BROCK HIGH SCHOOL
WASHROOM RENOVATIONS
DURHAM REGIONAL ROAD 12, CANNINGTON, ON

LIST OF DRAWINGS

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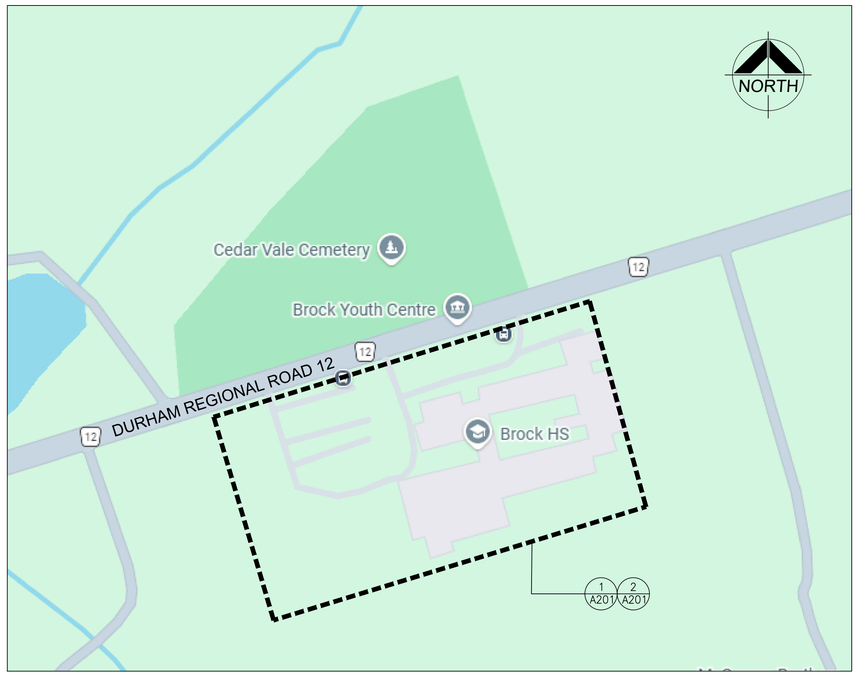
E500 ELECTRICAL ROOF PLAN - DEMOLITION
E501 ELECTRICAL ROOF PLAN - NEW
E600 ELECTRICAL DETAILS, PANEL SCHEDULE AND SINGLE LINE DIAGRAM
E700 ELECTRICAL FIRE ALARM SYSTEM RISER DIAGRAM AND DETAILS



NAME OF CONSULTANT : BARRY BRYAN ASSOCIATES
CERTIFICATE OF PRACTICE NUMBER : 5192
250 WATER STREET, SUITE 201
WHITBY, ONTARIO, CANADA. LIN 0G5
TEL : (905) - 666 - 5252
(Toronto) (905) - 427 - 4495
FAX : (905) - 666 - 5256

NAME OF PROJECT :

BROCK HIGH SCHOOL RENOVATIONS

LOCATION OF PROJECT :
DURHAM REGIONAL RD 12, CANNINGTON, ON, L0E 1E0 (AREA OF WORK 2540 m²)

DATE :
April 2026

Ontario Building Code Data Matrix
Part 11 - Renovation of Existing Building

			OBC Reference
11.00	Building Code Version:	O. Reg. 163/24 Last Amendment: O. Reg. 447/24	
11.01	Project Type:	☐ Addition ☑ Renovation ☐ Addition and Renovation ☐ Change of use Description Washroom & Interior Renovation	[A] 1.3.3.3B
11.02	Major Occupancy Classification:	Occupancy: A2 / - / - — Use: – Secondary School / - / -	3.1.2.1.(1), 2.1.4.1.(1) 10.1.1.2. and 11.2.1.
11.03	Superimposed Major Occupancies:	☐ Yes ☑ No Description -	11.2, 3.2.2.5 to 3.2.2.8 and 2.2.1
11.04	Building Area (m²)	Ground Floor: Existing 8298m², New no change, Total 8298m² Second/Third Floor (Split Level): Existing 5345m², New no change, Total 5345m² Total= 13,643m²	[A] 1.4.1.2., 11.2 and 11.3
11.05	Building Height	2 Storeys above grade 6+/- (m) Above grade 0 Storeys below grade	[A] 1.4.1.2, 3.2.1.1, 2.2.2.2 and 11.3
11.06	Number of streets/ fire fighter access:	1 street(s)	3.2.2.10, 3.2.5, 2.2.4.1 and 11.3
11.07	Building Size:	☐ Small ☐ Medium ☑ Large ☐ > Large	11.2.1.1 and 1.11.2.1.1.B.-N.
11.08	Existing Building Classification:	Change in Major Occupancy: ☐ Yes ☑ Not Applicable (no change of major occupancy) Construction Index: 6 Hazard Index: 6 Importance Category: ☐ Low ☐ Normal ☑ High ☐ Post-disaster	10.1.1.2, 11.2.1.1 T11.2.1.1A T11.2.1.1B to N, 4.1.2.1(3), 2.3.1 & 5.2.2.1.(2)
11.09	Renovation Type:	☑ Basic Renovation ☐ Extensive Renovation	11.3.3.1 & 11.3.3.2
11.10	Occupant Load:	Full Building: Occupancy Type A2, Based On SCHOOL PROJECTION, Occup. Load (persons) 505	3.1.17, 2.1.2.2 and 11.4.2.2.
11.11a	Plumbing Fixture Requirements:	Ratio: Male/Female = 50:50 Except as noted otherwise Ground Floor: Occupant Load 505 overall; OBC Reference 3.7.4.3(14); WC's Required 9M/10F; WC's Provided 23M/20F (NEW)	3.7.4, 11.3.4, 11.3.5, 11.4.2.4 & 11.4.2.5.
11.11b	Plumbing Fixture Requirements: cont.	Ground Floor: B.F. WC's Required 0; B.F. WC's Provided 1 Existing; Universal Washrooms Required 0; Universal Washrooms Provided 0 Second Floor: 0; 1 Existing; 0; 0 Third Floor: 0; 0; 1; 1 (RELOCATED)	Tables 3.8.2.3.A and 3.8.2.3.B
11.12	Barrier-free Design:	☑ Yes ☐ No Explaination Universal Washroom	11.3.1.2, 11.3.2, 11.3.3.2
	Barrier-free Entrances:	Number — Explaination Existing	
11.13	Reduction in Performance Level:	Structural ☑ No ☐ Yes By Increase in occupant load: ☑ No ☐ Yes By change of major occupancy: ☑ No ☐ Yes Plumbing ☑ No ☐ Yes Sewage - system: ☑ No ☐ Yes Extension of buildings of combustible construction: ☑ No ☐ Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6
11.14	Compensating Construction:	☐ Yes ☑ No Structural ☑ No ☐ Yes By Increase in occupant load: ☑ No ☐ Yes By change of major occupancy: ☑ No ☐ Yes Plumbing ☑ No ☐ Yes Sewage - system: ☑ No ☐ Yes Extension of buildings of Combustible Construction: ☑ No ☐ Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7
11.15	Compliance Alternatives Proposed:	☑ No ☐ Yes	11.5.1.
11.16	Alternative Solutions:	Not Applicable	[A] 1.2.1.1, and [C]2.1
11.17	Notes:	Boy's and Girl's washrooms being removed to become gender neutral washrooms. Relocation of existing universal washroom. HVAC upgrades.	

ARCHITECTURAL/STRUCTURAL:

BARRY BRYAN ASSOCIATES
250 WATER STREET, SUITE 201
WHITBY, ONTARIO, CANADA. LIN 0G5
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FAX : (905) - 666 - 5256

MECHANICAL/ELECTRICAL:

RDZ ENG
RDZ ENGINEERS LTD
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Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

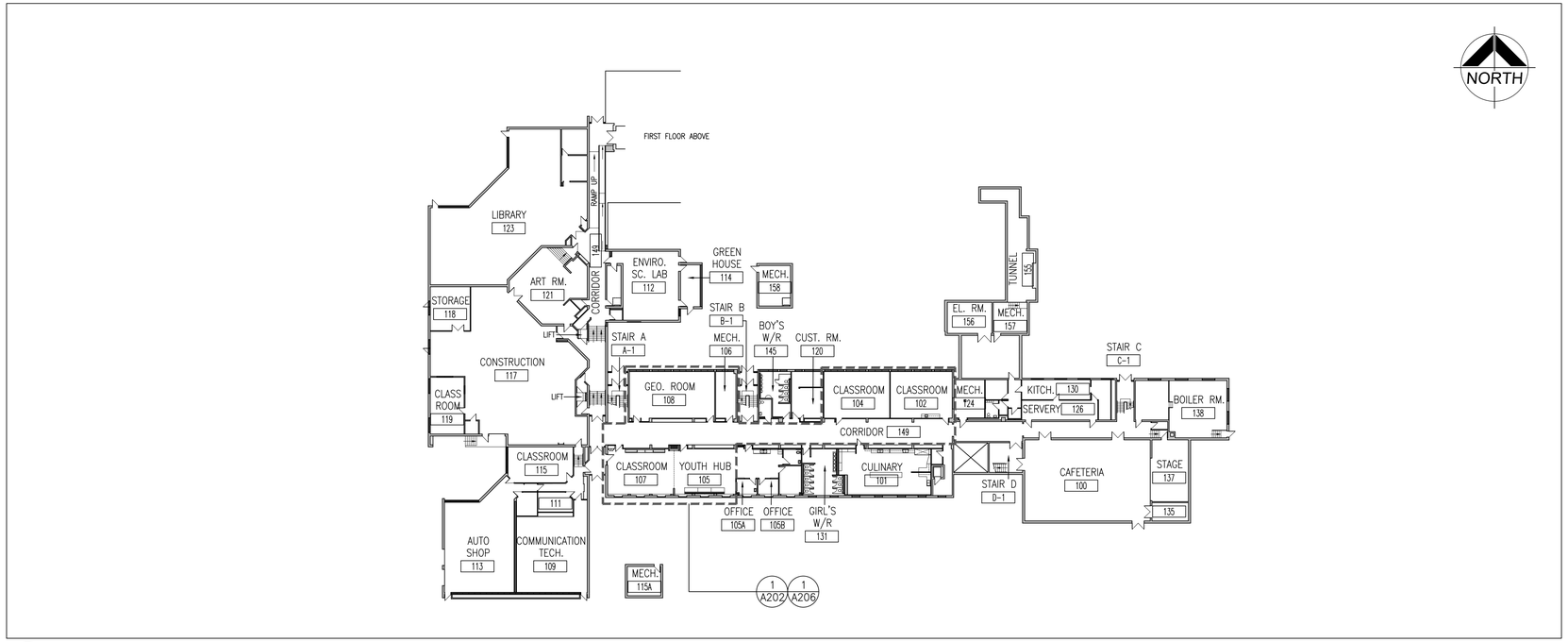
DRAWING:

DRAWING LISTS, SITE MAP & OBC MATRIX

DESIGN BY: BBA
DRAWN BY: DG
CHECKED BY: CM
DATE: 26-02-02
SCALE: N/A

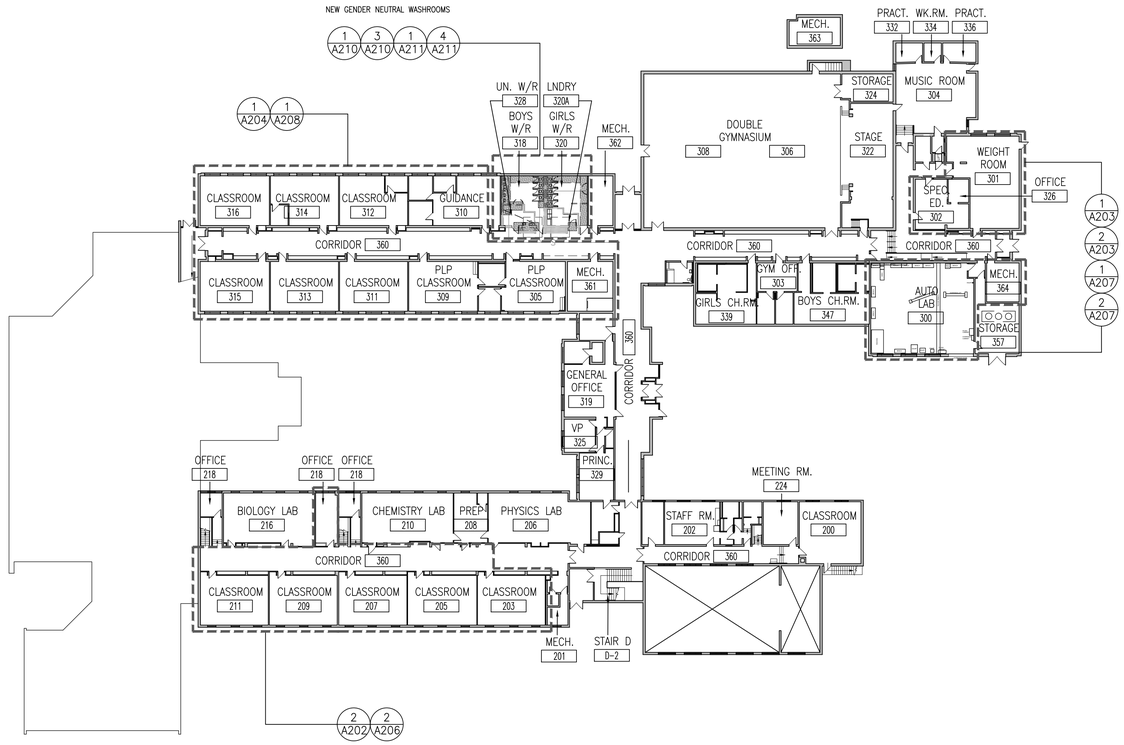
SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO: 25233
DRAWING NO: A000



2 A201 GROUND FLOOR KEY PLAN

1:400



1 A201 SECOND & THIRD FLOOR KEY PLAN

1:400

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

KEY PLANS

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	INITIALS
DATE:	26-02-09
SCALE:	1:400

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A201

DEMOLITION NOTES

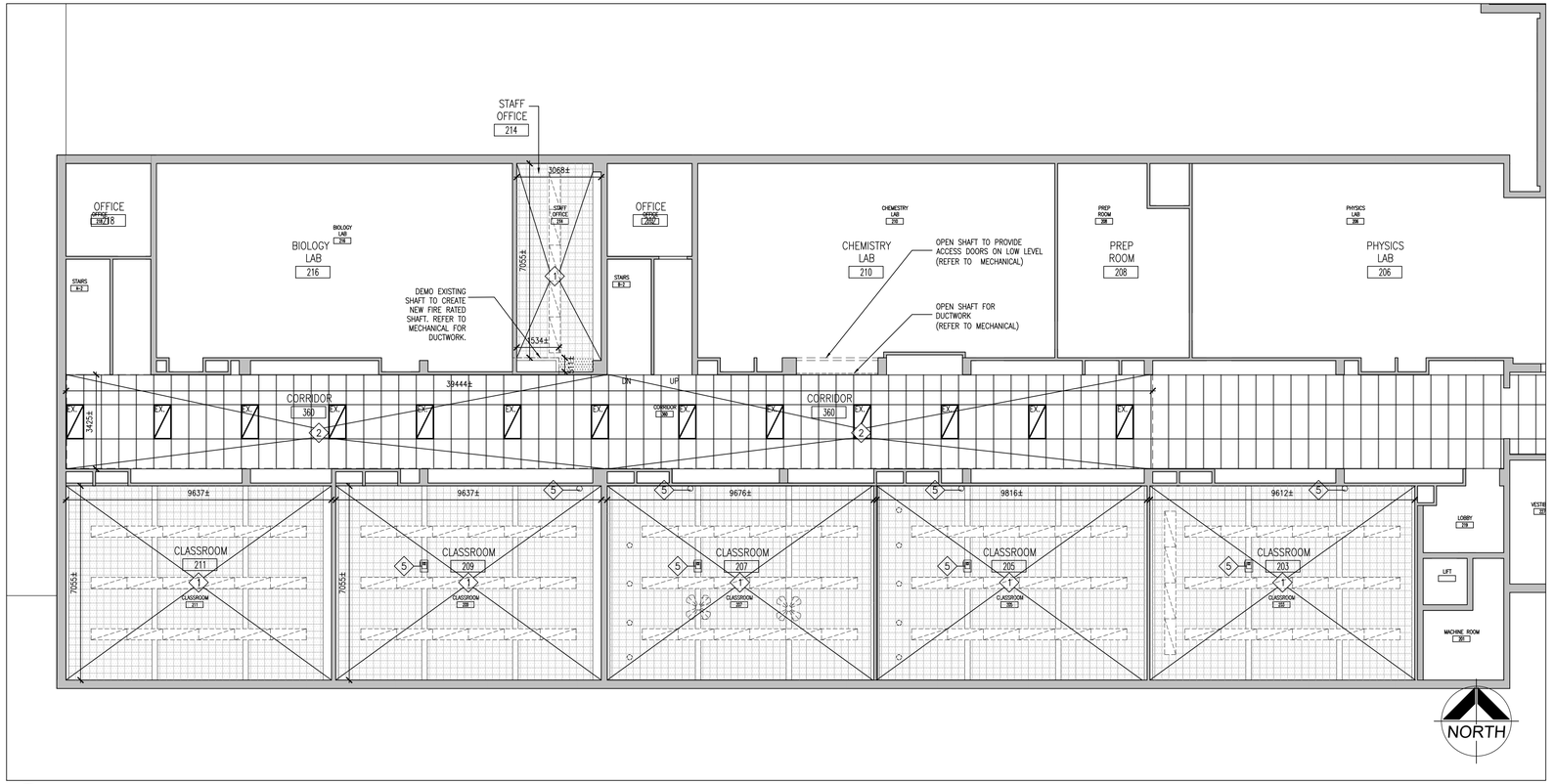
1. REMOVE AND DISPOSE OF ADHERED OR SUSPENDED ACOUSTIC CEILING TILE AND GRID TO EXTENT SHOWN TO COMPLETE NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
2. CAREFULLY REMOVE AND REINSTALL ACOUSTIC CEILING TILES, EXISTING GRIDS, INCLUDING CEILING MOUNTED ELECTRICAL DEVICES AS REQUIRED TO COMPLETE NEW WORK. PATCH REPAIR AND MAKE GOOD ALL AFFECTED SURFACES. REFER TO ELECTRICAL AND MECHANICAL.
3. REMOVE AND DISPOSE OF SUSPENDED ACOUSTIC CEILING TILE AND GRID TO EXTENT SHOWN TO COMPLETE NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
4. REMOVE AND DISPOSE OF LIGHT FIXTURE. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES TO REMAIN. REFER TO ELECTRICAL.
5. REMOVE AND REINSTALL LIGHTING, SAFETY DEVICES, OR ELECTRONIC DEVICES. REFER TO ELECTRICAL
6. TEMPORARILY CLEAR OUT ALL MACHINERY AND CABINETRY FROM FLOOR. CLEAN AND PREPARE SURFACE FOR REFINISHING.
7. REMOVE AND DISPOSE OF TERRAZZO MOP SINK, PATCH REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
8. PREPARE EXISTING FLOOR TO RECEIVE NEW EPOXY FLOOR FINISH. REFER TO SPECIFICATIONS.

RCP LEGEND

- CORRIDOR / CA — ROOM NAME & NUMBER
- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- ACOUSTIC CEILING TILE TO BE DEMOLISHED
- ACOUSTIC CEILING TILE TO BE REMOVED AND RE INSTALLED
- EXISTING EXHAUST GRILL
- EX. — EXISTING SUSPENDED LIGHT FIXTURE FOR REMOVAL AND RE INSTALLATION. REFER TO ELECTRICAL.
- SUSPENDED LIGHT FIXTURE TO BE DEMOLISHED.
- PENDANT LIGHT FIXTURE TO BE DEMOLISHED.
- PD — CEILING PROJECTOR. REFER TO ELECTRICAL.
- EMERGENCY CEILING LIGHT
- EXHAUST GRILL. REFER TO MECHANICAL
- EMERGENCY LIGHT/EXIT SIGN. REFER TO ELECTRICAL
- SMOKE DETECTOR. REFER TO ELECTRICAL

TYPICAL DEMOLITION NOTES

1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
4. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, OR PART THEREOF.
5. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
6. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
7. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
8. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL. OR CAUSE OTHERS TO FALL.
10. MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
11. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPL
12. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
13. CLEAN, PATCH / REPAIR ALL EXISTING SURFACES TO REMAIN TO RECEIVE NEW FINISHES. ALLOW FOR REMOVAL OR SCARIFICATION OF EXISTING PAINT FINISH ON WALLS THAT ARE TO RECEIVE NEW WALL TILE FINISH. REMOVE ALL MORTAR, ADHESIVES AND RUST AS REQUIRED TO PREPARE EXISTING SUBSTRATES TO RECEIVE NEW PAINT FINISHES.
14. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
15. DISPOSE OF MATERIALS OFF SITE.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
17. BUILDING TO BE SECURED BY THE G.C. AT ALL TIMES.
18. REFER TO HAZARDOUS BUILDING MATERIALS ASSESSMENT, FILE # 13092 Port Perry HS, 20230201, limited DSUB Report DATED FEBRUARY 02, 2023, PREPARED BY PARASOL. HAZARDOUS REMOVALS SHALL COMPLY WITH CURRENT LEGISLATION.



2 / A202 PART SECOND FLOOR CEILING DEMOLITION PLAN

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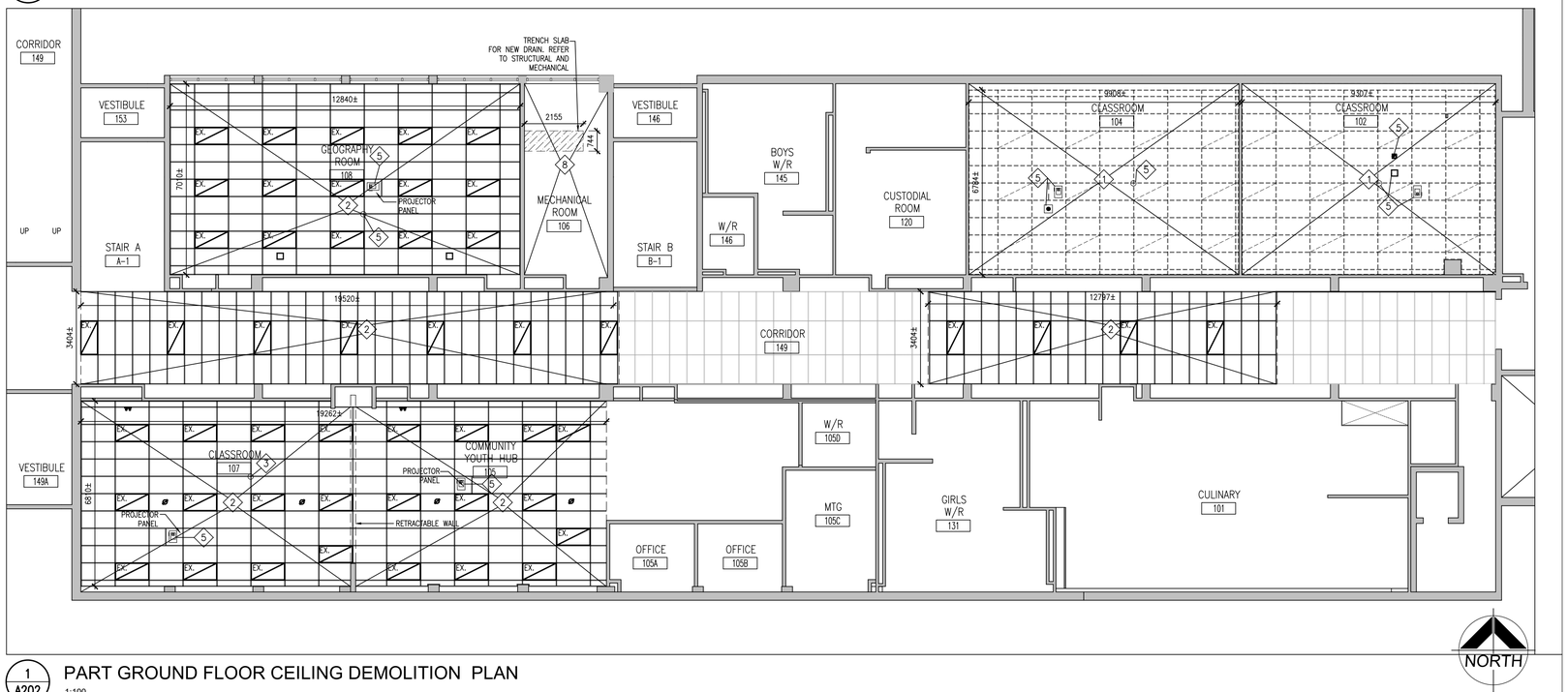

1 / A202 PART GROUND FLOOR CEILING DEMOLITION PLAN

1:100

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
GROUND FLOOR & SECOND FLOOR DEMOLITION REFLECTED CEILING PLANS

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-03-04
SCALE:	1:100

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A202

TYPICAL DEMOLITION NOTES

1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
4. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, OR PART THEREOF.
5. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
6. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
7. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
8. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL. OR CAUSE OTHERS TO FALL.
10. MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
11. REMOVAL OF EXISTING FLOOR FINISHES IS TO INCLUDE COMPLETE REMOVAL OF BASE AND ALL MORTAR AND ADHESIVES AND REPARATION OF EXISTING SUBSTRATES TO RECEIVE NEW FLOORING, SATISFACTORY TO THE MANUFACTURER OF NEW FLOOR FINISHES. ALLOW FOR EXCESSIVE LEVELING OF SLABS.
12. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
13. SAWCUT, BREAK OUT AND MAKE GOOD (MATCH EXISTING U.N.O.) ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW PLUMBING AND OTHER SERVICES AS INDICATED AND AS REQUIRED ON MECHANICAL AND ELECTRICAL DRAWINGS.
14. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
15. REMOVAL OF DOORS AND FRAMES IS TO INCLUDE REMOVAL OF ALL HARDWARE.
16. REMOVE ALL PROTRUSIONS IN FLOOR SLAB AND GRIND DOWN TO FLOOR LEVEL.
17. CLEAN, PATCH / REPAIR ALL EXISTING SURFACES TO REMAIN TO RECEIVE NEW FINISHES. ALLOW FOR REMOVAL OR SCARIFICATION OF EXISTING PAINT FINISH ON WALLS THAT ARE TO RECEIVE NEW WALL TILE FINISH. REMOVE ALL MORTAR, ADHESIVES AND RUST AS REQUIRED TO PREPARE EXISTING SUBSTRATES TO RECEIVE NEW PAINT FINISHES.
18. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
19. DISPOSE OF MATERIALS OFF SITE.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
21. BUILDING TO BE SECURED BY THE G.C. AT ALL TIMES.
22. REFER TO HAZARDOUS BUILDING MATERIALS ASSESSMENT, FILE # 13092 Port Perry HS, 20230201, limited DSUB Report DATED FEBRUARY 02, 2023, PREPARED BY PARASOL. HAZARDOUS REMOVALS SHALL COMPLY WITH CURRENT LEGISLATION.

DEMOLITION NOTES

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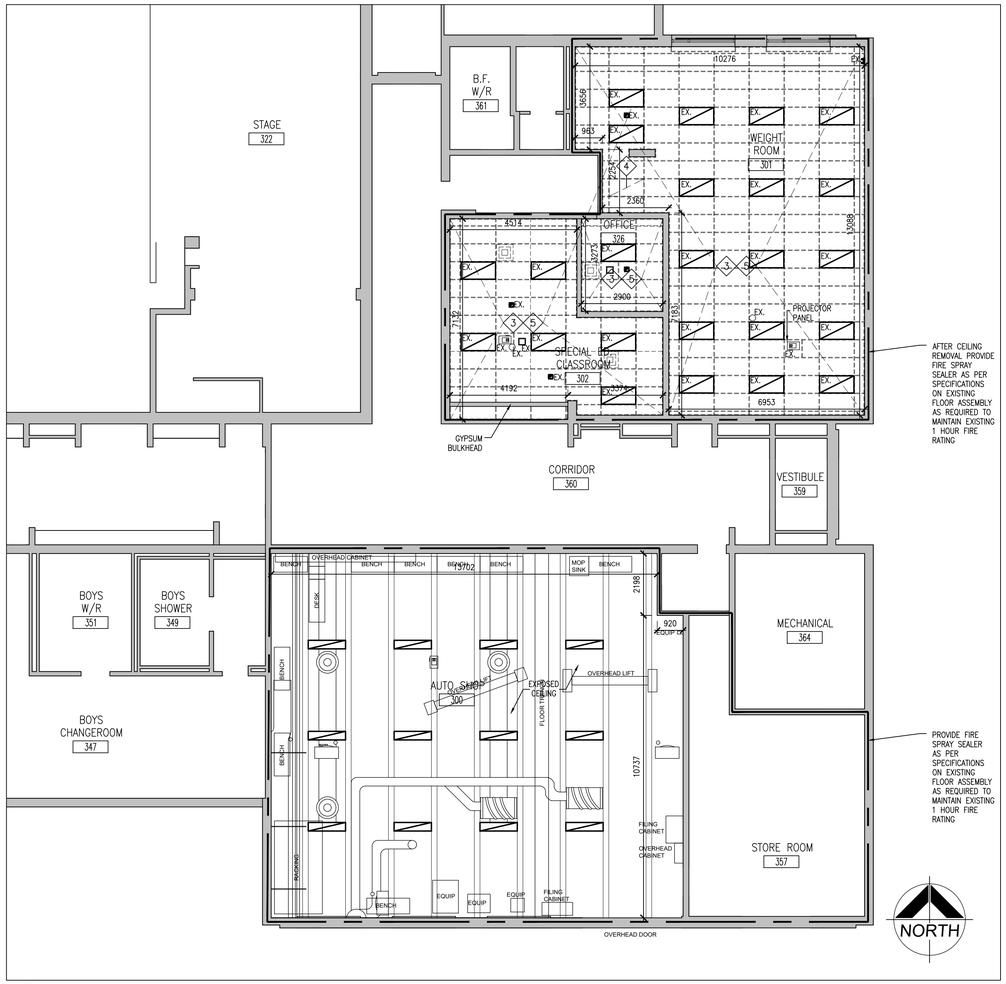
3. REMOVE AND DISPOSE OF SUSPENDED ACOUSTIC CEILING TILE AND GRID TO EXTENT SHOWN TO COMPLETE NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
4. REMOVE AND DISPOSE OF LIGHT FIXTURE. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES TO REMAIN. REFER TO ELECTRICAL.
5. REMOVE AND REINSTALL LIGHTING, SAFETY DEVICES, OR ELECTRONIC DEVICES. REFER TO ELECTRICAL
6. TEMPORARILY CLEAR OUT ALL MACHINERY AND CABINETRY FROM FLOOR. CLEAN AND PREPARE SURFACE FOR REFINISHING.
7. REMOVE AND DISPOSE OF TERRAZZO MOP SINK, PATCH REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
8. PREPARE EXISTING FLOOR TO RECEIVE NEW EPOXY FLOOR FINISH. REFER TO SPECIFICATIONS.

FLOOR PLAN LEGEND

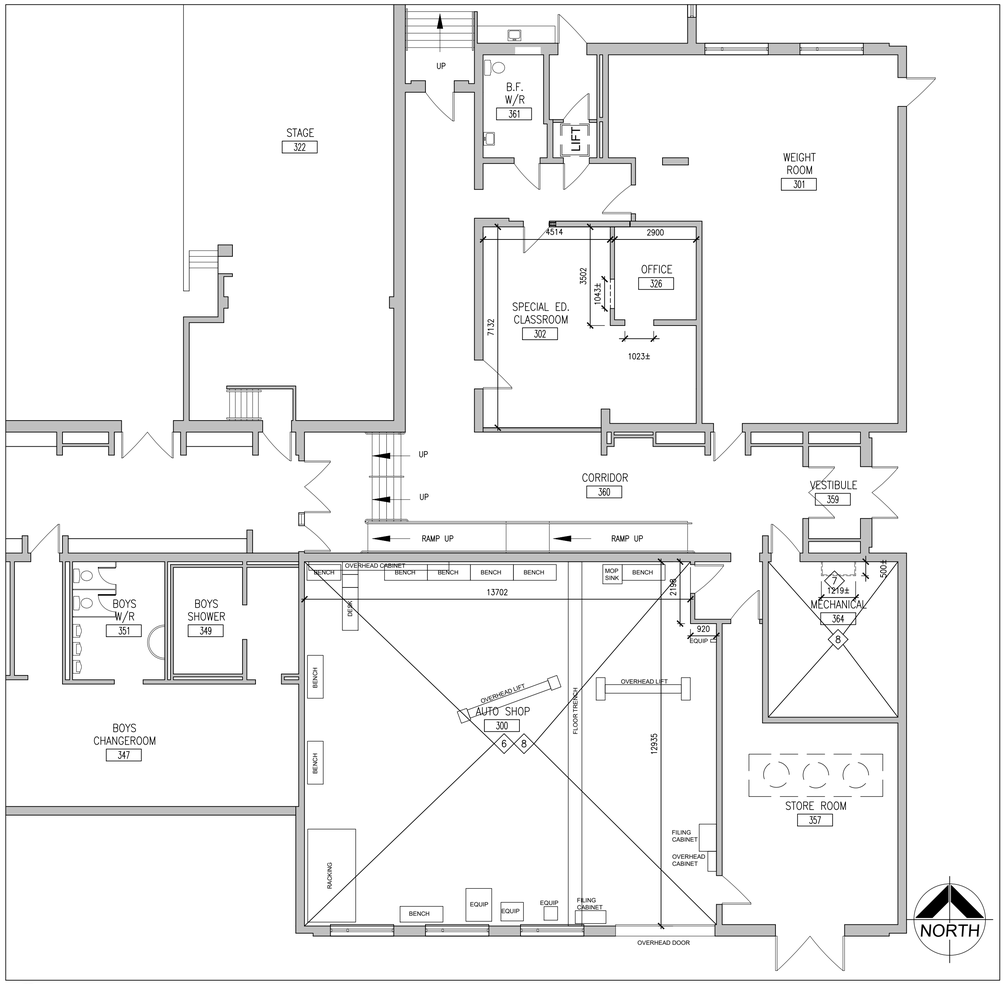
- CORRIDOR / CA — ROOM NAME & NUMBER
- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- EXISTING DOOR, FRAME AND TRIM TO REMAIN
- EXISTING DOOR, FRAME AND TRIM TO BE CAREFULLY REMOVED AND DISPOSED OF.
- NEW DOOR, FRAME AND TRIM TO BE INSTALLED.

RCP LEGEND

- CORRIDOR / CA — ROOM NAME & NUMBER
- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- ACOUSTIC CEILING TILE TO BE DEMOLISHED
- ACOUSTIC CEILING TILE TO BE REMOVED AND THEN RE INSTALLED
- EXISTING LIGHT FIXTURE TO BE DEMOLISHED REFER TO ELECTRICAL
- EX. — EXISTING LIGHT FIXTURE TO BE REMOVED AND RE INSTALLED
- EXISTING EXHAUST GRILL
- EXISTING WIFI
- EMERGENCY LIGHT REFER TO ELECTRICAL
- EXISTING PROJECTOR
- EXISTING DIFFUSER
- SAFETY DEVICE REFER TO ELECTRICAL



2 / A203 THIRD FLOOR CEILING DEMOLITION PLAN
1:100



1 / A203 THIRD FLOOR DEMOLITION PLAN
1:100

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO — Jennifer Morton — 2026 — Association of Registered Interior Designers of Ontario

BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL
RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

THIRD FLOOR
DEMOLITION PLAN &
REFLECTED CEILING PLAN

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-03-05
SCALE:	1:100

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS — LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A203

TYPICAL DEMOLITION NOTES

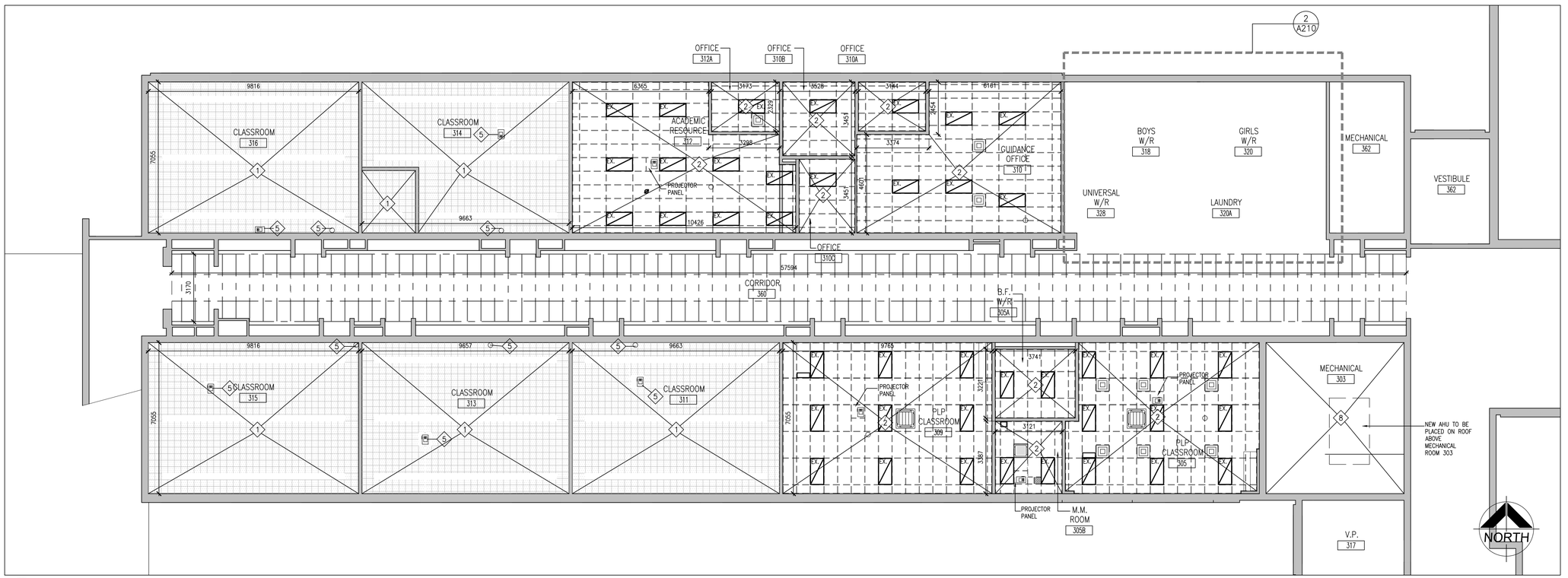
1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
4. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, OR PART THEREOF.
5. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
6. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
7. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
8. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL, OR CAUSE OTHERS TO FALL.
10. MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
11. REMOVAL OF EXISTING FLOOR FINISHES IS TO INCLUDE COMPLETE REMOVAL OF BASE AND ALL MORTAR AND ADHESIVES AND REPARATION OF EXISTING SUBSTRATES TO RECEIVE NEW FLOORING, SATISFACTORY TO THE MANUFACTURER OF NEW FLOOR FINISHES. ALLOW FOR EXCESSIVE LEVELING OF SLABS.
12. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
13. SAWCUT, BREAK OUT AND MAKE GOOD (MATCH EXISTING U.N.O.) ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW PLUMBING AND OTHER SERVICES AS INDICATED AND AS REQUIRED ON MECHANICAL AND ELECTRICAL DRAWINGS.
14. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
15. REMOVAL OF DOORS AND FRAMES IS TO INCLUDE REMOVAL OF ALL HARDWARE.
16. REMOVE ALL PROTRUSIONS IN FLOOR SLAB AND GRIND DOWN TO FLOOR LEVEL.
17. CLEAN, PATCH / REPAIR ALL EXISTING SURFACES TO REMAIN TO RECEIVE NEW FINISHES. ALLOW FOR REMOVAL OR SCARIFICATION OF EXISTING PAINT FINISH ON WALLS THAT ARE TO RECEIVE NEW WALL TILE FINISH. REMOVE ALL MORTAR, ADHESIVES AND RUST AS REQUIRED TO PREPARE EXISTING SUBSTRATES TO RECEIVE NEW PAINT FINISHES.
18. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
19. DISPOSE OF MATERIALS OFF SITE.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
21. BUILDING TO BE SECURED BY THE G.C. AT ALL TIMES.
22. REFER TO HAZARDOUS BUILDING MATERIALS ASSESSMENT, FILE # 13092 Port Perry HS, 20230201, limited DSUB Report DATED FEBRUARY 02, 2023, PREPARED BY PARASOL. HAZARDOUS REMOVALS SHALL COMPLY WITH CURRENT LEGISLATION.

DEMOLITION NOTES

1. REMOVE AND DISPOSE OF ADHERED OR SUSPENDED ACOUSTIC CEILING TILE AND GRID TO EXTENT SHOWN TO COMPLETE NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
2. CAREFULLY REMOVE AND REINSTALL ACOUSTIC CEILING TILES, EXISTING GRIDS, INCLUDING CEILING MOUNTED ELECTRICAL DEVICES AS REQUIRED TO COMPLETE NEW WORK. PATCH REPAIR AND MAKE GOOD ALL AFFECTED SURFACES. REFER TO ELECTRICAL AND MECHANICAL.
3. REMOVE AND DISPOSE OF SUSPENDED ACOUSTIC CEILING TILE AND GRID TO EXTENT SHOWN TO COMPLETE NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
4. REMOVE AND DISPOSE OF LIGHT FIXTURE. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES TO REMAIN. REFER TO ELECTRICAL.
5. REMOVE AND REINSTALL LIGHTING, SAFETY DEVICES, OR ELECTRONIC DEVICES. REFER TO ELECTRICAL
6. TEMPORARILY CLEAR OUT ALL MACHINERY AND CABINETRY FROM FLOOR. CLEAN AND PREPARE SURFACE FOR REFINISHING.
7. REMOVE AND DISPOSE OF TERRAZZO MOP SINK, PATCH REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
8. PREPARE EXISTING FLOOR TO RECEIVE NEW EPOXY FLOOR FINISH. REFER TO SPECIFICATIONS.

RCP LEGEND

- CORRIDOR / CA — ROOM NAME & NUMBER
- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- ACOUSTIC CEILING TILE TO BE DEMOLISHED
- ACOUSTIC CEILING TILE TO BE REMOVED AND THEN RE INSTALLED
- EXISTING LIGHT FIXTURE TO BE DEMOLISHED REFER TO ELECTRICAL
- EX. — EXISTING LIGHT FIXTURE TO BE REMOVED AND THEN RE INSTALLED
- EXISTING EXHAUST GRILL
- EXISTING WIFI
- EMERGENCY LIGHT REFER TO ELECTRICAL
- EXISTING PROJECTOR
- EXISTING DIFFUSER
- SAFETY DEVICE REFER TO ELECTRICAL



1 A204 THIRD FLOOR CEILING DEMOLITION PLAN
1:100

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

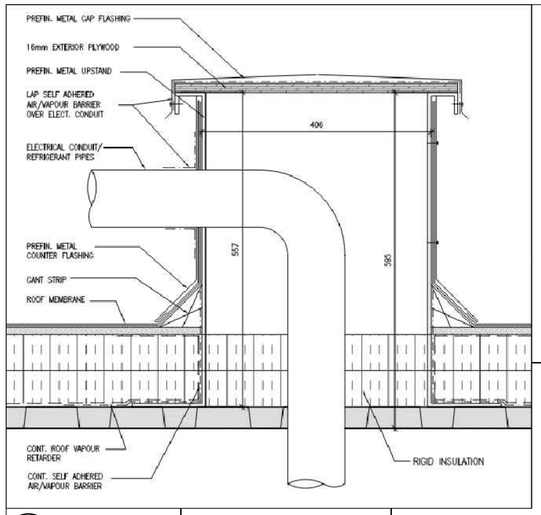
DRAWING:

THIRD FLOOR DEMOLITION REFLECTED CEILING PLAN

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-03-04
SCALE:	1:100

SEAL: Ontario Association of Architects — Cassandra Erin Cautius — Licence 8891

PROJECT NO:	DRAWING NO:
25233	A204



2 A205 DETAIL FOR CONDUIT PENETRATION AT ROOF
1:05

REFER TO MECHANICAL DRAWINGS FOR ALL DETAILS REGARDING NEW AHU's, ROOF PENETRATIONS, AND NEW LOUVRED EXHAUST PENTHOUSES.

NORTH

GYMNASIUM ROOF

THIRD FLOOR ROOF

BELOW MECH. RM 361

NEW AHU CU-9B

NEW AHU CU-9A

NEW AHU CU-8

NEW ROOF PENETRATION

NEW ROOF PENETRATION

NEW ROOF PENETRATION FOR NEW LOUVRED EXHAUST PENTHOUSE

THIRD FLOOR ROOF

BELOW WEIGHT RM 301

NEW AHU CU-1

NEW ROOF PENETRATION FOR NEW LOUVRED EXHAUST PENTHOUSE

OPEN COURTYARD

GROUND FLOOR ROOF

BELOW STAFF OFF. 214

NEW ROOF PENETRATION

NEW AHU CU-3

RTU-1

NEW ROOF PENETRATION

SECOND FLOOR ROOF

1 A205 ROOF PLAN
1:200

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2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

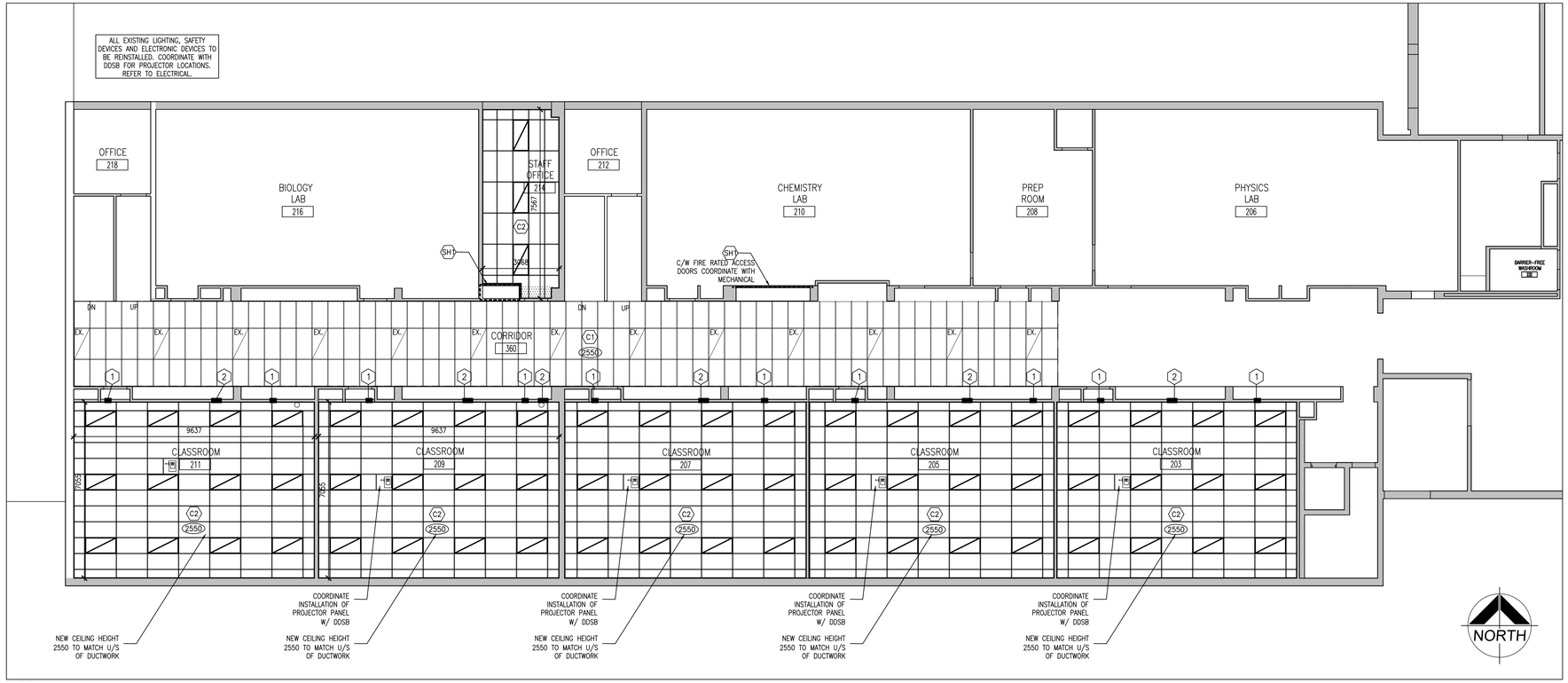
ROOF PLAN

DESIGN BY: BBA
DRAWN BY: DG
CHECKED BY: JM
DATE: 26-03-12
SCALE: 1:200

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS CASSANDRA ERIN CAUTIUS LICENCE 8891

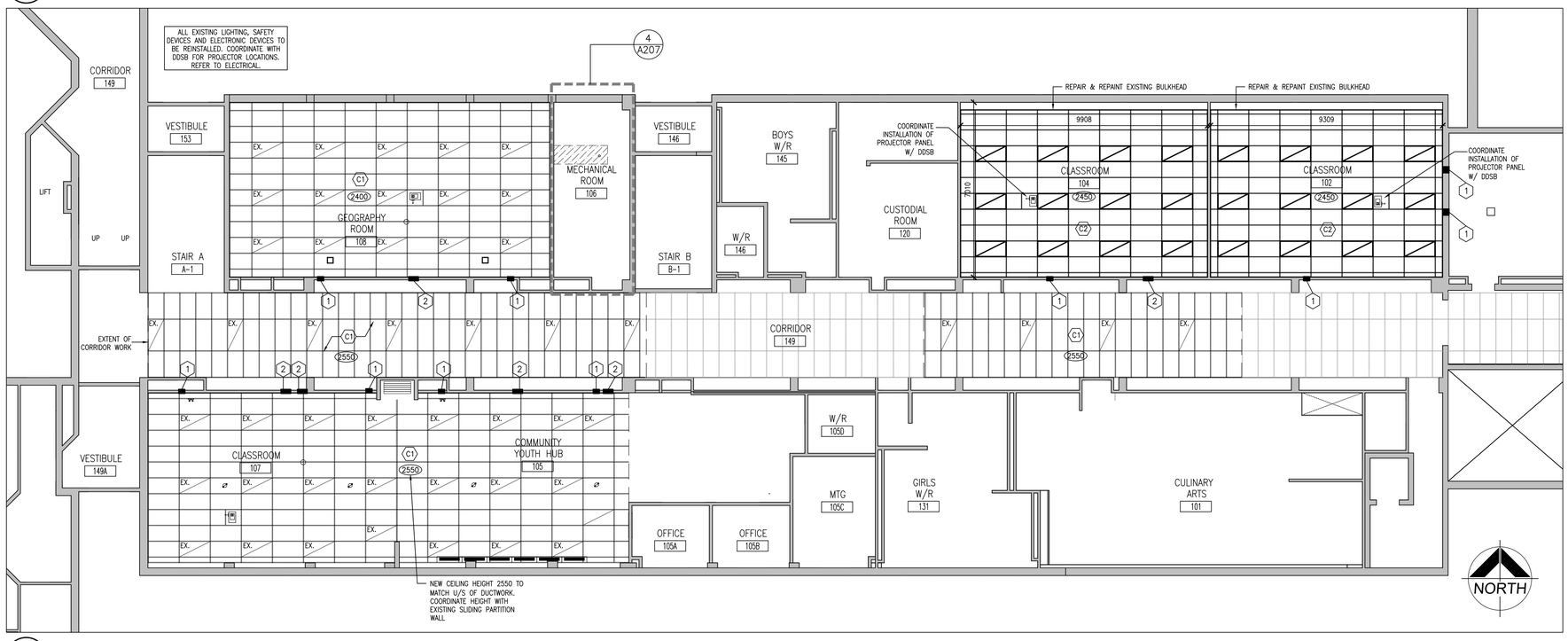
PROJECT NO: 25233

DRAWING NO: A205



2 A206 SECOND FLOOR REFLECTED CEILING PLAN

1:100



1 A206 GROUND FLOOR REFLECTED CEILING PLAN

1:100

GENERAL CEILING PLAN NOTES:

1. REFLECTED CEILING PLAN IS FOR GENERAL LAYOUT AND CO-ORDINATION OF CEILING COMPONENTS. REFER TO FLOOR PLANS, DETAILS, AND CONSULTANT'S DRAWINGS FOR SPECIFIC INFORMATION.
2. LAY-IN ACOUSTIC TILE CENTERED IN ROOMS, TYPICAL UNLESS NOTED OTHERWISE. PAINT FINISH TO BE APPLIED TO ALL EXPOSED STEEL STRUCTURE. PAINT FINISH TO BE APPLIED TO ALL EXPOSED MECHANICAL COMPONENTS.
3. SAFETY DEVICES, WIFI UNITS, AND PA SPEAKERS SHALL BE LOCATED AS INDICATED ON PLAN.

CEILING TYPES:

C1 610x1220 EXISTING ACOUSTIC CEILING TILE ON EXISTING SUSPENDED GRID TO BE RE INSTALLED.

C2 610x1220 NEW ACOUSTIC CEILING TILE ON NEW SUSPENDED GRID.

CEILING NOTATION LEGEND

- CORRIDOR / CA — ROOM NAME & NUMBER
- 2450 — CEILING LEVEL ABOVE FINISHED FLOOR
- EX. — EXISTING 610x1220 LIGHT FIXTURE TO BE RE INSTALLED. REFER TO ELECTRICAL.
- NEW 610x1220 LIGHT FIXTURE. REFER TO ELECTRICAL.
- EXISTING EXHAUST GRILL. REFER TO ELECTRICAL.
- EXISTING WIFI
- EXISTING EMERGENCY LIGHT REFER TO ELECTRICAL
- EMERGENCY LIGHT/EXIST SIGN. REFER TO ELECTRICAL
- EXISTING PROJECTOR
- EXISTING DIFFUSER. REFER TO MECHANICAL.
- SAFETY DEVICE REFER TO ELECTRICAL
- 1HR. FIRE RATED WALL

NEW CONSTRUCTION NOTES:

1. HIGH LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION
2. LOW LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION

SHAFT WALL TYPE SCHEDULE

SH1 — 16mm TYPE 'X' GYPSUM BOARD PAINTED
51mm CH STUDS, 20ga. 610mm O.C.
25mm TYPE 'X' GYPSUM BOARD
1 HOUR SHAFT WALL – UL Y415
TERMINATE AT U/S DECK AND SEAL ALL JOINTS

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1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
GROUND FLOOR & SECOND FLOOR REFLECTED CEILING PLANS

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-03-12
SCALE:	1:100

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS — LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A206

GENERAL NOTES:

1. ALL EXPOSED METAL IN INTERIOR TO BE PAINT FINISH.
2. WHERE INDICATED, PAINT GYPSUM BOARD WALLS AND BULKHEADS.
3. ALL EXPOSED DUCTWORK AND PIPING SHALL RECEIVE PAINT FINISH.
4. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.

GENERAL CEILING PLAN NOTES:

1. REFLECTED CEILING PLAN IS FOR GENERAL LAYOUT AND CO-ORDINATION OF CEILING COMPONENTS. REFER TO FLOOR PLANS, DETAILS, AND CONSULTANT'S DRAWINGS FOR SPECIFIC INFORMATION.
2. LAY-IN ACOUSTIC TILE CENTERED IN ROOMS, TYPICAL UNLESS NOTED OTHERWISE. PAINT FINISH TO EXPOSED STEEL STRUCTURE. PAINT FINISH TO ALL EXPOSED MECHANICAL COMPONENTS.
3. SAFETY DEVICES, WIFI UNITS, AND PA SPEAKERS SHALL BE LOCATED AS INDICATED ON PLAN.

CEILING TYPES:

C1 610x1220 EXISTING ACOUSTIC CEILING TILE ON EXISTING SUSPENDED GRID TO BE RE INSTALLED.

C2 610x1220 NEW ACOUSTIC CEILING TILE ON NEW SUSPENDED GRID.

FLOOR PLAN NOTATION LEGEND

CORRIDOR CA — ROOM NAME & NUMBER

FXX — PARTITION TYPE

101 — DOOR NUMBER

SC01 — SCREEN NUMBER

1 / A200 — WALL SECTION/ INTERIOR ELEVATION REFERENCE

FF2 FF1 — FLOOR FINISH TYPE (SEE ALSO ROOM FINISH SCHEDULE)

F.R.R. — FIRE RESISTANCE RATING

FE — FIRE EXTINGUISHER

FEC — FIRE EXTINGUISHER CABINET

RS — ROLLER SHADE

ELECTRICAL PANEL

NEW CONSTRUCTION NOTES:

1. HIGH LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION
2. LOW LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION

CEILING NOTATION LEGEND

CORRIDOR CA — ROOM NAME & NUMBER

2750 — CEILING LEVEL ABOVE FINISHED FLOOR (SEE ALSO ROOM FINISH SCHEDULE)

EX. — EXISTING 610x1220 LIGHT FIXTURE TO BE RE INSTALLED. REFER TO ELECTRICAL.

NEW 610x1220 LIGHT FIXTURE. REFER TO ELECTRICAL.

EXISTING EXHAUST GRILL. REFER TO ELECTRICAL.

EXISTING WIFI

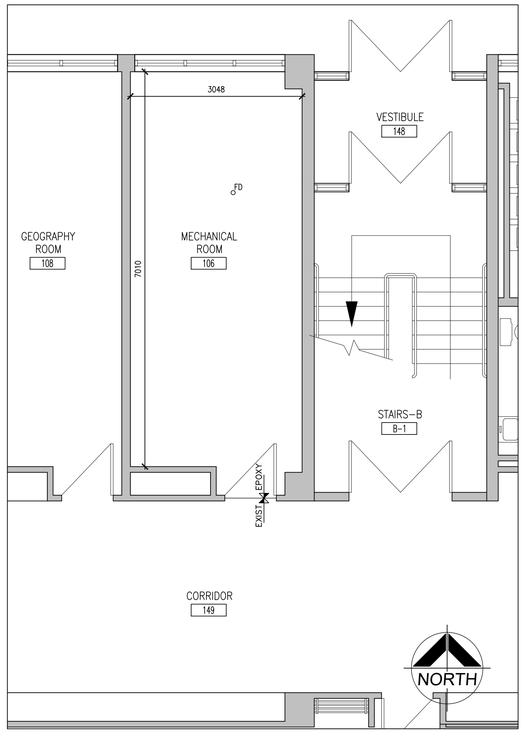
EXISTING EMERGENCY LIGHT REFER TO ELECTRICAL

EMERGENCY LIGHT/EXIST SIGN. REFER TO ELECTRICAL

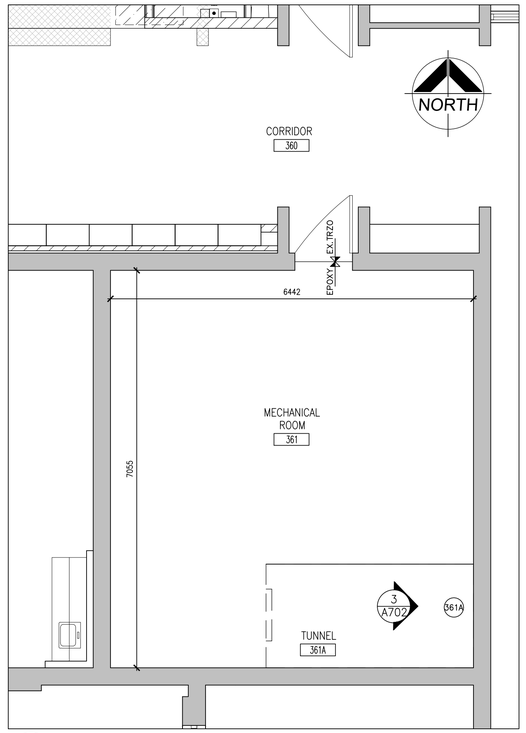
EXISTING PROJECTOR

EXISTING DIFFUSER. REFER TO MECHANICAL.

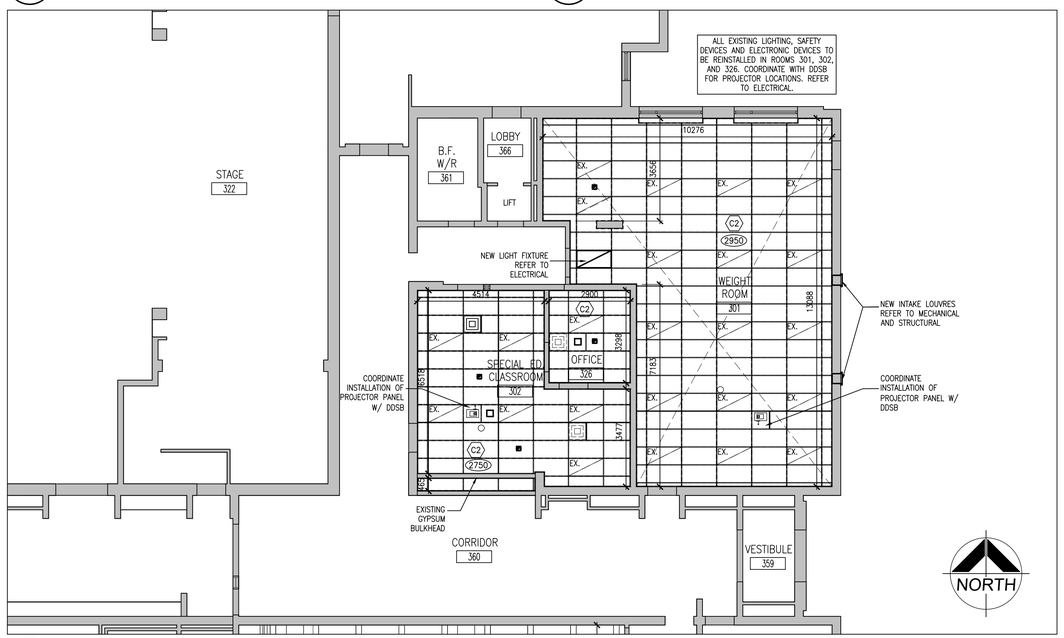
SAFETY DEVICE REFER TO ELECTRICAL



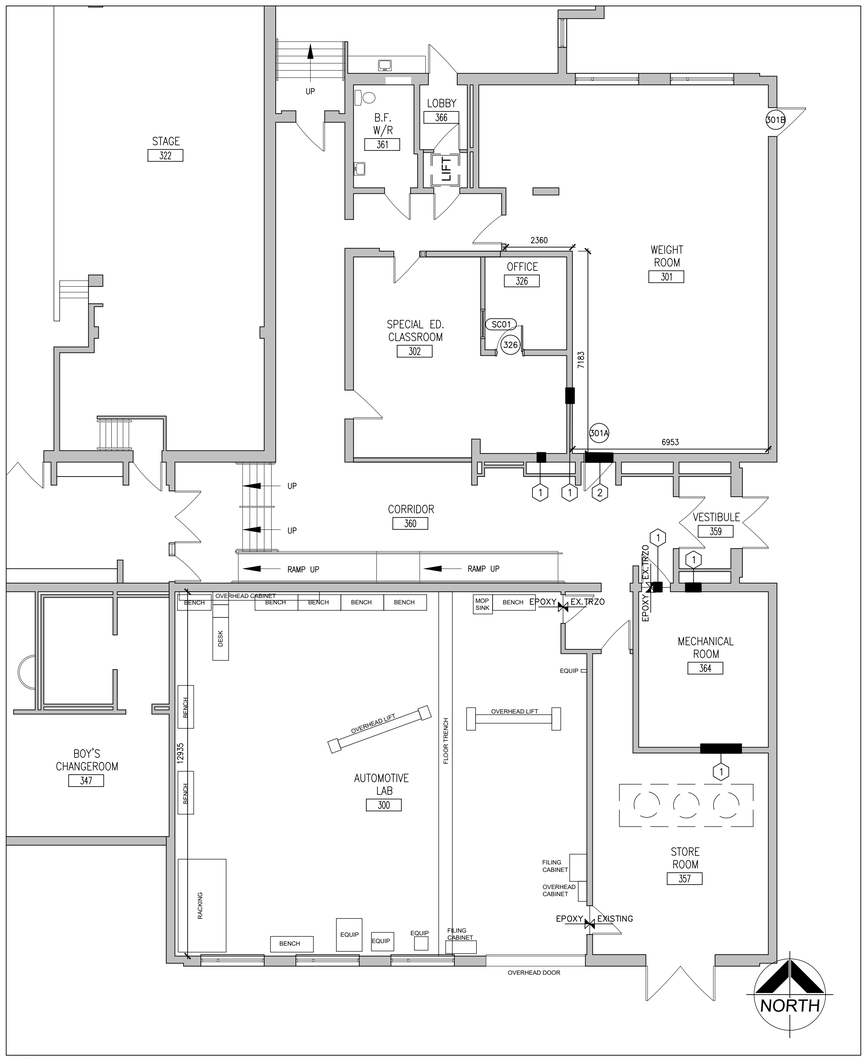
4 / A207 GROUND FLOOR MECHANICAL ROOM 106 PLAN
1:50



3 / A207 THIRD FLOOR MECHANICAL ROOM 361 PLAN
1:50



2 / A207 PART THIRD FLOOR REFLECTED CEILING PLAN
1:100



1 / A207 PART THIRD FLOOR PLAN
1:100

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DDSB Ignite Learning

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2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

PART THIRD FLOOR PLAN & PART THIRD FLOOR REFLECTED CEILING PLAN

DESIGN BY: BBA
DRAWN BY: DG
CHECKED BY: JM
DATE: 26-03-12
SCALE: AS NOTED

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO: 25233
DRAWING NO: A207

GENERAL CEILING PLAN NOTES:

1. REFLECTED CEILING PLAN IS FOR GENERAL LAYOUT AND CO-ORDINATION OF CEILING COMPONENTS. REFER TO FLOOR PLANS, DETAILS, AND CONSULTANT'S DRAWINGS FOR SPECIFIC INFORMATION.
2. LAY-IN ACOUSTIC TILE CENTERED IN ROOMS, TYPICAL UNLESS NOTED OTHERWISE. PAINT FINISH TO EXPOSED STEEL STRUCTURE. PAINT FINISH TO ALL EXPOSED MECHANICAL COMPONENTS.
3. SAFETY DEVICES, WIFI UNITS, AND PA SPEAKERS SHALL BE LOCATED AS INDICATED ON PLAN.

NEW CONSTRUCTION NOTES:

(1) HIGH LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION

(2) LOW LEVEL DUCT OPENING TO BE INFILLED WITH BLOCK (REFER TO STRUCTURAL 4/S101 FOR 1HR FIRE SEPARATION

CEILING TYPES:

(C1) 610x1220 EXISTING ACOUSTIC CEILING TILE ON EXISTING SUSPENDED GRID TO BE RE INSTALLED.

(C2) 610x1220 NEW ACOUSTIC CEILING TILE ON NEW SUSPENDED GRID.

CEILING NOTATION LEGEND

CORRIDOR
CA — ROOM NAME & NUMBER

2550 — CEILING LEVEL ABOVE FINISHED FLOOR

EX. — EXISTING 610x1220 LIGHT FIXTURE TO BE RE INSTALLED. REFER TO ELECTRICAL.

NEW 610x1220 LIGHT FIXTURE. REFER TO ELECTRICAL.

EXISTING EXHAUST GRILL. REFER TO ELECTRICAL.

EXISTING WIFI

EXISTING EMERGENCY LIGHT REFER TO ELECTRICAL

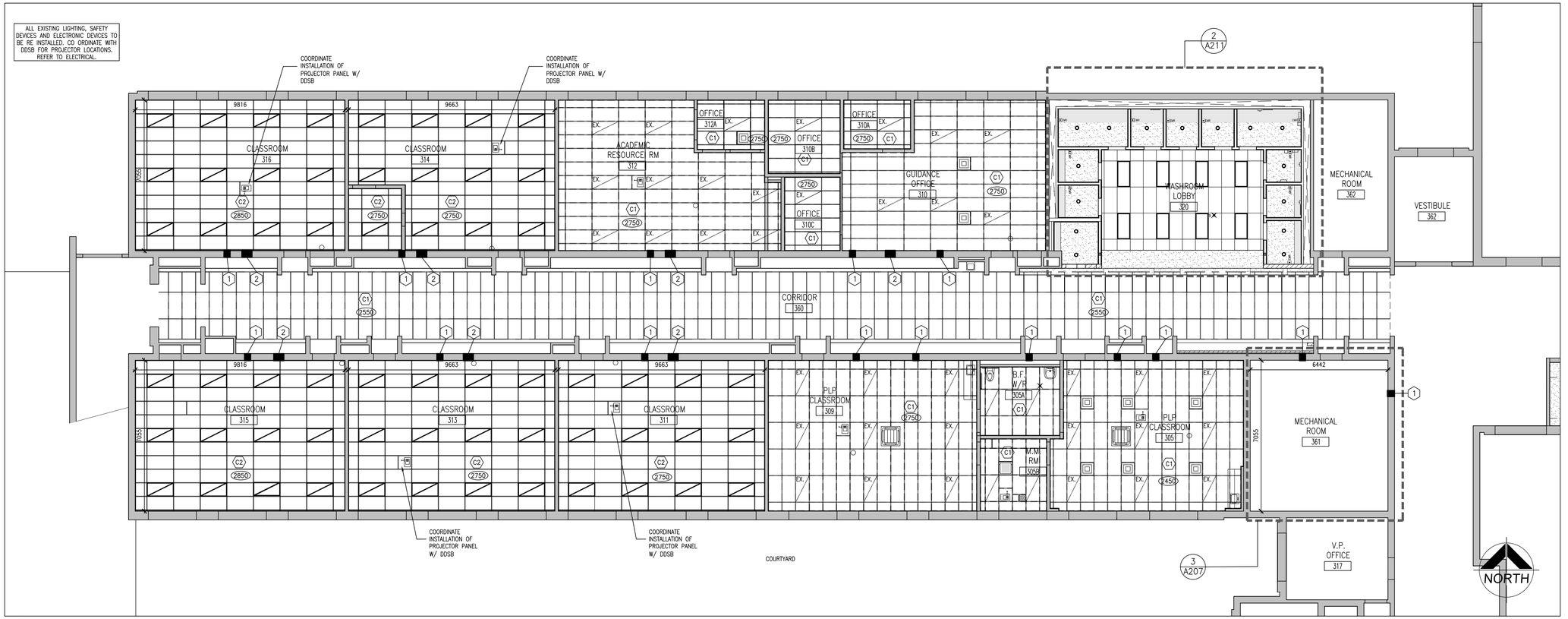
EMERGENCY LIGHT/EXIST SIGN. REFER TO ELECTRICAL

EXISTING PROJECTOR

EXISTING DIFFUSER. REFER TO MECHANICAL.

SAFETY DEVICE REFER TO ELECTRICAL

ALL EXISTING LIGHTING, SAFETY DEVICES AND ELECTRONIC DEVICES TO BE RE INSTALLED. CO ORDINATE WITH DDSB FOR PROJECTOR LOCATIONS. REFER TO ELECTRICAL.



1 A208 PART THIRD FLOOR REFLECTED CEILING PLAN
1:100

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

PART THIRD FLOOR REFLECTED CEILING PLAN

DESIGN BY: BBA
DRAWN BY: DG
CHECKED BY: JM
DATE: 26-03-12
SCALE: 1:100

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — S. CASSANDRA ERIN CAUTIUS — LICENCE 8891

PROJECT NO: 25233
DRAWING NO: A208

FLOOR PLAN NOTATION LEGEND

CORRIDOR
CA — ROOM NAME & NUMBER

PXX — PARTITION TYPE

101 — DOOR NUMBER

1 / A200 — WALL SECTION/ INTERIOR ELEVATION REFERENCE

FF2 / FF1 — FLOOR FINISH TYPE (SEE ALSO ROOM FINISH SCHEDULE)

F.R.R. — FIRE RESISTANCE RATING

DEMOLITION PLAN NOTATION LEGEND

EXISTING WALL, PARTITION OR COLUMN TO REMAIN

DENOTES DEMOLITION OF BUILDING ELEMENT/PARTITIONS

EXISTING DOOR, FRAME AND TRIM TO REMAIN

EXISTING DOOR, FRAME AND TRIM TO BE CAREFULLY REMOVED AND DISPOSED.

RCP DEMOLITION LEGEND

ACOUSTIC CEILING TILE TO BE DEMOLISHED

GYPSUM CEILING

EXISTING EXHAUST GRILL

EMERGENCY CEILING LIGHT

EXHAUST GRILL. REFER TO MECHANICAL

EMERGENCY LIGHT/EXIT SIGN. REFER TO ELECTRICAL

SMOKE DETECTOR. REFER TO ELECTRICAL

EX. — EXISTING SUSPENDED LIGHT FIXTURE FOR REMOVAL AND RE INSTALLATION. REFER TO ELECTRICAL

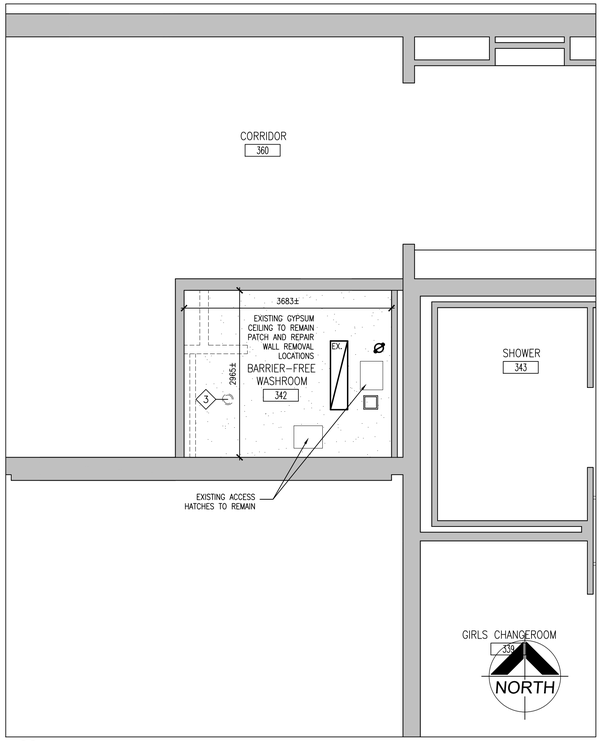
SUSPENDED LIGHT FIXTURE TO BE DEMOLISHED.

TYPICAL DEMOLITION NOTES

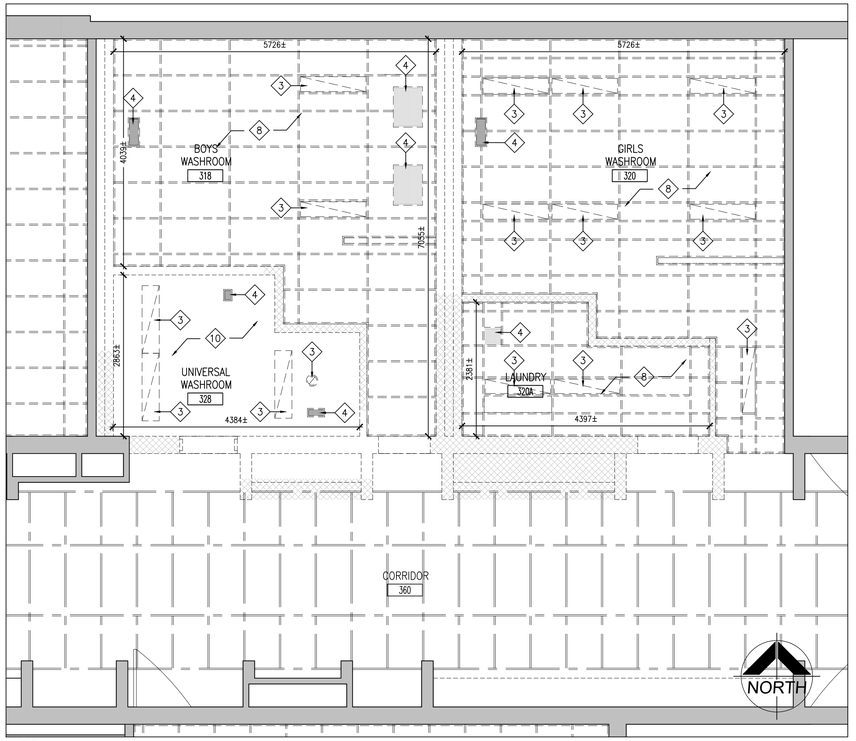
1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR ' CONSTRUCTION PROJECTS.
4. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, LANDSCAPE OR PART THEREOF.
5. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
6. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
7. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
8. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL. OR CAUSE OTHERS TO FALL.
10. MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
11. REMOVAL OF EXISTING FLOOR FINISHES IS TO INCLUDE COMPLETE REMOVAL OF BASE AND ALL MORTAR AND ADHESIVES AND PREPARATION OF EXISTING SUBSTRATES TO RECEIVE NEW FLOORING, SATISFACTORY TO THE MANUFACTURER OF NEW FLOOR FINISHES. ALLOW FOR EXCESSIVE LEVELING OF SLABS.
12. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
13. SAWCUT, BREAK OUT AND MAKE GOOD (MATCH EXISTING U.N.O.) ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW UNDERGROUND PLUMBING AND OTHER BURIED SERVICES AS INDICATED AND AS REQUIRED ON MECHANICAL AND ELECTRICAL DRAWINGS.

DEMOLITION NOTES :

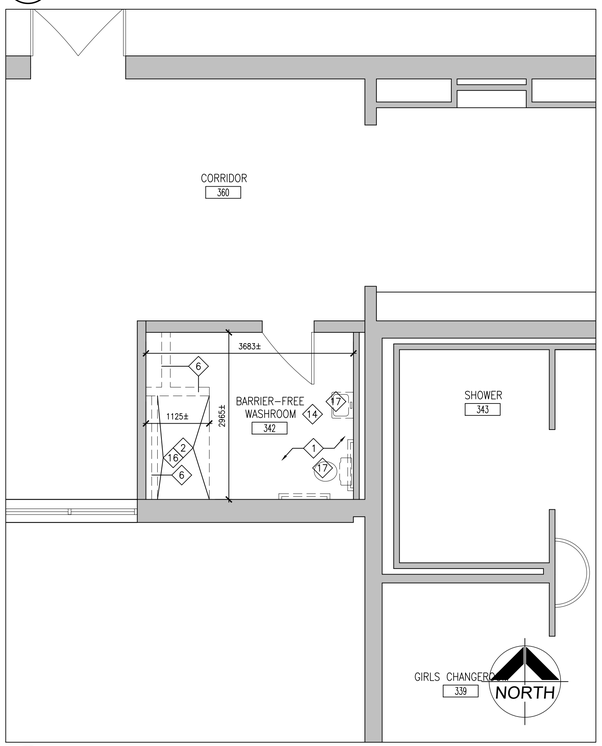
1. REMOVE EXISTING CERAMIC TILE FLOORING IN IT'S ENTIRETY INCLUDING FLOORING, ADHESIVES, BASE, ETC. PATCH, REPAIR AND MAKE GOOD EXISTING FLOOR SLAB TO RECEIVE NEW FLOORING.
2. REMOVE EXISTING PLUMBING FIXTURES AND GRAB BARS IN THEIR ENTIRETY. CAP AND MAKE SAFE ALL PLUMBING AND ELECTRICAL. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
3. REMOVE SELECTED EXISTING ELECTRICAL DEVICES IN CEILING. PATCH REPAIR AND MAKE GOOD ALL SURFACES.
4. REMOVE & DISPOSE EXISTING MECH. DUCTS & EXHAUST FANS. PATCH REPAIR AND MAKE GOOD ALL SURFACES.
5. REMOVE ALL TOILET PARTITIONS IN THEIR ENTIRETY. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
6. REMOVE EXISTING CONCRETE BLOCK WALL. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
7. REMOVE AND DISPOSE EXISTING DOOR AND FRAME. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
8. REMOVE EXISTING ACOUSTIC CEILING TILES AND ADJOINING SUSPENSION GRID, EDGES, AND BACKING.
9. REMOVE SELECTED MILLWORK CABINETS IN THEIR ENTIRETY. CAP AND MAKE SAFE ALL PLUMBING AND ELECTRICAL. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
10. REMOVE EXISTING GYPSUM CEILING. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
11. SAW CUT AND REMOVE EXISTING SLAB ON GRADE AS REQUIRED TO COMPLETE NEW WORK, REFER TO STRUCTURAL.
12. REMOVE EXISTING LOCKERS AND CONCRETE BASE IN ITS ENTIRETY. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
13. CAREFULLY REMOVE EXISTING CEILING AND WALL MOUNTED LIFT SYSTEM IN ITS ENTIRETY AND TURN OVER TO DDSB. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
14. CAREFULLY REMOVE EXISTING WASHROOM ACCESSORIES INCLUDING SOAP DISPENSERS, PAPER TOWN DISPENSERS, TOILET PAPER HOLDER, SANITARY NAPKIN DISPOSAL AND HAND DRYERS AND TURN OVER TO DDSB. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
15. CAREFULLY REMOVE EXISTING WASHER AND DRYER, PROTECT AND STORE DURING CONSTRUCTION TO BE REINSTALLED. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
16. REMOVE EXISTING WALL TILE IN IT'S ENTIRETY INCLUDING ALL ADHESIVES, ETC. PATCH, REPAIR AND MAKE GOOD EXISTING FLOOR SLAB TO RECEIVE NEW FLOORING.
17. CAREFULLY REMOVE EXISTING PLUMBING FIXTURES AND GRAB BARS TO BE REINSTALLED. CAP AND MAKE SAFE ALL PLUMBING AND ELECTRICAL. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.



