE A CAST BOX AT GRADE LEVEL, USE A STAMPED STEEL BOX FOR UPPER FLOORS. REFER TO SPECIFICATIONS FOR REQUIREMENTS.	-
T	20 AMP DUPLEX RECEPTACLE IN FIRE RATED POKE-THRU FLOOR DEVICE, NEMA 5-20R. REFER TO SPECIFICATIONS FOR REQUIREMENTS.	-
	HIGH CAPACITY FLOOR BOX WITH 4 DUPLEX RECEPTACLES, NEMA 5-20R, UNO FOR POWER AND DATA. REFER TO SPECIFICATIONS FOR REQUIREMENTS.	-
⧄	COMMUNICATIONS/POWER POLE PRE-WIRED WITH 2 DUPLEX RECEPTACLES, WITH TWO J BOX ABOVE CEILING. REFER TO SPECIFICATIONS FOR REQUIREMENTS.	-
	TWO 20 AMP DUPLEX RECEPTACLES IN BOX WITH COVER PLATE, PENDANT MOUNTED WITH 3/C, SJO CORD AND STRAIN RELIEF GRIPS.	84"
	2 CHANNEL MULTIOUTLET SURFACE RACEWAY ASSEMBLY WITH DUPLEX RECEPTACLES AND DATA OUTLETS. SEE TECHNOLOGY DRAWINGS. QUANTITY AS SHOWN OR PER SPEC.	-
	SINGLE CHANNEL MULTIOUTLET SURFACE RACEWAY PRE-WIRED ASSEMBLY WITH SINGLE RECEPTACLES. QUANTITY PER SPEC.	-

POWER SYMBOLS

SYMBOL	DESCRIPTION	MH
	SURFACE CIRCUIT BREAKER PANELBOARD, SEE ONE LINE DIAGRAM	-
	FLUSH MOUNTED CIRCUIT BREAKER PANELBOARD, SEE ONE LINE DIAGRAM	-
●	PUSH BUTTON STATION, TYPE INDICATED	44"
●●	PUSH BUTTON STATION, ON/OFF	44"
●●●	PUSH BUTTON STATION, UP/DOWN/STOP	44"
	RECESSED ADA PUSH BUTTON FOR AUTOMATIC DOOR OPERATOR, FURNISHED BY OTHERS, INSTALLED BY DIV. 26	44"
	RECESSED ADA DOUBLE PUSH BUTTON FOR DUAL AUTOMATIC DOOR OPERATORS, FURNISHED BY OTHERS, INSTALLED BY DIV. 26	44"
	RED MUSHROOM ABORT SWITCH, WALL MOUNTED	44"
H	RECESSED WALL BOX FOR HAND DRYER. CIRCUIT WITH 2#10, #10G IN 3/4" C TO PANEL INDICATED	-
	NON-FUSED DISCONNECT, 3 POLE, NEMA 1, UNO. 30 AMP UNO. -WP SUFFIX DESIGNATES NEMA 3R ENCLOSURE. -WP4X SUFFIX DESIGNATES NEMA 4X STAINLESS STEEL ENCLOSURE.	48"
F 100A-3P	FUSED DISCONNECT, 3 POLE, NEMA 1, UNO. 30 AMP UNO. -WP SUFFIX DESIGNATES NEMA 3R ENCLOSURE. -WP4X SUFFIX DESIGNATES NEMA 4X STAINLESS STEEL ENCLOSURE.	48"
M	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION, UNO. FLUSH MOUNTED IN FINISH SPACES.	44"
F	MANUAL MOTOR STARTER, NO OVERLOADS. FLUSH MOUNTED IN FINISH SPACES.	44"
T	SPRING WOUND TIMER, HP RATED	44"
C	CONTROL SWITCH FOR DEVICES SUCH AS MOTORIZED SHADES, SOLAR LIGHT TUBES, PROJECTION SCREENS, ETC. FURNISHED BY OTHERS, INSTALLED FLUSH MOUNTED WITH COVER PLATE AND WIRED BY DIV. 26	44"
TC	DIGITAL TIME CLOCK SWITCH	60"
VFC	VARIABLE FREQUENCY CONTROLLER, FURNISHED BY DIV. 23 CONTRACTOR, INSTALLED BY DIV. 26 CONTRACTOR, UNO. COORDINATE FINAL MOUNTING HEIGHT.	60"
C	ELECTRIC CONTACTOR	-
	MOTOR	-
SPD	SURGE PROTECTIVE DEVICE. REFER TO SPECIFICATION FOR REQUIREMENTS.	-
J J	JUNCTION BOX, PIGTAIL INDICATED FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT	-

LIGHTING SYMBOLS

SYMBOL	DESCRIPTION	MH
CT	OCCUPANCY SENSOR - CEILING MOUNTED, DUAL TECHNOLOGY, 360 DEGREE PATTERN, 2000 S.F. COVERAGE. PROVIDE WITH RELAY OPTION. "Λ" PORTION OF SYMBOL INDICATES AIMING OF ULTRASONIC SENSORS.	CLG
CT	OCCUPANCY SENSOR - CEILING MOUNTED, DUAL TECHNOLOGY, DIRECTIONAL/180 DEGREE PATTERN, 1200 S.F. COVERAGE (MIN.). PROVIDE WITH RELAY OPTION. PROVIDE WITH CEILINGMOUNTING BRACKET ACCESSORY IF NOT SUPPLIED AS STANDARD WITH SENSOR. "Λ" PORTION OF SYMBOL INDICATES AIMING.	CLG
ST	OCCUPANCY SENSOR - WALL SWITCH TYPE, DUAL TECHNOLOGY WITH MANUAL OVERRIDE SWITCH & RAISE/LOWER DIMMING CONTROL.	44"
SI	OCCUPANCY SENSOR - WALL SWITCH TYPE,INFRARED WITH MANUAL OVERRIDE SWITCH	44"
K	KEY OPERATED SWITCH, NUMBER INDICATES NUMBER OF POLES, 277V, 20A, FLUSH UNO	44"
3	SWITCH, NUMBER INDICATES NUMBER OF POLES, 277V, 20A, FLUSH UNO	44"
a	SINGLE POLE SWITCH, 277V, 20A, FLUSH UNO TYPICAL, SUBSCRIPT a, b, c INDICATES WHICH LUMINAIRE THAT WILL BE CONTROLLED VIA SWITCH LEG	44"
D	WALL BOX DIMMER 277V, 1200 WATT MINIMUM, FLUSH, UNO. PROVIDE WATTAGE SIZE TO EXCEED CIRCUIT LOAD	44"
LC	LIGHTING CONTACTOR, MECHANICALLY HELD, 30A - 3P WITH H-O-A SWITCH, UNO	48"
⊘	DOWNLIGHT LUMINAIRE, APPROXIMATE SIZE INDICATED	-
◐	DOWNLIGHT LUMINAIRE CONNECTED TO EMERGENCY SYSTEM AS INDICATED	-
	WALL SCONCE LUMINAIRE	-
⊗	WALL MOUNTED EXIT SIGN, DIRECTIONAL ARROWS AS SHOWN	96"
⊗ ⊗	CEILING MOUNTED EXIT SIGN, SHADED PORTION(S) INDICATES SINGLE OR DOUBLE FACE	CLG
	TRACK HEAD LUMINAIRE	-
	WALL-BRACKET LUMINAIRE, APPROXIMATE SIZE INDICATED	-
	WALL-BRACKET LUMINAIRE CONNECTED TO EMERGENCY SYSTEM AS INDICATED	-
	RECESSED LUMINAIRE, APPROXIMATE SIZE INDICATED. ("NL", INDICATES NIGHT LIGHT FIXTURES)	CLG
	RECESSED LUMINAIRE CONNECTED TO EMERGENCY SYSTEM AS INDICATED	CLG
	SURFACE OR PENDANT MOUNTED LUMINAIRE, APPROXIMATE SIZE INDICATED	CLG
	SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY SYSTEM AS INDICATED	CLG
⊙	PENDANT LUMINAIRE, APPROXIMATE SIZE INDICATED	CLG
	PENDANT LUMINAIRE CONNECTED TO EMERGENCY SYSTEM AS INDICATED	CLG
	AIMABLE LUMINAIRE, CARROT INDICATING DIRECTION OF AIMING	-

1. FIXTURES SHALL BE CONTROLLED BY BUILDING AUTOMATION SYSTEM.
2. EMERGENCY FIXTURES SHALL OPERATE AS DESCRIBED ABOVE DURING NORMAL OPERATIONS. IN EMERGENCY SCENARIO OR WHEN FIRE ALARM IS TRIGGERED, FIXTURES WILL COME AT 100% OUTPUT. THIS CAN BE ACHIEVED WITH FULL CIRCUIT GENERATOR TRANSFER DEVICE.

LIGHTING CONTROL - BUILDING EXTERIOR

SCALE: 1/8" = 1'-0"

1. SYSTEM SHALL BE SET UP SUCH THAT LIGHTING IS MANUALLY SWITCHED ON. LIGHTING IS THEN EITHER SWITCHED OFF MANUALLY OR BY OCCUPANCY SENSOR AFTER 15 MINUTES OF ROOM VACANCY.
2. ONCE LIGHTING IS SWITCHED ON, LIGHTS MAY BE DIMMED THROUGH RAISE/LOWER BUTTONS ON WALL SWITCH.

LIGHTING CONTROLS - OFFICES

SCALE: 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES

1. THE TERM "PROVIDE" INDICATES CONTRACTOR SHALL FURNISH AND INSTALL ITEMS AND CONNECT AS REQUIRED TO OBTAIN A COMPLETE AND OPERABLE SYSTEM.
2. COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL PLANS, CASEWORK, WINDOWS, WALL FINISHES, EQUIPMENT , AND OTHER TRADES PRIOR TO ROUGH IN. DEVICES ARE INTENDED TO BE ACCESSIBLE, DO NOT INSTALL BEHIND CASEWORK, DOORS OR EQUIPMENT UNLESS INDICATED ON PLANS. NOTIFY ARCHITECT IN WRITING OF CONFLICTS PRIOR TO PROCEEDING WITH WORK.
3. WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL LOCAL, STATE AND NATIONAL CODES INCLUDING, BUT NOT LIMITED TO NFPA 70 (NATIONAL ELECTRIC CODE), NFPA 72, NFPA 101, INTERNATIONAL BUILDING CODE, ETC.
4. CONFLICTS BETWEEN THE APPLICABLE CODES, STANDARDS, AND THE PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT IN WRITING PRIOR TO PROCEEDING WITH WORK.
5. E3 SERIES DRAWINGS ARE FOR TECHNOLOGY ROUGH-INS
6. REFER TO TECHNOLOGY PLANS, T1 SERIES FOR COMMUNICATIONS, SECURITY AND ACCESS CONTROL.
7. CONTRACTOR SHALL FOLLOW SEISMIC RESTRANT AND DESIGN REQUIREMENTS CONTAINED IN LATEST ADOPTED STATE AND INTERNATIONAL BUILDING CODES WITH ALL AMENDMENTS AS ADOPTED.
8. ADDITIONAL ELECTRICAL REQUIREMENTS MAY BE SHOWN ON PLANS FROM OTHER DISCIPLINES IN THIS SET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL PLANS AND SPECIFICATIONS FOR A COMPLETE UNDERSTANDING OF THE PROJECT REQUIREMENTS.
9. WHERE CONFLICTS ARE FOUND BETWEEN DRAWINGS, DETAILS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. NOTIFY ARCHITECT OF DISCREPANCY IN WRITING.
10. INITIATING WORK CONSTITUTES CONTRACTOR ACCEPTANCE OF THE EXISTING CONDITIONS ASSOCIATED WITH THE WORK IN QUESTION.
11. THESE DRAWINGS AND SPECIFICATIONS DO NOT INDICATE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFE PRACTICES.
12. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND CANNOT SHOW EVERY CONNECTION, JUNCTION BOX, WIRE, AND CONDUIT, ETC. THE EXACT LOCATIONS AND ARRANGEMENT OF PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES. ITEMS NOT INDICATED ON DRAWINGS REASONABLY INFERRED TO BELONG TO THE WORK DESCRIBED SHALL BE FURNISHED AND INSTALLED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
13. WORK SHALL BE COORDINATED WITH EXISTING CONDITIONS, NEW CONSTRUCTION, OWNER'S VENDORS, OTHER TRADES, AND THEIR DOCUMENTS. THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING HIS BID. CONTRACTOR SHALL CONTACT OWNER FOR AN APPOINTMENT TO VISIT THE SITE.
14. AN INSULATED GROUND CONDUCTOR SIZED PER NEC SHALL BE PROVIDED WITH EACH FEEDER AND BRANCH CIRCUIT.
15. PROVIDE A DEDICATED NEUTRAL FOR EACH LINE TO NEUTRAL CIRCUIT. MULTI-WIRE BRANCH CIRCUITS ARE NOT PERMITTED UNLESS SPECIFICALLY INDICATED ON PLANS.
16. MINIMUM WIRE SIZE IS #12 AWG. SEE SPECIFICATIONS FOR MINIMUM CONDUIT SIZE.
17. CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE ABOVE CEILINGS, INSIDE WALLS, OR UNDER FLOOR SLAB WHERE SHOWN ON DRAWINGS. IN AREAS WITH NO CEILING, RUN EXPOSED CONDUIT AS HIGH AS POSSIBLE AND PARALLEL TO NEARBY SURFACES OR EXISTING RACEWAYS. CONDUIT SHALL NOT BE INSTALLED IN FLOOR SLAB UNLESS SPECIFICALLY INDICATED ON PLANS AND WHERE APPROVED BY STRUCTURAL ENGINEER. DO NOT INSTALL MC CABLE IN EXPOSED LOCATIONS.
18. CONTRACTOR SHALL PROVIDE RIGID METAL SLEEVES TO FACILITATE PATHWAYS THROUGH FULL HEIGHT WALLS FOR ELECTRICAL AND TELECOMMUNICATION WIRING.
19. PROVIDE TEMPORARY OR PERMANENT END CAPS FOR STUBBED CONDUITS. PROVIDE INSULATED THROAT BUSHINGS FOR CONDUITS INTENDED TO REMAIN OPEN ENDED.
20. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES AND SMOKE BARRIERS. SEAL PENETRATIONS IN ACCORDANCE WITH UL AND PROJECT SPECIFICATIONS.
21. MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES INDICATED ABOVE FINISHED FLOOR ARE TO BOTTOM OF DEVICE UNO. MOUNTING HEIGHTS TO CEILING SUSPENDED DEVICES ARE TO BOTTOM OF DEVICE UNO.
22. PROVIDE SOUND INSULATING PUTTY AROUND DEVICES INSTALLED ON OPPOSITE SIDES OF A WALL IN THE SAME VERTICAL CHANNEL. IF DEVICES ARE LOCATED AT LEAST 8" HORIZONTALLY APART NO SOUND INSULATING PUTTY IS REQUIRED.
23. COORDINATE CEILING MOUNTED DEVICES WITH MECHANICAL AND ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY ARCHITECT IN WRITING OF CONFLICTS PRIOR TO PROCEEDING WITH WORK.
24. JUNCTION BOXES LOCATED ABOVE ACCESSIBLE CEILINGS SHALL BE LOCATED NO MORE THAN 36" ABOVE CEILING LEVEL. LABEL EACH BOX IN AREA OF WORK WITH A PERMANENT MARKER OR IN ACCORDANCE WITH SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
25. CONDUITS DESIGNATED AS EMPTY OR FUTURE SHALL BE PROVIDED WITH A #12 PULL LINE. OPEN ENDED CONDUITS SHALL BE PROVIDED WITH INSULATED THROAT BUSHINGS.
26. FOR LUMINAIRES, CIRCUIT NUMBER IS SHOWN ONLY ONCE IN EVERY ROOM. PROVIDE CIRCUIT INDICATED TO EVERY LIGHT FIXTURE INDICATED IN SAME ROOM UNLESS OTHERWISE INDICATED.
27. ELECTRICAL PANELS INCLUDING BUT NOT LIMITED TO FIRE ALARM CONTROL PANELS, LIGHTING CONTROL PANELS, POWER DISTRIBUTION WILL HAVE A MAX DEVICE HEIGHT OF 72" AFF.
28. PROVIDE SEPARATE RACEWAY FOR EMERGENCY SYSTEM WIRING PER NEC ARTICLE 700. MINIMUM WIRE SIZE #10AWG.
29. ALL CONDUITS SHALL INCLUDE AN INSULATED GROUND WIRE, SIZED PER N.E.C.
30. AUTODOORS AND WHEELCHAIR LIFT PROVIDED AND INSTALLED BY OTHERS. PROVIDE CONDUIT AND BOX ROUGH-INS FOR MOTORS AND PUSHBUTTONS. MAKE FINAL POWER CONNECTIONS. ALL CONTROL WIRING BY OTHERS.
31. **MASONRY LOAD-BEARING WALLS AND MASONRY SHEAR WALLS**: DO NOT PENETRATE CMU WALLS INDICATED AS BEARING WALLS AND SHEAR WALLS ON STRUCTURAL DRAWINGS UNLESS NOTED OTHERWISE ON PLAN. DO NOT CORE THROUGH CMU BOND BEAMS OR LINTELS. DO NOT CUT ANY VERTICAL REINFORCING IN CMU WALLS. OBTAIN PRIOR APPROVAL FROM ENGINEER BEFORE PENETRATING ANY OF THE STRUCTURAL ELEMENTS LISTED ABOVE.
32. **STEEL FRAMING:** DO NOT CUT OR CORE THROUGH ANY STRUCTURAL STEEL BEAMS, GIRDERS, OR COLUMNS UNLESS NOTED OTHERWISE ON PLAN. NOTIFY ENGINEER OF POTENTIAL CONFLICTS BETWEEN FRAMING AND ELECTRICAL WORK.
33. **CONCRETE FLOOR SYSTEMS (APPLIES TO CONCRETE BLDG. OR STEEL WITH CONCRETE DECK, MASONRY W/ CONC. FLOOR):** DO NOT CUT HOLES OR CORE THROUGH CONCRETE FLOOR SLAB UNLESS NOTED OTHERWISE ON PLAN OR IN TYPICAL STRUCTURAL DETAILS. PENETRATIONS THROUGH EXISTING SLABS SHALL BE X-RAYED PRIOR TO CORING HOLES. NO EXISTING REINFORCEMENT SHALL BE CUT WITHOUT PERMISSION OF THE STRUCTURAL ENGINEER. PENETRATIONS THROUGH EXISTING BEAMS AND COLUMNS IS NOT PERMITTED.

ELECTRICAL ABBREVIATIONS

ABBREVIATIONS USED ON THE CONTRACT DOCUMENTS, INCLUDE BUT ARE NOT LIMITED TO THOSE LISTED BELOW

#	NUMBER
(N)P(N)W	NUMBER OF POLES, NUMBER OF WIRES
ACU	AIR CONDITIONING UNIT
AF	AMP FRAME
AFC	ABOVE FINISHED COUNTERTOP
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AID	ADDRESSABLE INTERFACE DEVICE
AR	AS REQUIRED
AT	AMP TRIP
AWG	AMERICAN WIRE GAUGE
A/V	AUDIO VISUAL
B	BLANK
C	CONDUIT (GENERIC TERM FOR RACEWAY, PROVIDE AS SPECIFIED)
Cd	CANDELA
CLG	CEILING MOUNTED
CAM	CAMERA
CL	LIGHTING CONTACTOR
COL	COLUMN
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DED	DEDICATED DEVICE ON INDIVIDUAL BRANCH CIRCUIT
DF	DUAL FACE
DIA	DIAMETER
DISTR	DISTRIBUTION
EBJ	EQUIPMENT BONDING JUMPER LOAD SIDE OF AN OVER-RRENT DEVICE
EC	ELECTRICAL CONTRACTOR
EM	WIRED ON EMERGENCY CIRCUIT
EOL	END OF LINE
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EX	EXISTING
F	FLUSH
F@	FUSED AT
FA	FIRE ALARM
FBO	FURNISHED BY OTHERS
FCU	FAN COIL UNIT
FDN	FOUNDATION
FPB	FAN POWERED BOX
K/O	KNOCK-OUT
LFMC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT
LS	LIMIT SWITCH
LV	LOW VOLTAGE
MBJ	MAIN BONDING JUMPER
MC/ER	MAIN CROSS-CONNECT /EQUIPMENT ROOM
MCB	MAIN CIRCUIT BREAKER
M.H.	MANHOLE (ON SITE PLAN)
MH	MOUNTING HEIGHT (ON PLAN), ALL MOUNTING HEIGHTS FOR DEVICE BOXES ARE FROM FINISHED FLOOR TO BOTTOM OF BOX, UNO. VERIFY OUTLET LOCATIONS WITH OTHER TRADES BEFORE ROUGH-IN
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVER-CURRENT PROTECTION
MTD	MOUNTED
MTG	MOUNTING
MV	MEDIUM VOLTAGE
N	GROUNDED CIRCUIT CONDUCTOR (NEUTRAL)
+N	INDICATES MOUNTING HEIGHT (N) TO BOTTOM OF DEVICE FROM FINISH FLOOR, UNO
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NFS	NONFUSIBLE SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NONMETALLIC SHEATHED CABLE
NO	NORMALLY OPEN
NRTL	NATIONALLY RECOGNIZED TESTING LAB
NTS	NOT TO SCALE
OC	ON CENTER
OCPD	OVER-CURRENT PROTECTIVE DEVICE
PA	PUBLIC ADDRESS SYSTEM
PB	PULL BOX
PH	PROPELLER HEATER
PIV	POST INDICATING VALVE
PR	PAIR
PUH	PROPELLER UNIT HEATER
R	RELEASE
RAF	RETURN AIR FAN
RT	RAIN-TIGHT
S	SURFACE
SBJ	SYSTEM BONDING JUMPER
SN	SOLID NEUTRAL
SP	SPARE
SPL	SPLICE
SS	STAINLESS STEEL
SSBJ	SUPPLY-SIDE BONDING JUMPER
ST	SHUNT TRIP
STP	SHIELDED TWISTED PAIR
STL	CARBON STEEL
SUSP	SUSPENDED
SW	SWITCH
TC	TELEPHONE CABINET
TCP	TEMPERATURE CONTROL PANEL
TEL/DATA	TELEPHONE/DATA
TEL	TELEPHONE
TERM	TERMINAL(S)
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TTB	TELEPHONE TERMINATION BOARD
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
VG	VANDAL GUARD
VIF	VERIFY IN FIELD
VT	VAPOR-TIGHT
WG	WIRE GUARD
WH	WATTHOUR
WM	WALL MOUNTED
WP	WEATHERPROOF
WT	WATER-TIGHT

LUMINAIRE SCHEDULE - GENERAL NOTES

1. FOR ALL DOWNLIGHTING FIXTURES, PROVIDE REQUIRED MOUNTING HARDWARE FOR MOUNTING IN LAY-IN TYPE CEILINGS.
2. LIGHT FIXTURE SUBMITTALS TO INCLUDE DATA SHEETS FOR ALL FIXTURE TYPES, INCLUDING ADDITIONAL DATA SHEETS FOR DRIVER COMBINATIONS REQUIRED TO MEET THE INSTALLATION REQUIREMENTS OF THE VARIOUS FIXTURE TYPES INDICATED IN THE REMARKS COLUMN OF THE FIXTURE SCHEDULES OR ON THE DRAWINGS. SUBMITTALS SHALL ALSO INDICATE COLOR FOR ANY CUSTOM COLOR LIGHT FIXTURES.
3. PROVIDE LED DRIVERS AS MVOLT DRIVERS.

