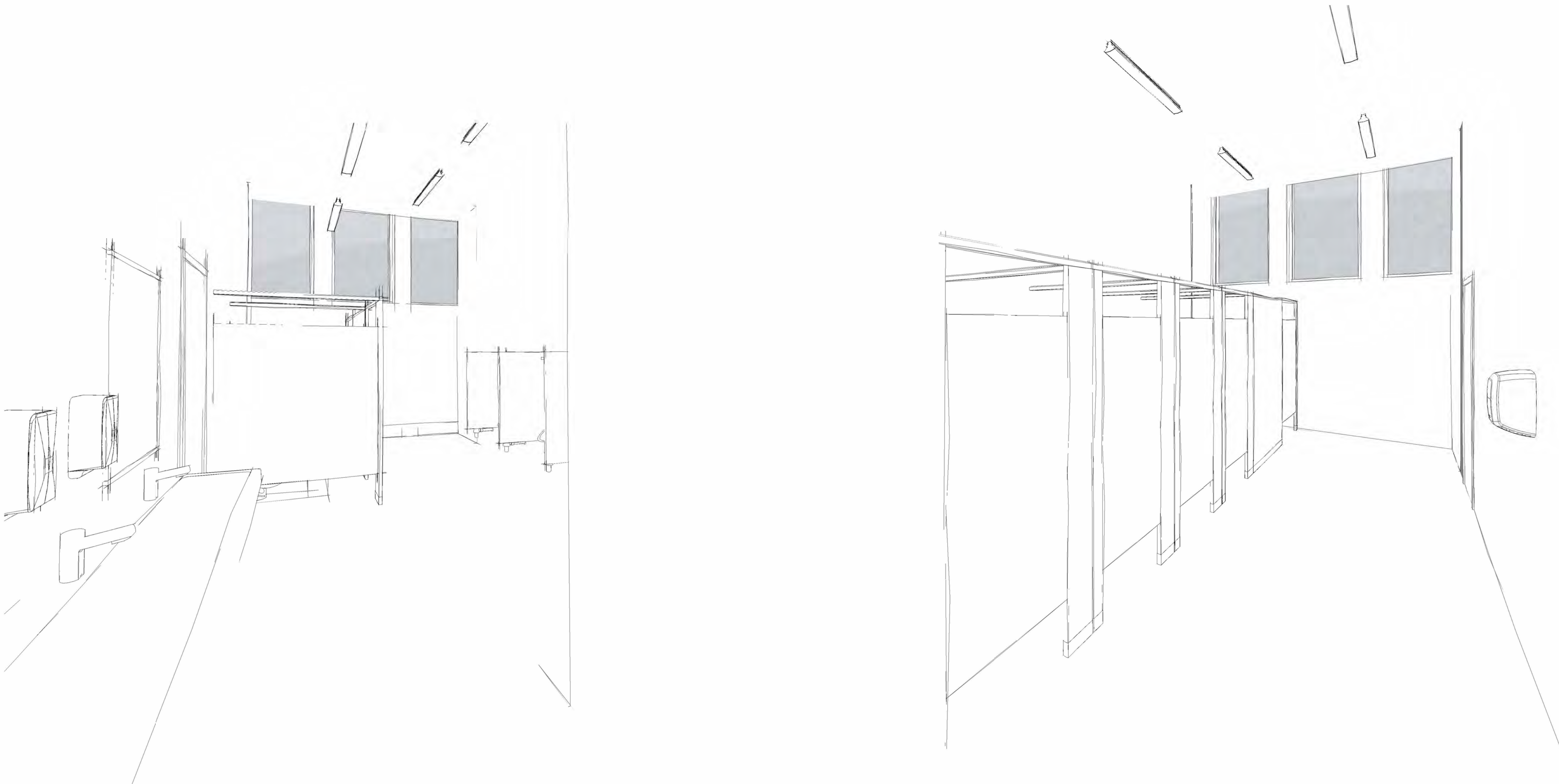


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Z:\Drawings\24-24 HWDSB P02083 W.H. Ballard Elementary School Washroom and Change Room Renovation\24-24 DESIGN\24-24 REV\1\24-24 W.H.BALLARD_R24.rvt



HWDSB

P02083 W.H. Ballard Elementary School
Washrooms & Change Room Renovations & Upgrades
801 Dunsmure Road, Hamilton, ON
L8H 1H9



project number	DRAWING NO.
24-24	A0.00

DRAWING LIST	
SHEET	ARCHITECTURAL DRAWINGS
A0.00	COVER PAGE
A0.01	GENERAL NOTES, LEGENDS, SCHEDULES
A1.00	GROUND FLOOR DEMOLITION PLANS
A1.01	SECOND FLOOR DEMOLITION PLANS
A1.02	THIRD FLOOR DEMOLITION PLANS
A2.00	GROUND FLOOR PROPOSED WASHROOM LAYOUT AND RCP
A2.01	GROUND FLOOR PROPOSED WASHROOM LAYOUT AND RCP
A2.02	SECOND FLOOR PROPOSED WASHROOM LAYOUT AND RCP
A2.03	THIRD FLOOR PROPOSED WASHROOM LAYOUT AND RCP
A2.04	GROUND FLOOR PROPOSED FINISHES
A2.05	SECOND AND THIRD FLOOR PROPOSED FINISHES
A3.00	INTERIOR ELEVATIONS
A4.00	INTERIOR FINISH DETAILS AND LEGENDS
A4.01	WASHROOM INFORMATION AND TYPICAL DETAILS, DOOR SCHEDULE
MECHANICAL DRAWINGS	
M0-00	MECHANICAL LEGEND AND DRAWING LIST
M1-00	OVERALL DEMO AND NEW KEY PLANS
M1-01	GROUND FLOOR PLUMBING SYSTEMS-DEMO AND NEW PART PLANS
M1-02	SECOND FLOOR PLUMBING SYSTEMS-DEMO AND NEW PART PLANS
M1-03	THIRD FLOOR PLUMBING SYSTEMS-DEMO AND NEW PART PLANS
M1-04	GROUND FLOOR MECHANICAL SYSTEMS-DEMO AND NEW PART PLAN
M1-05	SECOND FLOOR MECHANICAL SYSTEMS-DEMO AND NEW PART PLAN
M1-06	THIRD FLOOR MECHANICAL SYSTEMS-DEMO AND NEW PART PLAN & BASEMENT OVERALL PLAN
M1-07	DETAILS - DEMOLISH
M1-08	DETAILS - DEMOLISH
M2-00	DETAILS
M3-00	MECHANICAL SPECIFICATION
ME-01	MECHANICAL AND ELECTRICAL SCHEDULES
ELECTRICAL DRAWINGS	
E0-00	ELECTRICAL LEGEND & DRAWING LIST
E1-00	OVERALL PLAN DEMO - ELECTRICAL
E1-01	ENLARGED PLANS DEMO - ELECTRICAL
E2-00	OVERALL PLANS NEW - ELECTRICAL
E2-01	ENLARGED PLANS NEW - ELECTRICAL
E3-00	ELECTRICAL DETAILS & SPECIFICATIONS
ME-01	MECHANICAL AND ELECTRICAL SCHEDULES
STRUCTURAL DRAWINGS	
S0.01	OVERALL RENOVATION PLANS
S1.01	DEMOLITION AND PROPOSED FLOORPLANS
S1.02	DEMOLITION AND PROPOSED FLOORPLANS
S1.03	DEMOLITION AND PROPOSED FLOORPLANS
S4.01	FRAMING DETAILS

Name of Practice: AMRA / Architects Inc. 65 Stonyridge Cres. Ajax, ON LPG 5E1 info@amra.ca 905-520-5121 Name of Project: P02083 W.H. Ballard Elementary School Washroom Renovations & Upgrades		
Location: 801 Dunscombe Road, Hamilton, ON L8H 1H9		
Date: 2025/03/17		
Ontario Building Code Data Matrix Part 11 - Renovation of Existing Building		
11.00 Building Code Version:	<u>O. Reg. 332/12</u> Last Amendment <u>O. Reg. 191/14</u>	Building Code Reference
11.01 Project Type:	☐ Addition ☒ Renovation ☐ Addition and renovation ☐ Change of use Description: <u>Interior Renovation of Existing Washrooms</u>	11.1.2.
11.02 Major Occupancy Classification:	Occupancy <u>A-2</u> Use <u>Elementary School</u>	312.1.(1)
11.03 Superimposed Major Occupancies:	☒ No ☐ Yes Description:	322.7.
11.04 Building Area (m ²):	Description: Existing New Total <u>Existing School</u> <u>3,008</u> <u>0</u> <u>3,008</u>	11.1.4.1.2.
11.05 Building Height:	<u>3</u> Storeys above grade <u>Existing</u> (m) Above grade <u>1</u> Storeys below grade	11.1.4.1.2. & 521.1.
11.06 Number of Streets/Firefighter access:	<u>Existing (3)</u> street(s)	322.10. & 325.
11.07 Building Size:	☐ Small ☐ Medium ☒ Large ☐ > Large	11.1.2.1.B. N.
11.08 Existing Building Classification:	Change in Major Occupancy: ☐ Yes ☒ Not Applicable (no change of major occupancy) Construction Index: <u>#6</u> Hazard Index: <u>#6</u> Importance Category: ☐ Low ☐ Normal ☒ High ☐ Post-disaster	11.2.1.1. 11.2.1.10 to N 421.(3), 522.1.(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 Occupant Load (Persons) <u>All 3 levels</u> <u>A-2</u> <u>persons</u> <u>872</u>	3.1.1.7.
11.11 Plumbing Fixture Requirements:	Ratio: <u>30 males per fixture, 26 females per fixture</u> Floor Level/Area Occupant Load OBC Reference Fixtures Required Fixtures Provided <u>All</u> <u>436 M</u> <u>3.7.4.3.(14)</u> <u>15</u> <u>22</u> <u>All</u> <u>436 F</u> <u>3.7.4.3.(14)</u> <u>17</u> <u>20</u>	3.7.4.
11.12 Barrier-free Design:	☒ Yes ☐ No	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 systems: ☐ 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
11.14 Compensating Construction:	☐ No ☐ Yes Structural: ☐ No ☐ Yes Increase in occupant load: ☐ No ☐ Yes Change of major occupancy: ☐ No ☐ Yes Plumbing: ☐ No ☐ Yes Sewage systems: ☐ No ☐ Yes Extension of combustible construction: ☐ No ☐ Yes	11.4.3.1, 11.4.3.2, 11.4.3.3, 11.4.3.4, 11.4.3.5, 11.4.3.6, 11.4.3.7
11.15 Compliance Alternatives Proposed:	☐ No ☐ Yes	11.5.1.
11.16 Notes:	As per OBC DIV B - 11.3.3.1(1) basic renovation construction is being carried out to maintain the performance level of the existing building. Similar materials and components are being installed to replace those effected by proposed renovation. There is no change in occupant load and occupancy classification	11.5.1.

1. All references are to Division B of the OBC unless preceded by [A] for Division A and [C] for Division C.

PROJECT SCOPE

The project scope includes the complete renovation of existing washrooms within W.H. Ballard Elementary School. The existing building was built in 1923, is 3 storeys in height, has a building area of 3,008 sq.m. It is built using of non-combustible construction, non-sprinklered and has a fire alarm system. There is no proposed change of use or increase of occupancy.

The primary objective of the project is to improve accessibility and functionality by creating barrier-free facilities and incorporating a new universal accessible washroom and custodial closet. The scope includes architectural, mechanical, electrical, and structural modifications. The intent is to refresh all renovated areas to achieve a "brand new" look. The total area of renovation is about 450 sq. m.

PHASING

Construction will be phased to minimize disruption.

- Phase 1:
 - Ground Floor: 111, 112A, 112C, 116A, 116B, 117.
 - Second Floor: 206, 208B.
 - Third Floor: 308, 309.
- Phase 2:
 - Ground Floor: 118.
 - Second Floor: 211, 212.
 - Third Floor: 314.
- Phase 3:
 - Ground Floor: 130B, 129, 110A.
 - Second Floor: 221A, 223A.

DEMOLITION

Review the entire set of drawings, including structural, mechanical, and electrical, for the full scope of work. Include provisions for all repairs of materials disturbed by structural, mechanical/electrical demolition and new work. Maintain fire rating of existing fire separations (1 hr for the corridor walls and floors). Verify all dimensions on-site and review any discrepancies with consultants. Report any contemplated deviations from the drawings prior to making changes. Ensure that all areas disturbed or damaged during construction, whether shown on the drawings or not, are restored to their original condition. At minimum, at area of renovation, remove existing plumbing fixtures, toilet partitions, bathroom accessories. Return existing toilet tissue paper, paper towels and soap dispensers to the owner. Review with owner items to be reinstated after construction is completed. All flooring to be removed and prepared for new epoxy finish and ACT as specified. All existing walls and ceilings to be prepared for new finish.

The contractor shall fully enclose the construction area and coordinate all demolition and new work in such a manner as to not disturb the day-to-day operation of the surrounding areas.

NEW CONSTRUCTION

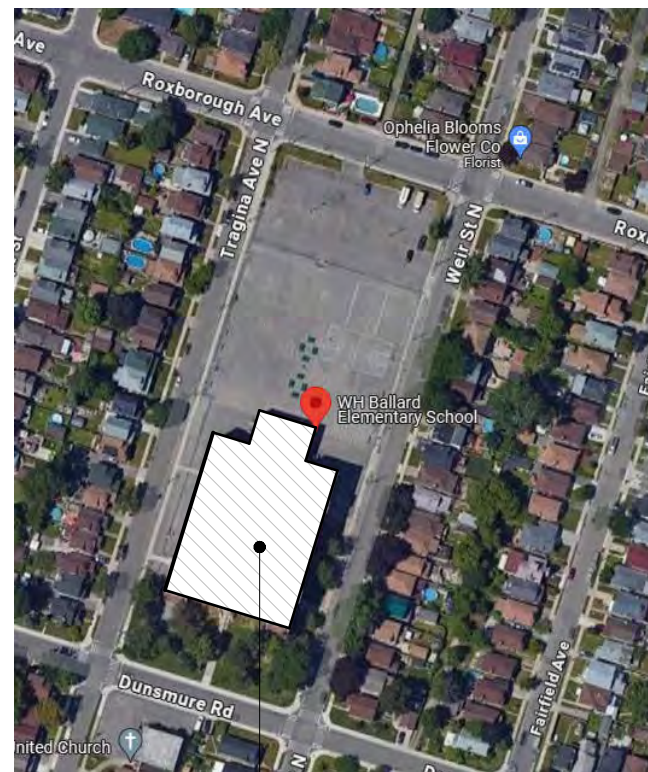
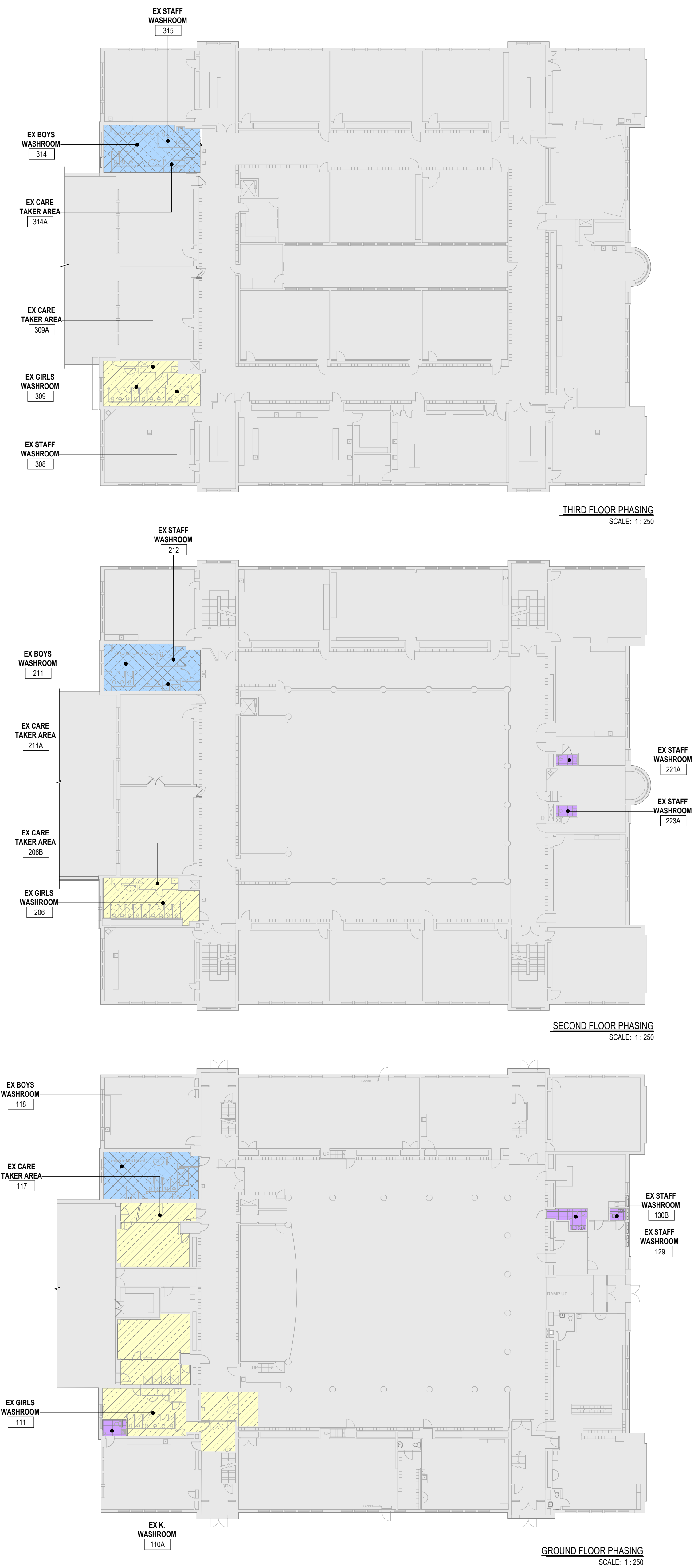
New work includes new construction required to create group students washroom, single staff washrooms, universal washroom and Janitor's room together with:

- Installation of new barrier-free compliant toilets, sinks, washroom partitions, and accessories.
- New masonry walls where required.
- Existing walls to be finished with ceramic tiles to the height indicated on the drawings.
- Review existing wall mounted conduits/pipes/ducts and allow for relocation or new finishes installation to achieve new construction look.
- Construction of new masonry wall partitions as indicated.
- New epoxy flooring with coved profile, terminated at ceramic tile.
- Existing exposed ceilings to be patched, peeling areas repaired, and repainted. Coordinate with existing duct/new mechanical and electrical surface mounted services.
- Use aluminum transition profiles at junctions to the existing corridor flooring. Paint all existing exposed devices.
- All renovated areas will be finished to achieve a "brand new" appearance.

WASHROOM FIXTURES COUNT (872 OCCUPANCY)

FLOOR	ROOM NAME	WC	URINAL
1	BOYS WASHROOM (118)	3	2
	GIRLS WASHROOM (111)	4	
	K. WASHROOM (110A)	1	
2	STAFF WASHROOM (130B)	1	
	STAFF WASHROOM (129)	1	
	NEW BF WASHROOM	1	
	BOYS WASHROOM (211)	2	5
	GIRLS WASHROOM (206)	6	
3	STAFF WASHROOM (212)	1	
	STAFF WASHROOM (221)	1	
	STAFF WASHROOM (223)	1	
	BOYS WASHROOM (314)	3	2
	STAFF WASHROOM (315)	1	
TOTAL:		33	9

WASHROOM TYPE	OBC REQUIREMENT (872)	TOTAL REQUIRED	TOTAL PROVIDED
MEN'S WASHROOMS	15	15	17
FEMALE'S WASHROOMS	17	17	16
SINGLE USE WASHROOMS			12



SITE LOCATION

PARTITION SCHEDULE

P1	• 90MM CONCRETE BLOCK
P2	• 140MM CONCRETE BLOCK
P3	• 190MM CONCRETE BLOCK
F1	• EX. WALL (MASONRY OR PLASTER) • 92MM STEEL STUDS @ 400MM O.C. • 15.9MM GYPSUM BOARD
P4	• 15.9MM GYPSUM BOARD • 92MM STEEL STUDS @ 400MM O.C. • 15.9MM GYPSUM BOARD
GBF	• EX. WALL (MASONRY OR PLASTER) • 12MM GYPSUM BOARD
P5	1 HR FIRE RATED PARTITION ULC W487 • 15.9MM GYPSUM BOARD TYPE X • 92MM STEEL STUDS @ 400MM O.C. • 15.9MM GYPSUM BOARD TYPE X

CEILING SCHEDULE

ACT1	• 610 x 1220 ACOUSTIC CEILING TILES
GB1	• 64MM STEEL STUDS @ 400MM O.C. • 16MM GYPSUM BOARD
GB2	• 64MM STEEL STUDS @400MM O.C. • 2 LAYERS 16MM TYPE X GYPSUM BOARD • 1HR FRR AS PER OBC SUPPLEMENTA RY STANDARD SB-2, TABLE 2.3.12

ALL PARTITIONS EXTEND TO UNDERSIDE OF STRUCTURAL SLAB OR ROOF DECKING UNLESS OTHERWISE NOTED.

ALL EXPOSED CORNERS IN MASONRY WALLS TO BE ROUNDED BULLNOSE. AT NEW OPENING IN EXISTING MASONRY WALLS, KEY IN NEW MASONRY UNITS AS REQUIRED FOR FINISH WITH BULLNOSE OPENING

*AT LOCATIONS WHERE MASONRY UNITS ARE TO INFILL AN OPENING IN AN EXISTING WALL, MASONRY UNIT DIMENSIONS TO MATCH EXISTING (IMPERIAL OR METRIC AS APPLICABLE).

**FOR WALLS THAT ARE NOT FULL HEIGHT REFER TO INTERIOR ELEVATIONS FOR THEIR HEIGHT.

SYMBOL LEGEND

ELEVATION	ELEVATION REFERENCE	INTERIOR ELEVATION REFERENCE	W1	WALL TAG
SECTION REFERENCE	SECTION REFERENCE	SPOT ELEVATION	W1	WINDOW / SCREEN TAG
DETAIL REFERENCE	DETAIL REFERENCE	DEMOLITION / CONSTRUCTION TAG	F1	FLOOR TAG
EXTERIOR ELEVATION REFERENCE	EXTERIOR ELEVATION REFERENCE	ROOM NAME	R1	ROOF TAG
		ROOM TAG	#	REVISION TAG
		DOOR TAG	C1	CEILING TAG
			OR	WALL HEIGHT

ABBREVIATION LEGEND

STANDARDS	MATERIAL
AD-FTF AND TRIMLESS FRAME	ACT ACOUSTICAL CEILING TILE
A.F.F. ABOVE FINISHED FLOOR	CAR CARPET
	PT PAINT
	RB RUBBER BASE
	SC SHEET
	S.S. STAINLESS STEEL
	ST STAIN
	TG TEMPERED GLASS
	VCT VINYL COMPOSITE TILE
	FTG FRERATED TEMPERED GLASS
	EPX EPOXY FLOORING
	CT CERAMIC TILES
	FPT PORCELAIN TILES

DRAWING LEGEND

EXISTING	CONSTRUCTION HOARDING PARTITION: 16mm GWB ON 92mm STEEL STUDS FRAMING @ 610mm O.C.
AREA OF WORK	EXTEND TO US OF EXISTING CEILING, PROVIDE SMOKE AND FIRE SEALS AT JUNCTIONS (TYP) PROVIDE TEMPORARY CONSTRUCTION DOORS WITH LOCKS. PATCH AND REPAIR EXISTING WALL, FLOOR AND CEILING AS MAY BE REQUIRED AFTER REMOVAL OF HOARDING. (TYP)
MASONRY WALLS	DOORS TO BE DEMOLISHED
GYPSUM BOARD PARTITIONS	NEW DOORS
EXISTING WALL TO REMAIN	
EXISTING TO BE DEMOLISHED	
EXISTING DOORS TO REMAIN	
EX. 1 HR FIRE SEPARATION	NEW FIRE SEPARATION
GYPSUM BOARD CEILING	

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HWDSB
P02083 W.H. Ballard Elementary School

1 RE ISSUED FOR BUILDING PERMITTENDER 04/15/2025
0 ISSUED FOR BUILDING PERMITTENDER 03/20/2025

No. | DESCRIPTION | DATE

REVISIONS

SEAL: 

KALOS ENGINEERING

E & M
Consulting Engineers Inc.

AMRA J
ARCHITECTS INC.
905-520-5121

project title:
Washrooms & Change Room Renovations & Upgrades
801 Dunscombe Road, Hamilton, ON

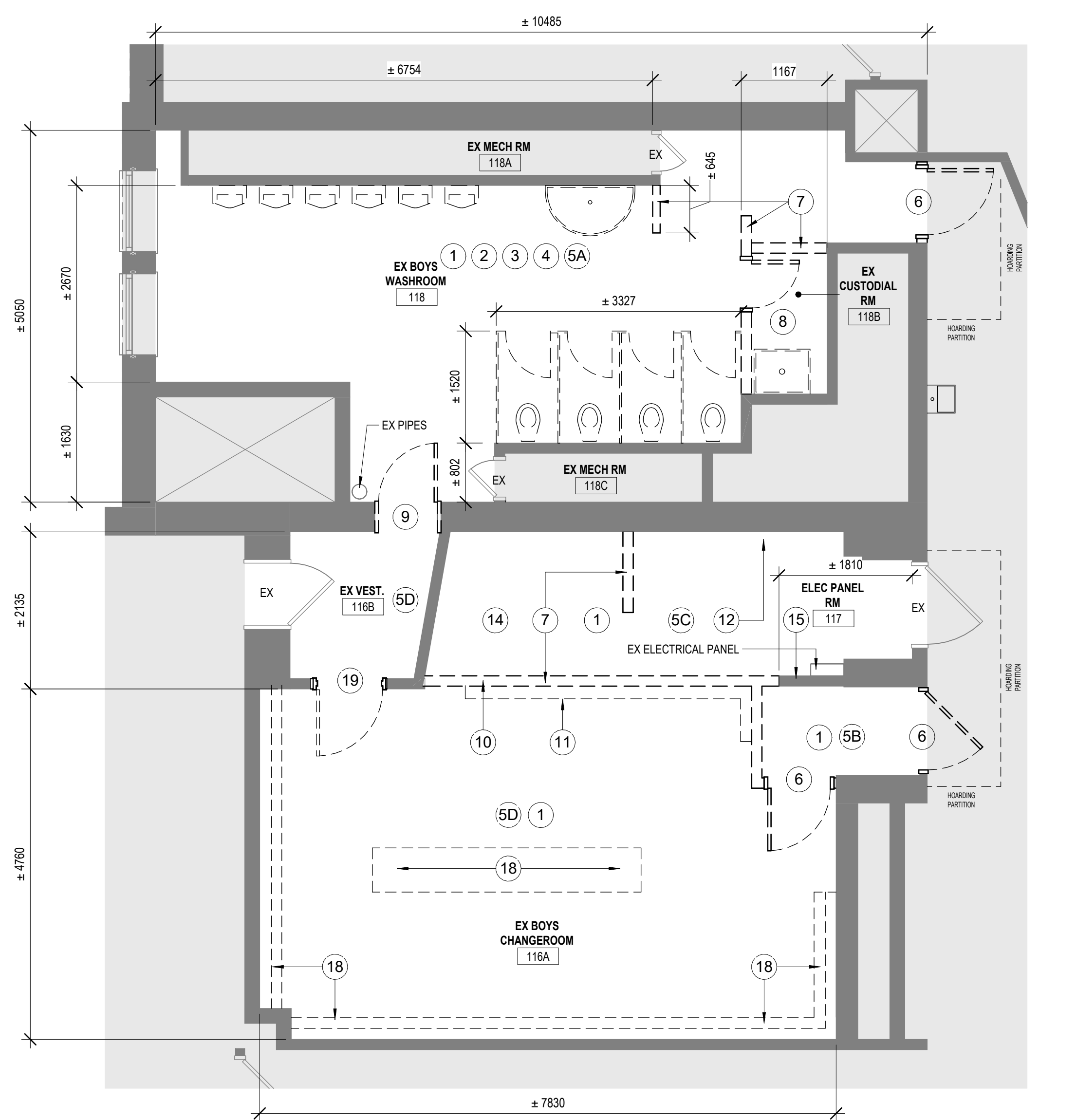
Drawings Inc. GENERAL NOTES, LEGENDS, SCHEDULES

Drawn: AS Scale: As indicated

project number: 24-24

checked: AJ DRAWING NO: A0.01

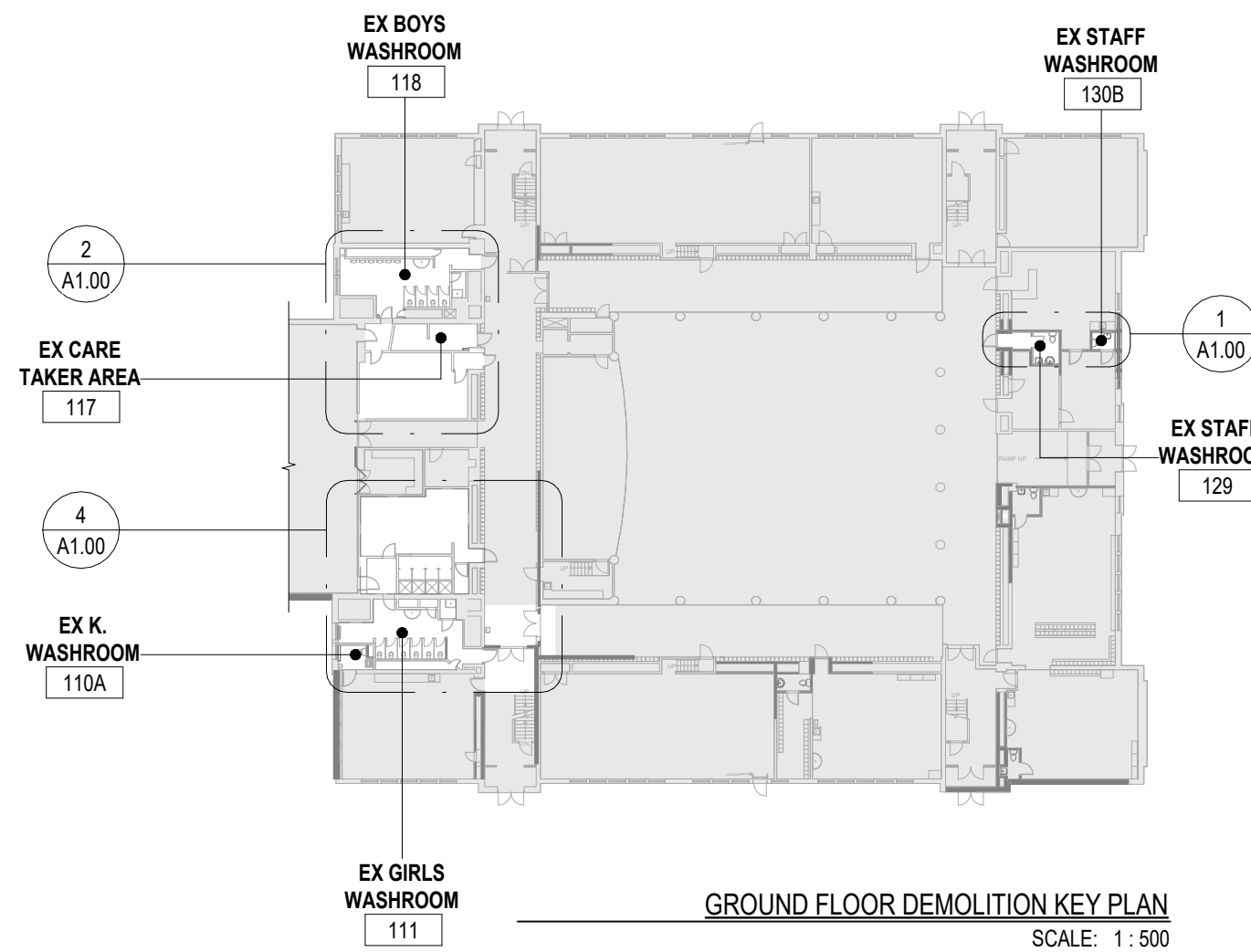
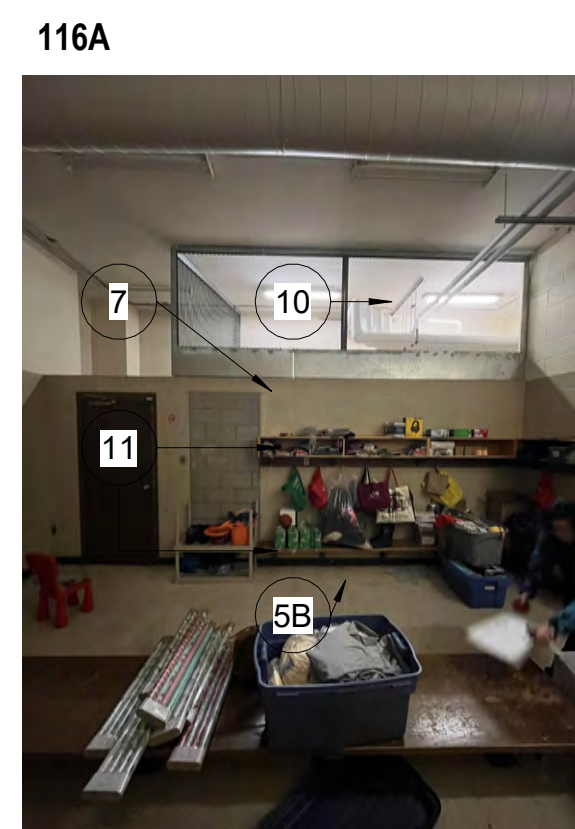
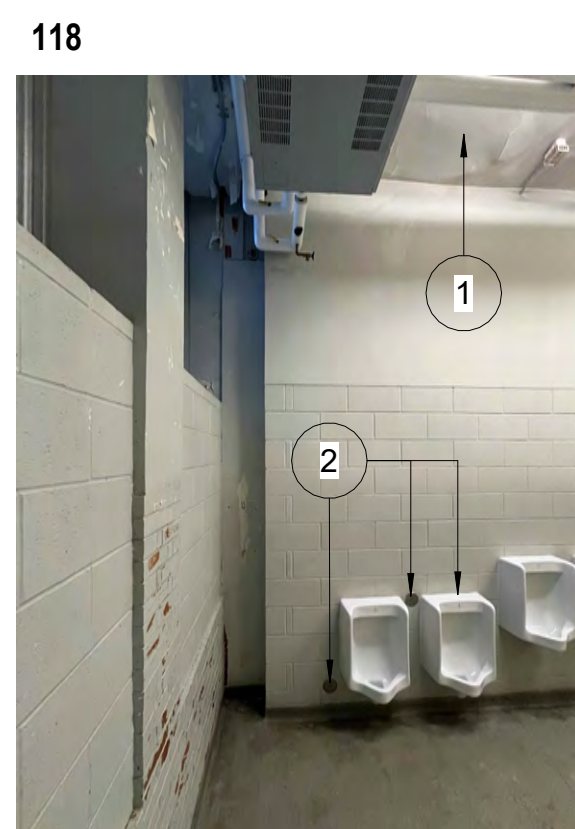
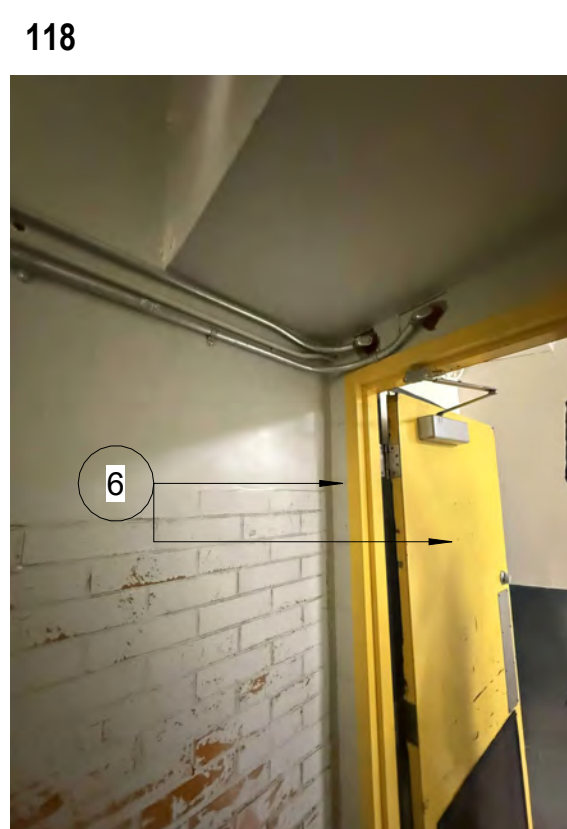
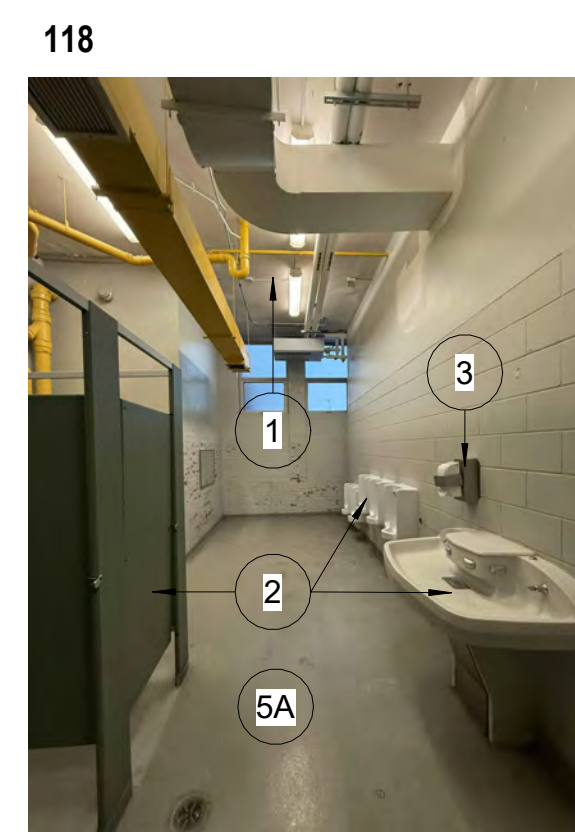
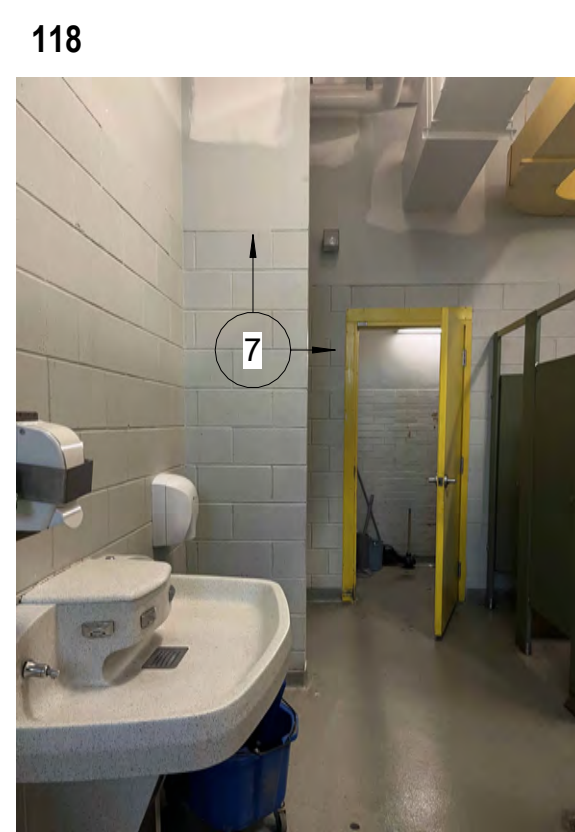
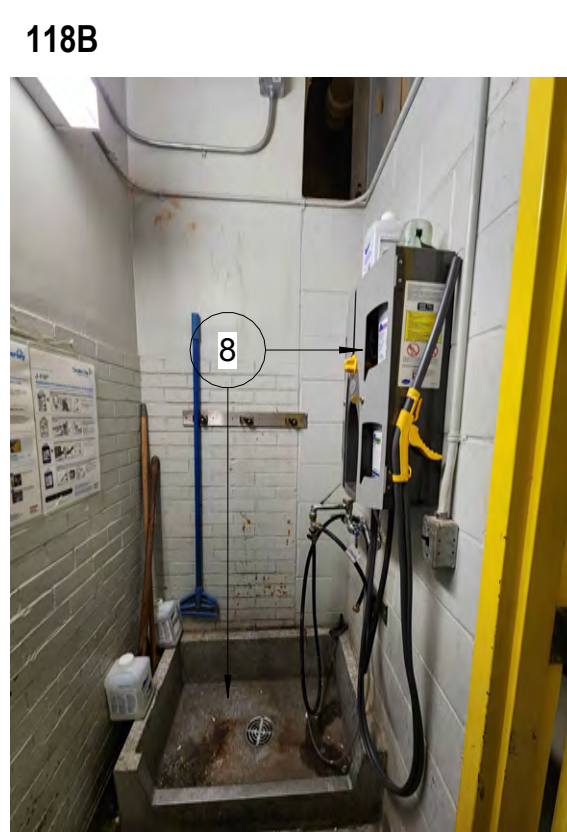
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EX BOYS WASHROOM 118 FLOOR PLAN DEMOLITION

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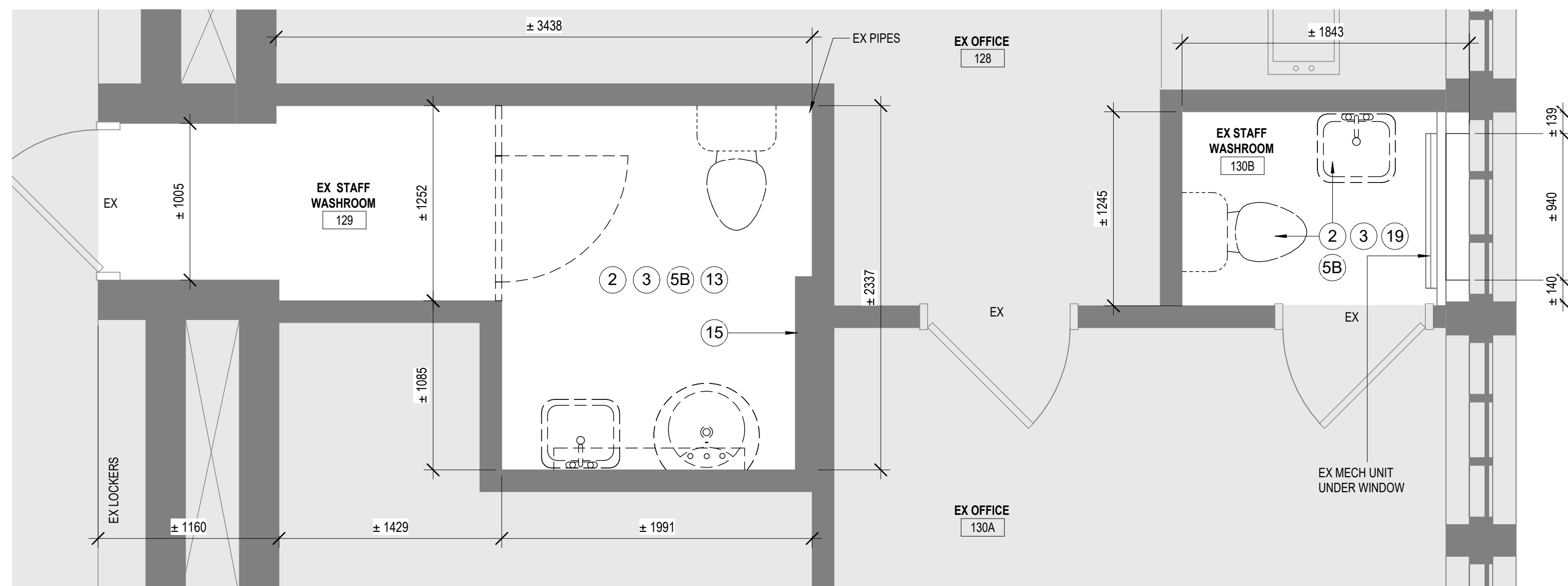
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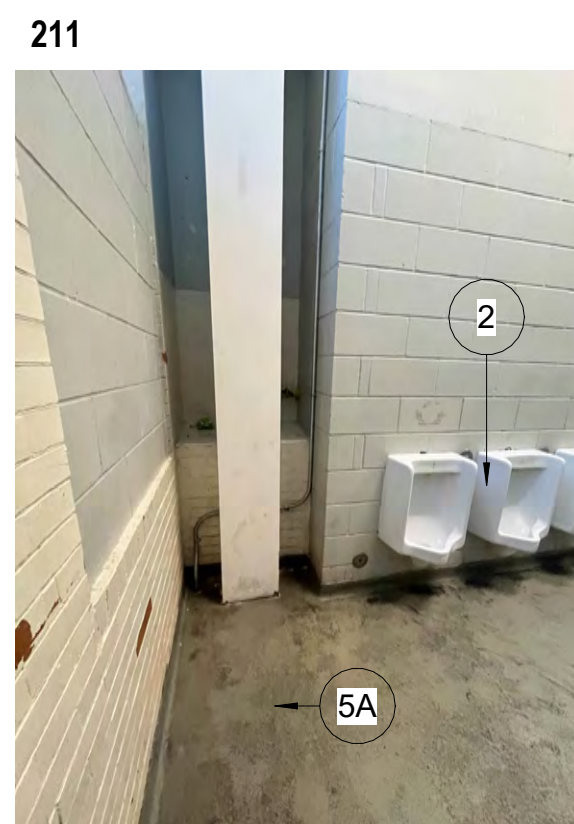
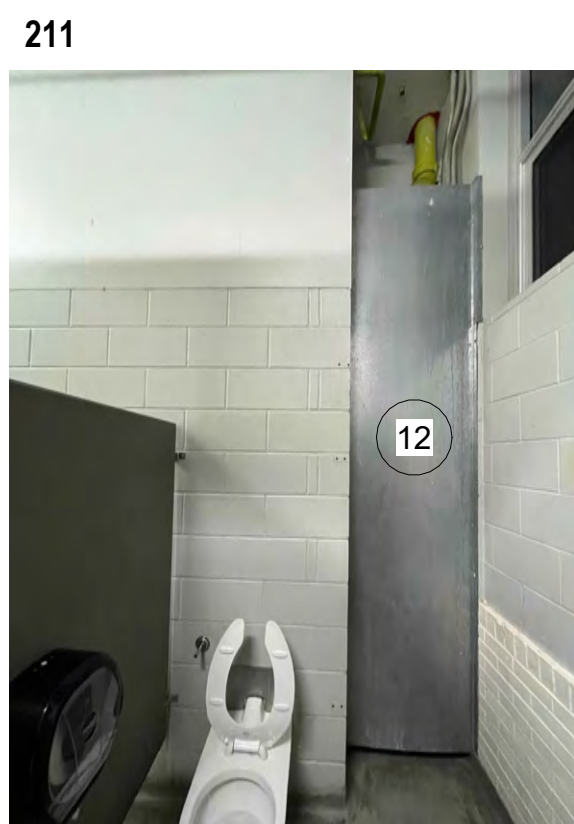
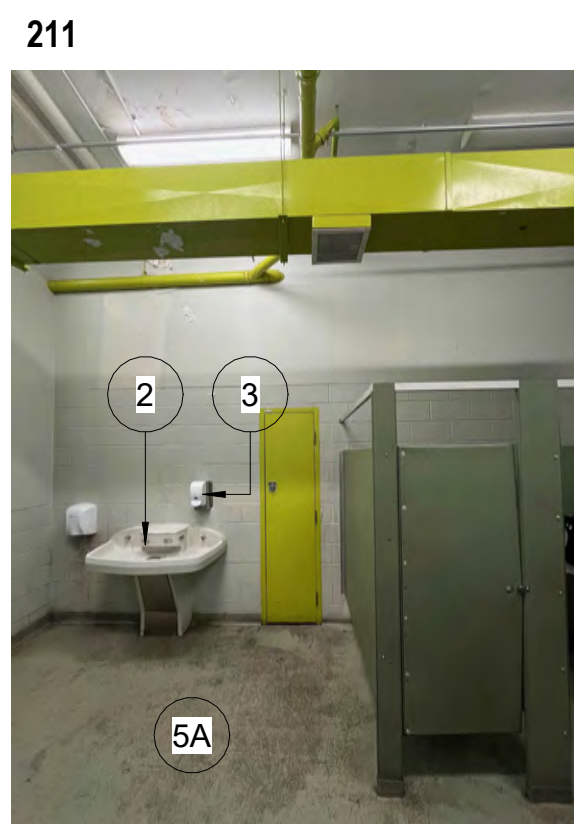
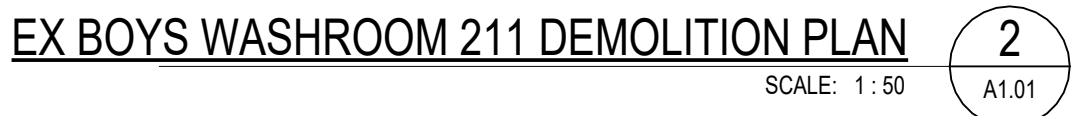


GROUND FLOOR DEMOLITION KEY PLAN

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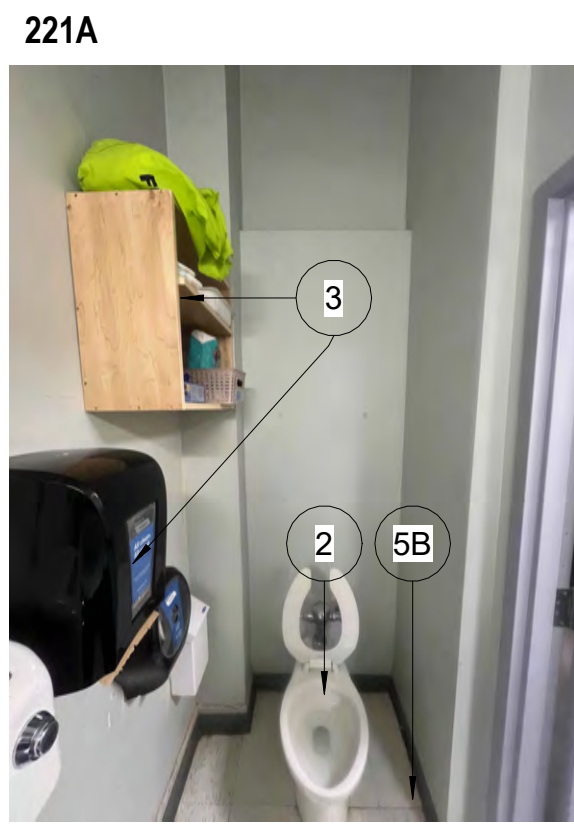
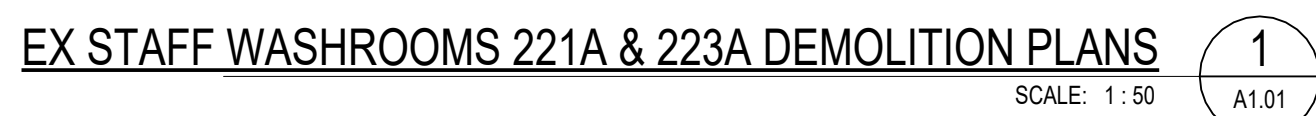
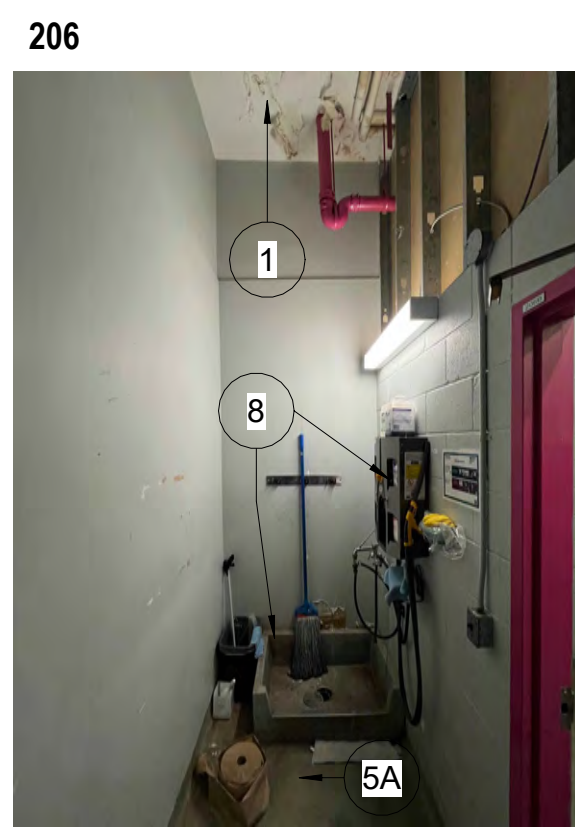
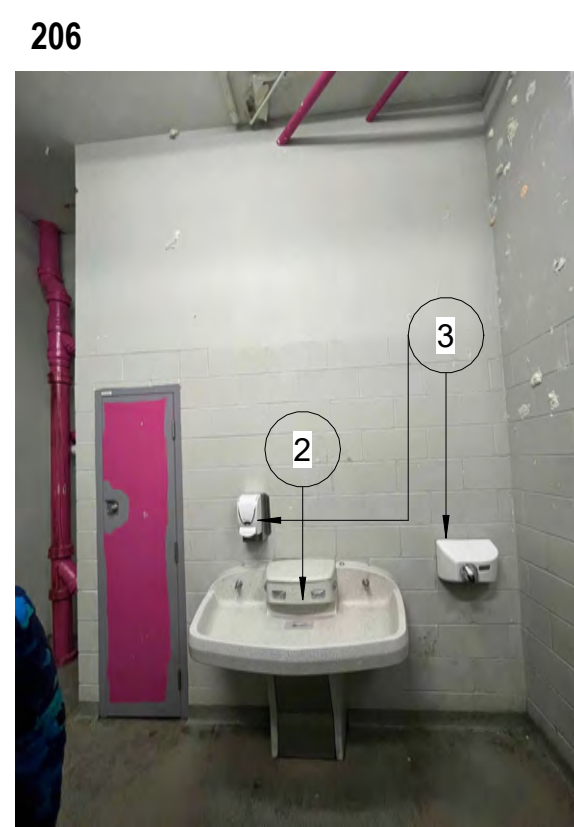
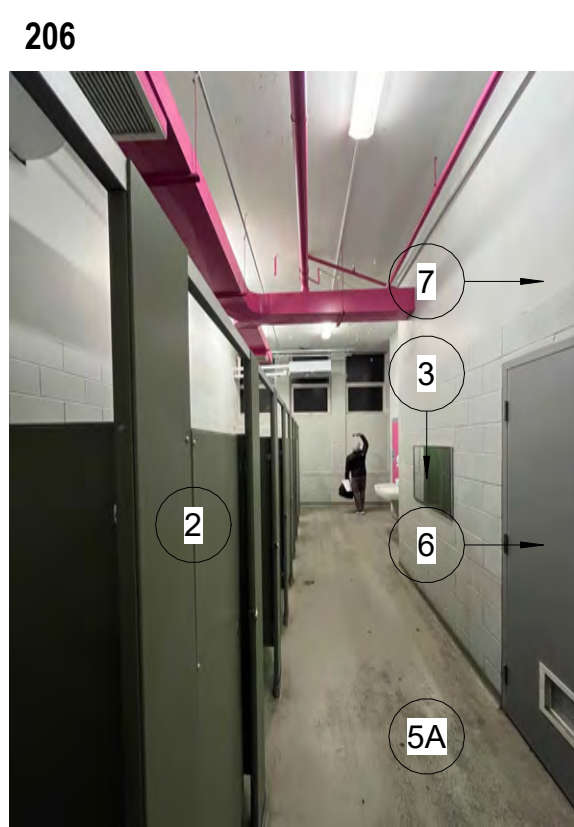
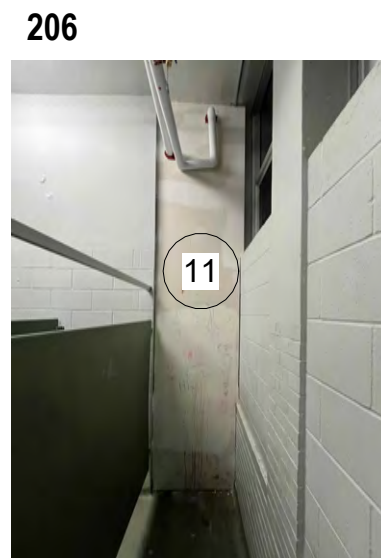




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- 1 CEILING: REMOVE EXISTING PLANT, SPALLING, AND WATER DAMAGE. PREPARE SURFACE FOR NEW PLANT FINISH. REPAIR ANY DAMAGE CAUSED BY REMOVED MECHANICAL AND ELECTRICAL DEVICES.
- 2 REMOVE/DEMOLISH EXISTING PLUMBING FIXTURES C/W WASHROOM PARTITIONS & ACCESSORIES. MAKE GOOD ALL ADJACENT SURFACES AFFECTED BY THE DEMOLITION.
- 3 REMOVE EXISTING WALL-MOUNTED WASHROOM ACCESSORIES AND REPAIR ANY DAMAGE CAUSED. PREPARE WALLS FOR A NEW FINISH.
- 4 MAKE EXISTING OPENING WIDER REFER TO NEW LAYOUT.
- 5 REMOVE/ DEMOLISH EXISTING (A) LIQUID TYPE FLOORING AND INTEGRAL BASE B/VCT AND RUBBER BASE C: CERAMIC TILES (1) WHILE PRESERVING ADJACENT SURFACES IN GOOD CONDITION. PREPARE THE FLOOR FOR NEW FINISH.
- 6 REMOVE EXISTING DOOR AND ADJACENT WALL AS REQUIRED FOR NEW OPENING (REFER TO NEW PLAN).
- 7 A: DEMOLISH EXISTING MASONRY WALL. PATCH & LEVEL EX FLOOR BELOW REMOVED WALL AS NECESSARY TO INSTALL NEW FLOORING. B: IN EX MASONRY WALL CREATE OPENING FOR NEW DOOR. COORDINATE WITH NEW FLOOR PLANS.
- 8 REMOVE/DEMOLISH EXISTING CUSTODIAL RM PLUMBING FIXTURES & ACCESSORIES. MAKE GOOD ALL ADJACENT SURFACES AFFECTED BY THE DEMOLITION.
- 9 -.
- 10 CAREFULLY REMOVE EXISTING DRINKING FOUNTAIN EQUIPMENT AND COORDINATE WITH CLIENT FOR ITS DISPOSAL/STORAGE.
- 11 REMOVE EXISTING GYPSUM BOARD PARTITION.
- 12 REMOVE EXISTING METAL SHEET.



1	RE ISSUED FOR BUILDING PERMIT/TENDER	04/15/2025
0	ISSUED FOR BUILDING PERMIT/TENDER	03/20/2025
No.	DESCRIPTION	DATE

SEAL:

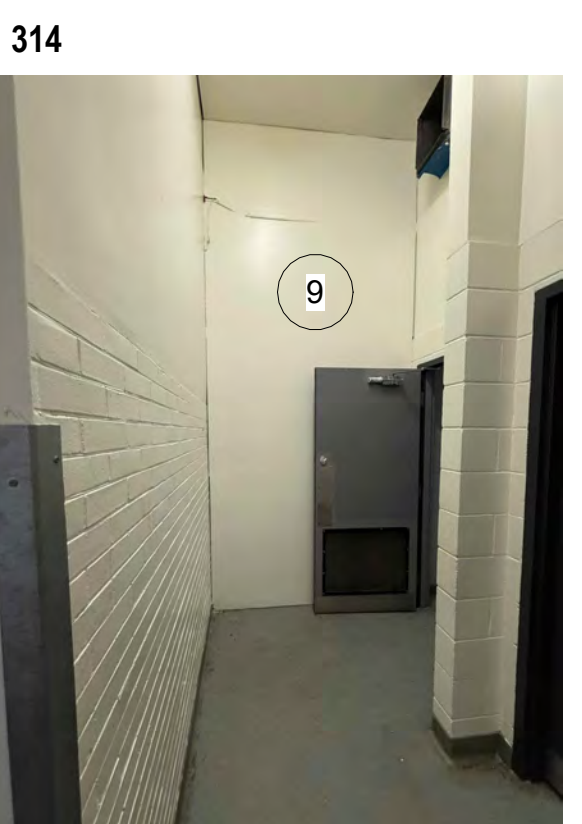
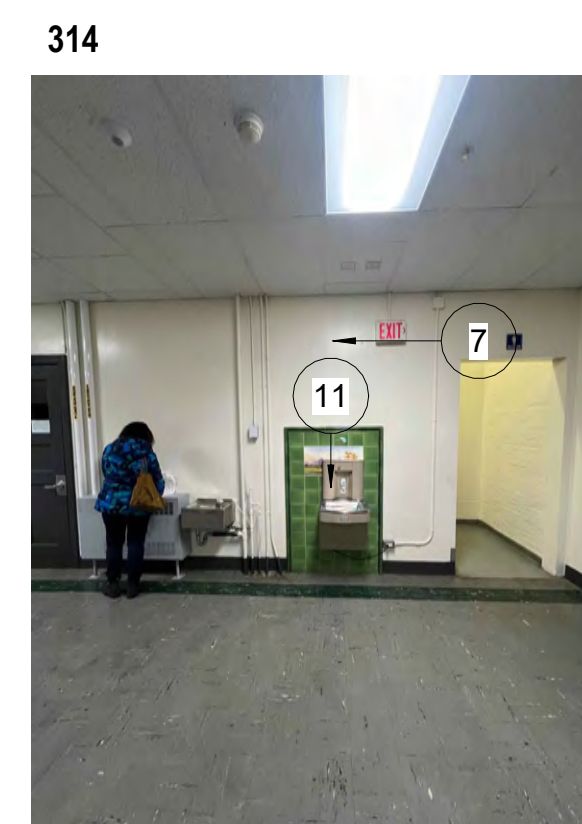
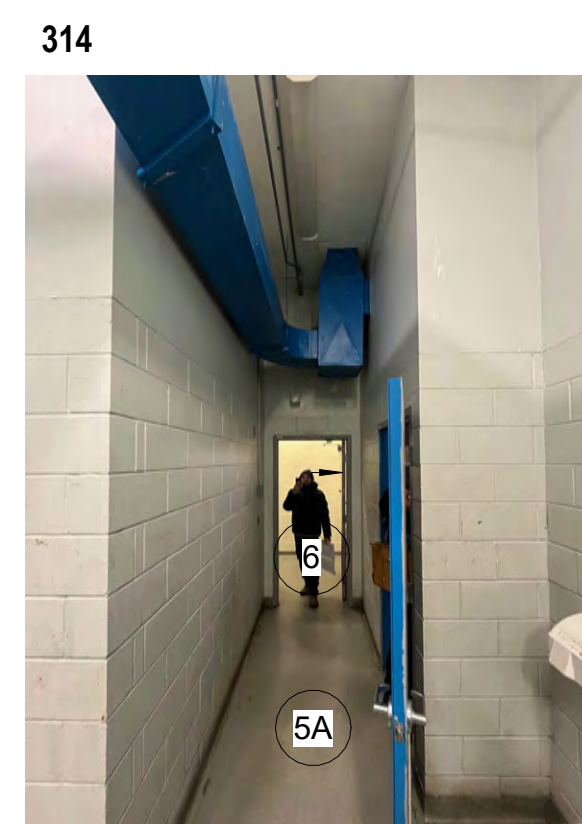
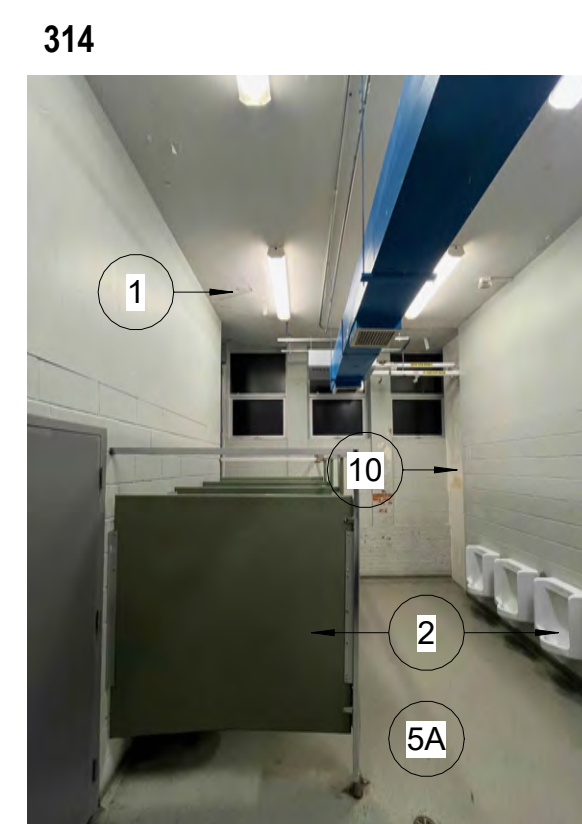


E & M
Consulting Engineers Inc.



Washrooms & Change Room
Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

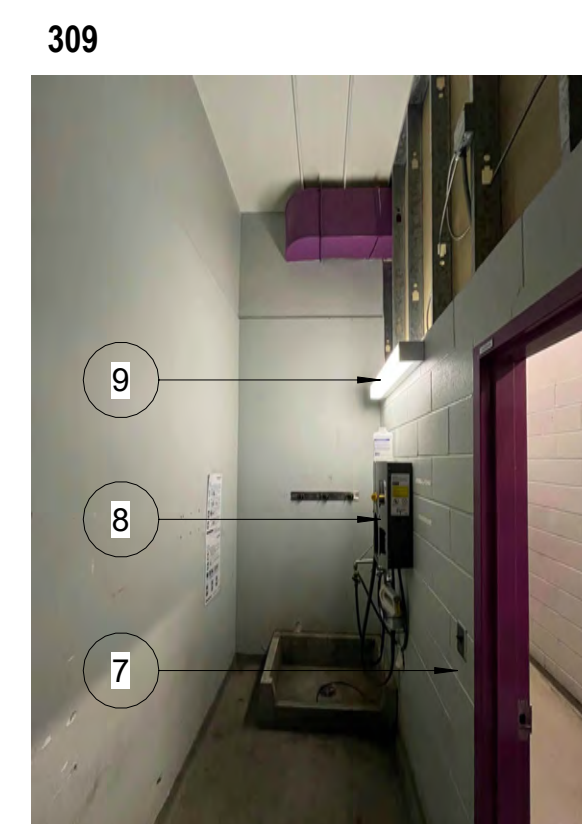
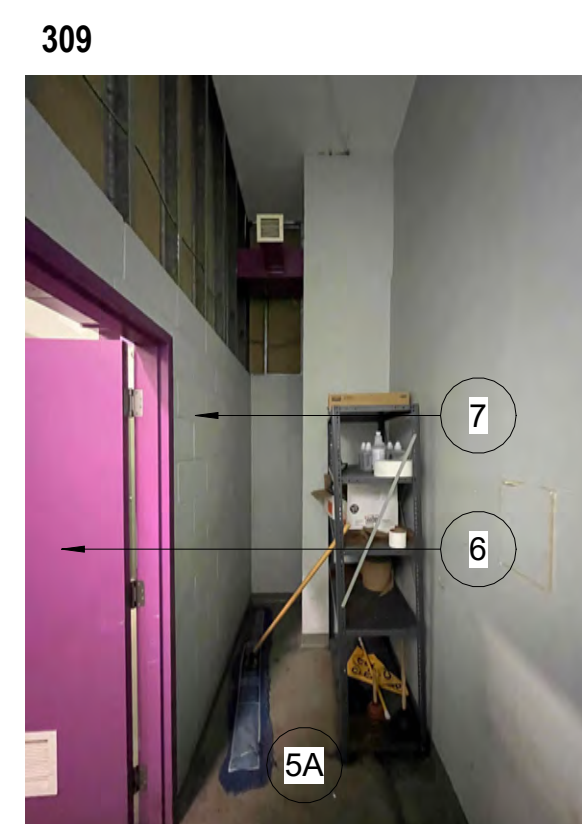
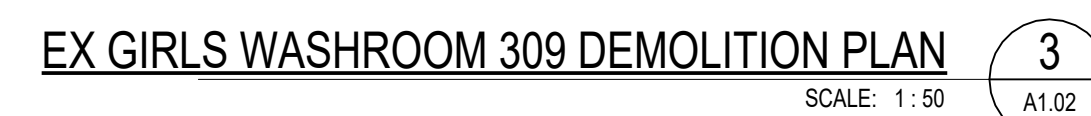
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	project number: 24-24	
checked: AJ	DRAWING NO: A1.01	



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- 1 CEILING, REMOVE EXISTING PAINT, SPALLING, AND WATER DAMAGE; PREPARE SURFACE FOR NEW PAINT FINISH. REPAIR ANY DAMAGE CAUSED BY REMOVED MECHANICAL AND ELECTRICAL DEVICES.
- 2 REMOVE/DEMOLISH EXISTING PLUMBING FIXTURES C/W WASHROOM PARTITIONS & ACCESSORIES. MAKE GOOD ALL ADJACENT SURFACES AFFECTED BY THE DEMOLITION.
- 3 REMOVE EXISTING WALL-MOUNTED WASHROOM ACCESSORIES AND REPAIR ANY DAMAGE CAUSED. PREPARE WALLS FOR A NEW FINISH.
- 4 MAKE EXISTING OPENING WIDER REFER TO NEW LAYOUT.
- 5 REMOVE/ DEMOLISH EXISTING (A:LIQUID TYPE FLOORING AND INTEGRAL BASE B:VCT. C:CERAMIC TILES.) WHILE PRESERVING ADJACENT SURFACES IN GOOD CONDITION. PREPARE THE FLOOR FOR NEW FINISH.
- 6 REMOVE EXISTING DOOR AND ADJACENT WALL AS REQUIRED FOR NEW OPENING (REFER TO NEW PLAN).
- 7 A:DEMOLISH EXISTING MASONRY WALL. PATCH & LEVEL EX FLOOR BELOW REMOVED WALL AS NECESSARY TO INSTALL NEW FLOORING. B:IN EX MASONRY WALL CREATE OPENING FOR NEW DOOR/HALLWAY. COORDINATE WITH NEW FLOOR PLANS.
- 8 REMOVE/DEMOLISH EXISTING CUSTODIAL RM PLUMBING FIXTURES & ACCESSORIES. MAKE GOOD ALL ADJACENT SURFACES AFFECTED BY THE DEMOLITION.
- 9 REMOVE EXISTING GB FINISH WITH C/W SUBSTRUCTURE.
- 10 REMOVE EXISTING GYPSUM BOARD.
- 11 CAREFULLY REMOVE EXISTING DRINKING FOUNTAIN EQUIPMENT AND COORDINATE WITH CLIENT FOR ITS DISPOSAL/RELOCATION.



1	RE ISSUED FOR BUILDING PERMIT/TENDER	04/15/2025
0	ISSUED FOR BUILDING PERMIT/TENDER	03/20/2025
No.	DESCRIPTION	DATE

REVISION

SEARCH



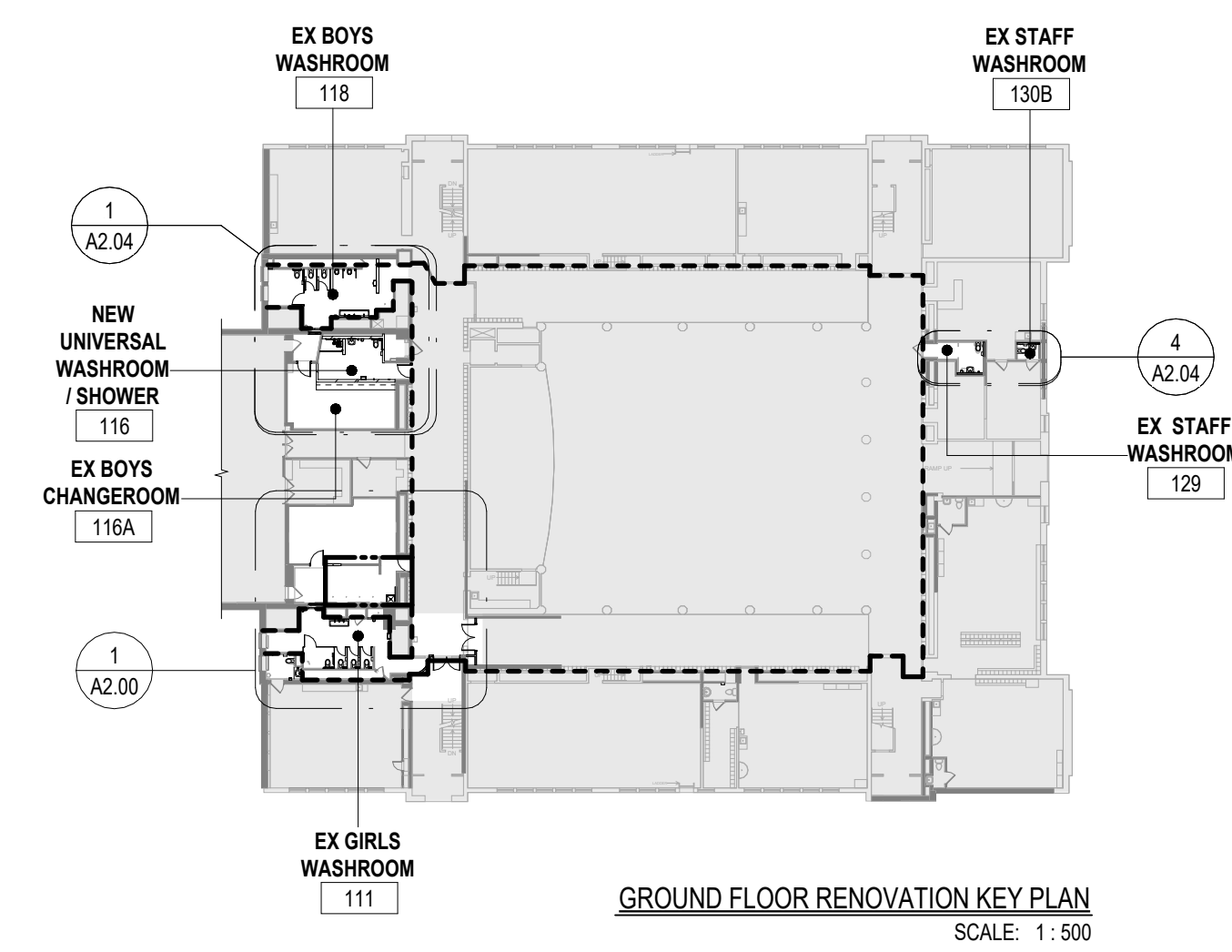
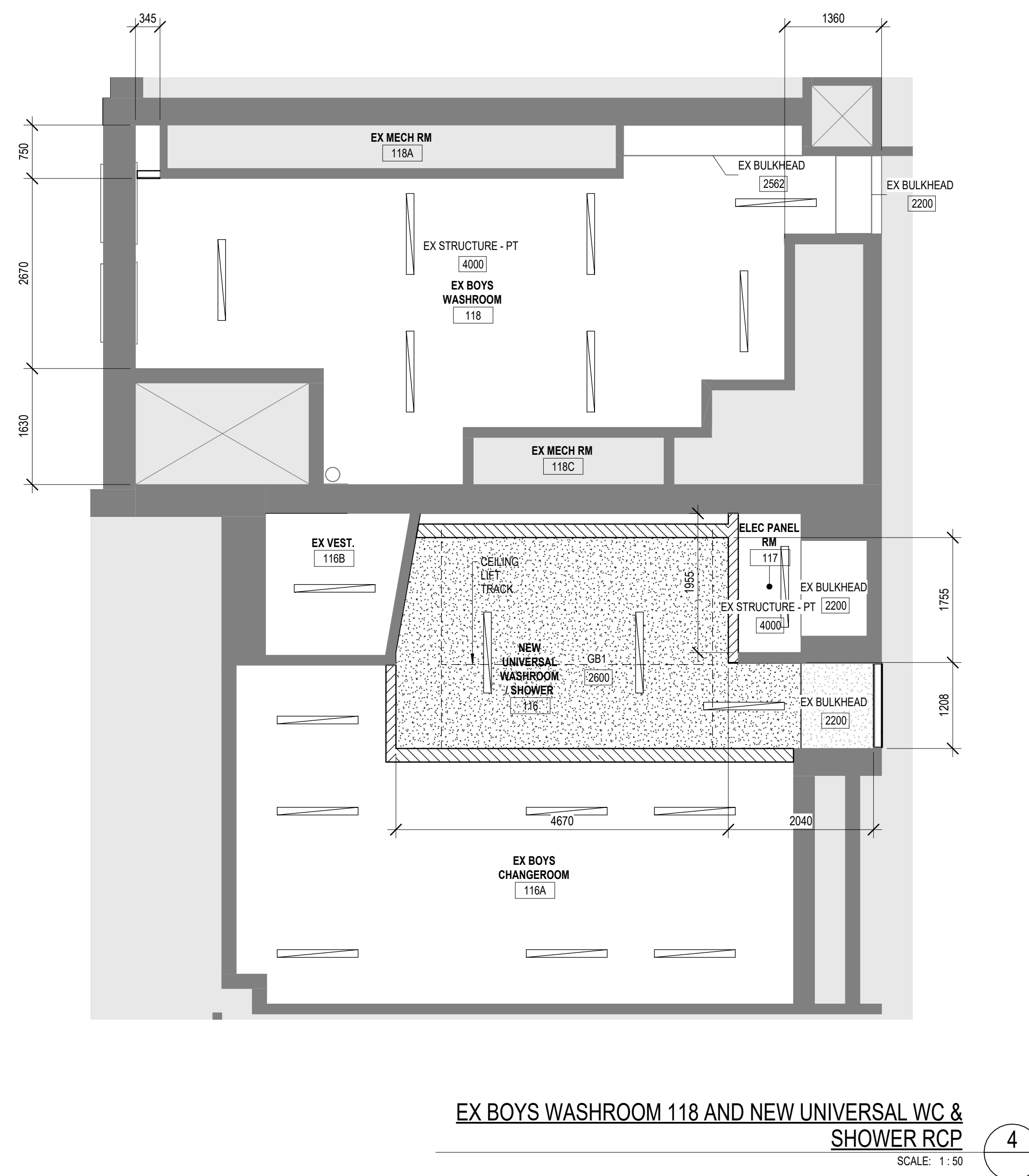
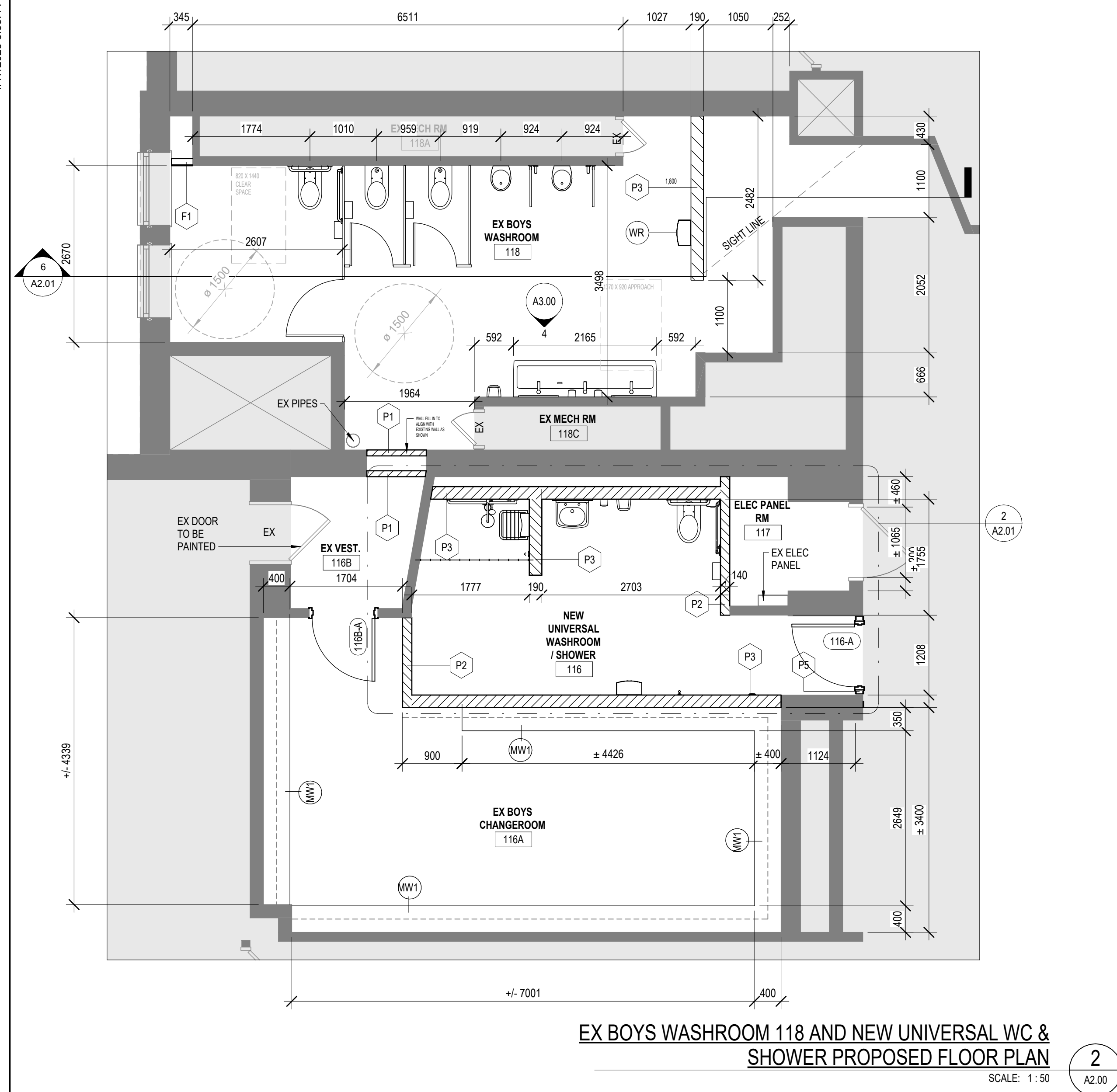
E & M
Consulting Engineers Inc.