4 / A10 BARRIER FREE REFLECTED CEILING DEMOLITION PLAN
1:50



3 / A210 GENDER NEUTRAL WASHROOM REFLECTED CEILING DEMOLITION PLAN
1:50



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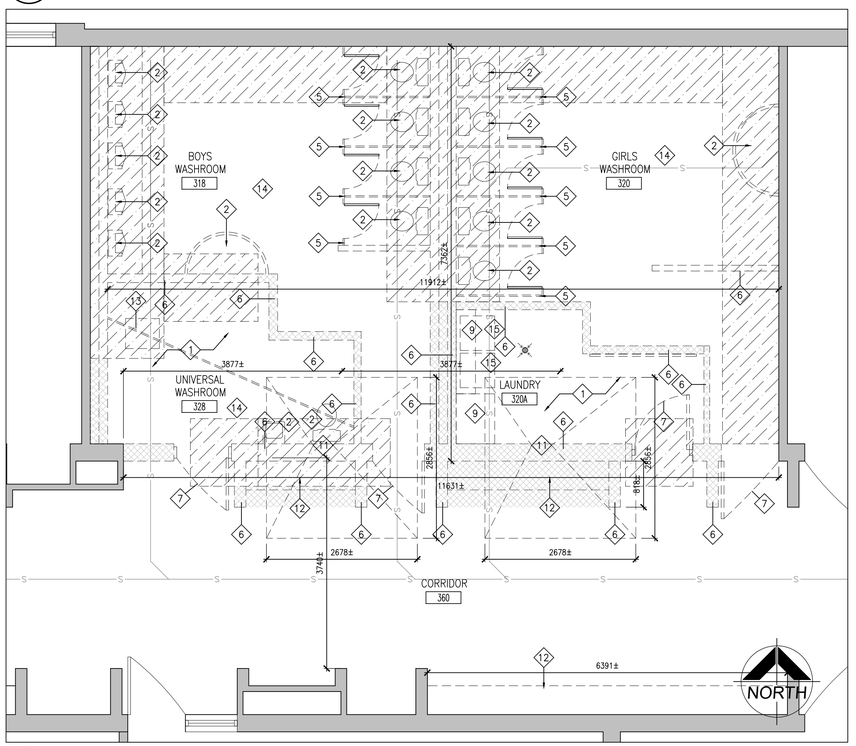

1 / A210 GENDER NEUTRAL WASHROOM DEMOLITION PLAN
1:50

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2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
DEMOLITION FLOOR PLANS & REFLECTED CEILING PLANS

DESIGN BY: BBA
DRAWN BY: DG
CHECKED BY: JM
DATE: 26-02-09
SCALE: 1:50

SEAL: Ontario Association of Architects — Cassandra Erin Cautius — Licence 8891

PROJECT NO: 25233
DRAWING NO: A210

WALL TYPES:

- P1 — 13mm MOISTURE RESISTANT GYPSUM BOARD, 19mm PLYWOOD, 92mm METAL STUDS AT 400 O.C. WITH SOUND ATTENUATION BATTS BETWEEN, 19mm PLYWOOD, 13mm MOISTURE RESISTANT GYPSUM BOARD WALL TO TERMINATE AT UNDERSIDE OF DECK
- P2 — 13mm MOISTURE RESISTANT GYPSUM BOARD, 19mm PLYWOOD, 92mm METAL STUDS AT 400 O.C. WITH
- P3 — 190mm CONC. BLOCK. WALL TO TERMINATE AT UNDERSIDE OF ROOF DECK.
- P4 — 13mm MOISTURE RESISTANT GYPSUM BOARD, 19mm PLYWOOD, 102mm METAL STUDS AT 400 O.C. WITH SOUND ATTENUATION BATTS BETWEEN, 19mm PLYWOOD, 13mm MOISTURE RESISTANT GYPSUM BOARD WALL TO TERMINATE AT UNDERSIDE OF DECK
- P5 — 13mm MOISTURE RESISTANT GYPSUM BOARD, 19mm PLYWOOD, 152mm METAL STUDS AT 400 O.C. WITH SOUND ATTENUATION BATTS BETWEEN, 19mm PLYWOOD, 13mm MOISTURE RESISTANT GYPSUM BOARD WALL TO TERMINATE AT UNDERSIDE OF DECK

FLOOR PLAN NOTATION LEGEND

- CORRIDOR / CA — ROOM NAME & NUMBER
- PXX — PARTITION TYPE
- 101 — DOOR NUMBER
- 11 / A101 — WALL SECTION/ INTERIOR ELEVATION REFERENCE
- FF2 / FF1 — FLOOR FINISH TYPE (SEE ALSO ROOM FINISH SCHEDULE)
- F.R.R. — FIRE RESISTANCE RATING
- FE — FIRE EXTINGUISHER
- FEC — FIRE EXTINGUISHER CABINET
- RS — ROLLER SHADE
- ELECTRICAL PANEL
- WALL HEATERS MOUNTED HIGH
- MW1 — MILL WORK (REFER TO A701)

APPLIANCES

WASHER/ DRYER	EXISTING WASHER AND DRYER TO BE REUSED IN NEW LAUNDRY ROOM.

GENERAL NOTES:

1. ALL EXPOSED METAL IN INTERIOR TO BE PAINT FINISH.
2. WHERE INDICATED, PAINT GYPSUM BOARD WALLS AND BULKHEADS.
3. ALL EXPOSED DUCTWORK AND PIPING SHALL RECEIVE PAINT FINISH.
4. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.

CEILING NOTATION LEGEND

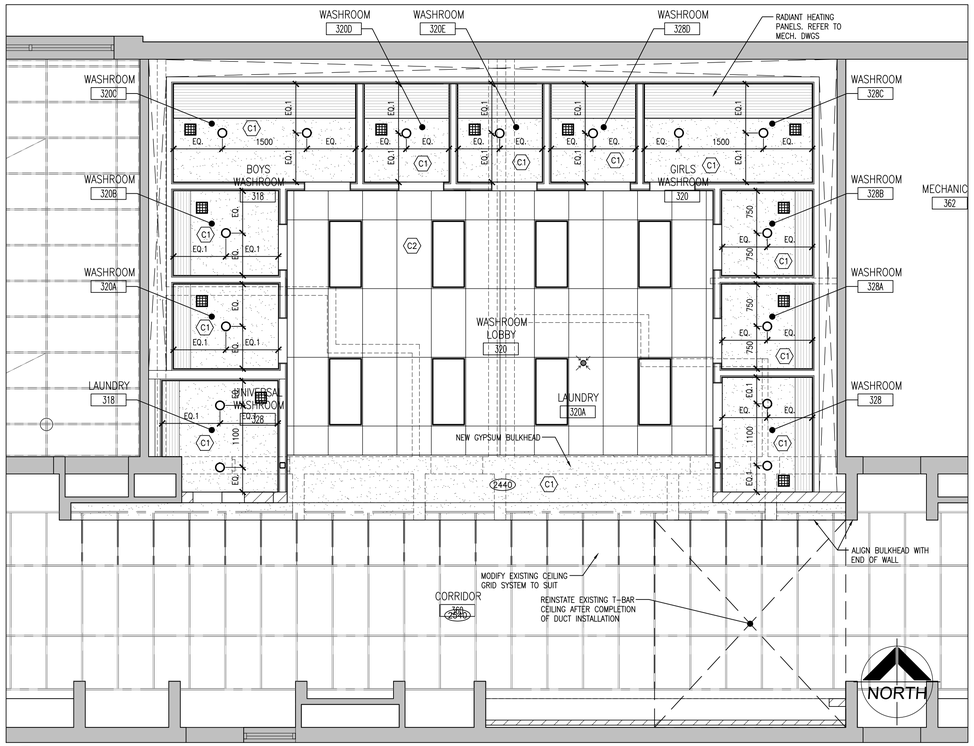
- CORRIDOR / CA — ROOM NAME & NUMBER
- 2750 — CEILING LEVEL ABOVE FINISHED FLOOR (SEE ALSO ROOM FINISH SCHEDULE)
- EX. — EXISTING 610x1220 LIGHT FIXTURE TO BE RE INSTALLED. REFER TO ELECTRICAL.
- NEW 610x1220 LIGHT FIXTURE. REFER TO ELECTRICAL.
- RECESSED POT LIGHT
- EXHAUST FAN
- EXISTING DIFFUSER. REFER TO MECHANICAL.
- SAFETY DEVICE REFER TO ELECTRICAL

CEILING TYPES:

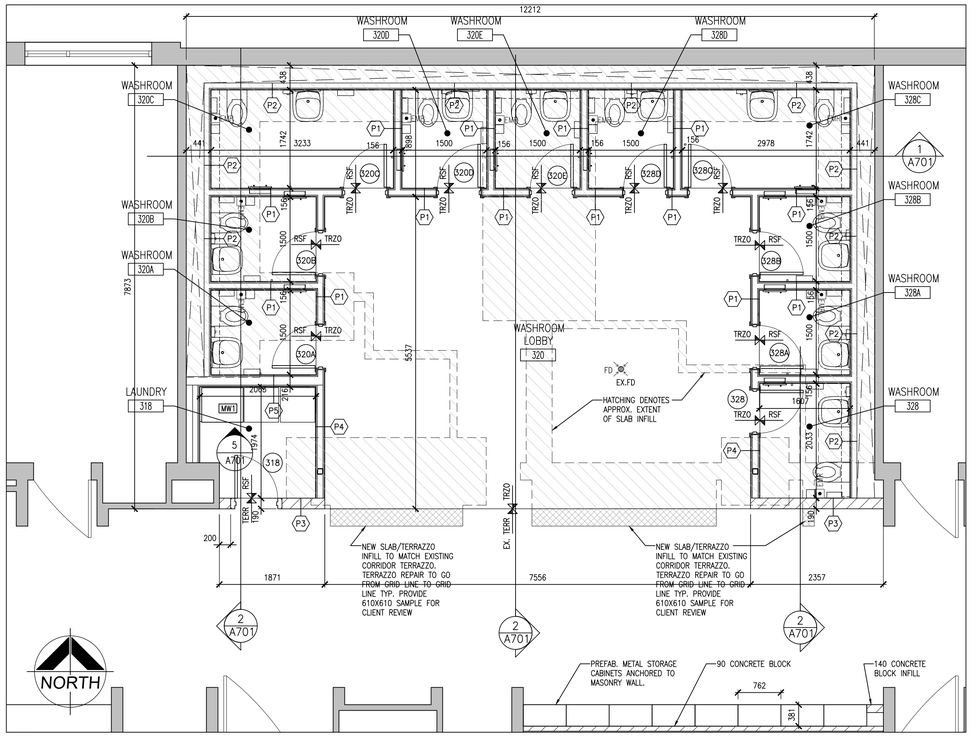
- C1 — GYPSUM BOARD ON SUSPENDED FRAMING
- C2 — 610x1220 NEW ACOUSTIC CEILING TILE ON NEW SUSPENDED GRID.
- C3 — EXISTING GYPSUM BOARD CEILING TO BE PATCHED AND REPAIRED.

GENERAL CEILING PLAN NOTES:

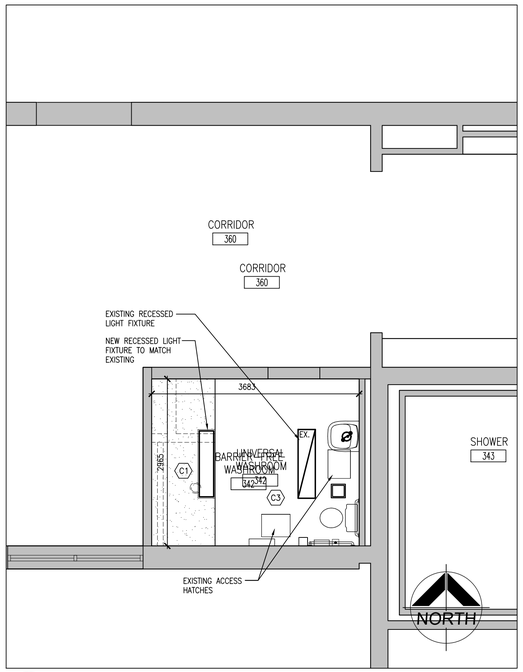
1. REFLECTED CEILING PLAN IS FOR GENERAL LAYOUT AND CO-ORDINATION OF CEILING COMPONENTS. REFER TO FLOOR PLANS, DETAILS, AND CONSULTANT'S DRAWINGS FOR SPECIFIC INFORMATION.
2. LAY-IN ACOUSTIC TILE CENTERED IN ROOMS, TYPICAL UNLESS NOTED OTHERWISE. PAINT FINISH TO EXPOSED STEEL STRUCTURE. PAINT FINISH TO ALL EXPOSED MECHANICAL COMPONENTS.
3. SAFETY DEVICES, WIFI UNITS, AND PA SPEAKERS SHALL BE LOCATED AS INDICATED ON PLAN.



4 / A211 GENDER NEUTRAL WASHROOMS REFLECTED CEILING PLAN
1:50



1 / A211 GENDER NEUTRAL WASHROOM FLOOR PLAN
1:50



3 / A11 BARRIER FREE W/R REFLECTED CEILING PLAN
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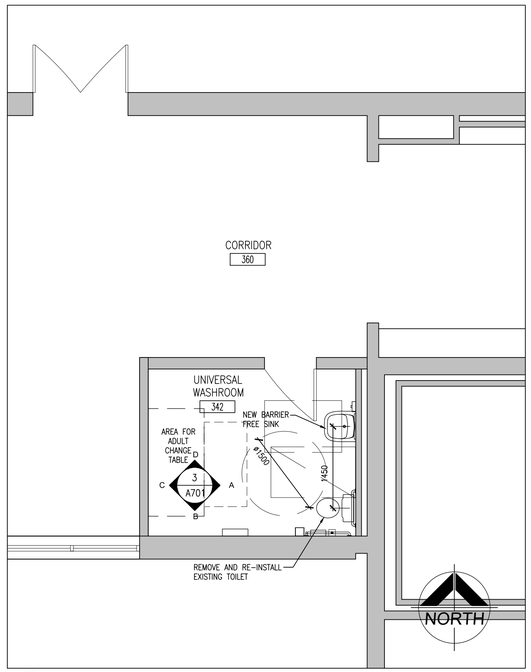

2 / A211 BARRIER FREE WASHROOM FLOOR PLAN
1:50

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ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

WASHROOMS PLAN & REFLECTED CEILING PLAN

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-02-09
SCALE:	1:50

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS — CASSANDRA ERIN CAUTIUS — LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A211

FINISH ABBREVIATION LEGEND

ALUM	ALUMINUM
ACT	ACOUSTIC TILE
CMU	CONCRETE BLOCK
CT	CERAMIC TILE
CONC	CONCRETE
EXIST	EXISTING
GYB	GYPSUM BOARD
HM	HOLLOW METAL
VCT	VINYL COMPOSITE TILE
PT	PAINT
PREF	PREFINISHED
R	RUBBER
CB	COVE BASE
RCB	RUBBER COVE BASE
SCHB	SOLID CORE HARDBOARD DOOR
TRZO	TERRAZZO
RSF	RESILIENT SHEET FLOORING
WD	WOOD
TBD	TO BE DETERMINED

GENERAL DOOR NOTES

A. GLASS PANELS IN DOORS TO COMPLY WITH BARRIER FREE VISIBILITY REQUIREMENTS.

B. PREPARE DOORS AND FRAMES FOR ELECTRONIC HARDWARE WHERE INDICATED. CONDUITS SHALL BE CONCEALED IN FRAMES.

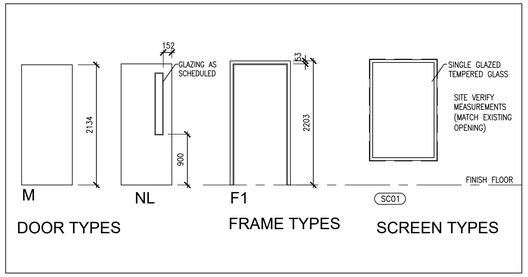
C. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES AS REQUIRED FOR NEW WORK.

D. ALL DOORS IN FIRE SEPARATION LOCATIONS SHALL HAVE LATCHING DEVICE.

E. PRESSED STEEL FRAME DEPTHS SHALL BE 146MM UNLESS OTHERWISE NOTED.

REMARKS

1. SITE VERIFY ALL OPENING DIMENSIONS.
2. ALL FRAMES SHALL BE SEALED



DOOR AND FRAME SCHEDULE

NO.	SIZE AND THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	DOOR GLASS	FRAME TYPE	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME MATERIAL	FRAME FINISH	FIRE RATING	DOOR HARDWARE: HALF BEARING HINGES / WEIGHTED NEUTRAL	DOOR HARDWARE: CLOSER	DOOR HARDWARE: DOOR STOP	DOOR HARDWARE: THRESHOLD	DOOR HARDWARE: LOCK	DOOR HARDWARE: OPERATOR ACTIVATED	DOOR HARDWARE: KEYED	DOOR HARDWARE: PRIVACY	DOOR HARDWARE: DOOR PULL	DOOR HARDWARE: KICK PLATE	DOOR HARDWARE: WEATHER-STRIPPING	DOOR HARDWARE: DOOR SILL BAR	DOOR HARDWARE: DOOR SWEEP	DOOR HARDWARE: ARMOUR PLATE	REMARKS
318	965x2134x40	NL	HM	PT2	FRG	F1	H2	J2	PS	PT2	45 MIN.	●		●	●				●							
320A	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
320B	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
320C	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
320D	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
320E	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
328	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
328A	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
328B	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
328C	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
328D	762x2134x40	M	HM	PT2	–	F1	H2	J2	PS	PT2	–	●		●	●					●					●	●	
326	MATCH EX. OPENING	NL	WD	URETH	TMP	F1	H2	J2	PS	PT2	–	●		●				●							●		
342	EXISTING	–	HM	PT2	–	–	–	–	PS	PT2	–																EXISTING DOOR AND FRAME TO BE PAINTED
361A	365X1650X40	M	HM	PT2	–	F1	H1	J1	PS	PT2	45MIN	●		●	●												
301A	EXISTING	–	HM	PT2	–	–	–	–	PS	PT2	EX																EXISTING DOOR AND FRAME TO BE PAINTED
301B	EXISTING	–	HM	PT2	–	–	–	–	PS	PT2	EX																EXISTING DOOR AND FRAME TO BE PAINTED

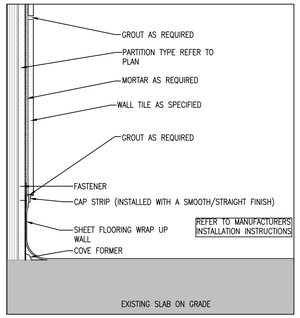
ROOM SCHEDULE

ROOM NO.	ROOM NAME		FLOOR	BASE	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CEILING	REV.	REMARKS
300	AUTOMOTIVE LAB	MAT.	CONC	CB	CB	CB	CB	CB	EXP		
		FIN.	EPX	EPX	PT	PT	PT	PT	PT		
		COL.	EPX	EPX	PT1	PT1	PT1	PT1	PT1		
301	WEIGHT ROOM	MAT.	CONC	CB	CB	CB	CB	CB	ACT		
		FIN.	EX	EX	PT	PT	PT	PT	–		
		COL.	EX	EX	PT1	PT1	PT1	PT1			
302	SPECIAL ED. CLASSROOM	MAT.	CONC	CB	CB	CB	CB	CB	ACT		
		FIN.	EX	EX	PT	PT	PT	PT	–		
		COL.	EX	EX	PT1	PT1	PT1	PT1			
318	LAUNDRY ROOM	MAT.	CONC	CB	GWB	GWB	CB	GWB	GWB		
		FIN.	RSF	CB	PT	PT	PT	PT	PT		
		COL.	RSF	CB	PT1	PT1	PT1	PT1	PT1		
320	WASHROOM LOBBY	MAT.	CONC	CB	GWB	GWB	CB	GWB	ACT/GWB		
		FIN.	TRZO	CT	PT	PT	PT	PT	–/PT		
		COL.	TRZO	CT4	PT1	PT1	PT1	PT1	–/PT1		
320A–E 328A–D	WASHROOMS	MAT.	CONC	CB	GWB	GWB	GWB	GWB	GWB		
		FIN.	RSF	RSF	PT/CT	PT/CT	PT/CT	PT/CT	PT		REFER TO ELEVATIONS FOR WALL TILE PATTERN
		COL.	RSF	RSF	PT1/CT	PT1/CT	PT1/CT	PT1/CT	PT1		
326	SPECIAL ED. OFFICE	MAT.	CONC	EXIST	CB	CB	GWB	GWB	ACT		
		FIN.	EX	EX	PT	PT	PT	PT	PREF		
		COL.	EX	EX	PT1	PT1	PT1	PT1			
342	UNIVERSAL WASHROOM	MAT.	CONC	CB	GWB	GWB	GWB	GWB	GWB		
		FIN.	RSF	RSF	PT/CT	PT/CT	PT/CT	PT/CT	PT		REFER TO ELEVATIONS FOR WALL TILE PATTERN
		COL.	RSF	RSF	PT1/CT	PT1/CT	PT1/CT	PT1/CT	PT1		
361	MECHANICAL ROOM	MAT.	CONC	CB	GWB	GWB	GWB	GWB	GWB		MECHANICAL UNIT CURBS TO RECEIVE YELLOW SAFETY PAINT AT ELEVATION
		FIN.	EPX	EPX	PT	PT	PT	PT	PT		
		COL.	EPX	EPX	PT1	PT1	PT1	PT1	PT1		
364	MECHANICAL ROOM	MAT.	CONC	CB	GWB	GWB	GWB	GWB	GWB		MECHANICAL UNIT CURBS TO RECEIVE YELLOW SAFETY PAINT AT ELEVATION
		FIN.	EPX	EPX	PT	PT	PT	PT	PT		
		COL.	EPX	EPX	PT1	PT1	PT1	PT1	PT1		
106	MECHANICAL ROOM	MAT.	CONC	CB	GWB	GWB	GWB	GWB	GWB		MECHANICAL UNIT CURBS TO RECEIVE YELLOW SAFETY PAINT AT ELEVATION
		FIN.	EPX	EPX	PT	PT	PT	PT	PT		
		COL.	EPX	EPX	PT1	PT1	PT1	PT1	PT1		

INDICATES ACCENT COLOUR 0035 CALM

INDICATES ACCENT COLOUR 0014 BALANCE

INDICATES ACCENT COLOUR 0040 STORM



7 / A701 COVE BASE DETAIL
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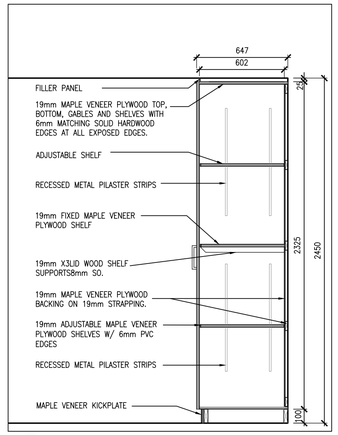
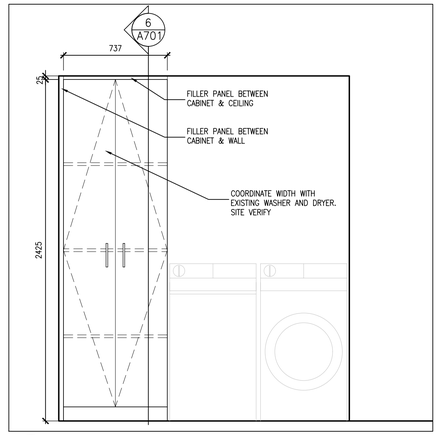


6 / A701 MW1 DETAIL
1:20



5 / A701 MW1 ELEVATION
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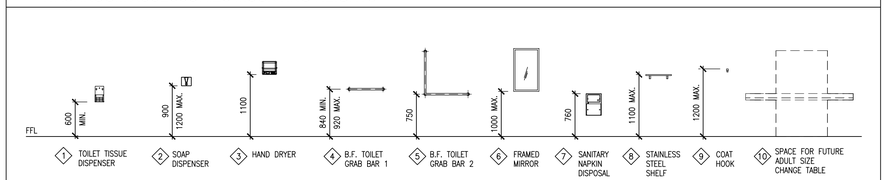
WASHROOM ACCESSORIES MOUNTING HEIGHTS



4 / A701 WASHROOM ACCESSORIES SCHEDULE
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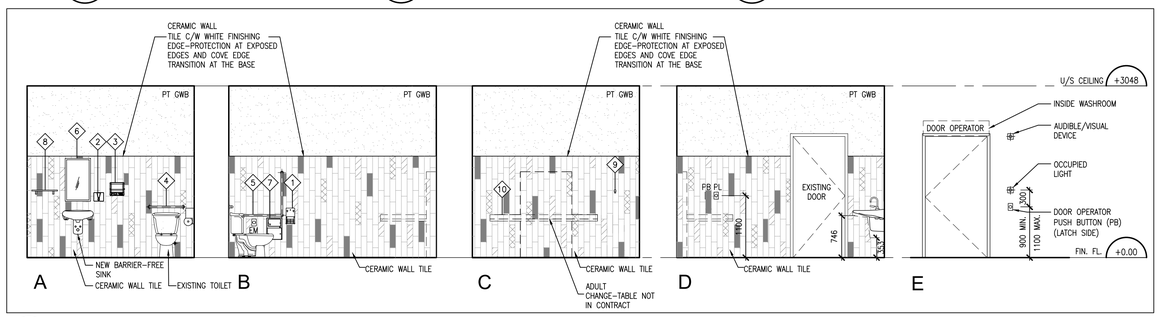
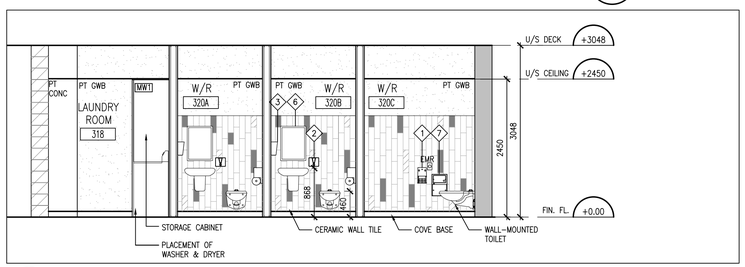
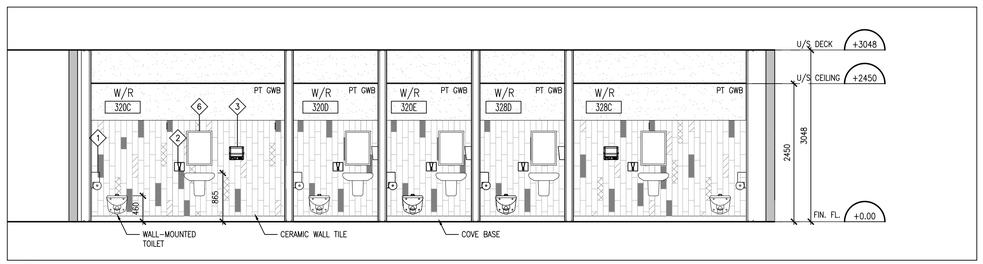


3 / A701 UNIVERSAL WASHROOM INTERIOR ELEVATIONS
1:50



2 / A701 GENDER NEUTRAL WASHROOMS SECTION
1:50



1 / A701 GENDER NEUTRAL WASHROOMS SECTION
1:50

DO NOT SCALE THE DRAWINGS.
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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 50% CLIENT REVIEW	MAR. 20 2026	BBA
2	ISSUED FOR 90% CLIENT REVIEW	APR. 15 2026	BBA
3	ISSUED FOR PERMIT & TENDER	APR. 28 2026	BBA

ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

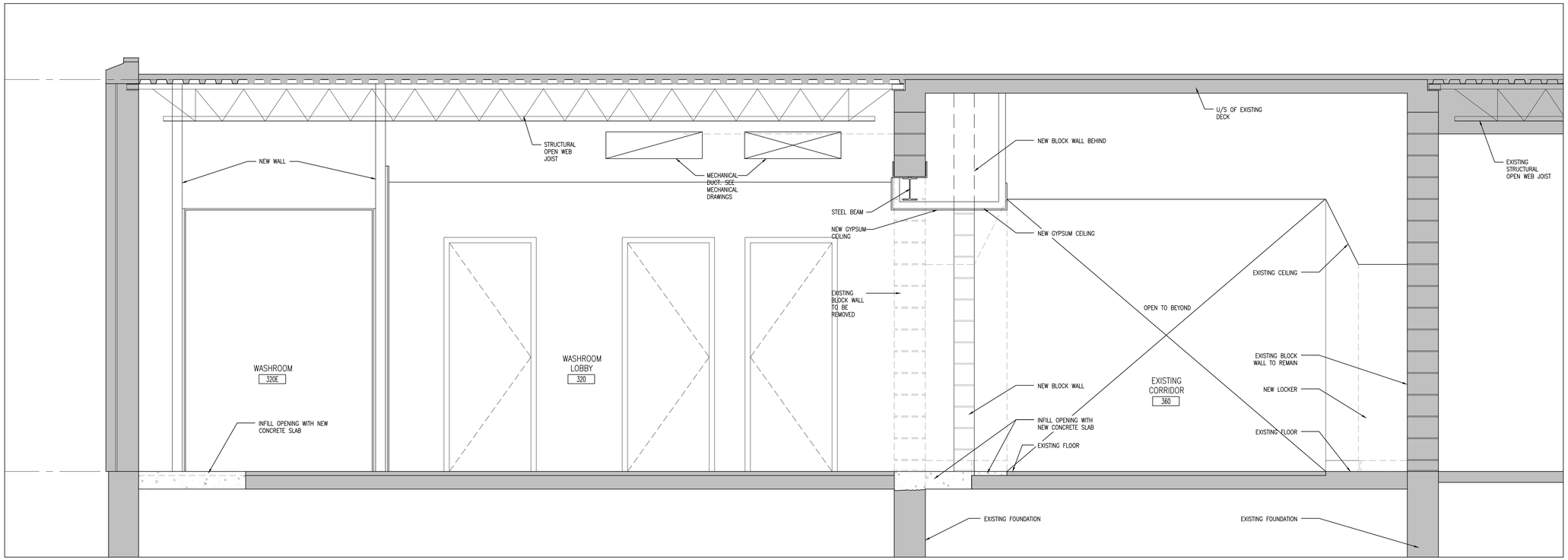
DRAWING:

SECTIONS & INTERIOR ELEVATIONS

DESIGN BY:	BBA
DRAWN BY:	DG
CHECKED BY:	JM
DATE:	26-03-16
SCALE:	AS NOTED

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A701



1 / A702 SECTION
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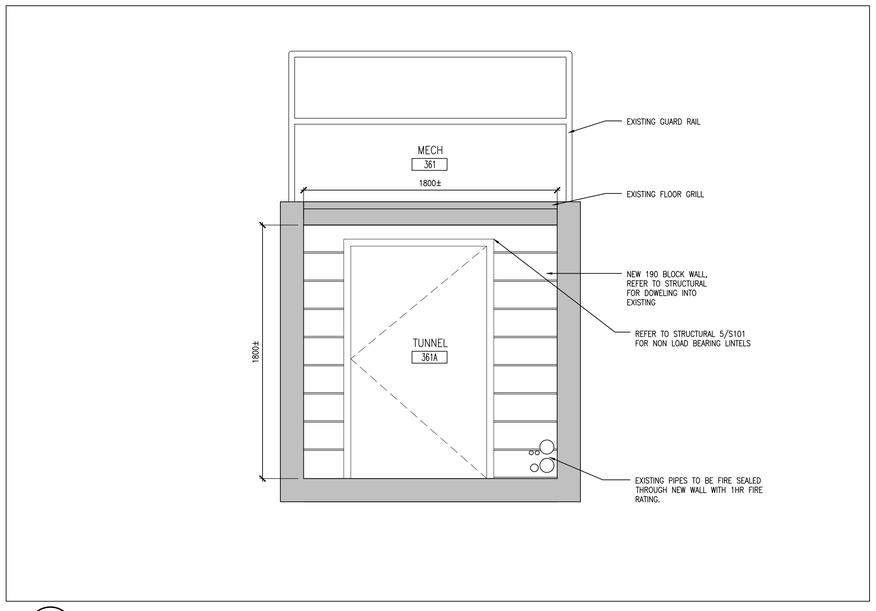

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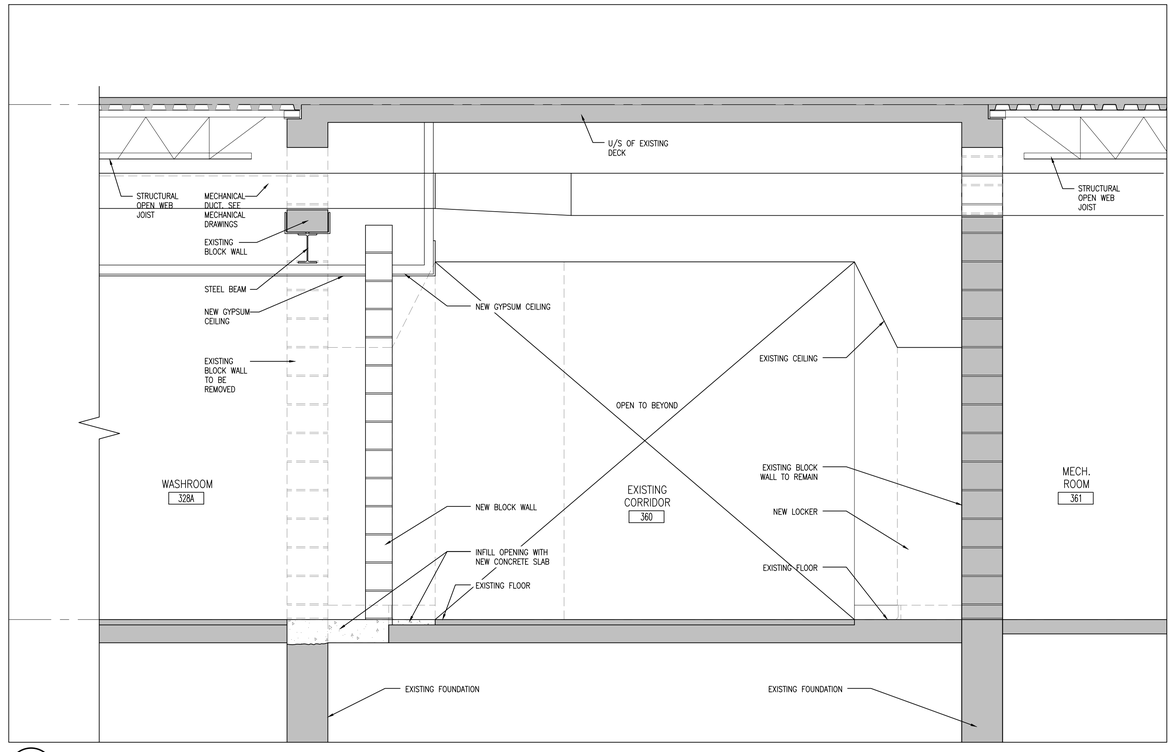

2 / A702 SECTION
1:20

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DDSB Ignite Learning

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ARIDO Jennifer Morton 2026 Association of Registered Interior Designers of Ontario

BBA BARRY BRYAN ASSOCIATES

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

SECTIONS

DESIGN BY:	BBA
DRAWN BY:	BBA
CHECKED BY:	JM
DATE:	26-03-16
SCALE:	AS NOTED

SEAL: ONTARIO ASSOCIATION OF ARCHITECTS CASSANDRA ERIN CAUTIUS LICENCE 8891

PROJECT NO:	DRAWING NO:
25233	A702

GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF ALL RELEVANT CODES AND STANDARDS.
2. CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
3. SITE VERIFY ALL DIMENSIONS AND LEVELS.
4. KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
5. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL HSS AND W SECTIONS TO BE G40.21M–350W CLASS C. ALL OTHERS TO BE G40.21M–300W.
2. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD SHEAR CONNECTIONS IN COMPLIANCE WITH CISC, UNLESS NOTED OTHERWISE.
3. PROVIDE SHOP DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S ENGINEER. DRAWINGS SHALL BE SIGNED AND SEALED BY THAT ENGINEER.
4. FABRICATOR'S ENGINEER MUST BE LICENSED IN THE PROVINCE OF ONTARIO.
5. ALL ERECTION BOLTS SHALL BE ASTM GRADE A325 MINIMUM, AND SHALL BE DESIGNED BY STEEL FABRICATOR'S ENGINEER FOR TRANSFER OF ALL LOADS.
6. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTION PIECE AND DESIGNED AS BEARING CONNECTIONS U.N.O.
7. FABRICATOR'S ENGINEER SHALL DESIGN TOP PLATES AND THEIR CONNECTIONS TO FULLY TRANSFER VERTICAL AND HORIZONTAL LOADS AS WELL AS MOMENTS WHEN REQUIRED PER CISC STANDARDS.
8. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
9. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
10. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.
11. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
12. ALL WELDED CONNECTIONS SHALL BE WITH CSA W48 SERIES ELECTRODES.
13. PROVIDE CAP PLATES ON ALL HSS FRAMING MEMBERS UNLESS NOTED OTHERWISE.
14. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
15. WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.

CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA–A23.1 AND CAN/CSA–A23.3 WITH THE FOLLOWING PROVISION:

LOCATION	DESIGN STRENGTH (28 DAYS)	SLUMP	EXPOSURE CLASS
INTERIOR FOOTINGS/FOUNDATION WALLS AND PIERS	25 MPa	80± 30	N
ALL OTHER INTERIOR CONCRETE	25 MPa	80± 30	N

2. NO ADDITIONAL WATER SHALL BE ADDED AT THE JOB SITE. CONCRETE WHICH HAS BEEN WATERED OR DOES NOT MEET SPECIFICATIONS SHALL BE REJECTED.
3. DURING WINTER WEATHER BELOW 5 °C PROVIDE TEMPORARY HEATING OF CONCRETE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1, LATEST EDITION.
4. STRUCTURAL GROUT SHALL BE NON–SHRINK, NON METALLIC M–BED STANDARD PREMIX BY SIKA OR APPROVED EQUAL.
5. WHEN PIPES, CONDUITS, OR SLEEVES ARE REQUIRED TO PENETRATE CONCRETE ASSEMBLIES, THE FOLLOWING SHALL BE OBSERVED:
   - SPACING OF SUCH ITEMS SHALL BE 3x DIAMETER C/C.
   - CONCRETE SHALL NOT BE PENETRATED WITHIN 600mm (24") OF CONCENTRATED LOADS.
   - ANY PENETRATIONS SHALL BE A MINIMUM OF 600mm (24") FROM ALL EDGES, SUCH AS ENDS AND TOPS OF WALLS.
   - FOR ANY PENETRATIONS GREATER THAN 300mm (12"), CONSULT THE ENGINEER FOR REVIEW AND DETERMINATION OF EXTRA REINFORCEMENT REQUIREMENTS.

SHOP DRAWINGS AND SUBMITTALS

GENERAL

1. REPRODUCTIONS OF THE STRUCTURAL DRAWINGS SHALL NOT BE ACCEPTED AS SHOP DRAWINGS. "PROFESSIONAL ENGINEER" IN THE FOLLOWING PARAGRAPHS SHALL BE REGISTERED AND LICENSED TO PRACTICE IN THE PROVINCE OF ONTARIO.
2. REVIEW OF DRAWINGS APPLIES TO GENERAL ARRANGEMENT ONLY FOR THE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THIS REVIEW DOES NOT IMPLY APPROVAL OF DETAIL DESIGN OR QUANTITIES IN SUBMITTED DRAWINGS, NOR DOES IT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR MAKING THE WORK COMPLETE, ACCURATE AND IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS. ALLOW 10 WORKING DAYS FOR SHOP DRAWING REVIEW.
3. DO NOT FABRICATE MATERIALS BASED ON REJECTED OR DISAPPROVED SHOP DRAWINGS.
4. SHOP DRAWING SUBMITTALS SHALL ALSO INCLUDE ANY ELEMENTS DESIGNED BY THE CONTRACTOR'S FORCES WHICH SHALL BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH N.B.C. SECTIONS 2.3.4.4 AND 2.3.4.5 LATEST EDITIONS.

STRUCTURAL STEEL

1. SUBMIT FOR REVIEW 2 PRINTS OF ERECTION DRAWINGS FOR ALL STRUCTURAL STEEL ELEMENTS. ALL MOMENT CONNECTIONS SHALL BE DESIGNED AND THE DRAWINGS STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER.
2. SHOP DRAWING SUBMITTALS SHALL INCLUDE STEEL BEAM, COLUMN CONNECTIONS AND DETAILS SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH N.B.C. SECTIONS 2.3.4.4 AND 2.3.4.5.

MASONRY

1. SUBMIT EVIDENCE OF MORTAR AND GROUT STRENGTH.

RECORD DRAWINGS

1. GENERAL CONTRACTOR SHALL MAINTAIN TWO SETS OF RECORD DRAWINGS WHICH SHOW AS–BUILT DETAILS OF ALL ASPECTS OF THE STRUCTURE, FOR REVIEW DURING CONSTRUCTION AND FOR SUBMISSION AT THE END OF THE PROJECT.

INSPECTIONS AND TESTING

1. THE FOLLOWING ITEMS SHALL BE INSPECTED OR TESTED BY INDEPENDENT INSPECTION/ TESTING AGENCIES DESIGNATED BY THE CLIENT. MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE SPECIFICATIONS SHALL BE REJECTED BY THE CONTRACTOR. REPORTS AND TEST RESULTS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW. TESTING SHALL INCLUDE BUT NOT BE LIMITED TO:

CONCRETE

1. CONCRETE AND GROUT TESTING IN ACCORDANCE WITH CSA A23.2 LATEST EDITION AND THE SPECIFICATIONS, INCLUDING THE REQUIREMENTS OF SLUMP, AIR AND AGE PRIOR TO BEING USED. CONTRACTOR TO KEEP RECORDS OF POUR DATES, TESTING PERFORMED, CLASS OF CONCRETE USED AND TEST RESULTS FOR ALL ITEMS POURED.
2. TESTING TO DETERMINE THE IN–SITU STRENGTH OF CONCRETE FOR EARLY FORM REMOVAL PURPOSES WITH THE TYPE OF TEST BEING DETERMINED ON THE ADVICE OF THE TESTING AGENCY. REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE MADE BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
3. APPROVAL OF CONCRETE AND MORTAR MIX DESIGNS.
4. TESTING AS REQUIRED AND SPECIFIED BY THE ENGINEER TO DETERMINE THE IN–SITU STRENGTH OF CONCRETE WHICH FAILS TO MEET THE SPECIFIED REQUIREMENTS OR WHICH, DUE TO APPEARANCE, DAMAGE OR DEFECTS MAY BE DEEMED REJECTABLE. CORES SHALL BE ACQUIRED AND TESTED BY THE DESIGNATED TESTING AGENCY BUT ANY REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE PERFORMED AT NO COST TO THE OWNER.

ENGINEERED MASONRY TEST

1. TESTS TO VERIFY STRENGTH OF GROUT AND MORTAR.

STRUCTURAL STEEL

1. VISUAL INSPECTION OF ALL WELDS, TORQUE TESTING OF BOLTED CONNECTIONS AND CHECK ON BEARING, PLUMBNESS AND ALIGNMENT OF STEEL STRUCTURES.
2. NON–DESTRUCTIVE TESTING TO VERIFY THE QUALITY OF WELDING, WHERE DEEMED QUESTIONABLE BY VISIBLE DEFECTS OR WHERE REQUIRED BY THE ENGINEER.

FOUNDATIONS

1. FOUNDATION DESIGN BASED ON ASSUMED BEARING CAPACITY OF 100 kPa (SLS) AND 150 kPa (ULS) ON NATIVE MATERIAL. THE BEARING CAPACITY MUST BE CONFIRMED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FOUNDATIONS.
2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOIL OR ENGINEERED FILL AS APPROVED BY THE GEOTECHNICAL CONSULTANT. REPORT ANY DOUBTFUL BEARING CONDITIONS TO THE STRUCTURAL ENGINEER BEFORE PLACING FOOTING.
3. MATERIALS FOR BACKFILL SHALL BE GRANULAR 'A' AND GRANULAR 'B' CONFORMING TO OPSS STANDARDS COMPACTED TO 98% STANDARD PROCTOR MAX. DRY DENSITY.
4. ALL EXTERIOR FOOTINGS TO HAVE A MINIMUM 1200(4'–0") COVER TO FINISHED EXTERIOR GRADE FOR FROST PROTECTION UNLESS OTHERWISE NOTED.
5. ALL PIERS AND FOOTINGS UNDER COLUMNS TO BE CENTRED UNDER THE COLUMNS UNLESS NOTED OTHERWISE ON THE PLAN.

CONCRETE REINFORCEMENT

1. THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

LOCATION	CLEAR COVER
FOOTINGS	75mm(3") UNDERSIDE 50mm(2") TOP AND ENDS
SLABS	25mm(1") TOP BARS 25mm(1") BOTTOM BARS
SURFACE IN CONTACT WITH GROUND	75mm(3")

2. DETAIL REINFORCING STEEL IN ACCORDANCE WITH "REINFORCING STEEL MANUAL OF STANDARD PRACTICE" LATEST EDITION.
3. REINFORCING BAR SPLICES FOR DEFORMED BARS:
   COLUMNS – COMPRESSION LAP UNLESS NOTED
   WALLS – CLASS 'B' TENSION SPLICE UNLESS NOTED
   ALL OTHERS – CLASS 'B' TENSION LAP UNLESS NOTED
4. ALL REINFORCING STEEL SHALL BE DEFORMED HARD GRADE BILLET STEEL CONFORMING TO CSA G30.18 GRADE 400.
5. WELDED STEEL WIRE FABRIC, PLAIN TYPE CONFORMING TO ASTM A1064/A1064M–17 IN FLAT SHEETS NOT ROLLED.
6. ALL CONCRETE REINFORCEMENT MUST BE PROPERLY CHAIRED WITH APPROVED BAR SUPPORTS.
7. PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING IN ACCORDANCE WITH THE LATEST EDITIONS OF CSA A23.1 AND
   CSA A23.3 CHAIRS TO BE PLASTIC, PLASTIC TIPPED OR CONCRETE. ALL TIE WIRE, CHAIRS AND BAR SUPPORTS USED FOR COATED REINFORCING SHALL BE NON–METALLIC OR PROTECTED WITH ACCEPTABLE COATING.
9. CHAIRS SHALL BE SPACED AT 1200mm(4'–0")O.C. MAXIMUM.

DEMOLITION NOTES

1. PROVIDE PROTECTION AS REQUIRED TO PREVENT DAMAGE TO THE EXISTING STRUCTURE AND/OR ADJACENT EQUIPMENT. PROTECT ALL EXISTING FINISHES, FRAMES AND PROPERTY.
2. SAW CUT, REMOVE AND DISPOSE OF EXISTING DEMOLISHED MATERIALS OFF–SITE, AS REQUIRED TO COMPLETE THE WORK. REMOVAL OF ALL ACM IS BY OTHERS.
3. KEEP THE WORK AND STAGING AREAS CLEAN AND ORDERLY AT ALL TIMES AND FREE FROM RUBBLE AND DEBRIS.
4. NOTIFY CONSULTANT OF ANY LOAD BEARING MEMBERS OR ASSEMBLIES DISCOVERED OR IDENTIFIED DURING WORK WITH EXCESSIVE DETERIORATION BEYOND WHAT IS NOT INDICATED ON THE DRAWINGS. DO NOT PROCEED WITH REMOVAL WITHOUT PRIOR REVIEW BY THE CONSULTING STRUCTURAL ENGINEER.
5. ALL BUILDING MATERIALS TO BE REMOVED FROM THE BUILDING SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE REMOVED FROM THE SITE.
6. COVER ALL LOADED TRUCKS LEAVING THE DEMOLITION SITE.
7. CARRY OUT SAFETY MEASURES AS PER THE CONSTRUCTION SAFETY ASSOCIATION OF ONTARIO ACT AND REGULATIONS FOR DEMOLITION.
8. THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY MANUAL APPLIES TO THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE TO PERFORM ALL WORK IN ACCORDANCE WITH O.H.S.A..
9. CONTRACTOR SHALL KEEP CLEAR AND NOT INHIBIT THE USE OF BUILDING FIRE ROUTE AND ALL HYDRANTS DURING THE ENTIRE DEMOLITION WORK.
10. REPORT ANY DOUBTFUL UNFORESEEN AND/OR UNEXPECTED SITE CONDITIONS TO THE ENGINEER PRIOR TO PROCEEDING.

TEMPORARY WORKS

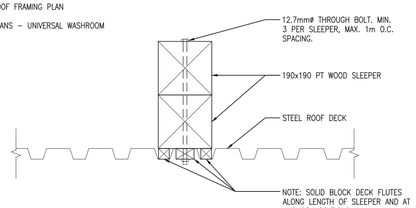
1. THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS.
2. IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION.
3. ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE ARCHITECT.
4. SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.

STRUCTURAL DESIGN DATA MATRIX

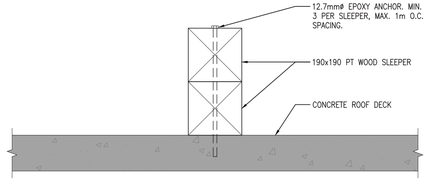
NO.	ITEM	DESCRIPTION							
1.	STRUCTURAL SYSTEM								
2.	DESIGN CODE	2024 OBC PART 4 (LATEST EDITION)							
3.	SNOW/ RAIN LOADS								
	A) IMPORTANCE (Is)	1.15 ULS, 0.9 SLS							
	B) GROUND SNOW (Ss $\frac{kPa}{m^2}$)	2.2 kPa							
	C) GROUND RAIN (Sr $\frac{kPa}{m^2}$)	0.4 kPa							
	A) IMPORT (Iw)	1.15 ULS, 0.75 SLS			TERRAIN: OPEN				
	B) WIND PRESSURE (q $\frac{kPa}{m^2}$)	0.36 kPa							
5.	SEISMIC LOAD								
	A) IMPORTANCE (Ie)	1.3 ULS							
	B) SEISMIC DATA	Sa (0.2)	Sa (0.5)	Sa (1.0)	Sa (2.0)	Sa (5.0)	Sa (10.0)	PGA	PGV
		0.284	0.290	0.177	0.0856	0.0229	0.00719	0.158	0.185
	C) SITE DATA	SITE CLASS			SEISMIC CATEGORY				
		D (ASSUMED)			SC3				
		IeS(0.2) = 0.369							
6.	FOUNDATION								
	DESCRIPTION								
	SUB–GRADE	NATIVE							
	BEARING (ULS)	150 kPa							
	BEARING (SLS)	100 kPa							

STRUCTURAL DRAWING LIST

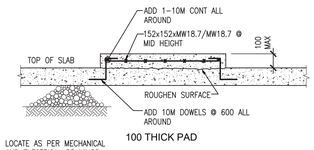
S101 GENERAL NOTES & TYPICAL DETAILS
S102 KEY PLANS
S201 PARTIAL GROUND FLOOR PLAN
S202 PARTIAL SECOND FLOOR PLAN
S203 PARTIAL THIRD FLOOR PLANS
S204 PARTIAL ROOF FRAMING PLAN
S205 PARTIAL PLANS – UNIVERSAL WASHROOM
S501 SECTIONS

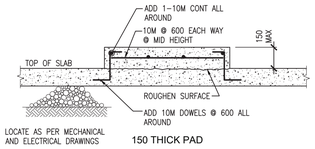


9 S101 ROOFTOP UNIT SLEEPER DETAIL - METAL DECK
1:10

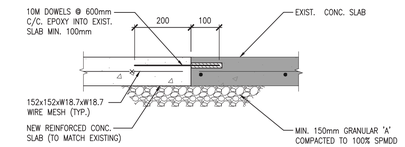


8 S101 ROOFTOP UNIT SLEEPER DETAIL - CONCRETE SLAB
1:10





7 S101 HOUSE KEEPING PADS
1:20

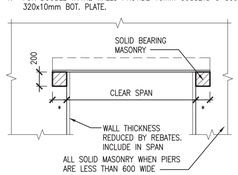


6 S101 TYPICAL SLAB-TO-SLAB CONNECTION DETAIL
N.T.S.

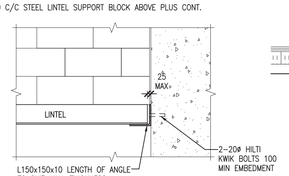
NON-LOAD BEARING STEEL LINTELS FOR MASONRY WALLS

WALL THICKNESS	CLEAR SPAN					DETAIL
	UP TO 1200	1200 TO 1800	1800 TO 2400	2400 TO 3000	3000 TO 4500	
90 VENEER	1–L89x89x6.4	1–L127x89x6.4 (LLV)	1–L127x89x7.9 (LLV)	1–L52x89x9.5 (LLV)	SEE NOTE #4	L
140	2–L64x64x6.4	2–L89x64x6.4	2–L89x64x7.9	2–L89x64x9.5	W200x27	64 LEGS HORIZ.
190	2–L89x76x6.4	2–L89x89x6.4	2–L100x89x7.9	1–L127x89x7.9	W200x36+180x12 CONT. TOP PLATE	89 LEGS HORIZ.
240	1–L102x76x6.4+ 1–L127x76x6.4	1–L102x102x6.4+ 1–L127x76x6.4	1–L102x102x7.9+ 1–L127x89x7.9	1–L102x152x7.9+ 1–L127x127x7.9	W200x46+230x12 CONT. TOP PLATE	102 & 127 LEGS HORIZ.
290	3–L89x76x6.4 (LLH)	3–L89x89x6.4	3–L102x89x7.9 (LLV)	3–L127x89x7.9 (LLV)	W200x52+280x12 CONT. TOP PLATE	L L

NOTES:
1. CONNECT ANGLES AT 600 C/C BY WELDING OR BOLTING FOR ANGLES WITH A TOTAL LENGTH OF 1800 OR MORE. USE 16ø BOLTS OR 6x50 LONG WELDS.
2. USE SCHEDULES FOR LINTELS OVER MECH. OPENINGS IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE ON PLAN. REFER TO MECH. DWGS. FOR LOCATIONS.
3. OPENINGS TO BE LOCATED MIN. 3 COURSES BELOW UNDERSIDE OF SLAB UNLESS APPROVED BY STRUCTURAL ENGINEER.
4. FOR DOUBLE WYTHE WALLS PROVIDE 10mm GUSSETS @ 800 C/C STEEL LINTEL SUPPORT BLOCK ABOVE PLUS CONT. 320x10mm BOT. PLATE.



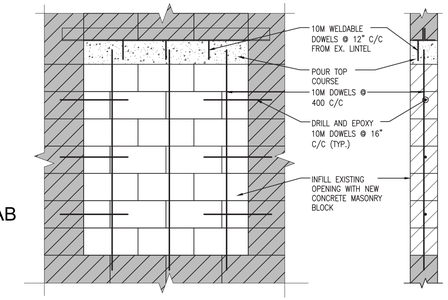
* BEARING LENGTH
150 (6") MINIMUM EACH END (STEEL ANGLE LINTEL
200 (8") MINIMUM EACH END (BLOCK LINTELS)



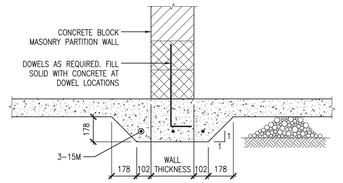
CONNECT TO STEEL WITH 6mm WELD TOP & BOTTOM FOR FULL LENGTH OF ANGLE

PROVIDE SHOP WELDED GALVANIZED STEEL STRAP ANCHORS AT 400 C/C FOR MASONRY ANCHORAGE TO STEEL COLUMN

5 S101 NON-LOADING BEARING WALL LINTEL SCHEDULE
1:20

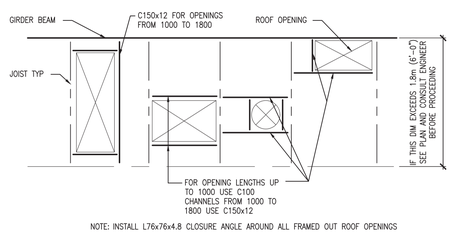


4 S101 TYPICAL BLOCK INFILL DETAIL
1:20

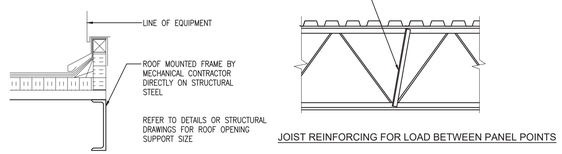


3 S101 TYPICAL SLAB THICKENING
1:20

2 S101 LATERAL SUPPORT OF TOP OF MASONRY WALLS
N.T.S.



NOTE: INSTALL L76x76x4.8 CLOSURE ANGLE AROUND ALL FRAMED OUT ROOF OPENINGS



JOIST REINFORCING FOR LOAD BETWEEN PANEL POINTS

1. TOP OF ALL TRIMMING STEEL TO BE AT THE UNDERSIDE OF STEEL ROOF DECK, UNLESS OTHERWISE NOTED.
2. LOCATION OF ALL MECHANICAL UNITS AND OPENING THROUGH ROOF IS BASED ON INFORMATION SUPPLIED BY MECHANICAL DRAWINGS. THE STRUCTURAL STEEL CONTRACTOR MUST CONFIRM ALL THESE DIMENSIONS AND SIZES WITH THE MECHANICAL CONTRACTOR. OWSJ MUST BE DESIGNED FOR ADDITIONAL LOADS FROM MECHANICAL UNITS. IF LOCATION OR DETAILS VARY FROM THOSE SHOWN THE STRUCTURAL ENGINEER MUST BE INFORMED AND INSTRUCTIONS RECEIVED BEFORE PROCEEDING WITH THE WORK.
3. THE STRUCTURAL STEEL CONTRACTOR SHOULD SUBMIT ERECTION DRAWINGS TO THE MECHANICAL ENGINEER AND OR CONTRACTOR FOR APPROVAL OF SIZE AND LOCATION OF OPENINGS FOR MECHANICAL UNITS.

1 S101 FRAMING FOR ROOF OPENING
N.T.S.

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CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

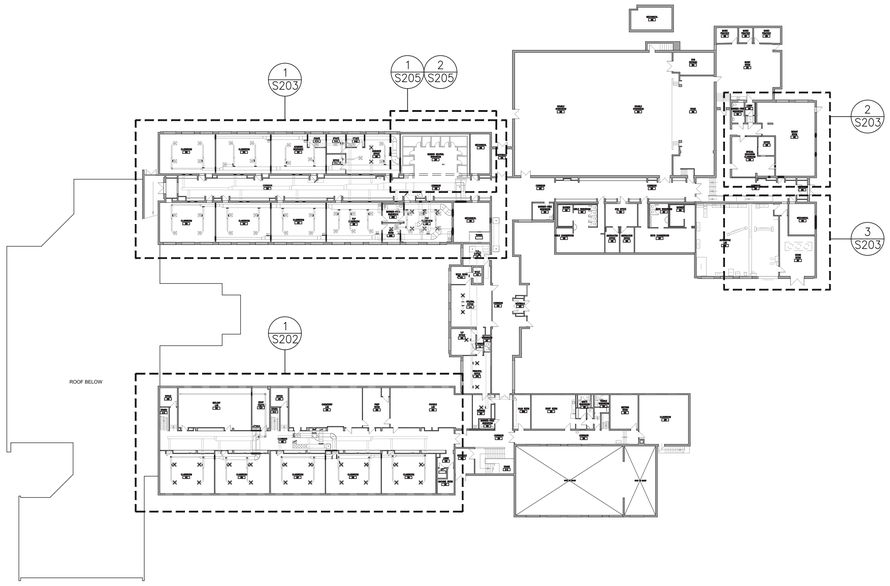
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
GENERAL NOTES AND TYPICAL DETAILS

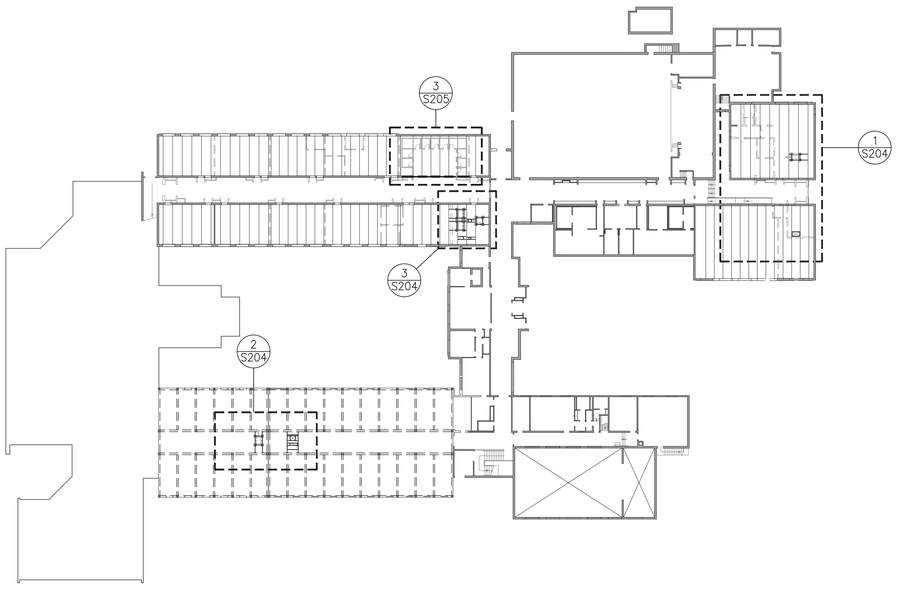
DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER S. J. B. A. JAAGUMAGI 100225530 APR. 28, 2026 PROVINCE OF ONTARIO

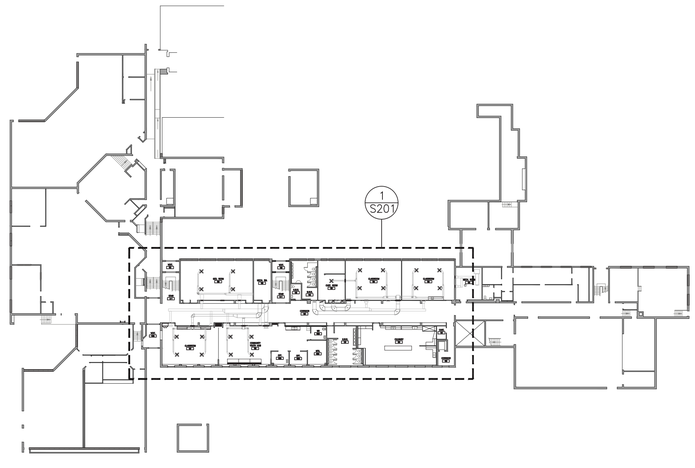
PROJECT NO:	DRAWING NO:
25233	S101



2 S102 SECOND FLOOR AND THIRD FLOOR KEY PLAN
1:500



3 S102 ROOF FRAMING KEY PLAN
1:500



1 S102 GROUND FLOOR KEY PLAN
1:500

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL
RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

DURHAM DISTRICT SCHOOL BOARD

DRAWING:
KEY PLANS

DESIGN BY: BBA
DRAWN BY: LS
CHECKED BY: SJ
DATE: 26-03-19
SCALE: AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER S. J. B. A. JAYAGUMAR 100225530 APR. 28, 2026 PROVINCE OF ONTARIO

PROJECT NO: 25233
DRAWING NO: S102

LINTEL SCHEDULE

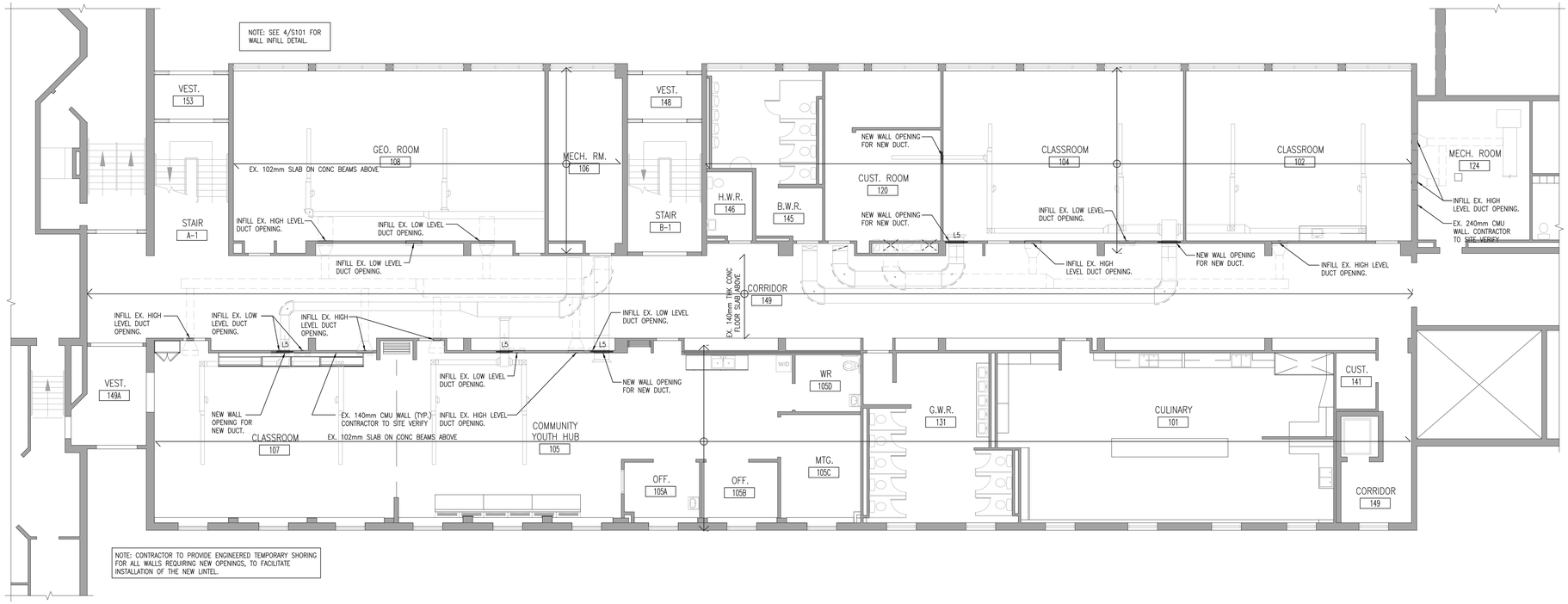
MARK	SIZE	DETAIL	REMARKS
L1	2–L127x89x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L2	2–L152x152x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L3	W200x27 c/w PL10x300 CONT. TOP AND BOTTOM		PROVIDE PL10x200x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L4	W200x27 c/w PL10x140 CONT. TOP AND BOTTOM		PROVIDE PL10x140x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L5	2–L76x64x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.

SECOND FLOOR LOADS:

DEAD LOAD:

FLOORING	0.20 kPa
127mm SLAB	3.05 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	3.70 kPa

LIVE LOAD: 4.80 kPa



1 / S201 PART GROUND FLOOR PLAN - NORTH CLASSROOM WING

1:100

NORTH

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

DURHAM DISTRICT SCHOOL BOARD

DRAWING:
PART GROUND FLOOR PLAN

DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER — S. J. B. A. JAAGUMAGI — 100225530 — APR. 28, 2026 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25233	S201

LINTEL SCHEDULE

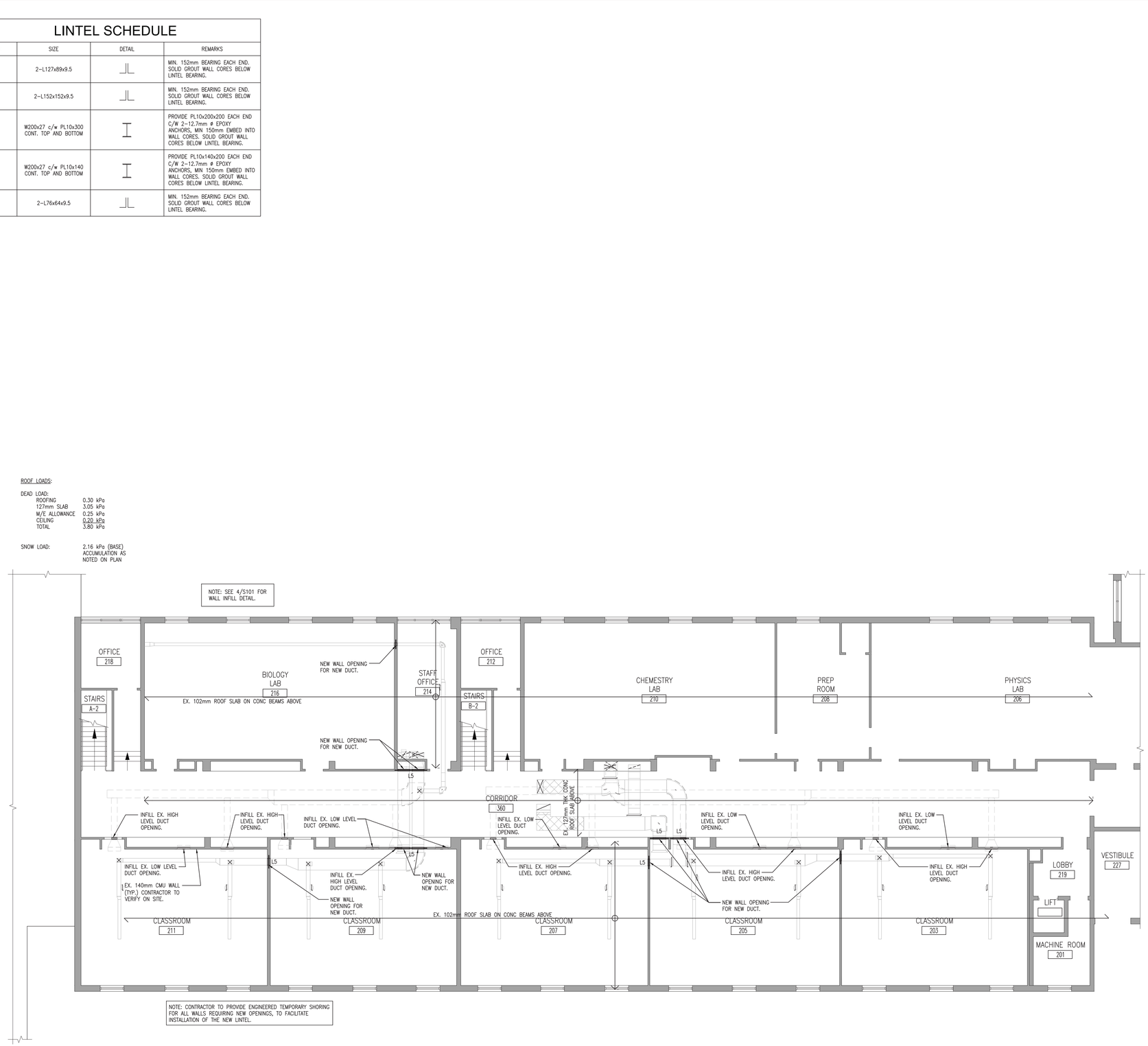
MARK	SIZE	DETAIL	REMARKS
L1	2–L127x89x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L2	2–L152x152x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L3	W200x27 c/w PL10x300 CONT. TOP AND BOTTOM		PROVIDE PL10x200x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L4	W200x27 c/w PL10x140 CONT. TOP AND BOTTOM		PROVIDE PL10x140x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L5	2–L76x64x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.

ROOF LOADS:

DEAD LOAD:

ROOFING	0.30 kPa
127mm SLAB	3.05 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	3.80 kPa

SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN



1 / S202 PART SECOND FLOOR PLAN - NORTH CLASSROOM WING

1:100

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BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

DURHAM DISTRICT SCHOOL BOARD

DRAWING:
PART SECOND FLOOR PLAN

DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER — S. J. B. A. JRAGUMAGH — 100225530 — APR. 28, 2026 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25233	S202

LINTEL SCHEDULE

MARK	SIZE	DETAIL	REMARKS
L1	2–L127x89x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L2	2–L152x152x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L3	W200x27 c/w PL10x300 CONT. TOP AND BOTTOM		PROVIDE PL10x200x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L4	W200x27 c/w PL10x140 CONT. TOP AND BOTTOM		PROVIDE PL10x140x200 EACH END C/W 2–12.7mm ø EPOXY ANCHORS, MIN 150mm EMBED INTO WALL CORES. SOLID GROUT WALL CORES BELOW LINTEL BEARING.
L5	2–L76x64x9.5		MIN. 152mm BEARING EACH END. SOLID GROUT WALL CORES BELOW LINTEL BEARING.

ROOF LOADS:

ABOVE HALLWAY

DEAD LOAD:

ROOFING	0.30 kPa
127mm SLAB	3.05 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	3.80 kPa

SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN

ABOVE WASHROOMS/CLASSROOMS

DEAD LOAD:

ROOFING	0.30 kPa
DECK	0.10 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	0.85 kPa

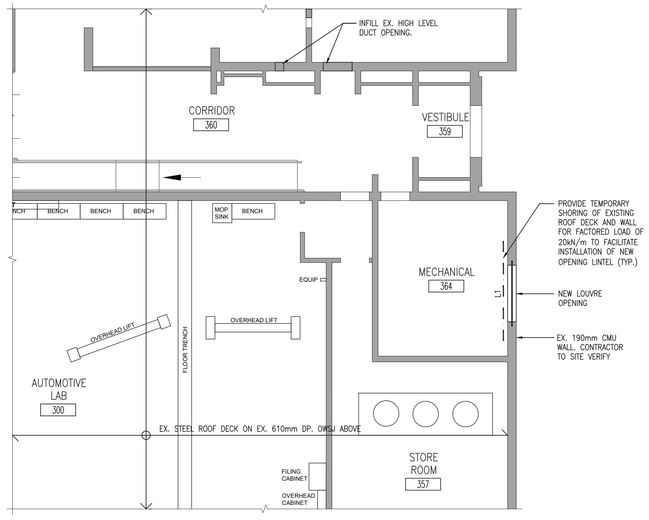
SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN

ROOF LOADS:

DEAD LOAD:

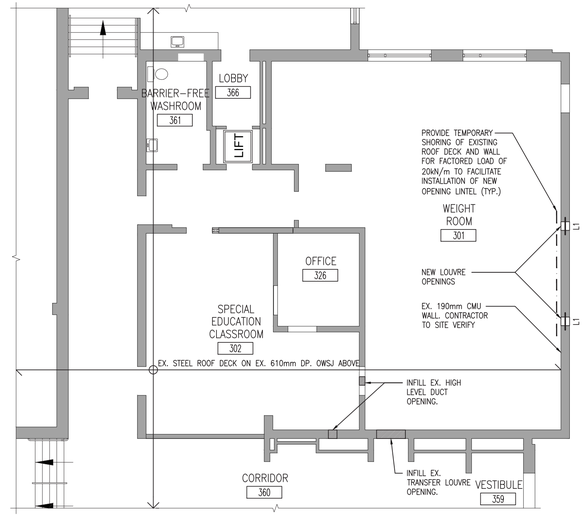
ROOFING	0.30 kPa
DECK	0.10 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	0.85 kPa

SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN



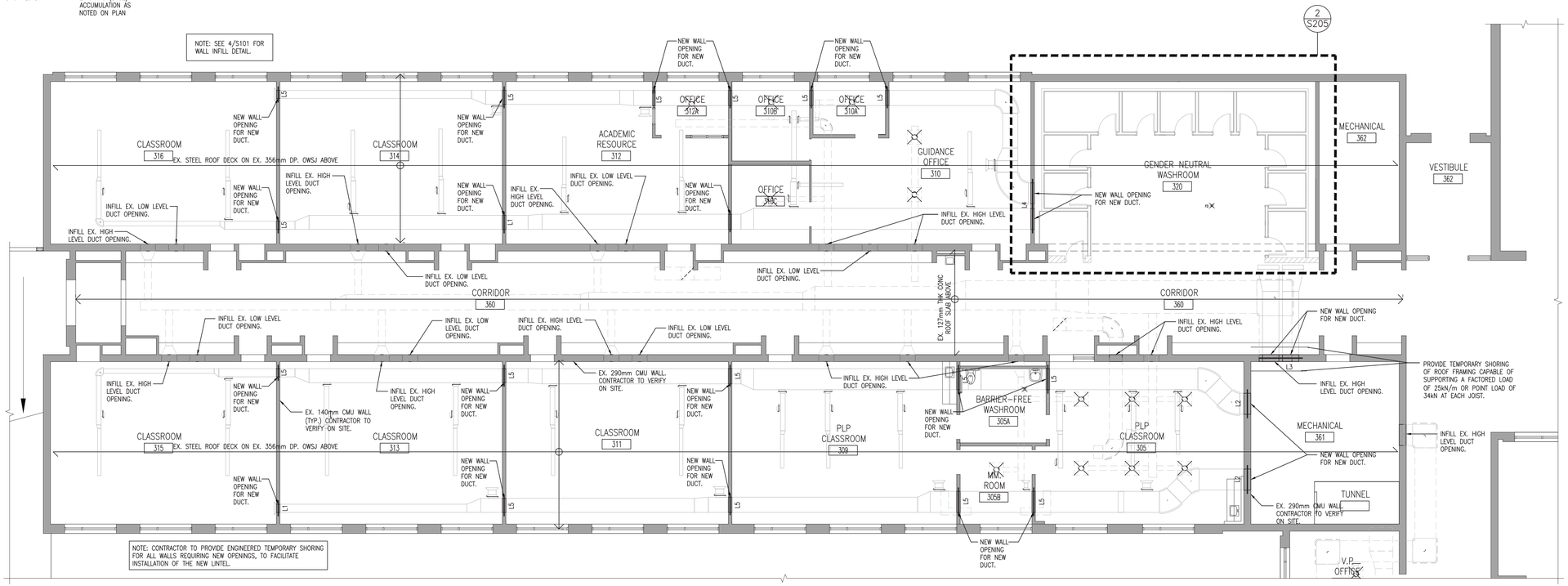
3 / S203 PART THIRD FLOOR PLAN - MECH. ROOM

1:100



2 / S203 PART THIRD FLOOR PLAN - WEIGHT ROOM

1:100



1 / S203 PART THIRD FLOOR PLAN - SOUTH CLASSROOM WING

1:100

NORTH

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BBA BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

DURHAM DISTRICT SCHOOL BOARD

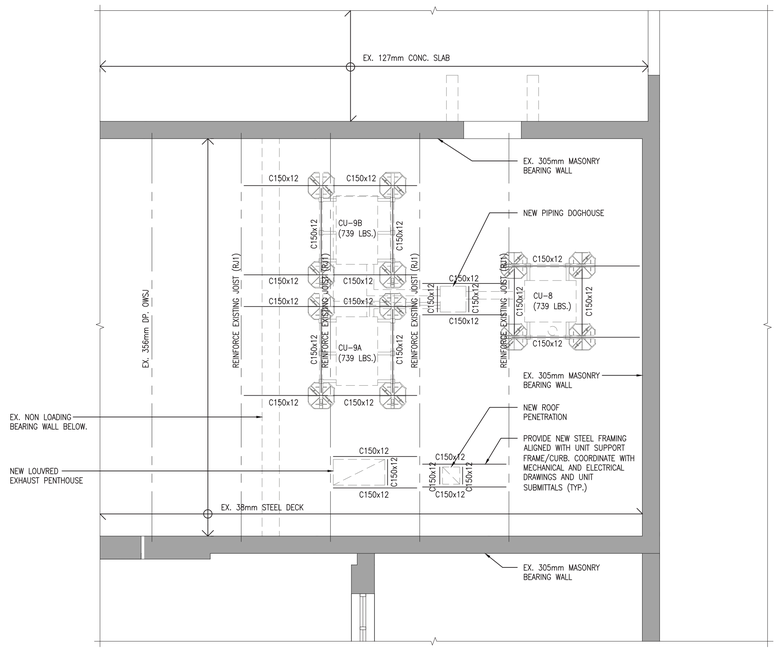
DRAWING:
PART THIRD FLOOR PLANS

DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER S. J. B. A. JAAGUMAGI 100225530 APR. 28, 2026 PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25233	S203

NOTE: PROVIDE C150 FRAMING AROUND PERIMETER OF ALL NEW ROOF OPENINGS IN STEEL DECK EXCEEDING 152mm IN DIAMETER. COORDINATE LOCATION AND SIZE OF OPENINGS AND EQUIPMENT WITH MECHANICAL AND ELECTRICAL DRAWINGS, AS WELL AS UNIT SHOP DRAWINGS.



