Renovations at
Richard Beasley Elementary School

80 Currie Street
Hamilton, Ontario

LIST OF DRAWINGS

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ARCHITECTURAL			
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A102	PART SITE PLAN	M-1.2	MECHANICAL SPECIFICATIONS II
A103	PART DEMOLITION SITE PLAN	M-1.3	MECHANICAL LEGEND
A104	SITE DETAILS	M-1.4	MECHANICAL SCHEDULES
A201	OVERALL DEMOLITION FLOOR PLAN	M-1.5	MECHANICAL DETAILS
A202	OVERALL FLOOR PLAN	M-2.1	FLOOR PLAN - HVAC DEMOLITION
A203	PART DEMOLITION PLANS	M-2.2	FLOOR PLAN - HVAC NEW
A204	PART FLOOR PLANS	M-3.1	FLOOR PLAN - DRAINAGE DEMOLITION
A205	PART REFLECTED CEILING PLANS	M-3.2	FLOOR PLAN - DRAINAGE NEW
A401	LIFT SECTIONS	M-3.3	FLOOR PLAN - PLUMBING DEMOLITION
A402	WALL SECTIONS	M-3.4	FLOOR PLAN - PLUMBING NEW
A701	INTERIOR ELEVATIONS		
A901	ROOM AND DOOR SCHEDULES	ELECTRICAL	
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		E-1.3	ELECTRICAL DETAILS
S101	GENERAL NOTES & SCHEDULES	E-1.4	ELECTRICAL DETAILS
S201	STRUCTURAL PLANS	E-2.1	ELECTRICAL PLAN
S501	SECTIONS	E-9.1	ELECTRICAL PLANS WASHROOM 119 & 120
		E-9.2	ELECTRICAL PLANS WASHROOM 128A
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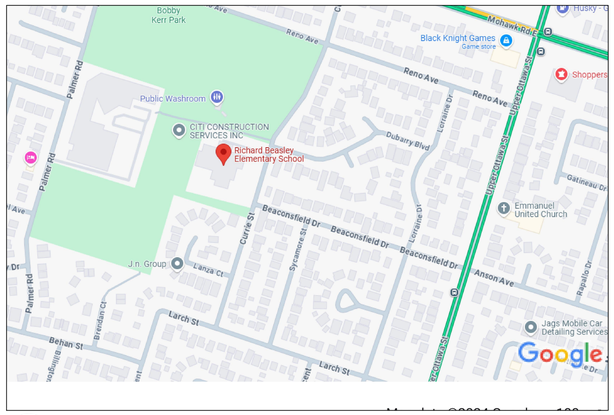
		E-9.4	ELECTRICAL PLANS WASHROOMS 107A/B & 108A/B
		E-9.5	ELECTRICAL PLANS STAGE LIFT
		E-10.1	ELECTRICAL DEMOLITION PLANS
		E-10.2	ELECTRICAL DEMOLITION PLANS



1
A000
LOCATION PLAN
N.T.S.

CONSULTANTS

ARCHITECTURAL / STRUCTURAL:

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water St.
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

MECHANICAL :

Giallonardo — Engineering Inc.

GIALLONARDO ENGINEERING INC.
220-4550 Highway 7
Woodbridge, Ontario
L4L 4Y7

Tel: (905) 265-1052
info@giallonardoeng.com
Web : http://www.giallonardoeng.com

ELECTRICAL :

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

NAME OF CONSULTANT : BARRY BRYAN ASSOCIATES
CERTIFICATE OF PRACTICE NUMBER : 5192
250 WATER STREET, SUITE 201
WHITBY, ONTARIO, CANADA. L1N 0G5
TEL : (905) - 666 - 5252
(Toronto) (905) - 427 - 4495
FAX : (905) - 666 - 5256

DATE :
2025-12-16

NAME OF PROJECT :
RENOVATIONS AT
RICHARD BEASLEY
ELEMENTARY SCHOOL

LOCATION OF PROJECT :
80 CURRIE STREET,
HAMILTON, ON

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

			OBC Reference
11.00	Building Code Version:	O. Reg. 332/12 Last Amendment: O. Reg. 89/23	
11.01	Project Type:	☐ Addition ☐ Renovation ☐ Addition and Renovation ☐ Change of use Description -	[A] 1.1.2.
11.02	Major Occupancy Classification:	Occupancy: Group 42 / - / - — Use: Elementary School / - / -	3.1.2.1.(1)
11.03	Superimposed Major Occupancies:	☐ Yes ☑ No Description -	3.2.2.7
11.04	Building Area (m²)	Description: NO CHANGE / - / - — Existing / New / Total: - / - / - / - / - / - / - / - / - — Total=	[A] 1.4.1.2.
11.05	Building Height	- Storeys above grade, - (m) Above grade; - Storeys below grade	[A] 1.4.1.2 & 3.2.1.1
11.06	Number of streets/ fire fighter access:	- street(s)	3.2.2.10 & 3.2.5
11.07	Building Size:	☐ Small ☐ Medium ☑ Large ☐ > Large	T.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: - NO CHANGE Hazard Index: - Importance Category: ☐ Low ☐ Normal ☐ High ☐ Post-disaster	11.2.1 T11.2.1.1A T11.2.1.1B to N, 4.2.1(3) & 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:	Floor Level/ Area / - / - — Occupancy Type / - / - — Based On / - / - — Occup. Load / - / - Existing Occupant load does not change.	3.1.17
11.11a	Plumbing Fixture Requirements:	Ratio: Male/Female = 50:50 Except as noted otherwise Floor level/ Area — Occupant Load — OBC Reference — Fixtures Required — Fixtures Provided Existing Occupant load and fixture requirement does not change.	3.7.4
11.11b	Plumbing Fixture Requirements: cont.	Floor level/ Area (Repeated) — B.F. Fixture Required — B.F. Fixture Provided — Uni. Fixture Required — Uni. Fixtures Provided NO CHANGE	Tables 3.8.2.3.A and 3.8.2.3.B
11.12	Barrier-free Design:	☑ Yes ☐ No — Explaination	11.3.3.2.(2)
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	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5
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 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	Notes:	Renovations to existing washroom, new universal washroom and vertical lift.	11.5.1

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2	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
1	ISSUED FOR 30% REVIEW	OCT. 11, 2024	BBA

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

OBC MATRIX,
LOCATION PLAN &
DRAWING LIST

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

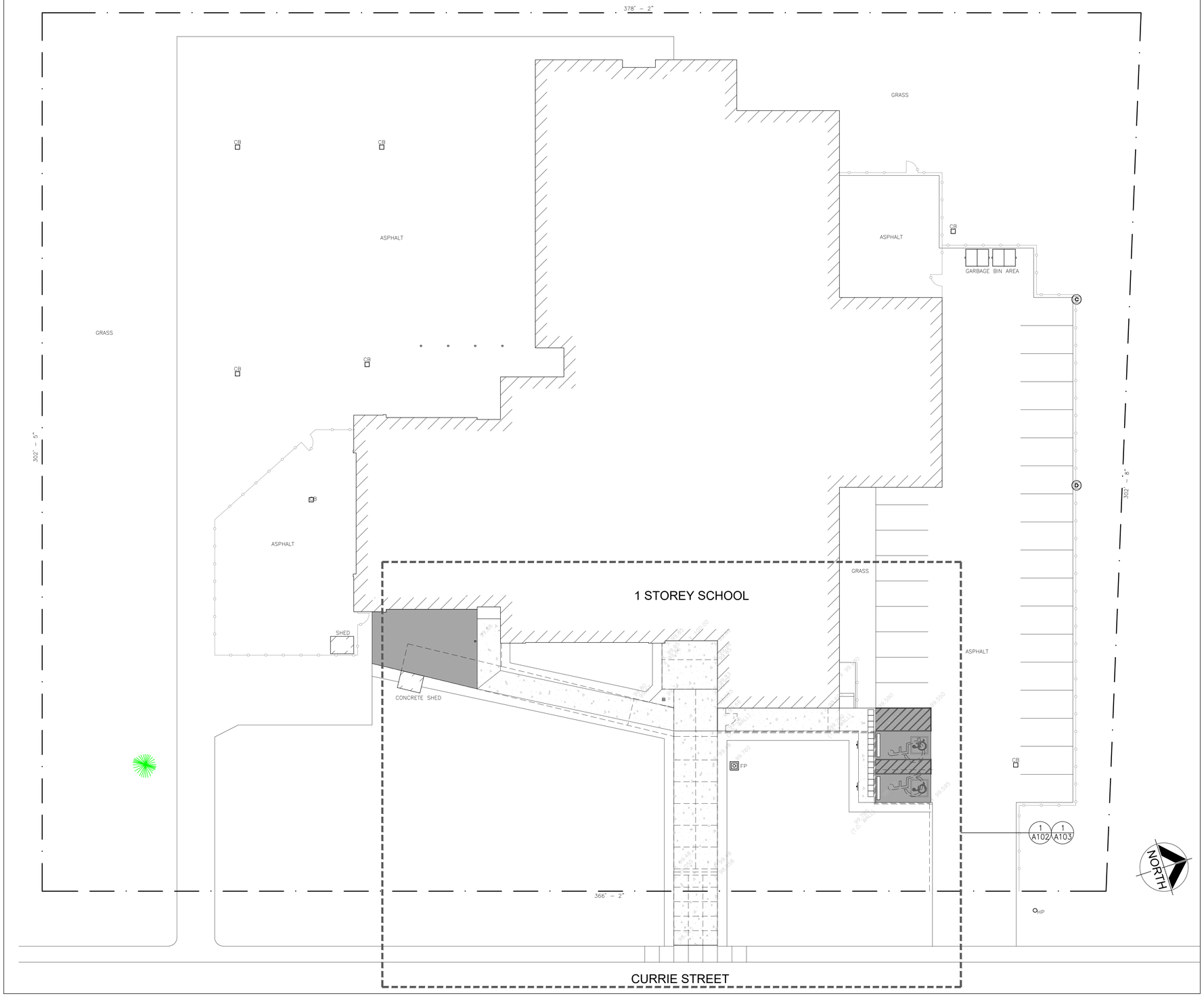
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: CM	TL COMPLETE:
CHECKED BY:	INITAL:
DATE: JUNE 2024	
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **A000**



1 A101 SITE PLAN
1:200

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR. 22, 2025	BBA
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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

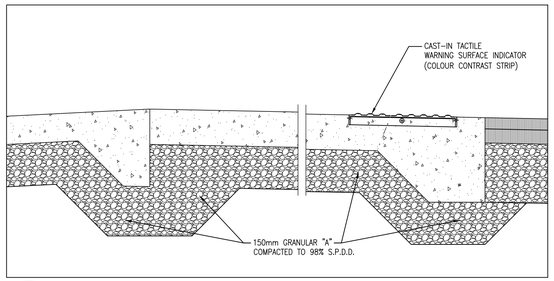
SITE PLAN

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcneng.com

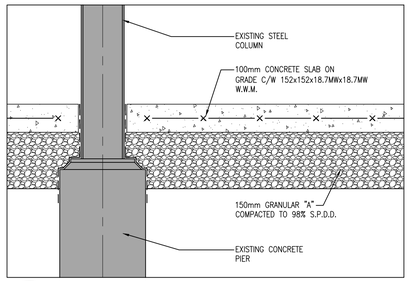
DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: CM	% COMPLITE:
CHECKED BY:	INITIAL:
DATE: SEPT. 2024	
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **A101**



6 A102 BF SIDEWALK SECTION
1:10



5 A102 SECTION DETAIL
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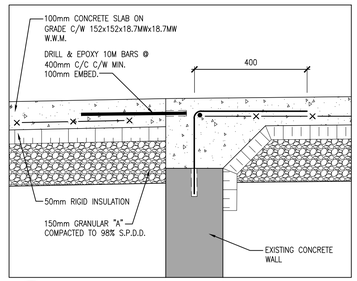

4 A102 SECTION DETAIL
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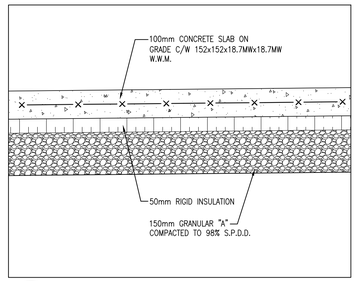

3 A102 SECTION DETAIL
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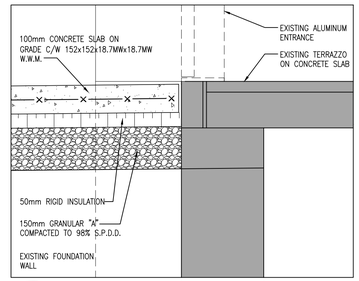
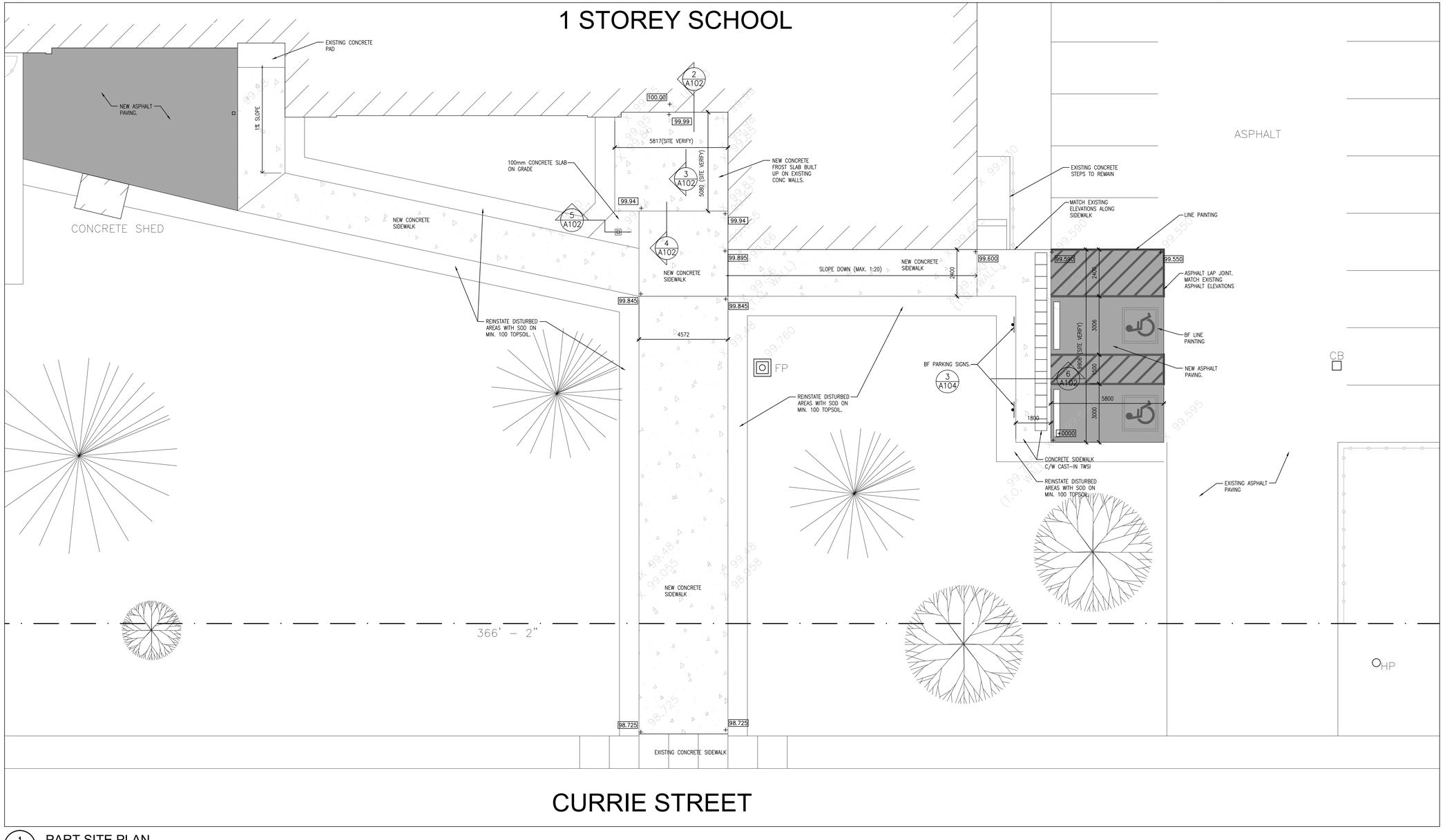


2 A102 SECTION DETAIL
1:10

1 STOREY SCHOOL



CURRIE STREET

1 A102 PART SITE PLAN
1:100

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR. 22, 2025	BBA
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1	ISSUED FOR 30% REVIEW	OCT. 10, 2024	BBA

DO NOT SCALE THE DRAWINGS.

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

PART SITE PLAN

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC. CONTROL DATE:
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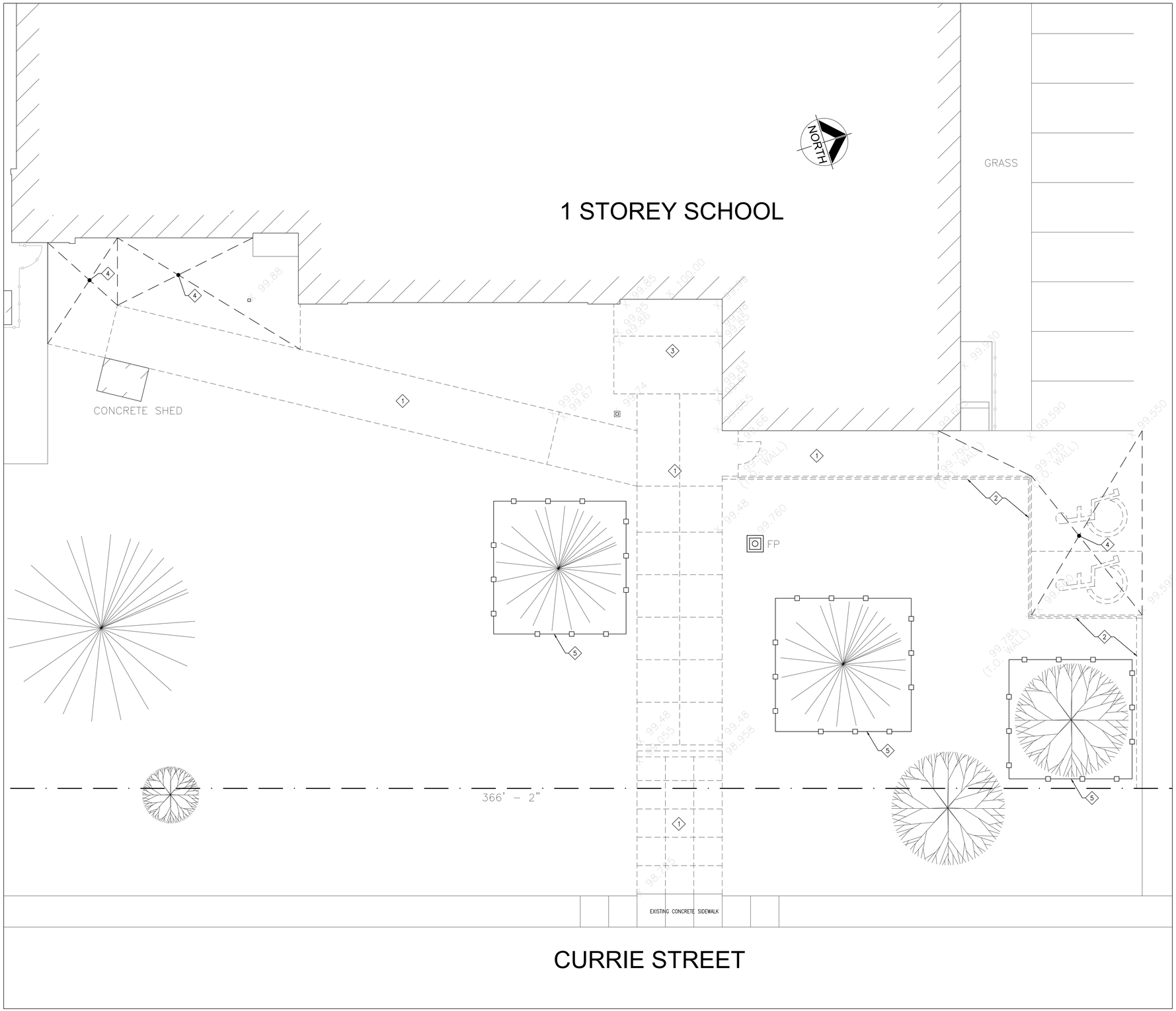
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **A102**



1 A103 PART DEMOLITION SITE PLAN
1:100

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.
3. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, LANDSCAPE OR PART THEREOF.
4. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED.
5. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
6. 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.
7. 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.
8. MAINTAIN WORK AREAS AND STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES.
9. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
10. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
11. DISPOSE OF MATERIALS OFF SITE.

SITE DEMOLITION NOTES

1. BREAKUP AND REMOVE EXISTING CONCRETE SIDEWALK TO EXTENT SHOW
2. REMOVE EXISTING CHAINLINK FENCE, CONCRETE WALL AND FOUNDATIONS.
3. REMOVE EXISTING CONCRETE SLAB ON GRADE AND STEPS AND PREPARE AREA FOR NEW WORK.
4. SAWCUT AND REMOVE EXISTING ASPHALT PAVING TO EXTENT SHOWN AND AS REQUIRED TO COMPLETE NEW WORK.
5. INSTALL AND MAINTAIN TREE PROTECTION FENCING AROUND TREES INDICATED.

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

PART DEMOLITION SITE PLAN

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC. CONTROL DATE:
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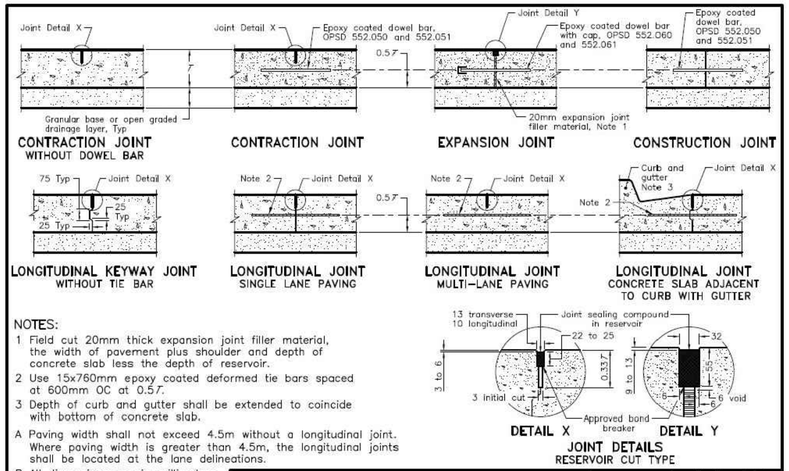
DATE: SEPT. 2024	
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **A103**



NOTES:

1 Field cut 20mm thick expansion joint filler material, the width of pavement plus shoulder and depth of concrete slab less the depth of reservoir.

2 Use 15x760mm epoxy coated deformed tie bars spaced at 600mm OC at 0.5ℱ.

3 Depth of curb and gutter shall be extended to coincide with bottom of concrete slab.

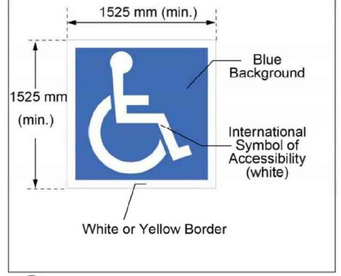
A Paving width shall not exceed 4.5m without a longitudinal joint. Where paving width is greater than 4.5m, the longitudinal joints shall be located at the lane delineations.

B All dimensions are in millimetres unless otherwise shown.

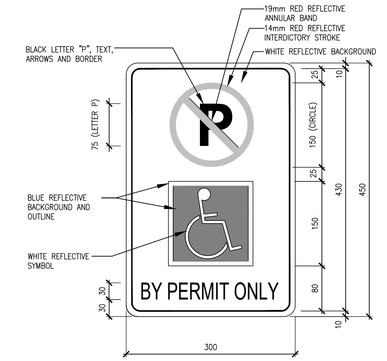
LEGEND:

ℱ – Concrete slab thickness

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 2
CONCRETE PAVEMENT JOINT DETAILS		OPSD 552.010



4 / A104 B.F. LINE PAINTING

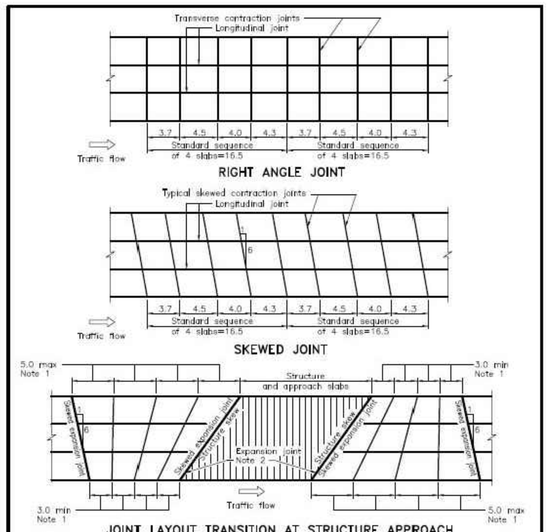


NOTES:
PROVIDE ONE SIGN PER BARRIER FREE PARKING SPACE.

MOUNT ON GALVANIZED STEEL POST AT HEIGHT IN ACCORDANCE WITH LOCAL BY-LAWS.

B.F. PARKING SIGN-'BF'

3 / A104 TYPICAL SIGNS
N.T.S.



NOTES:

1 The transverse joint adjacent to the skewed expansion joint shall be placed so the slab length is not shorter than 3.0m nor longer than 5.0m.

2 Expansion joints shall be placed at each end of both structure approach slabs.

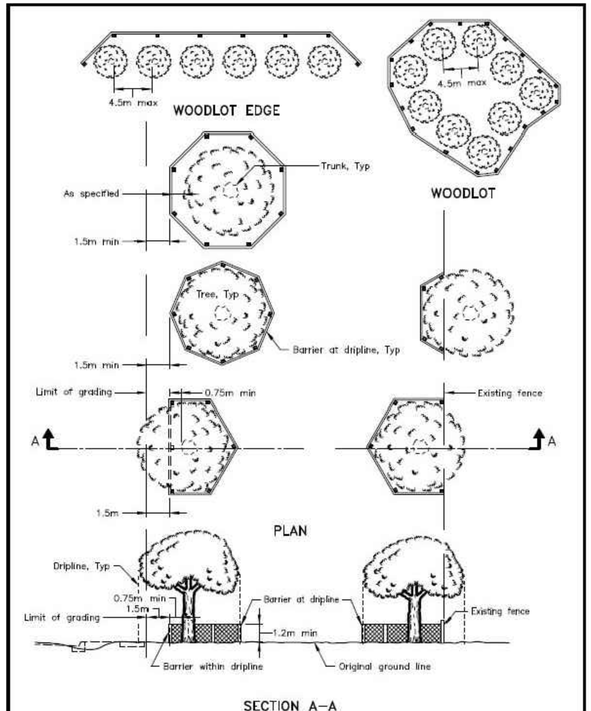
A All joints shall be according to OPSD 552.010 or OPSD 552.020.

B Construction joints shall be right angled joints located a minimum of 2.0m from adjacent transverse joints.

C Transverse joints shall be extended to include the full width of the concrete shoulders and curb with gutter.

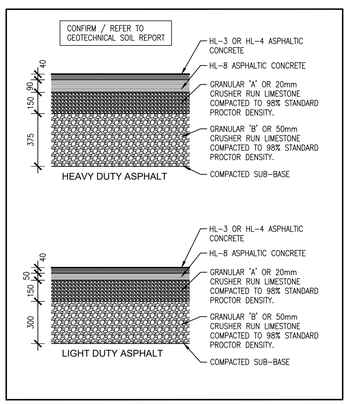
D All dimensions are in metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 2
CONCRETE AND COMPOSITE PAVEMENT JOINT SPACING		OPSD 551.010



ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2019	Rev 1
BARRIER FOR TREE PROTECTION		OPSD 220.010

2 / A104 NOT USED
N.T.S.



1 / A104 ASPHALT COMPOSITION
1:20

NO.	ISSUES/ REVISIONS	DATE	BY
3	ISSUED FOR TENDER	APR. 22, 2025	BBA
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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

SITE DETAILS

BBA

BARRY BRYAN ASSOCIATES
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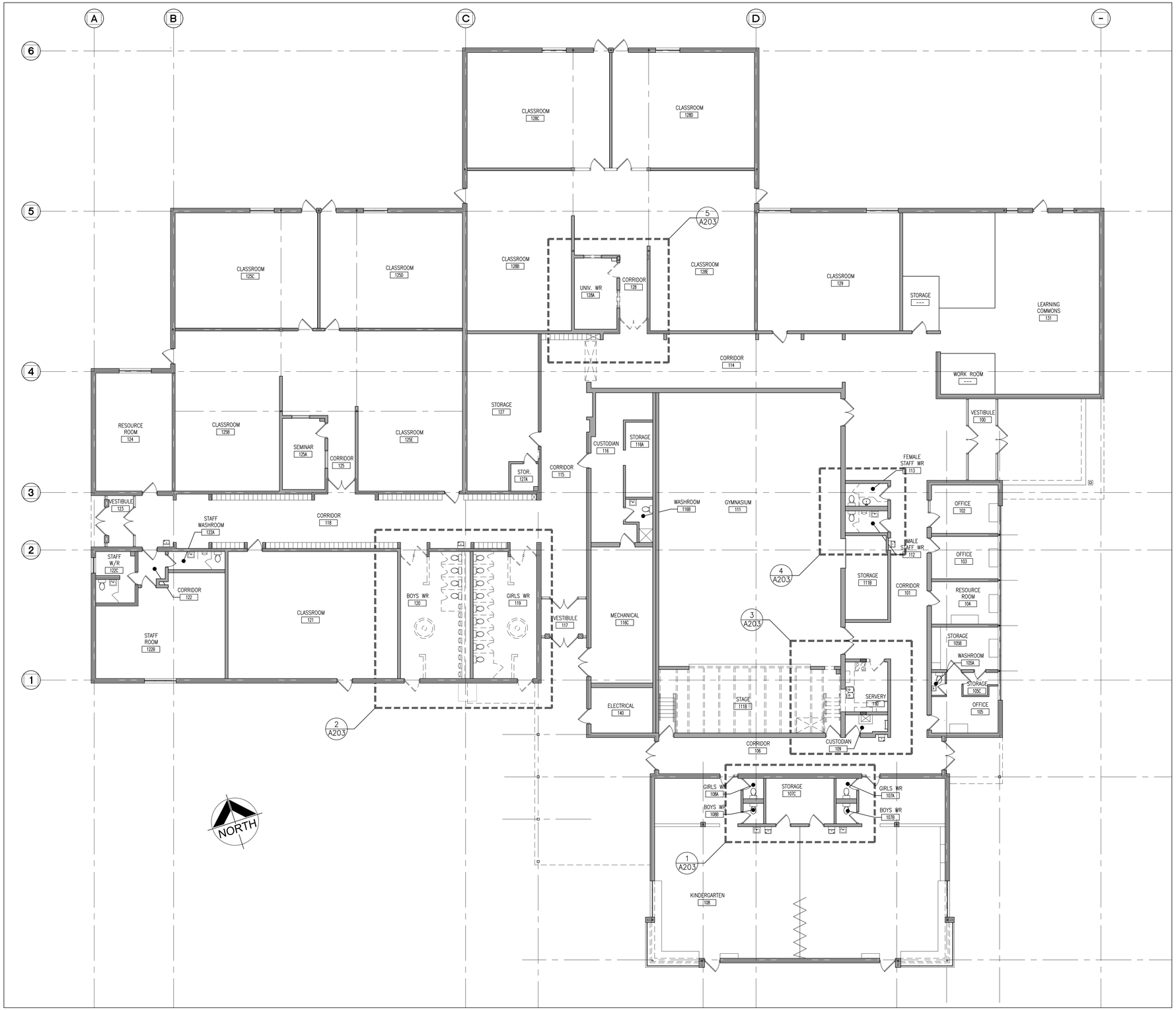
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC CONTROL DATE:
DRAWN BY: JJA	% COMPLETE:
CHECKED BY:	INITIAL:
DATE: NOV. 20, 2024	
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **A104**



1 A201 OVERALL DEMOLITION FLOOR PLAN

1:125

GENERAL 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 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 WORK AREAS AND STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES.
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 ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW UNDERGROUND PLUMBING AND OTHER BURIED SERVICES AS INDICATED ON MECHANICAL AND ELECTRICAL DRAWINGS.
14. MAINTAIN EXISTING 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 AND REPAIR ALL EXISTING SURFACES TO REMAIN, AS NECESSARY TO RECEIVE NEW 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.

DEMOLITION LEGEND

- 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.

DEMOLITION NOTES

1. CAREFULLY REMOVE & SALVAGE EXISTING STAIR FOR REINSTALLATION.
2. REMOVE EXISTING DOOR AND FRAME IN THEIR ENTIRETY AND AS REQUIRED TO COMPLETE NEW WORK.
3. REMOVE EXISTING PLUMBING FIXTURES AND MAKE GOOD ALL SURFACES AS REQUIRED TO COMPLETE NEW WORK.
4. REMOVE EXISTING MASONRY PARTITION TO EXTENT SHOWN. PATCH, REPAIR AND MAKE GOOD ALL SURFACES.
5. REMOVE EXISTING HM SCREEN. PATCH, REPAIR AND MAKE GOOD ALL SURFACES FOR NEW WORK.
6. REMOVE EXISTING TOILET PARTITIONS. PATCH, REPAIR AND MAKE GOOD ALL SURFACES FOR NEW WORK.
7. REMOVE EXISTING WASHROOM ACCESSORIES. PATCH, REPAIR AND MAKE GOOD ALL SURFACES FOR NEW WORK.
8. REMOVE EXISTING MILLWORK. PATCH, REPAIR AND MAKE GOOD ALL SURFACES FOR NEW WORK.
9. SAW CUT AND REMOVE EXISTING SLAB AS REQUIRED TO COMPLETE NEW UNDER SLAB MECHANICAL WORK.
10. CAREFULLY REMOVE AND SALVAGE EXISTING WOOD DECKING FOR REINSTALLATION.
11. REMOVE EXISTING MASONRY WALL BELOW SCREEN. PATCH, REPAIR AND MAKE GOOD ALL SURFACES AS REQUIRED FOR NEW WORK.
12. REMOVE/ MODIFY EXISTING STUD BEARING WALLS AS REQUIRED FOR INSTALLATION OF STAIR.
13. REMOVE EXISTING VCT FLOORING AND PATCH, REPAIR AND MAKE GOOD FOR FUTURE FINISHES.

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1	ISSUED FOR 30% REVIEW	OCT. 11, 2024	BBA

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

OVERALL DEMOLITION FLOOR PLAN

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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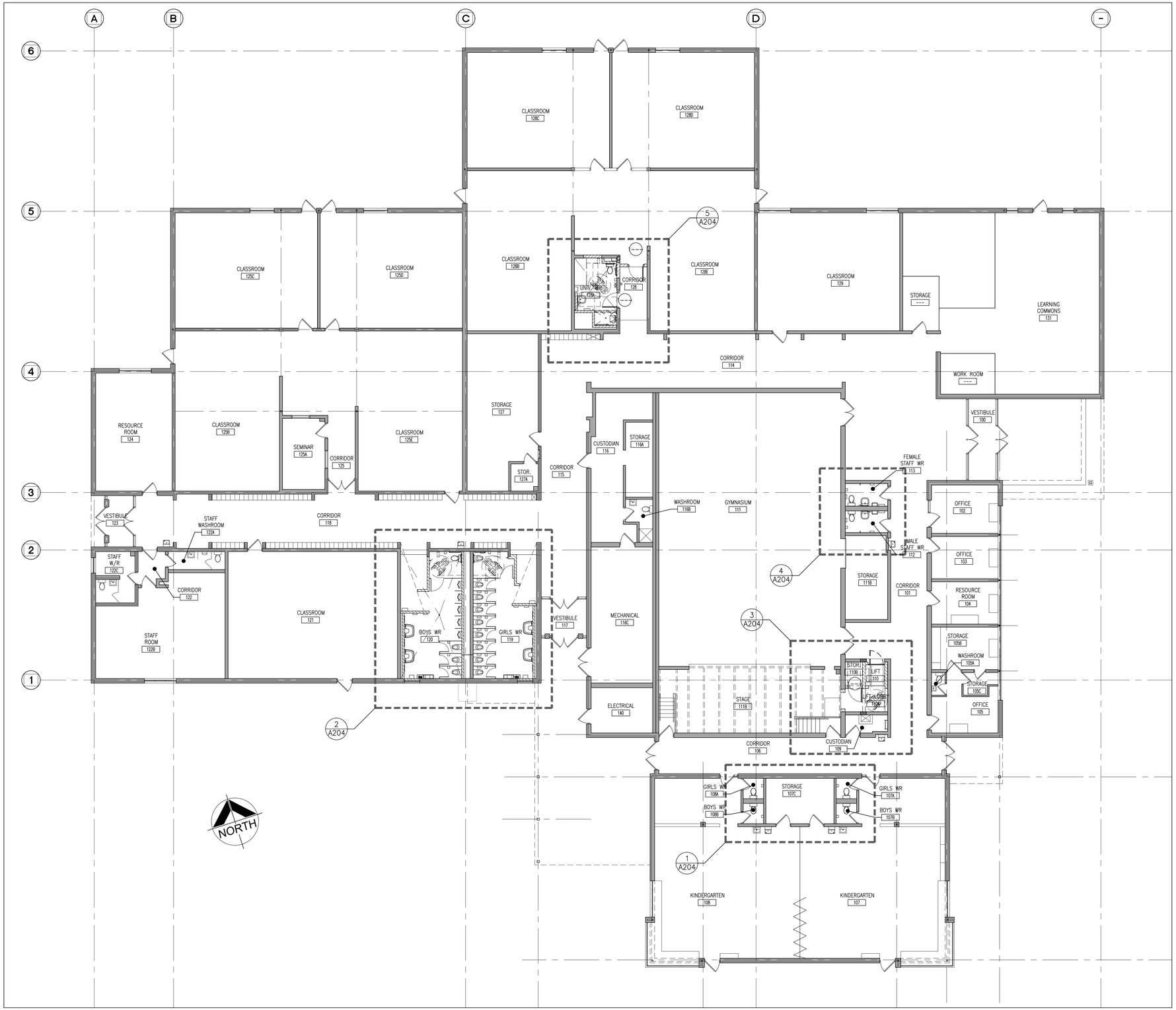
PROJECT NO: **24148**

DRAWING NO: **A201**



1 A202 OVERALL FLOOR PLAN
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250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
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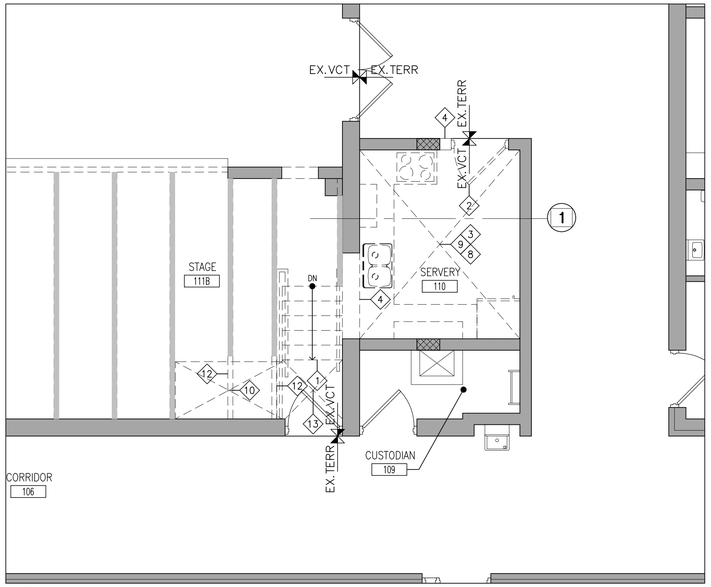
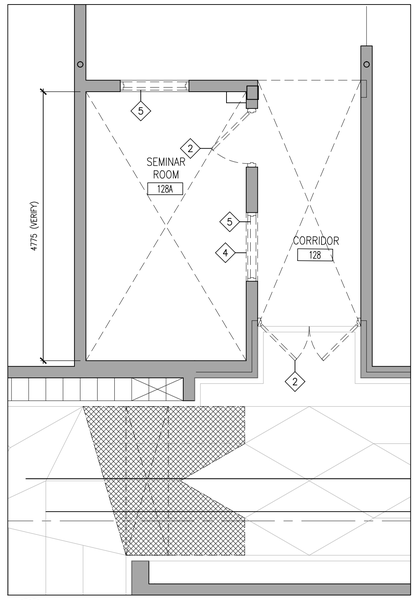


3 A203 DEMOLITION PLAN AT STAGE LIFT AREA
1:50



5 A203 PART DEMOLITION PLAN
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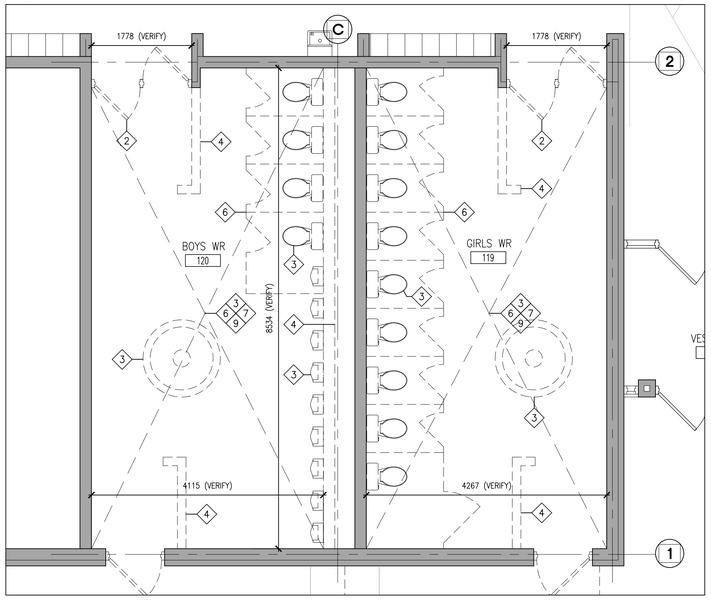
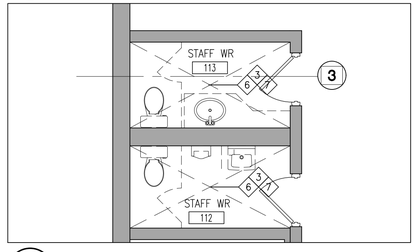
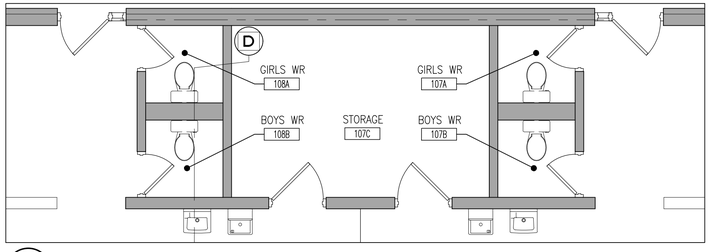


2 A203 WASHROOMS DEMOLITION PLAN
1:50



4 A203 PART DEMOLITION PLAN
1:50



1 A203 WASHROOMS DEMOLITION PLAN
1:50

GENERAL 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 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 WORK AREAS AND STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES.
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 ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW UNDERGROUND PLUMBING AND OTHER BURIED SERVICES AS INDICATED ON MECHANICAL AND ELECTRICAL DRAWINGS.
14. MAINTAIN EXISTING 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 AND REPAIR ALL EXISTING SURFACES TO REMAIN, AS NECESSARY TO RECEIVE NEW FINISHES.
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80 CURRIE STREET
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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

