

LEGEND:

- FUTURE PROPERTY LINE
- - - EXISTING PROPERTY LINE
- - - EXISTING WATERMAIN
- - - EXISTING V&VB
- - - EXISTING VALVE CHAMBER
- - - PROPOSED WATERMAIN
- - - PROPOSED VALVE CHAMBER PER CITY STD DWG W3
- - - PROPOSED FIRE HYDRANT PER CITY STD DWG W19
- - - PROPOSED V&VB
- - - WATER METER LOCATION
- - - REMOTE WATER METER LOCATION
- - - PRESSURE REDUCING VALVE
- - - WATERMAIN INSULATION PER CITY STD DWG W22
- - - EXISTING SANITARY SEWER AND MAINTENANCE HOLE
- - - PROPOSED SANITARY SEWER AND MAINTENANCE HOLE
- - - EXISTING STORM SEWER AND MAINTENANCE HOLE
- - - PROPOSED STORM SEWER AND MAINTENANCE HOLE
- - - PROPOSED REAR YARD CATCH BASIN AS PER CITY STD DWG S31
- - - PROPOSED CATCH BASIN WITH SUBDRAINS PER DETAIL D4
- - - TERRACE (3:1 MAX)
- - - PROPOSED CENTERLINE SWALE
- - - PROPOSED LIGHT STANDARD
- - - CLAY SEAL PER CITY STD DWG S8

KEYNOTES:

- A** 6.8m WM SERVICE - 200mmØ - T/P = 91.72m
CAP 1.5m FROM BUILDING
- B** 135mmØ SAN SERVICE - 9.5m @ 2.0%
INV. @ BLDG = 92.12m
CROSS OVER WM WITH MIN. 0.5m CLEARANCE
CONNECT TO SAN SEWER PER CITY DETAIL S11.1
CAP 1.5m FROM BUILDING
- C** 100mmØ ROOF DRAIN CONNECTION - 11.4m @ 2.0%
INV. @ BLDG = 92.12m
CROSS OVER WM WITH MIN. 0.5m CLEARANCE
CONNECT TO STM SEWER PER CITY DETAIL S11.1
CAP 1.5m FROM BUILDING

WATERMAIN TABLE					
STATION	SURFACE ELEVATION	WM DEPTH	TOP OF WM ELEV.	INV. OF WM ELEV.	NOTES
0+000	93.75	3.44m	90.31	90.11	CONNECTION TO EXISTING SERVICE WITH VALVE CHAMBER PER CITY STD DETAIL W3
0+006	93.85	3.54m	90.31	90.11	45° HORIZONTAL BEND
0+008	94.07	3.76m	90.31	90.11	45° HORIZONTAL BEND
0+009	94.08	2.40m	91.68	91.48	2 x 45° VERTICAL BENDS
0+016	93.98	2.40m	91.58	91.38	45° HORIZONTAL BEND
0+018	93.80	2.40m	91.40	91.20	45° HORIZONTAL BEND
0+020	93.80	2.40m	91.40	91.20	200x200 TEE, 200mm WATER SERVICE CONNECTION
0+021	93.80	2.40m	91.40	91.20	CR-15 REFER TO CROSSING TABLE
0+022	93.80	2.40m	91.40	91.20	CR-01 REFER TO CROSSING TABLE
0+030	93.80	2.40m	91.40	91.20	CR-05 REFER TO CROSSING TABLE
0+055	93.91	2.40m	91.51	91.31	200x150 TEE FOR FIRE HYDRANT LATERAL
0+069	93.73	2.40m	91.33	91.13	CR-08 REFER TO CROSSING TABLE
0+094	93.75	2.40m	91.35	91.15	CR-11 REFER TO CROSSING TABLE
0+104	93.73	2.40m	91.33	91.13	45° HORIZONTAL BEND
0+107	93.70	2.40m	91.30	91.10	CR-12 REFER TO CROSSING TABLE
0+115	93.70	2.40m	91.30	91.10	45° HORIZONTAL BEND
0+122	93.70	2.40m	91.30	91.10	45° HORIZONTAL BEND
0+133	93.70	2.40m	91.30	91.10	45° HORIZONTAL BEND
0+140	93.77	2.40m	91.37	91.17	CR-07 REFER TO CROSSING TABLE
0+160	93.56	2.40m	91.16	90.96	CR-13 REFER TO CROSSING TABLE
0+182	93.74	2.40m	91.34	91.14	45° HORIZONTAL BEND
0+192	93.71	1.71m	92.00	91.80	CR-14 REFER TO CROSSING TABLE, CROSSING OVER STM SEWER PER CITY W25.2 WITH INSULATION PER CITY W22
0+214	93.69	2.40m	91.29	91.09	45° HORIZONTAL BEND
0+228	93.70	2.40m	91.30	91.10	200x150 TEE FOR FIRE HYDRANT LATERAL
0+249	93.83	2.40m	91.43	91.23	45° HORIZONTAL BEND
0+253	93.96	2.40m	91.56	91.36	45° HORIZONTAL BEND
0+257	94.00	2.40m	91.60	91.40	SERVICE CONNECTION, CAPPED 1.5m FROM BLDG

ICD SCHEDULE						
ICD ID	LOCATION	ORIFICE INVERT (m)	FLOW 100y (L/s)	HEAD 100y (m)	EQUIVALENT DIAMETER (mm)	MODEL*
1	MHST-32	90.27	325.7	2.39	329	SEE D2 ON DWG C104

* ICD SHOP DRAWINGS SHALL BE SUBMITTED TO PARSONS BEFORE COMMENCING ANY WORK

NOTES: UNDERGROUND STORMWATER STORAGE

- UNDERGROUND STORMWATER STORAGE SYSTEM CHAMBER TYPE OR EQUIVALENT STORAGE REQUIREMENT: 115.6m³.
- CHAMBER TYPE: STORMTECH SC-310 OR EQUIVALENT
- BOTTOM GRANULAR PAD ELEVATION & PERFORATED SUBDRAIN INVERT: 92.20m.
- BOTTOM OF CHAMBER ELEVATION: 92.35m
- TOP OF CHAMBER ELEVATION: 92.78m.
- TOP OF SYSTEM TO BE A MINIMUM OF 450mm BELOW PARKING LOT PAVEMENT
- SHOP DRAWINGS FOR UNDERGROUND STORAGE SYSTEM AND FOR THERMOPLASTIC LINER, INCLUDING MANUFACTURER RECOMMENDATIONS SHALL BE PROVIDED.
- PROPOSED STRUCTURES SHALL BE STANDARD OPSD CONCRETE STRUCTURES, SHOP DRAWINGS TO BE PROVIDED AND COORDINATED.

CROSSING TABLE							
CROSSING No.	PIPE ELEV. AT CROSSING	PIPE ELEV. AT CROSSING	CLEARANCE	CROSSING No.	PIPE ELEV. AT CROSSING	PIPE ELEV. AT CROSSING	CLEARANCE
CR-01	WM, TOP. 91.40	STM, INV. 91.98	0.58m	CR-08	WM, TOP. 91.33	STM, INV. 91.85	0.52m
CR-02	SAN, TOP. 88.97	ex STM, INV. 90.09	1.12m	CR-09	SAN, TOP. 90.13	STM, INV. 91.81	1.68m
CR-03	SAN, TOP. 89.32	STM, INV. 91.93	2.61m	CR-10	SAN, TOP. 90.54	STM, INV. 91.81	1.27m
CR-04	SAN, TOP. 89.17	STM, INV. 90.27	1.10m	CR-11	WM, TOP. 91.33	WM, INV. 91.85	0.52m
CR-05	WM, TOP. 91.40	STM, INV. 92.26	0.86m	CR-12	SAN, TOP. 90.83	WM., INV. 91.10	0.27m
CR-06	SAN, TOP. 89.46	STM, INV. 92.20	2.74m	CR-13	STM, TOP. 91.16	STM, INV. 92.03	0.87m
CR-07	WM, TOP. 91.37	STM., INV. 91.99	0.62m	CR-14	STM, TOP. 91.55	WM., INV. 91.80	0.25m
				CR-15	WM, TOP. 91.40	SAN., INV. 91.98	0.58m