3 / S204 PART ROOF FRAMING PLAN - MECHANICAL ROOM

1:50

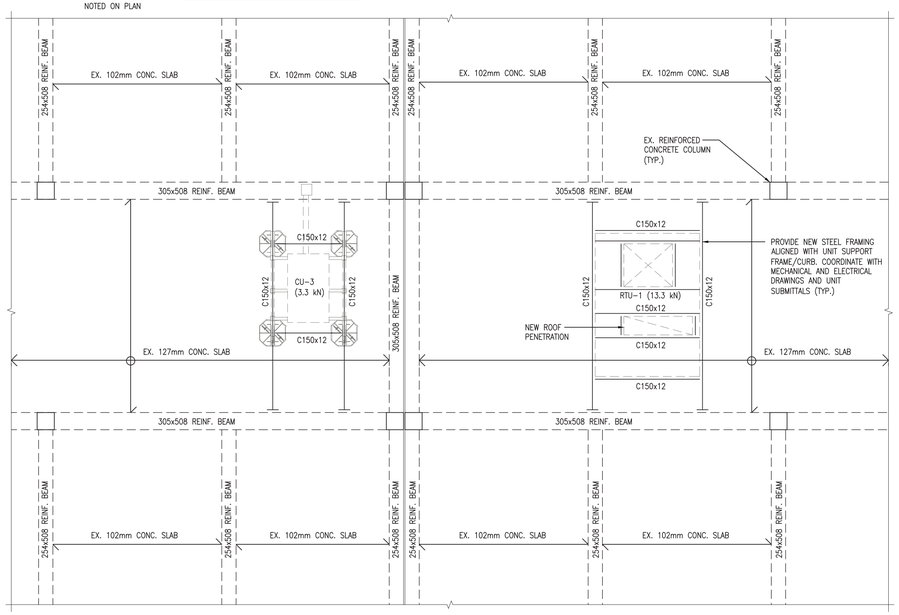
ROOF LOADS:

DEAD LOAD:

ROOFING	0.30 kPa
127mm SLAB	3.05 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	3.80 kPa

SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN

NOTE: CONTRACTOR IS TO SCAN THE SLAB TO LOCATE ALL EXISTING REINFORCING AROUND/WITHIN LIMITS OF PROPOSED NEW PENETRATION(S). SCANNING RESULTS TO BE REVIEWED ON SITE BY BBA FOR APPROVAL PRIOR TO CORING. LOCAL ADJUSTMENT OF PENETRATION LOCATION MAY BE REQUIRED TO MINIMIZE NUMBER OF BARS CUTS.



2 / S204 PART ROOF FRAMING PLAN - CORRIDOR NEAR STAFF ROOM & CHEMISTRY LAB

1:50

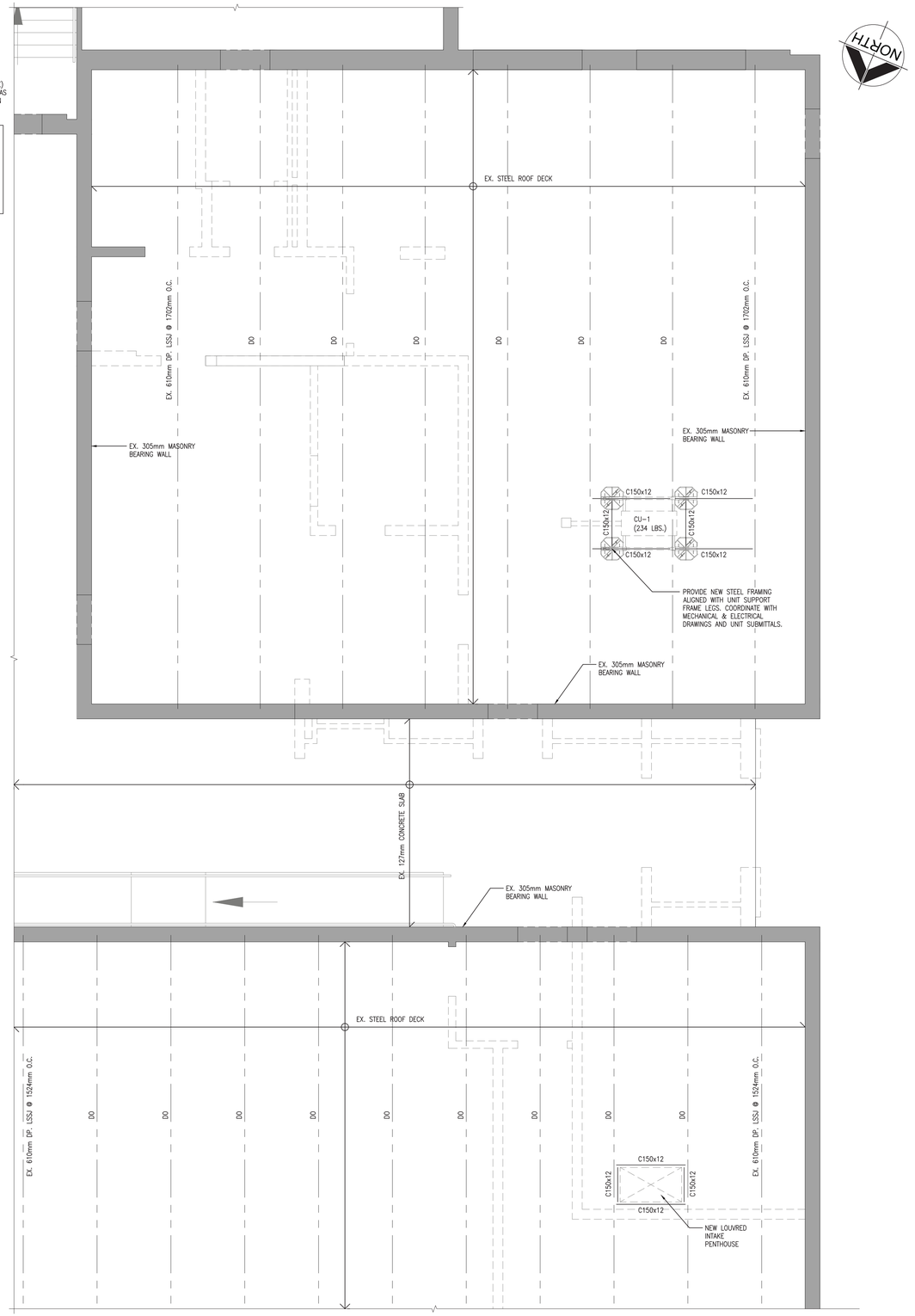
ROOF LOADS:

DEAD LOAD:

ROOFING	0.30 kPa
DECK	0.10 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	0.85 kPa

SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN

NOTE: PROVIDE C150 FRAMING AROUND PERIMETER OF ALL NEW ROOF OPENINGS IN STEEL DECK EXCEEDING 152mm IN DIAMETER. COORDINATE LOCATION AND SIZE OF OPENINGS AND EQUIPMENT WITH MECHANICAL AND ELECTRICAL DRAWINGS, AS WELL AS UNIT SHOP DRAWINGS.



1 / S204 PART ROOF FRAMING PLAN - WEIGHT ROOM & MECHANICAL ROOM

1:50

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BBA BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

DURHAM DISTRICT SCHOOL BOARD

DRAWING:
PART ROOF FRAMING PLANS

DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER — S. J. B. A. JAAGUMAGI — 100225530 — APR. 28, 2026 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25233	S204

COLUMN SCHEDULE

DATA \ MARK	C1
U/S STEEL BEAM	
T.O. FIN. GROUND FLOOR	HSS 102x102x7.9
DISTANCE FROM FINISHED FLOOR TO UNDERSIDE OF BASE PLATE	127
BASE PLATE	10x254x254
ANCHOR BOLTS	(4)-12.7mm DIA. CAST IN THREADED RODS, 200mm LG.

BEARING PLATE SCHEDULE

MARK	SIZE	ANCHORAGE
BP1	9.5x165x165	2-12.7mmø EPOXY ANCHORS, MIN. 150mm EMBED. INTO SOLID GROUTED WALL CORES.

FOOTING SCHEDULE

MARK	SIZE	THICKNESS	REINFORCING
F1	850x850	250	4-15M BOTTOM EACH WAY

ROOF DESIGN LOADS:

DEAD LOAD = 2.78 kPa + 0.15 kPa (OWSJ SELF WEIGHT)
SNOW LOAD = 2.15 kPa (NO SNOW ACCUMULATION)

ROOF LOADS:

ABOVE HALLWAY

DEAD LOAD:

ROOFING	0.30 kPa
127mm SLAB	3.05 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	3.80 kPa

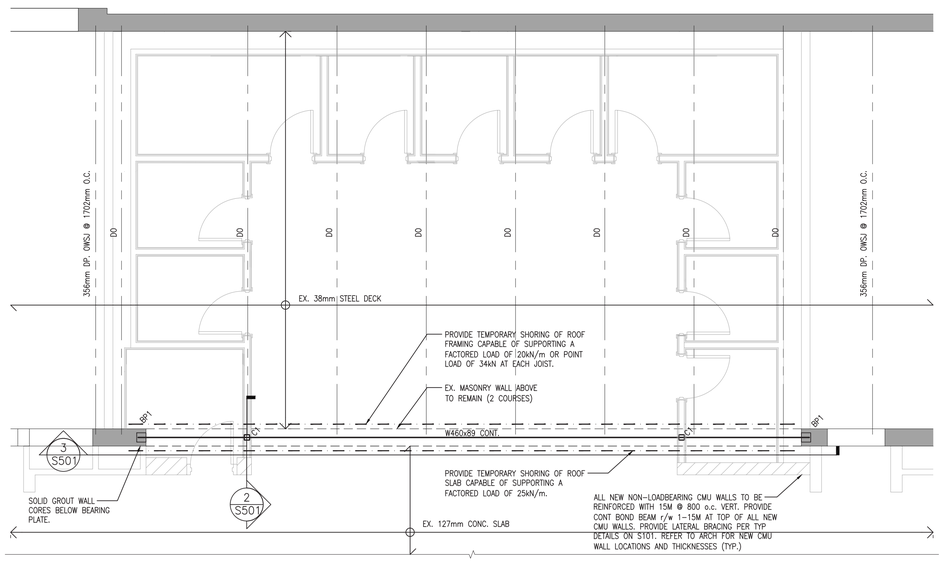
SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN

ABOVE WASHROOMS

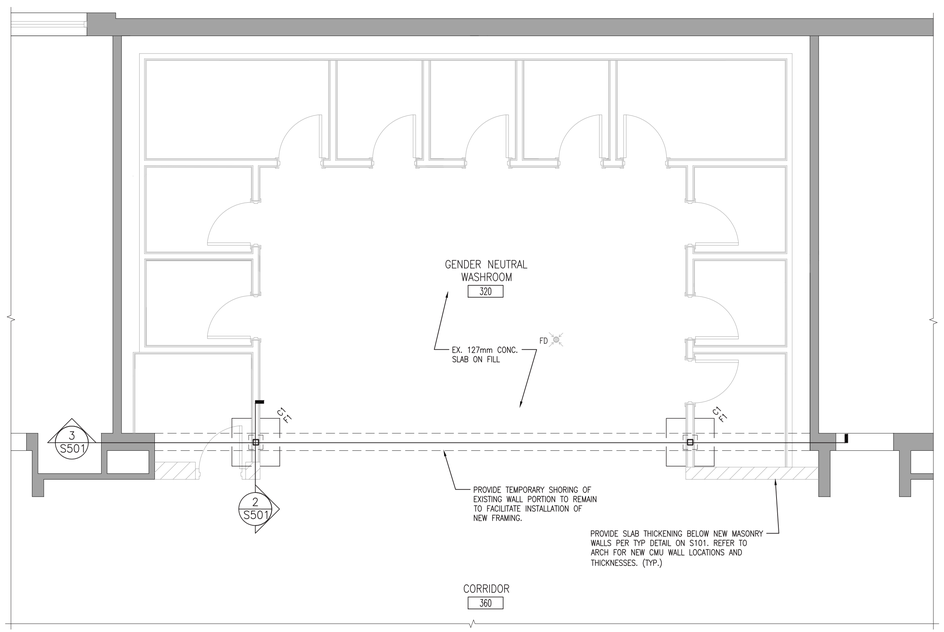
DEAD LOAD:

ROOFING	0.30 kPa
DECK	0.10 kPa
M/E ALLOWANCE	0.25 kPa
CEILING	0.20 kPa
TOTAL	0.85 kPa

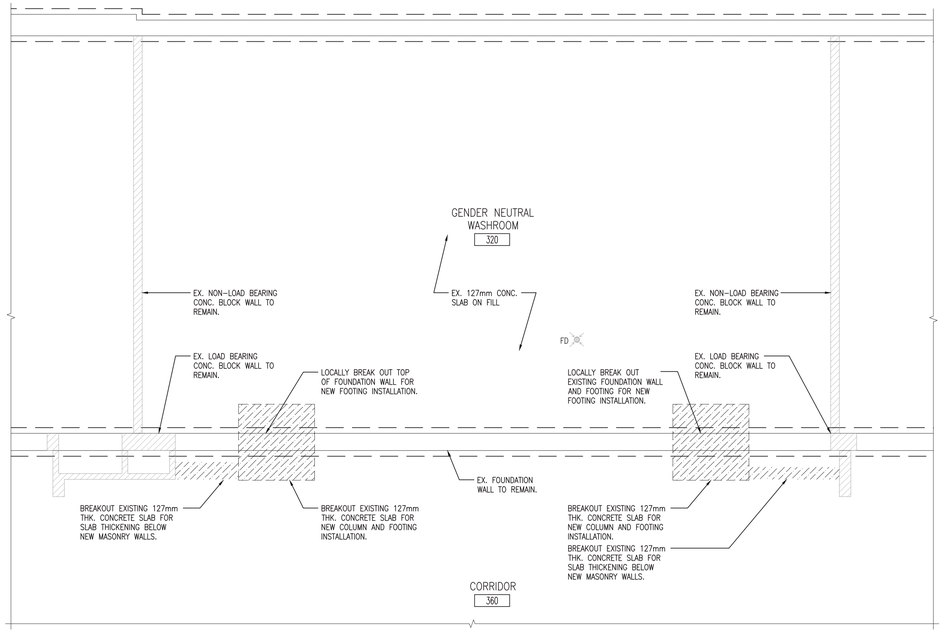
SNOW LOAD: 2.16 kPa (BASE) ACCUMULATION AS NOTED ON PLAN



3 S205 PART ROOF FRAMING PLAN - GENDER NEUTRAL WASHROOM
1:50



2 S205 PART FOUNDATION PLAN - GENDER NEUTRAL WASHROOM
1:50



1 S205 PART FOUNDATION DEMOLITION PLAN - GENDER NEUTRAL WASHROOM
1:50

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1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

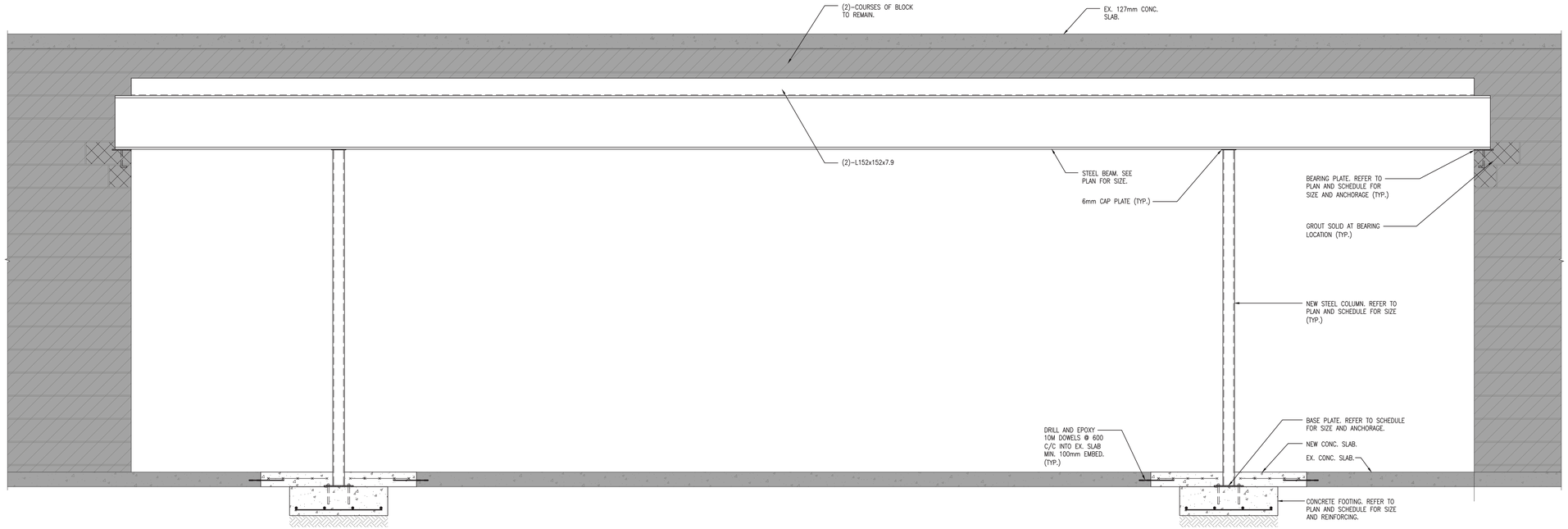
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
PART PLANS - UNIVERSAL WASHROOM

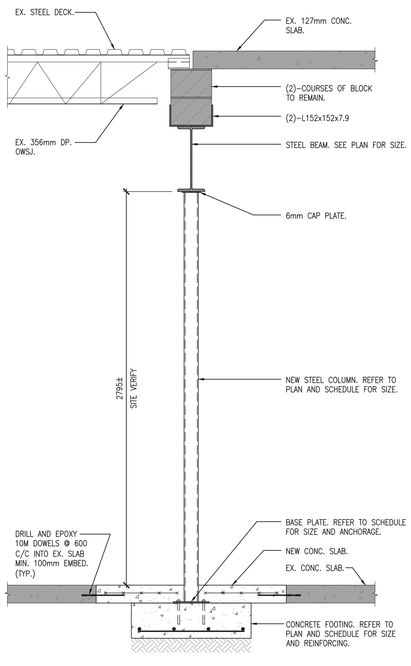
DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER — S. J. B. A. JANAGUMAGI — 100225530 — APR. 28, 2026 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25233	S205



3 S501 SECTION
1:20



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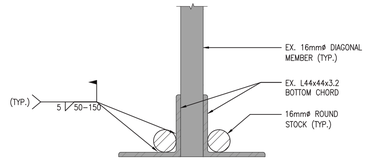
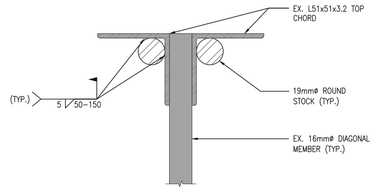
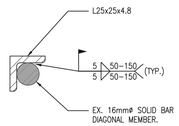


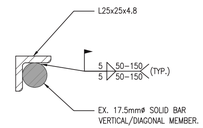
7 S501 OWSJ BOTTOM CHORD REINFORCING DETAIL
1:2



6 S501 OWSJ TOP CHORD REINFORCING DETAIL
1:2

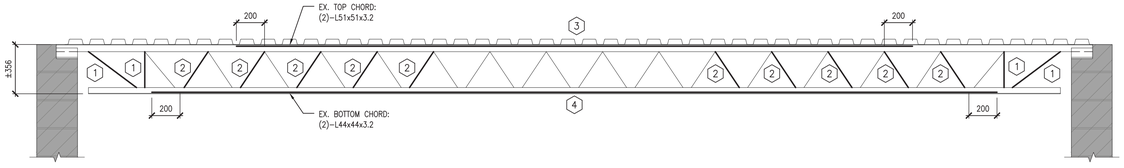


5 S501 OWSJ DIAGONAL MEMBER REINFORCING DETAIL
1:2



4 S501 OWSJ VERTICAL MEMBER REINFORCING DETAIL
1:2

JOIST REINFORCING LEGEND (RJ1)			
MARK	EX. MEMBER SIZE	REINFORCING	DETAIL
1	17.5mm⌀ ROUND BAR	L25x25x4.8	4/S501
2	16mm⌀ ROUND BAR	L25x25x4.8	5/S501
3	2–L51x51x3.2	19mm⌀ ROUND BAR	6/S501
4	2–L44x44x3.2	16mm⌀ ROUND BAR	7/S501



1 S501 JOIST REINFORCEMENT ELEVATION (RJ1)
1:20

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	APR. 28, 2026	BBA

BBA BARRY BRYAN ASSOCIATES

PROJECT:
BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0

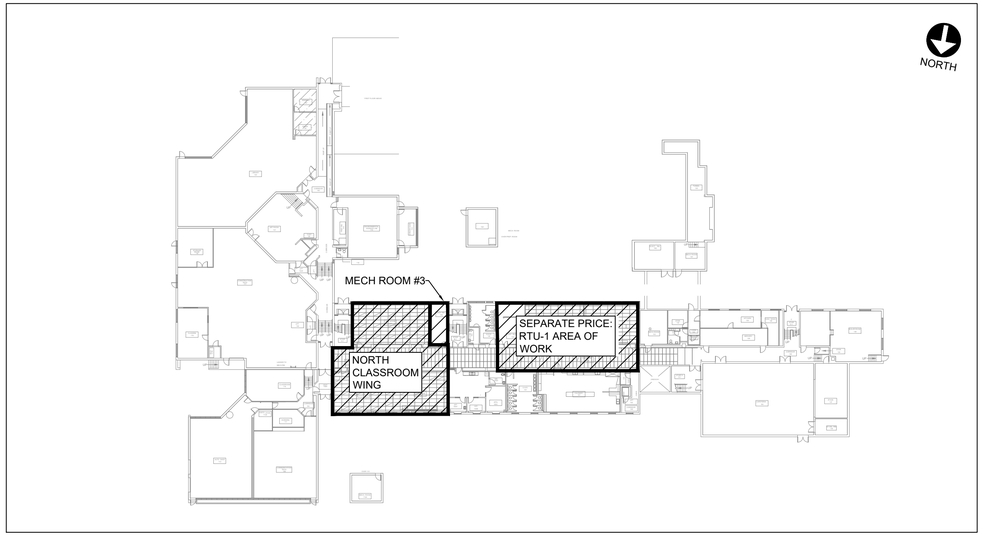
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
SECTIONS & DETAILS

DESIGN BY:	BBA
DRAWN BY:	LS
CHECKED BY:	SJ
DATE:	26-03-19
SCALE:	AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER S. J. B. A. JAGUMAGE 100225530 APR. 28, 2026 PROVINCE OF ONTARIO

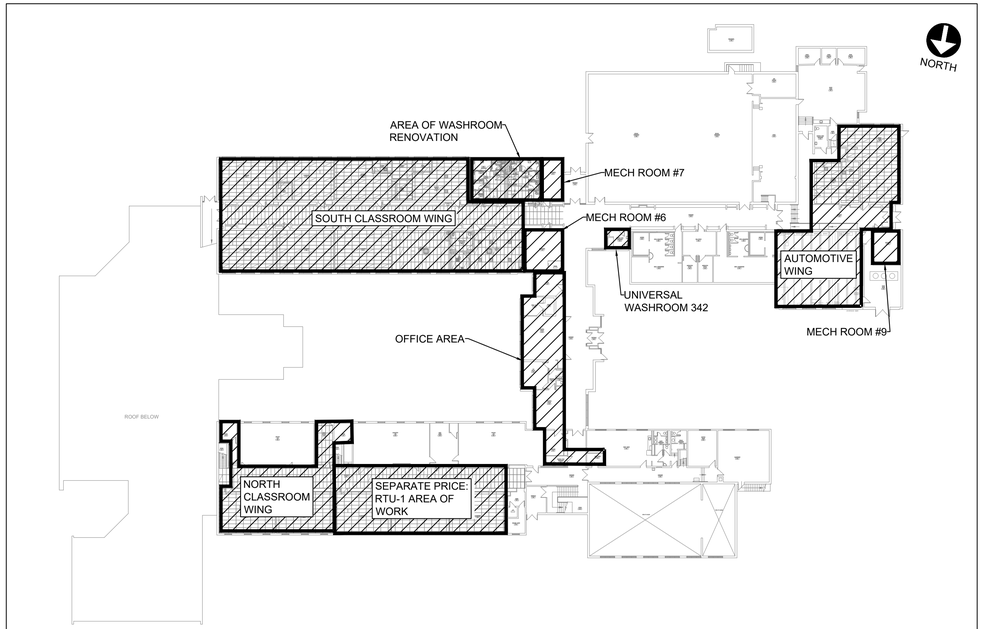
PROJECT NO:	DRAWING NO:
25233	S501



1
M-100

FIRST FLOOR KEY PLAN

Scale: NOT TO SCALE



2
M-100

SECOND FLOOR KEY PLAN

Scale: NOT TO SCALE

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. RETAIN AND PAY FOR SERVICES OF AN EXPERIENCED SEISMIC CONSULTANT WHO IS A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE WORK AND A MEMBER IN GOOD STANDING OF A PROFESSIONAL ENGINEERS ASSOCIATION IN THE JURISDICTION OF THE WORK.

DEMOLITION LEGEND

SYMBOL	DESCRIPTION
E	EXISTING TO REMAIN
D	DEMOLISH. REMOVE AND DISPOSE OF EQUIPMENT, DUCTWORK, SERVICES, ETC.
R	RELOCATE ITEM
	EXISTING TO REMAIN
	DEMOLISH OR RELOCATE
	NEW

MECHANICAL DRAWING LIST

DRAWING NO.	DRAWING NAME
M100	DRAWING LIST, SYMBOL LIST, AND KEY PLANS
M200	NORTH CLASSROOM WING - FLOORPLANS - DEMOLITION - HVAC
M201	NORTH CLASSROOM WING - FLOORPLANS - NEW WORK - HVAC
M202	MAIN OFFICE - FLOORPLANS - HVAC
M203	SOUTH CLASSROOM WING - FLOORPLANS - HVAC
M204	AUTOMOTIVE WING - FLOORPLANS - HVAC
M205	ROOF PLAN - DEMOLITION - HVAC
M206	ROOF PLAN - NEW WORK - HVAC
M301	MECHANICAL RM #3 - ENLARGED PLANS
M302	MECHANICAL RM #6 - ENLARGED PLANS
M303	MECHANICAL RM #9 - ENLARGED PLANS
M401	GENDER NEUTRAL WASHROOMS - DEMOLITION PLANS
M402	GENDER NEUTRAL WASHROOMS - NEW WORK PLANS
M403	UNIVERSAL WASHROOM - PLANS
M500	CONTROL DIAGRAMS #1
M501	CONTROL DIAGRAMS #2
M502	CONTROL DIAGRAMS #3
M503	CONTROL DIAGRAMS #4
M504	CONTROL DIAGRAMS #5
M600	MECHANICAL - TYPICAL DETAILS #1
M601	MECHANICAL - TYPICAL DETAILS #2
M602	MECHANICAL - TYPICAL DETAILS #3
M603	MECHANICAL - TYPICAL DETAILS #4
M604	MECHANICAL - TYPICAL DETAILS #5
M610	AIR HANDLING UNIT DETAILS #1
M700	MECHANICAL SCHEDULES #1
M701	MECHANICAL SCHEDULES #2
M702	MECHANICAL SCHEDULES #3

GENERAL NOTES

1. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID TO VERIFY EXISTING CONDITIONS AND TO CONFIRM THAT EQUIPMENT AND SERVICES CAN BE INSTALLED AS INDICATED ON THE DRAWINGS. CONTRACTOR TO INCLUDE FOR ALL COSTS ASSOCIATED TO FACILITATE INSTALLATION. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE ENGINEERS OF ANY DISCREPANCIES, OMMISSIONS, AND INTERFERENCES.
2. ENSURE THAT ALL NEW AND EXISTING EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW OR EXISTING SERVICES. PROVIDE ACCESS DOORS/PANELS TO MATCH BASE BUILDING STANDARDS WHERE REQUIRED.
3. PROVIDE ALL REQUIRED SCANNING, CORING/CUTTING AND PATCHING TO PERFORM THE SCOPE OF WORK AS OUTLINED IN THE DRAWINGS.
4. CONTRACTOR IS TO BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL PIPING, DUCTWORK AND EQUIPMENT, AS SHOWN ON THE DEMOLITION PLAN.
5. INSULATE ALL NEW PIPING, DUCTWORK AND ANY EXISTING PIPING AND DUCTWORK WHERE INSULATION HAS BEEN REMOVED OR DAMAGED BY THIS WORK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENT.
6. WHERE CONNECTING TO EXISTING SERVICES, CONTRACTOR TO MATCH ALL EXISTING PIPE/DUCT SIZES AND PROVIDE TRANSITIONS WHERE REQUIRED.
7. NOT ALL EQUIPMENT CONNECTIONS ARE SHOWN. REFER TO MANUFACTURERS LITERATURE FOR ALL PIPING AND DUCTWORK CONNECTIONS.
8. ALL HEATING PIPING AND FITTINGS SHALL BE INSULATED. IN ADDITION, ALL EXPOSED PIPING AND FITTINGS SHALL BE PROVIDED WITH PVC INSULATING COVERS.
9. CONTRACTOR TO FLUSH AND CLEAN ALL NEW WORK THOROUGHLY TO WHERE THE SYSTEMS CAN BE ISOLATED FOR THIS WORK AS PER THE SPECIFICATIONS PRIOR TO TIE IN TO THE EXISTING WORK/EQUIPMENT.
10. SURVEY ALL AFFILIATED WORK AREAS AND REPORT ANOMALIES AND DISCREPANCIES TO CONSULTANT.
11. SUPPLY AND INSTALLATION OF ELECTRICAL CONDUITS FOR MECHANICAL EQUIPMENT SHALL BE BY ELECTRICAL DIVISION AND CONSISTENT WITH ELECTRICAL SPECIFICATIONS.
12. COORDINATE ALL TEMPORARY SHUT DOWNS WITH THE SCHOOL BOARD. PROVIDE ISOLATION VALVES AS REQUIRED.
13. CONTRACTOR TO REVIEW GROUNDING AND PIPING SUPPORTS FOR EXISTING NATURAL GAS PIPING. PROVIDE NEW AS REQUIRED TO MEET CURRENT CODE.
14. APPLY FOR, OBTAIN, AND PAY FOR ALL PERMITS, FEES AND SERVICE CONNECTIONS FOR THE WORK AND THE INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDUCTION IN THE AREA WHERE THE WORK WILL TAKE PLACE, INCLUDING TSSA AND ESA.
15. CARRY BALANCING AGENT TO BALANCE THE AIR AND HYDRONIC SYSTEMS IN NEW WORK SCOPE. CONTRACTOR TO COORDINATE ALL WORK WITH THEM.

DUCTWORK

SYMBOL	DESCRIPTION
	SUPPLY AIR DUCT UP & DOWN
	RETURN / EXHAUST AIR DUCT UP & DOWN
	ROUND DUCT UP & DOWN
	SQUARE ELBOW WITH TURNING VANES
	DUCTWORK FLEXIBLE CONNECTION
	1" THICK ACOUSTICALLY LINED DUCTWORK
	EXTERNALLY INSULATED DUCTWORK (REFER TO SPECIFICATIONS FOR THICKNESS)
	DUCT CONTINUATION (ROUND & RECTANGULAR)
SFD	COMBINATION SMOKE-FIRE DAMPER IN DUCT
	RISE IN DUCTWORK
	SUPPLY AIR DIFFUSER C/W FLEX DUCT & SPIN ON CONNECTION WITH BALANCING DAMPER
	ROUND CONE DIFFUSER
	SUPPLY / RETURN GRILLE
	DUCTED RETURN / EXHAUST GRILLE
	CEILING RETURN GRILLE - EGG CRATE
F	TOILET EXHAUST FAN
	ROOF MOUNTED MUSHROOM FAN
T	THERMOSTAT
T	TEMPERATURE SENSOR
CO2	CARBON DIOXIDE (CO_2) SENSOR
T CO2	COMBINED TEMPERATURE & CARBON DIOXIDE (CO_2) SENSOR
H T CO2	COMBINED TEMPERATURE, HUMIDITY, & CARBON DIOXIDE (CO_2) SENSOR
H	HUMIDITY SENSOR
S	SWITCH
OS	OCCUPANCY SENSOR
	CO / NOX SENSOR
	CONTROL WIRING
	UNIT HEATER
	WALL FIN HEATER

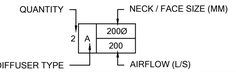
CONTROLS

SYMBOL	DESCRIPTION
	FAN
XA	GRILLE (SUPPLY / RETURN / EXHAUST)
	FILTER BANK WITH DIFFERENTIAL PRESSURE SENSOR
HWS HEATING CWS COOLING	HEATING COIL / COOLING COIL: HOT WATER - HWS/HWR GLYCOL HEATING - GHS/GHR CHILLED WATER - CHS/CHR
M MD	MOTORIZED DAMPER
	CONTROL VALVE (2-WAY & 3-WAY)
T-1 H-1 CO2-1 (AI) (IS) (AI)	SENSORS (AIR OR WATER) (TEMPERATURE / HUMIDITY / CARBON DIOXIDE)
FLOW SWITCH	FLOW SWITCH (AIR OR WATER)
	CONTROL WIRING
(AI)	ANALOG INPUT
(AO)	ANALOG OUTPUT
(DI)	DIGITAL INPUT
(DO)	DIGITAL OUTPUT
EA	EXHAUST AIR
OA	OUTDOOR AIR
RA	RETURN AIR
SA	SUPPLY AIR

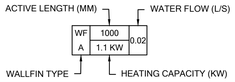
TAGS

SYMBOL	DESCRIPTION
TAG-1	EQUIPMENT TAG
	AIRFLOW DIRECTION
CTE	CONNECT TO EXISTING
OED	OPEN ENDED DUCT
(###)	FLOW IN L/S

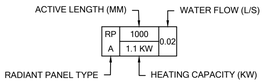
DIFFUSER TAG



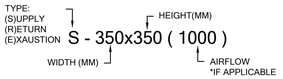
WALLFIN HEATER TAG



RADIANT CEILING PANEL TAG



DUCTWORK



MECHANICAL PIPING

SYMBOL	DESCRIPTION
	PIPE DOWN
	PIPE UP
	PIPE UP & DOWN
	VALVE
	BALANCING VALVE
	CHECK VALVE
	STRAINER
	LOCK-SHEILD VALVE
	PRESSURE REDUCING VALVE
	ELECTRONIC CONTROL VALVE (2-WAY & 3-WAY)
	PNEUMATIC CONTROL VALVE (2-WAY & 3-WAY)
	3-WAY VALVE (MANUAL)
	PIPE CONTINUATION
CD	CONDENSATE DRAINAGE PIPING
G	NATURAL GAS PIPING
	FLOW DIRECTION
RL / RG	REFRIGERANT LIQUID AND GAS PIPING
	PUMP
CAP	CAPPED PIPE
	PRESSURE GAUGE
	THERMOMETER
	PRESSURE RELIEF VALVE

PLUMBING AND DRAINAGE

SYMBOL	DESCRIPTION
	P-TRAP
CO CO	CLEAN OUT (FLOOR & CEILING)
FD	ROUND FLOOR DRAIN
FD	SQUARE FLOOR DRAIN
HD	HUB DRAIN
FFD	FUNNEL FLOOR DRAIN
	PIPE WYE CONNECTION
	PIPE 45° CONNECTION
	PIPE ELBOW
	PIPE TEE
	DOMESTIC COLD WATER (DCW) PIPING
	DOMESTIC HOT WATER (DHW) PIPING
	DOMESTIC HOT WATER RECIRC. (DHWR) PIPING
SAN	SANITARY DRAINAGE (SAN) PIPING
	PIPING WITH ELECTRIC HEATING TRACING
	VENT PIPING

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

DRAWING LIST, SYMBOL LIST, AND KEYPLANS

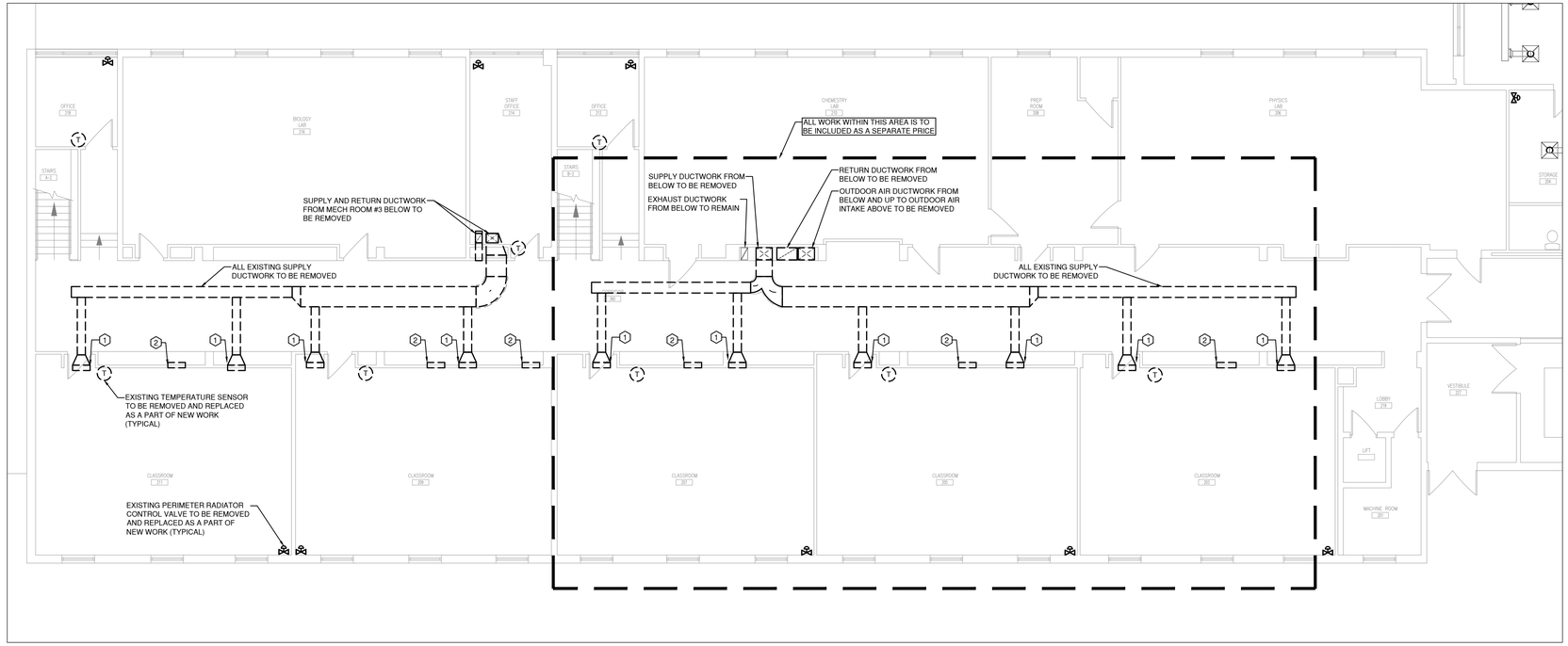
DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL:

PROJECT NO:	DRAWING NO:
25184	M100

KEYED NOTES - DEMOLITION

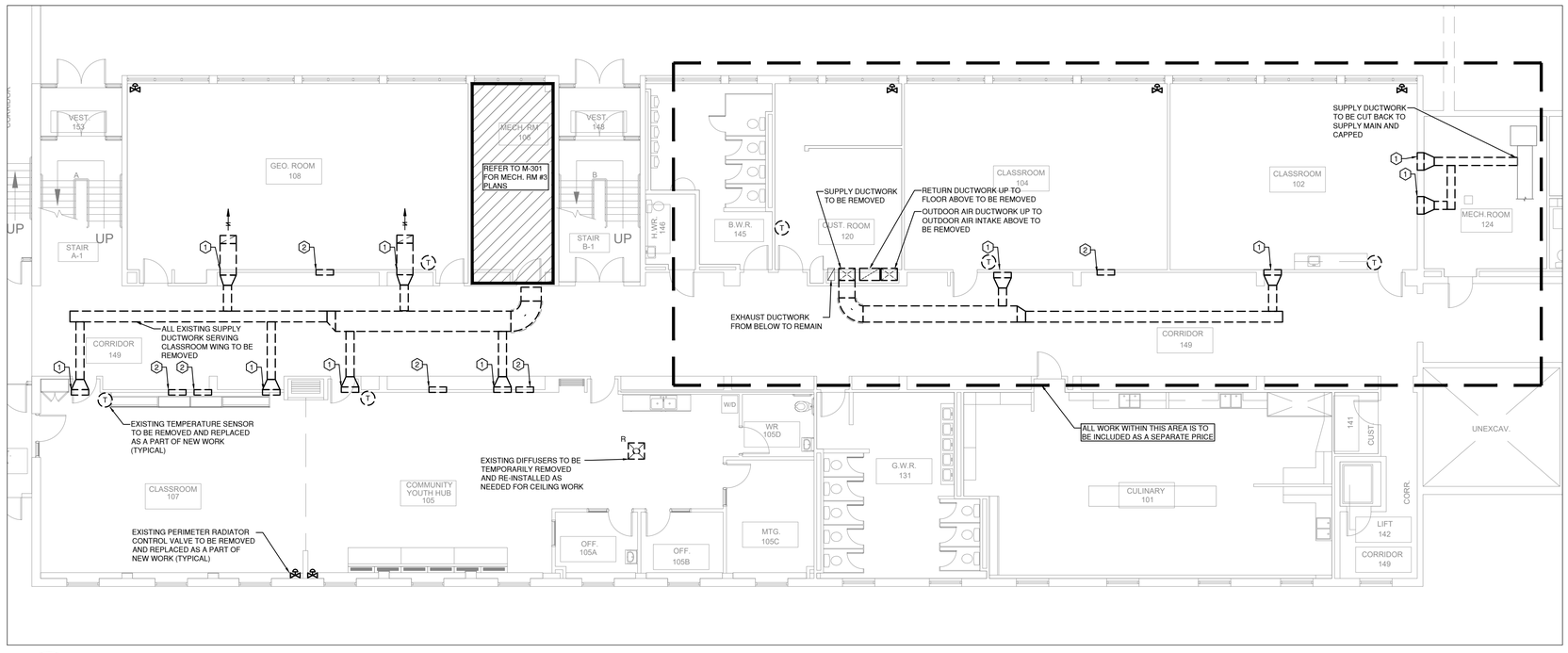
1. EXISTING HIGH LEVEL GRILLE TO BE REMOVED AND OPENING IN WALL TO BE FILLED IN TO MAINTAIN FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS.
2. EXISTING LOW LEVEL GRILLE TO BE REMOVED AND OPENING IN WALL TO BE FILLED IN TO MAINTAIN FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS.



2
M-200

NORTH CLASSROOM WING - SECOND FLOOR HVAC - DEMO

Scale: 1:100



1
M-200

NORTH CLASSROOM WING - FIRST FLOOR HVAC - DEMO

Scale: 1:100

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RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
NORTH CLASSROOM WING FLOORPLANS - DEMOLITION - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:100

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO: **25184**

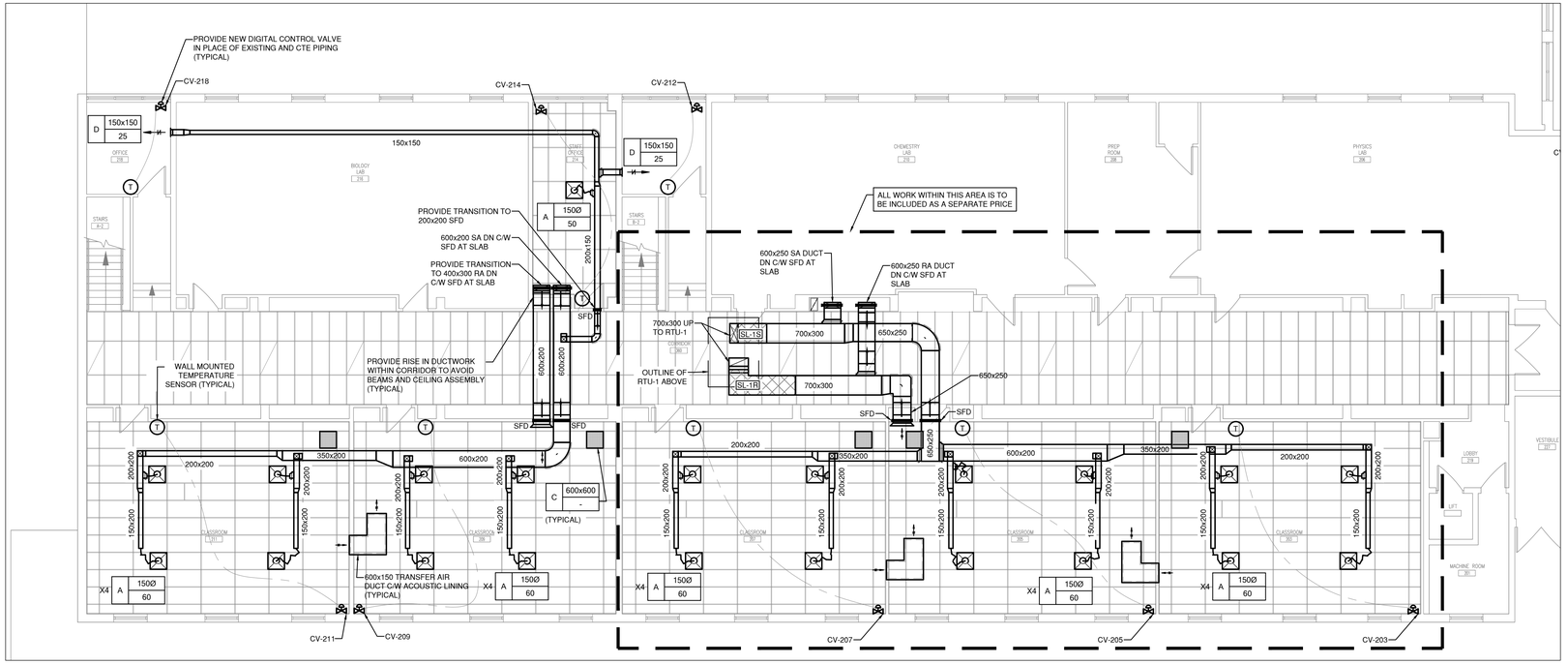
DRAWING NO: M200

HVAC GENERAL NOTES

1. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. PROVIDE ACCESS DOORS/PANELS WHERE REQUIRED.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
3. ALL DUCTWORK SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS.
4. DIMENSIONS OF ACOUSTICALLY LINED DUCTWORK SHOWN REPRESENT THE FREE AREA OF DUCTWORK. DUCT SIZES SHALL BE ADJUSTED TO ACCOUNT FOR THICKNESS OF ACOUSTIC LINING PROVIDED TO MAINTAIN FREE AREA NOTED.
5. MANUAL BALANCING DAMPERS SHALL BE PROVIDED AT ALL DUCT BRANCHES AND IN ALL BRANCHES TO GRILLES AND DIFFUSERS AS SHOWN ON MECHANICAL DETAILS.
6. PROVIDE CONSTRUCTION FILTERS AS PER SPECIFICATIONS FOR ALL HVAC EQUIPMENT DURING TESTING AND CONSTRUCTION. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED.
7. INSTALLATION LOCATIONS AND HEIGHTS OF ALL WALL MOUNTED SENSORS AND SWITCHES ARE TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND ARE TO BE INSTALLED AS PER LOCAL CODES.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT INSTALLATION LOCATIONS OF GRILLES AND DIFFUSERS.

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

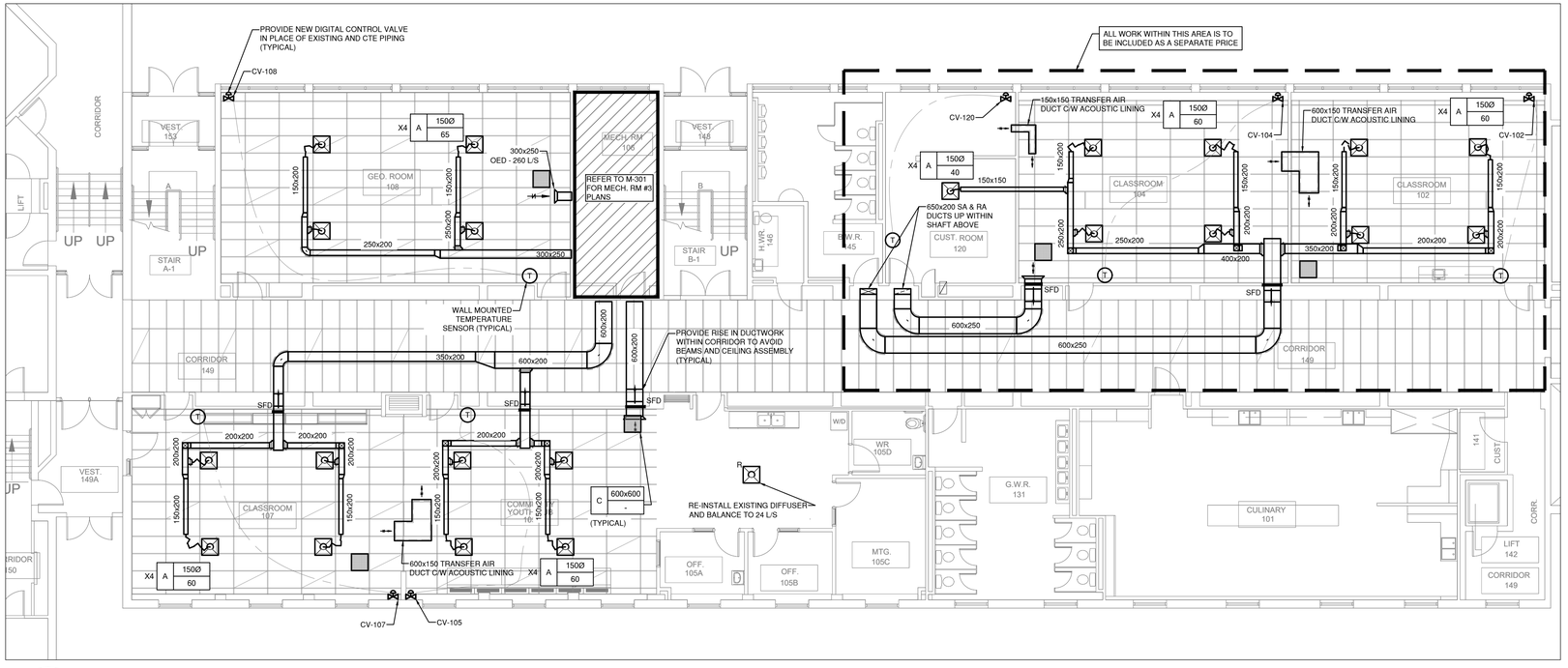
1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. RETAIN AND PAY FOR SERVICES OF AN EXPERIENCED SEISMIC CONSULTANT WHO IS A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE WORK AND A MEMBER IN GOOD STANDING OF A PROFESSIONAL ENGINEERS ASSOCIATION IN THE JURISDICTION OF THE WORK.



2 / M-201

NORTH CLASSROOM WING - SECOND FLOOR HVAC - NEW

Scale: 1:100



1 / M-201

NORTH CLASSROOM WING - FIRST FLOOR HVAC - NEW

Scale: 1:100

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

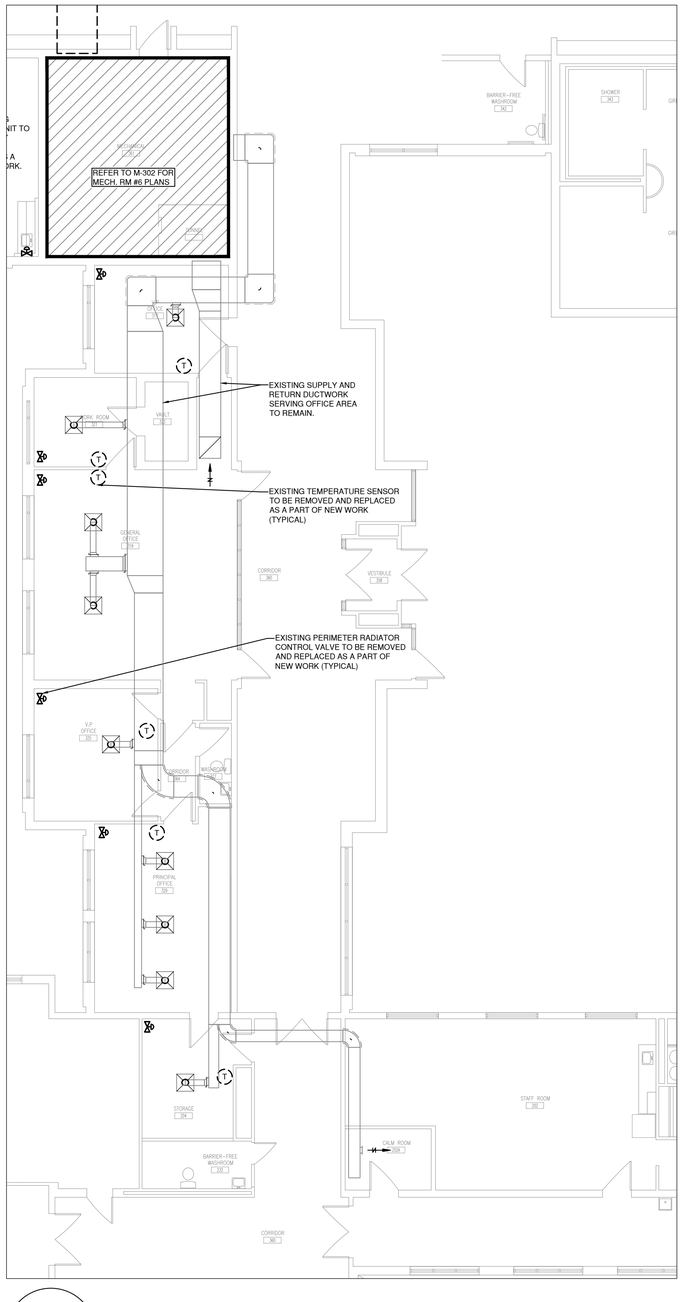
DRAWING:
NORTH CLASSROOM WING FLOORPLANS - NEW WORK - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:100

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

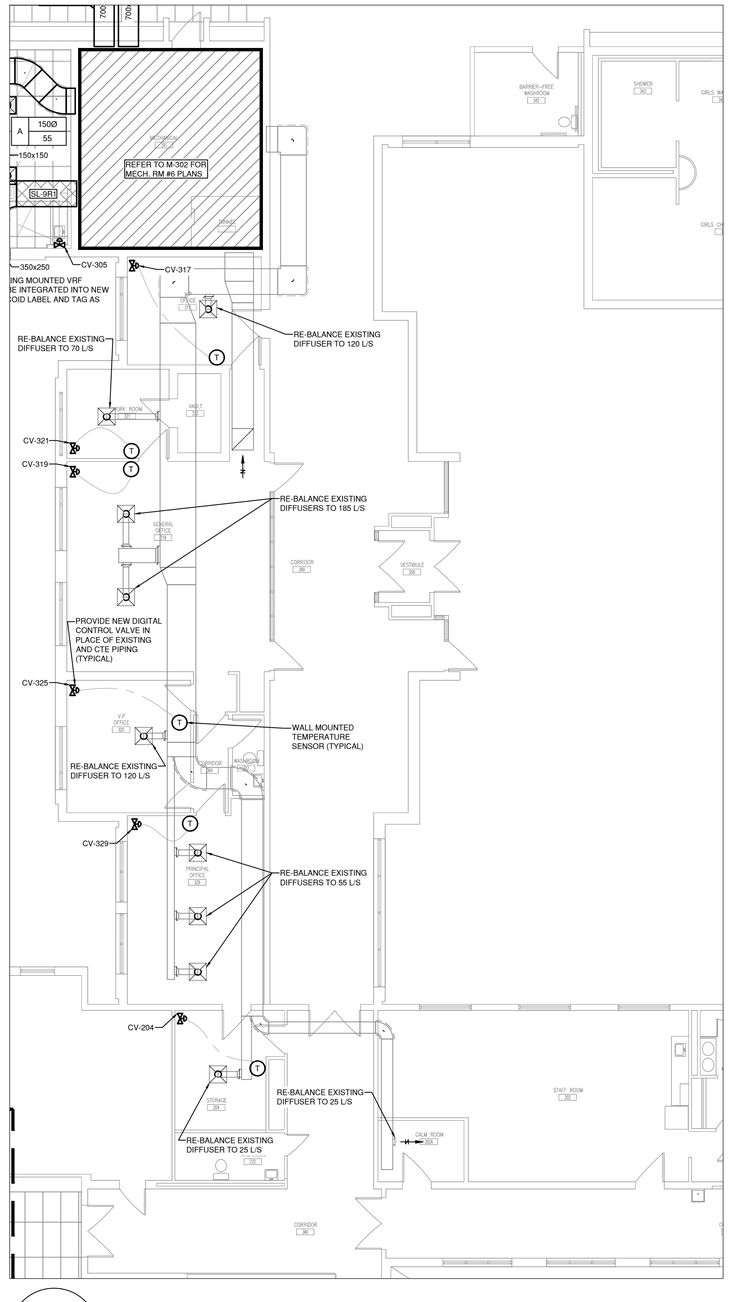
PROJECT NO: **25184**

DRAWING NO: M201



1 M-202 MAIN OFFICE - SECOND FLOOR HVAC - DEMO

Scale: 1:100



2 M-202 MAIN OFFICE - SECOND FLOOR HVAC - NEW

Scale: 1:100

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MAIN OFFICE FLOORPLANS - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:100

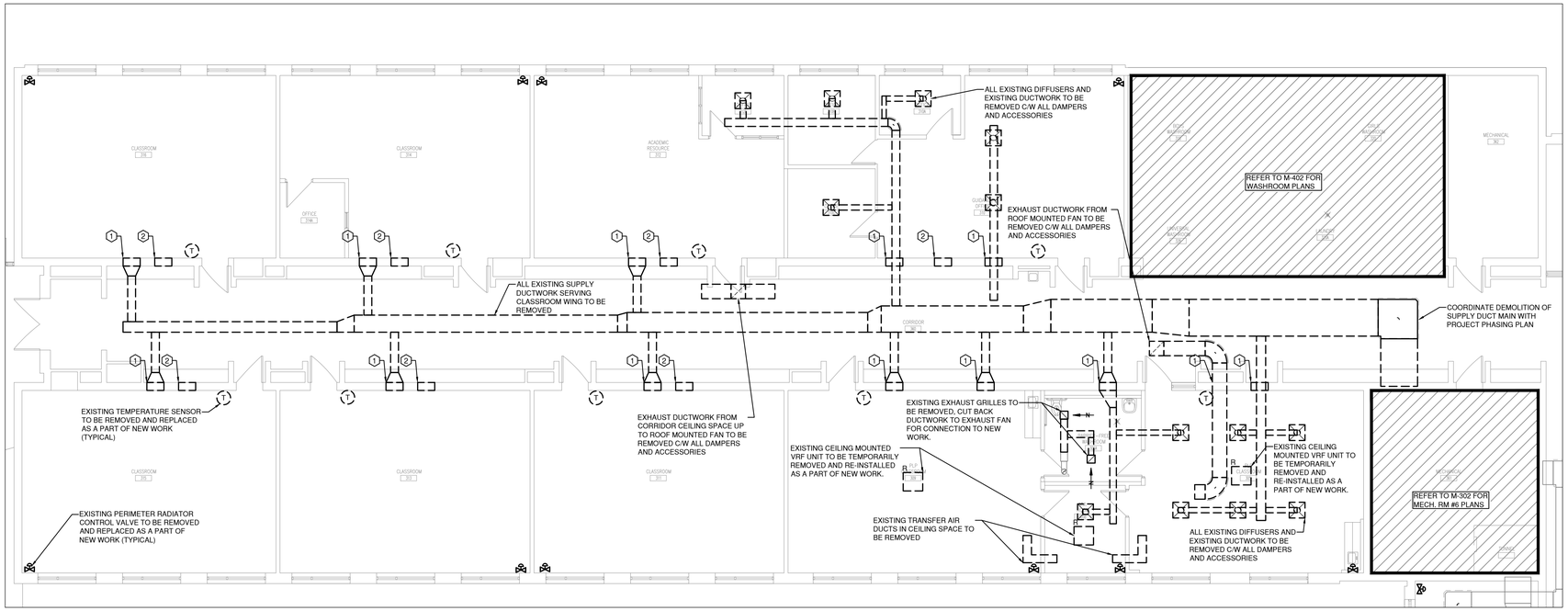
SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206758 PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M202

KEYED NOTES - DEMOLITION

1. EXISTING HIGH LEVEL GRILLE TO BE REMOVED AND OPENING IN WALL TO BE FILLED IN TO MAINTAIN FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS.
2. EXISTING LOW LEVEL GRILLE TO BE REMOVED AND OPENING IN WALL TO BE FILLED IN TO MAINTAIN FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS.



1 / M-203

SOUTH CLASSROOM WING - SECOND FLOOR HVAC - DEMO

Scale: 1:100

HVAC GENERAL NOTES

1. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. PROVIDE ACCESS DOORS/PANELS WHERE REQUIRED.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
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8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT INSTALLATION LOCATIONS OF GRILLES AND DIFFUSERS.

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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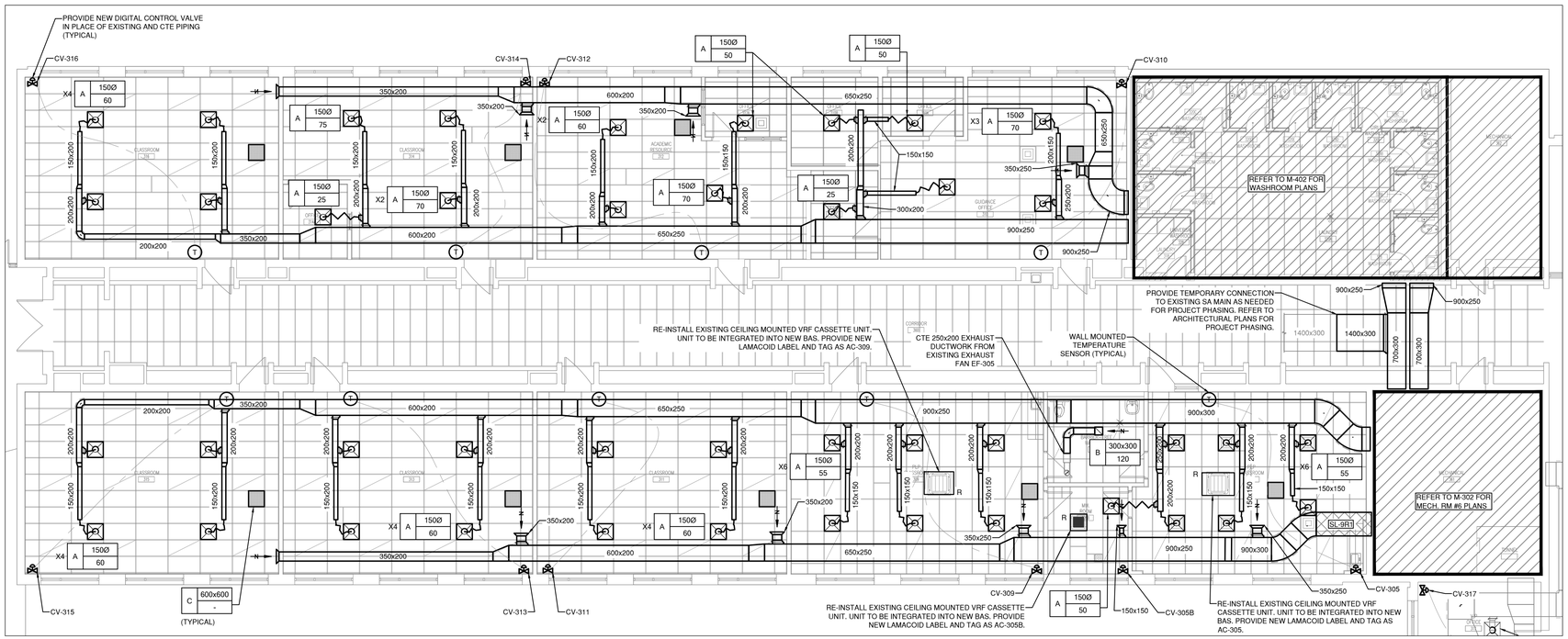

2 / M-203

SOUTH CLASSROOM WING - SECOND FLOOR HVAC - NEW

Scale: 1:100

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

SOUTH CLASSROOM WING FLOORPLANS - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:100

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M203

HVAC GENERAL NOTES

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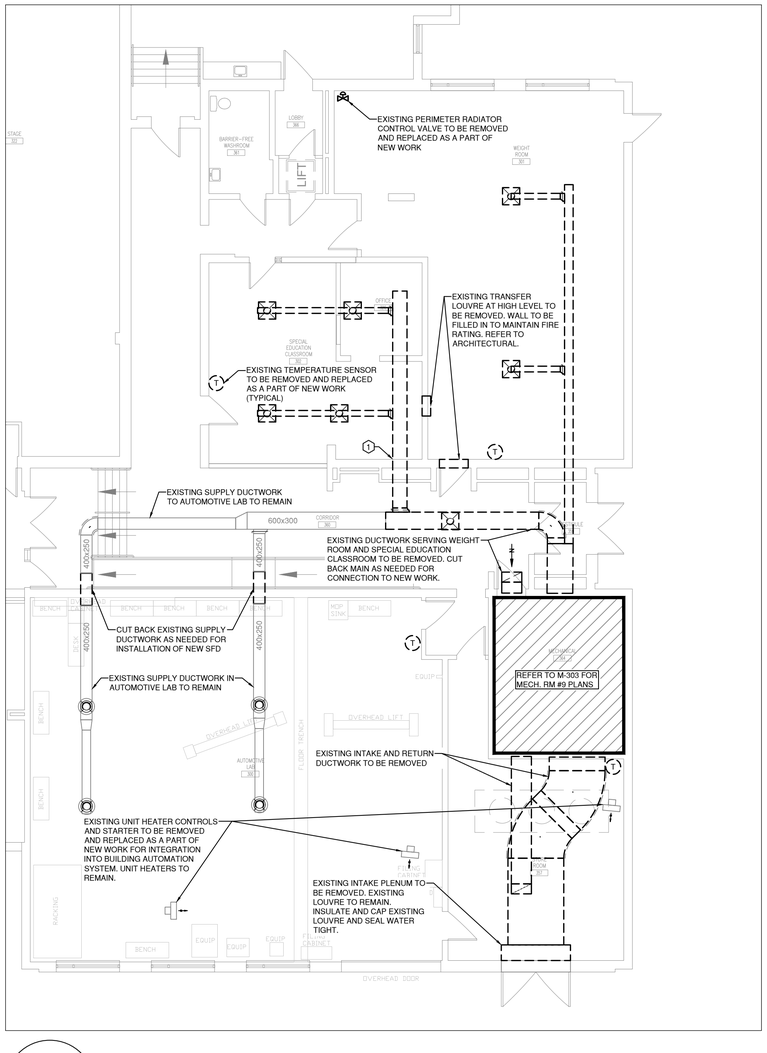
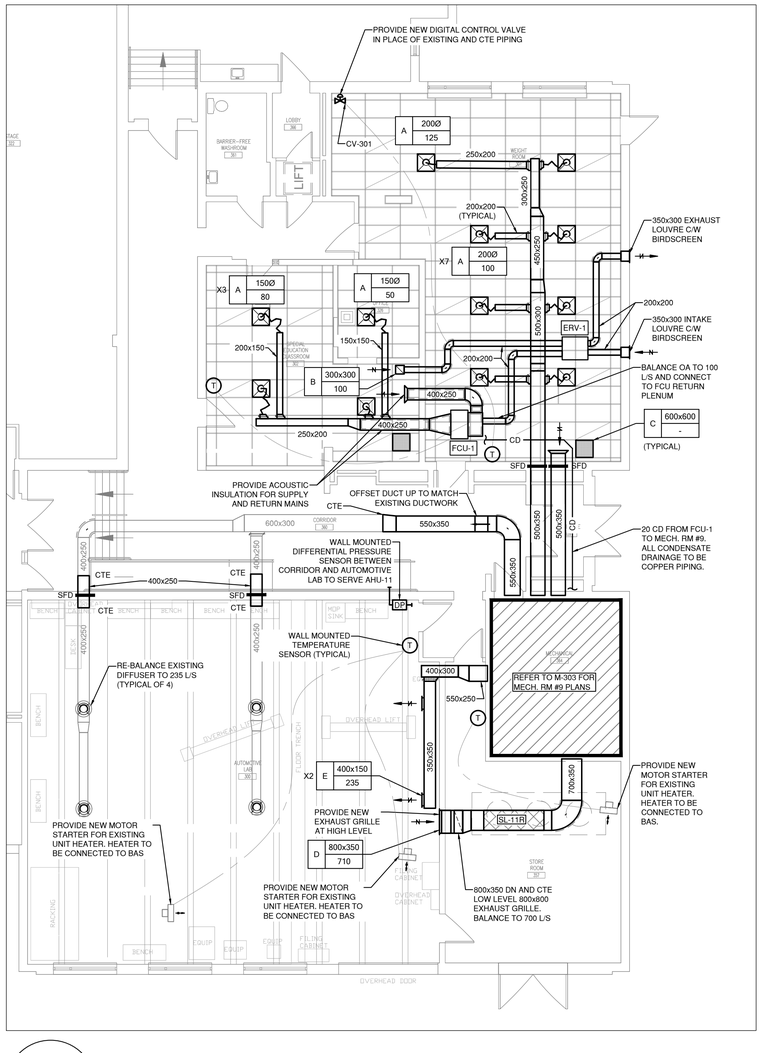


1 M-204 AUTOMOTIVE WING - SECOND FLOOR HVAC - DEMO

Scale: 1:100



2 M-204 AUTOMOTIVE WING - SECOND FLOOR HVAC - NEW

Scale: 1:100

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email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

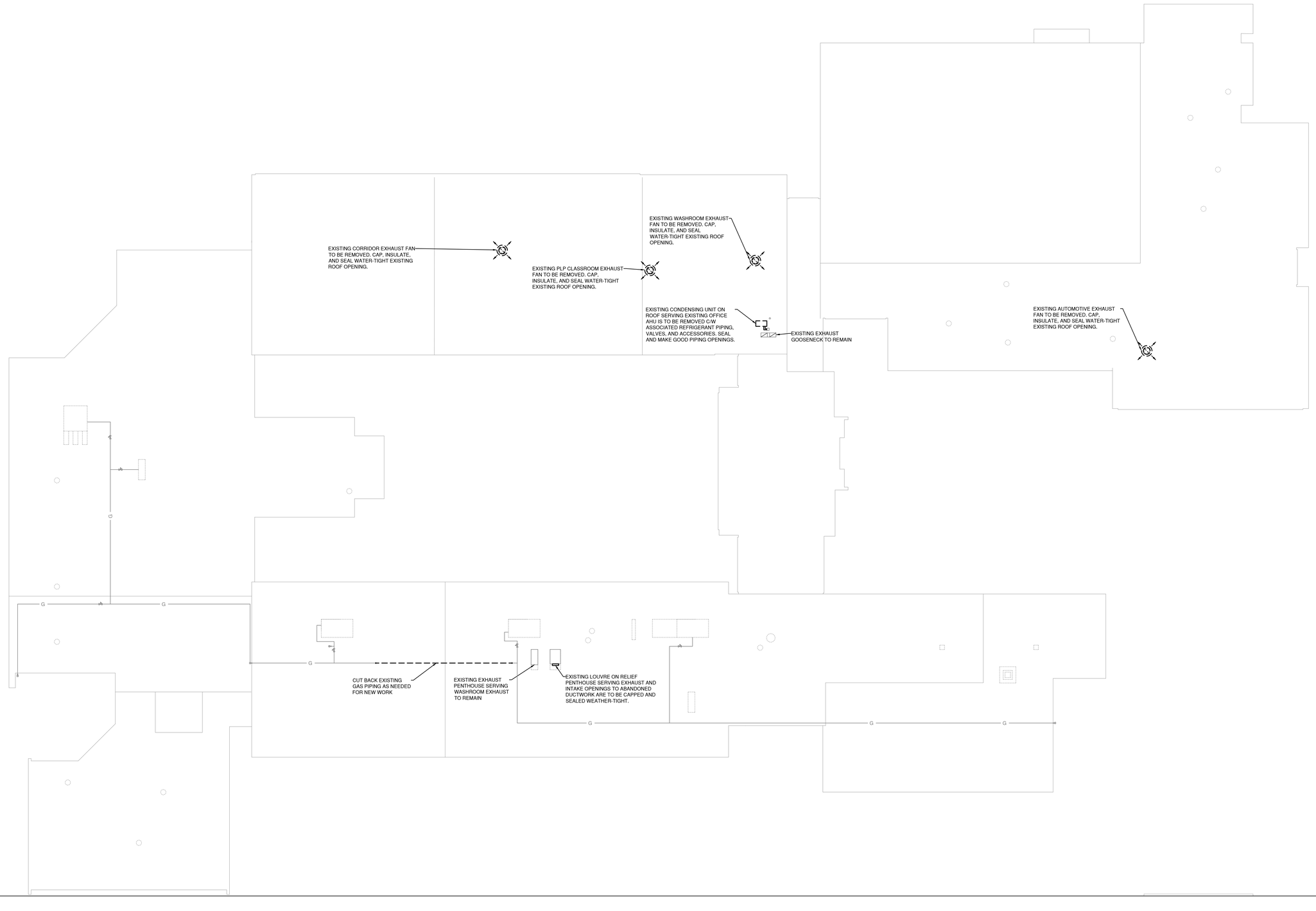
DRAWING:

AUTOMOTIVE WING FLOORPLANS - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:100

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M204



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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ROOF PLAN - DEMOLITION - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:200

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M205

MECHANICAL GENERAL NOTES

1. MECHANICAL CONTRACTOR SHALL REVIEW STRUCTURAL DRAWINGS AND COORDINATE MECHANICAL SERVICES WITH STRUCTURAL BEAMS AND JOISTS. PROVIDE SLEEVING AS NECESSARY TO MAINTAIN CEILING HEIGHTS AS INDICATED ON ARCHITECTURAL DRAWINGS.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
3. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. EQUIPMENT SHALL BE INSTALLED A MINIMUM OF 3000MM FROM ROOF EDGE.
4. PAINT FULL CIRCUMFERENCE OF NEW GAS PIPE YELLOW AS PER CSA B149.1. LABEL GAS PIPING COMPLETE WITH GAS PRESSURE ON WEATHERPROOF LABELS PER CSA B149.1.
5. ENSURE THAT REQUIRED CLEARANCES BETWEEN EQUIPMENT INTAKES, EXHAUSTS AND FLUES ARE MAINTAINED. COORDINATE ALL PLUMBING VENT AND NATURAL GAS RELIEF TERMINATION POINTS TO MAINTAIN ADEQUATE CLEARANCE FROM MECHANICAL INTAKE OPENINGS.
6. PROVIDE PIPING SUPPORTS FOR ALL ROOF MOUNTED PIPING AS PER MECHANICAL DETAILS AND SPECIFICATIONS. SPACING OF PIPING SUPPORTS IS TO BE AS PER MANUFACTURERS RECOMMENDATIONS.
7. MECHANICAL CONTRACTOR RESPONSIBLE FOR REFRIGERANT LINE SIZING AND EQUIVALENT LENGTH TO MEET THE PERFORMANCE OF EQUIPMENT AND TSSA REQUIREMENT. INCLUDE ALL ACCESSORIES REQUIRED TO MEET THE MANUFACTURER'S RECOMMENDATION AND SPECIFIED PERFORMANCE.
8. ALL PIPING SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS. EXPOSED PIPING INSULATION OUTSIDE OF THE BUILDING SHALL BE PROVIDED WITH ALUMINUM JACKETING.

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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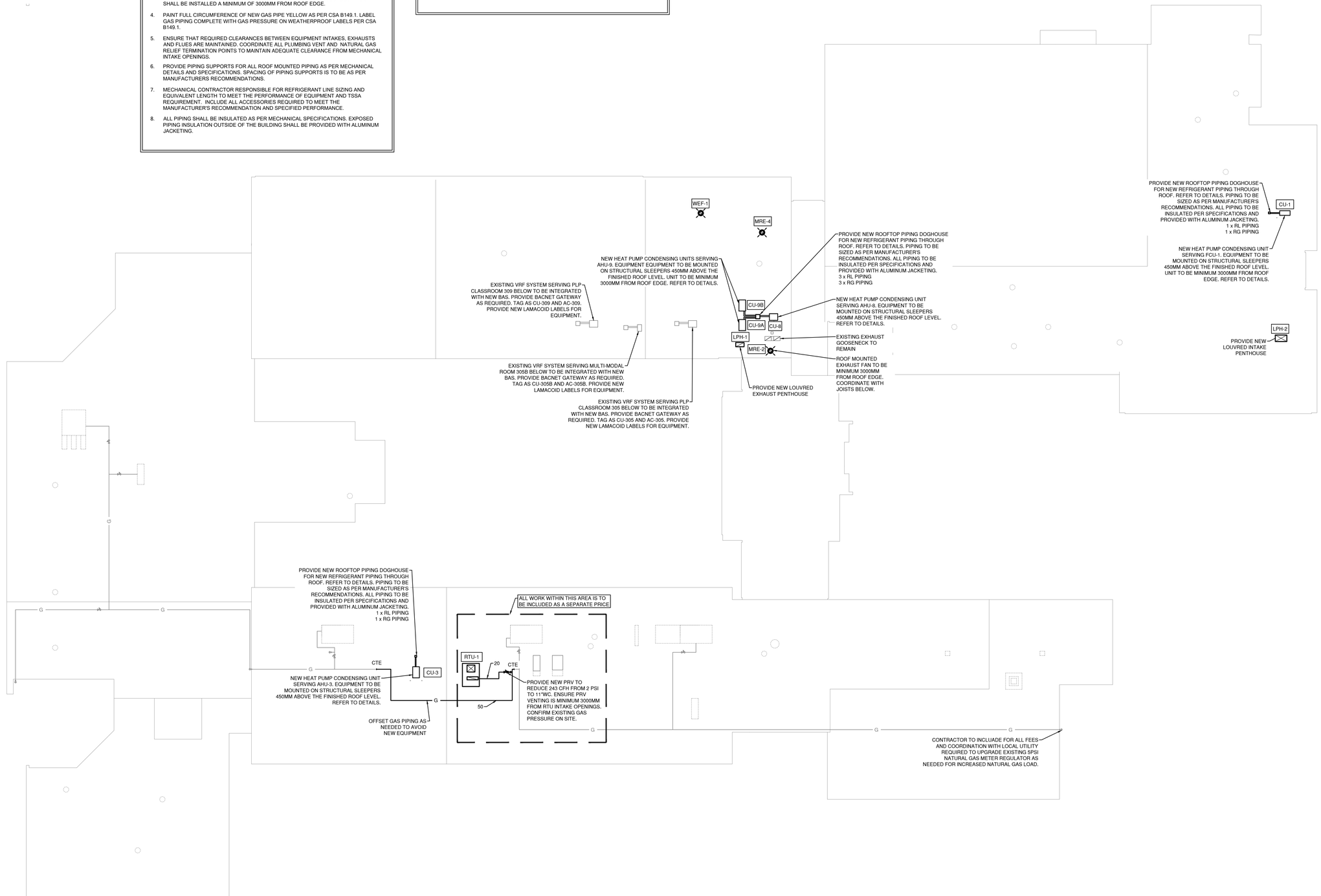

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email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ROOF PLAN - NEW WORK - HVAC

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:200

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M206

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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HVAC GENERAL NOTES

1. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. PROVIDE ACCESS DOORS/PANELS WHERE REQUIRED.
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3. ALL DUCTWORK SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS.
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7. INSTALLATION LOCATIONS AND HEIGHTS OF ALL WALL MOUNTED SENSORS AND SWITCHES ARE TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND ARE TO BE INSTALLED AS PER LOCAL CODES.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT INSTALLATION LOCATIONS OF GRILLES AND DIFFUSERS.

