

1 / A0.1 LOCATION PLAN
NTS

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

5800 RIVER GROVE AVE., MISSISSAUGA, ON, L5M 4R5

ISSUED FOR TENDER
30 MARCH 2026

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BLACKWELL STRUCTURAL ENGINEERS
STRUCTURAL CONSULTANT

JDX ADVANCE SERVICE INC.
MECHANICAL AND ELECTRICAL CONSULTANT

DRAWING LIST

ARCHITECTURAL
A0.1 DRAWING LIST / LOCATION MAP /GENERAL NOTES
A0.2 TYPES / SCHEDULE / GENERAL TYPES NOTES
A0.3 TYPES / TYPICAL DETAILS
A0.4 TYPICAL DETAILS
A0.5 PHOTOS-EXISTING CONDITIONS (STAIR NO. 5)
A0.6 PHOTOS-EXISTING CONDITIONS (GYM)
A0.7 PHOTOS-EXISTING CONDITIONS (POOL SLIDE BENCH)
A1.0 KEY PLAN RIVER GROVE COMMUNITY CENTRE
A1.0A STAGING / HOARDING GROUND FLOOR PLAN
A1.0B STAGING / HOARDING SECOND FLOOR PLAN
A1.1 DEMOLITION PLAN SWIMMING POOL BASEMENT FILTER ROOM
A1.2 DEMOLITION PLAN SWIMMING POOL GROUND FLOOR / SECOND FLOOR
A1.3 DEMOLITION PLAN CHANGE ROOMS / SOUTH COLONNADE
A1.4 DEMOLITION PLAN / GYM SENSORS AND YOUTH / ROOMS / ART ROOM / NORTH COLONNADE
A1.5 DEMOLITION PLAN STAIRS / VESTIBULE / MECHANICAL ROOMS
A1.6 DEMOLITION RCP GROUND FLOOR / SOUTH COLONNADE / SOUTH BUILDING
A1.7 DEMOLITION RCP GROUND FLOOR / NORTH COLONNADES / NORTH BUILDING
A1.8 DEMOLITION RCP SECOND FLOOR
A1.9 DEMOLITION PLAN ROOF PLAN
A2.1 PROPOSED PLAN SWIMMING POOL GROUND FLOOR / SECOND FLOOR
A2.2 PROPOSED POOL TOPPING PLAN GROUND FLOOR / SECOND FLOOR
A2.3 PROPOSED POOL FLOOR PATTERN PLAN GROUND FLOOR / SECOND FLOOR
A2.4 PROPOSED FLOOR PATTERN PLAN AUDITORIUM / GYM AND UNIVERSAL WASHROOMS
A2.4A PROPOSED FLOOR PATTERN PLAN BASKETBALL COURT
A2.4B PROPOSED FLOOR PATTERN PLAN VOLLEYBALL COURT
A2.4C PROPOSED FLOOR PATTERN PLAN PICKLEBALL COURTS
A2.4D PROPOSED FLOOR PATTERN PLAN BADMINTON COURTS
A2.6 PROPOSED GROUND PLAN STAIRS / VESTIBULE
A2.7 PROPOSED RCP GROUND FLOOR/ SOUTH COLONNADES/ SOUTH BUILDING
A2.8 PROPOSED RCP GROUND FLOOR/ NORTH COLONNADES/ NORTH BUILDING
A2.9 PROPOSED RCP SECOND FLOOR
A2.10 PROPOSED ROOF PLAN
A5.1 INTERIOR ELEVATIONS
A5.2 INTERIOR ELEVATIONS
A5.3 INTERIOR ELEVATIONS
A5.4 INTERIOR ELEVATIONS/ENLARGED PLAN
A5.5 SECTION DETAILS

MECHANICAL
M100 MECHANICAL LEGENDS AND NOTES
M101 MECHANICAL SCHEDULES
M102 MECHANICAL DETAILS
M103 MECHANICAL DETAILS CONT.
M200 MECHANICAL L1 HVAC DEMO
M201 MECHANICAL L1 HVAC RETROFIT
M202 MECHANICAL L2 HVAC DEMO
M203 MECHANICAL L2 HVAC RETROFIT
M204 MECHANICAL L2 MECH ROOMS HVAC DEMO
M205 MECHANICAL L2 MECH ROOMS HVAC RETROFIT
M206 MECHANICAL ROOF HVAC DEMO
M207 MECHANICAL ROOF HVAC RETROFIT
M300 MECHANICAL B1 PLUMBING DEMO
M301 MECHANICAL B1 PLUMBING RETROFIT
M302 MECHANICAL L1 PLUMBING DEMO
M303 MECHANICAL L1 PLUMBING RETROFIT
M304 MECHANICAL L2 PLUMBING
M305 MECHANICAL PLUMBING SCHEMATICS
M306 MECHANICAL B1 CRAWL SPACE AQUATICS PUMPS
M307 MECHANICAL L2 MECH ROOMS HYDRONICS
M400 MECHANICAL HEATING WATER BOILER BAS SCHEMATIC
M401 MECHANICAL HOT WATER BOILER AND TANK BAS SCHEMATIC
M402 MECHANICAL POOL HEAT EXCHANGERS BAS SCHEMATIC
M403 MECHANICAL HEATING TERMINAL EQUIPMENT BAS SCHEMATICS
M404 MECHANICAL POOL DEHUMIDIFICATION BAS SCHEMATIC
M405 MECHANICAL ROOFTOP UNIT 1 BAS SCHEMATICS
M406 MECHANICAL ROOFTOP UNIT 2 CHANGEROOMS BAS SCHEMATICS
M407 MECHANICAL ROOFTOP UNITS 3-4 BAS SCHEMATICS
M408 MECHANICAL ROOFTOP UNITS 5-6 BAS SCHEMATICS
M409 MECHANICAL VENTILATION FANS BAS SCHEMATICS
M410 MECHANICAL ROOFTOP UNITS 7-12 BAS SCHEMATICS
M411 MECHANICAL ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 1
M412 MECHANICAL ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 2
M413 MECHANICAL EMERGENCY POWER BAS SCHEMATICS
M414 MECHANICAL POOL LIGHTING BAS POINTS
M500 MECHANICAL POOL FILTRATION SCHEMATICS
M501 MECHANICAL POOL FILTRATION PIPING

ELECTRICAL
E100 ELECTRICAL LEGENDS AND NOTES
E101 ELECTRICAL SCHEDULES
E102 ELECTRICAL DETAILS
E200 ELECTRICAL B1 POOL POWER DISTRIBUTION DEMO
E201 ELECTRICAL B1 POOL POWER DISTRIBUTION RETROFIT
E202 ELECTRICAL L1 POWER DISTRIBUTION DEMO
E203 ELECTRICAL L1 POWER DISTRIBUTION RETROFIT
E204 ELECTRICAL L2 POWER DISTRIBUTION
E205 ELECTRICAL L2 MECH ROOMS POWER DISTRIBUTION
E300 ELECTRICAL ELECTRICAL SLD DEMO
E301 ELECTRICAL ELECTRICAL SLD RETROFIT
E400 ELECTRICAL L2 WASHROOM SECURITY

GENERAL NOTES

GENERAL NOTES & CONDITIONS THAT APPLY TO THE ENTIRE WORK:

1. THESE PLANS ARE TAKEN FROM ARCHIVE DRAWINGS AND LIMITED SITE SURVEY INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE TO CONFIRM THE SITE CONDITIONS PRIOR TO SUBMITTING BID.

2. ALL DIMENSIONS ARE PER SITE REVIEW AND EXISTING ARCHITECTURAL DRAWINGS. ALL DISCREPANCIES BETWEEN CONDITIONS SHOWN AND SITE CONDITIONS ARE TO BE REPORTED TO ARCHITECT.

3. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE DESIGN PROFESSIONAL WHOSE SEAL IS AFFIXED TO THE THIS DRAWING.

5. CONTRACTOR TO SITE VERIFY ALL DIMENSIONS, CONDITIONS AND LEVELS ON SITE PRIOR TO FABRICATIONS/INSTALLATIONS.

6. DRAWINGS ARE NOT TO BE SCALED.

7. LOCATE AND PROTECT ALL UTILITIES.

8. CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

9. PROVIDE SECURE CONTROL OF SURFACE INSTALLATION AND FINISH APPLICATIONS TO PREVENT PERMANENT EFFECTS OF VANDALISM DURING CONSTRUCTION.

10. OBTAIN APPROVAL OF LAYOUT PRIOR TO STARTING WORK.

11. PROVIDE TEMPORARY CONSTRUCTION FENCE 1.8M HIGH MODULAR METAL FENCE WITH LOCKABLE GATE AS REQUIRED TO SECURE THE WORK ZONE.

12. CONTRACTOR IS RESPONSIBLE TO INCLUDE IN HIS SCOPE OF WORK DUST CONTROL FOR POTENTIAL SILICA IN CONCRETE / MORTAR.

13. FORMING CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO CONCRETE FOOTING WALL INSTALLATION.

15. CONTRACTOR TO COORDINATE WITH FOOTING WALL DIMENSIONS PRIOR TO FABRICATION.

16. ALL COLOURS AND MATERIALS TO BE REVIEWED BY ARCHITECT.

18. READ THIS DRAWING IN CONJUNCTION WITH THE COMPLETE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND SPRINKLER DOCUMENTATION.

19. REPAIR, PATCH & MAKE GOOD ALL EXISTING STRUCTURE AND FINISHES AFFECTED BY CONSTRUCTION.

20. ALL NEW WORK TO MAKE GOOD EXISTING; SHALL MATCH EXISTING IN MATERIAL, CONSTRUCTION AND FINISH UNLESS OTHERWISE SPECIFIED.

21. PROTECT EXISTING FINISHES TO REMAIN AS INDICATED IN DOCUMENTATION. WHERE DEMOLITION WORK IMPACTS ON THESE FINISHES, PATCH AND MAKE GOOD TO MATCH EXISTING.

22. CONTRACTOR SHALL PERFORM ALL NECESSARY DEMOLITION, ALTERATIONS AND NEW CONSTRUCTIONS AS REQUIRED TO MAKE THE WORK A COMPLETE JOB, INCLUDING BUT NOT LIMITED TO WORK SHOWN ON DRAWINGS AND SPECIFICATIONS.

23. ANY OPENINGS IN FIRE RATED WALLS, CEILINGS AND FLOORS TO BE RETURNED TO EQUIVALENT CONDITION PRIOR TO THE OPENING. ALL ELECTRICAL & MECHANICAL PENETRATIONS TO BE SEALED WITH FIRE STOP MATERIAL AS PER SPECIFICATION AND OBC.

25. ALL REQUIRED CUTTING & FITTING INCLUDING ELECTRICAL & MECHANICAL TO CONNECT EXISTING WORK WITH THE NEW WORK TO BE PERFORMED AS PART OF THIS CONTRACT TO FINISH THE ENTIRE WORK IN A WORKMANLIKE AND WHOLE CONDITION.

26. ALL NEW WORK TO MAKE GOOD EXISTING; SHALL MATCH EXISTING IN MATERIAL, CONSTRUCTION AND FINISH UNLESS OTHERWISE SPECIFIED.

27. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTATION FOR SPECIFIC EQUIPMENT TO BE REMOVED. PATCH AND MAKE GOOD ANY DAMAGE CAUSED BY REMOVAL OF MECHANICAL AND ELECTRICAL EQUIPMENT OR BY RELATED DEMOLITION WORK.

28. CONDUCT X-RAYS AND PERFORM INSPECTIONS AT AREAS WHERE CUTTING, DRILLING OR SLEEVING THROUGH EXISTING STRUCTURE IS REQUIRED TO ENSURE EXISTING SERVICES WILL NOT BE DAMAGED. REPAIR AND REINSTATE EXISTING SERVICES IMMEDIATELY IF DAMAGED.

29. CONTACT CONSULTANT IMMEDIATELY IF ANY UNKNOWN SERVICES ARE UNCOVERED AND INTERFERE WITH NEW WORK.

30. REMOVE ALL FURNISHINGS WITHIN THE EXTENT OF NEW WORK. CO-ORDINATE RELOCATION OR DISPOSAL WITH OWNER. ITEMS TO BE RELOCATED ARE TO BE STORED IN A PROTECTED AREA DURING CONSTRUCTION.

31. ALL ITEMS INDICATED IN THE CONTRACT DOCUMENTS AS 'COORDINATION ITEMS' OR ITEMS IDENTIFIED AS N.I.C., INCLUDING BUT NOT LIMITED TO THE EQUIPMENT, SECURITY, DATA CONNECTION, SERVER, AUDIO & VISUAL AND OTHER SPECIALTY ITEMS IDENTIFIED, ARE TO BE SUPPLIED AND INSTALLED BY OTHER PARTIES OR ALLOWANCES BUT WILL REQUIRE THE COMMON ACTION OR EFFORT OF THE GENERAL CONTRACTOR IN RELATION TO THE OVERALL PROJECT. WITH RESPECT TO ALL COORDINATION ITEMS IDENTIFIED, THE GENERAL CONTRACTOR IS EXPECTED TO:
-BUILDING ENVELOPE INSPECTIONS
-STRUCTURAL INSPECTIONS
-WATERPROOFING MEMBRANE INSPECTIONS
-CITY'S SECURITY VENDOR
-CITY'S CORPORATE SECURITY
-BELL CANADA VOICE AND DATA CONNECTION
-FIRE DEPARTMENT
-CITY'S IT DEPARTMENT
-CITY'S CARD READER VENDOR
-CITY'S KEY SCHEDULE VENDOR
-CITY'S SECURITY CAMERAS VENDOR
-CITY'S INTRUSION SYSTEMS VENDOR
-CITY'S DURESS SYSTEMS VENDOR

32. REVIEW ALL ITEMS IDENTIFIED AS 'COORDINATION ITEMS' IN THE DRAWINGS AND COMMUNICATE WITH THE REQUIRED RESPONSIBLE PARTIES OF THE DEVICES THE DETAILED REQUIREMENTS OF EACH ITEM AS IT IMPACTS THE WORK OF GENERAL CONTRACTOR AND AS IT RELATES TO THE OVERALL COMPLETION OF THE PROJECT.
B. VERIFY THE EXISTING CONDITION AND ANY LIMITATIONS OF THE DEVICE AS INSTALLED IN THE PROPOSED LOCATION.
C. COORDINATE WORK OF OWNER'S OWN FORCE INTO THE OVERALL CONSTRUCTION SEQUENCE.
D. PROVIDE ALL REQUIRED ROUGH-INS, RELATED CONSTRUCTIONS AND CONNECTIONS REQUIRED BY THE DEVICES OF OTHERS TO SUIT THE COORDINATION ITEM AND AS INDICATED IN THE CONTRACT DOCUMENTS.
E. SCHEDULE AND COORDINATE THE WORK OF OTHERS INTO THE OVERALL CONSTRUCTION SEQUENCE TO AVOID UNNECESSARY DELAY TO THE COMPLETION OF THE OVERALL PROJECT.
F. ENSURE THAT THE PROPOSED ITEM IS INSTALLED AS INTENDED AND IS MADE FULLY OPERATIONAL AT THE COMPLETION OF THE WORK.

33. GENERAL CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AS REQ'D TO PERFORM THE WORK INCLUDING AND NOT LIMITED TO THE FOLLOWING STREET OCCUPATION PERMIT, ESA PERMIT, STREET WORK PERMIT AND ETC.

34. THE BUILDING WILL REMAIN IN OPERATION DURING THE COURSE OF CONSTRUCTION. INTERIOR AND EXTERIOR WORK IS TO OCCUR IN PHASES THROUGHOUT THE BUILDING AND MUST BE COORDINATED WITH THE BUILDING USERS AND OWNERS TO MINIMIZE DISRUPTION TO STAFF AND THE FACILITY OPERATIONS.

35. COMPLY WITH THE MOST CURRENT REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, REGULATION FOR CONSTRUCTION PROJECT.

36. BE RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PEDESTRIANS AND VEHICLES IN THE WORK AREA. PROVIDE AND INSTALL BARRICADES, SIGNS, GUARDRAILS, ETC AS REQUIRED. AT THE CONCLUSION OF EACH DAY'S WORK, ENSURE THAT ALL PRECAUTIONS NECESSARY FOR THE PROTECTION AND SAFETY OF PEDESTRIANS AND VEHICLES HAVE BEEN TAKEN.

37. PROVIDE AND MAINTAIN OVERHEAD PROTECTION AT ALL BUILDING ENTRANCES, EXITS, DOORS AND PATIOS.

38. DO NOT BLOCK ANY FIRE EXITS.

39. PROVIDE ADEQUATE PROTECTION OF MATERIALS AND WORK FROM DAMAGE AND STAINING BY WEATHER AND OTHER CAUSES. CONTRACTOR SHALL MAKE GOOD ANY DAMAGE.

40. CONTRACTOR TO ENSURE ALL WALKWAYS / PATHS TO AND FROM ALL ENTRANCE DOORS ARE FREE OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES DURING THE WORK.

41. MAINTAIN AT ALL TIMES CLEAR ACCESS ON DRIVE AISLES ADJACENT TO BUILDING TO THE SITE.

42. MOBILIZATION, STORAGE OR ACCESS NOT PERMITTED AT ADJACENT PROPERTY.

43. NO PARKING IS AVAILABLE ON SITE.

GENERAL NOTES

44. ACCESS INTO THE BUILDING AREA IS GENERALLY RESTRICTED. NO ACCESS INSIDE THE BUILDING WITHOUT EXPRESSED WRITTEN CONSENT FROM THE CITY.

45. THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION. THE GENERAL CONTRACTOR TO COORDINATE PHASING AS REQUIRED.

46. CONTRACTOR TO ADJUST TIMELINES & SCHEDULES ACCORDINGLY TO ACCOMMODATE TO THE RESTRICTIONS.

47. THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION. THE GENERAL CONTRACTOR TO COORDINATE PHASING AS REQUIRED. ALLOW FOR AFTER HOURS WORK.

48. ALL CONSTRUCTION ACTIVITIES RELATED TO DISCONNECTION AND RECONNECTION OF THE ELECTRICAL SYSTEM TO BE SCHEDULED AFTER HOURS. ALL WORK OUTSIDE OF HOARDING TO BE COMPLETED DURING AFTER HOURS.

50. WORK IN HALLWAY AREAS OUTSIDE CONSTRUCTION ZONES TO BE SCHEDULED "AFTER-HOURS".

51. ANY NOISE-CREATING WORK TO BE SCHEDULED AT AFTER HOURS TO REDUCE IMPACT ON COURT SERVICES.

52. CONTRACTOR TO COMPLY WITH THE LATEST PROVINCE OF ONTARIO ARCHITECTURAL DESIGN STANDARDS FOR COURT HOUSES.

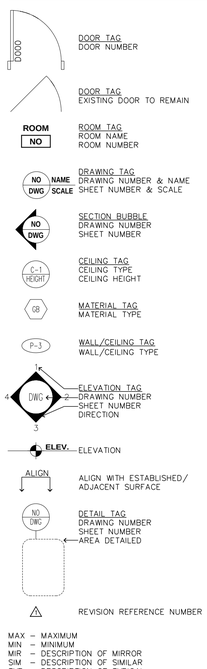
53. CONSTRUCTION ACCESS ONLY PERMITTED FROM REAR ENTRANCE. PROVIDE OUTDOOR STAGING AREA ON THE EXTERIOR SIDE OF THE BUILDING, COMPLETED WITH FENCED OFF AREA, LOCK AND SITE SAFETY SIGNAGE. COORDINATE WITH BUILDING USERS AND OWNER FOR THE LOCATION OF STAGING AREA.

54. BUILDING IS OPEN FROM 6:00AM TO 11:00PM, EVERY DAY OF THE WEEK (INCLUDING SATURDAY AND SUNDAY). CONTRACTOR TO ALLOW AFTER HOUR WORK IN THE BASE BID

STANDARD ABBREVIATIONS

ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
BLDG	BUILDING
BLK	BLOCK
CL	CENTRELINE
CLG	CEILING
CONT	CONTINUOUS
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
ELEV	ELEVATOR
EX/EXIST	EXISTING
FLR	FLOOR
F/O	FACE OF
FRR	FIRE RESISTANCE RATING
FPR	FIRE PROTECTION RATING
HT	HEIGHT
MAX	MAXIMUM
MIN	MINIMUM
MIR	MIRRORED
NIC	OWNER SUPPLIED CONTRACTOR INSTALLED
NTS	NOT TO SCALE
OC	ON CENTRE
OSCI	OWNER SUPPLIED CONTRACTOR INSTALLED
PL	PLATE
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
REV	REVERSE
RM	ROOM
SIM	SIMILAR
SHR	SHOWER
STD	STUD
T&G	TONGUE & GROOVE
T/O	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE OF
VIF	VERIFY IN FIELD

SYMBOL LEGEND

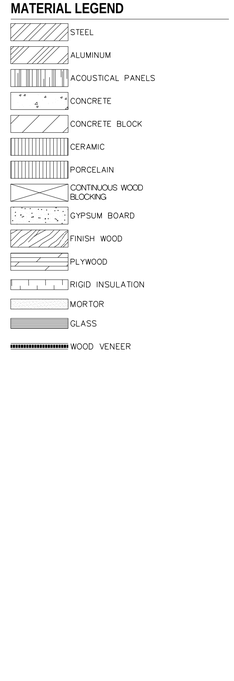


MAX - MAXIMUM
MIN - MINIMUM
MIR - DESCRIPTION OF MIRROR
SIM - DESCRIPTION OF SIMILAR
TYP - DESCRIPTION OF TYPICAL

MATERIAL ABBREVIATIONS

ADO	AUTOMATIC DOOR OPERATOR
AVB-1	VAPOUR RETARDER MEMBRANE
AVB-2	VAPOUR RETARDER MEMBRANE
AL-1	ANODIZED ALUMINUM
CH	COAT HOOK
CTW-1	CURTAIN WALL SYSTEM
EPS	EMERGENCY PANIC STRIP
FD	FLOOR DRAIN
GB-1	13MM GYPSUM WALL BOARD
GB-2	16MM TILE BACKER BOARD
GBR-1	L-SHAPED GRAB BAR
GBR-2	GRAB BAR
GL-1	12MM STANDARD TEMPERED GLASS
HM-#	HOLLOW METAL
HMF-#	HOLLOW METAL FRAME
INS-4	POLYISOCYANURATE INSULATION
INS-5	TAPERED INSULATION
MR	MIRROR
ND	SANITARY NAPKIN DISPENSER
PT-1	PAINT COLOUR 1
PT-2	PAINT COLOUR 2
PT-3	PAINT COLOUR 3
PT-4	PAINT COLOUR 4
PT-5	PAINT COLOUR 5
PT-6	PAINT COLOUR 6
POR	PORCELAIN TILE (SEE TILE SCHEDULE)
POR-1	PORCELAIN TILE COLOUR #1 (SEE TILE SCHEDULE)
POR-10	PORCELAIN TILE COLOUR #2 (SEE TILE SCHEDULE)
POR-2	PORCELAIN TILE COLOUR #3 (SEE TILE SCHEDULE)
POR-3	PORCELAIN TILE COLOUR #4 (SEE TILE SCHEDULE)
POR-4	PORCELAIN TILE COLOUR #5 (SEE TILE SCHEDULE)
POR-5	PORCELAIN TILE COLOUR #6 (SEE TILE SCHEDULE)
POR-6	PROCELAIN TILE COLOUR #7 (SEE TILE SCHEDULE)
POR-N	PROCELAIN TILE COLOUR #8 (SEE TILE SCHEDULE)
POR-F	PROCELAIN TILE COLOUR #9 (SEE TILE SCHEDULE)
POR-C	PROCELAIN TILE COLOUR #10 (SEE TILE SCHEDULE)
POR-7	PORCELAIN TILE COLOUR #11
POR-8	PORCELAIN TILE COLOUR #12
POR-10	PORCELAIN TILE COLOUR #13
POR-11	PORCELAIN TILE COLOUR #14
POR-12	PORCELAIN TILE COLOUR #15
RB-1	RUBBER BASE TO MATCH EXISTING
SOL-1	SOLID SURFACING COLOUR #1
TRH-1	THRESHOLD TRIM
TRH-2	THRESHOLD TRIM
TTD	TOILET PAPER DISPENSER
WR	WASTE RECEPTACLE

MATERIAL LEGEND



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general notes :

1. These Contract Documents are the property of the Architect. The Architect bears no responsibility for the misinterpretations of these documents by the Contractor. Upon written application the Architect will provide written / graphic clarification or supplemental information regarding the intent of the Contract Documents. The Architect will review Shop Drawings submitted by the Contractor for design conformance only.

2. Drawings are not to be scaled for construction. Contractor to verify all existing conditions and dimensions required to perform the Work and report any discrepancies with the Contract Documents to the Architect before commencing work.

3. Positions of exposed or finished mechanical or electrical devices, fittings, and fixtures are indicated on the Architectural drawings. The locations shown on the Architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as per directed by the Architect.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 80%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

DRAWING LIST/ LOCATION MAP/ GENERAL NOTES

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. : A0.1

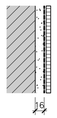
PARTITION TYPES

P-1 PARTITION



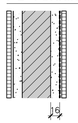
RETAIN EXISTING PARTITION
REPAIR TO ACHIEVE CONTINUOUS SMOOTH SURFACE FINISH AS REQUIRED
PAINT FINISH (BOTH SIDES IF EXPOSED)

F-1 FURRING



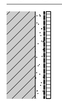
LAMINATE TO EXISTING CONCRETE BLOCK PARTITION
16MM GB-2
WATERPROOFING
MORTAR
CERAMIC TILE FINISH

F-2 FURRING



CERAMIC TILE FINISH
MORTAR
WATERPROOFING
16MM GB-2
LAMINATE TO EXISTING CONCRETE BLOCK PARTITION
16MM GB-2
WATERPROOFING
MORTAR
CERAMIC TILE FINISH

F-3 FURRING

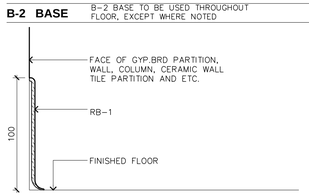


LAMINATE TO EXISTING CONCRETE BLOCK PARTITION
16MM GB-2
WATERPROOFING
POR-11

BASE TYPES

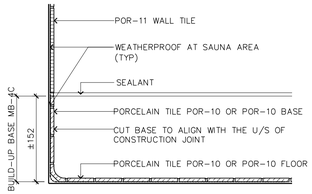
B-2 BASE

B-2 BASE TO BE USED THROUGHOUT FLOOR, EXCEPT WHERE NOTED



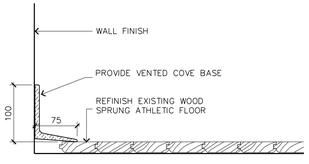
B-3 BASE

B-3 BASE TO BE USED THROUGHOUT POR-10 OR POR-11, EXCEPT WHERE NOTED



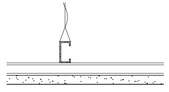
B-4 BASE

B-4 BASE TO BE USED THROUGHOUT GYM, EXCEPT WHERE NOTED



CEILING TYPES

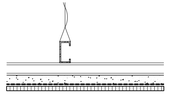
C-1 CEILING



38MM CARRYING CHANNELS SUSPENDED FROM EXISTING STRUCTURE
22MM FURRING CHANNELS AT 400MM O.C. MAX
16MM GB-1

PAINT ALL NEW GYPSUM BOARD CEILING

C-2 CEILING

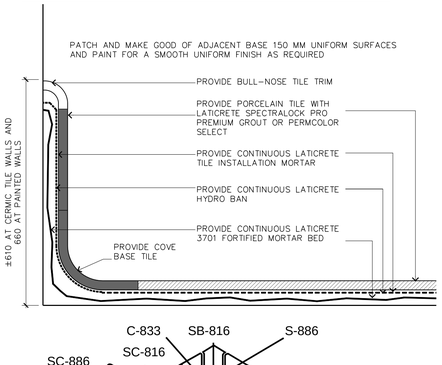


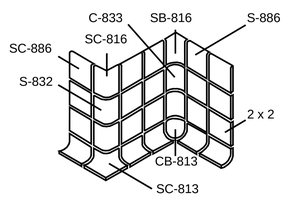
38MM CARRYING CHANNELS SUSPENDED FROM EXISTING STRUCTURE
22MM FURRING CHANNELS AT 400MM O.C. MAX
16MM GB-2
WATERPROOFING
POR-12

BASE TYPES

B-1 BASE

B-1 BASE TO BE USED THROUGHOUT THE POOL DECK WHEN OTHERWISE NOTED





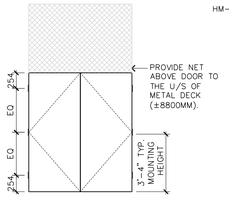
TILE TRIM TYPES

	Type	Number	Size (inches)	Price Groups
	Bullnose	S886	2 x 2	1, 2, 3, 4
	Bullnose Corner	SC886	2 x 2	1, 2, 3, 4
	Cove Base	C833	2 x 2	1, 2, 3
	Cove Base Corner	SB816*	2 x 2	1, 2
	Cove Base Corner	SC816*	2 x 2	1, 2
	Outcorner	SCRL833*	2 x 1	1, 2, 3
	Universal Trim	S832	2 x 2	1, 2
	Universal Trim	C701*	2 x 1	1, 2, 3, 4

* CUSTOM MADE-TO-ORDER

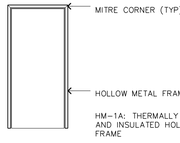
DOOR TYPES

D-1 DOOR — INTERIOR



FRAME PROFILES

HM-1/ HM-1A FRAME



HM-1A: THERMALLY BROKEN AND INSULATED HOLLOW METAL FRAME

GENERAL TYPES NOTES

GENERAL TYPES NOTES:

A. PROVIDE MOISTURE AND ABUSE RESISTANT GYPSUM BOARD. TYPICAL FOR ALL WALLS.

B. FOR ALL PARTITIONS, PROVIDE CONTINUOUS WATERPROOFING MEMBRANE ON WALL, WHEN CLAD IN TILE OR UNTIL TILE IS STOPPED. WHEN THERE IS NO WALL TILE CONTINUE 150MM BEHIND PORCELAIN BASE.

C. IN ROOMS WITH FLOOR DRAINS. TO SLOPE FINISHED FLOOR TO DRAIN.

D. SEE MECHANICAL DRAWINGS FOR RECESSED TYPE ACCESS DOORS IN CEILINGS / FLOORS / WALLS. PROVIDE RECESSED ACCESS DOORS; HATCHES FACE OF DOOR TO BE FLUSH W/ ADJACENT SURFACE.

E. ALL STEEL STUDS, FURRING AND RESILIENT CHANNELS TO BE GALVANIZED.

F. PROVIDE THRESHOLDS AT ALL FLOOR FINISH TRANSITIONS TO ENSURE FLOOR FINISHES ARE EQUAL.

ROOM FINISH SCHEDULE

ROOM NO.	LOCATION	FLOOR MAT'L	BASE TYPE	WALLS N	WALLS E	WALLS S	WALLS W	CEILING	REMARKS
1002	EX. STAIR NO.2	STAIR NOSING/ TACTILE SURFACES	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–
1003	EX. STAIR NO.3	STAIR NOSING/ TACTILE SURFACES	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–
1006	EX. VESTIBULE	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	C-1	–
1048C	EX. WC	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–
1051A	VESTIBULE	EXIST.	EXIST.	–	EXIST./POR	EXIST./POR	EXIST./POR	EXIST.	–
1067	EX. SWIMMING POOL	POR	B-1	EXIST./POR	EXIST./POR	EXIST./POR	EXIST./POR	EXIST.	–
1072	EX. AUDITORIUM / GYMNASIUM	REFINISH EXIST. WOOD FLOOR	B-4	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	PROVIDE NEW PAINT ON METAL DECK
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
2006	EX. SLIDE MEZZANINE	POR	B-1	–	EXIST./POR	EXIST./POR	–	EXIST.	–
2020	EX. WC	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–
2021	EX. WC	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–
1024	EX. STEAM	POR-10	B-3	POR-11	POR-11	POR-11	POR-11	C-2	PROVIDE SOL-1 AT SAUNA SEATINGS
1019	EX. STEAM	POR-10	B-3	POR-11	POR-11	POR-11	POR-11	C-2	PROVIDE SOL-1 AT SAUNA SEATINGS
1012	EX. SQUASH COURT #1	EXIST.	EXIST.	EXIST.	PT	EXIST.	EXIST.	EXIST.	–
1013	EX. SQUASH COURT #2	EXIST.	EXIST.	EXIST.	PT	EXIST.	EXIST.	EXIST.	–
1014	EX. SQUASH COURT #3	EXIST.	EXIST.	EXIST.	PT	EXIST.	EXIST.	EXIST.	–

ROOM FINISH SCHEDULE GENERAL NOTES:

1. PATCH AND MAKE GOOD OF ALL EXISTING T-BAR CEILING SYSTEM (GRID) TO ACHIEVE AN UNIFORM AND CONTINUOUS APPEARANCE.
2. PATCH AND MAKE GOOD OF ALL EXISTING CEILING TO ACHIEVE AN UNIFORM AND CONTINUOUS APPEARANCE.
3. PROVIDE NEW ACOUSTIC CEILING TILES TO REPLACE EXISTING CEILING TILES, WHERE NOTED. EXISTING CEILING GRID SYSTEM TO REMAIN.
4. PAINT ALL GB AND FRAME SURFACES.
5. PATCH AND MAKE GOOD OF ALL EXISTING SURFACES AS REQ'D.
6. PROVIDE B-1 BASE TO BE USED AT ALL EXISTING AND NEW WALLS THROUGHOUT WORK, EXCEPT WHERE NOTED.
7. PAINT ALL REMAINING PAINTABLE DOORS AND FRAMES.
8. PAINT ALL OF BULKHEAD, HORIZONTAL AND VERTICAL GYPSUM SURFACES.

DOOR SCHEDULE

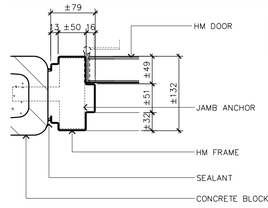
DOOR NO.	ROOM NO.	DOOR WIDTH	HEIGHT	THICK	MAT'L	FINISH	TYPE	FRAME MAT'L	FRAME FINISH	LVR. TYRE	REMARKS
D1072	1072	±1550MM	2134MM	45	HM-1	PT	D-1	HMF-1	PT	LEVER	DOUBLE DOOR
D2020	2020	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–	–	–	–	AUTOMATIC DOOR OPERATOR
D2021	2021	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	–	–	–	–	AUTOMATIC DOOR OPERATOR

DOOR SCHEDULE GENERAL NOTES:

1. GENERAL CONTRACTOR TO SITE CONFIRM ALL DOOR OPENING DIMENSIONS PRIOR TO DOORS AND FRAME FABRICATION.
2. ALL SECURITY DEVICES WITHOUT LIMITATIONS SUCH AS CARD READER, DOOR CONTACTS, ELECTRIC STRIKES, ETC SHALL BE REMOVED, SALVAGED AND REINSTALLED.
3. ALL NEW HOLLOW METAL FRAME AND DOOR SHALL BE G90 GALVANIZED AND FULLY WELDED CONSTRUCTION.
4. ALL DOORS IN FIRE RATED ASSEMBLIES TO HAVE SELF-CLOSING DEVICES AND ASSOCIATED HARD (PANIC HARDWARE) AND PROVIDE REQUIRED RATING EVEN IF NOT NOTED IN HARDWARE OR DOOR SCHEDULE. ALL COST FOR SUPPLY AND INSTALLED TO BE CARRIED.
5. ALL DOOR AND FRAMES WITHIN FIRE RATED ASSEMBLY OR WALL TO BE HAVE APPROPRIATE RATING EVEN IF NOT NOTED IN DOOR OR HDWARE SCHEDULE.
6. COORDINATE THROATSIZE TO WALL TYPES AND MANUFACTURER'S TOLERANCES.
7. ANCHORS TO EACH JAMB TO SUIT MASONRY WALL TYPE AND RECEIVE THE FRAME.
8. PROVIDE ACOUSTIC SEALANT, SEAL SEALANT AND FILL FRAME AT ALL DOORS IN ACOUSTICALLY RATED WALL ASSEMBLIES.
9. FOR DOOR SWINGS SEE PLAN. DOORS SHALL SWING IN DIRECTION OF EXITING.
10. PATCH AND MAKE GOOD AT ALL ADJACENT SURFACES AS REQUIRED TO PROVIDE A CONTINUOUS FIRE RATING AS NOTED ON THE DRAWINGS.
11. GENERAL CONTRACTOR SHALL EMPLOY ONE OR MORE AHC (ARCHITECTURAL HARDWARE CONSULTANT) WHO ARE MEMBERS IN GOOD STANDING OF THE DOOR AND HARDWARE INSTITUTE (DHI) AND WHO IS RESPONSIBLE FOR THE COMPLETE HARDWARE CONTRACT.
12. ALL EXIT DOORS TO HAVE HARDWARE IN CONFORMANCE TO O.B.C EXT REQUIREMENTS GENERAL CONTRACTOR TO CO-ORDINATE INSTALLATION AND LOCATIONS WITH MAGLOCK AND DOOR AND HARDWARE MANUFACTURER.
13. PROVIDE NEW HARDWARE WITHOUT LIMITATION TO THE FOLLOWING, EXITING DEVICE (PANIC BAR), LOCK SETS, CLOSERS, DOOR REINFORCEMENTS, KICKPLATES, LEVER SETS, DOOR STOPS, HINGES, STRIKES, PULLS, SMOKE SWEEP, BUMPERS, THRESHOLDS, ALL ASSOCIATED ELECTRICAL DEVICES AND ETC.
14. ALL HARDWARE SHALL BE ULC-LISTED FIRE RATING FOR ALL FUNCTIONS.
15. ALL HARDWARE SHALL BE HEAVY-DUTY COMMERCIAL QUALITY LOCKSETS AND LATCHSET, MORTISED TYPE AND LEVER HANDLES SHALL BE SOLID MATERIAL.
16. KEY LOCK CYLINDER TO MATCH EXISTING BASE BUILDING. PROVIDE FOUR KEYS FOR EACH LOCK CYLINDER.
17. FINISH HARDWARE MATERIALS AND WORKMANSHIP SHALL CONFORM TO QUALITY STANDARD OF THE DOOR AND HARDWARE INSTITUTE (DHI).
18. GENERAL CONTRACTOR RESPONSIBILITY TO COORDINATE DOORS WITH FLOOR PLANS.
19. PATCH AND MAKE GOOD AT ALL ADJACENT SURFACES AS REQUIRED TO PROVIDE A CONTINUOUS 1 HOUR FIRE RATED.
20. ALL HARDWARE SHALL BE ULC-LISTED FIRE RATING FOR ALL FUNCTIONS UP TO 1-HOUR DOORS ALL HARDWARE SHALL BE HEAVY-DUTY COMMERCIAL QUALITY LOCKSETS AND LATCHSET, MORTISED TYPE AND LEVER HANDLES SHALL BE SOLID MATERIAL.

HOLLOW METAL FRAME TYPES

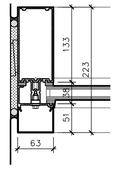
HMF-1 FRAME (JAMB & HEAD SIM)



STANDARD FRAME PROFILE AT CONCRETE AND CONCRETE BLOCK PARTITIONS

EXTERIOR CURTAIN WALL TYPES (1600 WALL SYSTEM)

CTW-1



HORIZONTAL AND VERTICAL MEMBERS

51MM CAP
133MM ALUMINUM BACK SECTION
FILM-1

**ALL EXTERIOR SEALED GLASS UNITS TO USE LOW-E, ARGON FILLED, W/ WARM EDGE SPACERS

ROOM SIGNS A



BACKGROUND PMS COOL GRAY 11

PICTOGRAMS, TYPE WHITE

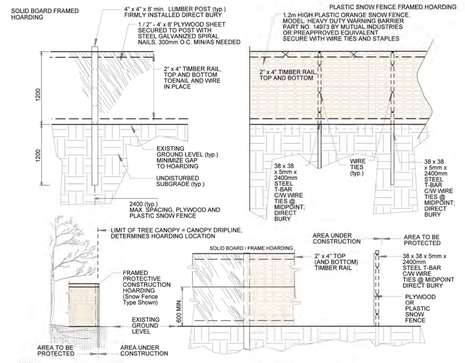
BRAILLE (CLEAR) MATCH BACKGROUND

GOTHAM MEDIUM 65PT
75PT LEADING
0 TRACKING

BRAILLE BACKGROUND COLOUR

2 / A0.2 SIGNAGE N.T.S.

Hoarding
Framed Protective Construction Hoarding
Solid Board- Plastic Snow Fence



NOTES
1. HOARDING LOCATION AS PER DRAWINGS. HOARDING INSTALLATIONS ARE TO INCLUDE WOVEN GEOTEXTILE FABRIC FOR SEDIMENT CONTROL.
2. NO MOBILIZATION OR CONSTRUCTION WORK TO OCCUR UNTIL HOARDING HAS BEEN INSPECTED AND APPROVED BY COMMUNITY SERVICES PROJECT MANAGER (CSPM). CONTRACTOR TO ARRANGE FOR A HOARDING INSPECTION WITH (CSPM), 48 HOUR NOTICE REQUIRED.
3. HOARDING TO BE SUPPLIED, INSTALLED AND MAINTAINED BY THE CONTRACTOR THROUGH ALL PHASES OF WORK ON SITE.
4. THE CONTRACTOR IS TO REMOVE AND DISPOSE THE HOARDING OFF SITE WHEN DIRECTED BY THE (CSPM).
5. ALL WOOD PRODUCTS TO BE NEW AND LUMBER KILN DRIED SPF
6. ALL FASTENERS TO BE NEW GALVANIZED STEEL AND SECURELY INSTALLED. WIRE TIES MIN 3.5mm DIA. GALVANIZED STEEL.
7. DO NOT ALLOW WATER TO COLLECT AND/OR POND ON EITHER SIDE OF THE HOARDING.
8. WHEN INSTALLING DIRECT BURY TIMBER POSTS AND T-BARS, TAKE CARE TO AVOID VISIBLE AND ASCERTAINABLE TREE ROOTS.
9. PLACE HOARDING AT LIMIT OF TREE CANOPY DRIP LINE OR BEYOND (E.G. FURTHER AWAY FROM TRUNK) OF TREE.
10. HOARDED OFF AREA TO REMAIN UNDISTURBED. NO STOCKPILING, STAGING OR MOVEMENT OF VEHICLES TO OCCUR WITHIN PROTECTED AREA
11. FOR PROTECTION OF TREE'S AND ROOT SYSTEM, CONTRACTOR MAY BE REQUIRED TO PROVIDE WATERING, MULCHING, FERTILIZING, PRUNING OR OTHER ACTIVITIES TO ENSURE THE HEALTH OF THE TREE(S).
12. ALL MEASUREMENTS IN MILLIMETRES UNLESS NOTED OTHERWISE (E.G. DIMENSIONAL LUMBER).
13. CONTRACTOR RESPONSIBLE FOR LOCATES

1 / A0.2 FORESTRY PROTECTIVE HOARDING GUIDELINES N.T.S.

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www.cherieng.com
t. 416.898.1979

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CITY/A.C.COSTING	16 JAN 2026
ISSUED FOR CLIENT'S REVIEW 65%	18 DEC 2025
ISSUED FOR CLIENT'S REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

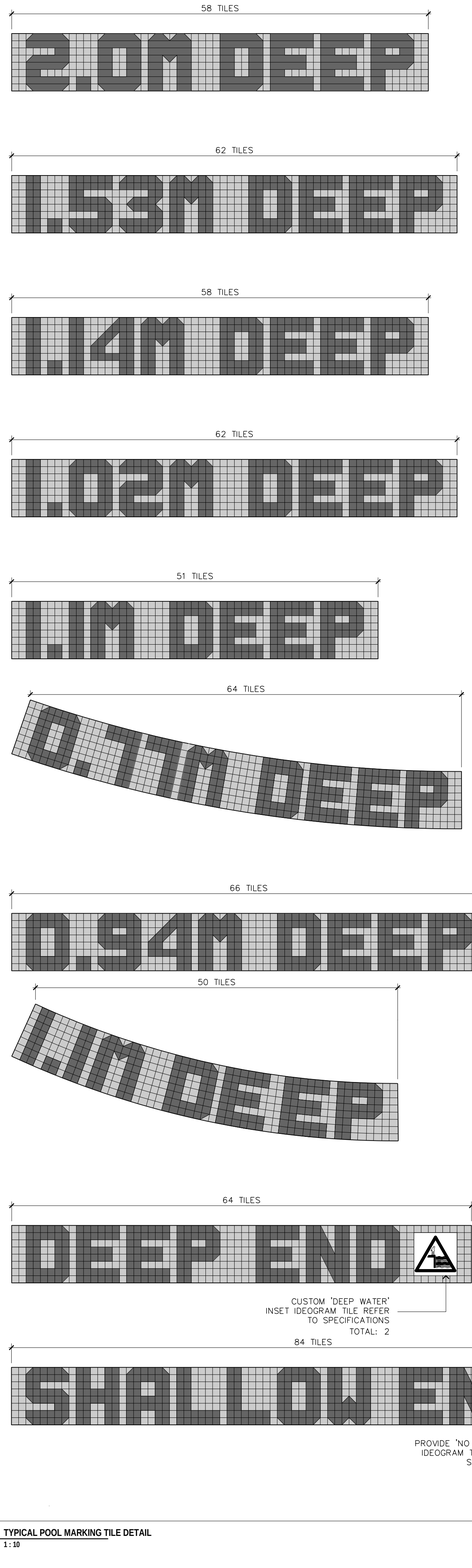
Address-5800 RIVER GROVE AVE, MISSISSAUGA

TYPES/ SCHEDULE GENERAL TYPES NOTES

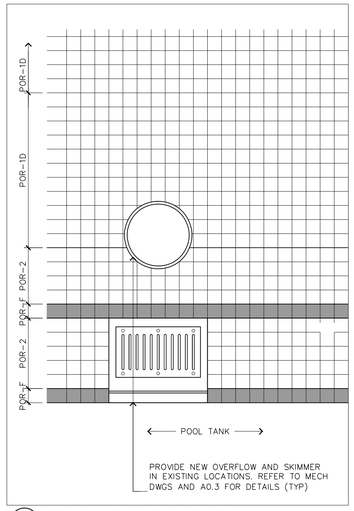
project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

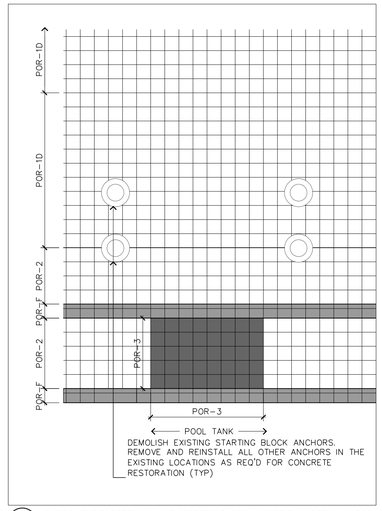
A0.2



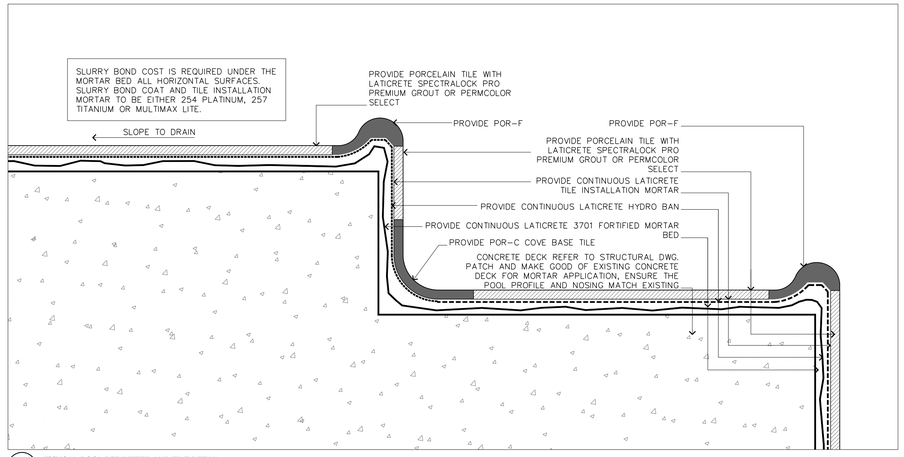
1 A0.3 **TYPICAL POOL MARKING TILE DETAIL** 1:10



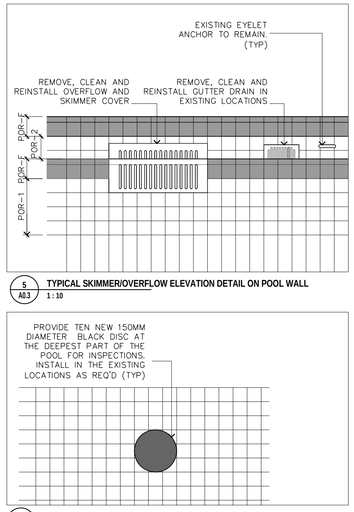
4 A0.3 **TYPICAL SKIMMER PLAN DETAIL ON POOL DECK** 1:10



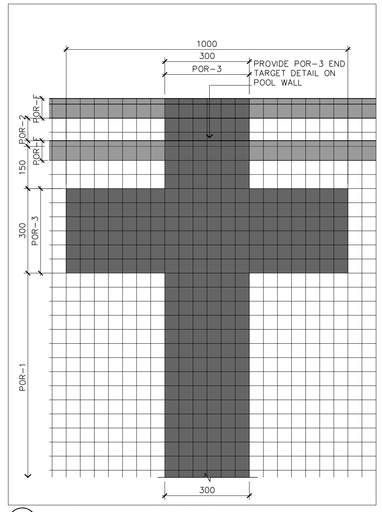
7 A0.3 **TYPICAL END TARGET WALL AND STARTING BLOCK ANCHOR PLAN DETAIL ON POOL DECK** 1:10



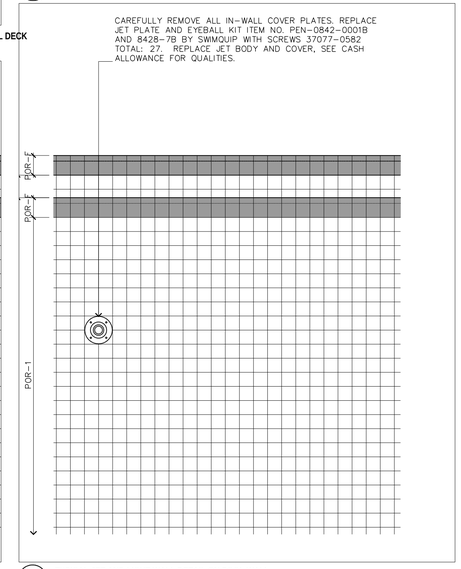
10 A0.3 **TYPICAL POOL PERIMETER AND TILE DETAIL** 1:2



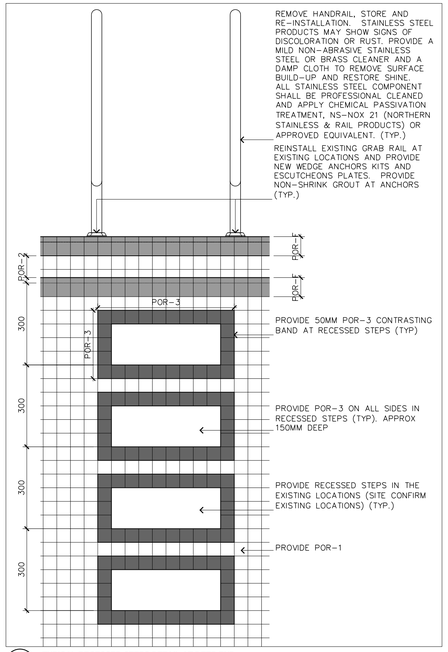
5 A0.3 **TYPICAL SKIMMER/OVERFLOW ELEVATION DETAIL ON POOL WALL** 1:10



8 A0.3 **TYPICAL END TARGET WALL DETAIL ON POOL WALL** 1:10

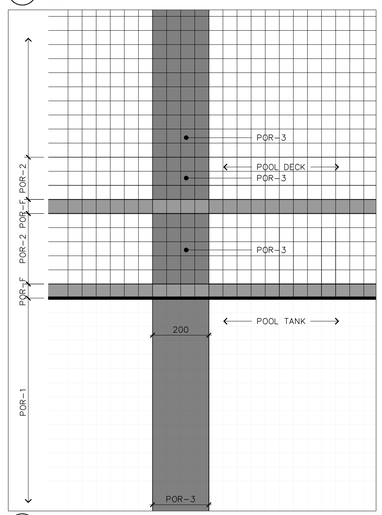


11 A0.3 **TYPICAL JET AND LIGHT WALL DETAIL ON POOL WALL** 1:10

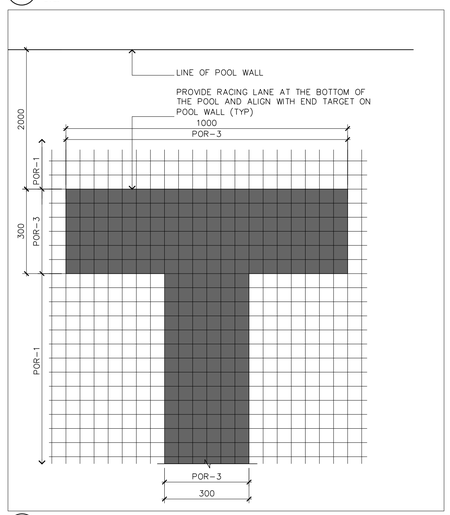


13 A0.3 **TYPICAL RECESSED STEPS DETAIL AT DEEP END** 1:10

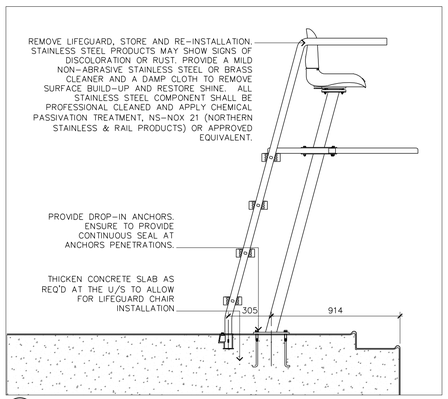
6 A0.3 **TYPICAL BLACK DISC DETAIL** 1:10



15 A0.3 **TYPICAL CENTRE LINE OF THE POOL TANK AND DECK** 1:10



9 A0.3 **TYPICAL RACING LANE DETAIL AT THE BOTTOM OF THE POOL TANK** 1:10



12 A0.3 **TYPICAL LIFEGUARD STATION DETAIL** 1:20

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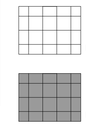
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TILE LEGEND



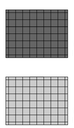
POR-1/POR-1D/POR-2

POR-F/POR-N

POR-3

POR-C

TILE LEGEND



1X1" POR-4

1X1" POR-5

PROVIDE DEPTH MARKERS AND SPACING IN ACCORDANCE WITH LATEST CODES, BY-LAWS AND AUTHORITIES HAVING JURISDICTION.

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ISSUED FOR CLASS A COSTING	16 JAN 2026
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RIVER GROVE COMMUNITY CENTRE RENOVATIONS

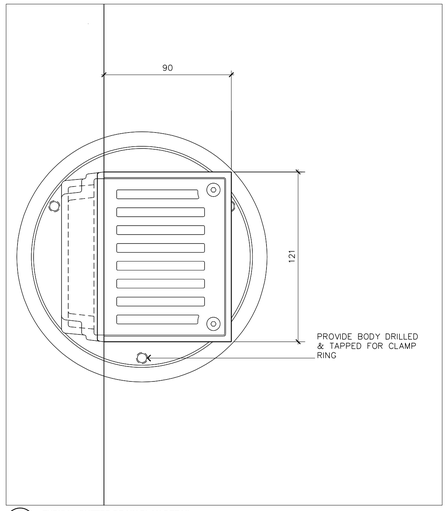
Address-5800 RIVER GROVE AVE, MISSISSAUGA

TYPES/ TYPICAL DETAILS

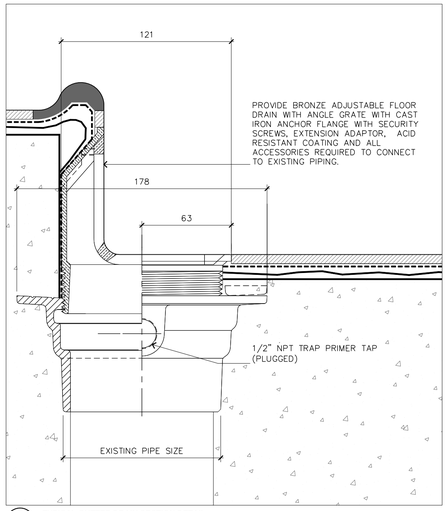
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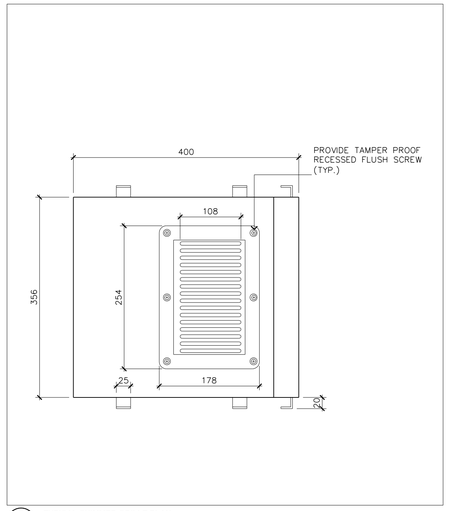
A0.3



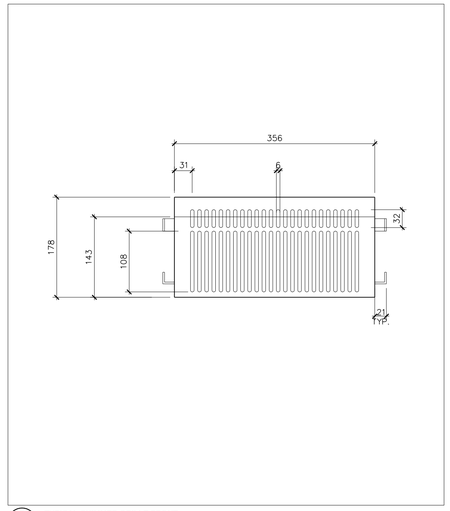
1 A0.4 **TYPICAL GUTTER DRAIN PLAN DETAIL** 1:2



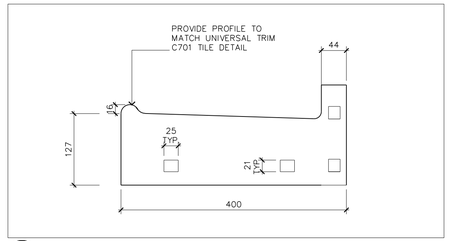
2 A0.4 **TYPICAL GUTTER DRAIN SECTION DETAIL** 1:2



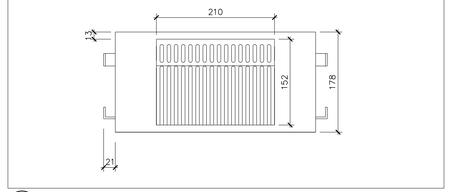
3 A0.4 **TYPICAL SKIMMER GRILLE PLAN** 1:5



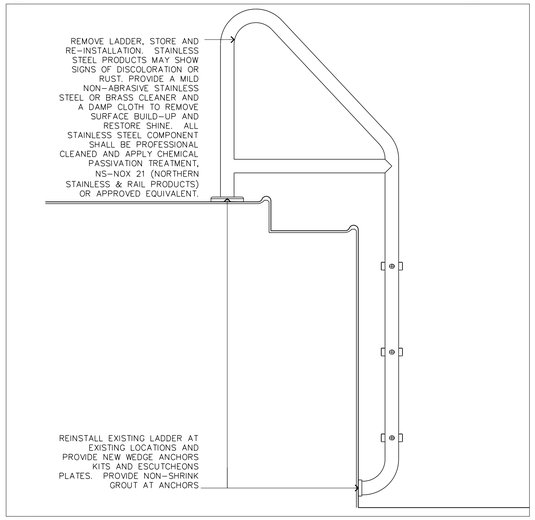
4 A0.4 **TYPICAL SKIMMER GRILLE FRONT** 1:5



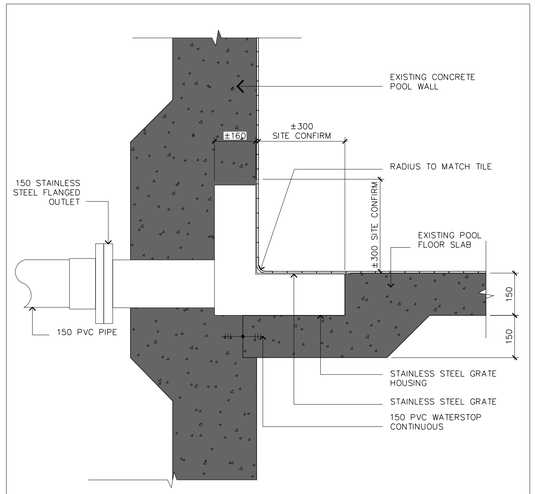
5 A0.4 **TYPICAL SKIMMER GRILLE SIDE** 1:5



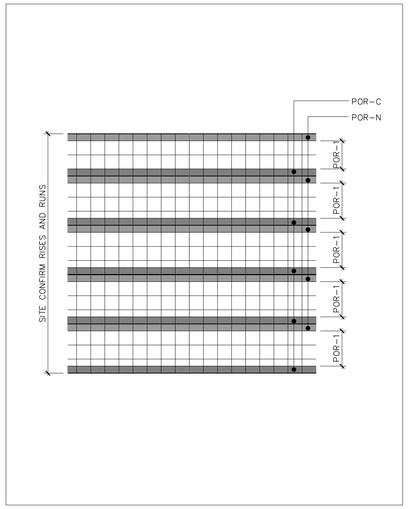
6 A0.4 **TYPICAL SKIMMER GRILLE REAR** 1:5



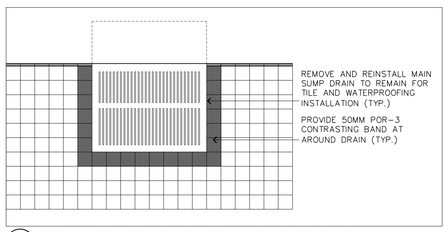
7 A0.4 **TYPICAL LADDER DETAIL AT SHALLOW END** 1:10



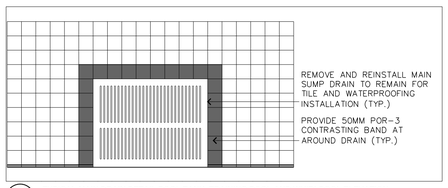
8 A0.4 **TYPICAL MAIN DRAIN DETAIL POOL TANK, TRAINING POOL AND WHIRLPOOL ELEVATION** 1:10



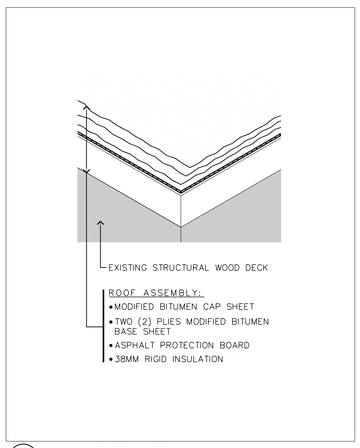
12 A0.4 **TYPICAL STEP ELEVATION** 1:10



9 A0.4 **TYPICAL MAIN DRAIN DETAIL POOL TANK, TRAINING POOL AND WHIRLPOOL PLAN** 1:10



10 A0.4 **TYPICAL MAIN DRAIN DETAIL POOL TANK, TRAINING POOL AND WHIRLPOOL ELEVATION** 1:10



11 A0.4 **TYPICAL ROOF ASSEMBLY DETAIL** N.T.S

TILE SCHEDULE

	Location	Size	Product	Finish	Colour
POR-1	Pool Tank Floors Interior	50mm x 50mm	2" x 2" mosaic tile. 'Keystones'	Standard	Price Groups 1, 2, 3 and 4.
POR-1D	Deck Tile	50mm x 50mm	2" x 2" mosaic tile. 'Keystones'	Standard	Price Groups 1, 2, 3 and 4.
POR-2	Pool Deck and Tank Walls and Floor (Accent Band)	50mm x 50mm	2" x 2" mosaic tile. 'Keystones'	Standard	Price Groups 1, 2, 3 and 4.
POR-3	Pool Lane Markers & End Wall Targets	50mm x 50mm	2" x 2" mosaic tile. 'Keystones'	Standard	Price Groups 1, 2, 3 and 4.
POR-4	Deck Markers	25mm x 25mm	1" x 1" mosaic tile. 'Keystones'	Abrasive	Nautical Blue D821
POR-5	Deck Marker Field	25mm x 25mm	1" x 1" mosaic tile. 'Keystones'	Abrasive	Biscuit D317
POR-6	Pool Deck Strip	50mm x 50mm	2"x 2" mosaic tile. 'Keystones'	Abrasive	Red D017
POR-N	Bullnose Edges of Seats /Stairs / Ledges in Pools /Nosing	50mm x 50mm	2" x 2" S832 mosaic tile. 'Keystones'	Abrasive	Price Groups 1, 2, 3 and 4. (Custom)
POR-F	Pool Edge Finger Grip / Overflow Drop	50mm x 25mm	2" x 1" C701 mosaic tile. 'Keystones'	Abrasive	Price Groups 1, 2, 3 and 4. (Custom)
POR-C	Pool Edge Cove Base	50mm x 50mm	2" x 2" C833 mosaic tile. 'Keystones'	Abrasive	Price Groups 1, 2, 3 and 4. (Custom)

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TILE LEGEND

POR-1/POR-1D/POR-2

POR-F/POR-N

POR-3

POR-C

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	5 JAN 2026
ISSUED FOR CLIENTS REVIEW 85%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

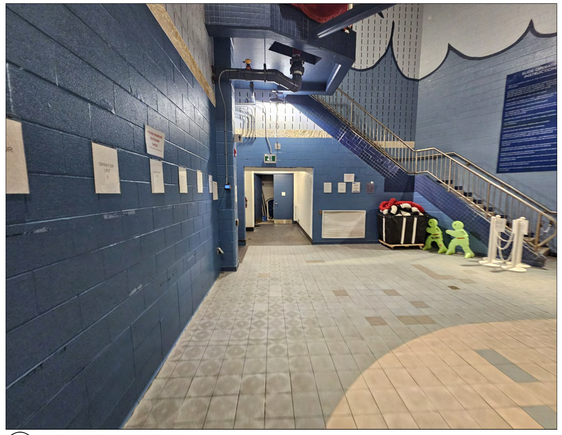
TYPICAL DETAILS

project no. : 2522
scale : NTS
date : OCTOBER 2025

drawing no. :

A0.4

PH 1



1 A0.5 **EXISTING STAIR NO.5 CONDITION 1**
N.T.S



2 A0.5 **EXISTING STAIR NO.5 DETERIORATED AREA 1**
N.T.S



3 A0.5 **EXISTING STAIR NO.5 CONDITION 2**
N.T.S



4 A0.5 **EXISTING STAIR NO.5 GUARD RAILING CONDITION**
N.T.S



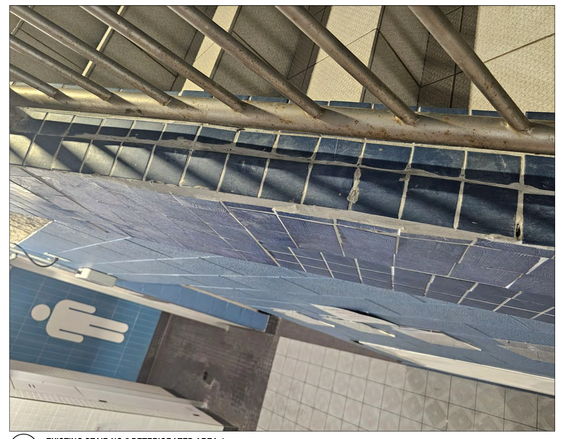
5 A0.5 **EXISTING STAIR NO.5 DETERIORATED AREA 2**
N.T.S



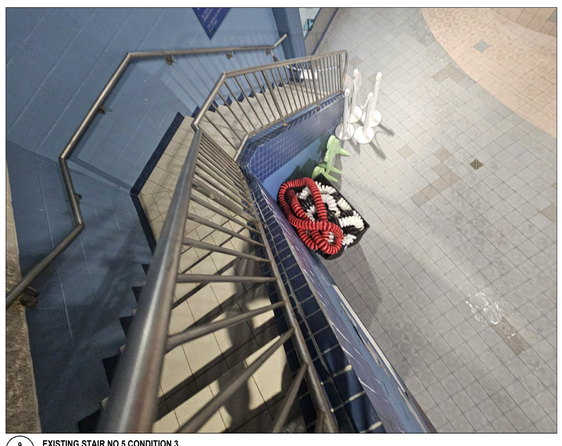
6 A0.5 **EXISTING STAIR NO.5 DETERIORATED AREA 3**
N.T.S



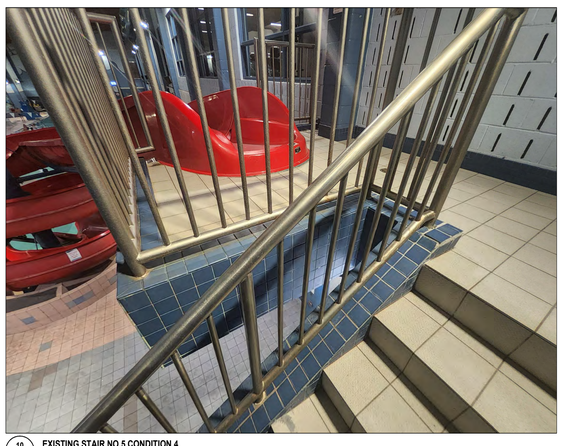
7 A0.5 **EXISTING STAIR NO.5 DETERIORATED AREA BEFORE PATCH WORK BY OPERATORS**
N.T.S



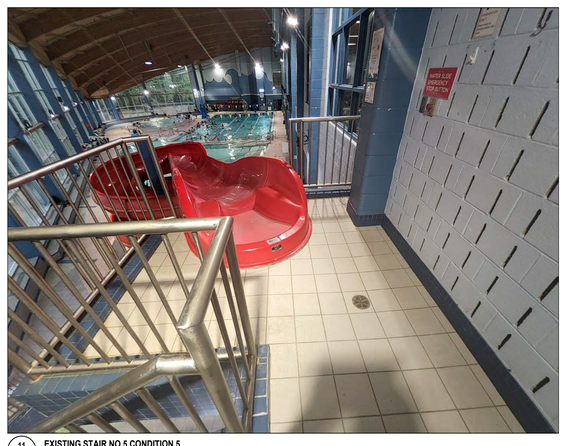
8 A0.5 **EXISTING STAIR NO.5 DETERIORATED AREA 4**
N.T.S



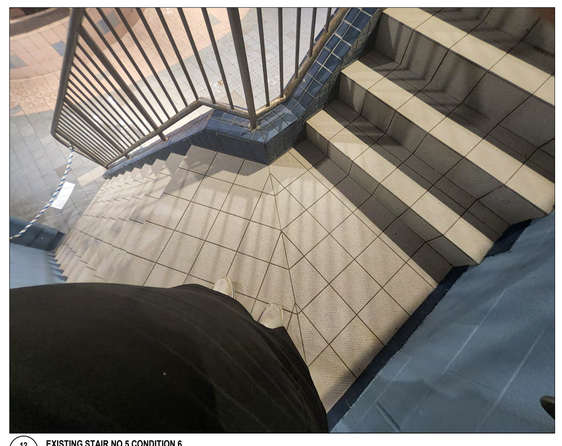
9 A0.5 **EXISTING STAIR NO.5 CONDITION 3**
N.T.S



10 A0.5 **EXISTING STAIR NO.5 CONDITION 4**
N.T.S



11 A0.5 **EXISTING STAIR NO.5 CONDITION 5**
N.T.S



12 A0.5 **EXISTING STAIR NO.5 CONDITION 6**
N.T.S

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW (ESR)	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

PHOTOS- EXISTING CONDITIONS (STAIR NO. 5)

project no. : 2522
scale : N.T.S.
date : OCTOBER 2025

drawing no. :