Washrooms & Change Room
Renovations & Upgrades
801 Dunscombe Road, Hamilton, ON

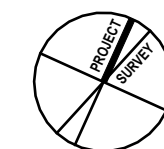
drawing title:
THIRD FLOOR DEMOLITION
PLANS

drawn: AS	scale: As indicated	
	project number: 24-24	
checked: AJ	DRAWING NO:	A1.02



CH	COAT HOOK
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TPD	TOILET PAPER DISPENSER
GB1	VERTICAL GRAB BAR
GB2	HORIZONTAL GRAB BAR
GB3	L-SHAPED GRAB BAR
SHGB1	SHOWER VERTICAL GRAB BAR
SHGB2	SHOWER L-SHAPED GRAB BAR
ND	NAPKIN DISPOSAL
MR	MIRROR
WR	WASTE RECEPTACLE
PS	PRIVACY SCREEN
SH	SHELF
WB	WATER BOTTLE DISPENSER
ECS	EMERGENCY CALL SYSTEM
ADO	AUTOMATIC DOOR OPERATOR
RSD	RECESSED SOAP DISH
SHS	SHOWER SEAT
SHV	SHOWER VALVE
SHH	SHOWER HEAD

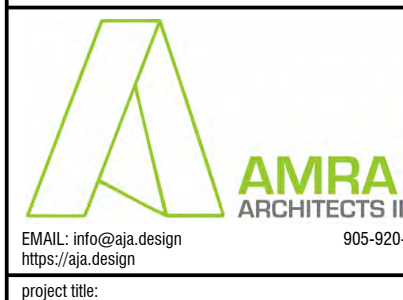
WASHROOM FLOORPLAN ABBREVIATIONS


HWDSB

P02083 W.H. Ballard Elementary School

1	RE ISSUED FOR BUILDING PERMITTENDER	04/15/2025
0	ISSUED FOR BUILDING PERMITTENDER	03/20/2025
No.	DESCRIPTION	DATE

REVISIONS


KALOS ENGINEERING
E & M
Consulting Engineers Inc.

 Washrooms & Change Room Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

 Drawing No.:
GROUND FLOOR PROPOSED WASHROOM LAYOUT AND RCP

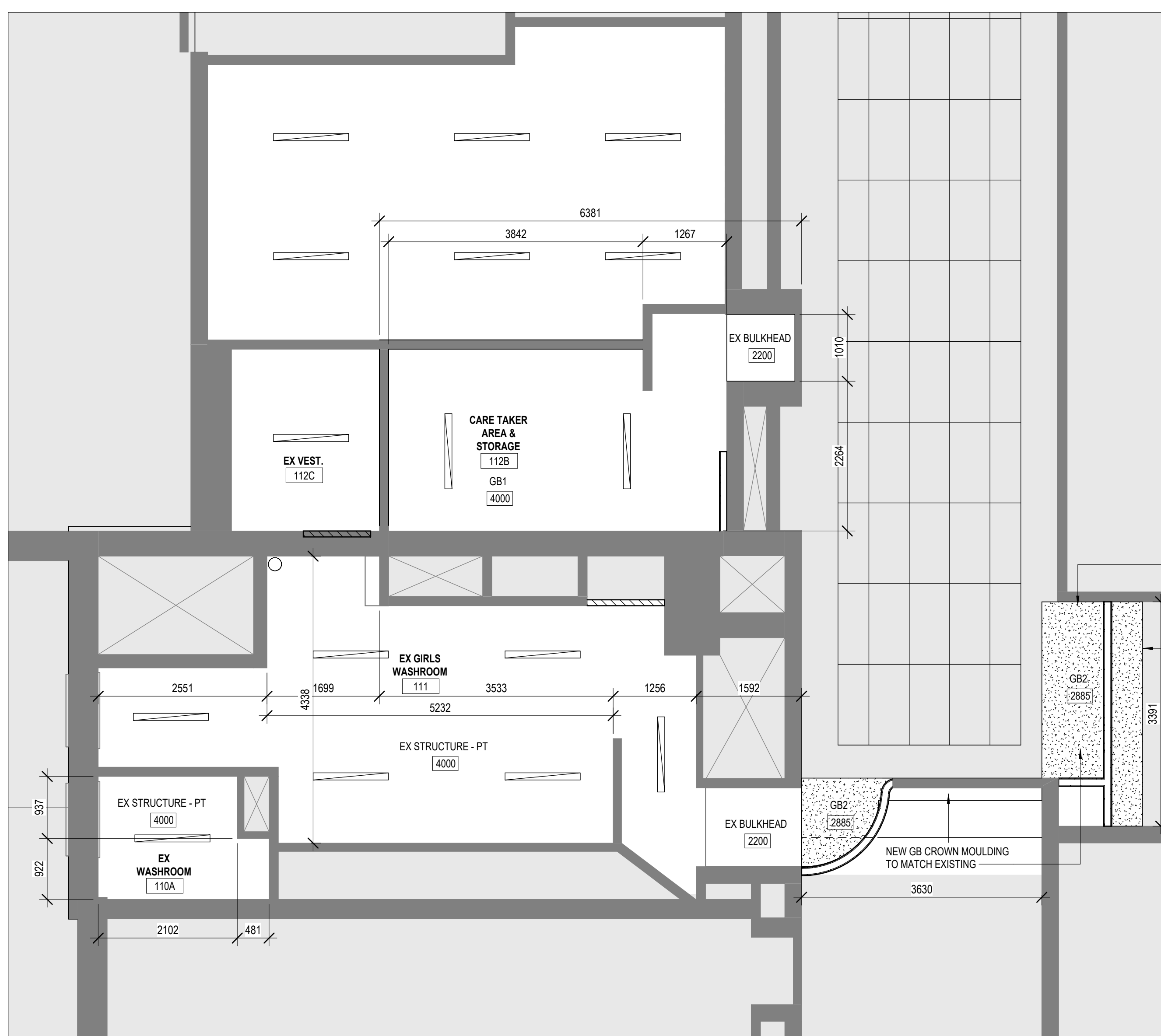
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Scale: As Indicated

Project Number: 24-24

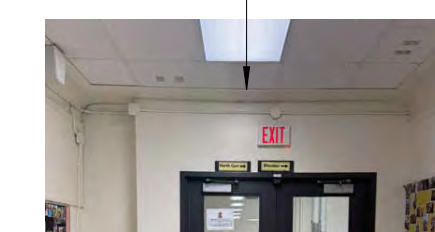
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Drawing No.: **A2.00**

1

Reprint



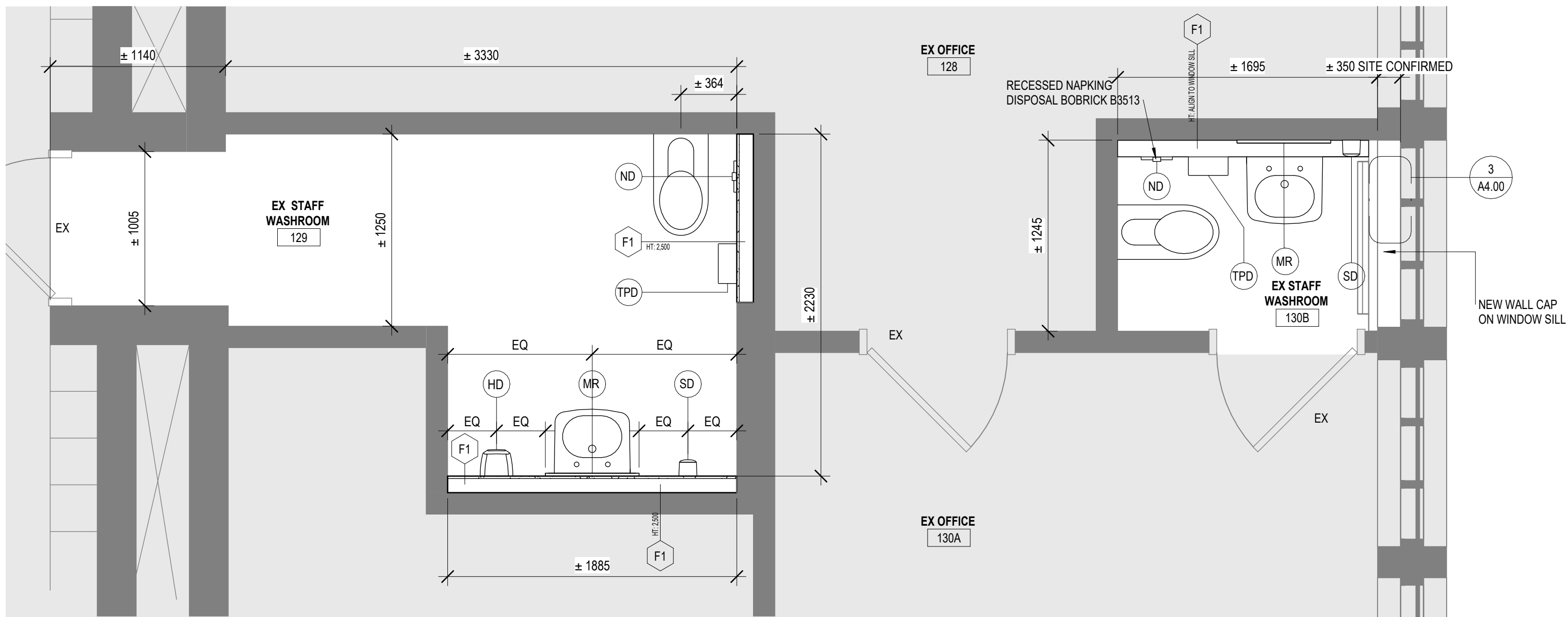
COVED CROWN MOULDING TRIM TO MATCH EXISTING



MODIFY EXISTING ACT/TRIM AS REQUIRED FOR THE NEW GB2 CEILING

EX GIRLS WASHROOM 111 PROPOSED FLOOR PLAN
SCALE: 1:50

 1
A2.00

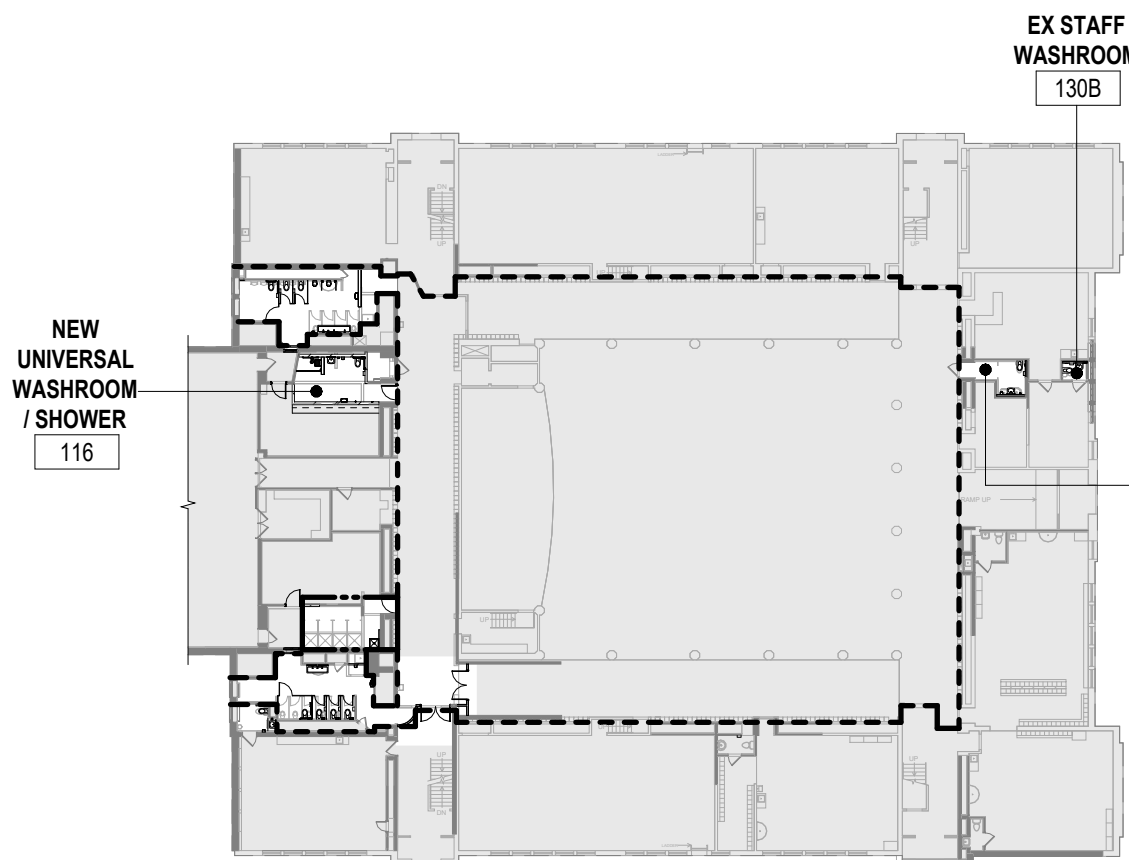


EX STAFF WASHROOM (129 & 130B) PROPOSED FLOOR PLAN
SCALE: 1:25

1
A2.00

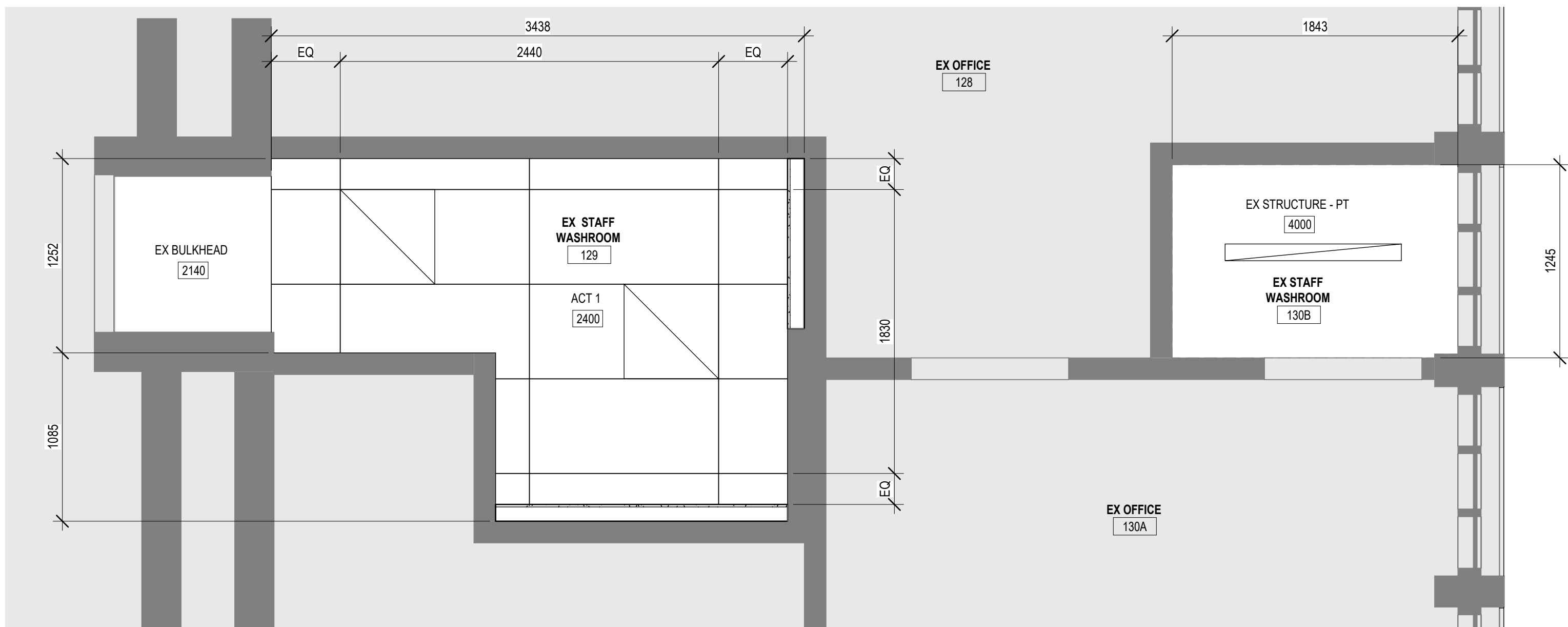
CH	COAT HOOK
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TPD	TOILET PAPER DISPENSER
GB1	VERTICAL GRAB BAR
GB2	HORIZONTAL GRAB BAR
GB3	L-SHAPED GRAB BAR
SHGB1	SHOWER VERTICAL GRAB BAR
SHGB2	SHOWER L-SHAPED GRAB BAR
ND	NAPKIN DISPOSAL
MR	MIRROR
WR	WASTE RECEPTACLE
PS	PRIVACY SCREEN
SH	SHELF
WB	WATER BOTTLE DISPENSER
ECS	EMERGENCY CALL SYSTEM
ADO	AUTOMATIC DOOR OPERATOR
RSD	RECESSED SOAP DISH
SHS	SHOWER SEAT
SHV	SHOWER VALVE
SHH	SHOWER HEAD

WASHROOM FLOORPLAN ABBREVIATIONS



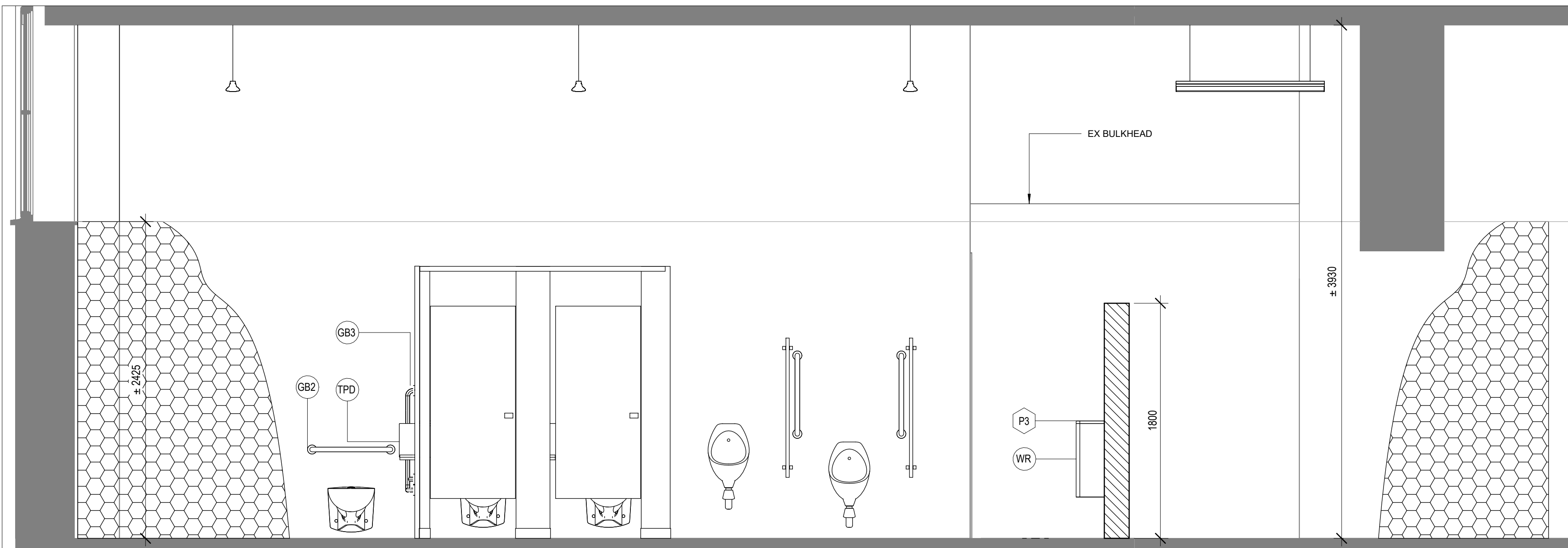
GROUND FLOOR RENOVATION KEY PLAN EX STAFF WASHROOM
SCALE: 1:500

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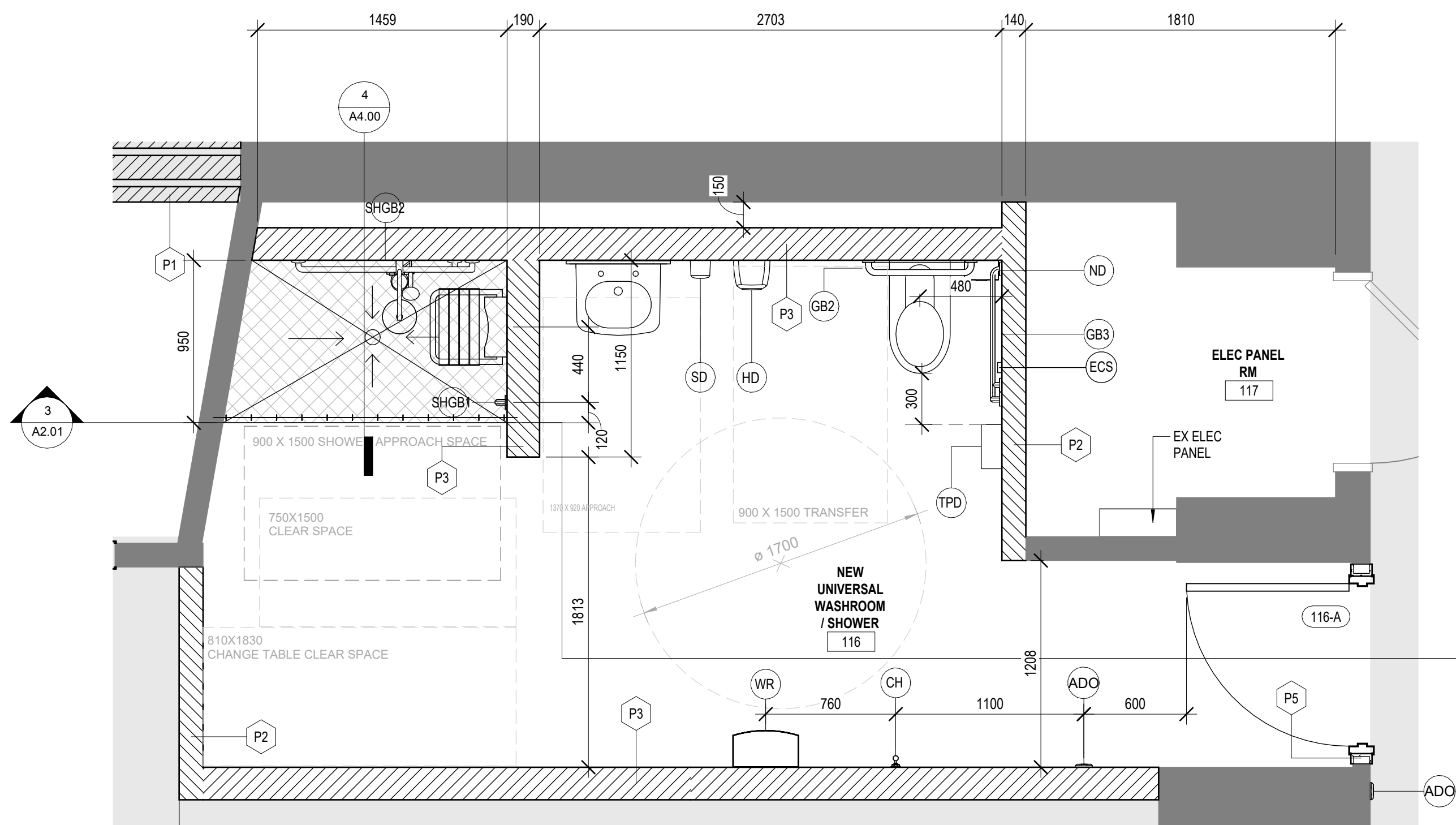
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SCALE: 1:25

5
A2.00



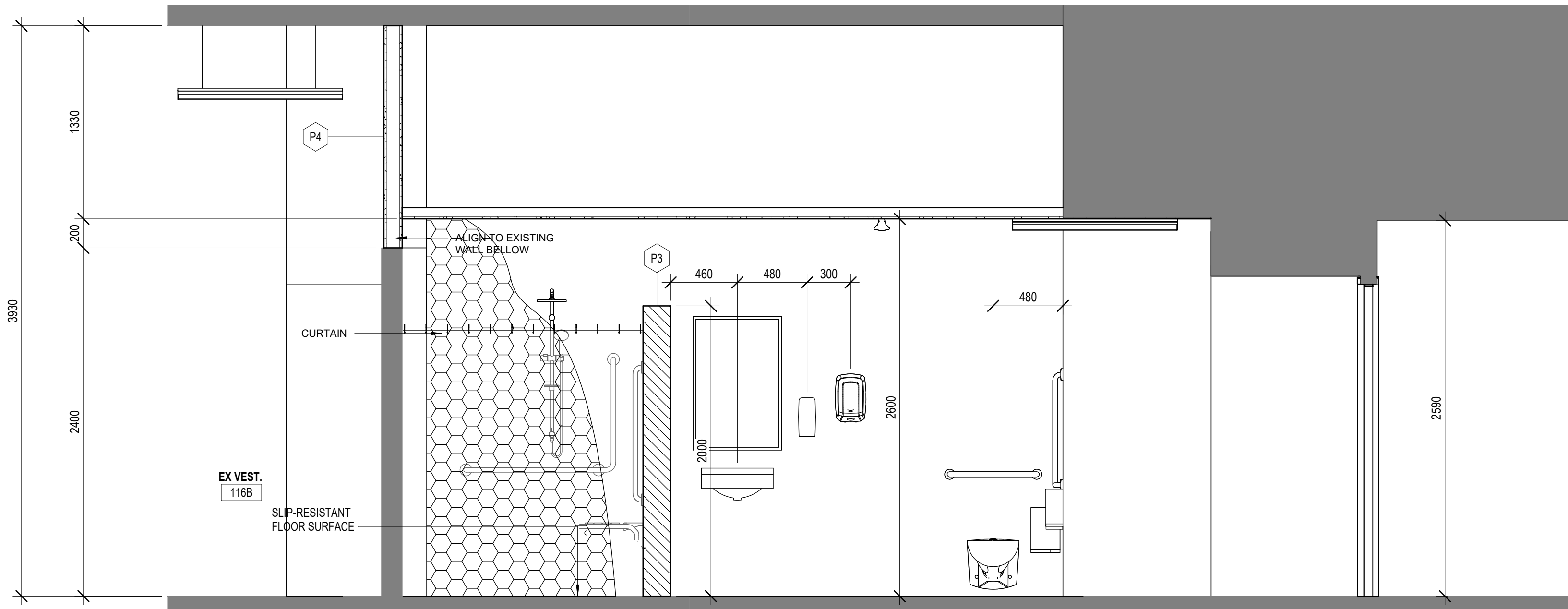
SECTION EX BOYS WASHROOM (118)
SCALE: 1:25

6
A2.00



UNIVERSAL WASHROOM / SHOWER (116) PLAN DETAIL
SCALE: 1:25

2
A2.00



SECTION UNIVERSAL WASHROOM / SHOWER (116)
SCALE: 1:25

3
A2.01

HWDSB
P02083 W.H. Ballard Elementary
School

REVISIONS	DESCRIPTION	DATE
1	RE ISSUED FOR BUILDING PERMITTENDER	04/15/2025
0	ISSUED FOR BUILDING PERMITTENDER	03/20/2025

SEAL:
UNIRO ASSOCIATES
ARCHITECTS
AMRA J. BALDWIN
LICENCE 3894

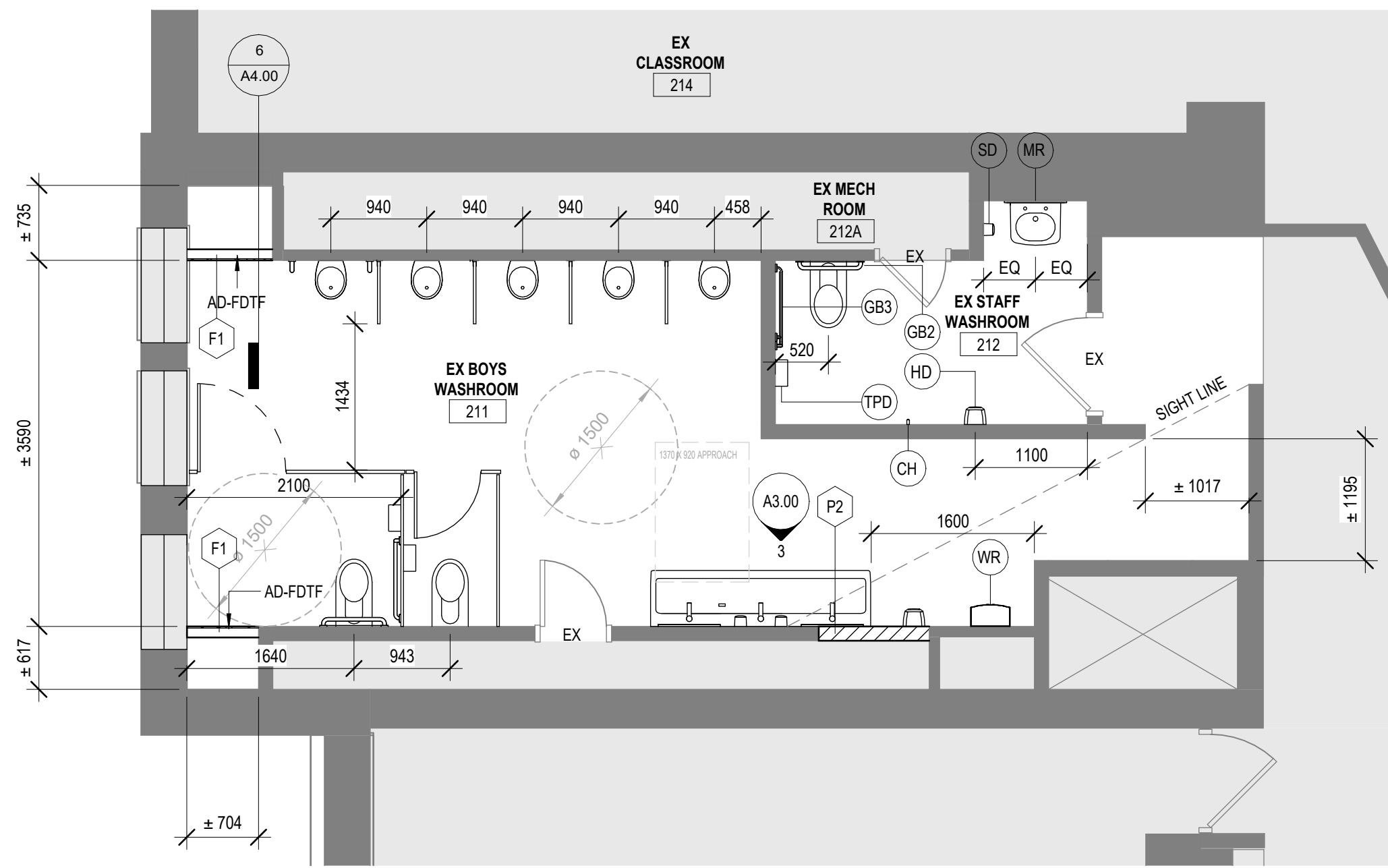
KALOS
ENGINEERING

E & M
Consulting Engineers Inc.

AMRA J
ARCHITECTS INC.
905-503-5171
project title:
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

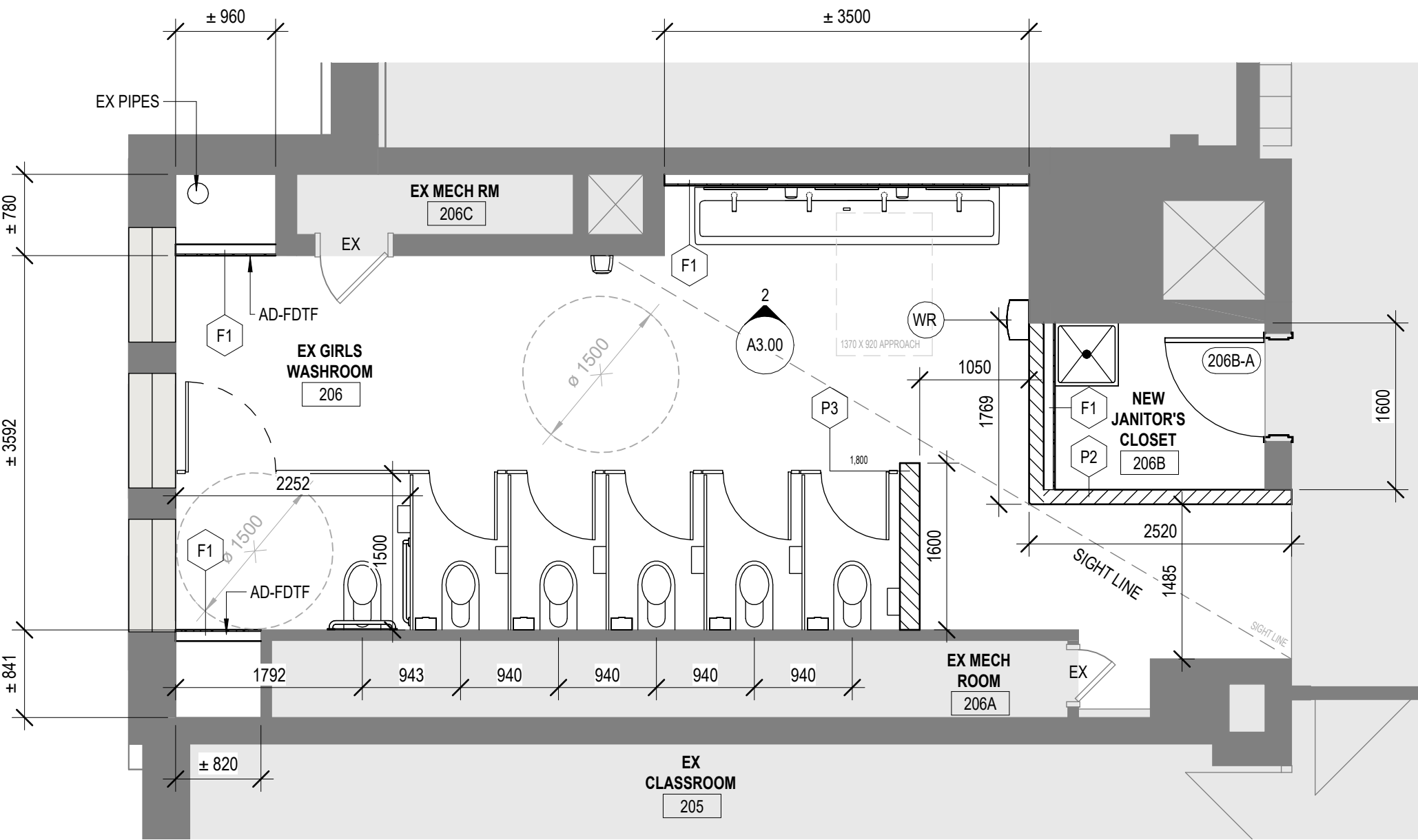
Drawing title:
GROUND FLOOR PROPOSED
WASHROOM LAYOUT AND RCP

Drawn: AS	Scale: As Indicated
Checked: AJ	Project number: 24-24
	Drawing No: A2.01
	Sheet: 1



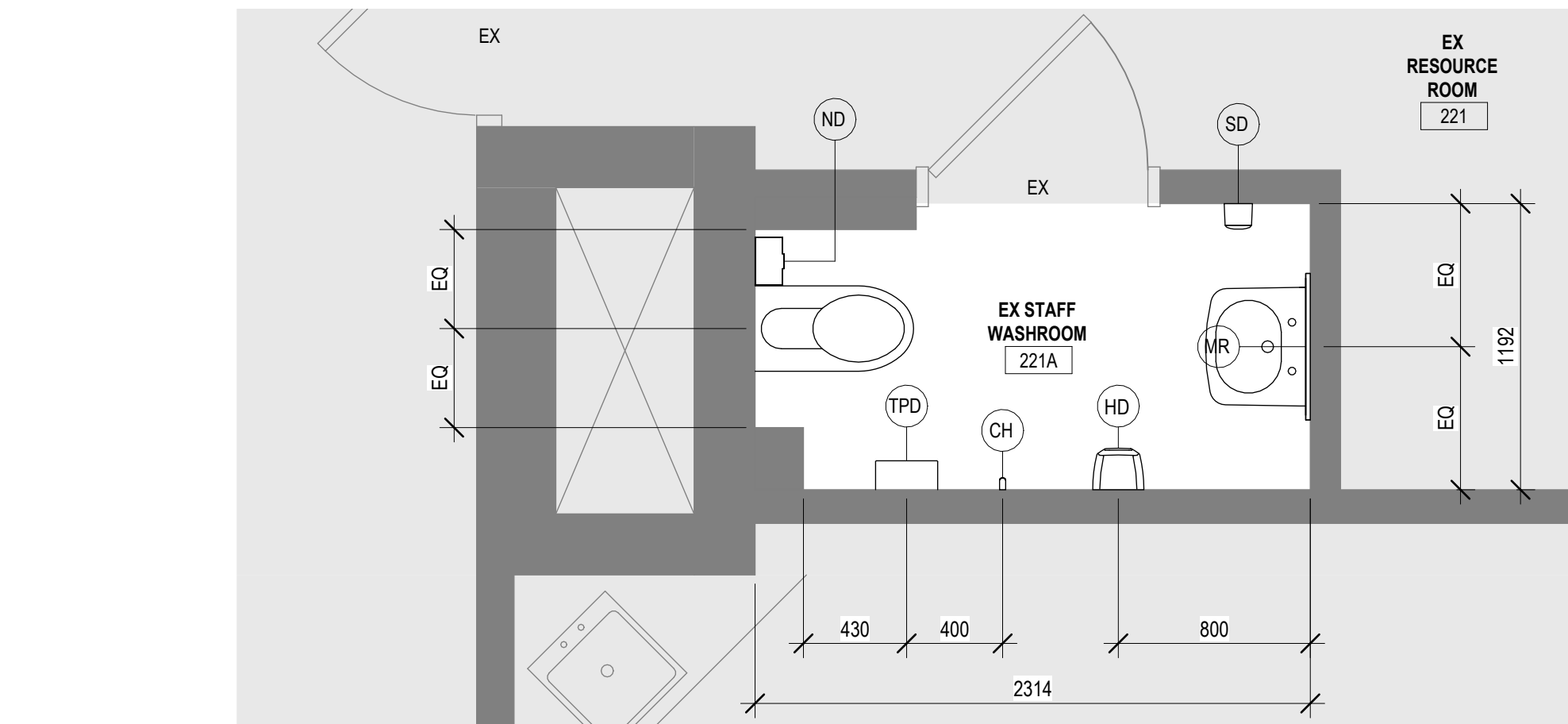
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SCALE: 1:50

2
A2.02



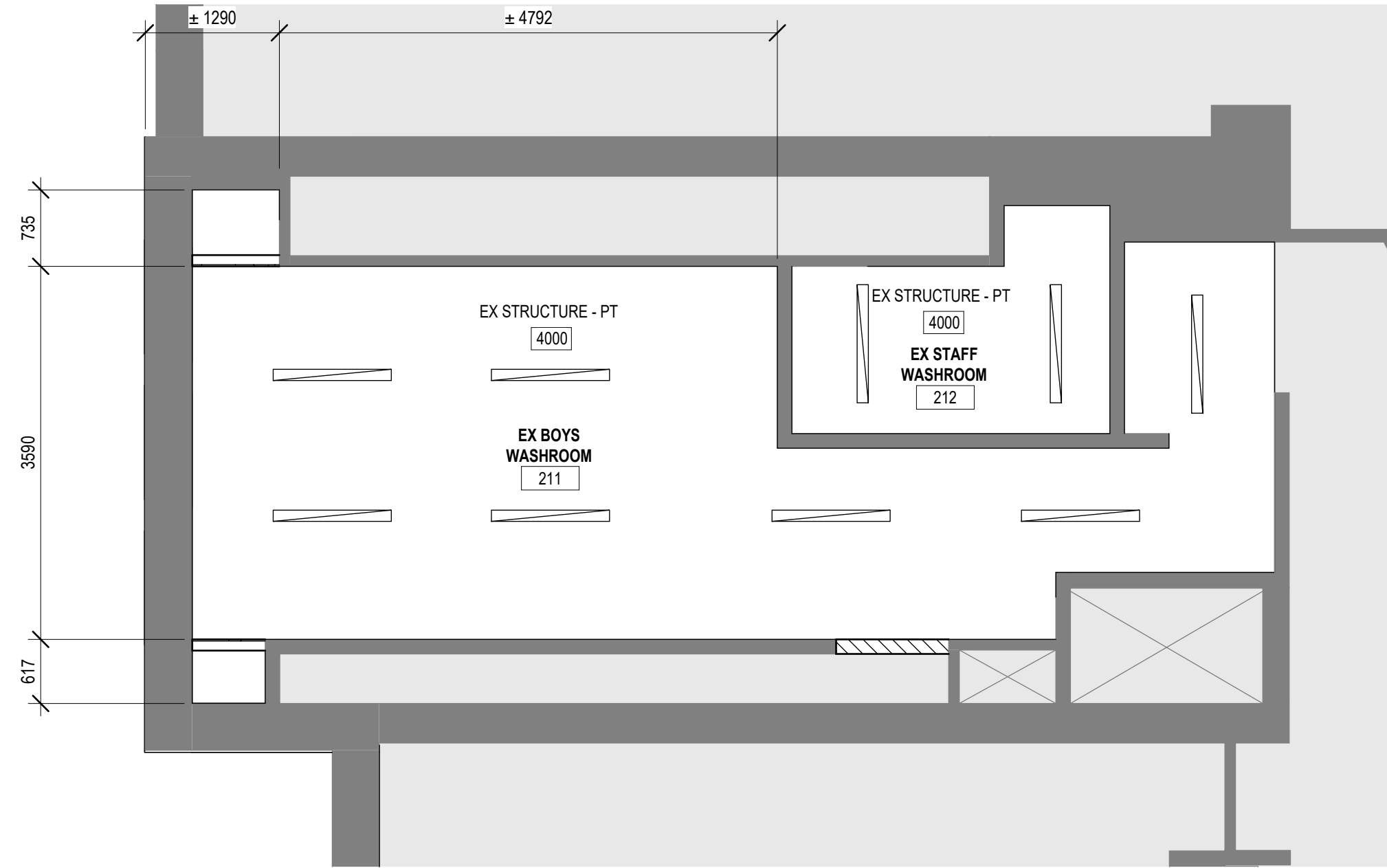
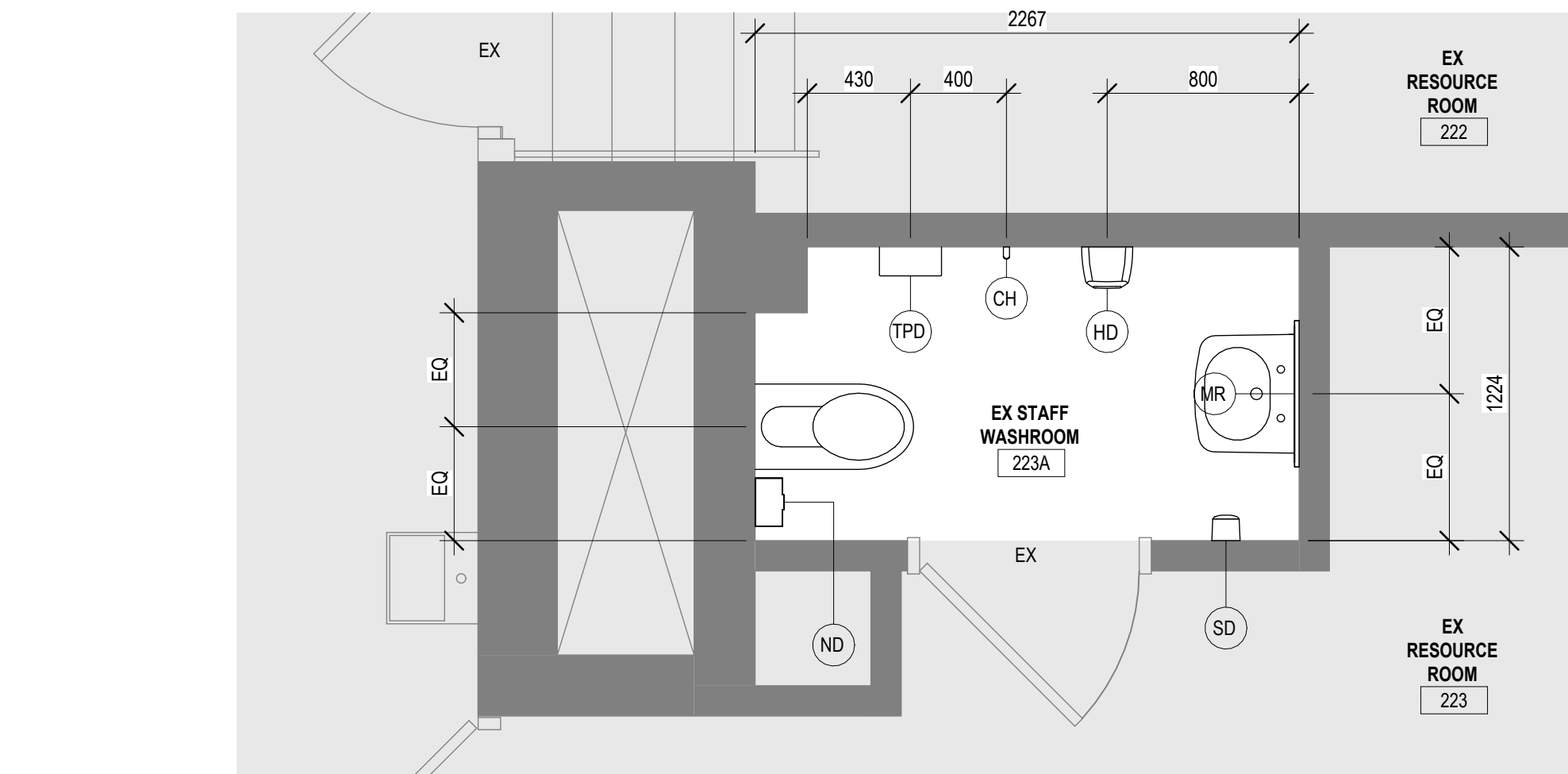
EX GIRLS WASHROOM 206 PROPOSED FLOOR PLAN
SCALE: 1:50

3
A2.02



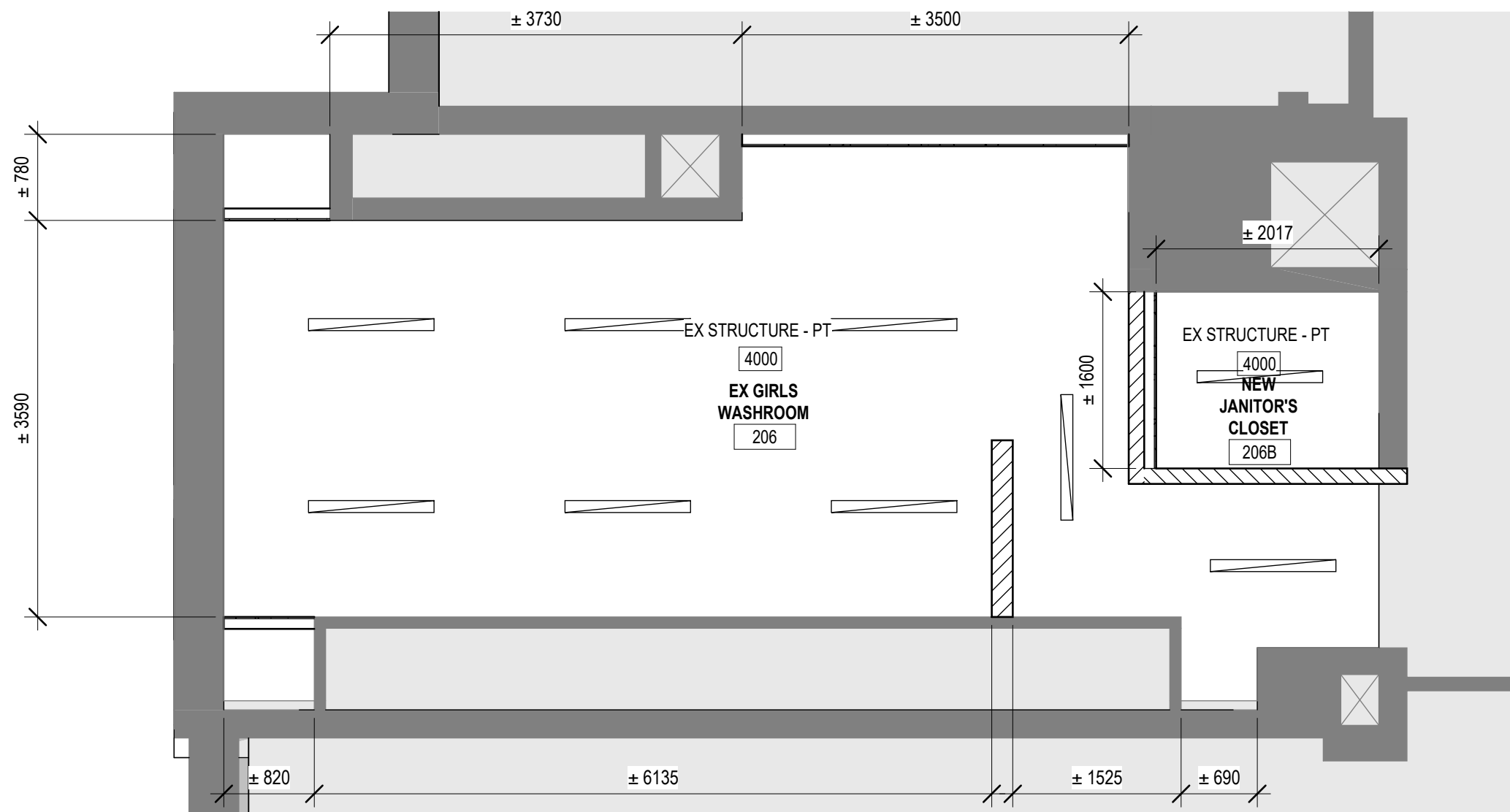
EX STAFF WASHROOMS 221A & 223A PROPOSED FLOOR PLANS
SCALE: 1:25

1
A2.02



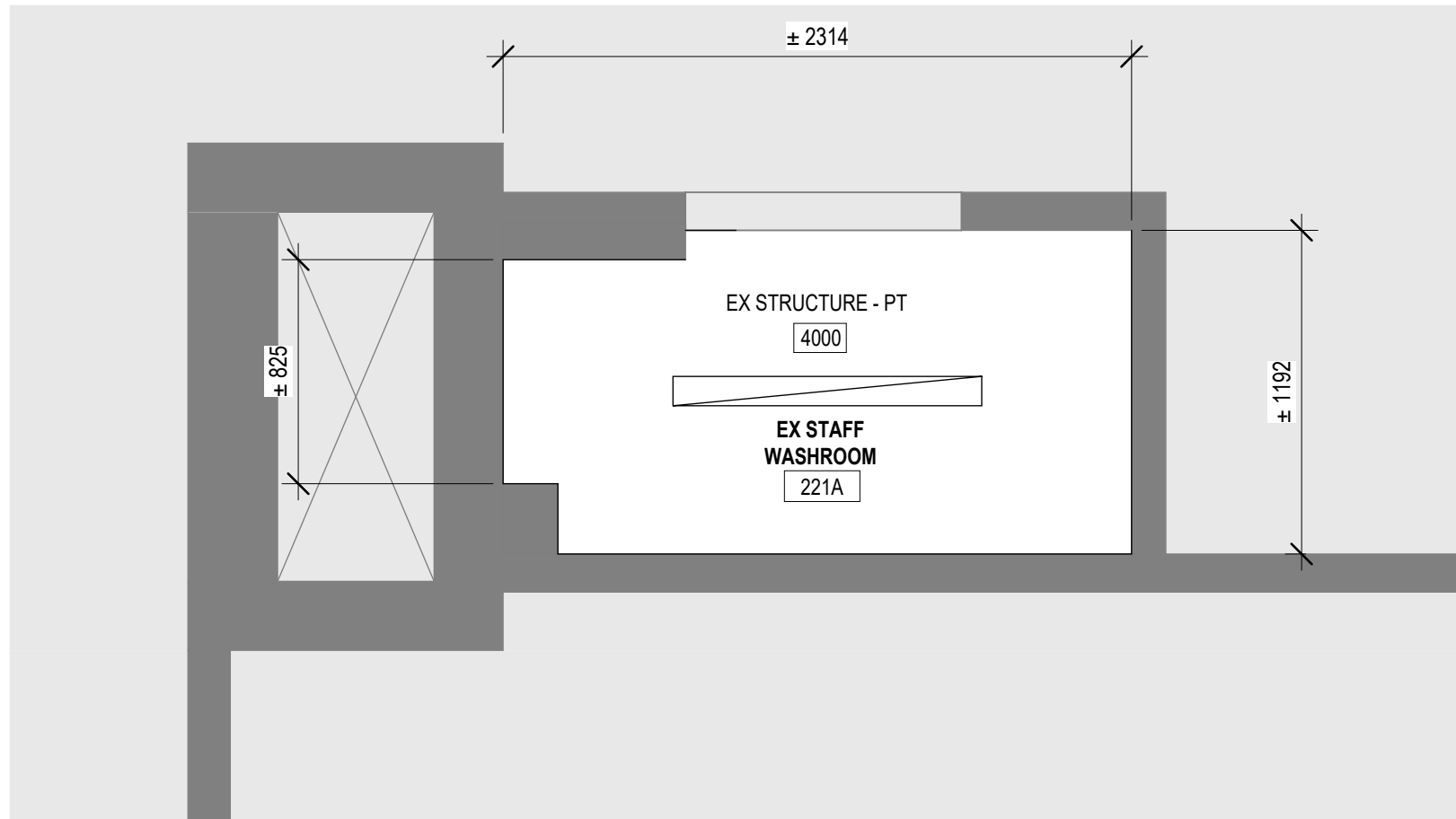
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SCALE: 1:50

4



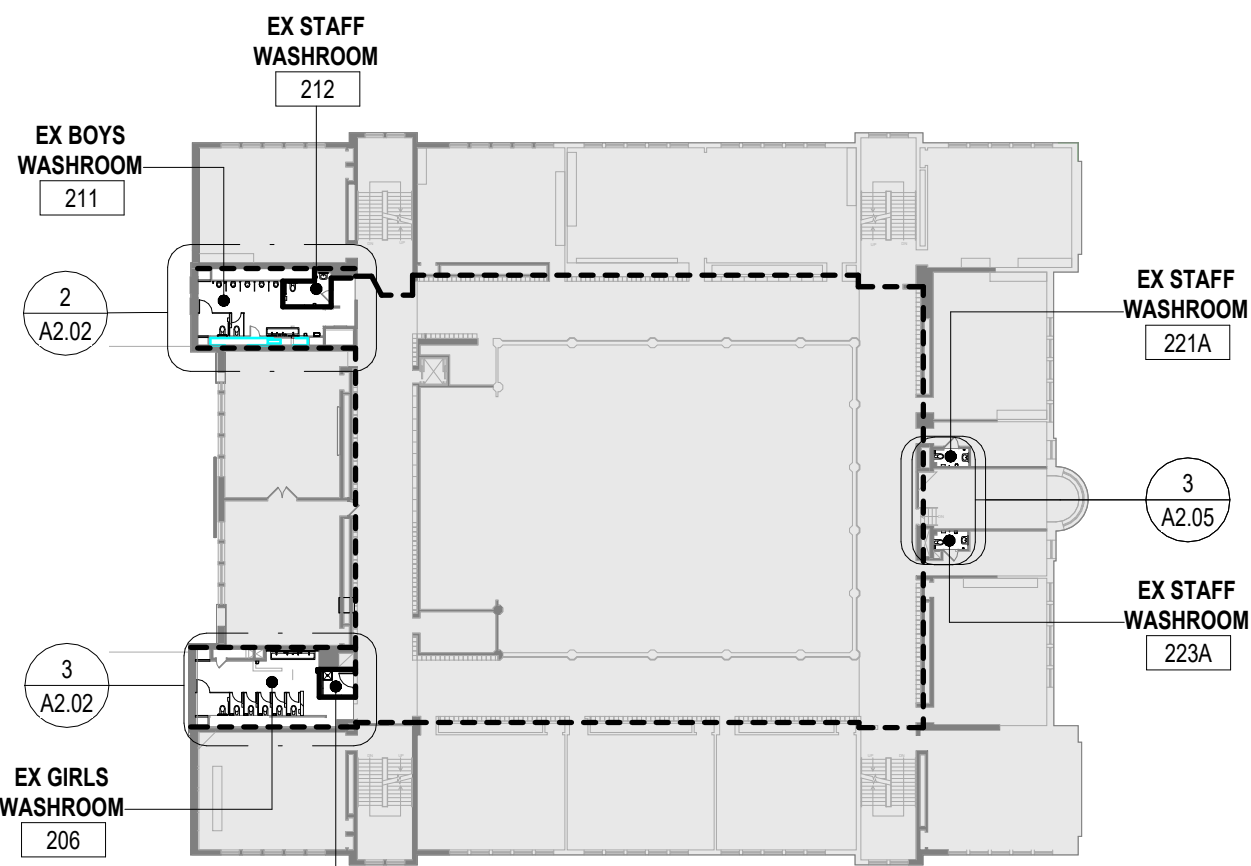
EX GIRLS WASHROOM 206 PROPOSED RCP
SCALE: 1:50

5



EX STAFF WASHROOMS 221A & 223A PROPOSED RCP
SCALE: 1:25

7



SECOND FLOOR RENOVATION KEY PLAN
SCALE: 1:500

CH	COAT HOOK
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TPD	TOILET PAPER DISPENSER
GB1	VERTICAL GRAB BAR
GB2	HORIZONTAL GRAB BAR
GB3	L-SHAPED GRAB BAR
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ND	NAPKIN DISPOSAL
MR	MIRROR
WR	WASTE RECEPTACLE
PS	PRIVACY SCREEN
SH	SHELF
WB	WATER BOTTLE DISPENSER
ECS	EMERGENCY CALL SYSTEM
ADO	AUTOMATIC DOOR OPERATOR
RSD	RECESSED SOAP DISH
SHS	SHOWER SEAT
SHV	SHOWER VALVE
SHH	SHOWER HEAD

WASHROOM FLOORPLAN ABBREVIATIONS

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P02083 W.H. Ballard Elementary School

1	RE ISSUED FOR BUILDING PERMITTENDER	04/15/2025
0	ISSUED FOR BUILDING PERMITTENDER	03/20/2025
No.	DESCRIPTION	DATE

REVISIONS
SEAL:

KALOS ENGINEERING

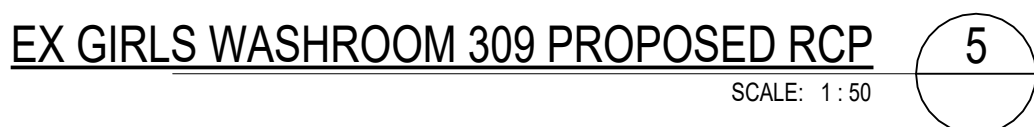
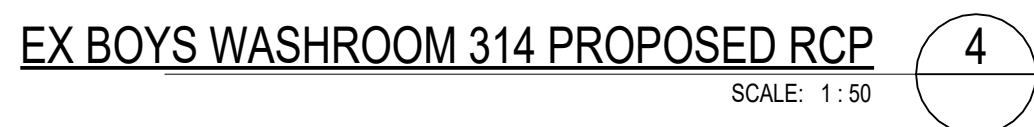
E & M
Consulting Engineers Inc.

AMRA J ARCHITECTS INC.
905-505-5117
project title:

Washrooms & Change Room Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

Drawing title:
SECOND FLOOR PROPOSED WASHROOM LAYOUT AND RCP

Drawn: AS	Scale: As Indicated
Checked: AJ	Project number: 24-24
	Drawing No: A2.02
	Revision: 1



CH	COAT HOOK
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TPD	TOILET PAPER DISPENSER
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MR	MIRROR
WR	WASTE RECEPTACLE
PS	PRIVACY SCREEN
SH	SHELF
WB	WATER BOTTLE DISPENSER
ECG	EMERGENCY CALL SYSTEM
ADO	AUTOMATIC DOOR OPERATOR
RSD	RECESSED SOAP DISH
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SHV	SHOWER VALVE
SHH	SHOWER HEAD

WASHROOM FLOORPLAN ABBREVIATIONS

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HWDSB
P02083 W.H. Ballard Elementary
School

1	RE ISSUED FOR BUILDING PERMIT/TENDER	04/15/2025
0	ISSUED FOR BUILDING PERMIT/TENDER	03/20/2025
No.	DESCRIPTION	DATE

REVISIONS

SEAL:



24-24 25/04/17
ARCHITECTS
Amra Hajkovic
AMRA HAJKOVIC
LICENCE 5594



E & M
Consulting Engineers Inc.



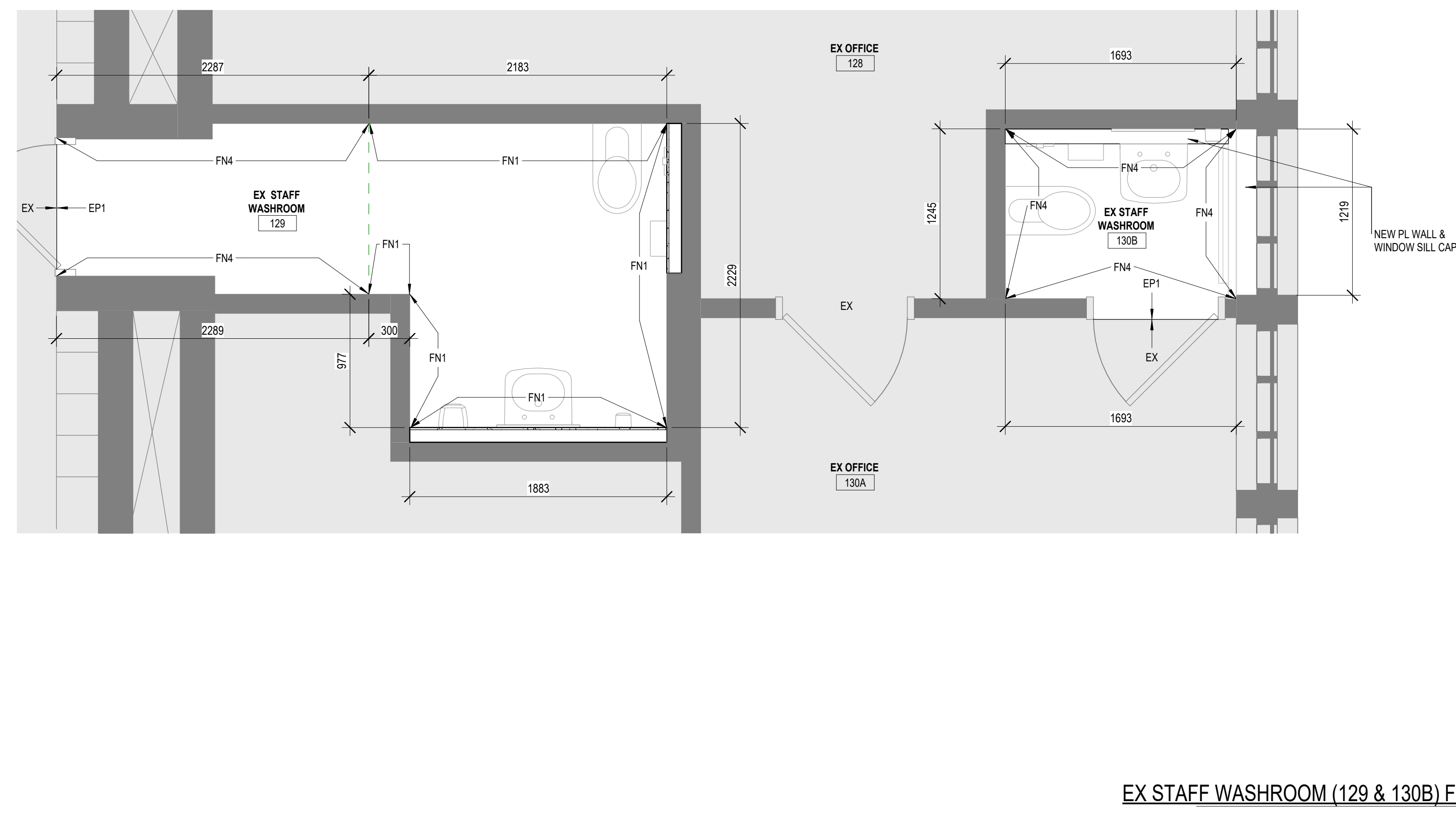
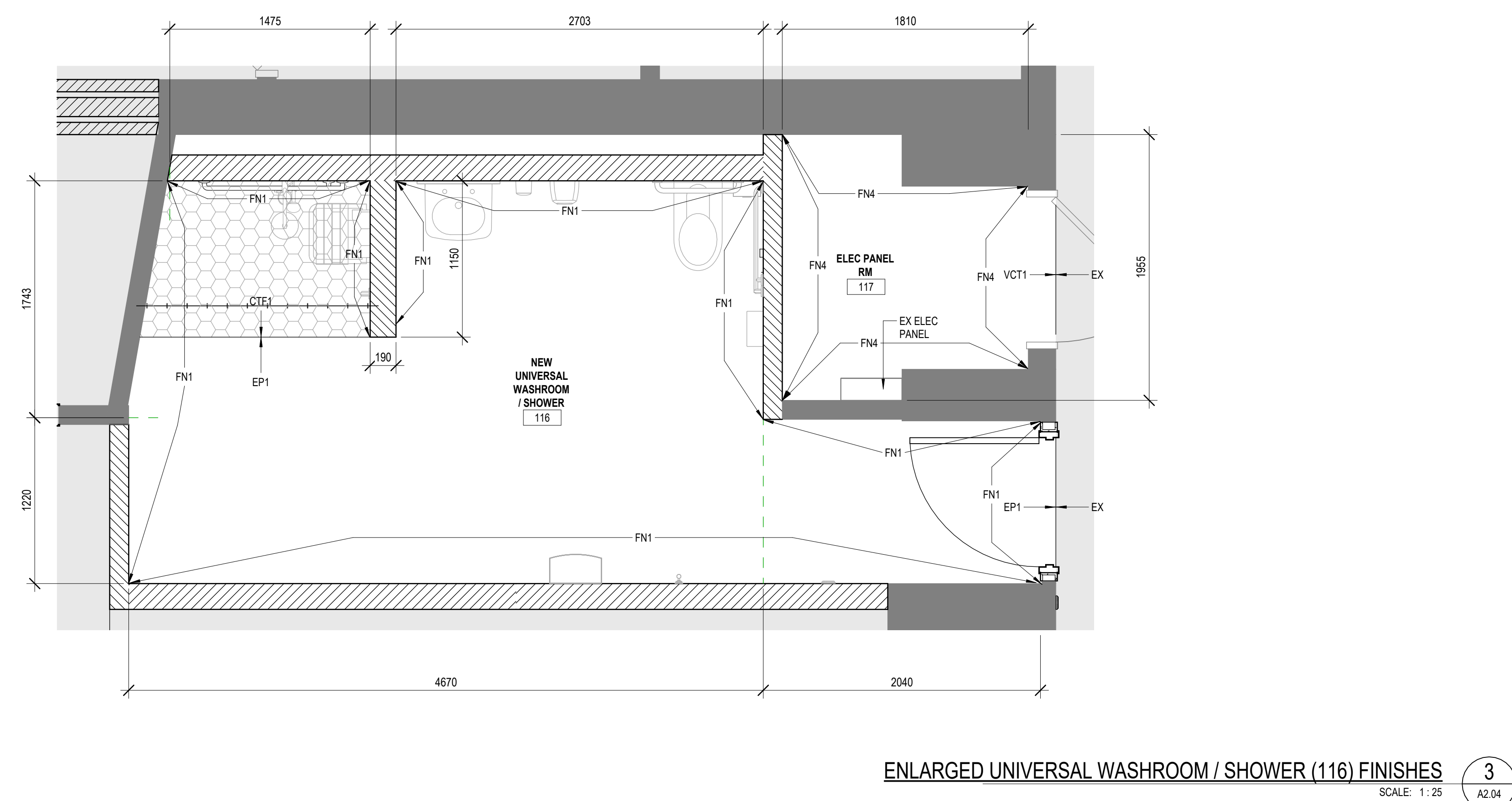
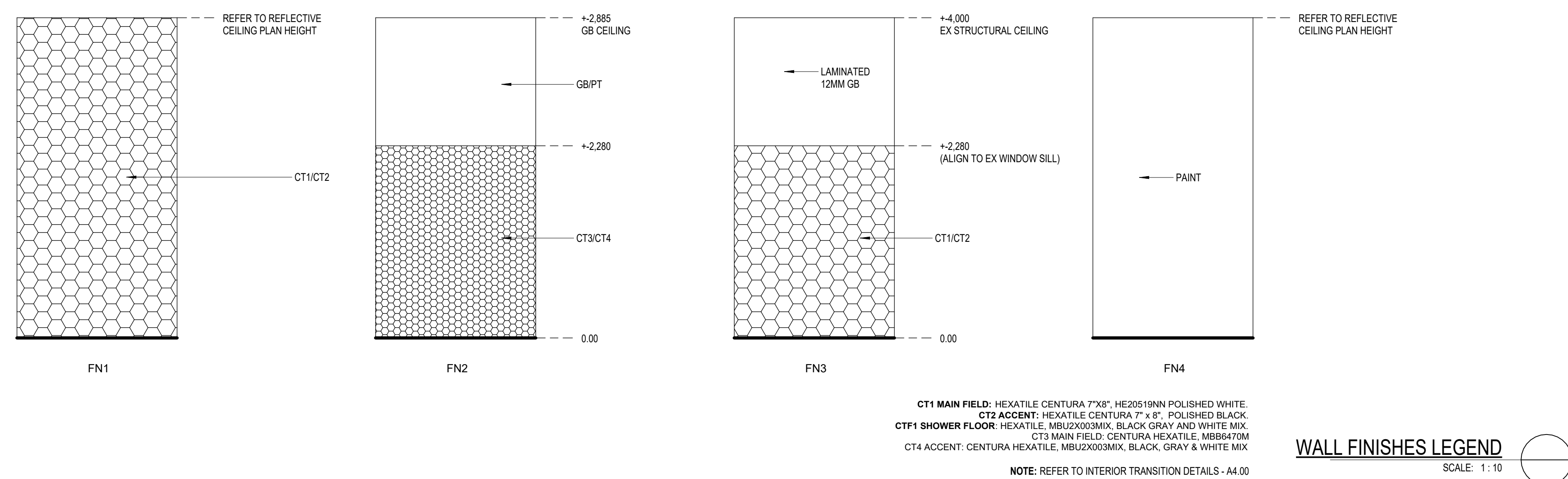
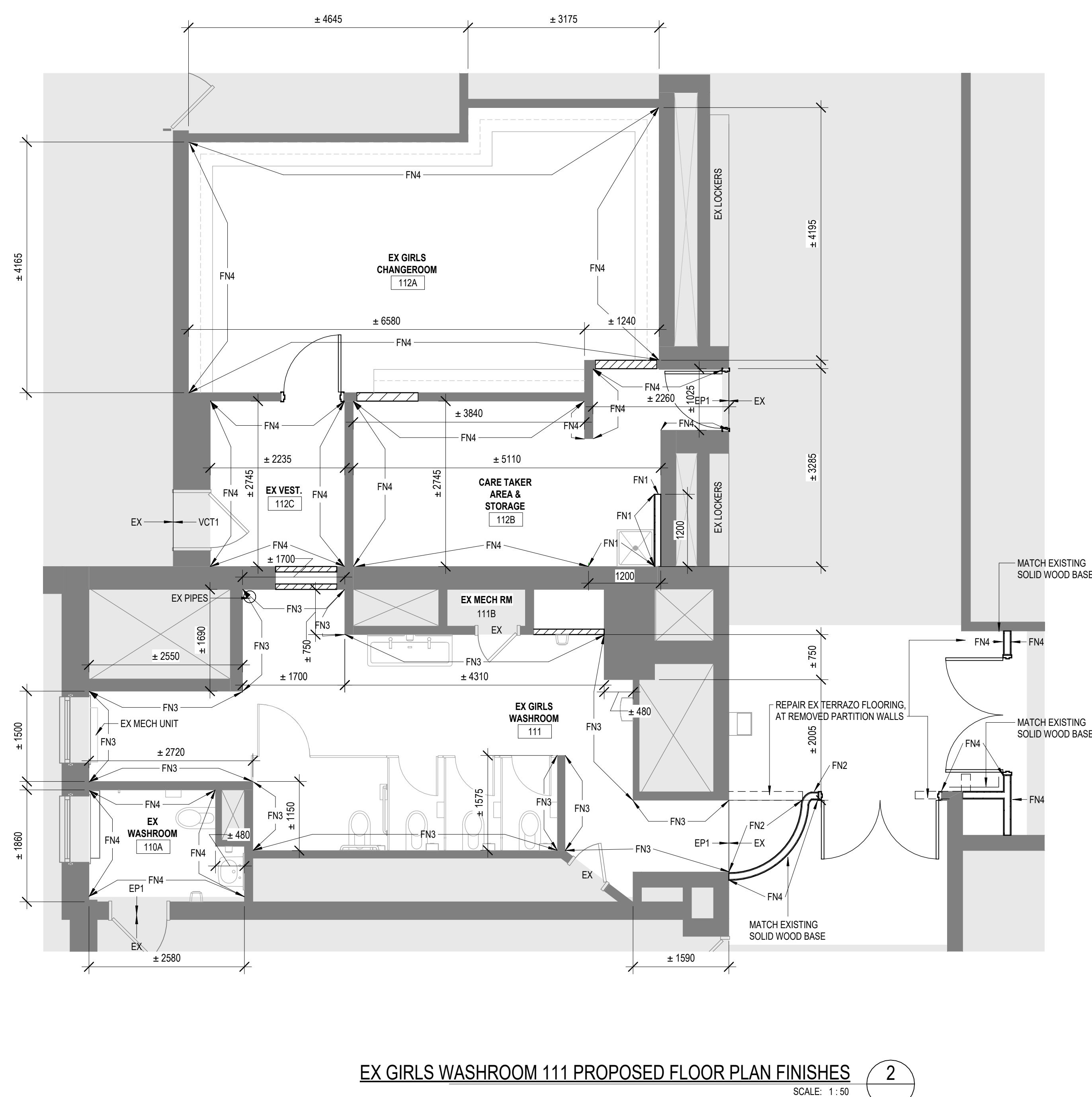
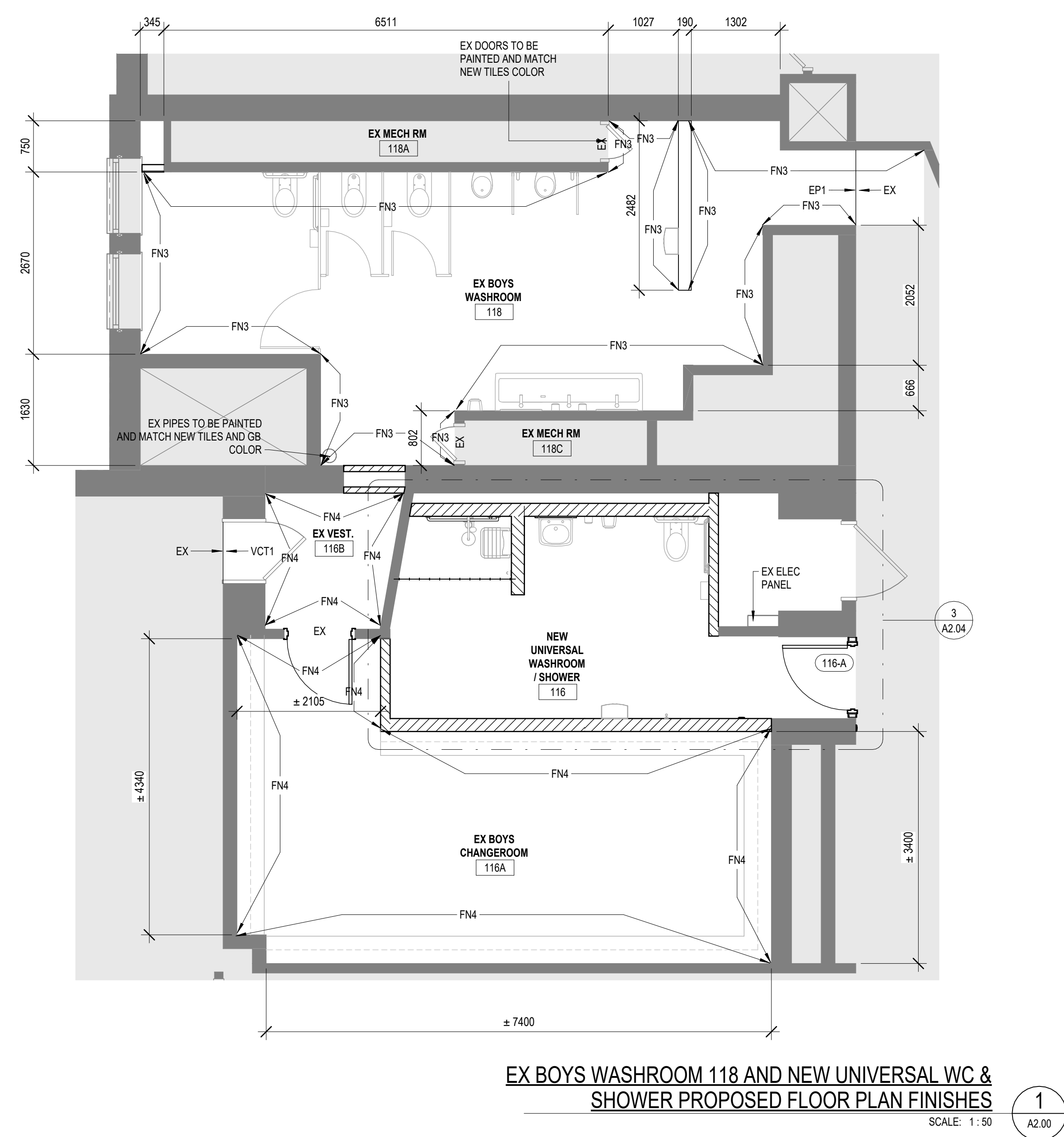
EMAIL: info@aja.design
<https://aja.design>
 project title: _____

AMRA J
 ARCHITECTS INC.
 905-920-5121

Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

drawing title:
THIRD FLOOR PROPOSED
WASHROOM LAYOUT AND RCP

DRAWN: AS	scale: As indicated	
	project number: 24-24	
checked: AJ	DRAWING NO: A2.03	1 Revision



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HWDSB
P02083 W.H. Ballard Elementary
School

1	RE ISSUED FOR BUILDING PERMIT/TENDER	04/15/2025
0	ISSUED FOR BUILDING PERMIT/TENDER	03/20/2025
No.	DESCRIPTION	DATE

SEAL:

ONTARIO ASSOCIATION
24-24 25/04/17
OF
ARCHITECTS
Amra Danilovic
AMRA DANILOVIC
LICENCE
5894



E & M
Consulting Engineers Inc.

