

Addendum 3

Issued March 14, 2025

The following information changes the competitive process documents issued on Wednesday, February 19, 2025.

GENERAL INFORMATION

Item 1: See attached Addendum 2, AMRA J Architect Inc, March 13, 2025 (16 pages).

End of Addendum 3

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905-920-5121

Project No.: 24-22

Date: March 13, 2025

Project: Hamilton-Wentworth District School Board
REFERENCE NO. 2025-107-P02082
Hess Street Elementary School Ground Floor Ceiling Replacement and
Lobby / Classroom Renovation Project

The following information supplements and/or supersedes the bid documents issued on February 19, 2025.

This Addendum forms part of the contract documents and is to be read, interpreted, and coordinated with all other parts. The cost of all contained herein is to be included in the contract sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above-named project to the extent referenced and shall become part thereof. Acknowledge receipt of this Addendum by inserting its number and date on the Tender Form. Failure to do so may subject the bidder to disqualification.

1. INTENT

- 1.1. This Addendum is issued prior to receipt of Bid to provide clarifications and revisions to the Drawings and Specifications. The following additional instructions shall apply to and govern the Bid Documents.

2. QUESTIONS AND ANSWERS

Q1. Please confirm the substantial & total completion date for Gym RTU Installation and commissioning, project schedule item 1.5.f mentioned Anticipated Construction Commencement is Friday, June 27, 2025. Item 1.5.g mentioned substantial performance for Gym RTU – Installation and commissioning is Friday, October 3, 2025, (approx. 26 weeks from shop drawing approval). if we have 26 weeks after shop drawings approval for Gym RTU – Installation and commissioning, then substantial completion coming around January/February 2026, please advise.

R1. *Shop drawings for the RTU are to be approved within 2 weeks from contract award and order to be placed immediately after shop drawings approval in early April.*

Addendum #2
Hess Street Elementary School Ground Floor Ceiling Replacement and Lobby / Classroom
Renovation Project

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Q2. There was a mention of adding a sink and a countertop in classroom 112-A in the addendum. But it wasn't included in the addendum#1. Can you please confirm if we need to include in pricing? If yes, please provide specifications.

R2. Refer to the attached sketches SK-01 AD#2 and E&M Addendum#2 and Specification 06 40 00 Architectural Woodwork (7 pages)

Q3. Please confirm the scope (where and what floors etc) if required for spray fireproofing and specification as well, thanks

R3. There is no sprayed fireproofing on this project.

3. MECHANICAL AND ELECTRICAL

Attached is Addendum # 2 (5 pages) prepared by E & M Engineering Inc.

END OF ADDENDUM NO 2

PART 1 - GENERAL

1.1. SUMMARY

1.1.1. Section Includes: Provide architectural woodwork including but not limited to following:

1.1.1.1. Wood casework.

1.2. REFERENCES

1.2.1. Abbreviations and Acronyms:

1.2.1.1. AWMAC/WI: Architectural Woodwork Manufacturers Association of Canada/Woodwork Institute; www.awmac.com.

1.2.1.2. NAAWS: North American Architectural Woodwork Standards

1.2.2. Reference Standards:

1.2.2.1. ANSI/BHMA A156.9-2020 – Cabinet Hardware

1.2.2.2. ANSI/BHMA A156.18-2020 - Materials And Finishes

1.2.2.3. ANSI/NPA A208.1-2022 - Particleboard

1.2.2.4. ANSI/NEMA LD 3-05 - High-Pressure Decorative Laminates

1.2.2.5. CAN/ULC-S102-18-REV1 - Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies

1.2.2.6. CSA O121-17(R2022) - Douglas Fir Plywood

1.2.2.7. CSA O151-09(R2022), Canadian Softwood Plywood

1.3. ADMINISTRATIVE REQUIREMENTS

1.3.1. Preinstallation Meetings:

1.3.1.1. Conduct a pre-installation meeting in accordance with Division 01.

1.3.1.2. The following minimum items shall be reviewed at the pre-installation meeting:

1.3.1.2.1. Verify project requirements.

1.3.1.2.2. Review installation conditions under which work is to be performed including possible site concerns.

1.3.1.2.3. Review locations of backing required for millwork installation as shown on millwork shop drawings.

1.3.1.2.4. Review method of attachment for backing to wall system as shown on architectural drawings.

1.3.1.2.5. Coordination requirements with other subtrades.

1.3.2. Coordination:

1.3.2.1. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that cabinets can be supported and installed as indicated.

1.4. SUBMITTALS

1.4.1. Shop Drawings:

1.4.1.1. Submit Shop Drawings for work of this Section in accordance with Section 1 of NAAWS.

- 1.4.1.2. On casework and countertop elevations show location of backing required for attachment within walls.
- 1.4.1.3. Clearly indicate material being supplied and show connections, attachments, reinforcing, anchorage and location of exposed fastenings.
- 1.4.1.4. Clearly indicate material being supplied.
- 1.4.2. Samples: Submit samples in following sizes:
 - 1.4.2.1. Minimum 300 mm (12") long x 300 mm (12") wide x 25 mm (1") thick solid wood.
 - 1.4.2.2. Minimum 300 mm (12") square and of specified thickness, veneer mounted on 19 mm (3/4") particle board and finished as specified.
 - 1.4.2.3. Each type of hardware.
 - 1.4.2.4. Each plastic laminate in manufacturer's standard chip size.
 - 1.4.2.5. Minimum 300 mm (12") square x 25 mm (1") thick counter top materials.

1.5. QUALITY ASSURANCE

- 1.5.1. Qualifications:
 - 1.5.1.1. Provide work of this Section in accordance with NAAWS produced by AWMAC/WI, except as specified otherwise herein and by reference are hereby made a part of this Section. Ensure any reference to grades and terminology in this Section is as defined in NAAWS.
 - 1.5.1.2. Requirements of this Section govern and modify NAAWS.
 - 1.5.1.3. Woodwork Manufacturer Qualifications:
 - 1.5.1.3.1. Minimum 5 years of production experience similar to this project, whose qualifications indicate ability to comply with requirements of this Section.
 - 1.5.1.3.2. Minimum one project in past 5 years where value of woodwork within 20 percent of cost of woodwork for this Project.
 - 1.5.1.4. Installers:
 - 1.5.1.4.1. Provide work of this Section executed by competent installers with minimum 5 years experience in the application of Products, systems and assemblies specified.

1.6. DELIVERY, STORAGE AND HANDLING

- 1.6.1. Delivery and Acceptance Requirements:
 - 1.6.1.1. Do not deliver finished Products during rainy or damp weather.
 - 1.6.1.2. Do not deliver work of this Section until building and storage areas are sufficiently dry so Products will not be damaged by excessive changes in moisture content.
 - 1.6.1.3. Deliver Products of this Section in accordance with Section 2, Rule 2.4.4.1 of NAAWS.
 - 1.6.1.4. Do not deliver damaged Products.
- 1.6.2. Storage and Handling Requirements:
 - 1.6.2.1. Store and handle Products of this Section in accordance with Section 2, Rules 2.4.4.2 and 2.4.4.3 of NAAWS.
 - 1.6.2.2. Cover finished plastic laminate surfaces and varnished surfaces with heavy kraft paper and put in cartons for protection. Protect installed plastic laminate surfaces by acceptable means. Do not remove protective covers until immediately prior to final cleaning.

- 1.6.2.3. Maintain indoor temperature and humidity within range recommended by AWMAC's Standards (NAAWS).

1.7. WARRANTY

- 1.7.1. Manufacturer Warranty: Warrant work of this Section for a period of 2 years against defects and/or deficiencies in accordance with General Conditions of the Contract. Promptly correct any defects or deficiencies which become apparent within warranty period, to satisfaction of Owner.
- 1.7.2. Defects include but are not limited to, delamination of plastic laminate, opening of seams, warpage and extensive colour fading.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

- 2.1.1. High Pressure, Paper Base, Decorative Laminates (PL):
- 2.1.1.1. Products of following manufacturers are acceptable subject to conformance to requirements of Drawings, Schedules and Specifications:
- 2.1.1.1.1. Arborite; www.arborite.com
 - 2.1.1.1.2. Formica Inc.; www.formica.com
 - 2.1.1.1.3. Industrial Laminates/Norplex, Inc.; www.micarta.com
 - 2.1.1.1.4. Nevamar Company, LLC; www.nevamar.com
 - 2.1.1.1.5. Pionite Decorative Laminates; www.pionite.com
 - 2.1.1.1.6. Wilsonart Canada; www.wilsonart.com

2.2. PERFORMANCE/DESIGN CRITERIA

- 2.2.1. Work in conformance with the Architectural Woodwork Manufacturer's Association of Canada Quality Standards Manual 4.0
- 2.2.2. Materials, methods, construction and installation to be in accordance with AWMAC Standards for Custom Grade, except as modified in these specifications.
- 2.2.3. Ensure millwork (e.g. countertops, wall cabinets, etc.) are capable of supporting structural loads without deflection in accordance with "casework integrity" in "Appendix" of NAAWS.

2.3. MATERIALS

- 2.3.1. Framing Lumber: Select Merchantable Western White Spruce, kiln dried, or sound material of any species may be used for concealed members, free from sap, shakes, knots, splits and other defects.
- 2.3.2. Architectural Lumber: Clear, straight, kiln dried, Select Yellow Birch for fitments and door jambs. Provide kiln dried lumber to 7% moisture content, free from blemishes that would be apparent after finish is applied.

2.4. PANEL MATERIALS

- 2.4.1. Panel material schedule; except where indicated or specified otherwise:
- 2.4.1.1. Thickness: 19 mm (3/4"), minimum.
 - 2.4.1.2. Maximum moisture content at time of installation: 10% to 12%.
- 2.4.2. Plywood:
- 2.4.2.1. Backing grade, veneer core:
 - 2.4.2.1.1. Softwood plywood to CSA O151

2.4.2.1.2. Douglas Fir plywood to CSA O121.

2.4.3. Particleboard; medium density:

2.4.3.1. Industrial grade, medium density particleboard core of minimum 720 kg/m³ (45 lbs/cu ft) density conforming to ANSI/NPA A208.1, Grade R, sanded both sides.

2.4.4. Particle board; fire retardant:

2.4.4.1. To ANSI A208.1-1999, FSC certified, no added urea-formaldehyde used in composition, and 100% recovered and recycled fibre and as follows:

2.4.4.1.1. Flame Spread: Class A Flame Spread 25 or under, to CAN/ULC-S102-03.

2.5. PLASTIC AND COMPOSITE MATERIALS

2.5.1. Melamine:

2.5.1.1. Conforming to ANSI A208.1, grade M3, 19 mm (3/4") minimum thick, complete with matching non-yellowing edge trim, unless otherwise noted.

2.5.2. High Pressure, Paper Base, Decorative Laminates (PL):

2.5.2.1. To ANSI/NEMA LD 3, classified as general purpose grade (HGS) (both horizontal and vertical trades) and post forming grade (HGP) (both horizontal and vertical grades).

2.5.2.2. Provide types and thicknesses conforming to ANSI/NEMA LD 3 and Section 4, "Table: 4-046 – HPDL TYPES and Minimum Performance Requirements" of NAAWS.

2.5.2.3. Plastic Laminate Adhesive: Provide in accordance with Section 4, Rule 4.4.4.6.4 and "adhesive usage guidelines" in "Appendix" of NAAWS.

2.6. FASTENERS AND ADHESIVES

2.6.1. Fasteners:

2.6.1.1. Wood screws: FF-S-111D Amendment 1 (1989), type, size, material and finish as required for the condition of use.

2.6.1.2. Nails: FED FF-N-105, type, size material and finish as required for the condition of use.

2.6.1.3. Anchors: Type, size material and finish as required for the condition of use.

2.6.1.4. Fastening devices shall be set or countersunk flush with surface of framing member. No exposed fasteners permitted. Exposed fasteners shall be flat head hex socket cap screws and matching joint connector sex bolts (also known as Chicago screws or post and screw) by Murakoshi, distributed by Richelieu, Spaenaur Joint Connector bolt with decorative head, hex drive series.

2.6.1.5. At butt joints in railing caps and counter surfaces, employ assembling bolts to ensure tight structural joint.

2.6.2. Adhesives: Moisture resistant complying with FS MMM-A-125, Type II, or FED MMM-A- 188, Type I, II or III; type best suited for the purpose.

2.7. HARDWARE

2.7.1. Casework hardware: to ANSI/BHMA A156.9-2003.

2.7.1.1. Shallow Drawer Slides: "1375" by Knappe & Vogt Manufacturing Company; www.knappeandvogt.com or "3832" by Accuride; www accuride.com, full extension type with a capacity of 34 kg (75 lb).