A0.5

PH 2



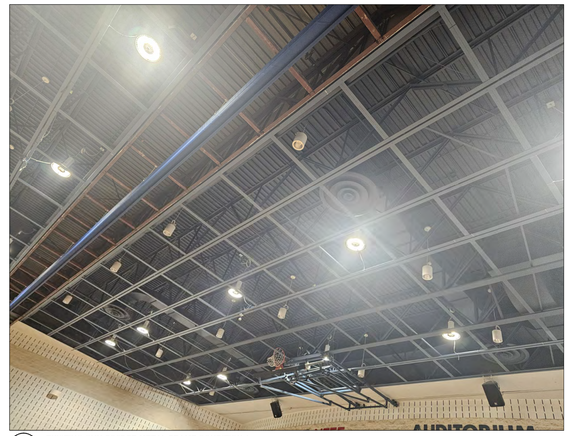
1 A0.6 **EXISTING GYM CONDITION 1**
N.T.S



2 A0.6 **EXISTING GYM CONDITION 2**
N.T.S



3 A0.6 **EXISTING GYM CONDITION 3**
N.T.S



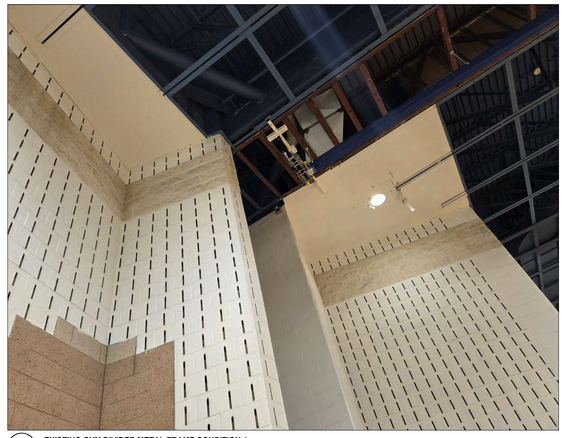
4 A0.6 **EXISTING GYM DIVIDER METAL FRAME CONDITION 1**
N.T.S



5 A0.6 **EXISTING GYM DIVIDER METAL FRAME CONDITION 2**
N.T.S



6 A0.6 **EXISTING GYM DIVIDER METAL FRAME CONDITION 3**
N.T.S



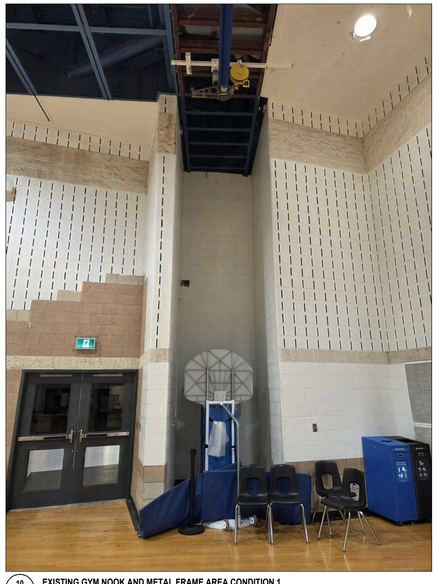
7 A0.6 **EXISTING GYM DIVIDER METAL FRAME CONDITION 4**
N.T.S



8 A0.6 **EXISTING GYM TYPICAL BASE BOARD CONDITION**
N.T.S



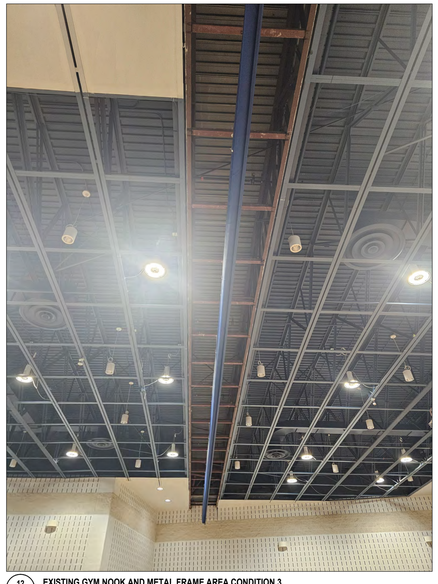
9 A0.6 **EXISTING GYM TYPICAL WOOD FLOOR CONDITION**
N.T.S



10 A0.6 **EXISTING GYM NOOK AND METAL FRAME AREA CONDITION 1**
N.T.S



11 A0.6 **EXISTING GYM NOOK AND METAL FRAME AREA CONDITION 2**
N.T.S



12 A0.6 **EXISTING GYM NOOK AND METAL FRAME AREA CONDITION 3**
N.T.S

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	30 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 03%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

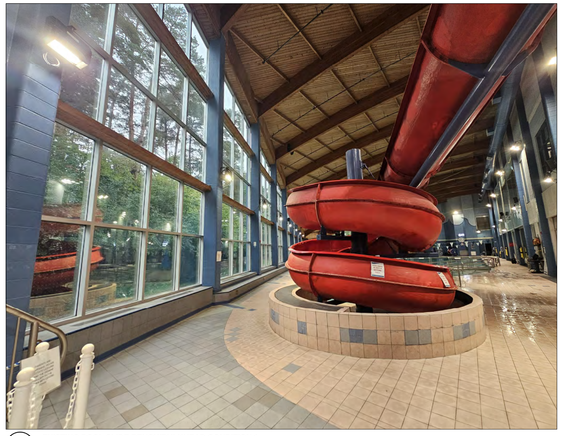
PHOTOS- EXISTING CONDITIONS (GYM)

project no. : 2522
scale : N.T.S.
date : OCTOBER 2025

drawing no. :

A0.6

PH 3



1 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 1**
N.T.S



2 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 2**
N.T.S



3 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 3**
N.T.S



4 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 4**
N.T.S



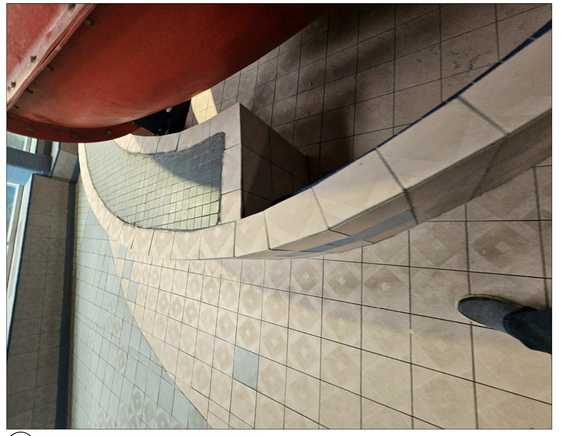
5 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 5**
N.T.S



6 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 6**
N.T.S



7 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 7**
N.T.S



8 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 8**
N.T.S



9 A0.7 **EXISTING POOL SLIDE BENCH/BULKHEAD CONDITION 9**
N.T.S

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENT'S REVIEW, 65%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

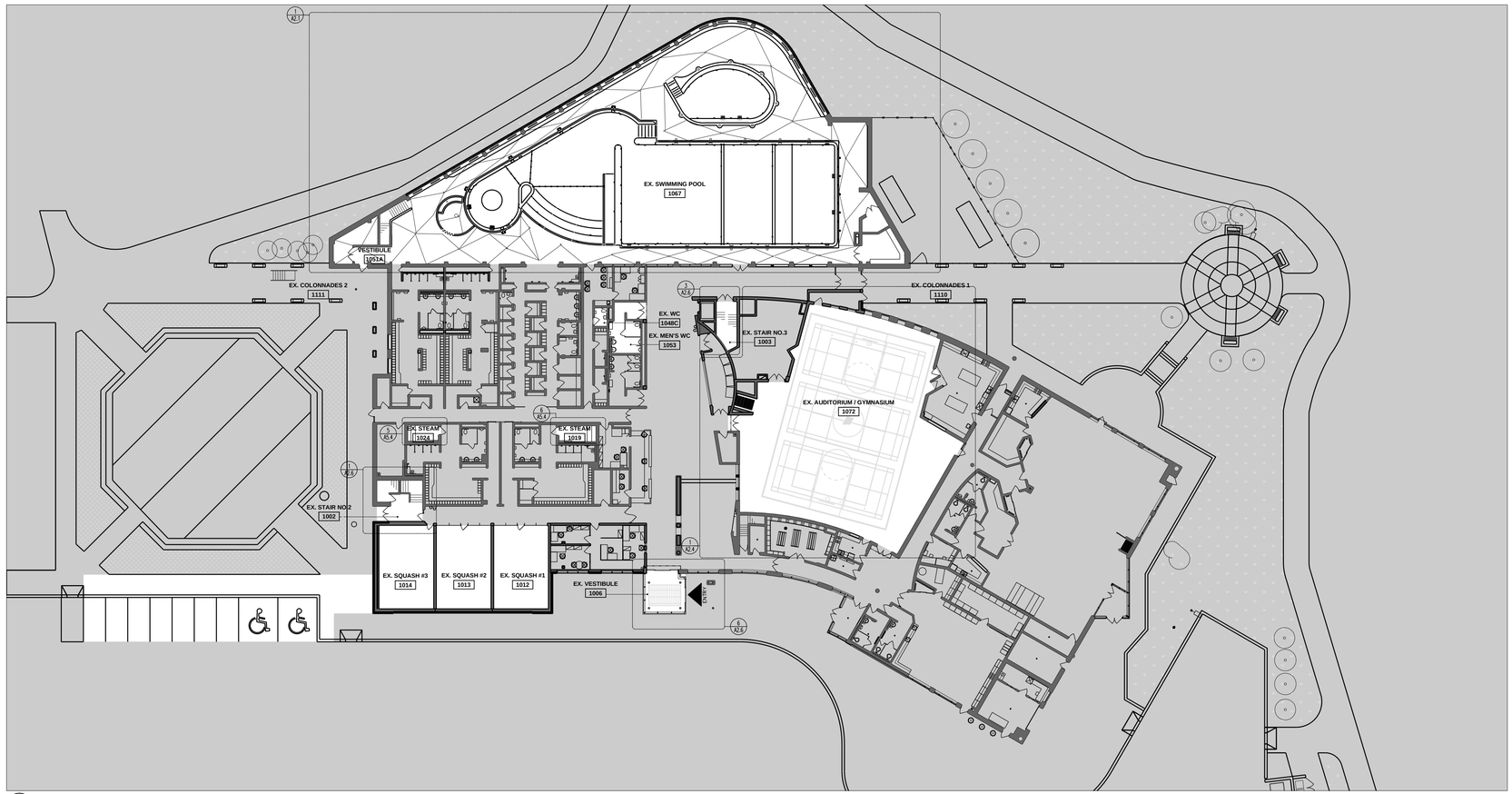
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PHOTOS- EXISTING CONDITIONS (POOL SLIDE BENCH)

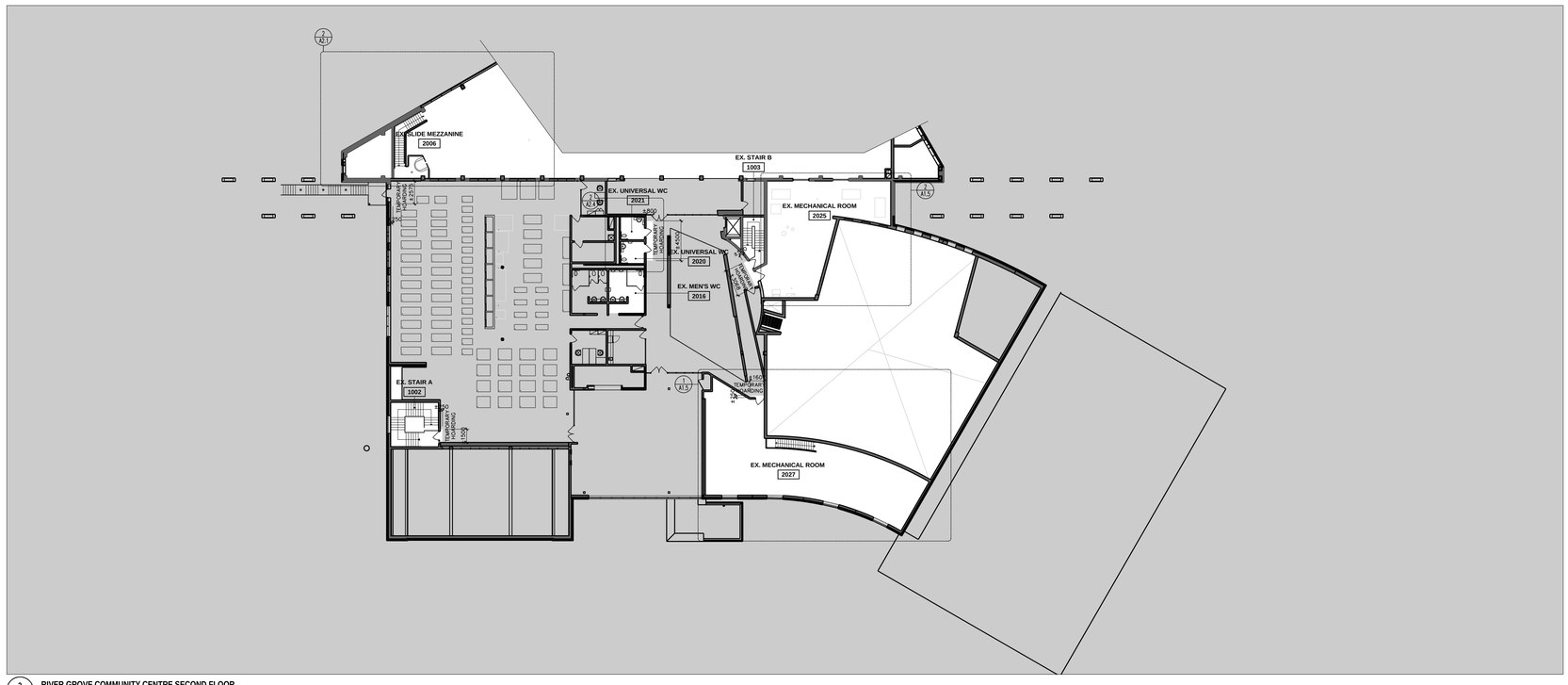
project no. : 2522
scale : N.T.S.
date : OCTOBER 2025

drawing no. :

A0.7



1 A1.0 **RIVER GROVE COMMUNITY CENTRE GROUND FLOOR**
1 : 300



2 A1.0 **RIVER GROVE COMMUNITY CENTRE SECOND FLOOR**
1 : 300

C H E R I E N G
A R C H I T E C T I N C.
w w w . c h e r i e n g . c o m
t . 4 1 6 . 8 9 8 . 1 9 7 9

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	31 MAR 2026
ISSUED FOR CLASS A COSTING	6 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	28 NOV 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

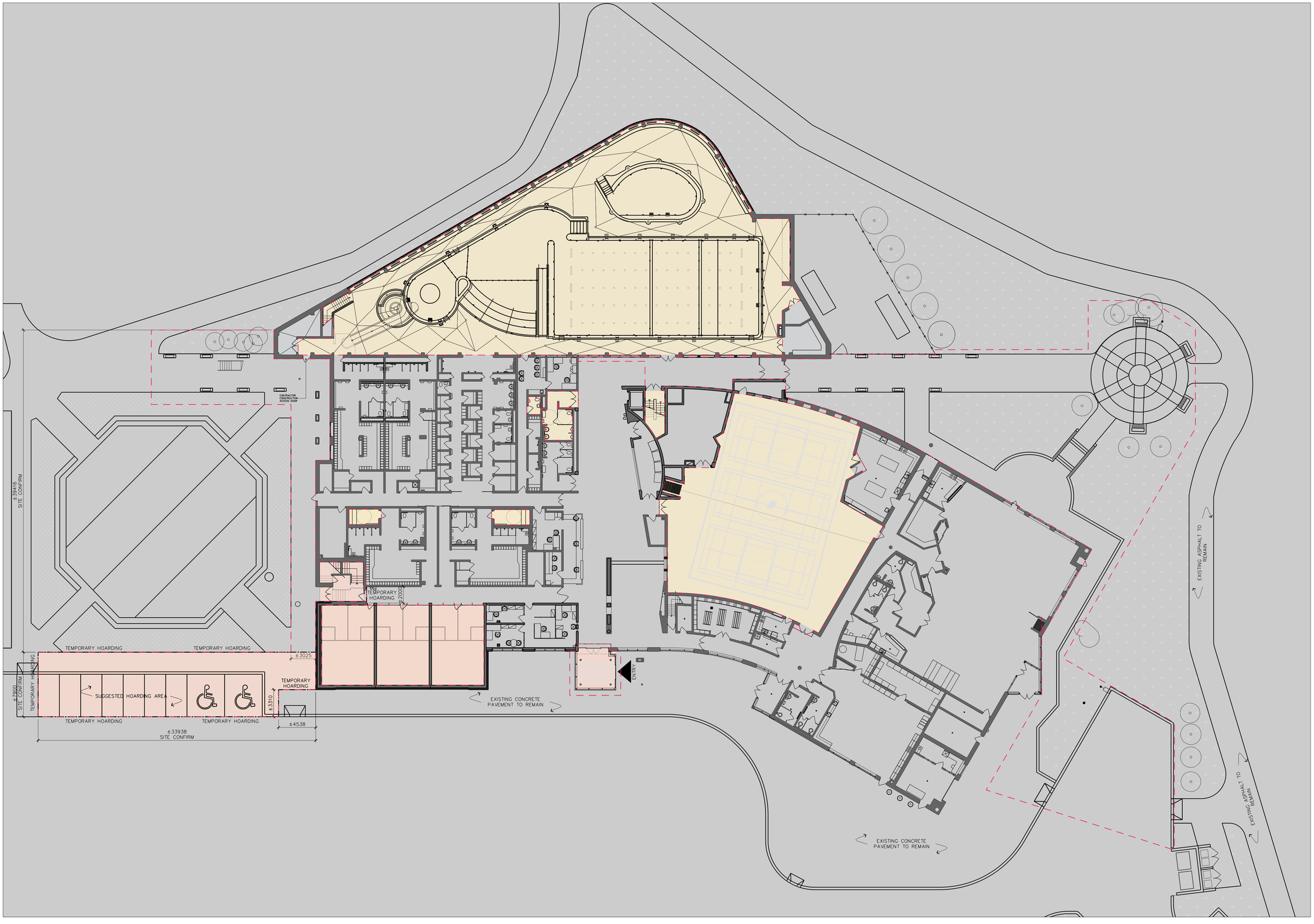
Address-5800 RIVER GROVE AVE, MISSISSAUGA

KEY PLAN
RIVER GROVE COMMMUNITY CENTRE

project no. : 2522
scale : 1 : 350
date : OCTOBER 2025

drawing no. :

A1.0



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DEMOLITION SITE PLAN

OUTSIDE SCOPE OF WORK

EXISTING SOD

DEMOLITION LINE

CONSTRUCTION AREA BOUNDARY AND PROVIDE CONTINUOUS TEMPORARY HOARDING (TYP.) REFER TO SITE SERVICES DWGS FOR DETAILS

EXISTING CHAIN-LINK FENCE AND POSTS

PROVIDE TREE PROTECTION HOARDING

LEGEND

PHASE 1

PHASE 2

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	15 JAN 2026
ISSUED FOR CLIENTS REVIEW 65%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

STAGING / HOARDING GROUND FLOOR PLAN

project no. : 2522
scale : 1 : 200
date : OCTOBER 2025

drawing no. :

A1.0A



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DEMOLITION SITE PLAN

OUTSIDE SCOPE OF WORK

LEGEND

PHASE 1

PHASE 2

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 02R	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

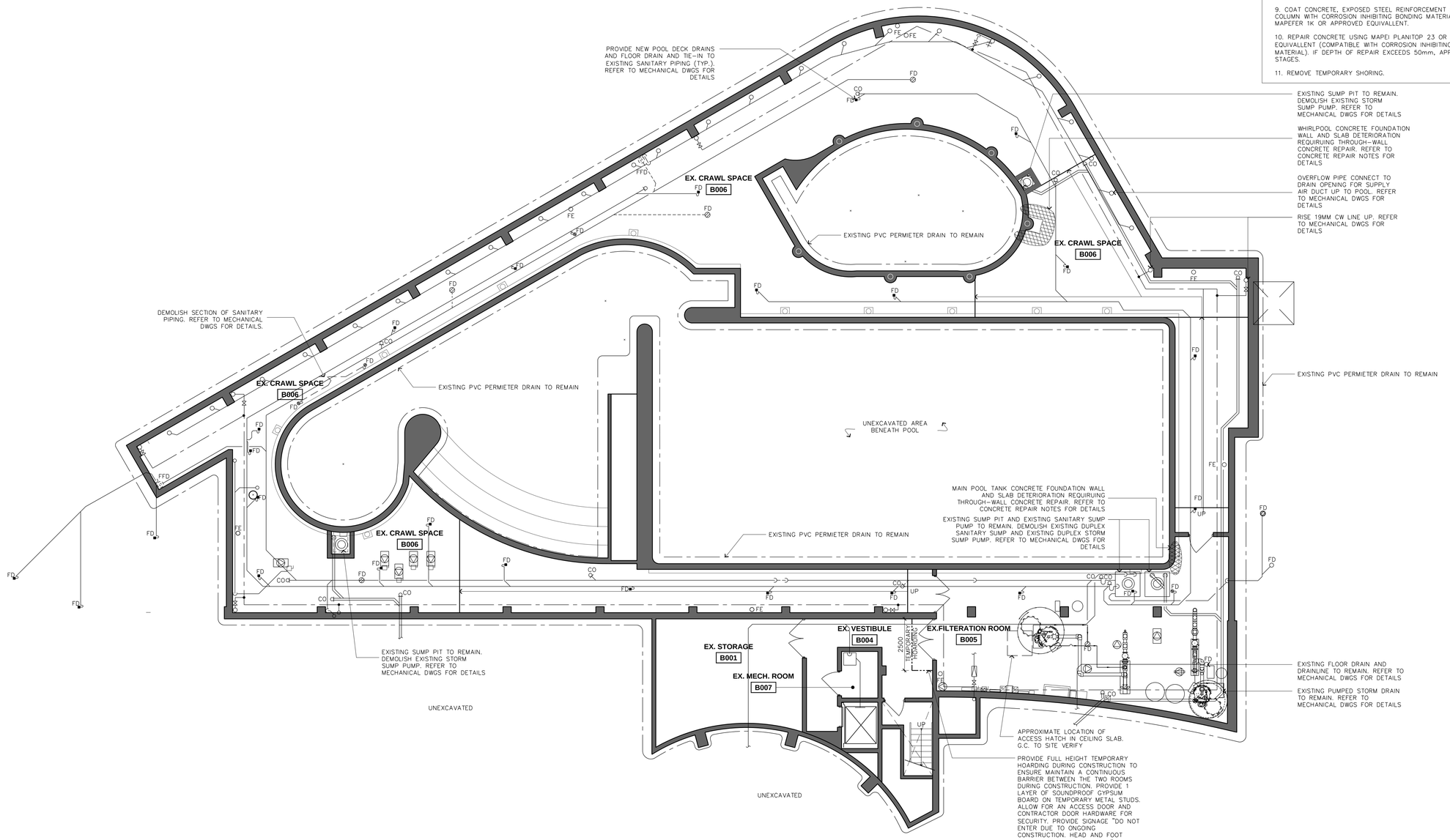
Address-5800 RIVER GROVE AVE, MISSISSAUGA

STAGING / HOARDING SECOND FLOOR PLAN

project no. : 2522
scale : 1 : 200
date : OCTOBER 2025

drawing no. :

A1.0B



1 / A1.1 **DEMOLITION SWIMMING POOL BASEMENT PLAN**
1 : 100

CONCRETE REPAIR NOTES

1. PROVIDE TEMPORARY SHORING AS REQUIRED.

2. IDENTIFY AND MARK SQUARED OFF AREAS OF CONCRETE DETERIORATION. INVITE ENGINEER FOR REVIEW. SAW-CUT PERIMETER OF THE REPAIR AREA TO A MINIMUM DEPTH OF 12mm. DO NOT CUT EXISTING BARS. FEATHERED EDGES ARE NOT ALLOWED.

3. REMOVE DETERIORATED CONCRETE SURROUNDING REINFORCING BARS. DO NOT DAMAGE EXISTING BARS. DO NOT VIBRATE BARS DURING CONCRETE REMOVAL. CONCRETE REMOVAL SHOULD CONTINUE UNTIL NO FURTHER DELAMINATION, CRACKING OR CORROSION IS OBSERVED ALONG REINFORCING BARS.

4. CREATE CLEAR SPACE BETWEEN CONCRETE AND REINFORCING BARS. DIMENSION OF CLEAR SPACE SHALL BE 6 mm PLUS MAX. SIZE OF AGGREGATE OF REPAIR MATERIAL, BUT NOT LESS THAN 20 mm.

5. PREPARE SURFACE OF CONCRETE, REINFORCING BARS AND STEEL COLUMN TO RECEIVE REPAIR MATERIAL USING SANDBLASTING METHOD.

6. RE-TIE EXPOSED REINFORCING STEEL AS REQUIRED.

7. REQUEST REVIEW BY ENGINEER.

8. REINFORCE BADLY CORRODED OR DAMAGED REINFORCING STEEL AS INSTRUCTED BY ENGINEER.

9. COAT CONCRETE, EXPOSED STEEL REINFORCEMENT AND STEEL COLUMN WITH CORROSION INHIBITING BONDING MATERIAL MAPEI MAPEFER 1K OR APPROVED EQUIVALLENT.

10. REPAIR CONCRETE USING MAPEI PLANITOP 23 OR APPROVED EQUIVALLENT (COMPATIBLE WITH CORROSION INHIBITING BONDING MATERIAL). IF DEPTH OF REPAIR EXCEEDS 50mm, APPLY IN 2 STAGES.

11. REMOVE TEMPORARY SHORING.

CHERIE NG ARCHITECT INC.
www.cherieng.com
t. 416.898.1979

general notes :

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LEGEND

- OUTSIDE SCOPE OF WORK
- HATCHED PATTERN INDICATES CONCRETE DETERIORATION REQUIRUING THROUGH-WALL CONCRETE REPAIR. REFER TO CONRETE REPAIR NOTES, MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS
- EXISTING PARTITIONS TO REMAIN
- DEMOLITION LINE
- DEMOLISH EXISTING DOOR UNLESS OTHERWISE NOTED
- CONSTRUCTION AREA BOUNDARY AND PROVIDE CONTINUOUS TEMPORARY HOARDING (TYP.)

GENERAL DEMOLITION NOTES:

A. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

B. ACCOUNT FOR WORKING AROUND EXISTING SERVICES.

C. ALL STRUCTURAL ELEMENTS TO REMAIN. UNLESS NOTED OTHERWISE.

D. PATCH, REPAIR AND REFINISH ALL DAMAGED SURFACES. SURFACES ACCOUNT FOR WORKING AROUND EXISTING SERVICES.

E. REMOVE EXISTING SKIMMERS AND OVERFLOWS. STORE, CLEAN, AND REINSTALL AFTER WATERPROOFING AND TILE INSTALLATION. CONNECT TO EXISTING PIPING AND COMPLETE ALL ASSOCIATED WORK TO MATCH EXISTING CONDITIONS.

F. REMOVE EXISTING GUTTER DRAINS. STORE, CLEAN, AND REINSTALL AFTER WATERPROOFING AND TILE INSTALLATION. CONNECT TO EXISTING PIPING AND COMPLETE ALL ASSOCIATED WORK TO MATCH EXISTING CONDITIONS.

G. ALL EXISTING STARTING BLOCK ANCHORS, EYELETS ANCHORS TO REMAIN.

H. REMOVE JET COVERS AND REPLACE WITH NEW JET COVERS. THE JET BODY TO REMAIN UNLESS OTHERWISE NOTED.

I. PROVIDE FULL HEIGHT TEMPORARY HOARDING DURING CONSTRUCTION TO ENSURE MAINTAIN A CONTINUOUS BARRIER BETWEEN THE TWO ROOMS DURING CONSTRUCTION. PROVIDE 1 LAYER OF SOUNDPROOF GYPSUM BOARD ON TEMPORARY METAL STUDS. ALLOW FOR AN ACCESS DOOR AND CONTRACTOR DOOR HARDWARE FOR SECURITY. PROVIDE SIGNAGE "DO NOT ENTER DUE TO ONGOING CONSTRUCTION. HEAD AND FOOT PROTECTION MUST BE WORN."

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLARA A. GOSLING	15 JAN 2026
ISSUED FOR CHERIE'S REVIEW #2R2	08 DEC 2025
ISSUED FOR CLIENT'S REVIEW #2R2	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

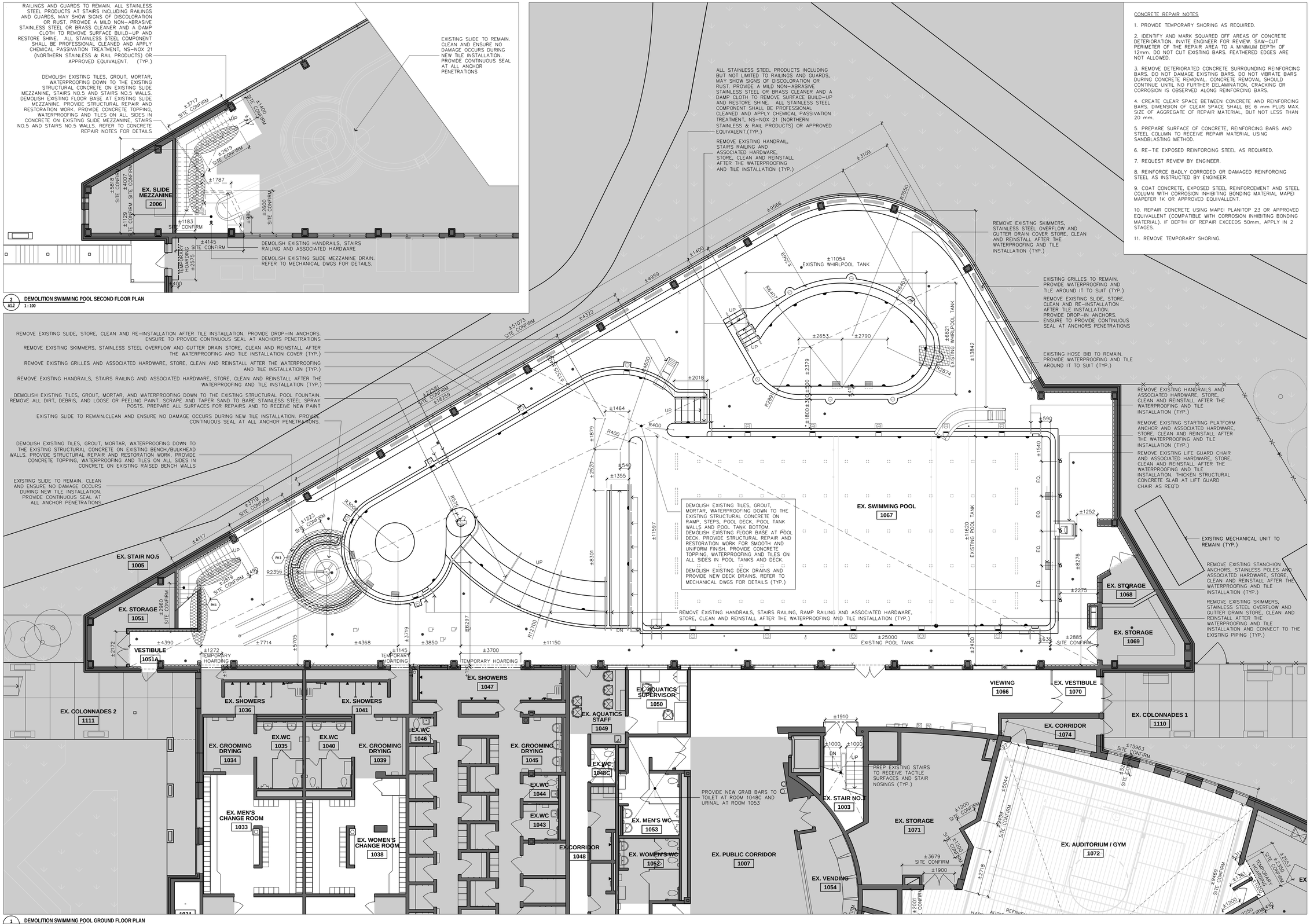
DEMOLITION PLAN SWIMMING POOL BASEMENT FILTER ROOM

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A1.1

2 A1.2 **DEMOLITION SWIMMING POOL SECOND FLOOR PLAN**
1 : 100



1 A1.2 **DEMOLITION SWIMMING POOL GROUND FLOOR PLAN**
1 : 100

CONCRETE REPAIR NOTES

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LEGEND

- OUTSIDE SCOPE OF WORK
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- EXISTING PARTITIONS TO REMAIN
- DEMOLITION LINE
- DEMOLISH EXISTING DOOR UNLESS OTHERWISE NOTED
- DASHED LINE OF EXTENT OF CONCRETE POOL REPAIR, INCLUDING DEPTH OF THE POOL TANKS, WALLS AND FLOOR. REFER TO CONCRETE REPAIR NOTES, MECHANICAL AND ELECTRICAL DWGS FOR DETAILS.
- EXISTING CHAIN-LINK FENCE
- HATCHED PATTERN INDICATES EXISTING HARDWOOD FLOOR TO REFINISH
- CONSTRUCTION AREA BOUNDARY AND PROVIDE CONTINUOUS TEMPORARY HOARDING (TYP.)
- PHOTO REFERENCE KEY ON DWG A0.5 TO A0.7. (LOCATION APPROXIATED)

GENERAL DEMOLITION NOTES:

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D. PATCH, REPAIR AND REFINISH ALL DAMAGED SURFACES. SURFACES ACCOUNT FOR WORKING AROUND EXISTING SERVICES.

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	5 JAN 2026
ISSUED FOR CLIENT'S REVIEW 80%	18 DEC 2025
ISSUED FOR CLIENT'S REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION PLAN SWIMMING POOL GROUND FLOOR / SECOND FLOOR

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A1.2



1 / A1.3 **DEMOLITION SOUTH BUILDING GROUND FLOOR PLAN**
1 : 100

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LEGEND

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- DEMOLITION LINE
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- EXISTING CHAIN-LINK FENCE
- HATCHED PATTERN INDICATES EXISTING HARDWOOD FLOOR TO REFINISH
- CONSTRUCTION AREA BOUNDARY AND PROVIDE CONTINUOUS TEMPORARY HOARDING (TYP.)
- PHOTO REFERENCE KEY ON DWG A0.5 TO A0.7, (LOCATION APPROXIATED)

GENERAL DEMOLITION NOTES:

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	5 JAN 2026
ISSUED FOR CLIENTS REVIEW 60%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION PLAN CHANGE ROOMS / SOUTH COLONNADE

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A1.3



1 / A1.4 DEMOLITION NORTH BUILDING GROUND FLOOR PLAN
1 : 100

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- HATCHED PATTERN INDICATES EXISTING HARDWOOD FLOOR TO REFINISH
- CONSTRUCTION AREA BOUNDARY AND PROVIDE CONTINUOUS TEMPORARY HOARDING (TYP.)
- PH1 PHOTO REFERENCE KEY ON DWG A0.5 TO A0.7. (LOCATION APPROXIATED)

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR REVIEW	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 65%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

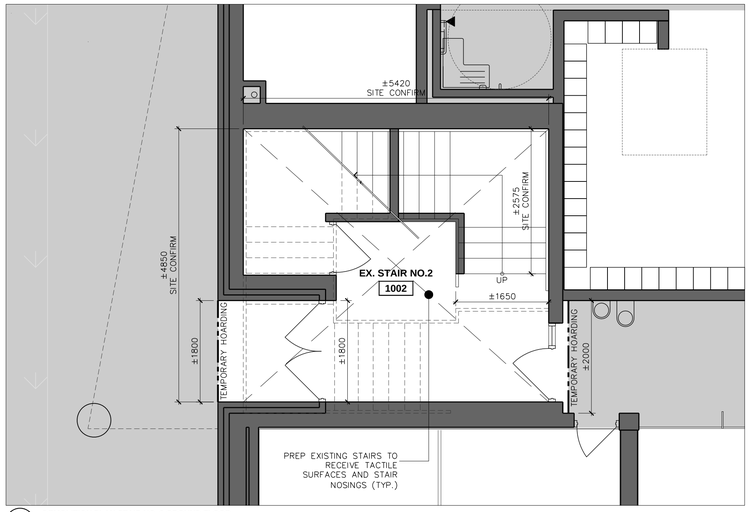
Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION PLAN/ GYM SENSORS AND YOUTH ROOMS / ART ROOM/ NORTH COLONNADE

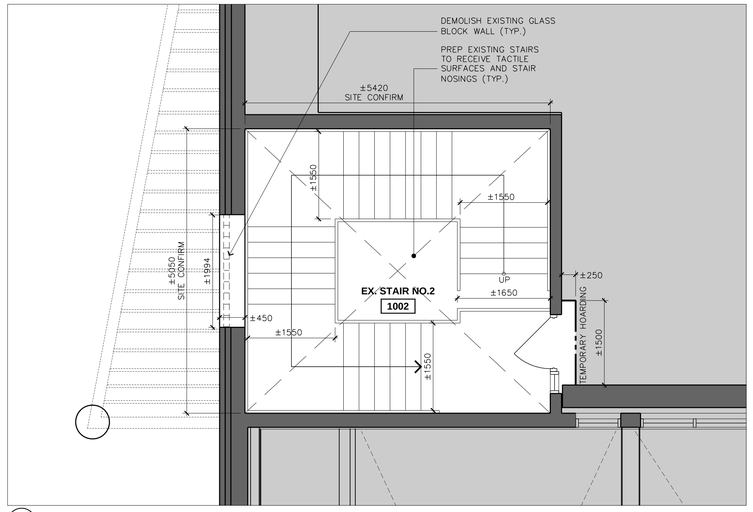
project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

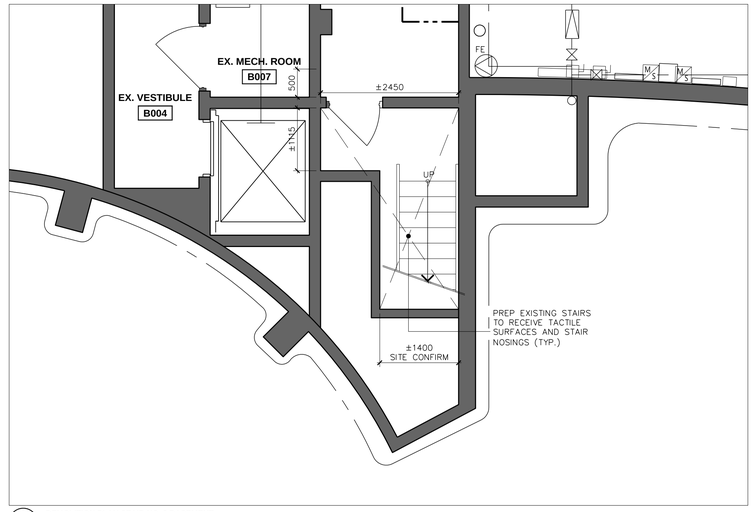
A1.4



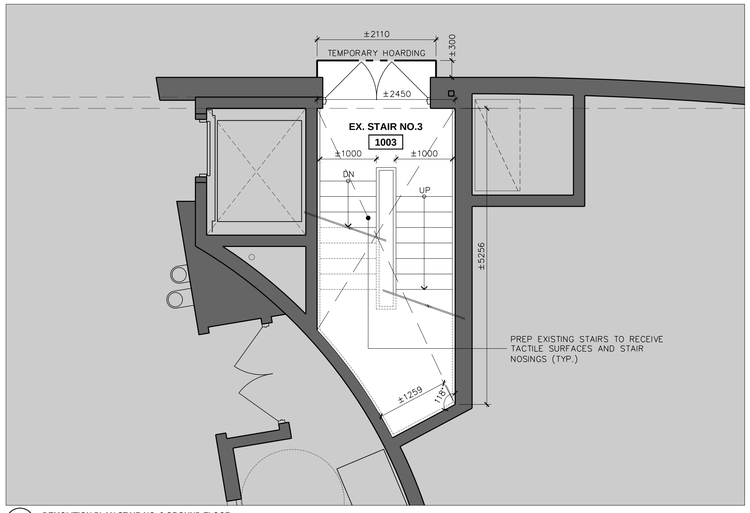
1 A1.5 **DEMOLITION PLAN STAIR NO. 2 GROUND FLOOR**
1:50



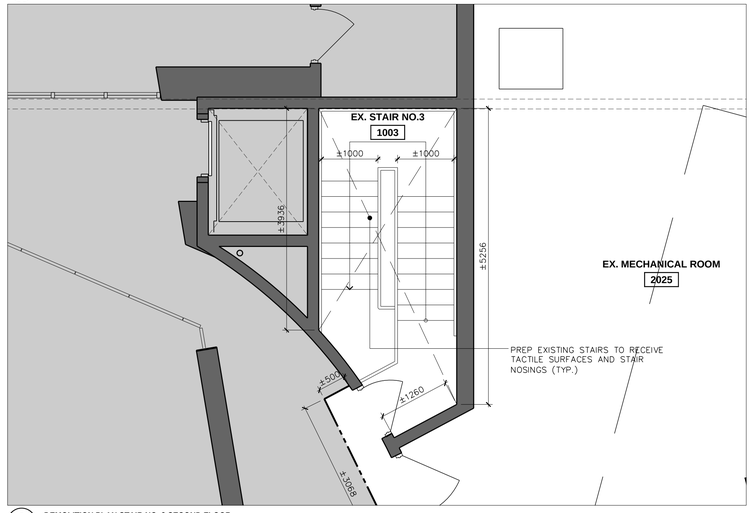
2 A1.5 **DEMOLITION PLAN STAIR NO. 2 SECOND FLOOR**
1:50



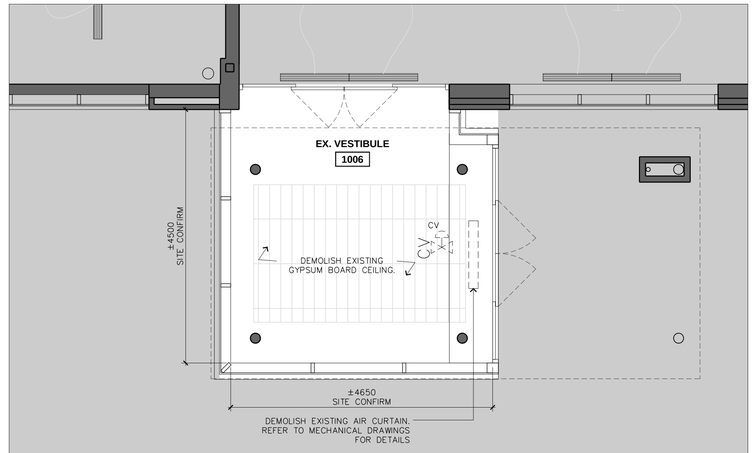
3 A1.5 **DEMOLITION PLAN STAIR NO. 3 BASEMENT**
1:50



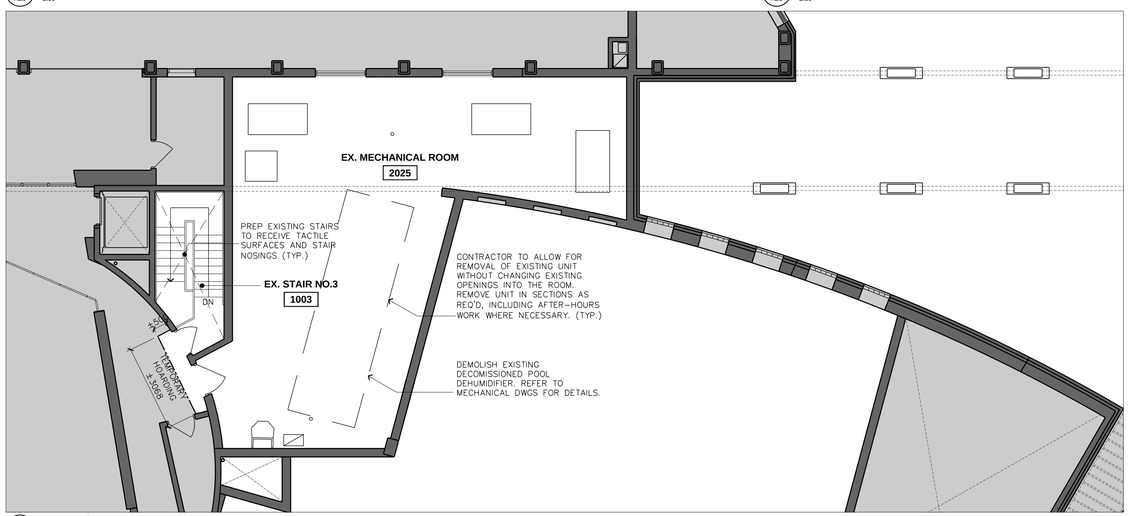
4 A1.5 **DEMOLITION PLAN STAIR NO. 3 GROUND FLOOR**
1:50



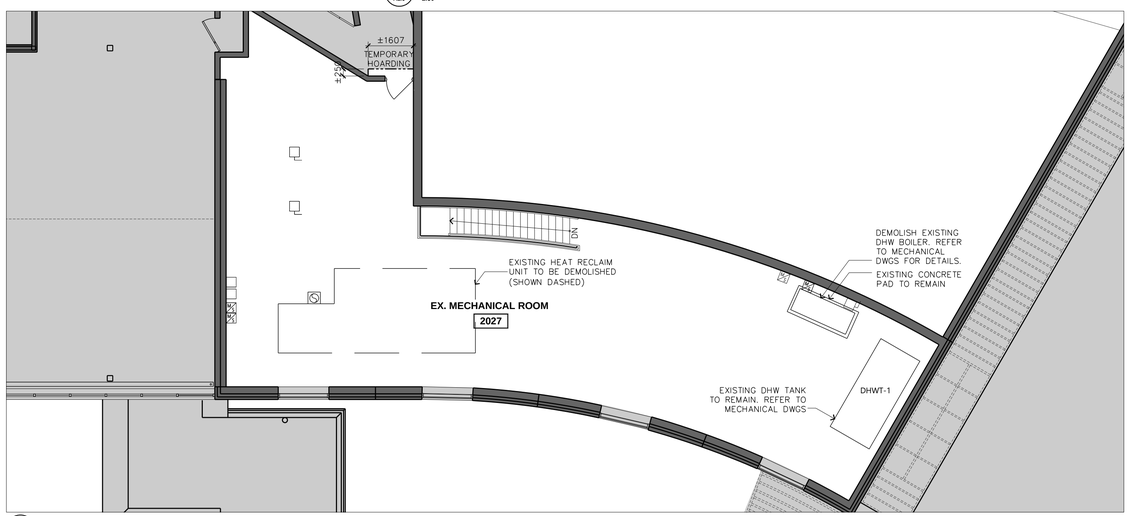
5 A1.5 **DEMOLITION PLAN STAIR NO. 3 SECOND FLOOR**
1:50



6 A1.5 **DEMOLITION REFLECTED CEILING PLAN VESTIBULE**
1:50



7 A1.5 **DEMOLITION PLAN SECOND FLOOR MECHANICAL ROOM**
1:100



8 A1.5 **DEMOLITION PLAN SECOND FLOOR MECHANICAL ROOM**
1:100

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G. ALL EXISTING STARTING BLOCK ANCHORS, EYELETS ANCHORS TO REMAIN.

H. REMOVE JET COVERS AND REPLACE WITH NEW JET COVERS. THE JET BODY TO REMAIN UNLESS OTHERWISE NOTED.

I. PROVIDE FULL HEIGHT TEMPORARY HOARDING DURING CONSTRUCTION TO ENSURE MAINTAIN A CONTINUOUS BARRIER BETWEEN THE TWO ROOMS DURING CONSTRUCTION. PROVIDE 1 LAYER OF SOUNDPROOF GYPSUM BOARD ON TEMPORARY METAL STUDS. ALLOW FOR AN ACCESS DOOR AND CONTRACTOR DOOR HARDWARE FOR SECURITY. PROVIDE SIGNAGE "DO NOT ENTER DUE TO ONGOING CONSTRUCTION. HEAD AND FOOT PROTECTION MUST BE WORN."

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR INTERIM COSTING	16 JAN 2026
ISSUED FOR CLIENT REVIEW 50%	12 DEC 2025
ISSUED FOR CLIENT REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION PLAN STAIRS / VESTIBULE / MECHANICAL ROOMS

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A1.5



1 / A1.6 DEMOLITION RCP SOUTH BUILDING GROUND FLOOR
1 : 100

CHERIE NG ARCHITECT INC.
www.cherieng.com
t. 416.898.1979

general notes :

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REFLECTED CEILING PLAN LEGEND:
REFER TO MECHANICAL AND ELECTRICAL FOR ALL DEVICES

DT — DEMOLISH EXISTING THERMOSTAT

CV — DEMOLISH EXISTING CONTROL VALVE

REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR DETAILED COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 80%	16 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION RCP GROUND FLOOR/ SOUTH COLONNADE / SOUTH BUILDING

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A1.6



1 / A1.7 **DEMOLITION RCP NORTH BUILDING GROUND FLOOR**
1 : 100

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REFLECTED CEILING PLAN LEGEND:
REFER TO MECHANICAL AND ELECTRICAL FOR ALL DEVICES

DT — DEMOLISH EXISTING THERMOSTAT

CV — DEMOLISH EXISTING CONTROL VALVE

REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	15 JAN 2026
ISSUED FOR CLIENTS REVIEW 65%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

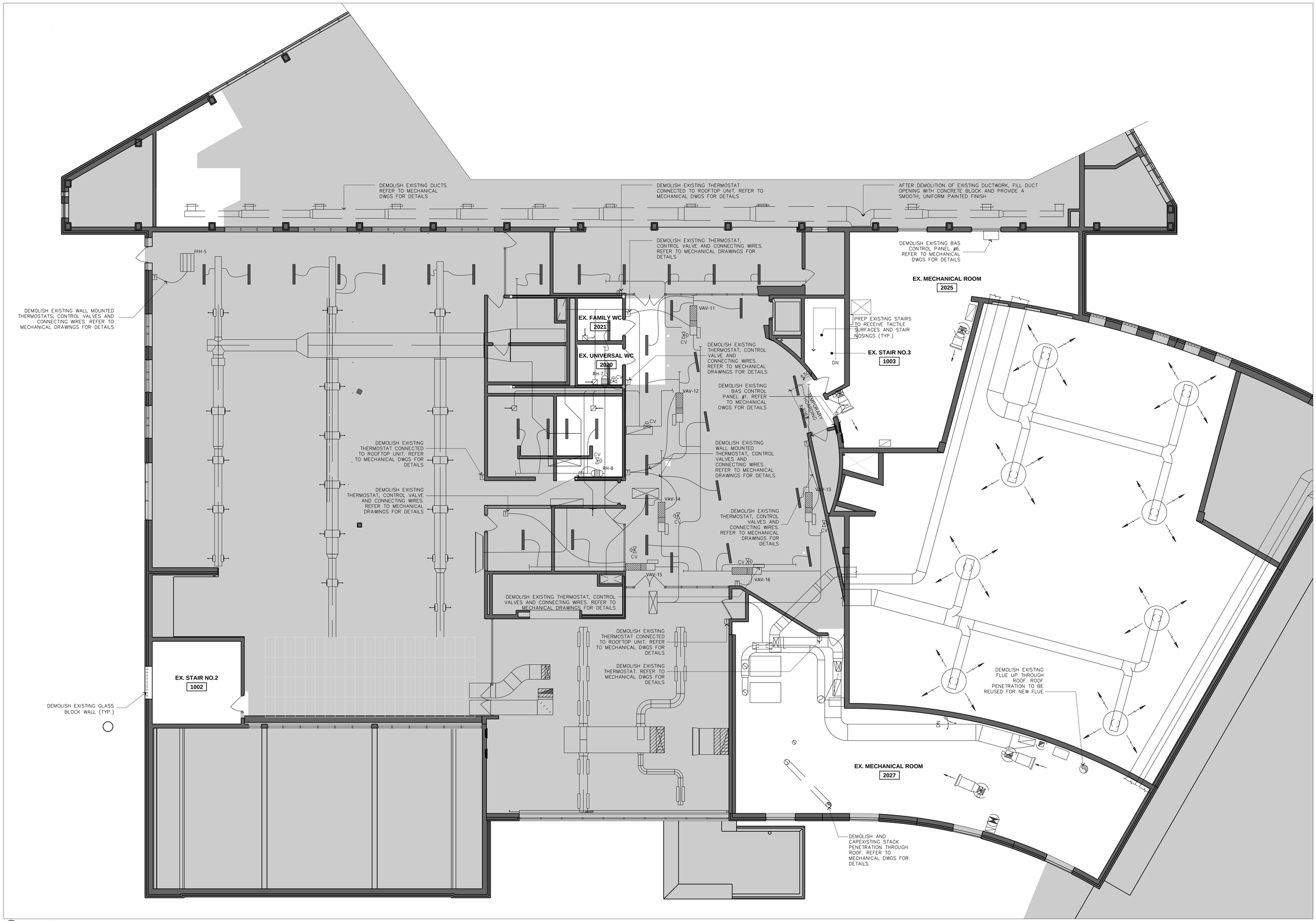
Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION RCP GROUND FLOOR/ NORTH COLONNADES/ NORTH BUILDING

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A1.7



1 / A1.8 **DEMOLITION RCP SECOND FLOOR**
1 : 100

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REFLECTED CEILING PLAN LEGEND:

DT — DEMOLISH EXISTING THERMOSTAT

DEMOLISH EXISTING WIRES

CV — DEMOLISH EXISTING CONTROL VALVE

REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW #2A	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

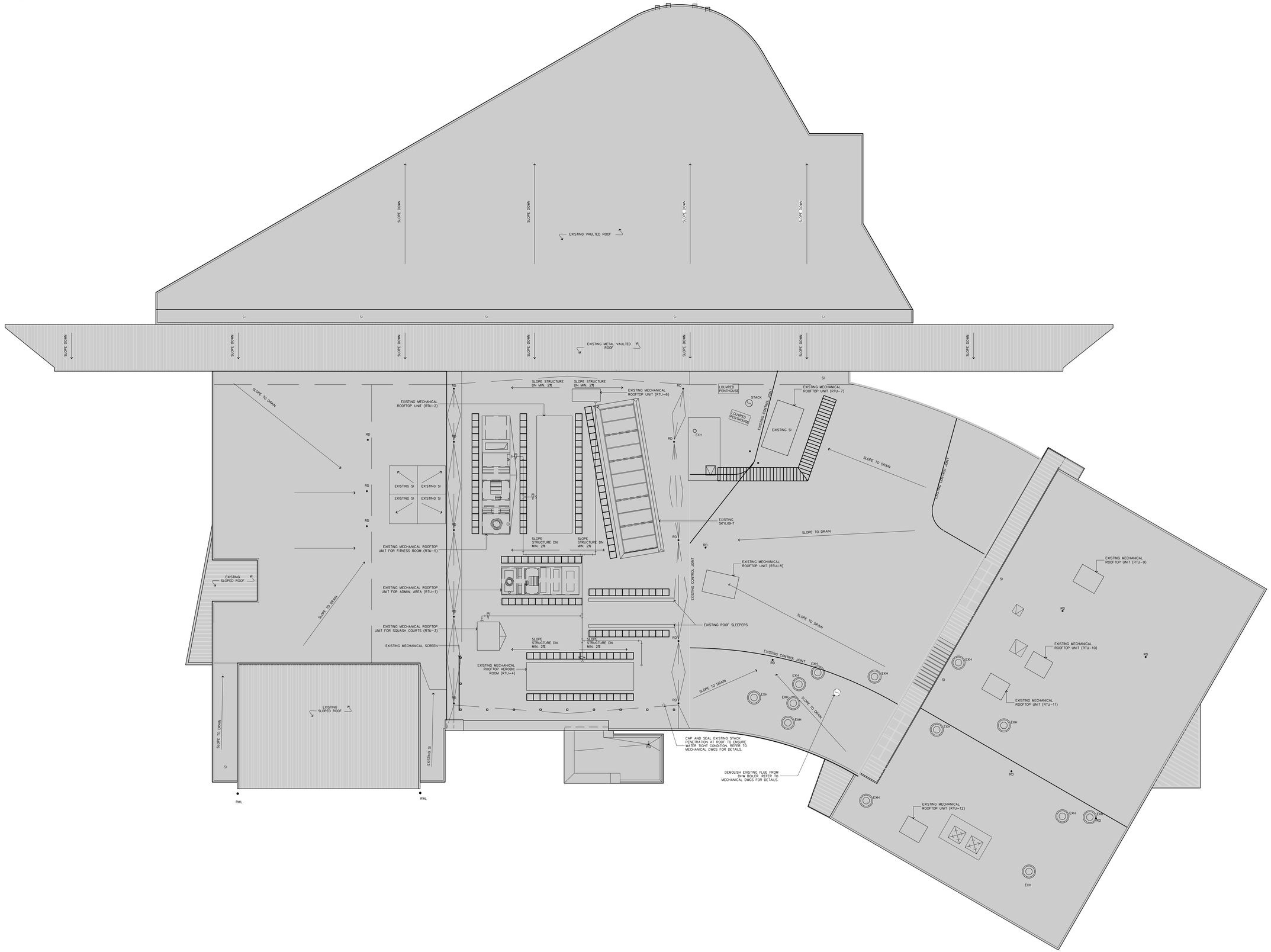
Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION RCP SECOND FLOOR

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A1.8



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LEGEND

- OUTSIDE SCOPE OF WORK
- EXISTING PARTITIONS TO REMAIN
- DEMOLITION LINE
- DEMOLISH EXISTING DOOR UNLESS OTHERWISE NOTED

GENERAL DEMOLITION NOTES:

A. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

B. ACCOUNT FOR WORKING AROUND EXISTING SERVICES.

C. ALL STRUCTURAL ELEMENTS TO REMAIN, UNLESS NOTED OTHERWISE.

D. PATCH, REPAIR AND REFINISH ALL DAMAGED SURFACES. SURFACES ACCOUNT FOR WORKING AROUND EXISTING SERVICES.

E. DEMOLISH EXISTING SKIMMER AND CUSTOM OVERFLOWS AND PREPARE SURFACES FOR NEW SKIMMER, CUSTOM MAKE OVERFLOW AND ALL ASSOCIATED WORK TO MATCH WITH EXISTING CONDITIONS.

F. DEMOLISH EXISTING GUTTER DRAINS AND PREPARE SURFACES FOR NEW GUTTER DRAIN AND ALL ASSOCIATED WORK TO MATCH WITH EXISTING CONDITIONS.

G. ALL EXISTING STARTING BLOCK ANCHORS, EYELETS ANCHORS TO REMAIN.

H. REMOVE JET COVERS AND REPLACE WITH NEW JET COVERS. THE JET BODY TO REMAIN UNLESS OTHERWISE NOTED.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CITY/TRCA COMMENTS	16 JAN 2026
ISSUED FOR CLIENT'S REVIEW 80%	16 JAN 2026
ISSUED FOR CLIENT'S REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

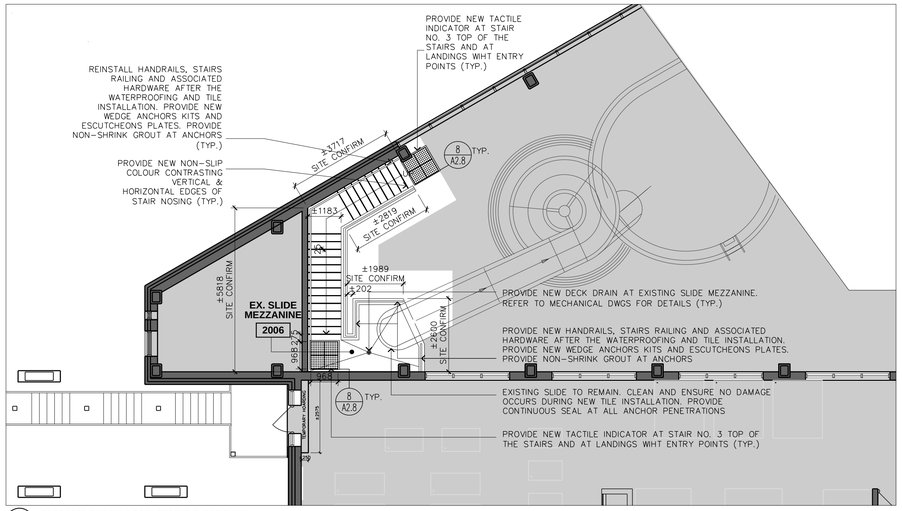
Address-5800 RIVER GROVE AVE, MISSISSAUGA

DEMOLITION PLAN ROOF PLAN

project no. : 2522
scale : 1 : 150
date : OCTOBER 2025

drawing no. :

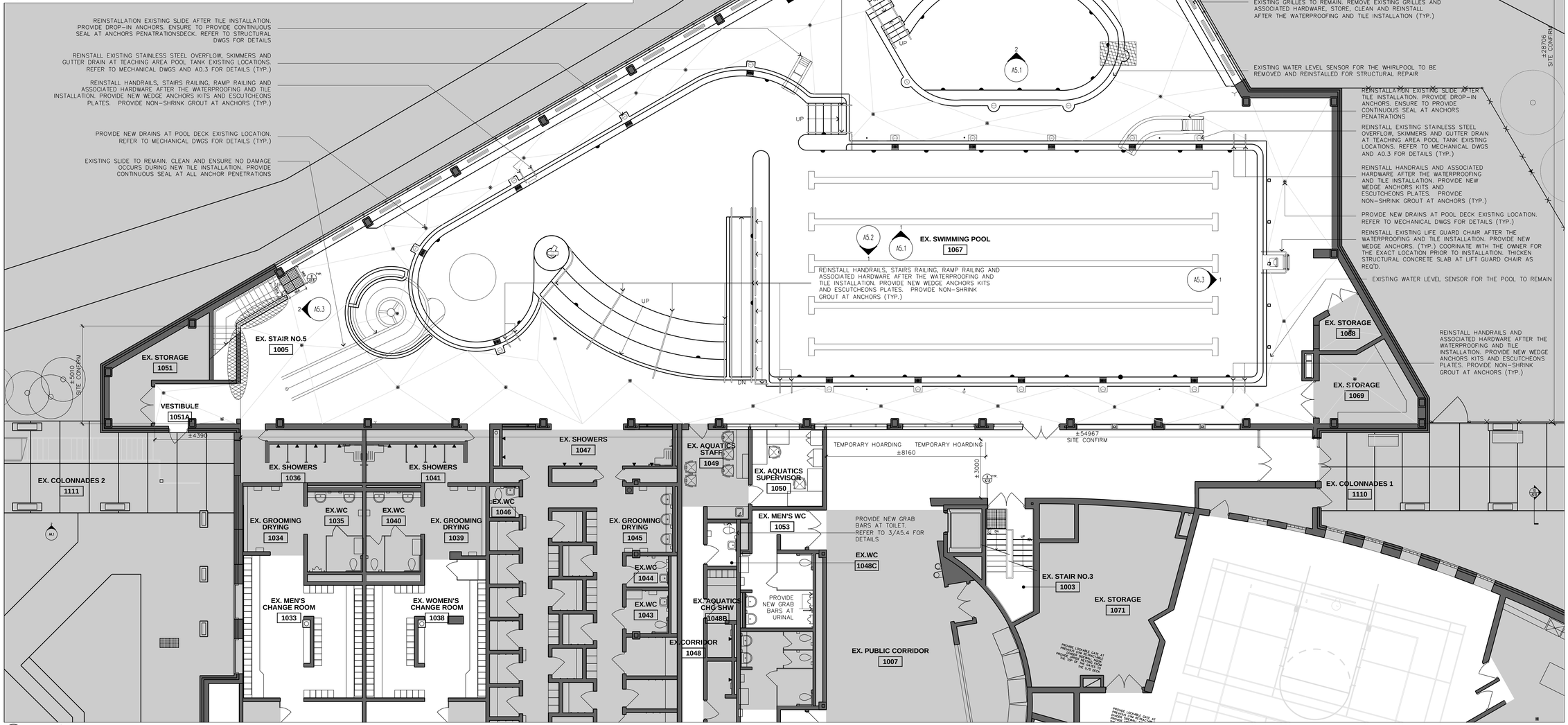
A1.9



2 A2.1 **PROPOSED SWIMMING POOL SECOND FLOOR PLAN**
1 : 100

CONCRETE REPAIR NOTES

1. PROVIDE TEMPORARY SHORING AS REQUIRED.
2. IDENTIFY AND MARK SQUARED OFF AREAS OF CONCRETE DETERIORATION. INVITE ENGINEER FOR REVIEW. SAW-CUT PERIMETER OF THE REPAIR AREA TO A MINIMUM DEPTH OF 12mm. DO NOT CUT EXISTING BARS. FEATHERED EDGES ARE NOT ALLOWED.
3. REMOVE DETERIORATED CONCRETE SURROUNDING REINFORCING BARS. DO NOT DAMAGE EXISTING BARS. DO NOT VIBRATE BARS DURING CONCRETE REMOVAL. CONCRETE REMOVAL SHOULD CONTINUE UNTIL NO FURTHER DELAMINATION, CRACKING OR CORROSION IS OBSERVED ALONG REINFORCING BARS.
4. CREATE CLEAR SPACE BETWEEN CONCRETE AND REINFORCING BARS. DIMENSION OF CLEAR SPACE SHALL BE 6 mm PLUS MAX. SIZE OF AGGREGATE OF REPAIR MATERIAL, BUT NOT LESS THAN 20 mm.
5. PREPARE SURFACE OF CONCRETE, REINFORCING BARS AND STEEL COLUMN TO RECEIVE REPAIR MATERIAL USING SANDBLASTING METHOD.
6. RE-TIE EXPOSED REINFORCING STEEL AS REQUIRED.
7. REQUEST REVIEW BY ENGINEER.
8. REINFORCE BADLY CORRODED OR DAMAGED REINFORCING STEEL AS INSTRUCTED BY ENGINEER.
9. COAT CONCRETE, EXPOSED STEEL REINFORCEMENT AND STEEL COLUMN WITH CORROSION INHIBITING BONDING MATERIAL MAPEI MAPEFER 1K OR APPROVED EQUIVALLENT.
10. REPAIR CONCRETE USING MAPEI PLANITOP 23 OR APPROVED EQUIVALLENT (COMPATIBLE WITH CORROSION INHIBITING BONDING MATERIAL). IF DEPTH OF REPAIR EXCEEDS 50mm, APPLY IN 2 STAGES.
11. REMOVE TEMPORARY SHORING.



1 A2.1 **PROPOSED SWIMMING POOL GROUND FLOOR PLAN**
1 : 100

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LEGEND

- OUTSIDE SCOPE OF WORK
- DASHED LINE OF EXTENT OF CONCRETE POOL REPAIR, INCLUDING DEPTH OF THE POOL TANKS, WALLS AND FLOOR. REFER TO CONCRETE REPAIR NOTES.
- HATCHED PATTERN INDICATES CONCRETE DETERIORATION REQUIRING THROUGH-WALL CONCRETE REPAIR.

  REFER TO CONCRETE REPAIR NOTES, MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	15 JAN 2026
ISSUED FOR CLIENT'S REVIEW 80%	18 DEC 2025
ISSUED FOR CLIENT'S REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

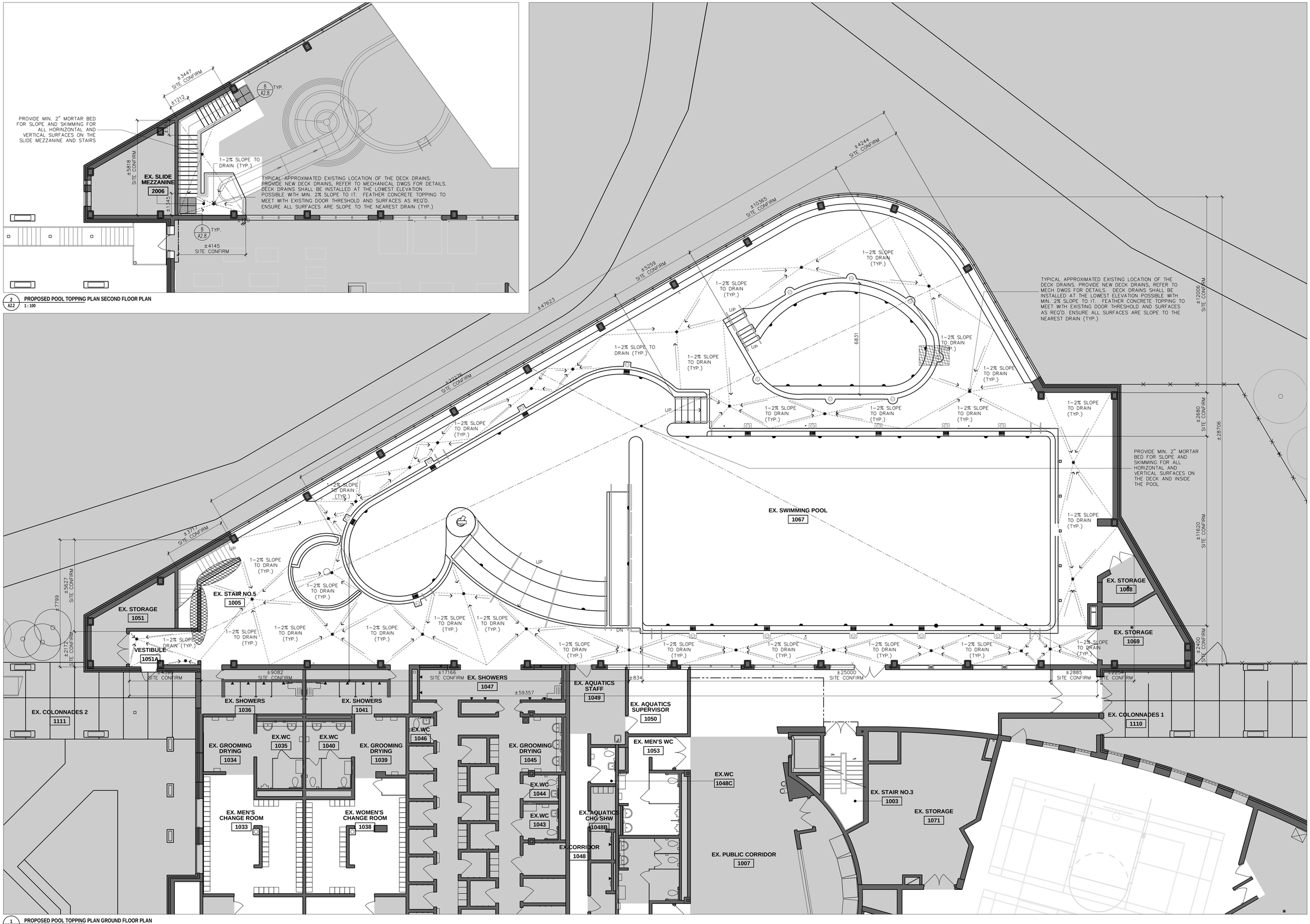
PROPOSED PLAN SWIMMING POOL GROUND FLOOR / SECOND FLOOR

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A2.1

2 A2.2 **PROPOSED POOL TOPPING PLAN SECOND FLOOR PLAN**
1 : 100



1 A2.2 **PROPOSED POOL TOPPING PLAN GROUND FLOOR PLAN**
1 : 100

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LEGEND

OUTSIDE SCOPE OF WORK

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES, GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT. FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. FD — SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

D. PROVIDE PORCELAIN TILES ON ALL PREVIOUSLY TILED SURFACES, INCLUDING BUT NOT LIMITED TO POOLS, WHIRLPOOLS, BENCHES, STEPS, DECKS, STAIRS, RAMPS, WALLS, FLOORS, BASINS, GUTTERS, GUTTER OVERFLOW GUTTERS, PLANTERS, WATER FEATURES, SAUNAS, AND ALL OTHER EXISTING TILED AREAS AS INDICATED ON DRAWINGS AND VERIFIED BY SITE CONDITIONS.

