

GENERAL NOTES

- CONFORM TO THE REQUIREMENTS OF THE LATEST ONTARIO BUILDING CODE (OBC) INCLUDING ALL THE LATEST STANDARDS REFERENCED THEREIN, AND ANY APPLICABLE ACTS OF AUTHORITY HAVING JURISDICTION. THE LATEST VERSION OF ALL STANDARDS AND CODES LISTED BELOW SHALL BE USED.
- READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER SPECIFICATIONS AND CONTRACT DOCUMENTS.
- WHERE DISCREPANCIES EXIST BETWEEN CONTRACT DOCUMENTS, INCLUDING DRAWINGS AND APPLICABLE CODES AND ACTS, THE MOST STRINGENT SHALL GOVERN. CONTRACTOR SHALL CHECK ALL DIMENSIONS ON WORKING DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THESE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT AND THERE ARE NO REPRESENTATIONS OF ANY KIND MADE BY THE DESIGN PROFESSIONAL TO ANY PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS NOT ENTERED INTO A CONTRACT.
- THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISION COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED 'ISSUED FOR CONSTRUCTION' BY MTE CONSULTANTS.
- UNDER NO CIRCUMSTANCES ARE THESE DRAWINGS TO BE SCALED, INCLUDING FOR PREPARATION OF SHOP DRAWINGS, CONSTRUCTION LAYOUT, OR BIDDING PURPOSES. ERRORS MADE BY PERSONS SCALING THESE DRAWINGS SHALL NOT BE THE RESPONSIBILITY OF MTE CONSULTANTS.
- SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF PITS, BASES, HOUSE KEEPING PADS, SLUMPS, TRENCHES, DEPRESSIONS, GROOVES, CURBS, CHAMFERS AND SLOPES NOT SHOWN ON STRUCTURAL DRAWINGS.
- BEFORE PROCEEDING WITH WORK, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIARIZED WITH ALL CHARACTERISTICS AFFECTING NEW AND EXISTING CONSTRUCTION. ANY CHANGES, ALTERATIONS OR REVISIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- SUBSTITUTIONS FROM SPECIFIED PRODUCTS AND MATERIALS MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO ORDERING OF MATERIALS. THE CONTRACTOR SHALL REIMBURSE ALL CONSULTANTS FOR ADDITIONAL COSTS INCURRED AS A RESULT OF REVIEWING ANY CHANGES MADE TO THE CONTRACT DOCUMENTS.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS - O. REG. 213/91.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN ALL SHORING AND TEMPORARY BRACING AS PER O. REG 213/91 AND THE CONTRACTOR SHALL RETAIN AN ENGINEER AS REQUIRED.
- THE CONTRACTOR SHALL RETAIN AN INDEPENDENT INSPECTION AND TESTING COMPANY TO ENSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. REQUIRED TESTING SHALL BE AS PER THE TESTING AND INSPECTION TABLE BELOW.
- MTE CONSULTANTS WILL PROVIDE GENERAL REVIEW OF CONSTRUCTION IN ACCORDANCE WITH THE PERFORMANCE STANDARDS OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ONTARIO BY MEANS OF A RATIONAL SAMPLING PROCEDURE TO DETERMINE WHETHER THE CONSTRUCTION OF THAT WORK SHOWN ON THE MTE DRAWINGS IS IN GENERAL CONFORMITY WITH THE PLANS, SKETCHES, DRAWINGS, AND SPECIFICATIONS FORMING PART OF THE CONTRACT DOCUMENTS PREPARED BY MTE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL AND THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE CONTRACT. 'MTE' SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- IT IS THE RESPONSIBILITY OF BOTH THE OWNER AND THE CONTRACTOR TO NOTIFY THE ENGINEER OF CONSTRUCTION PROGRESS SO THE ENGINEER CAN COMPLETE GENERAL REVIEWS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A CONSTRUCTION SCHEDULE PRIOR TO STARTING THE WORK. GENERALLY, REVIEWS BY THE ENGINEER WILL BE REQUIRED FOR REBAR PRIOR TO CONCRETE PLACEMENT, FOOTING AND FOUNDATIONS PRIOR TO BACKFILLING, AND ABOVE GRADE FRAMING PRIOR TO INSTALLATION OF INTERIOR FINISHES.

