01 00 00 CODES AND STANDARDS

1. CONFORM TO REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE AND ONTARIO CONSTRUCTION SAFETY ACT REGULATION.

01 10 00 GENERAL REQUIREMENTS SUMMARY

1. PERFORM CUTTING, FITTING AND PATCHING INCLUDING EXCAVATION AND FILL TO COMPLETE THE WORK. PERFORM THIS WORK TO AVOID DAMAGE TO OTHER WORK AND PREPARE PROPER SURFACES TO RECEIVE PATCHING AND FINISHES.
2. ENSURE THAT ALL REFINISHED SURFACES MATCH ADJACENT SURFACES.
3. ALL SUB–TRADES ARE RESPONSIBLE FOR THEIR OWN CUTTING, FITTING AND EXCAVATION. PATCHING AND FINISHING ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
4. PROVIDE WEATHER TIGHT CLOSURES SOLID HOARDING AND DUST TIGHT SCREENS TO LOCALIZE CONSTRUCTION DEBRIS AND KEEP PUBLIC AWAY FROM THE CONSTRUCTION AREA.
5. GENERAL CONTRACTOR WILL PROVIDE A CONTINUOUS SUPPLY OF POTABLE WATER. OWNER WILL ALSO PROVIDE TEMPORARY POWER AND SANITARY FACILITIES.
6. STORE MATERIALS ON SITE WITHIN AREA DESIGNATED BY OWNER, MAINTAINING SAME IN A CLEAN AND ORDERLY CONDITION.
7. MAINTAIN THE CONSTRUCTION AREA IN A TIDY CONDITION, REMOVING WASTE MATERIALS AND DEBRIS FROM THE SITE AT END OF EACH WORK DAY.
8. ALL MATERIALS AND ITEMS INCORPORATED INTO THIS WORK SHALL BE NEW AND OF BEST QUALITY.
9. ALL WORKMANSHIP SHALL BE OF BEST QUALITY EXECUTED BY WORKERS EXPERIENCED IN THEIR RESPECTIVE DUTIES FOR WHICH THEY ARE EMPLOYED.
10. IN FINISHED AREAS CONCEAL PIPES, DUCTS AND WIRING IN FLOORS, WALLS AND CEILINGS. INFORM THE ARCHITECT IF THERE IS A CONTRADICTORY SITUATION.
11. AT PROJECT CLOSEOUT, VACUUM CLEAN ALL SURFACES AND CLEAN AND POLISH ALL GLASS, MIRRORS AND CHROME SURFACES. PREPARE FLOOR FINISHES AS RECOMMENDED BY MANUFACTURER. BROOM CLEAN AND WASH ALL EXTERIOR WALKS AND SURFACES.
12. NO CHANGES IN THE WORK SHALL BE PERMITTED WITHOUT SIGNED APPROVAL BY THE OWNER OR HIS AGENT.
13. AS–BUILT RECORD DRAWINGS SHALL BE KEPT CURRENT AND SHALL INDICATE ALL CHANGES MADE DURING CONSTRUCTION. UPON COMPLETION OF THE WORK, OBTAIN TWO (2) CONSTRUCTION SETS OF WHITE PRINT DRAWINGS AND RECORD IN RED INK, ALL CHANGES MADE DURING CONSTRUCTION. SUBMIT TO THE OWNER UPON PROJECT COMPLETION.

SECTION 07 84 00 FIRE STOPPING

1. STANDARDS FOR FIRE STOPPING TO MEET: ULC–S115–1995, FIRE TESTS OF FIRE STOP SYSTEMS.
2. DEFINITIONS:
   1. FIRE STOP MATERIAL: DEVICE INTENDED TO CLOSE OFF OPENING OR PENETRATION DURING FIRE OR MATERIALS THAT FILL OPENINGS IN WALL OR FLOOR ASSEMBLY WHERE PENETRATION IS BY CABLES, CABLE TRAYS, CONDUITS, DUCTS AND PIPES AND POKE–THROUGH TERMINATION DEVICES, INCLUDING ELECTRICAL OUTLET BOXES ALONG WITH THEIR MEANS OF SUPPORT THROUGH WALL OR FLOOR OPENINGS.
   2. SINGLE COMPONENT FIRE STOP SYSTEM: FIRE STOP MATERIAL THAT HAS LISTED SYSTEMS DESIGN AND IS USED INDIVIDUALLY WITHOUT USE OF HIGH TEMPERATURE INSULATION OR OTHER MATERIALS TO CREATE FIRE STOP SYSTEM.
   3. MULTIPLE COMPONENT FIRE STOP SYSTEM: EXACT GROUP OF FIRE STOP MATERIALS THAT ARE IDENTIFIED WITHIN LISTED SYSTEMS DESIGN TO CREATE ON SITE FIRE STOP SYSTEM.
   4. TIGHTLY FITTED: (REF: NBC PART 3.1.9.1.1 AND 9.10.9.6.1): PENETRATING ITEMS THAT ARE CAST IN PLACE IN BUILDINGS OF NONCOMBUSTIBLE CONSTRUCTION OR HAVE "0" ANNULAR SPACE IN BUILDINGS OF COMBUSTIBLE CONSTRUCTION. WORDS "TIGHTLY FINISHED" SHOULD ENSURE THAT INTEGRITY OF FIRE SEPARATION IS SUCH THAT IT PREVENTS PASSAGE OF SMOKE AND HOT GASES TO UNEXPOSED SIDE OF FIRE SEPARATION.
3. MATERIALS:
   1. FIRE STOPPING AND SMOKE SEAL SYSTEMS IN ACCORDANCE WITH CAN–ULC– S115. SYSTEMS TO BE CAPABLE OF MAINTAINING EFFECTIVE BARRIER AGAINST FLAME, SMOKE AND GASES IN COMPLIANCE WITH REQUIREMENTS AND NOT TO EXCEED OPENING SIZES FOR WHICH THEY ARE INTENDED. FIRE STOP SYSTEM RATING TO MEET RATING AS NOTED IN DRAWINGS.
   2. SERVICE PENETRATION ASSEMBLIES AND SERVICE PENETRATION FIRE STOP COMPONENTS TO MEET REQUIREMENTS OF CAN–ULC–S115.
   3. FIRE–RESISTANCE RATING OF INSTALLED FIRE STOPPING ASSEMBLY IN ACCORDANCE WITH NBC.
   4. FIRE STOPPING AND SMOKE SEALS AT OPENINGS INTENDED FOR EASE OF RE–ENTRY SUCH AS CABLES: ELASTOMERIC SEAL.
   5. FIRE STOPPING AND SMOKE SEALS AT OPENINGS AROUND PENETRATIONS FOR PIPES, DUCTWORK AND OTHER MECHANICAL ITEMS REQUIRING SOUND AND VIBRATION CONTROL: ELASTOMERIC SEAL.
   6. PRIMERS: TO MANUFACTURER'S RECOMMENDATION FOR SPECIFIC MATERIAL, SUBSTRATE, AND END USE.
   7. DAMMING AND BACKUP MATERIALS, SUPPORTS AND ANCHORING DEVICES: TO MANUFACTURER'S RECOMMENDATIONS, AND IN ACCORDANCE WITH TESTED ASSEMBLY BEING INSTALLED AS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
   8. SEALANTS FOR VERTICAL JOINTS: NON–SAGGING.
4. INSTALL FIRE STOPPING AND SMOKE SEAL MATERIAL AND COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S CERTIFIED TESTED SYSTEM LISTING.
5. SEAL HOLES OR VOIDS MADE BY THROUGH PENETRATIONS, POKE–THROUGH TERMINATION DEVICES, AND UN–PENETRATED OPENINGS OR JOINTS TO ENSURE CONTINUITY AND INTEGRITY OF FIRE SEPARATION ARE MAINTAINED.
6. EXAMINE SIZES AND CONDITIONS OF VOIDS TO BE FILLED TO ESTABLISH CORRECT THICKNESSES AND INSTALLATION OF MATERIALS.

07 21 00 SPRAY POLYURETHANE MEDIUM DENSITY FOAM INSULATION

1. THERMAL INSULATION – SPRAY APPLIED POLYURETHANE FOAM, MEDIUM DENSITY CLOSED CELL MATERIAL TO MEET CAN/ULC–S705–1–[2001].
2. THERMAL INSULATION – SPRAY APPLIED POLYURETHANE FOAM, MEDIUM DENSITY APPLICATION TO MEET CAN/ULC–S705–2–[2005].
4. INSTALL INSULATION TO MAINTAIN CONTINUITY OF THERMAL PROTECTION TO BUILDING ELEMENTS AND SPACES.
5. SELF–ADHERING AIR BARRIER MEMBRANE: BAKOR, BLUESKIN; 3M COMPANY OR EQUIVALENT.

07 92 00 SEALANTS

1. SEALANTS TO CONFORM TO CAN/CGSB–19.13M87, SEALING COMPOUND, ONE–COMPONENT, ELASTOMERIC, CHEMICAL CURING.
2. JOINT BACK–UP – BACKER ROD: ROUND OPEN CELL, RETICULATED FOAM, 50% COMPRESSION COMPATIBLE WITH SEALANT AND PRIMER, NON–ADHERING TO SEALANT.
3. BOND BREAKER: – PRESSURE SENSITIVE PLASTIC TAPE NOT BONDABLE TO SEALANT AS RECOMMENDED BY SEALANT MANUFACTURER.
4. SEALANT FOR EXPANSION/CONTROL JOINTS: ONE–PART, ULTRA LOW MODULUS, NON– STAINING NUETRAL CURING 100% SILICONE JOINT SEALANT, CONFORMING TO ASTM C920–11, TYPE S, GRADE NS, CLASS 50.
5. SEALANT FOR GLAZING JOINTS: SILICONE SEALANT, BUTT GLAZING, ONE PART, MOISUTER CURING SHORE A HARDNESS 15–25 TO CAN/CGSB–19, TYPE S, GRADE NS, CLASS 25, COLOUR CLEAR (TRANSLUCENT)
6. SEALNT FOR EXTERIOR WALL JOINTS: AIR–SEAL SEALANT, ONE PART, SILICONE, SHORE A HARDNESS 15–25, CONFORMING TO CGSB 19–GP–13M, TYPE S, GRADE NS, CLASS 25.
7. PREFORMED COMPRESSION SEAL: COMPARMENTAL OPEN CELL NEOPRENE EXTRUSION TYPE TO ASTM C509–06(2011) COMPLETE WITH LIQUID LUBRICANT ADHESIVE RECOMMENDED BY MANUFACTURER.

SECTION 08 11 00 STEEL DOORS AND FRAMES

1. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH GENERAL REQUIREMENTS.
2. MANUFACTURER'S: S.W. FLEMING LIMITED OR ALLSTEEL DOORS LTD.
3. MATERIALS:
   1. DOOR AND FRAME ASSEMBLY: IN ACCORDANCE WITH ULC REQUIREMENTS FOR SPECIFIED FIRE RATING.
   2. FRAMES:
      a) STEEL SHEET: COMMERCIAL GRADE STEEL TO ASTM A366, CLASS 1 ASTM.A525 FINISHED TO ASTM A526 ZF075 WIPED ZINC FINISH.
      b) FRAMES: 1.60 MM BASE THICKNESS STEEL SHEET.
      c) FLOOR ANCHORS, CHANNEL SPREADERS AND WALL ANCHORS: MINIMUM 1.60 MM BASE THICKNESS STEEL SHEET.
      d) GUARD BOXES: MINIMUM 0.90 MM BASE THICKNESS STEEL SHEET, SCREW FIXED TAMPERPROOF.
      e) REINFORCING CHANNEL: TO CAN3–G40.20–M81, TYPE 300W, 0.91 MM.
      f) DOOR BUMPERS: BLACK NEOPRENE SINGLE STUD.
      g) PRIMER: FOR TOUCH UP TO CGSB 1–GP–40M–79.
      h) INSULATION: MININUM REQUIRED BY SB–10 DOCUMENT PRODUCED FOR PROJECT BUILDING PERMIT.
4. PRODUCT FINISH: ALL FRAMES WILL BE PAINTED ON SITE.
5. WELDING:
   1. ASSEMBLE UNITS BY ARC WELDING IN ACCORDANCE WITH CSA STANDARD W59 TO PRODUCE A FINISHED UNIT SQUARE, TRUE AND FREE OF DISTORTION. WELDING SHALL BE CONTINUOUS ALONG THE COMPLETE JOINT AS TO LEAVE NO HOLES OR CRACKS.
   2. WELDING SHALL BE UNDERTAKEN ONLY BY A FABRICATOR FULL APPROVED BY THE UNDERWRITERS LABORATORIES OF CANADA.
6. FABRICATION:
   1. FABRICATE FRAMES AS DETAILED TO CANADIAN STEEL DOOR AND FRAME MANUFACTURERS' ASSOCIATION, (CSDFMA) CANADIAN MANUFACTURING SPECIFICATIONS FOR STEEL DOORS AND FRAMES, 1982; EXCEPT WHERE SPECIFIED OTHERWISE. REINFORCE FRAMES TO SUIT HARDWARE REQUIREMENTS SPECIFIED IN FINISH HARDWARE SECTION.
   2. BLANK, REINFORCE, DRILL AND TAP FRAMES FOR MORTISED HARDWARE. REINFORCE DOORS AND FRAME FOR SURFACE MOUNTED HARDWARE.
   3. SHOP PRIME COLD ROLLED STEEL SHEET.
   4. APPLY, AT FACTORY, TOUCH UP PRIMER TO FRAMES MANUFACTURED FROM GALVANIZED STEEL WHERE COATING HAS BEEN REMOVED DURING FABRICATION.
7. INSTALLATION GENERAL:
   1. INSTALL IN ACCORDANCE WITH NATIONAL FIRE CODES, VOLUME 4, PRODUCED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 80.
8. FRAME INSTALLATION:
   1. SET FRAMES PLUMB, SQUARE, LEVEL AND AT CORRECT ELEVATION.
   2. SECURE ANCHORAGES AND CONNECTIONS TO ADJACENT CONSTRUCTION.
   3. BRACE FRAMES RIGIDLY IN POSITION WHILE BUILDING–IN. INSTALL TEMPORARY HORIZONTAL WOOD SPREADER AT THIRD POINTS OF DOOR OPENING TO MAINTAIN FRAME WIDTH. PROVIDE VERTICAL SUPPORT AT CENTRE OF HEAD FOR OPENINGS OVER 1200 MM WIDE. REMOVE TEMPORARY SPREADERS AFTER FRAMES ARE BUILT–IN.
   4. MAKE ALLOWANCES FOR DEFLECTION OF STRUCTURE TO ENSURE STRUCTURAL LOADS ARE NOT TRANSMITTED TO FRAMES.
9. FINISH REPAIRS: TOUCH UP WITH PRIMER, GALVANIZED FINISH DAMAGED DURING INSTALLATION.
10. FINISH FACE PANEL JOINTS AND INTERNAL ANGLES WITH JOINT SYSTEM CONSISTING OF JOINT COMPOUND, JOINT TAPE AND TAPING COMPOUND. INSTALLED AS PER MANUFACTURER'S PRINTED DIRECTIONS.
11. FINISH CORNER JOINTS AND TRIM WITH TWO (2) COATS OF JOINT COMPOUND AND ONE (1) COAT OF TAPING COMPOUND. FILL SCREW HEAD DEPRESSIONS WITH JOINT AND TAPING COMPOUNDS TO BRING FLUSH WITH ADJACENT SURFACES.
12. COMPLETED INSTALLATION TO BE SMOOTH, LEVEL, PLUMB AND FREE FROM WAVERS AND OTHER DEFECTS AND READY FOR SURFACE FINISH.

SECTION 09 21 16 GYPSUM WALLBOARD

1. STANDARD GYPSUM BOARD TO MEET ASTM C1396/C1396M–11.
2. GLASS MAT GYPSUM SUBSTRATE FOR USE AS SHEATHING TO MEET ASTM C1177/C1177M–08.
3. ACCESSORIES FOR GYPSUM WALLBOARD TO MEET ASTM C1047–10a.
4. ALL SCREWS TO MEET ASTM C1002 (TYPE S) AND ASTM C954 (TYPE S–12).
5. JOINT COMPOUND FOR INTERIOR GYPSUM BOARD TO ASTM C475 AND AS RECOMMENDED BY GYPSUM MANUFACTURER
6. JOINT COMPOUND FOR EXTERIOR SHEATHING BOADS TO BE FIBREGLASS MESH TAPE.
7. INSTALLATION OF GYPSUM BOARD TO CONFORM TO ASTM C840.
8. ALL GYPSUM BOARD TO BE 4'–0" WIDE PANELS, 1/2" AND 5/8" THICK REGULAR ENDS SQUARE CUT AND EDGES BEVELED.
9. APPLY ALL GYPSUM BOARD WITH SCREWS AT A MAXIMUM SPACING OF 12".
10. FINISH FACE PANEL JOINTS AND INTERNAL ANGLES WITH JOINT SYSTEM CONSISTING OF JOINT COMPOUND, JOINT TAPE AND TAPING COMPOUND. INSTALLED AS PER MANUFACTURER'S PRINTED DIRECTIONS.
11. FINISH CORNER JOINTS AND TRIM WITH TWO (2) COATS OF JOINT COMPOUND AND ONE (1) COAT OF TAPING COMPOUND. FILL SCREW HEAD DEPRESSIONS WITH JOINT AND TAPING COMPOUNDS TO BRING FLUSH WITH ADJACENT SURFACES.
12. COMPLETED INSTALLATION TO BE SMOOTH, LEVEL, PLUMB AND FREE FROM WAVERS AND OTHER DEFECTS AND READY FOR SURFACE FINISH.

SECTION 08 41 00 ALUMINIUM–FRAMED ENTRANCES AND STOREFRONTS

1. STANDARDS FOR EXTERIOR WINDOWS, STOREFRONTS, AND DOORS FOR AIR LEAKAGE, WATER PENETRATION, AND SOUND TO MEET: ASTM E283–[2012], ASTM E331– [2009], ASTM E413–[04]
2. THERMALLY BROKEN, ALUMINIUM–FRAMED STOREFRONT CONSTRUCTED FROM PREFINISHED ALUMINIUM EXTRUSIONS AND INCLUDING SWING TYPE DOORS WITH FLUSH GLAZED FRAMING OF 114.3mm X 50.8mm. PRODUCT: KAWNEER 1650 OR APPROVED EQUAL.
3. ALUMINIUM–FRAMED STOREFRONT TO WITHSTAND DEAD AND LIVE LOADS CAUSED BY PRESSURE AND SUCTION OF WIND, ACTING NORMAL TO PLANE OF WALL USING DESIGN PRESSURE OF 0.95 kPa.
4. ALUMINIUM FRAMED STOREFRONT SYSTEM TO BE DESIGNED FOR EXPANSION AND CONTRACTION CAUSED BY CYCLING TEMPERATURE RANGE OF 95 DEGREES C. OVER [12] HOUR PERIOD WITHOUT CAUSING DETRIMENTAL EFFECT TO SYSTEM COMPONENTS.
5. DESIGN VERTICAL EXPANSION JOINTS WITH BAFFLED OVERLAPS AND COMPRESSED RESILIENT AIR SEAL LAID BETWEEN MULLION ENDS.
6. SYSTEM TO BE DESIGNED TO ACCOMMODATE; MOVEMENT WITHIN ALUMINIUM–FRAMED STOREFRONT ASSEMBLY, MOVEMENT BETWEEN SYSTEM AND PERIMETER FRAMING COMPONENTS, DYNAMIC LOADING AND RELEASE OF LOADS, DEFLECTION OF STRUCTURAL SUPPORT FRAMING, SHORTENING OF BUILDING CONCRETE STRUCTURAL COLUMNS, AND CREEP OF CONCRETE STRUCTURAL MEMBERS.
7. AIR INFILTRATION: SYSTEM TO HAVE MAXIMUM AIR LEAKAGE OF 0.03 L/m2 OF FIXED WALL AREA WHEN TESTED IN ACCORDANCE WITH ASTM 3282 AT A MINIMUMS STATIC AIR PRESSURE DIFFERENTIAL OF 300 Pa.
8. WIND (HORIZONTAL) AND STRUCTURAL (VERTICAL) LOADS: DESIGN AND FABRICATE ASSEMBLIES AND SYSTEMS TO RESIST LOADS REQUIRED BY BUILDING CODE USING PROFESSIONAL ENGINEER REGISTERED IN ONTARIO.
9. WATER PENETRATION TO BE DESIGNED FOR A ZERO WATER PENETRATION WHEN TESTED IN ACCORDANCE WITH ASTM E331 AT A MINIMUM DIFFERENTIAL STATIC PRESSURE OF 20% OF POSITIVE DESIGN WIND LOAD, BUT NOT LESS THAN 475Pa.
10. THERMAL TRANSMITTANCE (U–FACTOR) WHEN TESTED TO AAMA SPECIFICATION 1053 TO NOT BE LESS U–0.35 BTU/HR/FT2/F.
11. COEFFICIENT OF SOLAR HEAT GAIN TO MEET 0.40.
12. ALUMINIUM WELDING TO CAN/CSA W59.2.
13. ALL ALUMINIUM SURFACES EXPOSED IN THE FINISHED WORK SHALL HAVE INTEGRAL CLEAR ANODIC COATING, MINIMUM 0.4 MILS THICKNESS, AND CONFORMS TO ALUMINIUM FINISH DESIGNATION AA–M12C22A31, ARCHITECTURAL CLASS II.
14. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

SECTION 08 81 00 GLASS AND GLAZING

1. GLAZING TO MEET STANDARDS CAN/CGSB 12.1–M90, TEMPERED OR LAMINATED SAFETY GLASS, CAN/CGSB 12.3–M91, FLAT, CLEAR FLOAT GLASS AND CAN/CGSB 12.8–97 INSULATING GLASS.
2. INSULATING GLASS UNITS TO BE DOUBLE GLAZED, HERMETICALLY SEALED, ARGON FILLED INSULATING GLASS UNITS WITH LOW CONDUCTANCE STAINLESS STEEL WARM EDGE SPACER.
   1. OUTER LITE: 6mm CLEAR TEMPERED GLASS WITH LOW–E COATING ON SURFACE TWO.
   2. INNER LITE: 6mm CLEAR TEMPERED GLASS.
   3. GLASS UNIT TO HAVE U VALUE AS LISTED IN SB–10 DOCUMENT SUBMITTED FOR PROJECT BUILDING PERMIT AND SHGC VALUE OF .45.
3. GASKETS, SEALANT, GLAZING COMPOUND, SETTING BLOCKS, SPACE SHIMS, AND GLAZING TAPE SUPPLIED SHOULD MEET RECOMMENDATIONS OF MANUFACTURER.
4. INSTALL UNITS CONFORMING TO THE RECOMMENDATION OF THE GLAZING MANUAL, FLAT GLASS MARKETING ASSOCIATION, LATEST EDITION.
5. CLEAN AND POLISH EXPOSED SURFACES OF WORK AS RECOMMENDED BY MANUFACTURER.