E. PATCH, REPAIR, AND MAKE GOOD ALL EXISTING SURFACES DISTURBED, DAMAGED, OR REMOVED AS A RESULT OF NEW MECHANICAL, ELECTRICAL, AND NEW WORKS. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILINGS, WALLS, FLOORS, TILE FINISHES, BULKHEADS, SHAFT ENCLOSURES, ACCESS PANELS, FRAMES, SOFFITS, AND ALL OTHER AFFECTED SURFACES. PROVIDE ALL REQUIRED FINISHES, INCLUDING PAINTING, TO MATCH EXISTING ADJACENT SURFACES IN MATERIAL, TEXTURE, COLOUR, AND SHEEN TO ACHIEVE A UNIFORM, CONTINUOUS, AND SEAMLESS FINISHED APPEARANCE.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR HCMSA COSTING	26 JAN 2026
ISSUED FOR CLIENTS REVIEW #2	18 DEC 2025
ISSUED FOR CLIENTS REVIEW #01	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

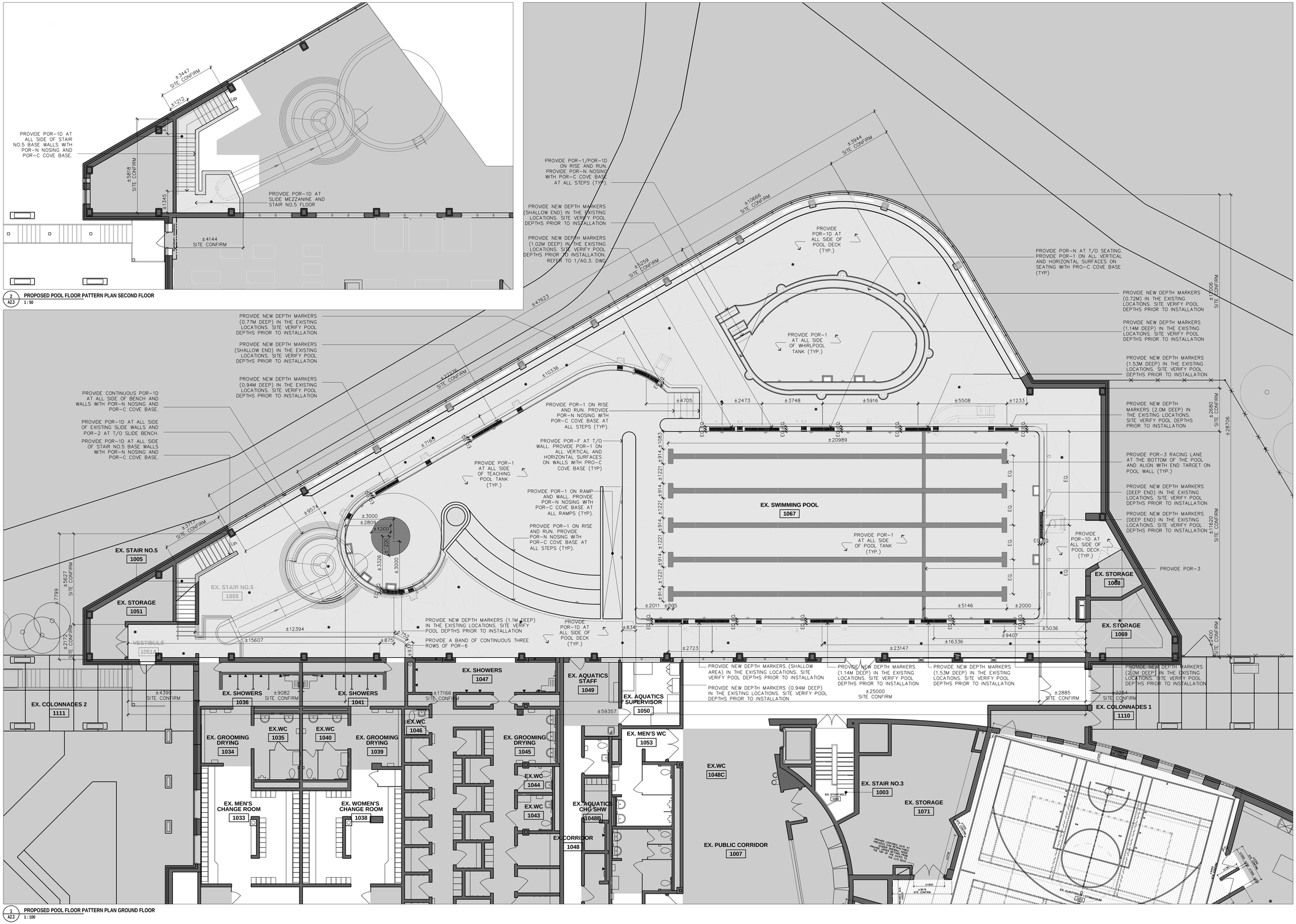
PROPOSED POOL TOPPING PLAN GROUND FLOOR / SECOND FLOOR

project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A2.2

2 A2.3 **PROPOSED POOL FLOOR PATTERN PLAN SECOND FLOOR** 1 : 50



1 A2.3 **PROPOSED POOL FLOOR PATTERN PLAN GROUND FLOOR** 1 : 100

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LEGEND

OUTSIDE SCOPE OF WORK

POR (SEE TILE SCHEDULE)

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. FD SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

D. PROVIDE PORCELAIN TILES ON ALL PREVIOUSLY TILED SURFACES, INCLUDING BUT NOT LIMITED TO POOLS, WHIRLPOOLS, BENCHES, STEPS, DECKS, STAIRS, RAMPS, WALLS, FLOORS, BASINS, GUTTERS, CURBS, OVERFLOW GUTTERS, PLANTERS, WATER FEATURES, SAUNAS, AND ALL OTHER EXISTING TILED AREAS AS INDICATED ON DRAWINGS AND VERIFIED BY SITE CONDITIONS.

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 85%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

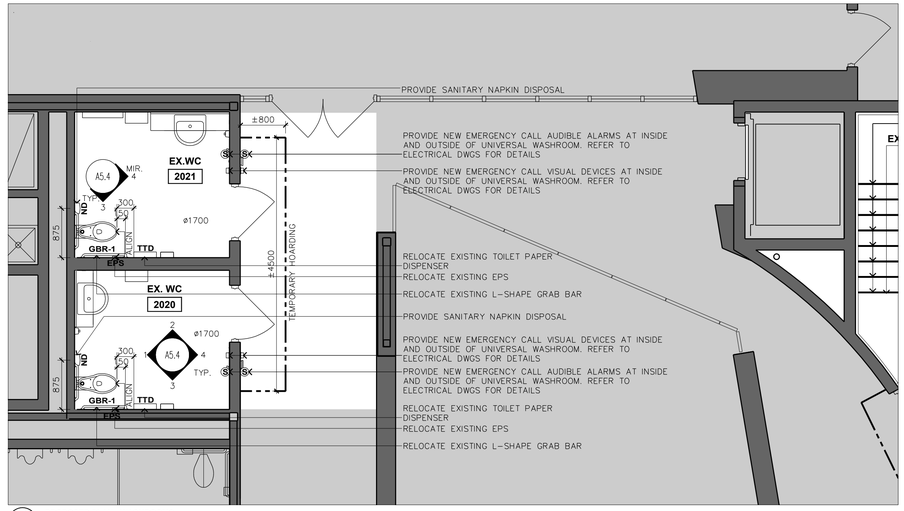
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED POOL FLOOR PATTERN PLAN GROUND FLOOR / SECOND FLOOR

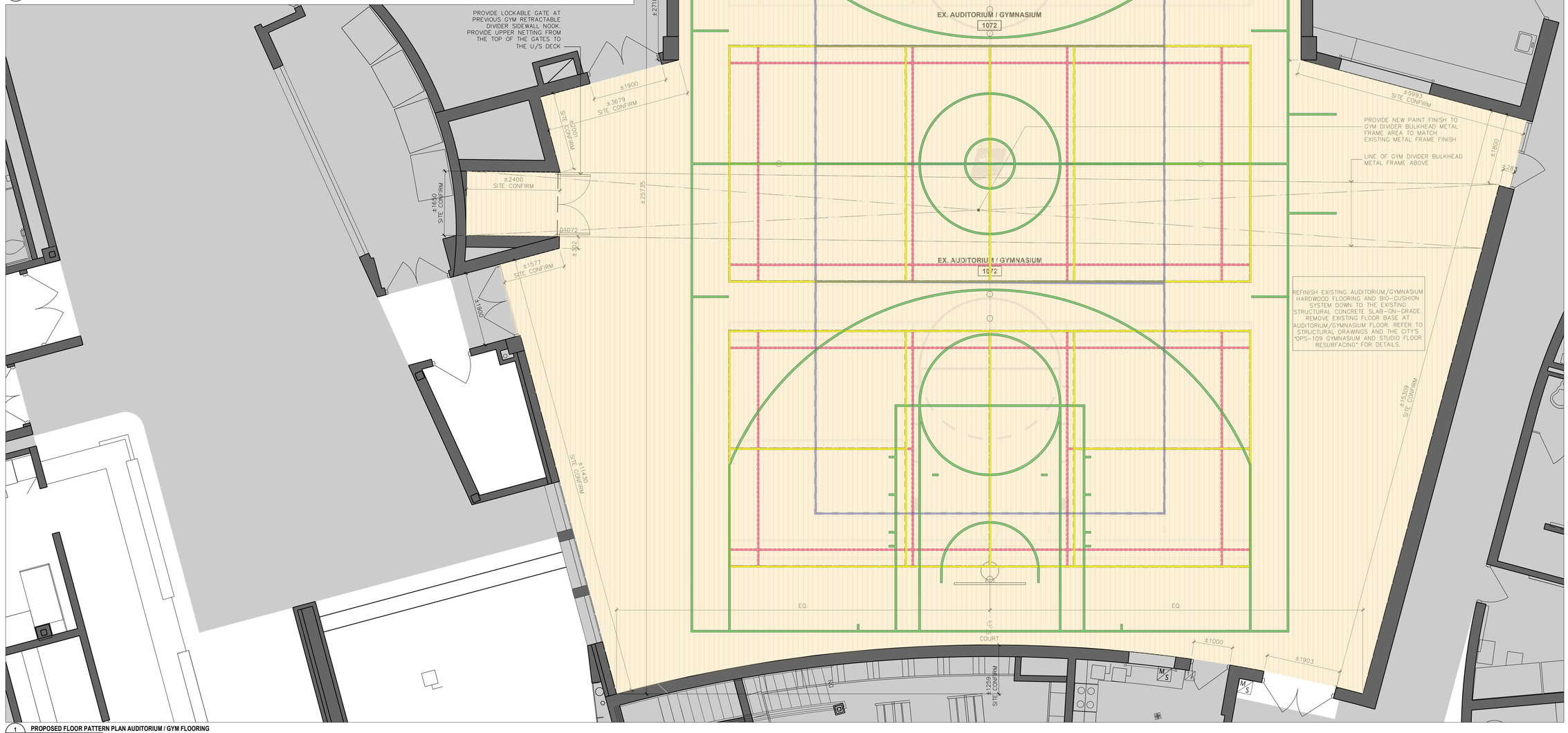
project no. : 2522
scale : 1 : 100
date : OCTOBER 2025

drawing no. :

A2.3



2 / A2.4 **PROPOSED PLAN - WASHROOMS**
1 : 50



1 / A2.4 **PROPOSED FLOOR PATTERN PLAN AUDITORIUM / GYM FLOORING**
1 : 50

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LEGEND

OUTSIDE SCOPE OF WORK

HATCHED PATTERN INDICATES REFINISHING OF SPRUNG WOOD FLOOR. CONTRACTOR TO REFERENCE OPS-109 GYMNASIUM AND STUDIO FLOOR RESURFACING.

4" DIA. STEEL SLEEVES

COURT LINES COLOUR LEGEND:

VOLLEYBALL

BASKETBALL (FULL COURT)

PICKLEBALL

BADMINTON

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	5 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	3 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

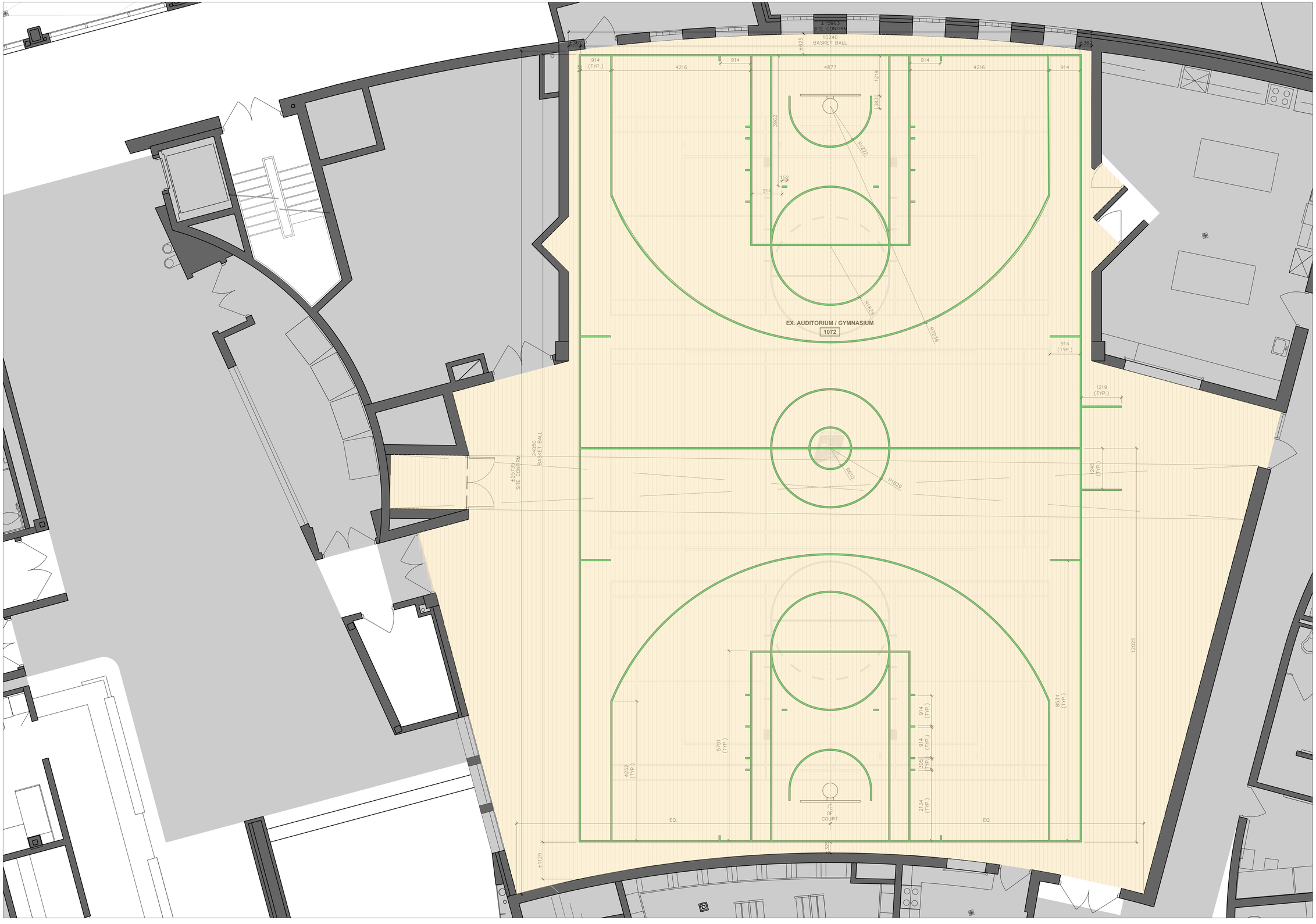
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED FLOOR PATTERN PLAN AUDITORIUM / GYM AND UNIVERSAL WASHROOMS

project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A2.4



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www.cherieng.com
t. 416.898.1979

general notes :

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LEGEND

OUTSIDE SCOPE OF WORK

HATCHED PATTERN INDICATES REFINISHING OF SPRUNG WOOD FLOOR. CONTRACTOR TO REFERENCE OPS-109 GYMNASIUM AND STUDIO FLOOR RESURFACING.

4" DIA. STEEL SLEEVES

COURT LINES COLOUR LEGEND:

VOLLEYBALL

BASKETBALL (FULL COURT)

PICKLEBALL

BADMINTON

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	15 JAN 2026
ISSUED FOR CLIENTS REVIEW 30%	31 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

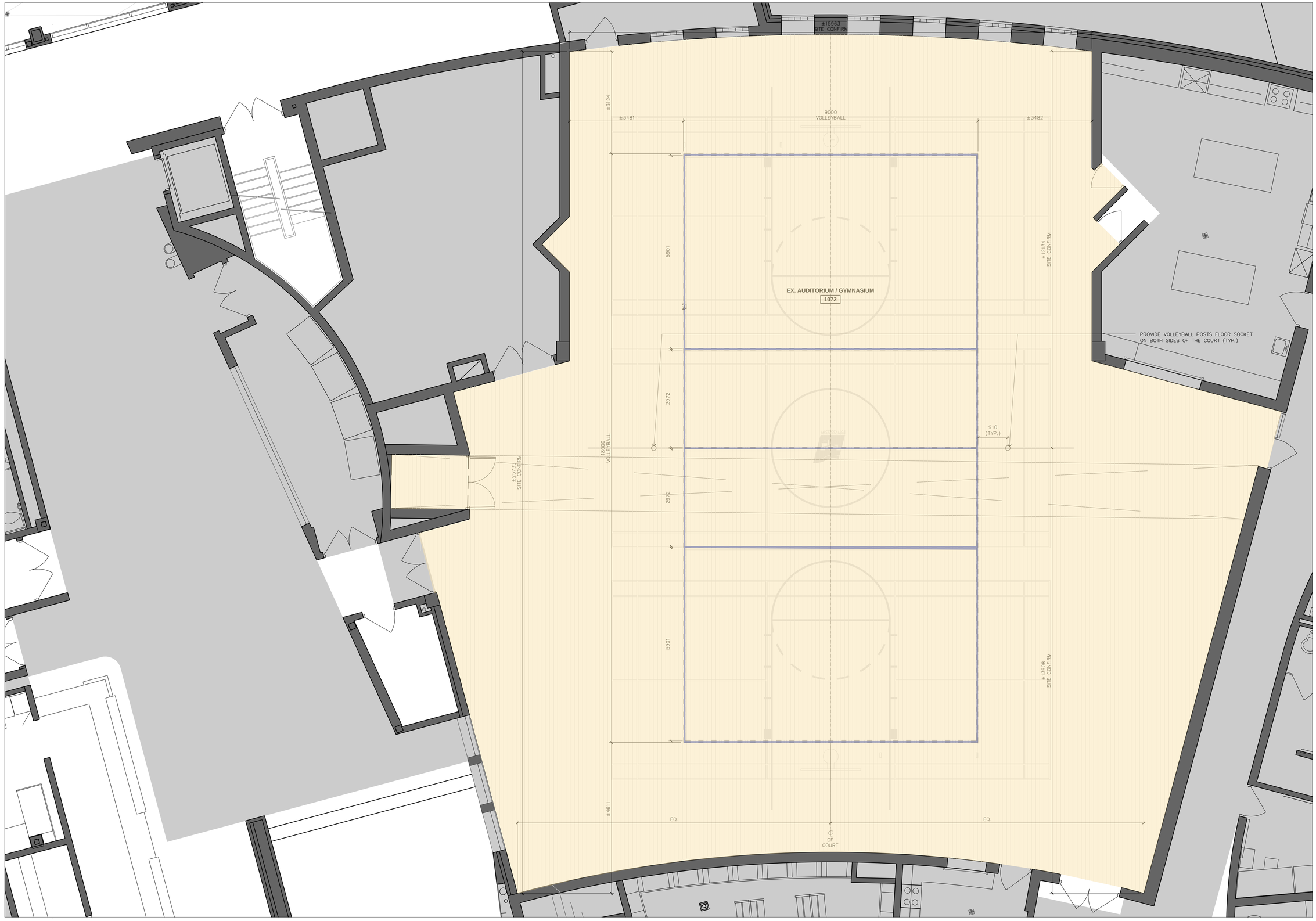
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED FLOOR PATTERN PLAN BASKETBALL COURT

project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A2.4A



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LEGEND

OUTSIDE SCOPE OF WORK

HATCHED PATTERN INDICATES REFINISHING OF SPRUNG WOOD FLOOR. CONTRACTOR TO REFERENCE OPS-109 GYMNASIUM AND STUDIO FLOOR RESURFACING.

4" DIA. STEEL SLEEVES

COURT LINES COLOUR LEGEND:

VOLLEYBALL

BASKETBALL (FULL COURT)

PICKLEBALL

BADMINTON

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	19 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

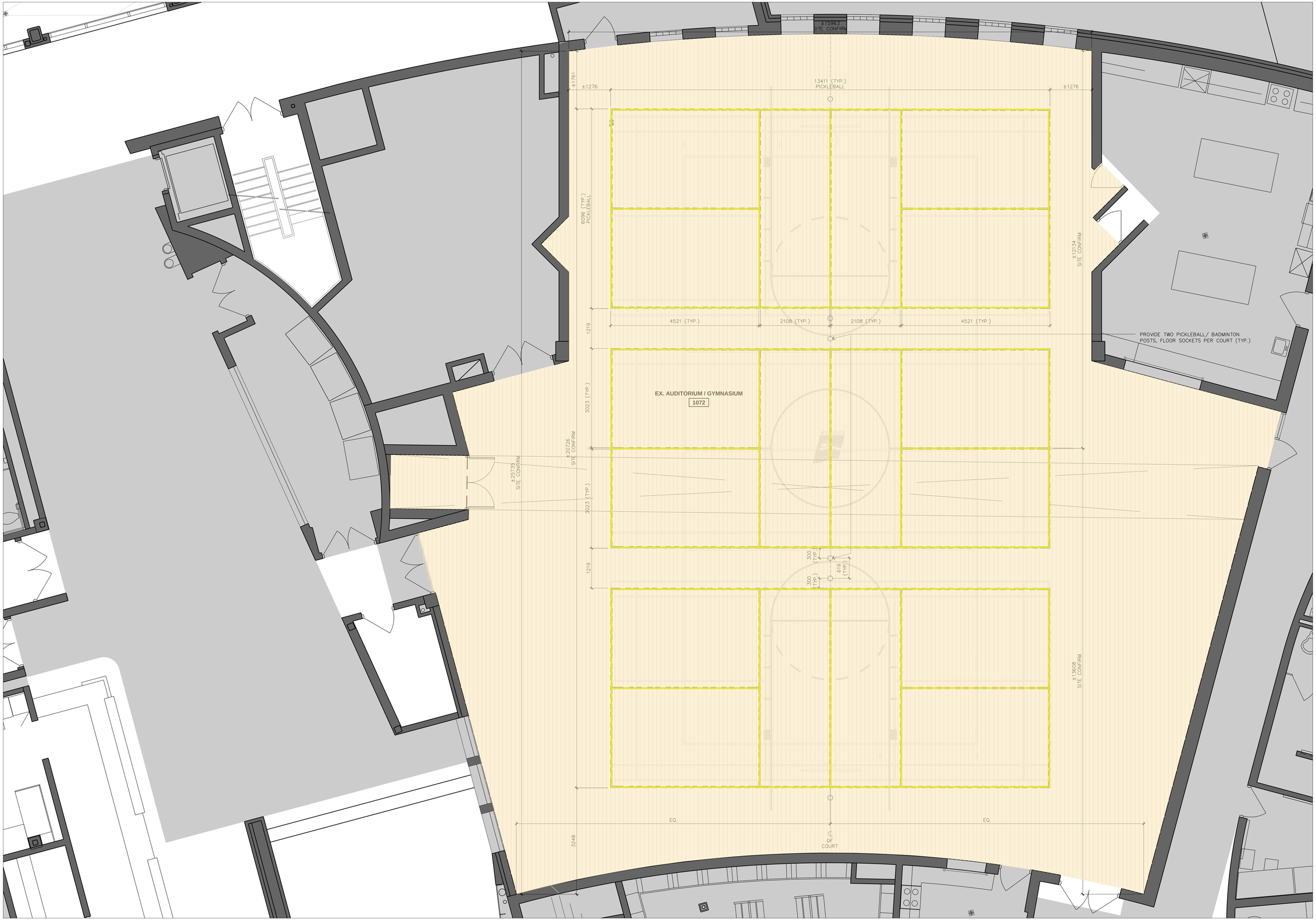
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED FLOOR PATTERN PLAN VOLLEYBALL COURT

project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A2.4B



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LEGEND

OUTSIDE SCOPE OF WORK

HATCHED PATTERN INDICATES REFINISHING OF SPRUNG WOOD FLOOR. CONTRACTOR TO REFERENCE OPS-109 GYMNASIUM AND STUDIO FLOOR RESURFACING.

4" DIA. STEEL SLEEVES

COURT LINES COLOUR LEGEND:

VOLLEYBALL

BASKETBALL (FULL COURT)

PICKLEBALL

BADMINTON

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

FD

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	19 JAN 2026
ISSUED FOR CLIENTS REVIEW 80%	31 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

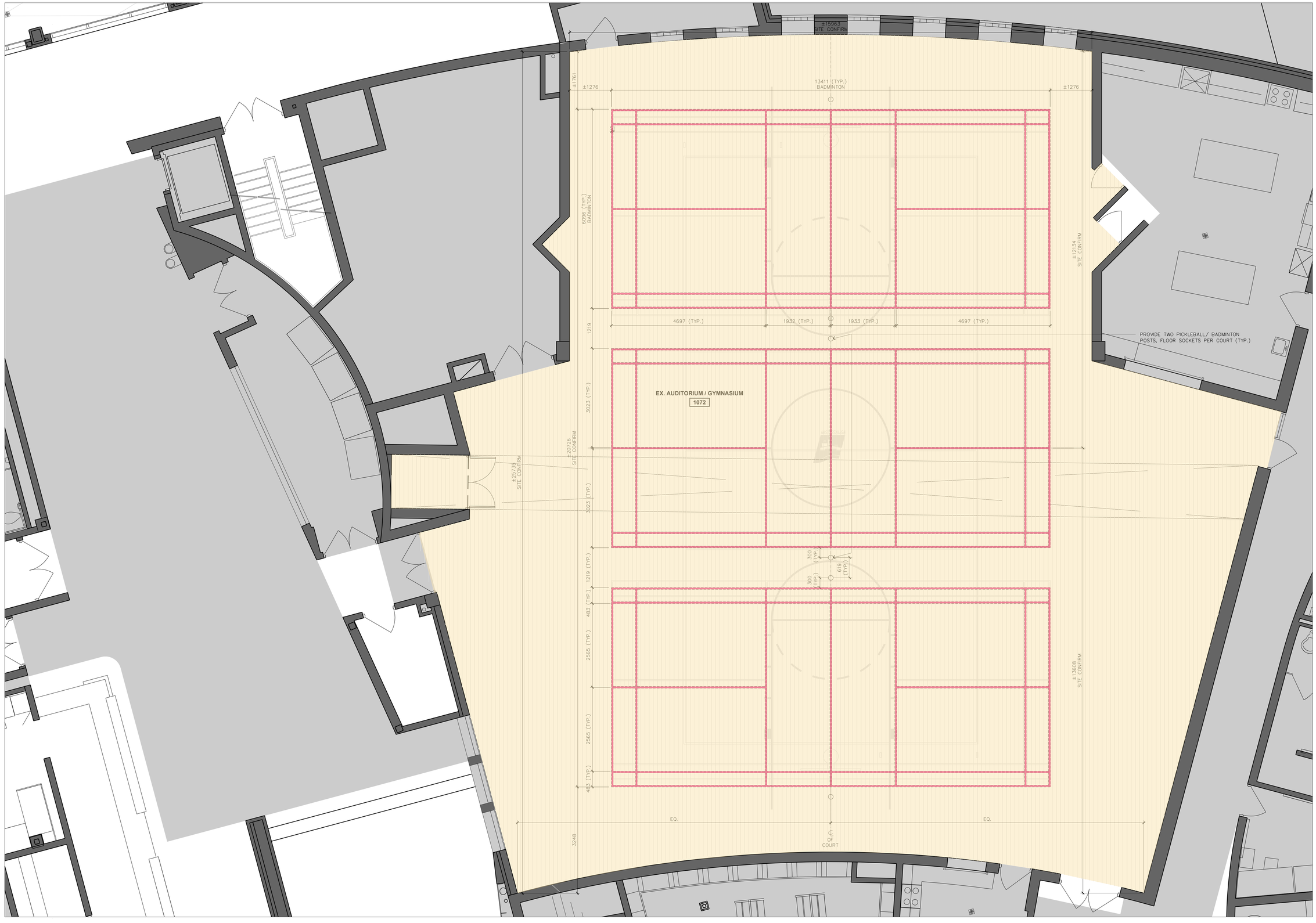
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED FLOOR PATTERN PLAN PICKLEBALL COURTS

project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A2.4C



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LEGEND

OUTSIDE SCOPE OF WORK

HATCHED PATTERN INDICATES REFINISHING OF SPRUNG WOOD FLOOR. CONTRACTOR TO REFERENCE OPS-109 GYMNASIUM AND STUDIO FLOOR RESURFACING.

4" DIA. STEEL SLEEVES

COURT LINES COLOUR LEGEND:

VOLLEYBALL

BASKETBALL (FULL COURT)

PICKLEBALL

BADMINTON

GENERAL FLOOR PATTERN PLAN NOTES:

A. ADD LEVELING COMPOUND AND PREPARE FOR NEW FLOOR FINISHES AND SLOPE FLOOR TO DRAIN WHEN REQUIRED. PATCH HOLES. GRIND DOWN PROTRUSIONS.

B. COORDINATE WITH CONSULTANT FINAL LOCATION FOR ALL NEW FLOOR DRAINS AND MECHANICAL ACCESS PANELS. ENSURE TO PROVIDE POSITIVE DRAINAGE.

C. FD SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	5 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

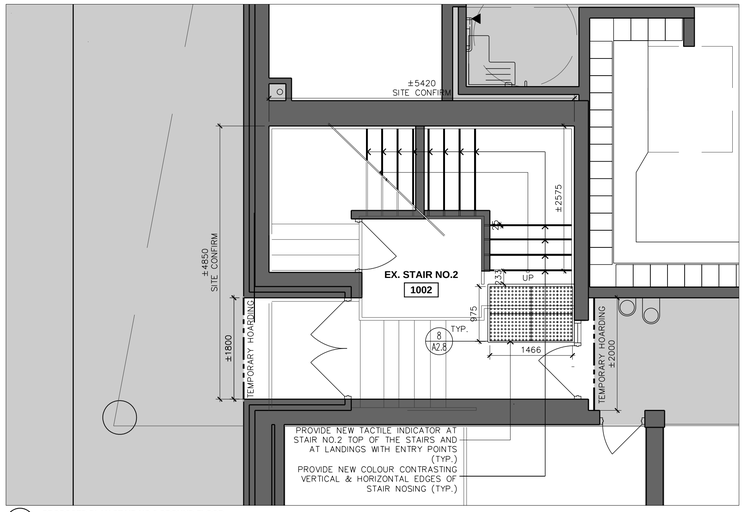
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED FLOOR PATTERN PLAN BADMINTON COURTS

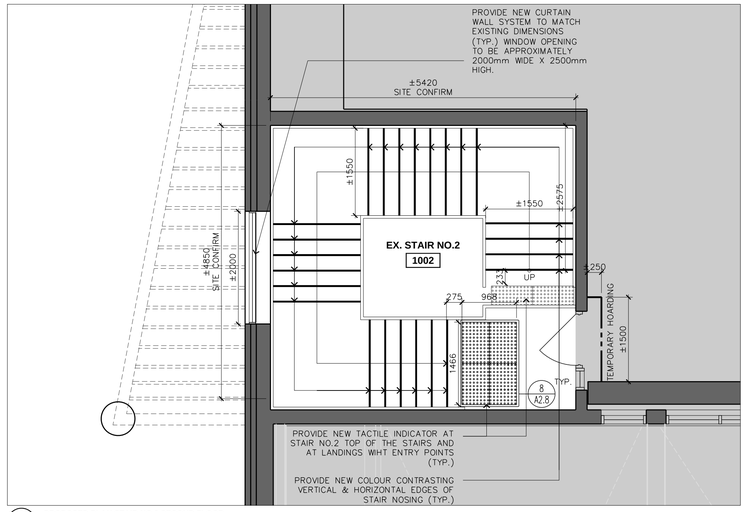
project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

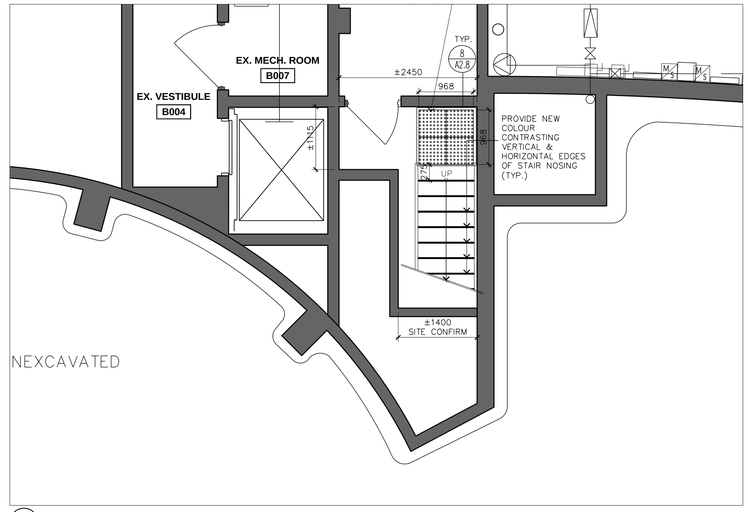
A2.4D



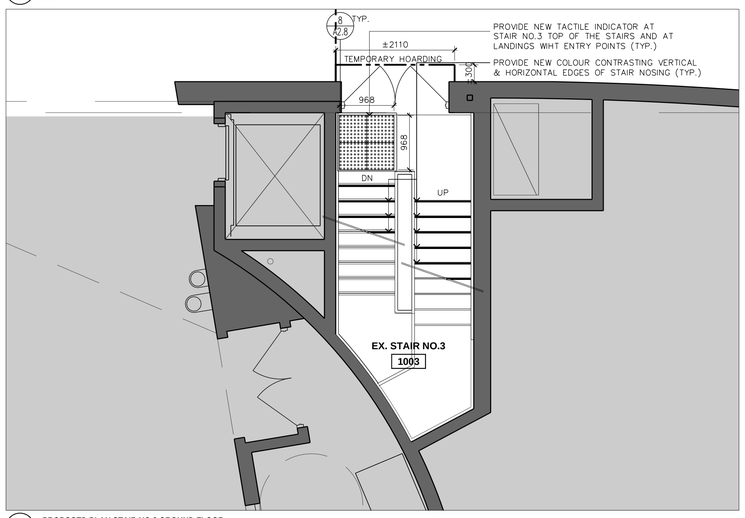
1 A2.6 **PROPOSED PLAN STAIR NO.2 GROUND FLOOR**
1 : 50



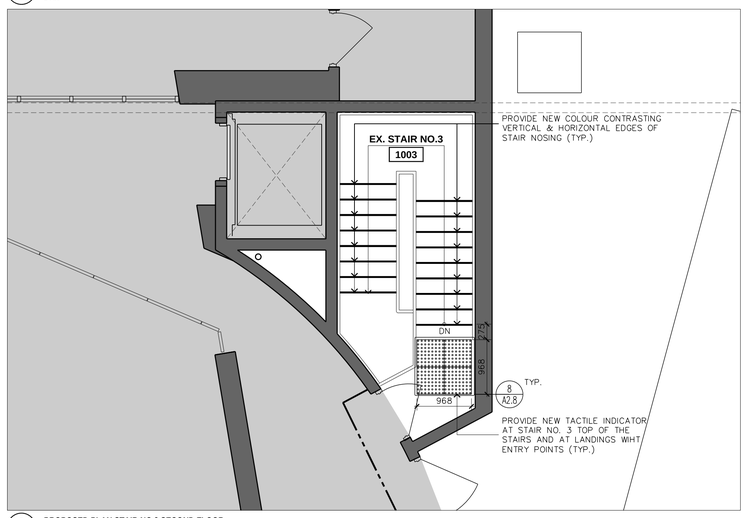
2 A2.6 **PROPOSED PLAN STAIR NO.2 SECOND FLOOR**
1 : 50



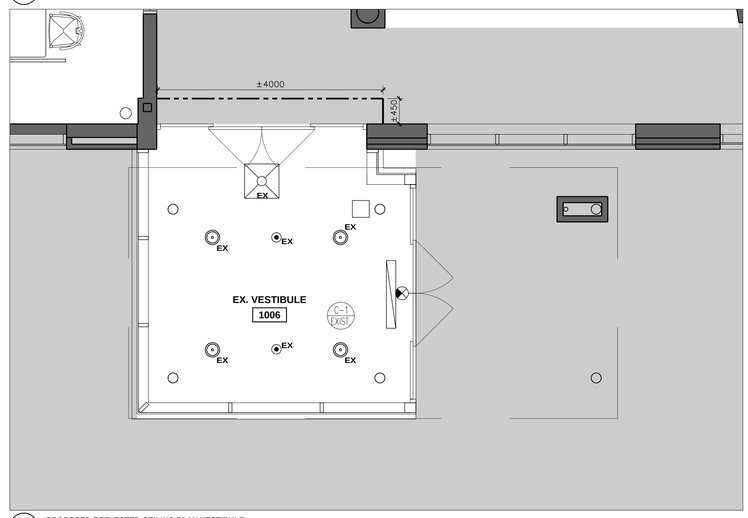
3 A2.6 **PROPOSED PLAN STAIR NO.3 BASEMENT**
1 : 50



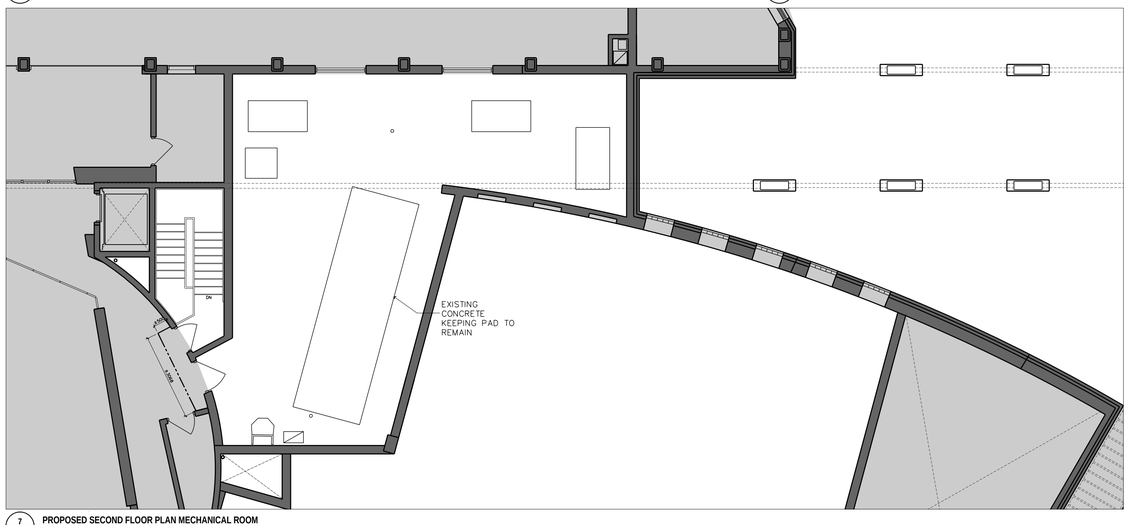
4 A2.6 **PROPOSED PLAN STAIR NO.3 GROUND FLOOR**
1 : 50



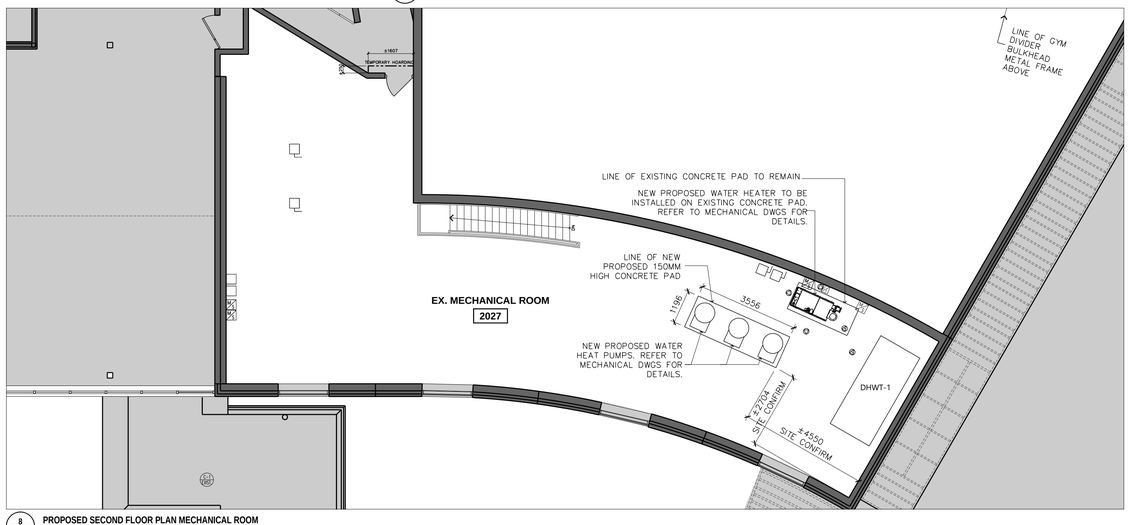
5 A2.6 **PROPOSED PLAN STAIR NO.3 SECOND FLOOR**
1 : 50



6 A2.6 **PROPOSED REFLECTED CEILING PLAN VESTIBULE**
1 : 50



7 A2.6 **PROPOSED SECOND FLOOR PLAN MECHANICAL ROOM**
1:100



8 A2.6 **PROPOSED SECOND FLOOR PLAN MECHANICAL ROOM**
1:100

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LEGEND

OUTSIDE SCOPE OF WORK

REFLECTED CEILING PLAN LEGEND:

EX — EXISTING RECESSED CEILING LIGHT FIXTURE TO REMAIN (SEE ELEC. FOR DETAILS)

EX — EXISTING CEILING DIFFUSER TO REMAIN (SEE MECH. FOR DETAILS)

REPALCE EXISTING AIR CURTAIN (SEE MECH. FOR DETAILS)

EX — EXISTING SPRINKLER TO REMAIN (SEE ELEC. FOR DETAILS)

EXISTING WALL OR CEILING EMERGENCY LIGHT (SEE ELEC. FOR DETAILS)

GENERAL FLOOR PLAN NOTES:

A. CUT EXISTING SLAB AND FOUNDATION WALL TO ACCOMMODATE NEW MECHANICAL AND STRUCTURAL WORK. REFER TO MECHANICAL AND STRUCTURAL DWG. PATCH AND MAKE GOOD OF ALL MATERIALS AND SURFACES INCLUDING STRUCTURAL RELATED WORK.

B. ALL AUTOMATIC DOOR OPERATOR PUSH BUTTONS SHALL BE INSTALLED 1000MM ON CENTRE A.F.F.

C. PROVIDE FULL SIZE CONCRETE BLOCK INSERTS AT ALL DEMOLISHED MECHANICAL AND ELECTRICAL ELEMENTS ON EXISTING CONCRETE BLOCK WALLS.

D. PATCH ALL HOLES AT CEILING WITH MATCHING ADJACENT MATERIAL

E. PAINT ALL PREVIOUSLY PAINTED SURFACES. TYPICAL FOR ALL INTERIOR AND EXTERIOR SURFACE. ALLOW FOR 10 PAINT COLOURS (6 DARK COLOURS AND 4 LIGHT COLOURS)

F. PATCH, REPAIR, AND MAKE GOOD ALL EXISTING SURFACES DISTURBED, DAMAGED, OR REMOVED AS A RESULT OF NEW MECHANICAL, ELECTRICAL, AND NEW WORKS. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILINGS, WALLS, FLOORS, TILE FINISHES, BULKHEADS, SHAFT ENCLOSURES, ACCESS PANELS, FRAMES, SOFFITS, AND ALL OTHER AFFECTED SURFACES. PROVIDE ALL REQUIRED FINISHES, INCLUDING PAINTING, TO MATCH EXISTING ADJACENT SURFACES IN MATERIAL, TEXTURE, COLOUR, AND SHEEN TO ACHIEVE A UNIFORM, CONTINUOUS, AND SEAMLESS FINISHED APPEARANCE.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 85%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	19 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED GROUND PLAN STAIRS / VESTIBULE

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A2.6



1 / A2.7 **PROPOSED RCP NORTH BUILDING GROUND FLOOR**
1 : 100

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REFLECTED CEILING PLAN LEGEND:

- EX — EXISTING RECESSED CEILING LIGHT FIXTURE TO REMAIN (SEE ELEC. FOR DETAILS)
- EX — EXISTING CEILING DIFFUSER TO REMAIN (SEE MECH. FOR DETAILS)
- REPALCE EXISTING AIR CURTAIN (SEE MECH. FOR DETAILS)
- EX — EXISTING SPRINKLER TO REMAIN (SEE ELEC. FOR DETAILS)
- EXISTING WALL OR CEILING EMERGENCY LIGHT (SEE ELEC. FOR DETAILS)

REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO FINISH SCHEDULES.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

H. PATCH, REPAIR, AND MAKE GOOD ALL EXISTING SURFACES DISTURBED, DAMAGED, OR REMOVED AS A RESULT OF NEW MECHANICAL, ELECTRICAL, AND NEW WORKS. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILINGS, WALLS, FLOORS, TILE FINISHES, BULKHEADS, SHAFT ENCLOSURES, ACCESS PANELS, FRAMES, SOFFITS, AND ALL OTHER AFFECTED SURFACES. PROVIDE ALL REQUIRED FINISHES, INCLUDING PAINTING, TO MATCH EXISTING ADJACENT SURFACES IN MATERIAL, TEXTURE, COLOUR, AND SHEEN TO ACHIEVE A UNIFORM, CONTINUOUS, AND SEAMLESS FINISHED APPEARANCE.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED RCP GROUND FLOOR/ SOUTH COLONNADES/ SOUTH BUILDING

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A2.7



1 / A2.8 PROPOSED RCP NORTH BUILDING GROUND FLOOR
1 : 100

CHERIE NG ARCHITECT INC.
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REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

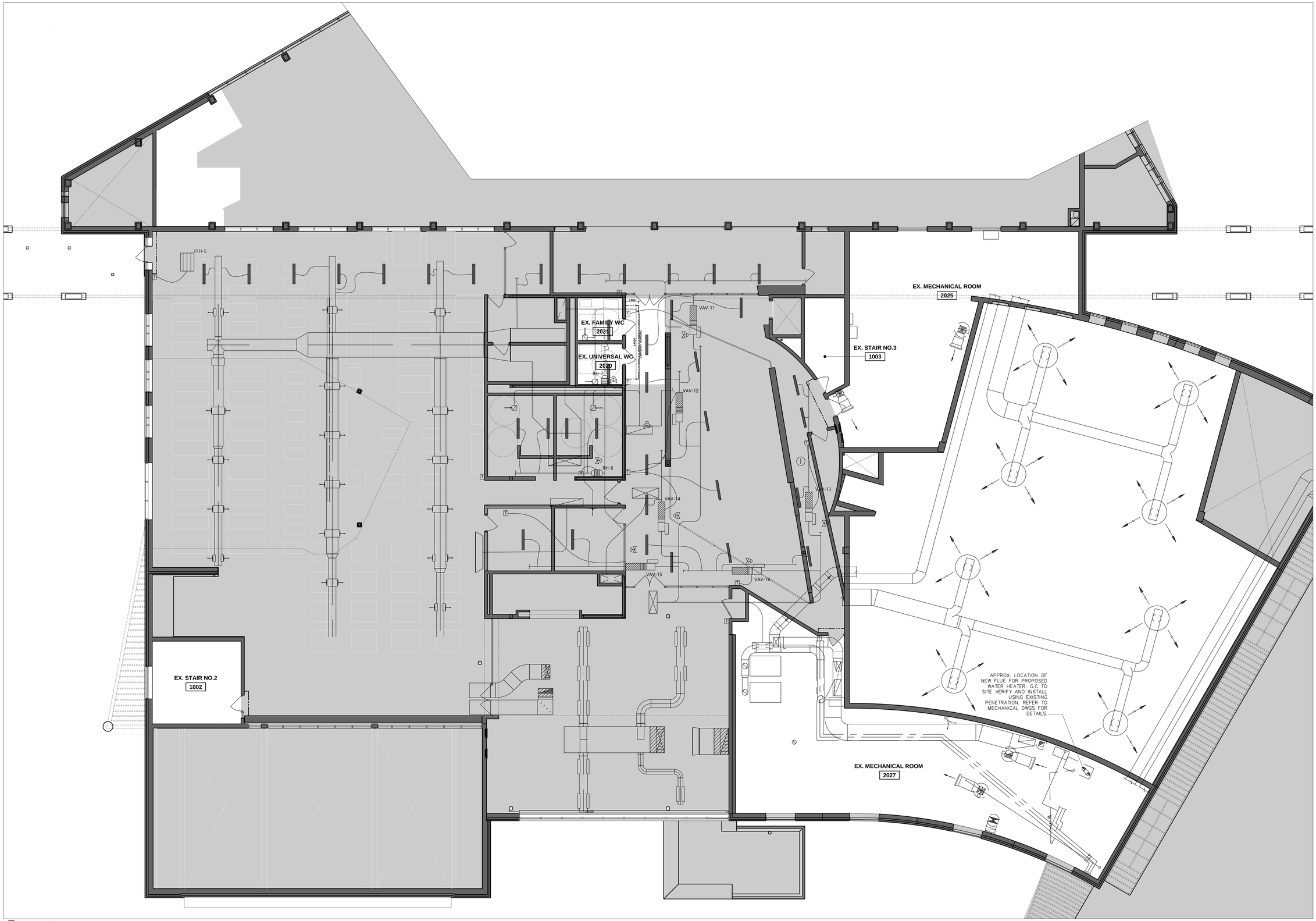
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED RCP GROUND FLOOR/ NORTH COLONNADES/ NORTH BUILDING

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A2.8



1 / A2.9 PROPOSED RCP SECOND FLOOR
1 : 100

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REFLECTED CEILING PLAN GENERAL NOTES:

A. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK.

B. PATCH AND MAKE GOOD OF ALL CEILING / BULKHEAD SURFACES AND PAINT.

C. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.

D. PROVIDE INTERIOR TOUCH UP PAINT AS REQ'D AT ALL NEW LIGHTING FIXTURES INSTALLATIONS. PAINT COLOUR TO MATCH WITH ADJACENT SURFACES.

E. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

F. WHERE NEW LIGHT FIXTURE / ELECTRICAL DEVICES ARE INSTALLED ON EXISTING TO REMAIN SURFACES (WALLS / CEILING) CONTRACTOR TO PATCH AND MAKE GOOD SURFACE AS REQUIRED AND PROVIDE SMOOTH UNIFORM SURFACE. PROVIDE PAINT FINISH.

G. EXISTING CONCEALED SPRINKLER HEAD TO REMAIN. CONTRACTOR TO PROVIDE GYPSUM BOARD CEILING AND ASSOCIATE SUSPENSION SYSTEM. CONTRACTOR TO WORK AROUND ALL EXISTING MECHANICAL AND ELECTRICAL DEVICES TO REMAIN. DO NOT DISTURB THE EXISTING SPRINKLER SYSTEM.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

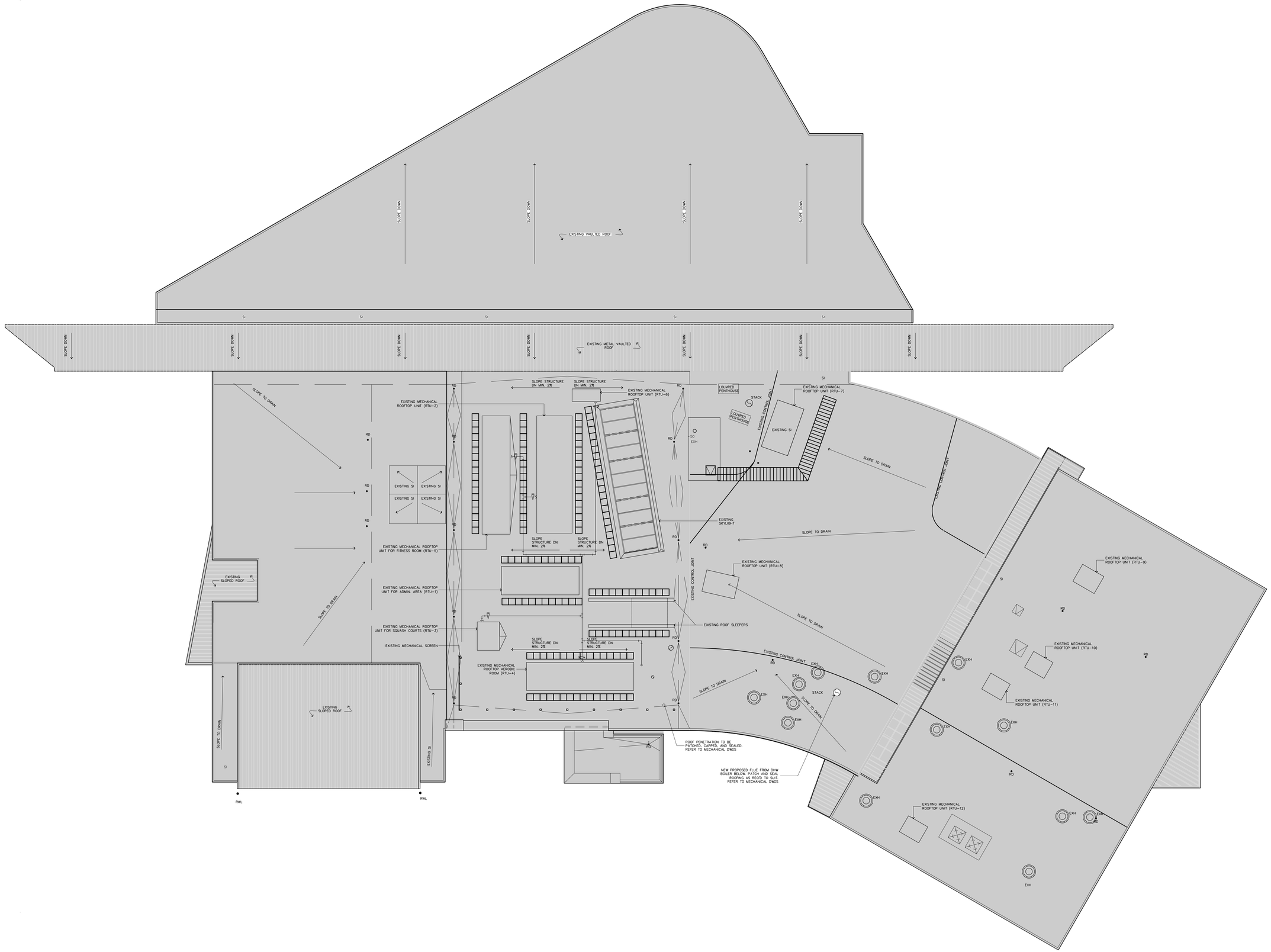
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED RCP SECOND FLOOR

project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

A2.9



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LEGEND

OUTSIDE SCOPE OF WORK

ROOF PLAN NOTES:

A. CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING ALL OPENING TO CARRY OUT THE DEMOLITION AND PROPOSED NEW WORK INCLUDING STRUCTURAL, MECHANICAL AND ELECTRICAL WORK.

B. CONTRACTOR SHALL BE FOR PATCHING AND MAKING GOOD OF ALL SURFACES AFFECTED BY THE WORK.

C. CONTRACTOR SHALL X-RAY PRIOR TO CORING.

D. ACCOUNT FOR WORKING AROUND EXISTING SERVICING.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION AND NEW WORK REQUIREMENTS.

F. REMOVE AND REINSTALL EXISTING CONCRETE PAVERS AS REQ'D.

G. PATCH AND MAKE GOOD OF AFFECTED AREAS FOR UNIFORM ROOF ASSEMBLY. ENSURE TO SLOPE FINISHED ROOF SURFACE TO DRAIN.

H. CONTRACTOR IS RESPONSIBLE FOR MAKING ROOF WATERTIGHT AT THE END OF EVERY DAY AND MAKE GOOD ANY DAMAGED AS A REQUIRE OF POOR WORK.

I. NOT ALL ROOF PENETRATIONS MAY BE SHOWN/IDENTIFIED ON ROOF PLANS. CONTRACTOR IS RESPONSIBLE FOR PROPER DETAILING OF ALL ROOF PENETRATIONS AT NEW ROOF.

J. GAS LINES TO BE PAINTED IN A YELLOW COLOUR.

K. REMOVE ALL CAULKING AND SEALANT AND PROVIDE NEW CAULKING AND SEALANT AT ALL ROOF AND SKYLIGHTS JUNCTIONS / TRANSITIONS.

L. REFER MECHANICAL AND ELECTRICAL DRAWINGS FOR DETAILS.

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CONSULTANTS COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	16 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

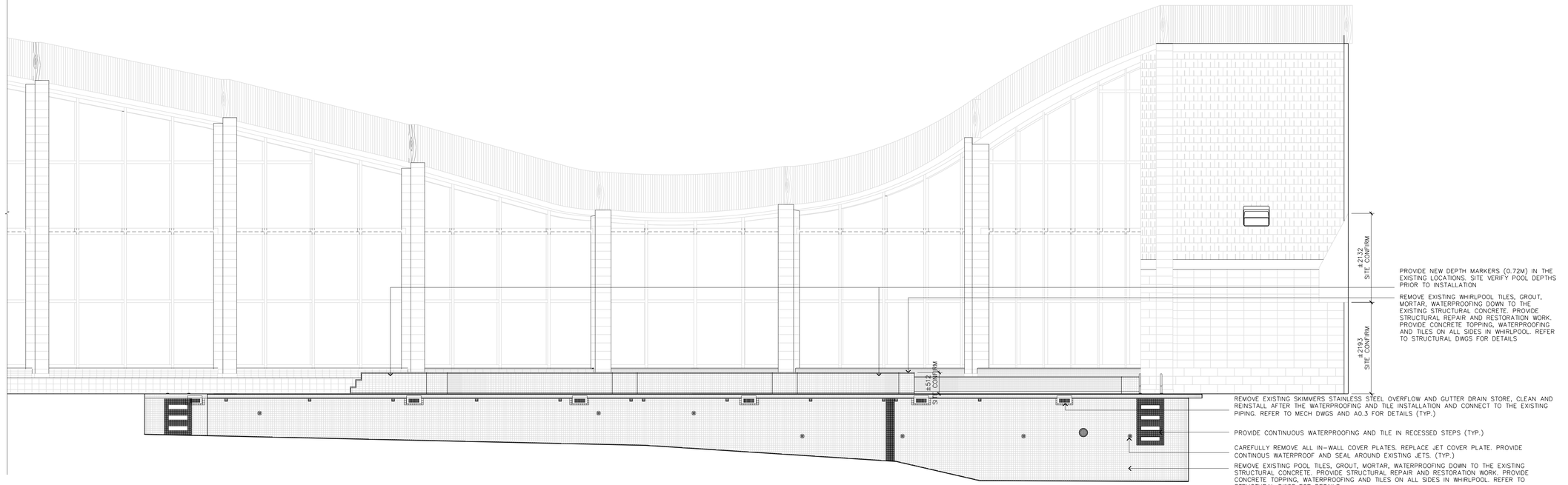
Address-5800 RIVER GROVE AVE, MISSISSAUGA

PROPOSED ROOF PLAN

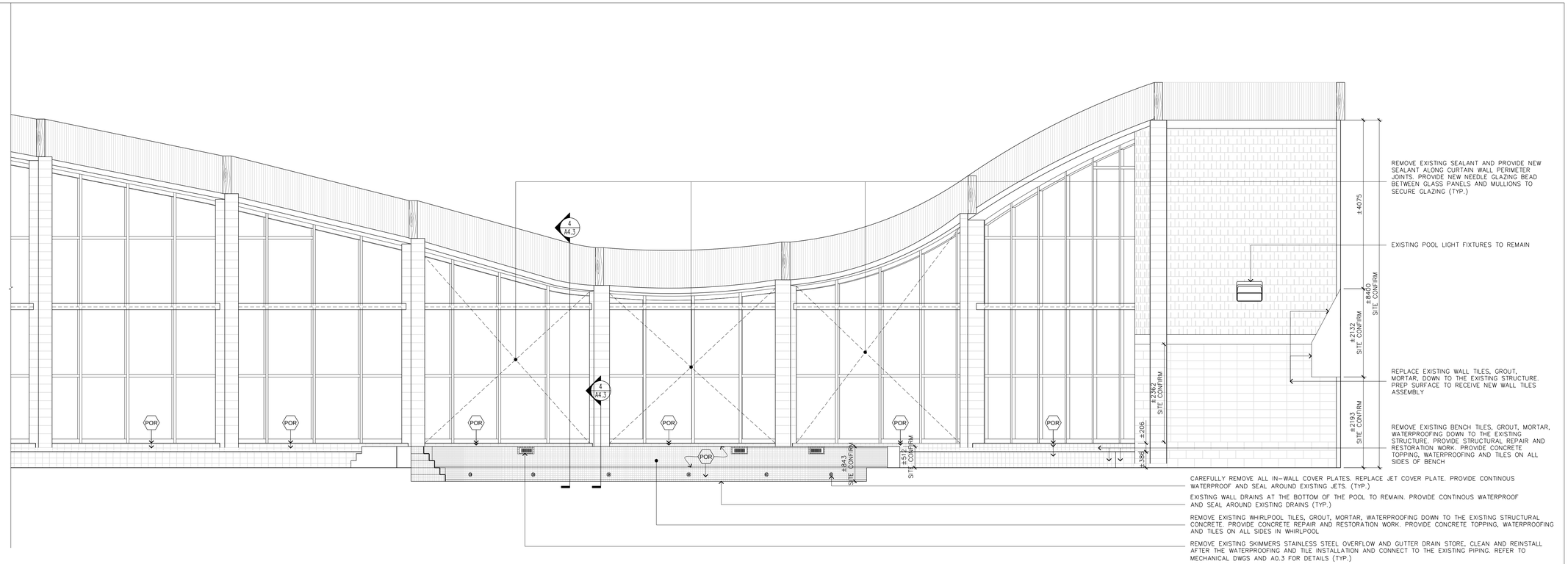
project no. : 2522
scale : 1 : 150
date : OCTOBER 2025

drawing no. :

A2.10



1 A5.1 **SWIMMING POOL WEST INTERIOR ELEVATION 1**
1 : 50



2 A5.1 **SWIMMING POOL WEST INTERIOR ELEVATION 2**
1 : 50

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ISSUED FOR CLIENTS REVIEW 65%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 50%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

INTERIOR ELEVATIONS

project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A5.1

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DEMOLISH EXISTING DUCTS. REFER TO MECHANICAL DWGS FOR DETAILS

AFTER DEMOLITION OF EXISTING DUCTWORK, FILL DUCT OPENING WITH CONCRETE BLOCK AND PROVIDE A SMOOTH, UNIFORM PAINTED FINISH.

PROVIDE NEW HOOKS AT EXISTING HOOK LOCATION (TYP.)

EXISTING EMERGENCY STOP BUTTON TO REMAIN. REMOVE AND REINSTALL AFTER THE WATERPROOFING AND TILE INSTALLATION (TYP.)

PROVIDE B-1 BASE AT ALL OPENING RETURN WALLS (TYP.)

EXISTING EYELET ANCHORS TO REMAIN (TYP.)

REMOVE EXISTING SKIMMERS STAINLESS STEEL OVERFLOW AND GUTTER DRAIN STORE, CLEAN AND REINSTALL AFTER THE WATERPROOFING AND TILE INSTALLATION AND CONNECT TO THE EXISTING PIPING (TYP.)

PROVIDE CONTINUOUS WATERPROOFING AND TILE IN RECESSED STEPS (TYP.)

REMOVE, CLEAN AND REINSTALL EXISTING UNDERWATER LIGHTING. PROVIDE NEW GASKETS AND RESEAL (TYP.)

CAREFULLY REMOVE ALL IN-WALL COVER PLATES. REPLACE JET COVER PLATE. PROVIDE CONTINOUS WATERPROOF AND SEAL AROUND EXISTING JETS (TYP.)

REMOVE EXISTING POOL TILES, GROUT, MORTAR, WATERPROOFING DOWN TO THE EXISTING STRUCTURAL CONCRETE. PROVIDE STRUCTURAL REPAIR AND RESTORATION WORK. PROVIDE CONCRETE TOPPING, WATERPROOFING AND TILES ON ALL SIDES IN WHIRLPOOL

1 / A5.2 SWIMMING POOL EAST INTERIOR ELEVATION
1 : 50

DEMOLISH EXISTING DUCTS. REFER TO MECHANICAL DWGS FOR DETAILS

DEMOLISH EXISTING TILES, GROUT, MORTAR, AND WATERPROOFING DOWN TO THE EXISTING STRUCTURAL POOL FOUNTAIN. REMOVE ALL DIRT, DEBRIS, AND LOOSE OR PEELING PAINT. SCRAPE AND TAPER SAND TO BARE STAINLESS STEEL SPRAY POSTS. PROVIDE NEW TILES TO ALL SURFACES AND NEW PAINT TO STAINLESS STEEL SPRAY POSTS

REMOVE EXISTING WALL, STAIRS AND FLOOR TILES, GROUT, MORTAR, WATERPROOFING DOWN TO THE EXISTING STRUCTURAL CONCRETE. PROVIDE STRUCTURAL REPAIR AND RESTORATION WORK. PROVIDE CONCRETE TOPPING, WATERPROOFING AND TILES ON ALL SURFACES, STAIRS AND FLOOR. REFER TO STRUCTURAL DWGS FOR DETAILS

REMOVE EXISTING WALL TILES, GROUT, MORTAR, WATERPROOFING DOWN TO THE EXISTING STRUCTURAL CONCRETE. PROVIDE STRUCTURAL REPAIR AND RESTORATION WORK. PROVIDE CONCRETE TOPPING, WATERPROOFING AND TILES ON ALL SURFACES AND STAIRS. REFER TO STRUCTURAL DWGS FOR DETAILS

EXISTING SAFETY VEST SHELF/HOOK TO REMAIN

REMOVE EXISTING GRAB-RAILS AND ASSOICATED HARDWARE, STORE, CLEAN AND REINSTALL AFTER THE WATERPROOFING AND TILE INSTALLATION. PROVIDE NEW WEDGE ANCHORS. (TYP.)

EXISTING SWIMMING POOL CLEANING SPRAY HOSE TO REMAIN

REMOVE EXISTING SKIMMERS STAINLESS STEEL OVERFLOW AND GUTTER DRAIN STORE, CLEAN AND REINSTALL AFTER THE WATERPROOFING AND TILE INSTALLATION AND CONNECT TO THE EXISTING PIPING

CAREFULLY REMOVE ALL IN-WALL COVER PLATES. REPLACE JET COVER PLATE. PROVIDE CONTINOUS WATERPROOF AND SEAL AROUND EXISTING JETS. (TYP)

REMOVE EXISTING TRAINING POOL TILES, GROUT, MORTAR, WATERPROOFING DOWN TO THE EXISTING STRUCTURAL CONCRETE. PROVIDE STRUCTURAL REPAIR AND RESTORATION WORK. PROVIDE CONCRETE TOPPING, WATERPROOFING AND TILES ON ALL SIDES IN TRAINING POOL

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	30 MAR 2026
ISSUED FOR CLASS A COSTING	16 JAN 2026
ISSUED FOR CLIENTS REVIEW 95%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

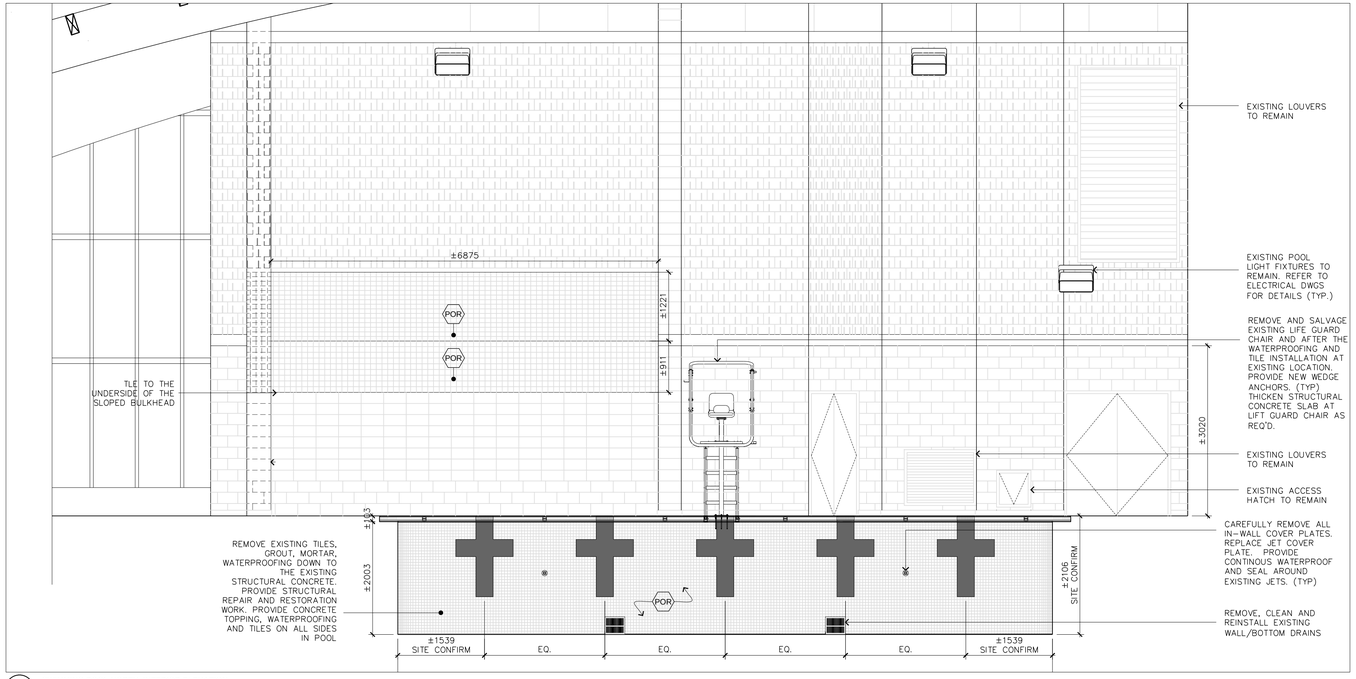
Address-5800 RIVER GROVE AVE, MISSISSAUGA

INTERIOR ELEVATIONS

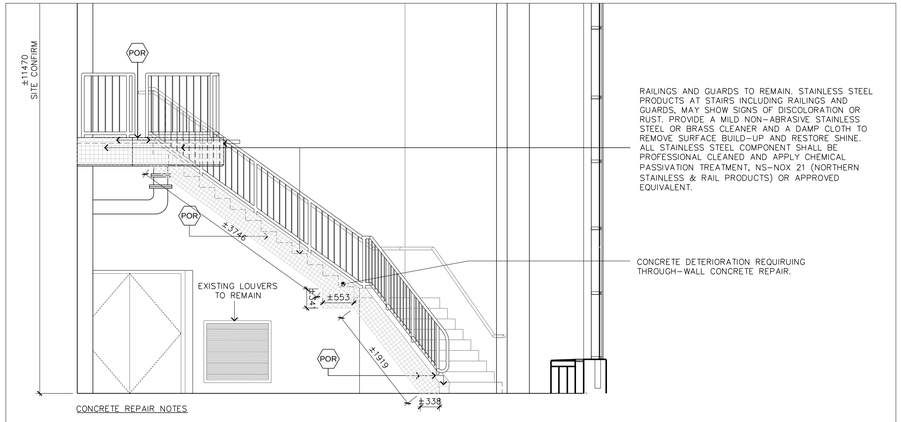
project no. : 2522
scale : 1 : 50
date : OCTOBER 2025

drawing no. :

A5.2



1 / A5.3 **SWIMMING POOL NORTH INTERIOR ELEVATION**
1 : 50



CONCRETE REPAIR NOTES

1. PROVIDE TEMPORARY SHORING AS REQUIRED.

2. IDENTIFY AND MARK SQUARED OFF AREAS OF CONCRETE DETERIORATION. INVITE ENGINEER FOR REVIEW. SAW-CUT PERIMETER OF THE REPAIR AREA TO A MINIMUM DEPTH OF 12mm. DO NOT CUT EXISTING BARS. FEATHERED EDGES ARE NOT ALLOWED.

3. REMOVE DETERIORATED CONCRETE SURROUNDING REINFORCING BARS. DO NOT DAMAGE EXISTING BARS. DO NOT VIBRATE BARS DURING CONCRETE REMOVAL. CONCRETE REMOVAL SHOULD CONTINUE UNTIL NO FURTHER DELAMINATION, CRACKING OR CORROSION IS OBSERVED ALONG REINFORCING BARS.

4. CREATE CLEAR SPACE BETWEEN CONCRETE AND REINFORCING BARS. DIMENSION OF CLEAR SPACE SHALL BE 6 mm PLUS MAX. SIZE OF AGGREGATE OF REPAIR MATERIAL, BUT NOT LESS THAN 20 mm.