PART DEMOLITION FLOOR PLANS

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
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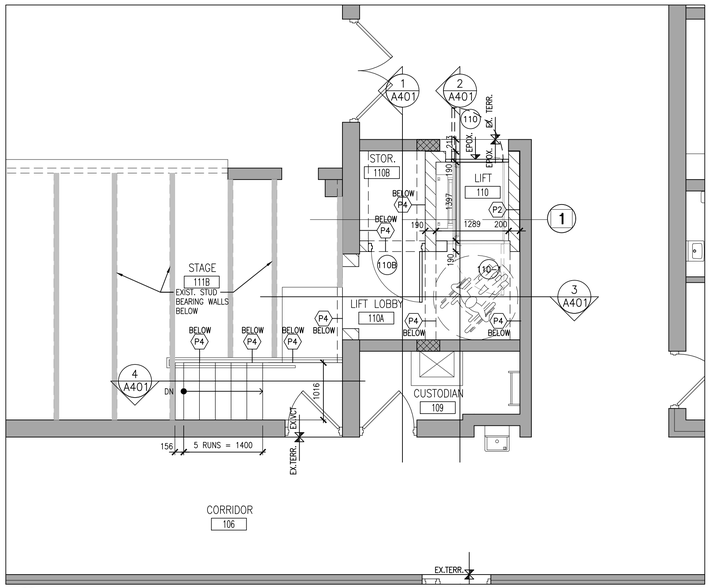
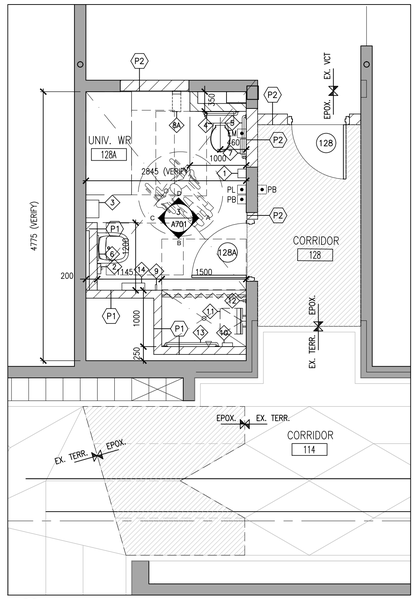
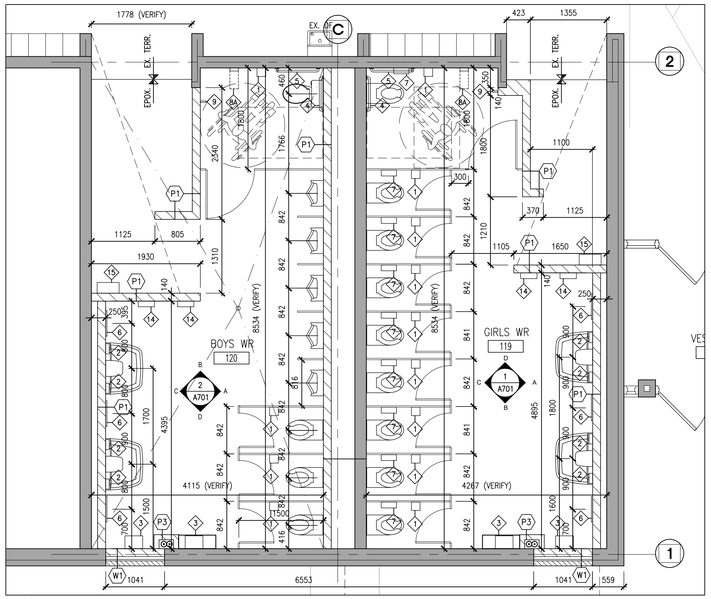
DRAWING NO: **A203**



3 A204 STAGE LIFT PLAN
1:50



6 A204 UNIVERSAL WASHROOM PLAN
1:50



2 A204 STUDENT WASHROOMS PLAN
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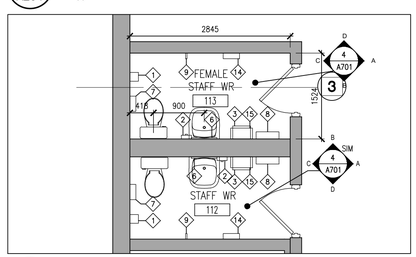

5 A204 STAFF WASHROOMS PLAN
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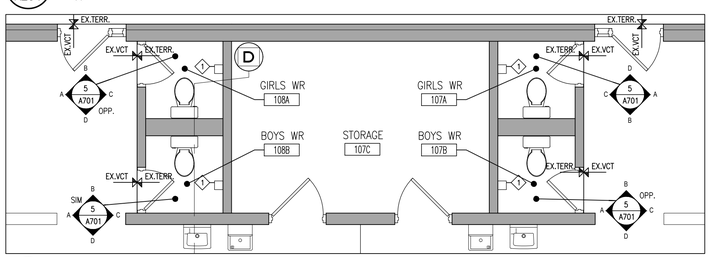


1 A204 KINDERGARTEN WASHROOMS PLAN
1:50

FLOOR PLAN NOTATION LEGEND

- CA — ROOM NAME & NUMBER
- WXX — WALL TYPE
- PXX — INTERIOR PARTITION OR FURRING TYPE
- 101 — DOOR NUMBER
- 1 / A403 — WALL SECTION REFERENCE
- D / C / A / B — 1 / A901 — INTERIOR ELEVATION REFERENCE NUMBER
- FF2 / FF1 — FLOOR FINISH TYPE (SEE ALSO ROOM FINISH SCHEDULE)
- M.1 — MILLWORK NUMBER

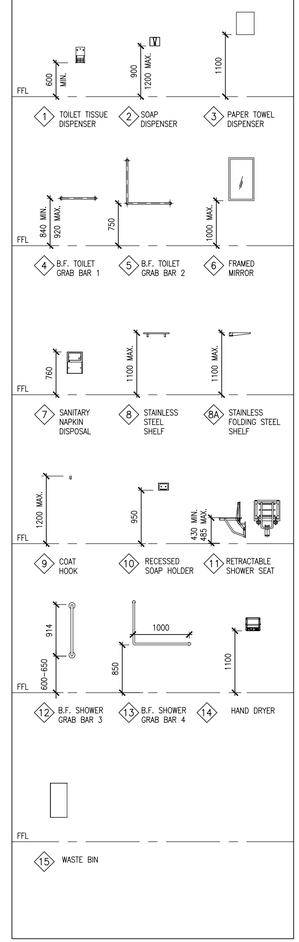
WALL TYPES SCHEDULE

305	W1	90 BRICK VENEER AIR SPACE 50 RIGID INSULATION. CONT. AIR/ VAPOUR BARRIER ON 140 CONCRETE BLOCK.

PARTITION TYPES SCHEDULE

140	P1	140 CONCRETE BLOCK
190	P2	190 CONCRETE BLOCK
90	P3	90 CONCRETE BLOCK
	P4	38x89mm WOOD STUDS @ 305mm C/C (REFER TO STUCT. DWGS)

WASHROOM ACCESSORIES MOUNTING



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DRAWING:

PART FLOOR PLANS

BARRY BRYAN ASSOCIATES
Architects
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Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
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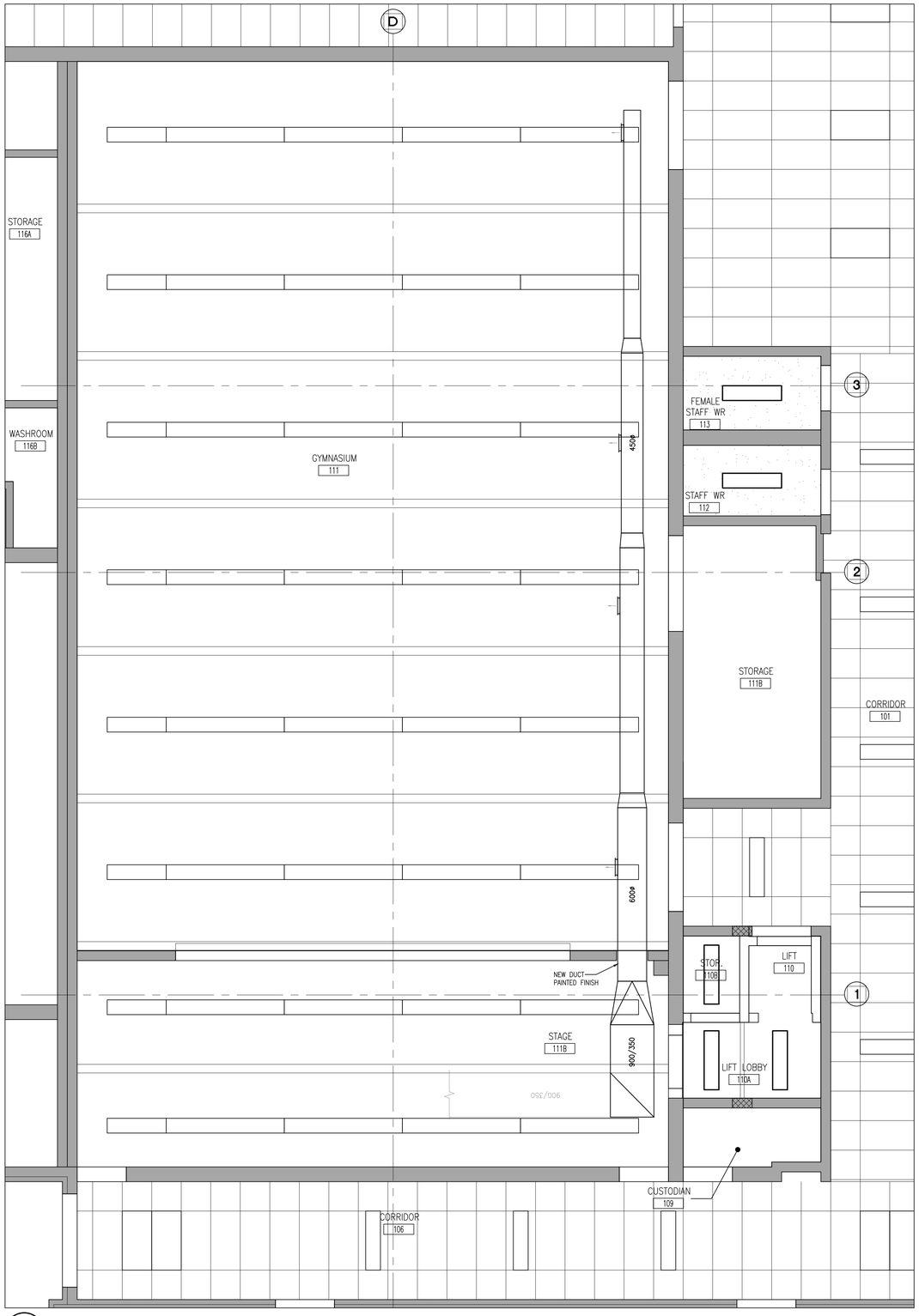
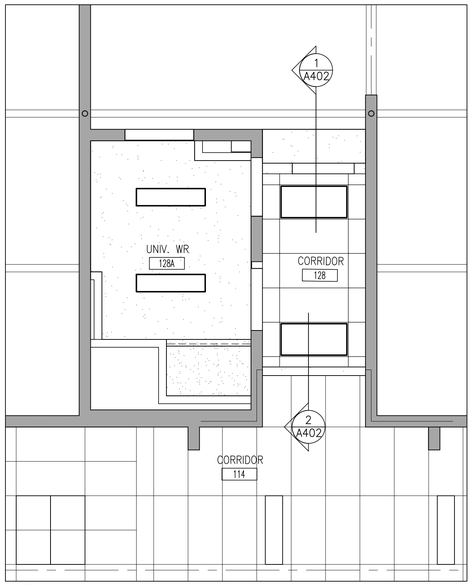


4 A205 CEILING PLAN AT GYMNASIUM, STAGE, LIFT & STAFF WR'S
1:50



3 A205 CEILING PLAN AT UNIV. WASHROOM
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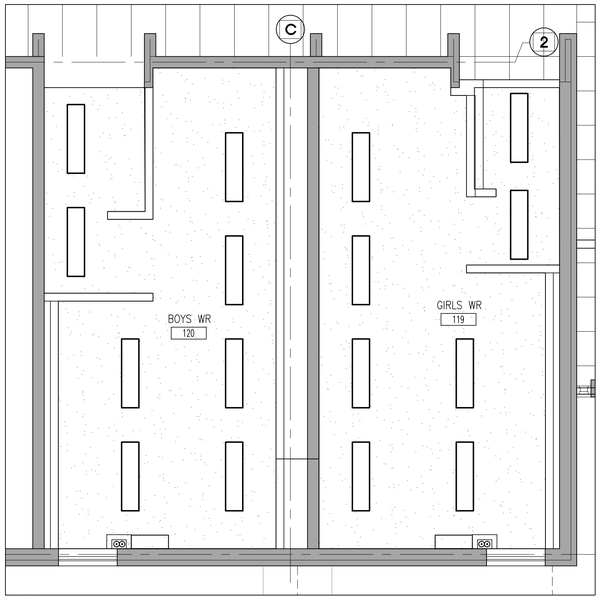
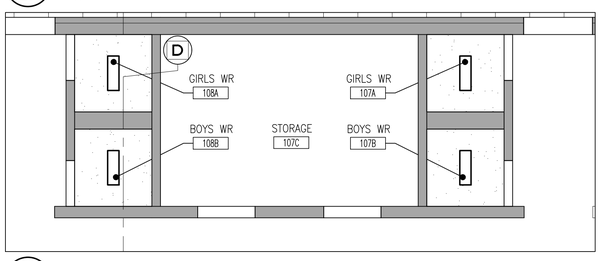


2 A205 PART REFLECTED CEILING PLAN AT WASHROOMS
1:50



1 A205 KINDERGARTEN WASHROOM CEILING PLAN
1:50

NORTH

CEILING NOTATION LEGEND

- C1 — CEILING TYPE (REFER TO CEILING TYPE LEGEND, ROOM FINISH SCHEDULE & SPECIFICATION)
- 2400 — CEILING LEVEL ABOVE FINISHED FLOOR
- RECESSED LIGHT FIXTURE (SEE ALSO ELECTRICAL DRAWINGS)
- RECESSED POT LIGHTS (SEE ALSO ELECTRICAL DRAWINGS)
- CEILING DIFFUSER (SEE ALSO MECHANICAL DRAWINGS)
- RETURN AIR GRILLE (SEE ALSO MECHANICAL DRAWINGS)
- SPRINKLER HEAD
- CEILING OR WALL MOUNTED EXIT LIGHT

CEILING TYPE LEGEND

- C1 — 610x1220 ACOUSTIC LAY-IN CEILING PANELS IN SUSPENDED T-BAR GRID (TYPE 1)
- C2 — 13mm GYPSUM BOARD ON METAL STUD FRAMING
- C3 — EXPOSED UNDERSIDE OF EXISTING CONCRETE SLABS.

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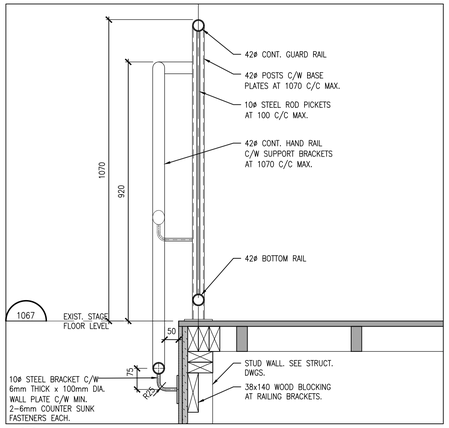

5 A401 RAILING SECTION
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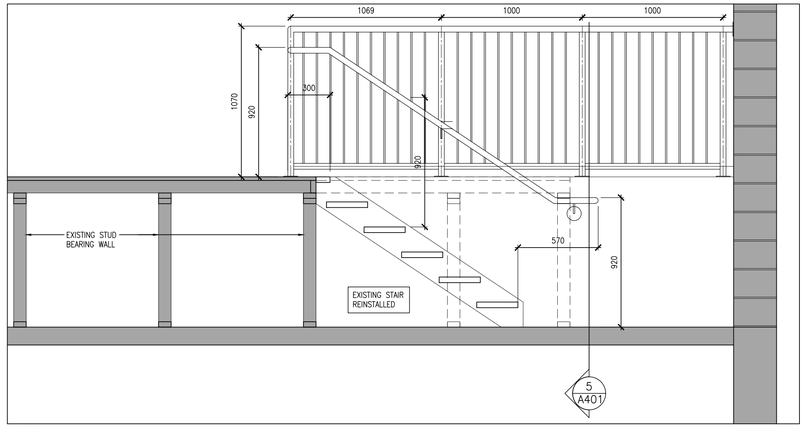
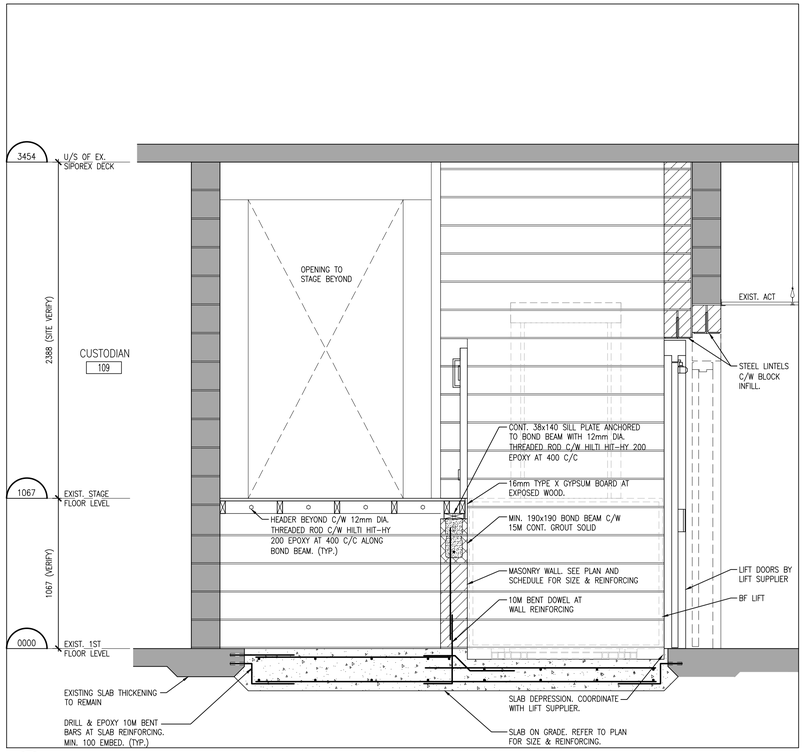


4 A401 SECTION AT STAGE STAIR
1:20



2 A401 WALL SECTION AT LIFT
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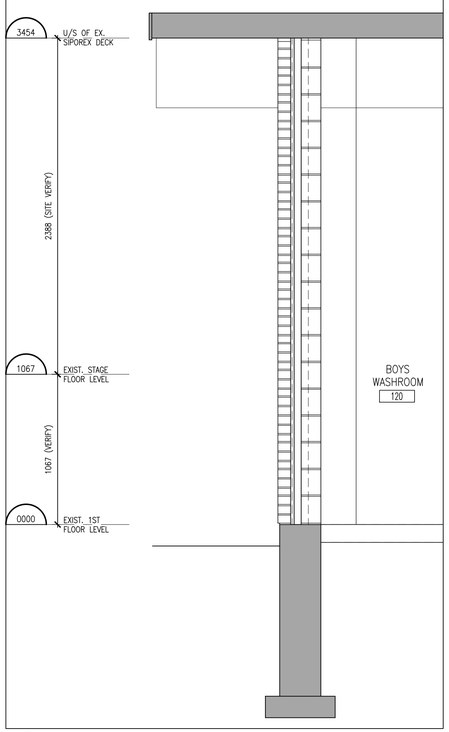

5 A401 WALL SECTION @ 120
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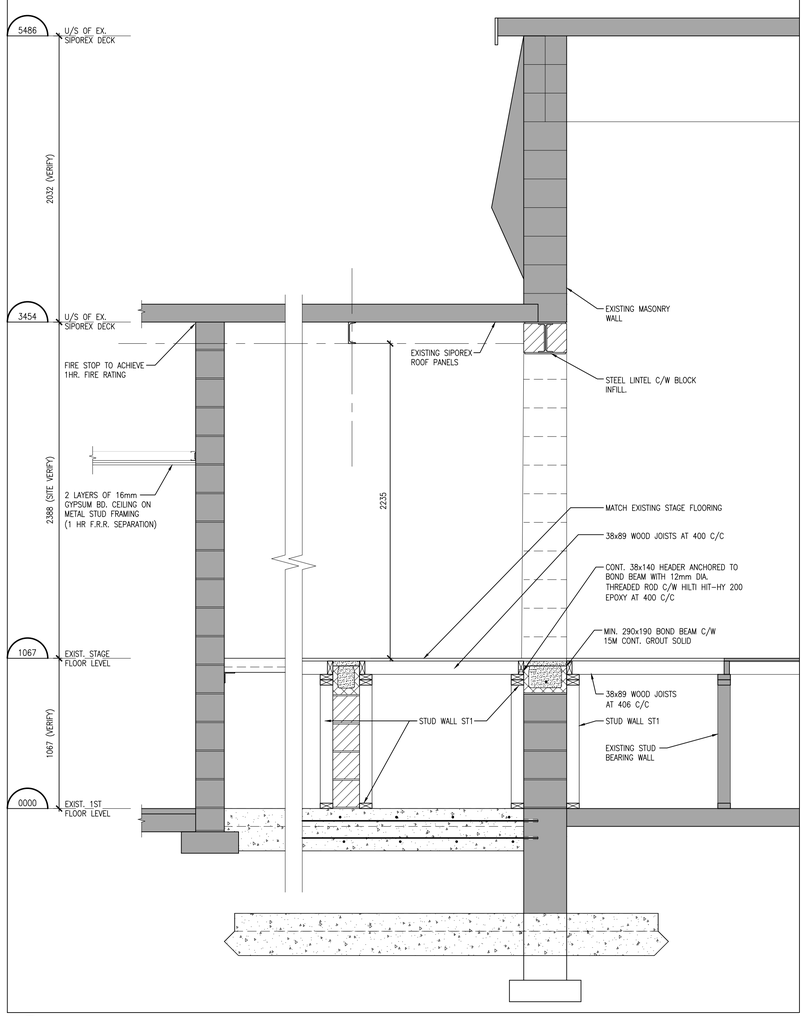
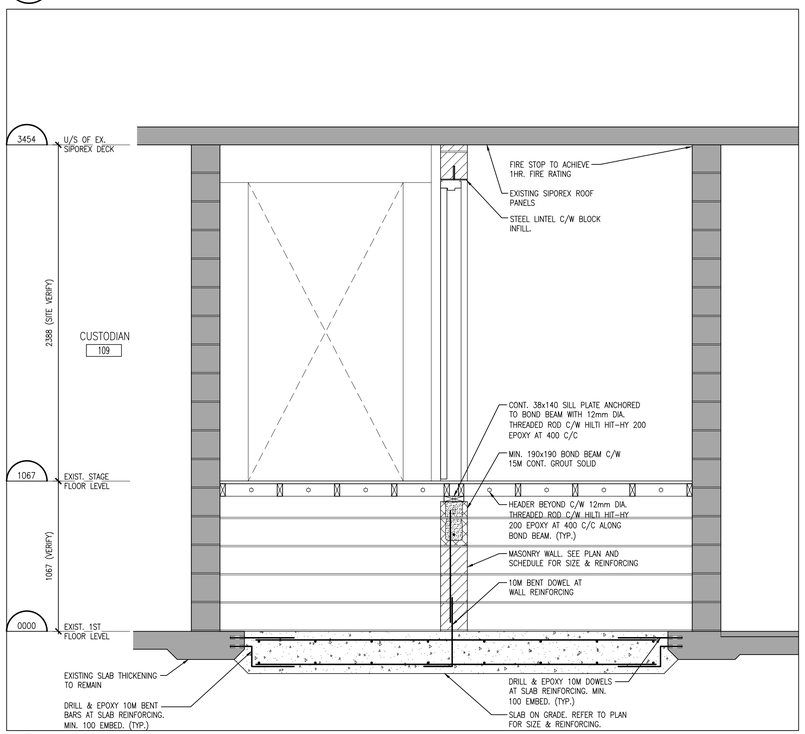


3 A401 WALL SECTION AT LIFT LOBBY
1:20



1 A401 WALL SECTION AT LIFT LOBBY
1:20

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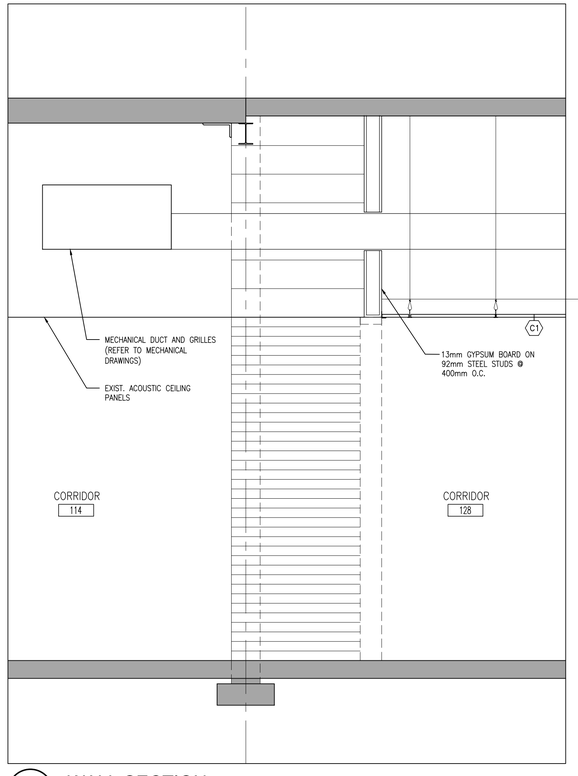
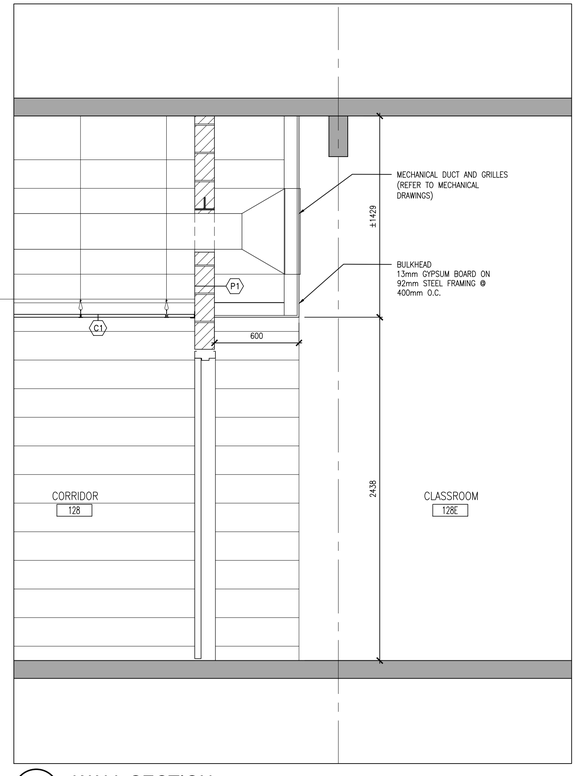


2 A402 WALL SECTION

1:20



1 A402 WALL SECTION

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4	ISSUED FOR TENDER	APR. 22, 2025	BBA
3	ISSUED FOR PERMIT	DEC. 16, 2024	BBA
2	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
1	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
NO.	ISSUES/ REVISIONS	DATE	BY

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

WALL SECTIONS

BARRY BRYAN ASSOCIATES

Architects
Engineers
Project Managers

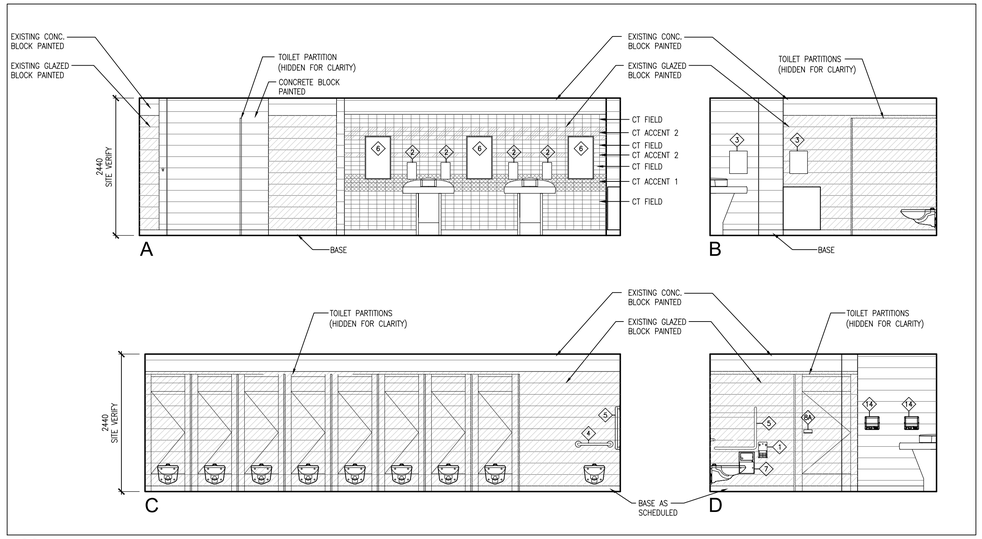
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: CM	% COMPLETE:
CHECKED BY:	INITIAL:
DATE: SEPT. 2024	
SCALE: AS NOTED	
FILE:	

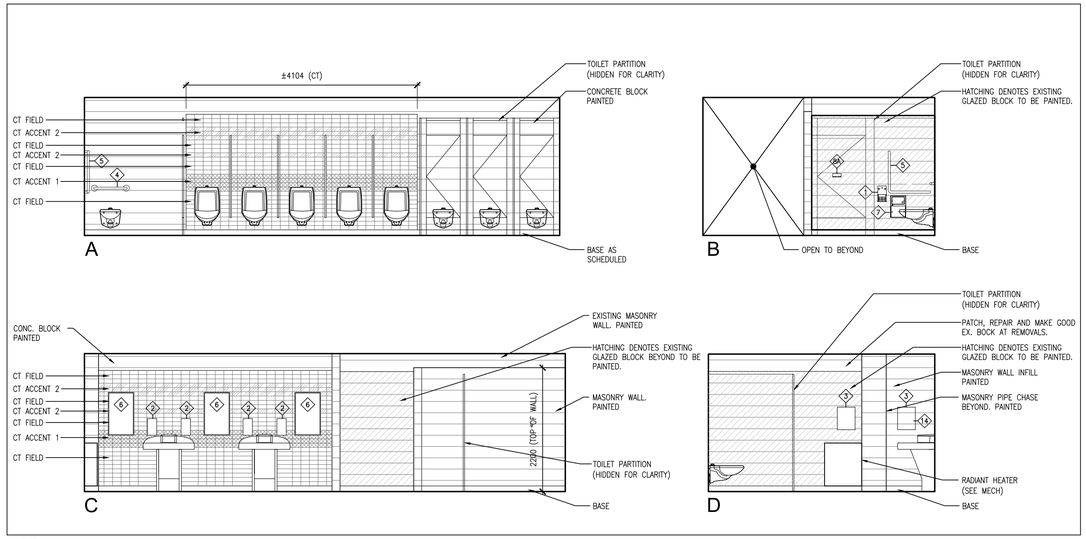
PROJECT NO: **24148**

DRAWING NO: **A402**



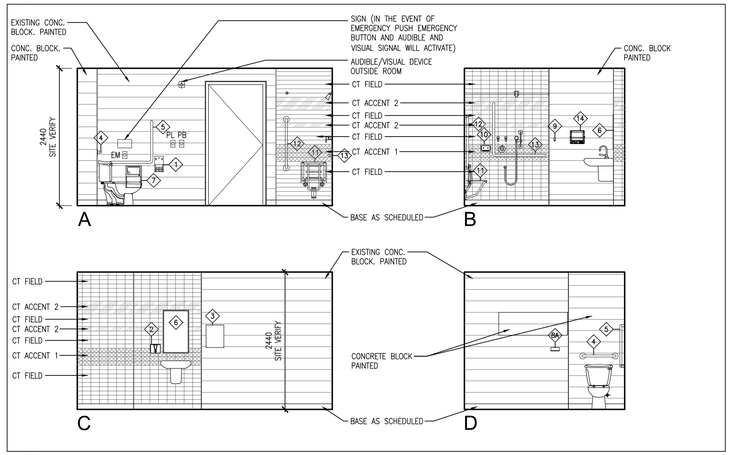
1 A701 GIRLS WASHROOM - 119

1:50



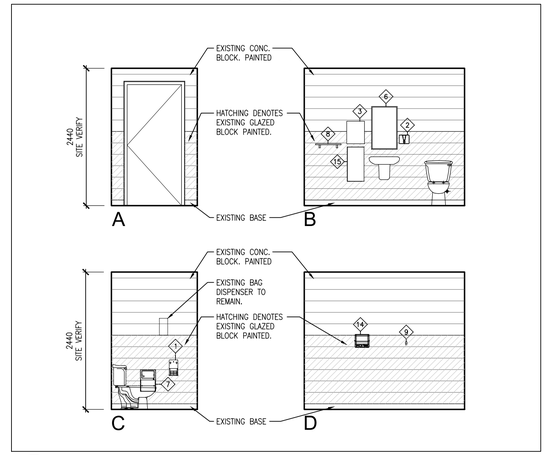
2 A701 BOYS WASHROOM - 120

1:50



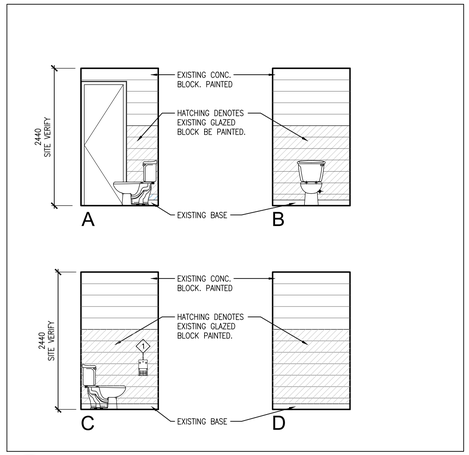
3 A701 UNIVERSAL WASHROOM - 128A

1:50



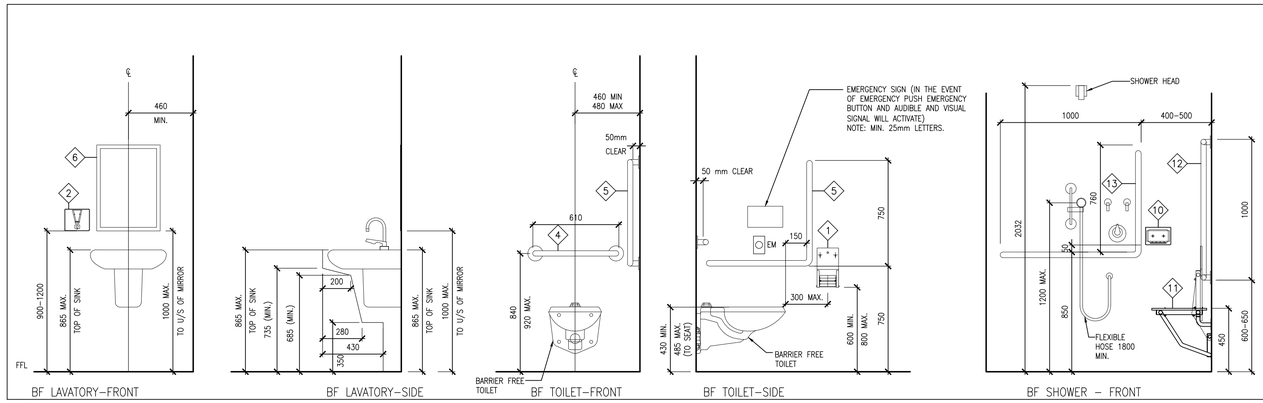
4 A701 FEMALE STAFF WASHROOM 113

1:50 (WASHROOM 112 OPPOSITE)



5 A701 GIRLS WASHROOM 107A

1:50 (107B, 108A & 108B SIMILAR)



6 A701 BF INSTALLATION REQUIREMENTS

1:20

NOTES:

1. GRAB BARS SHALL BE MIN. 35mm ø, 40mm ø MAX.
2. CLEARANCE FOR GRAB BARS TO BE MIN. 38mm, 50mm MAX.
3. GRAB BARS TO HAVE SLIP RESISTANT SURFACE.
4. INSTALL GRAB BARS TO SUPPORT LOADING REQUIRED BY THE ONTARIO BUILDING CODE.
5. LOCATE COAT HOOK ON SIDEWALL OF TOILET STALL DOOR AT 1200mm MAX. ABOVE FINISHED FLOOR AND PROJECTING NOT MORE THAN 50mm.
6. ALL FIXTURES SHALL CONFORM TO BARRIER–FREE HEIGHTS OUTLINED IN THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
7. ALL ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
8. INSTALL DOOR OPERATOR. PUSH BUTTONS AND PUSH TO LOCK DEVICE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
9. INSTALL EMERGENCY CALL SYSTEM IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
10. PAPER TOWEL DISPENSER MOUNTED 600MM TO EDGE OF LAVATORY.

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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

INTERIOR ELEVATIONS

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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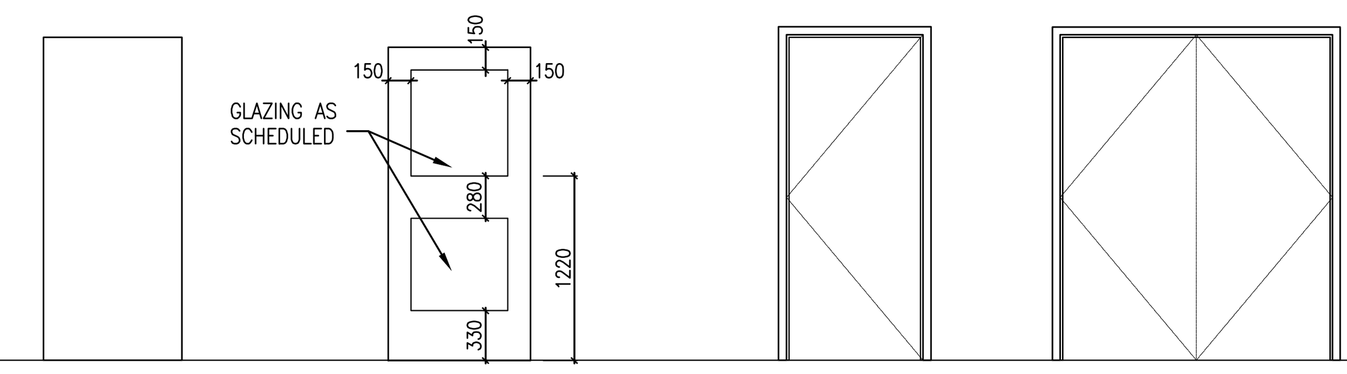
PROJECT NO: **24148**

DRAWING NO: **A701**



M
AL1 TO MATCH EXISTING (CONFIRM ON SITE)
DOOR TYPES

F1
F2
FRAME TYPES

FRAME SIZES AND OPENINGS ARE APPROXIMATE. CONFIRM ON SITE AND NOTIFY THE CONSULTANT OF ANY DISCREPANCIES.

GENERAL NOTES

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

B. ALUMINUM EXTERIOR DOORS TO HAVE INSULATED FRAMES.

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

D. WEATHERSTRIPPING, METAL THRESHOLD AND NON-REMOVABLE PIN HINGES AT ALL NEW EXTERIOR DOORS.

GLAZING LEGEND

GL1 25 mm SEALED TEMPERED, DOUBLE GLAZED UNITS

GL2 6 mm TEMPERED, DOUBLE GLAZED UNITS

SF SINGLE LAYER POLYESTER SAFETY FILM APPLIED TO GLAZING (GROUND FLOOR)

FINISH ABBREVIATION LEGEND

ALUM	ALUMINUM
BR	BRICK VENEER
CB	CONCRETE BLOCK
CLG	CEILING
CONC	CONCRETE
CT	CERAMIC TILE
DB	DASHER BOARDS
EX	EXISTING
EXP	EXPOSED STRUCTURE
FFE	FINISHED FLOOR ELEVATION
FIN	FINISHED
FL	FLOOR
FRP	FIBREGLAS–RESIN PANEL
FRR	FIRE RESISTANCE RATING
G	GLASS
GB	GYPSUM BOARD
HM	HOLLOW METAL
LP	LINER PANEL
MTL	METAL
NF	NATURAL FINISH
OH	OVERHEAD
PS	PRESSED STEEL
P	PAINT
PLAM	PLASTIC LAMINATE
P.T.	PRESSURE TREATED
R	RUBBER
RST	RUBBER SKATE TILE
SC	SEALED CONCRETE
SEAL	SEALER
SF	SHEET FLOORING
SP	SPANDREL PANEL
SSS	STANLESS STEEL SINK
STL	STEEL
TG	TEMPERED GLASS
TERR	TERRAZZO
URETH	URETHANE
WD	WOOD

GENERAL NOTES

1. ALL EXPOSED METAL IN INTERIOR TO BE PAINT FINISH.
2. UNLESS OTHERWISE INDICATED, ALL WALLS SHALL HAVE PAINT FINISH.
3. PAINT GYPSUM BOARD WALLS AND BULKHEADS.
4. PAINT ALL ROOF STEEL AND DECK EXCEPT ACOUSTIC DECK.
5. ALL EXPOSED DUCTWORK AND PIPING SHALL RECEIVE PAINT FINISH.
6. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
7. BASE PAINTED TO MATCH EXISTING HEIGHT AND COLOUR.
8. WALL TILE TYPE 3 : BONE 4" x 12" BRIGHT
9. ENSURE POSITIVE TRANSITION / HIGH POINT AT SHOWER FLOORS (TYP)
10. ALL EXPOSED CONCRETE BLOCK CORNER TO BE BULLNOSED.

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

B. ALUMINUM EXTERIOR DOORS TO HAVE INSULATED FRAMES.

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

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

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

GLAZING LEGEND

GL1 25mm SEALED TEMPERED, DOUBLE GLAZED UNITS.

TG 6mm TEMPERED GLASS

DOOR AND FRAME SCHEDULE

DOOR NO.	DOOR 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	REMARKS
110	965x2150x45	M	HM	PAINT	–	F1	H1	J1	HM	PAINT	3/4	DOOR & FRAME BY LIFTS SUPPLIER
110A	965x2150x45	M	HM	PAINT	–	F1	H1	J1	HM	PAINT	–	DOOR & FRAME BY LIFTS SUPPLIER
110B	965x2150x45	M	HM	PAINT	–	F1	H1	J1	HM	PAINT	3/4	
128A	965x2150x45	M	HM	PAINT	–	F1	H1	J1	HM	PAINT	–	

DOOR NO.	BALL BEARING HINGE	CLOSER	DOOR STOP	THRESHOLD	KICK PLATE	PANIC DEVICE	LOCKSET	LATCHSET	PRIVACY	WEATHER STRIPPING	DOOR PULL	DOOR OPERATOR	PUSH TO LOCK	ELECTRIC STRIKE
110														
110A														
110B	●	●			●		●							
128A	●	●	●	●	●		●					●	●	●

ROOM SCHEDULE

ROOM NO.	ROOM NAME		FLOOR	BASE HT. (mm)	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CEILING	CEILING HEIGHT	REV.	REMARKS
107A	GIRLS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING GLAZED BLOCK TO REMAIN. PAINT STANDARD BLOCK. PAINT DOOR FRAME.
		FIN.	EX.TER.	EX.TER.	P/EX.	P/EX.	P/EX.	P/EX.	P	–		
107B	BOYS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING GLAZED BLOCK TO REMAIN. PAINT STANDARD BLOCK. PAINT DOOR FRAME.
		FIN.	EX.TER.	EX.TER.	P/EX.	P/EX.	P/EX.	P/EX.	P	–		
108A	GIRLS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING GLAZED BLOCK TO REMAIN. PAINT STANDARD BLOCK. PAINT DOOR FRAME.
		FIN.	EX.TER.	EX.TER.	P/EX.	P/EX.	P/EX.	P/EX.	P	–		
108B	BOYS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING GLAZED BLOCK TO REMAIN. PAINT STANDARD BLOCK. PAINT DOOR FRAME.
		FIN.	EX.TER.	EX.TER.	P/EX.	P/EX.	P/EX.	P/EX.	P	–		
110	LIFT SHAFT	MAT.	CONC	CB	CB	CB	–	CB	EXP.	–		LIFT FINISHES PER LIFT SUPPLIER.
		FIN.	SEALED	–	P	P	–	P	P	–		
110A	LIFT LOBBY	MAT.	WD	CB	CB	CB	EX.CB	CB	EXP.	–		
		FIN.	URETH.	EX.RB	P	P	P	P	P	–		
110B	STORAGE	MAT.	WD	CB	CB	CB	CB	CB	EXP.	–		
		FIN.	URETH.	EX.RB	P	P	P	P	P	–		
111B	STAGE	MAT.	EX.WD	CB	EX.CB	CB/EX.CB	EX.CB	EX.CB	EXP.	–		
		FIN.	–	EX.RB	–	P	–	–	–	–		
112	MALE STAFF WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING STANDARD & GLAZED BLOCK TO BE PAINTED. ALLOW FOR PREPARATION OF GLAZED BLOCK.
		FIN.	EX.TER.	EX.TER.	P	P	P	P	P	–		
113	FEMALE STAFF WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING STANDARD & GLAZED BLOCK TO BE PAINTED. ALLOW FOR PREPARATION OF GLAZED BLOCK.
		FIN.	EX.TER.	EX.TER.	P	P	P	P	P	–		
		MAT.										
		FIN.										
119	GIRLS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING STANDARD & GLAZED BLOCK TO BE PAINTED. ALLOW FOR PREPARATION OF GLAZED BLOCK.
		FIN.	EP	EP	P	P	P	P	P	–		
120	BOYS WASHROOM	MAT.	CONC	CB	CB/GL.B	CB/GL.B	CB/GL.B	CB/GL.B	GB	2440		EXISTING STANDARD & GLAZED BLOCK TO BE PAINTED. ALLOW FOR PREPARATION OF GLAZED BLOCK.
		FIN.	EP	EP	P	P	P	P	P	–		
128	CORRIDOR	MAT.	CONC	CB	CB	CB/GL.B	OPEN	CB/GL.B	GB	2440		
		FIN.	EP	EP	P	P/CT	–	P/CT	P	–		
128A	UNIVERSAL WASHROOM	MAT.	CONC	CB	CB/EX.CB	EX.CB	EX.CB	CB/EX.CB	GB	2440		
		FIN.	EP	EP	P	P/CT	P	P/CT	P	–		

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DO NOT SCALE THE DRAWINGS.