PLUMBING GENERAL NOTES

1. PROVIDE FIRESTOPPING AND SMOKE SEALANT FOR ALL PIPE PENETRATIONS AT FIRE/SMOKE SEPARATIONS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS FIRE/SMOKE RATINGS.
2. DRAINAGE PIPING SHALL BE SLOPED AT 1% UNLESS OTHERWISE NOTED.
3. PROVIDE FULL VENTING SYSTEM IN ACCORDANCE WITH OBC PART 7. COORDINATE ALL VENT TERMINATION POINTS TO MAINTAIN ADEQUATE CLEARANCE FROM MECHANICAL INTAKE OPENINGS.
4. ALL PIPING SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS. EXPOSED PIPING INSULATION WITHIN BUILDING SHALL BE PROVIDED WITH PVC JACKETING.
5. PROVIDE ISOLATION VALVES AT EACH FIXTURE.
6. TERMINATE 20MM CONDENSATE DRAINS OVER FUNNEL FLOOR DRAINS C/W AIR GAP OF 25MM.
7. CONDENSATE DRAINS TO BE METALLIC UNTIL TERMINATION. PLASTIC TUBING WILL NOT BE ACCEPTED.
8. PROVIDE TRAP SEAL PRIMING TO ALL P-TRAPS.
9. REFER TO MECHANICAL SPECIFICATIONS FOR PLUMBING FIXTURE REQUIREMENTS.

HVAC PIPING GENERAL NOTES

1. PROVIDE FIRESTOPPING AND SMOKE SEALANT FOR ALL PIPE PENETRATIONS AT FIRE/SMOKE SEPARATIONS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS FIRE/SMOKE RATINGS.
2. LENGTHS OF WALLFIN RADIATORS SHOWN REPRESENT ACTIVE LENGTH OF RADIATORS. EXACT ENCLOSURE LENGTHS TO BE CONFIRMED BY CONTRACTOR PRIOR TO ORDERING.
3. PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED EQUIPMENT WITHIN MECHANICAL ROOMS. HOUSEKEEPING PADS ARE TO BE 100MM HIGH AND EXTEND 200MM FROM EDGE OF EQUIPMENT.
4. MECHANICAL CONTRACTOR RESPONSIBLE FOR REFRIGERANT LINE SIZING AND EQUIVALENT LENGTH TO MEET THE PERFORMANCE OF EQUIPMENT AND TSSA REQUIREMENT. INCLUDE ALL ACCESSORIES REQUIRED TO MEET THE MANUFACTURER'S RECOMMENDATION AND SPECIFIED PERFORMANCE.
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AIR HANDLING UNIT GENERAL NOTES

1. NEW AIR HANDLING UNITS ARE TO BE DELIVERED IN SECTIONS, DISASSEMBLED, AND RE-ASSEMBLED AS REQUIRED FOR DELIVERY INTO MECHANICAL ROOM. CONTRACTOR TO SITE VERIFY DIMENSIONS OF SPACE AND ENTRY DOORS PRIOR TO ORDERING.
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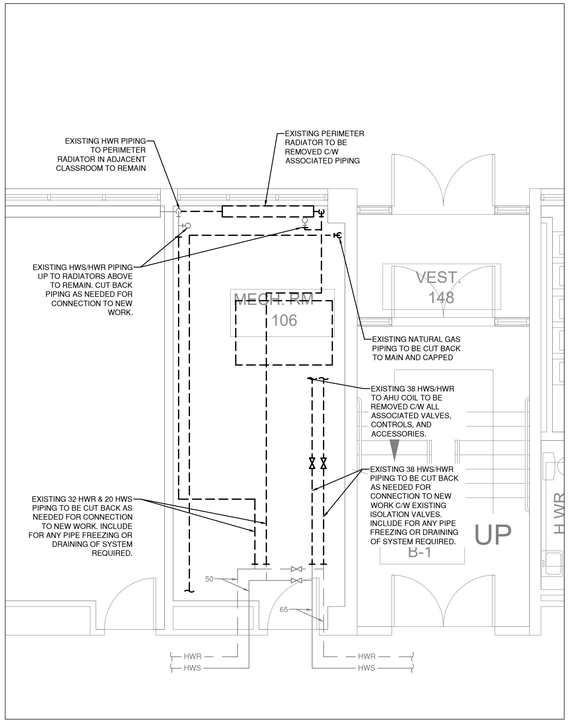
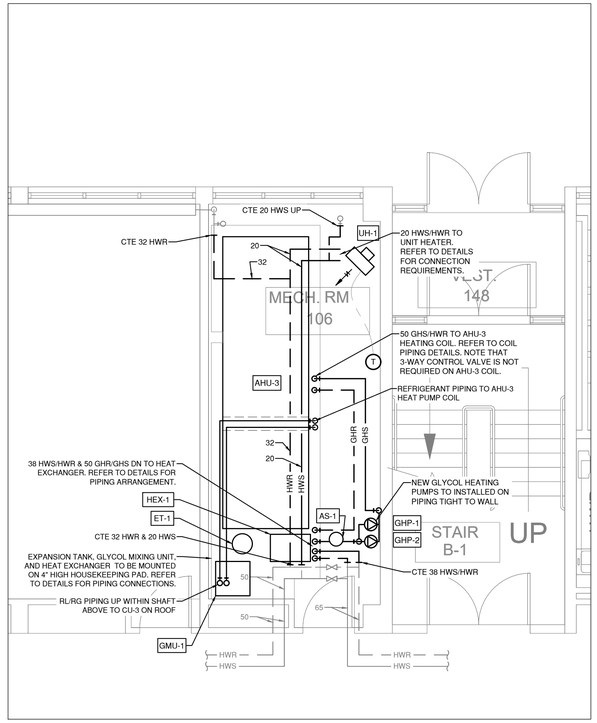
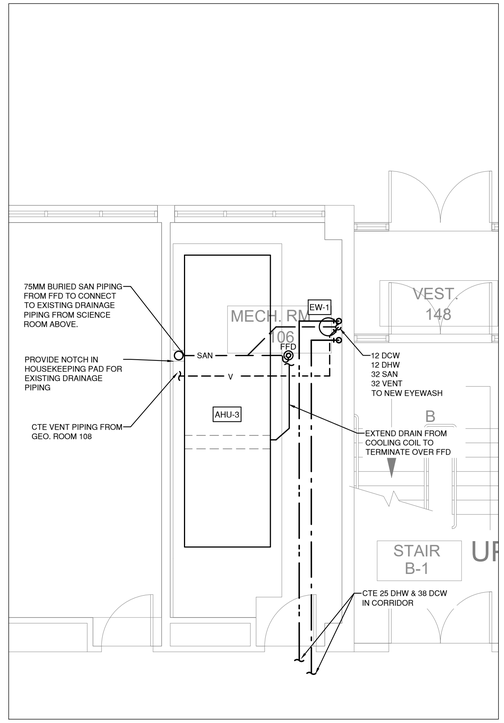


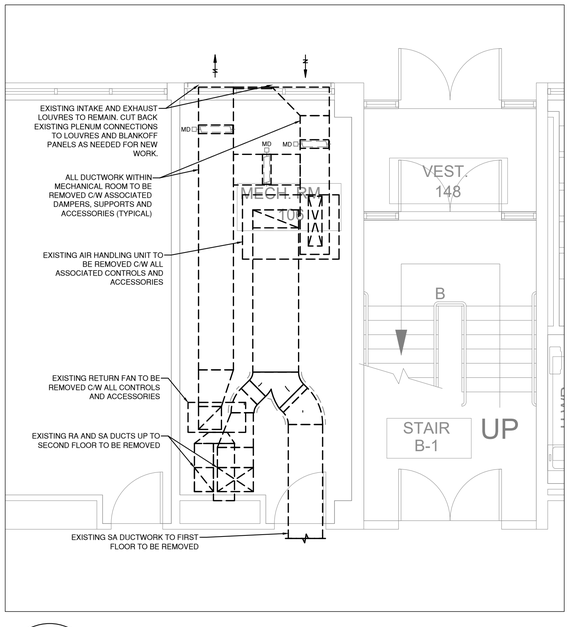
1 M-301 — MECH. RM #3 - HVAC PIPNG - DEMO
Scale: 1:50



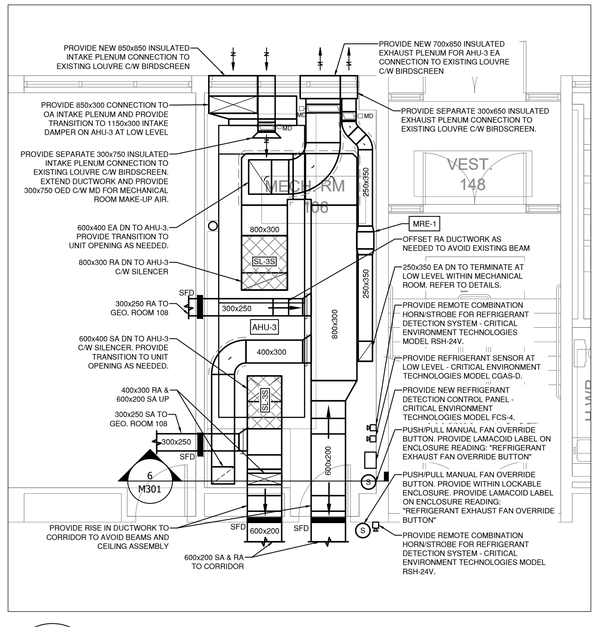
2 M-301 — MECH. RM #3 - HVAC PIPNG - NEW
Scale: 1:50



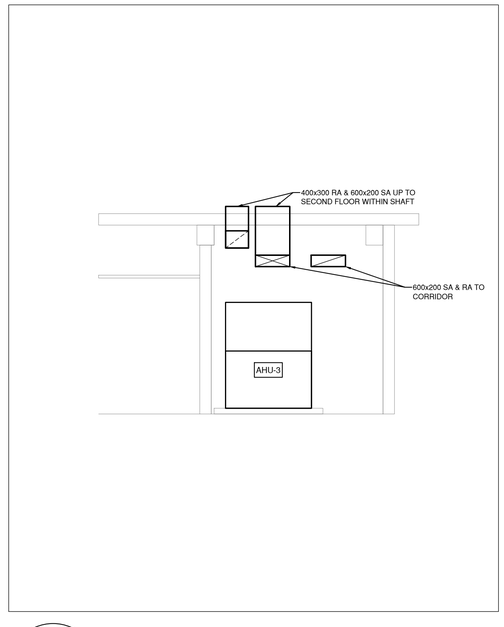
3 M-301 — MECH. RM #3 - PLUMBING - NEW
Scale: 1:50



4 M-301 — MECH. RM #3 - HVAC - DEMO
Scale: 1:50



5 M-301 — MECH. RM #3 - HVAC - NEW
Scale: 1:50



6 M-301 — MECH. RM #3 - SECTION - NEW
Scale: 1:50

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL RM #3 - ENLARGED PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M301

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. RETAIN AND PAY FOR SERVICES OF AN EXPERIENCED SEISMIC CONSULTANT WHO IS A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE WORK AND A MEMBER IN GOOD STANDING OF A PROFESSIONAL ENGINEERS ASSOCIATION IN THE JURISDICTION OF THE WORK.

HVAC GENERAL NOTES

1. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. PROVIDE ACCESS DOORS/PANELS WHERE REQUIRED.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
3. ALL DUCTWORK SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS.
4. DIMENSIONS OF ACOUSTICALLY LINED DUCTWORK SHOWN REPRESENT THE FREE AREA OF DUCTWORK. DUCT SIZES SHALL BE ADJUSTED TO ACCOUNT FOR THICKNESS OF ACOUSTIC LINING PROVIDED TO MAINTAIN FREE AREA NOTED.
5. MANUAL BALANCING DAMPERS SHALL BE PROVIDED AT ALL DUCT BRANCHES AND IN ALL BRANCHES TO GRILLES AND DIFFUSERS AS SHOWN ON MECHANICAL DETAILS.
6. PROVIDE CONSTRUCTION FILTERS AS PER SPECIFICATIONS FOR ALL HVAC EQUIPMENT DURING TESTING AND CONSTRUCTION. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED.
7. INSTALLATION LOCATIONS AND HEIGHTS OF ALL WALL MOUNTED SENSORS AND SWITCHES ARE TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND ARE TO BE INSTALLED AS PER LOCAL CODES.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT INSTALLATION LOCATIONS OF GRILLES AND DIFFUSERS.

PLUMBING GENERAL NOTES

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5. PROVIDE ISOLATION VALVES AT EACH FIXTURE.
6. TERMINATE 20MM CONDENSATE DRAINS OVER FUNNEL FLOOR DRAINS C/W AIR GAP OF 25MM.
7. CONDENSATE DRAINS TO BE METALLIC UNTIL TERMINATION. PLASTIC TUBING WILL NOT BE ACCEPTED.
8. PROVIDE TRAP SEAL PRIMING TO ALL P-TRAPS.
9. REFER TO MECHANICAL SPECIFICATIONS FOR PLUMBING FIXTURE REQUIREMENTS.
10. PROVIDE COVERING FOR EXISTING FLOOR DRAINS PRIOR TO DEMOLITION TO PROTECT THEM DURING CONSTRUCTION. REMOVE COVERS AND CLEAN FLOOR DRAINS WHEN CONSTRUCTION IS COMPLETE.

HVAC PIPING GENERAL NOTES

1. PROVIDE FIRESTOPPING AND SMOKE SEALANT FOR ALL PIPE PENETRATIONS AT FIRE/SMOKE SEPARATIONS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS FIRE/SMOKE RATINGS.
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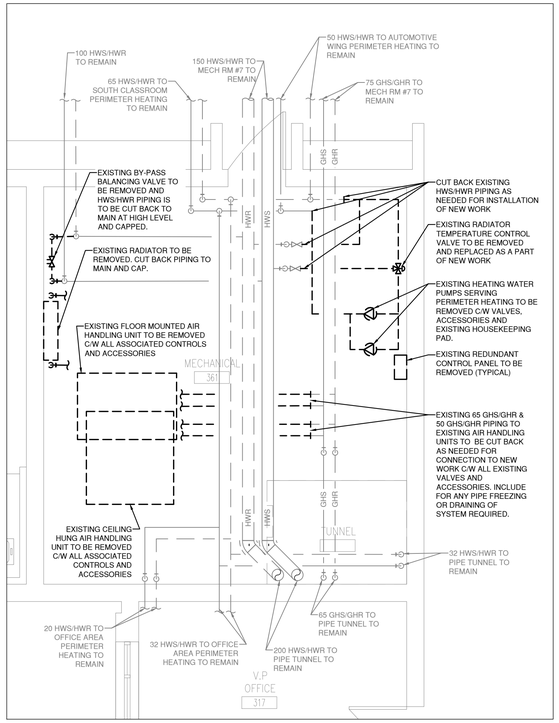
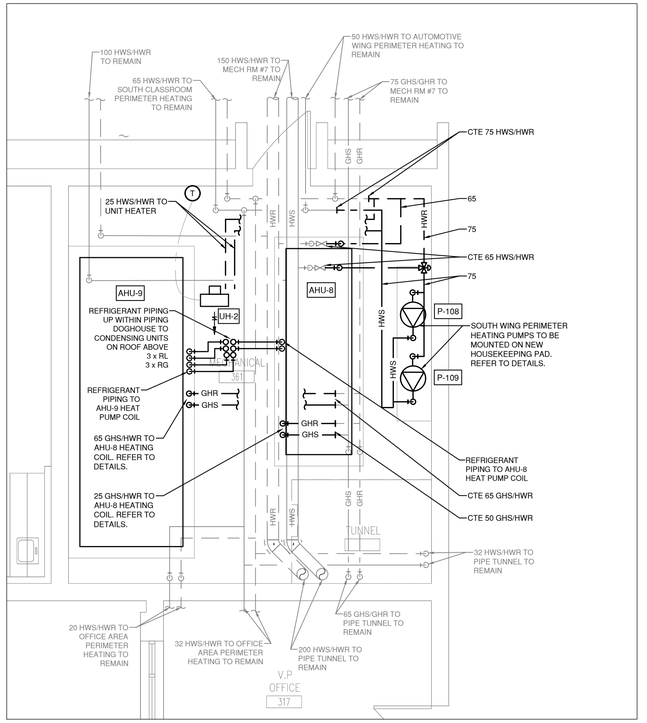


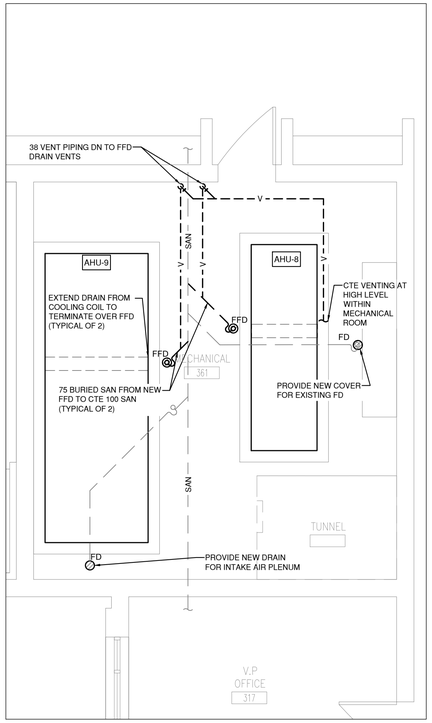
1 M-302 MECH. RM #6 - HVAC PIPNG - DEMO

Scale: 1:50



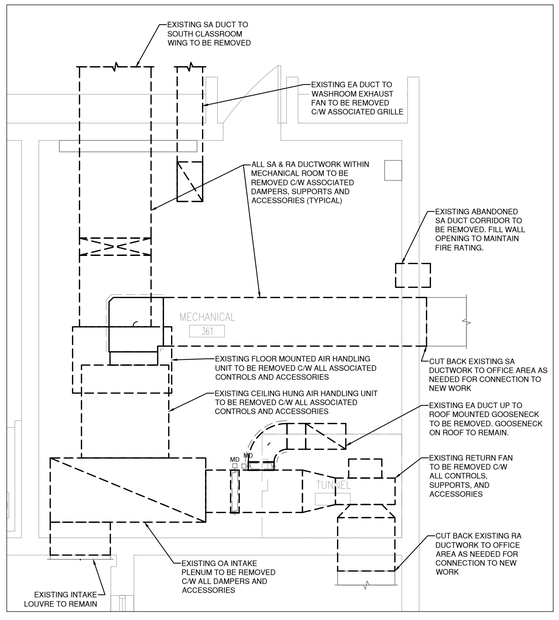
2 M-302 MECH. RM #6 - HVAC PIPNG - NEW

Scale: 1:50



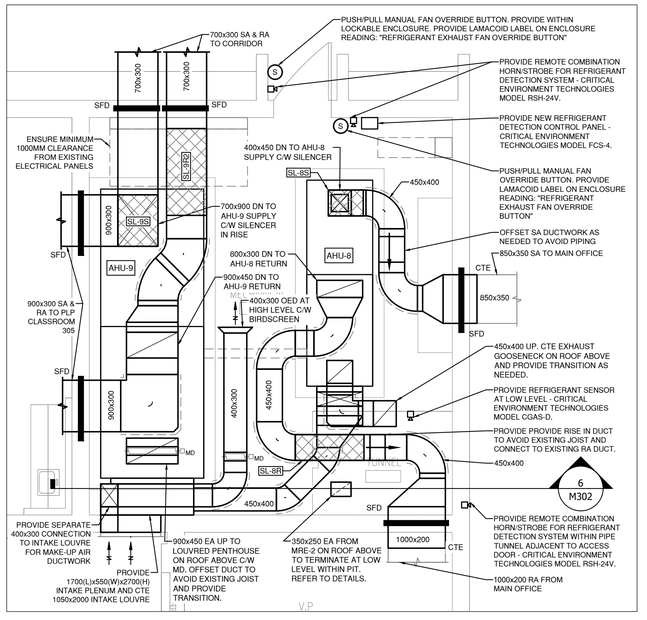
3 M-302 MECH. RM #6 - PLUMBING - NEW

Scale: 1:50



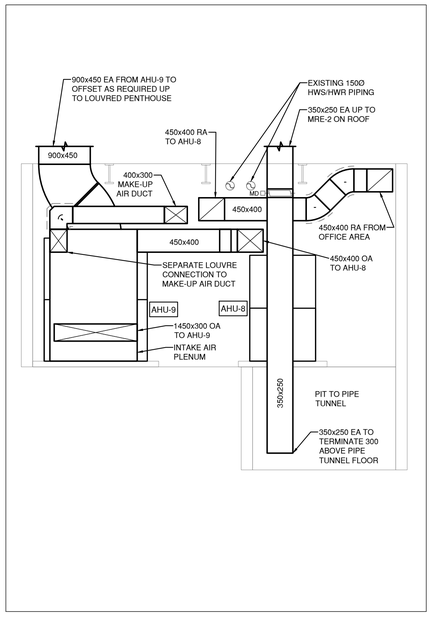
4 M-302 MECH. RM #6 - HVAC - DEMO

Scale: 1:50



5 M-302 MECH. RM #6 - HVAC - NEW

Scale: 1:50



6 M-302 MECH. RM #6 - SECTION - NEW

Scale: 1:50

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
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3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL RM #6 - ENLARGED PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M302

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

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HVAC GENERAL NOTES

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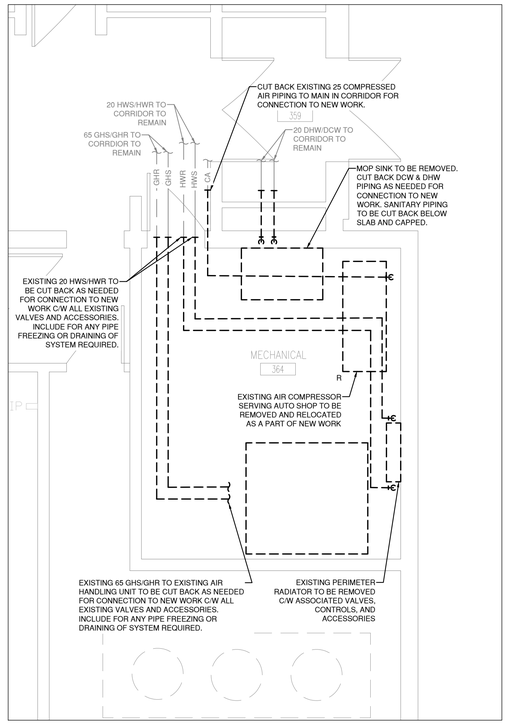
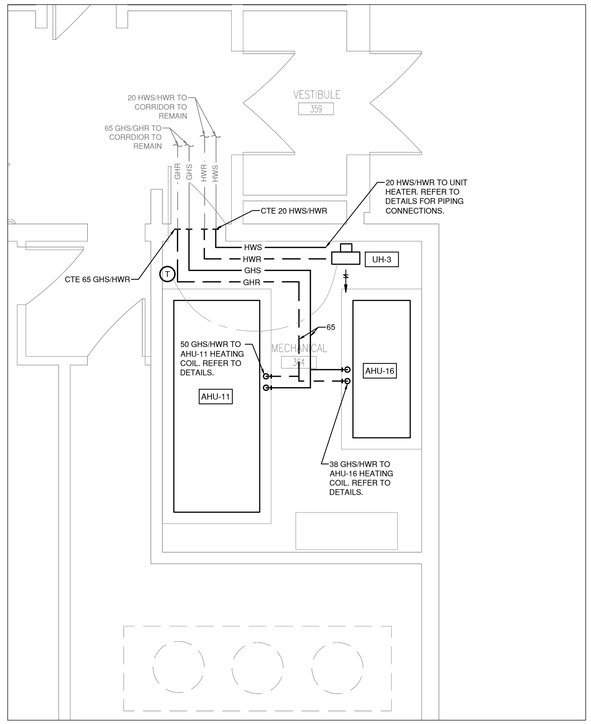


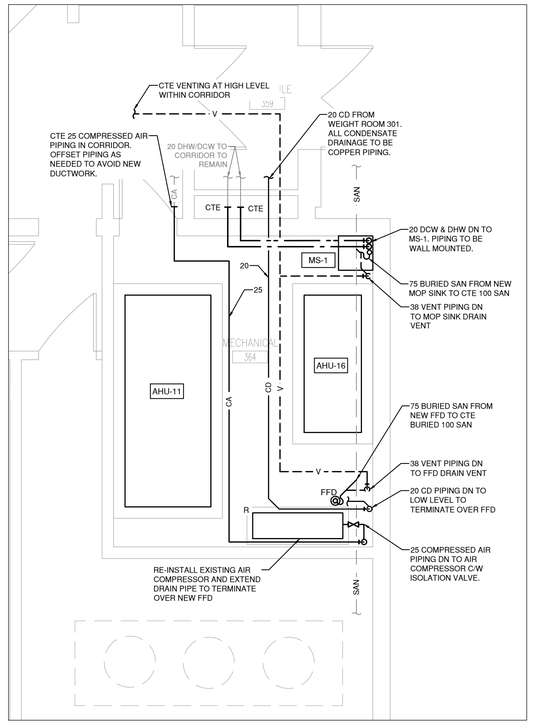
1 M-303 — MECH. RM #9 - HVAC PIPNG - DEMO

Scale: 1:50



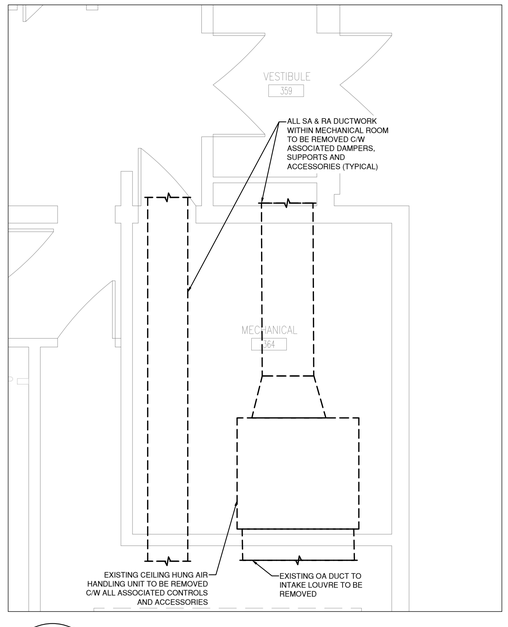
2 M-303 — MECH. RM #9 - HVAC PIPNG - NEW

Scale: 1:50



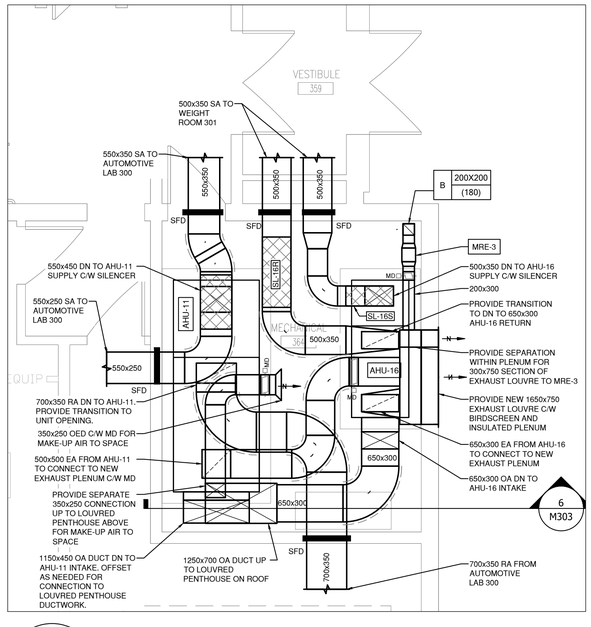
3 M-303 — MECH. RM #9 - PLUMBING - NEW

Scale: 1:50



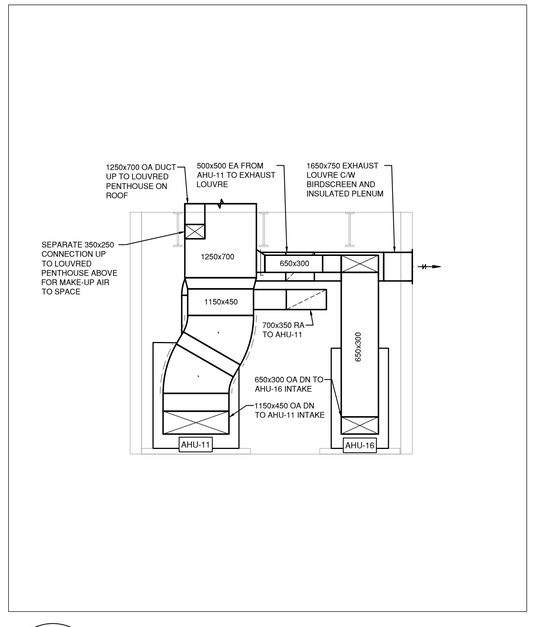
4 M-303 — MECH. RM #9 - HVAC - DEMO

Scale: 1:50



5 M-303 — MECH. RM #9 - HVAC - NEW

Scale: 1:50



6 M-303 — MECH. RM #9 - SECTION - NEW

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2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

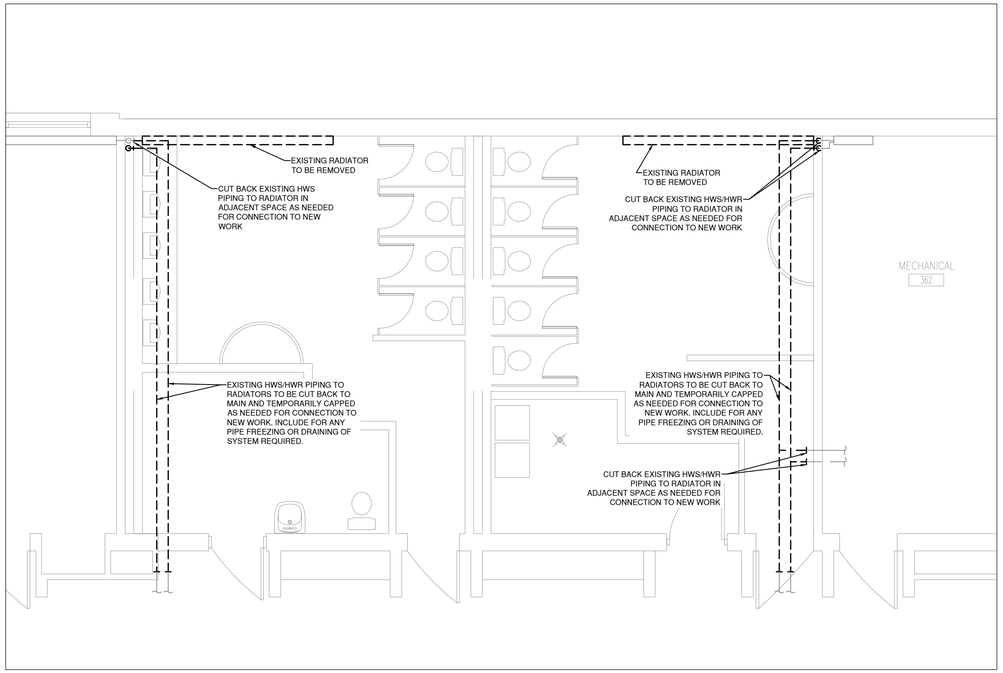
MECHANICAL RM #9 - ENLARGED PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

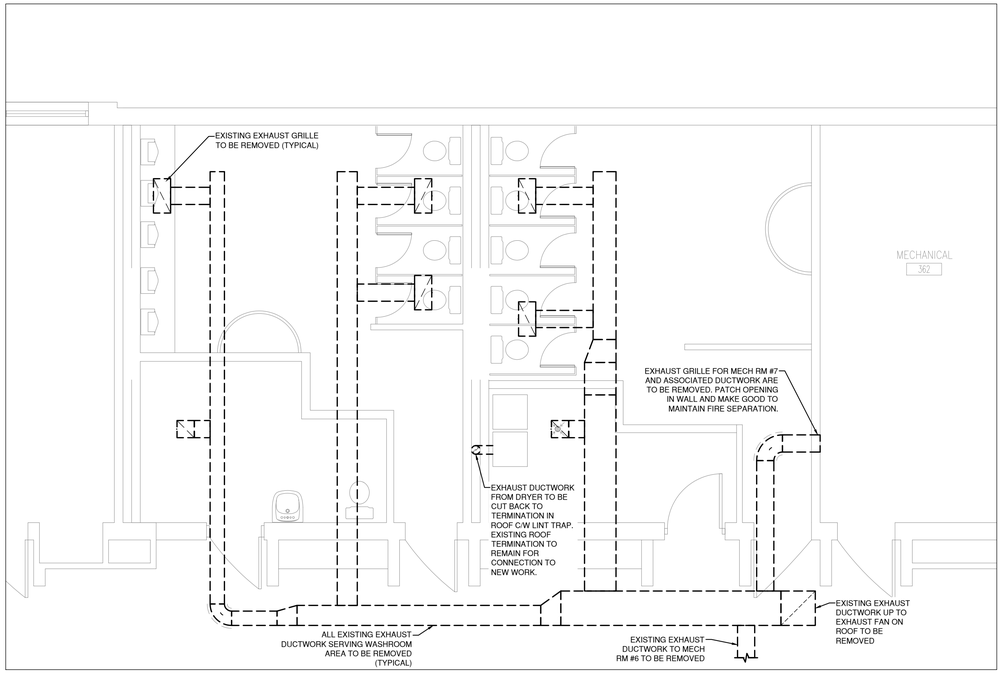
PROJECT NO: **25184**

DRAWING NO: M303



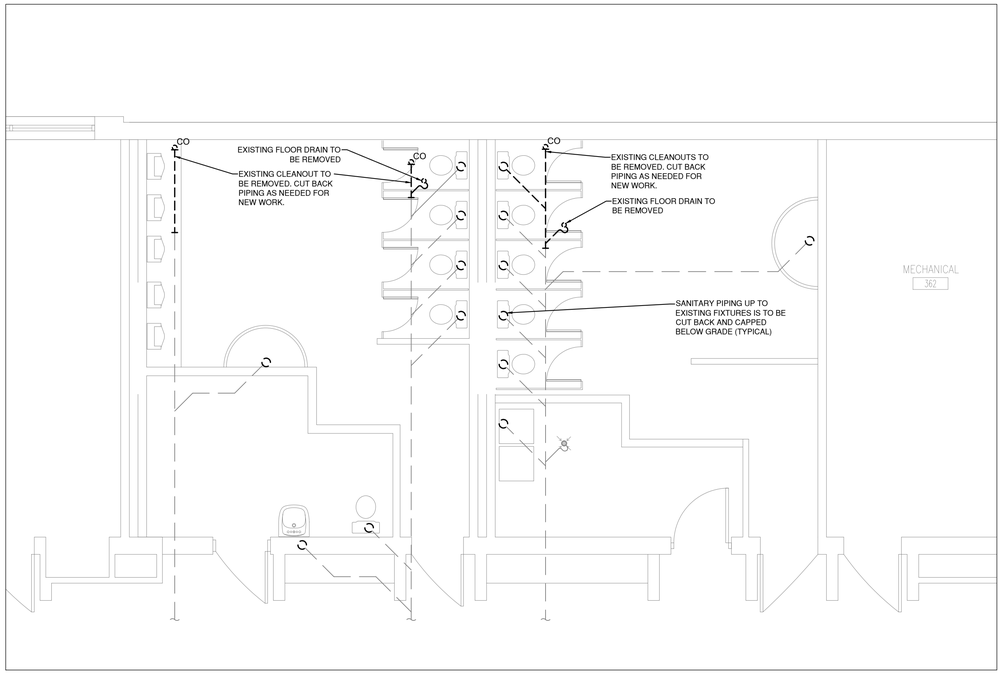
1 M-401 WASHROOM RENO - HVAC PIPING - DEMO

Scale: 1:50



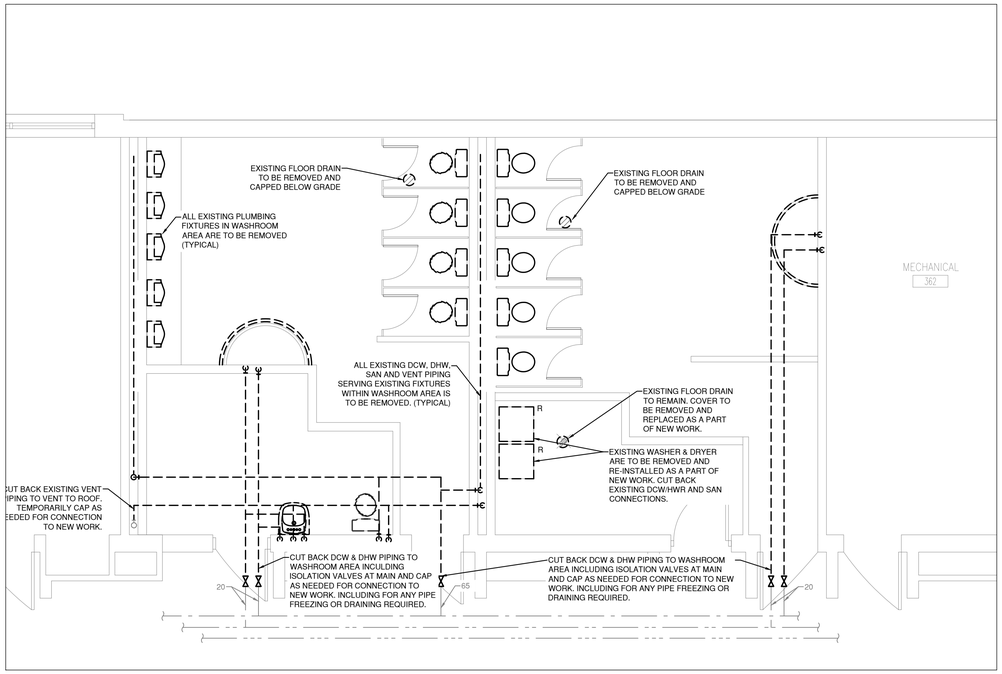
2 M-401 WASHROOM RENO - HVAC- DEMO

Scale: 1:50



3 M-401 WASHROOM RENO - UNDERGROUND DRAINAGE - DEMO

Scale: 1:50



4 M-401 WASHROOM RENO - PLUMBING - DEMO

Scale: 1:50

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

GENDER NEUTRAL WASHROOMS - DEMOLITION PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M401

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. RETAIN AND PAY FOR SERVICES OF AN EXPERIENCED SEISMIC CONSULTANT WHO IS A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE WORK AND A MEMBER IN GOOD STANDING OF A PROFESSIONAL ENGINEERS ASSOCIATION IN THE JURISDICTION OF THE WORK.

HVAC GENERAL NOTES

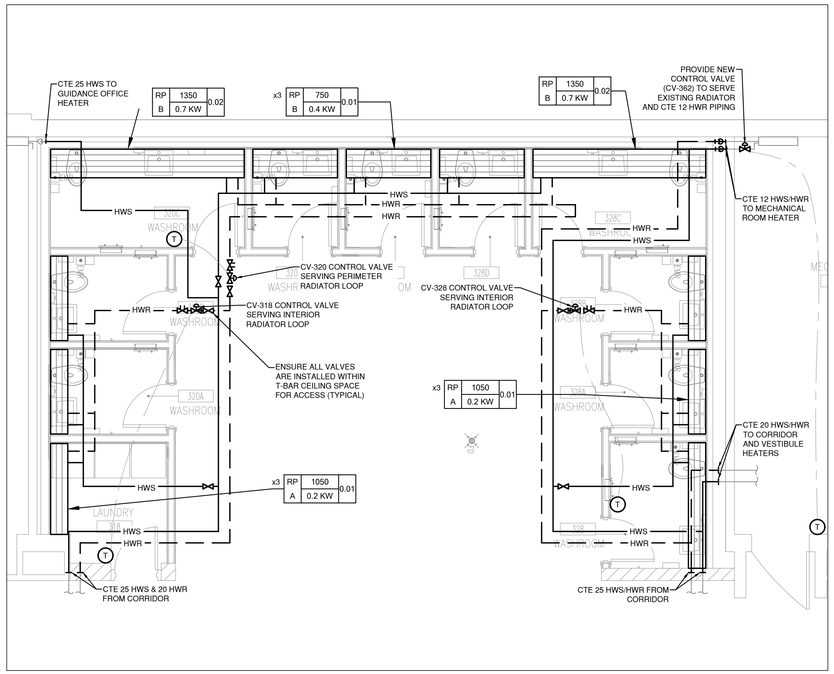
1. ENSURE THAT ALL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW SERVICES. PROVIDE ACCESS DOORS/PANELS WHERE REQUIRED.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
3. ALL DUCTWORK SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS.
4. DIMENSIONS OF ACOUSTICALLY LINED DUCTWORK SHOWN REPRESENT THE FREE AREA OF DUCTWORK. DUCT SIZES SHALL BE ADJUSTED TO ACCOUNT FOR THICKNESS OF ACOUSTIC LINING PROVIDED TO MAINTAIN FREE AREA NOTED.
5. MANUAL BALANCING DAMPERS SHALL BE PROVIDED AT ALL DUCT BRANCHES AND IN ALL BRANCHES TO GRILLES AND DIFFUSERS AS SHOWN ON MECHANICAL DETAILS.
6. PROVIDE CONSTRUCTION FILTERS AS PER SPECIFICATIONS FOR ALL HVAC EQUIPMENT DURING TESTING AND CONSTRUCTION. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED.
7. INSTALLATION LOCATIONS AND HEIGHTS OF ALL WALL MOUNTED SENSORS AND SWITCHES ARE TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND ARE TO BE INSTALLED AS PER LOCAL CODES.
8. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT INSTALLATION LOCATIONS OF GRILLES AND DIFFUSERS.

PLUMBING GENERAL NOTES

1. PROVIDE FIRESTOPPING AND SMOKE SEALANT FOR ALL PIPE PENETRATIONS AT FIRE/SMOKE SEPARATIONS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS FIRE/SMOKE RATINGS.
2. DRAINAGE PIPING SHALL BE SLOPED AT 1% UNLESS OTHERWISE NOTED.
3. PROVIDE FULL VENTING SYSTEM IN ACCORDANCE WITH OBC PART 7. COORDINATE ALL VENT TERMINATION POINTS TO MAINTAIN ADEQUATE CLEARANCE FROM MECHANICAL INTAKE OPENINGS.
4. ALL PIPING SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS. EXPOSED PIPING INSULATION WITHIN BUILDING SHALL BE PROVIDED WITH PVC JACKETING.
5. REFER TO MECHANICAL SPECIFICATIONS FOR PLUMBING FIXTURE REQUIIREMENTS.
6. TERMINATE 20MM CONDENSATE DRAINS OVER FUNNEL FLOOR DRAINS C/W AIR GAP OF 25MM.
7. CONDENSATE DRAINS TO BE METALLIC UNTIL TERMINATION. PLASTIC TUBING WILL NOT BE ACCEPTED.
8. PROVIDE TRAP SEAL PRIMING TO ALL P-TRAPS.
9. ENSURE ALL VALVES ARE LOCATED IN ACCESSIBLE AREAS.
10. PROVIDE COVERING FOR EXISTING FLOOR DRAINS PRIOR TO DEMOLITION TO PROTECT THEM DURING CONSTRUCTION. REMOVE COVERS AND CLEAN FLOOR DRAINS WHEN CONSTRUCTION IS COMPLETE.

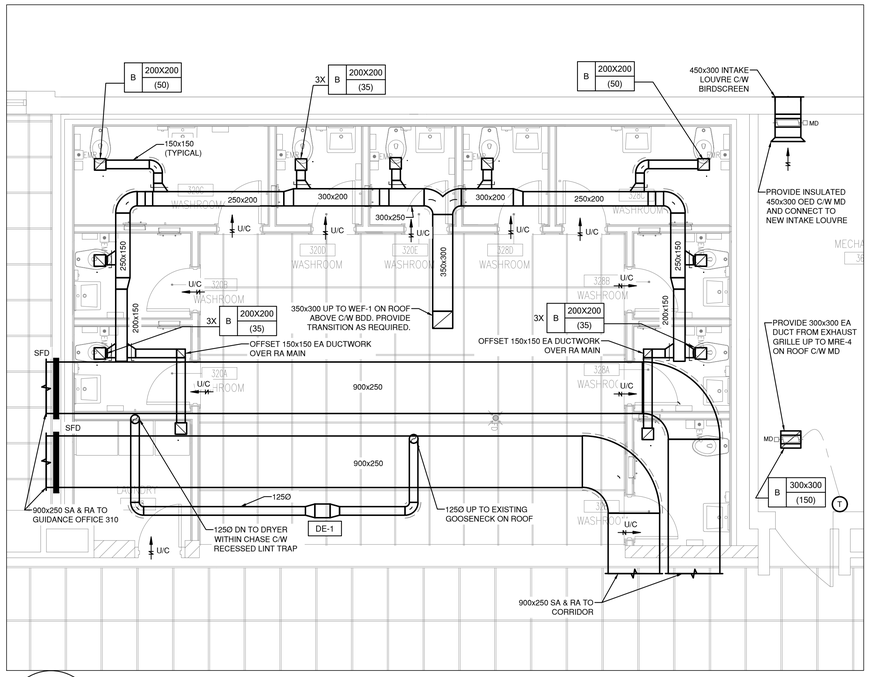
HVAC PIPING GENERAL NOTES

1. PROVIDE FIRESTOPPING AND SMOKE SEALANT FOR ALL PIPE PENETRATIONS AT FIRE/SMOKE SEPARATIONS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS FIRE/SMOKE RATINGS.
2. LENGTHS OF RADIANT CEILING PANELS SHOWN REPRESENT ACTIVE LENGTH OF RADIATORS. GENERALLY, CEILING PANELS EXTEND FOR THE FULL LENGTH OF THE ADJACENT WALL. EXACT LENGTHS TO BE CONFIRMED BY CONTRACTOR PRIOR TO ORDERING.
3. INSTALLATION LOCATIONS AND HEIGHTS OF ALL WALL MOUNTED SENSORS AND SWITCHES ARE TO BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND ARE TO BE INSTALLED AS PER LOCAL CODES.
4. ALL PIPING SHALL BE INSULATED AS PER MECHANICAL SPECIFICATIONS. EXPOSED PIPING INSULATION WITHIN BUILDING SHALL BE PROVIDED WITH PVC JACKETING.
5. ENSURE ALL VALVES ARE LOCATED IN ACCESSIBLE AREAS.



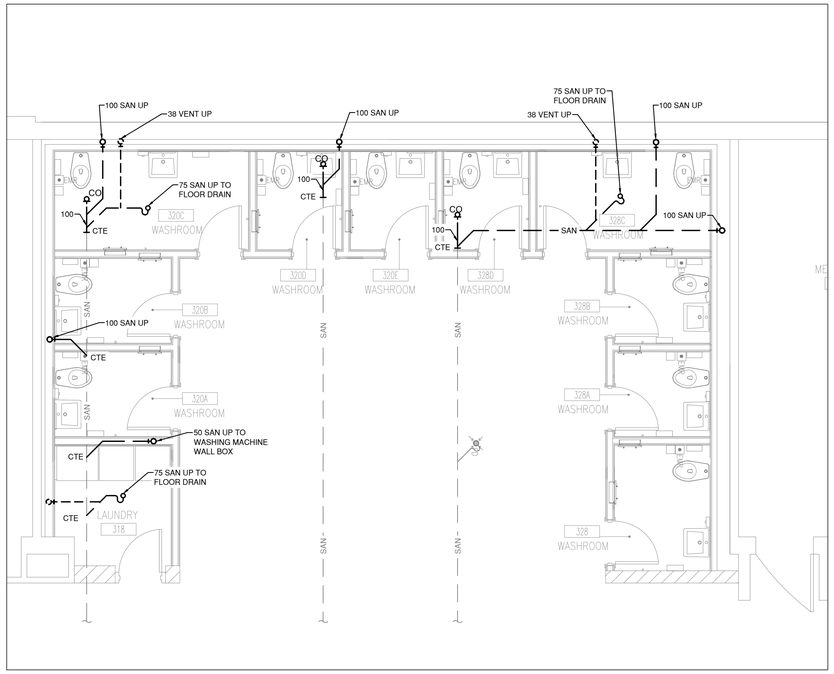
1 M-402 WASHROOM RENO - HVAC PIPING - NEW

Scale: 1:50



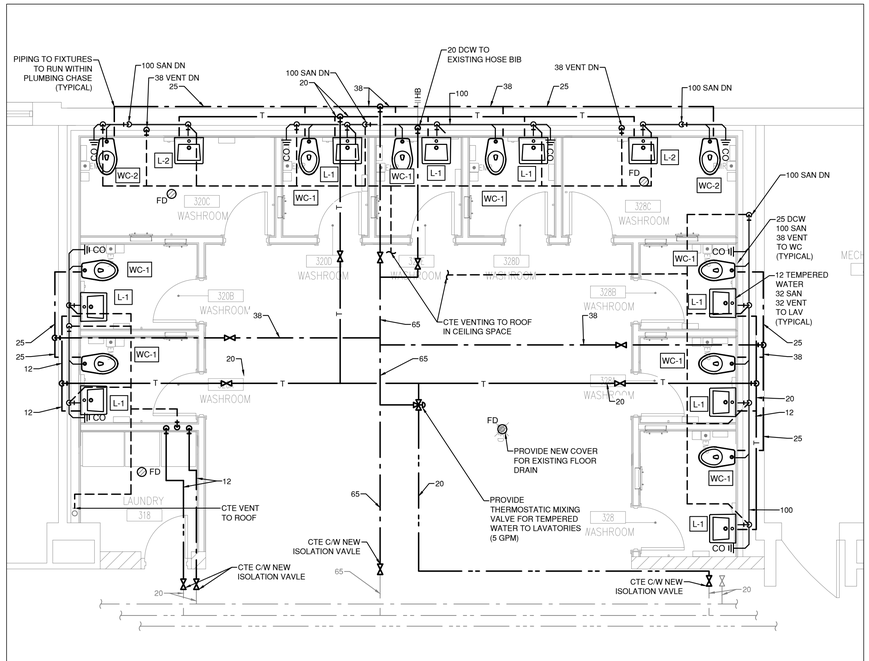
2 M-402 WASHROOM RENO - HVAC- NEW

Scale: 1:50



3 M-402 WASHROOM RENO - UNDERGROUND DRAINAGE - NEW

Scale: 1:50



4 M-402 WASHROOM RENO - PLUMBING - NEW

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

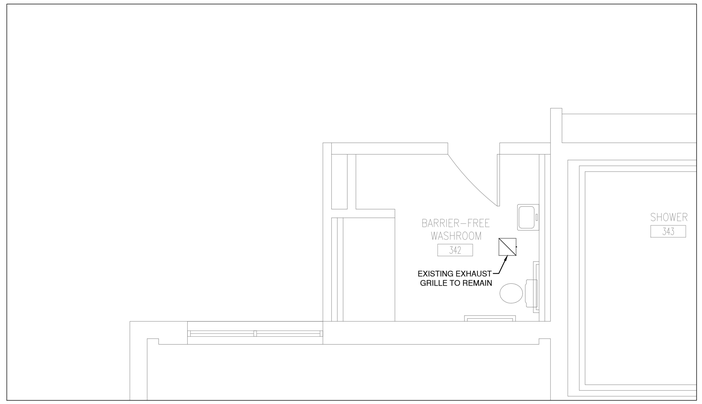
GENDER NEUTRAL WASHROOMS - NEW WORK PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100205759 PROVINCE OF ONTARIO

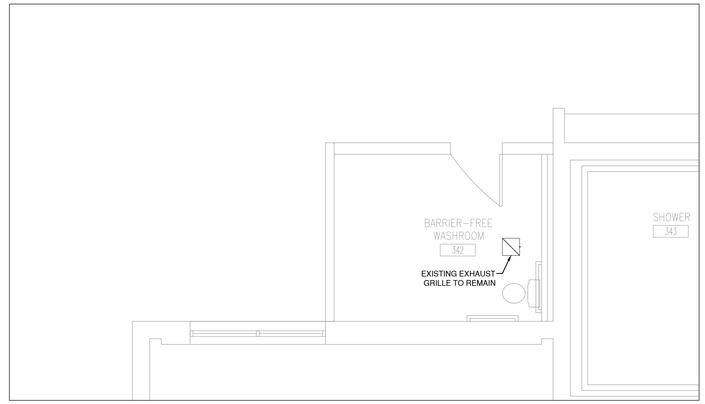
PROJECT NO: **25184**

DRAWING NO: M402



1 / M-403 UNIVERSAL WR - HVAC - DEMO

Scale: 1:50



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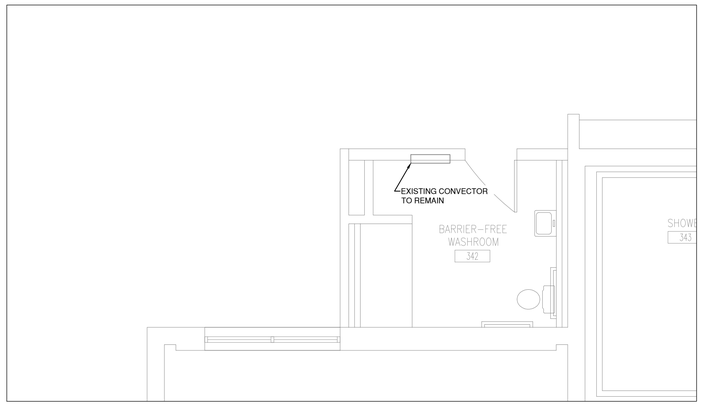
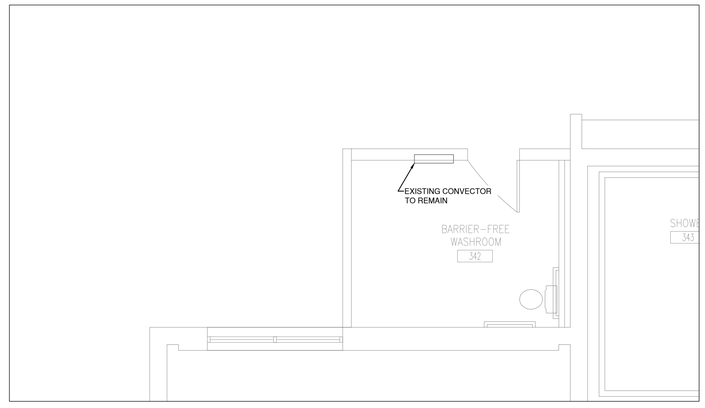


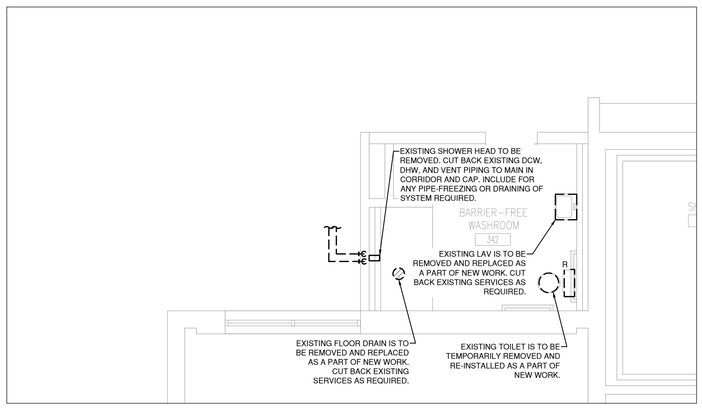
3 / M-403 UNIVERSAL WR - HVAC PIPING- DEMO

Scale: 1:50



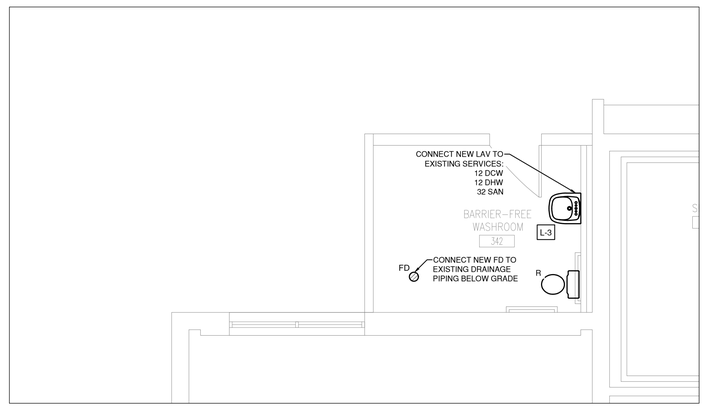
4 / M-403 UNIVERSAL WR - HVAC PIPING- NEW

Scale: 1:50



5 / M-403 UNIVERSAL WR - PLUMBING - DEMO

Scale: 1:50



6 / M-403 UNIVERSAL WR - PLUMBING - NEW

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL
RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
UNIVERSAL
WASHROOM - PLANS

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	1:50

SEAL:
LICENSED PROFESSIONAL ENGINEER
2026-04-28
M. J. HUGHES
100206759
PROVINCE OF ONTARIO

PROJECT NO.: 25184

DRAWING NO.: M403

NOTES

1. THE EXISTING BUILDING HAS MULTIPLE EXISTING BUILDING AUTOMATION SYSTEMS PROVIDED BY SIEMENS AND SETPOINT BUILDING AUTOMATION. THE INTENT IS TO REMOVE ALL CONTROL COMPONENTS IN THE AREA OF WORK THAT ARE PROVIDED BY SIEMENS AND TO INTEGRATE THEM INTO THE BAS PROVIDED BY SETPOINT BUILDING AUTOMATION. ALL NEW CONTROLS DEVICES REPLACED AND PROVIDED AS PART OF THIS PROJECT SHALL BE OPERATED BY NEW ELECTRONIC/DIGITAL CONTROLS. THE NEW ELECTRONIC/DIGITAL CONTROLS SHALL BE PROVIDED BY SETPOINT BUILDING AUTOMATION AND CONNECTED TO THE EXISTING SETPOINT BUILDING AUTOMATION BAS .
2. THE MECHANICAL CONTRACTOR SHALL RETAIN THE CONTROLS CONTRACTOR FOR ALL NEW BAS CONTROLS WORK INCLUDING INSTALLATION AND PROGRAMMING OF THE NEW CONTROLS COMPONENTS.
3. THE EXISTING BUILDING HAS EXISTING PNEUMATIC CONTROLS. THE MECHANICAL CONTRACTOR SHALL RETAIN APS CONTROLS FOR DEMOLITION AND REWORK OF EXISTING PNEUMATIC CONTROLS SYSTEM WITHIN THIS PROJECT SCOPE.

   APS CONTROLS RESPONSIBLE TO FOLLOW AND CONFIRM MAIN PNEUMATIC LINES SERVING THE DEVICES BEING DEMOLISHED/REPLACED AS PART OF THIS PROJECT SCOPE. APS CONTROLS IS ALSO RESPONSIBLE TO CONFIRM OPERATION OF EXISTING AIR COMPRESSOR RUNS IN SIMILAR FASHION PRIOR TO DEMOLITION AND UPON COMPLETION OF CONSTRUCTION (I.E. INTERMITTENT AS NEEDED AND NOT CONTINUOUSLY) TO ENSURE THERE IS NO LEAKS RESULTED FROM CONSTRUCTION WORK.
7. SCOPE OF WORK SHALL INCLUDE BUT IS NOT LIMITED TO:
   - .1 REMOVAL OF REDUNDANT DIGITAL OR PNEUMATIC CONTROLS.
   - .2 PROVIDE NEW SPACE SENSORS, RELOCATE EXISTING SENSORS OR REWIRE EXISTING SENSORS TO SUIT NEW CONTROLS AS REQUIRED AND AS INDICATED ON DRAWINGS.
   - .3 PROVIDE NEW BAS CONTROLLERS AS REQUIRED FOR COMPLETELY FUNCTIONAL SYSTEMS. RELOCATE EXISTING CONTROLLERS AS REQUIRED AND TIE BACK INTO EXISTING BAS CONTROL NETWORK.
   - .4 PROVIDE CONTROL DEVICES/POINTS AS REQUIRED FOR COMPLETE CONTROL OF NEW AIR HANDLING SYSTEMS.
   - .5 PROVIDE CONTROL VALVES/POINTS AS REQUIRED FOR COMPLETE CONTROL OF EXISTING WALLFIN HEATERS.
   - .6 PROVIDE CONTROL DEVICES/POINTS AS REQUIRED FOR COMPLETE CONTROL OF NEW HYDRONIC HEATING SYSTEMS.
8. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF JUNCTION BOXES PROVIDED BY THE ELECTRICAL TRADE, FOR THE PROVISION OF POWER TO CONTROLS SYSTEMS.
9. ALL CONTROL WIRING IN FINISHED AREAS OR AREAS WITH EXPOSED CEILINGS SHALL BE PROVIDED IN WIRE MOLD.
10. RENAME ALL NEW EQUIPMENT TAGS AND CONTROL POINTS ON BAS TO SUIT NEW CONSTRUCTION AS INDICATED ON DOCUMENTS.
11. COORDINATE FINAL INSTALLATION POSITION OF EACH THERMOSTAT AND ALL OTHER CONTROLS RELATED DEVICES THAT ARE LOCATED ON WALLS, CEILINGS, FLOORS, ETC. IN ALL AREAS ON SITE WITH OWNER PRIOR TO ROUGH IN. WALL MOUNTED TEMPERATURE SENSORS ARE TO BE MOUNTED AS PER LOCAL GOVERNING AUTHORITY AND BARRIER FREE REQUIREMENTS.

GENERAL CONTROL NOTES

NOTES:

1. PROVIDE ONE LOCATED OUTDOOR AIR TEMPERATURE AND ENTHALPY STATION ON NORTH SIDE OF BUILDING C/W SHIELD FOR PROTECTION FROM DIRECT SUNLIGHT.
2. PROVIDE AVERAGED TEMPERATURE AND HUMIDITY INPUTS.
3. OUTDOOR AIR ENTHALPY SHALL BE CALCULATED USING TEMPERATURE AND HUMIDITY RATION AS FOLLOWS:
   h = 0.240t + W(1061 + 0.444)
   WHERE: t = TEMPERATURE (°F)
   W = HUMIDITY RATION (LB WATER / LB AIR)
4. ALL OUTDOOR AIR TEMPERATURE AND ENTHALPY INFORMATION SHALL BE GLOBAL AND SHARED.

ALARMS

1. N/A

TRENDS

1. AMBIENT AIR HUMIDITY
2. AMBIENT AIR TEMPERATURE

GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS

BUILDING OUTDOOR AIR TEMPERATURE AND ENTHALPY STATION

CONTROL DIAGRAM

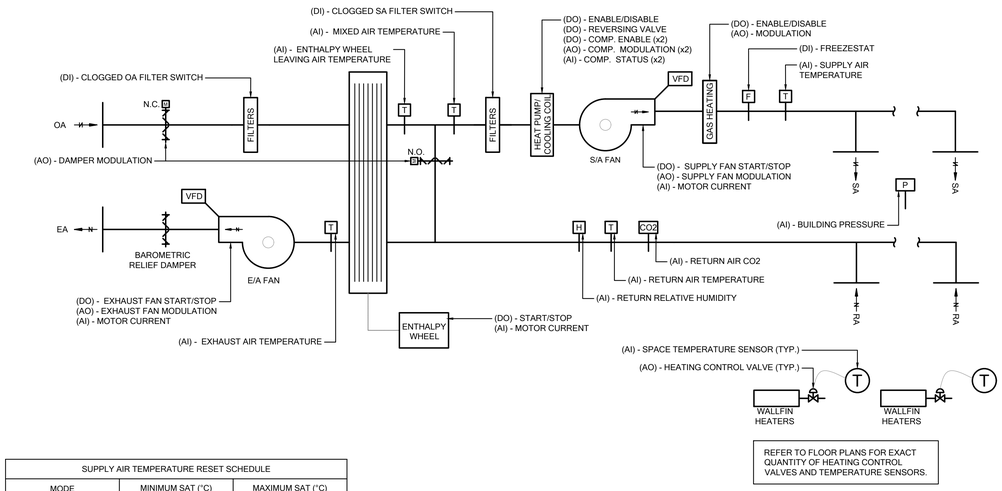
NOTES

1. ALL MECHANICAL EQUIPMENT OEM CONTROLLERS SHALL BE BACNET IP OR COMPATIBLE COMMUNICATION PROTOCOL. THE CONTROLLERS MUST COMMUNICATE ALL CONTROL POINTS THROUGH BAS SYSTEM WITHOUT GATEWAYS OR JACES. MECHANICAL CONTRACTOR TO COORDINATE COMMUNICATION PROTOCOL BETWEEN EQUIPMENT SUPPLIERS AND CONTROLS CONTRACTOR TO PROVIDE A FULLY INTEGRATED CONTROL SYSTEM.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF JUNCTION BOXES PROVIDED BY THE ELECTRICAL TRADE, FOR THE PROVISION OF POWER TO CONTROLS SYSTEMS.
3. ELECTRICAL CONTRACTORS SHALL PROVIDE RELAYS, DRY CONTACTS, CONTACTORS, TRANSDUCERS AND SENSORS, ETC. AS REQUIRED ON EQUIPMENT PROVIDED BY ELECTRICAL CONTRACTOR, FOR CONNECTION TO THE BAS. CONTROL CONTRACTOR TO COORDINATE.
4. COORDINATE FINAL INSTALLATION POSITION (INCLUDING HEIGHT A.F.F.) OF EACH TEMPERATURE AND HUMIDITY SENSOR, THERMOSTAT, OCCUPANCY SENSOR, FAN CONTROLLER, AND ALL OTHER CONTROLS RELATED DEVICES THAT ARE LOCATED ON WALLS, CEILINGS, FLOORS, ETC. IN ALL AREAS (EXCLUDING SERVICE AREAS) WITH ARCHITECT AND GENERAL CONTRACTOR ON SITE PRIOR TO ROUGH-IN.
5. ALL CONTROL WIRING IN AREAS WITH EXPOSED CEILINGS SHALL BE PROVIDED IN CONDUIT.
6. UNLESS OTHERWISE NOTED, PROVIDE ALARM AT BAS SHOULD ANY SPACE TEMPERATURE DROPS BELOW 12.8°C (55°F - ADJUSTABLE).
7. SHOULD A SMOKE DETECTOR BE ACTIVATED, THE SYSTEM SHALL SHUT DOWN AND NOT RE-START AUTOMATICALLY.
8. FAN RE-START SEQUENCE ONCE FIRE ALARM HAS BEEN SILENCED SHALL BE STAGGERED THROUGH THE BAS IN ORDER TO PREVENT A CURRENT OVERLOAD OF ELECTRICAL SERVICES.

GENERAL CONTROLS NOTES

SYSTEM	DESCRIPTION	INPUT/OUTPUT			
		D.I.	D.O.	A.I.	A.O.
FIRE ALARM SYSTEM	TROUBLE ALARM	1			
	SUMMARY (ANNUNCIATION) SINGLE POINT IDENTIFYING ACTIVATION OF F.A. SYSTEM	1			
EXISTING HEATING PLANT	STATUS	1			
NOTES:					
1.	SIGNAL AVAILABLE AT FIRE ALARM PANEL. COORDINATE CONNECTIONS WITH ELECTRICAL.				

ADDITIONAL EXISTING CONTROL POINTS



REFER TO FLOOR PLANS FOR EXACT QUANTITY OF HEATING CONTROL VALVES AND TEMPERATURE SENSORS.

SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	22	22
FREE COOLING / ECON.	12	19
COOLING	12	19

SEQUENCE OF OPERATION

1. UNIT IS TO BE PROVIDED WITH BACNET CONTROLLER. CONTROLS CONTRACTOR IS TO COORDINATE WITH UNIT MANUFACTURER TO DETERMINE CONTROL POINTS/DEVICES THAT ARE PROVIDED BY UNIT MANUFACTURER TO ENSURE ALL POINTS/DEVICES ARE PROVIDED.
2. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE. SCHEDULE TO BE CONFIRMED WITH OWNER DURING COMMISSIONING.
3. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL SEND A SIGNAL TO THE UNIT CONTROLLER TO OPEN THE OUTSIDE AIR DAMPER FOR THE ROOFTOP UNIT.
   2. THE BAS SHALL ENABLE THE EXHAUST AND SUPPLY FANS. ONCE ENABLED, FANS SHALL RUN AT CONSTANT SPEED.
   3. ENTHALPY WHEEL SHALL BE ENABLED. ONCE ENABLED, ENTHALPY WHEEL SHALL OPERATE AT FULL SPEED. WHEN OUTDOOR AIR TEMPERATURE IS BELOW 0°C (ADJUSTABLE), WHEEL SHALL ENABLED/DISABLED TO MAINTAIN AN EXHAUST AIR TEMPERATURE OF 2°C (ADJUSTABLE) FOR FROST PROTECTION.
   4. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED.

      HEAT PUMP HEATING TO BE ENABLED ABOVE -5°C OAT AND GAS HEATING TO BE ENABLED BELOW -5°C OAT. HEAT PUMP OPERATION TEMPERATURES TO BE CONFIRMED WITH MANUFACTURER.

      HEAT PUMP SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL HEATING CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      ON CALL FOR HEATING DURING GAS HEATING OPERATION, THE HEAT PUMP SHALL BE DISABLED, AND THE GAS HEATER SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL HEATING CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      COOLING MODE: UNIT SHALL BE IN COOLING MODE WHENEVER HEATING PLANT IS DISABLED AND OUTDOOR AIR TEMPERATURE IS ABOVE 19°C (ADJUSTABLE). UNIT COOLING MODE ENABLE/DISABLE SHALL BE USER ADJUSTABLE.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE.

      DX COOLING IS ENABLED AND STAGED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

      PERIMETER WALLFIN HEATERS CONTROL VALVE SHALL BE CLOSED.
   5. DURING OCCUPIED MODE, THE UNIT SHALL OPERATE AS 100% OUTDOOR AIR. THE RETURN CO2 SENSOR SHALL BE FOR MONITORING ONLY.
4. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND EXHAUST FANS.
   2. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. DISABLE ENTHALPY WHEEL.
   4. IN HEATING MODE, LOCAL TEMPERATURE SENSORS TO MODULATE ASSOCIATED HEATING CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).
   5. DX COOLING TO REMAIN OFF DURING UNOCCUPIED MODE.

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
4. DX COOLING IS LOCKED OUT WHEN AMBIENT TEMPERATURE IS BELOW 12.8°C (55°F).
5. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. ENTHALPY WHEEL FAILURE
3. FREEZESTAT ALARM
4. RETURN CO2 HIGH ALARM
5. RELATIVE HUMIDITY HIGH ALARM
6. MIXED AIR TEMPERATURE HIGH/LOW ALARM
7. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
8. OA/SA FILTER ALARMS
9. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)
10. REFRIGERANT LEAK ALARM

TRENDS

1. SUPPLY/EXHAUST FAN & ENTHALPY WHEEL:
   - START/STOP
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
3. RETURN CO2
4. RETURN RELATIVE HUMIDITY
5. SUPPLY/RETURN/MIXED AIR TEMPERTURE
6. OA/SA FILTER STATUS
7. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
8. HEATING CONTROL VALVE (FOR ALL CORRESPONDING HEATERS)

GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

ROOFTOP AIR HANDLING UNIT RTU-1

CONTROL DIAGRAM

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

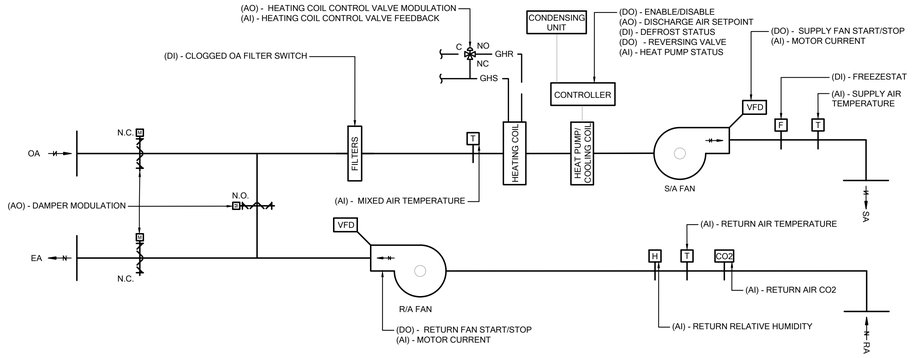
DRAWING:

CONTROL DIAGRAMS #1

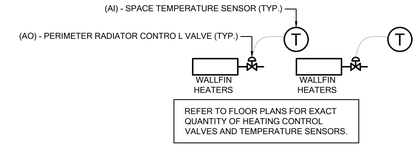
DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M500



SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	22	22
FREE COOLING / ECON.	12	19
COOLING	12	19



REFER TO FLOOR PLANS FOR EXACT QUANTITY OF HEATING CONTROL VALVES AND TEMPERATURE SENSORS.

SEQUENCE OF OPERATION

1. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE AS SHOWN ABOVE.
2. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL MODULATE THE EXHAUST AIR, RETURN AIR, AND THE OUTSIDE AIR DAMPERS TO THEIR MINIMUM POSITIONS.
   2. THE BAS SHALL ENABLE THE RETURN AND SUPPLY FANS UPON RECEIVING THEIR CORRESPONDING DAMPER FEEDBACKS. ONCE ENABLED, FANS SHALL OPERATE AT CONSTANT SPEED.
   3. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED.

      HEAT PUMP HEATING TO BE ENABLED ABOVE -5°C OAT AND HYDRONIC HEATING TO BE ENABLED BELOW -5°C OAT. HEAT PUMP OPERATION TEMPERATURES TO BE CONFIRMED WITH MANUFACTURER.

      HEAT PUMP SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      ON CALL FOR HEATING DURING HYDRONIC HEATING OPERATION, THE HEAT PUMP SHALL BE DISABLED, AND THE HEATING COIL CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL RADIATOR CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      FREE COOLING MODE: UNIT SHALL BE IN FREE COOLING MODE WHEN OUTDOOR AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY AND OUTDOOR AIR TEMPERATURE IS LESS THAN 14°C (ADJUSTABLE).

      DX COOLING/HEAT PUMP SHALL BE DISABLED. PERIMETER RADIATOR CONTROL VALVES AND HEATING COIL CONTROL VALVE SHALL BE CLOSED.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE. OUTDOOR, EXHAUST, AND RETURN DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

      ONCE OUTDOOR AIR TEMPERATURE DROPS BELOW 5°C (41°F - ADJUSTABLE), AIR SIDE ECONOMIZER OPERATION STOPS, UNIT RETURN TO NORMAL OPERATION.

      ECONOMIZER MODE: UNIT SHALL BE IN ECONOMIZER MODE WHEN OUTDOOR AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY AND OUTDOOR AIR TEMPERATURE IS BETWEEN THAN 14°C AND 20°C (ADJUSTABLE).

      HEAT PUMP SHALL BE DISABLED. PERIMETER RADIATOR CONTROL VALVES AND HEATING COIL CONTROL VALVE SHALL BE CLOSED.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE. OUTDOOR, EXHAUST, AND RETURN DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT. IF THE UNIT IS UNABLE TO MAINTAIN THE SUPPLY AIR SETPOINT, THEN THE FIRST STAGE OF DX COOLING SHALL BE ENABLED TO MAINTAIN SUPPLY AIR SETPOINT.

      ONCE OUTDOOR AIR TEMPERATURE DROPS BELOW 5°C (41°F - ADJUSTABLE), AIR SIDE ECONOMIZER OPERATION STOPS, UNIT RETURN TO NORMAL OPERATION.

      COOLING MODE: UNIT SHALL BE IN COOLING MODE WHENEVER HEATING PLANT IS DISABLED AND OUTDOOR AIR TEMPERATURE IS ABOVE 19°C (ADJUSTABLE). UNIT COOLING MODE ENABLE/DISABLE SHALL BE USER ADJUSTABLE.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE.

      DX COOLING IS ENABLED AND STAGED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

      HEATING COIL AND PERIMETER RADIATOR CONTROL VALVES SHALL BE CLOSED.
   4. DURING OCCUPIED MODE, THE CO2 SENSOR SHALL MODULATE THE OUTDOOR AIR, RETURN AIR AND EXHAUST AIR DAMPERS TO MAINTAIN THE CO2 SETPOINT OF 800 PPM. (ADJUSTABLE). THE MINIMUM OUTDOOR AIRFLOW SHALL BE AS FOLLOWS:
      AHU-8 - 80 L/S
3. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND RETURN FANS.
   2. CLOSE OUTSIDE AIR & EXHAUST AIR DAMPERS BY MECHANICAL SPRING RETURN. RETURN AIR DAMPER TO BE RELEASED AND OPEN BY WAY OF MECHANICAL SPRING RETURN. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. DX COOLING TO REMAIN OFF DURING UNOCCUPIED MODE.
   4. IN HEATING MODE, LOCAL TEMPERATURE SENSORS TO MODULATE ASSOCIATED RADIATOR CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
4. DX COOLING IS LOCKED OUT WHEN AMBIENT TEMPERATURE IS BELOW 12.8°C (55°F).
5. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.
6. VARIABLE FREQUENCY DRIVES ARE FOR BALANCING ONLY.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. OUTDOOR/EXHAUST/RETURN DAMPER FAILURE
3. ENTHALPY WHEEL FAILURE
4. FREEZESTAT ALARM
5. RETURN CO2 HIGH ALARM
6. RELATIVE HUMIDITY HIGH ALARM
7. MIXED AIR TEMPERATURE HIGH/LOW ALARM
8. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
9. SUPPLY/RETURN FILTER ALARMS
10. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)

TRENDS

1. SUPPLY/RETURN FAN:
   - START/STOP
   - FAN SPEED (MODULATION)
   - DRIVE POSITION (FEEDBACK)
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
   - POSITION FEEDBACK
3. FREEZESTAT
4. RETURN CO2
5. RETURN RELATIVE HUMIDITY
6. SUPPLY/RETURN/MIXED AIR TEMPERTURE
7. SUPPLY/RETURN FILTER STATUS
8. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
9. HEATING CONTROL VALVE (FOR ALL CORRESPONDING HEATERS)

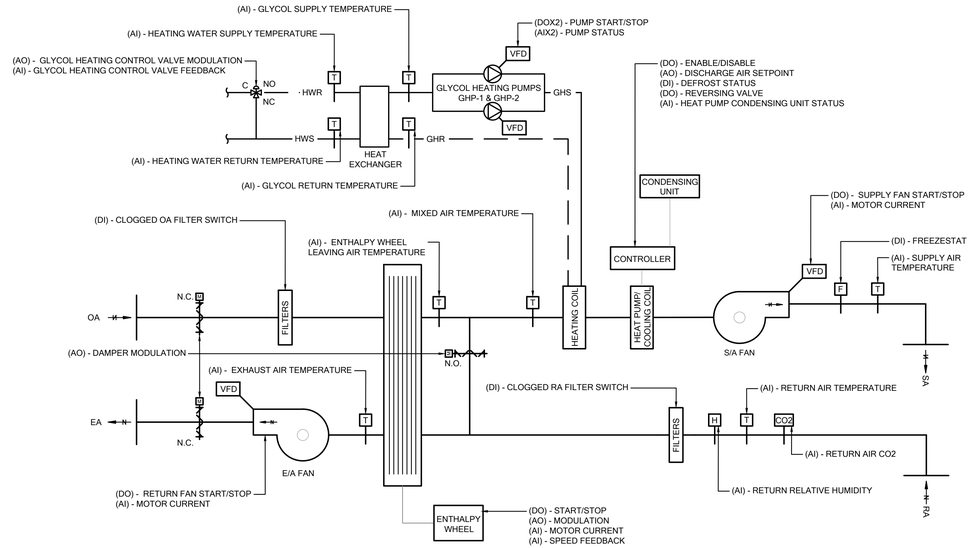
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

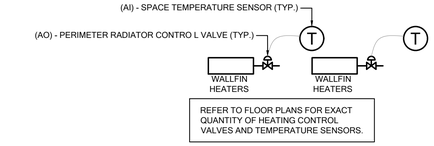
1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

MAIN OFFICE AIR HANDLING UNIT "AHU-8"

CONTROL DIAGRAM



SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	22	22
FREE COOLING / ECON.	12	19
COOLING	12	19



REFER TO FLOOR PLANS FOR EXACT QUANTITY OF HEATING CONTROL VALVES AND TEMPERATURE SENSORS.