2.7.1.2. Deep Drawer Slides: "1485" by Knappe & Vogt Manufacturing Company or "4005" by Accuride, full extension type with a capacity of 68 kg (150 lb).

- 2.7.1.3. Recessed Shelf Pilasters, Standards and Clips: Provide "KV255" pilaster and "KV256" clip supports by Knappe & Vogt Manufacturing Company; www.knappeandvogt.com or "120-10 Series" pilasters and "1903-2G" clip supports by Richelieu Hardware Ltd.; www.richelieu.com.
- 2.7.1.4. Concealed Hinges: "Euromat Topsafe" by Hettich Canada L.P.; www.hettich.com, minimum 170 degree opening angle and is self closing. Supply manufacturer's recommended number of hinges to suit door size and thickness.
- 2.7.1.5. Wire Pulls (Doors and Drawers): "CBH 220" by Canadian Builders Hardware Mfg. Inc.; www.cbhmf.com, 100 mm (4").
- 2.7.1.6. Knobs (Doors and Drawers): "BK.K771.PB" by Belwith Keeler; www.belwithkeeler.net, brass in 32 mm (1-1/4") diameter.
- 2.7.1.7. Door Locks: Keyed cylinder cam lock type C4 (satin brass, clear coated on brass base) finish.
- 2.7.1.8. Drawer Locks: "0738 Drawer Lock" by CCL Security Products; www.cclsecurity.com, C4 (satin brass, clear coated on brass base) finish.
- 2.7.1.9. Plastic Hooks: "HC.H 520" by Hewi; www.hewi.com, 100 mm (4") in size.
- 2.7.1.10. Closet Coat Rods: "KV660" 27 mm (1-1/16") od stainless steel rod complete with "KV734" and "KV735" polished chrome flanges by Knappe & Vogt Manufacturing Company; www.knappeandvogt.com. Size rods to suit closet widths.
- 2.7.1.11. Grommets: "Round Grommets" by Richelieu Hardware Ltd.; www.richelieu.com, 63 mm (2-1/2") drilling diameter, black in colour. Provide 4 grommets per workstation and locate as directed by Province.
- 2.7.2. Hardware finish:
 - 2.7.2.1. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18-2006 for BHMA finish number indicated.
 - 2.7.2.1.1. Dark, Oxidized, Satin Bronze, Oil Rubbed: BHMA 613 for bronze base; BHMA 640 for steel base.
 - 2.7.2.1.2. Bright Brass, Clear Coated: BHMA 605 for brass base; BHMA 632 for steel base.
 - 2.7.2.1.3. Satin Brass, Blackened, Bright Relieved, Clear Coated: BHMA 610 for brass base; BHMA 636 for steel base.
 - 2.7.2.1.4. Satin Chromium Plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base.
 - 2.7.2.1.5. Bright Chromium Plated: BHMA 625 for brass or bronze base; BHMA 651 for steel base.
 - 2.7.2.1.6. Satin Stainless Steel: BHMA 630.
 - 2.7.2.2. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9-2003.
- 2.8. FABRICATION**
 - 2.8.1. General:
 - 2.8.1.1. Materials and methods of construction to meet requirements of AWMAC's Standards (NAAWS) for Custom grade.
 - 2.8.1.2. Fabricate joints accurately fitted, coped where possible and well glued up. Fabricate joints mitred to perfect fit and alignments carefully matched.

- 2.8.1.3. Fabricate finished woodwork in 1 piece where possible. Fabricate running members in the longest lengths obtainable.
- 2.8.1.4. Fabricate to conceal fastenings.
- 2.8.1.5. Provide plastic laminate work in shop where practical and/or possible.
- 2.8.1.6. Fabricate exposed gables to match the required exposed finishes.
- 2.8.2. Plastic Laminate Millwork:
 - 2.8.2.1. Construction Type: Frameless.
 - 2.8.2.2. Cabinet and door interface: flush overlay.
 - 2.8.2.3. Exposed Surfaces HPDL, color, finish and pattern direction color and pattern as selected by Consultant and meeting requirements of AWMAC's Standards (NAAWS) for Grade specified.
 - 2.8.2.4. Exposed interior surfaces: LPDL of a color and pattern as selected by Consultant.
 - 2.8.2.5. Semi-exposed surfaces: LPDL of a color and pattern as selected by Consultant.
 - 2.8.2.6. Edgeband: PVC
- 2.8.3. Drawers:
 - 2.8.3.1. Sides: Particle board with LPDL surfaces.
 - 2.8.3.2. Bottoms: MDF with melamine surfaces.
 - 2.8.3.3. Joinery: Meeting requirements of AWMAC's Standards (NAAWS) for Grade specified.
- 2.8.4. Countertops:
 - 2.8.4.1. Fabricate and assemble countertops and splashbacks in shop to profiles and lengths required.
 - 2.8.4.2. Fabricate cutouts for services penetrations as required.
 - 2.8.4.3. Verify governing dimensions before fabricating items which abut wall surfaces.
 - 2.8.4.4. Provide cutouts required and round internal corners, chamfer edges and seal exposed core.
 - 2.8.4.5. Provide sidesplashes at abutting ends of counters and at adjoining walls, unless otherwise indicated.
 - 2.8.4.6. Provide a 6 mm (1/4") drip groove approximately 13 mm (1/2") in from the underside edge.
 - 2.8.4.7. Laminated Plastic Countertops:
 - 2.8.4.7.1. Core material: Water resistant particle board.
 - 2.8.4.7.2. Back splashes: height and profile as shown on drawings.
 - 2.8.4.7.3. Front edges: As shown on plans.
 - 2.8.4.8. Solid Surface Countertops:
 - 2.8.4.8.1. Back splashes: height and profile as shown on drawings.
 - 2.8.4.8.2. Front edges: As shown on plans.
- 2.8.5. Exposed wood construction:
 - 2.8.5.1. Fabricate joints carefully matched for grain and colour.
 - 2.8.5.2. Fabricate millwork with slow fed machines free from sticker and/or sander markings, with sections and moulding work cut accurately to profiles.

- 2.8.5.3. Sandpaper woodwork, smooth removing burrs, feathers, sleeves, raised grain and sharp arises and leave exposed surfaces perfectly clean and smooth ready for finishing.
- 2.8.5.4. Provide edges noted to be solid, as minimum 6 mm (1/4") thick wood to match exposed veneer, glued to core prior to the application of face veneers.

PART 3 - EXECUTION

3.1. EXAMINATION

- 3.1.1. Verification of Conditions: Verify actual site dimensions and location of adjacent materials prior to commencing work. Notify Consultant in writing of any conditions which would be detrimental to the installation.
- 3.1.2. Evaluation and Assessment: Commencement of work implies acceptance of previously completed work.

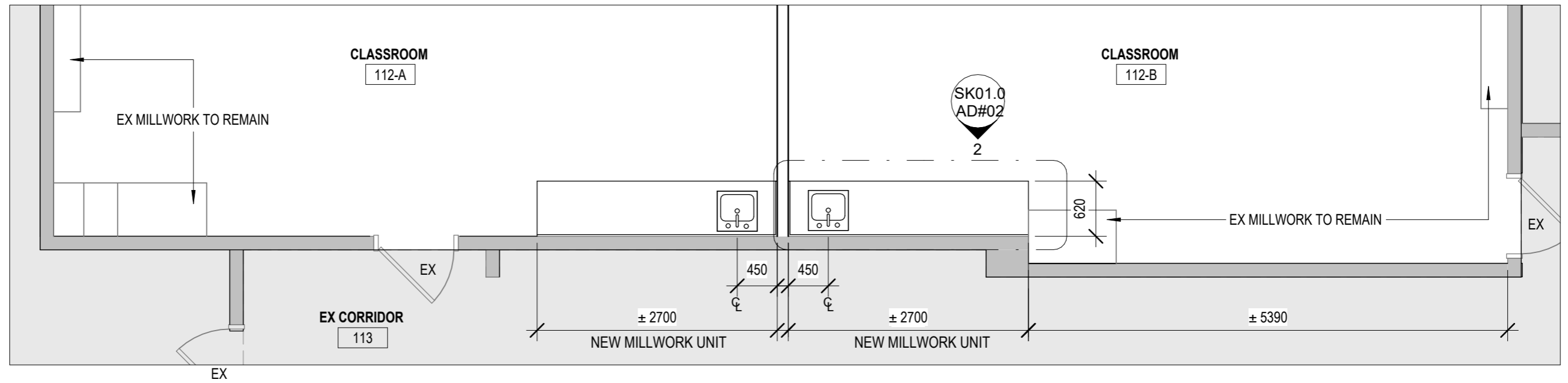
3.2. INSTALLATION

- 3.2.1. Install work of this Section in accordance with appropriate Section of NAAWS.
- 3.2.2. Provide work of this Section true and straight and securely fastened in place.
- 3.2.3. Mitre exposed corners.
- 3.2.4. Provide plastic laminate countertops plumb and true, neatly scribed to adjoining surfaces.
- 3.2.5. Thoroughly fix and anchor work of this Section into position.
- 3.2.6. Mechanical and Electrical Fittings:
 - 3.2.6.1. Provide openings required to accommodate mechanical and electrical fittings as part of the work of this Section and provide a core sealant to protect counter cores which are exposed to accommodate:
 - 3.2.6.1.1. Mechanical services and fittings.
 - 3.2.6.1.2. Washroom accessories.
 - 3.2.6.2. Mechanical and electrical fittings and services will be provided as part of the work of Mechanical and Electrical
- 3.2.7. Installation of Hardware:
 - 3.2.7.1. Install architectural woodwork hardware in accordance with manufacturer's requirements and templates. Adjust architectural woodwork hardware to provide smooth operation and ensure clearances are maintained. Repair damage to adjacent surfaces resulting from failure to conform with this requirement.
 - 3.2.7.2. Provide lubricants required and use in manner to ensure smooth function of hardware consistent with manufacturer's recommendations.
 - 3.2.7.3. Verify fastening components are tightened securely. Align screws, bolts and similar fastenings such that relationship of screw head indentations, similar surfaces and slots are perpendicular to matching vertical or horizontal position when on same surface. Do not burr or otherwise mar edges of surfaces of hardware components. Repair defects caused by work of this Section in an acceptable manner.

3.3. ADJUSTING & TOUCH UP

- 3.3.1. Adjust all moving and operating parts to function smoothly and correctly.
- 3.3.2. Fill and retouch all nicks, chips and scratches. Replace all un-repairable damaged items.