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ROOM AND DOOR SCHEDULES

BBA

BARRY BRYAN ASSOCIATES

Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC CONTROL: DATE:
DRAWN BY: JJA	% COMPLETE:
CHECKED BY: --	INITIAL:

DATE: SEPT. 16, 2024

SCALE:

FILE: 24148 A901

PROJECT NO: **24148**

DRAWING NO: **A901**

GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, LATEST EDITION AND THE OCCUPATIONAL HEALTH AND SAFETY ACT/REGULATIONS FOR CONSTRUCTION PROJECTS.
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. THE LATEST EDITION OF ALL CODES AND STANDARDS SHALL BE USED.
6. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.

EXCAVATION, BACKFILLING AND GRADING

CODES, REGULATIONS

1. CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) AND THE WORKPLACE HEALTH AND SAFETY ACT.
2. PROVIDE MINIMUM 8" TOPSOIL BELOW ANY DISTURBED GREEN SCAPE AREAS TO BE RESTORED PRIOR TO SODDING.

EXAMINATION

1. GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL SITE CONDITIONS AND ASCERTAIN THE EXTENT AND NATURE OF THE MATERIAL IT MAY BE NECESSARY TO REMOVE TO PROVIDE FOR THE DEPTHS, LEVELS, AND GRADES REQUIRED, TO ASSURE HIMSELF THAT HIS DETERMINATIONS ARE MADE IN CONFORMITY WITH THE DRAWINGS AND SPECIFICATIONS.

SETTING OUT WORK

1. THE DRAWINGS INDICATE THE SITE COMPONENTS LOCATION, AND PROPOSED AND FINAL GRADES. BE RESPONSIBLE TO CONSTRUCT THE WORK ACCORDING TO LEVELS AND LOCATIONS SHOWN ON THE DRAWINGS. REPORT ANY ERRORS OR DISCREPANCIES TO THE CONSULTANT BEFORE COMMENCING WITH THE WORK. COMMENCEMENT OF ANY PART OF THE WORK SHALL CONSTITUTE ACCEPTANCE OF DRAWINGS AS BEING CORRECT.
2. EMPLOY A COMPETENT INSTRUMENT MAN AND PROVIDE ALL LINES AND LEVELS, LIMIT LINES AND BOUNDARY STAKES FOR THE EXECUTION OF THE WORK AS REQUIRED. ALL BENCH MARKS SHALL BE CAREFULLY PROTECTED.
3. PROVIDE ALL SUBCONTRACTORS WITH, AND BE RESPONSIBLE FOR, ALL LINES, LEVELS AND DIMENSIONS WHICH SUCH TRADES REQUIRE TO RELATE THEIR WORK TO THE WORK OF THE CONTRACTOR OR OTHER TRADES. ALL TRADES SHALL BE NOTIFIED THAT ALL SUCH LEVELS AND DIMENSIONS MUST BE OBTAINED FROM THE CONTRACTOR.

PROTECTION

A. PROTECTION OF EXISTING SERVICES

1. BEFORE STARTING THE WORK, VERIFY THE LOCATION OF ALL KNOWN UNDERGROUND SERVICES AND UTILITIES OCCURRING IN THE WORK SITE AREA.
2. NOTIFY THE OWNER, PUBLIC UTILITY OR MUNICIPAL AUTHORITIES IN ADVANCE OF PLANNED EXCAVATIONS ADJACENT TO THEIR SERVICES.
3. TAKE CARE NOT TO DAMAGE OR DISPLACE ENCOUNTERED KNOWN AND UNKNOWN SERVICES.
4. WHEN SUCH SERVICES ARE ENCOUNTERED DURING THE EXECUTION OF WORK, IMMEDIATELY NOTIFY THE CONSULTANT AND PROTECT, BRACE AND SUPPORT ACTIVE SERVICES. WHERE REPAIRS TO THESE SERVICES BECOME NECESSARY USE THE FOLLOWING PROCEDURE:
   a. KNOWN SERVICES, REPAIR AT NO EXPENSE TO THE OWNER.
   b. UNKNOWN SERVICES, FORWARD TO THE CONSULTANT A COMPLETE BREAKDOWN OF THE ESTIMATED COST OF SUCH WORK. PROCEED ONLY UPON WRITTEN AUTHORIZATION.
5. IN THE CASE OF DAMAGE TO, OR CUTTING OFF OF AN ESSENTIAL SERVICE, NOTIFY CONSULTANT, THE OWNER, AND PUBLIC UTILITY OR MUNICIPAL AUTHORITIES IMMEDIATELY AND REPAIR THE SERVICE UNDER THE CONSULTANT'S DIRECTION.
6. BACKFILL
   – ASSUME REUSE EXISTING COMPACT SOIL AND INFILL BALANCE OF GRANULAR MATERIAL/TOPSOIL AS REQUIRED TO ACCOMPLISH WORK ON PROJECT.
   – ALL FILL SHALL BE STORED ON SITE IN A LOCATION APPROVED BY THE OWNER/CONSULTANT AND SHALL BE PROTECTED AS REQUIRED FOR RE-USE.

FOUNDATIONS

1. ALL FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOIL APPROVED BY THE GEOTECHNICAL CONSULTANTS. REPORT ANY DOUBTFUL BEARING CONDITIONS TO THE STRUCTURAL ENGINEER BEFORE PLACING FOOTINGS. REFER TO SOILS REPORT FOR EXCAVATION, BACKFILLING AND DEWATERING PROCEDURES.
2. FROST COVER: BOTTOM OF FOUNDATION WALL AND GRADE BEAMS TO HAVE A MINIMUM 1200(4'–0") COVER TO FINISHED EXTERIOR GRADE FOR FROST PROTECTION UNLESS NOTED.
3. MATERIALS FOR BACKFILL SHALL BE GRAN 'A' AND GRAN 'B' CONFORMING TO OPSS STANDARDS COMPACTED TO 98% STANDARD PROCTOR MAX. DRY DENSITY.
4. ALL PIERS AND FOOTINGS UNDER COLUMNS TO BE CENTERED UNDER COLUMNS UNLESS NOTED OTHERWISE ON THE PLAN.
5. REFER TO FOUNDATION PLANS FOR BEARING CAPACITIES.

SLAB ON GRADE

1. CAST SLAB ON GRADE ON COMPACTED SUB–GRADE TO 100% S.P.M.D.D.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS OF COMPOSITION OF MATERIALS BELOW GRADE (INSULATION AND VAPOUR BARRIER).
3. SAWCUT WITHIN 6 TO 18 HOURS. REFER TO THE DRAWINGS FOR SAWCUT REQUIREMENTS.
4. DO NOT CAST SLAB MORE THAN 30 METERS IN LENGTH IN EITHER DIRECTION. PLACE SLAB IN STRIP PATTERN. KEY CONSTRUCTION JOINTS AS DETAILED.
5. MAINTAIN MINIMUM SPECIFIED THICKNESS AT ALL DEPRESSIONS AND CHANGES IN ELEVATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT AND LOCATION OF ALL FINISHES, DEPRESSIONS AND SLOPES.
7. WELDED WIRE MESH REINFORCING IN SLABS ON GRADE MUST BE PROPERLY CHAIRED. LIFTING OF THE WIRE MESH DURING POURS WILL NOT BE ACCEPTED.

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.

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/FOOTING WALLS AND PIERS	25 MPa	80± 30	N
SLAB ON GRADE	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.
4. WHEN PIPES, CONDUITS, OR SLEEVES ARE REQUIRED TO PENETRATE CONCRETE ASSEMBLIES, THE FOLLOWING SHALL BE OBSERVED:
   – SPACING OF SUCH ITEMS SHALL BE 3 DIAMETERS ON CENTER.
   – CONCRETE SHALL NOT BE PENETRATED WITHIN 600mm (24") OF CONCENTRATED LOADS.
   – ANY PENETRATION 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 IF APPLICABLE.

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
WALLS	50mm(2") AGAINST EARTH (20M BAR OR GREATER) 40mm(1½") AGAINST EARTH (15M BAR) 40mm (1½") AGAINST FORM (20M BAR OR GREATER) 25mm (1") AGAINST FORM (15M BAR)
SLABS	25mm(1") TOP BARS 25mm(1") BOTTOM BARS
SURFACE IN CONTACT WITH GROUND	75mm(3")

2. STRUCTURAL GROUT SHALL BE NON–SHRINK, NON METALLIC M–BED STANDARD PREMIX BY SIKA OR APPROVED EQUAL.
3. DETAIL REINFORCING STEEL IN ACCORDANCE WITH "REINFORCING STEEL MANUAL OF STANDARD PRACTICE" LATEST EDITION.
4. 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
5. ALL REINFORCING STEEL SHALL BE DEFORMED HARD GRADE BILLET STEEL CONFORMING TO CSA G30.18 GRADE 400.
6. WELDED STEEL WIRE FABRIC, PLAIN TYPE CONFORMING TO ASTM A1064/A1064M–17 IN FLAT SHEETS NOT ROLLED.
7. ALL CONCRETE REINFORCEMENT MUST BE PROPERLY CHAIRED WITH APPROVED BAR SUPPORTS.
8. 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 SPACES AT 1200mm O.C. MAXIMUM.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL HSS AND W SECTIONS TO BE G40.21M–350W CLASS C. W SECTIONS SHALL BE G40.21M–350W. ALL OTHERS TO BE G40.21M–300W.
2. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE.
3. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
4. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
5. ALL CONNECTIONS SHALL BE WELDED USING 49XX ELECTRODES OR BOLTED USING ASTM A325 HIGH STRENGTH BOLTS.
6. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.
7. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
8. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBES WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
9. 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.
10. ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED.

MASONRY

1. MASONRY WORK IN ACCORDANCE WITH CAN/CSA A370 AND CAN/CSA A371 EXCEPT WHERE SPECIFIED OTHERWISE.
2. ONLY TYPE 'S' MORTAR SHALL BE USED, MINIMUM STRENGTH SHALL BE 12.4 MPa AT 28 DAYS.
3. GROUT (PEA GRAVEL) AT BOND BEAMS AND GROUTED HOLLOW BLOCKS TO BE A MINIMUM OF 20MPa COMPRESSIVE STRENGTH AT 28 DAYS. IN ACCORDANCE WITH CAN3–A23.1
4. MORTAR FOR EXPOSED EXTERIOR MASONRY SHALL BE AIR ENTRAINED.
5. PROVIDE LATERAL RESTRAINT AT TOP OF NON–LOAD BEARING BLOCK PARTITIONS AS INDICATED ON TYPICAL DETAILS.
6. PROVIDE VERTICAL WALL REINFORCING FOR FULL HEIGHT OF LIFT, CONTINUOUS FROM FLOOR TO FLOOR/ROOF, WITH CLASS B LAPS.
7. MASONRY WORK SHALL CONFORM TO CAN3–S304 AND ITS REFERENCED DOCUMENTS, INCLUDING:
   A. CONCRETE BLOCK TO CSA–A165.1, TYPE H15/A, SEE ARCH. DWGS. FOR FIREWALL REQUIREMENTS UNLESS NOTED OTHERWISE. (BASED ON NET AREA) – H 15/C FOR FIREWALL.
   B. MORTAR TO CSA–A179M, TYPE 'S' FOR ALL WALLS.
   C. GROUT TO CSA–A179–M.
   D. MASONRY WIRE REINFORCING TO CSA–G30.14.
   E. REINFORCING BARS TO CSA–G30.18–M–400 MPa.
   F. WELDED REINFORCING BARS TO CSA–G30.18–400 MPa.
   G. CONNECTION TO CAN/CSA A370.
   H. PRACTICE TO CAN/CSA A371.
8. STRUCTURAL DRAWINGS INDICATE ONLY LOAD–BEARING WALLS.
9. SUBMIT EVIDENCE OF MORTAR AND GROUT STRENGTH. FIELD CONTROL AND TESTING SHALL COMPLY WITH REQUIREMENTS OF CLAUSE 5 OF CAN3–304.
10. PROVIDE TEMPORARY BRACING OF MASONRY WORK UNTIL PERMANENT LATERAL SUPPORT IS IN PLACE.
11. PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS. SEE LINTEL SCHEDULE FOR REQUIREMENTS.
12. REFER TO TYPICAL DETAILS FOR BOND BEAM AND BEARING REQUIREMENTS AT FLOORS AND ROOFS.
13. MINIMUM STANDARD LAP LENGTH:
    WIRE REINF. – 200mm(8")
    10M BARS – 400mm(16")
    15M BARS – 600mm(24")
    20M BARS – 800mm(32")
14. UNLESS NOTED OTHERWISE, PROVIDE 2–15M VERTICAL BARS FULL HEIGHT AT:
    A. UNSUPPORTED ENDS OF WALLS
    B. EACH SIDE OF CONTROL JOINTS
15. PROVIDE CLEANOUT PORT AT BOTTOM OF EACH GROUTED CORE WHEN REQUIRED BY ENGINEER. DO NOT CLOSE PORT OR PLACE GROUT UNTIL CORE AND STEEL HAVE BEEN INSPECTED.
16. FILL CELLS CONTAINING VERTICAL REINFORCING AND BOLTS WITH GROUT VIBRATE OR PUDDLE TO FILL CELLS COMPLETELY.
17. FILL CELLS IN 1500mm (60") LIFTS MAXIMUM OR BETWEEN BOND BEAMS, WHICHEVER IS LESS, UNLESS SPECIAL PROVISIONS ARE MADE TO ENSURE FULL GROUT COLUMNS HAVE BEEN MADE TO THE SATISFACTION OF THE ENGINEER.
18. CONTROL JOINTS SHALL BE INSTALLED AT MAXIMUM SPACING OF 6000mm(20'–0"), IF NOT OTHERWISE SHOWN ON ARCHITECTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
19. FILL BLOCK CORES UNDER ALL BEAMS, JOISTS AND OTHER CONCENTRATED POINT LOADS WITH CONCRETE GROUT. GROUT SHALL EXTEND A MINIMUM OF 600mm (24") BELOW LOAD.
20. CONTROL JOINTS AND EXPANSION JOINTS SHALL BE CONTINUED THROUGH BOND BEAMS IF NOT OTHERWISE SHOWN.
21. NO MASONRY WORK SHALL BE PERMITTED WITH TEMPERATURE BELOW 5° CELSIUS, UNLESS PROVISIONS ARE MADE FOR HEATING THE MATERIALS AND PROTECTING THE WORK.
22. SET BASE PLATES ON MASONRY ON MIN. 25MPa NON–SHRINK GROUT FOR LEVELING.
23. FIRST COURSE OF MASONRY TO BE LAID IN A FULL BED OF MORTAR. ALL OTHER COURSES TO BE LAID WITH MORTAR AT FACE SHELL BED AND HEAD JOINTS.

CONCRETE BLOCK MASONRY COMPRESSIVE STRENGTH (MPa)			
LOCATION	NET	GROSS (f'm) FOR HOLLOW BLOCK	GROSS (f'm) FOR SOLID OR GROUTED BLOCK
TYP. ALL CONCRETE BLOCK	15	9.8	7.5

24. POCKETS FOR STEEL BEAMS AND JOISTS SHALL BE GROUTED SOLID AND THE WALL MADE GOOD AFTER

LUMBER NOTES

1. STRUCTURAL LUMBER TO BE GRADE MARKED TO CONFORM TO CSA STANDARD 0141.
2. FASTENINGS FOR EXTERIOR WORK: NAILS, BOLTS, STEEL STRAPS AND WELDED CONNECTIONS TO BE HOT DIP GALVANIZED AND CONFORM TO CAN3–86–M80.
3. LUMBER TO LUMBER CONNECTIONS IN SAME PLANE SHALL BE MADE WITH APPROVED JOIST HANGERS OR FRAMING ANCHORS.
4. DESIGN OF TRUSSES SHALL CONFORM TO PART 4 OF OBC ON SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO.
5. UNLESS OTHERWISE NOTED ON PLAN, THE FOLLOWING SHALL BE THE MINIMUM GRADES USED: TRUSSES: SPF 2
6. PROVIDE ERECTION DRAWINGS IN ACCORDANCE WITH M.O.L. STANDARDS FOR SEQUENTIAL ERECTION.
7. DO NOT NOTCH OR DRILL LUMBER TRUSSES ON SITE WITHOUT MANUFACTURER'S APPROVAL. REFER TO MANUFACTURER'S PRINTED INFORMATION FOR OPENINGS IN LUMBER FRAME MEMBERS.
8. PROVIDE LATERAL RESTRAINT AT ALL BEARING LOCATIONS AND ONE ROW OF BRIDGING AT ALL MIDSPANS UNLESS NOTED OTHERWISE. DRAWINGS SHOWING CONNECTION DETAILS, CONSTRUCTION DETAILS, AND TEMPORARY CONSTRUCTION BRACING. ALL SHOP DRAWINGS TO BE PREPARED AND APPROVED BY A REGISTERED PROFESSIONAL ENGINEER IN THE PROVINCE OF ONTARIO.
9. SUBMIT SHOP DRAWINGS OF PREFAB ENGINEERED LUMBER ROOF TRUSS FRAMING AND ERECTION.
10. INSTALL ALL LUMBER TRUSSES TO MANUFACTURER'S RECOMMENDED DETAILS INCLUDING ALL NECESSARY BLOCKING, WEB STIFFENERS AND BRACING.
11. UPON INSTALLATION OF THE WOOD TRUSSES THE MANUFACTURER'S SPECIALITY ENGINEER SHALL SUBMIT A LETTER OF FIELD REVIEW AND COMPLIANCE CONFIRMING THAT THE FABRICATION AND INSTALLATION OF THE TRUSS ARE IN CONFORMITY WITH THE SHOP DRAWINGS.
12. REFER TO THE ROOF PLAN FOR THE TRUSS DESIGN LOADS. THE TRUSSES SHOULD ALSO BE DESIGNED FOR A VERTICAL POINT LOAD OF 0.1 KN (UNFACTORED) APPLIED AT ANY POINT OF THE BOTTOM CHORD.
13. THE WOOD TRUSSES ARE TO BE DESIGNED FOR A LIVE LOAD DEFLECTION OF 1/360 OF THE SPAN. WOOD TRUSS DESIGN TO LATERALLY BRACE SUPPORTING BEAM AND COLUMN.

DESIGN LOADS

IMPORTANCE FACTOR: 1.15
Ss: 2.1 kPa
Sr: 0.4 kPa

S: 2.4 kPa

Dead Load (Roof): 1.82 kPa

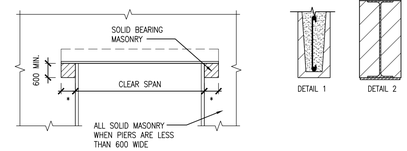
MASONRY WALL SCHEDULE

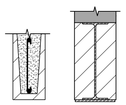
MARK	THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING	REMARKS
MW1	190	15M @ 400 C/C	HEAVY DUTY HORIZONTAL LADDER REINFORCING @ 400 C/C	FULLY GROUT SOLID REINFORCED CORES
NOTE: REFER TO GENERAL MASONRY NOTES FOR ADDITIONAL REINFORCING REQUIREMENTS				

LINTEL SCHEDULE

MARK	SIZE	DETAIL	REMARKS
L1	W200X22 c/w PL10X185 TOP & BOTTOM PLATE	DETAIL 1	MIN. 200 END BEARING. GROUT CELLS BELOW SOLID
L2	2–L152x89x7.9 (LLV)	DETAIL 2	MIN. 150 END BEARING. GROUT CELLS BELOW SOLID
NOTES			

TYPICAL DETAIL FOR LINTEL BEARING





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

BEARING PLATE SCHEDULE

	SIZE	ANCHORAGE
BP1	PL16x185x300 c/w 1–15M 200 LG. + 50 HOOK	

STUD WALL SCHEDULE

MARK	SIZE/ SPACING	SILL PLATE	TOP PLATE	SHEATHING
ST1	38x89 AT 305 C/C	38x89 C/W 16ø x 200 EMBED. EPOXY ANCHORS AT 800 C/C	2–38x89	

ZONE REINFORCEMENT SCHEDULE

MARK	REINFORCING	DETAIL	REMARKS
Z1	2–15M VERT		GROUT SOLID REINFORCED CELLS
Z2	3–15M VERT		GROUT SOLID REINFORCED CELLS
Z3	4–15M VERT		GROUT SOLID REINFORCED CELLS
Z4	4–15M VERT		GROUT SOLID REINFORCED CELLS

NOTES:
1. UNLESS NOTED OTHERWISE, PROVIDE Z1 AT ENDS OF ALL OPENINGS.
2. PROVIDE Z4 AT ALL BEARING PLATE LOCATIONS, UNLESS NOTED OTHERWISE.
3. PROVIDE Z3 AT CORNERS OF LOAD BEARING WALLS U.N.O.

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–L152x89x9.5 (LLV)	SEE NOTE #4	⌊
140	2–L64x64x6.4	2–L89x64x6.4	2–L89x64x7.9	2–L89x64x9.5	W200x27	⊥ 64 LEGS HORIZ
190	2–L89x75x6	2–L89x89x6	2–L102x89x8	1–L125x89x8	W200x36+180x12 CONT TOP PLATE	⊥ 89 LEGS HORIZ
240	1–L102x76x6.4+ 1–L127x76x6.4	1–L102x102x6+ 1–L127x75x6	1–L102x102x8+ 1–L127x89x8	1–L102x150x8+ 1–L127x125x8	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	⊥ ⌊

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.

1 / S101 NON LOAD-BEARING LINTEL SCHEDULE
N.T.S.

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR. 22, 2025	BBA
3	ISSUED FOR PERMIT	DEC. 16, 2024	BBA
2	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
1	ISSUED FOR 30% REVIEW	OCT. 11, 2024	BBA

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

GENERAL NOTES & SCHEDULES

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: NA	DOC. CONTROL DATE:
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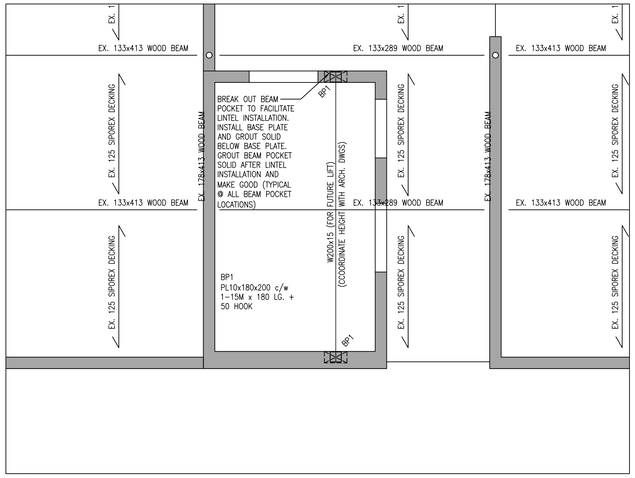
PROJECT NO: **24148**

DRAWING NO: **S101**



8 S201 PART ROOF FRAMING PLAN
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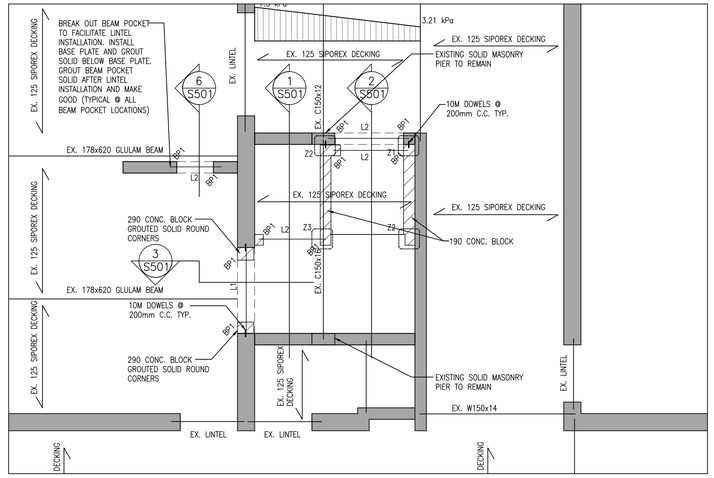

6 S201 PART ROOF FRAMING PLAN
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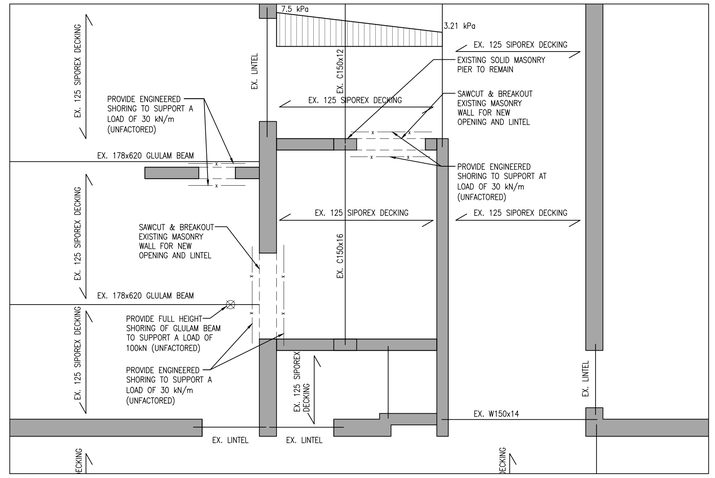

3 S201 PART EXISTING ROOF FRAMING PLAN
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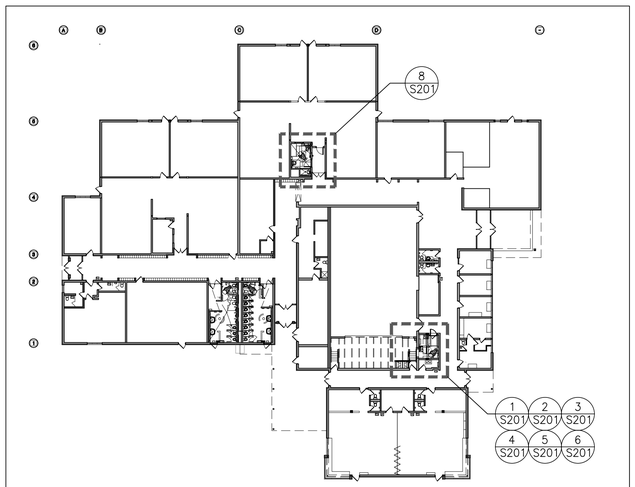
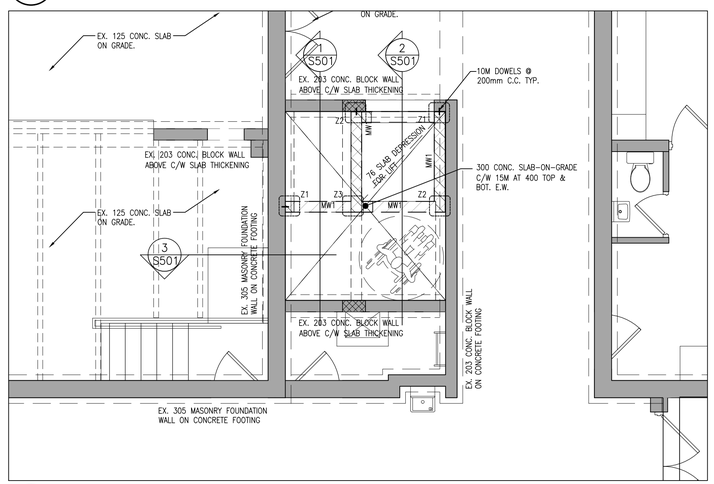


7 S201 KEY PLAN
N.T.S.



5 S201 PART STAGE FRAMING PLAN
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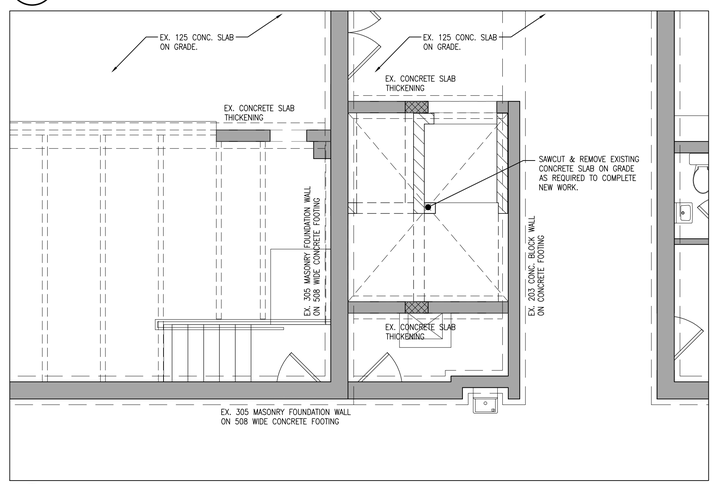

2 S201 PART EXISTING STAGE FRAMING PLAN
1:50

4 S201 PART FOUNDATION PLAN
1:50

1 S201 PART EXISTING FOUNDATION PLAN
1:50

NORTH

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR. 22, 2025	BBA
3	ISSUED FOR PERMIT	DEC. 16, 2024	BBA
2	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
1	ISSUED FOR 30% REVIEW	OCT. 11, 2024	BBA

DO NOT SCALE THE DRAWINGS.

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

STRUCTURAL PLANS

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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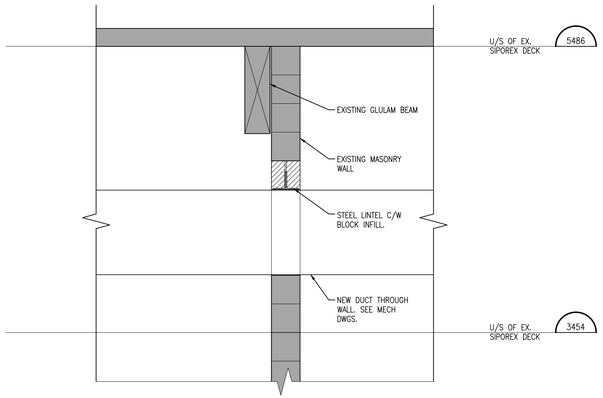
CHECKED BY:	INITIAL:
DATE: SEPT. 2024	
SCALE: AS NOTED	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **S201**



6 S501 SECTION AT DUCT THROUGH WALL
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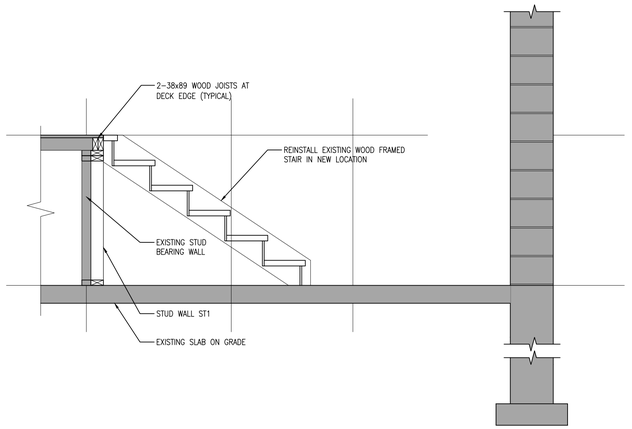

5 S501 SECTION AT STAGE STAIR
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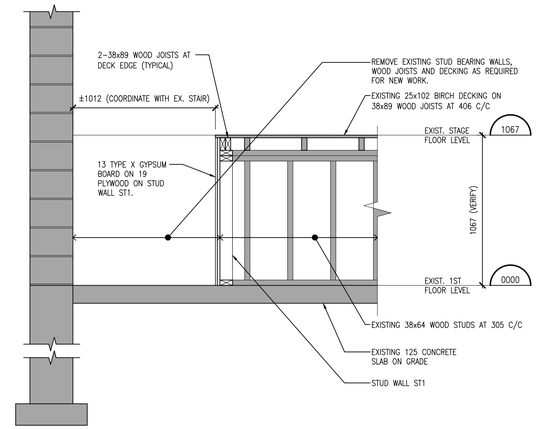

4 S501 SECTION AT STAGE STAIR
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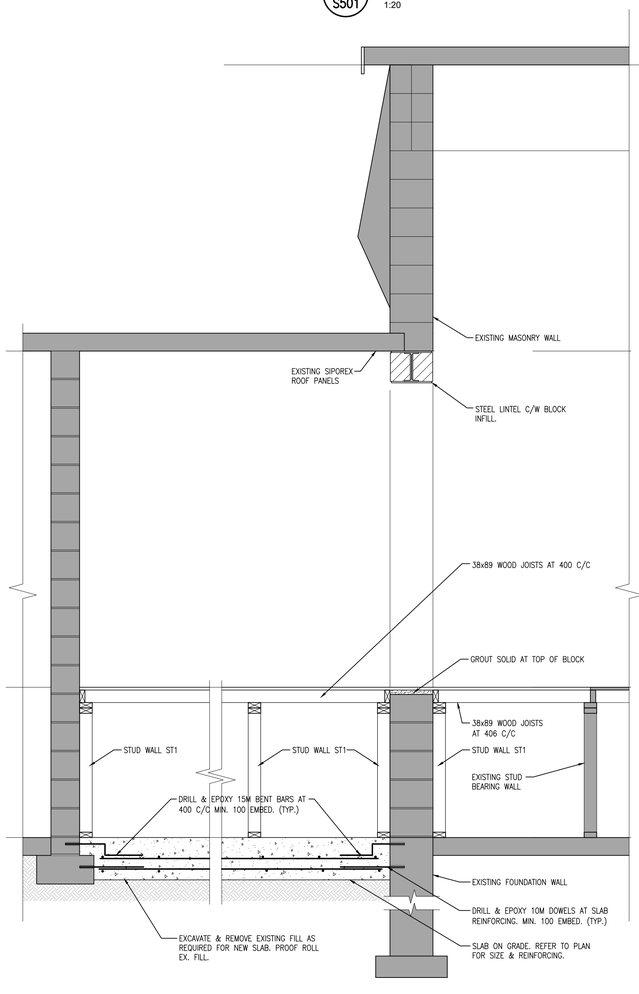

3 S501 SECTION
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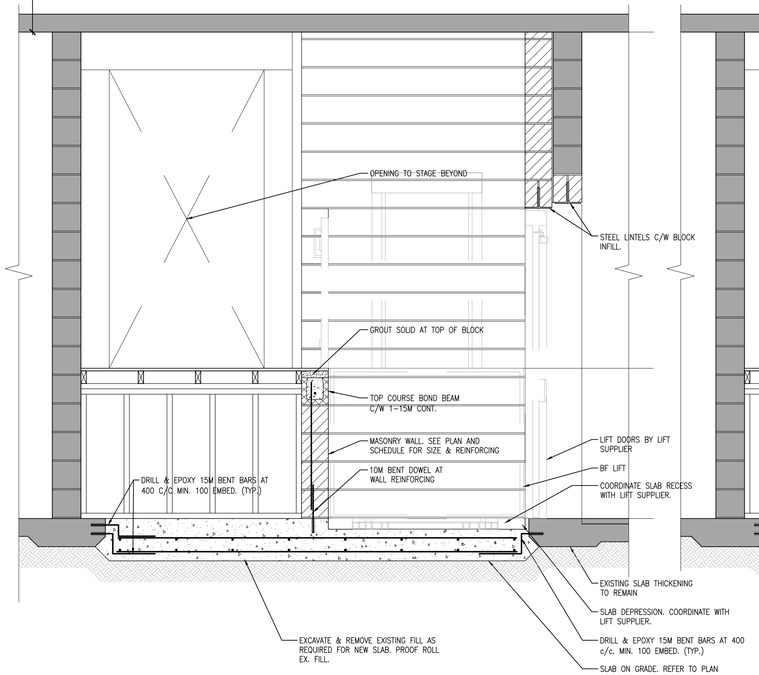

2 S501 SECTION AT LIFT
1:20

1 S501 SECTION AT LIFT LOBBY
1:20

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR. 22, 2025	BBA
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2	ISSUED FOR 60% REVIEW	NOV. 20, 2024	BBA
1	ISSUED FOR 30% REVIEW	OCT. 11, 2024	BBA

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

SECTIONS

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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DOC. CONTROL DATE:	
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FILE:	

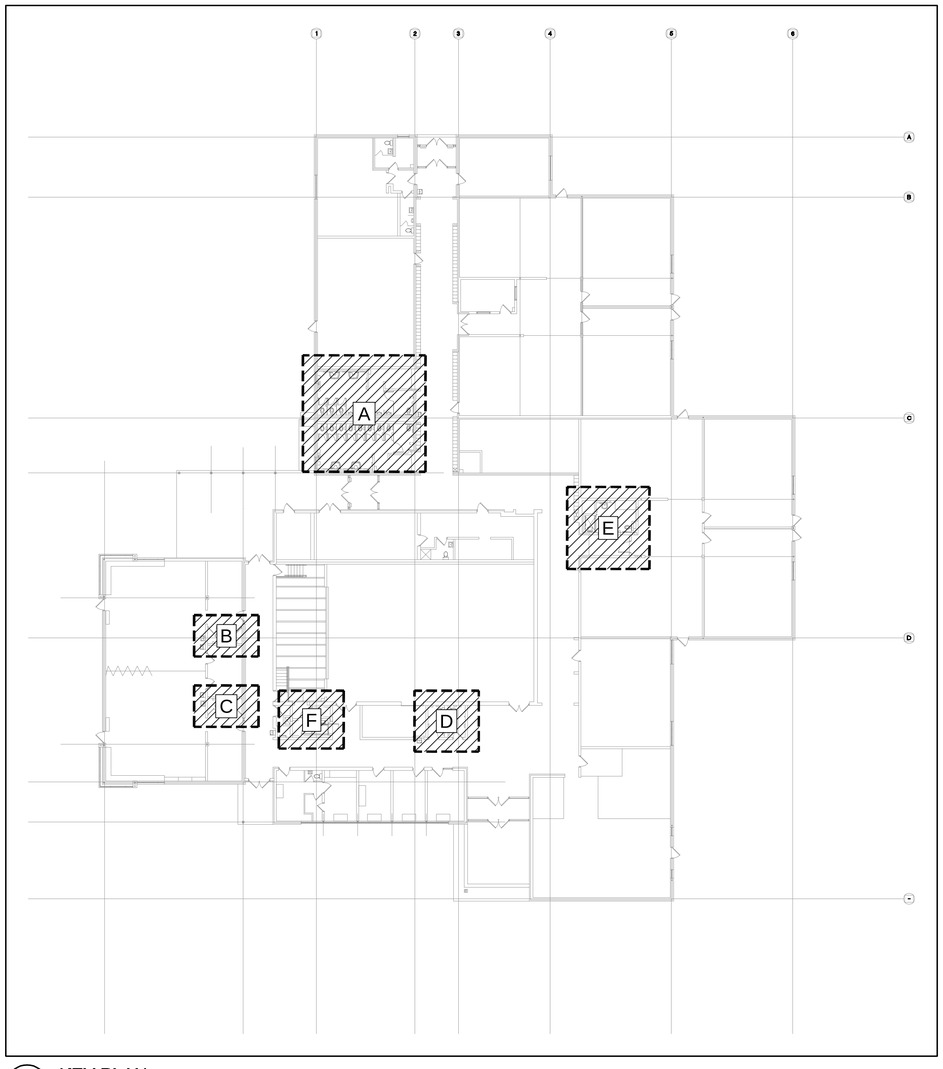
PROJECT NO: **24148**

DRAWING NO: **S501**

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

MECHANICAL DRAWINGS



1 / M-0 **KEY PLAN**
NTS

DRAWING LIST

DWG. NO.	DRAWING NAME
M–0	TITLE SHEET
M–1.1	MECHANICAL SPECIFICATIONS I
M–1.2	MECHANICAL SPECIFICATIONS II
M–1.3	MECHANICAL LEGEND
M–1.4	MECHANICAL SCHEDULES
M–1.5	MECHANICAL DETAILS
M–2.1	FLOOR PLAN – HVAC DEMOLITION
M–2.2	FLOOR PLAN – HVAC NEW
M–3.1	FLOOR PLAN – DRAINAGE DEMOLITION
M–3.2	FLOOR PLAN – DRAINAGE NEW
M–3.3	FLOOR PLAN – PLUMBING DEMOLITION
M–3.4	FLOOR PLAN – PLUMBING NEW

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

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2	ISSUED FOR 60% REVIEW	NOV. 14 2024	RC
3	ISSUED FOR PERMIT	DEC. 13 2024	RC
4	ISSUED FOR COORDINATION	FEB. 10 2025	RC
5	ISSUED FOR TENDER	APR. 2 2025	RC

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

TITLE SHEET

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
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SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

DRAWING NO: **M-0**

GENERAL SPECIFICATIONS

1. GENERAL

1.1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE ONTARIO BUILDING CODE, CSA, ASHRAE, NFPA, ETC. WHERE CODES/STANDARD ARE PRESENT FORM MULTIPLE SOURCES, THE MOST STRINGENT SHALL BE UTILIZED.

1.2. THE FOLLOWING SPECIFICATIONS FORM AN ESSENTIAL PART OF THE CONTRACT DOCUMENTS. REFER AND COORDINATE WITH ALL OTHER DIVISIONS, SECTIONS AND SPECIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION.

1.3. FOR THE PURPOSE OF THESE SPECIFICATIONS, DRAWINGS AND CONTRACT DOCUMENTS, THE WORD 'PROVIDE' REFERS TO THE SUPPLY, INSTALLATION AND TESTING OF THE RESPECTIVE EQUIPMENT/COMPONENTS.

1.4. CONTRACTOR IS TO REPORT ALL APPARENT DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS PRIOR TO TENDER SUBMISSION. NO EXCEPTIONS WILL BE GIVEN TO CONTRACTORS WHO DO NOT COMPLETELY UNDERSTAND THE SCOPE OF WORK.

1.5. ALL DIV.23 WORK SHALL BE COORDINATED AND SCHEDULED WITH ALL OTHER DIVISIONS.

1.6. THIS CONTRACTOR SHALL UNDERSTAND THE EXISTING SITE CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.

1.7. PROVIDE NEW MATERIALS AND EQUIPMENT OF ACCEPTABLE QUALITY THAT ARE MANUFACTURED IN CANADA OR THE UNITED STATES AND BEAR THE APPROVAL OF RECOGNIZED NORTH AMERICAN STANDARD ASSOCIATIONS SUCH AS CSA, ASME, ETC. THE CONTRACTOR SHALL MAXIMIZE THE UTILIZATION OF CANADIAN EQUIPMENT, MATERIALS, ETC.

1.8. ALL EQUIPMENT, MATERIALS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.

1.9. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.

1.10. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.

1.11. IN NO CASE SHALL THESE DRAWINGS BE SCALED. ALL ROUGH-IN'S SHALL BE COORDINATED WITH OTHER DIVISIONS.

1.12. DO NOT PROCEED WITH WORK OUTSIDE THE SCOPE OF THE DESIGN DRAWINGS AND SPECIFICATIONS WITHOUT WRITTEN CONSENT FROM THE OWNER. THIS APPLIES TO ALL DIV.23 CHANGE NOTICES AS ISSUED BY THE CONSULTANT.