5. PREPARE SURFACE OF CONCRETE, REINFORCING BARS AND STEEL COLUMN TO RECEIVE REPAIR MATERIAL USING SANDBLASTING METHOD.

6. RE-TIE EXPOSED REINFORCING STEEL AS REQUIRED.

7. REQUEST REVIEW BY ENGINEER.

8. REINFORCE BADLY CORRODED OR DAMAGED REINFORCING STEEL AS INSTRUCTED BY ENGINEER.

9. COAT CONCRETE, EXPOSED STEEL REINFORCEMENT AND STEEL COLUMN WITH CORROSION INHIBITING BONDING MATERIAL MAPEI MAPEFER 1K OR APPROVED EQUIVALLENT.

10. REPAIR CONCRETE USING MAPEI PLANITOP 23 OR APPROVED EQUIVALLENT (COMPATIBLE WITH CORROSION INHIBITING BONDING MATERIAL). IF DEPTH OF REPAIR EXCEEDS 50mm, APPLY IN 2 STAGES.

11. REMOVE TEMPORARY SHORING.

2 / A5.3 **SWIMMING POOL SOUTH INTERIOR ELEVATION**
1 : 50

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ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLASS A COSTING	15 JAN 2026
ISSUED FOR CLIENTS REVIEW 50%	18 DEC 2025
ISSUED FOR CLIENTS REVIEW 30%	20 NOV 2025
ISSUED FOR COORDINATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

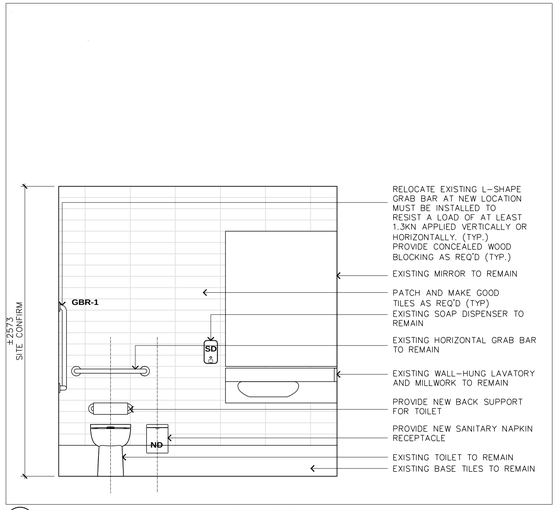
Address-5800 RIVER GROVE AVE, MISSISSAUGA

INTERIOR ELEVATIONS

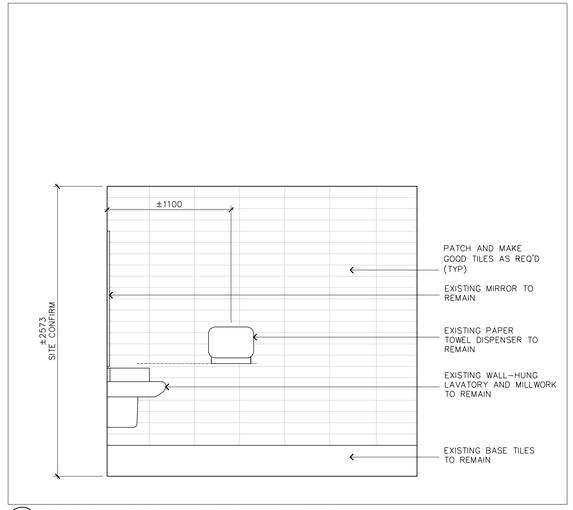
project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

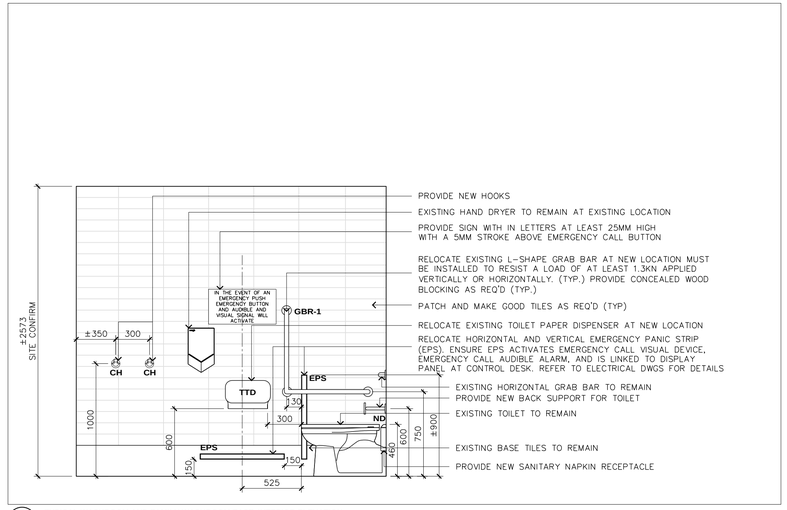
A5.3



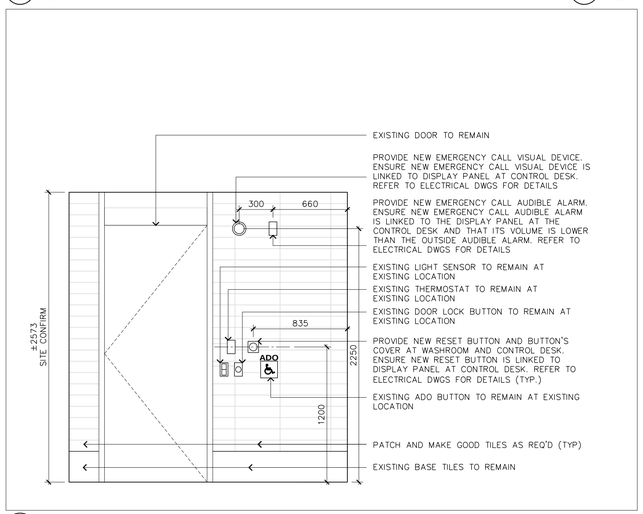
1 A5.4 **TYPICAL WASHROOM AND FAMILY WASHROOM SOUTH INTERIOR ELEVATION**
1 : 25



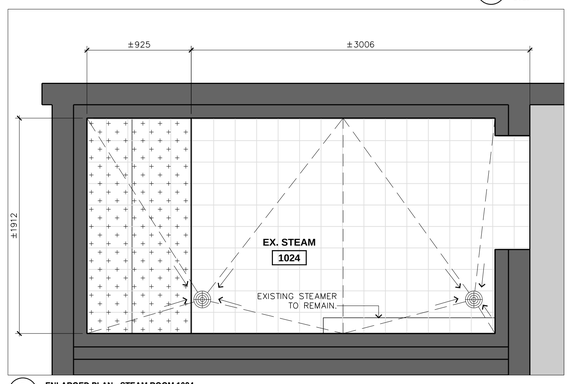
2 A5.4 **TYPICAL WASHROOM AND FAMILY WASHROOM WEST INTERIOR ELEVATION**
1 : 25



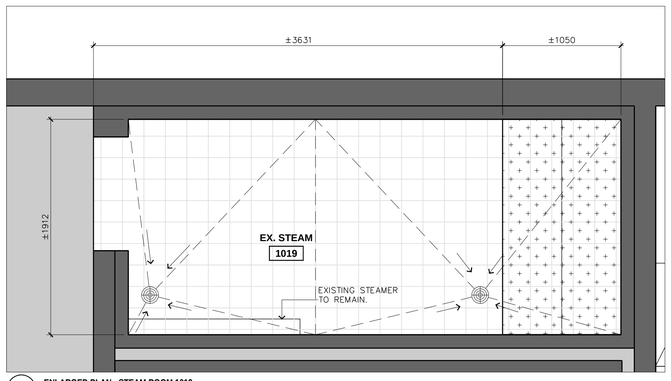
3 A5.4 **TYPICAL WASHROOM AND FAMILY WASHROOM EAST INTERIOR ELEVATION**
1 : 25



4 A5.4 **TYPICAL WASHROOM AND FAMILY WASHROOM NORTH INTERIOR ELEVATION**
1 : 25



5 A5.4 **ENLARGED PLAN - STEAM ROOM 1024**
1 : 25



6 A5.4 **ENLARGED PLAN - STEAM ROOM 1019**
1 : 25

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LEGEND

- OUTSIDE SCOPE OF WORK
- POR-10
- SOL-1 SEATING ON POR-10 FLOOR FINISH
- FD — SLOPE TO DRAIN MIN. AT 2% SLOPE (TYP.)

revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR CLARK & CASTING	15 JAN 2026
ISSUED FOR CLIENTS REVIEW #2R2	18 DEC 2025
ISSUED FOR CLIENTS REVIEW #2R1	20 NOV 2025
ISSUED FOR INCORPORATION	13 NOV 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

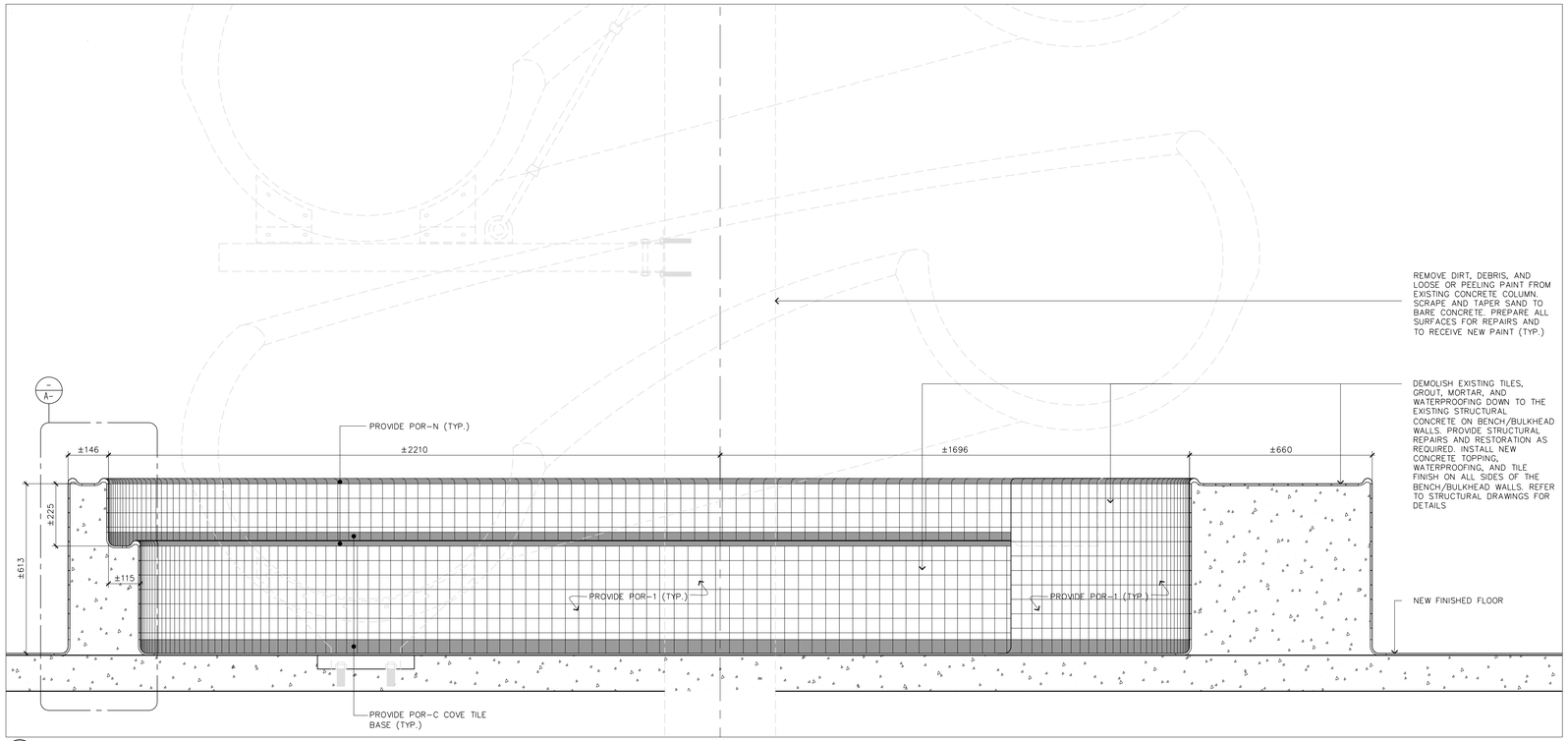
Address-5800 RIVER GROVE AVE, MISSISSAUGA

INTERIOR ELEVATIONS/ ENLARGED PLANS

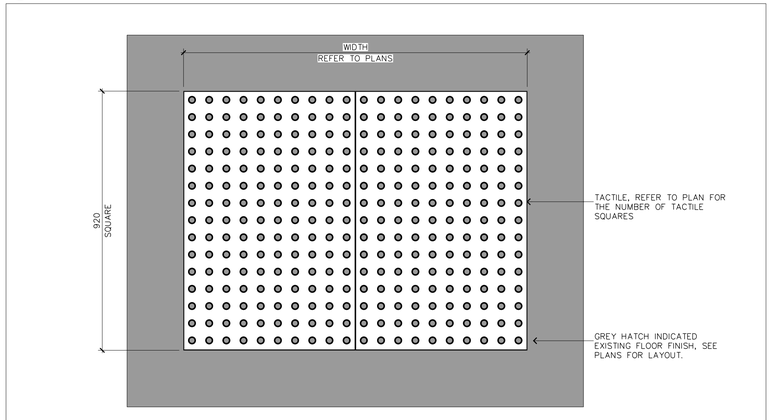
project no. : 2522
scale : AS NOTED
date : OCTOBER 2025

drawing no. :

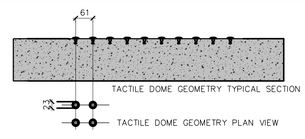
A5.4



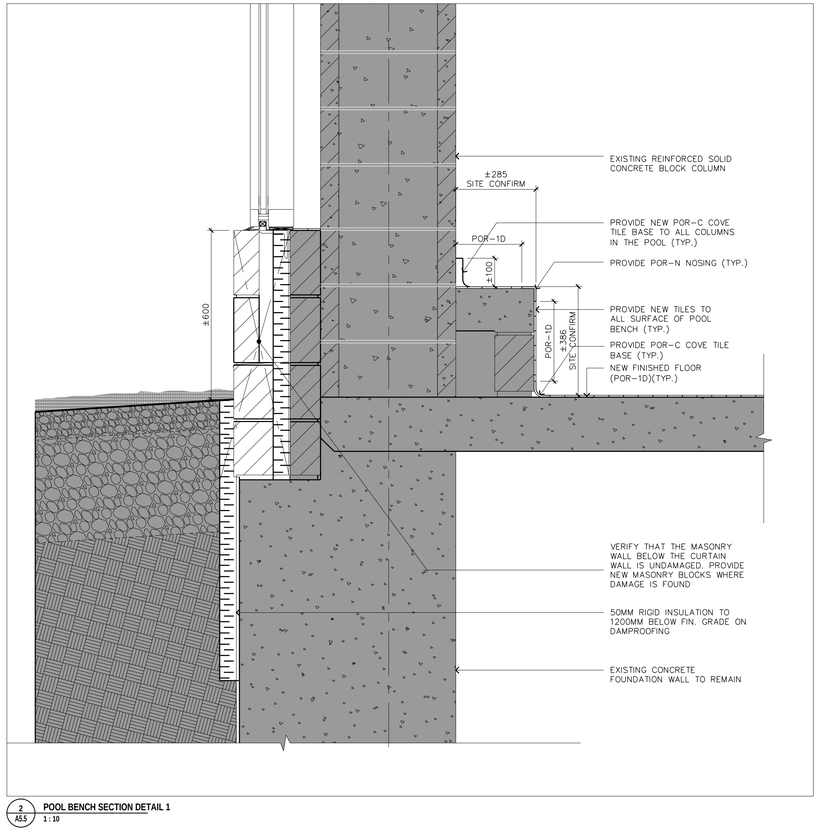
1 / A5.5 **POOL SLIDE BENCH/BULKHEAD DETAIL**
1 : 10



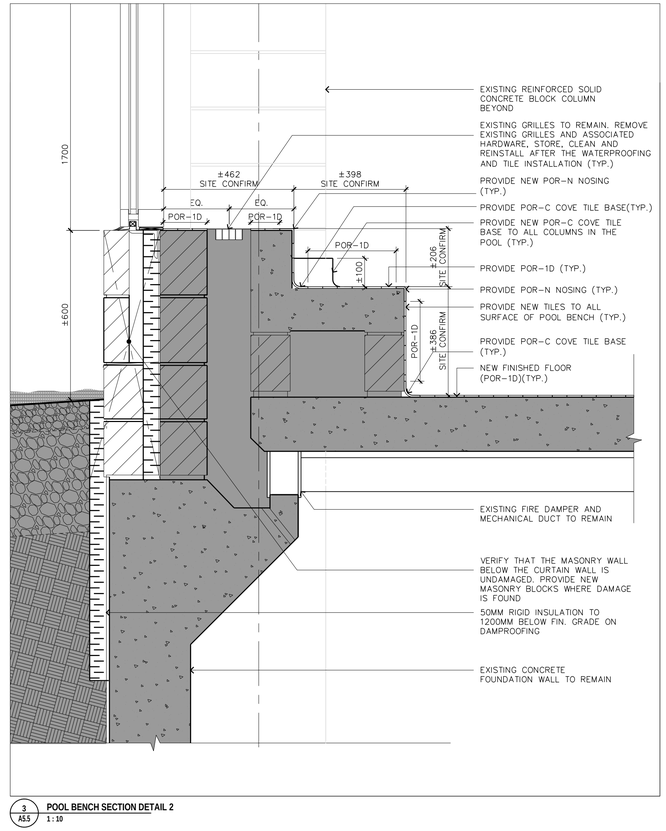
4 / A5.5 **TYP. PLAN DETAIL - INTERIOR TACTILE WARNING SURFACE INDICATOR**
1 : 10



5 / A5.5 **TYP. SECTION DETAIL - INTERIOR TACTILE WARNING SURFACE INDICATOR**
1 : 10



2 / A5.5 **POOL BENCH SECTION DETAIL 1**
1 : 10



3 / A5.5 **POOL BENCH SECTION DETAIL 2**
1 : 10

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revision	date
ISSUED FOR TENDER	30 MAR 2026
ISSUED FOR PERMIT	10 MAR 2026
ISSUED FOR HCASS A COSTING	6 JAN 2026
ISSUED FOR CLIENT'S REVIEW, 65%	18 DEC 2025

RIVER GROVE COMMUNITY CENTRE RENOVATIONS

Address-5800 RIVER GROVE AVE, MISSISSAUGA

SECTION DETAILS

project no. : 2522
scale : 1 : 10
date : OCTOBER 2025
drawing no. :

A5.5

GENERAL MECHANICAL CONDITIONS

1. CONTRACTOR IS RESPONSIBLE FOR ALL WORK, LABOUR, MATERIALS, TESTING TO DELIVER A COMPLETE AND FUNCTIONAL SYSTEMS, READY FOR OPERATION.
2. PERFORM WORK IN A CLEAN AND WORKMANLIKE MANNER. EXERCISE CARE TO DISRUPTION TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS AS REQUIRED TO CONTAIN DUST AND DEBRIS WITHIN THE CONSTRUCTION AREA.
3. THE DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND ARE DEVELOPED ON THE INDICATED BASIS OF DESIGN EQUIPMENT. ALL ITEMS MAY NOT BE SHOWN OR NOT SHOWN IN THEIR EXACT LOCATION, OR WITH EXACT DIMENSIONS AND DETAILS. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
4. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, REPORT THE CONDITIONS AND/OR ENGINEER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF THEIR OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES.
6. PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS.
7. CONSTRUCT WORK TO ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK. CORRECT ANY WORK IN VIOLATION OF ABOVE.
8. INSTALL OR ERECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. OBTAIN WRITTEN INSTRUCTIONS DIRECTLY FROM MANUFACTURER.
9. PROVIDE AND MAINTAIN TEMPORARY FIRE PROTECTION DURING PERFORMANCE OF THE WORK.
10. MANUFACTURER AND/OR THIRD-PARTY AGENT AS NOTED IN DRAWINGS.
11. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. PROVIDE SLEEVES AND ACCESS DOORS REQUIRED FOR THE SERVICING OF CONCEALED EQUIPMENT.
12. REMOVE AND RELOCATE EXISTING WORK AS REQUIRED, NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS MAY NOT BE COMPLETELY DETAILED ON THE DRAWINGS. CONTRACTOR TO SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL
13. SEAL ALL OPENINGS AROUND PIPES & DUCTS THROUGH PARTITIONS AND WALLS WITH APPROVED FIRESTOPPING MATERIAL.
14. GAS PIPING AND GAS VENTS SHALL CONFORM TO CSA B149.1 NATURAL GAS AND PROPANE INSTALLATION CODE WITH LATEST AMENDMENTS BY TSSA. PAINTING/BANDING OF GAS PIPING TO SATISFACTION OF AUTHORITIES HAVING JURISDICTION SHALL BE BY THIS CONTRACTOR.
15. CONSTRUCT WORK IN A MANNER SATISFACTORY TO THE OWNER.
16. REMOVE AND DISPOSE OF ALL EXISTING EQUIPMENT AS INDICATED, AS REQUIRED TO COMPLETE SCOPE OF WORK. VISIT SITE AND VERIFY SCOPE PRIOR TO SUBMITTING BID.
17. CLEAN FROM ALL FIXTURES AND EQUIPMENT DUST, DIRT, FINGER-PRINTS, PAINT, GREASE, CONSTRUCTION AND DEMOLITION DEBRIS. CLEAN AND TOUCH UP SURFACES OF SHOP-PAINTED EQUIPMENT SCRATCHED OR MARRED DURING SHIPMENT OR INSTALLATION, TO MATCH ORIGINAL FINISH.
18. COORDINATE WORK OF OTHER TRADES (ELECTRICAL, SPRINKLER, STRUCTURAL, ETC.). ENSURE THAT PROPER ARRANGEMENTS AND PROVISIONS ARE MADE FOR THIS WORK. COORDINATE MECHANICAL REQUIREMENTS OF ALL OWNER-SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.
19. ROOF CURB & OPENINGS: MECHANICAL CONTRACTOR SHALL SUPPLY ALL ROOF FLASHINGS, CURBS, STRUCTURAL SUPPORTS FOR ROOF OPENINGS AND COUNTER FLASHING FOR MECHANICAL EQUIPMENT AS REQUIRED FOR COMPLETION OF WORK.

ELECTRICAL WIRING AND CONTROLS

1. ALL POWER WIRING FOR ALL MECHANICAL EQUIPMENT SHALL BE DONE BY DIVISION 26 - ELECTRICAL, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.
2. THE MECHANICAL DIVISION SHALL PROVIDE ALL STARTERS, RELAYS, CONTROL DEVICES, AND ANY BUILT-IN SAFETY SWITCHES. THE ELECTRICAL WILL PROVIDE ALL FIELD-MOUNTED SAFETY DISCONNECTS.
3. THE MECHANICAL DIVISION SHALL PROVIDE ALL CONNECTIONS AND WIRING FOR CONTROLS, AND INTERLOCKS.

SUBSTITUTIONS

1. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER. ALTERNATES MAY BE SUBMITTED IN PLACE OF SPECIFIED MECHANICAL EQUIPMENT. CONTRACTOR SHALL INCLUDE ALL SPECIFIED MAJOR EQUIPMENT IN THE BASE BID AND SHOW LINE ITEM PRICE REDUCTIONS FOR PROPOSED ALTERNATES. ALTERNATES FOR MINOR EQUIPMENT MAY BE SUBSTITUTED WITHOUT PRESENTING LINE ITEM PRICE REDUCTIONS. FINAL APPROVAL OF ALL ALTERNATES SUBJECT TO OWNER/ENGINEER REVIEW. SUBMIT ALL REQUESTED INFORMATION TO ENGINEER FOR REVIEW OF ALTERNATES.
2. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS RELATED TO SUBSTITUTION TO DELIVER A COMPLETE AND FUNCTIONAL SYSTEM, READY FOR OPERATION. THIS INCLUDES CHANGES IN DUCT OR PIPING ARRANGEMENT OR SIZE, ELECTRICAL REQUIREMENTS (OVERCURRENT PROTECTION, WIRING, INTERLOCKS), REQUIRED ANCILLARY COMPONENTS, ADDITIONAL SUPPORTS, ETC.

SUBMITTALS

1. SUBMIT EQUIPMENT AND FIXTURE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASE, INSTALLATION OR FABRICATION. DO NOT PROCEED UNTIL REVIEWED SHOP DRAWINGS ARE RETURNED FROM THE ENGINEER.
2. SUBSTITUTION OF ANY EQUIPMENT, HARDWARE OR FIXTURES WITHOUT PRIOR APPROVAL FROM THE ENGINEER IS PROHIBITED AND AT CONTRACTOR'S OWN RISK.
3. DRAWINGS TO CLEARLY INDICATE PROJECT NAME, EQUIPMENT NAME, RELEVANT DETAILS REQUIRED FOR REVIEW TO CONFIRM DESIGN INTENT.

BALANCING

1. TEST, ADJUST, BALANCE ALL AIR MOVING EQUIPMENT, AIR DISTRIBUTION, HEATING SYSTEMS, EXHAUST SYSTEMS, EXHAUST AND MAKE-UP SYSTEMS, ALL HYDRONIC SYSTEMS AS SPECIFIED AND AS INDICATED ON DRAWINGS TO NEBB OR AABC STANDARD.
2. TAB SHALL NOT BEGIN UNTIL ALL SYSTEMS ARE COMPLETED AND IN FULL WORKING ORDER.
3. CHANGES TO FILTERS, DRIVES, AND DAMPERS OR THE ADDITION OF DAMPERS, CONTROL DEVICES OR GAUGES REQUIRED TO CORRECT BALANCE AS REQUIRED SHALL BE MADE AT NO ADDITIONAL COST TO OWNER.
4. PRIOR TO TAB, ALL EQUIPMENT AND SYSTEMS SHALL BE RUN THROUGH THEIR CYCLE TO CHECK FOR CORRECT WIRING AND SEQUENCING

COMMISSIONING

1. TEST, ADJUST, STARTUP, AND PLACE INTO PROPER OPERATION ALL EQUIPMENT AND SYSTEMS INSTALLED UNDER THIS CONTRACT. PRIOR TO STARTUP ENSURE EQUIPMENT IS FREE OF DUST AND DEBRIS, ALL BEARINGS ARE LUBRICATED AND ALL PRECAUTIONS HAVE BEEN FOLLOWED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. DEMONSTRATION AND TRAINING.
2. DEMONSTRATE START-UP, OPERATION, CONTROL, ADJUSTMENT, TROUBLESHOOTING, SERVICING, AND MAINTENANCE OF EQUIPMENT AND SYSTEMS TO OWNER PERSONNEL. THIS INSTRUCTION IS TO BE BASED ON DATA INCLUDED IN THE OPERATIONS AND MAINTENANCE MANUALS (PREPARE AND INSERT ADDITIONAL DATA IN MANUALS WHEN NEED FOR ADDITIONAL DATA BECOMES APPARENT DURING INSTRUCTIONS). TRAINING MATERIAL TO INCLUDE "AS-BUILT" DRAWINGS, OPERATION MANUALS, AND MAINTENANCE MANUALS. OBJECTIVE OF TRAINING IS TO PROVIDE:
   2.1. SAFE, RELIABLE, COST-EFFECTIVE, ENERGY-EFFICIENT OPERATION OF SYSTEMS UNDER ALL CONDITIONS.
   2.2. EFFECTIVE ON-GOING INSPECTION AND MEASUREMENTS OF SYSTEM PERFORMANCE.
   2.3. PROPER PREVENTATIVE MAINTENANCE, DIAGNOSIS, AND TROUBLE-SHOOTING.
   2.4. ABILITY TO UPDATE DOCUMENTATION.

CLOSEOUT DOCUMENTATION

1. SUBMIT A SET OF AS-BUILT DRAWINGS TO OWNER/ENGINEER.
2. PROVIDE COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT SUPPLIED. PROVIDE IN OWNER PREFERRED FORMAT.
3. PROVIDE A BALANCING REPORT FOR ALL AIR AND HYDRONIC SYSTEMS, PREPARED BY AN INDEPENDENT TESTING AND BALANCING COMPANY.

WARRANTY

1. PROVIDE A WRITTEN WARRANTY TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED DUE TO DEFECTS IN WORKMANSHIP WHICH DEVELOP WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL PERFORMANCE.

HVAC

1. CARRY OUT WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS AND THE MINISTRY OF LABOUR GUIDELINES.
2. CHECK AND VERIFY ALL DIMENSIONS AT THE SITE BEFORE PROCEEDING WITH ANY WORK.
3. SHEET METAL WORK MUST BE PERFORMED BY LICENSED SHEET METAL WORKERS POSSESSING A VALID CERTIFICATE OF QUALIFICATION FROM AUTHORITY HAVING JURISDICTION.
4. ALL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH CODE REQUIREMENT, AND TO ASHRAE AND SMACNA STANDARDS. ALL MATERIAL AND EQUIPMENT SHALL BE NEW. DUCTWORK SHALL BE OF GAUGES AS OUTLINED BY SMACNA STANDARDS. EQUIPMENT TO BE AS OUTLINED ON THE DRAWINGS.
5. LOCATION OF DUCTWORK AND EQUIPMENT.
   5.1. INSTALL AS REQUIRED FOR PROPER INSTALLATION IN AVAILABLE SPACE AVOIDING. INTERFERENCE WITH ARCHITECTURAL AND STRUCTURAL MEMBERS AND WORK OF OTHER TRADES.
   5.2. PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGE WAYS CLEAR.
   5.3. DUCTS IN A NEAT MANNER, SYMMETRICAL WITH BUILDING LINES, LIGHTS, CEILING TILE PATTERN, ETC.
   5.4. DRAWINGS ARE DIAGRAMMATIC AND APPROXIMATE AND ARE SUBJECT TO REARRANGEMENT FOR PROPER INSTALLATION. DUCTWORK AND PIPING MAY BE SHOWN DISTORTED TO AVOID CONFUSION.
   5.5. LOCATE DIFFUSERS AND GRILLES IN ACCORDANCE WITH LIGHTING AND OTHER CEILING DEVICES.
   5.6. PROVIDE ACCESS DOORS IN FINISHES WALLS AND CEILINGS FOR ACCESS TO CONCEALED DAMPERS, EQUIPMENT.
   5.7. MAINTAIN A CLEAN PREMISES INCLUDING REMOVAL OF SCRAPS AND INSTALLATION RELATED DEBRIS FROM AREA. LEAVE ENTIRE INSTALLATION IN A NEAT, CLEAN AND USABLE CONDITION.
   5.8. HOIST AND SET IN PLACE OF ALL FURNISHED HEATING, AIR CONDITIONING, EXHAUST AND MAKE-UP AIR EQUIPMENT, UNLESS OTHERWISE SPECIFIED. REVIEW HOISTING AND RIGGING PLAN WITH OWNER.
   5.9. SUPPORT ALL DUCTWORK.
   5.10. ALL DUCT JOINTS, SEAMS, FITTINGS, ETC. SHALL BE SEALED TO SEAL CLASS A, TO ENSURE WATER AND AIR TIGHTNESS WITH DUCT SEALANT CARLISLE DUCT-SEAL 321 OR EQUAL, APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   5.11. USE DUCT SIZES AS SHOWN OR EQUIVALENT AS REQUIRED TO SUIT SITE CONDITIONS.
   5.12. DUCT CONNECTIONS TO ALL EQUIPMENT (EXCEPT EXHAUST FANS UNDER 150 CFM) IS TO BE COMPLETE WITH FLEXIBLE DUCT CONNECTORS, DURO-DYNE SUPER METAL-FAB OR EQUAL CONSISTING OF 3", 24 GAUGE GALVANIZED SHEET METAL FRAME WITH 6" WIDE FLEXIBLE NEOPRENE FABRIC TO UL STANDARDS.
   5.13. ALL OPERABLE THERMOSTATS AT BARRIER FREE HEIGHT OF 1100-MM ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.
   5.14. DUCT INSULATION: PROVIDE INSULATION TYPES AND THICKNESS ACCORDING TO TABLES.
   5.15. FIRE/SMOKE DAMPERS: DYNAMIC FIRE DAMPERS SHALL BE U.L.C. APPROVED AND INSTALLED AS PER MANUFACTURER'S REQUIREMENTS AND IN ACCORDANCE WITH OBC REQUIREMENTS. VENTEX OR EQUAL. INSTALL WHERE SHOWN OR AS NOTED ON THE DRAWING.
   5.16. LOCATE DIFFUSERS, GRILLES & REGISTERS TO SUIT LIGHTING AND CEILING PLAN.
   5.17. PROVIDE FLEXIBLE CONNECTIONS BETWEEN ALL DUCTWORK AND VIBRATING EQUIPMENT, INCLUDING FANS.
   5.18. VIBRATION ISOLATION HANGERS AND SUPPORTS SHALL BE USED TO INSTALL ALL VIBRATING EQUIPMENT, INCLUDING FANS. HYDRONIC SYSTEMS

HYDRONIC PIPING

1. HYDRONIC PIPING: MATERIALS AND INSULATION THICKNESS AS INDICATED.
2. PROVIDE AND INSTALL ALL NECESSARY ACCESSORIES INCLUDING BUT NOT LIMITED TO CIRCUIT BALANCE VALVES, CONTROL VALVES, STRAINERS, AIR VENTS, DIRT SEPRATATORS, PUMPS, CHECK VALVES, GAUGES, CONTROL PANELS, WIRING, EXPANSION TANKS, FILTERS, CHEMICAL POT FEEDERS, ISOLATION VALVES, DRAINS, UNIONS, HANGERS, SUPPORTS, AS SHOWN AND AS REQAUIRED.
3. PROVIDE ALL ISOLATION VALVES, UNIONS, DRAIN AND FILL VALVES TO ALLOW ISOLATION OF EQUIPMENT FOR MAINTENANCE AND AS REQUIRED BY THE MANUFACTURERS INSTRUCTIONS.
4. PROVIDE AND INSTALL AUTOMATIC AIR VENTS AT THE TOP OF SUPPLY AND RETURN RISERS, AT HIGHEST ELEVATION OF SYSTEM, AND ANY LOCATION WHERE AIR CAN BE TRAPPED. INSTALL AUTOMATIC AIR VENTS WITH ISOLATION VALVES.

PLUMBING AND DRAINAGE

1. DOMESTIC WATER PIPING: PIPING MATERIALS AS INDICATED CONFORMING TO THE ONTARIO BUILDINGCODE. DOMESTIC WATER PIPE SIZING AS SHOWN ON DRAWINGS IS BASED ON COPPER PIPING.
2. WATER AND HOT WATER RECIRCULATION MAINS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
3. PROVIDE ISOLATION VALVES FOR ALL PLUMBING FIXTURES.
4. ALL ISOLATION VALVES 2"Ø (DIAMETER) AND SMALLER SHALL BE QUARTER-TURN BALL VALVE TYPE.
5. DRAIN/WASTE/VENT (DWV) PIPING: ALL SANITARY AND VENT PIPING SHALL CONFORM TO THE ONTARIO BUILDING CODE. PIPING MATERIALS AS INDICATED CONFORMING TO THE ONTARIO BUILDING CODE.
6. PLUMBING VENT PIPING IS NOT INDICATED ON THE LAYOUT DRAWINGS. PROVIDE VENTING FOR ALL FIXTURES ACCORDING TO CODE REQUIREMENTS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.
8. STORM PIPING: ALL STORM DRAINAGE PIPING SHALL CONFORM TO THE ONTARIO BUILDING CODE.
9. ALL STORM AND SAN PIPING SHALL BE INSTALLED AT MIN. 2% SLOPE UNLESS NOTED OTHERWISE/OTHERWISE REQUIRED BY CODE.
10. ALL PIPING, FITTINGS AND VALVES INSTALLED IN A CEILING RETURN AIR PLENUM MUST HAVE A FLAME SPREAD OF 25 OR LESS AND A SMOKE DEVELOPMENT OF 50 OR LESS.
11. PIPE INSULATION: PREFORMED PIPE INSULATION COMPLETE WITH VAPOUR RETARDER AND A MAXIMUM FLAME SPREAD OF 25 AND SMOKE DEVELOPED RATING OF 50 SHALL BE APPLIED TO ALL PIPING WITH THE FOLLOWING INSULATION THICKNESSES BASED ON SYSTEM TEMPERATURES.
12. THERMALLY INSULATE THE FIRST 10 FT OF STORM PIPING FROM ROOF DRAINS.
13. SITE SERVICES: EXTEND ALL SERVICES (WATER, STORM, SANITARY) FROM THE BUILDING AS SHOWN ON THE DRAWING. COORDINATE ALL INVERTS ON SITE WITH SITE SERVICING CONTRACTOR.
14. ALL FLOOR DRAINS AND HUB DRAINS ARE TO BE PRIMED AND COMPLETE WITH TRAP. PROVIDE TRAP PRIMERS AS REQUIRED.
15. PROVIDE CLEANOUTS AT THE BASE OF ALL SANITARY DRAINAGE AND STORM PIPING. CLEANOUTS SHALL EXTEND THROUGH AND TERMINATE FLUSH WITH THE FINISHED WALL OR FLOOR.
16. PROVIDE WATER HAMMER ARRESTERS AT THE TOP OF ALL RISERS.
17. PROVIDE HEAT TRAPS ON INDIRECT DOMESTIC WATER TANKS IF NOT INCLUDED INTERNAL TO TANK.

BUILDING AUTOMATION SYSTEM (BAS)

1. BUILDING AUTOMATION WORK TO COMPLY WITH CITY OF MISSISSAUGA MASTER SPECIFICATIONS FOR ENERGY MANAGEMENT CONTROL SYSTEM.
2. THE CONTROL SYSTEM SHALL CONSIST OF A HIGH-SPEED, PEER-TO-PEER NETWORK OF LOCAL EQUIPMENT CONTROLLERS, CENTRAL PLANT CONTROLLERS, CONTROL SYSTEM SERVER AND AN OPERATOR INTERFACE. THE OPERATOR INTERFACE SHALL PROVIDE FOR OVERALL SYSTEM SUPERVISION AND CONFIGURATION, GRAPHICAL USER INTERFACE, MANAGEMENT REPORT GENERATION, AND ALARM ANNUNCIATION.
3. WORK TO BE PERFORMED BY VENDORS PRE-QUALIFIED BY CITY OF MISSISSAUGA.
4. PROVIDE WIRING, PLENUM CABLE, AND RACEWAYS AS REQUIRED. ALL INSULATED WIRE TO BE COPPER CONDUCTORS, UL LABELED FOR 90°C MINIMUM SERVICE. ALL WIRING SHALL COMPLY WITH ELECTRICAL CODES.
5. PROVIDE PROGRAMMING, SCHEDULING, REPORTING TO ACHIEVE DESIRED SEQUENCES OF OPERATION.
6. THE PROJECT PLANS SHALL BE THOROUGHLY EXAMINED FOR CONTROL DEVICE AND EQUIPMENT LOCATIONS, ANY DISCREPANCIES, CONFLICTS, OR OMISSIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION BEFORE ROUGH-IN WORK IS STARTED
7. FIELD INSTALL ALL DEVICES AS REQUIRED TO MAUFACTURERS INSTRUCTIONS.
8. PROVIDE DEVICE LABELLING TO OWNER'S PREFERRED SCHEME.
9. PRIOR TO ACCEPTANCE, THE CONTROL SYSTEM SHALL UNDERGO A SERIES OF PERFORMANCE TESTS TO VERIFY OPERATION AND COMPLIANCE WITH THIS SPECIFICATION. THESE TESTS SHALL OCCUR AFTER THE CONTRACTOR HAS COMPLETED THE INSTALLATION, STARTED UP THE SYSTEM, AND PERFORMED HIS/HER OWN TESTS.
10. PROVIDE TRAINING TO OPERATIONS STAFF ON DAY-TO-DAY OPERATIONS OF THE SYSTEMS.

SCOPE OF WORK

THE FOLLOWING SCOPE OF WORK IS INTENDED TO SUMMARIZE WORK. CONTRACT DOCUMENTS IN THEIR ENTIRETY REPRESENT ALL WORK REQUIRED.

1. REPLACE VESTIBULE AIR CURTAIN (ACURT-1).
2. DEMOLISH ABANDONED DUCTING IN NATATORIUM.
3. DEMOLISH DECOMMISSIONED HEAT RECLAIM UNIT (INCLUDING FLUE THROUGH ROOF) AND POOL DEHUMIDIFIER.
4. REPLACE SECTIONS OF SANITARY PIPING IN CRAWL SPACE BELOW NATATORIUM AS INDICATED AND 30 FLOOR DRAINS.
5. REPLACE 2 DUPLEX SUMP PUMPS AND 2 SIMPLEX SUMP PUMPS, INCLUDING ASSOCIATED PIPING AND CONTROLS.
6. PROVIDE BACKFLOW PREVENTER AND EXPANSION TANK ON INCOMING DCW PIPING.
7. MODIFY DHW SYSTEM INCLUDING QTY. 3 HEAT PUMP WATER HEATER (DHWHP) ADDITION, GAS WATER HEATER (DHWG) AND ASSOCIATED PUMP (DHWPMP-1) REPLACEMENT, AND RELINING OF EXISTING HOT WATER TANK (DHWT-1).
8. PROVIDE FILTER AND FEEDER FOR HEATING WATER SYSTEM.
9. PROVIDE ADDITIONAL MAIN AND SPA POOL FILTER PUMPS (P1B AND P2B) FOR REDUNDANCY.
10. REPLACE BAS INCLUDING NETWORK COMPONENTS, WORKSTATION, CONTROLLERS, DEVICES, CONTROL WIRING, PROGRAMMING, AND GRAPHICS. ADDITIONALLY,
    10.1. ADD AIR CURTAIN (ACURT-1) TO BAS.
    10.2. MODIFY DHW CONTROLS TO NEW SYSTEM AS INDICATED.
    10.3. ADD 2 DUPLEX SUMP PUMPS TO BAS.
11. PROVIDE AIR AND HYDRONIC BALANCING.
12. PROVIDE SERVICES AS REQUIRED, INCLUDING DUCTING, FLUE VENTING, PIPING, AND INSULATION.

NOTE: PROJECT SCOPE OF WORK DOES NOT INCLUDE ANY ALTERATIONS TO SPRINKLER OR LIFE SAFETY SYSTEMS.

CONSTRUCTION PHASING

REFER TO CITY OF MISSISSAUGA FRONT-END DOCUMENTS FOR CONSTRUCTION PHASING REQUIREMENTS. PERFORM WORK OUTSIDE OF FACILITY OPERATING HOURS AS REQUIRED TO NOT DISRUPT FACILITY.

PIPE LEGEND

ABBREVIATIONS	
DCW/DHW/DHWR	DOMESTIC COLD WATER/DOMESTIC HOT WATER/DOMESTIC HOT WATER RECIRC
CWS/CWR	COLD WATER SUPPLY/COLD WATER RETURN
HWS/HWR	HOT WATER SUPPLY/HOT WATER RETURN
SMS/SMR	SNOW MELT SUPPLY/SNOW MELT RETURN
SAND/SANV	SANITARY DRAINAGE/SANITARY VENTING
STRM	STORM DRAINAGE
LINETYPES	
	DOMESTIC COLD WATER PIPE
	DOMESTIC HOT WATER PIPE
	SANITARY DRAIN PIPE
	SANITARY VENT PIPE
	STORM DRAIN PIPE
	DOMESTIC HOT WATER RECIRCULATION PIPE
	NON-POTABLE HOT WATER SUPPLY PIPE
	NON-POTABLE HOT WATER RETURN PIPE
	NON-POTABLE COLD WATER SUPPLY PIPE
	NON-POTABLE COLD WATER RETURN PIPE
	49°C DOMESTIC HOT WATER PIPE
	60°C DOMESTIC HOT WATER PIPE
	49°C DOMESTIC HOT WATER RECIRCULATION PIPE
	60°C DOMESTIC HOT WATER RECIRCULATION PIPE
	2-PIPE HVAC WATER SUPPLY
	2-PIPE HVAC WATER RETURN
	GAS PIPING

FIRE PROTECTION SYBMOLS LEGEND

SPRINKLER HEADS	
SH-N	SPRINKLER HEAD - NEW
SH-D	SPRINKLER HEAD - TO BE DEMOLISHED
SH-E	SPRINKLER HEAD - EXISTING TO REMAIN
FIRE SUPPRESSION CONTROL	
	SUPERVISED O.S.&.Y. VALVE WIRED TO ANNUNCIATOR PANEL (BY DIV. 16)
	CHECK VALVE WITH BALL DRIP
	UNION
	DRY VALVE WIRED TO ANNUNCIATOR PANEL (BY DIV. 26)
	WET VALVE WIRED TO ANNUNCIATOR PANEL (BY DIV. 26)
FS	FLOW SWITCH WIRED TO ANNUNCIATOR PANEL (BY DIV. 26)
P,G	PRESSURE GAUGE
P,S	PRESSURE SWITCH WIRED TO FIRE ANNUNCIATOR PANEL (BY DIV. 26)

SENSOR, METER, AND GAUGE SYMBOLS

AFE	AIR FLOW SENSOR
CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
	FLOW SENSOR
RH	HIGH HUMIDITY SENSOR
H	HUMIDITY SENSOR
NO2	NITROUS DIOXIDE SENSOR
OS	OCCUPANCY SENSOR
P	PRESSURE SENSOR
T	TEMPERATURE SENSOR
T	THERMOSTAT
FAS	FIRE ALARM SWITCH
E/S	END SWITCH
G	GAS METER
M	WATER METER
P	PRESSURE GAUGE
T	TEMPERATURE GAUGE
POS	POSITION SWITCH
	LEVEL SWITCH - WATER - FLOAT

HVAC LEGEND

	SUPPLY AIR DUCT (UP / DOWN)
	RETURN AIR DUCT (UP / DOWN)
	EXHAUST AIR DUCT (UP / DOWN)
BDD	DAMPER - BACKDRAFT
BD	DAMPER - MANUAL/BALANCING
M	DAMPER - MOTORIZED
FD	DAMPER - FIRE
S/FD	DAMPER - FIRE AND SMOKE
	FLEX DUCT
	AIR FLOW DIRECTION
	CEILING GRILLE - EXHAUST/RETURN/SUPPLY AIR
	VERTICAL GRILLE - EXHAUST/RETURN/SUPPLY AIR
	VERTICAL LOUVRE/GRILLE W/ WALL BOX- EXHAUST/RETURN/SUPPLY AIR
	CEILING DIFFUSER - SQUARE/ROUND/LINEAR
	EXHAUST FAN
FACE SIZE / NECK SIZE / TYP OF 4	TAG - DIFFUSER/GRILLE

PLUMBING SYMBOL LEGEND

TAG	VALVE - CONTROL
	VALVE - THERMOSTATIC MIXING
	VALVE - SHUTOFF
	VALVE - 3-WAY
	VALVE - CIRCUIT BALANCING
	VALVE - BALL
	VALVE - SWING CHECK
	VALVE - PRESSURE RELIEF
TPV	VALVE - TEMPERATURE AND PRESSURE RELIEF
	DRAIN VALVE
	BACKFLOW PREVENTER
HB	HOSE BIBB
HB	HOSE BIBB WITH CHECK VALVE
HB	HOSE BIBB WITH VACUUM BREAKER
	VACUUM BREAKER
	GAS PRESSURE REGULATOR WITH GAS COCK
	PUMP
	VARIABLE SPEED PUMP
	Y TYPE STRAINER
	THERMOWELL
	PIPE TO DRAIN
FD	DRAIN - FLOOR
HD	DRAIN - HUB
RD	DRAIN - ROOF
FCRD	DRAIN - ROOF FLOW CONTROL
	P-TRAP
	RUNNING TRAP
C.O.	CLEANOUT - INLINE
C.O.	CLEANOUT - WALL/END
	ELBOW UP
	ELBOW DOWN
	CAPPED PIPE
	HEAT TRAP
	GREASE INTERCEPTOR
	UNION
	FLEXIBLE JOINT
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	WATER HAMMER ARRESTOR
	AIR ELIMINATOR
M	WATER METER

GENERAL LEGEND

ABBREVIATIONS	
AFF, BFF	ABOVE FINISHED FLOOR, BELOW FINISHED FLOOR
AFC, BFC	ABOVE FINISHED CEILING, BELOW FINISHED CEILING
AFCT, BFCT	ABOVE FINISHED COUNTERTOP, BELOW FINISHED COUNTERTOP
UON	UNLESS OTHERWISE NOTED
TYP	TYPICAL
W/, W/O, C/W	WITH, WITHOUT, COMPLETE WITH
SYMBOLS	
65Ø	DIMENSION TAG
	LINE CONTINUATION
LINETYPES	
	DEMO
	EXISTING
	NEW
CONTROL SIGNALS	
OP/CL	OPEN/CLOSE
MOD	MODULATING
S/S	START/STOP
E/D	ENABLE/DISABLE
PD	PRESSURE DIFFERENTIAL
FS	FIRE STAT
FZ	FREEZE STAT
DI / DO	DIGITAL INPUT / OUTPUT
AI / AO	ANALOGUE INPUT / OUTPUT

SHEET LIST SCHEDULE

SHEET	TITLE
M100	LEGENDS AND NOTES
M101	SCHEDULES
M102	DETAILS
M103	DETAILS CONT.
M200	L1 HVAC DEMO
M201	L1 HVAC RETROFIT
M202	L2 HVAC DEMO
M203	L2 HVAC RETROFIT
M204	L2 MECH ROOMS HVAC DEMO
M205	L2 MECH ROOMS HVAC RETROFIT
M206	ROOF HVAC DEMO
M207	ROOF HVAC RETROFIT
M300	B1 PLUMBING DEMO
M301	B1 PLUMBING RETROFIT
M302	L1 PLUMBING DEMO
M303	L1 PLUMBING RETROFIT
M304	L2 PLUMBING
M305	PLUMBING SCHEMATICS
M306	B1 CRAWL SPACE AQUATICS PUMPS
M307	L2 MECH ROOMS HYDRONICS
M400	HEATING WATER BOILER BAS SCHEMATIC
M401	HOT WATER BOILER AND TANK BAS SCHEMATIC
M402	POOL HEAT EXCHANGERS BAS SCHEMATIC
M403	HEATING TERMINAL EQUIPMENT BAS SCHEMATICS
M404	POOL DEHUMIDIFICATION BAS SCHEMATIC
M405	ROOFTOP UNIT 1 BAS SCHEMATICS
M406	ROOFTOP UNIT 2 CHANGEROOMS BAS SCHEMATICS
M407	ROOFTOP UNIT 3-4 BAS SCHEMATICS
M408	ROOFTOP UNITS 5-6 BAS SCHEMATICS
M409	VENTILATION FANS BAS SCHEMATICS
M410	ROOFTOP UNITS 7-12 BAS SCHEMATICS
M411	ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 1
M412	ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 2
M413	EMERGENCY POWER BAS SCHEMATICS
M414	POOL LIGHTING & SUMP PUMPS BAS POINTS
M500	POOL FILTRATION SCHEMATICS
M501	POOL FILTRATION PIPING

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE

JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5

AIR-SOURCE HEAT PUMP SCHEDULE

			ASHP HEATING			ELECTRIC HEATING									
		TANK VOLUME	CAPACITY		DHW RECOVERY @ 55.5°C TEMP. RISE	CAPACITY	DHW RECOVERY @ 55.5°C TEMP. RISE	TOTAL DHW RECOVERY @ 55.5°C TEMP. RISE	VOLTAGE	MAX OPERATING CURRENT	DIMENSIONS [L/W/H]	WEIGHT			
TAG	QTY.	[L]	[kW]	COP	[L/hr]	[kW]	[L/hr]	[L/hr]	[V/Ph/Hz]	[A]	[mm]	[kg]	MANUFACTURER	MODEL	NOTES
DHWHP	3	450	12.21	4.30	190.00	9.00	140.00	330.00	208/1/60	67	995/785/1770	226	AO SMITH	CAHP 120	

BOILER SCHEDULE

TAG	QTY	DESCRIPTION	HEATING CAPCITY INPUT	AHRI HEATING OUPUT	TURNDOWN	EFFICIENCY	DELTA T	DHW RECOVERY @ 55.5°C TEMP. RISE	VOLTAGE	FULL LOAD AMPACITY	DIMENSIONS [L/W/H]	DRY WEIGHT	TOTAL WEIGHT	MAKE	MODEL	NOTES
			[kW]	[kW]		[% AFUE]	[°C]	[L/hr]	[V/Ph/Hz]	[A]	[mm]	[kg]	[kg]			
DHWG	1	DHW BOILER	468.91	440.7754	16:1	94.0%		6836.45	208/3/60	10	1730/710/1980	1650	2203	PVI	CENTURION 1600 (CEN 1600)	C/W NATURAL GAS TRIM KIT, CONDENSATE NEUTRALIZER TANK.

AIR CURTAIN SCHEDULE

TAG	AIR VOLUME	COIL OUTPUT	ENTERING WATER TEMPERATURE	LEAVING WATER TEMPERATURE	WATER FLOW	PRESSURE DROP	AIR TEMPERATURE RISE	MOTOR	VOLTAGE	FLA	DIMENSION (L/W/H)	NOZZLE WIDTH	SHIPPING WEIGHT	MAKE	MODEL	NOTE
	[L/s]	[kW]	[°C]	[°C]	[L/s]	[kPa]	[°C]	[W]	[V/Ph/Hz]	[A]	[mm]	[mm]	[kg]			
ACURT-1	1188	22.13	82.22	73.33	0.568	8.068	15	2 x 540	208/1/60	8.6	1956/660/381	1828.8	103.87	BERNER INTERNATIONAL	ARE12-2072W	

PUMP SCHEDULE

TAG	DESCRIPTION	FLOW	HEAD PRESSURE	MOTOR SPEED	MOTOR POWER	VOLTAGE	MAKE	MODEL	NOTES
		[m³/h]	[kPa]	[rpm]	[kW]	[V/Ph/Hz]			
DHWPMP-1	DHW GAS BOILER CIRC. PUMP	29.53	72.62	1800.00	1.12	208/1/60	BELL & GOSSETT	E-60Stock	VARIABLE SPEED. POTABLE WATER.
DHWPMP-3	DHW HEAT PUMP CIRC. PUMP	2.27	29.89	3300.00	0.13	115/1/60	BELL & GOSSETT	PL-36	POTABLE WATER.
P1B	MAIN POOL FILTER PUMP BACKUP	170.34	203.20	1800.00	14.91	575/3/60	BELL & GOSSETT	E-1531	VARIABLE SPEED.
P2B	WHIRLPOOL FILTER PUMP BACKUP	79.49	209.18	1800.00	7.46	575/3/60	BELL & GOSSETT	E-1531	VARIABLE SPEED.
SANPMP-1	DUPLEX SANITARY SUMP PUMPS				1.49	575/3/60	LIBERTY PUMPS	LSV205V	MOTOR POWER IS FOR 1 PUMP.
PMPS-1	DUPLEX STORM SUMP PUMPS				5.60	400/3/60	FLYGT	N 3127	MOTOR POWER IS FOR 1 PUMP. PROVIDE 600:400V TRANSFORMER, REFER TO ELECTRICAL SCHEDULES.
PMPS-2	SIMPLEX STORM SUMP PUMP				0.25	115/1/60	LIBERTY PUMPS	237	
PMPS-3	SIMPLEX STORM SUMP PUMP				0.25	115/1/60	LIBERTY PUMPS	237	

TABLE 6.8.3-1 Minimum Piping Insulation Thickness Heating and Hot Water Systems (Steam, Steam Condensate, Hot Water Heating and Domestic Water Systems)

Fluid Operating Temperature Range	Insulation Conductivity		≥Nominal Pipe or Tube Size, mm				
	Conductivity, W/(m·°C)	Mean Rating Temperature, °C	<25	25 to <40	40 to <100	100 to <200	≥200
			Insulation Thickness, mm				
>177°C	0.046-0.049	121	115	125	125	125	125
122°C-177°C	0.042-0.046	93	80	100	115	115	115
94°C-121°C	0.039-0.043	66	65	65	80	80	80
61°C-93°C	0.036-0.042	52	40	40	50	50	50
41°C-60°C	0.032-0.040	38	25	25	40	40	40

CONTROL VALVE SCHEDULE

VALVE	LOCATION	SIZE [mm]	CV	MAKE	MODEL	STYLE	VLV. TYPE	VLV. ACTION	FLOW [L/S]	PRESSURE DROP [Pa]	NOTES
CV_VAV-01	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.024	11031.61	
CV_VAV-02	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.024	11031.61	
CV_VAV-03	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.007	896.32	
CV_VAV-04	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.042	2068.43	
CV_VAV-05	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.003	206.84	
CV_VAV-06	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.028	965.27	
CV_VAV-07	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.007	896.32	
CV_VAV-08	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.066	5171.07	
CV_VAV-09	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.090	9790.56	
CV_VAV-10	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.083	8342.66	
CV_VAV-11	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.026	13513.72	
CV_VAV-12	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.018	5998.44	
CV_VAV-13	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.031	1172.11	
CV_VAV-14	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.035	1516.85	
CV_VAV-15	SEE DRAWINGS	15	0.3	SCHNEIDER	VB82N00+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.011	2206.32	
CV_VAV-16	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.035	1516.85	
CV_RADH-1	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.047	2620.01	
CV_FC-01	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.068	5515.81	
CV_FC-02	SEE DRAWINGS	15	1.2	SCHNEIDER	VB82N02+M132A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.074	6550.02	
CV_RADH-2	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.300	7101.60	
CV_RHCOIL-01	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.240	4481.59	
CV_RHCOIL-02	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.240	4481.59	
CV_RHCOIL-03	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.385	11583.19	
CV_RHCOIL-04	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.290	6618.97	
CV_RHCOIL-05	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.208	3378.43	
CV_RHCOIL-06	SEE DRAWINGS	20	4.7	SCHNEIDER	VB82N15+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.208	3378.43	
CV_RHCOIL-07	SEE DRAWINGS	15	3.5	SCHNEIDER	VB82N04+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.164	3792.12	
CV_RHCOIL-08	SEE DRAWINGS	15	3.5	SCHNEIDER	VB82N04+M133A00	BALL	2 WAY STRAIGHT	NO FAIL SAFE POSITION	0.164	3792.12	
CV_POOL-HX-3	SEE DRAWINGS	50	40.0	SCHNEIDER	VS-7223-812-4-11	GLOBE	2 WAY STRAIGHT	FAILS NORMALLY CLOSED	5.804	36473.27	
CV_POOL-HX-4	SEE DRAWINGS	32	20.0	SCHNEIDER	VS-7223-812-4-09	GLOBE	2 WAY STRAIGHT	FAILS NORMALLY CLOSED	2.650	30405.88	
CV_ACURT-1	SEE DRAWINGS	25	4.4	SCHNEIDER	VA-2253-536-9-21	BALL	2 WAY STRAIGHT	FAILS NORMALLY OPEN	0.568	28820.09	

PIPING MATERIALS SCHEDULE

SERVICE	MATERIAL	INSULATION	FINISH
DHW/DCW/DHWR	COPPER TYPE 'L'	PRE-FORMED FIBREGLASS W/ ASJ	PVC (where exposed to mechanical damage)
HWS/HWR	CARBON STEEL - SCHED. 40	PRE-FORMED FIBREGLASS W/ ASJ	PVC (where exposed to mechanical damage)
HBS/HBR	CARBON STEEL - SCHED. 40	PRE-FORMED FIBREGLASS W/ ASJ	PVC (where exposed to mechanical damage)
SANITARY DRAINAGE	SYSTEM 15 PVC WHERE CONCEALED IN WALL OR BELOW SLAB/XFR PVC OTHERWISE		
SANITARY VENT	SYSTEM 15 PVC WHERE CONCEALED IN WALL OR BELOW SLAB/XFR PVC OTHERWISE		
STORM DRAINAGE	SYSTEM 15 PVC WHERE CONCEALED IN WALL OR BELOW SLAB/XFR PVC OTHERWISE	PRE-FORMED FIBREGLASS W/ ASJ (FIRST 3-m)	
POOL	PVC - SCHED. 80		

DAMPER ACTUATOR SCHEDULE

SYSTEM	ACTUATOR TORQUE [N-m]	NO. OF ACTUATORS	MAKE	MODEL	NOTES
FAN-01 OA INTAKE DAMPER	3.9545	1	SCHNEIDER	MA40-7043-501	
FAN-01 EXHAUST DAMPER	3.9545	1	SCHNEIDER	MA40-7043-501	
EF-18 OA INTAKE DAMPER	3.9545	1	SCHNEIDER	MA40-7043-501	
EF-18 EXHAUST INTAKE DAMPER	3.9545	1	SCHNEIDER	MA40-7043-501	
BOILER INTERLOCK DAMPERS	3.9545	1	SCHNEIDER	MA40-7043	

PLUMBING FIXTURE SPECIALTIES SCHEDULE

EQUIPMENT	COMPONENT	SPECIFICATION
FD-1	FLOOR DRAIN	ZURN ZSS415-Y5-VP-AR-316. CAST IRON FLOOR DRAIN WITH A 213 MM (8 3/8") DIAM., REVERSIBLE CLAMP COLLAR WITH LATERAL OPENINGS ON TOP BODY WITH A 102 MM (4") DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5") DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH 152 MM (6X6") SQUARE 316 STAINLESS STEEL REGULAR TRAFFIC GRATE. VANDAL-RESISTANT SCREWS. 76 MM (3") DRAIN PIPE CONNECTION. ACID RESISTANT EPOXY COATED CAST IRON.
	TRAP SEALER	ZURN Z1072-3 ZSHIELD. BARRIER TRAP SEALER 76 MM (3") CAN BE INSTALLED IN A FLOOR DRAIN. PREVENTS THE SEWER GASES AND BAD ODORS FROM ESCAPING INTO THE BUILDING WHEN THE TRAP WATER SEAL HAS DRIED UP, WHILE ALLOWING THE WATER TO FLOW FREELY DOWN THE DRAIN. BODY FABRICATED FROM AN ABS RIGID STRUCTURE, SILICONE GASKET AND SEAL. COMPLIES WITH ASSE 1072.
	SUPPORT PLATE	ZURN Z1035. DRAIN INSTALLATION STABILIZER. #20 GAGE GALVANIZED STEEL PLATE WITH VARIABLE PIPE OPENING, FOUR SUPPORT STUD HOLES, AND FOUR NAIL HOLES. COMPLETE WITH HARDWARE BAG CONTAINING FOUR 3/8-16 X 12 [305] LONG STUDS AND EIGHT 3/8-16 FLANGED LOCKNUTS.
FD-2	FLOOR DRAIN	ZURN ZSS415-Y5-VP-AR-316. CAST IRON FLOOR DRAIN WITH A 213 MM (8 3/8") DIAM., REVERSIBLE CLAMP COLLAR WITH LATERAL OPENINGS ON TOP BODY WITH A 102 MM (4") DIAM. THREADED THROAT TO RECEIVE ADJUSTABLE 127 MM (5") DIAM. ADJUSTABLE ROUND STRAINER COMBINED WITH 152 MM (6X6") SQUARE 316 STAINLESS STEEL REGULAR TRAFFIC GRATE. VANDAL-RESISTANT SCREWS. 51 MM (2") DRAIN PIPE CONNECTION. ACID RESISTANT EPOXY COATED CAST IRON.
	TRAP SEALER	ZURN Z1072-2 ZSHIELD. BARRIER TRAP SEALER 51 MM (2") CAN BE INSTALLED IN A FLOOR DRAIN. PREVENTS THE SEWER GASES AND BAD ODORS FROM ESCAPING INTO THE BUILDING WHEN THE TRAP WATER SEAL HAS DRIED UP, WHILE ALLOWING THE WATER TO FLOW FREELY DOWN THE DRAIN. BODY FABRICATED FROM AN ABS RIGID STRUCTURE, SILICONE GASKET AND SEAL. COMPLIES WITH ASSE 1072.
	SUPPORT PLATE	ZURN Z1035. DRAIN INSTALLATION STABILIZER. #20 GAGE GALVANIZED STEEL PLATE WITH VARIABLE PIPE OPENING, FOUR SUPPORT STUD HOLES, AND FOUR NAIL HOLES. COMPLETE WITH HARDWARE BAG CONTAINING FOUR 3/8-16 X 12 [305] LONG STUDS AND EIGHT 3/8-16 FLANGED LOCKNUTS.

EXPANSION TANK SCHEDULE

TAG	TANK VOLUME [L]	MAX ACCEPTANCE VOLUME [L]	DIMENSIONS (Ø/L) [mm]	MAKE	MODEL	NOTES
ET-1	15	10	356/609	WATTS	DETA 30	

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE

JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

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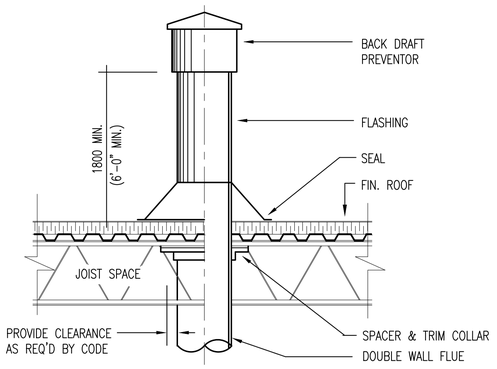
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5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

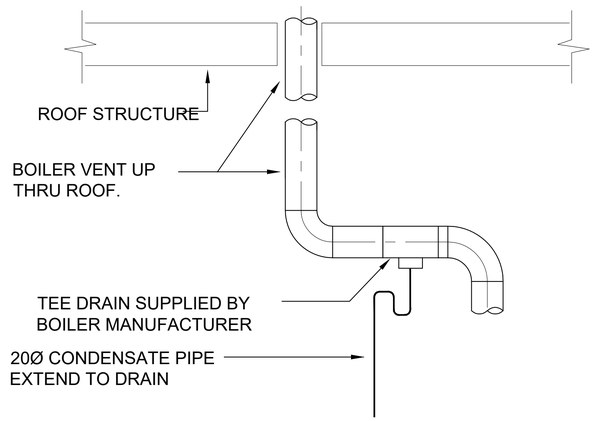
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SCHEDULES

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M101	E

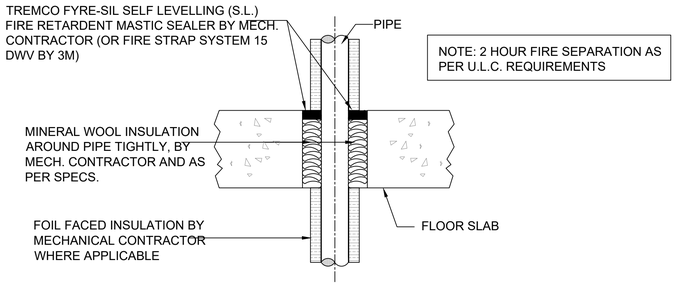


GAS VENT THRU ROOF

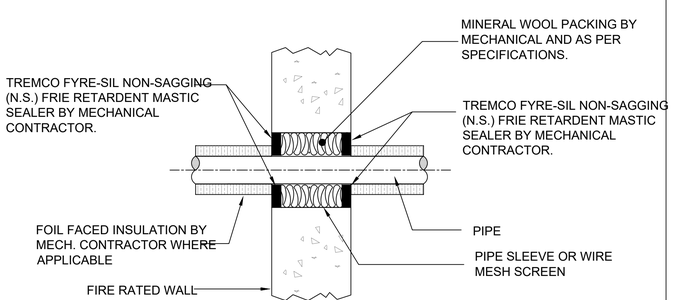


NOTE: TERMINATE BOILER VENTING THROUGH ROOF WITH SEPARATION REQUIRED BY MANUFACTURER AND CSAB149 . 1-00

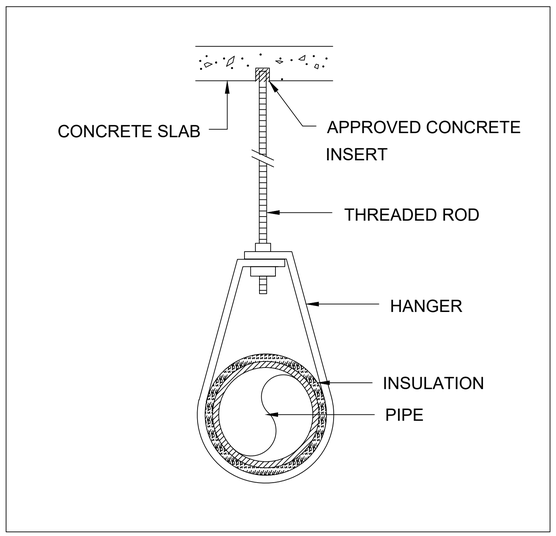
BOILER VENT DETAIL



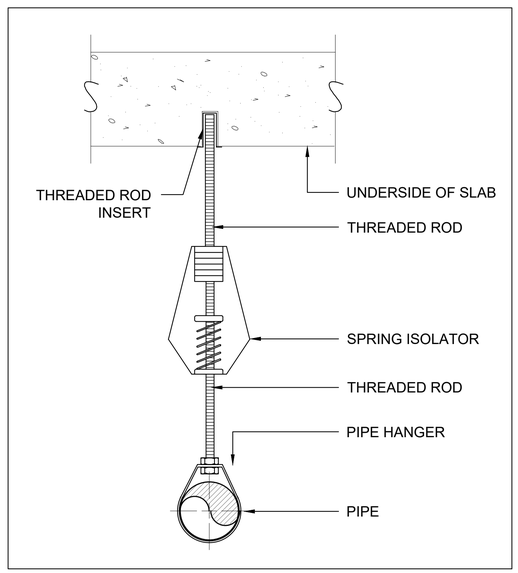
DETAIL OF PIPE THROUGH FIRE RATED FLOOR SLAB
N.T.S



DETAIL OF PIPE THROUGH FIRE RATED WALL
N.T.S



TYPICAL HANGER DETAIL
N.T.S.



DETAIL OF SPRING PIPE HANGER

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SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

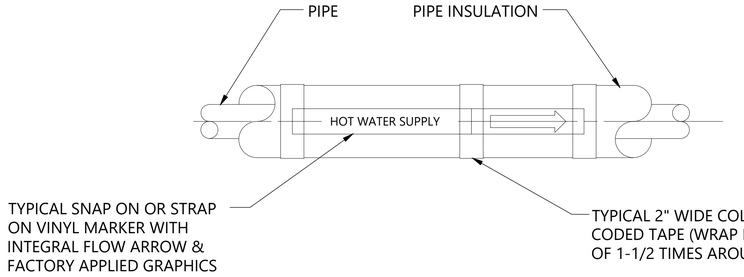
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
DETAILS

SCALE AT ARCH D:	DRAWN:	CHECKED:
NTS	JD	DG

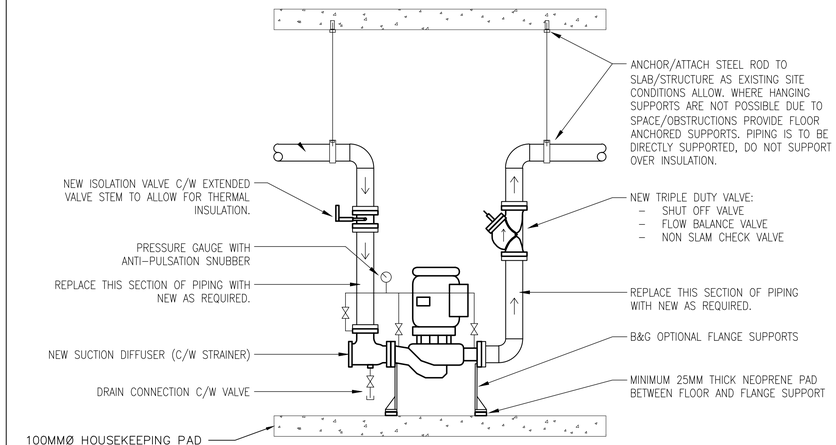
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25490	M102	E



NOTES:

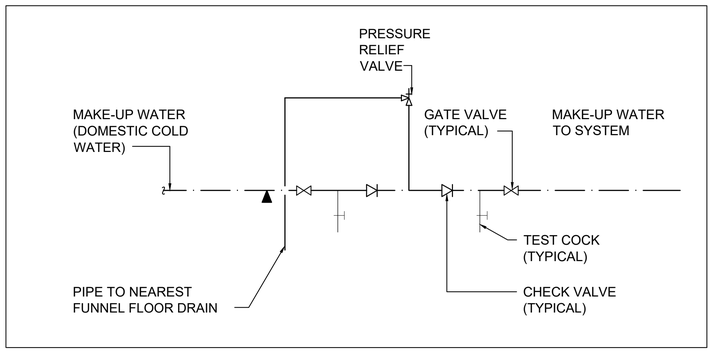
1. REFER TO MECHANICAL SPECIFICATION FOR ADDITIONAL DETAILS.
2. REFER TO SPECIFICATION FOR COLOUR CODING OF SERVICES.
3. INSTALL AT 15M INTERVALS (MAXIMUM) AND AT EACH DIRECTION CHANGE.