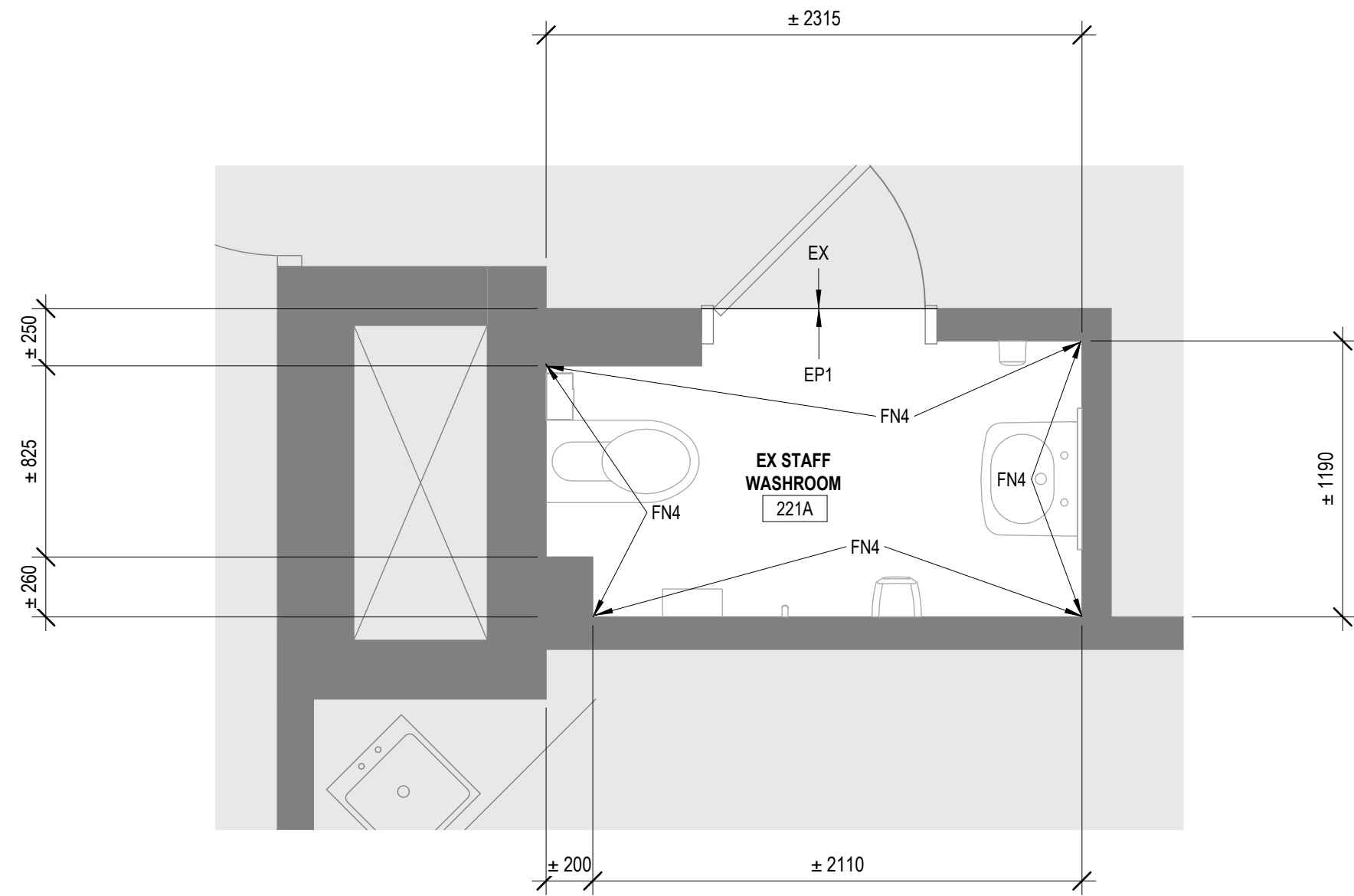


EMAIL: info@aja.design
<http://aja.design>
 905-620-
 9000-0110

drawing title:
GROUND FLOOR PROPOSED
FINISHES

drawn: AS	scale: As indicated
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checked: AJ	DRAWING NO: A2.04
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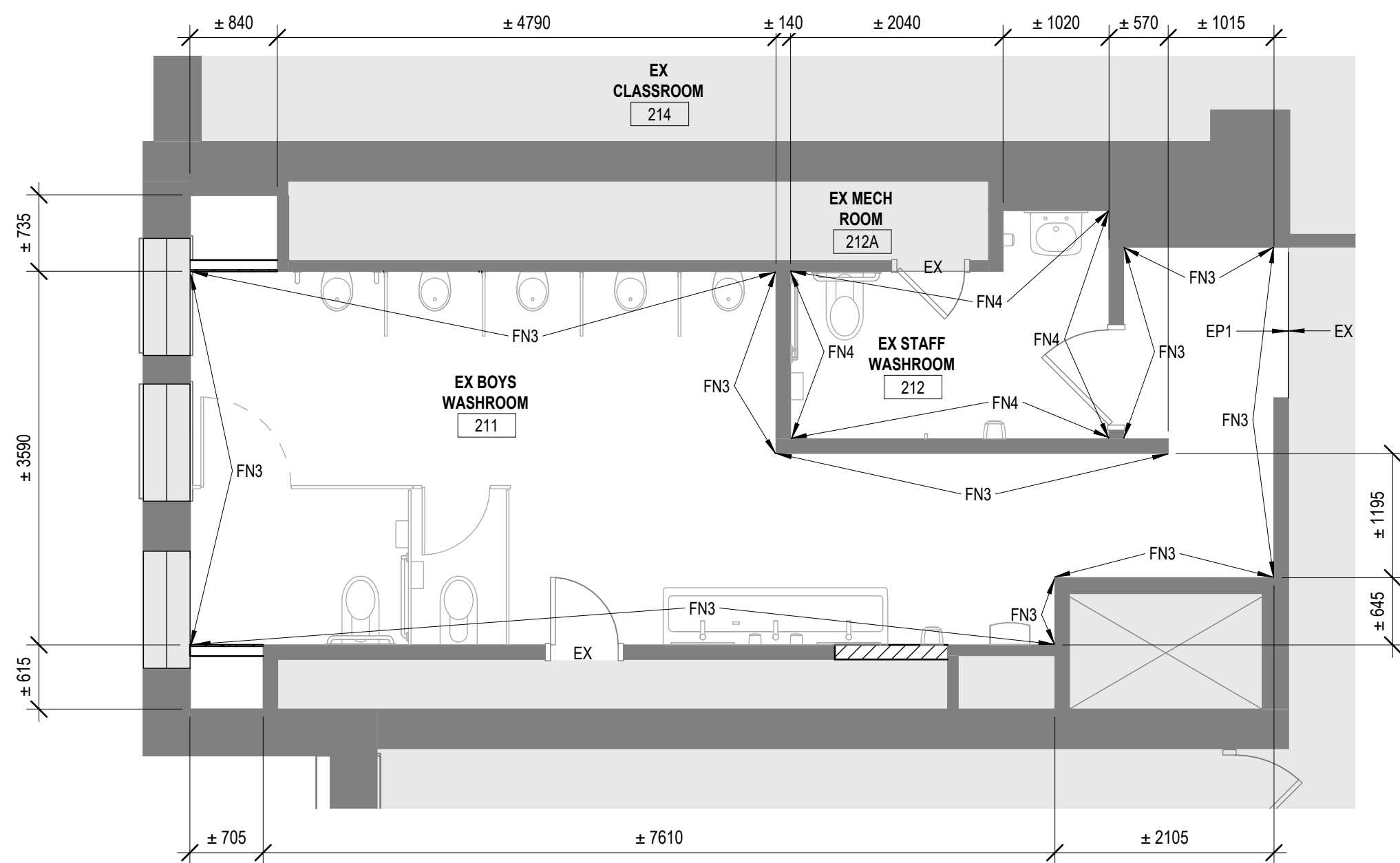
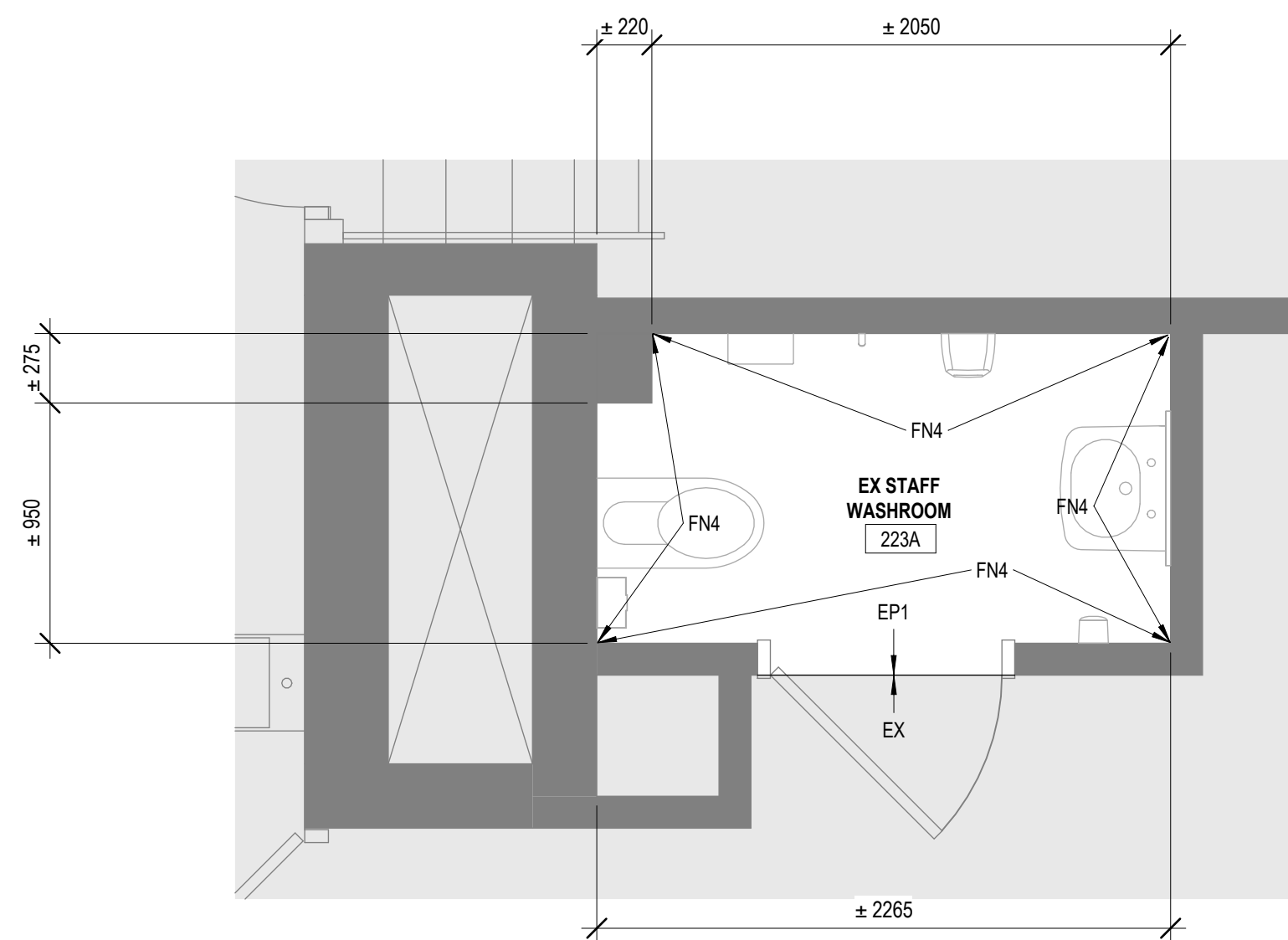


EX STAFF WASHROOMS 221A & 223A PROPOSED FLOOR PLANS FINISHES

SCALE: 1:25

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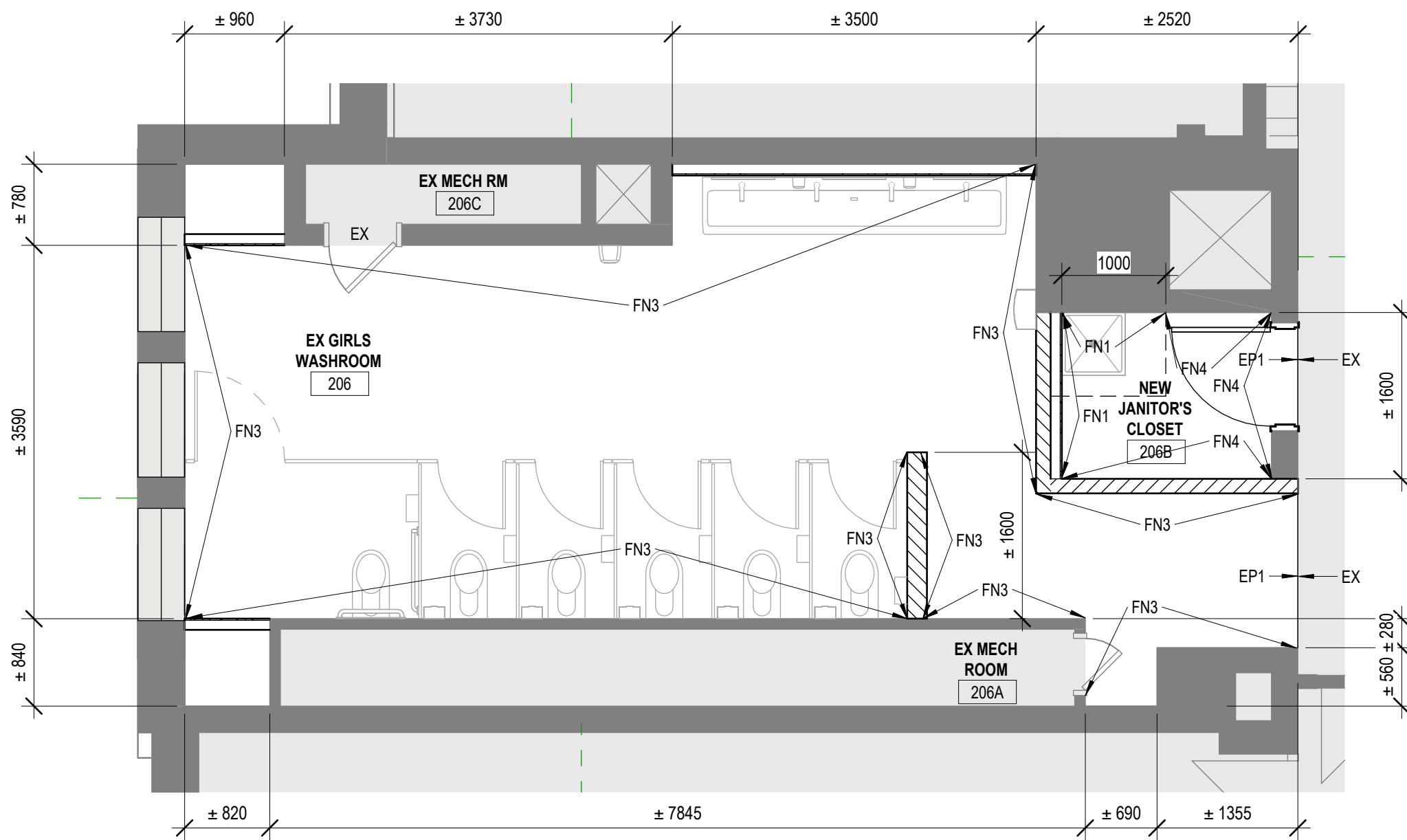
A2.02



EX BOYS WASHROOM 211 PROPOSED FLOOR PLAN FINISHES

SCALE: 1:50

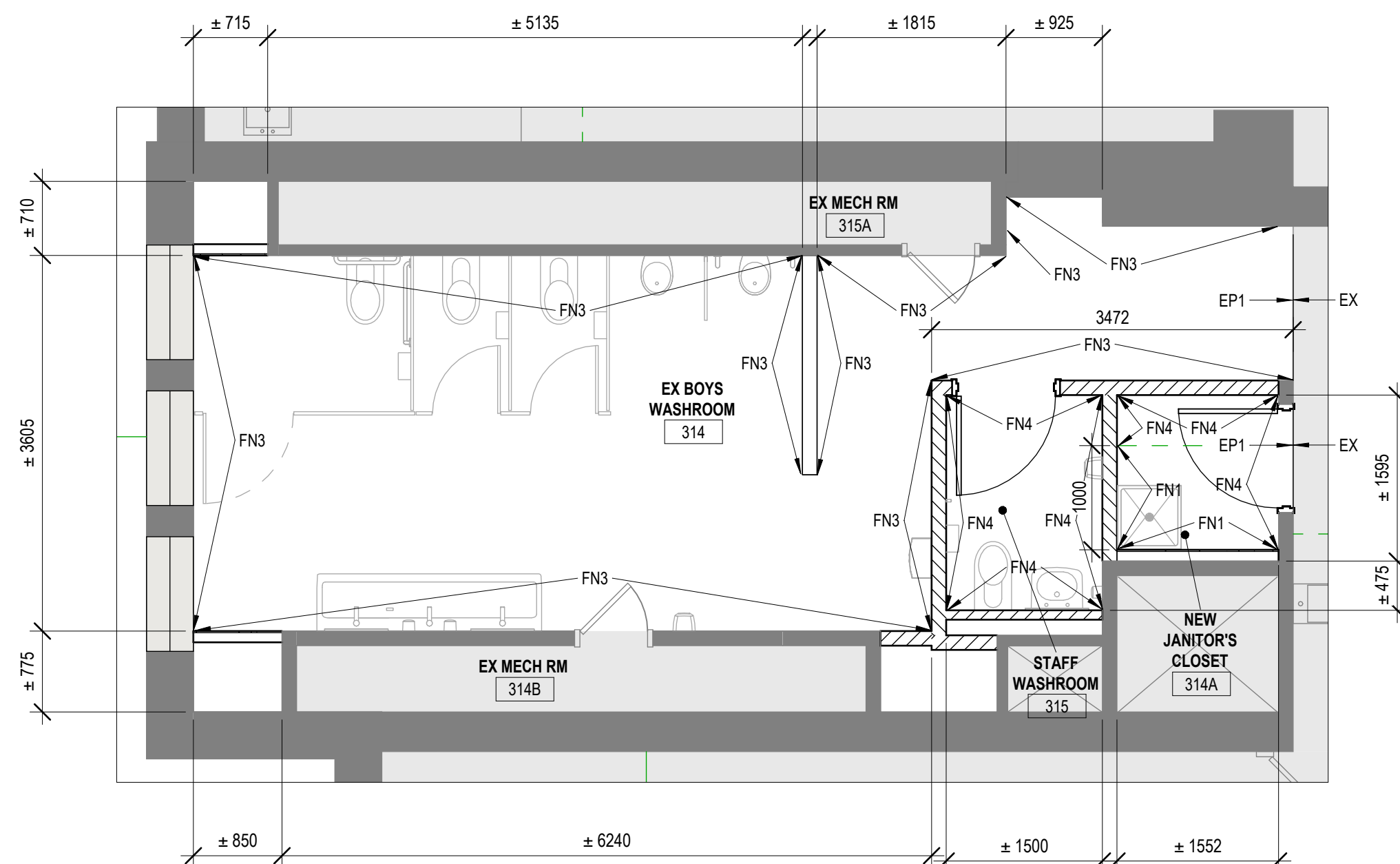
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EX GIRLS WASHROOM 206 PROPOSED FLOOR PLAN FINISHES

SCALE: 1:50

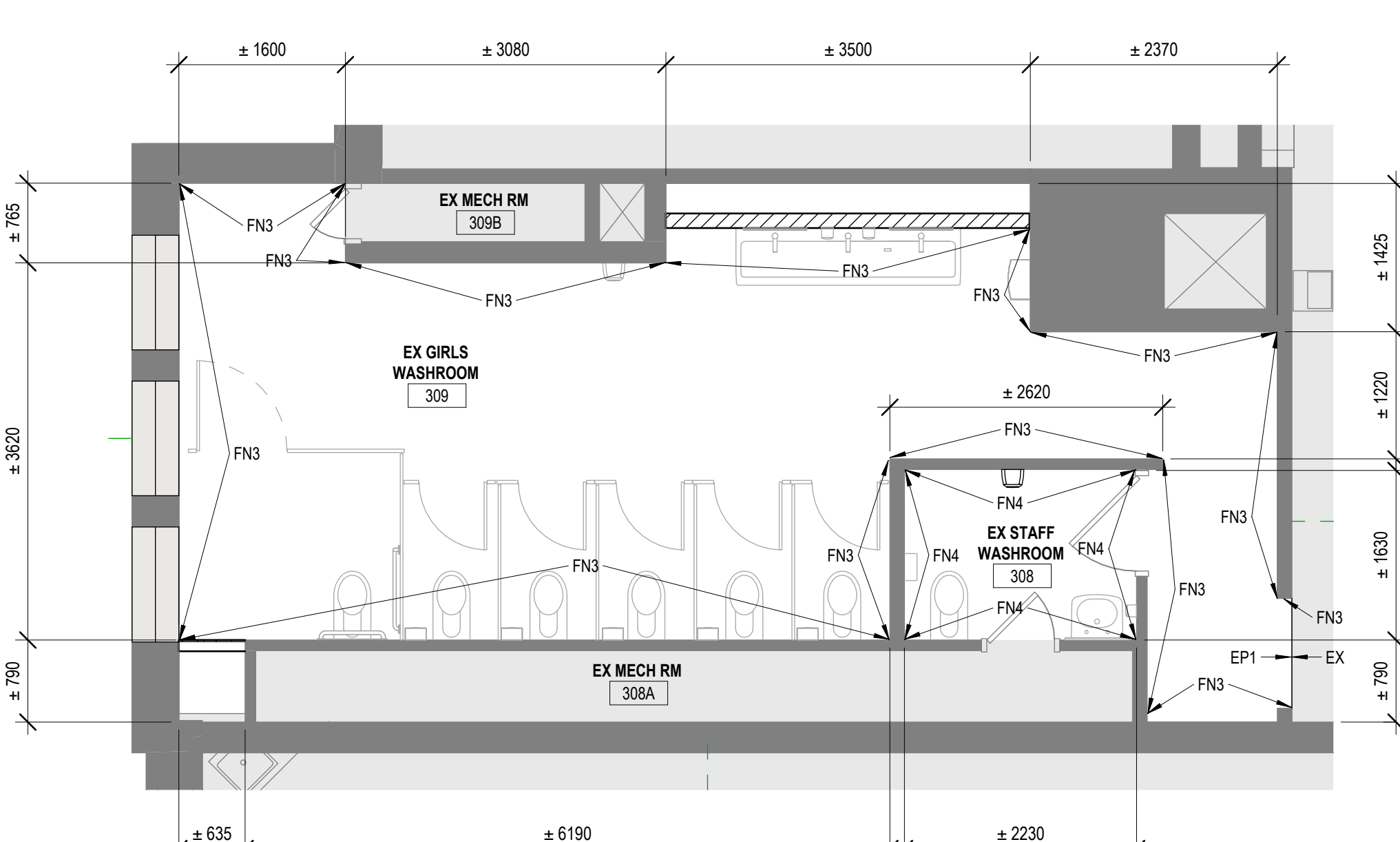
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EX BOYS WASHROOM 314 PROPOSED FLOOR PLAN FINISHES

SCALE: 1:50

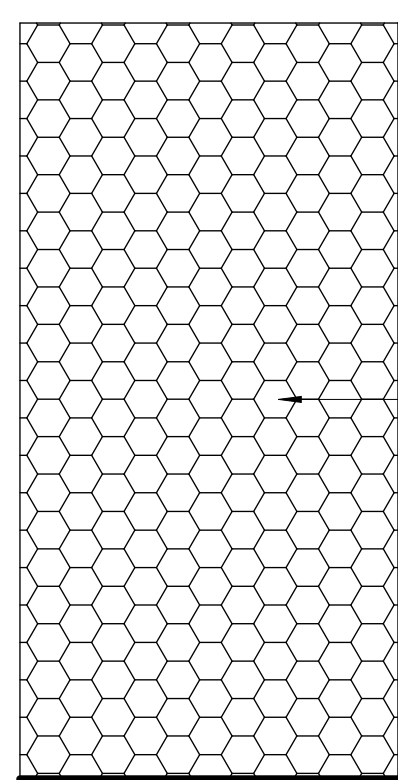
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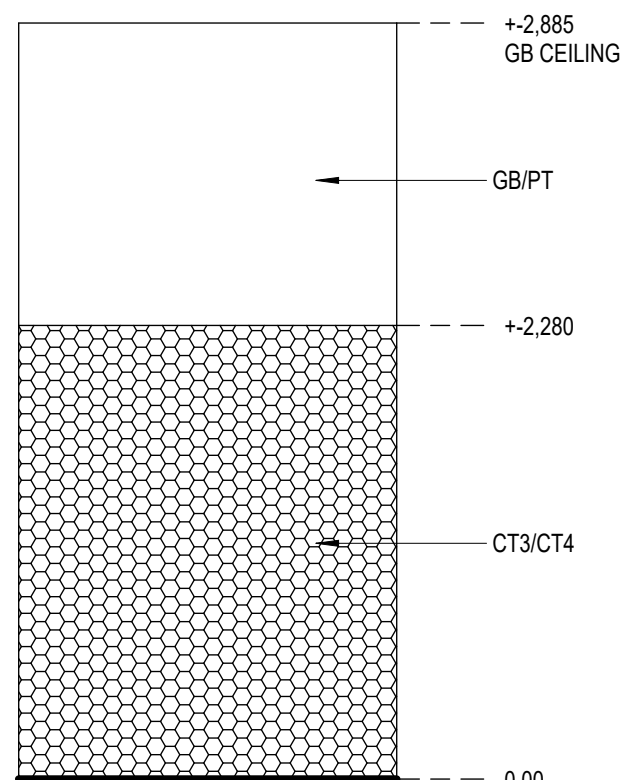
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SCALE: 1:50

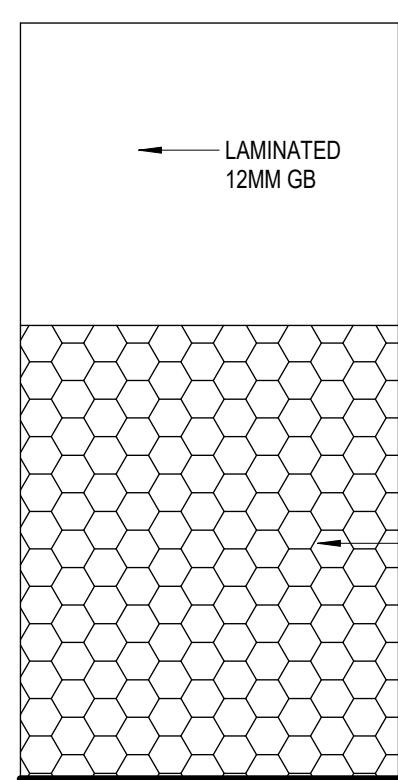
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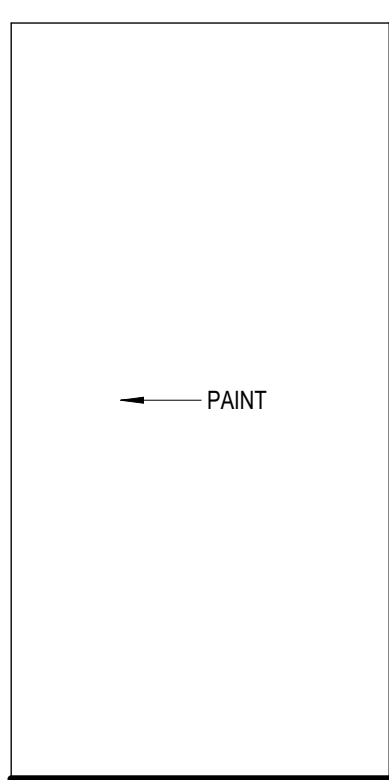
FN1



FN2



FN3



FN4

CT1 MAIN FIELD: HEXATILE CENTURA 7"x8", HE20516NN POLISHED WHITE.
CT2 ACCENT: HEXATILE CENTURA 7"x8", POLISHED BLACK.
CT3 MAIN FIELD: HEXATILE MB202030MMX, BLACK GRAY AND WHITE MIX.
CT4 ACCENT: CENTURA HEXATILE, MB202030MMX, BLACK, GRAY & WHITE MIX.

NOTE: REFER TO INTERIOR TRANSITION DETAILS - A4.00

WALL FINISHES LEGEND

SCALE: 1:10



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HWDSB
P20283 W.H. Ballard Elementary
School

1	RE ISSUED FOR BUILDING PERMITTENDER	04/15/2025
0	ISSUED FOR BUILDING PERMITTENDER	03/20/2025
No.	DESCRIPTION	DATE

REVISIONS

SEAL:

KALOS
ENGINEERING

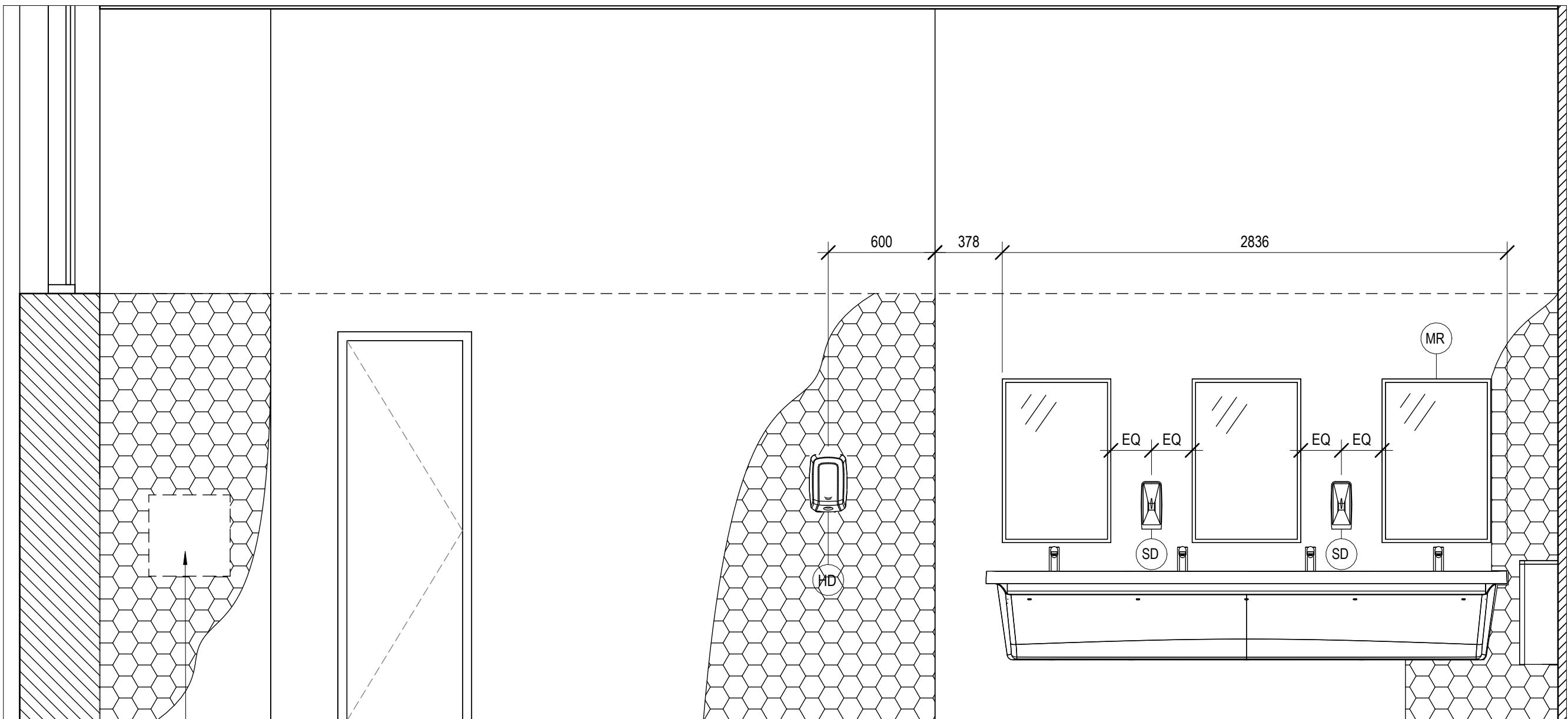
E & M
Consulting Engineers Inc.

AMRA J
ARCHITECTS INC.
905-505-5117
project title:
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

Drawing title:
SECOND AND THIRD FLOOR
PROPOSED FINISHES

drawn: AS	scale: As Indicated
checked: AJ	project number: 24-24

DRAWING NO: A2.05	1
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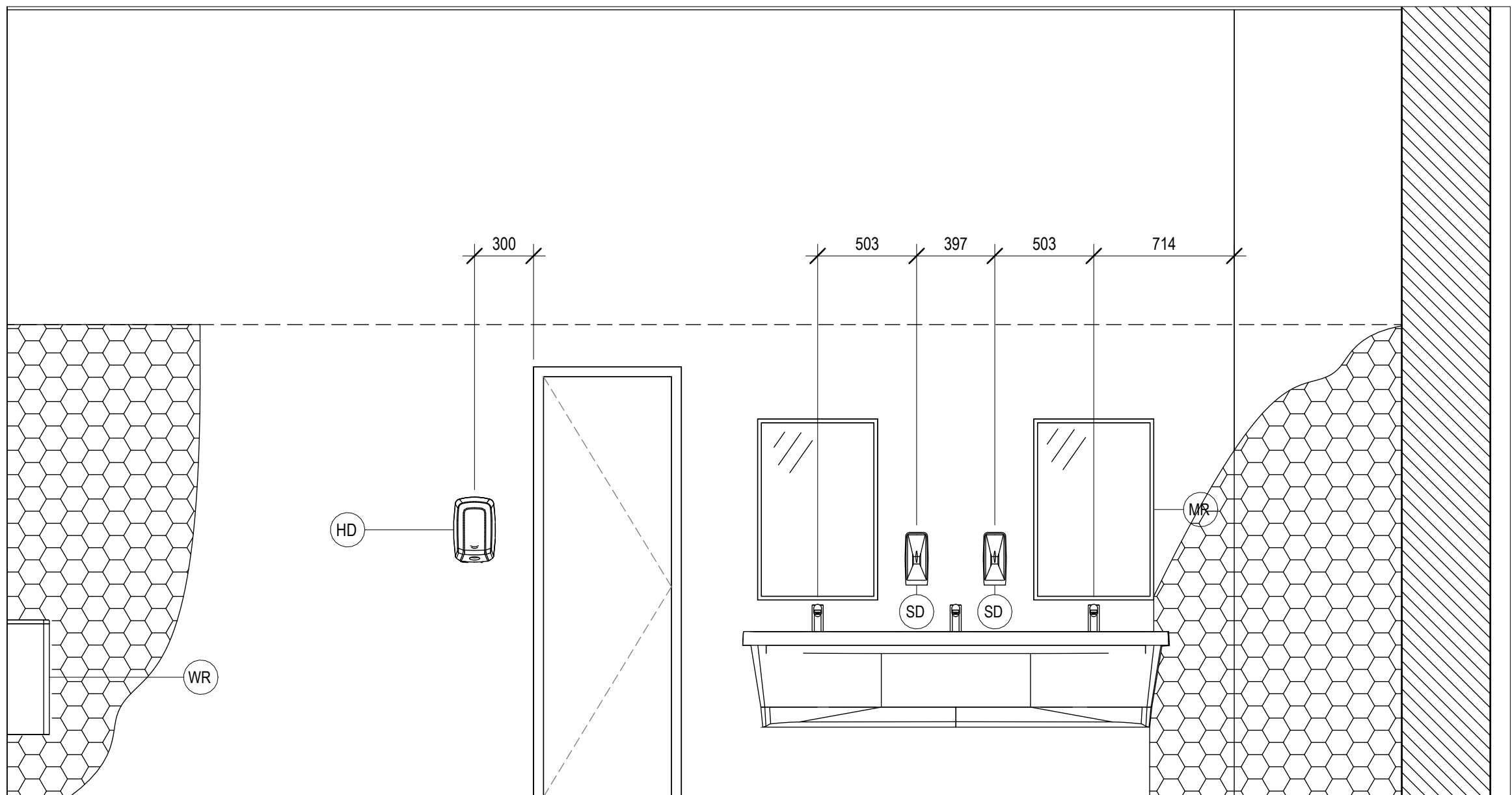


NORTH ELEVATION EX GIRLS WASHROOM 206

SCALE: 1:25

2

A2.02

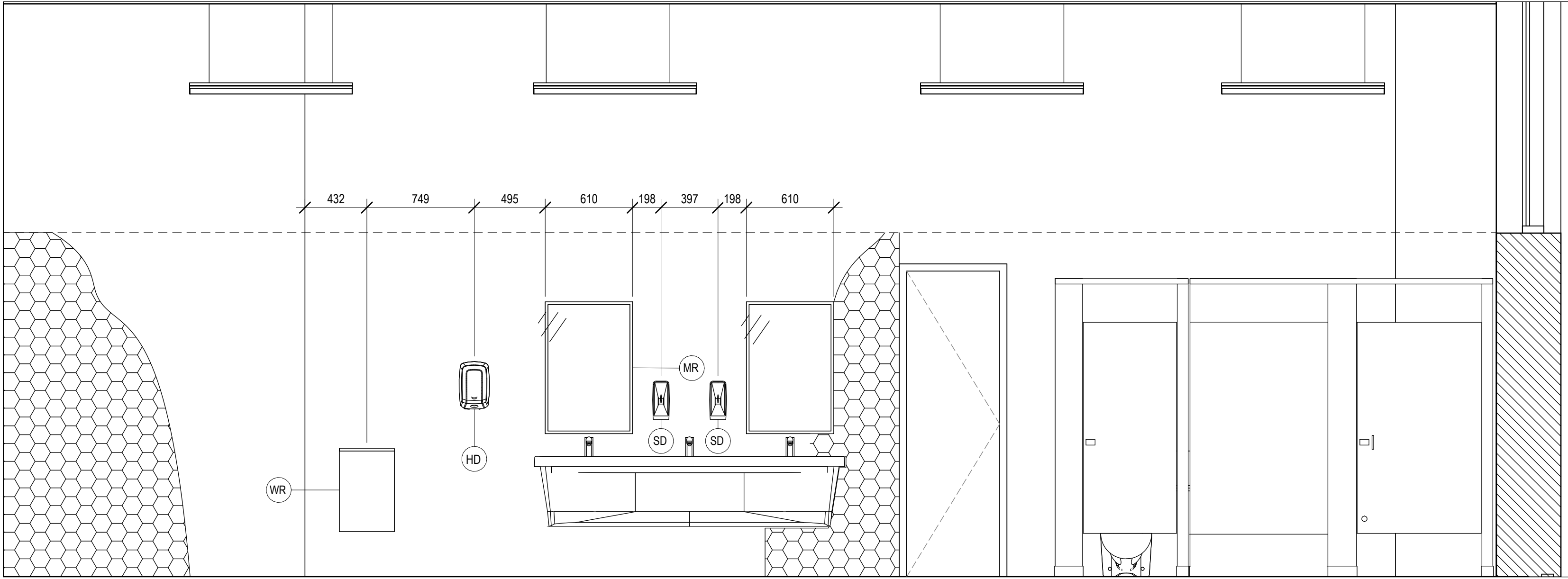


SOUTH ELEVATION EX BOYS WASHROOM 314

SCALE: 1:25

1

A2.03

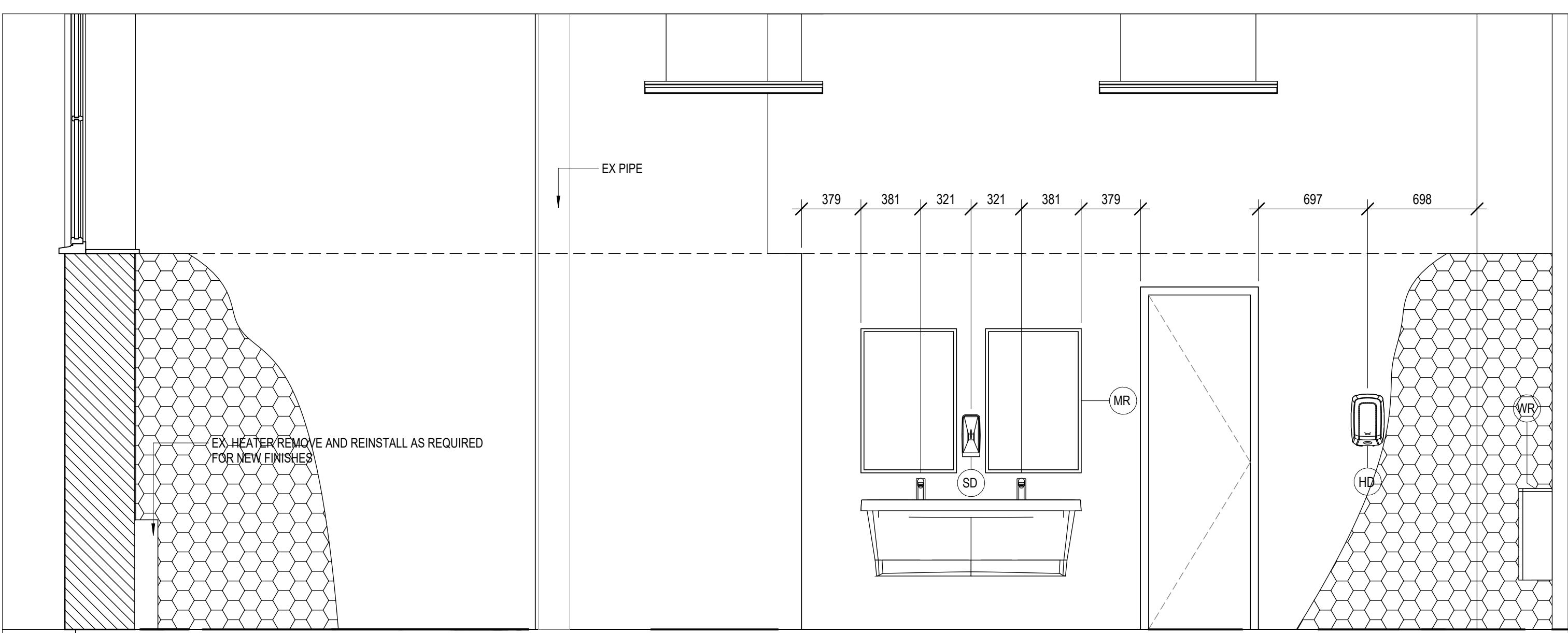


SOUTH ELEVATION EX BOYS WASHROOM 211

SCALE: 1:25

3

A2.02

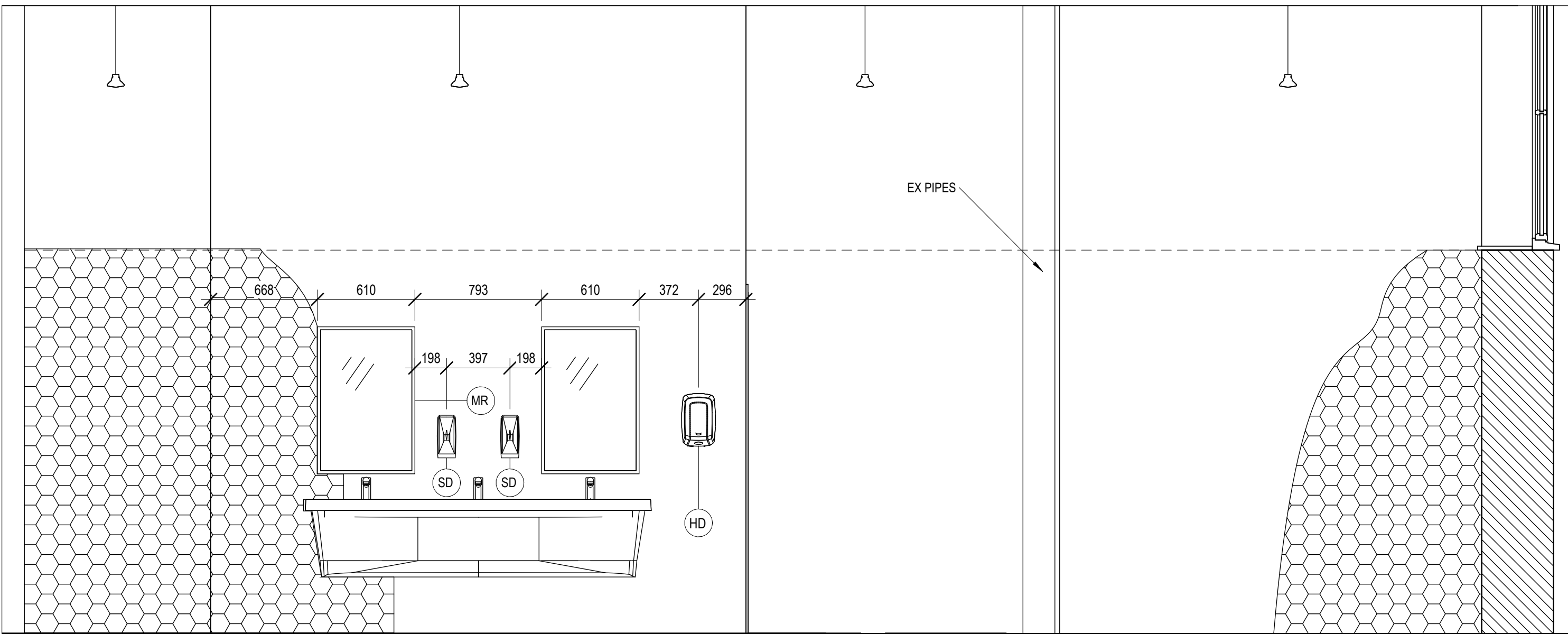


NORTH ELEVATION EX GIRLS WASHROOM 111

SCALE: 1:25

5

A2.00

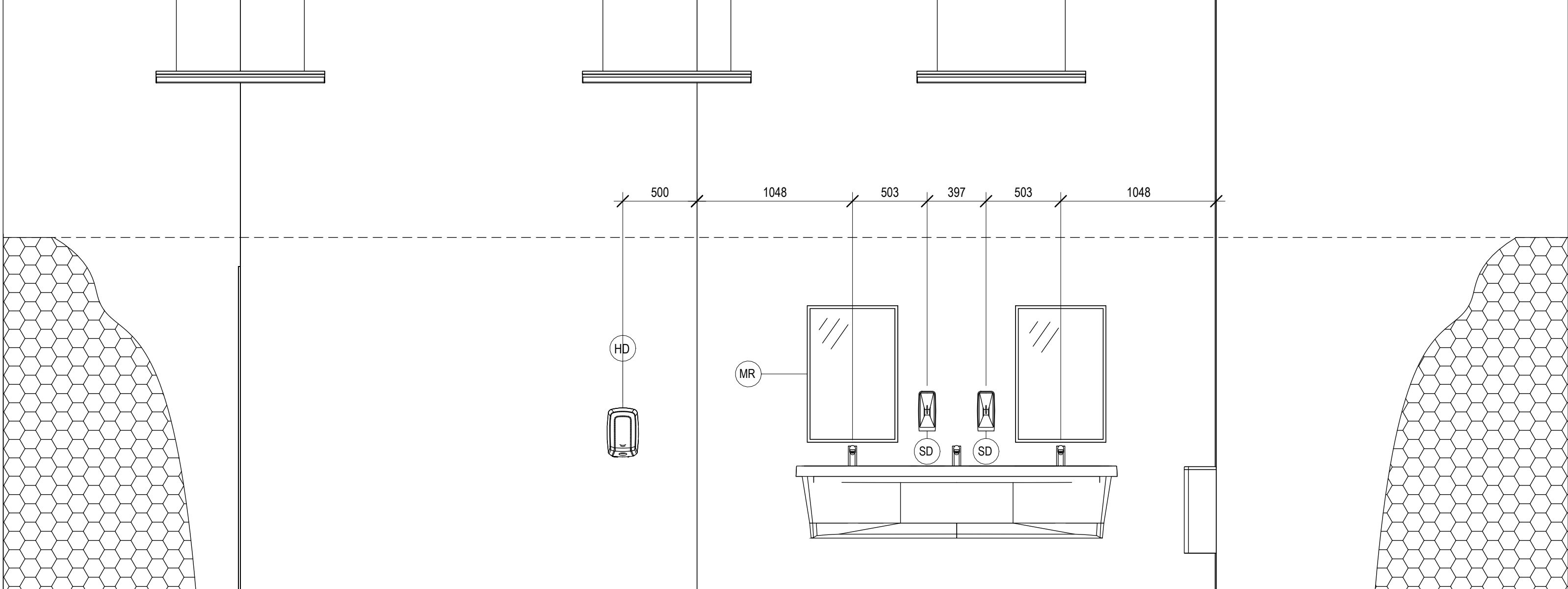


SOUTH ELEVATION EX BOYS WASHROOM 118

SCALE: 1:25

4

A2.00



NORTH ELEVATION EX GIRLS WASHROOM 309

SCALE: 1:25

6

A2.03

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HWDSB
P02083 W.H. Ballard Elementary School

No.	DESCRIPTION	DATE
1	RE ISSUED FOR BUILDING PERMITTENDER	04/15/2025
0	ISSUED FOR BUILDING PERMITTENDER	03/20/2025

REVISIONS

SEAL: 

KALOS
ENGINEERING

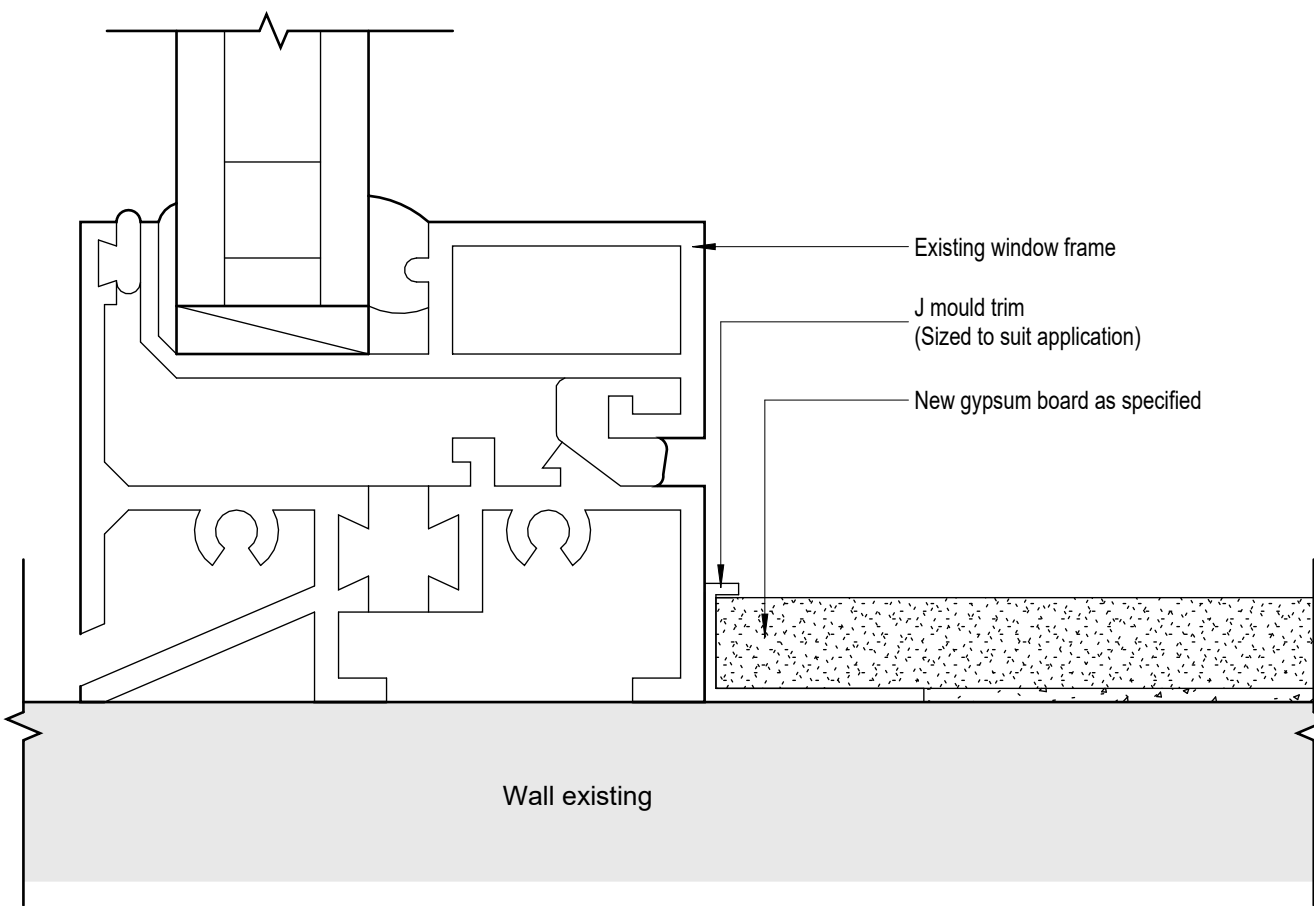
E & M
Consulting Engineers Inc.

AMRA J
ARCHITECTS INC.
905-905-5117
project title:

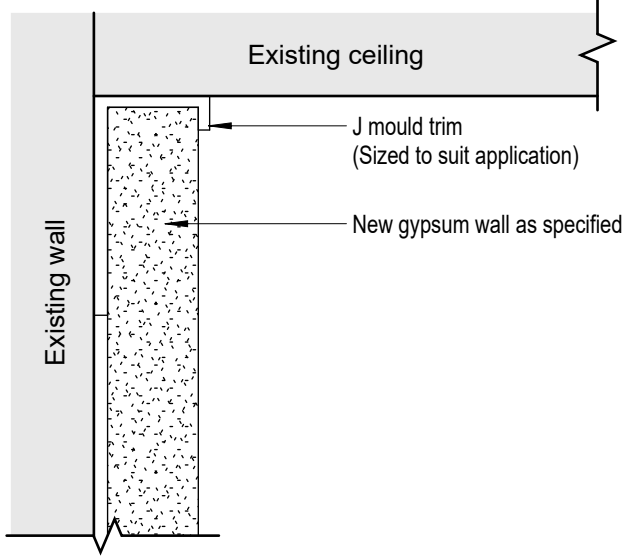
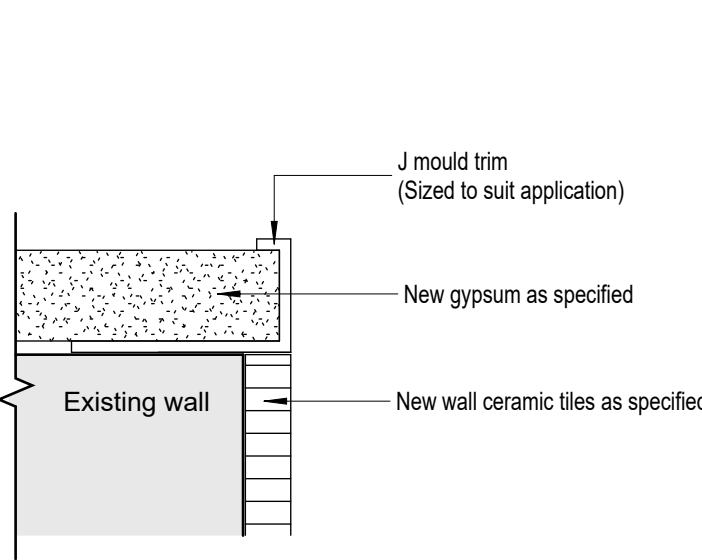
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

Drawing title:
INTERIOR ELEVATIONS

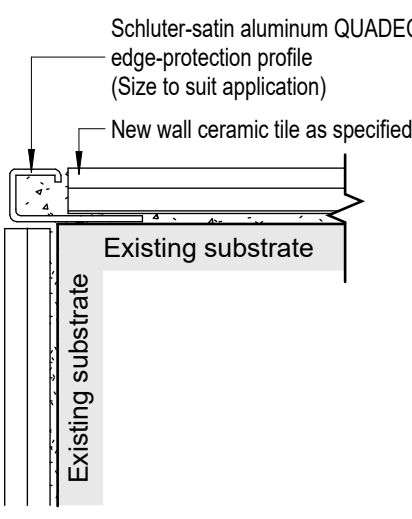
Drawn:	Scale:
AS	1:25
Checked:	Project Number:
AJ	24-24
Drawing No:	Sheet:
A3.00	1



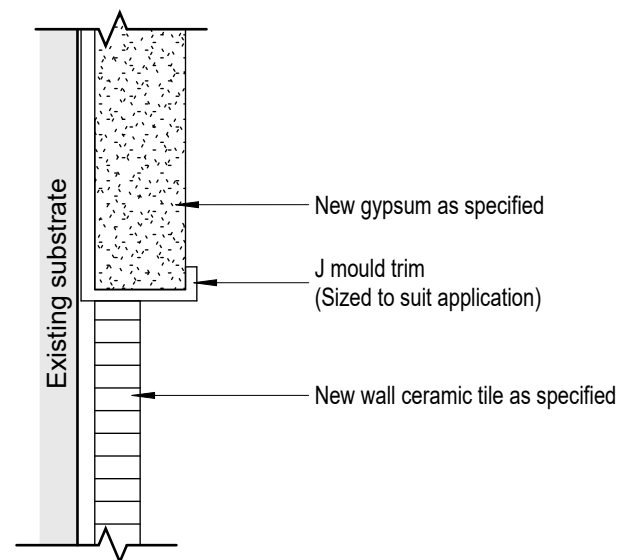
TYPICAL WINDOW SILL DETAIL DETAIL



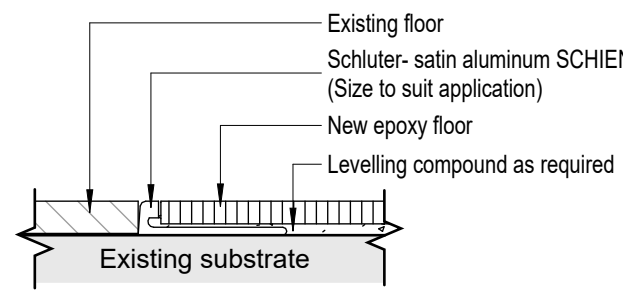
GYPSUM BOARD AT THE EX CEILING



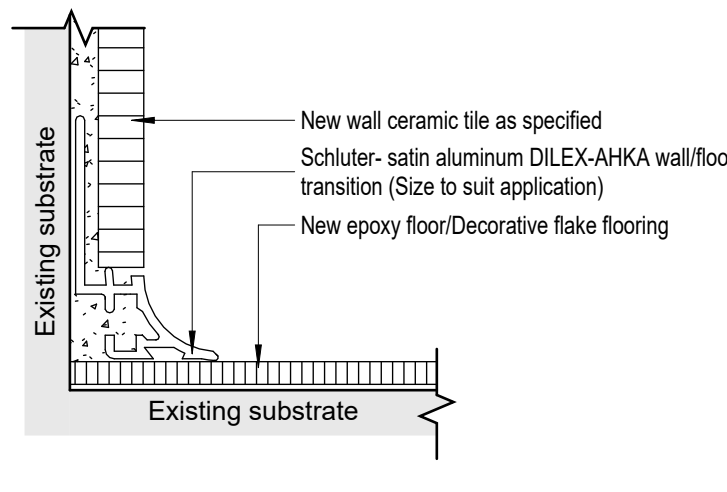
WALL CORNER PLAN DETAIL



GYPSUM BOARD TO CERAMIC TILE TRANSITION



EPOXY TO EX FLOORING TRANSITION

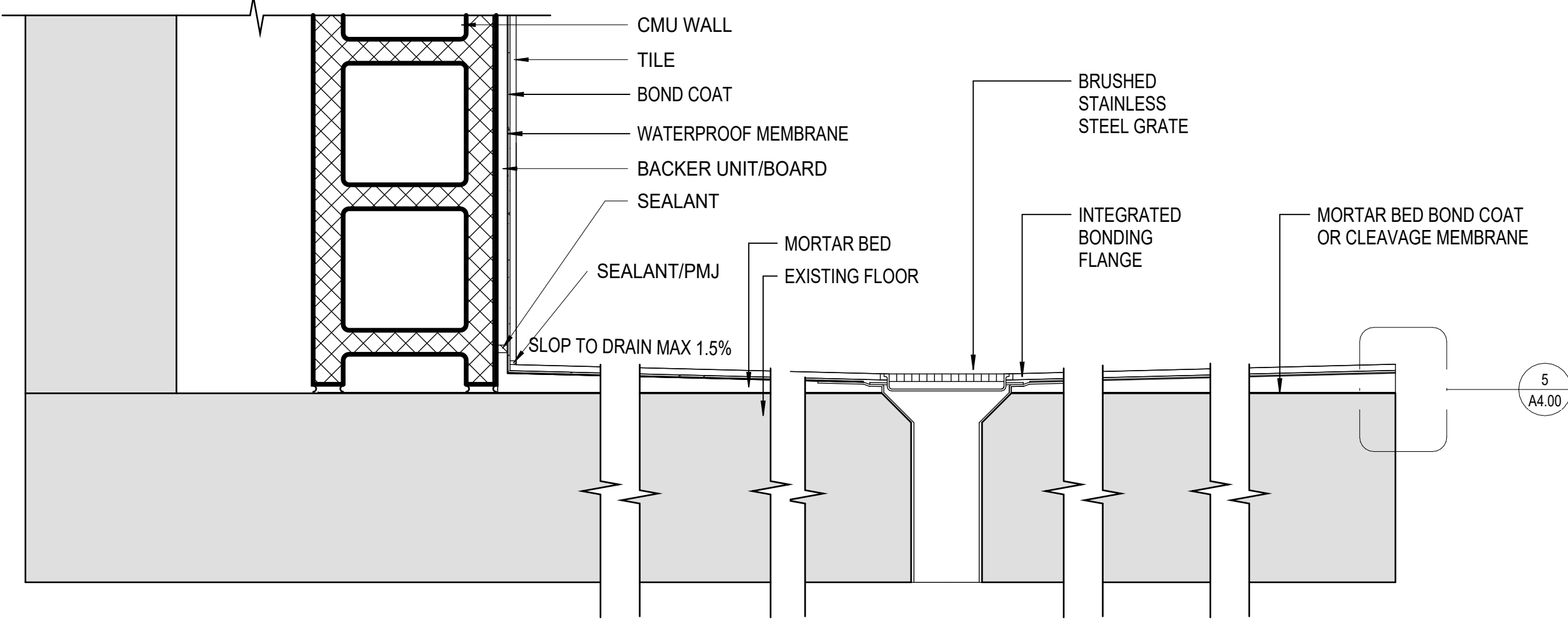


EPOXY FLOOR AND CERAMIC TILE WALL DETAIL

INTERIOR TRANSITION DETAILS

1

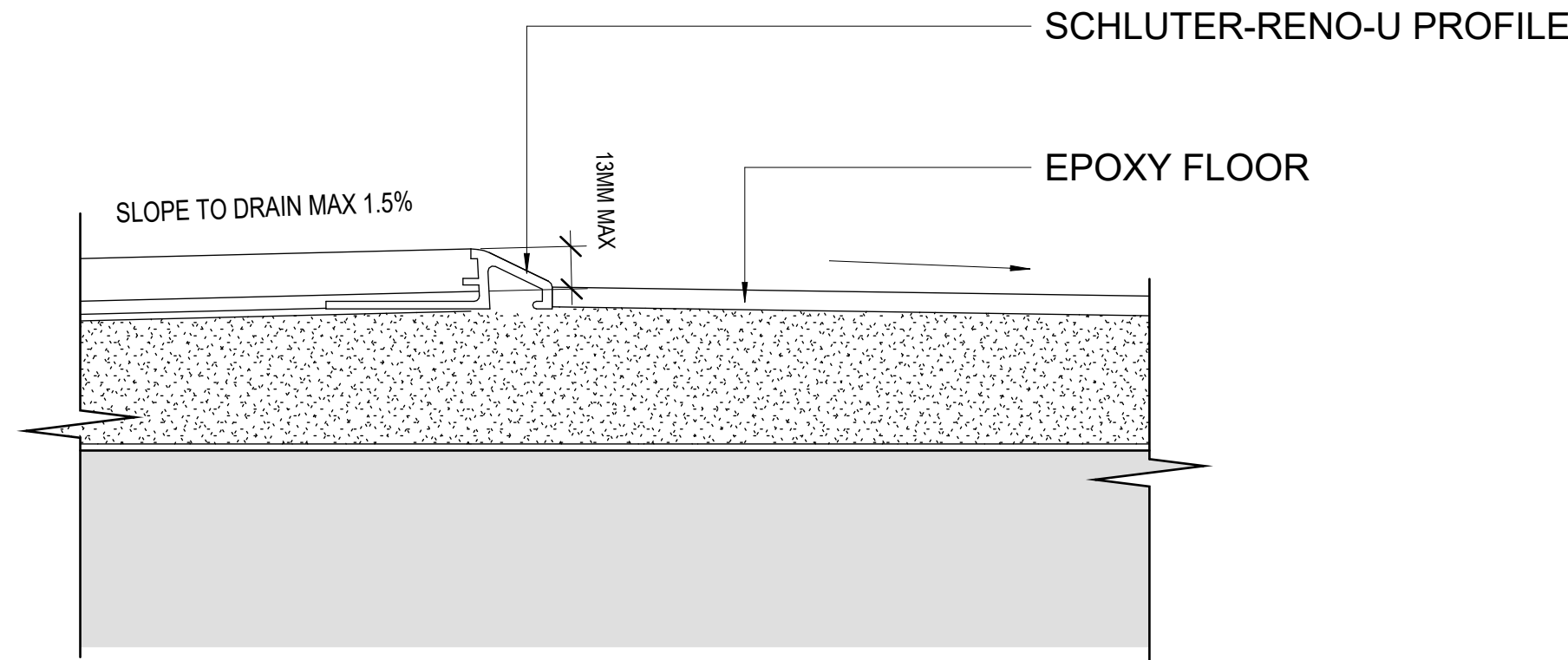
SCALE: 1:1



SHOWER DETAIL

4

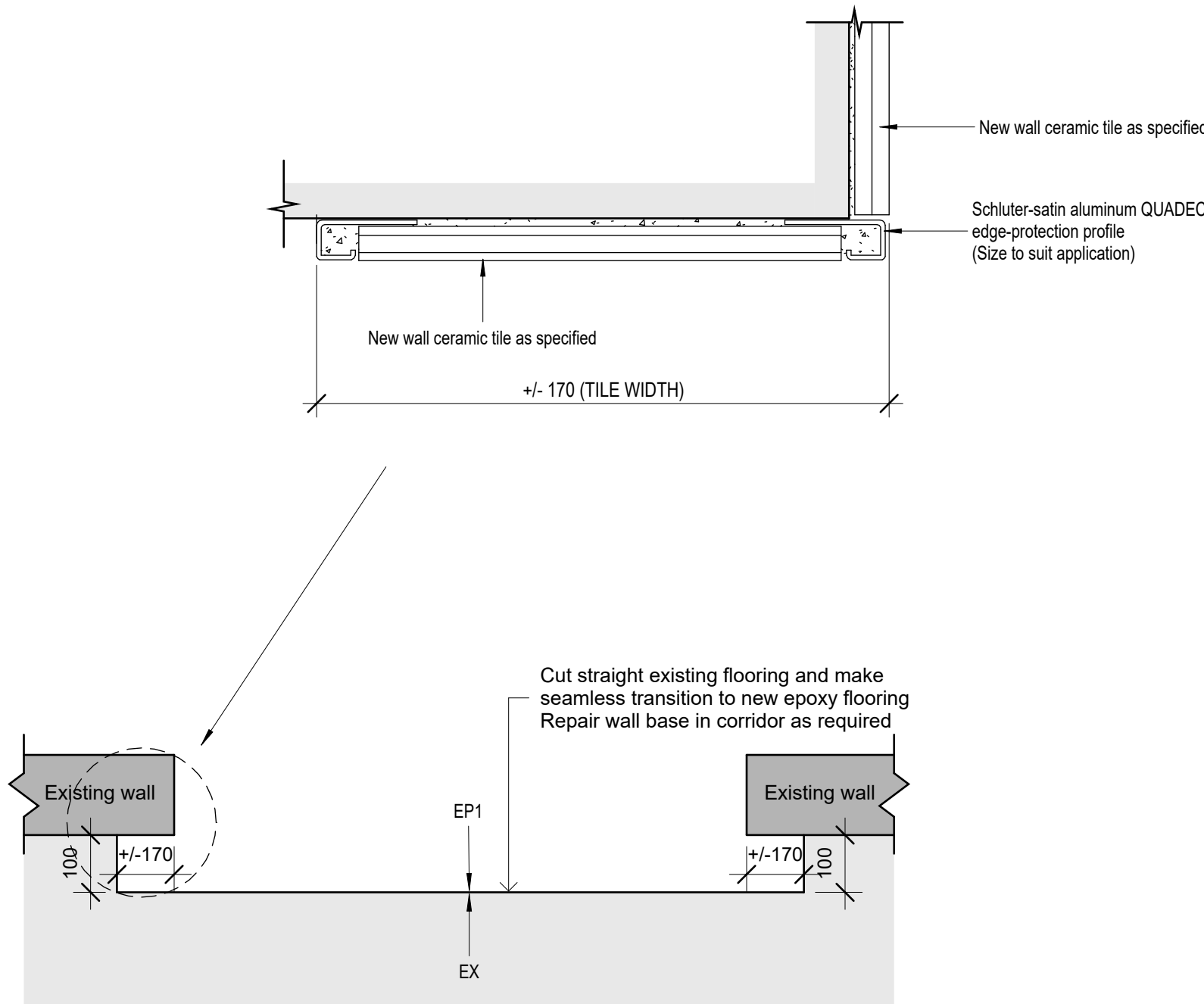
SCALE: 1:5



SHOWER TRANSITION

5

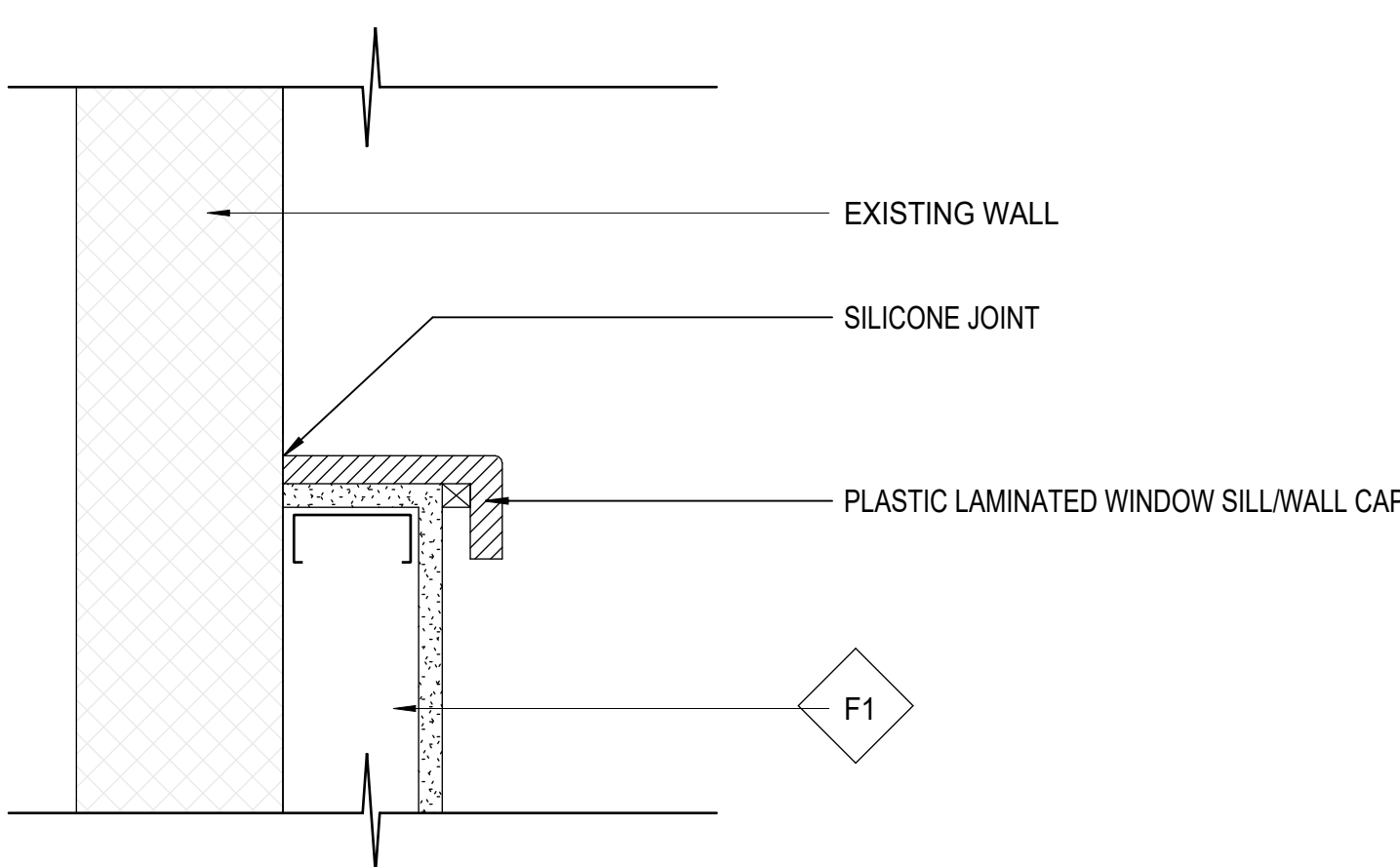
SCALE: 1:1



EX TO NEW FLOOR TRANSITION PLAN DETAIL AT ALL DOORLESS WASHROOMS

2

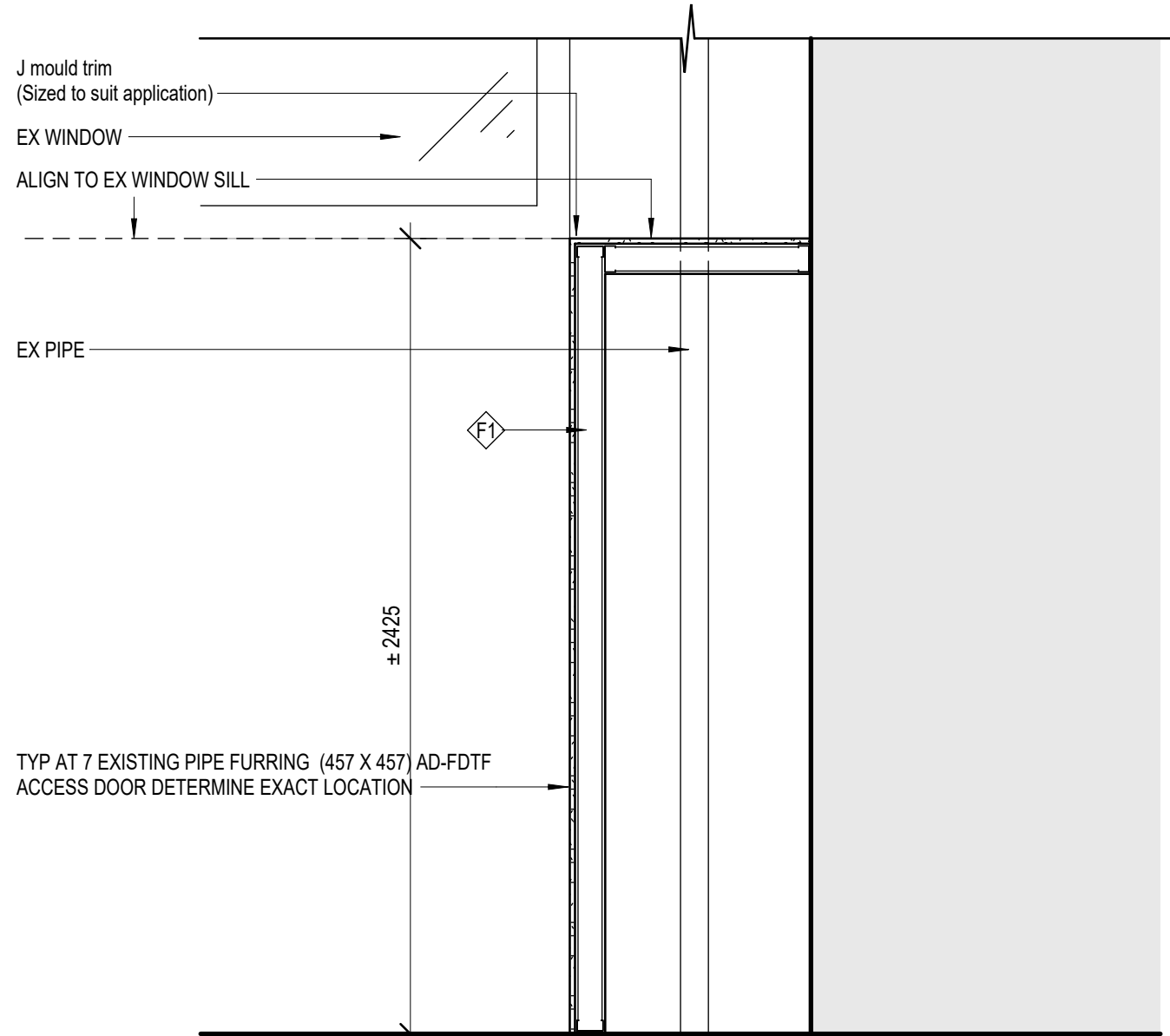
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WALL CAP DETAIL