ITEM	ONTARIO 2024 BUILDING CODE DATA MATRIX - PART 3 or PART 9										O.B.C. REFERENCE References are Division B unless noted: [A] for Division A or [C] for Division C.	
1.	PROJECT DESCRIPTION: PROPOSED INDUSTRIAL CONDOMINUM UNITS (BUILDING B) 725 LAKE ROAD, BOWMANVILLE, ON.					☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE		☐ PART 11 11.1 to 11.4		☒ PART 3	1.1.2.[A]	☐ PART 9 1.1.2.[A] & 9.10.1.3.
2.	MAJOR OCCUPANCY (S) F-2										3.1.2.1.(1)	3.1.2.1.(1)
3.	BUILDING AREA (m^2)	EXISTING 0m^2		NEW 2259.50m^2		TOTAL 2259.50m^2					1.4.1.2. [A]	1.4.1.2. [A]
4.	GROSS AREA (m^2)	EXISTING 0m^2		NEW 2259.50m^2		TOTAL 2259.50m^2					1.4.1.2. [A]	1.4.1.2. [A]
5.	NUMBER OF STOREYS	ABOVE GRADE 1				BELOW GRADE 0					1.4.1.2. [A] & 3.2.1.1.	1.4.1.2. [A] & 9.10.4
6.	NUMBER OF STREETS / FIRE FIGHTER ACCESS 3										3.2.2.10. & 3.2.5.	9.10.20.
7.	BUILDING CLASSIFICATION 3.2.2.79										3.2.2.20. - .83.	9.10.2.
8.	SPRINKLER SYSTEM PROPOSED					☒ ENTIRE BUILDING ☐ SELECTED COMPARTMENTS ☐ SELECTED FLOOR AREAS ☐ BASEMENT ☐ IN LIEU OF RATING ☐ NOT REQUIRED					3.2.2.20. - .83.	9.10.8.2.
9.	STANDPIPE REQUIRED					☐ YES ☒ NO					3.2.9.	N/A
10.	FIRE ALARM REQUIRED					☐ YES ☒ NO					3.2.4.	9.10.18.
11.	WATER SERVICE SUPPLY IS ADEQUATE					☒ YES ☐ NO					3.2.5.7.	N/A
12.	HIGH BUILDING					☐ YES ☒ NO					3.2.6.	N/A
13.	CONSTRUCTION RESTRICTIONS	☐ COMBUSTIBLE PERMITTED		☐ NON-COMBUSTIBLE REQUIRED		☒ BOTH					3.2.2.20. - .83.	9.10.6.
	ACTUAL CONSTRUCTION	☐ COMBUSTIBLE PERMITTED		☐ NON-COMBUSTIBLE		☒ BOTH						
14.	MEZZANINE (s) AREA (m^2) 743.92										3.2.2.1.1.(3)-(8)	9.10.4.1.
15.	OCCUPANT LOAD BASED ON	☒ m^2 / PERSON		☐ DESIGN OF BUILDING							3.1.17.	9.9.1.3.
	BASEMENT:	OCCUPANCY		LOAD	PERSONS							
	1st FLOOR:	OCCUPANCY F2		LOAD 70	PERSONS							
	2nd FLOOR:	OCCUPANCY		LOAD	PERSONS							
	3rd FLOOR:	OCCUPANCY		LOAD	PERSONS							
16.	BARRIER FREE DESIGN	☒ YES	☐ NO	(EXPLAIN)							3.8.	9.5.2.
17.	HAZARDOUS SUBSTANCES	☐ YES	☒ NO								3.3.1.2. & 3.3.1.9.	9.10.1.3.(4)
18.	REQUIRED FIRE RESISTENCE RATING (F.R.R.)	HORIZONTAL ASSEMBLIES F.R.R. (HOURS)		LISTED DESIGN No. OR DESCRIPTION (SG-2)							3.2.2.20.-83. & 3.2.1.4.	9.10.8. 9.10.9.
		FLOORS 3/4 HOURS										
		ROOF 0 HOURS										
		MEZZANINE 3/4 HOURS										
		F.R.R. OF SUPPORTING MEMBERS									3.2.2.20.-83. & 3.2.1.4.	9.10.8. 9.10.9.
		FLOORS 3/4 HOURS										
		ROOF 0 HOURS										
		MEZZANINE 3/4 HOURS										
19.	SPATIAL SEPARATION: CONSTRUCTION OF EXTERIOR WALLS										3.2.3.	9.10.14.

WALL	AREA OF E.B.F. (m^2)	L.D. (m)	L/H or H/L	PERMITTED MAX % OF OPENING	PROPOSED % OF OPENING	F.R.R. (HOURS)	LISTED DESIGN OR DESCRIPTION	COMB CONST.	COMB CONSTRUCTION NON COMBUSTIBLE CLADDING	NON COMBUSTIBLE CONSTRUCTION
NORTH	246.89m^2	30.5m	> 3:1	100%	21%	0 HR				X
SOUTH	246.89m^2	18.42m	3:1 to 10:1	100%	3%	0 HR				X
EAST	565.67m^2	16.37m	3:1 to 10:1	100%	21%	0 HR				X
WEST	565.67m^2	13.34m	3:1 to 10:1	84%	19%	1 HR				X

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

ARCHITECTURAL NOTES + OBC MATRIX

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER D. D. BIDDLE 31/10/25 PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A101

WALL ASSEMBLIES

FW1 200 FOUNDATON WALL – R2.6

75 RIGID INSULATION (R-15)
200 CONC. FDN WALL W/ 600x200 CONC. STRIP FOOTING (REFER TO STRUCTURAL PLANS FOR REINFORCING)

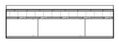
W1 190 CMU BLOCK WALL

190 CMU BLOCK WALL W/15M VERT. REINF. @1200 O/C FILLED CORES SOLID W/ GROUT WHERE VERT. REINF. IS LOCATED

W1a 190 CMU BLOCK WALL W/ PARGING

PARGING TO MATCH STUCCO FINISH
190 CMU BLOCK WALL W/15M VERT. REINF. @1200 O/C FILLED CORES SOLID W/ GROUT WHERE VERT. REINF. IS LOCATED

W2 EXTERIOR STEEL STUD EIFS PANEL



STUCCO EIFS
50 RIGID INSULATION (R-12ci)
13 DENSGLASS
152 600S162-43 @400 O/C W/ BATT INSULATION (R-13)
13 OSB

W3 EXTERIOR STEEL STUD EIFS PANEL (1 HR F.R.R.)

STUCCO EIFS
50 RIGID INSULATION (R-12ci)
13 DENSGLASS
152 600S162-43 @400 O/C W/ MINERAL WOOL INSULATION (R-13)
2-13 TYPE-X GYPSUM WALL BOARD

W4 EXTERIOR WING WALL W/ STUCCO

STUCCO FINISH
190 CMU

W5 INTERIOR STEEL STUD WALL (1 HR F.R.R.)

15.9 TYPE X GYPSUM WALL BOARD
152 600S162-43@400 O/C W/ SOUND ATTENUATION INSULATION
15.9 TYPE X GYPSUM WALL BOARD

W5a INTERIOR STEEL STUD WALL

152 600S162-43@400 O/C W/ SOUND ATTENUATION INSULATION VAPOUR BARRIER
13 GYPSUM WALL BOARD

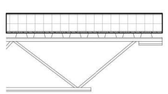
FLOOR ASSEMBLIES

FL1 SLAB ON GRADE

150 CONCRETE SLAB ON GRADE W/ 152x152 MW18.7/MW18.7 WWM (TYP.)
50 HIGH LOAD XPS INSULATION FOR 1200mm (R2.6)

ROOF ASSEMBLIES

R1 900 O.W.S.J. ROOF



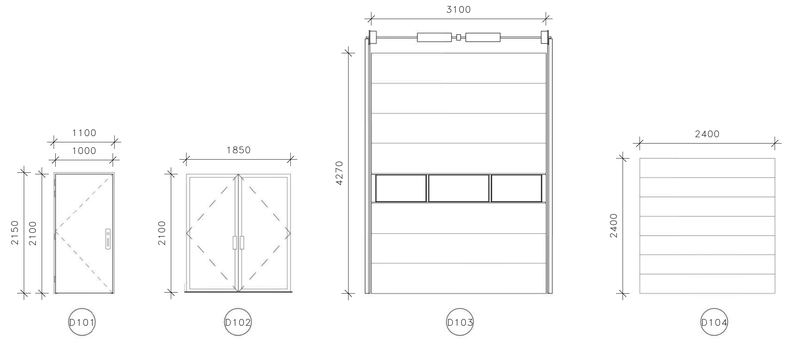
TPO ROOF MEMBRANE, FULLY ADHEARED
R-35 Ls POLYISOCYANURATE INSULATION (OVERLAPPED WITH STAGGERED JOINTS)
VAPOUR BARRIER
12 ROOF BOARD
38x0.76 GALVANIZED METAL DECKING W/ L102x102x6.4 CONT. STEEL PERIMETER ANGLE
900 OWSJ @ 1200 O/C

R2 REFUSE ROOF

TPO ROOF MEMBRANE, FULLY ADHEARED
12 ROOF BOARD
38x0.76 GALVANIZED METAL DECKING W/ L102x102x6.4 STEEL ANGLES C200x17 @ 1700 o/c

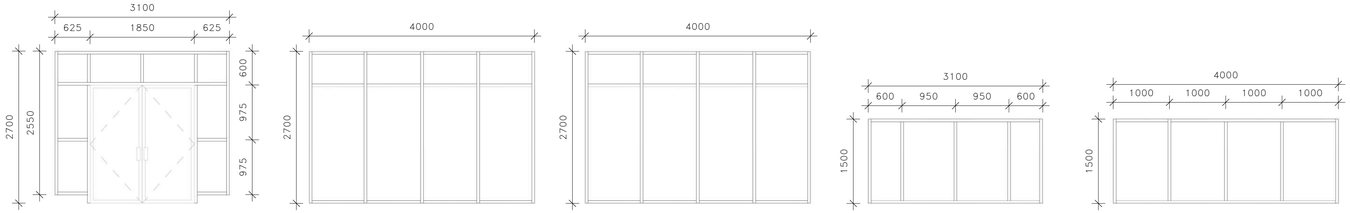
DOOR SCHEDULE

DOOR #	DOOR SIZE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	LOCK/HARDWARE	OPERATION TYPE	FIRE RATING	COMMENTS
D101	1000x2100	HOLLOW METAL	PAINTED	METAL	PAINT	X	SWING		
D102	1850x2100	GLASS + ALUMINUM	PRE-FIN	ALUMINIUM	PRE-FIN.	X	POWER OPERATED SWING		CURTAIN WALL DOOR PART OF W101, SELF CLOSING
D103	3100x4270	METAL	PRE-FIN	METAL	PRE-FIN	X	OVERHEAD		
D104	2400x2400	METAL	PRE-FIN	METAL	PRE-FIN.	X	OVERHEAD		



WINDOW SCHEDULE

WINDOW #	WINDOW SIZE	WINDOW MATERIAL	WINDOW FINISH	FRAME MATERIAL	FRAME FINISH	OPERATION TYPE	DOOR	LINTEL	REMARKS
W101	2700x3100	GLASS	CLEAR	ALUMINUM	PRE-FIN	FIXED	D102		
W102	2700x4000	GLASS	CLEAR	ALUMINUM	PRE-FIN	FIXED	–		
W103	2700x4000	SPANDREL	OPAQUE	ALUMINUM	PRE-FIN	FIXED	–		
W201	1500x3100	GLASS	CLEAR	ALUMINUM	PRE-FIN	FIXED	–		
W202	1500x4000	GLASS	CLEAR	ALUMINUM	PRE-FIN	FIXED	–		



NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

SCHEDULES

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A102

1 MAIN FLOOR PLAN
A201 SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

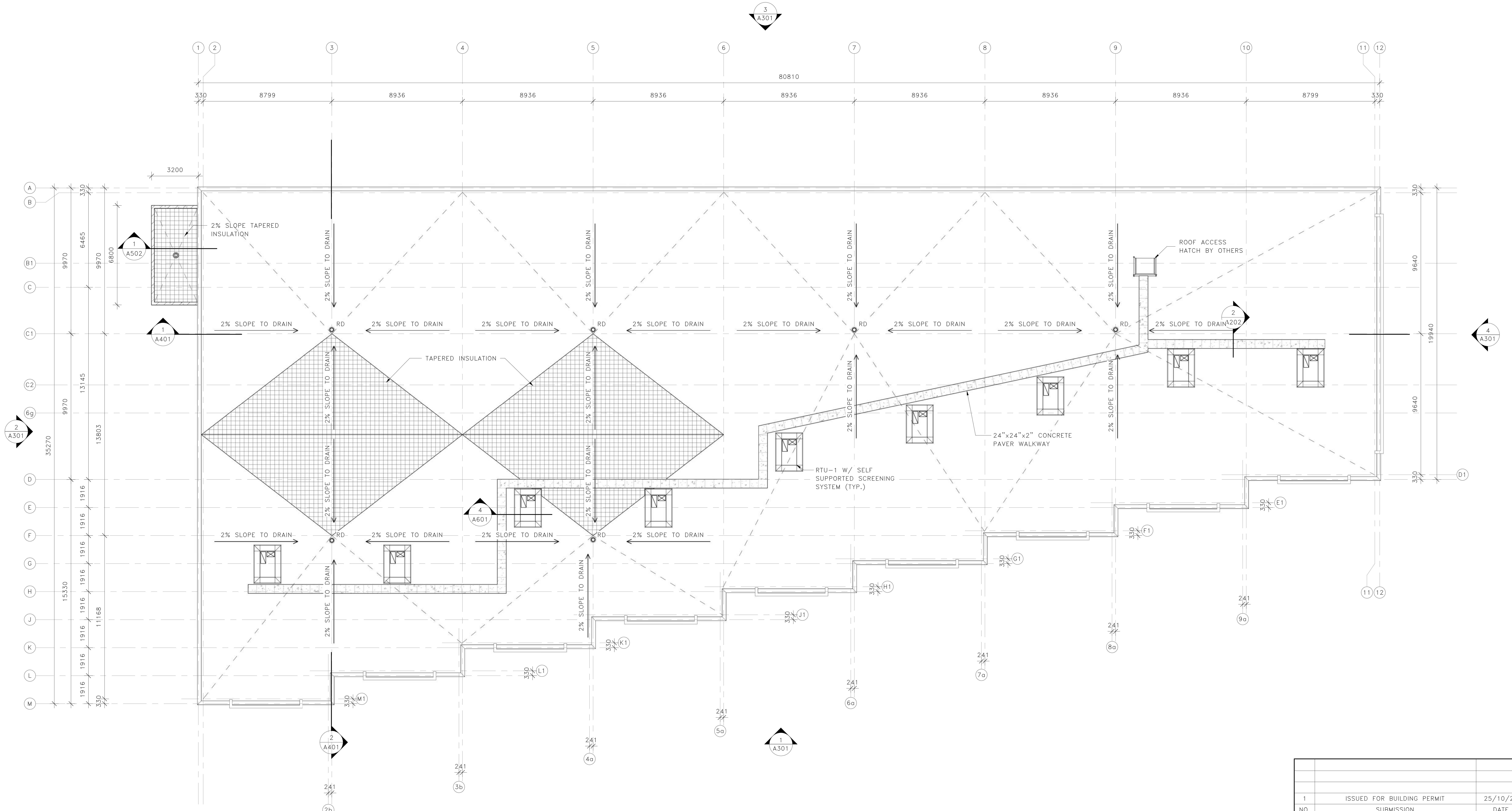
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

MAIN FLOOR PLAN

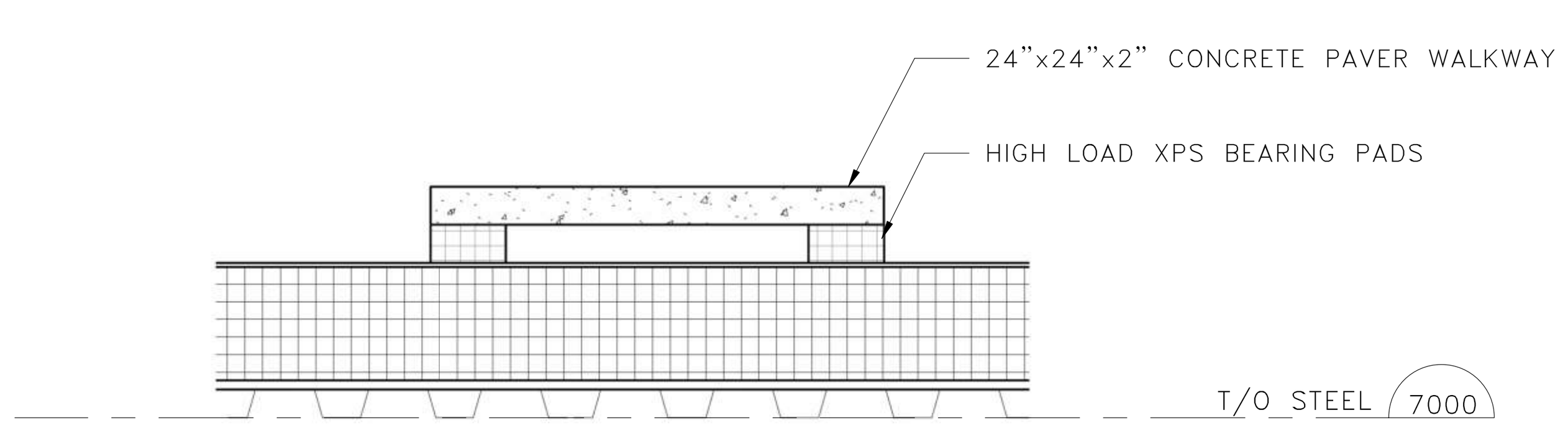
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE: AS SHOWN
DESIGNED BY: D.D.B.
CHECKED BY: D.D.B.
PROJECT NO.: 123081
DRAWING NO.: A201



1 ROOF PLAN
A202 SCALE: 1 : 125



2 ROOF PAVER WALKWAY SECTION
A202 SCALE: 1 : 10

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

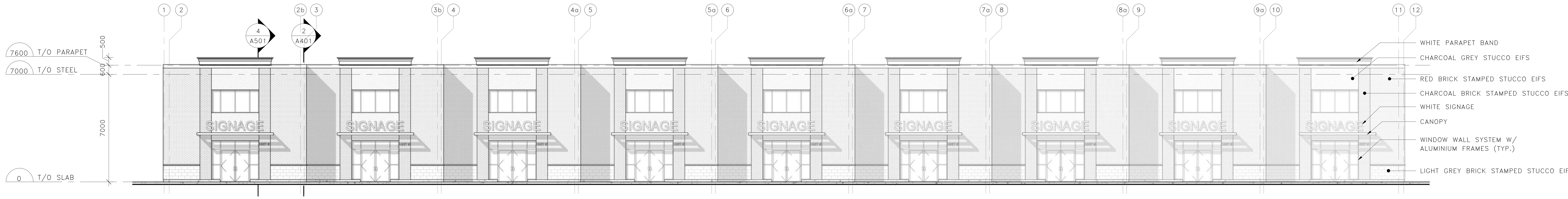
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

ROOF PLAN

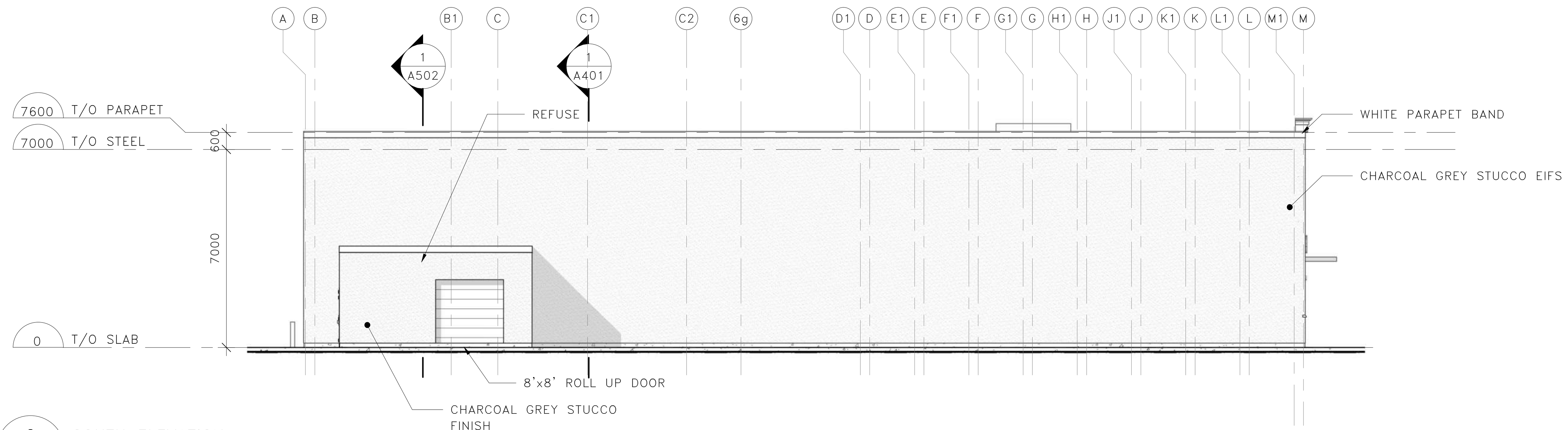
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

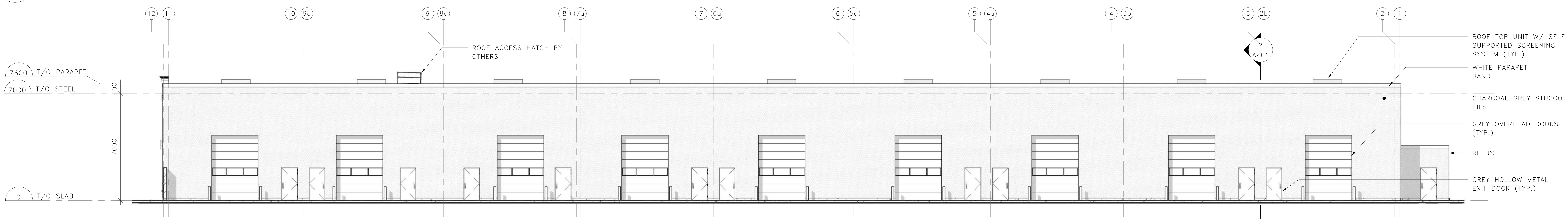
SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A202



