

CONSULTANT



Engineers, Scientists, Surveyors

970 LAWRENCE AVE. W. SUITE 600
NORTH YORK, ON, M6A 3B6
416-489-7888 www.mte85.com

230663 - 280082 SLAB ON GRADE RETAINING WALL

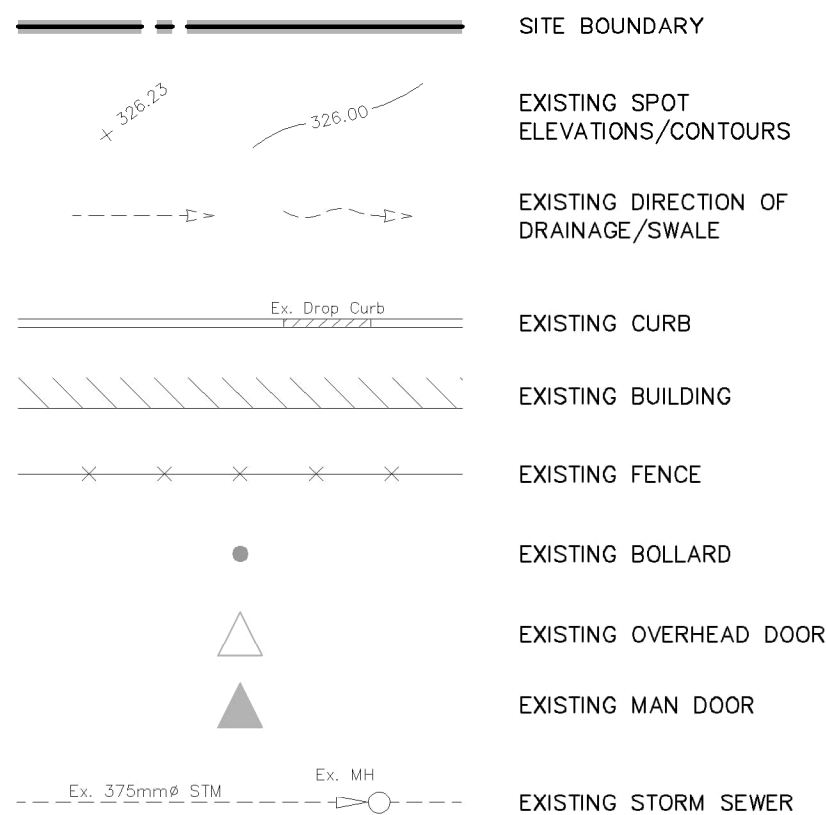
ISSUED FOR TENDER

2025-05-01

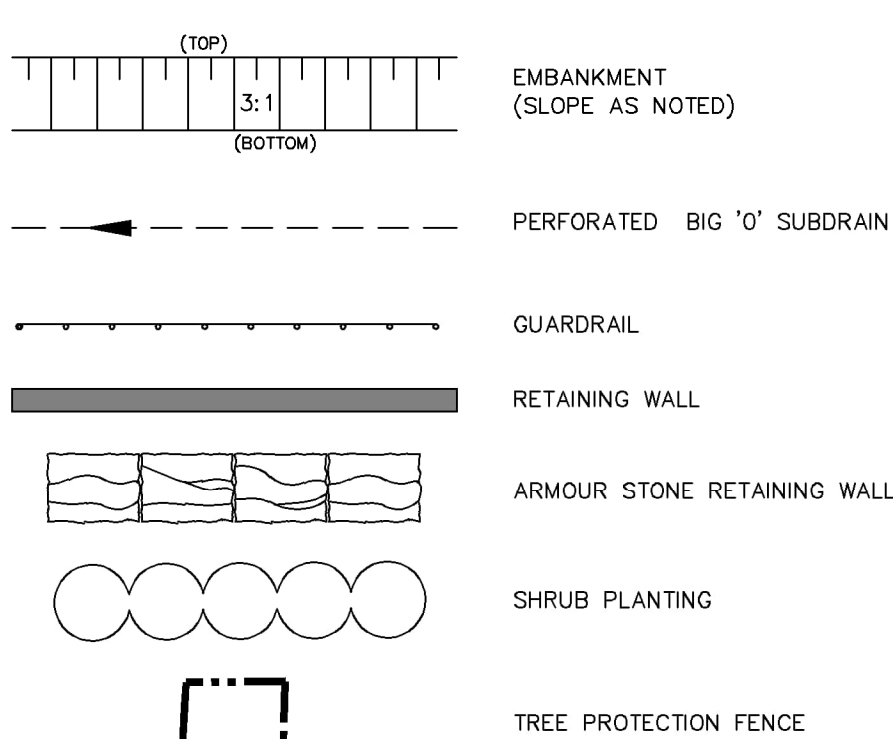
MTE PROJECT No. 56016-100

DWG. NO.	DRAWING TITLE
	COVER SHEET
	CIVIL
C1.1	SITE SERVICING PLAN
C1.2	SITE GRADING & ESC PLAN
C1.3	NOTES PLAN
	STRUCTURAL
S1.0	GENERAL NOTES AND SPECIFICATIONS
S1.1	GENERAL NOTES AND SPECIFICATIONS
S2.1	FOUNDATION PLAN
S3.1	RAILING DETAILS
S3.2	SECTIONS
S3.3	SECTIONS AND DETAILS
	LANDSCAPE
L-L1	LANDSCAPE PLAN
L-S	SECTIONS
L-D1	DETAIL PLAN

LEGEND OF EXISTING FEATURES



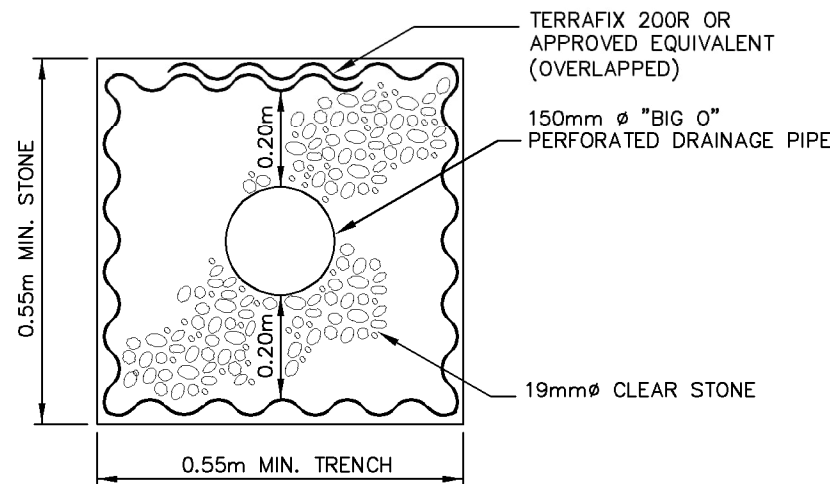
LEGEND OF PROPOSED FEATURES



NOTES TO CONTRACTOR:

- 1. INSPECTION**
CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR INSPECTION. ENGINEER TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING CODE DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW. FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.
- 2. CONFIRMATION OF EXISTING INVERTS**
72 HOURS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS TO LOCATE, EXPOSE AND VERIFY INVERTS OF EXISTING SEWERS AT CONNECTION POINTS WITH THE ENGINEER PRESENT. SHOULD THE CONTRACTOR PROCEED WITHOUT COMPLETING THESE LOCATES, EXTRA COSTS RESULTING FROM DELAYS AND STANDBY TIME WILL NOT BE CONSIDERED.

NOTE:
INSTALLATION OF SUB-DRAIN AT DIRECTION OF ENGINEER. SUB-DRAIN TO BE CONNECTED TO STORM SEWER SYSTEM.



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DRAWINGS MUST NOT BE SCALED. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST EXISTING CONDITIONS AND MUST REPORT ANY INCONSISTENCY TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

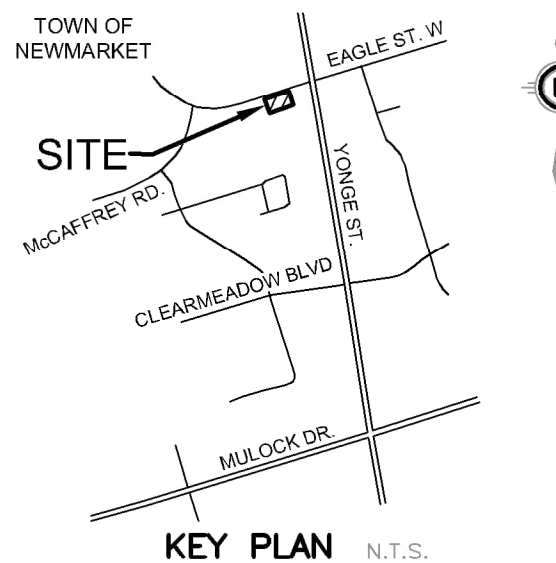
THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND COMPLYING WITH ALL APPLICABLE CONSTRUCTION CODES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

No	Revisions	Date
3	ISSUED FOR TENDER	2025-05-01
2	ISSUED FOR 99% DESIGN	2025-04-09
1	ISSUED FOR 33% DESIGN	2025-03-18

Orientation	Seal
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The Contractor shall check and verify all dimensions and report all errors and omissions to the IO-Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A	A Detail No
B	B Sheet No where detailed



GEODETIC BM ELEV. = 266.990m

BENCHMARK No. 05419999054
SOURCE: COSINE ON-LINE, VERTICAL DATUM: CGVD28-78
ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO A TABLET SET HORIZONTALLY IN NORTH WALL OF ONE STOREY CONCRETE BLOCK AND BRICK BUILDING AT THE SOUTHEAST CORNER OF THE INTERSECTION OF YONGE ST (HWY 11) AND GLADMAN AVE, 4.5m EAST OF NORTHWEST CORNER AND 25CM ABOVE GROUND LEVEL.

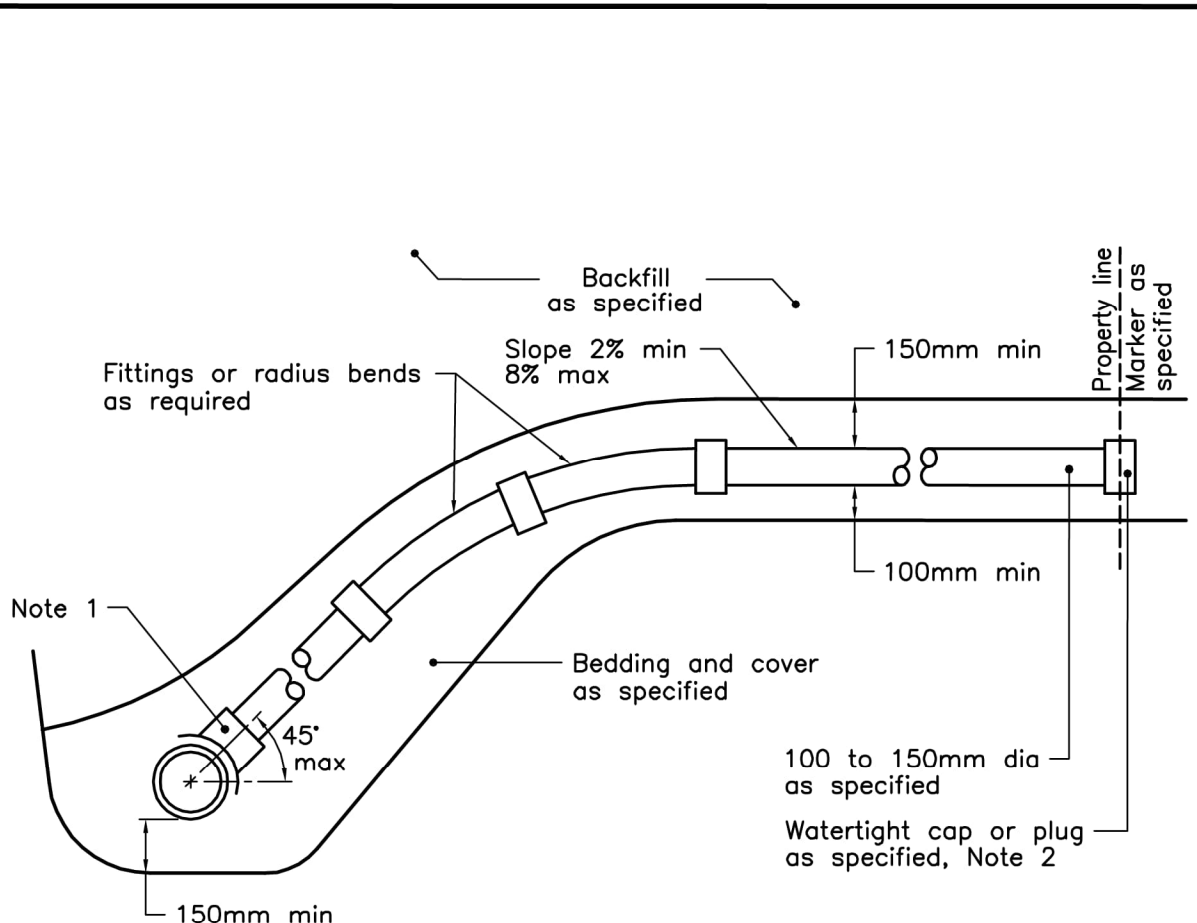
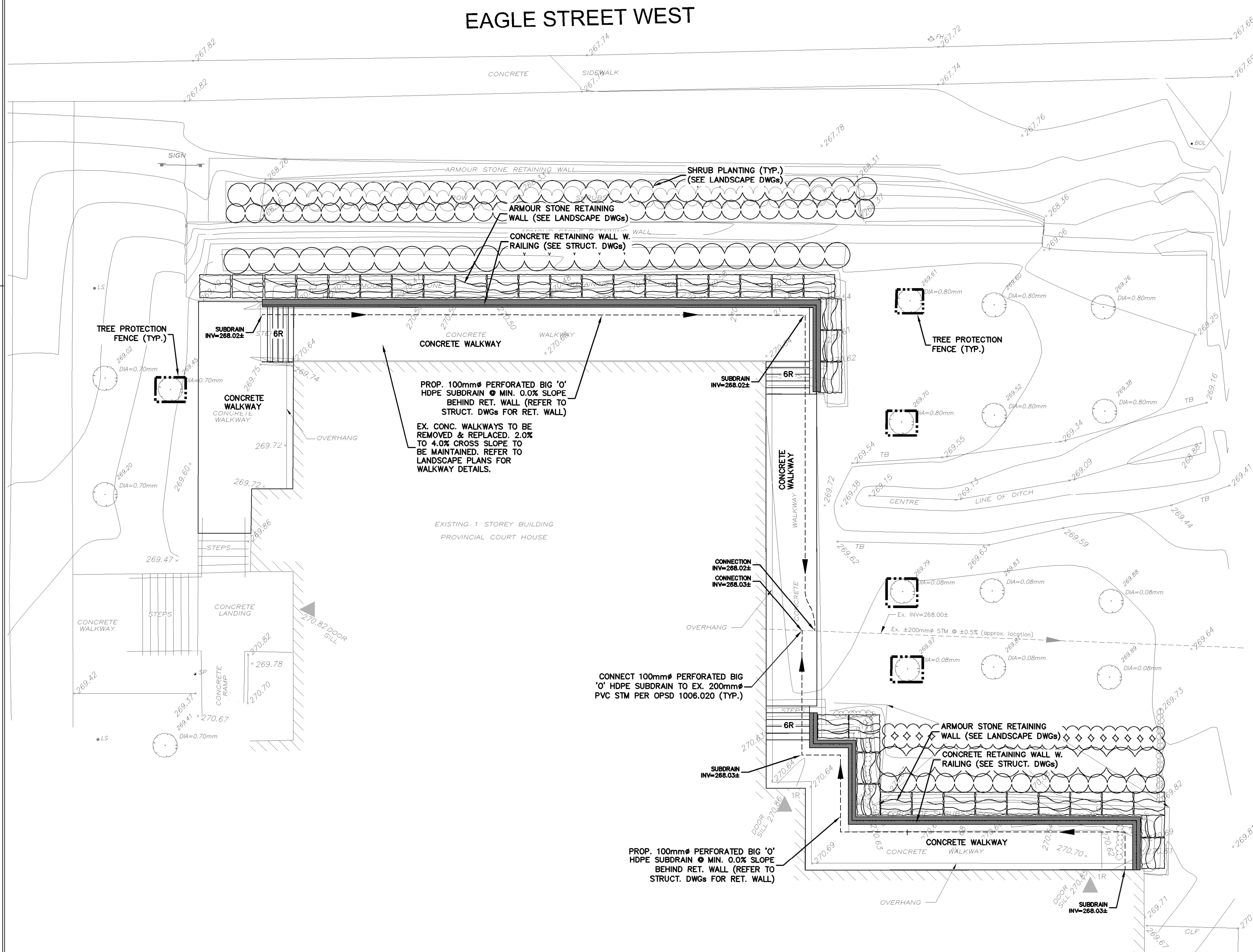


Ministry PSF Number	
Project	NEWMARKET COURTHOUSE RETAINING WALL SLAB ON GRADE REPAIR
Location	50 EAGLE ST. WEST NEWMARKET, ONTARIO
IO Project No	230663
Site No	
Building No	B92346
Client	INFRASTRUCTURE ONTARIO

SITE SERVICING PLAN

Scale 1:100	Project Start Date FEB. 27/25
Drawn by AXG/SDU	Substantial Performance Date
Designed by RDZ	Drawing No C1.1
Approved by RDZ	Floor No of 3

CADD File NAME



- NOTES:
- Sewer service connections to the main pipe sewer shall be made using factory made tees or wyes, strap-on-saddles, or other approved saddles.
 - Cap or plug at property line shall be adequately braced.
 - Maintenance holes shall be used at the main sewer to connect service connections greater than or equal to 200mm.
 - For new construction, saddles shall be installed on the main pipe before that pipe is laid.
 - Approved cut-in tool shall be used for field made connections.
 - All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2011	Rev 2
SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN PIPE SEWER		
		OPSD 1006.020



Scale 1:100	Project Start Date FEB. 27/25
Drawn by AXG/SDU	Substantial Performance Date
Designed by RDZ	Drawing No C1.2 ₃
Approved by RDZ	<div style="text-align: right;">Floor No</div>
CADD File NAME	

CONSTRUCTION NOTES AND SPECIFICATIONS

1. GENERAL

1.1. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY ENGINEER AND APPROVED BY THE LOCAL MUNICIPALITY.