NOTES: SEWER

- CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE COMMENCING ANY WORK.
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, 408 AND 410.
- ALL STORM AND SANITARY SEWERS INSTALLED BELOW THE GROUNDWATER TABLE ELEVATION (±92.20m) SHALL BE WATERTIGHT AND INFILTRATION TESTS SHALL BE CARRIED OUT ACCORDING TO OPSS MUNI 410.
- CLAY SEALS SHALL BE ACCORDING CITY OF OTTAWA STD DETAIL S8 AND EXTENDED AT LEAST 1.0m ABOVE THE GROUNDWATER TABLE ELEVATION.
- PIPE MATERIAL TO BE PVC SDR-35 AND CONFORMING TO OPSS 1841, UNLESS INDICATED OTHERWISE. PVC SEWERS TO BE INSTALLED PER OPSD 802.010 (MODIFIED). BEDDING AND COVER MATERIALS TO BE OPSD 1010 GRANULAR 'A' CRUSHER-RUN LIMESTONE BEDDING COMPACTED TO 95% SPMD.
- ALL SEWERS WITH LESS THAN 1.5 METERS OF COVER ARE SUBJECTED TO INSULATION PER CITY OF OTTAWA STD DETAIL S35
- PIPE BACKFILL MATERIAL TO BE APPROVED NATIVE MATERIAL OR SELECT SUBGRADE MATERIAL IN CONFORMANCE WITH OPSS 212
- ALL MAINTENANCE HOLES AND CATCH BASIN MAINTENANCE HOLES TO BE 1200mmØ AS PER OPSD 701.010, UNLESS INDICATED OTHERWISE. MAINTENANCE HOLES AND CATCH BASIN MAINTENANCE HOLES TO BE INSTALLED PER OPSD 407
- ALL CATCH BASINS TO BE 800x600mm AS PER OPSD 705.010, UNLESS INDICATED OTHERWISE. CATCH BASINS TO BE INSTALLED PER OPSD 407
- EXCAVATING, BACKFILLING, AND COMPACTING REQUIRED FOR MAINTENANCE HOLES, CATCH BASIN MAINTENANCE HOLES, AND CATCH BASINS TO BE COMPLETED AS PER OPSD 402. THEY ARE TO BE BACKFILLED WITH OPSD GRANULAR 'B' COMPACTED TO 98% SPMD. JOINTS BETWEEN SECTIONS TO BE WRAPPED WITH NON-WOVEN GEOTEXTILE.
- FOR SANITARY STRUCTURES: CAST IRON MAINTENANCE HOLE COVER AS PER OPSD 401.010 TYPE 'A'
- FOR STORM STRUCTURES: CAST IRON CATCH BASIN MAINTENANCE HOLE COVER AS PER OPSD 401.010 TYPE 'B' AND CAST IRON CATCH BASIN COVER AS PER OPSD 400.020.
- SANITARY MAINTENANCE HOLES REQUIRE BENCHING AS PER OPSD 701.021.
- THE CONTRACTOR IS RESPONSIBLE FOR MAKING OR ARRANGING ALL CONNECTIONS TO THE EXISTING SEWERS AS PER MUNICIPAL REQUIREMENTS. PRIOR TO CONNECTION, THE CONTRACTOR MUST PROVIDE, TO THE CONSULTANT / ENGINEER AND THE CITY FOR APPROVAL, ALL TEST RESULTS PERFORMED ON THE INTERNAL SERVICES.
- ADVISE THE CITY PUBLIC WORKS AT LEAST 72 HOURS IN ADVANCE BEFORE ANY CONNECTION TO THE CITY SERVICE. CO-ORDINATE WITH CITY AS REQUIRED.
- TERMINATE AND PLUG ALL SERVICE CONNECTIONS AT 1.0 m FROM EDGE OF THE BUILDING.
- ALL SEWERS TO BE C.C.T.V. INSPECTED BY THE CONTRACTOR AS PER OPSD 409. TWO COPIES OF THE INSPECTION REPORT MUST BE PROVIDED TO THE CONSULTANT AND THE C.C.T.V. INSPECTION IN DVD FORMAT ONLY.

NOTES: WATERMAIN

- ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE THE MINIMUM COVER OF 2.4m IS NOT REACHED, THERMAL INSULATION IS REQUIRED AS PER CITY OF OTTAWA DETAIL W22.
- WATERMAIN PIPE MATERIALS TO BE CLASS PVC DR-18, OR APPROVED EQUIVALENT, UNLESS INDICATED OTHERWISE.
- WATERMAIN TO BE CONSTRUCTED AS PER OPSD 441 AND OPSD 802.010. WATERMAIN BEDDING AND COVER MATERIAL TO BE OPSD 1010 GRANULAR 'A' CRUSHER-RUN LIMESTONE COMPACTED TO 95% SPMD.
- A CONTINUOUS 12 GAUGE COPPER TRACER WIRE MUST BE INSTALLED OVER ALL WATERMAINS. TRACER WIRE SHALL BE TIED TO ALL FIRE HYDRANTS.
- INSTALLATION OF A WATERMAIN PIPE CROSSING A SEWER PIPE SHALL BE AS PER CITY OF OTTAWA DETAILS W25 AND W25.2.
- IF WATERMAIN PIPE MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
- CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER OPSD 1109.011.
- THRUST BLOCKS AND RESTRAINING AS PER OPSD 1103.010 AND OPSD 1103.020.
- HYDRANT INSTALLATION AS PER OPSD 1105.010 AND OPSD 441. HYDRANT TO COMPLY WITH AWWA C502.
 - HYDRANTS MUST HAVE THREE EXITS (TWO 65.5 mm AND ONE 100.0 mm 'STORZ' OF STAINLESS STEEL) WITHOUT DRAIN. FIRE HYDRANTS MUST BE INSTALLED SUCH THAT THE 'STORZ' EXIT POINTS TOWARDS THE BUILDING IT WILL SERVICE. THE CONTRACTOR MUST ENSURE THAT THE BREAKAWAY FLANGE IS LOCATED ABOVE THE FINISHED GROUND (APPROXIMATELY 150 mm).
 - FIRE FLOW TESTS FOLLOWED BY COLOUR CODING OF HYDRANTS (AS PER NFPA-291) SHALL BE CARRIED OUT PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.
- WATERMAIN AND HYDRANT CONTROL VALVES IN THE 100 - 300 mm RANGE WILL BE RESILIENT SEATING GATE VALVES (AWWA C509) WITH MECHANICAL JOINT CONNECTIONS. VALVES WILL OPERATE COUNTER-CLOCKWISE TO OPEN WITH A NON-RISING STEM. VALVES WILL BE COMPLETE WITH THE STANDARD AWWA 50 mm OPERATING NUT. VALVES TO BE INSTALLED AS PER OPSD 441.
- PIPE FITTINGS (BENDS, TEES, CROSSES, REDUCERS, ETC.) WILL BE MECHANICAL JOINT (AWWA C-111) WITH CEMENT MORTAR LINING (AWWA C-104).
- COUPLERS MUST BE COMPRESSION TYPE WITH MINIMUM PRESSURE RATING OF 1035 kPa. COUPLERS MUST BE MUELLER 11-12940.
- VALVE BOXES MUST BE COMPLETE (FULLY METALLIC) 3 PIECE SLIDING TYPE WITH GUIDE PLATES.
- WATERMAINS MUST BE THOROUGHLY FLUSHED AND CLEANED TO REMOVE ALL DIRT AND DEBRIS PRIOR TO THE DISINFECTION PROCESS.
- ALL WATERMAINS SHALL BE HYDROSTATICALLY AND BACTERIOLOGICALLY TESTED AS PER PROVINCIAL AND MUNICIPAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIREMENTS ARE FOLLOWED.
- THE DISINFECTION PROCEDURE WHICH FOLLOWS INITIAL FLUSHING AND CLEANING CONSISTS OF CHLORINATION, FINAL FLUSHING AND BACTERIOLOGICAL TESTING. DISINFECTION MUST BE PERFORMED BY THE CONTRACTOR USING METHODS APPROVED BY THE CITY AND IN ACCORDANCE WITH MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE GUIDELINES. DOSAGE MUST BE 100 ppm WITH A MINIMUM RESIDUAL OF 25 ppm AFTER 24 HOURS. DISINFECTANT MUST BE SUPPLIED BY THE CONTRACTOR AND MUST BE ANSI APPROVED. TESTING AND TEST RESULTS MUST BE WITNESSED BY CITY PERSONNEL.
- ALL DISINFECTANT WATER IS TO BE REMOVED FROM THE NEW WATERMAINS AND REPLACED WITH DISTRIBUTION SYSTEM WATER PRIOR TO PRESSURE TESTING OF THE WATERMAIN.
- PRESSURE TESTING OF ALL WATERMAINS AND APPURTENANCES INSTALLED BY THE CONTRACTOR MUST BE PERFORMED BY THE CONTRACTOR USING METHODS MEETING THE APPROVAL OF THE CITY. TESTING AND RESULTS MUST BE WITNESSED BY CITY PERSONNEL.
- MAINS AND SERVICES MUST BE PRESSURE TESTED AT 1035 kPa (150 psi) IN ACCORDANCE WITH AWWA C-600-82 (MINIMUM REQUIREMENT).
- LEAKAGE TESTS MUST BE CONDUCTED AS PER AWWA C-600-82 (MINIMUM REQUIREMENT).
- ONCE THE DISINFECTION AND PRESSURE TESTING RESULTS HAVE BEEN APPROVED, THE CONTRACTOR MUST ENSURE THAT ALL WATERMAIN PIPES ARE FLUSHED UNTIL THE CHLORINE LEVEL IN THE WATER IS SIMILAR TO THE LEVEL OF CHLORINE IN THE MUNICIPAL WATERMAIN NETWORK IN THE AREA.
- BACTERIOLOGICAL TESTING MUST CONSIST OF TWO SAMPLINGS TWENTY FOUR HOURS APART. IF BACTERIOLOGICAL SAMPLES ARE SATISFACTORY THE WATERMAIN MAY BE PLACED ON LINE.
- ALL WATERMAIN VALVES TO BE OPERATED BY THE CITY OF OTTAWA ONLY.

TURNER FLEISCHER

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PARSONS

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TOPOGRAPHIC INFORMATION & BENCHMARK
SURVEY COMPLETED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. ON MARCH 28, 2023. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM CONTROL MONUMENT NO. 019680071 HAVING AN ELEVATION OF 99.742m.