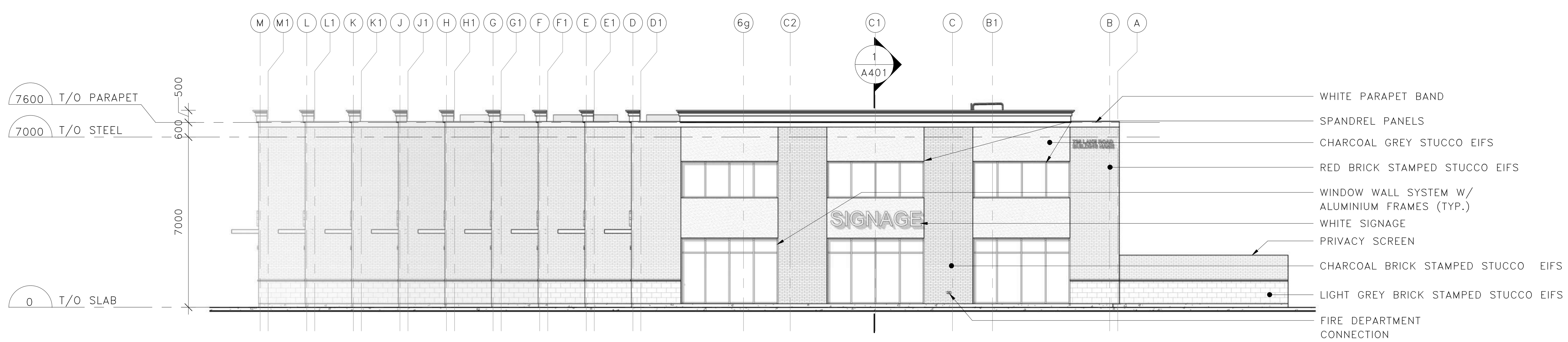
1 EAST ELEVATION
A301 SCALE: 1 : 125



2 SOUTH ELEVATION
A301 SCALE: 1 : 125



3 WEST ELEVATION
A301 SCALE: 1 : 125



4 NORTH ELEVATION
A301 SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

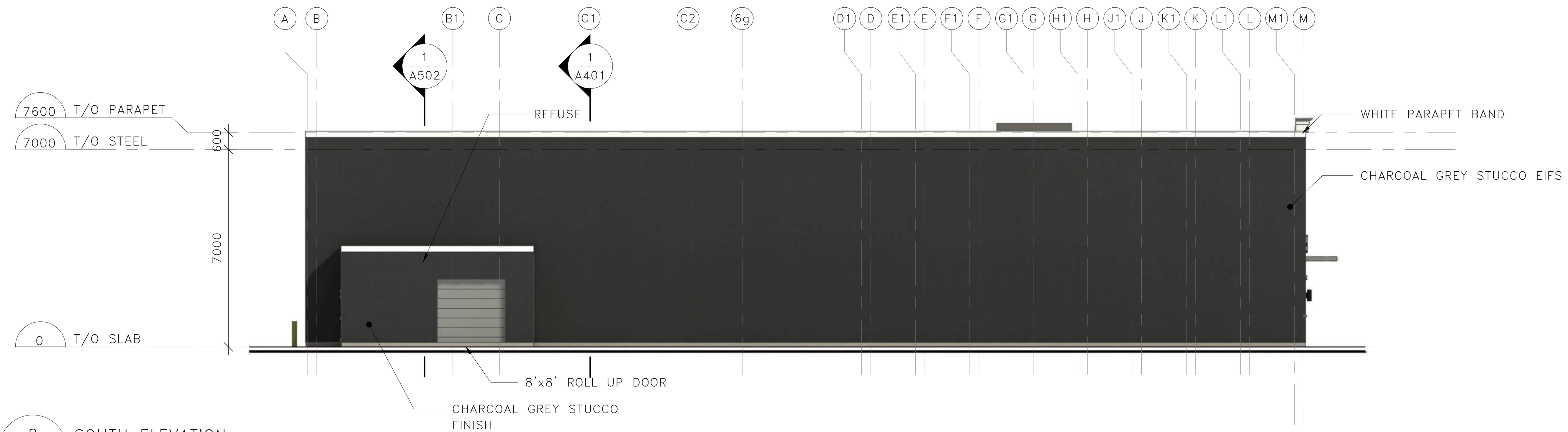
BUILDING ELEVATIONS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

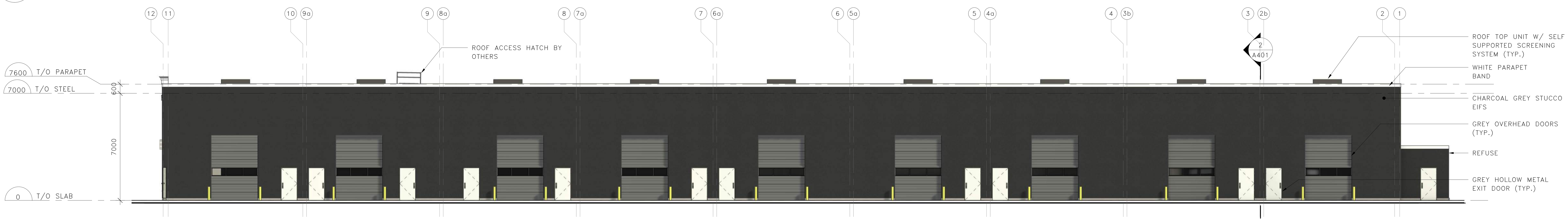
D. G. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A301

1 EAST ELEVATION
A301 SCALE: 1 : 125



2 SOUTH ELEVATION
A301 SCALE: 1 : 125



3 WEST ELEVATION
A301 SCALE: 1 : 125

4 NORTH ELEVATION
A301 SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

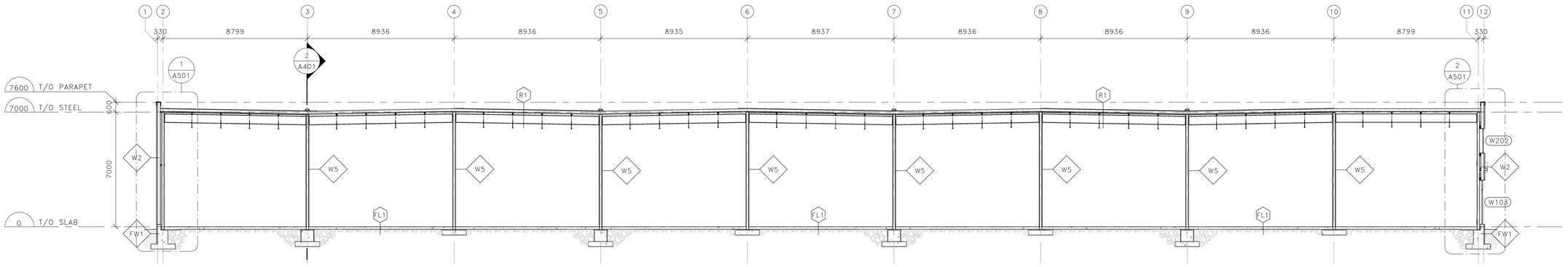
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

BUILDING ELEVATIONS

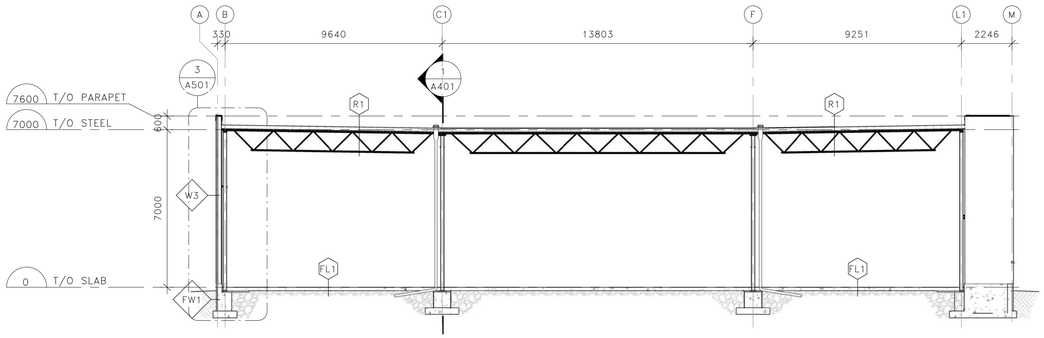
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A301



1 / A401 BUILDING SECTION PERPENDICULAR TO OWSJ
SCALE: 1 : 125



2 / A401 BUILDING SECTION PARALLEL TO OWSJ
SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

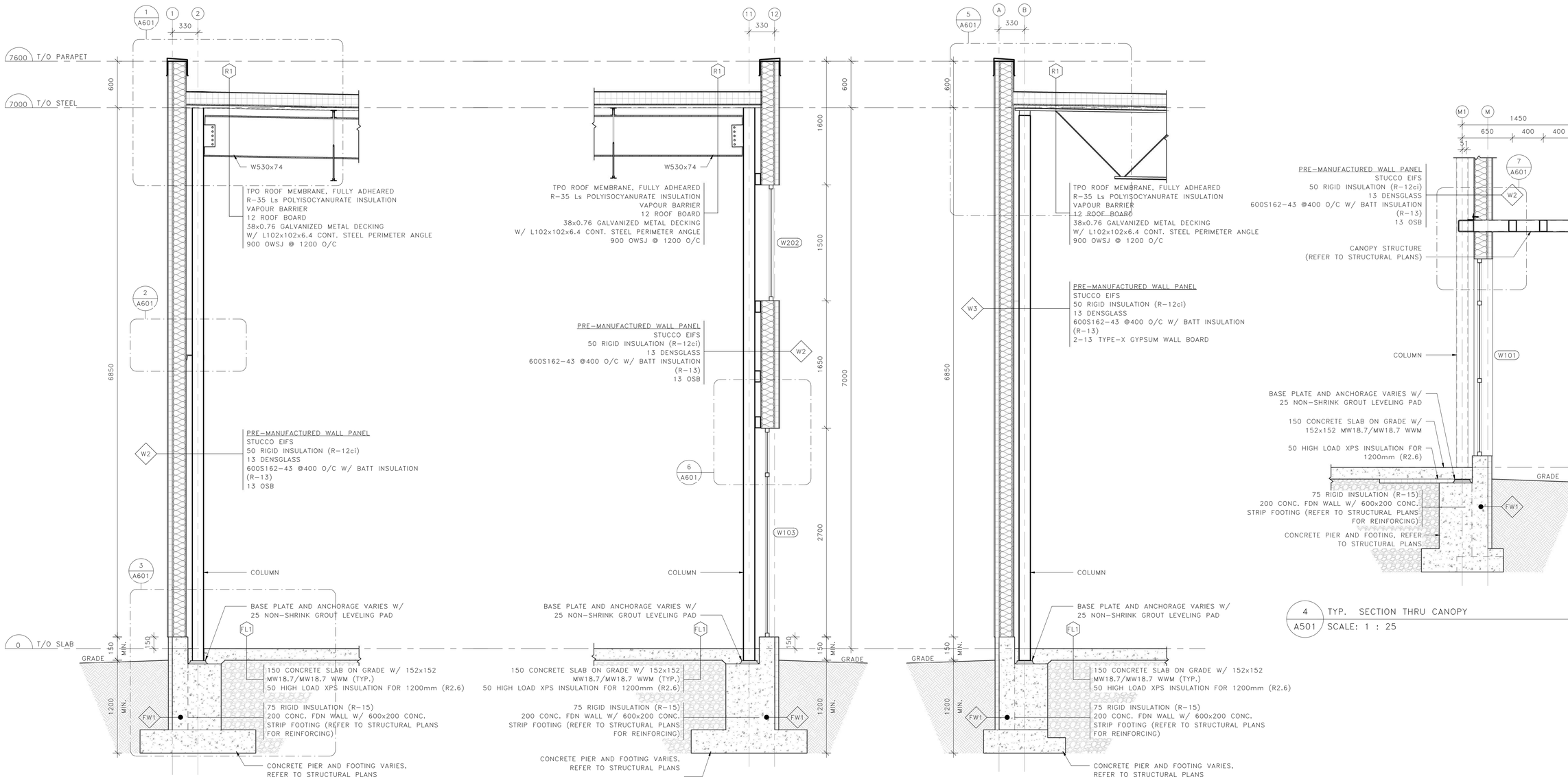
BUILDING SECTIONS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A401

2025-10-29 4:58:54 PM
X:\Staff\Job Files\123000\123081 Jass Gill Lake Road\123081 Drawings\123081 Drawings Architecture\123081 20250912 Jass Gill Condos Arch Permit Plans - Building B.rvt



1 A501 TYP. EXTERIOR WALL SECTION PARALELL TO OWSJ
SCALE: 1 : 25

2 A501 TYP. WINDOW WALL SECTION
SCALE: 1 : 25

3 A501 TYP. EXTERIOR WALL SECTION PERPENDICULAR TO OWSJ
SCALE: 1 : 25

4 A501 TYP. SECTION THRU CANOPY
SCALE: 1 : 25

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

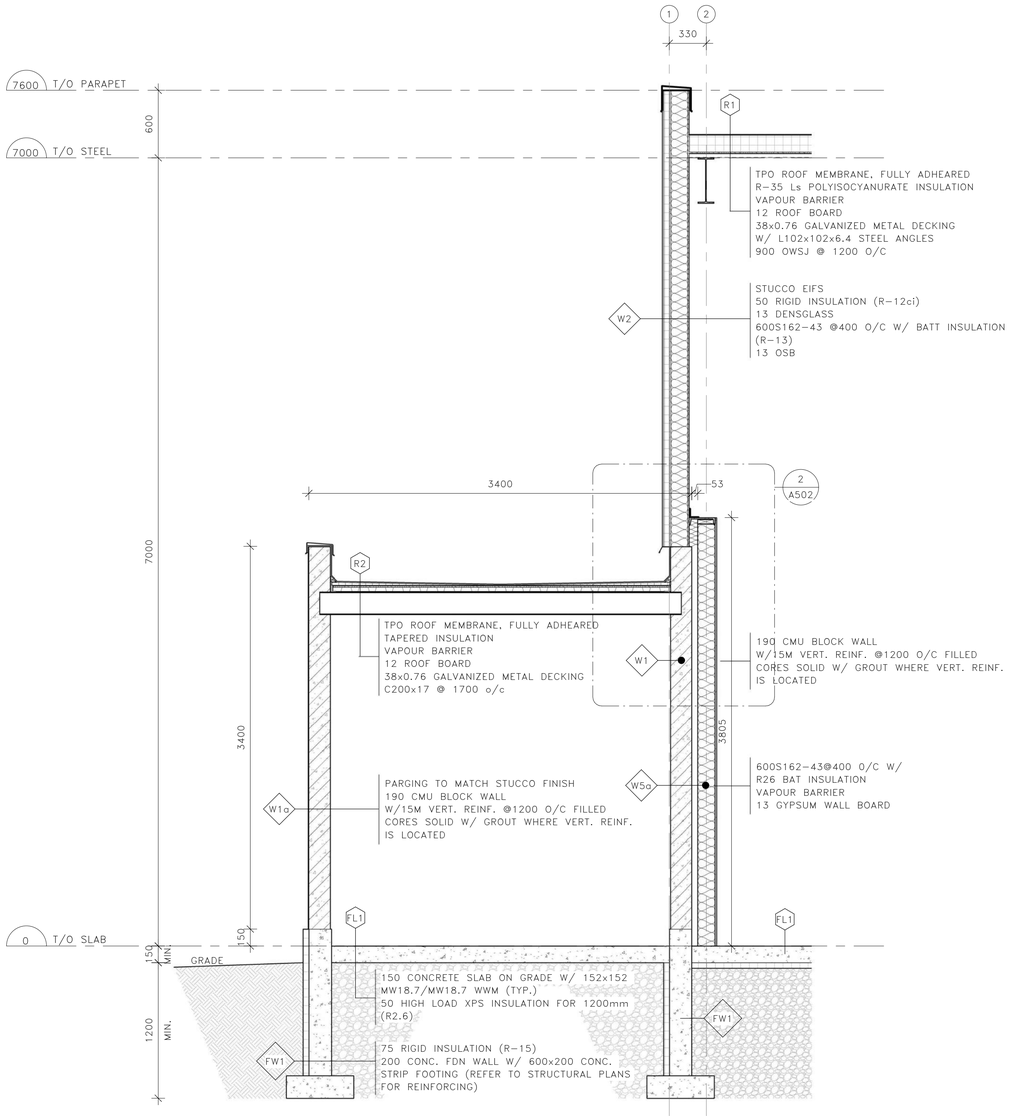
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

WALL SECTIONS

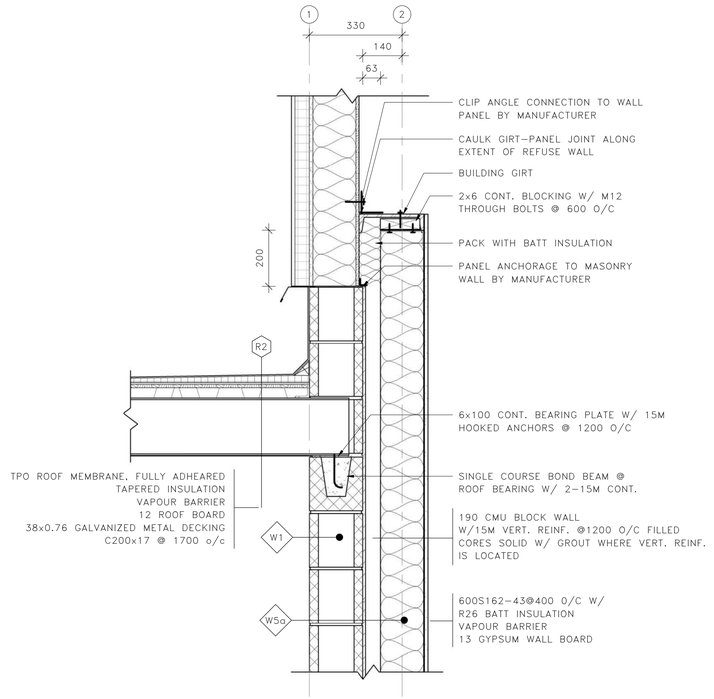
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A501



1 / A502 SECTION THRU REFUSE
SCALE: 1 : 10



2 / A502 REFUSE WALL & STUD WALL CONNECTION DETAIL
SCALE: 1 : 10

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

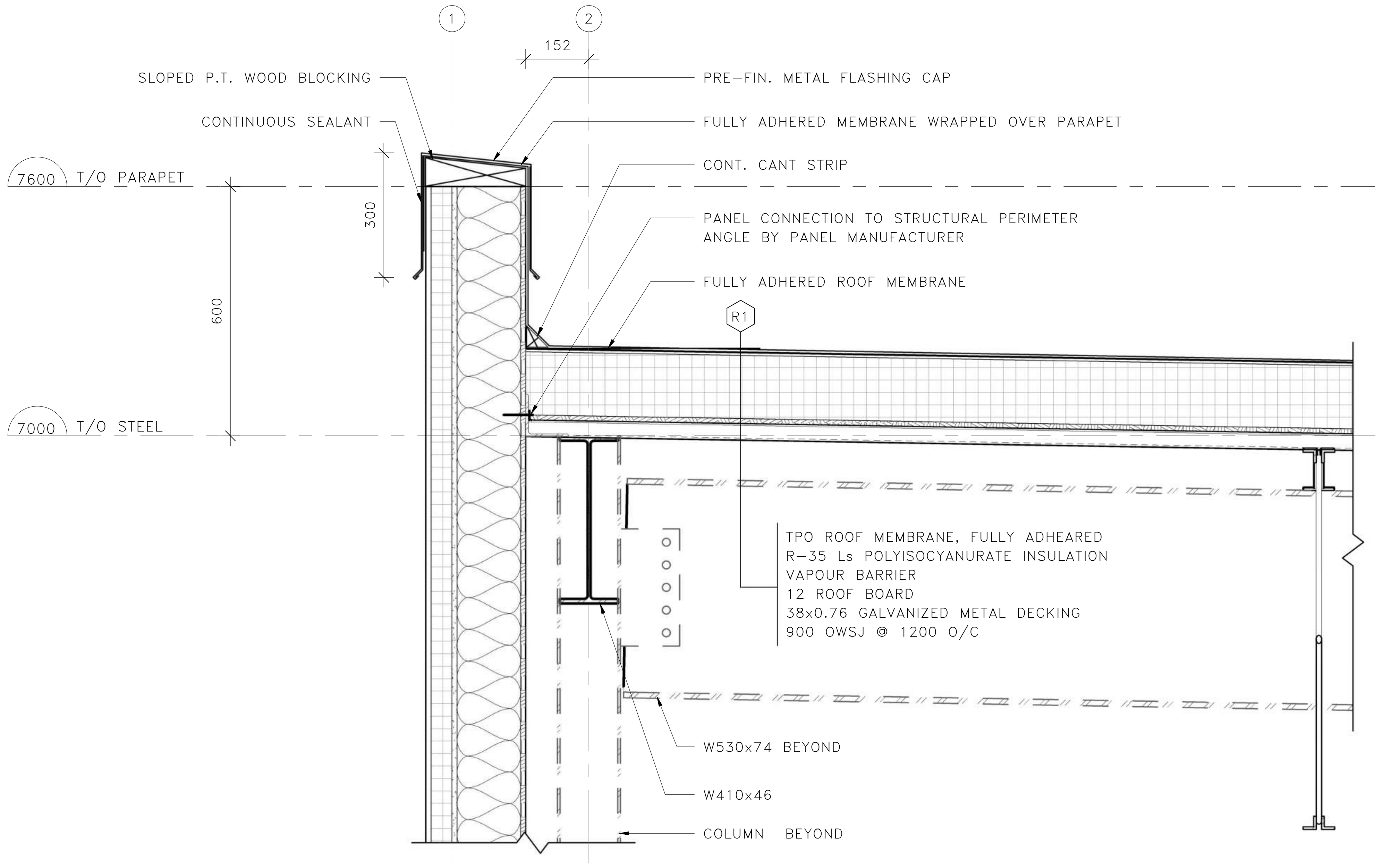
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

REFUSE SECTION + DETAIL

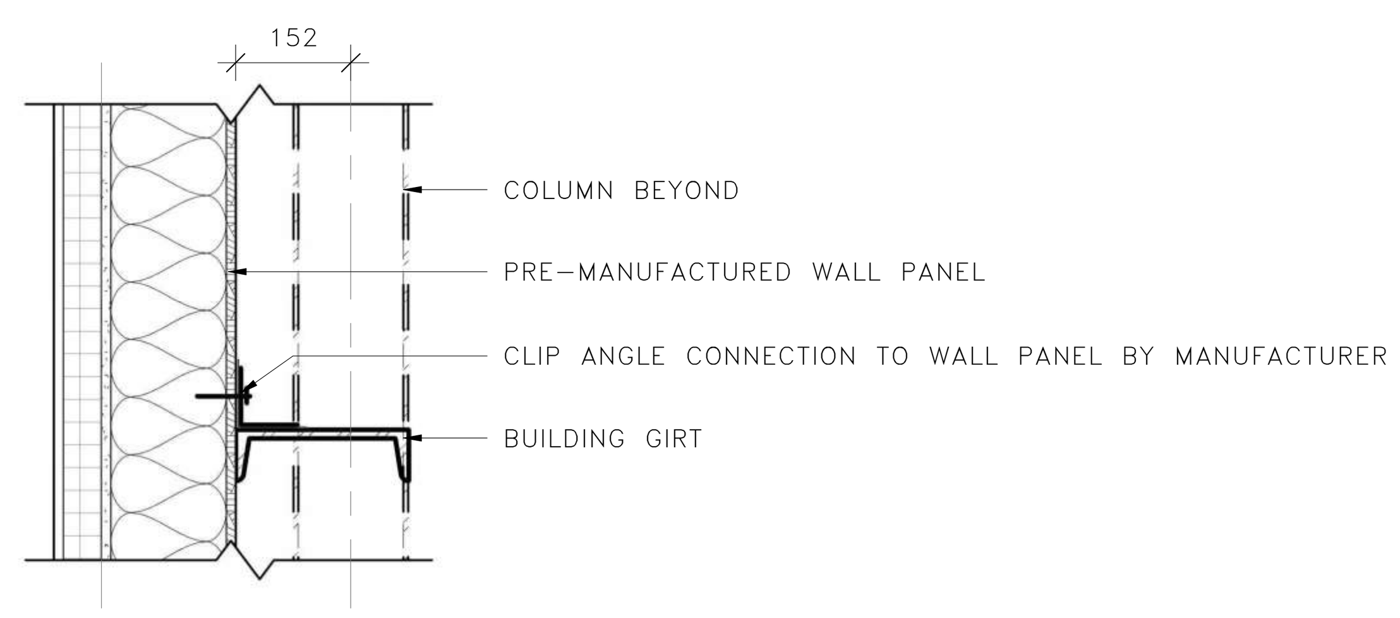
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