END OF SECTION

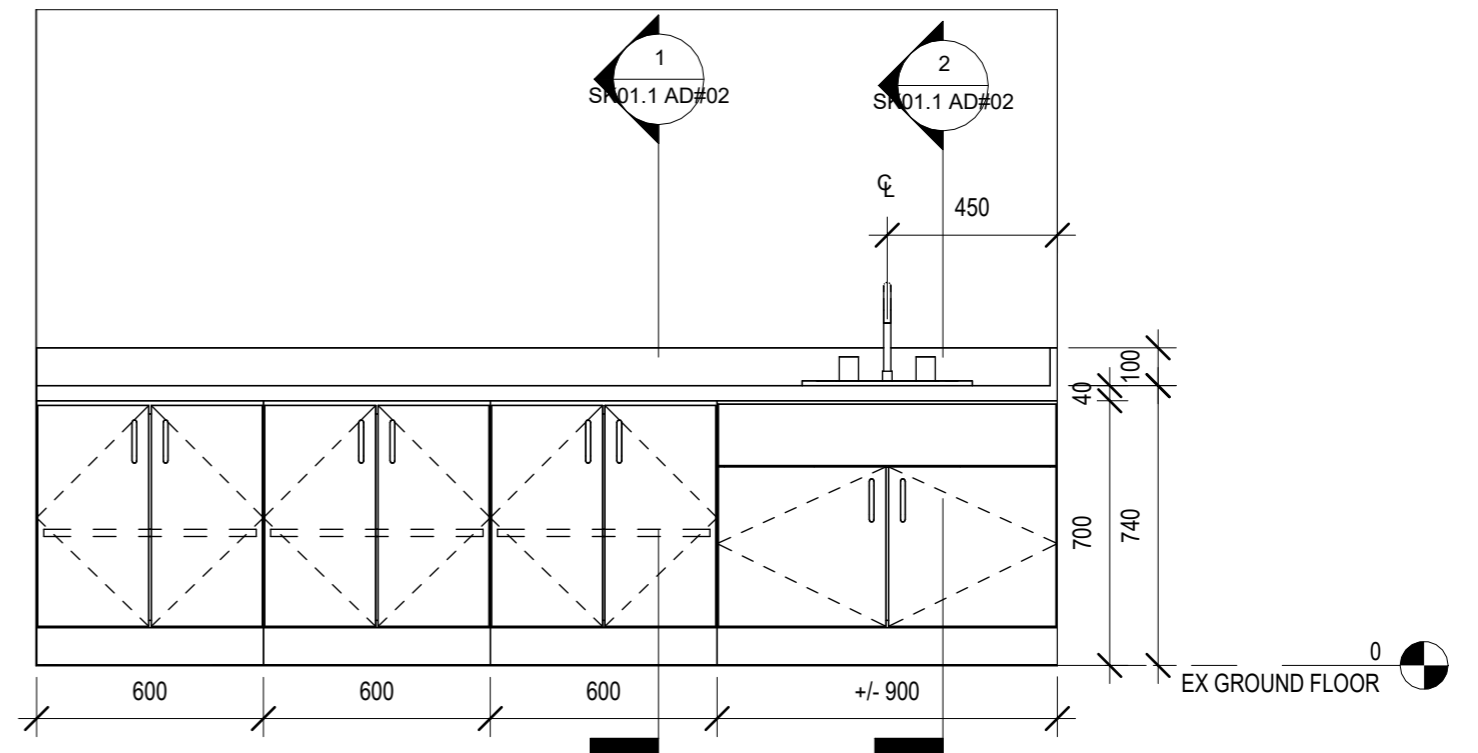


CLASSROOMS 112-A & 112-B

SCALE: 1 : 50



EX. MILLWORK



TYPICAL MILLWORK ELEVATION

SCALE: 1 : 20



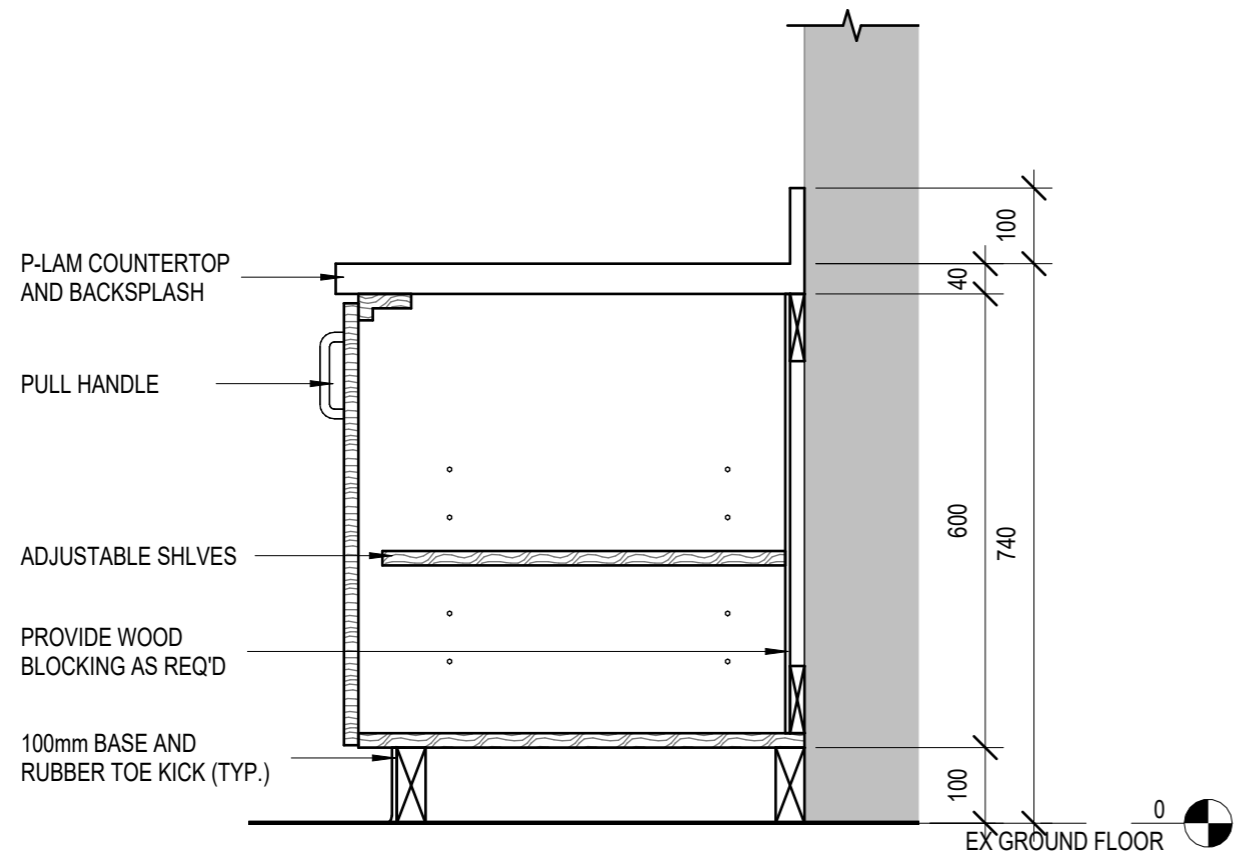
107 Hess Street North

PROPOSED MILLWORK

SCALE: As indicated

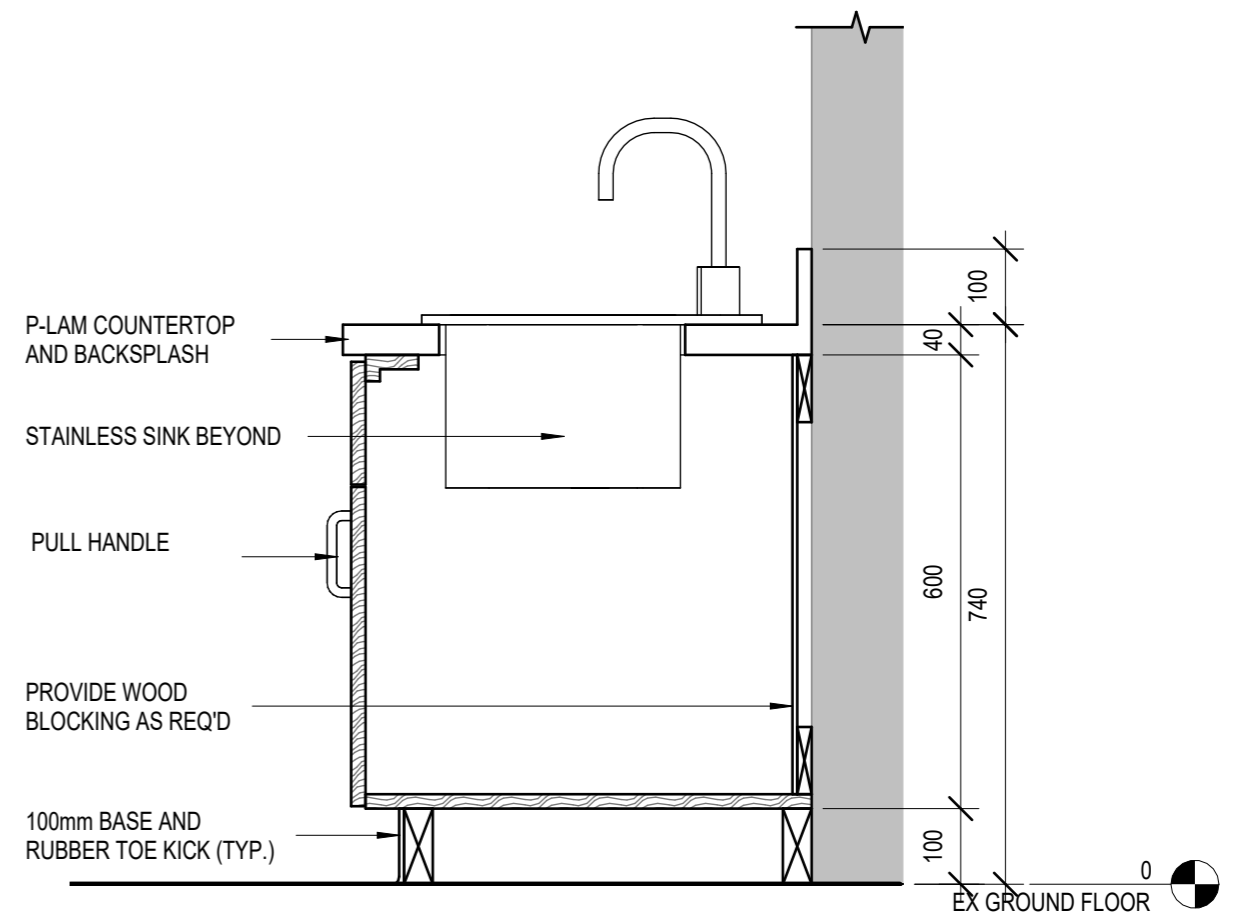
DATE: 03/06/25

SK01.0 AD#02



TYP BASE CABINET SECTION

SCALE: 1 : 10



TYP SINK SECTION

SCALE: 1 : 10



107 Hess Street North

PROPOSED MILLWORK

SCALE: 1 : 10
DATE: 03/06/25

SK01.1 AD#02

Addendum No. 2

E&M Project No.: 24075

Project: HWDSB-P2024-2082 – Hess Street ES Renovation

Date: March 13, 2025

Prepared By: E&M Consulting Engineers Inc.

Requirements:

The addendum forms part of the Contract Documents and amends the original Specifications and Drawings, as noted below.

Ensure that all parties submitting bids are aware of all items included in this Addendum.

This Addendum consists of 1-page and four (04) drawings

1. **INCLUDE** in price for all the required roof cones for the Gymnasium HVAC unit. **INCLUDE** a dedicated roof cone for the BAS wiring.
2. **REMOVE** existing sink and add two sinks as shown on attached sketch MSK-01.

Drawing E1-00

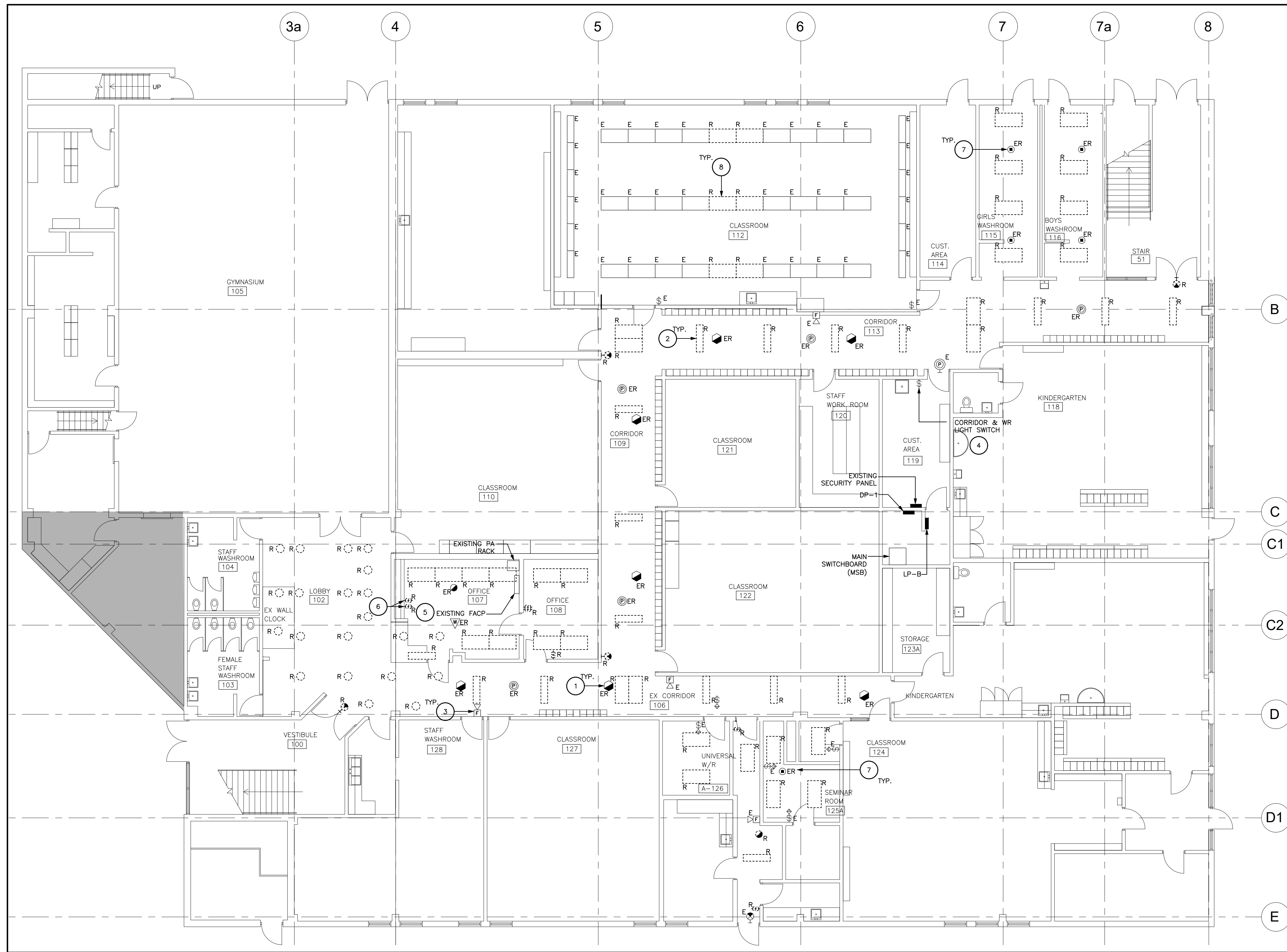
1. **REVISE** drawing note #2 as shown.