3	2025-03-13	RE-ISSUED FOR SPA	BY
2	2023-10-23	RE-ISSUED FOR SPA	BY
1	2023-05-01	ISSUED FOR SPA	BY
#	DATE	DESCRIPTION	BY

Loblaw Companies Limited

PROJECT
3845 CAMBRIAN RD

BARRHAVEN, ONTARIO

DRAWING
SITE SERVICING PLAN

PROJECT NO.
478575

PROJECT DATE
2023-02-27

DRAWN BY
BV

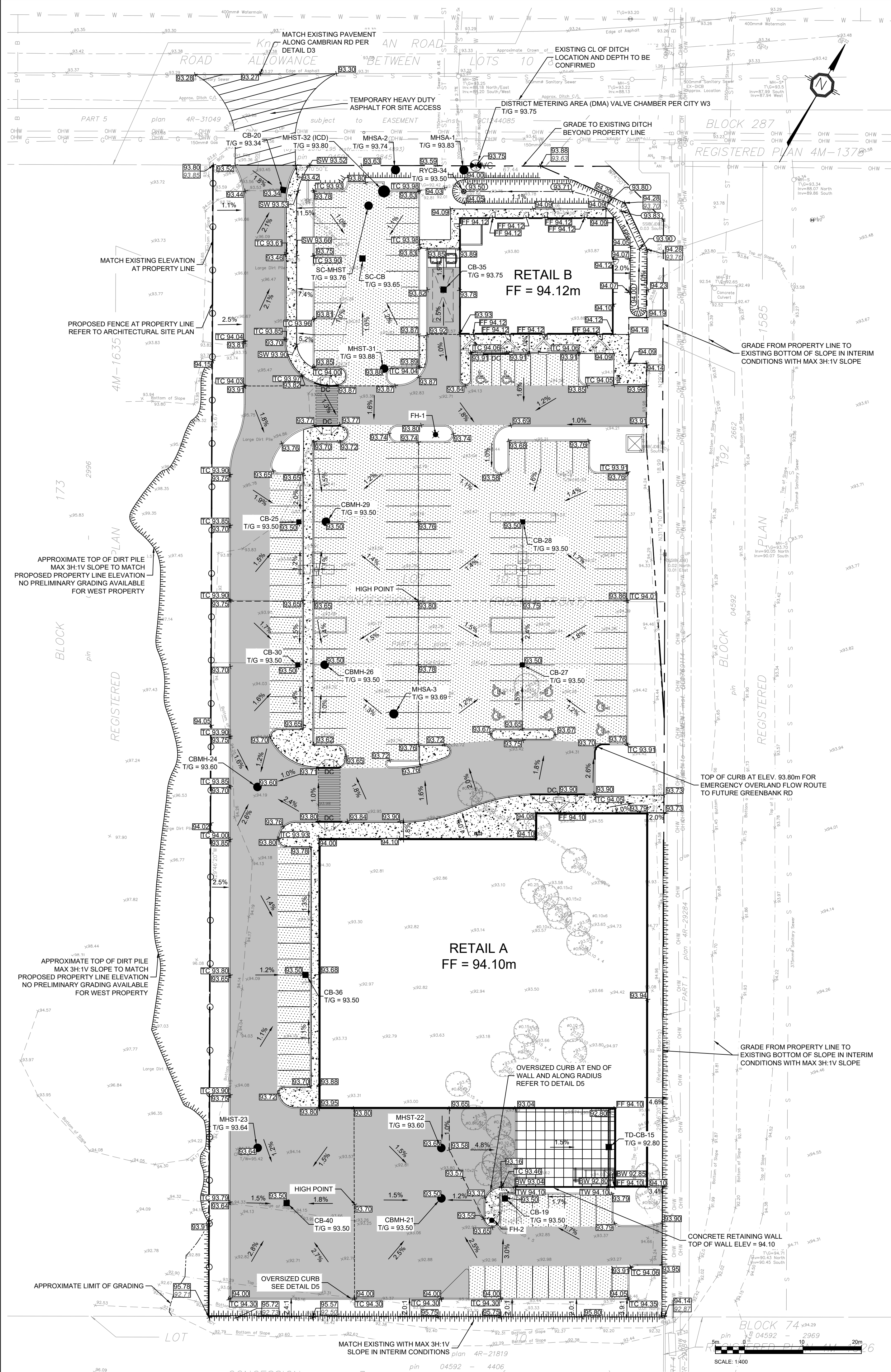
CHECKED BY
MT

SCALE
As indicated

2025.03.13 13:10:34-04'00"

DRAWING NO.
C102

REV.



LEGEND:

--- FUTURE PROPERTY LINE

--- EXISTING PROPERTY LINE

--- PROPOSED DITCH/SWALE CENTERLINE

===== TERRACE (3:1 MAX)

--- EXISTING GRADE

--- PROPOSED GRADE

--- PROPOSED TOP OF WALL GRADE

--- PROPOSED BOTTOM OF WALL GRADE

--- PROPOSED FINISHED FLOOR ELEVATION

--- PROPOSED TOP OF CURB ELEVATION

--- PROPOSED CENTRELINE OF DITCH/SWALE GRADE

--- PROPOSED SLOPE DIRECTION AND PERCENTAGE

VC PROPOSED VALVE CHAMBER PER CITY STD DWG W3

PROPOSED STORM MAINTENANCE HOLE

PROPOSED SANITARY MAINTENANCE HOLE

PROPOSED CATCH BASIN

PROPOSED REAR YARD CATCH BASIN AS PER CITY STD DWG S31

PROPOSED LIGHT DUTY PAVEMENT

PROPOSED HEAVY DUTY PAVEMENT

PROPOSED TEMPORARY HEAVY DUTY PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED CONCRETE STRUCTURAL SLAB PER STRUCTURAL

PROPOSED CONCRETE CURB

PROPOSED DEPRESSIONED CONCRETE CURB WITH TWSI PER CITY STD DWG SC7.3

PROPOSED LIGHT STANDARD

--- APPROXIMATE LIMIT OF GRADING ON NEIGHBOURING PROPERTY

--- PROPOSED FENCE AT PROPERTY LINE REFER TO ARCHITECTURAL SITE PLAN

PAVEMENT STRUCTURES				
MATERIAL	LIGHT DUTY		HEAVY DUTY	COMPACTION
SURFACE LAYER : HL3	65 mm		40 mm	≥ 96%*
BASE LAYER : HL8	--		60 mm	≥ 96%*
GRANULAR BASE : OPSS.MUNI 1010 GRANULAR A	150 mm		150 mm	100%**
GRANULAR SUB-BASE : OPSS.MUNI 1010 GRANULAR B	300 mm		450 mm	100%**

*MINIMUM PAVEMENT COMPACTION BASED ON MARSHALL DENSITY TEST
**OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY
SOURCE: GEOTECHNICAL INVESTIGATION, WEST OF CAMBRIAN ROAD AND GREENBANK ROAD, BARRHAVEN, ONTARIO, BY TORONTO INSPECTION LTD, DATED NOVEMBER 13, 2018