3

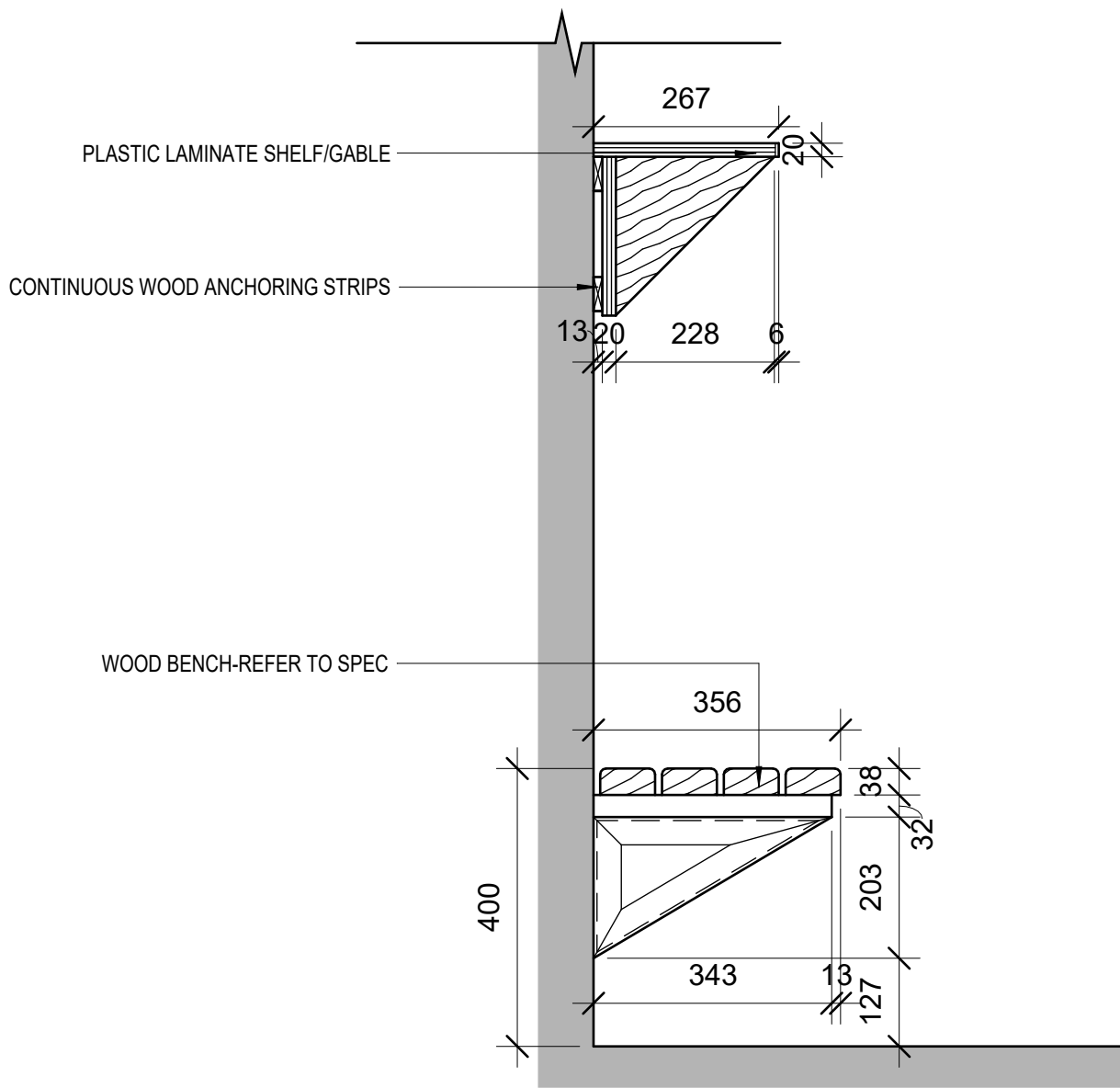
SCALE: 1:5



FURRING ENCLOSURE AT EXISTING MECHANICAL/PLUMBING SERVICES

6

SCALE: 1:20



CHANGE ROOM BENCH SECTION/ELEVATION

7

SCALE: 1:10

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REVISIONS

SEAL:

KALOS ENGINEERING

E & M Consulting Engineers Inc.

AMRA J ARCHITECTS INC.
905-905-9171

Washrooms & Change Room Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

Drawing Title:
INTERIOR FINISH DETAILS AND LEGENDS

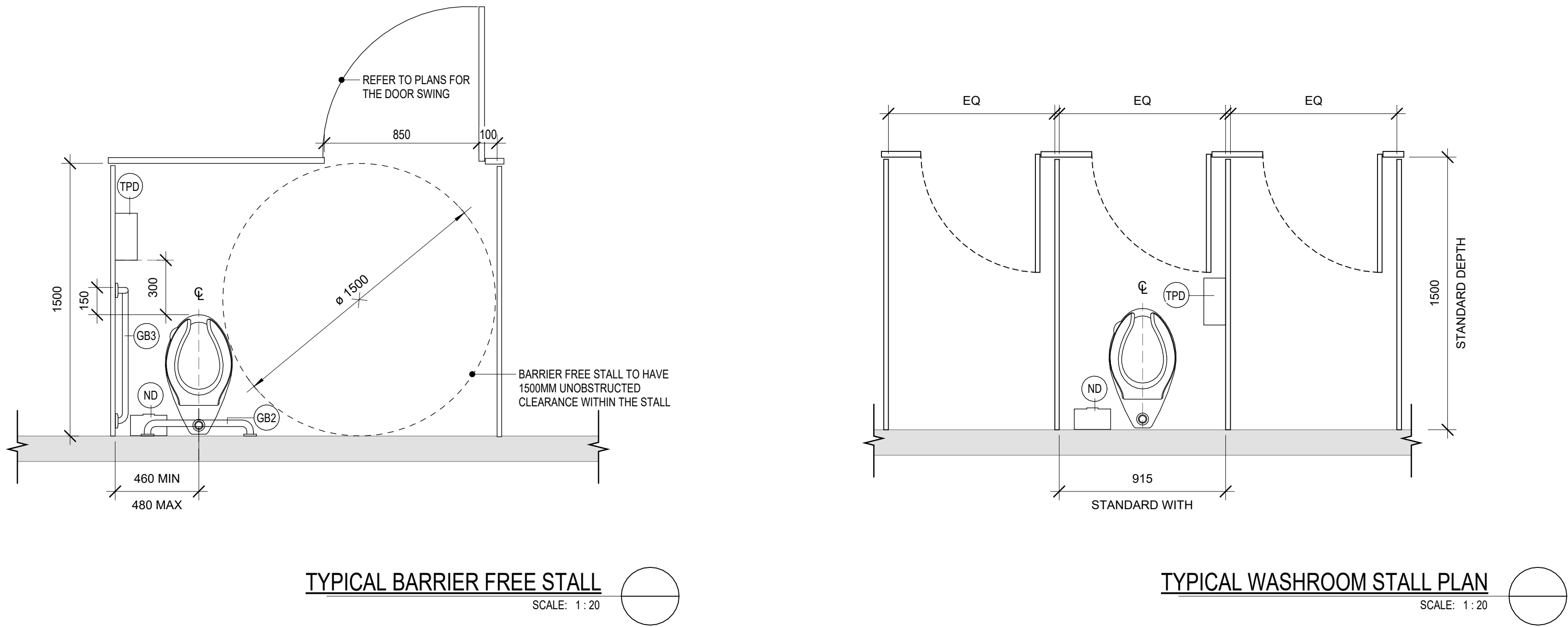
DATE:	SCALE:
AS	As Indicated

PROJECT NUMBER:
24-24

DRAWING NO.:
A4.00

DRAWING NO.:
1

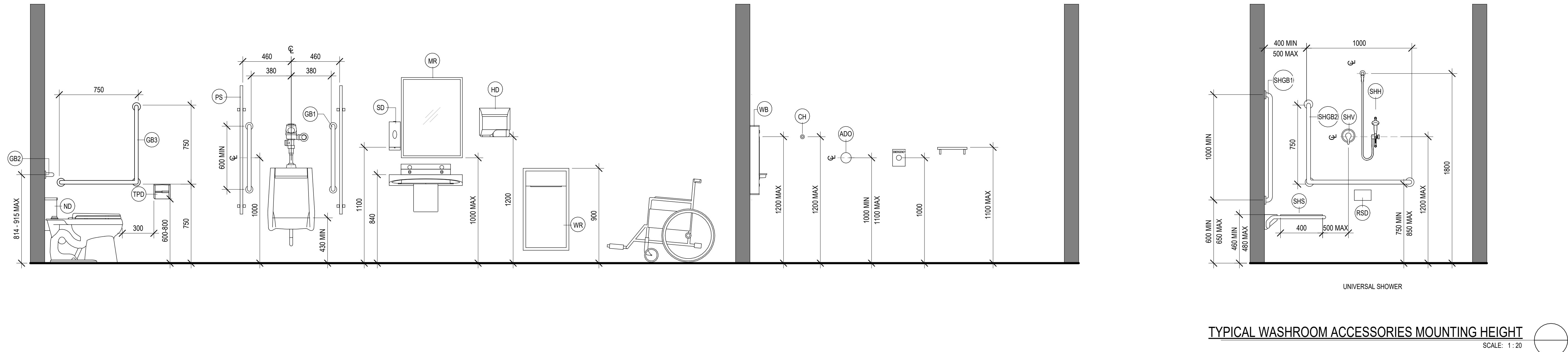
Revised



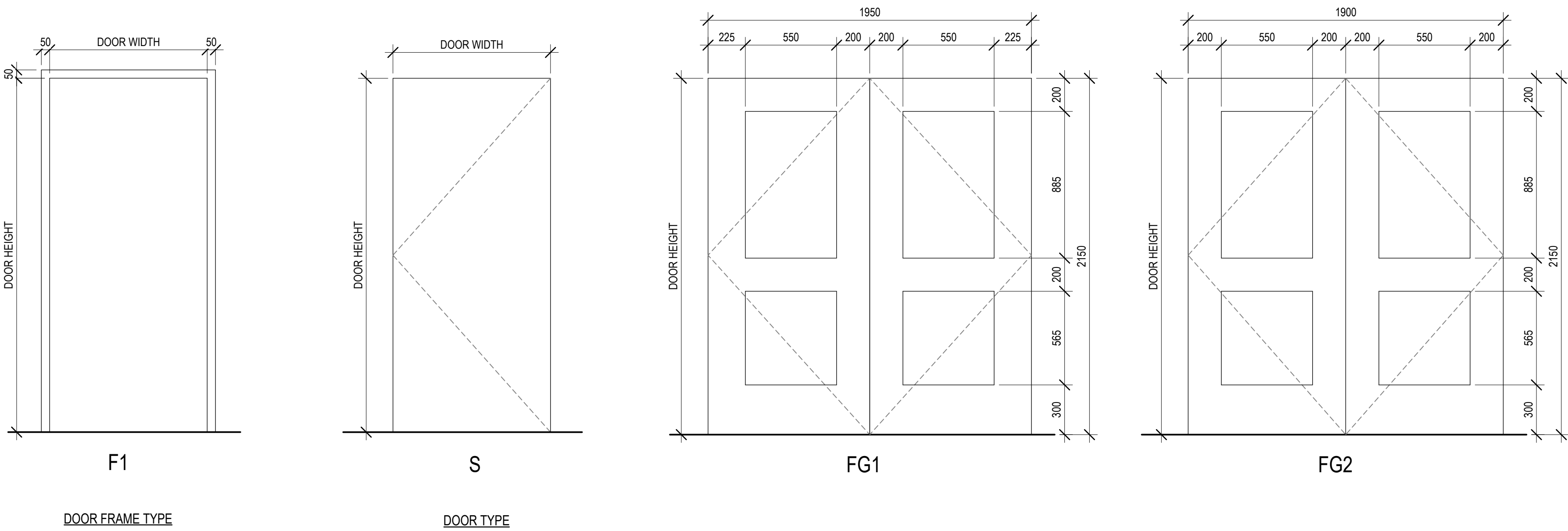
CH	COAT HOOK
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER
SD	SOAP DISPENSER
TPD	TOILET PAPER DISPENSER
GB1	VERTICAL GRAB BAR
GB2	HORIZONTAL GRAB BAR
GB3	L-SHAPED GRAB BAR
SHGB1	SHOWER VERTICAL GRAB BAR
SHGB2	SHOWER L-SHAPED GRAB BAR
ND	NAPKIN DISPOSAL
MR	MIRROR
WR	WASTE RECEPTACLE
PS	PRIVACY SCREEN
SH	SHELF
WB	WATER BOTTLE DISPENSER
ECS	EMERGENCY CALL SYSTEM
ADO	AUTOMATIC DOOR OPERATOR
RSD	RECESSED SOAP DISH
SHS	SHOWER SEAT
SHV	SHOWER VALVE
SHH	SHOWER HEAD

WASHROOM FLOORPLAN ABBREVIATIONS

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DOOR SCHEDULE													
DOOR								FRAME				Fire Rating	HARDWARE & REMARKS
NUMBER	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	GLAZING	TYPE	MATERIAL	FINISH	GLAZING		
112B-A	S	950	2150	44	HM	PT	N/A	F1	HM	PT	N/A	45	NEW DOOR/FRAME TO MATCH EXISTING REMOVED DOOR
112C-A	S	950	2150	44	HM	PT	N/A	EX	EX	PT	N/A	45	EX FRAME TO BE PAINTED, NEW DOOR IN EXISTING FRAME
115A	S	950	2150	44	HM	PT	N/A	F1	HM	PT	N/A	45	UNIVERSAL WASHROOM HARDWARE
116B-A	S	950	2150	44	HM	PT	N/A	EX	EX	PT	N/A	45	EX FRAME TO BE PAINTED, NEW DOOR IN EXISTING FRAME
208B-A	S	950	2150	44	HM	PT	N/A	F1	HM	PT	N/A	45	-
314A-A	S	950	2150	44	HM	PT	N/A	F1	HM	PT	N/A	45	-
315A	S	950	2150	44	HM	PT	N/A	F1	HM	PT	N/A	45	PRIVACY LOCK
COR-A	FG2	1900	2150	44	HM	PT	FTG	F1	HM	PT	N/A	45	-
STRA	FG1	1950	2150	44	HM	PT	FTG	F1	HM	PT	N/A	45	MULLION, MAX AREA OF GLAZING 0.8M2/DOOR



ROOM FINISH SCHEDULE						
ROOM NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	COMMENTS
110A	EX WASHROOM	EPX	RB	CT/PT	PT	
111	EX GIRLS WASHROOM	EPX	-	CT/PT	PT	
112A	EX GIRLS CHANGEROOM	VCT	RB	PT	PT	
112B	CARE TAKER AREA & STORAGE	EPX	RB	CT/PT	PT	
112C	EX VEST	VCT	RB	PT	PT	
116	NEW UNIVERSAL WASHROOM / SHOWER	EPX	-	CT	PT	
116A	EX BOYS CHANGEROOM	VCT	RB	PT	PT	
116B	EX VEST	VCT	RB	PT	PT	
117	ELEC PANEL RM	EXISTING	RB	PT	PT	
118	EX BOYS WASHROOM	EPX	-	CT/PT	PT	
129	EX STAFF WASHROOM	EPX	-	CT/PT	ACT/PT	
130B	EX STAFF WASHROOM	EPX	RB	PT	PT	
206	EX GIRLS WASHROOM	EPX	-	CT/PT	PT	
208B	NEW JANITOR'S CLOSET	EPX	RB	PT	PT	
211	EX BOYS WASHROOM	EPX	-	CT/PT	PT	
212	STAFF WASHROOM	EPX	RB	PT	PT	
221A	EX STAFF WASHROOM	EPX	RB	PT	PT	
223A	EX STAFF WASHROOM	EPX	RB	PT	PT	
308	EX STAFF WASHROOM	EPX	RB	PT	PT	
309	EX GIRLS WASHROOM	EPX	-	CT/PT	PT	
314	EX BOYS WASHROOM	EPX	-	CT/PT	PT	
314A	NEW JANITOR'S CLOSET	EPX	RB	CT/PT	PT	
315	STAFF WASHROOM	EPX	RB	PT	PT	

MECHANICAL LEGEND				
VENTILATION LEGEND	PIPING LEGEND	PLUMBING	SPRINKLER LEGEND	MISCELLANEOUS ABBREVIATIONS
SOUND INSULATION	HEATING WATER SUPPLY	STORM DRAIN ABOVE GRADE (STM)	UPRIGHT SPRINKLER	EX ER RE R N – EXISTING TO REMAIN. – EXISTING TO BE RELOCATED. – RELOCATED DEVICE AT NEW LOCATION – EXISTING TO BE REMOVED – EXISTING TO BE REPLACED WITH NEW – ITEMS TO BE PERMANENTLY OR TEMPORARY DEMOLISHED. SEE DRAWING NOTES FOR DETAILS
SILENCER	HEATING WATER RETURN	SANITARY ABOVE GRADE (SAN)	PENDANT SPRINKLER	
FLEXIBLE CONNECTION	CHILLED WATER SUPPLY	STORM DRAIN BURIED (STM)	UPRIGHT SPRINKLER w/GUARD	
DUCT OFFSET	CHILLED WATER RETURN	SANITARY BURIED (SAN)	PENDANT SPRINKLER w/GUARD	
BALANCING DAMPER	GLYCOL WATER SUPPLY	WEEPING TILE	UPRIGHT HI-TEMP. SPRINKLER	
FIRE DAMPER	GLYCOL WATER RETURN	DOMESTIC COLD WATER (DCW)	PENDANT HI-TEMP. SPRINKLER	
SPLITTER DAMPER	EQUIPMENT CONDENSATE DRAIN LINE	DOMESTIC HOT WATER (DHW)	UPRIGHT HI-TEMP. SPRINKLER w/GUARD	
BACKDRAFT DAMPER	NATURAL GAS	DOMESTIC HOT WATER RECIRC (DHWRC)	PENDANT HI-TEMP. SPRINKLER w/GUARD	
MOTORIZED DAMPER	SUCTION LINE	DOMESTIC TEMPERED WATER (TW)	DRY PENDANT SPRINKLER	
SUPPLY DUCT SECTION	LIQUID LINE	DOMESTIC TEMPERED WATER RECIRC (TWR)	DRY PENDANT SPRINKLER w/GUARD	
RETURN DUCT SECTION	VENT LINE	GLYCOL SUPPLY	RECESSED SPRINKLER	M N PS APPROVED DOUBLE CHECK VALVE BACKFLOW PREVENTOR ASSEMBLY ELECTRICALLY MONITORED SHUT-OFF VALVE CHECK VALVE ALARM CHECK VALVE SPRINKLER RISER SIAMESE FIRE DEPT. CONNECTION WATER GONG F HORIZONTAL SIDEWALL SPRINKLER W/GUARD
SUPPLY DIFFUSER	FIRE LINE	GLYCOL RETURN	CONCEALED SPRINKLER	
EXHAUST GRILLE	COMPRESSED AIR	CONDENSATE	HORIZONTAL SIDEWALL SPRINKLER	
DIFFUSER DESIGNATION AND L/S	DRAIN PIPE	EXPANSION	EXTENDED COVERAGE SIDEWALL SPRINKLER	
GRILLE DESIGNATION AND L/S	SPRINKLER PIPE	CLEANOUT(ABOVE FLOOR)	FLOW SWITCH	
CAPPED END DUCT	PIPE ANCHOR	CLEANOUT(UNDERGROUND)	PRESSURE SWITCH OR SENSOR	
DUCT REDUCER/ENLARGER	PIPE GUIDE OR SLEEVE	AREA DRAIN	APPROVED DOUBLE CHECK VALVE BACKFLOW PREVENTOR ASSEMBLY	
TRANSITION TO ROUND	EXPANSION COMPENSATOR c/w GUIDES	FLOOR DRAIN	ELECTRICALLY MONITORED SHUT-OFF VALVE	
CARBON MONOXIDE DETECTOR	BOTTOM TAKE-OFF	FUNNEL FLOOR DRAIN	CHECK VALVE	
AIR FLOW	TOP TAKE-OFF	HUB DRAIN	ALARM CHECK VALVE	
DUCT REDUCER	ELBOW UP	ROOF DRAIN	SPRINKLER RISER	
AIR FLOW DIRECTIONS	ELBOW DOWN	FIRE EXTINGUISHER	SIAMESE FIRE DEPT. CONNECTION	
ABBREVIATIONS	ABBREVIATIONS	ABBREVIATIONS	VALVE LEGEND	
EF – EXHAUST FAN	VALVE – SEE SPECIFICATIONS	FIRE EXTINGUISHER c/w CABINET	VALVE – SEE SPEC	LEGEND NOTES: 1. THESE ARE STANDARD LEGENDS. ALL SYMBOLS MAY NOT NECESSARILY BE USED ON THESE DRAWINGS.
SF – SUPPLY FAN	UNION CONNECTION	SHOWER (HANDICAPPED)	CHECK VALVE	
WL – WEATHER LOUVRE	FLANGED CONNECTION	SHOWER	STRAINER	
CU – CONDENSING UNIT	PLUG CAP	RUNNING TRAP	PRESSURE REDUCING VALVE (PRV)	
FCU – FAN COIL UNIT	FLEXIBLE CONNECTION	NON-FREEZE HOSE BIBB	LOCK SHIELD VALVE	
MUA – MAKE UP AIR	THERMOMETER	HOSE BIBB	2-WAY CONTROL VALVE (TCV)	
AC – AIR CONDITIONING	PRESSURE GAUGE	PIPE REDUCER	3-WAY CONTROL VALVE (TCV)	
AD – ACCESS DOOR	AIR VENT	PUMP AND DESIGNATION	RELIEF VALVE	
ERV – ENERGY RECOVERY VENTILATOR	AUTOMATIC AIR VENT	KITCHEN EQUIPMENT IDENTIFICATION	CIRCUIT BALANCE VALVE (CBV)	
BS – BRANCH SELECTOR	FLOW SWITCH	PLUMBING RISER	PLUG VALVE	
LT – LINT TRAP	THERMOSTAT	HOSE STATION	SOLENOID VALVE	NO NC NORMALLY CLOSED VALVE
VAV – VARIABLE AIR VOLUME	THERMOSTAT w/GUARD	FIRE HOSE CABINET	NORMALLY CLOSED VALVE	
BF – BOOSTER FAN	HUMIDITY SENSOR	RAIN WATER LEADER		
VRF – VARIABLE REFRIGERANT FLOW	SWITCH	WATER CLOSET		
UH – UNIT HEATER	CABINET HEATERS "CH"	WATER CLOSET (HANDICAPPED)		
DS – DUCT SUPPORT	CONTINUOUS CONVECTORS "WF"	LAVATORY		
SD – SMOKE DETECTOR	RADIANT PANELS "RP"	LAVATORY (HANDICAPPED)		
GEN E/A – GENERAL EXHAUST AIR	TEMPERATURE SENSOR	STAINLESS STEEL SINK		
SA E/A – SANITARY EXHAUST AIR CFM	FIRE RISER	MOP SINK		
SA – SUPPLY AIR	FAN COIL RISER	HAIR SINK		
RA – RETURN AIR		FLOOR SINK		
EA – EXHAUST AIR		BATH TUB (HANDICAPPED)		
CFSD – COMBINATION SMOKE AND FIRE DAMPER		EMERGENCY EYE WASH		
DG – DOOR GRILLE		INVERT ELEVATION		
		OBVERT ELEVATION		
		APPROVED BACKFLOW PREVENTOR		
		TRAP SEAL PRIMER		
		SEWAGE EJECTOR PUMP		
		GREASE INTERCEPTOR		
		SOLID INTERCEPTOR		
		STORM EJECTOR PUMP		
		TRENCH DRAIN		
		HOSE BIBB STATION		
		WATER METER		
		BACKFLOW PREVENTOR		
		FLOOR CLEAN OUT		
		DOMESTIC COLD WATER		
		DOMESTIC HOT WATER		
		DOMESTIC HOT WATER RECIRC		
		DOMESTIC TEMPERED WATER		
		DOMESTIC TEMPERED WATER RECIRC		

LIST OF DRAWINGS	
M0-00	MECHANICAL LEGEND AND DRAWING LIST
M1-00	OVERALL DEMO AND NEW KEY PLANS
M1-01	GROUND FLOOR PLUMBING SYSTEMS–DEMO AND NEW PART PLANS
M1-02	SECOND FLOOR PLUMBING SYSTEMS–DEMO AND NEW PART PLANS
M1-03	THIRD FLOOR PLUMBING SYSTEMS–DEMO AND NEW PART PLANS
M1-04	GROUND FLOOR MECHANICAL SYSTEMS –DEMO AND NEW PART PLANS
M1-05	SECOND FLOOR MECHANICAL SYSTEMS –DEMO AND NEW PART PLANS
M1-06	THIRD FLOOR MECHANICAL SYSTEMS –DEMO AND NEW PART PLAN & BASEMENT OVERALL PLAN
M1-07	DETAILS – DEMOLISH
M1-08	DETAILS – DEMOLISH
M2-00	DETAILS
M3-00	MECHANICAL SPECIFICATION
ME-01	MECHANICAL AND ELECTRICAL SCHEDULE

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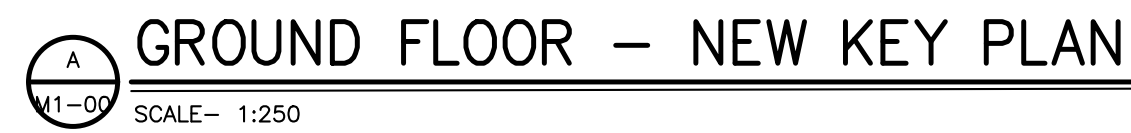
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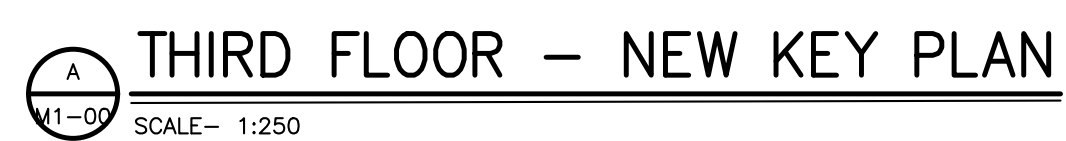
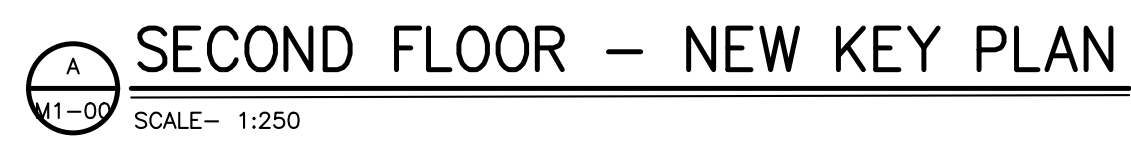
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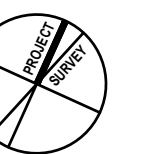
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1. FOR PHASING (PHASE 1,2 AND 3) REFER TO THE ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT.



NOT SCALE DRAWINGS. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE.



ISSUED FOR TENDER & PERMIT	2025-04-15
ISSUED FOR PERMIT	2025-03-21
DESCRIPTION	DATE

REVISIONS

E & M
Consulting Engineers Inc.
404 Oakley Blvd.
Kissimmee, ON, L5N 8K1
Canada
www.eandmconsultingeng.com

HWDSB

Project title:
02083 W.H. Ballard Elementary
School
Classrooms & Change Room
Renovations & Upgrades
01 Dunsmore Road, Hamilton, ON

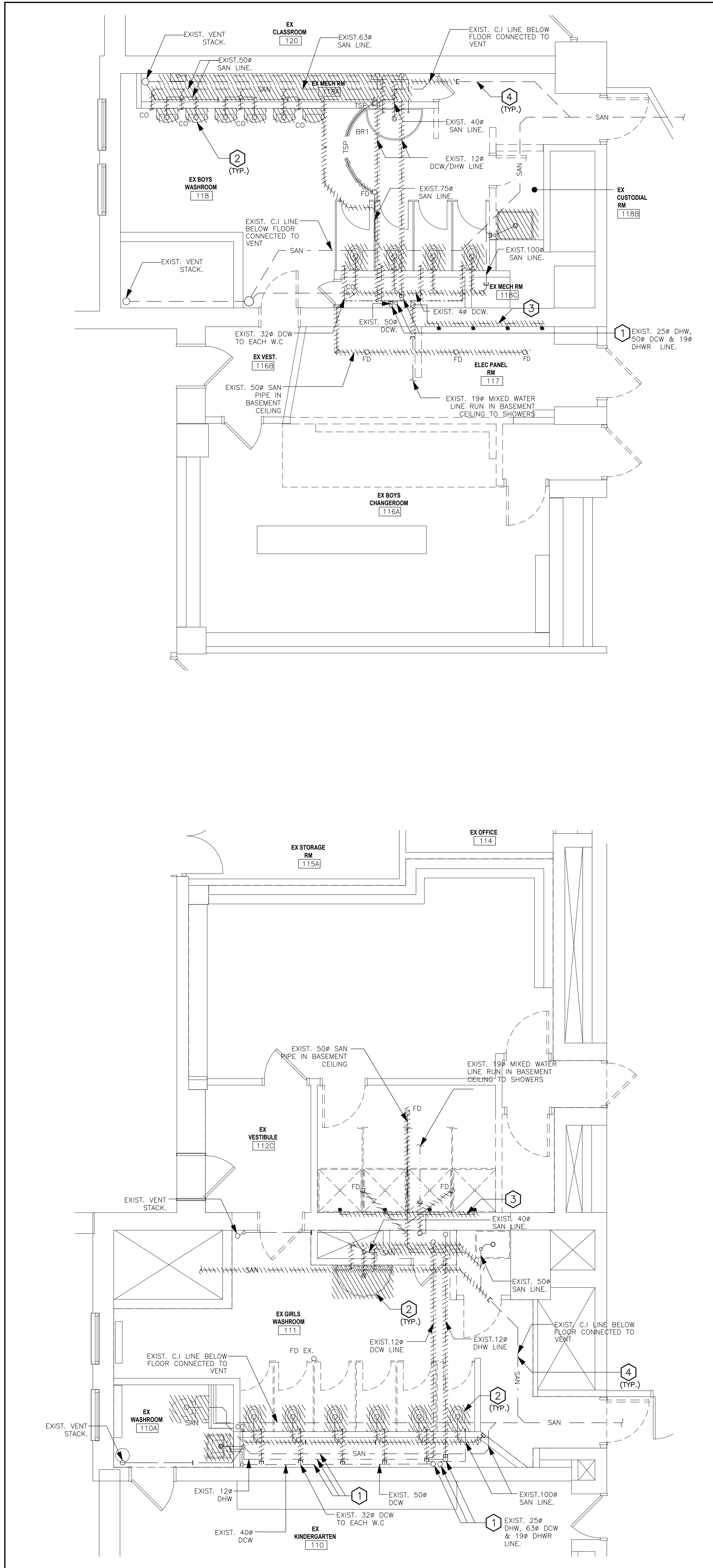
ing title:

OVERALL DEMO AND NEW KEY
ANS

scale:	AS SHOWN
project number:	24-24

ked:	DRAWING NO:	
	M1.00.0	

ion



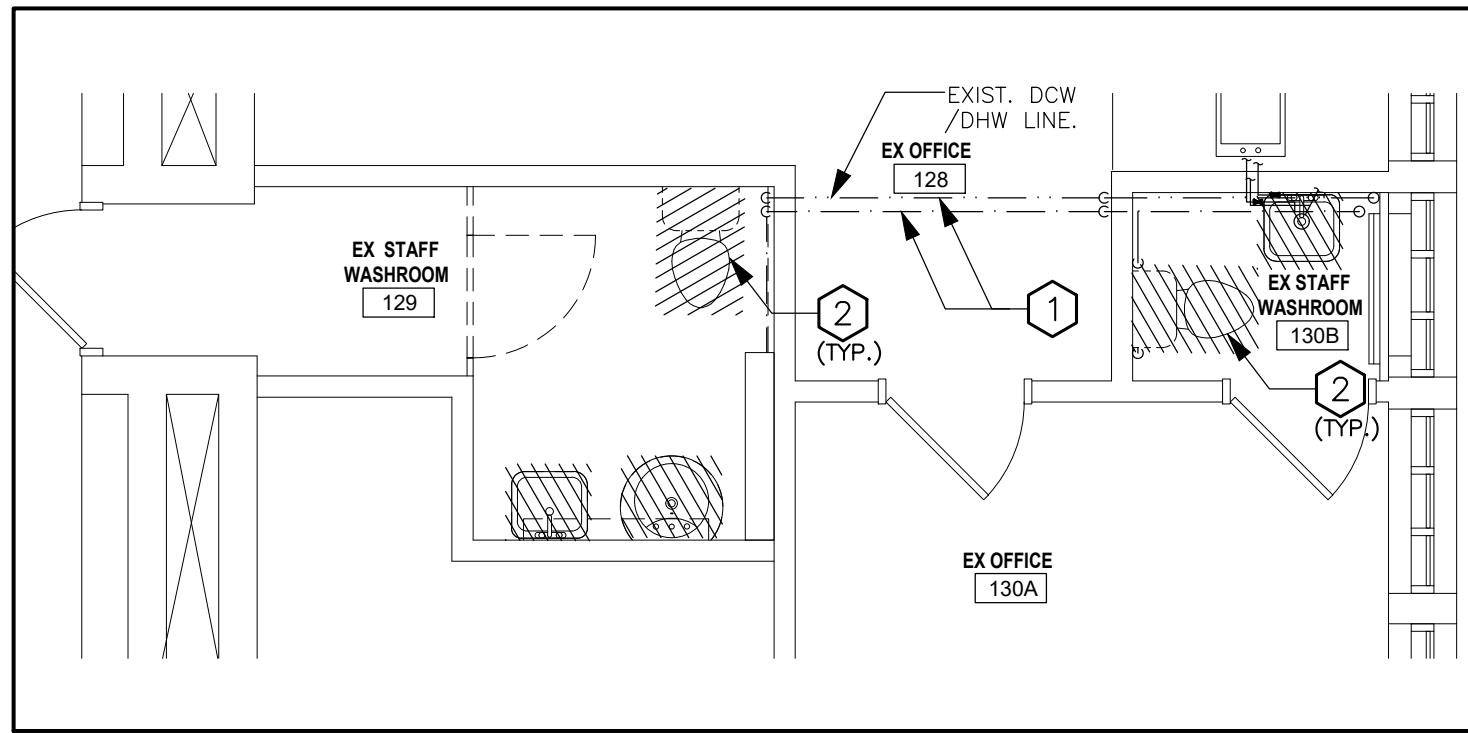
1
M1-01
GROUND FLOOR PLUMBING SYSTEMS – DEMO. EX. BOYS WASHROOM(118),
EX. CUSTODIAL RM.(118B) EX. GIRLS WASHROOM(111)
SCALE – 1:50

DRAWING NOTES DEMO: GENERAL

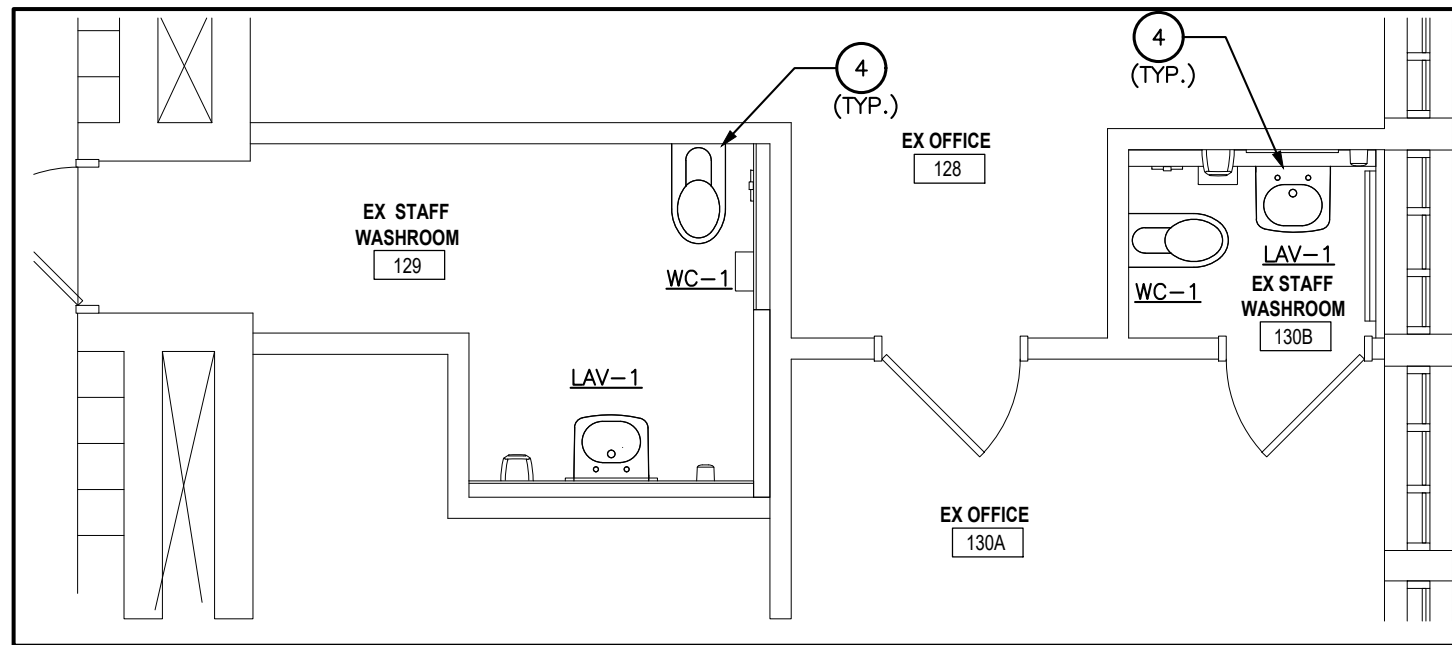
- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- RETAIN A LOCATION SERVICE PRIOR TO EXCAVATION TO TRACE ALL SERVICES BURIED.
- THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED PIPING, DUCTS, PLUMBING AND EQUIPMENT TO BE REMOVED. CONTRACTOR SHALL VISIT THE SITE AND MAKE OWN EVALUATION AND ESTIMATE OF THE EXTENT AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING THE BID.
- ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE THIS WORK.
- REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

MECHANICAL NOTES:

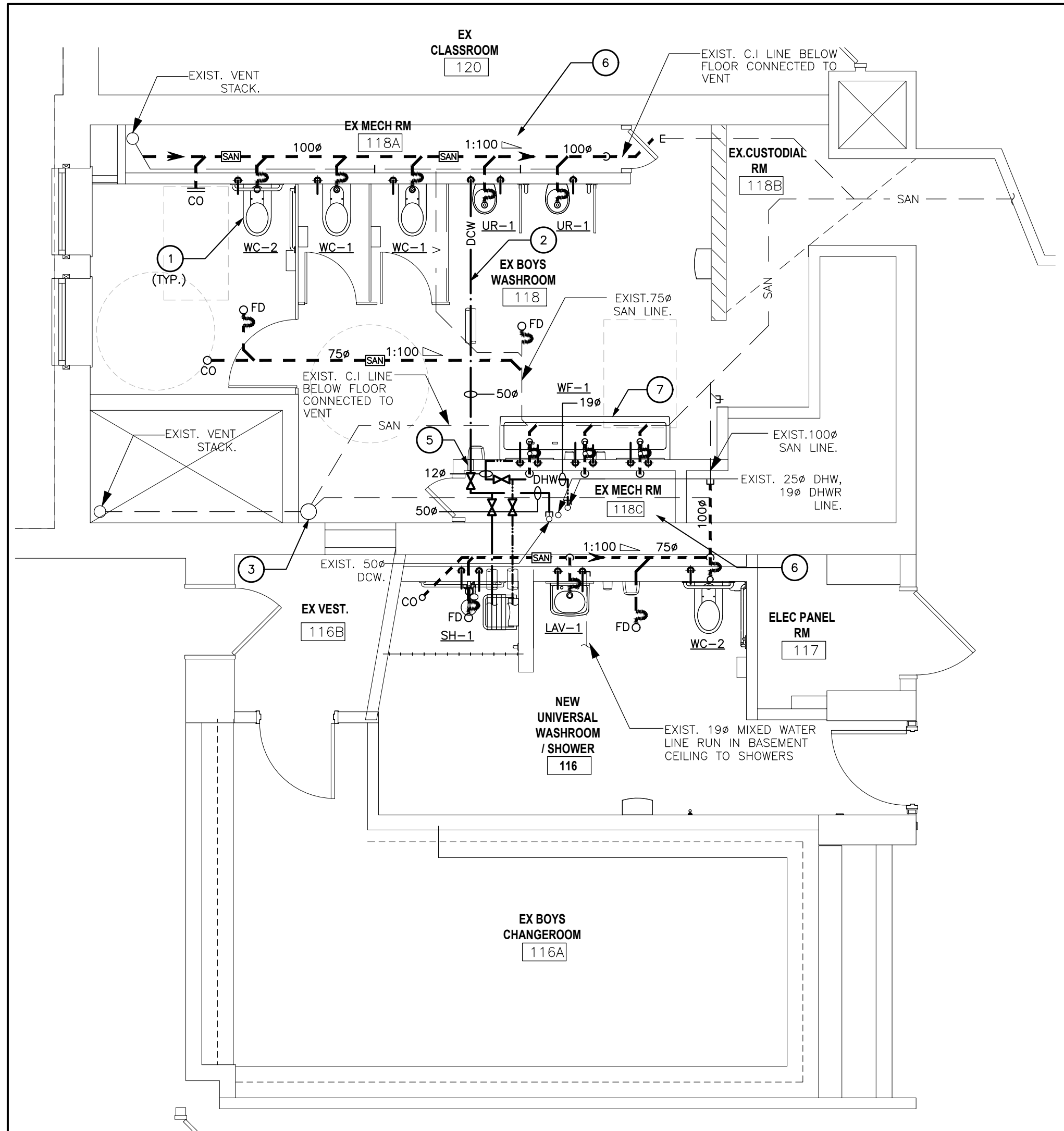
- EXISTING PIPES TO REMAIN AS IS.
- REMOVE SANITARY FIXTURES AS SHOWN. CAP PIPES TO SUIT.
- EXISTING SHOWERS AND PIPES SHALL BE REMOVED IN THEIR ENTIRETY. EXISTING PIPES SHALL BE CAPPED AS REQUIRED.
- LOCATE THE EXISTING PIPE ROUTE PRIOR TO DEMOLISH AND CAP WHERE REQUIRED.



2
M1-01
GROUND FLOOR PLUMBING SYSTEMS–
DEMO. EX.STAFF W/R (129),
EX. STAFF W/R (130B)
SCALE – 1:50



2
M1-01
GROUND FLOOR PLUMBING SYSTEMS–
NEW. EX.STAFF W/R (129),
EX. STAFF W/R (130B)
SCALE – 1:50



1
M1-01
GROUND FLOOR PLUMBING SYSTEMS – NEW. EX. BOYS W/R(118),
NEW UNIVERSAL W/R.(116), EX. W/R(110A),EX GIRLS W/R (111),
CARE TAKER AREA & STORAGE (112B) PART PLAN.
SCALE – 1:50

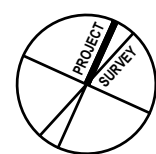
PLUMBING GENERAL NOTES:

- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- ALL PLUMBING WORK TO CONFORM TO ONTARIO BUILDING CODE, ONTARIO WATER REGULATION ACT NO. 615/84, CONSTRUCTION SAFETY ACT AND REGULATIONS OF THE CITY AND LOCAL AUTHORITIES.
- ALL SANITARY DRAINS TO BE INSTALLED BURIED (MIN. 300mm BELOW FIN. FLOOR) AND SLOPED AS SHOWN UNLESS OTHERWISE NOTED.
- COORDINATE PIPE INSTALLATION WITH ELECTRICAL CONDUITS, DUCT & STRUCTURAL MEMBERS. OFFSET PIPES AS REQUIRED.
- CONTRACTOR TO FIELD VERIFY WORKSITE CONDITIONS.
- PROVIDE ACCESS DOOR FOR EACH WATER VALVE INSTALLED IN CONCEALED SPACES.
- DO NOT INSTALL DHW & COW PIPES IN EXPOSED EXTERIOR OR PERIMETER WALLS.
- SANITARY DRAINAGE AND VENT PIPES ABOVE GRADE SHALL BE CERTIFIED TO CAN/CSA-B181.2 "PVC DRAIN, WASTE, AND VENT PIPE AND PIPE FITTINGS"
- DOMESTIC HOT AND COLD WATER PIPES SHALL BE TYPE "L" HARD COPPER TUBING WITH SOLDERED FITTINGS.
- INSULATE ALL NEW DOMESTIC WATER PIPES WITH MINIMUM 50 mm THICK INSULATION. COVER EXPOSED PIPES WITH PVC JACKETS.
- PRIOR TO ANY INSTALLATION SURVEY THE EXISTING SPACE AND NOTE DOWN ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT UNDERGROUND AND BURIED CABLES AND CONDUITS WITH THE ASSISTANCE OF A LOCATION SERVICE.

PLUMBING DRAWING NOTES

- PROVIDE COMPLETE SANITARY PLUMBING FIXTURES & PIPING AS SHOWN ON THIS DRAWING.
- CONNECT EXISTING COW & DHW PIPES AS SHOWN WITH REQUIRED INSULATION. PROVIDE NEW SHUTOFF VALVES IN COW/DHW PIPES FOR NEW FIXTURES.
- CONNECT THE EXISTING VENT STACK.
- CONTRACTOR TO RE CONNECT AND CONFORM THE SANITARY/COW/DHW/ PIPING TO ALL NEW FIXTURES. PROVIDE NEW SHUTOFF VALVES WHERE REQUIRED.
- PROVIDE FIRE AND SMOKE SEALS TO MEET THE FIRE RESISTANCE RATING WHEN PIPES AND DUCTS PENETRATE THROUGH FIRE SEPARATIONS. SEE ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.
- AT THE END OF THE PROJECT. VACUUM CLEAN THE ENTIRE MECHANICAL (PIPE) ROOM. INCLUDE IN PRICE TO REMOVE DEGRADED INSULATION OF EXISTING PIPES IN THE ROOM AND REPLACE WITH NEW – TYPICAL FOR ALL MECHANICAL ROOMS.
- CONTRACTOR SHALL WORK WITH THE LOCAL DISTRIBUTOR AND THE MANUFACTURER REPRESENTATIVE TO DO A CUSTOM MODIFICATION AND PROVIDE ONE(01) MANUAL FAUCET TO THE WASH FOUNTAIN (BRADLEY) IN EACH WASHROOM. THE FAUCET SHALL BE A SINGLE HANDLE TYPE FOR HOT AND COLD WATER.

DO NOT SCALE DRAWING DIMENSIONS ARE TO BE
CORROBORATED AND VERIFIED BY THE CONTRACTOR OR BY THE
ALL DIMENSIONS, SPECIFICATIONS, AND MATERIALS
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ARCHITECT.



2 ISSUED FOR TENDER & PERMIT 2025-04-15
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

REVISIONS

24092

KS

Seal

E & M

Consulting Engineers Inc.

4800 Queens Blvd.
Scarborough, ON M1S 1B1
www.eandmconsulting.com

HWDSB

AMRA J
ARCHITECTS INC.
465-404-9171
BAM, Integrated design
https://ajr.design

project no:
PRO2083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunscombe Road, Hamilton, ON

drawing title:
GROUND FLOOR PLUMBING SYSTEMS -
DEMO AND NEW PART PLANS.

drawn:
PJ

scale:
AS-SHOWN

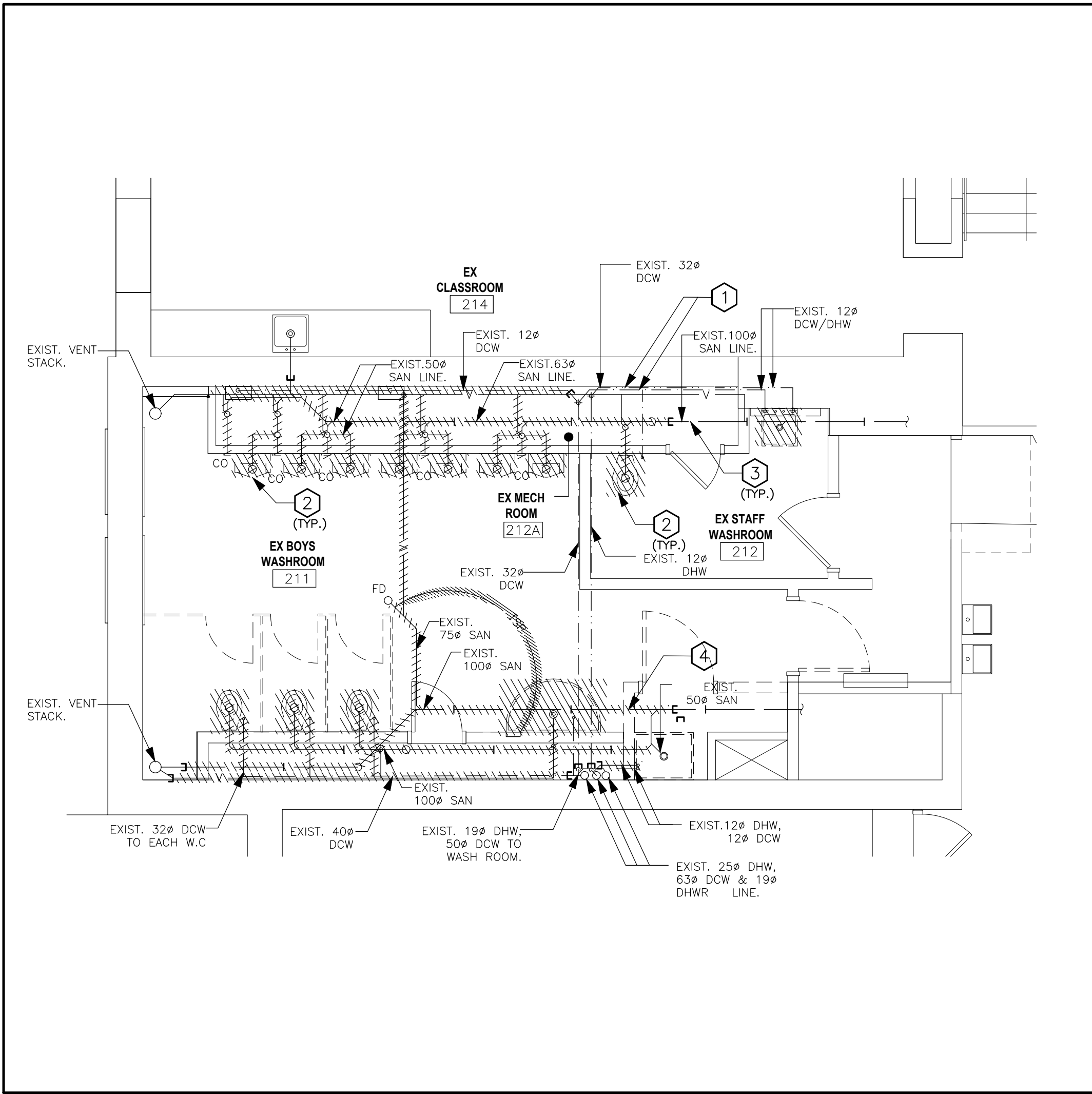
date:
project number:
24-24

checked:
KS

DRAWING NO:
M1-01

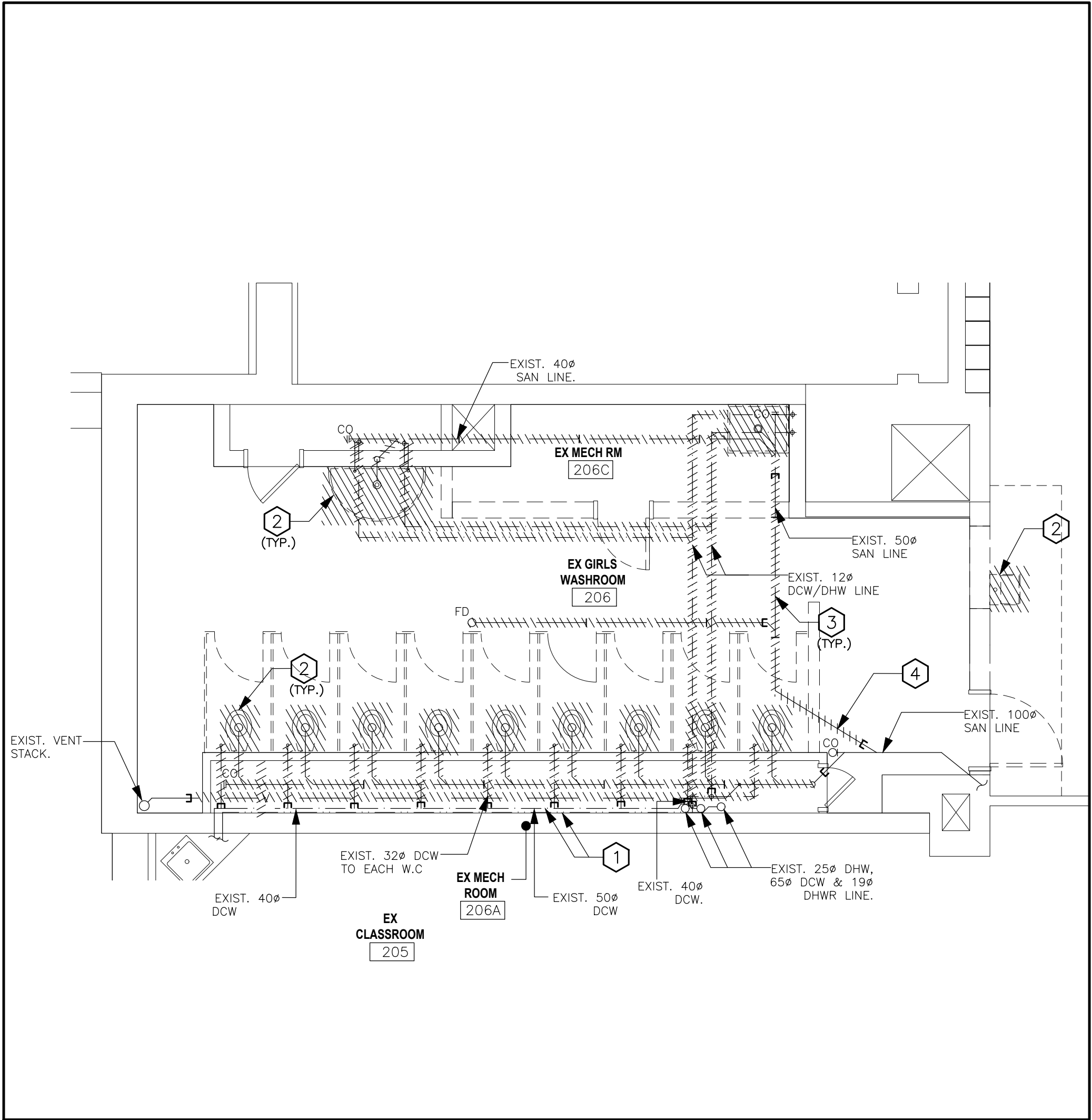
date:
0

Revisor



1 SECOND FLOOR PLUMBING SYSTEMS-DEMO EX. BOYS W/R (211),
EX. STAFF W/R (212) PART PLAN

SCALE- 1:50



2 SECOND FLOOR PLUMBING SYSTEMS-DEMO EX. GIRLS W/R (206),
PART PLAN

SCALE- 1:50

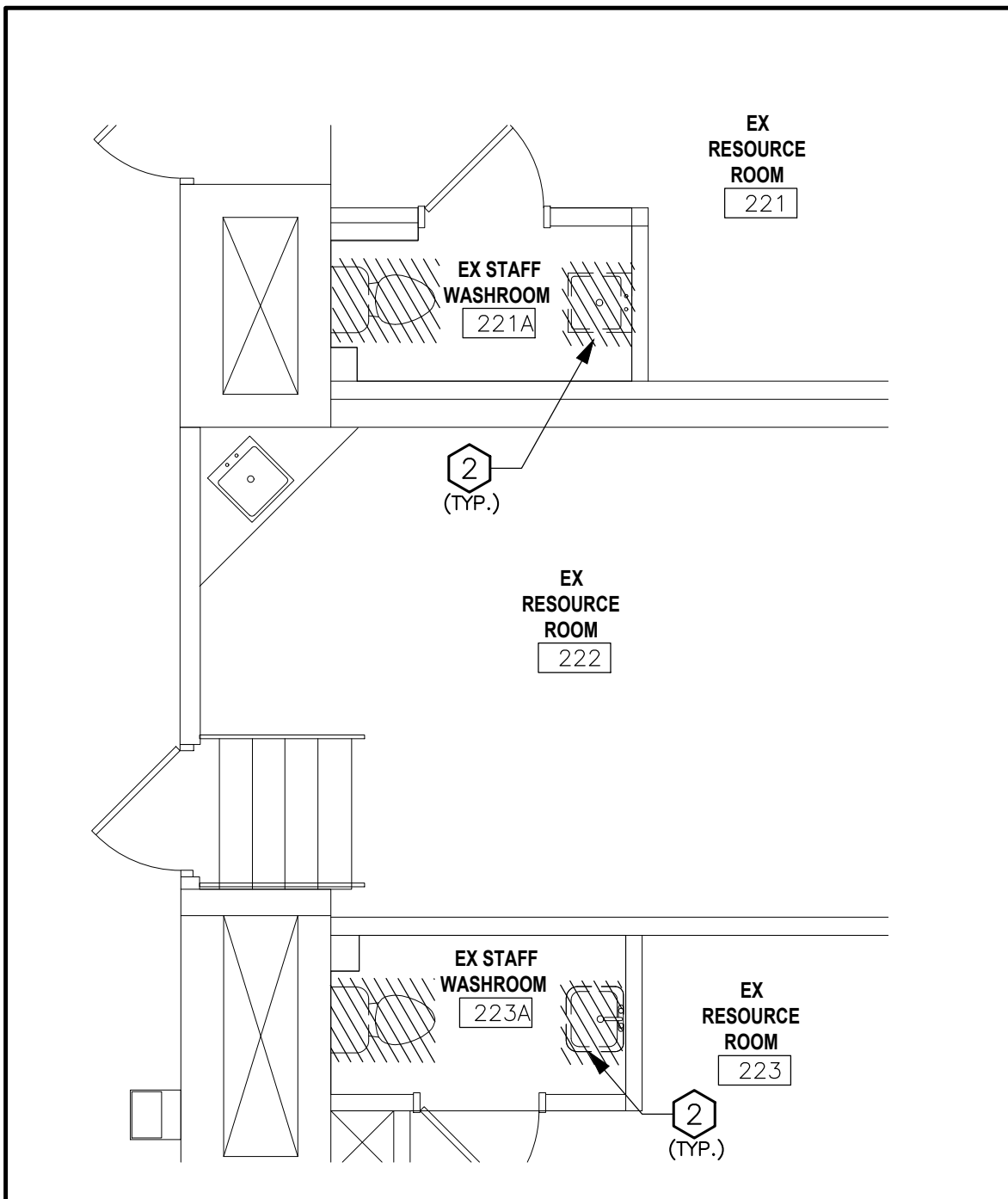
DRAWING NOTES DEMO:

GENERAL

- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- RETAIN A LOCATION SERVICE PRIOR TO EXCAVATION TO TRACE ALL SERVICES BURIED.
- THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED PIPING, DUCTS, PLUMBING AND EQUIPMENT TO BE REMOVED. CONTRACTOR SHALL VISIT THE SITE AND MAKE OWN EVALUATION AND ESTIMATE OF THE EXTENT AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING THE BID.
- ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE THIS WORK.
- REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

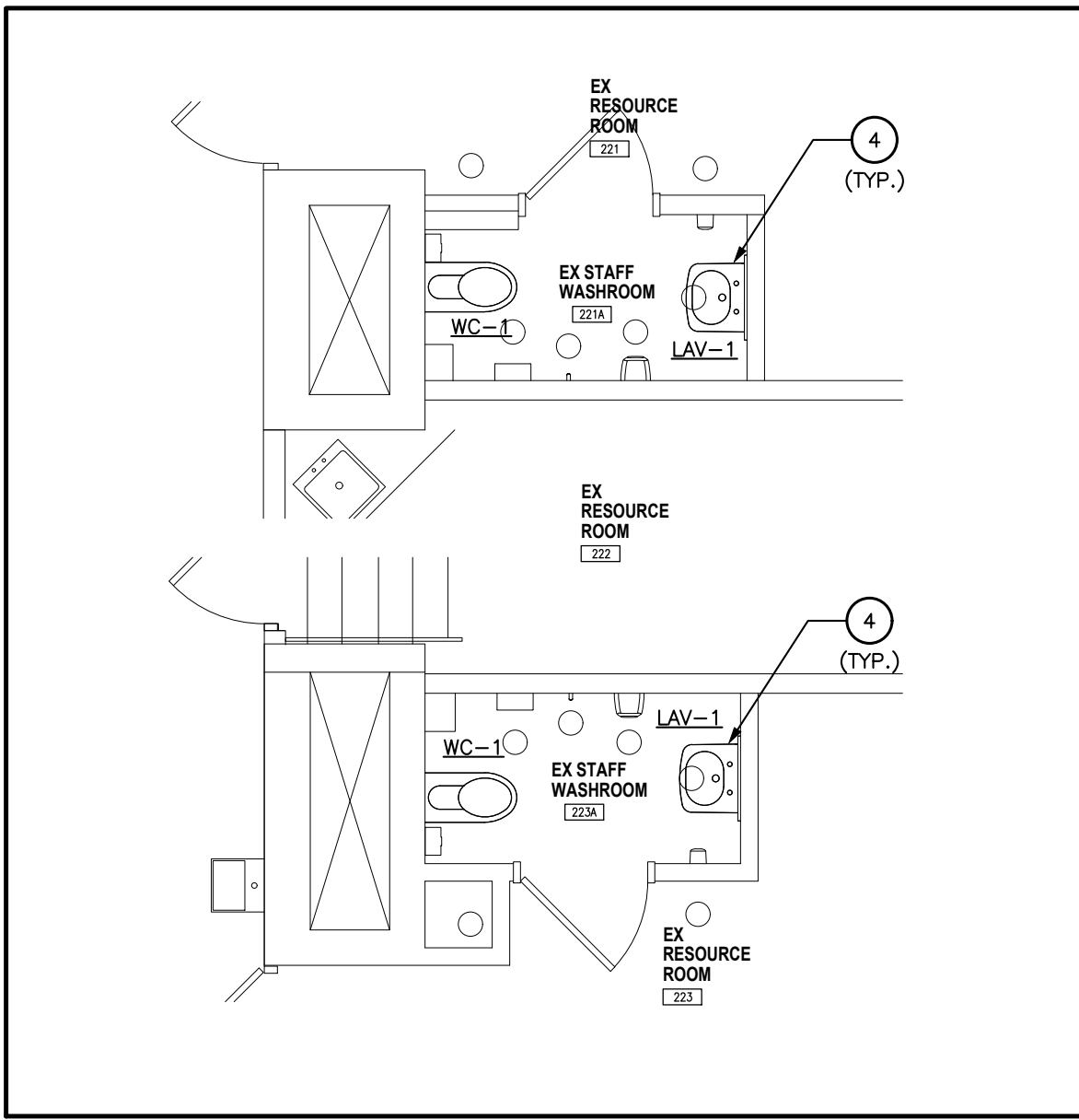
MECHANICAL NOTES:

- EXISTING PIPES TO REMAIN AS IS.
- REMOVE SANITARY FIXTURES AS SHOWN. CAP PIPES TO SUIT.
- EXISTING SHOWERS AND PIPE LINE SHALL BE REMOVED IN THEIR ENTIRETY. EXISTING PIPES SHALL BE CAPPED AS REQUIRED.
- LOCATE THE EXISTING PIPE ROUTE PRIOR TO DEMOLISH AND CAP WHERE REQUIRED.