1.2. THESE PLANS ARE TO BE USED FOR SERVICING AND GRADING ONLY; ANY OTHER INFORMATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. THIS PLAN MUST NOT BE USED TO SITE THE PROPOSED BUILDING.

1.3. NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER.

1.4. THIS PLAN IS NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF MTE CONSULTANTS INC.

1.5. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST:

1.5.1. CHECK AND VERIFY ALL EXISTING CONDITIONS, LOCATIONS AND ELEVATIONS WHICH INCLUDES BUT IS NOT LIMITED TO THE BENCHMARK ELEVATIONS, EXISTING SERVICE CONNECTIONS AND EXISTING INVERTS, REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING.

1.5.2. OBTAIN ALL UTILITY LOCATES AND REQUIRED PERMITS AND LICENSES.

1.5.3. VERIFY THAT THE FINISHED FLOOR ELEVATIONS AND BASEMENT FLOOR ELEVATIONS (WHICH MAY APPEAR ON THIS PLAN) COMPLY WITH THE FINAL ARCHITECTURAL DRAWINGS.

1.5.4. CONFIRM ALL DRAWINGS USED FOR CONSTRUCTION ARE OF THE MOST RECENT REVISION.

1.6. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO EXISTING WORKS. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO LOCAL MUNICIPALITY STANDARDS

1.7. ALL WORKS ON A MUNICIPAL RIGHT-OF-WAY WITH THE EXCEPTION OF WATERMAIN TAPPING, TO BE INSTALLED BY THE OWNER'S CONTRACTOR AT OWNER'S EXPENSE IN ACCORDANCE WITH THE LOCAL MUNICIPALITY'S PROCEDURE FOR OFF-SITE WORKS BY PRIVATE CONTRACTOR. THE OWNER AND CONTRACTOR ARE TO ENSURE OFF-SITE WORKS PERMIT IS IN PLACE PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ALL AFFECTED PROPERTY TO ORIGINAL CONDITION. ALL BOULEVARD AREAS SHALL BE RESTORED WITH 150mm TOPSOIL AND SOD.

1.8. ALL UNDERGROUND SERVICES ARE TO BE CONSTRUCTED IN FULL COMPLIANCE WITH THE ONTARIO PROVINCIAL BUILDING CODE (PART 7, PLUMBING), THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) AND THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND THE REGIONAL MUNICIPALITY OF WATERLOO, WHICH CODES AND REGULATIONS SHALL SUPERSEDE ALL OTHERS.

1.9. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR INSPECTION, ENGINEER TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING CODE DIVISION C, PART 1, SECTION 1.2.2. GENERAL REVIEW. FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.

1.10. STORM SEWERS AND SERVICES TO HAVE A MINIMUM 1.2m COVER TO TOP OF PIPE. WHERE COVER TO TOP OF PIPE IS DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED PIPE IN ACCORDANCE WITH APPLICABLE "SEWER PIPE INSULATION DETAIL" INDICATED IN DRAWING DETAILS. CONTACT DESIGN ENGINEER FOR "SEWER PIPE INSULATION DETAIL" IF REQUIRED.

1.11. FLEXIBLE STORM SEWERS SHALL BE CONNECTED TO MANHOLES USING KOR-N-SEAL BOOTS OR APPROVED EQUIVALENT. RIGID STORM SEWER CONNECTIONS TO MANHOLES SHALL BE GROUTED IN PLACE. ALL CONNECTIONS TO MANHOLES SHALL BE IN ACCORDANCE WITH OPSS 407. ANY CONNECTIONS TO CATCHBASINS SHALL BE GROUTED IN PLACE.

1.12. PLAN TO BE READ IN CONJUNCTION WITH STRUCTURAL DRAWINGS PREPARED BY MTE CONSULTANTS INC. AND LANDSCAPE PLANS BY HKLA.

1.13. EXISTING TOPOGRAPHIC AND LEGAL INFORMATION TAKEN FROM PLAN PREPARED BY MTE CONSULTANTS.

1.14. CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER PRIOR TO ENTERING UPON NEIGHBOURING LANDS TO UNDERTAKE ANY WORK. COPIES OF THESE LETTERS OF CONSENT SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED. FAILURE TO COMPLY WITH THE ABOVE IS AT CONTRACTOR'S OWN RISK.

1.15. RETAINING WALLS TO BE DESIGNED BY STRUCTURAL ENGINEER. SHOP DRAWINGS MUST BE SUBMITTED FOR REVIEW AND APPROVAL AND FOR WALLS EXCEEDING 1.0m, BUILDING PERMIT MUST BE OBTAINED. WALLS OVER 0.6m IN HEIGHT REQUIRE HIGH SIDE OF RETAINING WALLS TO BE BACKFILLED WITH FREE DRAINING MATERIAL.

1.16. ALL RETAINING WALLS 1.0m IN HEIGHT AND OVER MUST BE APPROVED BY THE CBO. ALL RETAINING WALLS LESS THAN 1.0m IN HEIGHT MUST BE APPROVED BY PLANNING.

1.17. SITE SERVICING CONTRACTOR TO TERMINATE ALL SERVICES 1 METRE FROM FOUNDATION WALL.

1.18. FILTER FABRIC TO BE TERRAFIX 270R OR APPROVED EQUAL.

1.19. MAXIMUM GRASSED SLOPE TO BE 3:1. SLOPES GREATER THAN 3:1 TO BE LANDSCAPED WITH LOW MAINTENANCE GROUND COVER.

1.20. SIDE SLOPES OF ALL STOCKPILES OR EXTRACTION FACES TO BE MAINTAINED AT 70 DEGREES OR LESS BETWEEN EARLY APRIL AND LATE AUGUST TO DETER BANK SWALLOWS FROM NESTING.

1.21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD INCLUDING THE SUPPLY, INSTALLATION AND REMOVAL OF ALL NECESSARY SIGNALS, DELINEATORS, MARKERS, AND BARRIERS. ALL SIGNS, ETC. SHALL CONFORM TO THE STANDARDS OF THE LOCAL MUNICIPALITY AND THE MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

1.22. THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

1.23. CONTRACTOR TO MAINTAIN A 'CONFINED TRENCH CONDITION' IN ALL SEWER AND SERVICE TRENCHES.

1.24. FOLLOWING COMPLETION OF PROPOSED WORKS AND PRIOR TO OCCUPANCY INSPECTION, ALL STORM AND SANITARY SEWERS ARE TO BE FLUSHED, AND ALL CATCHBASIN AND CATCHBASIN MANHOLE SUMPS ARE TO BE CLEANED OF DEBRIS AND SILT.

1.25. CONTRACTOR TO COMPLY WITH O.REG. 406/19 FOR MANAGEMENT OF EXCESS SOILS AS APPLICABLE.

1.26. FACTORY FABRICATED WYES SHALL BE USED FOR ALL STORM SERVICING CONNECTIONS.

2. EROSION AND SEDIMENT CONTROL

2.1. CONTRACTOR TO INSTALL EROSION CONTROL MEASURES AS SHOWN PRIOR TO CONSTRUCTION AND MAINTAIN IN GOOD CONDITION UNTIL CONSTRUCTION IS COMPLETED AND ALL DISTURBED GROUND SURFACES HAVE BEEN RESTABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE COVER.

2.2. ALL SEDIMENT CONTROL FENCING TO BE INSTALLED PRIOR TO ANY AREA GRADING, EXCAVATING OR DEMOLITION COMMENCING.

2.3. EROSION CONTROL FENCING TO BE INSTALLED AROUND BASE OF ALL STOCKPILES. ALL STOCKPILES TO BE KEPT 2.5m MINIMUM FROM PROPERTY LINE.

2.4. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MHS AND CBS.

2.5. CONSTRUCTION ACCESS (MUD MAT) TO BE PROVIDED ON-SITE AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES EXIT THE SITE. CONSTRUCTION ACCESS (MUD MAT) SHALL BE A MINIMUM OF 3.0m WIDE, 15.0m LONG (LENGTH MAY VARY DEPENDING ON SITE LAYOUT) AND 0.3m DEEP AND SHALL CONSIST OF 200mm CLEAR STONE MATERIAL OR APPROVED EQUIVALENT. PROPOSED EROSION FENCING TO TIE INTO MUD MAT. CONTRACTOR TO ENSURE ALL VEHICLES LEAVE THE SITE VIA THE MUD MAT AND THAT THE MAT IS MAINTAINED IN A MANNER TO MAXIMIZE EFFECTIVENESS AT ALL TIMES.

2.6. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. CONTRACTOR TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.

2.7. EROSION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN RESTABILIZED.

2.8. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE ENGINEER AND THE LOCAL MUNICIPALITY'S DEPARTMENT OF PUBLIC WORKS.

2.9. CONTRACTOR TO CLEAN ROADWAY AND SIDEWALKS OF SEDIMENTS RESULTING FROM CONSTRUCTION TRAFFIC FROM THE SITE EACH DAY.

2.10. CONTRACTOR MUST REMOVE EROSION AND SEDIMENTATION FENCING PRIOR TO COMPLETION OF PROJECT. CONTRACTOR TO HAVE EROSION AND SEDIMENTATION FENCE INSPECTED WHEN VEGETATION HAS ESTABLISHED, BUT PRIOR TO FENCE BECOMING OVERGROWN. ENGINEER'S REPRESENTATIVE TO DETERMINE IF VEGETATION HAS REACHED THE CRITICAL POINT AND WILL THEN INSTRUCT CONTRACTOR TO REMOVE FENCE.

3. MAINTENANCE RECOMMENDATIONS

3.1. DURING THE COURSE OF CONSTRUCTION CONTRACTOR TO REMOVE SEDIMENT AND CONTAMINANTS FROM STORMWATER MANAGEMENT FACILITIES MONTHLY. FOLLOWING CONSTRUCTION CONTRACT COMPLETION, OWNER TO HIRE QUALIFIED CONTRACTOR TO REMOVE SEDIMENT AND CONTAMINANTS ANNUALLY AND REINSTATE STORMWATER MANAGEMENT FACILITIES ACCORDING TO THE DESIGN OUTLINED ON THIS PLAN OR AS PER EXISTING, AS REQUIRED.

3.2. EROSION CONTROL STRUCTURES TO BE MONITORED REGULARLY AND ANY DAMAGE REPAIRED IMMEDIATELY. SEDIMENTS TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF 1/3 THE HEIGHT OF THE FENCE.

3.3. OWNER'S REPRESENTATIVE TO MONITOR EROSION CONTROL STRUCTURES TO ENSURE FENCING IS INSTALLED AND MAINTENANCE IS PERFORMED TO CITY REQUIREMENTS.
-
- 970 LAWRENCE AVE. W. SUITE 600
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| | | |
| 3 | ISSUED FOR TENDER | 2025-05-01 |
| 2 | ISSUED FOR 99% DESIGN | 2025-04-09 |
| 1 | ISSUED FOR 33% DESIGN | 2025-03-18 |
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- A

B

A Detail No

B Sheet No where detailed
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- GEODETIC BM ELEV. = 266.990m
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SOURCE: COSINE ON-LINE. VERTICAL DATUM: CGVD28-78
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-
- Ministry PSF Number
- Project
NEWMARKET COURTHOUSE RETAINING WALL SLAB ON GRADE REPAIR
- Location
50 EAGLE ST. WEST
NEWMARKET, ONTARIO
IO Project No 230663 Site No Building No B92346
- Client
INFRASTRUCTURE ONTARIO
- Drawing Title
- NOTES PLAN
- | | |
|---------------------|----------------------------------|
| Scale
1:100 | Project Start Date
FEB. 27/25 |
| Drawn by
AXG/SDU | Substantial Performance Date |
| Designed by
RDZ | Drawing No
C1.3 |
| Approved by
RDZ | Floor No
3 |
| CADD File NAME | |
- NOTES TO CONTRACTOR:

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- 594x841mm

GENERAL NOTES AND SPECIFICATIONS

1. GENERAL

- 1.1. CHECK DIMENSIONS ON STRUCTURAL DRAWINGS AGAINST ELECTRICAL AND MECHANICAL DRAWINGS AND EXISTING SITE CONDITIONS. REPORT INCONSISTENCIES TO CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- 1.2. READ DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS ON THESE DRAWINGS.
- 1.3. DO NOT EXCEED DURING CONSTRUCTION, DESIGN LIVE LOADS SHOWN ON PLANS, REDUCE AS NECESSARY UNTIL MATERIALS REACH DESIGN STRENGTH.
- 1.4. DO NOT SCALE DRAWINGS.
- 1.5. PROVIDE NECESSARY SHORING FOR SAFE COMPLETION OF WORK.
- 1.6. WHERE NEW WORK CONNECTS TO EXISTING CONSTRUCTION, DETERMINE EXISTING CONDITIONS AND ALL DIMENSIONS ON SITE INCLUDING VERIFICATION OF ALL DIMENSIONS ON DRAWINGS. REPORT ANY NECESSARY ADJUSTMENT TO CONSULTANT
- 1.7. CLEAN UP:

1.7.1. CLEAR AWAY FROM BUILDING SITE, EXCESS AND WASTE MATERIALS AND DEBRIS RESULTING FROM WORK. LEAVE PREMISES IN CONDITION ACCEPTABLE TO OWNER.

2. DESIGN, CONSTRUCTION SAFETY, AND REVIEW

- 2.1. DESIGN IS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE, LATEST EDITION.
- 2.2. CONCRETE IS DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA-A23.3.
- 2.3. STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA-S16.
- 2.4. MASONRY IS DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA-S304.1
- 2.5. UNIT FLOOR LOADINGS GIVEN ON DRAWINGS ARE UNFACTORED.
- 2.6. MEMBER FORCES GIVEN ON DRAWINGS ARE FACTORED.
- 2.7. CONSTRUCTION PROCEDURES AND SAFETY:

2.7.1MILMAN & ASSOCIATES LIMITED SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION SAFETY, MEANS, TECHNIQUES, AND CONSTRUCTION PROCEDURES OR ANY TEMPORARY WORK AS MAY BE REQUIRED BY THE CONTRACTOR TO BUILD AND COMPLETE THE STRUCTURE IN CONFORMITY WITH CONTRACT DOCUMENTS.

2.7.2CONTRACTOR IS RESPONSIBLE FOR SAFE COMPLETION OF WORK.

2.7.3THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR SUFFICIENT TEMPORARY BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF THE CONSTRUCTION, UNTIL COMPLETION.

2.7.4THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR SAFE SAW CUTTING/JACK HAMMERING/REMOVAL OF THE EXISTING CONCRETE.
- 2.8. REVIEW OF CONSTRUCTION:

2.8.4. CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR SUPERVISION OF CONSTRUCTION.

2.8.5. SITE VISITS AND REVIEW BY CONSULTANT OR HIS REPRESENTATIVE ARE INTENDED FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT.

2.8.6. CONSULTANT'S REVIEW SHALL NOT MEAN THAT MILMAN & ASSOCIATES LIMITED HAS SEEN AND SUPERVISED ALL CONSTRUCTION PROCEDURES. RESPONSIBILITY FOR CONSTRUCTION PROCEDURES SHALL REMAIN WITH THE CONTRACTOR PERFORMING THE WORK.

2.8.7. REVIEW BY THE CONSULTANT WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL REQUIREMENTS LISTED IN CONTRACT DOCUMENTS.

3. CONCRETE AND REINFORCING STEEL

- 3.1. PROPORTION OF CONCRETE IN ACCORDANCE WITH CSA STANDARD CAN/CSA-A23.1/A23.2. "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION/METHODS OF TEST FOR CONCRETE".

3.1.1. CONCRETE PROPERTIES:

ELEMENT	MIN. 28-DAY COMPRESSIVE STRENGTH (MPa)	MAX. SLUMP (mm)	MAX. AGG. (mm)	EXPOSURE CLASS	RAPID CHLORIDE ION PERMEABILITY (COULOMBS)
RETAINING WALL	35	75	20	C-1	≤ 1500
CONC. SLAB	35	75	20	C-2	≤ 1500
FOOTINGS	35	75	20	F-2	≤ 1500
LEAN CONCRETE	20	75	20	N	≤ 1500
- 3.1.2. PORTLAND CEMENT: TYPE 10, NORMAL.
- 3.1.3. COARSE AGGREGATE: NORMAL WEIGHT, MAXIMUM SIZE 20mm [3/4"].
- 3.1.4. MAXIMUM SLUMP AT POINT OF DISCHARGE, PRIOR TO THE ADDITION OF SUPERPLASTICIZER, AS SHOWN IN PARAGRAPH 2.1.1
- 3.1.5. AIR ENTRAINMENT: TOTAL AIR CONTENT AS RECOMMENDED BY THE REFERENCE STANDARD FOR THE CLASS OF EXPOSURE.
- 3.1.6. CONCRETE MIXES:

3.1.6.1. READY MIX, WITH 28 DAY COMPRESSIVE STRENGTH AS INDICATED ON DRAWINGS, AND IN SPECIFICATIONS.

3.1.6.2. AIR DRY UNIT WEIGHT: MAXIMUM 2300kg/m³ [145lbs/ft³] ADJUSTED PROPORTIONALLY FOR MAXIMUM AIR CONTENT LISTED IN CSA STANDARD A23.1.

3.1.6.3. DESIGN CONCRETE MIX IN CONFORMANCE WITH CSA STANDARD A23.1
- 3.2. REINFORCING STEEL:

3.2.1. DEFORMED BARS TO CSA STANDARD CAN/CSA-G30.18-09, GRADE 400R, WELDED WIRE FABRIC: TO CSA G30.5.
- 3.3. JOB CONDITIONS:

3.3.1. PLACING, FINISHING, AND CURING OF CONCRETE SHOULD CONFORM WITH CSA STANDARD A23.1

3.3.2. IN ADDITION TO COLD WEATHER AND HOT WEATHER REQUIREMENTS OF CSA STANDARD A23.1, THE FOLLOWING SHALL APPLY TO WORK OF THIS SECTION:

3.3.2.1. PROVIDE PROTECTION OR HEAT, OR BOTH, SO THAT TEMPERATURE OF CONCRETE AT SURFACES IS MAINTAINED AT NOT LESS THAN 21 °C [70 °C] FOR THE NEXT SEVEN (7) DAYS AND ABOVE FREEZING FOR THE NEXT SEVEN (7) DAYS.