NOTES: GENERAL

- THE CONTRACTOR MUST CONFORM TO ALL LAWS, CODES, ORDINANCES, AND REGULATIONS ADOPTED BY FEDERAL, PROVINCIAL OR MUNICIPAL GOVERNMENT COUNCILS AND GOVERNMENT AGENCIES, APPLYING TO WORK TO BE CARRIED OUT. WHEREVER STANDARDS, LAWS AND/OR REGULATIONS ARE MENTIONED THEY REFER TO THEIR CURRENT VERSIONS, MODIFICATIONS INCLUDED.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS (OPSS AND OPSD), THE ONTARIO MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE, THE ONTARIO MINISTRY OF NATURAL RESOURCES, APPLICABLE CONSERVATION AUTHORITIES, THE MUNICIPAL STANDARD SPECIFICATIONS AND DRAWINGS, AND ALL OTHER GOVERNING AUTHORITIES AS THEY APPLY, UNLESS OTHERWISE INDICATED.
- ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
- THE LOCATION OF EXISTING UNDERGROUND MUNICIPAL SERVICES AND PUBLIC UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES (ON-SITE AND OFF-SITE) PRIOR TO ANY EXCAVATION WORK. DAMAGE TO ANY EXISTING SERVICES AND/OR EXISTING UTILITIES DURING CONSTRUCTION, WHETHER OR NOT SHOWN ON THE DRAWINGS MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL DETERMINE THE EXACT INVERT (GEODETIC ELEVATION), DIAMETER AND CONSTRUCTION MATERIAL OF THE EXISTING CONDUITS AT THE PROPOSED CONNECTIONS. THEY SHALL ALSO CARRY OUT, IF NECESSARY, EXPLORATORY DIGS IN ORDER TO DETERMINE THE EXACT LOCATION AND INVERTS OF EXISTING DUCK BANKS. ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK AND ACTIVITIES WITH OTHERS TRADES AND CONTRACTORS.
- THE CONTRACTOR IS THE ONLY PERSON IN CHARGE OF SAFETY ON THE BUILDING SITE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION OF THE WORKERS, OTHER PERSONNEL AND THE GENERAL PUBLIC. PROTECTION OF MATERIALS, AS WELL AS MAINTAINING IN GOOD CONDITION THE COMPLETED WORKS AND WORKS TO BE COMPLETED, THE CONTRACTOR MUST PROVIDE AT ANY TIME:
 - A SUFFICIENT NUMBER OF FENCES, BARRIERS, POSTERS, GUARDS AND OTHERS TO ENSURE SAFETY.
 - NECESSARY CONVENIENCES FOR THE COMPLETION OF WORK SUCH AS HEATING, LIGHTING, VENTILATION ETC.
- CONTRACTOR IS RESPONSIBLE TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE ALL THE WORKS AND ACTIVITIES AND BEAR COST OF THE SAME, SUCH AS BUT NOT LIMITED TO: ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC. AND THEIR ASSOCIATED COSTS.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- JOB BENCH MARK - CONFIRM WITH PARSONS BENCHMARKS AND LANDMARK REFERENCES AS IS. OTHERWISE THESE REFERENCES WILL BE REPOSITIONED BY A CERTIFIED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
- IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, DEWATERING OF EXCAVATIONS COULD BE REQUIRED. IF IT IS ASSUMED THAT GROUNDWATER MAY BE CONTROLLED BY SUMP AND PUMPING METHODS, THE CONTRACTOR SHALL OBTAIN A PERMIT TO TAKE WATER IF SITE CONDITIONS REQUIRE TAKING MORE THAN A TOTAL OF 400 000 L/DAY.
- STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS. SITE PREPARATION INCLUDES CLEARING, GRUBBING, STRIPPING OF TOPSOIL, DEMOLITION, REMOVAL OF UNSUITABLE MATERIALS, CUT, FILL AND ROUGH GRADING OF ALL AREAS TO RECEIVE FINISHED SURFACES.
- ABUTTING PROPERTY GRADE TO BE MATCHED.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 300mm WIDTH MINIMUM.
- CURBS TO BE BARRIER, CONSTRUCTED AS PER OPSS 600.110, EXCEPT WHERE INDICATED OTHERWISE. ELEVATION AT TOP OF CONCRETE CURBS TO BE 150 mm ABOVE THE ASPHALT, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- DEPRESSIONED CURBS TO BE MOUNTABLE, CONSTRUCTED AS PER OPSS 600.100.
- LIGHT DUTY AND HEAVY DUTY ASPHALT PAVEMENTS TO BE CONSTRUCTED AS PER TAKE ON DRAWING C103.
- TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT SHALL BE CONSTRUCTED AS PER DETAIL D3 ON DRAWING C104.
- RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
- CLEANLINESS ON THE SITE, INCLUDES THE CONTRACTOR SHALL CLEAN ROADWAYS AT HIS OWN COST AS DIRECTED BY THE OWNERS REPRESENTATIVE. MATERIALS AND EQUIPMENT MUST BE LAID OUT IN AN ORGANIZED AND SAFE MANNER, AND ALL MATERIAL, EQUIPMENT AND TEMPORARY STRUCTURES WHICH ARE NO LONGER NECESSARY FOR THE EXECUTION OF THE CONTRACT MUST BE REMOVED FROM THE SITE.
- CONTRACTOR TO ENSURE MITIGATION MEASURES ARE IMPLEMENTED TO REDUCED THE RISK OF GROUND CONTAMINATION FROM PETROLEUM PRODUCTS.
- THE CONTRACTOR MUST ENSURE THE FOLLOWING MEASURES ARE IMPLEMENTED REGARDING THE HANDLING OF CONCRETE:
 - CONCRETE SHOULD EITHER BE MIXED AWAY FROM THE SITE OR SHOULD BE PREPARED ON PAVED SURFACES IF ONLY SMALL QUANTITIES ARE REQUIRED (I.E. MINOR REPAIRS).
 - EXCESS CONCRETE MUST BE DISPOSED OFF-SITE AT A LOCATION THAT MEETS ALL REGULATORY REQUIREMENTS; THE WASHING OF CONCRETE TRUCKS AND OTHER EQUIPMENT USED FOR MIXING CONCRETE SHOULD NOT BE CARRIED OUT WITHIN 30 METERS OF A WATERCOURSE OR WETLAND AND SHOULD TAKE PLACE OUTSIDE OF THE WORK SITE.
 - ALL CONCRETE TRUCKS SHOULD COLLECT THEIR WASH WATER AND RECYCLE IT BACK INTO THEIR TRUCKS FOR DISPOSAL OFF-SITE AT A LOCATION MEETING ALL REGULATORY REQUIREMENTS.
 - THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED SURPLUS MATERIALS THAT WILL BE REQUIRED TO BE DISPOSED OFFSITE BE STOCKPILED TEMPORALLY FOR SAMPLING PRIOR BEING LOADED OFFSITE.
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 - REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OFF ALL AREAS DISTURBED DURING CONSTRUCTION TO EXISTING CONDITIONS OR BETTER AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE CONSULTANT AND MUNICIPAL AUTHORITIES. ASPHALT REINSTATEMENT MUST BE IN ACCORDANCE WITH OPSS 310. LANDSCAPE AREAS TO BE REINSTATED WITH 150 mm OF TOPSOIL AND SOD IN ACCORDANCE WITH OPSS 802 AND OPSS 803.
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 - CONSTRUCT SIDEWALK EXPANSION JOINTS & CONTROL JOINTS AS PER OPSS 310.020.
 - CONSTRUCT CONCRETE SIDEWALK AS PER OPSS 310.020 AND OPSS 351. TACTILE WALKING SURFACE INDICATORS PER OPSS 351.
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 - PROMPTLY REPORT SPILLS AND RELEASES POTENTIALLY CAUSING DAMAGE TO ENVIRONMENT TO: AUTHORITY HAVING JURISDICTION OR INTEREST IN SPILL OR RELEASE INCLUDING CONSERVATION AUTHORITY, WATER SUPPLY AUTHORITIES, DRAINAGE AUTHORITY, ROAD AUTHORITY, AND FIRE DEPARTMENT.
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 - DO NOT DISCHARGE DECONTAMINATED WATER, OR SURFACE WATER RUNOFF, OR GROUNDWATER WHICH MAY HAVE COME IN CONTACT WITH POTENTIALLY CONTAMINATED MATERIAL, OFF SITE OR TO MUNICIPAL SEWERS.
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 - 7 DAYS PRIOR TO PLANNED DATE FOR CONNECTION TO EXISTING STORM SEWERS, SANITARY SEWERS, AND WATERMAIN, CONNECTION TO EXISTING TO TAKE PLACE IN THE PRESENCE OF APPROPRIATE CITY OF OTTAWA STAFF.

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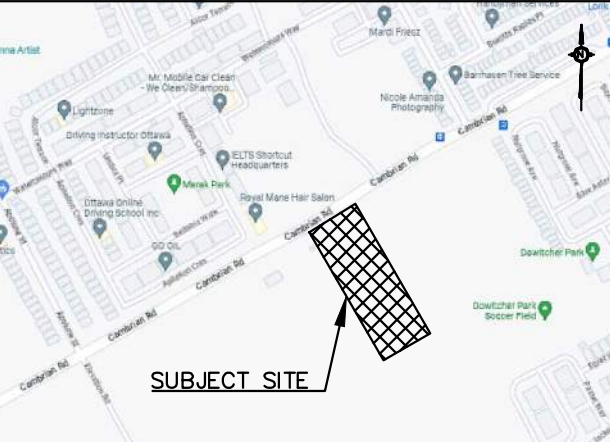
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TOPOGRAPHIC INFORMATION & BENCHMARK

SURVEY COMPLETED BY ANNIS, O'SULLIVAN, VOLLEBECK LTD. ON MARCH 28, 2023. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM. DERIVED FROM CONTROL MONUMENT NO. 019680071 HAVING AN ELEVATION OF 99.742m.



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2	2023-03-13	RE-ISSUED FOR SPA	BV
1	2023-05-01	ISSUED FOR SPA	BV
#	DATE	DESCRIPTION	BY

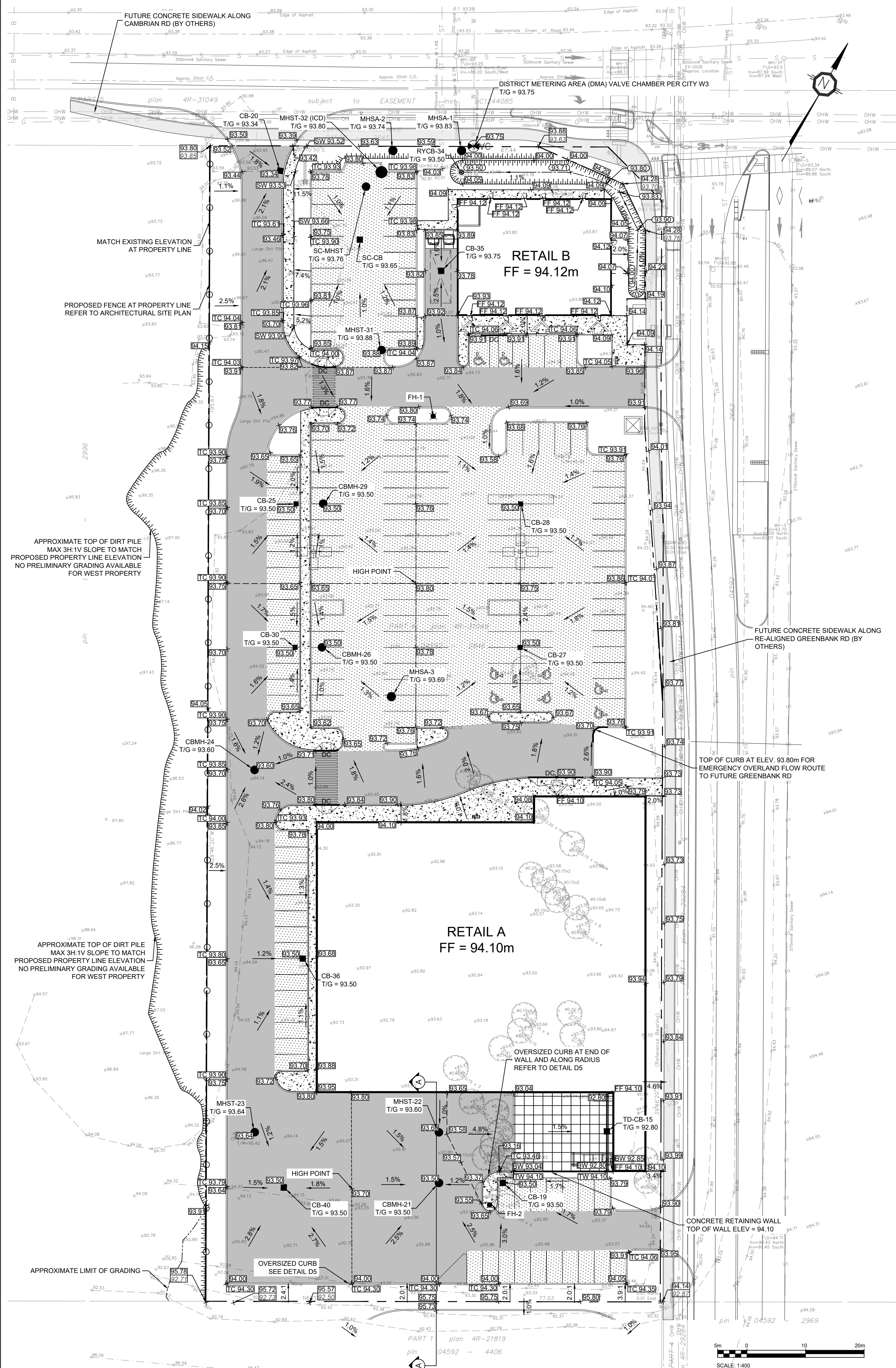


PROJECT
3845 CAMBRIAN RD

BARRHAVEN, ONTARIO

DRAWING
INTERIM GRADING PLAN

PROJECT NO. 478575	
PROJECT DATE 2023-02-27	
DRAWN BY BV	
CHECKED BY MT	
SCALE As indicated	
2025.03.13 13:10:43-04'00"	
DRAWING NO. C103	REV.