SEQUENCE OF OPERATION

1. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE AS SHOWN ABOVE.
2. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL OPEN THE EXHAUST AIR AND THE OUTSIDE AIR DAMPERS AND CLOSE THE RETURN AIR DAMPER.
   2. THE BAS SHALL ENABLE THE EXHAUST AND SUPPLY FANS UPON RECEIVING THEIR CORRESPONDING DAMPER FEEDBACKS. ONCE ENABLED, FANS SHALL OPERATE AT CONSTANT SPEED.
   3. ENTHALPY WHEEL SHALL BE ENABLED. ONCE ENABLED, ENTHALPY WHEEL SHALL OPERATE AT FULL SPEED. WHEN OUTDOOR AIR TEMPERATURE IS BELOW 0°C (ADJUSTABLE), WHEEL SHALL MODULATE TO MAINTAIN AN EXHAUST AIR TEMPERATURE OR 2°C (ADJUSTABLE) FOR FROST PROTECTION.
   4. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED. DURING HEATING MODE, GLYCOL HEATING CONTROL VALVE SHALL NEVER FULLY CLOSE. MINIMUM SETPOINT SHALL BE 10% OPEN TO KEEP HEAT EXCHANGER WARM.

      HEAT PUMP HEATING TO BE ENABLED ABOVE -5°C OAT AND HYDRONIC HEATING TO BE ENABLED BELOW -5°C OAT. HEAT PUMP OPERATION TEMPERATURES TO BE CONFIRMED WITH MANUFACTURER.

      ON CALL FOR HEATING DURING HEAT PUMP OPERATION, THE GLYCOL HEATING PUMPS SHALL BE DISABLED, HEAT PUMP SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      ON CALL FOR HEATING DURING HYDRONIC HEATING OPERATION, THE HEAT PUMP SHALL BE DISABLED, AND THE DUTY GLYCOL HEATING PUMP SHALL BE ENABLED. GLYCOL HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL RADIATOR CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      COOLING MODE: UNIT SHALL BE IN COOLING MODE WHENEVER HEATING PLANT IS DISABLED AND OUTDOOR AIR TEMPERATURE IS ABOVE 19°C (ADJUSTABLE). UNIT COOLING MODE ENABLE/DISABLE SHALL BE USER ADJUSTABLE.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE.

      DX COOLING IS ENABLED AND STAGED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

      GLYCOL HEATING AND PERIMETER RADIATOR CONTROL VALVES SHALL BE CLOSED.
   5. DURING OCCUPIED MODE, THE UNIT SHALL OPERATE AS 100% OUTDOOR AIR. THE RETURN CO2 SENSOR SHALL BE FOR MONITORING ONLY.
3. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND EXHAUST FANS.
   2. CLOSE OUTSIDE AIR & EXHAUST AIR DAMPERS BY MECHANICAL SPRING RETURN. RETURN AIR DAMPER TO BE RELEASED AND OPEN BY WAY OF MECHANICAL SPRING RETURN. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. DISABLE ENTHALPY WHEEL.
   4. IN HEATING MODE, LOCAL TEMPERATURE SENSORS TO MODULATE ASSOCIATED RADIATOR CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).
   5. DX COOLING TO REMAIN OFF DURING UNOCCUPIED MODE.
4. GLYCOL HEATING PUMP OPERATION:

   .1 PUMPS TO OPERATE IN DUTY/STAND-BY CONFIGURATION.
   .2 ONCE ENABLED, DUTY PUMP SHALL OPERATE AT CONSTANT SPEED
   .3 THE DUTY PUMP SHALL BE ALTERNATED ON THE 1ST AND 16TH DAY OF EACH MONTH.
   .4 IF THE DUTY PUMP FAILS, THE STAND-BY PUMP SHALL AUTOMATICALLY START.

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
4. DX COOLING IS LOCKED OUT WHEN AMBIENT TEMPERATURE IS BELOW 12.8°C (55°F).
5. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.
6. VARIABLE FREQUENCY DRIVES ARE FOR BALANCING ONLY.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. OUTDOOR/EXHAUST/RETURN DAMPER FAILURE
3. ENTHALPY WHEEL FAILURE
4. FREEZESTAT ALARM
5. RETURN CO2 HIGH ALARM
6. RELATIVE HUMIDITY HIGH ALARM
7. MIXED AIR TEMPERATURE HIGH/LOW ALARM
8. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
9. SUPPLY/RETURN FILTER ALARMS
10. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)

TRENDS

1. SUPPLY/RETURN FAN & ENTHALPY WHEEL:
   - START/STOP
   - FAN SPEED (MODULATION)
   - DRIVE POSITION (FEEDBACK)
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
   - POSITION FEEDBACK
3. FREEZESTAT
4. RETURN CO2
5. RETURN RELATIVE HUMIDITY
6. SUPPLY/RETURN/MIXED AIR TEMPERTURE
7. SUPPLY/RETURN FILTER STATUS
8. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
9. HEATING CONTROL VALVE (FOR ALL CORRESPONDING HEATERS)

GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

NORTH CLASSROOM WING AIR HANDLING UNIT "AHU-3"

CONTROL DIAGRAM

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH
1	ISSUED FOR MCN#1	2025-06-13	

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Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

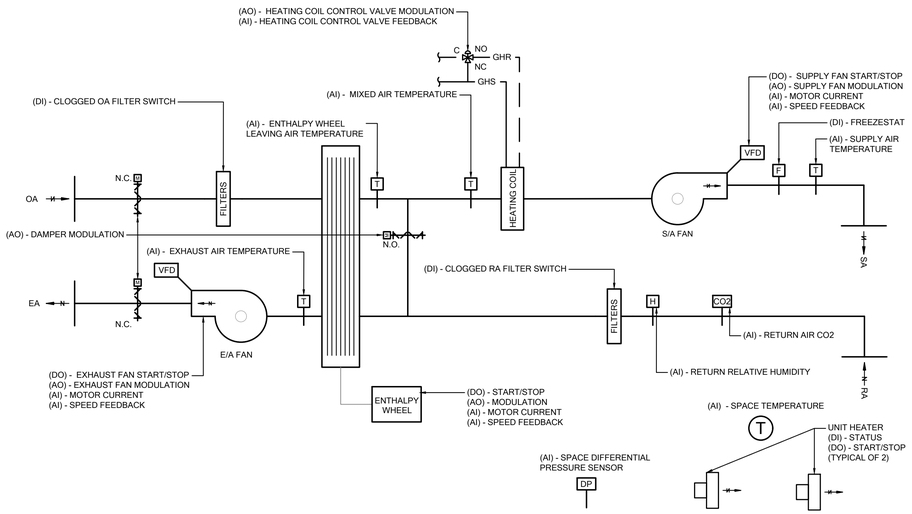
DRAWING:

CONTROL DIAGRAMS #2

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M501



SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	18	30
FREE COOLING / ECON.	12	19

SEQUENCE OF OPERATION

1. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE AS SHOWN ABOVE.
2. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL OPEN THE EXHAUST AIR AND THE OUTSIDE AIR DAMPERS AND CLOSE THE RETURN AIR DAMPER.
   2. THE BAS SHALL ENABLE THE EXHAUST AND SUPPLY FANS UPON RECEIVING THEIR CORRESPONDING DAMPER FEEDBACKS. ONCE ENABLED, SUPPLY FAN SHALL OPERATE AT CONSTANT SPEED. EXHAUST FAN SHALL MODULATE BASED ON SPACE DIFFERENTIAL PRESSURE SENSOR TO MAINTAIN THE AUTOMOTIVE LAB AS SLIGHTLY NEGATIVE COMPARED TO THE CORRIDOR.
   3. ENTHALPY WHEEL SHALL BE ENABLED. ONCE ENABLED, ENTHALPY WHEEL SHALL OPERATE AT FULL SPEED. WHEN OUTDOOR AIR TEMPERATURE IS BELOW 0°C (ADJUSTABLE), WHEEL SHALL MODULATE TO MAINTAIN AN EXHAUST AIR TEMPERATURE OR 2°C (ADJUSTABLE) FOR FROST PROTECTION.
   4. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED.

      ON CALL FOR HEATING THE HEATING COIL CONTROL VALVE SHALL RESET SUPPLY AIR TEMPERATURE SETPOINT AS PER THE ABOVE SCHEDULE AND LOCAL UNIT HEATERS SHALL BE ENABLED/DISABLED IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE).

      FREE COOLING MODE: UNIT SHALL BE IN FREE COOLING MODE WHEN OUTDOOR AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY AND OUTDOOR AIR TEMPERATURE IS GREATER THAN 12°C AND LESS THAN 20°C (ADJUSTABLE).

      UNIT HEATERS SHALL BE DISABLED.

      ENTHALPY WHEEL SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      ONCE OUTDOOR AIR TEMPERATURE DROPS BELOW 12°C (ADJUSTABLE), AIR SIDE ECONOMIZER OPERATION STOPS, UNIT RETURN TO NORMAL OPERATION.
   5. DURING OCCUPIED MODE, THE UNIT SHALL OPERATE AS 100% OUTDOOR AIR. THE RETURN CO2 SENSOR SHALL BE FOR MONITORING ONLY.
3. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND EXHAUST FANS.
   2. CLOSE OUTSIDE AIR & EXHAUST AIR DAMPERS BY MECHANICAL SPRING RETURN. RETURN AIR DAMPER TO BE RELEASED AND OPEN BY WAY OF MECHANICAL SPRING RETURN. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. DISABLE ENTHALPY WHEEL.
   4. IN HEATING MODE, SPACE TEMPERATURE SENSOR TO ENABLE/DISABLE UNIT HEATERS TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).
   5. DX COOLING TO REMAIN OFF DURING UNOCCUPIED MODE.

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
5. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. OUTDOOR/EXHAUST/RETURN DAMPER FAILURE
3. ENTHALPY WHEEL FAILURE
4. FREEZESTAT ALARM
5. RETURN CO2 HIGH ALARM
6. RELATIVE HUMIDITY HIGH ALARM
7. MIXED AIR TEMPERATURE HIGH/LOW ALARM
8. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
9. SUPPLY/RETURN FILTER ALARMS
10. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)

TRENDS

1. SUPPLY/RETURN FAN & ENTHALPY WHEEL:
   - START/STOP
   - FAN SPEED (MODULATION)
   - DRIVE POSITION (FEEDBACK)
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
   - POSITION FEEDBACK
3. FREEZESTAT
4. RETURN CO2
5. RETURN RELATIVE HUMIDITY
6. SUPPLY/RETURN/MIXED AIR TEMPERTURE
7. SUPPLY/RETURN FILTER STATUS
8. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
9. HEATING STATUS (FOR ALL CORRESPONDING HEATERS)

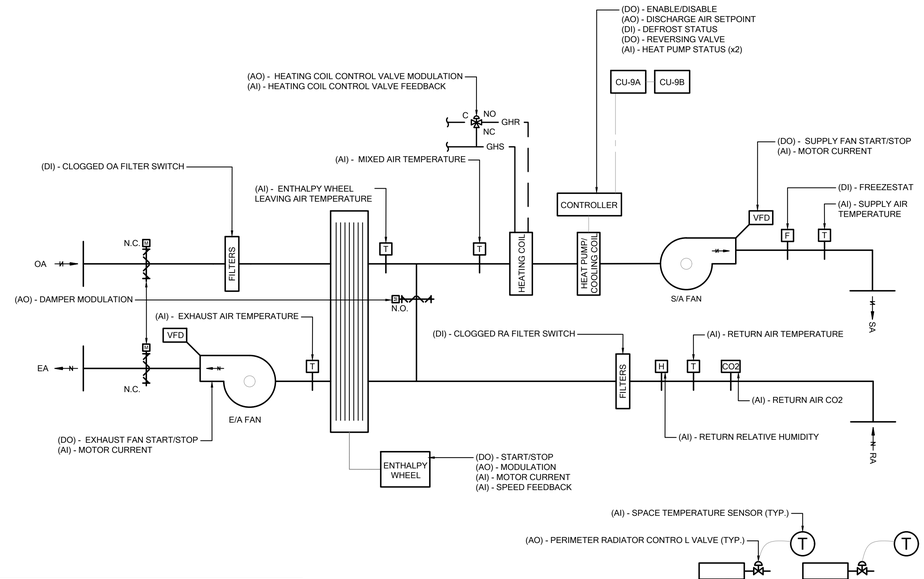
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

AUTOMOTIVE LAB AIR HANDLING UNIT "AHU-11"

CONTROL DIAGRAM



REFER TO FLOOR PLANS FOR EXACT QUANTITY OF HEATING CONTROL VALVES AND TEMPERATURE SENSORS.

SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	22	22
FREE COOLING / ECON.	12	19
COOLING	12	19

SEQUENCE OF OPERATION

1. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE AS SHOWN ABOVE.
2. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL OPEN THE EXHAUST AIR AND THE OUTSIDE AIR DAMPERS AND CLOSE THE RETURN AIR DAMPER.
   2. THE BAS SHALL ENABLE THE EXHAUST AND SUPPLY FANS UPON RECEIVING THEIR CORRESPONDING DAMPER FEEDBACKS. ONCE ENABLED, FANS SHALL OPERATE AT CONSTANT SPEED.
   3. ENTHALPY WHEEL SHALL BE ENABLED. ONCE ENABLED, ENTHALPY WHEEL SHALL OPERATE AT FULL SPEED. WHEN OUTDOOR AIR TEMPERATURE IS BELOW 0°C (ADJUSTABLE), WHEEL SHALL MODULATE TO MAINTAIN AN EXHAUST AIR TEMPERATURE OR 2°C (ADJUSTABLE) FOR FROST PROTECTION.
   4. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED.

      HEAT PUMP HEATING TO BE ENABLED ABOVE -5°C OAT AND HYDRONIC HEATING TO BE ENABLED BELOW -5°C OAT. HEAT PUMP OPERATION TEMPERATURES TO BE CONFIRMED WITH MANUFACTURER.

      HEAT PUMP SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      ON CALL FOR HEATING DURING HYDRONIC HEATING OPERATION, THE HEAT PUMP SHALL BE DISABLED, AND THE HEATING COIL CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE). LOCAL RADIATOR CONTROL VALVES TO MODULATE IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT.

      COOLING MODE: UNIT SHALL BE IN COOLING MODE WHENEVER HEATING PLANT IS DISABLED AND OUTDOOR AIR TEMPERATURE IS ABOVE 19°C (ADJUSTABLE). UNIT COOLING MODE ENABLE/DISABLE SHALL BE USER ADJUSTABLE.

      BAS TO POLL SPACE TEMPERATURE SENSORS TO ENABLE COOLING TO MAINTAIN AVERAGE SPACE TEMPERATURE OF 24°C (ADJUSTABLE). BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE AVERAGE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE.

      DX COOLING IS ENABLED AND STAGED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

      HEATING COIL AND PERIMETER RADIATOR CONTROL VALVES SHALL BE CLOSED.
   5. DURING OCCUPIED MODE, THE UNIT SHALL OPERATE AS 100% OUTDOOR AIR. THE RETURN CO2 SENSOR SHALL BE FOR MONITORING ONLY.
3. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND EXHAUST FANS.
   2. CLOSE OUTSIDE AIR & EXHAUST AIR DAMPERS BY MECHANICAL SPRING RETURN. RETURN AIR DAMPER TO BE RELEASED AND OPEN BY WAY OF MECHANICAL SPRING RETURN. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. DISABLE ENTHALPY WHEEL.
   4. IN HEATING MODE, LOCAL TEMPERATURE SENSORS TO MODULATE ASSOCIATED RADIATOR CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).
   5. DX COOLING TO REMAIN OFF DURING UNOCCUPIED MODE.

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
4. DX COOLING IS LOCKED OUT WHEN AMBIENT TEMPERATURE IS BELOW 12.8°C (55°F).
5. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.
6. VARIABLE FREQUENCY DRIVES ARE FOR BALANCING ONLY.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. OUTDOOR/EXHAUST/RETURN DAMPER FAILURE
3. ENTHALPY WHEEL FAILURE
4. FREEZESTAT ALARM
5. RETURN CO2 HIGH ALARM
6. RELATIVE HUMIDITY HIGH ALARM
7. MIXED AIR TEMPERATURE HIGH/LOW ALARM
8. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
9. SUPPLY/RETURN FILTER ALARMS
10. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)

TRENDS

1. SUPPLY/RETURN FAN & ENTHALPY WHEEL:
   - START/STOP
   - FAN SPEED (MODULATION)
   - DRIVE POSITION (FEEDBACK)
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
   - POSITION FEEDBACK
3. FREEZESTAT
4. RETURN CO2
5. RETURN RELATIVE HUMIDITY
6. SUPPLY/RETURN/MIXED AIR TEMPERTURE
7. SUPPLY/RETURN FILTER STATUS
8. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
9. HEATING CONTROL VALVE (FOR ALL CORRESPONDING HEATERS)

GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

SOUTH CLASSROOM WING AIR HANDLING UNIT "AHU-9"

CONTROL DIAGRAM

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH
1	ISSUED FOR MCN#1	2025-06-13	

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

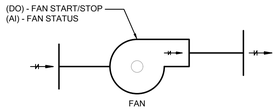
CONTROL DIAGRAMS #3

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL:

LICENSED PROFESSIONAL ENGINEER
2026-04-28
M. J. HUGHES
100206759
PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M502



SEQUENCE OF OPERATION

1. BAS TO ENABLE EXHAUST FAN BASE ON TIME OF DAY SCHEDULE. ONCE ENABLED, FAN SHALL OPERATE CONTINUOUSLY.

FANS: THIS SEQUENCE APPLIES TO THE FOLLOWING FANS:

- GENDER NEUTRAL WASHROOM EXHAUST FAN 'WEF-1'

ALARMS

1. FAN FAILURE/IN HAND

TRENDS

1. EXHAUST FAN:
   - FAN STATUS

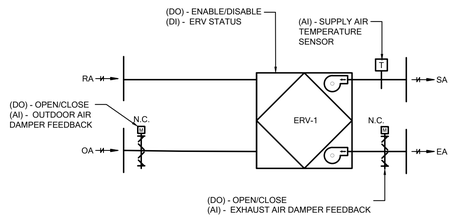
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS

WASHROOM EXHAUST FAN "WEF-1"

CONTROL DIAGRAM



SEQUENCE OF OPERATION

1. THIS SYSTEM SHALL HAVE TWO (2) OPERATING MODES BASE ON TIME OF DAY SCHEDULE:
2. WHEN IN 'OCCUPIED' MODE: OPEN O/A AND E/A MOTORIZED DAMPERS. ONCE DAMPERS HAVE BEEN PROVEDN OPEN, ENABLE ENERGY RECOVERY VENTILATOR (ERV) AND OPERATE CONTINUOUSLY AT FULL SPEED.
3. WHEN IN 'UNOCCUPIED' MODE: CLOSE O/A AND E/A MOTORIZED DAMPERS. DISABLE ENERGY RECOVERY VENTILATOR.

NOTES:

A. UNIT SHALL OPERATE UNDER ITS OWN SET OF CONTROLS AND SAFETIES FOR FROST PROTECTION.

ALARMS

1. ERV FAILURE/IN HAND
2. OUTDOOR/EXHAUST DAMPER FAILURE
3. INTAKE TEMPERATURE HIGH/LOW ALARM

TRENDS

1. ERV:
   - ERV STATUS
2. OUTDOOR/EXHAUST DAMPERS:
   - POSITION FEEDBACK
3. INTAKE AIR TEMPERATURE

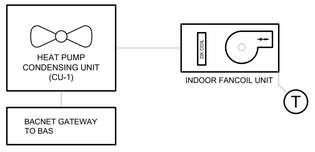
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS

ENERGY RECOVERY VENTILATOR "ERV-1"

CONTROL DIAGRAM



SEQUENCE OF OPERATION

1. SPLIT HEAT PUMP AIR CONDITIONING SYSTEM SHALL SHALL OPERATE ON ITS OWN SAFETIES AND CONTROLS TO MEET LOAD DEMANDS AND MAINTAIN OPTIMAL EFFICIENCY.
2. IN HEATING MODE, INDOOR FAN COIL UNIT SHALL MAINTAIN SPACE TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE).

   IN COOLING MODE, INDOOR FAN COIL UNIT SHALL MAINTAIN SPACE TEMPERATURE SETPOINT OF 24°C (ADJUSTABLE).

ALARMS

1. EQUIPMENT FAILURE/IN HAND
2. SPACE TEMPERATURE HIGH/LOW ALARM

TRENDS

1. OUTDOOR UNIT
   - UNIT STATUS
2. INDOOR UNITS:
   - UNIT STATUS
3. SPACE TEMPERATURE

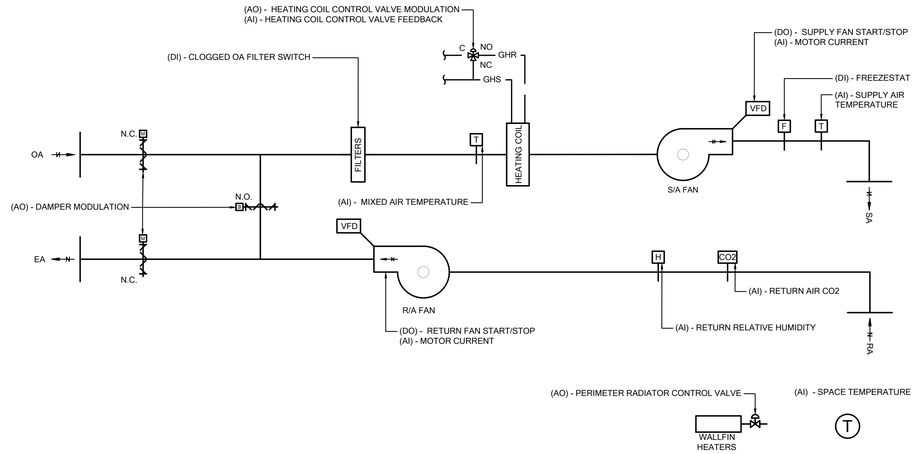
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS

HEAT PUMP FAN COIL UNIT "FCU-1 & "CU-1"

CONTROL DIAGRAM



SUPPLY AIR TEMPERATURE RESET SCHEDULE		
MODE	MINIMUM SAT (°C)	MAXIMUM SAT (°C)
HEATING	18	30
FREE COOLING / ECON.	12	19

SEQUENCE OF OPERATION

1. SYSTEM IS ENABLED THROUGH BAS BASED ON ADJUSTABLE TIME OF DAY SCHEDULE AS SHOWN ABOVE.
2. OCCUPIED MODE:
   1. ON SYSTEM START-UP, THE BAS SHALL MODULATE THE EXHAUST AIR, RETURN AIR, AND THE OUTSIDE AIR DAMPERS TO THEIR MINIMUM POSITIONS.
   2. THE BAS SHALL ENABLE THE RETURN AND SUPPLY FANS UPON RECEIVING THEIR CORRESPONDING DAMPER FEEDBACKS. ONCE ENABLED, FANS SHALL OPERATE AT CONSTANT SPEED.
   3. ONCE ENABLED, UNIT SHALL OPERATE BASED ON THE FOLLOWING MODES:

      HEATING MODE: UNIT SHALL BE IN HEATING MODE WHENEVER HEATING PLANT IS ENABLED.

      ON CALL FOR HEATING THE HEATING COIL CONTROL VALVE SHALL RESET SUPPLY AIR TEMPERATURE SETPOINT AS PER THE ABOVE SCHEDULE AND PERIMETER RADIATOR CONTROL VALVES SHALL BE MODULATED TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE).

      FREE COOLING MODE: UNIT SHALL BE IN FREE COOLING MODE WHEN OUTDOOR AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY AND OUTDOOR AIR TEMPERATURE IS LESS THAN 20°C (ADJUSTABLE).

      PERIMETER RADIATOR CONTROL VALVES AND HEATING COIL CONTROL VALVE SHALL BE CLOSED.

      BAS SHALL MODULATE SUPPLY AIR TEMPERATURE SETPOINT BASED ON THE SPACE TEMPERATURE AND SUPPLY TEMPERATURE RESET SCHEDULE ABOVE TO MAINTAIN SPACE TEMPERATURE OF 24°C (ADJUSTABLE). OUTDOOR, EXHAUST, AND RETURN DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

      ONCE OUTDOOR AIR TEMPERATURE DROPS BELOW 5°C (41°F - ADJUSTABLE), AIR SIDE ECONOMIZER OPERATION STOPS, UNIT RETURN TO NORMAL OPERATION.
   4. DURING OCCUPIED MODE, THE CO2 SENSOR SHALL MODULATE THE OUTDOOR AIR, RETURN AIR AND EXHAUST AIR DAMPERS TO MAINTAIN THE CO2 SETPOINT OF 800 PPM. (ADJUSTABLE). THE MINIMUM OUTDOOR AIRFLOW SHALL BE AS FOLLOWS:
      AHU-16 - 120 L/S
3. UNOCCUPIED MODE:
   1. DISABLE SUPPLY AND RETURN FANS.
   2. CLOSE OUTSIDE AIR & EXHAUST AIR DAMPERS BY MECHANICAL SPRING RETURN. RETURN AIR DAMPER TO BE RELEASED AND OPEN BY WAY OF MECHANICAL SPRING RETURN. OUTDOOR AIR DAMPER TO REMAIN CLOSED DURING UNOCCUPIED TIMES.
   3. IN HEATING MODE, LOCAL TEMPERATURE SENSORS TO MODULATE ASSOCIATED RADIATOR CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE AT 18°C (64°F - ADJUSTABLE).

NOTES

1. FANS SHALL BE BALANCED TO MAINTAIN DESIGN AIRFLOWS. OPERATING FREQUENCIES SHALL BE DETERMINED BY BALANCER.
2. EXHAUST AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY FAN SUCH THAT IT IS ENABLED OR DISABLED IN SIMILAR FASHION.
3. IN THE EVENT OF POWER LOSS, OUTDOOR AIR & EXHAUST AIR DAMPERS ARE TO CLOSE BY MECHANICAL SPRING. RETURN AIR DAMPER SHALL OPEN BY WAY OF MECHANICAL SPRING.
4. UPON ACTIVATION OF THE FREEZE STAT AT 2°C, THE SUPPLY AND EXHAUST AI FANS SHALL STOP AND NOT AUTOMATICALLY RESTART. THE FREEZE STAT MUST BE MANUALLY RESET. PROVIDE AN ALARM AT THE BAS INDICATING THAT THE UNIT WAS TURNED OFF AS A RESULT OF A FREEZE ALARM.
5. VARIABLE FREQUENCY DRIVES ARE FOR BALANCING ONLY.

ALARMS

1. SUPPLY/RETURN FAN FAILURE/IN HAND
2. OUTDOOR/EXHAUST/RETURN DAMPER FAILURE
3. ENTHALPY WHEEL FAILURE
4. FREEZESTAT ALARM
5. RETURN CO2 HIGH ALARM
6. RELATIVE HUMIDITY HIGH ALARM
7. MIXED AIR TEMPERATURE HIGH/LOW ALARM
8. SUPPLY AIR TEMPERATURE HIGH/LOW ALARM
9. SUPPLY/RETURN FILTER ALARMS
10. SPACE TEMPERATURE HIGH/LOW ALARM (FOR ALL CORRESPONDING ROOMS)

TRENDS

1. SUPPLY/RETURN FAN:
   - START/STOP
   - FAN SPEED (MODULATION)
   - DRIVE POSITION (FEEDBACK)
   - MOTOR CURRENT
2. OUTDOOR/EXHAUST/RETURN DAMPERS:
   - MODULATION
   - POSITION FEEDBACK
3. FREEZESTAT
4. RETURN CO2
5. RETURN RELATIVE HUMIDITY
6. SUPPLY/RETURN/MIXED AIR TEMPERTURE
7. SUPPLY/RETURN FILTER STATUS
8. SPACE TEMPERATURE (FOR ALL CORRESPONDING ROOMS)
9. HEATING CONTROL VALVE (FOR ALL CORRESPONDING HEATERS)

GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS
6. OPERATING CONDITIONS FOR HEATING/COOLING MODES

WEIGHT ROOM AIR HANDLING UNIT "AHU-16"

CONTROL DIAGRAM

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1	ISSUED FOR REVIEW	2026-03-23	MH
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3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH
1	ISSUED FOR MCN#1	2025-06-13	

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

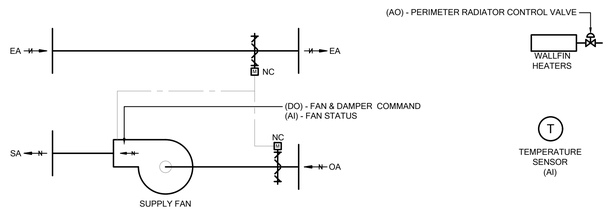
CONTROL DIAGRAMS #4

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100205759 — PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M503



SEQUENCE OF OPERATION

HEATING MODE:

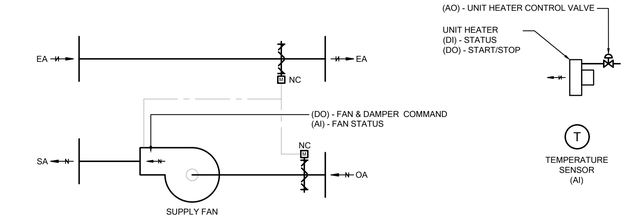
1. ON CALL FOR HEATING, PERIMETER RADIATOR CONTROL VALVE IS TO MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 16°C (60.8°F ADJUSTABLE). WHEN SPACE TEMPERATURE IS ABOVE 18°C (64.4°F ADJUSTABLE) CONTROL VALVE SHALL MODULATE CLOSED.

COOLING MODE:

2. ON CALL FOR COOLING, OPEN OA AND EA DAMPERS. ONCE DAMPERS ARE PROVEN OPEN, SUPPLY FAN TO BE ENABLED TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 24°C (ADJUSTABLE). WHEN SPACE TEMPERATURE FALLS BELOW 22°C (ADJUSTABLE), CLOSE OA AND EA DAMPERS.

MECHANICAL ROOM #7 VENTILATION

CONTROL DIAGRAM



SEQUENCE OF OPERATION

HEATING MODE:

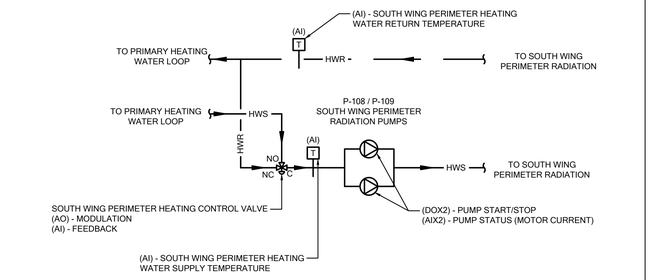
1. ON CALL FOR HEATING, UNIT HEATER SHALL BE ENABLED AND UNIT HEATER CONTROL VALVE IS TO MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 16°C (60.8°F ADJUSTABLE). WHEN SPACE TEMPERATURE IS ABOVE 18°C (64.4°F ADJUSTABLE) CONTROL VALVE SHALL MODULATE CLOSED AND UNIT HEATER SHALL BE DISABLED.

COOLING MODE:

2. ON CALL FOR COOLING, OPEN OA AND EA DAMPERS. ONCE DAMPERS ARE PROVEN OPEN, SUPPLY FAN TO BE ENABLED TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 24°C (ADJUSTABLE). WHEN SPACE TEMPERATURE FALLS BELOW 22°C (ADJUSTABLE), CLOSE OA AND EA DAMPERS.

MECHANICAL ROOM #9 VENTILATION

CONTROL DIAGRAM



SEQUENCE OF OPERATION

1. HEATING PUMPS SHALL OPERATE BASED ON CALL TO HEAT FROM HEATING PLANT. PUMPS SHALL OPERATE AS DUTY-STANDBY. ONCE ENABLED, DUTY PUMP SHALL RUN AT CONSTANT SPEED.
2. SOUTH WING PERIMETER HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN HEATING WATER SUPPLY TEMPERATURE OF 82°C (ADJUSTABLE).
3. BAS SHALL PROVIDE AUTOMATIC ALTERNATION OF DUTY PUMP EVERY TUESDAY AT 9:00AM TO MAINTAIN EQUAL RUN TIME. IN THE EVENT THE DUTY PUMP FAILS, THE STANDBY PUMP SHALL START IMMEDIATELY AND NOTIFICATION GENERATED. A 5 MINUTE TIME DELAY PRIOR TO RELEASE OF STANDBY PUMP UPON STATUS OF PUMP REINSTATEMENT.
4. ALL HEATING SYSTEM PUMPS SHALL RUN FOR 15 MINUTES MINIMUM PER WEEK.

NOTES

1. SOUTH WING PERIMETER HEATING RETURN WATER TEMPERATURE SENSOR IS PROVIDED FOR MONITORING ONLY.

ALARMS

1. SOUTH WING PERIMETER HEATING WATER SUPPLY OR RETURN WATER TEMPERATURE BELOW 25°C (ADJUSTABLE) OR ABOVE 85°C (ADJUSTABLE) DURING PLANT OPERATION.
2. PUMP FAILURE/IN HAND

TRENDS

1. PUMP STATUS
2. PUMP FEEDBACK
3. HEATING WATER SUPPLY/RETURN TEMPERATURE
4. PUMP OPERATING HOURS
5. LEAD/LAG PUMP

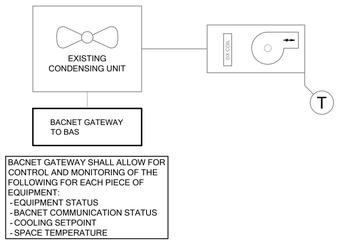
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS

SECONDARY HEATING PUMP (PERIMETER HEATER)

CONTROL DIAGRAM



APPLICABLE EQUIPMENT:

1. THIS SEQUENCE APPLIES TO THE FOLLOWING EXISTING EQUIPMENT:
   - CU-305 & AC-305 SERVING PLP CLASSROOM 305
   - CU-305B & AB-305B SERVING MULTI-MODAL ROOM
   - CU-309 & AC-309 SERVING PLP CLASSROOM 308

SEQUENCE OF OPERATION

1. SPLIT HEAT PUMP AIR CONDITIONING SYSTEM SHALL SHALL OPERATE ON ITS OWN SAFETIES AND CONTROLS TO MEET LOAD DEMANDS AND MAINTAIN OPTIMAL EFFICIENCY.
2. IN HEATING MODE, INDOOR FAN COIL UNIT SHALL MAINTAIN SPACE TEMPERATURE SETPOINT OF 22°C (ADJUSTABLE).

   IN COOLING MODE, INDOOR FAN COIL UNIT SHALL MAINTAIN SPACE TEMPERATURE SETPOINT OF 24°C (ADJUSTABLE).

ALARMS

1. EQUIPMENT FAILURE/IN HAND
2. SPACE TEMPERATURE HIGH/LOW ALARM

TRENDS

1. OUTDOOR UNIT
   - UNIT STATUS
2. INDOOR UNITS:
   - UNIT STATUS
3. SPACE TEMPERATURE

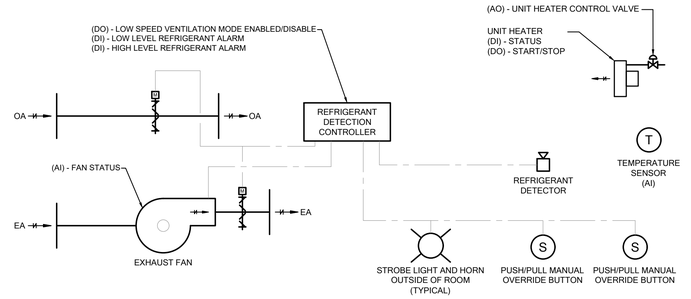
GRAPHICS

SYSTEM GRAPHICS SHALL INCLUDE THE FOLLOWING ITEMS:

1. ALL CONTROL POINTS
2. SETPOINTS (ALL SHALL BE ADJUSTABLE)
3. OCCUPIED SCHEDULE (SHALL BE ADJUSTABLE)
4. TRENDS
5. ALARMS

EXISTING SPLIT AIR CONDITIONING SYSTEMS

CONTROL DIAGRAM



SEQUENCE OF OPERATION

REFRIGERANT EXHAUST MODE:

1. WHEN REFRIGERANT DETECTOR SENSES A REFRIGERANT CONCENTRATION OF 250 PPM OR GREATER (ADJUSTABLE), A LOW LEVEL ALARM SHALL BE SENT TO THE BAS. REFRIGERANT DETECTION SYSTEM SHALL OPEN OA AND EA DAMPER AND ENABLE EXHAUST FAN.
2. WHEN REFRIGERANT DETECTOR SENSES A REFRIGERANT CONCENTRATION OF 500 PPM OR GREATER (ADJUSTABLE), A HIGH LEVEL ALARM SHALL BE SENT TO THE BAS. REFRIGERANT DETECTION SYSTEM SHALL OPEN OA AND EA DAMPER AND ENABLE EXHAUST FAN AND REMOTE AUDIBLE AND VISUAL ALARMS SHALL ACTIVATE.
3. PUSH/PULL MANUAL OVERRIDE FAN SWITCHES INSIDE AND OUTSIDE OF MECHANICAL ROOM TO START FAN, BUT NOT DISABLE FAN. PROVIDE ALARM AT BAS WHEN FAN IS MANUALLY ACTIVATED.

VENTILATION MODE:

1. ON CALL FOR COOLING, OPEN OA AND EA DAMPERS AND ENABLE EXHAUST FAN TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 24°C (75.2°F ADJUSTABLE). WHEN SPACE TEMPERATURE FALLS BELOW 22°C (72°F ADJUSTABLE), DISABLE EXHAUST FAN AND CLOSE OA AND EA DAMPERS.
2. WHEN ON CALL FOR HEATING, BAS SHALL ENABLE UNIT HEATER AND HEATING WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT OF 16°C (60.8°F ADJUSTABLE). DISABLE UNIT HEATER WHEN SPACE TEMPERATURE IS ABOVE 18°C (64.4°F ADJUSTABLE).
3. CONTROLS CONTRACTOR RESPONSIBLE TO PROVIDE BACNET INTEGRATION FOR BAS AND REFRIGERANT CONTROLLER AS WELL AS ALL LOW VOLTAGE EQUIPMENT, INCLUDING STEP DOWN TRANSFORMER, TO MAKE AN OPERABLE SYSTEM.

MANUAL OVERRIDE MODE:

1. UPON ACTIVATION OF LOCAL PUSH/PULL MANUAL OVERRIDE BUTTON, REFRIGERANT DETECTION CONTROLLER SHALL ENABLE EXHAUST FAN FOR A PERIOD OF 30 MINUTES (ADJUSTABLE). LOCAL PUSH/PULL MANUAL OVERRIDE BUTTON SHALL BE CAPABLE OF ONLY ENABLING EXHAUST AND NOT DISABLING EXHAUST.

NOTES

1. EXHAUST FAN AND DAMPERS ARE TO BE CONTROLLED DIRECTLY BY THE REFRIGERANT DETECTION SYSTEM. BAS SHALL BE ABLE TO INITIATE VENTILATION MODE THROUGH THE REFRIGERANT DETECTION SYSTEM.
2. EXHAUST FAN TO BE INTERLOCKED WITH EXHAUST DAMPER SUCH THAT THE FAN SHALL NOT START UNTIL THE DAMPER HAS BEEN PROVEN OPEN.
3. ALARMS:
   .1 THE BAS SHALL INITIATE ALARMS FOR THE FOLLOWING CONDITIONS:
   - EXHAUST FAN FAIL
   - EXHAUST FAN IN HAND (MANUAL OVERRIDE)
   - TEMPERATURE ALARM - SPACE TEMPERATURE < 10°C
   - REFRIGERANT DETECTION LOW LEVEL ALARM
   - REFRIGERANT DETECTION HIGH LEVEL ALARM

MECHANICAL ROOMS #3 & #6 REFRIGERANT DETECTION AND VENTILATION

CONTROL DIAGRAM

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH
1	ISSUED FOR MCN#1	2025-06-13	

RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

CONTROL DIAGRAMS #5

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL:

LICENSED PROFESSIONAL ENGINEER
2026-04-28
M. J. HUGHES
100205759
PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M504

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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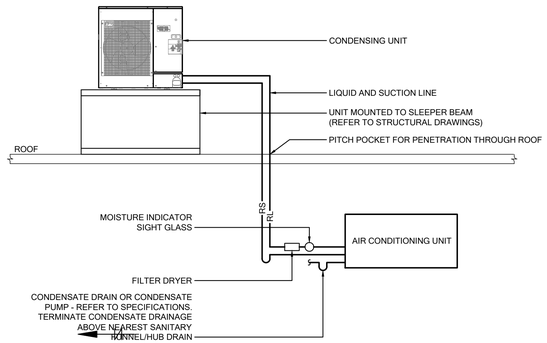
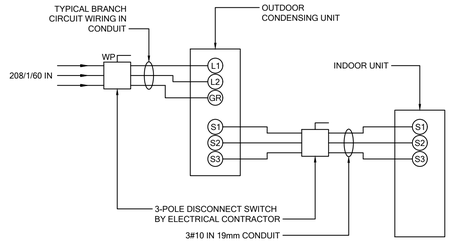


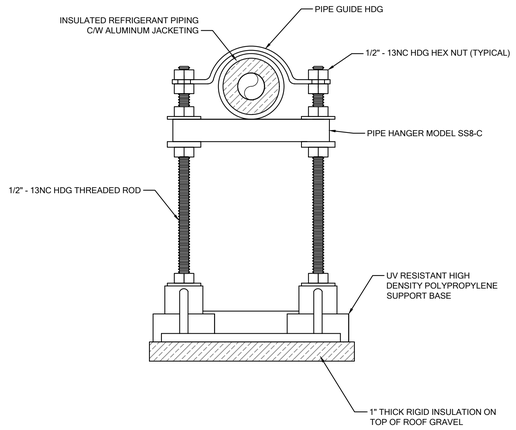
PIPING ARRANGEMENT



WIRING ARRANGEMENT

DETAIL OF SPLIT AC UNIT

SCALE: NTS

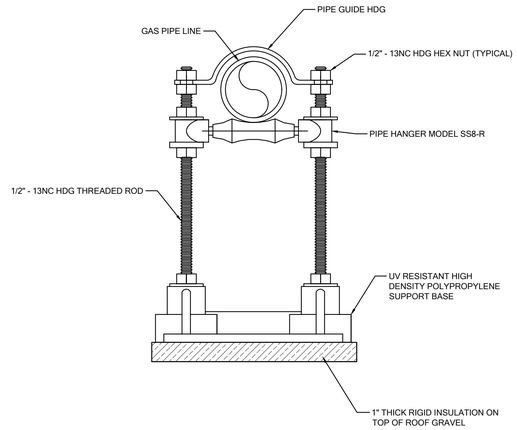


GENERAL NOTES:

1. FOR COPPER TUBING LESS THAN 25MM (1"), PROVIDE HEAVY GAUGE GALVANIZED METAL PAN (OR EQUIVALENT) RUNNING BETWEEN POLYETHYLENE SUPPORTS (PAN SHALL BE CONSTRUCTED TO SUPPORT PEDESTRIAN LOADS). THE REFRIGERANT PIPING SHALL BE MOUNTED ON THE PAN FOR CONTINUOUS SUPPORT C/W GALVANIZED PIPE CLAMP FASTENERS.
2. REFER TO MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS FOR INSTALLATION REQUIREMENTS.
3. SPACING OF SUPPORTS TO MEET SPECIFICATIONS, MANUFACTURER'S REQUIREMENTS, AND CSA B149.1.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

DETAIL OF REFRIGERANT PIPING SUPPORT ON ROOF

SCALE: NTS

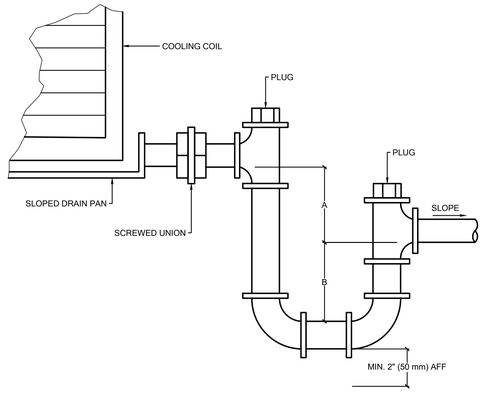


GENERAL NOTES:

1. REFER TO MANUFACTURER'S INSTRUCTIONS AND SPECIFICATION FOR INSTALLATION REQUIREMENTS.
2. SPACING OF SUPPORTS TO MEET SPECIFICATIONS, MANUFACTURER'S REQUIREMENTS, AND CSA B149.1.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

DETAIL OF GAS PIPING SUPPORT ON ROOF

SCALE: NTS

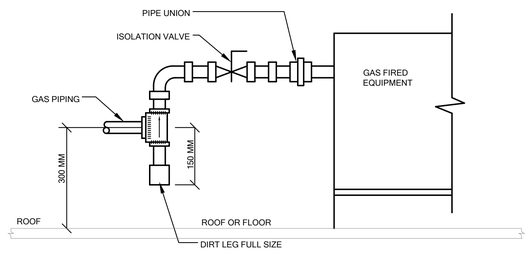


	A	B
DRAW THROUGH	CASING STATIC PRESSURE + 1" (25 mm) MINIMUM	CASING STATIC PRESSURE / 2
BLOW THROUGH	1" (25 mm) MINIMUM	CASING STATIC PRESSURE + 1" (25 mm)

NOTES:
1. BASE HEIGHT TO PROVIDE SUFFICIENT HEIGHT FOR TRAP.

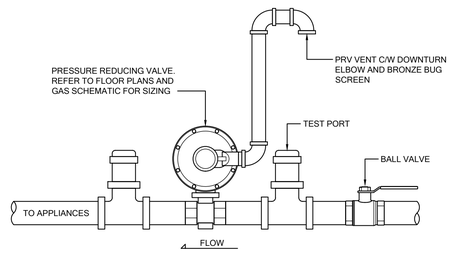
DETAIL OF HVAC CONDENSATE TRAP SIZING

SCALE: NTS



DETAIL OF TYPICAL CONNECTION TO GAS FIRED EQUIPMENT

SCALE: NTS



NOTES

1. VENT ALL INDOOR PRVS TO OUTDOORS PER CSA B149.
2. TEST PORTS TO BE PROVIDED UPSTREAM AND DOWNSTREAM OF PRV.
3. LOCATE OUTDOOR PRVS A MINIMUM OF 12" FROM WALKWAYS AND 10FT FROM EQUIPMENT AIR INTAKES AND BUILDING OPENINGS.
4. INDICATE OPERATING SETPOINTS, RELIEF SETTINGS, AND VENT ARRANGEMENTS FOR EACH REGULATING STATION ON AS-BUILT RECORD DRAWINGS.
5. ALL ISOLATION VALVES ON PIPING ASSOCIATED WITH A NATURAL GAS GENERATOR ARE TO BE PROVIDED WITH A POSITION INDICATED DEVICE AND WIRED TO THE FIRE ALARM OR GENERATOR CONTROL PANEL.

DETAIL OF NATURAL GAS PRV STATION

SCALE: NTS

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2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL - TYPICAL DETAILS #1

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL:

LICENSED PROFESSIONAL ENGINEER
2026-04-28
M. J. HUGHES
100206759
PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M600

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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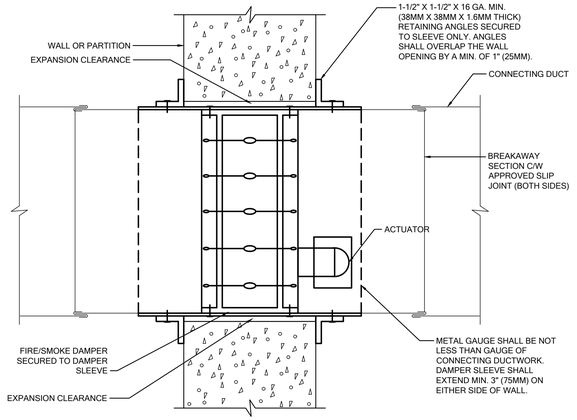
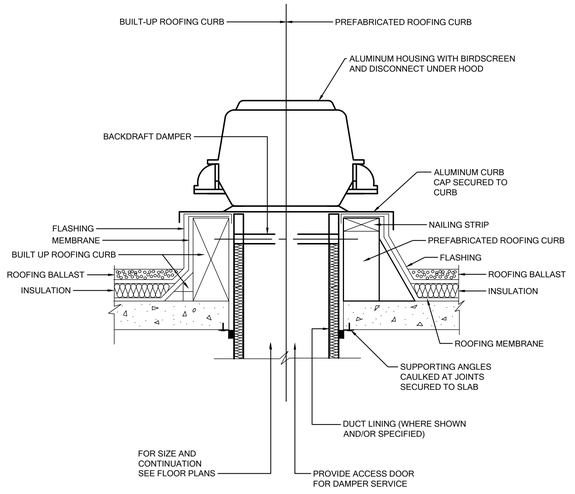


NOTES:
1. HORIZONTAL INSTALLATION SHALL BE SIMILAR, BUT DAMPER SHALL BE C/W S.S. CLOSURE SPRING.
2. SEAL BREAKAWAY SECTIONS AFTER INSTALLATION. FOR HIGH PRESSURE INSTALLATIONS, PROVIDE DUCT TAPE ON JOINTS AFTER SEALING.

DETAIL OF COMBINATION FIRE SMOKE DAMPER INSTALLATION

SCALE: NTS

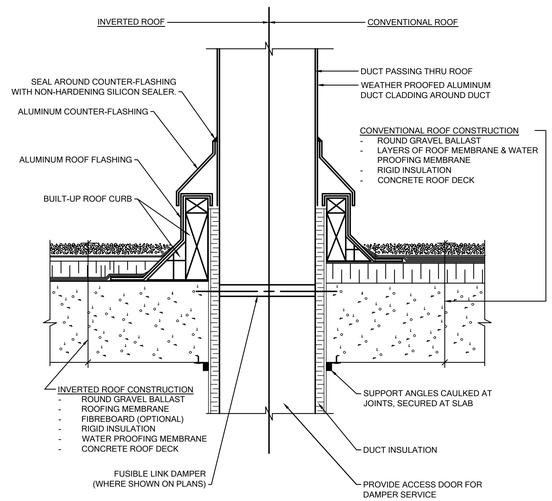


NOTES

1. CURB SHALL RISER MINIMUM 18" (450mm) ABOVE FINISHED ROOF

TYPICAL ARRANGEMENT OF ROOF MOUNTED EXHAUST FAN

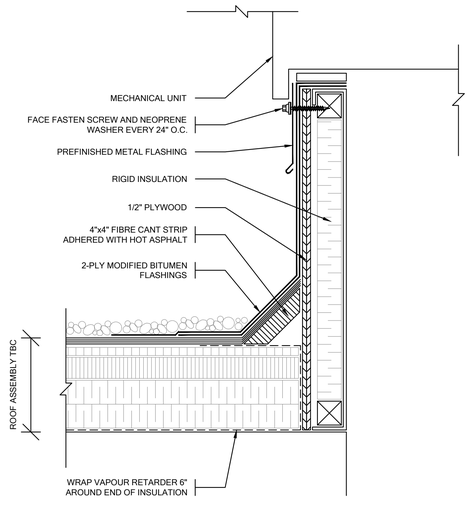
SCALE: NTS



NOTES:
1. DUCT LINING (WHERE SHOWN AND/OR SPECIFIED) SHALL CONTINUE FOR ENTIRE LENGTH OF DUCT INCLUDING PORTIONS OF DUCT LOCATED EXTERIOR TO THE BUILDING.
2. WEATHER PROOFING SHALL BE BY TWO (2) HEAVY COATS OF BITUMASTIC PAINT.

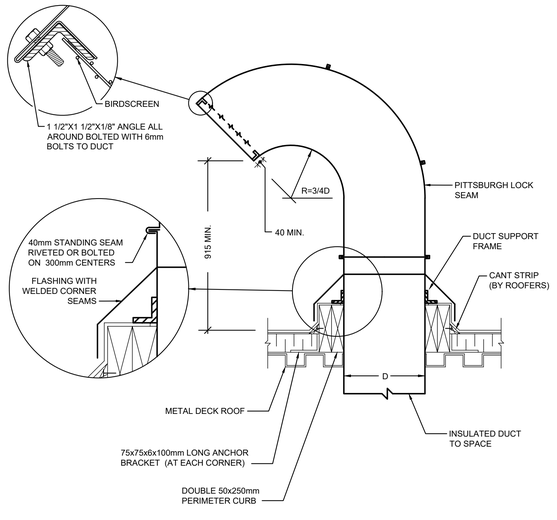
DETAIL OF DUCTWORK PASSING THROUGH ROOF

SCALE: NTS



DETAIL OF PREFABRICATED ROOF CURB

SCALE: NTS

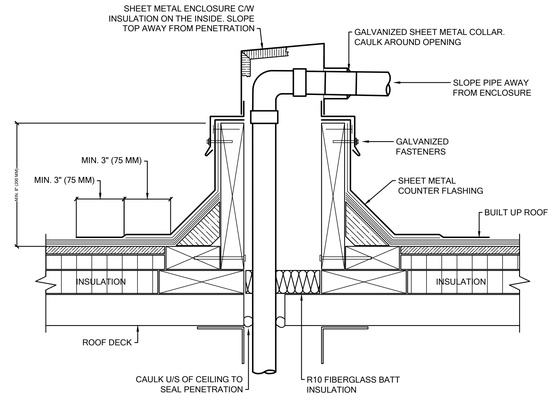


NOTES:

1. ALL JOINTS TO BE MADE WEATHERTIGHT
2. CANT STRIP TO BE SECURED TO PERIMETER CURB BY 9mmø LAG SCREW
3. FLASHING SHALL BE 16 GA. GALVANIZED AND PAINTED WITH 2 COATS OF EPOXY

DETAIL OF GOOSENECK

SCALE: NTS



DETAIL OF PIPE PENETRATION THROUGH ROOF

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3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL - TYPICAL DETAILS #2

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M601

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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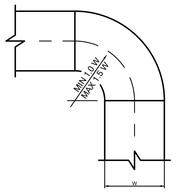
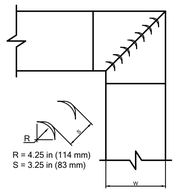
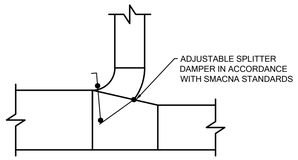


SMOOTH ELBOW



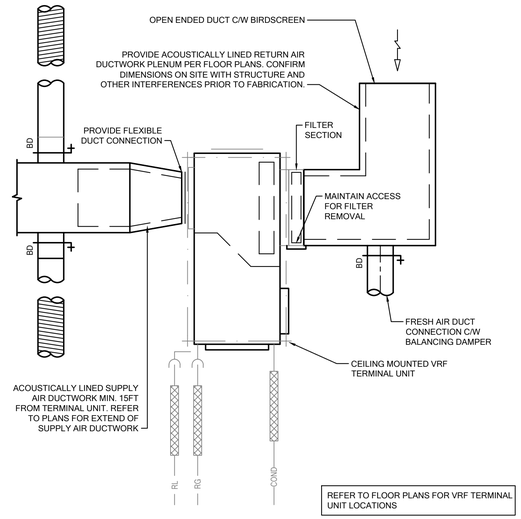
SMOOTH ELBOW



BRANCH DUCT TAKEOFF FROM MAIN

DETAIL OF TYPICAL DUCTWORK FITTINGS

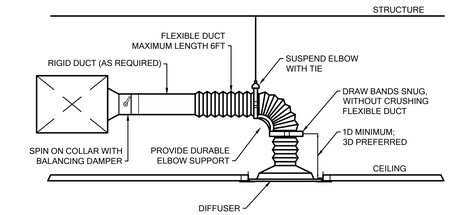
SCALE: NTS



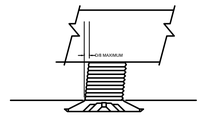
REFER TO FLOOR PLANS FOR VRF TERMINAL UNIT LOCATIONS

DETAIL OF CEILING MOUNTED VRF TERMINAL UNIT

SCALE: NTS

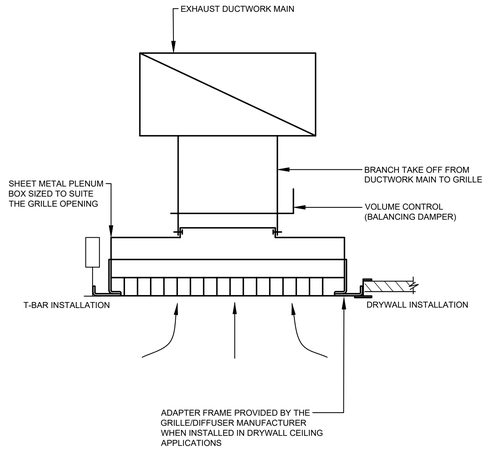


NOTE:
1. WHEN LENGTH OF STRAIGHT DUCT UPSTREAM OF DIFFUSER IS LESS THAN 3D, PROVIDE AN EQUALIZING GRID



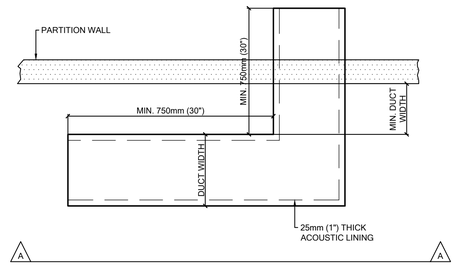
DETAIL OF FLEXIBLE DUCTWORK CONNECTION TO DIFFUSER

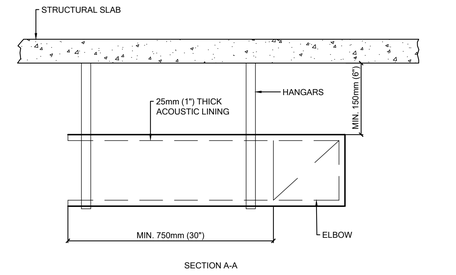
SCALE: NTS



CEILING MOUNTED EXHAUST GRILLE INSTALLATION

SCALE: NTS



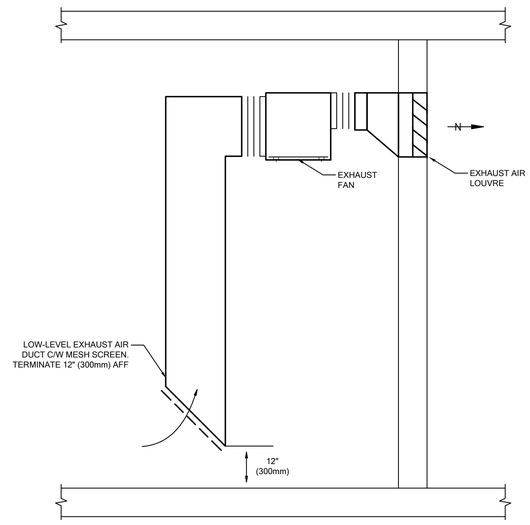


SECTION A-A

NOTES:
REFER TO FLOOR PLANS FOR QUANTITIES AND DUCT SIZES

DETAIL OF TRANSFER AIR DUCT

SCALE: NTS



NOTE: PROVIDE SHEET METAL SUPPORTS AS PER SMACNA REQUIREMENTS

DETAIL OF LOW-LEVEL EXHAUST DUCT

SCALE: NTS

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL - TYPICAL DETAILS #3

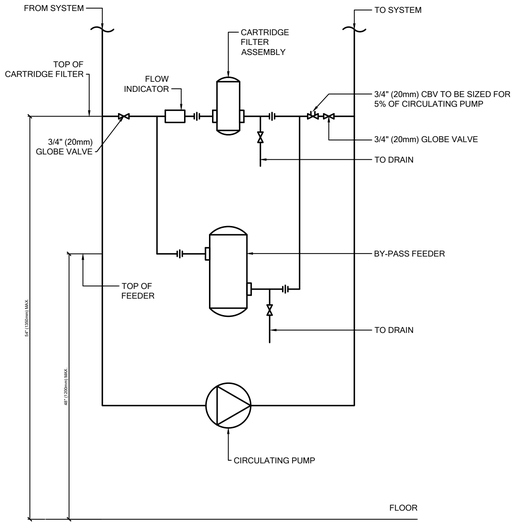
DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M602

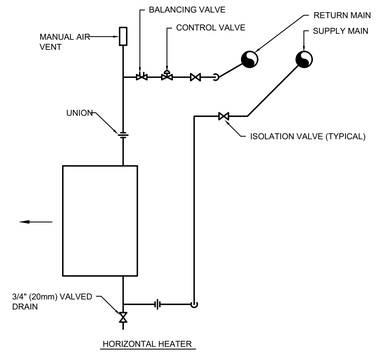
SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. RETAIN AND PAY FOR SERVICES OF AN EXPERIENCED SEISMIC CONSULTANT WHO IS A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION OF THE WORK AND A MEMBER IN GOOD STANDING OF A PROFESSIONAL ENGINEERS ASSOCIATION IN THE JURISDICTION OF THE WORK.



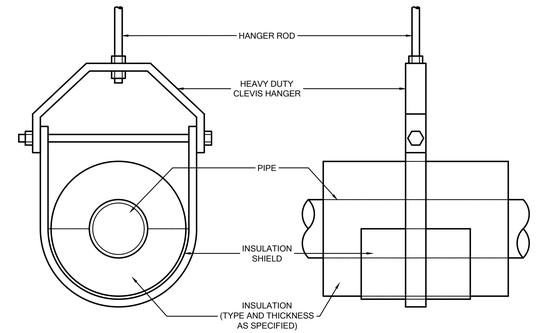
DETAIL OF BY-PASS FEEDER INSTALLATION

SCALE: NTS



DETAIL OF MOTORIZED HEATER PIPING

SCALE: NTS

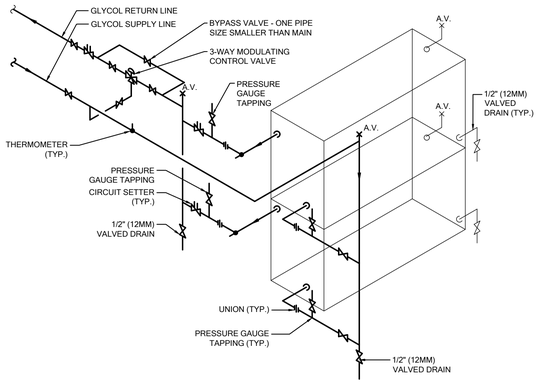


PIPE SIZE		(mm)	25	30	40	50	65	75	100	125	150	200	250	300
		(INCH)	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
HANGER SPACING (FT)	STD. STEEL	WATER	7	7	9	10	11	12	14	14	17	19	20	23
		STEAM	9	9	12	13	14	15	17	17	21	24	26	30
	COPPER	WATER	6	6	8	8	9	10	12	12	14	16	18	19
HANGER ROD DIAMETER (INCH)			1/4	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	3/4	7/8

NOTES:
1. PROVIDE A SECTION OF HIGH COMPRESSION STRENGTH INSULATION AT EACH HANGER. INSULATION MAY BE TO HALF ROUND OR FULL ROUND AND EXTEND A MINIMUM OF 50 mm (2") BEYOND INSULATION SHIELD IN EACH DIRECTION. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
2. INSULATION SHIELD TO BE MINIMUM 16 GA.
3. CONTRACTOR IS RESPONSIBLE TO PROVIDE AN ENGINEERED SYSTEM FOR PIPE HANGERS SUITABLE TO SUPPORT THE SIZE AND WEIGHT OF THE PIPE BEING SUPPORTED.

DETAIL OF PIPE HANGER

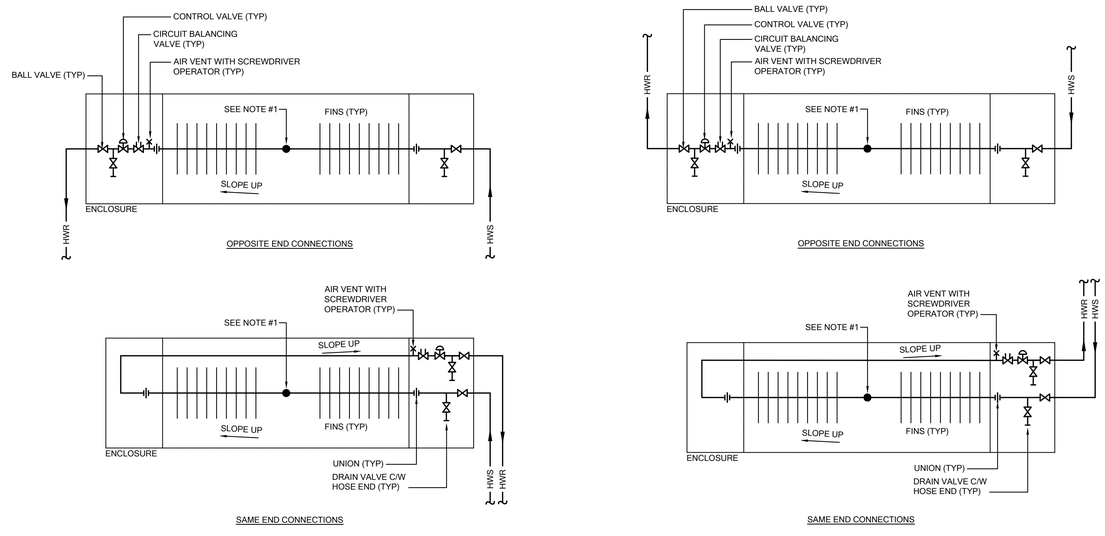
SCALE: NTS



NOTE:
1. LOCATE PIPING UNIONS TO ENSURE COIL CAN BE REMOVED WITHOUT DISTURBING BRANCH PIPING.
2. SEE EQUIPMENT SCHEDULE FOR NUMBER OF COILS IN EACH BANK.
3. PROVIDE REVERSE RETURN HEADER IF CIRCUIT SETTER IS NOT PROVIDED ON HEATING RETURN LINE COIL CONNECTION.
4. SELECT CONTROL VALVE AND CIRCUIT SETTER FOR SMOKE CONTROL OR SMOKE VENTING CONDITION.

DETAIL OF HEATING COIL PIPING CONNECTIONS

SCALE: NTS



NOTES

1. PROVIDE FOR EXPANSION & CONTRACTION WHERE MOVEMENT EXCEEDS 25mm (1"). PROVIDE EXPANSION COMPENSATORS
2. LOCATE VALVES AT ACCESS PANEL. PROVIDE 300mm (12") REMOVABLE COVERS ON ENCLOSURE.
3. PROVIDE ECCENTRIC REDUCERS AT ELEMENT ASSEMBLY INLET & OUTLET AS REQUIRED.

TYPICAL CONNECTIONS FOR SINGLE ROW FINNED TUBE RADIATION (UPFEED & DOWNFEED)

SCALE: NTS

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2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

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email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL - TYPICAL DETAILS #4

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25184	M603

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

1. ALL NEW MECHANICAL EQUIPMENT AND SERVICES INCLUDING PIPING AND DUCTWORK ARE TO BE SEISMICALLY RESTRAINED AS PER SECTION 20 05 15 OF SPECIFICATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
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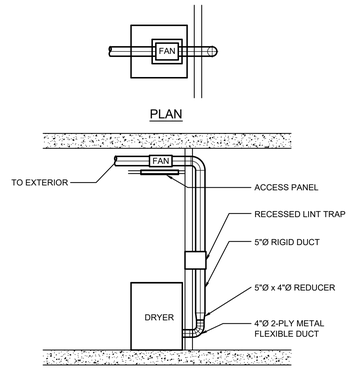
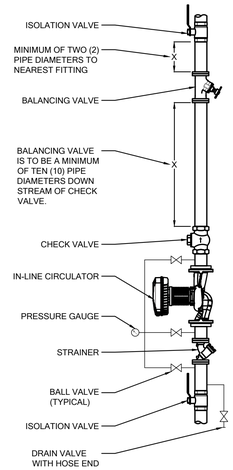


DETAIL OF DRYER BOOSTER FAN / LINT TRAP

SCALE: NTS

NOTE:

1. CONFIRM ACCEPTABLE PUMP INSTALLATION ORIENTATION WITH MANUFACTURER PRIOR TO INSTALLATION.
2. PROVIDE FLEXIBLE CONNECTIONS IN PIPING CONNECTIONS TO PUMPS AND INSTALL IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATION.

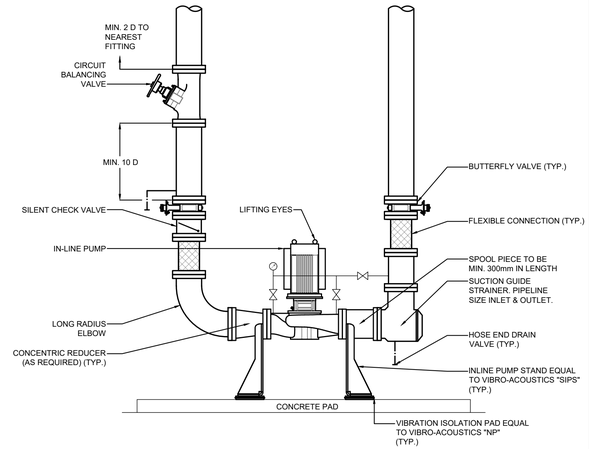


DETAIL OF IN-LINE CIRCULATOR

SCALE: NTS

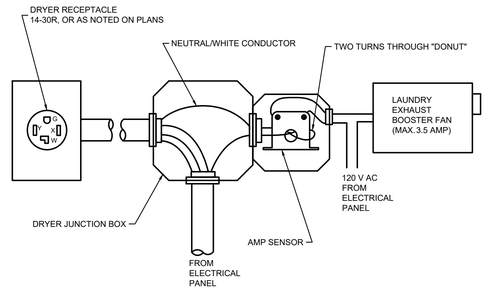
NOTE:

1. PROVIDE LIFTING LUGS OR STEEL BEAM FOR REMOVAL OF ALL MOTORS 3.7KW (5HP) & LARGER.



DETAIL OF VERTICAL INLINE FLOOR MOUNTED PUMP

SCALE: NTS

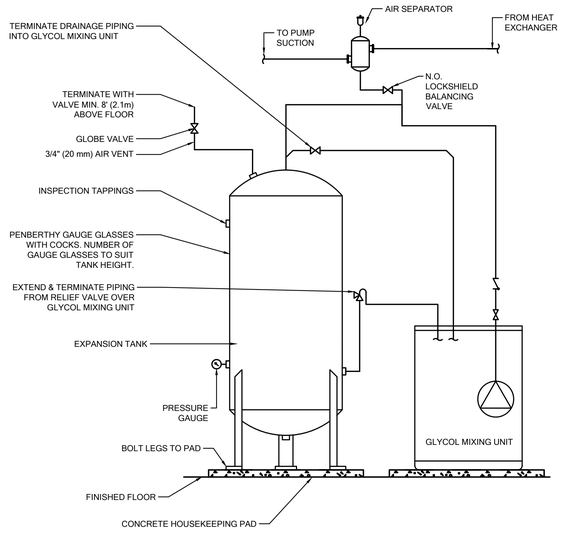


NOTES:

1. SEQUENCE OF OPERATION: THE AMP CONTROLLER SENSES WHEN A CLOTHES DRYER IS DRAWING 1.2 AMP (±20%-25%) OF CURRENT. WHEN THIS OCCURS, A RELAY CONTACT CLOSES TURNING THE DRYER VENT BOOSTER FAN "ON". WHEN CURRENT DROPS BELOW THE 2 AMP THRESHOLD THE RELAY CONTACTS OPEN, TURNING THE BOOSTER FAN "OFF".
2. MOUNT SENSOR IN A STANDARD ELECTRICAL BOX, ADJACENT TO THE JUNCTION BOX IN WHICH THE WIRES SUPPLYING POWER TO THE DRYER ARE LOCATED. PASS THE DRYER SUPPLY NEUTRAL (WHITE) WIRE THROUGH THE CENTRE OF THE AMP SENSOR DONUT. NO PHYSICAL CONNECTION IS MADE.