FOUNDATIONS

- ALL BOREHOLE INFORMATION AND GEOTECHNICAL DATA HAS BEEN OBTAINED FROM THE SOIL INVESTIGATION PERFORMED BY CAMBIUM INC. AS REPORTED IN THEIR GEOTECHNICAL INVESTIGATION REPORT NO. 17940.001 DATED NOVEMBER 8, 2023. READ THESE REPORTS, AND BE THOROUGHLY FAMILIARIZED WITH ITS FINDINGS.
- ALL COLUMN AND WALL FOOTINGS SHALL BEAR DIRECTLY ON ENGINEERED FILL, WITH A MINIMUM SOIL BEARING CAPACITY OF 150 kPa (SLS) AND 175 kPa (ULS) AT THE DEPTHS INDICATED ON THE DRAWINGS. EXISTING FILL MAY BE ENCOUNTERED. USE OF THIS FILL MUST BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION OF FOOTINGS.
- NO FOUNDATION MAY BE POURED BEFORE THE BEARING MATERIAL HAS BEEN APPROVED BY THE GEOTECHNICAL ENGINEER. NOTIFY THE GEOTECHNICAL ENGINEER A MINIMUM OF 24 HOURS BEFORE THE INTENDED CONCRETE POUR.
- REMOVE ALL TOPSOIL, ORGANIC LOOSE FILL AND OTHER DELETERIOUS MATERIAL FROM BUILDING AREA BEFORE STARTING CONSTRUCTION.
- WHERE APPROVED, GRANULAR FILL UNDER ALL FOOTINGS ON GRADE SHALL BE COMPACTED IN 150 mm (6") LAYERS TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
- FOUND NEW FOOTINGS WHICH ARE LOCATED ADJACENT TO EXISTING FOOTINGS, AT THE SAME ELEVATION AS THE EXISTING FOOTINGS, UNLESS NOTED OTHERWISE, ANY NECESSARY PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT EXISTING FOOTINGS ARE NOT DISTURBED OR UNDERMINED IN ANY WAY DURING EXCAVATION.
- FOUND ALL FOOTINGS BELOW THE LEVEL AT WHICH POTENTIAL DAMAGE RESULTING FROM FROST ACTION CAN OCCUR FOR THE FINISHED STRUCTURE, BUT A MINIMUM 1200 mm (4 FT.) BELOW FINISHED EXTERIOR GRADE, UNLESS NOTED OTHERWISE, UNDER NO CIRCUMSTANCES SHOULD DEPTH BE LESS THAN LOCAL FROST PENETRATION REQUIREMENTS.
- PROTECT ALL SOIL FROM FREEZING ADJACENT TO AND BELOW ALL FOUNDATIONS DURING CONSTRUCTION.
- INSULATION IS SHOWN WHERE REQUIRED FOR PROTECTION OF THE FOUNDATIONS FROM DAMAGE DUE TO FROST ACTION ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR FOUNDATION INSULATION NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SLABS ON GRADE:
  - PLACE SLABS ON GRADE ON MATERIAL CAPABLE OF SAFELY SUPPORTING 25 kPa WITHOUT SETTLEMENTS RELATIVE TO THE BUILDING FOUNDATIONS.
  - PROOF-ROLL EXISTING FILL MATERIAL. REMOVE ANY LOOSE OR SOFTENED AREAS BENEATH SLAB ON GRADE BEFORE PLACING GRANULAR FILL.
  - APPROVED GRANULAR FILL UNDER ALL FLOOR SLABS ON GRADE SHALL BE COMPACTED IN 150 mm (6") LAYERS TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
  - BEFORE CASTING THE SLAB PLACE 200 mm (8") OF 19 mm (3/4") CLEAR CRUSHED STONE OVER THE SUB-BASE AND THOROUGHLY ROLL AND CONSOLIDATE TO THE LEVELS REQUIRED.
  - WHERE THE SLAB ON GRADE IS USED TO LATERALLY RESTRAIN THE TOP OF AN EARTH RETAINING WALL, ADEQUATELY SHORE THE WALL UNTIL THE SLAB HAS BEEN CAST AND ATTAINED 70% OF ITS SPECIFIED STRENGTH.
  - PROVIDE 25 mm (1") RIGID STYROFOAM INSULATION BENEATH FLOOR SLABS IN UNHEATED AREAS.
- CARRY OUT BACKFILLING AGAINST FOUNDATION WALLS WHERE THERE IS GRADE ON BOTH SIDES IN SUCH A MANNER THAT THE LEVEL OF BACKFILLING ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500 mm (20") DIFFERENT FROM THE LEVEL ON THE OTHER SIDE OF THE WALL, EXCEPT WHERE TEMPORARY SHORING FOR THE WALL IS PROVIDED.
- DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVERED RETAINING WALLS) UNTIL THE WALLS AND THE FLOOR CONSTRUCTIONS AT THE TOP AND BOTTOM OF THE WALLS HAVE BEEN CAST AND HAVE ATTAINED 100% OF THEIR DESIGN STRENGTH.
- IN NO CASE SHALL HORIZONTAL CONTROL JOINTS BE ALLOWED IN ANY VERTICALLY SPANNING CONCRETE WALLS WITHOUT THE CONSENT OF THE ENGINEER.