LEGEND:

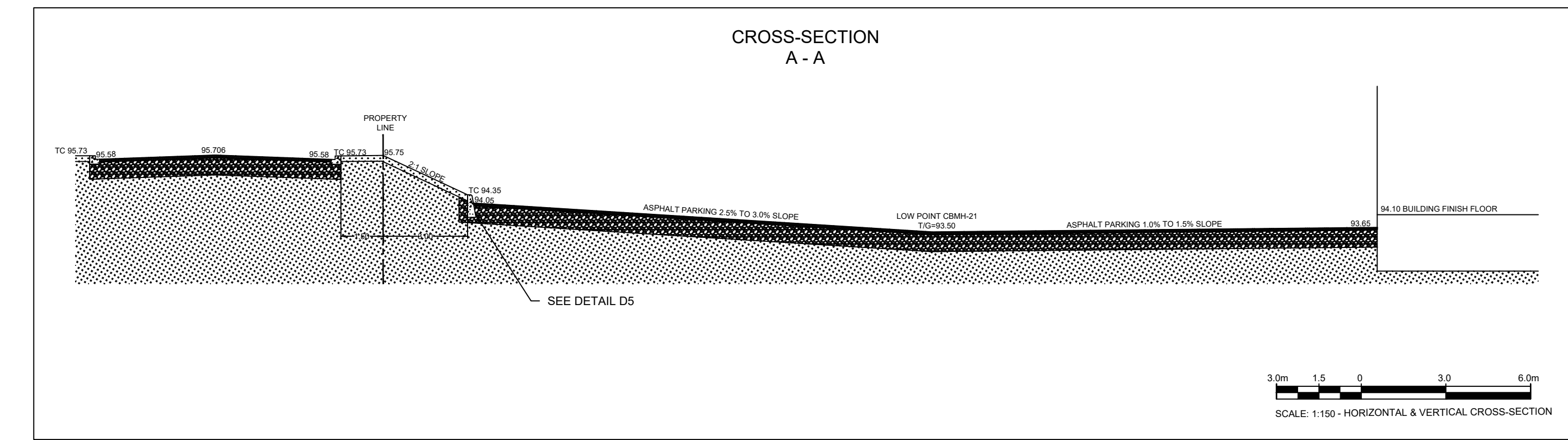
- FUTURE PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPOSED DITCH/SWALE CENTERLINE
- TERRACE (3:1 MAX)
- EXISTING GRADE
- PROPOSED GRADE
- PROPOSED TOP OF WALL GRADE
- PROPOSED BOTTOM OF WALL GRADE
- PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- PROPOSED CENTRELINE OF DITCH/SWALE GRADE
- PROPOSED SLOPE DIRECTION AND PERCENTAGE
- PROPOSED VALVE CHAMBER PER CITY STD DWG W3
- PROPOSED STORM MAINTENANCE HOLE
- PROPOSED SANITARY MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- PROPOSED REAR YARD CATCH BASIN AS PER CITY STD DWG S31
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED TEMPORARY HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE STRUCTURAL SLAB PER STRUCTURAL
- PROPOSED CONCRETE CURB
- PROPOSED DEPRESSED CONCRETE CURB WITH TWSI PER CITY STD DWG SC7.3
- PROPOSED LIGHT STANDARD
- APPROXIMATE LIMIT OF GRADING ON NEIGHBOURING PROPERTY
- FUTURE SIDEWALK ALONG RE-ALIGNED GREENBANK RD BY OTHERS
- PROPOSED FENCE AT PROPERTY LINE REFER TO ARCHITECTURAL SITE PLAN

PAVEMENT STRUCTURES			
MATERIAL	LIGHT DUTY	HEAVY DUTY	COMPACTION
SURFACE LAYER : HL3	65 mm	40 mm	≥ 96%*
BASE LAYER : HL8	--	60 mm	≥ 96%*
GRANULAR BASE : OPSS.MUNI 1010 GRANULAR A	150 mm	150 mm	100%**
GRANULAR SUB-BASE : OPSS.MUNI 1010 GRANULAR B	300 mm	450 mm	100%**

*MINIMUM PAVEMENT COMPACTION BASED ON MARSHALL DENSITY TEST
**OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY
SOURCE: GEOTECHNICAL INVESTIGATION, WEST OF CAMBRIAN ROAD AND GREENBANK ROAD, BARRHAVEN, ONTARIO, BY TORONTO INSPECTION LTD, DATED NOVEMBER 13, 2018

- NOTES: GENERAL**
- THE CONTRACTOR MUST CONFORM TO ALL LAWS, CODES, ORDINANCES, AND REGULATIONS ADOPTED BY FEDERAL, PROVINCIAL OR MUNICIPAL GOVERNMENT COUNCILS AND GOVERNMENT AGENCIES APPLYING TO WORK TO BE CARRIED OUT. WHEREVER STANDARDS, LAWS AND/OR REGULATIONS ARE MENTIONED THEY REFER TO THEIR CURRENT VERSIONS, MODIFICATIONS INCLUDED.
 - ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS (OPSS AND OPSD), THE ONTARIO MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE, THE ONTARIO MINISTRY OF NATURAL RESOURCES, APPLICABLE CONSERVATION AUTHORITIES, THE MUNICIPAL STANDARD SPECIFICATIONS AND DRAWINGS, AND ALL OTHER GOVERNING AUTHORITIES AS THEY APPLY, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
 - ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
 - THE LOCATION OF EXISTING UNDERGROUND MUNICIPAL SERVICES AND PUBLIC UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES (ON-SITE AND OFF-SITE) PRIOR TO ANY EXCAVATION WORK. DAMAGE TO ANY EXISTING SERVICES AND/OR EXISTING UTILITIES DURING CONSTRUCTION WHETHER OR NOT SHOWN ON THE DRAWINGS MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL DETERMINE THE EXACT INVERT (GEODETIC ELEVATION), DIAMETER AND CONSTRUCTION MATERIAL OF THE EXISTING CONDUITS AT THE PROPOSED CONNECTIONS. THEY SHALL ALSO CARRY OUT, IF NECESSARY, EXPLORATORY DIGS IN ORDER TO DETERMINE THE EXACT LOCATION AND INVERTS OF EXISTING DUCK BANKS. THIS INFORMATION SHALL IMMEDIATELY BE PROVIDED TO THE CONSULTANT PRIOR TO START UNDERTAKING ANY MUNICIPAL SERVICES WORK AND A 48 HOUR PERIOD MUST BE ALLOCATED TO THE CONSULTANT FOR DESIGN REVIEW.
 - AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK AND ACTIVITIES WITH OTHERS TRADES AND CONTRACTORS.
 - THE CONTRACTOR IS THE ONLY PERSON IN CHARGE OF SAFETY ON THE BUILDING SITE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION OF THE WORKERS, OTHER PERSONNEL AND THE GENERAL PUBLIC. PROTECTION OF MATERIALS, AS WELL AS MAINTAINING IN GOOD CONDITION THE COMPLETED WORKS AND WORKS TO BE COMPLETED. THE CONTRACTOR MUST PROVIDE AT ANY TIME:
 - A SUFFICIENT NUMBER OF FENCES, BARRIERS, POSTERS, GUARDS AND OTHERS TO ENSURE SAFETY.
 - NECESSARY CONVENIENCES FOR THE COMPLETION OF WORK SUCH AS HEATING, LIGHTING, VENTILATION ETC.
 - CONTRACTOR IS RESPONSIBLE TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE ALL THE WORKS AND ACTIVITIES AND BEAR COST OF THE SAME, SUCH AS BUT NOT LIMITED TO: ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC. AND THEIR ASSOCIATED COSTS.
 - ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
 - JOB BENCH MARK - CONFIRM WITH PARSONS PRIOR TO UTILIZATION. THE CONTRACTOR MUST MAINTAIN BENCHMARKS AND LANDMARK REFERENCES AS IS, OTHERWISE, THESE REFERENCES WILL BE REPOSITIONED BY A CERTIFIED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
 - ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
 - IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, DEWATERING OF EXCAVATIONS COULD BE REQUIRED. IT IS ASSUMED THAT GROUNDWATER MAY BE CONTROLLED BY SUMP AND PUMPING METHODS. THE CONTRACTOR SHALL OBTAIN A PERMIT TO TAKE WATER IF SITE CONDITIONS REQUIRE TAKING MORE THAN A TOTAL OF 400,000 L/DAY.
 - STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS. SITE PREPARATION INCLUDES CLEARING, GRUBBING, STRIPPING OF TOPSOIL, DEMOLITION, REMOVAL OF UNSUITABLE MATERIALS, CUT, FILL AND ROUGH GRADING OF ALL AREAS TO RECEIVE FINISHED SURFACES.

