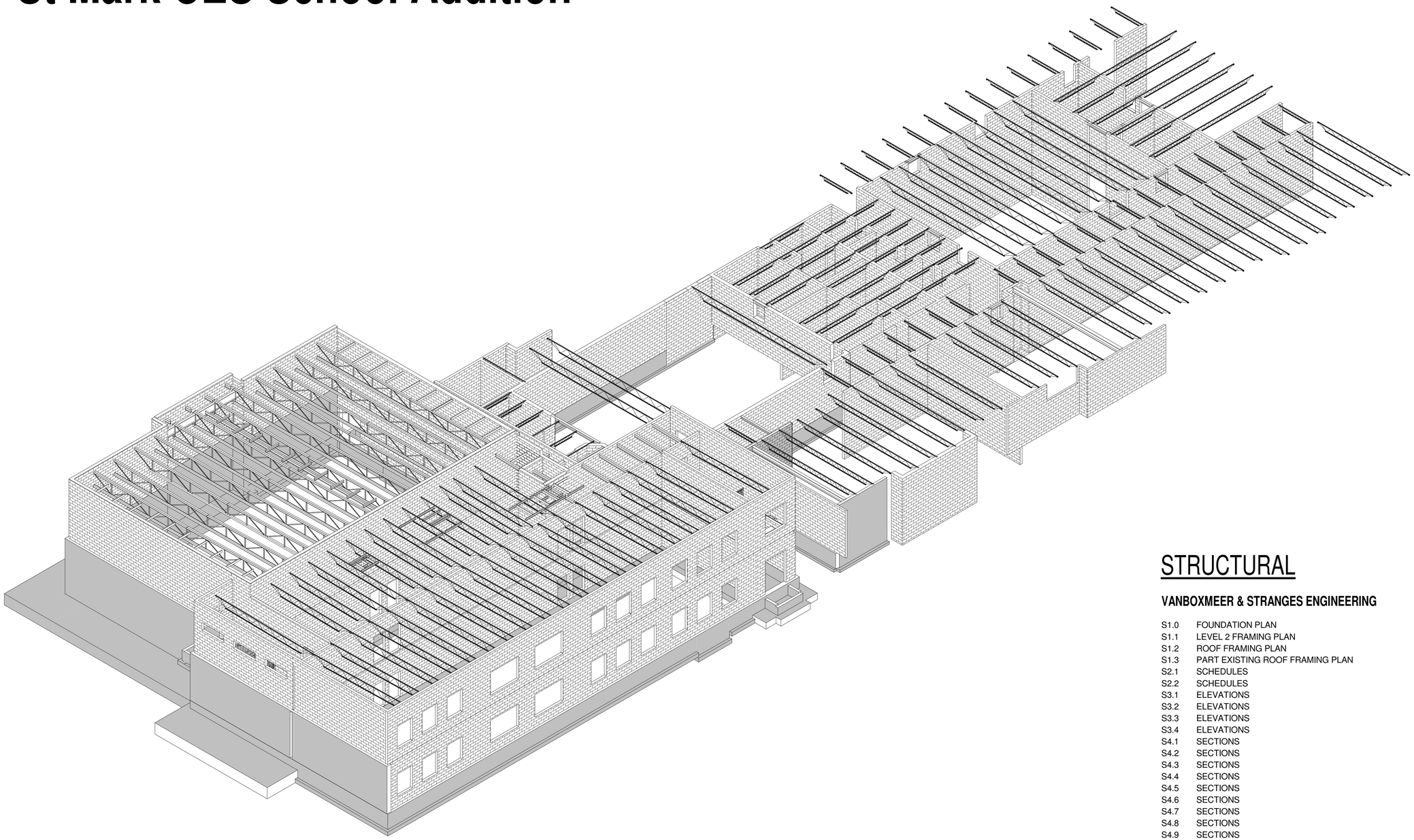
St Mark CES School Addition



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#	date:	revision:
6	2025.10.31	Revised SPA Comments
5	2025.09.08	Issued For Permit
4	2025.09.05	Issued For SPA
3	2025.08.29	90% Client Review
2	2025.08.08	80% Client Review
1	2025.07.11	70% Client Review

NOT FOR CONSTRUCTION

St. Mark CES Addition

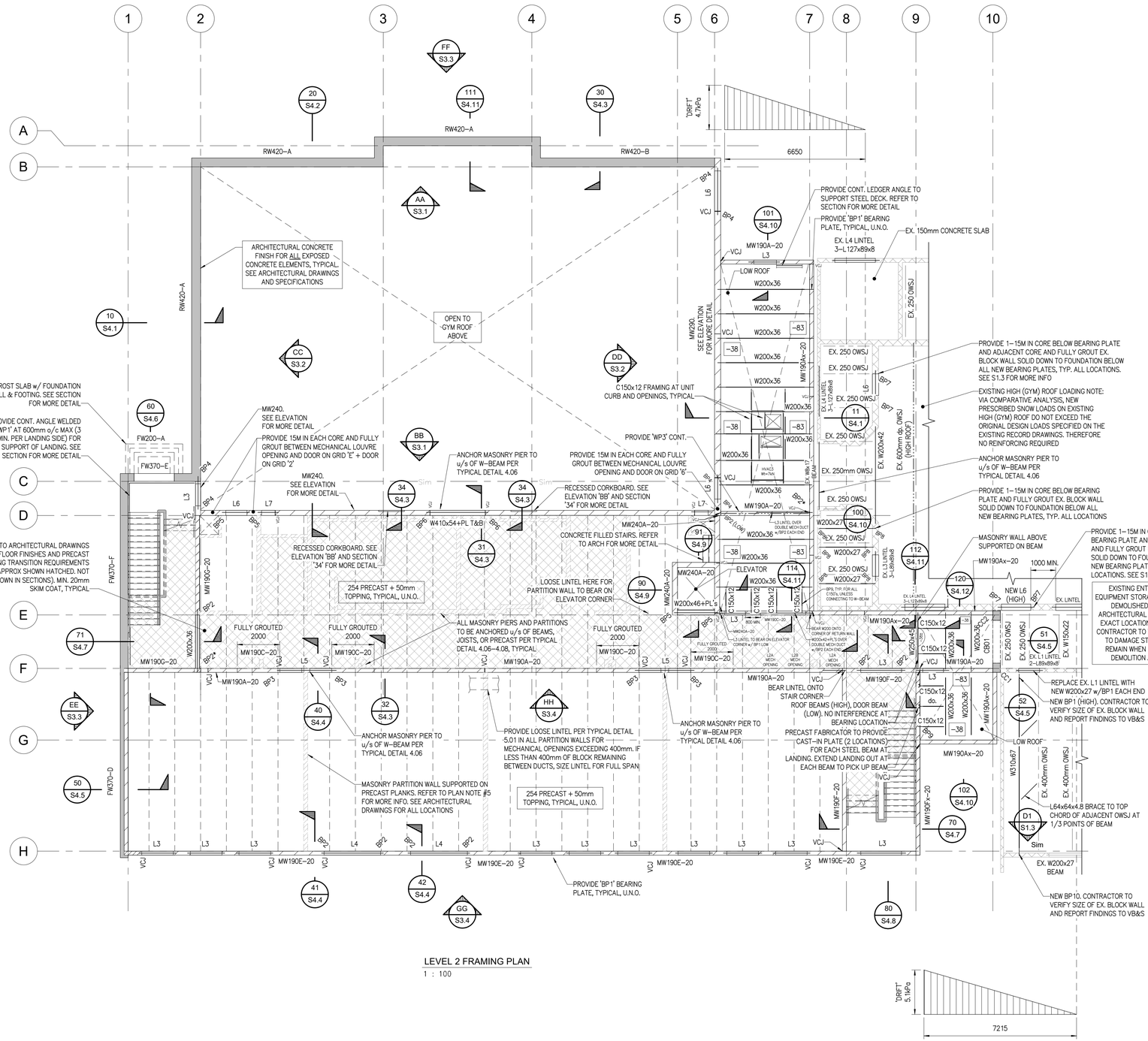
240 Autumn Hill Crescent, Kitchener, ON N2N 1K8

COVER SHEET STRUCTURE

scale:	
drawn by:	AH
reviewed by:	GG/CS
job number:	25027
plot date:	2026-04-10 2:04:09 PM

drawing number:

S0.00



LEVEL 2 FRAMING PLAN
1 : 100

LEVEL 2 FRAMING PLAN NOTES

1. LEVEL 2 FINISHED FLOOR ELEVATION IS AT +3797 (360.397m GEODETIC). CONFIRM ALL ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
2. TYPICAL SECOND FLOOR CONSTRUCTION: 50mm TOPPING (20mm MIN. SKIM COAT, SEE PLAN) ON 254mm HOLLOWCORE PRECAST PLANKS (SEE PLAN FOR LOCATIONS) SUPPORTED ON STEEL BEAMS AND BLOCK WALLS. HOLLOWCORE PLANK SHOP DRAWINGS BEARING THE SEAL OF AN ONTARIO P.ENG. SHALL BE SUBMITTED TO THE STRUCTURAL CONSULTANT. PLANKS TO BE DESIGNED FOR ALL LOADS SHOWN ON PLANS AND IN SCHEDULES.
3. TYPICAL LOW ROOF CONSTRUCTION U.N.O.: 38mm STEEL DECK SUPPORTED BY STEEL JOISTS OR STEEL BEAMS SPACED AS SHOWN ON PLAN. STEEL DECK FABRICATOR TO DESIGN DECK AND DETERMINE DECK THICKNESS (GAUGE) BASED ON LOADS SHOWN ON PLAN AND SCHEDULE (CANAM 1.5B OR EQUAL WITH MINIMUM 0.76mm THICKNESS). NOTE AREAS WITH DRIFT LOADING MAY REQUIRE HEAVIER GAUGE DECK – DESIGNER TO VERIFY ALL LOADS. SEE ROOF FRAMING NOTES FOR ADDITIONAL INFO AS REQUIRED.
4. TYPICAL STAIR, 2ND FLOOR– AND MID–LANDINGS CONSTRUCTION:
   2ND FLOOR LANDINGS: 50mm TOPPING (20mm MIN. SKIM COAT, SEE PLAN) ON 254mm SOLIDCAST PLANKS
   MID LANDINGS: 254mm SOLIDCAST PLANKS
5. PRECAST MANUFACTURER TO CO–ORDINATE ALL BLOCK PARTITION WALLS (SHOWN THUS ▭) AND EXTERIOR VENEER LOADING ON THE PRECAST PLANKS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR THE LOCATION OF ALL BLOCK PARTITION WALLS. 140 BLOCK WALLS W=9 kN/m. 190 BLOCK WALLS W=11 kN/m SLS.
6. SOME OPENINGS IN PRECAST CONCRETE FLOOR PLANKS ARE SHOWN ON THE FRAMING PLANS BASED ON THE LATEST MECHANICAL INFORMATION AVAILABLE TO THE CONSULTANTS. PRECAST CONCRETE FLOOR PLANK FABRICATOR TO CONFIRM AND COORDINATE ALL MECHANICAL OPENINGS AND SIZES WITH THE MECHANICAL AND GENERAL CONTRACTORS DURING THE SHOP DRAWING PHASE. SEE ALSO MECHANICAL AND ARCHITECTURAL DRAWING.
7. ALL OPENINGS IN THE PRECAST CONCRETE FLOOR SLABS NOT SHOWN ON PLAN ARE TO BE APPROVED BY THE PRECAST CONCRETE PLANK FABRICATOR.
8. INSTALL ANTI–ROTATION BARS AT THIRD POINTS OF PRECAST PLANKS IN ALL AREAS OF TO BE FINISHED WITH VINYL OR QUARRY TILES.
9. SEE ARCHITECTURAL DRAWINGS FOR COLUMN OFFSETS FROM GRID LINES.
10. SEE TYPICAL DETAIL 3.32 FOR ADDITIONAL STEEL PLATES REQUIRED FOR STEEL BEAMS SUPPORTING PRECAST CONCRETE FLOOR PLANKS. SEE TYPICAL DETAIL 5.10 FOR ADDITIONAL ANGLES WHICH MAY BE REQUIRED AT STEEL COLUMNS SUPPORTING PRECAST CONCRETE FLOOR PLANKS. REFER ALSO TO TYPICAL DETAIL 5.10 FOR PRECAST CONCRETE FLOOR PLANK SUPPORT AT STEEL COLUMNS.
11. PRECAST MANUFACTURER TO CO–ORDINATE SIZE AND LOCATION OF ALL MECHANICAL UNITS ON THE PRECAST INCLUDING THE WEIGHT OF THE HOUSEKEEPING SLABS. REFER TO TYPICAL DETAIL 3.33
12. TOP OF STEEL BEAMS ARE AT UNDERSIDE OF PRECAST PLANKS/STEEL DECK UNLESS NOTED ON PLANS THUS 'x200' BELOW TOP OF PLANK. SEE SECTIONS FOR DETAILS WHERE TOP OF STEEL BEAMS ARE RECESSED INTO THE PRECAST FLOOR PLANKS.
13. BEAMS DENOTED WITH →MC ARE TO BE CONNECTED FOR FULL MOMENT AND SHEAR CAPACITY OF BEAM UNLESS NOTED OTHERWISE.
14. WHERE SHOWN, 'WP1' – CONTINUOUS DECK WELD PLATE TO BE 100x6 WITH 12mmØ ANCHORS x 300 LG + 40 HK @ 400 o/c INSTALLED INTO GROUT–FILLED TOP COURSES OF LOAD BEARING CMU WALLS.
15. ALL BEAMS ON PLAN ARE TO BEAR ON 'BP1' BEARING PLATES AT 190 MASONRY WALLS, 'BP4' BEARING PLATES AT 240 MASONRY WALLS, 'BP7' BEARING PLATES AT 290 MASONRY WALLS U.N.O ON PLAN.
16. PROVIDE A SUITABLE LINTEL FOR ALL ARCHITECTURAL AND MECHANICAL DUCT OPENINGS. REFER TO LOAD BEARING BLOCK WALL LINTEL SCHEDULE AND TYPICAL DETAIL 5.01 FOR LINTELS IN NON LOAD BEARING WALLS.
17. LINTEL BEAMS AT EXTERIOR WALLS NOTED WITH +PL** ARE TO HAVE CONTINUOUS TOP+BOTTOM PLATE AND GUSSETS HOT DIPPED GALVANIZED AS SHOWN IN SECTION '42'.
18. DESIGN THE PRECAST FLOOR, INCLUDING CONNECTIONS TO SUPPORTING ELEMENTS FOR A FACTORED DIAPHRAGM SHEAR OF 27kN/m.
19. DESIGN THE LOW ROOF STEEL DECK, INCLUDING CONNECTIONS TO SUPPORTING ELEMENTS FOR A FACTORED DIAPHRAGM SHEAR OF 12kN/m. NOTE: AREAS WITH HIGHER DIAPHRAGM SHEAR LOADING MAY REQUIRE HEAVIER GAUGE DECK – DESIGNER TO VERIFY ALL LOADS.
20. VERTICAL CONTROL JOINTS ARE DENOTED AS 'VCJ' ON PLAN AND ELEVATION. LOCATIONS SHOWN ARE SUGGESTED LAYOUTS. ALL CHANGES REQUIRED TO LAYOUT OF 'VCJ' MUST BE APPROVED BY VB&S PRIOR TO CONSTRUCTION. BOND BEAM REINFORCING IS TO BE CONTINUOUS THRU VCJ AT ALL LOCATIONS, U.N.O.

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DO NOT SCALE DRAWING

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11	04.24.2026	ISSUED FOR TENDER	AV
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5	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

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240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

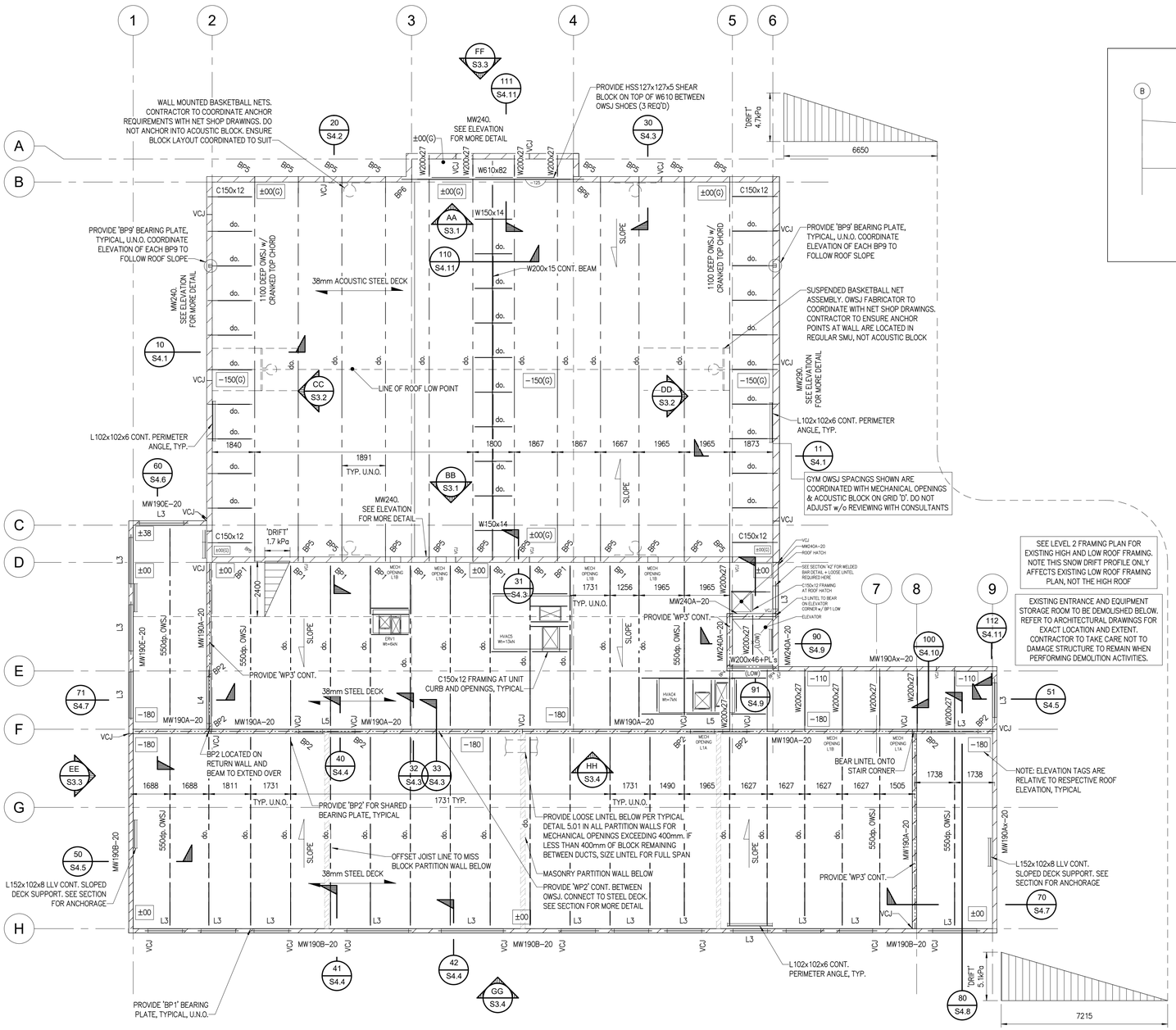
LEVEL 2 FRAMING PLAN

PN TN

scale:	As indicated
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:05 PM

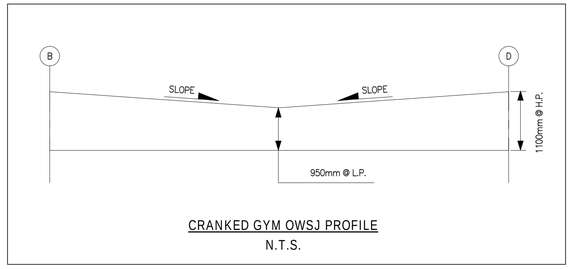
drawing number:

S1.1



ROOF FRAMING PLAN
1 : 100

TYPICAL UNFACTORED SNOW DRIFT ADJACENT TO ROOFTOP UNITS



CRANKED GYM OWSJ PROFILE
N.T.S.

ROOF FRAMING PLAN NOTES

1. ROOF U/S DECK ELEVATION IS AT +7607 (364.207m GEODETIC). GYM ROOF U/S DECK ELEVATION IS AT +8200 (364.800m GEODETIC). CONFIRM ALL ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
2. TOP OF STEEL BEAM IS AT UNDERSIDE OF SLOPING ROOF DECK UNLESS NOTED ON PLANS THUS ⌊x.xxx⌋ BELOW UNDERSIDE OF SLOPING ROOF DECK. TOP OF STEEL ELEVATIONS FROM UNDERSIDE OF ROOF DECK ARE BASED ON ASSUMED JOIST SHOE DEPTHS OF 100mm TYPICAL AND 125mm AT GYM ROOF, UNLESS NOTED OTHERWISE ON PLAN. AT W–BEAM ON GRID 'B' SUPPORTING GYM ROOF OWSJ's, PROVIDE HSS127x127x5 SHEAR BLOCKS BETWEEN JOIST SHOES AS SHOWN ON PLAN.
3. ROOF SLOPES ACHIEVED WITH SLOPED STRUCTURE (SEE ARCHITECTURAL DRAWINGS). ROOF SLOPES ARE SHOWN ON PLAN AS UNDERSIDE OF DECK ELEVATIONS ⌊ ±XX ⌋ (ROOF) AND ⌊±XX(G)⌋ (GYM) AT LOW AND HIGH POINTS, BASED ON THE LATEST INFORMATION AVAILABLE TO THE CONSULTANTS. COORDINATE ROOF SLOPES WITH ARCHITECTURAL DRAWINGS.
4. TYPICAL STEEL ROOF CONSTRUCTION U.N.O.: 38mm STEEL ROOF DECK SUPPORTED BY STEEL JOISTS OR STEEL BEAMS SPACED AS SHOWN ON PLAN. STEEL DECK FABRICATOR TO DESIGN DECK AND DETERMINE DECK THICKNESS (GAUGE) BASED ON LOADS SHOWN ON PLAN AND SCHEDULE (CANAM 1.5B OR EQUAL WITH MINIMUM 0.76mm THICKNESS). NOTE AREAS WITH DRIFT LOADING MAY REQUIRE HEAVIER GAUGE DECK – DESIGNER TO VERIFY ALL AREAS.
5. GYM ROOF CONSTRUCTION: 38mm ACOUSTIC STEEL ROOF DECK SUPPORTED BY STEEL JOISTS OR STEEL BEAMS SPACED AS SHOWN ON PLAN. STEEL DECK FABRICATOR TO DESIGN DECK AND DETERMINE DECK THICKNESS (GAUGE) BASED ON LOADS SHOWN ON PLAN AND SCHEDULE (CANAM 1.5B OR EQUAL WITH MINIMUM 0.76mm THICKNESS). NOTE AREAS WITH DRIFT LOADING MAY REQUIRE HEAVIER GAUGE DECK – DESIGNER TO VERIFY ALL AREAS.
6. STEEL DECK SPAN DIRECTION IS INDICATED WITH ARROWS AS THUS ⟶ ON PLAN.
7. ADDITIONAL SNOW LOAD ACCUMULATION IS INDICATED AS "DRIFT" AND IS SHOWN ON PLAN. THIS LOAD IS IN ADDITION TO THE BASIC SNOW LOAD LISTED ON THIS DRAWING. NOTE DRIFTS ARE CUMULATIVE – SEE DASHED PROFILE BOUNDARIES ON PLAN.
8. SEE ARCHITECTURAL DRAWINGS FOR COLUMN OFFSETS FROM GRID LINES.
9. OWSJ SPACING WILL VARY DEPENDING ON GRID SPACING AND TIE JOIST LOCATIONS. OWSJ AND DECK TO BE SIZED ACCORDINGLY.
10. OWSJ DESIGNER TO REFER TO MECHANICAL SPRINKLER DRAWINGS AND ALLOW FOR ASSOCIATED ADDITIONAL PIPE LOADS.
11. OWSJ DESIGNER TO REFER TO LATEST MECHANICAL TO COORDINATE DUCTS THROUGH THE OWSJ'S AND JOIST GIRDERS
12. DESIGN THE STEEL ROOF DECK AND STEEL JOISTS, INCLUDING THEIR CONNECTION TO SUPPORTING ELEMENTS FOR A FACTORED DIAPHRAGM SHEAR FORCE OF 13.0 kN/m. NOTE: AREAS WITH HIGHER DIAPHRAGM SHEAR LOADING MAY REQUIRE HEAVIER GAUGE DECK – DESIGNER TO VERIFY ALL LOADS.
13. DESIGN THE STEEL ROOF DECK, STEEL JOISTS AND THEIR CONNECTIONS TO SUPPORTING MEMBERS FOR AN UNFACTORED UNIFORM UPLIFT PRESSURE OF 1.2kPa. (USE DL=0.7kPa FOR UPLIFT LOAD CASE OF 1.4WL–0.9DL)
14. MECHANICAL ROOFTOP UNITS ARE SHOWN ON PLAN BASED ON THE LATEST INFORMATION AVAILABLE TO THE CONSULTANTS. STEEL FABRICATOR MUST COORDINATE FINAL WEIGHT, SIZE AND LOCATION OF ALL ROOFTOP UNITS WITH GENERAL CONTRACTOR PRIOR TO FABRICATION. SEE THIS SHEET FOR TYPICAL SNOW DRIFT DIAGRAM AROUND ROOFTOP UNITS.
15. NOT ALL ROOF OPENINGS HAVE BEEN SHOWN ON PLAN. STEEL FABRICATOR TO COORDINATE FINAL SIZE AND LOCATION OF ROOF OPENINGS WITH GENERAL CONTRACTOR PRIOR TO FABRICATION. SEE TYPICAL DETAIL 5.02 ON DRAWING S5.3 FOR REQUIRED FRAMING AROUND ROOF OPENINGS.
16. TIE JOISTS OR TIE JOIST GIRDERS ARE INDICATED ON PLANS AS "TJ" ON PLAN. EXTEND BOTH TOP AND BOTTOM CHORD MEMBERS AND CONNECT THEM TO COLUMN, BEAM, OR WALL.
17. BEAMS DENOTED WITH ⟶▶MC ARE TO BE CONNECTED FOR FULL MOMENT AND SHEAR CAPACITY OF BEAM UNLESS NOTED OTHERWISE.
18. ALL BEAMS ON PLAN ARE TO BEAR ON 'BP 1' BEARING PLATES AT 190 MASONRY WALLS, 'BP4' BEARING PLATES AT 240 MASONRY WALLS, 'BP7' BEARING PLATES AT 290 MASONRY WALLS U.N.O ON PLAN.
19. WHERE SHOWN, 'WP3' – CONTINUOUS DECK WELD PLATE TO BE 100x6 WITH 12mmØ ANCHORS x 300 LG + 40 HK @ 400 o/c INSTALLED INTO GROUT–FILLED TOP COURSES OF LOADBEARING CMU WALLS.
20. VERTICAL CONTROL JOINTS ARE DENOTED AS 'VCJ' ON PLAN AND ELEVATION. LOCATIONS SHOWN ARE SUGGESTED LAYOUTS. ALL CHANGES REQUIRED TO LAYOUT OF 'VCJ' MUST BE APPROVED BY VB&S PRIOR TO CONSTRUCTION. BOND BEAM REINFORCING IS TO BE CONTINUOUS THRU VCJ AT ALL LOCATIONS, U.N.O.

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St. Mark CES Addition

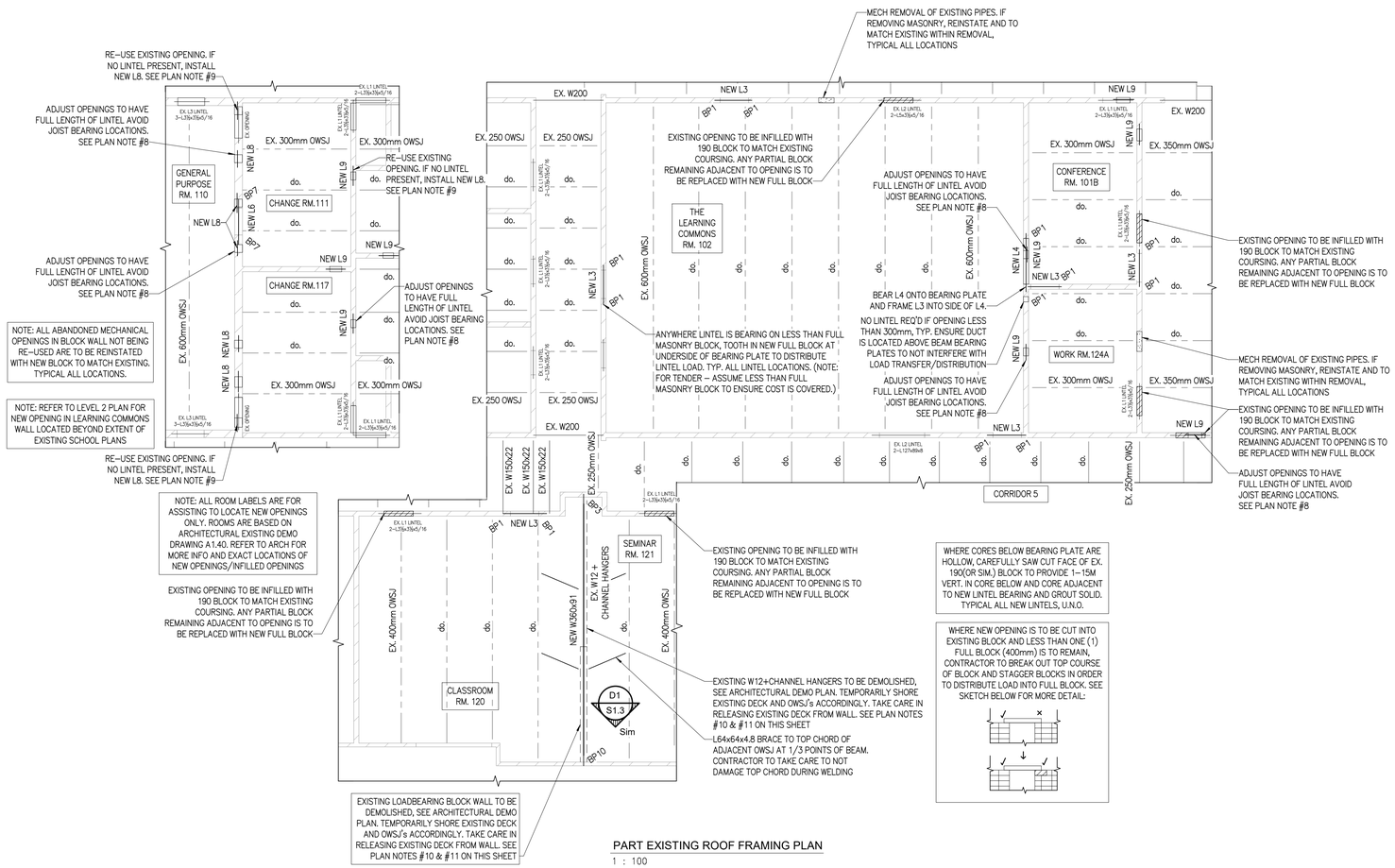
240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

ROOF FRAMING PLAN

scale:	As indicated
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:06 PM

drawing number:

S1.2



PART EXISTING ROOF FRAMING PLAN

1 : 100

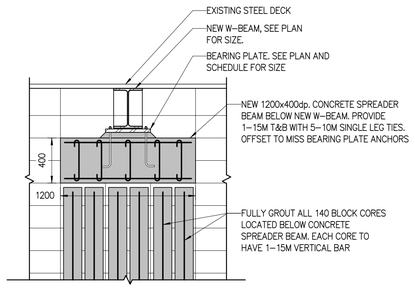
TEMPORARY SHORING NOTE: CONTRACTOR MUST REFER TO PLAN NOTE #10 PRIOR TO COMMENCING ANY DEMOLITION

EXISTING ROOF FRAMING PLAN NOTES

1. EXISTING ROOF U/S DECK ELEVATION IS AT +3797 (360.397m GEODETIC). EXISTING GYM ROOF U/S DECK ELEVATION IS AT +6372 (372.972m GEODETIC). CONFIRM ALL ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
2. TYPICAL EXISTING STEEL ROOF CONSTRUCTION U.N.O.: 38mm STEEL ROOF DECK SUPPORTED BY STEEL JOISTS OR STEEL BEAMS SPACED AS SHOWN ON PLAN.
3. OWSJ SPACING SHOWN IS APPROXIMATE ONLY. JOIST LOCATIONS TO BE VERIFIED ON SITE AND REPORT TO VB&S IF LOCATIONS VARY FROM ASSUMPTIONS.
4. NOT ALL ROOF OPENINGS HAVE BEEN SHOWN ON PLAN. STEEL FABRICATOR TO COORDINATE FINAL SIZE AND LOCATION OF ROOF OPENINGS WITH GENERAL CONTRACTOR PRIOR TO FABRICATION. SEE TYPICAL DETAIL 5.02 ON DRAWING S5.6 FOR REQUIRED FRAMING AROUND ROOF OPENINGS.
5. CONTRACTOR TO ALLOW FOR NEW LOOSE LINTELS AT ALL NEW MECHANICAL OPENINGS OVER 300mm WIDE WITHIN EXISTING SCHOOL WALLS. REFER TO PLAN AND LINTEL SCHEDULE FOR SIZE AND LOCATION. NOT ALL WALL OPENINGS ARE SHOWN, ALSO REFER TO MECHANICAL DRAWINGS. CONTACT VB&S FOR CONFIRMATION OF SIZE IF NOT SHOWN ON PLAN.
6. ABANDONED WALL OPENINGS FROM ALL EXISTING MECHANICAL AND ELECTRICAL DUCTS, ETC. TO BE REMOVED ARE TO BE INFILLED WITH CONCRETE BLOCK TO MATCH EXISTING. NOT ALL LOCATIONS ARE NOTED ON PLAN. REFER TO M+E DRAWINGS FOR ALL LOCATIONS.
7. CONTRACTOR TO ALLOW FOR LOOSE LINTEL PER TYPICAL DETAIL 5.01/5.01b FOR ALL NEW OPENINGS IN NEW/EXISTING NON-LOAD BEARING CONCRETE BLOCK WALLS INCLUDING BUT NOT LIMITED TO DOORS, M+E EQUIPMENT, ETC.
8. ALL NEW MECHANICAL OPENINGS ARE TO BE ADJUSTED TO AVOID BEING PLACED UNDER OWSJ/BEAM BEARING ON BLOCK WALL. COORDINATE WITH STRUCTURAL + MECHANICAL CONSULTANT AS REQUIRED PRIOR TO CREATING NEW OPENINGS.
9. CONTRACTOR TO ALLOW FOR NEW LINTELS OVER ALL EXISTING OPENINGS OVER 300mm BEING RE-USED. EXISTING CONDITION IS ASSUMED TO HAVE NO LINTEL CURRENTLY LOCATED IN EXISTING BLOCK WALL. NOT ALL LOCATIONS ARE SHOWN ON STRUCTURAL DRAWINGS. REFER TO MECHANICAL DRAWINGS FOR ALL LOCATIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION AND INSPECTION OF ALL TEMPORARY SHORING REQUIRED TO FACILITATE REMOVAL OF EXISTING BUILDING ELEMENTS AND INSTALLATION OF NEW STRUCTURE. THE CONTRACTOR SHALL SUBMIT SHORING SHOP DRAWINGS, SEALED BY AN ONTARIO P.ENG., FOR REVIEW AND APPROVAL BY CONSULTANTS. THE CONTRACTOR IS STRONGLY ENCOURAGED TO VERIFY LOADBEARING NATURE OF ANY BUILDING ELEMENT SHOULD THEY HAVE DOUBTS OR WHERE NOT CLEARLY SPECIFIED ON CONTRACT DOCUMENTS.
11. PRIOR TO DEMOLITION, THE CONTRACTOR MUST RECORD EXISTING CONDITIONS WITH PHOTOS AND MAKE AVAILABLE TO THE CONSULTANTS. REPORT ANY DISCOVERED EXISTING DAMAGED/CUT/BENT/ETC. BUILDING ELEMENTS TO THE CONSULTANTS FOR REVIEW.