CONCRETE AND REINFORCING

- ALL CONCRETE WORK TO CONFORM TO THE LATEST REQUIREMENTS OF CSA STANDARDS A23.1, A23.2 & A23.3.
- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA G30.18 GRADE 400W FOR REINFORCING STEEL AND BE DEFORMED HI-BOND HARD GRADE WITH MINIMUM YIELD STRENGTH OF Fy = 400 MPa.
- DETAILING AND PLACING OF ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE REINFORCING STEEL INSTITUTE OF CANADA 'MANUAL OF STANDARD PRACTICE'.
- ALL REINFORCING STEEL SHALL BE SHOP FABRICATED TO INCLUDE HOOKS AND BENDS AS REQUIRED.
- ALL REINFORCING LAP SPLICES SHALL CONFORM TO THE LATEST CSA STANDARD A23.3 AND ALL BAR SPLICES SHALL BE CLASS 'B' TENSION SPLICES (U.N.O.).
  - BAR SPLICES SHALL BE LESS THAN IN THE TABLE BELOW.
  - INCREASE HORIZONTAL SPLICE LENGTHS IN THE TABLE BY 1.3 WHERE MORE THAN 300MM (12") OF FRESH CONCRETE IS CAST BELOW THE SPLICE.

REBAR SIZE	TENSION SPLICE			COMPRESSION SPLICE
	25 MPa	30 MPa	35 MPa	
10M	400 (16")	400 (16")	400 (16")	450 (18")
15M	600 (24")	600 (24")	600 (24")	450 (18")
20M	800 (32")	800 (32")	800 (32")	600 (24")
25M	1200 (48")	1100 (44")	1000 (40")	750 (30")
30M	1400 (56")	1300 (52")	1200 (48")	900 (36")
35M	1650 (66")	1500 (60")	1400 (56")	1050 (42")

- ALL DOWEL EMBEDMENT SHALL MATCH THE ABOVE TENSION SPLICE LENGTH, UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL FABRICATION AND PLACEMENT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BEFORE FABRICATION.
- PLACE REINFORCING BARS SYMMETRICALLY OVER SUPPORTS AND SYMMETRICALLY IN SPANS, UNLESS NOTED OTHERWISE.
- REINFORCING BARS, DOWELS AND ANCHOR BOLTS SHALL BE SECURELY TIED IN PLACE SO AS TO MAINTAIN THEIR EXACT POSITION BEFORE AND DURING PLACEMENT OF CONCRETE. BAR SUPPORTS SHALL ONLY BE MADE OF PRECAST CONCRETE BLOCKS, PLASTIC OR WIRE.
- ALL OIL, GREASE, MUD AND DEBRIS SHALL BE ENTIRELY REMOVED FROM THE REINFORCING STEEL AND ANCHOR BOLTS PRIOR TO THE PLACEMENT OF CONCRETE. REBAR SHALL BE STORED ON SITE IN A MANNER TO BE KEPT CLEAN AND FREE FROM DELETERIOUS MATERIALS.
- WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
- CONFORM TO THE CONCRETE COVER REQUIREMENTS OF CSA A23.1 AND THE FOLLOWING, UNLESS NOTED OTHERWISE:
  - CONCRETE CAST AGAINST EARTH: 75 mm (3")
  - PIERS AND WALL: 40 mm (1.5")
  - EXPOSED TO DE-ICING CHEMICALS: 60 mm (2.5")
  - INTERIOR BEAMS: 30 mm
  - INTERIOR SLABS: 25 mm (1")
- CONCRETE PROPERTIES:
  - ALL CONCRETE SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 35 MPa UNLESS OTHERWISE SPECIFIED.
  - CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE AT JOB SITE.
- WHEN SUPER-PLASTICIZERS ARE USED, THE SLUMP MAY BE INCREASED BEYOND THE VALUES GIVEN, BUT SHALL BE BELOW THE POINT WHERE SEGREGATION WILL OCCUR. THE COST OF SUPER-PLASTICIZERS SHALL BE INCLUDED IN THE COST OF CONCRETE.
- DO NOT ADD WATER TO CONCRETE UNLESS WRITTEN APPROVAL GIVEN BY THE ENGINEER. IF HIGHER SLUMP CONCRETE IS DESIRED, CONCRETE SUPPLIER SHALL DESIGN AND SUPPLY ACCORDINGLY.
- HOT AND COLD WEATHER CONCRETING SHALL COMPLY WITH ALL REQUIREMENTS OF CSA STANDARD A23.1. CALCIUM CHLORIDE ADDITIVES WILL NOT BE PERMITTED.
- ALL CONCRETE FORMWORK TOLERANCES AND SURFACE FINISHES SHALL COMPLY WITH CSA STANDARD A23.1 UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS.
- ALL CONCRETE FORMS TO BE WET THOROUGHLY BEFORE POURING CONCRETE.
- WATER CURING OF CONCRETE IS RECOMMENDED. CURE AND PROTECT ALL CONCRETE IN ACCORDANCE WITH CSA A23.1 SECTION 7.4.
- ALL CONCRETE EXCEPT SLABS ON GRADE 150mm (6") THICK OR LESS SHALL BE MECHANICALLY VIBRATED SO AS TO COMPLETELY FILL THE FORM WITHOUT CAUSING UNDESIRABLE SEGREGATION. ANY DEFECTS IN THE HARDENED CONCRETE SHALL BE SATISFACTORILY REPAIRED OR SHALL BE REPLACED.
- CONTROL JOINTS IN SLABS ON GRADE SHALL BE 1/4 THE THICKNESS OF THE SLAB. SPACING OF CONTROL JOINTS IN CONCRETE SLABS ON GRADE SHALL NOT EXCEED THE GREATER OF 25 TIMES THE THICKNESS OF THE SLAB OR 9000 MM (10'-0") UNLESS NOTED ON THE DRAWINGS.
- WHERE STEEL BEARING PLATES ARE SHOWN ON THE DRAWINGS, THEY SHALL BE ANCHORED WITH A MINIMUM OF TWO 12mm DIA X 450mm LONG + 50mm (1/2" DIA X 18" LONG + 2") HOOKED ANCHOR RODS WELDED TO THE PLATES AND EMBEDDED INTO THE CONCRETE.