GROUNDING CODED NOTES:

A	GROUNDING ELECTRODE CONDUCTOR. BARE, TINNED, STRANDED, COPPER-CONDUCTOR. (30 INCHES BELOW GRADE, MIN.) (24 INCHES FROM FOUNDATION, MIN.) FOR ELECTRICAL SERVICE OF 800 AMP OR LESS USE #2/0 AWG. FOR ELECTRICAL SERVICE GREATER THAN 800 AMP USE #4/0 AWG.
B	GROUNDING CONDUCTOR. 2/0 AWG BARE, TINNED, STRANDED, COPPER-CONDUCTOR.
C	MAIN BONDING JUMPER PROVIDED BY MANUFACTURER AS PART OF LISTED AND LABELED SERVICE EQUIPMENT. IF NOT PROVIDED BY MANUFACTURER, PROVIDE #4/0 BARE, TINNED, STRANDED, COPPER-CONDUCTOR.
D	GROUNDING ELECTRODE CONDUCTOR: #4/0 AWG STRANDED, BARE, COPPER IN PVC CONDUIT.
E	GROUNDED CONDUCTOR (NEUTRAL): (REFER TO ONE-LINE DIAGRAM FOR CONDUCTOR SIZE).
F	PROVIDE UL 467 LISTED COMPRESSION CONNECTORS, TWO-HOLE LUGS.
G	EQUIPMENT BONDING JUMPER STRANDED, BARE, COPPER. (<110A USE #6, <410A USE #2, <810A USE #2/0, <2100A USE #4/0) SCREW OF BUSBAR MAY BE USED WHEN PROVIDED AS PART OF LISTED SERVICE EQUIPMENT.
H	EQUIPMENT GROUNDING CONDUCTOR (REFER TO ONE LINE DIAGRAM FOR CONDUCTOR SIZE).
I	TELECOMMUNICATIONS BONDING BACKBONE: #4/0 AWG STRANDED BARE COPPER.
J	1" PVC SLEEVE FOR ALL GROUNDING CONDUCTORS THROUGH FLOOR SLABS. NEVER ROUTE GROUNDING CONDUCTORS IN A METAL CONDUIT.
K	PROVIDE UL 467 LISTED, ELECTRO-TIN-PLATED COPPER BUSBAR, 4" x 20" x 1/4" WITH (2) 2-INCH INSULATED STANDOFF SUPPORTS. PROVIDE ENGRAVED NAMEPLATE, SCREWED TO WALL, 6" ABOVE GROUNDING BUS BAR WHICH READS "IF THESE CONNECTORS OR CABLES ARE LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER".
L	PROVIDE UL 467 LISTED, ELECTRO-TIN-PLATED COPPER BUSBAR, 4" x 20" x 1/4" WITH (2) 2-INCH INSULATED STANDOFF SUPPORTS. PROVIDE ENGRAVED NAMEPLATE, SCREWED TO WALL, 6" ABOVE GROUNDING BUS BAR WHICH READS "WARNING - SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE (GENERATOR) IS ENERGIZED".
M	CONTINUOUS, UNSPLICED BONDING CONDUCTOR FOR TELECOMMUNICATIONS: 2/0 AWG BARE, TINNED, STRANDED, COPPER-CONDUCTOR IN CABLE TRAYS.
N	PROVIDE WRAP AROUND PLASTIC LABEL ON EACH CONDUCTOR AT GROUND BAR. IDENTIFY WHAT THE CABLE IS CONNECTED TO.

1 TYPICAL MC/ER TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB) DETAIL

NO SCALE

NOTE: SUPPORTS TO BE INSTALLED FOR ALL LIGHT FIXTURES INSTALLED IN LAY IN CEILINGS, INCLUDING DOWNLIGHT TYPE FIXTURES

2 RECESSED LIGHT FIXTURE SUPPORT

NO SCALE

THE CONTRACTOR SHALL DETERMINE THE LOCATION OF DUCTED SMOKE DAMPERS. PROVIDE DUCT TYPE SMOKE DETECTOR ONLY AT DUCTED TYPE SMOKE DAMPER LOCATIONS. DETECTOR SHALL BE SUITABLE FOR ITS INTENDED APPLICATION BASED ON THE AIR VELOCITY CHARACTERISTICS AT THE INSTALLED LOCATION.

3 SMOKE DAMPER WIRING DETAIL

NO SCALE

LUMINAIRE SCHEDULE

PLAN TYPE	MANUFACTURER/CATALOG	MOUNTING	LAMPS				APPLIED VOLTAGE	DESCRIPTION	VA LOAD
			NO.	WATTS	TYPE	LUMENS			
LCD41	GOTHAM INCITO 4 SERIES PORTFOLIO LER4B SERIES PRESCOLITE LTC-4RD SERIES H.E. WILLIAMS 4CR SERIES	PENDANT	1	12 W	LED	1000 lm	277 V	4-INCH APERATURE OPEN REFLECTOR LED CYLINDER DOWNLIGHT, SURFACE MOUNTED WITH NO STEM. MEDIUM DISTRIBUTION, CLEAR SPECULAR REFLECTOR, 0-10VDC DIMMING. FIXTURE HOUSING WHITE IN COLOR.	12 VA
LCD41X	GOTHAM INCITO 4 SERIES PORTFOLIO LER4B SERIES PRESCOLITE LTC-4RD SERIES H.E. WILLIAMS 4CR SERIES	PENDANT	1	12 W	LED	1000 lm	277 V	4-INCH APERATURE OPEN REFLECTOR LED CYLINDER DOWNLIGHT, SURFACE MOUNTED WITH NO STEM. MEDIUM DISTRIBUTION, CLEAR SPECULAR REFLECTOR, 0-10VDC DIMMING. FIXTURE HOUSING WHITE IN COLOR. PROVIDE WITH EMERGENCY TRANSFER DEVICE.	12 VA
LD61	HALO HC6 SERIES LITHONIA LDN6 SERIES PRESCOLITE LF6LED SERIES H.E. WILLIAMS 6CR SERIES	RECESSED	1	22 W	LED	1500 lm	277 V	6-INCH ROUND APERTURE OPEN REFLECTOR LED DOWNLIGHT, MEDIUM DISTRIBUTION, WHITE SPECULAR FINISH, WHITE FLANGE, SELF-FLANGED, 0-10VDC DIMMING, 4000K, BAR HANGER ACCESSORY.	19 VA
LD61X	HALO HC6 SERIES LITHONIA LDN6 SERIES PRESCOLITE LF6LED SERIES H.E. WILLIAMS 6CR SERIES	RECESSED	1	22 W	LED	1500 lm	277 V	6-INCH ROUND APERTURE OPEN REFLECTOR LED DOWNLIGHT, MEDIUM DISTRIBUTION, WHITE SPECULAR FINISH, WHITE FLANGE, SELF-FLANGED, 0-10VDC DIMMING, 4000K, BAR HANGER ACCESSORY. PROVIDE WITH EMERGENCY TRANSFER DEVICE.	22 VA
LE1X	LITHONIA AFB SERIES EVENLITE WEATHERWAY SERIES COMPASS CUW SERIES BIG BEAM EXCELITE SERIES	SURFACE WALL	1	11 W	LED	1000 lm	277 V	OUTDOOR EMERGENCY LIGHT FIXTURE, DIE-CAST ALUMINUM HOUSING, SELF-DIAGNOSTICS, INTEGRAL PHOTOCELL, WIRED NORMALLY ON, EMERGENCY TRANSFER DEVICE, WET LOCATION, 3200K, DARK BRONZE. MOUNT AT +8'-0" A.F.G UNLESS NOTED OTHERWISE	11 VA
LE2	LITHONIA DSXW2 SERIES GARDCO PWS SERIES McGRAW-EDISON GWC SERIES BEACON GEOPAK 2 SERIES CREE EDGE SERIES	SURFACE WALL	1	109 W	SOLID STATE LED	11000 lm	277 V	WALL MOUNTED LED LUMINAIRE WITH DIE CAST ALUMINUM HOUSING, BOTTOM DIFFUSER FLUSH WITH THE DIE CASTING, TYPE 2 DISTRIBUTION, 4000K, 70 CRI LEDs, BLACK FINISH. MOUNT ONTO JUNCTION BOX. PROVIDE WITH INTEGRAL PHOTOCELL AND OCCUPANCY SENSOR. FIXTURES TO BE ON/OFF TO 50% BY PHOTOCELL AND INCREASED TO 100% WHEN FIXTURE IS ON. VANDAL RESISTANT.	109 VA
LL24	OCL LINEAR SERIES STARTEK MICRO BEAM SERIES MARK ARCHITECTURAL SLOT 2 SERIES H.E. WILLIAMS MX2D SERIES	SUSPENDED	1	12 W	LED	1200 lm	277 V	4-FOOT LINEAR LED DIRECT FIXTURE, 2 BY 2-INCHES NOM. RECTANGULAR CROSS SECTION, FROSTED ACRYLIC BOTTOM LENS, AIRCRAFT CABLE SUSPENSION, 0-10VDC DIMMING, WHITE FINISH.	32 VA
LR4	METALUX WNLED SERIES LITHONIA SBL SERIES COLUMBIA LAW SERIES H.E. WILLIAMS 17 SERIES	SUSPENDED	1	58 W	LED	7000 lm	277 V	4-FOOT WRAP LED AROUND FIXTURE, ACRYLIC PRISMATIC DIFFUSER, 0-10VDC DIMMING. IF SUSPENDED, INSTALL AT 8-FOOT AFF WITH CONDUIT STEMS (UNO).	58 VA

LUMINAIRE SCHEDULE

PLAN TYPE	MANUFACTURER/CATALOG	MOUNTING	LAMPS				APPLIED VOLTAGE	DESCRIPTION	VA LOAD
			NO.	WATTS	TYPE	LUMENS			
LR4X	METALUX WNLED SERIES LITHONIA SBL SERIES COLUMBIA LAW SERIES H.E. WILLIAMS 17 SERIES	SUSPENDED	1	58 W	LED	7000 lm	277 V	4-FOOT LED WRAP AROUND FIXTURE, ACRYLIC PRISMATIC DIFFUSER, 0-10VDC DIMMING, WITH EMERGENCY TRANSFER DEVICE. IF SUSPENDED, INSTALL AT 8-FOOT AFF WITH CONDUIT STEMS (UNO).	58 VA
LV2	LITHONIA BLT SERIES METALUX CRUZE SERIES COLUMBIA LCAT SERIES H.E. WILLIAMS LT-24 SERIES	RECESSED	1	35 W	SOLID STATE LED	4000 lm	277 V	2 BY 4-FOOT VOLUMETRIC TROFFER, SMOOTH CURVED RIBBED DIFFUSER. 10% DIMMING, 4000K, 80+ CRI.	35 VA
LV2X	LITHONIA BLT SERIES METALUX CRUZE SERIES COLUMBIA LCAT SERIES H.E. WILLIAMS LT-24 SERIES	RECESSED	1	35 W	SOLID STATE LED	4000 lm	277 V	2 BY 4-FOOT VOLUMETRIC TROFFER, SMOOTH CURVED RIBBED DIFFUSER. 10% DIMMING, 4000K, 80+ CRI., WITH EMERGENCY TRANSFER DEVICE.	35 VA
LV5	LITHONIA BLT SERIES METALUX CRUZE SERIES COLUMBIA LCAT SERIES H.E. WILLIAMS LT-24 SERIES	RECESSED	1	53 W	SOLID STATE LED	6000 lm	277 V	2 BY 4-FOOT VOLUMETRIC TROFFER, SMOOTH CURVED RIBBED DIFFUSER. 10% DIMMING, 4000K, 80+ CRI.	53 VA
LV5X	LITHONIA BLT SERIES METALUX CRUZE SERIES COLUMBIA LCAT SERIES H.E. WILLIAMS LT-24 SERIES	RECESSED	1	53 W	SOLID STATE LED	6000 lm	277 V	2 BY 4-FOOT VOLUMETRIC TROFFER, SMOOTH CURVED RIBBED DIFFUSER. 10% DIMMING, 4000K, 80+ CRI., WITH EMERGENCY TRANSFER DEVICE.	53 VA
XBVW	SURE-LITES UX SERIES BIG BEAM C4X SERIES LITHONIA LV SERIES DUAL-LITE SEWL SERIES	SURFACE WALL	1	3 W	RED LED	0 lm	277 V	CAST ALUMINUM, VANDAL RESISTANT AC ONLY EXIT SIGN, SELF-DIAGNOSTICS, SINGLE FACE, DIRECTIONAL ARROWS INDICATED, WHITE HOUSING, LISTED FOR WET LOCATIONS. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.	3 VA
XC	SURE-LITES CX SERIES BIG BEAM DCL SERIES LITHONIA SIGNATURE SERIES DUAL-LITE SEMPRA SERIES	SURFACE CEILING	1	3 W	RED LED	0 lm	277 V	CAST ALUMINUM AC ONLY EXIT SIGN, SINGLE FACE, DIRECTIONAL ARROWS INDICATED, WHITE HOUSING. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.	3 VA
XW	SURE-LITES CX SERIES BIG BEAM DCL SERIES LITHONIA SIGNATURE SERIES DUAL-LITE SEMPRA SERIES	SURFACE WALL	1	3 W	RED LED	0 lm	277 V	CAST ALUMINUM AC ONLY EXIT SIGN, SINGLE OR DOUBLE FACE, DIRECTIONAL ARROWS AS INDICATED, WHITE HOUSING, WIRE GUARD, BRACKETS AND ACCESSORIES AS REQUIRED.	3 VA

\\data1\citrixprofiles$\aniemann\upm_profile\documents\2021_ELEC_221165.01_aniemannMFNSN.rvt
9/20/2023 9:33:42 AM

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT

CONSTRUCTION DOCUMENTS

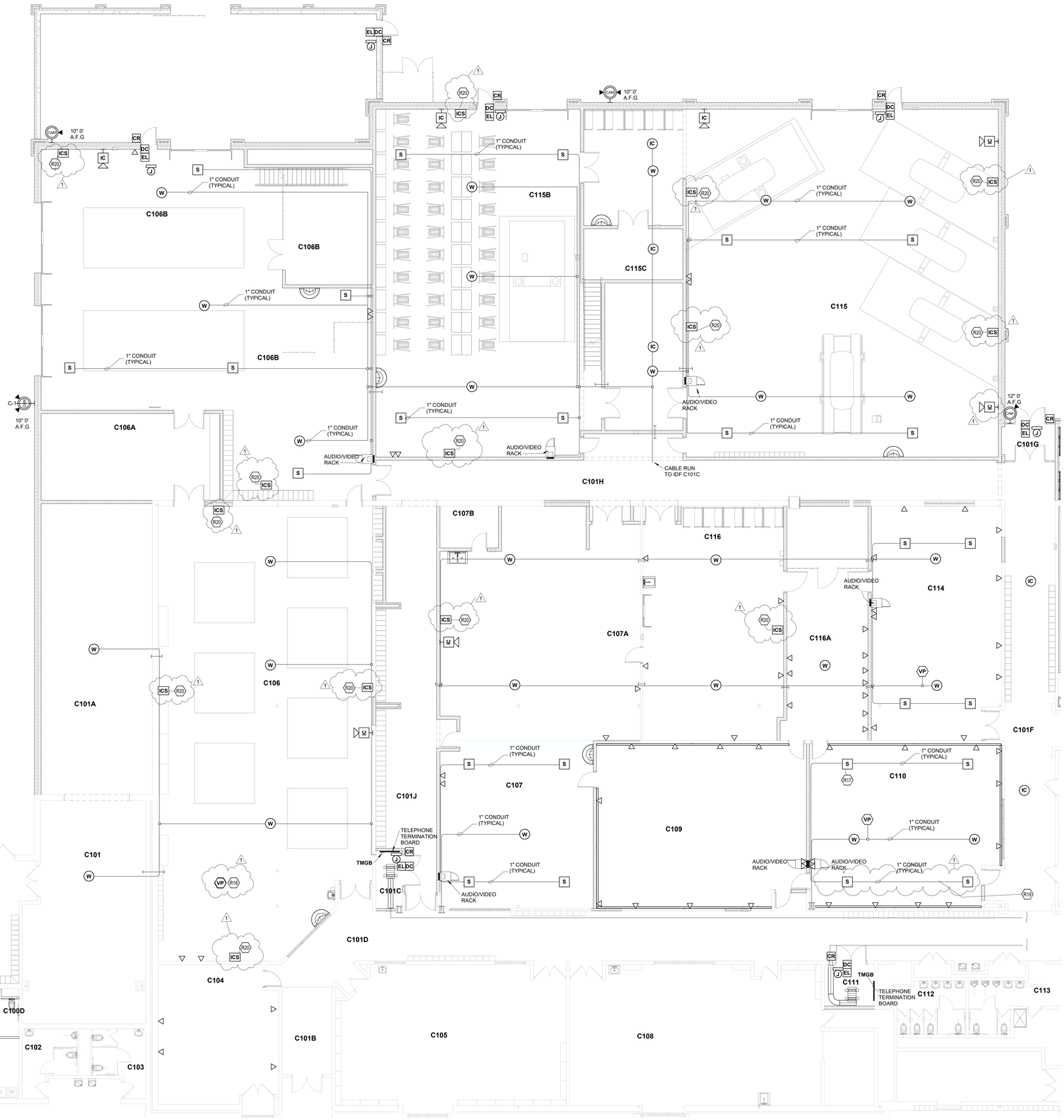
BRIAN W. BUTLER
REGISTERED
No. PE11600305

DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

ELECTRICAL SYMBOL LEGEND & DETAILS

E1.01



ROOM LEGEND - FIRST FLOOR UNIT C		
ROOM NO.	ROOM NAME	AREA (SF)
C100	LOADING / RECEIVING	1202 SF
C100A	BREAK ROOM	640 SF
C100B	ELECTRICAL	825 SF
C100C	LAUNDRY	157 SF
C100D	TOILET	52 SF
C100E	TOILET	52 SF
C100F	SECURE STORAGE	91 SF
C100G	OFFICE	132 SF
C100H	KITCHEN	177 SF
C101	STORAGE	1015 SF
C101A	STORAGE	1287 SF
C101B	CORRIDOR	174 SF
C101C	MEDIA DATA	61 SF
C101D	YEARBOOK CLASSROOM / LAB	Not Placed
C101D	CORRIDOR	1860 SF
C101E	CORRIDOR	177 SF
C101F	CORRIDOR	976 SF
C101G	JOURNALISM CLASSROOM	Not Placed
C101G	VESTIBULE	70 SF
C101H	OFFICE	156 SF
C101H	CORRIDOR	992 SF
C101J	CORRIDOR	832 SF
C102	MENS TOILET	124 SF
C103	WOMENS TOILET	119 SF
C104	OFFICE	638 SF
C105	ELECTRONICS / PHYSICS	1251 SF
C106	CONSTRUCTION TRADES LAB	3699 SF
C106A	STORAGE	622 SF
C106B	ADVANCED CONSTRUCTION TRADES LAB	3867 SF
C107	CLASSROOM	1015 SF
C107A	ADVANCED MFG. ARTISAN LAB	1695 SF
C107B	FINISHING ROOM	97 SF
C108	GRAPHIC COMMUNICATIONS	1385 SF
C109	CAD LAB	1347 SF
C110	CAD LAB	1217 SF
C111	MEDIA DATA	83 SF
C111A	STORAGE	101 SF
C112	GIRLS	188 SF
C113	BOYS	163 SF
C114	CAD LAB	1188 SF
C115	ADVANCED AUTOMOTIVE SERVICES LAB	4790 SF
C115A	STORAGE	458 SF
C115B	AUTOMOTIVE SERVICES LAB	2828 SF
C115C	FINISHING ROOM	201 SF
C116	ADVANCED MFG. INNOVATION LAB	1278 SF
C116A	ADVANCED MFG. CLEAN LAB	762 SF
C117	CERAMIC CLASSROOM / LAB	1387 SF
C117A	STORAGE	145 SF
C117B	STORAGE / MATERIALS	150 SF
C118	INDEPENDENT STUDY / COMMERICAL ART	1425 SF
C119	PHOTOGRAPHY	992 SF
C119A	DARKROOM	309 SF
C120	COMPUTER ART ROOM	442 SF
C122	TEACHERS WORKROOM	672 SF
C122A	DEPT. HEAD OFFICE	104 SF
C123	CERAMICS CLASSROOM / LAB	1205 SF
C123A	STORAGE	145 SF
C123B	STORAGE / MATERIALS	150 SF
C124	CULINARY ARTS	1299 SF
C124A	CLOSET	39 SF
C124B	DRY GOODS	154 SF
C124C	WALK-IN	129 SF
C125	DRAWING CLASSROOM / LAB	1173 SF
C126	DRAWING CLASSROOM / LAB	1182 SF
C127	DRAWING CLASSROOM / LAB	1182 SF
C128	JEWELRY CLASSROOM / LAB	953 SF
C129	PHOTOGRAPHY	1023 SF
C129A	DARKROOM	232 SF
C131	CORRIDOR	1363 SF
C131A	STORAGE	166 SF
C131B	MEDIA DATA	60 SF
C131C	CORRIDOR	476 SF
C132	STUDIO	244 SF
C133	PODCAST	144 SF
C134	PASSAGE	36 SF
C135	STUDIO	63 SF
C136	STORAGE	105 SF
C136A	COMPUTER LAB	201 SF
C137	STUDIO	91 SF
C138	STUDIO	93 SF
C138A	PASSAGE	127 SF
C138B	STUDIO	54 SF
C138C	STUDIO	52 SF
C138D	STUDIO	52 SF
C138E	STUDIO	52 SF
C139	CLASSROOM	984 SF
C141	TV CLASSROOM	819 SF
C141A	STUDIO B	165 SF
C141B	OFFICE	91 SF
C142	STUDIO B	196 SF
C142A	ENGINEERING	114 SF
C143	STUDIO A	1026 SF
C144	TV CONTROL	251 SF
C144A	EQUIPMENT ROOM	120 SF
C145	COMPUTER CLASSROOM	851 SF
C145A	SECURE CLOSET	17 SF
C146	COMPUTER SERVER STORAGE	303 SF
C147	JOURNALISM CLASSROOM	1468 SF
C147A	OFFICE	136 SF
C148	ELECTRICAL ROOM	143 SF
C149	YEARBOOK CLASSROOM / LAB	1350 SF
C149A	PODCAST	147 SF
C150	TV-CPU LAB	714 SF
C151	MECHANICAL	5687 SF
C152	-	927 SF

TECHNOLOGY PLAN NOTES

R17 PROVIDE JUNCTION BOX FOR SPEAKER LOCATED UP IN BAR JOIST AREA (BELOW ROOF DECK AS REQUIRED BY CODE) SO THAT BOTTOM OF SUSPENDED SPEAKER IS LOCATED ABOVE THE BOTTOM OF BAR JOIST. PROVIDE CONDUITS BETWEEN JUNCTION BOXES AS REQUIRED, SEE DETAILS FOR SPEAKER CONNECTIONS.

R18 PROJECTOR TO BE REMOVED/RE-INSTALLED

R19 ALL CELILING CONDUIT IS PART OF ADDENDUM

R20 INTERCOM PAGING STROBE

GENERAL NOTE:
ELECTRICAL RECEPTACLES SHOWN ON THE TECHNOLOGY ROUGH-IN DRAWINGS ARE FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL POWER DRAWINGS FOR RECEPTACLE ROUGH-IN REQUIREMENTS.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

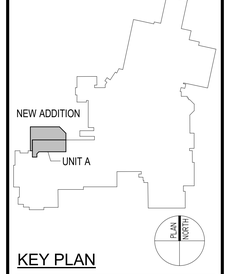
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JJR

PROJECT NUMBER: 221165.01

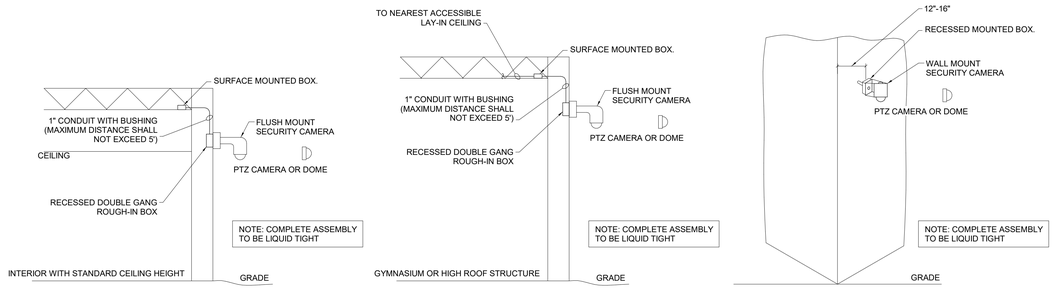
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	9/21/2023

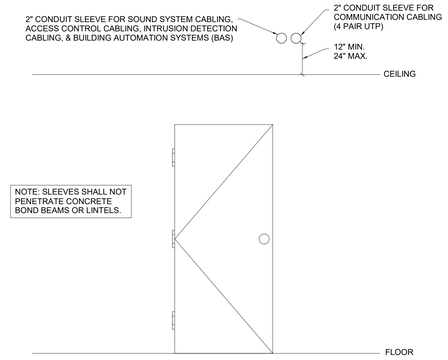
UNIT A - FIRST FLOOR TECHNOLOGY ROUGH-IN PLAN

E3.01

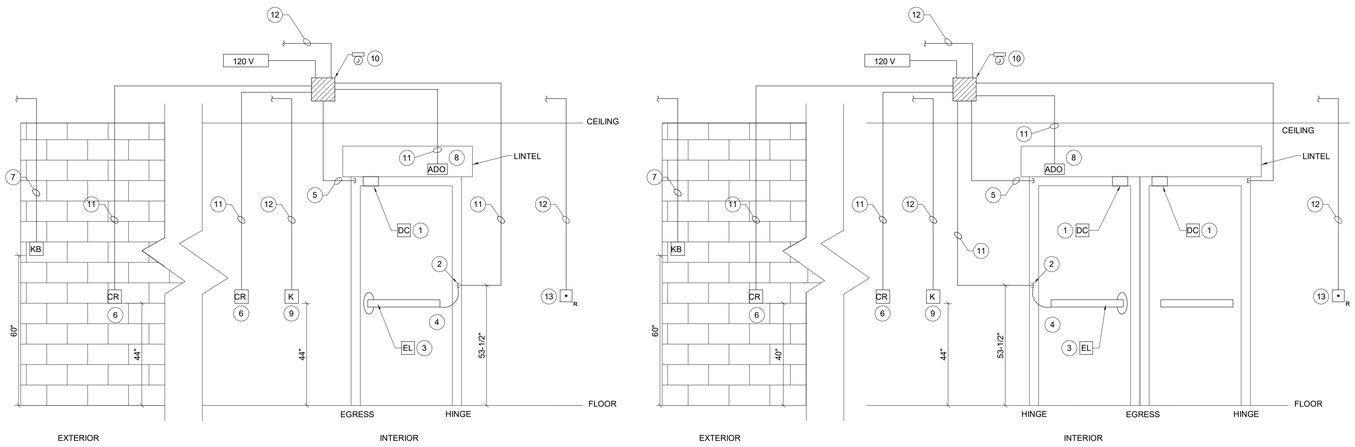
C:\Users\mgedanz\Documents\2021_TECH_221165.01_mgedanz.rvt
9/26/2023 12:37:00 PM



1 VIDEO SURVEILLANCE CAMERA ROUGH-IN DETAIL



2 TECHNOLOGY ROUGH-IN REQUIREMENTS FOR CONDUIT SLEEVES



SINGLE DOOR ENTRY

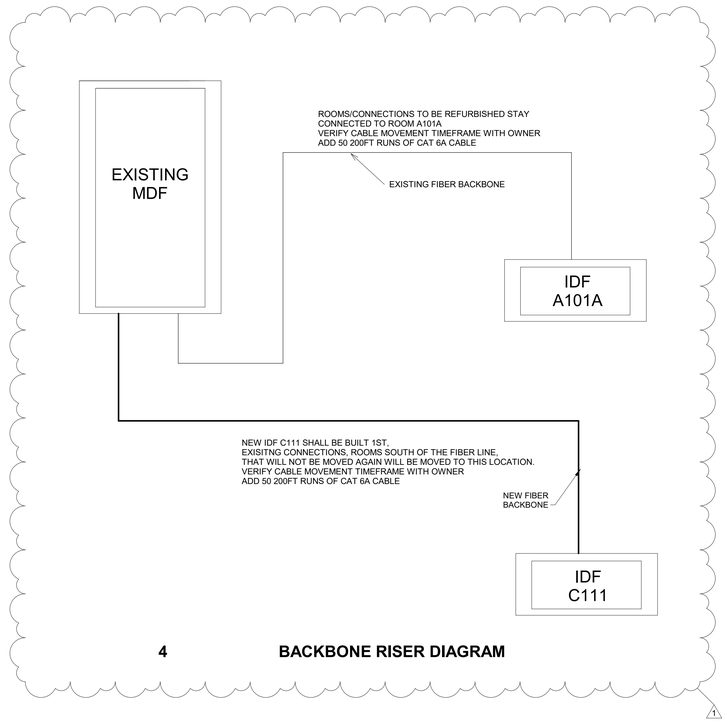
DOUBLE DOOR ENTRY

DOOR SECURITY ROUGH-IN LEGEND

1. ROUGH-IN FOR RECESSED MOUNTED DOOR CONTACT.
2. ROUGH-IN FOR THROUGH WIRE HINGE OR ELECTRONIC POWER TRANSFER. THROUGH WIRE HINGE OR ELECTRONIC POWER TRANSFER BY HARDWARE CONTRACTOR. (VERIFY EXACT ROUGH-IN LOCATION WITH DOOR HARDWARE CONTRACTOR.)
3. ELECTRIC LATCH OR RETRACTABLE PANIC EXIT DEVICE. BY HARDWARE CONTRACTOR.
4. ARMORED CABLE LOOP. EXISTING DOOR AND FRAME CONDITION ONLY.
5. 1/2" FLEX CONDUIT IN DOOR FRAME TO SECURITY JUNCTION BOX ABOVE CEILING.
6. 2 GANG JUNCTION BOX, 3 1/2" DEEP, FOR CARD READER.
7. 2 GANG BOX, 3 1/2" DEEP FOR KEY BOX WITH 1" CONDUIT TO NEAREST ACCESSIBLE LAY-IN CEILING.
8. ROUGH-IN FOR AUTOMATIC DOOR OPERATOR (ADO).
9. 2 GANG JUNCTION BOX, 3 1/2" DEEP FOR KEY PAD.
10. HINGED SECURITY JUNCTION BOX (24"X24"X6"). MOUNTED ABOVE CEILING TO HOUSE ACCESS CONTROL DOOR CONTROLLER.
11. 1" CONDUIT TO JUNCTION BOX ABOVE CEILING.
12. 1" CONDUIT TO CABLE TRAY.
13. 1 GANG JUNCTION BOX, 3 1/2" DEEP, FOR PUSH TO RELEASE BUTTON AT RECEPTION DESK.

NOTE: TYPICAL DOOR ROUGH-IN DETAILS. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND CONFIGURATIONS

3 DOOR SECURITY HARDWARE ROUGH-IN DETAILS



4 BACKBONE RISER DIAGRAM

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

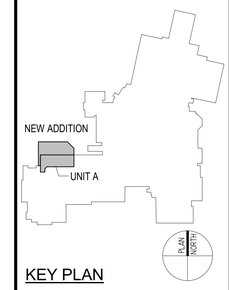
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JJR
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	9/21/2023

TECHNOLOGY ROUGH-IN DETAILS

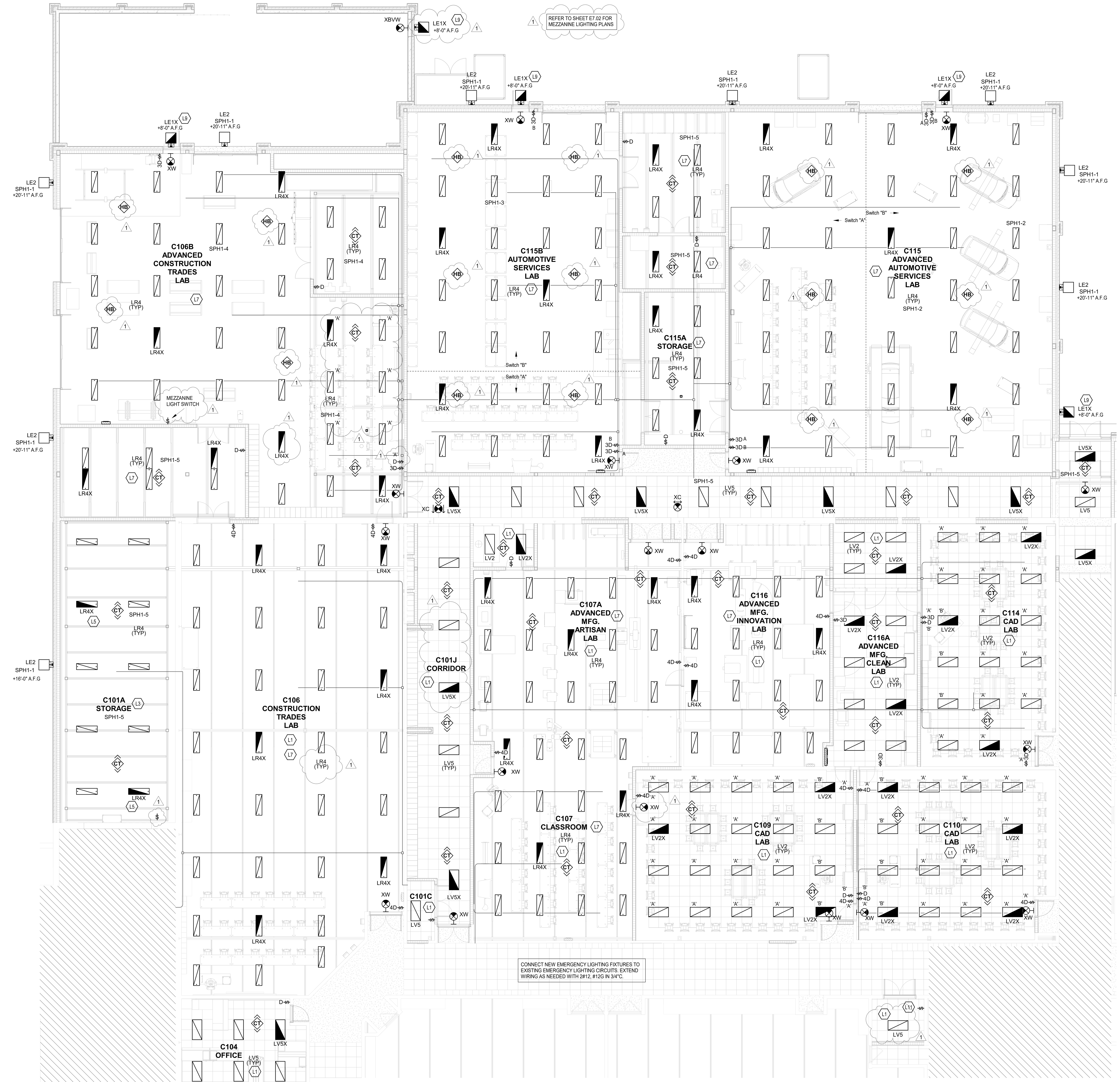
E3.05

C:\Users\jregedanz\Documents\2021_TECH_221165.01_jregedanz.rvt
9/20/2023 12:37:51 PM

GENERAL NOTES - LIGHTING

1. FINALCONNECTION TO RECESSED LUMINAIRES SHALL BE WITH FLEXIBLE METALLIC CONDUIT, MC CABLE OR MANUFACTURED WIRING SYSTEM.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF LUMINAIRES. COORDINATE LOCATION OF LUMINAIRES, LOUDSPEAKERS, DIFFUSERS, GRILLES, AND OTHER CEILING INSTALLED ELEMENTS WITH THEIR RESPECTIVE INSTALLERS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ROOM FINISH SCHEDULE TO DETERMINE PROPER TYPE OF LUMINAIRE TRIM REQUIRED FOR CEILING TYPE PRIOR TO ORDERING LUMINAIRES. PROVIDE LUMINAIRES COMPATIBLE WITH CEILING TYPE.
4. RECESSED LUMINAIRE IN GRID CEILING SYSTEMS SHALL BE PROVIDED WITH SEISMIC CLIPS OR PROVIDE ATTACHMENT TO CEILING GRID SYSTEM AND SUPPORTED PER PROJECT MANUAL AND DETAIL **"2/E1.01"**.
5. LUMINAIRE TYPE IS SHOWN ONLY ONCE, AS "TYP." IN EVERY ROOM. PROVIDE SAME TYPE OF LUMINAIRE THROUGH-OUT SAME ROOM UNLESS OTHERWISE INDICATED.
6. PROVIDE NO. 10 AWG, MINIMUM, CONDUCTORS FOR EXIT SIGNS AND SECURITY LIGHT CIRCUITS.
7. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

KEYNOTES	
L1	CONNECT NEW LIGHTING IN THIS AREA TO EXISTING LIGHTING CIRCUIT TIED BACK DURING DEMOLITION.
L3	MOUNT BOTTOM OF FIXTURE AT 13'-0" ABOVE FINISHED FLOOR IN THIS AREA.
L5	EXTEND EMERGENCY CIRCUIT IN ADJACENT SPACE AND CONNECT TO NEW EMERGENCY FIXTURE.
L7	MOUNT LIGHTING EVEN WITH THE BOTTOM CHORD OF STRUCTURE IN THIS SPACE.
L9	CONNECT LE1X LIGHT FIXTURES TO NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT.
L11	CONNECT NEW LIGHT SWITCH TO EXISTING LIGHTING IN THIS ROOM.



UNIT A - LIGHTING PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

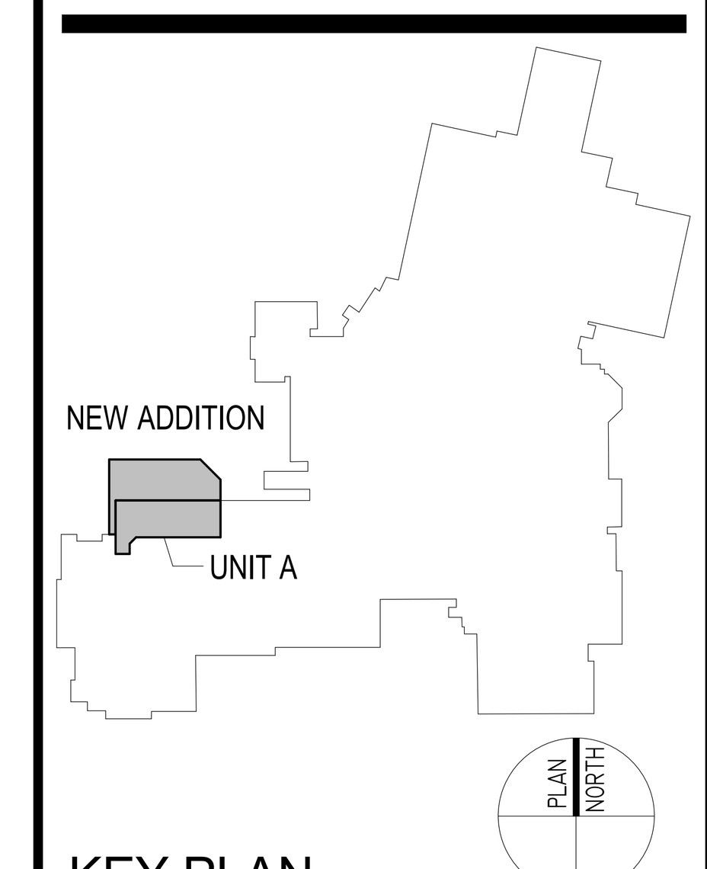
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER REGISTERED No. PE 11600305 STATE OF INDIANA PROFESSIONAL ENGINEER

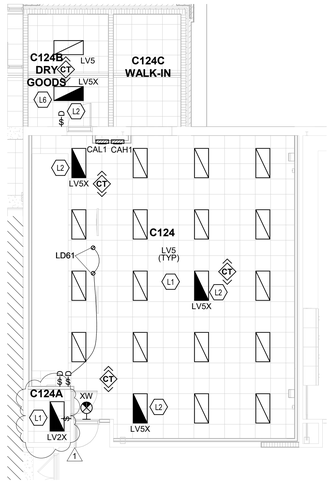
DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - LIGHTING PLAN

E4.01

\\data1\ctmprofiles$\amiemann\upm_profile\documents\2021_ELEC_221165.01_amiemannMFNSN.rvt
9/20/2023 9:33:57 AM