NOTE: IF 290 BLOCK FOUNDATION BELOW IS NOT GROUTED SOLID, ENSURE GROUT PASSES THRU ALL THE WAY TO FOOTING.

NOTE: WHEN GROUTING EXISTING CONCRETE BLOCK SOLID, CONTRACTOR TO USE PILOT HOLES TO ENSURE WALL IS COMPLETELY FILLING WITH GROUT AND NO VOIDS ARE PRESENT IN WALL.



ELEVATION D1 / S1.1

1 : 25

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PART EXISTING ROOF FRAMING PLAN

PN

scale:	As indicated
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:06 PM

drawing number:

S1.3

STRUCTURAL DESIGN LOAD DATA

LOAD AREA #	FLOOR / ROOF LOCATION	PLAN DRAWING REFERENCE	TYPE OF LOAD			
			DEAD		LIVE	
			CONSTRUCTION	VALUE (kPa)	TYPE	VALUE (kPa)
1	ROOF – ALL OTHER AREAS	S1.2	ROOFING ALLOWANCE M+E ALLOWANCE CEILING ALLOWANCE 38mm METAL DECK STRUCTURAL STEEL ALLOW FOR: PAVERS	0.55 0.25 0.30 0.15 0.25 1.50 1.50 AS SHOWN	BASIC SNOW ALLOW FOR: SNOW DRIFT	2.30 AS SHOWN$_2$
2	GYM ROOF	S1.2B	ROOFING ALLOWANCE M+E ALLOWANCE 38mm METAL DECK STRUCTURAL STEEL	0.55 0.25 0.15 0.30 1.25	OCCUPANCY ALLOW FOR: SNOW DRIFT	2.30 AS SHOWN$_2$
3	SECOND FLOOR CLASSROOMS, OFFICES AND WASHROOMS	S1.1	FLOORING ALLOWANCE M+E ALLOWANCE CEILING ALLOWANCE 254mm HOLLOWCORE 50mm CONCRETE TOPPING STRUCTURAL STEEL PARTITION ALLOWANCE	0.30 0.30 0.30 3.60 1.20 0.30 1.00 7.00	OCCUPANCY	2.40
4	SECOND FLOOR ALL OTHER AREAS	S1.1A–S1.1B	FLOORING ALLOWANCE M+E ALLOWANCE CEILING ALLOWANCE 254mm HOLLOWCORE 50mm CONCRETE TOPPING STRUCTURAL STEEL PARTITION ALLOWANCE	0.30 0.30 0.30 3.60 1.20 0.30 1.00 7.00	OCCUPANCY	4.80
5	SECOND FLOOR ROOF (LOWER ROOF)	S1.1A–S1.1B	ROOFING ALLOWANCE M+E ALLOWANCE CEILING ALLOWANCE 38mm METAL DECK STRUCTURAL STEEL ALLOW FOR: PAVERS	0.50 0.30 0.30 0.15 0.25 1.50 1.50 AS SHOWN	BASIC SNOW ALLOW FOR: SNOW DRIFT	2.30 AS SHOWN$_2$
6	STAIRS	S1.1–S1.4	FLOORING ALLOWANCE OR TILE/50mm CONC TOPPING M+E ALLOWANCE CEILING ALLOWANCE 254mm SOLIDCAST NOTE: LEVEL 2 LANDINGS HAVE TILE/50mm TOPPING, MID–LANDINGS DO NOT HAVE TOPPING. REFER TO ARCHITECTURAL FOR MORE DETAIL	0.40/1.20 0.30 0.30 6.00 7.00(7.80)	OCCUPANCY	4.80
7	CONCRETE FILLED STEEL STAIRS	S1.1	51mm CONCRETE ON STEEL PLAN STRUCTURAL STEEL	1.20 0.30 1.50	OCCUPANCY	4.80

OTHER ENVIRONMENTAL LOADS

WIND PRESSURE
$q_{1/50}$ = 0.37 kPa
I_w = 1.15

SNOW & RAIN
S_s = 2.00 kPa
S_r = 0.40 kPa
I_s = 1.15

SEISMIC DATA
$S_a(0.2)$ = 0.208
$S_a(0.5)$ = 0.141
$S_a(1.0)$ = 0.0787
$S_a(2.0)$ = 0.0377
PGA = 0.1
I_E = 1.3

SITE CLASS: C
SEISMIC CATEGORY = SC2 (SEE NOTE 6)
M&E SEISMIC RESTRAINT = NOT REQ'D

METHOD OF ANALYSIS:
EQUIVALENT STATIC FORCE PROCEDURE

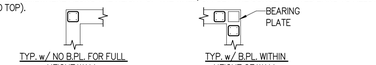
NOTES:

1. ALL LOADS SHOWN ABOVE APPLY TO THE AREAS OF THE BUILDING AS INDICATED (REFERENCE TO ARCHITECTURAL PLANS IS NECESSARY TO PROPERLY READ THIS TABLE), AND ARE BASED ON AND INTERPRETED FROM THE LATEST VERSION OF THE ONTARIO BUILDING CODE. USE THESE LOADS IN DESIGN OF BUILDING COMPONENTS AS REQUIRED.
2. ADDITIONAL SNOW PILE UP IS INCLUDED AS A "DRIFT" DIAGRAM ON ROOF FRAMING PLAN. SNOW DRIFT LOADS ARE IN ADDITION TO THE BASIC SNOW LOADS INDICATED. OVERLAPPING SNOW DRIFT LOADS ARE CUMULATIVE.
3. DEAD LOAD SHOWN IN TABLE IS EXCLUSIVE OF M+E EQUIPMENT. MECHANICAL EQUIPMENT PLAN SIZES AND LOADS ARE SHOWN ON STRUCTURAL PLAN BASED ON THE LATEST INFORMATION AVAILABLE TO THE CONSULTANTS. REPORT ANY DISCREPANCIES BETWEEN CONTRACT DOCUMENTS TO THE CONSULTANTS FOR REVIEW.
4. SEE MECHANICAL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR MECHANICAL EQUIPMENT LOCATIONS AND LOADS.
5. DEAD LOAD SHOWN IN TABLE IS EXCLUSIVE OF MASONRY WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR MASONRY WALL TYPE AND LOCATIONS.
6. THE "SEISMIC CATEGORY" VALUE LISTED ABOVE SHALL BE USED ONLY IN REFERENCE TO THESE STRUCTURAL DOCUMENTS. ALL OTHER CONSULTANTS (NOT STRUCTURAL) MUST VERIFY THIS "SEISMIC CATEGORY" PRIOR TO USING FOR THEIR OWN PURPOSES

NOTES:

1. UNLESS NOTED OTHERWISE IN SECTIONS AND DETAILS, PROVIDE DOWELS FROM STRIP FOOTING TO CONCRETE FOUNDATION WALL. DOWELS SHOULD MATCH VERTICAL WALL REINFORCING IN SIZE AND SPACING. THE LENGTHS OF DOWELS IN BOTH STRIP FOOTING & CONCRETE WALL SHOULD BE CLASS "A" SPLICE LENGTH MINIMUM.
2. SEE TYPICAL DETAIL 3.01 FOR CLEAR COVER TO REINFORCING BARS IN CONCRETE WALLS AND FOOTINGS.
3. FOR WALLS POURED IN MULTIPLE LIFTS, PROVIDE VERTICAL DOWELS FROM LOWER TO UPPER LIFT OF CONCRETE WALL TO MATCH VERTICAL REINFORCING IN UPPER LIFT.
4. FOR WALLS POURED IN MULTIPLE LIFTS, PROVIDE 2–20M CONT. TOP AND BOTTOM OF EACH LIFT
5. FOR WALL TYPES INDICATED, PLACE REINFORCING AND TIES AS SHOWN IN TYPICAL DETAIL 3.06 FOR TIED CONCRETE PIERS. PIER TYPE REINFORCING TO EXTEND FROM FOUNDATION WALL BELOW OR LOWER LIFT TO UPPER LIFT. PROVIDE TIED DOWELS TO MATCH PIER REINFORCING IN FOUNDATION WALL OR LOWER LIFT.
6. OUTSIDE FACE IS THE FACE OF THE WALL TOWARD TO THE EXTERIOR OF THE STRUCTURE (i.e. FACING OUTSIDE OR EXTERIOR AGAINST BACKFILL) OR IS THE LOW SIDE OF A RETAINING WALL.
7. SEE STRUCTURAL SPECIFICATION FOR REQUIRED MINIMUM CONCRETE STRENGTHS, SLUMPS, AND AIR CONTENTS.
8. TYPICAL, PROVIDE U–SHAPE BARS TO MATCH HORIZONTAL REINFORCING BAR AT WALL OPENING AND END OF WALL LOCATIONS

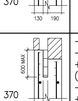
9. FOR SHEARWALLS, ELEVATOR SHAFT WALLS, STAIR SHAFT WALLS WITH FULL HEIGHT CONCENTRATED BARS + TIES AT ENDS AND CORNERS, WHERE A STEEL BEARING PLATE EXISTS AT THE END OR CORNER SOMEWHERE ALONG THE HEIGHT OF THE WALL, OFFSET THE CONCENTRATED BARS TO ALLOW TO THEM TO RUN UNIMPEDED FOR FULL HEIGHT OF WALL (FOOTING TO TOP).



10. ABBREVIATIONS:

V.I.F. = VERTICAL INSIDE FACE	V.O.F. = VERTICAL OUTSIDE FACE	T.U.L. = TOP UPPER LAYER
H.I.F. = HORIZONTAL INSIDE FACE	H.O.F. = HORIZONTAL OUTSIDE FACE	T.L.L. = TOP LOWER LAYER
V.E.F. = VERTICAL EACH FACE	H.E.F. = HORIZONTAL EACH FACE	B.U.L. = BOTTOM UPPER LAYER
E.W.E.F = EACH WAY EACH FACE	E.W.I.F. = EACH WAY INSIDE FACE	B.L.L. = BOTTOM LOWER LAYER
E.W.O.F. = EACH WAY OUTSIDE FACE	M.E.W. = MIDDLE EACH WAY	

FOUNDATION WALL AND STRIP FOOTING SCHEDULE

WALL MARK	WALL WIDTH (mm)	WALL REINFORCING	STRIP FOOTING SIZE (mm)	STRIP FOOTING REINFORCING	COMMENTS
FW200–A	200	– 2–20M CONT. T&B	600x300dp	– 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW200–B	200	– 2–20M CONT. T&B	SEE PLAN FOOTING: 35MPa	SEE PLAN – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW190–B	190	– 2–20M CONT. T&B	1200x300dp	– 4–15M CONT. B.U.L. – 15M @ 400 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW190–C	190	– 2–20M CONT. T&B	1800x400dp	– 8–15M CONT. B.U.L. – 15M @ 300 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW190–D	190	– 2–20M CONT. T&B	SEE PLAN FOOTING: 35MPa	SEE PLAN – HOOKED DOWELS (15M @ 300 V.E.F.)	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW240–A	240	– 2–20M CONT. T&B	SEE PLAN FOOTING: 35MPa	SEE PLAN – HOOKED DOWELS (15M @ 300 V.E.F.)	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW240–B	240	– 2–20M CONT. T&B – 15M@150 V.O.F., 15M@150 V.I.F. – 15M@150 H.E.F. – HOOKED DOWELS FROM FOOTING. SEE SECTION FOR MORE DETAIL	1200x400dp SEE PLAN FOR OFFSET "L–SHAPED FOUNDATION"	– 5–15M CONT. B.U.L. + T.L.L. – 15M @ 150 o/c B.L.L. + T.U.L. TRANSVERSE (HOOKED) – 15M @ 150 o/c V.O.F. HOOKED DOWELS. DOWEL TO ACHIEVE FULL CLASS 'B' LAP WITH B.U.L. BARS – 15M @ 200 o/c V.I.F. DOWEL x 600 LONG	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW240–C	240	– 2–20M CONT. T&B	1200x400dp	– 5–15M CONT. B.U.L. – 15M @ 400 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW240–D	240	– 2–20M CONT. T&B	1800x400dp	–8–15M CONT. B.U.L. – 15M @ 300 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW290–A	290	– 2–20M CONT. T&B	800x300dp	– 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW355–A	355	– 2–20M CONT. T&B – SEE PLAN FOR CONCRETE COLUMN LOCATIONS. BARS TO EXTEND DOWN WITH HOOKED DOWELS INTO FOOTING	1200x400dp	– 5–15M CONT. B.U.L. – 15M @ 400 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED – HOOKED DOWELS TO MATCH COLUMN REINFORCING	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW370–A		– 2–20M CONT. T&B – 130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) – 190 UPSTAND: 15M@300 VERTICAL MIDDLE + 3–10M@200mm o/c MAX	600x300dp	– 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – REFER TO ARCH. DWGS. FOR EXTENTS AND ELEVATIONS OF BRICK LEDGES
FW370–B		– 2–20M CONT. T&B – 130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) – 190 UPSTAND: 15M@300 VERTICAL MIDDLE + 3–10M@200mm o/c MAX	800x300dp	– 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – SEE SECTION '41' FOR MORE INFO – REFER TO ARCH. DWGS. FOR EXTENTS AND ELEVATIONS OF BRICK LEDGES
FW370–C		– 2–20M CONT. T&B – 130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) – 190 UPSTAND: 15M@300 VERTICAL MIDDLE + 3–10M@200mm o/c MAX	1200x300dp	– 4–15M CONT. B.U.L. – 15M @ 400 o/c B.L.L. TRANSVERSE (HOOKED) – 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – REFER TO ARCH. DWGS. FOR EXTENTS AND ELEVATIONS OF BRICK LEDGES
FW370–D		– 2–20M CONT. T&B – 20M @ 150 o/c V.I.F. – 15M @ 300 o/c V.O.F. – 20M @ 200 o/c H.I.F. – 15M @ 300 o/c H.O.F. – 4–15M VERT. EACH END/CORNER + 10M TIES @ 200mm o/c – 130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) – 190 UPSTAND: 20M@150 V.I.F.+ 15M@200 V.O.F. (LENGTH VARIES) + 15M@200 H.E.F.	800x300dp	– 3–15M CONT. B.U.L. –15M @ 400 o/c B.L.L. TRANSVERSE (HOOKED) – HOOKED DOWELS TO MATCH WALL REINFORCING	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – SEE SECTION '50' FOR MORE INFO – REFER TO ARCH. DWGS. FOR EXTENTS AND ELEVATIONS OF BRICK LEDGES ARCHITECTURAL CONCRETE FINISH ON EXPOSED INTERIOR FACE. SEE ARCHITECTURAL & SPECIFICATIONS
FW370–E		– 2–20M CONT. T&B – 20M @ 150 o/c V.I.F. – 15M @ 300 o/c V.O.F. – 15M @ 200 o/c H.I.F. – 15M @ 300 o/c H.O.F. – 4–15M VERT. EACH END/CORNER + 10M TIES @ 200mm o/c – 130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) –190 UPSTAND: 20M@150 V.I.F.+ 15M@200 V.O.F. (LENGTH VARIES) + 15M@200 H.E.F.	SEE PLAN FOOTING: 35MPa	SEE PLAN – HOOKED DOWELS TO MATCH WALL REINFORCING	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – WHERE FROST SLAB TIES INTO 130 UPSTAND, CONTINUE VOF+HOF UP AS SHOWN IN SECTION '60'
FW370–F		– 2–20M CONT. T&B – DOWELS: 25M @ 150 o/c V.O.F (SEE SECTION), 25M @ 300 o/c ABOVE – 20M @ 150 o/c V.I.F. – 15M @ 200 o/c H.O.F. – 20M @ 150 o/c H.I.F. – 4–25M VERT. EACH END/CORNER + 10M TIES @ 200mm o/c –130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) –190 UPSTAND: 15M@200 V.I.F.+ 15M@200 V.O.F. + 15M@200 H.E.F.	SEE PLAN FOOTING: 35MPa	SEE PLAN – HOOKED DOWELS TO MATCH WALL REINFORCING	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – SEE SECTION '71' FOR MORE INFO – REFER TO ARCH. DWGS. FOR EXTENTS AND ELEVATIONS OF BRICK LEDGES
FW370–G		– 2–20M CONT. T&B –130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) – 190 UPSTAND: 15M@300 VERTICAL MIDDLE + 3–10M@200mm o/c MAX	SEE PLAN FOOTING: 35MPa	SEE PLAN – HOOKED DOWELS TO MATCH WALL REINFORCING	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
FW470–A		– 2–20M CONT. T&B –130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) –290 UPSTAND: 15M@300 V.E.F.+ 3–10M@200mm o/c MAX H.E.F.	800x300dp	– 15M @ 600 o/c DOWELS x 600 LONG STAGGERED	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING
RW420–A		– 2–20M CONT. T&B – DOWELS: 25M @ 150 o/c V.O.F (SEE SECTION), 25M @ 300 o/c ABOVE – 15M @ 200 o/c V.I.F. – 15M @ 200 o/c H.E.F. – 4–25M VERT. EACH END/CORNER + 10M TIES @ 200mm o/c –130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) –240 UPSTAND: 15M@200 V.I.F.+ 15M@200 V.O.F. (LENGTH VARIES) + 15M@200 H.E.F.	4500x900dp TOE: 1280 HEEL: 2800 KEY: 762x750dp. FOOTING: 35MPa	– 25M @ 200 o/c T.U.L. (HOOKED) – 20M @ 150 CONT. T.L.L. (28 BARS MIN.) – 20M @ 150 CONT. B.U.L. (10 BARS MIN.) – 25M @ 150 o/c DOWELS B.L.L. (REFER TO SECTION) – 25M @ 200 FACE STEEL AT PERIMTER OF FOOTINGS	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – SEE SECTION '10' FOR MORE INFO ARCHITECTURAL CONCRETE FINISH ON EXPOSED INTERIOR FACE. SEE ARCHITECTURAL & SPECIFICATIONS
RW420–B		– 2–20M CONT. T&B – 20M @ 200 o/c V.O.F. – 15M @ 200 o/c V.I.F. – 15M @ 200 o/c H.E.F. – 4–20M VERT. EACH END/CORNER + 10M TIES @ 200mm o/c –130 UPSTAND: 15M@300 VERTICAL MIDDLE + 4–10M HORIZONTALS @ 200mm o/c MAX (600 TALL MAX) –240 UPSTAND: 15M@200 V.I.F.+ 15M@200 V.O.F. + 15M@200 H.E.F.	2600x400dp TOE: 280 HEEL: 1900 FOOTING: 35MPa	– 20M @ 200 o/c T.U.L. (HOOKED) – 15M @ 200 CONT. T.L.L. (10 BARS MIN.) – 15M @ 200 CONT. B.U.L. (3 BARS MIN.) – 20M @ 200 o/c DOWELS B.L.L. (REFER TO SECTION)	– REFER TO ALL SECTIONS FOR ANY ADDITIONAL REINFORCING – SEE SECTION '30' FOR MORE INFO ARCHITECTURAL CONCRETE FINISH ON EXPOSED INTERIOR FACE. SEE ARCHITECTURAL & SPECIFICATIONS

SEE NOTES ADJACENT TO SCHEDULE

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GENERAL NOTE:

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL DRAWINGS AND MUST REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE DRAWING

#	date:	revision:	by:
11	04.24.2026	ISSUED FOR TENDER	AV
9	01.09.2026	ISSUED FOR COORDINATION	AV
8	12.16.2025	ISSUED FOR PERMIT REVISIONS	AV
6	09.05.2025	ISSUED FOR PERMIT	AV
5	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

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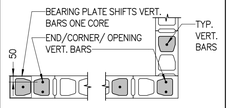
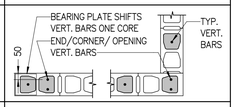
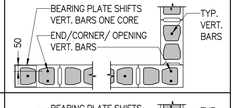
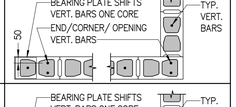
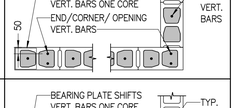
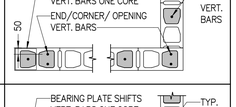
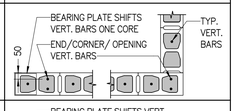
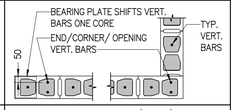
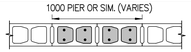
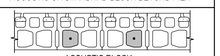
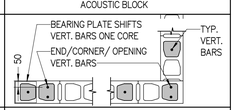
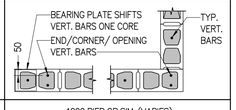
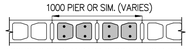
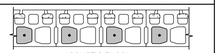
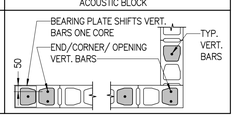
SCHEDULES

scale:	1 : 100
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:07 PM

drawing number:

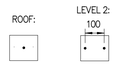
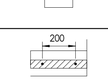
S2.1

CONCRETE BLOCK WALL SCHEDULE

WALL MARK	WALL WIDTH (mm)	WALL REINFORCING	COMMENTS
MW140A–20	140	– 1–15M VERT. @ 600mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING)	– SEE MW190B–20 FOR BLOCK DETAILS
MW190A–20 MW190Ax–20	190	– 1–15M VERT. @ 1200mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED – MW190Ax–20 ONLY: SEE SCHEDULE NOTE #12 FOR ADDITIONAL FIRE RATING REQUIREMENTS	
MW190B–20	190	– 1–15M VERT. @ 600mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW190C–20	190	– 1–15M VERT. @ 1200mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW190D–20	190	– 1–15M VERT. @ 600mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW190E–20	190	– 1–15M VERT. @ 200mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW190F–20 MW190Fx–20	190	– 1–15M VERT. @ 1200mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B –1–COURSE DEEP (200DP.) BOND BEAMS c/w 1–15M CONT. EQUALLY SPACED VERTICALLY AT APPROXIMATE 1/3–POINTS OF WALL HEIGHT – MW190Fx–20 ONLY: SEE SCHEDULE NOTE #12 FOR ADDITIONAL FIRE RATING REQUIREMENTS	
MW190G–20	190	– 1–15M VERT. @ 200mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B –1–COURSE DEEP (200DP.) BOND BEAMS c/w 1–15M CONT. EQUALLY SPACED VERTICALLY AT APPROXIMATE 1/3–POINTS OF WALL HEIGHT	
MW240A–20	240	– 1–15M VERT. @ 600mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B –1–COURSE DEEP (200DP.) BOND BEAMS c/w 2–15M CONT. COORDINATE WITH ELEVATOR FABRICATOR FOR LOCATIONS OF BOND BEAMS FOR RAIL CONNECTIONS	
MW240B–20	240	– 2–20M IN EACH CORE OF PIER –REFER TO NOTE #2. PLACE LADDER REINFORCING IN EVERY COURSE (200mm o/c) AT LOCATIONS BETWEEN ACOUSTIC BLOCK TO MATCH	
MW240C–20	240	– 1–15M VERT. @ 600mm o/c –REFER TO NOTE #2. PLACE LADDER REINFORCING IN EVERY COURSE (200mm o/c) AT LOCATIONS BETWEEN ACOUSTIC BLOCK TO MATCH – STACK PATTERN PLACEMENT AS REQUIRED BY ACOUSTIC BLOCK	
MW240D–20	240	– 1–15M VERT. @ 600mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW240E–20	240	– 1–15M VERT. @ 600mm o/c, FULLY GROUTED – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	
MW290A–30	290	– 2–25M IN EACH CORE OF PIER –REFER TO NOTE #2. PLACE LADDER REINFORCING IN EVERY COURSE (200mm o/c) AT LOCATIONS BETWEEN ACOUSTIC BLOCK TO MATCH	
MW290B–30	290	– 1–15M VERT. @ 400mm o/c –REFER TO NOTE #2. PLACE LADDER REINFORCING IN EVERY COURSE (200mm o/c) AT LOCATIONS BETWEEN ACOUSTIC BLOCK TO MATCH – STACK PATTERN PLACEMENT AS REQUIRED BY ACOUSTIC BLOCK –SEE SCHEDULE NOTE #12 FOR ADDITIONAL FIRE RATING REQUIREMENTS	
MW290C–30	290	– 1–15M VERT. @ 400mm o/c – 2–15M VERT. AT EACH END, BOTH SIDES OF OPENINGS AND CORNERS OF WALLS. OFFSET BARS 1 CORE FOR ENTIRE HEIGHT OF BUILDING WHERE BEARING PLATE IS ON END OF TYP. WALL (e.g. TYP. CORRIDOR BEAM BEARING) – 2–COURSE DEEP (400DP.) BOND BEAM AT TOP OF WALL c/w 2–20 T&B – SEE ELEVATIONS AND SECTIONS FOR LOCATIONS OF ADDITIONAL BOND BEAMS REQUIRED	

SEE NOTES ADJACENT TO SCHEDULE

STEEL BEARING PLATE SCHEDULE

PLATE MARK	PLATE SIZE(mm)	ANCHOR BOLTS	ANCHOR SPACING	COMMENTS
BP1	180x20x200L	2–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP2	180x25x300L	2–13mmØ x 300 LONG + 50 HOOK BOLTS		–COORDINATE ANCHOR POSITION WITH BLOCK WALL LAYOUT –BP2*: SEE PLAN FOR LOCATION & ORIENTATION
BP3	180x25x400L+ 400x75x12 ROCKER PLATE	4–13mmØ x 300 LONG + 50 HOOK BOLTS		–PROVIDE 1–12mm STIFFENER ON EACH SIDE OF BEAM WEB AT ROCKER PLATE, TYP. 
BP4	230x20x200L	2–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP5	230x20x240L	ROOF: 1–16mmØ x 500 LONG + 50 HOOK BOLTS LEVEL 2: 2–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP6	230x25x400L+ 400x75x12 ROCKER PLATE	ROOF: 4–13mmØ x 500 LONG + 50 HOOK BOLTS LEVEL 2: 4–13mmØ x 300 LONG + 50 HOOK BOLTS		–PROVIDE 1–12mm STIFFENER ON EACH SIDE OF BEAM WEB AT ROCKER PLATE, TYP. 
BP7	280x25x290L	2–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP8	130x20x200L	2–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP9	150x20x150L	1–13mmØ x 300 LONG + 50 HOOK BOLTS		
BP10	130x25x400L 400x75x12 ROCKER PLATE	2–13mmØ x 300 LONG + 50 HOOK BOLTS		–PROVIDE 1–12mm STIFFENER ON EACH SIDE OF BEAM WEB AT ROCKER PLATE, TYP. 

NOTES:

1. STEEL BEARING PLATES TO BE FABRICATED BY STRUCTURAL STEEL CONTRACTOR AND PLACED BY CONCRETE FORMING CONTRACTOR (CONCRETE WALL, BEAM OR COLUMN) OR THE MASONRY CONTRACTOR (CONCRETE BLOCK WALL).
2. LOCATION AND ELEVATION OF BEARING PLATES TO BE COORDINATED WITH STRUCTURAL STEEL SHOP DRAWINGS. BEAM OR JOIST TO BE SUPPORTED ON THE PLATE TO BE CENTRED ALONG THE LENGTH OF THE PLATE U.N.O.
3. DIMENSION OF PLATE NOTED IN PLATE SIZE COLUMN AS 'L' TO BE PLACED ALONG THE LENGTH OF THE WALL, UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
4. BEAM FLANGE OR JOIST SHOE TO BE FIELD WELDED DOWN TO TOP OF BEARING PLATE USING A MINIMUM 6mm FILLET WELD EACH SIDE OF BEAM/JOIST SHOE FOR THE ENTIRE LENGTH OF BEARING.
5. FOR BEARING PLATES PLACED ON CONCRETE BLOCK WALLS – GROUT SOLID THE CORES OF THE BLOCKS CONTAINING THE ANCHOR BOLTS OF THE PLATES CONTINUOUS TO THE TOP OF THE FOUNDATION WALL. GROUT SOLID THE BEAM/JOIST POCKETS AFTER FIELD WELDING
6. ANCHOR BOLTS SHOWN TO BE WELDED TO THE UNDERSIDE OF THE BEARING PLATE FOR TENSILE CAPACITY OF THE BOLT.