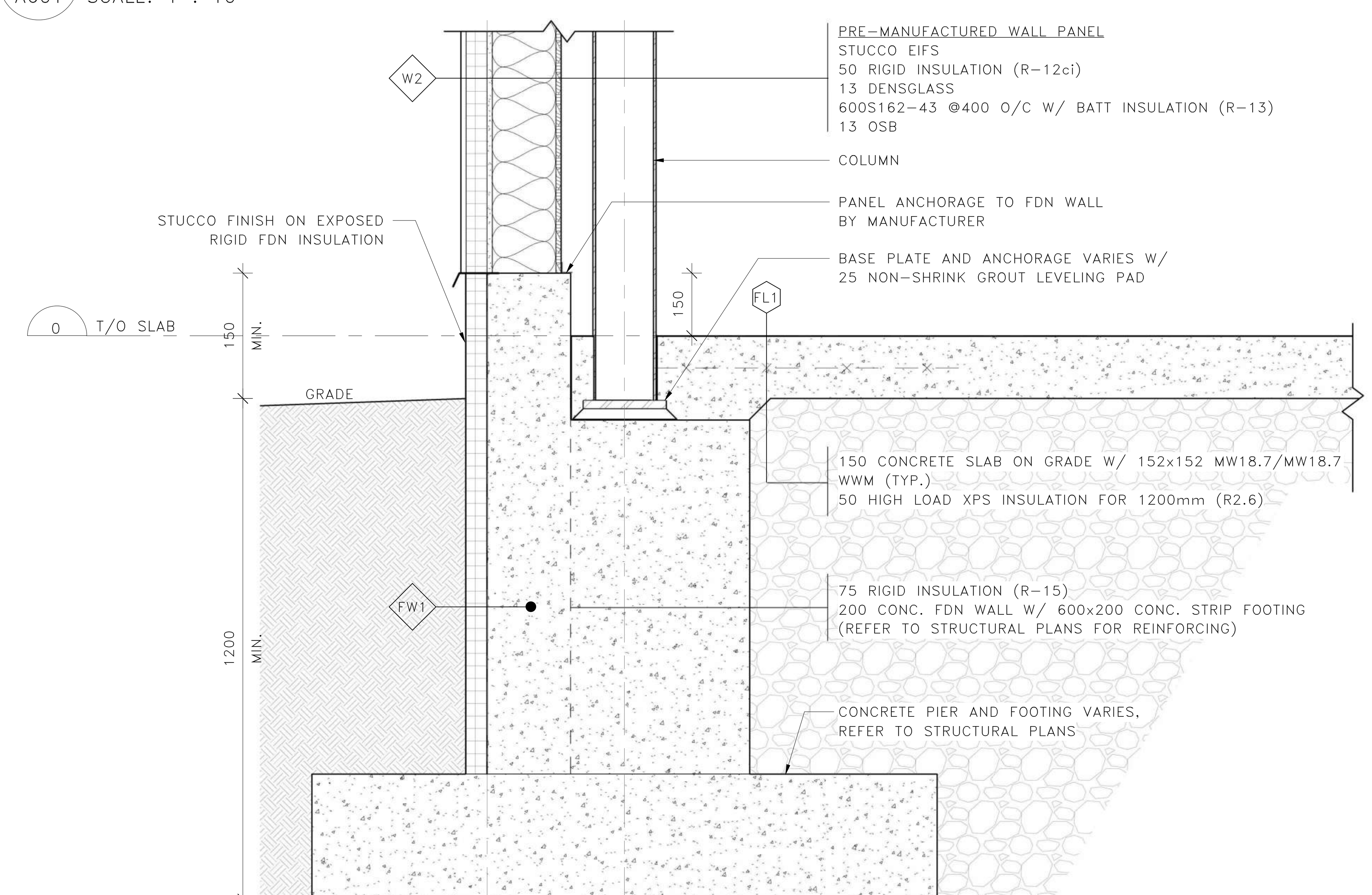
SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A502



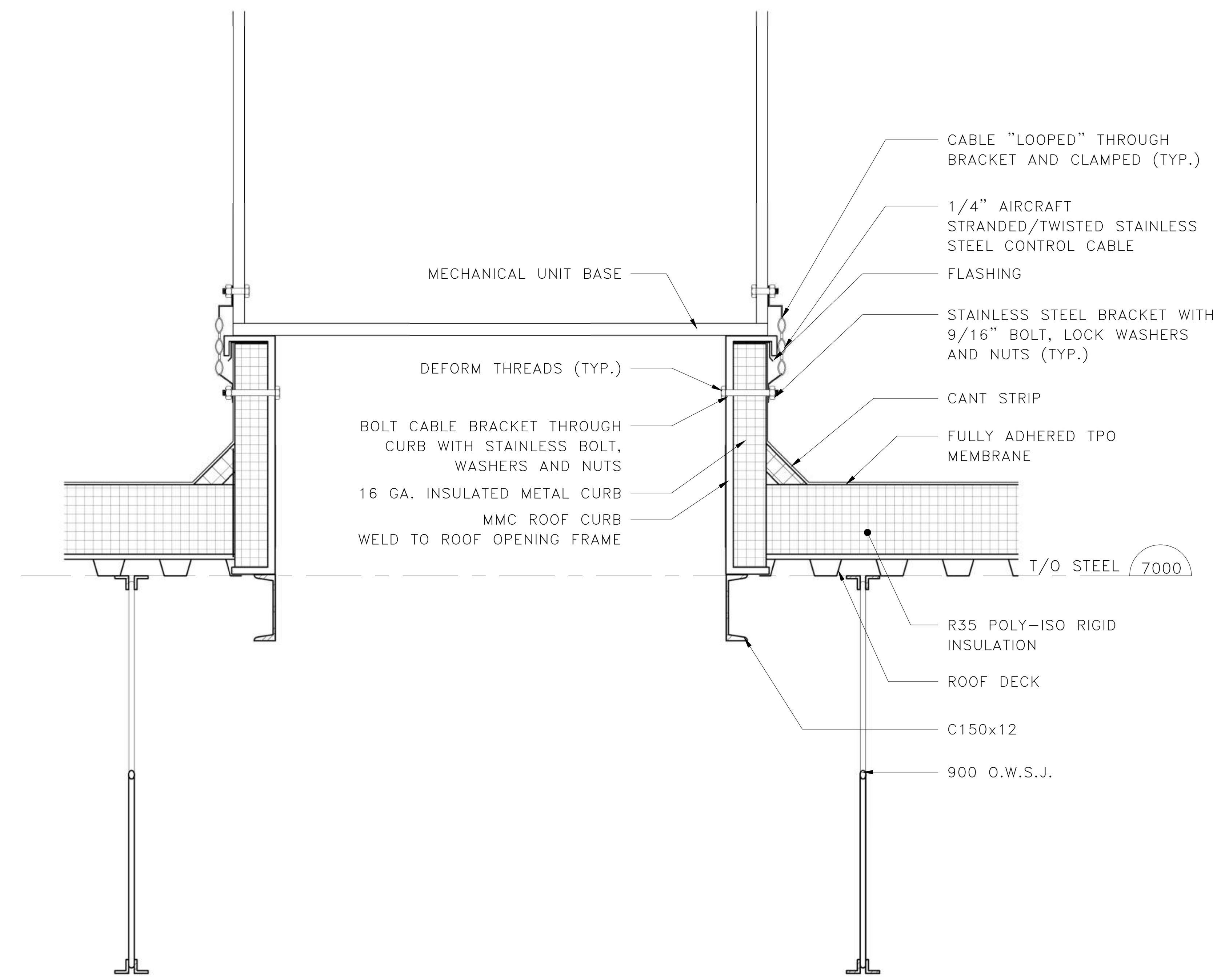
1 TYP. PARAPET DETAIL PARALLEL TO OWSJ
A601 SCALE: 1 : 10



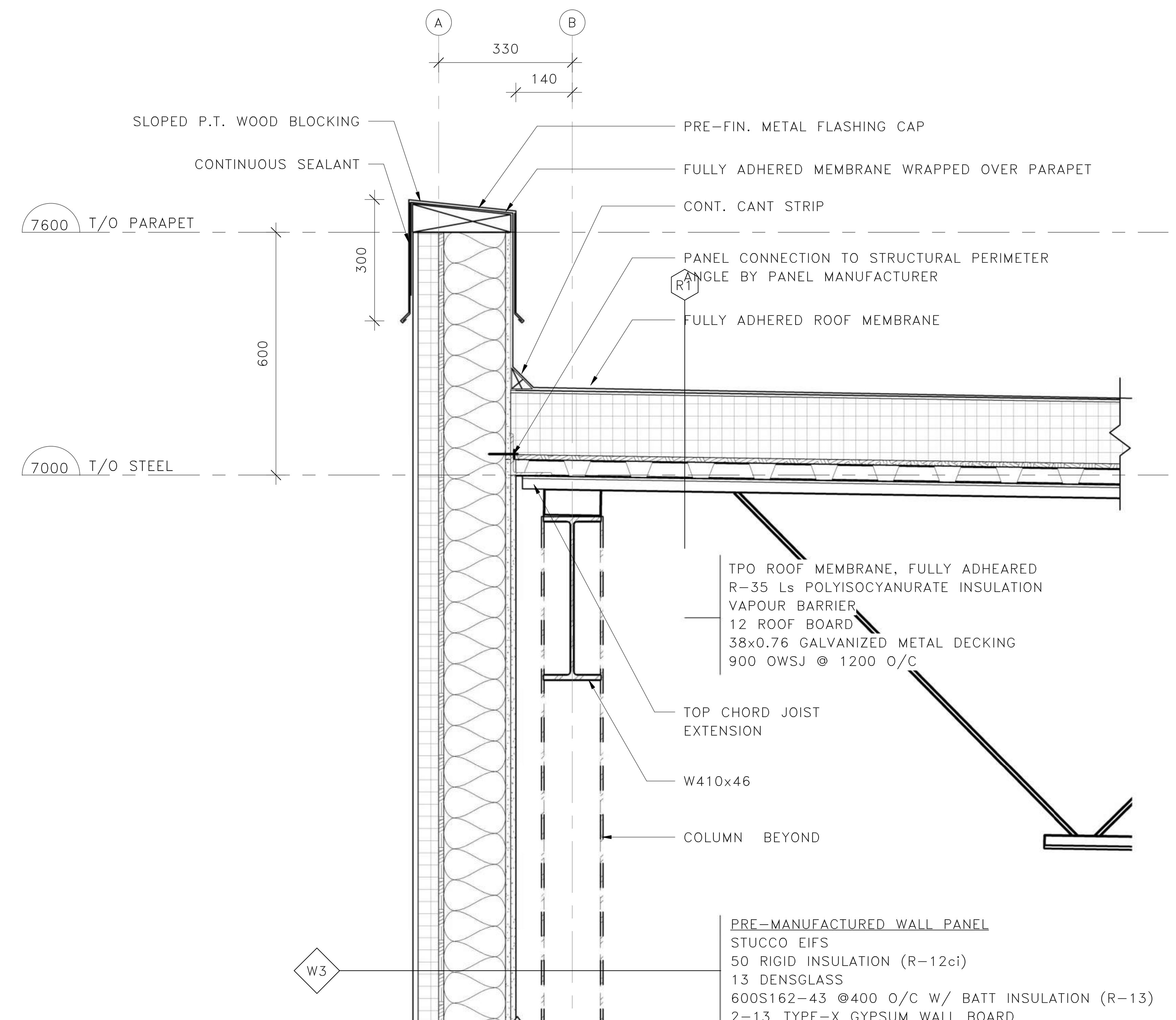
2 TYP. WALL PANEL CONNECTION TO CHANNEL DETAIL
A601 SCALE: 1 : 10



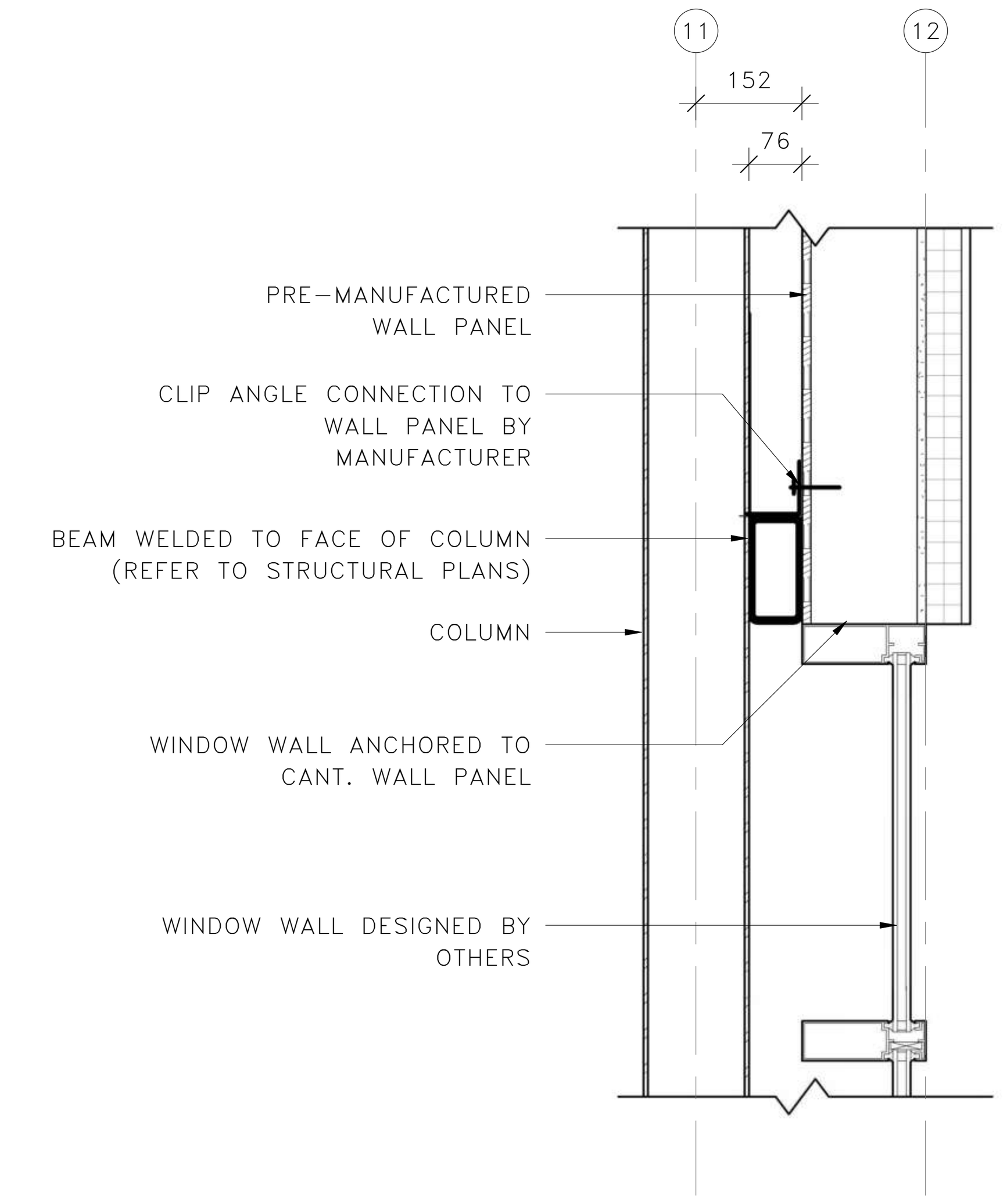
3 TYP. EXTERIOR FOUNDATION WALL DETAIL
A601 SCALE: 1 : 10



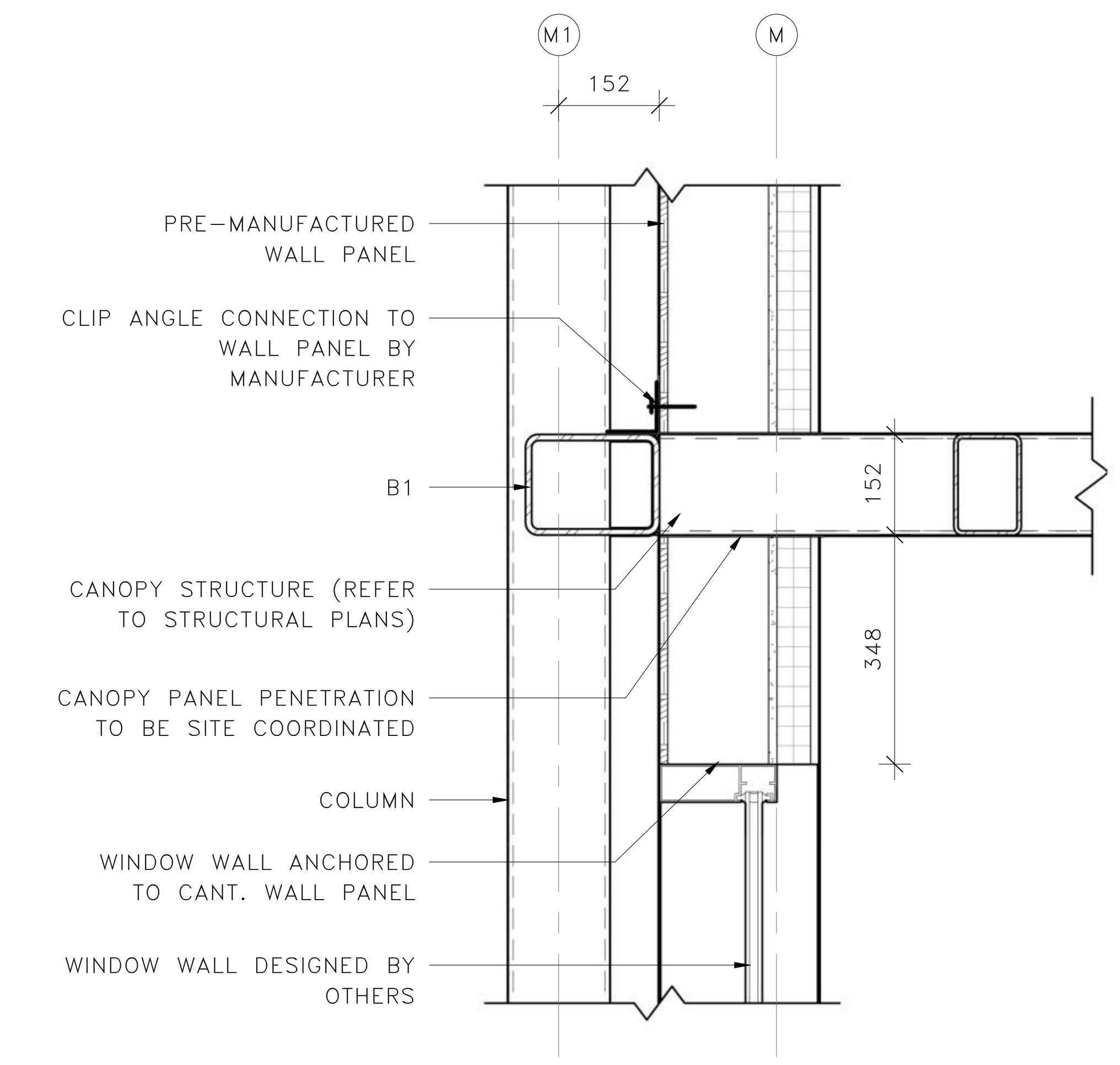
4 ROOF CURB DETAIL
A601 SCALE: 1 : 10



5 TYP. PARAPET DETAIL PERPENDICULAR TO OWSJ
A601 SCALE: 1 : 10



6 TYP. WINDOW WALL FRAMING DETAIL
A601 SCALE: 1 : 10



7 TYP. CANOPY/WALL PANEL CONNECTION
A601 SCALE: 1 : 10

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

DETAILS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER D. G. BIDDLE 31/10/25 PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	D.D.B.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	A601

DESIGN LOADS:

ALL LOADS ARE UNFACTORED

ROOF LOADS: LIVE LOAD= 1.52 kPa (Ss=1.4 kPa, Sr= 0.4 kPa)
DEAD LOAD= 1.5 kPa

EARTHQUAKE LOADS:
Sa(0.2, XD) = 0.355
Sa(0.5, XD) = 0.322
Sa(1.0, XD) = 0.189
Sa(2.0, XD) = 0.0896
Sa(5.0, XD) = 0.0237
Sa(10.0, XD) = 0.00739
PGA(XD) = 0.216
PGV(XD) = 0.209

SEISMIC SOIL SITE CLASSIFICATION: D

WIND LOADS: q1/50 = 0.48 kPa

GENERAL:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE ONTARIO BUILDING CODE 2024.
2. WHERE STANDARDS PUBLISHED BY VARIOUS ORGANIZATIONS ARE REFERRED, CONFORM TO LATEST EDITION OF STANDARDS AS AMENDED AND REVISED TO DATE OF CONTRACT.
3. ALL DIMENSIONS, ELEVATIONS, OPENINGS FOR PIPES, SLEEVES, EQUIPMENT LOCATIONS AND THE LIKE SHALL BE CHECKED WITH THE ARCHITECTURAL AND THE APPROPRIATE STRUCTURAL, MECHANICAL OR ELECTRICAL DRAWINGS. REPORT ANY ISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
4. DO NOT SCALE THE DRAWINGS.
5. THE CONTRACTOR SHALL EXAMINE THE SITE AND SATISFY HIMSELF OF THE ACTUAL CONDITIONS AND REQUIREMENTS OF THE WORK.
6. CHECK UNDERGROUND UTILITIES AND ASSUME RESPONSIBILITY FOR SAME DURING CONSTRUCTION.
7. SET ALL ANCHORS, INSERTS, ETC. AS REQUIRED BY OTHER TRADES.
8. THE CONTRACTOR SHALL CAULK AND SEAL ALL JOINTS, SPACES, ETC. TO PROVIDE A WEATHER-TIGHT BUILDING.
9. THE CONTRACTOR SHALL MAKE ANY NECESSARY ALLOWANCES FOR ANY VARIATIONS AND/OR ANY REVISIONS MADE ON ACCOUNT OF SUB-TRADESAND PRODUCT SELECTION FOR THE COMPLETION OF THE PROJECT.
10. FEATURES OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME CHARACTER AS SHOWN FOR SIMILAR CONDITIONS.
11. CONFIRM ALL MEASUREMENTS THAT GOVERN THE SCOPE OF WORK BUILT INTO EXISTING BUILDING.