Drawing E2-00

2. **REVISE** lighting control in corridors and lighting control types as shown.
3. **REVISE** drawing notes 6, 9, 10, 11 as shown
4. **REVISE** occupancy sensor type T1 as shown.
5. **REVISE** voltage of fixture types L10, L20, L21, L30 as shown.
6. **ADD** data connection to BAS strip controller in SF-5.
7. **ADD** new BAS sub panel.
8. **ADD** battery unit & remote heads as shown.

Drawing E3-00

9. **ADD** Corridor/Lobby lighting detail as shown.



DRAWING NOTES

- 1. ALL FIRE ALARM, PAGING DEVICES, WIRELESS ACCESS POINTS, ETC LOCATED ON CEILING SHALL BE DISCONNECTED AND RELOCATED TO THE NEW CEILING.
- 2. DISCONNECT & REMOVE ALL LIGHTING AS SHOWN. EXISTING CIRCUITS SHALL BE RE-USED IN AREAS AS NOTED IN NEW DRAWINGS. ALL UN-USED CIRCUITS/CONDUITS SHALL BE PULLED BACK TO THE SOURCE AND LABEL BREAKER AS "SPARE". EXISTING SWITCHES SHALL BE DISCONNECTED & REMOVED. PROVIDE STAINLESS STEEL WALL PLATES FOR ALL RECESSED BACK BOXES.
- 3. EXISTING FIRE ALARM CIRCUITS HAVE BEEN RUN SURFACE MOUNTED TO THE EXISTING CEILING & WALLS. DISCONNECT AND RELOCATE ALL SURFACE CONDUITS/JUNCTION BOXES ABOVE NEW CEILING. EXTEND ANY WIRING AS REQUIRED. REFER TO PHOTO #1 & #2 ON THIS DRAWING FOR REFERENCE.
- 4. EXISTING SWITCH TO REMAIN FOR WASHROOM LIGHTING. CORRIDOR LIGHTING TO BE REMOVED AND ADDED TO NEW H/O/A SWITCH/PUSH BUTTON AS PER NEW DRAWINGS.
- 5. EXISTING SIMPLEX 4100ES FIRE ALARM CONTROL PANEL.
- 6. CONTRACTOR TO CONFIRM THE EXACT USE OF THESE LIGHT SWITCHES. ALLOW IN PRICE TO DEMOLISH IF NOT REQUIRED.
- 7. DISCONNECT EXISTING CEILING OCCUPANCY SENSORS & POWER PACKS ETC WITHIN THE ROOM TO RE-INSTALL ON NEW CEILING.
- 8. DISCONNECT & REMOVE LIGHTING FIXTURE TO ACCOMMODATE INSTALLATION OF NEW PARTITION WALL.

GENERAL NOTES

- 1. AS PART OF THIS WORK, RELOCATE ALL EXISTING SURFACE CONDUITS & IT CABLING MOUNTED TO THE EXISTING CEILING TO ABOVE NEW CEILING. ENSURE ALL DATA CABLES ARE PLENUM RATED. CONTRACTOR SHALL HAVE A THOROUGH LOOK DURING THE BIDDERS WALK-THROUGH TO DETERMINE THE ENTIRE SCOPE OF CONDUIT/IT CABLING RELOCATION. COORDINATE ALL IT WORK WITH SCHOOL BOARD IT REPRESENTATIVE.
- 2. ALL EXISTING LIGHTING CONTROL SWITCHES THAT ARE CONNECTED TO EXISTING LIGHTS THAT ARE BEING DEMOLISHED SHALL BE DISCONNECTED & REMOVED.

GENERAL DEMO NOTES

- 1. THE ELECTRICAL CONTRACTOR SHALL, AS PART OF HIS WORK, PERFORM ALL RELATED DEMOLITION, MODIFICATIONS, RELOCATION OF ELECTRICAL DISTRIBUTION AND OTHER EQUIPMENT AND RELATED WORK, INCLUDING NEW WORK NECESSARY TO COMPLETE THE PROJECT.
- 2. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BIDS. REFER TO DRAWINGS AND VISIT THE SITE TO DETERMINE THE EXTENT OF THE DEMOLITION AND NEW WORK REQUIRED.
- 3. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL TECHNICAL DETAILS OF EQUIPMENT TO BE REMOVED. WHERE THERE IS A DISCREPANCY WITH THE TENDER DOCUMENTS, CONTRACTOR SHALL ENGAGE CONSULTANTS FOR DIRECTIONS. ELECTRICAL CONTRACTOR SHALL MAKE A LIST OF ALL EQUIPMENT TO BE REMOVED. THIS LIST SHALL BE WITH ALL FOLLOWING INFORMATION:
 - ** MAKE/MODELS
 - ** MANUFACTURER
 - ** TECHNICAL DETAILS
 - ** LOCATION
 THIS LIST SHALL BE SUBMITTED TO THE OWNER FOR RECORD PURPOSES.
- 4. THE ELECTRICAL CONTRACTOR SHALL NOT DISCONNECT EQUIPMENT AND ELECTRICAL CIRCUITS IN THE RENOVATION AREA OR ANY PART OF THE BUILDING WITHOUT PRIOR NOTIFICATION AND PERMISSION FROM THE OWNER. EXTREME CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE TO THE SURROUNDING AREA.
- 5. ITEMS REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR THEIR USE AND IF NOT ACCEPTED BY THE OWNER, THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF THE MATERIAL FROM THE SITE IN ACCORDANCE WITH LOCAL REGULATIONS. THE ELECTRICAL CONTRACTOR SHALL DELIVER ITEMS ACCEPTED BY THE OWNER TO THE DESIGNATED LOCATIONS AS DIRECTED BY THE OWNER.
- 6. IN ALL CASES WHERE WORK IS REMOVED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT AND LABOR TO SUSTAIN OPERATION OF ALL PARTS OF THE SYSTEMS CONNECTING TO OR FROM THE PART REMOVED. COMPLETING ALL WORK IN STRICT ACCORDANCE WITH APPLICABLE CODES.
- 7. ALL WIRING, CABLES AND FEEDERS INCLUDING BOTH CONNECTED TO DEVICES AND EQUIPMENT TO BE DEMOLISHED AND EXISTING THAT WERE ABANDONED IN PLACE SHALL BE REMOVED BACK TO THEIR SOURCES. UNLESS NOTED OTHERWISE, CONDUITS AND/OR WIRING SHALL, WHERE NECESSARY, BE RE-CIRCUIT AROUND THE REMOVED PART, KEEPING OCCUPIED PARTS OF THE BUILDING SYSTEM IN FULL SERVICE.
- 8. ALL EXISTING CONDUITS WHICH HAVE BEEN ABANDONED OR ARE UNUSED SHALL BE REMOVED.
- 9. PROVIDE BLANK METAL COVER PLATES FOR ALL JUNCTION/DEVICE BOXES NO LONGER IN USE THAT ARE EMBEDDED IN FLOOR SLAB OR MASONRY WALLS. PROVIDE PLUGS FOR ALL PANELS WHERE CONDUIT HAS BEEN REMOVED. COVER PLATES SHALL BE PAINTED TO MATCH EXISTING CONDITIONS.
- 10. WHERE REQUIRED COORDINATE WITH THE CONSULTANTS/OWNER FOR EXISTING PARTITIONS TO BE REMOVED TO FACILITATE WORK. DISCONNECT EXISTING BRANCH CIRCUITS SERVICING DEVICES IN PARTITIONS TO BE REMOVED. MAINTAIN CONTINUITY OF CIRCUITS SERVICING EXISTING DEVICES IN OTHER AREAS TO REMAIN.
- 11. LIGHTING FIXTURES: REMOVE LIGHTING FIXTURES AND SWITCH CONTROL WHEN THE FIXTURE TO BE REMOVED IS SERVED BY A CIRCUIT THAT SUPPLIES FIXTURES IN OTHER AREAS THAT ARE TO REMAIN. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING FIXTURES.
- 12. POWER RECEPTACLES: REMOVE RECEPTACLES WHEN THE RECEPTACLE TO BE REMOVED IS SERVED BY A CIRCUIT THAT SUPPLIES RECEPTACLES IN OTHER AREAS, THAT ARE TO REMAIN. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING RECEPTACLES.
- 13. FIRE ALARM SYSTEM: COORDINATE AND CONSULT WITH CURRENT F/A SYSTEM SERVICE CONTRACTOR OR THEIR QUALIFIED REPRESENTATIVE FOR ALL FIRE ALARM DEMOLITION AND MODIFICATIONS. OPERATION SHALL BE MAINTAINED OF EXISTING FIRE ALARM SYSTEM SPECIFICALLY AS IT RELATES TO ADJACENT AREAS WHICH ARE NOT INCLUDED IN THE SCOPE OF THIS PROJECT.
- 14. ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES FOR ALL PANELS AFFECTED BY THE DEMOLITION AND/OR NEW WORK. CIRCUIT BREAKERS NOT USED FOR NEW WORK SHALL BE LABELED AS SPARE.
- 15. FOR EXISTING DEVICES/CIRCUITRY THAT ARE INDICATED TO BE REMOVED BACK TO POINT OF ORIGIN--THESE ITEMS ARE TO BE REMOVED BACK TO POINT OF ORIGIN UNLESS THERE WILL BE EXISTING DEVICES ON THE SAME CIRCUIT THAT ARE LOCATED OUTSIDE AREA OF WORK THAT ARE TO REMAIN. IN THAT CASE, REMOVE THE EXISTING DEVICES/CIRCUITRY IN AREA OF WORK BACK TO THESE EXISTING DEVICES TO REMAIN. ALL DEVICES/CIRCUITRY IN SURROUNDING AREAS THAT ARE TO REMAIN ARE TO BE KEPT ENERGIZED. FOR REMOVAL OF CONDUIT AND WIRING OUTSIDE OF AREA OF WORK, COORDINATE AND SCHEDULE WITH OWNER PRIOR TO PERFORMING WORK.

DO NOT SCALE DRAWING. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE. ALL DRAWINGS, SPECIFICATIONS, AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS, SPECIFICATIONS, AND RELATED DOCUMENTS IN WHOLE OR IN PART IS STRICTLY FORBIDDEN WITHOUT THE ARCHITECT'S WRITTEN PERMISSION.