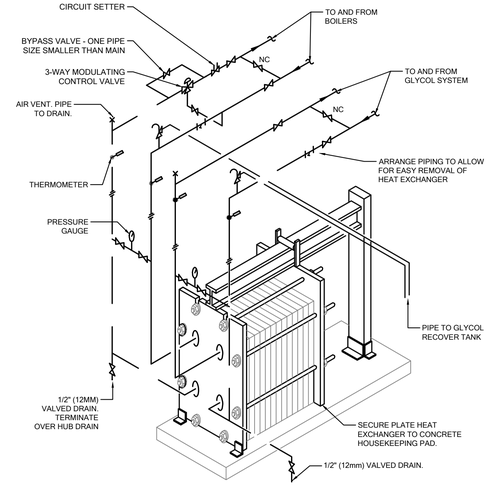
DRYER BOOSTER FAN CONTROL & WIRING DIAGRAM

SCALE: NTS



DETAIL OF VERTICAL EXPANSION TANK (GLYCOL)

SCALE: NTS



DETAIL OF HEAT EXCHANGER

SCALE: NTS

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Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

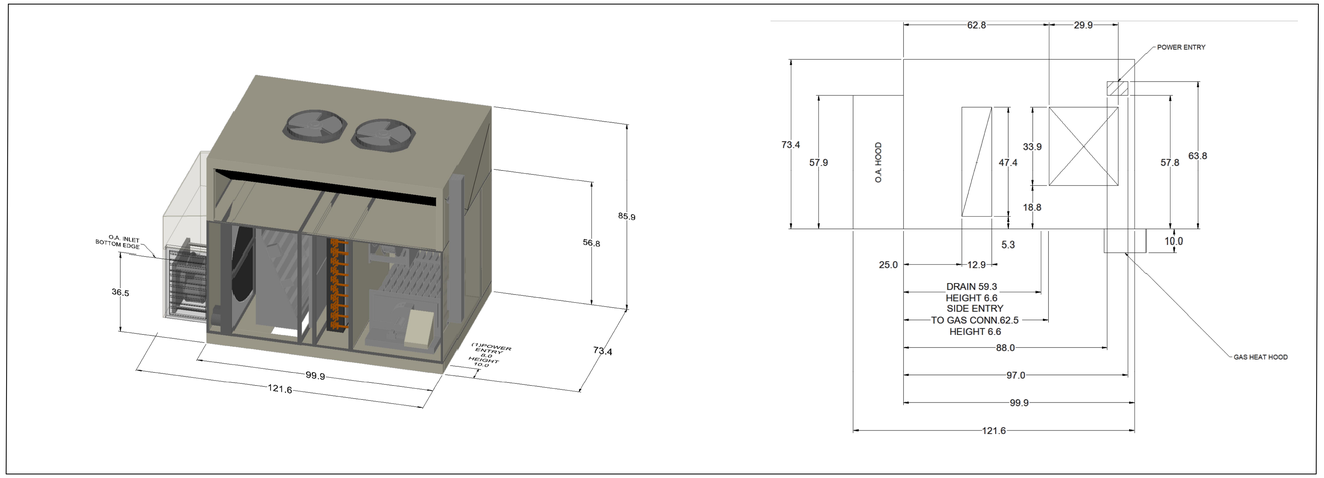
MECHANICAL - TYPICAL DETAILS #5

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M604



DETAIL OF RTU-1 (SEPARATE PRICE)

SCALE: NTS

SEISMIC CONTROL AND RESTRAINT GENERAL NOTES

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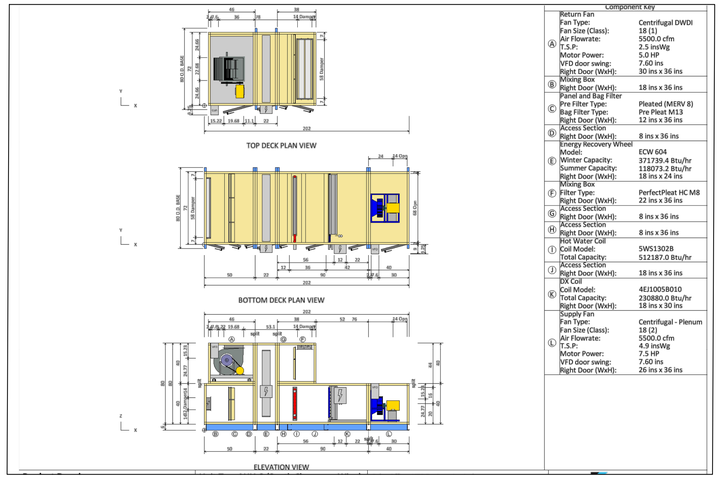
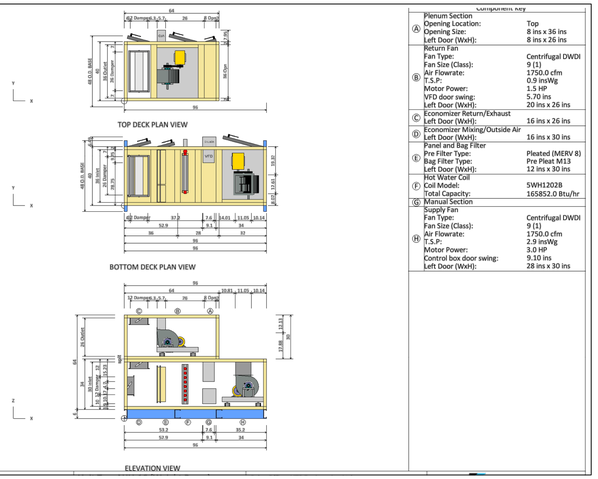


Component Key

	Return Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	18 (1)
A	Air Flowrate:	5500.0 cfm
	T.S.P:	2.5 insWg
	Motor Power:	5.0 HP
	VFD door swing:	7.60 ins
	Right Door (WxH):	30 ins x 36 ins
	Mixing Box	
B	Right Door (WxH):	18 ins x 36 ins
	Panel and Bag Filter	
	Pre Filter Type:	Pleated (MERV 8)
C	Bag Filter Type:	Pre Pleat M13
	Right Door (WxH):	12 ins x 36 ins
	Access Section	
D	Right Door (WxH):	8 ins x 36 ins
	Energy Recovery Wheel	
	Model:	ECW 604
E	Winter Capacity:	371739.4 Btu/hr
	Summer Capacity:	118073.2 Btu/hr
	Right Door (WxH):	18 ins x 24 ins
	Mixing Box	
F	Filter Type:	PerfectPleat HC M8
	Right Door (WxH):	22 ins x 36 ins
	Access Section	
G	Right Door (WxH):	8 ins x 36 ins
	Access Section	
H	Right Door (WxH):	8 ins x 36 ins
	Hot Water Coil	
I	Coil Model:	5WS1302B
	Total Capacity:	512187.0 Btu/hr
	Access Section	
J	Right Door (WxH):	18 ins x 36 ins
	DX Coil	
	Coil Model:	4EJ1005B010
K	Total Capacity:	230880.0 Btu/hr
	Right Door (WxH):	18 ins x 30 ins
	Supply Fan	
	Fan Type:	Centrifugal - Plenum
	Fan Size (Class):	18 (2)
L	Air Flowrate:	5500.0 cfm
	T.S.P:	4.9 insWg
	Motor Power:	7.5 HP
	VFD door swing:	7.60 ins
	Right Door (WxH):	26 ins x 36 ins

DETAIL OF AHU-9 (SOUTH CLASSROOM WING)

SCALE: NTS

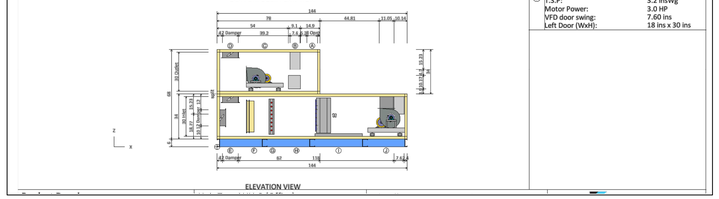


Component Key

	Plenum Section	
	Opening Location:	Top
A	Opening Size:	8 ins x 36 ins
	Left Door (WxH):	8 ins x 26 ins
	Return Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	9 (1)
B	Air Flowrate:	1750.0 cfm
	T.S.P:	0.9 insWg
	Motor Power:	1.5 HP
	VFD door swing:	5.70 ins
	Left Door (WxH):	20 ins x 26 ins
C	Economizer Return/Exhaust	
	Left Door (WxH):	16 ins x 26 ins
D	Economizer Mixing/Outside Air	
	Left Door (WxH):	16 ins x 30 ins
	Panel and Bag Filter	
E	Pre Filter Type:	Pleated (MERV 8)
	Bag Filter Type:	Pre Pleat M13
	Left Door (WxH):	12 ins x 30 ins
	Hot Water Coil	
F	Coil Model:	5WH1202B
	Total Capacity:	165852.0 Btu/hr
G	Manual Section	
	Supply Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	9 (1)
H	Air Flowrate:	1750.0 cfm
	T.S.P:	2.9 insWg
	Motor Power:	3.0 HP
	Control box door swing:	9.10 ins
	Left Door (WxH):	28 ins x 30 ins

DETAIL OF AHU-16 (WEIGHT ROOM #301)

SCALE: NTS

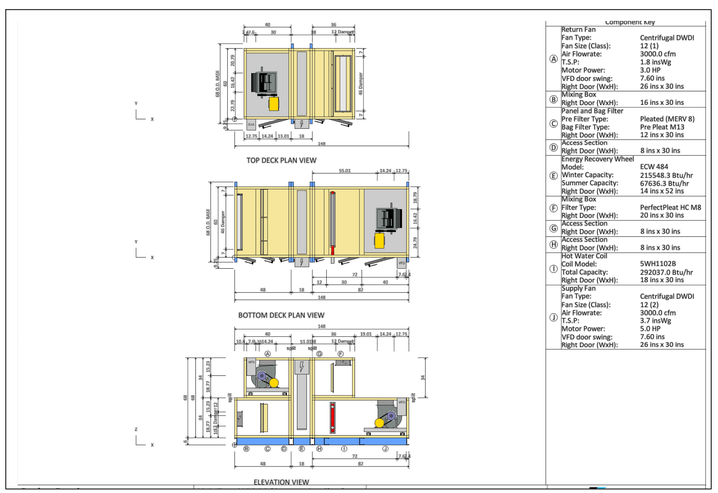


Component Key

	Plenum Section	
	Opening Location:	Top
A	Opening Size:	8 ins x 42 ins
	Left Door (WxH):	8 ins x 30 ins
B	Manual Section	
	Return Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	9 (1)
C	Air Flowrate:	2000.0 cfm
	T.S.P:	0.9 insWg
	Motor Power:	2.0 HP
	Control box door swing:	9.10 ins
	Left Door (WxH):	28 ins x 30 ins
D	Economizer Return/Exhaust	
	Left Door (WxH):	16 ins x 30 ins
E	Economizer Mixing/Outside Air	
	Left Door (WxH):	16 ins x 30 ins
	Panel and Bag Filter	
F	Pre Filter Type:	Pleated (MERV 8)
	Bag Filter Type:	Pre Pleat M13
	Left Door (WxH):	12 ins x 30 ins
	Hot Water Coil	
G	Coil Model:	5WH1101B
	Total Capacity:	39413.0 Btu/hr
H	Access Section	
	Left Door (WxH):	20 ins x 30 ins
	DX Coil	
I	Coil Model:	4EJ0508B004
	Total Capacity:	71503.0 Btu/hr
	Supply Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	9 (1)
J	Air Flowrate:	2000.0 cfm
	T.S.P:	3.2 insWg
	Motor Power:	3.0 HP
	VFD door swing:	7.60 ins
	Left Door (WxH):	18 ins x 30 ins

DETAIL OF AHU-8 (MAIN OFFICE)

SCALE: NTS

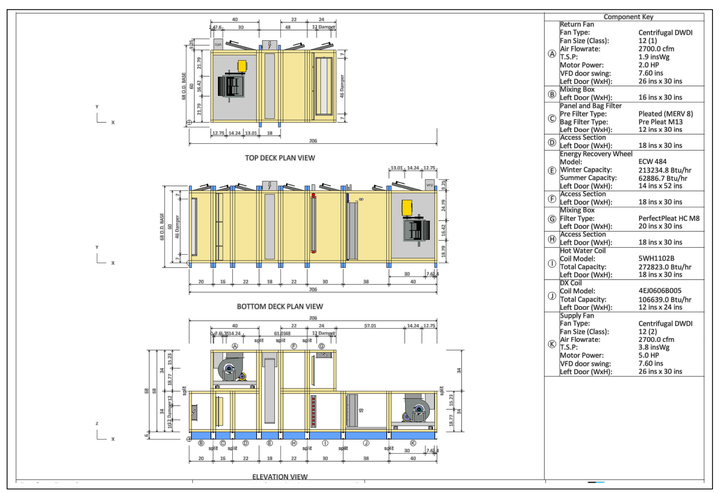


Component Key

	Return Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	12 (1)
A	Air Flowrate:	3000.0 cfm
	T.S.P:	1.8 insWg
	Motor Power:	3.0 HP
	VFD door swing:	7.60 ins
	Right Door (WxH):	26 ins x 30 ins
B	Mixing Box	
	Right Door (WxH):	16 ins x 30 ins
	Panel and Bag Filter	
C	Pre Filter Type:	Pleated (MERV 8)
	Bag Filter Type:	Pre Pleat M13
	Right Door (WxH):	12 ins x 30 ins
D	Access Section	
	Right Door (WxH):	8 ins x 30 ins
	Energy Recovery Wheel	
	Model:	ECW 484
E	Winter Capacity:	215548.3 Btu/hr
	Summer Capacity:	67636.3 Btu/hr
	Right Door (WxH):	14 ins x 52 ins
	Mixing Box	
F	Filter Type:	PerfectPleat HC M8
	Right Door (WxH):	20 ins x 30 ins
G	Access Section	
	Right Door (WxH):	8 ins x 30 ins
H	Access Section	
	Right Door (WxH):	8 ins x 30 ins
	Hot Water Coil	
I	Coil Model:	5WH1102B
	Total Capacity:	292037.0 Btu/hr
	Right Door (WxH):	18 ins x 30 ins
	Supply Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	12 (2)
J	Air Flowrate:	3000.0 cfm
	T.S.P:	3.7 insWg
	Motor Power:	5.0 HP
	VFD door swing:	7.60 ins
	Right Door (WxH):	26 ins x 30 ins

DETAIL OF AHU-11 (AUTOMOTIVE LAB RM #300)

SCALE: NTS



Component Key

	Return Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	12 (1)
A	Air Flowrate:	2700.0 cfm
	T.S.P:	1.9 insWg
	Motor Power:	2.0 HP
	VFD door swing:	7.60 ins
	Left Door (WxH):	26 ins x 30 ins
B	Mixing Box	
	Left Door (WxH):	16 ins x 30 ins
C	Panel and Bag Filter	
	Pre Filter Type:	Pleated (MERV 8)
	Bag Filter Type:	Pre Pleat M13
	Left Door (WxH):	12 ins x 30 ins
D	Access Section	
	Left Door (WxH):	18 ins x 30 ins
	Energy Recovery Wheel	
E	Model:	ECW 484
	Winter Capacity:	213234.8 Btu/hr
	Summer Capacity:	62886.7 Btu/hr
	Left Door (WxH):	14 ins x 52 ins
F	Access Section	
	Left Door (WxH):	18 ins x 30 ins
	Mixing Box	
G	Filter Type:	PerfectPleat HC M8
	Left Door (WxH):	20 ins x 30 ins
H	Access Section	
	Left Door (WxH):	18 ins x 30 ins
	Hot Water Coil	
I	Coil Model:	5WH1102B
	Total Capacity:	272823.0 Btu/hr
	Left Door (WxH):	18 ins x 30 ins
	DX Coil	
J	Coil Model:	4EJ0606B005
	Total Capacity:	106639.0 Btu/hr
	Left Door (WxH):	12 ins x 24 ins
	Supply Fan	
	Fan Type:	Centrifugal DWDI
	Fan Size (Class):	12 (2)
K	Air Flowrate:	2700.0 cfm
	T.S.P:	3.8 insWg
	Motor Power:	5.0 HP
	VFD door swing:	7.60 ins
	Left Door (WxH):	26 ins x 30 ins

DETAIL OF AHU-3 (NORTH CLASSROOM WING)

SCALE: NTS

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

AIR HANDLING UNIT DETAILS #1

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-04-28 M. J. HUGHES 100206759 PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M610

SCHEDULE OF AIR HANDLING UNITS

TAG	MANUFACTURER	MODEL	LOCATION	AREA SERVED	WEIGHT	DIMENSIONS			DESIGN AIRFLOW	OUTDOOR AIR		AIR FILTRATION		DX COOLING										GAS HEATING						HYDRONIC HEATING COIL									HEAT PUMP HEATING (BASED ON 8.3°C / 6.1°C OAT)				REMARKS
														EVAPORATOR						OAT (°C)	REF. TYPE	REF. CHARGE (LBS)	FUEL		TURNDOWN	INPUT	OUTPUT	TEMP. RISE	HEATING FLUID	CAPACITY	FLUID FLOW	FLUID PRESSURE DROP	ENT. FLUID TEMP.	LEAV. FLUID TEMP.	EAT DB	LAT DB	CAPACITY	AIR TEMP.		COP	
						W	L	H				PRE-FILTER	FINAL FILTER	CAPACITY (KW)		EAT (°C)		LAT (°C)					TYPE	PRESSURE														EAT	LAT		
					(KG)	(MM)	(MM)	(MM)	(L/S)	(L/S)	%			SENSIBLE	TOTAL	DB	WB	DB	WB	DB						(KW)	(KW)	(°C)		(KW)	(L/S)	(KPA)	(°C)	(°C)	(°C)	(°C)	(KW)	DB (°C)	DB (°C)		
AHU-3	DAIKIN	CAH009GDAM	MECH RM. #3	NORTH CLASSROOM WING	1,911	1524	5232	1880	1,275	1,275	100	50MM PLEATED MERV8	100MM PLEATED MERV13	19.8	31.2	25.4	19.2	12.5	11.8	30	R32	36.5	NO GAS HEATING SECTION						50% PROP. GLYCOL	79.9	1.89	32.1	71.1	60.0	-24	27.4	33.4	8.3	29.9	3.4	
AHU-8	DAIKIN	CAH006GDAM	MECH RM. #6	MAIN OFFICE	1,023	1169	3659	1880	945	120	13	50MM PLEATED MERV8	100MM PLEATED MERV13	14.9	20.9	24.6	17.8	11.4	10.8	30	R32	19.9	NO GAS HEATING SECTION						50% PROP. GLYCOL	11.5	0.28	1.8	71.1	60.0	16.7	26.7	20.2	16.7	26.7	3.6	
AHU-9	DAIKIN	CAH013GDGM	MECH RM. #6	SOUTH CLASSROOM WING	2,241	1829	5130	2184	2,600	2,600	100	50MM PLEATED MERV8	100MM PLEATED MERV13	42.4	67.6	25.8	19.6	12.1	11.7	30	R32	32.9 x 2	NO GAS HEATING SECTION						50% PROP. GLYCOL	150.1	3.55	14.4	71.1	60.0	-24	23.8	66.8	8.3	29.9	3.4	
AHU-11	DAIKIN	CAH009GHAM	MECH RM. #9	AUTOMOTIVE LAB 300	1,390	1524	3759	1880	1,415	1,415	100	50MM PLEATED MERV8	100MM PLEATED MERV13	NO COOLING COIL									NO GAS HEATING SECTION						50% PROP. GLYCOL	85.6	1.98	35.1	71.1	60.0	-24	25.6	NO HEAT PUMP COIL				
AHU-16	DAIKIN	CH005GHAM	MECH RM. #9	WEIGHT ROOM 301	665	1016	2438	1778	825	425	52	50MM PLEATED MERV8	100MM PLEATED MERV13	NO COOLING COIL									NO GAS HEATING SECTION						50% PROP. GLYCOL	30.9	0.66	9.0	71.1	60.0	-1.4	29.4	NO HEAT PUMP COIL				
RTU-1	DAIKIN	DPS07B	ROOF	NORTHWEST CLASSROOMS	1,175	1864	3089	2182	1,200	1,200	100	50MM PLEATED MERV8	100MM PLEATED MERV13	19.8	27.7	25.9	18.9	11.8	11.8	30	R32	14.9	NATURAL GAS	1.75 - 3.5 KPA (7"-14" W.C.)	5:1	87.9	71.2	48.8	NO HYDRONIC HEATING SECTION								10.5	8.3	15.6	3.3	SEPARATE PRICE

NOTES

1. ROOFTOP UNITS SHALL BE COMPLETE WITH A SINGLE POINT POWER CONNECTION AND SHALL BE PROVIDED WITH A BACNET CONTROLLER. PROVIDE 120V/1PH/60HZ FIELD WIRED RECEPTACLE. RECEPTACLE SHALL BE 20A, GFI PROTECTED AND INSTALLED IN WEATHERPROOF ENCLOSURE.
2. INDOOR UNITS SHALL BE PROVIDED WITH SEPARATE POWER CONNECTIONS. PROVIDE 120V/1PH/60HZ FOR HEAT PUMP CONTROL PANEL.
3. FAN MOTORS FOR UNITS IDENTIFIED WITH "VFD" SHALL BE PREMIUM EFFICIENCY INVERTER DUTY RATED.
4. EACH UNIT SHALL BE IN COMPLIANCE WITH ASHRAE STANDARD 90.1 EFFICIENCY REQUIREMENTS.
5. EACH UNIT TO BE COMPLETE WITH ECONOMIZER.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SCHEDULE OF AIR HANDLING UNITS (CONT'D)

TAG	ENERGY RECOVERY PERFORMANCE (WINTER)						ENERGY RECOVERY PERFORMANCE (SUMMER)						SUPPLY FAN														EXHAUST / RETURN FAN													ELECTRICAL				REMARKS
	AIRFLOW	AIR TEMP.		APD	ENERGY RECOVERY	EFF	AIRFLOW	AIR TEMP.		APD	ENERGY RECOVERY	EFF	AIRFLOW	ESP	TSP	FAN RPM	BHP	MOTOR HP	VFD	SOUND POWER LEVELS, dB									AIRFLOW	ESP	TSP	FAN RPM	BHP	MOTOR HP	VFD	SOUND POWER LEVELS, dB									FLA	MCA	MOCP	POWER (V/PH/HZ)	
		EAT	LAT					EAT	LAT											OCTAVE BAND CENTER FREQUENCY, HZ																OCTAVE BAND CENTER FREQUENCY, HZ												
	(L/S)	DB/WB (°C)	DB/WB (°C)	(Pa)	(kW)	(%)	(L/S)	DB/WB (°C)	DB/WB (°C)	(Pa)	(kW)	(%)	(L/S)	(PA)	(PA)					63	125	250	500	1000	2000	4000	8000	(L/S)	(PA)	(PA)					63	125	250	500	1000	2000	4000	8000					
AHU-3	1,275	-24.0 / -24.0	9.1 / 3.9	198	62.5	75.2	1,275	30.0 / 22.8	25.4 / 19.2	183	18.4	66.0	1,275	375	960	1656	2.8	5	YES	85	90	85	82	87	83	78	77	1,275	250	475	1151	1.4	2	YES	75	80	68	66	71	67	61	60	-	-	-	208/3/60	
AHU-8	NO ENERGY RECOVERY												945	375	792	2019	2	3	YES	81	81	78	77	77	78	75	72	945	190	215	1313	0.99	2	YES	74	74	70	69	71	68	67	64	-	-	-	208/3/60	
AHU-9	2,600	-24.0 / -24.0	7.9 / 3.2	268	108.9	69.2	2,600	30.0 / 22.8	25.8 / 19.6	245	34.6	60.4	2,600	435	1235	2459	6.5	7.5	YES	86	76	79	89	87	84	78	71	2,600	315	630	913	3.71	5	YES	76	71	67	68	68	64	60	55	-	-	-	208/3/60	
AHU-11	1,415	-24.0 / -24.0	13.0 / 8.9	218	63.2	70.5	1,415	30.0 / 22.8	25.6 / 19.4	205	19.8	63.7	1,415	375	918	1607	2.95	5	YES	85	90	85	82	87	83	78	77	1,415	190	445	1121	1.53	3	YES	76	81	69	67	72	68	62	61	-	-	-	208/3/60	
AHU-16	NO ENERGY RECOVERY												825	375	720	1919	1.56	3	YES	80	80	77	76	78	75	74	71	825	190	218	1257	0.77	1.5	YES	73	73	69	68	70	67	66	63				208/3/60	
RTU-1	1,200	-24.0 / -24.0	8.4 / 3.8	168	56.8	72.0	1,200	30.0 / 22.8	25.6 / 18.7	168	20.0	68.0	1,200	375	900	2781	2.25	-	ECM	78	80	88	85	88	87	84	79	1,200	250	438	2263	-	3	YES	78	77	85	80	82	81	76	71	58.5	65	90	208/3/60	SEPARATE PRICE

SCHEDULE OF SILENCERS

TAG	SYSTEM SERVED	TYPE	MANUFACTURER	MODEL NUMBER	DIMENSIONS			AIRFLOW	VELOCITY (NOTE 4)	PD (NOTE 5)	MAX. PD W/ SYSTEM EFFECT (NOTE 6)	HTL CASING EQUIV. GAUGE	MINIMUM DYNAMIC INSERTION LOSS, dB (NOTE 5)								REMARKS
					DUCT WIDTH	DUCT HEIGHT	DUCT LENGTH (NOTE 2)						OCTAVE BAND CENTER FREQUENCY, HZ								
					MM	MM	MM	L/S	M/S	PA	PA		63	125	250	500	1000	2000	4000	8000	
SL-1S	RTU-1	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-HV-A1255159	300	700	1800	1200	6	36	55	10	7	11	20	27	43	42	30	22	
SL-1R	RTU-1	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-UHV-A1255159	300	700	2600	1200	-6	24	71	10	8	14	25	30	39	39	33	21	
SL-3S	AHU-3	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-HV-A1255159	400	600	2100	1275	5	25	81	-	8	12	18	25	27	29	24	20	
SL-3R	AHU-3	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-UHV-A1255159	300	800	1800	1275	-5	21	51	-	6	11	15	25	30	31	25	19	
SL-8S	AHU-8	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-UHV-A1255159	450	400	1800	950	5	13	21	-	6	8	11	21	22	28	21	17	
SL-8R	AHU-8	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-MV-A1255159	400	450	1200	950	-5	33	55	-	6	11	18	20	21	16	14	11	
SL-9S	AHU-9	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-UHV-A1255159	900	700	1500	2600	6	25	80	-	5	4	10	24	38	33	21	17	
SL-9R1	AHU-9	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-HV-A1255159	900	300	1500	1595	-6	17	61	-	3	6	15	28	29	21	13	9	
SL-9R2	AHU-9	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-MV-A1255159	700	300	1500	1005	-5	34	57	-	6	12	21	26	28	20	15	13	
SL-11S	AHU-11	T-ELBOW DISSIPATIVE	VIBRO ACOUSTICS	TRED-HV-A1255159	SEE NOTE 10		2700	1415	6	27	85	-	6	18	26	40	43	42	35	24	
SL-11R	AHU-11	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-MHV-A1255159	700	350	1800	1415	-6	33	56	-	7	13	21	28	28	20	15	13	
SL-16S	AHU-16	RECT. ELBOW DISSIPATIVE	VIBRO ACOUSTICS	RED-HV-A1255159	550	350	1800	825	5	14	43	-	9	10	13	20	22	24	20	16	
SL-16R	AHU-3	RECTANGULAR DISSIPATIVE	VIBRO ACOUSTICS	RD-MV-A1255159	500	350	1200	825	-5	26	37	-	4	9	15	25	31	23	15	10	

NOTES

1. SOUNDS POWER LEVELS FOR EQUIPMENT IS TO BE CONFIRMED WITH APPROVED SHOP DRAWINGS.
2. LENGTH SHOWN FOR ELBOW SILENCERS IS CENTERLINE LENGTH.
3. TARGET NC LEVELS WITHIN SPACES ARE AS FOLLOWS:
   CLASSROOMS - NC-35
   CORRIDORS - NC-40
   AUTOMOTIVE LAB 300 & WEIGHT ROOM 301 - NC-40
4. VELOCITY SHOWN IS + (FORWARD FLOW) OR - (REVERSE FLOW) AS DEFINED BY ASTM E477-20.
5. IDEAL PRESSURE DROP AS DETERMINED PER ASTM E477-20 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY.
6. PRESSURE DROP PER ASTM E477-20 PLUS SYSTEM EFFECTS FOR NEARBY DUCT ELEMENTS.
7. MINIMUM DYNAMIC INSERTION LOSS DETERMINED PER ASTM E477-20 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY.
8. MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED ACOUSTICAL CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT DUCTBORNE FAN SOUND LEVELS, INCLUDING AIRBORNE AND BREAKOUT NOISE, MEET THE REQUIRED CRITERIA.
9. MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED PRESSURE DROP CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT INSTALLED PRESSURE DROP WITH SYSTEM EFFECTS DOES NOT EXCEED SCHEDULED VALUES.
10. REFER TO FLOORPLANS FOR INLET AND OUTLET DIMENSIONS FOR T-ELBOW SILENCERS.

SCHEDULE OF FANS

TAG	MANUFACTURER	MODEL	LOCATION	AREA SERVED	WEIGHT (KG)	DESIGN AIRFLOW	ESP	RPM	BHP	MOTOR HP	ELECTRICAL		REMARKS
											MCA	POWER	
						(L/S)	(PA)				(A)	(V/PH/HZ)	
DE-1	REVERSOMATIC	RI-250	318 LAUNDRY	DRYER EXHAUST	-	75	125	1290	-	0.10	0.8	115/1/60	2, 3, 4
MRE-1	GREENHECK	CSP-A700-VG	MECH RM #3	MECH RM #3	17.7	305	100	1143	0.17	-	5.1	115/1/60	4,5
MRE-2	GREENHECK	G-120-VG	ROOF	MECH RM #6	26.8	305	75	947	0.08	1/4	4.8	115/1/60	1,4,5
MRE-3	GREENHECK	CSP-A510-VG	MECH RM #9	MECH RM #9	16.4	180	125	1220	0.13	-	3.1	115/1/60	4,5
MRE-4	GREENHECK	G-090-G	ROOF	MECH RM #7	19.5	150	100	1300	0.04	1/25	-	115/1/60	1,4
WEF-1	GREENHECK	G-120-VG	ROOF	WR AREA 320-328	26.8	415	100	1015	0.1	1/4	4.8	115/1/60	1,4,5

NOTES

1. C/W 450MM HIGH ROOF CURB
2. C/W DAS-200 AMP SENSOR FAN CONTROL AND LT-300-45 LINT TRAP
3. C/W BACKDRAFT DAMPER
4. FANS SHALL BE PROVIDED WITH SEISMIC RESTRAINTS. REFER TO SPECIFICATIONS.
5. DIRECT FANS TO BE C/W SPEED CONTROLLER FOR BALANCING PURPOSES.

SCHEDULE OF LOUVRED PENTHOUSES

TAG	SYSTEM	LOCATION	MANUFACTURER	MODEL	AIRFLOW (L/S)	PRESSURE DROP (PA)	THROAT LENGTH (MM)	THROAT WIDTH (MM)	HEIGHT (MM)	REMARKS
LPH-1	AHU-9 EXHAUST	ROOF	GREENHECK	WRH-40x22	2,600	31	1000	550	700	
LPH-2	MECH ROOM #9 INTAKE	ROOF	GREENHECK	WIH-50x28	2,420	13	1250	700	800	

NOTES

1. C/W BIRDSCREEN
2. C/W ROOF CURB

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2	ISSUED FOR REVIEW	2026-04-14	MH
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL SCHEDULES #1

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100205759 — PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M700

SCHEDULE OF GLYCOL MIXING UNIT

TAG	MANUFACTURER	MODEL	SYSTEM SERVED	SIZE WIDTH x HEIGHT (MM)	TANK VOLUME (L)	POWER (V/PH/HZ)	PRESSURE RANGE (PSI)	CONNECTION SIZE (MM)	REMARKS
GMU-1	ARMSTRONG	GLA-S-HP-1	AHU-3 GLYCOL	600x600	200	120/1/60	4-90	12	

NOTES

1 REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

2. TANK TO BE SEISMICALLY RESTRAINED. REFER TO SPECIFICATIONS.

SCHEDULE OF RADIANT CEILING PANELS

TAG	MANUFACTURER	PANEL WIDTH (mm)	PANEL OUTPUT (W/M)	AVERAGE WATER TEMPERATURE (°C)	# OF TUBES	REMARKS
RP-A	AIRTEX	305	204	77	2	
RP-B	AIRTEX	457	291	77	2	

NOTES

1. CAPACITIES BASED ON AIR TEMPERATURE OF 21.1°C (70°F) AND TEMPERATURE DROP OF 11.1°C (20°F).
2. RADIANT CEILING PANELS ARE TO EXTEND FULL WIDTH OF WALL WITHIN SPACES. LENGTHS SHOWN ON FLOOR PLANS REFER TO ACTIVE LENGTH.

SCHEDULE OF MOTORIZED UNIT HEATERS

TAG	MANUFACTURER	MODEL	LOCATION	CAPACITY (kW)	AIRFLOW (L/S)	WATER (L/S)	EWT (°C)	LWT (°C)	EAT (°C)	MOTOR		REMARKS
										HP	VOLTAGE	
UH-1	ENGINEERED AIR	H2	MECH RM. #3	10.2	293	0.15	82	66	16	1/20	120/1/60	HORIZONTAL, CEILING HUNG
UH-2	ENGINEERED AIR	H2	MECH RM. #6	11.1	293	0.25	82	71	16	1/20	120/1/60	HORIZONTAL, CEILING HUNG
UH-3	ENGINEERED AIR	H1	MECH RM. #9	8.6	260	0.19	82	71	16	1/20	120/1/60	HORIZONTAL, CEILING HUNG

NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

SCHEDULE OF GRILLES AND DIFFUSERS

TYPE	MANUFACTURER	MODEL	DESCRIPTION	VOLUME CONTROL	FINISH	OPTIONS	REMARKS
A	E.H. PRICE	SCD	SQUARE CONE DIFFUSER	YES	TO ARCH. DIRECTION	SIZE: 24"x24" (600mm x 600mm) FRAME: 31 T-BAR LAY IN	REFER TO FLOOR PLANS FOR NECK SIZE AND AIRFLOWS.
B	E.H. PRICE	80	EGG CRATE EXHAUST	YES	TO ARCH. DIRECTION	DUCTED: F BORDER	REFER TO FLOOR PLANS FOR SIZE OF GRILLES.
C	E.H. PRICE	80	EGG CRATE RETURN	NO	TO ARCH. DIRECTION	NON-DUCTED: CORE	REFER TO FLOOR PLANS FOR SIZE OF GRILLES.
D	E.H. PRICE	510Z	LOUVRED FACE EXHAUST	YES	TO ARCH. DIRECTION	DUCTED 0° DEFLECTION 3/4" BLADE SPACING	REFER TO FLOOR PLANS FOR SIZE OF GRILLES.
E	E.H. PRICE	510	LOUVRED FACE EXHAUST	YES	TO ARCH. DIRECTION	DUCTED 0° DEFLECTION 3/4" BLADE SPACING	REFER TO FLOOR PLANS FOR SIZE OF GRILLES.

NOTES

1. CONFIRM FINISH WITH ARCHITECT PRIOR TO ORDER
2. REFER TO DRAWINGS FOR QUANTITIES.

SCHEDULE OF AIR SEPARATORS

TAG	SYSTEM	LOCATION	MANUFACTURER	MODEL	MAX FLOW RATE (L/S)	OUTLET SIZE (MM)	REMARKS
AS-1	AHU-3 GLYCOL HEATING	MECHANICAL ROOM #3	TACO	4902A-125	1.89	50	

NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

SCHEDULE OF EXPANSION TANKS

TAG	SYSTEM	LOCATION	MAKE	MODEL	TYPE	SIZE DIA. x LENGTH (MM)	WEIGHT (KG)	VOLUME (L)	ACCEPTANCE VOLUME (L)	RELIEF PRESSURE (KPA)	REMARKS
ET-1	AHU-3 GLYCOL HEATING	MECH RM #3	TACO	CBX30-125	BLADDER	305 x 356	41	30	19	415	

NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

SCHEDULE OF HEATING WATER PUMPS

TAG	SYSTEM	NO. REQ'D	OPERATION	LOCATION	MANUFACTURER	MODEL	FLANGE SIZE (MM)	WEIGHT (KG)	FLOW (L/S)	HEAD (KPA)	RPM	AMPS	MOTOR KW	VARIABLE SPEED	POWER (V/Ø/Hz)	REMARKS
GHP-1 & GHP-2	AHU-3 GLYCOL HEATING	2	DUTY-STANDBY	MECH ROOM #3	TACO	1919-4P-PM	50	57	1.89	135	1760	-	1.1	NO	208/3/60	-
P-108 & P-109	SOUTH WING PERIMETER HEATING	2	DUTY-STANDBY	MECH ROOM #6	TACO	KV2006D-4P-PM	50	72	5.36	60	1760	-	0.75	NO	208/3/60	-

NOTES

1. PUMPED TO BE SEISMICALLY RESTRAINED WITH SEISMIC PUMP STAND. REFER TO SPECIFICATIONS.

SCHEDULE OF VRF INDOOR FAN COIL UNITS

TAG	AREA SERVED	MANUFACTURER	MODEL	DIMENSIONS			WEIGHT	AIFLOW	EXTERNAL STATIC PRESSURE (RATED/MAX)	COOLING PERFORMANCE				HEATING PERFORMANCE		SOUND PRESSURE LEVEL	ELECTRICAL			REMARKS
										EAT (C)		SENSIBLE COOLING	TOTAL COOLING	EAT (C)	HEATING CAPACITY		MCA	MOP	POWER (V/PH/HZ)	
				WIDTH	LENGTH	HEIGHT														
				(MM)	(MM)	(MM)	(KG)	(L/S)	(PA)	DB	WB	(KW)	(KW)	DB	(KW)	(dB)				
FCU-1	WEIGHT ROOM 301	DAIKIN	FBA18AAVJU	1000	800	226	37	300	150	23.9	17.2	4.3	5.2	21.1	5.9	32-38	1.9	15	208-230/1/60	

NOTES

1 REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

2 UNIT TO BE PROVIDED WITH INTEGRAL CONDENSATE PUMP SET

3 UNIT TO HAVE MULITPLE FAN SPEED SETTINGS.

4 SUSPEND UNIT AND SECURE WITH SEISMIC RESTRAINTS. REFER TO SPECIFICATIONS.

5 PROVIDE BACNET IP/MSTP GATEWAY FOR INTEGRATION WITH BUILDING AUTOMATION SYSTEM.

SCHEDULE OF VRF OUTDOOR UNITS

TAG	ASSOCIATED SYSTEM	MANUFACTURER	MODEL	WEIGHT	DIMENSIONS			COOLING PERFORMANCE			HEATING PERFORMANCE			REFRIGERANT	ELECTRICAL			REMARKS
					WIDTH	LENGTH	HEIGHT	OUTDOOR AMBIENT DB	RATED CAPACITY	EER2/EER	OUTDOOR AMBIENT	RATED CAPACITY	COP	TYPE	MCA	MOCP	POWER (V/PH/HZ)	
				(KG)	(MM)	(MM)	(MM)	(°C)	(KW)		(°C)	(KW)						
CU-1	FCU-1	DAIKIN	RZA18AAVJU	106	487	1100	870	35	5.2	13.5	8.3	5.9	-	R32	19.8	20	208-230/1/60	
CU-3	AHU-3	DAIKIN	RXYA120AATJA	336	737	1240	1660	35	33.4	11.1	8.3	33.4	3.4	R32	40	45	208-230/3/60	
CU-8	AHU-8	DAIKIN	RXYA72AATJA	250	737	930	1660	35	20.2	12.4	8.3	20.2	3.6	R32	33	35	208-230/3/60	
CU-9A & CU-9B	AHU-9	DAIKIN	RXYA120AATJA	336	737	1240	1660	35	33.4	11.1	8.3	33.4	3.4	R32	40	45	208-230/3/60	

NOTES

1 REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

2 OUTDOOR UNITS SHALL BE SECURED TO SLEEPER BEAMS AND SEISMICALLY RESTRAINED. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS.

3 CONTRACTOR TO DETERMINE PIPE LENGTHS AND CONFIRM SIZING AND REFRIGERANT CHARGE WITH VRF MANUFACTURER

4 PROVIDE BACNET IP/MSTP CARDS FOR INTEGRATION WITH BUILDING AUTOMATION SYSTEM.

5 PROVIDE DRAIN PAN HEATER.

SCHEDULE OF INDOOR ERV

TAG	MANUFACTURER	MODEL	WEIGHT	DIMENSIONS			ENERGY RECOVERY PERFORMANCE (WINTER)				ENERGY RECOVERY PERFORMANCE (SUMMER)				SUPPLY FAN			EXHAUST FAN			ELECTRICAL			REMARKS
							OUTDOOR AIRFLOW	EXHAUST AIRFLOW	EAT (C)	EFF.	OUTDOOR AIRFLOW	EXHAUST AIRFLOW	EAT (C)	EFF.	AIRFLOW	ESP	FILTER	AIRFLOW	ESP	FILTER	MCA	MOCP	POWER (V/PH/HZ)	
				WIDTH	LENGTH	HEIGHT																		
			(KG)	(MM)	(MM)	(MM)	(L/S)	(L/S)	DB / WB	(%)	(L/S)	(L/S)	DB / WB	(%)	(L/S)	(PA)		(L/S)	(PA)					
ERV-1	ALDES	E650-FI-EC	-	816	1060	606	100	100	-24 / -24	75	100	100	30 / 23	59	100	125	MERV-8	100	125	MERV-8	3.3	15	208/1/60	

NOTES

1 REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

2 UNIT TO BE PROVIDED CONTROLS FOR INTEGRATION INTO BUILDING AUTOMATION SYSTEM.

3 UNIT TO BE HUNG FROM STRUCTURE AND SEISMICALLY RESTRAINED AS PER SPECIFICATIONS.

SCHEDULE OF PLATE AND FRAME HEAT EXCHANGERS

TAG	MANUFACTURER	MODEL	LOCATION	CAPACITY (KW)	EFFECTIVE HEAT SURFACE (M2)	HOT SIDE						COLD SIDE						REMARKS
						MEDIUM	FLOW (L/S)	EWT (°C)	LWT (°C)	P.D (KPA)	CONNECTION SIZE (MM)	MEDIUM	FLOW (L/S)	EWT (°C)	LWT (°C)	P.D (KPA)	CONNECTION SIZE (MM)	
HEX-1	TACO	PF-4206-11-4-NH	MECH RM. #3	79.2	1.88	WATER	1.17	82	66	9.6	3	50% PG	1.89	60	71	30.8	3	

NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL SCHEDULES #2

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES 100206759 — PROVINCE OF ONTARIO

PROJECT NO: **25184**

DRAWING NO: M701

SCHEDULE OF CONTROL VALVES

TAG	AREA SERVED	MANUFACTURER	ASSEMBLY PART NO.	VALVE BODY NO.	ACTUATOR PART NO.	MEDIUM	FLOW	VALVE CV	ACTUAL PRESSURE DROP	PIPE SIZE	VALVE SIZE	REMARKS
							L/S		KPA	MM	MM	
CV-3	AHU-3 GLYCOL HEATING	BELIMO	G325B-L + NFB24-SR-X1	G325B-L	NFB24-SR-X1	50% PROP. GLYCOL	1.17	14	11.8	38	25	FAIL OPEN, 3-WAY, MIXING
CV-8	AHU-8 HEATING	BELIMO	G315B-G + NFB24-SR-X1	G315B-G	NFB24-SR-X1	50% PROP. GLYCOL	0.28	2.2	27.7	25	12	FAIL OPEN, 3-WAY, MIXING
CV-9	AHU-9 HEATING	BELIMO	G340B-N + AFB24-SR-X1	G340B-N	AFB24-SR-X1	50% PROP. GLYCOL	3.55	28	27.7	65	38	FAIL OPEN, 3-WAY, MIXING
CV-11	AHU-11 HEATING	BELIMO	G325B-L + NFB24-SR-X1	G325B-L	NFB24-SR-X1	50% PROP. GLYCOL	1.98	14	34.7	50	25	FAIL OPEN, 3-WAY, MIXING
CV-16	AHU-16 HEATING	BELIMO	G320B-K + NFB24-SR-X1	G320B-K	NFB24-SR-X1	50% PROP. GLYCOL	0.66	6.75	16.6	32	20	FAIL OPEN, 3-WAY, MIXING
CV-21	MECH. RM #3 - UH-1	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.25	3	12.5	20	12	FAIL OPEN
CV-22	MECH. RM #6 - UH-2	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.25	3	12.5	20	12	FAIL OPEN
CV-23	MECH. RM #9 - UH-3	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.19	3	6.9	20	12	FAIL OPEN
CV-102	CLASSROOM 102	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.13	1.9	7.6	32	12	FAIL OPEN
CV-104	CLASSROOM 104	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.13	1.9	7.6	32	12	FAIL OPEN
CV-105	YOUTH HUB 105	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.16	1.9	11.8	25	12	FAIL OPEN
CV-107	CLASSROOM 107	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.21	3	8.3	25	12	FAIL OPEN
CV-108	GEO. RM 108	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.17	1.9	13.9	25	12	FAIL OPEN
CV-120	CUST. ROOM	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.06	0.8	11.1	20	12	FAIL OPEN
CV-203	CLASSROOM 203	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.21	3	8.3	25	12	FAIL OPEN
CV-204	STORAGE 204	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.05	0.8	6.9	20	12	FAIL OPEN
CV-205	CLASSROOM 205	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.21	3	8.3	25	12	FAIL OPEN
CV-207	CLASSROOM 207	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.25	3	12.5	25	12	FAIL OPEN
CV-209	CLASSROOM 209	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.20	3	7.6	25	12	FAIL OPEN
CV-211	CLASSROOM 211	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.24	3	11.1	25	12	FAIL OPEN
CV-212	OFFICE 212	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.06	0.8	11.1	20	12	FAIL OPEN
CV-214	STAFF OFFICE 214	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.06	0.8	11.1	20	12	FAIL OPEN
CV-218	OFFICE 218	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.05	0.8	6.9	20	12	FAIL OPEN
CV-301	WEIGHT ROOM 301	BELIMO	B213+TFRB24-SR	B213	TFRB24-SR	HEATING WATER	0.41	4.7	13.2	32	12	FAIL OPEN
CV-305	PLP CLASSROOM 305	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.23	3	9.7	25	12	FAIL OPEN
CV-305B	MM. ROOM	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.06	0.8	11.1	20	12	FAIL OPEN
CV-309	PLP CLASSROOM 309	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.23	3	9.7	25	12	FAIL OPEN
CV-310	GUIDANCE OFFICE 310	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.25	3	12.5	25	12	FAIL OPEN
CV-311	CLASSROOM 311	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.23	3	9.7	25	12	FAIL OPEN
CV-312	ACADEMIC RESOURCE 312	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.20	3	7.6	25	12	FAIL OPEN
CV-313	CLASSROOM 313	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.23	3	9.7	25	12	FAIL OPEN
CV-314	CLASSROOM 314	BELIMO	B212+TFRB24-SR	B212	TFRB24-SR	HEATING WATER	0.20	3	7.6	25	12	FAIL OPEN
CV-315	CLASSROOM 315	BELIMO	B213+TFRB24-SR	B213	TFRB24-SR	HEATING WATER	0.30	4.7	6.9	25	12	FAIL OPEN
CV-316	CLASSROOM 316	BELIMO	B213+TFRB24-SR	B213	TFRB24-SR	HEATING WATER	0.28	4.7	6.2	25	12	FAIL OPEN
CV-317	VP OFFICE 317	BELIMO	B210+TFRB24-SR	B210	TFRB24-SR	HEATING WATER	0.08	1.2	7.6	20	12	FAIL OPEN
CV-318	LAUNDRY 318 & WR 320A/320B	BELIMO	B208+TFRB24-SR	B208	TFRB24-SR	HEATING WATER	0.03	0.46	6.9	20	12	FAIL OPEN
CV-319	GENERAL OFFICE	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.17	1.9	13.9	20	12	FAIL OPEN
CV-320	WR 320C/320D/320E/328D	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.05	0.8	6.9	20	12	FAIL OPEN
CV-321	WORK ROOM 321	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.07	0.8	13.2	20	12	FAIL OPEN
CV-325	VP OFFICE 325	BELIMO	B210+TFRB24-SR	B210	TFRB24-SR	HEATING WATER	0.10	1.2	11.8	20	12	FAIL OPEN
CV-328	WR 328/328A/328B	BELIMO	B208+TFRB24-SR	B208	TFRB24-SR	HEATING WATER	0.03	0.46	6.9	20	12	FAIL OPEN
CV-329	PRINCIPAL OFFICE 329	BELIMO	B211+TFRB24-SR	B211	TFRB24-SR	HEATING WATER	0.13	1.9	8.3	20	12	FAIL OPEN
CV-362	MECH. RM #7	BELIMO	B209+TFRB24-SR	B209	TFRB24-SR	HEATING WATER	0.05	0.8	6.9	12	12	FAIL OPEN

NOTES

1. VALVES AND ACTUATORS PROVIDED BY CONTROLS CONTRACTOR.
2. VALVES TO BE 2-WAY MODULATING TYPE UNLESS OTHERWISE NOTED.
3. VALVES TO HAVE FXF NPT CONNECTIONS.
4. VALVE TRIM TO BE BRASS.

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	2026-03-23	MH
2	ISSUED FOR REVIEW	2026-04-14	MH
3	ISSUED FOR PERMIT & TENDER	2026-04-28	MH

RDZ ENGINEERS LTD
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Vaughan, Ontario L4K 4A5
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DDSB TENDER NO.: T26-32

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

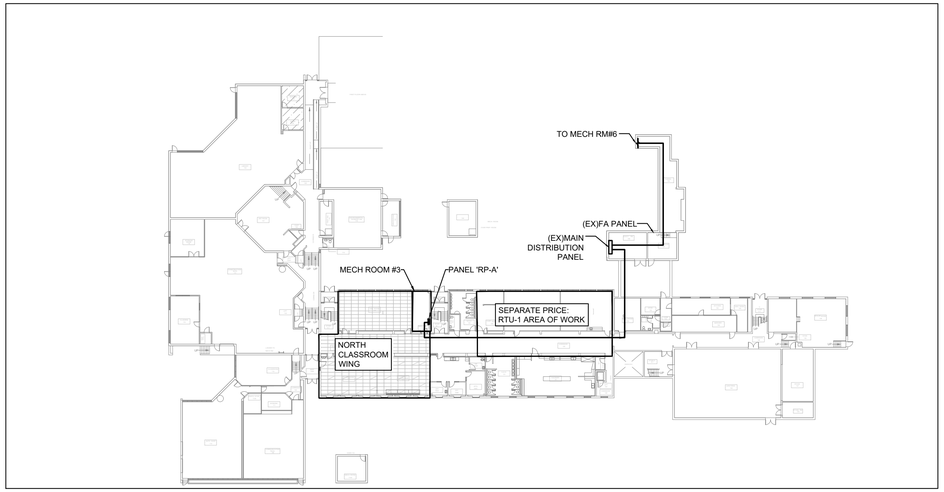
DRAWING:
MECHANICAL SCHEDULES #2

DESIGN BY:	MH
DRAWN BY:	MH
CHECKED BY:	GR
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL: LICENSED PROFESSIONAL ENGINEER — 2026-04-28 — M. J. HUGHES — 100206759 — PROVINCE OF ONTARIO

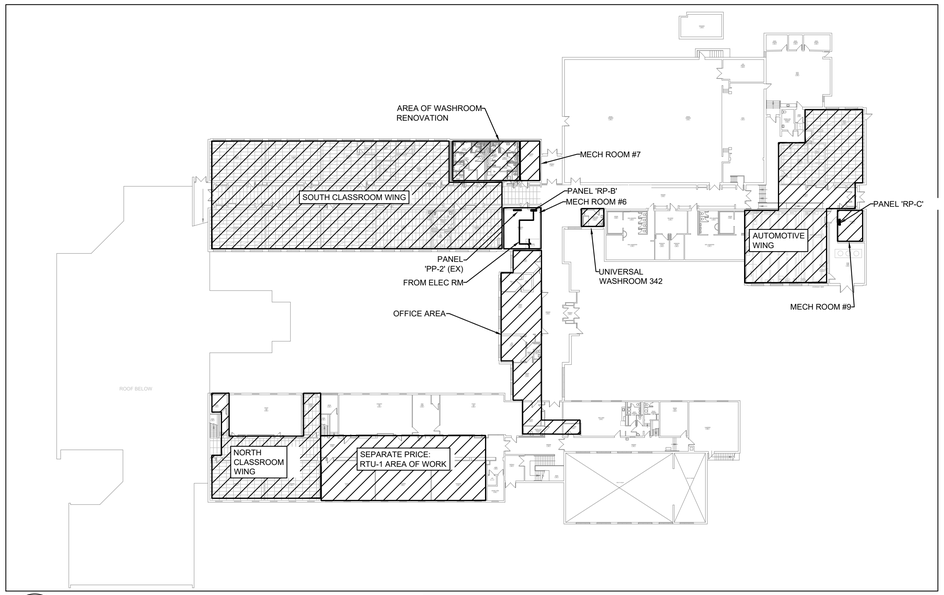
PROJECT NO: **25184**

DRAWING NO: M702



1 E-0.1 FIRST FLOOR KEY PLAN

Scale: NOT TO SCALE



2 E-0.1 SECOND FLOOR KEY PLAN

Scale: NOT TO SCALE

MECHANICAL DRAWING LIST

DRAWING NO.	DRAWING NAME
E100	ELECTRICAL SYMBOLS, NOTES AND KEY PLAN
E101	ELECTRICAL SPECIFICATION (1)
E102	ELECTRICAL SPECIFICATION (2)
E200	ELECTRICAL NORTH CLASSROOM WING 1ST FLOOR RCP PLAN
E201	ELECTRICAL NORTH CLASSROOM WING 2ND FLOOR RCP PLAN
E202	ELECTRICAL SOUTH CLASSROOM WING 2ND FLOOR RCP PLAN
E203	ELECTRICAL AUTOMOTIVE WING 2ND FLOOR RCP PLAN
E300	ELECTRICAL NORTH CLASSROOM WING 1ST FLOOR PWR PLAN
E301	ELECTRICAL NORTH CLASSROOM WING 2ND FLOOR PWR PLAN
E302	ELECTRICAL SOUTH CLASSROOM WING 2ND FLOOR PWR PLAN
E303	ELECTRICAL AUTOMOTIVE WING 2ND FLOOR PWR PLAN
E400	ELECTRICAL SOUTH WING UNIVERSAL WASHROOM PART PLAN
E500	ELECTRICAL ROOF PLAN - DEMOLITION
E501	ELECTRICAL ROOF PLAN - NEW
E600	ELECTRICAL DETAILS, PANEL SCHEDULE AND SINGLE LINE DIAGRAM
E700	ELECTRICAL FIRE ALARM SYSTEM RISER DIAGRAM AND DETAILS

GENERAL NOTES

1. FOR EXACT LOCATION OF LIGHTING FIXTURES REFER TO ARCH. DRAWINGS.
2. EXACT LOCATION FOR ALL OUTLETS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ROUGH-IN.
3. FOR EXACT LOCATION OF ALL A/C UNITS, PUMPS, FANS, MOTORS, HEATERS, ETC., SEE MECHANICAL DRAWINGS.
4. EXACT LOCATION OF POWER CONNECTION POINTS OF ALL PROCESS EQUIPMENT/DEVICES SHALL BE COORDINATED WITH PROCESS CONTRACTOR AND ON SITE.
5. ALL RECEPTACLES IF LOCATED FARTHER THAN 30,000mm FROM THE RESPECTIVE ELECTRICAL PANEL'S SHALL BE WIRED WITH #10 AWG AND FARTHER THAN 60,000mm SHALL BE WIRED WITH #8 AWG. FURTHER THAN 100,000mm, CONTRACTOR SHALL CONDUCT VOLTAGE DROP CALCULATION IN COMPLIANCE WITH OESC REQUIREMENT AND UPSIZE CONDUCTOR ACCORDINGLY.
6. CO-ORDINATE ALL WORK WITH MECHANICAL CONTRACTOR AND PROCESS CONTRACTOR.
7. STARTERS FOR FANS SHALL BE LOCATED ADJACENT TO CORRESPONDING PANEL BOARDS UNLESS OTHERWISE SHOWN.
8. ELECTRICAL CONTRACTOR SHALL CO-ORDINATE THEIR WORK TO SUIT THE PROJECT PHASE SCHEDULE.
10. PROVIDE BUSHINGS AT BOTH ENDS OF EACH CONDUIT/SLEEVE TERMINATED IN CEILING SPACE.
11. ALL EMPTY CONDUITS SHALL BE COMPLETE WITH PULLSTRINGS.
12. ALL PANEL SHUT DOWN WORK SHALL BE COMPLETED AFTER HOUR.
13. ALL FIRE ALARM WORK SHALL BE COMPLETED BY BASE BUILDING FIRE ALARM VENDOR.

NOTES: (RE-DEMOLITION LAYOUT)

1. DEMOLITION OF EXISTING MATERIALS AND/OR EQUIPMENT AS SHOWN ON DRAWINGS BY ELECTRICAL CONTRACTOR. WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH APPLICABLE PROVINCIAL AND MUNICIPAL BY-LAWS AND REGULATIONS.
2. DISCONNECT AND REMOVE ALL EQUIPMENT DESIGNATED FOR REMOVAL, RECONNECT ALL EQUIPMENT WHERE REQUIRED AND DISCONNECT AND CAP, OR ARRANGE FOR DISCONNECTING AND CAPPING, ALL MAIN SERVICES IN ACCORDANCE WITH THE AUTHORITIES HAVING JURISDICTION.
3. ALL MATERIALS AND/OR EQUIPMENT DESIGNATED FOR SALVAGE SHALL BE TURNED OVER TO THE OWNER. ALL OTHER MATERIALS AND/OR EQUIPMENT DESIGNATED FOR REMOVAL BECOMES THE PROPERTY OF THE DEMOLITION CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM THE SITE. UNDER NO CIRCUMSTANCES SHALL THE MATERIALS AND/OR EQUIPMENT BE SOLD DIRECTLY FROM THE SITE.
4. CONTACT OWNER PRIOR TO ANY DEMOLITION WORK. THE OWNER WILL DESIGNATE WHICH EQUIPMENT AND/OR MATERIALS ARE TO BE SALVAGED. DEMOLITION WORK IS TO PROCEED ONLY AFTER OWNER'S APPROVAL HAS BEEN OBTAINED.
5. FOR EXACT LOCATION OF MECHANICAL EQUIPMENT WHICH SHALL BE REMOVED, COORDINATE WITH MECHANICAL DIVISION DRAWINGS.
6. FOR ALL EXISTING EQUIPMENT WHICH SHALL BE REMOVED, ELECTRICAL CONTRACTOR SHALL MAKE WIRING SAFE.
7. FOR EXACT LOCATION OF ALL EXISTING EQUIPMENT COORDINATE ON SITE.
8. MAKE REMAINING WIRING SAFE AND REMOVE ALL REDUNDANT CONDUITS AND WIRES BACK TO PANEL OF ORIGIN. ADJUST ALL EXISTING WIRING TO ACCOMMODATE LAYOUT CHANGES AND TO KEEP OPERATIONAL EXISTING ELECTRICAL EQUIPMENT AND DEVICES.
9. COORDINATE WITH OWNER THE DISPOSAL OF ALL REDUNDANT DEVICES AND/OR MATERIALS RESULTED FROM ELECTRICAL DEMOLITION.
10. VISIT SITE, EXAMINE EXISTING CONDITIONS, FULLY UNDERSTAND THE FUNCTIONING OF THE SYSTEM DESCRIBED AND SPECIFIED UNDER THIS SECTION. IF IN DOUBT, CONTACT ENGINEER BEFORE SUBMITTING THE TENDER PRICE. NO ALLOWANCE WILL BE ALLOWED LATER DUE TO FAILURE OF THIS DIVISION TO MAKE THIS EXAMINATION.
11. EXISTING ELECTRICAL EQUIPMENT WHICH BECOMES REDUNDANT SHALL BE COMPLETELY DISCONNECTED AND REMOVED FROM THE SITE.
12. FOR EXISTING EQUIPMENT WHICH SHALL BE RELOCATED ADJUST CONDUITS AND WIRES TO SUIT. EXISTING EQUIPMENT TO REMAIN ARE SHOWN FOR CLARIFICATION ONLY.
13. WHENEVER EXISTING ELECTRICALLY OPERATED EQUIPMENT IS REMOVED FROM ITS PRESENT LOCATION OR RE-INSTALLED ELSEWHERE, REMOVE REDUNDANT EXISTING CONDUITS, BOXES, CABLES, FIXTURES, ETC. OPENINGS IN BOXES, RACEWAYS, PANELS, ETC. WHICH MAY RESULT FROM SUCH REMOVAL OF EQUIPMENT, SHALL BE CLOSED IN PROPER MANNER AND ALL CABLES AND WIRES PROPERLY TERMINATED AND INSULATED TO RESTORE THE SYSTEM TO A SAFE AND SOUND CONDITION AND TO THE ARCHITECT'S SATISFACTION.
14. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR DRAWING THAT EQUIPMENT AND MATERIALS TO BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED, EITHER IN WHOLE OR IN PART, IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION.
15. WHERE THE EXISTING EQUIPMENT IS NOT TO BE ULTIMATELY RELOCATED BUT INTERFERES WITH THE CONSTRUCTION, THE EQUIPMENT SHALL BE TEMPORARILY RELOCATED UNTIL SUCH TIME AS THE NEW WORK IS COMPLETED SERVICES TO TEMPORARILY RELOCATED EQUIPMENT SHALL BE MAINTAINED AT ALL TIMES.
16. WHERE A DEVICE OR EQUIPMENT IS REMOVED, ALL ASSOCIATED SURFACE CONDUITS, PULL BOXES SHALL BE TERMINATED AND ABANDONED IN CEILING SPACE AND SHALL BE MADE SAFE. ALL ASSOCIATED CONDUITS AND OUTLET BOXES/PULL BOXES INSIDE THE REMAINING WALLS SHALL REMAIN AND PROVIDE BLANK COVERS FOR UNUSED BOXES. ALL ASSOCIATED WIRING/DATA CABLES/VOICE CABLES SHALL BE REMOVED FROM SOURCE.
17. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
18. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK TO SUIT THE PROJECT PHASE SCHEDULE.
19. ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL CONDUIT AND WIRING OF MECHANICAL EQUIPMENT TO BE REMOVED UNLESS OTHERWISE NOTED.
20. ALL REDUNDANT, OBSOLETE COMMUNICATION AND POWER WIRING, CONDUIT AND JUNCTION BOXES SHALL BE REMOVED.

LUMINARIES SCHEDULE

TYPE	WATT (W)	VOLT (V)	CT (K)	LUMENS (LM)	DESCRIPTION	MANUFACTURER
A	30	120	4000	3990	2' X 4' LED BACKLIT PANEL WITH SENSOR CAPABILITIES	RENO CAT.# RENO-24BLPL-DV-MW-MCCT-MS
D	9	120	4000	999	4" ROUND COMMERCIAL GRADE DOWNLIGHT	RENO CAT.# RENO-DL4-MW-DV-MCCT-G2
B	20	120	4000	2600	1' X 4' LED BACKLIT PANEL WITH SENSOR CAPABILITIES	RENO CAT.# RENO-14BLPL-DV-MW-MCCT-MS
L					BATTERY UNIT WITH TWO HEADS	LUMACELL CAT.#RG12S100-2-LD10
LB					SURFACE/ WALL MOUNTED TWO HEADS REMOTE	LUMACELL CAT.#MQM2LD10
LA					SURFACE/ WALL MOUNTED TWO HEADS REMOTE	LUMACELL CAT.#MQM1LD10

LIGHTING CONTRO SCHEDULE

TYPE	DESCRIPTION	MANUFACTURE
OS	WALL MOUNTED DUAL TECH OCCUPANCY SENSOR	COOPER, CAT.#OSW-P-010
OC	CEILING MOUNTED DUAL TECH OCCUPANCY SENSOR COMPLETE WITH ASSOCIATE POWER PACKS	COOPER, CAT.# OAC-DT-1000
$\$_D$	LOW VOLTAGE DIMMER SWITCH COMPLETE WITH ASSOCIATED POWER PACKS.	COOPER CAT.# WST-C-3D

LEGEND OF SYMBOLS

POWER & SYSTEM LEGEND

	15A, 120V DUPLEX RECEPTACLE
	15A, 120V DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
	THERMOSTAT
W	WALL MOUNTED SYSTEM FURNITURE CONNECTION. POWER-3/4" C.,TERMINATE POWER CONDUIT TO ASSOCIATED PANEL
WM	FLOOR MOUNTED WIREMOLD SYSTEM FURNITURE CONNECTION. COMMUNICATION, 1 1/2"C, TERMINATE AT ACCESSIBLE CEILING SPACE
	WALL MOUNTED DATA OUTLET BOX COMPLETE WITH 27mm EMPTY CONDUIT TERMINATED IN ACCESSIBLE CEILING SPACE
	WALL MOUNTED TV HDMI OUTLET BOX COMPLETE WITH 35mm EMPTY CONDUIT TERMINATED IN ACCESSIBLE CEILING SPACE
FAX	WALL MOUNTED TELEPHONE OUTLET, FAX - DENOTES FAX MACHINE.
	SURFACE OR FLUSH MOUNTED ELECTRICAL PANELS
C MD	15A, 120V OUTLET (C DENOTES CONTROLS; MD DENOTES MOTORIZED DAMPER.) (CONNECT TO EQUIPMENT)
	ELECTRIC MOTOR (WIRING & EQUIPMENT AS NOTED)
WP RT	DISCONNECT SWITCH (WP DENOTES WEATHERPROOF; RT DENOTES RAINTIGHT.)
	FLUSH CEILING MOUNTED P.A. SPEAKER COMPLETE WITH ASSOCIATED BACK BOX, 21mm CONDUIT AND P.A. SYSTEM WIRING. THE ASSOCIATED 21mm CONDUIT SHALL BE TERMINATED IN CORRIDOR ACCESSIBLE CEILING SPACE.
S	CEILING MOUNTED SPEAKER OUTLET BOX COMPLETE WITH 3/4" EMPTY CONDUIT TO NEXT SPEAKER OUTLET. REFER TO AV DRAWING FOR FURTHER INFORMATION
WAP	CELING MOUNTED WIRELESS ACCESS POINT OUTLET BOX COMPLETE WITH 21mm EMPTY CONDUIT TERMINATED IN ASSOCIATED COMMUNICATION ROOM/CLOSET
	WALL MOUNTED CLOCK
PS	WALL MOUNTED PROJECTOR SCREEN
P	MAGNETIC MOTOR STARTER (P DENOTES PILOT LIGHT) (SUPPLIED BY MECHANICAL CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR)
	4"X4" OUTLET BOX COMPLETE WITH SINGLE GANG COVER REDUCER (AS REQUIRED), 3/4" EMPTY CONDUIT AND PULL STRING FOR WALL MOUNTED P.A. CALL BUTTON.
	BATTERY OPERATED CLOCK
CCTV	FLUSH WALL OR CEILING MOUNTED VIDEO SURVEILLANCE CAMERA.

LIGHTING LEGEND

	RECESSED OR SURFACE MOUNTED LIGHT FIXTURE
	CEILING OR WALL MOUNTED LIGHT FIXTURE
	SUSPEND MOUNTED LIGHT FIXTURE
	BOLLARD LIGHT FIXTURE
	LED STRIP LIGHT
	EXIT SIGN WALL OR CEILING MOUNTED (CONNECT TO CORRESPONDING BATTERY UNIT) - TRIANGLE DENOTES C/W HEAD LIGHT - ARROW DENOTES DIRECTION OF TRAVEL
	EMERGENCY BATTERY UNIT COMPLETE WITH ASSOCIATED RECEPTACLE & HEAD(S) AS SHOWN
	CEILING OR WALL MOUNTED REMOTE EMERGENCY LIGHTING HEAD(S) (CONNECT TO EMERGENCY BATTERY UNIT)
$4\$^3_K$	20A, 120 VOLT LIGHTING TOGGLE SWITCH (3 DENOTES THREE WAY; 4 DENOTES FOUR WAY; K DENOTES KEY OPERATED.) SWITCHES SHALL BE GANGED TOGETHER.

FIRE ALARM LEGEND

	CEILING MOUNTED FIRE ALARM BELL
	WALL MOUNTED FIRE ALARM BELL
'FC'	FIRE ALARM STROBE LIGHT
	FIRE ALARM HORN COMPLETE WITH STROBE LIGHT
	FIRE ALARM HORN

ABBREVIATION

AFCI	DENOTES ARC-FAULT CIRCUIT INTERRUPTER
CL	DENOTES CEILING MOUNTED
DW	DENOTES DISHWASHER
FR	DENOTES FRIDGE
GFI	DENOTES GROUND FAULT INTERRUPTER
IG	DENOTES ISOLATED GROUND
MW	DENOTES MICROWAVE
NC	DENOTES NORMALLY CLOSED
NO	DENOTES NORMALLY OPEN
OC	DENOTES OVER COUNTER
TYP	DENOTES TYPICAL
VFD	DENOTES VARIABLE FREQUENCY DRIVE
W	DENOTES WASHER
WP	DENOTES WEATHERPROOF
EX	DENOTES EXISTING ITEM TO REMAIN
ER	DENOTES EXISTING ITEM TO BE RELOCATED. EXTEND EXISTING CONDUIT & WIRES TO NEW LOCATION, UNLESS OTHERWISE NOTED.
RP	DENOTES EXISTING ITEM IN RELOCATED POSITION. UNLESS OTHERWISE NOTED, EXTEND EXISTING CONDUIT AND WIRES FROM ITEM PREVIOUS LOCATION AND CONNECT.
RM	DENOTES EXISTING ITEM TO BE REMOVED. REMOVE REDUNDANT WIRING AND RETAIN THE INTEGRITY OF THE EXISTING CIRCUIT(S), UNLESS OTHERWISE NOTED. MAKE ALL REMAINING WIRING SAFE.
ER/RP	DEVICES TO BE TEMPORARILY DISCONNECTED AND REMOVED FROM THEIR LOCATIONS AND RE-INSTALLED TO THE ORIGINAL LOCATIONS AND CONNECTED TO THE SAME EXISTING ELECTRICAL CIRCUITS OR ZONE CIRCUITS.
N	DENOTES NEW
HD	DEMOTES HAND DRYER

DO NOT SCALE THE DRAWINGS.
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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DDSB Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	2026-04-28	TY

LICENSED PROFESSIONAL ENGINEER
25148
APR.28, 2026
F. HAN
100155783
PROVINCE OF ONTARIO

RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL SYMBOLS, NOTES AND KEY PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	N.T.S.
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E100

GENERAL REQUIREMENT

1. GENERAL REQUIREMENTS
1.1. THE GENERAL REQUIREMENTS, DIVISION 1, AND ANY SUPPLEMENTARY GENERAL REQUIREMENTS OF THE CONTRACT AS BOUND HEREIN SHALL FORM A PART OF THIS DIVISION AND SHALL BE CAREFULLY READ AND STRICTLY ADHERED TO.
1.2. THE ELECTRICAL DRAWINGS AND THESE SPECIFICATIONS ARE COMPLEMENTARY TO EACH OTHER AND EACH FORMS A PART OF THIS CONTRACT. IN THE EVENT OF DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS, THE MORE RESTRICTIVE CONDITIONS OF THE TWO SHALL APPLY, UNLESS OTHERWISE A CLARIFICATION IS PROVIDED BY THE CONSULTANT.
1.3. MISINTERPRETATION OF ANY REQUIREMENT OF EITHER THE DRAWINGS OR SPECIFICATIONS WILL NOT RELIEVE THIS DIVISION OF RESPONSIBILITY TO COMPLY THE WORK. IF IN DOUBT, REQUEST FOR INFORMATION (RFI) SHALL BE ISSUED TO CONSULTANT TO CLARIFY DURING TENDER BID. IF CLARIFICATION IS NOT SOUGHT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLETE THE WORK PER THE CONSULTANT'S DECISION AT NO EXTRA COST.
1.4. WORKMANSHIP AND METHODS OF INSTALLATION SHALL BE TO BEST STANDARDS AND PRACTICE. WORK SHALL BE PERFORMED BY LICENSED TRADESMEN SKILLED IN THE TYPE OF WORK TO BE PERFORMED.
1.5. PROVIDE ALL EQUIPMENT, MATERIALS, LABOUR AND SERVICES TO COMPLETE ELECTRICAL SYSTEMS GENERALLY AS SHOWN ON THE DRAWINGS AND/OR DESCRIBED HEREINAFTER.
1.6. ALL WORK SHALL CONFORM TO C.S.A., O.B.C., LOCAL MUNICIPAL AND PROVINCIAL LAWS AND REGULATIONS.
1.7. BEFORE FINAL PAYMENT IS MADE, AN UNCONDITIONAL PROVINCIAL INSPECTION DEPARTMENT CERTIFICATE SHALL BE GIVEN TO THE OWNER, INDICATING THAT ALL PARTS OF THE ELECTRICAL SYSTEM MEET ONTARIO E.S.A. APPROVAL.
1.8. MAINTAIN SUCH INSURANCE AS WILL FULLY PROTECT BOTH THE OWNER AND FROM ANY AND ALL CLAIMS UNDER THE WORKMEN'S COMPENSATION ACT, ALSO ALL INSURANCE AS NOTED WITHIN GENERAL CONDITIONS.

2. CODES & STANDARDS
2.1. COMPLETE INSTALLATION SHALL CONFORM WITH APPLICABLE CODES, BY-LAWS AND REGULATIONS.
2.2. COMPLY WITH ALL REQUIREMENTS AND STANDARDS OF THE LOCAL AUTHORITIES.

3. EXAMINATION
3.1. VISIT THE SITE AND EXAMINE EXISTING CONDITIONS AFFECTING THE WORK.
3.2. CAREFULLY EXAMINE STRUCTURAL, MECHANICAL AND ARCHITECTURAL DRAWINGS, AND FULLY UNDERSTAND THE FUNCTIONING OF THE SYSTEM DESCRIBED AND SPECIFIED UNDER THIS SECTION. IF IN DOUBT, CONTACT THE ENGINEER BEFORE SUBMITTING THE TENDER PRICE.
3.3. NO ALLOWANCE WILL BE MADE FOR ANY EXPENSE INCURRED THROUGH FAILURE TO MAKE THESE EXAMINATIONS OF SITE AND DOCUMENTS PRIOR TO TENDER OR AN ACCOUNT OF ANY CONDITIONS ON SITE OR ANY GROWTH OR ITEM EXISTING THESE WHICH WAS VISIBLE OR KNOWN TO EXIST AT TIME OF TENDER.
3.4. NO ALLOWANCE WILL BE MADE FOR ANY EXPENSE INCURRED THROUGH FAILURE TO MAKE THESE EXAMINATIONS OF SITE AND DOCUMENTS PRIOR TO TENDER OR AN ACCOUNT OF ANY CONDITIONS ON SITE OR ANY GROWTH OR ITEM EXISTING THESE WHICH WAS VISIBLE OR KNOWN TO EXIST AT TIME OF TENDER.
3.5. EXISTING ELECTRICAL EQUIPMENT WHICH BECOMES REDUNDANT SHALL BE COMPLETELY DISCONNECTED AND REMOVED FROM THE SITE.
3.6. WHERE INDICATED ON THE DRAWINGS REMOVE EQUIPMENT CAREFULLY AS NOT TO CAUSE DAMAGE AND TRANSPORT IT TO A LOCATION ON SITE AS DESIGNATED BY THE GENERAL CONTRACTOR.
3.7. WHERE THE EXISTING EQUIPMENT IS NOT TO BE ULTIMATELY RELOCATED BUT INTERFERES WITH THE CONSTRUCTION, THE EQUIPMENT SHALL BE TEMPORARILY RELOCATED UNTIL SUCH TIME AS THE NEW WORK IS COMPLETED. SERVICES TO THE TEMPORARILY RELOCATED EQUIPMENT SHALL BE MAINTAINED AT ALL TIMES.
3.8. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
3.9. UNDER ALL CONDITIONS, EXISTING ELECTRICAL SERVICES, INCLUDING AUXILIARY SERVICES, SECURITY, COMPUTER, F.A., P.A. SYSTEMS ETC., TO OPERATING PARTS OF THE BUILDING SHALL NOT BE HAMPERED UNDER ANY CONDITION AND TO THAT EFFECT, NECESSARY WORK MAY HAVE TO BE CARRIED OUT AFTER HOUR BASIS.
3.10. COORDINATE WITH GENERAL CONTRACTOR REGARDING SCAFFOLDING IN EXISTING BUILDING.

4. DEFINITIONS
4.1. 'PROVIDE' - CONTRACTOR TO PURCHASE AND INSTALL ITEMS AND SYSTEMS AS DESCRIBED AND SHOWN.
4.2. 'SUPPLY' - CONTRACTOR TO PURCHASE ITEMS AND MAKE AVAILABLE FOR INSTALLATION BY OTHERS INCLUDING NECESSARY TAXES, TRANSPORT FEE, ETC.
4.3. 'INSTALL' - CONTRACTOR TO INSTALL ITEMS PURCHASED BY OTHERS.

5. CHANGES TO THE CONTRACT
5.1. CONTRACTOR SHALL PROVIDE THE ENGINEER'S REPRESENTATIVE WITH A DETAILED COST ANALYSIS OF THE CONTEMPLATED CHANGE INDICATING MATERIAL COST, AND LABOR INVOLVED.
5.2. THE DETAILED COST BREAKDOWN IS TO LIST MATERIAL AND LABOR SEPARATELY FOR EACH ITEM ON THE PROPOSED CHANGE. THE LABOR RATE SHALL FOLLOW NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA) LABOUR UNIT UNDER COLUMN ONE. COMPLETE "LABOUR ADJUSTMENT CHART PER NECA IF A DIFFERENT LABOUR RATE IS REQUIRED.
5.3. THE FOLLOWING SHALL NOT BE INCLUDED IN THE COST OF THE WORK BUT ARE COVERED BY THE HOURLY LABOR RATE:
5.3.1. THE COSTS OF THE CONTRACTOR'S PROJECT MANAGER, CLERICAL AND ADMINISTRATIVE PERSONNEL, AND EXECUTIVE PERSONNEL.
5.3.2. LEGISLATION AS RELEVANT TO THE PLACE OF WORK (HEALTH TAX, E.I. CPP. WSIB, TAXES)
5.3.3. TEMPORARY SERVICE, INCLUDING, BUT NOT LIMITED TO LIGHTING, AND POWER. ETC.
5.3.4. TRANSPORTATION, PARKING, TRAVEL, AND OVERNIGHT ROOM EXPENSES.
5.3.5. PROJECT INSURANCE, LICENSES, AND PERMITS.
5.3.6. PRINTING COST.
5.3.7. WARRANTIES, OFFICE SUPERVISION AND MISCELLANEOUS CHARGES.
5.3.8. THE COST OF CLEAN-UP AND DISPOSAL OF WASTE MATERIAL.
5.4. IN COMPUTING ACCOUNTS FOR EXTRAS AND CREDITS FOR ANY PROPOSED CHANGE, ALL CREDITS SHALL BE DEDUCTED FROM THE TOTAL SUM OF THE EXTRAS BEFORE MARK-UPS OR CHARGES FOR OVERHEAD AND PROFIT ARE ADDED.
5.5. THE MAXIMUM PERCENTAGE FEE FOR MARK-UPS SHALL BE AS STATED IN THE DIVISION 0/1 SPECIFICATIONS. OTHERWISE, IT SHALL NOT EXCEED 10%.
5.6. WHERE A PROPOSED CHANGE ORDER INCLUDES BOTH CREDITS AND EXTRAS, OVERHEAD AND PERMITTED MARK-UPS APPLY TO THE NET EXTRA OR CREDITS, IF ANY, OF THE ENTIRE CHANGE.

6. MATERIALS AND EQUIPMENT
6.1. ALL MATERIALS USED SHALL BE NEW AND OF THE TYPE SPECIFIED AND FREE FROM DEFECTS AND THEY SHALL BE C.S.A. APPROVED.
6.2. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CSA CERTIFIED, OBTAIN SPECIAL APPROVAL FROM THE LOCAL INSPECTION DEPARTMENT.
6.3. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER, PRESENT A NEAT MECHANICAL APPEARANCE AND CONFORM TO O.E.S.C. AND LOCAL AUTHORITIES REQUIREMENTS.

7. PERMITS AND FEES
7.1. APPLY AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION.
7.2. THE CONRACTOR SHALL VERIFY THAT ANY WORK ON-SITE SHALL COMPLY WITH THE APPROVED ELECTRICAL SAFETY AUTHORITY PLAN REVIEW.
7.3. PROVIDE CERTIFICATE(S) OF ACCEPTANCE FROM THE AUTHORITIES INSPECTION DEPARTMENT, UPON COMPLETION OF WORK.

8. CONTRACT DOCUMENTS
8.1. THE DRAWINGS FOR THE ELECTRICAL WORK ARE DIAGRAMMATIC PERFORMANCE DRAWINGS ONLY, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE LOCATION OF ELECTRICAL EQUIPMENT. THE DRAWINGS DO NOT INTEND TO SHOW ARCHITECTURAL, INTERIOR DESIGN, MECHANICAL, STRUCTURAL, OR BASE BUILDING DETAILS. BE RESPONSIBLE FOR A THOROUGH KNOWLEDGE OF SAME BEFORE PROCEEDING WITH THE WORK.
8.2. DO NOT SCALE OR MEASURE DRAWINGS BUT OBTAIN INFORMATION REGARDING ACCURATE DIMENSIONS FROM THE DIMENSIONS SHOWN ON THE DESIGN CONSULTANT/ARCHITECTS DRAWING.
8.3. ANY DISCREPANCIES BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND EXISTING CONDITIONS, MUST BE REFERRED TO THE CONSULTANT OF RECORD BEFORE ANY WORK AFFECTED IS BEGUN.
8.4. COOPERATE AND COORDINATE WITH OTHER TRADES IN LAYING OUT OF WORK SO AS NOT TO CONFLICT WITH THE WORK OF OTHER TRADES. CARRY OUT WORK PROMPTLY AS PER CONSTRUCTION SCHEDULE AND COORDINATE WITH WORK OF OTHER TRADES.
8.5. MAKE, AT NO ADDITIONAL COST, ANY CHANGES OR ADDITIONS TO MATERIALS AND EQUIPMENT NECESSARY TO ACCOMMODATE STRUCTURAL CONDITIONS (OFFSETS AROUND BEAMS, COLUMN, ETC.)

9. SUBSTITUTIONS
9.1. THE USE OF A SUBSTITUTE ARTICLE OR MATERIAL WHICH THE MANUFACTURER REPRESENTS TO BE OF AT LEAST EQUAL QUALITY AND OF THE REQUIRED CHARACTERISTICS FOR THE PURPOSE INTENDED MAY BE PERMITTED SUBJECT TO THE FOLLOWING PROVISIONS:
9.1.1. A SUBSTITUTION WILL NOT BE CONSIDERED FOR REASONS OF MEETING THE CONSTRUCTION SCHEDULE UNLESS THE CONTRACTOR CAN DEMONSTRATE TO THE SATISFACTION OF THE CONSULTANT THEY MADE ALL REASONABLE EFFORTS TO PROCURE THE SPECIFIED PRODUCTE OR MATERIAL IN A TIMELY FASHION.
9.1.2. THE BURDEN OF PROOF AS TO THE QUALITY AND SUITABILITY OF ALTERNATIVES TO BE UPON THE MANUFACTURER AND THEY SHALL SUPPLY ALL INFORMATION NECESSARY AS REQUIRED BY THE CONSULTANT AT NO ADDITIONAL COST.

10. INSERTS, HANGERS AND SLEEVES
10.1. PROVIDE HANGERS, INSERTS, SLEEVES, AND SUPPORTS AS REQUIRED FROM STRUCTURE.
10.2. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL DIVISION TO SUPPLY THE CONTRACTOR WITH ANCHOR BOLTS AND BASE DIAGRAMS OF EQUIPMENT SHOWING THE EXACT LOCATION OF ANCHOR BOLTS.
10.3. ALL DRILLING FOR HANGERS, ROD INSERTS AND WORK OF SIMILAR NATURE SHALL BE DONE BY THIS DIVISION.
10.4. AUXILIARY STRUCTURAL MEMBERS SHALL BE PROVIDED UNDER THE ELECTRICAL SECTION CONCERNED WHERE CONDUITS OR EQUIPMENT MUST BE SUSPENDED BETWEEN THE JOISTS OR BEAMS OF THE STRUCTURE, OR WHERE REQUIRED TO REPLACE INDIVIDUAL HANGER TO ALLOW FOR INSTALLATION ON NEW SERVICES. SUBMIT DETAILS FOR REVIEW AS REQUESTED.
10.5. DEPENDING ON THE TYPE OF STRUCTURE, HANGERS SHALL BE EITHER CLAMPED TO STEEL BEAMS OR JOISTS, OR ATTACHED TO APPROVED CONCRETE INSERTS.
10.6. SUSPENDING ONE HANGER FROM ANOTHER SHALL NOT BE PERMITTED.
10.7. ALL HANGERS, SUPPORTS, BRACKETS AND OTHER DEVICES USED OUTSIDE THE BUILDING WALL SHALL BE GALVANIZED. IF GALVANIZED COMPONENTS CANNOT BE USED SUBMIT SAMPLES OF PROPOSED SUBSTITUTES FOR REVIEW BEFORE INSTALLATION.
10.8. HANGERS MUST NOT BE WELDED TO STRUCTURAL STEEL MEMBERS AND BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED.

11. SLEEVES, HOLES, AND PATHCING
11.1. PROVIDE FOR OPENINGS IN WALLS, FLOORS, CEILINGS AND ROOFS AS REQUIRED, AND MAKE GOOD.
11.2. X-RAY RE-INFORCED CONCRETE SLAB AND SLAB ON GRADE BEFORE CORE DRILLING/SAW CUTTING. COORDINATE WITH THE OWNER/GENERAL CONTRACTOR FOR TIME SCHEDULE.
11.3. REPAIR ALL HOLES AND SLEEVES TO 'AS FOUND CONDITION' USING PROPER MATERIAL TO MATCH WALL FINISHES, TYPES AND RATINGS.
11.4. ALL CUTTING, PATCHING, SLEEVES AND GROUTING IS TO BE DONE BY FULLY QUALIFIED CRAFTSMAN OF THAT RESPECTIVE TRADE. ALL COSTS FOR CUTTING AND PATCHING REQUIRED BY THIS DIVISION ARE TO BE INLCUDED IN THE TENDER.
11.5. HOLES THROUGH EXTERIOR WALLS AND ROOF MEMBRANES SHALL BE PROPERLY FLASHED AND MADE WEATHERPROOF BY QUALIFIED CRAFTSMAN OF THEIR RESPECTIVE TRADE
11.6. ALL CUTTING, PATCHING, SLEEVING, ETC. SHALL BE CARRIED OUT UNDER THE DIRECT SUPERVISION OF THE GENERAL CONTRACTOR.
11.7. REQUIRED FOR OPENINGS IN WALLS, FLOORS AND ROOFS WILL BE PROVIDED BY THIS DIVISION, UNLESS OTHERWISE NOTED.
11.8. DRILLING FOR HANGERS, RODS, INSERTS AND WORK OF A SIMILAR NATURE SHALL BE PROVIDED BY THIS DIVISION.
11.9. PATCHING REQUIRED FOR WORK BY THIS DIVISION, UNLESS NOTED OTHERWISE, WILL BE BY THIS DIVISION TO COMPLETE SATISFACTION OF THE ARCHITECT AND CONSULTANT.
11.10. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS SHALL BE REMEDIED AT THIS DIVISION'S EXPENSE.