EXCAVATION, GRADING & BACKFILLING:

1. REFER TO SOIL TEST REPORT, IF THERE IS ANY, FOR THE BOREHOLE DATA AND SITE CONDITIONS.
2. THE ACCURACY OF THE SOIL TEST REPORT IS NOT GUARANTEED. SOIL DATA APPLIES FOR ACTUAL TEST PIT LOCATION AND CONDITIONS MAY DIFFER AT OTHER PARTS OF THE SITE.
3. ALL SPREAD FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE MATERIAL. HAVE BASE INSPECTED BY ENGINEER BEFORE PLACING FOOTING.
4. DESIGN BEARING PRESSURE AT SERVICEABILITY LIMIT STATE (SLS) IS 175 kPa AND THE ULTIMATE LIMIT STATE (ULS) IS 200KPA. REFER TO CAMBIUM GEOTECHNICAL INVESTIGATION – 725 LAKE ROAD, BOWMANVILLE, ON. DATED FEBRUARY 27, 2025.
5. EXCAVATE AND REMOVE ALL FILLS, SURFACE FEATURES AND TOPSOIL FROM BUILDING AREA BEFORE STARTING THE WORK.
6. PROTECT FOUNDATIONS, SLABS ON GRADE, FOOTINGS, AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.
7. BACKFILL FOOTINGS USING APPROVED FREE DRAINING MATERIALS.
8. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS BELOW GRADE.
9. SLAB ON GRADE SHALL BE PLACED ON SOIL CAPABLE OF SAFELY SUSTAINING 50 KPA WITHOUT SETTLEMENT RELATED TO BUILDING FOOTINGS.
10. SLAB ON GRADE SHALL BE, UNLESS OTHERWISE STATED, 150MM THICK POURED CONCRETE REINFORCED WITH 152X152 MW18.7/MW18.7 WWM, ON 200MM OF OPSS 1010 GRANULAR A COMPACTED TO AT LEAST 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
11. RESTORE EXTERIOR SURFACES TO CONDITION EQUAL TO THAT EXISTING PRIOR TO EXCAVATION UNLESS OTHERWISE NOTED.
12. EXCAVATION SHALL BE BRACED AND SHORED. SLOPES AND BANKS SHOULD BE PROTECTED AND ALL WORKS SHALL BE DONE IN ACCORDANCE TO PROVINCIAL AND MUNICIPAL REGULATIONS.
13. EXCAVATION SHALL BE KEPT CLEAN, FREE FORM STANDING WATER AND LOOSED SOIL. EXCAVATION SHALL BE PROTECTED FROM FREEZING.
14. AS PER GEOTECHNICAL REPORT, BASE OF EXCAVATION MUST BE COVERED WITH MINIMUM 50MM THICK MUD MAT (I.E. SKIM COAT OR LEAN CONCRETE AT LEAST 5MPA COMPRESSIVE STRENGTH AT 28 DAYS).

STEEL – INSPECTION AND TESTING:

1. THE UNDETAKING TO INSPECT WELDING SHALL BE QUALIFIED IN ACCORDANCE WITH THE REOIREMENTS OF CSA W178.1, "CERTIFICATION OF WELDING INSPECTION ORGANIZATIONS", AND CERTIFIED BY THE CANADIAN WELDING BEREAU.
2. THE INSPECTION SHALL COVER ALL MOMENT CONNECTIONS TO REVIEW FOR COMPLIANCE WITH THE CSA S16-19.
3. THE INSPECTION AGENCY SHALL SUBMIT REPORTS TO THE CONSULTANT COVERING THE WORK INSPECTED AND PROVIDE DETAILS OF NONCONFORMITIES OR DEFICIENCIES OBSERVED.

COLD WEATHER REQUIREMENTS OF CONCRETE:

1. FORCASTED AIR TEMPRATURES BELOW 10 DEGREE AND ABOVE 2 DEGREE:
   - A. THE AGGREGATE OR MIXING WATER SHALL BE HEATED TO MAINTAIN A MINIMUM CONCRETE TEMPERATURE OF 10°C.
   - B. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WHICH IS AT A TEMPERATURE LESS THAN 5°C.
   - C. CONTRACTOR SHALL BE PREPARED TO COVER SLAB IN THE EVENT OF AN UNEXPECTED DROP IN TEMPERATURE.
   - D. CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C FOR AT LEAST 7 DAYS OR UNTIL THE CONCRETE REACHES 70% OF SPECIFIED STRENGTH.
2. FORCASTED AIR TEMPERATURES BELOW 2 DEGREE AND ABOVE −4 DEGREE (NOTE: FOR THESE CONDITIONS STRUCTURAL CONCRETE TOPPINGS ON METAL DECK SHALL SATISFY THE REQUIREMENTS OF PART 3):
   - A. FORMS AND STEEL SHALL BE FREE FROM ICE AND SNOW.
   - B. THE AGGREGATE OR MIXING WATER SHALL BE HEATED TO GIVE A MINIMUM CONCRETE TEMPERATURE OF 10°C AT POINT OF POUR.
   - C. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WITH A TEMPERATURE BELOW 5°C.
   - D. SLAB SHALL BE COVERED WITH CANVAS OR SIMILAR MATERIAL, KEPT A FEW INCHES ABOVE THE SURFACE.
   - E. PROTECTION SHALL BE MAINTAINED FOR AT LEAST THE SPECIFIED CURING PERIOD.
   - F. CONCRETE TEMPERATURE AT ALL SURFACES SHALL BE MAINTAINED AT A MINIMUM OF 10°C FOR THE ENTIRE SPECIFIED CURING PERIOD.
3. FORECASTED AIR TEMPERATURE BELOW −4°C: (A, B, C, D, AS UNDER POINT 2.)
   - A. WORK AREA TO BE HEATED AND ENCLOSED. HEATING TO COMMENCE ONE HOUR BEFORE POURING AND CONTINUE THROUGHOUT THE SPECIFIED CURING PERIOD.
   - B. CONCRETE TEMPERATURE AT ALL SURFACES SHALL BE MAINTAINED AT A MINIMUM OF 20°C FOR 3 DAYS OR 10°C FOR 7 DAYS. CONCRETE SHALL BE KEPT ABOVE FREEZING UNTIL IT ATTAINS AT LEAST 70% OF ITS SPECIFIED STRENGTH.
   - C. ENCLOSURE MUST BE CONSTRUCTED SO THAT AIR CAN CIRCULATE OUTSIDE THE OUTER EDGES AND MEMBERS.
   - D. REINFORCEMENT SHALL BE COVERED AND KEPT AT A TEMPERATURE OF 0°C OR HIGHER AT THE TIME OF CONCRETE PLACEMENT.

MASONRY:

1. MASONRY WORK SHALL BE IN ACCORDANCE WITH C.S.A. STANDARDS A371-14 AND THE ONTARIO BUILDING CODE.
2. MODULAR CONCRETE BLOCK MASONRY UNITS CONFORM TO C.S.A. A165.1-14, A165.2-14 AND A165.3-14, SOLID BLOCK AND SEMI-SOLID BLOCK SHALL BE USED IN LOCATIONS SHOWN ON DRAWINGS.
3. MASONRY MORTAR FOR LOAD BEARING WALLS SHALL BE TYPE S CONFORMING TO C.S.A. A179-14.
4. INSTALL CONTINUOUS BOND BEAM WHERE OPEN WEB STEEL JOIST BEAR ON MASONRY WALLS UNLESS OTHERWISE NOTES.
5. OVER OPENINGS OR RECESSES IN MASONRY WALLS INCLUDING THOSE FOR MECHANICAL OR ELECTRICAL SERVICES AND EQUIPMENTS, PROVIDE LINTELS AS PER LINTEL SCHEDULE. WHERE NO LINTEL SCHEDULE IS PROVIDED SUPPLY MASONRY LINTELS REINFORCED WITH 1-10M REINFORCING BARS AT BOTTOM. PROVIDE MINIMUM 100MM BEARING AT EACH END.
6. PROVIDE CAVITY WALL REINFORCEMENT IN ALL MASONRY WALLS. FOR BLOCK AND BRICK WALLS – TRI-LOC BL11 (BLOK-LOK). FOR PLAIN MASONRY – HEAVY DUTY LADDER TYPE MASONRY REINFORCEMENT TO SUIT BLOCK SIZE.
7. CONCRETE FILL FOR MASONRY UNITS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPA AT 28 DAYS UNLESS OTHERWISE NOTED.
8. WHERE BRICKS ARE INDICATED, SUPPLY METRIC MODULAR BRICKS OF TYPE SHOWN UNLESS OTHERWISE NOTED. COMPRESSIVE STRENGTH OF BRICKS TO EXCEED 40 MPA. PROVIDE SOLID MASONRY UNITS BELOW ALL BEAMS AND LINTEL BEARINGS.
9. WHERE ANCHORS ARE CAST INTO MASONRY, FILL VOIDS WITH CONCRETE TO TWO (2) COURSES BELOW BEARING AND A MINIMUM OF 200MM EACH SIDE OF BEARING.
10. PROVIDE SOLID REINFORCING CORE WITH 1 – 15M CONTINUOUS ADJACENT TO ALL WALL AND DOOR OPENINGS AND BUILDING CORNERS.

CONCRETE & REINFORCING STEEL:

1. CONCRETE CONSTRUCTION SHALL CONFORM TO CAN/C.S.A. A23.3-19.
2. CONCRETE COMPRESSIVE STRENGTH TO BE 25MPA AT 28 DAYS, MAXIMUM AGGREGATE SIZE TO BE 20MM, SLUMP TO BE 75MM MAXIMUM,UNLESS OTHERWISE STATED.
3. CONCRETE COVER FOR REINFORCEMENTS SHALL BE IN ACCORDANCE WITH ONTARIO BUILDING CODE AND C.S.A. A23.1-19.
4. EXPOSED CONCRETE SHALL HAVE AIR ENTRAINMENT OF 6-7%.
5. FORM ALL VERTICAL SURFACES OF CONCRETE WORK, WHERE NEAT EXCAVATION IN NATIVE SOIL ARE POSSIBLE. CONCRETE FOR FOOTINGS NEED NOT BE FORMED.
6. ALL FLOOR SURFACES SHALL BE LEVEL TO A TOLERANCE OF 10MM AND NOT OUT OF PLANE BY MORE THAN 3MM ON 3000MM TEMPLATE. STEEL TROWEL FINISH ALL FLOORS. SLAB CONTROL JOINTS ALONG GRID LINES W/ A MAX SPACING OF 4500MM
7. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH C.S.A. G30.18-M92, GRADE 400.
8. WELDED WIRE MESH SHALL BE IN ACCORDANCE WITH C.S.A. G30.15-M83.
9. THE CONTRACTOR SHALL PREPARE AND SUBMIT SIX (6) COPIES OF SHOP DRAWINGS INDICATING MATERIAL, SIZE, SPACING, AND LOCATION OF REINFORCING STEEL, ANCHORS, AND DETAILS.
10. REINFORCING BARS SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS AND ELEVATION VARIATIONS UNLESS NOTED. CONTINUOUS BARS SHALL BE FULLY DEVELOPED BY LAPPING WHERE SPLICED.
11. DO NOT USE CALCIUM CHLORIDE OR OTHER CALCIUM PRODUCTS IN CONCRETE MIX.
12. CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS FOR THE EXPOSURE CLASS AS STATED IN CAN/CSA A23.1-19 CLAUSE 7.4.1.7, TABLE 2 AND TABLE 20.

STRUCTURAL STEEL:

1. ROLLED SHAPES AND PLATES SHALL CONFORM TO CAN/C.S.A. G40.20-13/G40.21-19 (R.2018), GRADE 350W.
2. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO CAN/C.S.A. G40.20-13/G40.21-19 (R.2018), GRADE 350W.
3. PIPE COLUMN SECTIONS SHALL CONFORM TO ASTM A53, 240 MPA.
4. BOLTS TO BE A325 HIGH STRENGTH STEEL BOLTS FOR FRICTION TYPE CONNECTIONS, AND A307 FOR ANCHOR BOLTS UNLESS OTHERWISE STATED.
5. STEEL DECK FINISH TO BE ZINC COATED TO A.S.T.M. A123M-24.
6. FABRICATION, ERECTION AND WORKMANSHIP SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER C.S.A. W47.
7. DESIGN OPEN WEB STEEL JOIST TO C.S.A. S16-19. PROVIDE JOIST BRIDGING AND JOIST CAMBER AS PER C.S.A. S16M.
8. SURFACES TO BE WELDED SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER INCLUDING PAINT FILM.
9. ALL WELDED JOINTS SHALL USE E49XX ELECTRODES. CONNECTIONS THAT ARE FRICTION TYPE SHALL USE 20MM DIAMETER ASTM A325-19 HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.
10. ALL STEEL DECK SHALL BE IN CONFORMANCE WITH C.S.A. S-136-19 AND SHALL BE DESIGNED TO SAFELY SUPPORT ALL THE LOADS INDICATED ON THE DRAWINGS.
11. STEEL DECKS TO BE DESIGNED TO ACT AS DIAPHRAGMS. DECKS TO HAVE WIPE COAT GALVANIZED FINISH UNLESS NOTED OTHERWISE ON DRAWINGS.
12. STEEL DECKS AND JOISTS SHALL HAVE A MAXIMUM DEFLECTION UNDER LIVE LOAD OF 1/240 OF SPAN.
13. SHOP PRIME ALL STRUCTURAL STEEL WITH PRIMER. DO NOT PAINT CONTACT SURFACES OF JOINTS OR SURFACES TO RECEIVE FIELD WELDS.
14. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE CONSULTANT FOR REVIEW SIX (6) COPIES OF ERECTION DIAGRAMS AND SHOP DRAWINGS INDICATING MATERIAL, SIZE, SPACING AND LOCATION OF STRUCTURAL STEEL MEMBERS, CONNECTION, BRIDGING, REINFORCING, BEARING SHOES, ANCHORS, ELEVATIONS AND DETAILS.
15. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE CONSULTANT SIX (6) CATALOGUES OR TABLES OF JOISTS AND STEEL DECK CHECKED AND APPROVED BY A PROFESSIONAL ENGINEER OF ONTARIO.
16. ALL LOADS SPECIFIED ARE UNFACTORED IN ACCORDANCE WITH C.S.A. S16-19.
17. UNLESS OTHERWISE STATED ON THE STRUCTURAL PLANS PROVIDE 20 DIA PUDDLE WELD AT EVERY OTHER FLUTE ALONG WITH 20MM DIA PUDDLE WELD AT MAX. 300 O/C AT THE PANEL EDGE OF METAL DECK.
18. UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS PROVIDE L102X102X6.4 AT DECK PERIMETER EDGE.
19. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS LOCATIONS AND DIMENSIONS IN THE DECK.
20. TOUCH UP FIELD WELD WITH ZINC PAINT.

NON-STRUCTURAL ELEMENTS:

1. THE STRUCTURAL DESIGN DEPICTED IN THESE DRAWINGS EXCLUDES NON-STRUCTURAL OR SECONDARY ELEMENTS. THESE ELEMENTS ARE TO BE DESIGNED, DETAILED, AND REVIEWED IN THE FIELD BY OTHER PARTIES. THEY WILL BE DELINEATED IN SEPARATE DRAWINGS NOT AFFILIATED WITH THOSE OF D.G.BIDDLE & ASSOCIATES LIMITED. SHOULD STRUCTURAL ENGINEERING RESPONSIBILITY BE NECESSARY FOR THESE ELEMENTS, SPECIALIZED STRUCTURAL ENGINEERS WILL PROVIDE IT, ALONG WITH ANY REQUISITE DOCUMENTATION FOR BUILDING PERMIT AUTHORITIES.
2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO: FORMS AND STEEL SHALL BE FREE FROM ICE AND SNOW.
   - A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILINGS, AND MILLWORK.
   - B. LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, AND PLANTERS.
   - C. CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR AND EXTERIOR STUD WALLS.
   - D. ARCHITECTURAL PRECAST AND PRECAST CLADDING.
   - E. MECHANICAL AND ELECTRICAL EQUIPMENT.
   - F. WINDOW WASHING EQUIPMENT AND ASSOCIATED ATTACHMENTS.
   - G. ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.
   - H. BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.
   - I. NON-LOAD-BEARING MASONRY.CO
   - J. NON-STRUCTURAL CONCRETE TOPPINGS.
3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS THAT MAY IMPACT THE PRIMARY STRUCTURAL SYSTEM MUST BE SUBMITTED TO D.G.BIDDLE & ASSOCIATES LIMITED. THESE DRAWINGS WILL BE REVIEWED SOLELY FOR THEIR EFFECT ON THE PRIMARY STRUCTURAL SYSTEM.

CONCRETE FORMWORK STRIPPING:

1. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND REVIEWING FORMWORK, SHORING, AND RESHORING IN THE FIELD. RESHORING DRAWINGS SHOULD BE SUBMITTED TO AMR SOLELY FOR ASSESSING THEIR IMPACT ON THE BASE BUILDING STRUCTURE.
2. BEFORE REMOVING COLUMN OR WALL FORMS, CONCRETE MUST ACHIEVE 10 MPA FOR ARCHITECTURAL CONCRETE OR 8 MPA FOR OTHER COLUMNS OR WALLS.
3. SLAB FORMS OR BEAM FORMS SHOULD NOT BE REMOVED UNTIL CONCRETE REACHES 75% OF THE 28-DAY STRENGTH BEFORE STRIPPING OR RESHORING.
4. CONCRETE STRENGTH FOR STRIPPING SHOULD BE DETERMINED BY USING CYLINDERS STORED ON-SITE IN AN ENCLOSURE THAT MAINTAINS A SIMILAR TEMPERATURE AND HUMIDITY TO THE STRUCTURAL ELEMENTS. ALTERNATE METHODS, SUBJECT TO APPROVAL BY AMR, MAY BE CONSIDERED.
5. ALL SLABS, BEAMS, WALLS, ETC., MUST BE SHORED UNTIL CONCRETE ATTAINS THE DESIGN STRENGTH.
6. PERMISSION FROM AMR IS REQUIRED BEFORE REMOVING CONCRETE USING PERCUSSIVE METHODS SUCH AS CHIPPING OR JACK-HAMMERING.

COLD FORMED STEEL:

1. UNLESS OTHERWISE SPECIFIED, COLD FORMED STEEL TO CONFORM TO CSA-S16-19, STEEL STRUCTURES FOR BUILDING – LIMIT STATES DESIGN AND CAN/CSA-S136-19, COLD FORMED STEEL STRUCTURAL MEMBERS.
2. WORK TO BE EXECUTED BY FIRM THOROUGHLY CONVERSANT WITH LAWS, BY-LAWS AND REGULATIONS WHICH GOVERN, AND CAPABLE OF WORKMANSHIP OF BEST GRADE OF MODERN SHOP AND FIELD PRACTICE KNOWN TO RECOGNIZED MANUFACTURER'S SPECIALIZING IN THIS WORK.
3. WORK SHALL BE EXECUTED BY WORKERS ESPECIALLY TRAINED AND EXPERIENCED IN THIS TYPE OF WORK. HAVE A FULL TIME, SENIOR, QUALIFIED REPRESENTATIVE AT THE SITE TO DIRECT THE WORK.
4. INSTALL SYSTEM TO PROVIDE FOR MOVEMENT OF COMPONENTS WITHOUT DAMAGE, FAILURE OF JOINT SEALS, UNDUE STRESS ON FASTENERS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO SEASONAL OR CYCLIC DAY/NIGHT TEMPERATURE RANGES.
5. INSTALL SYSTEM TO ACCOMMODATE CONSTRUCTION TOLERANCES, DEFLECTION OF BUILDING STRUCTURAL MEMBERS, AND CLEARANCES OF INTENDED OPENINGS.
6. GALVANIZED SHEET STEEL SHALL CONFORM TO ASTM A653/A653M, MINIMUM GRADE D, 50 PSI (345 MPA) YIELD FOR 1.5MM (.060") MATERIAL.
7. STRUCTURAL METAL STUDS TO BE GALVANIZED SHEET STEEL FORMED TO CHANNEL SHAPE, OF MINIMUM GAUGE, SIZES, AND SECTION PROPERTIES TO MEET DESIGN REQUIREMENTS, AND CONFORMS TO ASTM C955.
8. METAL STUD RUNNERS/TOP AND BOTTOM TRACKS TO BE GALVANIZED SHEET STEEL FORMED TO CHANNEL SHAPE, HAVING SAME WIDTH AS STUDS, WITH TIGHT FIT AND SOLID WEB, OF MINIMUM GAUGE TO MEET DESIGN REQUIREMENTS, BUT NO LESS THAN GAUGE OF METAL STUDS, AND CONFORMS TO ASTM C955.
9. METAL PLATES, BRIDGING, GUSSETS AND CLIPS TO BE FORMED FROM GALVANIZED SHEET STEEL, OF GAUGES, SHAPES AND SIZES REQUIRED TO MEET DESIGN REQUIREMENTS DETERMINED FOR CONDITIONS ENCOUNTERED, AND OF SAME FINISH AS FRAMING MEMBERS.
10. FASTENERS TO BE SELF-DRILLING, SELF-TAPPING SCREWS, BOLTS, NUTS AND WASHERS: HOT-DIP GALVANIZED TO 1.25 OUNCE PER SQUARE FOOT AND CONFORMS TO ASTM A153/A153M-23, CLASS B3, '12-24 X 7/8 HWH #4STLG' BY HILTI CANADA, OR APPROVED EQUAL.
11. ANCHORAGE DEVICES TO BE POWER DRIVEN, POWDER ACTUATED, DRILLED EXPANSION BOLTS, OR SCREWS WITH SLEEVES, AS APPLICATION DICTATES.
12. WHERE REQUIRED WELDING SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER C.S.A. W47.
13. WELDING MATERIALS TO CONFORM TO CSA W59.
14. ELECTRODES FOR WELDING SHALL HAVE MINIMUM 480 MPA TENSILE STRENGTH SERIES. (E480XXX,E480S-X).
15. PROVIDE BRIDGING FOR RESTRAINING MEMBER ROTATION AND TRANSLATION. BRIDGING SHALL BE CONTINUOUS AND SPACED AT 1200MM O/C VERTICAL MAXIMUM.
16. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE CONSULTANT FOR REVIEW SIX (6) COPIES OF ERECTION DIAGRAMS AND SHOP DRAWINGS INDICATING MATERIAL, SIZE, SPACING AND LOCATION OF STRUCTURAL COLD FORM STEEL MEMBERS, CONNECTION, BRIDGING, REINFORCING, BEARING, ANCHORS, ELEVATIONS AND DETAILS.