CONCRETE BLOCK WALL SCHEDULE NOTES:

1. ALL MASONRY WALLS SHOWN ON PLAN AS THUS ARE LOAD BEARING (GRAVITY AND/OR LATERAL).
2. PROVIDE 9 GAUGE (3.66mm MIN.) LADDER TYPE REINFORCING IN EVERY OTHER HORIZONTAL COURSE (@ 400mm o/c MAX. VERTICAL) UNLESS NOTED OTHERWISE IN SCHEDULE COMMENTS.
3. PROVIDE 2–20M VERTICAL IN CORE ADJACENT TO EACH SIDE OF ROUGH OPENINGS OR IN CORE ADJACENT TO BEARING PLATE OF STEEL LINTEL. VERTICAL REINFORCING IS TO BE INSTALLED CONT. FROM CONCRETE WALL TO UNDERSIDE OF BEAM/STEEL DECK.
4. FULLY GROUT ALL REINFORCED CORES. (SEE NOTE #8)
5. FILL ALL CORES IN PIERS LESS THAN 600mm IN WIDTH SOLID WITH GROUT IN ADDITION TO THAT REQUIRED BY NOTE #3.
6. GROUT SOLID ALL CORES BELOW THE BEARING POINT OF ALL BEAMS, JOISTS OR LINTELS CONT. TO THE FOUNDATION.
7. PROVIDE MECHANICAL CONNECTION BETWEEN LOWER AND UPPER LIFTS OF VERTICAL REINFORCING.
8. ALL GROUT SHALL HAVE MINIMUM 28–DAY STRENGTH OF 15MPa WITH 10mm MAX. AGGREGATE SIZE AND 225mm ± 25mm SLUMP. ALL GROUTING TO CONFORM TO CSA/CAN3 A371–M84. PLACE GROUT IN "LOW LIFTS" (NOT MORE THAN 1500mm VERTICAL).
9. ENSURE ALL LOAD BEARING CONCRETE BLOCK WALLS ARE BUILT TIGHT TO STEEL BUILDING COLUMNS. FILL ANY GAPS BETWEEN END OF CONCRETE BLOCK WALL AND FACE OF COLUMN SOLID WITH GROUT.
10. WALL TYPE NOTATION: MW190#–20: I.E. MASONRY WALL 190 BLOCK. REINFORCING PER LETTER "A" WITH 20MPa BLOCK.
11. VERTICAL CONTROL JOINTS ARE DENOTED AS 'VCJ' ON PLAN AND ELEVATION. LOCATIONS SHOWN ARE SUGGESTED LAYOUTS. ALL CHANGES REQUIRED TO LAYOUT OF 'VCJ' MUST BE APPROVED BY VB&S PRIOR TO CONSTRUCTION. BOND BEAM REINFORCING IS TO BE CONTINUOUS THRU VCJ AT ALL LOCATIONS, U.N.O.
12. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FIRE RATING REQUIREMENTS IN MASONRY WALLS. DIFFERENT MASONRY WALLS AT DIFFERENT LOCATIONS REQUIRE VARYING FIRE RATINGS (I.E. 1 HOUR, 2 HOURS, ETC.). SEE BELOW AND SPECIFICATIONS FOR MORE DETAIL. ALL LOAD–BEARING BLOCK WALLS ARE INTENDED TO BE STANDARD HOLLOW BLOCKS EXCEPT FOR WALL MARKS WITH THE SUFFIX 'x' IN SCHEDULE ABOVE AND AS NOTED BELOW:

   1–HOUR FIRE RATING
   – CAN BE ACHIEVED BY TYPE N CONCRETE FOR 140, 190, 240 AND 290 THICKNESS WITH STANDARD HOLLOW BLOCKS

   2–HOUR FIRE RATING:
   – STANDARD HOLLOW 190 BLOCK WALLS DO NOT ACHIEVE 2–HOUR RATING WITH TYPE N CONCRETE. 2–HOUR FIRE RATED WALLS REQUIRE TYPE L120S (LIGHTWEIGHT) CONCRETE OR REQUIRE SPECIAL HOLLOW BLOCKS THAT MEET 2–HOUR FIRE RATING REQUIREMENTS BASED ON BLOCK PHYSICAL DIMENSIONS. IF CONTRACTOR ELECTS TO AVOID USING LIGHTWEIGHT BLOCK, SPECIAL 2–HOUR FIRE RATED BLOCKS MUST BE COORDINATED WITH CONCRETE BLOCK SUPPLIER.
   – 240 AND 290 BLOCK WALLS CAN ACHIEVE WITH TYPE N CONCRETE WITH STANDARD HOLLOW BLOCKS

   ACOUSTIC BLOCK
   – CONCRETE BLOCK SUPPLIER TO ENSURE SPECIFIED ACOUSTIC BLOCK ACHIEVED FIRE–RATING REQUIRED. (FOR EXAMPLE: PERMACON SOUNDBLOX RSC 30cm BLOCK (290) ACHIEVES A 2–HOUR FIRE RATING)

LOAD BEARING STEEL LINTEL SCHEDULE

PLATE MARK	SIZE(mm)	BEARING PLATE	COMMENTS
L1A	2–L152x89x9.5 LLV	BP1 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	FOR ALL MECHANICAL OPENINGS AT ROOF: 600mm TO 1000mm WIDE, U.N.O. (IN 190 BLOCK)
L1B	2–L127x89x6 LLV	BP1 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	FOR ALL MECHANICAL OPENINGS AT ROOF: 400mm TO 600mm WIDE, U.N.O. (IN 190 BLOCK)
L2A	2–L152x89x13 LLV	BP2 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	FOR ALL MECHANICAL OPENINGS AT LEVEL 2: 600mm TO 1000mm WIDE, U.N.O. (IN 190 BLOCK)
L2B	2–L127x89x9 LLV	BP1 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	FOR ALL MECHANICAL OPENINGS AT LEVEL 2: 400mm TO 600mm WIDE, U.N.O. (IN 190 BLOCK)
L3	W200x27 + PL190x6 T&B	BP1/BP2 AS SHOWN ON PLAN. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	
L4	W200x36 + PL190x6 T&B	BP2 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	
L5	W410x46 + PL190x12 T&B	BP2/BP3 AS SHOWN ON PLAN. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	
L6	W200x46 + PL290x10 T&B	BP4/BP5/BP7 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	
L7	L152x102x13 LLV + L127x127x13	BP4 U.N.O. SEE PLAN NOTE AND PLANS FOR ALL LOCATIONS	
L8	3–L89x89x9.5 LLV	200mm BEARING MIN.	FOR ALL MECHANICAL OPENINGS AT EXISTING ROOF: 300mm TO 600mm WIDE, U.N.O. (IN 290 BLOCK)
L9	2–L89x89x9.5 LLV	200mm BEARING MIN.	FOR ALL MECHANICAL OPENINGS AT EXISTING ROOF: 300mm TO 600mm WIDE, U.N.O. (IN 190 BLOCK)
L10	2–L89x65x9.5 LLV	200mm BEARING MIN.	FOR ALL MECHANICAL OPENINGS AT EXISTING ROOF: 300mm TO 600mm WIDE, U.N.O. (IN 140 BLOCK)

NOTES:

1. ALL MASONRY WALLS ON PLAN ARE LOAD BEARING MASONRY WALLS. ALL OPENINGS LARGER THAN 400mm WIDE REQUIRES LINTEL TO SUPPORT THE LOAD BEARING MASONRY ABOVE.
2. MECHANICAL OPENINGS IN LOAD BEARING WALL WIDER THAN 400mm AND NOT SHOWN ON STRUCTURAL PLAN MUST BE REPORTED TO THE STRUCTURAL CONSULTANT FOR SPECIFICATION OF A STEEL LINTEL USED TO SPAN THE ROUGH OPENING.
3. GROUT BLOCK SOLID BELOW BEARING POINT OF ALL LINTELS CONTINUOUS TO TOP OF FOUNDATION WALL.
4. WELD ALL BACK TO BACK ANGLES AT 400mm o/c.
5. FILL ALL MASONRY AROUND LINTELS SOLID WITH MORTAR.
6. IF MASONRY PER 600mm OR LESS IN WIDTH IS FORMED BETWEEN TWO(2) OPENINGS– PLACE 2–15M VERT. IN CENTRE CORE OF PIER BETWEEN OPENINGS AND GROUT PIER SOLID FOR FULL HEIGHT OF WALL.
7. WHERE LINTEL IS ADJACENT TO STEEL BUILDING COLUMN– CONNECT THE LINTEL TO THE COLUMN FOR THE LOADAS INDICATED IN THE SPECIFICATIONS.
8. LINTELS TO BEAR 200mm MINIMUM ON SOLID FILLED MASONRY UNLESS NOTED.

CAST-IN STEEL PLATE SCHEDULE

PLATE MARK	PLATE SIZE(mm)	ANCHOR BOLTS	ANCHOR SPACING	COMMENTS
WP1	200Vx16x200H	4–13mmØ x 150 LONG NELSON HEADED ANCHORS		

NOTES:

1. CAST–IN WALL PLATES TO BE FABRICATED BY STRUCTURAL STEEL CONTRACTOR AND PLACED BY CONCRETE FORMING CONTRACTOR.
2. LOCATION AND ELEVATION OF CAST–IN PLATES TO BE COORDINATED WITH STRUCTURAL STEEL SHOP DRAWINGS. HORIZONTAL CENTRELINE OF PLATE TO COINCIDE WITH CENTRELINE OF HORIZONTAL MEMBER TO BE CONNECTED TO PLATE UNLESS NOTED OTHERWISE.
3. VERTICAL DIMENSION OF PLATE NOTED IN PLATE SIZE COLUMN AS 'V'.
4. STEEL FABRICATOR TO DESIGN CONNECTION TO BE WELDED TO FACE OF CAST–IN PLATE. REFER TO TYPICAL DETAIL TITLED "HEADED STUD ANCHOR PLATES INTO CONCRETE".
5. LENGTH OF HEADED ANCHOR SHOWN IS DIMENSION MEASURED AFTER WELDING.
6. MINIMUM DISTANCE FROM CENTRELINE OF ANCHOR TO EDGE OF CONCRETE IN ANY DIRECTION TO BE 100mm.
7. EDGE DISTANCE SHOWN IN ANCHOR SPACING COLUMN IS APPLICABLE FOR BOTH DIRECTIONS. SPACING BETWEEN ANCHORS IS EQUALLY DIVIDED FROM REMAINING PLATE DIMENSION.
8. REFER TO TYPICAL DETAIL TITLED "HEADED STUD ANCHOR PLATES INTO CONCRETE" FOR ADDITIONAL CONCRETE REBAR REINFORCING AT PLATES.

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GENERAL NOTE:

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL DRAWINGS AND MUST REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE DRAWING

#	date:	revision:	by:
11	04.24.2026	ISSUED FOR TENDER	AV
10	04.23.2026	ISSUED FOR PERMIT REVISIONS	AV
9	01.09.2026	ISSUED FOR COORDINATION	AV
8	12.16.2025	ISSUED FOR PERMIT REVISIONS	AV
6	09.05.2025	ISSUED FOR PERMIT	AV
5	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

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SCHEDULES

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reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:08 PM

drawing number:

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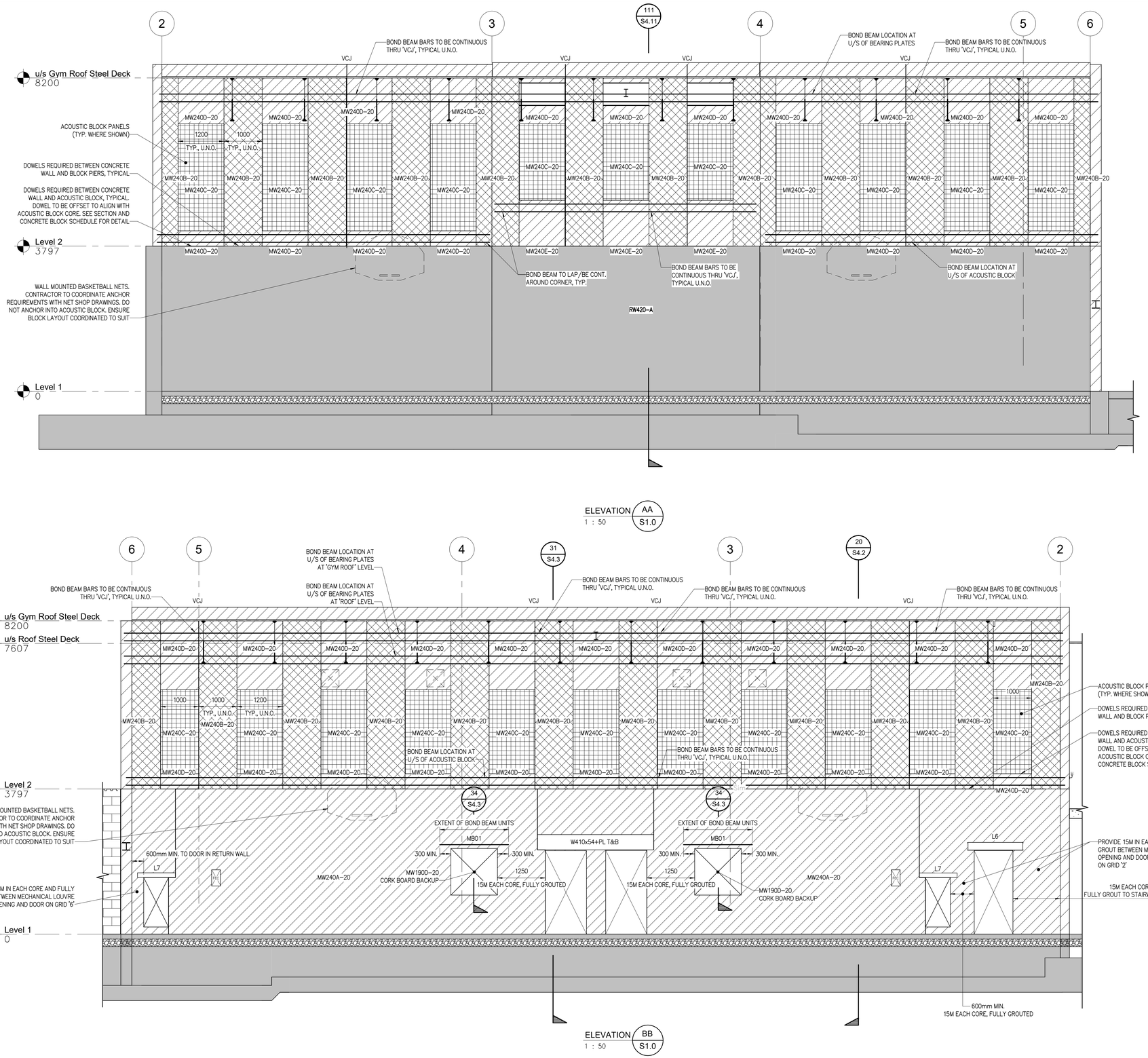

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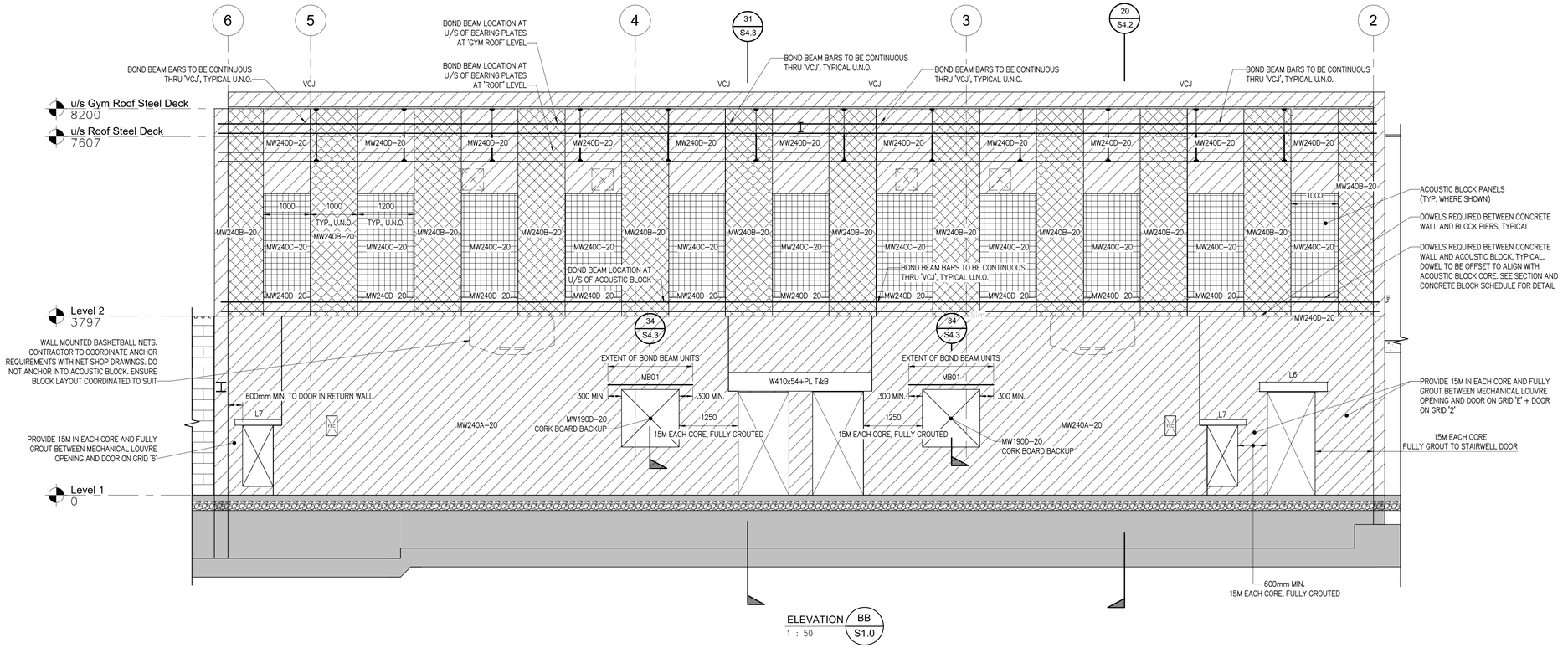

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4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

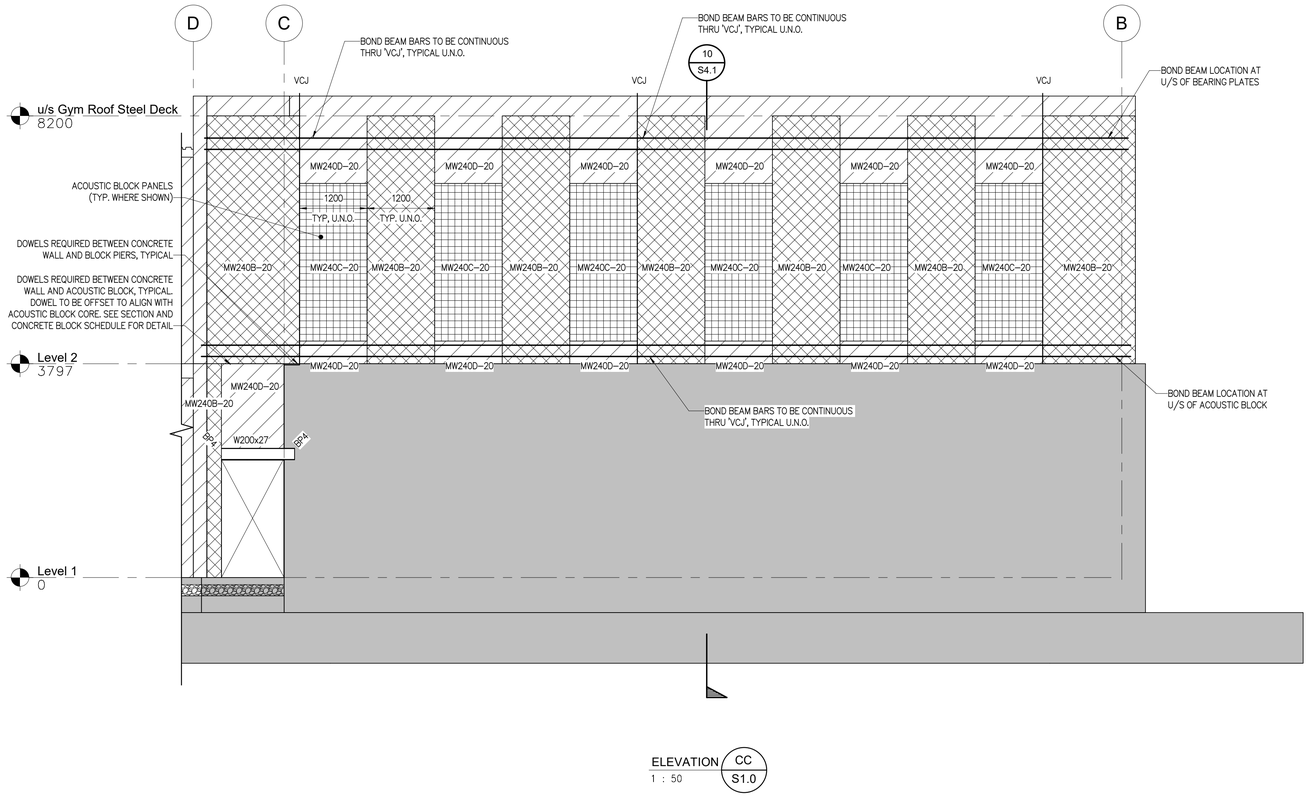
240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

ELEVATIONS

scale:	1 : 50
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:08 PM

drawing number:

S3.1



ELEVATION CC
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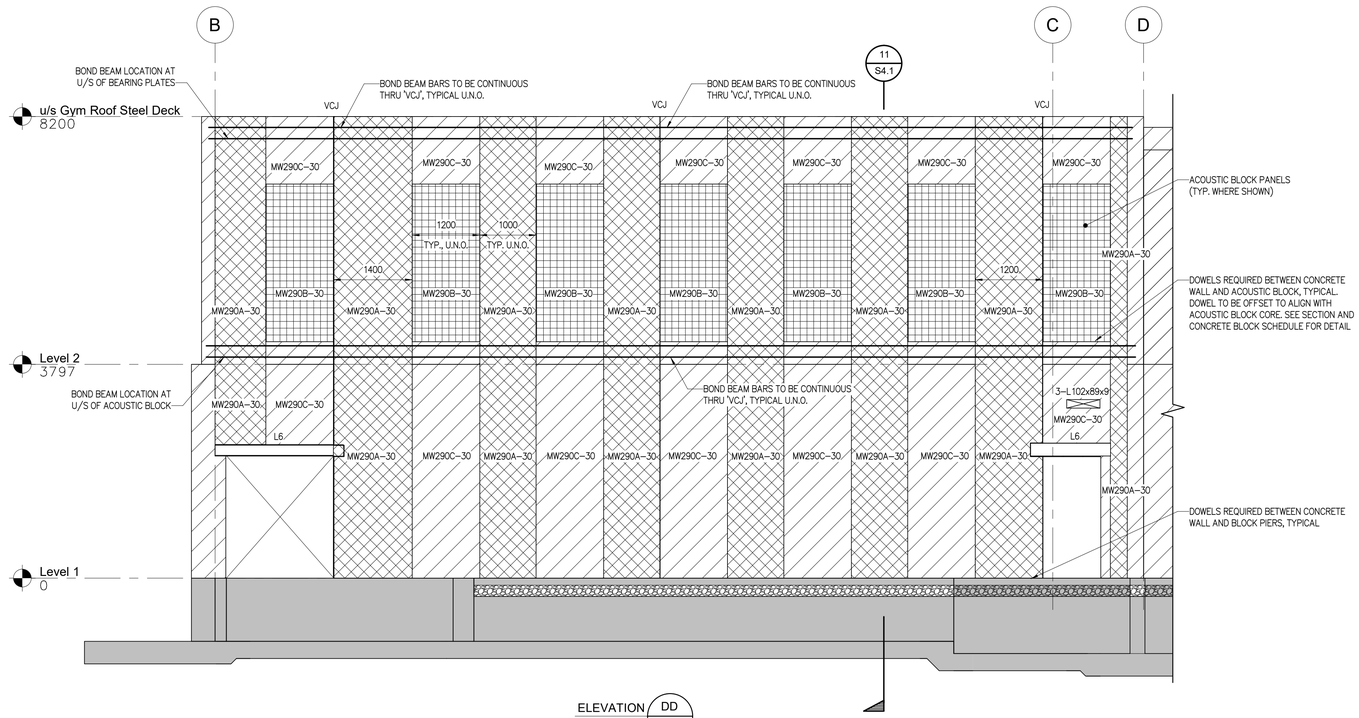
S1.0



ELEVATION DD
1 : 50
S1.0

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St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

ELEVATIONS

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drawing number:

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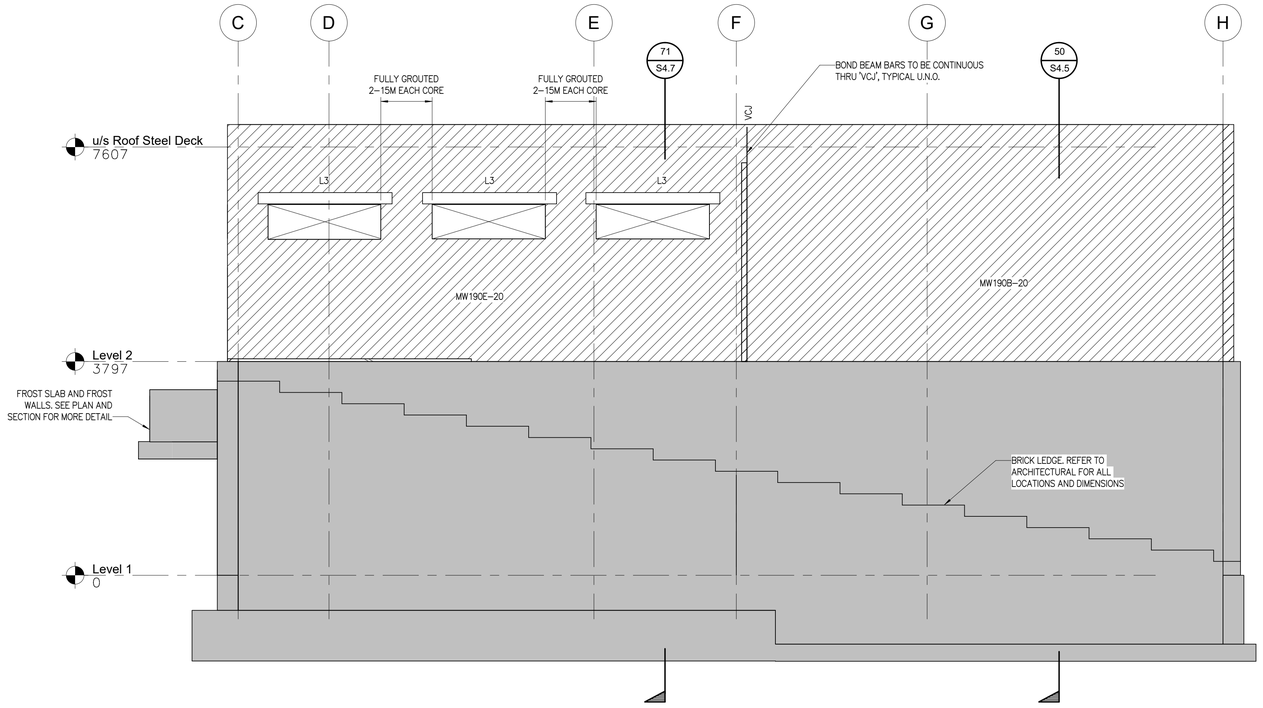

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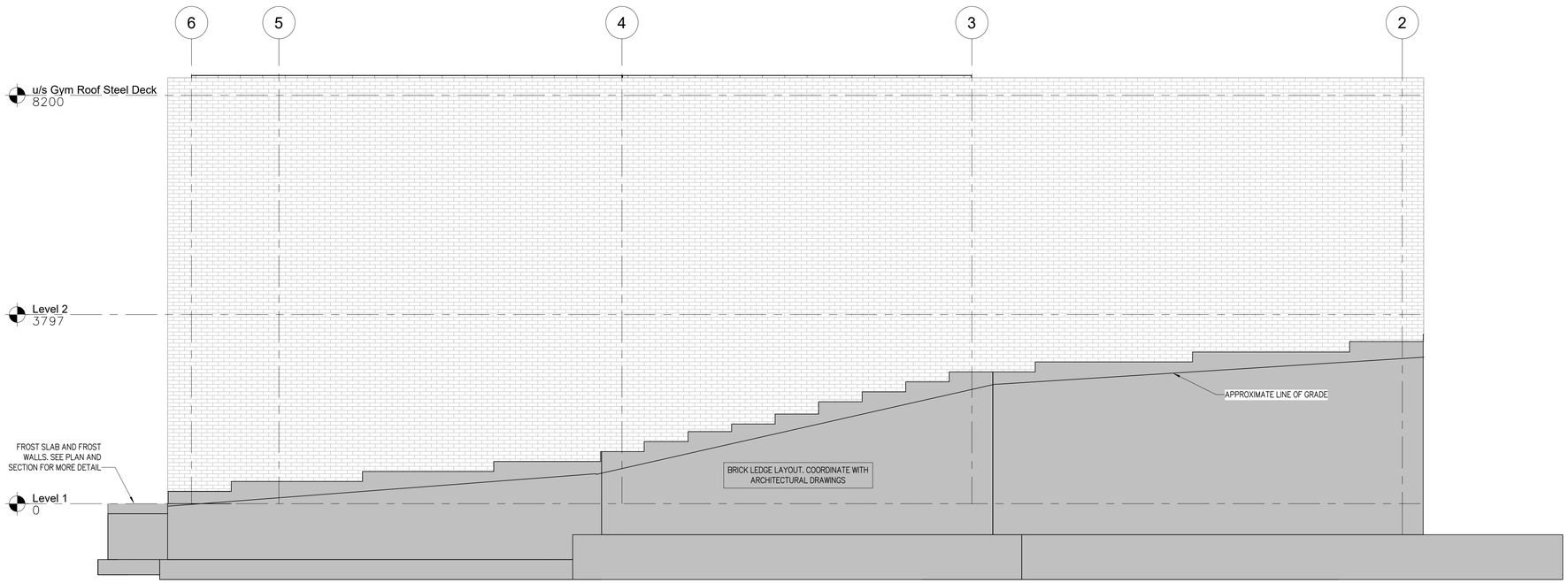

ELEVATION FF
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St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

ELEVATIONS

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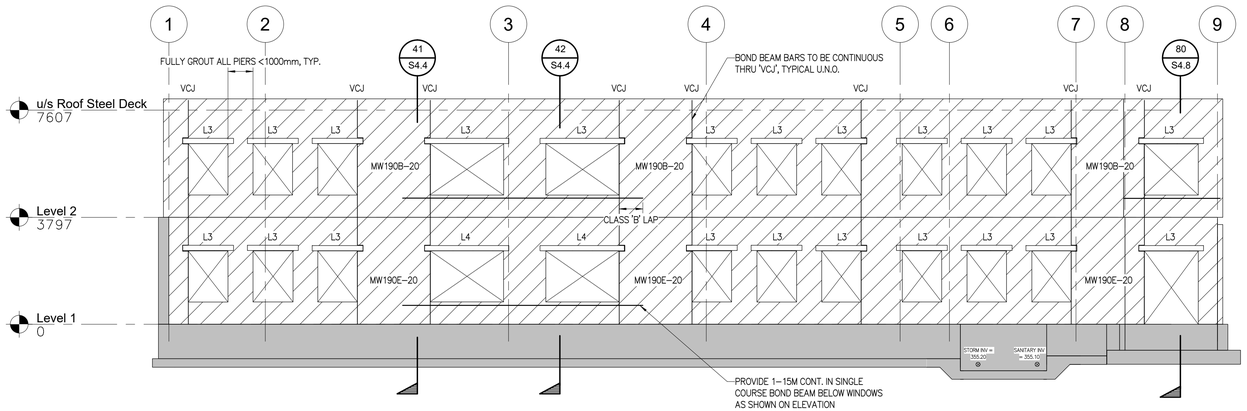
drawing number:

S3.3



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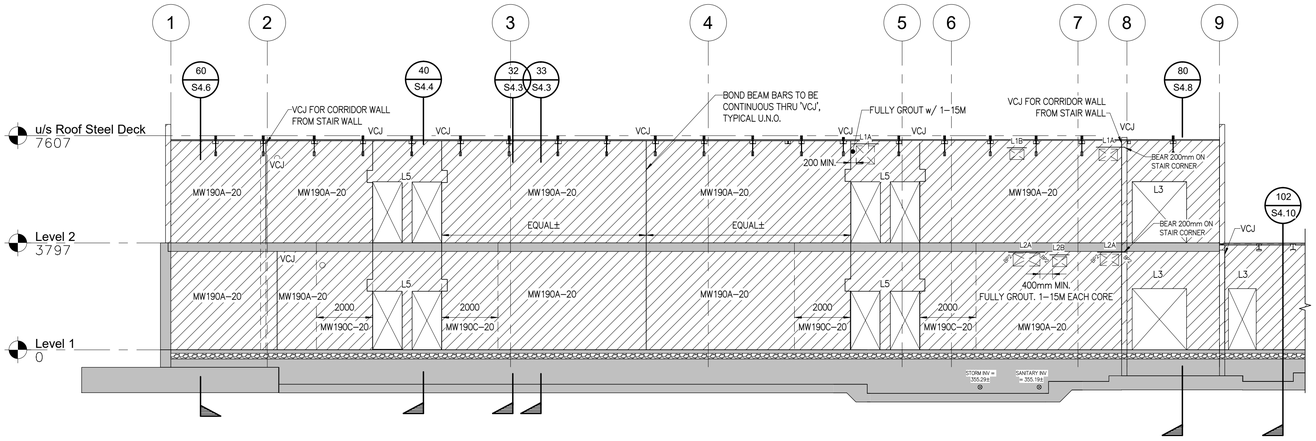

ELEVATION HH
1 : 100 S1.0

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St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

ELEVATIONS

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drawn by:	AV
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drawing number:

S3.4

SECTION 12 / S1.0
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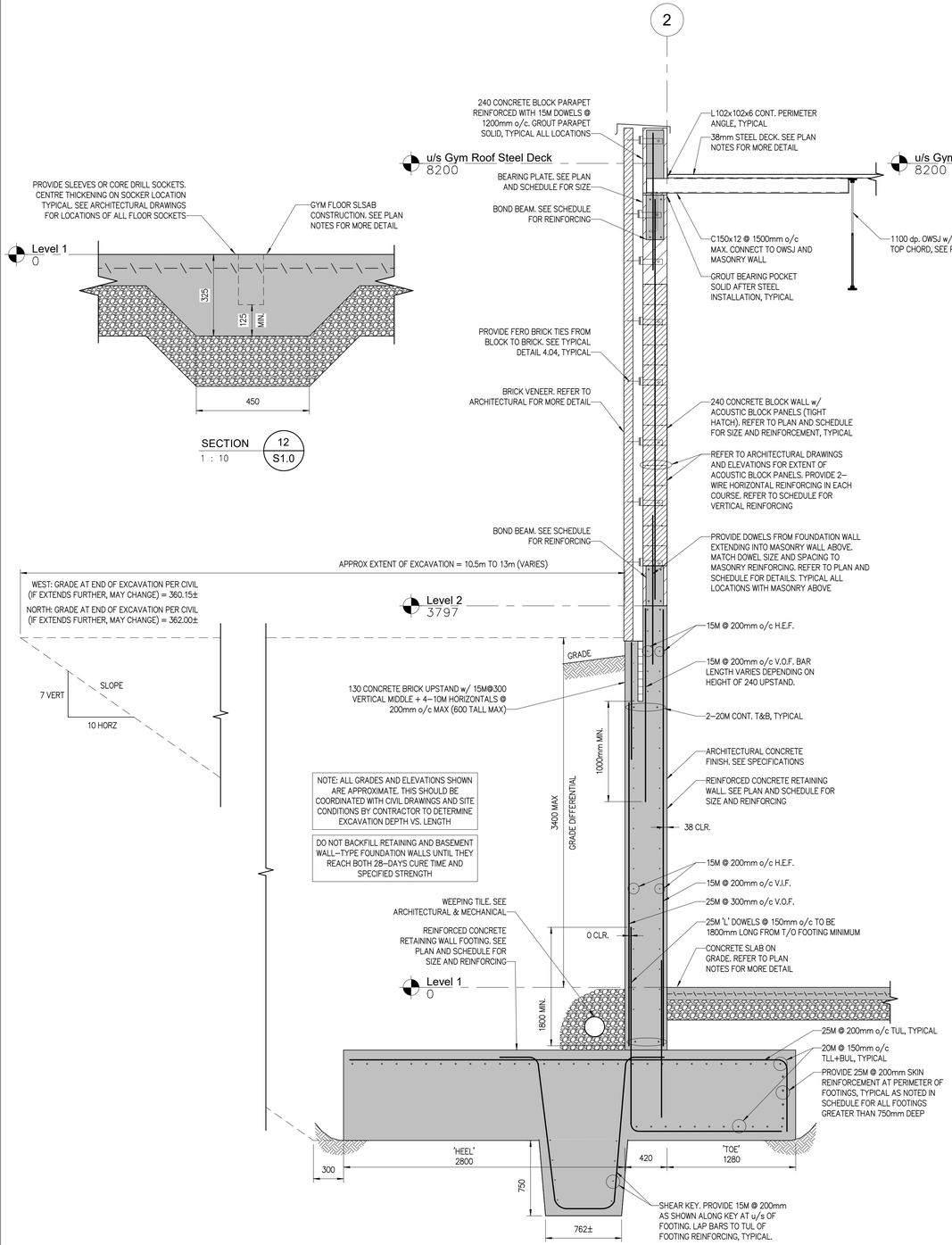

SECTION 10 / S1.0
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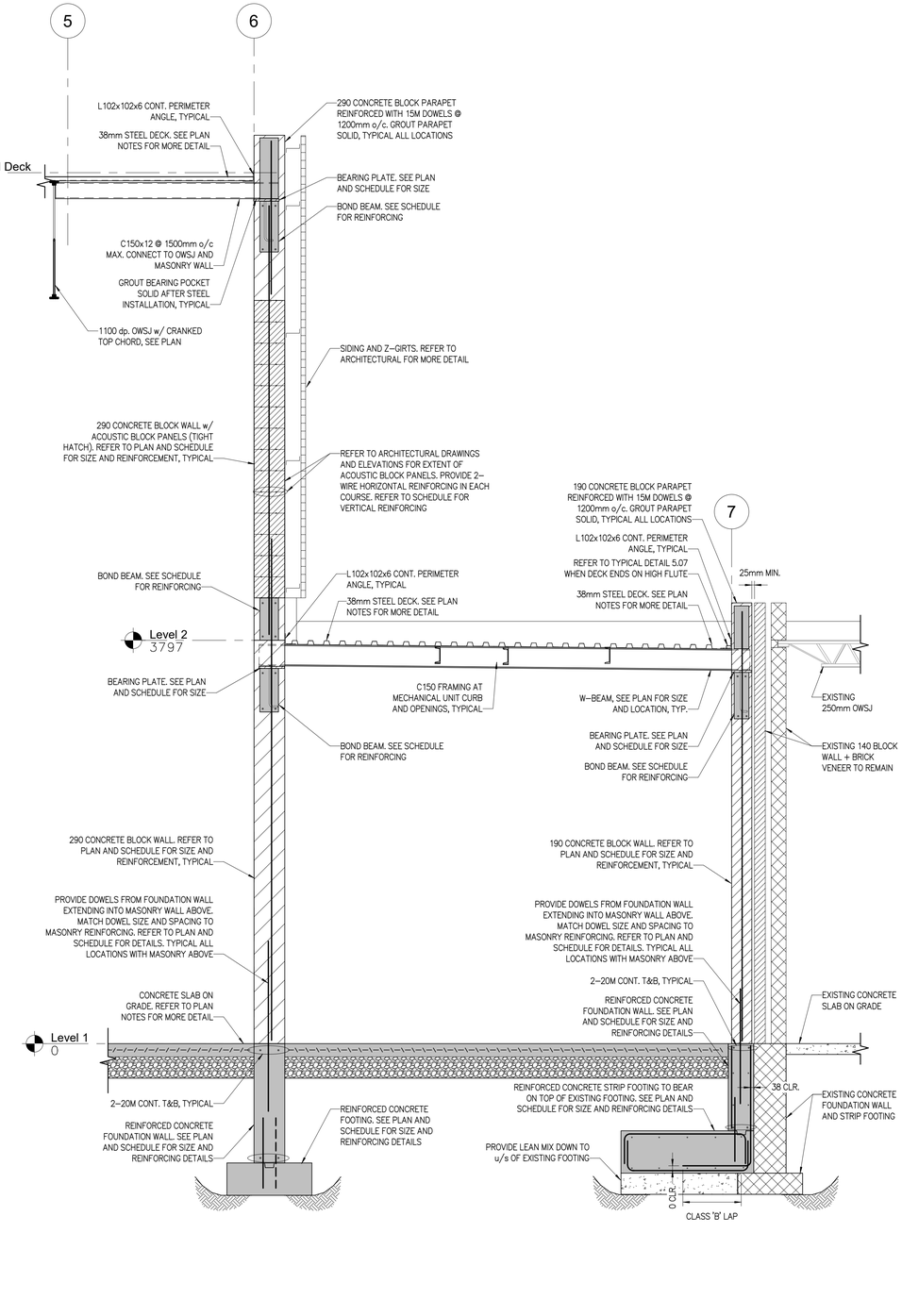

SECTION 11 / S1.0
1 : 25

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St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

SECTIONS

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reviewed by:	PR
job number:	25158
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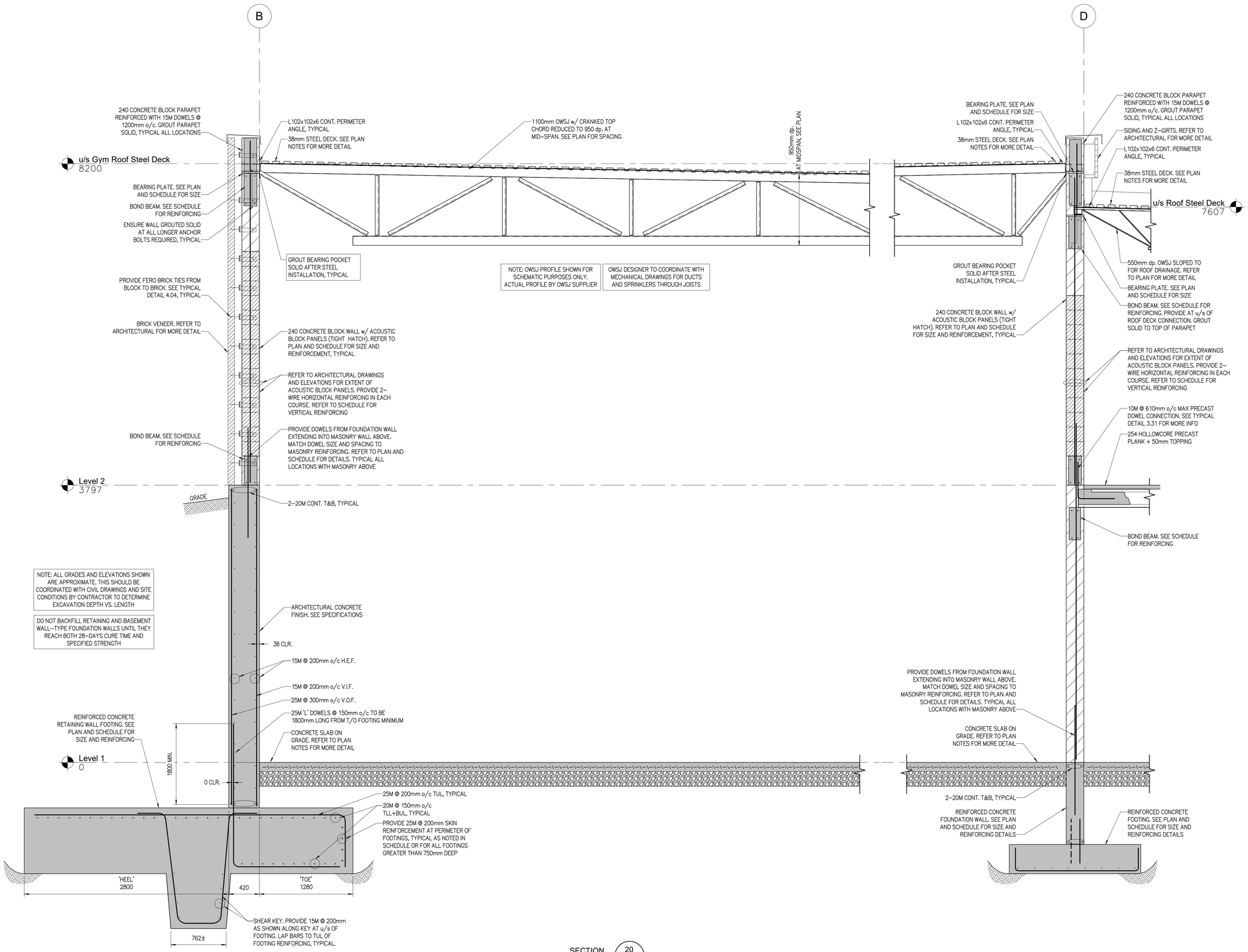

SECTION 20
1 : 25 S1.0

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St. Mark CES Addition

240 Autumn Hill Crescent
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SECTIONS

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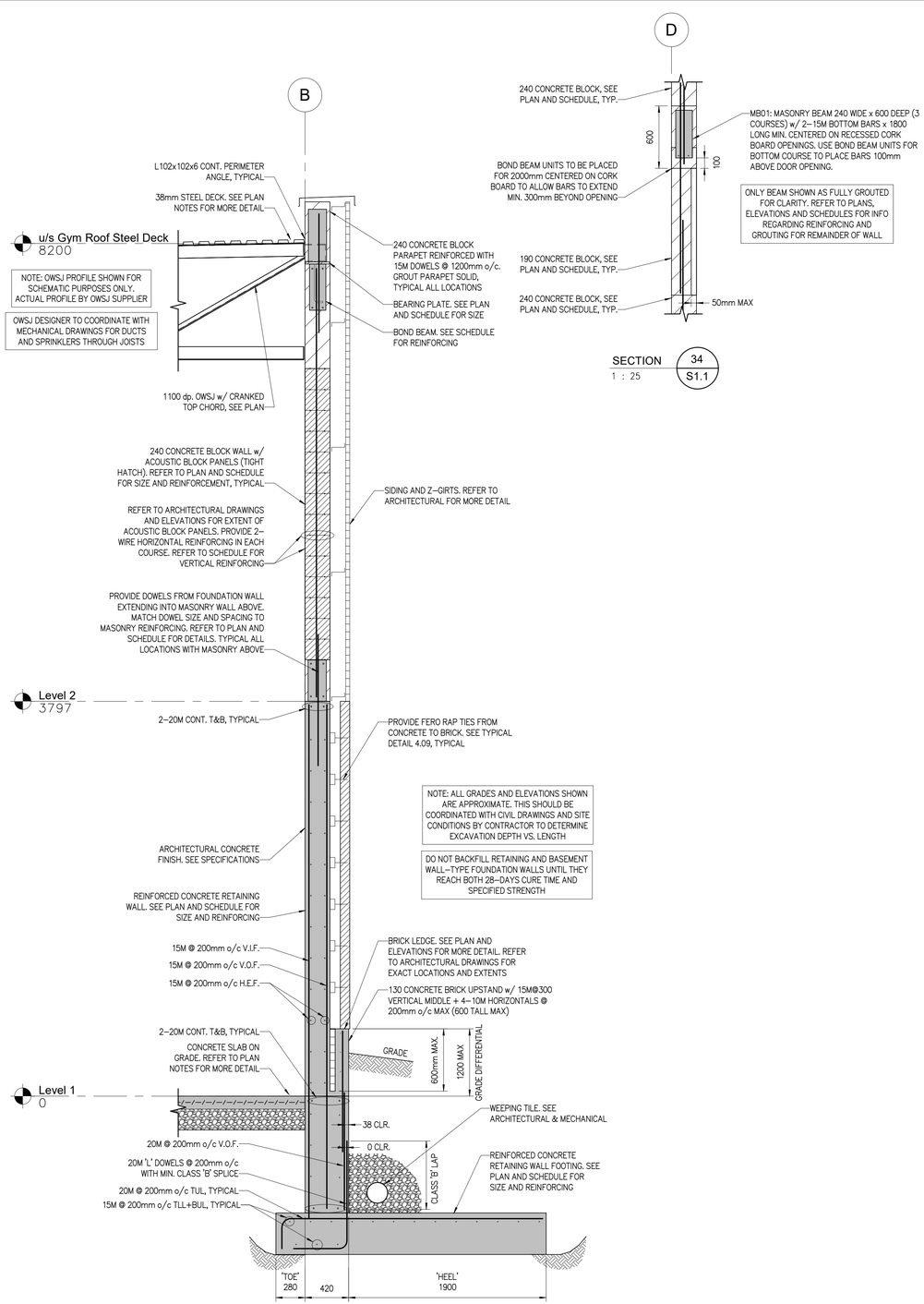
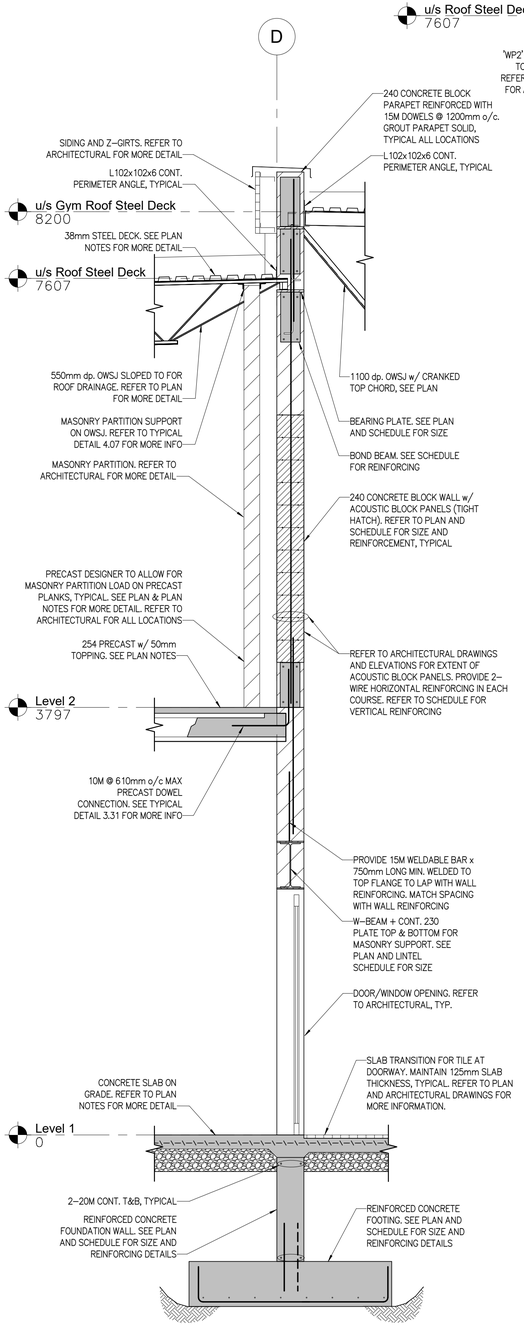


SECTION 30 / S1.0
1 : 25

SECTION 34 / S1.1
1 : 25



SECTION 31 / S1.0
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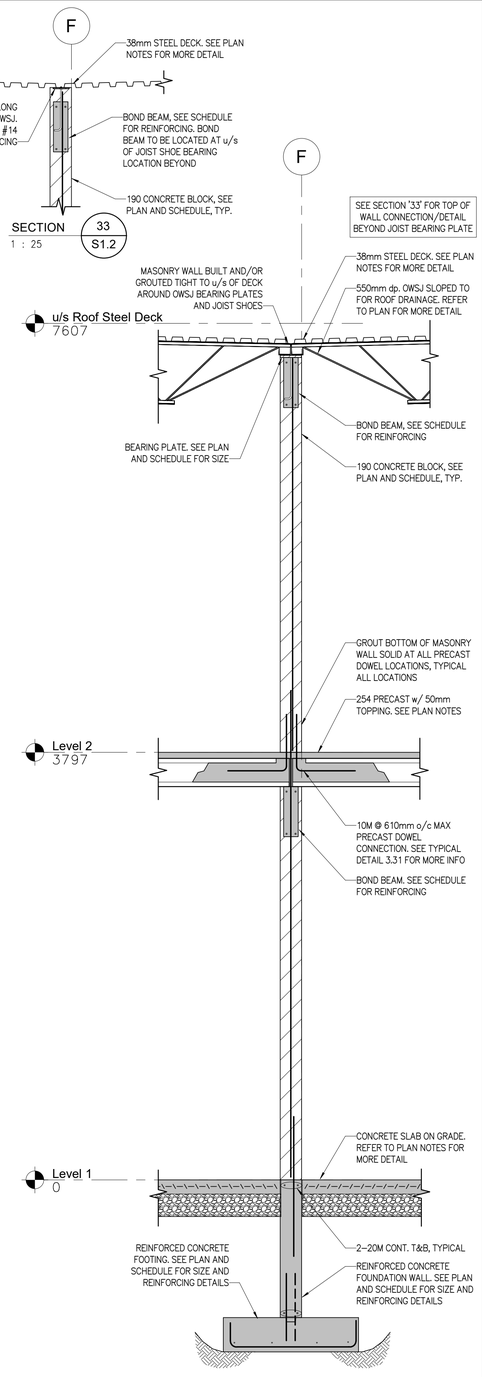

SECTION 32 / S1.0
1 : 25

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2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

SECTIONS

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drawn by:	AV
reviewed by:	PR
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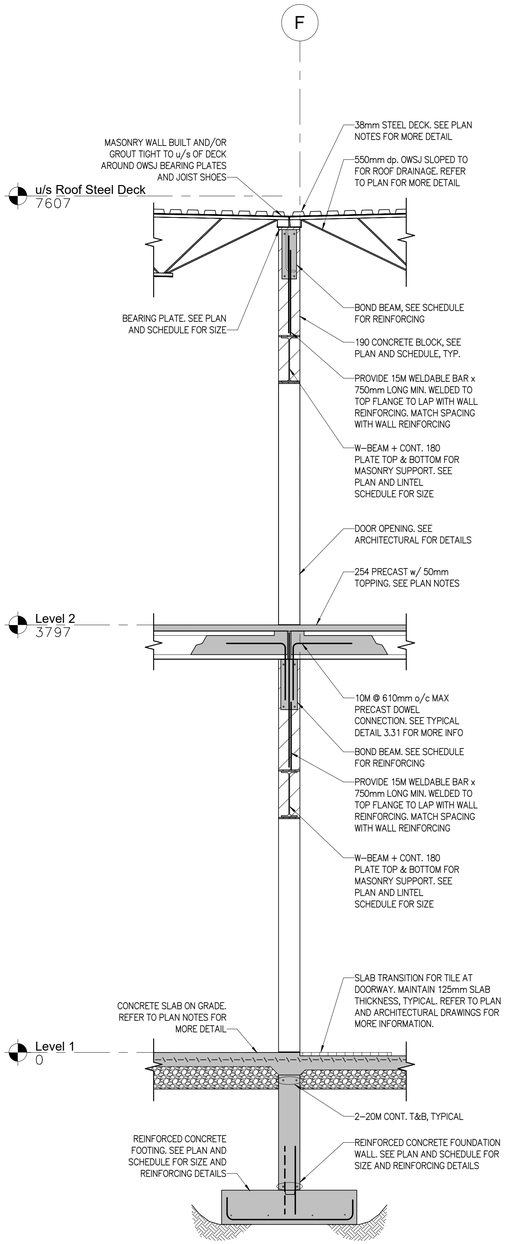

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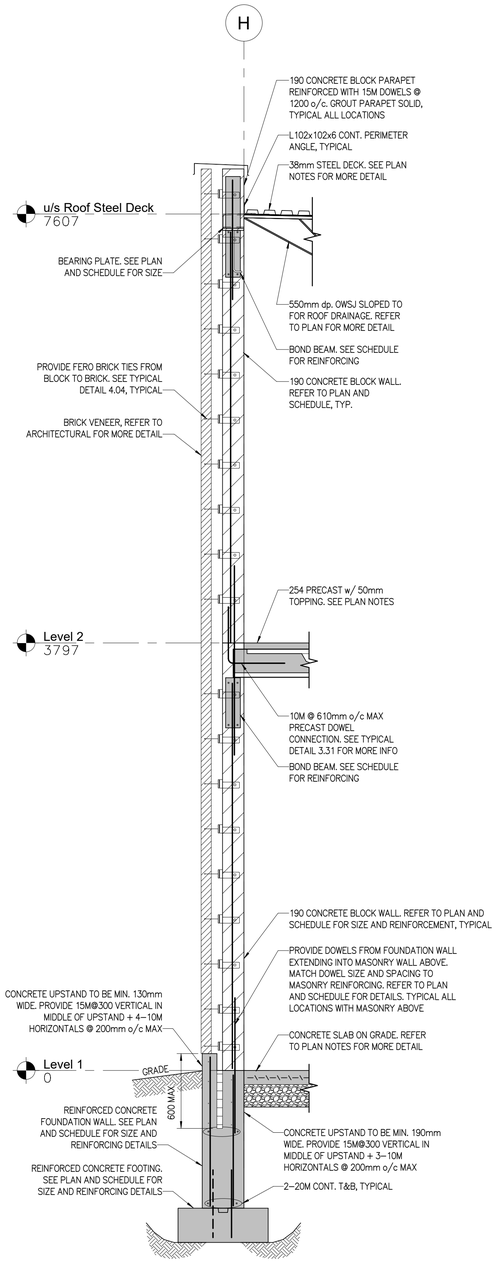

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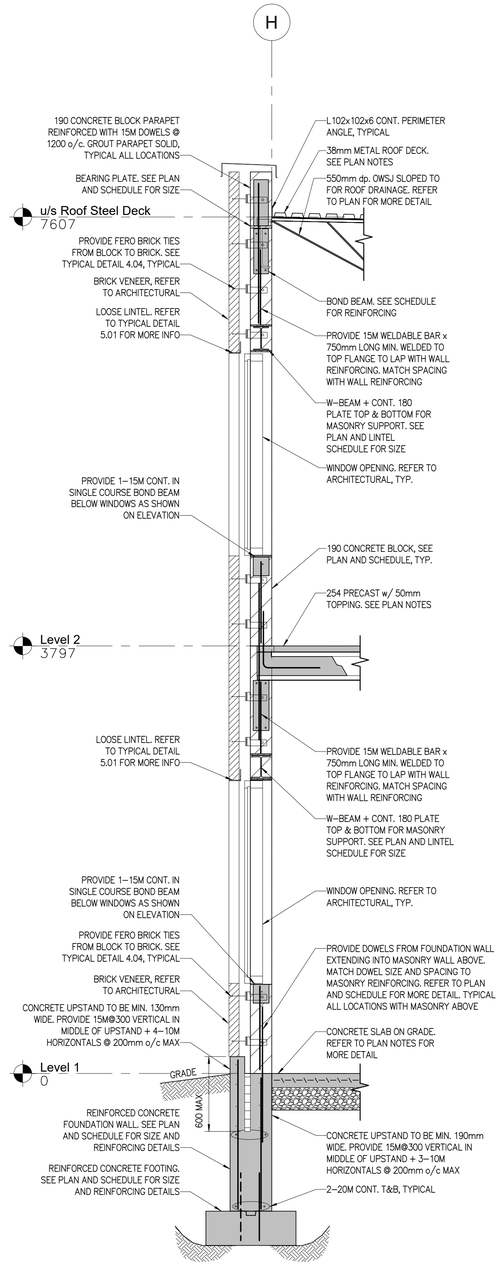

SECTION 42
1 : 25 S1.0

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St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

SECTIONS

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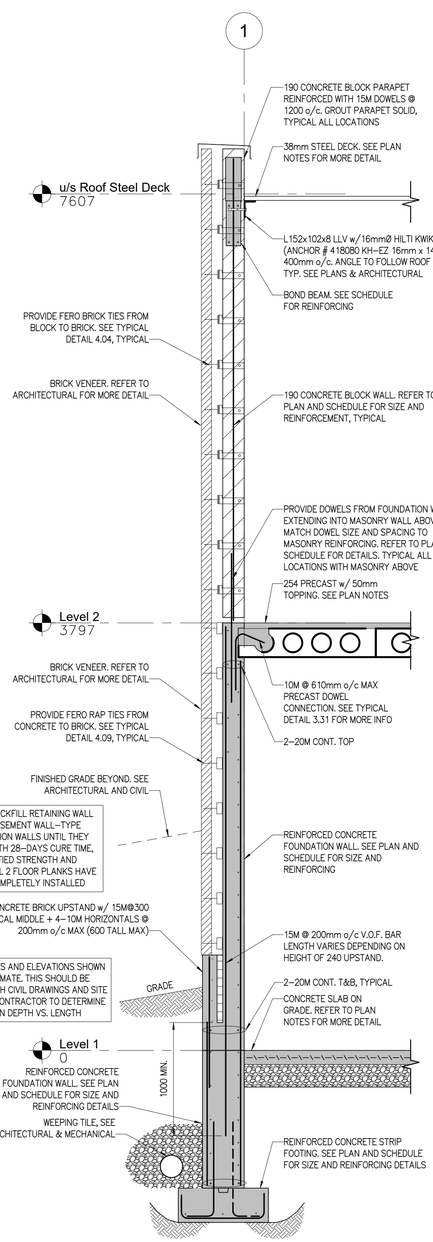

SECTION 50 / S1.0
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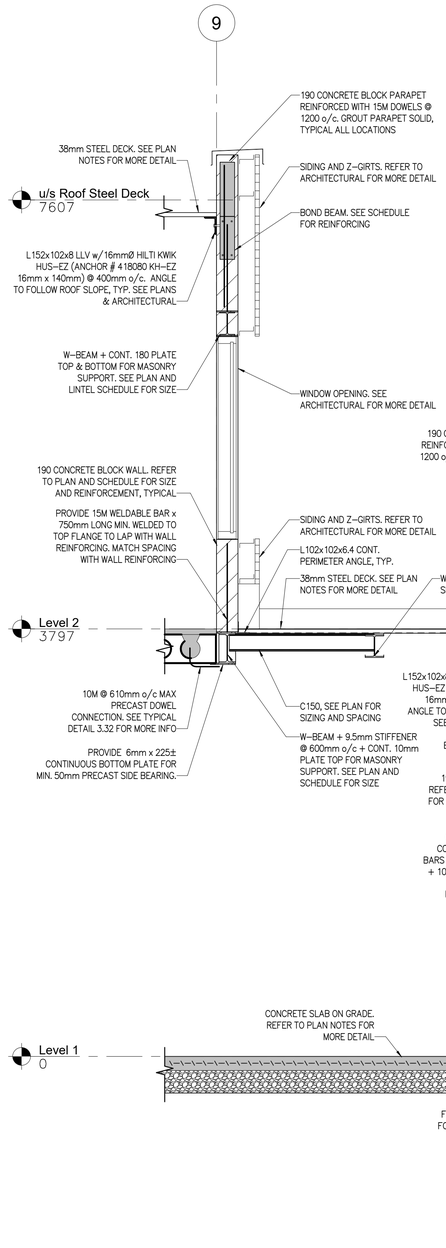

SECTION 51 / S1.0
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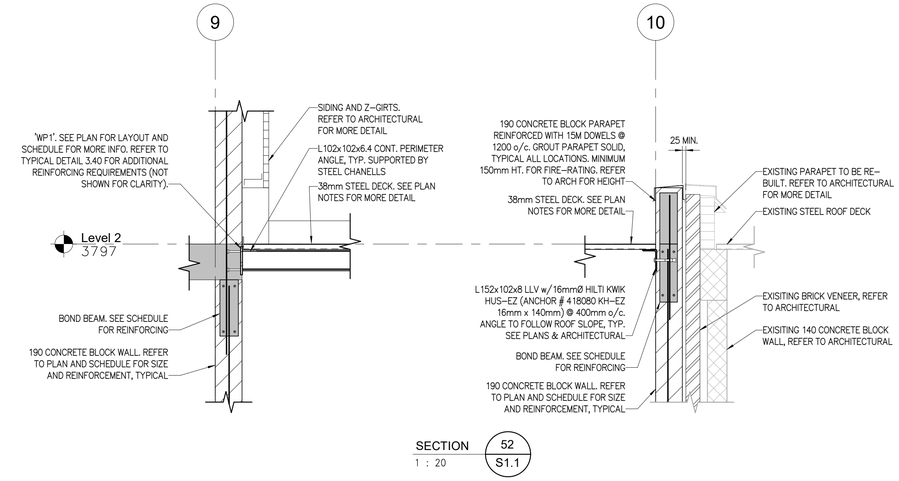

SECTION 52 / S1.1
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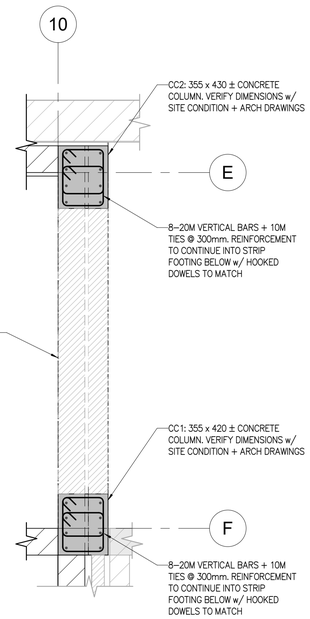