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Project Title:
 Hamilton District School Board
 P2024-2082 Hess Street Elementary School Ceiling Renovation
 107 Hess Street North
 Hamilton, Ontario
 Drawing Title:
 GROUND FLOOR DEMO - ELECTRICAL

| | | | |
|----------|----|-----------------|----------|
| Drawn: | MD | Scale: | AS SHOWN |
| Date: | | Project number: | 24-22-01 |
| Checked: | MD | Drawing No.: | E1-00 |
| Date: | | Revision: | 2 |

1 OVERALL PLAN DEMO GROUND FLOOR -ELECTRICAL
 SCALE- 1:100

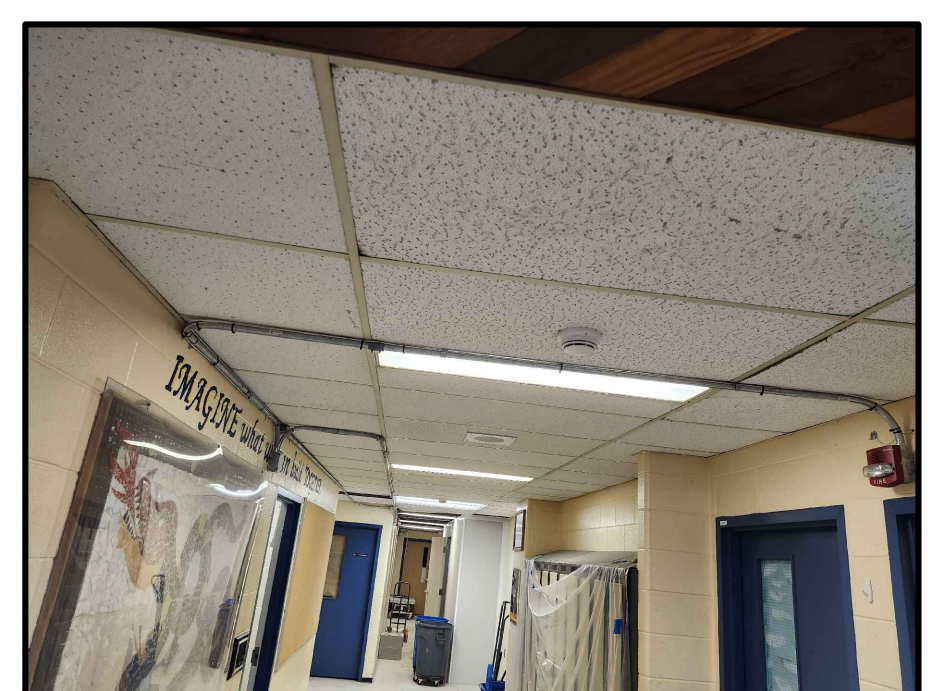


PHOTO #1

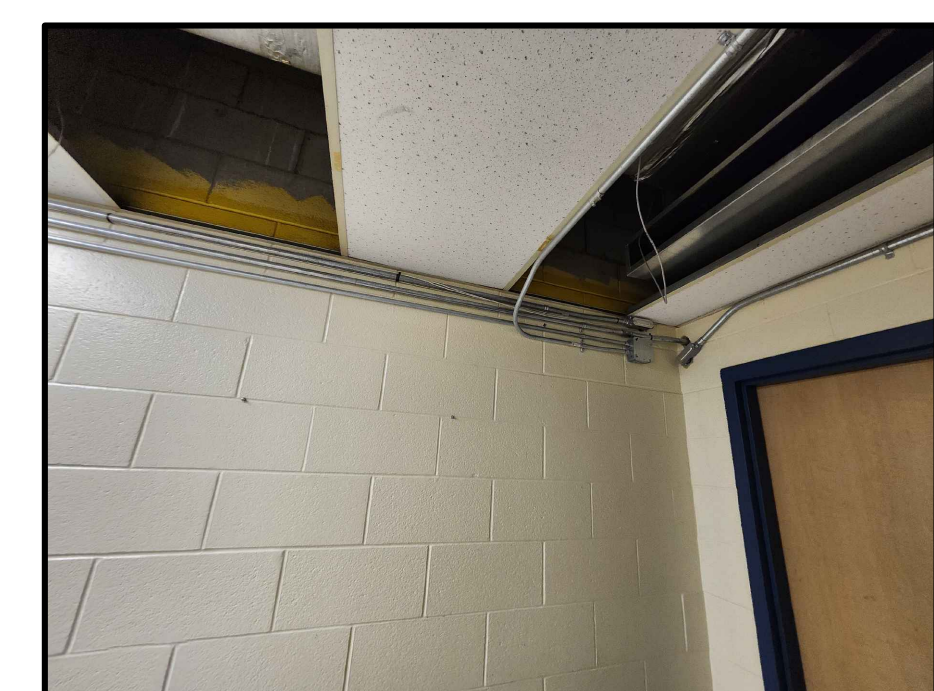
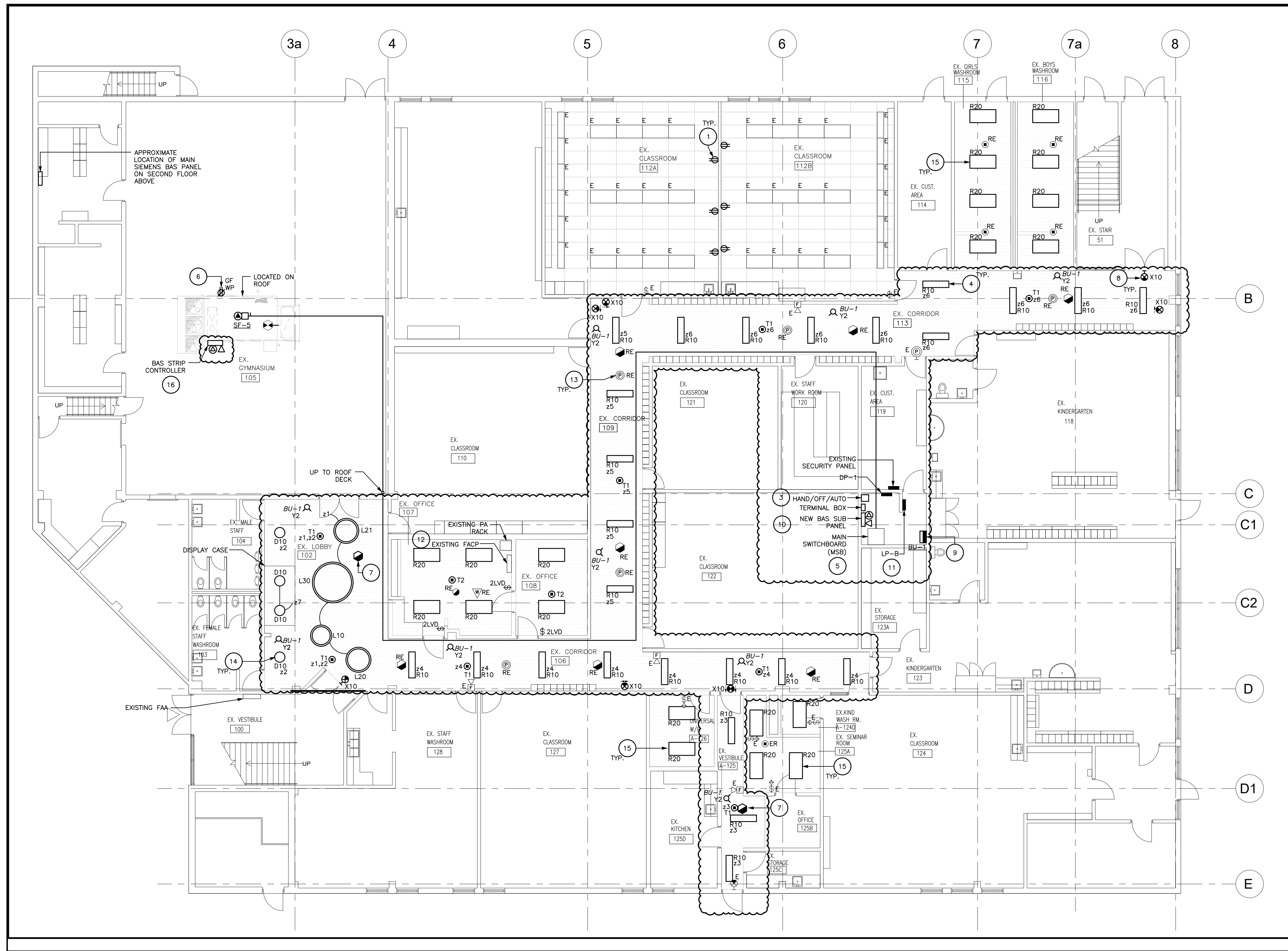


PHOTO #2



DRAWING NOTES

1. PROVIDE ONE(1) 15A-1P BREAKER IN EXISTING PANEL DP-1 FOR NEW RECEPTACLES IN CLASSROOMS 112-A & 112-B.
2. RE-INSTALL EXISTING OCCUPANCY SENSORS BACK ON THE NEW CEILING & WIRE TO NEW LIGHTING FIXTURES. RE-USE EXISTING POWER PACKS ETC.
3. PROVIDE 'HAND'/AUTO SWITCH AND 'OFF' PUSH BUTTON FOR CORRIDOR/LOBBY LIGHTING. HAND: CORRIDOR LIGHTS 'ON'. OFF: CORRIDOR LIGHTS 'OFF'. AUTO: CORRIDOR LIGHTS CONTROLLED BY BAS.
4. RE-CONNECT ALL NORMAL LIGHTING TO EXISTING NORMAL LIGHTING CIRCUIT. RE-CONNECT NEW EMERGENCY LIGHTING TO THE EXISTING EMERGENCY LIGHTING CIRCUIT.
5. PROVIDE NEW 60A-3P FUSIBLE SWITCH WITH 3-60A FUSES IN EXISTING MAIN SWITCHBOARD. PROVIDE NEW FEEDER TO ROOF TOP UNIT 'SF-5', CONDUCTOR SHALL BE 3#6 AWG +G IN 27mmC. FEEDER SHALL BE RUN IN CORRIDOR CEILING SPACE AS SHOWN.
6. PROVIDE NEW 20A-1P BREAKER IN EXISTING 'DP-1' AND FEED 'SF-5' SERVICE RECEPTACLE. SERVICE RECEPTACLE PROVIDED BY MECHANICAL DIVISION.
7. PROVIDE NEW SMOKE DETECTOR.
8. CONNECT ALL EXIT SIGNS TO EXISTING EXIT SIGN CIRCUIT.
9. PROVIDE NEW 15A-1P BREAKER IN EXISTING 'DP-1' PANEL TO FEED NEW EMERGENCY BATTERY UNIT BU-1.
10. PROVIDE NEW 15A-1P BREAKER IN EXISTING 'DP-1' AND FEED NEW BAS SUB CONTROL PANEL.
11. EXISTING GROUND FLOOR NORMAL LIGHTING PANELBOARD. RE-USE CIRCUITS FOR NEW LIGHTING. ALL CORRIDOR & LOBBY LIGHTING SHALL BE FED FROM ONE CIRCUIT. REFER TO DRAWING E3-00 FOR MORE DETAILS.
12. ADD NEW FIRE ALARM ZONE 'SF-5' DUCT SMOKE DETECTOR AND WIRE TO 'SF-5' DUCT SMOKE DETECTOR. CONTACT EXISTING FIRE ALARM SERVICING COMPANY TO DETERMINE THE EXTENT OF MODIFICATIONS REQUIRED IN THE EXISTING PANEL FOR THIS WORK AND INCLUDE IN PRICE. UPDATE EXISTING FIRE ALARM ANNUNCIATOR PANEL SHOWING THE NEW ZONE.
13. PROVIDE 1HR FIRE RATED SPEAKER COVERS FOR ALL PAGING SPEAKERS RECESSED IN CEILING. TENMAT FF109-FRSC OR EQUIVALENT.
14. PROVIDE 1HR FIRE RATED DOWNLIGHT COVERS FOR ALL RECESSED DOWNLIGHTS IN CEILING. TENMAT FF109-250 OR EQUIVALENT.
15. RE-CONNECT ALL EXISTING LIGHTING CONTROLS TO NEW LIGHTING FIXTURES. COMMISSIONING SHALL BE INCLUDED IN THE PRICE.
16. PROVIDE NEW 20A-1P BREAKER IN EXISTING 'DP-1' AND PROVIDE SINGLE POINT CONNECTION TO BAS STRIP CONTROLLER LOCATED ON SF-5.

GENERAL NOTES

1. THIS DRAWING ILLUSTRATES INTENT AND DOES NOT REPRESENT ALL REQUIRED CONTROL COMPONENTS. FINAL WIRING METHODS OR FIXTURE MOUNTING LOCATIONS. DETERMINE THE FINAL SYSTEM INSTALLATION BASED ON THE PRODUCT MANUFACTURER'S SHOP DRAWINGS.
2. EXIT SIGNS SHALL BE MOUNTED SO THEY ARE VISIBLE UPON APPROACH. NO HIGHER THAN 3050 AFF AND NO LOWER THAN 2100 AFF.
3. OCCUPANCY SENSORS SHALL BE MOUNTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SO THEY ARE CAPABLE OF OPERATING PROPERLY WITHOUT FALSE 'ON' OR 'PREMATURE OFF' OPERATIONS. DUAL TECHNOLOGY OCCUPANCY SENSORS SHALL NOT BE MOUNTED WITHIN 610mm OF ANY HVAC DIFFUSERS.
4. REMOTE MOUNTED POWER SUPPLIES AND CONTROL DEVICES SHALL BE MOUNTED IN ACCESSIBLE LOCATIONS OUT OF VIEW OF PUBLIC.
5. CEILING SPACE IS A RETURN AIR PLENUM. ANY DEVICES LOCATED IN CEILING SPACES SHALL BE PLENUM RATED.
6. ALL WIRING IN FINISHED AREAS SHALL BE RUN CONCEALED IN WALLS/CEILINGS WHERE POSSIBLE. OTHERWISE PROVIDE SURFACE RACEWAYS SUCH AS WIREMOLD OR EQUIVALENT. EMT WILL NOT BE ACCEPTED UNLESS OTHERWISE NOTED.
7. EXISTING BAS PANEL BY SIEMENS. CONTRACTOR SHALL INCLUDE IN PRICE TO INTEGRATE NEW CORRIDOR LIGHTING WITH BAS PANEL AS PER DRAWINGS FOR A FULLY FUNCTIONAL SYSTEM.
8. FINAL LIGHTING DIMMING PRE-SETS TO BE DETERMINED ON SITE WITH THE OWNER DURING COMMISSIONING.
9. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.
10. PROVIDE A RED ROUND STICKER NEXT TO EACH EMERGENCY LIGHTING FIXTURE TO EASILY IDENTIFY THAT THEY ARE AN EMERGENCY LIGHT.
11. COORDINATE WITH MECHANICAL FOR FIRE RATED ACCESS PANELS. ALL IT CABLING ON J-HOOKS IN CEILING SPACES SHALL BE ACCESSIBLE.
12. CONSOLIDATE ALL JUNCTION BOXES/POWER PACKS ETC TO MINIMIZE THE REQUIREMENT FOR ACCESS HATCHES. COORDINATE WITH ARCHITECT & MECHANICAL DIVISION FOR EXACT LOCATIONS.
13. ALL CEILINGS ARE 1HR FIRE RATED. ENSURE FIRE RATING DOES NOT GET COMPROMISED. PROVIDE FIRE STOP WHERE REQUIRED.