PIPE IDENTIFICATION DETAIL
N.T.S

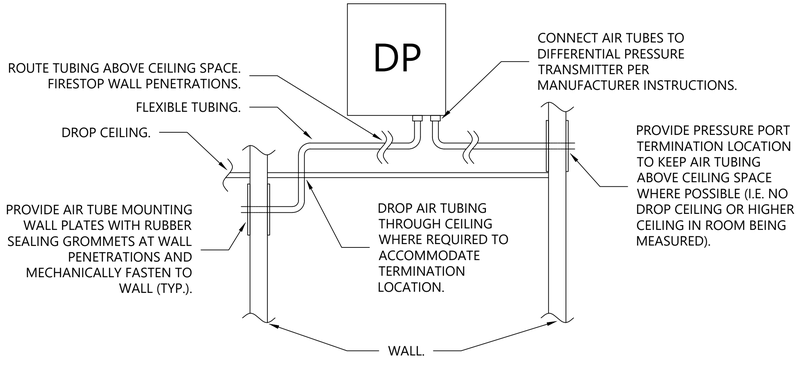


NOTES:
1. INSTALL PUMP AS PER MANUFACTURER INSTALLATION, OPERATION, AND MAINTENANCE MANUAL.
2. DO NOT RIGIDLY MOUNT PUMP TO BASE/SADDLE. USE NEOPRENE PADS.
3. DO NOT IMPOSE PIPE STRAIN ON PUMP FLANGES.
4. THERMALLY INSULATE PUMP, PIPING, SUCTION DIFFUSER, MULTI PURPOSE VALVES, ISOLATION VALVES, ETC AS REQUIRED.

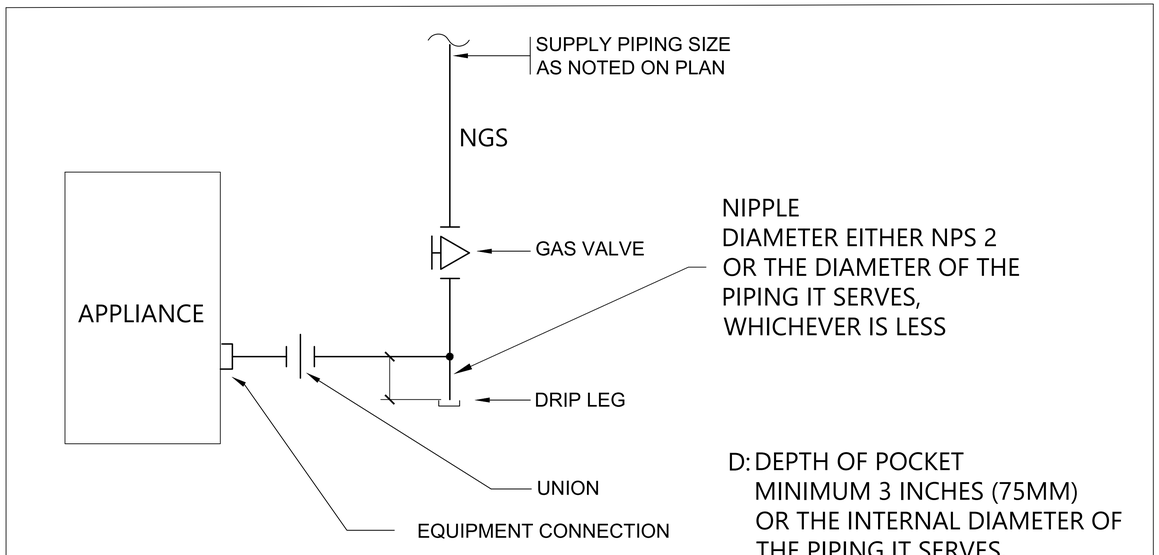
PUMP INSTALLATION DETAIL
NTS



DETAIL OF BACKFLOW PREVENTOR ASSEMBLY



DIFFERENTIAL PRESSURE TRANSMITTER DETAIL
N.T.S.



TYPICAL EQUIPMENT GAS PIPING DETAIL
N.T.S.

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SEAL | SEAL

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PROJECT: RIVER GROVE CC

TITLE: MECHANICAL
DETAILS CONT.

SCALE AT ARCH D:	DRAWN:	CHECKED:
NTS	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M103	E



FLOOR 1 HVAC AND CONTROLS DEMO

1:150

REV.	DESCRIPTION	DATE
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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L1 HVAC DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M200	E



FLOOR 1 HVAC AND CONTROLS RETROFIT

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE

JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

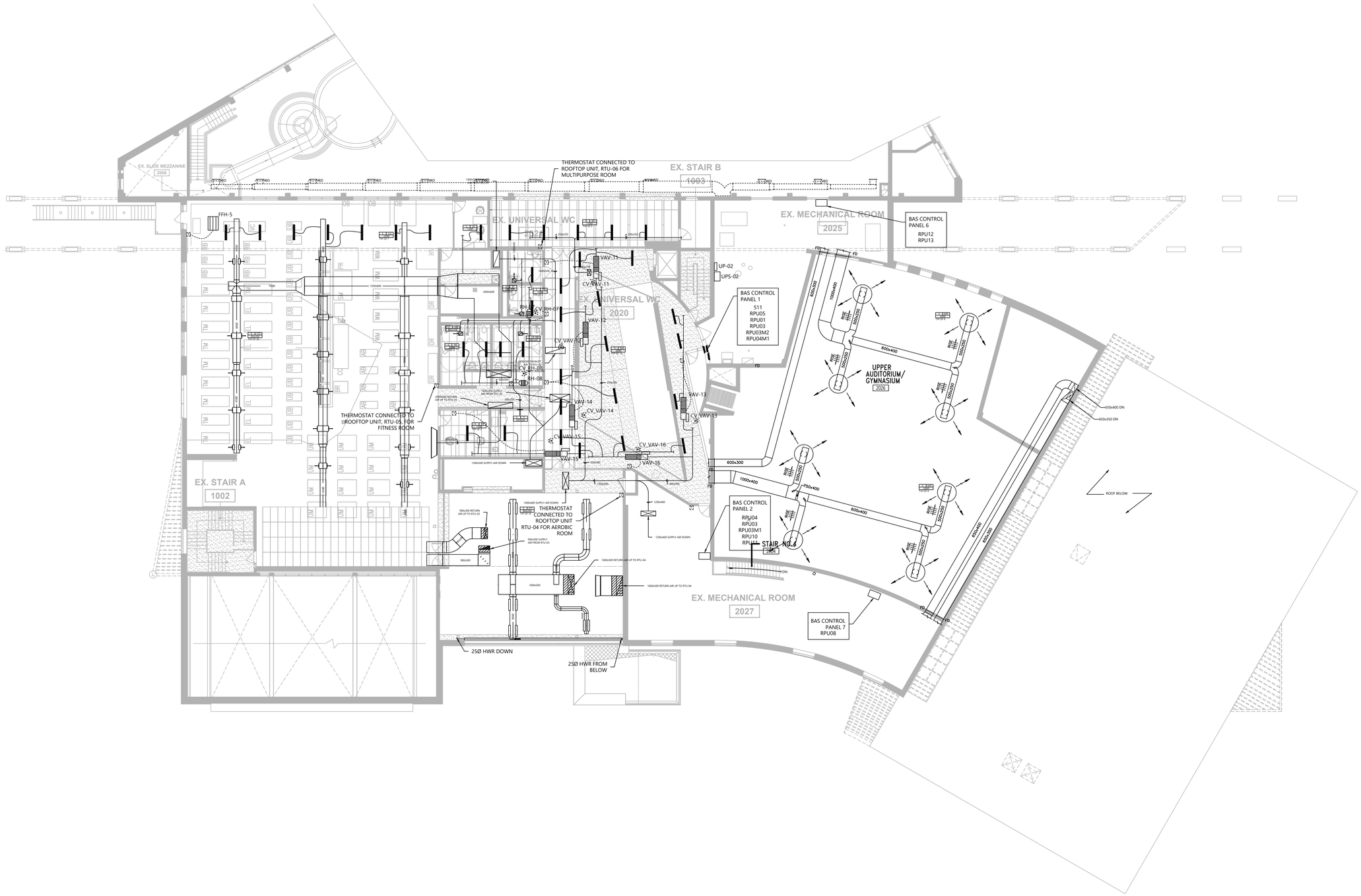
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L1 HVAC RETROFIT

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M201	E



FLOOR 2 HVAC AND CONTROLS DEMO

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

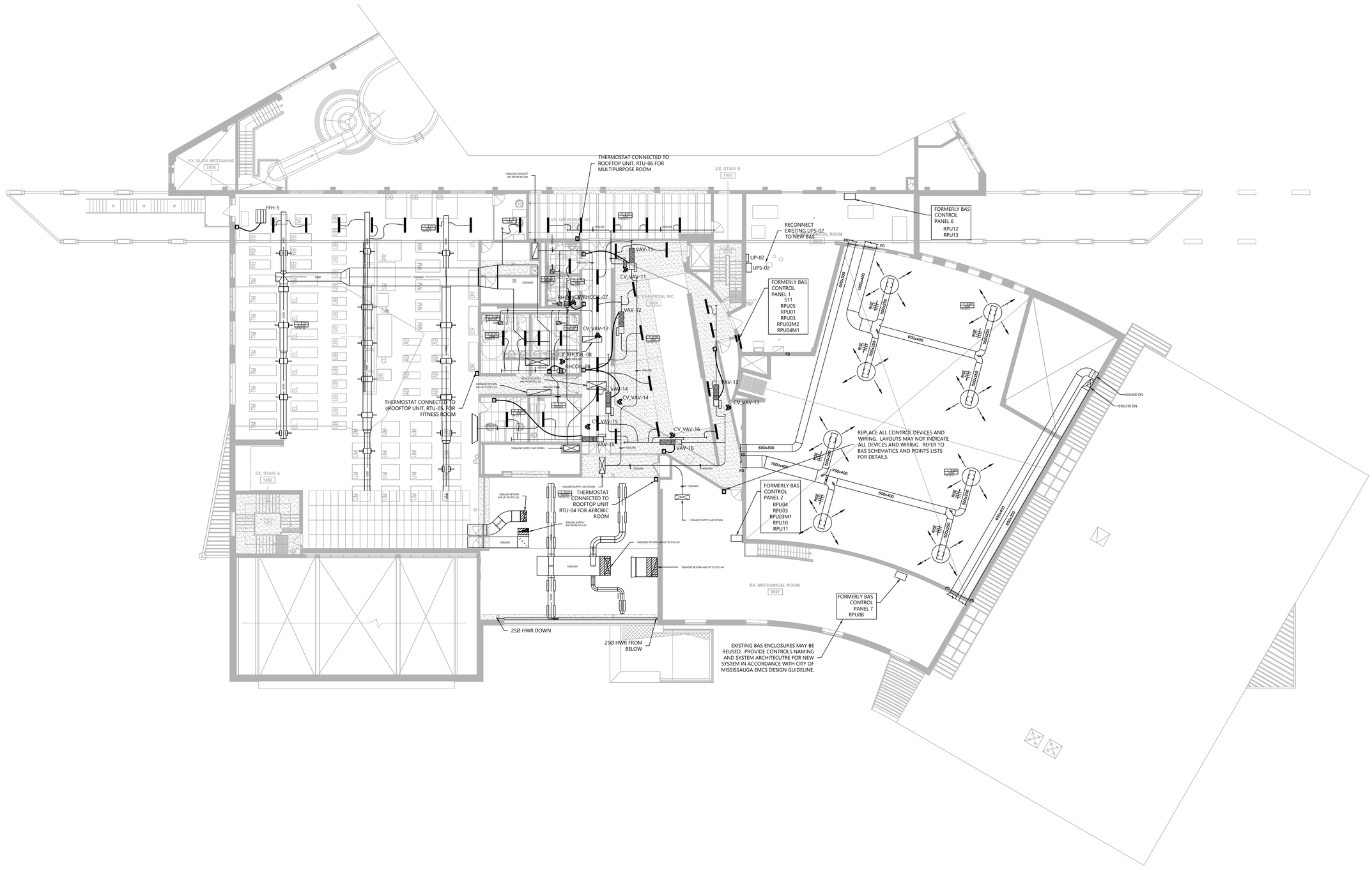
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L2 HVAC DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M202	E



FLOOR 2 HVAC AND CONTROLS RETROFIT

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

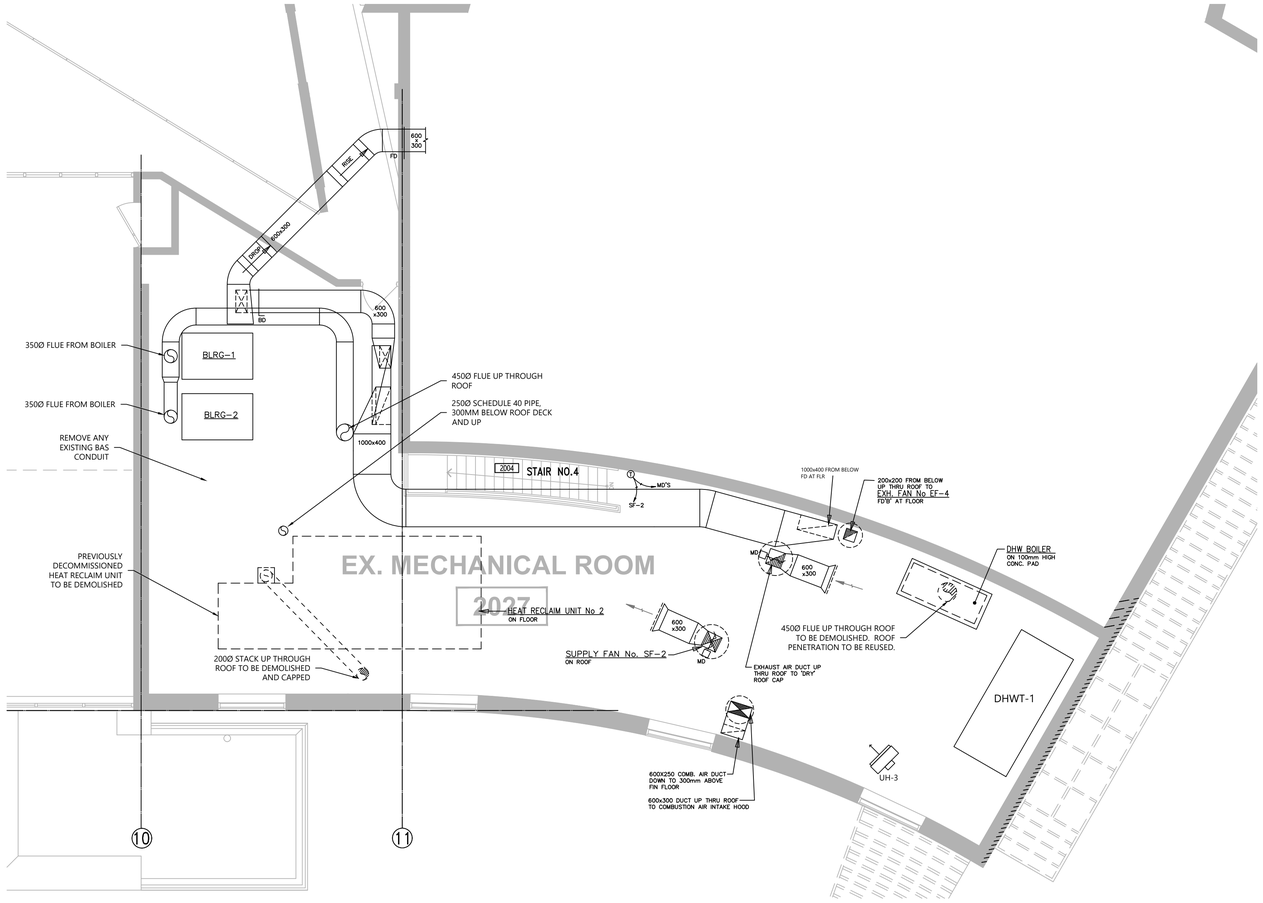
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L2 HVAC RETROFIT

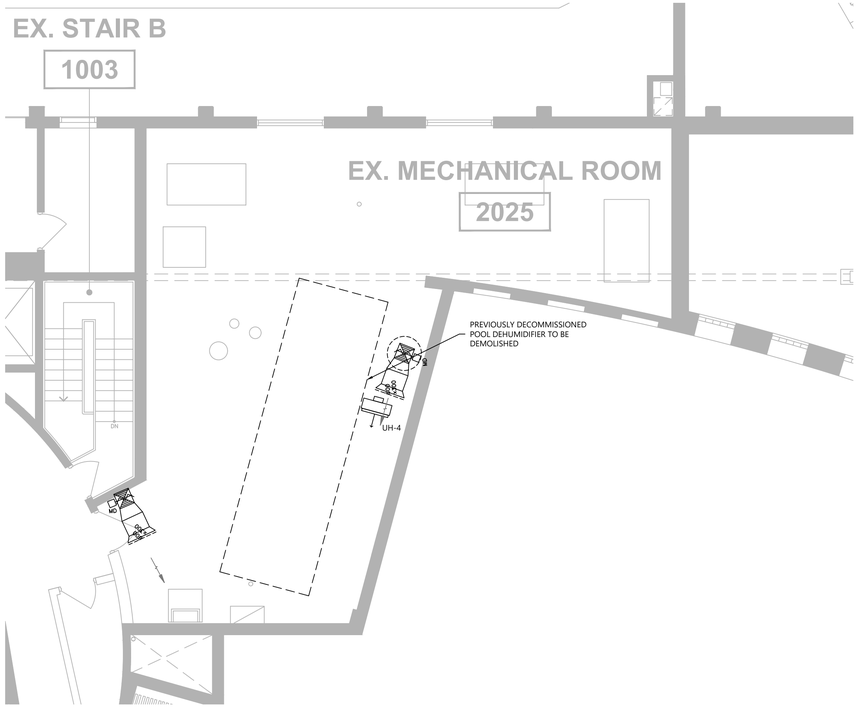
SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M203	E



MECH ROOM 2027 HVAC DEMO

1:75



MECH ROOM 2025 HVAC DEMO

1:75

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

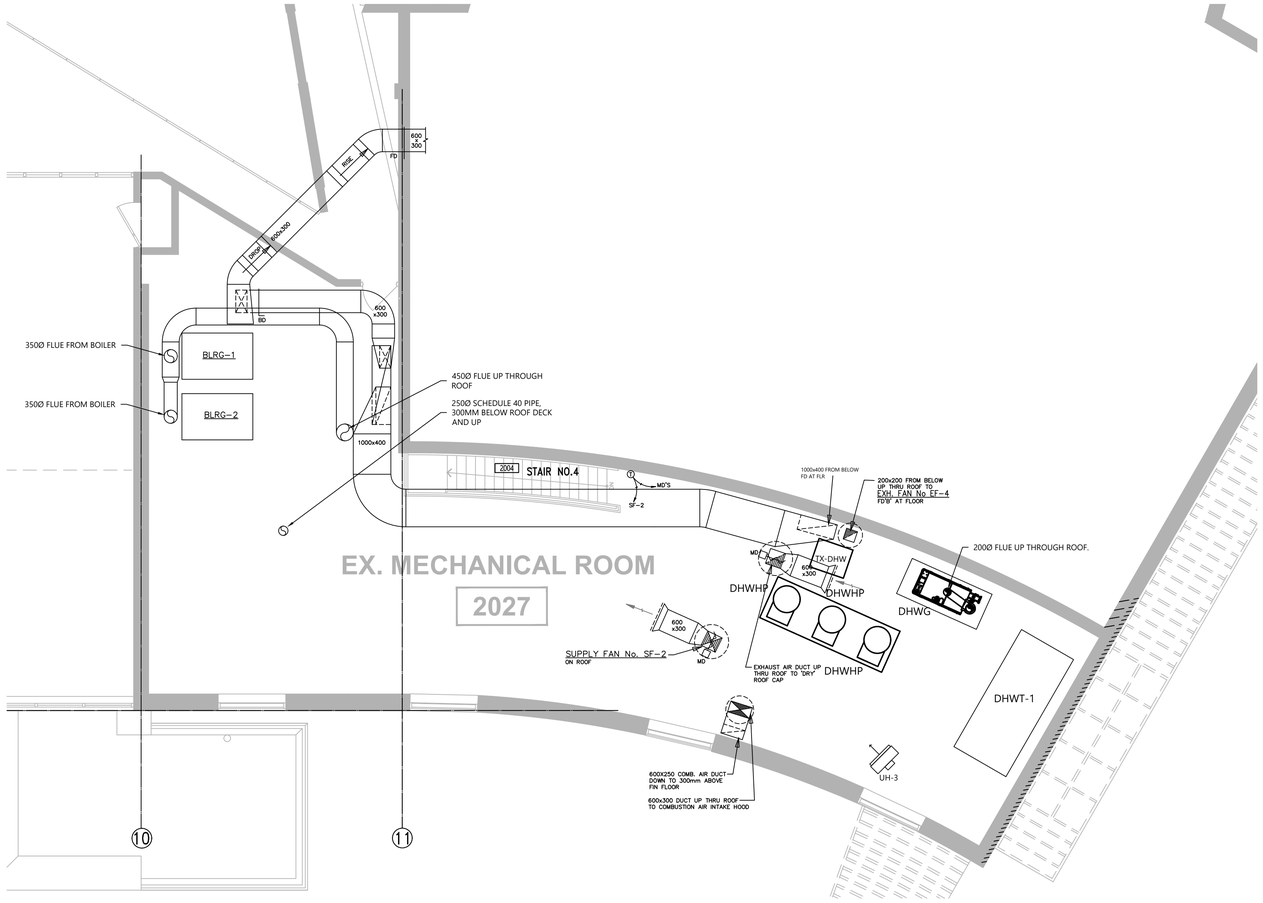
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L2 MECH ROOMS HVAC DEMO

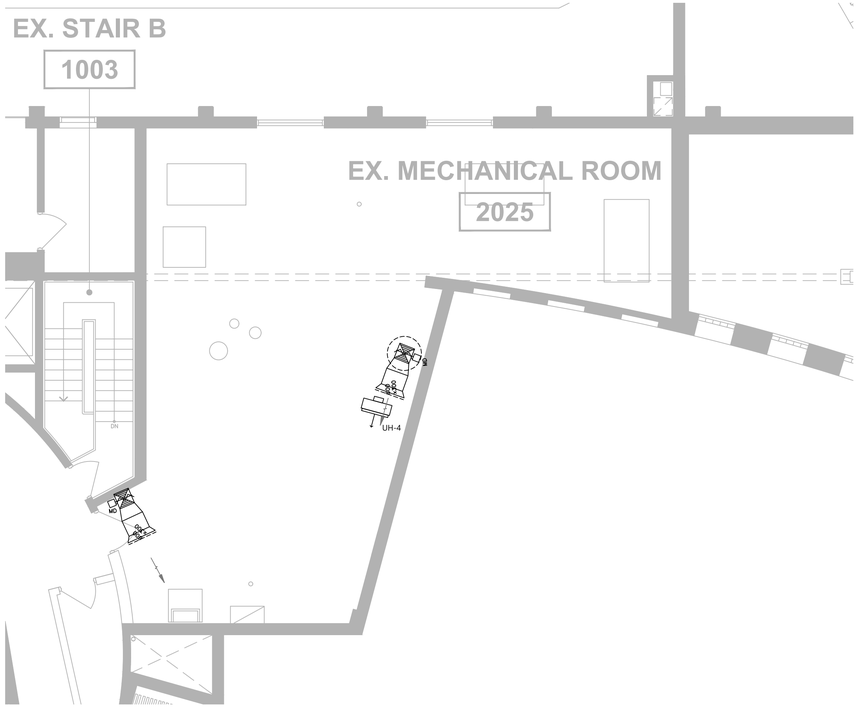
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1:75	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M204	E



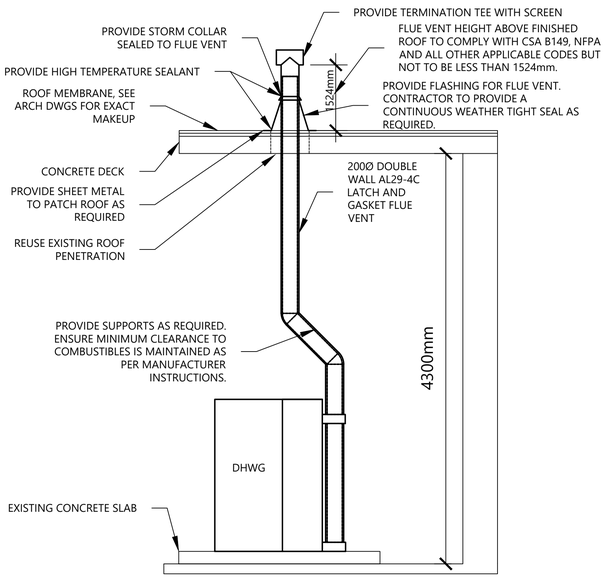
MECH ROOM 2027 HVAC RETROFIT

1:75



MECH ROOM 2025 HVAC RETROFIT

1:75



GAS WATER HEATER VENTILATION DETAIL

NTS

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
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-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

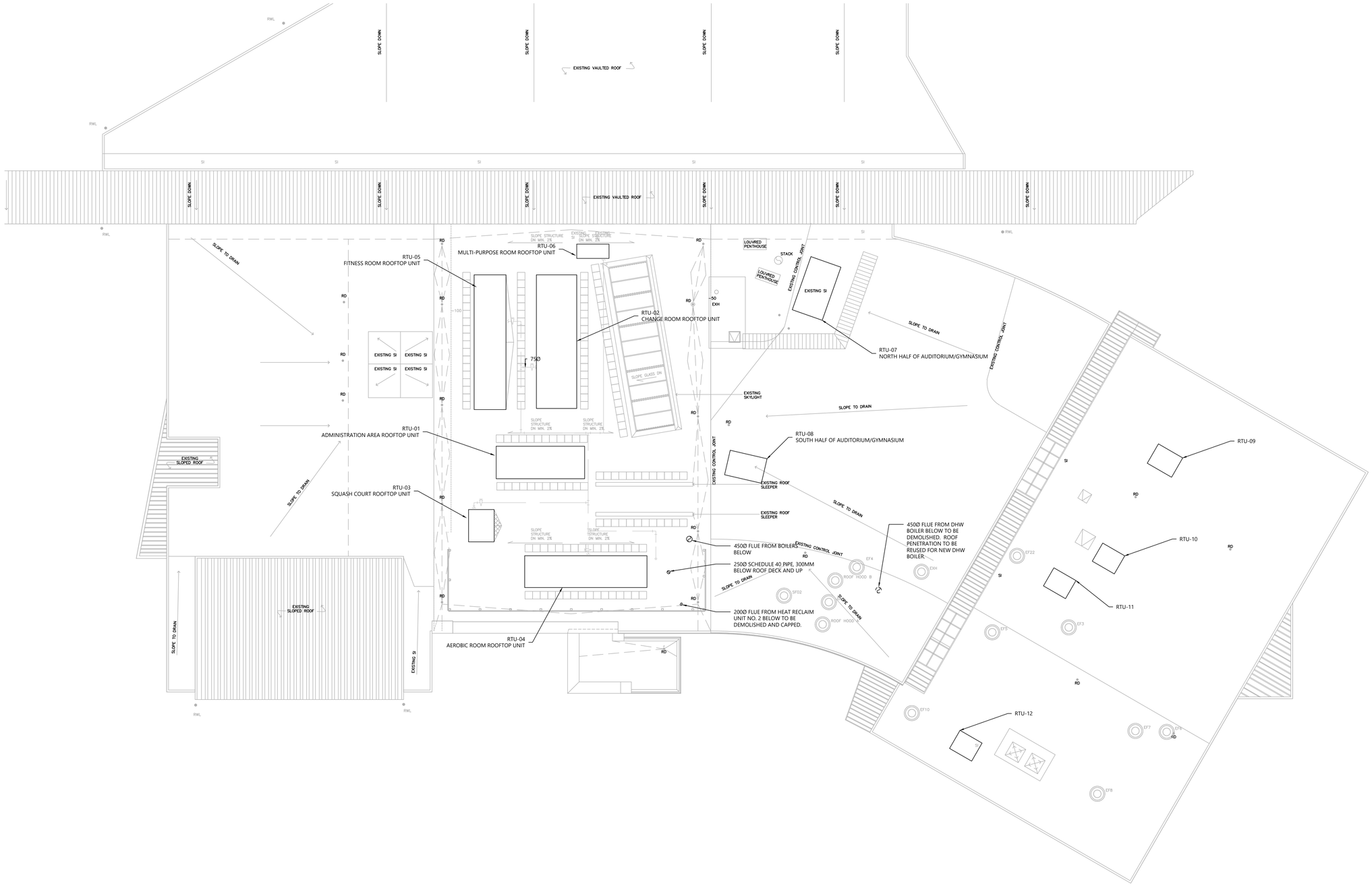
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L2 MECH ROOMS HVAC RETROFIT

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:75	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M205	E



ROOF HVAC AND CONTROLS DEMO

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

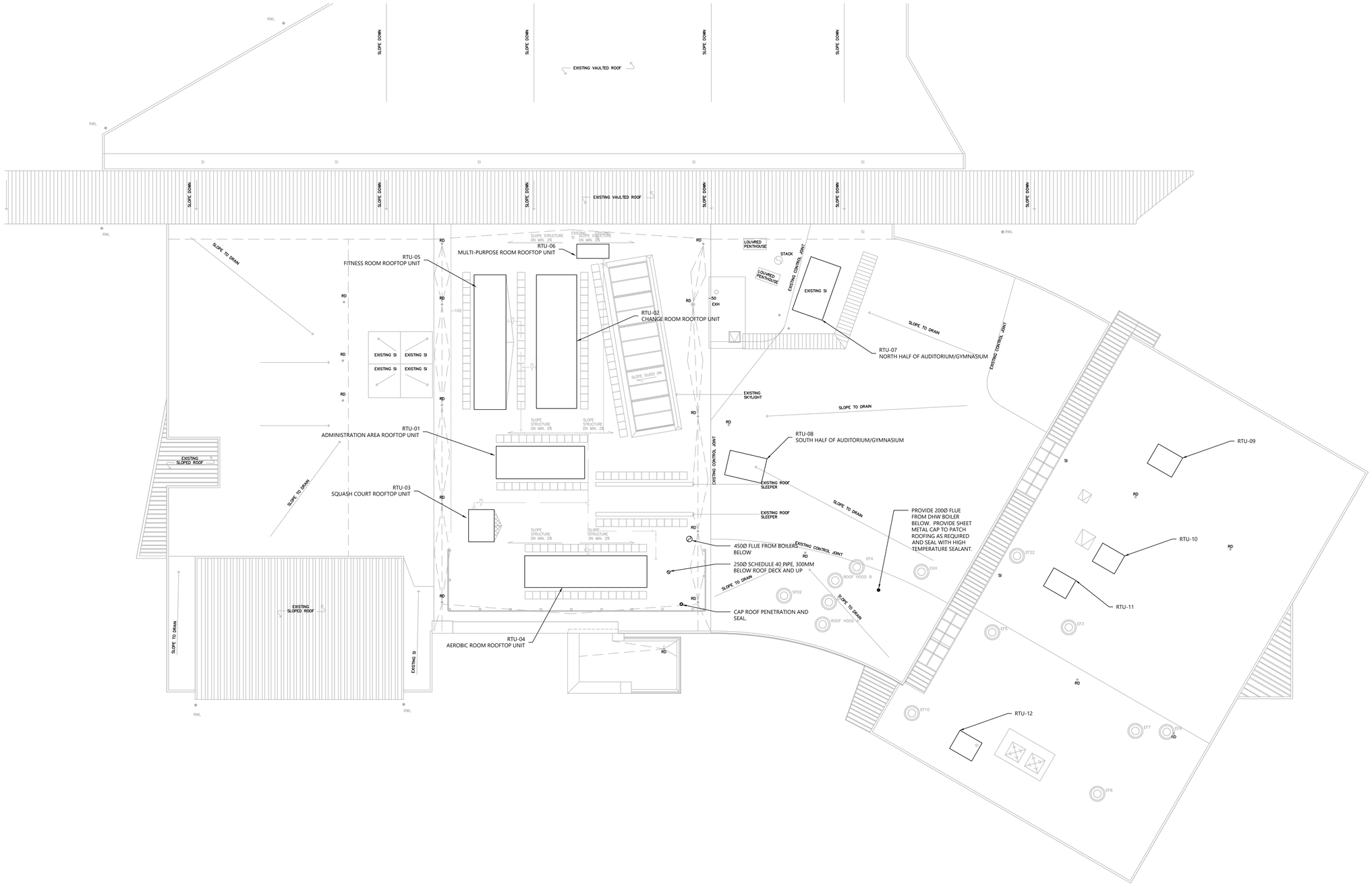
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOF HVAC DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M206	E



ROOF HVAC AND CONTROLS RETROFIT

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

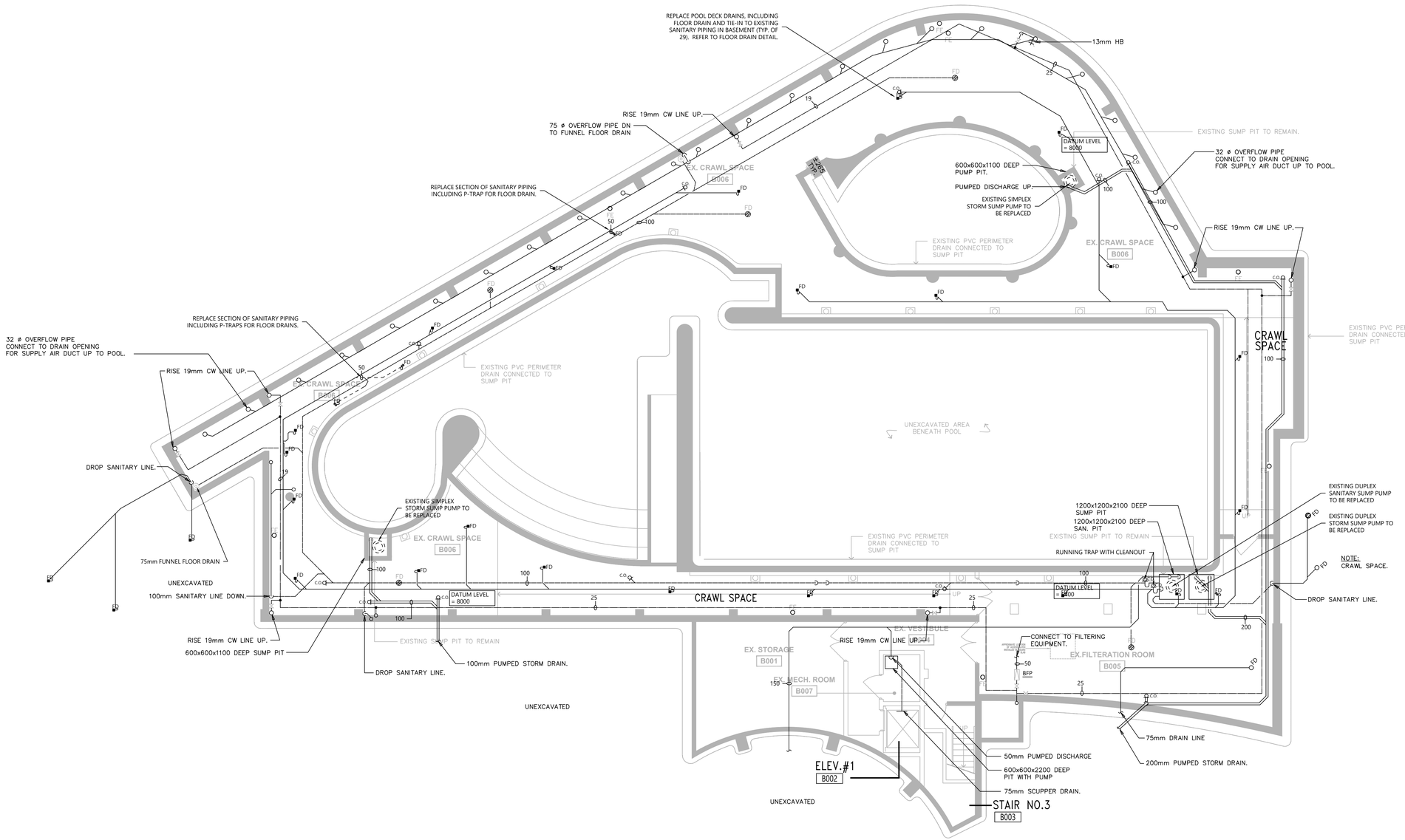
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOF HVAC RETROFIT

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M207	E



POOL BASEMENT PLUMBING DEMO

1:100

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

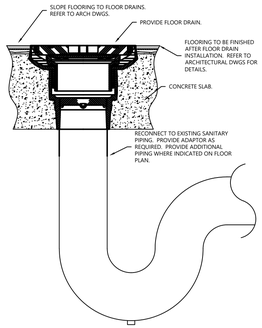
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
B1 PLUMBING DEMO

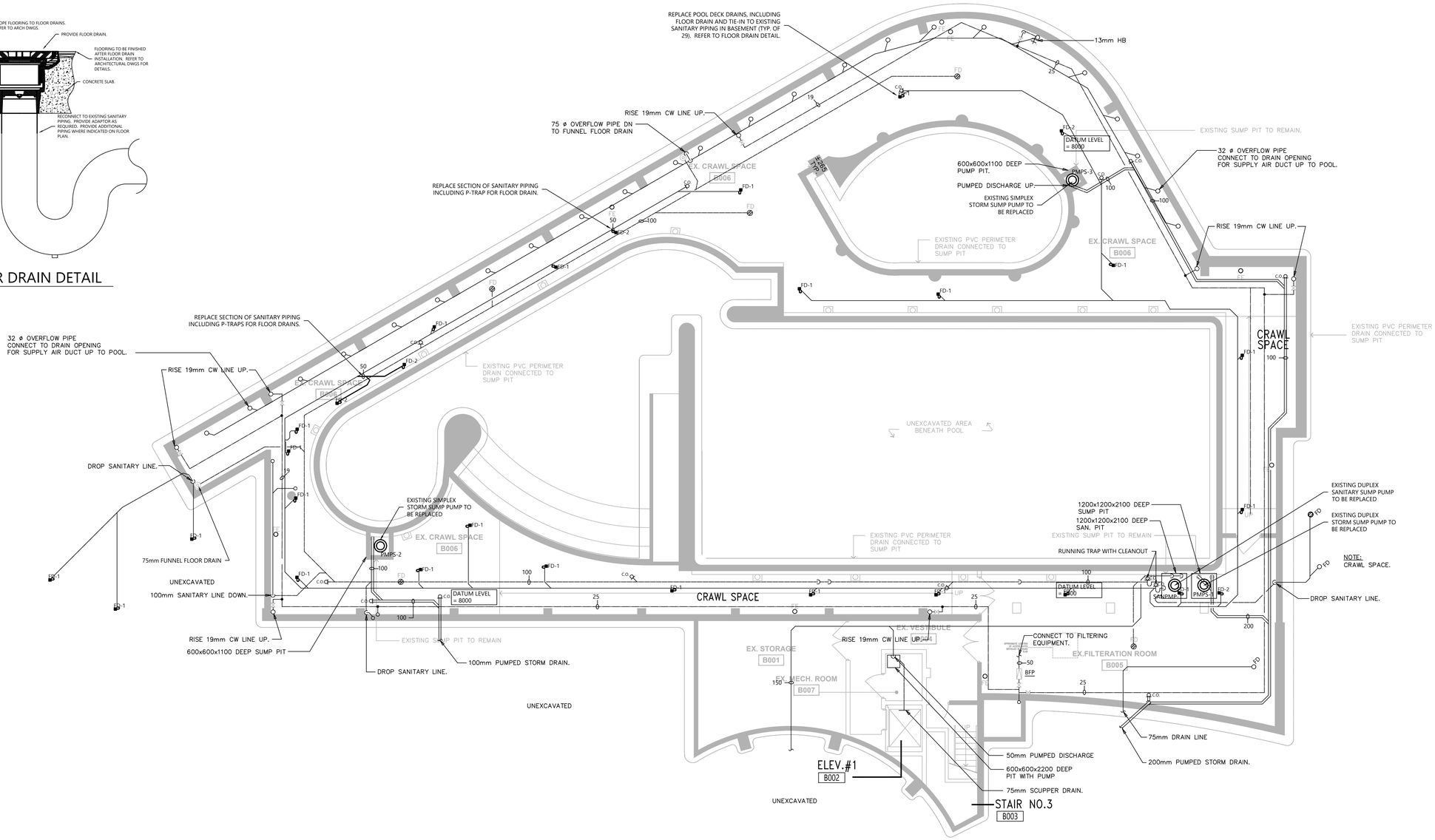
SCALE AT ARCH D:	DRAWN:	CHECKED:
1:100	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M300	E



FLOOR DRAIN DETAIL

NTS



POOL BASEMENT PLUMBING RETROFIT

1:100

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
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A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
B1 PLUMBING RETROFIT

SCALE AT ARCH D:	DRAWN:	CHECKED:
AS SHOWN	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M301	E



REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
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-	COORDINATION	2025-12-08

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300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L1 PLUMBING DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M302	E

REPLACE POOL DECK DRAINS, INCLUDING FLOOR DRAIN AND TIE-IN TO EXISTING SANITARY PIPING IN BASEMENT (TYP. OF 29). REFER TO FLOOR DRAIN DETAIL.

FD-1

FD-2

EX. SWIMMING POOL
1067

DECTRON DH-1

GENERATOR

EX. STORAGE
1069

EX. STORAGE
1051

EX. STAIR NO.5
1005

VESTIBULE
1051 A

EX. COLONNADES 1

EX. STAIR B
1003

EX. AUDITORIUM GYMNASIUM
1072

EX. STAIR A
1002

EX. VESTIBULE
1006

ENTRY

PROVIDE EXPANSION TANK

PROVIDE BACKFLOW PREVENTER

EX. SPRINKLER ROOM
1090

EX. ELECTRICAL ROOM
1039

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
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300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

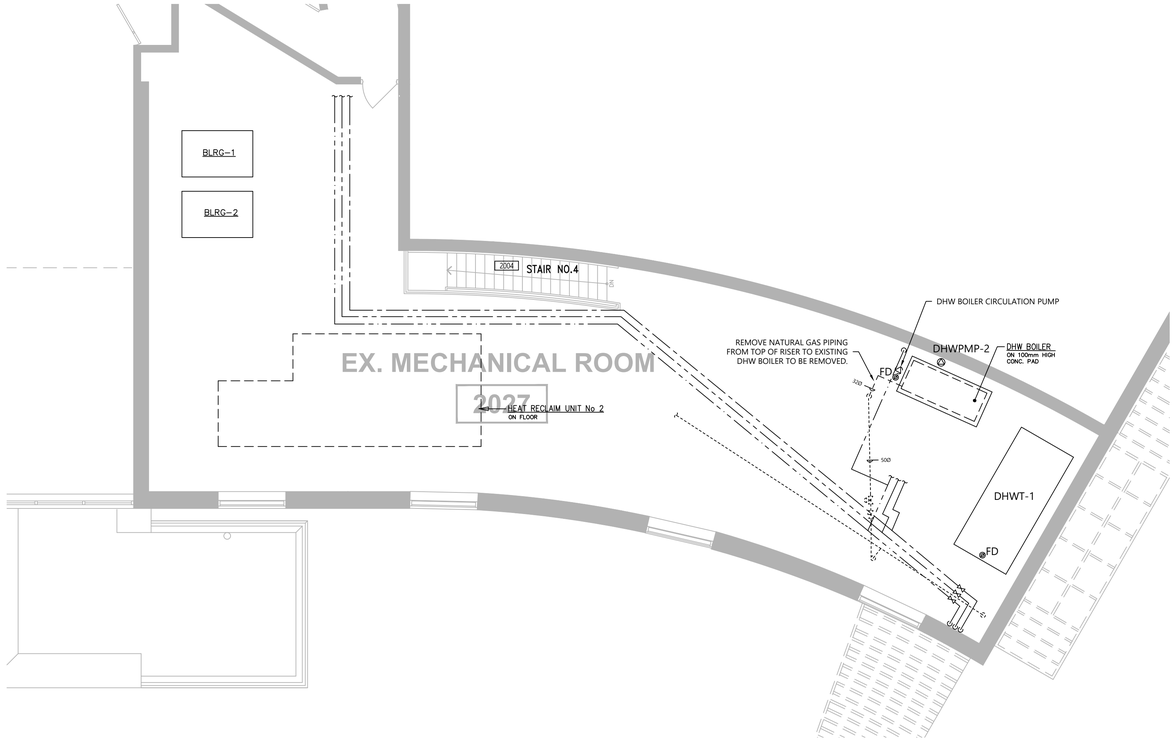
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L1 PLUMBING RETROFIT

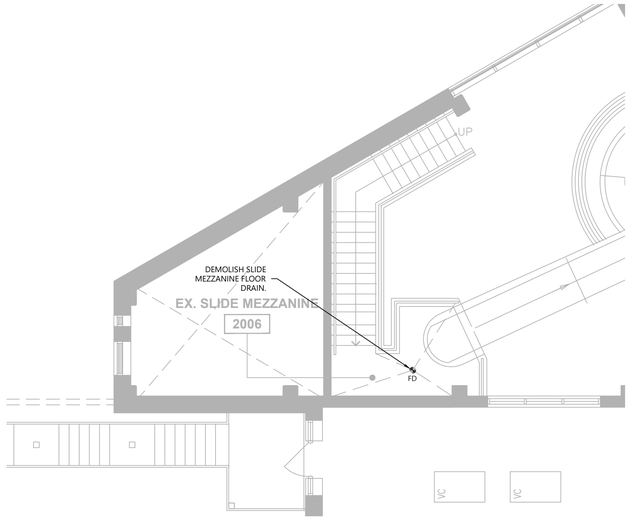
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PROJECT NO:	DRAWING NO:	REVISION:
25490	M303	E



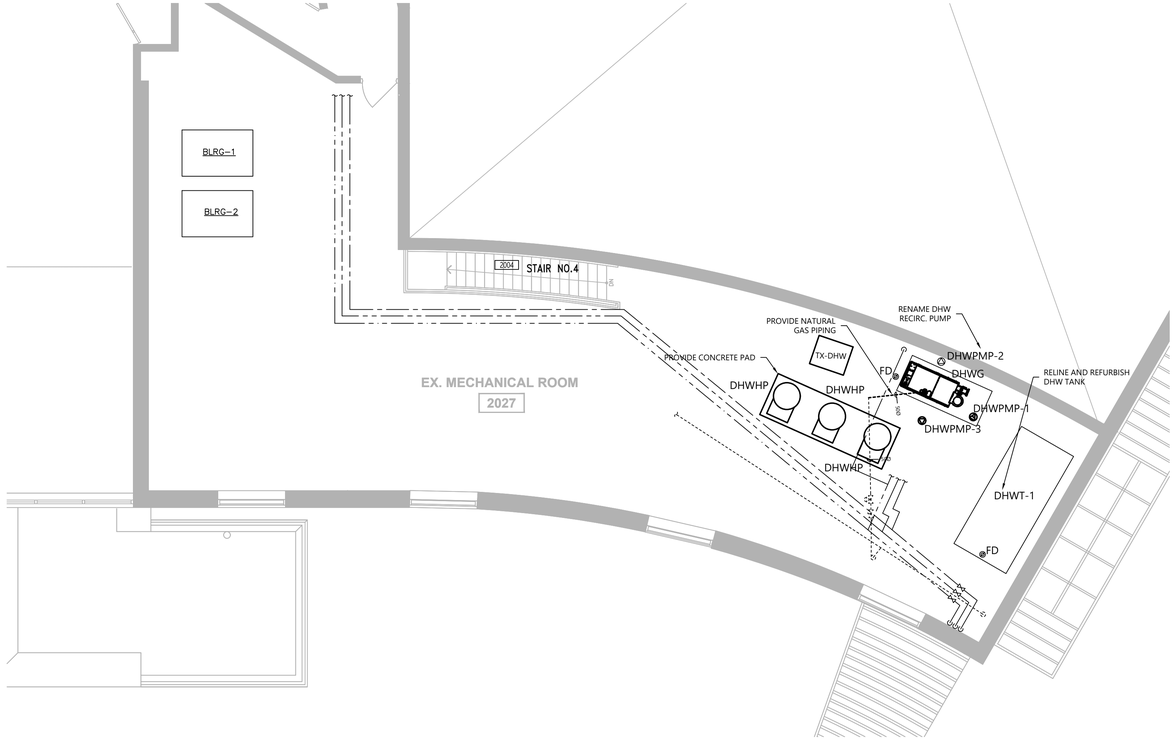
MECH ROOM 2027 PLUMBING DEMO

1:75



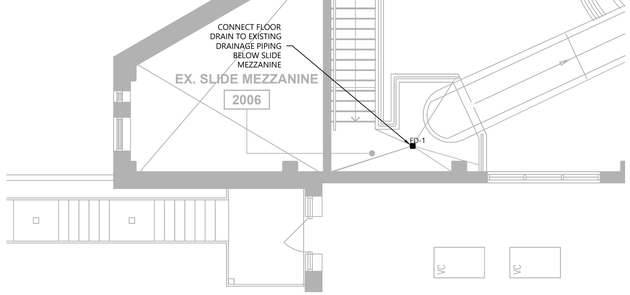
POOL MEZZANINE PLUMBING DEMO

1:75



MECH ROOM 2027 PLUMBING RETROFIT

1:75



POOL MEZZANINE PLUMBING RETROFIT

1:75

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

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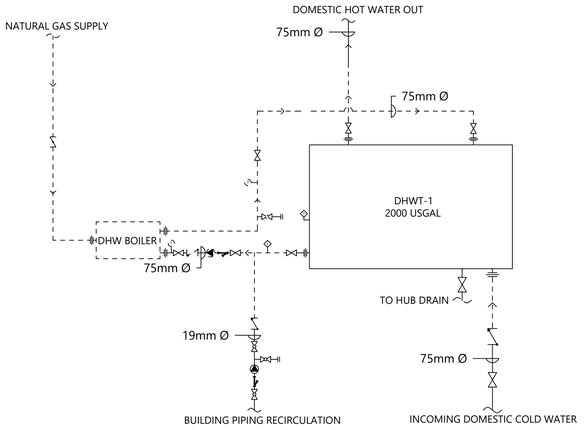
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

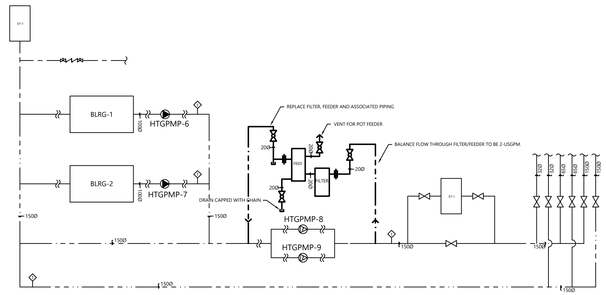
TITLE: MECHANICAL
L2 PLUMBING

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:75	JD	DG

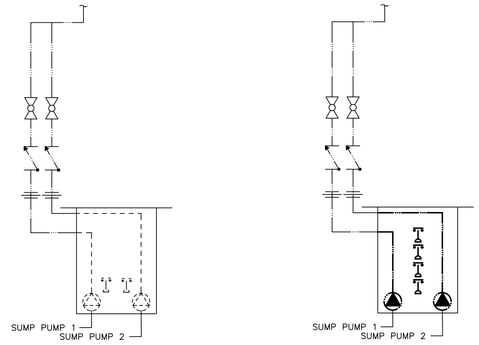
PROJECT NO:	DRAWING NO:	REVISION:
25490	M304	E



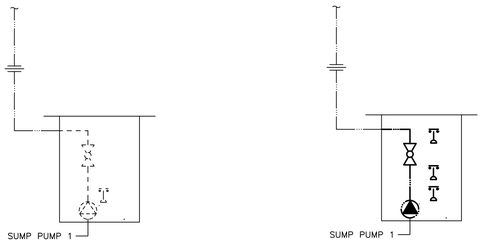
DOMESTIC HOT WATER HEATER SCHEMATIC - DEMO



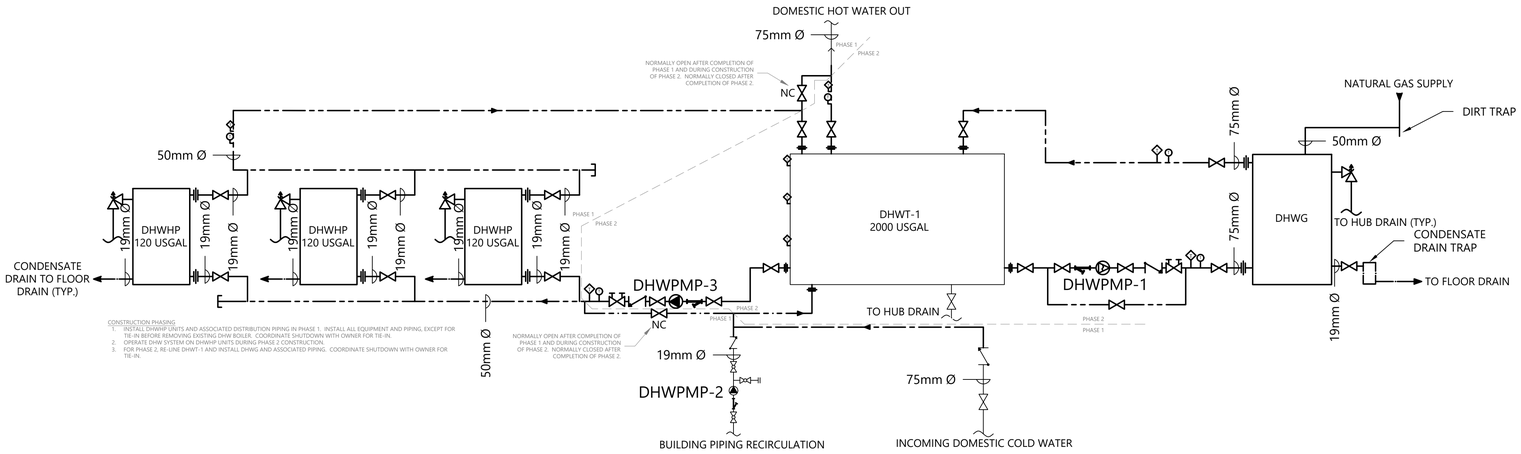
HYDRONICS WATER BOILER SCHEMATIC



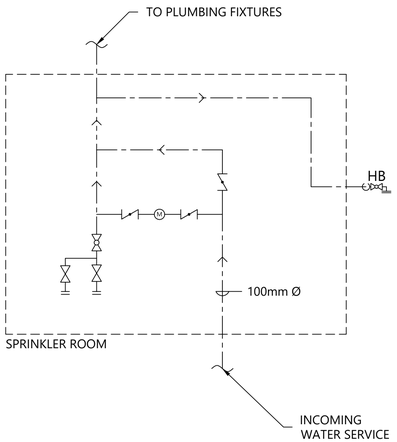
DUPLEX SUMP PUMPS SCHEMATICS (TYPICAL)



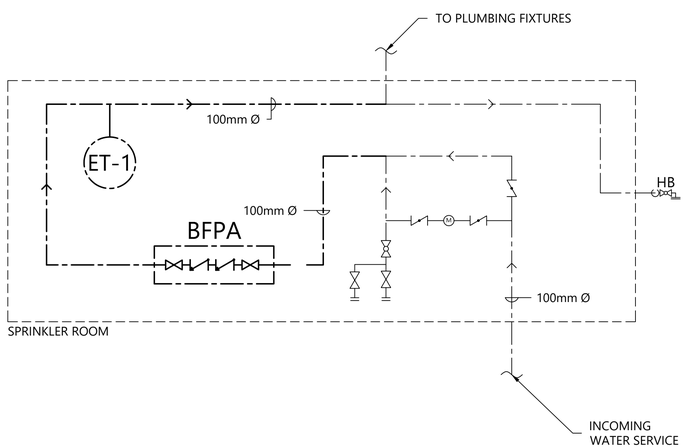
SIMPLEX SUMP PUMPS SCHEMATICS (TYPICAL)



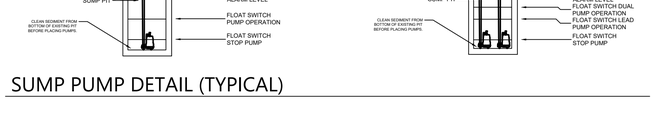
DOMESTIC HOT WATER HEATER SCHEMATIC - RETROFIT



DEMO INCOMING DCW SCHEMATIC



PROPOSED INCOMING DCW SCHEMATIC



SUMP PUMP DETAIL (TYPICAL)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE
JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

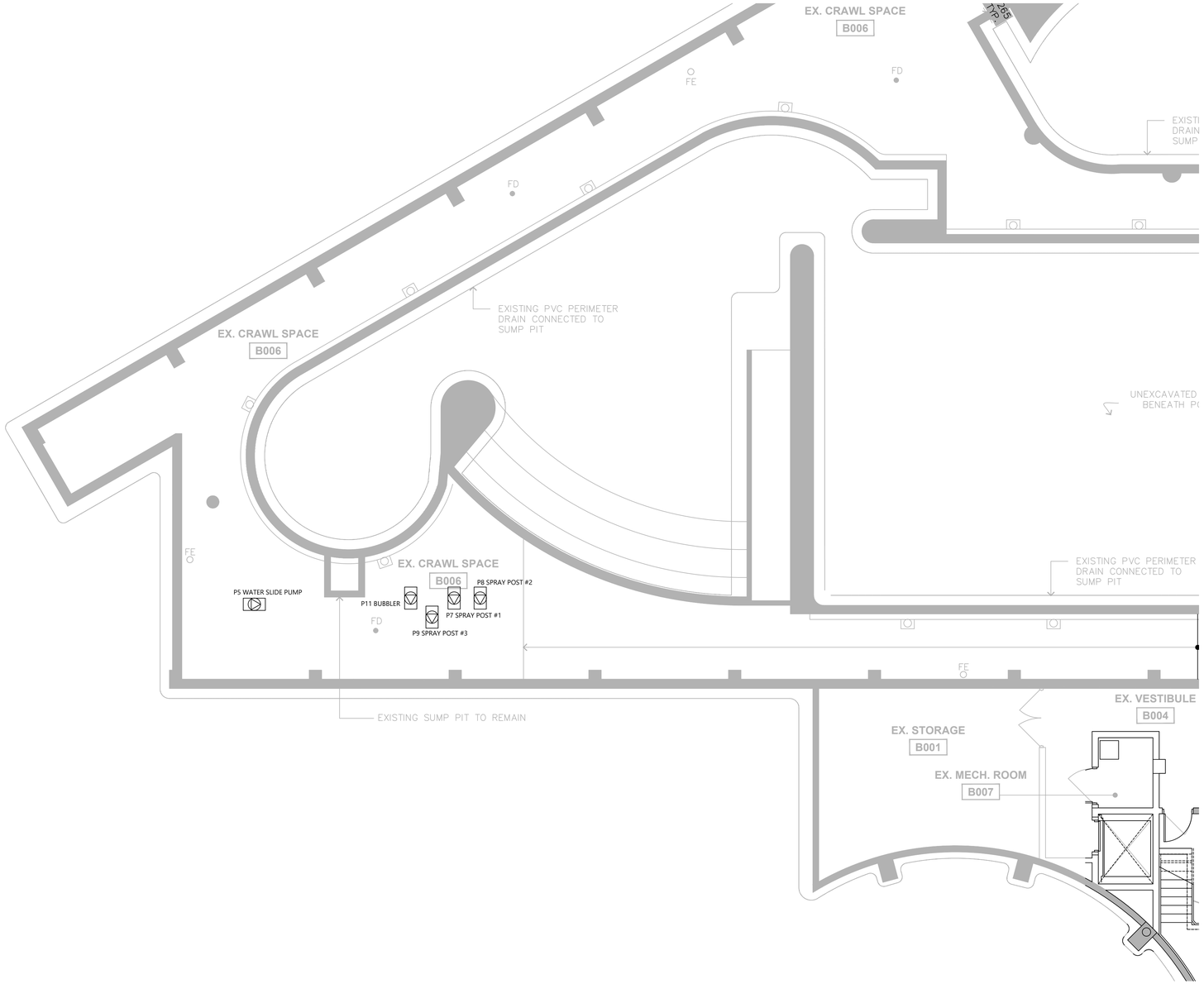
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
PLUMBING SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M305	E



B1 CRAWL SPACE AQUATICS PUMPS LAYOUT

1:75

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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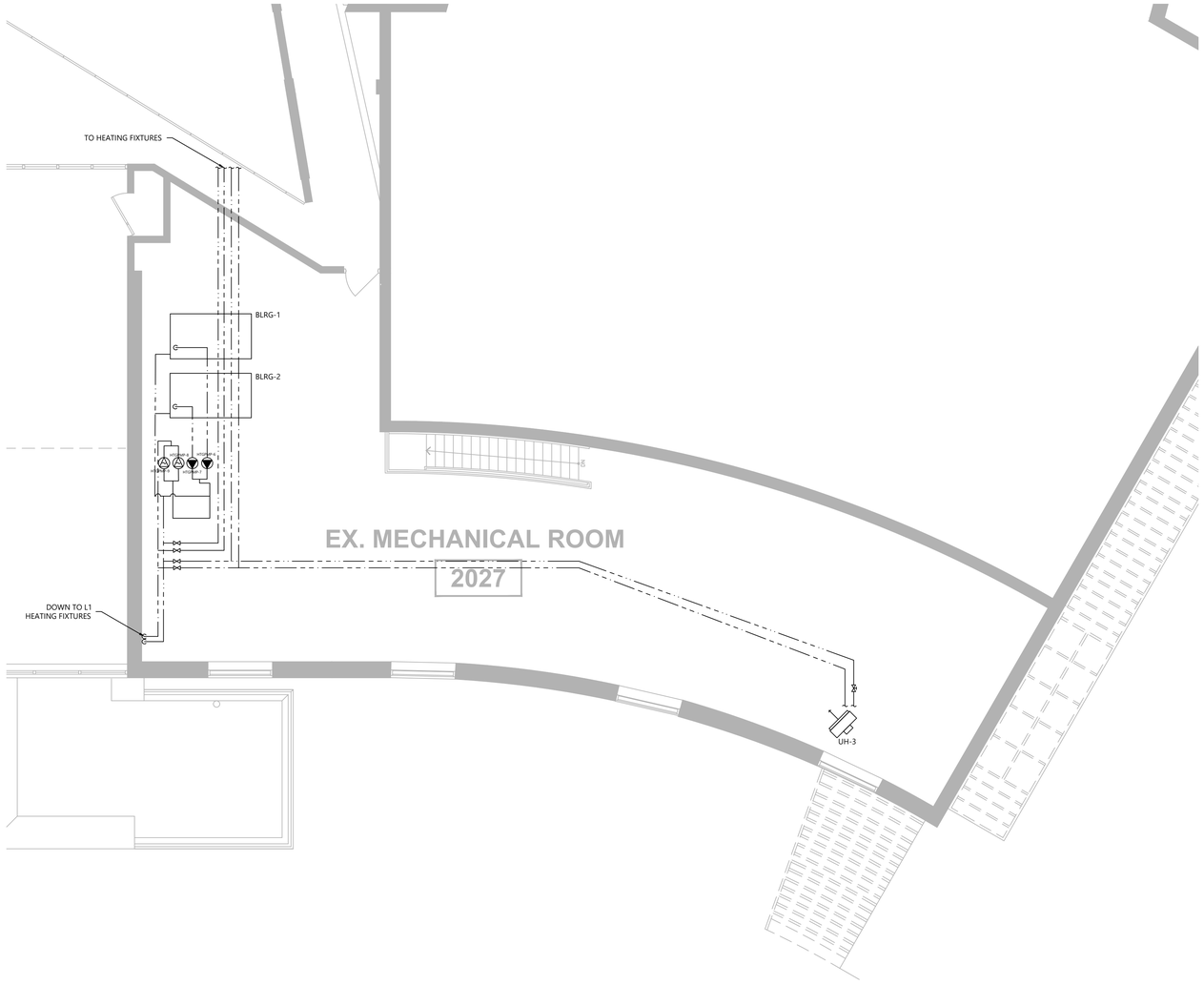
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
B1 CRAWL SPACE AQUATICS PUMPS

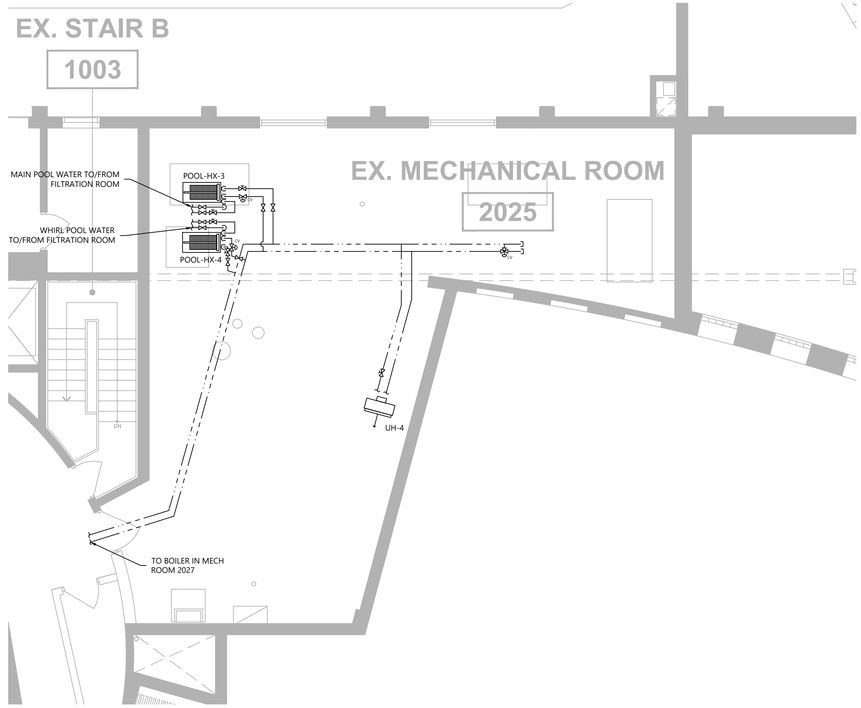
SCALE AT ARCH D:	DRAWN:	CHECKED:
1:75	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M306	E



MECH ROOM 2027 HYDRONICS

1:75



MECH ROOM 2025 HYDRONICS

1:75

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
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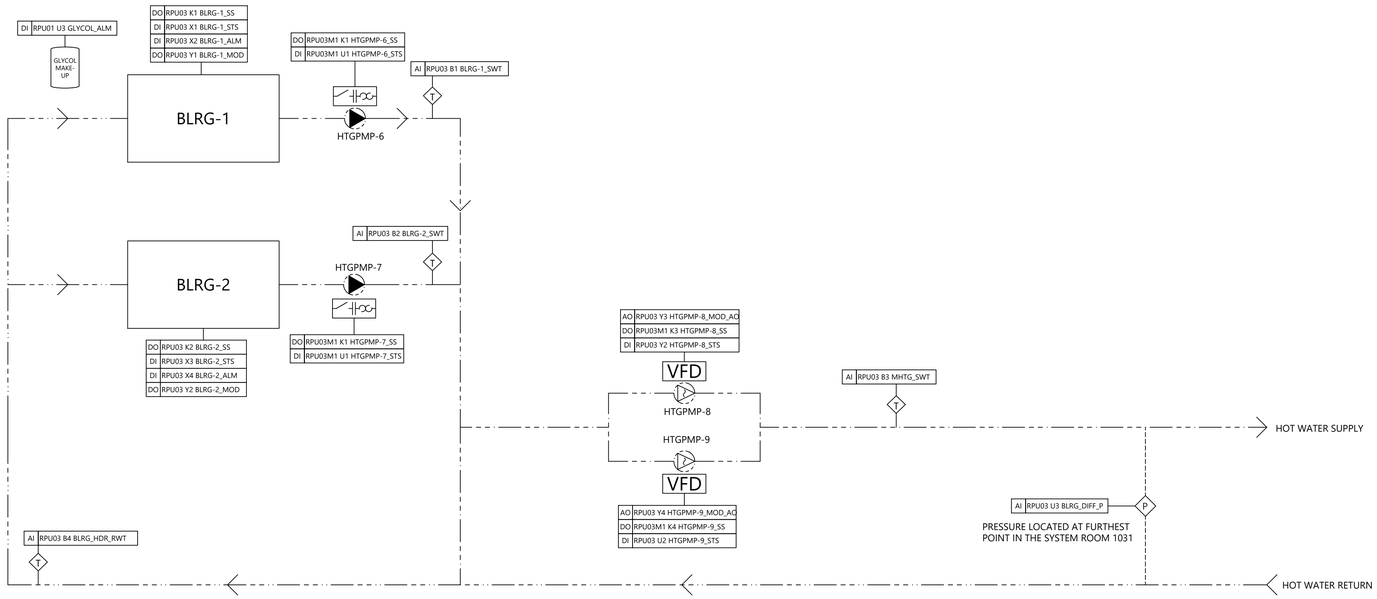
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
L2 MECH ROOMS HYDRONICS

1:75	JD	DG
SCALE AT ARCH D:	DRAWN:	CHECKED:

25490	M307	E
PROJECT NO:	DRAWING NO:	REVISION:



HEATING WATER BOILER BAS SCHEMATIC

BOILER POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU03	Mechanical Room 2027	BLRG-2_ALM	Boiler 2 Alarm	DI	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-2_STS	Boiler 2 Burner Status	DI	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-1_ALM	Boiler 1 Alarm	DI	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-1_STS	Boiler 1 Burner Status	DI	1	Equipment Termination		
RPU03	Mechanical Room 2027	MHTG_RWT	Main Heating Return Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU03	Mechanical Room 2027	MHTG_SWT	Main Heating Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU03	Mechanical Room 2027	BLRG-1_SWT	Boiler 1 Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU03	Mechanical Room 2027	BLRG-2_SWT	Boiler 2 Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU03	Mechanical Room 2027	BLRG-2_SS	Boiler 2 Start/Stop	DO	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-1_SS	Boiler 1 Start/stop	DO	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG_DIFF_P	Heating Differential Pressure	AI	1	Pressure Transmitter - Liquid - Differential	1	
RPU03	Mechanical Room 2027	HTGPMP-9_STS	HTGPMP-9 Speed Status	AI	1	Equipment Termination		
RPU03	Mechanical Room 2027	HTGPMP-8_STS	HTGPMP-8 Speed Status	AI	1	Equipment Termination		
RPU03	Mechanical Room 2027	HTGPMP-9_MOD_AO	HTGPMP-9 VFD Modulate	AO	1	Equipment Termination		
RPU03	Mechanical Room 2027	HTGPMP-8_MOD_AO	HTGPMP-8 VFD Modulate	AO	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-2_MOD	Boiler 2 Modulate	AO	1	Equipment Termination		
RPU03	Mechanical Room 2027	BLRG-1_MOD	Boiler 1 Modulate	AO	1	Equipment Termination		
RPU03M1	Mechanical Room 2027	HTGPMP-9_SS	HTGPMP-9 S/S	DO	1	Relays - Control Relay	1	
RPU03M1	Mechanical Room 2027	HTGPMP-8_SS	HTGPMP-8 S/S	DO	1	Relays - Control Relay	1	
RPU03M1	Mechanical Room 2027	HTGPMP-6_STS	HTGPMP-6 Status	DI	1	Electric Current Switches	1	
RPU03M1	Mechanical Room 2027	HTGPMP-6_SS	HTGPMP-6 S/S	DO	1	Relays - Control Relay	1	
RPU03M1	Mechanical Room 2027	HTGPMP-7_SS	HTGPMP-7 S/S	DO	1	Relays - Control Relay	1	
RPU03M1	Mechanical Room 2027	HTGPMP-7_STS	HTGPMP-7 Status	DI	1	Electric Current Switches	1	
RPU01	Mechanical Room 2025	GLYCOL_ALM	Glycol Feeder 1 Alarm	DI	1	Equipment Termination		

1. HEATING WATER BOILER SEQUENCES

1.1. GENERAL

1.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

1.2. START/STOP

1.2.1. THE HEATING SYSTEM SHALL BE ENABLED BY THE BAS WHEN THE OUTSIDE AIR TEMPERATURE IS 1°C BELOW WARM WEATHER LOCKOUT SET POINT (WWLO_SPT) AND DISABLED WHEN THE OUTDOOR AIR TEMPERATURE RISES 1°C ABOVE THE WWLO_SPT AS FOLLOWS:

1.2.1.1. WHEN THE HEATING SYSTEM HAS BEEN ENABLED, THE PRIMARY HEATING PUMPS (HTGPMP-6 AND HTGPMP-7) SHALL BE SWITCHED ON FIRST, AFTER A 3-MINUTE DELAY AND AT MINIMUM ONE (1) PUMP STATUS VERIFICATION THE BOILERS SHALL BE ALLOWED TO OPERATE IN ACCORDANCE WITH THE SPECIFIED BOILER CONTROL SEQUENCE.