- 3.3.2.2. DO NOT PERMIT ALTERNATE FREEZING AND THAWING FOR FOURTEEN DAYS AFTER PLACING.
- 3.3.2.3. FOR FIELD CURED CYLINDERS REPRESENTING STRENGTH DEVELOPMENT OF IN-SITU CONCRETE, PROVIDE SAME SPECIFIED NOT COLD WEATHER PROTECTION FOR STORAGE OF EACH CONCRETE COMPRESSION SPECIMEN AS FOR CONCRETE FROM WHICH IT WAS TAKEN UNTIL IT IS SENT TO A TESTING LABORATORY.
- 3.3.2.4. DO NOT PLACE CONCRETE WHEN IT IS RAINING. SHOULD RAIN COMMENCE DURING PLACING, COVER FRESHLY PLACED CONCRETE.

3.4. PLACING CONCRETE:

CONCRETE ITEM	MIN. CONC. COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3" (75mm)
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER BAR SIZE <15M	1 ½" (40mm)
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER BAR SIZE 15M TO 55M	2" (50mm)
FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLABS, WALLS, JOISTS) BAR SIZE 45M TO 55M	1 ½" (40mm)
FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLABS, WALLS, JOISTS) BAR SIZE <45M	¾" (20mm)
FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER (BEAMS, COLUMNS)	1 ½" (40mm)

- 3.4.1. NOTIFY ENGINEER AT LEAST 24 HOURS BEFORE COMMENCING CONCRETE PLACEMENT, AND 24 HOURS BEFORE WALL FORMS ARE CLOSED IN, REGARDLESS OF ANY REQUIREMENT OF REFERENCE STANDARDS TO INSPECT ALL OF THE WORK PRIOR TO PLACING CONCRETE.
- 3.4.2. NO CONSTRUCTION JOINTS OR "COLD" JOINTS SHALL BE PERMITTED DURING CONCRETE PLACEMENT OF MAT FOUNDATION OR CAISSONS
- 3.5. CURING:

3.5.1. CURE CONCRETE IN ACCORDANCE WITH CSA STANDARD A23.1, AND AS SPECIFIED HEREIN.

3.5.2. BE AWARE THAT PROPER CURING IS ESSENTIAL FOR CONCRETE; AND FAILURE TO CURE PROPERLY CAUSES SCALING, DUSTING, AND LACK OF DURABILITY.

3.5.3. CURING SLAB ON GRADE:

CURING TYPE 1 WITH MOIST CURE CONCRETE SURFACES A MINIMUM OF 4 CONSECUTIVE DAYS AT A MINIMUM TEMPERATURE OF 10°C OR ATTAINING 40% OF THE SPECIFIED COMPRESSIVE STRENGTH.

3.5.4. CURING BUILDING FOUNDATION, GRADE BEAMS AND PIERS:

CURING TYPE 2 WITH MOIST CURE CONCRETE SURFACES A MINIMUM OF 7 CONSECUTIVE DAYS AT A MINIMUM TEMPERATURE OF 10°C OR ATTAINING 70% OF THE SPECIFIED COMPRESSIVE STRENGTH.

3.5.5. CURING MAT FOUNDATION; EQUIPMENT AND TANK FOUNDATIONS:

CURING TYPE 3 WITH MOIST CURE CONCRETE SURFACES A MINIMUM OF 7 CONSECUTIVE DAYS AT A MINIMUM TEMPERATURE OF 10°C OR 70% OF THE SPECIFIED COMPRESSIVE STRENGTH. APPLICATION OF SEAL WATER BASED COMPOUNDS IN LIEU MOIST CURING IS NOT ACCEPTABLE.

3.5.6. FORMS LEFT IN PLACE MAY BE USED AS PROTECTION AGAINST LOSS OF MOISTURE PROVIDED THAT EXPOSED CONCRETE SURFACES AND WOOD FORMS ARE KEPT WET FOR A DURATION OF 7 CONSECUTIVE DAYS. WHEN MOIST CURING IS NOT SUITED, CURING SHALL BE ACHIEVED BY APPLYING TWO COATS OF CPD ACRYLIC CURE AND SEAL WATER BASED COMPOUND AT A RATE OF 200 SQUARE FEET PER U.S. GALLON (5 SQUARE METER PER LITER) EXCEPT FOR MAT FOUNDATION, EQUIPMENT AND TANK FOUNDATIONS.

3.5.7. CONCRETE PROTECTION DURING CURING:

ALL FRESHLY PLACED AND CONSOLIDATED CONCRETE SHALL BE SUITABLY PROTECTED DURING THE CURING PERIOD AGAINST ADVERSE WEATHER CONDITIONS IN ACCORDANCE WITH METHODS AND PROCEDURES AS NOTED IN CSA STANDARD A23.1.

3.5.8. WHEN THE AIR TEMPERATURE IS AT OR ABOVE 27°C(81°F) PROTECTION OF THE FRESHLY PLACED CONCRETE FROM THE EFFECTS OF HOT AND OR DRYING WEATHER CONDITIONS SHALL BE IN PLACE IN ACCORDANCE WITH METHODS AND PROCEDURES AS NOTED IN CSA STANDARD A23.1.

3.5.9. WHEN THE AIR TEMPERATURE IS AT OR BELOW 5 DEG. C (41 DEG. F) ALL MATERIALS AND EQUIPMENT NEEDED FOR ADEQUATE PROTECTION AND CURING SHALL BE IN PLACE BEFORE CONCRETE PLACEMENT IS STARTED IN ACCORDANCE WITH METHODS AND PROCEDURES AS NOTED IN CSA STANDARD A23.1
- 3.6. INSPECTION:

3.6.1. CONTRACTOR IS TO ENGAGE AT HIS/HER OWN EXPENSE, AN INDEPENDENT TESTING AND INSPECTION COMPANY FOR INSPECTION OF COMPACTION, REBAR PLACEMENT, AND CONCRETE TESTING.
- 3.7. SHOP DRAWINGS (REINFORCING STEEL)

3.7.1. REFER TO "REINFORCING STEEL MANUEL OF STANDARD PRACTICE", LATEST EDITION.

3.7.2. SUBMIT FOR REVIEW SHOP DRAWINGS OF REINFORCEMENT, ANCHOR BOLTS, EMBEDDED ELEMENTS, AND TEMPLATES, INCLUDING LAYOUT, DETAILS, SPLICES, AND SUPPORT. DO NOT COMMENCE FABRICATION UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONSULTANT.

3.7.3. STAGGER SPLICES UNLESS NOTED OTHERWISE.

3.7.4. PRIOR TO SUBMISSION TO CONSULTANT, CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS. BY THIS REVIEW CONTRACTOR REPRESENTS TO HAVE DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, SITE CONDITIONS, MATERIALS, CATALOGUE NUMBER AND SIMILAR DATA, AND TO HAVE CHECKED AND COORDINATED EACH SHOP DRAWING WITH THE REQUIREMENTS OF WORK AND OF CONTRACT DOCUMENTS. CONTRACTOR'S REVIEW OF EACH SHOP DRAWING SHALL BE INDICATED BY STAMP, DATE AND SIGNATURE OF A RESPONSIBLE PERSON.

3.7.5. CONSULTANT SHALL REVIEW AND RETURN SHOP DRAWINGS IN ACCORDANCE WITH AN AGREED SCHEDULE. CONSULTANT'S REVIEW SHALL BE FOR CONFORMITY TO DESIGN CONCEPT AND FOR GENERAL ARRANGEMENT, AND SHALL NOT RELIEVE CONTRACTOR OF RESPONSIBILITY OF MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

3.7.6. CONTRACTOR SHALL MAKE CHANGES TO SHOP DRAWINGS AS SPECIFIED BY CONSULTANT, CONSISTENT WITH CONTRACT DOCUMENTS, AND RESUBMIT UNLESS OTHERWISE DIRECTED BY CONSULTANT. WHEN RESUBMITTING, CONTRACTOR SHALL NOTIFY CONSULTANT IN WRITING OF REVISIONS OTHER THAN THOSE REQUESTED BY CONSULTANT

3.7.7. SHOP DRAWINGS (MICRO PILES)

3.7.1. SUBMIT FOR REVIEW SHOP DRAWINGS OF MICRO PILES, INCLUDING TYPE, LENGTH, COUPLINGS, EMBEDDED PLATES IN FOUNDATION, REINFORCEMENT AND GROUT SPECIFICATIONS, DIAMETER OF MICROPILES AND ALL NECESSARY INFORMATION REQUIRED FOR INSTALLATION. PILE SHOP DRAWING MUST BE STAMPED BY PROFESSIONAL ENGINEER IN THE

PROVINCE OF ONTARIO.

- 3.7.2. PROVIDE LOAD BEARING CAPACITY OF EACH MICROPILE BASED ON SOIL REPORT: "GEOTECHNICAL INVESTIGATION HYDRO SUBSTATION AT PROPOSED OC TRANSPO ST-LAURENT PARKING GARAGE, 1500 ST-LAURENT BOULEVARD, OTTAWA, ONTARIO BY EXP. SERVICES INC. DATED DECEMBER 8, 2022
- 3.7.3. DESIGN AND INSTALATION OF MICROPILES SHOULD BE DONE BY A QUALIFIED CONTRACTOR EXPERIENCE IN THIS TYPE OF CONSTRUCTION. THE PILE CONTRACTOR MUST CARRY A PROFESSIONAL LIABILITY INSURANCE OF \$15M FOR EACH OCCURRENCE AND HAVE A SOIL ENGINEER STAMP FOR THE LOAD CAPACITY OF PILES AND DRAWINGS WITH PILE LAYOUT.
- 3.7.4. PROVIDE PILE LAYOUT BASED ON PILE CAPACITY ANALYZED BY THE PILE CONTRACTOR, VERTICAL AND LATERAL LOADS PROVIDED ON DRAWINGS S2.1
- 3.7.5. CONSULTANT WILL REVIEW PILE SHOP DRAWINGS AND PROVIDE COMMENTS/ APPROVAL.
- 3.7.6. CONTRACTOR SHALL CHANGE SHOP DRAWINGS BASED ON CONSULTANT REVIEW AND RESUBMIT.
- 3.7.7. THE PILING CONTRACTOR ACCEPTS FULL LIABILITY FOR THE ABILITY OF THE INSTALLED PILES TO SUPPORT THE MINIMUM VERTICAL AND LATERAL LOADS INDICATED ON THE STRUCTURAL DRAWINGS. THE LAYOUT AND NUMBER OF PILES MUST SATISFY THE TOTAL VERTICAL AND HORIZONTAL LOADS INDICATED IN THE LOAD DIAGRAM (SEE DRAWING S2.1) THE LENGTH, DIAMETER AND REINFORCEMENT OF THE MICROPILES ARE AT THE DISCRETION OF THE PILING CONTRACTOR AND SHALL NOT BE REVIEWED BY THE CONSULTANT. ALL SHOP DRAWINGS MUST BE STAMPED BY A PROFESSIONAL ENGINEER LICENSE IN THE PROVINCE OF ONTARIO.
- 3.8. FINISHING

3.8.1. CONCRETE SURFACES SHALL BE BROOM FINISHED, UNO ON PLANS
- 3.9. CONCRETE ANCHORS, INSERTS, BOLTS, ETC.:

3.9.3. CONCRETE ANCHORS FOR CONNECTING NEW STEEL ASSEMBLIES TO EXISTING CONCRETE, (POST INSTALLED) IF REQUIRED; TO BE INSTALLED AS PER MANUFACTURER'S TECHNICAL GUIDE.

HIT HY200 INJECTION ADHESIVE ANCHORS BY HILTI (CANADA) LTD.
HILTI HVA CAPSULE ADHESIVE ANCHOR BY HILTI (CANADA) LTD.
HILTI KWIK BOLT III BY HILTI (CANADA) LTD.
- 3.10. DEFECTIVE WORK:

3.10.1. VARIATIONS IN EXCESS OF SPECIFIED TOLERANCES AND MARKED AND DISFIGURED SURFACES THAT CANNOT BE REPAIRED BY APPROVED METHODS WILL BE CONSIDERED DEFECTIVE WORK PERFORMED BY THIS SECTION.

3.10.2. REPLACE OR REPAIR DEFECTIVELY PLACED OR FINISHED CONCRETE AS DIRECTED BY CONSULTANT AT NO COST TO OWNER.

3.10.1. CONTRACTOR SHALL PAY FOR ADDITIONAL TESTING, DESIGN, AND RELATED EXPENSES IF CONCRETE PROVES TO BE DEFICIENT.
4. DEMOLITION

4.1. SCOPE:

4.1.1. REFER TO ARCH FOR SCOPE OF DEMOLITION.

4.2. CODES AND REGULATIONS:

4.2.1. CARRY OUT WORK IN ACCORDANCE WITH THE ONTARIO BUILDING CODE, LATEST EDITION.

4.3. PROCEDURES:

4.3.1. PROTECTION:

4.3.1.1. CONTRACTOR TO PROVIDE SAFETY HOARDING PRIOR TO DEMOLITION

4.3.1.2. PROTECT ADJACENT EXISTING BUILDING DURING DEMOLITION.

4.3.1.3. MOVE DEBRIS IN SUCH A MANNER AS TO MINIMIZE RAISING AND SPREADING OF DUST. USE CONTAINERS AND DAMPEN WITH WATER SPRAYS.

4.3.1.4. LEAVE THE WORK AREA IN SAFE CONDITION AT THE END OF EACH DAY. MAINTAIN SAFETY BARRIERS ALL AROUND MAJOR FLOORS BREAKOUTS TO ENSURE SAFETY OF PERSONNEL.

4.0. MATERIAL STORAGE – REMOVE MATERIAL FROM THE SITE AS WORK PROGRESSES.

4.0.1. DISPOSAL OF REMOVED MATERIAL TO BE STORED ON SITE PROVIDED BY OWNER.

4.0.2. SPECIAL REQUIREMENTS FOR REMOVAL AND DISPOSAL OF CONCRETE.

4.0.3. DURING CONCRETE REMOVAL, PROTECT EXISTING BUILDING,INCLUDING, MECHANICAL AND ELECTRICAL SERVICES AND EQUIPMENT THAT IS TO REMAIN.

4.0.4. CONTRACTOR SHALL NOT DAMAGE EXISTING SERVICES DURING CONCRETE DEMOLITION.

4.0.5. REMOVE CONCRETE BY SAW CUTTING MATERIALS INTO TRANSPORTABLE ELEMENTS.

4.0.6. CLEAN-UP:

4.0.7. VACUUM CLEAN AND WASH DOWN ALL EXPOSED CONCRETE AND LEAVE WORK SITE CLEAN.

4.0.8. HOARDING, TRAILERS, MATERIALS, TOOLS, EQUIPMENT, AND VEHICLES USED IN CONNECTION WITH PREPARATION WORK ARE TO BE REMOVED FROM THE SITE.



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DRAWINGS MUST NOT BE SCALED THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST EXISTING CONDITIONS AND MUST REPORT ANY INCONSISTENCY TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND COMPLYING WITH ALL APPLICABLE CONSTRUCTION CODES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION OVER THIS WORK

3	ISSUED FOR TENDER	20250430
2	ISSUED FOR 99% DESIGN	20250409
1	ISSUED FOR 33% DESIGN	20250318
No	Revisions	Date

Orientation	Seal

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A	A Detail No
B	B Sheet No where detailed



Ministry PSIF Number

Project
NEWMARKET COURTHOUSE RETAINING WALL SLAB ON GRADE REPAIR

Location
50 EAGLE ST. WEST
NEWMARKET, ONTARIO
10 Project No 230663 Site No Building No B92346

Client
INFRASTRUCTURE ONTARIO

Drawing Title
GENERAL NOTES AND SPECIFICATIONS

Scale AS NOTED	Project Start Date 20241016
Drawn by R.B	Substantial Performance Date
Designed by V.J	Drawing No S1.0 of
Approved by B.M	Floor No NA
CADD File NAME	

1. HELICAL PILES
- 1.1.

ALL HELICAL PILES SHALL HAVE THE LOAD CAPACITY NOTED ON THE DRAWINGS. HELICAL PILES SHALL BE DESIGNED IN ACCORDANCE WITH THE REFERENCED SOIL REPORT.
- 1.2.

HELICAL PILES SHALL BE SUPPLIED AND INSTALLED BY A COMPANY EXPERIENCED WITH THE INSTALLATION OF HELICAL PILES.
- 1.3.

HELICAL PILES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.
- 1.4.

AN ACCURATE LOG FOR EACH HELICAL PILE INSTALL MUST BE KEPT, INCLUDING TORQUE, SLOPE, AND LENGTH OF EACH PILE.
- 1.5.

CONTRACTOR INSTALLING THE PILES SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN ONTARIO TO DESIGN THE PILES.
- 1.6.

THE PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR SHALL BE EXPERIENCED IN THE DESIGN OF HELICAL PILES AND INSURED AGAINST OMISSIONS AND ERRORS
- 1.7.

SHOP DRAWINGS:
- 1.8.

SUBMIT FOR REVIEW TYPICAL DETAILS OF HELICAL PILES AND ANY SPECIAL CONNECTIONS, BEFORE PREPARATION OF SHOP DRAWINGS.
- 1.9.

PROFESSIONAL ENGINEER RESPONSIBLE FOR HELICAL PILES AND CONNECTION DESIGN SHALL EITHER SIGN AND SEAL EACH SHOP DRAWING SUBMITTED, OR SHALL SUBMIT A SIGNED AND SEALED LETTER AT COMMENCEMENT OF SHOP DRAWING PREPARATION STATING HE WILL ASSUME RESPONSIBILITY FOR COMPLIANCE OF HELICAL PILES AND CONNECTIONS WITH THIS SPECIFICATION.
- 1.10.

WHERE NEW WORK CONNECTS TO EXISTING CONSTRUCTION, DETERMINE EXISTING CONDITIONS AND ALL DIMENSIONS ON SITE, INCLUDING VERIFICATION OF ALL DIMENSIONS ON DRAWINGS. REPORT ANY NECESSARY ADJUSTMENT TO CONSULTANT.
- 1.11.

PRIOR TO SUBMISSION TO CONSULTANT, CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS. BY THIS REVIEW CONTRACTOR REPRESENTS TO HAVE DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, SITE CONDITIONS, MATERIALS, CATALOGUE NUMBER AND SIMILAR DATA, AND TO HAVE CHECKED AND COORDINATED EACH SHOP DRAWING WITH THE REQUIREMENTS OF WORK AND OF CONTRACT DOCUMENTS. CONTRACTOR'S REVIEW OF EACH SHOP DRAWING SHALL BE INDICATED BY STAMP, DATE AND SIGNATURE OF A RESPONSIBLE PERSON.
- 1.12.