DETAIL AA / S4.5
1 : 20

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SECTIONS

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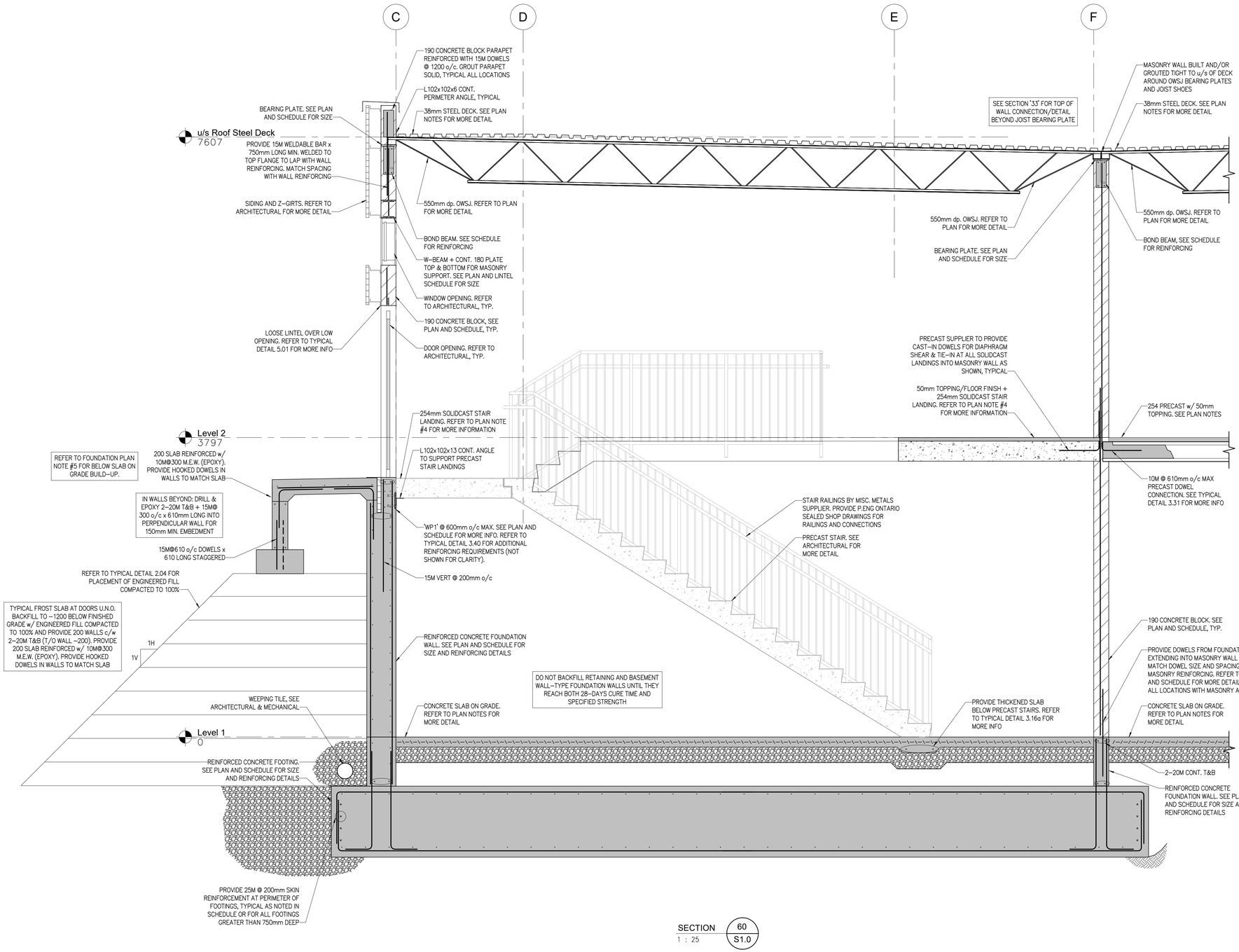
S4.5



SECTION 60/S1.0
1 : 25

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6	09.05.2025	ISSUED FOR PERMIT	AV
5	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

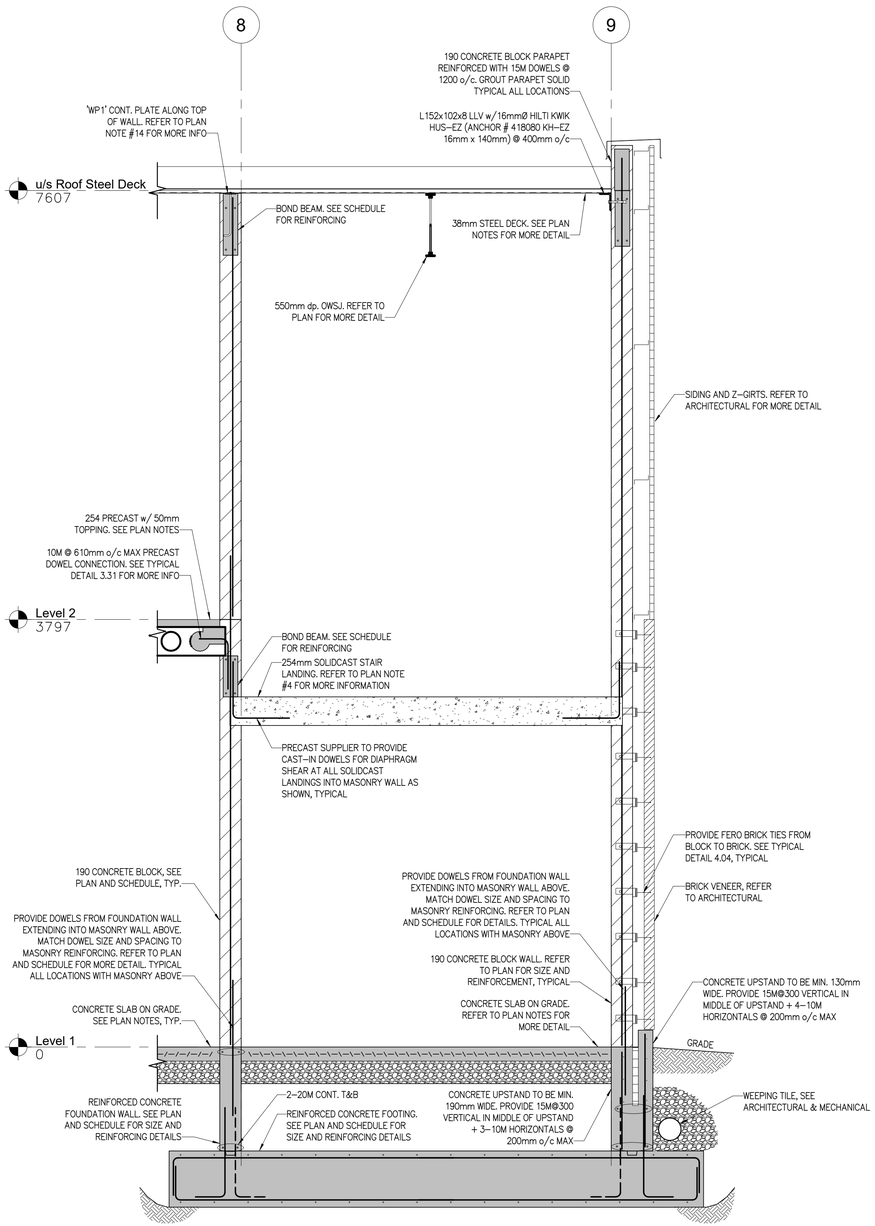
240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

SECTIONS

scale:	1 : 25
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:50:17 PM

drawing number:

S4.6



SECTION 70 / S1.0
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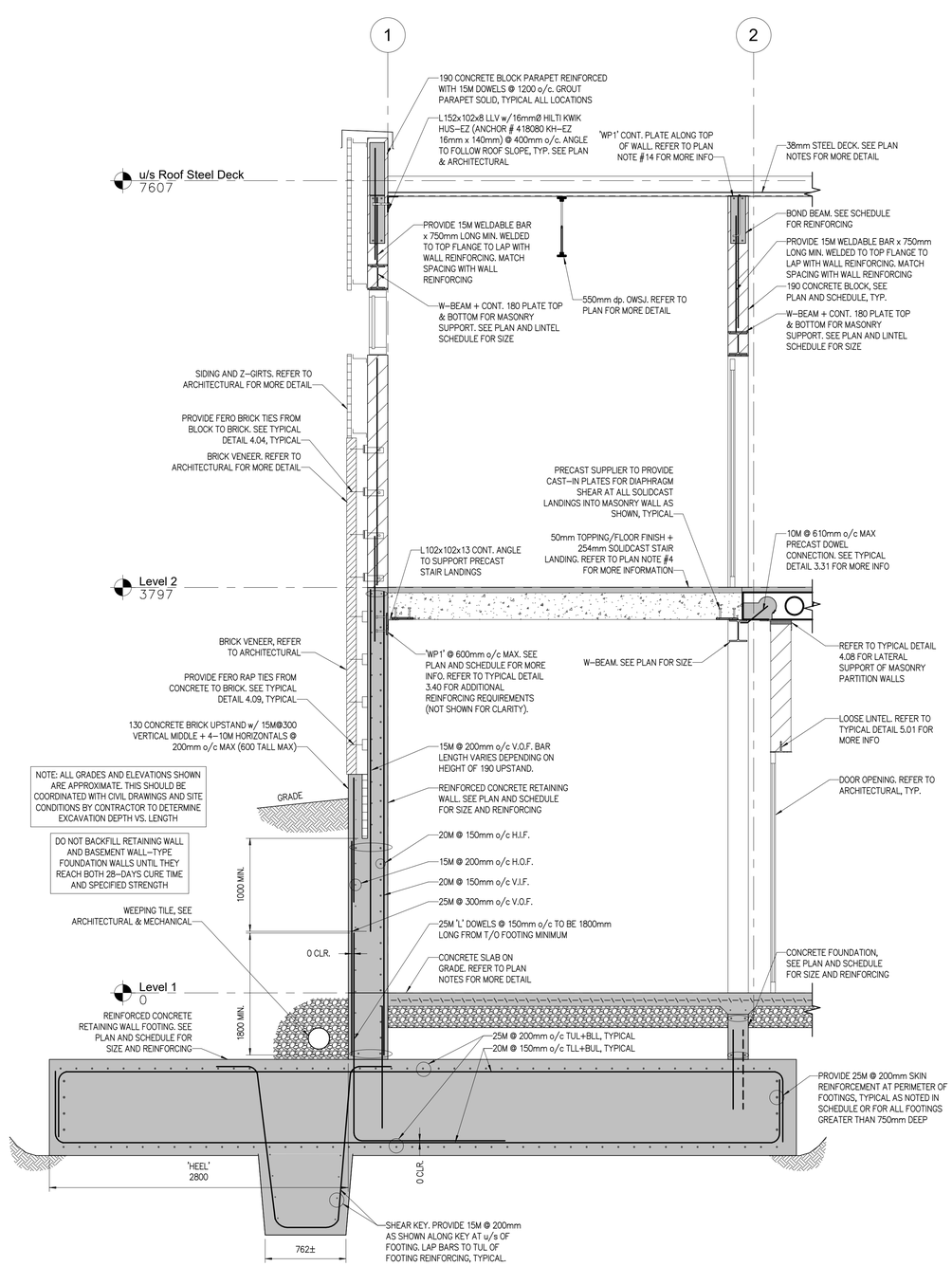

SECTION 71 / S1.0
1 : 25

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4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

240 Autumn Hill Crescent
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SECTIONS

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reviewed by:	PR
job number:	25158
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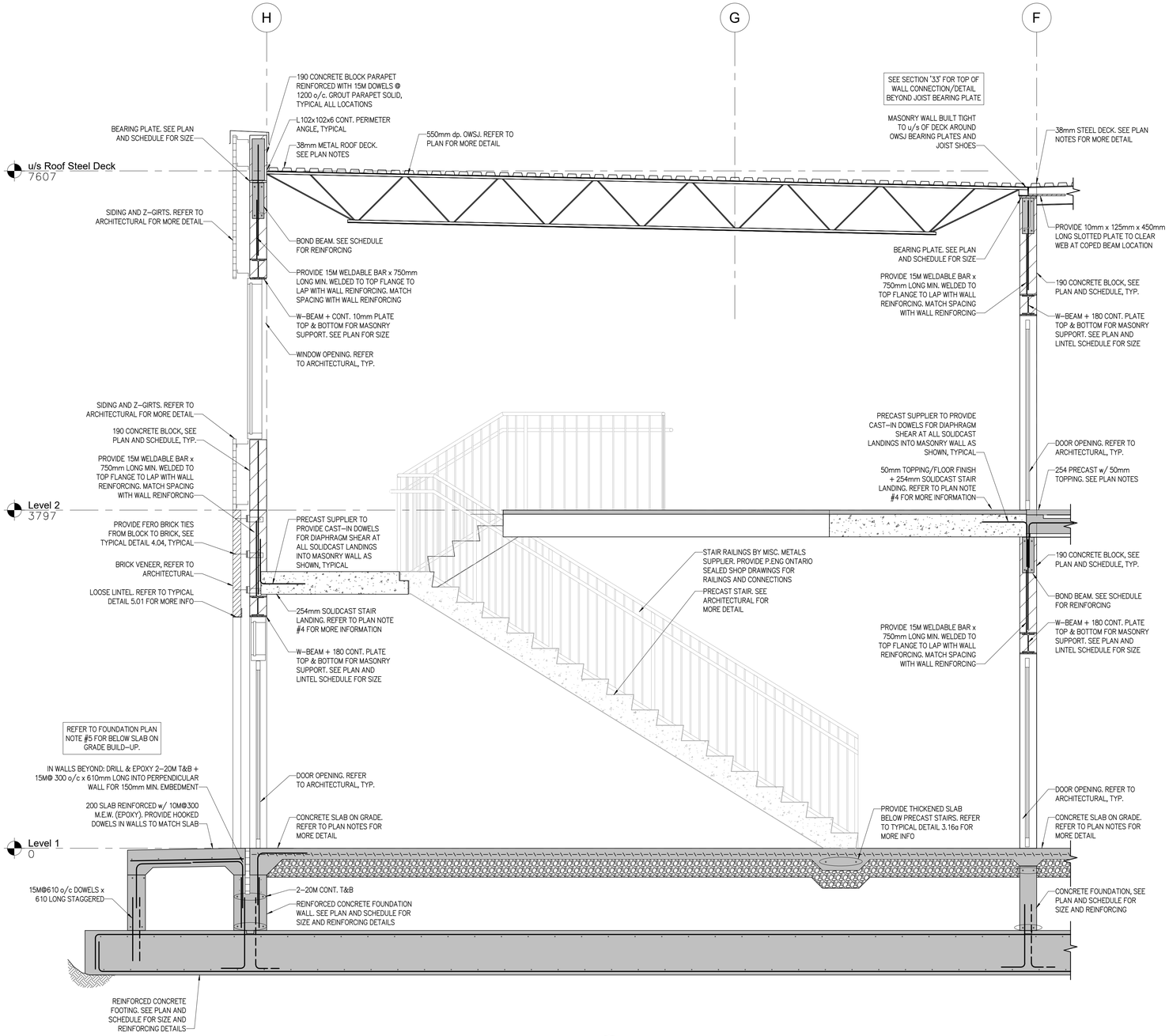
drawing number:

S4.7



SECTION 80 / S1.0
1 : 25

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2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

240 Autumn Hill Crescent
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SECTIONS

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reviewed by:	PR
job number:	25158
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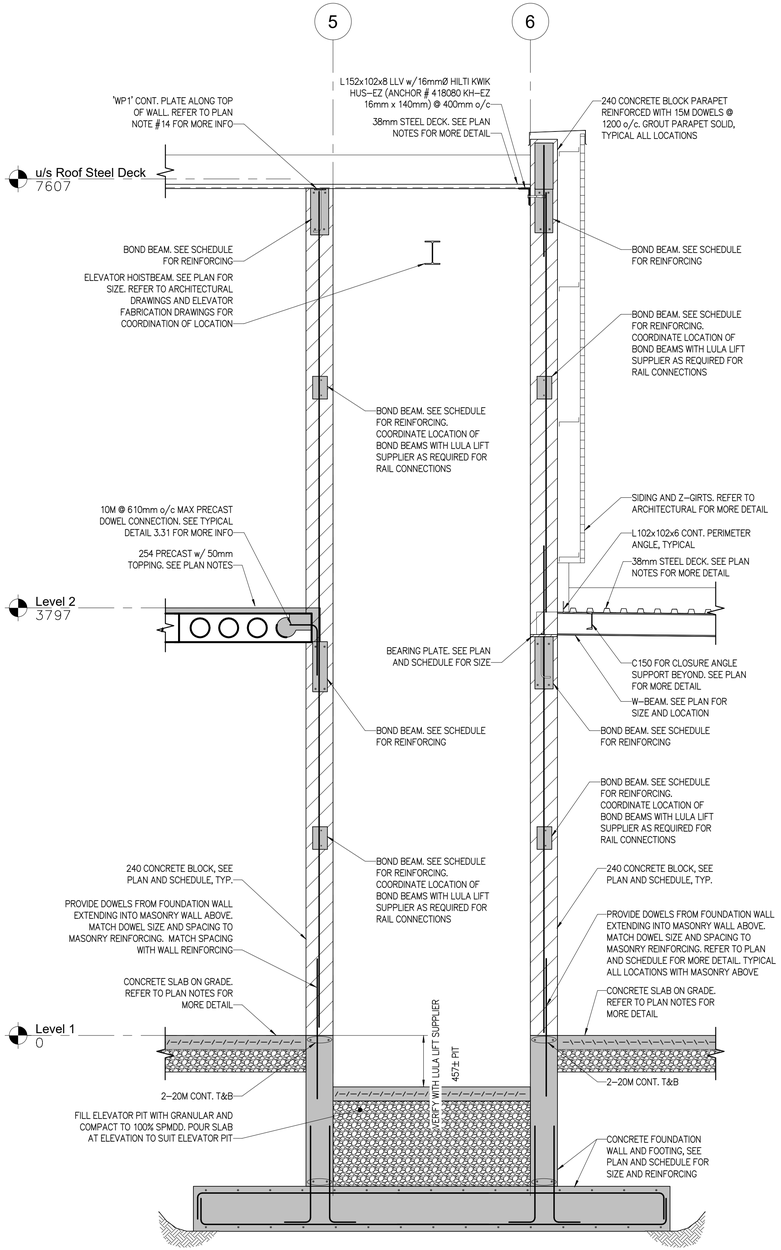
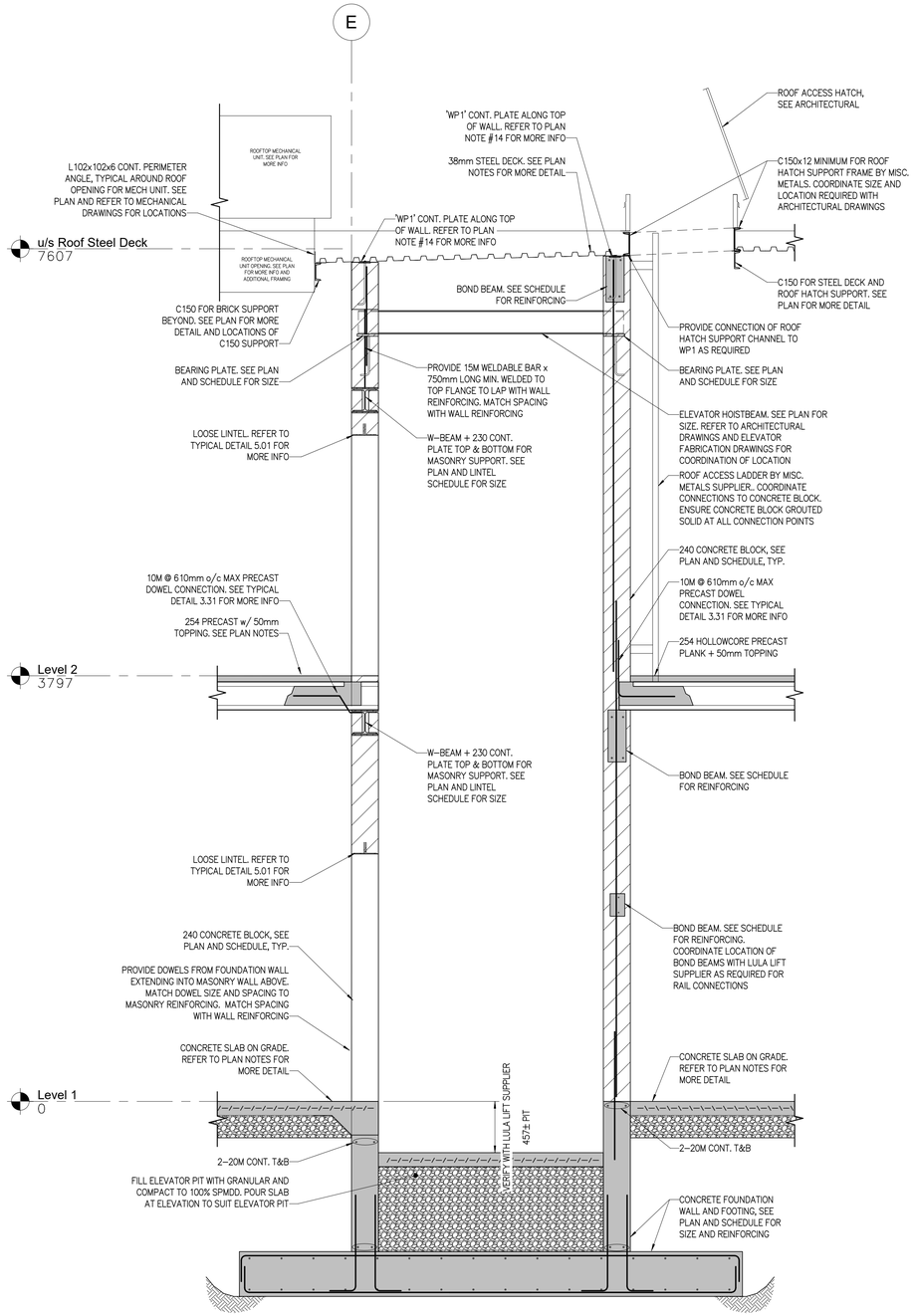
drawing number:

S4.8



SECTION 90 / S1.0
1 : 25



SECTION 91 / S1.0
1 : 25

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St. Mark CES Addition

240 Autumn Hill Crescent
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SECTIONS

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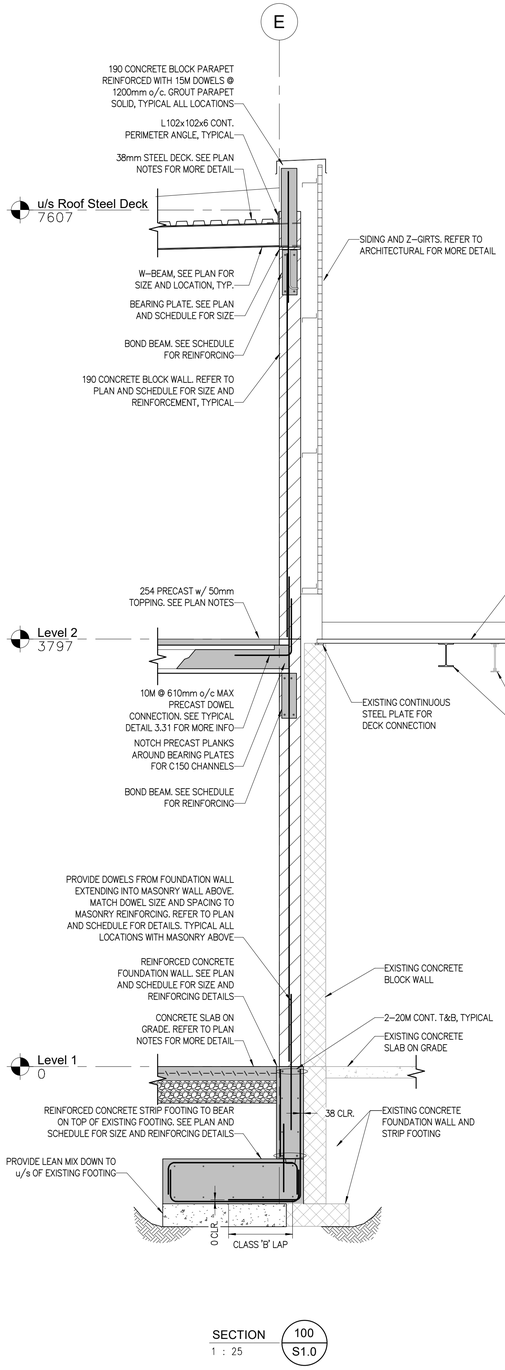
S4.9



SECTION 100 / S1.0
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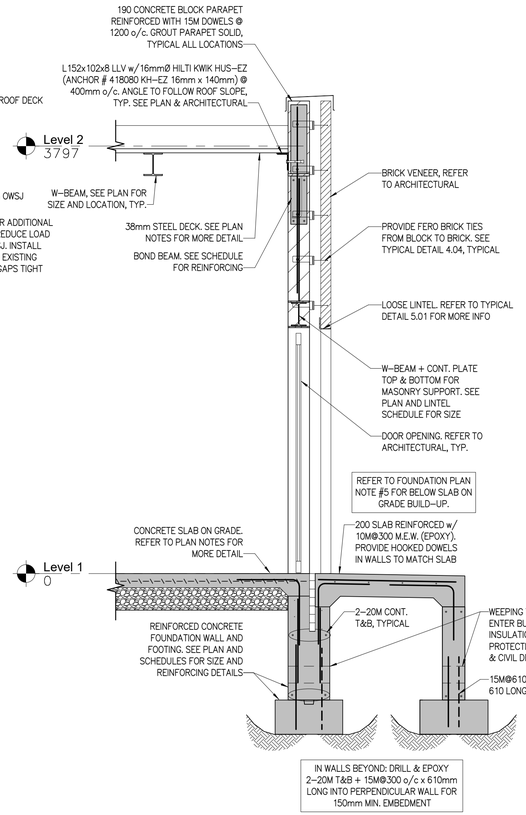

SECTION 101 / S1.0
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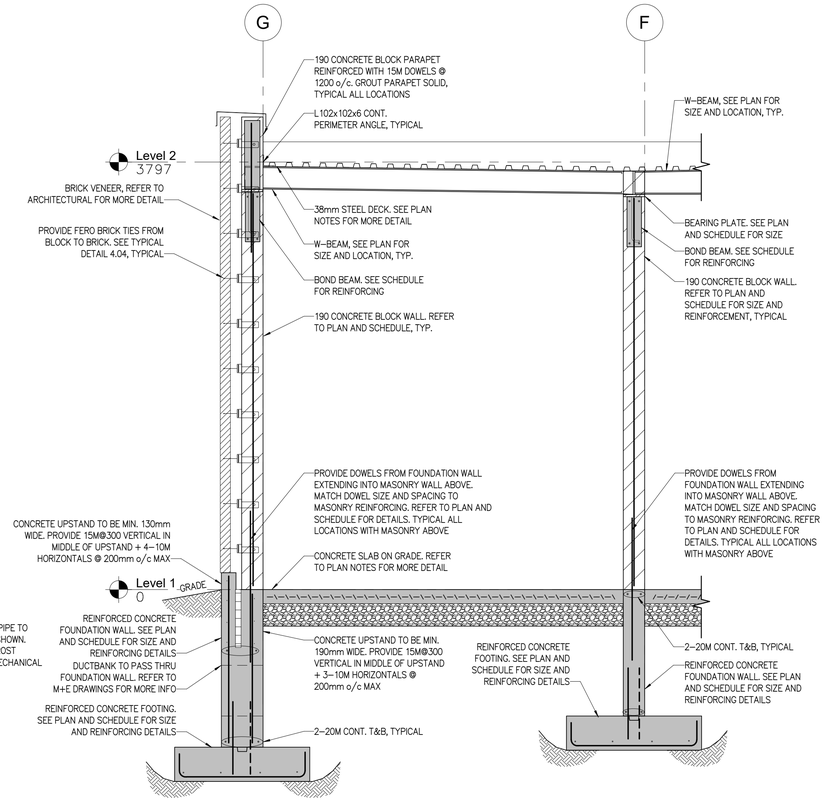

SECTION 102 / S1.0
1 : 25

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5	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
4	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
3	07.10.2025	ISSUED FOR 70% CLIENT REVIEW	PR
2	07.03.2025	ISSUED FOR COORDINATION	AV

St. Mark CES Addition

240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

SECTIONS

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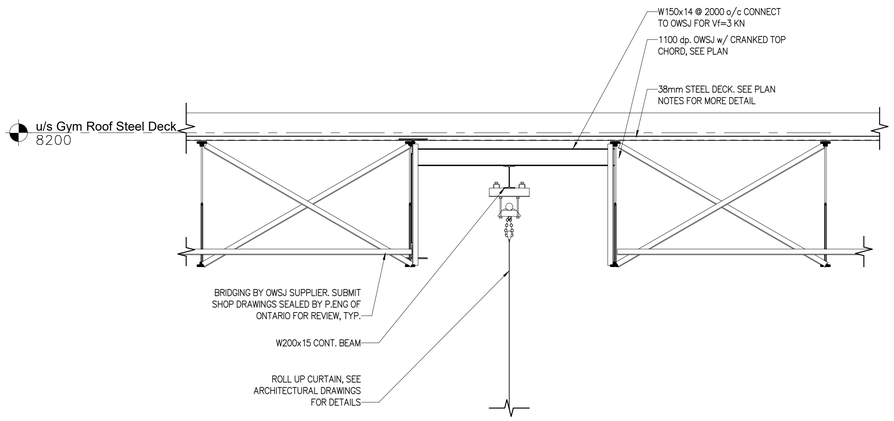
plot date:	2026-04-23 1:50:23 PM

drawing number:

S4.10



SECTION 110
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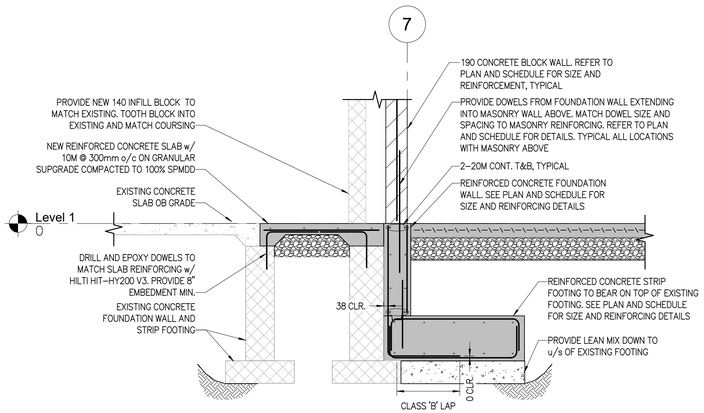
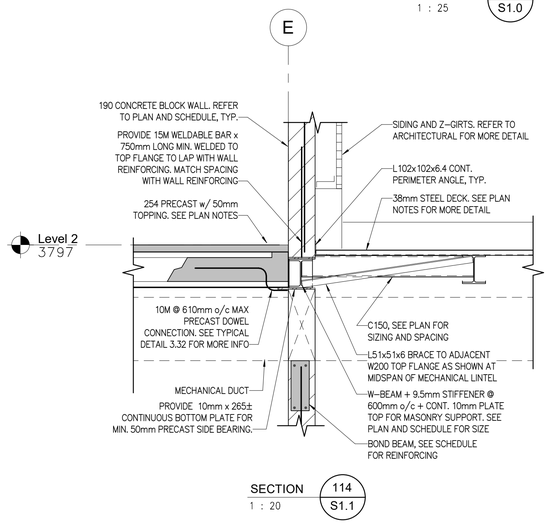
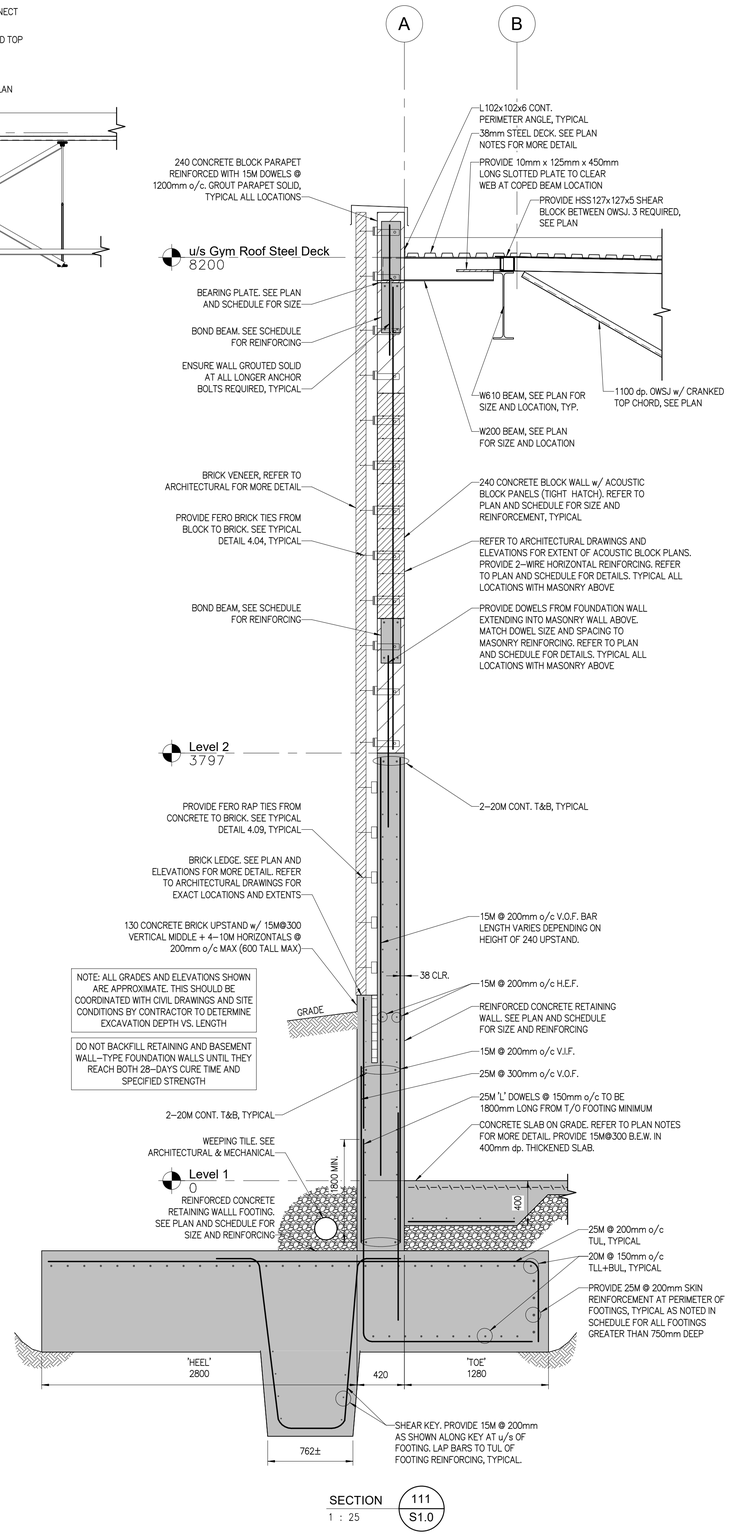