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LIGHTING FIXTURE SCHEDULE

| TYPE | DESCRIPTION | ACCEPTABLE PRODUCTS |
|------|--|---|
| X10 | LED RUNNING MAN EXIT SIGN COMPLETE WITH THE FOLLOWING ATTRIBUTES: - CEILING/WALL MOUNTED AS PER PLANS - SINGLE/DOUBLE FACE AS PER PLANS - EXTRUDED ALUMINUM HOUSING - 120/347V INPUT - 12V DC INPUT | 1. AMLITE RPAW OR APPROVED EQUIVALENT |
| D10 | RECESSED DOWNLIGHT LUMINAIRE WITH FOLLOWING ATTRIBUTES: - 4" RECESSED LED - 347V, 4000K CCT, 2500 LUMENS, 28W - OPEN STYLE, WHITE REFLECTOR - 90 CRI, 4000K CCT - 0-10V DIMMING (1%) | 1. LIGHTOLIER ZERDL SERIES OR APPROVED EQUIVALENT |
| BU-1 | EMERGENCY BATTERY UNIT - 120V INPUT/24VDC OUTPUT - 2 HEAD WITH 5W LED LAMPS EACH - 200W FOR 30 MINUTE OPERATING TIME - AUTOMATIC SELF TEST | 1. LUMACELL RGS SERIES OR APPROVED EQUIVALENT |
| Y1.2 | INDOOR REMOTE HEAD (NUMBER RELATES TO # OF HEADS) - 24VDC INPUT - METAL HOUSING - 6W LED LAMP - 1, 2, 3 HEADS AS SPECIFIED IN DRAWINGS - CEILING MOUNT | 1. LUMACELL MQM SERIES OR APPROVED EQUIVALENT |
| R10 | LED FLAT PANEL WITH THE FOLLOWING ATTRIBUTES: - 1'x4' - 28W, 3800 LUMENS, 4000K, 347V - 80+ CRI, ROUND SMOOTH DIFFUSER - DLC LISTED, 50K+ HOURS L70, EFFICACY > 110LPW - 0-10V DIMMING (1%) - SURFACE MOUNT FIELD INSTALLATION KIT - MIN. 5 YEAR WARRANTY | 1. SIGNIFY CFI FLUXPANEL LED GEN 2 OR APPROVED EQUIVALENT |
| R20 | LED FLAT PANEL WITH THE FOLLOWING ATTRIBUTES: - 2'x4' - 28W, 3800 LUMENS, 4000K, 347V - 80+ CRI, SMOOTH DIFFUSER - DLC LISTED, 50K+ HOURS L70, EFFICACY > 110LPW - 0-10V DIMMING (1%) - SURFACE MOUNT FIELD INSTALLATION KIT | 1. SIGNIFY CFI FLUXPANEL LED GEN 2 OR APPROVED EQUIVALENT |
| L10 | RING SURFACE LUMINAIRE WITH FOLLOWING ATTRIBUTES: - SURFACE MOUNT, 3" DIAMETER, DIRECT DISTRIBUTION - PER 1' - 500 LUMENS, 4.2W, 347V, 3000K LED - STATIC WHITE, 80 CRI - 0-10V(1%) DIMMING | 1. LUMENWERX CURVIA SERIES OR APPROVED EQUIVALENT |
| L20 | SAME AS TYPE 'L10' EXCEPT THE FOLLOWING ATTRIBUTES: - 4" DIAMETER | 1. LUMENWERX CURVIA SERIES OR APPROVED EQUIVALENT |
| L21 | SAME AS TYPE 'L10' EXCEPT THE FOLLOWING ATTRIBUTES: - 4" DIAMETER - PER 1' - 750 LUMENS, 6.7W, 120V, 4000K LED | 1. LUMENWERX CURVIA SERIES OR APPROVED EQUIVALENT |
| L30 | SAME AS TYPE 'L10' EXCEPT THE FOLLOWING ATTRIBUTES: - 6" DIAMETER | 1. LUMENWERX CURVIA SERIES OR APPROVED EQUIVALENT |

1 OVERALL PLAN NEW GROUND FLOOR -ELECTRICAL
E2-00 SCALE: 1:100

| ROOM | TYPE |
|----------------|------|
| CORRIDOR/A-125 | CT1 |
| OFFICES | CT2 |
| DISPLAY CASE | CT1 |

LIGHTING CONTROL TYPES

NOT ALL CONTROL TYPES MAY HAVE BEEN USED. REFER TO LIGHTING DRAWINGS FOR ALL REQUIREMENTS. FOR ALL TYPES BELOW, UNOCCUPIED DURATION SHALL BE 5 MINUTES.

CT0 - NO CONTROL ALWAYS 'ON' 24/7
 CT1 - REFER TO SPECIFICATION E3-00 FOR DETAILS.
 CT2 - STAND ALONE MANUAL 'ON' / AUTOMATIC 'OFF' AUTO 'OFF' BY OCCUPANCY AFTER 15 MINUTES MANUAL 'RAISE/LOWER' PRESET 'ON' TO 75%

OCCUPANCY SENSOR/SWITCH SCHEDULE

| SYMBOL | DESCRIPTION | ACCEPTABLE PRODUCTS |
|--------|--|--|
| T1 | LOW VOLTAGE DUAL TECHNOLOGY CEILING SENSOR C/W AUXILIARY RELAY | 1. WATTSTOPPER DT-300 OR APPROVED EQUIVALENT |
| T2 | LOW VOLTAGE DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSOR. | 1. WATTSTOPPER DT-300 OR APPROVED EQUIVALENT |
| 2LVD | LOW VOLTAGE 2 SCENE SWITCH WITH DIMMING | 1. WATTSTOPPER LMSW-222 OR APPROVED EQUIVALENT |

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| REVISIONS | |
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Project title:
Hamilton District School Board
P2024-2082 Hess Street Elementary School Ceiling Renovation
107 Hess Street North
Hamilton, Ontario

Drawing title:
GROUND FLOOR NEW - ELECTRICAL

Drawn:
MD
date:
AS SHOWN

Scale:
AS SHOWN

Checked:
MD
date:
24-22-01

Project number:
24-22-01

Drawing No:
E2-00
2

ELECTRICAL SPECIFICATIONS

1. RELATED INSTRUCTIONS

- THIS SPECIFICATION SHALL APPLY TO AND GOVERN ALL WORK BY DIVISION 16.
- FURNISH ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, ETC., REQUIRED TO COMPLETE ALL WORK SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. THE WORK SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF ALL AUTHORITIES HAVING LEGAL JURISDICTION OVER THE WORK. PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.
- DEVICE/EQUIPMENT LOCATIONS ARE APPROXIMATE. CHANGE LOCATION OF ANY DEVICE/EQUIPMENT WITHIN 3M OF INDICATED LOCATION AT NO ADDITIONAL COST TO OWNER PROVIDED INSTRUCTIONS ARE RECEIVED PRIOR TO COMMENCING WORK. PRIOR TO COMMENCING ANY WORK-UP OR INSTALLATION WORK VISIT SITE, MEET WITH THE OWNERS REPRESENTATIVE AND CONFIRM EXACT LOCATION OF ALL DEVICES.

2. LIABILITY INSURANCE

- OBTAIN AND CARRY PROPER INSURANCE TO FULLY PROTECT BOTH THE OWNER AND HIMSELF FROM ANY AND ALL CLAIMS DUE TO ACCIDENTS, MISFORTUNES, ACTS OF GOD, ETC.

3. CODES, PERMITS AND INSPECTION

- BUILDING PERMIT SHALL BE OBTAINED BY OWNER.
ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND OBTAIN ALL OTHER PERMITS, INSPECTIONS, VERIFICATIONS, ETC., AS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION OVER THIS WORK AND PAY FOR ALL FEES RELATED TO SAME.
- DELIVER ALL PERMITS TO THE OWNER AS SOON AS THEY BECOME AVAILABLE.
- AT THE CONCLUSION OF THE PROJECT, SUBMIT TO THE OWNER, THE ELECTRICAL SAFETY AUTHORITY FINAL ACCEPTANCE CERTIFICATE.

4. RECORD DRAWINGS AND EQUIPMENT MANUALS

- AS THE PROJECT PROGRESSES, RECORD, ON A SET OF WHITE PRINTS, ALL ADDENDA, CHANGES TO AND DEVIATIONS FROM THE PLANS MADE DURING THE CONSTRUCTION PERIOD. ALSO, RECORD THE LOCATION OF ALL LIGHT FIXTURES AND OTHER ELECTRICAL EQUIPMENT AND WIRING FOR SAME.
- MAKE THESE PROGRESS RECORD DRAWING WHITE PRINTS AVAILABLE TO THE CONSULTANTS FOR THEIR REVIEW AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- AT THE CONCLUSION OF THE PROJECT, TRANSFER ALL RECORD DRAWING INFORMATION TO A USB FLASH DRIVE.
- THE CONSULTANT SHALL PROVIDE TO THE CONTRACTOR A COPY OF THE DRAWINGS IN AUTOCAD FORMAT. COMPLETE AND RETURN THE RELEASE FORM "TRANSFER OF FILES ON ELECTRONIC MEDIA" IN ORDER TO RECEIVE AND USE THE ELECTRONIC FILES. (SAMPLE OF THE FORM CAN BE PROVIDED ON REQUEST).
- BEFORE SUBSTANTIAL PERFORMANCE OF THE CONTRACT, COMPLY WITH THE FOLLOWING:
 - PROVIDE USB FLASH DRIVE CONTAINING ALL UPDATED RECORD DRAWING INFORMATION IN AUTOCAD FORMAT AS SPECIFIED HEREIN.
 - PROVIDE TWO (2) SETS OF EQUIPMENT DATA SHEETS AND/OR MANUFACTURER'S MAINTENANCE MANUALS COVERING EACH SYSTEM AND ITS COMPONENTS IN ACCORDANCE WITH REQUIREMENTS OF EACH APPROPRIATE SECTION. THESE SETS ARE TO BE IN GOOD QUALITY BINDERS EQUAL TO YN6-1-LINE #11-3096-B 2" (51mm) RINGS. THE BINDER IS TO BE DIVIDED INTO SECTIONS WITH TABS CLEARLY MARKED INDICATING THE SYSTEMS, ETC.

5. EQUIPMENT AND MATERIAL

- ALL EQUIPMENT AND MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE NEW AND WITHOUT BLEMISH OR DEFECT. ALL MATERIAL AND EQUIPMENT SHALL BEAR ULC, OR CSA LABELS.

6. ACCESSIBILITY

- INSTALL ALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE AND REPAIRS.

7. RESPONSIBILITY

- BE RESPONSIBLE FOR WORK UNTIL COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

8. CONDUIT, AND WIRING

- USE EMT CONDUIT FOR ALL WIRING UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE INSTALLED PARALLEL TO BUILDING LINES AND SECURELY FASTENED.
- UNLESS NOTED OTHERWISE, CONDUITS SHALL BE CONCEALED EMT COMPLETE WITH STEEL SET SCREW TYPE CONNECTORS AND COUPLINGS.
- DO NOT RUN CONDUITS IN FIRE RATED CEILING ASSEMBLIES.
- SURFACE RACEWAY SYSTEM WITH WIRING LAID IN SHALL BE ACCEPTABLE BUT KEPT TO A MINIMUM IN AREAS WHERE EMT CONDUIT CAN NOT BE CONCEALED. TWO PIECE STEEL ASSEMBLY MANUFACTURED AS LAY-IN TYPE RACEWAY C/W TEES, ELBOWS AND HANGER FITTING AND SUPPORTS REQUIRED FOR A COMPLETE SYSTEM - WIREMOLD OR APPROVED EQUAL.
- ALL SURFACE MOUNTED RACEWAYS IN AREAS OTHER THAN SERVICE ROOMS SHALL BE WIREMOLD OR EQUIVALENT. COLOUR TO MATCH WALL.
- ALL CONDUCTORS SHALL BE COPPER, RW90 XLPE #12 AWG MINIMUM UNLESS NOTED OTHERWISE. WHERE THE DISTANCE FROM THE PANELBOARD TO THE LAST OUTLET EXCEEDS 50', #10 AWG CONDUCTOR MUST BE USED FOR THE FULL LENGTH OF THE CIRCUIT.