F	FOOTING
SF	STRIP FOOTING
P	PIER
FW	FOUNDATION WALL
BP	BASE PLATE
C	COLUMN
SW	STRUCTURAL WALL
SHW	STRUCTURAL SHEAR WALL
BM	BEAM
LWD	WOOD LINTEL
LCF	COLD FORM STEEL LINTEL
LST	STEEL LINTEL
LCO	CONCRETE LINTEL
LBB	BOND BEAM LINTEL
FL	FLOOR
R	ROOF
BOT	BOTTOM
EXT	EXTERIOR
INT	INTERIOR
E/W	EACH WAY
E/F	EACH FACE
O/C	ON CENTER
U/S	UNDER SIDE
B/O	BOTTOM OF
T/O	TOP OF
T/S	TOP OF STEEL
TYP	TYPICAL
WWM	WELDED WIRE MESH
MW	METAL WIRE
FF	FINIDHED FLOOR
FFE	FINISHED FLOOR ELEVATION
AFF	ABOVE FINISHED FLOOR
W/	WITH
TJ	TIE JOIST
PL	POINT LOAD
(HIGH)	BEAM AT UPPER LEVEL
(LOW)	BEAM AT LOWER LEVEL
CANT.	CANTILEVERED
DJ	DOUBLE JOIST
DT	DOUBLE TRUSS
FG	FIXED GLASS
FA	FLAT ARCH
GT	GIRDER TRUSS
LVL	LAMINATED VENEER LUMBER
PT	PRESURE TREATED LUMBER
TJ	TRIPLE JOIST
MC	MOMENT CONNECTION
Mf	MOMENT FRAME
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LSH	LONG SIDE HORIZONTAL
D.O.	DITTO
ZN	ZONE
CE	CEILING
BUL	BOTTOM UPPER LAYER
BLL	BOTTOM LOWER LAYER
RA	ROOF ANCHORS
RD	ROOF DRAIN
NTS	NOT TO SCALE
CMU	CONCRETE MASONRY UNIT
T&G	TONGUE AND GROOVE
WC	WATER CLOSET
GWB	GYPSUM WALLBOARD
ACT	ACOUSTIC CEILING TILE
HM	HOLLOW METAL (DOORS & FRAMES)
SCQ	SOLID CORE WOOD (DOORS & FRAMES)
PS	PRESSED STEEL (DOORS & FRAMES)
PT	PRESSURE TREATED (WOOD)
PLAM	PLASTIC LAMINATE
⊗	HOLD DOWN ANCHOR ROD

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL NOTES

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S1

BASE PLATE SCHEDULE			
BASE PLATE	MEMBER	ANCHORS	ANCHOR
BP1	350x200x19	2-19 Ø HOOKED ANCHOR BOLTS	400 / 50
BP2	300x300x19	4-19 Ø HOOKED ANCHOR BOLTS	225 / 50
BP3	280x280x19	4-19 Ø HOOKED ANCHOR BOLTS	400 / 50
BP4	350x200x19	4-19 Ø ASTM F1554 GR. 105 ANCHOR BOLTS W/ 300 EMBED. W/ 38x6.4 WELDED EMBEDDED WASHER PLATE	
BP5	280x280x19	4-19 Ø ASTM F1554 GR. 105 ANCHOR BOLTS W/ 300 EMBED. W/ 38x6.4 WELDED EMBEDDED WASHER PLATE	
BP6	200x150x12	2-15M HOOKED ANCHORS	300 / 50

COLUMN SCHEDULE		
COLUMN	COLUMN SIZE	REMARKS
C1	HSS152x152x9.5	

MID LEVEL BEAM SCHEDULE		
BEAM	SIZE	REMARKS
B1	HSS203x152x9.5 FLAT (152 VERT.)	
B2	HSS152x102x6.4	
B3	C230x30	
B4	C150x12	
B5	HSS76x152x6.4 (FLAT)	
B6	C200x17 @ 1700 O/C	

FOUNDATION WALL SCHEDULE			
WALL	WALL SIZE	STRIP FOOTING	REINF.
FW1	200 CONC. FDN. WALL W/ 15M @ 400 O/C E/W	600x200 CONC. STRIP FOOTING W/ 2-15M CONT. REINF W/ HOOKED DOWELS TO MATCH VERT. REINF. SIZE AND SPACING ALTERNATE LEGS	600 / 200

PIER SCHEDULE					
PIER	SIZE	VERT. REINF	HORIZ. REINF.	REINFORCING	REINF.
P1	600x600	6-15M	10M STIRRUPS @ 300 O/C	HOOKED DOWELS TO MATCH VERT. REINF.	800 / 300
P2	600x600	6-20M	10M STIRRUPS @ 300 O/C W/ 10M STIRRUPS @ 75 O/C FOR TOP 300mm	HOOKED DOWELS TO MATCH VERT. REINF.	800 / 300
P3	800 Ø	6-15M	10M STIRRUPS @ 300 O/C	HOOKED DOWELS TO MATCH VERT. REINF.	600 / 300

FOUNDATION PAD SCHEDULE		
FOOTING	FOOTING SIZE	REINFORCING
F1	1500x1500x300	W/ 5-15M REINF. O/C E/W
F2	1060x1060x200	W/ 4-15M REINF. O/C E/W
F3	1500x1500x300	W/ 5-15M REINF. O/C E/W T&B

STRUCTURAL FLOOR SCHEDULE	
FLOOR	COMMENTS
FL1	150 CONCRETE SLAB ON GRADE W/ 152x152 MW18.7/MW18.7 WMM (TYP.)

STRUCTURAL ROOF SCHEDULE	
ROOF	ASSEMBLY
R1	38x0.76 STEEL DECKING W/ L102x102x6.4 CONT. STEEL PERIMETER ANGLE

STRUCTURAL WALL SCHEDULE		
WALL	WALLS	REMARKS
SW1	600S162-43 @400 O/C	W/600T150-43 CONT. TOP DEFLECTION TRACK & CONTINUOUS BOTTOM TRACK
SW2	190 CMU BLOCK WALL W/ 15M VERT. REINF. @1200 O/C	W/2 COURSE CONT. BOND BEAM W/2-15M CONT. REINF. FILL SOLID AT ALL VERT. REINF.

PROVIDE #10 SELF TAPPING SCREWS TO ATTACH STEEL STUDS TO ALL TRACKS

CONCRETE MIX SCHEDULE				
STRENGTH	CLASS	AIR	SLUMP	LOCATION
25 MPa	N	N/A	75	SLAB ON GRADE
25 MPa	F2	6-7%	75	FOUNDATION WALLS, PIERS & FOOTINGS

DECK FASTENING PATTERN SCHEDULE				
ROOF	PATTERN AT INTERMEDIATE SUPPORT	PATTERN AT PERIMETER SUPPORT	FASTENER TYPE AT SUPPORT	SIDELAP FASTENER
R1	36/5	36/5	3/4" Ø PUDDLE WELD	3/4" Ø PUDDLE WELD @ 225 O/C

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

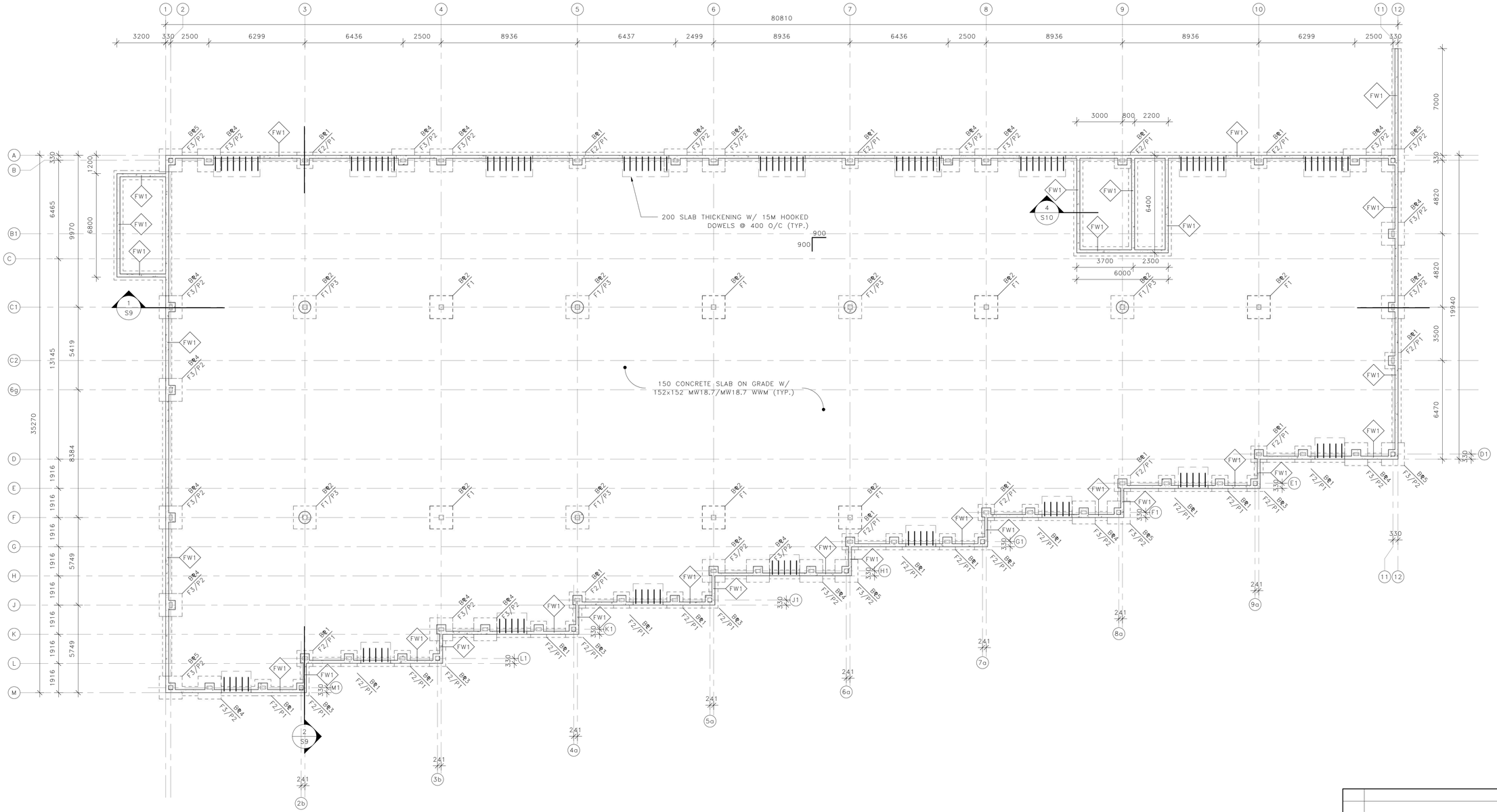
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL SCHEDULES

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S2



1 / S3 STRUCTURAL FOUNDATION PLAN
SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

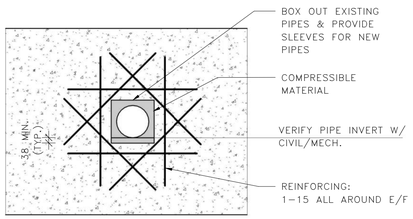
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL FOUNDATION PLAN

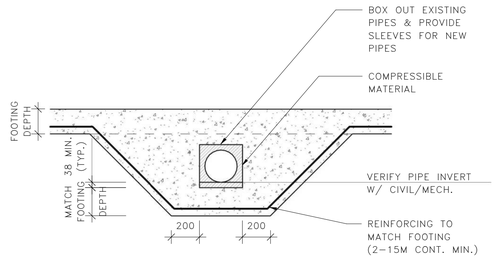
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S3

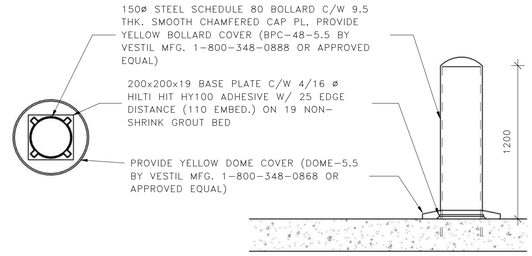


1 / S4.1 SERVICE PIPING THROUGH WALL
SCALE: 1:20



NOTE: FOR PIPE W/ AN INVERT THROUGH FOOTING, INSTALL PIPE THROUGH WALL AND STEP FOOTING TO 200 CLEAR BELOW

2 / S4.1 SERVICE PIPING BELOW FOOTING
SCALE: 1:20

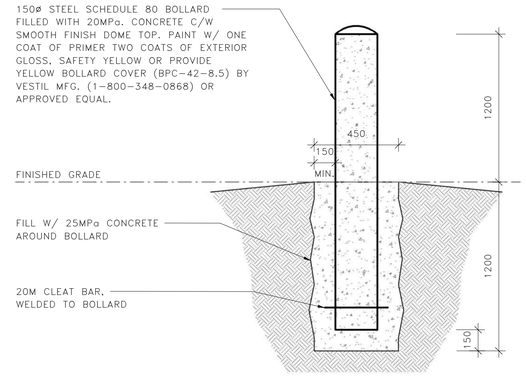


NOTE:

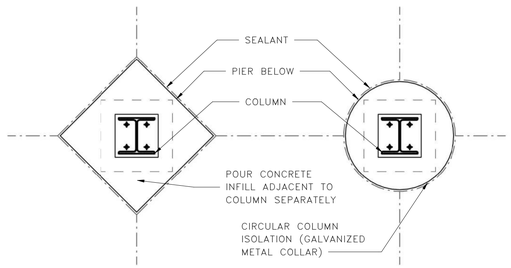
1. COORDINATE LOCATION OF BOLLARDS W/ IN-FLOOR SERVICES LAYOUT IN THE FIELD PRIOR TO PLACING FLOOR SLAB TO AVOID IN-FLOOR SERVICE DAMAGE DURING BOLLARD INSTALLATION.

2. PRIME ALL STEEL.

3 / S4.1 TYPICAL INTERIOR BOLLARD
SCALE: 1:20



4 / S4.1 TYP. EXTERIOR BOLLARD
SCALE: 1:20



NOTE:

1. MAXIMUM SPACING OF SAWCUTS TO BE 177 O/C UNLESS NOTED OR SHOWN ON PLANS.

2. PROVIDE SAWCUTS TO MATCH CONTROL JOINTS IN TILED FLOORS.

5 / S4.1 COLUMN ISOLATION
SCALE: 1:20

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

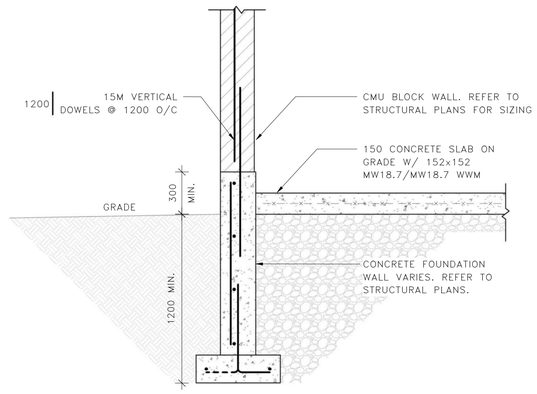
STRUCTURAL CONCRETE DETAILS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

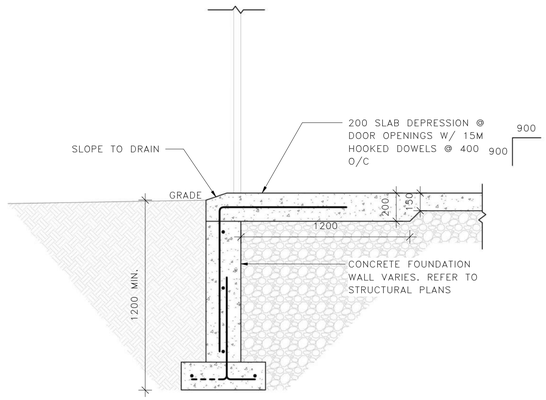
LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S4.1

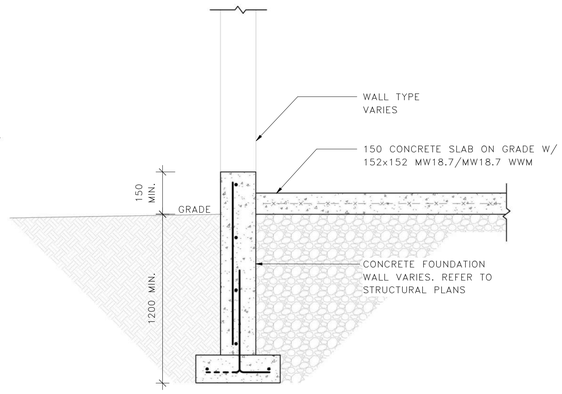
2025-10-29 4:28:24 PM
K:\Staff\Job Files\123000\123081 Jass Gill Lake Road\123081 Drawings Architecture\123081 20251012 Jass Gill Condos Arch Permit Plans - Building B.rvt



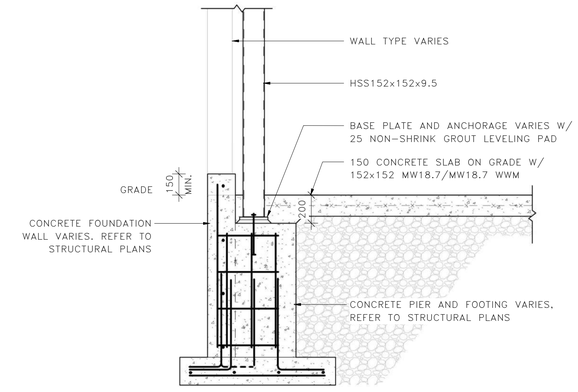
1 S4.2 TYPICAL FOUNDATION WALL AND CMU WALL DETAIL
SCALE: 1:20



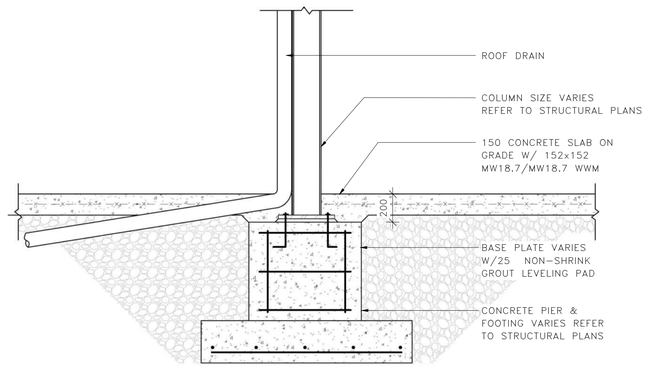
2 S4.2 TYPICAL FOUNDATION WALL AT DOOR DEPRESSION DETAIL
SCALE: 1:20



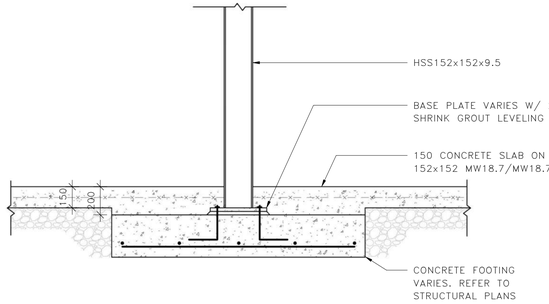
3 S4.2 TYPICAL FOUNDATION WALL DETAIL
SCALE: 1:20



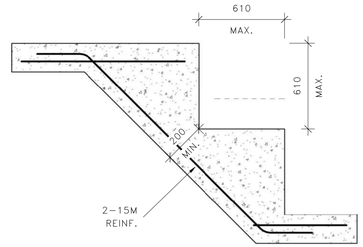
4 S4.2 TYPICAL EXTERIOR PIER AND FOOTING DETAIL
SCALE: 1:20



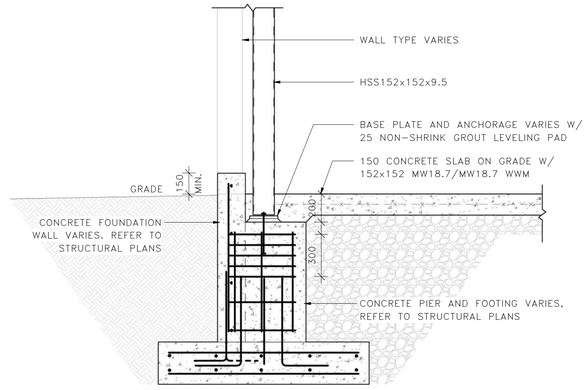
5 S4.2 TYPICAL INTERIOR FOOTING FOR ROOF DRAINS DETAIL
SCALE: 1:20



6 S4.2 TYPICAL INTERIOR FOOTING DETAIL
SCALE: 1:20



7 S4.2 TYPICAL STEP FOOTING DETAIL
SCALE: 1:20



8 S4.2 TYPICAL EXTERIOR PIER AND FOOTING DETAIL AT X-BRACE DETAIL
SCALE: 1:20

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

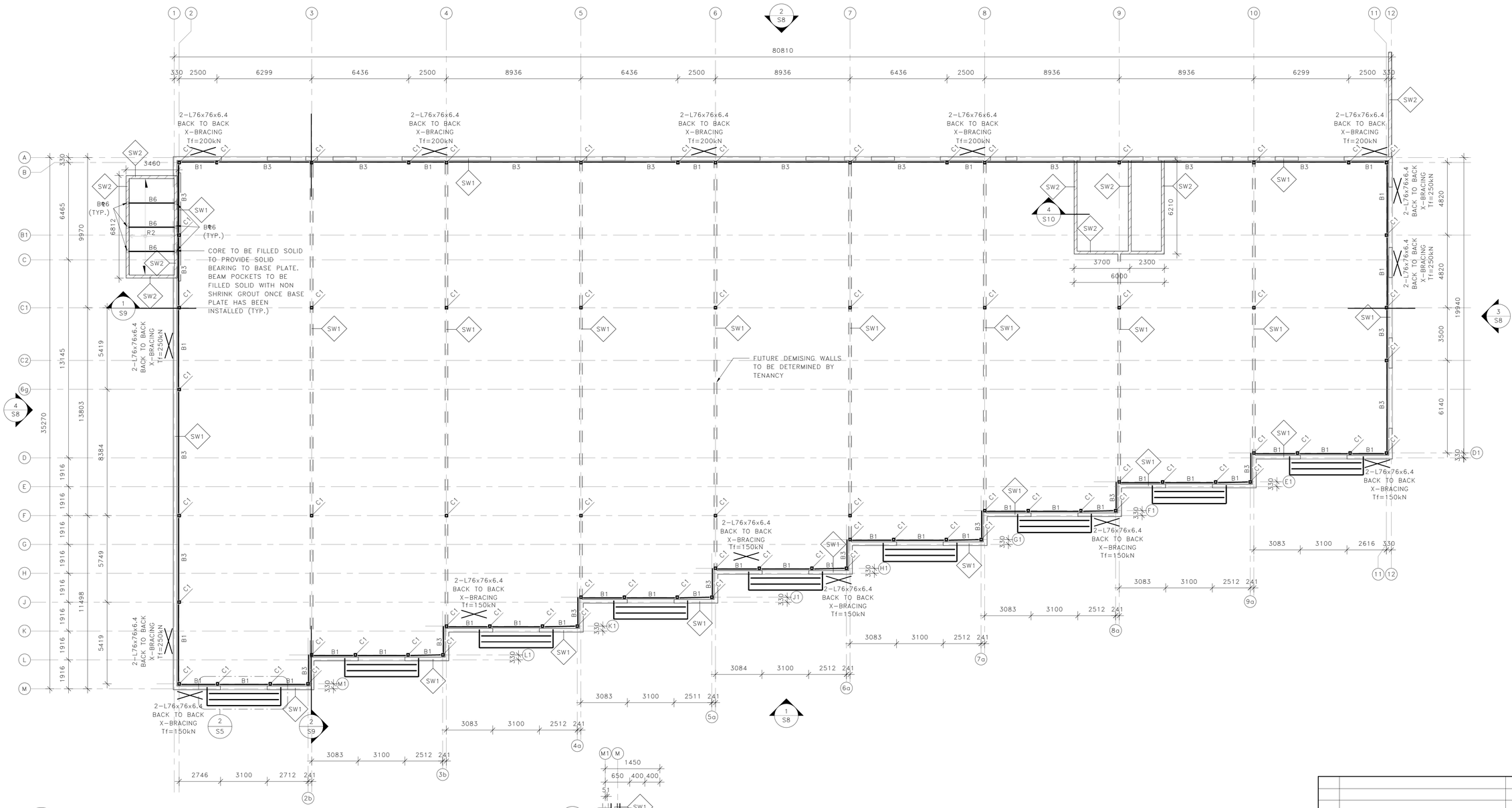
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL FOUNDATION DETAILS