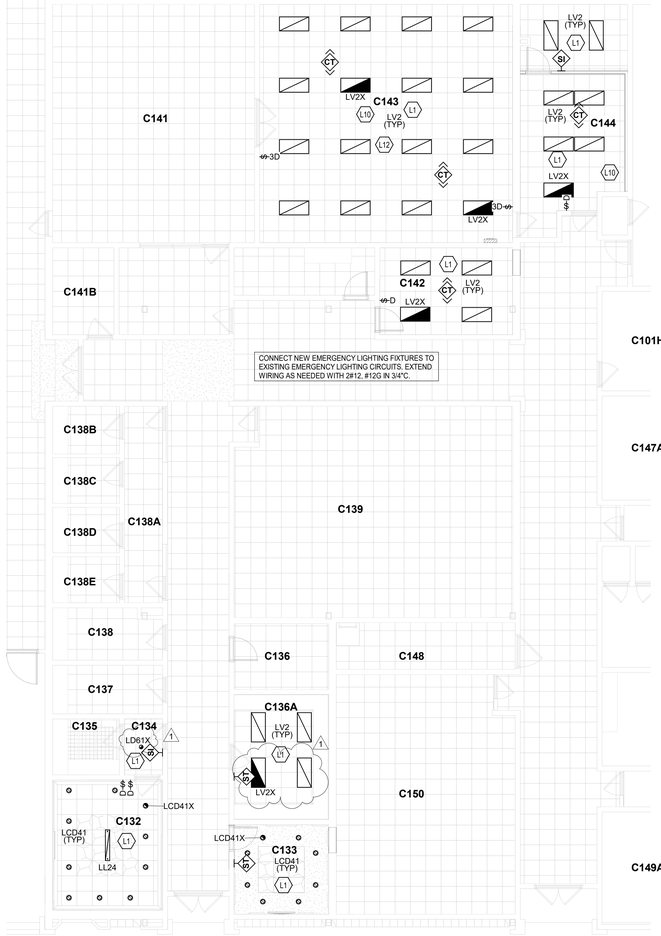


UNIT B - LIGHTING PLAN

SCALE: 1/8" = 1'-0"

ROOM LEGEND - FIRST FLOOR UNIT C		
ROOM NO.	ROOM NAME	AREA (SF)
C100	LOADING / RECEIVING	1202 SF
C100A	BREAK ROOM	640 SF
C100B	ELECTRICAL	825 SF
C100C	LAUNDRY	157 SF
C100D	TOILET	52 SF
C100E	TOILET	52 SF
C100F	SECURE STORAGE	91 SF
C100G	OFFICE	132 SF
C100H	KITCHEN	177 SF
C101	STORAGE	1015 SF
C101A	STORAGE	1287 SF
C101B	CORRIDOR	174 SF
C101C	MEDIA DATA	61 SF
C101D	YEARBOOK CLASSROOM / LAB	Not Placed
C101D	CORRIDOR	1860 SF
C101E	CORRIDOR	177 SF
C101F	CORRIDOR	976 SF
C101G	JOURNALISM CLASSROOM	Not Placed
C101G	VESTIBULE	70 SF
C101H	OFFICE	156 SF
C101H	CORRIDOR	992 SF
C101J	CORRIDOR	832 SF
C102	MENS TOILET	124 SF
C103	WOMENS TOILET	119 SF
C104	OFFICE	638 SF
C105	ELECTRONICS / PHYSICS	1251 SF
C106	CONSTRUCTION TRADES LAB	3699 SF
C106A	STORAGE	622 SF
C106B	ADVANCED CONSTRUCTION TRADES LAB	3867 SF
C107	CLASSROOM	1015 SF
C107A	ADVANCED MFG. ARTISAN LAB	1695 SF
C107B	FINISHING ROOM	97 SF
C108	GRAPHIC COMMUNICATIONS	1385 SF
C109	CAD LAB	1347 SF
C110	CAD LAB	1217 SF
C111	MEDIA DATA	83 SF
C111A	STORAGE	101 SF
C112	GIRLS	188 SF
C113	BOYS	163 SF
C114	CAD LAB	1188 SF
C115	ADVANCED AUTOMOTIVE SERVICES LAB	4790 SF
C115A	STORAGE	458 SF
C115B	AUTOMOTIVE SERVICES LAB	2828 SF
C115C	FINISHING ROOM	201 SF
C116	ADVANCED MFG. INNOVATION LAB	1278 SF
C116A	ADVANCED MFG. CLEAN LAB	762 SF
C117	CERAMIC CLASSROOM / LAB	1387 SF
C117A	STORAGE	145 SF
C117B	STORAGE / MATERIALS	150 SF
C118	INDEPENDENT STUDY / COMMERICAL ART	1425 SF
C119	PHOTOGRAPHY	992 SF
C119A	DARKROOM	309 SF

ROOM LEGEND - FIRST FLOOR UNIT C		
ROOM NO.	ROOM NAME	AREA (SF)
C120	COMPUTER ART ROOM	442 SF
C122	TEACHERS WORKROOM	672 SF
C122A	DEPT. HEAD OFFICE	104 SF
C123	CERAMICS CLASSROOM / LAB	1205 SF
C123A	STORAGE	145 SF
C123B	STORAGE / MATERIALS	150 SF
C124	CULINARY ARTS	1299 SF
C124A	CLOSET	39 SF
C124B	DRY GOODS	154 SF
C124C	WALK-IN	129 SF
C125	DRAWING CLASSROOM / LAB	1173 SF
C126	DRAWING CLASSROOM / LAB	1182 SF
C127	DRAWING CLASSROOM / LAB	1182 SF
C128	JEWELRY CLASSROOM / LAB	953 SF
C129	PHOTOGRAPHY	1023 SF
C129A	DARKROOM	232 SF
C131	CORRIDOR	1363 SF
C131A	STORAGE	166 SF
C131B	MEDIA DATA	60 SF
C131C	CORRIDOR	476 SF
C132	STUDIO	244 SF
C133	PODCAST	144 SF
C134	PASSAGE	36 SF
C135	STUDIO	63 SF
C136	STORAGE	105 SF
C136A	COMPUTER LAB	201 SF
C137	STUDIO	91 SF
C138	STUDIO	93 SF
C138A	PASSAGE	127 SF
C138B	STUDIO	54 SF
C138C	STUDIO	52 SF
C138D	STUDIO	52 SF
C138E	STUDIO	52 SF
C139	CLASSROOM	984 SF
C141	TV CLASSROOM	819 SF
C141A	STUDIO B	165 SF
C141B	OFFICE	91 SF
C142	STUDIO B	196 SF
C142A	ENGINEERING	114 SF
C143	STUDIO A	1026 SF
C144	TV CONTROL	251 SF
C144A	EQUIPMENT ROOM	120 SF
C145	COMPUTER CLASSROOM	851 SF
C145A	SECURE CLOSET	17 SF
C146	COMPUTER SERVER STORAGE	303 SF
C147	JOURNALISM CLASSROOM	1468 SF
C147A	OFFICE	136 SF
C148	ELECTRICAL ROOM	143 SF
C149	YEARBOOK CLASSROOM / LAB	1350 SF
C149A	PODCAST	147 SF
C150	TV-CPU LAB	714 SF
C151	MECHANICAL	5687 SF
C152	-	927 SF



UNIT C - LIGHTING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES - LIGHTING

1. FINALCONNECTION TO RECESSED LUMINAIRES SHALL BE WITH FLEXIBLE METALLIC CONDUIT, MC CABLE OR MANUFACTURED WIRING SYSTEM.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF LUMINAIRES. COORDINATE LOCATION OF LUMINAIRES, LOUDSPEAKERS, DIFFUSERS, GRILLES, AND OTHER CEILING INSTALLED ELEMENTS WITH THEIR RESPECTIVE INSTALLERS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ROOM FINISH SCHEDULE TO DETERMINE PROPER TYPE OF LUMINAIRE TRIM REQUIRED FOR CEILING TYPE PRIOR TO ORDERING LUMINAIRES. PROVIDE LUMINAIRES COMPATIBLE WITH CEILING TYPE.
4. RECESSED LUMINAIRE IN GRID CEILING SYSTEMS SHALL BE PROVIDED WITH SEISMIC CLIPS OR PROVIDE ATTACHMENT TO CEILING GRID SYSTEM AND SUPPORTED PER PROJECT MANUAL AND DETAIL "2E1.01".
5. LUMINAIRE TYPE IS SHOWN ONLY ONCE, AS "TYP." IN EVERY ROOM. PROVIDE SAME TYPE OF LUMINAIRE THROUGH-OUT SAME ROOM UNLESS OTHERWISE INDICATED.
6. PROVIDE NO. 10 AWG, MINIMUM, CONDUCTORS FOR EXIT SIGNS AND SECURITY LIGHT CIRCUITS.
7. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

KEYNOTES	
L1	CONNECT NEW LIGHTING IN THIS AREA TO EXISTING LIGHTING CIRCUIT TIED BACK DURING DEMOLITION.
L2	CONNECT NEW EMERGENCY FIXTURE TO EXISTING EMERGENCY CIRCUIT SERVING THIS AREA.
L6	CONNECT NEW LIGHTING IN THIS AREA TO EXISTING LIGHTING CIRCUIT IN ROOM C124.
L10	TV STUDIO PRODUCTION LIGHTING TO REMAIN. RELOCATE THE EXISTING PRODUCTION LIGHTING CONTROL BOARD TO THE EAST SIDE OF THE ROOM, EXTENDING DMX WIRING AS NEEDED THROUGH THE ACCESSIBLE FLOOR TO THE NEW LOCATION.
L12	ADJUST LIGHT FIXTURE LOCATIONS IN THIS SPACE TO AVOID CONFLICTS WITH THE MOUNTING HARDWARE FOR THE PRODUCTION LIGHTING AND THE CEILING MOUNTED SURFACE RACEWAYS. PROVIDE ADJUSTMENTS NEEDED TO ARCHITECTURE/ENGINEERING FOR APPROVAL.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

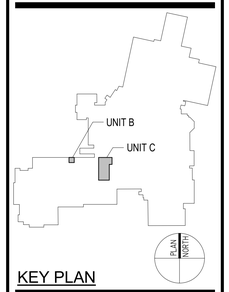
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: AMN

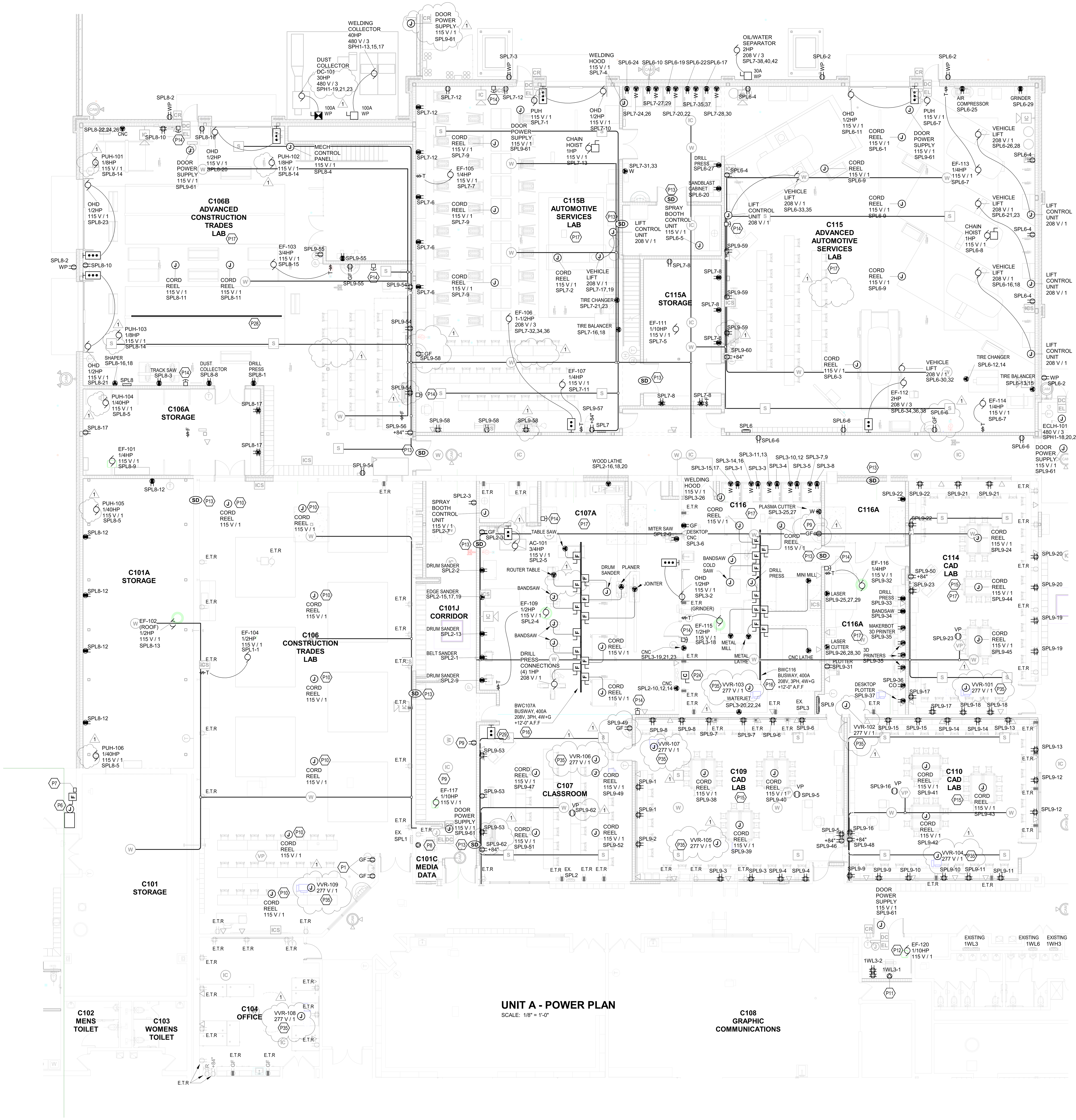
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B AND C - LIGHTING PLANS

E4.02



UNIT A - POWER PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES - POWER

1. PROVIDE REVISED TYPED PANELBOARD DIRECTORIES FOR EACH PANELBOARD ADDED OR MODIFIED DURING CONSTRUCTION. FIELD VERIFY EXISTING CIRCUIT INFORMATION WITH OWNER'S ASSISTANCE TO ENSURE FINAL DIRECTORY IS ACCURATE. UNUSED SPARE BREAKERS SHALL BE IN THE OFF POSITION.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
3. LABEL EACH RECEPTACLE WITH THE PANEL NAME AND CIRCUIT NUMBER ON THE FACE OF EACH COVER PLATE WITH A TYPED LAMINATED LABEL.
4. PROVIDE "GFCI PROTECTED" LABEL ON COVER PLATE FOR ANY GFCI PROTECTED DEVICE.
5. CONTRACTOR SHALL INCREASE CIRCUIT CONDUCTOR SIZE TO COMPENSATE FOR VOLTAGE DROP DUE TO EXCESSIVE CIRCUIT LENGTHS. IN NO CASE SHALL VOLTAGE DROP EXCEED NFPA 70 (N.E.C.) REQUIREMENTS.
6. REFER TO MECHANICAL PLANS FOR LOCATION OF MECHANICAL EQUIPMENT. LOCATE DISCONNECT SWITCHES PER NEC.
7. REFER TO "CONTROL SCHEMATICS" MECHANICAL DRAWINGS FOR ADDITIONAL CONTROL WIRING AND CONTROL CONNECTIONS.
8. ALL DEVICES, EQUIPMENT, FIXTURES, AND THE LIKE, SHALL BE BONDED WITH A PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR. MAINTAIN MECHANICAL/ELECTRICAL BONDS OF METALLIC RACEWAY SYSTEM.
9. FOR EXISTING RECEPTACLES TO BE REMOVED, REMOVE CONDUIT, BOX, AND WIREING COMPLETELY. REPAIR WALL PRIOR TO PAINTING. CONDUITS AND BOXES CAN REMAIN BEHIND FURRED PORTIONS OF WALLS. NO BLANK PLATES ARE TO BE VISIBLE UPON PROJECT COMPLETION.
10. REPLACE ALL EXISTING RECEPTACLES SHOWN TO REMAIN WITH NEW DEVICES AND FACEPLATES.
11. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

KEYNOTES

P1	PROVIDE NEW GFCI RECEPTACLE AT THIS LOCATION. CONNECT TO EXISTING CIRCUIT TIED BACK DURING DEMOLITION.
P6	HYDRAULIC TRASH COMPACTOR MOTOR AND CONTROLS - RE-ROUTE POWER WIRING, CONDUIT AND POWER DISCONNECT TO NEW LOCATION. MATCH EXISTING WIRE SIZE. ASSUME #8 CONDUCTORS FOR BIDDING PURPOSES.
P7	HYDRAULIC TRASH COMPACTOR CONTROLS EXISTING TO REMAIN AND BE RECONNECTED AS NECESSARY TO RELOCATED MOTOR.
P8	CONNECT DATA ROOM RECEPTACLES TO CIRCUITS TIED BACK DURING DEMOLITION. PROVIDE MATCHING RECEPTACLES LOCATED BEHIND THE NEW RACK LOCATION(S).
P9	CONNECT RECEPTACLE TO NEAREST RECEPTACLE CIRCUIT WITH 2#12, #12G IN 3/4"C.
P10	PROVIDE A NEW 20A CIRCUIT BREAKER IN AVAILABLE SPACE IN PANEL SPL1 FOR THIS CORD REEL. CONNECT WITH 2#12, #12G IN 3/4"C.
P11	PROVIDE A NEW 30A CIRCUIT BREAKER IN AVAILABLE SPACE IN PANEL 1WL3 FOR THIS NEMA 5-30R RECEPTACLE. CONNECT WITH 2#10, #12G IN 3/4"C.
P12	CONNECT TO NEAREST RECEPTACLE CIRCUIT WITH 2#12, #12G IN 3/4"C.
P13	CONNECT ALL SMOKE DAMPERS IN UNITS A AND B OF THIS PROJECT TO AN AVAILABLE DEDICATED SPARE 20A CIRCUIT IN EXISTING PANEL 1WL3. PROVIDE A 20A BREAKER IF NECESSARY AND CONNECT WITH 2#12, #12G IN 3/4"C.
P14	CONNECT EMERGENCY STOP PUSHBUTTON TO SHUNT TRIP MAIN BREAKER IN PANELBOARD FOR THIS SPACE.
P15	NEW COUNTERTOPS IN THIS ROOM HAVE A 2-3/8" OPENING IN THE CORNER OF THE MOUNTING BRACKET. MOUNT HORIZONTAL WIREWAY FOR NEW SURFACE MOUNTED RECEPTACLES THROUGH THESE OPENINGS IN THIS ROOM. MOUNT NEW RECEPTACLES UNDER THE COUNTER AS CLOSE TO THE COUNTERTOP AS POSSIBLE.
P16	PROVIDE BUSWAY PLUGS AS FUSED DISCONNECTS. PROVIDE 20A FUSES IN DISCONNECTS UNLESS NOTED OTHERWISE. SUPPORT SOO FEEDERS TO EQUIPMENT FROM STRUCTURE AND DROP DOWN VERTICALLY TO EQUIPMENT. PROVIDE FEEDER SIZE PER A7 DRAWING REQUIREMENTS. PROVIDE MOUNTING HARDWARE TO SUPPORT BUSWAY AT ELEVATION SHOWN.
P17	REFER TO A7 SERIES DRAWINGS FOR ADDITIONAL REQUIRMENTS AND PLUG CONFIGURATIONS FOR EQUIPMENT IN THIS SPACE.
P24	PROVIDE 400A CONTACTOR FOR BOTH BUSWAYS IN C107A AND C116. CONNECT CONTACTOR TO THE EMERGENCY STOP PUSHBUTTONS IN BOTH SPACES, SUCH THAT THE ACTUATION OF ANY SWITCH OPENS THE CIRCUIT FOR THE BUSWAYS.
P28	INSTALL BUSWAY REMOVED FROM OTHER SPACES DURING DEMOLITION IN THIS SPACE PRIOR TO WORK IN ROOM C107A. CONNECT BUSWAY TEMPORARILY TO THE 200A FEEDER FOR PANEL SPL8. THIS BUSWAY IS TO SERVE EQUIPMENT FROM THE EXISTING SPACES WHILE THEY ARE BEING RENOVATED. INSTALL EXISTING DISCONNECTS AND CORD DROPS TO EQUIPMENT AS NEEDED BY OWNER. DISCONNECT AND REMOVE THE BUSWAY ONCE THE EQUIPMENT HAS BEEN MOVED.
P29	PROVIDE ALL EQUIPMENT AND WIRING TO CONNECT THIS ON/OFF PUSH BUTTON TO THE DUST COLLECTOR DC-101 LOCATED OUTSIDE OF ROOM C106B.
P35	CONNECT VVR TO LIGHTING CIRCUIT IN THIS SPACE. CONNECT AHEAD OF ALL LIGHTING CONTROLS. CONNECT WITH 2#12, #12G IN 3/4"C.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