- ABUTTING PROPERTY GRADE TO BE MATCHED.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 300mm WIDTH MINIMUM.
- CURBS TO BE BARRIER, CONSTRUCTED AS PER OPSD 600.110, EXCEPT WHERE INDICATED OTHERWISE. ELEVATION AT TOP OF CONCRETE CURBS TO BE 150 mm ABOVE THE ASPHALT, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- DEPRESSED CURBS TO BE MOUNTABLE, CONSTRUCTED AS PER OPSD 600.100.
- LIGHT DUTY AND HEAVY DUTY ASPHALT PAVEMENTS TO BE CONSTRUCTED AS PER TABLE ON DRAWING C103.
- TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT SHALL BE CONSTRUCTED AS PER DETAIL D3 ON DRAWING C104.
- RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
- CLEANLINESS ON THE SITE, INCLUDES THE CONTRACTOR SHALL CLEAN ROADWAYS AT HIS OWN COST AS DIRECTED BY THE OWNER'S REPRESENTATIVE. MATERIALS AND EQUIPMENT MUST BE LAID OUT IN AN ORGANIZED AND SAFE MANNER, AND ALL MATERIAL, EQUIPMENT AND TEMPORARY STRUCTURES WHICH ARE NO LONGER NECESSARY FOR THE EXECUTION OF THE CONTRACT MUST BE REMOVED FROM THE SITE.
- CONTRACTOR TO ENSURE MITIGATION MEASURES ARE IMPLEMENTED TO REDUCED THE RISK OF GROUND CONTAMINATION FROM PETROLEUM PRODUCTS.
- THE CONTRACTOR MUST ENSURE THE FOLLOWING MEASURES ARE IMPLEMENTED REGARDING THE HANDLING OF CONCRETE:
 - CONCRETE SHOULD EITHER BE MIXED AWAY FROM THE SITE OR SHOULD BE PREPARED AT THE SITE. CONCRETE SHOULD BE MIXED AWAY FROM THE SITE IF ONLY SMALL QUANTITIES ARE REQUIRED (I.E. MINOR REPAIRS).
 - EXCESS CONCRETE MUST BE DISPOSED OFF-SITE AT A LOCATION THAT MEETS ALL REGULATORY REQUIREMENTS.
 - THE WASHING OF CONCRETE TRUCKS AND OTHER EQUIPMENT USED FOR MIXING CONCRETE SHOULD NOT BE CARRIED OUT WITHIN 30 METERS OF A WATERCOURSE OR WETLAND AND SHOULD TAKE PLACE OUTSIDE OF THE WORK SITE.
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- FOR ALL GEOTECHNICAL WORK, CONTRACTOR TO REFER TO "GEOTECHNICAL INVESTIGATION WEST OF CAMBRIAN ROAD AND GREENBANK ROAD, BARRHAVEN, ONTARIO, BY TORONTO INSPECTION LTD, DATED NOVEMBER 13, 2018".
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- CONSTRUCT CONCRETE SIDEWALK AS PER OPSD 310.020 AND OPSD 351. TACTILE WALKING SURFACE INDICATORS PER OPSD 351.
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PARSONS

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TOPOGRAPHIC INFORMATION & BENCHMARK

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1	2023-05-01	ISSUED FOR SPA	BY
#	DATE	DESCRIPTION	BY

Loblaws Limited

PROJECT
3845 CAMBRIAN RD

BARRHAVEN, ONTARIO

DRAWING
ULTIMATE GRADING PLAN

PROJECT NO.
478575

PROJECT DATE
2023-02-27

DRAWN BY
BV

CHECKED BY
MT

SCALE
As indicated

2025.03.13 13:10:52-04'00'

C103A

DRAWING NO. REV.

SILT SACK DETAIL

PARSONS

D1

FRAME & PLATE ICD

PARSONS

D2

NEW TO EXISTING PAVEMENT PERPENDICULAR TRANSITION TREATMENT

PARSONS

D3

TYPICAL SUBDRAIN DETAIL

PARSONS

D4

PRECAST CONCRETE MAINTENANCE HOLE

OPSD 701.010

PRECAST CONCRETE MAINTENANCE HOLE

OPSD 701.011

PRECAST CONCRETE MAINTENANCE HOLE

OPSD 701.012

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1223 MICHAEL STREET, SUITE 100, OTTAWA, ONTARIO K1J 7T2
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MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES

OPSD 701.021

FLEXIBLE PIPE EJECTION AND BACKFILL

OPSD 802.010

RIGID PIPE EJECTION AND BACKFILL

OPSD 802.031

HEAVY DUTY "FISH" TYPE SQUARE CATCH BASIN COVER

OPSD 1006.020

SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE

OPSD 1006.020

STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER

OPSD 705.010

STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER

OPSD 705.010

CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT

OPSD 800.110

SIDEWALK CONSTRUCTION JOINTS

OPSD 800.110

INSTALLATION OF CATCH BASIN WITH MONOLITHIC SIDEWALK AND CURB, BARRIER, AND DEPRESSED CURB

OPSD 800.110

STANDARD CIRCULAR FRAME FOR MAINTENANCE HOLES

OPSD 401.020

CATCH BASIN MAINTENANCE HOLE COVER

OPSD 401.020

PRECAST CONCRETE CATCH BASIN

OPSD 705.010

TWSI DETAIL

OPSD 219.110

CONCRETE BARRIER CURB WITH SIDEWALK

OPSD 800.110

CATCH BASIN CONNECTION FOR FLEXIBLE MAIN PIPE SEWER

OPSD 708.030

SINGLE TRENCH (SEWER & SEWER SERVICES)

OPSD 708.030

COMBINED TRENCH (SEWERS & SEWER SERVICES)