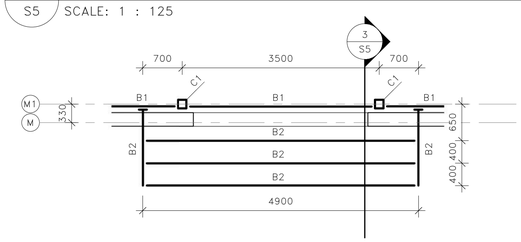
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCE OF DESIGN ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

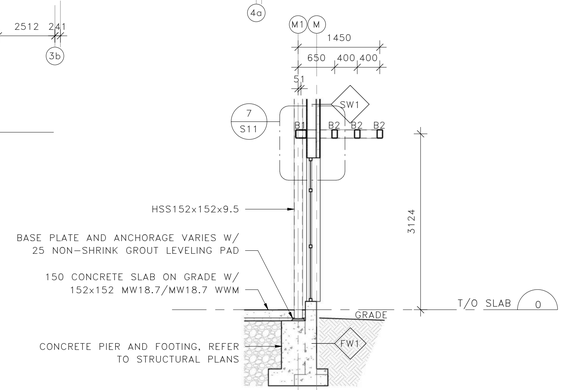
SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S4.2



1 / S5 STRUCTURAL MID LEVEL PLAN
SCALE: 1 : 125



2 / S5 STRUCTURAL CANOPY PLAN
SCALE: 1 : 50



3 / S5 TYP. STRUCTURAL SECTION THRU CANOPY
SCALE: 1 : 50

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL MID LEVEL PLAN + CANOPY DETAILS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S5

1 STRUCTURAL ROOF PLAN
S6 SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

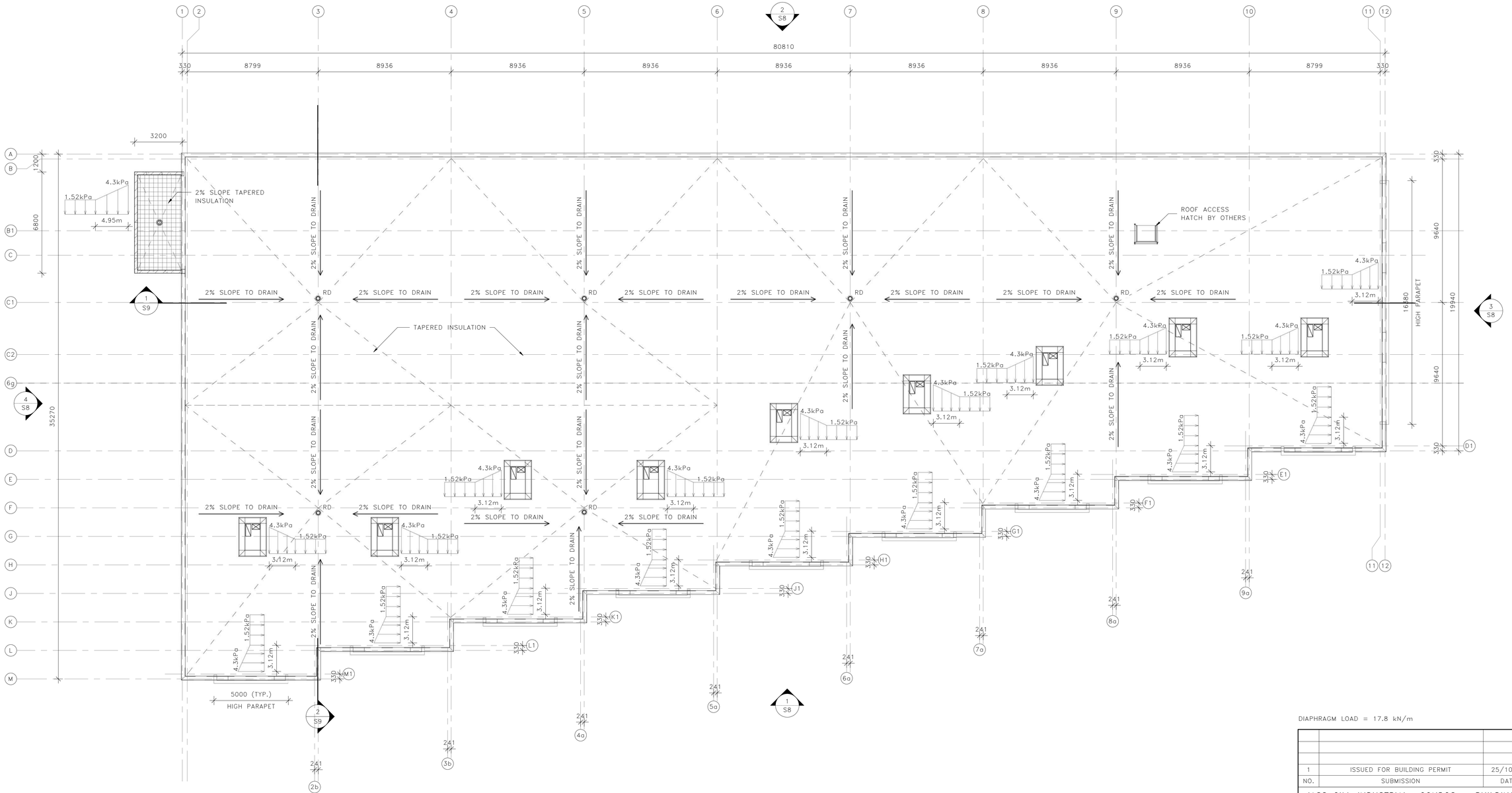
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL ROOF PLAN

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S6



1 / S7 STRUCTURAL ROOF LOADS PLAN
SCALE: 1 : 125

DIAPHRAGM LOAD = 17.8 kN/m

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

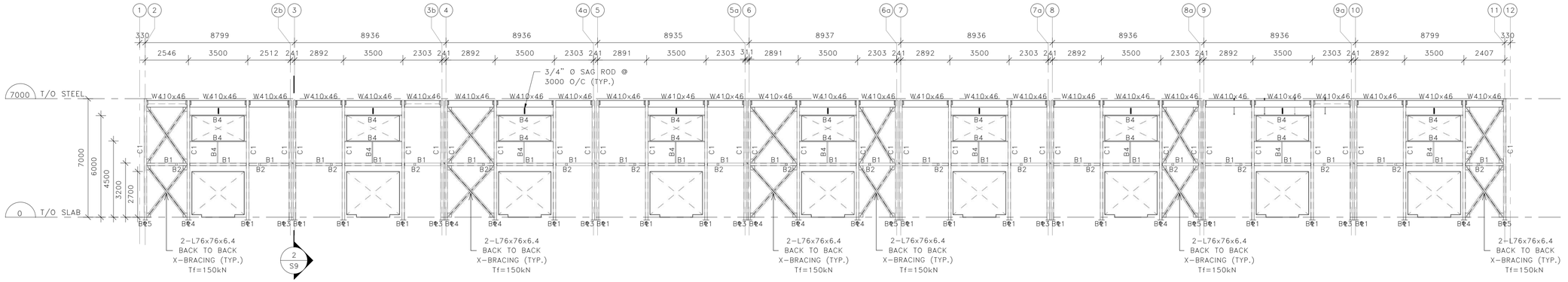
STRUCTURAL ROOF LOADS PLAN

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

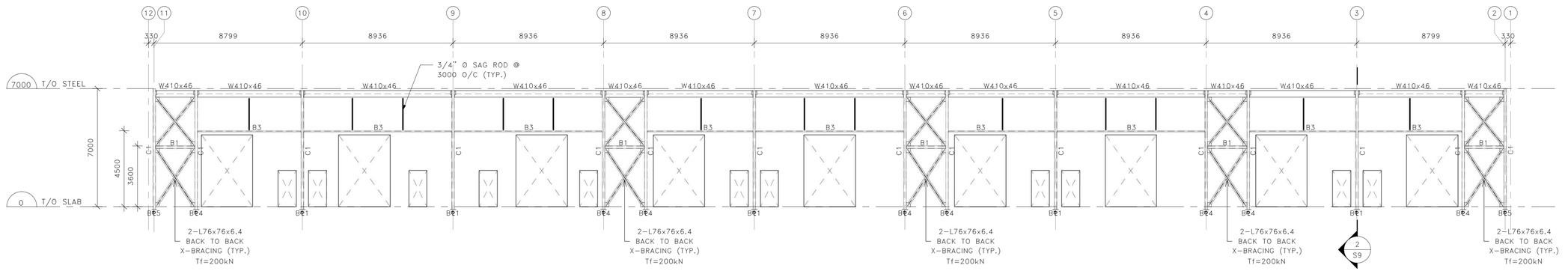
LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S7

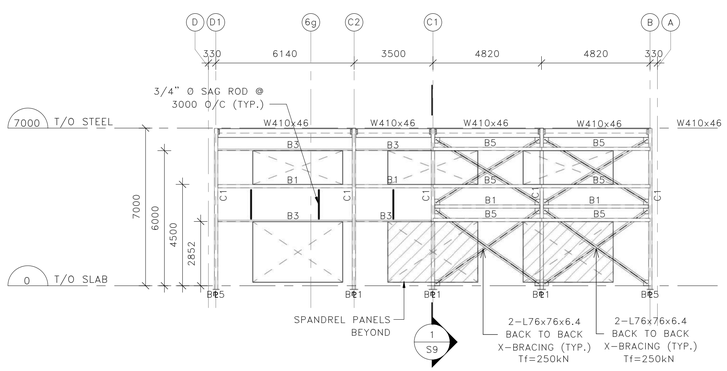
2025-10-29 4:28:31 PM
K:\Staff\Job Files\123000\123081 Jass Gill Lake Road\123081 Drawings\123081 Drawings Architecture\123081 20250912 Jass Gill Condos Arch Permit Plans - Building B.vwx



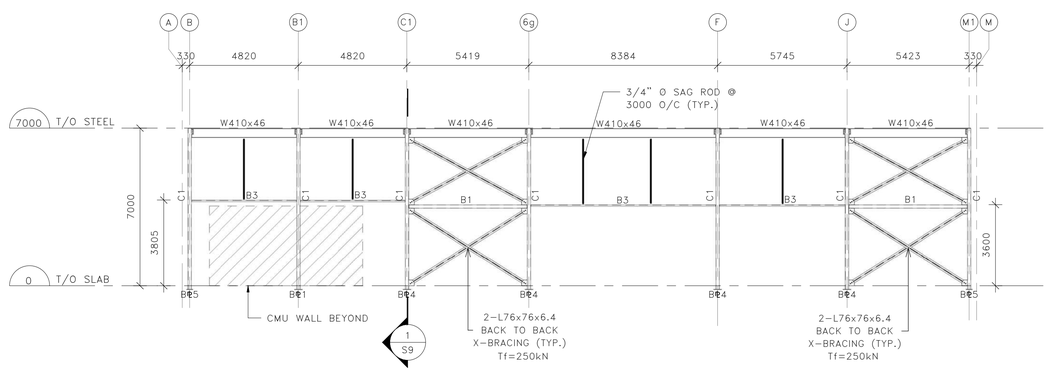
1 S8 EAST STRUCTURAL ELEVATION
SCALE: 1 : 125



2 S8 WEST STRUCTURAL ELEVATION
SCALE: 1 : 125



3 S8 NORTH STRUCTURAL ELEVATION
SCALE: 1 : 125



4 S8 SOUTH STRUCTURAL ELEVATION
SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

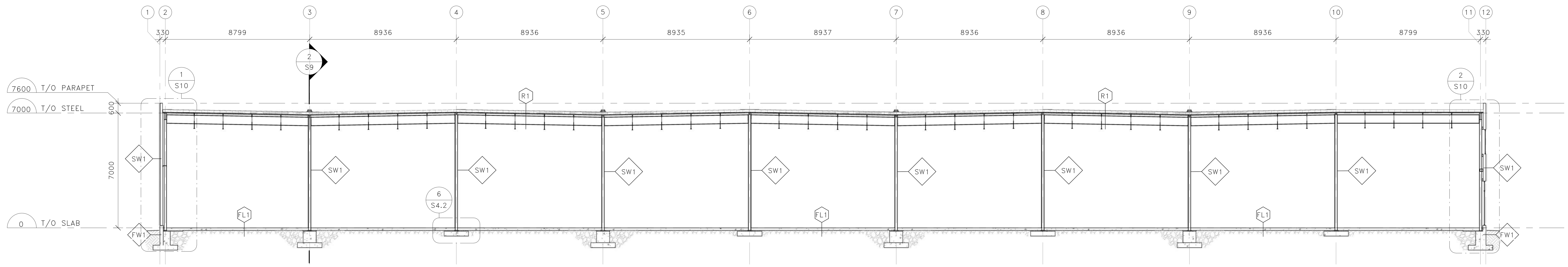
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL ELEVATIONS

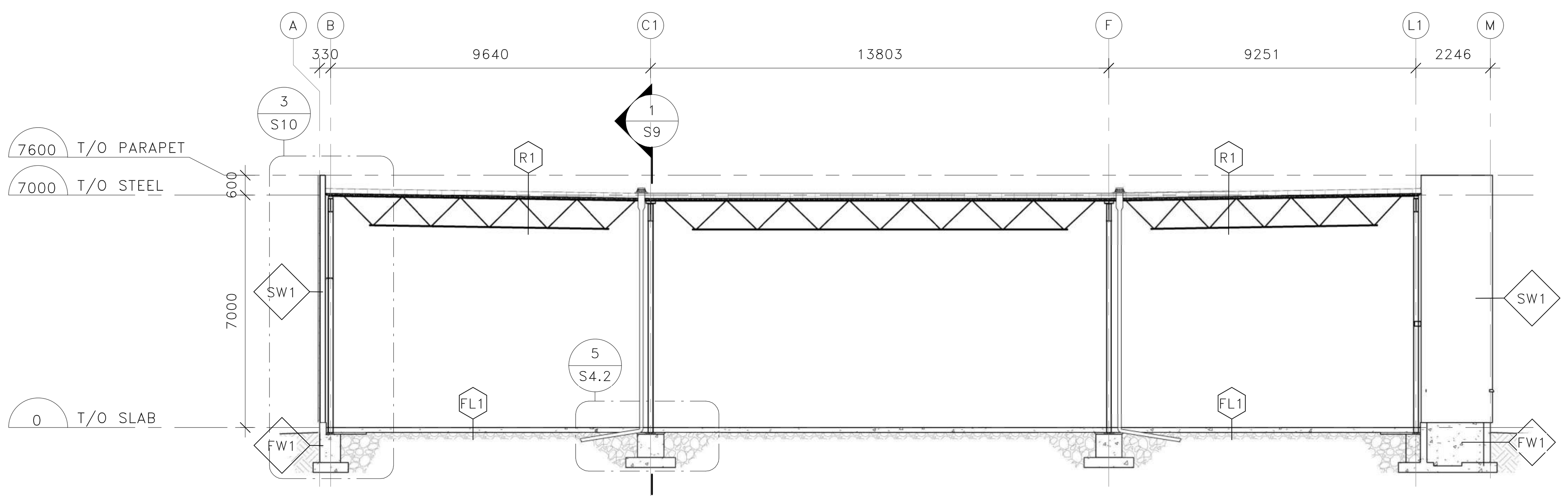
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S8



1 STRUCTURAL SECTION PERPENDICULAR TO OWSJ
S9 SCALE: 1 : 125



2 STRUCTURAL SECTION PARALLEL TO OWSJ
S9 SCALE: 1 : 125

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

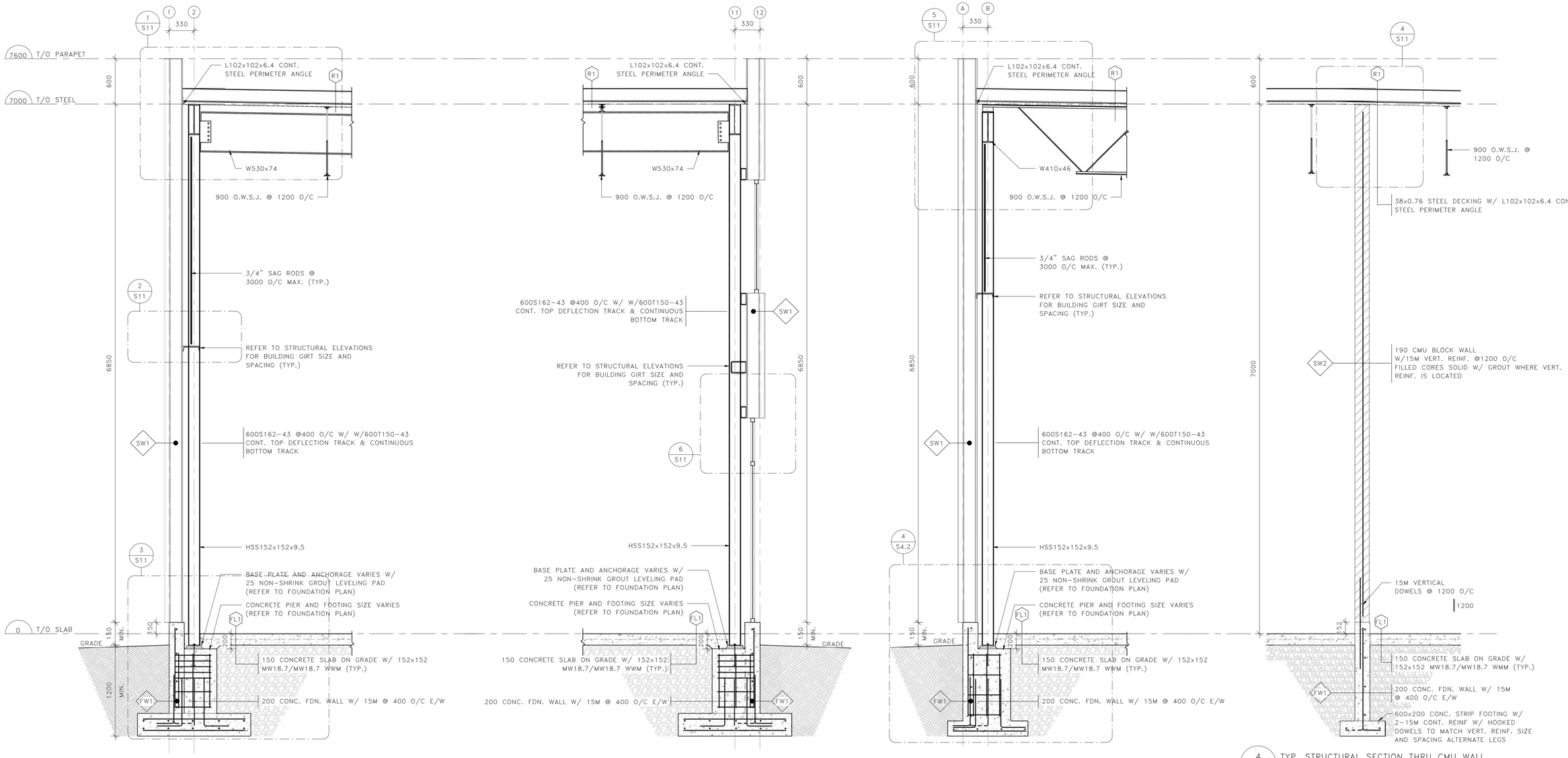
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL SECTIONS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

D. D. BIDDLE 31/10/25 PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S9



1 S10 TYP. EXTERIOR STRUCTURAL WALL SECTION AT X-BRACING
SCALE: 1 : 25

2 S10 TYP. STRUCTURAL WINDOW WALL SECTION
SCALE: 1 : 25

3 S10 TYP. EXTERIOR STRUCTURAL WALL SECTION AT PIER
SCALE: 1 : 25

4 S10 TYP. STRUCTURAL SECTION THRU CMU WALL
SCALE: 1 : 25

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

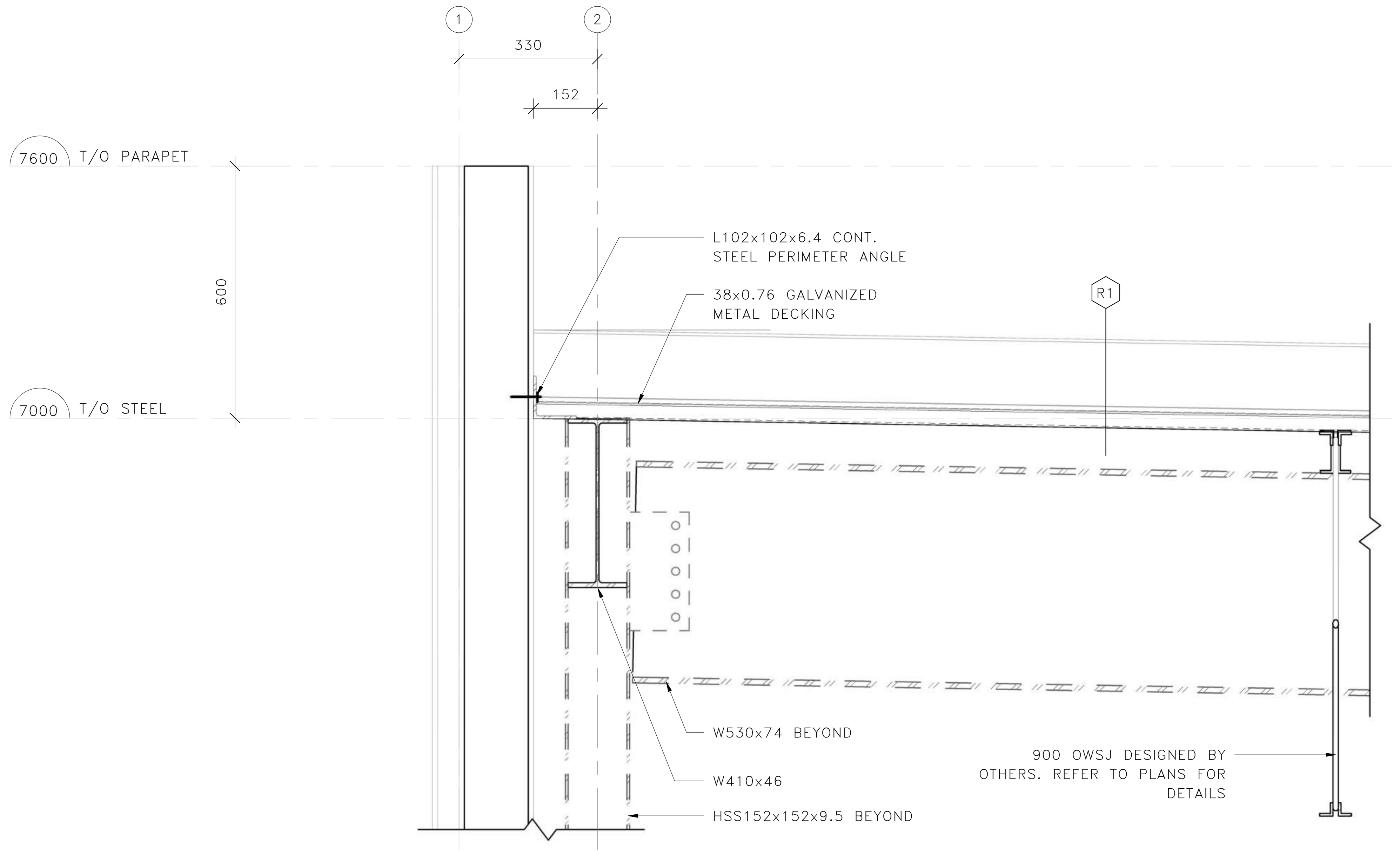
JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL WALL SECTIONS