12. PLYWOOD BACKBOARDS
12.1. PROVIDE PLYWOOD BACKBOARDS IN ELECTRICAL AND TELECOMMUNICATIONS ROOMS AND CLOSETS WHERE INDICATED ON THE DRAWINGS.
12.2. PLYWOOD TO BE SECURELY FIXED TO THE BUILDING STRUCTURE.
12.3. PLYWOOD TO BE 3/4", VOID FREE, GOOD ONE SIDE, MOUNTED WITH GOOD SIDE EXPOSED.
12.4. PLYWOOD TO BE CLASS A FIRE RETARDANT, FSC CERTIFIED, AND CONTAIN NO ADDED UREA FORMALDEHYDE.

13. PROTECTION
13.1. PROTECT EXPOSED LIVE EQUIPMENT DURING CONSTRUCTION FOR PERSONNEL SAFETY.
13.2. SHIELD AND MARK ALL LIVE PARTS "LIVE 120 VOLTS", OR WITH APPROPRIATE VOLTAGE IN ENGLISH.

14. FIRE STOPS
14.1. PROVIDE SLEEVES OF GALVANIZED STEEL PIPE WITH MACHINE CUT ENDS OF AMPLE SIZE TO ACCOMMODATE CONDUITS PASSING THROUGH WALLS, PARTITIONS, CEILINGS, FLOORS, ROOFS ETC. THE SPACE BETWEEN THE SLEEVE AND THE CONDUIT AND SPARE SLEEVES SHALL BE FILLED WITH DOW CORNING SILICONE RTV FOAM FOR FIRE STOP. CAULK AROUND THE TOP AND BOTTOM WITH APPROVED PERMANENTLY RESILIENT, NONFLAMMABLE AND WEATHERPROOF SILICONE BASE COMPOUND
14.2. LOCATE AND POSITION SLEEVES EXACTLY PRIOR TO CONSTRUCTION OF WALLS, FLOORS, ETC.
14.3. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS SHALL BE REMEDIED AT THIS DIVISION'S EXPENSE.

15. ACCESS DOORS
15.1. PROVIDE ACCESS DOORS WHERE REQUIRED TO SERVICE ALL NEW AND EXISTING EQUIPMENT. ACCESS PANEL SHALL BE COMPATIBLE WITH CEILING/WALL TYPE AND FINISH. ACCESS DOORS SHALL BE RECESSED TYPE WITH A DRYWALL INFILL. COORDINATE LOCATION AND SIZES WITH THE CONSULTANT.

16. CORE DRILLING
16.1. WHEREVER CORE DRILLING IS REQUIRED, PROVIDE TEMPORARY DUST PROOF SCREENS AS SPECIFIED.
16.2. ALL CUTTING, PATCHING AND CORE DRILLING REQUIRED FOR ELECTRICAL CONTRACTOR'S WORK SHALL BE BY THE ELECTRICAL CONTRACTOR TO THE COMPLETE SATISFACTION OF THE ARCHITECT AND CONSULTANT.
16.3. ELECTRICAL CONTRACTOR SHALL INCLUDE IN TENDER THE COST FOR SCAN & X-RAY OF LOCATION FOR ALL FLOOR CORE DRILLING AND SAW CUTTING TO ESTABLISH EXACT LOCATION.
16.4. ANY BUILDING SERVICE DAMAGED BY CORE DRILLING MUST BE REPAIRED IMMEDIATELY AT NO COST TO GENERAL CONTRACTOR.
16.5. FLOOR SCAN & X-RAY WORK & CORE DRILL SHALL BE CONDUCTED IN AFTER HOURS. COORDINATE SCHEDULE WITH CLIENT ON SITE.
16.6. RETAIN BASE BUILDING STRUCTURAL ENGINEER TO REVIEW CORE DRILL ON SITE FOR APPROVAL.

17. NOISE AND VIBRATION
17.1. ELECTRICAL EQUIPMENT IS TO OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION AND TO OWNER'S SATISFACTION.
17.2. VIBRATION ISOLATORS ARE TO BE PROVIDED WHERE INDICATED OR REQUIRED. TRANSFORMERS TO BE ISOLATED FROM THE STRUCTURE, WITH SPRING AND RUBBER ISOLATORS WHEN WALL MOUNTED OR SUSPENDED AND 12MM HIGH DENSITY NEOPRENE SANDWICH PADS (TYPE MWP) WHEN FLOOR MOUNTED.

18. CUTTING AND PATCHING
18.1. ALL CUTTING, PATCHING AND PAINTING REQUIRED TO PERFORM THE ELECTRICAL WORK SHALL BE INCLUDED IN THIS CONTRACT.

19. INTERRUPTION OF SERVICES
19.1. INTERRUPTION OF ELECTRICAL SERVICE TO ANY PART OF THE BUILDING SHALL OCCUR ONLY BY PRE-ARRANGEMENT WITH AND AT TIMES SUITABLE TO THE LANDLORD.
19.2. INTERRUPTIONS SHALL ONLY OCCUR DURING PREMIUM TIME PERIODS; ALL ALLOWANCES FOR THIS SHALL BE INCLUDED IN THE PRICE SUBMITTED.
19.3. THE CONTRACTOR IS RESPONSIBLE FOR CO-ORDINATION AND ISOLATING OF ALL EXISTING SERVICES AT ALL VOLTAGE LEVELS REQUIRED FOR THE DISCONNECTIONS AND CONNECTIONS TO EXISTING BUILDINGS. THIS INCLUDES SHUTTING DOWN AND ISOLATING EXISTING LOW AND MEDIUM VOLTAGE SERVICES.
19.4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED TO EXISTING SYSTEMS WHEN MAKING CONNECTIONS.
19.5. THE CONTRACTOR IS TO KEEP SHUTDOWNS OF EXISTING BUILDINGS TO A MINIMUM BY SCHEDULING THE WORK AND PROVIDING THE REQUIRED NUMBER OF PERSONNEL TO KEEP THE SHUTDOWN TO A MINIMUM. THIS CONTRACTOR IS TO INCLUDE FOR AS MANY MULTIPLE TEAMS OF ELECTRICIANS AS IS FEASIBLE TO KEEP THE SHUTDOWN WORK TO A MINIMUM. INCLUDE ALL LABOR AND MATERAL COST REGARDING POWER SHUT DOWN IN THE TENDER BID.

20. IDENTIFICATION.
20.1. PROVIDE LAMACOID NAMEPLATES ON ALL METERING SWITCHBOARD, PANELS, DISCONNECT SWITCHES, SPLITTERS, ETC., TO MATCH BASE BUILDING. NAMEPLATES SHALL BE MECHANICALLY ATTACHED TO EQUIPMENT.
20.2. PROVIDE TYPEWRITTEN DIRECTORIES FOR NEW AND EXISTING PANELS. CONFIRM EXISTING IDENTIFICATION AND CORRECT WHERE NECESSARY.
20.3. CLEARLY MARK ALL EXPOSED CONDUIT, PULLBOXES, JUNCTION BOXES, ETC., TO INDICATE THE NATURE OF THE SERVICE TO MATCH BASE BUILDING STANDARDS.

21. CLEANING AND WASTE DISPOSAL
21.1. ALL EQUIPMENT SHALL BE CLEANED DURING CONSTRUCTION AND THOROUGHLY CLEANED ON COMPLETION OF THE CONTRACT.
21.2. CONTRACTOR IS RESPONSIBLE TO REMOVE THEIR OWN WASTE FROM THE SITE. ALL RE-USABLE MATERIALS SHALL BE RECYCLED.

22. TEMPORARY LIGHT AND POWER
22.1. TEMPORARY LIGHT AND POWER FOR CONSTRUCTION SHALL BE PROVIDED, METERED, AND MAINTAINED BY THE ELECTRICAL TRADE, AS DIRECTED BY THE GENERAL CONTRACTOR; BUT EACH TRADE SHALL PROVIDE ALL EXTENSION CORDS, LAMPS, ETC., REQUIRED TO COMPLETE THEIR WORK.
22.2. ALL TEMPORARY LIGHT TO BE FLUORESCENT OR LED. PROVIDE ADEQUATE LIGHTING TO MEET ALL HEALTH AND SAFETY STANDARDS.
22.3. CONTRACTOR AND SUBCONTRACTOR TO PROVIDE TRANSFORMERS AND SUITABLE FUSED DISCONNECT SWITCHES AND WIRING FROM LOCATIONS AS AND WHERE REQUIRED AND TO MAINTAIN TEMPORARY SERVICES FOR USE OF LIGHT, TOOLS, AND APPARATUS, IN ORDER TO FACILITY COMPLETE OF WORK, IN ACCORDANCE WITH APPLICATION LOCAL BY-LAWS.

23. COMPLETION OF CONTRACT
23.1. SUBMIT SHOP DRAWINGS OF EACH PIECE OF MANUFACTURED EQUIPMENT FOR ARCHITECT AND CONSULTANT'S REVIEW.
23.2. THE GUARANTEE PERIOD SHALL EXTEND ONE (1) YEAR FROM THE DATE OF ISSUE OF "SUBSTANTIAL COMPLETION" CERTIFICATE. ALL REPAIRS DURING THIS PERIOD ARE THE RESPONSIBILITY OF THIS DIVISION AT NO COST TO THE OWNER.
23.3. DEFECTS AND DEFICIENCIES WHICH ORIGINATE OR BECOME EVIDENT DURING THE WARRANTY PERIOD MUST BE REPAIRED OR REPLACED, AT NO COST.
23.4. REPLACE, AT NO COST, ALL LAMPS BURNED-OUT DURING NINETY (90) DAYS AFTER DATE OF ISSUANCE OF CERTIFICATE OF "SUBSTANTIAL PERFORMANCE" FOR THE CONTRACT FOR THE WORK.
23.5. IF, DURING THE WARRANTY PERIOD, TRANSFORMERS, BALLASTS OR OTHER NOISE AND VIBRATION PRODUCING EQUIPMENT ARE CONSIDERED BY THE CONSULTANT TO EXCEED ACCEPTABLE STANDARDS, THEN THESE MUST BE REPLACED WITHOUT DELAY OR ADDITIONAL COST TO THE PROJECT. ALL WORK RELATING TO THE REPLACEMENT OF DEFECTIVE ITEMS, MUST BE CARRIED OUT AFTER NORMAL WORKING HOURS AND AT A TIME WHICH IS ACCEPTABLE BY THE OWNER.
23.6. ALL THE EQUIPMENT MUST BE CLEANED AND TESTED BEFORE FINAL ACCEPTANCE BY THE CONSULTANT.

24. AS-BUILT DRAWINGS
24.1. OBTAIN AND PAY FOR TWO SETS OF WHITE PRINTS AND MARK CLEARLY AND NEATLY ALL CHANGES IN CONDUIT RUNS, LOCATION OF EQUIPMENT OR FIXTURES AND REVISIONS MADE BY ADDENDUMS, CHANGE ORDERS AND SITE INSTRUCTIONS.
24.2. PRIOR TO REQUESTING FINAL INSPECTION SUBMIT ONE SET OF MARKED-UP PRINTS FOR REVIEW BY THE CONSULTANT.
24.3. AFTER REVIEW BY THE CONSULTANT, REQUEST ONE SET OF CAD DISKS AND PAY $1,500 FOR, AND TRANSFER ALL THE RECORDED INFORMATION FROM THE WHITE PRINTS TO THE DISKS.
24.4. CLEARLY INDICATE THE WORDS "RECORD DRAWINGS" IN THE TITLE BLOCK COLUMN OF THE DRAWINGS AS WELL AS THE ELECTRICAL CONTRACTOR'S NAME AND ADDRESS.
24.5. SUBMIT THE AS-BUILT CAD DISKS, TWO SETS OF WHITE PRINTS PRODUCED FROM THE AS-BUILT DISK SET, AND THE ORIGINAL MARKED-UP PRINTS OF THE RECORD DRAWINGS.
24.6. THE RECORD DRAWINGS SHALL SHOW ALL CONDUIT, WIRING DIAGRAMS AND CONDUCTOR RUNS FOR ALL SYSTEMS INCLUDING SIZES, TYPES OF COMPONENTS, CIRCUIT NUMBERS, ETC. EXACTLY AS INSTALLED.
24.7. REVIEW OF THE RECORD DRAWINGS BY THE CONSULTANT SHALL BE FOR GENERAL CONFORMANCE ONLY AND IS NOT AN APPROVAL OF THE ACCURACY OF THE DRAWINGS. THIS DIVISION SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE RECORD DRAWINGS.
24.8. THE RECORD DRAWINGS SHALL BE KEPT ON SITE AND SHALL BE AVAILABLE FOR REVIEW BY THE ARCHITECT/CONSULTANT.

25. OPERATION AND MAINTENANCE MANUALS
25.1. PROVIDE SOFT COPY (PDF) OF OPERATION AND MAINTENANCE MANUALS. INCLUDE THE FOLLOWING INFORMATION IN THE OPERATIONS AND MAINTENANCE MANUALS:
25.1.1. FRONT COVER: PROJECT NAME LABEL; WORDING – "ELECTRICAL SYSTEMS OPERATING AND MAINTENANCE MANUAL"; AND DATE;
25.1.2. CONTACT OF CONTRACTOR, AND SUBCONTRACTOR NAMES, STREET ADDRESSES, TELEPHONE AND FAX NUMBERS, AND E-MAIL ADDRESSES;
25.1.3. EQUIPMENT MANUFACTURER'S AUTHORIZED CONTACT PERSON NAME, TELEPHONE NUMBER AND COMPANY WEBSITE;
25.1.4. TABLE OF CONTENTS SHEET, AND CORRESPONDING INDEX TAB SHEETS;
25.1.5. COPY OF EACH REVIEWED SHOP DRAWINGS.
25.1.6. EQUIPMENT AND SYSTEM START-UP DATA, TEST REPORTS, FINAL VERIFICATION AND COMMISSIONING REPORTS.
25.1.7. INSPECTION CERTIFICATES ISSUED BY REGULATORY AUTHORITIES;
25.1.8. COPIES OF ADDITIONAL AND REVISED PANELBOARD DIRECTORIES;
25.1.9. WARRANTIES;
25.2. OPERATING AND MAINTENANCE INSTRUCTIONS ARE TO RELATE TO JOB SPECIFIC EQUIPMENT SUPPLIED UNDER THIS PROJECT AND RELATED TO OWNER'S BUILDING. LANGUAGE USED IN MANUALS IS TO CONTAIN SIMPLE PRACTICAL OPERATING TERMS AND LANGUAGE EASY FOR IN-HOUSE MAINTENANCE STAFF TO UNDERSTAND HOW TO OPERATE AND MAINTAIN EACH SYSTEM.
25.3. BEFORE APPLYING FOR A CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE WORK, ASSEMBLE ONE COPY OF O & M MANUAL AND SUBMIT TO THE CONSULTANT FOR REVIEW. INCORPORATE COMMENTS INTO FINAL SUBMISSION.

26. INSURANCE
26.1. MAINTAIN ALL NECESSARY INSURANCE TO PROTECT THE OWNER AND THE TRADES OF THIS DIVISION FROM ALL POSSIBLE CLAIMS.

27. CO-ORDINATION
27.1. CONFER WITH ALL OTHER TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHER APPARATUS, DUCTS, PIPES, ETC. AND WITH BUILDING CONSTRUCTION AND CONSULTANTURAL FINISHES.
27.2. COORDINATE ROUTING OF CONDUITS FOR ANY FLOOR BOX WITH THE SPACE BELOW AND THE OWNER PRIOR TO INSTALLATION OF FLOOR BOX.
27.3. COORDINATE ANY SCHEDULED POWER SHUTDOWNS WITH THE OWNER PRIOR TO COMMENCING WORK.

28. TEMPORARY AND TRIAL USAGE
28.1. THE OWNER RESERVES THE RIGHT OF TRIAL OR TEMPORARY USAGE PRIOR TO ACCEPTING THE INSTALLATION.

29. SCHEDULE OF WORK
29.1. ADHERE TO SCHEDULE OF WORK AS PROVIDED BY THE CONSULTANT AND THE CONTRACTOR.

30. INSTRUCTIONS AND DATA BOOKS
30.1. PROVIDE THE SERVICES OF COMPETENT PERSONNEL TO INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT.
30.2. PREPARE NEATLY TYPEWRITTEN OPERATING INSTRUCTIONS. ASSEMBLE INTO THREE (3) DATA BOOKS WITH ONE COPY OF EACH SHOP DRAWING AND ALL EQUIPMENT, MAINTENANCE AND OPERATING INFORMATION.
30.3. PROVIDE 1 HARD COPY OF THE DATA BOOKS AND 1 SOFT COPY VIA USB DRIVE.

31. IDENTIFICATION OF EQUIPMENT
31.1. ALL ELECTRICAL EQUIPMENT SHALL BE IDENTIFIED BY MEANS OF BLACK LAMICOID PLATES WITH WHITE LETTERING INDICATING FUNCTION OF EQUIPMENT.
31.2. IDENTIFY ALL JUNCTION BOXES WITH PANEL AND CIRCUIT NUMBERS WHERE THEY ARE FED FROM.
31.3. THE INTERIOR, EXTERIOR AND LIDS OF ALL OUTLET BOXES SHALL BE NEATLY IDENTIFIED WITH DIFFERENT COLOURS OF PAINT. THE COLOUR SHALL BE CONSISTENT THROUGHOUT THE PROJECT AND SHALL MATCH EXISTING.
31.4. ALL RECEPTACLE SHALL BE LABELED WITH THE CIRCUIT NUMBER THERE THEY ARE FED FROM.
31.5. PROVIDE THE WRITTEN PANEL DIRECTORY FOR ALL PANELS.

DO NOT SCALE THE DRAWINGS.
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.

DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.

DDSB
Ignite Learning

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	2026-04-28	TY

LICENSED PROFESSIONAL ENGINEER
25148
APR.28, 2026
F. HAN
100155783
PROVINCE OF ONTARIO

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL SPECIFICATION (1)

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	N.T.S.

SEAL:

PROJECT NO: 25184

DRAWING NO: E101

ELECTRICAL SPECIFICATION

1. CONDUITS, CONDUITS FASTENERS AND FITTINGS
1.1. CONDUIT ROUTING SHOWN ON DRAWINGS IS SUGGESTED ONLY. CONTRACTOR SHALL DETERMINE EXACT ROUTING ON SITE AND COORDINATE WITH PRIME CONSULTANT PRIOR TO ROUGH-IN.
1.2. DO NOT USE CONDUITS SMALLER THAN 3/4" UNLESS SPECIFICALLY DETAILED IN THESE DOCUMENTS.
1.3. SURFACE CONDUITS, SHALL BE USED ONLY WHERE CONCEALED INSTALLATION IS NOT POSSIBLE., WHEN PERMITTED, SURFACE CONDUIT SHALL BE:
1.3.1. RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
1.3.2. RUN IN A MANNER THAT MINIMIZES THEIR APPEARANCE.
1.3.3. RUN CENTERED ON TOP OF STRUCTURAL BEAMS/JOISTS.
1.3.4. GROUP CONDUITS WHEREVER POSSIBLE ON SUSPENDED CHANNELS.
1.3.5. DO NOT PASS CONDUITS THROUGH STRUCTURAL MEMBERS EXCEPT AS PERMITTED.
1.3.6. DO NOT LOCATE CONDUITS LESS THAN 3" PARALLEL TO STEAM OR HOT WATER LINES WITH A MINIMUM OF 1" AT CROSSINGS.
1.4. PROVIDE FISH CORDS TO BE MINIMUM 3 MM POLYPROPYLENE IN ALL CONDUITS
1.5. PROVIDE 12 GAUGE GALVANIZED STEEL U CHANNEL TYPE SUPPORTS FOR TWO OR MORE CONDUITS ON MINIMUM 1500 MM CENTRES. USE SURFACE CONDUIT CLAMPS IN CHANNEL.
1.6. PROVIDE 1/4" DIA. THREADED RODS TO SUPPORT THE SUSPENDED CHANNELS.
1.7. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO MOTORS AND TRANSFORMERS.
1.8. ALL DATA/COMMUNICATION CONDUITS SHALL BE INSTALLED COMPLETE WITH PLASTIC BUSHINGS AT EACH END.
1.9. CONDUITS FOR COMMUNICATION SHALL BE RIGID CONDUIT, MIN 21MM (3/4").
1.10. NO MORE THAN TWO (2) - 90 DEG. BENDS SHALL BE INSTALLED BETWEEN ANY TWO ADJACENT PULL BOXES. SIZE ALL CONDUITS BASED ON RW 90XLPE WIRING ONLY
1.11. SIZE ALL CONDUITS FOR MAX. 40% FILL, TO INCLUDE DEDICATED INSULATED GROUND WIRE.
1.12. CONDUITS EXPOSED TO THE WEATHER, IN WET LOCATIONS, SUBJECT TO MECHANICAL DAMAGE OR IN ANY HAZARDOUS LOCATIONS, SHALL BE RIGID GALVANIZED STEEL.
1.13. RIGID METAL CONDUIT ENTERING BOXES IN WET LOCATIONS SHALL BE SECURED WITH STEEL BULLET HUB CONNECTORS. NYLON INSULATED WITH NEOPRENE 'O' RING.
1.14. ALL CONDUIT WORK IN OR UNDER FLOOR SLAB SHALL BE RIGID PVC. RIGID CONDUIT SHALL BE USED WHERE OVERHEAD RUNS, SURFACE MOUNT ON WALLS AND WITHIN WALLS.
1.15. ALL CONDUITS MUST BE SECURELY FASTENED WITH APPROVED CLIPS AND SCREWS IN PARTITIONS AND CADDY CLIP IN CEILING SPACE.
1.16. COUPLINGS AND CONNECTS SHALL BE RAINTIGHT FOR EXTERIOR INSTALLATION AND SET SCREW TYPE OR INTERIOR INSTALLATION.
1.17. ALL CONDUITS INDOORS SHALL BE STEEL EMT.
1.18. UNDERGROUND AND CONCRETE ENCASED CONDUITS SHALL BE RIGID PVC.
1.19. RACEWAYS SHALL BE RIGID METAL CONDUIT, EMT OR FLEXIBLE CONDUIT AS SHOWN ON THE DRAWINGS. ALL CONDUIT WORK IN OR UNDER FLOOR SLAB SHALL BE RIGID PVC AND EMT WHERE RUN OVERHEAD AND ON/IN WALLS.
1.20. ALL CONDUITS, ETC, SHALL BE INSTALLED TO TAKE CARE OF EXPANSION AND APPROVED EXPANSION JOINTS SHALL BE INSTALLED WHERE REQUIRED WHETHER INDICATED OR NOT
1.21. A SEPARATE GROUND WIRE SHALL BE INSTALLED IN ALL FLEXIBLE CONDUITS, EMT CONDUITS, UNDERGROUND CONDUITS, IN WALL OR BELOW SLAB, AND IN ALL NON-METALLIC CONDUITS OR DUCTS.
1.22. RIGID P.V.C. CONDUIT SHALL BE A RIGID NON-METALLIC CONDUIT OF UNPLASTICIZED POLYVINYL CHLORIDE.

2. SPLITTER, JUNCTION BOXES AND PULL BOXES
2.1. SPLITTER
2.1.1. SHEET METAL ENCLOSURE, WELDED CORNERS AND FORMED HINGED COVER SUITABLE FOR LOCKING IN CLOSED POSITION. PROVIDE CSA TYPE 1 ENCLOSURES IN NON-SPRINKLERED ENVIRONMENTS AND CSA TYPE 4/12 IN SPRINKLERED ENVIRONMENTS.
2.1.2. MAIN AND BRANCH LUGS TO MATCH REQUIRED SIZE AND NUMBER OF INCOMING AND OUTGOING CONDUCTORS AS INDICATED.
2.1.3. AT LEAST THREE SPARE TERMINALS ON EACH SET OF LUGS IN SPLITTERS
2.2. JUNCTION BOXES AND PULL BOXES
2.2.1. WELDED STEEL CONSTRUCTION WITH SCREW-ON FLAT COVERS FOR SURFACE MOUNTING.
2.2.2. COVERS WITH 25 MM MINIMUM EXTENSION ALL AROUND, FOR FLUSH-MOUNTED PULL AND JUNCTION BOXES.
2.2.3. SHALL BE SUITABLE FOR SURFACE MOUNTING AND BE OF WELDED STEEL CONSTRUCTION WITH SCREW-ON FLAT COVERS.
2.2.4. FLUSH-MOUNTED PULL AND JUNCTION BOXES, PROVIDE COVERS WITH 27MM (1") MINIMUM EXTENSION ALL AROUND.
2.1.4. IN AREAS WITH DRYWALL CEILINGS, CONTRACTOR SHALL LOCATE/RELOCATE ALL NEW/EXISTING JUNCTION BOXES, PULL BOXES, DISCONNECTS, ETC. TO ACCESSIBLE AREAS, AS REQUIRED BY THE CANADIAN ELECTRICAL CODE. WHERE IT IS NO POSSIBLE TO RELOCATE/INSTALL EXISTING/NEW SERVICES IN ACCESSIBLE AREAS, CONTRACTOR SHALL PROVIDE ACCESS PANELS C/W FIRE RATINGS AS REQUIRED.
2.1.5. A MINIMUM OF ONE PULL BOX SHALL BE INSTALLED FOR:
.1EVERY 100 FT.(30M) OF CONDUIT
.2MAXIMUM 360 DEGREE OF COMBINED BENDS
.3 MAXIMUM 180 DEGREE OF COMBINED BENDS FOR COMMUNICATION SYSTEM.

3. WIRE AND CABLE
3.1. ALL NEW WIRING SHALL BE COPPER RATED MIN. 90° C INSULATION.
3.2. WIRE IN CONDUIT SHALL BE USED FOR ALL POWER AND LIGHTING BRANCH CIRCUITS.
3.3. NEW CONNECTIONS TO VIBRATING EQUIPMENT, SUCH AS MOTORS OR MECHANICAL EQUIPMENT, SHALL BE MADE USING LIQUID-TIGHT FLEXIBLE STEEL CONDUIT. NO ALUMINUM CONDUIT SHALL BE USED.
3.4. WHERE NEW DEVICES ARE INSTALLED AT EXISTING LOCATIONS THE EXISTING BOXES AND CONDUIT ARE TO BE REPLACED.
3.5. PROVIDE A GREEN COLOURED GROUND WIRE IN EACH CONDUIT. MINIMUM SIZE TO BE IN LINE WITH ONTARIO ELECTRICAL SAFETY CODE
3.6. ALL POWER WIRING OUTDOORS, INCLUDING WIRING IN CONDUIT OR DUCT, SHALL BE RW90U COPPER.
3.7. GENERALLY, CONDUCTOR & CONDUIT SIZES ARE INDICATED ON DRAWINGS. SUCH SIZES ARE MINIMUM REQUIREMENTS AND MUST BE INCREASED, WHERE CABLE RUNS EXCEED 100FT. TO SUIT THE VOLTAGE DROP IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE. THE ELECTRICAL CONTRACTOR SHALL EXAM AND REVIEW THE DRAWING, AND UPSIZE THE CONDUIT AND WIRING AS REQUIRED TO MEET THE OESC VOLTAGE DROP REQUIREMENT AND INCLUDE ALL COSTS IN THE TENDER BID.
3.8. NO WIRE SMALLER THAN #12 AWG SHALL BE USED ON LIGHTING & POWER CIRCUITS EXCEPT FOR INTERNAL WIRING OF LIGHTING FIXTURES. WIRING SIZE SHALL BE INCREASED AT THE MINIMUM ONE (1) SIZE UP PER EVERY 20 METERS TO MEET VOLTAGE DROP REQUIREMENT, INCLUDE ALL COST IN THE TENDER BID.
3.9. ALL L.V. WIRES AND CABLES SHALL BE COPPER AND SHALL HAVE 600V INSULATION AND BE SUITABLE FOR THE LOCATION USED AND HAVE A CURRENT CARRYING CAPACITY IN ACCORDANCE WITH PROVINCIAL INSPECTION DEPARTMENT STANDARDS.
3.10. CONTROL WIRE SHALL BE NO SMALLER THAN #18 AWG.
3.11. ALL WIRING TO BE COLOUR CODED AND SHALL BE IDENTIFIED WITH BRADY SELF- STICKING PERMACODE WIRE MARKERS.
3.12. ALL JOINTS TO BE SECURELY FASTENED BY MEANS OF MARRETTE CONNECTORS.

4. OUTLET BOXES, CONDUIT BOXES AND FITTINGS
4.1. OUTLET BOXES, CONDUIT BOXES AND FITTINGS TO C.S.A. C22.2 NO.18-92
4.2. OUTLET BOXES INSTALLED INSIDE THE BUILDING SHALL BE ELECTRO-GALVANIZED AND MADE OF CODE GAUGE STEEL.
4.3. OUTLET BOXES INSTALLED OUTSIDE BUILDING SHALL BE WEATHERPROOF TYPE, WITH NEOPRENE GASKET AND CAST COVER.
4.4. OUTLET BOXES SHALL BE SECURELY FASTENED TO THE SURFACE ON WHICH THEY ARE MOUNTED. IF THE BOXES ARE NOT MOUNTED ON A SURFACE THEN ADEQUATE AND INDEPENDENT SUPPORTS MUST BE PROVIDED.
4.5. MULTI-GANG OUTLET BOXES WITH SINGLE COVER PLATE SHALL BE USED WHERE SWITCHES ARE GROUPED.
4.6. ALL UNUSED OPENED KNOCKOUTS/OUTLET BOXES SHALL BE CLOSED WITH STEEL KNOCKOUT/PLATE PLUGS.
4.7. OUTLET BOXES SHALL BE PROVIDED FOR EACH RECESSED OR SURFACE MOUNTED LIGHTING FIXTURE.

5. GROUNDING
5.1. GROUND CONDUCTORS: SOLID COPPER, INSULATED AND BARE TO SUIT APPLICATION AND CODE REQUIREMENTS; AND BOND CONDUCTORS.
5.2. PROVIDE REQUIRED GROUNDING AND BONDING WORK IN ACCORDANCE WITH DRAWINGS, LOCAL GOVERNING ELECTRICAL AUTHORITY, GOVERNING AUTHORITIES HAVING JURISDICTION AND LOCAL GOVERNING ELECTRICAL INSPECTION AUTHORITY.
5.3. GROUND AND BOND ALL METAL ENCLOSURE EQUIPMENT, AS WELL AS OTHER METAL PARTS SUCH AS MECHANICAL PIPES, WATER/GAS PIPES, DUCTS, DOOR FRAMES, FENCES, ETC. TO PERIMETER GROUND BUS. PROVIDE MINIMUM NO. 3/0 INSULATED GROUND WIRE.
5.4. GROUND CONDUCTORS TO BE INSULATED COPPER WIRE CONNECTED WITH APPROVED FITTINGS IN ACCORDANCE WITH LOCAL GOVERNING ELECTRICAL CODE.
5.5. GROUND CONDUCTORS NOT SIZED ON DRAWINGS ARE TO BE SIZED IN ACCORDANCE WITH LOCAL GOVERNING ELECTRICAL AUTHORITY REQUIREMENTS.
5.6. PROVIDE SEPARATE, INSULATED BONDING CONDUCTOR WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY.
5.7. WHEN MAKING GROUND AND BONDING CONNECTIONS, APPLY A CORROSION INHIBITOR TO CONTACT SURFACES. USE CORROSION INHIBITOR APPROPRIATE FOR PROTECTING A CONNECTION BETWEEN METALS USED.
5.8. OPENING IN ALL ELECTRICAL METAL BOXES SHALL BE PUNCHED OR CUT. BURNING OF HOLES WILL NOT BE PERMITTED.
5.9. PROVIDE GROUNDING FOR THE COMPLETE INSTALLATION AS REQUIRED BY THE ELECTRICAL SAFETY CODE AND IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY AUTHORITY.
5.10. PROVIDE COMPLETE PERMANENT AND CONTINUOUS, SYSTEM AND EQUIPMENT GROUNDING SYSTEMS INCLUDING, GROUND RODS, CONDUCTORS, CONNECTORS, ACCESSORIES, TO CONFORM TO REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
5.11. A SEPARATE COPPER WIRE SHALL BE INSTALLED IN ALL FLEXIBLE CONDUITS, EMT CONDUITS AND IN ALL NON METALLIC CONDUITS AND IN ALL CONDUITS IN CONCRETE SLABS.

6. MECHANICAL TRADES WIRING
6.1. MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS AND CONTROL WIRING FOR HVAC EQUIPMENT AND ALL OTHER EQUIPMENT UNDER MECHANICAL DIVISION. ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE AND LOAD SIDE LINE VOLTAGE WIRING AND REQUIRED DISCONNECT SWITCHES. CONFIRM ALL REQUIREMENTS AND EQUIPMENT LOCATION WITH MECHANICAL CONTRACTOR AND DRAWING PRIOR TO ROUGH-IN.
6.2. CONTROL WIRING INCLUDING CONDUIT FOR ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED BY MECHANICAL DIVISION.

7. MEGGERING AND BALANCING
7.1. MEGGER ALL POWER CIRCUIT FEEDERS. IF GROUND RESISTANCE ON ANY CIRCUIT IS LESS THAN THAT REQUIRED BY C.S.A. OR OTHER GOVERNING REGULATIONS, SUCH CIRCUITS ARE TO BE CONSIDERED DEFECTIVE AND MUST BE REPLACED.
7.2. MEASURE PHASE CURRENT TO PANELBOARDS WITH NORMAL LOADS OPERATING AT TIME OF ACCEPTANCE. ADJUST BRANCH CIRCUIT CONNECTIONS AS REQUIRED TO OBTAIN BEST BALANCE OF CURRENT BETWEEN PHASES AND SUBMIT A REPORT FOR INSERTION INTO MANUALS.

8. DISCONNECTS
8.1. FUSIBLE OR NON-FUSIBLE, HORSEPOWER RATED DISCONNECT SWITCH IN NEMA 3R SPRINKLER PROOF ENCLOSURE, SIZE AS INDICATED.
8.2. SWITCHES SHALL HAVE PROVISION FOR PADLOCKING IN THE "OFF" POSITION AND INTERLOCK DEFEAT.
8.3. INTERLOCKED WITH THE SWITCH COVER SO THAT IT CAN ONLY BE OPENED WHEN THE SWITCH IS IN THE "OFF" POSITION, AND THE HANDLE CANNOT BE PUT IN THE "ON" POSITION UNLESS THE COVER IS CLOSED.
8.4. FUSES: SIZE AS INDICATED, CLASS J, CURRENT LIMITING, IN ACCORDANCE WITH SECTION 26 28 14 - FUSES - LOW VOLTAGE.
8.5. FUSE-HOLDERS: SUITABLE WITHOUT ADAPTORS, FOR TYPE AND SIZE OF FUSE INDICATED.
8.6. ON-OFF SWITCH POSITION INDICATION ON SWITCH ENCLOSURE COVER. SWITCHES SHALL HAVE AMPLE GUTTER SPACE FOR TOP OR BOTTOM WIRING AND SHALL HAVE FULLY VISIBLE BLADES WHEN IN THE "OFF" POSITION, QUICK-MAKE, QUICK-BREAK MECHANISM AND BE HORSE-POWER RATED.
8.7. THE FUSED SWITCHES SHALL HAVE STEEL REINFORCED CLIPS AND FUSES SHALL BE EASILY REMOVABLE WHEN THE SWITCH IS IN THE "OFF" POSITION.
8.8. SWITCHES USED OUTDOORS SHALL BE IN A WEATHERPROOF ENCLOSURE
8.9. ALL MOTORS SHALL BE PROVIDED WITH A DISCONNECT SWITCH BY THIS DIVISION UNLESS OTHERWISE NOTED.
8.10. THE DISCONNECT SWITCHES SHALL BE AS MANUFACTURED BY EATON, SIEMENS, OR SQUARE 'D'.
8.11. ALL DISCONNECT SWITCHES SHOWN IN DOTTED LINE ON THE DRAWINGS ARE SUPPLIED AND INSTALLED BY ANOTHER DIVISION OF THIS SPECIFICATION.

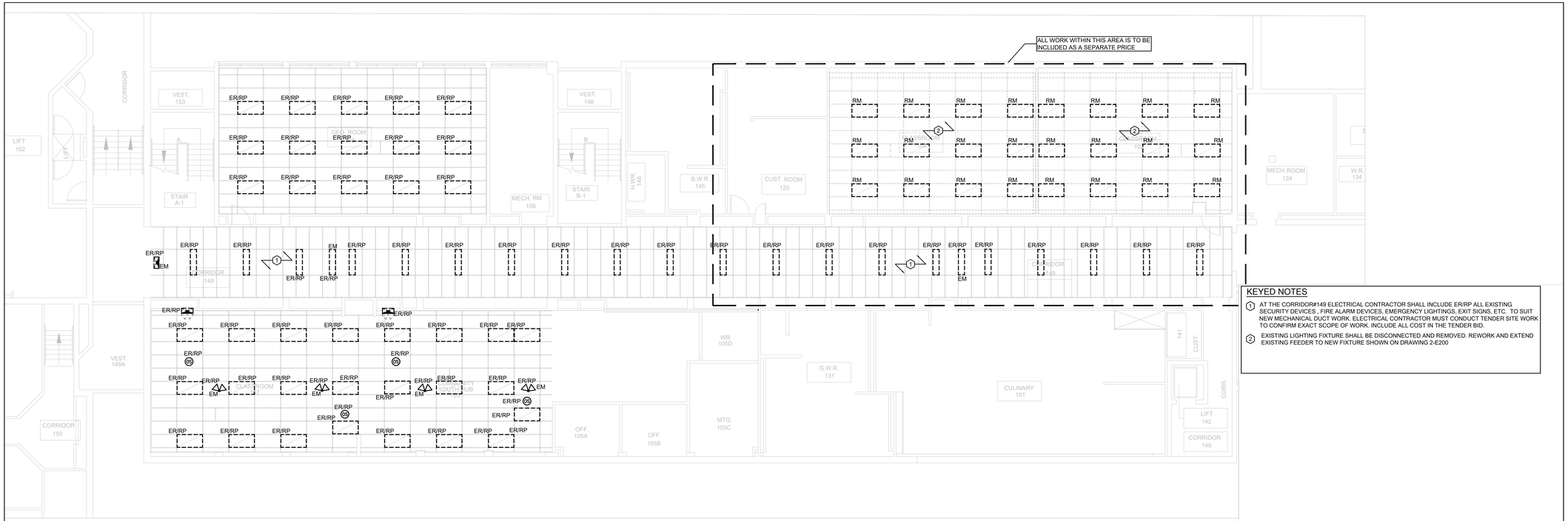
9. LIGHTING FIXTURES
9.1. ALL PRODUCTS MUST BE CSA OR CUL LISTED
9.2. LIGHT EMITTING DIODES (LED) SHALL COMPLY THE FOLLOWING:
9.2.1. LEDS ARE TO MEET THE STANDARDS OF IESNA LM-79 AND LM-80.
9.2.2. THE LIFETIME RATING OF DRIVER, LEDS AND ALL ELECTRICAL COMPONENTS OF COMPLETE FIXTURE SHALL BE 60,000 HOURS MINIMUM AT FULL LOAD.
9.2.3. COLOUR TEMPERATURE SHALL RANGE FROM 3700K TO 5100K AS CALLED FOR IN THE LIGHTING FIXTURE SCHEDULE.
9.2.4. ALL ELECTRICAL COMPONENTS SHALL HAVE A MINIMUM 5-YEAR REPLACEMENT (PARTS AND LABOR) WARRANTY.
9.2.5. LED DRIVER TYPE AS PER SPECIFICATION.
9.2.6. LIGHT EMITTING DIODES SHALL BE MANUFACTURED BY "CREE" OR EQUAL.
9.2.7. JUNCTION TEMPERATURE AT 25°C AMBIENT SHALL NOT EXCEED 60°-70°C.
9.2.8. LUMENS PER WATT OUTPUT (LPW) SHALL BE NOT LESS THAN 100 LPW.
9.2.9. LED LIGHT FIXTURE(S) SHALL BE DLC CERTIFIED.
9.2.10. LED LIGHT FIXTURE(S) SHALL BE COMPLETELY DIMMABLE 0-10V DIMMING DRIVER.
9.3. ALL RECESSED LUMINAIRES INSTALLED IN OR ON BASE BUILDING CEILINGS SHALL BE INDEPENDENTLY SUPPORTED FROM BUILDING STRUCTURE WITH CHAIN UNLESS OTHERWISE NOTED.
9.4. NEW AND RELOCATED EXISTING BASE BUILDING RECESSED LUMINARIES SHALL BE INSTALLED WITH CHAIN SUPPORTS UNLESS BASE BUILDING CEILING SYSTEM IS DESIGNED AND CONSTRUCTED TO SUPPORT THE ADDITIONAL WEIGHT OF THE BASE BUILDING LUMINARIES. PROVIDE WRITTEN CONFIRMATION FROM CEILING MANUFACTURER.
9.5. THE CHAIN HUNG SUPPORTS REQUIRED FOR MOUNTING AND INSTALLATION OF RECESSED LIGHTING FIXTURES SHALL BE SUPPLIED AND INSTALLED BY THIS DIVISION. THE SUPPORTS SHALL BE ATTACHED TO THE STRUCTURE (MINIMUM 2 SUPPORTS PER FIXTURE), THE CEILING SYSTEM AND MECHANICAL DUCTWORK SHALL NOT BE USED AS A SUPPORTING MEANS. PRIOR TO INSTALLATION OF LIGHTING FIXTURES, ELECTRICAL CONTRACTOR SHALL CO-ORDINATE WITH CONSULTANT AND GET APPROVAL.
9.6. FIXTURES CONNECTED TO THE CIRCUITS EXCEEDING 150 VOLT TO GROUND SHALL BE MOUNTED AT LEAST 8 FEET ABOVE FLOOR LEVEL.
9.7. FIXTURES MOUNTED IN CONTINUOUS ROWS SHALL BE EQUIPPED WITH ALIGNING CLIPS.
9.8. THE LOCATIONS OF LIGHTING FIXTURES IN CEILING SYSTEM IS DESIGNED AND MECHANICAL ROOMS, ETC., SHALL BE DETERMINED AFTER THE EQUIPMENT IS INSTALLED.
9.9. REFER TO INTERIOR DESIGNER/ARCHITECT'S REFLECTED CEILING DRAWINGS FOR THE EXACT LOCATION OF THE LIGHTING FIXTURES.
9.10. COORDINATE WITH THE OTHER DIVISIONS TO ESTABLISH PROPER CLEARANCES FROM SPRINKLER HEADS, DIFFUSERS, DUCTS, ETC.
9.11. PROVIDE ADDITIONAL SUPPORTS, HANGERS, ETC. REQUIRED TO SUPPORT FIXTURES MOUNTED UNDER DUCTWORK. THE FIXTURE SUPPORTS SHALL NOT BE ATTACHED TO EITHER THE DUCTWORK OR THE DUCTWORK SUPPORTS.
9.12. THE FIXTURES WITH THE INSCRIBED LETTER SHALL BE OF THE TYPE SHOWN ON THE DRAWING.
9.13. THE LOUVRES FOR LIGHT COVES IN WASHROOMS AND DISPLAY CASES AND WHERE SHOWN SHALL BE 1/2" X 1/2" X1/2" (13 X 13 X 13MM) CONTINUOUS ALUMINUM AND SHALL BE OF AMERICAN LOUVRE MANUFACTURE.
9.14. LENSES SHALL BE ACRYLIC (MINIMUM OF 0.175MM) WITH A MAXIMUM FLAME SPREAD RATING OF 250 AND SMOKE DEVELOPMENT CLASSIFICATION OF 600 AND SHALL BE OF KSH, AMERICAN LOUVRE OR ORCONS MANUFACTURE.
9.15. REMOVE FROM THE SITE ALL EMPTY CARTOONS, CRATES, ETC. IN WHICH THE FIXTURES AND LAMPS ARE DELIVERED.
9.16. SURFACE MOUNTED FIXTURES SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE ABOVE.
9.17. SURFACE MOUNTED FIXTURES SHALL HAVE MINIMUM CLEARANCE OF 2'-0" (600MM) FROM ADJACENT SPRINKLER HEADS.
9.18. PROVIDE AND CONNECT ALL BRANCH CIRCUIT CONDUIT AND WIRING TO THE SIGNS
9.19. ANGLES REQUIRED FOR SUPPORT OF 1/2" X 1/2" X 1/2" (13 X 13 X 13MM) LOUVRE SHALL BE BY CEILING DIVISION.
9.20. FIXTURES FROM OTHER MANUFACTURERS MAY BE ACCEPTABLE PROVIDED
9.20.2. APPEARANCE AND LIGHTING PERFORMANCE ARE SIMILAR.
9.20.3. QUALITY IS EQUAL OR BETTER.
9.20.4. PHOTOMETRIC CALCULATION IS PROVIDED 5 DAYS PRIOR TO TENDER CLOSING DATE FOR CONSULTANT REVIEW AND APPROVAL.

10. EMERGENCY LIGHTING
10.1. SUPPLY AND INSTALL EMERGENCY LIGHTING EQUIPMENT COMPLETE WITH ASSOCIATED CONDUITS, WIRING, DEVICES, ETC., AS SHOWN ON DRAWINGS.
10.2. INSTALL UNITS WHERE SHOWN ON THE DRAWINGS AND PROVIDE ALL NECESSARY MOUNTING PLATFORMS AND MOUNTING HARDWARE.
10.3. WHERE REMOTE HEAD ARE SHOWN, PROVIDE SUITABLE OUTLET BOX FOR THE INSTALLATION OF THE REMOTE HEADS. CONNECT WITH CONDUIT TO BATTERY UNIT. WIRE SIZE TO BE MANUFACTURER'S RECOMMENDATIONS, BUT NOT LESS THAN #10 GUAGE, AND FOR A MAXIMUM OF 3% VOLTAGE DROP AT REMOTE HEADS. ENSURE REMOTE HEAD WIRING LENGTHS ARE REVIEWED WITH MANUFACTURER PRIOR TO INSTALLATION.
10.4. ELECTRICAL CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION FOR EMERGENCY LIGHTING INSTALLATION AND TESTING, AND REPORT OF EMERGENCY LIGHTING LEVELS IN AREA OF RENOVATIONS, MEASURED ON SITE.
10.5. THE COMPLETE SYSTEM SHALL HAVE A ONE YEAR UNCONDITION GUARANTEE AND A 5-YEAR PRO-RATA GUARANTEE ON WORKMANSHIP AND PARTS AND 10 YEARS PRO-RATA ON BATTERIES.

11. LIGHTING CONTROL DEVICES
11.1. PROVIDE LIGHTING CONTROL DEVICE(S) INCLUDING OCCUPANCY SENSORS, DIMMERS, ETC., AS SPECIFIED ON THE DRAWINGS. PROVIDE ASSOCIATED POWER AND RELAY PACKS AND ALL ASSOCIATED MOUNTING ACCESSORIES.
11.2. ELECTRICAL CONTRACTOR SHALL INCLUDE IN TENDER PRICE FOR INSTALLATION, TESTING, TIME ADJUSTMENT, FUNCTIONAL TESTING AND COMMISSIONING OF OCCUPANCY SENSORS, AND PROGRAMMING OF ALL LIGHTING CONTROL DEVICES FOR LIGHT FIXTURES ON A ROOM BY ROOM BASIS WITHIN ENTIRE SCOPE OF WORK BY MANUFACTURER. SUBMIT VERIFICATION/COMMISSIONING REPORT AFTER COMPLETION OF WORK.
11.3. LIGHTING CONTROL DEVICES COMMISSIONING:
11.3.1. FUNCTIONAL TESTING: LIGHTING CONTROL DEVICES AND CONTROL SYSTEMS SHALL BE TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED, AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE OCCUPANCY SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, OR PHOTO SENSORS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:
11.3.1.1. OCCUPANCY SENSOR:
11.3.1.1.1. CERTIFY THAT THE SENSOR HAS BEEN LOCATED AND AIMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
11.3.1.1.2. STATUS INDICATOR (AS APPLICABLE) OPERATES CORRECTLY.
11.3.1.1.3. CONTROLLED LIGHTS TURN OFF OR DOWN TO THE PERMITTED LEVEL WITHIN THE REQUIRED TIME.
11.3.1.1.4. FOR AUTO-ON OCCUPANCY SENSORS, THE LIGHTS TURN ON TO THE PERMITTED LEVEL WHEN SOMEONE ENTERS THE SPACE.
11.3.1.1.5. FOR MANUAL-ON SENSORS, THE LIGHT TURN ON ONLY WHEN MANUALLY ACTIVATED.
11.3.1.1.6. THE LIGHTS ARE NOT INCORRECTLY TURNED ON BY MOVEMENT IN NEARBY AREAS OR BY HVAC OPERATION.
11.3.1.2. SIMULATE OCCUPIED & UNOCCUPIED CONDITION PER SEQUENCE OF OPERATION NOTED ON THE DRAWING.
11.3.2. FUNCTIONAL TESTING REPORT/DOCUMENTATION SHALL CERTIFY THAT THE INSTALLED LIGHTING CONTROL OF EACH RESPECTIVE SPACE WITHIN ENTIRE SCOPE OF WORK MEETS ALL REQUIREMENTS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
11.3.3. ACCEPTABLE MANUFACTURER OF LIGHTING CONTROL DEVICES: WATTSTOPPER, EATON, LUTRON OR APPROVED EQUAL.
11.3.4. INSTALL ALL LIGHTING CONTROL DEVICES AS SHOWN ON ELECTRICAL DRAWINGS. PROVIDE ALL COMPONENTS TO SUIT.
11.3.5. EXACT LOCATION OF OCCUPANCY SENSORS SHALL BE COORDINATED ON SITE AND SHALL COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS.
11.3.6. INSTALL NUMBER OF POWER PACKS AND ASSOCIATED RELAYS TO SUIT THE NUMBER OF CIRCUITS IN THE RESPECTIVE SPACES. INSTALLATION SHALL COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH THE MANUFACTURER.

12. POWER DISTRIBUTION EQUIPMENT
12.1. PANELBOARDS: PRODUCT OF ONE MANUFACTURER.
12.2. INSTALL CIRCUIT BREAKERS IN PANELBOARDS BEFORE SHIPMENT.
12.3. IN ADDITION TO CSA REQUIREMENTS MANUFACTURER'S NAMEPLATE MUST SHOW FAULT CURRENT THAT THE PANEL INCLUDING ALL BREAKERS HAVE BEEN BUILT TO WITHSTAND.
12.4. PANELBOARDS TO HAVE THE FOLLOWING MINIMUM RATINGS FOR INTERRUPTING CAPACITY OR AS INDICATED ON THE DRAWINGS OR PANEL SCHEDULES.
12.5. TWO KEYS FOR EACH PANELBOARD AND KEY PANELBOARDS ALIKE.
12.6. ALL TRANSFORMERS, DISTRIBUTION PANELS. AND LIGHTING PANELS SHALL BE COMPLETE WITH COPPER BUS.
12.7. ENSURE NEUTRAL IS GROUNDED TO THE BUILDING GROUND SYSTEM FOR THE TRANSFORMER
12.8. ALL FUSES SHALL BE HRC TYPE 'J' WITH TIME DELAY UNLESS SHOWN OTHERWISE.
12.9. PANELBOARDS SHALL BE SPRINKERPROOF OF THE SIZE, CAPACITY AND TYPE AS SHOWN ON THE DRAWINGS.
12.10. PANELBOARDS SHALL BE OF THE DEAD FRONT TYPE ENCLOSED IN CODE GAUGE STEEL EQUIPPED WITH DOOR, LOCK AND DIRECTORY AND SHALL BE SUITABLE FOR SURFACE OR FLUSH MOUNTING AS REQUIRED AND SHALL BE SPRINKLER PROOF TYPE.
12.11. BUSSING IN EACH PANELBOARD SHALL BE COPPER AND SHALL EXTEND THE FULL LENGTH OF THE PANEL.
12.12. PANELBOARDS FOR USE ON 208 VOLT SYSTEM SHALL, UNLESS OTHERWISE NOTED BE OF THE "NOQD" TYPE WITH NB BREAKERS AND SHALL MATCH EXISTING.
12.13. PANELBOARDS, INCLUDING TUBS, SHALL HAVE TWO COATS OF PRIMER PAINT AND TWO FINISH COATS OF ASA 61 GREY PAINT.
12.14. MOULDED CASE CIRCUIT BREAKERS
12.14.1. BOLT-ON MOULDED CASE CIRCUIT BREAKER: QUICK-MAKE, QUICK-BREAK TYPE, FOR MANUAL AND AUTOMATIC OPERATION WITH TEMPERATURE COMPENSATION FOR 40 DEG. C. AMBIENT.
12.14.2. COMMON-TRIP BREAKERS: WITH SINGLE HANDLE FOR MULTI-POLE APPLICATIONS.
12.14.3. MOULDED CASE CIRCUIT BREAKER TO OPERATE AUTOMATICALLY BY MEANS OF THERMAL AND MAGNETIC TRIPPING DEVICES TO PROVIDE INVERSE TIME CURRENT TRIPPING AND INSTANTANEOUS TRIPPING FOR SHORT CIRCUIT PROTECTION.
12.14.4. MAIN BREAKER, WHERE INDICATED: SEPARATELY MOUNTED ON TOP OR BOTTOM OF PANEL TO SUIT CABLE ENTRY. WHEN MOUNTED VERTICALLY, DOWN POSITION SHOULD OPEN BREAKER.
12.14.5. LOCK-ON DEVICES FOR 10 % OF 15 TO 30 A BREAKERS INSTALLED. TURN OVER UNUSED LOCK-ON DEVICES TO OWNER.
12.14.6. PROVIDE ONE BREAKER PER DESIGNATED BREAKER SPACE. MULTIPLE BREAKERS CONTAINED IN ONE HOUSING OR TWIN BREAKERS ARE NOT ACCEPTABLE.
12.14.7. LOCATE PANELBOARDS AS INDICATED AND MOUNT SECURELY, PLUMB, TRUE AND SQUARE, TO ADJOINING SURFACES.
12.14.8. INSTALL SURFACE MOUNTED PANELBOARDS ON GALVANIZED UNISTRUT STAND-OFFS OR ON FIRE RATED PLYWOOD BACKBOARDS.
12.14.9. ONE COMMON NEUTRAL CONDUCTORS TO COMMON NEUTRAL BUS WITH RESPECTIVE NEUTRAL IDENTIFIED
12.14.10. PRIOR TO ENERGIZING OR COMMISSIONING THE PANELBOARDS, THEY SHALL BE FULLYINSPECTED, TESTED, CHECKED AND ADJUSTED TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
.1 GROUNDING
.2 BUS TORQUE, SUPPORTS, CLEARANCE, GENERAL MECHANICAL CONDITIONS AND INSULATION RESISTANCE, GROUNDING.
.3 CONTINUITY OR FEEDER CABLES.
.4 BREAKER OPERATION AND BREAKER SETTINGS, CONTINUITY OF FEEDER CABLES.
.5 PHASE RESISTANCE OF FEEDER CABLES, INSULATION RESISTANCE OF FEEDER CABLES.
.6 PROPER PHASING OF INCOMING AND FEEDER CABLES.
.7 EQUAL DIVISION OF LOAD BETWEEN PARALLEL CONDUCTORS.

13. WIRING DEVICES
13.1. ALL WIRING DEVICES AND COPPERPLATES SHALL BE SPECIFICATION GRADE.
13.2. DUPLEX RECEPTACLE SHALL BE DECORA STYLE. SPECIFICATION GRADE. 15A/20A. 120V UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL/INTERIOR DESIGN DRAWINGS FOR MOUNTING HEIGHT.
13.3. LOCAL SWITCH SHALL BE DECORA STYLE, SPECIFICATION GRADE.
13.4. FLUSH MOUNTED DEVICES SHALL HAVE STAINLESS STEEL COPPERPLATES.
13.5. LIGHT SWITCHES ON 347 VOLT CIRCUITS UNDER 3500 WATTS SHALL BE 15 AMP, AND ABOVE 3500 WATTS SHALL BE 20 AMP.
13.6. RECEPTACLES SHALL BE OF THE TYPE SHOWN ON THE DRAWINGS WITH THE STANDARD C.S.A. CONFIGURATIONS AND SHALL BE PREMIUM SPECIFICATION GRADE, HUBBELL #5262.
13.7. LIGHT SWITCHES AND RECEPTACLES ON NORMAL POWER SHALL BE WHITE UNLESS NOTED OTHERWISE.
13.8. SERVICE RECEPTACLES FOR CARETAKERS EQUIPMENT LOCATED IN CORRIDORS, SERVICE AREA AND ON CLASSROOM CONTROL PANELS SHALL BE GREY COLOUR FOR EASY RECOGNITION.
13.9. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE, HUBBELL #1G-5262
13.10. RECEPTACLES IN CHILD CARE AREA SHALL BE TAMPER PROOF, HUBBELL #5G-62H.
13.11. WALL PLATES FOR SURFACE MOUNTED DEVICES IN UNFINISHED AREAS SHALL BE METAL COVERS FOR F.S. TYPE BOXES.
13.12. THE WEATHERPROOF PLATES SHALL BE CAST ALUMINUM WITH LIFT COVER FOR F.S. TYPE BOXES.
13.13. THE WEATHERPROOF PLATES SH



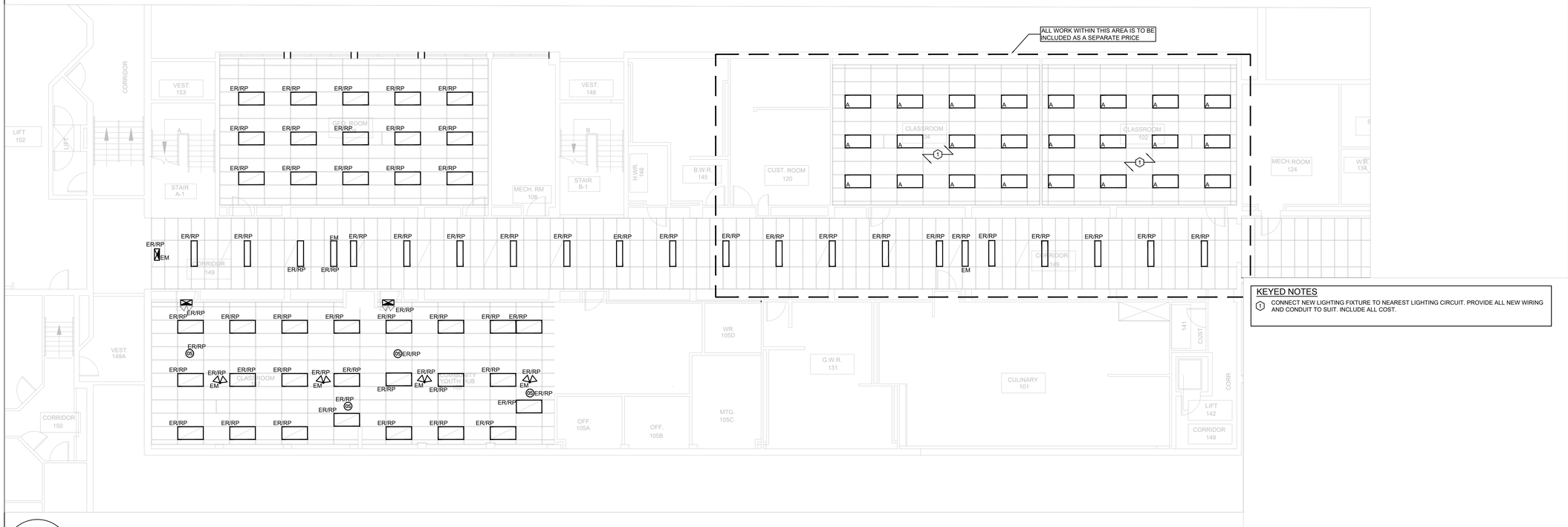
KEYED NOTES

1. AT THE CORRIDOR#149 ELECTRICAL CONTRACTOR SHALL INCLUDE ER/RP ALL EXISTING SECURITY DEVICES , FIRE ALARM DEVICES, EMERGENCY LIGHTINGS, EXIT SIGNS, ETC. TO SUIT NEW MECHANICAL DUCT WORK. ELECTRICAL CONTRACTOR MUST CONDUCT TENDER SITE WORK TO CONFIRM EXACT SCOPE OF WORK. INCLUDE ALL COST IN THE TENDER BID.
2. EXISTING LIGHTING FIXTURE SHALL BE DISCONNECTED AND REMOVED, REWORK AND EXTEND EXISTING FEEDER TO NEW FIXTURE SHOWN ON DRAWING 2-E200

1
E-200

NORTH CLASSROOM WING - 1ST FLOOR ELEC - RCP DEMO

Scale: 1:100



KEYED NOTES

1. CONNECT NEW LIGHTING FIXTURE TO NEAREST LIGHTING CIRCUIT. PROVIDE ALL NEW WIRING AND CONDUIT TO SUIT. INCLUDE ALL COST.

2
E-200

NORTH CLASSROOM WING - 1ST FLOOR ELEC - RCP NEW

Scale: 1:100

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1	ISSUED FOR PERMIT & TENDER	2026-04-28	TY

LICENSED PROFESSIONAL ENGINEER
25148
APR.28, 2026
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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

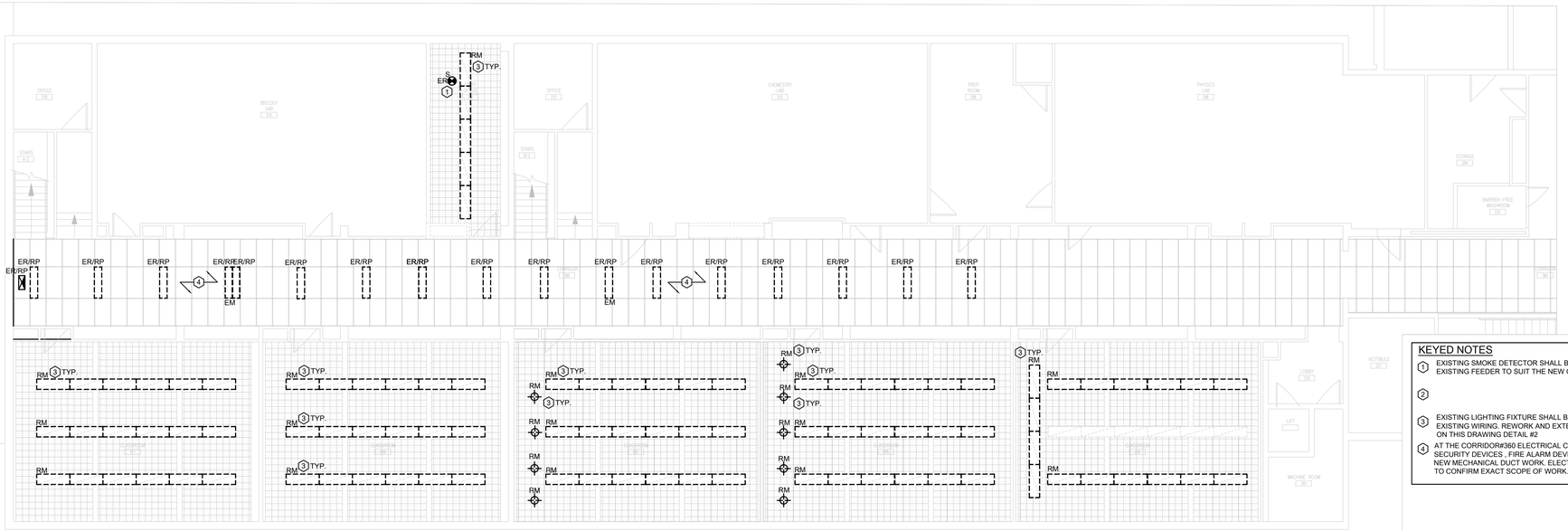
DRAWING:

ELECTRICAL NORTH CLASSROOM WING 1ST FLOOR RCP PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	

PROJECT NO: **25184**

DRAWING NO: E200



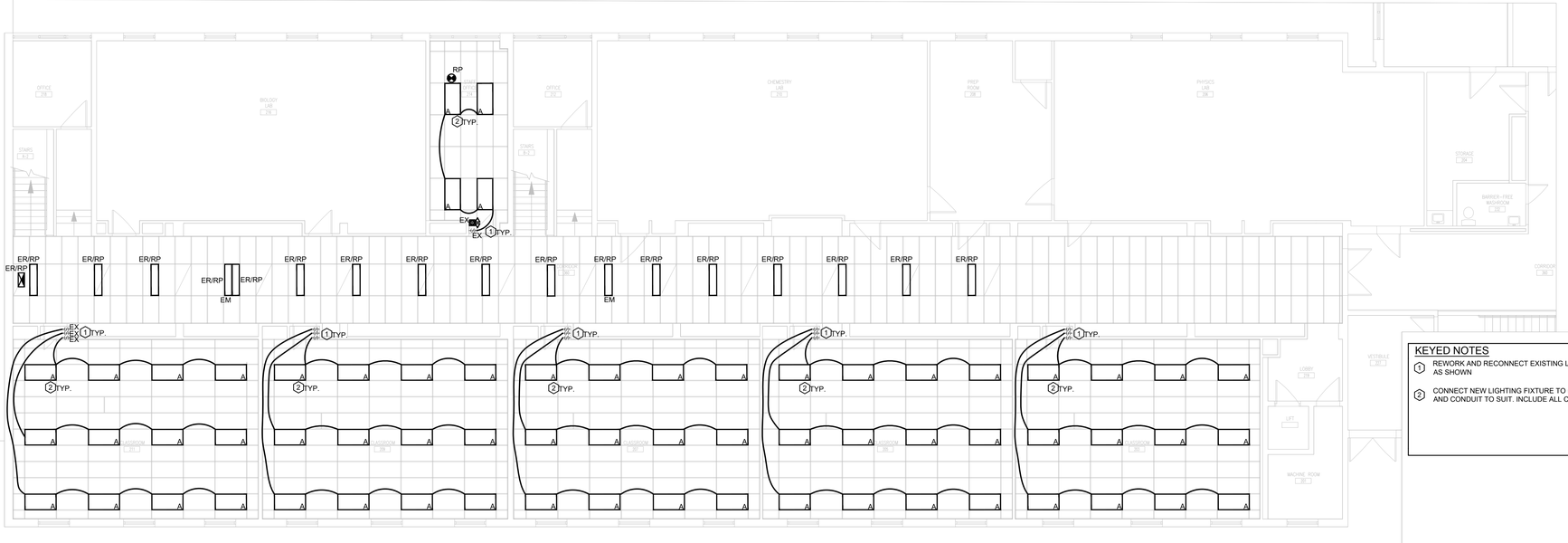
KEYED NOTES

1. EXISTING SMOKE DETECTOR SHALL BE DISCONNECT AND RELOCATED. REWORK AND EXTEND EXISTING FEEDER TO SUIT THE NEW CEILING AS SHOWN ON DRAWING 2-E201.
2.
3. EXISTING LIGHTING FIXTURE SHALL BE DISCONNECTED AND REMOVED. MAKE SAFE OF EXISTING WIRING. REWORK AND EXTEND TO NEW FIXTURE RECESS MOUNT OF IT AS SHOWN ON THIS DRAWING DETAIL #2
4. AT THE CORRIDOR#360 ELECTRICAL CONTRACTOR SHALL INCLUDE ER/RP ALL EXISTING SECURITY DEVICES , FIRE ALARM DEVICES, EMERGENCY LIGHTINGS, EXIT SIGNS, ETC. TO SUIT NEW MECHANICAL DUCT WORK. ELECTRICAL CONTRACTOR MUST CONDUCT TENDER SITE WORK TO CONFIRM EXACT SCOPE OF WORK. INCLUDE ALL COST IN THE TENDER BID.

1
E-201

NORTH CLASSROOM WING - 2ND FLOOR ELEC - RCP DEMO

Scale: 1:100



KEYED NOTES

1. REWORK AND RECONNECT EXISTING LIGHTING CONTROL WIRING TO NEW LIGHTING FIXTURE AS SHOWN
2. CONNECT NEW LIGHTING FIXTURE TO NEAREST LIGHTING CIRCUIT. PROVIDE ALL NEW WIRING AND CONDUIT TO SUIT. INCLUDE ALL COST.

2
E-201

NORTH CLASSROOM WING - 2ND FLOOR ELEC - RCP NEW

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

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DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL NORTH CLASSROOM WING 2ND FLOOR RCP PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
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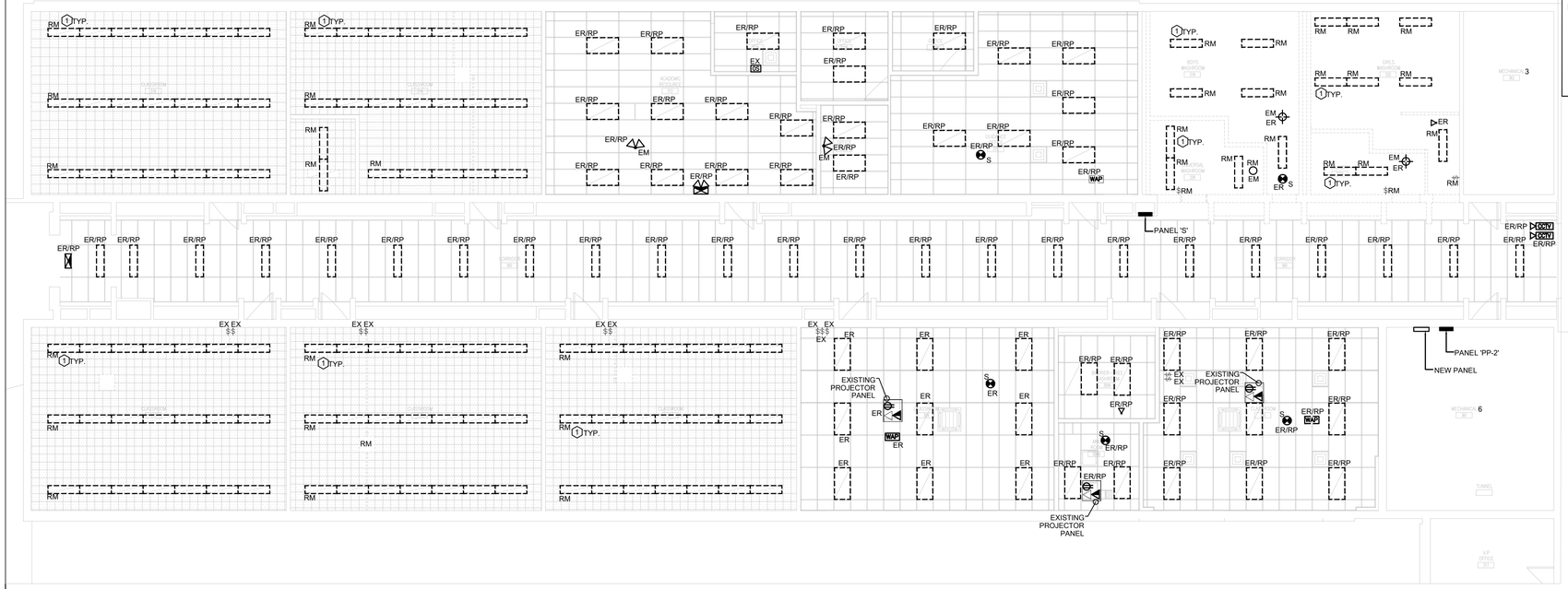
PROJECT NO:	25184
DRAWING NO:	E201



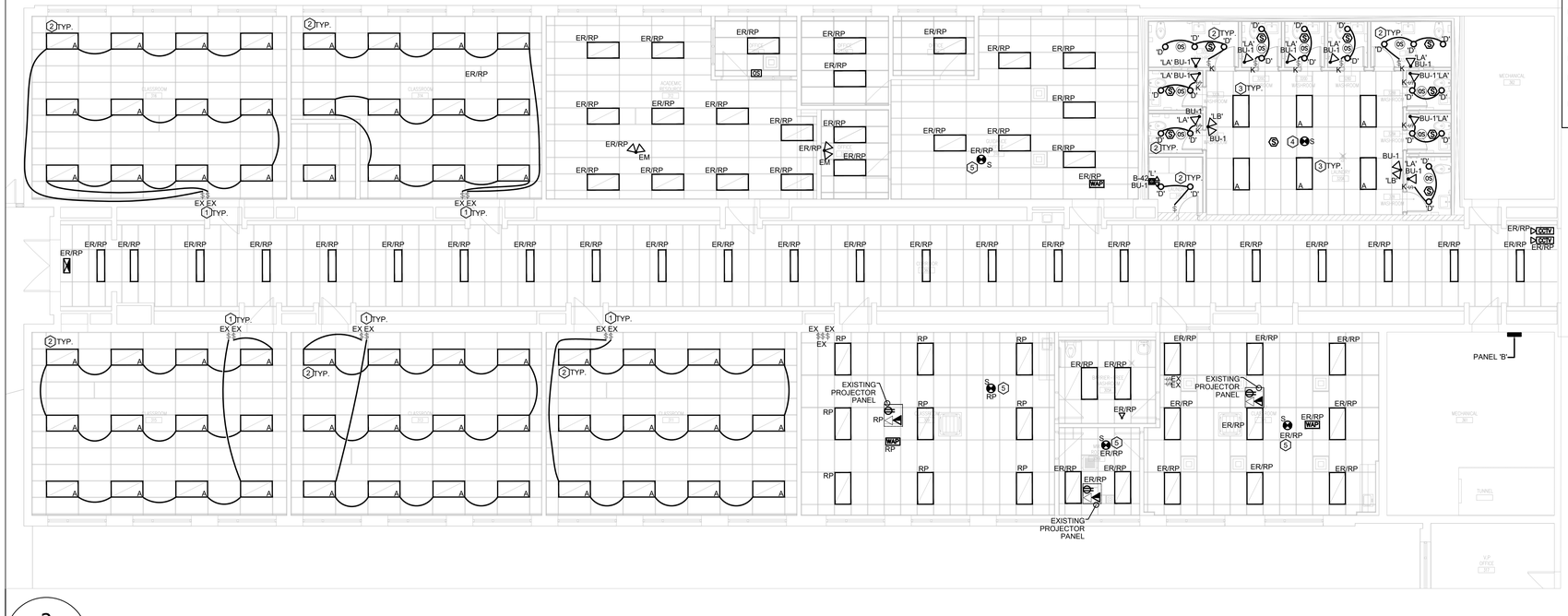
1
E-202

SOUTH CLASSROOM WING - 2ND FLOOR ELEC - RCP DEMO

Scale: 1:100

KEYED NOTES

1. EXISTING LIGHTING FIXTURE SHALL BE DISCONNECTED AND REMOVED. MAKE SAFE OF EXISTING WIRING. REWORK AND EXTEND TO NEW FIXTURE AS SHOWN ON THIS DRAWING DETAIL#2



2
E-202

SOUTH CLASSROOM WING - 2ND FLOOR ELEC - RCP NEW

Scale: 1:100

KEYED NOTES

1. REWORK AND RECONNECT EXISTING LIGHTING CONTROL WIRING TO NEW LIGHTING FIXTURE AS SHOWN
2. UTILIZE EXISTING CIRCUIT OBTAIN FROM DEMOLITION IN THIS AREA AND RECONNECT TO NEW DEVICES.
3. CONNECT TO NEAREST CORRIDOR LIGHTING CIRCUIT & LIGHTING CONTROL TO SUIT
4. PROVIDE NEW FIRE ALARM SMOKE DETECTOR (TO MATCH EXISTING) AND CONNECT TO THE NEAREST FIRE ALARM ZONE OF THIS AREA. PROVIDE CONDUIT/WIRING AND ALL ASSOCIATED COMPONENTS TO SUIT. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK.
5. ER/RP THE EXISITNG FIRE ALARM SMOKE DETECTOR AS SHOWN. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK.

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

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DURHAM DISTRICT SCHOOL BOARD

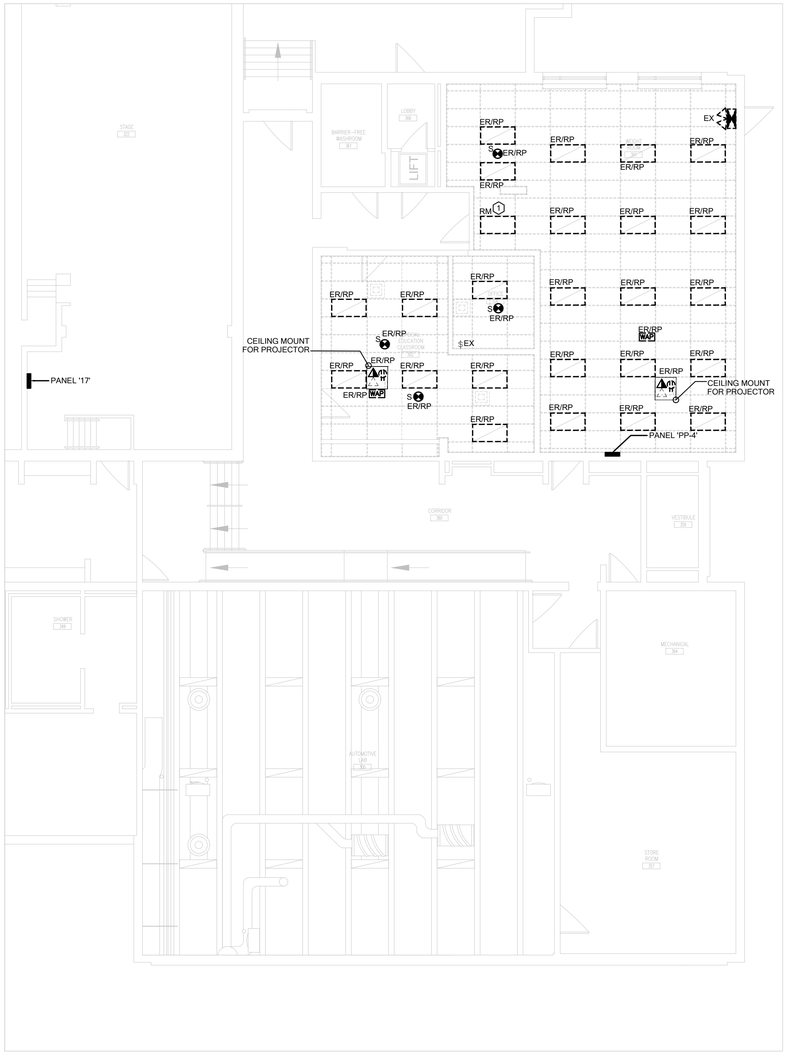
DRAWING:

ELECTRICAL SOUTH CLASSROOM WING 2ND FLOOR RCP PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E202

KEYED NOTES

1. EXISTING LIGHTING FIXTURE SHALL BE DISCONNECTED AND REMOVED. REWORK AND EXTEND EXISTING FEEDER TO NEW FIXTURE AT THE SAME LOCATION.