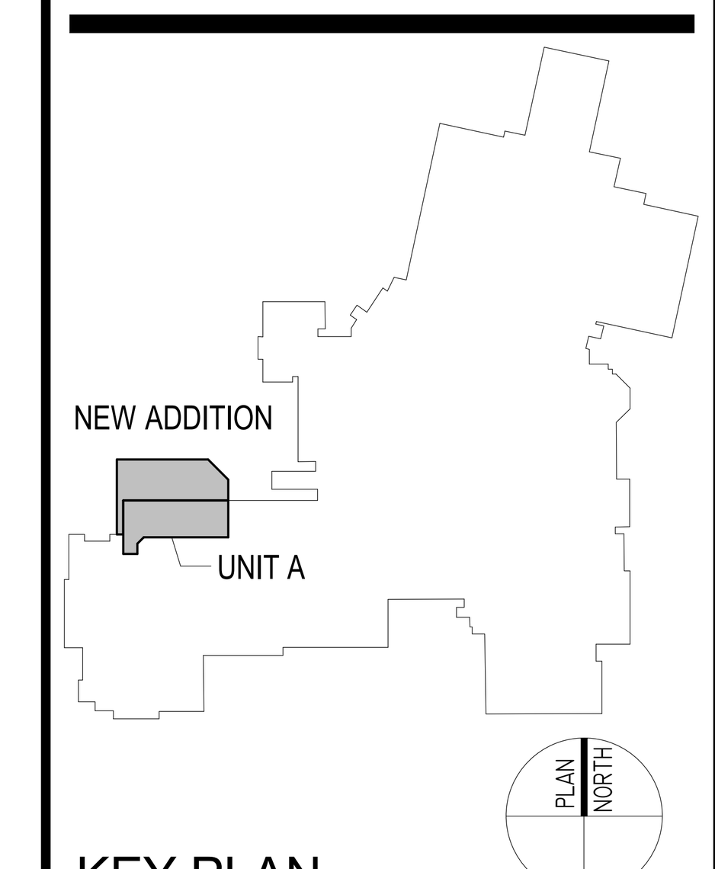
ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

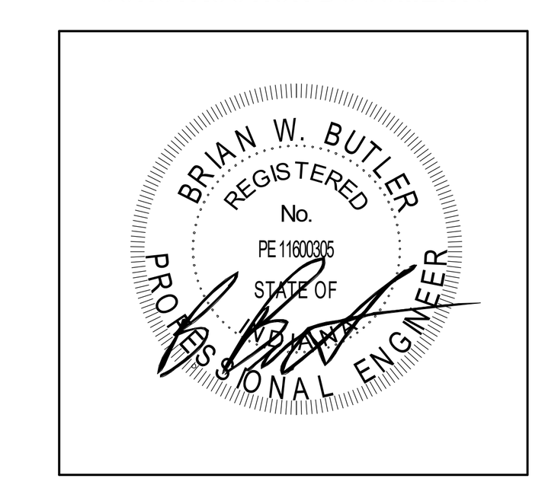
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS



DRAWN BY: AMN

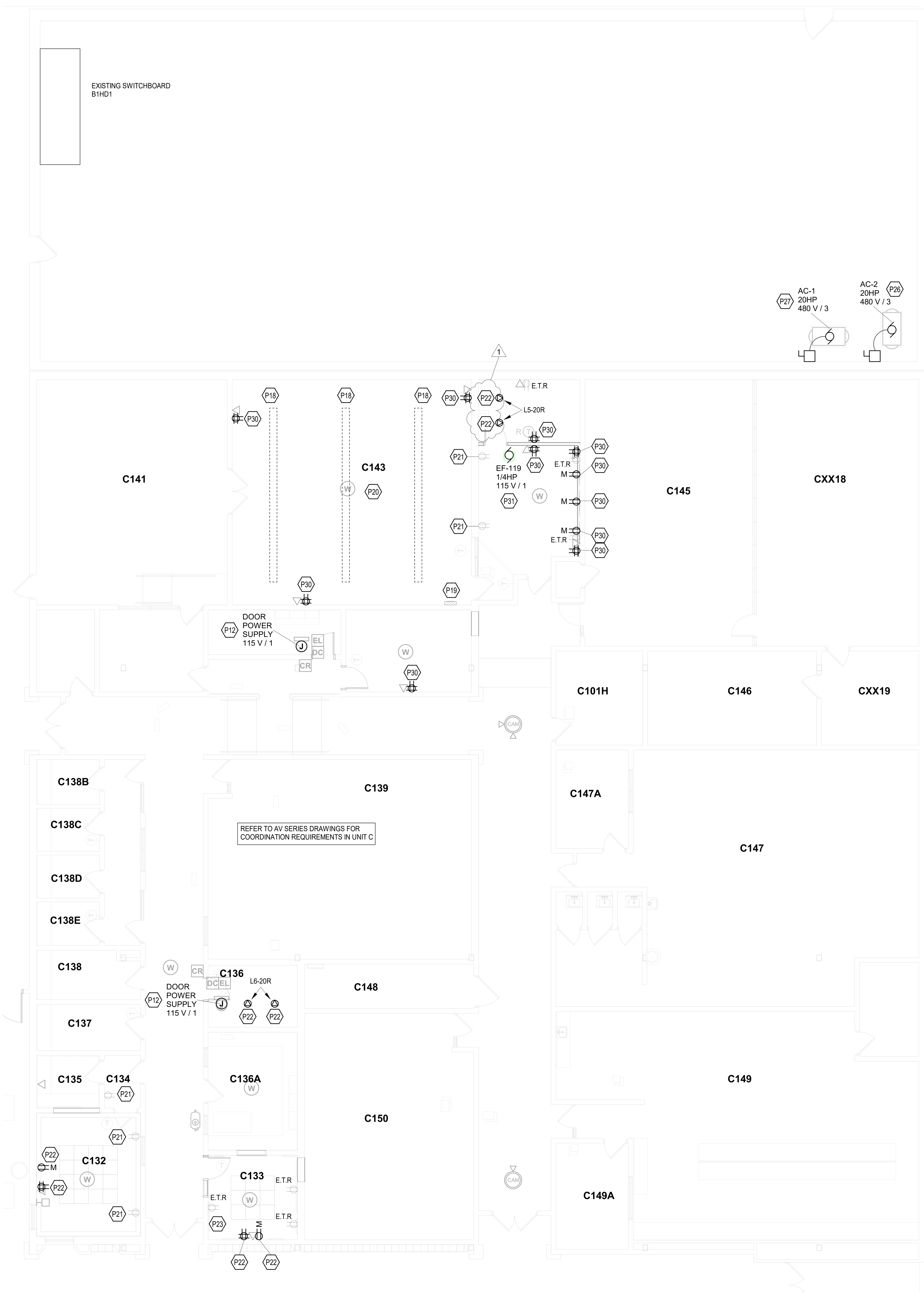
PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

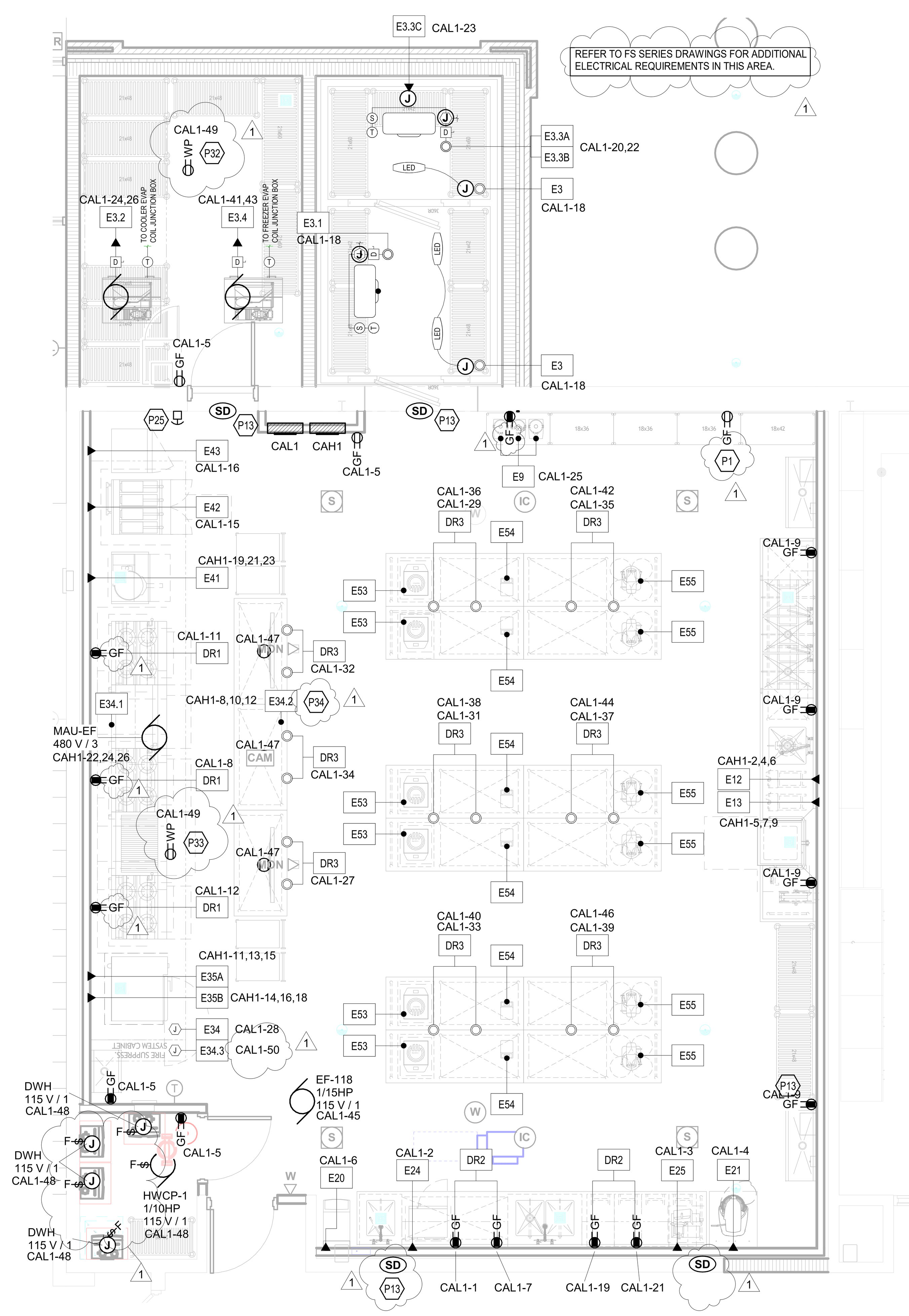
UNIT A - POWER PLAN

E5.01



UNIT C - POWER PLAN

SCALE: 1/8" = 1'-0"



UNIT B - POWER PLAN

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

Foodservice Equipment Electrical Schedule

ITEM	DESCRIPTION	MARK	VOLTAGE	PHS	KW	AMPS	HP	CONN	NEMA	AFF	ELECTRICAL REMARKS
DR1	Duplex Convenience Receptacle	DR1	120	1		16.00		Plug		16	
DR2	Duplex Convenience Receptacle	DR2	120	1		16.00		Plug		48	Furnish horizontal receptacle when mounted above countertop
DR3	Retractable Drop-Cord Convenience Receptacle	DR3	120	1		16.00		Plug		DFA	Drop service from directly above equipment to a point 72" aff
3	Walk-In Cooler/Freezer (Lights)	E3	120	1		16.00		Direct		DFA	Extend to KEC furnished light fixtures thru junction box on top of walk-in compartment
3.1	Walk-In Cooler/Freezer (Cooler Coil)	E3.1	120	1		0.80		Direct		DFA	Extend to junction box on cooler evaporator coil thru KEC furnished disconnect switch
3.2	Walk-In Cooler/Freezer (Cooler Condenser)	E3.2	208	1		5.70	0.50	Direct		Rooftop	Extend to equipment thru KEC furnished electrical disconnect mounted on equipment
3.3	Walk-In Cooler/Freezer (Freezer Coil Fans)	E3.3A	208	1		0.50		Direct		DFA	Extend from #E10.4 - See Walk-In Freezer Wiring Detail on FS3.0
3.3	Walk-In Cooler/Freezer (Freezer Coil Defrost)	E3.3B	208	1		4.90		Direct		DFA	Extend from #E10.4 - See Walk-In Freezer Wiring Detail on FS3.0
3.3	Walk-In Cooler/Freezer (Freezer Coil Drain Tape)	E3.3C	120	1		16.00		Direct		96"	Extend to receptacle mounted high on wall behind freezer evaporator coil
3.4	Walk-In Cooler/Freezer (Freezer Condenser)	E3.4	208	3		24.00		Direct		Rooftop	Extend to equipment thru KEC furnished electrical disconnect mounted on equipment
9	Countertop Food Processor	E9	120	1		7.00		Plug	5-15P	Conv	Service from convenience receptacle located in foodservice area
12	Garbage Disposal System	E12	480	3		2.20	2.00	Direct		16	Extend to equipment thru KEC furnished control panel
13	Ventless Door-Type Dishmachine	E13	480	3		21.40		Direct		16	Extend to equipment thru electrical disconnect
20	Nugget Ice Maker w/ Bin	E20	120	1		12.00		Plug	5-15P	48	Furnish horizontal receptacle when mounted above countertop
21	Countertop Mixer w/ Stand	E21	120	1		6.00		Plug	5-15P	48	Furnish horizontal receptacle when mounted above countertop
24	Countertop Microwave Oven	E24	120	1	2.00	20.00		Plug	5-20P	48	Furnish horizontal receptacle when mounted above countertop
25	Countertop Food Slicer	E25	120	1		3.00	0.33	Plug	5-15P	48	Furnish horizontal receptacle when mounted above countertop
34	Kitchen Ventilation System (Lights)	E34	120	1		1.50		Direct		DFA	Extend to junction box on top of exhaust ventilation hood
34.1	Kitchen Ventilation System (Exhaust Fan)	E34.1								Rooftop	Service for exhaust fan combined with service for make-up air fan
34.2	Kitchen Ventilation System (Make-Up Air Fan)	E34.2	480	3		14.30		Direct		Rooftop	Extend to equipment thru KEC furnished electrical disconnect mounted on equipment
34.3	Kitchen Ventilation System (Fire Suppression System)	E34.3	120	1		1.50		Direct		DFA	Extend to junction box on top of exhaust ventilation hood
35	6-Pan Combi Oven/Steamer (Upper)	E35A	480	3	9.00	11.00		Direct		48	Extend to equipment thru shunt trip circuit breaker
	6-Pan Combi Oven/Steamer (Lower)	E35B	480	3	9.00	11.00		Direct		48	Extend to equipment thru shunt trip circuit breaker
41	12-Gallon Kettle With Stand	E41	480	3	12.00	14.50		Direct		48	Extend to equipment thru shunt trip circuit breaker
42	Fryer Battery w/ Filtration	E42	120	1		6.80		Plug	5-15P	48	Extend to equipment thru shunt trip circuit breaker
43	Single Door Reach-In Freezer	E43	120	1		4.50	0.50	Plug	5-15P	48	Extend to equipment thru shunt trip circuit breaker
53	Countertop Induction Range	E53	120	1	1.80	15.00		Plug	5-15P	Conv	Service from convenience receptacle located in foodservice area
54	Countertop Digital Scale	E54	120	1		1.50		Plug	5-15P	Conv	Service from convenience receptacle located in foodservice area
55	8-Quart Countertop Mixer	E55	120	1		5.00	0.25	Plug	5-15P	Conv	Service from convenience receptacle located in foodservice area

GENERAL NOTES - POWER

1. PROVIDE REVISED TYPED PANELBOARD DIRECTORIES FOR EACH PANELBOARD ADDED OR MODIFIED DURING CONSTRUCTION. FIELD VERIFY EXISTING CIRCUIT INFORMATION WITH OWNER'S ASSISTANCE TO ENSURE FINAL DIRECTORY IS ACCURATE. UNUSED SPARE BREAKERS SHALL BE IN THE OFF POSITION.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
3. LABEL EACH RECEPTACLE WITH THE PANEL NAME AND CIRCUIT NUMBER ON THE FACE OF EACH COVER PLATE WITH A TYPED LAMINATED LABEL.
4. PROVIDE "GFCI PROTECTED" LABEL ON COVER PLATE FOR ANY GFCI PROTECTED DEVICE.
5. CONTRACTOR SHALL INCREASE CIRCUIT CONDUCTOR SIZE TO COMPENSATE FOR VOLTAGE DROP DUE TO EXCESSIVE CIRCUIT LENGTHS. IN NO CASE SHALL VOLTAGE DROP EXCEED NFPA 70 (N.E.C.) REQUIREMENTS.
6. REFER TO MECHANICAL PLANS FOR LOCATION OF MECHANICAL EQUIPMENT. LOCATE DISCONNECT SWITCHES PER NEC.
7. REFER TO "CONTROL SCHEMATICS" MECHANICAL DRAWINGS FOR ADDITIONAL CONTROL WIRING AND CONTROL CONNECTIONS.
8. ALL DEVICES, EQUIPMENT, FIXTURES, AND THE LIKE, SHALL BE BONDED WITH A PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR. MAINTAIN MECHANICAL/ELECTRICAL BONDS OF METALLIC RACEWAY SYSTEM.
9. FOR EXISTING RECEPTACLES TO BE REMOVED, REMOVE CONDUIT, BOX, AND WIREING COMPLETELY. REPAIR WALL PRIOR TO PAINTING. CONDUITS AND BOXES CAN REMAIN BEHIND FURRED PORTIONS OF WALLS. NO BLANK PLATES ARE TO BE VISIBLE UPON PROJECT COMPLETION.
10. REPLACE ALL EXISTING RECEPTACLES SHOWN TO REMAIN WITH NEW DEVICES AND FACEPLATES.
11. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

KEYNOTES

P1	PROVIDE NEW GFCI RECEPTACLE AT THIS LOCATION. CONNECT TO EXISTING CIRCUIT TIED BACK DURING DEMOLITION.
P12	CONNECT TO NEAREST RECEPTACLE CIRCUIT WITH 2#12, #12G IN 3/4"C.
P13	CONNECT ALL SMOKE DAMPERS IN UNITS A AND B OF THIS PROJECT TO AN AVAILABLE DEDICATED SPARE 20A CIRCUIT IN EXISTING PANEL 1WL3. PROVIDE A 20A BREAKER IF NECESSARY AND CONNECT WITH 2#12, #12G IN 3/4"C.
P18	PROVIDE NEW CEILING MOUNTED RACEWAY WITH 6 RECEPTACLES THE SAME DIMENSIONS AND AT THE SAME LOCATION AS THE PREVIOUS RACEWAY THAT WAS REMOVED. PROVIDE 3 CIRCUITS TO THE NEW PANEL C2, CONNECTING 2 RECEPTACLES TO EACH CIRCUIT. CONNECT WITH 2#12, #12G IN 3/4"C. UTILIZE EXISTING CONDUIT IF IT IS IN GOOD CONDITION.
P19	PROVIDE A NEW PANEL C2 AT THIS LOCATION, MATCHING THE DIMENSIONS AND PROPERTIES OF THE EXISTING PANEL THAT WAS REMOVED. PROVIDE A SURGE PROTECTIVE DEVICE IN THE PANEL IN AVAILABLE SPACE. LEAVE BREAKERS NO LONGER UTILIZED FOR CIRCUITS IN THE CEILING MOUNTED RACEWAYS AS SPARE.
P20	REPLACE EXISTING RECEPTACLES IN THIS SPACE WITH NEW DEVICES AND FACEPLATES.
P21	PROVIDE EXTENSION RINGS ON EXISTING RECEPTACLE BOXES TO EXTEND TO NEW WALL FACE. PROVIDE NEW DEVICE AND FACEPLATE.
P22	CONNECT NEW RECEPTACLE TO AVAILABLE SPARE 20A CIRCUIT IN PANELS IN ROOM C148. CONNECT WITH 2#12, #12G IN 3/4"C.
P23	PROVIDE NEW STAINLESS STEEL BLANK PLATE ON EMPTY BOX ON CMU WALL AT THIS LOCATION.
P25	CONNECT EMERGENCY STOP PUSHBUTTON TO SHUNT TRIP MAIN BREAKERS IN PANELBOARDS CAL1 AND CAH1.
P26	CONNECT NEW AIR COMPRESSOR AND NEW 60A DISCONNECT TO THE AIR COMPRESSOR CIRCUIT TIED BACK DURING DEMOLITION. EXTEND CIRCUIT AS NEEDED MATCHING EXISTING CONDUIT AND WIRE SIZES.
P27	CONNECT NEW AIR COMPRESSOR AND NEW 60A DISCONNECT TO AVAILABLE SPARE 60A SWITCH IN SWITCHBOARD B1HD1. CONNECT CIRCUIT WITH 3#6, #10G IN 1"C. PROVIDE 60A FUSES IN SWITCH AS REQUIRED.
P30	CONNECT NEW RECEPTACLE TO AVAILABLE SPARE 20A CIRCUIT IN PANEL C2 IN ROOM C143. CONNECT WITH 2#12, #12G IN 3/4"C.
P31	CONNECT NEW EXHAUST FAN TO AVAILABLE SPARE 20A CIRCUIT IN PANEL C2 IN ROOM C143. CONNECT WITH 2#12, #12G IN 3/4"C.
P32	PROVIDE RECEPTACLE ON ROOF, MOUNTED NEAR COOLER AND FREEZER CONDENSING UNITS.
P33	PROVIDE RECEPTACLE ON ROOF, MOUNTED NEAR MAU.
P34	CONNECT MAU 120V CONTROLS TO THE HOOD POWER CIRCUIT SHOWN CONNECTED TO ITEM E34. CONNECT WITH 2#12, #12G IN 3/4"C.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