CONCRETE	MIN 28 DAYS STRENGTH (MPa) U.N.O.	SLUMP mm(in)	AIR CONTEN T (%)	MAX AGGREGATE SIZE (in)	EXPOSURE CLASS
EXTERIOR FOUNDATION WALLS, RETAINING WALLS (UNO), FOOTINGS	25	80 (±30)	4-7	3/4"	F-2
INTERIOR PIERS / WALLS/FOOTINGS (UNO)	25	80 (±30)	0	3/4"	N
INT. S.O.G.	25	80 (±30)	0	3/4"	N
FREEZE THAW EXPOSURE	25	80 (±30)	4-7	3/4"	F-2
EXTERIOR SLAB (UNREINFORCED)	32	80 (±30)	5-8	3/4"	C-2
EXTERIOR SLAB (REINFORCED)	35	80 (±30)	5-8	3/4"	C-1
NON-SHRINKABLE GROUT	30	AS PER MANUF. REC.	0	-	N
LEAN MIX CONCRETE	8	80 (±30)	0	-	N
EXTERIOR FOOTINGS	25	80 (±30)	4-7	3/4"	F-2

CONCRETE STRENGTHS SHOWN ON WALL ELEVATIONS GOVERN FOR THOSE ELEMENTS.

- CHECK ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, LANDSCAPE AND ALL OTHER RELEVANT DRAWINGS FOR LOCATIONS AND SIZES OF BOLTS, SLEEVES AND OPENINGS.
- SUPPLY AND SET ANCHOR BOLTS, SLEEVES, PIPE HANGERS, JOISTS AND OTHER INSERTS AND OPENINGS AS INDICATED OR SPECIFIED ELSEWHERE. FOR BEAMS AND COLUMNS: NO SLEEVES, DUCTS, PIPES OR OTHER OPENINGS SHALL PASS VERTICALLY OR HORIZONTALLY EXCEPT WHERE EXPLICITLY DETAILED ON STRUCTURAL DRAWINGS OR WHERE APPROVED IN ADVANCE BY ENGINEER. FOR SLABS AND WALLS: ALL SLEEVES AND OPENINGS GREATER THAN 100 mm (4") IN ANY DIMENSION OR REQUIRING THE CUTTING OF ANY REINFORCEMENT, AND NOT INDICATED ON STRUCTURAL DRAWINGS, MUST BE APPROVED BY THE ENGINEER. FOR MULTIPLE OPENINGS OR SLEEVES: IF WITHIN 600 mm (24") OF EACH OTHER CONSULT ENGINEER FOR DIRECTION.

- CAST IN ANCHOR BOLTS SHALL CONFORM TO THE LATEST CSA STANDARD G40.21 OR ASTM F1554 WITH A MINIMUM YIELD STRENGTH OF 250 MPa AND SHALL BE SET TRUE AS TO LOCATION, ELEVATION AND PROJECTION TO THE FOLLOWING TOLERANCES: ANCHOR BOLT LOCATION = ± 3mm (1/8"), ANCHOR BOLT PROJECTION = ± 6mm (1/4").
- CONSTRUCTION JOINTS FOR WALLS ARE BASED UPON VERTICAL JOINTS AT A MAXIMUM SPACING OF 10000 mm (30'-0"), UNLESS CONTROL JOINTS ARE PROVIDED AS PER TYPICAL DETAIL. TOTAL LENGTH OF POUR TO BE DISCUSSED WITH ENGINEER PRIOR TO PROCEEDING.
- CONSTRUCTION JOINTS FOR WALLS, SLABS, AND BEAMS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE CONSTRUCTION. GENERALLY JOINTS IN SLABS SHALL BE AT RIGHT ANGLES TO THE SPANS, AT MID SPAN IF POSSIBLE AND BE CLEAR OF SUPPORTS AND POINT LOADS.
- INSERTS, FRAME-OUTS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES, SHALL BE INSTALLED AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT SHALL NOT IMPAIR THE STRUCTURAL STRENGTH OF THE SYSTEM, BE SO INSTALLED THAT HEY SHALL NOT REQUIRE THE CUTTING, BENDING, OR DISPLACEMENT OF THE REINFORCING OTHER THAN AS SHOWN ON THE TYPICAL DETAILS.
- ELECTRICAL CONDUITS SHALL NOT PASS THROUGH A COLUMN, SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 SLAB THICKNESS OR WALL OR BEAM WHICH IT IS EMBEDDED, SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTER UNLESS APPROVED AND HAVE A MINIMUM CONCRETE COVER OF 25 mm (1") AND UNLESS SPECIFICALLY PERMITTED OTHERWISE, SHALL NOT RUN HORIZONTALLY IN A CONCRETE WALL.
- TYPE 'S' CONCRETE TO BE USED FOR ALL ELEMENTS.