1.13. LEFT BLANK INTENTIONALLY.

1.14. WHERE EQUIPMENT HAS BEEN PRE-PURCHASED, DIV.23 SHALL ACCEPT ALL RESPONSIBILITY FOR EQUIPMENT DELIVERY, INSTALLATION, TESTING AND WARRANTY, SIMILAR TO AS IF THE EQUIPMENT WAS PURCHASED BY DIV.23.

1.15. THE CONTRACTOR SHALL WARRANTY ALL MATERIALS, EQUIPMENT, INSTALLATION AND QUALITY OF WORKMANSHIP FOR A MINIMUM OF ONE (1) YEAR UNLESS OTHERWISE NOTED.

1.16. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PAY FOR ALL CHARGES AND DAMAGES ASSOCIATED WITH EQUIPMENT THAT IS NOT PROVIDED AS SPECIFIED AND INCLUDES NOT MEETING THE MANUFACTURER'S RATINGS, PUBLISHED DATA AND/OR THE APPLICABLE GOVERNING STANDARDS.

1.17. THE CONTRACTOR MAY SUBMIT FOR ALTERNATE MATERIALS AND EQUIPMENT ONLY WHEN THE SPECIFIED ARE NOT AVAILABLE OR WILL ADVERSELY IMPACT THE COMPLETION SCHEDULE. THE CONTRACTOR SHALL COMPENSATE THE CONSULTANT FOR THEIR TIME REQUIRED TO REVIEW THE ALTERNATE SUBMITTALS.

2. SUBMITTALS

2.1. THE CONTRACTOR SHALL SUBMIT THREE (3) HARD COPIES OF MECHANICAL SHOP DRAWINGS TO THE CONSULTANTS FOR REVIEW. ELECTRONIC SUBMISSION OF SHOP DRAWINGS SHALL BE DEEMED ACCEPTABLE UPON APPROVAL FROM CONSULTANT. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE DOCUMENT SUBMITTAL PROCESS.

2.2. ALL SHOP DRAWINGS SUBMITTED FOR REVIEW MUST BEAR THE REVIEW STAMP OF THE MECHANICAL CONTRACTOR. SHOP DRAWINGS THAT DO NOT BEAR THE CONTRACTOR'S STAMP WILL, WITHOUT QUESTION, BE REJECTED BY THE CONSULTANT.

2.3. SHOP DRAWINGS SHALL INCLUDE ALL INFORMATION REQUIRED FOR THE CONSULTANT TO PERFORM A REASONABLE REVIEW OF THE SUBMITTALS AS THEY PERTAIN TO THE MECHANICAL DESIGN DRAWINGS AND SPECIFICATIONS.

2.4. SHOP DRAWINGS SHALL HAVE THE SAME IDENTIFYING NUMBER AS NOTED IN THE MECHANICAL DRAWINGS.

2.5. PROVIDE SHOP DRAWINGS WITH TECHNICAL SUBMITTALS ON ALL TYPES OF INSULATION TO BE INSTALLED.

2.6. THE CONTRACTOR SHALL MAINTAIN ON SITE ONE (1) RECORD OF MECHANICAL DRAWINGS THAT SHALL INDICATE WITH RED LINES ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE ORIGINAL CONTRACT DOCUMENTS AND DRAWINGS. IN ADDITION, THIS SET SHALL INCLUDE REVISIONS AS A RESULT OF ALL ADDENDAS, CHANGE NOTICES, SITE INSTRUCTIONS, ETC. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER ONE (1) COPY EACH OF A HARDCOPY AND ELECTRONIC COPY (PDF) FOR REVIEW. ONE (1) SET OF BOTH COPIES SHALL ALSO BE INCLUDED IN THE CLOSEOUT DOCUMENT PACKAGE.

2.7. TWO (2) COPIES OF OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW UPON PROJECT COMPLETION. THE MANUALS SHALL CONTAIN THE FOLLOWING WHERE APPLICABLE:
- DESCRIPTION OF EACH SYSTEM
- DESCRIPTION OF EACH MAJOR COMPONENT OF SYSTEM
- ALL SHOP DRAWINGS WITH APPROVAL STAMPS
- EQUIPMENT MANUFACTURER'S INSTALLATION AND OPERATION MANUALS AND SPARE PARTS LIST
- WIRING DIAGRAMS
- LUBRICATION SCHEDULE
- EQUIPMENT IDENTIFICATION LIST WITH SERIAL NUMBERS
- VALVE TAG SCHEDULES AND FLOW DIAGRAMS
- FINAL AND REVIEWED BALANCING REPORTS (AIR AND WATER)
- WATER TREATMENT PROCEDURE AND TESTS
- CONTROL DRAWINGS AND SEQUENCES OF OPERATION
- AS-BUILT DRAWINGS (HARDCOPY AND ELECTRONIC)
- WARRANTY DOCUMENTATION

3. EXECUTION

3.1. PERIODIC INSPECTIONS OF THE WORK WILL BE CONDUCTED OVER THE COURSE OF THE PROJECT. ALL REPORTED DEFICIENCIES SHALL BE RECTIFIED BY THE CONTRACTOR IN A TIMELY FASHION. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR NOT MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

3.2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL INSPECTIONS WITH CITY AND/OR MUNICIPAL OFFICIALS AND ALL OTHER AUTHORITIES HAVING JURISDICTION.

3.3. IN REGARDS TO TEMPORARY SERVICES, PROVIDE, AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, TEMPORARY FIRE PROTECTION SYSTEMS. REFRAIN FROM USING INSTALLED SYSTEMS FROM THE CONTRACT DOCUMENTS AS A TEMPORARY SERVICES. THIS SHALL APPLY TO ALL MECHANICAL SYSTEMS

GENERAL SPECIFICATIONS

INCLUDING HVAC, PLUMBING AND DRAINAGE, ETC.

3.4. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND RESTORATION. WHERE REQUESTED, THE CONTRACTOR SHALL CONTRACT THE SERVICES OF THE BASE BUILDING TRADES AT DIV.23 EXPENSE.

3.5. PROVISIONS SHALL BE MADE FOR THE PROTECTION OF DIV.23 WORK UNTIL THE COMPLETION OF THE PROJECT. THIS MAY INCLUDE, BUT NOT LIMITED TO, COVERING OF EQUIPMENT OPENINGS AND DUCTWORK, PLUMBING FIXTURES, FLOOR DRAINS, ETC.

3.6. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL MAKE ALL FINAL ADJUSTMENTS TO EQUIPMENT AS WELL AS REMOVE ALL PROTECTION. ALL INSTALLATIONS SHALL BE CLEANED THOROUGHLY AND TESTED FOR PROPER OPERATION. CHANGE ALL AIR AND WATER FILTERS AS REQUIRED.

3.7. IN REGARDS TO INTERRUPTION OF SERVICES, THE CONTRACTOR SHALL CARRY OUT THEIR WORK IN A MANNER THAT CAUSES THE LEAST DISTURBANCE TO THE OWNER. PROVIDE NOTIFICATION TO THE OWNER IN WRITING WITH AT LEAST 72 HOURS OF THE SCHEDULED INTERRUPTION.

3.8. ARRANGE AND PAY FOR THE SAFE DISPOSAL OF REMOVED ITEMS AS SPECIFIED. PROVIDE PROOF OF SAFE DISPOSAL FOR ITEMS SUCH AS HVAC REFRIGERANT. COORDINATE THE TIME AND METHOD OF DISPOSAL WITH THE OWNER. FOR EXAMPLE, CLEARLY INDICATE THE ROUTE THAT WILL BE TAKEN FROM THE INSIDE OF THE BUILDING TO THE OUTDOORS, AS WELL AS THE STORAGE LOCATION OUTDOORS IF APPLICABLE.

3.9. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.

3.10. PERFORM WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL INSTALLATION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.

3.11. WHERE CUTTING OR CORE DRILLING OF THE EXISTING CONCRETE STRUCTURE IS REQUIRED, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF AN EXPERIENCED AND REPUTABLE COMPANY TO CARRY OUT X-RAYING. THE RESULTS SHALL BE SUBMITTED TO THE BASE BUILDING STRUCTURAL ENGINEER AND NOT CUTTING OR CORING SHALL TAKE PLACE UNTIL WRITTEN APPROVAL IS RECEIVED. THE CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST TO PERFORM X-RAYING WITH AT LEAST 72 HOURS IN ADVANCE.

4. IDENTIFICATION OF MECHANICAL SERVICES

4.1. PROVIDE SMS WRAP-MARK ON ALL PIPE COVERINGS WITH FLOW ARROW AND ALTERNATING WORDING. COVERING COLOURS SHALL MATCH BASE BUILDING. IN THE CASE WHERE THERE IS NO EXISTING STANDARD, INDUSTRY STANDARDS SHALL BE FOLLOWED.

4.2. USE STENCILS AND STENCIL PAINT ON DUCTWORK AND DUCTWORK INSULATION WITH BLACK CAPITALIZED LETTERS 2" (50 MM) HIGH AND SOLID BLACK FLOW ARROWS.

4.3. IDENTIFICATION OF PIPING AND DUCTWORK SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:

- AT LEAST ONCE IN EACH ROOM
- AT EACH PIECE OF EQUIPMENT
- AT EACH BRANCH CLOSE TO THE CONNECTION POINT AT MAIN
- AT NOT GREATER INTERVALS OF 50 FT. (15 M) ON STRAIGHT RUNS OF EXPOSED PIPING AND DUCTWORK.
- AT ENTRY AND LEAVING POINT TO PIPE AND DUCT CHASES, OR OTHER CONCEALED SPACES
- BOTH SIDES WHERE PIPING AND DUCTWORK PASSES THROUGH WALL, PARTITIONS AND FLOORS
- ON VERTICAL PIPES AND DUCTS APPROXIMATELY 6 FT. (1800 MM) A.F.F.
- BEHIND EACH ACCESS DOOR AND PANEL

4.4. PROVIDE IDENTIFICATION FOR PIPING CONTAINING ELECTRICAL HEAT TRACING.

4.5. TAG ALL VALVES, EXCEPT SMALL VALVES ISOLATING EQUIPMENT, WITH BRASS TAGS AND HIGH DIE-STAMPED BLACK LETTERS ATTACHED TO VALVES WITH 4" BRASS CHAINS.

4.6. PROVIDE IDENTIFICATION FOR ALL NEW EQUIPMENT, STARTERS AND REMOTE CONTROL DEVICES WITH LAMACOID LABELS ENGRAVED WITH WHITE LETTERING AND A BLACK BACKGROUND. THE MINIMUM LETTERING SIZE SHALL BE 3/8" (10 MM).

5. ACCESS DOORS AND PANELS

5.1. PROVIDE ADEQUATE ACCESS TO CONCEALED EQUIPMENT AND COMPONENTS THAT REQUIRE ACCESS FOR MAINTENANCE, ADJUSTMENT AND INSPECTION. PROVIDE MARKING TO THE OWNER'S SATISFACTION THE LOCATIONS WHERE CONCEALED EQUIPMENT IS LOCATED.

5.2. ENSURE THAT THE SIZE OF THE DOOR COMPLIES WITH THE MANUFACTURER'S SUGGESTED ACCESS REQUIREMENTS.

5.3. COORDINATE ALL ACCESS DOOR AND PANEL SIZES AND LOCATIONS WITH ARCHITECT/INTERIOR DESIGNER.

6. FLASHING, CURBS AND CONCRETE

6.1. FLASHING SHALL BE CARRIED OUT AS SHOWN ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS AT THE EXPENSE OF DIV.23.

6.2. ALL CURBS REQUIRED FOR MECHANICAL EQUIPMENT SHALL BE CARRIED OUT AS SHOWN ON ARCHITECTURAL AND/OR MECHANICAL DRAWINGS AT THE EXPENSE OF DIV.23. CURBS SHALL BE INSTALLED AT LEAST 14" ABOVE THE ROOF LEVEL.

6.3. PREMANUFACTURED EQUIPMENT CURBS SHALL BE SUPPLIED BY THE EQUIPMENT MANUFACTURER.

6.4. PROVIDE 4" (100 MM) THICK CONCRETE HOUSEKEEPING PADS WHERE INDICATED ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

7. FIRESTOPPING

7.1. PROVIDE FIRE STOPPING SYSTEMS AND PRODUCTS FOR ALL DUCTS, PIPING, ETC. PENETRATING FIRE SEPARATIONS THAT ARE ULC LISTED AND COMPLY WITH CAN4-S115S AND THE AUTHORITIES HAVING JURISDICTION.

7.2. MAINTAIN ALL FLOOR AND WALL FIRE RATINGS TO COMPLY WITH BASE BUILDING STANDARDS AND THE AUTHORITIES HAVING JURISDICTION.

8. PIPE, DUCT AND EQUIPMENT INSTALLATION

8.1. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT TO PROVIDE ADEQUATE CLEARANCES FOR SERVICING AS WELL AS MAXIMUM USABLE SPACE FOR ALL OTHER DIVISIONS.

8.2. INSTALL PIPING AND DUCTWORK STRAIGHT, IN A NEAT AND CLEAN FASHION AND TIGHT TO STRUCTURES ABOVE (UNLESS OTHERWISE NOTED).

8.3. TAKE MEASURES TO PROTECT COPPER PIPING CORROSION FROM CONTACT WITH DISSIMILAR METALS.

9. HANGERS AND SUPPORTS

9.1. PROVIDE HANGER SYSTEMS FOR ALL DUCTWORK, PIPING AND EQUIPMENT TO

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RENDER A SAFE AND FUNCTIONAL INSTALLATION. HANGER RODS SHALL BE ATTACHED DIRECTLY TO THE STRUCTURE AND IN NO WAY SHALL BE ATTACHED TO OTHER MECHANICAL COMPONENTS OR CEILING SYSTEMS. WHERE COMPONENTS ARE TO BE SUSPENDED BETWEEN JOISTS OR BEAMS, PROVIDE AUXILIARY STEEL CHANNELS TO SUIT.

9.2. FOR GENERAL CONDITIONS, PROVIDE ROUND STEEL THREADED RODS CONFORMING TO ASTM A-36. WHERE SPECIAL CONDITIONS EXIST, SUCH AS HIGH HUMIDITY OR EXPOSURE TO ELEMENTS, PROVIDE HANGER COMPONENTS TO SUIT.

9.3. IN REGARDS TO ALL PIPING, PROVIDE SUPPORTS AT CONNECTION (SUCH AS HUB) AND AT EVERY CHANGE IN DIRECTION.

10. STRUCTURAL AND SEISMIC

10.1. WHERE THERE IS NO STRUCTURAL DIVISION AS PART OF THE PROJECT, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE STRUCTURAL REINFORCING FOR ALL DIV.23 INSTALLATIONS. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER WHO IS TO PROVIDE A DESIGN BEARING THEIR PROFESSIONAL SEAL. THE CONTRACTOR SHALL APPLY FOR BUILDING PERMIT AND ASSUME ALL RESPONSIBILITY AND COST FOR THE PERMIT PROCESS. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT A LETTER FROM THE STRUCTURAL ENGINEER COMPLETE WITH PROFESSIONAL SEAL TO INDICATE THAT THE WORK HAS BEEN COMPLETED TO THE ONTARIO BUILDING CODE, ALL OTHER RELEVANT CODES AND STANDARDS AND TO THE AUTHORITIES HAVING JURISDICTION.

10.2. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE REQUIREMENTS FOR SEISMIC BRACING AND SUPPORTS WITH STRUCTURAL DRAWINGS. DIV.23 SHALL CONTRACT THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO DESIGN SUPPORTS AND BRACING IN ACCORDANCE WITH ALL CURRENT CODES AND THAT MATCHES THE REQUIREMENT OF THE LOCATION IN WHICH THE SYSTEMS ARE BEING INSTALLED. UPON COMPLETION OF THE PROJECT, SEISMIC ENGINEER SHALL PROVIDE A LETTER BEARING THEIR PROFESSIONAL SEAL INDICATING THAT THE INSTALLATION MEETS THE SEISMIC DESIGN DOCUMENT AND CONFORMS TO THE BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION.

11. ELECTRICAL

11.1. ALL ELECTRICAL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES FOR DIV.23 WORK SHALL BE PROVIDED BY DIV.23.

11.2. DIV.26 SHALL BE RESPONSIBLE FOR POWERING LOAD SIDE OF STARTERS AND CONTACTORS, POWER FOR ELECTRICAL HEAT TRACING AND CONTROLS, LINE SIDE POWER TO LOOSE STARTERS AND DISCONNECTS.

11.3. ALL LOW VOLTAGE WIRING AND CONNECTION IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR.

11.4. WHERE THERE IS NO DIV.26 (ELECTRICIAN) AS PART OF THE PROJECT, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF A LICENSED ELECTRICAL CONTRACTOR AND OBTAIN THE APPROPRIATE INSPECTIONS AND APPROVALS FOR THE INSTALLATION OF ALL ELECTRICAL WORK REQUIRED FOR MECHANICAL SYSTEMS.

12. PROJECT CLOSEOUT

12.1. PRIOR TO THE ISSUING OF A PROJECT COMPLETION NOTICE OR A SIGN-OFF LETTER, THE FOLLOWING DOCUMENTS, AT A MINIMUM, MUST BE PROVIDED TO THE ENGINEER FOR REVIEW:

- AIR BALANCING REPORT
- NFPA-13 LETTER
- APPLICABLE SYSTEM/EQUIPMENT TESTING REPORT

HVAC SPECIFICATIONS

1. PROVIDE ALL LABOUR AND MATERIALS TO SUPPLY AND INSTALL THE DUCTWORK AND SHEET METAL SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THIS INCLUDES INSTALLING THE DUCTWORK, ACCESSORIES, ASSOCIATED ITEMS AND ALL NECESSARY CONNECTIONS TO OUTLETS, INLETS AND EQUIPMENT TO PROVIDE A COMPLETE SYSTEM.

2. UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK SYSTEMS, INCLUDING DUCTWORK, HOUSINGS, DAMPERS AND ACCESS DOORS, WITH GALVANIZED STEEL SHEET METAL MEETING ASTM A653 AND A924. CONSTRUCTION OF THE DUCTWORK SYSTEMS SHALL BE IN STRICT ACCORDANCE WITH SMACNA, SMACNA DUCT CLEANLINESS AND ASHRAE. ALL DUCTWORK SHALL BE SMOOTH ON THE INSIDE AND SHALL BE FREE FROM RATTLING OR VIBRATION. DUCTWORK NOT MEETING THESE STANDARDS WILL BE REPLACED AT NO EXTRA CHARGE TO THE OWNER.

3. CONSTRUCT DUCTWORK AND SEAL ACCORDING TO THE APPROPRIATE SMACNA STANDARDS. LOW PRESSUE DUCTWORK SHALL BE CONSTRUCTED WITH THE ONE (1) INCH PRESSURE CLASSIFICATION AND ALL OTHER DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE THREE (3) INCH CLASSIFICATION. DUCT PRESSURES SHALL BE CLASSIFIED AS FOLLOWS:

3.1. LOW: DUCT PRESSURES (LOW) OF 1/2" TO 2" W.C. AND NOT EXCEEDING AN AIR VELOCITY OF 2000 FPM.

3.2. MEDIUM: DUCT PRESSURES EXCEEDING 2" W.C. OR AND AIR VELOCITY OF 2000 FPM.

3.3. THREE INCH: ALL VARIABLE AIR VOLUME (VAV) SUPPLY AIR DUCT SYSTEMS AND AIR DUCTWORK SYSTEMS EXPOSED TO THE OUTDOORS.

4. FLEXIBLE DUCTWORK

4.1. PROVIDE, WHERE INDICATED ON MECHANICAL DRAWINGS, FLEXIBLE DUCTWORK EQUAL TO FLEXMASTER TRIPLE LOCK ALUMINUM DUCTWORK. THE PRESSURE RATING OF THE DUCTWORK SHALL MATCH THE DUCTWORK SYSTEM TO WHICH IT IS ATTACHED. MATCH THE DUCTWORK SIZE TO THE CONNECTION OUTLET OF THE AIR TERMINAL.

4.2. SECURE FLEXIBLE DUCTWORK USING GEAR CLAMPS WITH AN ADJUSTING WORM DRIVE TYPE SCREW. SEAL AROUND CONNECTION WITH DUCT TAPE TO OBTAIN THE APPROPRIATE SMACNA SEAL CLASS.

4.3. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK PERMITTED IN LOW PRESSURE SYSTEMS IS 10'-0" AND 4'-0" IN ALL OTHER HIGHER PRESSURE SYSTEMS.

5. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR TO TAKE INTO ACCOUNT DUCT LINERS, ETC. WHEN PERFORMING TAKE-OFFS.

6. MAKE ALL DUCT CONNECTIONS, CONCENTRIC AND ECCENTRIC TRANSITIONS, ETC., IN ACCORDANCE WITH SMACNA.

7. PROVIDE DUCT ACCESS DOORS AT LOCATIONS AS SHOWN ON DRAWINGS, AS WELL AS AT THE LINKAGE SIDE OF AUTOMATIC DAMPERS, FIRE DAMPERS AND ANY OTHER SERVICE, BALANCE OR CONTROL DEVICE REQUIRING PERIODIC MAINTENANCE. THE DOORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA AND SHALL MATCH THE PRESSURE RATING OF THE DUCTWORK SYSTEM TO WHICH IT IS BEING INSTALLED.

8. PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET CONNECTION FOR EACH FAN BETWEEN DUCTWORK AND INLET AND OUTLET COLLARS. FLEXIBLE CONNECTIONS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE NEOPRENE COATED FIBERGLASS FABRIC. FOR OUTDOOR CONNECTIONS, PROVIDE A CONNECTOR THAT IS SUITABLE FOR EXPOSURE TO SUNLIGHT AND THE ELEMENTS.

9. PROVIDE FIRE DAMPERS WHERE INDICATED ON MECHANICAL DRAWINGS. ALL DAMPERS SHALL BE SELECTED TO SUIT THE RATING OF THE FLOOR OR WALL ASSEMBLY IN WHICH IT WILL BE INSTALLED. FIRE DAMPERS SHALL BE ULC LISTED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, NFPA 90A AND THE AUTHORITIES HAVING JURISDICTION. TYPE A FIRE DAMPERS ARE PERMITTED FOR NON-DUCTED TRANSFER DUCTWORK. TYPE B FIRE DAMPERS SHALL BE USED IN ALL OTHER CASES UNLESS OTHERWISE NOTED.

9.1. REMOVABLE DUCT SECTIONS FOR FIRE AND SMOKE DAMPER ACCESS: WHERE A MINIMUM 12"X12" ACCESS PANEL CAN NOT BE INSTALLED ON DUCTWORK, A REMOVABLE DUCTWORK SECTION FOR DAMPER INSPECTION AND MAINTENANCE SHALL BE PROVIDED. REMOVABLE DUCTWORK SECTION TO FUNCTION WITHOUT THE USE OF TOOLS AND SHALL NOT BE MORE THAN 4" AWAY FROM THE FIRE DAMPER SLEEVE BREAK AWAY CONNECTION.

10. MANUAL BALANCING DAMPERS INSTALLED IN DUCTWORK NOT EXCEEDING 12" ON THE LONGEST SIDE SHALL BE CONSTRUCTED AS PER SMACNA. PROVIDE OPPOSED BLADE DAMPERS WHERE THE DIMENSION OF THE LONGEST SIDE OF THE DUCTWORK EXCEEDS 12", OPPOSED BLADE DAMPERS SHALL BE OF GALVANIZED STEEL CONSTRUCTION WITH LOCK SCREWS AT OPPOSITE ENDS. PROVIDE BALANCING DAMPERS WHERE SHOWN ON DRAWING AS WELL AS ON BRANCHES OFF OF MAIN DUCTWORK WITH ADEQUATE ACCESS.

11. PROVIDE ALL DIFFUSERS, REGISTERS, GRILLES, ETC. OF TYPE AND SIZE AS INDICATED ON MECHANICAL DRAWINGS. CONFIRM ALL AIR TERMINAL COLOURS WITH ARCHITECT/INTERIOR DESIGNER, REGARDLESS OF SPECIFICATION ON MECHANICAL DRAWINGS. MECHANICAL CONTRACTOR IS TO COORDINATE INSTALLATION OF DOOR GRILLES WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR.

12. PROVIDE DUCTWORK INSULATION AND LINERS WHERE NOTED ON MECHANICAL DRAWINGS, AS PER THE FOLLOWING:

12.1. ACOUSTIC LINING:

12.1.1. DUCT LINING SHALL COMPLY WITH NFPA 90A AND DUCT LINER MATERIALS STANDARD OF THE THERMAL INSULATION MANUFACTURER'S ASSOCIATION.

12.1.2. RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING EQUAL TO JOHNS MANVILLE LINACOUSTIC RC COMPLETE WITH PERMACOTE ACRYLIC ANTI-MICROBIAL COATING.

12.1.3. SPIRAL DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING EQUAL TO JOHNS MANVILLE SPINACOUSTIC PLUS ROUND DUCT LINER SYSTEM COMPLETE WITH PERMACOTE ANTI-MICROBIAL COATING.

12.1.4. PROVIDE ACOUSTIC LINING AS SPECIFIED ON ALL SUPPLY, RETURN AND EXHAUST FAN EQUIPMENT FOR 10'-0" (3.0 M) FROM THE INLET/OUTLET.

12.2. THERMAL INSULATION

12.2.1. PROVIDE THERMAL INSULATION WHERE NOTED ON MECHANICAL DRAWINGS. INSULATE ALL DUCTWORK LEAVING OR ENTERING THE BUILDING FOR THE FIRST 6 FT. FROM THE BUILDING PENETRATION WITH 2" OF THERMAL INSULATION.

12.2.2. RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE SERIES 814 SPIN-GLAS FIBER GLASS DUCT BOARD INSULATION WITH FSK FACING. IMPALE ON MECHANICALLY FASTENED PINS LOCATED AT NOT MORE THAN 12" ON CENTRE, AND SECURE WITH SPEED WASHERS.

12.2.3. RIGID ROUND (SPIRAL) DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE MICROLITE EQ FSK FIBER GLASS DUCT WRAP INSULATION WHERE INDICATED ON DRAWINGS. ADHERE INSULATION TO DUCT SURFACE AND LAP ALL EDGES AT LEAST 2". SEAL JOINTS WITH 4" WIDE ALUMINUM FOIL TAPE.

12.2.4. FLEXIBLE DUCTWORK: PROVIDE ONE INCH (1.25") JOHNS MANVILLE FLEX-GLAS EQ FLEXIBLE DUCTWORK INSULATION WITH FSK FACING. LAP JOINTS AND SEAL WITH 4" WIDE ALUMINUM FOIL TAPE.

12.2.5. WHERE DUCTWORK IS INSTALLED OUTSIDE THE BUILDING OR EXPOSED TO THE ELEMENTS, PROVIDE TWO INCHES (2") OF THERMAL INSULATION, BUTT JOINTS TIGHTLY TOGETHER AND SEAL WASHERS, BREAKS AND JOINTS WITH SELF-ADHERING FOUR INCHES (4") WIDE PLAIN ALUMINUM TAPE, OR ADHERE FOIL WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE.

HVAC SPECIFICATIONS

12.3. JACKETING

12.3.1. RECOVER ALL DUCTWORK OUTSIDE THE BUILDING OR EXPOSED TO THE ELEMENTS WITH ALUMINUM JACKETING TO ASTM B209 WITH MOISTURE BARRIER, THICKNESS 0.50MM SHEET, STUCCO EMBOSSED FINISH, JACKET BANDING AND MECHANICAL SEALS 12MM WIDE AND 0.5MM THICK STAINLESS STEEL.

13. HVAC BALANCING

13.1. PROVIDE BALANCING OF ALL AIR AND WATER SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THE BALANCING CONTRACTOR SHALL HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE AND BE NEBB CERTIFIED. ALL BALANCING, TESTING ADJUSTING AND REPORTING SHALL BE CARRIED OUT IN ACCORDANCE WITH NEBB, PROCEDURAL STANDARDS FOR TESTING, ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS. WHERE APPLICABLE, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED TAB CONTRACTOR.

13.2. PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM ACCORDING TO THE CURRENT EDITION OF THE NEBB STANDARDS. MARK EQUIPMENT AND BALANCING DEVICE SETTING WITH PAINT OR OTHER SUITABLE PERMANENT IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS.

13.3. BALANCE AIRFLOW AND HYDRONIC FLOW QUANTITIES WITHIN +/- 10% OF THE DESIGN CRITERIA. IN THE EVENT THAT A CONDITION OR DEFICIENCY IS PREVENTING THE ACCEPTANCE RANGE FROM BEING ACHIEVED, IT SHALL BE NOTED WITH DESCRIPTION ON THE TAB REPORT. UPON COMPLETION, SUBMIT A FINAL TAB REPORT TO THE CONSULTANT FOR REVIEW.

14. CONTROLS

14.1. PROVIDE ALL CONTROLS, WIRING, CONDUIT, ACCESSORIES, ETC. AND INTERLOCK WITH EQUIPMENT/STARTERS AS INDICATED ON DRAWINGS.

14.2. WHEN INSTALLED IN CEILING PLENUMS, CABLE MAY BE FREE-AIR, UNLESS OTHERWISE NOTED, PROVIDING THE WIRING IS FT-6 PLENUM RATED.

14.3. WHEN INSTALLED IN OPEN AREAS, PROVIDE EMT CONDUIT, FITTINGS, MOUNTING ACCESSORIES, ETC. TO DELIVER A NEAT AND CLEAN INSTALLATION.

14.4. MOUNTING HEIGHTS:

14.4.1. OCCUPANT ADJUSTABLE: MOUNT AT 3'-11" (1200 MM) A.F.F.
14.4.2. NON-AJUSTABLE (SENSOR ONLY): MOUNT AT 5'-0" (1500 MM) A.F.F.

**CONFIRM MOUNTING HEIGHTS WITH CONSULTANT PRIOR TO INSTALLATION.

14.5. COORDINATE INSTALLATION OF ALL CONTROL DEVICES/SENSORS WITH ARCHITECTURAL DRAWINGS.

14.6. INSTALL CONTROL DEVICES/SENSORS CLEAR OF DIMMERS SO AS TO AVOID INTERFERENCE.

14.7. THE MECHANICAL CONTRACTOR SHALL TEST ALL CONTROLS/INTERLOCKS FOR GOOD OPERATION PRIOR TO PROJECT CLOSE-OUT. PROVIDE A REPORT FOR REVIEW TO THE ENGINEER INDICATING DEFICIENCIES.

14.8. WIRE ALL DEVICES TO THEIR RESPECTIVE MAGNETIC STARTERS AND PROVIDE POWER TO DIV.23 CONTROL PANELS FROM NEAREST AND MOST SUITABLE ELECTRICAL PANEL.

14.9. CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED CONTROLS CONTRACTOR WHERE APPLICABLE.

14.10. PNEUMATIC CONTROLS

14.10.1. PROVIDE TYPE M SEAMLESS COPPER TUBING THAT COMPLIES WITH ASTM B280, WROUGHT COPPER FITTINGS THAT COMPLY WITH ANSI/ASME B16.22, AND JOINTS THAT COMPLY WITH ANSI/ASTM B32.

14.10.2. CONCEAL TUBING, UNLESS LOCATED IN MECHANICAL ROOMS, AND MECHANICALLY FASTEN TO SUPPORTING STRUCTURES. PURGE TUBING WITH OIL-FREE COMPRESSED AIR BEFORE CONNECTING TO CONTROL INSTRUMENTS.

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL SPECIFICATIONS I

BBA

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC CONTROL: DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: 24-153

DRAWING NO: M-1.1

PLUMBING SPECIFICATIONS

1. PROVIDE PLUMBING SYSTEMS AS PER DRAWINGS, SPECIFICATIONS, THE LATEST EDITION OF THE ONTARIO BUILDING CODE, MUNICIPAL BY-LAWS AND THE AUTHORITY HAVING JURISDICTION. THE TERM "SYSTEMS" REFERS TO ALL PIPING, FITTINGS, SUPPORTS, CURBS, ACCESSORIES, ETC.

2. ALL ITEMS REQUIRED FOR PLUMBING SYSTEMS SHALL BE CSA APPROVED UNLESS OTHERWISE NOTED.

3. CLEANING, FLUSHING AND DISINFECTING OF DOMESTIC WATER PIPING

3.1. FOLLOW PROCEDURES AS OUTLINED IN THE LATEST EDITION OF STANDARD AWWA C651. ENSURE THAT THE METHODS COMPLY WITH LOCAL BY-LAWS.

3.2. PREVENT CONTAMINATING MATERIAL FROM ENTERING THE SYSTEM DURING STORAGE, CONSTRUCTION AND REPAIR.

3.3. REMOVE AND FLUSH ALL FOREIGN MATTER THAT HAS ENTERED THE PIPING.

3.4. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE AND DISINFECTION PROCEDURES.

3.5. CHLORINATE RESIDUAL CONTAMINATION THAT MAY REMAIN AND FLUSH THE CHLORINATED WATER WHEN COMPLETE. FOLLOWING THIS, DETERMINE THE BACTERIOLOGICAL QUALITY OF THE WATER BY LABORATORY TESTING. CONNECT THE WATER SYSTEM ONLY WHEN TEST RESULTS INDICATE AN APPROVED AND DISINFECTED SYSTEM.

4. PIPING INSULATION

4.1. PROVIDE PIPING INSULATION FOR PLUMBING SYSTEMS AS FOLLOWS:

- DCW: TYPE 'A', FOR ALL PIPE SIZES 1" THICK
- DHW(R): TYPE 'A', UP TO 2"ø – 1" THICK, 2-1/2"ø AND UP – 1-1/2" THICK
- CD (HORIZONTAL): TYPE 'A', 1/2"ø THROUGHOUT

4.2. TYPE 'A': JOHNS MANVILLE MICRO-LOK FIBER GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH BUTT STRIPS SUPPLIED BY THE INSULATION MANUFACTURER.

4.3. FOR NEW EXPOSED PIPING INSTALLED INDOORS AND/OR IN MECHANICAL ROOMS, RECOVER INSULATION WITH HEAVY-GAUGE PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES.

4.4. PROVIDE INSULATION ON PIPES GOING THROUGH FIRE RATED FLOORS AND WALLS, AND FIT TIGHT TO THE FIRE STOP MATERIAL.

4.5. HEATING WATER PIPING SHALL HAVE GLASS FIBRE PIPE INSULATION.

5. MAKE ALL PIPING AND ELECTRICAL CONNECTION TO PUMPS AND MOTOR ASSEMBLIES AS SPECIFIED. REFER TO PUMP SCHEDULE (WHERE APPLICABLE).

6. PIPING MATERIALS (SEE BELOW FOR MATERIALS SPECIFICATIONS)

6.1. DCW AND DHW(R)
6.1.1. ABOVE GROUND: TYPE 1
6.1.2. UNDERGROUND: TYPE 2

6.2. SANITARY & STORM DRAINAGE PIPING
6.2.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED)
6.2.2. UNDERGROUND: TYPE 4 (2"ø MIN.), TYPE 5, TYPE 7

6.3. VENT PIPING
6.3.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED)
6.3.2. UNDERGROUND: TYPE4, TYPE 5, TYPE 7

TYPE 1: TYPE L HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND LEAD-FREE SOLDER, CONTAINING LESS THAN .02 PERCENT LEAD, CONFORMING TO ASTM B32.

TYPE 2: TYPE K SOFT ANNEALED COPPER TUBING WITH NO JOINTS.

TYPE 3: TYPE DWV COPPER TUBE AND FITTINGS WITH 95:5 TIN:ANTIMONY SOLDER JOINTS.

TYPE 4: CAST IRON PIPING AND FITTINGS COMPLYING WITH CAN/CSA-B70. FOR MECHANICAL JOINTS ABOVE GRADE, USE NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS TO CAN/CSA-B70 WITH STAINLESS STEEL CLAMPS. FOR MECHANICAL JOINTS BELOW GRADE, USE MISSION HEAVYWEIGHT COUPLINGS FOR HUB AND SPIGOT CONNECTIONS, PROVIDE NEOPRENE GASKET TO CAN/CSA-B70 AND COLD CAULKING COMPOUNDS. DO NOT USE HUB AND SPIGOT FOR ABOVE GROUND APPLICATIONS.

TYPE 5: IPEX RING-TITE PVC SDR 35 SEWER PIPE IN COMPLIANCE WITH CSA B182.2 AND CSA B182.7. LATERALS WILL BE IPEX RING-TITE PVC SDR 28 IN COMPLIANCE WITH CSA B182.2.

TYPE 6: IPEX XFR PIPING AND FITTINGS COMPLYING WITH CSA B181.2, SCHEDULE 40 WITH A FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION OF LESS THAN 50.

TYPE 7: ROYAL ABS-DWV PIPING AND FITTINGS CERTIFIED TO CSA B181.1.

7. VALVES

7.1. PROVIDE ASTM DOMESTIC WATER VALVES TO THE FOLLOWING KITZ FIGURE NUMBERS:

7.1.1. GATE VALVES
7.1.1.1. 2"ø AND SMALLER: SOLDERED, 1400 kPa [200psi] W.O.G. FIG. 44
7.1.1.2. 2-1/2"ø AND LARGER: FLANGED, 1400 kPa [200psi] W.O.G. FIG. 44

7.1.2. GLOBE VALVES
7.1.1.1. 2"ø AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 10 WITH SUITABLE COMPOSITION DISC.
7.1.1.2. 2-1/2"ø AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 76

7.1.2. STANDARD CHECK VALVES
7.1.1.1. 2"ø AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 23
7.1.1.2. 2-1/2"ø AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 78

7.1.2. BALL VALVES
7.1.1.1. 2"ø AND SMALLER: BALL VALVES MAY BE PROVIDED AS A SUBSTITUTE FOR GATE AND GLOBE VALVES. PROVIDE BALL VALVES WITH BRASS OR BRONZE BODY, CHROME PLATED SOLID BALL, PTFE SEATS AND SEALS AND FULL PORT, KITZ FIG. 59

7.2. PROVIDE ISOLATION VALVES FOR DOMESTIC HOT AND COLD WATER SYSTEMS AT MAIN PIPING, BRANCH PIPING AND AT FIXTURES AND EQUIPMENT.

8. VERIFY ALL SITE CONDITIONS AFTER CONTRACT AWARD TO ENSURE THAT PIPING INVERTS ARE SUFFICIENT FOR THE RUNS SHOWN ON MECHANICAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY.

9. CARRY OUT TESTING ON ALL SYSTEMS INCLUDING SANITARY DRAINAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND DOMESTIC WATER SYSTEMS AS PER PART 7.3.6 OF THE ONTARIO BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION. TESTS MAY INCLUDE, BUT ARE NOT LIMITED TO, A WATER TEST, BACKFLOW TEST, PRESSURE TEST, BALL TEST AND FINAL TEST.

10. MAKE PROVISIONS FOR MAINTAINING THE SEAL OF ALL HUB DRAINS, FLOOR DRAINS, ETC, IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. WHERE MECHANICAL OR ELECTRICAL DEVICES ARE USED, THE MINIMUM TUBING SIZE SHALL BE 3.8".

11. PROVIDE FIRESTOPPING AT ALL FIRE-RATED WALL AND FLOOR ASSEMBLIES AS PER THE 'GENERAL SPECIFICATIONS'.

12. COORDINATE EXACT LOCATIONS OF ALL PLUMBING FIXTURES WITH ALL TRADES AND ARCHITECTURAL/INTERIOR DESIGN DRAWINGS. DO NOT SCALE MECHANICAL DRAWINGS.

13. WHERE PLUMBING FIXTURES ARE SPECIFIED, THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AND APPURTENANCES TO PROVIDE A FULL AND COMPLETE INSTALLATION OF THE RESPECTIVE FIXTURE. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, STOP VALVES, RISER PIPING, ESCUTCHEON PLATES, ETC.

14. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

HYDRONIC SYSTEMS SPECIFICATIONS

1. PRODUCTS

1.1. PIPE

1.1.1. PROVIDE SCHDULE 40 (NPS) STEEL PIPE CONFORMING TO ASTM-A53/A53M, GRADE B

1.2. PIPE JOINTS

1.2.1. FOR NPS 2"ø AND SMALLER, USE SCREWED FITTING WITH PTFE TAPE OR LEAD-FREE PIPE DOPE.
1.2.2. FOR NPS 2-1/2"ø AND OVER: WELDED FITTINGS AND FLANGES TO CAN/CSA-W48.
1.2.3. ROLL GROOVED: RIGID COUPLINGS TO CSA B242.
1.2.4. FLANGES: PLAIN ASME B16.1, RAISED FACE, SLIP-ON OR WELD NECK TO ASME B16.5.
1.2.5. ORIFICE FLANGES: SLIP-ON RAISED FACE, 2100 kPa.
1.2.6. FLANGE GASKETS TO AWWA C111
1.2.7. PIPE THREAD SHALL BE TAPERED.
1.2.8. BOLTS AND NUTS TO ASME B18.2.1 AND ASME B18.2.2.
1.2.9. ROLL GROOVED COUPLING GASKETS: NPS 2"ø TO 8"ø, TYPE EHP, EPDM HIGH PERFORMANCE, -40°C TO 120°C FOR CONTINUOUS OPERATION.

1.3. FITTINGS

1.3.1. SCREWED FITTINGS SHALL BE MALLEABLE IRON CONFORMING TO ASME B16.3, CLASS 150.

1.3.2. PIPE FLANGES AND FLANGED FITTINGS:
1.3.2.1. CAST IRON TO ASME B16.1, CLASS 125
1.3.2.2. STEEL TO ASME B16.5

1.3.3. BUTT-WELDED FITTINGS, STEEL, TO ASME B16.9.

1.3.4. UNIONS SHALL BE MALLEABLE IRON CONFORMING TO ASTM-A47/A47M AND ASME B16.3.

1.3.5. FITTINGS FOR ROLL GROOVED PIPING, MALEABLE IRON TO ASTM-A47/A47M, DUCTILE IRON TO ASTM-A536.

1.4. VALVES

1.4.1. CONNECTIONS:

1.4.1.1. NPS 2"ø AND SMALLER: SCREWED ENDS.
1.4.1.2. NPS 2-1/2"ø AND LARGER: FLANGED OR GROOVED ENDS.

1.4.2. GATE VALVES TO MSS-SP-70 AND MSS-SP-80 FOR ISOLATING EQUIPMENT, CONTROL VALVES, ETC.

1.4.2.1. NPS 2"ø AND SMALLER: BRONZE, CLASS 125 RISING STEM, SOLID WEDGE DISC.
1.4.2.2. NPS 2-1/2"ø AND OVER: CAST IRON, RISING STEM, SOLID WEDGE DISC, LEAD FREE BRONZE TRIM.

1.4.3. BUTTERFLY VALVES TO MSS-SP-67 FOR ISOLATING CELLS OR SECTIONS OF MULTIPLE COMPONENT EQUIPMENT. FOR NPS 2-1/2"ø AND OVER: LUG TYPE OR GROOVED ENDS.

1.4.4. GLOBE VALVES TO MSS-SP-80 AND 85 FOR THROTTLING, FLOW CONTROL AND EMERGENCY BYPASS.

1.4.4.1. NPS 2"ø AND SMALLER: BRONZE, WITH PLUG DISC.
1.4.4.2. NPS 2-1/2"ø AND OVER: CAST IRON, COMPOSITION BRONZE DISC AND BRONZE TRIM.

1.4.5. BALANCING FOR TAB

1.4.5.1. NPS 2"ø AND SMALLER: COPPER ALLOY BODY THREADED, 2.1 MPa RATING, GLOBE STYLE, SELF SEALING MEASURING PORTS FOR TEMPERATURE AND PRESSURE PROBES, LOCKING TAMPER PROOF SETTING, WITH PLUG DISC. COMBINATION BALANCING VALVE, STRAINER AND DRAIN BALL VALVE MAY ALSO BE USED IN LIEU OF STANDARD VALVE.
1.4.5.2. NPS 2-1/2"ø AND OVER: DUCTILE IRON BODY, FLANGED OR GROOVED CONNECTIONS, 1700 kPa RATING MINIMUM, GLOBE STYLE, SELF-SEALING MEASUREMENT PARTS FOR TEMPERATURE OR PRESSURE PROBES, LOCKING TAMPER PROOF SETTING.

1.4.6. DRAIN VALVES: BRONZE, GATE, CLASS 125 NON-RISING STEM, SOLID WEDGE DISC.

1.4.7. SWING CHECK VALVES TO MSS-SP-71

1.4.7.1. NPS 2"ø AND SMALLER: BRONZE, CLASS 125 SWING WITH COMPOSITION DISC.
1.4.7.2. NPS 2-1/2"ø AND OVER: CAST IRON, FLANGED OR GROOVED ENDS.