OPSD 708.030

CLAY SEAL FOR PIPE TRENCHES

OPSD 708.030

CATCH BASIN - ELBOW FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS

OPSD 219.110

LIGHT-DUTY SILT FENCE BARRIER

OPSD 219.110

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3845 CAMBRIAN RD

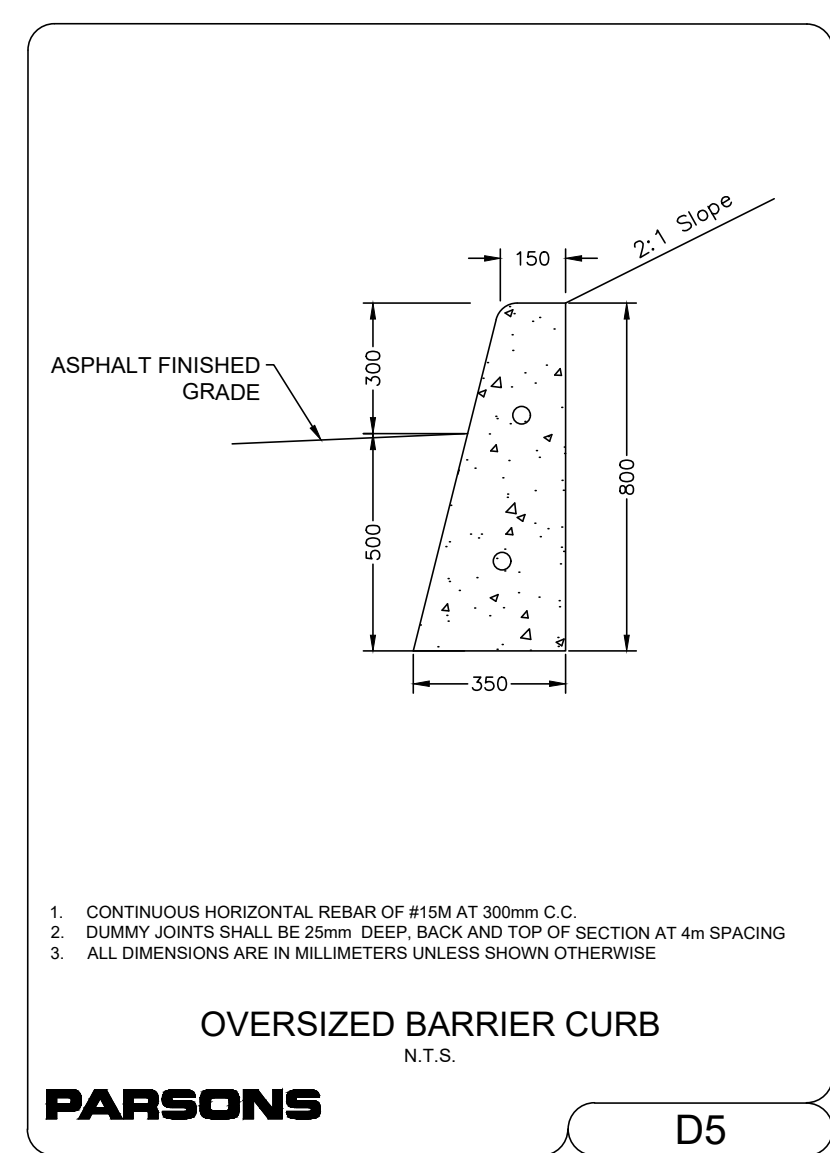
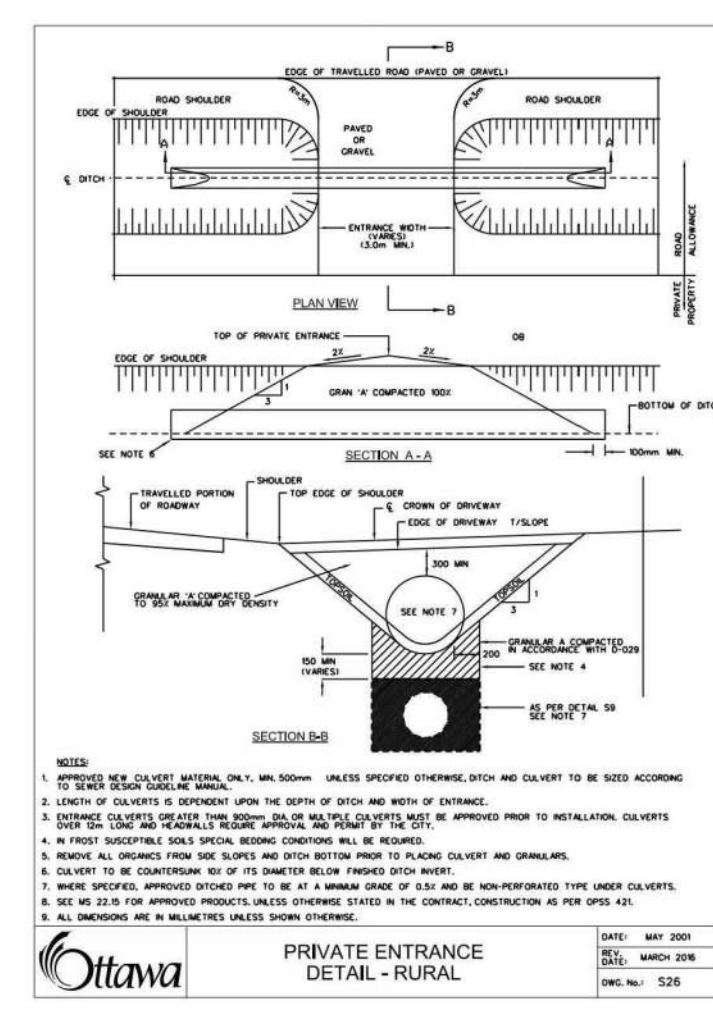
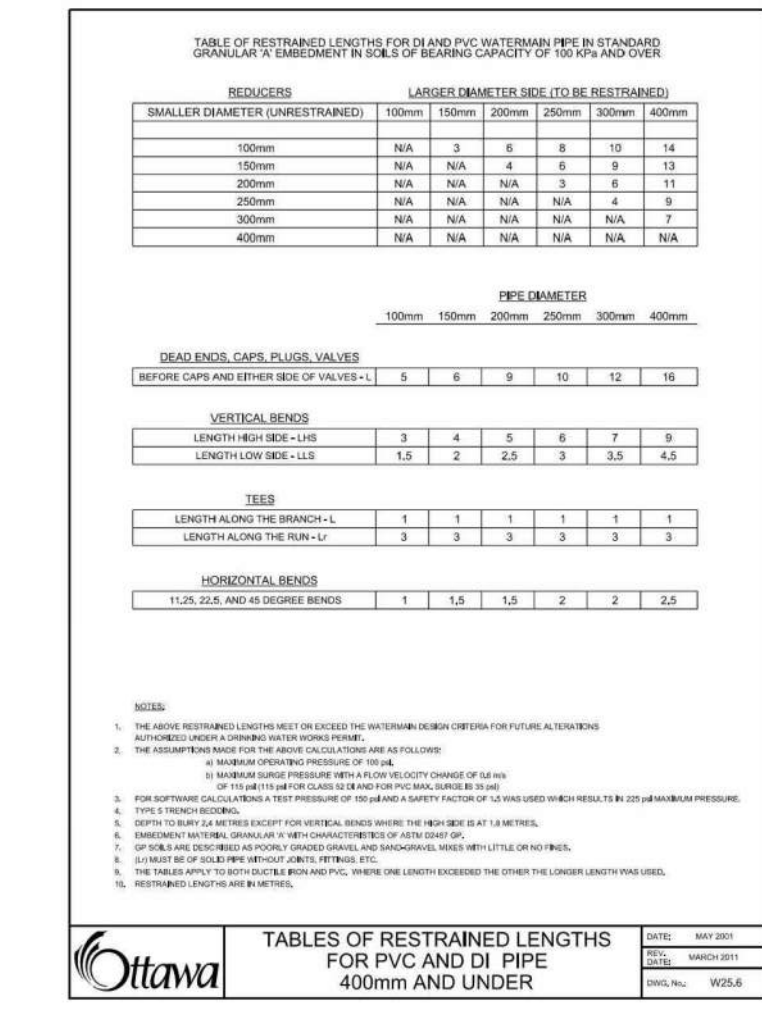
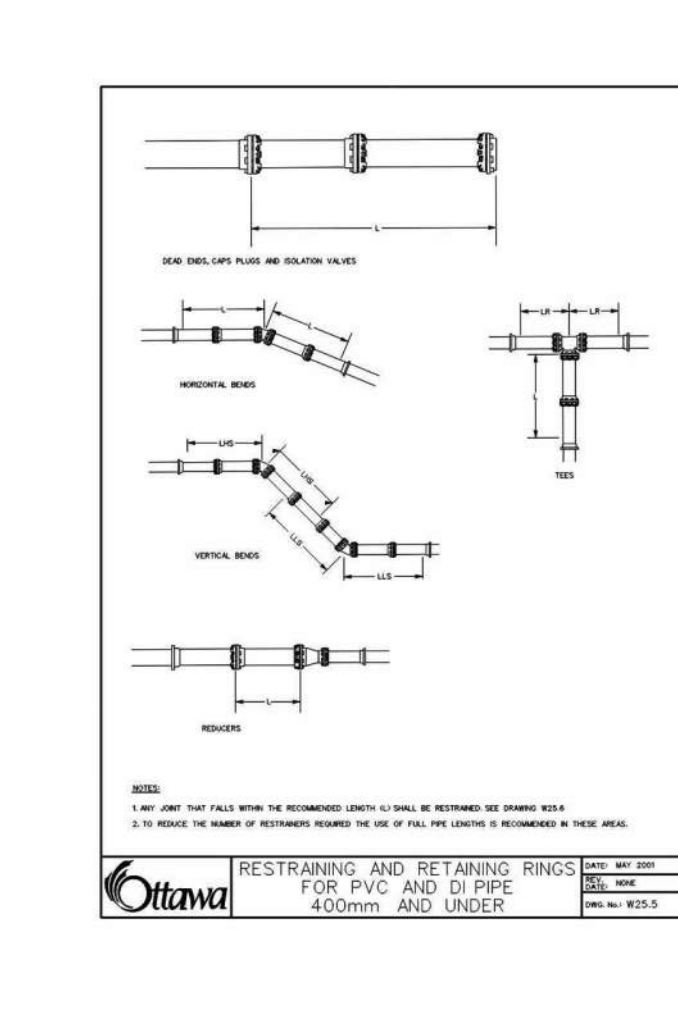
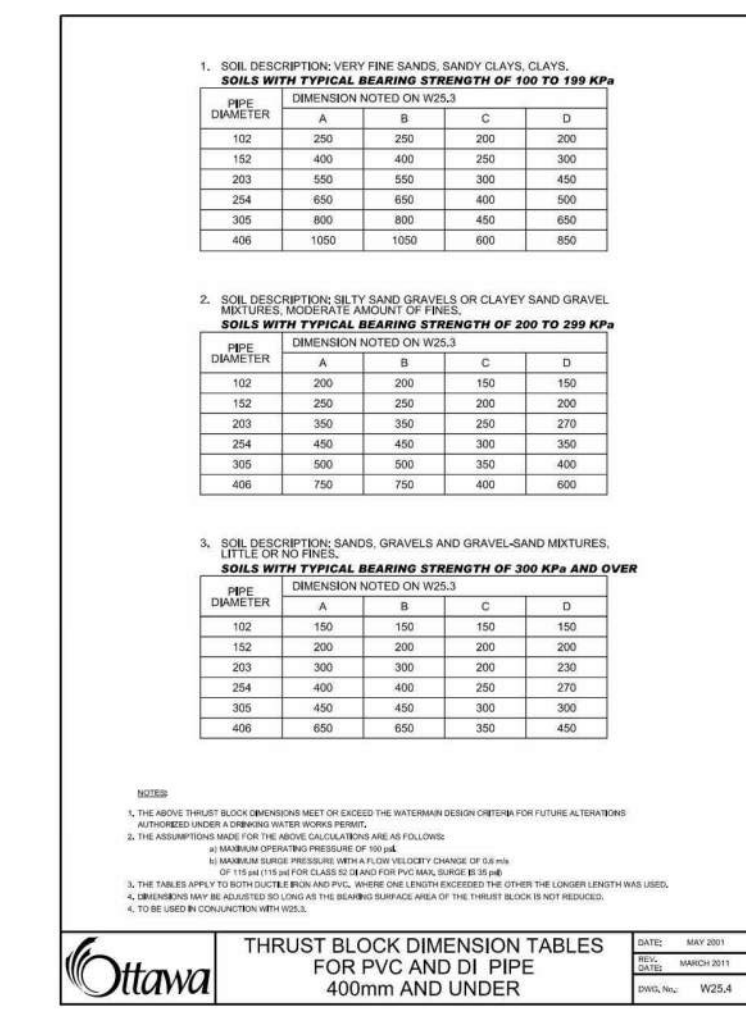
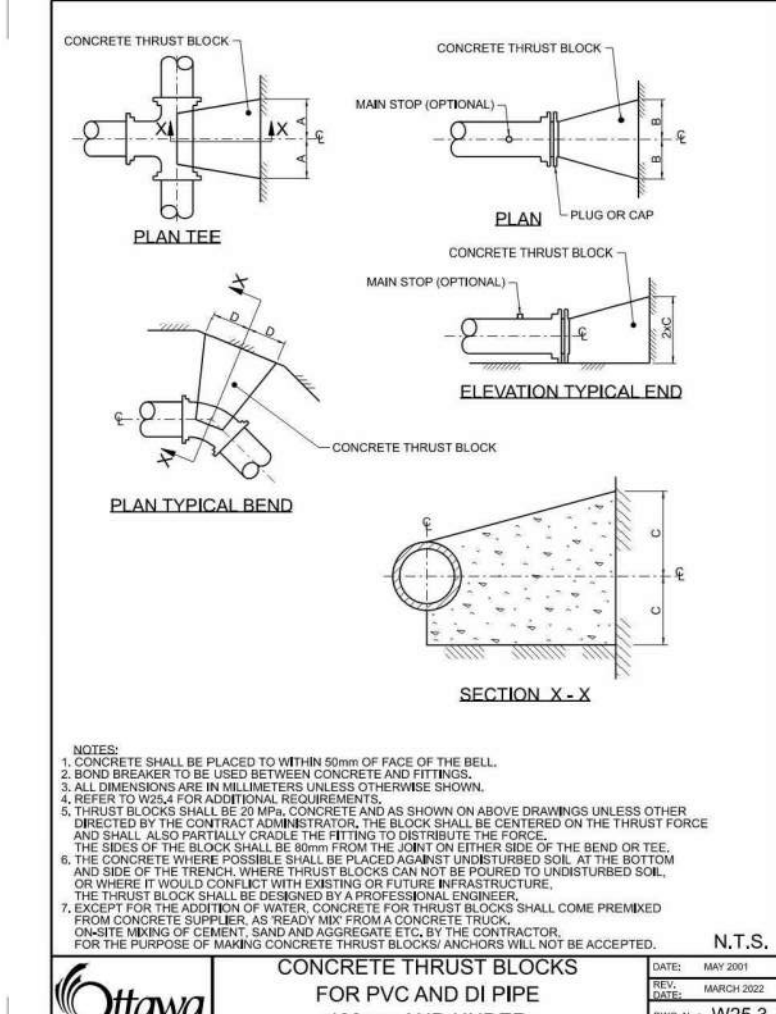
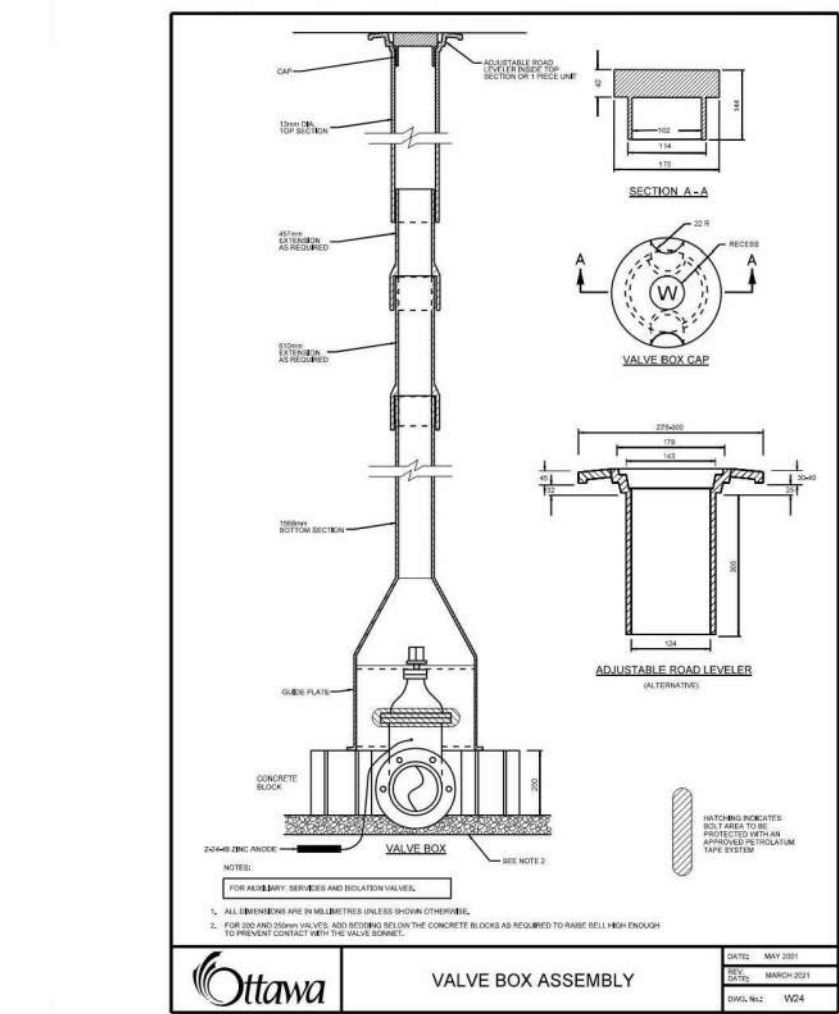
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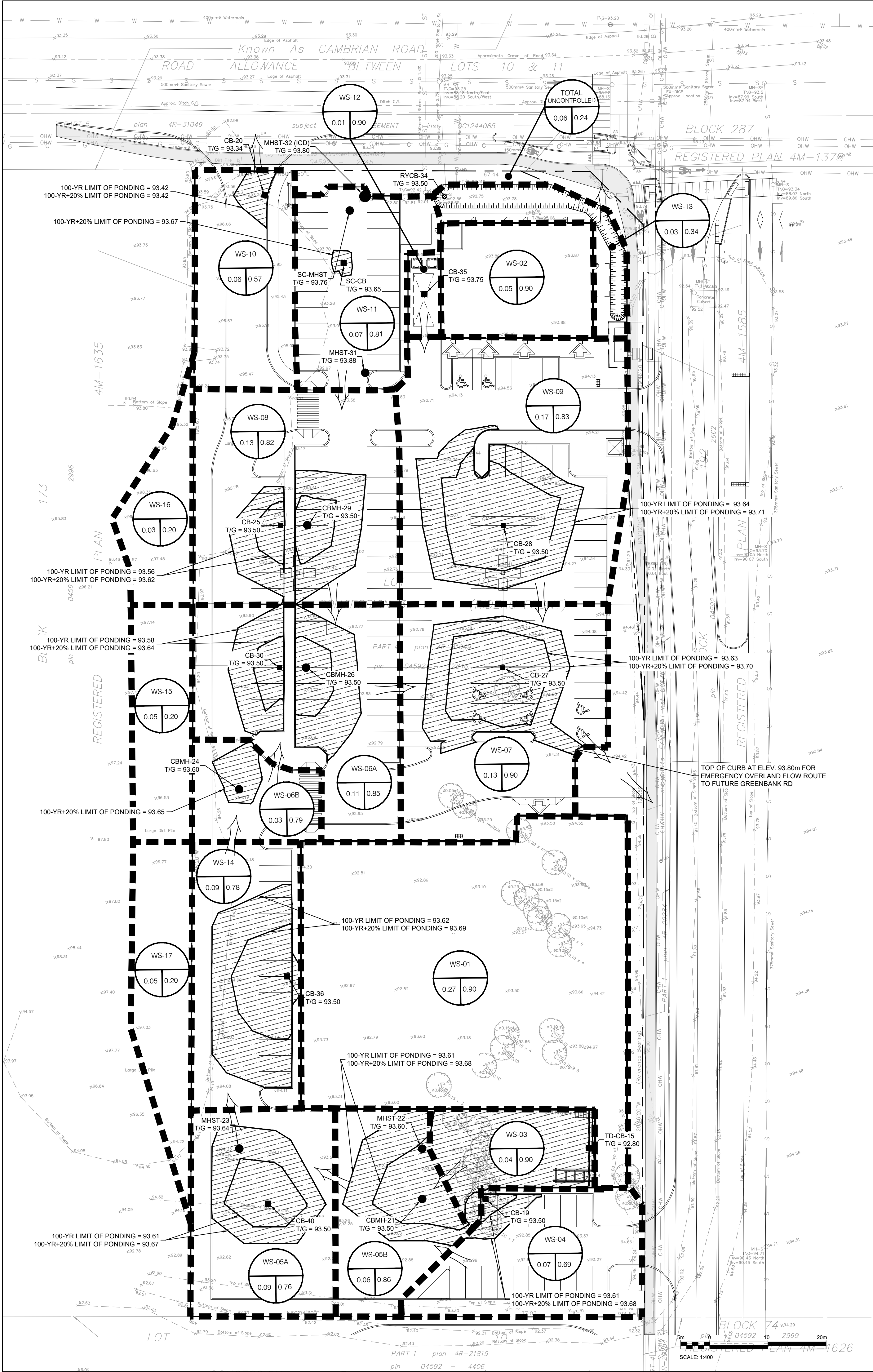
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PROJECT NO. 478575
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3	2025-03-13	RE-ISSUED FOR SPA	BY
2	2023-10-23	RE-ISSUED FOR SPA	BY
1	2023-05-01	ISSUED FOR SPA	BY
#	DATE	DESCRIPTION	BY

Loblaw Companies Limited

PROJECT

3845 CAMBRIAN RD

BARRHAVEN, ONTARIO

DRAWING

POST-DEVELOPMENT DRAINAGE AREAS & PONDING PLAN

PROJECT NO. 478575
PROJECT DATE 2023-02-27
DRAWN BY BV
CHECKED BY MT
SCALE As indicated

2025.03.13 13:11:30-0400'

DRAWING NO. C106
REV.

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