SHOP DRAWING REVIEW

- ERECTION AND FABRICATION SHOP DRAWINGS FOR ALL BUILDING COMPONENTS AS LISTED IN THE REQUIRED SUBMITTALS TABLE AND ANY RELATED WORKS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE COMMENCING WITH FABRICATION.
- AS PART OF THEIR FIELD SERVICES, MTE CONSULTANTS ('MTE') WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON MTE CONSULTANT'S DRAWINGS BY MEANS OF APPROPRIATE RATIONAL SAMPLING PROCEDURES AND COMMENT ON THE ACCURACY WITH WHICH THE CONTRACTOR PREPARED THE DRAWINGS.
- REVIEW OF THE SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND IS NOT AN APPROVAL OF THE DETAIL DESIGN INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INFORMATION PERTAINING TO THE FABRICATION PROCESS TECHNIQUES OF CONSTRUCTION AND INSTALLATION AND FOR COORDINATION OF THE WORK OF ALL SUB-TRADES.
- THE APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF THE FITTING OF BUILDING COMPONENTS. ANY DISCREPANCIES IN THE SHOP DRAWINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL SHOP DRAWINGS MUST BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN ONTARIO UNLESS NOTED OTHERWISE IN THE SUBMITTALS TABLE BELOW. UNSEALED SHOP DRAWINGS WILL NOT BE REVIEWED UNLESS ALTERNATIVE ARRANGEMENTS HAVE BEEN AGREED UPON.

STRUCTURAL ABBREVIATIONS

A.B	ANCHOR BOLT	kN	KILONEWTON
ALT.	ALTERNATE	kPa	KILOPASCAL
ALUM.	ALUMINIUM	L	ANGLE
ANCHS	ANCHORS	L.L.H.	LONG LEG HORIZONTAL
APPROX.	APPROXIMATELY	L.L.V.	LONG LEG VERTICAL
ARCH.	ARCHITECTURAL	L.P.	LOW POINT
B/F	BOTTOM FACE	LG.	LONG
B.F.L	BASE PLATE	MAX.	MAXIMUM
BLK.	BLOCK	MECH.	MECHANICAL
BM.	BEAM	METL.	METAL
BRG.	BEARING	MIN.	MINIMUM
BRG.	BOTTOM	MISC.	MISCELLANEOUS
BT	BENT PLATE	m	METRE
C/C	COMPLETE WITH CENTRE TO CENTRE	mm	MILLIMETRE
C.J.	CONTROL JOINT	MPa	MEGAPASCAL
CLG.	CEILING	N.I.C.	NOT IN CONTRACT
COL.	COLUMN	N.T.S.	NOT TO SCALE
CONC.	CONCRETE	No.	NUMBER
CONN.	CONNECTION	O.C.	ON CENTRE
CONSTRN	CONSTRUCTION	O.D.	OUTSIDE DIAMETER
CONT.	CONTINUOUS	O.H.	OVERHEAD
DEMO.	DEMOLITION	OWSJ	OWEN WEB STEEL JOIST
DET.	DETAIL	OPNG.	OPENING
DIAM.	DIAMETER	PARTN	PARTITION
DIM.	DIMENSION	PL	PLATE
DO	DIDO	R.C.	REINFORCED CONCRETE
DEP.	DEEP	R.D.	ROUGH DRAIN
DWG.	DRAWING	R.O.	ROUGH OPENING
DWL.	DOWEL	REF.	REFERENCE
E.F.	EACH FACE	REINF.	REINFORCED
E.J.	EXPANSION JOINT	REQD.	REQUIRED
ELEC.	ELECTRICAL	S.C.	SAWCUT
E.S.	EACH SIDE	SECT.	SECTION
E.W.	EACH WAY	S.L.H.	SHORT LEG HORIZONTAL
E.A.	EACH	S.L.V.	SHORT LEG VERTICAL
EL.	ELEVATION	S.O.G.	SLAB ON GRADE
EQ.	EQUAL	S.	STAINLESS STEEL
EXIST.	EXISTING	STL	STEEL
F.F.	FACE TO FACE	STIFF.	STIFFENER
FIN.	FINISHED	STRUCT.	STRUCTURAL
FL.	FLOOR	T.O.P.	TOP OF
FDG.	FOUNDATION	T.L.L.	TOP LOWER LAYER
FTG.	FOOTING	T.U.L.	TOP UPPER LAYER
Gal.	GALVANIZED	TYP.	TYPICAL
GALV.	GALVANIZED	UNO.	UNLESS NOTED OTHERWISE
GRD.	GRADE	U/S	UNDERSIDE
HORIZ.	HORIZONTAL	VERT.	VERTICAL
H.D.	HEAVY DUTY	V.E.F.	VERTICAL EACH FACE
H.D.G.	HOT DIPPED GALVANIZED	V.I.F.	VERTICAL INSIDE FACE
H.E.F.	HORIZONTAL EACH FACE	V.O.F.	VERTICAL OUTSIDE FACE
H.P.	HIGH POINT	W.P.	WORKING POINT
HSS	HOLLOW STRUCTURAL STEEL	W.W.M.	WELEDED WIRE MECH @ SPACED AT
I.D.	INSIDE DIAMETER		