1.4.8. BALL VALVES: FOR NPS 2"ø AND SMALLER, USE SCREWED END BALL VALVES CONSTRUCTED OF CAST HIGH TENSILE BRONZE CONFORMING TO ASTM-B16 OR ASTM-B62. SCREWED ENDS SHALL CONFORM TO ANSI-B1.20.1 WITH HEX SHOULDERS. BALL SHALL BE REPLACEABLE AND CONSTRUCTED OF EITHER STAINLESS STEEL OR HARD CHROME.

2. INSTALLATION OF PIPEWORK

2.1. EXECUTION

2.1.1. MAKE ALL CONNECTIONS TO EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

2.1.2. PROVIDE VALVES AND UNIONS AT CONNECTION FOR MAINTENANCE/REPLACEMENT PURPOSES.

2.1.3. PROVIDE DRAINS AT SYSTEM LOW POINTS, EQUIPMENT AND ISOLATING SECTIONS. INSTALL NPS 3/4"ø GATE OR GLOBE VALVE WITH HOSE END MALE THREAD, CAP AND CHAIN.

2.1.4. PROVIDE AUTOMATIC AIR VENTS AT SYSTEM HIGH POINTS COMPLETE WITH ISOLATING VALVE.

2.2. CLEARANCES: PROVIDE THE REQUIRED CLEARANCES AROUND EQUIPMENT, PIPING, SYSTEMS, ETC. TO RENDER THE NECESSARY SPACE REQUIREMENTS FOR SERVICE, INSPECTION, OPERATION, REPLACEMENT AND MAINTENANCE. REFER TO ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR REQUIRED AND RECOMMENDED CLEARANCES.

2.3. DIELECTRIC FITTINGS: WHERE DISSIMILAR METALS ARE JOINED, PROVIDE DIELECTRIC ISOLATING FITTINGS (COMPLETE WITH THERMOPLASTIC LINER), UNIONS OR BRONZE VALVES.

2.4. PIPEWORK INSTALLATION

2.4.1. SCREWED FITTING CONNECTIONS SHALL BE COMPLETE WITH PIPE DOPE OR TEFLON TAPE.

2.4.2. PROTECT ALL SYSTEM OPENINGS DURING CONSTRUCTION TO PREVENT THE ENTRY OF FOREIGN MATERIAL.

2.4.3. INSTALL ALL PIPING, EQUIPMENT, ETC. TO BE PARALLEL OR PERPENDICULAR WITH BUILDING LINES.

2.4.4. PROPERLY REAM AND REMOVE SCALE AND FOREIGN MATERIAL PRIOR TO ASSEMBLY.

HYDRONIC SYSTEMS SPECIFICATIONS

2.4.5. VALVES

2.4.5.1. INSTALL ALL VALVES IN ACCESSIBLE LOCATIONS FOR MAINTENANCE WITHOUT REMOVING ADJACENT PIPING.
2.4.5.2. USE BALL OR BUTTERFLY VALVES AT BRANCH TAKE-OFFS FOR ISOLATING PURPOSES EXCEPT WHERE OTHERWISE SPECIFIED.
2.4.5.3. INSTALL BUTTERFLY VALVES ON CHILLED WATER AND RELATED CONDENSER WATER SYSTEMS ONLY.
2.4.5.4. INSTALL BALL VALVES FOR GLYCOL SERVICE.
2.4.5.5. USE CHAIN OPERATORS ON VALVES NPS 2-1/2"ø AND LARGER WHERE INSTALLED MORE THAN 2400 MM ABOVE FLOOR IN MECHANICAL ROOMS.

2.4.6. CHECK VALVES

2.4.6.1. INSTALL SILENT CHECK VALVES ON DISCHARGE OF PUMPS AND IN VERTICAL PIPES WITH DOWNWARD FLOW AND ELSEWHERE INDICATED.
2.4.6.2. INSTALL SWING CHECK VALVES IN HORIZONTAL LINES ON DISCHARGE OF PUMPS AND ELSEWHERE AS INDICATED.

2.4.7. WHERE PIPING PASSES THROUGH MASONRY, FIRE-RATED ASSEMBLIES, FOUNDATION WALLS, POURED WALLS, ETC., PROVIDE PIPE SLEEVES CONSTRUCTED OF SCHEDULE 40 BLACK STEEL PIPE. ALLOW FOR 0.25" OF CLEARANCE BETWEEN INSIDE OF SLEEVE AND OUTSIDE OF PIPE/INSULATION. SEAL WITH A FIRE RETARDANT AND WATERPROOF NON HARDENING MASTIC. WHERE SLEEVE IS INSTALLED IN A FIRE RATED ASSEMBLY, PROVIDE FIRESTOPPING CONFORMING TO ULC.

2.4.8. PROVIDE ESCUTCHEON PLATES ON PIPING PASSING THROUGH FINISHED WALLS, FLOOR AND CEILINGS.

2.4.9. PROPERLY FLUSH AND CLEAN SYSTEM AND REMOVE ALL FOREIGN MATTER PRIOR TO SYSTEM STARTUP. PREPARATORY TO ACCEPTANCE, CLEAN AND REFURBISH EQUIPMENT AND LEAVE IN OPERATING CONDITION, INCLUDING REPLACEMENT OF FILTERS IN PIPING SYSTEMS.

2.4.10. PRESSURE TEST SYSTEM AND MONITOR FOR PRESSURE LOSS FOR A MINIMUM OF 4 HOURS, UNLESS OTHERWISE SPECIFIED.

2.5. HANGERS AND SUPPORTS

2.5.1. UTILIZE PIPE HANGERS AND SUPPORTS CONSTRUCTED OF GALVANIZED STEEL.

2.5.2. INSTALL HANGERS SO THAT RODS ARE VERTICAL. ENSURE LOAD EQUALIZATION WITH ROD ADJUSTMENT.

2.5.3. FOR RISER CLAMPS, PROVIDE GALVANIZED BLACK CARBON STEEL, ULC LISTED OR FM APPROVED WHERE REQUIRED. BOLTS AND NUTS SHALL CONFORM TO ASTM-A307 AND ASTM-A563, RESPECTIVELY.

2.5.4. FOR BASE-MOUNTED EQUIPMENT, PROVIDE CONCRETE HOUSE-KEEPING PADS 4" TALL AND 6" OF SPACE AROUND EQUIPMENT AND CHAMFERED EDGES.

2.5.5. HANGER SPACING

2.5.5.1. PROVIDE HANGERS AT SPACING INDICATED BELOW AND AT EVERY JOINT AND CHANGE OF DIRECTION.

2.5.5.2. PROVIDE HANGERS FOR VARIOUS PIPE SIZES AT THE FOLLOWING SPACING: 1-1/4"ø – 1.8 m, 1-1/2"ø – 2.4 m AND 2"ø – 2.7 m.

2.6. PIPING INSULATION

2.6.1. PROVIDE PIPING INSULATION FOR THE HYDRONIC SYSTEMS AS FOLLOWS:

2.6.1.1. HEATING WATER (HWS/HWR): TYPE 'A', UP TO 1"ø – 1" THICK, 1-1/4"ø AND LARGER – 1-1/2" THICK.
2.6.1.2. CHILLED WATER (CHWS/CHWR): TYPE 'A', UP TO 1"ø – 1" THICK, 1-1/4"ø AND LARGER – 1-1/2" THICK. RECOVER WITH PVC JACKETING AS SPECIFIED BELOW.
2.6.1.3. CONDENSER WATER (INDOOR CWS/CWR): NOT REQUIRED
2.6.1.3. CONDENSER WATER (OUTDOOR, CWS/CWR): TYPE 'A', ALL SIZES – 1" THICK. RECOVER WITH PVC JACKETING AS SPECIFIED BELOW.

2.6.2. TYPE 'A': JOHNS MANVILLE MICRO-LOK FIBRE GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH SELF-ADHESIVE BUTT STRIPS SUPPLIED BY THE INSULATION MANUFACTURER.

2.6.3. WHERE NOTED, RECOVER INSULATION WITH HEAVY-GAUGE UV-RESISTANT PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES.

2.6.4. PROVIDE PRE-FORMED INSULATION FOR FITTINGS AND VALVES.

3. SYSTEM CHEMICAL TREATMENT

3.1. PROVIDE SYSTEM CHEMICAL TREATMENT AFTER THE SYSTEM HAS BEEN CLEANED AND STARTED UP IN ACCORDANCE WITH THE MECHANICAL SPECIFICATIONS. THIS CONTRACTOR SHALL PAY FOR AND CONTRACT THE SERVICES OF THE BASE BUILDING CHEMICAL TREATMENT CONTRACTOR TO CARRY OUT THE CHEMICAL TREATMENT PROCESS.

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL SPECIFICATIONS II

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

DRAWING NO: **M-1.2**

HVAC LEGEND

SYMBOL	DESCRIPTION
	EXISTING DUCTWORK/EQUIPMENT
	EXISTING DUCTWORK/EQUIPMENT TO BE REMOVED
	NEW RIGID DUCTWORK
	EXISTING FLEXIBLE DUCTWORK
	NEW FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK UP
	SUPPLY AIR DUCTWORK DOWN
	RETURN AIR DUCTWORK UP
	RETURN AIR DUCTWORK DOWN
S/A	'SUPPLY AIR'
R/A	'RETURN AIR'
F/D	'FIRE DAMPER'
BD	'BALANCING DAMPER'
BDD	'BACKDRAFT DAMPER'
M/D	'MOTORIZED DAMPER'
	SQUARE SUPPLY AIR DIFFUSER
	SUPPLY AIR GRILLE
	RETURN AIR GRILLE
	SLOT DIFFUSER
T	THERMOSTAT
H	HUMIDISTAT
D	CARBON DIOXIDE SENSOR
CO/D	CARBON MONOXIDE DETECTOR
Z	ZONE SENSOR
$	WALL SWITCH
A–6"ø / 150CFM	DIFF TYPE/SIZE / AIR CAPACITY
TYP.	'TYPICAL'
X–XX	EQUIPMENT TAG
CTE	'CONNECT TO EXISTING'
	FAN–POWERED TERMINAL UNIT
	VAV TERMINAL UNIT
	CABINET EXHAUST FAN
	INLINE EXHAUST FAN
	ELECTRIC DUCT HEATER
	CIRCULAR EXHAUST FAN
	BASEBOARD HEATER
	FORCE FLOW HEATER
	UNIT HEATER
	DUCTWORK WITH ACOUSTIC OR THERMAL INSULATION (SEE SPECS.)
	DUCTWORK WITH ACOUSTIC INSULATION
	DUCTWORK WITH THERMAL INSULATION
	CONTINUATION OF DUCTWORK/PIPING
	EXISTING CONTROL WIRING
	NEW CONTROL WIRING
	SPIN–ON DUCT CONNECTION WITH BALANCING DAMPER
7	DRAWING NOTE
	ROUND SUPPLY AIR DIFFUSER
	LOUVERED FACE SUPPLY/RETURN GRILLE
CAP	CAP ON DUCTWORK
	BRANCH ON DUCTWORK

PIPING LEGEND

SYMBOL	DESCRIPTION
EX.HWS	EXISTING HEATING WATER SUPPLY
EX.HWR	EXISTING HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
EX.CHWS	EXISTING CHILLED WATER SUPPLY
EX.CHWR	EXISTING CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
EX.CWS	EXISTING CONDENSER WATER SUPPLY
EX.CWR	EXISTING CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
REFL	REFRIGERANT LIQUID LINE
REFS	REFRIGERANT SUCTION LINE
	3–PORT CONTROL VALVE
	2–WAY CONTROL VALVE
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
CBV	CIRCUIT BALANCING VALVE
	BALL VALVE
	SAFETY RELIEF VALVE
	STRAINER
	UNION
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
N.O.	'NORMALLY OPEN'
N.C.	'NORMALLY CLOSED'
	PRESSURE GAUGE
	THERMOMETER
	AQUASTAT
PRV	PRESSURE REDUCING VALVE
VB	VACUUM BREAKER
	BACKFLOW PREVENTER
FS ø	FLOW SWITCH
AAV	AUTOMATIC AIR VENT
LWCO	LOW WATER CUT–OFF
	PLUG/COCK VALVE
	BUTTERFLY VALVE
	TEST PORT
	PUMP
CAP	CAP ON PIPING
7	DRAWING NOTE
	ISOLATION VALVE
A / B / C	A – HEATER REFERENCE TAG B – ACTIVE LENGTH (MM) C – HEAT OUTPUT (KW)

PLUMBING LEGEND

SYMBOL	DESCRIPTION
EX.SAN	EXISTING ABOVE GROUND SANITARY DRAINAGE PIPING
EX.SAN	EXISTING UNDERGROUND SANITARY DRAINAGE PIPING
SAN	ABOVE GROUND SANITARY DRAINAGE PIPING
SAN	UNDERGROUND SANITARY DRAINAGE PIPING
EX.STM	EXISTING ABOVE GROUND STORM DRAINAGE PIPING
EX.STM	EXISTING UNDERGROUND STORM DRAINAGE PIPING
STM	ABOVE GROUND STORM DRAINAGE PIPING
STM	UNDERGROUND STORM DRAINAGE PIPING
EX.V	EXISTING ABOVE GROUND VENT PIPING
EX.V	EXISTING UNDERGROUND VENT PIPING
V	ABOVE GROUND VENT PIPING
V	UNDERGROUND VENT PIPING
EX.CD	EXISTING CONDENSATE DRAINAGE PIPING
CD	CONDENSATE DRAINAGE PIPING
	EXISTING DOMESTIC COLD WATER PIPING
	DOMESTIC COLD WATER PIPING
	EXISTING DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER PIPING
	EXISTING DOMESTIC HOT WATER RETURN PIPING
	DOMESTIC HOT WATER RETURN PIPING
EX.G	EXISTING GAS PIPING
G	LOW PRESSURE GAS PIPING
HPG	HIGH PRESSURE GAS PIPING
	EXISTING PIPING/EQUIPMENT TO BE REMOVED
SSSS	HEAT TRACING ON PIPE
	CONTINUATION OF DUCTWORK/PIPING
	GAS COCK VALVE
FD / FFD	FLOOR DRAIN/FUNNEL FLOOR DRAIN
HD	HUB DRAIN
AD	AREA DRAIN
RD	ROOF DRAIN
CB	CATCH BASIN
CO	BURIED CLEANOUT
CO	EXPOSED CLEANOUT
	SANITARY 'P' TRAP
	PIPE UP
	PIPE DOWN
VTR	VENT THROUGH ROOF
CAP	CAP ON PIPING
7	DRAWING NOTE
	ISOLATION VALVE
	PIPING DROPDOWN
M	WATER METER

Giallonardo Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR 30% REVIEW	OCT. 10 2024	RC
2	ISSUED FOR 60% REVIEW	NOV. 14 2024	RC
3	ISSUED FOR PERMIT	DEC. 13 2024	RC
4	ISSUED FOR COORDINATION	FEB. 10 2025	RC
5	ISSUED FOR TENDER	APR. 2 2025	RC

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL LEGEND

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

DRAWING NO: **M-1.3**

HYDRONIC HEATER SCHEDULE

REF.	TYPE	MANU.	HEATER MODEL	CONFIG.	ROWS	ENCLOSURE MODEL	HEATING WATER			RUNOUT SIZE (MM)		TOTAL CAPACITY (KW)	NOMINAL AIR FLOW (L/S)	V/PH/HZ	MOTOR POWER (HP)	MOTOR CURRENT (A)	WEIGHT (KG)	REMARKS
							FLOW RATE (L/S)	EWT (°C)	LWT (°C)	SUPPLY	RETURN							
A	CABINET FORCE FLOW HEATER	SIGMA CORPORATION	SFF02	SURFACE MOUNT	2	W-11	0.139	82.2	71.1	19	19	5.3	94	208/1/60	1/10	1.9	34.0	SURFACE MOUNTED C/W 120V REMOTE MOUNT THERMOSTAT, FRONT TOP SUPPLY AND FRONT BOTTOM RETURN ARRANGEMENT.

NOTES:

1. REFER TO MECHANICAL PLANS AND DETAILS FOR LOCATION AND PIPING CONNECTIONS.
2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.
3. FINISH TO BE CONFIRMED BY ARCHITECT/OWNER

DIFFUSER SCHEDULE

TAG	MAKE/MODEL	FINISH	REMARKS
A	EH PRICE MODEL 80 EGGCRATE RETURN GRILLE	–	1/2"X1/2"X1/2" ALUMINUM GRID CORE, FRAME FOR DRYWALL CEILING/DUCT MOUNTING INSTALLATION C/W OPPOSED BLADE DAMPER. SIZE AS INDICATED ON DRAWINGS.
B	EH PRICE MODEL 520 LOUVERED FACE SUPPLY GRILLE	–	STEEL CONSTRUCTION, 45° DEFLECTION, 3/4" BLADE SPACING, FOR DUCT MOUNTING C/W OPPOSED BLADE DAMPER. SIZE AS INDICATED ON DRAWINGS.
C	EH PRICE MODEL STG1 DOOR GRILLE	–	HEAVY DUTY STEEL CONSTRUCTION, SIGHT-PROOF, WITH CONCEALED MOUNTING OF FLANGE FRAME. SIZE AS SHOWN ON DRAWINGS.

NOTES:

1. SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS.
2. CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER.

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURES	PIPE CONNECTION				
	SPECIFICATION	TRAP	COLD WATER	HOT WATER	DRAIN	VENT
WC1	WALL MOUNTED BARRIER FREE TOILET – FLUSHOMETER – MANUAL AMERICAN STANDARD 3351101.020 TOILET – AFWALL MILLENNIUM FLOWISE, TOILET, WALL-HUNG WITH WALL OUTLET, TOILET OPERATES IN THE RANGE OF 4.2 TO 6.0 LPF (1.1 – 1.6 GPF), WHITE FINISH VITREOUS CHINA, EVERCLEAN ANTIMICROBIAL SURFACE, ELONGATED BOWL, CONCEALED TRAPWAY DESIGN, DIRECT-FED SIPHON JET FLUSH ACTION, 38 MM (1-1/2") TOP SPUD, FLUSH VALVE BY OTHERS, 254 X 305 MM (10" X 12") WATER SURFACE AREA, FULLY-GLAZED 54 MM (2-1/8") TRAPWAY, STATIC LOAD RATING OF 454 KG (1000 LB), CONDENSATION CHANNEL, TOILET SEAT NOT INCLUDED, 356 MM (14") WIDE, 660 MM (26") FROM FINISHED WALL. CENTOCO 500STSCCFE-001 SEAT – FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, HEAVY-DUTY, FOR COMMERCIAL APPLICATIONS, POLYPROPYLENE, TOILET SEAT, LESS SEAT COVER, PLASTIC COMMERCIAL CHECK HINGES, AND STAINLESS STEEL HINGE PIN, SPECIFIED IN WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM, THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL, DIMENSIONS:25 MM (1") HIGH, 473 MM (18-5/8") LONG, 371 MM (14-5/8") WIDE. SLOAN SL-ROYAL 111-YO FLUSH VALVE – ROYAL MANUAL EXPOSED WATER CLOSET FLUSHOMETER, LOW CONSUMPTION 6.0 LPF (1.6 GPF), 38 MM (1-1/2") SPUD COUPLING FOR TOP SPUD TOILET, CONSTRUCTED FROM SEMI-RED BRASS, POLISHED CHROME FINISH, CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM, METAL OSCILLATING HANDLE WITH TRIPLE SEAL HANDLE PACKING, FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, ADJUSTABLE TAILPIECE, 25 MM (1") I.P.S. SCREWDRIVER BAK-CHEK ANGLE CONTROL STOP WITH FREE SPINNING VANDAL-RESISTANT STOP CAP, DUAL-FILTERED FIXED BYPASS, SWEAT SOLDER ADAPTER KIT WITH COVER TUBE, HIGH BACK PRESSURE VACUUM BREAKER, INLET LOCATED RIGHT OF VALVE, 25 MM (1") SUPPLY PIPE, CAST WALL FLANGE WITH SET SCREW, NON-HOLD-OPEN, NO EXTERNAL VOLUME ADJUSTMENT, ANGLE BACK CHECK STOP SEAT BUMPER FOR SEATS WITHOUT COVERS, 103 – 552 KPA (15 – 80 PSI) OPERATING WATER PRESSURE. WATTS ISCA-101-L/R-M11 CARRIER (WHERE APPLICABLE) – CLOSET CARRIER, ADJUSTABLE FOR STANDARD AND WHEELCHAIR HEIGHT, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT CONNECTIONS, NEOPRENE BOWL GASKET, EPOXY COATED CAST IRON, INTEGRAL TEST CAP, CHROME CAP NUTS, PLATED HARDWARE, ADJUSTABLE ABS NIPPLE, TILING FRAME. WATTS ISCA-101-D CARRIER (WHERE APPLICABLE) – HORIZONTAL, CLOSET CARRIER, INDUSTRY STANDARD BACK-TO-BACK HORIZONTAL ADJUSTABLE CLOSET CARRIER, 500 LB (227 KG), ADJUSTABLE FOR STANDARD AND WHEELCHAIR HEIGHT, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT CONNECTIONS, EPOXY COATED CAST IRON, NEOPRENE BOWL GASKET, EPOXY COATED CAST IRON, INTEGRAL TEST CAP, CHROME CAP NUTS, PLATED HARDWARE, ADJUSTABLE ABS NIPPLE. FRANKE COMMERCIAL CM-16104-WM BACKREST – WALL MOUNTING, BACK REST, SOLID CORE PLASTIC LAMINATE PANEL BACK, ANTIQUE WHITE, 305 MM (12") WIDE, 102 MM (4") HIGH, 137 MM (5-3/8"), 18 GAUGE STAINLESS STEEL BAR WITH #4 GLOSS WITH FLANGES AND COVERS, CONCEALED SNAP FLANGES AND MOUNTING HARDWARE INCLUDED, PROVIDE ADEQUATE BACKING IN WALL FOR SUPPORT.	–	25ø	–	75ø	38ø
WC2	WALL MOUNTED TOILET – FLUSHOMETER – MANUAL AMERICAN STANDARD 3351101.020 TOILET – AFWALL MILLENNIUM FLOWISE, TOILET, WALL-HUNG WITH WALL OUTLET, TOILET OPERATES IN THE RANGE OF 4.2 TO 6.0 LPF (1.1 – 1.6 GPF), WHITE FINISH VITREOUS CHINA, EVERCLEAN ANTIMICROBIAL SURFACE, ELONGATED BOWL, CONCEALED TRAPWAY DESIGN, DIRECT-FED SIPHON JET FLUSH ACTION, 38 MM (1-1/2") TOP SPUD, FLUSH VALVE BY OTHERS, 254 X 305 MM (10" X 12") WATER SURFACE AREA, FULLY-GLAZED 54 MM (2-1/8") TRAPWAY, STATIC LOAD RATING OF 454 KG (1000 LB), THIS PRODUCT IS NOT RECOMMENDED FOR BARIATRIC USE, CONDENSATION CHANNEL, TOILET SEAT NOT INCLUDED, 356 MM (14") WIDE, 660 MM (26") FROM FINISHED WALL. CENTOCO 500STSCCFE-001 SEAT – FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, HEAVY-DUTY, FOR COMMERCIAL APPLICATIONS, POLYPROPYLENE, TOILET SEAT, LESS SEAT COVER, PLASTIC COMMERCIAL CHECK HINGES, AND STAINLESS STEEL HINGE PIN, SPECIFIED IN WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM, THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL, DIMENSIONS:25 MM (1") HIGH, 473 MM (18-5/8") LONG, 371 MM (14-5/8") WIDE. SLOAN SL-ROYAL 111-YO FLUSH VALVE – ROYAL MANUAL EXPOSED WATER CLOSET FLUSHOMETER, LOW CONSUMPTION 6.0 LPF (1.6 GPF), 38 MM (1-1/2") SPUD COUPLING FOR TOP SPUD TOILET, CONSTRUCTED FROM SEMI-RED BRASS, POLISHED CHROME FINISH, CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM, METAL OSCILLATING HANDLE WITH TRIPLE SEAL HANDLE PACKING, FLUSH TUBE FOR 292 MM (11-1/2") ROUGH-IN, ADJUSTABLE TAILPIECE, 25 MM (1") I.P.S. SCREWDRIVER BAK-CHEK ANGLE CONTROL STOP WITH FREE SPINNING VANDAL-RESISTANT STOP CAP, DUAL-FILTERED FIXED BYPASS, SWEAT SOLDER ADAPTER KIT WITH COVER TUBE, HIGH BACK PRESSURE VACUUM BREAKER, INLET LOCATED RIGHT OF VALVE, 25 MM (1") SUPPLY PIPE, CAST WALL FLANGE WITH SET SCREW, NON-HOLD-OPEN, NO EXTERNAL VOLUME ADJUSTMENT, ANGLE BACK CHECK STOP SEAT BUMPER FOR SEATS WITHOUT COVERS, 103 – 552 KPA (15 – 80 PSI) OPERATING WATER PRESSURE. WATTS ISCA-101-L/R CARRIER (WHERE APPLICABLE) – CLOSET CARRIER, ADJUSTABLE FOR STANDARD AND WHEELCHAIR HEIGHT, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT CONNECTIONS, EPOXY COATED CAST IRON, NEOPRENE BOWL GASKET, INTEGRAL TEST CAP, CHROME CAP NUTS, PLATED HARDWARE, ADJUSTABLE ABS NIPPLE, MISSION NO HUB SERIES COUPLING – SHIELDED NO-HUB (MJ) COUPLING, FOR NON-PRESSURE GRAVITY FLOW APPLICATIONS ONLY, RECOMMENDED FOR ABOVE GROUND INSTALLATIONS, (2 OR 4) TYPE 301 STAINLESS STEEL WORM DRIVE CLAMPS, TYPE 301 CORRUGATED STAINLESS STEEL SHIELD, ONE-PIECE MOLDED ELASTOMERIC SEALING GASKET. WATTS ISCA-101-D CARRIER (WHERE APPLICABLE) – HORIZONTAL, CLOSET CARRIER, INDUSTRY STANDARD BACK-TO-BACK HORIZONTAL ADJUSTABLE CLOSET CARRIER, 500 LB (227 KG), ADJUSTABLE FOR STANDARD AND WHEELCHAIR HEIGHT, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT CONNECTIONS, EPOXY COATED CAST IRON, NEOPRENE BOWL GASKET, EPOXY COATED CAST IRON, INTEGRAL TEST CAP, CHROME CAP NUTS, PLATED HARDWARE, ADJUSTABLE ABS NIPPLE.	–	25ø	–	75ø	38ø
WC3	FLOOR MOUNTED TOILET WITH REAR OUTLET – TANK TYPE – MANUAL – ELONGATED BOWL AMERICAN STANDARD 2094A137.020 TOILET – YORKVILLE, TANK TYPE TOILET, FLOOR MOUNTED WITH REAR OUTLET, HIGH EFFICIENCY HET 4.8 LPF (1.28 GPF), VITREOUS CHINA, WHITE FINISH, EVERCLEAN ANTIMICROBIAL SURFACE, ELONGATED BOWL, RIGHT HEIGHT RIM AT 419 MM (16-1/2"), VORMAX POWERFUL JET FLUSH ACTION, MANUAL, POLISHED CHROME LEFT-HAND TRIP LEVER, TANK NOT LINED, WITHOUT TANK COVER LOCKING DEVICE, GRAVITY-ASSISTED FLUSH, DUAL INJECTION FLUSH VALVES, TANK COUPLING COMPONENTS, 52 MM (2-1/16") TRAPWAY, CLEANCURVE RIM, TOILET SEAT NOT INCLUDED, FOUR (4) COLOUR-MATCHED BOLT CAPS, 441 MM (17-3/8") WIDE, 765 MM (30-1/8") FROM FINISHED WALL, 772 MM (30-3/8") HIGH. CENTOCO 500STSCCFE-001 SEAT – FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, HEAVY-DUTY, FOR COMMERCIAL APPLICATIONS, POLYPROPYLENE, TOILET SEAT, LESS SEAT COVER, PLASTIC COMMERCIAL CHECK HINGES, AND STAINLESS STEEL HINGE PIN, SPECIFIED IN WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM, THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL, DIMENSIONS:25 MM (1") HIGH, 473 MM (18-5/8") LONG, 371 MM (14-5/8") WIDE.	–	12ø	–	75ø	38ø
U1	WALL MOUNT URINAL – FLUSH VALVE – AUTOMATIC AMERICAN STANDARD 6590001.020 7301242-100-0020A URINAL – WASHBROOK FLOWISE, VITREOUS CHINA, WHITE FINISH, WALL-HUNG, URINAL OPERATES IN THE RANGE OF 0.5 TO 3.8 LPF (0.125 – 1.0 GPF), POWERFUL WASHDOWN FLUSH ACTION, 51 MM (2") NPT FEMALE OUTLET, CHROME-PLATED NON-METALLIC STRAINER, 19 MM (3/4") SPUD CONNECTION, TOP SPUD. WATTS CA-311 CARRIER – EPOXY COATED, URINAL CARRIER, FLOOR MOUNTED URINAL CARRIER, WALL PLATE, WELDED FEET, UNIVERSAL STEEL HANGAR SUPPORT PLATE, HEAVY GAUGE STEEL OFFSET UPRIGHTS, INTEGRAL MOUNTING BRACKETS, PLATED HARDWARE. WATTS CO-380-RD CLEANOUT – NON-ADJUSTABLE WALL CLEANOUT, CAST IRON, NO-HUB OUTLET, ROUND STAINLESS STEEL ACCESS COVER REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG FOR URINAL, MISSION NO HUB SERIES COUPLING – SHIELDED NO-HUB (MJ) COUPLING. PROVIDE NEW P-TRAP AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.	–	19ø	–	50ø	38ø

NOTES:

1. REFER TO INTERIOR DESIGNER'S DRAWINGS FOR SPECIFICATIONS OF PLUMBING FIXTURES NOT LISTED ON MECHANICAL DRAWINGS.
2. PROVIDE FLEXIBLE RISERS FOR ALL FIXTURES WHERE APPLICABLE.
3. FLANGE REPAIR, WAX RINGS AND FLANGE EXTENSIONS SHALL BE INCLUDED IN BASE CONTRACT.

PLUMBING FIXTURE SCHEDULE (CONT.)

TAG	FIXTURES	PIPE CONNECTION				
	SPECIFICATION	TRAP	COLD WATER	HOT WATER	DRAIN	VENT
WF1	WASHFOUNTAIN – 3 USER – AUTOMATIC BRADLEY MF2933 WASHFOUNTAIN – MULTI-LAV, 26" BOWL, FLOOR MOUNTED, 3 USER, TERREON CONSTRUCTION WITH MOONSTONE FINISH, STANDARD HEIGHT, INFRARED, LOW-VOLTAGE PLUG-IN ADAPTER, NAVIGATOR THERMOSTATIC MIXING VALVE ASSEMBLY, NO SOAP DISPENSER. PROVIDE P-TRAP, HEAVY DUTY LOOSE KEY ANGLE STOPS, FLEXIBLE RISERS AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.	75ø	12ø	12ø	75ø	38ø
L1	WALL MOUNT BARRIER FREE LAVATORY – SINGLE HANDLE FAUCET – MANUAL AMERICAN STANDARD 9134001EC.020 0059020EC BASIN – DECORUM, WALL-HUNG LAVATORY, VITREOUS CHINA, EVERCLEAN ANTIMICROBIAL SURFACE, WHITE FINISH, SINGLE HOLE CENTERSET, REAR OVERFLOW, FOR WALL HANGER (INCLUDED) OR CONCEALED ARMS (BY OTHERS), VITREOUS CHINA SHROUD/KNEE CONTACT GUARD WITH EVERCLEAN (0059020EC), THE ACCESSORIES WILL NOT FIT UNDER THE SHROUD AND WILL NEED TO BE INSTALLED OUTSIDE THE SHROUD, OVERALL DIMENSIONS: 533 MM (21") LONG, 514 MM (20-1/4") WIDE, 181 MM (7-1/8") HIGH, BOWL DIMENSIONS: 381 MM (15") LONG, 370 MM (14-9/16") WIDE, 127 MM (5") DEEP. AMERICAN STANDARD 7075104.002 FAUCET – COLONY, COUNTER MOUNTED, MANUAL, SINGLE HANDLE, LAVATORY FAUCET, POLISHED CHROME FINISH, SINGLE HOLE CENTERSET, METAL BODY, 610 MM (24") COLOUR-CODED BRAIDED FLEXIBLE SUPPLY HOSES WITH 10 MM (3/8") COMPRESSION CONNECTIONS, CERAMIC DISC CARTRIDGE, 4.5 LPM (1.2 GPM) MAXIMUM FLOWRATE, PRESSURE COMPENSATING AERATOR, FIXED MID-ARC SPOUT, 111 MM (4-3/8") SPOUT REACH, 157 MM (6-3/16") HIGH, LEVER HANDLE, LESS DRAIN, LESS POP-UP HOLE & ROD. LAWLER TMM-1070-87500 MIXING VALVE – MECHANICAL MIXING VALVE, 1.8 LPM (0.5 GPM) TEMPERED FLOW RATE @ 5 PSI PRESSURE DROP, 8 LPM (2.1 GPM) FLOWRATE @ 45 PSI, COMPRESSION FITTING. WATTS WCA-411-CA-481 CARRIER – WCA-411/WCA-411-WC, LAVATORY CARRIER, SINGLE FLOOR-MOUNTED LAVATORY CARRIER WITH CONCEALED ARMS, FOR CONCEALED ARM CARRIER, ADJUSTABLE ARMS, EPOXY COATED CAST IRON, INTEGRAL WELDED FEET, UPPER TIE ROD, HEAVY GAUGE STEEL OFFSET UPRIGHTS, BASIN LOCKING DEVICE, PLATED HARDWARE, LEVELING SCREWS, WALL MOUNTED STEEL SUPPORT PLATE WITH PLATED HARDWARE. PROVIDE OFFSET FIXTURE DRAIN AND P-TRAP, HEAVY DUTY LOOSE KEY ANGLE STOPS, FLEXIBLE RISERS AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.	32ø	12ø	12ø	32ø	32ø
SH1	COMPLETE SHOWER TRIM – HAND SHOWER – ADJUSTABLE HEIGHT AND FLOW CHICAGO FAUCETS SH-PB1-13-044 COMPLETE SHOWER TRIM – POLISHED CHROME FINISH, PRESSURE BALANCING TUB AND SHOWER SYSTEM WITH SHOWER HEAD, HAND SPRAY, AND VALVE TRIM OPTIONS, 5.7 LPM (1.5 GPM) MAXIMUM FLOWRATE @ 80 PSI, ADJUSTABLE SHOWER HEAD INCLUDES ARM AND WALL FLANGE, WITH HAND SHOWER, 5.7 LPM (1.5 GPM) FLOWRATE, 69" (1753 MM) LONG STAINLESS STEEL HOSE, HAND SPRAY WITH PAUSE CONTROL, WALL ELBOW, IN-LINE VACUUM BREAKER, WALL MOUNTED SPRAY HOLDER, COLD TO HOT CYCLE, WALL MOUNTED, ROUND WALL PLATE INCLUDES EMBOSSED AND COLOUR-CODED TEMPERATURE INDEX, 171 MM (6-3/4") TRIM SIZE, LEVER HANDLE, PRESSURE BALANCING VALVE, INTEGRAL SERVICE STOPS WITH CHECKS TO PREVENT CROSS-FLOW, 36" WALL-MOUNTED ADA GRAB BAR WITH HAND SPRAY HOLDER, DIVERTER VALVE WITH INDEXED WALL FLANGE, PRESSURE BALANCING VALVE CARTRIDGE, 13 MM (1/2") NOMINAL Ø COPPER SWEAT INLET, 13 MM (1/2") NOMINAL Ø COPPER SWEAT OUTLET, 138 – 862 KPA (20 – 125 PSI) OPERATING PRESSURE RANGE, 4 °C – 60 °C (40 °F – 140 °F) OPERATING TEMPERATURE RANGE, BARRIER-FREE/ADA, ASME A112.18.1/CSA B125.1, ANSI/ICC A117.1, ASSE 1016/ASME A112.1016/CSA B125.16, CUPC CERTIFIED CHICAGO FAUCETS 624-LCP HAND SHOWER – HAND SPRAY WITH PAUSE CONTROL, 1.5 GPM (5.5 LPM) FLOWRATE, 13 MM (1/2") Ø NPT FEMALE THREAD INLET, 80 PSI MAX OPERATING PRESSURE, A112.18.1, ASME CODES, CSA B125.16, WATERSENSE LISTED CHICAGO FAUCETS 9800-036CP SLIDE BAR – STAINLESS STEEL CONSTRUCTION, GRAB BAR WITH HAND SPRAY HOLDER, POLISHED CHROME FINISH, 38 MM (1-1/2") Ø BAR DIAMETER, 914 MM (36") LONG SLIDEBAR, LOCKING WALL FLANGE, ADA, ICC A117.1;ASME A112.18.1;CSA B125.1, WOOD SCREWS AND ANCHORS CHICAGO FAUCETS 622-001CP WALL SUPPLY – WALL SUPPLY, POLISHED CHROME FINISH CHICAGO FAUCETS 24-69NF SHOWER HOSE – FLEXIBLE SHOWER HOSE, 69" (1801 MM) LONG STAINLESS STEEL HOSE WITH PAUSE CONTROL, 13 MM (1/2") Ø NPSM FEMALE INLET, 13 MM (1/2") Ø NPSM MALE OUTLET, A112.18.1, ASME CODES, CSA B125.16 CHICAGO FAUCETS E24JKCP VACUUM BREAKER – VACUUM BREAKER, FOR INLINE WITH 13 MM (1/2") NPSM FEMALE INLET/NPSM MALE OUTLET SIZE, 140 °F MAX TEMPERATURE, 120 PSI MAX OPERATING PRESSURE, COMPLIANCES AND CERTIFICATIONS: ASSE 1014 COMPLIANT. CHICAGO FAUCETS 763-CP DIVERTER VALVE TRIM – SHOWER DIVERTER VALVE WITH TRIM, POLISHED CHROME FINISH, THREE POSITION FOUR-PORT DIVERTER VALVE, 13 MM (1/2") Ø NPT MALE THREAD INLET OR NOMINAL COPPER SWEAT, 13 MM (1/2") Ø NPT MALE THREAD OUTLET OR NOMINAL COPPER OUTLET, LEVER HANDLE, 138 – 862 KPA (20 – 125 PSI) OPERATING PRESSURE RANGE, ADA COMPLIANT, ICC A117.1 ASME A112.18.1 CSA B125.1, INDEXED SLIP FLANGE	–	12ø	12ø	–	–
SD	SHOWER DRAIN WATTS FD-102NH-C-A5-1 FLOOR DRAIN – EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE ROUND 6 MM (1/4") THICK TOP, 51 MM (2") PIPE SIZE, NO-HUB OUTLET, 127 MM (5") DIAMETER NICKEL BRONZE STRAINER.	50ø	–	–	50ø	38ø
TSP	TRAP SEAL PRIMING ASSEMBLY PPP PRO1-500 TRAP PRIMER – FLOW ACTIVATED TRAP PRIMER, LEAD FREE BRASS BODY, 0.01 LPM (0.25 GPM), 1/2" FNPT (12 MM) INLET, 1/2" FIP (12 MM) OUTLET, NEOPERL CHECK VALVE, GREY PVC CHECK VALVE ADAPTER, STAINLESS STEEL SCREEN, C69300 LEAD FREEECO BRASS, 138 – 552 KPA (20 – 80 PSI) OPERATING WATER PRESSURE, NITRILE O-RING. QUANTITY OF DRAINS TO BE COORDINATED BY CONTRACTOR ON SITE. WALL BOX TO BE SURFACE MOUNT OR RECESSED AS INDICATED ON DRAWINGS.	–	19ø	–	–	–
FD	FLOOR DRAIN WATTS FD-100NH-C-A5-1 FLOOR DRAIN – EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE ROUND 6 MM (1/4") THICK TOP, NO-HUB OUTLET, 127 MM (5") DIAMETER NICKEL BRONZE STRAINER, ANCHOR FLANGE, TRAP PRIMER TAPPING, REVERSIBLE MEMBRANE CLAMP, COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, 52 CM^2 (8 SQ. IN) FREE AREA.	75ø	–	–	75ø	38ø
WCO	WALL CLEANOUT – WALL ACCESS WATTS CO-380-RD CLEANOUT – NON-ADJUSTABLE WALL CLEANOUT, CAST IRON, NO-HUB OUTLET, ROUND STAINLESS STEEL ACCESS COVER REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG FOR URINAL	–	–	–	100ø	–

NOTES:

1. REFER TO INTERIOR DESIGNER'S DRAWINGS FOR SPECIFICATIONS OF PLUMBING FIXTURES NOT LISTED ON MECHANICAL DRAWINGS.
2. PROVIDE FLEXIBLE RISERS FOR ALL FIXTURES WHERE APPLICABLE.
3. FLANGE REPAIR, WAX RINGS AND FLANGE EXTENSIONS SHALL BE INCLUDED IN BASE CONTRACT.

ELECTRIC HEATER SCHEDULE

TAG	MANU.	MODEL	kW	TYPE	V/PH/HZ	COLOUR	WEIGHT (LBS.)	REMARKS
BBH-1	STELPRO	B1001W	1.00	SURFACE MOUNTED BASEBOARD HEATER	120/1/60	–	5.1	SURFACE MOUNTED BASEBOARD HEATER C/W INTEGRAL TAMPERPROOF THERMOSTAT. FINISH TO BE CONFIRMED BY ARCHITECT/CLIENT.

NOTES:

1. ELECTRICAL HEATERS TO BE SUPPLIED BY DIV.23 AND INSTALLED BY DIV.26.
2. CONFIRM ALL COLOUR FINISHES WITH ARCHITECT/INTERIOR DESIGNER.

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL SCHEDULES

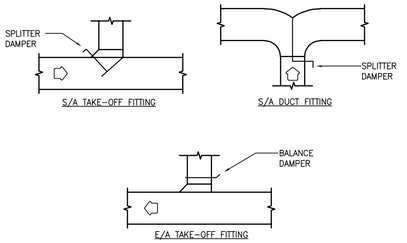
BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

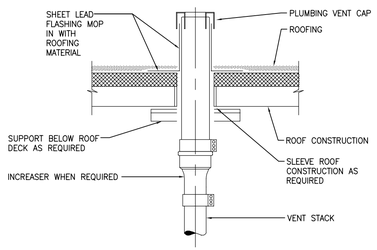
DESIGN BY: JH	DOC. CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

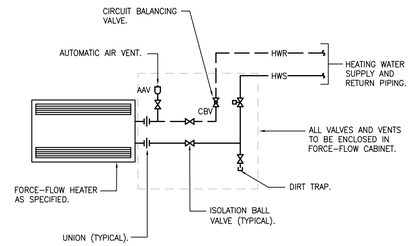
DRAWING NO: **M-1.4**



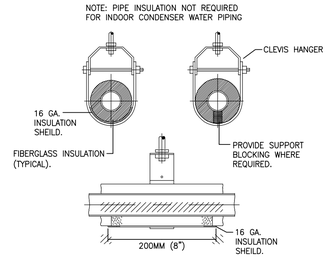
1 M-1.5 **DUCTWORK FITTINGS DETAIL**
NTS



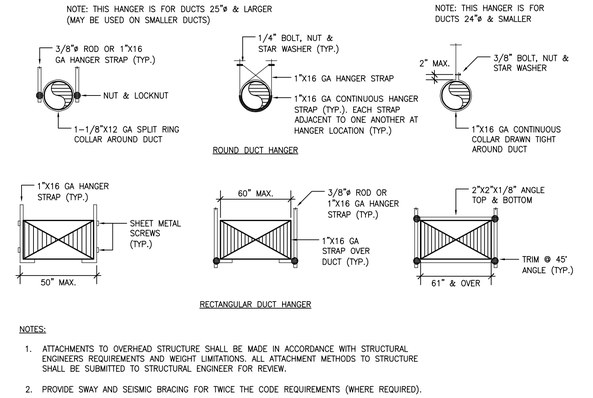
2 M-1.5 **PLUMBING VENT THROUGH ROOF DETAIL**
NTS



3 M-1.5 **HYDRONIC FORCE FLOW HEATER PIPING DETAIL**
NTS



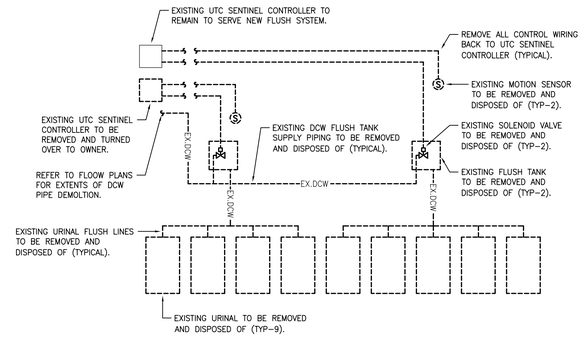
4 M-1.5 **PIPE HANGER DETAIL**
NTS



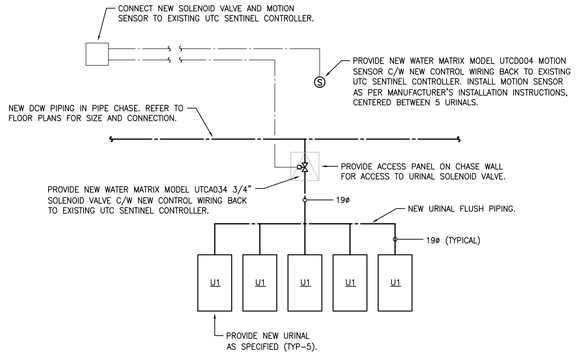
NOTES:

1. ATTACHMENTS TO OVERHEAD STRUCTURE SHALL BE MADE IN ACCORDANCE WITH STRUCTURAL ENGINEERS REQUIREMENTS AND WEIGHT LIMITATIONS. ALL ATTACHMENT METHODS TO STRUCTURE SHALL BE SUBMITTED TO STRUCTURAL ENGINEER FOR REVIEW.
2. PROVIDE SWAY AND SEISMIC BRACING FOR TWICE THE CODE REQUIREMENTS (WHERE REQUIRED).