CONSULTANT WILL REVIEW AND RETURN SHOP DRAWING IN ACCORDANCE WITH AN AGREED SCHEDULE. CONSULTANT'S REVIEW WILL BE FOR CONFORMITY TO DESIGN CONCEPT AND FOR GENERAL ARRANGEMENT, AND SHALL NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR MEETING ALL REQUIREMENTS OF CONTRACT DOCUMENTS.
- 1.13.

CONTRACTOR SHALL MAKE CHANGES IN SHOP DRAWINGS WHICH CONSULTANT MAY REQUIRE, CONSISTENT WITH CONTRACT DOCUMENTS, AND RESUBMIT UNLESS OTHERWISE DIRECTED BY CONSULTANT. WHEN RESUBMITTING, CONTRACTOR SHALL NOTIFY CONSULTANT IN WRITING OF REVISIONS OTHER THAN THOSE REQUESTED BY CONSULTANT.

1. DESIGN LOADS ARE UNFACTORED UNLESS NOTED OTHERWISE,
- A.

CLIMATE DESIGN DATA (NEWMARKET):

SNOW LOAD

Ss=2.0 kPa
Sr=0.4 kPa
- WIND PRESSURE

$q(\frac{1}{30})=0.38\text{kPa}$
- SEISMIC DATA

Sa(0.2)=0.19
Sa(0.5)=0.10
Sa(1.0)=0.051
Sa(2.0)=0.014
PGA =0.10

B.

BUILDING IMPORTANCE CATEGORY =NORMAL

C.

live load=4.8 kpa



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No	Revisions	Date

Orientation	Seal

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A

B

A Detail No

B Sheet No where detailed



Ministry PSIF Number

Project

NEWMARKET COURTHOUSE RETAINING WALL SLAB ON GRADE REPAIR

Location

50 EAGLE ST. WEST
NEWMARKET, ONTARIO

ID Project No

230663

Site No

Building No

B92346

Client

INFRASTRUCTURE ONTARIO

Drawing Title

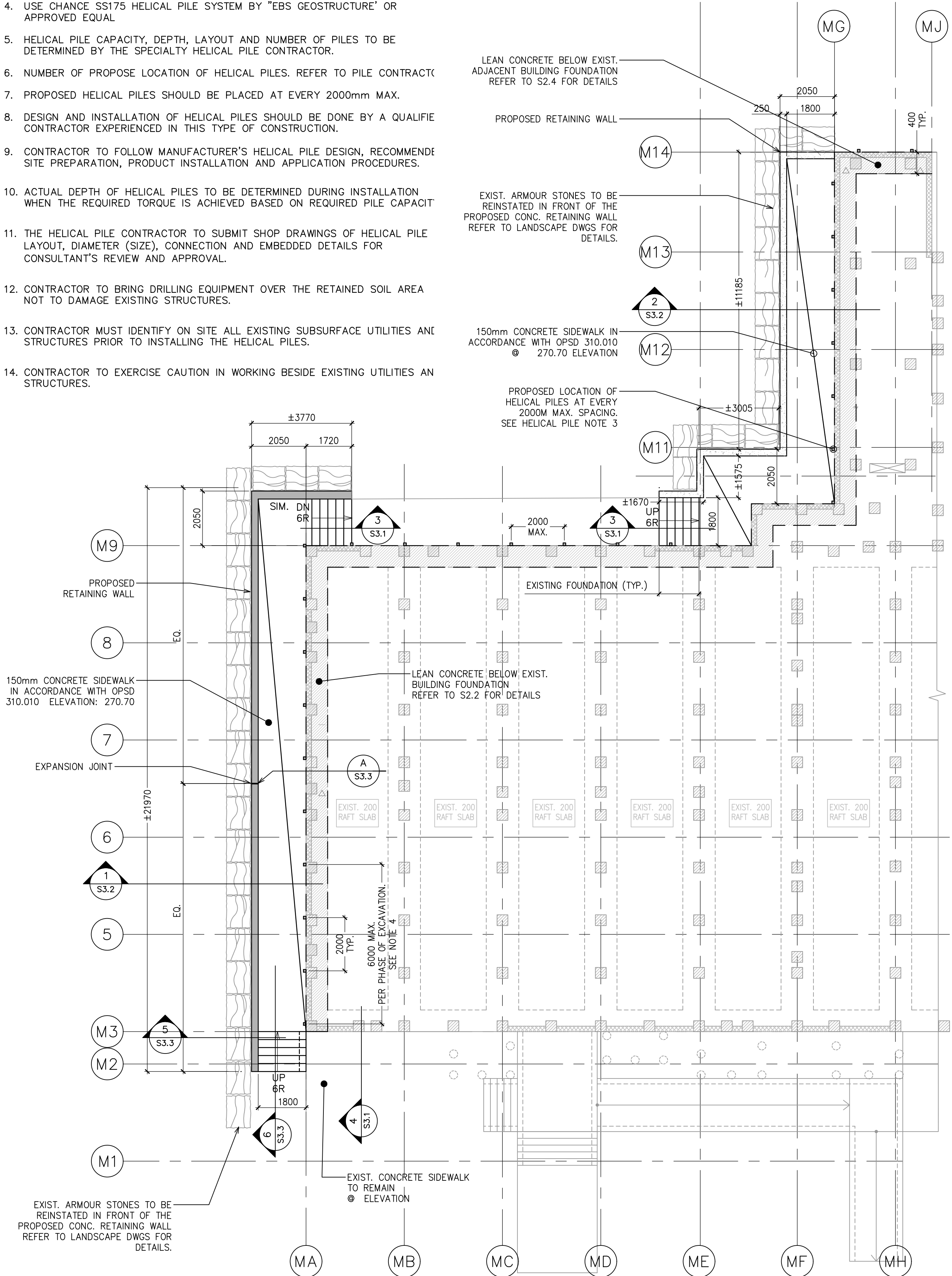
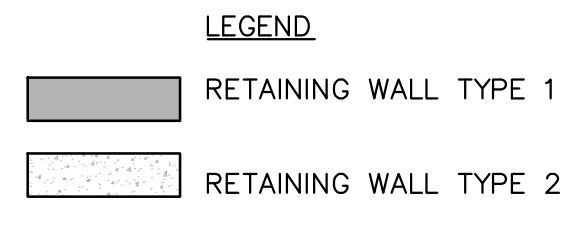
GENERAL NOTES AND SPECIFICATIONS

Scale	Project Start Date
AS NOTED	20241016
Drawn by	Substantial Performance Date
R.B	
Designed by	Drawing No
V.J	
Approved by	Floor No
B.M	NA
CADD File NAME	

S1.1 of

NOTES:

1. REFER TO GENERAL NOTES AND SPECIFICATIONS. SEE DWG. S1.0
2. REFER TO GEOTECHNICAL INVESTIGATION REPORT BY DS CONSULTANTS LTD. (DS PROJECT NO: 21-065-100) DATED MAY 25,2021.
3. DESIGN OF HELICAL PILES BY CONTRACTOR SUCH AS "EBS GEOSTRUCTURAL"
4. USE CHANCE SS175 HELICAL PILE SYSTEM BY "EBS GEOSTRUCTURE" OR APPROVED EQUAL
5. HELICAL PILE CAPACITY, DEPTH, LAYOUT AND NUMBER OF PILES TO BE DETERMINED BY THE SPECIALTY HELICAL PILE CONTRACTOR.
6. NUMBER OF PROPOSE LOCATION OF HELICAL PILES. REFER TO PILE CONTRACT
7. PROPOSED HELICAL PILES SHOULD BE PLACED AT EVERY 2000mm MAX.
8. DESIGN AND INSTALLATION OF HELICAL PILES SHOULD BE DONE BY A QUALIFIE CONTRACTOR EXPERIENCED IN THIS TYPE OF CONSTRUCTION.
9. CONTRACTOR TO FOLLOW MANUFACTURER'S HELICAL PILE DESIGN, RECOMMENDE SITE PREPARATION, PRODUCT INSTALLATION AND APPLICATION PROCEDURES.
10. ACTUAL DEPTH OF HELICAL PILES TO BE DETERMINED DURING INSTALLATION WHEN THE REQUIRED TORQUE IS ACHIEVED BASED ON REQUIRED PILE CAPACIT
11. THE HELICAL PILE CONTRACTOR TO SUBMIT SHOP DRAWINGS OF HELICAL PILE LAYOUT, DIAMETER (SIZE), CONNECTION AND EMBEDDED DETAILS FOR CONSULTANT'S REVIEW AND APPROVAL.
12. CONTRACTOR TO BRING DRILLING EQUIPMENT OVER THE RETAINED SOIL AREA NOT TO DAMAGE EXISTING STRUCTURES.
13. CONTRACTOR MUST IDENTIFY ON SITE ALL EXISTING SUBSURFACE UTILITIES ANI STRUCTURES PRIOR TO INSTALLING THE HELICAL PILES.
14. CONTRACTOR TO EXERCISE CAUTION IN WORKING BESIDE EXISTING UTILITIES AN STRUCTURES.

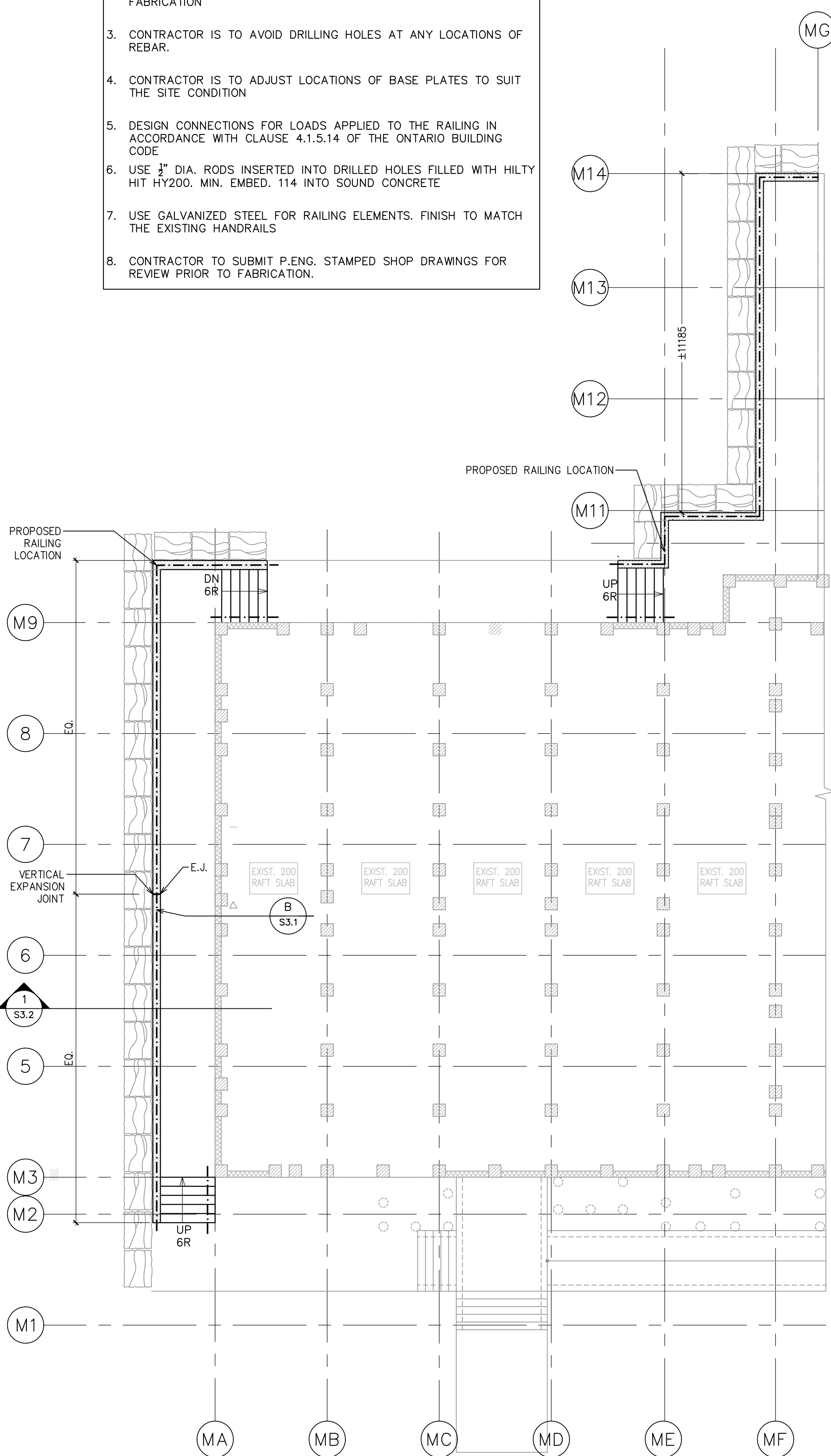


RETAINING WALL FOUNDATION PLAN
AND EXISTING BUILDING HELICAL PILE PLAN

1:100

NOTES:

1. REFER TO GENERAL NOTES AND SPECIFICATIONS (SEE DWG. S1.0)
2. CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO FABRICATION
3. CONTRACTOR IS TO AVOID DRILLING HOLES AT ANY LOCATIONS OF REBAR.
4. CONTRACTOR IS TO ADJUST LOCATIONS OF BASE PLATES TO SUIT THE SITE CONDITION
5. DESIGN CONNECTIONS FOR LOADS APPLIED TO THE RAILING IN ACCORDANCE WITH CLAUSE 4.1.5.14 OF THE ONTARIO BUILDING CODE
6. USE 1" DIA. RODS INSERTED INTO DRILLED HOLES FILLED WITH HILTY HIT HY200. MIN. EMBED. 114 INTO SOUND CONCRETE
7. USE GALVANIZED STEEL FOR RAILING ELEMENTS. FINISH TO MATCH THE EXISTING HANDRAILS
8. CONTRACTOR TO SUBMIT P.ENG. STAMPED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.



RAILING REPLACEMENT PLAN

1:100



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Orientation	Seal

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B	B Sheet No where detailed



Ministry PSIF Number

Project
NEWMARKET COURTHOUSE RETAINING
WALL SLAB ON GRADE REPAIR

Location
50 EAGLE ST. WEST
NEWMARKET, ONTARIO
IO Project No: 230663 Site No: B92346 Building No: B92346

Client
INFRASTRUCTURE ONTARIO

Drawing Title
FOUNDATION PLAN

Scale AS NOTED	Project Start Date 20241016
Drawn by R.B	Substantial Performance Date
Designed by V.J	Drawing No S2.1 of
Approved by B.M	Floor No NA
CADD File NAME	



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Orientation	Seal

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Ministry PSIF Number

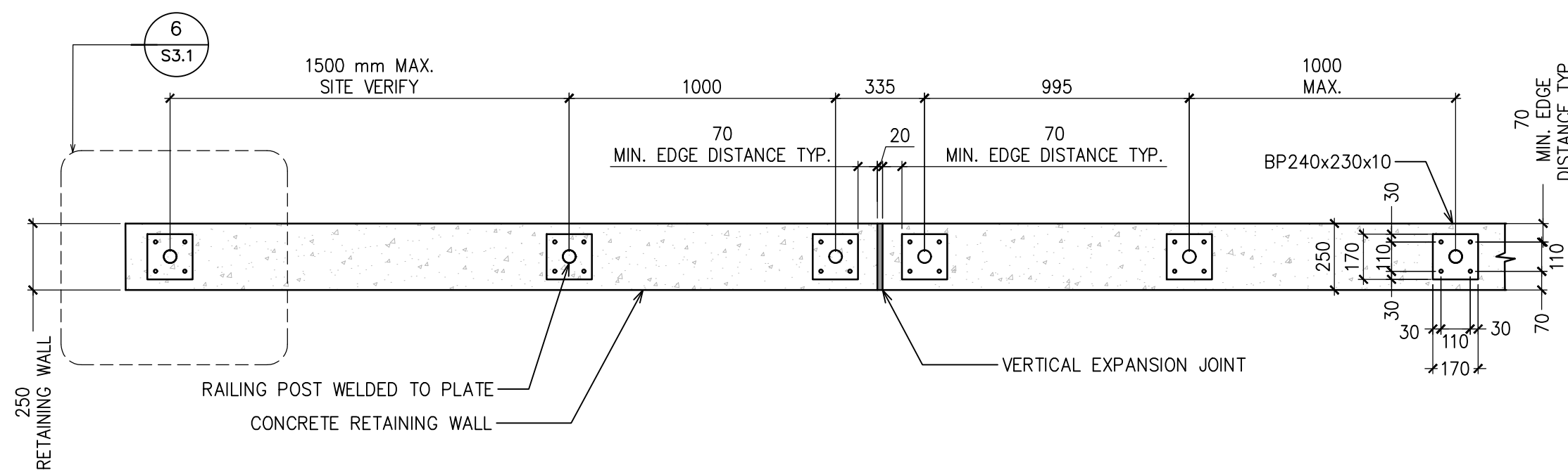
Project
NEWMARKET COURTHOUSE RETAINING
WALL SLAB ON GRADE REPAIR

Location
50 EAGLE ST. WEST
NEWMARKET, ONTARIO
IO Project No. 230663 Site No. B92346