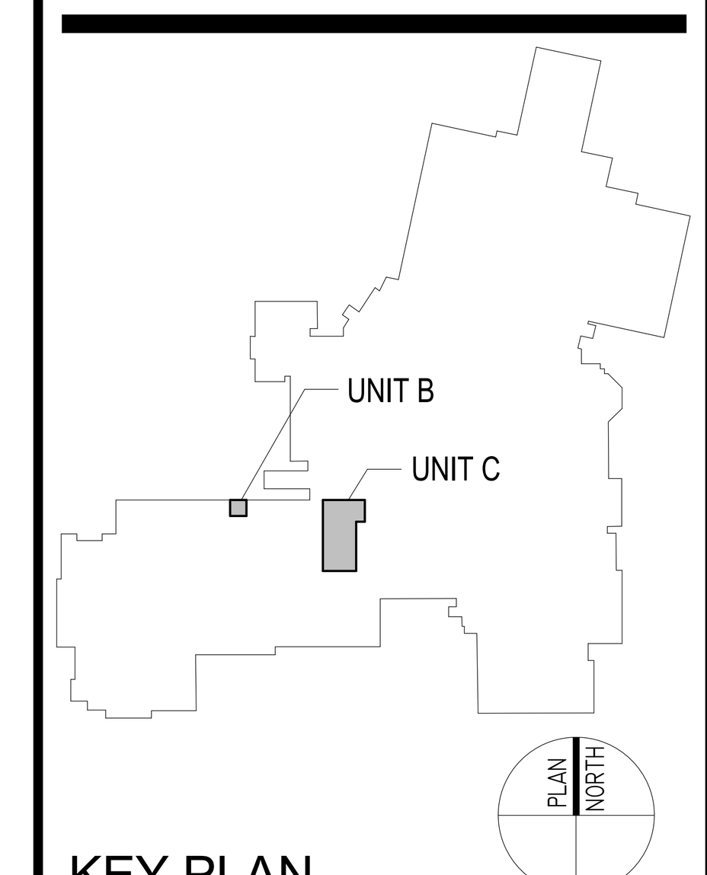
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

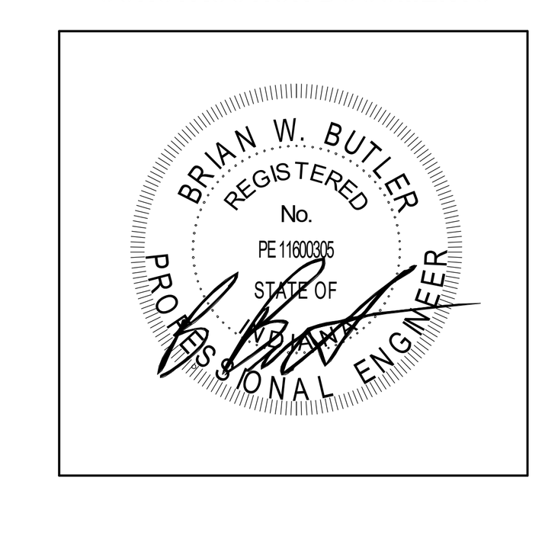
FANNING HOWEY
317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS



DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B & C- POWER PLANS

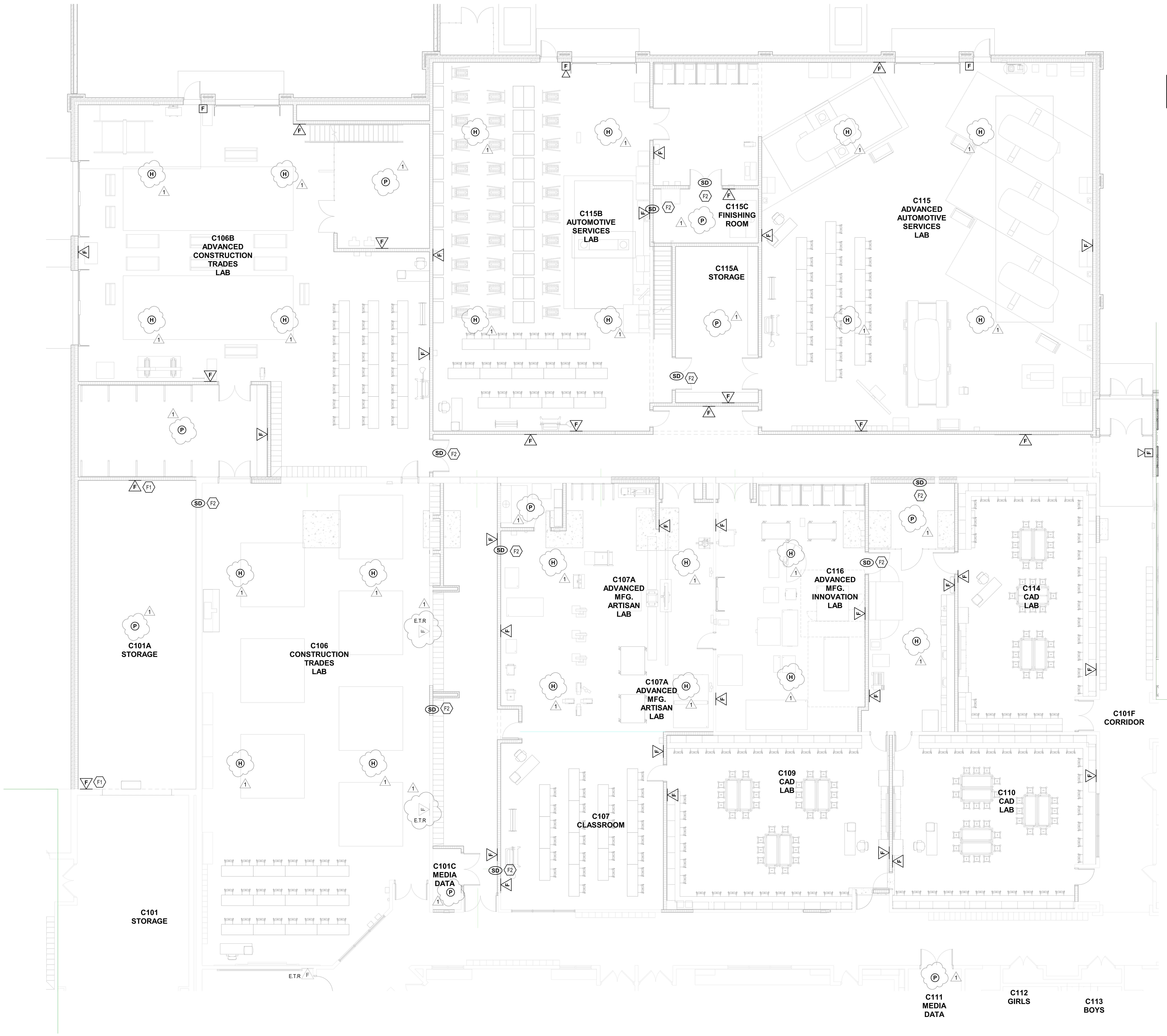
E5.02

\\data1\ctrxprofiles$\aniemann\upm_profile\documents\2021_ELEC_221165.01_aniemannMFNSN.rvt
9/20/2023 9:34:54 AM

GENERAL NOTES - FIRE ALARM

1. QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES IS FOR BIDDING PURPOSES ONLY. VERIFY EXACT QUANTITY AND LOCATIONS WITH SPRINKLER CONTRACTOR PRIOR TO FIRE ALARM SHOP DRAWING SUBMITTAL.

KEYNOTES	
F1	PROVIDE NEW NOTIFICATION DEVICE. CONNECT TO EXISTING NOTIFICATION CIRCUIT SERVING AREA.
F2	REFER TO SMOKE DAMPER DETAIL ON SHEET E1.01 FOR ALL SMOKE DAMPER INSTALLATION REQUIREMENTS.



UNIT A - FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

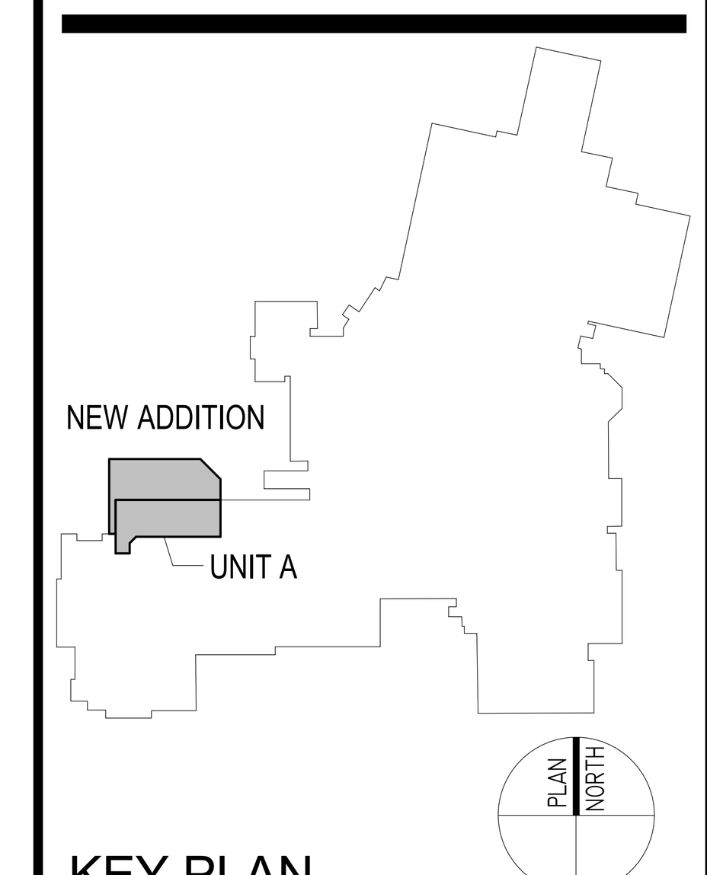
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER
REGISTERED
No. PE 11600305
STATE OF INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

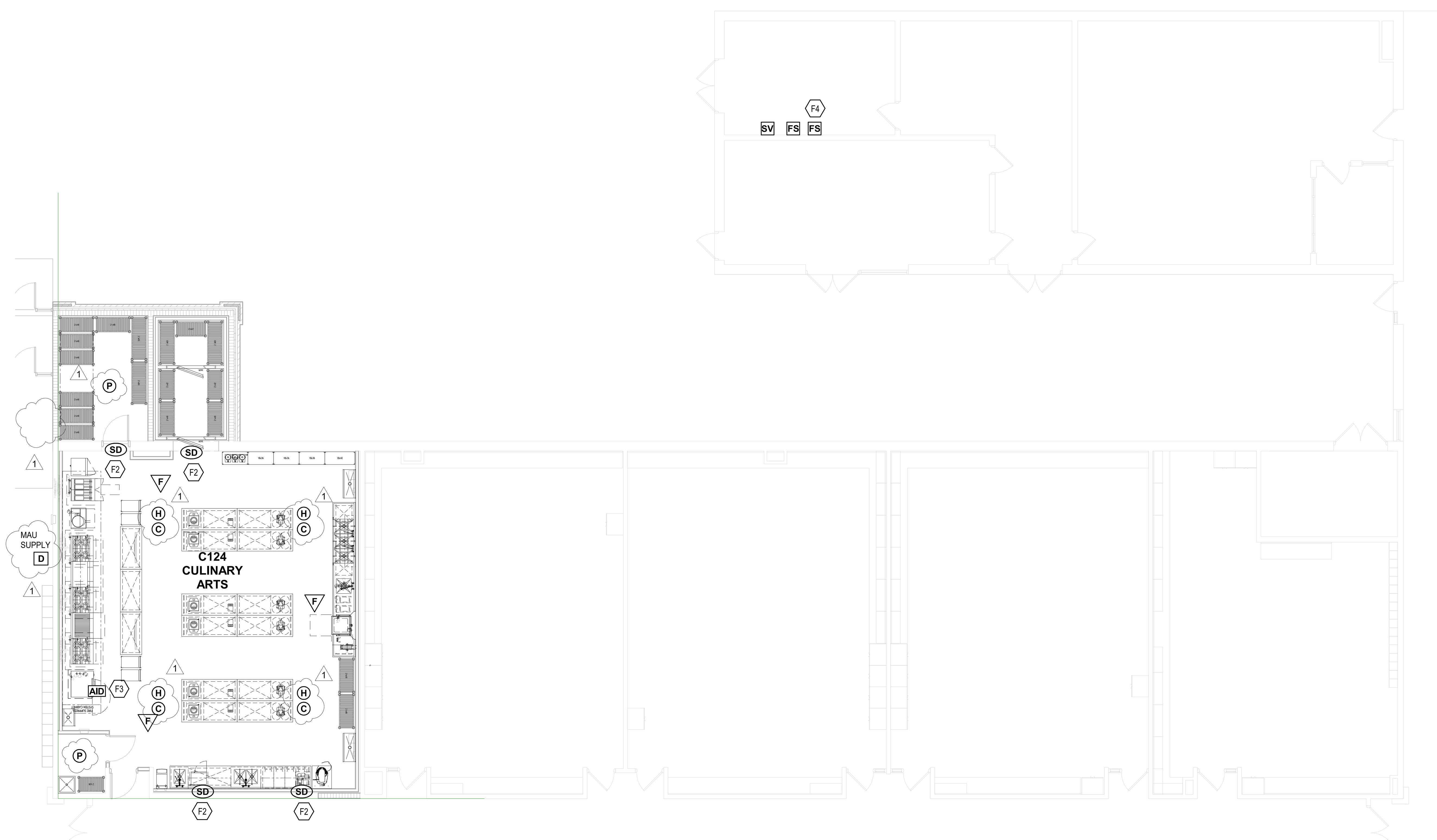
UNIT A - FIRE ALARM PLAN

E6.01

GENERAL NOTES - FIRE ALARM

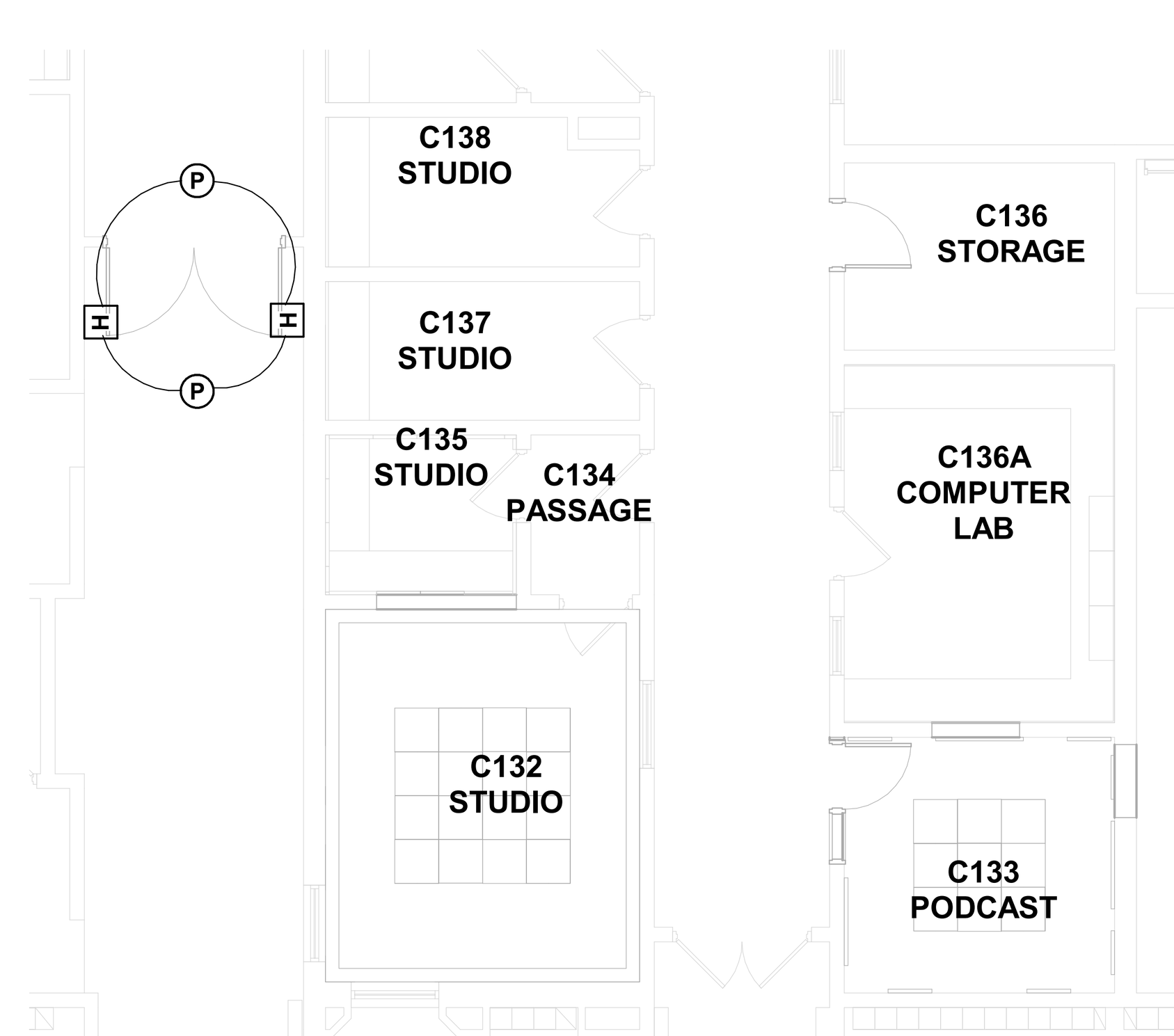
1. QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES IS FOR BIDDING PURPOSES ONLY. VERIFY EXACT QUANTITY AND LOCATIONS WITH SPRINKLER CONTRACTOR PRIOR TO FIRE ALARM SHOP DRAWING SUBMITTAL.

KEYNOTES	
F2	REFER TO SMOKE DAMPER DETAIL ON SHEET E1.01 FOR ALL SMOKE DAMPER INSTALLATION REQUIREMENTS.
F3	CONNECT CULINARY HOOD FIRE SYSTEM TO THE BUILDING FIRE ALARM SYSTEM. PROVIDE ALL EQUIPMENT AND CONNECTIONS REQUIRED.
F4	ONE OF THE FLOW SWITCH CONNECTIONS SHOWN IS A DIRECT REPLACEMENT OF AN EXISTING FLOW SWITCH.



UNIT B - FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"



UNIT C - FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

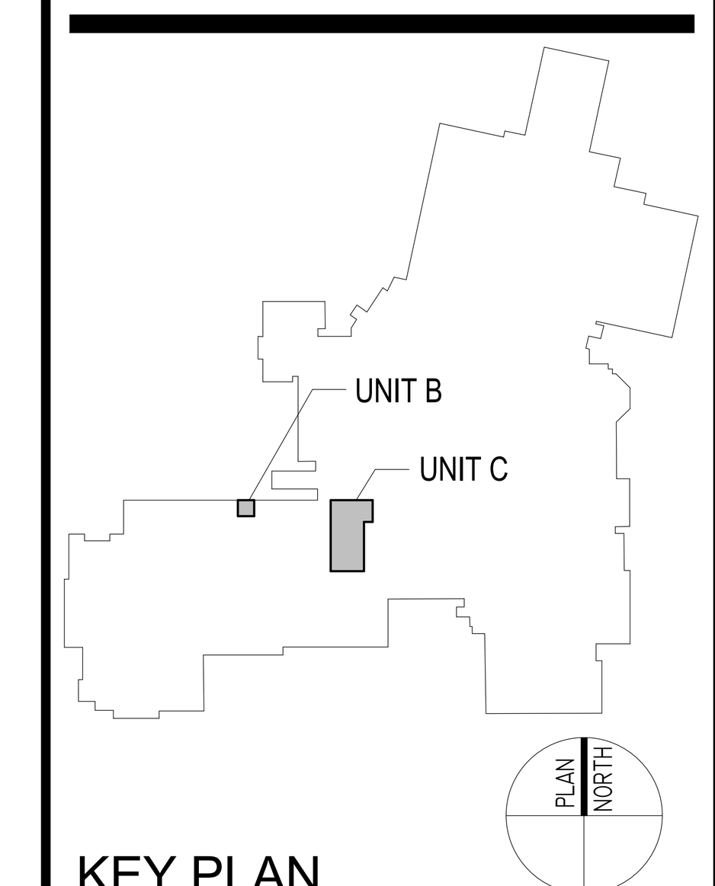
ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM

350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER
REGISTERED
No.
PE 11600305
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: AMN

PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT B & C - FIRE ALARM PLANS

E6.02

\\data1\c\ringprofiles$\aniemann\upm_profile\documents\2021_ELEC_221165.01_aniemannMFNSN.rvt
9/20/2023 9:35:05 AM