REQUIRED SUBMITTALS

THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.

ITEM	REQD SUBMITTAL?	ENGINEER'S STAMP REQD?	NOTES
REBAR SHOP DRAWINGS	YES	NO	
CONCRETE MIX DESIGNS	YES	NO	

TESTING AND INSPECTIONS

THE FOLLOWING ITEMS REQUIRE TESTING OR INSPECTION BY A CERTIFIED INDEPENDENT TESTING OR INSPECTION AGENCY UNLESS NOTED OTHERWISE. THE AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

ITEM	REQD	COMMENTS
SOIL BEARING CAPACITY	YES	BY SOILS ENGINEER
SOIL COMPACTION	YES	BY SOILS ENGINEER
REINFORCING STEEL PLACEMENT	YES	INSPECT FINAL PLACEMENT
CONC. COMPRESSIVE TESTS	YES	MIN. 2 SETS PER 100 CUBIC METRES
CONCRETE SLUMP	YES	

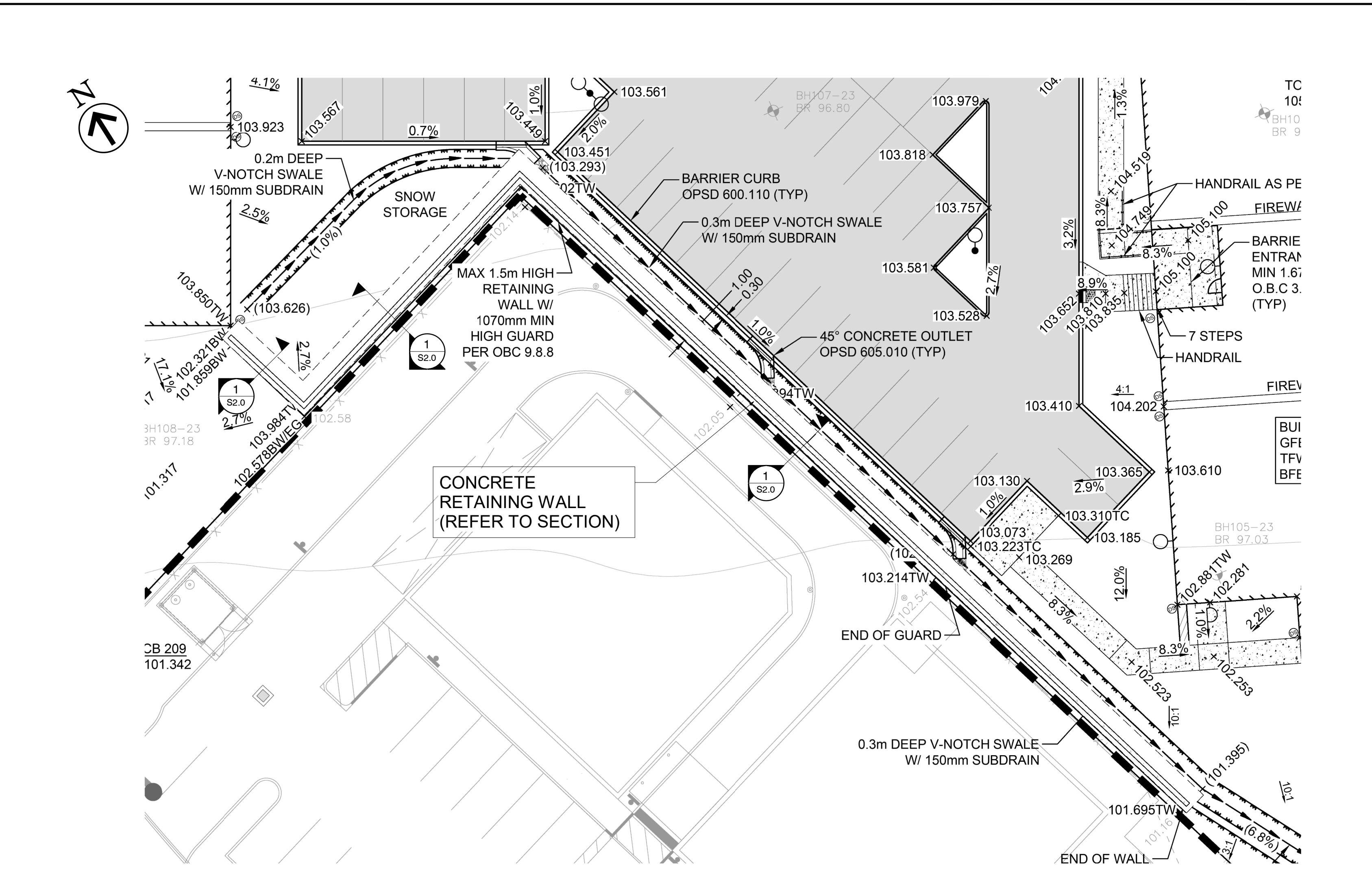
NOTE TO CONTRACTOR:

DO NOT SCALE DRAWINGS.

CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED OR REUSED WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

THE OWNER/ARCHITECT/CONTRACTOR IS ADVISED THAT M.T.E. CONSULTANTS INC. CANNOT CERTIFY ANY COMPONENT OF THE SITE WORKS NOT INSPECTED DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY M.T.E. CONSULTANTS INC. PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR INSPECTION.



SITE PLAN

NTS

ISSUED FOR PERMIT/CONSTRUCTION	1	JULY 23 2025
ISSUANCE	ID	DATE



Ph. (905) 639-2552 www.mte85.com



CLIENT

INSITE PROJECT CONSULTING

6 JOHN STREET RETAINING WALL

6 JOHN STREET PICTON, ON

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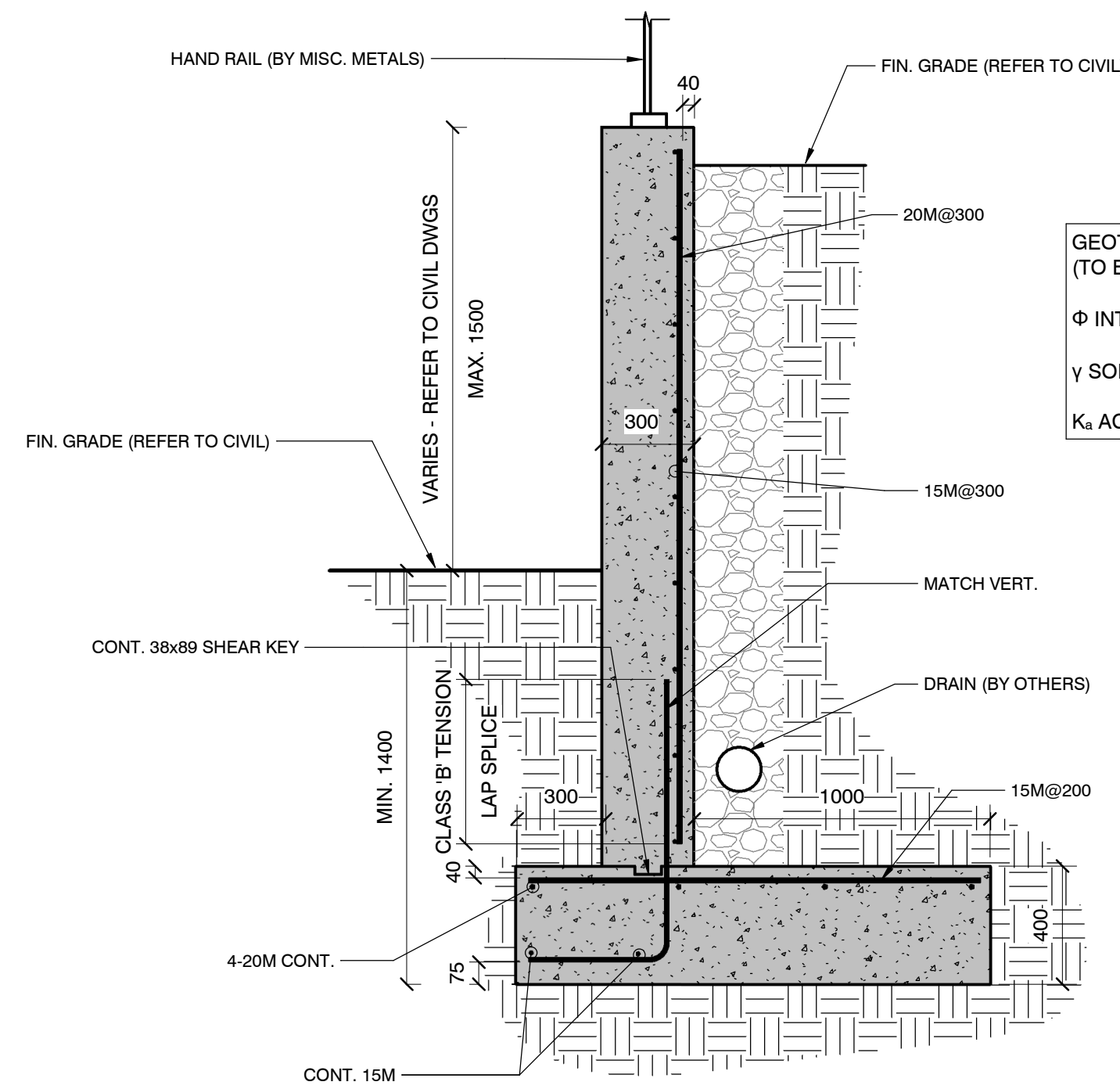
Project Manager: JDD Date: MARCH 2025