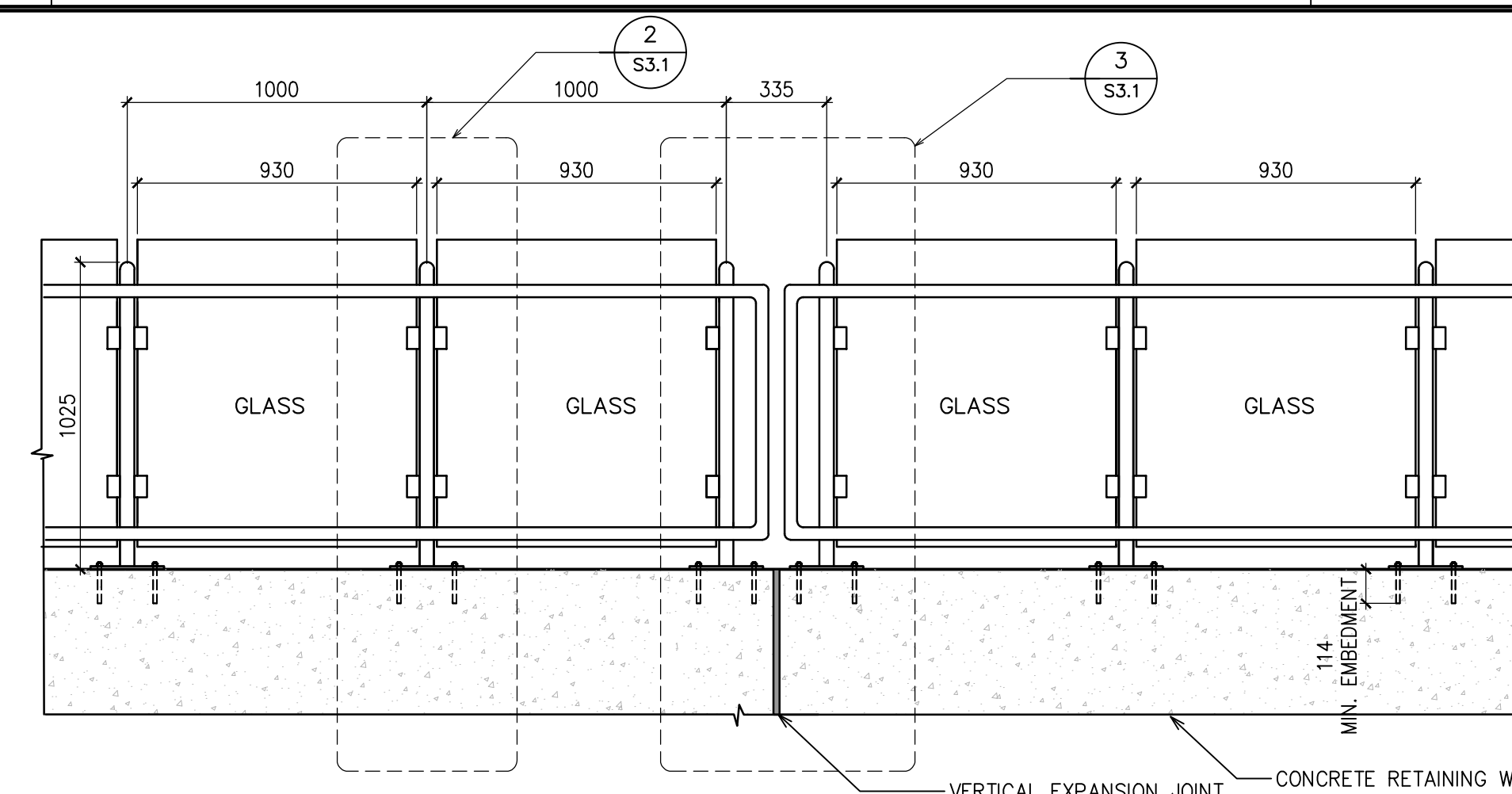
Client
INFRASTRUCTURE ONTARIO

Drawing Title
RAILING DETAILS

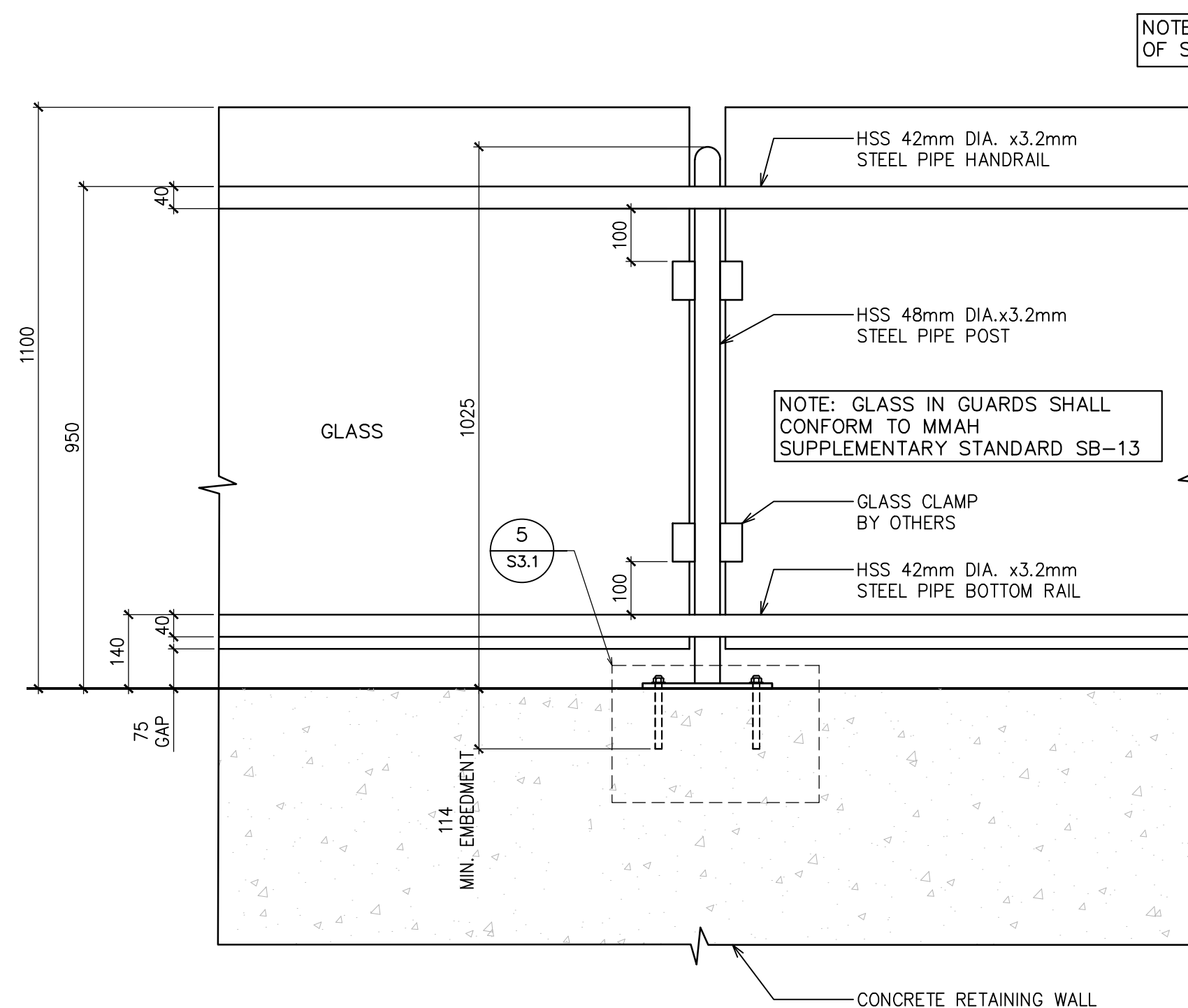
Scale AS NOTED	Project Start Date 20241016
Drawn by R.B	Substantial Performance Date
Designed by F.H.	Drawing No S3.1 of
Approved by B.M	Floor No NA
CADD File NAME	