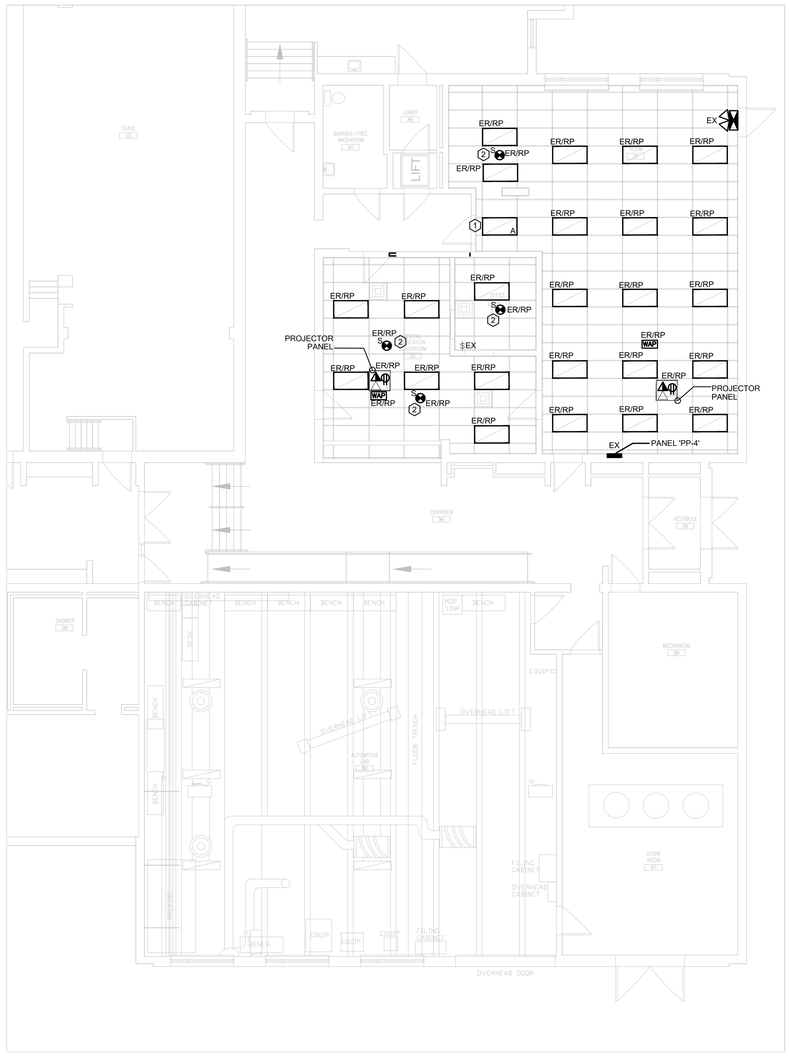


1 E-203 AUTOMOTIVE WING - 2ND FLOOR ELEC - RCP DEMO

Scale: 1:100

KEYED NOTES

1. CONNECT NEW LIGHTING FIXTURE TO NEAREST LIGHTING CIRCUIT OBTAINED FROM DEMOLITION. REWORK & EXTEND EXISTING LIGHTING CIRCUIT TO SUIT NEW LIGHT FIXTURE AS SHOWN. PROVIDE ALL ASSOCIATED CONDUIT AND WIRING TO SUIT
2. ER/RP THE EXISITNG FIRE ALARM SMOKE DETECTOR AS SHOWN. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK.



2 E-203 AUTOMOTIVE WING - 2ND FLOOR ELEC - RCP NEW

Scale: 1:100

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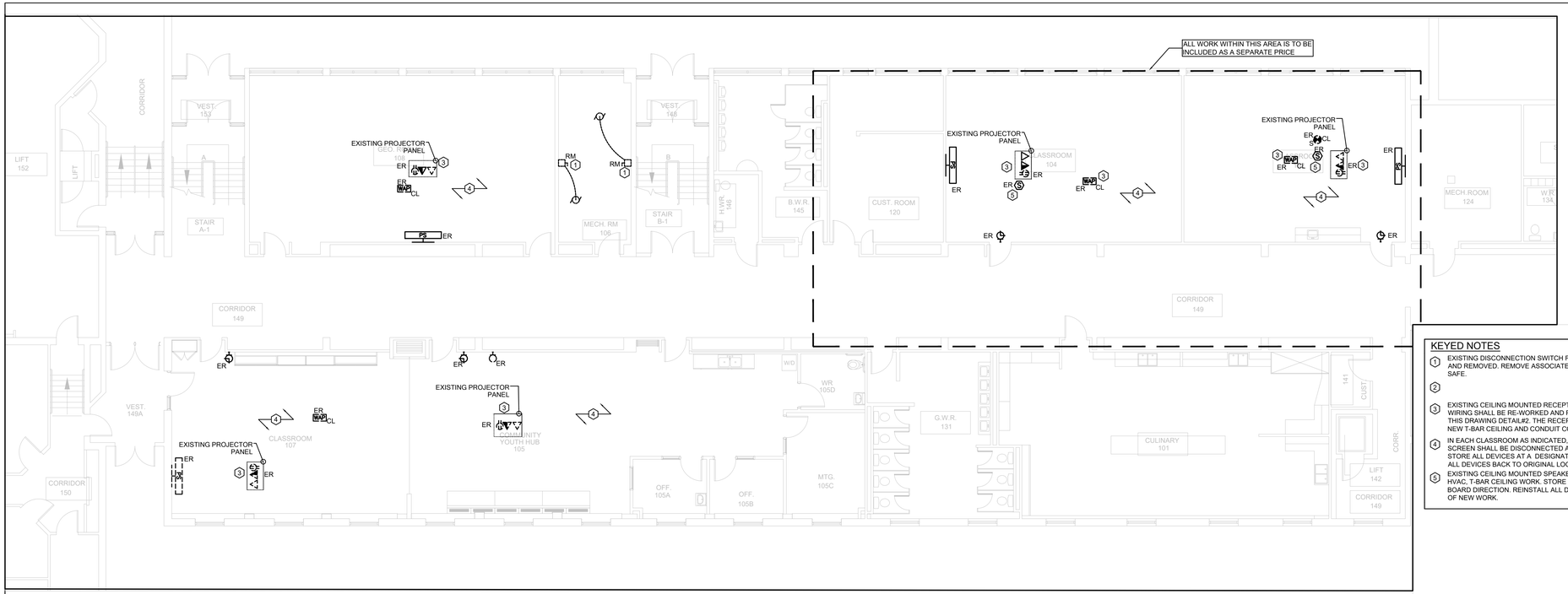
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL
AUTOMOTIVE WING
2ND FLOOR RCP PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E203



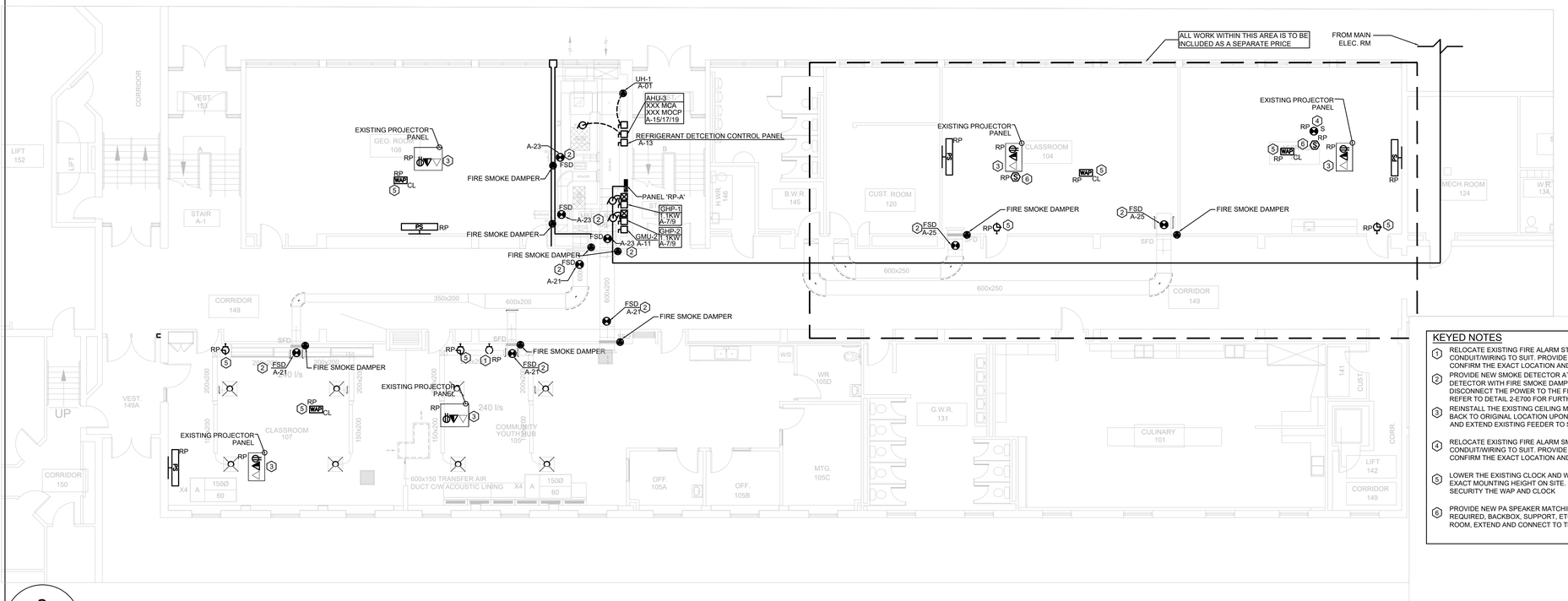
1
E-300

NORTH CLASSROOM WING - 1ST FLOOR ELEC - PWR DEMO

Scale: 1:100

KEYED NOTES

1. EXISTING DISCONNECTION SWITCH FOR MECHANICAL EQUIPMENT SHALL BE DISCONNECTED AND REMOVED. REMOVE ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE AND MAKE SAFE.
2.
3. EXISTING CEILING MOUNTED RECEPTACLE AND OUTLET BOX AND ASSOCIATE CONDUIT & WIRING SHALL BE RE-WORKED AND RE-INSTALLED ABOVE NEW T-BAR CEILING AS SHOWN ON THIS DRAWING DETAIL#2. THE RECEPTACLE AND OUTLET BOX SHALL BE RECESSED TO THE NEW T-BAR CEILING AND CONDUIT CONCEALED ABOVE NEW T-BAR CEILING. INCLUDE ALL COST.
4. IN EACH CLASSROOM AS INDICATED, EXISTING CLOCK AND WALL MOUNTED PROJECTOR SCREEN SHALL BE DISCONNECTED AND REMOVED TO SUIT NEW HVAC, T-BAR CEILING WORK. STORE ALL DEVICES AT A DESIGNATED LOCATION PER SCHOOL BOARD DIRECTION. REINSTALL ALL DEVICES BACK TO ORIGINAL LOCATION UPON COMPLETION OF NEW WORK.
5. EXISTING CEILING MOUNTED SPEAKER SHALL BE DISCONNECTED AND REMOVED TO SUIT NEW HVAC, T-BAR CEILING WORK. STORE ALL DEVICES AT A DESIGNATED LOCATION PER SCHOOL BOARD DIRECTION. REINSTALL ALL DEVICES BACK TO ORIGINAL LOCATION UPON COMPLETION OF NEW WORK.



2
E-300

NORTH CLASSROOM WING - 1ST FLOOR ELEC - PWR NEW

Scale: 1:100

KEYED NOTES

1. RELOCATE EXISTING FIRE ALARM STROBE AS SHOWN. PROVIDE ALL NECESSARY CONDUIT/WIRING TO SUIT. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK. . CONFIRM THE EXACT LOCATION AND MOUNTING HEIGHT ON SITE.
2. PROVIDE NEW SMOKE DETECTOR AT THE LOCATION AS SHOWN. INTERLOCK THE SMOKE DETECTOR WITH FIRE SMOKE DAMPER, SUCH THAT UPON DETECTION OF SMOKE. IT SHALL DISCONNECT THE POWER TO THE FIRE/SMOKE DAMPER ACTUATOR AND CLOSE THE DAMPER. REFER TO DETAIL 2-E700 FOR FURTHER INFORMATION.
3. REINSTALL THE EXISTING CEILING MOUNTED RECEPTACLE, DATA CABLE AND OUTLET BOX BACK TO ORIGINAL LOCATION UPON THE COMPLETION OF THE NEW CEILING WORK. REWORK AND EXTEND EXISTING FEEDER TO SUIT.
4. RELOCATE EXISTING FIRE ALARM SMOKE DETECTOR AS SHOWN. PROVIDE ALL NECESSARY CONDUIT/WIRING TO SUIT. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK. . CONFIRM THE EXACT LOCATION AND MOUNTING HEIGHT ON SITE.
5. LOWER THE EXISTING CLOCK AND WAP TO BELOW THE NEW T-BAR CEILING. COORDINATE EXACT MOUNTING HEIGHT ON SITE. PROVIDE ALL REQUIREMENT COMPONENT TO FASTEN AND SECURITY THE WAP AND CLOCK
6. PROVIDE NEW PA SPEAKER MATCHING EXISTING TO BE T-BAR RECESS MOUNTED. PROVIDE ALL REQUIRED, BACKBOX, SUPPORT, ETC. TO SUIT. REWORK EXISTING PA WRING IN THE SAME ROOM, EXTEND AND CONNECT TO THE NEW PA SPEAKER TO SUIT. INCLUDE ALL COST.

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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR PERMIT & TENDER	2026-04-28	TY

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APR.28, 2026
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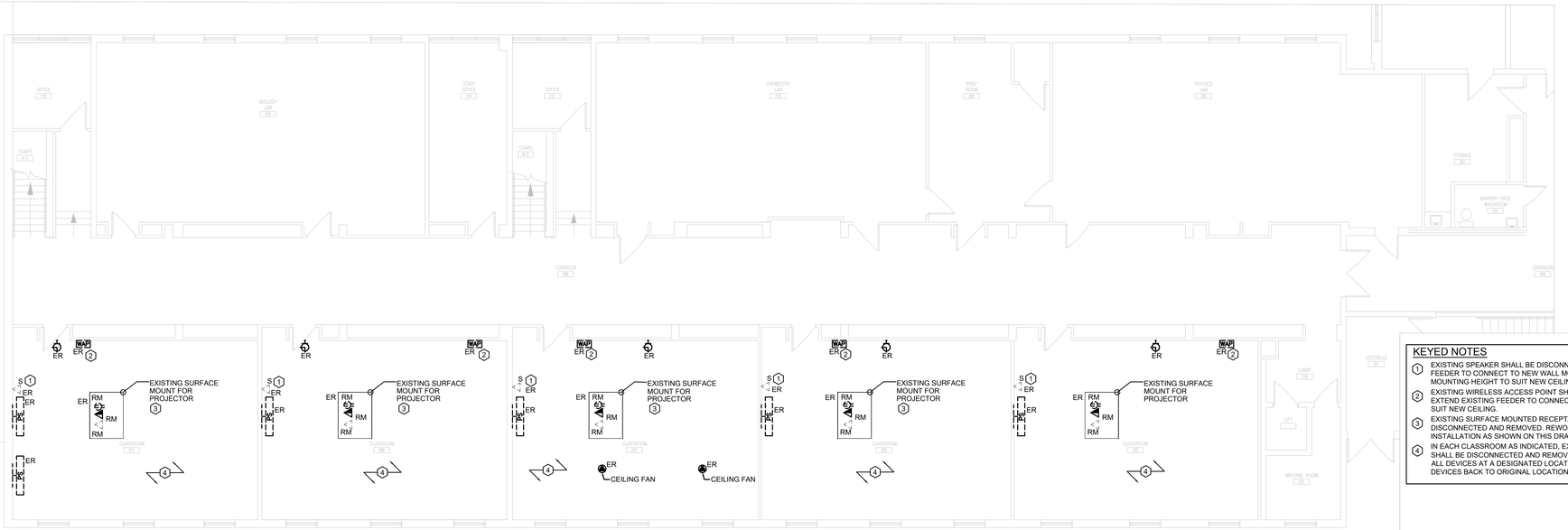
PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:
ELECTRICAL NORTH CLASSROOM WING 1ST FLOOR PWR PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E300



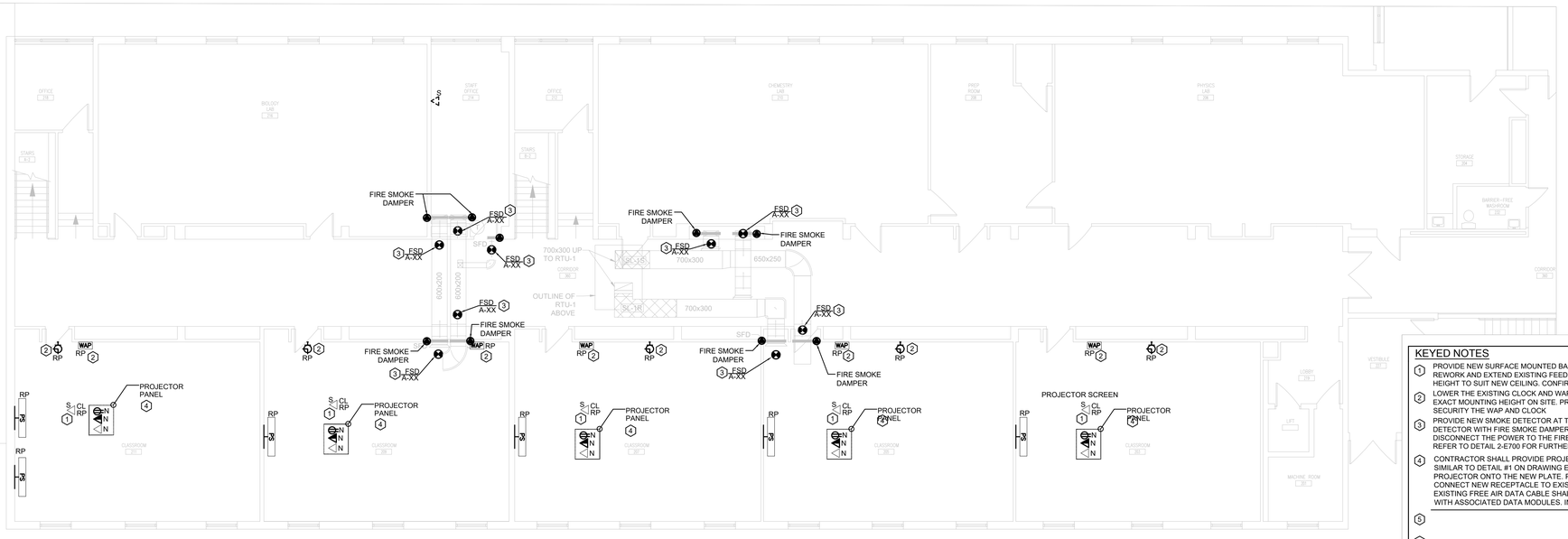
1
E301

NORTH CLASSROOM WING - 2ND FLOOR ELEC - PWR DEMO

Scale: 1:100

KEYED NOTES

1. EXISTING SPEAKER SHALL BE DISCONNECT AND REMOVED. REWORK AND EXTEND EXISTING FEEDER TO CONNECT TO NEW WALL MOUNTED TYPE SPEAKER C/W NEW BACKBOX OF NEW MOUNTING HEIGHT TO SUIT NEW CEILING.
2. EXISTING WIRELESS ACCESS POINT SHALL BE DISCONNECT AND RELOCATED. REWORK AND EXTEND EXISTING FEEDER TO CONNECT TO NEW LOCATION OF NEW MOUNTING HEIGHT TO SUIT NEW CEILING.
3. EXISTING SURFACE MOUNTED RECEPTACLE & DATA CABLE AND OUTLET BOX SHALL BE DISCONNECTED AND REMOVED. REWORK AND EXTEND EXISTING FEEDER TO SUIT NEW INSTALLATION AS SHOWN ON THIS DRAWING DETAIL#2 .
4. IN EACH CLASSROOM AS INDICATED, EXISTING CLOCK, WAP AND WALL MOUNTED PROJECTOR SHALL BE DISCONNECTED AND REMOVED TO SUIT NEW HVAC, T-BAR CEILING WORK. STORE ALL DEVICES AT A DESIGNATED LOCATION PER SCHOOL BOARD DIRECTION. REINSTALL ALL DEVICES BACK TO ORIGINAL LOCATION UPON COMPLETION OF NEW WORK.



2
E-3.2

NORTH CLASSROOM WING - 2ND FLOOR ELEC - PWR NEW

Scale: 1:100

KEYED NOTES

1. PROVIDE NEW SURFACE MOUNTED BACKBOX TO ALLOW SURFACE MOUNTING SPEAKER. REWORK AND EXTEND EXISTING FEEDER TO CONNECT TO SPEAKER OF NEW MOUNTING HEIGHT TO SUIT NEW CEILING. CONFIRM THE EXACT MOUNTING HEIGHT ON SITE.
2. LOWER THE EXISTING CLOCK AND WAP TO BELOW THE NEW T-BAR CEILING. COORDINATE EXACT MOUNTING HEIGHT ON SITE. PROVIDE ALL REQUIREMENT COMPONENT TO FASTEN AND SECURITY THE WAP AND CLOCK
3. PROVIDE NEW SMOKE DETECTOR AT THE LOCATION AS SHOWN. INTERLOCK THE SMOKE DETECTOR WITH FIRE SMOKE DAMPER, SUCH THAT UPON DETECTION OF SMOKE. IT SHALL DISCONNECT THE POWER TO THE FIRE/SMOKE DAMPER ACTUATOR AND CLOSE THE DAMPER. REFER TO DETAIL 2-E700 FOR FURTHER INFORMATION.
4. CONTRACTOR SHALL PROVIDE PROJECTOR PANEL, RECESSED IN THE NEW T-BAR CEILING SIMILAR TO DETAIL #1 ON DRAWING E601 TO SUIT RE-INSTALLATION OF EXISTING PROJECTOR ONTO THE NEW PLATE. PROVIDE NEW RECEPTACLE, DATA OUTLET BOX TO SUIT. CONNECT NEW RECEPTACLE TO EXISTING FEEDER OBTAINED FROM DEMOLITION. EXISTING FREE AIR DATA CABLE SHALL BE TERMINATED IN THE NEW DATA OUTLET BOX C/W WITH ASSOCIATED DATA MODULES. INCLUDE ALL COST IN TENDER BID.
5.
6.

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

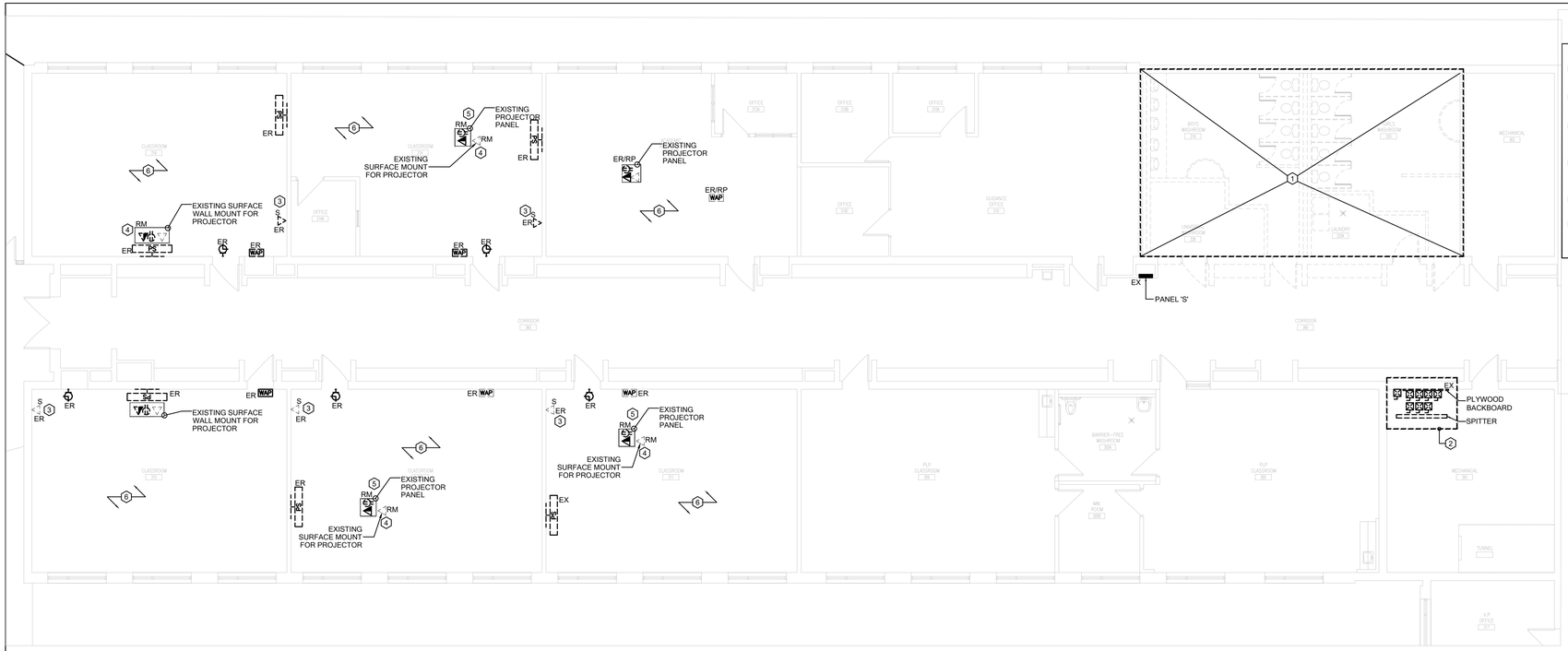
DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL NORTH CLASSROOM WING 2ND FLOOR PWR PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	

PROJECT NO:	DRAWING NO:
25184	E301



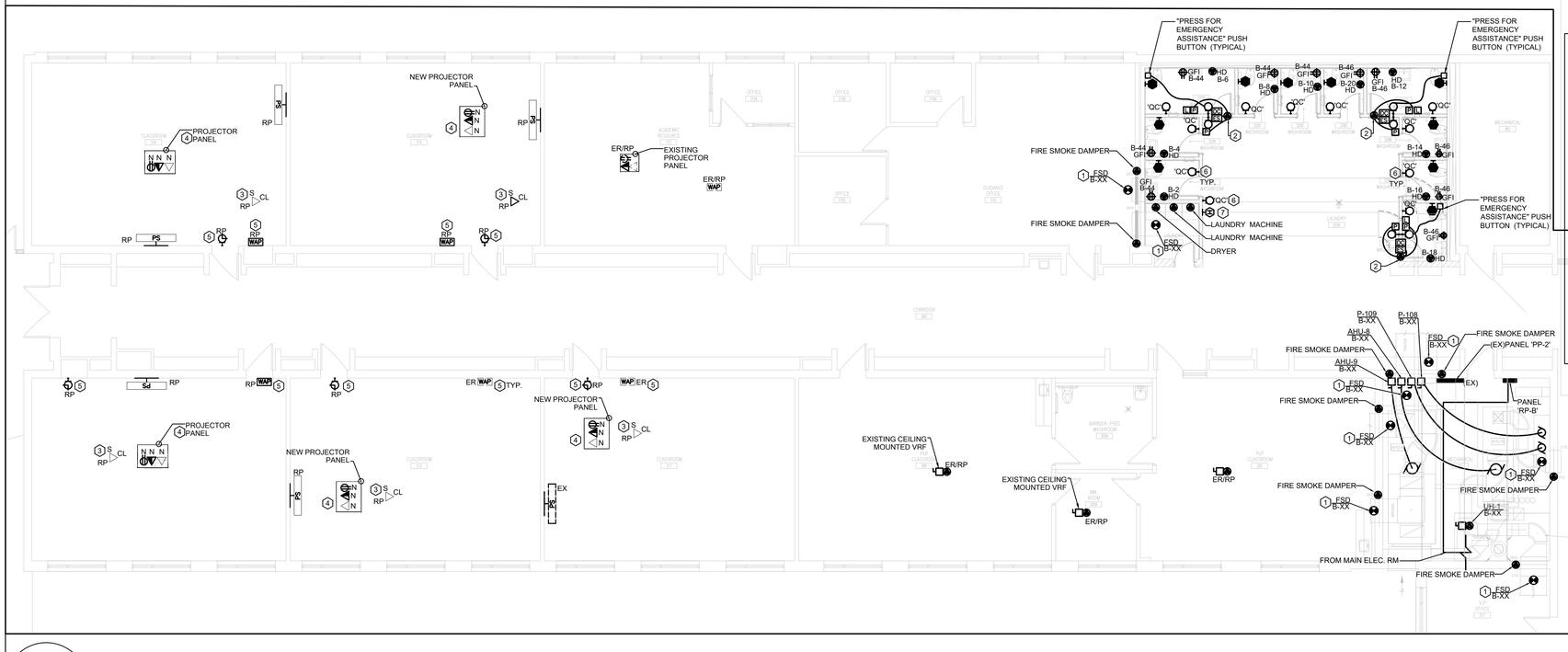
1
E-302

SOUTH CLASSROOM WING -2ND FLOOR ELEC - PWR DEMO

Scale: 1:100

KEYED NOTES

1. EXISTING RECEPTACLE, CONNECTION UNIT AND DATA POINT IN THIS AREA SHALL BE DISCONNECTED AND REMOVED. REMOVED ASSOCIATED CONDUIT & WIRING AND MAKE SAFE AND BACK TO SOURCE.
2. EXISTING DISCONNECTION SWITCH FOR FAN UNIT, HEAT PUMP & AIR-CONDITIONER SHALL BE DISCONNECTED AND REMOVED. REMOVED ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
3. EXISTING PA SPEAKER SHALL BE DISCONNECTED AND REMOVED. PROVIDE BLAN PLATE TO THE EXISTING OPENING. REWORK AND EXTEND TO NEW T-BAR CEILING RECESSED PA SPEAKER IN THE SAME ROOM.
4. EXISTING SURFACE MOUNTED RECEPTACLE & DATA CABLE AND OUTLET BOX SHALL BE DISCONNECTED AND REMOVED. REWORK AND EXTEND EXISTING FEEDER TO SUIT NEW INSTALLATION AS SHOWN ON THIS DRAWING DETAIL#2 .
5. EXISTING PROJECTOR PANEL SHALL BE DISCONNECTED AND REMOVED. REWORK AND EXTEND EXISTING FEEDER TO SUIT NEW INSTALLATION AS SHOWN ON THIS DRAWING DETAIL#2 .
6. IN EACH CLASSROOM AS INDICATED, EXISTING CLOCK, WAP AND WALL MOUNTED PROJECTOR SHALL BE DISCONNECTED AND REMOVED TO SUIT NEW HVAC, T-BAR CEILING WORK. STORE ALL DEVICES AT A DESIGNATED LOCATION PER SCHOOL BOARD DIRECTION. REINSTALL ALL DEVICES BACK TO ORIGINAL LOCATION UPON COMPLETION OF NEW WORK.



KEYED NOTES

1. PROVIDE NEW SMOKE DETECTOR AT THE LOCATION AS SHOWN. INTERLOCK THE SMOKE DETECTOR WITH FIRE SMOKE DAMPER, SUCH THAT UPON DETECTION OF SMOKE, IT SHALL DISCONNECT THE POWER TO THE FIRE/SMOKE DAMPER ACTUATOR AND CLOSE THE DAMPER. REFER TO DETAIL 2-E700 FOR FURTHER INFORMATION.
2. ELECTRIC STRIKES ON ACCESSIBLE WASHROOMS ARE "FAIL SECURE" (POWER FAILS = DOOR STRIKE STAYS LOCKED) – HANDLE IS ALWAYS LOCKED FROM OUTSIDE/RIGID. THE ELECTRIC STRIKE, WHEN DOOR IS UNLOCKED, IS ALWAYS POWERED WHICH IS KEEPING IT IN OPEN POSITION. SOMEONE HITS "PUSH TO LOCK" INSIDE WHICH KILLS THE POWER AND LOCKS THE STRIKE IN FAIL SECURE.
   - IN A POWER FAILURE SOMEONE CANNOT ACCESS THE WASHROOM FROM THE OUTSIDE (PRIVACY), THERE IS A KEY CYLINDER (MASTER KEY) ON THE DOORS WITH ELECTRIC STRIKES SO THAT SOMEONE CAN STILL GET IN TO HELP. THE HANDLE IS OPEN ON THE INSIDE OF THE STALL AT ALL TIMES AND PERMITS EXITING ALWAYS.
   - THIS OPTION ALLOWS MAINTENANCE TO POWER OFF THE BREAKER TO THE STALL FOR MAINTENANCE SO THAT THE WASHROOM IS INACCESSIBLE FROM THE OUTSIDE.
3. PROVIDE NEW SURFACE MOUNTED BACKBOX TO ALLOW SURFACE MOUNTING SPEAKER .REWORK AND EXTEND EXISTING FEEDER TO CONNECT TO SPEAKER OF NEW MOUNTING HEIGHT TO SUIT NEW CEILING. CONFIRM THE EXACT MOUNTING HEIGHT ON SITE.
4. CONTRACTOR SHALL PROVIDE PROJECTOR PANEL, RECESSED IN THE NEW T-BAR CEILING SIMILAR TO DETAIL 1-E601 TO SUIT RE-INSTALLATION OF EXISTING PROJECTOR ONTO THE NEW PLATE. PROVIDE NEW RECEPTACLE, DATA OUTLET BOX TO SUIT. CONNECT NEW RECEPTACLE TO EXISTING FEEDER OBTAINED FROM DEMOLITION. EXISTING FREE AIR DATA CABLE SHALL BE TERMINATED IN THE NEW DATA OUTLET BOX C/W ASSOCIATED DATA MODULES. INCLUDE ALL COST IN TENDER BID.
5. LOWER THE EXISTING CLOCK AND WAP TO BELOW THE NEW T-BAR CEILING. COORDINATE EXACT MOUNTING HEIGHT ON SITE. PROVIDE ALL REQUIREMENT COMPONENT TO FASTEN AND SECURITY THE WAP AND CLOCK.
6. PROVIDE NEW FIRE ALARM STROBE (TO MATCH EXISTING) AND CONNECT TO THE NEAREST FIRE ALARM STROBE LIGHT ZONE OF THIS AREA. PROVIDE CONDUIT/WIRING AND ALL ASSOCIATED COMPONENTS TO SUIT. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK.
7. PROVIDE NEW FIRE ALARM HORN (TO MATCH EXISTING) AND CONNECT TO THE NEAREST FIRE ALARM ZONE OF THIS AREA. PROVIDE CONDUIT/WIRING AND ALL ASSOCIATED COMPONENTS TO SUIT. PROVIDE FIRE ALARM VERIFICATION AFTER COMPLETION OF WORK.

2
E-302

SOUTH CLASSROOM WING - 2ND FLOOR ELEC - PWR NEW

Scale: 1:100

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

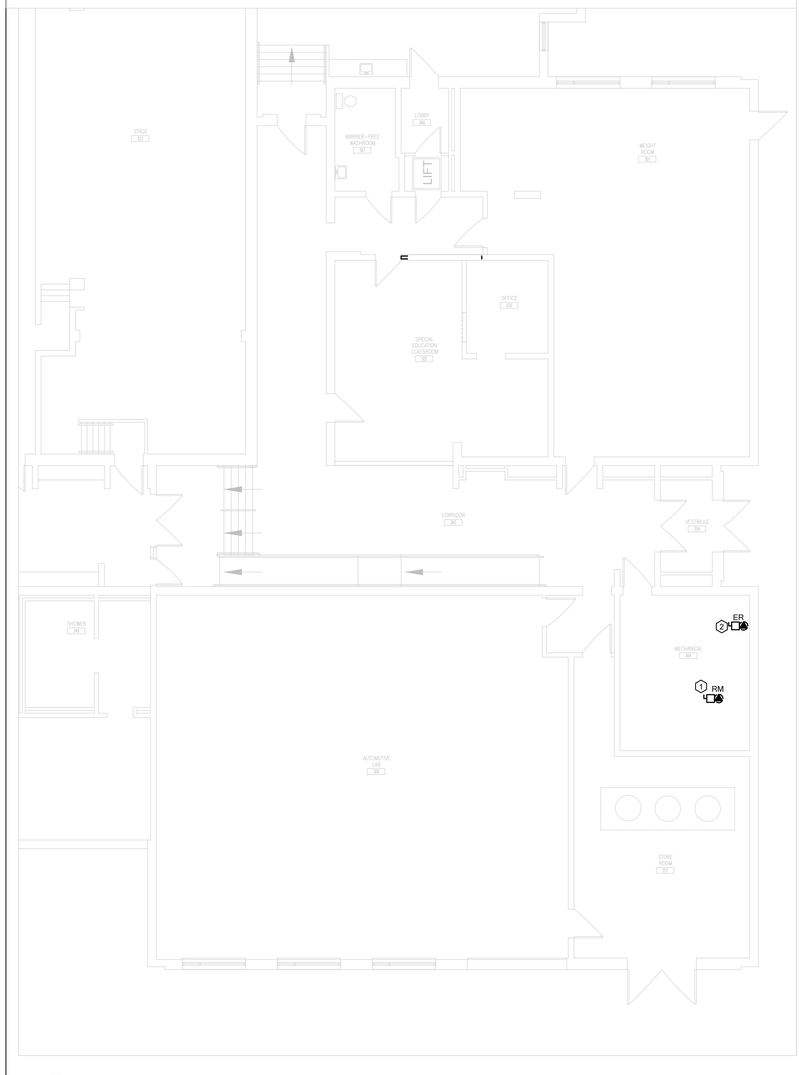
DRAWING:

ELECTRICAL SOUTH CLASSROOM WING 2ND FLOOR PWR PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E302

KEYED NOTES

1. DISCONNECT AND REMOVE EXISTING DISCONNECTION SWITCH FOR EXISTING CEILING HUNG AIR HANDLING UNIT. REMOVE ALL ASSOCIATED WIRING & CONDUIT BACK TO SOURCE AND MAKE SAFE.
2. DISCONNECT AND RELOCATE EXISTING DISCONNECTION SWITCH FOR EXISTING AIR COMPRESSOR. REWORK AND EXTEND ALL ASSOCIATED WIRING & CONDUIT TO SUIT THE NEW LOCATION SHOWN ON DRAWING 2-E303

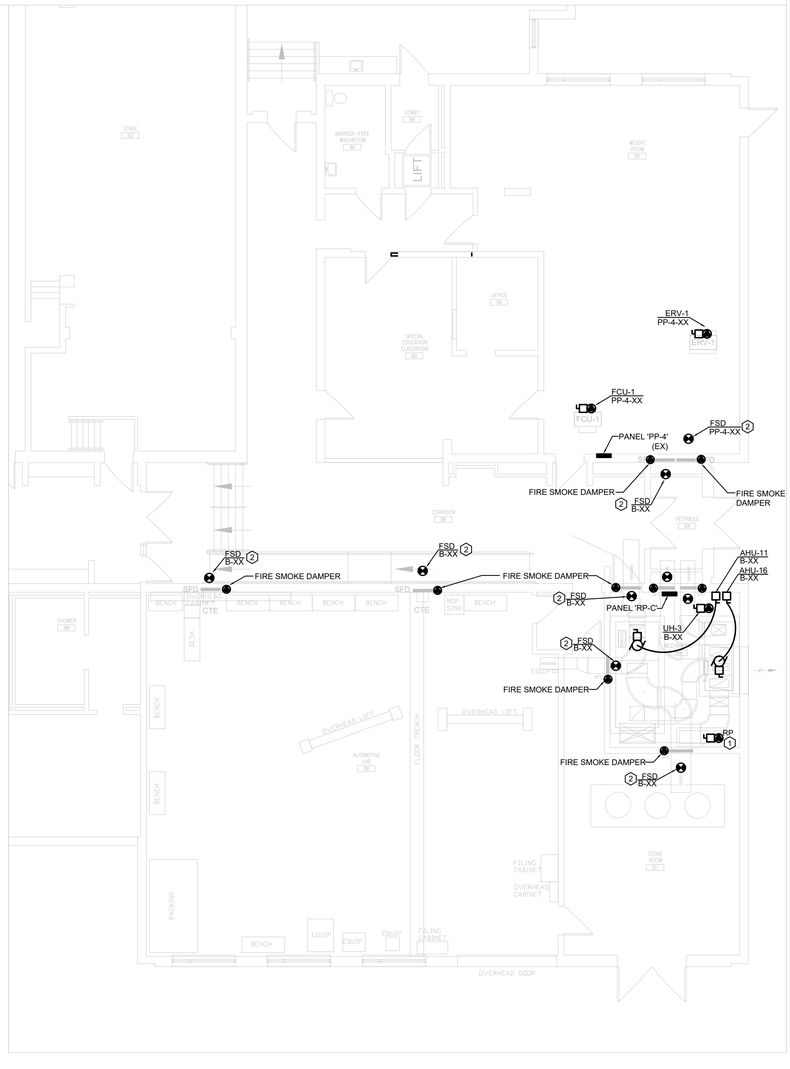


1 E-303 AUTOMOTIVE WING - 2ND FLOOR ELEC - PWR DEMO

Scale: 1:100

KEYED NOTES

1. REWORK AND EXTEND EXISTING WIRING & CONDUIT OBTAINED FROM DEMOLITION AND CONNECT TO THE EXISTING DISCONNECTION SWITCH AT THE NEW LOCATION.
2. PROVIDE NEW SMOKE DETECTOR AT THE LOCATION AS SHOWN. INTERLOCK THE SMOKE DETECTOR WITH FIRE SMOKE DAMPER, SUCH THAT UPON DETECTION OF SMOKE. IT SHALL DISCONNECT THE POWER TO THE FIRE/SMOKE DAMPER ACTUATOR AND CLOSE THE DAMPER. REFER TO DETAIL 2-E700 FOR FURTHER INFORMATION.



2 E-303 AUTOMOTIVE WING - 2ND FLOOR ELEC - PWR NEW

Scale: 1:100

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL
AUTOMOTIVE WING
2ND FLOOR PWR PLAN

DESIGN BY:	TY
DRAWN BY:	TY
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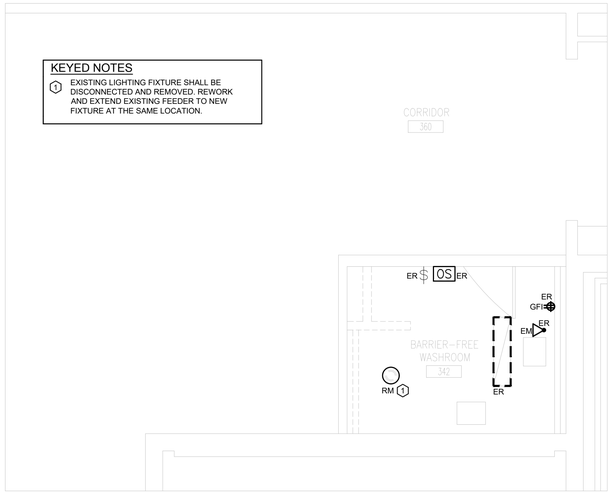
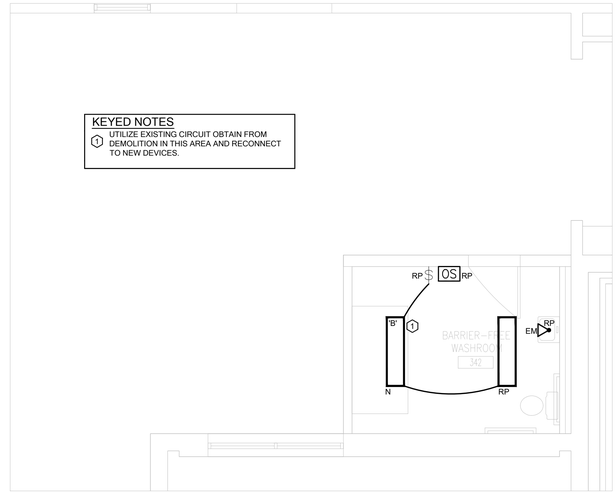
25184	E303



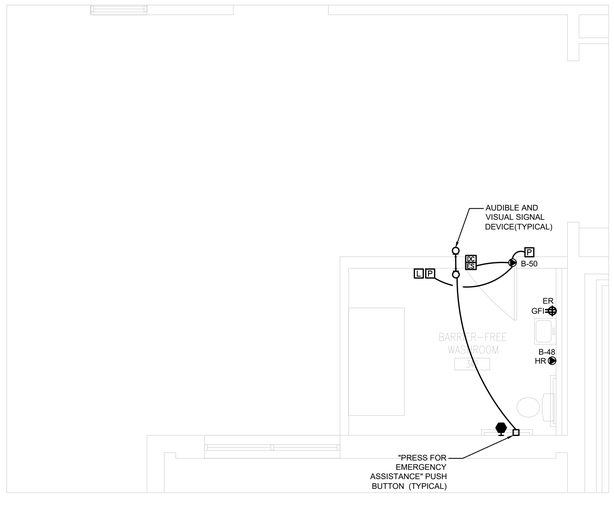
1 E-400 UNIVERSAL WASHROOM - SECOND FLOOR ELEC - DEMO

Scale: 1:50



2 E-400 UNIVERSAL WASHROOM - SECOND FLOOR ELEC - RCP NEW

Scale: 1:50



4 E-400 UNIVERSAL WASHROOM - SECOND FLOOR ELEC - PWR NEW

Scale: 1:50

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL SOUTH WING UNIVERSAL WASHROOM PART PLAN

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN

SEAL:

PROJECT NO: 25184

DRAWING NO: E400

1
E-500

ELECTRICAL ROOF PLAN - DEMOLITION

Scale: 1:200

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BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL ROOF PLAN - DEMOLITION

DESIGN BY:	TY
DRAWN BY:	TY
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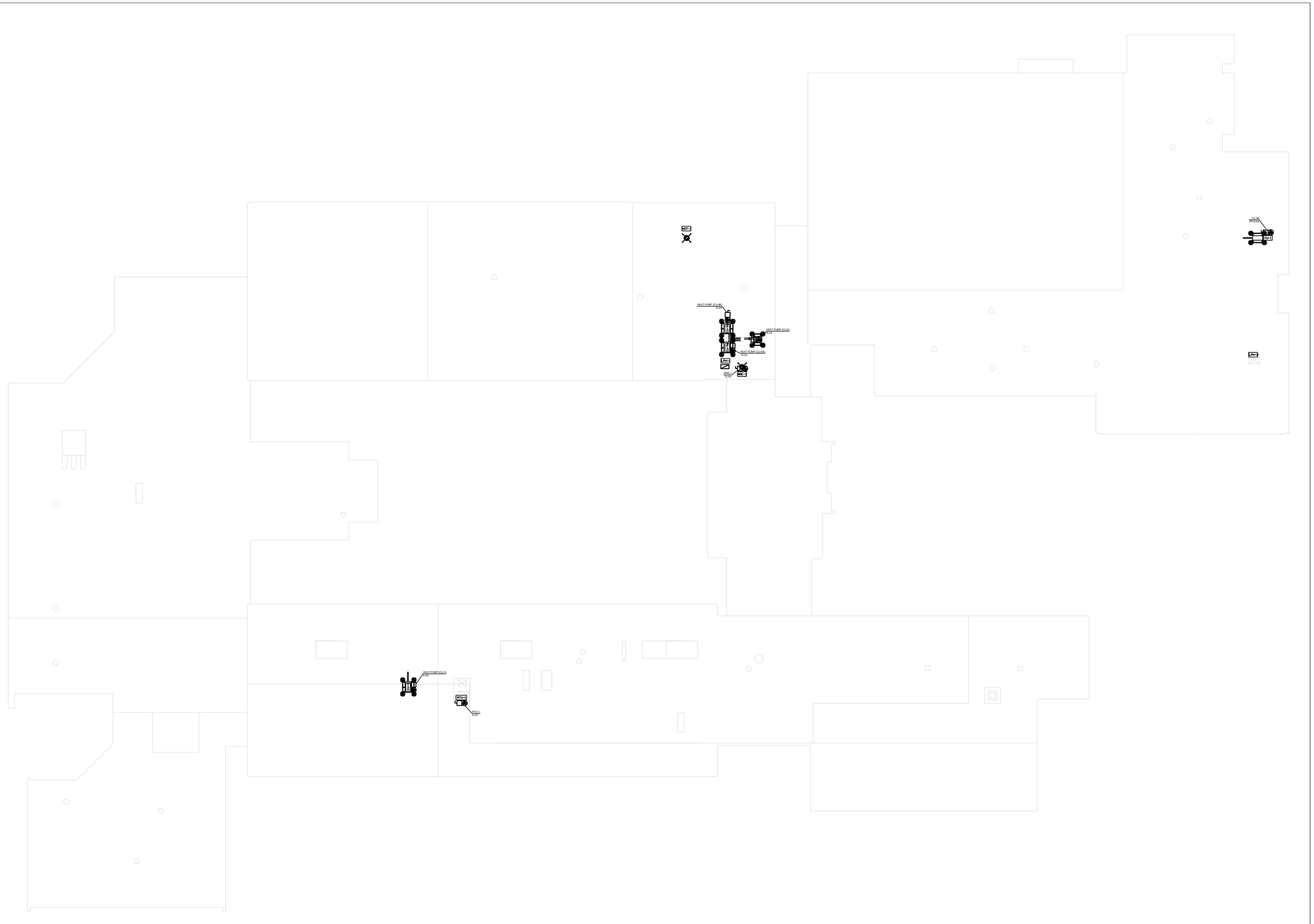
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	

PROJECT NO:	DRAWING NO:
25184	E500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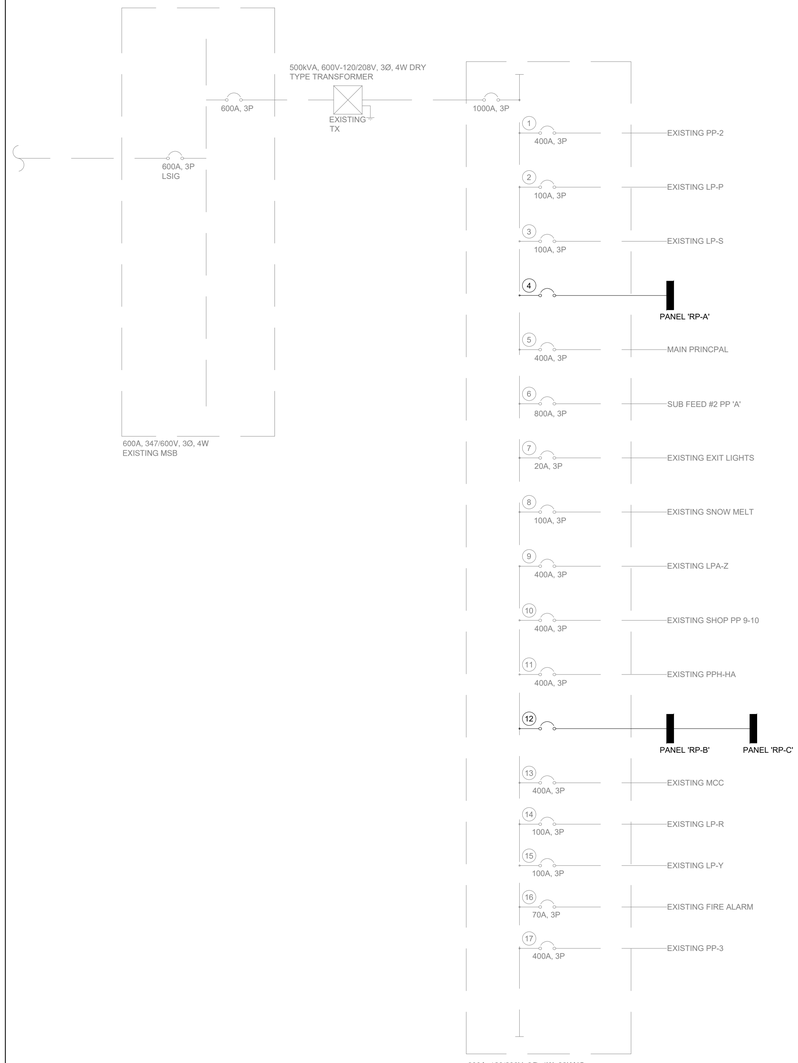
LEGEND:

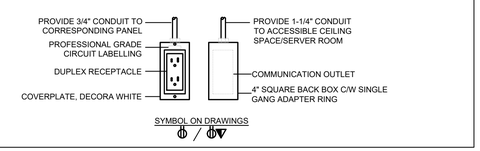
EXISTING

DEMOLITION

NEW



2 E600 SINGLE LIE DIAGRAM
SCALE: N.T.S.



1 E600 POWER & COMMUNICATION WALL OUTLET DETAIL
SCALE: N.T.S.

PANEL 'RP-B'

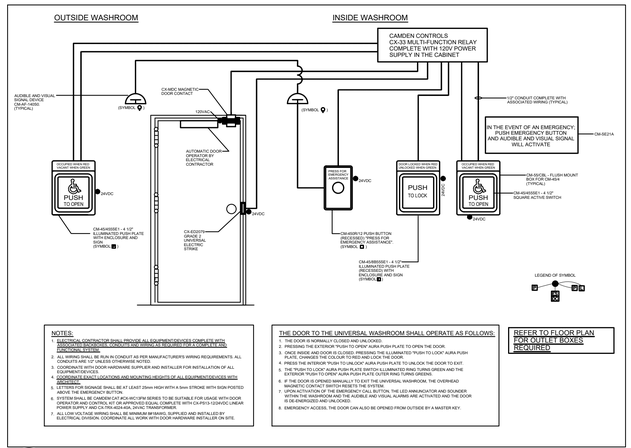
225A MAINS, 72 CCTS, 120/208V, 3Ø, 4W 14KAIC
SURFACE MOUNTED PANEL

LOCATION: MECH RM #6

DESCRIPTION	LOAD (W)	BRKR SIZE	A		B		C	BRKR SIZE	LOAD (W)	DESCRIPTION
UH-1	200	15A/1P	1				2	20A/1P	1750	HAND DRYER
P-108	600	15A/2P	3				4	20A/1P	1750	HAND DRYER
	600		5				6	20A/1P	1750	HAND DRYER
P-109	500	15A/2P	7				8	20A/1P	1750	HAND DRYER
	500		9				10	20A/1P	1750	HAND DRYER
AHU-8	6	30A/3P	11				12	20A/1P	1750	HAND DRYER
			13				14	20A/1P	1750	HAND DRYER
			15				16	20A/1P	1750	HAND DRYER
AHU-9		30A/3P	17				18	20A/1P	1750	HAND DRYER
			19				20	20A/1P	1750	HAND DRYER
			21				22	15A/1P		WASHROOM GFI
2ND SOUTH SIDE FSD		15A/1P	23				24	15A/1P		WASHROOM GFI
2ND SOUTH SIDE FSD		15A/1P	25				26	15A/1P		WASHROOM GFI
2ND SOUTH SIDE FSD		15A/1P	27				28	15A/1P		WASHROOM ADO
2ND AUTOMOTIVE WING FSD		15A/1P	29				30	15A/1P		LAUNDRY MACHINE
2ND AUTOMOTIVE WING FSD		15A/1P	31				32	15A/1P		LAUNDRY MACHINE
2ND AUTOMOTIVE WING FSD		15A/1P	33				34	30A/1P		DRYER
UH-3	200	15A/1P	35				36			AHU-16
AHU-11		30A/3P	37				38	30A/3P		
			39				40			
			41				42	15A/1P	20	BATTERY UNIT
HEAT PUMP (CU-8)		30A/3P	43				44	15A/1P	500	RECEPTACLE (WR)
			45				46	15A/1P	500	RECEPTACLE (WR)
			47				48	20A/1P	1750	HAND DRYER
HEAT PUMP (CU-9A)		30A/3P	49				50	15A/1P	100	DOOR OPERATOR
			51				52			
			53				54			
HEAT PUMP (CU-9B)		30A/3P	55				56			
			57				58			
			59				60			
MRE-1		15A/1P	61				62			
			63				64			
			65				66			
			67				68			
			69				70	XXXA/3P		PANEL 'RP-C'
			71				72			

TOTAL	2606				20370	

TOTAL CONNECTED LOAD	23.0



NOTES:
1. MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT/DEVICES COMPLETE WITH INTERCONNECTIONS, CONDUITS AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
2. ALL WIRING SHALL BE RUN IN CONDUIT AS PER MANUFACTURER'S WIRING REQUIREMENTS. ALL CONDUITS ARE TO BE UNLESS OTHERWISE NOTED.
3. COORDINATE FINAL DOOR HARDWARE SUPPLIER AND INSTALLER FOR INSTALLATION OF ALL EQUIPMENT/DEVICES.
4. COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL EQUIPMENT/DEVICES WITH ARCHITECT.
5. DOOR OPERATOR SIGNAGE SHALL BE AT LEAST 25mm HIGH WITH A 5mm STROKE WITH SIGN POSTED ABOVE THE EMERGENCY BUTTON.
6. SYSTEM SHALL BE CAMDEN DAT-ACH HC/ UPM SERIES TO BE SUITABLE FOR USAGE WITH DOOR OPERATOR AND CONTROL KIT OR APPROVED EQUAL COMPLETE WITH CH-PS13-12/24VDC LINEAR POWER SUPPLY AND CH-BB7 BATTERY BACK-UP CABINET.
7. ALL LOW VOLTAGE WIRING SHALL BE MINIMUM 18/7AWG, SUPPLIED AND INSTALLED BY ELECTRICAL DIVISION. COORDINATE ALL WORK WITH DOOR HARDWARE INSTALLER ON SITE.

THE DOOR TO THE UNIVERSAL WASHROOM SHALL OPERATE AS FOLLOWS:
1. THE DOOR IS NORMALLY CLOSED AND LOCKED.
2. PRESSING THE EXTERIOR "PUSH TO OPEN" AURA PUSH PLATE TO OPEN THE DOOR.
3. THE "PUSH TO OPEN" AURA PUSH PLATE ILLUMINATED RING TURNS GREEN AND THE PUSH PLATE CHANGES THE COLOUR TO RED AND LOCK THE DOOR.
4. PRESS THE INTERIOR "PUSH TO UN-LOCK" AURA PUSH PLATE TO UNLOCK THE DOOR TO EXIT.
5. THE "PUSH TO LOCK" AURA PUSH PLATE SWITCH ILLUMINATED RING TURNS GREEN AND THE PUSH PLATE CHANGES THE COLOUR TO RED AND DOOR RING TURNS GREEN.
6. IF THE DOOR IS OPENED MANUALLY TO EXIT THE UNIVERSAL WASHROOM, THE OVERHEAD MAGNETIC CONTACT SWITCH RESETS THE SYSTEM.
7. UPON ACTIVATION OF THE EMERGENCY CALL BUTTON, THE LED ANNUNCIATOR AND SOUNDER WILL ACTIVATE AND THE AUDIBLE AND VISUAL ALARMS ARE ACTIVATED AND THE DOOR IS DE-ENERGISED AND UNLOCKED.
8. EMERGENCY ACCESS, THE DOOR CAN ALSO BE OPENED FROM OUTSIDE BY A MASTER KEY.

REFER TO FLOOR PLAN FOR OUTLET BOXES REQUIRED

3 E600 UNIVERSAL/UNISEX W/C DOOR OPERATOR SCHEMATIC DIAGRAM
SCALE: N.T.S.

PANEL 'RP-A'

225A MAINS, 42 CCTS, 120/208V, 3Ø, 4W
SURFACE MOUNTED PANEL

LOCATION: MECH RM #3

DESCRIPTION	LOAD (W)	BRKR SIZE	A		B		C	BRKR SIZE	LOAD (W)	DESCRIPTION
UH-1	200	15A/1P	1				2	30A/3P		RTU-1
GHP-1	600	15A/2P	3				4			
	600		5				6			
GHP-2	500	15A/2P	7				8	30A/3P		HEAT PUMP (CU-3)
	500		9				10			
GMU-2	200	15A/1P	11				12			
DETECTION CONTROL PANEL		15A/1P	13				14	15A/1P		
AHU-3		15A/1P	15				16	15A/1P		
		15A/1P	17				18	15A/1P		
		15A/1P	19				20	15A/1P		
1ST FLOOR FSD		15A/1P	21				22	20A/1P		
1ST FLOOR FSD		15A/1P	23				24	15A/2P		
1ST FLOOR FSD		15A/1P	25				26			
2ND FLOOR FSD		15A/1P	27				28	15A/1P		
2ND FLOOR FSD		15A/1P	29				30	20A/1P		
2ND FLOOR FSD		15A/1P	31				32	15A/2P		
		15A/1P	33				34			
			35				36			
			37				38			
			39				40			
			41				42			

TOTAL						

TOTAL CONNECTED LOAD (kW)		

NOTE:
1. "EX" DENOTES EXISTING BREAKER TO REMAIN

PANEL 'RP-C'

225A MAINS, 42 CCTS, 120/208V, 3Ø, 4W
SURFACE MOUNTED PANEL

LOCATION: MECH RM #3

DESCRIPTION	LOAD (W)	BRKR SIZE	A		B		C	BRKR SIZE	LOAD (W)	DESCRIPTION
UH-1	200	15A/1P	1				2	30A/3P		RTU-1
GHP-1	600	15A/2P	3				4			
	600		5				6			
GHP-2	500	15A/2P	7				8	30A/3P		HEAT PUMP (CU-3)
	500		9				10			
GMU-2	200	15A/1P	11				12			
DETECTION CONTROL PANEL		15A/1P	13				14	15A/1P		
AHU-3		15A/1P	15				16	15A/1P		
		15A/1P	17				18	15A/1P		
		15A/1P	19				20	15A/1P		
1ST FLOOR FSD		15A/1P	21				22	20A/1P		
1ST FLOOR FSD		15A/1P	23				24	15A/2P		
1ST FLOOR FSD		15A/1P	25				26			
2ND FLOOR FSD		15A/1P	27				28	15A/1P		
2ND FLOOR FSD		15A/1P	29				30	20A/1P		
2ND FLOOR FSD		15A/1P	31				32	15A/2P		
		15A/1P	33				34			
			35				36			
			37				38			
			39				40			
			41				42			

TOTAL						

TOTAL CONNECTED LOAD (kW)		

NOTE:
1. "EX" DENOTES EXISTING BREAKER TO REMAIN

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APR.28, 2026
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PROVINCE OF ONTARIO

RDZ ENG
RDZ ENGINEERS LTD
17A - 30 Pennsylvania Avenue
Vaughan, Ontario L4K 4A5
email: info@rdzeng.ca

PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DETAILS, PANEL SCHEDULE AND SINGLE LINE DIAGRAM

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E600

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL CONFIRM THE INSTALLATION METHOD AND DETAIL CONSISTENT WITH OTHER CLASSROOM ON SITE.

1 / E601 PROJECTOR & RELATED ACCESSORIES DETAIL
SCALE: N.T.S.

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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DETAILS, PANEL SCHEDULE AND SINGLE LINE DIAGRAM

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN

SEAL:

PROJECT NO: **25184**

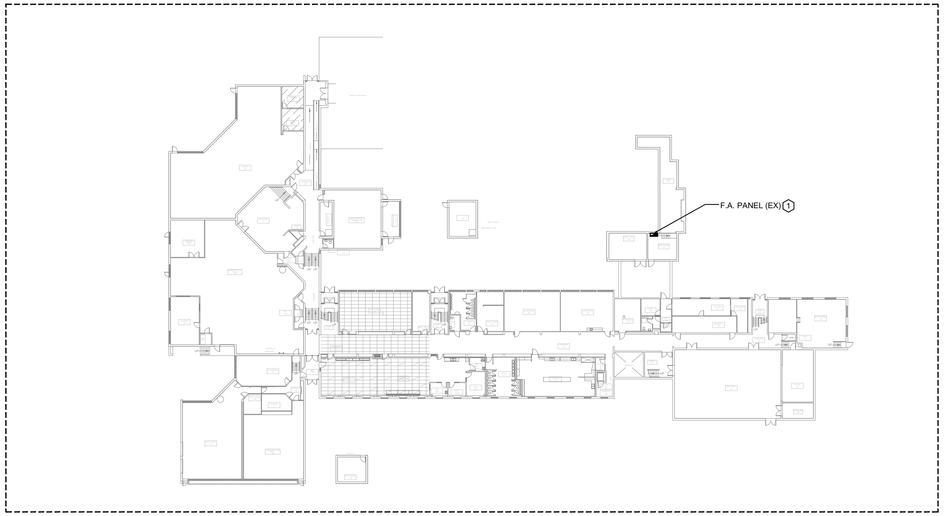
DRAWING NO: E600

KEYED NOTES

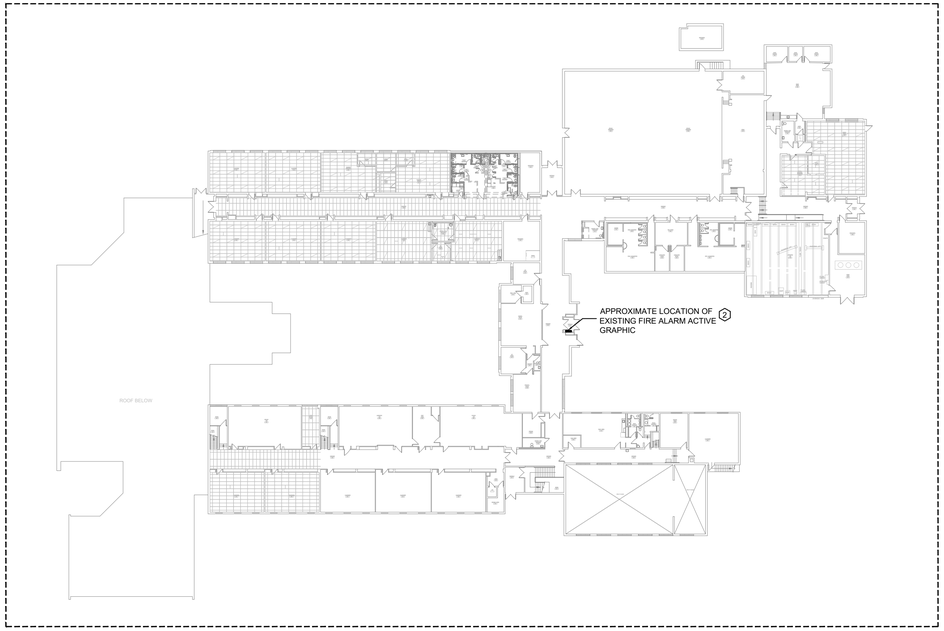
1. EXISTING FIRE ALARM CONTROL PANEL (SIMPLEX 4100ES) AND FIRE ALARM ANNUNCIATOR SHALL BE MODIFIED/ EXTEND TO SUIT ADDITION OF NEW MUA ZONES. PROVIDE ALL ASSOCIATED COMPONENTS AND ADJUST TO SUIT. PROVIDE FIRE ALARM TESTING, VERIFICATION AND S1001 INTEGRATION TEST. COORDINATE WITH PROJECT PHASE SCHEDULE.
2. EXISTING F.A. ACTIVE GRAPHIC SHALL BE REPLACED WITH NEW F.A. ACTIVE GRAPHIC TO SUIT NEW MUA ZONES. COORDINATE WITH FIRE ALARM MANUFACTURE TO PRODUCT NEW ACTIVE GRAPHIC. PROVIDE ALL ASSOCIATED COMPONENTS AND ADJUST TO SUIT. COORDINATE WITH PROJECT PHASE SCHEDULE.

GENERAL NOTES

1. EXISTING FIRE ALARM SYSTEM SHALL BE OPERATIONAL AT ALL TIMES. PROVIDE FIRE WATCH FOR THE DURATION WHEN THE FIRE ALARM SYSTEM IS DOWN.
2. EL CONTRACTOR SHALL SITE VERIFY EXACT LOCATION OF NEW DUCT SMOKE DETECTOR FOR ALL OF NEW MUA.



FIRST FLOOR FIRE ALARM ZONE



SECOND FLOOR FIRE ALARM ZONE

1 E-700 ELECTRICAL - FIRE ALARM KEY PLAN
Scale: NOT TO SCALE

FIRE/SMOKE DAMPERS:

LEGEND:

DUCT SMOKE DETECTOR FOR FIRE/SMOKE DAMPER
FSD
ZH-X
PANEL NAME-XX
INDICATES FIRE ALARM ZONE
INDICATES 120V CIRCUIT FOR FIRE/SMOKE DAMPER ACTUATOR

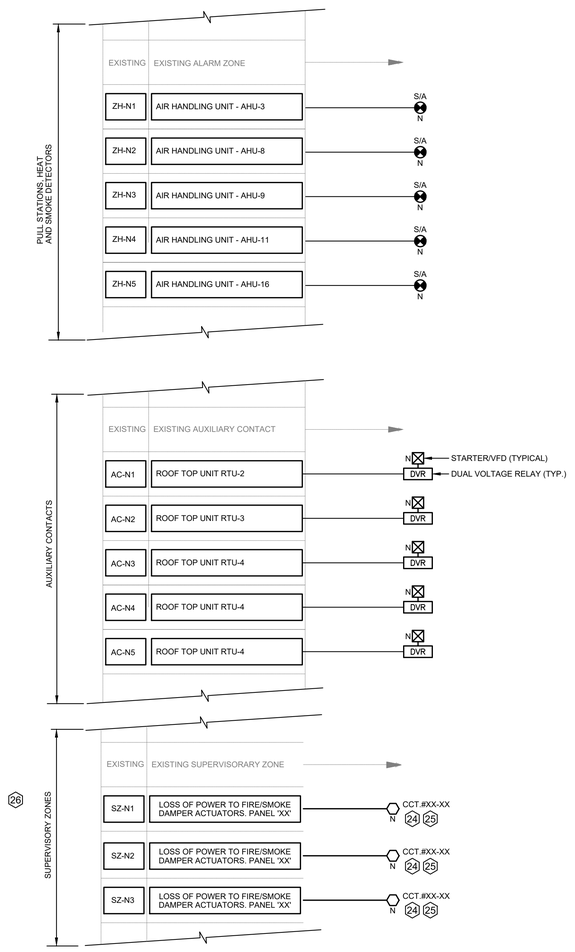
CEILING MOUNT SMOKE DETECTOR FOR FIRE/SMOKE DAMPER
FSDCM
ZH-X
PANEL NAME-XX
INDICATES FIRE ALARM ZONE
INDICATES 120V CIRCUIT FOR FIRE/SMOKE DAMPER ACTUATOR

NOTES:

1. EXACT LOCATION OF FIRE/SMOKE DAMPERS SHALL BE DETERMINED AS PER MECHANICAL DRAWINGS AND ON SITE. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR
2. DUCT SMOKE DETECTOR FOR FIRE/SMOKE DAMPER SHALL BE INSTALLED DOWNSTREAM (AIR FLOW DIRECTION) OF SEPARATION. CEILING MOUNT SMOKE DETECTOR FOR FIRE/SMOKE DAMPER SHALL BE INSTALLED ON BOTH SIDES OF THE AIR-TRANSFER OPENING. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR AND ON SITE.
3. EACH DUCT SMOKE DETECTOR / CEILING MOUNT SMOKE DETECTOR FOR FIRE/SMOKE DAMPER SHALL BE COMPLETE WITH TWO (2) DPDT FORM-C RELAYS WITH 120V INPUT CONTACTS FOR FIRE/SMOKE DAMPER ACTUATOR OPERATION AND INTEGRATION SEQUENCE.

LEGEND:

EXISTING EQUIPMENT
NEW EQUIPMENT



2 E-700 FIRE ALARM SYSTEM RISER DIAGRAM
Scale: NOT TO SCALE

NOTES

1. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM PULL STATIONS, EACH COMPLETE WITH LEXAN COVER, 30,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM PULL STATION.
2. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM SMOKE DETECTORS, EACH COMPLETE WITH 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM HEAT/SMOKE DETECTOR.
3. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM HEAT DETECTORS, EACH COMPLETE WITH 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM HEAT/SMOKE DETECTOR.
4. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM DUCT SMOKE DETECTORS MOUNTED IN SUPPLY DUCTS, EACH COMPLETE WITH PILOT LIGHT AND 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM DUCT SMOKE DETECTOR MOUNTED IN SUPPLY DUCT.
5. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM HORNS, EACH COMPLETE WITH 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM HORN.
6. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 FIRE ALARM HORNS COMPLETE WITH STROBE LIGHTS, EACH COMPLETE WITH 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM HORN COMPLETE WITH STROBE LIGHT.
7. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 2 STROBE LIGHTS TYPE 'OC', EACH COMPLETE WITH 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM STROBE LIGHT.
8. INCLUDE IN THE TENDER PRICE FOR THE SUPPLY, INSTALLATION AND FIRE ALARM VERIFICATION OF ADDITIONAL 4 FIRE ALARM DUCT SMOKE DETECTORS FOR FIRE/SMOKE DAMPERS, EACH COMPLETE WITH PILOT LIGHT, 2 DPDT FORM-C RELAYS WITH 120V INPUT CONTACTS FOR FIRE/SMOKE DAMPER ACTUATOR OPERATION & INTEGRATION SEQUENCE, SUPERVISORY ZONE (LOSS OF POWER) AND 20,000mm OF CONDUIT, WIRING AND CONNECTION TO THE NEAREST FIRE ALARM HEAT/SMOKE DETECTOR.
   ALSO, INCLUDE IN THE TENDER PRICE FOR THE SUPPLY AND INSTALLATION OF ADDITIONAL TWO 15A, 120V CIRCUITS FOR FIRE/SMOKE DAMPER ACTUATORS. EACH CIRCUIT COMPLETE WITH 30,000mm OF CONDUIT, WIRING AND CONNECTION TO TWO 15A/1P BREAKERS IN THE NEAREST 120/208V, 3Ø, 4W PANEL.
   PROVIDE ALL REQUIRED RELAYS AND COMPONENTS FOR EACH OF THE 4 ADDITIONAL FIRE/SMOKE DAMPERS TO ACHIEVE THE FIRE/SMOKE DAMPER OPERATION SEQUENCE.
9. SHOULD ANY OF THESE ELECTRICAL EQUIPMENT OR DEVICES REFERENCED IN NOTES #1 TO #8 NOT BE REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL CREDIT THE FULL VALUE OF THE UNUSED MATERIALS AND ASSOCIATED LABOUR BACK TO THE OWNER.
10. IN ACTUATION OF ANY FIRE ALARM ZONE, AUXILIARY CONTACTS AC-N1 TO AC-N5 SHALL BE ENERGIZED AND SHALL SHUT DOWN CORRESPONDING ROOF TOP UNITS, AIR HANDLING UINIT.
11. SPARE
12. OBTAIN APPROVED FINAL ROOM NAMES AND NUMBERS AND ARCHITECTURAL DRAWINGS BEFORE ANY PROGRAMMING OF FIRE ALARM CONTROL PANEL OR ORDERING PASSIVE GRAPHICS AND MODIFY FIRE ALARM ANNUNCIATOR TO SUIT.
13. ALL WIRING TO BE RUN IN CONDUITS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
14. NOT IN USED
15. PROVIDE ALL NECESSARY RELAYS AND COMPONENTS TO ACHIEVE LOSS OF POWER (CIRCUIT FAILURE) OF EACH CIRCUIT FOR RESPECTIVE PANEL.
16. CONDUCT COMMISSIONING, TESTING, OPERATION AND VERIFICATION OF ALL FIRE/SMOKE DAMPERS AND ASSOCIATED DUCT SMOKE DETECTORS AS PART OF INTEGRATED LIFE SAFETY SYSTEM TESTING.
17. IN ACTUATION OF ANY FIRE ALARM ZONE, AC-N8 SHALL RELEASE DOOR HOLDERS AND CAUSE THE DOORS TO SHUT.
18. FOR EXACT QUANTITY OF FIRE ALARM DEVICES, REFER TO FLOOR PLANS.
19. ELECTRICAL CONTRACTOR SHALL VERIFY LOCATIONS, QUANTITIES AND NAMES OF ALL SPRINKLER ALARM ZONES AND SPRINKLER SUPERVISORY ZONES ON SITE. COORDINATE ALL WORK WITH MECHANICAL/SPRINKLER CONTRACTOR AND ON SITE.
20. FOR EXACT LOCATION OF F.A. ANNUNCIATOR, AND MAIN F.A. CONTROL PANEL REFER TO DRAWING E100 KEY PLAN
21. EXISTING F.A. PASSIVE GRAPHIC SHALL BE REPLACED WITH NEW F.A. PASSIVE GRAPHIC TO SUIT EXISTING F.A. ZONES, ADDITION OF NEW ZONES AND ARCHITECTURAL MODIFICATIONS TO THE BUILDINGS. PROVIDE ALL ASSOCIATED COMPONENTS AND ADJUST TO SUIT. COORDINATE WITH PROJECT PHASE SCHEDULE.
22. EXISTING FIRE ALARM CONTROL PANEL AND FIRE ALARM ANNUNCIATOR SHALL BE MODIFIED/EXTENDED TO SUIT EXISTING AND ADDITION OF NEW ZONES. PROVIDE ALL ASSOCIATED COMPONENTS AND ADJUST TO SUIT. COORDINATE WITH PROJECT PHASE SCHEDULE.
23. FOR MORE INFORMATION REFER TO ELECTRICAL SPECIFICATION.
24. CONDUCT COMMISSIONING, TESTING, OPERATION AND VERIFICATION OF ALL FIRE/SMOKE DAMPERS AND ASSOCIATED DUCT SMOKE DETECTORS AS PART OF INTEGRATED LIFE SAFETY SYSTEM TESTING COMPLY WITH S1001.
25. FOR MORE INFORMATION REFER TO ELECTRICAL SPECIFICATION.
26. CONTRACTOR SHALL COORDINATE WITH BASE BUILDING FIRE ALARM VENDOR TO ENSURE AL REQUIRED EXISTING AUXILIARY ZONES & SUPERVISORY ZONES ARE ACCOUNTED FOR THE NEW FIRE ALARM PANEL ENSURE THE NEW FIRE ALARM PANEL IS SUITABLE FOR ALL EXISTING AND NEW ZONES. PROVIDE FIRE ALARM TESTING AND VERIFICATION. COORDINATE WITH GENERAL CONTRACTOR FOR S1001 INTEGRATION TESTING REQUIREMENT.

FIRE ALARM SYSTEM OPERATION SEQUENCE:

1. ACTIVATION OF ANY ALARM INITIATING DEVICE SHALL CAUSE THE FOLLOWING TO OCCUR:
   - ALL AUDIBLE SIGNALS TO SOUND CONTINUOUSLY FOR THE MANDATORY PERIOD BEFORE THEY CAN BE MANUALLY OR AUTOMATICALLY SILENCED.
   - THE TYPE AND LOCATION OF THE ALARM TO BE INDICATED ON THE CONTROL PANEL AND THE REMOTE ANNUNCIATOR.
   - TRANSMIT AN ALARM TO THE FIRE ALARM MONITORING STATION WITH INDICATION ON THE ANNUNCIATOR.
   - OPERATION OF AUXILIARY CONTACTS FOR CONTROL OF AUXILIARY FUNCTIONS.
   - RELEASE FIRE DOORS HELD OPEN BY ELECTRIC DOOR HOLD OPEN DEVICES.
   - FAN SHUT DOWN.
2. ACTIVATION OF ANY SUPERVISORY DEVICE SHALL CAUSE THE FOLLOWING TO OCCUR:
   - THE COMMON TROUBLE ALARM SIGNAL SHALL SOUND IN THE CONTROL PANEL AND THE ANNUNCIATOR.
   - THE TYPE AND LOCATION FOR THE ALARM TO BE INDICATED ON THE CONTROL PANEL AND THE ANNUNCIATOR.
3. ANY MALFUNCTION ON THE SYSTEM SHALL SOUND A TROUBLE ALARM SIGNAL AND ILLUMINATE A TROUBLE INDICATOR ON THE CONTROL PANEL AND THE ANNUNCIATOR.

FIRE/SMOKE DAMPER OPERATION SEQUENCE:

PROVIDE ALL REQUIRED RELAYS AND COMPONENTS TO ACHIEVE THE FOLLOWING SEQUENCE:

1. NORMAL CONDITION:
   - 120V POWER SHALL BE PROVIDED TO FIRE/SMOKE DAMPER ACTUATOR TO KEEP DAMPER IN OPEN POSITION.
2. ALARM CONDITION:
   - ACTIVATION OF DUCT SMOKE DETECTOR OF RESPECTIVE FIRE/SMOKE DAMPER (MOUNTED DOWNSTREAM OF SEPARATION) SHALL DISCONNECT 120V POWER TO FIRE/SMOKE DAMPER ACTUATOR AND CLOSE THE DAMPER.
3. LOSS OF POWER:
   - LOSS OF 120V POWER TO ACTUATOR SHALL BE PROGRAMMED IN FACP AS TROUBLE FOR CIRCUITS AS INDICATED ON FIRE ALARM RISER DIAGRAM

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LICENSED PROFESSIONAL ENGINEER
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PROJECT:

BROCK HIGH SCHOOL RENOVATIONS

DURHAM REGIONAL ROAD 12
CANNINGTON, ON, L0E 1E0
DURHAM DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL FIRE ALARM SYSTEM RISER DIAGRAM AND DETAILS

DESIGN BY:	TY
DRAWN BY:	TY
CHECKED BY:	FH
DATE:	Apr 2026
SCALE:	AS SHOWN
SEAL:	
PROJECT NO:	25184
DRAWING NO:	E700