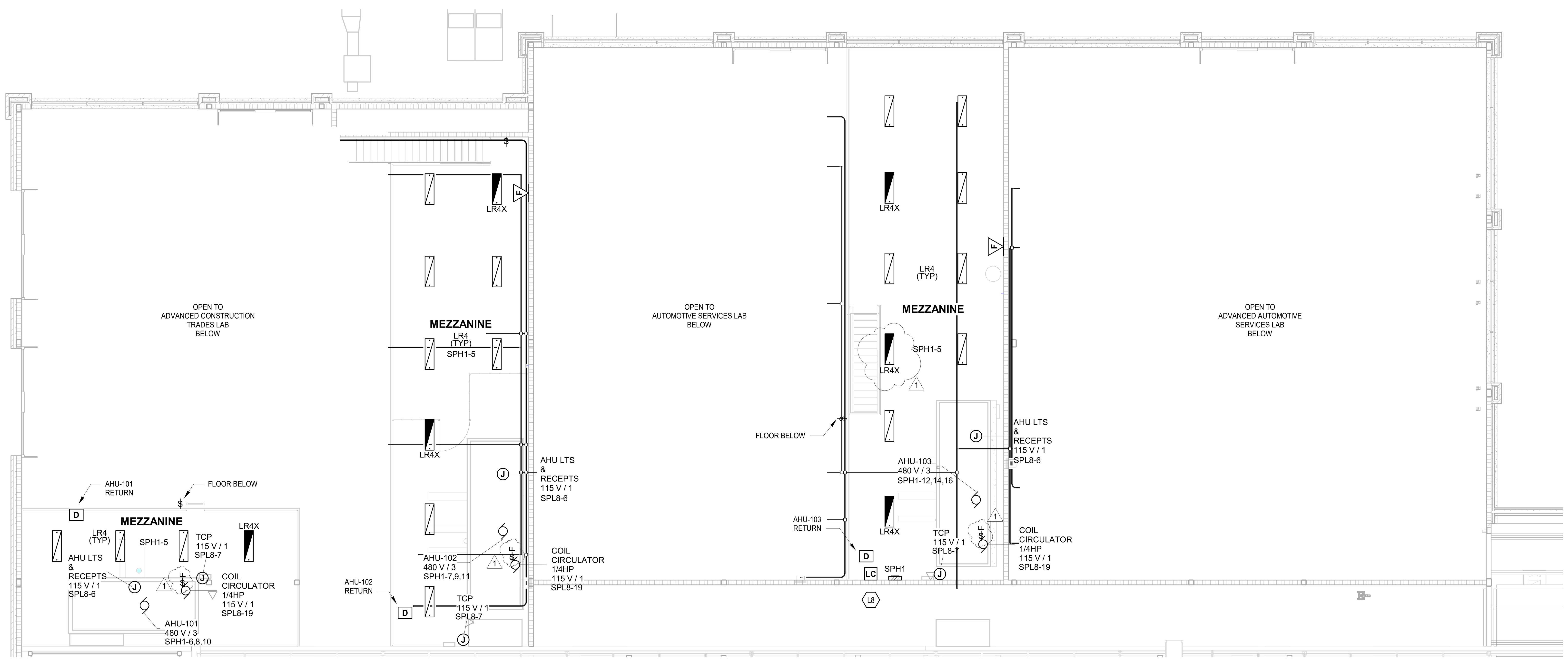
GENERAL NOTES - LIGHTING

1. FINALCONNECTION TO RECESSED LUMINAIRES SHALL BE WITH FLEXIBLE METALLIC CONDUIT, MC CABLE OR MANUFACTURED WIRING SYSTEM.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF LUMINAIRES. COORDINATE LOCATION OF LUMINAIRES, LOUDSPEAKERS, DIFFUSERS, GRILLES, AND OTHER CEILING INSTALLED ELEMENTS WITH THEIR RESPECTIVE INSTALLERS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ROOM FINISH SCHEDULE TO DETERMINE PROPER TYPE OF LUMINAIRE TRIM REQUIRED FOR CEILING TYPE PRIOR TO ORDERING LUMINAIRES. PROVIDE LUMINAIRES COMPATIBLE WITH CEILING TYPE.
4. RECESSED LUMINAIRE IN GRID CEILING SYSTEMS SHALL BE PROVIDED WITH SEISMIC CLIPS OR PROVIDE ATTACHMENT TO CEILING GRID SYSTEM AND SUPPORTED PER PROJECT MANUAL AND DETAIL **"2/E1.01"**.
5. LUMINAIRE TYPE IS SHOWN ONLY ONCE, AS "TYP." IN EVERY ROOM. PROVIDE SAME TYPE OF LUMINAIRE THROUGH-OUT SAME ROOM UNLESS OTHERWISE INDICATED.
6. PROVIDE NO. 10 AWG, MINIMUM, CONDUCTORS FOR EXIT SIGNS AND SECURITY LIGHT CIRCUITS.
7. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

GENERAL NOTES - POWER

1. PROVIDE REVISED TYPED PANELBOARD DIRECTORIES FOR EACH PANELBOARD ADDED OR MODIFIED DURING CONSTRUCTION. FIELD VERIFY EXISTING CIRCUIT INFORMATION WITH OWNER'S ASSISTANCE TO ENSURE FINAL DIRECTORY IS ACCURATE. UNUSED SPARE BREAKERS SHALL BE IN THE OFF POSITION.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
3. LABEL EACH RECEPTACLE WITH THE PANEL NAME AND CIRCUIT NUMBER ON THE FACE OF EACH COVER PLATE WITH A TYPED LAMINATED LABEL.
4. PROVIDE "GFCI PROTECTED" LABEL ON COVER PLATE FOR ANY GFCI PROTECTED DEVICE.
5. CONTRACTOR SHALL INCREASE CIRCUIT CONDUCTOR SIZE TO COMPENSATE FOR VOLTAGE DROP DUE TO EXCESSIVE CIRCUIT LENGTHS. IN NO CASE SHALL VOLTAGE DROP EXCEED NFPA 70 (N.E.C.) REQUIREMENTS.
6. REFER TO MECHANICAL PLANS FOR LOCATION OF MECHANICAL EQUIPMENT. LOCATE DISCONNECT SWITCHES PER NEC.
7. REFER TO "CONTROL SCHEMATICS" MECHANICAL DRAWINGS FOR ADDITIONAL CONTROL WIRING AND CONTROL CONNECTIONS.
8. ALL DEVICES, EQUIPMENT, FIXTURES, AND THE LIKE, SHALL BE BONDED WITH A PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR. MAINTAIN MECHANICAL/ELECTRICAL BONDS OF METALLIC RACEWAY SYSTEM.
9. FOR EXISTING RECEPTACLES TO BE REMOVED, REMOVE CONDUIT, BOX, AND WIREING COMPLETELY. REPAIR WALL PRIOR TO PAINTING. CONDUITS AND BOXES CAN REMAIN BEHIND FURRED PORTIONS OF WALLS. NO BLANK PLATES ARE TO BE VISIBLE UPON PROJECT COMPLETION.
10. REPLACE ALL EXISTING RECEPTACLES SHOWN TO REMAIN WITH NEW DEVICES AND FACEPLATES.
11. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELBOARDS ARE NUMBERED SPARE/SPACE CIRCUITS. EXISTING CIRCUITS TO REMAIN ARE NOT TO BE AFFECTED BY THIS NUMBERING.

KEYNOTES	
L8	CONNECT LE2 EXTERIOR LIGHT FIXTURE CIRCUIT(S) TO THIS LIGHTING CONTACTOR. CONNECT CONTACTOR TO THE EXISTING BMS SYSTEM AND PROGRAM AS NEEDED.



MEZZANINE ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

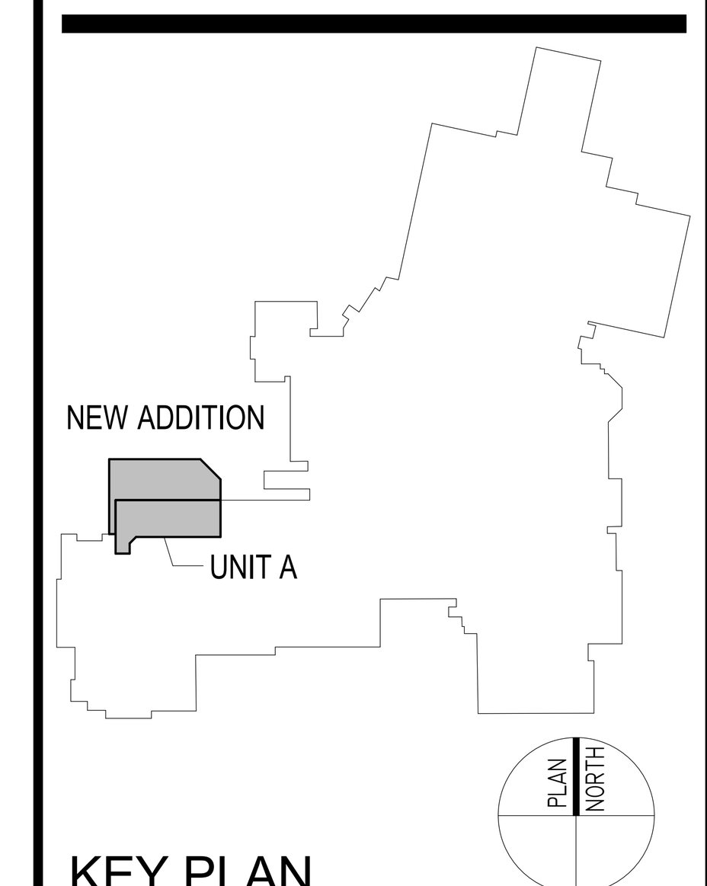
CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT



KEY PLAN

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER
REGISTERED
No. PE 11600305
STATE OF INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

UNIT A - MEZZANINE ELECTRICAL PLAN

E7.02

Branch Panel: CAH1

Location: CULINARY ARTS C124
Supply From:
Mounting: Recessed
Enclosure: Type 1
Volts: 480/277 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION
CONNECT SHUNT TRIP BREAKERS IN PANEL TO HOOD FIRE SUPPRESSION SYSTEM.
SHUNT TRIP MAIN BREAKER.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Spare	20 A	1	0	609					3	20 A	Garbage Disposer - E12 (NOTE 1)	2
3	Spare	20 A	1			0	609			--	--	--	4
5	Dishmachine - E13 (NOTE 2)	30 A	3					5928	609	--	--	--	6
7	--	--	--	5928	8820					3	50 A	Makeup Air Unit (Roof) - E34.2 (NOTE 3)	8
9	--	--	--			5928	8820			--	--	--	10
11	Combi Oven/Steamer (Upper) - E35A (NOTE 1)	20 A	3					3000	8820	--	--	--	12
13	--	--	--	3000	3000					3	20 A	Combi Oven/Steamer (Lower) - E35B (NOTE 1)	14
15	--	--	--			3000	3000			--	--	--	16
17	SHUNT TRIP	--	1					--	3000	--	--	--	18
19	12 Gal. Kettle - E41 (NOTE 2)	30 A	3	4000	--					1	--	SHUNT TRIP	20
21	--	--	--			4000	1662			3	15 A	Makeup Air Unit (Roof) Exhaust Fan (NOTE 1)	22
23	--	--	--					4000	1662	--	--	--	24
25	SHUNT TRIP	--	1	--	1662					--	--	--	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Spare	20 A	1					0	0	1	20 A	Spare	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	SPD	--	1	--	0					1	20 A	Spare	38
39	SPD	--	1			--	0			1	20 A	Spare	40
41	SPD	--	1					--	0	1	20 A	Spare	42
			Total Load:	27019 VA		27019 VA		27019 VA					
			Total Amps:	98 A		98 A		98 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	22769 VA	119.53%	27215 VA		
HVAC	26459 VA	90.00%	23813 VA	Total Conn. Load:	81056 VA
Receptacle	31828 VA	65.71%	20914 VA	Total Est. Demand:	71942 VA
				Total Conn.:	97 A
				Total Est. Demand:	87 A

Notes:
NOTE 1: CONNECT WITH 4#12, #12G IN 3/4"C.
NOTE 2: CONNECT WITH 4#10, #12G IN 3/4"C.
NOTE 3: CONNECT WITH 4#6, #10G IN 1"C.

Branch Panel: SPL7

Location: AUTOMOTIVE SERVICES LAB...
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 208/120 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION
SHUNT TRIP MAIN BREAKER.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Motor AUTOMOTIVE SERVICES LAB C115B	20 A	1	10	360					1	20 A	Cord Reel - C115B	2
3	Exterior Receptacle	20 A	1			180	360			1	20 A	Receptacle	4
5	Exhaust Fan - EF-111 RM C115A	20 A	1					345	540	1	20 A	Receptacles West Wall C115B	6
7	Exhaust Fan - EF-105 RM C115B	20 A	1	667	1440					1	20 A	Receptacles STORAGE C115A	8
9	Cord Reels C115B	20 A	1			1080	1127			1	20 A	Overhead Door C115B	10
11	Exhaust Fan - EF-107 RM C115B	20 A	1					667	720	1	20 A	Receptacles Northwest Corner C115B	12
13	Chain Hoist	20 A	1	1840	0					1	20 A	Spare	14
15	Spare	20 A	1			0	1040			2	20 A	Tire Balancer C115B (NOTE 1)	16
17	Vehicle Lift C115B (NOTE 1)	20 A	2					500	1040	--	--	--	18
19	--	--	--	500	1700					2	50 A	Welder #3 (NOTE 2)	20
21	Tire Changer Rm C115B (NOTE 1)	20 A	2			1040	1700			--	--	--	22
23	--	--	--					1040	1700	2	50 A	Welder #5 (NOTE 2)	24
25	Spare	20 A	1	0	1700					--	--	--	26
27	Welder #4 (NOTE 2)	50 A	2			1700	1700			2	50 A	Welder #1 (NOTE 2)	28
29	--	--	--					1700	1700	--	--	--	30
31	Portable Welders - RM C115 (NOTE 2)	50 A	2	1700	792					3	20 A	Exhaust Fan - EF-106 RM C115B (NOTE 1)	32
33	--	--	--			1700	792			--	--	--	34
35	Welder #2 (NOTE 2)	50 A	2					1700	792	--	--	--	36
37	--	--	--	1700	900					3	20 A	Oil/Water Separator (NOTE 3)	38
39	Spare	20 A	1			0	900			--	--	--	40
41	Spare	20 A	1					0	900	--	--	--	42
43	Spare	20 A	1	0	0					1	20 A	Spare	44
45	Spare	20 A	1			0	0			1	20 A	Spare	46
47	Spare	20 A	1					0	0	1	20 A	Spare	48
49	Spare	20 A	1	0	0					1	20 A	Spare	50
51	Spare	20 A	1			0	0			1	20 A	Spare	52
53	Spare	20 A	1					0	0	1	20 A	Spare	54
55	SPD	--	1	--	0					1	20 A	Spare	56
57	SPD	--	1			--	0			1	20 A	Spare	58
59	SPD	--	1					--	0	1	20 A	Spare	60
			Total Load:	13309 VA		13319 VA		13344 VA					
			Total Amps:	111 A		111 A		111 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12172 VA	105.55%	12847 VA		
Receptacle	27800 VA	67.99%	18900 VA	Total Conn. Load:	39972 VA
				Total Est. Demand:	31747 VA
				Total Conn.:	111 A
				Total Est. Demand:	88 A

Notes:
NOTE 1: CONNECT WITH 3#12, #12G IN 3/4"C.
NOTE 2: CONNECT WITH 3#6, #10G IN 1"C.
NOTE 3: CONNECT WITH 4#12, #12G IN 3/4"C.

Branch Panel: CAL1

Location: CULINARY ARTS C124
Supply From:
Mounting: Recessed
Enclosure: Type 1
Volts: 208/120 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10,000
Mains Type: M.C.B
Mains Rating: 100 A
MCB Rating: 100 A

Notes: INTEGRAL SURGE PROTECTION
CONNECT SHUNT TRIP BREAKERS IN PANEL TO HOOD FIRE SUPPRESSION SYSTEM.
SHUNT TRIP MAIN BREAKER.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Recept #1 - South	20 A	1	180	1500					1	20 A	Microwave - E24	2
3	Countertop Food Slicer - E25	20 A	1			360	720			1	20 A	Countertop Mixer - E21	4
5	Receptacles Rm C124B, C124, C124A	20 A	1					720	1000	1	20 A	Ice Maker - E20	6
7	Recept #2 -South	20 A	1	180	180					1	20 A	Recept #2 - West	8
9	East Wall - Receptacles	20 A	1			720	--			1	--	SHUNT TRIP	10
11	Recept #1 - West	20 A	1					180	180	1	20 A	Recept #3 - West	12
13	SHUNT TRIP	--	1	--	--					1	--	SHUNT TRIP	14
15	Fryer - E42	20 A	1			816	540			1	20 A	Reach-in Freezer - E43	16
17	SHUNT TRIP	--	1					--	300	1	20 A	Cooler/Freezer Lights & Cooler Coil	18
19	Recept #3 - South	20 A	1	180	562					2	20 A	Freezer Coil Fans & Defrost - E3.3A/B (NOTE 1)	20
21	Recept #4 - South	20 A	1			180	562			--	--	--	22
23	Freezer Coil Drain Tape - E3.3C	20 A	1					1500	562	2	20 A	Cooler Condenser (Roof) - E3.2 (NOTE 1)	24
25	Countertop Food Processor - E9	20 A	1	840	562					--	--	--	26
27	Instructors Drop Cords 5/6 - DR3	20 A	1			360	180			1	20 A	Hood Lights - E34	28
29	Table 1 Drop Cord #2 - DR3	20 A	1					180	--	1	--	SHUNT TRIP	30
31	Table 2 Drop Cord #2 - DR3	20 A	1	180	360					1	20 A	Instructors Drop Cords 1/2 - DR3	32
33	Table 3 Drop Cords #2 - DR3	20 A	1			180	360			1	20 A	Instructors Drop Cords 3/4 - DR3	34
35	Table 1 Drop Cord #4 - DR3	20 A	1					180	180	1	20 A	Table 1 Drop Cord #1 - DR3	36
37	Table 2 Drop Cord #4 - DR3	20 A	1	180	180					1	20 A	Table 2 Drop Cord #1 - DR3	38
39	Table 3 Drop Cords #4 - DR3	20 A	1			180	180			1	20 A	Table 3 Drop Cords #1 - DR3	40
41	Freezer Condenser (Roof) - E3.4 (NOTE 2)	30 A	2					2496	180	1	20 A	Table 1 Drop Cord #3 - DR3	42
43	--	--	--	2496	180					1	20 A	Table 2 Drop Cord #3 - DR3	44
45	Exhaust Fan - EF-118	20 A	1			230	180			1	20 A	Table 3 Drop Cords #3 - DR3	46
47	Monitors & Camera	20 A	1					540	1145	1	20 A	Water Heater Fans/Controls/Pump	48
49	Roof Equipment Receptacles	20 A	1	360	180					1	20 A	Hood FA Panel - E34.3	50
51	Spare	20 A	1			0	0			1	20 A	Spare	52
53	Spare	20 A	1					0	0	1	20 A	Spare	54
55	SPD	--	1	--	0					1	20 A	Spare	56
57	SPD	--	1			--	0			1	20 A	Spare	58
59	SPD	--	1					--	0	1	20 A	Spare	60
			Total Load:	8299 VA		5748 VA		9343 VA					
			Total Amps:	72 A		48 A		81 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	480 VA	100.00%	480 VA		
Motor	7813 VA	115.97%	9061 VA	Total Conn. Load:	23389 VA
Electric Heat	1500 VA	90.00%	1350 VA	Total Est. Demand:	22849 VA
Elec. Domestic Hot Water	800 VA	70.00%	560 VA	Total Conn.:	65 A
Receptacle	12796 VA	89.07%	11398 VA	Total Est. Demand:	63 A

Notes:
NOTE 1: CONNECT WITH 3#12, #12G IN 3/4"C.
NOTE 2: CONNECT WITH 3#10, #12G IN 3/4"C.

Branch Panel: SPL8

Location: ADVANCED CONSTRUCTION...
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 208/120 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION
SHUNT TRIP MAIN BREAKER.

CKT	Circuit Description	Trip	Poles	A (VA)		B (VA)		C (VA)		Poles	Trip	Circuit Description	CKT
1	Drill Press Rm C106B	20 A	1	180	360					1	20 A	Exterior Receptacles	2
3	Track Saw Rm C106B	20 A	1			180	360			1	20 A	Mech Control Panel - C106B	4
5	Propeller Unit Heaters - PUH-104 - 106	20 A	1					312	600	1	20 A	AHU Lights & Receptacles	6
7	AHU Temp. Control Panels	20 A	1	600	1100					1	20 A	Dust Collector - C106B	8
9	Exhaust Fan - EF-101 RM C106A	20 A	1			667	720			1	20 A	Receptacles Rm C106B	10
11	Cord Reels - Rm C106B	20 A	1					720	900	1	20 A	Receptacles - C101A	12
13	Exhaust Fan - EF-102 RM C101A	20 A	1	1127	1311					1	20 A	Propeller Unit Heaters - PUH-101 - 103	14
15	Exhaust Fan - EF-103 RM C106B	20 A	1			1587	3158			2	40 A	Shaper C106B (NOTE 3)	16
17	Receptacles Rm C106B	20 A	1					900	3158	--	--	--	18
19	AHU Coil Circulators	20 A	1	2001	1127					1	20 A	Overhead Door Rm C106B	20
21	Overhead Door Rm C106B	20 A	1			1127	693			3	20 A	CNC Receptacle C106B (NOTE 1)	22
23	Overhead Door Rm C106B	20 A	1					1127	693	--	--	--	24
25	Spare	20 A	1	0	693					--	--	--	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Spare	20 A	1					0	0	1	20 A	Spare	30
31	Spare	20 A	1	0	0					1	20 A	Spare	32
33	Spare	20 A	1			0	0			1	20 A	Spare	34
35	Spare	20 A	1					0	0	1	20 A	Spare	36
37	SPD	--	1	--	0					1	20 A	Spare	38
39	SPD	--	1			--	0			1	20 A	Spare	40
41	SPD	--	1					--	0	1	20 A	Spare	42
			Total Load:	8499 VA		8492 VA		8410 VA					
			Total Amps:	71 A		71 A		70 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	11466 VA	103.46%	11863 VA		
Receptacle	13936 VA	85.88%	11968 VA	Total Conn. Load:	25402 VA
				Total Est. Demand:	23831 VA
				Total Conn.:	71 A
				Total Est. Demand:	66 A

Notes:
NOTE 1: CONNECT WITH 4#12, #12G IN 3/4"C.
NOTE 2: CONNECT WITH 4#10, #12G IN 3/4"C.
NOTE 3: CONNECT WITH 3#8, #10G IN 3/4"C.