RAILING PLAN DETAIL
1:20

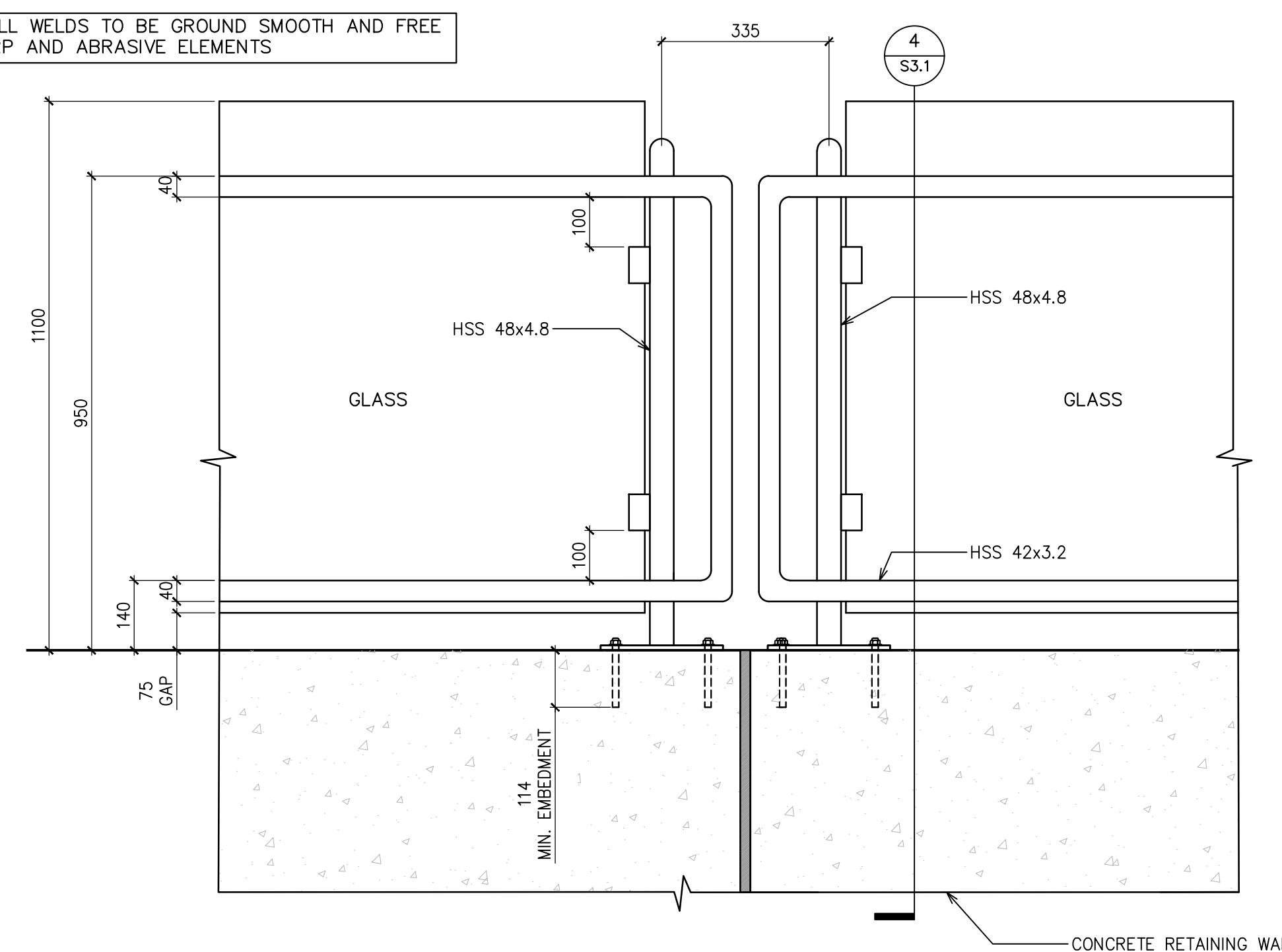


TYPICAL RAILING ELEVATION
1:20

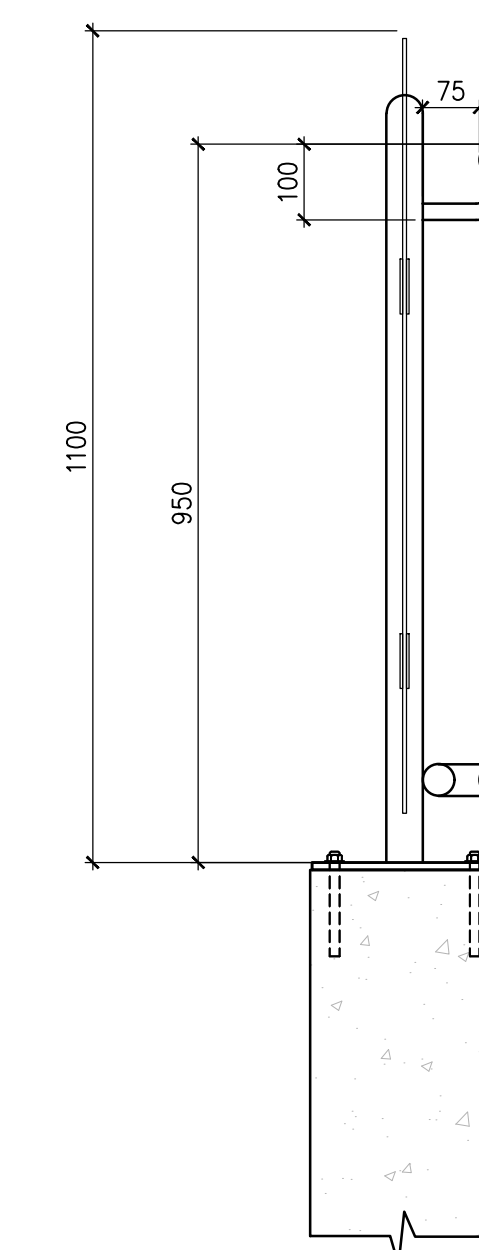


DETAIL TYPICAL
1:10

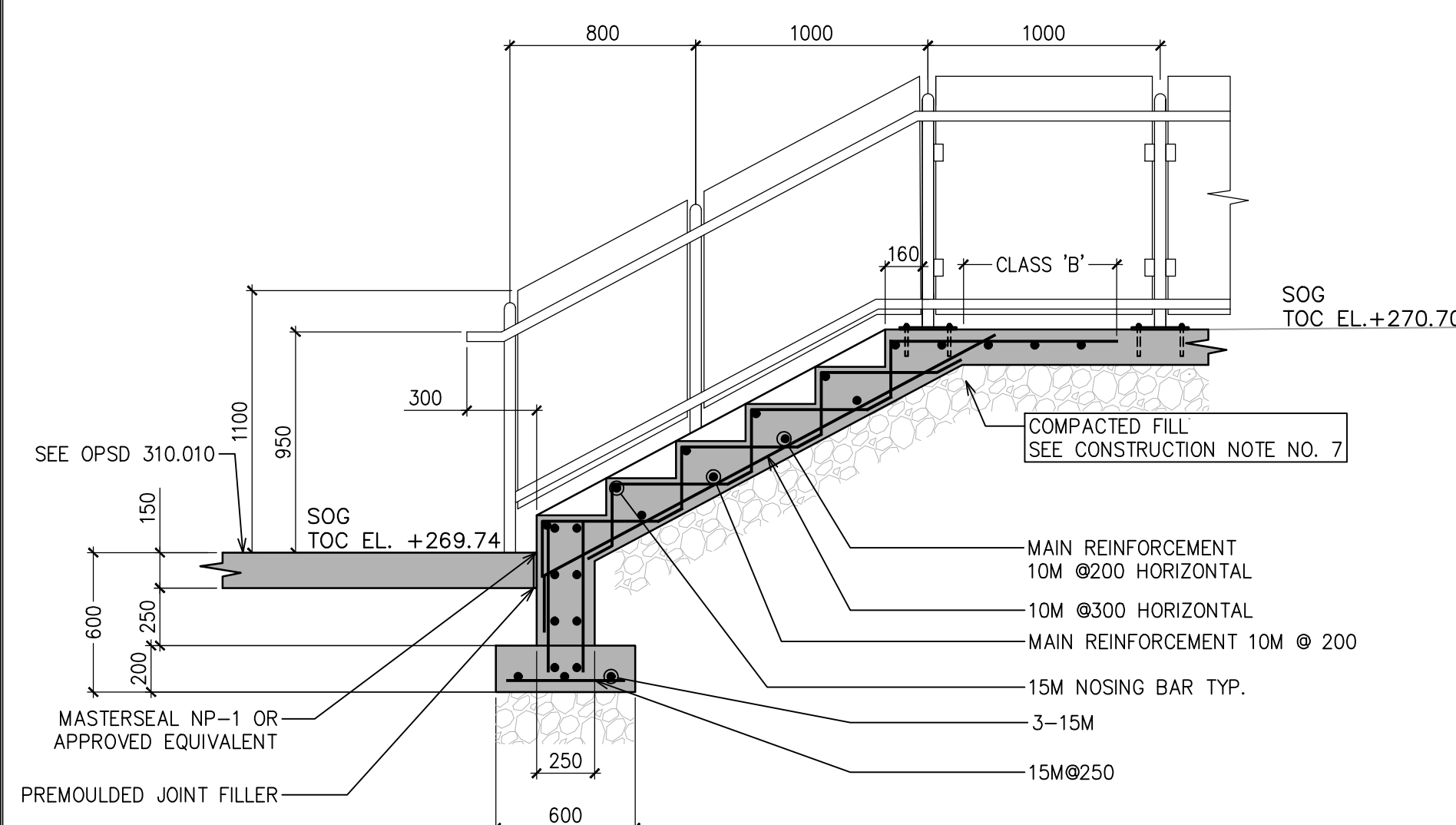
NOTE: ALL WELDS TO BE GROUND SMOOTH AND FREE OF SHARP AND ABRASIVE ELEMENTS



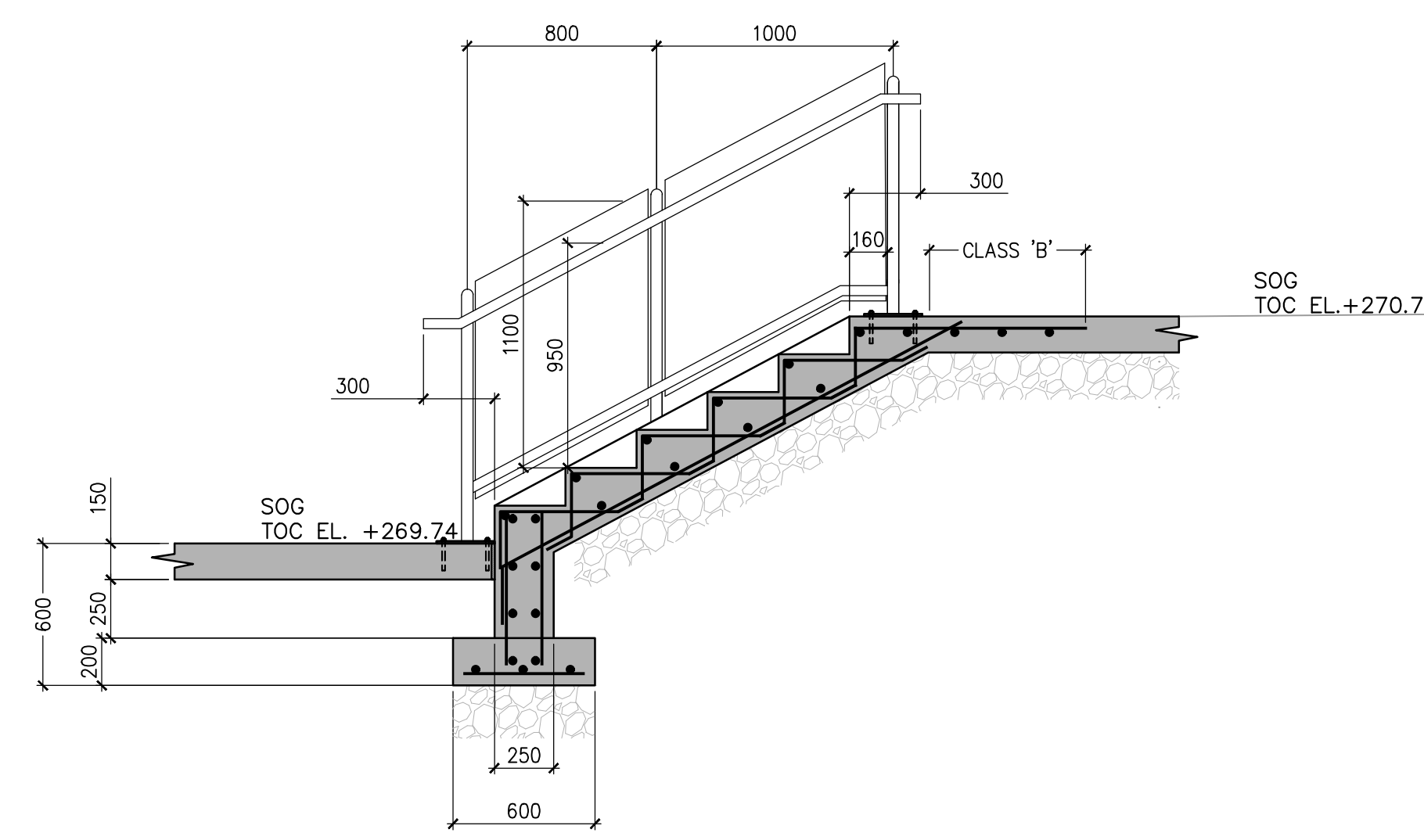
DETAIL AT EXPANSION JOINT
1:10



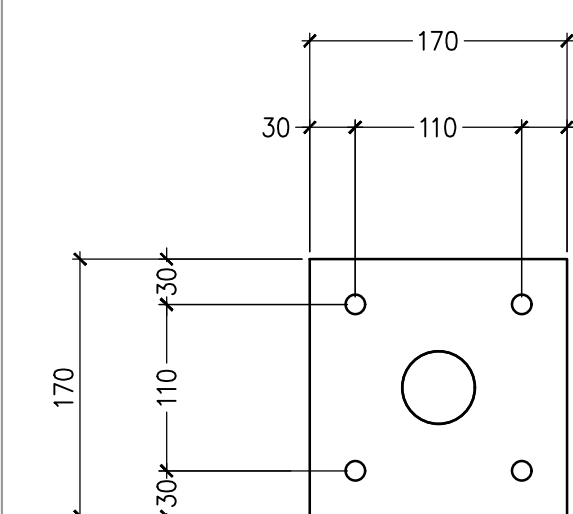
TYPICAL GUARD RAIL SECTION
1:10



TYPICAL STAIR SECTION 1
1:25



TYPICAL STAIR SECTION 2
1:25



BASE PLATE DETAIL
1:10

1. REFER TO GENERAL NOTES AND SPECIFICATIONS. SEE DWG S1.0
2. REFER TO SOIL REPORT BY DS CONSULTANTS LTD. DATED MAY25TH, 2021
3. FACTORED LOAD TO THE EXISTING FOUNDATION: 45 kN/M
4. USE CHANCE SS175 HELICAL PILE SYSTEM BY "EBS GEOSTRUCTURE" OR APPROVED EQUAL.
5. DESIGN OF HELICAL PILES BY CONTRACTOR SUCH AS "EBS GEOSTRUCTURAL"
6. NUMBER OF PROPOSE LOCATION OF HELICAL PILES REFER PILE CONTRACTOR
7. PROPOSED HELICAL PILES SHOULD BE PLACED AT EVERY 2000mm MAX. SPACING
8. HELICAL PILE CAPACITY, DEPTH, FINAL LAYOUT AND NUMBER OF PILES TO BE DETERMINED BY THE SPECIALTY HELICAL PILE CONTRACTOR.
9. DESIGN AND INSTALLATION OF HELICAL PILES SHOULD BE DONE BY A QUALIFIED CONTRACTOR EXPERIENCED IN THIS TYPE OF CONSTRUCTION.
10. CONTRACTOR TO FOLLOW MANUFACTURER'S HELICAL PILE DESIGN, RECOMMENDED SITE PREPARATION, PRODUCT INSTALLATION AND APPLICATION PROCEDURES.
11. ACTUAL DEPTH OF HELICAL PILES TO BE DETERMINED DURING INSTALLATION WHEN THE REQUIRED TORQUE IS ACHIEVED BASED ON REQUIRED PILE CAPACITY.
12. DESIGN OF THE HELICAL PILE STEEL BRACKET CONNECTION TO CONCRETE IS DONE AND PROVIDED BY THE SPECIALTY HELICAL PILE CONTRACTOR.
13. THE HELICAL PILE CONTRACTOR TO SUBMIT SHOP DRAWINGS OF HELICAL PILE LAYOUT, DIAMETER (SIZE), CONNECTION AND EMBEDDED DETAILS FOR CONSULTANT'S REVIEW AND APPROVAL.
14. CONTRACTOR TO BRING DRILLING EQUIPMENT OVER THE RETAINED SOIL AREA NOT TO DAMAGE EXISTING STRUCTURES.
15. CONTRACTOR MUST IDENTIFY ON SITE ALL EXISTING SUBSURFACE UTILITIES AND STRUCTURES PRIOR TO INSTALLING THE HELICAL PILES.
16. HELICAL PILE DESIGN LOAD (DESIGN LOADS ARE IN ULS).
Pf=100Kn
Vf=15Kn



1. PARTIAL EXCAVATION TO INSTALL HELICAL PILES.
2. INSTALL HELICAL PILE TO PREVENT UNDERMINING OF EXISTING BLDG. FOUNDATION
3. EXCAVATE IN 600mm DEPTH LIFT. CONTRACTOR TO PROVIDE SOIL RETENTION SHORING AGAINST EXISTING SOIL UNDER THE BLDG. TO PREVENT EROSION OF SOIL.
4. IN ADDITION, CONTRACTOR SHOULD EXCAVATE BY PHASES AS SHOWN ON PLAN
5. CONTRACTOR TO COMMENCE CONSTRUCTION OF THE EXISTING BUILDING FOUNDATION UNDERPINNING AND RETAINING WALL ERECTION
6. ONCE RETAINING WALL REACHED 100% CURING, CONTRACTOR CAN POUR CONCRETE UNDER THE EXCAVATED BLDG. FOUNDATION IN THE SAME 600 LIFT TO PROPERTY. REMOVE SOIL SHORING
7. BACKFILL AND COMPACTION OF THE SOIL BEING SUPPORTED BY THE RETAINING WALL SHOULD FOLLOW ACCORDING TO THE 600 LIFT, COMPACT IT TO 98% STANDARD PROCTOR UNTIL IT REACHED THE TOP



Scale AS NOTED	Project Start Date 20241016
Drawn by R.B	Substantial Performance Date
Designed by V.J	Drawing No S3.2 of
Approved by B.M	Floor No NA
CADD File NAME	



Engineers, Scientists, Surveyors

970 LAWRENCE AVE. W. SUITE 600
NORTH YORK, ON, M6A 3B6
416-489-7888 www.mte85.com

DRAWINGS MUST NOT BE SCALED. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST EXISTING CONDITIONS AND MUST REPORT ANY INCONSISTENCY TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND COMPLYING WITH ALL APPLICABLE CONSTRUCTION CODES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

No	Revisions	Date
3	RE-ISSUED FOR TENDER	20250505
2	ISSUED FOR TENDER	20250430
1	ISSUED FOR 99% DESIGN	20250409

Orientation	Seal

The Contractor shall check and verify all dimensions and report all errors and omissions to the IO-Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A	A Detail No
B	B Sheet No where detailed



Ministry PSIF Number

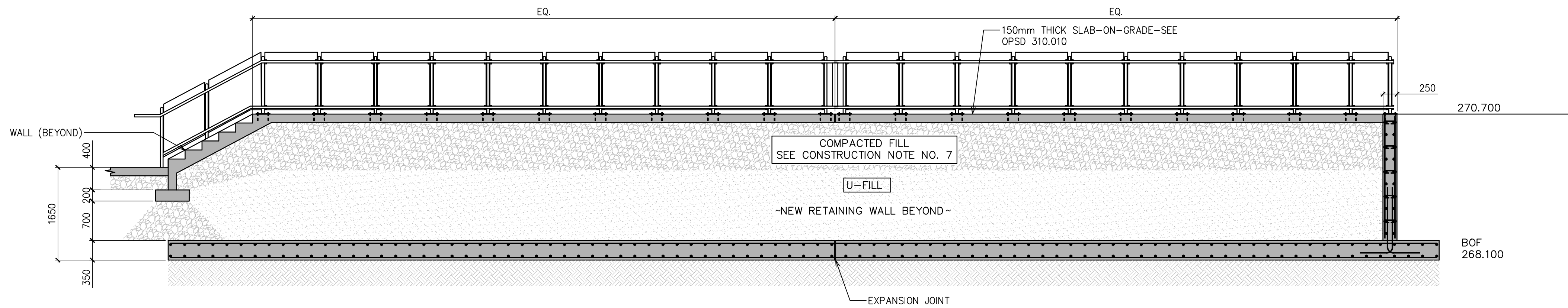
Project
NEWMARKET COURTHOUSE RETAINING
WALL SLAB ON GRADE REPAIR

Location
50 EAGLE ST. WEST
NEWMARKET, ONTARIO
IO Project No. 230663 Site No. B92346

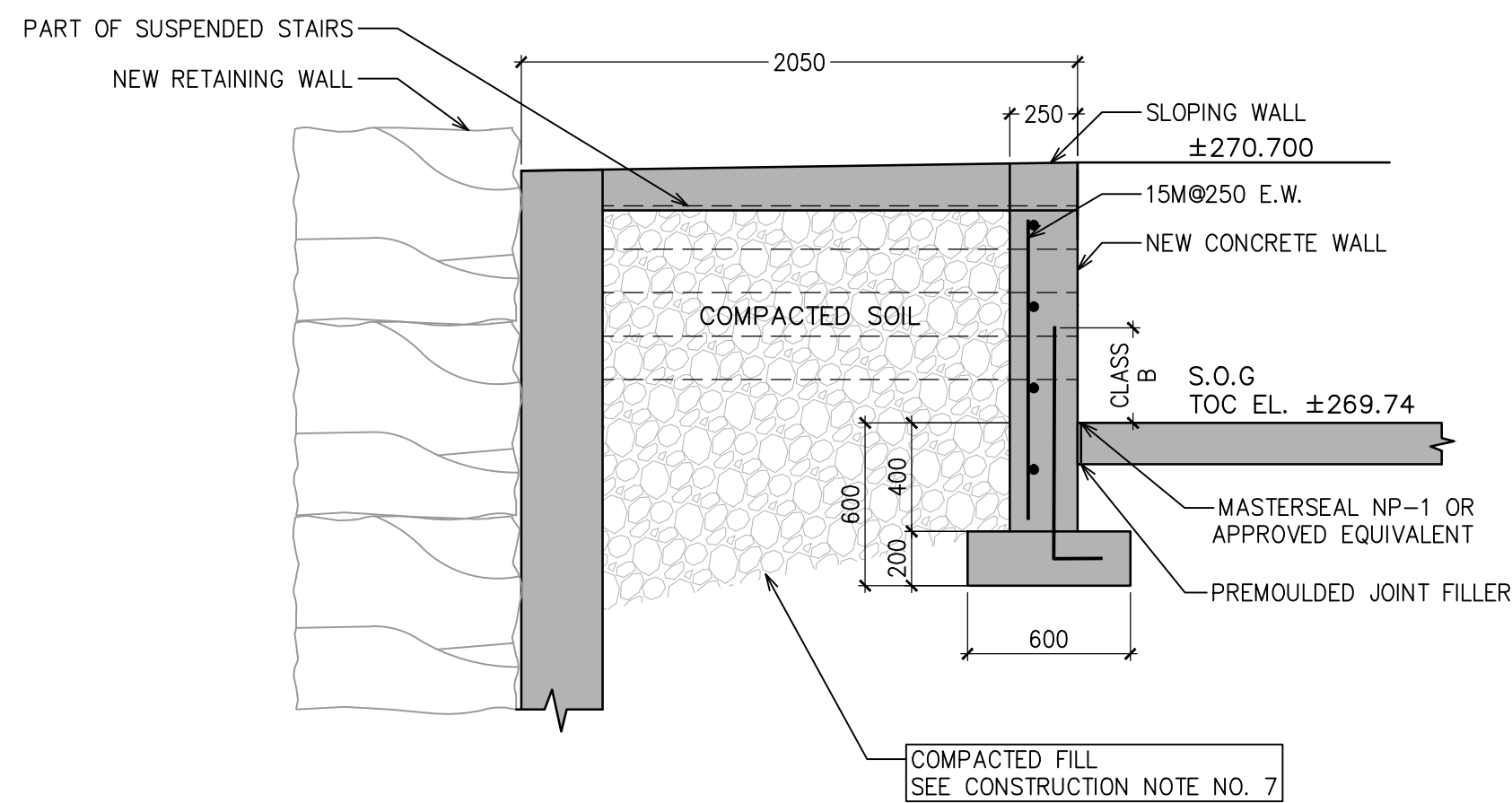
Client
INFRASTRUCTURE ONTARIO

Drawing Title
SECTIONS AND DETAILS

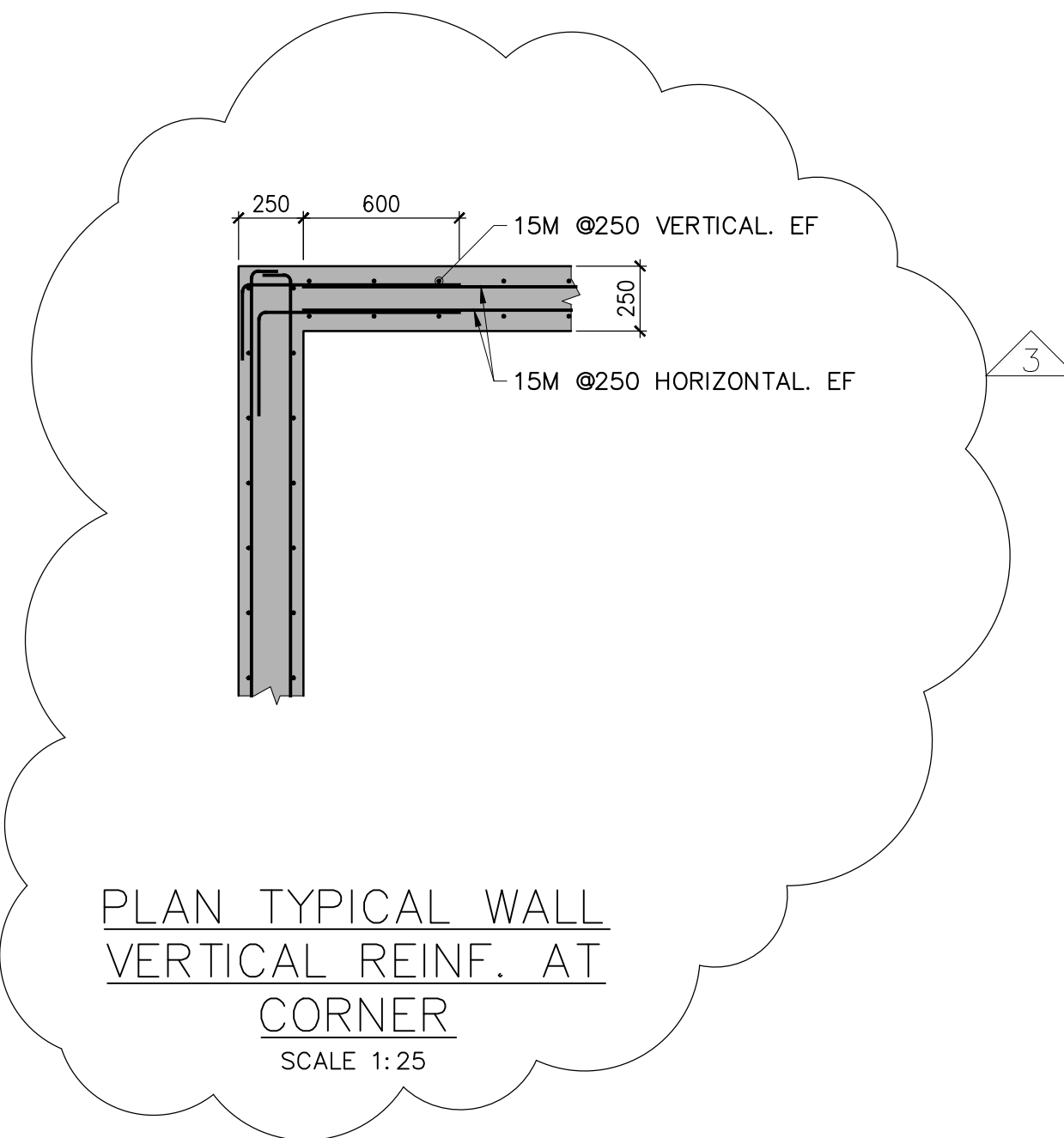
Scale AS NOTED	Project Start Date 20241016
Drawn by R.B	Substantial Performance Date
Designed by V.J	Drawing No S3.3 of
Approved by B.M	Floor No NA
CADD File NAME	



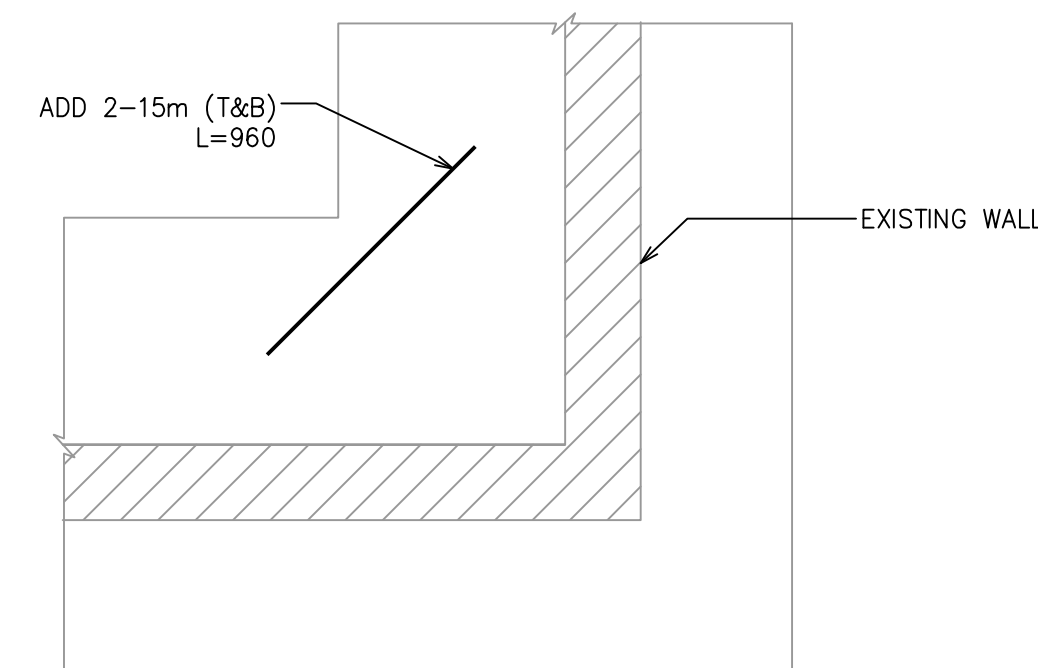
6 LONGITUDINAL SECTION -RETAINING WALL TYPE 1
S2.1 OF RETAINING WALL AND SLAB-ON-GRADE 1:25