5 M-1.5 **DUCT HANGERS DETAIL**
NTS



6 M-1.5 **URINAL FLUSH SYSTEM DEMOLITION**
NTS



7 M-1.5 **URINAL FLUSH SYSTEM NEW INSTALLATION**
NTS

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
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PROJECT:

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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

MECHANICAL DETAILS

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcneng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
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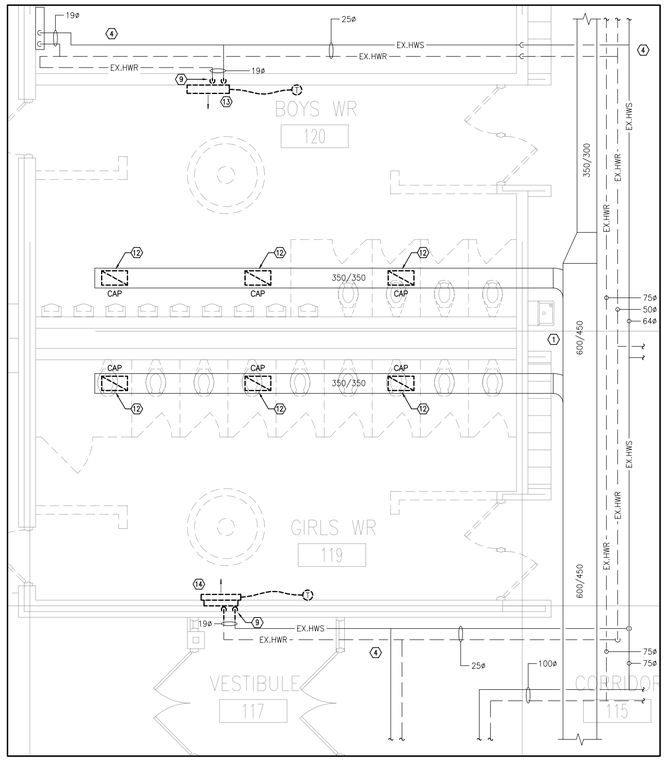
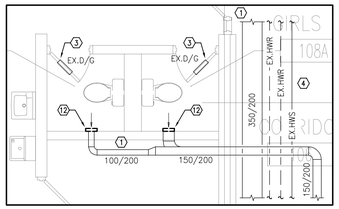
FILE:	

PROJECT NO: **24-153**

DRAWING NO: **M-1.5**



1 M-2.1 **PLAN A DEMO**
1:50



2 M-2.1 **PLAN B DEMO**
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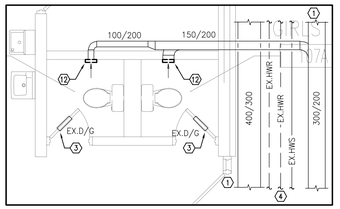
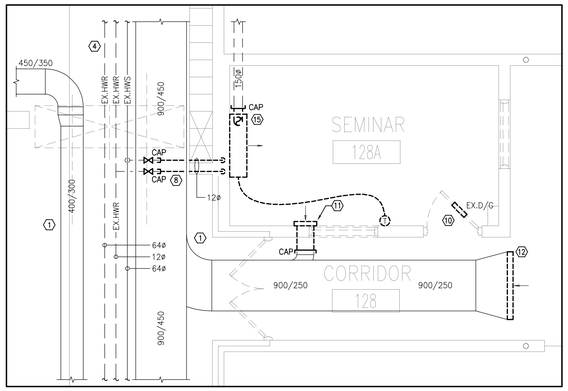
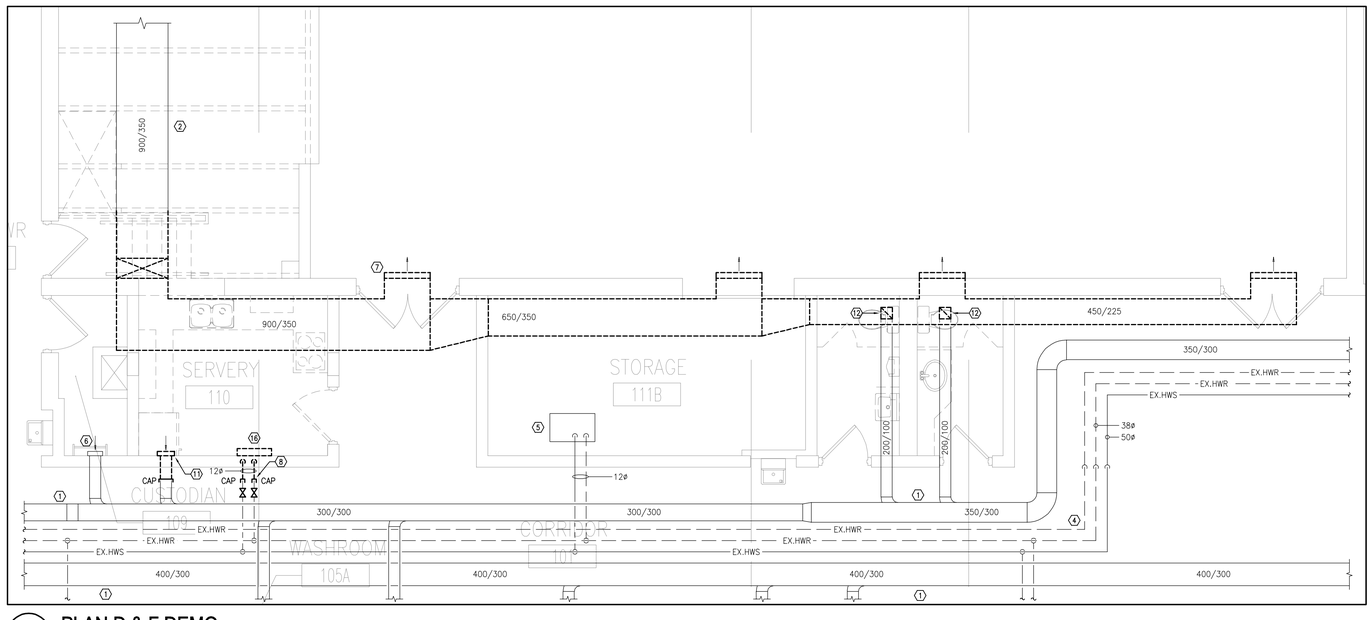


3 M-2.1 **PLAN C DEMO**
1:50



4 M-2.1 **PLAN E DEMO**
1:50



5 M-2.1 **PLAN D & F DEMO**
1:50

HVAC NOTES

1. EXISTING MAIN R/A DUCTWORK TO REMAIN (TYPICAL).
2. EXISTING MAIN S/A DUCTWORK TO REMAIN (TYPICAL).
3. EXISTING DOOR GRILLE TO REMAIN (TYPICAL).
4. EXISTING HWS/HWR PIPING TO REMAIN.
5. EXISTING CEILING RADIANT PANEL TO REMAIN.
6. EXISTING R/A GRILLE TO REMAIN.
7. EXISTING S/A DUCTWORK AND ASSOCIATED GRILLES SERVING GYMNASIUM TO BE REMOVED AND DISPOSED OF BACK TO WHERE INDICATED.
8. EXISTING HWS/HWR PIPING TO BE REMOVED AND DISPOSED OF BACK TO WHERE SHOWN. VALVE AND CAP WHERE INDICATED.
9. REMOVE HWS/HWR PIPING BACK TO WHERE SHOWN. PREPARE CONNECTION FOR NEW PIPING.
10. EXISTING DOOR GRILLE TO BE REMOVED AND DISPOSED OF.
11. EXISTING R/A GRILLE AND ASSOCIATED DUCTWORK TO BE REMOVED AND DISPOSED OF. CAP WHERE INDICATED.
12. EXISTING R/A GRILLE TO BE REMOVED AND DISPOSED OF. PROVIDE BLANK-OFF FOR ALL REMOVED GRILLES (TYPICAL).
13. EXISTING SURFACE MOUNT CABINET UNIT HEATER AND ASSOCIATED THERMOSTAT, CONTROLS, VALVES, ETC. TO BE REMOVED AND DISPOSED OF.
14. EXISTING RECESSED CABINET UNIT HEATER AND ASSOCIATED THERMOSTAT, CONTROLS, VALVES, ETC. TO BE REMOVED AND DISPOSED OF. MAKE GOOD WALL OPENING TO BASE BUILDING STANDARDS.
15. EXISTING INDUCTION UNIT AND ASSOCIATED THERMOSTAT, CONTROLS, VALVES, ETC. TO BE REMOVED AND DISPOSED OF. CAP EXISTING F/A DUCTWORK BELOW SLAB.
16. EXISTING FIN TUBE RADIATOR AND ASSOCIATED CONTROLS, VALVES, ETC. TO BE REMOVED AND DISPOSED OF.

GENERAL HVAC NOTES

1. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
2. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL DEMOLITION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
3. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
4. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
5. CONTRACTOR SHALL INCLUDE FOR PIPE FREEZING TO FACILITATE DEMOLITION OF EXISTING AND INSTALLATION OF NEW HYDRONIC HEATERS.

HVAC AIR AUDIT

1. CONTRACTOR SHALL PERFORM AIR AUDIT FOR EXISTING GYMANSIUM AIR HANDLING SYSTEM AND SANITARY EXHAUST SYSTEM. PROVIDE REPORT TO ENGINEER AND OWNER FOR REVIEW PRIOR TO START OF CONSTRUCTION. AUDIT SHALL INCLUDE;
   - AIR FLOW MEASUREMENTS AT ALL EXISTING GRILLES AND DIFFUSERS.
   - AIRFLOW MEASUREMENTS AT AIR HANDLING UNIT/EXHAUST FAN.
   - CONDITION ASSESMENT OF EXISTING AIR HANDLING UNIT/EXHAUST FAN AND ANY RECOMMENDATIONS AS RESULT OF CONDITION ASSESSMENT.
2. AIR AUDIT SHALL BE CONDUCTED BY LICENSED NEBB AIR BALANCING CONTRACTOR.

Giallonardo — Engineering Inc.
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L4L 4Y7
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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

FLOOR PLAN - HVAC DEMOLITION

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
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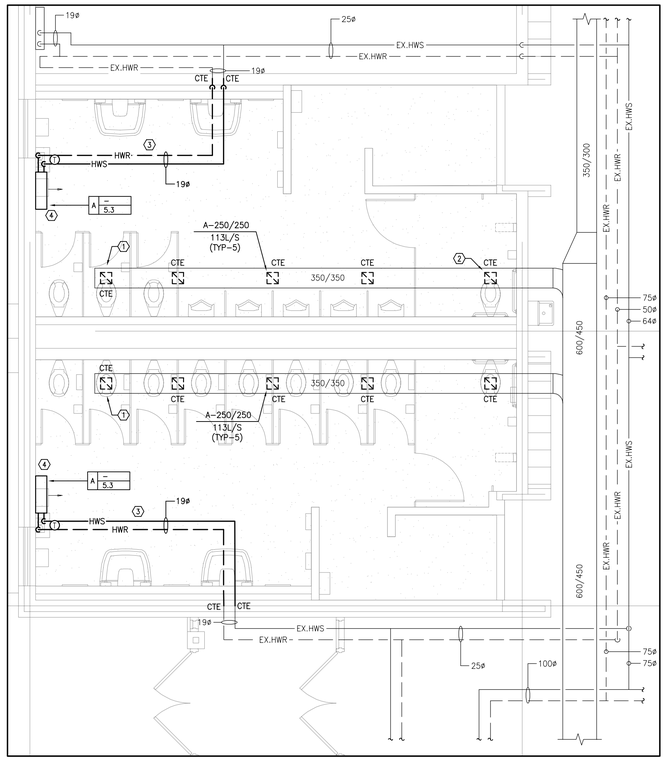
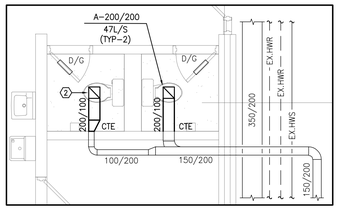
PROJECT NO: **24-153**

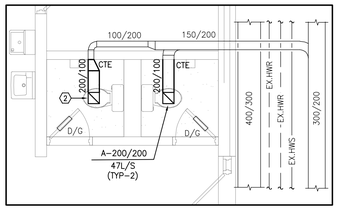
DRAWING NO: **M-2.1**



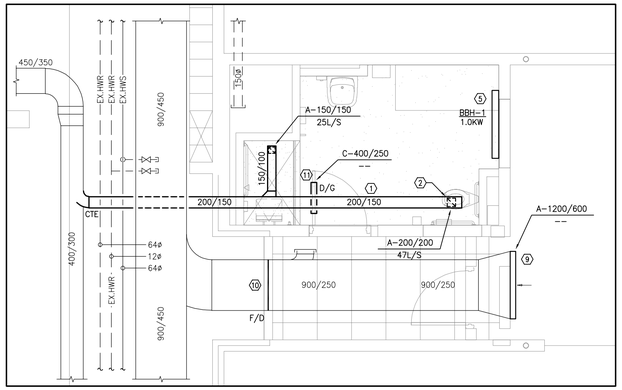
1 M-2.2 **PLAN A NEW**
1:50



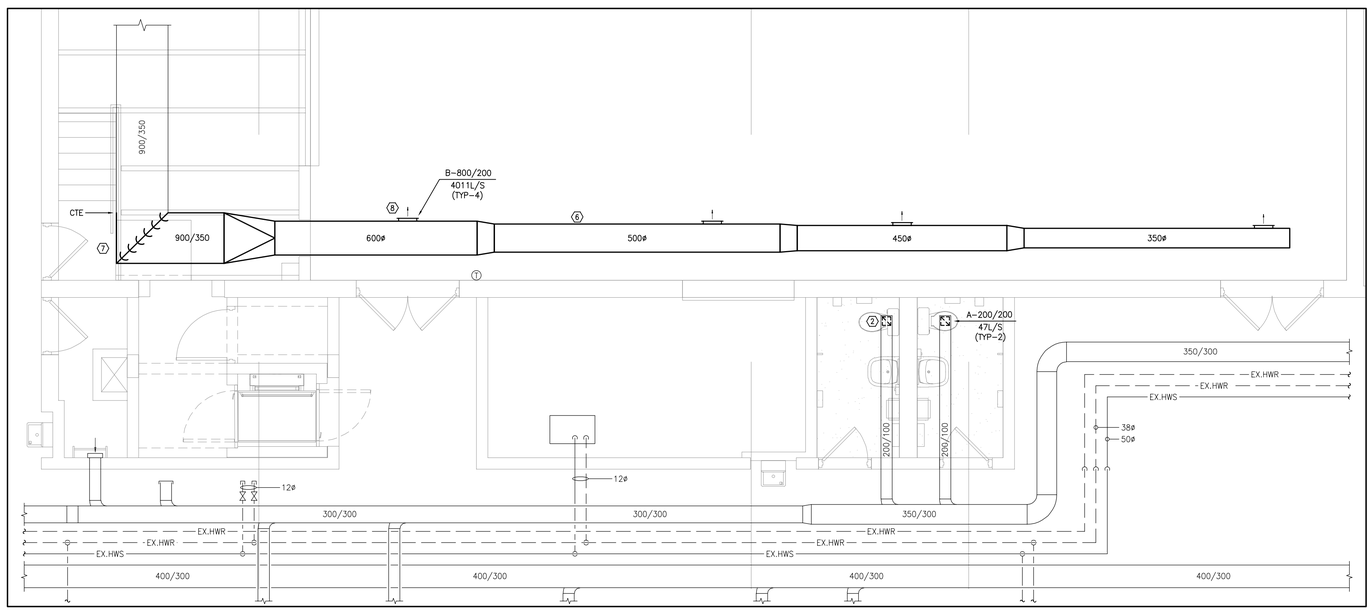
2 M-2.2 **PLAN B NEW**
1:50



3 M-2.2 **PLAN C NEW**
1:50



4 M-2.2 **PLAN E NEW**
1:50



5 M-2.2 **PLAN D & F NEW**
1:50

HVAC NOTES

1. PROVIDE NEW EXHAUST DUCTWORK IN CEILING SPACE. CONNECT TO EXISTING WHERE SHOWN (TYPICAL).
2. PROVIDE NEW EXHAUST DUCTWORK AND ASSOCIATED EXHAUST GRILLES AS SPECIFIED AT NEW CEILING LEVEL. CONNECT TO EXISTING EXHAUST MAIN WHERE SHOWN (TYPICAL).
3. PROVIDE NEW HWS/HWR PIPING ABOVE CEILING C/W ACCESS PANEL TO PROVIDE ADEQUATE ACCESS TO VALVES. CONNECT TO EXISTING WHERE SHOWN (TYPICAL).
4. PROVIDE NEW CABINET FORCE FLOW HEATER AS SPECIFIED (TYPICAL).
5. PROVIDE NEW ELECTRIC BASEBOARD HEATER AS SPECIFIED.
6. PROVIDE NEW ROUND S/A DUCTWORK TO SERVE GYMNASIUM. CONTRACTOR TO DEGREASE AND PAINT ALL NEW DUCTWORK. PAINT FINISH TO BE CONFIRMED BY ARCHITECT/INTERIOR DESIGNER.
7. PROVIDE NEW RECTANGULAR S/A DUCTWORK AT HIGH LEVEL AND CONNECT TO EXISTING WHERE SHOWN. PROVIDE TURNING VANES ON 90 DEGREE ELBOW. CONTRACTOR TO DEGREASE AND PAINT ALL NEW DUCTWORK. PAINT FINISH TO BE CONFIRMED BY ARCHITECT/INTERIOR DESIGNER.
8. PROVIDE NEW S/A GRILLE AS SPECIFIED (TYP-4).
9. PROVIDE NEW R/A GRILLE AS SPECIFIED IN NEW DRYWALL BULKHEAD. CONNECT TO EXISTING RETURN DUCTWORK.
10. PROVIDE NEW FIRE DAMPER AND SLEEVE IN RATED PARTITION. REMOVE SECTION OF DUCTWORK AS REQUIRED TO FACILITATE INSTALLATION OF NEW FIRE DAMPER. RECONNECT SLEEVE TO EXISTING DUCTWORK AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE FIRE DAMPER ACCESS DOOR IN ACCORDANCE WITH NFPA 80.
11. PROVIDE NEW DOOR GRILLE AS SPECIFIED.

GENERAL HVAC NOTES

1. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
2. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
3. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
4. CONTRACTOR SHALL INCLUDE FOR PIPE FREEZING TO FACILITATE DEMOLITION OF EXISTING AND INSTALLATION OF NEW HYDRONIC HEATERS.

HVAC AIR AUDIT

1. CONTRACTOR SHALL PERFORM AIR AUDIT FOR EXISTING GYMANSIUM AIR HANDLING SYSTEM AND SANITARY EXHAUST SYSTEM. PROVIDE REPORT TO ENGINEER AND OWNER FOR REVIEW PRIOR TO START OF CONSTRUCTION. AUDIT SHALL INCLUDE;
   - AIR FLOW MEASUREMENTS AT ALL EXISTING GRILLES AND DIFFUSERS.
   - AIRFLOW MEASUREMENTS AT AIR HANDLING UNIT/EXHAUST FAN.
   - CONDITION ASSESMENT OF EXISTING AIR HANDLING UNIT/EXHAUST FAN AND ANY RECOMMENDATIONS AS RESULT OF CONDITION ASSESSMENT.
2. AIR AUDIT SHALL BE CONDUCTED BY LICENSED NEBB AIR BALANCING CONTRACTOR.

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DRAWING:

FLOOR PLAN - HVAC NEW

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
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LICENSED PROFESSIONAL ENGINEER
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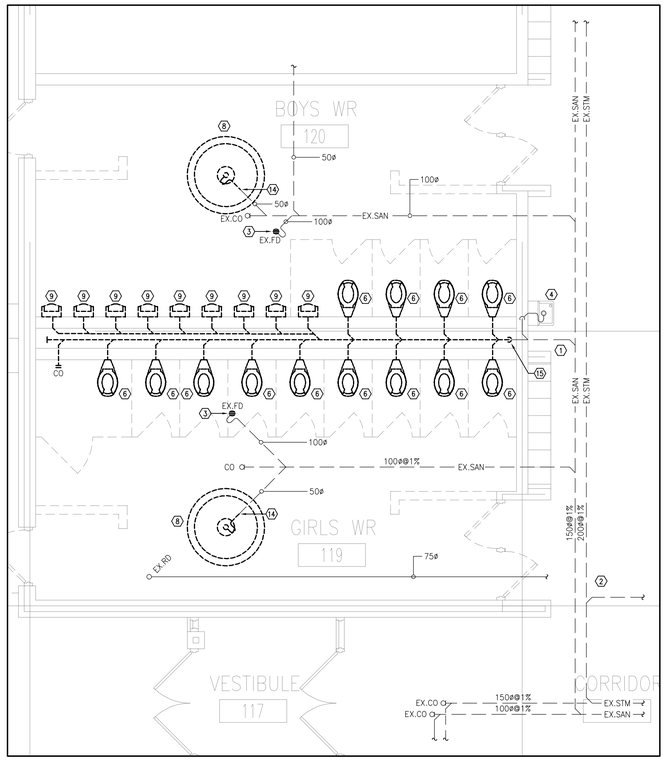
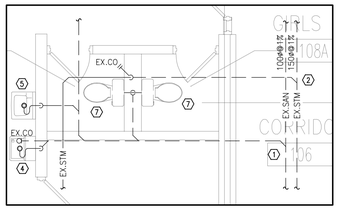
FILE:	

PROJECT NO: **24-153**

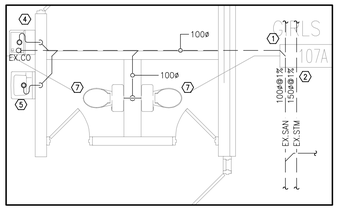
DRAWING NO: **M-2.2**



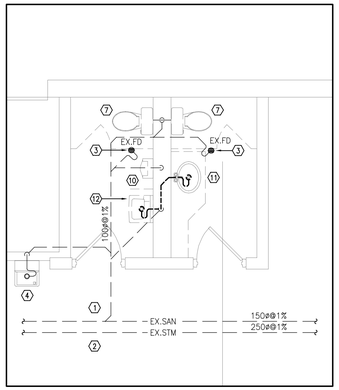
1 M-3.1 **PLAN A DEMO**
1:50



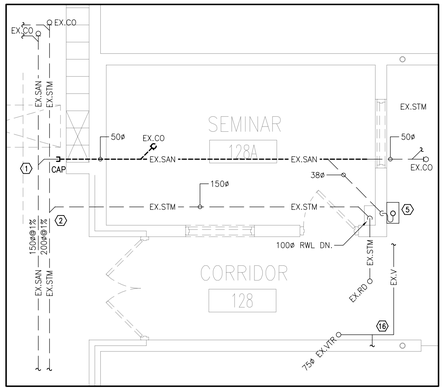
2 M-3.1 **PLAN B DEMO**
1:50



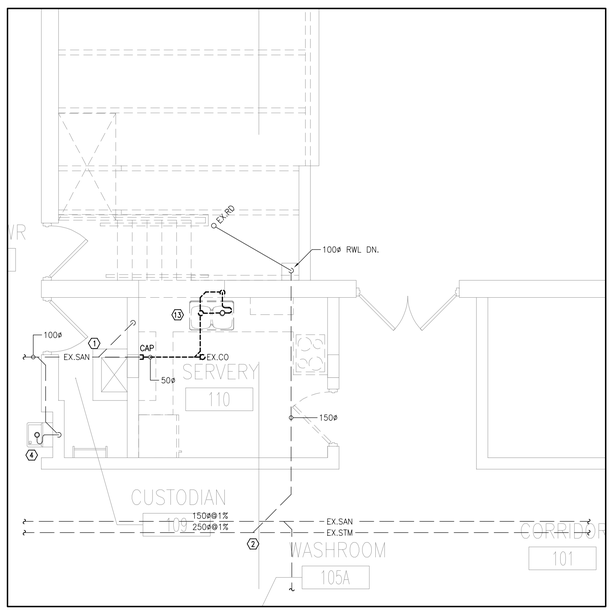
3 M-3.1 **PLAN C DEMO**
1:50



4 M-3.1 **PLAN D DEMO**
1:50



5 M-3.1 **PLAN E DEMO**
1:50



6 M-3.1 **PLAN F DEMO**
1:50

DRAINAGE DRAWING NOTES

1. APPROXIMATE LOCATION OF EXISTING UNDERGROUND SANITARY DRAINAGE PIPING. CONTRACTOR TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. INCLUDE FOR SCOPING AND LOCATING SERVICES AS REQUIRED. PROVIDE A DRAWING INDICATING THE ROUTING, DIRECTION AND INVERTS OF EXISTING UNDERGROUND PIPING TO ENGINEER FOR REVIEW (TYPICAL).
2. EXISTING STORM DRAINAGE PIPING AND ROOF DRAINS TO REMAIN (TYPICAL).
3. EXISTING FLOOR DRAIN TO REMAIN (TYPICAL).
4. EXISTING DRINKING FOUNTAIN TO REMAIN (TYPICAL).
5. EXISTING LAVATORY TO REMAIN (TYPICAL).
6. EXISTING FLUSH VALVE WALL-MOUNTED WATER CLOSET, CARRIER, ETC. TO BE REMOVED AND DISPOSED OF (TYPICAL).
7. EXISTING TANK TYPE WALL-MOUNTED WATER CLOSET, CARRIER, FLEXIBLE RISERS, ETC. TO BE REMOVED AND DISPOSED OF (TYPICAL).
8. EXISTING WASH FOUNTAIN TO BE REMOVED AND DISPOSED OF (TYPICAL).
9. EXISTING URINAL, CARRIER, ASSOCIATED SUPPLY TANK, ETC. TO BE REMOVED AND DISPOSED OF (TYPICAL).
10. EXISTING FLUSH VALVE URINAL, CARRIER AND ASSOCIATED ACCESSORIES TO BE REMOVED AND DISPOSED OF. CAP EXISTING SANITARY DRAINAGE PIPING IN WALL AT LOW LEVEL. MAKE GOOD WALL OPENING TO BASE BUILDING STANDARDS.
11. EXISTING COUNTER-MOUNT LAVATORY, ASSOCIATED P-TRAP, FLEXIBLE RISERS, MOUNTING ACCESSORIES, ETC. TO BE REMOVED AND DISPOSED OF. PREPARE ROUGH-INS TO ACCEPT INSTALLATION OF NEW LAVATORY. REFER TO NEW DRAWINGS.
12. EXISTING WALL-MOUNT LAVATORY, CARRIER, ASSOCIATED P-TRAP, FLEXIBLE RISERS, MOUNTING ACCESSORIES, ETC. TO BE REMOVED AND DISPOSED OF. PREPARE ROUGH-INS TO ACCEPT INSTALLATION OF NEW LAVATORY. REFER TO NEW DRAWINGS.
13. EXISTING KITCHEN SINK, P-TRAP, FLEXIBLE RISERS, MOUNTING ACCESSORIES, ETC. TO BE REMOVED AND DISPOSED OF. EXISTING SANITARY PIPING TO BE CAPPED BELOW SLAB.
14. EXISTING UNDERGROUND SANITARY DRAINAGE PIPING TO BE REMOVED AND DISPOSED OF. PREPARE TRENCH FOR INSTALLATION OF NEW PIPING. CAP WHERE INDICATED (TYPICAL).
15. EXISTING SANITARY DRAINAGE PIPING SERVING PLUMBING FIXTURES IN WALL CHASE TO BE REMOVED AND DISPOSED OF (TYPICAL).
16. EXISTING VENT PIPING TO REMAIN.

GENERAL DRAINAGE NOTES

1. ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER.
2. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
3. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
4. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.22 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
5. CONTRACTOR TO CONFIRM WITH CLIENT ABOUT WHAT WASHROOM ACCESSORIES ARE TO BE TURNED OVER TO THE CLIENT OR DISPOSED OF.
6. CONTRACTOR TO SEAL ALL PLUMBING FIXTURES INCLUDING LAVATORIES, WATER CLOSETS, WASH FOUNTAINS, URINALS AND SHOWER FIXTURES TO THE WALL AND/OR FLOOR WITH SILICONE.
7. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.
8. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

Giallonardo — Engineering Inc.
220-4550 Highway 7
Woodbridge, ON
L4L 4Y7
(905)265-1052
info@giallonardoeng.com
www.giallonardoeng.com

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

FLOOR PLAN - DRAINAGE DEMOLITION

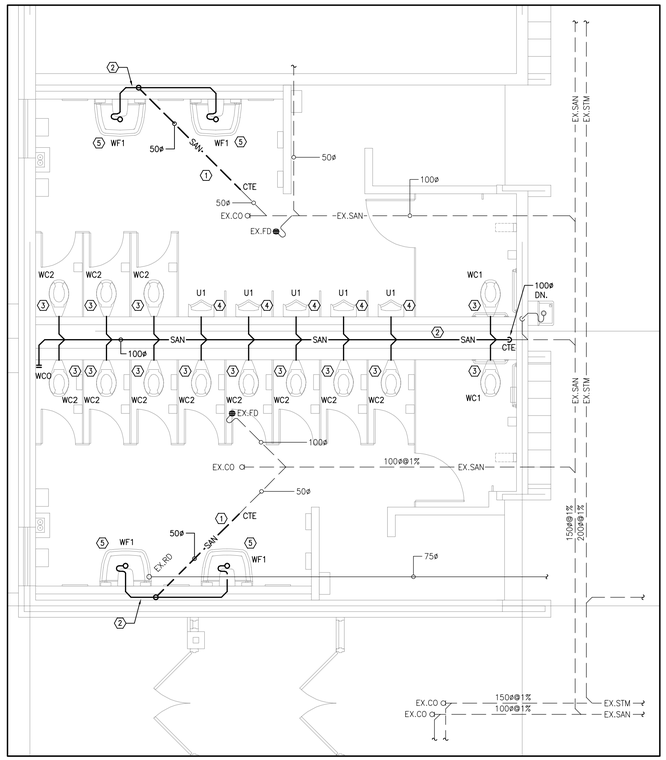
BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

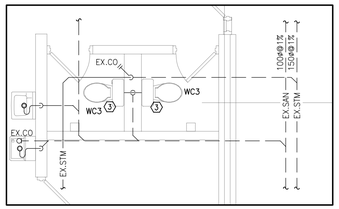
DESIGN BY: JH	DOC. CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

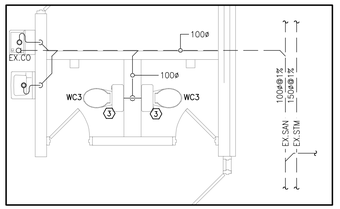
DRAWING NO: **M-3.1**



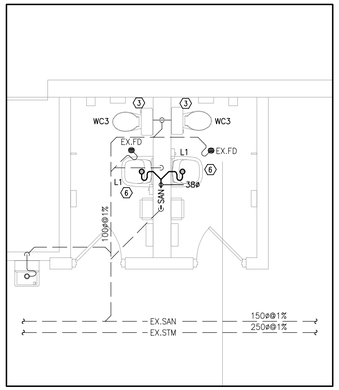
1 M-3.2 **PLAN A NEW**
1:50



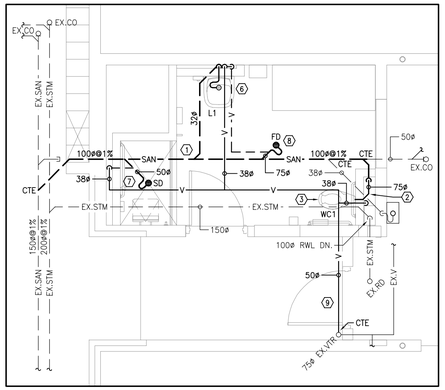
2 M-3.2 **PLAN B NEW**
1:50



3 M-3.2 **PLAN C NEW**
1:50



4 M-3.2 **PLAN D NEW**
1:50



5 M-3.2 **PLAN E NEW**
1:50

DRAINAGE DRAWING NOTES

1. PROVIDE NEW UNDERGROUND SANITARY DRAINAGE PIPING. CONNECT TO EXISTING WHERE SHOWN (TYPICAL).
2. PROVIDE NEW SANITARY DRAINAGE PIPING IN WALL CHASE TO SERVE NEW PLUMBING FIXTURES. CONNECT TO EXISTING WHERE SHOWN.
3. PROVIDE NEW WATER CLOSET AS SPECIFIED. REMOVE BLOCK WALL AS REQUIRED AND RAISE/LOWER SANITARY DRAINAGE PIPING AS REQUIRED TO ACCEPT NEW WATER CLOSET (TYPICAL).
4. PROVIDE NEW URINAL AS SPECIFIED (TYPICAL).
5. PROVIDE NEW WASH FOUNTAIN AS SPECIFIED (TYPICAL).
6. PROVIDE NEW WALL-MOUNTED LAVATORY AS SPECIFIED C/W P-TRAP, FLEXIBLE RISERS, ETC. MODIFY EXISTING/PROVIDE NEW SANITARY DRAINAGE PIPING AS REQUIRED TO SUIT NEW INSTALLATION (TYPICAL).
7. PROVIDE NEW SHOWER DRAIN AS SPECIFIED C/W P-TRAP.
8. PROVIDE NEW FLOOR DRAIN AS SPECIFIED C/W P-TRAP AND TRAP SEAL PRIMING.
9. PROVIDE NEW VENT PIPING TO SERVE NEW PLUMBING FIXTURES IN NEW WASHROOM. CONNECT TO EXISTING VENT PIPING WHERE SHOWN. DISTRIBUTE VENT PIPING IN ACCORDANCE WITH PART 7 OF THE OBC.

GENERAL DRAINAGE NOTES

1. ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER.
2. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
3. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.22 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
4. CONTRACTOR TO SEAL ALL PLUMBING FIXTURES INCLUDING LAVATORIES, WATER CLOSETS, WASH FOUNTAINS, URINALS AND SHOWER FIXTURES TO THE WALL AND/OR FLOOR WITH SILICONE.
7. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.
8. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

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80 CURRIE STREET
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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

FLOOR PLAN - DRAINAGE NEW

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BARRY BRYAN ASSOCIATES
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Engineers
Project Managers
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Suite 201
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L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
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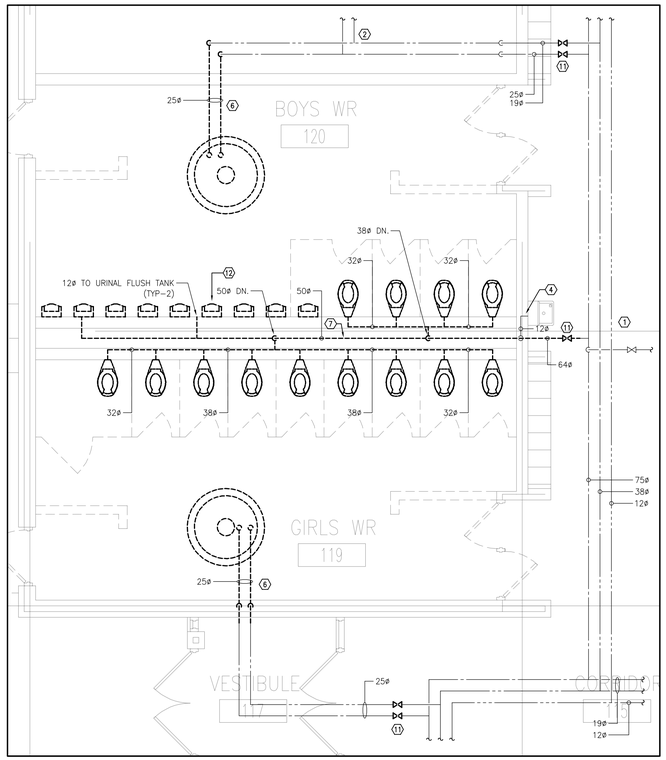
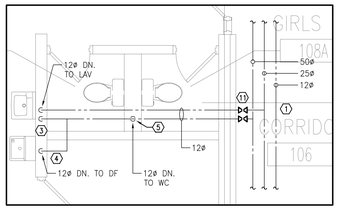
FILE:	

PROJECT NO: **24-153**

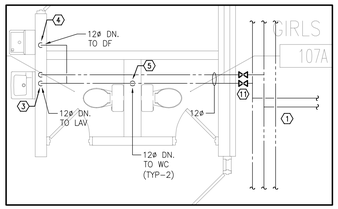
DRAWING NO: **M-3.2**



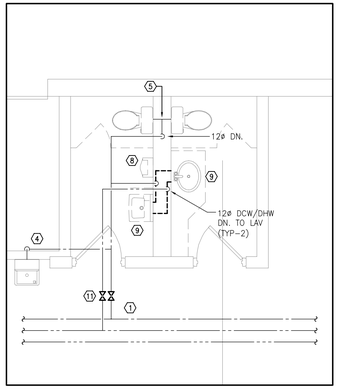
1 M-3.3 **PLAN A DEMO**
1:50



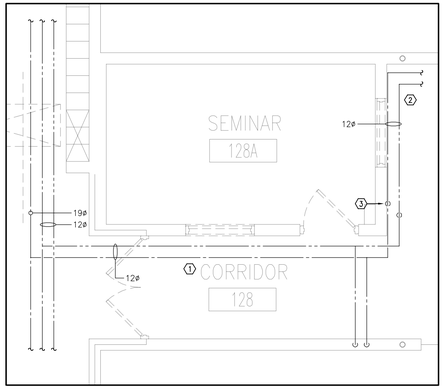
2 M-3.3 **PLAN B DEMO**
1:50



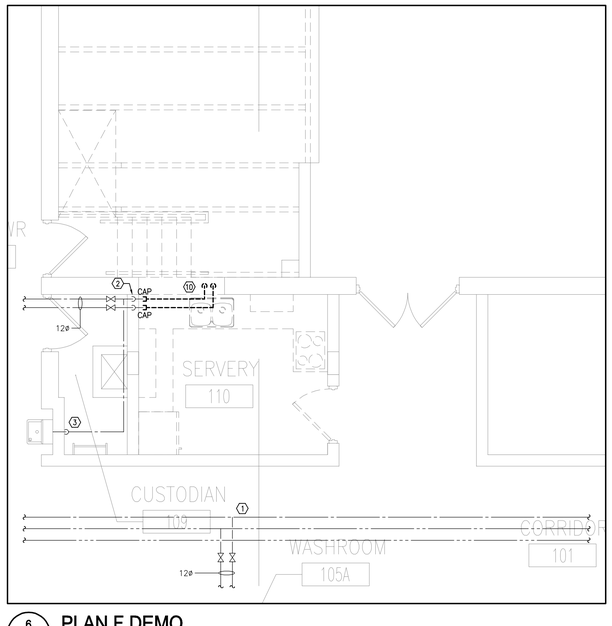
3 M-3.3 **PLAN C DEMO**
1:50



4 M-3.3 **PLAN D DEMO**
1:50



5 M-3.3 **PLAN E DEMO**
1:50



6 M-3.3 **PLAN F DEMO**
1:50

PLUMBING DRAWING NOTES

1. EXISTING DCW/DHW/DHR PIPING IN CEILING SPACE TO REMAIN (TYPICAL).
2. EXISTING DCW/DHW PIPING TO REMAIN (TYPICAL).
3. EXISTING DCW/DHW PIPING TO LAVATORY TO REMAIN (TYPICAL).
4. EXISTING DCW PIPING TO DRINKING FOUNTAIN TO REMAIN (TYPICAL).
5. EXISTING DCW PIPING TO WATER CLOSET TO REMAIN. MODIFY EXISTING DCW PIPING TO SUIT NEW INSTALLATION. REFER TO NEW DRAWING (TYPICAL).
6. EXISTING BURIED DCW/DHW PIPING SERVING WASH FOUNTAIN TO BE REMOVED AND DISPOSED OF BACK TO WHERE INDICATED. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE.
7. EXISTING DCW PIPING SERVING PLUMBING FIXTURES IN WALL CHASE TO BE REMOVED BACK TO WHERE SHOWN AND DISPOSED OF. PREPARE EXISTING DCW PIPING SERVING DRINKING FOUNTAIN FOR RECONNECTION OF NEW LINE. REFER TO NEW DRAWING.
8. EXISTING EXPOSED DCW PIPING ON WALL SERVING URINAL TO BE REMOVED AND DISPOSED OF.
9. EXISTING LAVATORY, SUPPLY WATER RISERS, FAUCET, ETC. TO BE REMOVED AND DISPOSED OF. PREPARE ROUGH-INS FOR NEW LAVATORY WHERE REQUIRED. REFER TO NEW PLUMBING PLAN.
10. EXISTING DCW/DHW PIPING SERVING KITCHEN SINK TO BE REMOVED BACK TO WALL AND DISPOSED OF. CAP WHERE INDICATED.
11. EXISTING DCW/DHW VALVE TO BE REMOVED AND DISPOSED OF. PREPARE CONNECTION FOR NEW VALVE (TYPICAL).
12. EXISTING URINALS, URINAL FLUSH TANKS AND ASSOCIATED WATER MATRIX UTC SENTINEL SYSTEM INCLUDING SOLENOID VALVES, MOTION SENSORS, AND ONE OF TWO CONTROLLERS TO BE REMOVED AND DISPOSED OF. ONE CONTROLLER SHALL REMAIN TO SERVE NEW AUTOMATIC FLUSH SYSTEM. CONTRACTOR TO DETERMINE EXACT LOCATION OF EXISTING CONTROLLERS ON SITE.