Branch Panel: SPH1

Location: Space C124G
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 480/277 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION

CKT	Circuit Description	Trip	Poles	A (VA)		B (VA)		C (VA)		Poles	Trip	Circuit Description	CKT
1	Exterior Lighting	20 A	1	981	2033					1	20 A	Lighting - Rm C115	2
3	Lighting - Rm C115B	20 A	1			1630	1981			1	20 A	Lighting - Rm C106B	4
5	Lighting - Mezzanine/Corridor/Storage	20 A	1					3597	1900	3	30 A	AHU-101 (NOTE 2)	6
7	AHU-102 (NOTE 1)	20 A	3	1300	1900					--	--	--	8
9	--	--	--			1300	1900			--	--	--	10
11	--	--	--					1300	2067	3	30 A	AHU-103 (NOTE 2)	12
13	Welding Collector (NOTE 4)	100 A	3	14404	2067					--	--	--	14
15	--	--	--			14404	2067			--	--	--	16
17	--	--	--					14404	1667	3	15 A	Electric Ceiling Heater ECLH-101 (NOTE 1)	18
19	Dust Collector DC-101 (NOTE 3)	70 A	3	11080	1667					--	--	--	20
21	--	--	--			11080	1667			--	--	--	22
23	--	--	--					11080	0	1	20 A	Spare	24
25	Spare	20 A	1	0	0					1	20 A	Spare	26
27	Spare	20 A	1			0	0			1	20 A	Spare	28
29	Spare	20 A	1					0	0	1	20 A	Spare	30
31	SPD	--	1	--	0					1	20 A	Spare	32
33	SPD	--	1			--	0			1	20 A	Spare	34
35	SPD	--	1					--	0	1	20 A	Spare	36
			Total Load:	35431 VA		36028 VA		36014 VA					
			Total Amps:	128 A		130 A		130 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	10222 VA	100.00%	10222 VA		
Motor	92252 VA	111.71%	103055 VA	Total Conn. Load:	107474 VA
Other	0 VA	0.00%	0 VA	Total Est. Demand:	117777 VA
Electric Heat	5000 VA	90.00%	4500 VA	Total Conn.:	129 A
				Total Est. Demand:	142 A

Notes:
NOTE 1: CONNECT WITH 3#12, #12G IN 3/4"C.
NOTE 2: CONNECT WITH 3#10, #10G IN 3/4"C.
NOTE 3: CONNECT WITH 3#4, #8G IN 1-1/4"C.
NOTE 4: CONNECT WITH 3#3, #8G IN 1-1/2"C.

Branch Panel: SPL6

Location: ADVANCED AUTOMOTIVE...
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 208/120 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION
SHUNT TRIP MAIN BREAKER.

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Cord Reel C115	20 A	1	360	540					1	20 A	Exterior Receptacles	2
3	Cord Reel - C115	20 A	1			360	900			1	20 A	Receptacles - RM C115	4
5	Spray Booth	20 A	1					500	720	1	20 A	Receptacles Room C115, C101H	6
7	Exhaust Fans - EF-113 & 114	20 A	1	1344	1840					1	20 A	Chain Hoist	8
9	Cord Reels C115	20 A	1			1080	180			1	20 A	Welding Booth Acc. Recept. Rm C115	10
11	Overhead Door C115	20 A	1					1127	1040	2	20 A	Tire Changer Rm C115 (NOTE 1)	12
13	Tire Balancer Rm C115 (NOTE 1)	20 A	2	1040	1040					--	--	--	14
15	--	--	--			1040	1373			2	20 A	Vehicle Lift C115 (NOTE 1)	16
17	Welding Booth Acc. Recept. Rm C115	20 A	1					180	1373	--	--	--	18
19	Welding Booth Acc. Recept. Rm C115	20 A	1	180	180					1	20 A	Sandblast Cabinet Rm C115	20
21	Vehicle Lift C115 (NOTE 1)	20 A	2			1373	180			1	20 A	Welding Booth Acc. Recept. Rm C115	22
23	--	--	--					1373	180	1	20 A	Welding Booth Acc. Recept. Rm C115	24
25	Air Compressor - RM C115	20 A	1	180	1373					2	20 A	Vehicle Lift C115 (NOTE 1)	26
27	Drill Press Rm C115	20 A	1			180	1373			--	--	--	28
29	Grinder Rm C115	20 A	1					180	1373	2	20 A	Vehicle Lift C115 (NOTE 1)	30
31	Spare	20 A	1	0	1373					--	--	--	32
33	Vehicle Lift C115 (NOTE 1)	20 A	2			1373	900			3	20 A	Exhaust Fan - EF-112 RM C115 (NOTE 1)	34
35	--	--	--					1373	900	--	--	--	36
37	Spare	20 A	1	0	900					--	--	--	38
39	Spare	20 A	1			0	0			1	20 A	Spare	40
41	Spare	20 A	1					0	0	1	20 A	Spare	42
43	Spare	20 A	1	0	0					1	20 A	Spare	44
45	Spare	20 A	1			0	0			1	20 A	Spare	46
47	Spare	20 A	1					0	0	1	20 A	Spare	48
49	Spare	20 A	1	0	0					1	20 A	Spare	50
51	Spare	20 A	1			0	0			1	20 A	Spare	52
53	Spare	20 A	1					0	0	1	20 A	Spare	54
55	SPD	--	1	--	0					1	20 A	Spare	56
57	SPD	--	1			--	0			1	20 A	Spare	58
59	SPD	--	1					--	0	1	20 A	Spare	60
			Total Load:	10350 VA		10312 VA		10319 VA					
			Total Amps:	86 A		86 A		86 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	22541 VA	103.05%	23228 VA		
Receptacle	8440 VA	100.00%	8440 VA	Total Conn. Load:	30981 VA
				Total Est. Demand:	31668 VA
				Total Conn.:	86 A
				Total Est. Demand:	88 A

Notes:
NOTE 1: CONNECT WITH 3#12, #12G IN 3/4"C.

Branch Panel: SPL9

Location: ADVANCED MFG. CLEAN LAB...
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 208/120 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type: M.C.B
Mains Rating: 200 A
MCB Rating: 200 A

Notes: INTEGRAL SURGE PROTECTION

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacles Rm C109	20 A	1	720	360					1	20 A	Receptacles Rm C109	2
3	Receptacles Rm C109	20 A	1			720	720			1	20 A	Receptacles Rm C109	4
5	Desk & Projector Rm C109	20 A	1					810	720	1	20 A	Receptacles Rm C109	6
7	Receptacles Rm C109	20 A	1	720	720					1	20 A	Receptacles Rm C109	8
9	Receptacles Rm C110	20 A	1			720	720			1	20 A	Receptacles Rm C110	10
11	Receptacles Rm C110	20 A	1					720	720	1	20 A	Receptacles Rm C110	12
13	Receptacles Rm C110	20 A	1	720	720					1	20 A	Receptacles Rm C110	14
15	Receptacles Rm C110	20 A	1			720	810			1	20 A	Desk & Projector RM C110	16
17	Receptacles Rm C114	20 A	1					720	720	1	20 A	Receptacles Rm C114	18
19	Receptacles Rm C114	20 A	1	720	720					1	20 A	Receptacles Rm C114	20
21	Receptacles Rm C114	20 A	1			720	900			1	20 A	Receptacles Rm C114, C116, C116A	22
23	Desk and Projector C114	20 A	1					810	360	1	20 A	Cord Reel #1 - RM C114	24
25	Laser Receptacle C116A (NOTE 1)	20 A	3	693	693					3	20 A	Laser Cutter Receptacle C116A (NOTE 1)	26
27	--	--	--			693	693			--	--	--	28
29	--	--	--					693	693	--	--	--	30
31	Plotter Rm C116A	20 A	1	180	667					1	20 A	Exhaust Fan - EF-116 RM C116A	32
33	Drill Press Rm C116A	20 A	1			180	180			1	20 A	Bandsaw Rm C116A	34
35	3D Printers Rm C116A	20 A	1					720	1500	1	20 A	Copy Machine Rm C116A	36
37	Desktop Plotter Rm C116A	20 A	1	180	360					1	20 A	Cord Reel #1 - RM C109	38
39	Cord Reel #2 - RM C109	20 A	1			360	360			1	20 A	Cord Reel #3 - RM C109	40
41	Cord Reel #1 - RM C110	20 A	1					360	360	1	20 A	Cord Reel #2 - RM C110	42
43	Cord Reel #3 - RM C110	20 A	1	360	360					1	20 A	Cord Reel #2 - RM C114	44
45	Cord Reel #3 - RM C114	20 A	1			360	180			1	20 A	Tech Rack - C109	46
47	Cord Reel #1 - C107	20 A	1					360	180	1	20 A	Tech Rack - C110	48
49	Cord Reel #2 - C107	20 A	1	540	180					1	20 A	Tech Rack - C114	50
51	Cord Reel #3 - C107	20 A	1			360	360			1	20 A	Cord Reel #4 - C107	52
53	Receptacles Rm C107	20 A	1					900	1080	1	20 A	Receptacles Rm C106B	54
55	Receptacles Rm C106B	20 A	1	540	180					1	20 A	Tech Rack - C106B	56
57	Tech Rack - C115B	20 A	1			180	1080			1	20 A	Receptacles C115B	58
59	Receptacles Room C115, C115C	20 A	1					1080	180	1	20 A	Tech Rack - C115	60
61	Door Power Supplies	20 A	1	350	630					1	20 A	Tech Rack & Projector - C107	62
63	Spare	20 A	1			0	0			1	20 A	Spare	64
65	Spare	20 A	1					0	0	1	20 A	Spare	66
67	Spare	20 A	1	0	0					1	20 A	Spare	68
69	Spare	20 A	1			0	0			1	20 A	Spare	70
71	Spare	20 A	1					0	0	1	20 A	Spare	72
73	Spare	20 A	1	0	0					1	20 A	Spare	74
75	Spare	20 A	1			0	0			1	20 A	Spare	76
77	Spare	20 A	1					0	0	1	20 A	Spare	78
79	SPD	--	1	--	0					1	20 A	Spare	80
81	SPD	--	1			--	0			1	20 A	Spare	82
83	SPD	--	1					--	0	1	20 A	Spare	84
			Total Load:	11314 VA		11017 VA		13687 VA					
			Total Amps:	95 A		92 A		114 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	5347 VA	103.12%	5514 VA		
Receptacle	30670 VA	66.30%	20335 VA	Total Conn. Load:	36017 VA
				Total Est. Demand:	25849 VA
				Total Conn.:	100 A
				Total Est. Demand:	72 A

Notes:
NOTE 1: CONNECT WITH 4#12, #12G IN 3/4"C.

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204

CONSULTANT

CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER
No. PE 11600305

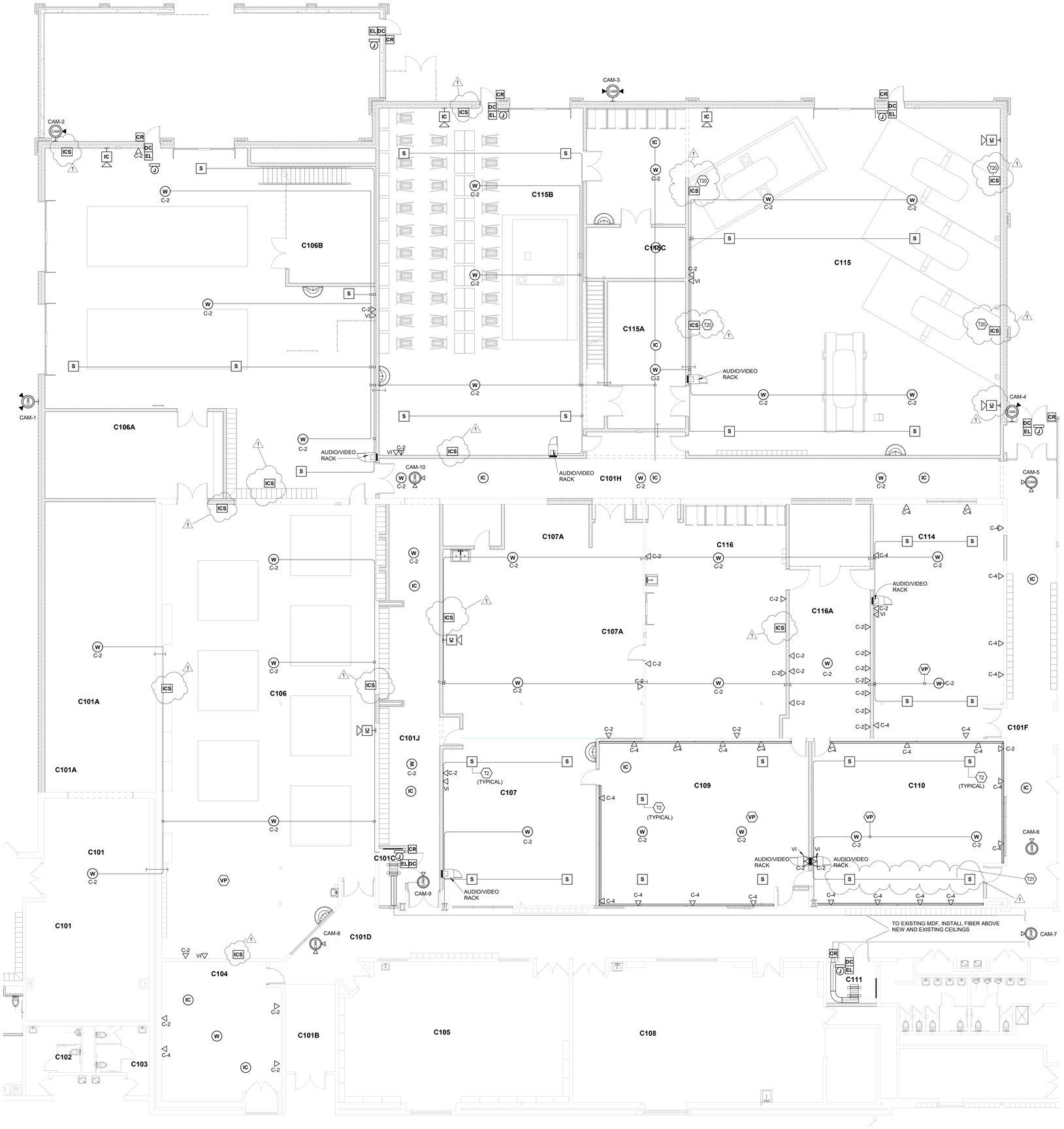
DRAWN BY: AMN
PROJECT NUMBER: 221165.01
PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	09/21/2023

PANELBOARD SCHEDULES

E8.01

\\data1\citrixprofiles$\aniemann\upm_profile\documents\2021_ELEC_221165.01_aniemannMFNSN.rvt
9/20/2023 9:35:16 AM



ROOM LEGEND - FIRST FLOOR UNIT C

ROOM NO.	ROOM NAME	AREA (SF)
C100	LOADING / RECEIVING	1202 SF
C100A	BREAK ROOM	640 SF
C100B	ELECTRICAL	825 SF
C100C	LAUNDRY	157 SF
C100D	TOILET	52 SF
C100E	TOILET	52 SF
C100F	SECURE STORAGE	91 SF
C100G	OFFICE	132 SF
C100H	KITCHEN	177 SF
C101	STORAGE	1015 SF
C101A	STORAGE	1287 SF
C101B	CORRIDOR	174 SF
C101C	MEDIA DATA	61 SF
C101D	YEARBOOK CLASSROOM / LAB	Not Placed
C101D	CORRIDOR	1860 SF
C101E	CORRIDOR	177 SF
C101F	CORRIDOR	976 SF
C101G	JOURNALISM CLASSROOM	Not Placed
C101G	VESTIBULE	70 SF
C101H	OFFICE	156 SF
C101H	CORRIDOR	992 SF
C101J	CORRIDOR	832 SF
C102	MENS TOILET	124 SF
C103	WOMENS TOILET	119 SF
C104	OFFICE	638 SF
C105	ELECTRONICS / PHYSICS	1251 SF
C106	CONSTRUCTION TRADES LAB	3699 SF
C106A	STORAGE	622 SF
C106B	ADVANCED CONSTRUCTION TRADES LAB	3867 SF
C107	CLASSROOM	1015 SF
C107A	ADVANCED MFG. ARTISAN LAB	1695 SF
C107B	FINISHING ROOM	97 SF
C108	GRAPHIC COMMUNICATIONS	1385 SF
C109	CAD LAB	1347 SF
C110	CAD LAB	1217 SF
C111	MEDIA DATA	83 SF
C111A	STORAGE	101 SF
C112	GIRLS	188 SF
C113	BOYS	163 SF
C114	CAD LAB	1188 SF
C115	ADVANCED AUTOMOTIVE SERVICES LAB	4790 SF
C115A	STORAGE	458 SF
C115B	AUTOMOTIVE SERVICES LAB	2828 SF
C115C	FINISHING ROOM	201 SF
C116	ADVANCED MFG. INNOVATION LAB	1278 SF
C116A	ADVANCED MFG. CLEAN LAB	762 SF
C117	CERAMIC CLASSROOM / LAB	1387 SF
C117A	STORAGE	145 SF
C117B	STORAGE / MATERIALS	150 SF
C118	INDEPENDENT STUDY / COMMERICAL ART	1425 SF
C119	PHOTOGRAPHY	992 SF
C119A	DARKROOM	309 SF
C120	COMPUTER ART ROOM	442 SF
C122	TEACHERS WORKROOM	672 SF
C122A	DEPT. HEAD OFFICE	104 SF
C123	CERAMICS CLASSROOM / LAB	1205 SF
C123A	STORAGE	145 SF
C123B	STORAGE / MATERIALS	150 SF
C124	CULINARY ARTS	1299 SF
C124A	CLOSET	39 SF
C124B	DRY GOODS	154 SF
C124C	WALK-IN	129 SF
C125	DRAWING CLASSROOM / LAB	1173 SF
C126	DRAWING CLASSROOM / LAB	1182 SF
C127	DRAWING CLASSROOM / LAB	1182 SF
C128	JEWELRY CLASSROOM / LAB	953 SF
C129	PHOTOGRAPHY	1023 SF
C129A	DARKROOM	232 SF
C131	CORRIDOR	1363 SF
C131A	STORAGE	166 SF
C131B	MEDIA DATA	60 SF
C131C	CORRIDOR	476 SF
C132	STUDIO	244 SF
C133	PODCAST	144 SF
C134	PASSAGE	36 SF
C135	STUDIO	63 SF
C136	STORAGE	105 SF
C136A	COMPUTER LAB	201 SF
C137	STUDIO	91 SF
C138	STUDIO	93 SF
C138A	PASSAGE	127 SF
C138B	STUDIO	54 SF
C138C	STUDIO	52 SF
C138D	STUDIO	52 SF
C138E	STUDIO	52 SF
C139	CLASSROOM	984 SF
C141	TV CLASSROOM	819 SF
C141A	STUDIO B	165 SF
C141B	OFFICE	91 SF
C142	STUDIO B	196 SF
C142A	ENGINEERING	114 SF
C143	STUDIO A	1026 SF
C144	TV CONTROL	251 SF
C144A	EQUIPMENT ROOM	120 SF
C145	COMPUTER CLASSROOM	851 SF
C145A	SECURE CLOSET	17 SF
C146	COMPUTER SERVER STORAGE	303 SF
C147	JOURNALISM CLASSROOM	1468 SF
C147A	OFFICE	136 SF
C148	ELECTRICAL ROOM	143 SF
C149	YEARBOOK CLASSROOM / LAB	1350 SF
C149A	PODCAST	147 SF
C150	TV-CPU LAB	714 SF
C151	MECHANICAL	5687 SF
C152	-	927 SF

TECHNOLOGY PLAN NOTES

T2 ROUTE CABLING IN CONDUIT PARALLEL OR PERPENDICULAR TO BAR JOISTS. ALL CONDUIT AND BOXES SHALL BE INSTALLED SO THAT EQUIPMENT IS NO LOWER THAN BOTTOM CHORD OF TRUSS.

T20 SEE DETAIL 2/T1.03 FOR INTERCOM PAGING STROBE CABLING DETAIL.

T21 ALL CEILING CONDUIT IS PART OF ADDENDUM

CAMERA SCHEDULE

NUMBER	ROOM	MODEL	LENS	RESOLUTION	MOUNTING	NOTES
CAM-1	EXTERIOR	XND-8082RV		6MP	WALL	
CAM-2	EXTERIOR	XND-8082RV		6MP	WALL	
CAM-3	EXTERIOR	XND-8082RV		6MP	WALL	
CAM-4	EXTERIOR	XND-8082RV		6MP	WALL	
CAM-5	C101F	XND-8082RV		6MP	CEILING	
CAM-6	C101F	QND-8080R		5MP	CEILING	
CAM-7	C101D	QND-8080R		5MP	CEILING	
CAM-8	C101D	PNM-900VD		2X5MP	CEILING	
CAM-9	C101J	QND-8080R		5MP	CEILING	
CAM-10	C101H	PNM-12082RVD		2X6MP	CEILING	
CAM-11	C124	AG-UX90 Pro 4K UHD			CEILING	PANASONIC
CAM-12	RADIO HALL	PNM-900VD		2X5MP	CEILING	
CAM-13	RADIO HALL	QND-8080R		5MP	CEILING	

CARMEL HIGH SCHOOL POLYTECHNIC ADDITION AND RENOVATION

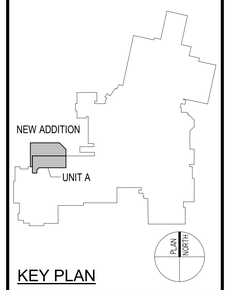
520 EAST MAIN STREET
CARMEL, IN 46032

CARMEL CLAY SCHOOLS

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM
350 E. NEW YORK ST. SUITE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: JJR

PROJECT NUMBER: 221165.01

PROJECT ISSUE DATE: 08/31/2023

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	9/21/2023

UNIT A - FIRST FLOOR TECHNOLOGY PLAN

T3.01

C:\Users\mgedanz\Documents\2021_TECH_221165.01_jrsgedanz.rvt
9/20/2023 12:37:06 PM