9. WIRING DEVICES

- SWITCHES: RATED 125VAC, 20 AMPERES AND LOW VOLTAGE WHITE TOGGLE TYPE COMPATIBLE WITH EXISTING.
- INSTALL SINGLE THROW SWITCHES WITH HANDLE IN "UP" POSITION WHEN SWITCH CLOSED (ON).
- INSTALL SWITCHES IN GANG-TYPE OUTLET BOX WHEN MORE THAN ONE SWITCH IS REQUIRED IN ONE LOCATION AND AT 1200mm(48") ABOVE FINISHED FLOOR UNLESS INDICATED OTHERWISE.
- 125V SWITCHES AS SHOWN SHALL BE LOW VOLTAGE COMPLETE WITH TRANSFORMERS AND CONTROL RELAYS LOCATED CONCEALED IN CEILING SPACES
- RECEPTACLES: 3-WIRE, U-GROUND TYPE GENERAL PURPOSE, HEAVY DUTY, NEMA 5-15R.
- INSTALL RECEPTACLES IN GANG-TYPE OUTLET BOX WHEN MORE THAN ONE SWITCH IS REQUIRED IN ONE LOCATION AND AT 450mm(18") ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- FLOOR BOX : RFB4 SERIES BY LEGRAND WITH ALL REQUIRED ACCESSORIES FOR A COMPLETE SYSTEM. PROVIDE FLOOR SCANNING PRIOR TO CUTTING INTO EXISTING FLOORS.
- COVERPLATES:

- PROVIDE No.301 STAINLESS STEEL, BRUSHED COVERPLATES C/W PROTECTIVE PLASTIC FILM UNTIL PAINTING AND OTHER WORK IS FINISHED FOR ALL WIRING DEVICES MOUNTED IN A FLUSH MOUNTED OUTLET BOX. PROVIDE COMMON COVERPLATE WHEN WIRING DEVICES ARE GROUPED TOGETHER.
- PROVIDE FITTED SHEET METAL (CAST) COVERPLATES FOR WIRING DEVICES MOUNTED IN SURFACE FS OR FD TYPE CONDUIT BOXES.
- DO NOT USE COVERPLATES MEANT FOR FLUSH OUTLET BOXES ON SURFACE MOUNTED BOXES.

10. WIRING FOR MECHANICAL EQUIPMENT

- SUPPLY AND INSTALL ALL STARTERS, DISCONNECTS, RELAYS, WIRING, ETC., TO ACCOMMODATE THE COMPLETE MECHANICAL SYSTEM, UNLESS NOTED OTHERWISE.
- OTHER DIVISIONS SUPPLYING MOTOR-DRIVEN EQUIPMENT SHALL SUPPLY AND INSTALL ALL NECESSARY MOTORS WITH SUCH EQUIPMENT. ALL INTERNAL CONTROL WIRING IN SUCH EQUIPMENT SHALL BE FACTORY INSTALLED, OR SHALL BE SUPPLIED AND INSTALLED BY THOSE SUPPLYING THE EQUIPMENT.
- REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS DURING TENDERING AND CONSTRUCTION TO ENSURE ENTIRE MECHANICAL EQUIPMENT WIRING SCOPE OF WORK IS UNDERSTOOD.
- THIS DIVISION IS RESPONSIBLE FOR THE FOLLOWING:
 - SUPPLY AND INSTALLATION OF ALL STARTERS, DISCONNECT SWITCHES, PUSHBUTTON STATIONS, SPLITTER TROUGHS, JUNCTION BOXES AND TIME SWITCHES, ETC., AS NOTED ON DRAWING.
 - INSTALLATION AND WIRING OF ALL SEPARATELY MOUNTED THERMOSTATS, MOTOR CONTROLLERS AND CONTROL UNITS WHICH ARE SUPPLIED BY MECHANICAL.
 - SUPPLY AND INSTALLATION OF ALL POWER WIRING AND CONDUITS FROM THE DISTRIBUTION PANEL THROUGH THE STARTER AND DISCONNECT SWITCH ONTO THE MOTOR (OR EQUIPMENT).
 - SUPPLY AND INSTALLATION OF ALL CONTROL WIRING FROM REMOTE SWITCHES OR PUSHBUTTON STATIONS TO CONTROL STARTERS.
 - SUPPLY AND INSTALLATION OF ALL WIRING TO PROVIDE INTERLOCKING BETWEEN STARTERS COMPLETE WITH NECESSARY DOUBLE VOLTAGE RELAYS.
 - SUPPLY AND INSTALLATION OF TRANSIENT (SURGE) SUPPRESSORS ON HOLDING COILS OF MAGNETIC STARTERS, RELAYS, ETC., WHERE INDICATED FOR PROTECTION TO SOLID STATE EQUIPMENT THAT IS SENSITIVE TO SURGES, SPIKES, ETC.

11. MOTOR STARTERS

- MANUAL STARTER SHALL HAVE QUICK-MAKE, QUICK-BREAK, SWITCHING MECHANICAL COMPLETE WITH OVERLOAD HEATERS, MANUAL RESET, TRIP INDICATING HANDLE, AND LOCKING TAB TO PERMIT PADLOCKING IN "ON" OR "OFF" POSITION.
- MAGNETIC AND COMBINATION MOTOR STARTERS TO BE MINIMUM SIZE 1 TYPE, AND RATING TO SUIT MOTOR LOAD. C/W CONTROL TRANSFORMER, CONTACTOR SOLENOID OPERATED, MOTOR OVERLOAD PROTECTIVE DEVICE IN EACH PHASE, MANUALLY RESET, POWER AND CONTROL TERMINALS, PUSHBUTTONS AND SELECTOR SWITCHES, TWO N/O AND TWO N/C AUXILIARY CONTACTS, PROVISION FOR PREVENTING SWITCHING TO "ON" POSITION WHILE ENCLOSURE DOOR IS OPEN.

12. LIGHTING

- REFER TO LIGHTING FIXTURE SCHEDULE ON DRAWINGS FOR DETAILS.
- MINIMUM CRI OF 80
- 50,000+ HOURS L70 LUMEN PERFORMANCE
- EFFECTIVITY OF >110 LUMENS PER WATT
- MINIMUM 5 YEARS WARRANTY
- PROVIDE DLC LISTING NUMBER AND ENERGY STAR CERTIFICATION FOR REBATES.

13. FIRE ALARM SYSTEM

- ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH THE EXISTING SIMPLEX 4100ES FIRE ALARM PANEL, CONTRACTOR SHALL OBTAIN ADDITIONAL INFORMATION FROM THE SYSTEM MAINTENANCE COMPANY(SEE BELOW). TEST AND VERIFY SYSTEM UPON COMPLETION AND SUBMIT REPORT TO CONSULTANTS.
PASSWORD AT 1800-561-3009 TO PERFORM ALL MODIFICATIONS & ADDITIONS TO THE EXISTING SYSTEM AND INCLUDE ALL ASSOCIATED COSTS. CONFIRM SPACE FOR NEW DEVICES IN THE PANEL.
- UPGRADE, RE-PROGRAM EXISTING CONTROL PANEL AND ALL REMOTE ANNUNCIATOR PANELS AS REQUIRED TO ACCOMMODATE NEW DEVICES AND INITIATING ZONES AS INDICATED ON PLANS FOR THE ADDITION OF NEW DEVICES AND NEW INITIATING ZONES TO THE EXISTING.
- UNLESS INDICATED OTHERWISE ON PLANS, WIRE NEW DEVICES TO EXISTING LOCAL FIRE ALARM INITIATING ZONE AND NEW SPEAKERS TO EXISTING LOCAL SIGNAL CIRCUITS.
- CODES AND STANDARDS
 - AUDIBLE SIGNAL APPLIANCES STANDARD ULC-S525
 - SMOKE DETECTORS STANDARD ULC-S529
 - SYSTEM INSTALLATION STANDARD CAN/ULC-S524
 - SYSTEM VERIFICATION STANDARD CAN/ULC-S537

13.5. PRODUCTS

- FIRE ALARM PULL STATION
- SMOKE DETECTOR IONIZATION TYPE
 - PANEL #
 - HEAT DETECTOR FIXED TEMPERATURE
 - HEAT DETECTOR FIXED TEMPERATURE AND RATE OF RISE
 - HORN & STROBE
- CONTROL RELAY MODULES
 - PANEL # (RELAY IAM) WITH ONE FORM "C" DRY RELAY PER MODULE WITH CONTACTS RATED: 2A @24VDC AND 1.0A @120VAC.

14. REVISIONS TO EXISTING PANEL BOARDS

- ALL EXISTING PANEL BOARDS ON DRAWINGS TO REMAIN AND BE REUSED TO FEED NEW DEVICES. FOR IDENTIFIED PANELBOARDS WHERE APPLICABLE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL NEW BRANCH AND FEEDER BREAKERS, TYPE, QUANTITY AND CAPACITY AS IDENTIFIED ON DRAWING AND INSTALL IN EXISTING PANEL. ON EACH PANEL BOARD MODIFIED PROVIDE REVISED AND UPDATED PANEL BOARD SCHEDULE TO REFLECT NEW LOADS. RE-USE ALL SPARE BREAKERS MADE REDUNDANT IN DEMOLITION PHASE AND UPDATE PANEL BOARD SCHEDULES TO REFLECT ALL NEW AND REVISED CIRCUITS.

15. MILLWORK, FURNITURE, AND EQUIPMENT WIRING

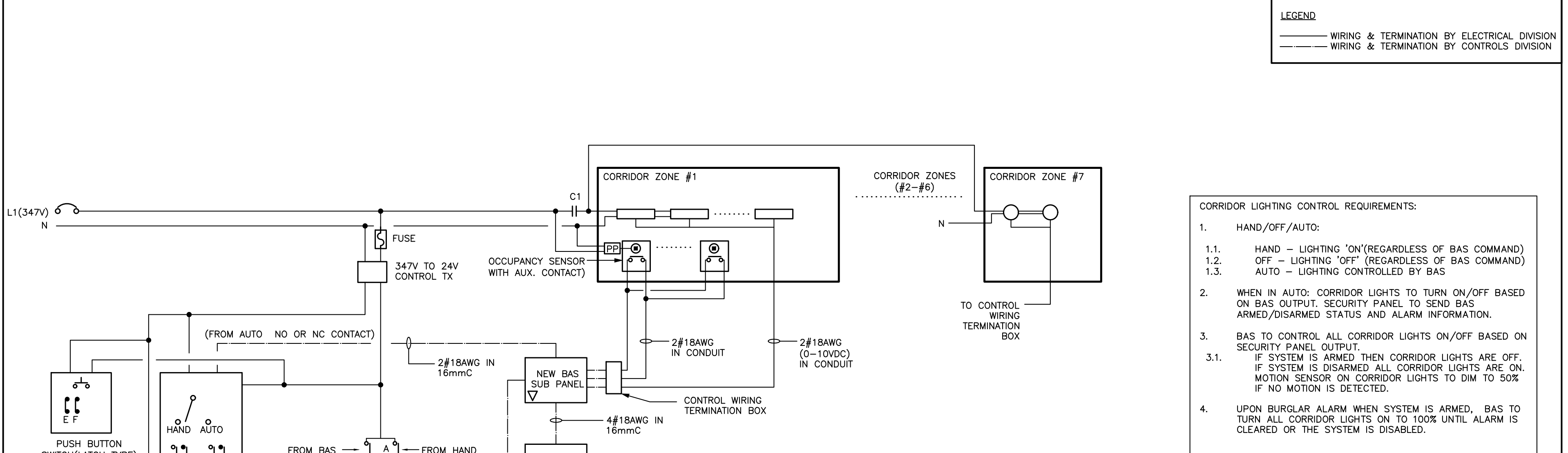
- ALL EQUIPMENT MUST BE CAREFULLY COORDINATED FOR EXACT FLOOR OR WALL LOCATIONS PRIOR TO DRILLING CONDUIT SLEEVES

THROUGH FLOOR SLABS OR WALLS.