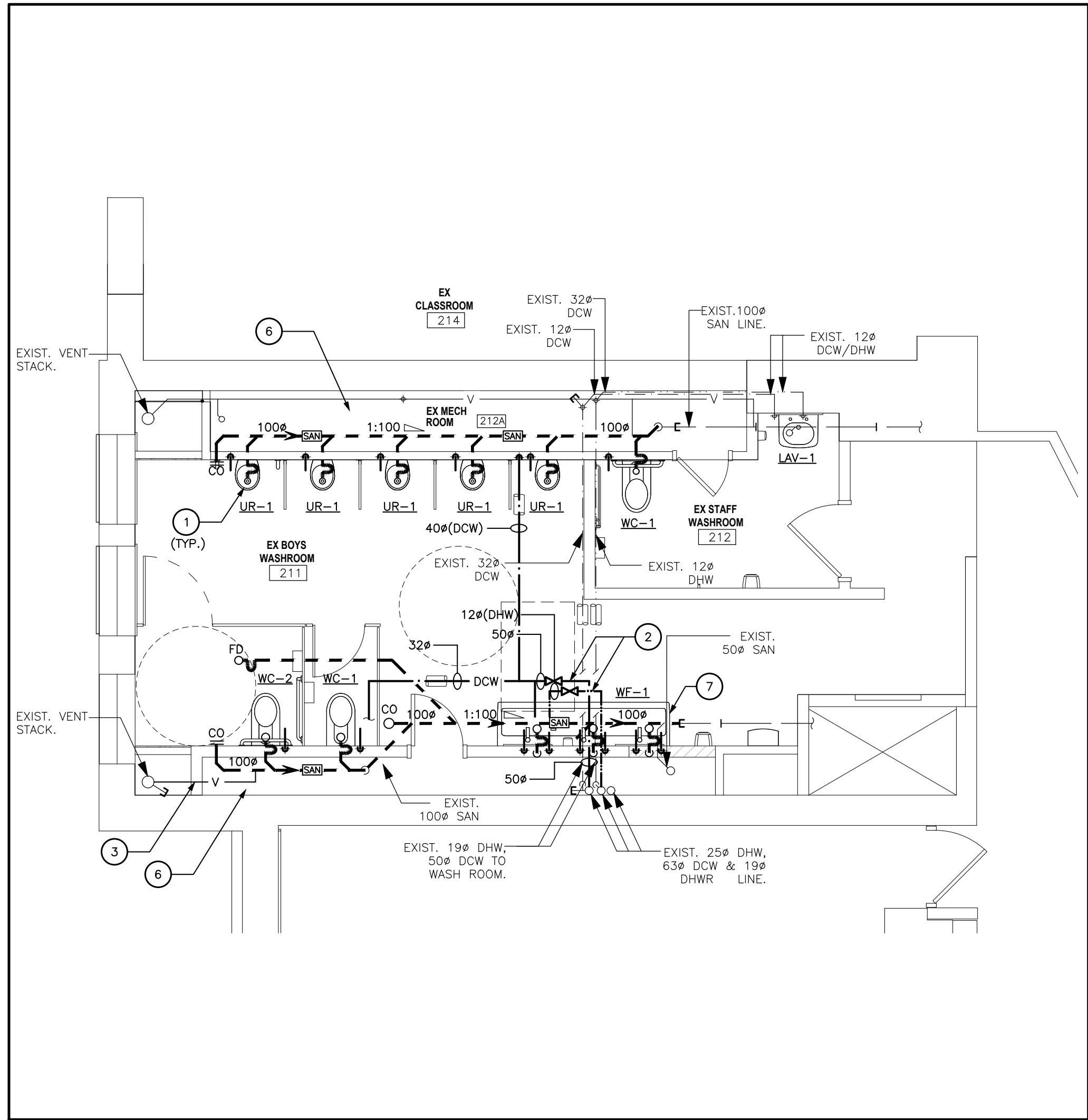
3 SECOND FLOOR PLUMBING SYSTEMS-
DEMO. EX. STAFF W/R (221A),
EX. STAFF W/R (223A)

SCALE- 1:50



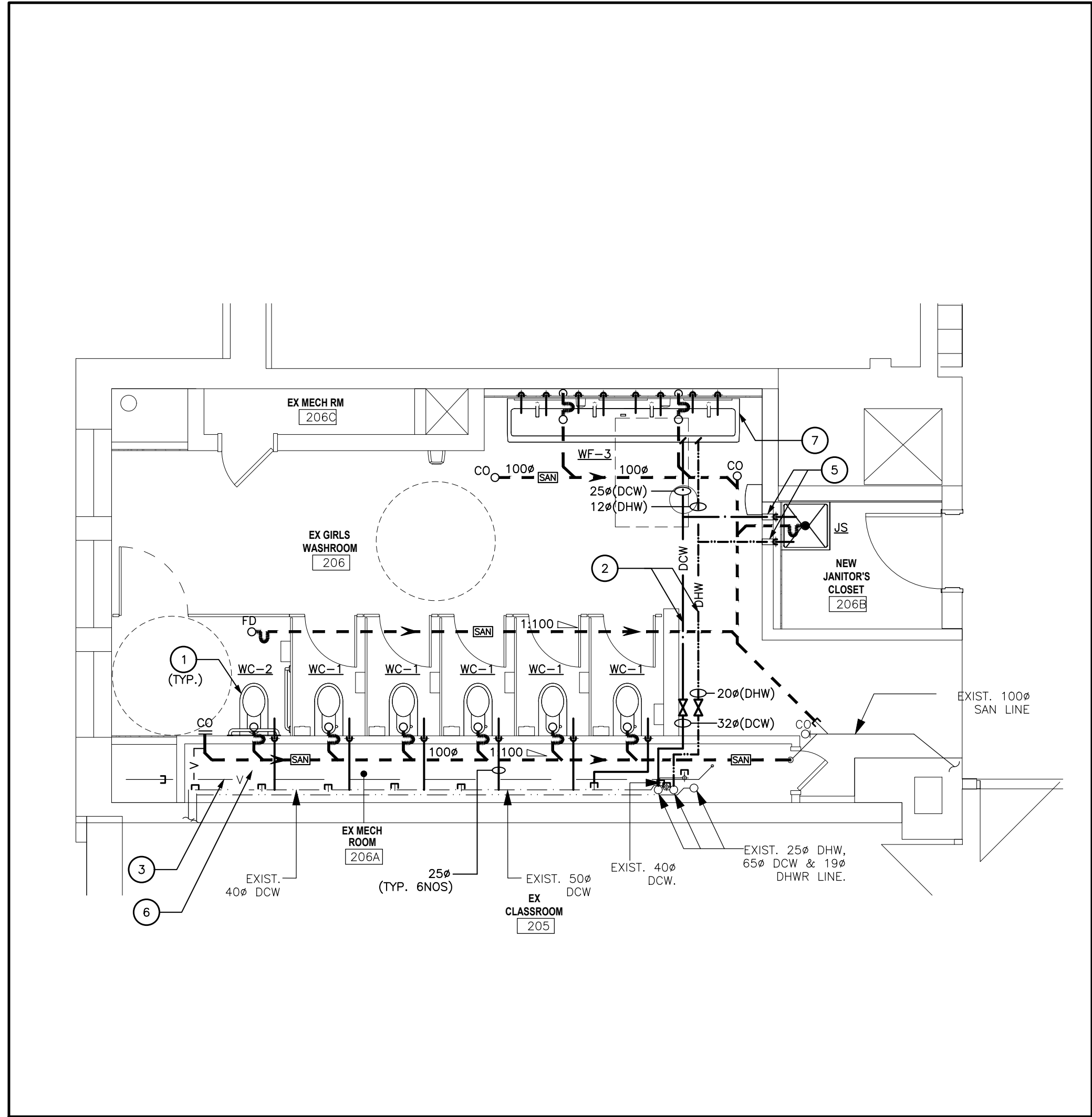
3 SECOND FLOOR PLUMBING SYSTEMS-
NEW EX. STAFF W/R (221A),
EX. STAFF W/R (223A)

SCALE- 1:50



1 SECOND FLOOR PLUMBING SYSTEMS-NEW EX. BOYS W/R (211),
EX. STAFF W/R (212) PART PLAN

SCALE- 1:50



2 SECOND FLOOR PLUMBING SYSTEMS-NEW EX. GIRLS W/R (206),
PART PLAN

SCALE- 1:50

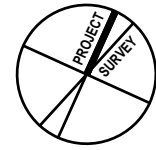
PLUMBING GENERAL NOTES:

- REFER ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
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- ALL SANITARY DRAINS TO BE INSTALLED BURIED (MIN. 300mm BELOW FIN. FLOOR) AND SLOPED AS SHOWN UNLESS OTHERWISE NOTED.
- COORDINATE PIPE INSTALLATION WITH ELECTRICAL CONDUITS, DUCT & STRUCTURAL MEMBERS. OFFSET PIPES AS REQUIRED.
- CONTRACTOR TO FIELD VERIFY WORKSITE CONDITIONS.
- PROVIDE ACCESS DOOR FOR EACH WATER VALVE INSTALLED IN CONCEALED SPACES.
- DO NOT INSTALL DHW & DCW PIPES IN EXPOSED EXTERIOR OR PERIMETER WALLS.
- SANITARY DRAINAGE AND VENT PIPES ABOVE GRADE SHALL BE CERTIFIED TO CAN/CSA-B181.2 "PVC DRAIN, WASTE, AND VENT PIPE AND PIPE FITTINGS".
- DOMESTIC HOT AND COLD WATER PIPES SHALL BE TYPE "L" HARD COPPER TUBING WITH SOLDERED FITTINGS.
- INSULATE ALL NEW DOMESTIC WATER PIPES WITH MINIMUM 50 mm THICK INSULATION. COVER EXPOSED PIPES WITH PVC JACKETS.
- PRIOR TO ANY INSTALLATION SURVEY THE EXISTING SPACE AND NOTE DOWN ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT UNDERGROUND AND BURIED CABLES AND CONDUITS WITH THE ASSISTANCE OF A LOCATION SERVICE.

PLUMBING DRAWING NOTES

- PROVIDE COMPLETE SANITARY PLUMBING FIXTURES & PIPING AS SHOWN ON THIS DRAWING.
- CONNECT EXISTING DCW & DHW PIPES AS SHOWN WITH REQUIRED INSULATION. PROVIDE NEW SHUTOFF VALVES IN DCW/DHW PIPES FOR NEW FIXTURES.
- CONNECT THE EXISTING VENT STACK.
- CONTRACTOR TO RE-CONNECT AND CONFORM THE SANITARY/DCW/DHW/ PIPING TO ALL NEW FIXTURES. PROVIDE NEW SHUTOFF VALVES WHERE REQUIRED.
- PROVIDE FIRE AND SMOKE SEALS TO MEET THE FIRE RESISTANCE RATING WHEN PIPES AND DUCTS PENETRATE THROUGH FIRE SEPARATIONS. SEE ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.
- AT THE END OF THE PROJECT, VACUUM CLEAN THE ENTIRE MECHANICAL (PIPE) ROOM. INCLUDE IN PRICE TO REMOVE DEGRADED INSULATION OF EXISTING PIPES IN THE ROOM AND REPLACE WITH NEW- TYPICAL FOR ALL MECHANICAL ROOMS.
- CONTRACTOR SHALL WORK WITH THE LOCAL DISTRIBUTOR AND THE MANUFACTURER REPRESENTATIVE TO DO A CUSTOM MODIFICATION AND PROVIDE ONE(1) MANUAL FAUCET TO THE WASH FOUNTAIN (BRADLEY) IN EACH WASHROOM. THE FAUCET SHALL BE A SINGLE HANDLE TYPE FOR HOT AND COLD WATER.

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2 ISSUED FOR TENDER & PERMIT 2025-04-15
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

REVISIONS

24092

Seal KS

E & M
Consulting Engineers Inc.
4000 Chalmers Blvd.
Mississauga, ON L4W 6C1
www.eandmconsulting.com

HWDSB

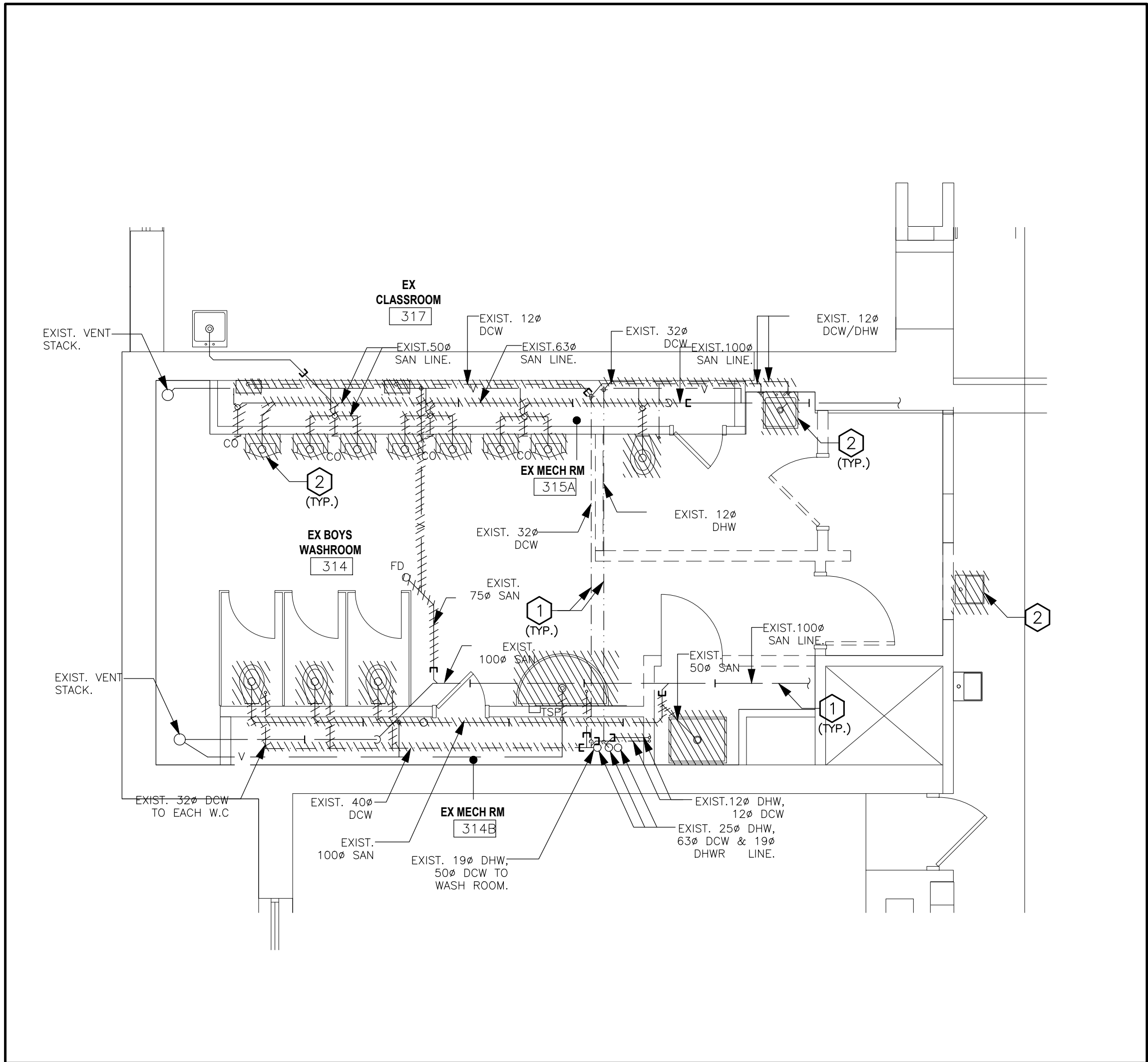
AMRA J
ARCHITECTS INC.
465-403-1171
DATA: Integrated design
https://aiga.design

project title:
P102083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunscombe Road, Hamilton, ON

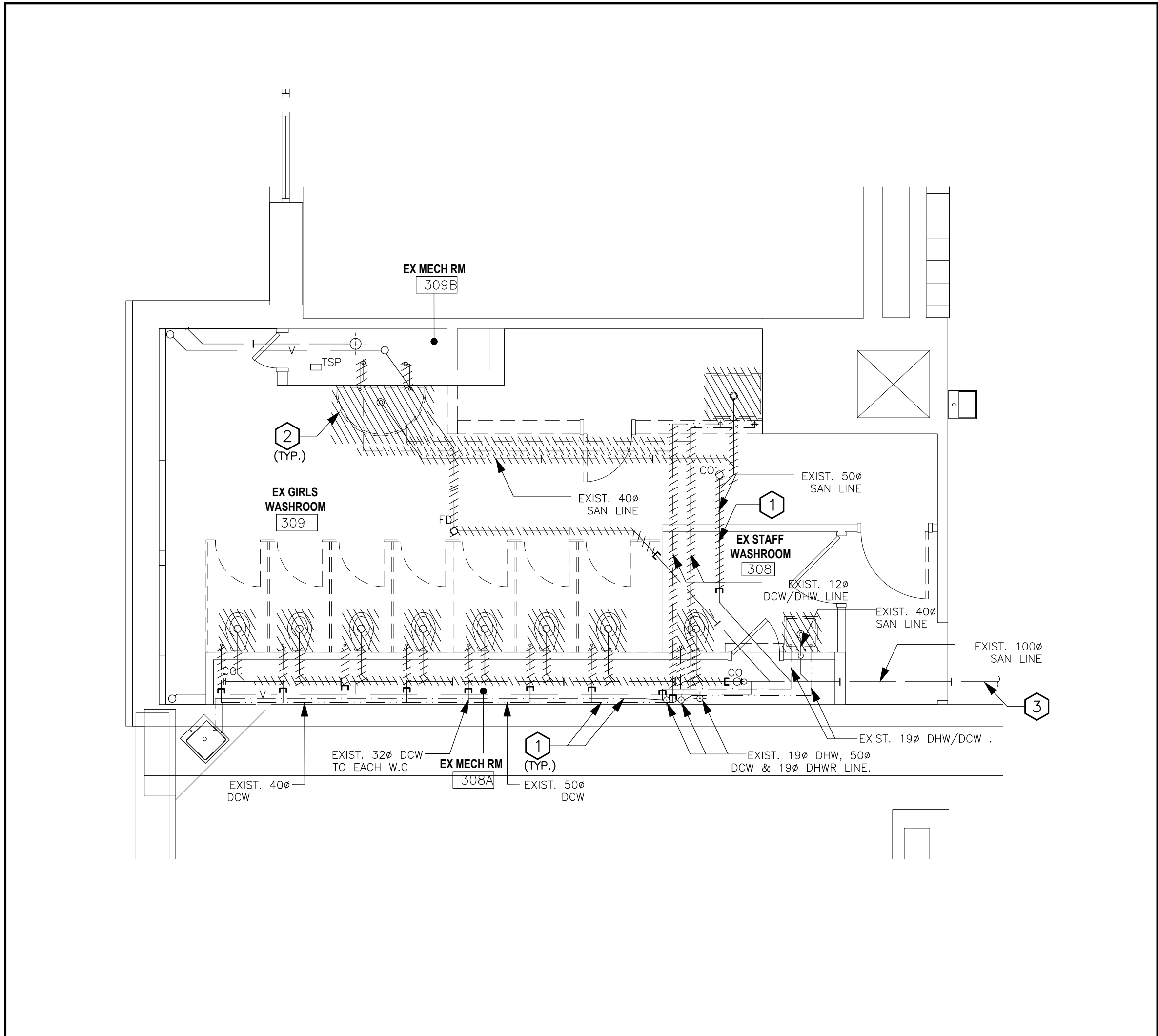
drawing title:
SECOND FLOOR PLUMBING
SYSTEMS-DEMO AND NEW
PART PLANS

drawn by:
MH
date:
project number:
24-24

checked by:
KS
date:
DRAWING NO.:
M1-02
0
Revised



1 THIRD FLOOR PLUMBING SYSTEMS- DEMO EX. BOYS W/R (314) PART PLAN
SCALE- 1:50



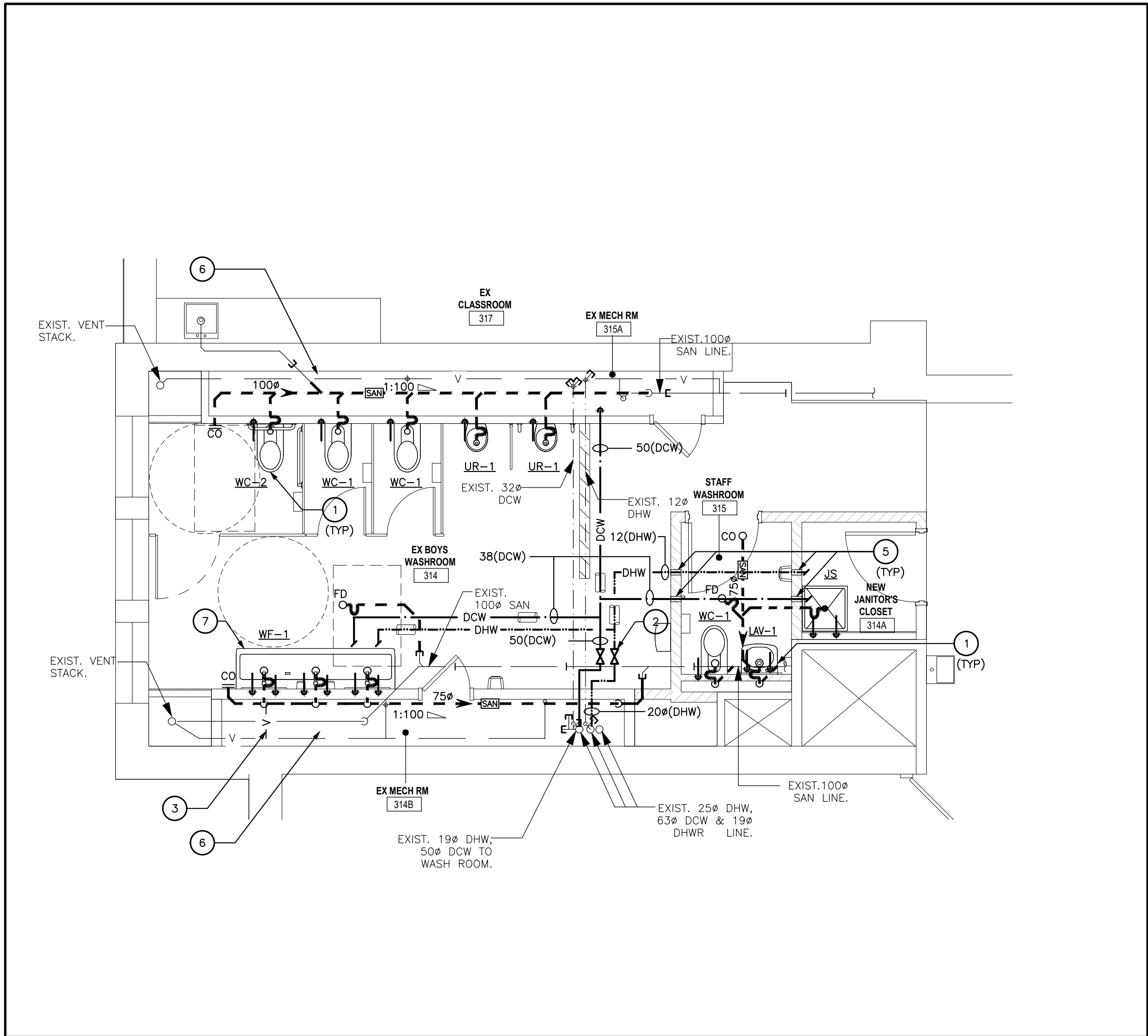
2 THIRD FLOOR PLUMBING SYSTEMS- DEMO EX. GIRLS W/R (309) PART PLAN
SCALE- 1:50

DRAWING NOTES DEMO: GENERAL

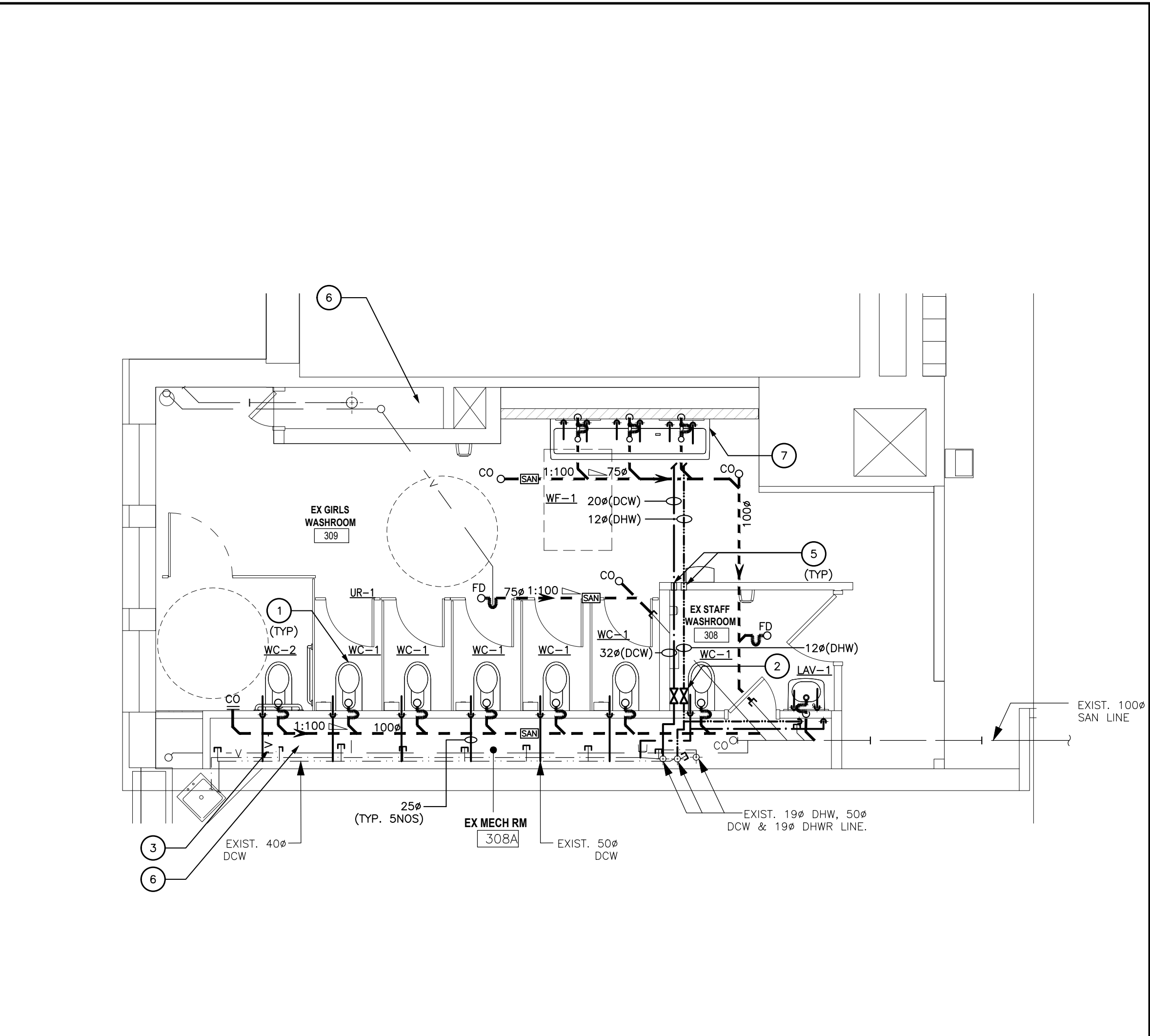
- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- RETAIN A LOCATION SERVICE PRIOR TO EXCAVATION TO TRACE ALL SERVICES BURIED.
- THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED PIPING, DUCTS, PLUMBING AND EQUIPMENT TO BE REMOVED. CONTRACTOR SHALL VISIT THE SITE AND MAKE OWN EVALUATION AND ESTIMATE OF THE EXTENT AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING THE BID.
- ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE THIS WORK.
- REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

MECHANICAL NOTES:

- EXISTING PIPES TO REMAIN AS IS.
- REMOVE SANITARY FIXTURES AS SHOWN. CAP PIPES TO SUIT.
- EXISTING SHOWERS AND PIPE LINE SHALL BE REMOVED IN THEIR ENTIRETY. EXISTING PIPES SHALL BE CAPPED AS REQUIRED.
- LOCATE THE EXISTING PIPE ROUTE PRIOR TO DEMOLISH AND CAP WHERE REQUIRED.



3 THIRD FLOOR PLUMBING SYSTEMS- NEW EX. BOYS W/R (314) PART PLAN
SCALE- 1:50



4 THIRD FLOOR PLUMBING SYSTEMS- NEW EX. GIRLS W/R (309) PART PLAN
SCALE- 1:50

PLUMBING GENERAL NOTES:

- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- ALL PLUMBING WORK TO CONFORM TO ONTARIO BUILDING CODE, ONTARIO WATER REGULATION ACT No. 615/64, CONSTRUCTION SAFETY ACT AND REGULATIONS OF THE CITY AND LOCAL AUTHORITIES.
- ALL SANITARY DRAINS TO BE INSTALLED BURIED (MIN. 300mm BELOW FIN. FLOOR) AND SLOPED AS SHOWN UNLESS OTHERWISE NOTED.
- COORDINATE PIPE INSTALLATION WITH ELECTRICAL CONDUITS, DUCT & STRUCTURAL MEMBERS. OFFSET PIPES AS REQUIRED.
- CONTRACTOR TO FIELD VERIFY WORKSITE CONDITIONS.
- PROVIDE ACCESS DOOR FOR EACH WATER VALVE INSTALLED IN CONCEALED SPACES.
- DO NOT INSTALL DHW & DCW PIPES IN EXPOSED EXTERIOR OR PERIMETER WALLS.
- SANITARY DRAINAGE AND VENT PIPES ABOVE GRADE SHALL BE CERTIFIED TO CAN/CSA-B181.2 "PVC DRAIN, WASTE, AND VENT PIPE AND PIPE FITTINGS".
- DOMESTIC HOT AND COLD WATER PIPES SHALL BE TYPE "L" HARD COPPER TUBING WITH SOLDERED FITTINGS.
- INSULATE ALL NEW DOMESTIC WATER PIPES WITH MINIMUM 50 mm THICK INSULATION. COVER EXPOSED PIPES WITH PVC JACKETS.
- PRIOR TO ANY INSTALLATION SURVEY THE EXISTING SPACE AND NOTE DOWN ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT UNDERGROUND AND BURIED CABLES AND CONDUITS WITH THE ASSISTANCE OF A LOCATION SERVICE.

PLUMBING DRAWING NOTES

- PROVIDE COMPLETE SANITARY PLUMBING FIXTURES & PIPING AS SHOWN ON THIS DRAWING.
- CONNECT EXISTING DCW & DHW PIPES AS SHOWN WITH REQUIRED INSULATION. PROVIDE NEW SHUTOFF VALVES IN DCW/DHW PIPES FOR NEW FIXTURES.
- CONNECT THE EXISTING VENT STACK.
- CONTRACTOR TO RE CONNECT AND CONFORM THE SANITARY/DCW/DHW/ PIPING TO ALL NEW FIXTURES. PROVIDE NEW SHUTOFF VALVES WHERE REQUIRED.
- PROVIDE FIRE AND SMOKE SEALS TO MEET THE FIRE RESISTANCE RATING WHEN PIPES AND DUCTS PENETRATE THROUGH FIRE SEPARATIONS. SEE ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.
- AT THE END OF THE PROJECT, VACUUM CLEAN THE ENTIRE MECHANICAL (PIPE) ROOM. INCLUDE IN PRICE TO REMOVE DEGRADED INSULATION OF EXISTING PIPES IN THE ROOM AND REPLACE WITH NEW- TYPICAL FOR ALL MECHANICAL ROOMS.
- CONTRACTOR SHALL WORK WITH THE LOCAL DISTRIBUTOR AND THE MANUFACTURER REPRESENTATIVE TO DO A CUSTOM MODIFICATION AND PROVIDE ONE(01) MANUAL FAUCET TO THE WASH FOUNTAIN (BRADLEY) IN EACH WASHROOM. THE FAUCET SHALL BE A SINGLE HANDLE TYPE FOR HOT AND COLD WATER.

DO NOT SCALE DRAWING. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE.

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2 ISSUED FOR TENDER & PERMIT 2025-04-15
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

REVISIONS

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www.eandmconsulting.com

HWDSB

AMRA J
ARCHITECTS INC.
465-400-9171
BAAI: Integrated design
https://baai.design

project file:
PROJ083 W.H. Ballard Elementary School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

drawing title:
THIRD FLOOR PLUMBING
SYSTEMS-DEMO AND NEW
PART PLANS

drawn:
MH
date:
project number:
24-24

checked:
KS
date:

DRAWING NO:
M1-03 0

Revised



- A). REFER TO ARCHITECTURAL DRAWINGS AND HWSOB RPT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. VERIFY NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- B). RETAIN A LOCATION SERVICE PRIOR TO EXCAVATION TO TRACE ALL SERVICES BURIED.
- C). THIS DRAWING DOES NOT SHOW ALL HIDDEN OR KNOWN SERVICES. BEFORE ANY EXCAVATION EQUIPMENT TO BE REMOVED, CONTRACTOR SHALL VISIT THE SITE AND MAKE OWN EVALUATION, AND ESTIMATE THE EXTENT OF THE REMOVAL OF THE WORK INVOLVED PRIOR TO SUBMITTING THE BID.
- D). ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE THIS WORK.
- E). PRIOR TO DEMOLISHING EXISTING DIFFUSERS AND DUCTS, RETAIN A BALANCING CONTRACTOR TO DETERMINE THE CURRENT AIR FLOW INFORMATION OF EXISTING DIFFUSERS AND SUBMIT INFORMATION TO THE CONSULTANT.
- F). REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

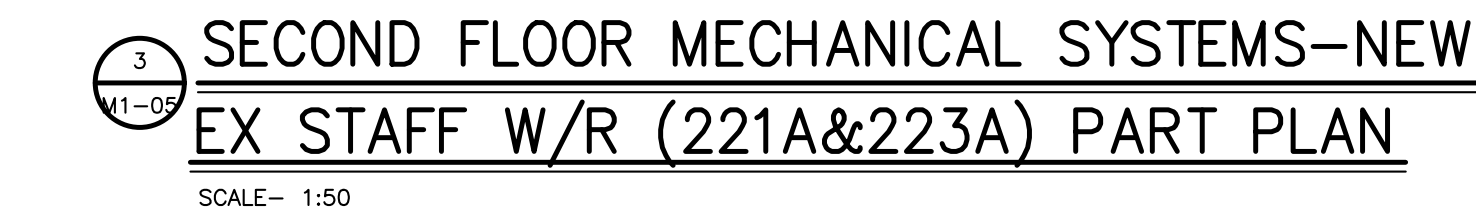
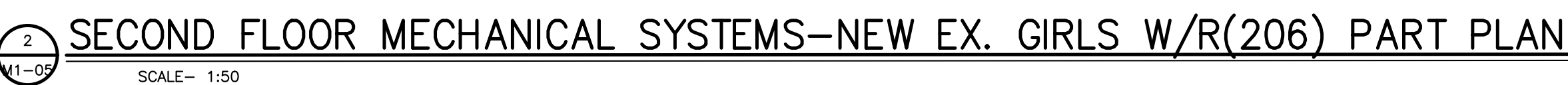
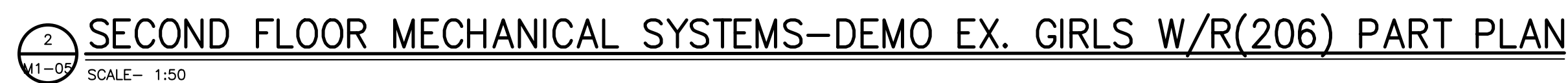
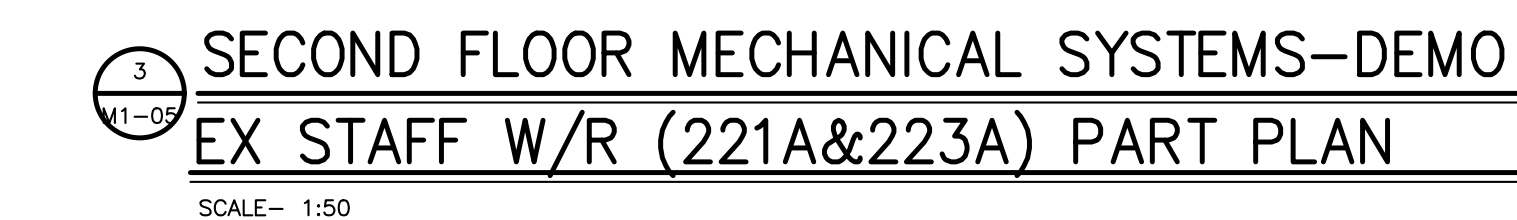
- 1 EXISTING CABINET HEATERS TO REMAINS AS IS.
- 2 REMOVE THE EXISTING DUCT AS MARKED. REFER NEW DRAWING FOR REQUIRED CHANGES.
- 3 EXISTING HOT WATER SUPPLY AND RETURN PIPES TO BE REMAIN AS IS.
- 4 EXISTING DDC THERMOSTAT. TEMPORARILY REMOVE TO BE RE-INSTALLED LATER.
- 5 REMOVE EXISTING DUCTS AS MARKED. SEE NEW DRAWINGS FOR REQUIRED CHANGES.
- 6 EXISTING DUCT TO REMAIN AS IS.
- 7 EXISTING DIFFUSERS TO REMAIN AS IS.
- 8 REMOVE EXISTING EXHAUST GRILLE TO BE REPLACED WITH NEW.

- A) THE INTENT IS TO CONVERT OR PROVIDE NEW ROUND DUCTS IN EXPOSED AREAS IN EXPOSED ROOF IN THE AREA OF THE MECHANICAL ROOM. SUPPLY DUCTS SHALL BE PROVIDED WITH 25MM INSULATION OF INSULATION. EXHAUST DUCTS AS PER GENERAL NOTES BELOW.
- ARCHITECTURAL DIVISION TO PAINT THEM TO SUIT THE ARCHITECTURAL REQUIREMENTS. PROVIDE AND WHOSR RPT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY PERMITS TO PROCEED TO THE WORK.
- C) COORDINATE DUCT INSTALLATIONS WITH PIPES, ELECTRICAL, LIGHTING AND OTHER SERVICES.
- D) PROVIDE RETURN AIR GRILLES IN CEILING WHERE NOTED.
- E) PROVIDE BALANCING DAMPERS AT ALL AIR SUPPLY TAKE OFFS:
 - 1) AT BRANCH CUTT OFF OF THE MAIN TRUNK.
 - 2) AT SMALL AREA BRANCH OFF TO THE GRILLE WITH APPROVED LOCKING DEVICES TO ENGINEER'S APPROVAL.
- F) CUTTING FOR DUCTS SHALL BE DONE BY THE CONTRACTOR. OBTAIN APPROVAL PRIOR TO CUTTING FOR DUCTS IN ANY WALL, STRUCTURE, FLOOR AND ROOF.
- G) COORDINATE LOCATION OF EACH S.A. & R.A. (SUCK & RETURN AIR) WITH THE CONTRACTOR. RETURN AIR GRILLE ON SITE PRIOR TO CUTTING AND INSULATE.
- H) INSULATE ALL SUPPLY AIR DUCTS ON COMPLETE RUN. INSULATE EXHAUST AIR DUCTS MIN. 5" FROM ROOF OR AIR ROOF. R.A. DUCTS SHALL BE COORDINATE LOCATION OF EACH DIFFUSER AND GRILLE IN CEILING.
- I) ALL DUCT WORK SIZES SHOWN ARE OUTSIDE DIMENSIONS, UNLESS SPECIFICALLY NOTED ON THE DRAWING. ALL DUCTS SHALL BE PROTECTED AND ACCOUNTED FOR EXTERNALLY INSULATED DUCT.

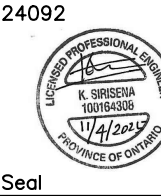
- 1 PROVIDE NEW EXHAUST AIR GRILLE AS SHOWN.
- 2 TRANSITION TO NEW ROUND DUCT.
- 3 PROVIDE THE 200MM X 150MM TRANSFER DUCT WITH GRILLE AND A COMBINATION FIRE AND SMOKE DAMPER AS SHOWN.
- 4 RE-INSTALL THE REMOVED DDC THERMOSTAT AS SHOWN. COORDINATE WITH THE BAS CONTRACTOR TO RE-INSTALL THE DDC THERMOSTAT WITH REQUIRED MODIFICATIONS.
- 5 SUPPLY AND INSTALL NEW BASEBOARD HEATER AS SHOWN. REFER TO THE BASEBOARD UNIT SPECIFICATION IN THE MECHANICAL AND ELECTRICAL SCHEDULE.

DO NOT SCALE DRAWING. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE.

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1	ISSUED FOR PERMIT	2025-03-2
No.	DESCRIPTION	DATE

REVISIONS

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www.emcneconsultingeng.com

HWDSB



EMAIL: info@amra.design
<http://amra.design>

AMRA
 ARCHITECTS INC.

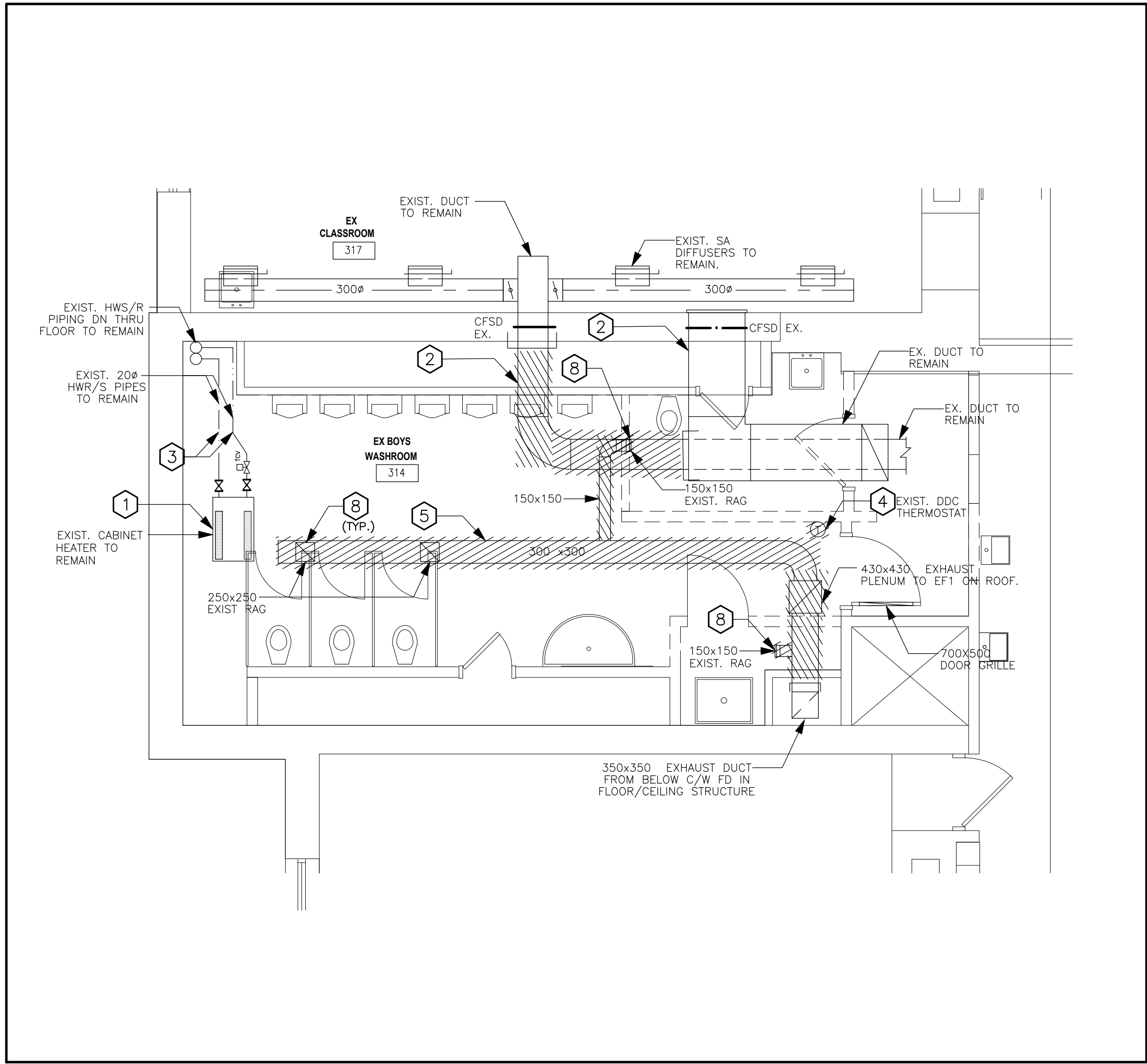
905-920-5121

project title:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

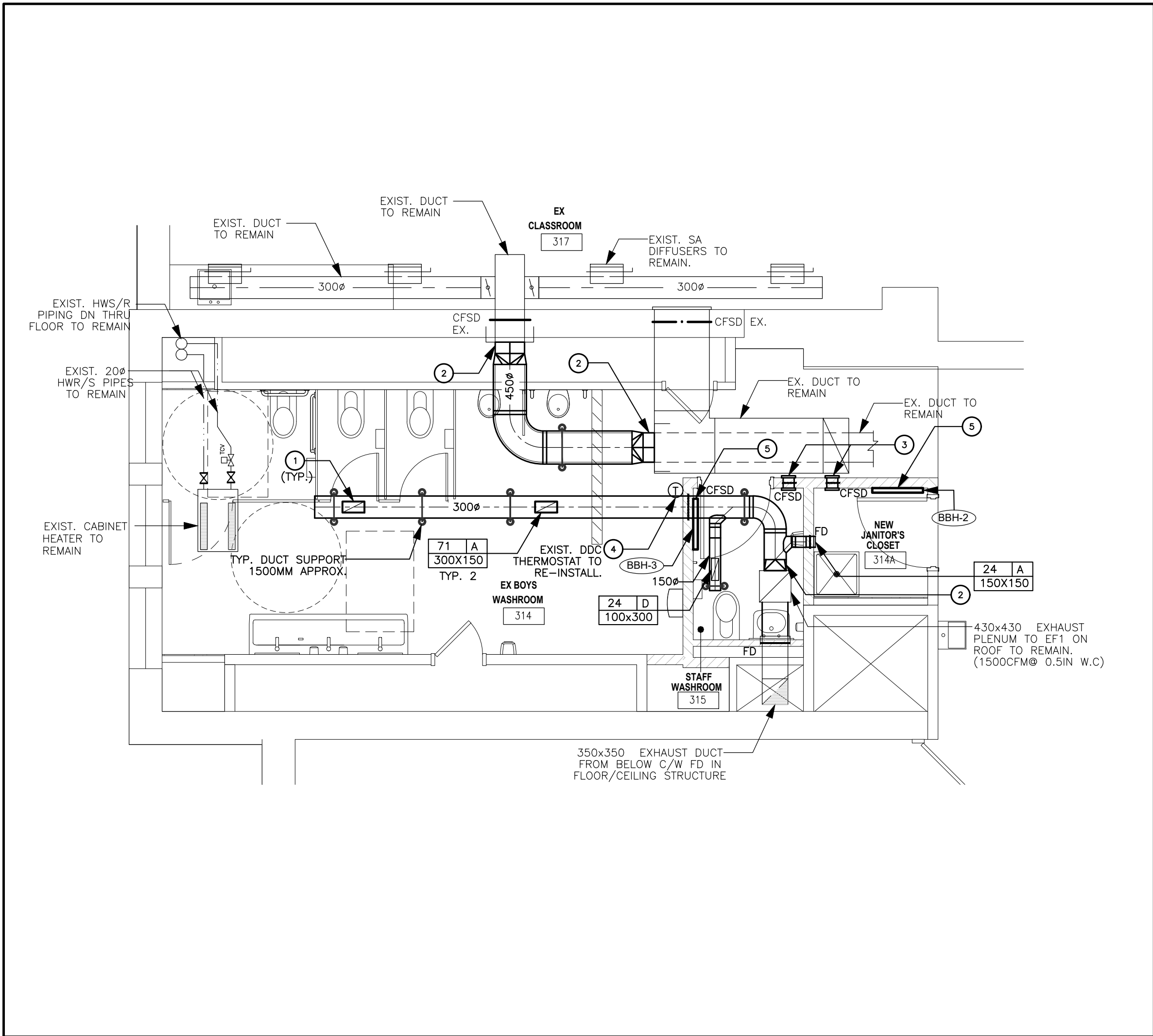
drawing title:
SECOND FLOOR MECHANICAL
SYSTEMS - DEMO AND NEW
PART PLANS

drawn: MH	scale: AS SHOWN
date:	project number: 24-24

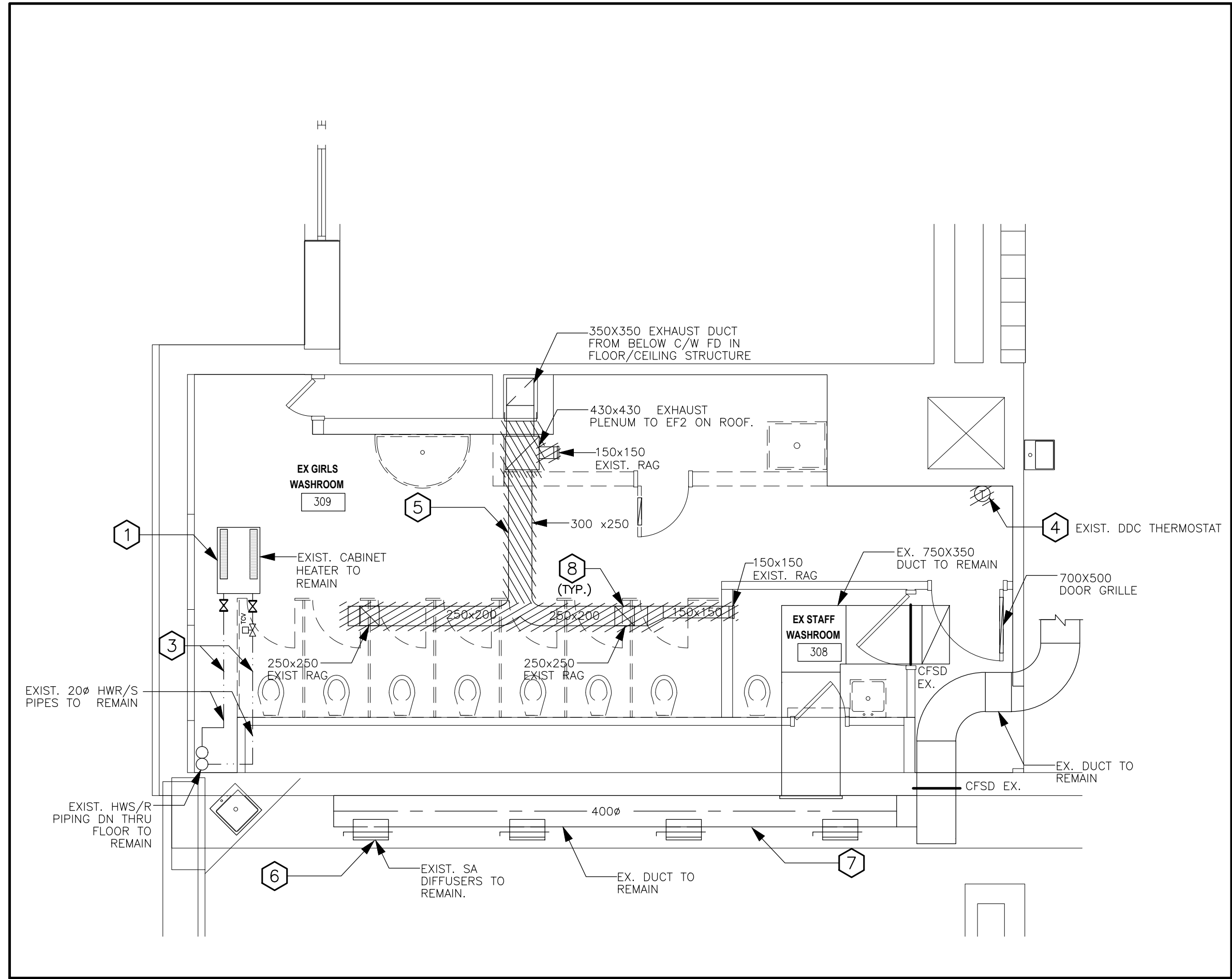
checked: KS date:	DRAWING NO: M1-05	0
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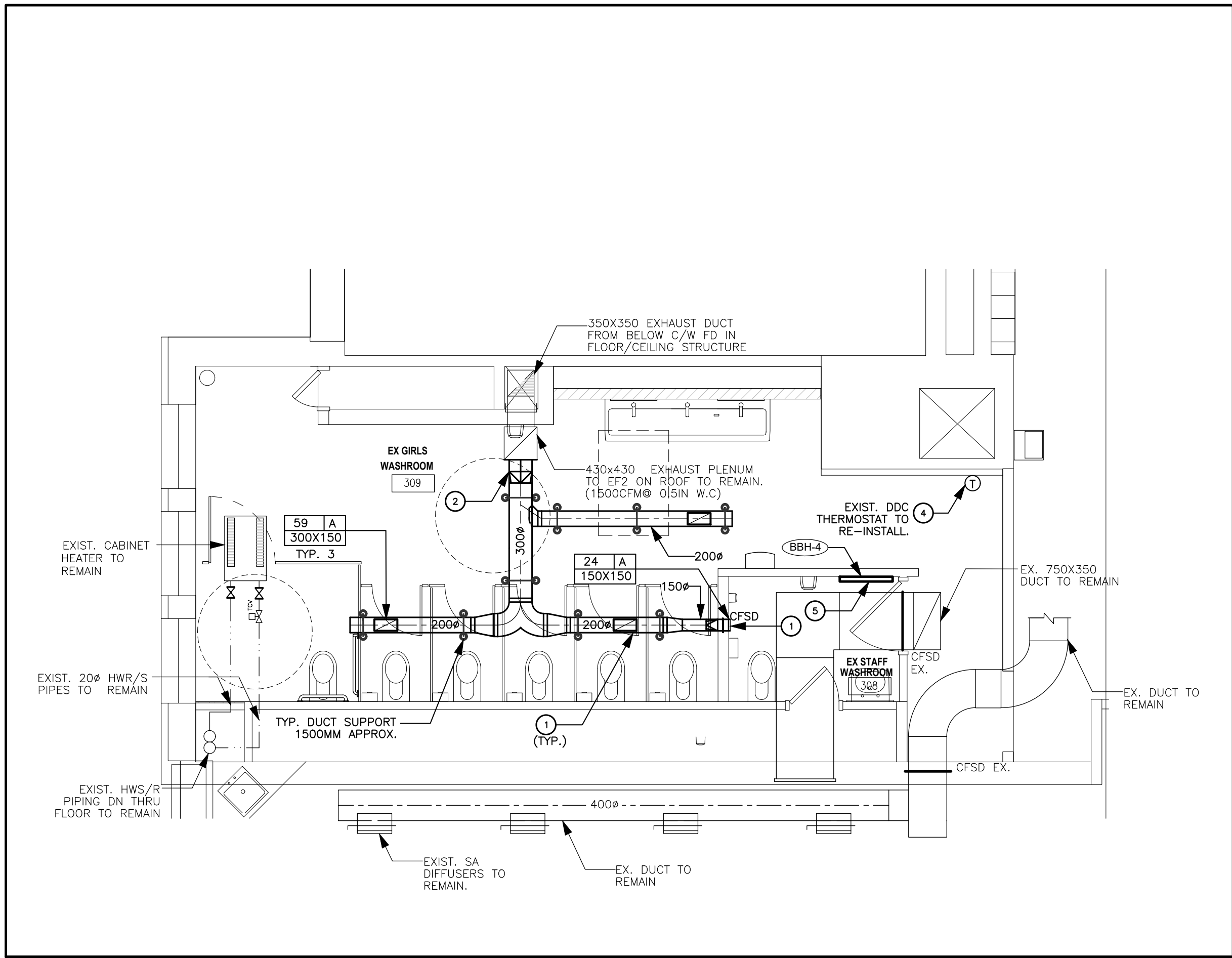
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SCALE= 1:50



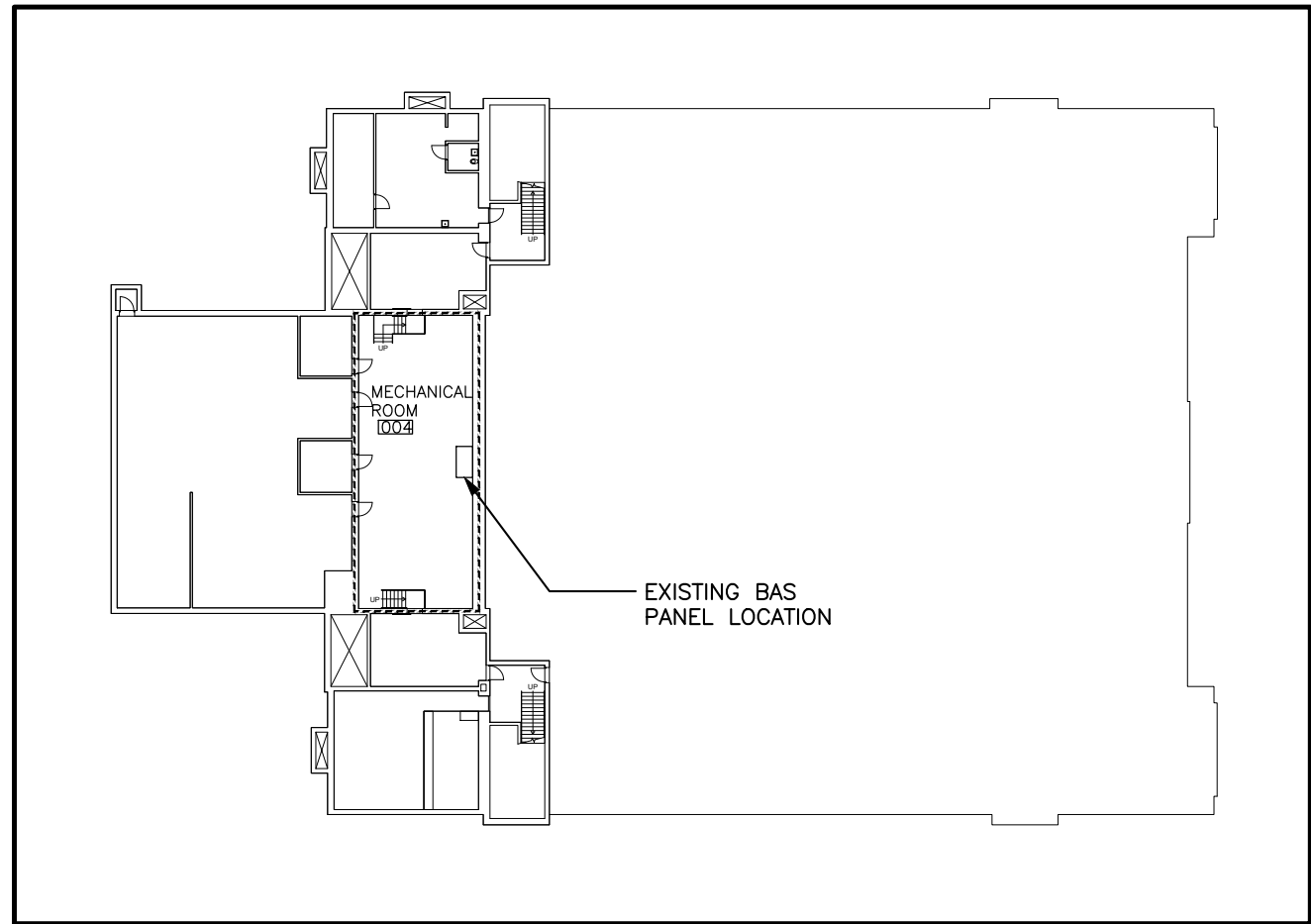
1-2 THIRD FLOOR MECHANICAL SYSTEMS-NEW EX. BOYS W/R(314) PART PLAN
SCALE= 1:50



2 THIRD FLOOR MECHANICAL SYSTEMS-DEMO EX. GIRLS W/R (309) PART PLAN
SCALE= 1:50



2 THIRD FLOOR MECHANICAL SYSTEMS-NEW EX. GIRLS W/R(309) PART PLAN
SCALE= 1:50



3 BASEMENT - OVERALL FLOOR PLAN
SCALE= 1:500

GENERAL NOTES DEMO:

- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- RETAIN A LOCATION SERVICE PRIOR TO EXCAVATION TO TRACE ALL SERVICES BURIED.
- THIS DRAWING DOES NOT SHOW ALL HIDDEN OR CONCEALED PIPING, DUCTS, PLUMBING AND EQUIPMENT TO BE REMOVED. CONTRACTOR SHALL VISIT THE SITE AND MAKE OWN EVALUATION AND ESTIMATE OF THE EXTENT AND MAGNITUDE OF THE WORK INVOLVED PRIOR TO SUBMITTING THE BID.
- ALLOW FOR RELOCATION OF EXISTING SERVICES AS REQUIRED TO ACCOMMODATE THIS WORK.
- PRIOR TO DEMOLISHING EXISTING DIFFUSERS AND DUCTS, RETAIN A BALANCING CONTRACTOR TO OBTAIN THE CURRENT AIR FLOW INFORMATION OF EXISTING DIFFUSERS AND SUBMIT INFORMATION TO THE CONSULTANT.
- REMOVE ALL DEBRIS AND CLEAN FROM SITE DAILY.

MECHANICAL NOTES DEMO:

- EXISTING CABINET HEATERS TO REMAINS AS IS.
- REMOVE THE EXISTING DUCT AS MARKED. REFER NEW DRAWING FOR REQUIRED CHANGES.
- EXISTING HOT WATER SUPPLY AND RETURN PIPES TO BE REMAIN AS IS.
- EXISTING DDC THERMOSTAT. TEMPORARILY REMOVE TO BE RE-INSTALLED LATER.
- REMOVE EXISTING DUCTS AS MARKED. SEE NEW DRAWINGS FOR REQUIRED CHANGES.
- EXISTING DUCT TO REMAIN AS IS.
- EXISTING DIFFUSERS TO REMAIN AS IS.
- REMOVE EXISTING EXHAUST GRILLE TO BE REPLACED WITH NEW.

GENERAL NOTES NEW:

- THE INTENT IS TO CONVERT OR PROVIDE NEW ROUND DUCTS IN EXPOSED AREAS IN EXPOSED AREAS WITH IN THE CONFINEMENTS OF RENOVATION. SUPPLY DUCTS SHALL BE PROVIDED WITH 25MM INNER LAYER OF INSULATION. INSULATE EXHAUST DUCTS AS PER GENERAL NOTES BELOW.
- REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFT DOCUMENT FOR PHASING PLAN BEFORE COMMENCING WORK. INCLUDE ALL NECESSARY REQUIREMENTS TO MEET THE PHASING PLAN.
- COORDINATE DUCT INSTALLATIONS WITH PIPES, ELECTRICAL LIGHTING & BUILDING STRUCTURE.
- PROVIDE RETURN AIR GRILLES IN CEILING WHERE NOTED.
- PROVIDE BALANCING DAMPERS AT ALL AIR SUPPLY TAKE OFF'S -
1) AT BRANCH DUCT OFF OF THE MAIN TRUNK.
2) IN DRYWALL AREAS, PROVIDE DAMPERS AT GRILLE WITH APPROVED LOCKING DEVICES TO ENGINEER'S APPROVAL.
- CUTTING FOR DUCTS SHALL BE DONE BY THIS CONTRACTOR. OBTAIN APPROVAL PRIOR TO CUTTING OPENINGS IN ANY WALL, STRUCTURE, FLOOR AND ROOF.
- COORDINATE LOCATION OF EACH S.A. & R.A. (SUPPLY & RETURN AIR) GRILLE AND EXISTING RETURN AIR GRILLE ON SITE PRIOR TO CUTTING AND ROUGH-IN.
- INSULATE ALL SUPPLY AIR DUCTS ON COMPLETE RUN. INSULATE EXHAUST AIR DUCTS MIN. 6" FROM WALLS OR ROOF. REFER TO SPECIFICATIONS.
- COORDINATE LOCATION OF EACH DIFFUSER AND GRILLE IN CEILING WITH LIGHT FIXTURES.
- ALL DUCT WORK SIZES SHOWN ARE OUTSIDE DIMENSIONS, UNLESS SPECIFICALLY NOTED ON PLANS. ADDITIONAL CLEARANCE WILL NEED TO BE ACCOUNTED FOR EXTERNALLY INSULATED DUCT.

DRAWING NOTES NEW:

- PROVIDE NEW EXHAUST AIR GRILLE AS SHOWN.
- TRANSITION TO NEW ROUND DUCT.
- PROVIDE 200MMX150MM TRANSFER DUCT WITH GRILLES AND A COMBINATION FIRE AND SMOKE DAMPER.
- RE-INSTALL THE REMOVED DDC THERMOSTAT AS SHOWN. COORDINATE WITH THE GAS CONTRACTOR TO RE-INSTALL THE DDC THERMOSTAT WITH REQUIRED MODIFICATIONS.
- SUPPLY AND INSTALL NEW BASEBOARD HEATER AS SHOWN. REFER TO THE BASEBOARD UNIT SPECIFICATION IN THE MECHANICAL AND ELECTRICAL SCHEDULE.

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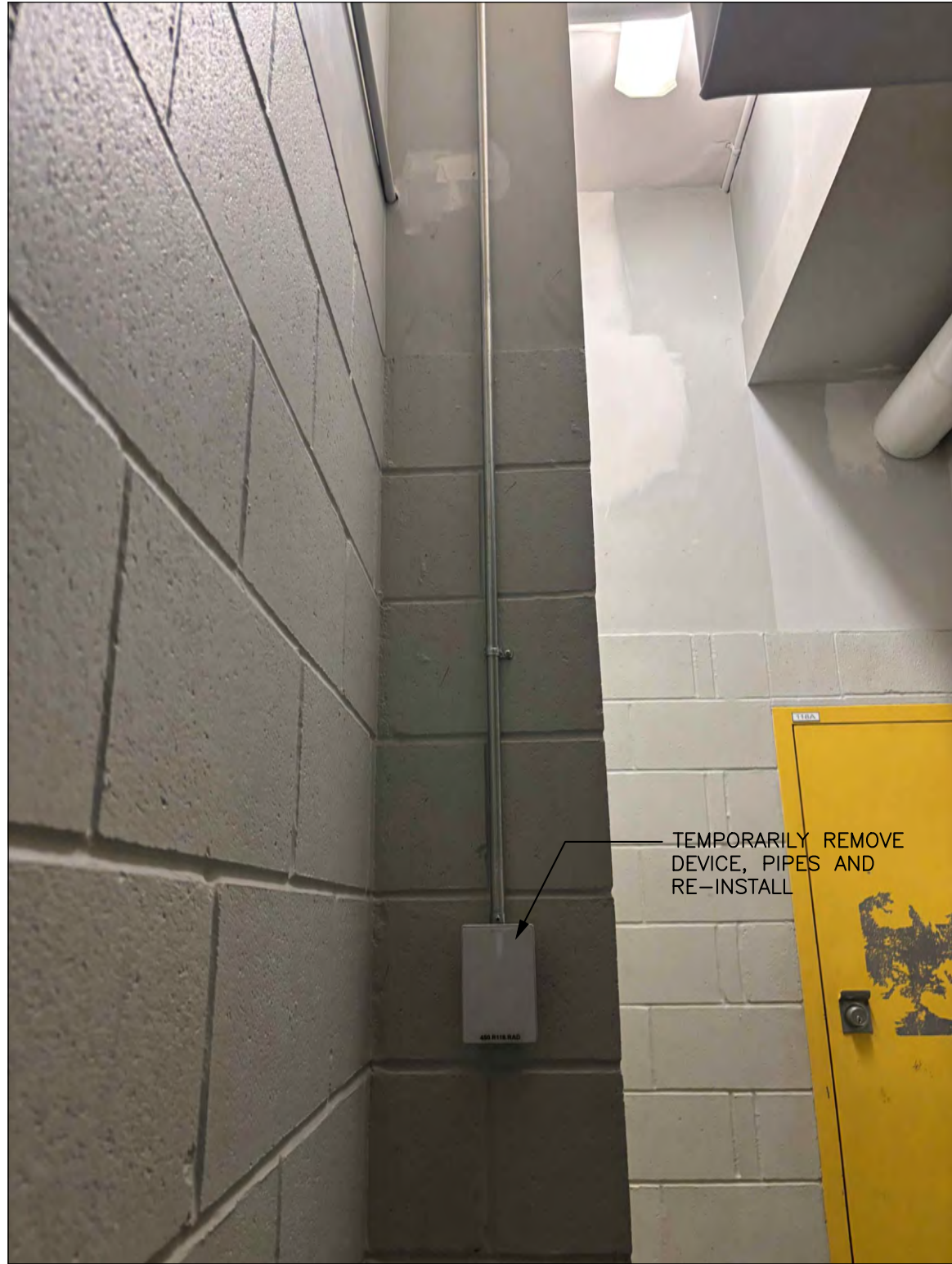
AMRA J
ARCHITECTS INC.
465-400-9151
BAM, Integrated design
https://aia.design

project no.:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

drawing title:
THIRD FLOOR MECHANICAL
SYSTEMS-DEMO AND NEW
PART PLANS & BASEMENT
OVERALL PLAN

drawn:
MH
date:
project number:
24-24

checked:
KS
date:
DRAWING NO.:
M1-06 0
Revised



GROUND FLOOR – BOYS WR 118,



GROUND FLOOR – BOYS WR 118,



GROUND FLOOR – BOYS WR 118,



GROUND FLOOR – BOYS WR 118,



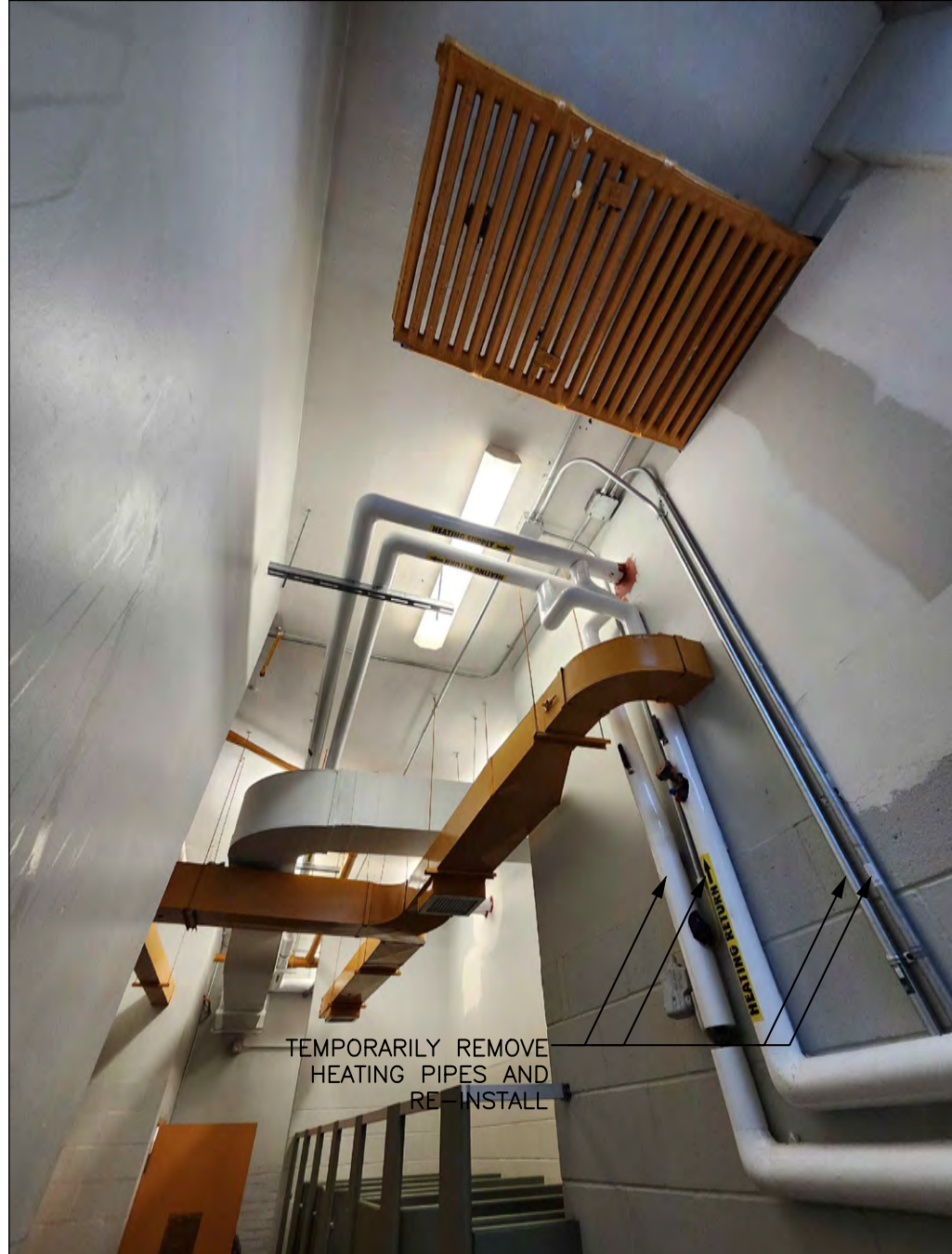
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GROUND FLOOR – BOYS WR 118,



GROUND FLOOR – GIRLS WR 111,



GROUND FLOOR – GIRLS WR 111,



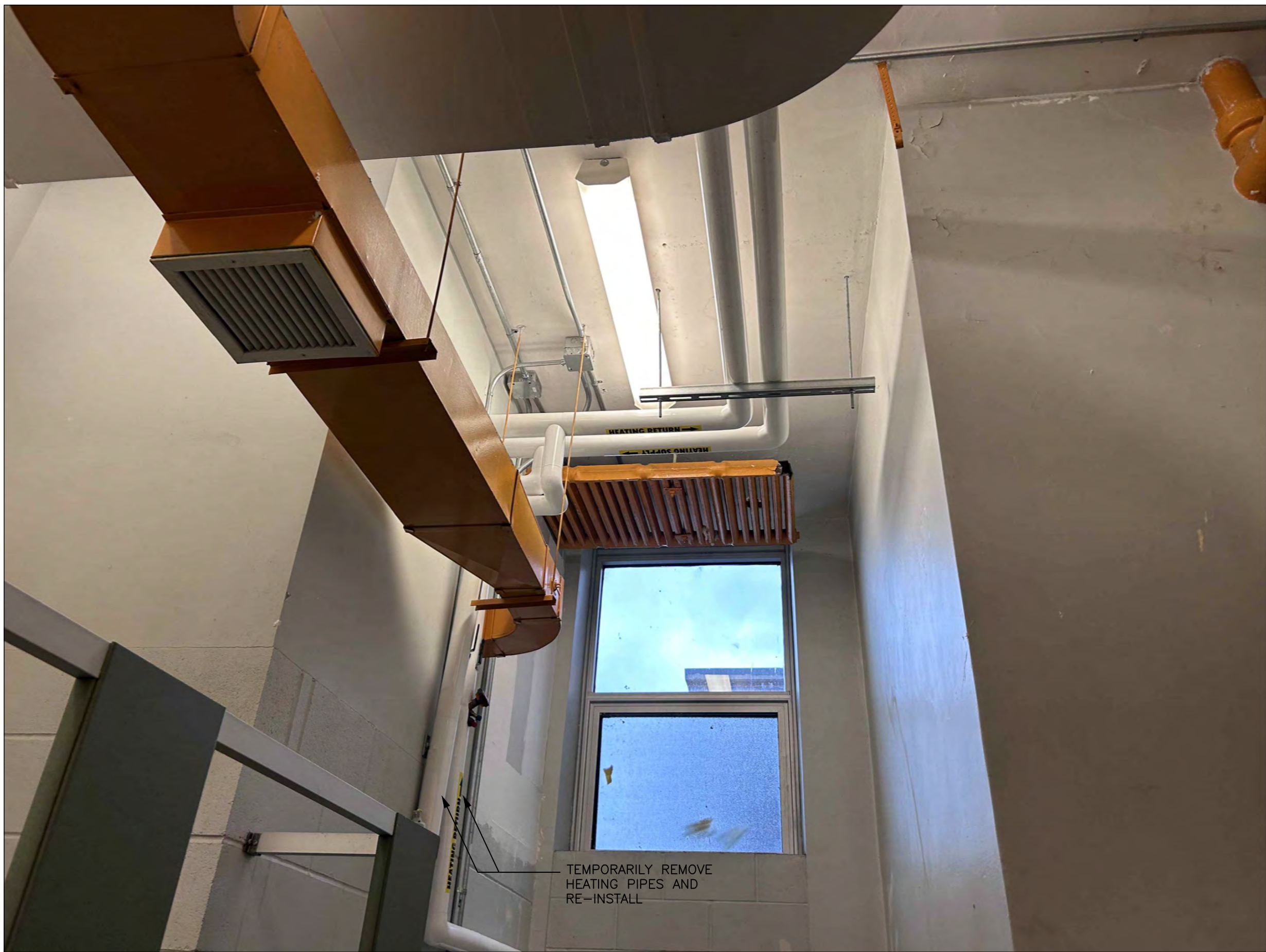
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GROUND FLOOR – GIRLS WR 111,



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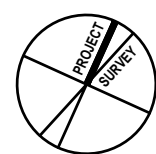


GROUND FLOOR – GIRLS WR 111,

GENERAL NOTES

1. THE INTENT OF THESE PHOTOS IS TO SHOW THE EXISTING CONDITIONS OF THE RENOVATION AREAS SO THAT MECHANICAL CONTRACTOR CAN PROPERLY ASSESS PIPES AND OTHER EQUIPMENT THAT MAY NEED TO BE TEMPORARILY REMOVED FOR WALL PANNELLING WITH GYPSUM BOARDS AS SHOWN ON ARCHITECTURAL DRAWINGS. PIPES THAT CAN BE ENCLOSED BUT MAY REQUIRE ACCESS CUTOUTS ETC.
- WALL PANNELLING WILL BE INSTALLED BY OTHERS. CEILING WILL NOT HAVE ANY PANNELLING BUT WILL BE PAINTED ALONG WITH PIPES DUCTS BY OTHERS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS. CONTRACTORS SHALL READ FRONT END DOCUMENTS AND VISIT SITE TO PROPERLY ASSESS REQUIREMENTS.