GENERAL PLUMBING NOTES

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2. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
3. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
4. THESE DRAWINGS HAVE BEEN PREPARED FOR O/A 22 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
5. CONTRACTOR TO CONFIRM WITH CLIENT ABOUT WHAT WASHROOM ACCESSORIES ARE TO BE TURNED OVER TO THE CLIENT OR DISPOSED OF.
6. CONTRACTOR TO SEAL ALL PLUMBING FIXTURES INCLUDING LAVATORIES, WATER CLOSETS, WASH FOUNTAINS, URINALS AND SHOWER FIXTURES TO THE WALL AND/OR FLOOR WITH SILICONE.
7. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.
8. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

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80 CURRIE STREET
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DRAWING:

FLOOR PLAN - PLUMBING DEMOLITION

BARRY BRYAN ASSOCIATES
Architects
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250 Water Street
Suite 201
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L1N 0G5
Tel: (905) 666-5252
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LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

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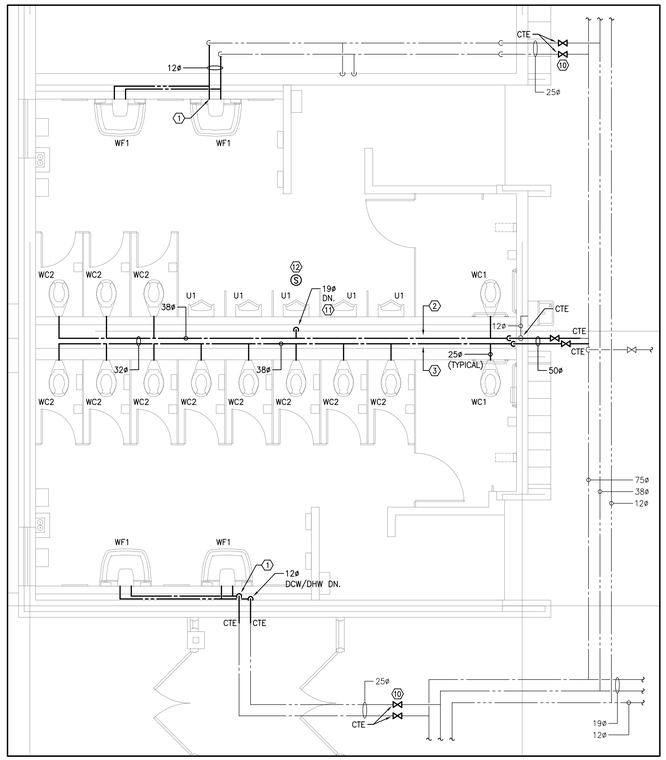
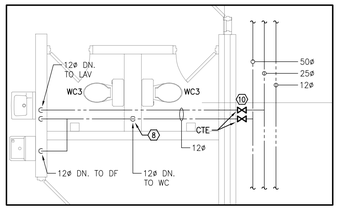
PROJECT NO: **24-153**

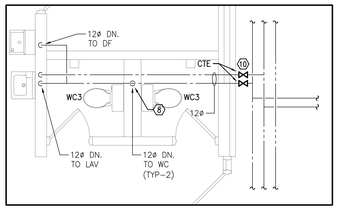
DRAWING NO: **M-3.3**



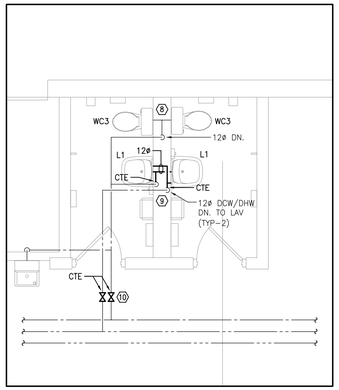
1 M-3.4 **PLAN A NEW**
1:50



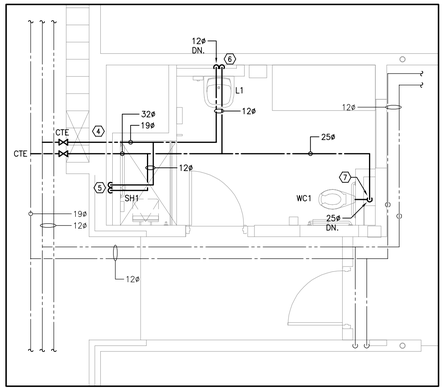
2 M-3.4 **PLAN B NEW**
1:50



3 M-3.4 **PLAN C NEW**
1:50



4 M-3.4 **PLAN D NEW**
1:50



5 M-3.4 **PLAN E NEW**
1:50

PLUMBING DRAWING NOTES

1. PROVIDE NEW DCW/DHW PIPING IN WALL CHASE TO SERVE NEW WASH FOUNTAIN. CONNECT TO EXISTING WHERE SHOWN (TYPICAL).
2. PROVIDE NEW DCW PIPING WITHIN WALL CHASE TO SERVE NEW BOY'S WASHROOM PLUMBING FIXTURES C/W VALVE IN CORRIDOR CEILING SPACE. CONNECT NEW DCW PIPING TO EXISTING DCW LINE SERVING DRINKING FOUNTAIN. CONNECT TO EXISTING.
3. PROVIDE NEW DCW PIPING WITHIN WALL CHASE TO SERVE NEW GIRL'S WASHROOM PLUMBING FIXTURES C/W VALVE IN CORRIDOR CEILING SPACE.
4. PROVIDE NEW DCW/DHW PIPING IN CEILING SPACE TO SERVE NEW PLUMBING FIXTURES. CONNECT TO EXISTING MAIN DCW/DHW PIPING C/W VALVE IN CORRIDOR CEILING SPACE.
5. PROVIDE NEW DCW/DHW PIPING DOWN IN WALL CHASE TO SERVE NEW SHOWER.
6. PROVIDE NEW DCW/DHW PIPING DOWN IN WALL CHASE TO SERVE NEW LAVATORY.
7. PROVIDE NEW DCW PIPING DOWN IN WALL CHASE TO SERVE NEW WATER CLOSET (TYPICAL).
8. MODIFY EXISTING/PROVIDE NEW DCW PIPING TO SERVE NEW WATER CLOSET AS REQUIRED TO SUITE NEW INSTALLATION (TYPICAL).
9. MODIFY EXISTING/PROVIDE NEW DCW/DHW PIPING TO SERVE NEW LAVATORY AS REQUIRED TO SUITE NEW INSTALLATION (TYPICAL).
10. PROVIDE NEW DCW/DHW ISOLATION VALVE WHERE SHOWN IN CORRIDOR CEILING SPACE (TYPICAL).
11. 19ø DROP DN. TO NEW URINAL SOLENOID VALVE AND MANIFOLD. PROVIDE NEW MOTION SENSOR AS SPECIFIED. CONNECT NEW SOLENOID VALVE AND MOTION SENSOR TO EXISTING UTC SENTINEL CONTROLLER. EXACT LOCATION OF EXISTING CONTROLLER TO BE DETERMINED ON SITE. REFER TO DETAILS.
12. PROVIDE NEW URINAL FLUSH SYSTEM MOTION SENSOR. REFER TO DETAILS.

GENERAL PLUMBING NOTES

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3. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.22 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
4. CONTRACTOR TO SEAL ALL PLUMBING FIXTURES INCLUDING LAVATORIES, WATER CLOSETS, WASHFOUNTAINS, URINALS AND SHOWER FIXTURES TO THE WALL AND/OR FLOOR WITH SILICONE.
5. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.
6. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

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1	ISSUED FOR 30% REVIEW	OCT. 10 2024	RC
2	ISSUED FOR 60% REVIEW	NOV. 14 2024	RC
3	ISSUED FOR PERMIT	DEC. 13 2024	RC
4	ISSUED FOR COORDINATION	FEB. 10 2025	RC
5	ISSUED FOR TENDER	APR. 2 2025	RC

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

FLOOR PLAN - PLUMBING NEW

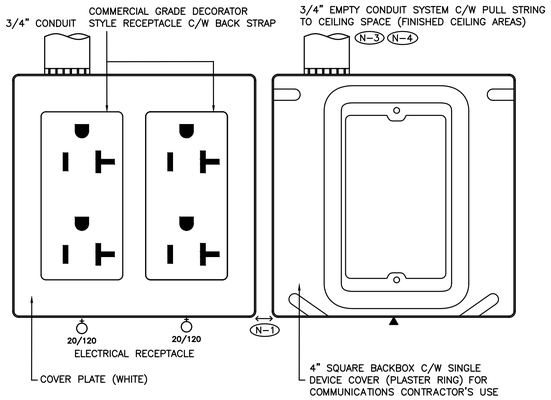
BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

LICENSED PROFESSIONAL ENGINEER
2025-04-02
R.GIALLONARDO
100152400
PROVINCE OF ONTARIO

DESIGN BY: JH	DOC. CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY: RG	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-153**

DRAWING NO: **M-3.4**



MOUNT RECEPTACLES GROUND PIN UP

(N-1) MINIMUM CLEARANCE.

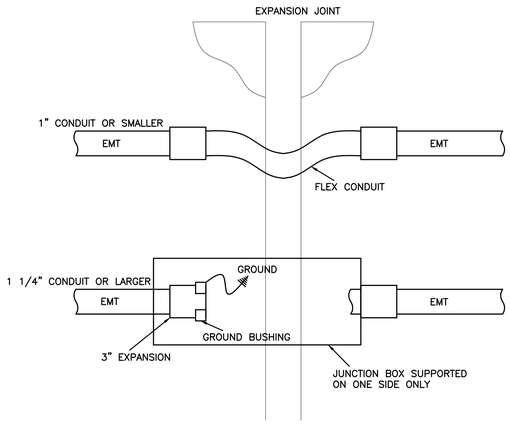
(N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

(N-3) PROVIDE PUNCH OUTS IN BACKBOX TO ACCOMMODATE CONDUITS INDICATED.

(N-4) TERMINATE CONDUIT WITH A 90 DEGREE BEND AND PLASTIC BUSHING IN THE ACCESSIBLE CEILING SPACE.

UTILITY CCT – WHITE RECEPTACLE (WALLS)/BLACK RECEPTACLE (DARK MILLWORK)
UPS CCT – BLUE RECEPTACLE

1 / E-1.1 TYPICAL WALL MOUNTED DEVICE DETAIL
SCALE: NTS



2 / E-1.1 EXPANSION JOINT CROSSING DETAIL
SCALE: NTS

LEGEND

	EXISTING CEILING MOUNTED/SUSPENDED FIXTURE. AS PART OF THIS SCOPE OF WORK CONNECT TO BASE BUILDING UTILITY LIGHTING CIRCUIT.
	CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO SWITCHED BASE BUILDING UTILITY LIGHTING CIRCUIT.
	RECESSED/PENDENT DOWNLIGHT. CONNECT TO SWITCHED BASE BUILDING UTILITY LIGHTING CIRCUIT.
D1 M1	EMERGENCY BATTERY UNIT, TYPE 'D1', SOURCE 'M1'. BATTERY SHALL BE MOUNTED AT HIGH LEVEL.
D2 M2	REMOTE EMERGENCY LIGHTING FIXTURE, TYPE 'D2' FED FROM SOURCE 'M2'.
	CEILING OR WALL MOUNTED "EXIT" LIGHT.
$	TOGGLE STYLE LIGHT SWITCH, VOLTAGE AND CURRENT RATINGS AS REQUIRED. COLOUR AS DIRECTED BY DESIGNER ON SITE.
$0V2	WALL MOUNTED ROOM LIGHT SWITCH C/W TWO (2) POLES FOR MANUAL SWITCHING. ACUITY SPODM–2P2SA.
$ TS	'TS' DENOTES WALL MOUNTED TIME SWITCH ACUITY SENSORSWITCH PTSA60–WH (VOLTAGE RATINGS TO SUIT LIGHTING LOADS) C/W BOTH VISUAL AND AUDIBLE WARNING.
GFI	15AMP/120VOLT, U–GROUND DUPLEX RECEPTACLE. GFI DENOTES OUTLET C/W GROUND FAULT INTERRUPT PROTECTION.
20/120	20A/120V DUPLEX RECEPTACLE, CSA 5–20R (T–SLOT). HUBBELL DR20 SERIES.
	DIRECT CONNECTION.
	STARTER.
	NON–FUSED HORSEPOWER RATED VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION
F 30/15A/3P	VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A'
S 30/15A/3P	VISIBLE BLADE COMBINATION STARTER C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A', FUSES, OVERLOAD PROTECTION, CONTROL TRANSFORMER, 2 NO AND 2 NC CONTACTS, PILOT LIGHT AND HOA. FUSED AT '15A'.
RP–A–X(D)	CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTACLE.
RP–A–X(D)	EXISTING CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTACLE.
▼	4" SQUARE BACKBOX C/W SINGLE DEVICE COVER (PLASTER RING) AND 3/4" EMPTY ZONE CONDUIT ASSEMBLY FOR COMMUNICATIONS CONTRACTOR'S USE. PROVIDE A PULL STRING IN CONDUIT.
E	INDICATES EXISTING DEVICE TO REMAIN
ER	INDICATES EXISTING DEVICE TO BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO SOURCE.
R	DENOTES EXISTING DEVICE IN RELOCATED POSITION. PROVIDE CONDUIT AND WIRE BACK TO SOURCE.
RE	DENOTES EXISTING DEVICE TO REMAIN. RECIRCUIT AS SHOWN. REMOVE EXISTING CONDUIT AND WIRE BACK TO EXISTING SOURCE. PROVIDE CONDUIT AND WIRE BACK TO NEW SOURCE.
WP	DENOTES NEMA TYPE 4X ENCLOSURE SUITABLE FOR HOSE DIRECTED WATER
CL	DENOTES CEILING MOUNTED FLUSH WITH FINISH CEILING
	HEAT DETECTOR. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
	SMOKE DETECTOR. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
	MANUAL PULL STATION. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
EOL	END OF LINE RESISTOR. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM
	FIRE ALARM SYSTEM HORN. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.
B	FIRE ALARM SYSTEM COMBINATION STROBE LIGHT/HORN. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.
H	FIRE ALARM SYSTEM STROBE LIGHT. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.
I	ISOLATION MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM
C FA	CONTROL ZONE MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
CS T	WALL/CEILING MOUNTED PUBLIC ADDRESS SYSTEM PAGING SPEAKER. CONNECT TO PUBLIC ADDRESS SYSTEM. "CS" DENOTES DEVICE C/W CALL SWITCH.
MS	WASHROOM CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR C/W LOW VOLTAGE RELAY. ACUITY CM–PDT–9–R. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W DEFAULT DETECTION TECHNOLOGY SETTING.
PX	POWER PACK (VOLTAGE RATINGS TO SUIT LIGHTING LOADS) C/W DRY CONTACT RELAY AND OVERRIDE INPUTS FOR OCCUPANCY SENSORS PRESET AT AUTO ON AND AUTO OFF. ACUITY PP20.
HP	ACCESSIBLE WAVE SENSOR ROUGH–IN C/W CONDUIT AND WIRES
D	UNIVERSAL WASHOOM DURESS SYSTEM COMBINATION STROBE LIGHT/HORN.
DB	UNIVERSAL WASHROOM DURESS SYSTEM STATION.

1. SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.
2. SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, LIGHTING CONTROLS, ELECTRICAL DISTRIBUTION, RECEPTACLE PANELS, FIRE ALARM SYSTEM DEVICES, LAMACOID PLATES, RECEPTACLES AND COVER PLATES.
3. ELECTRICAL CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH ELECTRICAL SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).
4. CIRCUITING MUST BE COMPLETED AS SHOWN ON DRAWINGS. DO NOT CHANGE CIRCUIT NUMBERS.
5. INSTALLATION AND MANUFACTURING OF ALL DEVICES AND SERVICES INCLUDING DISTRIBUTION, FEEDERS, BRANCH CIRCUITS, VARIOUS SYSTEMS, ETC. MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.
6. AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE FIRE ALARM MANUFACTURER, FIRE INSPECTOR AND BUILDING INSPECTOR TO THOROUGHLY REVIEW THE PROPOSED INSTALLATION LOCATIONS FOR EACH AND EVERY CONTROL PANEL, REMOTE ANNUNCIATOR PANEL, ANCILLARY DEVICE, FIELD DEVICE, ETC., TO ENSURE THAT THE PROPOSED INSTALLATION IS FULLY COMPLIANT WITH CAN/ULC S524:19 AND ONTARIO BUILDING CODE. COMPLIANCE SHALL INCLUDE INTERFERENCE AND PROXIMITY TO EXISTING DEVICES AND OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, SUPPLY AIR DUCTS, EXPOSED DUCT WORK, BEAMS, RACEWAYS, ETC.), SPACING BETWEEN FIELD DEVICES PROVIDED AS PART OF THIS SCOPE OF WORK IN PROPOSED INSTALLATION LOCATIONS, ETC..
7. AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE BUILDING INSPECTOR TO REVIEW THE PROPOSED EXIT SIGN ORIENTATION, LOCATIONS, FACES (READ OR PICTOGRAM) AND CHEVRONS.
8. AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT.
9. FIRE ALARM SYSTEM TESTING AND VERIFICATIONS MUST TAKE PLACE BETWEEN 11PM AND 5AM DURING THE WEEK.
10. AS BUILT DRAWING REQUIREMENTS:
    AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN AUTOCAD FORMAT BY THE ELECTRICAL CONTRACTOR.
    - ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM AS BUILT DRAWINGS.
    - ROUTING OF ALL FEEDERS, BRANCH WIRING (LIGHTING, EMERGENCY LIGHTING, POWER, ETC), LOW VOLTAGE WIRING, MISCELLANEOUS SYSTEMS WIRING, MISCELLANEOUS CONDUIT SYSTEMS, ETC, TO BE SHOWN ON AS BUILT DRAWINGS.

    REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND FOR COSTS TO OBTAIN CAD FILES.
11. REMOVAL AND REINSTALLATION OF CEILING TILES IN OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
13. ALL PANEL SCHEDULE DIRECTORIES MUST BE UPDATED AND TYPEWRITTEN PANEL SCHEDULE DIRECTORIES MUST BE PROVIDED. SELF–ADHESIVE LABELING TAPE MUST BE USED FOR ALL LABELING AT ALL OUTLETS. LAMACOIDS MUST BE USED FOR LABELING OF ALL ELECTRICAL ENCLOSURES.
14. THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE TENANT FLOOR COVERINGS. THE LANDLORD WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO THE TENANT PROCEEDING WITH CONSTRUCTION.
15. PROVIDE A REPORT FROM THE MANUFACTURER FOR ALL FIRESTOP ASSEMBLIES PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL COMPLIANCE WITH ONTARIO BUILDING CODE.
16. PROVIDE A DEDICATED NEUTRAL PER PHASE FOR ALL BRANCH CIRCUITS PROVIDED AS PART OF THIS SCOPE OF WORK. DO NOT SHARE NEUTRALS.

AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL TWO (2) TYPE E1 EXIT SIGNS EACH COMPLETE WITH 75'–0" OF CONDUIT AND WIRING OVER AND ABOVE THOSE SHOWN ON REFLECTED CEILING PLANS POST CITY FIRE / BUILDING DEPARTMENT INSPECTIONS.

AREAS OF THE FACILITY INCLUDING THE SCOPE OF WORK AREAS ARE NOTED TO CONTAIN ASBESTOS. UPON REPORTING ABATEMENT, CONTRACTOR MUST WAIT 3 WEEKS PRIOR TO CONTINUING WITH WORK. CONTRACTOR IS NOT PERMITTED TO CLAIM FOR DELAYS SHOULD ASBESTOS ABATEMENT BE REQUIRED.

DRAWING LIST

LICENSED PROFESSIONAL ENGINEER — Z. ZHONG — 100545750 — APR03/25 — PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER — H.D. COHEN — 90414335 — APR03/25 — PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932–2423

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4	ISSUED FOR TENDER	APR03/25	KZ
3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL
LEGEND AND DETAILS

HCC Project No.: 24210

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC CONTROL DATE:
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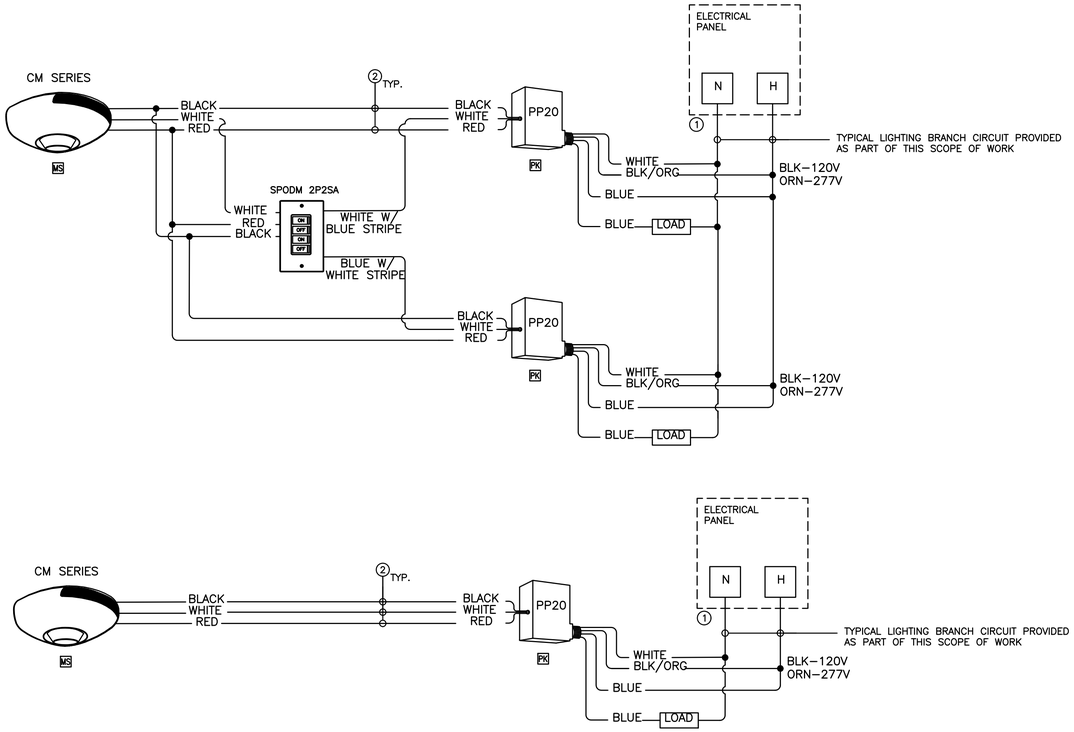
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-1.1**



1 E–1.2 LOW VOLTAGE LIGHTING CONTROL SYSTEM WIRING SCHEMATIC
SCALE: NTS

N–1 SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR DEVICE QUANTITY AND LOCATIONS. PROVIDE QUANTITY OF HARDWARE, SENSORS, DEVICES, CONDUIT, WIRE, CONFIGURATION TOOLS, ETC. TO ENSURE A FULLY OPERATIONAL LIGHTING CONTROL SYSTEM.

N–2 ALL CONTROL WIRING TO BE INSTALLED IN AN ENCLOSED CONDUIT SYSTEM.

N–3 PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. MINIMUM CONDUIT SIZE 3/4".

N–4 NOT USED.

N–5 PROVIDE POWER PACKS TO ACCOMMODATE ALL LIGHTING ZONES PROVIDED AS PART OF THIS SCOPE OF WORK.

N–6 NOT USED.

N–7 TERMINATE AND TEST ALL LIGHTING CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK. PROVIDE TEST RESULTS FOR ALL CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK AT THE END OF CONSTRUCTION. TEST RESULTS SHALL BE INCLUDED AS PART OF THE CLOSE OUT DOCUMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

N–8 REFER TO MANUFACTURE'S INSTALLATION GUIDELINES FOR ADDITIONAL INSTALLATION REQUIREMENTS OVER AND ABOVE THOSE DETAILS ON THIS SCHEMATIC.

N–9 ELECTRICAL CONTRACTOR'S BASE BID PRICE SHALL INCLUDE FOUR (4) HOURS OF ON SITE COORDINATION TIME WITH ACUITY PRIOR TO ORDERING LIGHTING SYSTEM COMPONENTS TO CONFIRM DEVICES AND WIRING REQUIREMENTS. ALL CHANGES TO BE REVIEWED AND APPROVED BY CONSULTANT ON SITE PRIOR TO EXECUTION.

1 TYPICAL RECEPTACLE / LIGHTING PANEL. REFER TO DETAIL NO. 4 ON DRAWING NO. E–1.2 FOR ADDITIONAL REQUIREMENTS

2 WIRING PER MANUFACTURER'S RECOMMENDATIONS

——————— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR.

– – – – – – – – DENOTES EXISTING TO REMAIN.

–×–×–×–×–×– DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR.

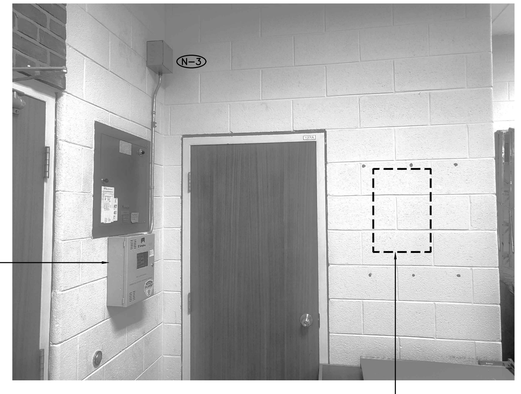
INSTALL LOW VOLTAGE CONTROL SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, ASHRAE 90.1 2016, ONTARIO BUILDING CODE, ELECTRICAL SAFETY CODE AND THESE DOCUMENTS.

FIXTURE SCHEDULE

TYPE A1 –	4000 LUMEN 4' LINEAR SURFACE MOUNTED LED FIXTURE C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING DRIVER, CURVED SMOOTH LENS AND LAMP (4000K, 80% CRI). LITHONIA LIGHTING BLWP SERIES BLWP4–40L–ADSMT–GZ10–LP840
TYPE A2 –	3300 LUMEN 2' LINEAR SURFACE MOUNTED LED FIXTURE C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING DRIVER, CURVED SMOOTH LENS AND LAMP (4000K, 80% CRI). LITHONIA LIGHTING BLWP SERIES BLWP2–33L–ADSMT–GZ10–LP840
TYPE A3–	4000 LUMEN 2' X 2' RECESSED MOUNTED LED FIXTURE SUITABLE FOR DRYWALL CEILING C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING DRIVER AND LAMP (4000K/80% CRI). LIGHONIA LIGHTING BLT SERIES 2BLT4–40L–ADSM–GZ10–LP40
TYPE A4–	3000 LUMEN 4' LINEAR SURFACE MOUNTED LED FIXTURE SUITABLE FOR WET LOCATION C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING DRIVER AND LAMP (4000K/80% CRI). LIGHONIA LIGHTING CSVT SERIES CSVT–L48–3000LM–MVOLT–40K–80CRI
TYPE LE2 –	2' LINEAR SUSPENDED MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, ACRYLIC LENS AND 1 X T8 LAMPS.
TYPE LE2B –	2' LINEAR SURFACE MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, ACRYLIC LENS AND 1 X T8 LAMPS.
TYPE LE4 –	1' X 4' SUSPENDED MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, LOUVER AND 2 X T8 LAMPS.
TYPE LE5–	4' SUSPENDED MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, ACRYLIC LENS AND 2 X T8 LAMPS.
TYPE LE6–	4' LINEAR SURFACE MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, ACRYLIC LENS AND 1 X T8 LAMP.
TYPE LE7–	2' LINEAR SURFACE MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, ACRYLIC LENS AND 1 X T8 LAMP.
TYPE LE8–	2' X 4' RECESSED MOUNTED FLUORESCENT FIXTURE C/W 120V BALLAST, LOUVER AND 2 X T8 LAMPS.
TYPE D1 –	EMERGENCY LIGHTING SYSTEM C/W 10 YEAR 24VOLT/720W/0.5 HOUR/BATTERY UNIT/120V VOLT INPUT/STANPRO SLD SERIES SLD–24–720–00–X–WH. WHITE IN COLOUR.
TYPE D2 –	2 X 5W LA LED 24V STANPRO SMC2W ANTI VANDAL REMOTE HEADS, WHITE IN COLOUR.
TYPE D3 –	1 X 5W LA LED 24V STANPRO SMC ANTI VANDAL REMOTE HEAD, WHITE IN COLOUR.
TYPE D4 –	2 X 7W LA LED 24V STANPRO SMC2W ANTI VANDAL REMOTE HEADS, WHITE IN COLOUR.
TYPE D7 –	1 X REMOTE HEADS
TYPE D8 –	2 X REMOTE HEADS
TYPE D11 –	EMERGENCY LIGHTING SYSTEM VANDAL RESISTANT COMBINATION UNIT C/W 120/347VAC/24VDC 144W BATTERY UNIT AND 2 X LED 7W LA HEADS. STANPRO SLMC–24–144W–2–7WLA–WH–AT WHITE IN COLOUR.
TYPE E1 –	PICTOGRAM GREEN ANTI VANDAL LED EXIT SIGN C/W STANPRO FIELD INSTALLABLE CANOPY KIT. STANPRO RMV SERIES RMV–X–X–WH–UDC.
TYPE E2 –	EXISTING READ TYPE WHITE LED EXIT SIGN

2 E–1.2 FIXTURE SCHEDULE
SCALE: NTS

1 N–2



2

N–1 PHOTOS ILLUSTRATE EXISTING FIRE ALARM SYSTEM CONTROL PANEL INSTALLATION AND ARE INCLUDED FOR REFERENCE PURPOSES ONLY.

N–2 CUT BACK EXISTING SPARE / ABANDONED CONDUITS AS REQUIRED TO ACCOMMODATE REMOVAL OF EXISTING FIRE ALARM SYSTEM CONTROL PANEL.

N–3 UTILIZE EXISTING JUNCTION BOX TO EXTEND EXISTING WIRING TO NEW FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS PART OF THIS SCOPE OF WORK. PROVIDE NEW CONDUITS.

1 EXISTING FIRE ALARM SYSTEM CONTROL PANEL TO BE REPLACED AS PART OF THIS SCOPE OF WORK. REFER TO DETAIL NO. 1 ON DRAWING NO. E–1.4 FOR ADDITIONAL REQUIREMENTS.

2 APPROXIMATE LOCATION TO INSTALL NEW FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS PART OF THIS SCOPE OF WORK.

3 E–1.2 PHOTOS – EXISTING FIRE ALARM SYSTEM CONTROL PANEL
SCALE: NTS

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
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HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DETAILS

HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC. CONTROL: DATE:
DRAWN BY: KZ	% COMPLETE:
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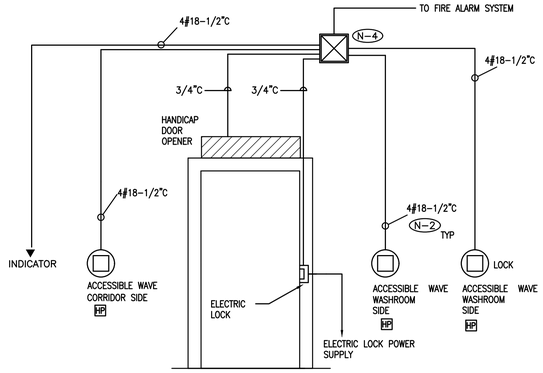
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-1.2**



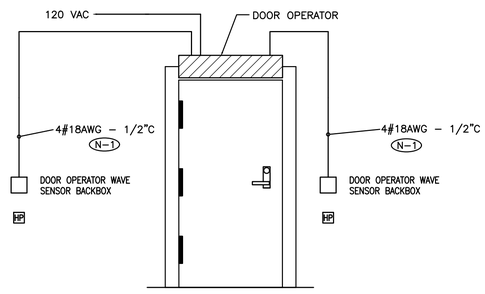
N-1 ROUGH-IN DETAILS ARE DIAGRAMMATIC.

N-2 PROVIDE WIRE, CONDUIT AND BACKBOXES INDICATED.

N-3 COORDINATE THE ROUGH-IN REQUIREMENT WITH DOOR MANUFACTURER AND DOOR OPERATOR CONTRACTOR PRIOR TO CONSTRUCTION.

N-4 PULLBOX INDICATED MUST BE LOCATED AT THE SECURED SIDE OF THE DOOR. MINIMUM PULLBOX SIZE 12" X 12".

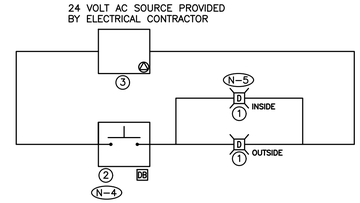
1 E-1.3 ELECTRONIC DOOR LOCK ROUGH-IN DETAIL
SCALE: NTS



N-1 PROVIDE WIRE, CONDUIT AND BACKBOXES INDICATED.

N-2 COORDINATE THE ROUGH-IN REQUIREMENT WITH DOOR MANUFACTURER PRIOR TO CONSTRUCTION.

2 E-1.3 BARRIER FREE DOOR OPENER SYSTEM DETAIL
SCALE: NTS



N-1 SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY OF DEVICES.

N-2 PROVIDE WIRING, CONTACTORS AND DUAL VOLTAGE RELAYS (DVR'S) AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.

N-3 ALL LOW VOLTAGE WIRING TO BE ENCLOSED IN A CONDUIT SYSTEM.

N-4 PROVIDE EDWARDS SIGN-EMERG-PUSH SIGNAGE PER OBC ABOVE THE DURESS SYSTEM STATION.

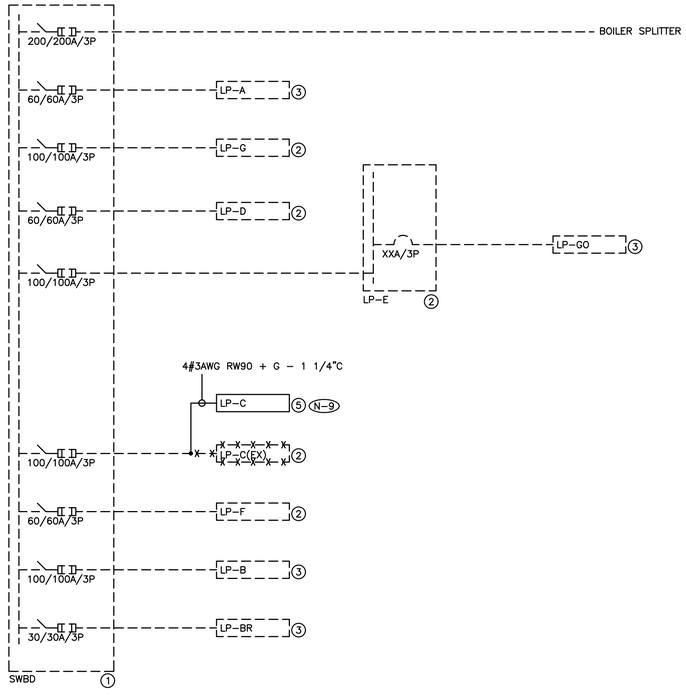
N-5 WIRE THE APPLIANCE INDICATED FOR VISUAL ALARM ONLY.

1 DURESS SYSTEM COMBINATION STROBE LIGHT/HORN - EDWARDS 6536-G5

2 DURESS SYSTEM STATION, PUSH BUTTON - EDWARDS SS-2001E C/W SUB-102722-R SPACER

3 TRANSFORMER - EDWARDS 592

3 E-1.3 UNIVERSAL WASHROOM DURESS SYSTEM SCHEMATIC DIAGRAM
SCALE: NTS



4 E-1.3 ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NTS

N-1 RISER IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS.

N-2 PROVIDE FIRE RATED PLYWOOD BACKBOARDS FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT PROVIDED AS PART OF THIS CONTRACT. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT (COLOUR AS DIRECTED ON SITE BY PROJECT MANAGER). FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.

N-3 ALL INDOOR DISTRIBUTION PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE TYPE 2 ENCLOSURE, UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE COMPRESSION FITTINGS FOR SERVICES ENTERING DISTRIBUTION.

N-4 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. ALL X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.

N-5 NOT USED.

N-6 ALL BREAKERS REQUIRED TO COMPLETE ALL SCOPES OF WORK TO BE NEW. DO NOT REUSE EXISTING BREAKERS.

N-7 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE ALL INSTALLATION REQUIREMENTS. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.

N-8 PROVIDE TEMPORARY POWER AND LIGHTING THROUGHOUT PROJECT TO ACCOMMODATE REQUIREMENTS OF ALL TRADES. REQUIREMENTS INCLUDE PROVIDING EXTENSION CORDS, EXTENSION LIGHTING AND EQUIPMENT REQUIRED FOR THE WORK OF ALL TRADES. ALL COSTS RELATED TO THIS WORK SHALL BE INCLUDED IN THE BASE BID PRICE.

N-9 SWING OVER TWENTY-FOUR (24) EXISTING CIRCUITS FROM EXISTING PANEL LP-C(EX) TO NEW PANEL LP-C PROVIDED AS PART OF THIS SCOPE OF WORK TO MAINTAIN EXISTING SERVICES. EXISTING TO REMAIN SERVICES TO BE IDENTIFIED DURING CONSTRUCTION BY THE ELECTRICAL CONTRACTOR AND ARE NOT SHOWN ON THE DRAWINGS. PROVIDE NEW BREAKERS. PROVIDE/EXTEND CONDUIT AND WIRE FEEDING EXISTING BRANCH DEVICES AND TIE INTO RESPECTIVE CIRCUITS BEING RELOCATED TO NEW PANEL LP-C AS PART OF THIS CONTRACT.

1 EXISTING SWITCHBOARD - 120/208V/3PH/4W/800A MAINS/SQ D/22KA RMS

2 EXISTING RECEPTACLE PANEL - 120/208V/3PH/4W/100A MAINS/30 CCT/SQ D T2/10KA RMS

3 EXISTING RECEPTACLE PANEL - 120/208V/3PH/4W/100A MAINS/12 CCT/SQ D T2/10KA RMS

4 EXISTING RECEPTACLE PANEL - 120/208V/3PH/4W/100A MAINS/20 CCT/SQ D T2/10KA RMS

5 RECEPTACLE PANEL - 120/208V/3PH/4W/100A MCB/84 CCT/COPPER BUS/SQ D NQ/10KA RMS

———— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

– – – – – DENOTES EXISTING TO REMAIN

✶-✶-✶-✶-✶ DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

DWG FIRE ZONE NO.	FIRE ZONE ID LABEL (N-1) TYP	INITIATING DEVICE	ALARM SIGNAL	TROUBLE SIGNAL
01	STAGE LIFT	◪	✶	

N-1 ZONE DESCRIPTION TO BE DETERMINED ON SITE.

N-2 'SC' DENOTES SUPERVISORY CONTACT.

N-3 SEQUENCE OF OPERATIONS AND ALARM/ALERT SIGNALING REQUIREMENTS TO BE COORDINATED WITH AUTHORITY HAVING JURISDICTION, CONSULTANT, MECHANICAL CONTRACTOR, FIRE ALARM MANUFACTURER AND LANDLORD THROUGH SHOP DRAWING APPROVAL PROCESS.

5 E-1.3 FIRE ALARM SYSTEM ZONE SCHEDULE
SCALE: NTS

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR03/25	KZ
3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

DO NOT SCALE THE DRAWINGS.

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DETAILS

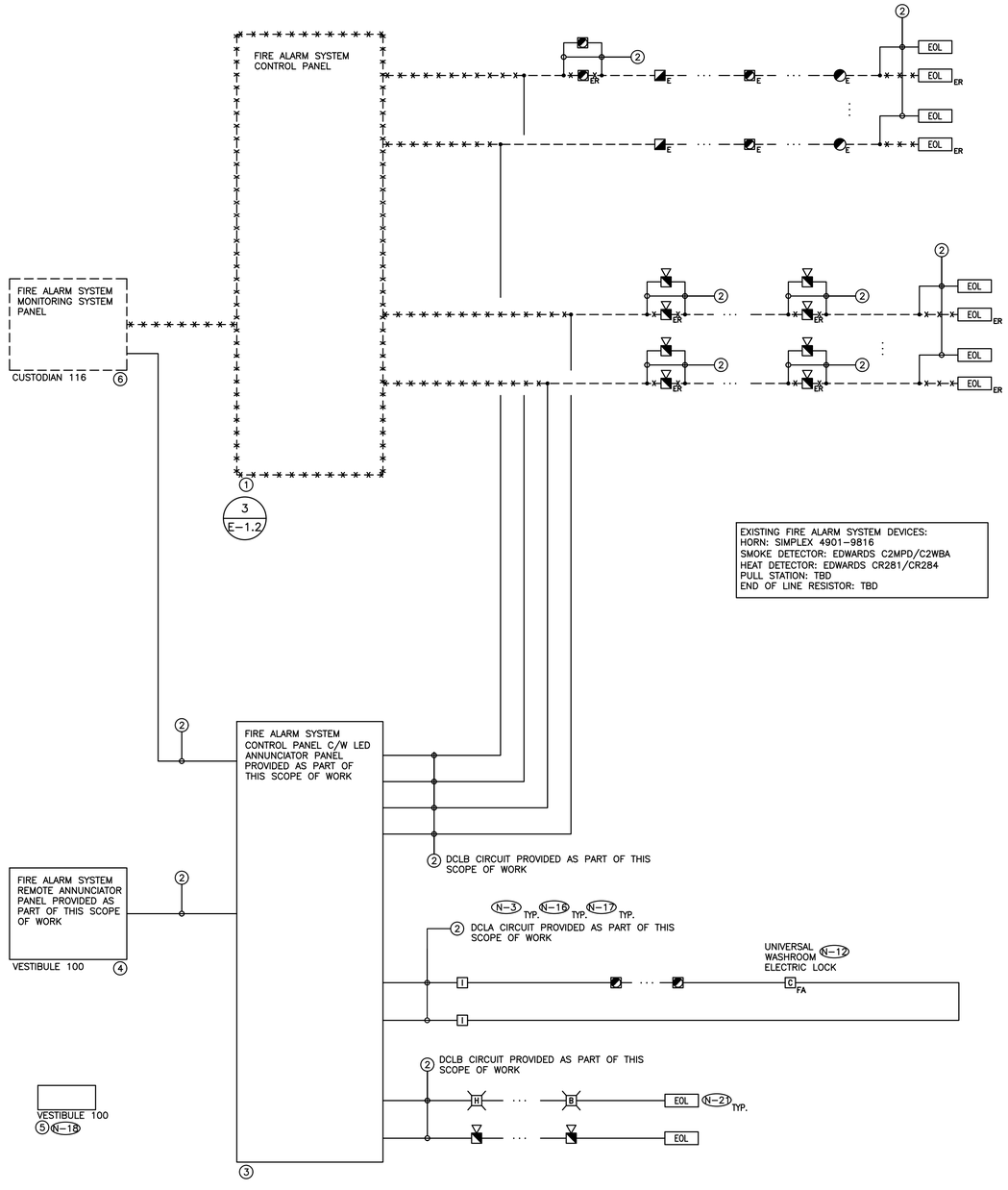
HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcneng.com

DESIGN BY: KZ	DOC. CONTROL DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-1.3**



EXISTING FIRE ALARM SYSTEM DEVICES:
HORN: SIMPLEX 4901-9816
SMOKE DETECTOR: EDWARDS C2MPD/C2WBA
HEAT DETECTOR: EDWARDS CR281/CR284
PULL STATION: TBD
END OF LINE RESISTOR: TBD

BASE BUILDING FIRE ALARM SYSTEM MANUFACTURER AND CONTRACTOR
TYCO INTEGRATED FIRE & SECURITY
MATT FLINTOFF
CELL: 289-260-9830
MATTHEW.FLINTOFF@JCI.COM

BASE BID PRICE TO INCLUDE FIRE ALARM SYSTEM INTEGRATION TESTING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

THE SCOPE OF WORK IS LIMITED TO REPLACING THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL AND REPLACING THE EXISTING FIRE ALARM SYSTEM HORNS. THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL IS OBSOLETE AND CANNOT BE REPAIRED. THE EXISTING FIRE ALARM SYSTEM HORNS ARE OBSOLETE AND MUST BE REPLACED TO BE COMPATIBLE WITH THE NEW FIRE ALARM SYSTEM CONTROL PANEL.

PLEASE NOTE THAT THE EXISTING FIRE ALARM SYSTEM INSTALLATION IS NON COMPLIANT WITH ONTARIO BUILDING CODE 2012 REQUIREMENTS. THE CURRENT SCOPE OF WORK DOES NOT INCLUDE FOR A LIFE SAFETY STUDY OR TO UPGRADE THE EXISTING INSTALLATION / FIELD DEVICES FOR A CODE COMPLIANT SYSTEM.

AS PART OF THIS SCOPE OF WORK PROVIDE BASELINE AUDIBILITY TEST THROUGHOUT THE FACILITY PRIOR TO CONSTRUCTION. PROVIDE DRAWINGS NOTING AUDIBILITY LEVEL READINGS AT ALL LOCATIONS TESTED.

1 / E-1.4 PARTIAL BASE BUILDING FIRE ALARM SYSTEM RISER DIAGRAM
SCALE: NTS

N-1 RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF HARDWARE, MODULES, ACCESSORIES, FIELD DEVICES, STROBE LIGHT CIRCUITS, INITIATING DEVICE CIRCUITS, HORN CIRCUITS, HARDWARE, DEVICES, CONDUIT, WIRE, ETC., TO ENSURE A FULLY OPERATIONAL FIRE ALARM SYSTEM.

N-2 REFER TO FLOOR PLANS FOR EXACT QUANTITY AND LOCATION OF DEVICES, DEVICE PERIPHERALS AND ACCESSORIES (IE. WIRE GUARD, EXPLOSION PROOF DEVICES, WEATHER PROOF DEVICES, ETC..)

N-3 PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM CONDUIT SIZE 3/4".

N-4 AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT.

N-5 NOT USED.

N-6 NOT USED.

N-7 PROVIDE DIRECT CONNECTIONS TO ADDITIONAL MISCELLANEOUS EXTERNAL DEVICES REQUIRED BY MANUFACTURER SUCH AS MODEMS AND DIALERS.

N-8 NOT USED.

N-9 PROVIDE 24VDC CIRCUITS FOR STROBES AND OTHER 24VDC DEVICES. MAXIMUM LOAD ON EACH CIRCUIT SHALL NOT EXCEED 70%. CIRCUIT REQUIREMENTS NOT SHOWN ON RISER DIAGRAM.