16. LIGHTING CONTROL

- BASIS OF DESIGN IS A WATTSTOPPER DLM LOW VOLTAGE CONTROLS FOR A COMPLETE SYSTEM.
- EXTENT OF LIGHTING CONTROL SYSTEM WORK IS INDICATED ON DRAWINGS ALONG WITH SEQUENCE OF OPERATIONS. THE SYSTEM IS DEFINED TO INCLUDE, BUT NOT BY WAY OF LIMITATION.
 - OCCUPANCY SENSORS
 - DAYLIGHT SENSORS
 - DIGITAL ROOM CONTROLLERS
 - NETWORK DEVICES
 - WALL STATIONS
 - SOFTWARE
- CORRIDOR LIGHTING SHALL BE TIED INTO BAS. REFER TO DRAWINGS FOR MORE DETAILS.
- ACCEPTABLE MANUFACTURERS
 - LEGRAND WATTSTOPPER
 - ACUTY N-LIGHT
 - COOPER

CORRIDOR/LOBBY LIGHTING

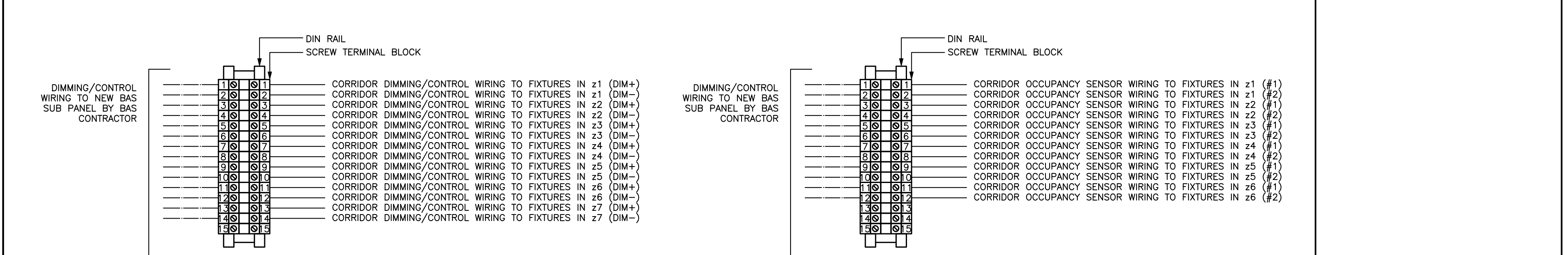


| LEGEND | |
|--------|---|
| — | WIRING & TERMINATION BY ELECTRICAL DIVISION |
| — | WIRING & TERMINATION BY CONTROLS DIVISION |

- ### CORRIDOR LIGHTING CONTROL REQUIREMENTS:
- HAND/OFF/AUTO:
 - HAND - LIGHTING 'ON'(REGARDLESS OF BAS COMMAND)
 - OFF - LIGHTING 'OFF' (REGARDLESS OF BAS COMMAND)
 - AUTO - LIGHTING CONTROLLED BY BAS
 - WHEN IN AUTO: CORRIDOR LIGHTS TO TURN ON/OFF BASED ON BAS OUTPUT. SECURITY PANEL TO SEND BAS ARMED/DISARMED STATUS AND ALARM INFORMATION.
 - BAS TO CONTROL ALL CORRIDOR LIGHTS ON/OFF BASED ON SECURITY PANEL OUTPUT.
 - IF SYSTEM IS ARMED THEN CORRIDOR LIGHTS ARE OFF. IF SYSTEM IS DISARMED ALL CORRIDOR LIGHTS ARE ON. MOTION SENSOR ON CORRIDOR LIGHTS TO DIM TO 50% IF NO MOTION IS DETECTED.
 - UPON BURGLAR ALARM WHEN SYSTEM IS ARMED, BAS TO TURN ALL CORRIDOR LIGHTS ON TO 100% UNTIL ALARM IS CLEARED OR THE SYSTEM IS DISABLED.

- ### NOTES:
- LOW VOLTAGE WIRING SHALL BE PROVIDED TO EACH FIXTURE FROM THE BAS PANEL THROUGH TERMINAL BOX(REFER TO DETAIL BELOW). THEY CAN BE "DAISY CHAINED" FROM FIXTURE TO FIXTURE IN PARALLEL.
 - ALL POWER FOR POWER PACKS SHALL BE FROM AN UN-SWITCHED CIRCUIT.
 - CONTACTOR SHALL BE IN TYPE 1 ENCLOSURE.
 - NEW BAS SUB PANEL BY BAS CONTRACTOR.
 - REFER TO FLOOR PLANS FOR EXACT QUANTITY OF LIGHTING FIXTURES & OCCUPANCY SENSORS ETC.
 - CONTRACTOR SHALL PROVIDE A COMPLETE SHOP DRAWING FOR CORRIDOR LIGHTING CONTROLS INCLUDING ALL PARTS, WIRING ETC.

CONTROL WIRING TERMINATION BOX



- ### NOTES:
- ELECTRICAL DIVISION TO PROVIDE TYPE 1 ENCLOSURE WITH WITH ALL CONTENT INSIDE.

DO NOT SCALE DRAWING DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE. ALL DRAWINGS, SPECIFICATIONS, AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS IN WHOLE OR IN PART IS STRICTLY FORBIDDEN WITHOUT THE ARCHITECT'S WRITTEN PERMISSION.

| NO. | DESCRIPTION | DATE |
|-----|-------------------|------------|
| 6 | ADD-02 | 2025-03-13 |
| 5 | ISSUED FOR TENDER | 2025-02-24 |
| 4 | ISSUED FOR TENDER | 2025-02-12 |
| 3 | ISSUED FOR REVIEW | 2025-02-04 |
| 2 | ISSUED FOR TENDER | 2025-01-09 |
| 1 | ISSUED FOR PERMIT | 2024-12-10 |

| REVISIONS | |
|-----------|----|
| 24075 | MD |

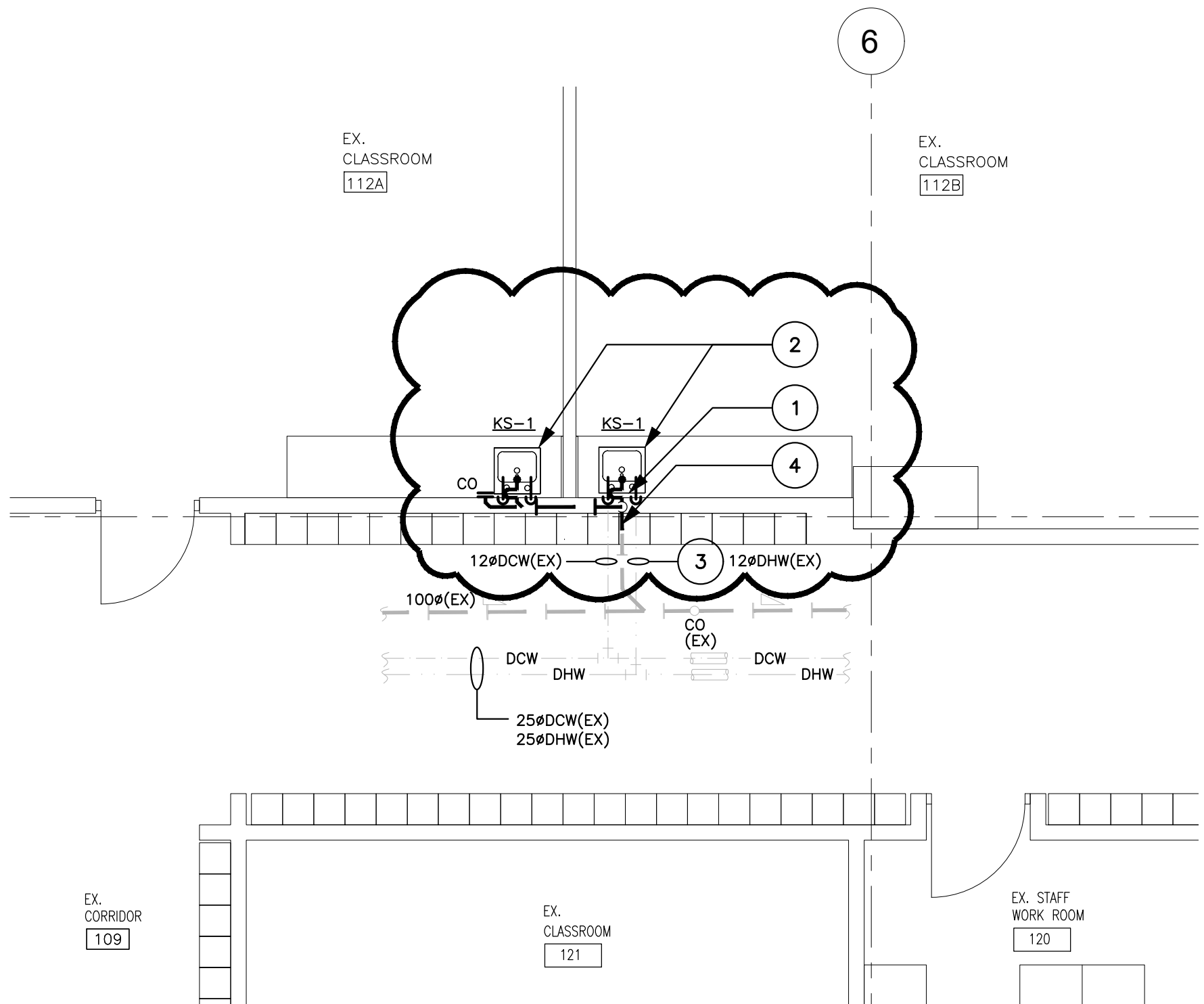
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www.eandmconsulting.com

HWDSB
AMRA J
ARCHITECTS INC.
www.aja.design | info@aja.design | 905.920.5121

Project title:
Hamilton District School Board
P2024-2082 Hess Street Elementary
School Ceiling Renovation
107 Hess Street North
Hamilton, Ontario

Drawing title:
ELECTRICAL SPECIFICATION

| | |
|----------------|-----------------------------|
| Drawn: MD | Scale: AS SHOWN |
| Date: | Project number: 24-22-01 |
| Checked: MD | Drawing No.: |
| Date: | E3-00 |
| | 2 |



1 DRAINAGE SYSTEM

SCALE- 1:50

DRAWING NOTES:

- 1 DEMOLISH EXISTING SINK.
- 2 RUN NEW DCW/DHW FROM UNDERSIDE OF THE EXISTING SINK TO NEW SINKS. ALL PIPING SHALL BE HIDDEN INSIDE EXISTING WALL AND RUN INSIDE CEILING SPACE.
- 3 THE PIPE SIZES SHOWN ARE APPROXIMATE, FIELD VERIFY AND INFORM CONSULTANTS IF DIFFERENT.
- 4 FOR SANITARY PIPES ALLOW FOR FLOOR CUTTING, EXCAVATION, BACKFILLING, DOWELING AND RESURFACING/ NEW SLAB TO MATCH EXISTING FLOOR COLOR AND TYPE INCLUDING REPLACEMENT OF NEW FLOORING.

PLUMBING FIXTURE SCHEDULE

| SYMBOL | FIXTURE DESCRIPTION | MANUFACTURER | CONNECTION SIZE | | | |
|--------|---------------------------|--|-----------------|-----|----------|------|
| | | | DCW | DHW | SANITARY | VENT |
| KS-1 | LAVATORY | 'KINDRED' TOP MOUNT/DROP IN STAINLESS STEEL LAVATORY MODEL No. QSL2020/10, FAUCET ONE HOLE ON CENTER. | - | - | 32ø | 32ø |
| | FAUCET | CHICAGO MANUAL SINK FAUCET MODEL No. 434-ABCP c/w ACCESSORIES. | 12ø | 12ø | - | - |
| | DRAIN AND P-TRAP | 'OS&B' 19HOLE GRID p.o BODY ASSEMBLY 17 GAUGE TAILPIECE DRAIN, ZURN SEMI-CAST P-TRAPS WITH WALL BEND PRODUCT NUMBER Z8700-PC CHROME-PLATED CAST BRASS (COPPER ALLOY) BODY P-TRAP WITH CLEANOUT | - | - | 32ø | - |
| | THERMOSTATIC MIXING VALVE | HAWS MODEL No. 9201H OR EQUIVALENT | - | - | - | - |

| | | |
|------|---|---|
| Seal | <p>E & M Consulting Engineers Inc. <small>6004 Osprey Blvd, Mississauga, ON, L5N 8K1 Canada www.eandmconsultingeng.com</small></p> | Project Number : 24075 |
| | | Date : 2025-03-10 |
| | | Drawn by : PJ |
| | Project Title : Hamilton District School Board P2024-2082 Hess Street Elementary School Ceiling Renovation, 107 Hess Street North Hamilton, Ontario | Drawing Number : MSK-01 ⁰ |
| | Drawing Title : PROPOSED NEW KITCHEN SINK AT EX. CLASSROOM 112A/112B | Rev. |