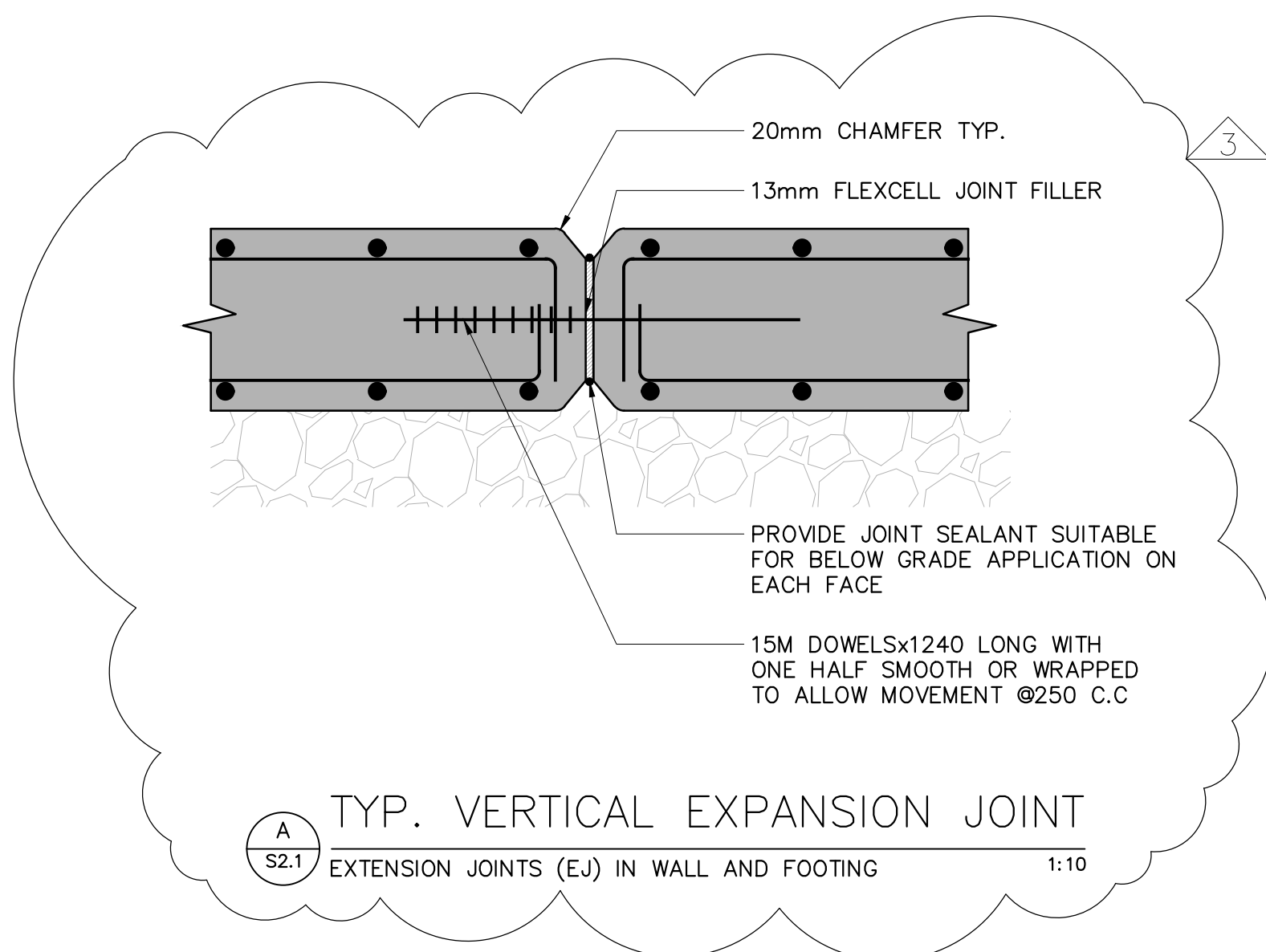
5 TYPICAL STAIR DETAIL
S2.1 1:25



PLAN TYPICAL WALL
VERTICAL REINF. AT
CORNER
SCALE 1:25



PLAN TYPICAL FOOTING AT
CORNER
SCALE 1:25



A TYP. VERTICAL EXPANSION JOINT
S2.1 EXTENSION JOINTS (EJ) IN WALL AND FOOTING 1:10

NOTES:

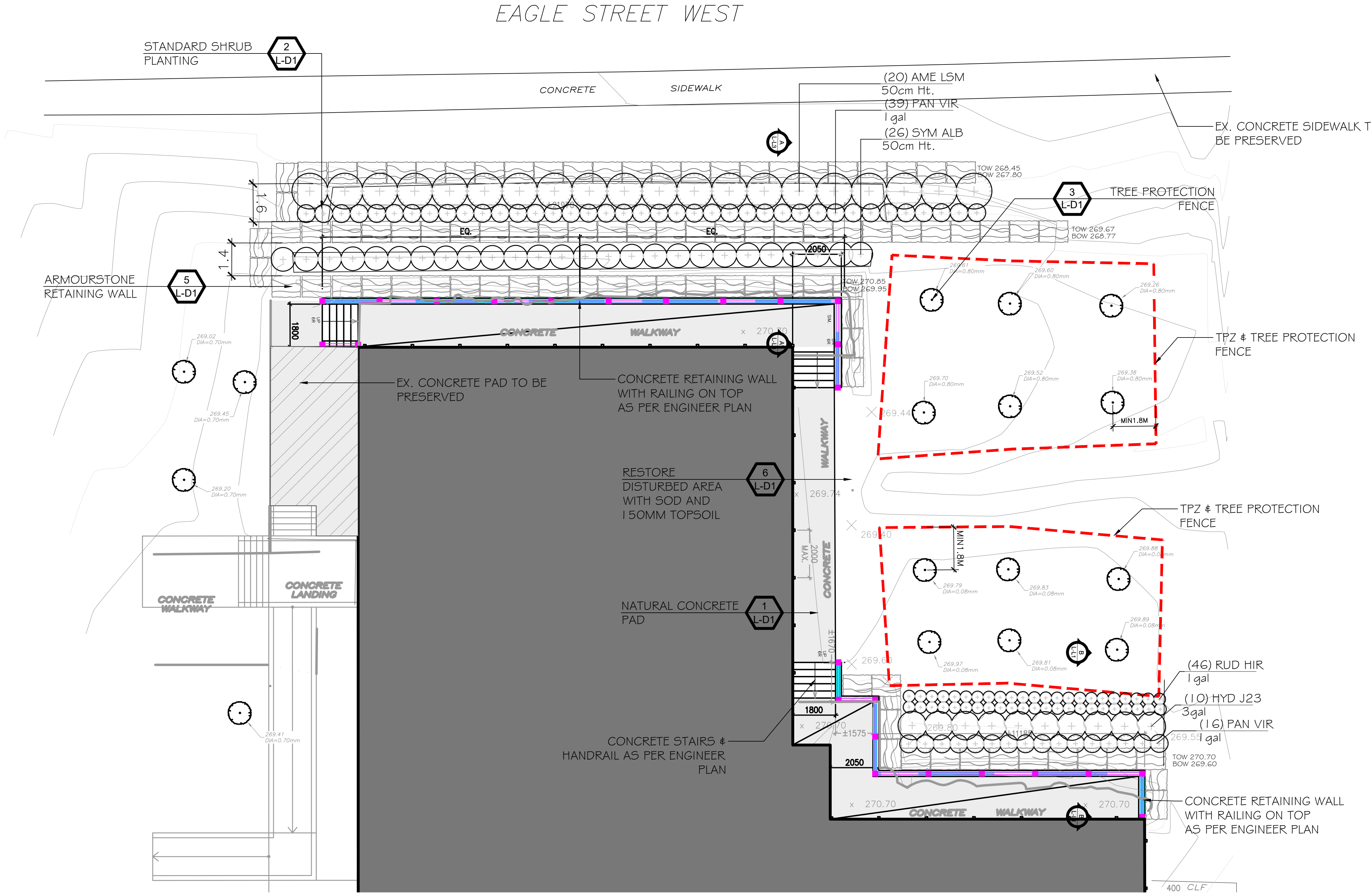
1. PLACE VERTICAL EXTENSION JOINTS IN WALL AND FOOTING AT DESIGNATED LOCATIONS.
2. ONCE CRACK IS INJECTED FROM SIDES OF WALL AND TOP OF FOOTING, FILL REGLET WITH PSI 270RC ELASTOMERIC FILLER.
3. NO CUTTING AND SPLICING OF REINFORCEMENT ARE ALLOWED. ALL REINFORCEMENT SHALL BE CONTINUOUS.

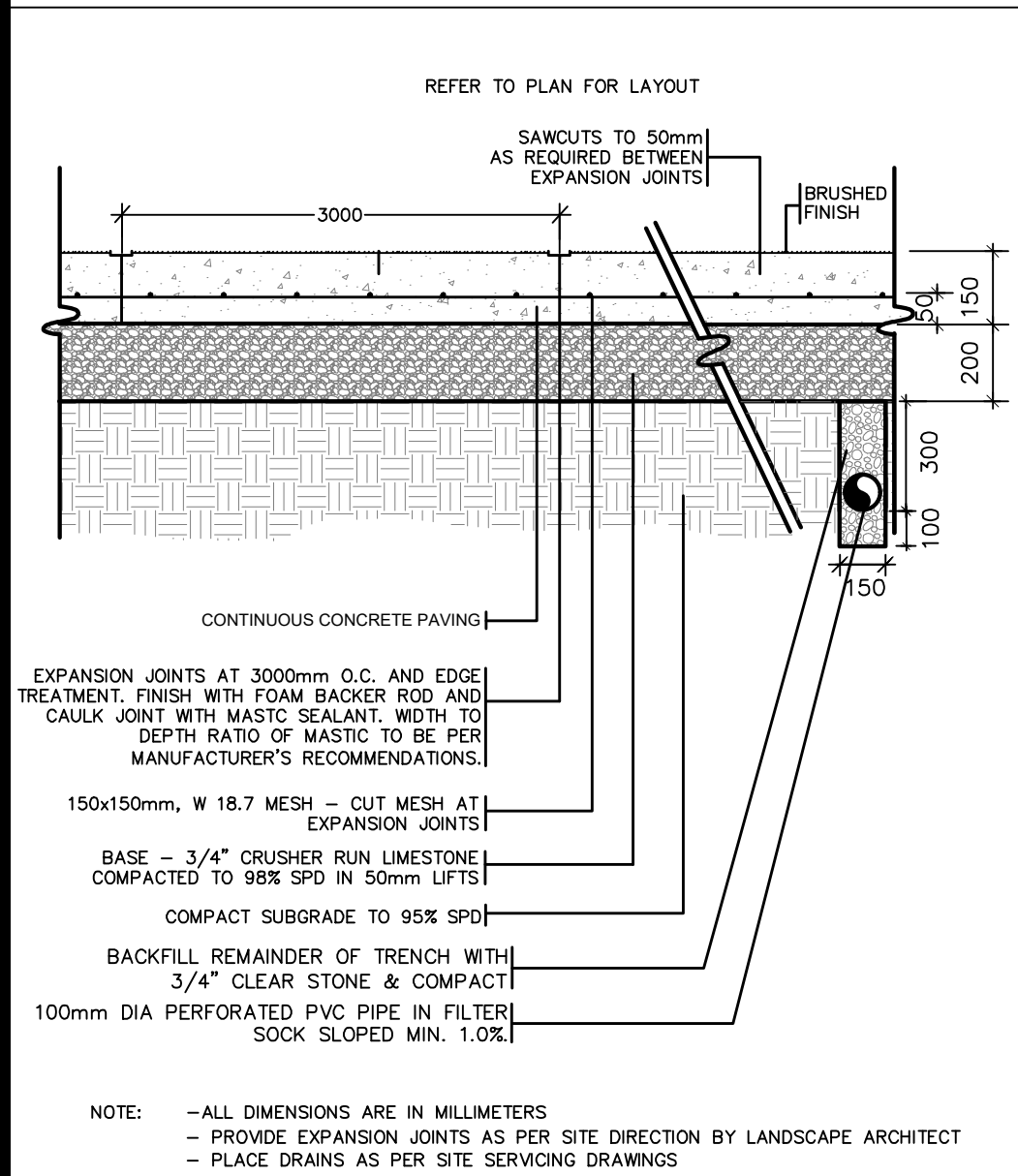
REFERENCE NOTES SCHEDULE LP

SYMBOL	DESCRIPTION	QTY	DETAIL
Concrete Paving			
	NATURAL CONCRETE PAD	92.6 m ²	1/L-D1
	RAILING ON TOP OF CONCRETE RETAINING WALL, SEE ENGINEER PLAN		
	CONCRETE RETAINING WALL, SEE ENGINEER PLAN		
	PROTECTION FENCE		
	EXISTING CONCRETE PAD TO BE PRESERVED		

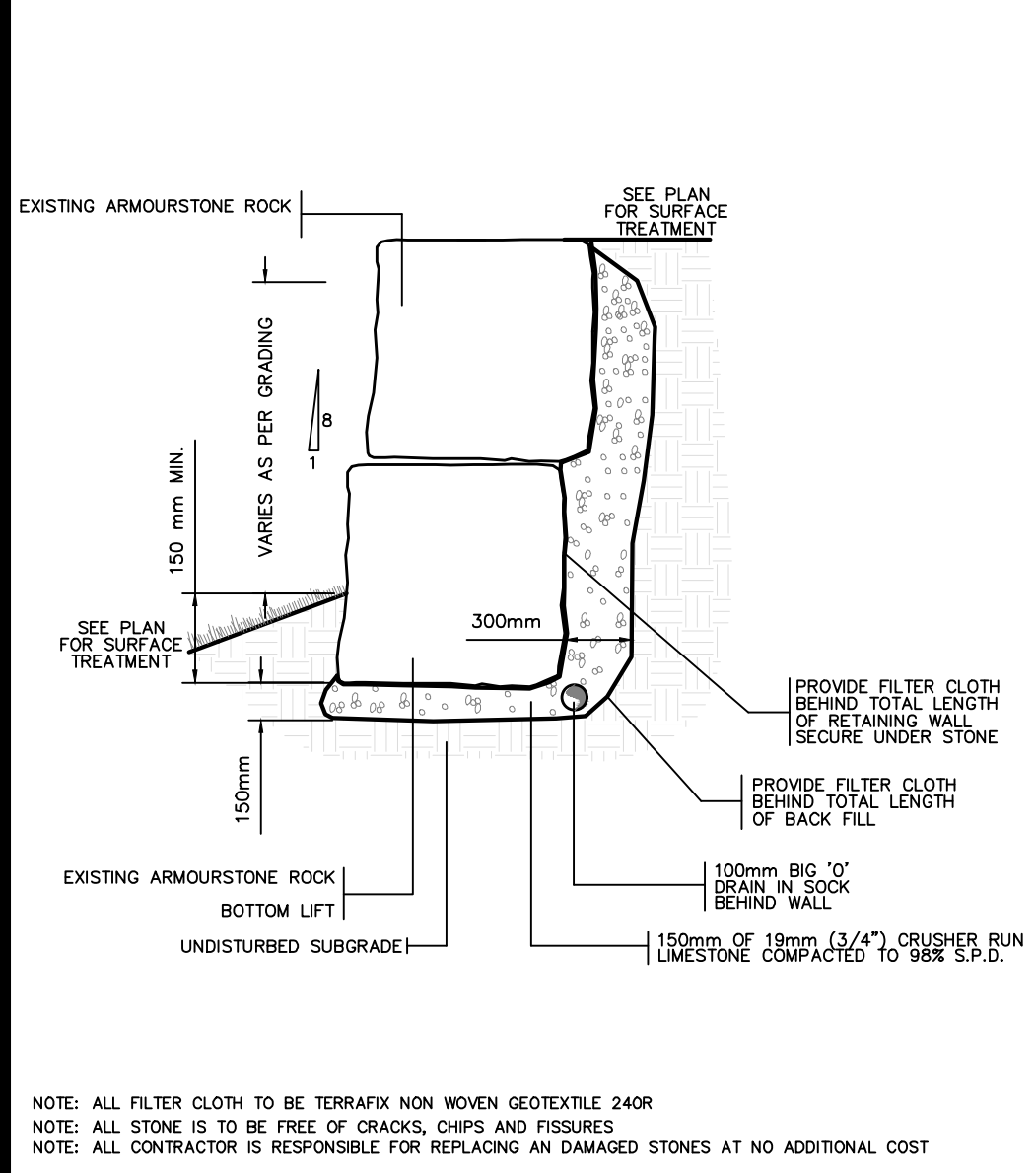
PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT	REMARKS
SHRUBS						
AME LSM	20	Aronia melanocarpa 'Low Scape Mound'	Low Scape Mound® Black Chokeberry	50cm Ht.	Potted	
HYD J23	10	Hydrangea paniculata 'Jane'	Little Lime® Panicle Hydrangea	3gal	Potted	
PAN VIR	55	Panicum virgatum	Switch Grass	1gal	Potted	
RUD HIR	46	Rudbeckia hirta	Black-eyed Susan	1gal	Potted	
SYM ALB	26	Symphoricarpos albus	Common Snowberry	50cm Ht.	Potted	