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www.emconsulting.com

HWDSB

AMRA J
ARCHITECTS INC.
800-403-9171
PROJECT NO.:
202083 W.H. Ballard Elementary School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

Drawing No:

Details - Demolish

Drawn: MH

Scale: NTS

Date:

Project Number: 24-24

Checked: KS

Drawing No: M1-07

Date:

Revised:



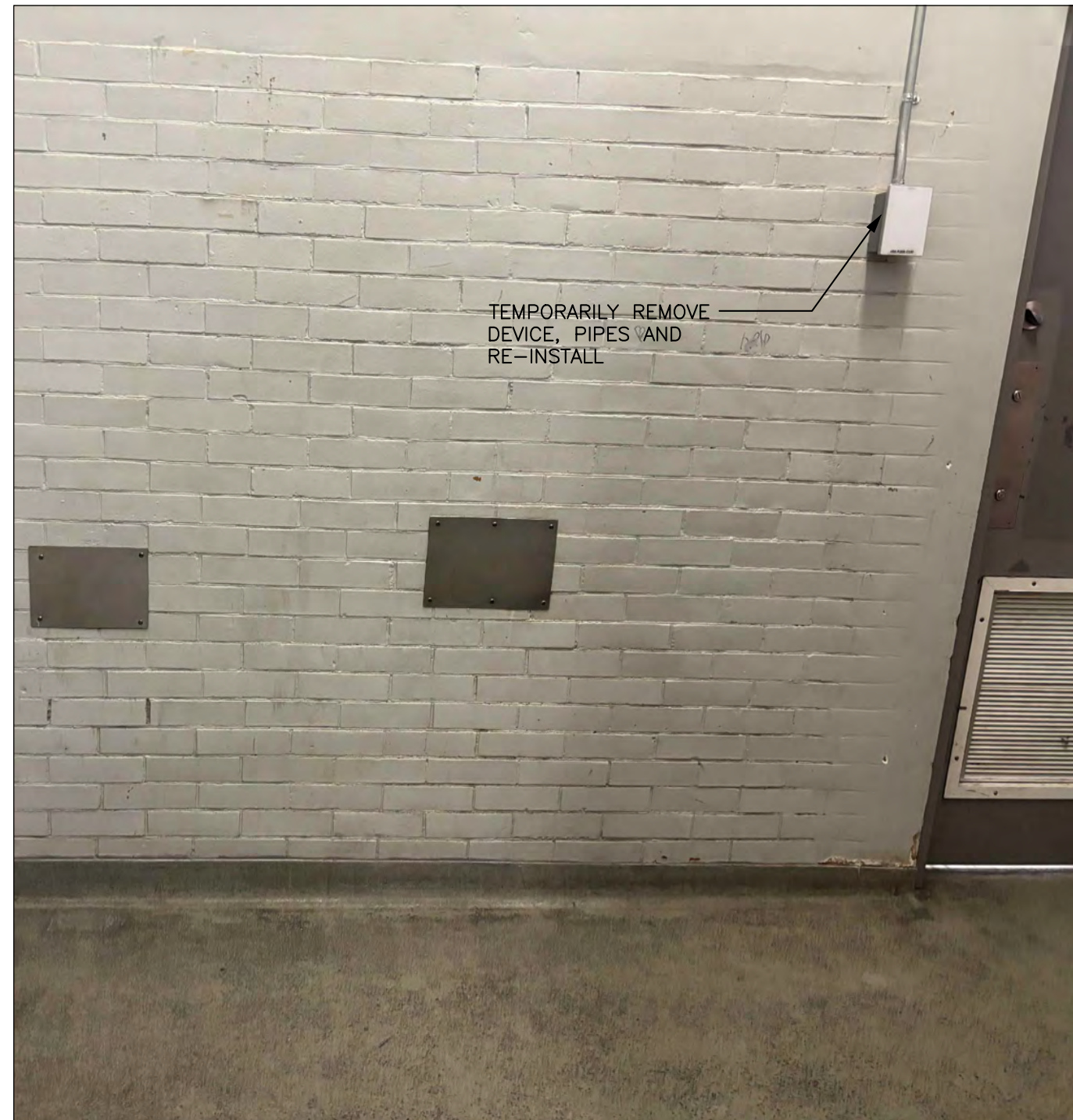
SECOND FLOOR – BOYS WR 211,



SECOND FLOOR – BOYS WR 211,



SECOND FLOOR – GIRLS WR 206



SECOND FLOOR – GIRLS WR 206



SECOND FLOOR – GIRLS WR 206



THIRD FLOOR – BOYS WR 314



THIRD FLOOR – BOYS WR 314



THIRD FLOOR – BOYS WR 314



THIRD FLOOR – GIRLS WR 309



THIRD FLOOR – GIRLS WR 309



THIRD FLOOR – GIRLS WR 309



THIRD FLOOR – GIRLS WR 309

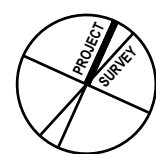


THIRD FLOOR – GIRLS WR 309

GENERAL NOTES

1. THE INTENT OF THESE PHOTOS IS TO SHOW THE EXISTING CONDITIONS OF THE RENOVATION AREAS SO THAT MECHANICAL CONTRACTOR CAN PROPERLY ASSESS PIPES AND OTHER EQUIPMENT THAT MAY NEED TO BE TEMPORARILY REMOVED FOR WALL PANELLING WITH GYPSUM BOARDS AS SHOWN ON ARCHITECTURAL DRAWINGS. PIPES THAT CAN BE ENCLOSED, BUT MAY REQUIRE ACCESS CUTOUPS ETC.
- WALL PANELLING WILL BE INSTALLED BY OTHERS. CEILING WILL NOT HAVE ANY PANELLING BUT WILL BE PAINTED ALONG WITH PIPES DUCTS BY OTHERS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS. CONTRACTORS SHALL READ FRONT END DOCUMENTS AND VISIT SITE TO PROPERLY ASSESS REQUIREMENTS.

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4000 Chelmsford Drive
Dunsmuir, BC V8N 1B1
www.eandmconsulting.com

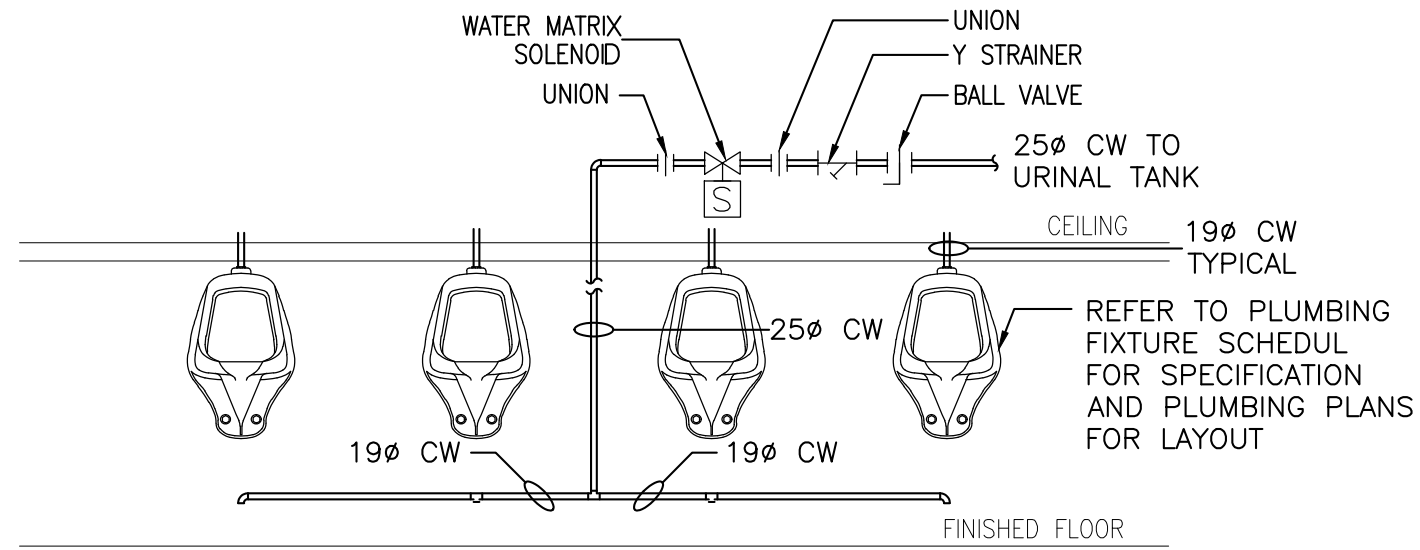
HWDSB

AMRA J
ARCHITECTS INC.
865-303-9101
project no: 202083 W.H. Ballard Elementary School Washrooms & Change Room Renovations & Upgrades 801 Dunsmuir Road, Hamilton, ON

drawing title: DEMOLISHES - DETAIL

drawn: MH scale: NTS
date: project number: 24-24

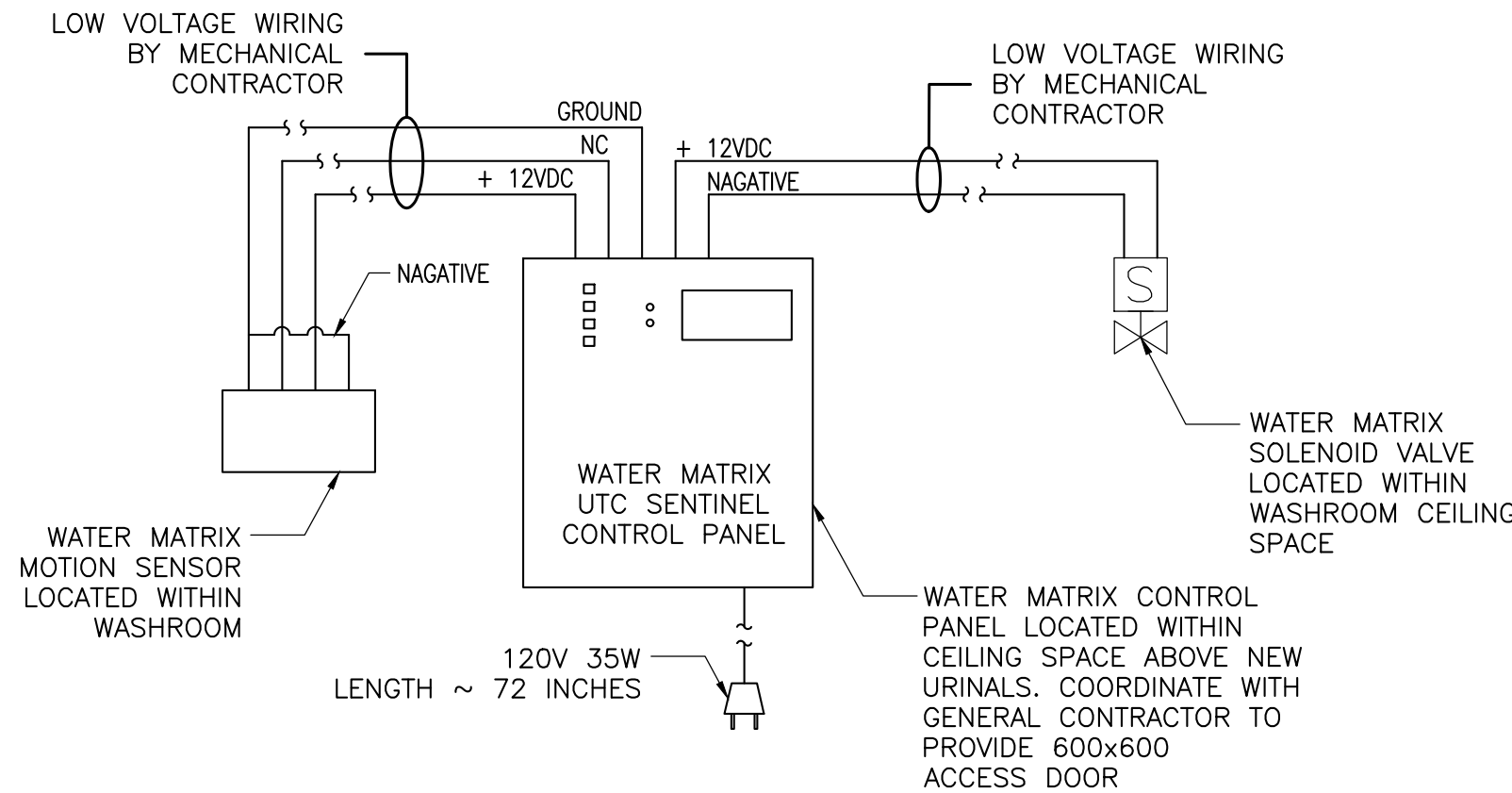
checked: KS drawing no: M1-08
date: 0



NOTE:
MAXIMUM OF FOUR URINALS PER
SOLENOID VALVE AND CONTROL PANEL

1 TYPICAL URINAL PIPING SCHEMATIC

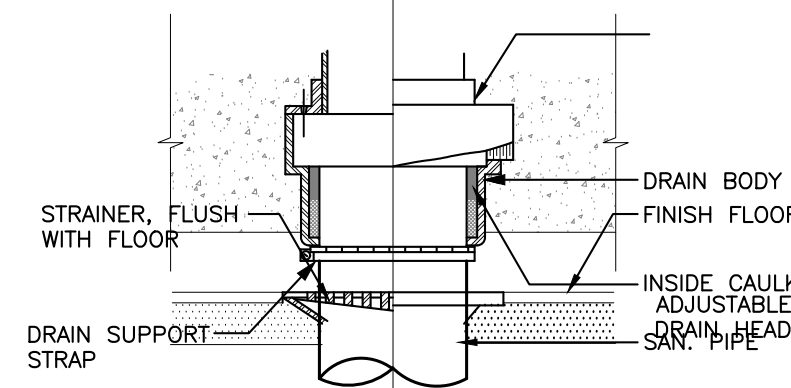
NTS



NOTE:
1. MAXIMUM OF FOUR URINALS PER SOLENOID VALVE AND CONTROL PANEL.
2. PLUMBING CONTRACTOR TO CARRY WATER MATRIX AS A SUB CONTRACTOR.
3. WATER MATRIX CONTACT INFO:
PHONE: (905) 850-8080 OR 1-1800-668-4420

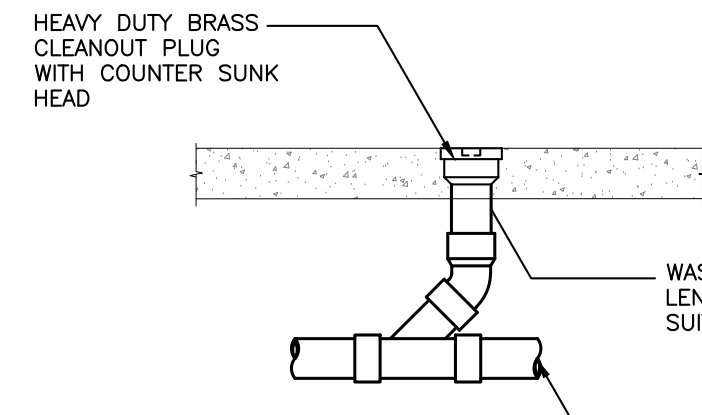
2 WATER MATRIX FLUSH SYSTEM WIRING DIAGRAM.

NTS



3 FLOOR DRAIN DETAIL

NTS



4 CLEANOUT DETAIL

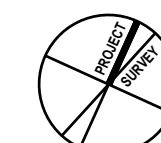
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GRILLE AND DIFFUSER SCHEDULE

TAG	MODEL	SERVICE	SIZE (MM)	FINISH	BORDER	REMARKS
	MANUF.	MODEL				
A	E.H. PRICE	80 SERIES	RETURN/EXHAUST GRILLE	300X150	B-12	SIZE REFER TO DRAWING
B	E.H. PRICE	80 SERIES	RETURN/EXHAUST GRILLE	300X100	B-12	SIZE REFER TO DRAWING
C	E.H. PRICE	80 SERIES	RETURN/EXHAUST GRILLE	150X150	B-12	SIZE REFER TO DRAWING
D	E.H. PRICE	80 SERIES	RETURN/EXHAUST GRILLE	300X300	B-12	SIZE REFER TO DRAWING
E	E.H. PRICE	80 SERIES	CEILING SUPPLY GRILLE	300X300	B-12	SIZE REFER TO DRAWING

NOTE : ① ALUMINUM DAMPERS ARE REQUIRED FOR ALL ALUMINUM GRILLES AND DIFFUSERS.
② UP TO 100 CFM = 6" NECK; 100 CFM TO 225 CFM = 8" ; 225 CFM TO 380 CFM = 10" NECK
③ ALL DIFFUSERS AND GRILLES RATED AT NC30 OR LESS.
④ EACH GRILLE AND DIFFUSER SHALL HAVE BALANCING DAMPER.
⑤ COLOR SHALL BE SELECTED BY THE CLIENT.
⑥ COORDINATE WITH THE GENERAL CONTRACTOR FOR GRILLS INSTALLATION.
⑦ REFER TO ARCH. DRAWING FOR BORDERLESS TYPE.



2 ISSUED FOR TENDER & PERMIT 2025-04-15
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

REVISIONS

24092

Seal KS

E & M Consulting Engineers Inc.

4000 Dundas Street East, Suite 101, Scarborough, ON M1S 1B1

www.eandmconsulting.com

PROJECT NO. 202083 W.H. Ballard Elementary School

Renovations & Upgrades

801 Dunscombe Road, Hamilton, ON

drawing title:

DETAIL

sheet: MH

size: NTS

date:

project number: 24-24

checked: KS

drawing no: M2-00

date:

0

Revised

MECHANICAL SPECIFICATIONS

checked:	DRAWING NO:	
date:	M3-00	0

UNIT HEATER SCHEDULE (HYDRONICS)															
TAG	AREA SERVED	MANUFACTURE	MODEL NUMBER	ARRANGEMENT NUMBER	DIMENSION (L X D X H)	HEATING MBH	GPM	COIL PRESSURE DROP FT. WG	AIR FLOW CFM	MOTOR HP	RPM	MOTOR AMPS	# OF FANS	POWER	ELECTRICAL WIRING INSTRUCTION
CH-1	R-116	ENGINEERED	AIR	CUH-1	24	660X711X241	16.10	1.62	1.52	185	1/25	1050	0.6	1	115/1/60
CH-2	R-112B	ENGINEERED	AIR	CUH-1	21	660X711X241	16.10	1.62	1.52	185	1/25	1050	0.6	1	115/1/60
NOTES 1. EWT=180°F, ΔT= 20°F 2. THE UNIT TO BE SELECTED WITH BUILT-IN THERMOSTAT. 3. UNIT HEATER COLOR SHALL BE SELECTED BY ARCHITECT. ALLOW FOR FACTORY FINISH FINAL COAT.															

MECHANICAL SCHEDULE – BASEBOARD ELECTRIC HEATER									
TAG	MANUFACTURER	MODEL	LOCATION	TYPE	QTY.	FINISH / COLOUR	CAPACITY (KW)	POWER (V/ø/HZ)	ELECTRICAL WIRING SCOPE
BBH 1	OUELLET	OFM0502	JANITOR CLOSET (206B)	OFM	1	STANDARED	0.5	120V/1PH	DIV. 26 TO WIRE UNIT COMPLETELY THROUGH DISCONNECT SWITCH SUPPLIED BY MECHANICAL DIVISION.
BBH 2	OUELLET	OFM0502	JANITOR CLOSET (314A)	OFM	1	STANDARED	0.5	120V/1PH	
BBH 3	OUELLET	OFM0502	STAFF WASHROOM (315)	OFM	1	STANDARED	0.5	120V/1PH	
BBH 4	OUELLET	OFM0502	EX. STAFF WASHROOM (308)	OFM	1	STANDARED	0.5	120V/1PH	
NOTES. 1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS. 2. OR APPROVED EQUIVALENT AS OUTLINED IN THE SPECIFICATIONS 3. BUILT IN THERMOSTAT 4. DISCONNECT SWITCH									

BUILDING AUTOMATION SYSTEM

INCLUDE IN PRICE TO RETAIN SCHOOL BOARDS BAS SYSTEM PROVIDER (SIEMENS CANADA-- JAKE RENDULIC ACCOUNT EXECUTIVE, 1577 NORTH SERVICE ROAD EAST, L6H 0H6, OAKVILLE, ON. MOBILE: 905-541-7433 EMAIL: JAKE.RENDULIC@SIEMENS.COM) TO CONTROL NEW CABINET HEATERS. ALL CONTROL WIRING AND CONDUITS SHALL BE INCLUDED.

BAS PROVIDER SHALL DETERMINE ADDITIONAL SUB PANELS OR ANY OTHER UPGRADES REQUIRED AND PRICE ACCORDINGLY.

SEE PLANS FOR TEMPORARILY REMOVAL OF SOME EXISTING THERMOSTATS AND HEATER CONTROL VALVE (TCV) TO FACILITATE INSTALLATION OF DRYWALL LAYERS ON EXISTING WALLS. THERMOSTATS AND HEATER CONTROL VALVE (TCV) SHALL BE RE-INSTALLED.

BAS POINT LIST

- CH-1,2 CABINET HEATERS – ON/OFF CONTROL OF THE VALVE. VALVE SHALL BE SUPPLIED BY THE BAS SUPPLIER FOR MECHANICAL CONTRACTOR TO INSTALL.
- BAS SYSTEM PROVIDER SHALL SUPPLY AND INSTALL THERMOSTATS SIMILAR TO EXISTING IN THE SCHOOL. SEE PLANS FOR LOCATIONS.

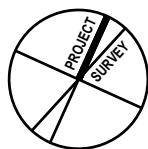
NOMENCLATURE (APPLICABLE ONLY FOR THIS DRAWING)

- MCA – MINIMUM CIRCUIT AMPACITY
MFA – MAXIMUM FUSE AMPACITY
BIS – BUILT-IN START
TS – THERMOSTAT
HP – HORSEPOWER
DISC – DISCONNECT
BAS – BUILDING AUTOMATION SYSTEM
FRAC – FRACTIONAL HORSEPOWER

LEGEND FOR MECHANICAL EQUIPMENT WIRING SCHEDULE

- | | |
|---|---|
| AM – ACTUATOR MOTOR | KMSW – KEY OPERATED MOMENTARY CONTACT SWITCH |
| APS – AIR PROVING SWITCH | KSW/PL – KEY SWITCH(15A, 120V,SPST, LOCK TYPE C/W PILOT LIGHT) |
| AST – AQUASTAT | LS – LEVEL SWITCH |
| BAS – BUILDING AUTOMATION SYSTEM | LWCO – LOW WATER CUT OFF |
| BIS – BUILT IN START | MAG – MAGNETIC STARTER |
| C1 – EEMAC-1 TYPE DISC. SWITCH | MAN – MANUAL STARTER |
| C2 – EEMAC-2 TYPE DISC. SWITCH | MCA – MINIMUM CIRCUIT AMPS |
| C3R – EEMAC-3R TYPE DISC. SWITCH | MCC – MOTOR CONTROL CENTRE |
| C4 – EEMAC-4 TYPE DISC. SWITCH | MFA – MAXIMUM FUSE AMPACITY |
| C12 – EEMAC-12 TYPE DISC. SWITCH | MOCP – MAXIMUM OVER CURRENT PROTECTION |
| COMB – COMBINATION MAGNETIC STARTER | MVS – MONITORED VALVE SWITCH |
| CP – CONTROL PANEL | ODT – OFF DELAY TIMER |
| CSR – CURRENT SENSING RELAY | PB – PUSHBUTTON ON/OFF SWITCH IN STARTER COVER |
| CT – CONTROL TRANSFORMER | PL – PILOT LIGHT IN STARTER COVER |
| CWSV – COLD WATER SOLENOID VALVE | PLG – PLUG |
| DISC – DISCONNECT | PS – PRESSURE SWITCH |
| DM – DAMPER MOTOR | RPB – REMOTE STOP/START PUSHBUTTON |
| DMSW – DAMPER MOTOR SWITCH | RPL – REMOTE PILOT LIGHT |
| DVR – DOUBLE VOLTAGE RELAY | SD – SMOKE DETECTOR (DUCT TYPE) |
| FA – FIRE ALARM SYSTEM CONNECTION | SS – SPEED SWITCH |
| FL – FLOAT SWITCH | SLS & PL – SELECTOR SWITCH AND PILOT LIGHT |
| FLA – FULL LOAD RUNNING AMPERES | SV – SOLENOID VALVE |
| FPU – FIELD PROCESSOR UNIT BY DIV. 15900* | SW – HP RATED TOGGLE SWITCH |
| FPFU/SS – START/STOP CONTROL OUTPUT FROM FPU* | T – THERMOSTAT OR TEMPERATURE SENSING UNIT |
| FPFU/ST – MOTOR RUNNING STATUS INPUT TO FPU* | TC – TEMPERATURE CONTROLLER |
| FRAC – FRACTIONAL HORSEPOWER | TI – TIMER (INTERVAL) |
| FS – FLOW SWITCH | TZ – TIMER (7-DAY) |
| GSV – GAS SOLENOID VALVE | TRS – THERMOSTAT REVERSING SWITCH |
| HP – HORSEPOWER | TS – THERMOSTAT |
| HOA – HAND/OFF/AUTO SWITCH IN STARTER COVER | TOA – TEST/OFF/AUTO SWITCH IN COVER (SPRING RETURN TEST TO OFF) |
| HUM – HUMIDISTAT | VM – VALVE MOTOR |
| HWSV – HOT WATER SOLENOID VALVE | VFD (VSD) – VARIABLE FREQUENCY (OR SPEED) DRIVE |
| IRS – INFRARED SENSOR | |

DO NOT SCALE DRAWING. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE.
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HWDSB



project file:
P02083 W.H. Ballard Elementary School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

drawing title:
MECHANICAL AND ELECTRICAL SCHEDULE

drawn:
MH
date:
project number:
24-24

checked:
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date:
DRAWING NO.:
ME-01 0

Revised

ELECTRICAL LEGEND

POWER & DISTRIBUTION SYSTEMS	
	UTILITY DISCONNECT.
	DELTA STAR POWER TRANSFORMER.
	CIRCUIT BREAKER.
	CIRCUIT BREAKER. (DRAW OUT TYPE).
	CIRCUIT BREAKER. (DRAW OUT TYPE) WITH MICROPROCESSOR BASED TRIP UNIT.
	FUSED DISCONNECT.
	NON FUSED DISCONNECT.
	HI OR LOW VOLTAGE FUSE.
	CUSTOMER OR UTILITY ENERGY METER.
	ELECTRICAL GROUND.
	LIGHTNING ARRESTORS(03) AND GROUND.
	PANELBOARD (SURFACE MOUNT).
	PANELBOARD (RECESSED MOUNT).
	ENCLOSED BUS ASSEMBLY.
	CABLE TRAY (LADDER OR TROUGH)
RECEPTACLE/DIRECT CONNECTIONS	
	120V, 2P, 3W, 15A DUPLEX RECEPTACLE (CSA #5 SERIES).
	120V, 2P, 3W, 15A SPLIT TYPE DUPLEX RECEPTACLE.
	120V, 2P, 3W, 15/20A T-SLOT TYPE DUPLEX RECEPTACLE. CSA#5 SERIES FOR OFFICE AND GENERAL AREAS.
	120V, 2P, 3W, 15A FOUR PLEX RECEPTACLE 2. DUPLEXES UNDER COMMON PLATE).
	120V, 2P, 3W, 15A DUPLEX RECEPTACLE WITH USB CHARGING PORT.
	120V, 2P, 3W SINGLE RECEPTACLE (CSA #5 SERIES).
	250V, 2P, 3W SINGLE RECEPTACLE (CSA #6 SERIES).
	125/250V, 3P, 4W SINGLE RECEPTACLE (CSA #14 SERIES).
	250VDC/600VAC, 3P, 4W SINGLE RECEPTACLE (CSA #L17 SERIES).
	1 PHASE, 3W DIRECT CONNECTION (L, N, G) OR (L1, L2, G).
	3 PHASE, 4W DIRECT CONNECTION (L1, L2, L3, G).
	3 PHASE, 5W DIRECT CONNECTION (L1, L2, L3, N, G).
	1 PHASE, 4W DIRECT CONNECTION (L1, L2, N, G).
	FLOOR FLUSH MOUNTED OUTLET BOX C/W THREE(3) 120V, 2P, 3W, 15A DUPLEX RECEPTACLE, TWO(2) DATA OUTLETS.
	FLOOR FLUSH MOUNTED OUTLET BOX C/W TWO(2) 120V, 2P, 3W, 15A DUPLEX RECEPTACLE
	MODULAR SYSTEM FURNITURE POWER & COMMUNICATION CABLING CONNECTION POINT OUTLET BOX. SUBSCRIPT 'F' DENOTES FLUSH MOUNTED IN FLOOR.
	FLOOR MOUNTED STATIC GROUNDING RECEPTACLE
	HAND DRYER
	THERMOSTAT.
	MAGNETIC DOOR HOLD OPEN DEVICE.
N O T E S	1. DIRECT CONNECTION VOLTAGE INFORMATION INDICATION BY CIRCUIT NO.
	2. UNLESS NOTED OTHERWISE MOUNTING HEIGHT OF ALL OUTLETS IS 455mm (18") A.F.F.
	3. UNLESS NOTED OTHERWISE (IE. 30A, 20A) ALL RECEPTACLES/DIRECT CONNECTIONS RATED FOR 15A.
MISCELLANEOUS.	
	ROOM MODULAR CONTROL PANEL.
	NURSE CALL MASTER CONTROL WITH HANDSET
	NURSE CALL DOME LIGHT (WALL MOUNTED).
	NURSE CALL DOME LIGHT (CEILING MOUNTED).
	PUSH BUTTON
	BELL
SMART BOARD/PROJECTOR REQUIREMENTS	
	15A, 120V, 1P, ISOLATED GROUND RECEPTACLE, 1 DATA OUTLET(COMPUTER) W/ 4 PORT COVER.
	15A, 120V, 1P, ISOLATED GROUND RECEPTACLE, 2 DATA OUTLET(COMPUTER) W/ 4 PORT COVER.
	4"x4" RECESSED BOX W/ BLANK COVER PLATE
CLOCK SYSTEM	
	CLOCK RECEPTACLE. 120V, 15A, 1-GANG RECESSED SINGLE RECEPTACLE
MECHANICAL WIRING SYSTEMS	
	MECHANICAL EQUIPMENT/MOTOR.
	DISCONNECT SWITCH (UNFUSED). SUBSCRIPT INDICATES SIZE. SUBSCRIPT 'N' INDICATES COMPLETE WITH SOLID NEUTRAL.
	DISCONNECT SWITCH (FUSED). SUBSCRIPT INDICATES FUSE RATING. SUBSCRIPT 'N' INDICATES COMPLETE WITH SOLID NEUTRAL.
	MANUAL STARTER COMPLETE WITH PILOT LIGHT.
	MAGNETIC STARTER.
	COMBINATION MAGNETIC STARTER.
	TIME SWITCH.

KITCHEN/LAUNDRY APPLIANCES	
	15A, 120V-1ø DUPLEX RECEPTACLE FOR DISHWASHER, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V-1ø DUPLEX RECEPTACLE FOR FRIDGE, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V-1ø DUPLEX RECEPTACLE FOR UNDER-COUNTER FRIDGE, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V-1ø DUPLEX RECEPTACLE FOR KITCHEN HOOD, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	30A, 120V/208V-1ø(14-30R) RECEPTACLE FOR DRYER, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V-1ø DUPLEX RECEPTACLE FOR WASHER, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V-1ø DUPLEX RECEPTACLE FOR WASHER, AND 30A, 120/280V-1ø(14-30R) RECEPTACLE FOR DRYER, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	50A, 120V/208V-1ø(14-50R) RECEPTACLE FOR STOVE, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	20A, 120V-1ø DUPLEX RECEPTACLE FOR MICROWAVE, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	20A, 120V-1ø DIRECT CONNECTION FOR BUILT-IN OVEN, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	15A, 120V/208V-1ø DUPLEX RECEPTACLE FOR EXHAUST FAN, LOCATED AS PER ARCHITECTURAL DRAWINGS.
	40A, 120V/208V-1ø DIRECT CONNECTION FOR BUILT-IN COOKTOP, LOCATED AS PER ARCHITECTURAL DRAWINGS.
COMMUNICATION SYSTEMS	
	COMBINATION DATA/TELEPHONE OUTLET.
	SECOND DIGIT (NUMBER 2) INDICATES QUANTITY OF TELEPHONE CABLES AND TELEPHONE JACKS IN OUTLET.
	FIRST DIGIT (NUMBER 1) INDICATES QUANTITY OF DATA CABLES AND DATA JACKS IN OUTLET. IF FIRST DIGIT INCLUDES A SUFFIX 'F', IT INDICATES "FITLINK" DATA CABLE AND OUTLET.
	ALL JACKS UNDER ONE(1) COMMON PLATE. REFER TO FLOOR PLANS FOR CABLE AND JACKS QUANTITIES.
	SUBSCRIPT "W" INDICATES C/W VOICE JACK FOR WALL MOUNTED TELEPHONE AT 1500mm A.F.F.
	SUBSCRIPT "P" INDICATES PAY TELEPHONE.
	DATA OUTLET - COMPUTER OR PRINTER.
	TELEPHONE - SUBSCRIPT "P" INDICATES PAY TELEPHONE.
	COMBINATION MULTI-FUNCTION COMMUNICATION OUTLET.
	WIRELESS ACCESS POINT
INTERCOM SYSTEM	
	INTERCOM MASTER STATION
	INTERCOM STATION
PAGING AND SOUND SYSTEM	
	RECESSED CEILING MOUNTED SPEAKER.
	COMBINATION WALL MOUNTED SPEAKER AND TALK-LISTEN PRIVACY SWITCH.
	SPEAKER MOUNTED IN ROOM MODULAR CONTROL PANEL.
	RECESSED WALL MOUNTED SPEAKER.
	RECESSED CEILING MOUNTED SPEAKER COMPLETE WITH HANDSFREE MIC AND INTERCONNECTED TO WALL MOUNTED EMERGENCY PULLCORD ALARM DEVICE.
	SURFACE WALL MOUNTED SPEAKER.
	SURFACE CEILING MOUNTED SPEAKER.
	P.A. CALL SWITCH OR HANDSET.
	ADMINISTRATIVE CONSOLE UNIT OUTLET.
	LOCAL VOLUME CONTROLLER.
	AMPLIFIER.
	MICROPHONE OUTLET
TELEVISION AND A.V.	
	TELEVISION OUTLET.
	AUDIO/VIDEO STATION
SECURITY SYSTEM	
	ELECTRIC DOOR STRIKE.
	SECURITY SYSTEM KEY PAD
	REQUEST TO EXIT BUTTON
	AUTOMATIC DOOR OPERATOR.
	DOOR ACTUATOR
	MAGNETIC DOOR LOCK.
	LOW VOLTAGE POWER SUPPLY FOR THE DOOR STRIKE.
	PUSH BUTTON.
	KEY PAD.
	SECURITY KEYSWITCH FOR ALARM SHUT OFF
	CARD READER.
	INFRA RED AUTOMATIC DOOR OPERATOR.
	EGRESS MOTION DETECTOR.
	AUDIBLE ALARM (BUZZER)
	INTRUSION ALARM WITH STROBE
	GLASS BREAK DETECTOR
	SECURITY SYSTEM MONITORING STATION
	PANIC ALARM
	MOTION DETECTOR. SUBSCRIPT 'G' DENOTES GLASS BREAK
	DOOR/WINDOW CONTACT.
	CCTV CAMERA
	CEILING MOUNTED DOME CAMERA
EMERGENCY CALL ASSISTANCE	
	EMERGENCY CALL BUTTON.
	EMERGENCY CALL ASSISTANCE HORN.
	CEILING MOUNTED DOME LIGHT.
	WALL MOUNTED DOME LIGHT.
	"PUSH TO LOCK" PUSH BUTTON.
	"WAVE TO LOCK" BUTTON.

FIRE ALARM SYSTEM	
	MANUAL PULL STATION C/W PROTECTIVE 9VDC BATTERY OPERATED LEXAN COVER.
	HEAT DETECTOR. COMBINATION, FIXED 57°C AND RATE OF RISE. SUBSCRIPT 'X' INDICATES 88°C FIXED TEMPERATURE.
	HEAT DETECTOR. FIXED ONLY (57°C) SUBSCRIPT 'X' INDICATES 88°C RATING.
	SMOKE DETECTOR. IONIZATION TYPE. SUBSCRIPT "R" INDICATES RELAY BASE.
	120V LOCAL SMOKE ALARM CEILING MOUNTED. IONIZATION TYPE.
	120V LOCAL SMOKE ALARM WITH STROBE.
	CARBON MONOXIDE.
	COMBINATION SMOKE/CARBON MONOXIDE/STROBE.
	AIR DUCT TYPE SMOKE DETECTOR.
	COMBINATION FIRE & SMOKE DAMPER
	REMOTE INDICATING LIGHT.
	FIRE ALARM HORN.
	FIRE ALARM BELL.
	FIRE ALARM STROBE
	COMBINATION FIRE HORN/STROBE LIGHT.
	SUPERVISED VALVE - SPRINKLER. SUBSCRIPT 'P' DENOTES STANDPIPE.
	SPRINKLER FLOW SWITCH.
	SPRINKLER LOW PRESSURE SWITCH.
	MAGNETIC DOOR HOLD OPEN DEVICE.
	RECESSED FIRE ALARM SPEAKER (CEILING MOUNTED).
	RECESSED FIRE ALARM SPEAKER AND STROBE (CEILING MOUNTED).
	FIRE ALARM SPEAKER (WALL MOUNTED).
	FIRE ALARM SPEAKER AND STROBE (WALL MOUNTED).
	SURFACE FIRE ALARM SPEAKER (CEILING MOUNTED).
	SURFACE FIRE ALARM SPEAKER AND STROBE (CEILING MOUNTED).
	FIREFIGHTER HANDSET.
	FIRE ALARM ZONE DEMARCATION
	FIRE ALARM ZONE. NUMBER INDICATES ZONE NUMBER.
LIGHTING	
	LIGHT SWITCH
	SUBSCRIPTS: 2 - DOUBLE POLE (DPST). 3 - THREE WAY. 4 - FOUR WAY. D - DIMMER. K - KEY OPERATED. P - PILOT. S - SPEED SWITCH. LV - LOW VOLTAGE 2LVO - MULTI-ZONE/MULTI-BUTTON LOW VOLTAGE DIMMING SWITCH. NUMBER REPRESENTS NUMBER OF BUTTONS TO BE PROVIDED PLUS DIMMER.
	MULTIPLE SWITCH INSTALLATION UNDER COMMON PLATE.
	LOW VOLTAGE COMBINATION SWITCH AND OCCUPANCY SENSOR.
	LIGHTING FIXTURES. LETTER WITHIN INDICATES TYPE.
	CROSS HATCHING INDICATES WIRED TO EMERGENCY CIRCUIT
	SUBSCRIPT "NL" INDICATES NIGHT LIGHT.
	EXIT SIGNS ARROWS INDICATE DIRECTION
	CEILING MOUNT, SINGLE FACE
	CEILING MOUNT, DOUBLE FACE
	WALL MOUNT, SINGLE FACE
	WALL MOUNT, DOUBLE FACE
	END WALL MOUNT, DOUBLE FACE
	EXIT SIGN & REMOTE HEAD COMBO
	DUAL TECHNOLOGY OCCUPANCY SENSOR LV - DENOTES LOW VOLTAGE W - DENOTES WALL MOUNT
	PHOTOCELL
	DAYLIGHT SENSOR
	WALL MOUNTED EMERGENCY LIGHTS. ARROW DENOTES AIMING DIRECTION.
	BATTERY UNIT (REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS)

MISCELLANEOUS ABBREVIATIONS/SUBSCRIPTS/SYMBOLS	
SUBSCRIPTS	A - MOUNTING HEIGHT FOR DEVICES ABOVE COUNTRY/SINK MILLWORK TO BE 1020mm FROM TOP OF DEVICE TO A.F.F. (UNLESS NOTED OTHERWISE).
	1-3 - TYPICAL NORMAL POWER CIRCUIT NUMBER EG. PANELBOARD LP-1 CIRCUIT NUMBER 3.
	E1-3 - TYPICAL ESSENTIAL POWER CIRCUIT NUMBER EG. PANELBOARD LPE-1 CIRCUIT NUMBER 3.
	1A-3 - TYPICAL CONTROL PANEL CIRCUIT NUMBER EG. PANELBOARD LP-1A CIRCUIT NUMBER 3.
	3P+N - 3 POLE & UNSWITCHED NEUTRAL.
	AFF - ABOVE FINISHED FLOOR.
	A - ABOVE COUNTER
	B - BENCH MOUNTED.
	C - CEILING SPACE MOUNTED.
	CL - CONTROLLED LOAD.
	D/I - WITH DISCONNECT AND VISIBLE ISOLATION.
	EXP/EP - EXPLOSION PROOF.
	F - FLOOR MOUNTED.
	GF - GROUND FAULT CIRCUIT INTERRUPTER.
	IG - ISOLATED GROUND TYPE.
	MH - MOUNTING HEIGHT.
	NL - NIGHT LIGHT
	HL - MOUNT AT 1188mm A.F.F.(TO THE BOTTOM)
	S - SURGE SUPPRESSION TYPE DEVICE.
	T - LOCKING TYPE (TWISTLOCK).
	V - MOUNT IN VERTICAL FACE.
	WG - WIREGUARD.
	WP - WEATHERPROOF TYPE.
	Z - MOUNT 42" (1065mm) A.F.F.
	PTZ - PAN, TILT, ZOOM
	E - EXISTING TO REMAIN.
	ER - EXISTING TO BE RELOCATED.
	RE - RELOCATED DEVICE AT NEW LOCATION
	R - EXISTING TO BE REMOVED
	N - EXISTING TO BE REPLACED WITH NEW
	SR - MOUNTED ON SURFACE RACEWAY
IDENTIFICATIONS	ACB - AIR CIRCUIT BREAKER.
	ATS - AUTOMATIC TRANSFER SWITCH.
	AV - AUDIO VISUAL.
	CM - COFFEE MAKER.
	CR - CASH REGISTER.
	CS - COMMUNICATION STATION.
	DP - DISTRIBUTION PANEL.
	EVR - ELECTRONIC VOLTAGE REGULATOR.
	FR - FRIDGE.
	GEN - ELECTRICAL GENERATOR.
	HD - HAND DRYER
	HWd - HOT WATER DISPENSER
	IM - ICE MACHINE
	MCB - MINATURE CIRCUIT BREAKER.
	MCCB - MOULDED CASE CIRCUIT BREAKER.
	MSB - MAIN SWITCH BOARD (SERVICE ENTRANCE RATED).
	PC - PHOTOCOPIER.
	PF - POWER FACTOR CORRECTION CAPACITOR BANKS.
	PR - PRINTER.
	SB - SMARTBOARD.
	SP - SPLITTER.
	SPD - SURGE PROTECTION DEVICE
	TR - LOW VOLTAGE TRANSFORMER.
	TV - TELEVISION.
	TVSS - TRANSIENT VOLTAGE SURGE SUPPRESSOR.
	UPS - UNINTERRUPTIBLE POWER SUPPLY.
	VM - VENDING MACHINE.
	XFMR - TRANSFORMER.

DRAWING LIST

E0-00	ELECTRICAL LEGEND & DRAWINGS LIST
E1-00	OVERALL PLAN DEMO - ELECTRICAL
E1-01	ENLARGED PLANS DEMO - ELECTRICAL
E2-00	OVERALL PLANS NEW - ELECTRICAL
E2-01	ENLARGED PLANS NEW - ELECTRICAL
E3-00	ELECTRICAL DETAILS & SPECIFICATION
ME-01	MECHANICAL AND ELECTRICAL SCHEDULES

FOR PHASING (PHASES 1, 2 AND 3) REFER TO ARCHITECTURAL DRAWINGS AND HWDSB RFQ DOCUMENT.

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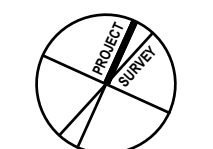
1. THE ELECTRICAL CONTRACTOR SHALL, AS PART OF HIS WORK, PERFORM ALL RELATED DEMOLITION, REMOVALS, RELOCATIONS, REPAIRS, RECONSTRUCTION, DISTRIBUTION AND OTHER EQUIPMENT AND RELATED WORK, INCLUDING NEW WORK NECESSARY TO COMPLETE THE PROJECT.
2. IT IS SUGGESTED THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR THE DEMOLITION OF THE FIELD CONDITIONS TO DETERMINE THE EXTENT OF THE DEMOLITION AND NEW WORK PRIOR TO SUBMITTING BIDDING.
3. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL TECHNICAL DETAILS OF EQUIPMENT TO BE REMOVED. THERE IS NO WARRANTY BY THE OWNER. THE TENDER, DOCUMENTS, CONTRACTOR SHALL ENGAGE THE CONSULTANTS FOR THE REMOVAL OF THE EQUIPMENT. THE CONTRACTOR SHALL MAKE A LIST OF ALL EQUIPMENT TO BE REMOVED. THE LIST SHALL BE WITH ALL FOLLOWING INFORMATION:
 - ** MAKE/MODELS
 - ** MANUFACTURER AND DATE WHEN ABANDONED
 - ** TECHNICAL DETAILS
 - ** LOCATION
4. THIS LIST SHALL BE SUBMITTED TO THE OWNER FOR RECORD PURPOSES.
5. THE ELECTRICAL CONTRACTOR SHALL NOT DISCONNECT EQUIPMENT AND ELECTRICAL CIRCUITS IN THE REMOVAL AREA OR IN ANY THE REMAINING BUILDING WITHOUT PRIOR NOTIFICATION AND APPROVAL. THE ELECTRICAL CONTRACTOR SHALL BE TAKEN TO MINIMIZE DISTURBANCE TO THE REMAINING AREA.
6. ITEMS REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR SALE AND IF NOT PURCHASED BY THE OWNER, THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF THE MATERIAL FROM THE SITE IN ACCORDANCE WITH THE REGULATIONS. THE ELECTRICAL CONTRACTOR SHALL DELIVER ITEMS ACCEPTED BY THE OWNER TO DESIGNATED LOCATIONS AS DIRECTED BY THE OWNER.
7. IN ALL CASES WHERE WORK IS REMOVED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT AND LABOR TO THE OPERATOR OF THE REMOVAL AREA. THE SYSTEMS CONNECTING TO OR FROM THE PART REMOVED, INCLUDING ALL WORK IN THE STRICT ADJACENCY WITH APPLICABLE CODES.
8. ALL WRING, CABLES AND FEEDERS INCLUDING BOTH CONNECTED TO DEVICES AND EQUIPMENT TO BE REMOVED AND REMAINING SHALL BE REMOVED IN PLACE SHALL BE REMOVED BACK TO THEIR SOURCES. DISCONNECTED OPENED CONDUITS AND/OR WRING SHALL, WHERE NECESSARY, BE RE-CIRCUIT AROUND THE REMAINING PARTS OF THE PARTS OF THE BUILDING SYSTEM IN FULL SERVICE.
9. ALL EXISTING CONDUITS WHICH HAVE BEEN ABANDONED OR ARE UNUSED SHALL BE REMOVED.
10. PROVIDE BLANK METAL COVER PLATES FOR ALL JUNCTION/DEVICE BOXES NO LONGER IN USE THAT ARE EMBEDDED IN WALLS OR CEILING. PROVIDE PLUGS FOR ALL PANELS WHERE CONDUIT HAS BEEN REMOVED. THE REMOVED PARTS BE PAINTED TO MATCH EXISTING CONDITIONS.
11. WHERE REQUIRED COORDINATE WITH THE CONSULTANTS/OWNER FOR EXISTING PARTITIONS TO BE REMOVED TO ACCESS THE EQUIPMENT OR EXISTING BRANCH CIRCUITS SERVING DEVICES IN THE AREA TO BE REMOVED. THE ELECTRICAL CONTRACTOR SERVING EXISTING DEVICES IN OTHER AREAS TO REMAIN.
12. LIGHTING FIXTURES: REMOVE LIGHTING FIXTURES AND SWITCH CONTROL WHEN THE FIXTURE TO BE REMOVED IS SERVED BY A CIRCUIT THAT SUPPLIES FIXTURES IN OTHER AREAS THAT ARE TO REMAIN. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING AREAS FIXTURES.
13. POWER RECEPTACLES: REMOVE RECEPTACLES, WHEN THE AREA TO BE REMOVED IS SERVED BY A CIRCUIT THAT SUPPLIES RECEPTACLES IN OTHER AREAS THAT ARE TO REMAIN. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING RECEPTACLES.
14. FIRE ALARM SYSTEM: COORDINATE AND CONSULT WITH THE CONSULTING ENGINEER OR THE FIRE ALARM SPECIALIST OR THEIR QUALIFIED REPRESENTATIVE FOR ALL FIRE ALARM SYSTEMS TO BE REMOVED. THE FIRE ALARM SPECIALIST SHALL MAINTAINED EXISTING FIRE ALARM SYSTEMS AND SPECIFICALLY IDENTIFY THE AREAS WHICH ARE NOT INCLUDED IN THE SCOPE OF THIS PROJECT.
15. ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED DRAWINGS WHEN PARTS OF THE BUILDING ARE AFFECTED BY THE DEMOLITION AND/OR NEW WORK. THE ELECTRICAL CONTRACTOR SHALL BE LABELED AS SPARE.
16. FOR EXISTING DEVICES/CIRCUITRY THAT ARE INDICATED TO BE REMOVED BACK TO POINT OF ORIGIN, THESE ITEMS SHALL BE REMOVED BACK TO POINT OF ORIGIN UNLESS THEREWILL BE EXISTING EQUIPMENT ON THE SAME CIRCUIT OR IN THE OUTSIDE AREA OF WORK THAT ARE TO REMAIN, IN WHICH CASE, THE ELECTRICAL CONTRACTOR DEVICES/CIRCUITRY IN AREA OF WORK BACK TO POINT OF ORIGIN. EXISTING DEVICES/CIRCUITRY IN SURROUNDING AREAS THAT ARE TO REMAIN ARE TO BE KEPT ENERGIZED, FOR THE REMOVAL OF THE EQUIPMENT IN AREA OF WORK COORDINATE AND SCHEDULE WITH OWNER.

- 1 EXISTING FIRE ALARM CONTROL PANEL SIMPLEX 4100ES.
- 2 EXISTING BOGEN MULTICOM-2000 PAGING RACK.
- 3 RELOCATE EXISTING FIRE ALARM PULL STATION TO NEW WALL AS SHOWN ON NEW PLANS.
- 4 RELOCATE EXISTING EMERGENCY LIGHT TO NEW WALL AS SHOWN ON NEW PLANS, EXTEND WIRING AS REQUIRED.
- 5 RELOCATE EXISTING EXIT SIGN, FA REMOTE INDICATORS, JUNCTION BOXES, CONDUITS & WALL MOUNTED DEVICE TO SUITE NEW DOOR & WALLS. REFER TO PHOTO #1 ON THIS DRAWING FOR DETAIL. EXTEND WIRING AS REQUIRED.



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2	ISSUED FOR TENDER & PERMIT	2025-04-1
1	ISSUED FOR PERMIT	2025-03-2
No.	DESCRIPTION	DATE

REVISIONS	
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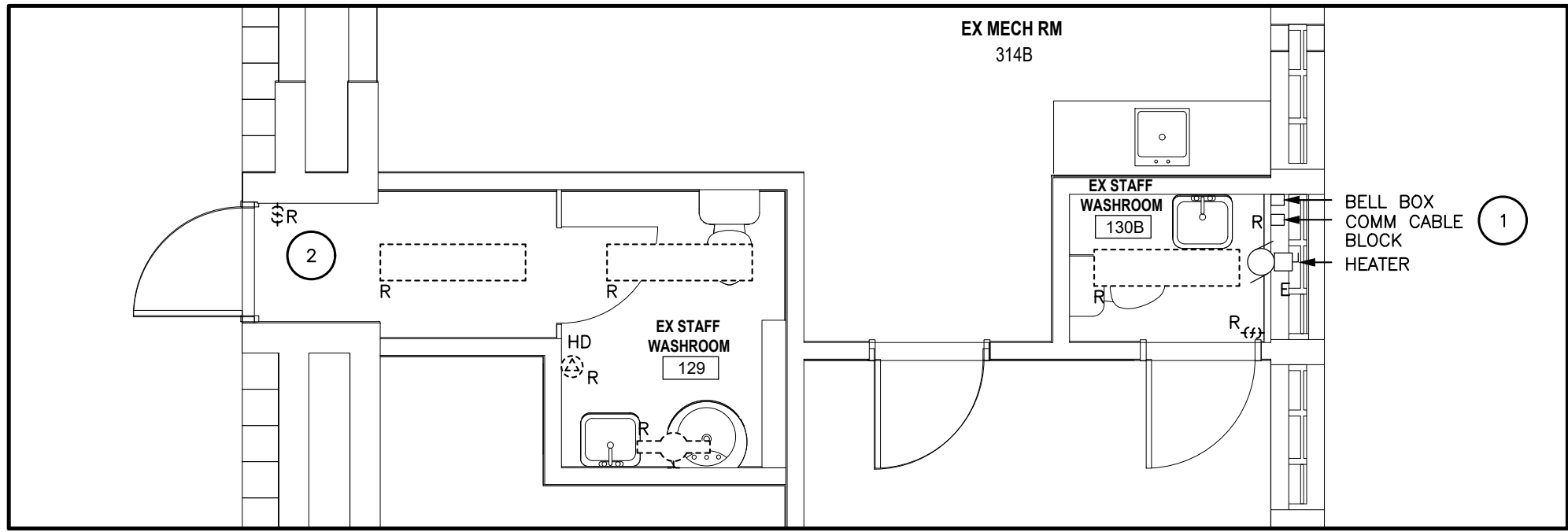


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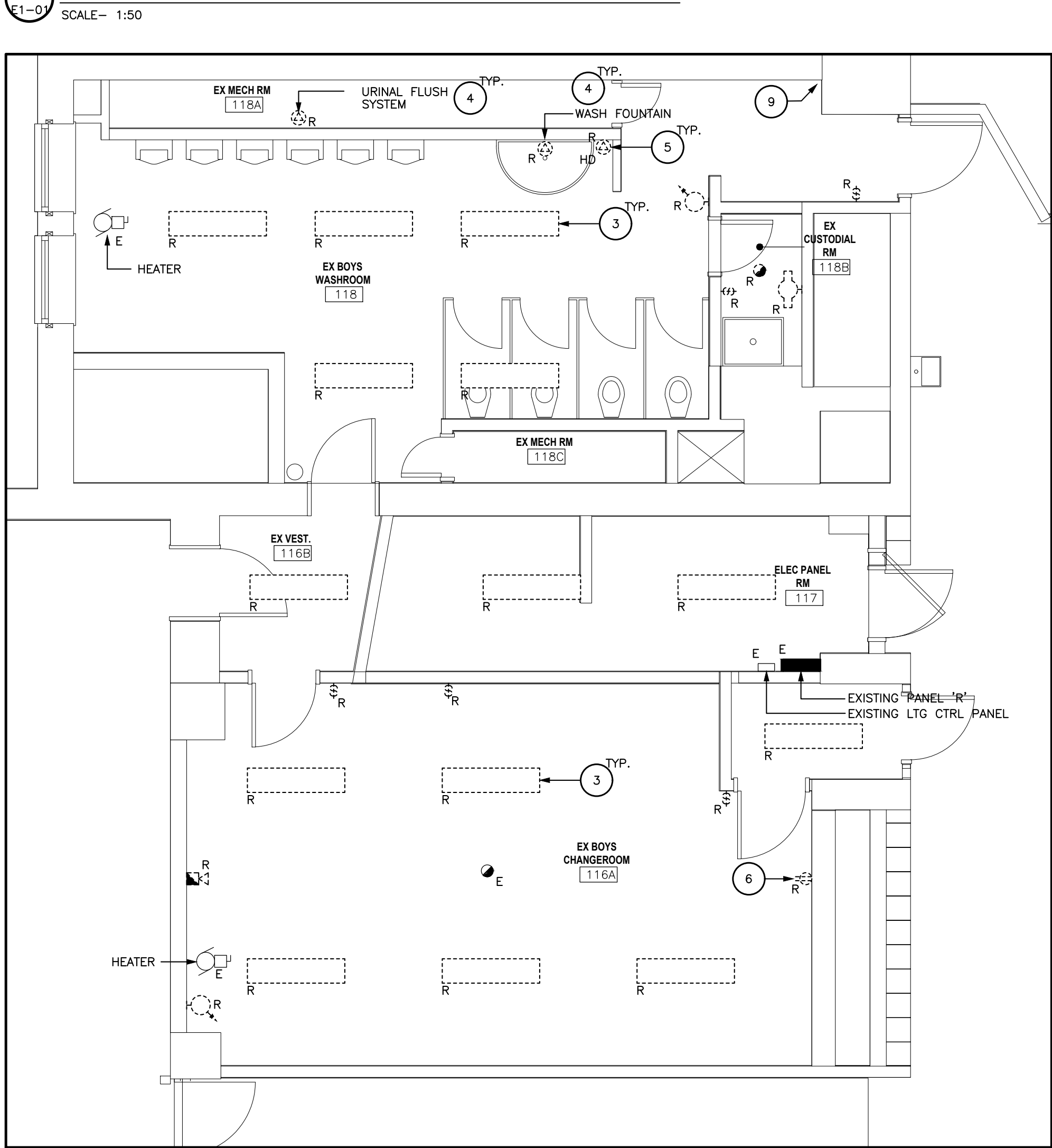
project title:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmore Road, Hamilton, ON

drawing title:
OVERALL PLANS DEMO -
ELECTRICAL

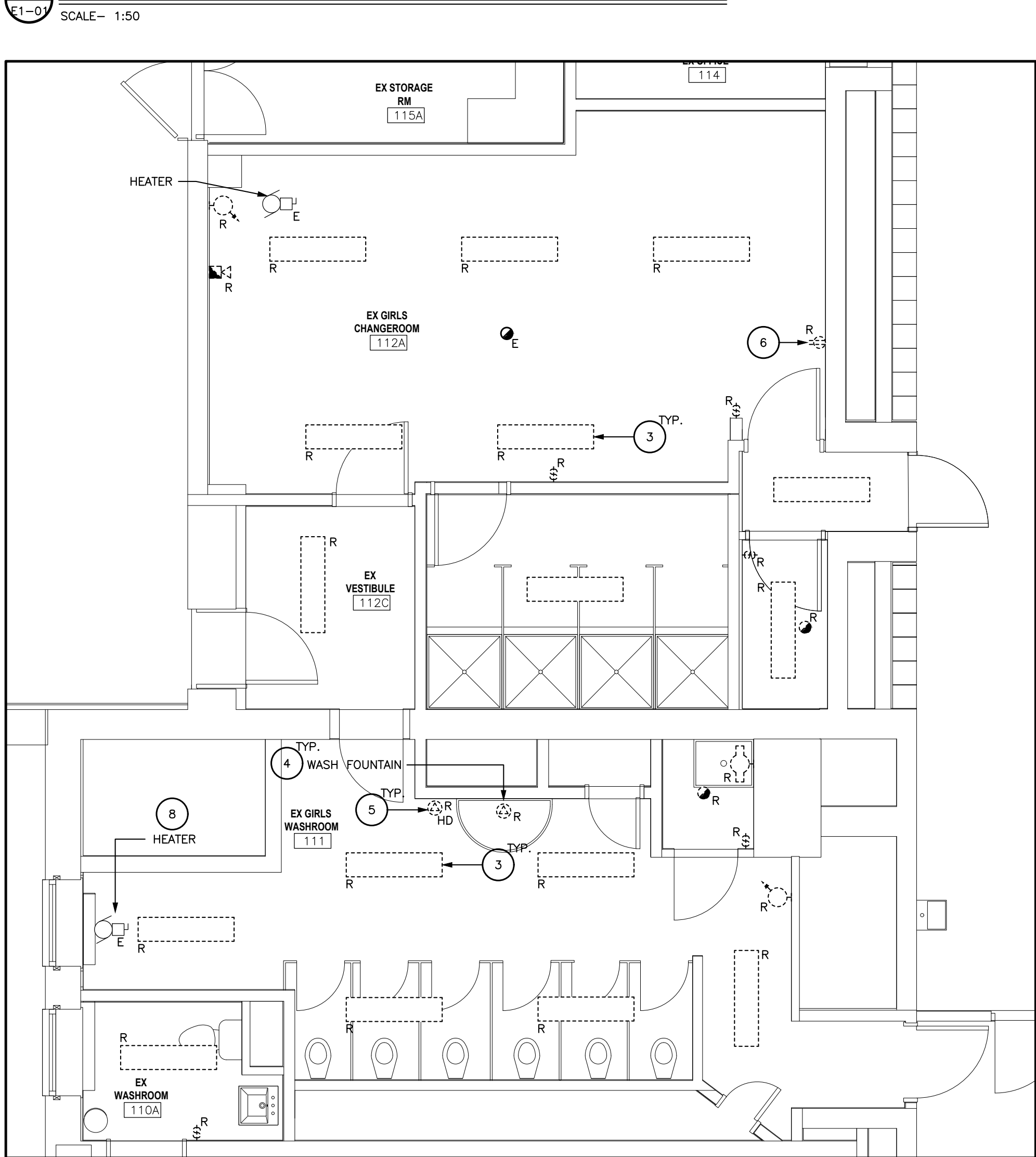
drawn: MD	scale: AS SHOWN	
date:	project number: 24-24	
checked: MD	DRAWING NO: E1-00	0
date:		Revision:



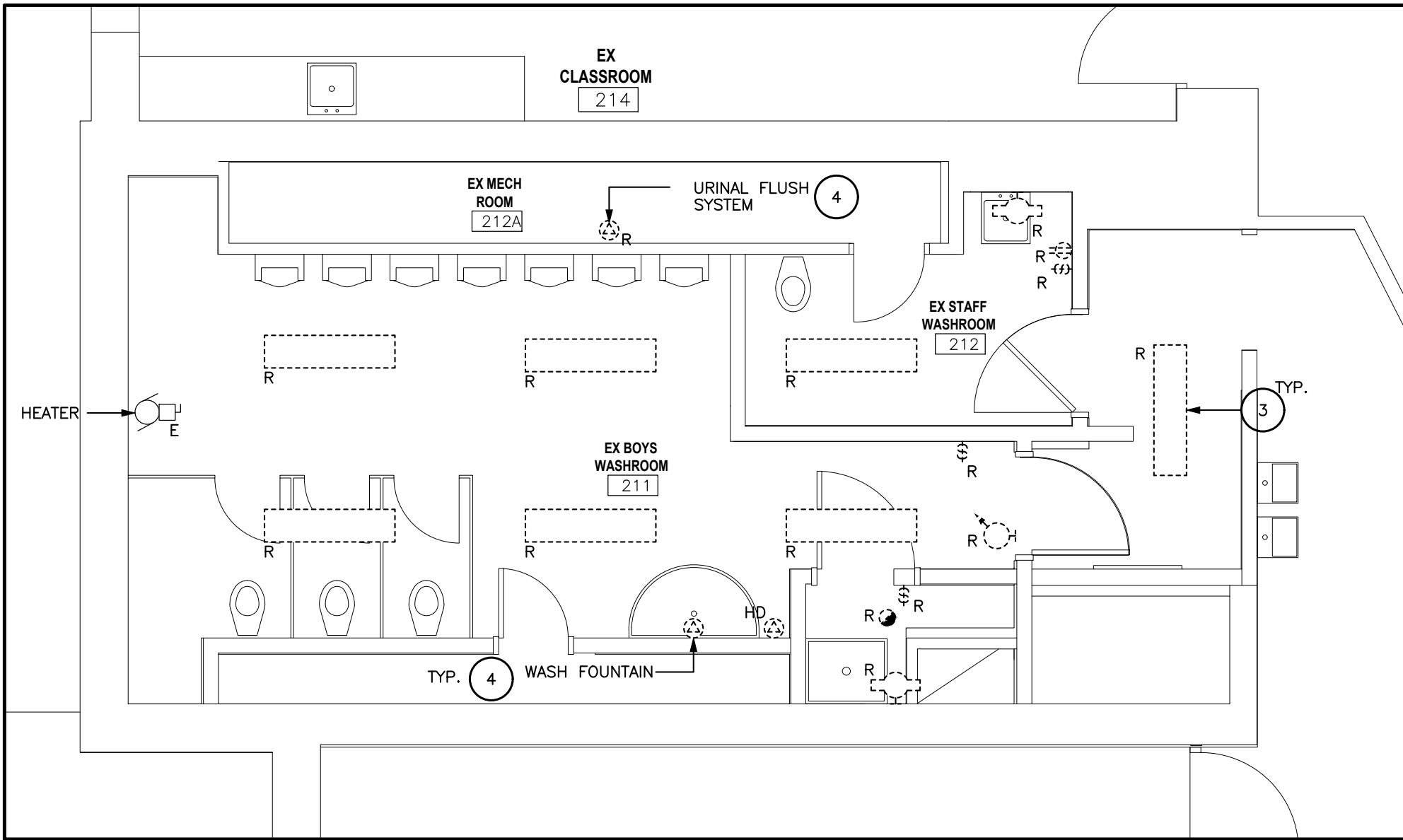
GROUND FLOOR – WR 129, WR 130B



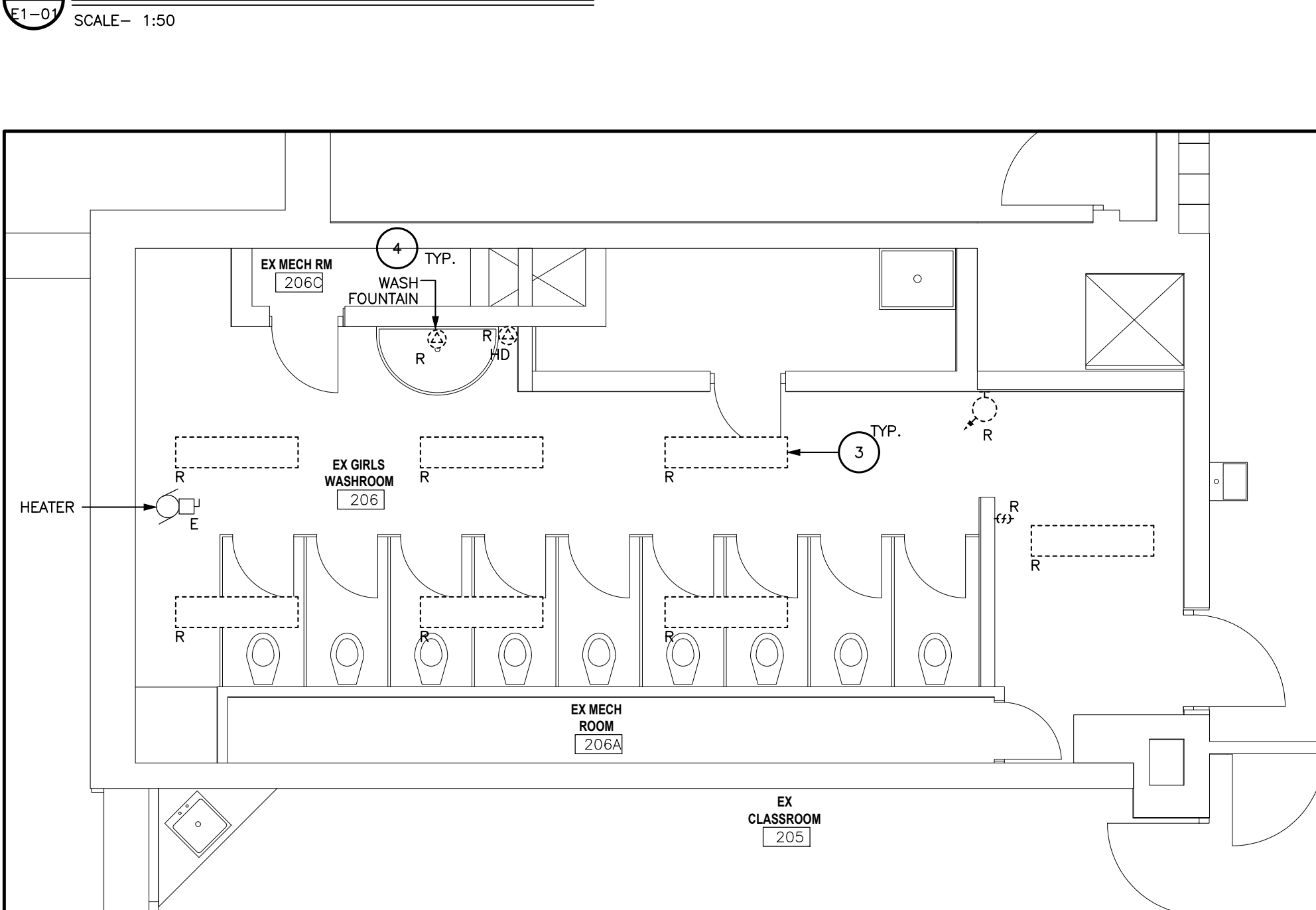
GROUND FLOOR – WR 118, WR 116, RM 117



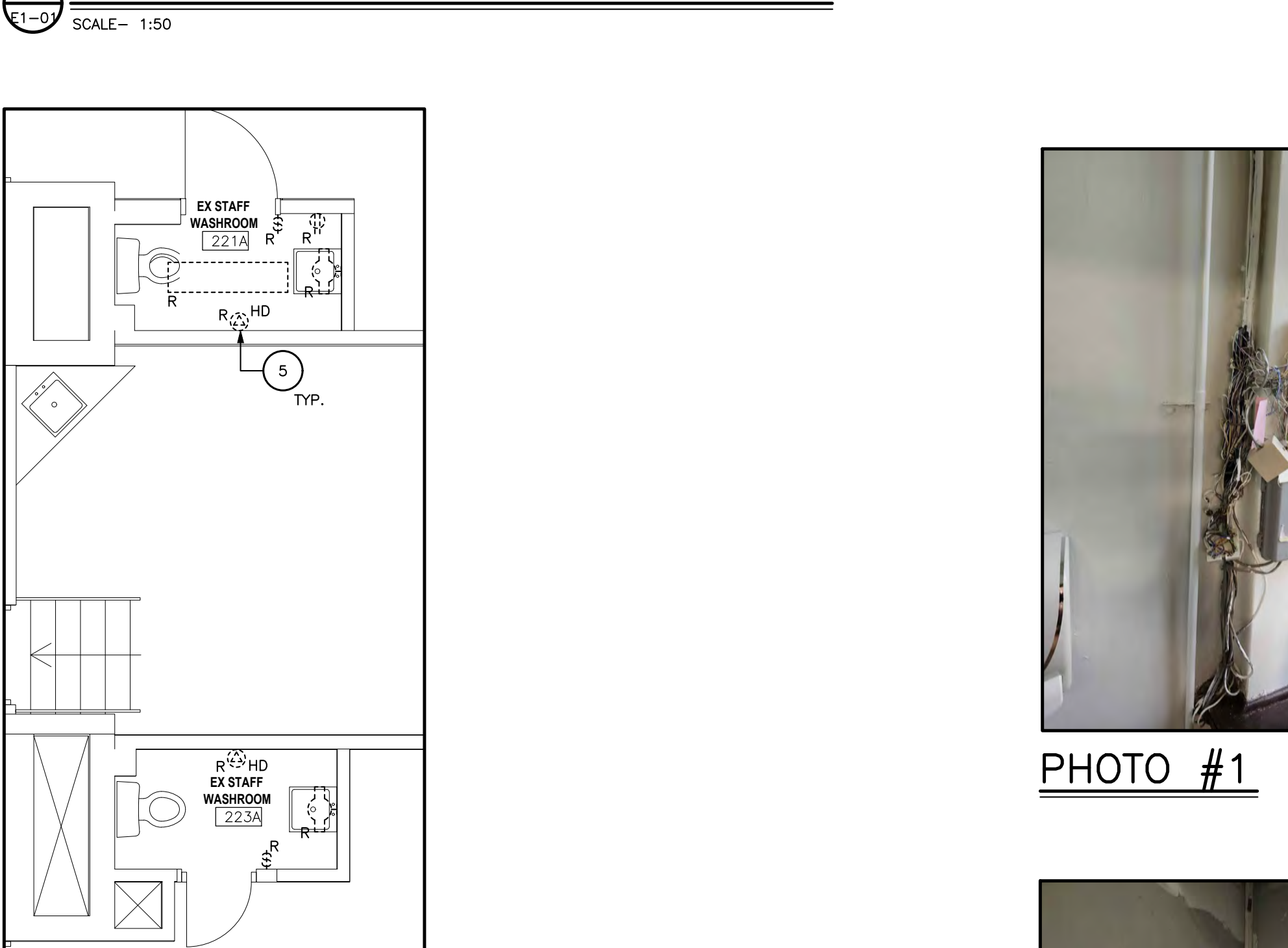
GROUND FLOOR – WR 110A, WR 111, RM 112A, RM 112B



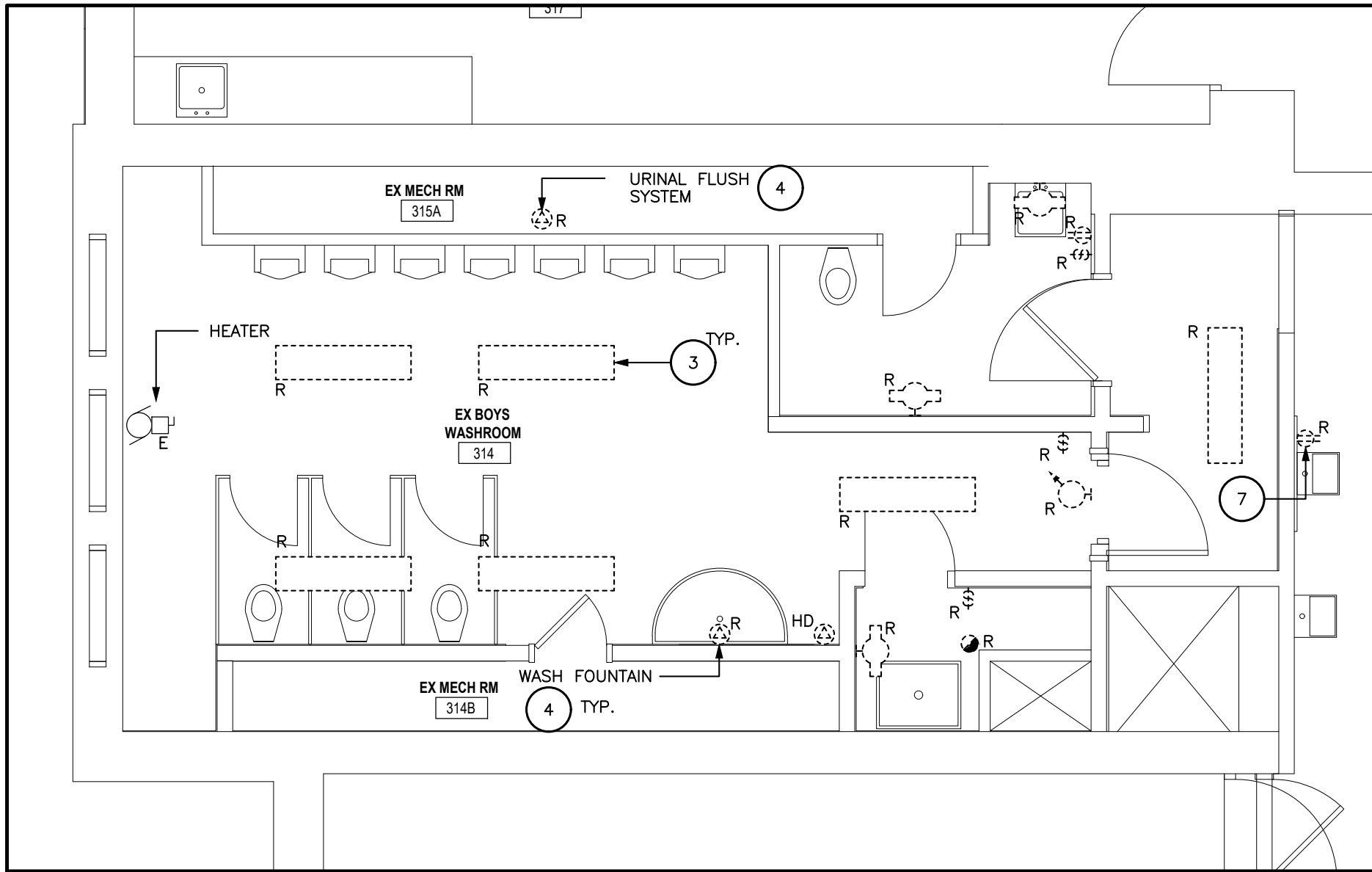
SECOND FLOOR – WR 211



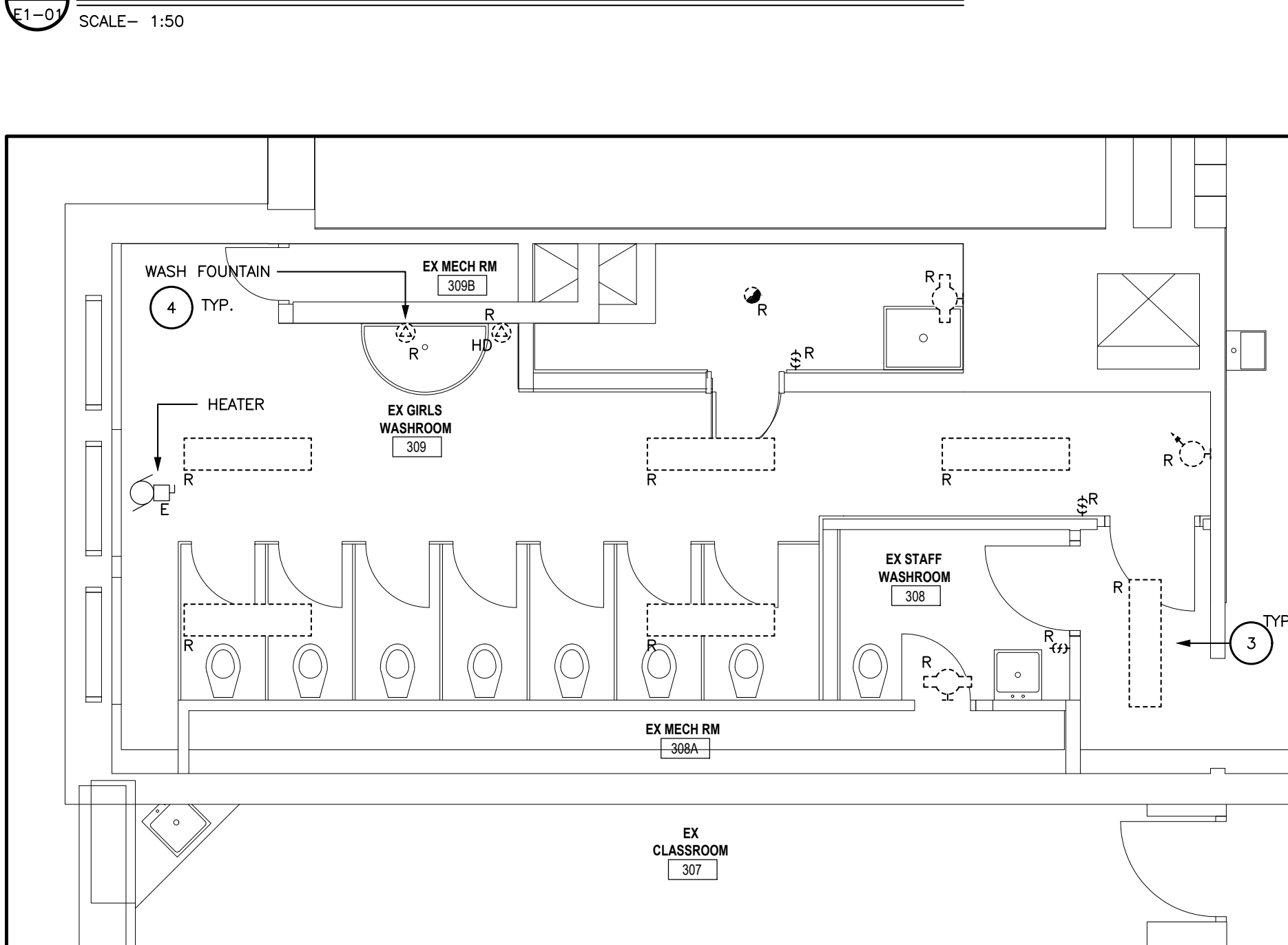
SECOND FLOOR – WR 206, RM 206B



SECOND FLOOR – WR 221A, WR 223A



THIRD FLOOR – WR 314, WR 315, RM 314A



THIRD FLOOR – WR 309, WR 308

DRAWING NOTES

- EXISTING BELL DEMARCATION BOX TO REMAIN. INVESTIGATE WHETHER THE COMMUNICATION CABLE BLOCK IS REDUNDANT AND DISCONNECT AND REMOVE IF REDUNDANT. REFER TO PHOTO #1 & #2 ON THIS DRAWING. PROVIDE WIREMOLD RACEWAYS TO HIDE AND RE-ROUTE EXISTING CABLE IN WASHROOM.
- PROVIDE WIREMOLD RACEWAYS TO ENCLOSE EXISTING SURFACE WIRING WITHIN WASHROOM. PROVIDE SEPARATE RACEWAYS FOR 120V VS LOW VOLTAGE. REFER TO PHOTO #3 ON THIS DRAWING FOR MORE INFO.
- DISCONNECT & REMOVE LIGHTING & LIGHTING CONTROLS. RE-USE CIRCUIT FOR NEW LIGHTING.
- DISCONNECT & REMOVE POWER TO URINAL WATER CONTROLS & WASH FOUNTAIN. RE-USE CIRCUIT FOR NEW AS PER NEW DRAWINGS.
- DISCONNECT & REMOVE POWER TO HAND DRYER. RE-USE CIRCUIT FOR NEW AS PER NEW DRAWINGS.
- DISCONNECT & REMOVE RECEPTACLE AND REPLACE WITH NEW AS PER NEW DRAWINGS. EXISTING CIRCUIT TO REMAIN.
- DISCONNECT & REMOVE RECEPTACLE AND SURFACE CONDUITS FOR WATER FOUNTAIN BACK TO SOURCE TO ALLOW FOR NEW WALL OPENING.
- DISCONNECT POWER & SURFACE CONDUIT TO HEATER TO FACILITATE FINISHING OF EXISTING WALLS.
- PROVIDE NEW WIREMOLD OR EQUIVALENT SURFACE RACEWAY TO REPLACE EXISTING LOW VOLTAGE SURFACE RACEWAY. REFER TO PHOTO #4 ON THIS DRAWING FOR DETAIL.