N-10 TWO (2) CONDUIT SYSTEM MUST BE UTILIZED – ONE FOR FIRE ALARM SIGNALLING DEVICES AND SECOND FOR FIRE ALARM INITIATING DEVICES.

N-11 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR FOR FIRE ALARM SYSTEM CONDUITS/CABLES. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. ALL X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.

N-12 PROVIDE PROGRAMMING TO INITIATE THE RELEASE OF ELECTRIC LOCK DEVICE WHEN FIRE ALARM SYSTEM IS ACTIVATED. PROVIDE REQUIRED WIRING, COMPONENTS, ACCESSORIES, ETC.

N-13 ACTIVATION OF ANY ALARM INITIATING DEVICE SHALL SHUT DOWN ALL VENTILLATION/SUPPLY FANS THROUGH CONTROL ZONE MODULES. CONTROL ZONE MODULES NOT SHOWN ON DRAWINGS.

N-14 PROVIDE LINE ISOLATOR MODULES TO ISOLATE DCLA SEGMENTS ON A PER FIRE ALARM ZONE BASIS, ON A PER FLOOR BASIS AND AS REQUIRED BY THE MANUFACTURER AND BY ONTARIO BUILDING CODE. NOTE: PROVIDE ADDITIONAL LINE ISOLATOR MODULES AS REQUIRED OVER AND ABOVE THOSE SHOWN ON RISER DIAGRAM TO SATISFY ISOLATION REQUIREMENTS.

N-15 REFER TO FIRE ALARM SYSTEM ZONE SCHEDULE FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS. PROVIDE ZONE MODULES, CONTACTORS, ENCLOSURES AND DVRS REQUIRED.

N-16 EACH DCLA WIRING LOOP SHALL BE LIMITED TO SERVING DEVICES ON ONE FLOOR UNLESS INDICATED OTHERWISE.

N-17 MINIMUM NUMBER OF DCLA CIRCUITS PER FLOOR INDICATED ON DRAWING. PROVIDE ADDITIONAL DCLA CIRCUITS C/W CONDUIT AND WIRE AS REQUIRED BY MANUFACTURER TO ACCOMMODATE QUANTITY OF DEVICES DETAILED ON FLOOR PLANS. MAXIMUM NUMBER OF DEVICES ON EACH DCLA CIRCUIT SHALL NOT EXCEED 70% OF MANUFACTURER'S STATED LOAD MAXIMUMS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

N-18 FIRE ALARM SYSTEM PASSIVE GRAPHIC PROVIDED AS PART OF THIS SCOPE OF WORK SHALL INCORPORATE ALL ITEMS TYPICALLY SHOWN ON AN ESSENTIAL SERVICES GRAPHIC. COORDINATE EXACT REQUIREMENTS WITH HCC ENGINEERING DURING SHOP DRAWING PROCESS.

N-19 CUTOVER (TRANSFER) EXISTING FIRE ALARM SYSTEM INITIATING CIRCUITS / ZONES FROM THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL TO BE REPLACED AS PART OF THIS SCOPE OF WORK TO THE NEW FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS PART OF THIS SCOPE OF WORK, ONE (1) CIRCUIT / ZONE AT A TIME. VERIFY EVERY DEVICE ON EACH CIRCUIT PER CAN/ULC S537 REQUIREMENTS.

N-20 CUTOVER (TRANSFER) EXISTING FIRE ALARM SYSTEM SIGNALING CIRCUITS FROM THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL TO BE REPLACED AS PART OF THIS SCOPE OF WORK TO THE NEW FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS PART OF THIS SCOPE OF WORK, ONE (1) CIRCUIT AT A TIME. VERIFY HORNS PROVIDED AS PRT OF THIS SCOPE OF WORK ON EACH CIRCUIT PER CAN/ULC S537 REQUIREMENTS. ONCE ALL EXISTING FIRE ALARM SYSTEM SIGNALING CIRCUITS HAVE BEEN TRANSFERRED OVER TO THE NEW FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS PART OF THIS SCOPE OF WORK, ACTIVATE ALL HORNS THROUGHOUT THE FACILITY PER CAN/ULC S537 AND FIRE ALARM MANUFACTURER'S REQUIREMENTS.

N-21 PROVIDE STROBE CIRCUIT SYNCHRONIZATION MODULES.

N-22 PROVIDE OUTPUT, WIRE AND CONDUIT FOR SECURED OFFSITE MONITORING THROUGH CLIENT'S LAN NETWORK. COORDINATE EXACT TERMINATION REQUIREMENTS ON SITE. WIRING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

N-23 PROVIDE FIRE ALARM SYSTEM ALARM, TROUBLE AND SUPERVISORY OUTPUT ZONES FOR ULC MONITORING THROUGH MONITORING PANEL PROVIDED AS PART OF THIS SCOPE OF WORK.

N-24 CONTROL PANEL FUNCTIONS AND REQUIREMENTS, INCLUDING ALL POWER SUPPLIES AND ACCESSORIES MUST BE CONTAINED TO ONE (1) FULL SIZE CABINET.

N-25 REFER TO EXISTING FIRE ALARM SYSTEM ZONE SCHEDULES AND VERIFICATION REPORTS FOR ADDITIONAL REQUIREMENTS AND QUANTITY OF EXISTING DEVICES, ZONES AND CIRCUITS.

N-26 REPLACE EXISTING END OF LINE RESISTORS WITH NEW. CONTACT MANUFACTURER FOR ADDITIONAL REQUIREMENTS.

N-27 AS PART OF THIS SCOPE OF WORK ELECTRICAL CONTRACTOR SHALL DISPOSE OF ALL EXISTING BATTERIES IN COMPLIANCE WITH MINISTRY STANDARDS. ELECTRICAL CONTRACTOR SHALL PROVIDE A LETTER PREPARED BY THE DISPOSAL COMPANY STATING THAT BATTERIES WERE DISPOSED OF THROUGH ENVIRONMENTALLY SAFE METHODS. PROVIDE WAYBILLS.

1 EXISTING FIRE ALARM SYSTEM CONTROL PANEL TO BE REPLACED AS PART OF THIS SCOPE OF WORK – SIMPLEX 4001
2 CONDUIT AND WIRE PER MANUFACTURER'S REQUIREMENTS
3 FIRE ALARM SYSTEM CONTROL PANEL C/W LED ANNUNCIATOR PANEL PROVIDED AS PART OF THIS SCOPE OF WORK – SIMPLEX 4007ES
4 FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL PROVIDED AS PART OF THIS SCOPE OF WORK – SIMPLEX 4606
5 FIRE ALARM SYSTEM PASSIVE GRAPHIC PROVIDED AS PART OF THIS SCOPE OF WORK
6 EXISTING FIRE ALARM SYSTEM MONITORING PANEL

——— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR
– – – – – – DENOTES EXISTING TO REMAIN
* * * * * * DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DETAILS

HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC. CONTROL DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**
DRAWING NO: **E-1.4**

(N-1) ROUTE ALL CONDUIT SYSTEMS, ETC., AROUND EXISTING DUCT WORK, PIPING, ETC., AS REQUIRED TO ACCOMMODATE INSTALLATION.

1. EXISTING FIRE ALARM SYSTEM CONTROL PANEL TO BE REMOVED AS PART OF THIS SCOPE OF WORK
2. FIRE ALARM SYSTEM CONTROL PANEL PROVIDED AS OF THIS SCOPE OF WORK. REFER TO DETAIL NO. 3 ON DRAWING NO. E-1.2 AND DETAIL NO. 1 ON DRAWING NO. E-1.4 FOR ADDITIONAL REQUIREMENTS.
3. FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL PROVIDED AS OF THIS SCOPE OF WORK.
4. EXISTING FIRE ALARM SYSTEM MONITORING SYSTEM PANEL.

THE SCOPE OF WORK IS LIMITED TO REPLACING THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL AND REPLACING THE EXISTING FIRE ALARM SYSTEM HORNS. THE EXISTING FIRE ALARM SYSTEM CONTROL PANEL AND HORNS ARE OBSOLETE AND CANNOT BE REPAIRED. PLEASE NOTE THAT THE EXISTING FIRE ALARM SYSTEM INSTALLATION IS NON COMPLIANT WITH ONTARIO BUILDING CODE 2012 REQUIREMENTS. THE CURRENT SCOPE OF WORK DOES NOT INCLUDE FOR A LIFE SAFETY STUDY OR TO UPGRADE THE EXISTING INSTALLATION / FIELD DEVICES FOR A CODE COMPLIANT SYSTEM.

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLAN GROUND FLOOR

HCC Project No.: 24210

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC. CONTROL DATE:
DRAWN BY: KZ	% COMPLETE:
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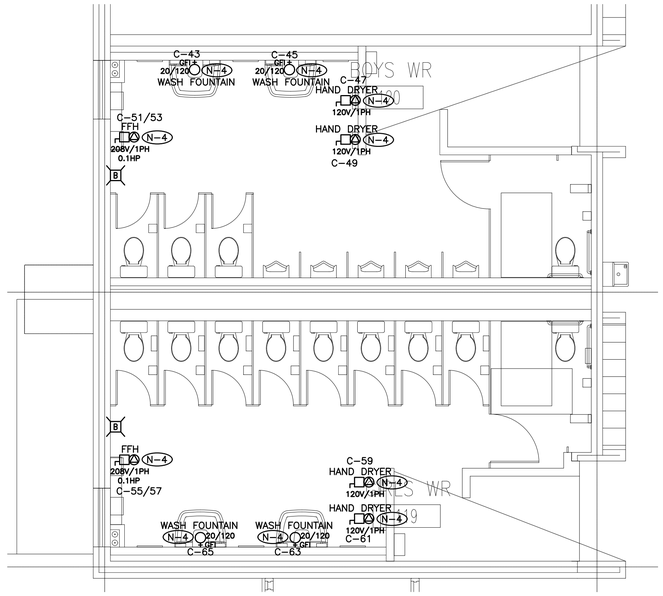
DATE: SEPT. 2024	
SCALE: 1:150	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-2.1**



N-1 EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT

N-2 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.

N-4 CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.

N-5 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.

N-6 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.

N-7 ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.

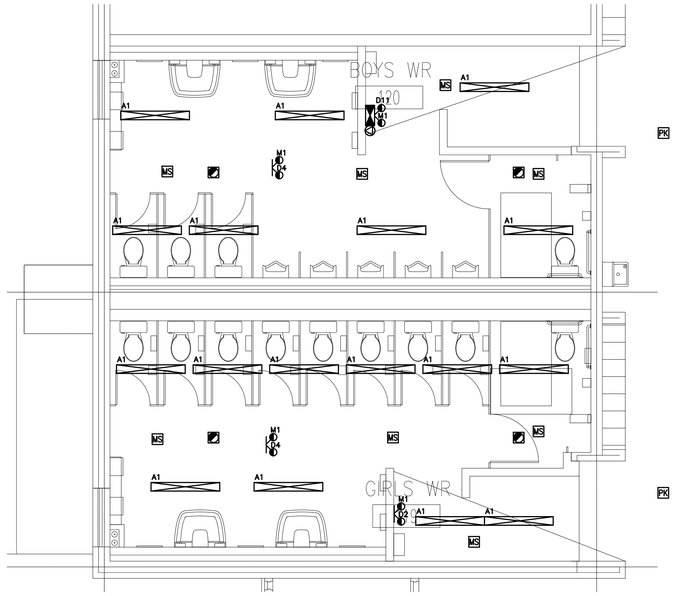
N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.

N-9 REMOVE AND RELOCATE EXISTING FIRE ALARM SYSTEM DEVICES, LIGHT FIXTURES, EXIT SIGNS, PA SPEAKERS, ETC TO ACCOMMODATE CONDUIT ROUTINGS AND INSTALLATION. EXISTING FIRE ALARM SYSTEM DEVICES, LIGHT FIXTURES, EXIT SIGNS, ETC., NOT SHOWN ON DRAWINGS.

N-10 MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.

N-11 MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.

1 E-9.1 ELECTRICAL PLAN – WASHROOM 119 & 120
SCALE: 1:50



REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

N-1 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHTS FOR MOUNTING OF FIXTURES, OCCUPANCY SENSORS, LIGHT SWITCHES, ETC.

N-2 PROVIDE NEW LIGHTING FIXTURES, EXIT SIGNS, SWITCHES, OCCUPANCY SENSORS, ETC., TO SUIT NEW REFLECTED CEILING PLAN.

N-3 COORDINATE INSTALLATION OF FIXTURES WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, SPRINKLERS AND DUCT WORK.

N-4 CHAIN HANG ALL NEW FIXTURES PROVIDED AS PART OF THIS SCOPE OF WORK IN FINISHED CEILING AREAS FROM SLAB (RETROFIT FIXTURES ACCORDINGLY).

N-5 ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS. CONFIRM WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.

N-6 REUTILIZE EXISTING LIGHTING CIRCUITS UNLESS DENOTED OTHERWISE.

N-7 ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK.

N-8 ALL SWITCHES PROVIDED AS PART OF THIS SCOPE OF WORK TO BE ALIGNED WITH THERMOSTATS.

N-9 AS PART OF THIS SCOPE OF WORK EMPLOY AND PAY FOR THE SERVICES OF A CERTIFIED ACUITY SERVICE CONSULTANT TO COMMISSION ALL OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK. COMMISSIONING AND DOCUMENTATION SHALL BE COMPLETED; DETAILED AS REQUIRED TO DEMONSTRATE LEED COMPLIANCE.

N-10 SWITCH/DIMMING LEGS SHALL BE WIRED SUCH THAT LEG IS CONTROLLED BY OCCUPANCY SENSORS IN RESPECTIVE SPACE ENCLOSED BY CEILING HEIGHT PARTITIONS. OPERATION OF SAME LIGHT BRANCH CIRCUIT IN ADJACENT AREAS/ROOMS SHALL NOT AFFECT OPERATION OF LIGHTING IN RESPECTIVE AREA.

N-11 CEILING MOUNTED OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE INSTALLED AT LEAST 6' AWAY FROM ALL SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLS. COORDINATE EXACT INSTALLATION LOCATION WITH ACUITY SERVICE CONSULTANT AND MECHANICAL CONTRACTOR PRIOR TO COMMENCING WORK.

N-12 AS PART OF THIS SCOPE OF WORK ELECTRICAL CONTRACTOR TO HAVE ACUITY SERVICE CONSULTANT ONSITE AFTER LIGHTING AND HVAC INSTALLATION IS COMPLETE AND PRIOR TO INSTALLATION OF SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK TO CONFIRM PLACEMENT OF SENSORS.

N-13 ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES, FIRE ALARM SYSTEM DEVICES, ETC. THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF DUCT WORK AND MECHANICAL EQUIPMENT, ETC. PROVIDED BY DIVISION 15. COORDINATE EXACT REQUIREMENTS ON SITE WITH MECHANICAL CONTRACTOR.

N-14 PROVIDE LOCK ON FOR BREAKERS PROTECTING EMERGENCY LIGHTING SYSTEMS / CIRCUITS.

N-15 UTILIZE EXISTING 120V SUITE LIGHTING CIRCUIT AHEAD OF ALL SWITCH LEGS (DC SOURCE M1) TO POWER EXIT SIGN AC LAMPS AND 24 HOUR LIGHTING.

2 E-9.1 REFLECTED CEILING PLAN – WASHROOM 119 & 120
SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLANS
WASHROOM 119 & 120

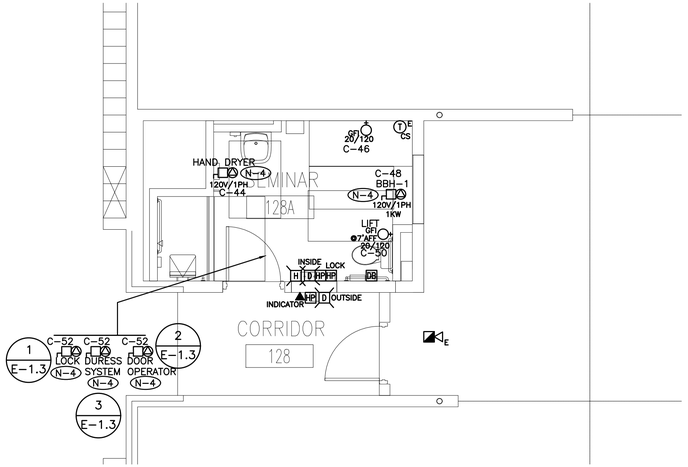
HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC. CONTROL: DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-9.1**



N-1 EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT

N-2 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.

N-4 CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.

N-5 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.

N-6 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.

N-7 ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.

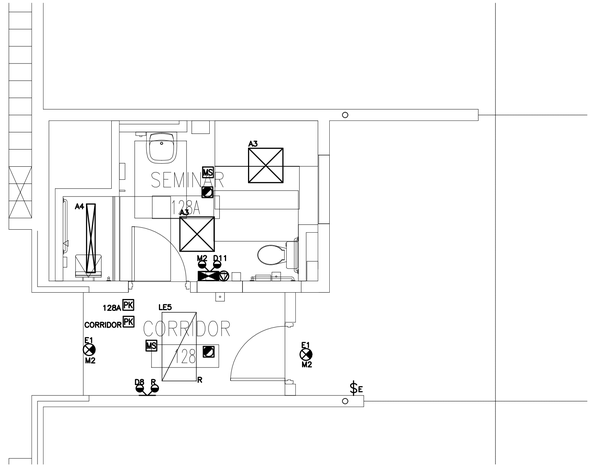
N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.

N-9 REMOVE AND RELOCATE EXISTING FIRE ALARM SYSTEM DEVICES, LIGHT FIXTURES, EXIT SIGNS, PA SPEAKERS, ETC TO ACCOMMODATE CONDUIT ROUTINGS AND INSTALLATION. EXISTING FIRE ALARM SYSTEM DEVICES, LIGHT FIXTURES, EXIT SIGNS, ETC., NOT SHOWN ON DRAWINGS.

N-10 MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.

N-11 MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.

1 E-9.2 ELECTRICAL PLAN – WASHROOM 128A
SCALE: 1:50



REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

N-1 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHTS FOR MOUNTING OF FIXTURES, OCCUPANCY SENSORS, LIGHT SWITCHES, ETC.

N-2 PROVIDE NEW LIGHTING FIXTURES, EXIT SIGNS, SWITCHES, OCCUPANCY SENSORS, ETC., TO SUIT NEW REFLECTED CEILING PLAN.

N-3 COORDINATE INSTALLATION OF FIXTURES WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, SPRINKLERS AND DUCT WORK.

N-4 CHAIN HANG ALL NEW FIXTURES PROVIDED AS PART OF THIS SCOPE OF WORK IN FINISHED CEILING AREAS FROM SLAB (RETROFIT FIXTURES ACCORDINGLY).

N-5 ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS. CONFIRM WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.

N-6 REUTILIZE EXISTING LIGHTING CIRCUITS UNLESS DENOTED OTHERWISE.

N-7 ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK.

N-8 ALL SWITCHES PROVIDED AS PART OF THIS SCOPE OF WORK TO BE ALIGNED WITH THERMOSTATS.

N-9 AS PART OF THIS SCOPE OF WORK EMPLOY AND PAY FOR THE SERVICES OF A CERTIFIED ACUITY SERVICE CONSULTANT TO COMMISSION ALL OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK. COMMISSIONING AND DOCUMENTATION SHALL BE COMPLETED; DETAILED AS REQUIRED TO DEMONSTRATE LEED COMPLIANCE.

N-10 SWITCH/DIMMING LEGS SHALL BE WIRED SUCH THAT LEG IS CONTROLLED BY OCCUPANCY SENSORS IN RESPECTIVE SPACE ENCLOSED BY CEILING HEIGHT PARTITIONS. OPERATION OF SAME LIGHT BRANCH CIRCUIT IN ADJACENT AREAS/ROOMS SHALL NOT AFFECT OPERATION OF LIGHTING IN RESPECTIVE AREA.

N-11 CEILING MOUNTED OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE INSTALLED AT LEAST 6' AWAY FROM ALL SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLS. COORDINATE EXACT INSTALLATION LOCATION WITH ACUITY SERVICE CONSULTANT AND MECHANICAL CONTRACTOR PRIOR TO COMMENCING WORK.

N-12 AS PART OF THIS SCOPE OF WORK ELECTRICAL CONTRACTOR TO HAVE ACUITY SERVICE CONSULTANT ONSITE AFTER LIGHTING AND HVAC INSTALLATION IS COMPLETE AND PRIOR TO INSTALLATION OF SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK TO CONFIRM PLACEMENT OF SENSORS.

N-13 ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES, FIRE ALARM SYSTEM DEVICES, ETC. THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF DUCT WORK AND MECHANICAL EQUIPMENT, ETC. PROVIDED BY DIVISION 15. COORDINATE EXACT REQUIREMENTS ON SITE WITH MECHANICAL CONTRACTOR.

N-14 PROVIDE LOCK ON FOR BREAKERS PROTECTING EMERGENCY LIGHTING SYSTEMS / CIRCUITS.

N-15 UTILIZE EXISTING 120V SUITE LIGHTING CIRCUIT AHEAD OF ALL SWITCH LEGS (DC SOURCE M2) TO POWER EXIT SIGN AC LAMPS AND 24 HOUR LIGHTING.

2 E-9.2 REFLECTED CEILING PLAN – WASHROOM 128A
SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR03/25	KZ
3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLANS
WASHROOM 128A

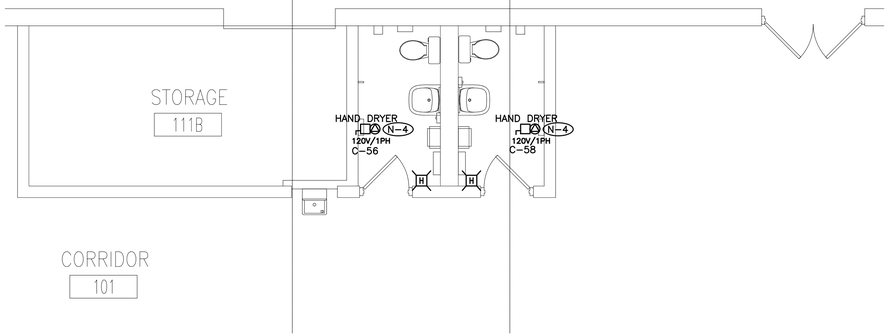
HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcneng.com

DESIGN BY: KZ	DOC CONTROL DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-9.2**



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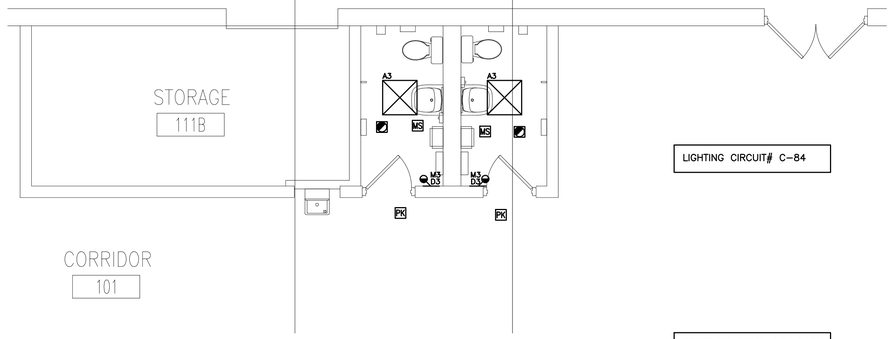
1 E-9.3 ELECTRICAL PLAN – WASHROOM 112 & 113
SCALE: 1:50



LIGHTING CIRCUIT# C-84

REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

N-1 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHTS FOR MOUNTING OF FIXTURES, OCCUPANCY SENSORS, LIGHT SWITCHES, ETC.

N-2 PROVIDE NEW LIGHTING FIXTURES, EXIT SIGNS, SWITCHES, OCCUPANCY SENSORS, ETC., TO SUIT NEW REFLECTED CEILING PLAN.

N-3 COORDINATE INSTALLATION OF FIXTURES WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, SPRINKLERS AND DUCT WORK.

N-4 CHAIN HANG ALL NEW FIXTURES PROVIDED AS PART OF THIS SCOPE OF WORK IN FINISHED CEILING AREAS FROM SLAB (RETROFIT FIXTURES ACCORDINGLY).

N-5 ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS. CONFIRM WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.

N-6 REUTILIZE EXISTING LIGHTING CIRCUITS UNLESS DENOTED OTHERWISE.

N-7 ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK.

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N-14 PROVIDE LOCK ON FOR BREAKERS PROTECTING EMERGENCY LIGHTING SYSTEMS / CIRCUITS.

2 E-9.3 REFLECTED CEILING PLAN – WASHROOM 112 & 113
SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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4	ISSUED FOR TENDER	APR03/25	KZ
3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLANS
WASHROOMS 112 & 113

HCC Project No.: 24210

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcteng.com

DESIGN BY: KZ	DOC. CONTROL: DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
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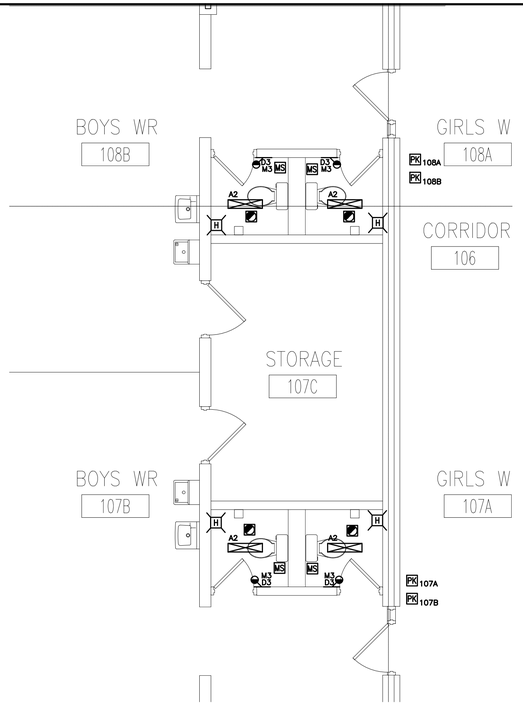
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-9.3**



LIGHTING CIRCUIT# C-84

REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

(N-1) REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHTS FOR MOUNTING OF FIXTURES, OCCUPANCY SENSORS, LIGHT SWITCHES, ETC.

(N-2) PROVIDE NEW LIGHTING FIXTURES, EXIT SIGNS, SWITCHES, OCCUPANCY SENSORS, ETC., TO SUIT NEW REFLECTED CEILING PLAN.

(N-3) COORDINATE INSTALLATION OF FIXTURES WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, SPRINKLERS AND DUCT WORK.

(N-4) CHAIN HANG ALL NEW FIXTURES PROVIDED AS PART OF THIS SCOPE OF WORK IN FINISHED CEILING AREAS FROM SLAB (RETROFIT FIXTURES ACCORDINGLY).

(N-5) ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS. CONFIRM WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.

(N-6) REUTILIZE EXISTING LIGHTING CIRCUITS UNLESS DENOTED OTHERWISE.

(N-7) ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK.

(N-8) ALL SWITCHES PROVIDED AS PART OF THIS SCOPE OF WORK TO BE ALIGNED WITH THERMOSTATS.

(N-9) AS PART OF THIS SCOPE OF WORK EMPLOY AND PAY FOR THE SERVICES OF A CERTIFIED ACUITY SERVICE CONSULTANT TO COMMISSION ALL OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK. COMMISSIONING AND DOCUMENTATION SHALL BE COMPLETED; DETAILED AS REQUIRED TO DEMONSTRATE LEED COMPLIANCE.

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(N-13) ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES, FIRE ALARM SYSTEM DEVICES, ETC. THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF DUCT WORK AND MECHANICAL EQUIPMENT, ETC. PROVIDED BY DIVISION 15. COORDINATE EXACT REQUIREMENTS ON SITE WITH MECHANICAL CONTRACTOR.

(N-14) PROVIDE LOCK ON FOR BREAKERS PROTECTING EMERGENCY LIGHTING SYSTEMS / CIRCUITS.

1 / E-9.4 REFLECTED CEILING PLAN – WASHROOM 107A/B & 108A/B

SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

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3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLANS WASHROOM 107A/B & 108A/B

HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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DATE: SEPT. 2024	
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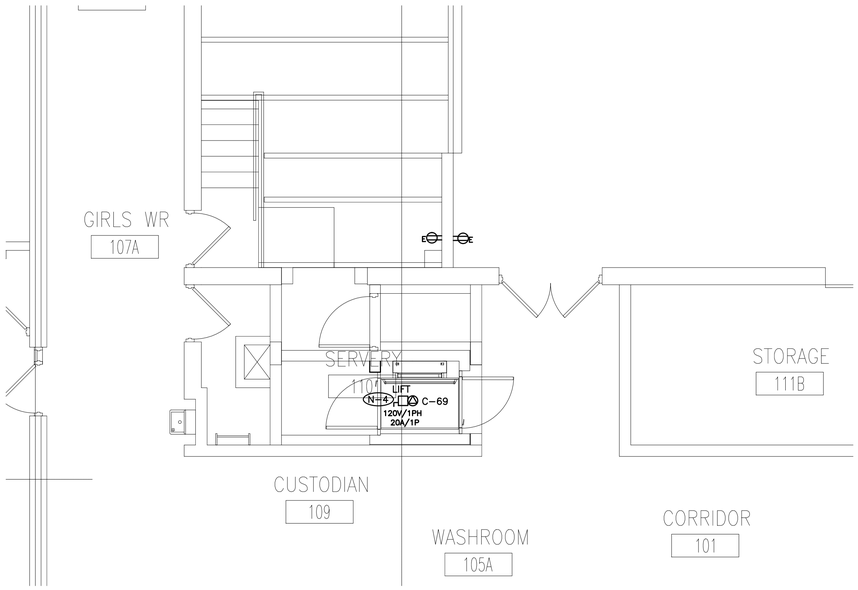
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-9.4**



N-1 EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT

N-2 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

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N-5 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.

N-6 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.

N-7 NOT USED.

N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.

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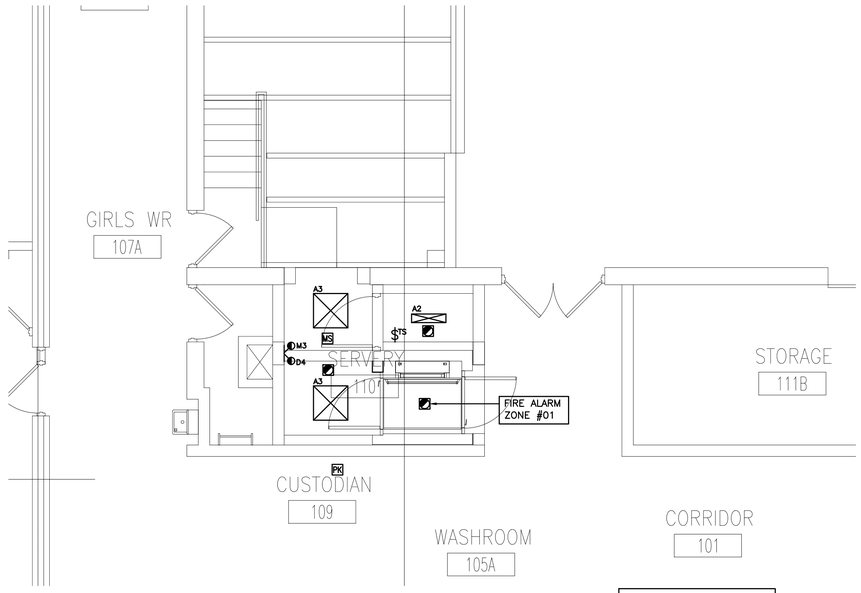
1 E-9.5 ELECTRICAL PLAN – STAGE LIFT
SCALE: 1:50



LIGHTING CIRCUIT# C-84

REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

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2 E-9.5 REFLECTED CEILING PLAN – STAGE LIFT
SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

NO.	ISSUES/ REVISIONS	DATE	BY
4	ISSUED FOR TENDER	APR03/25	KZ
3	ISSUED FOR PERMIT	DEC20/24	KZ
2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

PROJECT:

RENOVATIONS AT RICHARD BEASLEY ELEMENTARY SCHOOL

80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL PLANS
STAGE LIFT

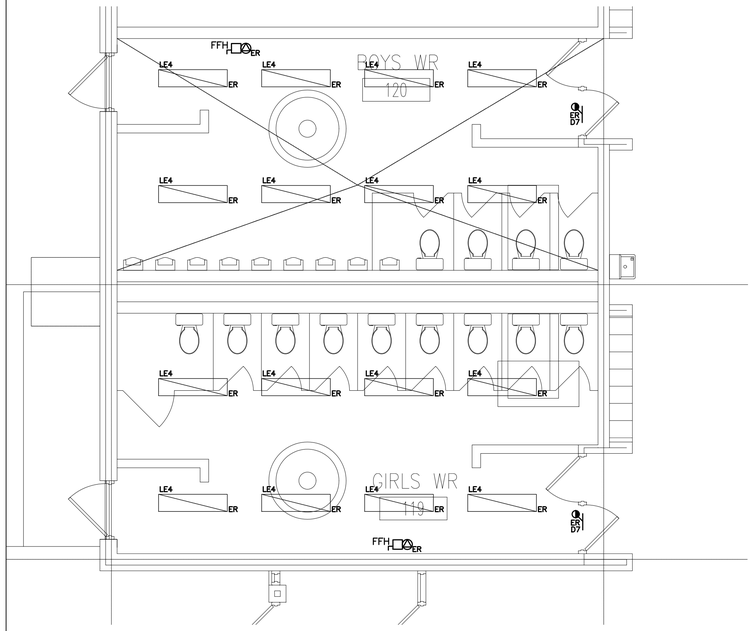
HCC Project No.: 24210

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-arcneng.com

DESIGN BY: KZ	DOC. CONTROL: DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-9.5**



REFER TO DETAIL NO. 2 ON DRAWING NO. E–1.2 FOR FIXTURE SCHEDULE

(N–1) ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR CONDUIT SYSTEMS.

(N–2) REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.

(N–3) DO NOT REUSE ANY DEVICES, BACKBOXES, CONTROL SYSTEMS, ETC REMOVED AS PART OF THIS SCOPE OF WORK.

(N–4) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL RECEPTACLES, COMMUNICATIONS ROUGH–INS, ETC. OVER AND ABOVE THOSE SHOWN ON THIS DRAWING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(N–5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.

(N–6) LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DETAIL NO. 2 ON DRAWING NO. E–9.1 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

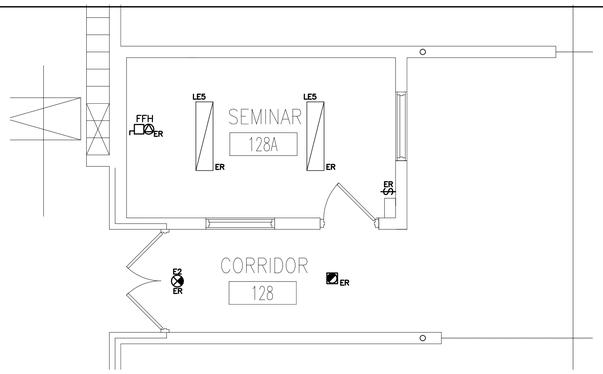
(N–7) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL FIXTURE OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 1 ON DRAWING NO. E–10.1.

(N–8) DISPOSE OF ALL FIXTURES (EXCLUDING BASE BUILDING FIXTURES) REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

(N–9) REWIRE ALL EXISTING TO REMAIN FIXTURES TO ENSURE CONTINUITY OF SERVICES.

(N–10) AS PART OF THIS SCOPE OF WORK ELECTRICAL CONTRACTOR MUST PROCURE (ORDER AND PAY FOR) THE SERVICES OF AEVITAS TO DISPOSE OF ALL LAMPS AND BALLASTS REMOVED AS PART OF THIS SCOPE OF WORK IN COMPLIANCE WITH MINISTRY STANDARDS AND ENVIRONMENTALLY SAFE METHODS. ELECTRICAL CONTRACTOR SHALL PROVIDE A SUBMISSION (LETTER) STATING THAT LAMPS AND BALLASTS WERE DISPOSED OF THROUGH ENVIRONMENTALLY SAFE METHODS. THE SUBMISSION BY THE ELECTRICAL CONTRACTOR SHALL INCLUDE THE WAYBILL DETAILING LOCATION OF DISPOSAL AND QUANTITY OF LAMPS AND BALLASTS THAT WERE DISPOSED.

1 E–10.1 ELECTRICAL DEMOLITION PLAN – WASHROOM 119 & 120
SCALE: 1:50



REFER TO DETAIL NO. 2 ON DRAWING NO. E–1.2 FOR FIXTURE SCHEDULE

(N–1) ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR CONDUIT SYSTEMS.

(N–2) REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.

(N–3) DO NOT REUSE ANY DEVICES, BACKBOXES, CONTROL SYSTEMS, ETC REMOVED AS PART OF THIS SCOPE OF WORK.

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(N–5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.

(N–6) LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DETAIL NO. 2 ON DRAWING NO. E–9.2 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

(N–7) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL FIXTURE OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 2 ON DRAWING NO. E–10.2.

(N–8) DISPOSE OF ALL FIXTURES (EXCLUDING BASE BUILDING FIXTURES) REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

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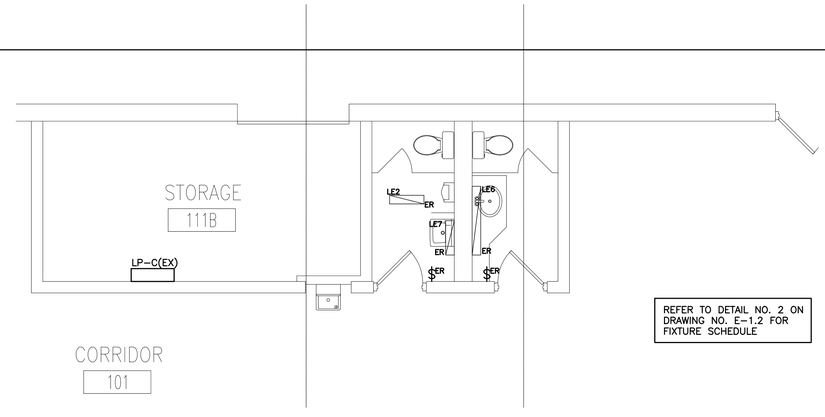
2 E–10.1 ELECTRICAL DEMOLITION PLAN – WASHROOM 128A
SCALE: 1:50



REFER TO DETAIL NO. 2 ON DRAWING NO. E–1.2 FOR FIXTURE SCHEDULE

(N–1) ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR CONDUIT SYSTEMS.

(N–2) REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.

(N–3) DO NOT REUSE ANY DEVICES, BACKBOXES, CONTROL SYSTEMS, ETC REMOVED AS PART OF THIS SCOPE OF WORK.

(N–4) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL RECEPTACLES, COMMUNICATIONS ROUGH–INS, ETC. OVER AND ABOVE THOSE SHOWN ON THIS DRAWING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(N–5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.

(N–6) LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DETAIL NO. 1 ON DRAWING NO. E–9.3 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

(N–7) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL FIXTURE OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 3 ON DRAWING NO. E–10.1.

(N–8) DISPOSE OF ALL FIXTURES (EXCLUDING BASE BUILDING FIXTURES) REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

(N–9) REWIRE ALL EXISTING TO REMAIN FIXTURES TO ENSURE CONTINUITY OF SERVICES.

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3 E–10.1 ELECTRICAL DEMOLITION PLAN – WASHROOM 112 & 113
SCALE: 1:50

LICENSED PROFESSIONAL ENGINEER
Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

HCC ENGINEERING
DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
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2	ISSUED FOR 60% REVIEW	NOV22/24	KZ
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80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DEMOLITION PLANS

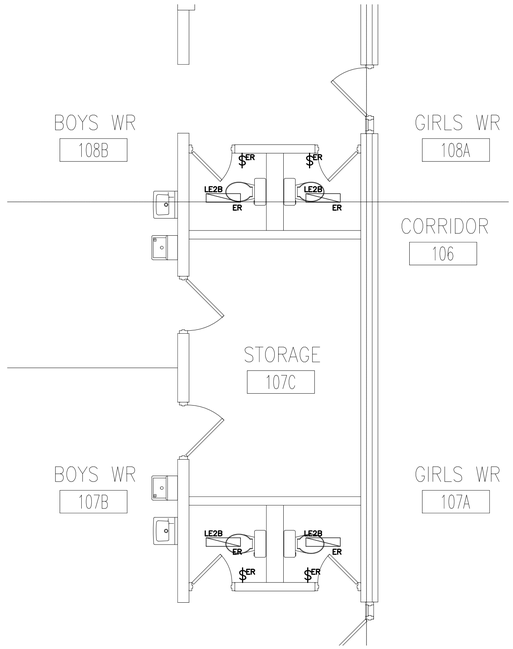
HCC Project No.: 24210

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

DESIGN BY: KZ	DOC. CONTROL DATE:
DRAWN BY: KZ	% COMPLETE:
CHECKED BY: HDC	INITIAL:
DATE: SEPT. 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24148**

DRAWING NO: **E-10.1**



REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

(N-1) ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR CONDUIT SYSTEMS.

(N-2) REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.

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(N-5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.

(N-6) LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DETAIL NO. 1 ON DRAWING NO. E-9.4 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

(N-7) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL FIXTURE OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 1 ON DRAWING NO. E-10.2.

(N-8) DISPOSE OF ALL FIXTURES (EXCLUDING BASE BUILDING FIXTURES) REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

(N-9) REWIRE ALL EXISTING TO REMAIN FIXTURES TO ENSURE CONTINUITY OF SERVICES.

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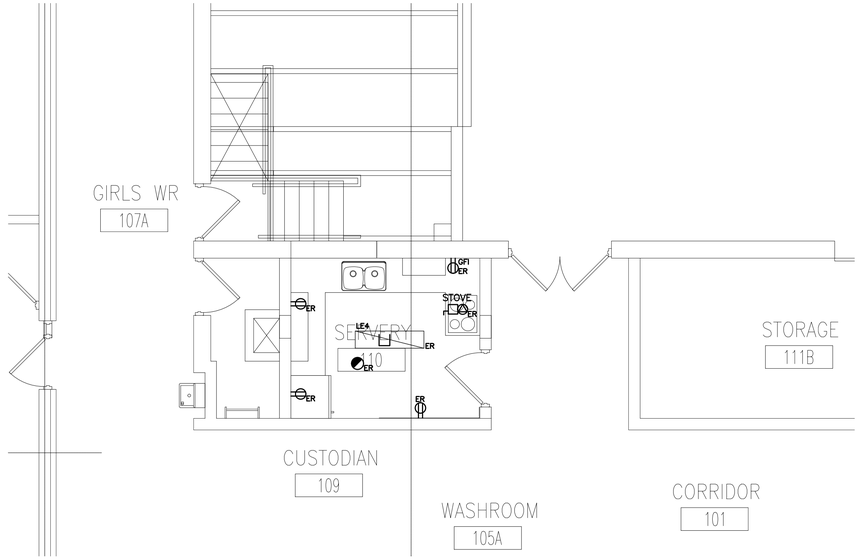
1 E-10.2 ELECTRICAL DEMOLITION PLAN – WASHROOM 107A/B & 108A/B
SCALE: 1:50



REFER TO DETAIL NO. 2 ON DRAWING NO. E-1.2 FOR FIXTURE SCHEDULE

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(N-5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.

(N-6) LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DETAIL NO. 2 ON DRAWING NO. E-9.5 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

(N-7) BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF ONE (1) ADDITIONAL FIXTURE OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 2 ON DRAWING NO. E-10.2.

(N-8) DISPOSE OF ALL FIXTURES (EXCLUDING BASE BUILDING FIXTURES) REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

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2 E-10.2 ELECTRICAL DEMOLITION PLAN – STAGE LIFT
SCALE: 1:50

Z. ZHONG
100545750
APR03/25
PROVINCE OF ONTARIO

H.D. COHEN
90414335
APR03/25
PROVINCE OF ONTARIO

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1	ISSUED FOR 33% REVIEW	OCT10/24	KZ

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80 CURRIE STREET
HAMILTON, ON

HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

ELECTRICAL DEMOLITION PLANS

HCC Project No.: 24210

BBA
BARRY BRYAN ASSOCIATES
Architects
Engineers
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250 Water Street
Suite 201
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Tel: (905) 666-5252
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e-mail: bba@bba-archeng.com

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PROJECT NO: **24148**

DRAWING NO: **E-10.2**