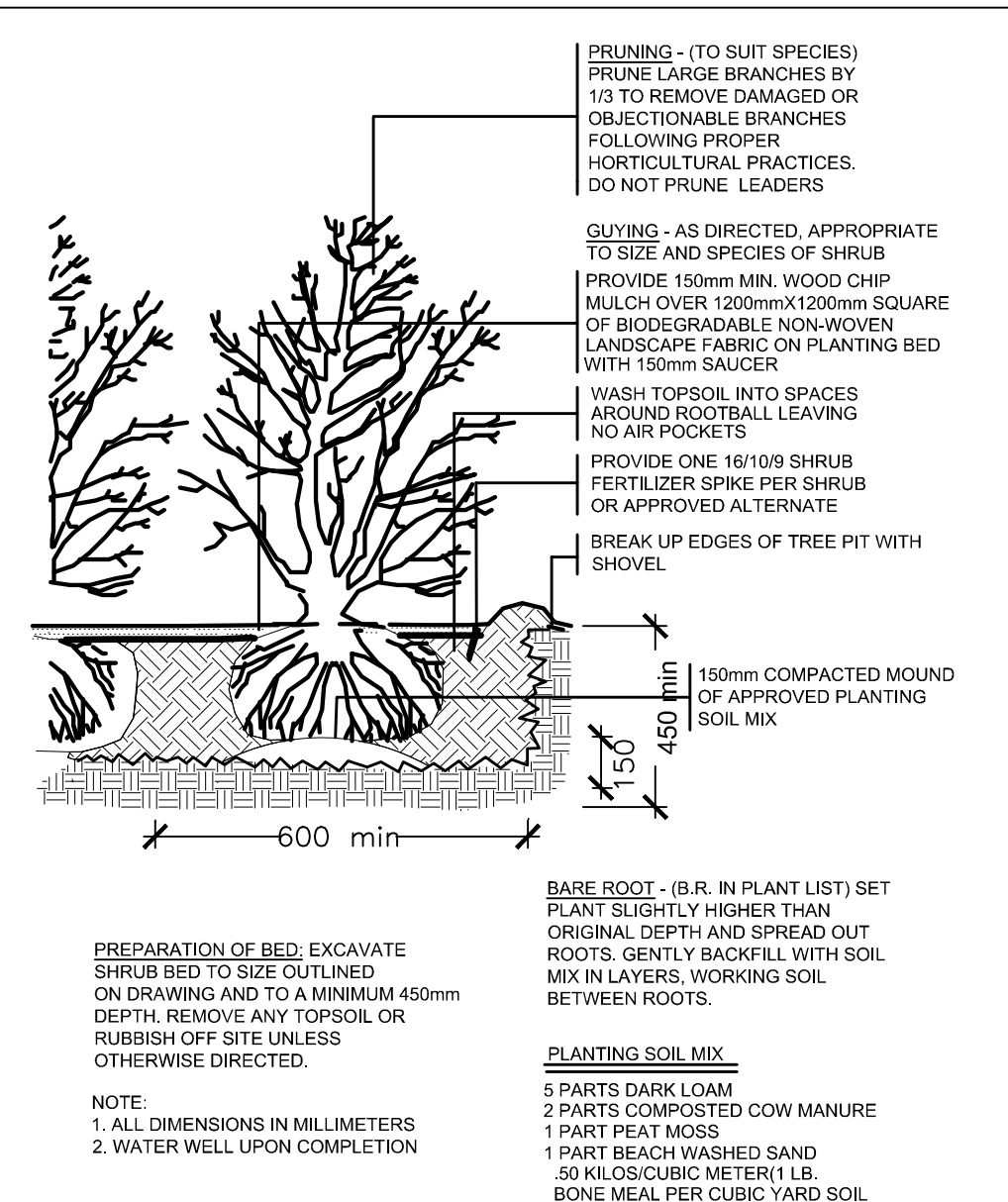




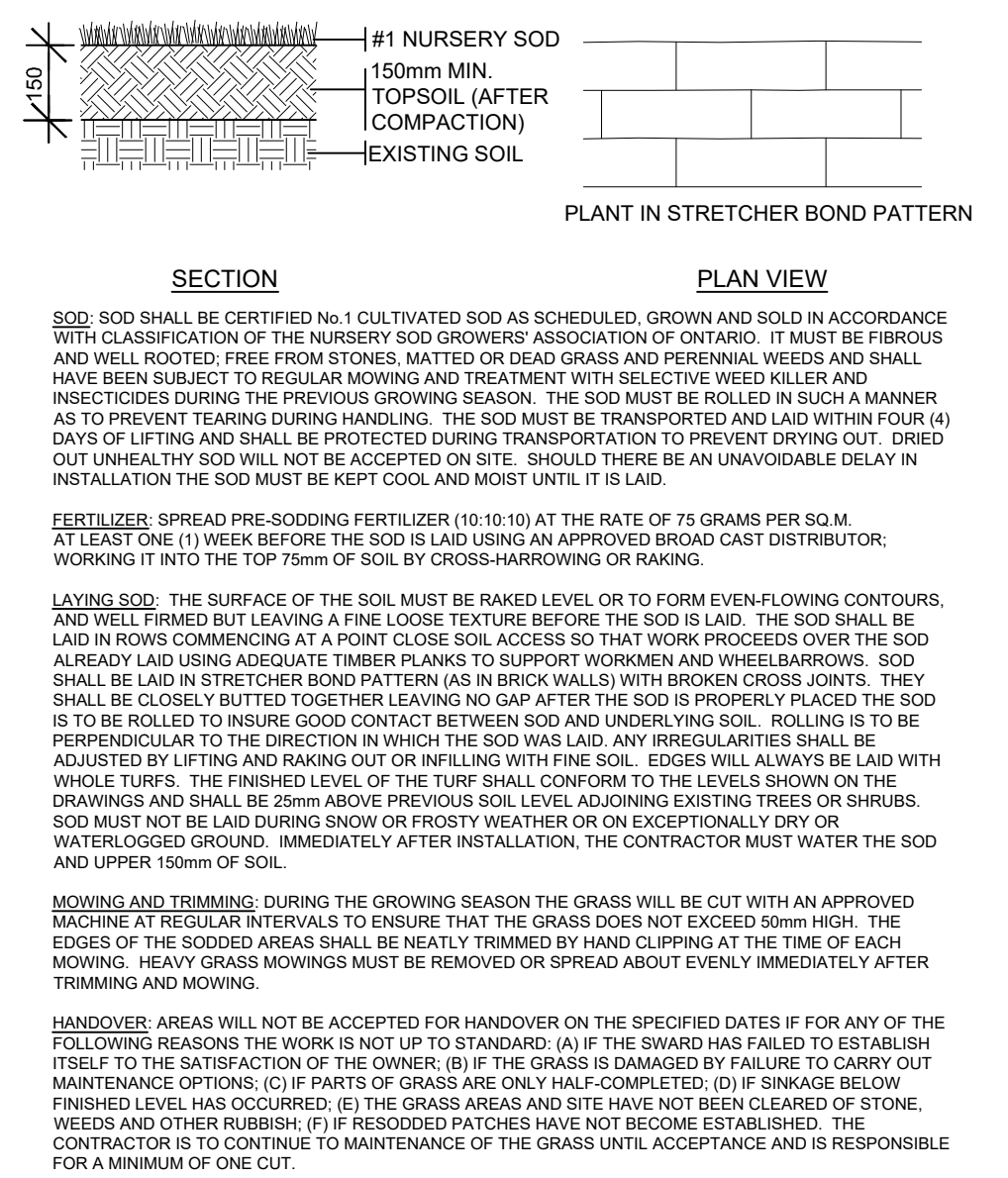
1 NATURAL CONCRETE PAD WITH OPTIONAL DRAIN N.T.S. 321313.13-05



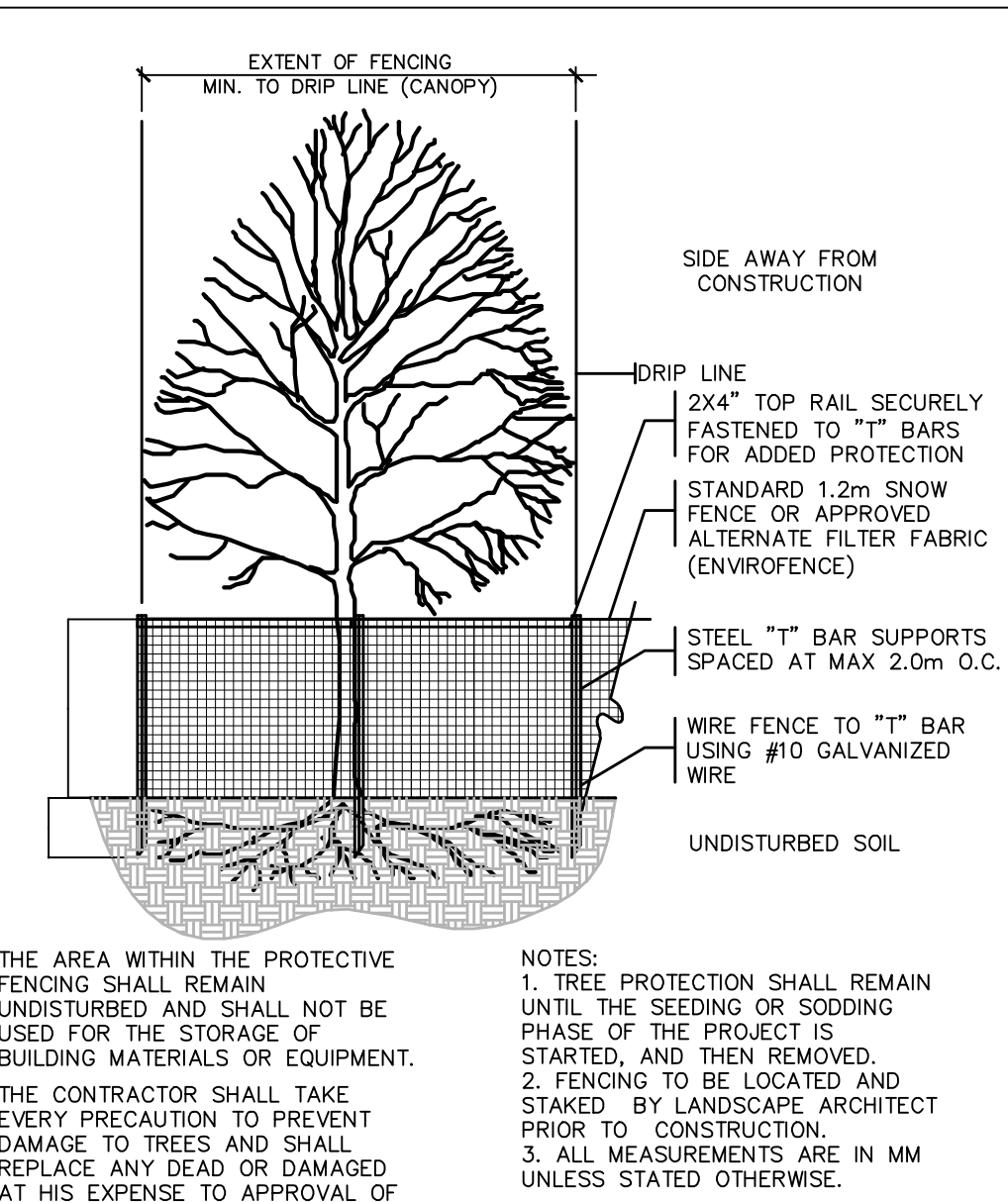
5 ARMOURSTONE RETAINING WALL N.T.S. 322021-03



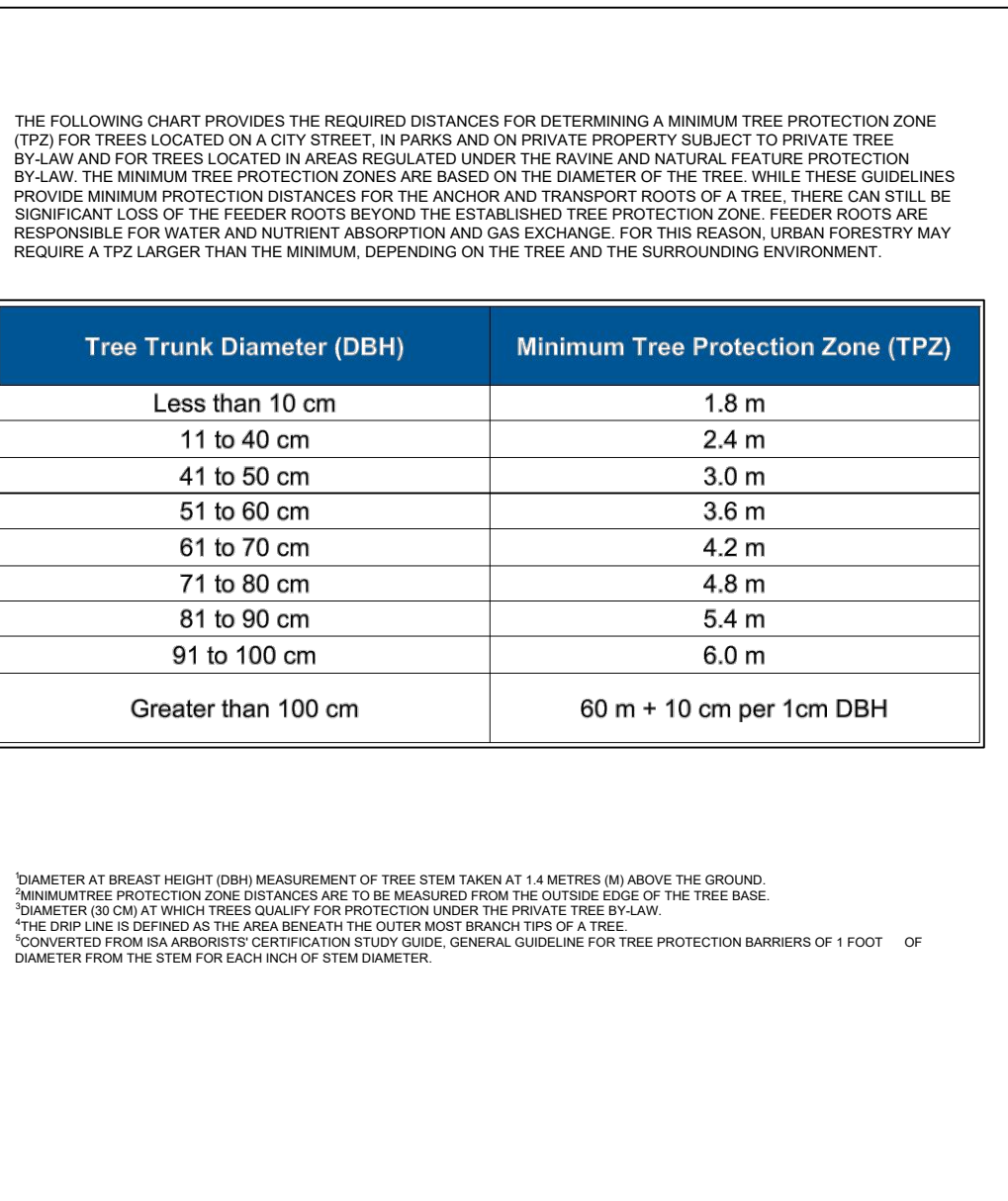
2 STANDARD SHRUB PLANTING N.T.S. 329333.01-01



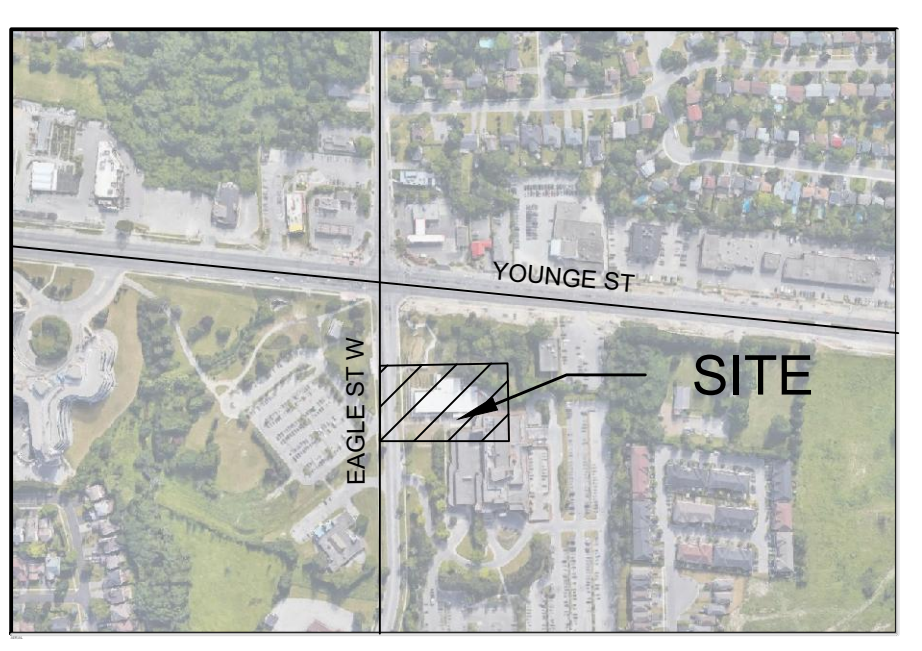
6 SOD OVER 150MM TOPSOIL N.T.S. 32 9223-01



3 TREE PROTECTION FENCE SNOW FENCE WITH T-BARS N.T.S. 323133.99-07



4 TREE PROTECTION ZONE (TPZ) N.T.S. 323133.07-03



No	Revisions	Date
2	UPDATE_AS_PER_SITEPLAN	2025-04-16
1	PRELIMINARY_LANDSCAPE_PLAN	2025-03-14

Orientation

Seal

ASSOCIATION OF LANDSCAPE ARCHITECTS
KYLE FOOTE
MEMBER

The Contractor shall check and verify all dimensions and report all errors and omissions to the IO-Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A Detail No

B Sheet No where detailed

OKLA

Landscape Architects & Consulting Arborists
230 Westney Road S Unit 308, Ajax, ON L1S 7J5
O: (905) 839-5599 | E: info@okla.ca | W: www.okla.ca



Ministry PSIF Number

Project
NEWMARKET COURTHOUSE RETAINING WALL SLAB ON GRADE REPAIR

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Project No.
230663

Site No.
B92346

Building No.
B92346

Client
INFRASTRUCTURE ONTARIO

Drawing Title
DETAIL PLAN

Scale
1:25

Project Start Date
MARCH 2025

Drawn by
KT

Substantial Performance Date

Designed by
KT

Drawing No.
L-D1

Approved by
KF

Floor No.