Design By: AXM Project No.: 62542\_001

Drawn By: AXM Drawing No.:

Scale: AS NOTED

S1.0



GEOTECHNICAL PARAMETERS USED FOR RETAINING WALL DESIGN:  
(TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)

$\phi$  INTERNAL ANGLE OF FRICTION =  $30^\circ$

$\gamma$  SOIL DENSITY =  $21 \text{ kN/m}^3$

$K_a$  ACTIVE SOIL PRESSURE COEFFICIENT = 0.33

**SECTION DETAIL**  
1 : 20

**NOTES:**

- CONSTRUCTION JOINTS SHALL BE MADE AND LOCATED SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. IF JOINTS ARE NOT SPECIFICALLY LOCATED AND/OR THERE IS ANY DOUBT CONCERNING THEIR LOCATION, THE CONTRACTOR MUST CONSULT WITH THE STRU. CONSULTANT.
- WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF THE SET CONCRETE IS TO BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER AND LAITANCE, SATURATED WITH WATER AND BE LEFT IN A DAMP CONDITION WITH NO FREE WATER ON THE SURFACE IMMEDIATELY BEFORE PLACING ADJACENT CONCRETE.
- REINFORCING PROJECTING THROUGH A JOINT SHALL BE THOROUGHLY CLEANED OF LOOSE FLAKY RUST, MUD, OIL DRIED CONCRETE OR OTHER COATINGS WHICH WOULD DESTROY OR REDUCE BOND.
- FOR FRAMED SLABS AND BEAMS, FORMS & SHORES TO REMAIN IN PLACE ON BOTH SIDES OF JOINT UNTIL CONCRETE IN LAST POUR HAS ACHIEVED ITS SPECIFIED DESIGN STRENGTH.
- FOR JOINTS IN SLAB-ON-GRADE SEE SEPARATE TYPICAL DETAIL.

ADD 15M x 48" LG. @ 18" o/c UNLESS TOP BARS ARE CONT. IN SLAB.

ADD SUPPORT BARS AS REQUIRED.

BOTTOM BARS CONT. THROUGH JOINT.

**CONSTRUCTION JOINT IN WALL**

**TYP. JOINTS IN CONCRETE MEMBERS (N.T.S.)**

**WALL PLANS AT CORNERS**

\*\* TENSION SPLICE STANDARD HOOK

**NOTES:**

- LAP HORZ. WALL REINF. WITH BASIC TENSION SPLICE
- WALLS and FOOTINGS ARE DESIGNED ASSUMING BOTH FACES ARE FORMED. IF WALL and/OR FOOTINGS ARE TO BE PLACED DIRECTLY AGAINST SOIL (I.E.: NO FORM USED), PERMISSION and INSTRUCTIONS MUST BE OBTAINED FROM THE STRUCTURAL CONSULTANT.

**TYP. CONCRETE WALLS DETAILS (N.T.S.)**

**VERTICAL CONTROL JOINT AT EXTERIOR CONCRETE WALL**

**VERTICAL EXPANSION JOINT AT EXTERIOR CONCRETE WALL**

**ELEVATION OF EXTERIOR CONCRETE WALL AT WATERSTOP LAP JOINTS**

**TYP. JOINTS IN EXTERIOR RETAINING WALLS**

**NOTE TO CONTRACTOR:**  
DO NOT SCALE DRAWINGS.

CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED OR REUSED WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

THE OWNER/ARCHITECT/CONTRACTOR IS ADVISED THAT M.T.E. CONSULTANTS INC. CANNOT CERTIFY ANY COMPONENT OF THE SITE WORKS NOT INSPECTED DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY M.T.E. CONSULTANTS INC. PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR INSPECTION.

ISSUED FOR PERMIT/CONSTRUCTION	1	JULY 23 2025
ISSUANCE	ID	DATE

Ph. (905) 639-2552      www.mte85.com

J. DEL CONTE  
100559774  
07/23/2025

CLIENT  
**INSITE PROJECT CONSULTING**

PROJECT  
**6 JOHN STREET RETAINING WALL**

6 JOHN STREET      PICTON, ON

**SECTION, ELEVATION & DETAILS**

Project Manager:	JDD	Date:	MAY 2025
Design By:	AXM	Project No.:	62542_001
Drawn By:	AXM	Drawn No.:	
Scale:	AS NOTED		

**S2.0**