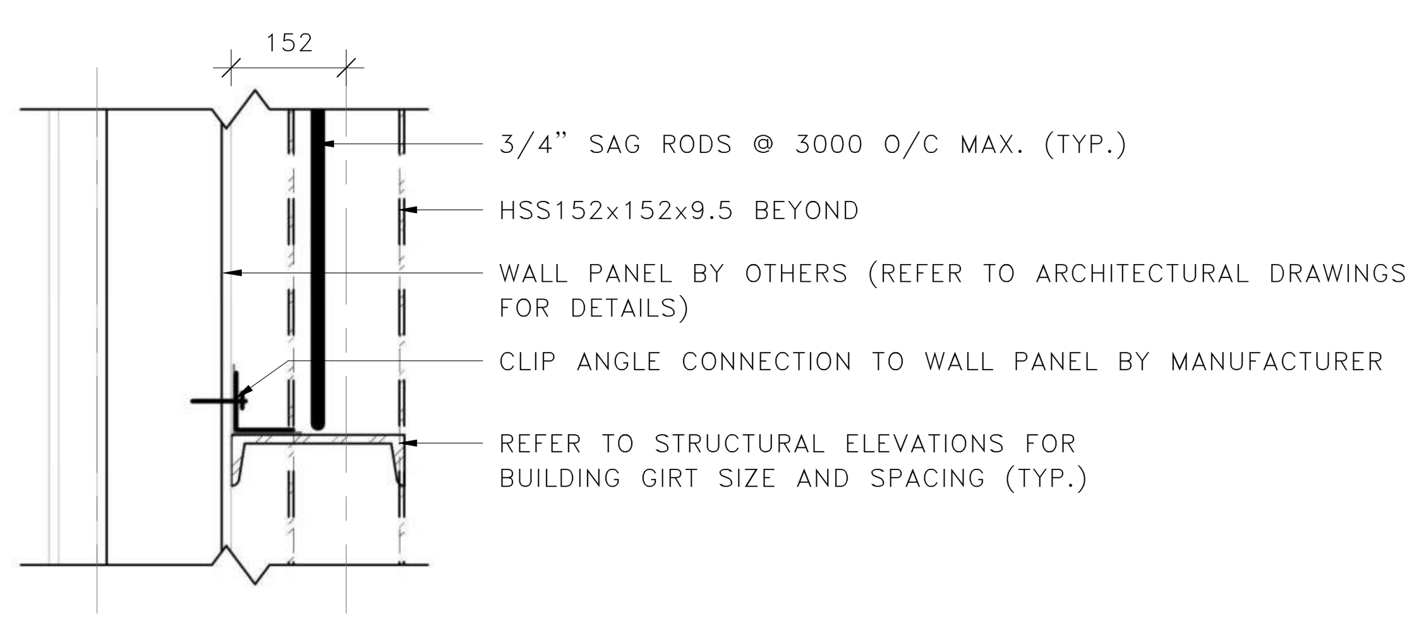
D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENCED PROFESSIONAL ENGINEER
D. D. BIDDLE
31/10/25
PROVINCE OF ONTARIO

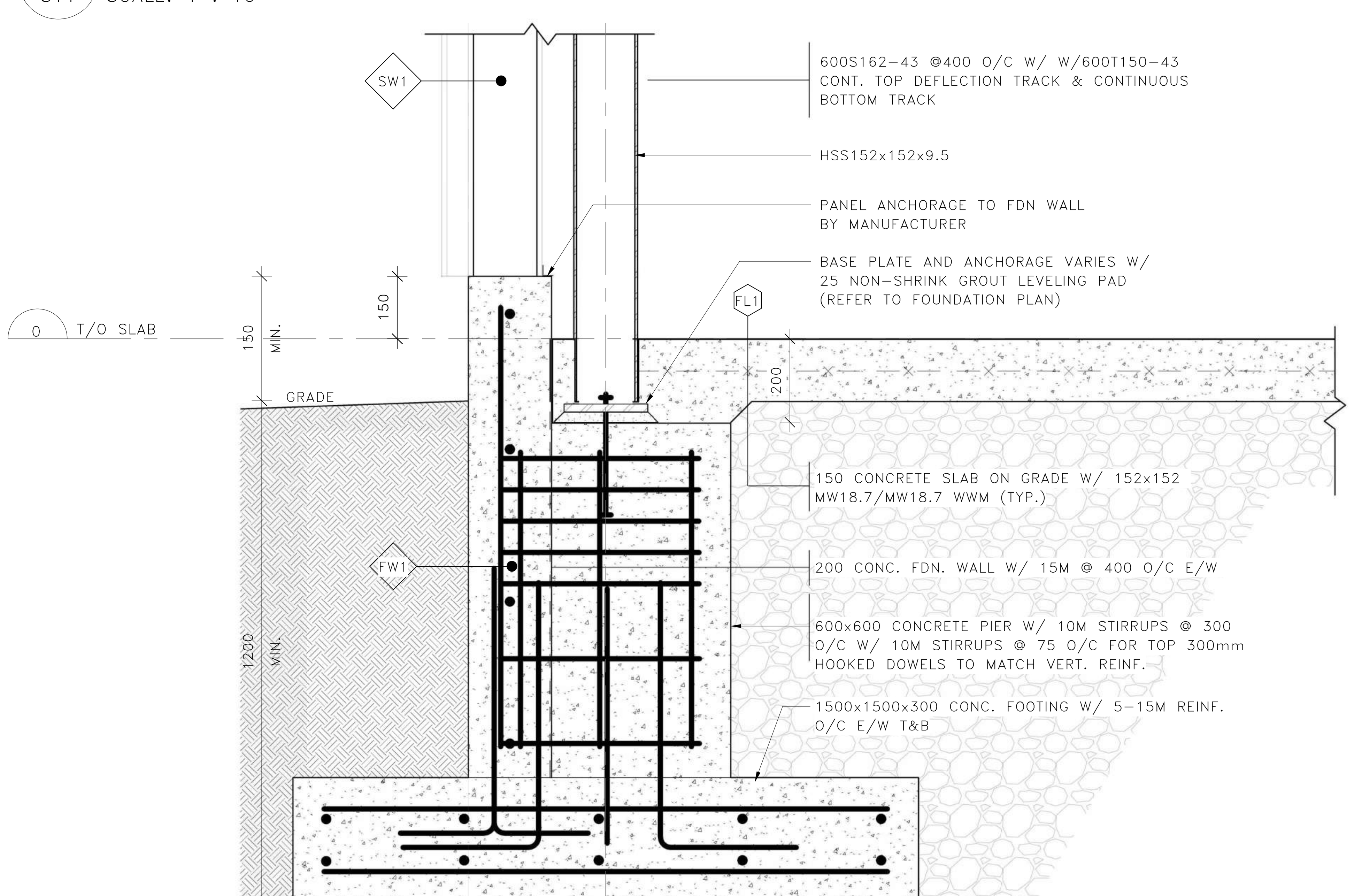
SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S10



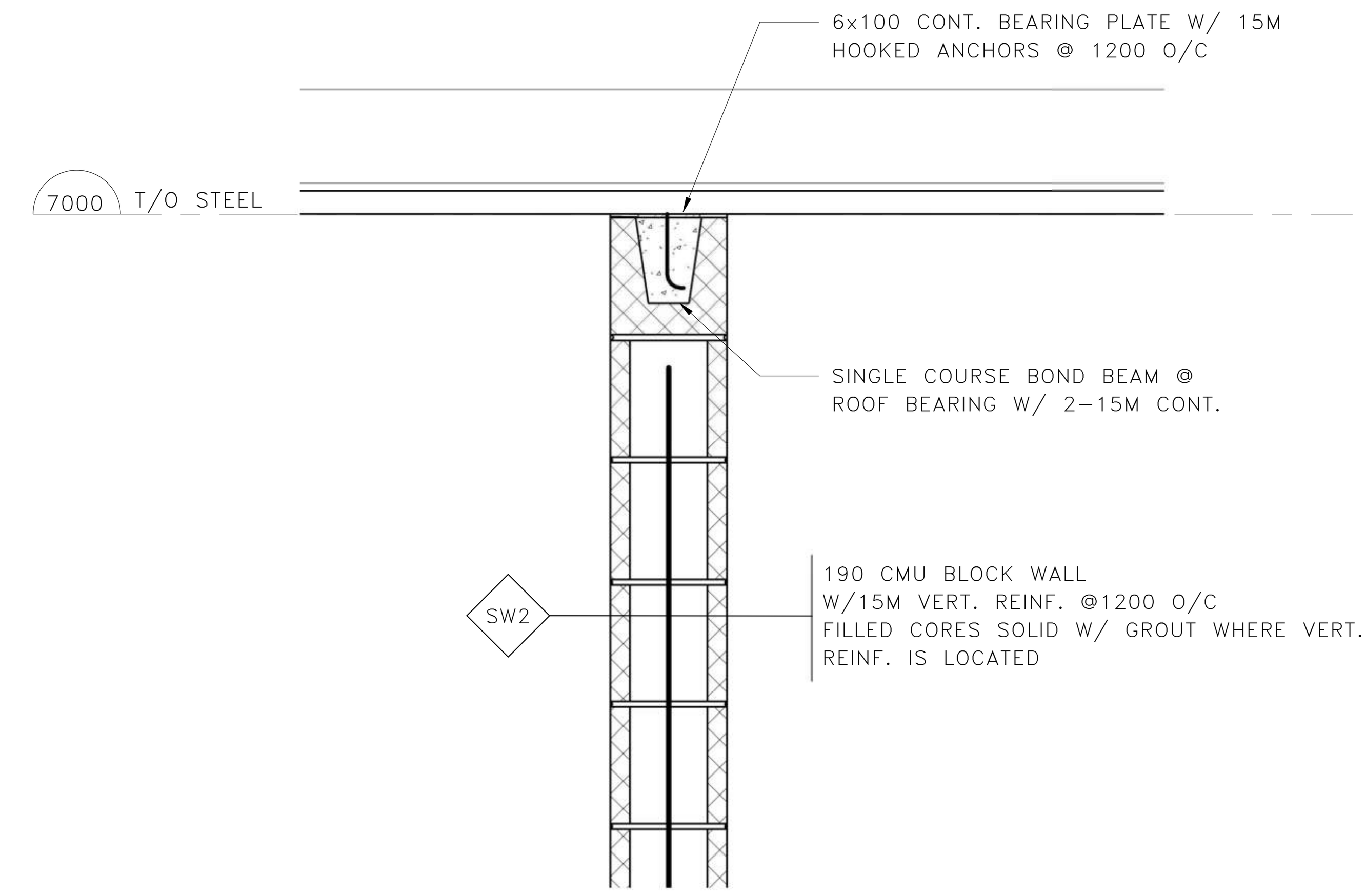
1 TYP. STRUCTURAL ROOF FRAMING DETAIL PARALLEL TO OWSJ
S11 SCALE: 1 : 10



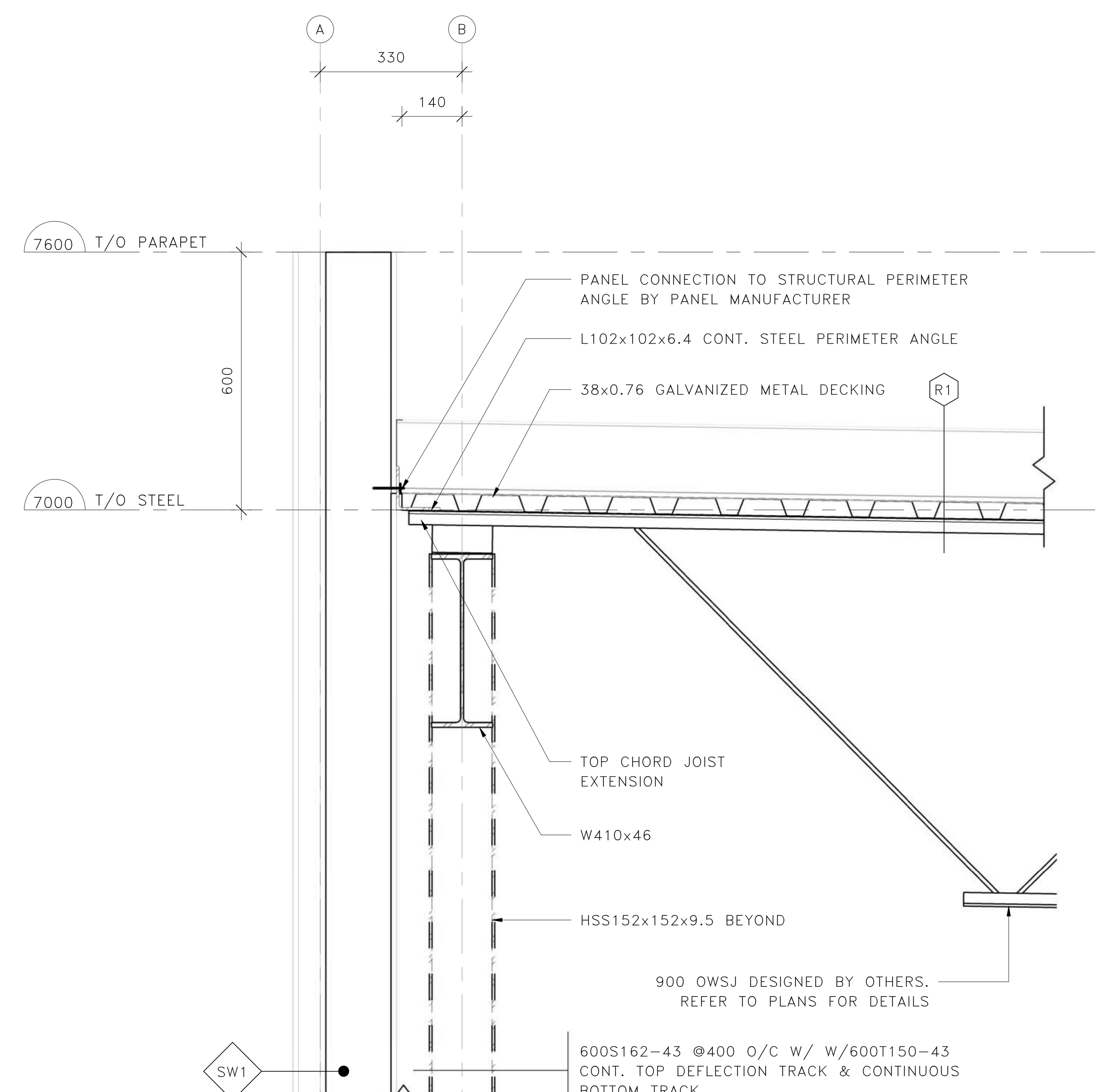
2 TYP. STRUCTURAL WALL PANEL CONNECTION TO CHANNEL DETAIL
S11 SCALE: 1 : 10



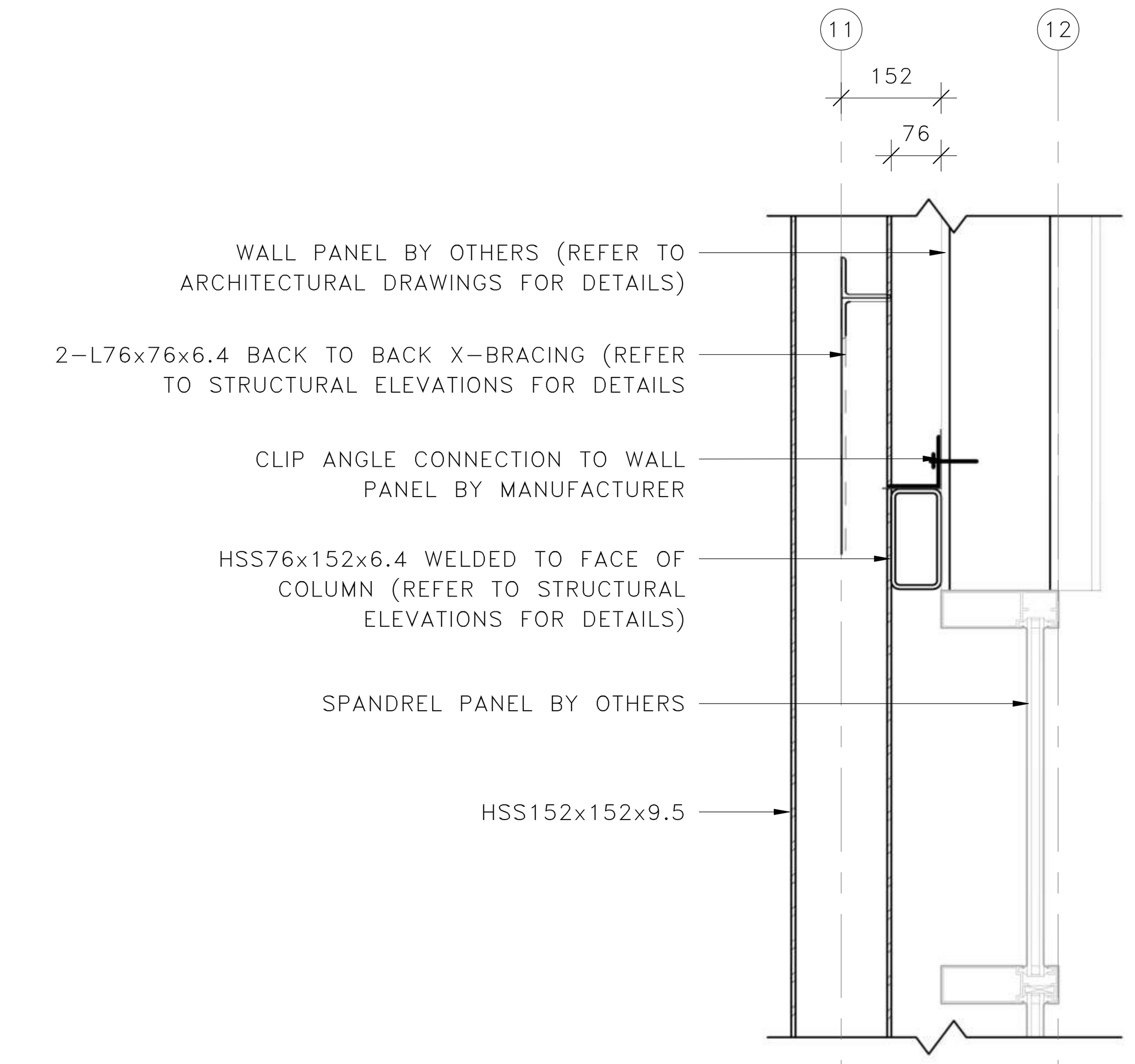
3 TYP. STRUCTURAL EXTERIOR PIER AT X-BRACING DETAIL
S11 SCALE: 1 : 10



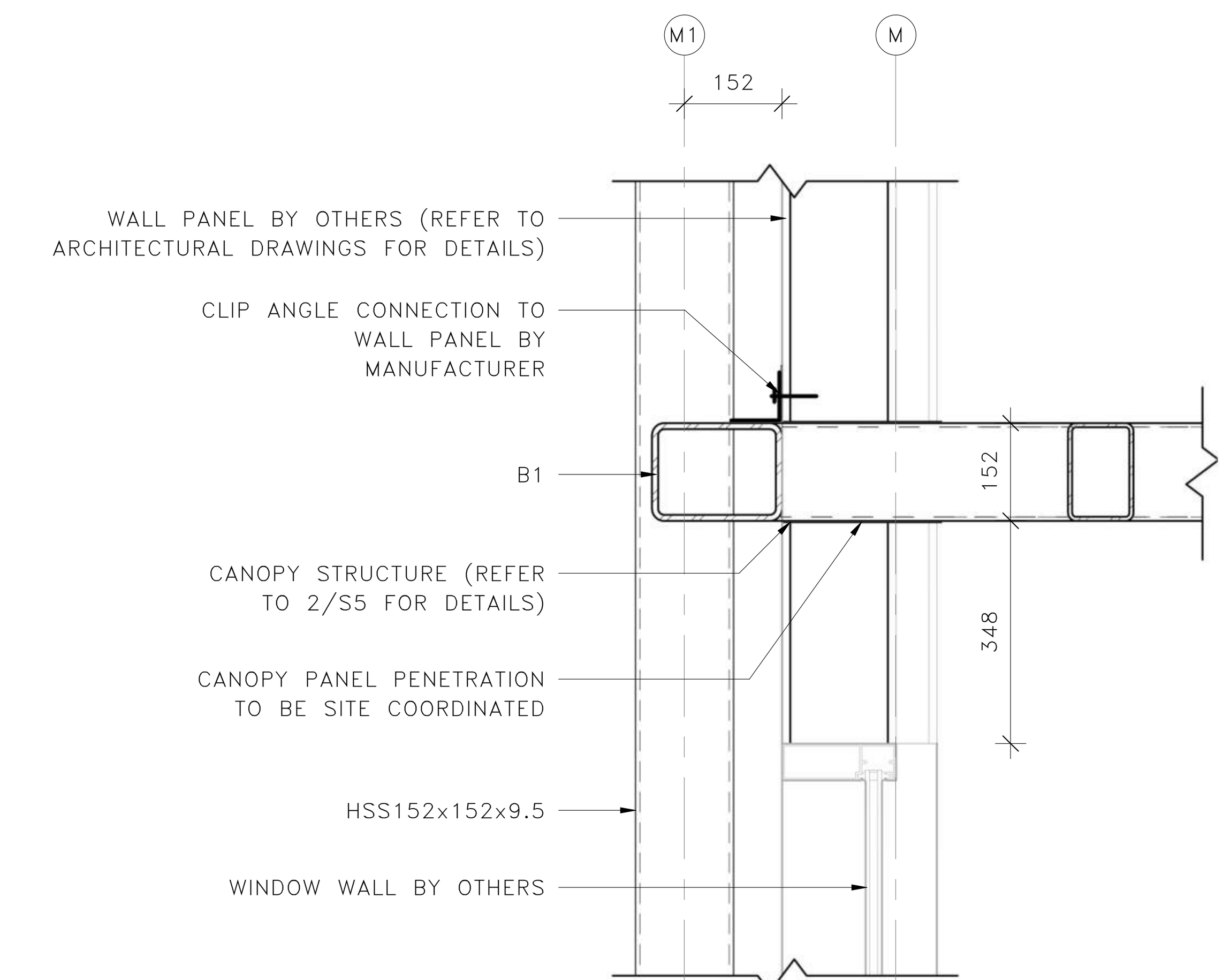
4 CMU CONNECTION AT ROOF
S11 SCALE: 1 : 10



5 TYP. STRUCTURAL ROOF FRAMING DETAIL PERPENDICULAR TO OWSJ
S11 SCALE: 1 : 10



6 TYP. STRUCTURAL WINDOW WALL FRAMING AT X-BRACING DETAIL
S11 SCALE: 1 : 10



7 TYP. STRUCTURAL CANOPY/WALL PANEL CONNECTION
S11 SCALE: 1 : 10

NO.	SUBMISSION	DATE
1	ISSUED FOR BUILDING PERMIT	25/10/29

JASS GILL INDUSTRIAL CONDOS – BUILDING B
725 LAKE ROAD, CLARINGTON, ON.

STRUCTURAL DETAILS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER D. D. BIDDLE 31/10/25 PROVINCE OF ONTARIO

SCALE:	AS SHOWN
DESIGNED BY:	K.R.O.G.
CHECKED BY:	D.D.B.
PROJECT NO.:	123081
DRAWING NO.:	S11