GENERAL NOTES

- ALL EXISTING LIGHTING CONTROL SWITCHES THAT ARE CONNECTED TO EXISTING LIGHTS THAT ARE BEING DEMOLISHED SHALL BE DISCONNECTED & REMOVED.
- IN GROUP WASHROOMS 111, 118, 206, 211, 308, 314 ALL EXISTING CONDUITS SHALL BE TAKEN OFF TO FACILITATE INSTALLATION OF NEW DRYWALL/TILE. RE-INSTALL BACK ON WALL AFTER COMPLETION OF WALLS. REFER TO PHOTOS(4,#5) IN THIS DRAWING BELOW FOR SOME, BUT NOT ALL, OF THE CONDUITS. CONTRACTOR SHALL GO TO SITE DURING BIDDERS WALKTHROUGH TO CONFIRM THE EXTENT OF THE WORK AND INCLUDE IN PRICE.
- ANY WIRING/CONDUITS LEFT AS PART OF ROOM/WALL DEMOLITION SHALL BE RELOCATED TO REMAINING WALLS IN AN ORDERLY AND NEAT FASHION. EXTEND WIRING/CONDUITS AS REQUIRED.

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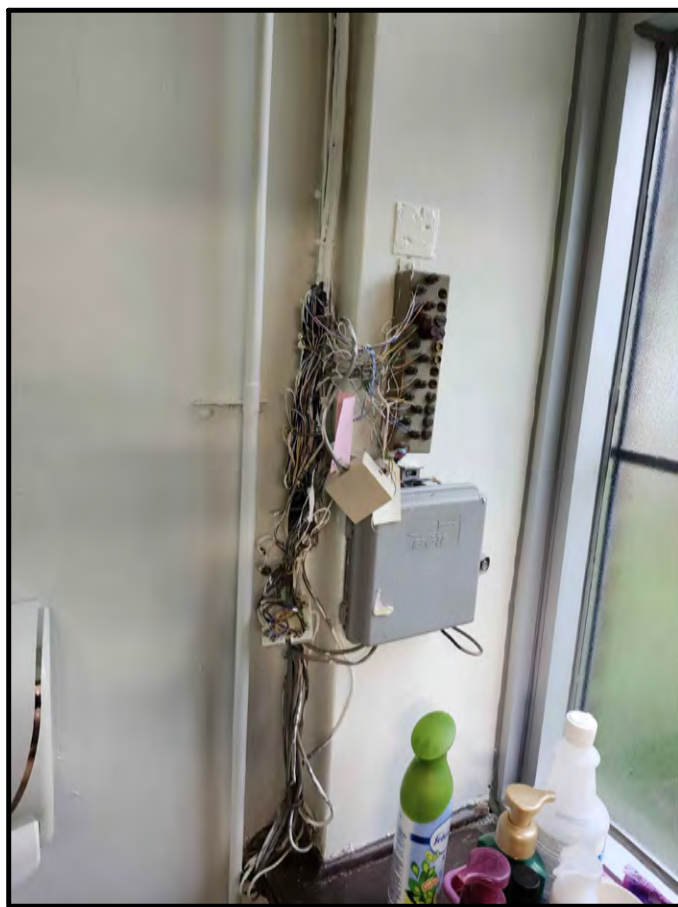
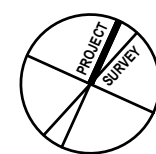


PHOTO #1

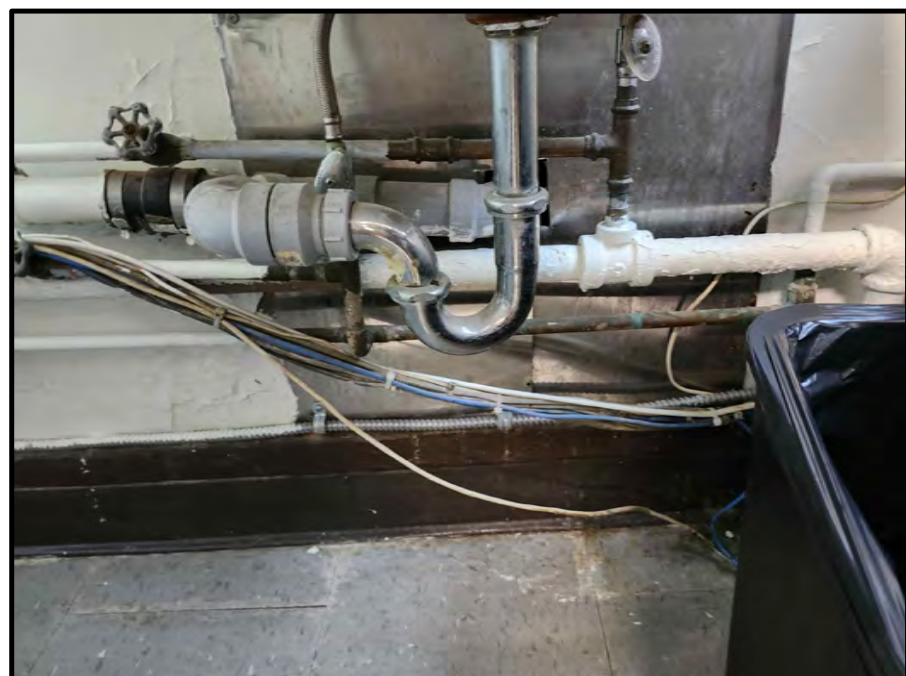


PHOTO #2



PHOTO #3

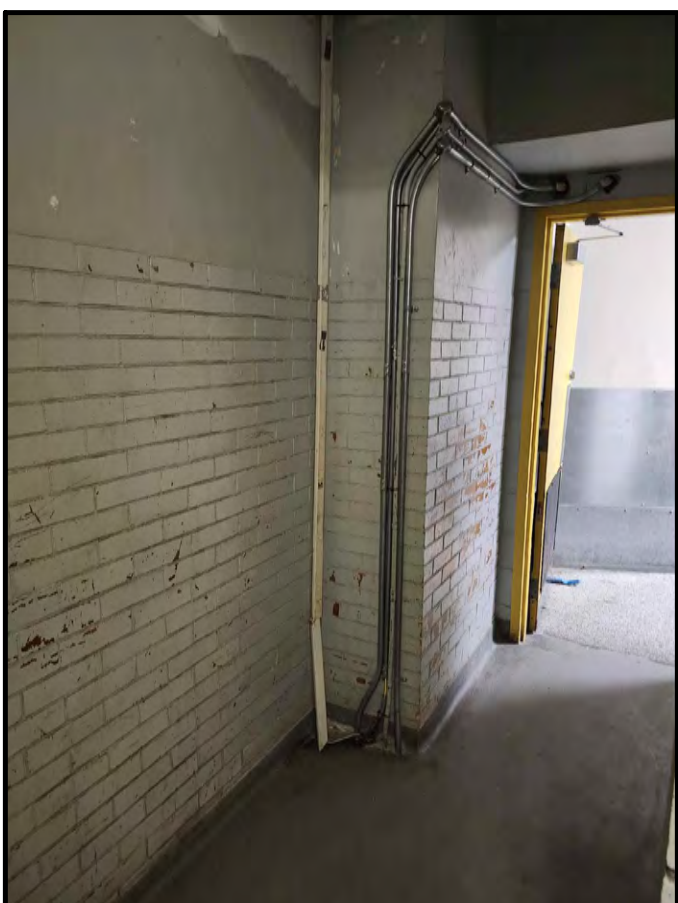


PHOTO #4



PHOTO #5

2 ISSUED FOR TENDER & PERMIT 2025-04-10
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

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905-609-0121

Project No.:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

Drawing Title:
ENLARGED PLAN #1 - DEMO

Drawn:
MD

Scale:
NTS

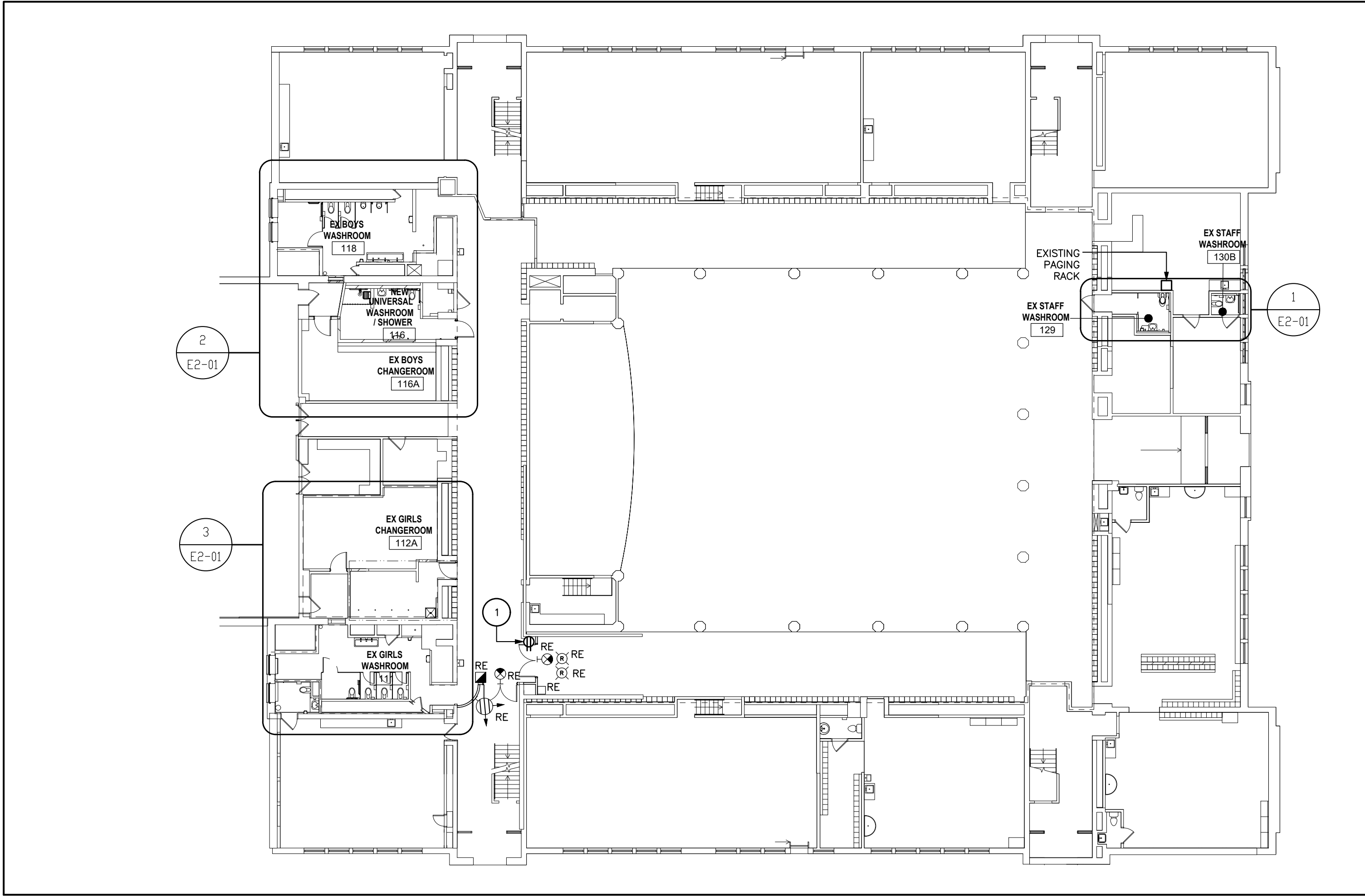
Date:
24-24

Project Number:
24-24

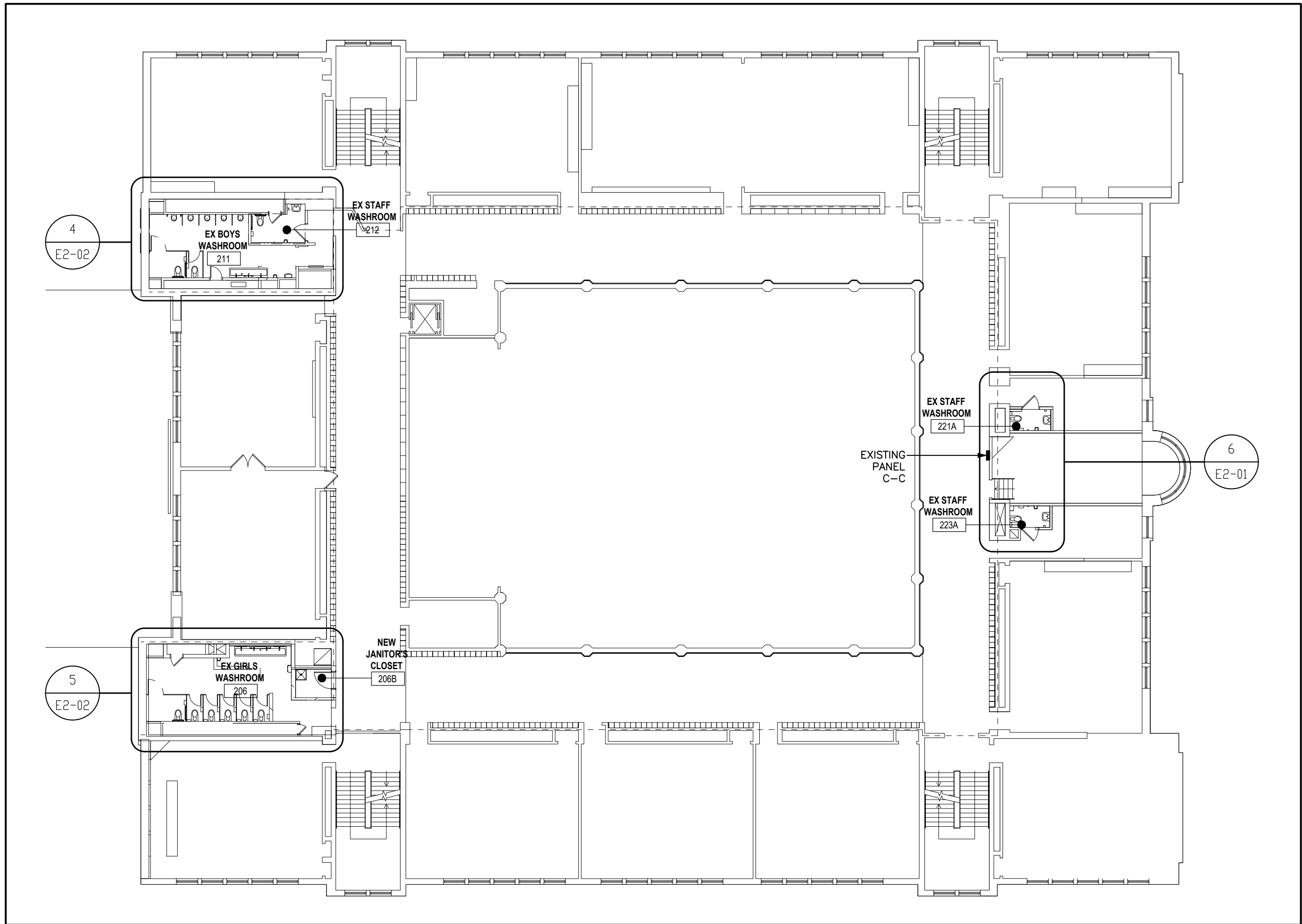
Checklist:
MD

Drawing No.:
E1-01 0

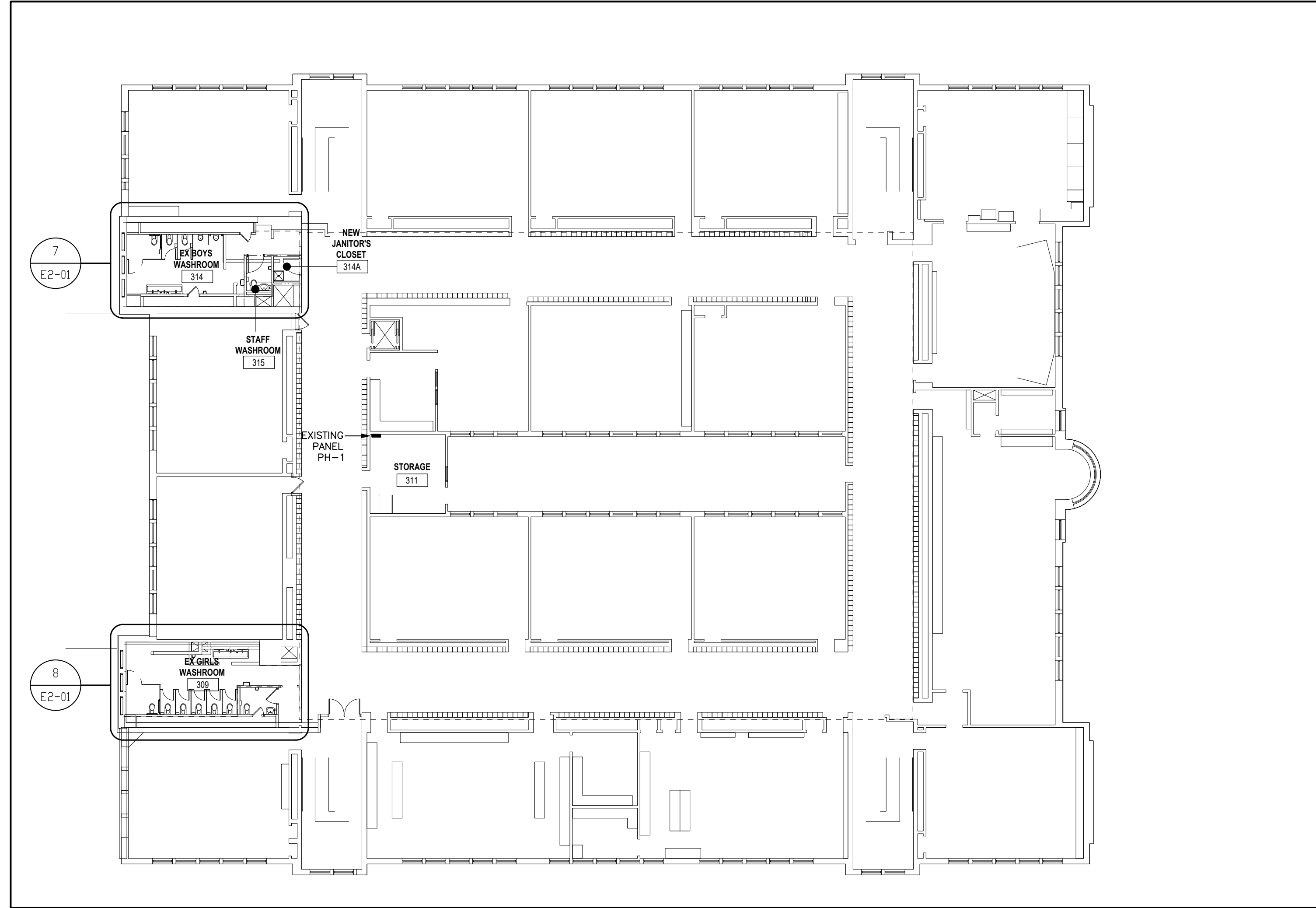
Revised:



1 GROUND FLOOR PLAN NEW – ELECTRICAL
SCALE- 1:200



2 SECOND FLOOR PLAN NEW – ELECTRICAL
SCALE- 1:200

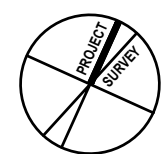


3 THIRD FLOOR PLAN NEW – ELECTRICAL
SCALE- 1:200

DRAWING NOTES

- 1 CONNECT NEW RECEPTACLE TO EXISTING CIRCUIT THAT WAS CONNECTED TO DEMOLISHED RECEPTACLE.

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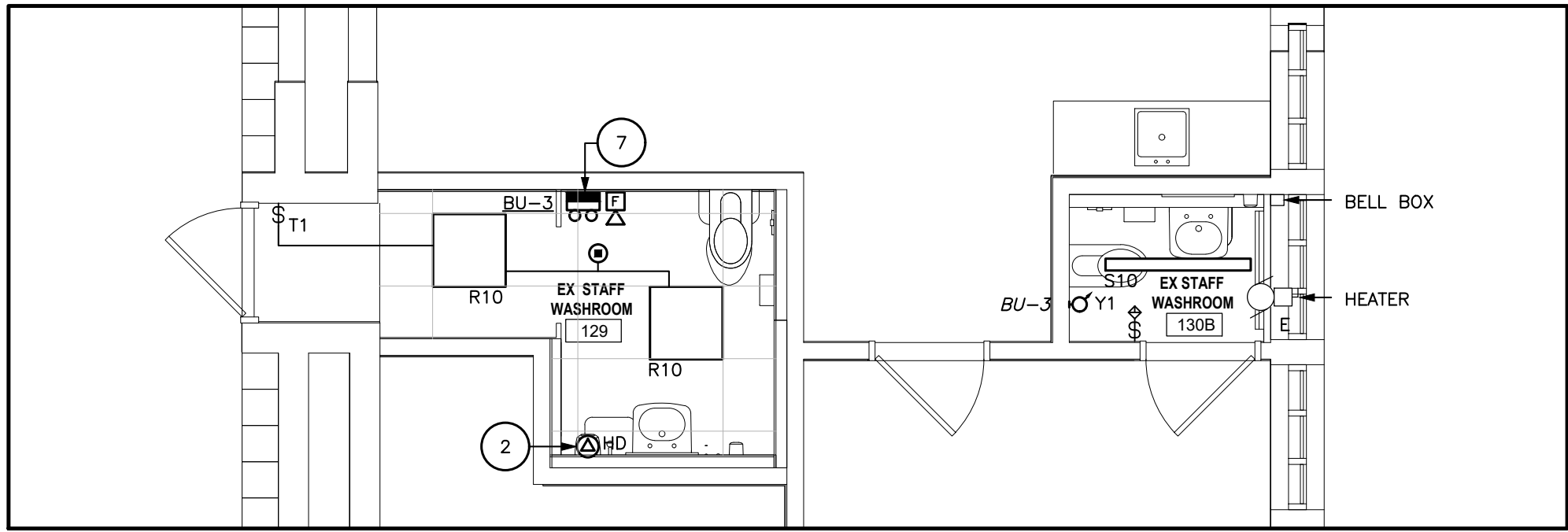
Project No: P102083 W.H. Ballard Elementary School Washrooms & Change Room Renovations & Upgrades
801 Dunscombe Road, Hamilton, ON

Drawing Title: OVERALL PLANS NEW- ELECTRICAL

Drawn: CN
Date: 24-24

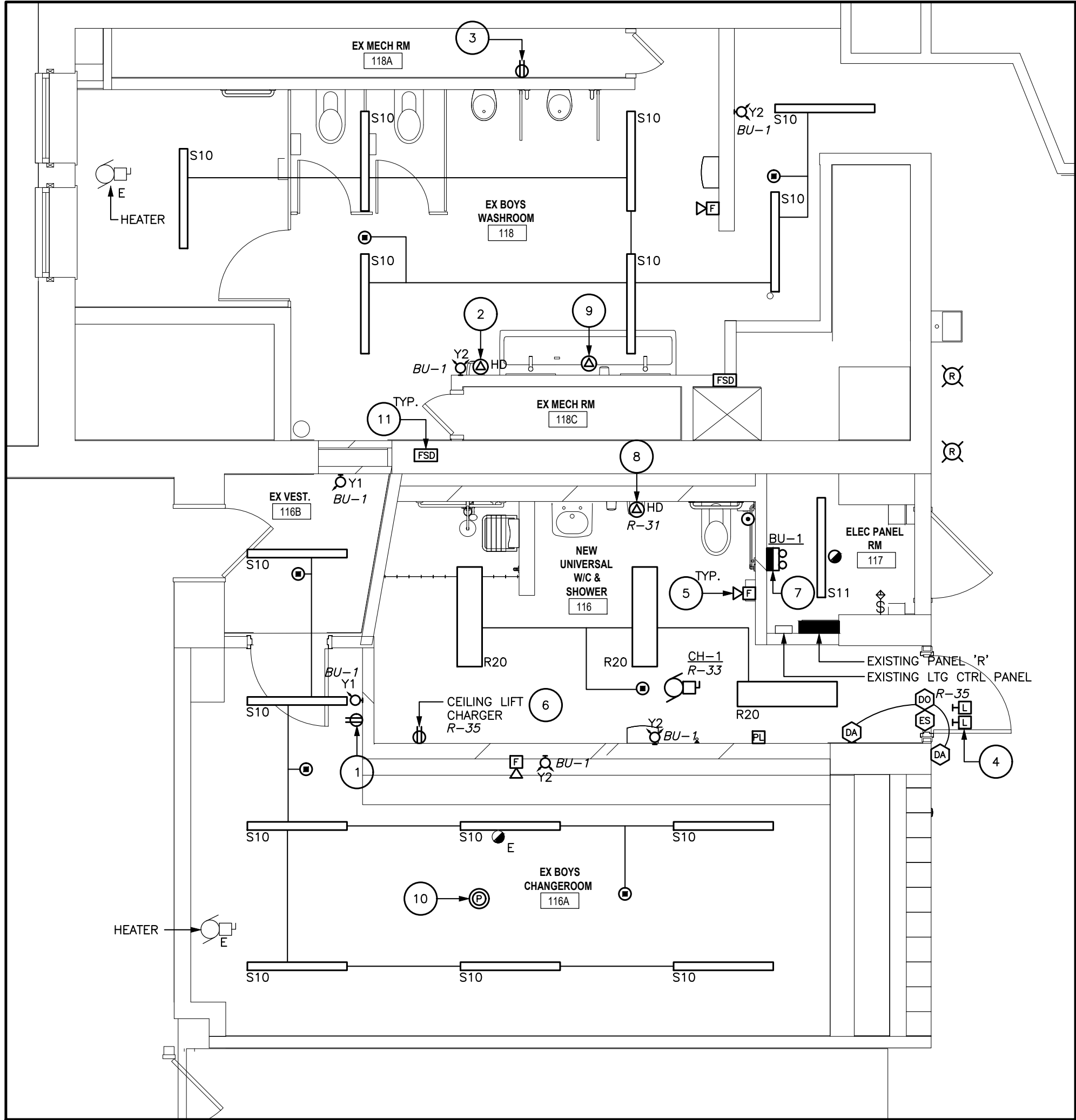
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Revised



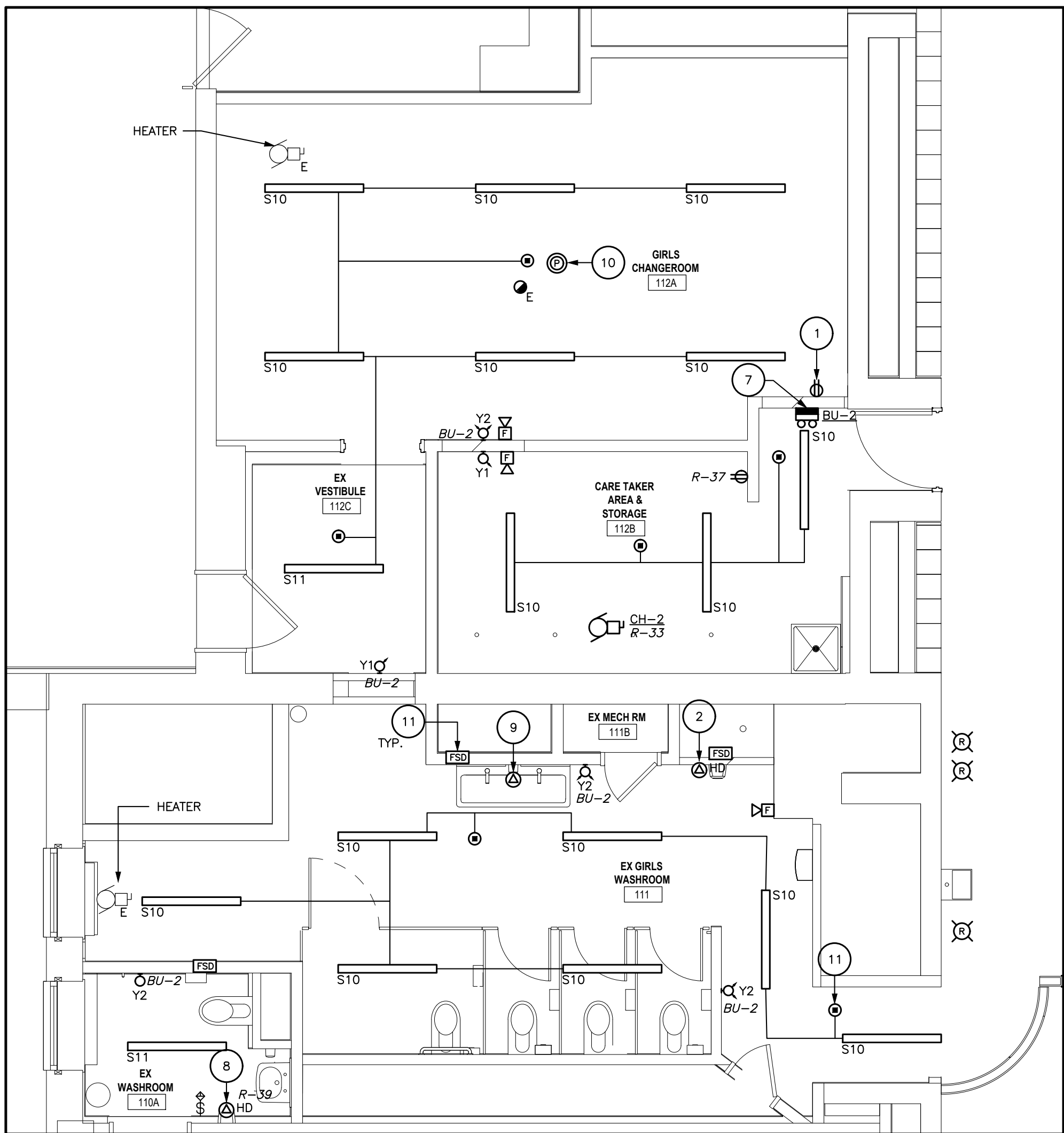
GROUND FLOOR – WR 129, WR 130B

SCALE – 1:50



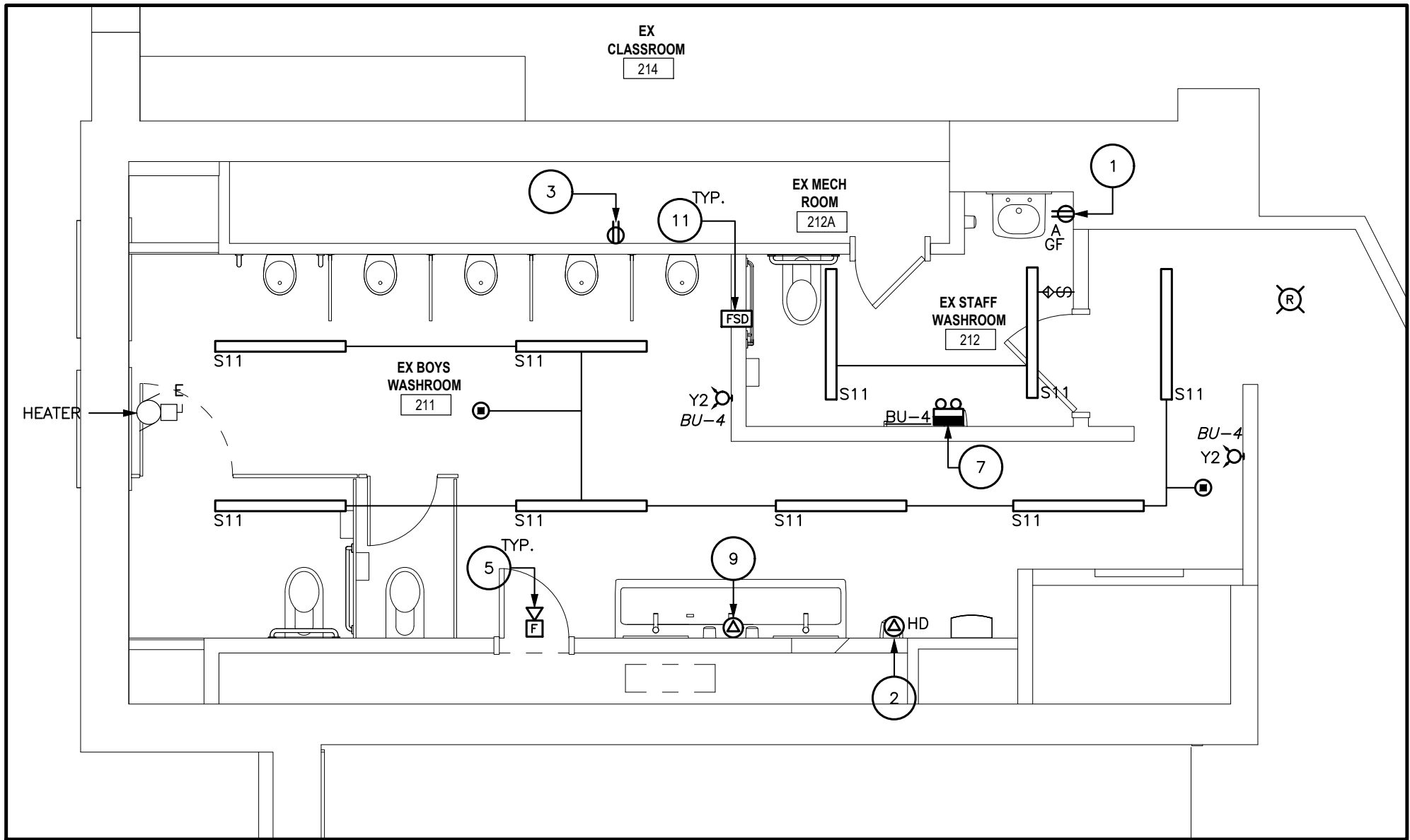
GROUND FLOOR – WR 118, WR 116, RM 117

SCALE – 1:50



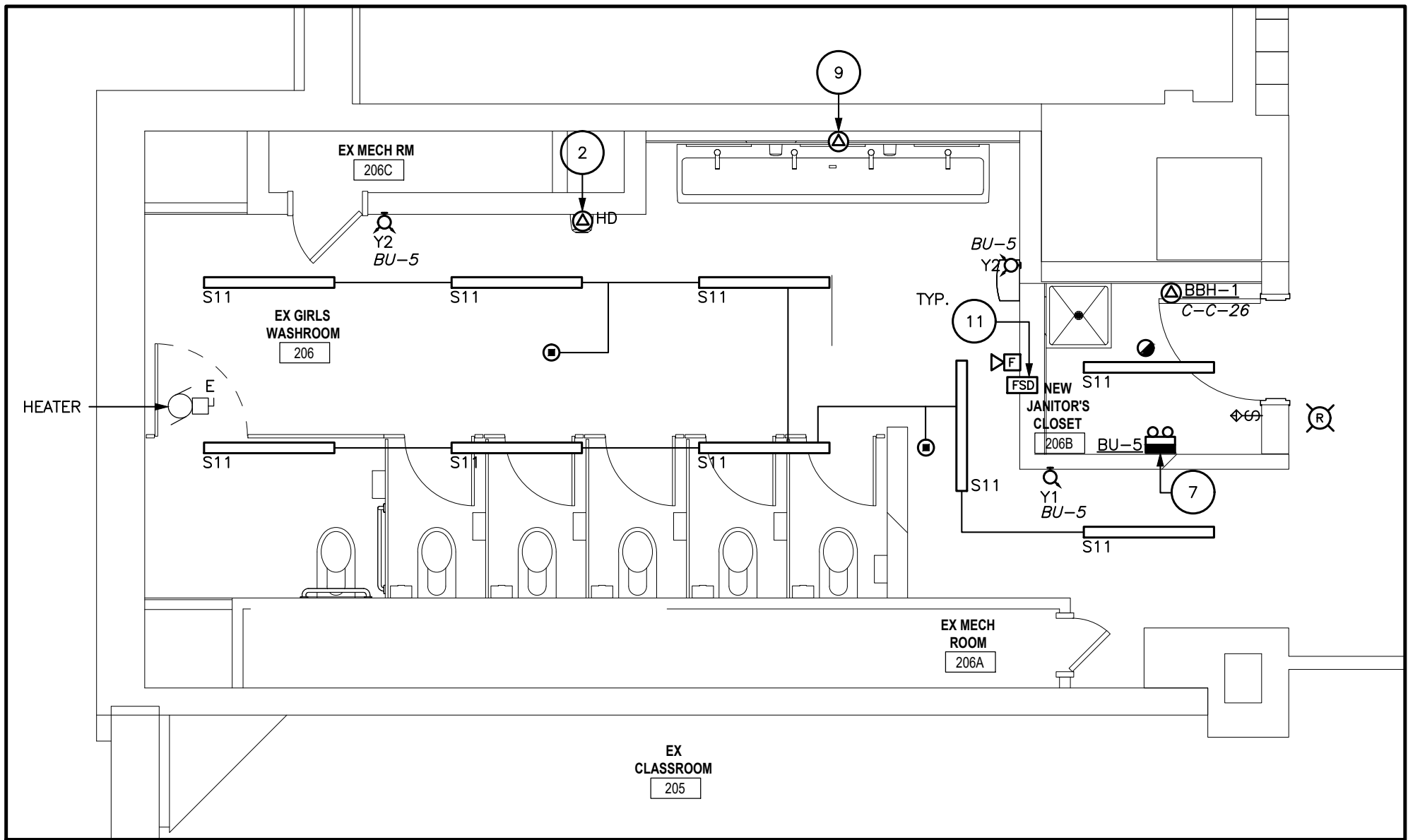
GROUND FLOOR – WR 110A, WR 111, RM 112A, RM 112B

SCALE – 1:50



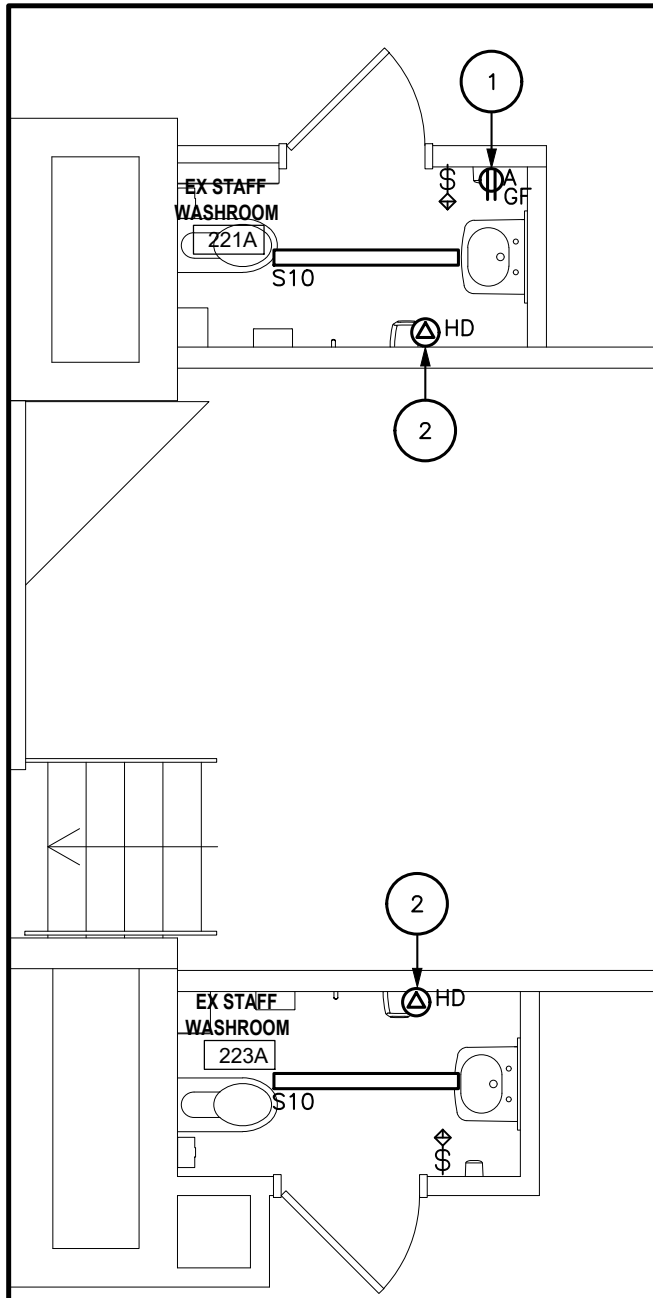
SECOND FLOOR – WR 211

SCALE – 1:50



SECOND FLOOR – WR 206, RM 206B

SCALE – 1:50



SECOND FLOOR – WR 221A, WR 223A

SCALE – 1:50

LIGHTING CONTROL TYPES

REFER TO LIGHTING DRAWINGS FOR ALL REQUIREMENTS.

- CT1 – AUTOMATIC 'ON' / AUTOMATIC 'OFF' AUTO 'OFF' BY OCCUPANCY AFTER 15 MINUTES
- CT2 – AUTOMATIC 'ON' / AUTOMATIC 'OFF' AUTO 'OFF' BY OCCUPANCY AFTER 15 MINUTES LOCAL MANUAL OVERRIDE SWITCH

LIGHTING CONTROLS	
ROOM	TYPE
STUDENT WR	CT1
STAFF WR	CT2
STORAGE/CARE TAKER/CHANGE/ELEC	CT2

LIGHT FIXTURE MOUNTING HEIGHTS	
ROOM	AFF (M)
111	3.4
112B, 117, 314, 315	3
116	2.6
116A/116B	4
118, 211	2.87
206, 308, 309	3.1

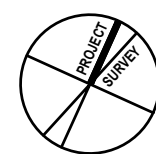
DRAWING NOTES

- PROVIDE NEW RECEPTACLE & RE-CONNECT TO EXISTING RECEPTACLE CIRCUIT MADE SPARE BY DEMOLITION.
- PROVIDE ADA COMPLIANT HAND DRYER, WORLD DRYER SLUMERI OR APPROVED EQUAL. HAND DRYER SHALL BE POLISHED STAINLESS STEEL. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. RE-CONNECT NEW HAND DRYER TO EXISTING HAND DRYER CIRCUIT MAKE SPARE BY DEMOLITION. REPLACE EXISTING BREAKER WITH NEW 20A-1P GFCI BREAKER IN PANEL AND EXTEND WIRING AS REQUIRED.
- RECEPTACLE FOR WATER MATRIX FLUSH SYSTEM CONTROL PANEL. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL DIVISION. RE-USE CIRCUIT USED FOR DEMOLISHED FLUSH SYSTEM RECEPTACLE. EXTEND WIRING AS REQUIRED TO NEW LOCATION.
- REFER TO TYPICAL BARRIER FREE WASHROOM DETAIL ON DRAWING E3-00 FOR DETAILS. REFER TO ARCHITECTURAL FOR EXACT DEVICE LOCATIONS.
- CONNECT ALL NEW FIRE ALARM DEVICES TO EXISTING FIRE ALARM CIRCUITS. COORDINATE WITH FIRE ALARM SURFACE RACEWAYS SUCH AS WIREMOLD OR EQUIVALENT. EMT WILL NOT BE ACCEPTED UNLESS OTHERWISE NOTED.
- RECEPTACLE FOR CEILING LIFTER. COORDINATE EXACT LOCATION & MOUNTING HEIGHT WITH THE LIFT PRIOR TO ROUGH-IN.
- WIRE BATTERY UNIT TO LOCAL LIGHTING CIRCUIT. UPDATE EXISTING PANEL SCHEDULE.
- PROVIDE ADA COMPLIANT HAND DRYER, WORLD DRYER SLUMERI OR APPROVED EQUAL. HAND DRYER SHALL BE POLISHED STAINLESS STEEL. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
- RECONNECT EXISTING WASH FOUNTAIN CIRCUIT TO NEW. EXTEND WIRING AS REQUIRED. REPLACE EXISTING BREAKER WITH NEW 15A-1P GFCI BREAKER IN PANEL AND EXTEND WIRING AS REQUIRED.
- PROVIDE NEW PAGING SPEAKER MOUNTED ON THE CEILING AND CONNECT TO EXISTING PAGING RACK. REFER TO OVERALL PLANS FOR LOCATION OF EXISTING PAGING RACK.
- WIRE COMBINATION FIRE/SMOKE DAMPERS TO CORRESPONDING EXISTING FIRE ALARM ZONES NOTED BELOW. POWER TO SMOKE/FIRE DAMPERS SHALL BE FROM THE SAME CORRESPONDING EXISTING POWER CIRCUITS. EACH EXISTING WASHROOM GROUP CURRENTLY HAS SMOKE/FIRE DAMPERS. PROVIDE TWO MONITORING MODULES PER SMOKE/FIRE DAMPER, ONE TO SUPERVISE 120V POWER SUPPLY CONNECTION AND ONE FOR SMOKE DETECTOR ALARM SIGNAL. FIRE/SMOKE DAMPER PROVIDED BY MECHANICAL DIVISION WITHOUT SMOKE DETECTOR. ELECTRICAL TO PROVIDE SMOKE DETECTOR AND WIRE COMPLETELY. PROVIDE REMOTE INDICATORS AT CORRIDOR FOR EACH DAMPER FOR IDENTIFICATION.
 - FIRST FLOOR NORTH FIRE/SMOKE DAMPER 120V
 - FIRST FLOOR SOUTH FIRE/SMOKE DAMPER 120V
 - SECOND FLOOR NORTH FIRE/SMOKE DAMPER 120V
 - SECOND FLOOR SOUTH FIRE/SMOKE DAMPER 120V
 - THIRD FLOOR NORTH FIRE/SMOKE DAMPER 120V
 - THIRD FLOOR SOUTH FIRE/SMOKE DAMPER 120V
- PLACE OCCUPANCY SENSOR SUCH THAT IT DOES NOT TURN ON WITH MOTION IN THE CORRIDOR. LIGHTS SHALL TURN ON WHEN SOMEONE IS ABOUT TO ENTERING INTO THE WASHROOM.

GENERAL NOTES

- THIS DRAWING ILLUSTRATES INTENT AND DOES NOT REPRESENT ALL REQUIRED CONTROL COMPONENTS. FINAL WIRING METHODS OR FIXTURE MOUNTING LOCATIONS DETERMINE THE FINAL SYSTEM INSTALLATION BASED ON THE PRODUCT MANUFACTURER'S SHOP DRAWINGS.
- OCCUPANCY SENSORS SHALL BE MOUNTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SO THEY ARE CAPABLE OF OPERATING PROPERLY WITHOUT FALSE 'ON' OR PREMATURE 'OFF' OPERATIONS. OCCUPANCY SENSORS SHALL BE MOUNTED AT THE SAME HEIGHT AS LIGHT FIXTURES AND SHALL UTILIZE STEMS TO DROP THEM CLEAR OF ANY DUCTS AND HAVE CLEAR VIEW. DUAL TECHNOLOGY OCCUPANCY SENSORS SHALL NOT BE MOUNTED WITHIN 610mm OF ANY HVAC DIFFUSERS.
- REMOTE MOUNTED POWER SUPPLIES FOR CONTROL DEVICES SHALL BE MOUNTED OUT OF THE VIEW AS MUCH AS POSSIBLE BUT STILL BE ACCESSIBLE.
- ALL WIRING IN FINISHED AREAS SHALL BE RUN CONCEALED IN WALLS/CEILINGS WHERE POSSIBLE. OTHERWISE PROVIDE SURFACE RACEWAYS SUCH AS WIREMOLD OR EQUIVALENT. EMT WILL NOT BE ACCEPTED UNLESS OTHERWISE NOTED.
- FINAL LIGHTING DIMMING PRE-SETS TO BE DETERMINED ON SITE WITH THE OWNER DURING COMMISSIONING.
- ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.
- ALL NEW LIGHTING SHALL BE RE-CONNECTED TO THE EXISTING CIRCUITS. UPDATE EXISTING PANEL SCHEDULE TO MATCH ANY CHANGES TO CIRCUITS. CONTRACTOR SHALL CHECK THE NEW LOADS AND CIRCUIT SUITABILITY.
- PROVIDE ACCESS PANELS FOR ANY JUNCTION BOXES, POWER PACKS ETC IN DRYWALL CEILINGS. COORDINATE EXACT LOCATION OF ACCESS HATCH WITH ARCHITECT PRIOR TO PLACING ANY DEVICES.
- WHERE THERE IS MECHANICAL OR PLUMBING WALL LOCATED BEHIND ANY ELECTRICAL EQUIPMENT, USE THAT SPACE TO RUN CONDUITS INSTEAD OF SURFACE MOUNTING CONDUITS.
- SUSPENDED LIGHTING FIXTURES SHALL BE COORDINATED WITH EXPOSED DUCTING ON SITE. PROVIDE UNSUPPRT SUPPORTS AS REQUIRED TO MOUNT BELOW DUCTING ETC. IF THERE ARE MAJOR RELOCATIONS REQUIRED, NOTIFY CONSULTANT PRIOR TO ROUGH-IN.
- INCLUDE IN PRICE TO PROVIDE NEW FIRE ALARM PASSIVE GRAPHIC, REVISE DEMARCATION OF NORTHWEST STAIRWELL FIRE ALARM ZONE #5 TO INCLUDE GROUND FLOOR GIRLS WASHROOM 111.
- REFER TO DEMOLITION PLANS FOR ADDITIONAL SURFACE RACEWAY REQUIREMENTS FOR EXISTING EXPOSED CABLING. WHERE POSSIBLE, HIDE CABLING INSIDE NEW WALLS.

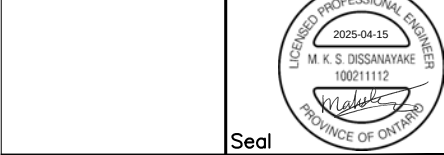
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2 ISSUED FOR TENDER & PERMIT 2025-04-10
1 ISSUED FOR PERMIT 2025-03-21
No. DESCRIPTION DATE

REVISIONS

24092



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Consulting Engineers Inc.
4800 Chapel Hill,
Hamilton, ON L8N 2K1
www.eandmconsulting.com

HWDSB

AMRAJ
ARCHITECTS INC.
905-890-0121
Small - infographic design
https://ukr.design

Project Name:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmead Road, Hamilton, ON

Drawing Title:
ENLARGED PLAN NEW -
ELECTRICAL

Drawn:
MD
date:
AS SHOWN
project number:
24-24

Checked:
MD
date:
DRAWING NO:
E2-01
0

MECHANICAL SCHEDULE – BASEBOARD ELECTRIC HEATER									
TAG	MANUFACTURER	MODEL	LOCATION	TYPE	QTY.	FINISH/ COLOUR	CAPACITY (KW)	POWER (V/A/HZ)	ELECTRICAL WIRING SCOPE
BBH 1	OUELLET	OFM0502	JANITOR CLOSET (206B)	OFM	1	STANDARD	0.5	120V/1PH	DIV. 26 TO WIRE UNIT COMPLETELY THROUGH DISCONNECT SWITCH SUPPLIED BY MECHANICAL DIVISION.
BBH 2	OUELLET	OFM0502	JANITOR CLOSET (314A)	OFM	1	STANDARD	0.5	120V/1PH	
BBH 3	OUELLET	OFM0502	STAFF WASHROOM (315)	OFM	1	STANDARD	0.5	120V/1PH	
BBH 4	OUELLET	OFM0502	EX. STAFF WASHROOM (308)	OFM	1	STANDARD	0.5	120V/1PH	
NOTES: 1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS. 2. OR APPROVED EQUIVALENT AS OUTLINED IN THE SPECIFICATIONS 3. BUILT IN THERMOSTAT 4. DISCONNECT SWITCH									

INCLUDE IN PRICE TO RETAIN SCHOOL BOARDS BAS SYSTEM PROVIDER (SIEMENS CANADA- JAKE RENDULIC ACCOUNT EXECUTIVE 1577 NORTH SERVICE ROAD EAST, L6H 0H6, OAKVILLE, ON MOBILE: 905-541-7433 EMAIL: JAKE.RENDULIC@SIEMENS.COM) TO CONTROL NEW CABINET HEATERS. ALL CONTROL WIRING AND CONDUITS SHALL BE INCLUDED.

BAS PROVIDER SHALL DETERMINE ADDITIONAL SUB PANELS OR ANY OTHER UPGRADES REQUIRED AND PRICE ACCORDINGLY.

SEE PLANS FOR TEMPORARILY REMOVAL OF SOME EXISTING THERMOSTATS AND HEATER CONTROL VALVE (TCV) TO FACILITATE INSTALLATION OF DRYWALL LAYERS ON EXISTING WALLS. THERMOSTATS AND HEATER CONTROL VALVE (TCV) SHALL BE RE-INSTALLED.

1. CH-1,2 CABINET HEATERS - ON/OFF CONTROL OF THE VALVE. VALVE SHALL BE SUPPLIED BY THE BAS SUPPLIER FOR MECHANICAL CONTRACTOR TO INSTALL.
2. BAS SYSTEM PROVIDER SHALL SUPPLY AND INSTALL THERMOSTATS SIMILAR TO EXISTING IN THE SCHOOL. SEE PLANS FOR LOCATIONS.

NOMENCLATURE (APPLICABLE ONLY FOR THIS DRAWING)	
MCA	MINIMUM CIRCUIT AMPACITY
MFA	MAXIMUM FUSE AMPACITY
BIS	BUILT-IN START
TS	THERMOSTAT
HP	HORSEPOWER
DISC	DISCONNECT
BAS	BUILDING AUTOMATION SYSTEM
FRAC	FRACTIONAL HORSEPOWER

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2	ISSUED FOR TENDER & PERMIT	2025-04-15
1	ISSUED FOR PERMIT	2025-03-21
No.	DESCRIPTION	DATE

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Consulting Engineers Inc

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Canada
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LMDCR

FWDSB



AMRA J
ARCHITECTS INC.
EMAIL: info@amra-j.com
905-920-5121

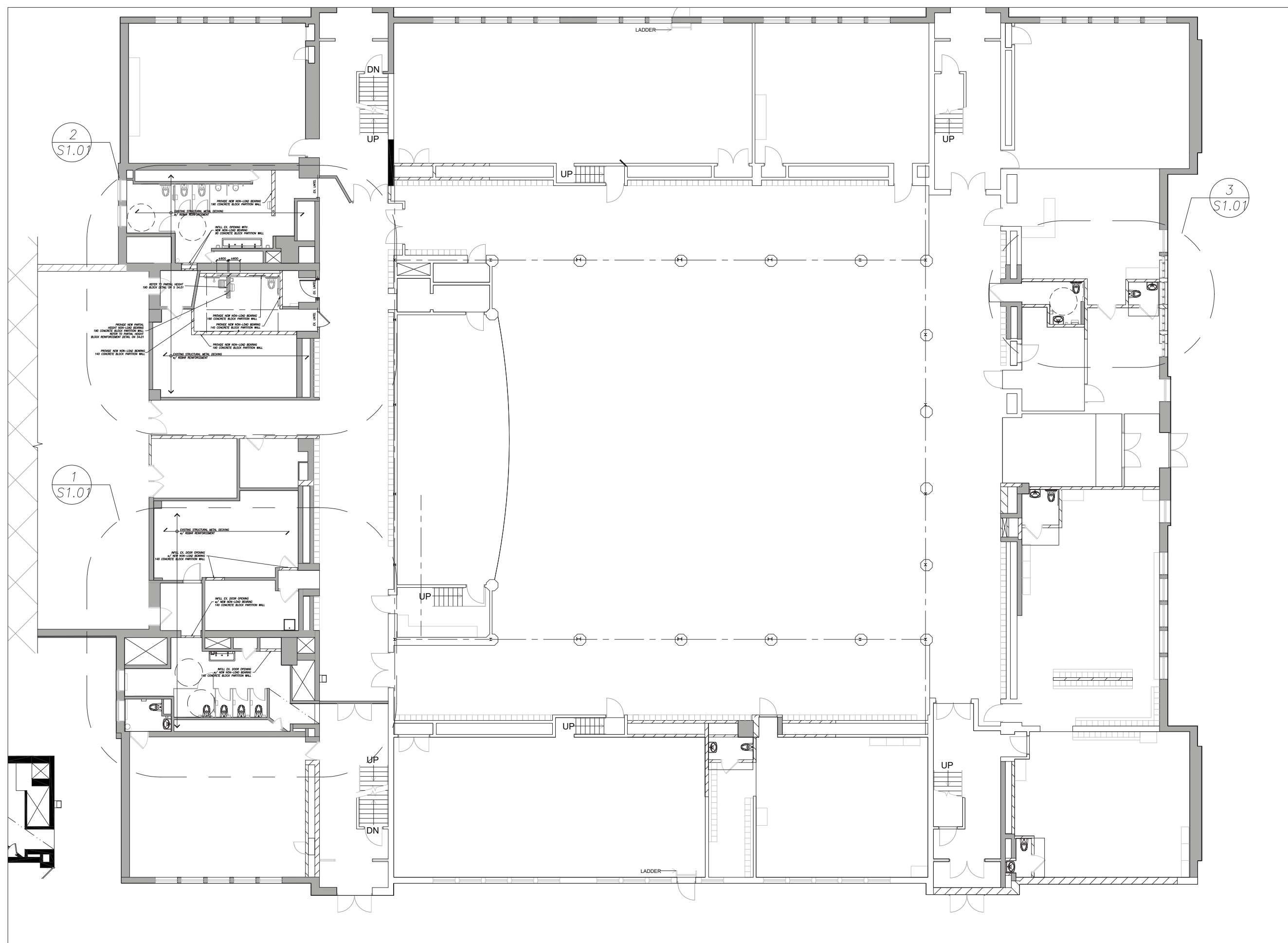
project title:
P02083 W.H. Ballard Elementary
School
Washrooms & Change Room
Renovations & Upgrades
801 Dunsmuir Road, Hamilton, ON

drawing 99c:
MECHANICAL AND
ELECTRICAL SCHEDULE

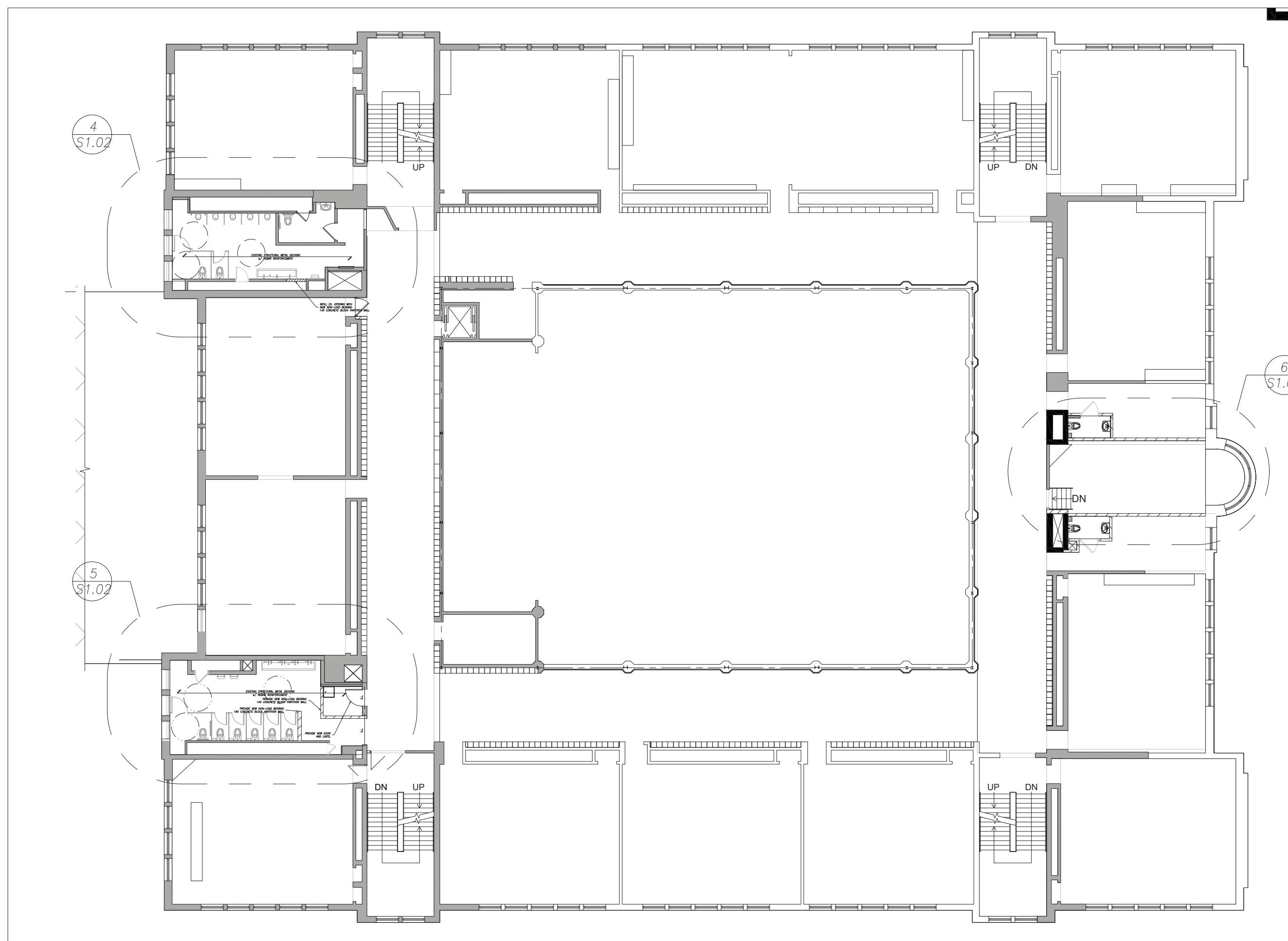
drawn: MH	scale: AS SHOWN
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date:	project number: 24-24	
checkoff:	DRAWING NO:	

KS	ME 01	0
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GROUND FLOOR FRAMING PLAN
SCALE 1:200



SECOND FLOOR FRAMING PLAN
SCALE 1:200

NOTES:

FOR PHASING (PHASES 1, 2 AND 3) REFER TO ARCHITECTURAL DRAWINGS AND HWDSD RFQ DOCUMENT.

GENERAL NOTES

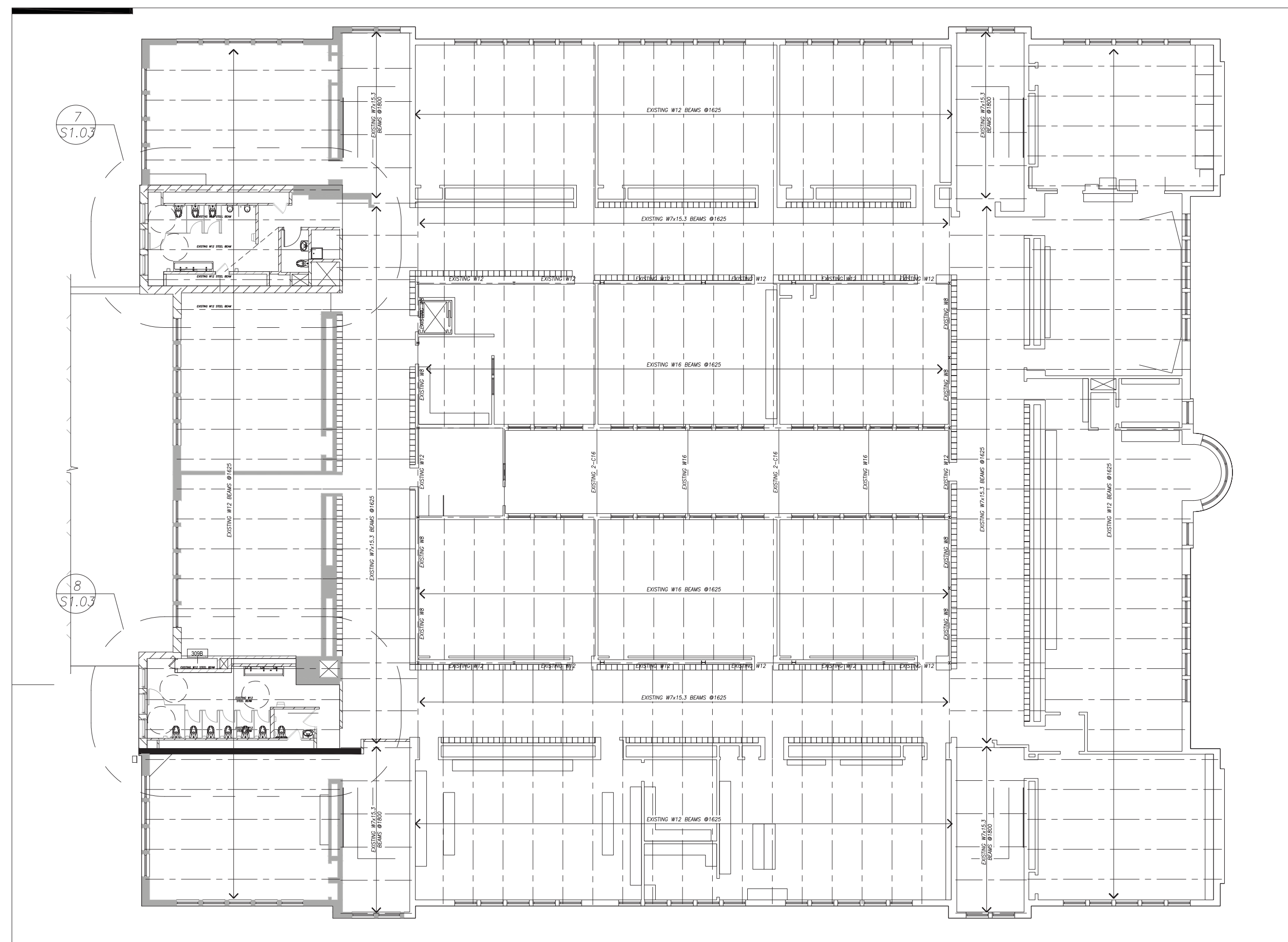
1. CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO DRAWINGS PREPARED ARCHITECTURAL, MECHANICAL, OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO COMMENCING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
2. THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
3. THE COMPLETED STRUCTURE IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONSTRUCTION FEATURES NOT FULLY SHOWN ARE COMPARABLE TO SIMILAR CONCRETE DETAILS.
5. REFER TO OTHER CONSULTANTS DRAWINGS FOR DETAILS OF OPENINGS, PITS, CHAMFERS, DEPRESSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
6. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ONTARIO BUILDING CODE, LATEST APPLICABLE REGULATIONS AND GOOD CONSTRUCTION PRACTICES.
7. THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
8. CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.

SUBMITTALS

1. SUBMIT FOR REVIEW BY THE CONSULTANT, DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK INCLUDING, BUT NOT LIMITED TO: STRUCTURAL STEEL AND TEMPORARY SHORING.
2. THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN $N'=1"-0"$ (1:50).
3. THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
4. EACH DRAWING SUBMITTED FOR STRUCTURAL STEEL AND TEMPORARY SHORING SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
5. CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.

MASONRY NOTES

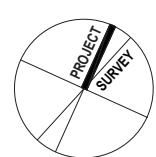
4. ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH AISC STANDARD S304.1, ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISC STANDARD A371. ALL MASONRY SHALL BE CONSTRUCTED IN ACCORDANCE WITH AISC STANDARD A370. ALL WORTHER AND GROUT SHALL BE IN ACCORDANCE WITH A179.
5. ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE 1/15/A/M UNLESS OTHERWISE NOTED. MASONRY SHALL BE TYPE S FOR LOADBEARING AND TYPE N FOR NON-LOADBEARING.
6. VERTICAL CONTROL JOINTS SHALL BE LOCATED AT 8' MAXIMUM SPACING OF 600mm. REFER TO ARCHITECTURAL DRAWING FOR DETAILS AND LOCATIONS.
7. GROUT SHALL CONSIST OF ON ONE PART PORTLAND CEMENT, THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 10mm) WITH WATER TO PROVIDE A MINIMUM 100 MPa COMPRESSIVE STRENGTH IN 28 DAYS.
8. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLD. TWO COURSE BLOCKS BELOW BEARING PLATES SHALL BE GROUTED SOLD.
9. THE MASONRY SHALL BE CONSTRUCTED EVERY WITH MAXIMUM LIFTS OF 1200 PER DAY. DO NOT TOWER OR BOND OR STACK MASONRY. TAKE BACK DUES OF UNFINISHED WALLS.
10. ALL WORTHER JOINTS SHALL BE TOOKED (CARVED) AT A MINIMUM JOINTS SHALL BE REQUIRED FOR THE STARTING COURSE TO A MAXIMUM OF 20mm. THE BED JOINTS SHALL BE 10mm.
11. THE HORIZONTAL REINFORCING AT EXTERIOR WALLS SHALL BE GALVANIZED. DO NOT EXPOSE HORIZONTAL REINFORCING THROUGH CORNER JOINTS UNLESS OTHERWISE NOTED.
12. PROVIDE A STEEL LINTEL OVER ALL OPENINGS OR RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL PENETRATIONS. PROVIDE A MINIMUM OF TWO (2) GALVANIZED STEEL JOISTS.
13. BUILD THE MASONRY SOLD AROUND ALL BEAM, LINTEL AND JOIST POCKETS. INSTALL BEARING PLATES AT THE SPECIFIED ELEVATION AND GROUT THE PLATE INTO THE WALL A MINIMUM OF 400mm.
14. PROVIDE TEMPORARY BRACING AS REQUIRED TO SUPPORT THE MASONRY WALLS IN CONSTRUCTION. PROTECT THE MASONRY WALLS FROM THE ELEMENTS AT ALL TIMES EXCEPT DURING CONSTRUCTION PROCESS.



ROOF FRAMING PLAN
SCALE 1:200

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**HWDSB**

P02083 W.H. Ballard Elementary
School

2	ISSUED FOR TENDER	04/16/2025
1	ISSUED FOR PERMIT	03/19/2025
No.	DESCRIPTION	DATE

SEAL:



300 YORK BLVD HAMILTON, ONTARIO L8R 3K6
905-333-9119 www.kalcoeng.co

E & M
Consulting Engineers Inc.