1.2.1.2. WHEN THE HEATING SYSTEM HAS BEEN DISABLED, THE BOILERS SHALL BE SHUT OFF FIRST, AND AFTER A 3-MINUTE TIME DELAY ALL PRIMARY PUMPS SHALL BE SWITCHED OFF.

1.2.2. BUILDING HEATING PUMPS (HTGPMP-8 AND HTGPMP-9) SHALL OPERATE IN LEAD/LAG OPERATION. THE LEAD PUMP SHALL BE ROTATED ON A WEEKLY BASIS (EVERY TUESDAY AT 8PM) WITH GRAPHICAL INDICATION AS TO WHICH PUMP IS LEAD AND WHICH IS LAG. IF THE LEAD PUMP STATUS IS OFF, THE LAG PUMP SHALL BE STARTED WITHIN 3 SECONDS. IF THE LEAD PUMP STATUS RETURNS TO "ON", BOTH PUMPS SHALL OPERATE FOR 2 MINUTES BEFORE THE STANDBY PUMP IS SHUT OFF. WHEN SWITCHING NEW LEAD PUMP SHALL BE STARTED AND STATUS PROVEN BEFORE STANDBY (OLD LEAD) PUMP IS SWITCHED OFF.

1.2.3. WHEN AN INDIVIDUAL BOILER IS COMMANDED OFF, THE ASSOCIATED BOILER PUMP SHALL CONTINUE TO RUN FOR 3 MINUTES TO DISSIPATE HEAT AND THEN WILL SHUT OFF (INTERNAL TO BOILERS).

1.2.4. THE BOILERS SHALL OPERATE IN LEAD/LAG OPERATION. THE LEAD SHALL BE ROTATED ON A WEEKLY BASIS (EVERY TUESDAY AT 8AM) WITH GRAPHICAL INDICATION AS TO WHICH BOILER/PUMP IS LEAD AND WHICH IS LAG. IF THE LEAD BOILER IS IN ALARM OR STATUS HAS NOT BEEN VERIFIED WITHIN 3 MINUTES (ADJUSTABLE) AFTER ENABLE, THE LAG BOILER SHALL BECOME THE LEAD BOILER AND A MAINTENANCE ALARM SHALL BE GENERATED.

1.2.5. WHEN THE HEATING SYSTEM HAS FIRST BEEN ENABLED THROUGH THE WWLO_SPT AND THE PRIMARY HEATING WATER PUMP HAS OPERATED FOR 3 MINUTES, THE LEAD BOILER AND ASSOCIATED BOILER PUMP SHOULD BE TURNED ON AT HIGH FIRE, ONCE STATUS IS PROVEN THE BURNER SHALL BE ALLOWED TO MODULATE. AFTER LEAD BOILER BURNER STATUS HAS BEEN PROVEN AND BOILER COMMAND IS AT 100% FOR 10 MINUTES (ADJUSTABLE), THE LAG BOILER SHALL BE ENABLED AT HIGH FIRE. ONCE THE LAG BOILER BURNER STATUS HAS PROVEN, BOTH BOILERS SHALL BE ALLOWED TO MODULATE TOGETHER ON THE SAME COMMAND SIGNAL.

1.2.6. BOTH BOILERS SHALL BE OPERATED TOGETHER UNTIL THE MAIN HEATING WATER SUPPLY TEMPERATURE SET POINT (MHTG_SWT_SPT) HAS BEEN SATISFIED AND THEN NORMAL BOILER SEQUENCE OF OPERATION SHALL BEGIN.

1.3. BOILER CONTROL

1.3.1. WHEN THE MAIN HEATING WATER SUPPLY TEMPERATURE (MHTG_SWT) IS MORE THAN 2.5°C (ADJUSTABLE) BELOW SET POINT (MHTG_SWT_SPT) THE LEAD BOILER SHALL BE COMMANDED ON BY THE BAS, FOLLOWED BY BURNER MODULATION. THE BURNER SHALL FIRST BE ENABLED AT LOW FIRE, 3 MINUTES (ADJUSTABLE) AFTER BURNER STATUS IS PROVEN THE BURNER SHALL BE ALLOWED TO GRADUALLY INCREASE OUTPUT USING PID CONTROL TO MAINTAIN THE HEATING SYSTEM SET POINT (MHTG_SWT_SPT).

1.3.2. IF THE MHTG_SWT_T FALLS TO MORE THAN 8.5°C (USER ADJUSTABLE) BELOW THE MHTG_SWT_SPT, AND THE LEAD BOILER BURNER MODULATION IS AT 90% OR GREATER OUTPUT, THE LAG BOILER (AND ASSOCIATED BOILER PUMP) SHALL BE COMMANDED "ON" AND HELD AT LOW FIRE WHILE THE LEAD BOILER CONTINUES TO MODULATE ACCORDING TO ITS PID LOOP TO MAINTAIN MHTG_SWT_SPT.

1.3.3. WHEN THE LAG BOILER BURNER STATUS HAS PROVEN THERE SHALL BE A 3-MINUTE (ADJUSTABLE) TIME DELAY FOLLOWED STEPPED CONTROL OF BURNER (INCREASES IN INCREMENTS OF 5% OUTPUT EVERY 2 MINUTES) UNTIL REACHING 50% OUTPUT OR UNTIL THE LEAD BOILER OUTPUT COMMAND FALLS TO 60% MODULATION OUTPUT OR LOWER. WHEN EITHER OF THESE CONDITIONS ARE MET, BOTH BOILERS (LEAD AND LAG) SHALL GO TO LOW FIRE AND THEN BE ALLOWED TO MODULATE TOGETHER TO SATISFY THE MHTG_SWT_SPT.

1.3.4. WHEN THE MHTG_SWT REACHES SET POINT, THE LAG BOILER SHALL BE DISABLED AND THE LEAD BOILER SHALL CONTINUE TO MODULATE. WHEN THE MHTG_SWT RISES TO SET POINT +3°C, THE LEAD BOILER SHALL HOLD AT MINIMUM FIRE. WHEN AT LOW FIRE, IF THE MHTG_SWT_T REACHES SET POINT +5°C THE LEAD BOILER SHALL BE SWITCHED OFF. IF THE MHTG_SWT DROPS TO SET POINT -1°C THE BOILER MAY BEGIN TO MODULATE AGAIN ACCORDING TO THE PID LOOP COMMAND.

1.4. HOT WATER SUPPLY RESET

1.4.1. THE OUTSIDE AIR TEMPERATURE RESET SCHEDULE SHALL RESET THE HEATING WATER SUPPLY TEMPERATURE SET POINT (MHTG_SWT_SPT) ACCORDING TO THE FOLLOWING SCHEDULE:

OAT-T	MHTG_SWT SPT
-15°C	80°C
10°C	35°C

1.4.2. ALL PARAMETERS OF THE RESET SCHEDULE SHALL BE ADJUSTABLE THROUGH THE GRAPHICS. THE INDOOR/OUTDOOR RESET SCHEDULE SHALL ALSO BE OFFSET BY ACTUAL HEATING DEMAND AND THE CALCULATED SET POINT SHALL BE DISPLAYED ON THE SYSTEM GRAPHICS.

1.5. BUILDING HEATING PUMP CONTROL

1.5.1. MODULATE BUILDING HEATING PUMP VFD SPEED TO MAINTAIN THE DIFFERENTIAL PRESSURE SIGNAL (BLRG_DIFF_P) AT SET POINT (BLRG_DIFF_P_SPT, ADJUSTABLE).

1.6. SET POINTS

1.6.1. WARM WEATHER LOCKOUT SET POINT (WWLO_SPT): 15°C (ADJUSTABLE)

1.6.2. MAIN HEATING WATER SUPPLY TEMPERATURE SET POINT (MHTG_SWT_SPT): PER HOT WATER SUPPLY RESET SCHEDULE ABOVE.

1.6.3. BUILDING HEATING LOOP DIFFERENTIAL PRESSURE (BLRG_DIFF_P_SPT): MATCH EXISTING (ADJUSTABLE).

1.7. SAFETIES

1.7.1. WHEN THE BOILER LEAD PUMP IS COMMANDED ON BY THE BAS, AND NO PROOF IS RECEIVED AFTER 30 SECONDS, THEN THE LEAD PUMP SHALL BE COMMANDED OFF AND A MAINTENANCE ALARM SHALL BE GENERATED. THE LAG PUMP SHALL START ON FAILURE OF THE LEAD PUMP. IF THE LAG PUMP ALSO FAILS, THEN A CRITICAL ALARM SHALL BE GENERATED.

1.7.2. A MANUAL RESET IN PROGRAMMING SHALL BE PROVIDED TO RELEASE ALL PUMPS FROM EMERGENCY STATUS AND RETURN TO NORMAL STATUS AND RESTART LEAD/LAG SEQUENCE.

1.8. ALARMS

1.8.1. CRITICAL

1.8.1.1. LOW BOILER TEMP (MHTG_SWT<35°C WHEN OAT<5°C)

1.8.2. ENVIRONMENTAL

1.8.2.1. MHTG_SWT

1.8.2.1.1. HIGH LIMIT

1.8.2.2. MHTG_RWT

1.8.2.2.1. LOW LIMIT

1.8.2.3. PUMP COMMAND OFF - STATUS ON

1.8.2.4. BOILER COMMAND OFF - STATUS ON

1.8.3. MAINTENANCE

1.8.3.1. BOILER ALARM

1.8.3.2. BOILER COMMAND ON - STATUS OFF

1.8.3.3. PUMP COMMAND ON - STATUS OFF

1.8.4. ENERGY ALARMS

1.8.4.1. BOILER CYCLES MORE THAN 4 TIMES/HOUR (ADJUSTABLE)

1.8.4.2. MINIMUM BOILER OPERATING TIME <5 MINUTES (ADJUSTABLE)

1.8.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

1.9. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

1.9.1. CALENDAR OPERATING SCHEDULE

1.9.2. OUTDOOR/SUPPLY WATER RESET SCHEDULE PARAMETERS

1.9.3. LEAD BOILER MINIMUM RUN TIME

1.9.4. BOILER STAGING DIFFERENTIAL SET POINTS AND LEAD/LAG BOILER TIME DELAYS

1.9.5. WARM WEATHER LOCKOUT SET POINT AND DIFFERENTIAL

1.9.6. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 1.8. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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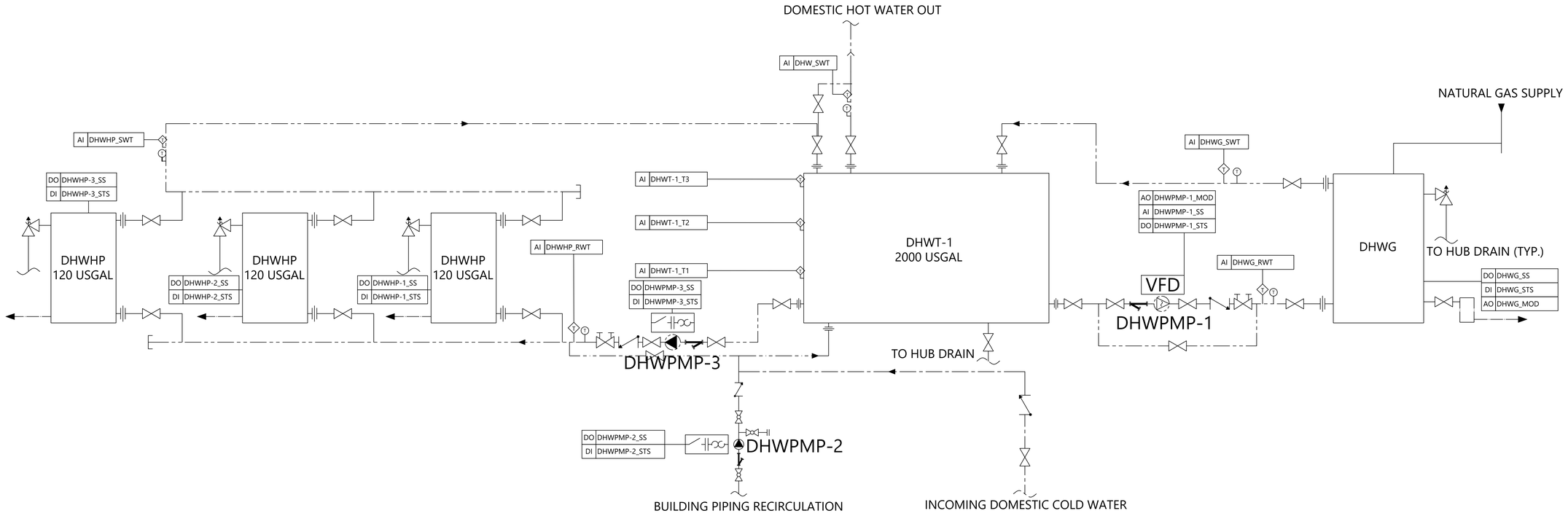
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
HEATING WATER BOILER BAS SCHEMATIC

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M400	E



DOMESTIC HOT WATER BAS SCHEMATIC

DHW POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU08	Mechanical Room 2027	DHWHP-1_SS	DHW Heat Pump 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU08	Mechanical Room 2027	DHWHP-1_STS	DHW Heat Pump 1 Status	DI	1	Electric Current Switches	1	
RPU08	Mechanical Room 2027	DHWHP-2_SS	DHW Heat Pump 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU08	Mechanical Room 2027	DHWHP-2_STS	DHW Heat Pump 2 Status	DI	1	Electric Current Switches	1	
RPU08	Mechanical Room 2027	DHWHP-3_SS	DHW Heat Pump 3 Start/Stop	DO	1	Relays - Control Relay	1	
RPU08	Mechanical Room 2027	DHWHP-3_STS	DHW Heat Pump 3 Status	DI	1	Electric Current Switches	1	
RPU08	Mechanical Room 2027	DHWPMP-3_SS	DHW Heat Pump Circulation Pump Start/Stop	DO	1	Relays - Control Relay	1	
RPU08	Mechanical Room 2027	DHWPMP-3_STS	DHW Heat Pump Circulation Pump Status	DI	1	Electric Current Switches	1	
RPU08	Mechanical Room 2027	DHWG_SS	DHW Gas Boiler Start/Stop	DO	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWG_STS	DHW Gas Boiler Status	DI	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWG_MOD	DHW Gas Boiler Modulate	AO	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWPMP-2_SS	DHW Recirculation Pump Start/Stop	DO	1	Relays - Control Relay	1	
RPU08	Mechanical Room 2027	DHWPMP-2_STS	DHW Recirculation Pump Status	DI	1	Electric Current Switches	1	
RPU08	Mechanical Room 2027	DHWPMP-1_SS	DHW Gas Boiler Pump Start/Stop	DO	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWPMP-1_STS	DHW Gas Boiler Pump Speed Status	AI	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWPMP-1_MOD	DHW Gas Boiler Pump VFD Modulate	AO	1	Equipment Termination		
RPU08	Mechanical Room 2027	DHWT-1_T1	DHW Tank 1 Low Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWT-1_T2	DHW Tank 1 Mid Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWT-1_T3	DHW Tank 1 High Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHW_SWT	DHW Building Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWHP_RWT	DHW Heat Pumps Return Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWHP_SWT	DHW Heat Pumps Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWG_RWT	DHW Gas Boiler Return Water Temperature	AI	1	Temperature Transmitter - Liquid	1	
RPU08	Mechanical Room 2027	DHWG_SWT	DHW Gas Boiler Supply Water Temperature	AI	1	Temperature Transmitter - Liquid	1	

2. DOMESTIC HOT WATER SEQUENCES

2.1. GENERAL

2.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

2.2. CONTROL

2.2.1. DHWPMP-2 OPERATES CONTINUOUSLY.

2.2.2. DHWPMP-3 OPERATES AS LONG AS ANY NUMBER OF DHWHP ARE OPERATING.

2.2.3. DHWHP-1, DHWHP-2, AND DHWHP-3 ARE CONTROLLED INTERNALLY. BAS MONITORS STATUS AND CAN START/STOP UNITS.

2.2.4. IF DHW_SWT FALLS BELOW DHW_SWT_SPT FOR 5 MINUTES (ADJUSTABLE), ENABLE DHWPMP-1 AND DHWG AND MODULATE BOTH TO MAINTAIN DHW_SWT AT SET POINT (DHW_SWT_SPT). MODULATE DHWPMP-1 VFD SPEED ACCORDING TO BOILER FLOW REQUIRED FOR TEMPERATURE RISE REQUIRED. DISABLE DHWPMP-1 AND DHWG WHEN SET POINT HAS BEEN MAINTAINED AND DHWG OPERATING AT LOWEST FIRING RATE FOR 5 MINUTES (ADJUSTABLE). PRIORITIZE DHWHP HEATING.

2.2.5. BAS MONITORS ALL TEMPERATURES.

2.3. SET POINTS

2.3.1. DHW SUPPLY WATER TEMPERATURE SET POINT (DHW_SWT_SPT): 60°C (ADJUSTABLE).

2.4. SAFETIES

2.4.1. DHWG HIGH WATER TEMPERATURE SWITCH.

2.4.2. DHWG HIGH GAS PRESSURE SWITCH.

2.4.3. DHWG LOW GAS PRESSURE SWITCH.

2.4.4. DHWG LOW WATER CUTOFF SWITCH.

2.4.5. DHWG SAFETY SHUT-OFF VALVE PROOF OF CLOSURE SWITCH.

2.4.6. DHWG BLOWER PROOF SWITCH.

2.4.7. DHWG BLOCKED INLET SWITCH.

2.5. ALARMS

2.5.1. CRITICAL

2.5.1.1. DHW_SWT>65°C

2.5.1.2. DHW_SWT<55°C

2.5.2. ENVIRONMENTAL

2.5.2.1. DHWHP COMMAND OFF - STATUS ON

2.5.2.2. DHWG COMMAND OFF - STATUS ON

2.5.2.3. PUMP COMMAND OFF - STATUS ON

2.5.3. MAINTENANCE

2.5.3.1. DHWG ALARM

2.5.3.2. DHWHP COMMAND ON - STATUS OFF

2.5.3.3. DHWG COMMAND ON - STATUS OFF

2.5.3.4. PUMP COMMAND ON - STATUS OFF

2.5.4. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

2.6. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

2.6.1. WATER TEMPERATURE SET POINTS

2.6.2. DHWG STAGING TIME DELAYS

2.6.3. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 2.5. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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687 Barton Street, Suite 106
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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

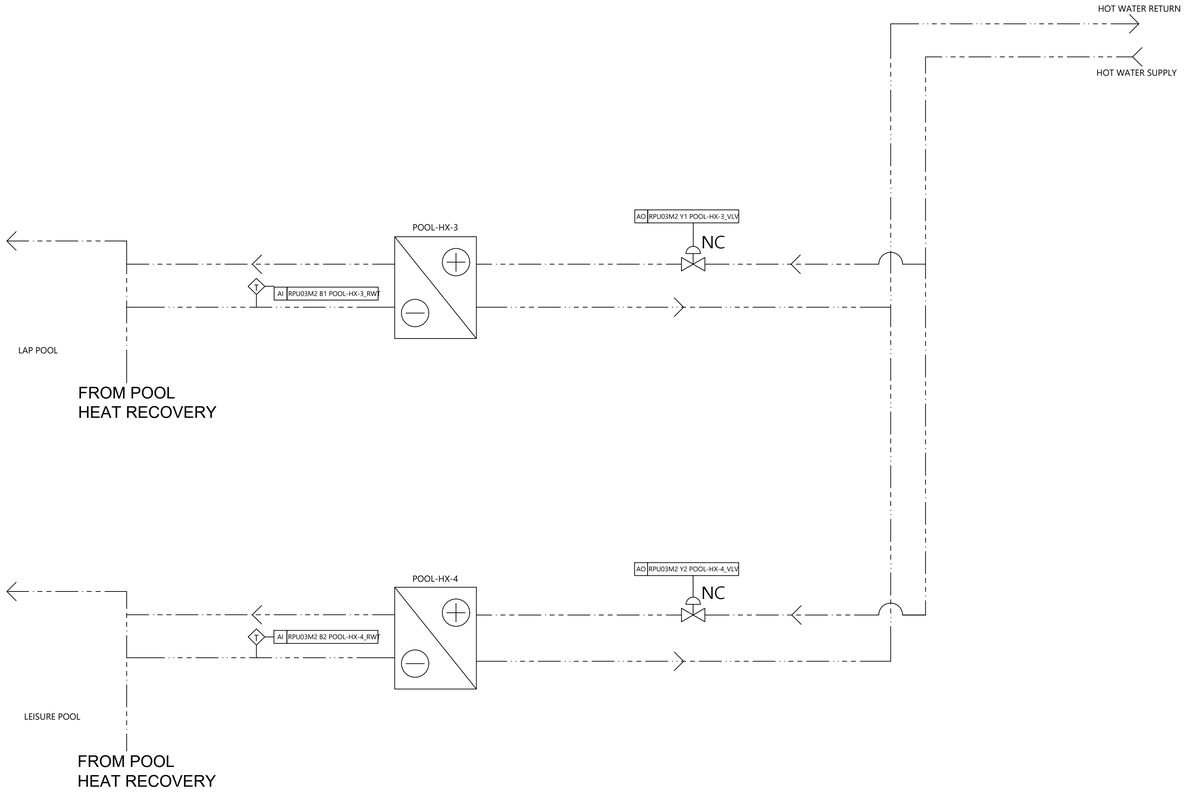
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
HOT WATER BOILER AND TANK BAS SCHEMATIC

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M401	E



POOL HEAT EXCHANGERS BAS SCHEMATIC

POOL HEAT EXCHANGERS POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU03M2	Mechanical Room 2025	POOL-HX-4_RWT	Heat Exchanger 4 RWT	AI	1	Temperature Transmitter - Liquid	1	
RPU03M2	Mechanical Room 2025	POOL-HX-3_RWT	Heat Exchanger 3 RWT	AI	1	Temperature Transmitter - Liquid	1	
RPU03M2	Mechanical Room 2025	POOL-HX-4_VLV	Leisure Pool POOL-HX-4 Valve (0=close 100=open)	AO	1	Actuators - Electric	1	
RPU03M2	Mechanical Room 2025	POOL-HX-3_VLV	Lap Pool POOL-HX-3 Valve (0=close 100=open)	AO	1	Actuators - Electric	1	

3. POOL HEAT EXCHANGER SEQUENCES

3.1. GENERAL

3.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

3.2. CONTROL

3.2.1. MODULATE POOL-HX-3_VLV TO MAINTAIN POOL-HX-3_RWT AT SET POINT (POOL-HX-3_RWT_SPT).

3.2.2. MODULATE POOL-HX-4_VLV TO MAINTAIN POOL-HX-4_RWT AT SET POINT (POOL-HX-4_RWT_SPT).

3.3. SETPOINTS

3.3.1. HEAT EXCHANGER 3 RETURN WATER TEMPERATURE SET POINT (POOL-HX-3_RWT_SPT): 30°C (ADJUSTABLE).

3.3.2. HEAT EXCHANGER 4 RETURN WATER TEMPERATURE SET POINT (POOL-HE-4_RWT_SPT): 40°C (ADJUSTABLE).

3.4. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

3.4.1. RETURN WATER TEMPERATURE SET POINTS (POOL-HX-3_RWT_SPT AND POOL-HX-4_RWT_SPT).

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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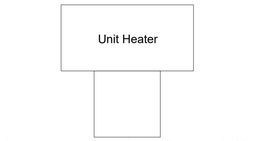
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

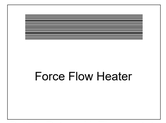
TITLE: MECHANICAL
POOL HEAT EXCHANGERS BAS SCHEMATIC

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JW	JD

PROJECT NO:	DRAWING NO:	REVISION:
25490	M402	E

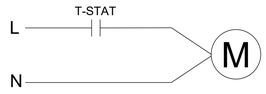


Stand Alone with Line Voltage Thermostat 120V
Typical of 5.

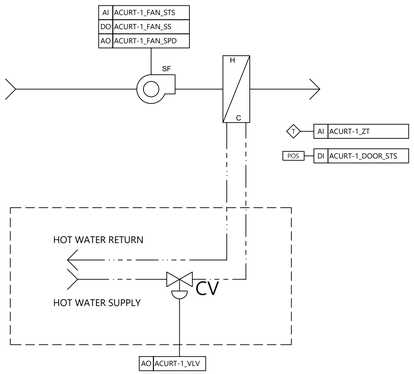


Built in Return Air Thermostat.
Typical of FFH-2,3,4,5,6.

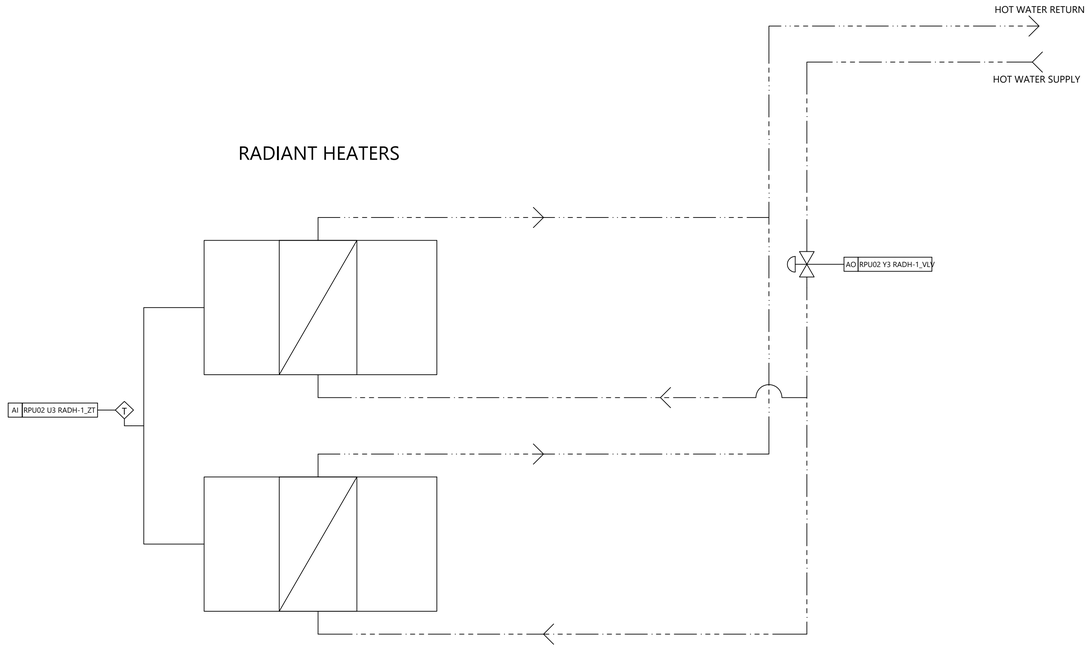
FORCE FLOW HEATER BAS SCHEMATIC (TYPICAL)



UNIT HEATER BAS SCHEMATIC (TYPICAL)



AIR CURTAIN BAS SCHEMATIC



RADIANT HEAT PANELS BAS SCHEMATIC

4. UNIT HEATERS & FORCE FLOW HEATERS SEQUENCES

4.1. GENERAL

4.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

4.2. CONTROL

4.2.1. UNIT HEATERS AND FORCE FLOW HEATERS ARE INDEPENDENTLY CONTROLLED VIA A LINE VOLTAGE THERMOSTAT.

5. AIR CURTAIN SEQUENCES

5.1. GENERAL

5.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

5.2. START/STOP

5.2.1. WHEN HEATING PLANT IS ENABLED, FULLY OPEN ACURT-1_VLV. WHEN HEATING PLANT IS DISABLED, FULLY CLOSE ACURT-1_VLV.
5.2.2. ENABLE AIR CURTAIN UPON ACURT-1_DOOR_STS OPEN OR UPON ACURT-1_ZT FALLING BELOW SET POINT (ACURT-1_ZT_SPT).
5.2.3. DISABLE AIR CURTAIN UPON ACURT-1_DOOR_STS CLOSED, TIME DELAY HAS EXPIRED, AND ACURT-1_ZT IS ABOVE SET POINT (ACURT-1_ZT_SPT).

5.3. CONTROL

5.3.1. WHEN AIR CURTAIN IS ENABLED, MODULATE FAN SPEED TO MAINTAIN ZONE TEMPERATURE AT SET POINT (ACURT-1_ZT_SPT).

5.4. SET POINTS

5.4.1. AIR CURTAIN ZONE TEMPERATURE SETPOINT (ACURT-1_ZT_SPT): 18°C (ADJUSTABLE).

5.5. ALARMS

5.5.1. CRITICAL
5.5.1.1. LOW SPACE TEMPERATURE
5.5.2. ENVIRONMENTAL
5.5.2.1. SUPPLY FAN COMMAND OFF - STATUS ON
5.5.3. MAINTENANCE
5.5.3.1. SUPPLY FAN COMMAND ON - STATUS OFF
5.5.2.2. SPACE TEMPERATURE GREATER THAN 2°C ABOVE/BELOW SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

5.6. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

5.6.1. ZONE TEMPERATURE SET POINT
5.6.2. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED 5.5. ALARMS)

6. RADIANT HEAT PANEL SEQUENCES

6.1. GENERAL

6.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

6.2. CONTROL

6.2.1. MODULATE RADH-1_VLV TO MAINTAIN SPACE TEMPERATURE AT SET POINT (RADH-1_ZT_SPT).

6.3. SET POINTS

6.3.1. RADIANT HEAT PANEL SPACE TEMPERATURE SET POINT (RADH-1_ZT_SPT): 23°C (ADJUSTABLE).

6.4. ALARMS

6.4.1. CRITICAL
6.4.1.1. LOW SPACE TEMPERATURE
6.4.2. MAINTENANCE
6.4.2.1. SPACE TEMPERATURE GREATER THAN 2°C ABOVE/BELOW SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

6.5. ADJUSTABLE POINTS (TO BE DISPLAYED ON THE SYSTEM SETTINGS PAGE)

6.5.1. SPACE TEMPERATURE SET POINT (RADH-1_ZT_SPT).
6.5.2. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 6.4. ALARMS)

AIR CURTAIN POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
TBD	TBD	ACURT-1_FAN_STS	Air Curtain Supply Fan Speed Status	AI	1	Equipment Termination		
TBD	TBD	ACURT-1_FAN_SS	Air Curtain Supply Fan Start/Stop	DO	1	Equipment Termination		
TBD	TBD	ACURT-1_FAN_SPD	Air Curtain Supply Fan Speed	AO	1	Equipment Termination		
TBD	TBD	ACURT-1_VLV	Air Curtain Valve	AO	1	Actuators - Electric	1	
TBD	TBD	ACURT-1_ZT	Air Curtain Zone Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
TBD	TBD	ACURT-1_DOOR_STS	Air Curtain Door Status	DI	1	Position Switch - Surface - Operable Opening	1	

RADIANT HEAT PANEL POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU02	Mechanical Room 2025	RADH-1_VLV	Radiant Heaters Valve	AO	1	Actuators - Electric	1	
RPU02	Mechanical Room 2025	RADH-1_ZT	Radiant Heaters Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	

REV.	DESCRIPTION	DATE
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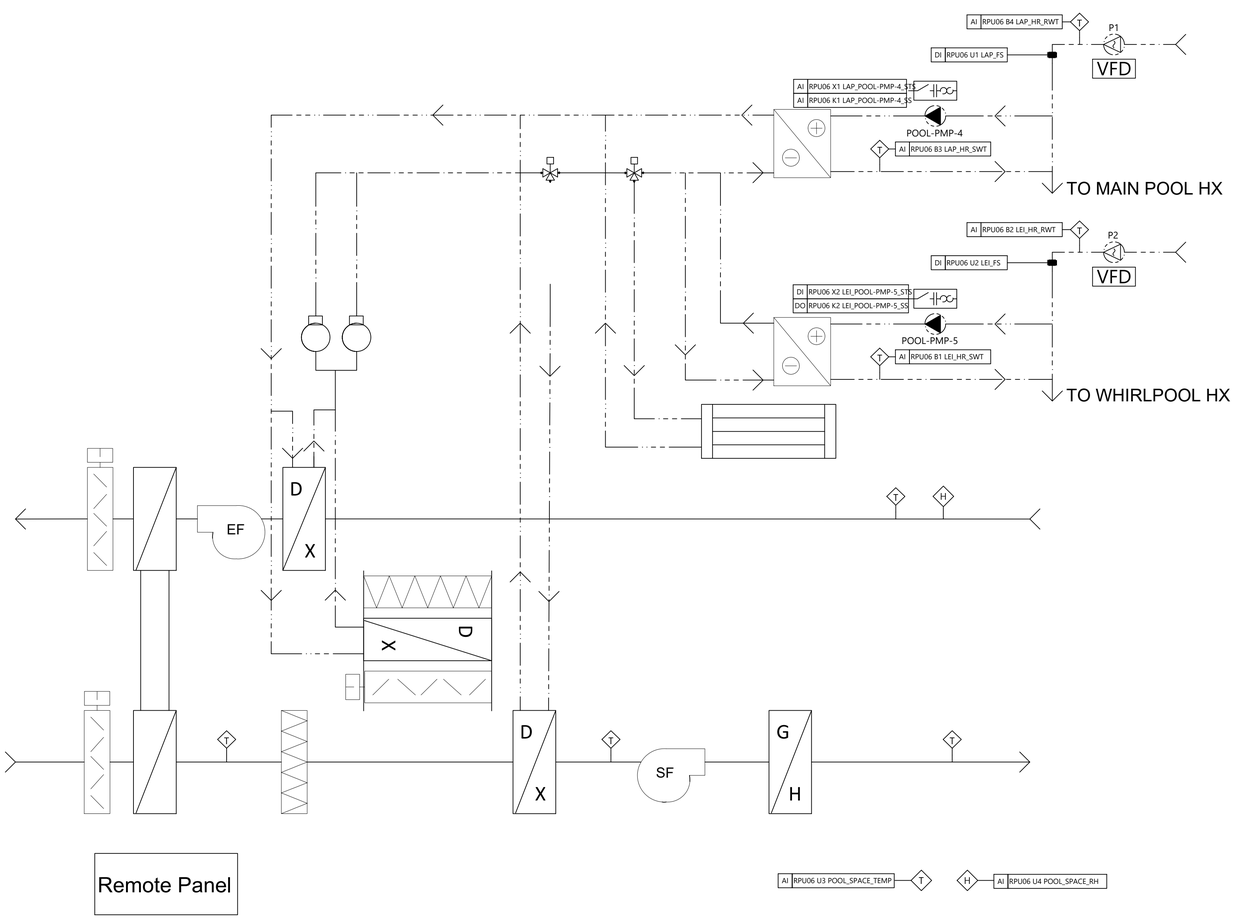
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
HEATING TERMINAL EQUIPMENT BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M403	E



POOL DEHUMDIFICATION BAS SCHEMATIC

POOL DEHUMIDIFICATION POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU06	Basement Level	POOL_SPACE_RH	Pool Space Relative Humidity	AI	1	Temperature and Humidity Transmitters - Air - Zone	1	
RPU06	Basement Level	POOL_SPACE_TEMP	Pool Space Temperature	AI	1	Temperature and Humidity Transmitters - Air - Zone	Incl. Above	Combined with RH above
RPU06	Basement Level	LEI_POOL-PMP-5_STS	Leisure Pool POOL-PMP-5 Status	DI	1	Electric Current Switches	1	
RPU06	Basement Level	LAP_POOL-PMP-4_STS	Lap Pool POOL-PMP-4 Status	DI	1	Electric Current Switches	1	
RPU06	Basement Level	LAP_HR_RWT	Lap Pool Heat Reclaim Return Water Temp.	AI	1	Temperature Transmitter - Liquid	1	
RPU06	Basement Level	LAP_HR_SWT	Lap Pool Heat Reclaim Supply Water Temp.	AI	1	Temperature Transmitter - Liquid	1	
RPU06	Basement Level	LEI_HR_RWT	Leisure Pool Heat Reclaim Return Water Temp.	AI	1	Temperature Transmitter - Liquid	1	
RPU06	Basement Level	LEI_HR_SWT	Leisure Pool Heat Reclaim Supply Water Temp.	AI	1	Temperature Transmitter - Liquid	1	
RPU06	Basement Level	LEI_FS	Leisure Pool P2 Flow Switch	DI	1	Flow Switches - Liquid - Thermal Dispersion	1	
RPU06	Basement Level	LAP_FS	Lap Pool P1 Flow Switch	DI	1	Flow Switches - Liquid - Thermal Dispersion	1	
RPU06	Basement Level	LEI_POOL-PMP-5_SS	Leisure Pool POOL-PMP-5 Start/Stop	DO	1	Relays - Control Relay	1	
RPU06	Basement Level	LAP_POOL-PMP-4_SS	Lap Pool POOL-PMP-4 Start/Stop	DO	1	Relays - Control Relay	1	

7. POOL DEHUMIDIFICATION SEQUENCES

7.1. GENERAL

7.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

7.2. POOL DEHUMIDIFIER (POOL-DH-1) CONTROL

7.2.1. THE POOL DEHUMIDIFIER (POOL-DH-1) IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND MONITORS THE FOLLOWING POINTS:

- 7.2.1.1. RETURN AIR TEMPERATURE
- 7.2.1.2. RETURN AIR HUMIDITY
- 7.2.1.3. SUPPLY FAN STATUS
- 7.2.1.4. EXHAUST FAN STATUS
- 7.2.1.5. PREHEATED (RECOVERY) INTAKE TEMPERATURE
- 7.2.1.6. SUPPLY AIR TEMPERATURE
- 7.2.1.7. HEAT RECOVERY STATUS

7.3. POOL WATER HEAT RECOVERY CONTROL

7.3.1. WHEN POOL-DH-1 HEAT RECOVERY STATUS IS ON, ENABLE PUMPS POOL-PMP-4 AND POOL-PMP-5 TO RUN CONTINUOUSLY.
7.3.2. WHEN POOL-DH-1 HEAT RECOVERY STATUS IS OFF, DISABLE PUMPS POOL-PMP-4 AND POOL-PMP-5.
7.3.3. DISABLE PUMP POOL-PMP-4 UPON RECEIVING A FLOW LOSS SIGNAL FROM LAP_FS (TYPICALLY DURING A BACK WASH CYCLE).
7.3.4. DISABLE PUMP P5 UPON RECEIVING A FLOW LOSS SIGNAL FROM LEI_FS (TYPICALLY DURING A BACK WASH CYCLE).
7.3.5. LAP_HR_SWT AND LEI_HR_SWT ARE MONITORED BY THE BAS.

7.4. SET POINTS

7.4.1. MAIN POOL FLOW SWITCH POINT (LAP_FS_SPT): MATCH EXISTING.
7.4.2. WHIRLPOOL FLOW SWITCH POINT (LEI_FS_SPT): MATCH EXISTING.

7.5. ALARMS

7.5.1. CRITICAL
- 7.5.1.1. LAP_HR_RWT OR LEI_HR_RWT LESS THAN 20°C (ADJUSTABLE).
- 7.5.1.2. POOL_SPACE_RH GREATER THAN 75%RH (ADJUSTABLE).

7.5.2. WARNING
- 7.5.2.1. HEATING OR COOLING COMMANDED ON BUT STATUS NOT RECEIVED.
- 7.5.2.2. POOL_SPACE_RH DIFFERING BY MORE THAN 20%RH (ADJUSTABLE) FROM POOL_SPACE_RH_SPT (15 MINUTE DELAY, ADJUSTABLE).
- 7.5.2.3. LAP_HR_RWT GREATER THAN 35°C (ADJUSTABLE).
- 7.5.2.4. LEI_HR_RWT GREATER THAN 45°C (ADJUSTABLE).

7.5.3. ENVIRONMENTAL
- 7.5.3.1. PUMP COMMAND OFF - STATUS ON.

7.5.4. MAINTENANCE
- 7.5.4.1. PUMP COMMAND ON - STATUS OFF.

7.5.5. ENERGY ALARMS
- 7.5.5.1. POOL-DH-1 HEAT RECOVERY NOT ACTIVE.

7.6. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

7.6.1. ALARM SETTINGS (SETPOINTS AND TIME DELAY PARAMETERS AS NOTED IN 7.5. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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SEAL SEAL

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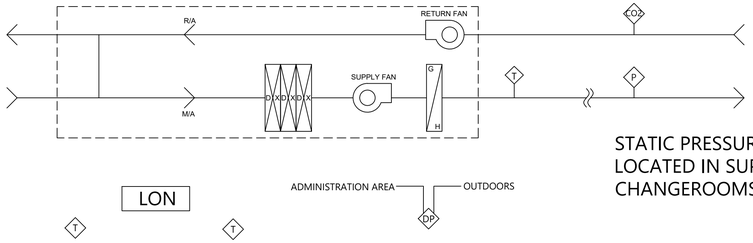
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
POOL DEHUMIDIFICATION BAS SCHEMATIC

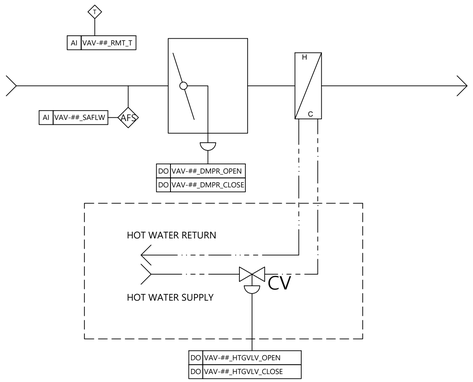
SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M404	E

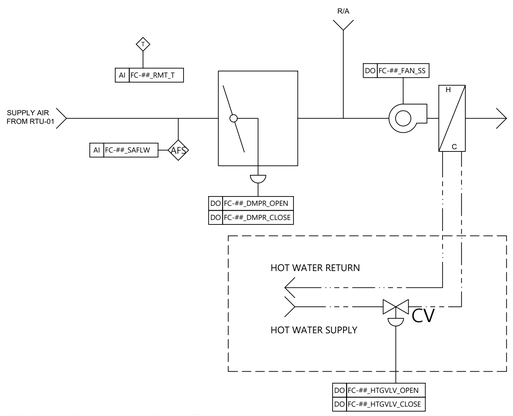


STATIC PRESSURE SENSOR IS LOCATED IN SUPPLY AIR DUCT OVER CHANGEROOMS ON FIRST FLOOR

ROOFTOP UNIT 1 BAS SCHEMATIC



VAV## BOX BAS SCHEMATIC



FPB## BAS SCHEMATIC

8. VAV BOX AND FPB SEQUENCES

8.1. GENERAL

8.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

8.1.2. THE VAV/FPB TERMINAL CONTROLLER AND ROOM SENSOR SHALL BE EQUIPPED WITH WARMER/COOLER SET POINT ADJUSTMENT AND OVERRIDE BUTTON.

8.1.3. EACH ROOM (OR ZONE) SHALL ALLOW A FIXED RANGE OF SET POINT ADJUSTMENT 20°C TO 24°C (MAX RANGE +/-2°C FROM SET POINT). THE BAS SHALL ADJUST THE RANGE, OR THE USER MAY ADJUST, WITHIN THIS RANGE, VIA THE "WARMER/COOLER" SELECTOR ON THE THERMOSTAT.

8.1.4. EACH ROOM SHALL HAVE THE CAPABILITY OF AN INDIVIDUAL OCCUPIED/UNOCCUPIED SCHEDULE, WHICH MAY BE DIFFERENT FROM THE AHU SCHEDULE, EXCEPT THAT WHEN AHU IS IN UNOCCUPIED OPERATION MODE; ALL ROOMS MUST ALSO BE IN UNOCCUPIED MODE.

8.1.5. ALL THERMOSTATS SHALL HAVE AN OCCUPANCY OVERRIDE BUTTON. THE BAS SHALL ENABLE THE OVERRIDE BUTTON FEATURE ON AN OWNER DEFINED BASIS, SO THAT ONLY OWNER APPROVED ROOMS AND OFFICES CAN UTILIZE THE OVERRIDE BUTTON FEATURE.

8.1.6. A NUMBER OF ROOMS AND OFFICES SHOULD BE IN OCCUPIED MODE TO ASSURE THAT WHEN AHU IS ENERGIZED IT IS MEETING THE MANUFACTURER'S MINIMUM AIRFLOW REQUIREMENTS.

8.2. OCCUPIED OPERATION MODE

8.2.1. THE VAV/FPB TERMINAL EQUIPMENT CONTROLLED (TEC) SHALL MEASURE THE ROOM TEMPERATURE AND INLET DUCT VELOCITY AND MODULATE THE VAV/FPB CONTROL DAMPER THROUGH CONTROL LOGIC TO CLOSE THE VOLUME DAMPER ON DECREASING ROOM TEMPERATURE AND OPEN THE DAMPER ON INCREASING ROOM TEMPERATURE TO MAINTAIN ROOM TEMPERATURE SET POINT WHILE PROVIDING PRESSURE INDEPENDENT OPERATION.

8.2.2. FOR VAV/FPB WITH HEATING COILS, WHEN THE MINIMUM PRIMARY AIR VOLUME IS REACHED AND THE ROOM TEMPERATURE CONTINUES TO FALL BELOW THE HEATING SET POINT, THE HEATING VALVE SHALL START MODULATION TO 100% AND THEN VAV/FPB WILL MODULATE THE CONTROL DAMPER TO INCREASE THE PRIMARY AIR VOLUME IN ORDER TO MEET THE HEATING SET POINT.

8.2.3. VAV/FPB BOX MAX AND MIN AIRFLOW SETTINGS SHALL BE PER SCHEDULES ON THE DRAWINGS AND VERIFIED BY THE TAB AGENT IN COORDINATION WITH BAS CONTRACTOR.

8.2.4. FPB FAN SHALL BE ENABLED WHEN FPB IS OPERATING.

8.3. UNOCCUPIED OPERATION MODE

8.3.1. THE AHU SHALL BE DE-ENERGIZED. THE VAV/FPB DDC CONTROLLER SHALL SWITCH TO THE UNOCCUPIED HEATING OR COOLING SET POINT OF 18°C OR 26.5°C, RESPECTIVELY (ADJUSTABLE), AND THE VAV/FPB VOLUME DAMPERS SHALL BE CLOSED TO A MINIMUM POSITION.

8.3.2. IF THE SPACE TEMPERATURE FALLS OUTSIDE THE UNOCCUPIED RANGE, THE AHU MAY BE ACTIVATED. WHEN THE UNOCCUPIED HEATING MODE IS INITIATED AT THE AHU, THE VAV/FPB DDC CONTROLLER WILL MEASURE ROOM TEMPERATURE AND INLET DUCT VELOCITY AND SHALL MODULATE THE VAV/FPB VOLUME DAMPER THROUGH CONTROL LOGIC TO OPEN THE DAMPER ON DECREASING ROOM TEMPERATURE AND CLOSE THE DAMPER ON INCREASING ROOM TEMPERATURE. OTHERWISE THE VAV/FPB SHALL OPERATE SIMILAR TO OCCUPIED MODE.

8.3.3. FPB FAN SHALL BE ENABLED WHEN FPB IS OPERATING.

8.4. MORNING START-UP

8.4.1. UPON INITIATION OF MORNING START-UP, ROOM SET POINTS ARE RETURNED TO OCCUPIED MODE. IF THE BAS DETERMINES THE NEED FOR MORNING WARM UP, ALL VAV/FPB CONTROL DAMPERS SHALL BE SET TO 50% OPEN AND THE ROOM TEMPERATURE SENSORS SHALL BE SWITCHED TO THE OCCUPANCY MODE. IF THE BAS DETERMINES THE NEED FOR MORNING COOL-DOWN OR RECIRCULATION, THE VAV BOXES SHALL OPERATE SIMILAR TO OCCUPIED MODE.

8.6. ALARMS

8.6.1. CRITICAL
- 8.6.1.1. LOW SPACE TEMPERATURE

8.6.2. ENVIRONMENTAL
- 8.6.2.1. DISCHARGE AIR, AND SPACE TEMPERATURE; HIGH AND LOW LIMITS

8.6.3. MAINTENANCE
- 8.6.3.1. DISCHARGE AIR GREATER THAN 3°C (ADJUSTABLE) ABOVE SET POINT FOR MORE THAN 2 MINUTES (ADJUSTABLE) - APPLIES TO UNITS WITH REHEAT COILS
- 8.6.3.2. SPACE TEMPERATURE GREATER THAN 2°C ABOVE/BELOW SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)
- 8.6.3.3. AIRFLOW HIGHER/LOWER BY 5% (ADJUSTABLE) OF AIRFLOW SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

8.6.4. ENERGY ALARMS
- 8.6.4.1. DURING OCCUPIED MODE, CONTROL DAMPER COMMAND AT 100% FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

8.7. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

8.7.1. UNOCCUPIED HEATING/COOLING SET POINTS

8.7.2. OCCUPIED/UNOCCUPIED MAX/MIN AIRFLOW SETTINGS

8.7.3. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 8.6. ALARMS)

VAV BOX POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
102AX (VAV)		VAV-##_RMT_T	VAV Box Space Temp	AI	15	Temperature Transmitter - Air - Zone	15	Device shared for VAV-12,14.
102AX (VAV)		VAV-##_SAFLW	Airflow Sensor	AI	16	Flow Transmitter - Air - Duct	16	
102AX (VAV)		VAV-##_HTGVLV_CLOSE	H2 Aux/Heat Relay Load (Decrease)	DO	16	Actuators - Electric	16	
102AX (VAV)		VAV-##_HTGVLV_OPEN	H1 Aux/Heat Relay Load (Increase)	DO	16	Actuators - Electric	Incl. Above	Combined W/ above device
102AX (VAV)		VAV-##_DMPR_OPEN	Damper Open	DO	16	Actuators - Electric	16	
102AX (VAV)		VAV-##_DMPR_CLOSE	Damper Close	DO	16	Actuators - Electric	Incl. Above	Combined W/ above device

FPB POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
102AX (FPB)		FC-##_RMT_T	FC Space Temp	AI	2	Temperature Transmitter - Air - Zone	2	
102AX (FPB)		FC-##_SAFLW	Airflow Sensor	AI	2	Flow Transmitter - Air - Duct	2	
102AX (FPB)		FC-##_HTGVLV_CLOSE	H2 Aux/Heat Relay Load (Decrease)	DO	2	Actuators - Electric	2	
102AX (FPB)		FC-##_HTGVLV_OPEN	H1 Aux/Heat Relay Load (Increase)	DO	2	Actuators - Electric	Incl. Above	Combined W/ above device
102AX (FPB)		FC-##_DMPR_OPEN	Damper Open	DO	2	Actuators - Electric	2	
102AX (FPB)		FC-##_DMPR_CLOSE	Damper Close	DO	2	Actuators - Electric	Incl. Above	Combined W/ above device
102AX (FPB)		FC-##_FAN_SS	Fan Start/Stop	DO	2	Relays - Control Relay	2	

9. RTU-01 SEQUENCES

9.1. GENERAL

9.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

9.1.2. RTU-01 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:
- 9.1.2.1. MONITOR CONTROLLER INPUTS, OUTPUTS, SET POINTS, PARAMETERS AND ALARMS.
- 9.1.2.2. SET CONTROLLER SET POINTS AND PARAMETERS.
- 9.1.2.3. CLEAR ALARMS.
- 9.1.2.4. RESET THE COOLING AND HEATING DISCHARGE AIR TEMPERATURE SET POINT (VAV AND CAV-DTC UNITS).
- 9.1.2.5. RESET THE DUCT STATIC PRESSURE SET POINT (VAV UNITS).
- 9.1.2.6. SET THE HEAT/COOL CHANGEOVER TEMPERATURE (VAV AND CAV-DTC UNITS).
- 9.1.2.7. SET THE REPRESENTATIVE ZONE TEMPERATURE (CAV ZTC UNITS).

9.2. START/STOP

9.2.1. THE BAS SHALL ENABLE THE FAN SYSTEM TO START WHEN COMMANDED ON THROUGH EITHER MSOSx OR OTHER SPECIFIED MODES OF OPERATION (NIGHT SETBACK, NIGHT PURGE, MORNING WARM-UP, PROGRAMMED EVENTS). WHEN COMMANDED ON, SUPPLY FAN SHALL START FIRST. ONCE THE SUPPLY FAN STATUS IS PROVEN ON, THE BAS SHALL ALLOW APPLICATION OF THE SPECIFIED MIXED AIR, HEATING AND COOLING SEQUENCES.

9.2.2. WHEN THE BAS SENDS THE SIGNAL TO STOP; THE SUPPLY FAN SHALL STOP, AND THE HEATING AND COOLING COILS SHALL BE COMMANDED OFF.

9.3. TEMPERATURE CONTROL

9.3.1. THE OEMASC SHALL SEQUENCE THE HEATING COIL, COOLING COIL AND MIXED AIR DAMPER TO MAINTAIN ZONE TEMPERATURE COOLING AND HEATING SET POINTS.

9.3.2. IF THE SPACE TEMPERATURE ASSOCIATED WITH THE ZONE CONTROL IS ALSO CONTROLLING A RADIATION VALVE FOR THE SAME AREA, THE BAS SHALL MODULATE FIRST THE HEATING COIL TO 100% HEAT POSITION. IF THE HEATING SET POINT IS NOT SATISFIED, THE BAS SHALL START TO MODULATE THE RADIATION VALVE TO MEET THE HEATING REQUIREMENTS.

9.4. COLD WEATHER COOLING LOCKOUT

9.4.1. WHEN OUTDOOR AIR TEMPERATURE IS LESS THAN THE COLD WEATHER COOLING LOCKOUT SET POINT, MECHANICAL COOLING SHALL BE LOCKED OUT.

9.4.2. MECHANICAL COOLING SHALL ALSO BE LOCKED OUT DURING SUMMER OPERATION UNLESS REQUIRED BY EVENT PROGRAMMING.

9.5. MIXED AIR CONTROL

9.5.1. DURING OCCUPIED OPERATION, THE ON-BOARD OEMASC SHALL OPEN THE MIXING DAMPERS TO ACHIEVE A MINIMUM VENTILATION SETTING AND THEN SHALL MODULATE THE DAMPERS AS REQUIRED TO ACHIEVE THE ECONOMIZER CONTROL STRATEGY.

9.5.2. THE OEMASC SHALL USE ITS OWN ALGORITHM TO DETERMINE WHEN TO ACTIVATE THE ECONOMIZER CONTROL STRATEGY. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZER SET POINT (ECON_SPT), MECHANICAL COOLING SHALL BE LOCKED OUT AND THE MIXING DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT (WITH A MIXED/SUPPLY AIR LOW LIMIT OF 6°C). WHEN THE OUTDOOR AIR TEMPERATURE RISES ABOVE THE ECONOMIZER SET POINT, THE MIXING DAMPERS SHALL REVERT BACK TO MAINTAINING MINIMUM VENTILATION SETTINGS AND THE COOLING SHALL BE SEQUENCED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT.

9.6. UNOCCUPIED MODE

9.6.1. WHEN THE RTU IS IN UNOCCUPIED MODE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 10°C, THE BAS SHALL SEND THE NIGHT HEAT COMMAND TO THE OEMASC IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT.

9.6.2. WHEN THE NIGHT HEAT COMMAND IS ENABLED, THE RTU SHALL TURN ON THE FANS WITH THE MIXING DAMPERS IN FULL RE-CIRCULATION MODE AND FULL HEATING ENABLED TO SATISFY THE UNOCCUPIED HEATING SET POINT.

9.6.3. WHEN THE SPACE TEMPERATURE RISES TO UNOCCUPIED HEATING SET POINT +1.5°C (ADJUSTABLE) THE NIGHT HEAT COMMAND SHALL BE DISABLED.

9.7. CO2 CONTROL

9.7.1. THE OEMASC SHALL MONITOR RETURN AIR CO2 LEVELS AND LOWER THE ACTIVE MINIMUM VENTILATION FROM THE (MAXIMUM) MINIMUM VENTILATION OF 25% DOWN TO 0% BASED ON MAINTAIN A MAXIMUM CO2 LEVEL OF 900PPM.

9.7.2. WHEN THE RA CO2<900PPM, THE BAS SHALL REDUCE THE ACTIVE MINIMUM VENTILATION SETTING BY 2% EVERY MINUTE UNTIL REACHING 0% OR UNTIL THE RACO2>900PPM.

9.7.3. WHEN THE RACO2>900PPM THE BAS SHALL INCREASE THE ACTIVE MINIMUM DAMPER POSITION UNTIL REACHING THE (MAXIMUM) MINIMUM VENTILATION SETTING.

9.8. PRESSURIZATION CONTROL

9.8.1. MODULATE OUTDOOR AIR FLOW TO MAINTAIN DIFFERENTIAL PRESSURE SET POINT (DP_SPT). ZONE PRESSURE TO BE POSITIVE IN RELATION TO OUTDOORS.

9.9. SET POINTS

9.9.1. OCCUPIED MODE SET POINTS
- 9.9.1.1. SPACE HEATING SET POINT: 21.5°C (ADJUSTABLE)
- 9.9.1.2. SPACE COOLING SET POINT: 24.5°C (ADJUSTABLE)
- 9.9.1.3. MINIMUM DEAD BAND: 2.5°C (ADJUSTABLE)

9.9.2. UNOCCUPIED MODE SET POINTS
- 9.9.2.1. SPACE HEATING SET POINT: 18°C (ADJUSTABLE)
- 9.9.2.2. SPACE COOLING SET POINT 26°C (ADJUSTABLE)
- 9.9.2.3. MINIMUM DEAD BAND 2.5°C (ADJUSTABLE)

9.9.3. COLD WEATHER COOLING LOCKOUT SET POINT: 15°C (ADJUSTABLE)

9.9.4. ECONOMIZER SET POINT (ECON_SPT): 18°C (ADJUSTABLE)

9.9.5. DIFFERENTIAL PRESSURE SET POINT (DP_SPT): TO BE DETERMINED BY TAB.

9.10. ALARMS

9.10.1. CRITICAL
- 9.10.1.1. LOW ROOM TEMPERATURE

9.10.2. ENVIRONMENTAL
- 9.10.2.1. FAN STATUS ON - COMMAND OFF
- 9.10.2.2. SUPPLY AIR HIGH/LOW LIMITS

9.10.3. MAINTENANCE
- 9.10.3.1. FAN COMMAND ON - STATUS OFF
- 9.10.3.2. HEATING ON & SAT<20°C FOR MORE THAN 5 MIN (ADJUSTABLE)
- 9.10.3.3. COOLING ON & SAT>20°C FOR MORE THAN 5 MIN (ADJUSTABLE)

9.10.4. ENERGY ALARMS
- 9.10.4.1. FAN STATUS ON FOR MORE THAN 2 HOURS CUMULATIVELY (ADJUSTABLE) DURING UNOCCUPIED (NSB) OPERATION.
- 9.10.4.2. FAN SYSTEM OPERATING IN OCCUPIED MODE OUTSIDE OF ORIGINALLY SCHEDULED MSOSx.

9.10.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

9.11. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

9.11.1. CALENDAR OPERATING SCHEDULE

9.11.2. SPACE TEMPERATURE, COLD WEATHER COOLING LOCKOUT, AND ECONOMIZER SET POINTS

9.11.3. NIGHT SETBACK TEMPERATURE

9.11.4. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED 9.10. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

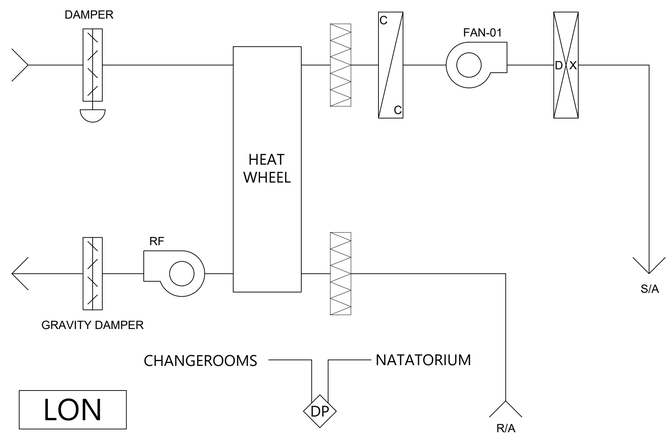
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5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

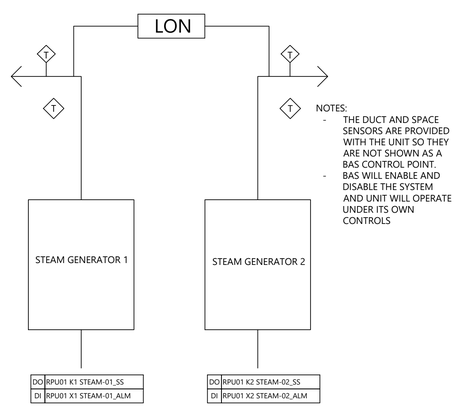
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ROOFTOP UNIT 1 BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

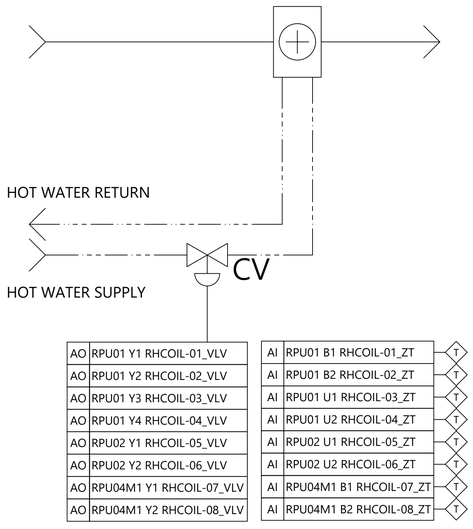
PROJECT NO:	DRAWING NO:	REVISION:
25490	M405	E



ROOFTOP UNIT 2 BAS SCHEMATIC



STEAM GENERATOR BAS SCHEMATIC



REHEAT COILS BAS SCHEMATIC

12. STEAM GENERATOR SEQUENCES

12.1.GENERAL

12.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

12.2.CONTROL

12.2.1. STEAM GENERATOR IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL.

12.2.2. STEAM GENERATORS ARE ENABLED BY THE BAS ON A TIME-OF-DAY SCHEDULE. WHEN ENABLED, THE SYSTEM IS IN STANDBY MODE AND MODULATES VIA INTERNAL CONTROL.

12.2.3. WHEN DISABLED, NO STEAM IS PRODUCED.

12.3.ALARMS

12.3.1. CRITICAL

12.3.1.1. STEAM GENERATOR MALFUNCTION

12.4.ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

12.4.1. CALENDAR OPERATING SCHEDULE

REHEAT COILS POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU01	Mechanical Room 2025	RHCOIL-02_ZT	Reheat 2 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU01	Mechanical Room 2025	RHCOIL-01_ZT	Reheat 1 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU01	Mechanical Room 2025	RHCOIL-04_ZT	Reheat 4 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU01	Mechanical Room 2025	RHCOIL-03_ZT	Reheat 3 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU01	Mechanical Room 2025	RHCOIL-04_VLV	Reheat 4 Valve	AO	1	Actuators - Electric	1	
RPU01	Mechanical Room 2025	RHCOIL-03_VLV	Reheat 3 Valve	AO	1	Actuators - Electric	1	
RPU01	Mechanical Room 2025	RHCOIL-02_VLV	Reheat 2 Valve	AO	1	Actuators - Electric	1	
RPU01	Mechanical Room 2025	RHCOIL-01_VLV	Reheat 1 Valve	AO	1	Actuators - Electric	1	
RPU02	Mechanical Room 2025	RHCOIL-06_VLV	Reheat 6 Valve	AO	1	Actuators - Electric	1	
RPU02	Mechanical Room 2025	RHCOIL-05_VLV	Reheat 5 Valve	AO	1	Actuators - Electric	1	
RPU02	Mechanical Room 2025	RHCOIL-06_ZT	Reheat 6 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU02	Mechanical Room 2025	RHCOIL-05_ZT	Reheat 5 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU04M1	Mechanical Room 2027	RHCOIL-08_ZT	Reheat 8 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU04M1	Mechanical Room 2027	RHCOIL-07_ZT	Reheat 7 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	
RPU04M1	Mechanical Room 2027	RHCOIL-08_VLV	Reheat 8 Valve	AO	1	Actuators - Electric	1	
RPU04M1	Mechanical Room 2027	RHCOIL-07_VLV	Reheat 7 Valve	AO	1	Actuators - Electric	1	

STEAM GENERATOR POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU01	Mechanical Room 2025	STEAM-02_ALM	Steam Generator 2 Alarm (Women's Change Room)	DI	1	Equipment Termination		
RPU01	Mechanical Room 2025	STEAM-01_ALM	Steam Generator 1 Alarm (Men's Change Room)	DI	1	Equipment Termination		
RPU01	Mechanical Room 2025	STEAM-02_SS	Steam Generator 2 SS (Women's Change Room)	DO	1	Equipment Termination		
RPU01	Mechanical Room 2025	STEAM-01_SS	Steam Generator 1 SS (Men's Change Room)	DO	1	Equipment Termination		

10. RTU-02 SEQUENCES

10.1.GENERAL

10.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

10.1.2. RTU-02 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:

10.1.2.1. MONITOR CONTROLLER INPUTS, OUTPUTS, SET POINTS, PARAMETERS AND ALARMS.

10.1.2.2. SET CONTROLLER SET POINTS AND PARAMETERS.

10.1.2.3. CLEAR ALARMS.

10.1.2.4. RESET THE COOLING AND HEATING DISCHARGE AIR TEMPERATURE SET POINT (VAV AND CAV-DTC UNITS).

10.1.2.5. RESET THE DUCT STATIC PRESSURE SET POINT (VAV UNITS)

10.1.2.6. SET THE HEAT/COOL CHANGEOVER TEMPERATURE (VAV AND CAV-DTC UNITS).

10.1.2.7. SET THE REPRESENTATIVE ZONE TEMPERATURE (CAV ZTC UNITS)

10.2.START/STOP

10.2.1. THE BAS SHALL ENABLE THE FAN SYSTEM TO START WHEN COMMANDED ON THROUGH EITHER MSOSx OR OTHER SPECIFIED MODES OF OPERATION (NIGHT SETBACK, NIGHT PURGE, MORNING WARM-UP, PROGRAMMED EVENTS). WHEN COMMANDED ON, SUPPLY FAN SHALL START FIRST. ONCE THE SUPPLY FAN STATUS IS PROVEN ON, THE BAS SHALL ALLOW APPLICATION OF THE SPECIFIED MIXED AIR, HEATING AND COOLING SEQUENCES.

10.2.2. WHEN THE BAS SENDS THE SIGNAL TO STOP; THE SUPPLY FAN SHALL STOP, AND THE HEATING AND COOLING COILS SHALL BE COMMANDED OFF.

10.3.TEMPERATURE CONTROL

10.3.1. THE OEMASC SHALL SEQUENCE THE HEATING COIL, COOLING COIL AND MIXED AIR DAMPER TO MAINTAIN ZONE TEMPERATURE COOLING AND HEATING SET POINTS.

10.3.2. IF THE SPACE TEMPERATURE ASSOCIATED WITH THE ZONE CONTROL IS ALSO CONTROLLING A RADIATION VALVE FOR THE SAME AREA, THE BAS SHALL MODULATE FIRST THE HEATING COIL TO 100% HEAT POSITION. IF THE HEATING SET POINT IS NOT SATISFIED, THE BAS SHALL START TO MODULATE THE RADIATION VALVE TO MEET THE HEATING REQUIREMENTS.

10.4.COLD WEATHER COOLING LOCKOUT

10.4.1. WHEN OUTDOOR AIR TEMPERATURE IS LESS THAN THE COLD WEATHER COOLING LOCKOUT SET POINT, MECHANICAL COOLING SHALL BE LOCKED OUT.

10.4.2. MECHANICAL COOLING SHALL ALSO BE LOCKED OUT DURING SUMMER OPERATION UNLESS REQUIRED BY EVENT PROGRAMMING.

10.5.HEAT WHEEL CONTROL

10.5.1. THE HEAT WHEEL SHALL BE ENERGIZED WHENEVER THE UNIT IS OPERATING IN OCCUPIED MODE, AND THE UNIT IS NOT IN FREE-COOL OPERATION.

10.6.UNOCCUPIED MODE

10.6.1. WHEN THE RTU IS IN UNOCCUPIED MODE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 10°C, THE BAS SHALL SEND THE NIGHT HEAT COMMAND TO THE OEMASC IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT.

10.6.2. WHEN THE NIGHT HEAT COMMAND IS ENABLED, THE RTU SHALL TURN ON THE FANS WITH THE MIXING DAMPERS IN FULL RE-CIRCULATION MODE AND FULL HEATING ENABLED TO SATISFY THE UNOCCUPIED HEATING SET POINT.

10.6.3. WHEN THE SPACE TEMPERATURE RISES TO UNOCCUPIED HEATING SET POINT +1.5°C (ADJUSTABLE) THE NIGHT HEAT COMMAND SHALL BE DISABLED.

10.7.PRESSURIZATION CONTROL

10.7.1. BAS MONITORS DIFFERENTIAL PRESSURE.

10.8.SET POINTS

10.8.1. OCCUPIED MODE SET POINTS

10.8.1.1. SPACE HEATING SET POINT: 21.5°C (ADJUSTABLE)

10.8.1.2. SPACE COOLING SET POINT: 24.5°C (ADJUSTABLE)

10.8.1.3. MINIMUM DEAD BAND: 2.5°C (ADJUSTABLE)

10.8.2. UNOCCUPIED MODE SET POINTS

10.8.2.1. SPACE HEATING SET POINT: 18°C (ADJUSTABLE)

10.8.2.2. SPACE COOLING SET POINT 26°C (ADJUSTABLE)

10.8.2.3. MINIMUM DEAD BAND 2.5°C (ADJUSTABLE)

10.8.3. COLD WEATHER COOLING LOCKOUT SET POINT: 15°C (ADJUSTABLE)

10.8.4. ECONOMIZER SET POINT (ECON_SPT): 18°C (ADJUSTABLE)

10.9.ALARMS

10.9.1. CRITICAL

10.9.1.1. LOW ROOM TEMPERATURE

10.9.2. ENVIRONMENTAL

10.9.2.1. FAN STATUS ON - COMMAND OFF

10.9.2.2. SUPPLY AIR HIGH/LOW LIMITS

10.9.3. MAINTENANCE

10.9.3.1. FAN COMMAND ON - STATUS OFF

10.9.3.2. HEATING ON & SAT<20°C FOR MORE THAN 5 MIN (ADJUSTABLE)

10.9.3.3. COOLING ON & SAT>20°C FOR MORE THAN 5 MIN (ADJUSTABLE)

10.9.4. ENERGY ALARMS

10.9.4.1. FAN STATUS ON FOR MORE THAN 2 HOURS CUMULATIVELY (ADJUSTABLE) DURING UNOCCUPIED (NSB) OPERATION.

10.9.4.2. FAN SYSTEM OPERATING IN OCCUPIED MODE OUTSIDE OF ORIGINALLY SCHEDULED MSOSx.

10.9.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

10.10. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

10.10.1. CALENDAR OPERATING SCHEDULE

10.10.2. SPACE TEMPERATURE, COLD WEATHER COOLING LOCKOUT, AND ECONOMIZER SET POINTS

10.10.3. NIGHT SETBACK TEMPERATURE

10.10.4. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 10.9. ALARMS)

11. REHEAT COILS SEQUENCES

11.1.GENERAL

11.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

11.2.CONTROL

11.2.1. MODULATE RHCOIL-##_VLV TO MAINTAIN SPACE TEMPERATURE AT SET POINT (RHCOIL-##_ZT)

11.3.SET POINTS

11.3.1. REHEAT COIL SPACE TEMPERATURE SET POINT (RHCOIL-##_ZT_SPT): 23°C (ADJUSTABLE).

11.4.ALARMS

11.4.1. CRITICAL

11.4.1.1. LOW SPACE TEMPERATURE

11.4.2. MAINTENANCE

11.4.2.1. SPACE TEMPERATURE GREATER THAN 2°C ABOVE/BELOW SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

11.5.ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

11.5.1. SPACE TEMPERATURE SET POINT (RHCOIL-##_ZT_SPT).

11.5.2. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 11.4. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

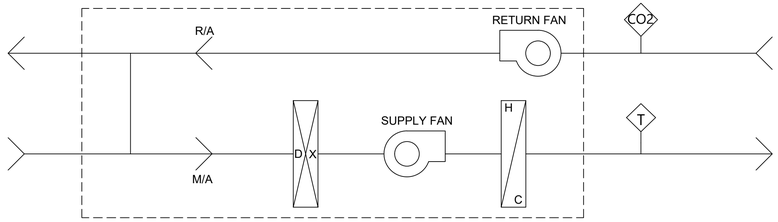
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNIT 2 CHANGEROOMS BAS SCHEMATICS

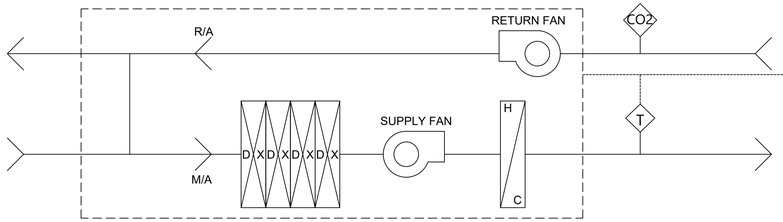
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N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M406	E

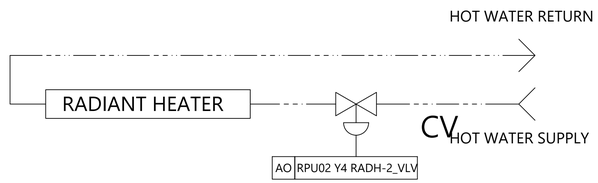


LON

RTU-03 SQUASH COURTS BAS SCHEMATIC



LON



RTU-04 AEROBICS ROOM BAS SCHEMATIC

AEROBICS ROOM POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU02	Mechanical Room 2025	RADH-2_VLV	Radiant Heaters Valve	AO	1	Actuators - Electric	1	

T

SPACE TEMPERATURE

T

SPACE TEMPERATURE

H

SPACE HUMIDITY

P

BUILDING STATIC PRESSURE

13. RTU-03 AND RTU-04 SEQUENCES

13.1.GENERAL

13.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

13.1.2. RTU-03 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:

13.1.2.1. THE FOLLOWING POINTS ARE ACCESSIBLE FOR MONITORING ONLY (READ ONLY):

13.1.2.1.1. DISCHARGE AND RETURN TEMPERATURE
13.1.2.1.2. SPACE AND OUTSIDE AIR TEMPERATURE
13.1.2.1.3. DUCT STATIC PRESSURE
13.1.2.1.4. DIRTY FILTER CONDITION
13.1.2.1.5. SUPPLY AND RETURN/EXHAUST FAN VFD STATUS
13.1.2.1.6. SUPPLY AND RETURN/EXHAUST FAN VFD SPEED
13.1.2.1.7. FAN AND COMPRESSOR RUN HOURS
13.1.2.1.8. UNIT STATUS
13.1.2.1.9. OUTSIDE AIR DAMPER POSITION
13.1.2.1.10. MIXED AIR TEMPERATURE
13.1.2.1.11. ALARM STATUS
13.1.2.1.12. TENANT OVERRIDE ACCUMULATED HOURS

13.1.2.2. THE FOLLOWING POINTS ARE ACCESSIBLE FOR CHANGE IN SET POINT OR STATUS (READ/WRITE):

13.1.2.2.1. DISCHARGE AIR TEMPERATURE SET POINT AND RESET PARAMETERS
13.1.2.2.2. STATIC PRESSURE SET POINT
13.1.2.2.3. MINIMUM OUTDOOR AIR SET POINT
13.1.2.2.4. OCCUPIED HEAT/COOL SET POINT
13.1.2.2.5. UNOCCUPIED HEAT SET POINT
13.1.2.2.6. CONTROL MODE
13.1.2.2.7. SPACE TEMPERATURE SET POINT
13.1.2.2.8. UNOCCUPIED OVERRIDE
13.1.2.2.9. UNIT STATUS - START/STOP/CLEAR FAULT
13.1.2.2.10. VFD FAN TRACKING SET POINTS

13.1.3. RTU-04 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:

13.1.3.1. MONITOR CONTROLLER INPUTS, OUTPUTS, SET POINTS, PARAMETERS AND ALARMS.
13.1.3.2. SET CONTROLLER SET POINTS AND PARAMETERS.
13.1.3.3. CLEAR ALARMS.
13.1.3.4. RESET THE COOLING AND HEATING DISCHARGE AIR TEMPERATURE SET POINT (VAV AND CAV-DTC UNITS).
13.1.3.5. RESET THE DUCT STATIC PRESSURE SET POINT (VAV UNITS)
13.1.3.6. SET THE HEAT/COOL CHANGEOVER TEMPERATURE (VAV AND CAV-DTC UNITS).
13.1.3.7. SET THE REPRESENTATIVE ZONE TEMPERATURE (CAV ZTC UNITS)

13.2.START/STOP

13.2.1. THE BAS SHALL ENABLE THE FAN SYSTEM TO START WHEN COMMANDED ON THROUGH EITHER MSOSx OR OTHER SPECIFIED MODES OF OPERATION (NIGHT SETBACK, NIGHT PURGE, MORNING WARM-UP, PROGRAMMED EVENTS). WHEN COMMANDED ON, SUPPLY FAN SHALL START FIRST. ONCE THE SUPPLY FAN STATUS IS PROVEN ON, THE BAS SHALL ALLOW APPLICATION OF THE SPECIFIED MIXED AIR, HEATING AND COOLING SEQUENCES.

13.2.2. WHEN THE BAS SENDS THE SIGNAL TO STOP; THE SUPPLY FAN SHALL STOP, AND THE HEATING AND COOLING COILS SHALL BE COMMANDED OFF.

13.3.TEMPERATURE CONTROL

13.3.1. THE OEMASC SHALL SEQUENCE THE HEATING COIL, COOLING COIL AND MIXED AIR DAMPER TO MAINTAIN ZONE TEMPERATURE COOLING AND HEATING SET POINTS.

13.3.2. IF THE SPACE TEMPERATURE ASSOCIATED WITH THE ZONE CONTROL IS ALSO CONTROLLING A RADIATION VALVE FOR THE SAME AREA, THE BAS SHALL MODULATE FIRST THE HEATING COIL TO 100% HEAT POSITION. IF THE HEATING SET POINT IS NOT SATISFIED, THE BAS SHALL START TO MODULATE THE RADIATION VALVE TO MEET THE HEATING REQUIREMENTS.

13.4.COLD WEATHER COOLING LOCKOUT

13.4.1. WHEN OUTDOOR AIR TEMPERATURE IS LESS THAN THE COLD WEATHER COOLING LOCKOUT SET POINT, MECHANICAL COOLING SHALL BE LOCKED OUT.

13.4.2. MECHANICAL COOLING SHALL ALSO BE LOCKED OUT DURING SUMMER OPERATION UNLESS REQUIRED BY EVENT PROGRAMMING.

13.5.MIXED AIR CONTROL

13.5.1. DURING OCCUPIED OPERATION, THE ON-BOARD OEMASC SHALL OPEN THE MIXING DAMPERS TO ACHIEVE A MINIMUM VENTILATION SETTING AND THEN SHALL MODULATE THE DAMPERS AS REQUIRED TO ACHIEVE THE ECONOMIZER CONTROL STRATEGY.

13.5.2. THE OEMASC SHALL USE ITS OWN ALGORITHM TO DETERMINE WHEN TO ACTIVATE THE ECONOMIZER CONTROL STRATEGY. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZER SET POINT (ECON_SPT), MECHANICAL COOLING SHALL BE LOCKED OUT AND THE MIXING DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT (WITH A MIXED/SUPPLY AIR LOW LIMIT OF 6°C). WHEN THE OUTDOOR AIR TEMPERATURE RISES ABOVE THE ECONOMIZER SET POINT, THE MIXING DAMPERS SHALL REVERT BACK TO MAINTAINING MINIMUM VENTILATION SETTINGS AND THE COOLING SHALL BE SEQUENCED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT.

13.6.UNOCCUPIED MODE

13.6.1. WHEN THE RTU IS IN UNOCCUPIED MODE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 10°C, THE BAS SHALL SEND THE NIGHT HEAT COMMAND TO THE OEMASC IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT.

13.6.2. WHEN THE NIGHT HEAT COMMAND IS ENABLED, THE RTU SHALL TURN ON THE FANS WITH THE MIXING DAMPERS IN FULL RE-CIRCULATION MODE AND FULL HEATING ENABLED TO SATISFY THE UNOCCUPIED HEATING SET POINT.

13.6.3. WHEN THE SPACE TEMPERATURE RISES TO UNOCCUPIED HEATING SET POINT +1.5°C (ADJUSTABLE) THE NIGHT HEAT COMMAND SHALL BE DISABLED.

13.7.CO2 CONTROL

13.7.1. THE OEMASC SHALL MONITOR RETURN AIR CO2 LEVELS AND LOWER THE ACTIVE MINIMUM VENTILATION FROM THE (MAXIMUM) MINIMUM VENTILATION OF 25% DOWN TO 0% BASED ON MAINTAIN A MAXIMUM CO2 LEVEL OF 900PPM.

13.7.2. WHEN THE RA CO2<900PPM, THE BAS SHALL REDUCE THE ACTIVE MINIMUM VENTILATION SETTING BY 2% EVERY MINUTE UNTIL REACHING 0% OR UNTIL THE RACO2>900PPM.

13.7.3. WHEN THE RACO2>900PPM THE BAS SHALL INCREASE THE ACTIVE MINIMUM DAMPER POSITION UNTIL REACHING THE (MAXIMUM) MINIMUM VENTILATION SETTING.

13.8.SET POINTS

13.8.1. OCCUPIED MODE SET POINTS

13.8.1.1. SPACE HEATING SET POINT: 21.5°C (ADJUSTABLE)
13.8.1.2. SPACE COOLING SET POINT: 24.5°C (ADJUSTABLE)
13.8.1.3. MINIMUM DEAD BAND: 2.5°C (ADJUSTABLE)

13.8.2. UNOCCUPIED MODE SET POINTS

13.8.2.1. SPACE HEATING SET POINT: 18°C (ADJUSTABLE)
13.8.2.2. SPACE COOLING SET POINT 26°C (ADJUSTABLE)
13.8.2.3. MINIMUM DEAD BAND 2.5°C (ADJUSTABLE)

13.8.3. COLD WEATHER COOLING LOCKOUT SET POINT: 15°C (ADJUSTABLE)

13.8.4. ECONOMIZER SET POINT (ECON_SPT): 18°C (ADJUSTABLE)

13.9.ALARMS

13.9.1. CRITICAL

13.9.1.1. LOW ROOM TEMPERATURE

13.9.2. ENVIRONMENTAL

13.9.2.1. FAN STATUS ON - COMMAND OFF
13.9.2.2. SUPPLY AIR HIGH/LOW LIMITS

13.9.3. MAINTENANCE

13.9.3.1. FAN COMMAND ON - STATUS OFF
13.9.3.2. HEATING ON & SAT<20°C FOR MORE THAN 5 MIN (ADJUSTABLE)
13.9.3.3. COOLING ON & SAT>20°C FOR MORE THAN 5 MIN (ADJUSTABLE)

13.9.4. ENERGY ALARMS

13.9.4.1. FAN STATUS ON FOR MORE THAN 2 HOURS CUMULATIVELY (ADJUSTABLE) DURING UNOCCUPIED (NSB) OPERATION.
13.9.4.2. FAN SYSTEM OPERATING IN OCCUPIED MODE OUTSIDE OF ORIGINALLY SCHEDULED MSOSx.

13.9.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

13.10. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

13.10.1. CALENDAR OPERATING SCHEDULE
13.10.2. SPACE TEMPERATURE, COLD WEATHER COOLING LOCKOUT, AND ECONOMIZER SET POINTS
13.10.3. NIGHT SETBACK TEMPERATURE
13.10.4. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED 13.9. ALARMS)

REV.	DESCRIPTION	DATE
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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
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SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

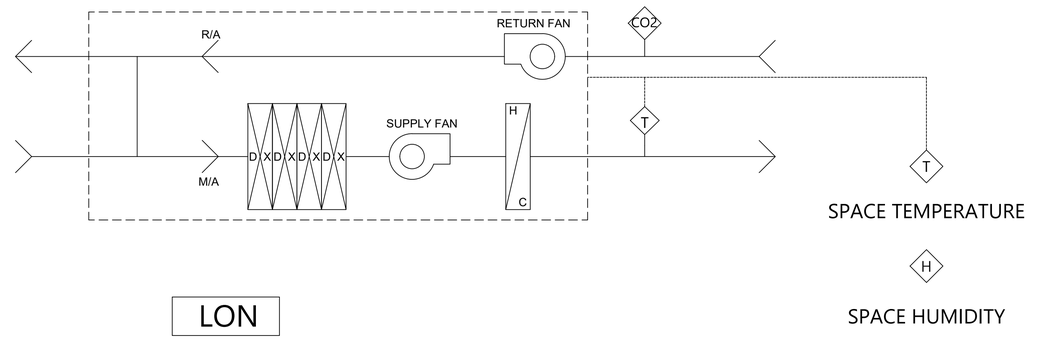
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNITS 3-4 BAS SCHEMATIC

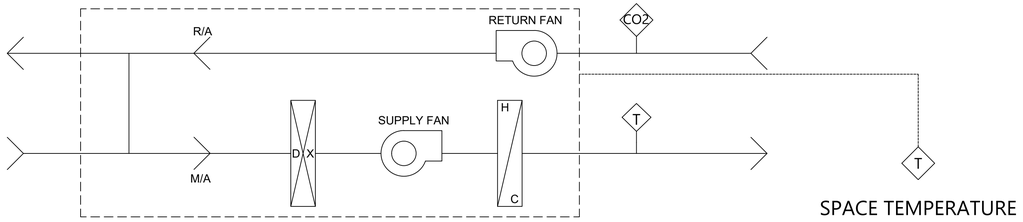
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PROJECT NO:	DRAWING NO:	REVISION:
25490	M407	E



LON

RTU-05 FITNESS ROOM BAS SCHEMATIC



LON

RTU-06 MULTIPURPOSE ROOM BAS SCHEMATIC

14. RTU-05 AND RTU-06 SEQUENCES

14.1.GENERAL

14.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

14.1.2. RTU-05 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:

14.1.2.1. MONITOR CONTROLLER INPUTS, OUTPUTS, SET POINTS, PARAMETERS AND ALARMS.
14.1.2.2. SET CONTROLLER SET POINTS AND PARAMETERS.
14.1.2.3. CLEAR ALARMS.
14.1.2.4. RESET THE COOLING AND HEATING DISCHARGE AIR TEMPERATURE SET POINT (VAV AND CAV-DTC UNITS).
14.1.2.5. RESET THE DUCT STATIC PRESSURE SET POINT (VAV UNITS)
14.1.2.6. SET THE HEAT/COOL CHANGEOVER TEMPERATURE (VAV AND CAV-DTC UNITS).
14.1.2.7. SET THE REPRESENTATIVE ZONE TEMPERATURE (CAV ZTC UNITS)

14.1.3. RTU-06 IS CONTROLLED BY ITS OWN INTERNAL CONTROLLER. THE BAS COMMUNICATES WITH THE UNIT CONTROLLER VIA LONWORKS PROTOCOL AND INTERACTS IN THE FOLLOWING WAYS:

14.1.3.1. THE FOLLOWING POINTS ARE ACCESSIBLE FOR MONITORING ONLY (READ ONLY):
14.1.3.1.1. DISCHARGE AND RETURN TEMPERATURE
14.1.3.1.2. SPACE AND OUTSIDE AIR TEMPERATURE
14.1.3.1.3. DUCT STATIC PRESSURE
14.1.3.1.4. DIRTY FILTER CONDITION
14.1.3.1.5. SUPPLY AND RETURN/EXHAUST FAN VFD STATUS
14.1.3.1.6. SUPPLY AND RETURN/EXHAUST FAN VFD SPEED
14.1.3.1.7. FAN AND COMPRESSOR RUN HOURS
14.1.3.1.8. UNIT STATUS
14.1.3.1.9. OUTSIDE AIR DAMPER POSITION
14.1.3.1.10. MIXED AIR TEMPERATURE
14.1.3.1.11. ALARM STATUS
14.1.3.1.12. TENANT OVERRIDE ACCUMULATED HOURS
14.1.3.2. THE FOLLOWING POINTS ARE ACCESSIBLE FOR CHANGE IN SET POINT OR STATUS (READ/WRITE):
14.1.3.2.1. DISCHARGE AIR TEMPERATURE SET POINT AND RESET PARAMETERS
14.1.3.2.2. STATIC PRESSURE SET POINT
14.1.3.2.3. MINIMUM OUTDOOR AIR SET POINT
14.1.3.2.4. OCCUPIED HEAT/COOL SET POINT
14.1.3.2.5. UNOCCUPIED HEAT SET POINT
14.1.3.2.6. CONTROL MODE
14.1.3.2.7. SPACE TEMPERATURE SET POINT
14.1.3.2.8. UNOCCUPIED OVERRIDE
14.1.3.2.9. UNIT STATUS - START/STOP/CLEAR FAULT
14.1.3.2.10. VFD FAN TRACKING SET POINTS

14.2.START/STOP

14.2.1. THE BAS SHALL ENABLE THE FAN SYSTEM TO START WHEN COMMANDED ON THROUGH EITHER MSOSx OR OTHER SPECIFIED MODES OF OPERATION (NIGHT SETBACK, NIGHT PURGE, MORNING WARM-UP, PROGRAMMED EVENTS). WHEN COMMANDED ON, SUPPLY FAN SHALL START FIRST. ONCE THE SUPPLY FAN STATUS IS PROVEN ON, THE BAS SHALL ALLOW APPLICATION OF THE SPECIFIED MIXED AIR, HEATING AND COOLING SEQUENCES.

14.2.2. WHEN THE BAS SENDS THE SIGNAL TO STOP; THE SUPPLY FAN SHALL STOP, AND THE HEATING AND COOLING COILS SHALL BE COMMANDED OFF.

14.3.TEMPERATURE CONTROL

14.3.1. THE OEMASC SHALL SEQUENCE THE HEATING COIL, COOLING COIL AND MIXED AIR DAMPER TO MAINTAIN ZONE TEMPERATURE COOLING AND HEATING SET POINTS.

14.3.2. IF THE SPACE TEMPERATURE ASSOCIATED WITH THE ZONE CONTROL IS ALSO CONTROLLING A RADIATION VALVE FOR THE SAME AREA, THE BAS SHALL MODULATE FIRST THE HEATING COIL TO 100% HEAT POSITION. IF THE HEATING SET POINT IS NOT SATISFIED, THE BAS SHALL START TO MODULATE THE RADIATION VALVE TO MEET THE HEATING REQUIREMENTS.

14.4.COLD WEATHER COOLING LOCKOUT

14.4.1. WHEN OUTDOOR AIR TEMPERATURE IS LESS THAN THE COLD WEATHER COOLING LOCKOUT SET POINT, MECHANICAL COOLING SHALL BE LOCKED OUT.

14.4.2. MECHANICAL COOLING SHALL ALSO BE LOCKED OUT DURING SUMMER OPERATION UNLESS REQUIRED BY EVENT PROGRAMMING.

14.5.MIXED AIR CONTROL

14.5.1. DURING OCCUPIED OPERATION, THE ON-BOARD OEMASC SHALL OPEN THE MIXING DAMPERS TO ACHIEVE A MINIMUM VENTILATION SETTING AND THEN SHALL MODULATE THE DAMPERS AS REQUIRED TO ACHIEVE THE ECONOMIZER CONTROL STRATEGY.

14.5.2. THE OEMASC SHALL USE ITS OWN ALGORITHM TO DETERMINE WHEN TO ACTIVATE THE ECONOMIZER CONTROL STRATEGY. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZER SET POINT (ECON_SPT), MECHANICAL COOLING SHALL BE LOCKED OUT AND THE MIXING DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT (WITH A MIXED/SUPPLY AIR LOW LIMIT OF 6°C). WHEN THE OUTDOOR AIR TEMPERATURE RISES ABOVE THE ECONOMIZER SET POINT, THE MIXING DAMPERS SHALL REVERT BACK TO MAINTAINING MINIMUM VENTILATION SETTINGS AND THE COOLING SHALL BE SEQUENCED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT.

14.6.UNOCCUPIED MODE

14.6.1. WHEN THE RTU IS IN UNOCCUPIED MODE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 10°C, THE BAS SHALL SEND THE NIGHT HEAT COMMAND TO THE OEMASC IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT.

14.6.2. WHEN THE NIGHT HEAT COMMAND IS ENABLED, THE RTU SHALL TURN ON THE FANS WITH THE MIXING DAMPERS IN FULL RE-CIRCULATION MODE AND FULL HEATING ENABLED TO SATISFY THE UNOCCUPIED HEATING SET POINT.

14.6.3. WHEN THE SPACE TEMPERATURE RISES TO UNOCCUPIED HEATING SET POINT +1.5°C (ADJUSTABLE) THE NIGHT HEAT COMMAND SHALL BE DISABLED.

14.7.CO2 CONTROL

14.7.1. THE OEMASC SHALL MONITOR RETURN AIR CO2 LEVELS AND LOWER THE ACTIVE MINIMUM VENTILATION FROM THE (MAXIMUM) MINIMUM VENTILATION OF 25% DOWN TO 0% BASED ON MAINTAIN A MAXIMUM CO2 LEVEL OF 900PPM.

14.7.2. WHEN THE RA CO2<900PPM, THE BAS SHALL REDUCE THE ACTIVE MINIMUM VENTILATION SETTING BY 2% EVERY MINUTE UNTIL REACHING 0% OR UNTIL THE RACO2>900PPM.

14.7.3. WHEN THE RACO2>900PPM THE BAS SHALL INCREASE THE ACTIVE MINIMUM DAMPER POSITION UNTIL REACHING THE (MAXIMUM) MINIMUM VENTILATION SETTING.

14.8.SET POINTS

14.8.1. OCCUPIED MODE SET POINTS
14.8.1.1. SPACE HEATING SET POINT: 21.5°C (ADJUSTABLE)
14.8.1.2. SPACE COOLING SET POINT: 24.5°C (ADJUSTABLE)
14.8.1.3. MINIMUM DEAD BAND: 2.5°C (ADJUSTABLE)
14.8.2. UNOCCUPIED MODE SET POINTS
14.8.2.1. SPACE HEATING SET POINT: 18°C (ADJUSTABLE)
14.8.2.2. SPACE COOLING SET POINT 26°C (ADJUSTABLE)
14.8.2.3. MINIMUM DEAD BAND 2.5°C (ADJUSTABLE)
14.8.3. COLD WEATHER COOLING LOCKOUT SET POINT: 15°C (ADJUSTABLE)
14.8.4. ECONOMIZER SET POINT (ECON_SPT): 18°C (ADJUSTABLE)

14.9.ALARMS

14.9.1. CRITICAL
14.9.1.1. LOW ROOM TEMPERATURE
14.9.2. ENVIRONMENTAL
14.9.2.1. FAN STATUS ON - COMMAND OFF
14.9.2.2. SUPPLY AIR HIGH/LOW LIMITS
14.9.3. MAINTENANCE
14.9.3.1. FAN COMMAND ON - STATUS OFF
14.9.3.2. HEATING ON & SAT<20°C FOR MORE THAN 5 MIN (ADJUSTABLE)
14.9.3.3. COOLING ON & SAT>20°C FOR MORE THAN 5 MIN (ADJUSTABLE)
14.9.4. ENERGY ALARMS
14.9.4.1. FAN STATUS ON FOR MORE THAN 2 HOURS CUMULATIVELY (ADJUSTABLE) DURING UNOCCUPIED (NSB) OPERATION.
14.9.4.2. FAN SYSTEM OPERATING IN OCCUPIED MODE OUTSIDE OF ORIGINALLY SCHEDULED MSOSx.
14.9.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

14.10. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

14.10.1. CALENDAR OPERATING SCHEDULE
14.10.2. SPACE TEMPERATURE, COLD WEATHER COOLING LOCKOUT, AND ECONOMIZER SET POINTS
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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

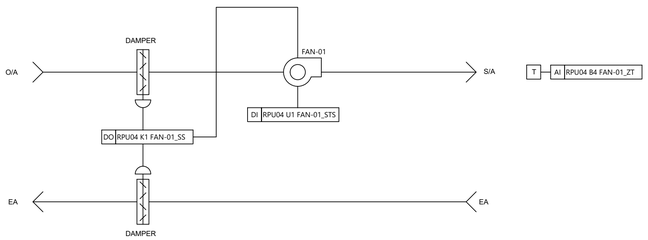
PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNITS 5-6 BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

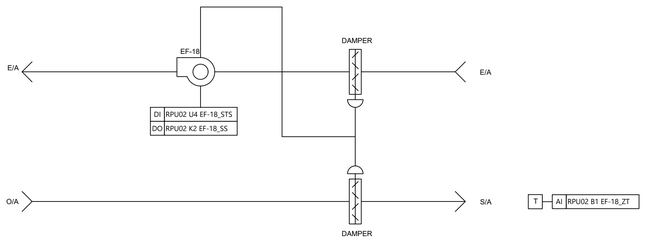
PROJECT NO:	DRAWING NO:	REVISION:
25490	M408	E

DAMPERS INTERLOCKED TO FAN-01.
FAN-01 STARTS WHEN DAMPER END
SWITCHES ARE MADE

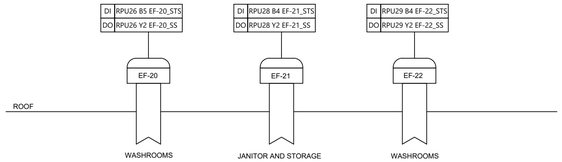


SUPPLY FAN 2 BAS SCHEMATIC

DAMPERS INTERLOCKED TO EF18
EF18 STARTS WHEN DAMPER END
SWITCHES ARE MADE



EXHAUST FAN 18 BAS SCHEMATIC



EXHAUST FANS 20-22 BAS SCHEMATICS

FAN-01 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU04	Mechanical Room 2027	FAN-01_STS	FAN-01 Status	DI	1	Electric Current Switches	1	
RPU04	Mechanical Room 2027	FAN-01_ZT	FAN-01 Space Temp. (Room 2027)	AI	1	Temperature Transmitter - Air - Zone	1	
RPU04	Mechanical Room 2027	FAN-01_SS	FAN-01 Start/Stop	DO	1	Relays - Control Relay	1	

EXHAUST FAN 18 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU02	Mechanical Room 2025	EF-18_STS	EF-18 Status	DI	1	Electric Current Switches	1	
RPU02	Mechanical Room 2025	EF-18_SS	EF-18 Start/Stop	DO	1	Relays - Control Relay	1	
RPU02	Mechanical Room 2025	EF-18_ZT	Mechanical Room 2025 Space Temp.	AI	1	Temperature Transmitter - Air - Zone	1	

EXHAUST FAN 20-22 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU26 Layout - RTU08	Auditorium/Gymnasium	EF-20_SS	Exhaust Fan 20 Start/Stop	AO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	EF-20_STS	Exhaust Fan 20 Status	DI	1	Electric Current Switches	1	
RPU28 Layout - RTU10	Youth Room	EF-21_SS	Exhaust Fan 21 Start/Stop	AO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	EF-21_STS	Exhaust Fan 21 Status	DI	1	Electric Current Switches	1	
RPU29 Layout - RTU11	Corridor	EF-22_SS	Exhaust Fan 22 Start/Stop	AO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	EF-22_STS	Exhaust Fan 22 Status	DI	1	Electric Current Switches	1	

15. SUPPLY FAN FAN-01 AND EXHAUST FAN EF-18 SEQUENCES

15.1.GENERAL

15.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

15.2.CONTROL

15.2.1. WHEN SPACE TEMPERATURE RISES ABOVE SET POINT (FAN-01_2_ZT_SPT OR EF-18_ZT_SPT), OPEN DAMPERS AND ENABLE FANS.

15.3.SET POINTS

15.3.1. MECHANICAL ROOM FAN-01 SPACE TEMPERATURE SET POINT (FAN-01_ZT_SPT): 29.4°C (ADJUSTABLE).
15.3.2. MECHANICAL ROOM EF-18 SPACE TEMPERATURE SET POINT (EF-18_ZT_SPT): 29.4°C (ADJUSTABLE).

15.4.ALARMS

15.4.1.1. ENVIRONMENTAL
15.4.1.1.1. FAN/DAMPER COMMAND OFF - STATUS ON
15.4.2. MAINTENANCE
15.4.2.1. FAN/DAMPER COMMAND ON - STATUS OFF
15.4.2.2. SPACE TEMPERATURE GREATER THAN 2°C ABOVE SET POINT FOR GREATER THAN 5 MINUTES (ADJUSTABLE)

15.5.ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

15.5.1. SPACE TEMPERATURE SET POINT (FAN-01_ZT_SPT AND EF-18_ZT_SPT).
15.5.2. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 15.4. ALARMS)

16. EXHAUST FANS EF-20, EF-21, AND EF-22 SEQUENCES

16.1.GENERAL

16.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

16.2.CONTROL

16.2.1. EXHAUST FANS ARE ENABLED BASED ON A TIME OF DAY AND TIME OF YEAR SCHEDULE.

16.3.ALARMS

16.3.1. ENVIRONMENTAL
16.3.1.1. FAN COMMAND OFF - STATUS ON
16.3.2. MAINTENANCE
16.3.2.1. FAN COMMAND ON - STATUS OFF

16.4.ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

16.4.1. CALENDAR OPERATING SCHEDULE
16.4.2. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED IN 16.3. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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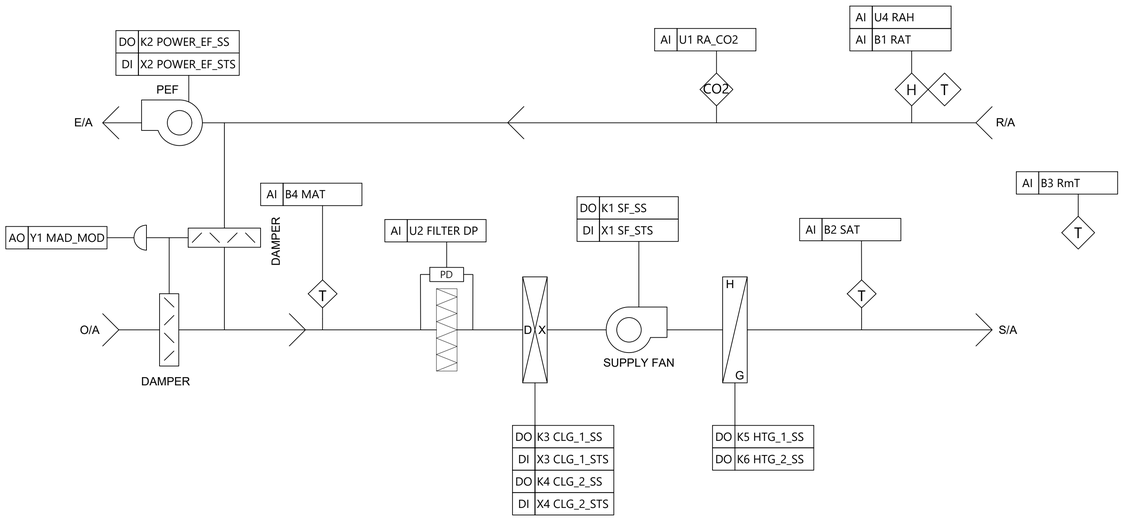
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
VENTILATION FANS BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M409	E



RTU-07-RTU-012 BAS SCHEMATIC

ROOFTOP UNIT 7 POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU25 Layout - RTU07	Auditorium/Gymnasium	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU25 Layout - RTU07	Auditorium/Gymnasium	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

ROOFTOP UNIT 8 POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU26 Layout - RTU08	Auditorium/Gymnasium	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU26 Layout - RTU08	Auditorium/Gymnasium	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

17. RTU-07-RTU-12 SEQUENCES

17.1.GENERAL

17.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

17.2.START/STOP

17.2.1. THE BAS SHALL ENABLE THE FAN SYSTEM TO START WHEN COMMANDED ON THROUGH EITHER MSOSx OR OTHER SPECIFIED MODES OF OPERATION (NIGHT SETBACK, NIGHT PURGE, MORNING WARM-UP, PROGRAMMED EVENTS). WHEN COMMANDED ON, SUPPLY FAN SHALL START FIRST. ONCE THE SUPPLY FAN STATUS IS PROVEN ON, THE BAS SHALL ALLOW APPLICATION OF THE SPECIFIED MIXED AIR, HEATING AND COOLING SEQUENCES.

17.2.2. WHEN THE BAS SENDS THE SIGNAL TO STOP; THE SUPPLY FAN SHALL STOP, AND THE HEATING AND COOLING COILS SHALL BE COMMANDED OFF.

17.3.TEMPERATURE CONTROL

17.3.1. THE OEMASC SHALL SEQUENCE THE HEATING COIL, COOLING COIL AND MIXED AIR DAMPER TO MAINTAIN ZONE TEMPERATURE COOLING AND HEATING SET POINTS.

17.3.2. IF THE SPACE TEMPERATURE ASSOCIATED WITH THE ZONE CONTROL IS ALSO CONTROLLING A RADIATION VALVE FOR THE SAME AREA, THE BAS SHALL MODULATE FIRST THE HEATING COIL TO 100% HEAT POSITION. IF THE HEATING SET POINT IS NOT SATISFIED, THE BAS SHALL START TO MODULATE THE RADIATION VALVE TO MEET THE HEATING REQUIREMENTS.

17.4.COLD WEATHER COOLING LOCKOUT

17.4.1. WHEN OUTDOOR AIR TEMPERATURE IS LESS THAN THE COLD WEATHER COOLING LOCKOUT SET POINT, MECHANICAL COOLING SHALL BE LOCKED OUT.

17.4.2. MECHANICAL COOLING SHALL ALSO BE LOCKED OUT DURING SUMMER OPERATION UNLESS REQUIRED BY EVENT PROGRAMMING.

17.5.MIXED AIR CONTROL

17.5.1. DURING OCCUPIED OPERATION, THE ON-BOARD OEMASC SHALL OPEN THE MIXING DAMPERS TO ACHIEVE A MINIMUM VENTILATION SETTING AND THEN SHALL MODULATE THE DAMPERS AS REQUIRED TO ACHIEVE THE ECONOMIZER CONTROL STRATEGY.

17.5.2. THE OEMASC SHALL USE ITS OWN ALGORITHM TO DETERMINE WHEN TO ACTIVATE THE ECONOMIZER CONTROL STRATEGY. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZER SET POINT (ECON_SPT), MECHANICAL COOLING SHALL BE LOCKED OUT AND THE MIXING DAMPERS SHALL MODULATE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT (WITH A MIXED/SUPPLY AIR LOW LIMIT OF 6°C). WHEN THE OUTDOOR AIR TEMPERATURE RISES ABOVE THE ECONOMIZER SET POINT, THE MIXING DAMPERS SHALL REVERT BACK TO MAINTAINING MINIMUM VENTILATION SETTINGS AND THE COOLING SHALL BE SEQUENCED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SET POINT.

17.6.UNOCCUPIED MODE

17.6.1. WHEN THE RTU IS IN UNOCCUPIED MODE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 10°C, THE BAS SHALL SEND THE NIGHT HEAT COMMAND TO THE OEMASC IF THE ZONE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SET POINT.

17.6.2. WHEN THE NIGHT HEAT COMMAND IS ENABLED, THE RTU SHALL TURN ON THE FANS WITH THE MIXING DAMPERS IN FULL RE-CIRCULATION MODE AND FULL HEATING ENABLED TO SATISFY THE UNOCCUPIED HEATING SET POINT.

17.6.3. WHEN THE SPACE TEMPERATURE RISES TO UNOCCUPIED HEATING SET POINT +1.5°C (ADJUSTABLE) THE NIGHT HEAT COMMAND SHALL BE DISABLED.

17.7.CO2 CONTROL

17.7.1. THE OEMASC SHALL MONITOR RETURN AIR CO2 LEVELS AND LOWER THE ACTIVE MINIMUM VENTILATION FROM THE (MAXIMUM) MINIMUM VENTILATION OF 25% DOWN TO 0% BASED ON MAINTAIN A MAXIMUM CO2 LEVEL OF 900PPM.

17.7.2. WHEN THE RA CO2<900PPM, THE BAS SHALL REDUCE THE ACTIVE MINIMUM VENTILATION SETTING BY 2% EVERY MINUTE UNTIL REACHING 0% OR UNTIL THE RACO2>900PPM.

17.7.3. WHEN THE RACO2>900PPM THE BAS SHALL INCREASE THE ACTIVE MINIMUM DAMPER POSITION UNTIL REACHING THE (MAXIMUM) MINIMUM VENTILATION SETTING.

17.8.SET POINTS

17.8.1. OCCUPIED MODE SET POINTS
- 17.8.1.1. SPACE HEATING SET POINT: 21.5°C (ADJUSTABLE)
- 17.8.1.2. SPACE COOLING SET POINT: 24.5°C (ADJUSTABLE)
- 17.8.1.3. MINIMUM DEAD BAND: 2.5°C (ADJUSTABLE)

17.8.2. UNOCCUPIED MODE SET POINTS
- 17.8.2.1. SPACE HEATING SET POINT: 18°C (ADJUSTABLE)
- 17.8.2.2. SPACE COOLING SET POINT 26°C (ADJUSTABLE)
- 17.8.2.3. MINIMUM DEAD BAND 2.5°C (ADJUSTABLE)

17.8.3. COLD WEATHER COOLING LOCKOUT SET POINT: 15°C (ADJUSTABLE)

17.8.4. ECONOMIZER SET POINT (ECON_SPT): 18°C (ADJUSTABLE)

17.9.ALARMS

17.9.1. CRITICAL
- 17.9.1.1. LOW ROOM TEMPERATURE

17.9.2. ENVIRONMENTAL
- 17.9.2.1. FAN STATUS ON - COMMAND OFF
- 17.9.2.2. SUPPLY AIR HIGH/LOW LIMITS

17.9.3. MAINTENANCE
- 17.9.3.1. FAN COMMAND ON - STATUS OFF
- 17.9.3.2. HEATING ON & SAT<20°C FOR MORE THAN 5 MIN (ADJUSTABLE)
- 17.9.3.3. COOLING ON & SAT>20°C FOR MORE THAN 5 MIN (ADJUSTABLE)

17.9.4. ENERGY ALARMS
- 17.9.4.1. FAN STATUS ON FOR MORE THAN 2 HOURS CUMULATIVELY (ADJUSTABLE) DURING UNOCCUPIED (NSB) OPERATION.
- 17.9.4.2. FAN SYSTEM OPERATING IN OCCUPIED MODE OUTSIDE OF ORIGINALLY SCHEDULED MSOSx.

17.9.5. THE INITIAL SET UP VALUES FOR ALL ALARMS SHALL BE ESTABLISHED DURING THE COMMISSIONING PROCESS.

17.10. ADJUSTABLE POINTS (TO BE DISPLAYED AND ACCESSED ON SYSTEM SETTING PAGE)

17.10.1. CALENDAR OPERATING SCHEDULE

17.10.2. SPACE TEMPERATURE, COLD WEATHER COOLING LOCKOUT, AND ECONOMIZER SET POINTS

17.10.3. NIGHT SETBACK TEMPERATURE

17.10.4. ALARM SETTINGS (SET POINTS AND TIME DELAY PARAMETERS AS NOTED 17.10. ALARMS)

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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SEAL SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNITS 7-12 BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M410	E

ROOFTOP UNIT 9 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU27 Layout - RTU09	Senior Room and Kitchen	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU27 Layout - RTU09	Senior Room and Kitchen	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

ROOFTOP UNIT 10 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU28 Layout - RTU10	Youth Room	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU28 Layout - RTU10	Youth Room	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU28 Layout - RTU10	Youth Room	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU28 Layout - RTU10	Youth Room	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU28 Layout - RTU10	Youth Room	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU28 Layout - RTU10	Youth Room	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU28 Layout - RTU10	Youth Room	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU28 Layout - RTU10	Youth Room	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU28 Layout - RTU10	Youth Room	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU28 Layout - RTU10	Youth Room	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU28 Layout - RTU10	Youth Room	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU28 Layout - RTU10	Youth Room	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU28 Layout - RTU10	Youth Room	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

ROOFTOP UNIT 11 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU29 Layout - RTU11	Corridor	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU29 Layout - RTU11	Corridor	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU29 Layout - RTU11	Corridor	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU29 Layout - RTU11	Corridor	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU29 Layout - RTU11	Corridor	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU29 Layout - RTU11	Corridor	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU29 Layout - RTU11	Corridor	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU29 Layout - RTU11	Corridor	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU29 Layout - RTU11	Corridor	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU29 Layout - RTU11	Corridor	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU29 Layout - RTU11	Corridor	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU29 Layout - RTU11	Corridor	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU29 Layout - RTU11	Corridor	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

REV.	DESCRIPTION	DATE
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B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
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SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 1

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M411	E

ROOFTOP UNIT 12 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU30 Layout - RTU12	Art Room	CLG_2_STS	Cooling Stage 2 Status	DI	1	Electric Current Switches	1	
RPU30 Layout - RTU12	Art Room	CLG_1_STS	Cooling Stage 1 Status	DI	1	Electric Current Switches	1	
RPU30 Layout - RTU12	Art Room	POWER_EF_STS	Power Exhaust Fan Status	DI	1	Electric Current Switches	1	
RPU30 Layout - RTU12	Art Room	SF_STS	Supply Fan Status	DI	1	Electric Current Switches	1	
RPU30 Layout - RTU12	Art Room	MAT	Mixed Air Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU30 Layout - RTU12	Art Room	RmT	Room Temperature	AI	1	Temperature Transmitter - Air - Zone	1	
RPU30 Layout - RTU12	Art Room	SAT	Supply Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU30 Layout - RTU12	Art Room	RAT	Return Air Temperature	AI	1	Temperature Transmitter - Air - Duct	1	
RPU30 Layout - RTU12	Art Room	RAH	Return Air Humidity	AI	1	Humidity Transmitter - Air - Duct	1	
RPU30 Layout - RTU12	Art Room	FILTER DP	Filter Diff Pressure	DI	1	Pressure Switches - Air - Differential	1	
RPU30 Layout - RTU12	Art Room	RA_CO2	Return Air CO2	AI	1	Concentration Transmitter - Gas - Carbon Dioxide - Duct	1	
RPU30 Layout - RTU12	Art Room	CLG_2_SS	Cooling Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	CLG_1_SS	Cooling Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	POWER_EF_SS	Power Exhaust Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	SF_SS	Supply Fan Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	HTG_2_SS	Heating Stage 2 Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	HTG_1_SS	Heating Stage 1 Start/Stop	DO	1	Relays - Control Relay	1	
RPU30 Layout - RTU12	Art Room	MAD_MOD	Mixed Air Damper Modulating	AO	1	Actuators - Electric	1	

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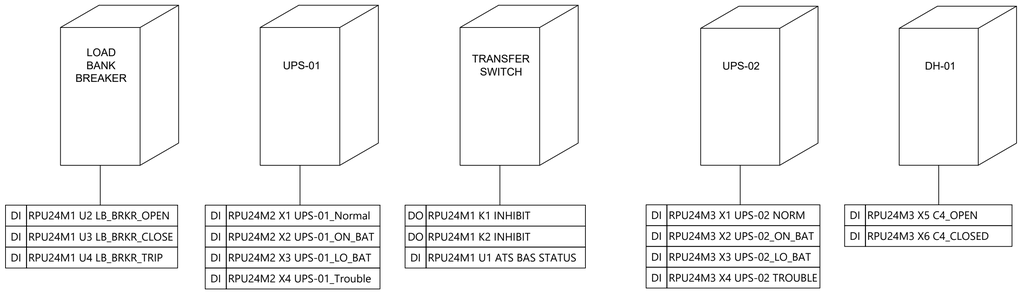
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
ROOFTOP UNITS 7-12 BAS SCHEMATICS CONT'D 2

SCALE AT ARCH D:	DRAWN:	CHECKED:
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PROJECT NO:	DRAWING NO:	REVISION:
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DI	RPU24M4 U1 P1_STS
DI	RPU24M4 U2 P2_STS
DI	RPU24M4 U3 P3_STS
DI	RPU24M4 U4 POOLPMP4_STS
DI	RPU24M5 U1 POOLPMP5_STS
DI	RPU24M5 U2 HTGPMP6_STS

DO	RPU24M4 K1 P1_LOCK_OUT
DO	RPU24M4 K2 P2_LOCK_OUT
DO	RPU24M4 K3 P3_LOCK_OUT
DO	RPU24M4 K4 POOLPMP4_LOCK_OUT
DO	RPU24M5 K1 POOLPMP5_LOCK_OUT
DO	RPU24M5 K2 HTGPMP6_LOCK_OUT

DI	RPU24M5 U3 HTGPMP7_STS
DI	RPU24M5 U4 HTGPMP8_STS
DI	RPU24M6 U1 HTGPMP9_STS
DI	RPU24M6 U2 P10_STS
DI	RPU24M6 U3 P11_STS

DO	RPU24M5 K3 HTGPMP7_LOCK_OUT
DO	RPU24M5 K4 HTGPMP8_LOCK_OUT
DO	RPU24M6 K1 HTGPMP9_LOCK_OUT
DO	RPU24M6 K2 P10_LOCK_OUT
DO	RPU24M6 K3 P11_LOCK_OUT

GAS GENERATOR POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU24M1	Panel 18 in Room 1089	LB_BRKR_TRIP	Load Bank Breaker Shunt Trip	DI	1	Equipment Termination		
RPU24M1	Panel 18 in Room 1089	LB_BRKR_CLOSE	Load Bank Breaker Closed	DI	1	Equipment Termination		
RPU24M1	Panel 18 in Room 1089	LB_BRKR_OPEN	Load Bank Breaker Open	DI	1	Equipment Termination		
RPU24M1	Panel 18 in Room 1089	ATS BAS STATUS	ATS Status	DI	1	Equipment Termination		
RPU24M1	Panel 18 in Room 1089	K2 INHIBIT	Transfer for Emergency	DO	1	Equipment Termination		
RPU24M1	Panel 18 in Room 1089	K1 INHIBIT	Generator Start Inhibit	DO	1	Equipment Termination		
RPU24M2	Panel 18 in Room 1089	UPS-01_Trouble	UPS-01 Alarm / Bypass	DI	1	Equipment Termination		
RPU24M2	Panel 18 in Room 1089	UPS-01_LO_BAT	UPS-01 Low Battery	DI	1	Equipment Termination		
RPU24M2	Panel 18 in Room 1089	UPS-01_ON_BAT	UPS-01 Utility Loss, N.C	DI	1	Equipment Termination		
RPU24M2	Panel 18 in Room 1089	UPS-01_Normal	UPS-01 Utility Loss, N.O	DI	1	Equipment Termination		

BASEMENT MECHANICAL ROOM POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU24M4	Panel 20 in Basement Mech. Rm	P4_STS	P4 Status	DI	1	Electric Current Switches	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P3_STS	P3 Status	DI	1	Electric Current Switches	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P2_STS	P2 Status	DI	1	Electric Current Switches	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P1_STS	P1 Status	DI	1	Electric Current Switches	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P4_LOCK_OUT	P4 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P3_LOCK_OUT	P3 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P2_LOCK_OUT	P2 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M4	Panel 20 in Basement Mech. Rm	P1_LOCK_OUT	P1 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M4	Panel 20 in Basement Mech. Rm	EGEN-01_INHIBIT_1	Generator Start Inhibit	DO	1	Equipment Termination		
RPU24M5	Panel 20 in Basement Mech. Rm	P8_STS	P8 Status	DI	1	Electric Current Switches	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P7_STS	P7 Status	DI	1	Electric Current Switches	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P6_STS	P6 Status	DI	1	Electric Current Switches	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P5_STS	P5 Status	DI	1	Electric Current Switches	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P8_LOCK_OUT	P8 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P7_LOCK_OUT	P7 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P6_LOCK_OUT	P6 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M5	Panel 20 in Basement Mech. Rm	P5_LOCK_OUT	P5 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M5	Panel 20 in Basement Mech. Rm	EGEN-01_INHIBIT_2	Generator Start Inhibit	DO	1	Equipment Termination		
RPU24M6	Panel 20 in Basement Mech. Rm	P11_STS	P11 Status	DI	1	Electric Current Switches	1	
RPU24M6	Panel 20 in Basement Mech. Rm	P10_STS	P10 Status	DI	1	Electric Current Switches	1	
RPU24M6	Panel 20 in Basement Mech. Rm	P9_STS	P9 Status	DI	1	Electric Current Switches	1	
RPU24M6	Panel 20 in Basement Mech. Rm	P11_LOCK_OUT	P11 Lock-out	DO	1	Relays - Power Contactor		
RPU24M6	Panel 20 in Basement Mech. Rm	P10_LOCK_OUT	P10 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M6	Panel 20 in Basement Mech. Rm	P9_LOCK_OUT	P9 Lock-out	DO	1	Relays - Power Contactor	1	
RPU24M6	Panel 20 in Basement Mech. Rm	EGEN-01_INHIBIT_3	Generator Start Inhibit	DO	1	Equipment Termination	1	

MECHANICAL ROOM 2025 POINTS LIST

Controller Name	Location	Variable Name	Variable Description	Point Type	Point Qty	Device Type	Device Quantity	Comments
RPU24M3	Panel 19 in Room 2025	UPS-02 TROUBLE	UPS-02 Alarm / Bypass	DI	1	Equipment Termination		
RPU24M3	Panel 19 in Room 2025	UPS-02_LO_BAT	UPS-02 Low Battery	DI	1	Equipment Termination		
RPU24M3	Panel 19 in Room 2025	UPS-02_ON_BAT	UPS-02 Utillity Loss, N.C	DI	1	Equipment Termination		
RPU24M3	Panel 19 in Room 2025	UPS-02 NORM	UPS-02 Utility Loss, N.O	DI	1	Equipment Termination		
RPU24M3	Panel 19 in Room 2025	C4_CLOSED	DH-01 C4 Close	DI	1	Equipment Termination		
RPU24M3	Panel 19 in Room 2025	C4_OPEN	DH-01 C4 Open	DI	1	Equipment Termination		

18. EMERGENCY POWER SEQUENCES

18.1.GENERAL

18.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

18.2.CONTROL

18.2.1. MATCH EXISTING LOAD SHEDDING SCHEME.

18.3.ALARMS

18.3.1. CRITICAL
- 18.3.1.1. UPS-01 TROUBLE
- 18.3.1.2. UPS-02 TROUBLE

18.3.2. MAINTENANCE
- 18.3.2.1. UPS-01 LOW BATTERY
- 18.3.2.2. UPS-02 LOW BATTERY

18.3.3. ENERGY ALARMS
- 18.3.3.1. UPS-01 ENABLED/ON BATTERY
- 18.3.3.2. UPS-02 ENABLED/ON BATTERY
- 18.3.3.3. UTILITY POWER LOSS/GENERATOR ENABLED

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MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
EMERGENCY POWER BAS SCHEMATICS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M413	E

POOL LIGHTING POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_SB1	Switch Button 1	DI	1	User Button Interfaces	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_SB2	Switch Button 2	DI	1	User Button Interfaces	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_SB3	Switch Button 3	DI	1	User Button Interfaces	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_SB4	Switch Button 4	DI	1	User Button Interfaces	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_LVL1	Daylight Sensor 1 0-10VDC	AI	1	Illuminance Transmitter - Photo-diode	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_LVL2	Daylight Sensor 2 0-10VDC	AI	1	Illuminance Transmitter - Photo-diode	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_LVL3	Daylight Sensor 3 0-10VDC	AI	1	Illuminance Transmitter - Photo-diode	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_LVL4	Daylight Sensor 4 0-10VDC	AI	1	Illuminance Transmitter - Photo-diode	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_SWTCH	Pool Lights ON/OFF	DO	1	User Selector Switches - 2 Selections	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_DIM_A	Zone A Dimmer	AO	1	Relays - Lighting Contactor	1	Re-use existing device.
RPU07	Panel 1 in Mech Room 2025	POOL-INTLTGT-1_DIM_B	Zone B Dimmer	AO	1	Relays - Lighting Contactor	1	Re-use existing device.

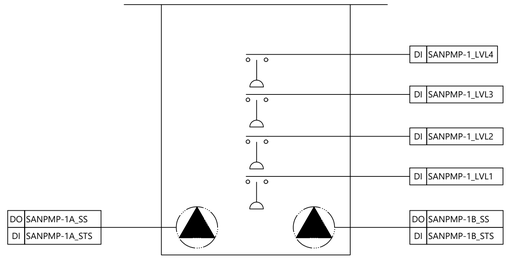
19. POOL LIGHTING SEQUENCES

19.1.GENERAL

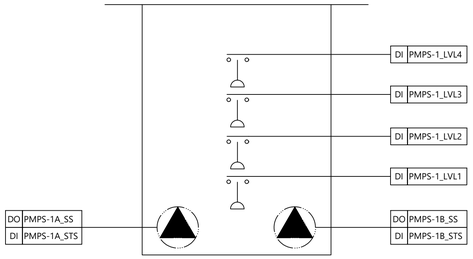
19.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

19.2.CONTROL

19.2.1. MATCH EXISTING.



SANPMP-1



PMPS-1

SUMP PUMPS BAS SCHEMATIC

20. SUMP PUMPS SEQUENCES

20.1. GENERAL

20.1.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF OPERATION AS PER THE SEQUENCE BELOW AND ADJUST TO INCLUDE FOR ALL ADDITIONAL SEQUENCES AS REQUIRED BY THE CITY OF MISSISSAUGA STANDARD AND SHOP DRAWING REVIEW.

20.2. CONTROL

20.2.1. SUMP PUMPS OPERATE IN LEAD/LAG.
20.2.2. COMMAND LEAD SUMP PUMP ON WHEN LEVEL 2 FLOAT SWITCH (SANPMP-1_LVL2/PMPS-1_LVL2) IS TRIGGERED.
20.2.3. COMMAND LEAD SUMP AND LAG SUMP PUMP ON WHEN LEVEL 3 FLOAT SWITCH (SANPMP-1_LVL3/PMPS-1_LVL3) IS TRIGGERED.
20.2.4. ACTIVATE CRITICAL ALARM ON BAS WHEN LEVEL 4 FLOAT SWITCH (SANPMP-1_LVL4/PMPS-1_LVL4) IS TRIGGERED.
20.2.5. COMMAND BOTH PUMPS OFF AFTER LEVEL 1 FLOAT SWITCH (SANPMP-1_LVL1/PMPS-1_LVL1) IS NO LONGER TRIGGERED.

20.3. ALARMS

20.3.1. CRITICAL
20.3.1.1. SANPMP-1_LVL4 FLOAT SWITCH TRIGGERED.
20.3.1.2. PMPS-1_LVL4 FLOAT SWITCH TRIGGERED.
20.3.1.3. PUMP COMMAND ON - STATUS OFF
20.3.2. ENVIRONMENTAL
20.3.2.1. PUMP COMMAND OFF - STATUS ON
20.3.3. MAINTENANCE
20.3.3.1. PUMP COMMAND ON - STATUS OFF

SUMP PUMPS POINTS LIST								
Controller Name	**Location**	**Variable Name**	**Variable Description**	**Point Type**	**Point Qty**	**Device Type**	**Device Quantity**	**Comments**
	Basement Mech. Rm.	SANPMP-1A_SS	SANPMP-1A Start/Stop	DO	1	Relays - Control Relay	1	
	Basement Mech. Rm.	SANPMP-1A_STS	SANPMP-1A Status	DI	1	Electric Current Switches	1	
	Basement Mech. Rm.	SANPMP-1B_SS	SAN-PMP-1B Start/Stop	DO	1	Relays - Control Relay	1	
	Basement Mech. Rm.	SANPMP-1B_STS	SANPMP-1B Status	DI	1	Electric Current Switches	1	
	Basement Mech. Rm.	SANPMP-1_LVL1	SANPMP-1 Pump Off Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	SANPMP-1_LVL2	SANPMP-1 Lead Pump On Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	SANPMP-1_LVL3	SANPMP-1 Lag Pump On Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	SANPMP-1_LVL4	SANPMP-1 Alarm Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	PMPS-1A_SS	PMPS-1A Start/Stop	DO	1	Relays - Control Relay	1	
	Basement Mech. Rm.	PMPS-1A_STS	PMPS-1A Status	DI	1	Electric Current Switches	1	
	Basement Mech. Rm.	PMPS-1B_SS	PMPS-1B Start/Stop	DO	1	Relays - Control Relay	1	
	Basement Mech. Rm.	PMPS-1B_STS	PMPS-1B Status	DI	1	Electric Current Switches	1	
	Basement Mech. Rm.	PMPS-1_LVL1	PMPS-1 Pump Off Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	PMPS-1_LVL2	PMPS-1 Lead Pump On Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	PMPS-1_LVL3	PMPS-1 Lag Pump On Level	DI	1	Level Switches - Water - Float	1	
	Basement Mech. Rm.	PMPS-1_LVL4	PMPS-1 Alarm Level	DI	1	Level Switches - Water - Float	1	

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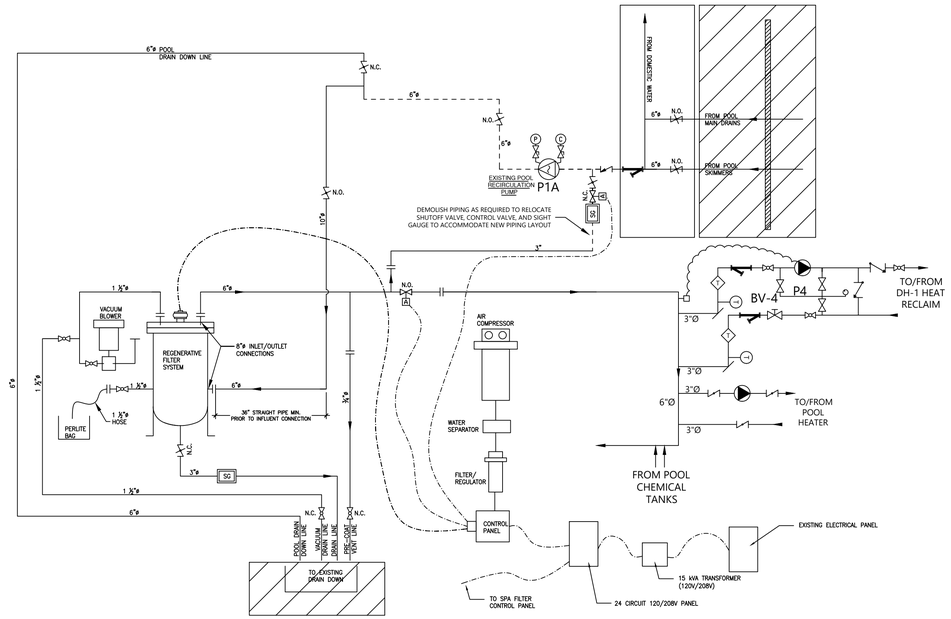
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
POOL LIGHTING & SUMP PUMPS BAS POINTS

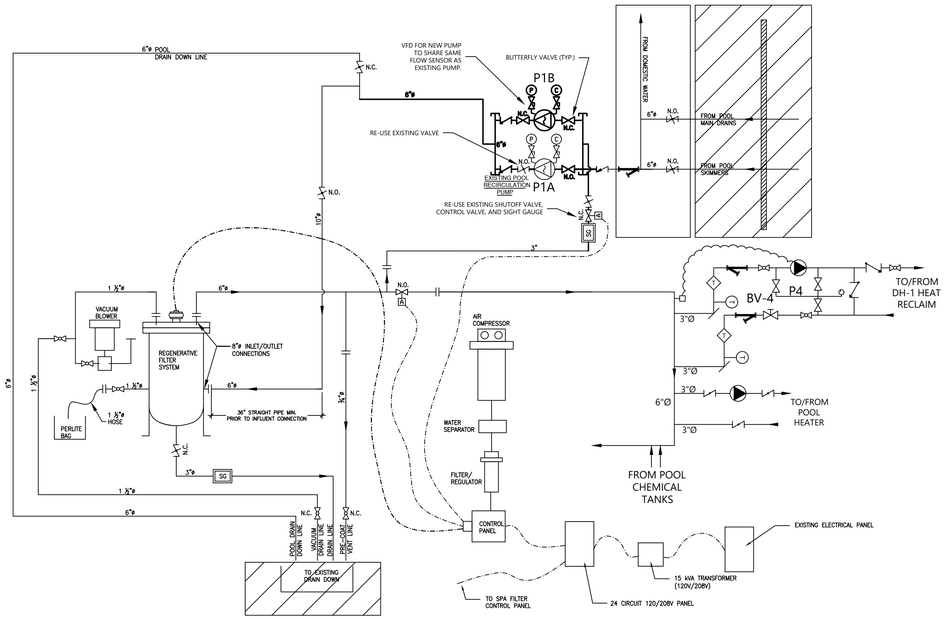
SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M414	E



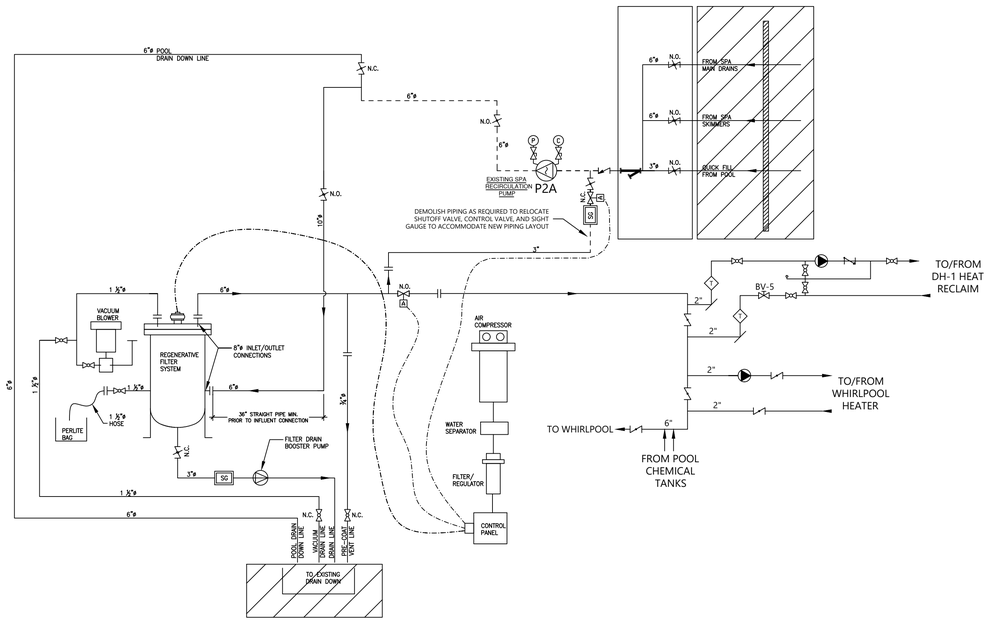
MAIN POOL FILTRATION DEMO SCHEMATIC

NTS



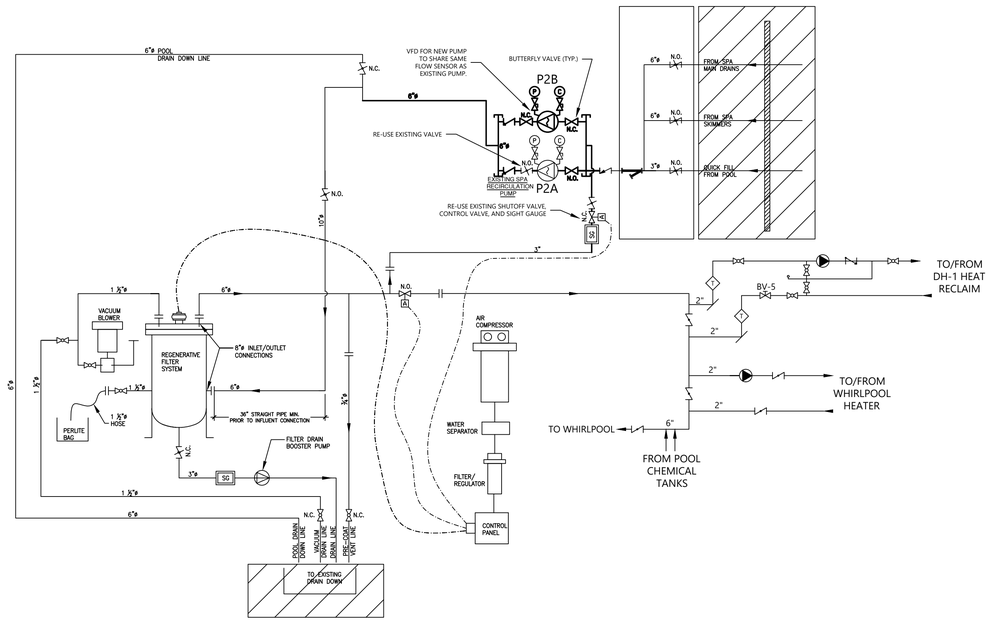
MAIN POOL FILTRATION RETROFIT SCHEMATIC

NTS



WHIRLPOOL FILTRATION DEMO SCHEMATIC

NTS



WHIRLPOOL FILTRATION RETROFIT SCHEMATIC

NTS

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE
JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

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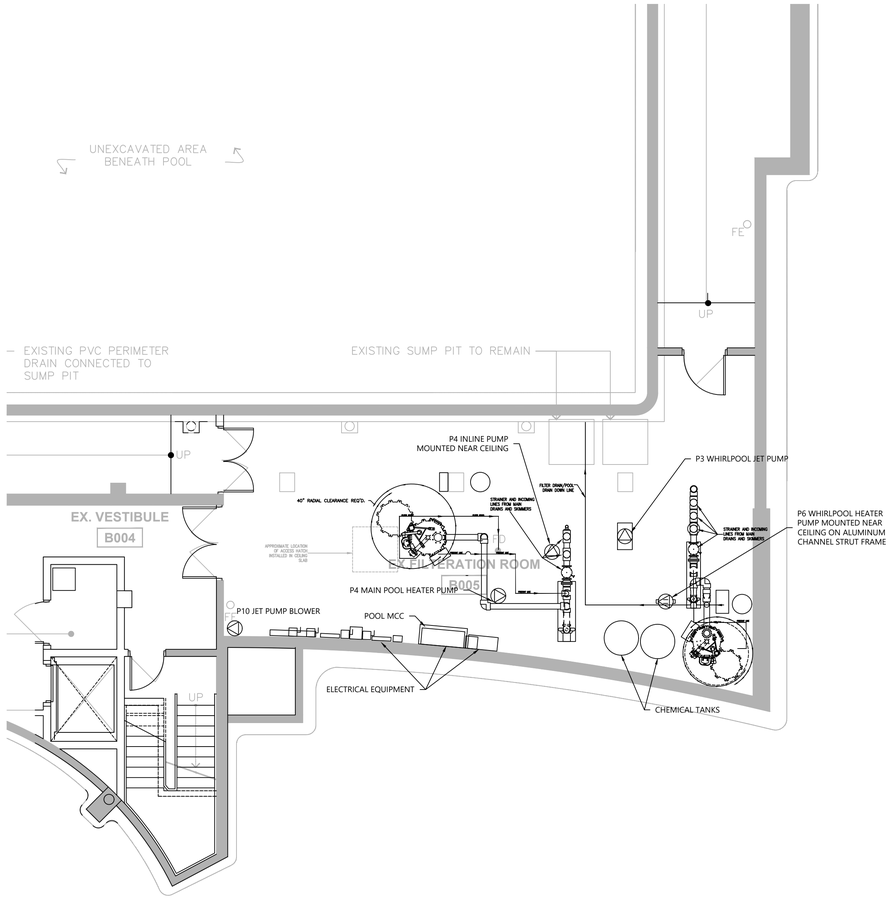
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
POOL FILTRATION SCHEMATICS

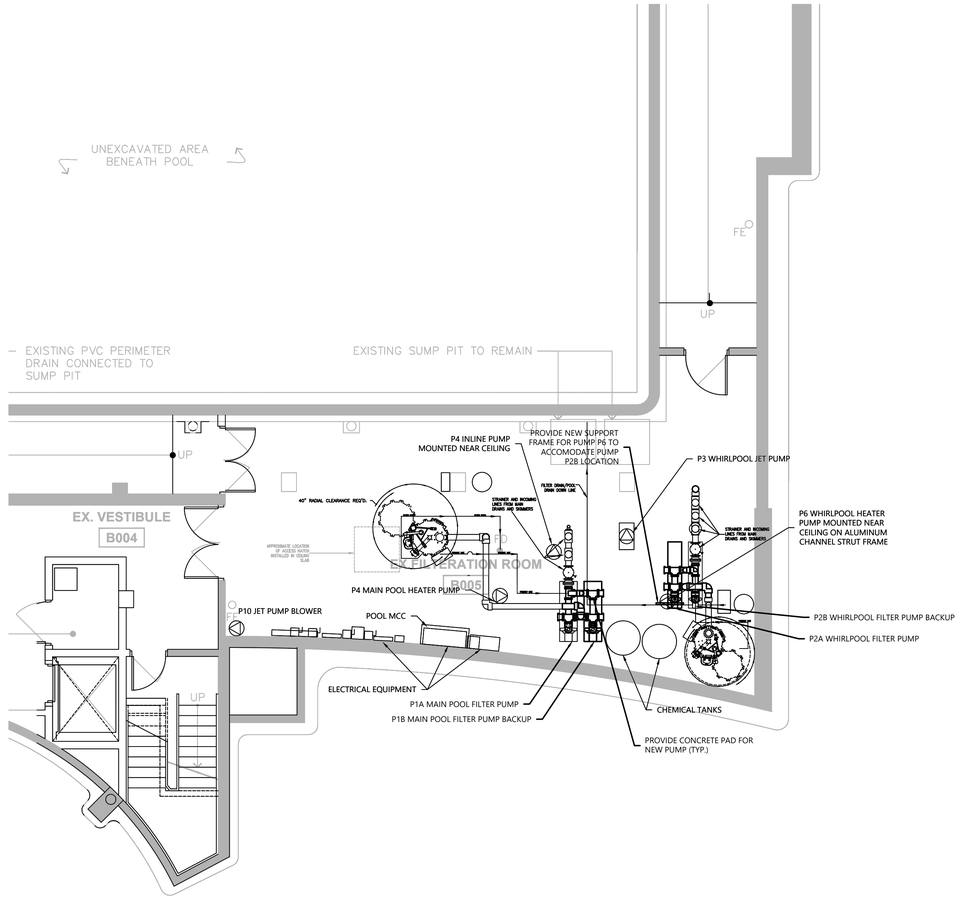
NTS	JD	DG
SCALE AT ARCH D:	DRAWN:	CHECKED:

25490	M500	E
PROJECT NO:	DRAWING NO:	REVISION:



POOL FILTRATION ROOM LAYOUT DEMO

1:75



POOL FILTRATION ROOM LAYOUT RETROFIT

1:75

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5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: MECHANICAL
POOL FILTRATION PIPING

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:75	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	M501	E

GENERAL ELECTRICAL CONDITIONS

1. CONTRACTOR IS RESPONSIBLE FOR ALL WORK, LABOUR, MATERIALS, TESTING TO DELIVER A COMPLETE AND FUNCTIONAL SYSTEMS, READY FOR OPERATION.
2. PERFORM WORK IN A CLEAN AND WORKMANLIKE MANNER. EXERCISE CARE TO DISRUPTION TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS AS REQUIRED TO CONTAIN DUST AND DEBRIS WITHIN THE CONSTRUCTION AREA.
3. THE DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC AND ARE DEVELOPED ON THE INDICATED BASIS OF DESIGN EQUIPMENT. ALL ITEMS MAY NOT BE SHOWN OR NOT SHOWN IN THEIR EXACT LOCATION, OR WITH EXACT DIMENSIONS AND DETAILS. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
4. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, REPORT THE CONDITIONS AND/OR ENGINEER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF THEIR OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES.
6. PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS.
7. CONSTRUCT WORK TO ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK. CORRECT ANY WORK IN VIOLATION OF ABOVE.
8. INSTALL OR ERECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. OBTAIN WRITTEN INSTRUCTIONS DIRECTLY FROM MANUFACTURER.
9. PROVIDE AND MAINTAIN TEMPORARY FIRE PROTECTION DURING PERFORMANCE OF THE WORK.
10. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. PROVIDE SLEEVES AND ACCESS DOORS REQUIRED FOR THE SERVICING OF CONCEALED EQUIPMENT.
11. REMOVE AND RELOCATE EXISTING WORK AS REQUIRED, NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS MAY NOT BE COMPLETELY DETAILED ON THE DRAWINGS. CONTRACTOR TO SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL.
12. SEAL ALL OPENINGS AROUND CABLES AND CONDUITS THROUGH PARTITIONS AND WALLS WITH APPROVED FIRESTOPPING MATERIAL. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE AND SMOKE SEAL RATINGS OF PARTITION.
13. CONSTRUCT WORK IN A MANNER SATISFACTORY TO THE OWNER.
14. CLEAN FROM ALL FIXTURES AND EQUIPMENT DUST, DIRT, FINGER-PRINTS, PAINT, GREASE, CONSTRUCTION AND DEMOLITION DEBRIS. CLEAN AND TOUCH UP SURFACES OF SHOP-PAINTED EQUIPMENT SCRATCHED OR MARRED DURING SHIPMENT OR INSTALLATION, TO MATCH ORIGINAL FINISH.
15. COORDINATE WORK OF OTHER TRADES (MECHANICAL, SPRINKLER, STRUCTURAL, ETC.). ENSURE THAT PROPER ARRANGEMENTS AND PROVISIONS ARE MADE FOR THIS WORK. COORDINATE ELECTRICAL REQUIREMENTS OF ALL OWNER-SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN.

SUBSTITUTIONS

1. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER. ALTERNATES MAY BE SUBMITTED IN PLACE OF SPECIFIED ELECTRICAL EQUIPMENT. CONTRACTOR SHALL INCLUDE ALL SPECIFIED MAJOR EQUIPMENT IN THE BASE BID AND SHOW LINE ITEM PRICE REDUCTIONS FOR PROPOSED ALTERNATES. ALTERNATES FOR MINOR EQUIPMENT MAY BE SUBSTITUTED WITHOUT PRESENTING LINE ITEM PRICE REDUCTIONS. FINAL APPROVAL OF ALL ALTERNATES SUBJECT TO OWNER/ENGINEER REVIEW. SUBMIT ALL REQUESTED INFORMATION TO ENGINEER FOR REVIEW OF ALTERNATES.
2. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS RELATED TO SUBSTITUTION TO DELIVER A COMPLETE AND FUNCTIONAL SYSTEM, READY FOR OPERATION. THIS INCLUDES CHANGES IN DUCT OR PIPING ARRANGEMENT OR SIZE, ELECTRICAL REQUIREMENTS (OVERCURRENT PROTECTION, WIRING, INTERLOCKS), REQUIRED ANCILLARY COMPONENTS, ADDITIONAL SUPPORTS, ETC.

PERMITS

1. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

SUBMITTALS

1. SUBMIT EQUIPMENT AND FIXTURE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASE, INSTALLATION OR FABRICATION. DO NOT PROCEED UNTIL REVIEWED SHOP DRAWINGS ARE RETURNED FROM THE ENGINEER.
2. SUBSTITUTION OF ANY EQUIPMENT, HARDWARE OR FIXTURES WITHOUT PRIOR APPROVAL FROM THE ENGINEER IS PROHIBITED AND AT CONTRACTOR'S OWN RISK.
3. SHOP DRAWINGS TO CLEARLY INDICATE PROJECT NAME, EQUIPMENT NAME, RELEVANT DETAILS REQUIRED FOR REVIEW TO CONFIRM DESIGN INTENT.

COMMISSIONING

1. TEST, ADJUST, STARTUP, AND PLACE INTO PROPER OPERATION ALL EQUIPMENT AND SYSTEMS INSTALLED UNDER THIS CONTRACT. PRIOR TO STARTUP ENSURE EQUIPMENT IS FREE OF DUST AND DEBRIS, ALL BEARINGS ARE LUBRICATED AND ALL PRECAUTIONS HAVE BEEN FOLLOWED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DEMONSTRATION AND TRAINING

1. DEMONSTRATE START-UP, OPERATION, CONTROL, ADJUSTMENT, TROUBLESHOOTING, SERVICING, AND MAINTENANCE OF EQUIPMENT AND SYSTEMS TO OWNER PERSONNEL. THIS INSTRUCTION IS TO BE BASED ON DATA INCLUDED IN THE OPERATIONS AND MAINTENANCE MANUALS (PREPARE AND INSERT ADDITIONAL DATA IN MANUALS WHEN NEED FOR ADDITIONAL DATA BECOMES APPARENT DURING INSTRUCTIONS).
   TRAINING MATERIAL TO INCLUDE "AS-BUILT" DRAWINGS, OPERATION MANUALS, AND MAINTENANCE MANUALS. OBJECTIVE OF TRAINING IS TO PROVIDE:
   1.1. SAFE, RELIABLE, COST-EFFECTIVE, ENERGY-EFFICIENT OPERATION OF SYSTEMS UNDER ALL CONDITIONS.
   1.2. EFFECTIVE ON-GOING INSPECTION AND MEASUREMENTS OF SYSTEM PERFORMANCE.
   1.3. PROPER PREVENTATIVE MAINTENANCE, DIAGNOSIS, AND TROUBLE-SHOOTING.
   1.4. ABILITY TO UPDATE DOCUMENTATION.

CLOSEOUT DOCUMENTATION

1. SUBMIT A SET OF AS-BUILT DRAWINGS TO OWNER/ENGINEER.
2. PROVIDE COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT SUPPLIED. PROVIDE IN OWNER PREFERRED FORMAT.

WARRANTY

1. PROVIDE A WRITTEN WARRANTY TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED DUE TO DEFECTS IN WORKMANSHIP WHICH DEVELOP WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL PERFORMANCE.

EQUIPMENT AND WIRING

1. MATERIALS AND EQUIPMENT: ALL ELECTRICAL PRODUCTS SHALL BE TESTED, CERTIFIED, AND LABELED IN ACCORDANCE WITH A CERTIFICATION PROGRAM ACCREDITED BY THE STANDARDS COUNCIL OF CANADA, CSA, WHERE A PRODUCT IS NOT SO LABELED, PROVIDE WRITTEN APPROVAL BY THE AUTHORITY HAVING JURISDICTION. WHERE CSA CERTIFIED MATERIAL AND/OR EQUIPMENT IS NOT AVAILABLE, OBTAIN SPECIAL APPROVAL FROM AUTHORITY HAVING JURISDICTION.
2. MOTORS, ELECTRIC HEATING, CONTROLS AND DISTRIBUTION DEVICES AND EQUIPMENT TO OPERATE SATISFACTORILY AT 60HZ WITHIN NORMAL OPERATING LIMITS ESTABLISHED BY CAN3-C235 (PREFERRED VOLTAGE LEVELS FOR AC SYSTEMS, 0 TO 50,000V). EQUIPMENT TO OPERATE IN EXTREME OPERATING CONDITIONS ESTABLISHED IN ABOVE STANDARD AT 40°C AMBIENT WITHOUT DAMAGE TO EQUIPMENT.
3. VERIFY INSTALLATION AND COORDINATION RESPONSIBILITIES RELATED TO MOTORS, EQUIPMENT AND CONTROLS. CONTROL WIRING TO BE PROVIDED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE.
4. WARNING SIGNS ARE TO BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.
5. WIRING AND RACEWAYS:
   5.1. CONDUCTORS TO BE COPPER, MINIMUM SIZE: 12 AWG.
   5.2. CONDUCTORS SIZED AS NOTED WITH 600V INSULATION IN ACCORDANCE WITH LATEST ELECTRICAL CODE.
   5.3. ARMOURED CABLES (AC90) SHALL ONLY BE USED FOR FINAL CONNECTIONS TO LIGHT FIXTURES IN LENGTH NOT EXCEEDING 8'; AND FOR RUNS CONCEALED IN STEEL PARTITIONS. PROVIDE SUFFICIENT JUNCTION BOXES AT CEILING TO MAINTAIN NEAT CEILING SPACE AND KEEP EXPOSED ARMOURED CABLES LESS THAN 8' IN LENGTH.
   5.4. MINIMUM CONDUIT SIZE: 3/4" EMT OR OF TYPE APPROVED FOR INTENDED USE AND AREA INSTALLED.
   5.5. INSTALL CONDUITS TO CONSERVE HEADROOM IN EXPOSED LOCATIONS AND CAUSE MINIMUM INTERFERENCE IN SPACES THROUGH WHICH THEY PASS
   5.6. CONCEAL CONDUITS EXCEPT IN UNFINISHED AREAS. RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
   5.7. PROVIDE BOXES AND FITTINGS SUITABLE FOR INTENDED USE AND AREA INSTALLED.
   5.8. ENSURE LUGS, TERMINALS, SCREWS USED FOR TERMINATION OF WIRING ARE SUITABLE FOR EITHER COPPER OR ALUMINUM CONDUCTORS.
   5.9. BOND AND GROUND AS REQUIRED TO LATEST EDITION OF ONTARIO ELECTRICAL SAFETY CODE.
6. IDENTIFY ELECTRICAL EQUIPMENT WITH LAMACOID NAMEPLATES (3MM THICK PLASTIC ENGRAVING SHEET, MATTE WHITE FINISH FACE, BLACK CORE). WORDING ON NAMEPLATE TO BE APPROVED BY CONSULTANT PRIOR TO MANUFACTURE.
7. COLOUR CODE CONDUITS, BOXES, AND METALLIC SHEATHED CABLES. CODE WITH PLASTIC TAPE OR PAINT - INSIDE BOXES IN AREAS WITH EXPOSED CEILINGS AND IN FINISHED AREAS; AT POINTS WHERE CONDUITS OR CABLES ENTERS WALL, CEILING, OR FLOOR, AND AT 50' INTERVALS: YELLOW FOR 600V; BLUE FOR 208V; RED FOR FIRE ALARM, AND NONE FOR OTHERS.
8. CONFIRM FINISHES OF EQUIPMENT DURING SHOP DRAWING SUBMITTALS.
9. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO CENTRELINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED OTHERWISE. CONFIRM ALL HEIGHTS WITH LOCAL INSPECTORS PRIOR TO ROUGH-IN TO ENSURE THEY MEET LOCAL INTERPRETATION OF CODE.
   9.1. LOCAL SWITCHES: 43"
   9.2. WALL RECEPTACLES: 12" OR MATCH EXISTING
   9.3. WALL RECEPTACLES ABOVE TOP OF COUNTERS OR COUNTER SPLASH BACKS: 7"
   9.4. WALL RECEPTACLES IN MECHANICAL ROOMS: 43"
   9.5. PANEL BOARDS: AS REQUIRED BY CODE
   9.6. TELEPHONE AND DATA OUTLETS: 12" OR MATCH EXISTING
   9.7. OPERATOR PUSHBUTTONS: 43" (CONFIRMED WITH BUILDING INSPECTOR)
   9.8. THERMOSTATS: 43"
   9.9. MANUAL PULL STATIONS: 47"
   9.10. VISUAL SIGNAL DEVICES : TOP OF DEVICE 94" AFF WHERE CEILING HEIGHTS ALLOW, ELSE TOP OF
   9.11. DEVICE 6" BELOW CEILING (ENTIRE LENS FOR VISUAL SIGNAL COMPONENT MUST BE BETWEEN 79" AND 94" AFF).
   9.12. END OF LINE RESISTORS: TOP OF DEVICE 70" AFF.
   9.13. EMERGENCY TELEPHONE HANDSETS: 53-59" AFF CONFIRMED WITH LOCAL BUILDING OFFICIAL
10. PRIOR TO ROUGH-IN LOCATE ADJACENT OUTLET BOXES 6" APART UNLESS NOTED OTHERWISE (DO NOT SCALE DRAWINGS).
11. COORDINATE WITH ENGINEER. OWNER MAY CHANGE LOCATION OF OUTLETS PRIOR TO INSTALLATION WITH NO CHANGE TO CONTRACT PRICE, PROVIDED DISTANCE DOES NOT EXCEED 10' FROM ORIGINAL LOCATION.
12. MECHANICAL EQUIPMENT CONNECTIONS: PROVIDE CONNECTIONS TO MECHANICAL EQUIPMENT AS PER DRAWINGS
13. PROVIDE CONDUIT ROUGH-IN FOR MECHANICAL CONTROLS AS PER MECHANICAL EQUIPMENT SCHEDULE.
14. COORDINATE MECHANICAL POWER AND CONTROL WIRING REQUIREMENTS PRIOR TO ROUGH-IN.
15. HANGERS AND SUPPORTS: INSTALL FASTENING AND SUPPORTS AS REQUIRED FOR EACH TYPE OF EQUIPMENT, CABLES, AND CONDUITS, IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
   15.1. SECURE EQUIPMENT TO HOLLOW MASONRY, TILE AND PLASTER SURFACES WITH LEAD ANCHORS
   15.2. SECURE EQUIPMENT TO POURED CONCRETE WITH EXPANDABLE INSERTS
   15.3. SECURE EQUIPMENT TO HOLLOW MASONRY WALLS OR SUSPENDED CEILINGS WITH TOGGLE BOLTS
   15.4. FASTEN EXPOSED CONDUIT OR CABLES TO BUILDING CONSTRUCTION OR SUPPORT SYSTEM USING STRAPS
   15.5. FOR SURFACE MOUNTING OF TWO OR MORE CONDUITS USE UNISTRUT CHANNELS.
   15.6. PROVIDE METAL BRACKETS, FRAMES, HANGERS, CLAMPS, AND RELATED TYPES OF SUPPORT STRUCTURES WHERE INDICATED OR AS REQUIRED TO SUPPORT CONDUIT AND CABLE RUNS.
   15.7. ENSURE ADEQUATE SUPPORT FOR RACEWAYS AND CABLES DROPPED VERTICALLY TO EQUIPMENT WHERE THERE IS NO SUPPORT WALL
   15.8. DO NOT USE SUPPORTS OR EQUIPMENT INSTALLED FOR OTHER TRADES FOR CONDUIT OR CABLE SUPPORT EXCEPT WITH PERMISSION OF OTHER TRADES AND APPROVAL OF ENGINEER.
16. WIRING DEVICES: INSTALL SWITCHES, RECEPTACLES, WIRING DEVICE, AND COVERS FLUSH AND LEVEL WITH BUILDING LINES. ENSURE THAT OUTLET BOXES ARE CLEAN PRIOR TO INSTALLING DEVICES.
   16.1. SWITCHES, RECEPTACLES, AND WIRING DEVICES TO BE SPECIFICATION GRADE, DECORA STYLE. DEVICE COLOUR TO BE DETERMINED DURING SHOP DRAWING REVIEW.
   16.2. COVER PLATES TO BE WHITE. THERMOPLASTIC COVER PLATE TO MATCH DEVICE COLOUR MAY BE SELECTED DURING SHOP DRAWING REVIEW STAGE.
17. LOAD BALANCING: MEASURE PHASE CURRENT TO PANELBOARD WITH NORMAL LOADS (LIGHTING) OPERATING AT TIME OF ACCEPTANCE; ADJUST BRANCH CIRCUIT CONNECTIONS AS REQUIRED TO OBTAIN BEST BALANCE OF CURRENT BETWEEN PHASES AND RECORD CHANGES. MEASURE PHASE VOLTAGES AT
18. LOADS AND ADJUST TRANSFORMER TAPS TO WITHIN 2% OF RATED VOLTAGE OF EQUIPMENT. PROVIDE LOAD BALANCE REPORT AT END OF PROJECT.
19. MEGGER TEST: PROVIDE MEGGER TEST (1000V) OF UNDERGROUND SECONDARY CONDUCTORS PRIOR TO ENERGIZING SERVICE. ENGINEER TO WITNESS TESTS.
20. FUSES: PROVIDE CLASS J, TIME DELAY FUSES IN ALL FUSED DISCONNECT SWITCHES. ENSURE CORRECT FUSES FITTED TO PHYSICALLY MATCH MOUNTING DEVICES.
21. PANELBOARDS: MAINS, NUMBER OF CIRCUITS, AND NUMBER AND SIZE OF BRANCH CIRCUIT BREAKERS, WITHSTAND CURRENT, AS INDICTED ON PANEL SCHEDULES. PANELBOARDS MUST BE SHIPPED WITH HINGED AND LOCKABLE DOORS. BREAKERS ARE TO BE BOLT-ON THERMAL AND MAGNETIC TRIPPING EXCEPT AS INDICATED OTHERWISE. PROVIDE LOCK-ON DEVICES FOR FIRE ALARM, EMERGENCY, STAIRWAY, AND EXIT CIRCUITS. REFER TO SINGLE-LINE DIAGRAM AND RELATED NOTES FOR ADDITIONAL EQUIPMENT REQUIREMENTS.
22. INSTALL PANEL BOARDS ON G1S PAINTED PLYWOOD BACKBOARDS.
23. DISCONNECT SWITCHES: PROVIDE FUSIBLE HEAVY-DUTY DISCONNECT SWITCHES WITH PROVISION FOR PADLOCKING IN ON-OFF SWITCH POSITION BY THREE LOCKS, AND MECHANICALLY INTERLOCKED DOOR.
24. CONDUCTOR RUNS WITH ANY PORTION OUTDOORS AND/OR UNDERGROUND TO BE RWU90. ALL OTHER RUNS RW90.
25. PROVIDE SEPARATE INSULATED BONDING CONDUCTOR IN EACH CONDUIT REGARDLESS OF CONDUIT MATERIAL. SIZE BONDING CONDUCTORS TO OESC.
26. CIRCUIT BREAKERS 400A AND LARGER TO HAVE ADJUSTABLE LSI TRIP SETTINGS.
27. PROVIDE GROUNDING AND BONDING AS REQUIRED BY OESC, ELECTRIC UTILITY, AND EQUIPMENT MANUFACTURERS, INCLUDING BUT NOT LIMITED TO GROUNDING RODS AND GROUNDING ARRAY AT UTILITY TRANSFORMER.
28. PERFORM ARC-FLASH HAZARD ANALYSIS AND PROVIDE ARC-FLASH WARNING LABELS ON ALL ELECTRICAL COMPONENTS RATED 60A OR GREATER. HAZARD ANALYSIS TO BE PERFORMED BY LICENSED PROFESSIONAL ENGINEER IN ONTARIO. SUBMIT ENGINEER'S REPORT.
29. PERFORM PROTECTIVE DEVICE COORDINATION STUDY TO ENSURE COORDINATION BETWEEN PROTECTIVE DEVICES. ANALYSIS TO BE PERFORMED BY LICENSED PROFESSIONAL ENGINEER IN ONTARIO. SUBMIT ENGINEER'S REPORT. ADJUST DEVICE TRIP SETTINGS BASED ON REPORT RESULTS.
30. ELECTRICAL DISTRIBUTION COMPONENTS TO BE FROM ONE OF THE FOLLOWING MANUFACTURERS: EATON, SCHNEIDER, SIEMENS.
31. PROVIDE MINIMUM 3 INCH HIGH CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.
32. UTILITY TRANSFORMER AND PRIMARY WIRING BY ELECTRIC UTILITY. CONTRACTOR TO PROVIDE SECONDARY DUCT BANK, SECONDARY CONDUCTORS, TRANSFORMER BASE, AND OTHER ACCESSORIES REQUIRED BY ELECTRIC UTILITY.

SCOPE OF WORK

THE FOLLOWING SCOPE OF WORK IS INTENDED TO SUMMARIZE WORK. CONTRACT DOCUMENTS IN THEIR ENTIRETY REPRESENT ALL WORK REQUIRED.

1. REPLACE POOL MCC.
2. PROVIDE VFDs AND MOTOR STARTERS AS INDICATED.
3. PROVIDE TRANSFORMERS FOR DUPLEX STORM SUMP PUMPS (TX-PMPS-1) AND DHW DISTRIBUTION (TX-DHW).
4. PROVIDE DIRECT CONNECTIONS AS INDICATED.
5. PROVIDE 29 12V/59Ah UPS BATTERIES. TEST BATTERIES AFTER INSTALLATION.
6. PROVIDE SERVICES AS REQUIRED INCLUDING POWER WIRING, RACEWAY, DISCONNECTS, AND OVERCURRENT PROTECTION.

CONSTRUCTION PHASING

REFER TO CITY OF MISSISSAUGA FRONT-END DOCUMENTS FOR CONSTRUCTION PHASING REQUIREMENTS. PERFORM WORK OUTSIDE OF FACILITY OPERATING HOURS AS REQUIRED TO NOT DISRUPT FACILITY.

LIFE SAFETY LEGEND

FIRE ALARM	
O	SIGNAL SILENCE
S	STAIRWELL SPEAKER
(S)	SPEAKER
(T)	FIREFIGHTER PHONE
(R)	FIRE ALARM RELAY
AM	ADDRESSABLE MODULE
MM	ADDRESSABLE MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
CR	CONTROL RELAY
EOL	END OF LINE DEVICE
SV	SUPERVISED VALVE
ATS	AUTOMATIC TRANSFER SWITCH
FS	WATER-FLOW SWITCH
PS	SPRINKLER PRESSURE SWITCH
FDC	FIRE DOOR CLOSER
ISO	FAULT ISOLATION MODULE
	HEAT DETECTOR
	SMOKE DETECTOR
F	HORN & STROBE COMBINATION DEVICE
	MANUAL PULL STATION
	SMOKE / CO COMBINATION DETECTOR
	STROBE ONLY DEVICE - WALL MOUNTED
m	DUCT - TYPE SMOKE DETECTOR
	REMOTE SAMPLING - TYPE SMOKE DETECTOR
FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR PANEL C/W GRAPHIC
NURSE CALL	
N	NURSE CALL INITIATION DEVICE
DL	NURSE CALL DOME LIGHT, CEILING MOUNTED
NCA	NURSE CALL ANNUNCIATOR, WALL MOUNTED PANEL

POWER DISTRIBUTION LEGEND

ABBREVIATIONS	
CCT	CIRCUIT
2P, 1Φ, 3W	POLE COUNT, PHASE COUNT, WIRE COUNT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
USB	RECEPTACLE C/W 2 USB CONNECTIONS
WP	WEATHER PROOF RECEPTACLE
MIC	MINERAL INSULATED CABLE
AWG, MCM	CABLE SIZING - AMERICAN WIRE GAUGE, THOUSANDS OF CIRCULAR MILS
Al, Cu	CABLE MATERIAL - ALUMINUM, COPPER
MLO, MCB, SFL, SFCB	PANEL CONNECTION - MAIN LUGS ONLY, MAIN CIRCUIT BREAKER, SUB-FEED LUGS, SUB-FEED CIRCUIT BREAKER
E P 2 A-12,14,16	POWER EQUIPMENT AND CIRCUIT NUMBERING CIRCUIT NUMBER(S) DESIGNATION OF MULTIPLE PANELS IN SAME AREA/LEVEL (A, B, C, ETC.) (OPTIONAL) AREA/LOCATION DESIGNATION EQUIPMENT TYPE - P: PANEL - D: DISTRIBUTION BOARD - S: SWITCH BOARD - TX: TRANSFORMER EQUIPMENT PREFIX (OPTIONAL) - E: EMERGENCY BACKUP - L: LOW VOLTAGE - M: MEDIUM VOLTAGE
SYMBOLS	
	120V-15A, 1Φ-2W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED
F C	120V-15A, 1Φ-2W GROUNDED DUPLEX RECEPTACLE, IN COMMON FLUSH BOX, FLOOR MOUNT, CEILING MOUNT
	120V-15A, 1Φ-3W GROUNDED DOUBLE DUPLEX RECEPTACLE IN COMMON BOX, WALL MOUNTED
	120V-15A, 1Φ-3W GROUNDED DOUBLE DUPLEX RECEPTACLE, IN COMMON FLUSH BOX, FLOOR MOUNT UON
	120V, AMPACTY PER CIRCUIT, 1Φ-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED
	208/240V-15A, 1Φ-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED
	208/240V, AMPACTY PER CIRCUIT, 1Φ-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED
	POWER DIRECT CONNECTION TO EQUIPMENT AS INDICATED
	PANEL BOARD - SURFACE MOUNTED, RECESSED
	DISTRIBUTION BOARD
	DISCONNECT SWITCH - FUSED
	DISCONNECT SWITCH - NON-FUSED
	TRANSFER SWITCH
	CIRCUIT BREAKER
M	POWER METER
M	MOTOR
J	JUNCTION BOX
	CONDUIT RUN TO PANEL
	ELECTRICAL FEEDER FROM UPSTREAM ELECTRICAL SERVICE
SPLITTER	SPLITTER
	GROUNDING POINT
	TRANSFORMER (SCHEMATIC)
	TRANSFORMER (LAYOUT)
	MOTOR STARTER (SCHEMATIC)
M	MOTOR STARTER (LAYOUT)

SECURITY SYMBOLS

ES	ELECTRIC STRIKE
CR	CARD READER
DC	DOOR CONTACT
FDC	FIRE DOOR CLOSER
KP	SECURITY KEYPAD
WO PO	WAVE / PUSH TO OPEN
WL PL	WAVE / PUSH TO LOCK
PDO	POWER DOOR OPERATOR
RX	REQUEST TO EXIT
RXM	REQUEST TO EXIT MOTION SENSOR
AT	ALARM AND TIMER
ML	MAGNETIC LOCK
EPS EPB	EMERGENCY PANIC STRIP / BUTTON
	SECURITY CAMERA
EM	EMERGENCY CALL FOR ASSISTANCE BUTTON
DL	EMERGENCY DOME LIGHT
RB	EMERGENCY CALL RESET BUTTON

LIGHTING SYMBOLS LEGEND

SPACE LIGHTING	
$	WALL MOUNTED SINGLE POLE SWITCH
$ OS	WALL MOUNTED SINGLE POLE SWITCH W/ OCCUPANCY SENSOR
$ D	WALL MOUNTED SINGLE POLE SWITCH W/ DIMMING
OS	CEILING MOUNTED OCCUPANCY SENSOR
TAG	ROUND CEILING MOUNTED LIGHT FIXTURE
TAG	CEILING MOUNTED LIGHTING FIXTURE
TAG TAG	WALL MOUNTED LIGHTING FIXTURE/WALLPACK
TAG	WALL MOUNTED LINEAR LIGHTING FIXTURE
EGRESS LIGHTING AND EXIT SIGNS	
	EMERGENCY LIGHTING BATTERY UNIT C/W UNIT MOUNTED QUARTZ HEADS EMERGI-LITE SERIES JMLC OR EQUIVALENT.
	EMERGENCY SURFACE MOUNTED DOUBLE HEAD LED REMOTE HEAD. EMERGI-LITE SERIES: EF9M OR EQUIVALENT.
	EMERGENCY SURFACE MOUNTED SINGLE HEAD LED REMOTE HEAD
	PICTOGRAM EXIT SIGN C/W TWO EMERGENCY BATTERY HEADS AND BATTERY UNIT. EMERGI-LITE SERIES: ESC OR EQUIVALENT.
	CEILING MOUNT ILLUMINATED LED EXIT SIGN WITH A BATTERY BACKUP. UNIVERSAL MOUNTING. SINGLE OR DOUBLE FACE AND DIRECTIONAL PICTOGRAMS AS INDICATED ON DRAWINGS. EMERGI-LITE SERIES: ES OR EQUIVALENT.
	WALL MOUNT ILLUMINATED LED EXIT SIGN WITH A BATTERY BACKUP. SINGLE FACE AND UNIVERSAL MOUNTING. DIRECTIONAL PICTOGRAMS AS INDICATED ON DRAWINGS. EMERGI-LITE SERIES: ES OR EQUIVALENT.
	CALL FOR HELP INDICATOR LIGHT

TELECOM SYMBOLS LEGEND

	DATA WALL OUTLET C/W 20Ø CONDUIT HOME RUN TO ACCESSIBLE CEILING SPACE
	TELEPHONE WALL OUTLET C/W 20Ø CONDUIT HOME RUN TO ACCESSIBLE CEILING SPACE
	COMBINATION DATA & TELEPHONE OUTLET - WALL MOUNTED C/W 20Ø CONDUIT HOME RUN TO ACCESSIBLE CEILING SPACE. MAXIMUM 4 DROPS PER WALL BOX - IF MORE THAN CONTRACTOR TO PROVIDE MULTI-GANG BOX AND FACEPLATE TO ACCOMMODATE AS REQUIRED.
	TV COAXIAL OUTLET C/W 20Ø CONDUIT HOME RUN TO ACCESSIBLE CEILING SPACE
	HDMI OUTLET C/W 20Ø CONDUIT HOME RUN TO ACCESSIBLE CEILING SPACE

GENERAL LEGEND

ABBREVIATIONS	
AFF, BFF	ABOVE FINISHED FLOOR, BELOW FINISHED FLOOR
AFC, BFC	ABOVE FINISHED CEILING, BELOW FINISHED CEILING
AFCT, BFCT	ABOVE FINISHED COUNTERTOP, BELOW FINISHED COUNTERTOP
UON	UNLESS OTHERWISE NOTED
TYP	TYPICAL
W/, W/O, C/W	WITH, WITHOUT, COMPLETE WITH
SYMBOLS	
65Ø	DIMENSION TAG
	LINE CONTINUATION
LINETYPES	
- - - - - - - - - -	DEMO
————	EXISTING
————	NEW
CONTROL SIGNALS	
OP/CL	OPEN/CLOSE
MOD	MODULATING
S/S	START/STOP
E/D	ENABLE/DISABLE
PD	PRESSURE DIFFERENTIAL
FS	FIRE STAT
FZ	FREEZE STAT
DI DO	DIGITAL INPUT / OUTPUT
AI AO	ANALOGUE INPUT / OUTPUT

SHEET LIST SCHEDULE

SHEET	TITLE
E100	LEGENDS AND NOTES
E101	SCHEDULES
E102	DETAILS
E200	B1 POOL POWER DISTRIBUTION DEMO
E201	B1 POOL POWER DISTRIBUTION RETROFIT
E202	L1 POWER DISTRIBUTION DEMO
E203	L1 POWER DISTRIBUTION RETROFIT
E204	L2 POWER DISTRIBUTION
E205	L2 MECH ROOMS POWER DISTRIBUTION
E300	ELECTRICAL SLD DEMO
E301	ELECTRICAL SLD RETROFIT
E400	L2 WASHROOM SECURITY

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

JDX ADVANCE

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Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES.

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
LEGENDS AND NOTES

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	PC	JD

PROJECT NO:	DRAWING NO:	REVISION:
25490	E100	E

TRANSFORMER SCHEDULE

TAG	SIZE [kVA]	PHASES	PRIMARY [V]	PRIMARY WINDING	SECONDARY [V]	SECONDARY WINDING
TX-PMPS-1	15	3	600	DELTA	400	WYE
TX-DHW	112.5	3	600	DELTA	120/208	WYE

PANEL DHW

VOLTAGE (V):	120/208	ENCLOSURE TYPE:	NEMA TYPE 1 SPRINKLER PROOF
PHASES:	3 ϕ 4 W	MOUNTING:	SURFACE
MAINS (A):	225	PANEL RATING (A):	225
AIC (A):		NOTES:	

CCT NO	DESCRIPTION	TRIP AMPS	POLE	POLE	TRIP AMPS	DESCRIPTION	CCT NO
1	DHWHP	80	2				
				2	80	DHWHP	2
3	DHWHP	80	2				
				2	80	DHWHP	4
5	DHWHP	80	2				
				1	15	DHWPMP-3	6
7	DHWHP	80	2				
				3	20	DHWG	8
9							
				3	20	DHWG	10
11							
				3	20	DHWG	12
13							
				2	15	DHWPMP-1	14
15							
				2	15	DHWPMP-1	16
17							
							18
19							
							20
21							
							22
23							
							24
25							
							26
27							
							28
29							
							30

MECH & ELEC COORDINATION SCHEDULE

TAG	QTY.	MECHANICAL INFORMATION: DESCRIPTION	MOTOR SIZE [kW]	FLA [A]	MCA [A]	MOCP [A]	ELECTRICAL POWER REQUIREMENTS: VOLTAGE [V/Ph/Hz]	SOURCE	LOCAL DISCONNECT	MOTOR CONTROL/EQUIPMENT INTEGRATION: STARTER TYPE	STARTER LOCATION	NOTES
DHWPMP-1	1	DHW GAS BOILER CIRC. PUMP	1.12			15	208/1/60	PANEL DHW		VFD	MECH. RM 2027	
DHWPMP-3	1	DHW HEAT PUMP CIRC. PUMP	0.13			15	115/1/60	PANEL DHW		MOTOR STARTER	MECH. RM 2027	
P1B	1	MAIN POOL FILTER PUMP BACKUP	14.91			20	575/3/60	PANEL PP-3		VFD	FILTRATION RM B005	VFD TO SHARE SAME FLOW SENSOR AS P1A.
P2B	1	WHIRLPOOL FILER PUMP BACKUP	7.46			15	575/3/60	PANEL PP-3		VFD	FILTRATION RM B005	VFD TO SHARE SAME FLOW SENSOR AS P2A.
SANPMP-1	1	DUPLEX SANITARY SUMP PUMPS	2 x 1.49			15	575/3/60	PANEL PP-3		MOTOR STARTER	FILTRATION RM B005	
PMPS-1	1	DUPLEX STORM SUMP PUMPS	2 x 5.59			15	400/3/60	PANEL PP-3		MOTOR STARTER	FILTRATION RM B005	
PMPS-2	1	SIMPLEX STORM SUMP PUMP	0.25			15	115/1/60	PANEL P		MOTOR STARTER	CRAWLSPACE B006	
PMPS-3	1	SIMPLEX STORM SUMP PUMP	0.25			15	115/1/60	PANEL P		MOTOR STARTER	CRAWLSPACE B007	
ACURT-1	1	AIR CURTAIN	2 x 0.54	8.6		15	208/1/60	PANEL HB	VESTIBULE 1006	INTERNAL	VESTIBULE 1006	
DHWG	1	DHW BOILER		10		20	208/3/60	PANEL DHW		INTERNAL	MECH. RM 2027	
DHWHP	3	AIR SOURCE HEAT PUMP		67		80	208/1/60	PANEL DHW		INTERNAL	MECH. RM 2027	
P3	1	WHIRLPOOL JET PUMP	3.72			30 (ADJ)	575/3/60	POOL MCC		MOTOR STARTER	FILTRATION RM B005	
P4	1	MAIN POOL HEATER PUMP	0.56			30 (ADJ)	115/1/60	POOL MCC		MOTOR STARTER	FILTRATION RM B005	POOL MCC FEEDS TX TO STEPDOWN VOLTAGE.
P5	1	WATER SLIDE PUMP	7.46			30 (ADJ)	575/3/60	POOL MCC	CRAWLSPACE B006	MOTOR STARTER	FILTRATION RM B005	
P6	1	WHIRLPOOL HEATER PUMP	2.24			30 (ADJ)	575/3/60	POOL MCC		MOTOR STARTER	FILTRATION RM B005	
P7	1	SPRAY POST #1	0.56			30 (ADJ)	575/3/60	POOL MCC	CRAWLSPACE B006	MOTOR STARTER	FILTRATION RM B005	
P8	1	SPRAY POST #2	0.56			30 (ADJ)	575/3/60	POOL MCC	CRAWLSPACE B006	MOTOR STARTER	FILTRATION RM B005	
P9	1	SPRAY POST #3	5.59			30 (ADJ)	575/3/60	POOL MCC	CRAWLSPACE B006	MOTOR STARTER	FILTRATION RM B005	
P10	1	WHIRLPOOL AIR BLOWER	1.86			30 (ADJ)	575/3/60	POOL MCC		MOTOR STARTER	FILTRATION RM B005	
P11	1	BUBBLER	0.75			30 (ADJ)	575/3/60	POOL MCC	CRAWLSPACE B006	MOTOR STARTER	FILTRATION RM B005	

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-	COORDINATION	2025-12-08

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300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

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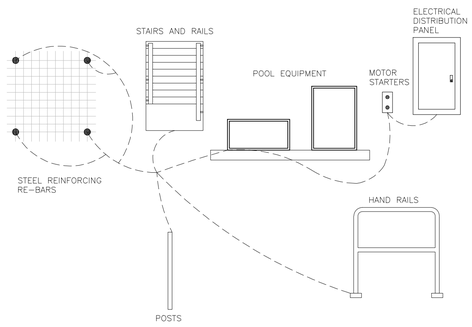
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

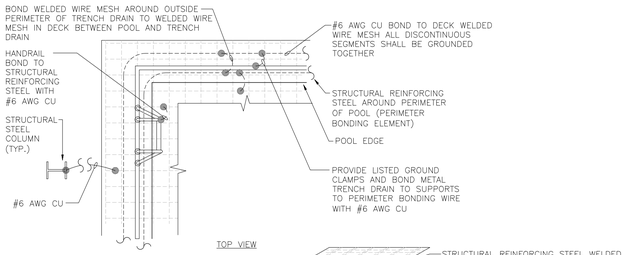
PROJECT: RIVER GROVE CC

TITLE: ELECTRICAL
SCHEDULES

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E101	E

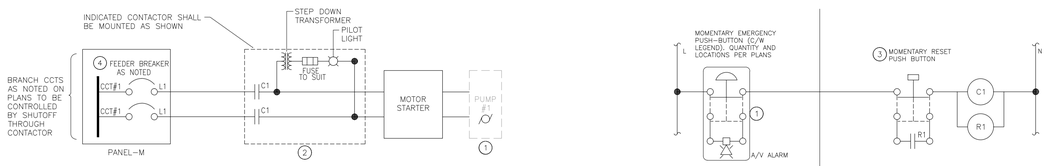


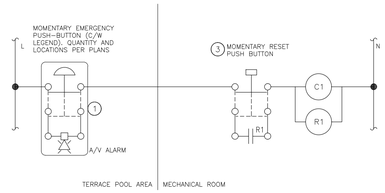


NOTE: ALL #6 AWG COPPER IS TO BE BARE AND SOLID

B–POOL GROUNDING SCHEMATIC DETAIL

SCALE: NTS





NOTES:

1. INDICATED DEVICES TO BE SUPPLIED AND INSTALLED BY POOL CONTRACTOR. FEEDERS AND CONNECTIONS BY ELECTRICAL CONTRACTOR.
2. CONTACTOR SHALL NOT CONTAIN MANUAL ON (HAND) SUCH THAT E–STOP FUNCTION CANNOT BE OVERRIDDEN.
3. MOMENTARY RESET PUSHBUTTON STATION SHALL HAVE NEMA 4X POLYCARBONATE HOUSING C/W 1–22mm SPRING RETURN, NORMALLY OPEN RESET BUTTON.
4. INDICATES BREAKERS TO BE CLASS 'A' 5mA STYLE GROUND FAULT.

A–EMERGENCY CONTROL FOR POOL PUMPS

SCALE: NTS

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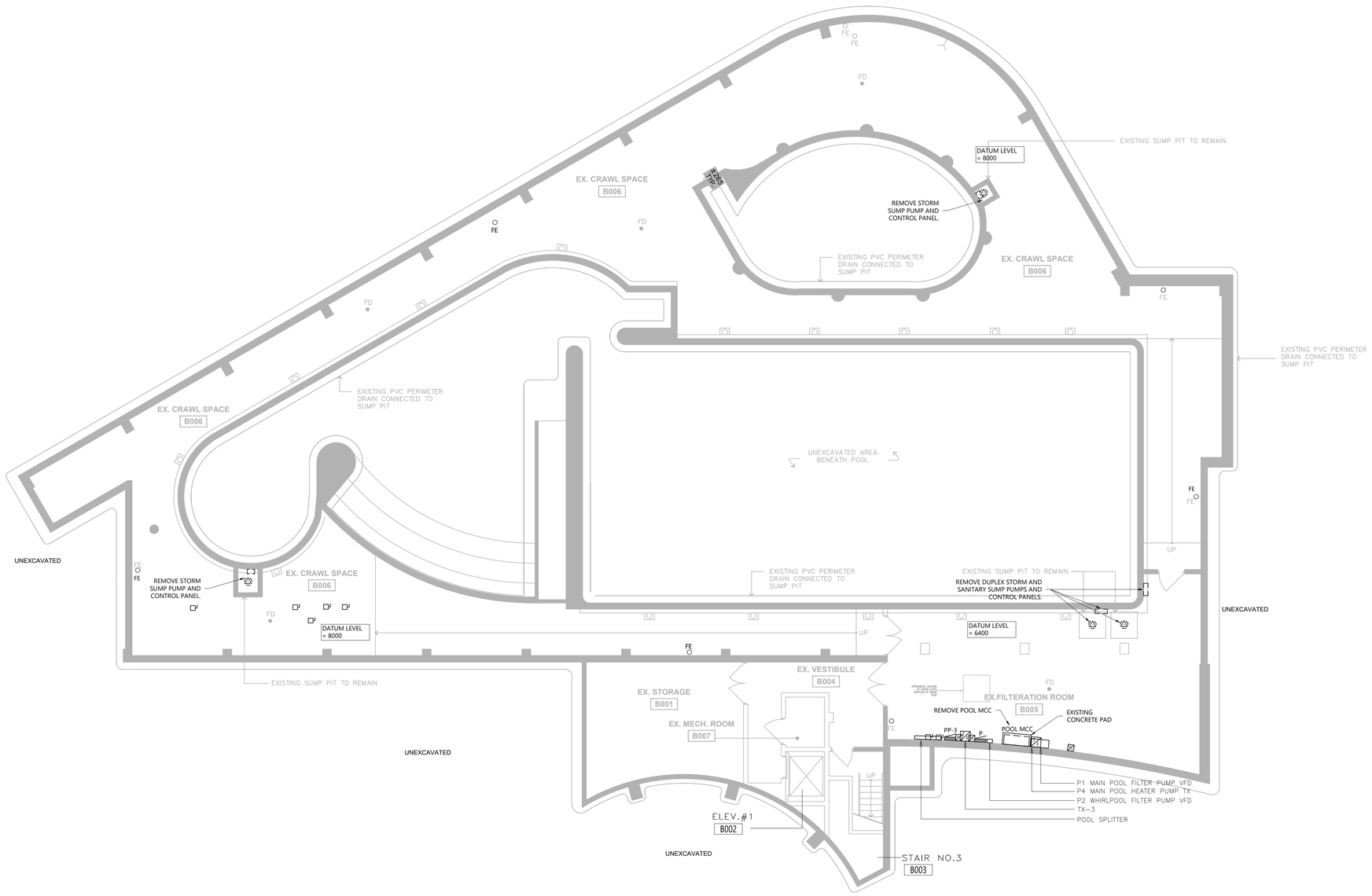
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
DETAILS

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E102	E



POOL BASEMENT POWER DISTRIBUTION DEMO

1:100

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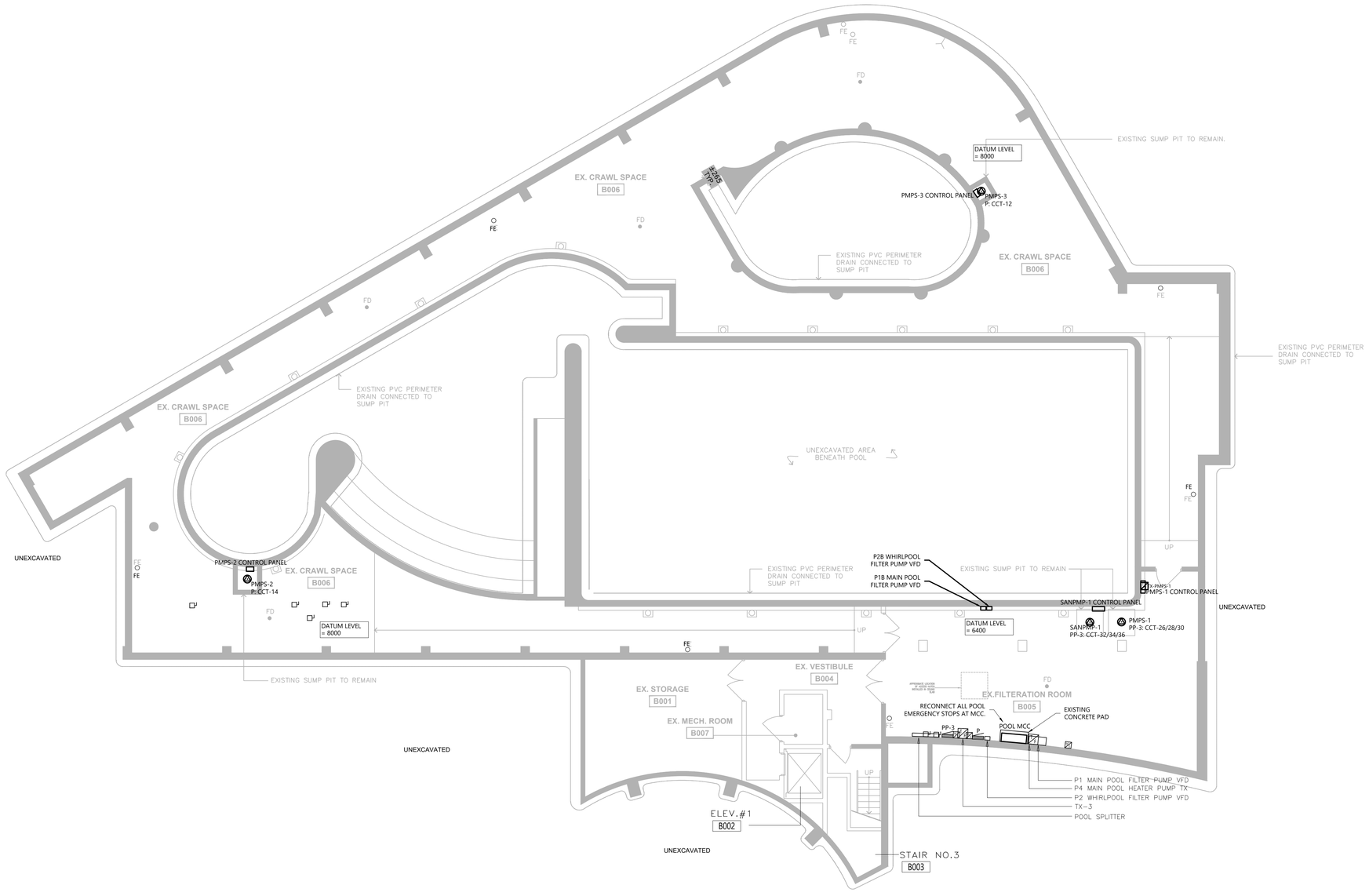
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
B1 POOL POWER DISTRIBUTION DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:100	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E200	E



POOL BASEMENT POWER DISTRIBUTION RETROFIT

1:100

REV.	DESCRIPTION	DATE
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300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

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SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
B1 POOL POWER DISTRIBUTION RETROFIT

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:100	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E201	E



FLOOR 1 POWER DISTRIBUTION DEMO

1:150

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SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
L1 POWER DISTRIBUTION DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E202	E



FLOOR 1 POWER DISTRIBUTION RETROFIT

1:150

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REV.	DESCRIPTION	DATE

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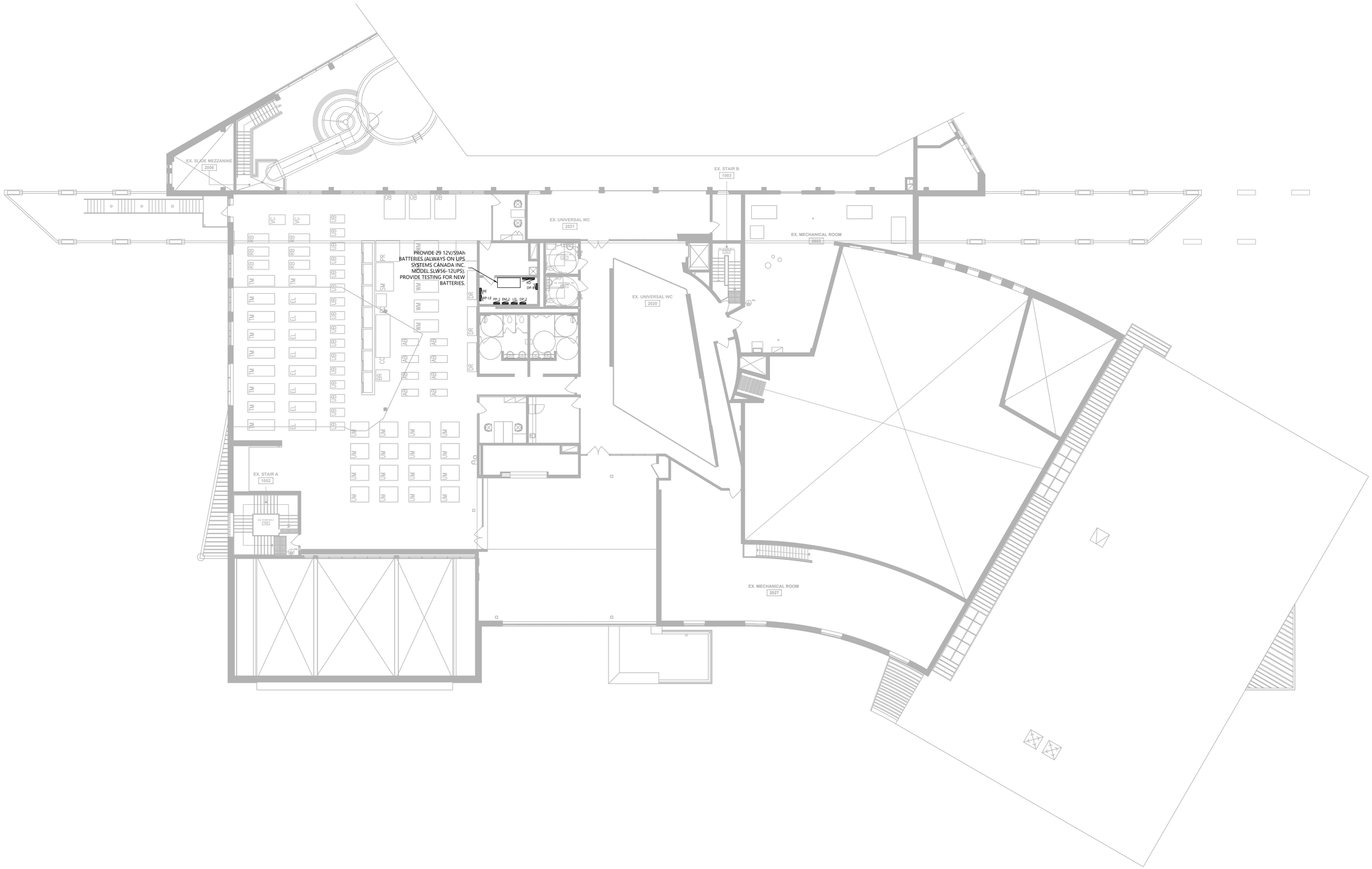
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
L1 POWER DISTRIBUTION RETROFIT

1:150	JD	DG
SCALE AT ARCH D:	DRAWN:	CHECKED:

25490	E203	E
PROJECT NO:	DRAWING NO:	REVISION:



FLOOR 2 POWER DISTRIBUTION RETROFIT

1:150

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
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A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

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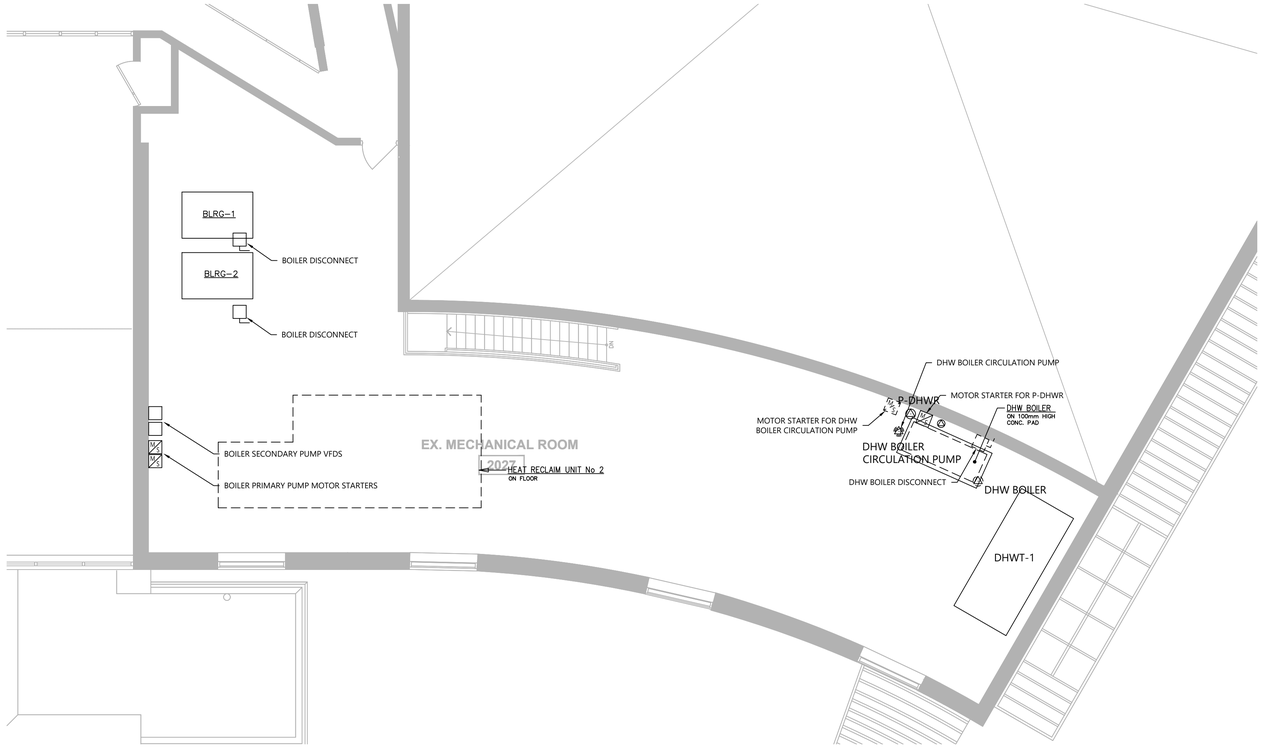
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
L2 POWER DISTRIBUTION

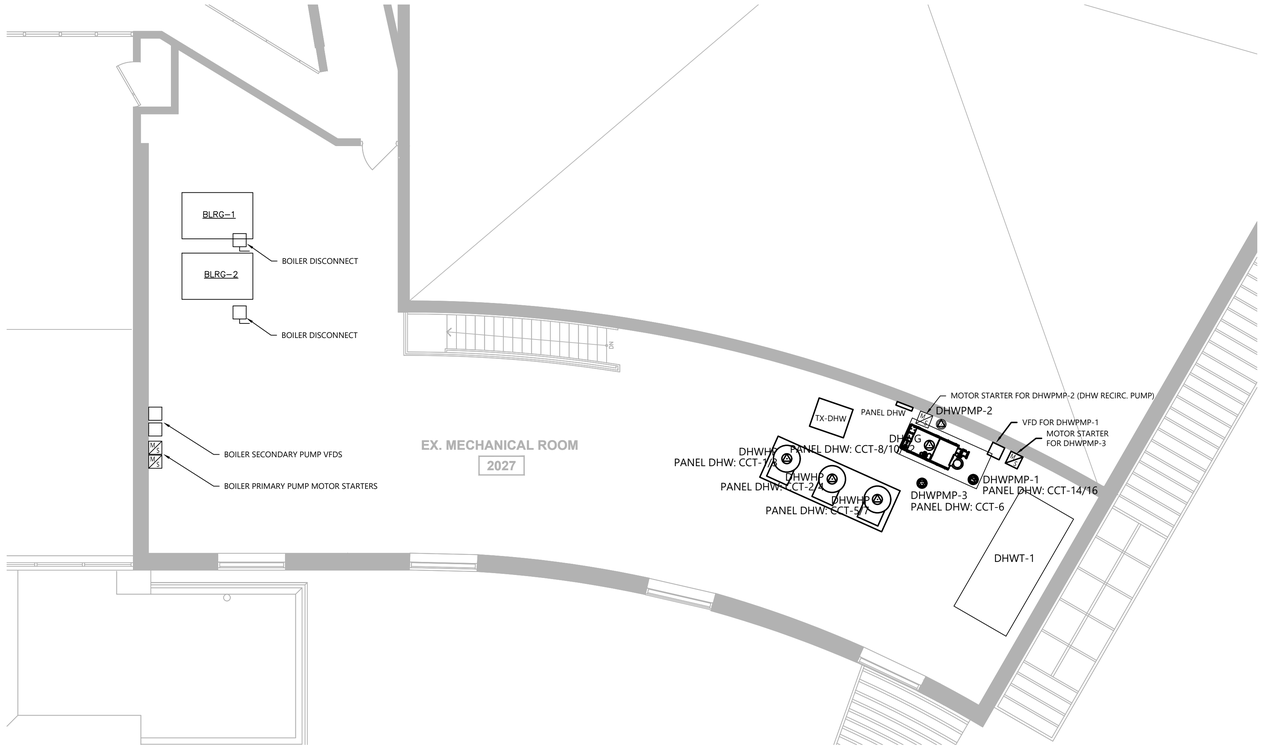
SCALE AT ARCH D:	DRAWN:	CHECKED:
1:150	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E204	E



MECH ROOM 2027 POWER DISTRIBUTION DEMO

1:75



MECH ROOM 2027 POWER DISTRIBUTION RETROFIT

1:75

REV.	DESCRIPTION	DATE
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-	COORDINATION	2025-12-08

JDX Advance Services Inc.
687 Barton Street, Suite 106
Stoney Creek, Ontario
289-329-0918 | www.JDXadvance.com

CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL | SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

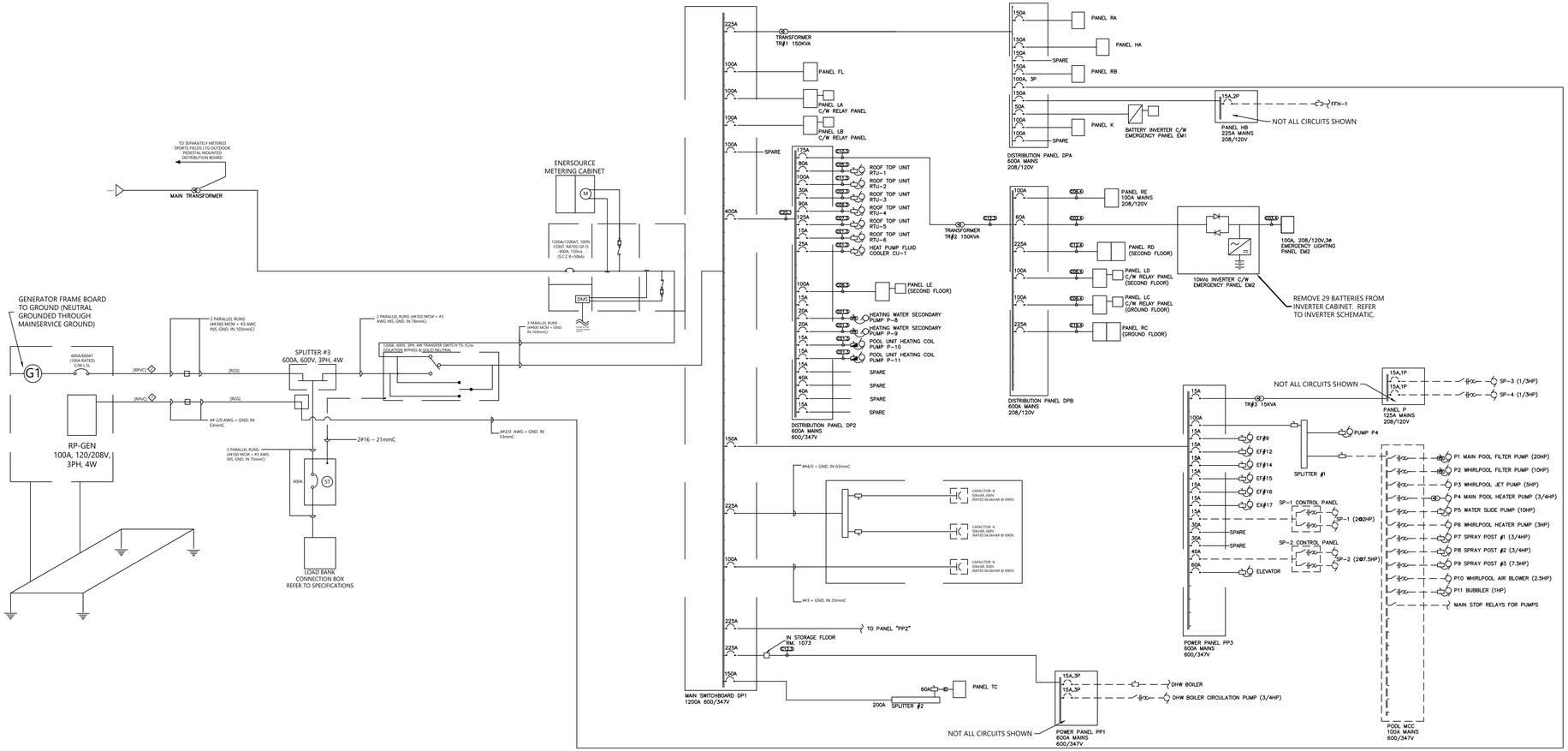
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

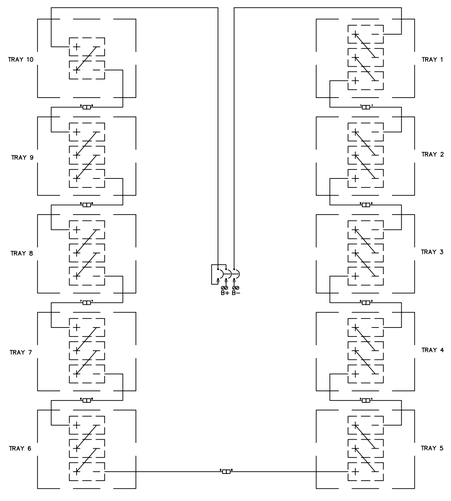
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L2 MECH ROOMS POWER DISTRIBUTION

SCALE AT ARCH D:	DRAWN:	CHECKED:
1:75	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E205	E



ELECTRICAL SINGLE LINE DIAGRAM - DEMO



INVERTER SCHEMATIC - DEMO

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

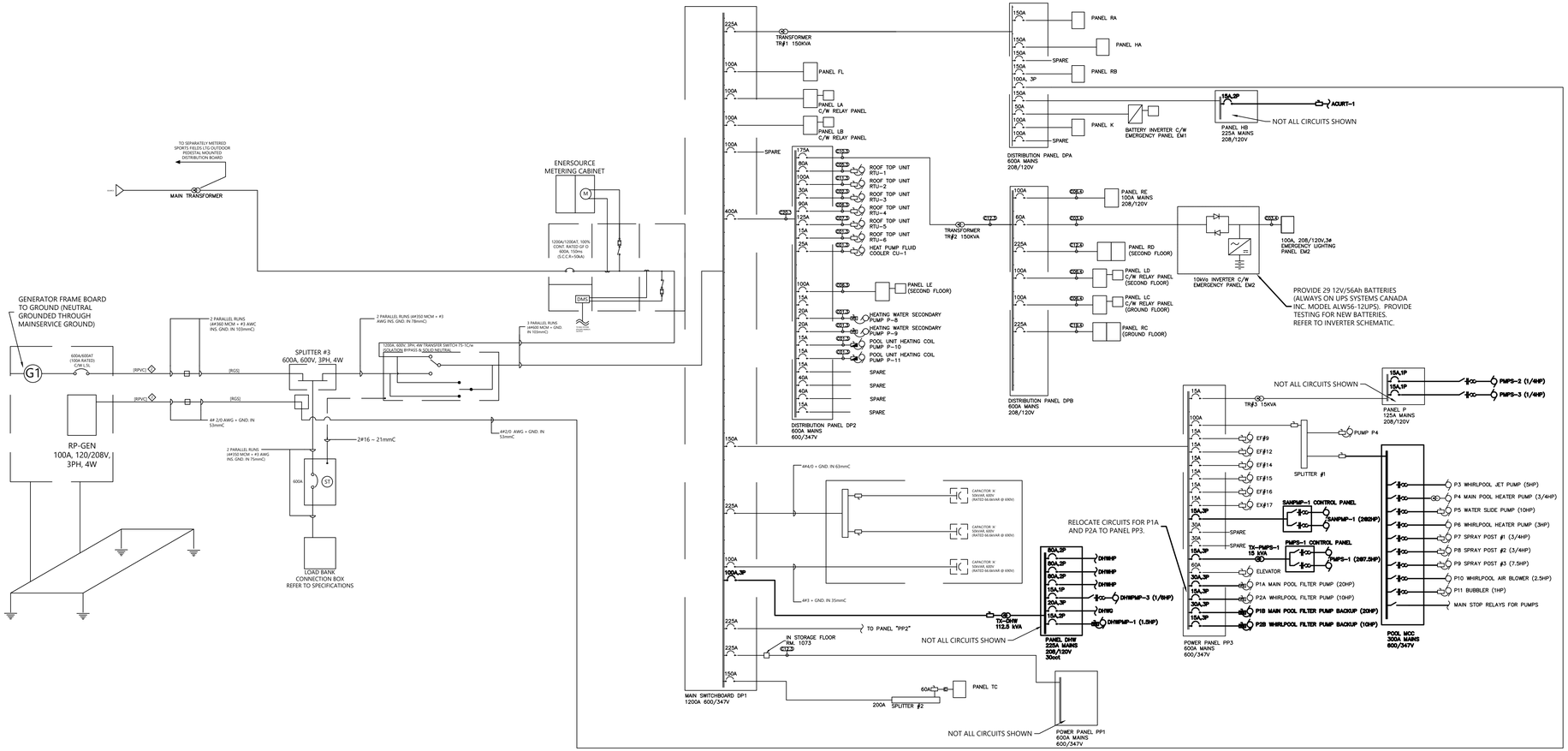
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

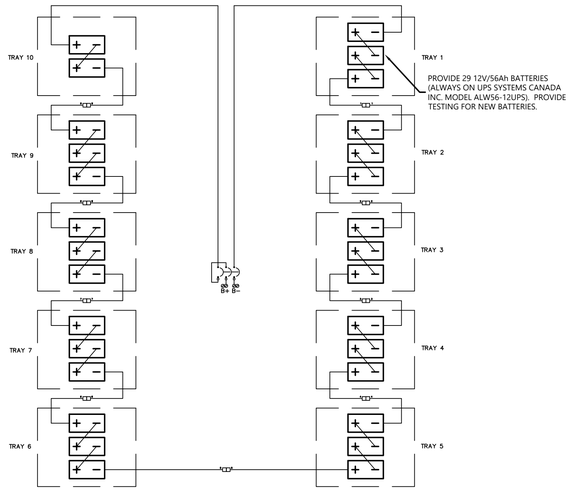
TITLE: ELECTRICAL
ELECTRICAL SLD DEMO

SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E300	E



ELECTRICAL SINGLE LINE DIAGRAM - RETROFIT



INVERTER SCHEMATIC - RETROFIT

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
D	REISSUED FOR PERMIT	2026-03-26
C	ISSUED FOR PERMIT	2026-02-10
B	ISSUED FOR CLASS A COSTING	2026-01-15
A	CLIENT REVIEW - 65%	2025-12-18
-	COORDINATION	2025-12-08

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CLIENT: CHERIE NG ARCHITECT INC.

OWNER: CITY OF MISSISSAUGA
300 CITY CENTRE DRIVE
MISSISSAUGA, ON L5K 1T9

SEAL

SEAL

DRAWINGS TO BE USED ONLY FOR INDICATED PURPOSES

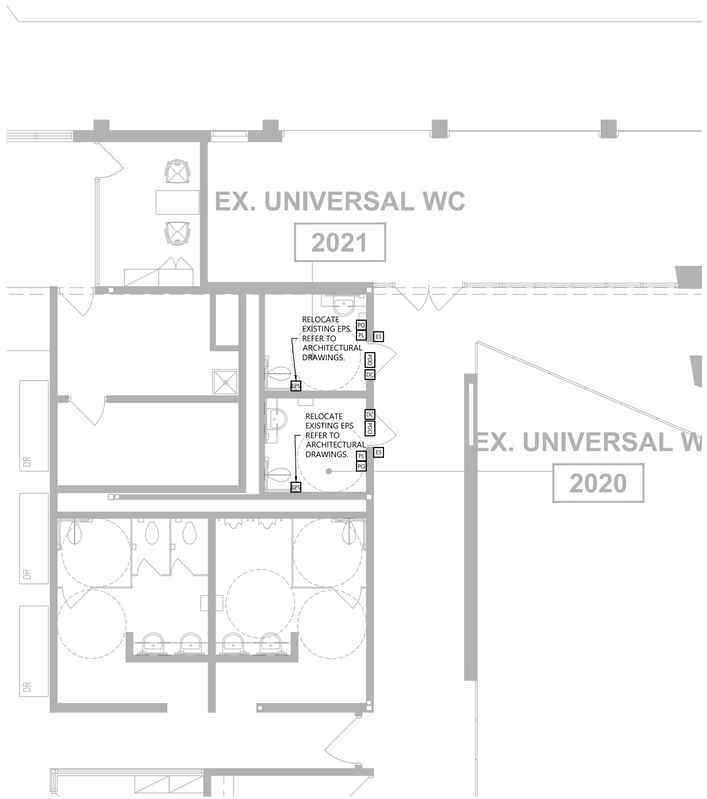
SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
ELECTRICAL SLD RETROFIT

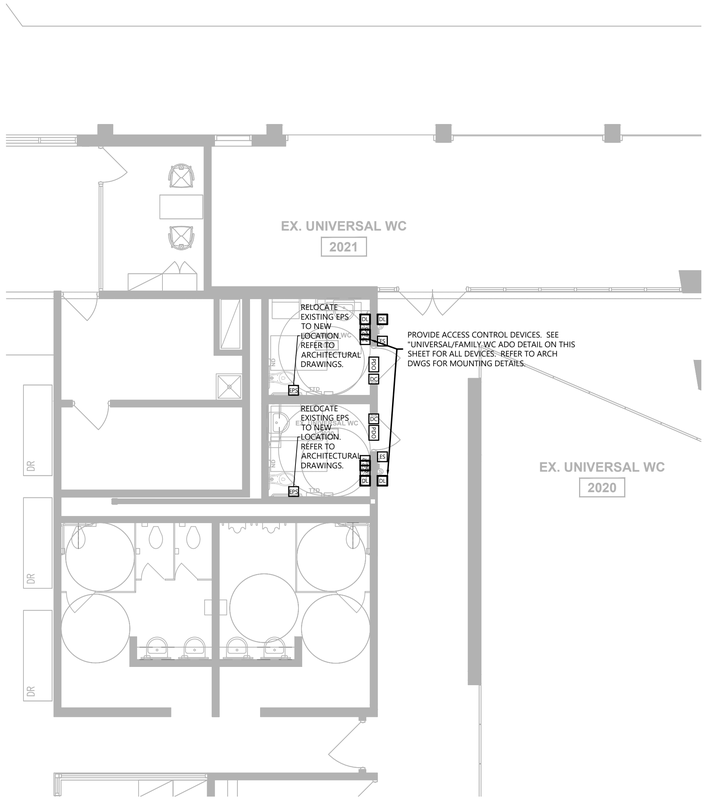
SCALE AT ARCH D:	DRAWN:	CHECKED:
N/A	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E301	E



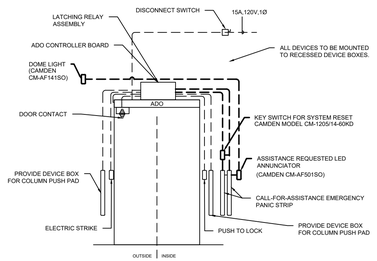
DEMO L2 UNIVERSAL WASHROOM AND FAMILY WASHROOM LAYOUT

1:25



RETROFIT L2 UNIVERSAL WASHROOM AND FAMILY WASHROOM LAYOUT

1:25



UNIVERSAL WASHROOM SYSTEM OPERATION

DOOR OPENER/LOCK OPERATION:

1. THE DOOR IS NORMALLY CLOSED AND UNLOCKED.
2. PRESSING THE EXTERIOR 'PUSH TO OPEN' PUSH PLATE OPENS THE DOOR.
3. ONCE INSIDE AND THE DOOR IS CLOSED PRESSING THE 'PUSH TO LOCK' PUSH PLATE LOCKS THE DOOR.
4. TO EXIT, PRESS THE INTERIOR PUSH PLATE TO UNLOCK THE DOOR AND RESET THE SYSTEM.
5. IF THE DOOR IS OPENED MANUALLY TO EXIT THE RESTROOM, THE OVERHEAD MAGNETIC CONTACT SWITCH RESETS THE SYSTEM.

PUSH FOR ASSISTANCE OPERATION:

1. THE 'CALL FOR ASSISTANCE' WASHROOM PANIC STRIP IS ACTIVATED BY THE OCCUPANT.
2. THIS ENERGIZES THE LED ANNUNCIATOR AND SOUNDER AND THE DOME LIGHT WITH SOUNDER OUTSIDE THE WASHROOM
3. BOTH UNITS WILL BE ENERGIZED UNTIL THE SYSTEM HAS BEEN RESET

UNIVERSAL WASHROOM SYSTEM OPERATION DETAIL

NTS

REV.	DESCRIPTION	DATE
E	ISSUED FOR TENDER	2026-04-20
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-	COORDINATION	2025-12-08

JDX ADVANCE

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SITE: RIVER GROVE COMM. CENTRE
5800 RIVER GROVE AVENUE
MISSISSAUGA, ON L5M 4R5

PROJECT: RIVER GROVE CC RENOVATIONS

TITLE: ELECTRICAL
L2 WASHROOM SECURITY

SCALE AT ARCH D:	DRAWN:	CHECKED:
AS SHOWN	JD	DG

PROJECT NO:	DRAWING NO:	REVISION:
25490	E400	E