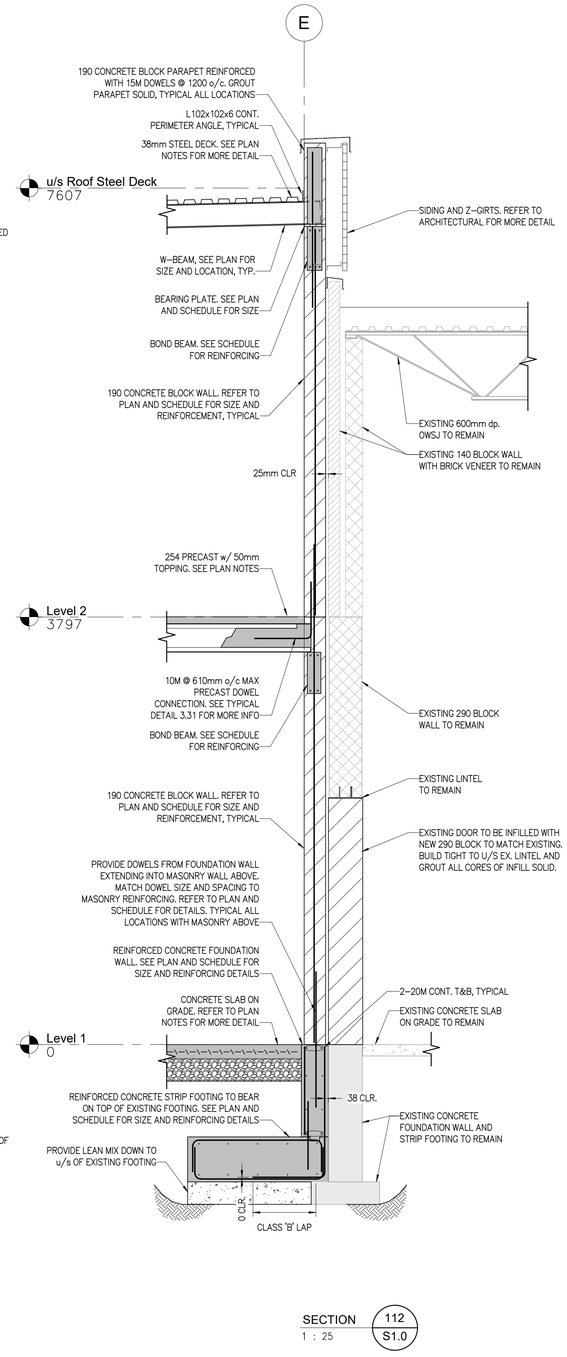
SECTION 113
1 : 25 S1.0



SECTION 114
1 : 20 S1.1



SECTION 111
1 : 25 S1.0



SECTION 112
1 : 25 S1.0

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St. Mark CES Addition

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SECTIONS

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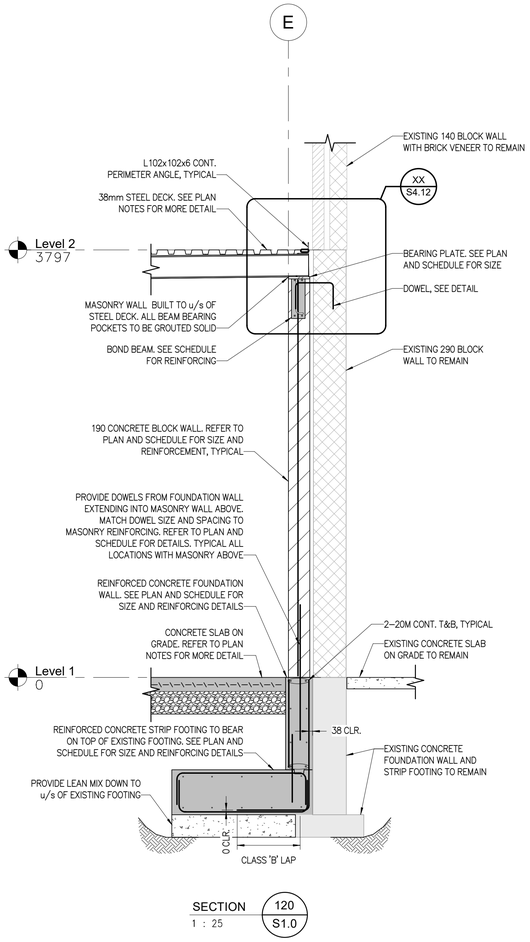
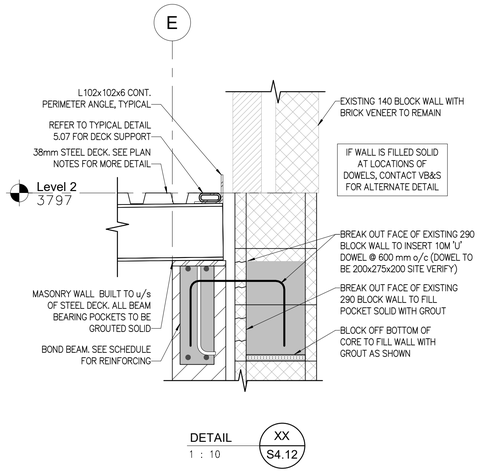
drawing number:

S4.11





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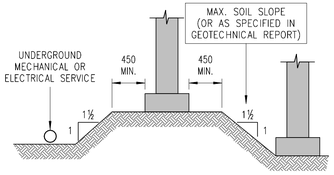
drawing number:

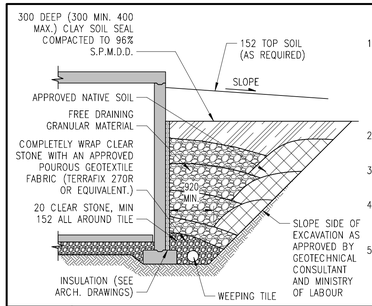
S4.12



NOTES:

1. SOIL SLOPE AS SHOWN BETWEEN ADJACENT AND INDEPENDENT FOOTINGS OR EXCAVATIONS FOR UNDERGROUND SERVICES IS NOT TO BE VIOLATED. REPORT ANY DISCREPANCIES ON FOUNDATION PLAN THAT VIOLATE MAX. EXCAVATION SLOPE TO STRUCTURAL CONSULTANT FOR REMEDIAL ACTION.
2. SOIL SLOPE MAY BE SHALLOWER THAN SHOWN IF SPECIFIED BY GEOTECHNICAL CONSULTANT. (SEE GEOTECHNICAL REPORT)
3. DO NOT EXCAVATE ADJACENT TO EXISTING CONCRETE FOUNDATION WALLS WITHOUT PROVIDING APPROPRIATE SHORING TO LATERALLY SUPPORT THE EXISTING WALL ONCE THE ADJACENT SOIL IS REMOVED.
4. IF EXCAVATION SLOPE SHOWN ABOVE CANNOT BE MAINTAINED DUE TO SUCH THINGS AS UNFORSEEN SITE CONDITIONS, CONTACT THE STRUCTURAL CONSULTANT FOR DIRECTION ON REMEDIAL ACTION.
5. MAX. SLOPE BETWEEN EXCAVATIONS SHOWN ABOVE APPLIES TO NATIVE SOIL AND ENGINEERED GRANULAR FILL.

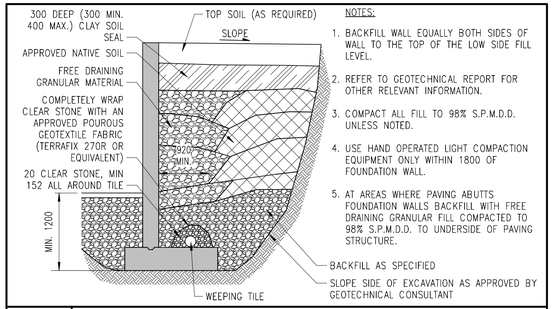
2.01 TYPICAL SECTION THROUGH ADJACENT EXCAVATIONS



NOTES:

1. DO NOT BACKFILL WALLS UNTIL SUSPENDED FLOOR SYSTEM IS POURED AND CURED OR BRACING SYSTEM, DESIGNED BY CONTRACTOR'S RETAINED ENGINEER, IS INSTALLED TO RESIST LATERAL SOIL LOADS.
2. REFER TO GEOTECHNICAL REPORT FOR OTHER RELEVANT INFORMATION.
3. COMPACT ALL FILL TO 98% S.P.M.D.D. UNLESS NOTED.
4. USE HAND OPERATED LIGHT COMPACTION EQUIPMENT ONLY WITHIN 1800 OF FOUNDATION WALL.
5. AT AREAS WHERE PAVING ABUTTS FOUNDATION WALLS BACKFILL WITH FREE DRAINING GRANULAR FILL COMPACTED TO 98% S.P.M.D.D. TO UNDERSIDE OF PAVING STRUCTURE.

2.02 BACKFILL ADJACENT TO BASEMENT WALL

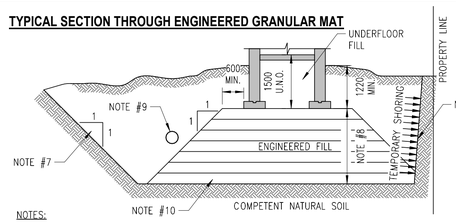


NOTES:

1. BACKFILL WALL EQUALLY BOTH SIDES OF WALL TO THE TOP OF THE LOW SIDE FILL LEVEL.
2. REFER TO GEOTECHNICAL REPORT FOR OTHER RELEVANT INFORMATION.
3. COMPACT ALL FILL TO 98% S.P.M.D.D. UNLESS NOTED.
4. USE HAND OPERATED LIGHT COMPACTION EQUIPMENT ONLY WITHIN 1800 OF FOUNDATION WALL.
5. AT AREAS WHERE PAVING ABUTTS FOUNDATION WALLS BACKFILL WITH FREE DRAINING GRANULAR FILL COMPACTED TO 98% S.P.M.D.D. TO UNDERSIDE OF PAVING STRUCTURE.

2.03b BACKFILL ADJACENT TO RETAINING WALL w/ WEEPING TILE

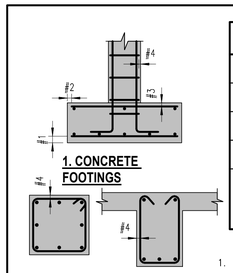
TYPICAL SECTION THROUGH ENGINEERED GRANULAR MAT



NOTES:

1. THE AREA MUST BE STRIPPED OF ALL TOPSOIL AND UNSUITABLE MATERIAL AND BULK EXCAVATED TO APPROVED SUBGRADE ELEVATIONS.
2. AFTER BULK EXCAVATION DOWN TO APPROVED SUBGRADE LEVEL, THE SUBGRADE IS TO BE PROOF ROLLED AND ANY SOFT SPOTS REMOVED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER.
3. THE APPROVED GRANULAR 'B' FILL USED AS ENGINEERED FILL MUST BE COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY THROUGHOUT.
4. FULL TIME GEOTECHNICAL INSPECTION IS REQUIRED DURING PLACEMENT OF THE ENGINEERED FILL.
5. THE FILL MUST BE PLACED SUCH THAT THE SPECIFIED GEOMETRY IS ACHIEVED. REFER TO TYPICAL SECTION THROUGH GRANULAR MAT FOR MINIMUM REQUIREMENTS.
6. AN ALLOWABLE BEARING PRESSURE AS SPECIFIED ON THE FOUNDATION PLAN MAY BE USED PROVIDED THAT ALL CONDITIONS OUTLINED ABOVE ARE ADHERED TO. A MINIMUM FOOTING WIDTH OF 500 IS REQUIRED.
7. ALL EXCAVATIONS TO CONFORM TO THE MOST RECENT VERSION OF THE ONTARIO HEALTH AND SAFETY REGULATIONS FOR A TYPE III SOIL.
8. TOTAL DEPTH OF THE GRANULAR MAT IS DEPENDANT ON THE DEPTH TO COMPETENT NATIVE SOIL. REFER TO FOUNDATION PLAN AND GEOTECHNICAL REPORT FOR INFORMATION ON DEPTH TO NATURAL COMPETENT SOIL FROM FINISHED FLOOR ELEVATION.
9. LOCATE FOOTINGS AND/OR SERVICES SUCH THAT SERVICE LIES OUTSIDE 1 TO 1 SLOPE OF GRANULAR MAT.
10. APPROVED GRANULAR 'B' FILL PLACED IN 300 LOOSE MEASURED LIFTS & COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
11. WHERE PROPERTY LINE OR OTHER PHYSICAL OBSTRUCTION DOES NOT ALLOW EXCAVATION AS SPECIFIED IN NOTE #7 – SHORE SIDE OF EXCAVATION AS REQUIRED TO REACH SPECIFIED EXCAVATION DEPTH. GENERAL CONTRACTOR TO SUBMIT SHORING DRAWINGS AND PROCEDURE STAMPED BY PROFESSIONAL ENGINEER RESPONSIBLE FOR SHORING DESIGN TO STRUCTURAL CONSULTANT FOR REVIEW.
12. THESE GUIDELINES ARE TO BE READ IN CONJUNCTION WITH THE GEOTECHNICAL REPORT. SEE FOUNDATION PLAN FOR GEOTECHNICAL CONSULTANT AND APPLICABLE REPORT NUMBER.

2.04 ENGINEERED GRANULAR FILL FOUNDATION MAT

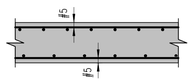


1. CONCRETE FOOTINGS

COVER TYPE	DESCRIPTION	CLEAR COVER (mm)[1]	
		EXPOSED[2]	NOT EXPOSED
#1	TO BOTTOM BARS IN PAD OR STRIP FOOTING	75	N/A
#2	TO BARS FROM SIDE OF PAD OR STRIP FOOTING	40 OR 75[3]	N/A
#3	TO TOP BARS IN PAD OR STRIP FOOTING	40	N/A
#4	TO TIES IN COLUMNS/PIERS AND TO STIRRUPS IN BEAMS	45	35
#5	TO TUL/BLL BARS IN SLABS OR OUTER BARS IN WALLS	≤ 25M–40 30M–45 35M–55	≤ 20M–20 25M–25 30M–30 35M–40

NOTES:

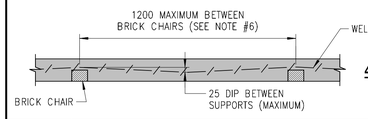
1. CLEAR COVER IS MEASURED FROM THE CONCRETE SURFACE (OR INSIDE FACE OF FORM) TO THE NEAREST DEFORMATION (OR SURFACE FOR SMOOTH BARS OR WIRES) OF THE REINFORCEMENT. FOR TEXTURED ARCHITECTURAL SURFACES IT IS MEASURED FROM THE DEEPEST POINT OF THE TEXTURED SURFACE.
2. THE CONCRETE IS EXPOSED IF IT IS AN EXTERIOR APPLICATION THAT IS SUBJECT TO WEATHER, OR CONCRETE PERMENANTLY EXPOSED TO SOIL.
3. IF THE PAD/STRIP FOOTING IS FORMED USING WOOD OR STEEL FORMWORK, USE A COVER OF 40. IF THE PAD/STRIP FOOTING IS GROUND FORMED AND CAST AGAINST SOIL, USE 75.
4. IF THE CONCRETE IS SUBJECT TO EXPOSURE CLASSES C–1 TO C–4 SEE CSA/CAN A23.1–94 FOR THE CLEAR COVER REQUIRED.



2. CONCRETE COLUMNS, PIERS AND BEAMS

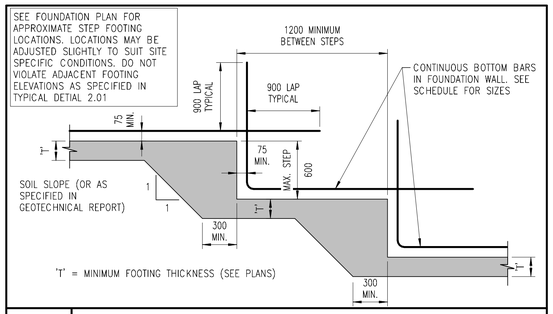
3. SUSPENDED CONCRETE SLABS AND CONCRETE WALLS

5. OBSERVE TOLERANCES SPECIFIED IN CSA/CAN A23.1–94 (12.8) WHEN PLACING REINFORCING IN THE FIELD. DIFFERENCES IN COVER GREATER THAN THE TOLERANCES SPECIFIED IN THIS STANDARD MUST BE CORRECTED PRIOR TO PLACING CONCRETE. ENSURE THAT THE REINFORCING IS ADEQUATELY TIED AND SUPPORTED TO AVOID SHIFTING DURING PLACEMENT OF CONCRETE.
6. REFER TO DETAIL #4 BELOW – USE BRICK CHAIRS (OR ACCEPTABLE EQUIVALENT) TO SUPPORT WELDED WIRE MESH SHEETS OR ROLLS AT THE CENTRE OF THE SLAB ON GRADE. SUPPORTS ARE TO BE SPACED AT 1200 MAXIMUM IN EACH DIRECTION. IT IS NOT ACCEPTABLE TO LIFT UNSUPPORTED MESH INTO PLACE AT THE TIME OF CONCRETE PLACEMENT.

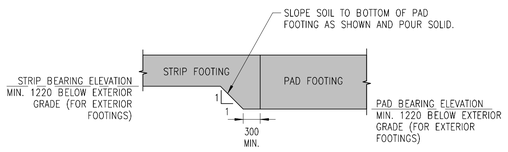


4. CONCRETE SLAB ON GRADE

3.01 COVER TO REINFORCING BARS IN CONCRETE ELEMENTS



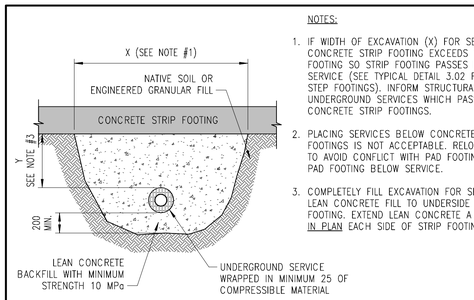
3.02 TYPICAL STEP FOOTING



NOTES:

1. BEARING ELEVATIONS SHOWN ON FOUNDATION PLAN SET FOR TOP OF STRIP FLUSH WITH TOP OF PAD FOOTINGS. REPORT ANY DISCREPANCIES ON FOUNDATION PLAN TO STRUCTURAL CONSULTANT.
2. REINFORCING IN STRIP AND PAD FOOTING NOT SHOWN FOR CLARITY – SEE FOUNDATION PLAN AND FOOTING SCHEDULES FOR REINFORCING.

3.03 STRIP FOOTING ADJACENT TO DEEPER PAD FOOTING



NOTES:

1. IF WIDTH OF EXCAVATION (X) FOR SERVICE BELOW CONCRETE STRIP FOOTING EXCEEDS 1800, STEP FOOTING SO STRIP FOOTING PASSES BELOW SERVICE (SEE TYPICAL DETAIL 3.02 FOR TYPICAL STEP FOOTINGS). INFORM STRUCTURAL CONSULTANT UNDERGROUND SERVICES WHICH PASS BELOW CONCRETE STRIP FOOTINGS.
2. PLACING SERVICES BELOW CONCRETE PAD FOOTINGS IS NOT ACCEPTABLE. RELOCATE SERVICE TO AVOID CONFLICT WITH PAD FOOTING, OR LOWER PAD FOOTING BELOW SERVICE.
3. COMPLETELY FILL EXCAVATION FOR SERVICE WITH LEAN CONCRETE FILL TO UNDERSIDE OF STRIP FOOTING. EXTEND LEAN CONCRETE A DIMENSION 'Y' IN PLAN EACH SIDE OF STRIP FOOTING.

3.04 UNDERGROUND SERVICE BELOW CONTINUOUS CONCRETE STRIP FOOTINGS

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(519) 743-6500
mte85.com

35 Weber Street West
Kitchener, ON N2H 3Z1
(519) 578-3660
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GENERAL NOTE:

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL DRAWINGS AND MUST REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE DRAWING

#	date:	revision:	by:
5	04.24.2026	ISSUED FOR TENDER	AV
4	09.05.2025	ISSUED FOR PERMIT	AV
3	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
2	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
1	07.11.2025	ISSUED FOR 70% CLIENT REVIEW	PR

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TYPICAL DETAILS

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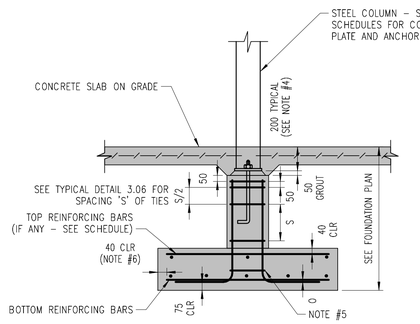
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:51:45 PM

drawing number:

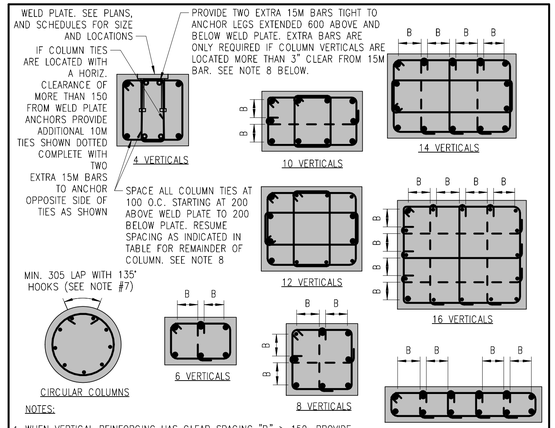
S5.1



NOTES:

1. SEE FOUNDATION AND FOOTING SCHEDULES FOR PAD FOOTING BEARING ELEVATION, PLAN SIZE, FOOTING DEPTH, BOTTOM REINFORCING, TOP REINFORCING AND PIER REINFORCING.
2. ALL PIER TIES HAVE 135° HOOKS AND ARE TO BE ROTATED AROUND PIER SO THAT HOOKED CORNERS OF ADJACENT TIES ARE NOT IN LINE VERTICALLY.
3. FOR TIE ARRANGEMENT AND SPACING OF TIES IN PIERS – SEE TYPICAL DETAIL 3.06.
4. UNDERSIDE OF STEEL BASEPLATE TO BE 200 BELOW TOP OF SLAB ON GRADE EXCEPT FOR COLUMNS ADJACENT TO RAIN WATER LEADERS WHICH SHALL BE 400 BELOW TOP OF SLAB ON GRADE. SEE COLUMN SCHEDULES FOR MORE INFORMATION ON UNDERSIDE OF BASEPLATE ELEVATION.
5. PROVIDE 1 'STARTER' TIE AROUND DOWELS FOR VERTICAL PIER REINFORCING IN CONCRETE PAD FOOTING AS SHOWN.
6. CLEAR COVER TO REINFORCING STEEL AT SIDE OF FOOTING TO BE 40 (AS SHOWN) BUT IS TO BE 75 IF SIDE OF FOOTING IS CAST AGAINST SOIL.
7. PIERS FOR CONCRETE COLUMNS TO MATCH COLUMN SIZE AND REINFORCING TO TOP OF CONCRETE PAD FOOTING. SEE TYPICAL DETAIL 3.23 AND/OR 3.24 FOR REINFORCING DETAILS AT CONCRETE COLUMN CONSTRUCTION JOINTS.

3.05 TYPICAL CONCRETE PAD FOOTING



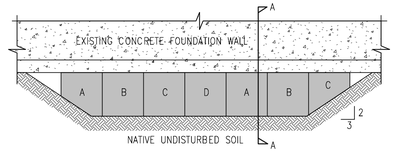
NOTES:

1. WHEN VERTICAL REINFORCING HAS CLEAR SPACING "B" > 150, PROVIDE TIE SHOWN DASHED – – – – – .
2. PROVIDE A FULL TIE AT EVERY OTHER VERTICAL BAR (MINIMUM).
3. FOR VERTICAL TIE SPACING AND SIZE, SEE TABLE.
4. CLEAR DISTANCE BETWEEN VERTICALS SHALL NOT BE LESS THAN:
   - 1.4 TIMES THE BAR DIAMETER
   - 1.4 TIMES THE MAXIMUM AGGREGATE SIZE
   - 32mm
5. ALTERNATE TIE ARRANGEMENTS ARE ACCEPTABLE, SUBJECT TO APPROVAL BY STRUCTURAL CONSULTANT.
6. TIE ARRANGEMENT FOR COLUMNS WITH > 16 VERTICALS IS SIMILAR.
7. TIE FOR CIRCULAR COLUMNS MAY BE LAPPED AND WELDED TO DEVELOP TENSILE CAPACITY OF THE BAR IN LIEU OF DETAIL SHOWN.
8. EXTRA REINFORCING FOR WELD PLATES SHOWN ON COLUMN WITH 4 VERTICALS IS TYPICAL FOR ALL COLUMNS. SEE TYPICAL DETAIL 3.40 FOR EXTRA REINF. FOR WELD PLATES IN CONCRETE WALLS.

VERTICAL TIE SPACING (mm)		
VERTICAL BAR SIZE	SPACING (fc'≤50MPa)	SPACING (fc'>50MPa)
15M	10@250	10@190
20M	10@300	10@225
25M	10@400	10@250
30M	10@460	10@275
35M	10@460	10@400
45M	10@460	10@400
55M	10@460	10@400

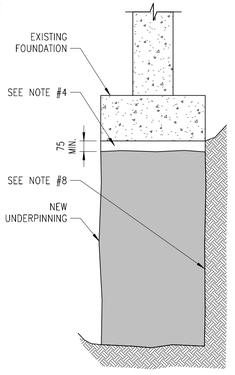
3.06 TIE ARRANGEMENT IN CONCRETE COLUMNS AND PIERS

TYPICAL UNDERPINNING OF EXISTING CONCRETE FOUNDATION



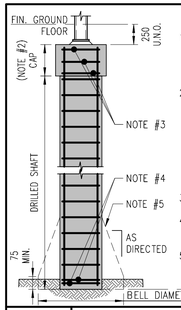
NOTES:

1. READ THIS TYPICAL DETAIL IN CONJUNCTION WITH THE FOUNDATION PLANS AND DETAILS.
2. SEQUENCE OF UNDERPINNING IS TO BE PLACED AS INDICATED BY THE ORDER SHOWN ON THE FOUNDATION PLAN. PLACE ALL 'A' BLOCKS FIRST, FOLLOWED BY 'B', 'C' AND THEN 'D' BLOCKS.
3. ONCE ALL 'A' BLOCKS HAVE REACHED 60% OF THEIR SPECIFIED 28 DAY STRENGTH (fc'), PLACE GROUT AS DESCRIBED IN NOTE #4, AND THEN CONSTRUCTION MAY BEGIN TO PLACE ALL 'B' BLOCKS. REPEAT UNTIL ALL UNDERPINNING BLOCKS HAVE BEEN PLACED.
4. INSTALL EACH UNDERPINNING BLOCK TO 75 BELOW THE EXISTING FOUNDATION, AND PLACE DRY PACK GROUT IN THE VOID PRIOR TO PLACING ADJACENT UNDERPINNING BLOCKS.
5. UNDERPINNING BLOCKS TO BE PLACED IN MAXIMUM 1200 WIDE SECTIONS ALONG THE EXISTING WALL. SEE PLAN FOR THE PLACING SEQUENCE OF UNDERPINNING BLOCKS.
6. UNDERPINNING BLOCKS TO BE POURED IN MAXIMUM 1500 LIFTS. IF HEIGHT OF UNDERPINNING EXCEEDS 1500, IT IS TO BE PLACED IN MULTIPLE LIFTS.
7. CONTRACTOR MUST ADEQUATELY SHORE EXISTING FOUNDATION WALL AND NEW UNDERPINNING BLOCKS UNTIL THE NEW STRUCTURE CAN SAFELY ACCEPT LATERAL LOADS. CONTRACTOR MUST SUBMIT SHORING DETAILS, STAMPED BY PROFESSIONAL ENGINEER RESPONSIBLE ITS DESIGN, PRIOR TO COMMENCING CONSTRUCTION.
8. REFER TO GEOTECHNICAL REPORT FOR PROPERTIES OF NATIVE SOIL. NON-COHESIVE SOIL MAY MAKE UNDERPINNING DIFFICULT OR IMPOSSIBLE.



SECTION A-A

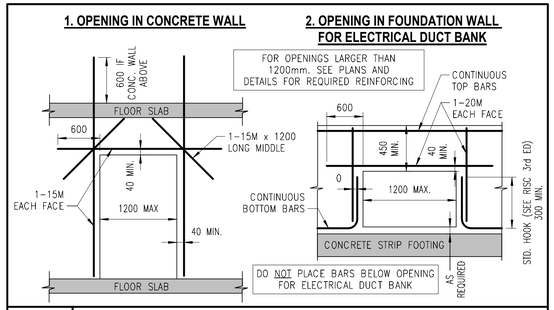
3.07 TYPICAL UNDERPINNING DETAILS



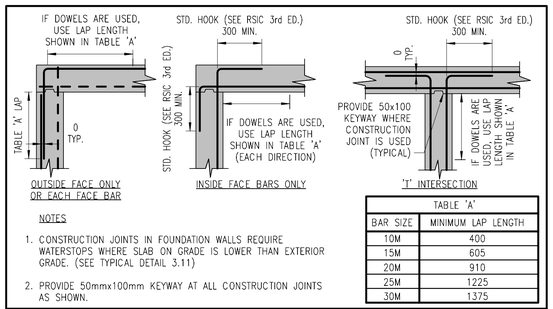
NOTES:

1. REFER TO FOUNDATION SCHEDULE FOR CAISSON DIAMETER AND VERTICAL REINFORCING. PROVIDE 10M TIES @ 300 c/c VERTICAL UNLESS NOTED OTHERWISE. SEE TYPICAL DETAIL 3.06 FOR DETAILS RELATING TO TIES IN CIRCULAR COLUMNS.
2. CAISSON CAP TO HAVE A MINIMUM DEPTH OF THE COMPRESSION DEVELOPMENT LENGTH OF THE VERTICAL REINFORCING UNLESS NOTED OTHERWISE. SEE FOUNDATION SCHEDULE FOR PLAN SIZE OF CAP. IF CAISSON SHAFT IS UNREINFORCED, PROVIDE 8–20M FROM THE TOP OF THE CAISSON INTO THE CAP ABOVE. PROJECT VERTICALS THE TENSION DEVELOPMENT LENGTH OF THE VERTICALS INTO THE TOP OF THE CAISSON SHAFT. PROVIDE 3–10M TIES IN THE TOP OF THE CAISSION IN ADDITION TO THOSE IN NOTE #3.
3. PROVIDE 10M TIES @ 300 IN CAP (3 SETS OF TIES MINIMUM).
4. PROVIDE 2–10M TIES @ 50 AT BOTTOM OF REINFORCING CAGE. VERTICAL REINFORCING TO EXTEND TO WITHIN 75 OF BOTTOM OF CAISSON (U.N.O.)
5. BELL BOTTOM OF CAISSON TO DIAMETER INDICATED IN FOUNDATION SCHEDULE.

3.08 REINFORCING IN CONCRETE CAISSONS



3.10 TYPICAL OPENING IN CONCRETE WALL



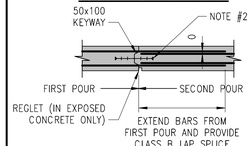
NOTES

1. CONSTRUCTION JOINTS IN FOUNDATION WALLS REQUIRE WATERSTOPS WHERE SLAB ON GRADE IS LOWER THAN EXTERIOR GRADE. (SEE TYPICAL DETAIL 3.11)
2. PROVIDE 50mmx100mm KEYWAY AT ALL CONSTRUCTION JOINTS AS SHOWN.

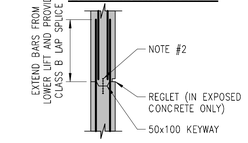
TABLE 'A'	
BAR SIZE	MINIMUM LAP LENGTH
10M	400
15M	605
20M	910
25M	1225
30M	1375

3.09 TYPICAL HORIZONTAL CORNER REINFORCING DETAILS FOR WALLS

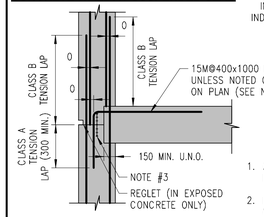
1. VERITCAL CONSTRUCTION JOINT IN CONCRETE WALL



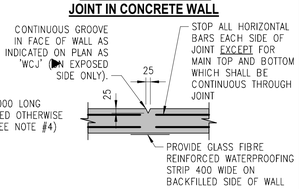
2. HORIZONTAL CONSTRUCTION JOINT IN CONCRETE WALL



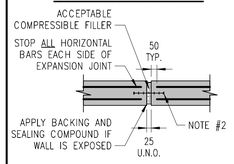
3. HORIZONTAL CONSTRUCTION JOINT IN CONCRETE WALL AT SUSPENDED SLAB



4. VERTICAL CONTROL JOINT IN CONCRETE WALL



5. VERTICAL EXPANSION JOINT IN CONCRETE WALL



1. ALL REINFORCING HAS NOT BEEN REPRESENTED IN THESE DETAILS. (SEE PLAN FOR REQUIRED WALL REINFORCING)
2. PROVIDE GREENSTREAK 703 or DURAJOINT TYPE4B RIBBED WATERSTOP WITH CENTREBULB (OR APPROVED EQUIVALENT) TIED TO VERTICAL WALL STEEL @ 300 c/c MAX. PLACE WATERSTOP IN ALL WALLS WHERE THE WALL RETAINS SOIL.
3. PROVIDE GREENSTREAK 701 or DURAJOINT TYPE3 RIBBED WATERSTOP WITH CENTREBULB. IF INSUFFICENT SPACE TO PLACE CENTREBULB STYLE USE GREENSTREAK 776 or DURAJOINT TYPE66 FACE MOUNT STYLE). TIE WATERSTOP TO HORIZONTAL WALL STEEL @ 300 c/c MAX. PLACE WATERSTOP IN ALL WALLS WHERE THE WALL RETAINS SOIL. IF SLAB EXTENDS TO OUTSIDE FACE OF WALL PROVIDE GREENSTREAK 777 'SLABSPAN' OR TWO (2) DURAJOINT TYPE60 FACEMOUNT STYLE WATERSTOPS.
4. PLACE BAR VERTICALLY IN TOP OF WALL AND SITE BEND INTO TOP OF SUSPENDED SLAB – BARS ARE EXTRA TO SLAB REINFORCING SHOWN ON PLAN.
5. SEE TYPICAL DETAIL 3.12 FOR JOINT DETAILS IN WALLS OF MULTIPLE STOREY BASEMENTS.

3.11 TYPICAL JOINTS IN CONCRETE WALLS

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5	04.24.2026	ISSUED FOR TENDER	AV
4	09.05.2025	ISSUED FOR PERMIT	AV
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TYPICAL DETAILS

scale:	1 : 10
drawn by:	AV
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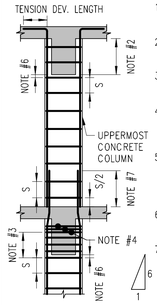
job number:	25158
plot date:	2026-04-23 1:51:45 PM

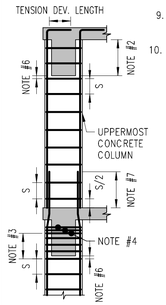
drawing number:

S5.2

1. INTERIOR COLUMN



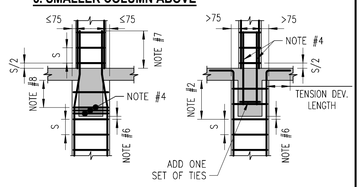
2. EXTERIOR COLUMN



NOTES:

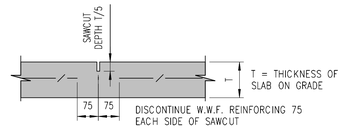
1. SEE TYPICAL DETAIL 3.06 FOR ARRANGEMENT OF TIES IN REINFORCED CONCRETE COLUMNS AND SPECIFIED TIE SPACING ('S').
2. PROVIDE ADDITIONAL TIES SPACED AT 'S' MAXIMUM BETWEEN THE TIE BELOW THE SHALLOWEST AND THE UNDERSIDE OF THE SLAB.
3. PROVIDE ADDITIONAL TIES SPACED AT 'S/2' MAXIMUM BETWEEN THE TIE BELOW SHALLOWEST BEAM AND TIES SPECIFIED IN NOTE #4.
4. PROVIDE 3 ADDITIONAL TIES SPACED AT 50 c/c STARTING 50 BELOW THE LOWER BEND IN THE VERTICAL BARS. (USE 4-15M TIES IF BARS ARE 45M OR LARGER)
5. ADDITIONAL TIES SPECIFIED IN NOTES #2, 3 AND 4 CAN BE ELIMINATED IF THERE ARE BEAMS ON ALL 4 SIDES OF THE BEAM/COLUMN JOINT, WITH BEAM WIDTHS LARGER THAN THE COLUMN WIDTH ON EACH SIDE. ADDITIONAL TIES SPECIFIED IN NOTES #2, 3 AND 4 MUST BE PLACED IN EXTERIOR COLUMNS.
6. CONTINUE SPECIFIED TIE SPACING ('S') TO 50 (MAX.) BELOW THE SHALLOWEST BEAM AT THE BEAM/COLUMN JOINT.
7. BEGIN THE BEND IN THE COLUMN VERTICAL REINFORCING 100 BELOW THE TOP OF THE SLAB ABOVE. THE SLOPE OF THE BEND IS TO BE 1H:6V. EXTEND THE BARS A COMPRESSION LAP SPLICE ABOVE THE TOP OF THE SLAB. THE AREA OF THE BARS PROJECTED FROM THE LOWER TO THE UPPER COLUMN IS NOT TO EXCEED THE AREA OF STEEL IN THE UPPER COLUMN.
8. PROVIDE ADDITIONAL TIES SPACED AT 'S' MAXIMUM BETWEEN TIES SPECIFIED IN NOTE #4 AND UNDERSIDE OF SLAB.
9. PROVIDE DOWELS TO MATCH VERTICALS IN SMALLER COLUMN ABOVE WITH LENGTH 2x(COMPRESSION DEV. LENGTH) CENTRED ON TOP OF SLAB.
10. BEAM REINFORCING NOT SHOWN FOR CLARITY.

3. SMALLER COLUMN ABOVE

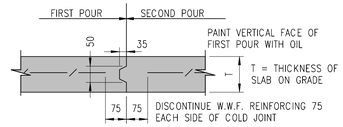


3.13 TIED CONCRETE COLUMNS SUPPORTING CONCRETE BEAMS

SAWCUT JOINT



POURED JOINT



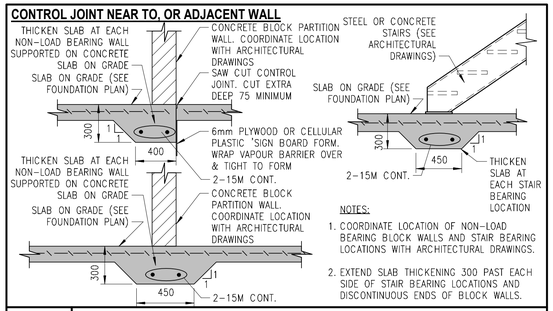
NOTES:

1. USE ONE OR THE OTHER DETAIL AS THE CONTROL JOINT WHERE INDICATED THUS "CJ" ON THE PLAN.
2. SAWCUTS MUST BE COMPLETED WITHIN 6 TO 18 HOURS OF PLACING CONCRETE.
3. AFTER SLAB HAS CURED FOR ONE MONTH, REMOVE ALL DEBRIS FROM SAWCUT JOINTS AND FILL WITH MORTAR CONTAINING CEMENT, SAND AND A LATEX BONDING AGENT, OR AS NOTED.
4. SAWCUT SLAB ON GRADE AROUND COLUMNS AS INDICATED BELOW. OTHER PATTERNS MAY BE ACCEPTABLE, BUT MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW.
5. SAWCUT JOINTS IN SLAB ON GRADE SHOULD NOT EXCEED THE FOLLOWING SPECIFIED SPACING:

SLAB THICKNESS (T)	MAXIMUM SPACING
100	30 x slab thickness
125 OR GREATER	35 x slab thickness or 6000 whichever is less

3.15 TYPICAL FLOOR SLAB CONTROL JOINT DETAIL

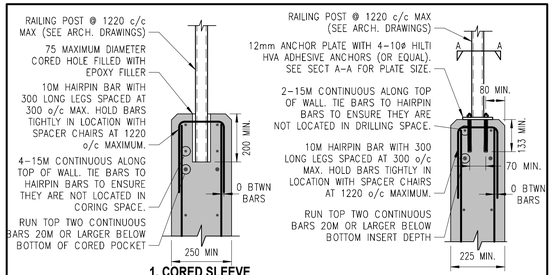
CONTROL JOINT NEAR TO, OR ADJACENT WALL



NOTES:

1. COORDINATE LOCATION OF NON-LOAD BEARING BLOCK WALLS AND STAIR BEARING LOCATIONS WITH ARCHITECTURAL DRAWINGS.
2. EXTEND SLAB THICKENING 300 PAST EACH SIDE OF STAIR BEARING LOCATIONS AND DISCONTINUOUS ENDS OF BLOCK WALLS.

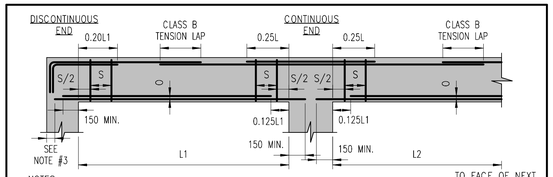
3.16a TYPICAL SLAB ON GRADE THICKENINGS



NOTES:

1. USE RAIL ANCHORAGE TYPE 3 WITH STEEL SLEEVE UNLESS NOTED OTHERWISE ON DRAWINGS OR WHEN WALL THICKNESS IS LESS THAN MINIMUM SIZES INDICATED ON DETAILS 1 AND 2.
2. RAILING STRUCTURE TO BE DESIGNED BY MISCELLANEOUS METALS CONTRACTOR TO RESIST LOADING PERSCRIBED BY GOVERNING BUILDING CODE. SUBMIT DETAILED SHOP DRAWINGS STAMPED BY PROFESSIONAL ENGINEER RESPONSIBLE FOR RAILING DESIGN TO STRUCTURAL CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
3. IF MINIMUM DIMENSIONS SHOWN IN THESE DETAILS CANNOT BE MAINTAINED, NOTIFY STRUCTURAL CONSULTANT FOR REVISED RAILING POST ANCHORAGE DETAILS.
4. MINIMUM CONCRETE STRENGTH OF SLAB/WALL fc'=25MPa.
5. DO NOT DAMAGE REINFORCING STEEL WHEN DRILLING FOR CONCRETE ANCHORS. IF REINFORCING STEEL IS ENCOUNTERED, RAILING POST MUST BE RELOCATED.
6. IF RAILING IS EXTERIOR, USE HOT DIPPED GALVANIZED SLEEVES AND PLATES, AND STAINLESS STEEL CONCRETE ANCHORS.

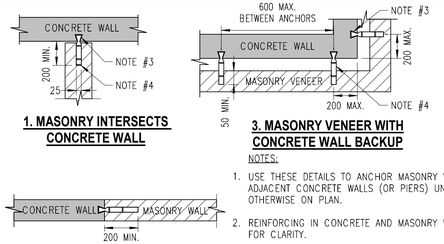
3.17 RAILING POST BASE ANCHORAGE DETAILS TO CONCRETE WALLS



NOTES:

1. DIMENSION 'L' IS THE LARGER OF 'L1' AND 'L2'
2. 'S' IS THE STIRRUP SPACING (SEE CONCRETE BEAM SCHEDULE) - REMAINDER OF STIRRUPS NOT SHOWN.
3. THE LEFT AND RIGHT END OF THE BEAM IS DETERMINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN.
4. USE THE BAR CUTTING LENGTHS SHOWN ABOVE UNLESS NOTED OTHERWISE ON THE CONCRETE BEAM SCHEDULE.
5. EXTEND 50% OF BOTTOM BARS TO 300 FROM EXTERIOR COLUMN FACE.
6. UNLESS NOTED OTHERWISE IN BEAM SCHEDULE, CUT SHORT NOT MORE THAN 50% OF BARS BUT PROVIDE 2 BARS CONTINUOUS (MINIMUM).

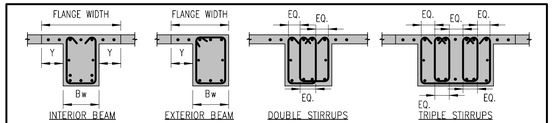
3.19 REINFORCING IN CONTINUOUS CONCRETE BEAMS



NOTES:

1. USE THESE DETAILS TO ANCHOR MASONRY WALLS TO ADJACENT CONCRETE WALLS (OR PIERS) UNLESS NOTED OTHERWISE ON PLAN.
2. REINFORCING IN CONCRETE AND MASONRY WALLS NOT SHOWN FOR CLARITY.
3. 26 GA. GALVANIZED DOVETAILED ANCHOR SLOT CONTINUOUS.
4. 16 GA. DOVETAIL MASONRY ANCHORS AT 400 o/c MAXIMUM VERTICAL SPACING. HOT-DIP GALV. FOR EXTERIOR WALLS.

3.29 TYPICAL MASONRY WALL ANCHORAGE TO CONCRETE

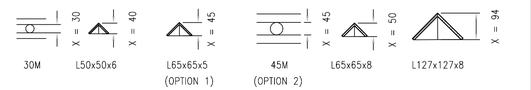


NOTES:

1. FLANGE WIDTH = Bw+2Y (OR Bw+Y FOR EXTERIOR BEAMS) WHERE Y IS LESSER OF:
   - 6t
   - 1/20 BEAM SPAN
   - 1/2 DISTANCE TO ADJACENT BEAM FACE

   PLACE TOP BARS INDICATED IN CONCRETE BEAM SCHEDULE IN FLANGE WIDTH. BEAM TOP BARS ARE IN ADDITION TO TOP STEEL INDICATED FOR SLABS.
2. FOR LONGITUDINAL BARS PLACED IN MULTIPLE LIFTS AS SPECIFIED IN THE CONCRETE BEAM SCHEDULE, PROVIDE CLEAR SPACING BETWEEN LIFTS OF BARS (X) AS INDICATED IN ADJACENT CHART.
3. FOR MULTIPLE SETS OF STIRRUPS AS INDICATED IN THE BEAM SCHEDULE, PLACE VERTICAL LEGS EQUALLY SPACED ACROSS THE BEAM AS SHOWN ABOVE. STIRRUP TYPE MAY DIFFER FROM TYPE SHOWN IN THIS DETAIL - SEE BEAM SCHEDULE.
4. TO MAINTAIN 'X' CLEAR SPACING BETWEEN BARS, REINFORCING STEEL SUPPLIER TO PROVIDE SPACE ANGLES OR BARS AS NOTED BELOW TO MAINTAIN BARS LAYERS IN BEAM. SPACE ANGLES OR BARS TO BE 80mm SHORTER THAN BEAM WIDTH.
   - FOR (X) DIMENSION OF 30mm USE 30M BARS
   - FOR (X) DIMENSION OF 40mm USE L50x50x6 SPACED AT 1800 o/c MAX.
   - FOR (X) DIMENSION OF 45mm USE L65x65x5 OR 45M BAR SPACED AT 1900 o/c MAX.
   - FOR (X) DIMENSION OF 50mm USE L65x65x8 SPACED AT 1900 o/c MAX.
   - FOR (X) DIMENSION OF 94mm USE L127x127x8 SPACED AT 2000 o/c MAX.

BAR SIZE	CLEAR SPACING (X)
15M	30
20M	30
25M	40
30M	45
35M	50
45M	94



ALTERNATE METHODS MAY BE USED AFTER APPROVED BY VB&S. SPACING IS TO BE MAINTAINED UNDER ALL CIRCUMSTANCES. SUBMIT ALTERNATIVES TO VB&S FOR REVIEW PRIOR TO STEEL DELIVERY ON SITE.

3.20 TYPICAL BAR PLACEMENT IN CONCRETE BEAMS

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520 Bingemans Centre Drive
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35 Weber Street West
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GENERAL NOTE:

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DO NOT SCALE DRAWING

#	date:	revision:	by:
5	04.24.2026	ISSUED FOR TENDER	AV
4	09.05.2025	ISSUED FOR PERMIT	AV
3	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
2	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
1	07.11.2025	ISSUED FOR 70% CLIENT REVIEW	PR

St. Mark CES Addition

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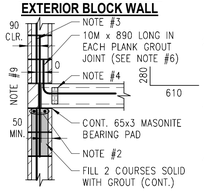
TYPICAL DETAILS

scale:	1 : 10
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:51:46 PM

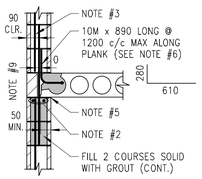
drawing number:

S5.3

1. PRECAST BEARING ON EXTERIOR BLOCK WALL

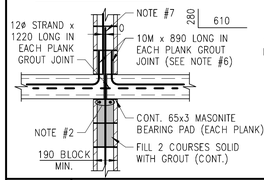


2. PRECAST PARALLEL TO EXTERIOR BLOCK WALL

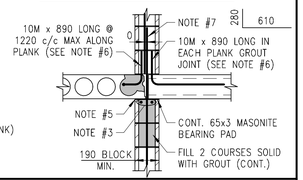


1. TYPICAL DETAILS SHOWN HERE GOVERN FOR HOLLOW CORE RECAST CONCRETE PLANKS SUPPORTED ON CONCRETE BLOCK WALLS U.N.O. ON PLANS AND DETAILS.
2. PROVIDE 2-15M CONTINUOUS AT u/s OF PRECAST BEARING LOCATION KNOCK OUT WEBS OF BLOCK TO PLACE BARS CONTINUOUS. DISCONTINUE BARS AT CONFLICT WITH STEEL BEAMS, COLUMNS AND/OR LINTELS.
3. PROVIDE DOWELS PLACED 90 CLEAR FROM EXTERIOR FACE OF CONCRETE BLOCK WALL THAT LAPS WITH VERTICAL WALL REINFORCING ABOVE AND BELOW PRECAST PLANK. BARS TO MATCH SIZE AND SPACING OF LOWER WALL REINFORCING.
4. PROVIDE A 50 THICK DISC OF RIGID INSULATION IN ALL CORES AT EXTERIOR BLOCK WALLS. (BY PRECAST INSTALLER)
5. DRY PACK WITH GROUT ALL GAPS BELOW PRECAST CONCRETE SLAB PRIOR TO PLACING CONCRETE BLOCK WALL ABOVE. (BY MASONRY CONTRACTOR)
6. IF THERE IS NOT A LOAD BEARING CONCRETE BLOCK WALL ABOVE, THE 10M DOWEL IS TO BE DRILLED AND EPOXY ANCHORED INTO GROUT FILLED CONCRETE BLOCK BELOW. THIS WORK IS TO BE COMPLETED BY THE PRECAST CONCRETE INSTALLATION CONTRACTOR. 10M DOWELS ARE TO BE DRILLED AND EPOXY ANCHORED TO BLOCK BELOW AT ALL PRECAST ROOF LOCATIONS. DO NOT PLACE VERTICAL LEG OF DOWEL INTO CONCRETE BLOCK PARAPET ABOVE.
7. VERTICAL WALL REINFORCING IS TO BE LOCATED AT THE CENTRE OF THE CONCRETE BLOCK WALL. EXTEND BARS FROM LOWER LIFT TO LAP WITH BARS IN UPPER LIFT.
8. REFER TO DETAIL #4 BELOW. CAMBER OF PRECAST SLAB RUNNING PARALLEL TO CONCRETE BLOCK WALL IS TO HAVE CAMBER AT TIME OF INSTALLATION LIMITED TO 12mm MAXIMUM.
9. USE DETAIL #1 AND #2 AT INTERIOR WHERE BLOCK WALL IS EXPOSED ON SIDE NOT SUPPORTING PRECAST FLOOR PLANK.

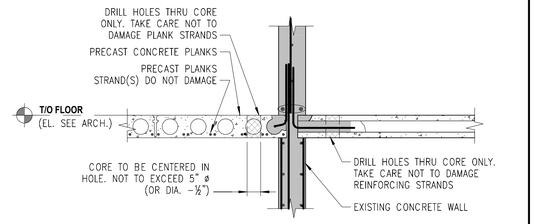
3. PRECAST BEARING ON INTERIOR BLOCK WALL



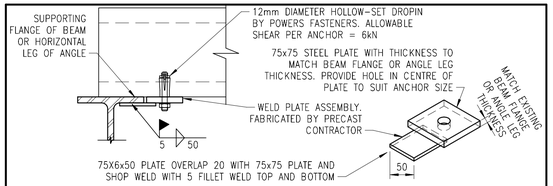
4. PRECAST BEARING ON INTERIOR BLOCK WALL AT CHANGE IN SPAN



3.31 HOLLOW CORE PRECAST FLOOR PLANKS SUPPORTED ON CONCRETE BLOCK WALLS OR CAST-IN-PLACE CONCRETE (CONCRETE BLOCK WALLS SHOWN, CAST-IN-PLACE CONCRETE SIMILAR)



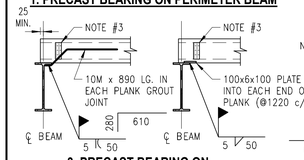
3.31b HOLLOW CORE PRECAST FLOOR PLANK TYPICAL CORE LOCATION AND SIZE



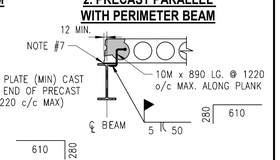
1. ALSO REFER TO TYPICAL DETAIL 3.32. THIS DETAIL IS PROVIDED AS AN ALTERNATE TO PROVIDING CAST IN STEEL PLATES. THIS ALTERNATE IS MEANT TO BE USED IN CONJUNCTION WITH 10M REBARS WELDED TO UNDERSIDE OF BEAM FLANGE OR ANGLE LEG. (IE 10M BARS ARE TO PLACED AT JOINTS BETWEEN PRECAST PLANKS AT 1200 O.C. IN ADDITION TO ABOVE DETAILED PLATE ASSEMBLIES TO TRANSFER HORIZONTAL DECK SHEARS.) SUPPLY AND INSTALLATION OF THESE SHEAR PLATES COMPLETE WITH WELDING IS BY THE PRECAST PLANK SUPPLIER AND ERECTOR.
2. REFER TO PLANS FOR SHEAR LOADS TO BE TRANSFERED FROM PRECAST PLANK TO STRUCTURAL STEEL SHAPE. TO DETERMINE NUMBER OF PLATES REQUIRED DIVIDIE THE TOTAL SHEAR LOAD TO BE TRANSFERED TO LATERAL RESISTING ELEMENT BY 6 kN AND ROUND UP BY ONE PLATE. DISTRIBUTE PLATES EQUALLY ALONG LENGTH OF STRUCTURAL STEEL MEMBER.

3.32b ALTERNATE SHEAR PLATE CONNECTION BETWEEN HOLLOW CORE PRECAST PLANKS AND STRUCTURAL STEEL SUPPORTS

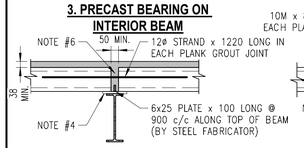
1. PRECAST BEARING ON PERIMETER BEAM



2. PRECAST PARALLEL WITH PERIMETER BEAM

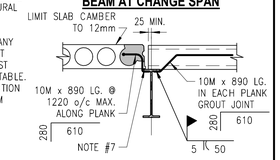


3. PRECAST BEARING ON INTERIOR BEAM



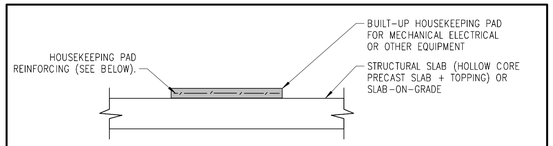
(a) WITH CONCRETE TOPPING (38 MINIMUM) (b) NO CONCRETE TOPPING

4. PRECAST BEARING ON INTERIOR BEAM AT CHANGE SPAN



1. TYPICAL DETAILS SHOWN HERE GOVERN FOR HOLLOW CORE PRECAST CONCRETE PLANKS SUPPORTED ON STRUCTURAL STEEL BEAMS U.N.O. ON PLANS AND DETAILS.
2. REFER TO DETAIL #1 ABOVE AND TYP DETAIL 3.32b. ANY CONNECTION DETAIL SHOWN (WELDED REBAR IN GROUT JOINT, WELD PLATE CAST INTO u/s OF PLANK OR POST INSTALLED PLATE WITH 10M WELDED BARS) IS ACCEPTABLE. PRECAST DESIGN ENGINEER TO ENSURE THAT CONNECTION DETAIL USED IS ABLE TO SAFELY TRANSMIT DIAPHRAGM LOADS GIVEN ON EACH FRAMING PLAN.
3. PROVIDE A 50 THICK DISC OF RIGID INSULATION IN CORES AT EXTERIOR WALLS. (BY PRECAST INSTALLER)
4. IF BEAM FLANGE WIDTH IS 190 OR LESS, PROVIDE 205 WIDE x 6 THICK CONTINUOUS PLATE WELDED TO TOP FLANGE OF STEEL BEAM TO PROVIDE ADEQUATE BEARING SUPPORT FOR PRECAST PLANKS.
5. IF BEAM FLANGE WIDTH IS 165 OR LESS, PROVIDE 180 WIDE x 6 THICK CONTINUOUS PLATE WELDED TO TOP FLANGE OF STEEL BEAM TO PROVIDE ADEQUATE BEARING SUPPORT FOR PRECAST PLANKS.
6. CONCRETE FINISHER TO ENSURE THAT CONCRETE COMPLETELY FILLS GAP BETWEEN ENDS OF PRECAST FLOOR PLANKS WHEN PLACING CONCRETE TOPPING.
7. DRY PACK WITH GROUT ALL GAPS BELOW PRECAST CONCRETE SLAB. (BY GENERAL CONTRACTOR)
8. ALL FIELD WELDS SHOWN ABOVE TO BE COMPLETED BY PRECAST PLANK ERECTION CONTRACTOR.

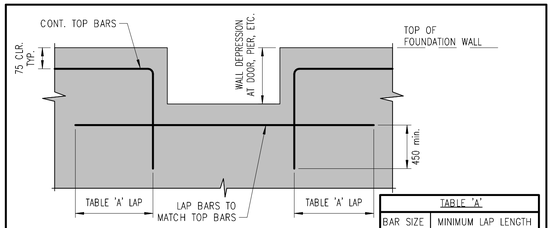
3.32 HOLLOW CORE PRECAST FLOOR PLANKS SUPPORTED ON STEEL BEAMS



NOTES:
1. CONSULT WITH MECHANICAL DRAWINGS FOR SIZE AND LOCATIONS OF ALL REQUIRED HOUSEKEEPING PADS.
2. PROVIDE REINFORCEMENT IN HOUSEKEEPING PADS AS FOLLOWS:

PAD THICKNESS "t" (mm)	REINFORCEMENT
100	152x152 MW18.7xMW18.7 WWF ONE LAYER
150	10M @ 300 MIDDLE EACH WAY

3.33 EQUIPMENT HOUSEKEEPING PADS

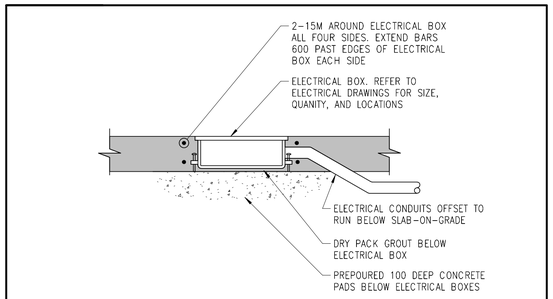


NOTES:
1. REFER TO PLANS AND SCHEDULES FOR REINFORCING STEEL REQUIREMENTS.

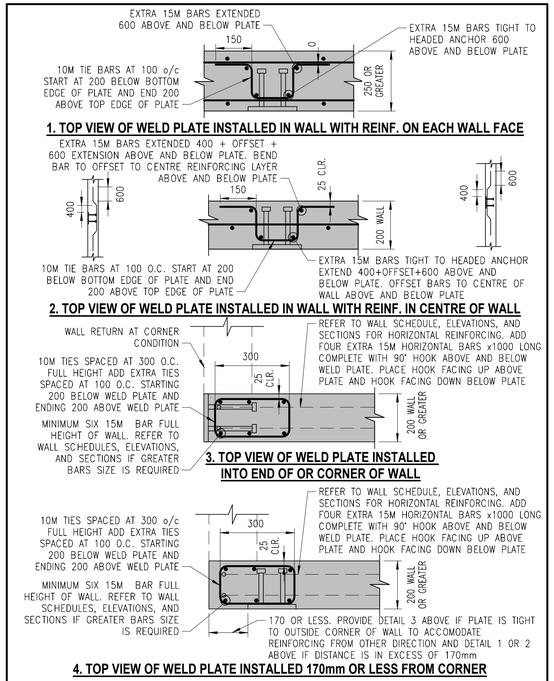
TABLE 'A'

BAR SIZE	MINIMUM LAP LENGTH
10M	400
15M	605
20M	910
25M	1225
30M	1375

3.39 TYPICAL LAP DETAIL FOR CONTINUOUS TOP REBAR AT PIER AND DOOR DEPRESSIONS IN WALLS



3.35 ELECTRICAL FLOOR BOXES IN SLAB-ON-GRADE



3.40 ADDITIONAL REINFORCING AT STEEL WELD PLATES WITH HEADED ANCHORS IN REINFORCED CONCRETE WALLS

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mte85.com

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(519) 578-3660
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DO NOT SCALE DRAWING

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4	09.05.2025	ISSUED FOR PERMIT	AV
3	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
2	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
1	07.11.2025	ISSUED FOR 70% CLIENT REVIEW	PR

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240 Autumn Hill Crescent
Kitchener, ON N2N 1K8

TYPICAL DETAILS

scale:	1 : 10
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:51:47 PM

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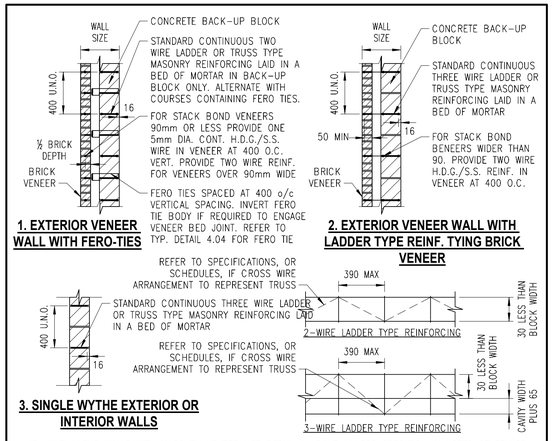
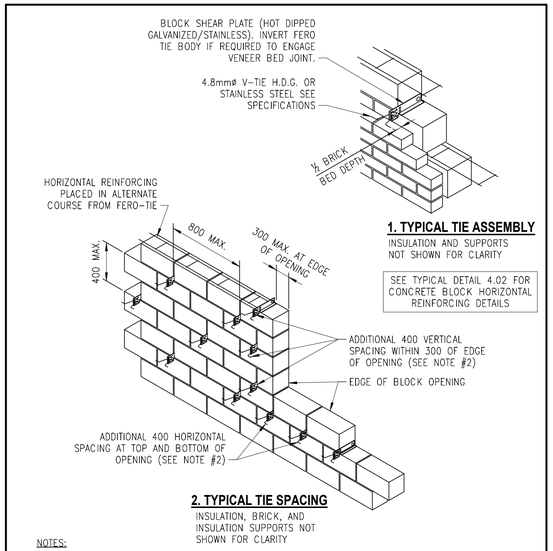


1. AT MULTI WYTHE WALLS WITH MASONRY VENEER USE DETAIL 1 ABOVE UNLESS SPECIFICALLY NOTED OTHERWISE.
2. DETAIL #2 TO BE USED ONLY IF VENEER WYTHE COURSES WITH BACK-UP BLOCK. SUBMIT DETAILED BRICK/BLOCK COURSING SHOP DRAWINGS FOR REVIEW BEFORE STARTING BLOCK WALL CONSTRUCTION.
3. ALL HORIZONTAL REINFORCING TO HAVE MINIMUM CORROSION PROTECTION CONSISTING OF HOT DIPPED GALVANIZING AFTER FABRICATION TO A.S.T.M. A-153-B2 STANDARD. REFER TO SPECIFICATIONS IF STAINLESS STEEL REQUIRED.
4. UNLESS NOTED OTHERWISE MASONRY REINFORCING SHALL BE 9 GAUGE 2-WIRE CONTINUOUS LADDER TYPE. (REFER TO LOAD BRG WALL SCHEDULE AND TYPICAL DETAILS FOR MINIMUM WIRE SIZES AND IF TRUSS TYPE WIRE REINFORCING IS REQUIRED IN SEISMIC ZONES.)
5. THE OVERALL WIDTH OF THE MASONRY REINFORCING SHALL BE APPROX. 65 LESS THAN THE THICKNESS OF THE WALL. THE CROSS WIRES SHOULD NOT HAVE A DIP.
6. LAP THE REINFORCING 200 AT SPLICES (300 FOR PLAIN WIRE).
7. USE PREFABRICATED CORNERS AND TEES IN ALL MASONRY WALL CORNERS AND INTERSECTIONS.
8. PROVIDE EXTRA LAYERS OF MASONRY REINF. IN FIRST COURSE ABOVE AND BELOW ALL BLOCK OPENINGS.

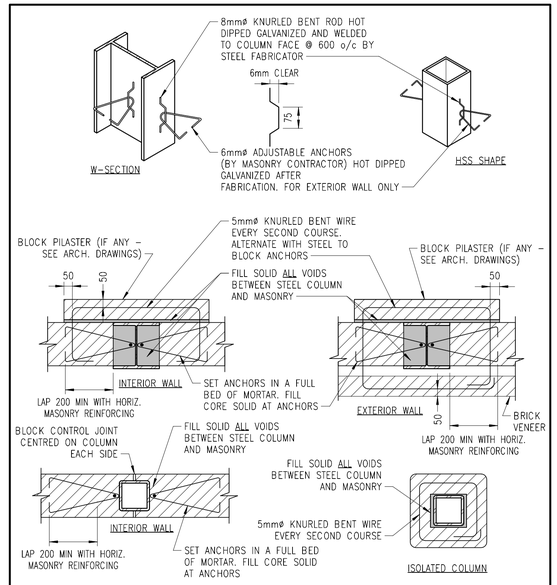
4.02 TYPICAL CONTINUOUS HORIZONTAL REINFORCING IN ALL MASONRY WALLS



NOTES:

1. BRICK CONNECTORS SHALL BE 'FERO' BLOCK SHEAR CONNECTOR.
2. CONNECTORS AND 'V' TIES ARE TO BE EITHER HOT DIPPED GALVANIZED OR STAINLESS STEEL, SEE SPECIFICATIONS. USE STAINLESS STEEL CONNECTORS & V-TIES FOR VENEER LOACATED GREATER THAN 13m ABOVE GRADE
3. SPACE TIES 400 o/c VERTICAL & 800 o/c HORIZONTAL. STAGGER CONNECTORS HORIZONTALLY. ALSO SPACE EXTRA TIES AT 400 o/c VERTICAL AND HORIZONTAL SPACING BESIDE, ABOVE AND BELOW ALL OPENINGS IN BLOCK WALLS.
4. SEE TYPICAL DETAIL 4.02 FOR EXTRA VENEER REINF. FOR STACK BOND VENEERS.

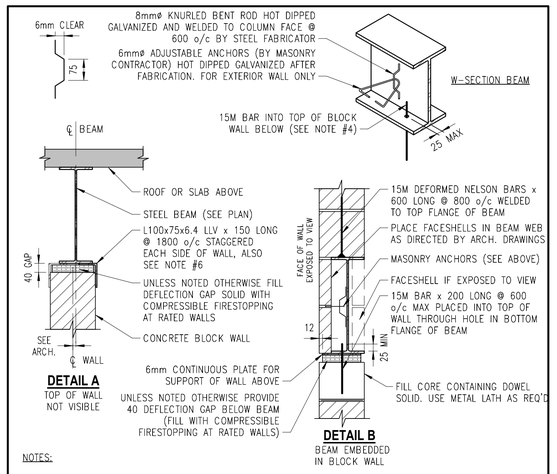
4.04 FERO BRICK TIE DETAILS



NOTES:

1. STEEL FABRICATOR TO COORDINATE LOCATION OF MASONRY ANCHORS WITH BLOCK COURSING ON ARCH. DWGS.
2. BLOCK PILASTERS MAY BE REQUIRED TO FIRE RATE THE STEEL COLUMN - REFER TO ARCH. DRAWINGS FOR COLUMN PLAN DETAILS.
3. SEE PLANS FOR COLUMN SIZES. SEE ARCH. DRAWINGS FOR WALL LOCATION RELATIVE TO COLUMN.

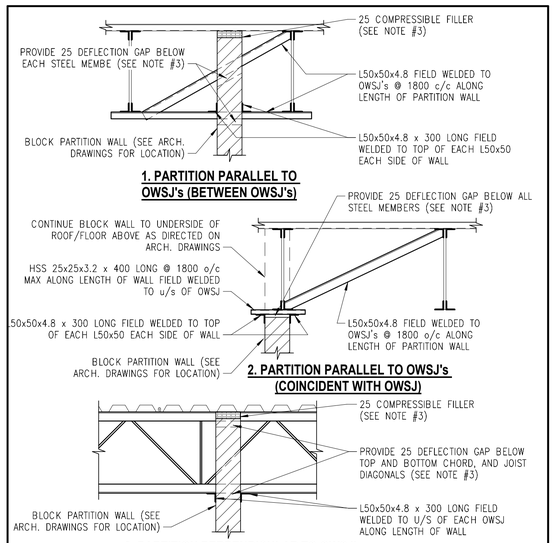
4.05 MASONRY ANCHORAGE TO STEEL COLUMNS



NOTES:

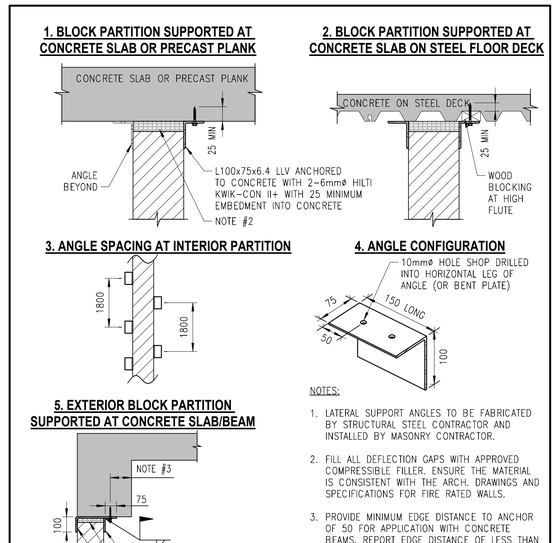
1. STEEL FABRICATOR TO REFER TO ARCH. DRAWINGS TO DETERMINE POSITION OF CONCRETE BLOCK WALL IN RELATION TO BEAM CENTRELINE FOR PLACEMENT OF LATERAL SUPPORT ANGLES ON BOTTOM FLANGE. (SEE DETAIL 'A' ABOVE)
2. REFER TO DETAIL 'A' ABOVE - STEEL BEAMS WHICH SUPPORT TOP OF BLOCK WALLS AT THE EXTERIOR OF THE BUILDING REQUIRE THE BOTTOM FLANGE TO BE LATERALLY SUPPORTED TO THE STRUCTURE ABOVE - SEE PLAN FOR DETAILS.
3. MASONRY CONTRACTOR TO FILL SOLID ALL CORES CONTAINING VERTICAL REINFORCING BARS.
4. STEEL FABRICATOR TO PROVIDE SHOP DRILLED HOLES IN BOTTOM FLANGE OF BEAM FOR PLACEMENT OF BARS AS SHOWN IN DETAIL 'B' ABOVE.
5. REFER TO DETAIL 'B' ABOVE - SEE ARCHITECTS DRAWINGS FOR TREATMENT OF DEFLECTION GAP ON FACE OF WALL EXPOSED TO VIEW.
6. AT LOCATIONS WHERE OPENINGS EXTEND TO THE U/S STEEL BEAM, PROVIDE CLIP ANGLES EACH SIDE OF WALL WITHIN 6" OF EDGE OF OPENING (2 CLIPS MINIMUM ON EACH SIDE OF EACH SECTION OF WALL).

4.06 MASONRY ANCHORAGE TO STEEL BEAMS



1. MAXIMUM DISTANCE FROM END OF ANY WALL TO FIRST LATERAL SUPPORT IS 900.
2. MAXIMUM DISTANCE FROM RETURN WALL TO FIRST LATERAL SUPPORT IS 1800 IF RETURN WALL IS LONGER THAN 900 (OTHERWISE SEE NOTE #1).
3. FILL ALL DEFLECTION GAPS WITH APPROVED COMPRESSIBLE FILLER. ENSURE THE MATERIAL IS CONSISTENT WITH THE ARCH. DRAWINGS AND SPECIFICATIONS FOR FIRE RATED WALLS.
4. DETAILS SHOWN ABOVE CAN BE USED WITH STEEL ROOF BEAMS IN PLACE OF OWSJ'S AT ROOF LEVEL. (OTHERWISE SEE TYPICAL DETAIL 4.08 FOR ACHORAGE OF PARTITIONS TO u/s OF CONCRETE)

4.07 MASONRY PARTITION SUPPORT AT OWSJ



NOTES:

1. LATERAL SUPPORT ANGLES TO BE FABRICATED BY STRUCTURAL STEEL CONTRACTOR AND INSTALLED BY MASONRY CONTRACTOR.
2. FILL ALL DEFLECTION GAPS WITH APPROVED COMPRESSIBLE FILLER. ENSURE THE MATERIAL IS CONSISTENT WITH THE ARCH. DRAWINGS AND SPECIFICATIONS FOR FIRE RATED WALLS.
3. PROVIDE MINIMUM EDGE DISTANCE TO ANCHOR OF 50 FOR APPLICATION WITH CONCRETE BEAMS. REPORT EDGE DISTANCE OF LESS THAN 50 TO STRUCTURAL CONSULTANT.
4. DO NOT USE DETAIL #2 WITH STEEL ROOF DECK ONLY. SEE TYPICAL DETAIL 4.07 FOR LATERAL SUPPORT OF CONCRETE BLOCK PARTITIONS AT STEEL ROOF DECKS.
5. AT LOCATIONS WHERE OPENINGS EXTEND TO THE U/S BEAM, SLAB, OR DECK, PROVIDE CLIP ANGLES EACH SIDE OF WALL WITHIN 6" OF EDGE OF OPENING. (2 CLIPS MINIMUM ON EACH SIDE OF EACH SECTION OF WALL)

4.08 LATERAL SUPPORT OF CONCRETE BLOCK PARTITION AT CONCRETE SLAB/DECK

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4	09.05.2025	ISSUED FOR PERMIT	AV
3	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
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1	07.11.2025	ISSUED FOR 70% CLIENT REVIEW	PR

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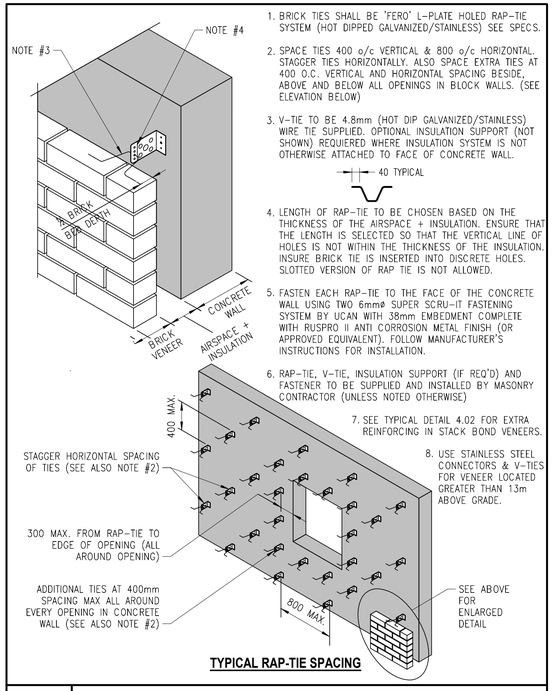
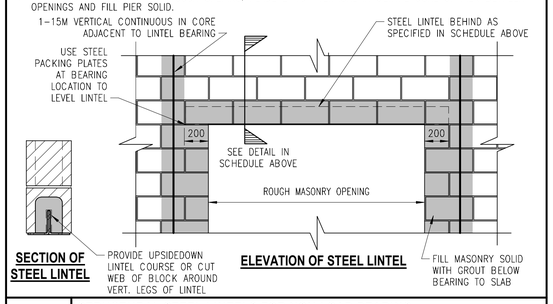


4.09 FERO RAP TIE STYLE MASONRY VENEER ANCHORS AT CONCRETE WALLS

WALL THICKNESS	CLEAR SPAN OF ROUGH MASONRY OPENING				DETAIL
	UP TO 1220	1221 to 1800	1801 to 2360	2361 to 3050	
90 BLOCK 90 VENEER	L90x90x6	L100x90x8	L125x90x8	L125x90x10	LLV
140 BLOCK	2-L65x65x6	2-L90x65x6	2-L90x65x8	2-L90x65x10	65 LEGS HORIZ.
190 BLOCK	2-L90x75x6	2-L90x90x6	2-L100x90x8	2-L125x90x10	90 LEGS HORIZ.
240 BLOCK	L100x75x6 + L125x75x6	L100x100x6 + L125x75x6	L100x100x8 + L125x90x8	L150x100x8 + L125x125x8	100 AND 125 LEGS HORIZ.
290 BLOCK	3-L90x75x6	3-L90x90x6	3-L100x90x8	3-L125x90x10	90 LEGS HORIZ.

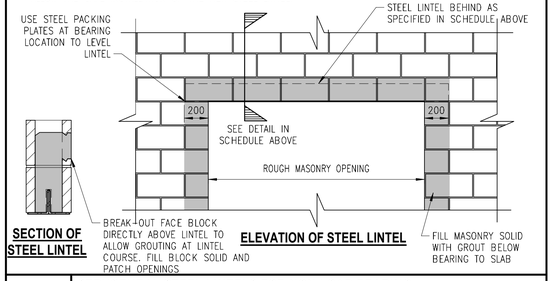
1. IT IS THE RESPONSIBILITY OF THE STRUCTURAL STEEL CONTRACTOR TO READ THIS SCHEDULE IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS TO DETEMINE SIZE AND LOCATION OF LINTELS IN NON-LOAD BEARING WALLS. OPENINGS IN NON-LOAD BEARING WALLS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
2. WELD BACK TO BACK ANGLES AT 400 c/c ON TOP AND BOTTOM OF LINTEL. FIRST WELD TO BE 75 FROM ENDS OF ANGLES.
3. ALL EXTERIOR LINTELS SUPPORTING BRICK VENEER TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
4. CONNECT ALL LINTELS TO COLUMNS WHEN THERE IS LESS THAN 300 BETWEEN EDGE OF ROUGH OPENING AND STEEL COLUMN FACE.
5. FILL BLOCKS AROUND STEEL LINTELS IN CONCRETE BLOCK WALLS SOLID WITH GROUT.
6. WHEN 600 OR LESS TO NEXT ROUGH OPENING, PLACE 2-15M VERTICAL IN CENTRE CORE OF PIER BETWEEN OPENINGS AND FILL PIER SOLID.



5.01 STRUCTURAL STEEL LINTELS FOR NON-LOAD BEARING CONCRETE BLOCK WALLS AND BRICK VENEER

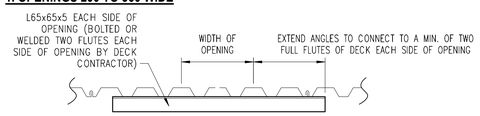
WALL THICKNESS	CLEAR SPAN OF ROUGH MASONRY OPENING				DETAIL
	UP TO 1220	1221 to 1800	1801 to 2360	2361 to 3050	
90 BLOCK 90 VENEER	L90x90x6	L100x90x8	L125x90x8	L125x90x10	LLV
140 BLOCK	2-L65x65x6	2-L90x65x6	2-L90x65x8	2-L90x65x10	65 LEGS HORIZ.
190 BLOCK	2-L90x75x6	2-L90x90x6	2-L100x90x8	2-L125x90x10	90 LEGS HORIZ.
240 BLOCK	L100x75x6 + L125x75x6	L100x100x6 + L125x75x6	L100x100x8 + L125x90x8	L150x100x8 + L125x125x8	100 AND 125 LEGS HORIZ.
290 BLOCK	3-L90x75x6	3-L90x90x6	3-L100x90x8	3-L125x90x10	90 LEGS HORIZ.

1. IT IS THE RESPONSIBILITY OF THE STRUCTURAL STEEL CONTRACTOR TO READ THIS SCHEDULE IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS TO DETEMINE SIZE AND LOCATION OF LINTELS IN NON-LOAD BEARING WALLS. OPENINGS IN NON-LOAD BEARING WALLS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
2. WELD BACK TO BACK ANGLES AT 400 c/c ON TOP AND BOTTOM OF LINTEL. FIRST WELD TO BE 75 FROM ENDS OF ANGLES.
3. ALL EXTERIOR LINTELS SUPPORTING BRICK VENEER TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
4. CONNECT ALL LINTELS TO COLUMNS WHEN THERE IS LESS THAN 300 BETWEEN EDGE OF ROUGH OPENING AND STEEL COLUMN FACE.
5. FILL BLOCKS AROUND STEEL LINTELS IN CONCRETE BLOCK WALLS SOLID WITH GROUT AS SHOWN IN SECTION BELOW.
6. THE CONTRACTOR IS RESPONSIBLE FOR NEEDLING AND SHORING EXISTING MASONRY ABOVE NEW OPENING TO ALLOW THE SAFE INSTALLATION OF THE NEW STEEL LINTEL.

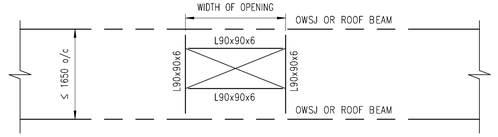


5.01b STRUCTURAL STEEL LINTELS FOR NON-LOAD BEARING CONCRETE BLOCK WALLS AND BRICK VENEER

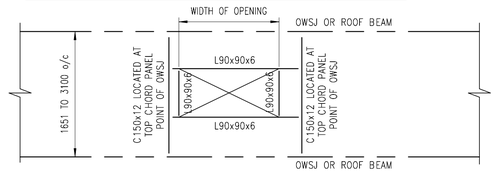
1. OPENINGS 200 TO 360 WIDE



2. OPENINGS WIDER THAN 360 AND JOISTS SPACED @ 1650 OR LESS



3. OPENINGS WIDER THAN 360 AND JOISTS SPACED @ 1651 TO 3100

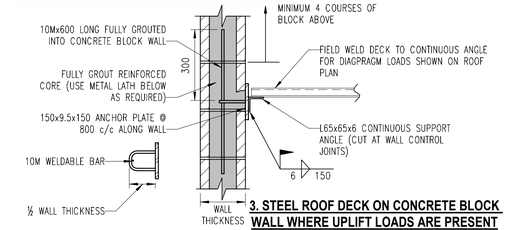


NOTES:

1. UNLESS NOTED OTHERWISE ON PLAN, PROVIDE FRAMING AROUND OPENINGS IN STEEL ROOF DECK AS SHOWN ABOVE.
2. READ THIS DETAIL IN CONJUNCTION WITH THE STRUCTURAL, ARCHITECTURAL AND MECHANICAL ROOFTOP PLANS TO DETERMINE SIZE AND LOCATION OF OPENINGS THROUGH STEEL ROOF DECK.
3. STRUCTURAL STEEL FABRICATOR TO PROVIDE STRUCTURAL STEEL FOR FRAMING OPENINGS IN ROOF DECK. DECK SUPPLIER TO INSTALL FRAMING FOR #1 ABOVE. STRUCTURAL STEEL ERECTOR TO INSTALL FRAMING FOR #2 AND #3 ABOVE.

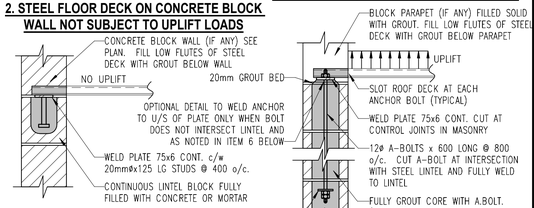
5.02 OPENINGS IN STEEL ROOF DECK

1. STEEL DECK ABUTTING CONCRETE BLOCK WALL



3. STEEL ROOF DECK ON CONCRETE BLOCK WALL WHERE UPLIFT LOADS ARE PRESENT

2. STEEL FLOOR DECK ON CONCRETE BLOCK WALL NOT SUBJECT TO UPLIFT LOADS

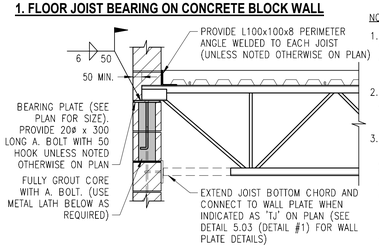


NOTES:

1. USE DETAIL #2 FOR ALL DECK ON BLOCK WALL APPLICATIONS WHERE DECK IS NOT SUBJECTED TO UPLIFT UNLESS NOTED OTHERWISE ON PLAN. USE DETAIL #3 FOR ALL ROOF DECK ON BLOCK WALL APPLICATIONS. USE DETAIL #1 ONLY AS INDICATED ON PLANS AND DETAILS.
2. SEE PLAN FOR LOADS ON STEEL DECK. CONNECT DECK TO WELDPLATE (OR SUPPORT ANGLE) FOR DIAPHRAGM LOADS INDICATED ON PLAN.
3. SEE ALSO TYPICAL DETAIL 5.04 FOR ANCHORAGE OF JOIST BRIDGING TO CONCRETE BLOCK WALLS.
4. DECK SUPPLIER/ERECTOR TO NOTCH DECK ON SITE AROUND TOP OF ANCHOR BOLTS AS SHOWN IN DETAIL #3.
5. MASONRY CONTRACTOR TO PROVIDE HOLE IN BOTTOM OF CONTINUOUS LINTEL BLOCK TO INSTALL CONTINUOUS VERTICAL WALL REINFORCING AS SPECIFIED ON PLAN FOR DETAIL #2.
6. DO NOT EXTEND PLATE MORE THAN 75 PAST ANCHOR POINT. IF BARS ARE PRE-WELDED TO U/S OF WELD PLATE FABRICATOR TO SUPPLY ADDITIONAL NUTTED ANCHORS TO ALLOW FIELD CUTTING OF PLATE TO LENGTH.

5.03 STEEL DECK SUPPORTED AT LOAD BEARING CONCRETE BLOCK WALLS

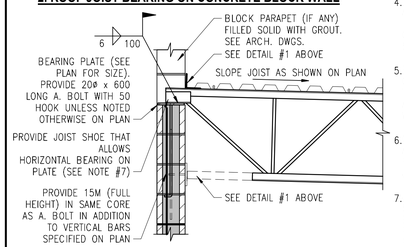
1. FLOOR JOIST BEARING ON CONCRETE BLOCK WALL



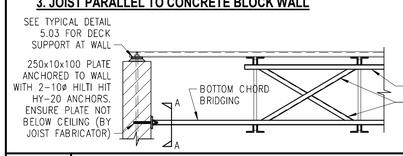
NOTES:

1. READ THIS DETAIL IN CONJUNCTION WITH ROOF PLAN AND BEARING PLATE SCHEDULES.
2. ROOF JOIST IS CLASSIFIED AS ANY JOIST SUBJECTED TO WIND UPLIFT LOADS.
3. 15M REINFORCING BAR SHOWN IN WALL OF DETAIL #2 IS IN ADDITION TO THE VERTICAL WALL REINFORCING INDICATED ON PLAN. GENERAL CONTRACTOR TO LAYOUT LOCATION OF ALL ROOF JOISTS FOR MASONRY CONTRACTOR FOR CORRECT PLACEMENT OF THIS EXTRA 15M BAR.
4. MASONRY CONTRACTOR TO SET ALL JOIST BASEPLATES LEVEL IN A BED OF MORTAR. FILL CORES BELOW BEARING PLATE SOLID AS SHOWN IN DETAILS.
5. PROVIDE PERMANENT CONTINUOUS BRIDGING FOR TOP AND BOTTOM CHORDS OF ALL JOISTS IN ACCORDANCE WITH CAN/CSA S16.1.
6. OFFSET JOIST BEARING PLATE AND ANY CONNECTION PLATES FROM VERTICAL WALL CONTROL JOINT.
7. JOIST SHOE TO BE FABRICATED SUCH THAT THERE IS EVEN BEARING ON THE FLAT BEARING PLATE BELOW WHILE THE JOIST FOLLOWS THE INDICATED SLOPES.

2. ROOF JOIST BEARING ON CONCRETE BLOCK WALL



3. JOIST PARALLEL TO CONCRETE BLOCK WALL



SECTION A-A

5.04 STEEL JOISTS SUPPORTED ON CONCRETE BLOCK WALLS

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GENERAL NOTE:

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL DRAWINGS AND MUST REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE DRAWING

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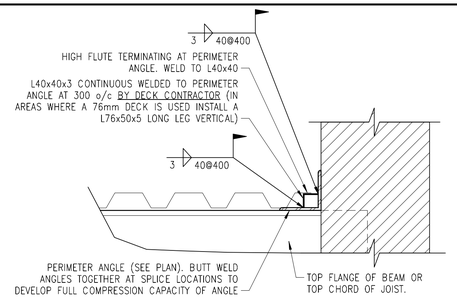
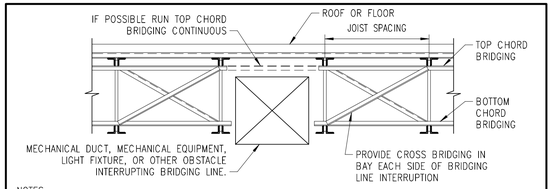


5.07	TYPICAL DECK CLOSURE DETAIL WHERE HIGH FLUTE DOES NOT CLOSE WITH PERIMETER ANGLE

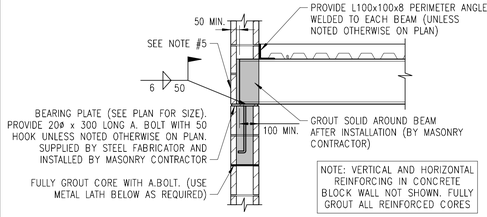


NOTES:

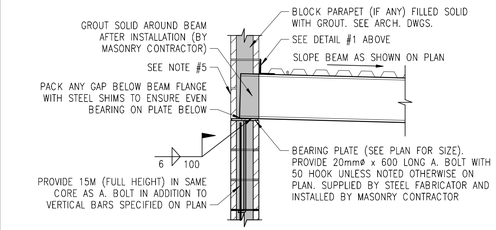
1. READ THIS DETAIL IN CONJUNCTION WITH THE FLOOR/ROOF FRAMING PLANS.
2. STEEL JOIST CONTRACTOR TO REVIEW MECHANICAL AND ELECTRICAL DRAWINGS TO DETERMINE LOCATIONS WHERE BOTTOM CHORD HORIZONTAL BRIDGING WILL BE INTERRUPTED BY LIGHTS, DUCTS, OR OTHER EQUIPMENT.
3. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF JOIST SHOP DRAWINGS TO MECHANICAL AND ELECTRICAL TRADES FOR CONFIRMATION ON LOCATIONS WHERE LIGHTS, DUCTS, OR OTHER EQUIPMENT INTERRUPT BRIGING LINES.

5.13	DUCT OR OTHER MECH. OR ELECT. CONFLICT WITH JOIST BRIDGING

1. FLOOR BEAM BEARING ON CONCRETE BLOCK WALL

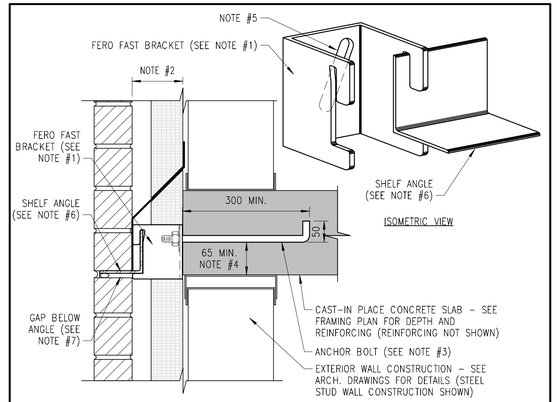


2. ROOF BEAM BEARING ON CONCRETE BLOCK WALL



1. READ THIS DETAIL IN CONJUNCTION WITH FLOOR AND ROOF FRAMING PLANS AND ANY BEARING PLATE SCHEDULES.
2. ROOF BEAM IS CLASSIFIED AS ANY BEAM SUBJECTED TO WIND UPLIFT LOADS.
3. 15M REINFORCING BAR SHOWN IN WALL OF DETAIL #2 IS IN ADDITION TO THE VERTICAL WALL REINFORCING INDICATED ON PLAN. GENERAL CONTRACTOR TO LAYOUT LOCATION OF ALL BEARING PLATES FOR MASONRY CONTRACTOR FOR CORRECT PLACEMENT OF THIS EXTRA 15M BAR.
4. MASONRY CONTRACTOR TO SET ALL BEAM BASEPLATES LEVEL IN A BED OF MORTAR. FILL CORES BELOW BEARING PLATE SOLID AS SHOWN IN DETAILS.
5. SEE ARCHITECTURAL DETAILS TO DETERMINE IF FACE OF WALL IS EXPOSED. IF EXPOSED, USE FACESHELLS AS REQUIRED AT BEAM POCKET TO MAINTAIN COURSING AND AND FULL BLOCK PLACEMENT.

5.11	STEEL BEAMS SUPPORTED ON CONCRETE BLOCK WALLS



1. FOR SUPPORT OF CONTINUOUS SHELF ANGLE, PROVIDE A 'FAST' BRACKET (MANUFACTURED BY FERO) CONNECTED AT SLAB EDGE AND SPACED AT 900mm c/c MAXIMUM. ENSURE THERE IS A MINIMUM OF 2 'FAST' BRACKETS PER STRETCH OF WALL.
2. CHOOSE SIZE OF 'FAST' BRACKET BASED ON THE SIZE OF THE CAVITY WALL (INSULATION + AIR SPACE).
3. CONNECT THE FAST BRACKET TO THE FACE OF THE CONCRETE SLAB USING A 16mmø ANCHOR BOLT WITH A MINIMUM OF 300mm EMBEDMENT AND A 50mm HOOK. THE BOLT IS TO BE CAST IN THE SLAB. THE FORM AT THE OUTSIDE FACE OF THE SLAB IS TO BE DRILLED TO ACCOMMODATE PLACEMENT OF THE ANCHOR BOLT. USE AN APPROPRIATELY SIZED WASHER AND NUT TO CONNECT THE BRACKET TO THE SLAB.
4. DETERMINE THE LOCATION OF THE ANCHOR BOLT WITHIN THE SLAB BASED ON BRICK COURSING DIMENSIONS (REFER TO ARCH. DRAWINGS). THE BOLT IS TO BE PLACED NOT CLOSER THAN 65mm FROM THE BOTTOM OF THE SLAB.
5. PLACE 'FAST' BRACKET SUCH THAT THE DIRECTION OF THE SLOT ALTERNATES DIRECTIONS TO PREVENT THE SHELF ANGLE SYSTEM FROM MOVING AFTER INSTALLATION (REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS).
6. PLACE A L100x100x6 HOT DIPPED GALVANIZED SHELF ANGLE CONTINUOUS ALONG EACH SLAB EDGE.
7. PROVIDE A 15mm GAP BELOW EACH SHELF ANGLE AND FILL WITH APPROVED COMPRESSIBLE MATERIAL. REFER TO ARCH. DETAILS FOR FLASHING DETAILS AND SEALING OF GAP AFTER VENEER INSTALLATION.

5.12	SHELF ANGLE FOR SUPPORT OF EXTERIOR VENEER

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GENERAL NOTE:

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL DRAWINGS AND MUST REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

DO NOT SCALE DRAWING

#	date:	revision:	by:
5	04.24.2026	ISSUED FOR TENDER	AV
4	09.05.2025	ISSUED FOR PERMIT	AV
3	08.28.2025	ISSUED FOR 90% CLIENT REVIEW	AV
2	08.08.2025	ISSUED FOR 80% CLIENT REVIEW	AV
1	07.11.2025	ISSUED FOR 70% CLIENT REVIEW	PR

St. Mark CES Addition

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TYPICAL DETAILS

scale:	1 : 10
drawn by:	AV
reviewed by:	PR
job number:	25158
plot date:	2026-04-23 1:51:49 PM

drawing number:

S5.7