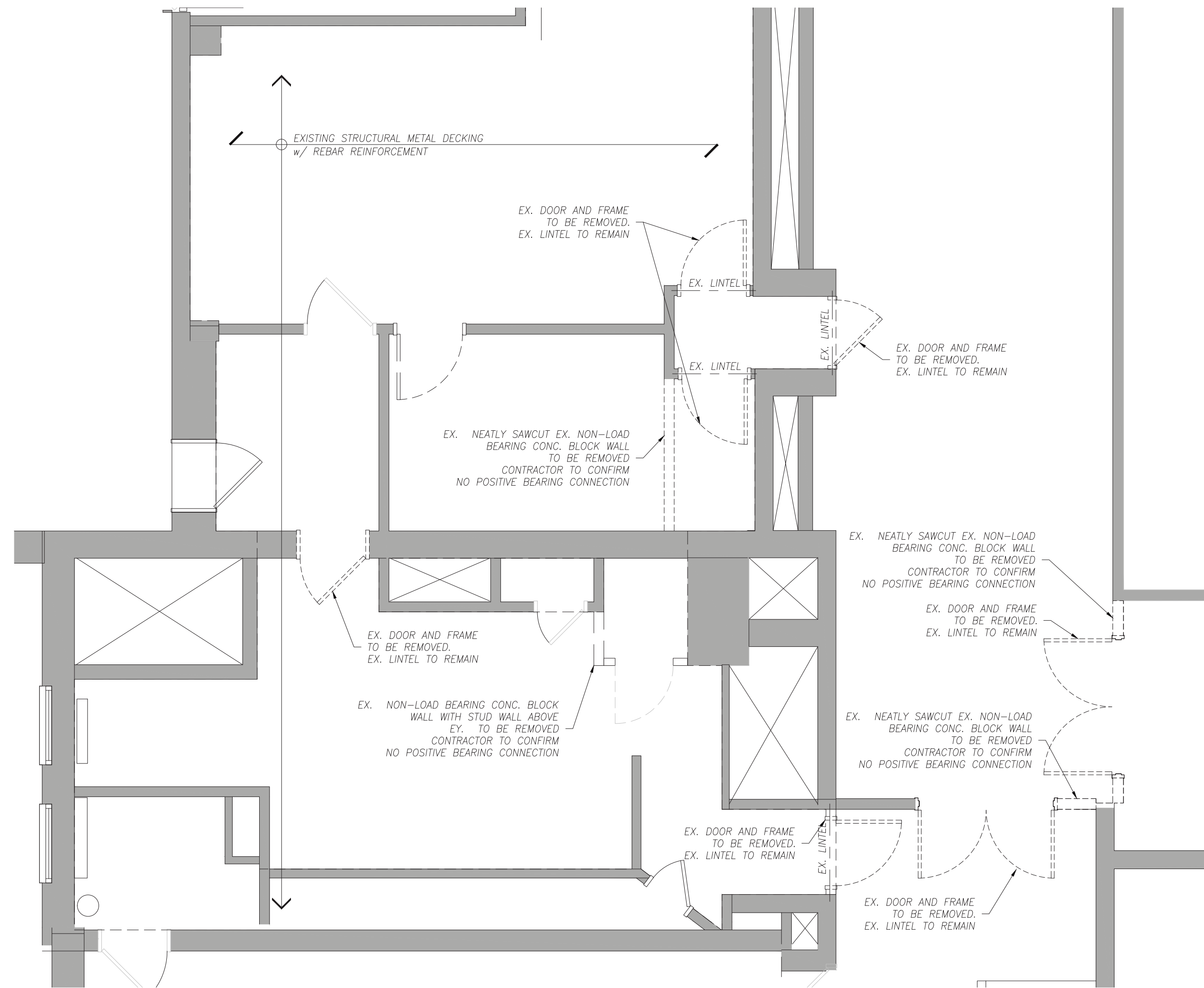
project title:
HWDDB
P02083 W.H. BALLARD
ELEMENTARY SCHOOL
WASHROOM RENOVATIONS AND
UPGRADES
801 DUNSMURE ROAD
HAMILTON, ONTARIO

drawing title:
OVERALL RENOVATION PLANS

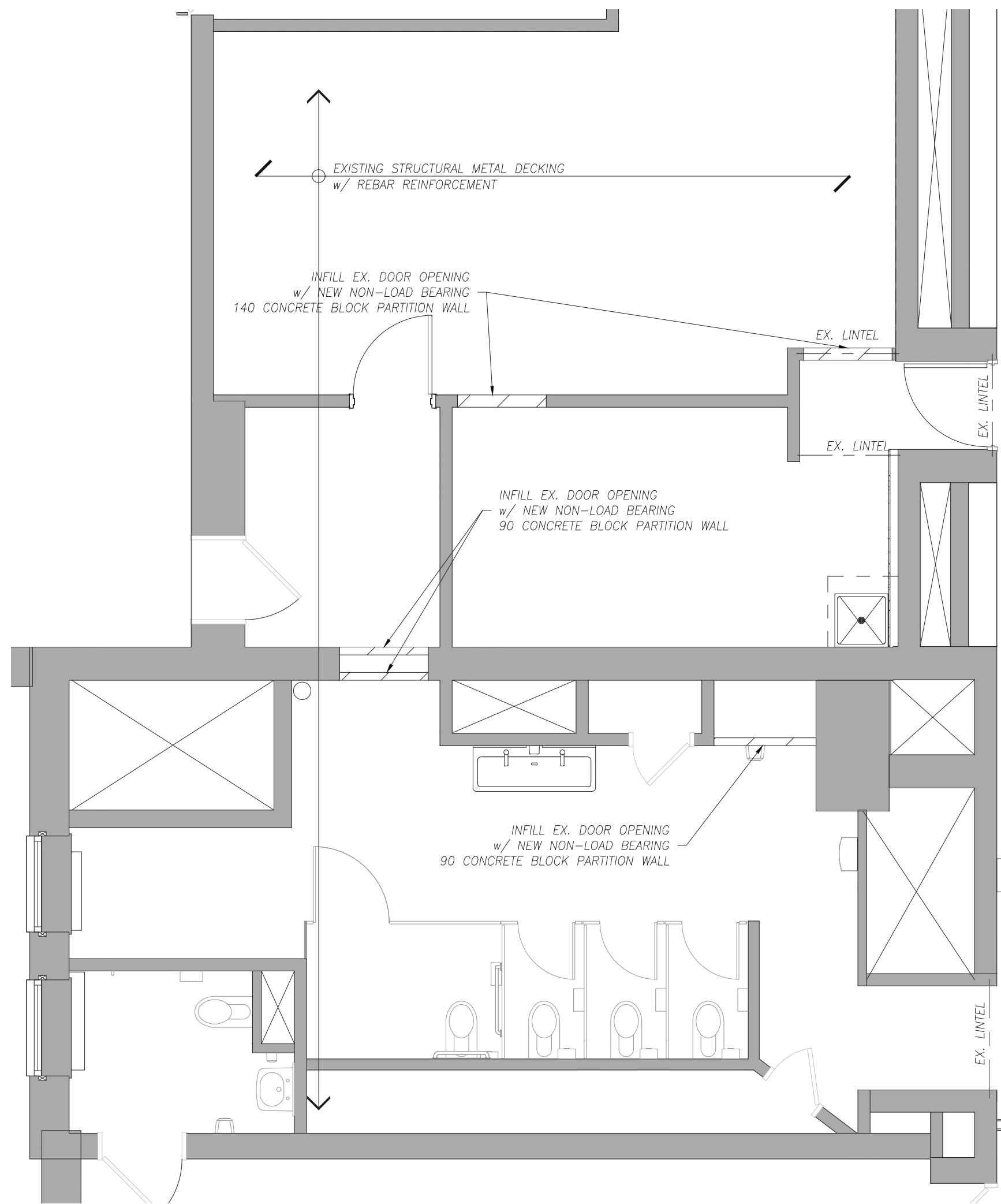


REFERENCE EXISTING ARCHITECTURAL
DRAWINGS BY:
E.W. WARREN REGISTERED ARCHITECT
DATED: 1922

drawn: QN	scale: AS NOTED
date: 03/19/2025	project number: 24177
checked: J.P.C.	DRAWING NO: S0.01
date: 03/19/2025	



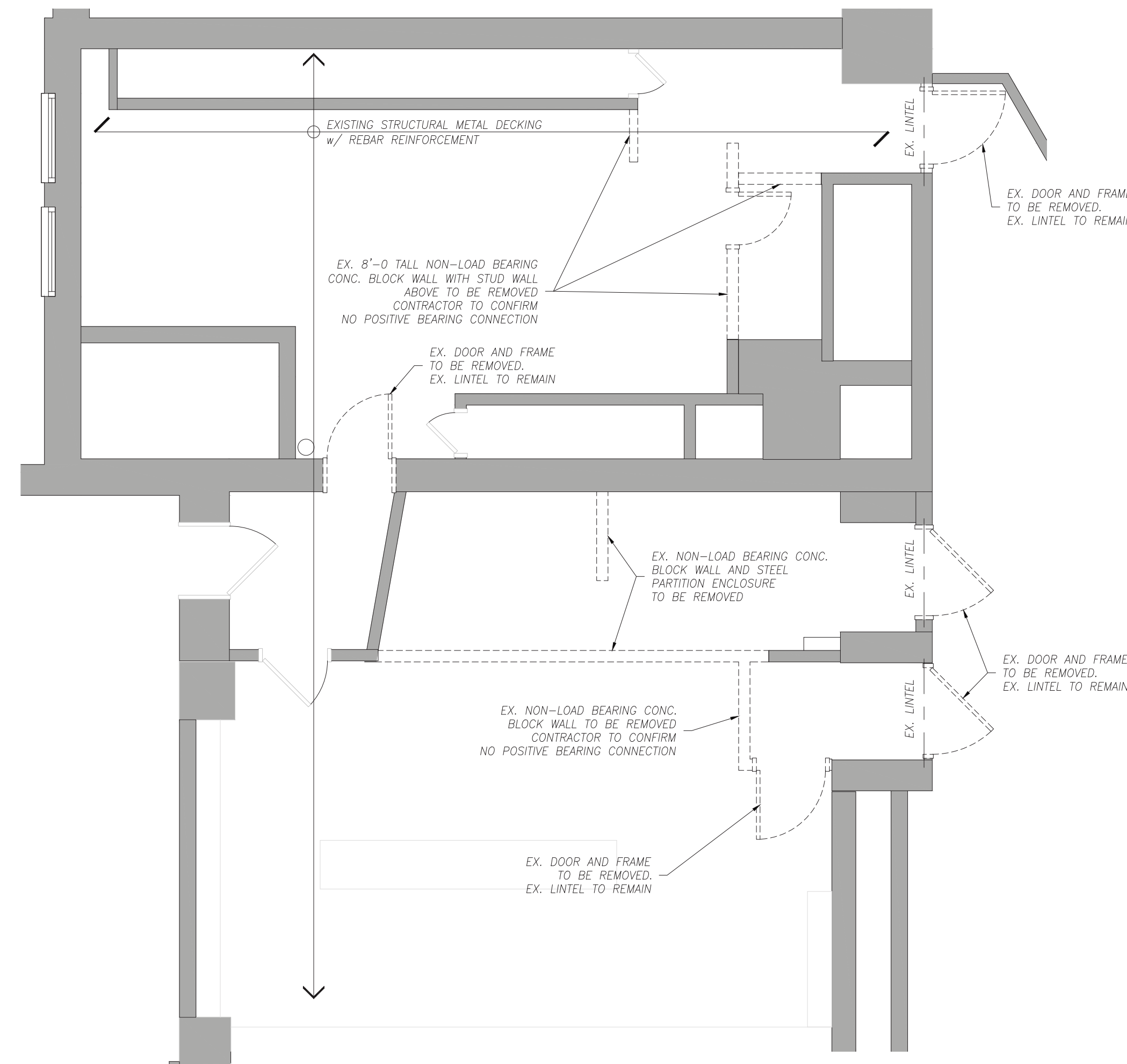
EXISTING GIRLS WASHROOM 111 & CHANGEROOM 112 DEMOLITION
SCALE 1:50



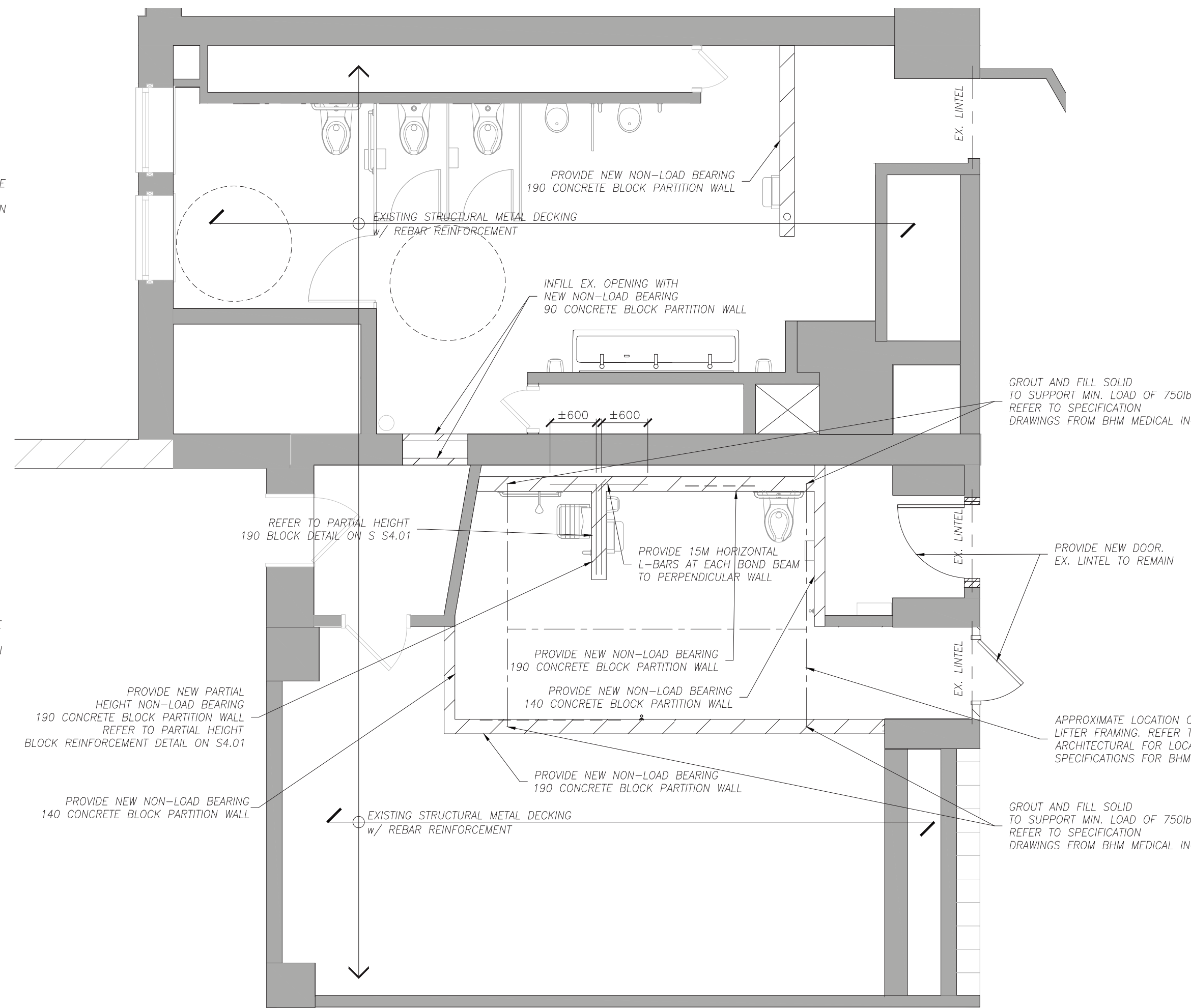
PROPOSED WASHROOM 111, 112A, & 112B RENOVATION PLAN
SCALE 1:50

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED



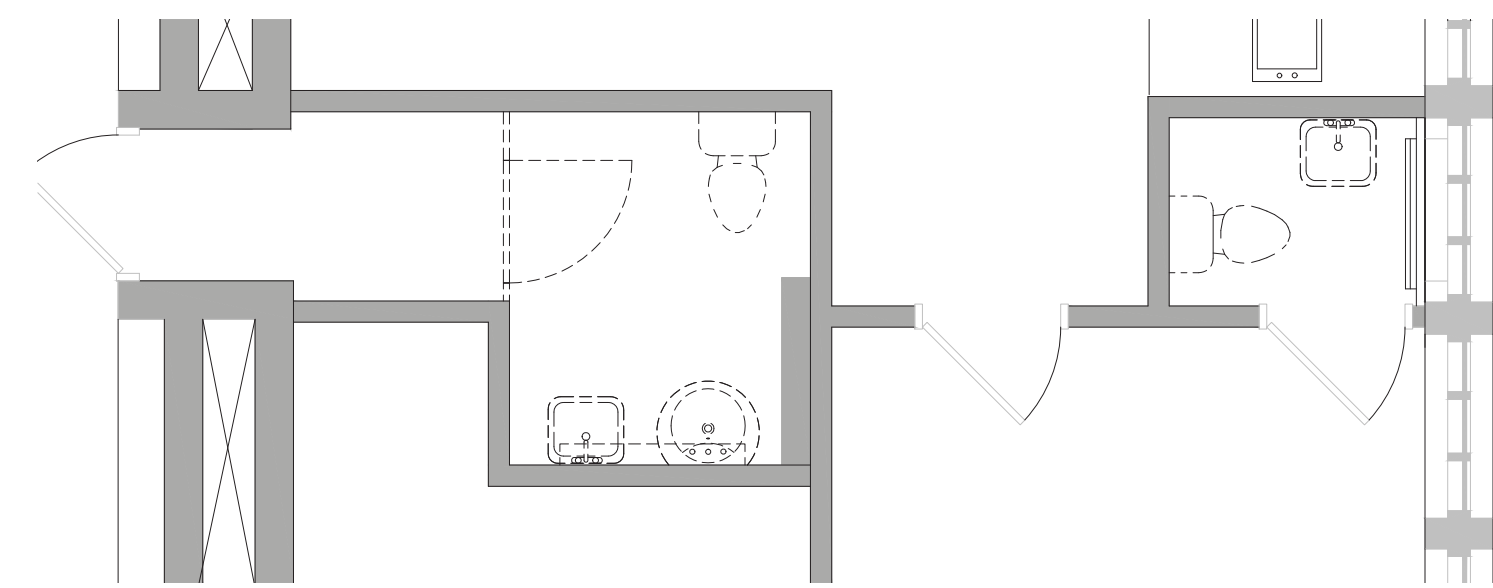
EXISTING BOYS WASHROOM 118 & CHANGEROOM 116A DEMOLITION
SCALE 1:50



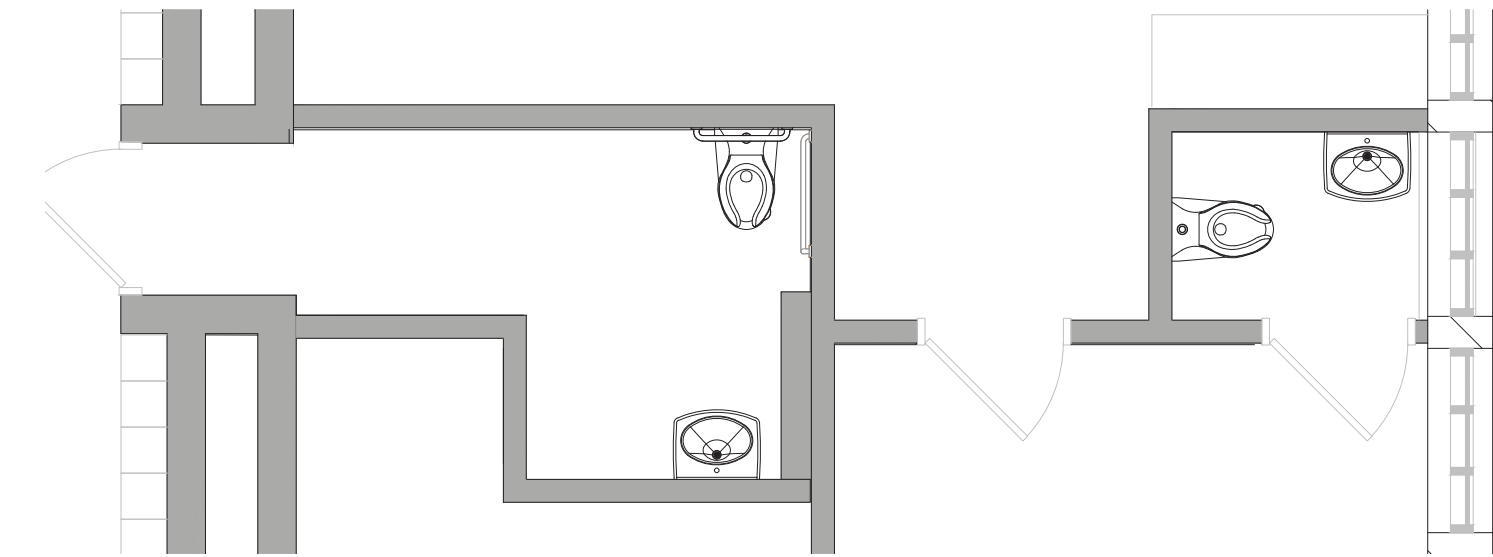
PROPOSED WASHROOM 116, 117, & 118 FLOOR PLAN
SCALE 1:50

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED



BF WASHROOM 129 & STAFF WASHROOM 130B DEMOLITION PLAN
SCALE 1:50



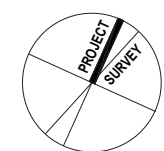
PROPOSED WASHROOM 129 AND 130B FLOOR PLAN
SCALE 1:50

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

PROVIDE NEW NON-LOAD-BEARING 362S162-33 Ø16" (Ø400) STEEL STUD FULL HEIGHT REFER TO ARCHITECTURAL FOR EXTENTS

PROVIDE NEW NON-LOAD-BEARING 362S162-33 Ø16" (Ø400) STEEL STUD FULL HEIGHT REFER TO ARCHITECTURAL FOR EXTENTS

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P02083 W.H. Ballard Elementary School

2 ISSUED FOR TENDER 04/16/2025
1 ISSUED FOR PERMIT 03/19/2025

No. DESCRIPTION DATE

REVISIONS

SEAL:

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300 YORK BLVD. WILLOWDALE, ONTARIO L2B 3K6
905-333-9119 www.kaloseng.ca

E & M
Consulting Engineers Inc.

AMRA J ARCHITECTS INC.
www.ajp.design | info@ajp.design | 905.920.5121

Project File:
HWDSB
P02083 W.H. BALLARD
ELEMENTARY SCHOOL
WASHROOM RENOVATIONS AND
UPGRADES
801 DUNSMUIRE ROAD
HAMILTON, ONTARIO
Drawing File:
DEMOLITION AND PROPOSED
FLOOR PLANS

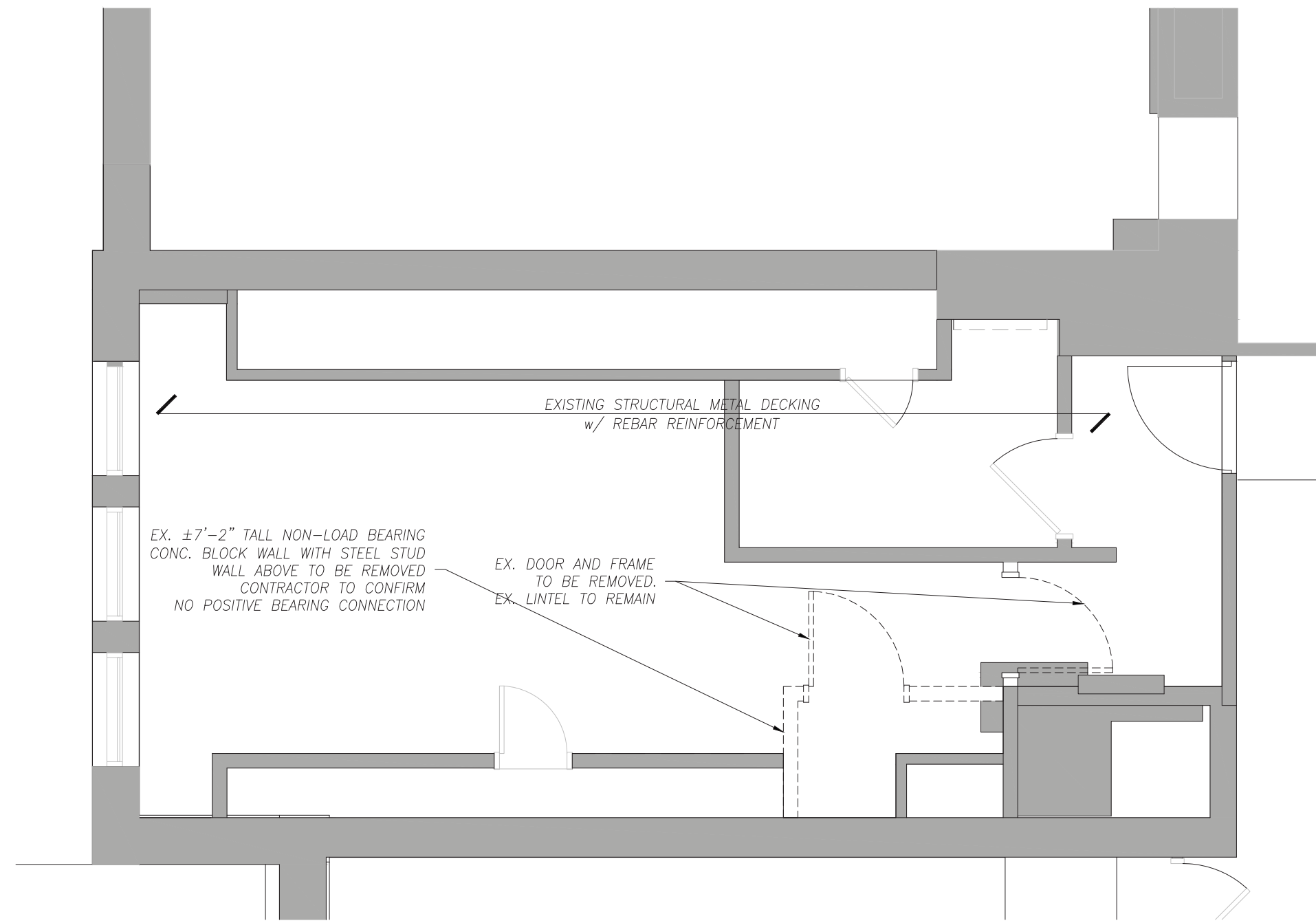
Drawn: QN Scale: AS NOTED

Date: 03/19/2025 Project number: 24177

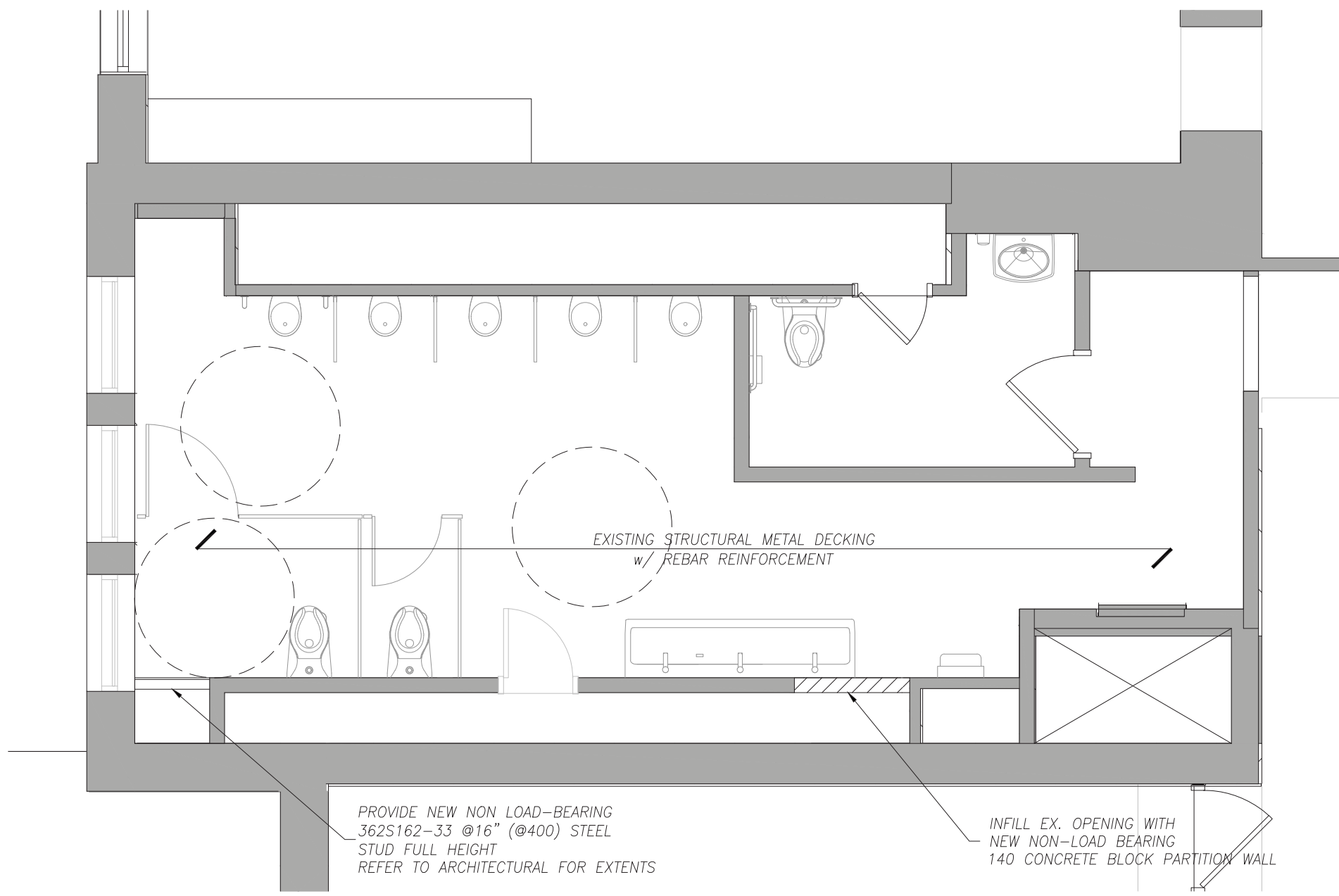
Checked: J.P.C. Drawing NO: S1.01

Date: 03/19/2025





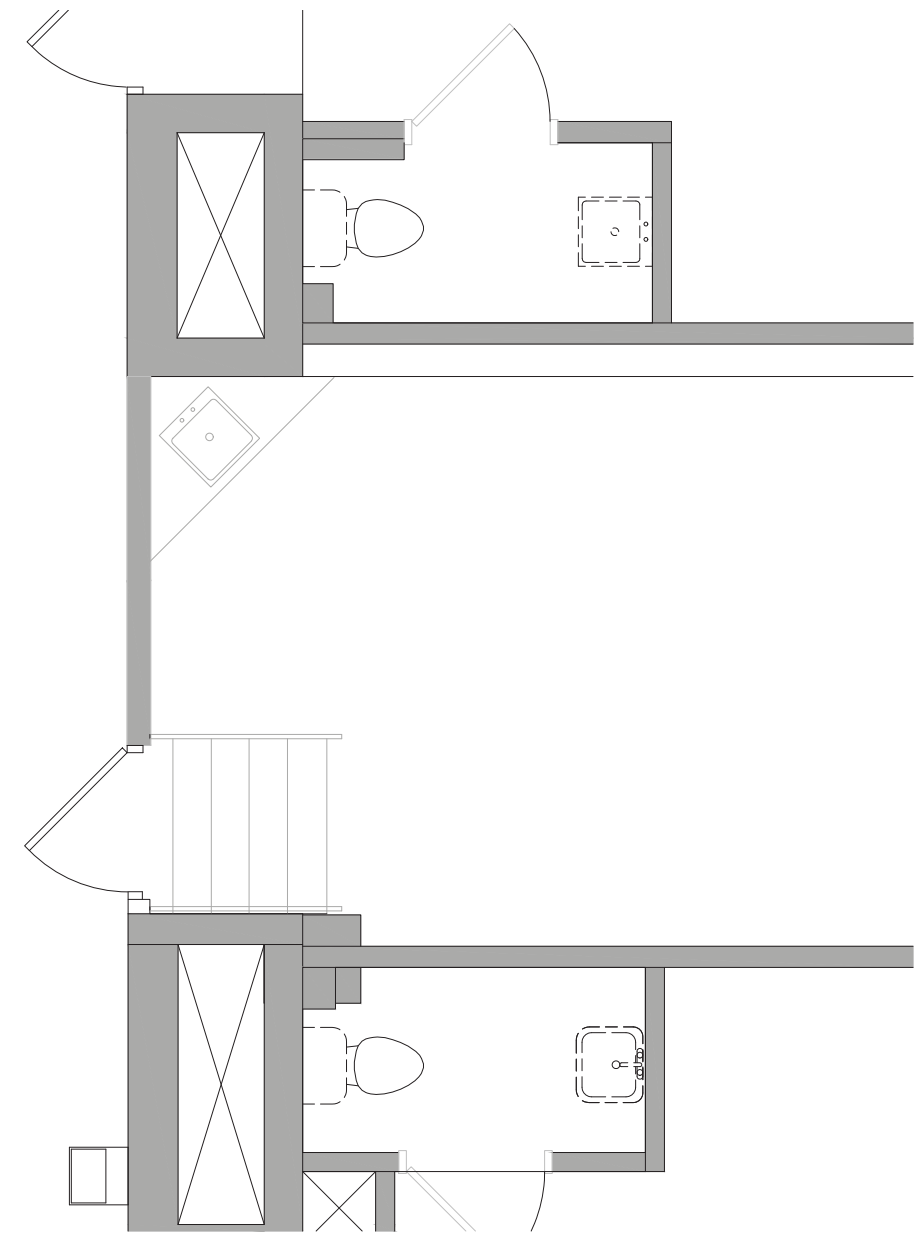
EXISTING BOYS WASHROOM 211 DEMOLITION PLAN
SCALE 1:50



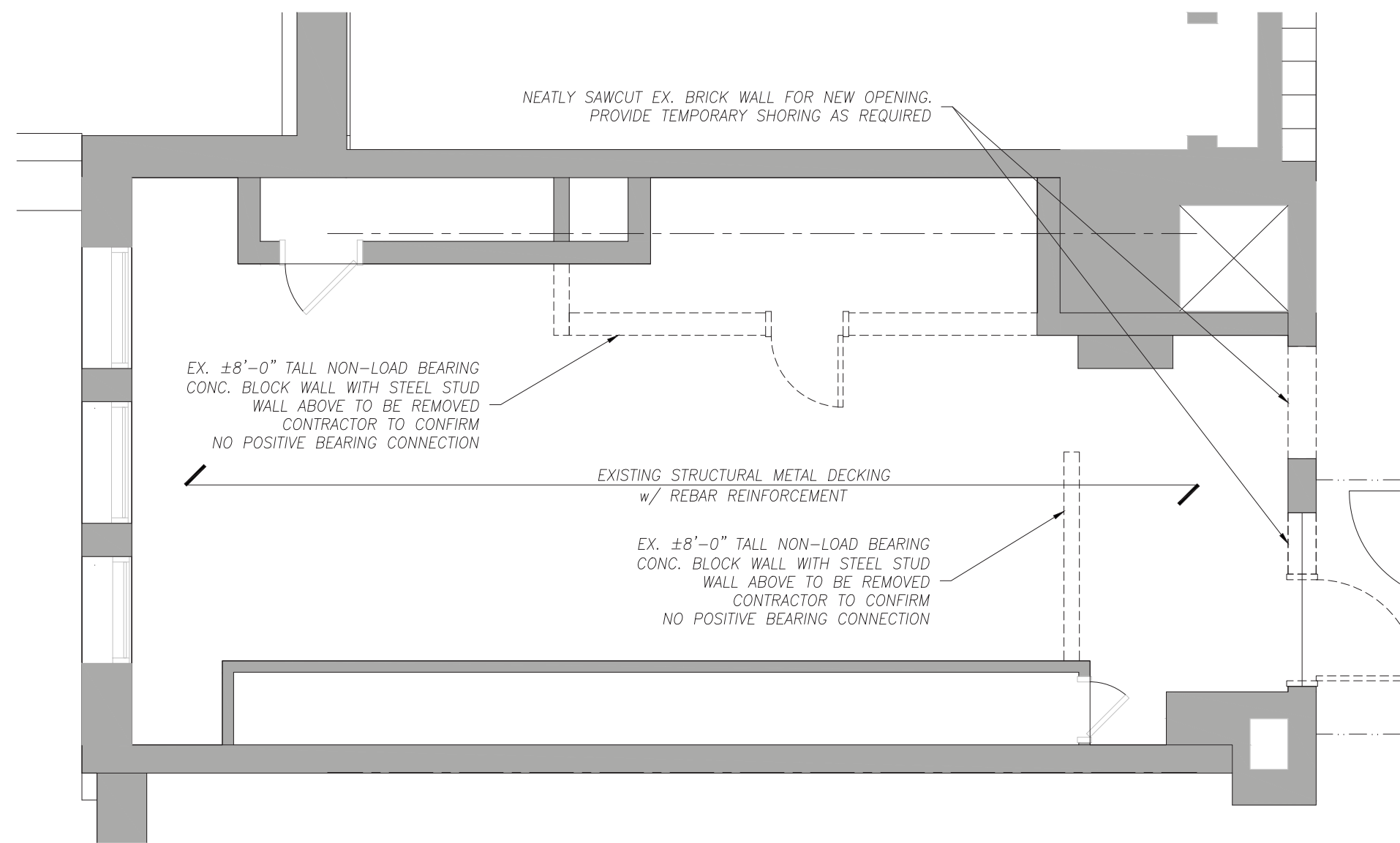
PROPOSED WASHROOM 211 & 212 FLOOR PLAN
SCALE 1:50 ST.03

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

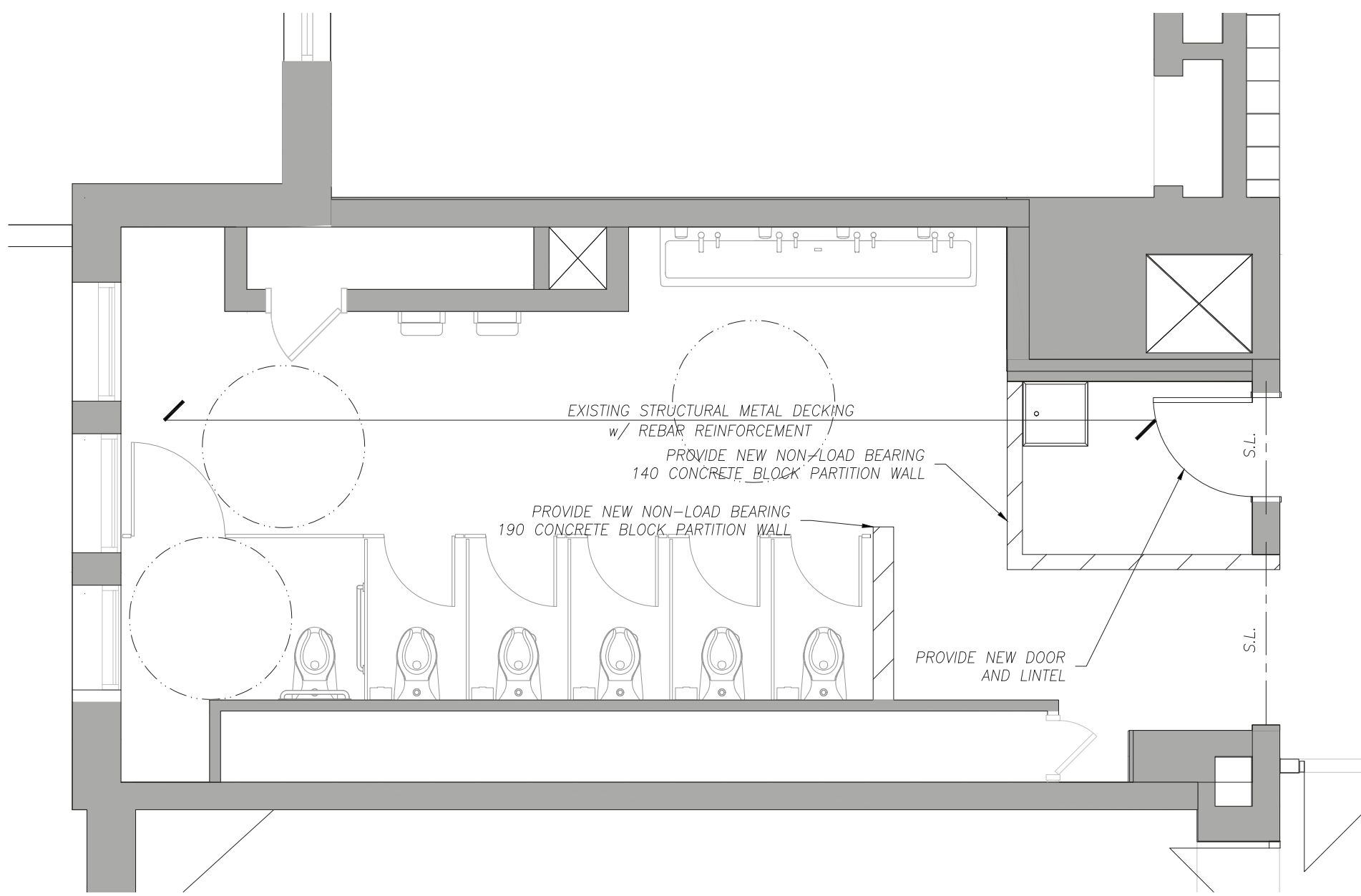
NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED



EXISTING STAFF WASHROOMS 221A & 223A DEMOLITION PLAN
SCALE 1:50



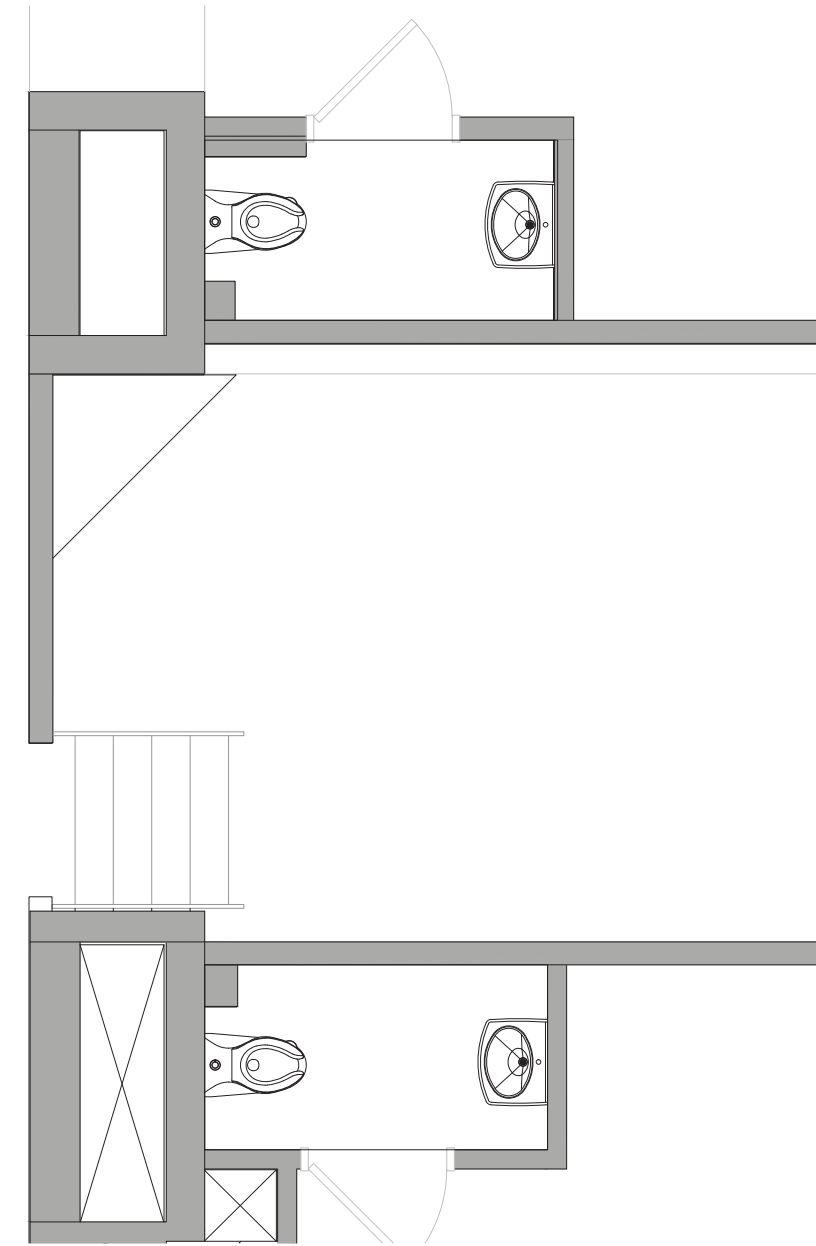
EXISTING GIRLS WASHROOM 206 DEMOLITION PLAN
SCALE 1:50



PROPOSED WASHROOM 206 FLOOR PLAN
SCALE 1:50 ST.03

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED



PROPOSED WASHROOM 221A AND 223A FLOOR PLAN
SCALE 1:50 ST.03

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

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No.	DESCRIPTION	DATE

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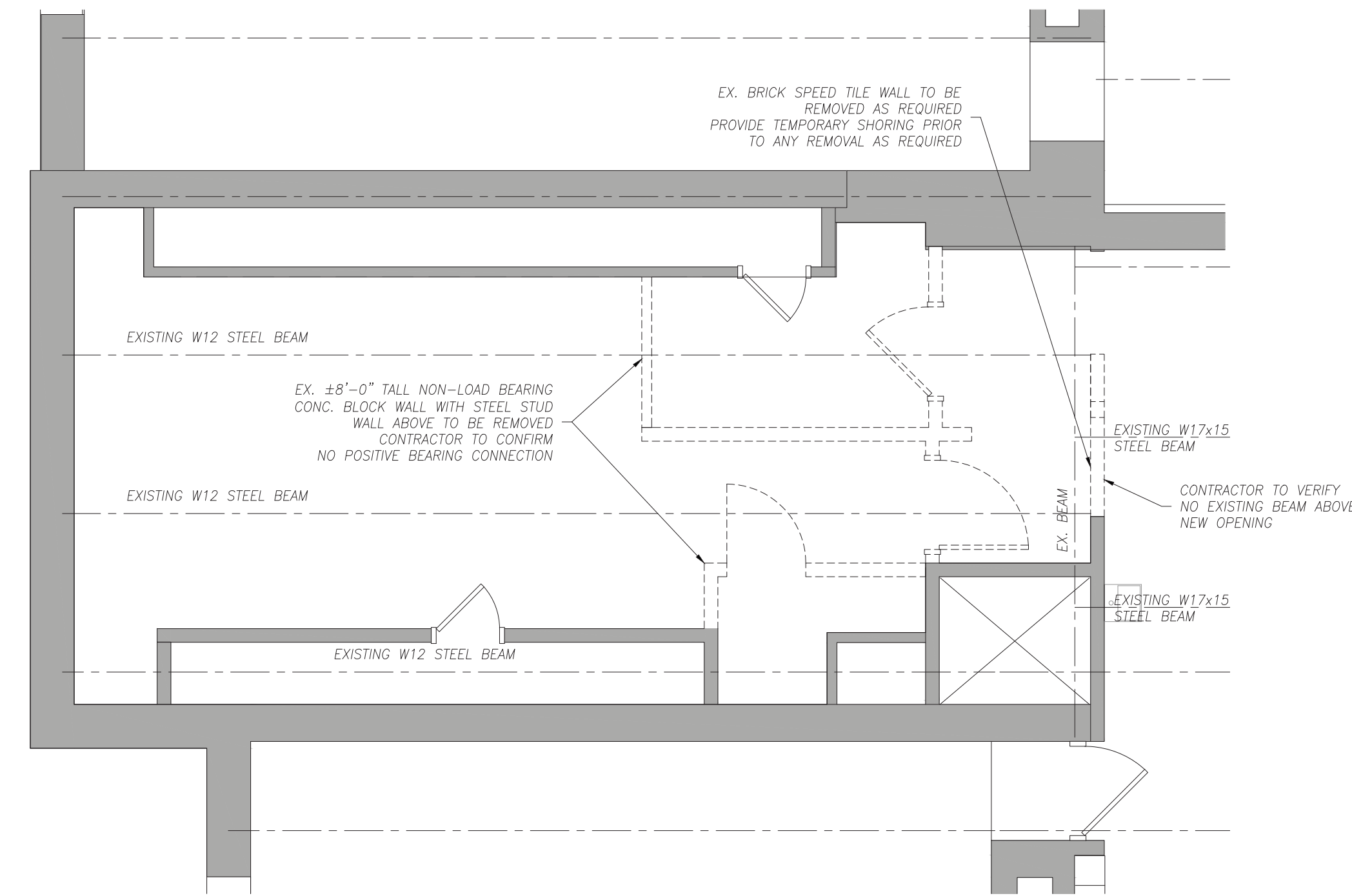
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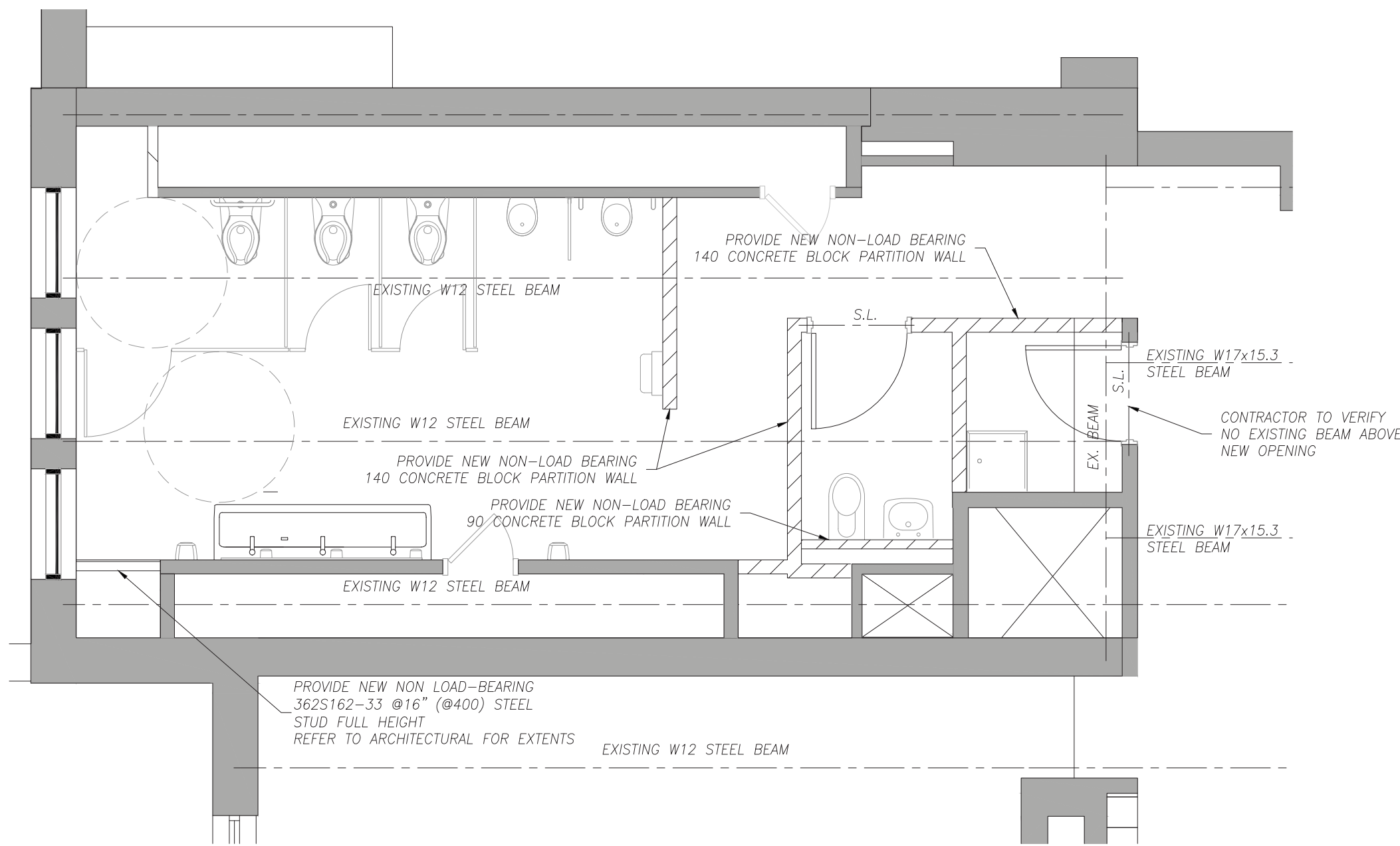
project file:
HWDSB
P02083 W.H. BALLARD
ELEMENTARY SCHOOL
WASHROOM RENOVATIONS AND
UPGRADES
801 DUNSMUIRE ROAD
HAMILTON, ONTARIO
drawing file:
DEMOLITION AND PROPOSED
FLOOR PLANS

drawn: QN	scale: AS NOTED
date: 03/19/2025	project number: 24177
checked: J.P.C.	drawing no: S1.02
date: 03/19/2025	revision:





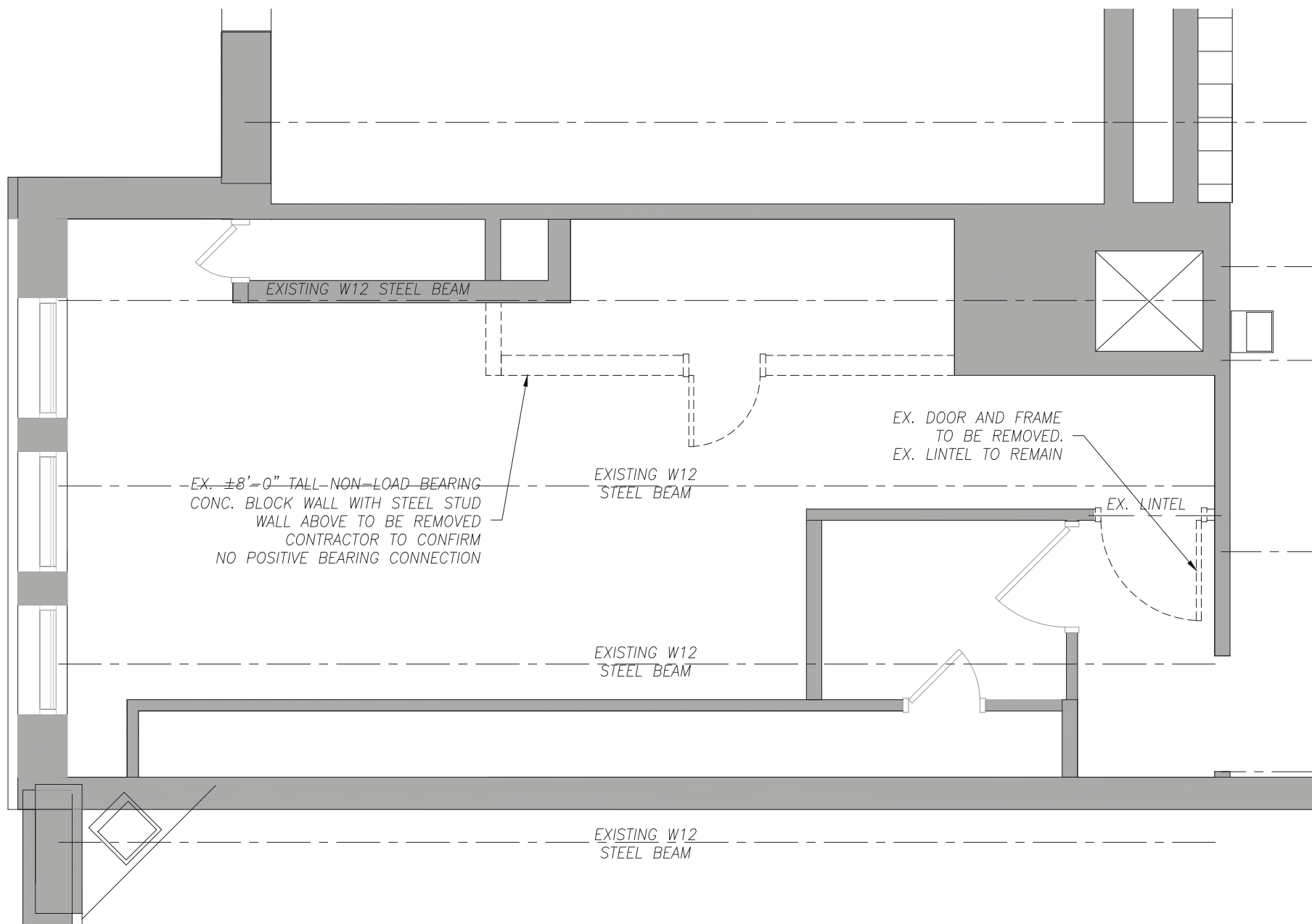
EXISTING BOYS WASHROOM 314 DEMOLITION PLAN
SCALE 1:50



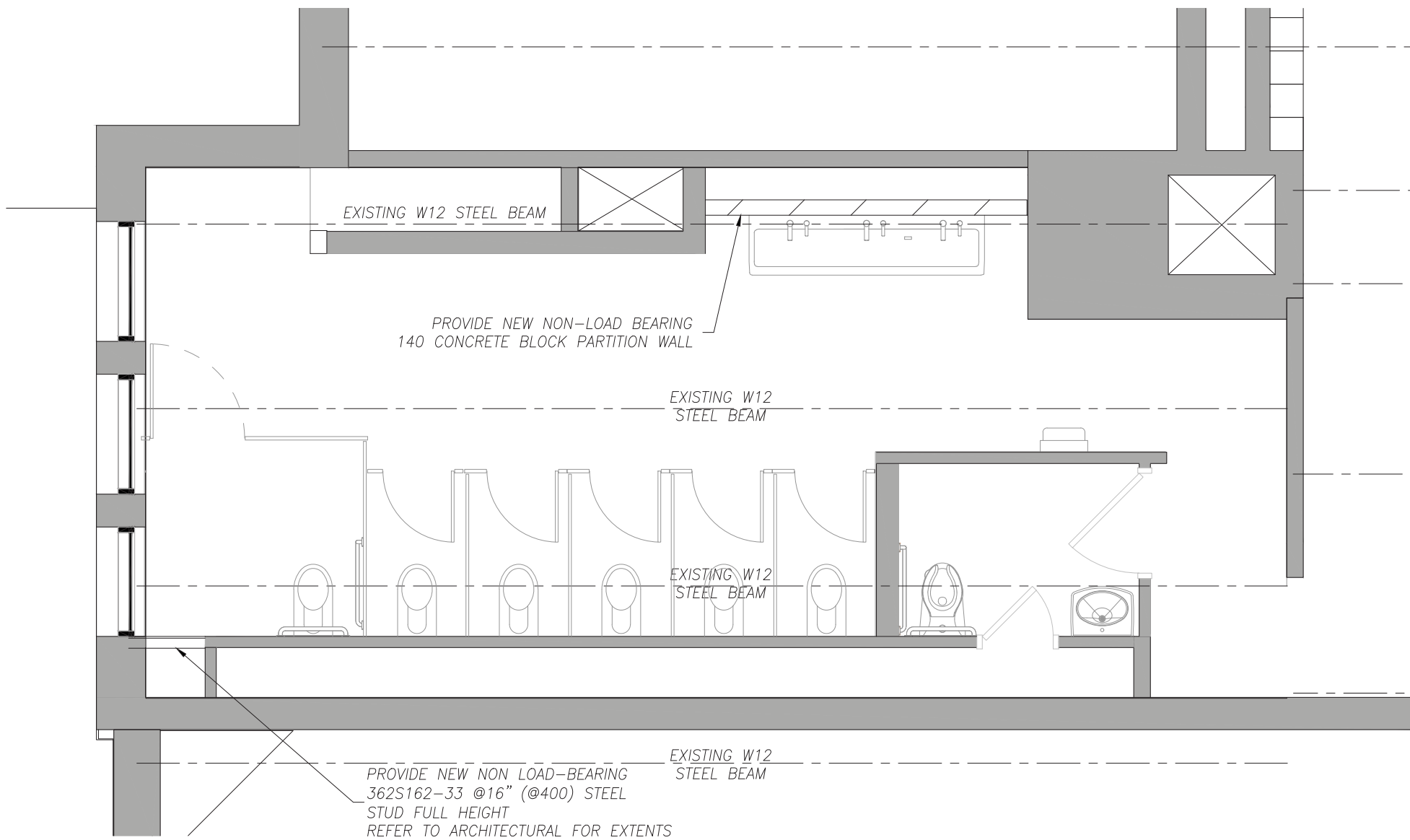
PROPOSED WASHROOM 314 & 315 FLOOR PLAN
SCALE 1:50 (1:0)

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED



EXISTING GIRLS WASHROOM 308 DEMOLITION PLAN
SCALE 1:50



PROPOSED WASHROOM 308 & 309 FLOOR PLAN
SCALE 1:50 (1:0)

CONTRACTOR SHALL NOT COMPROMISE FLUTE OF DEEP DECK

NON-LOAD BEARING BLOCK WALL TO EXTEND FULL HEIGHT TO U/S OF CEILING UNLESS OTHERWISE NOTED

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ENGINEERING
300 YORK BLVD. WILLOWDALE, ONTARIO L4Y 3K6
905-333-9119
www.kaloseng.ca

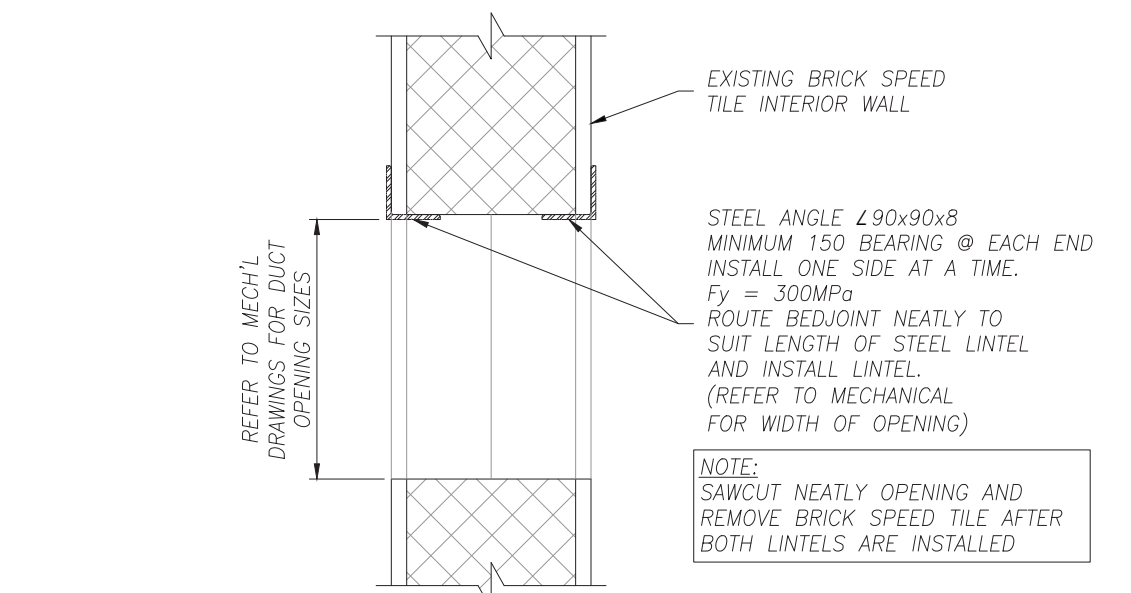
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ARCHITECTS INC.
www.aja.design | info@aja.design | 905.920.5121

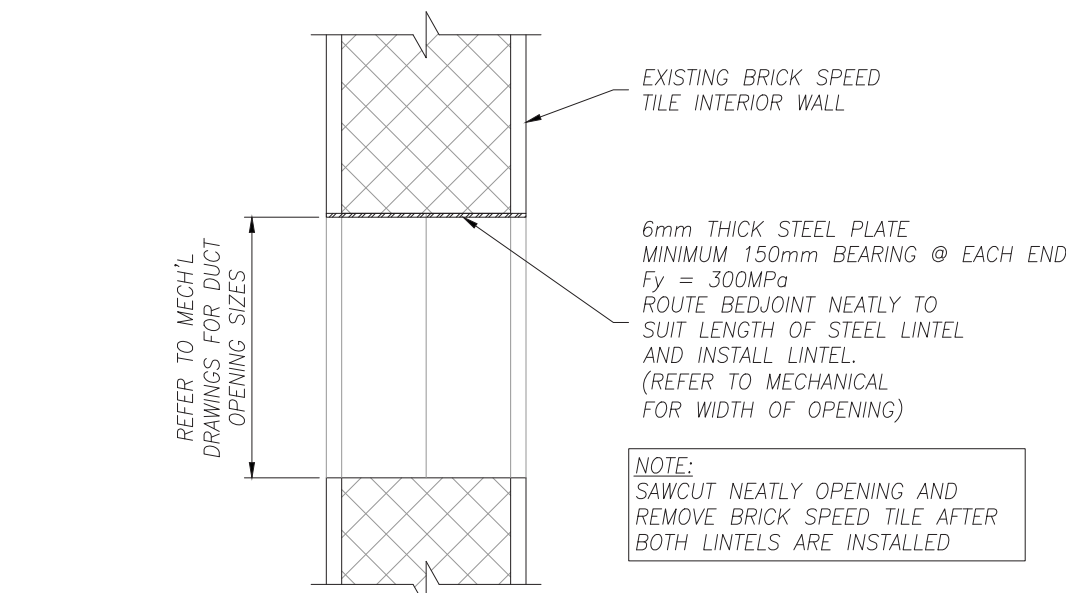
Project File:
HWDSB
P02083 W.H. BALLARD
ELEMENTARY SCHOOL
WASHROOM RENOVATIONS AND
UPGRADES
801 DUNSMUIRE ROAD
HAMILTON, ONTARIO
Drawing Title:
DEMOLITION AND PROPOSED
FLOOR PLANS

drawn: QN	scale: AS NOTED
date: 03/19/2025	project number: 24177
checked: J.P.C.	drawing no: S1.03
date: 03/19/2025	revision:

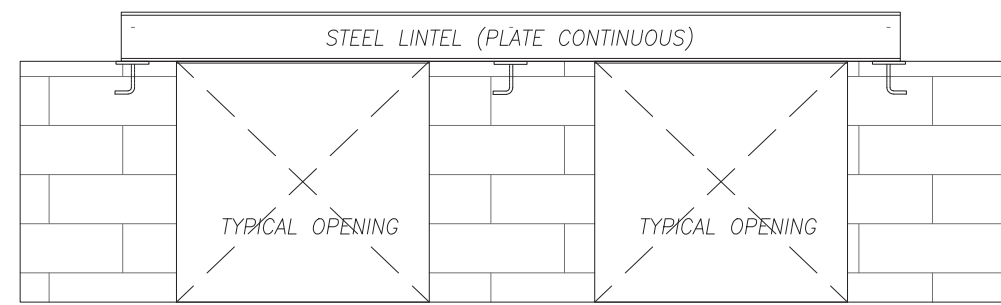
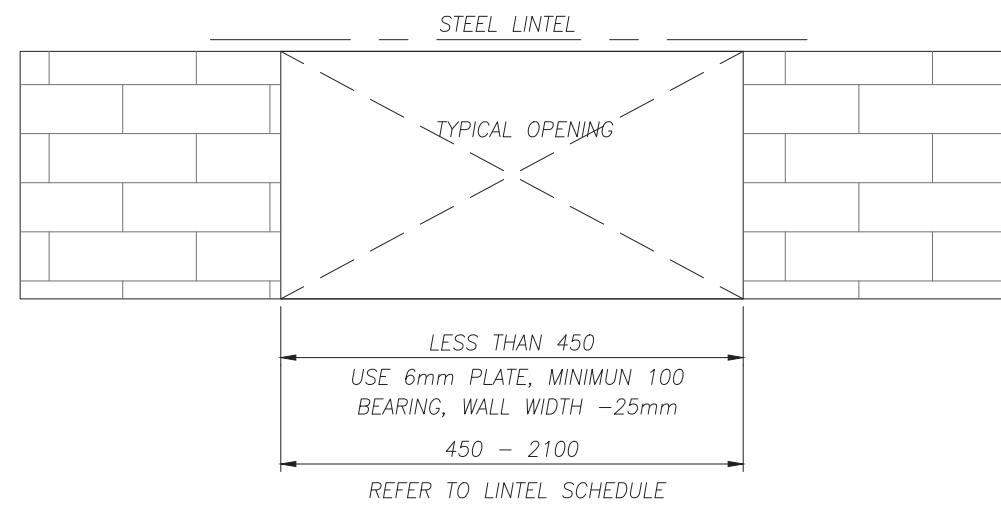




**TYPICAL INTERIOR WALL DUCT
OPENING GREATER THAN 400mm WIDE**
NOT TO SCALE



**TYPICAL INTERIOR WALL DUCT
OPENING LESS THAN 400mm WIDE**
NOT TO SCALE

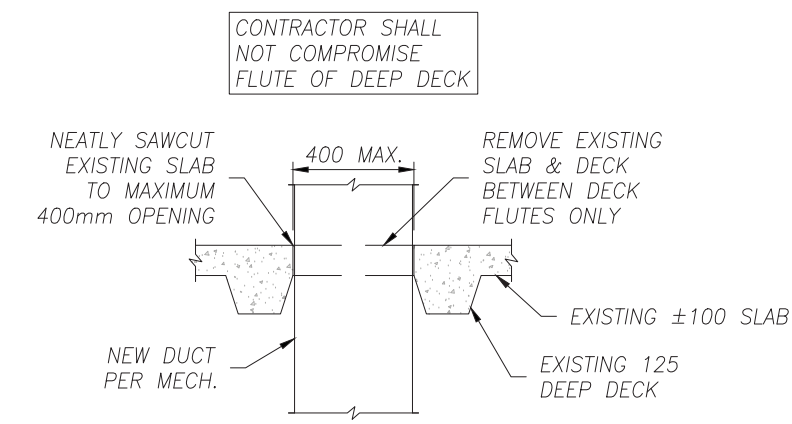


CLEAR SPAN	140 WALL	190 WALL
UP to 1200	2Ls 25x65x8	2Ls 90x90x8
1200 to 1800	2Ls 90x65x8	2Ls 125x90x8
1800 to 2100	2Ls 90x65x10	2Ls 150x90x8

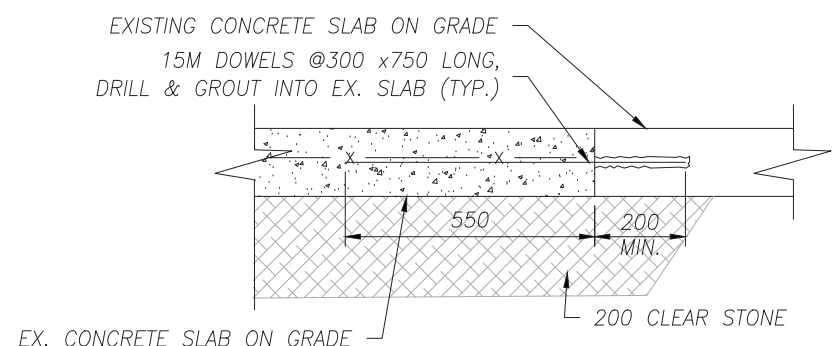
CLEAR SPAN	240 WALL	290 WALL
UP to 1200	2Ls 100x100x8	3Ls 90x90x8
1200 to 1800	2Ls 120x100x8	3Ls 125x90x8
1800 to 2100	2Ls 150x100x8	3Ls 150x90x8

FOR LINTELS IN 90 VENEER, USE 1 ANGLE OF THAT NOTED FOR 190 WALL ON SIMILAR SPAN.
DOUBLE ANGLES TO BE STITCH WELDED BACK TO BACK.

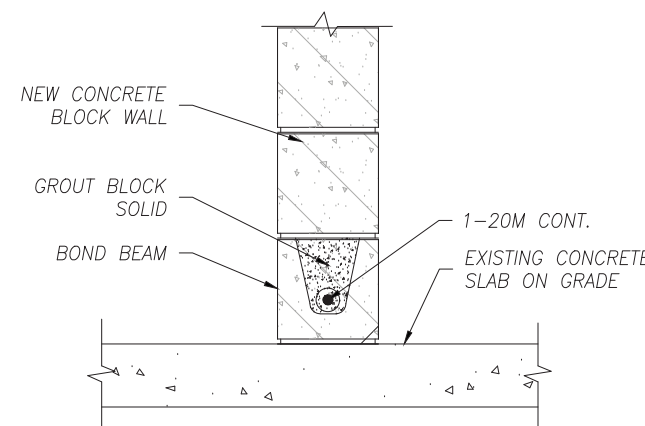
TYPICAL STEEL LINTEL DETAIL
NOT TO SCALE



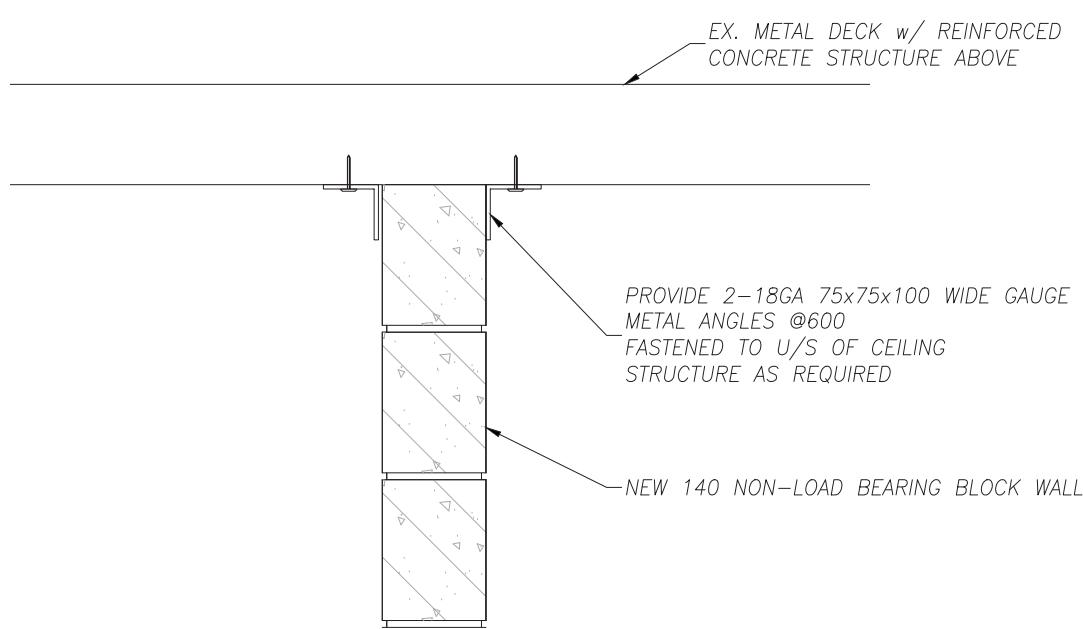
TYP. CORING PEN. DETAIL
NOT TO SCALE
SECOND & THIRD FLOOR FRAMING



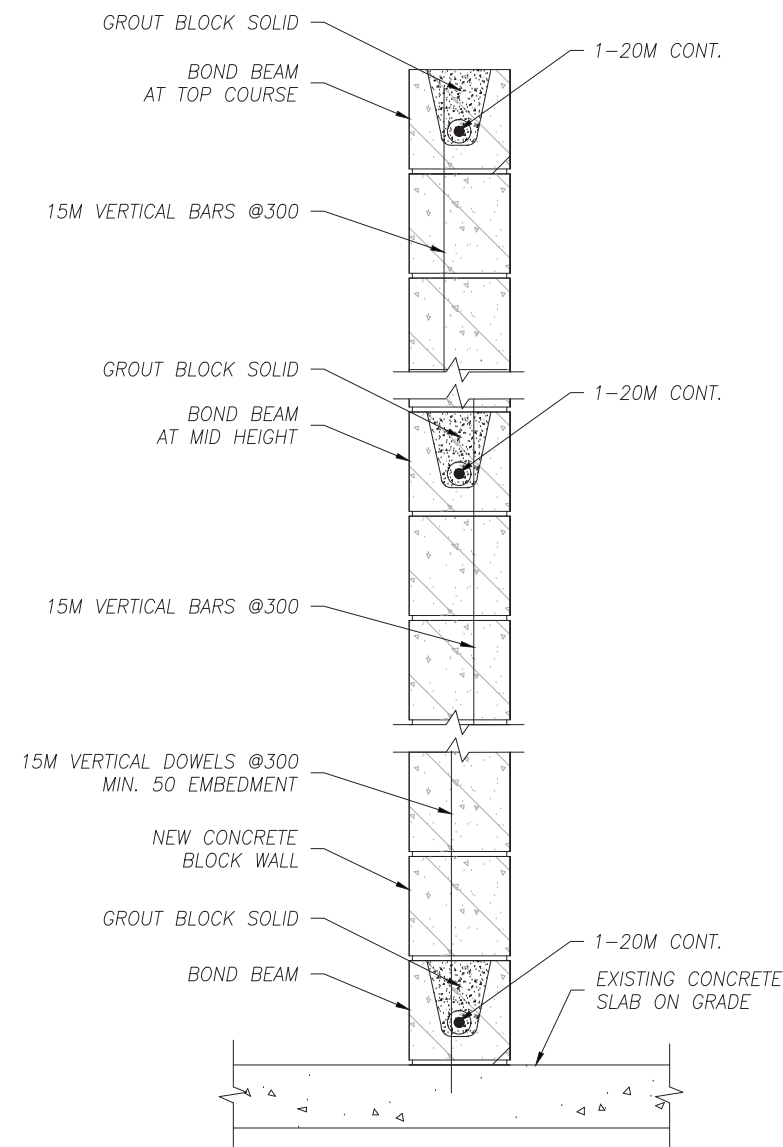
TYP. SLAB CONNECTION DETAIL
SCALE
N.T.S.



BOND BEAM ON SLAB ON GRADE
SCALE:
N.T.S.

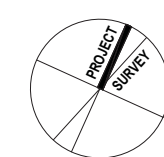


LATERAL CLIP CONNECTION DETAIL
SCALE
N.T.S.



PARTIAL HEIGHT BLOCK REINFORCEMENT
SCALE:
N.T.S.

DO NOT SCALE DRAWING. DIMENSIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR ON SITE.
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HWDSB
P02083 W.H. Ballard Elementary School

2	ISSUED FOR TENDER	04/16/2025
1	ISSUED FOR PERMIT	03/19/2025

No.	DESCRIPTION	DATE
	REVISIONS	

SEAL:



E & M
Consulting Engineers Inc.



project file:
HWDSB
P02083 W.H. BALLARD
ELEMENTARY SCHOOL
WASHROOM RENOVATIONS AND
UPGRADES
801 DUNSMUIRE ROAD
HAMILTON, ONTARIO
drawing title:
FRAMING DETAILS

drawn: QN	scale: AS NOTED
date: 03/19/2025	project number: 24177
checked: J.P.C.	drawing no: S4.01
date: 03/19/2025	revision:

