GENERAL NOTES

1. PARKING GARAGE LEGAL BOUNDARY AND TOPOGRAPHICAL INFORMATION FROM SURVEY BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. DATED MAY 7, 2021. . 1D4C LEGAL BOUNDARY AND TOPOGRAPHICAL INFORMATION FROM SURVEY BY

FAIRHALL MOFFATT & WOODLAND LIMITED DATED SEPTEMBER 17, 2018. 3. PARKING GARAGE GEOTECHNICAL DESIGN REPORT BY THURBER ENGINEERING LTD. DATED SEPTEMBER 21, 2023. REFER TO REPORT FOR FURTHER SITE SPECIFIC

- REQUIREMENTS DUE TO EXPANSIVE SHALE AND POTENTIAL FOR SULPHATE ATTACK. 4. THIS SET OF PLANS SHALL NOT BE USED FOR CONSTRUCTION UNTIL STAMPED BY THE DESIGN ENGINEER AND APPROVED BY THE LOCAL MUNICIPALITY.
- 5. NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER. 6. THIS PLAN NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF WALTERFEDY. 7. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, 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 THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM AND THOSE NOT LOCATED PRIOR TO CONSTRUCTION.
- 8. ANY AREA DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CONSULTANT AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO MUNICIPAL STANDARDS. 9. ALL HEALTH AND SAFETY RELATED SIGNAGE MUST BE POSTED AT THE SITE AS

REQUIRED BY APPLICABLE LAW AND BEST MANAGEMENT PRACTICES.

10. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CONSULTANT WITH A DIGITAL FILE OF AS-CONSTRUCTED DRAWINGS. THE DRAWINGS MUST REFLECT THE CONSTRUCTED STATE OF THE WORK. SUBMISSION OF UNALTERED DESIGN DRAWINGS AND CONTRACT CHANGES WILL NOT BE ACCEPTED.

EROSION CONTROL NOTES

- . ALL EROSION CONTROL FENCING, TEMPORARY FILTRATION, AND MUD MATS MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CONSULTANT PRIOR TO COMMENCEMENT OF ANY AREA GRADING, EXCAVATING, OR DEMOLITION. CONTRACTOR TO NOTIFY CONSULTANT FOR INSPECTION.
- 2. ATTACH EROSION CONTROL FENCE TO EXISTING CHAINLINK FENCE WITHIN THE
- LIMITS OF THE SITE WHERE POSSIBLE. 3. EROSION CONTROL FENCING TO BE PLACED AROUND THE BASE OF ALL STOCKPILES.
- ALL STOCKPILES TO BE KEPT A MINIMUM OF 2.5m FROM PROPERTY LINES. 4. FILTER FABRIC TO BE TERRAFIX 270R OR APPROVED EQUIVALENT. 5. MUD MATS TO BE PROVIDED ON SITE AT ALL LOCATIONS WHERE CONSTRUCTION

VEHICLES EXIT THE SITE. MUD MATS SHALL BE SUPPLIED AS INSTALLED AS PER THE

DETAIL ON SHEET C0004. CONTRACTOR TO ENSURE ALL VEHICLES LEAVE THE SITE

- VIA THE MUD MAT AND THAT THE MAT IS MAINTAINED IN A MANNER TO MAXIMIZE ITS EFFECTIVENESS AT ALL TIMES. 6. ALL DITCH INLET CATCHBASINS, CATCHBASINS AND CATCHBASIN MANHOLES TO
- HAVE TEMPORARY FILTRATION INSTALLED AND MAINTAINED AS PER THE DETAIL ON 7. NO ALTERNATE METHODS OF EROSION CONTROL PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY CONSULTANT AND THE AUTHORITY HAVING JURISDICTION.

8 ALL FROSION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL ALL DISTURBED

- GROUND SURFACES HAVE BEEN RE-STABILIZED EITHER BY PAVING OR RESTORATION WITH VEGETATIVE GROUND COVER. 9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENTS FROM THE PUBLIC ROADWAY AND SIDEWALKS AT THE END OF EACH WORK DAY OR AS DIRECTED BY
- THE CONSULTANT 10. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED BY THE CONTRACTOR AFTER MAJOR RAINFALL EVENTS AND CLEANED OR REPLACED AS
- REQUIRED TO MEET THEIR INTENDED FUNCTION. SEDIMENTS TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF ONE THIRD (1/3) THE STRUCTURE CAPACITY. ONTROLS ARE INSTALLED AND MAINTAINED TO CITY OF OTTAWA REQUIREMENTS

CONTRACTOR TO COMPLY WITH THE CONSULTANTS INSTRUCTIONS TO INSTALL,

- 12. THIS PLAN TO BE READ IN CONJUNCTION WITH THE EXISTING CONDITIONS PLAN, SITE SERVICING PLAN, STORM WATER MANAGEMENT PLAN, LANDSCAPING PLAN, AND THE STORM WATER MANAGEMENT REPORT DATED AUGUST 2021.
- GRADING NOTE: MATCH EXISTING GRADES AT ALL PROPERTY LINES AND/OR LIMITS OF CONSTRUCTION EXCEPT WHERE PROPOSED GRADES ARE NOTED.

MODIFY, OR MAINTAIN EROSION CONTROL WORKS.

- MANAGEMENT OF EXCESS MATERIALS SHALL BE IN ACCORDANCE WITH OPSS 180. ENVIRONMENTALLY IMPACTED SOILS, WHERE AND WHEN ENCOUNTERED, SHALL BE MANAGED ON SITE AS REQUIRED UNTIL SUCH TIME THAT LABORATORY TESTING RESULTS HAVE CONFIRMED THE NATURE OF THE IMPACTS AND A SUITABLE DISPOSAL METHOD.
- 3. SURPLUS MATERIAL OF ALL TYPES NOT REQUIRED FOR BACKFILL, GRADING OR LANDSCAPING SHALL BECOME THE PROPERTY OF THE OWNER AND BE REMOVED FROM THE SITE AS DIRECTED BY THE CONSULTANT. THE COSTS OF ALL OFFSITE DISPOSAL SHALL BE BORNE BY THE CONTRACTOR UNLESS A SPECIFIC PROVISION IS MADE IN THE CONTRACT DOCUMENTS FOR PAYMENT FROM DISPOSAL OF A SPECIFIC SURPLUS MATERIAL. 4 MATERIALS TO BE REMOVED SHALL BE NEATLY SAW-CUT ALONG ITS LIMITS. IN
- ADVANCE OF THE REMOVAL. THE LIMITS OF REMOVAL SHALL BE AS NOTED ON THE PLANS UNLESS AN EXTENSION OR REDUCTION OF THE MATERIAL TO BE REMOVED IS APPROVED IN ADVANCE BY THE CONSULTANT. AS SUCH, THE COSTS OF ANY OVER-EXCAVATION NOT APPROVED IN ADVANCE SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY SHALL ALSO EXTEND TO RESTORATION OR REPLACEMENT OF DISTURBED FEATURES AND SURFACES DUE TO UNAUTHORIZED EXCAVATION.
- 5. ALL FILL PLACED ON SITE SHALL BE COMPACTED TO A MINIMUM 95% SPMDD (UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR ON THE DRAWINGS AND IN THE SPECIFICATIONS). ALL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 300mm LIFTS EXCEPT WHERE UNDER PAVING, AND WALKS WHEN LAYERS SHALL BE 150mm MAX. . MAXIMUM SLOPE IN GRASSED AREAS TO BE 3:1. SLOPES GREATER THAN 3:1 TO BE

LANDSCAPED WITH LOW MAINTENANCE GROUND COVER. MINIMUM SLOPE IN

- GRASSED AREAS TO BE 1%. GRASS SWALES WITH A SLOPE LESS THAN 1% TO BE UNDERLAIN WITH A FRENCH DRAIN. 7. FINISH GRADE AT FOUNDATION WALLS TO BE MINIMUM 150mm BELOW THE TOP OF
- FOUNDATION WALL/BRICK LINE UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. 8. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE ON ALL SURFACES TO THE
- APPROPRIATE OUTLET STRUCTURE. AREAS OF PONDING CAUSED BY CONSTRUCTION ERROR WILL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CONSULTANT AT THE CONTRACTORS EXPENSE.
- 9. SHOULD THE NATURE OF THE SOIL AT THE DEPTH INDICATED PROVE UNSATISFACTORY AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THE EXCAVATION SHALL BE CARRIED DOWN TO SUCH A DEEPER LEVEL AS THE
- GEOTECHNICAL ENGINEER MAY REQUIRE UNTIL A SATISFACTORY BEARING STRATUM 9.1. THIS CONTRACTOR SHALL BE PAID THE COST OF SUCH EXTRA EXCAVATION AT
- THE UNIT PRICE ESTABLISHED IN THE CONTRACT. 9.2. ALL EXTRA DEPTHS OF EXCAVATION AND FILLING MUST HAVE THEIR AREA AND
- VOLUME DOCUMENTED BY AN INDEPENDENT INSPECTION AND TESTING COMPANY OR THE CONSULTANT TO QUALIFY FOR PAYMENT. 9.3. QUANTITIES USED FOR PAYMENT OF EXCAVATION AND FILLING AT EXTRA
- DEPTHS TO BE DETERMINED BY THE CONSULTANT.

GENERAL SERVICING 1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE REGULATIONS SET OUT BY

EXCAVATION. TYPE 4 SOIL)

- THE MUNICIPALITY HAVING JURISDICTION. 2. RIGID PIPE BEDDING: CLASS 'B' AS PER OPSD 802.030 (EARTH EXCAVATION, TYPE 1 OR 2 SOIL), OPSD 802.031 (EARTH EXCAVATION, TYPE 3 SOIL), OPSD 802.032 (EARTH
- 3. FLEXIBLE PIPE BEDDING: AS PER OPSD 802.010 (EARTH) 4. GRANULAR FILL SHALL BE DEPOSITED IN THE TRENCH, FOR THE FULL WIDTH OF THE
- LAYERS NOT OVER 300mm DEPTH, EXCEPT WHERE UNDER PAVING, AND WALKS WHEN LAYERS SHALL BE 150mm MAX.
- 5. SITE SERVICING CONTRACTOR TO TERMINATE ALL SERVICES 1.0m FROM FOUNDATION WALL AND COORDINATE WITH THE GENERAL OR MECHANICAL CONTRACTOR AS REQUIRED TO FACILITATE THE CONNECTION.

TRENCH, COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY IN

- 6. WHEN BELL AND SPIGOT PIPE IS LAID, THE BELL END OF THE PIPE SHALL BE LAID
- 7. PIPE SHALL BE KEPT CLEAN AND DRY AS WORK PROGRESSES. THE TRENCH SHALL
- 8. A REMOVABLE WATERTIGHT BULKHEAD SHALL BE INSTALLED DAILY AT THE OPEN END OF THE LAST PIPE LAID.
- 9. PIPE SHALL NOT BE LAID UNTIL THE PRECEDING PIPE JOINT HAS BEEN COMPLETED AND THE PIPE IS BEDDED AND SECURED IN PLACE. 10. ALL PIPE ENDS SHALL BE THOROUGHLY CLEANED PRIOR TO THE INSTALLATION OF
- GASKETS. ALL GASKETS TO BE LUBRICATED PRIOR TO BEING INSTALLED OR AS RECOMMENDED BY THE PIPE MANUFACTURER.
- 11. A TEMPORARY LOCATION MARKER 50x75mm SHALL BE PLACED AT THE END OF ALL CAPPED SERVICE CONNECTIONS. THE MARKER SHALL BE PLACED 300mm ABOVE THE PLUGGED END OF THE SERVICE PIPE, CUT AT LEAST 500mm ABOVE THE FINISHED GRADE, AND MARKED WITH BRIGHT PAINT
- 12. ALL MANHOLES, BASINS, CHAMBERS ETC, TO BE INSTALLED LEVEL AND PLUMB TO THE SATISFACTION OF THE CONSULTANT.

STORM AND SANITARY SEWER

- 1. ALL SEWER MATERIALS TO COMPLY WITH CITY OF OTTAWA MS-22.15 REQUIREMENTS. 2. THE SITE SERVICING CONTRACTOR SHALL PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. SPECIFICALLY, THE LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.01.15 AND 407.07.25 AND IN ACCORDANCE WITH THE PLUMBING CODE. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS TO THE CITY OF OTTAWA. CONTRACTOR TO PROVIDE CONSULTANT MINIMUM 1 WEEK NOTICE OF SCHEDULING PRIOR TO COMPLETING TESTING ON SITE.
- POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS: SMOOTH PROFILES, TO OPSS 1841 AND CSA B182.2, WITH SEPARATE GASKET AND INTEGRAL BELL SYSTEM, IN 6.0m NOMINAL LENGTHS AS FOLLOWS: 3.1. 200mm OD AND LARGER: SDR35 PVC WITH 320 kPa STIFFNESS.
- SUBSURFACE DRAINAGE PIPE AND FITTINGS: TO OPSS 405, PERFORATED PVC PIPE TO OPSS 1841 OR PE PIPE TO OPSS.MUNI 1840, TO CAN/CSA-B182.1; COMPLETE WITH KNITTED SOCK GEOTEXTILE AS REQUIRED (TERRAFIX 270R OR EQUIVALENT). MANHOLES AND CATCHBASIN MANHOLES TO BE PRECAST 1200mm DIAMETER WITH ALUMINUM STEPS AT 300mm SPACING AS PER OPSD 701.010 UNLESS SPECIFIED
- 6. CATCHBASINS TO BE 600mm SQUARE PRECAST AS PER OPSD 705.010. DOUBLE CATCHBASINS TO BE 600x1450mm PRECAST AS PER OPSD 705.020. . CATCHBASIN MANHOLES, CATCHBASINS, AND DOUBLE CATCHBASINS TO HAVE A MINIMUM 600mm DEEP SUMP.
- 8. STORM MANHOLES TO HAVE MINIMUM 300mm DEEP SUMP. 9. MANHOLE AND CATCHBASIN, FRAMES, GRATES, CASTINGS, LIDS TO BE AS PER OPSS
- 10. CAST IRON FRAMES AND COVERS OR GRATES- STORM SEWERS: TO OPSS 1850 AND
- OPSD 400.020, OPSD 401.010 (B, OPEN). 11. CAST IRON FRAMES AND COVERS OR GRATES - SANITARY SEWERS: TO OPSS 1850, OPSD 401.010 (A, CLOSED).
- 12. ALL SANITARY MANHOLES LOCATED IN STORM WATER PONDING AREAS TO HAVE WATERTIGHT FRAME AND COVERS AS PER OPSD 401.030 13 STORM SEWERS AND SERVICES TO HAVE MINIMUM 2 0m COVER TO TOP OF PIPE WHERE COVER TO TOP OF PIPE IS DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED SEWER PIPE IN ACCORDANCE WITH APPLICABLE 'SEWER PIPE INSULATION DETAIL' INDICATED IN DRAWING DETAILS.
- SANITARY SEWERS AND SERVICES TO HAVE A MINIMUM 2.5m COVER TO TOP OF PIPE WHERE COVER TO TOP OF PIPE IS DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED SEWER PIPE IN ACCORDANCE WITH APPLICABLE 'SEWER PIPE INSULATION DETAIL' INDICATED IN DRAWING DETAILS.
- 5. ALL PIPES, TO BE INSTALLED FLUSH WITH THE INSIDE WALLS OF THE STRUCTURE AND PARGED TO A SMOOTH FINISH. 16. ALL SANITARY MANHOLES TO BE PRE-BENCHED OR BENCHED WITH 30MPa CONCRETE AS PER OPSD 701.021. BENCHING SHALL EXTEND TO THE SPRING LINE OF LARGEST PIPE IN THE MANHOLE AND SHALL HAVE A SLOPE OF 1:8.
- 17. CONTRACTOR TO SUPPLY AND PAY FOR CCTV INSPECTION OF ALL SEWER LINES AND 8. ACCEPTANCE OF SEWER LINES AND STRUCTURES SHALL BE MADE AFTER THE CONSULTANT HAS REVIEWED THE CCTV DOCUMENTATION AND VIDEOS, AND

EXPRESSED IN WRITING THAT THE SEWER LINES AND STRUCTURES ARE

- 19. IF CCTV INSPECTIONS SHOW ADDITIONAL CLEANING IS REQUIRED, CLEAN AND RE-INSPECT THE SEWER UNTIL ACCEPTED BY THE CONSULTANT.
- 20 A MINIMUM OF ONE (1) AND MAXIMUM OF THREE (3) ADJUSTMENT UNITS SHALL BE INSTALLED ON EACH STRUCTURE TO A MINIMUM HEIGHT OF 75mm AND MAXIMUM OF 300mm. THE FIRST ADJUSTMENT UNIT SHALL BE LAID IN A FULL BED OF MORTAR AND ALIGNED WITH THE OPENING IN THE STRUCTURE. SUCCESSIVE ADJUSTMENT UNITS SHALL BE LAID PLUMB TO THE FIRST ADJUSTMENT UNIT AND SEALED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. FRAMES WITH GRATES OR COVERS SHALL BE SET IN A FULL BED OF MORTAR ON THE ADJUSTMENT UNITS AND SUPPORTED USING SHIMS. ROCKS, STONES AND DEBRIS WILL NOT BE PERMITTED FOR USE AS

- ALL WATERMAIN MATERIALS TO COMPLY WITH CITY OF OTTAWA MS-19.15 REQUIREMENTS.
- POLYVINYL CHLORIDE (PVC) PIPE: MANUFACTURED TO CAST IRON OD (CIOD); COLOUR CODED BLUE, WITH INTEGRAL WALL THICKENED BELL DESIGNED FOR JOINT ASSEMBLY USING AN ELASTOMERIC GASKET CONFORMING TO ASTM D3139 AND CSA B137 3 TO CSA B137 3 COMPLETE WITH TRACER WIRE
- 2.1. 100 TO 300mm: TO AWWA C900, DR 18, IPEX OR APPROVED EQUAL. MOLECULARLY ORIENTED POLYVINYL CHLORIDE (PVCO) PIPE: MANUFACTURED TO CIOD: COLOUR CODED BLUE. BIAXIALLY ORIENTED, WITH INTEGRAL WALL THICKENED BELL DESIGNED FOR JOINT ASSEMBLY USING AN ELASTOMERIC GASKET CONFORMING TO ASTM D3139 AND CSA B137.3.1, COMPLETE WITH TRACER WIRE. 3.1. 100 TO 300mm: TO AWWA C909, PC 1620 kPa, BIONAX OR APPROVED EQUAL.
- 4. ALL WATER SERVICING TO HAVE MINIMUM 2.4m COVER. 5. ALL WATER SERVICING PROVIDING FIRE FLOWS MUST BE PRESSURE TESTED TO 200 PSI AS PER THE OBC PLUMBING CODE.
- 6. FITTINGS: FOR POLYVINYL CHLORIDE (PVC) AND MOLECULARLY ORIENTED POLYVINYL CHLORIDE (PVCO) PIPE SHALL BE EITHER:
- 6.1. GRAY IRON ACCORDING TO AWWA C110/A21.10. 6.2. DUCTILE IRON ACCORDING TO C110/A21.10 OR AWWA C153 AND SHALL BE CEMENT LINED ACCORDING TO AWWA C104/A21.4.
- 6.3. INJECTION MOULDED POLYVINYL CHLORIDE, BLUE IN COLOUR AND ACCORDING TO AWWA C907 AND CSA B137.2.

6.4. PREFABRICATED POLYVINYL CHLORIDE, BLUE IN COLOUR AND ACCORDING TO

- AWWA C905 AND CSA B137.3. . JOINT RESTRAINTS: 7.1. FOR PVC PIPE AND FITTINGS: TO ASTM F1674 AND AWWA C111, SERRATED RING
- TYPE; FOR PUSH ON JOINTS UNIFLANGE (SERIES 1300, 1350 & 1360), EBAA (SERIES 1600, 2500 & 2800) OR CLOW (SERIES 300 & 350); OR WEDGE ACTION TYPE AS MANUFACTURED BY EBAA (SERIES 2000PV). OR UNIFLANGE (SERIES 1500) AND STAR STARGRIP 4000, 4100P. 7.2. FOR PVCO PIPE (AWWA C909) AND FITTINGS: SERRATED RING TYPE; FOR PUSH
- ON JOINTS UNIFLANGE (SERIES 1360), EBAA (SERIES 2500); WEDGE ACTION TYPE AS MANUFACTURED BY CLOW (SERIES 2000 TUF GRIP), STAR (STARGRIP 3500). 7.3. ALL MECHANICAL JOINTS IN TEMPORARY AND PERMANENT CONNECTIONS TO
- INCLUDE MECHANICAL JOINT RESTRAINTS. 7.4. WATERMAIN FITTINGS WHICH CHANGE DIRECTIONS VERTICALLY OR HORIZONTALLY TO BE FULLY RESTRAINED BY MECHANICAL JOINT RESTRAINT OR THRUST BLOCKS (OPSD 1103.01 AND 1103.02). THREADED ROD WILL NOT BE
- 7.5. WATERMAIN FITTINGS TO BE SUPPLIED WITH MECHANICAL JOINT RESTRAINTS. FOR WATERMAIN PIPE SIZES 150mmØ OR LESS ALL PIPE JOINTS TO BE RESTRAINED WITHIN 5 0m FROM ALL FITTINGS IN EACH DIRECTION UNLESS. SHOWN OTHERWISE ON THE CONTRACT DRAWINGS. FOR WATERMAIN PIPE SIZES GREATER THAN 150mmØ ALL PIPE JOINTS TO BE RESTRAINED WITHIN 10.0m FROM ALL FITTING, IN EACH DIRECTION, UNLESS SHOWN OTHERWISE ON THE CONTRACT DRAWINGS ALL TEES TO HAVE MINIMUM 2.0m SOLID PIPE LENGTH ON EACH RUN OF THE TEE, OR PROVIDE A THRUST BLOCK PER OPSD

TRACER WIRE:

- 8.1. T.W.U. OR R.W.U #10 GAUGE MIN. 7 STRANDS COPPER WIRE, MIN 60°C OR HIGHER, 600v OR APPROVED EQUIVALENT. 8.2. PVC WATERMAIN SHALL HAVE TRACER WIRE STRAPPED TO TOP AT 5.0m
- INTERVALS. TRACER WIRE SHALL BE BROUGHT TO THE SURFACE AT ALL HYDRANTS AND CONNECTED TO THE LOWER FLANGE OF THE HYDRANT. 8.3. DO NOT CONNECT THE TRACER WIRE ON NON-METALLIC SYSTEMS TO NEW OR

EXISTING METALLIC WATERMAIN PIPING AND/OR ASSOCIATED FITTINGS.

- WATERMAIN VALVES, 100mm AND LARGER, SHALL BE AS PER AWWA C509-MUELLER A2362 OR APPROVED EQUIVALENT (OPEN LEFT) INCLUDING VALVE BOX AND CATHODIC PROTECTION. 10 HYDRANTS: CONFORM TO AWWA C502 FOR DRY-BARREL HYDRANTS. WITH TWO 63.5mm HOSE NOZZLES AT 180 DEGREES AND A 114.3mm PUMPER NOZZLE WITH A
- 100mm ULC APPROVED STORTZ CONNECTION; 32mm SQUARE OPERATING NUT, OPEN COUNTER-CLOCKWISE AND HAVE MECHANICAL JOINT END; COMPLETE WITH 150mm LEAD. 150mm GATE VALVE. ANCHOR TEE. VALVE AND BOX PROVIDED IN ACCORDANCE WITH THE CITY OF OTTAWA.
- DED AS REQUIRED BY THE CITY OF OTTAWA MS-19.15
- 12. CHAMBERS FOR VALVES AND METERS TO BE PROVIDED IN ACCORDANCE WITH OPSS 407 AND 408.
- 12.1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR CHAMBER AND METER ASSEMBLY TO THE CONSULTANT FOR REVIEW. 12.2. COMPLETE WITH FACTORY INSTALLED GALVANIZED OR ALUMINUM MANHOLE
- 12.3. PROVIDE AND INSTALL ACCESS HATCH FRAME AND COVERS TO OPSD 402.030. CAST IN PLACE, ACCESS HATCH SHALL BE LOCKABLE. 13. PETROLATUM TAPE SYSTEMS: TO BE COMPRISED OF THREE COMPONENTS; PASTE,
- (INTERPROVINCIAL CORROSION CONTROL COMPANY LTD.). ONLY MATERIAL FROM SUPPLIERS LISTED SHALL BE USED. AT NO TIME SHALL MATERIALS FROM EITHER SYSTEM BE UTILISED WITH ONE AND OTHER.

13.1. ALL MECHANICAL JOINT RESTRAINTS TO BE WRAPPED WITH APPROVED

PETROLEUM TAPE SYSTEM.

MASTIC. AND TAPE THAT MEET AWWA C217-09. SUPPLIED BY DENSO NORTH

AMERICA INC. OR PETRO COATING SYSTEMS LTD. OR RUSTROL SYSTEMS

- 14. PROVIDE ADEQUATE SUMP BELOW CONNECTION, AND PUMPING IF REQUIRED, TO PREVENT CONTAMINATION OF NEW WATERMAIN WITH TRENCH GROUND WATER OR ANY OTHER FOREIGN MATTER.
 - 15. ALL WATERMAIN AND SERVICE COMMISSIONING, PRESSURE/LEAKAGE TESTING, DISINFECTION, BACTERIOLOGICAL ANALYSIS AND FLUSHING TO BE SUCCESSFULLY COMPLETED BY THE CONTRACTOR AND ACCEPTED BY THE CITY OF OTTAWA AND THE CONSULTANT PRIOR TO PERMANENT CONNECTION TO WATER DISTRIBUTION
 - SYSTEM. REFER TO CONTRACT SPECIFICATIONS FOR REQUIREMENTS. 15.1. CONTRACTOR TO SUBMIT A WATERMAIN COMMISSIONING PLAN TO THE CITY OF OTTAWA AND CONSULTANT AT LEAST TWO WEEKS PRIOR TO CHLORINE RESIDUAL & BACTERIOLOGICAL TESTING.

PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST:

- 1.1 CHECK AND VERIEY ALL DIMENSIONS AND EXISTING FLEVATIONS WHICH INCLUDES, BUT IS NOT LIMITED TO, THE BENCHMARK ELEVATIONS, EXISTING SERVICE CONNECTIONS AND EXISTING INVERTS. 1.2. OBTAIN ALL UTILITY LOCATES AND REQUIRED PERMITS AND LICENSES.
- 1.3. VERIFY THAT THE FINISHED FLOOR ELEVATIONS AND EXISTING FLOOR ELEVATIONS (WHICH MAY APPEAR ON THIS PLAN) COMPLY WITH THE FINAL ARCHITECTURAL DRAWINGS.
- 1.4. CONFIRM ALL DRAWINGS USED FOR CONSTRUCTION ARE OF THE MOST RECENT REVISION. 1.5. REPORT DISCREPANCIES IN EXISTING CONDITION INFORMATION IMMEDIATELY
- TO THE CONSULTANT. 2 THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR DAMAGE TO EXISTING WORKS DAMAGE SHALL BE RECTIFIED TO THE SATISFACTION OF THE CONSULTANT AND
- . THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT AND/OR RELOCATION OF EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE REQUIREMENTS OF ALL UTILITY

COMPANIES WHEN CROSSING OR WORKING NEAR THEIR PLANT.

CONTRACT ADMINISTRATOR BEFORE COMMENCING WORK.

CONTRACTOR.

- 4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL TEMPORARY BENCHMARKS ESTABLISHED FOR DESIGN PURPOSES, PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE
- 5. THE CONTRACTOR SHALL CONTACT THE CONSULTANT 48 HOURS PRIOR TO COMMENCING WORK TO DETERMINE DEGREE OF INSPECTION AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND SERVICE INSTALLATION.
- THE RIGHT-OF-WAY (INCLUDING THE BOULEVARD) IS NOT TO BE USED FOR ANY CONSTRUCTION ACTIVITY UNTIL A WORK PERMIT HAS BEEN OBTAINED AS PER THE CITY OF OTTAWA REQUIREMENTS

7. ALL WORK ON THE MUNICIPAL RIGHT-OF-WAY WILL BE INSTALLED BY THE SITE

CONTRACTOR UPON SUCCESSFUL APPLICATION FOR A WORK PERMIT BY THE

- 8. LIMIT CONSTRUCTION TO ACCEPTABLE TIMES WITHIN THE CITY OF OTTAWA NOISE BYLAW. CONSTRUCTION HOURS ARE 6AM TO 10PM MONDAY TO SUNDAY WITHOUT 9. IF. FOR UNFORESEEN REASONS. THE OWNER AND/OR THEIR REPRESENTATIVE MUST ENCROACH ONTO PRIVATE LANDS TO UNDERTAKE ANY WORKS, THEY MUST OBTAIN WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNERS PRIOR TO
- ENTERING UPON THE PRIVATE PROPERTY TO PERFORM ANY WORKS. COPIES OF THESE LETTERS OF CONSENT MUST BE SUBMITTED TO CITY OF OTTAWA ENGINEERING DEVELOPMENT DIVISION, PRIOR TO ANY WORK BEING PERFORMED. FAILURE TO COMPLY WITH THE ABOVE IS AT THE PROPERTY OWNER'S & CONTRACTOR'S OWN RISK.
- TRAFFIC, ACCESS, SAFETY PEDESTRIANS MUST BE ASSURED SAFE PASSAGE ALONG LANCASTER ROAD AT ALL TIMES. ALL PEDESTRIAN WALKWAYS MUST BE MAINTAINED AS LONG AS POSSIBLE AFTER WHICH TIME IT IS TEMPORARILY REPLACED BY A SUITABLE GRANULAR MATERIAL TO THE SATISFACTION OF THE CONSULTANT AND/OR CITY OF OTTAWA. 2. ON STREET PARKING WILL NOT BE PERMITTED FOR ANY CONSTRUCTION VEHICLES OR CONSTRUCTION STAFF. THE CONTRACTOR SHALL PROVIDE ADEQUATE PARKING FACILITIES ON SITE TO SUIT THE NATURE AND LOCATION OF THE WORK. 3. FOR EMERGENCY RESPONSE, CONTRACTOR MUST MAINTAIN CONSTRUCTION
- 4. 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 CITY OF OTTAWA AND THE MTO MANUAL OF UNIFORM TRAFFIC CONTROL

ACCESS FREE AND CLEAR OF DEBRIS, MATERIALS, VEHICLES, AND EQUIPMENT

ALL REMOVALS TO BE IN ACCORDANCE WITH OPSS.MUNI 510.

BEFORE NEW ASPHALT IS PLACED

- ASPHALT MATERIAL TO BE PROVIDED AS PER OPSS 1150 AND INSTALLED AS PER
- . WHERE NEW ASPHALT ABUTS EXISTING ASPHALT, EXISTING ASPHALT SHALL BE SAW CUT AND HAVE TACK COAT APPLIED AS PER OPSS 308 TO A CLEAN DRY FACE
- 3. SUBMIT ONE COPY OF THE PROPOSED ASPHALT MIX DESIGN FOR ANY PAVING MATERIALS DIRECTLY TO THE CONSULTANT A MINIMUM OF TWO WEEKS IN ADVANCE OF SCHEDULED ASPHALT PAVING
- EXISTING SIDEWALK ON THE RIGHT OF WAY IS NOT TO BE REMOVED UNTIL THE CONTRACTOR IS READY TO REPLACE SIDEWALKS.
- 2. CONCRETE SIDEWALK WITHIN THE RIGHT OF WAY SHALL BE AS PER OPSD 310.010
- 3. CONCRETE BARRIER CURB TO BE AS PER OPSD 600.110 32MPa @ 28 DAYS CONCRETE TO OPSS 353, 7±1.5% AIR ENTRAINMENT, 19mm MAX COURSE AGGREGATE, 60mm MAX SLUMP.
- 4. CONCRETE SIDEWALK TO BE AS PER DETAIL ON THIS SHEET 32MPa @ 28 DAYS CONCRETE TO OPSS 351, 7±1.5% AIR ENTRAINMENT, 19mm MAX COURSE AGGREGATE, 70±20mm SLUMP.

5. UNSHRINKABLE FILL: TO OPSS 1359, 28-DAY COMPRESSIVE STRENGTH: 0.4 - 0.7 MPa,

- MAXIMUM 25mm COURSE AGGREGATE SIZE. 6. SUBMIT ONE COPY OF ALL PROPOSED CONCRETE MIX DESIGNS DIRECTLY TO THE CONSULTANT A MINIMUM OF TWO WEEKS IN ADVANCE OF SCHEDULED CONCRETE
- ALL GRANULAR BASE, SUBBASE, SUBGRADE AND BACKFILL TO BE PROVIDED AS PER OPSS.MUNI 1010 AND INSTALLED AS PER OPSS.MUNI 314. COARSE GRANULAR FILL: MATERIAL AS SPECIFIED BELOW; COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY, UNLESS SPECIFIED OTHERWISE, IN LIFTS NOT EXCEEDING 300mm IN COMPACTED THICKNESS: MOISTURE CONTENT WITHIN PLUS OR MINUS 2% OF THE REQUIREMENTS OF ASTM D698.
- 2.1. GRANULAR 'B', TYPE 2 TO OPSS.MUNI 1010. 3. FINE GRANULAR FILL: MATERIAL AS SPECIFIED BELOW; COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY. UNLESS SPECIFIED OTHERWISE. IN LIFTS NOT EXCEEDING 150mm IN COMPACTED THICKNESS: MOISTURE CONTENT WITHIN PLUS OR MINUS 2% OF THE REQUIREMENTS OF ASTM D698.

3.1. GRANULAR 'A' TO OPSS.MUNI 1010.

2. PAVEMENT MARKINGS TO BE

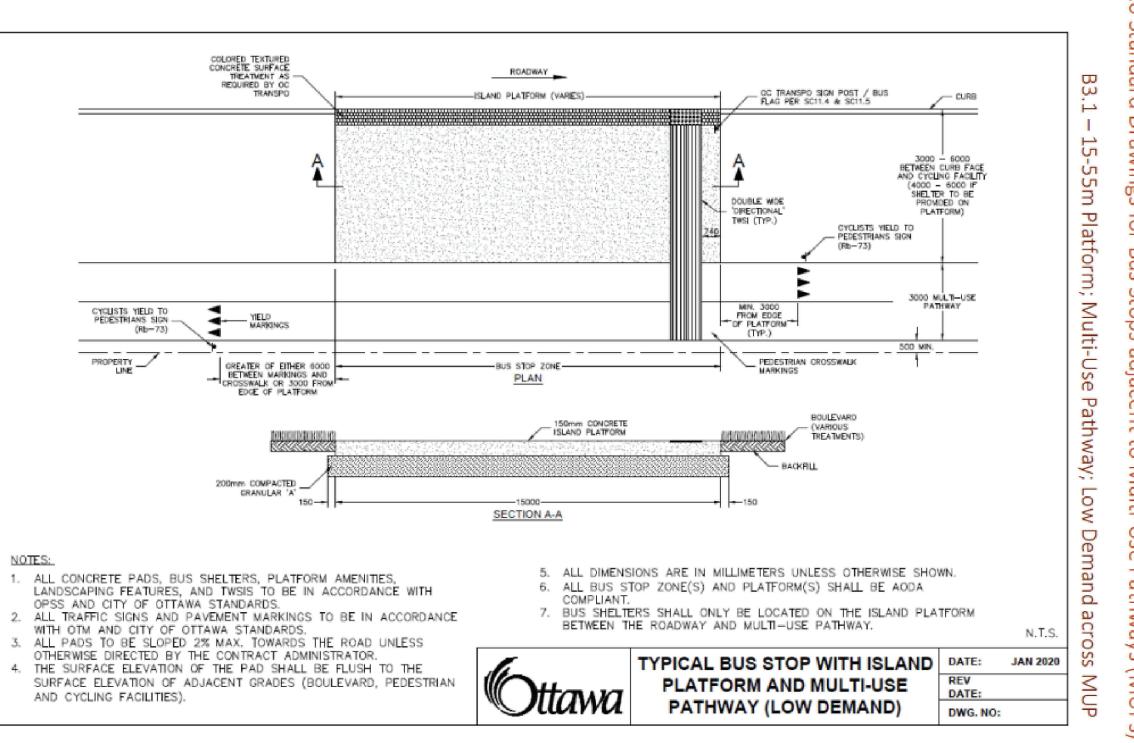
- IN ACCORDANCE WITH THE CITY OF OTTAWA SITE ALTERATION BY-LAW; NO FILLING, PRE-GRADING OR TREE REMOVAL SHALL OCCUR, IN ADVANCE OF THE FINAL SITE PLAN ENGINEERING ACCEPTANCE, WITHOUT PERMIT. SHOULD THE DEVELOPER OR CONTRACTOR WISH TO PREPARE THE SITE FOR CONSTRUCTION PRIOR TO ENGINEERING ACCEPTANCE, AN APPLICATION FOR A SITE ALTERATION PERMIT MUST BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEERING AND CONSTRUCTION DIVISION FOR REVIEW AND APPROVAL.
- 2. ANY AREAS WHICH REQUIRE FILL IN EXCESS OF 0.30m ARE SUBJECT TO COMPACTION TESTS AND SUCH TESTS MUST SHOW A MINIMUM COMPACTION OF 95% SPMDD AT ALL DEPTHS.
- . RETAINING WALLS TO BE DESIGNED BY OTHERS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PROPOSED RETAINING WALLS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER CERTIFIED IN THE PROVINCE OF ONTARIO TO THE CONSULTANT, PRIOR TO CONSTRUCTION. SHOP DRAWINGS TO BE APPROVED BY CONSULTANT IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OF COMPLETION COMPLETED BY THE RETAINING WALL DESIGN ENGINEER BEFORE ACCEPTANCE OF THE

TOPSOIL TO BE PROVIDED AND INSTALLED AS PER OPSS 802. SOD TO BE PROVIDED AND INSTALLED AS PER OPSS 803

- VEMENT MARKING & SIGNS
 PAVEMENT MARKINGS TO BE LAID OUT AS PER THE DRAWINGS AND CONTRACTOR CONTACT CONSULTANT TO REVIEW LAYOUT PRIOR TO PAINTING. ALL PAINT LINES TO BE OF UNIFORM COLOR AND DENSITY WITH SHARP EDGES TO THE SATISFACTION OF THE CONSULTANT.
- 2.1. THERMOPLASTIC PAVEMENT MARKING MATERIAL TO CONFORM TO OPSS 1713 AND APPLIED AS PER OPSS 710 2.1.1. WHITE - CGSB 1-GP-12C WHITE 513-301.
- MINISTRY OF TRANSPORTATION ONTARIO OR U.S. FEDERAL 595B, YELLOW

2.1.2. YELLOW - SHALL MATCH EITHER THE YELLOW COLOUR CHIP OF THE

3. ALL EXISTING SIGNS, MAIL BOXES, POSTS, ETC., WHICH MUST BE REMOVED TO ACCOMMODATE CONSTRUCTION SHALL BE SALVAGED AND REINSTATED AS DIRECTED BY THE CONTRACT ADMINISTRATOR IN EQUAL OR BETTER CONDITION. THE CONTRACTOR SHALL MAKE GOOD ANY DAMAGE CAUSED TO SUCH FACILITIES AT HIS OWN EXPENSE. ALL EXISTING TRAFFIC CONTROL SIGNS MUST BE REINSTATED BY THE END OF EACH WORKING DAY. EXISTING STOP CONTROL SIGNS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION TO THE SATISFACTION OF THE ROAD AUTHORITY AND THE CONTRACT ADMINISTRATOR.

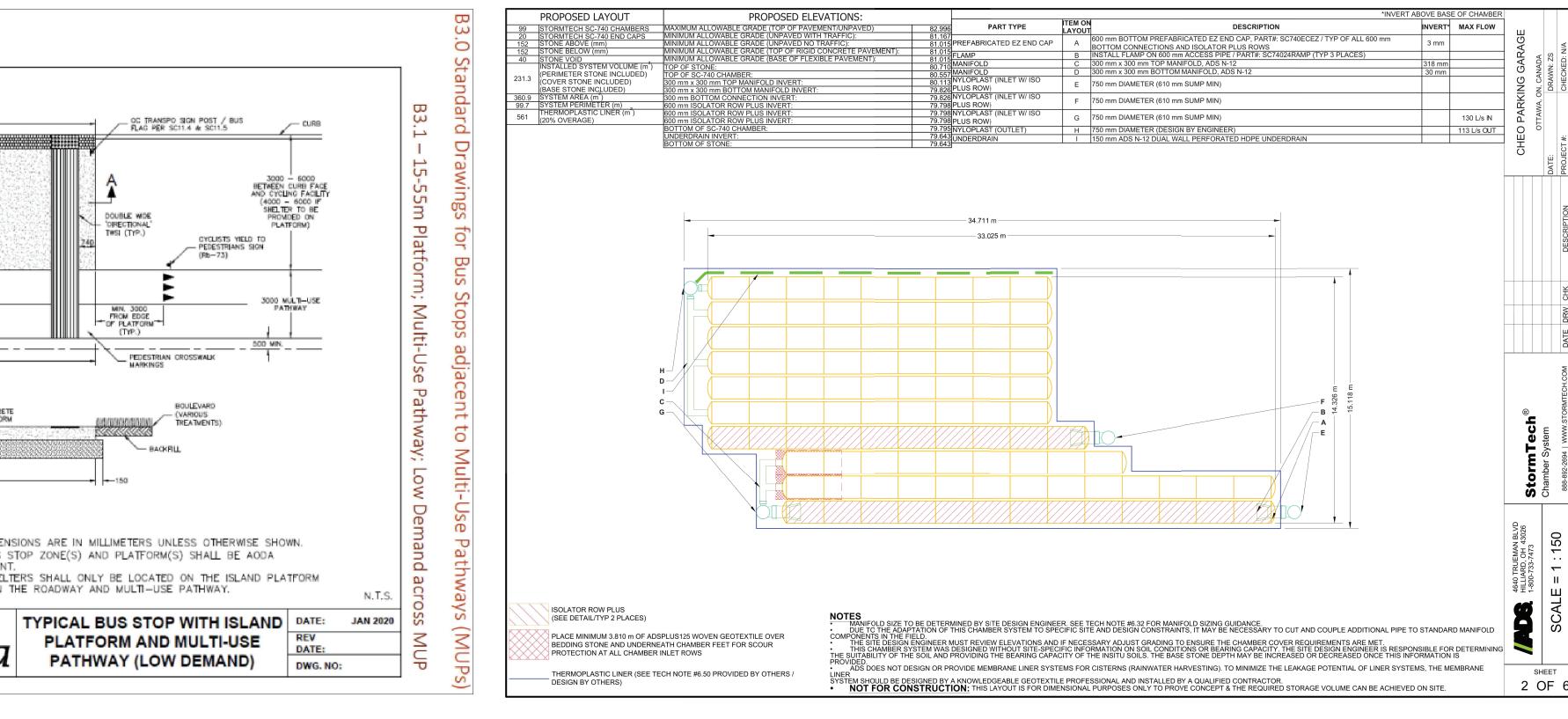


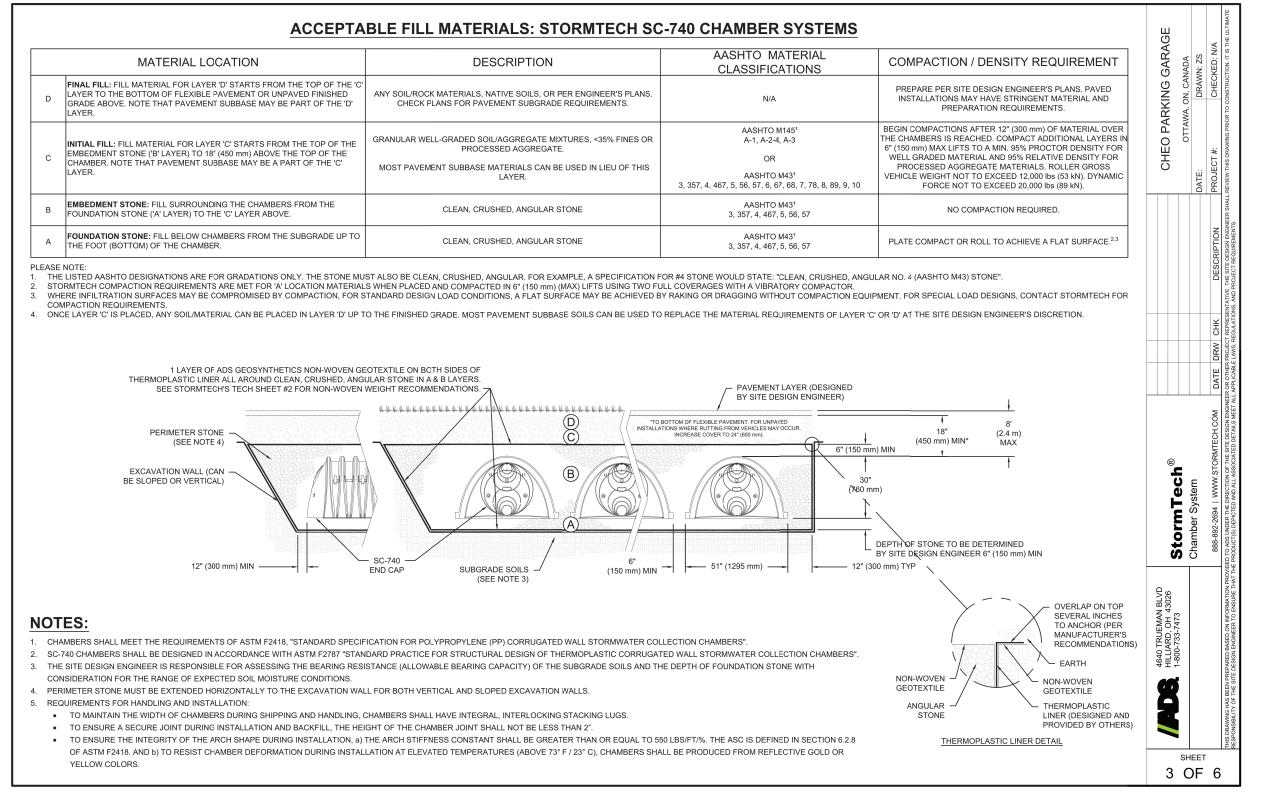
By Lily Xu at 9:14 am, Oct 26, 2023

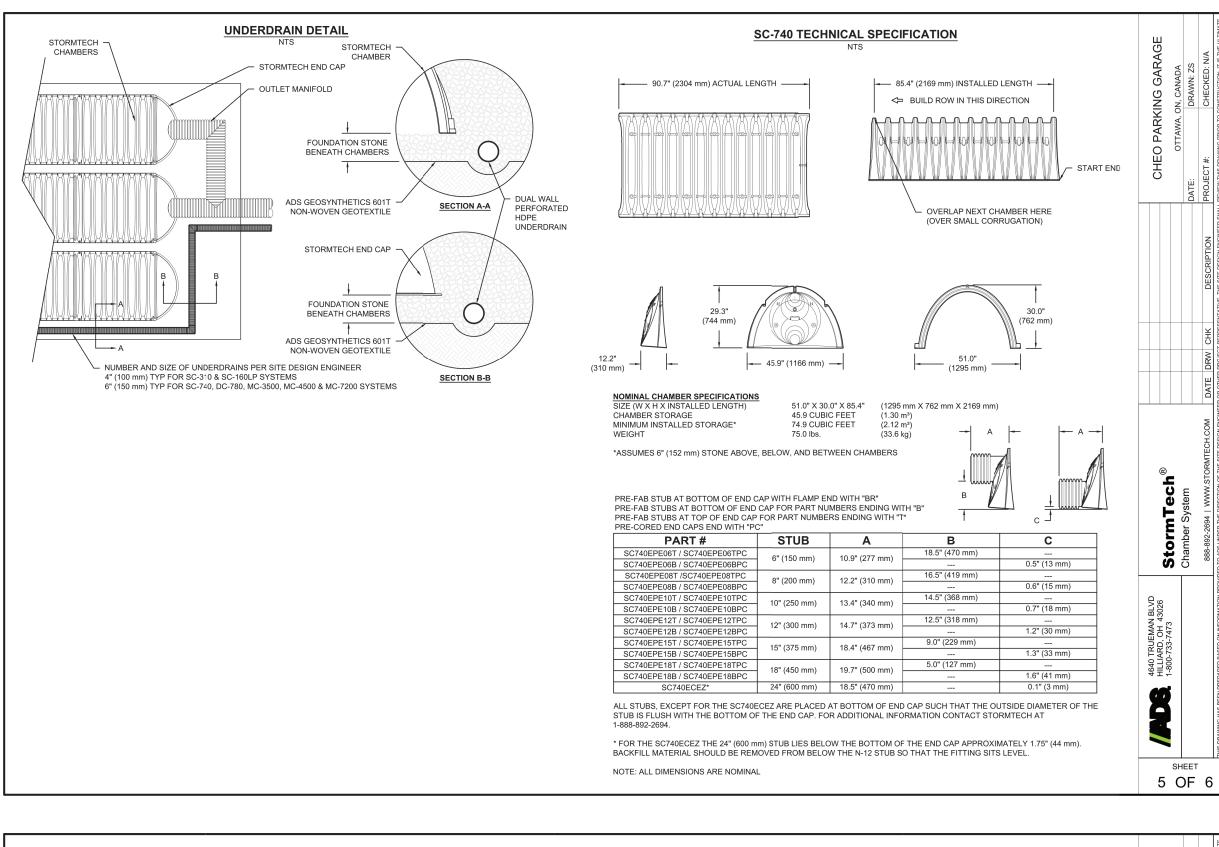
LILY XU, MCIP, RPP

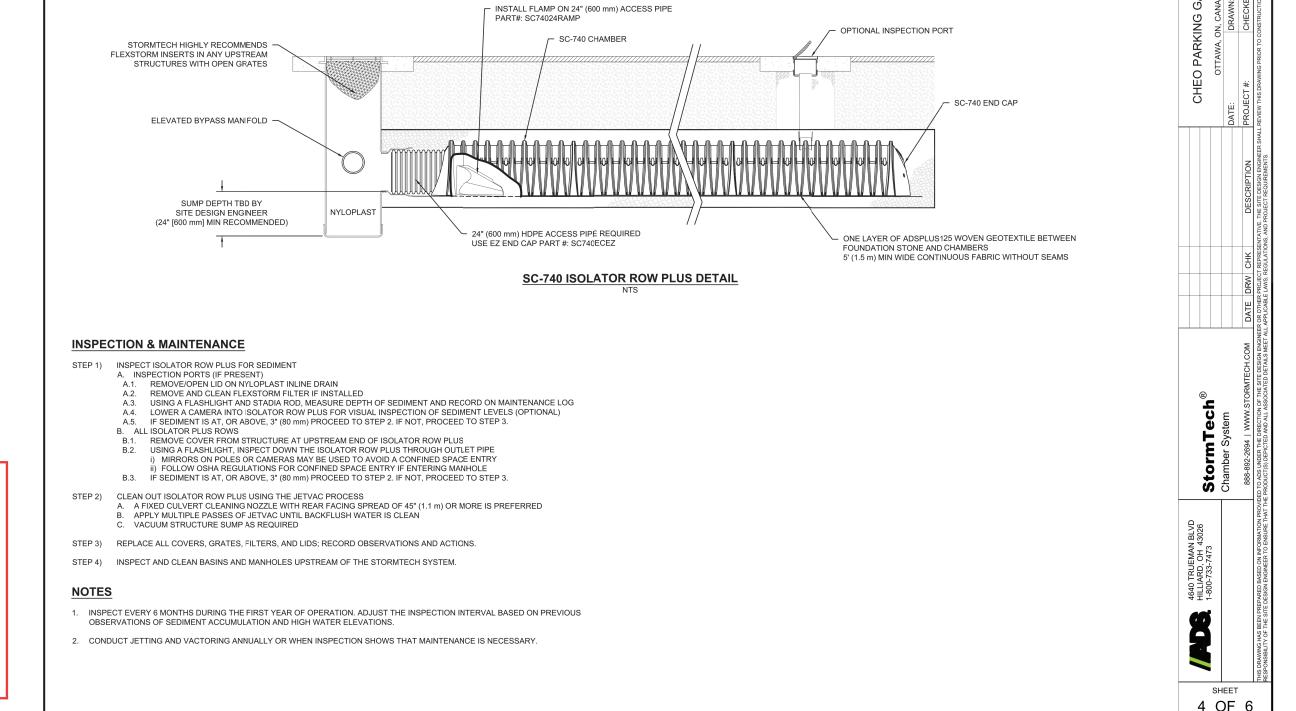
MANAGER, DEVELOPMENT REVIEW SOUTH

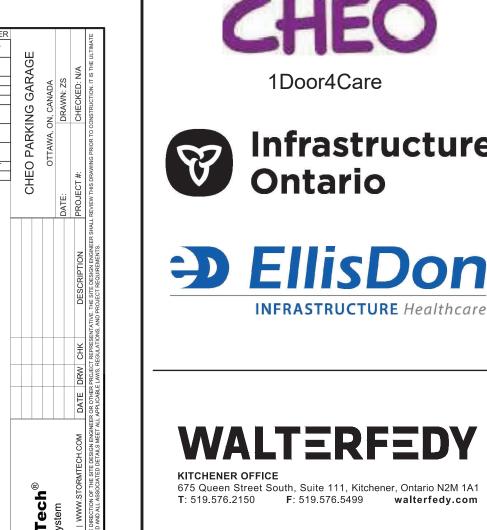
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

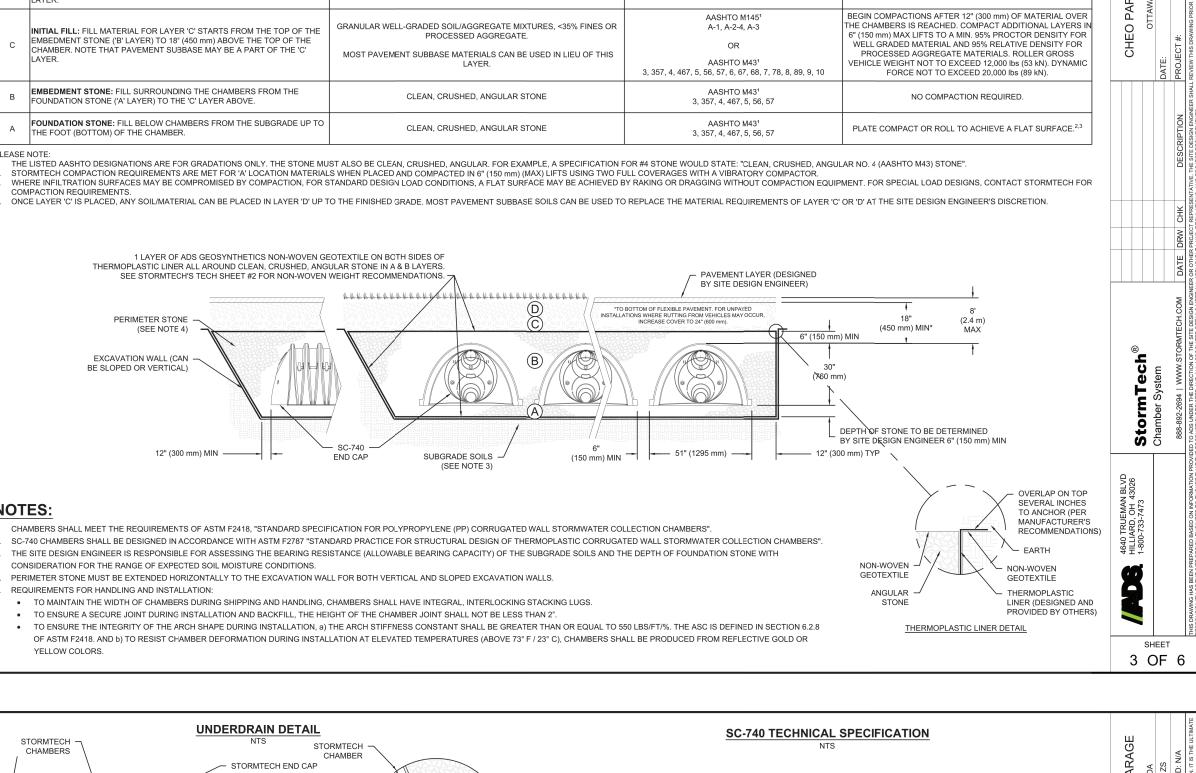












1 2023-07-31 ISSUED FOR 50% DD SUBMISSION) 2023-04-20 ISSUED FOR TECHNICAL SUBMISSION ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO DO NOT SCALE THIS DRAWING.

5 2023-10-13 ISSUED FOR SPC RE-SUBMISSION

5 2023-09-29 ISSUED FOR 50% CD SUBMISSION

4 2023-09-18 ISSUED FOR SPC RE-SUBMISSION

2 2023-08-16 ISSUED FOR SPC SUBMISSION

3 2023-08-31 ISSUED FOR 100% DD SUBMISSION



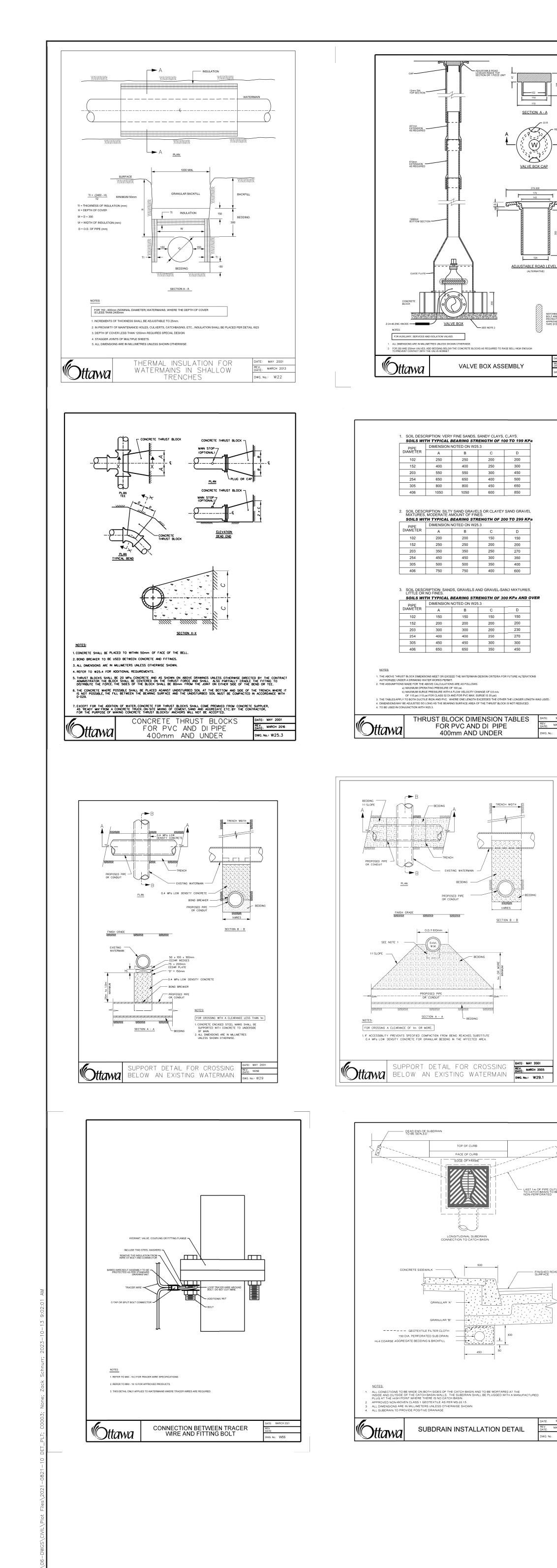
TYPICAL DETAILS AND NOTES PLAN (SHEET 1 OF 3)

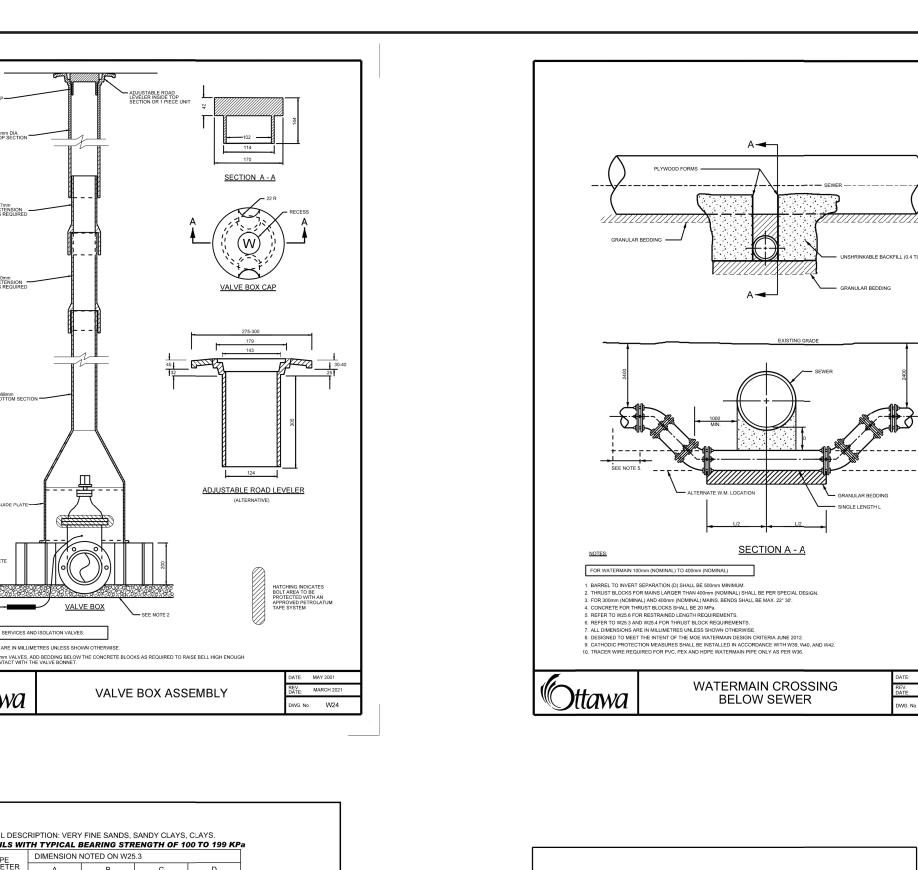
AS NOTED DRAWN BY: DR,RB REVIEWED BY: RK JOB NUMBER: 2021-0821-10 PLOT DATE: 2023.10.13

RAWING NUMBER:

PLAN #: 18912

DEVELOPMENT #: D07-12-22-0170





DEAD ENDS, CAPS PLUGS AND ISOLATION VALVES

HORIZONTAL BENDS

REDUCERS

VERTICAL BENDS

1. ANY JOINT THAT FALLS WITHIN THE RECOMMENDED LENGTH (L) SHALL BE RESTRAINED. SEE DRAWING W25.6

SPLICE-SEE DETAIL "A" OR W47 -/
(PVC FITTINGS)

2. SPLICING OF MAIN TRACER WIRE IS NOT ALLOWED UNLESS SPECIFIED OR APPROVED.

FOR PVC TO DUCTILE IRON CONNECTIONS, THE TRACER MUST BE ATTACHED TO THE DUCTILE IRON PIPE BY CADWELD.

TRACER WIRE INSTALLATION

1.5 E 4 7 0.18

STANDARD TRENCH REINSTATEMENT

IN PAVED SURFACE

3. TRACER WIRE CONTINUITY OF CURRENT MUST BE TESTED AND VERIFIED.

#8 RWU90 — TRACER WIRE —

ALL CONNECTIONS MUST BE WATERPROOFED.

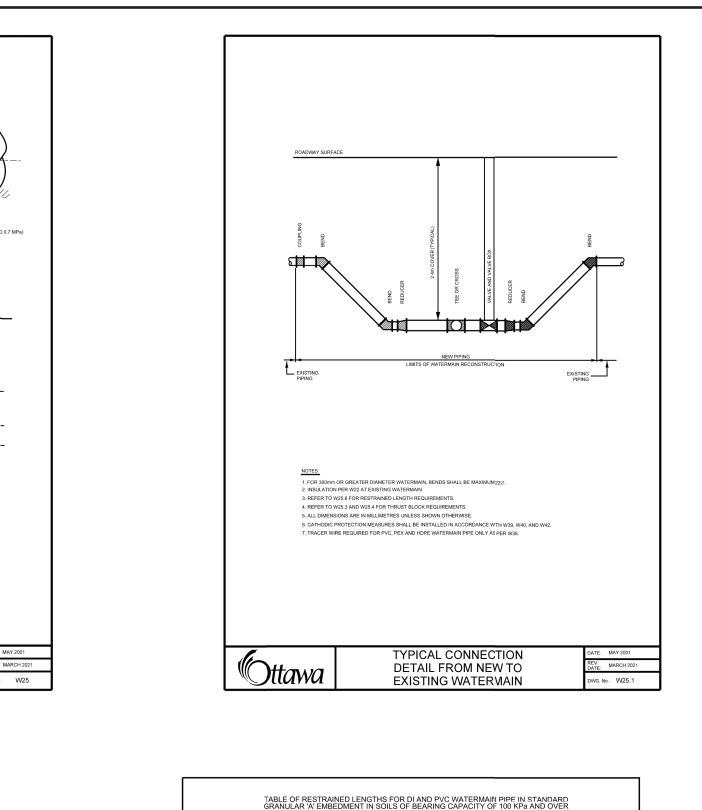
5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH MW-19.15.

7. TRACER WIRE SPLICES TO BE COMPLETED PER W47.

Ottawa

6. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55.

8. CATHODIC PROTECTION ANODES TO BE INSTALLED PER W40 AND W42.



DEAD ENDS, CAPS, PLUGS, VALVES

PIPE DIAMETER

100mm 150mm 200mm 250mm 300mm 400mm

 BEFORE CAPS AND EITHER SIDE OF VALVES - L
 5
 6
 9
 10
 12
 16

 LENGTH HIGH SIDE - LHS
 3
 4
 5
 6
 7
 9

 LENGTH LOW SIDE - LLS
 1.5
 2
 2.5
 3
 3.5
 4.5

 TEES

 LENGTH ALONG THE BRANCH - L
 1
 1
 1
 1
 1
 1

 LENGTH ALONG THE RUN - Lr
 3
 3
 3
 3
 3
 3

11.25, 22.5, AND 45 DEGREE BENDS 1 1.5 1.5 2 2 2.5

AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.

2. THE ASSUMPTIONS MADE POR THE ABOVE CALCULATIONS ARE AS FOLLOWS:

a) MAXIMUM OPERATING PRESSURE OF 100 psi.

b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.6 m/s

OF 115 psi (115 psi For CLASS 52 D I AND FOR PVC MAX. SURGE IS 35 psi)

3. FOR SOFTWARE CALCULATIONS A TEST PRESSURE OF 150 psi AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 226 psi MAXIMUM PRESSURE ADDRESSED AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 226 psi MAXIMUM PRESSURE ADDRESSED AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 226 psi MAXIMUM PRESSURE.

TABLES OF RESTRAINED LENGTHS

FOR PVC AND DI PIPE 400mm AND UNDER

CONNECTING WIRE TO BE LOOPED AROUND PIPES / FITTINGS AND KNOTTED. CTIVE COATING TO BE APPLIED TO ALL CADWELDS.

OATING SYSTEM.
ON PEX SERVICES ALSO WAX TAPE CURB STOP UP TO THE BASE OF THE TEE HEAD.
ALL DIMENSIONS ARE IN MILLIMETERS.
RACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55.
RACER WIRE SPLICES TO BE COMPLETED PER W47.

BOULEVARD

SIDEWALK

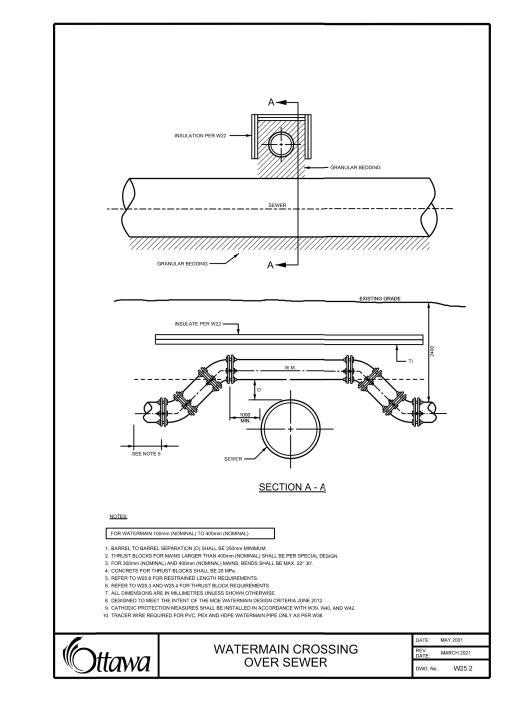
Sinusoidal Speed Hump Dimensions Table

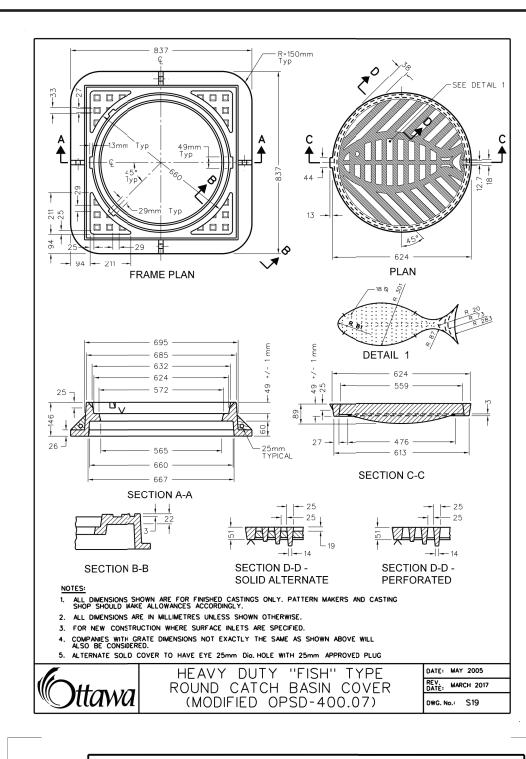
TYPE & SPACING ÁS PER W42
CT ANODE TO COPPER SERVICES UISING A GROUND CLAMP AND FOR PEX SERVICES CONNECT
TO TRACE TWIRE TERMINALS ON BOTH MAIN AND CUBB STOPS.
TO AUXILIARY VALYES, ISOLATION VALYES, SADULES AND
IOPSEITTINGSVALVES.HYDRANT BOLTS AND FLANGE WITH A PETROLATUM WAX TAPE
C VEYTEM.

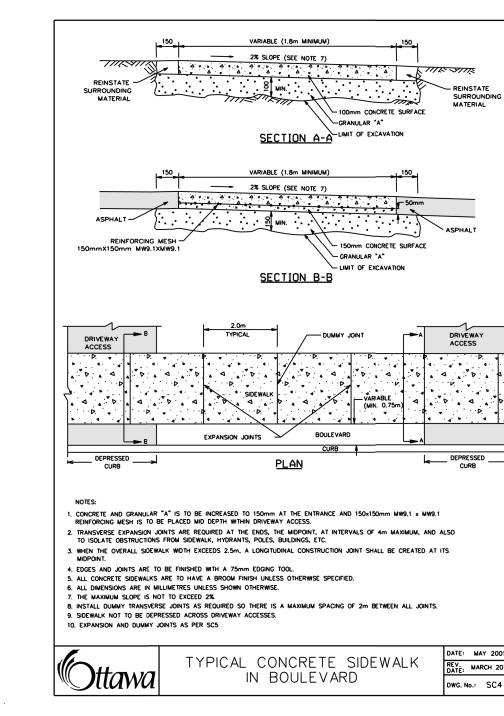
CATHODIC PROTECTION FOR PVC

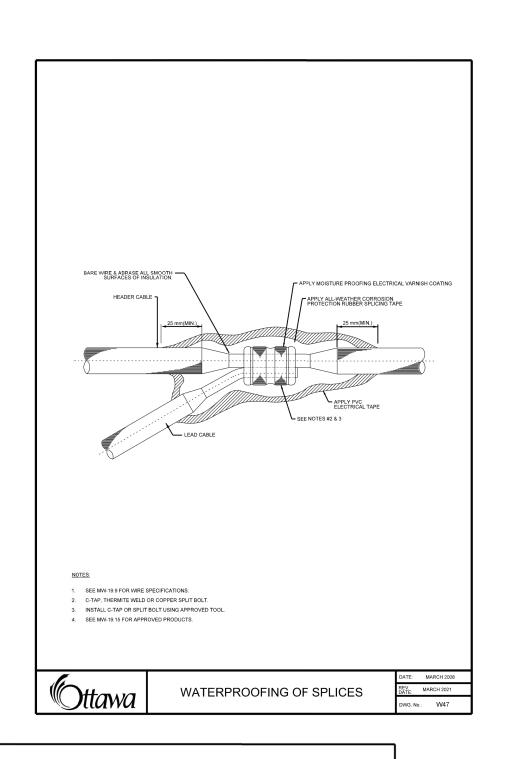
TO STATE THE CONTROL OF THE CONTROL

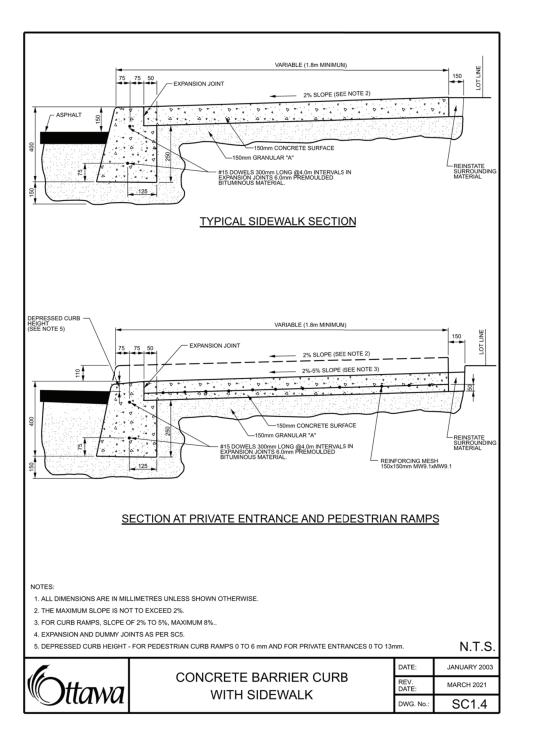
THE ABOVE RESTRAINED LENGTHS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.

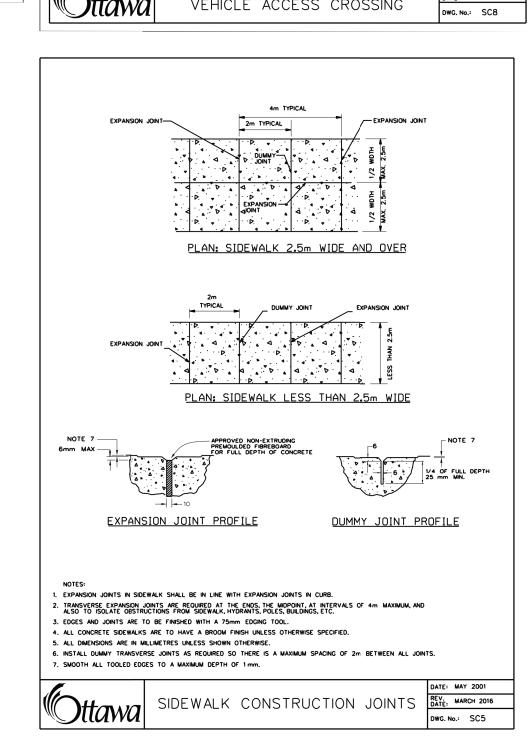


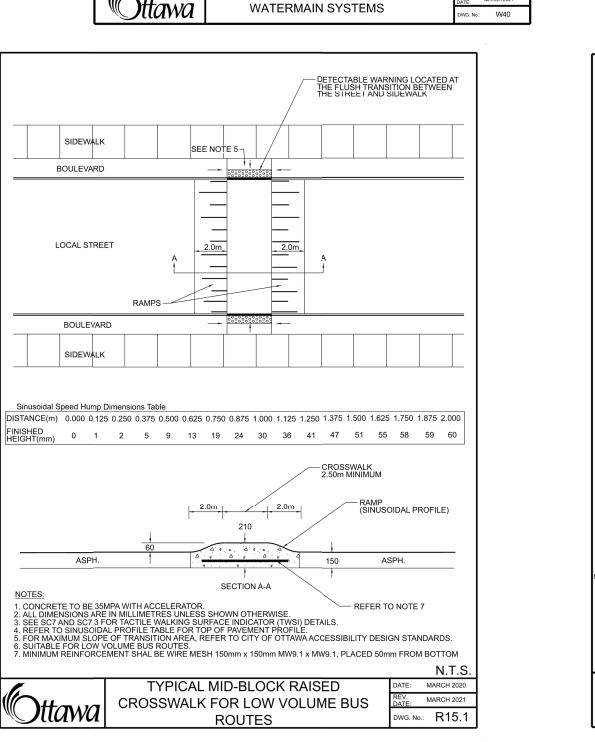


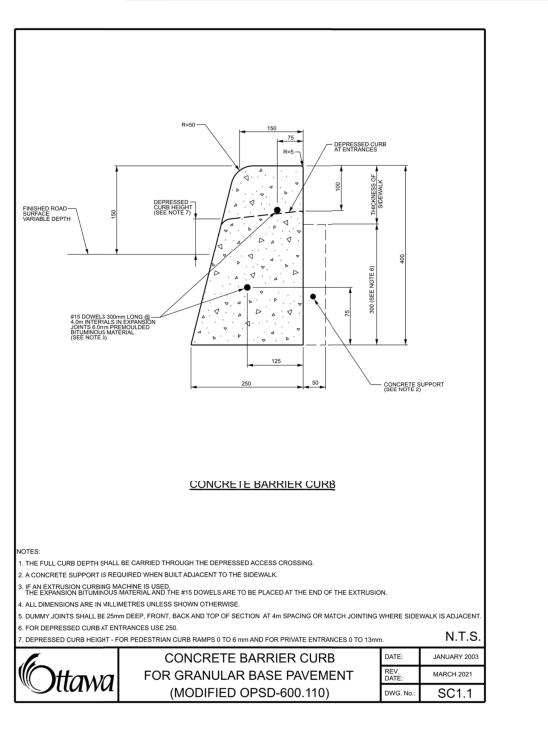


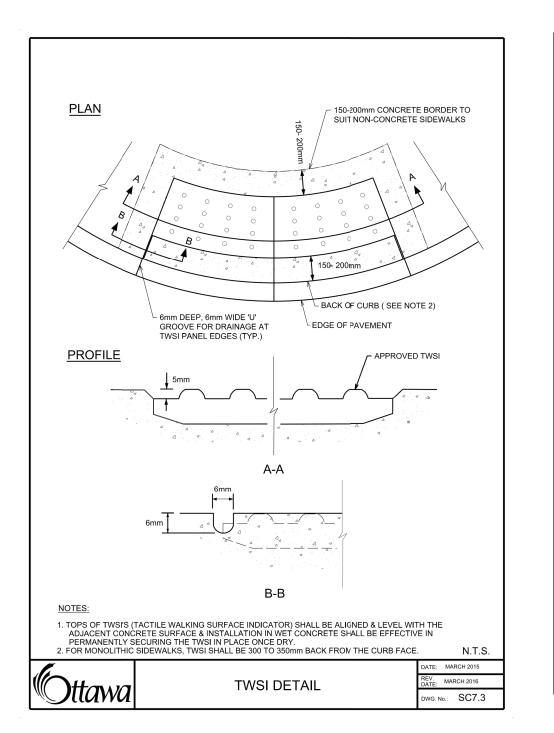


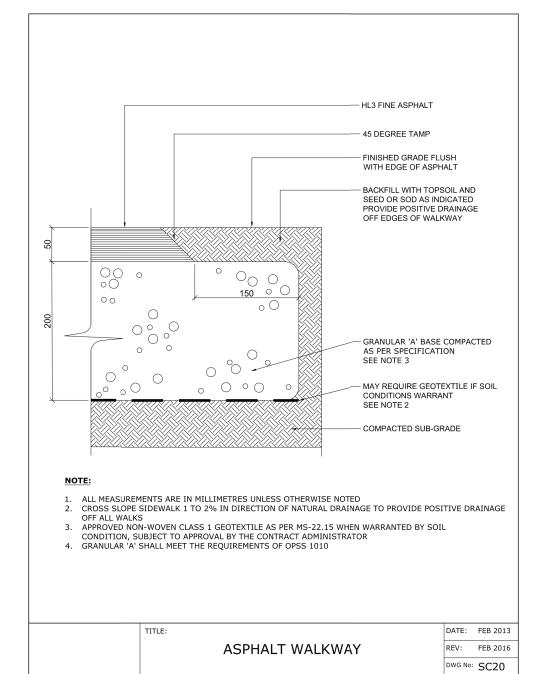




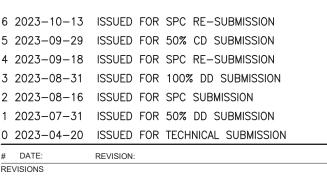








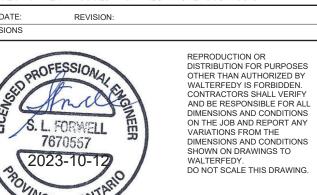




Infrastructure Ontario

675 Queen Street South, Suite 111, Kitchener, Ontario N2M 1A1

T: 519.576.2150 F: 519.576.5499 walterfedy.com



1DOOR4CARE: CHEO INTEGRATED TREATMENT CENTRE: PARKING GARA

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TYPICAL DETAILS AND NOTES PLAN (SHEET 2 OF 3)

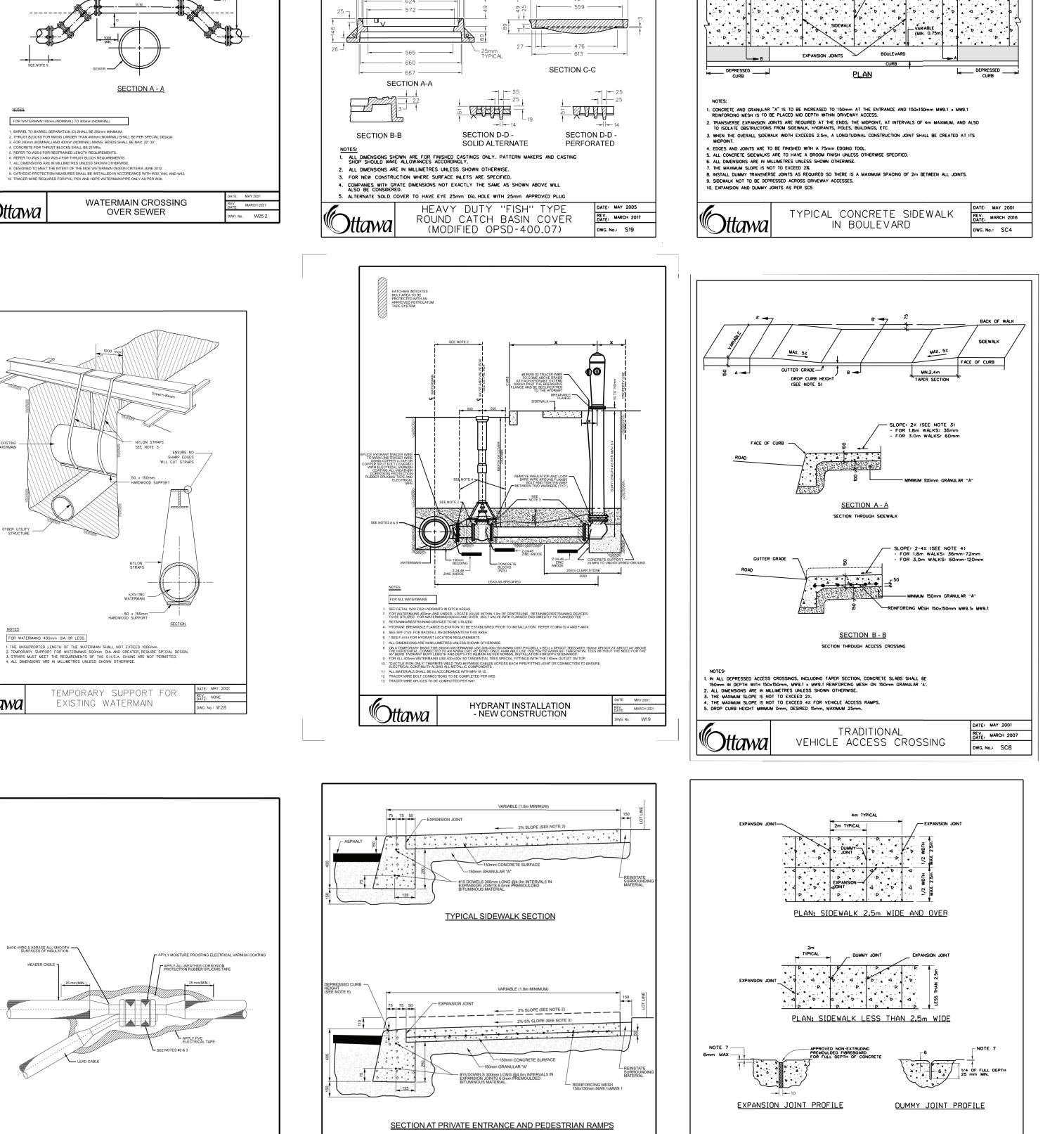
401 SMYTH RD. OTTAWA, ON K1H8L1

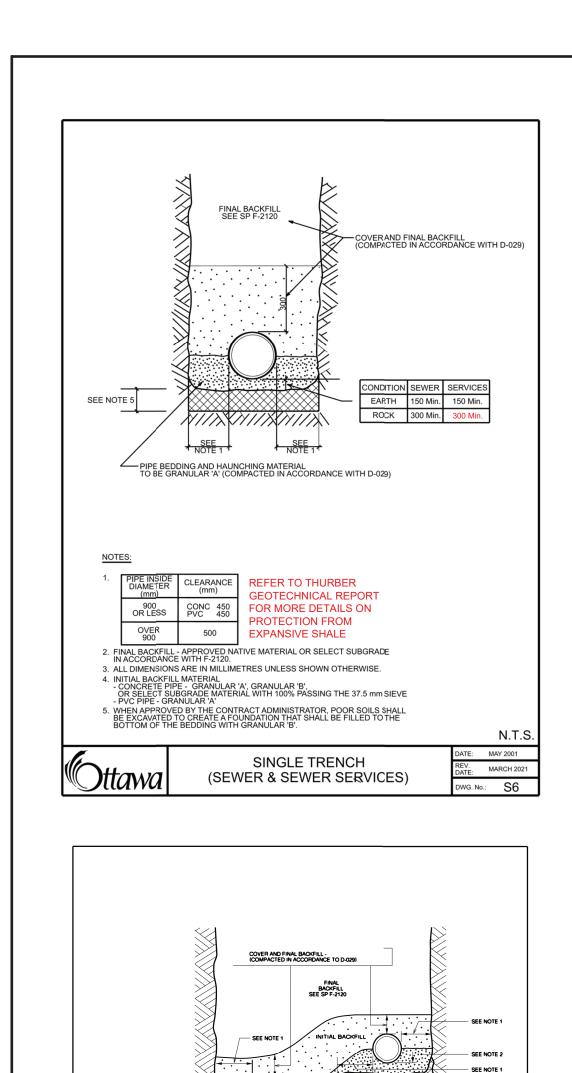
SCALE: AS NOTED DRAWN BY: DR,RB REVIEWED BY: RK JOB NUMBER: 2021-0821-10 PLOT DATE: 2023.10.13

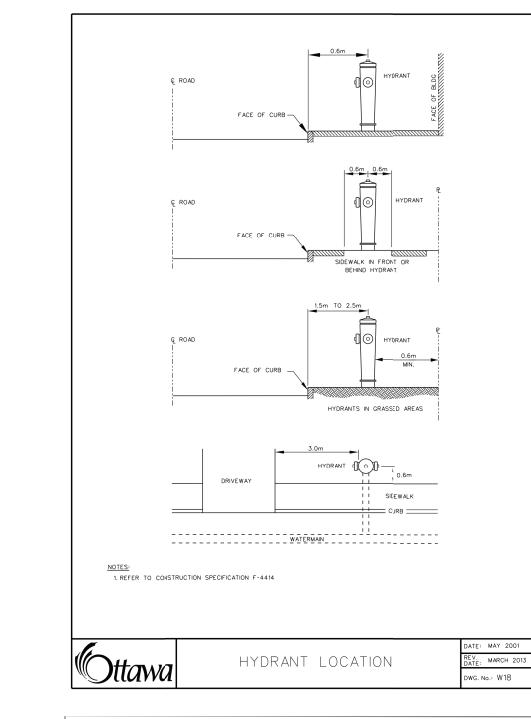
DRAWING NUMBER:

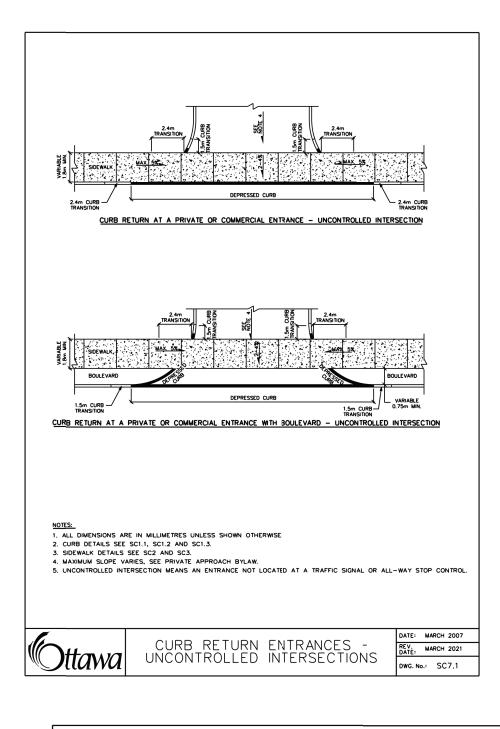
C0003

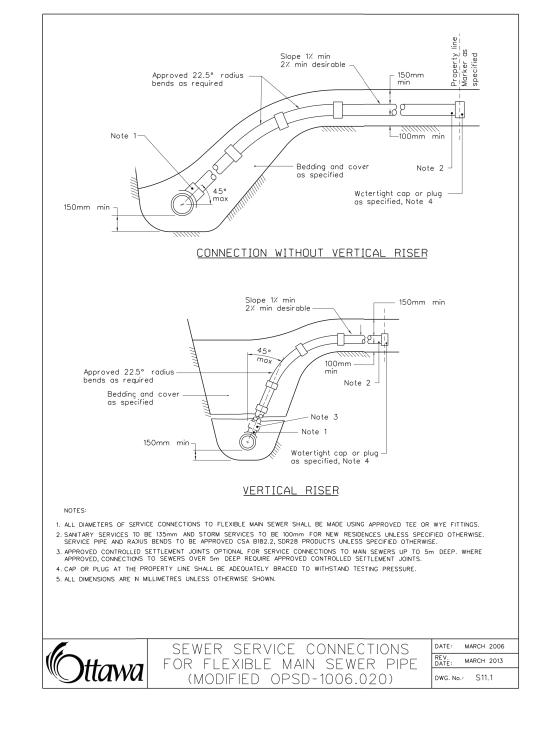
PLAN #: 18912 DEVELOPMENT #: D07-12-22-0170

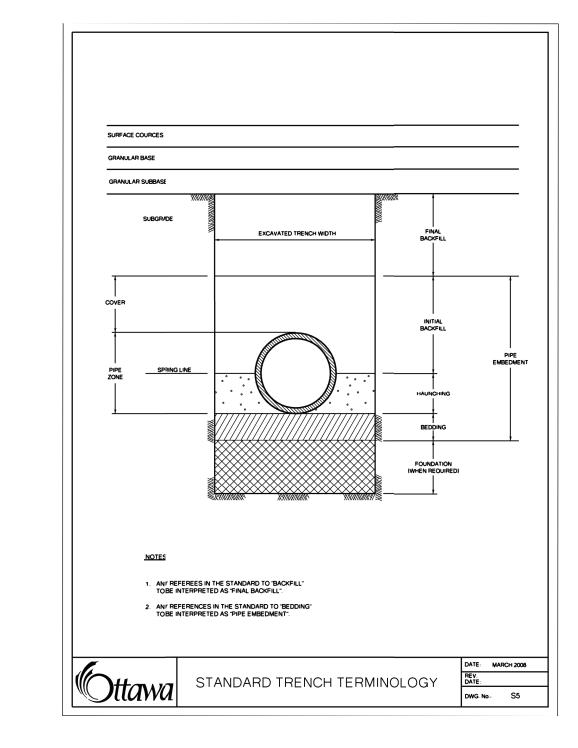


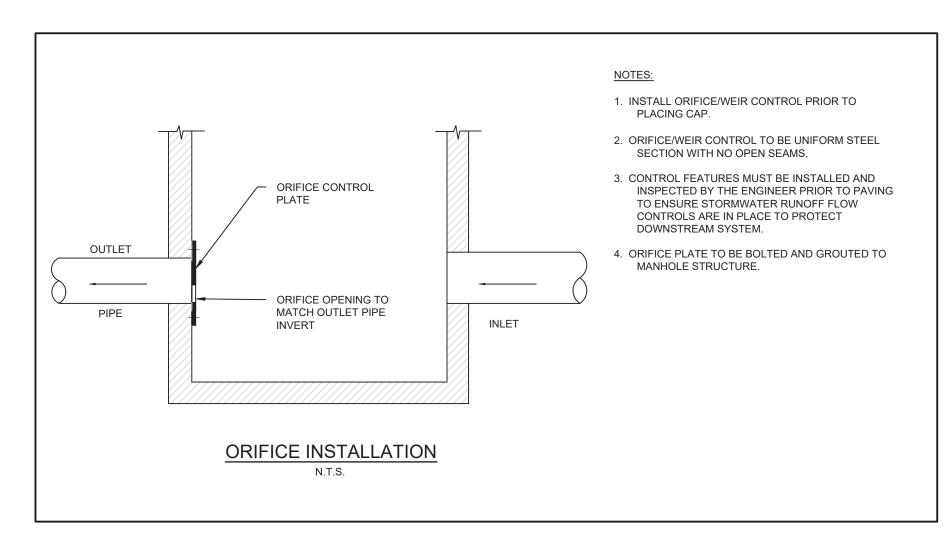


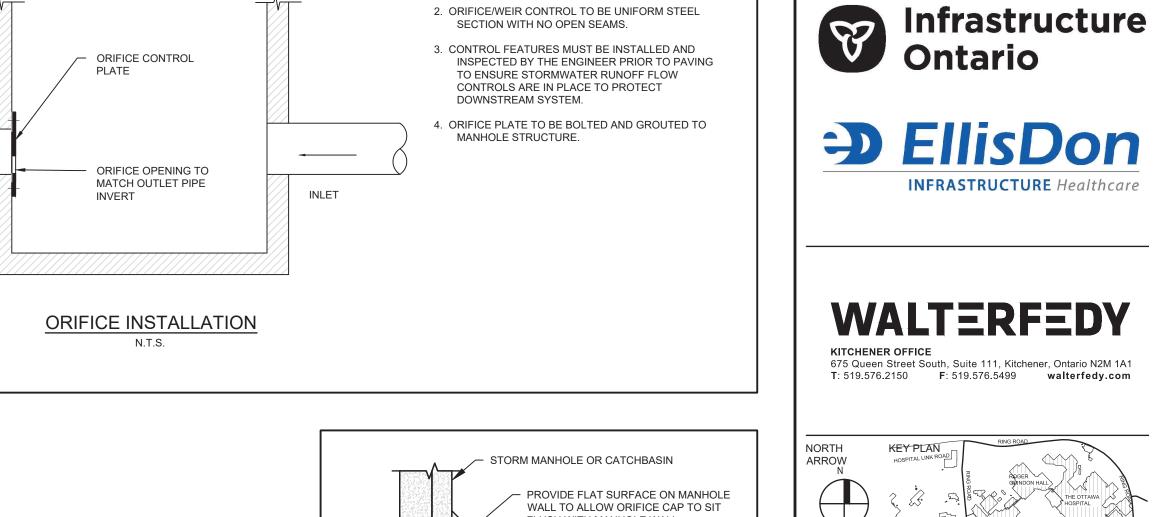


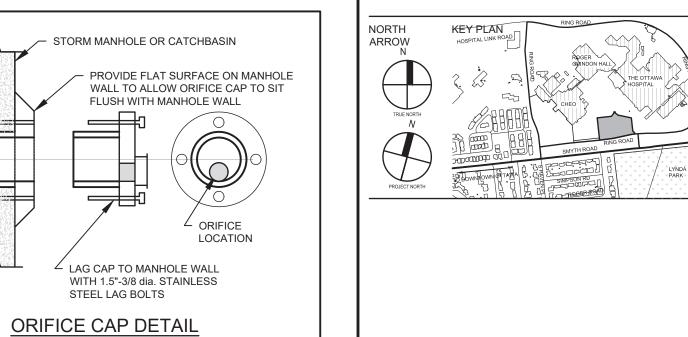


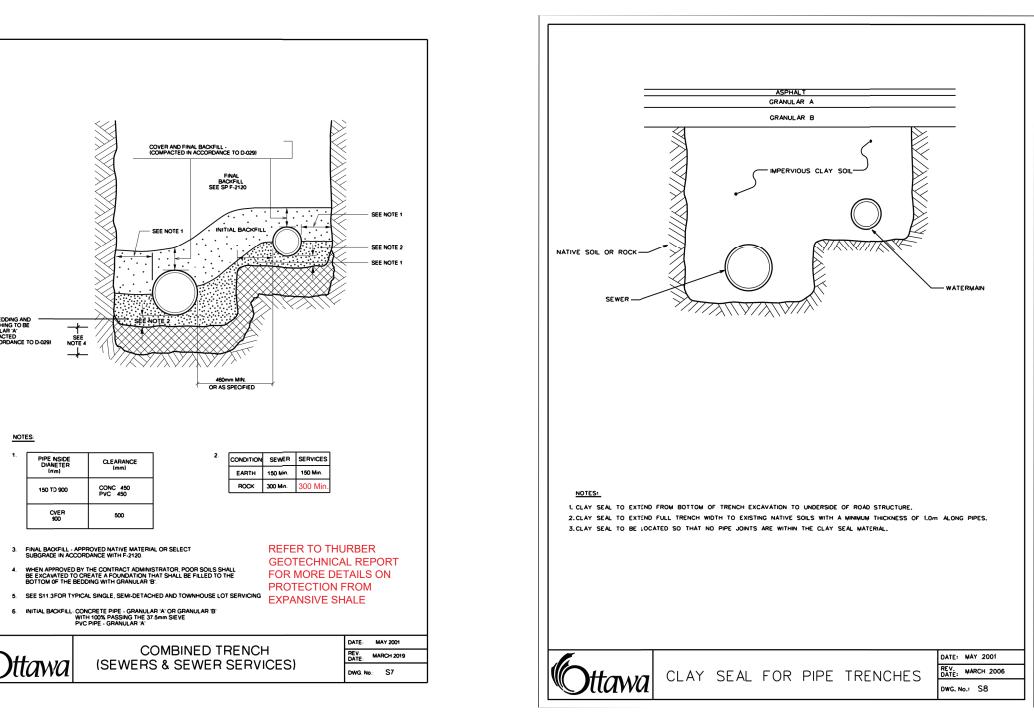


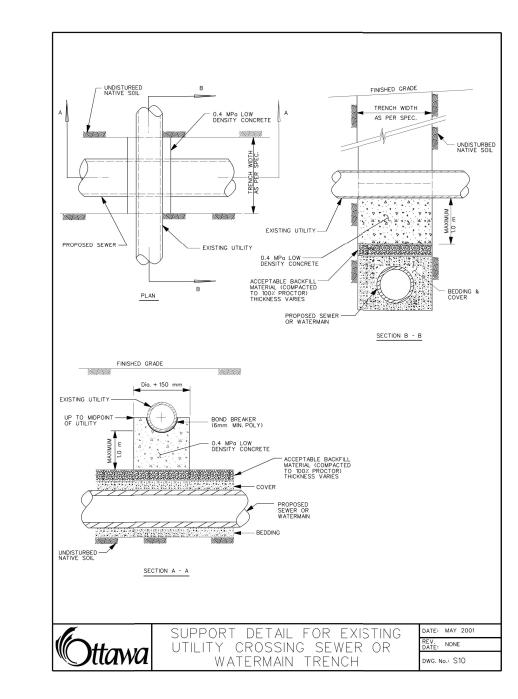


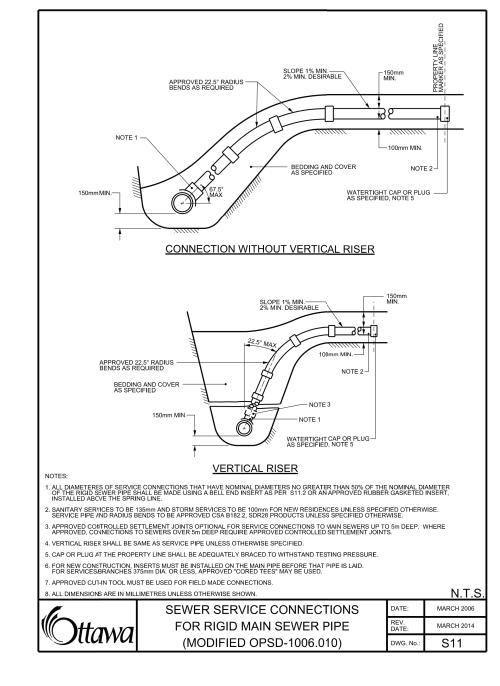


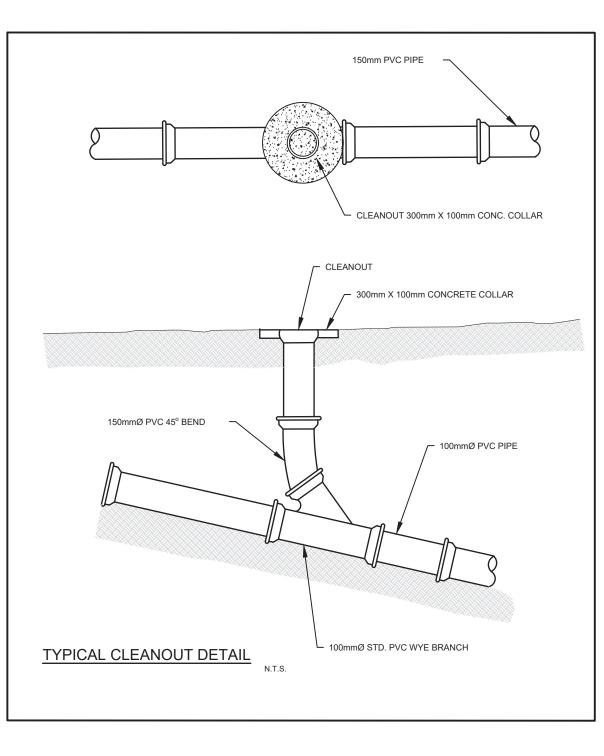


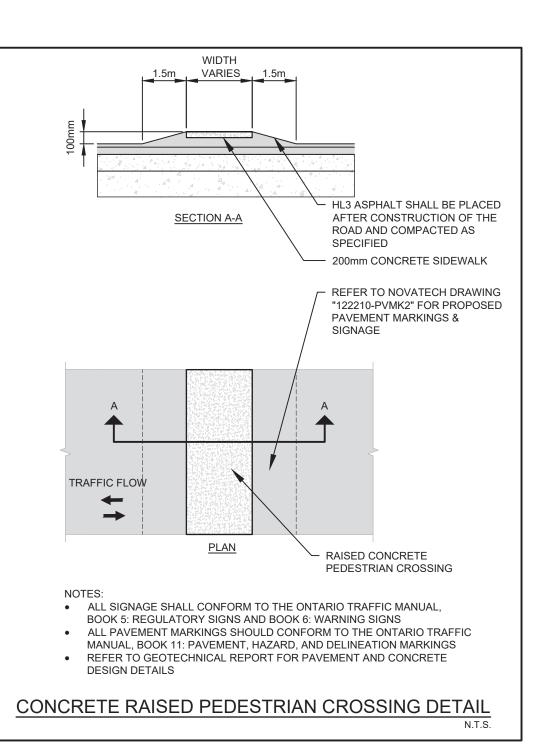


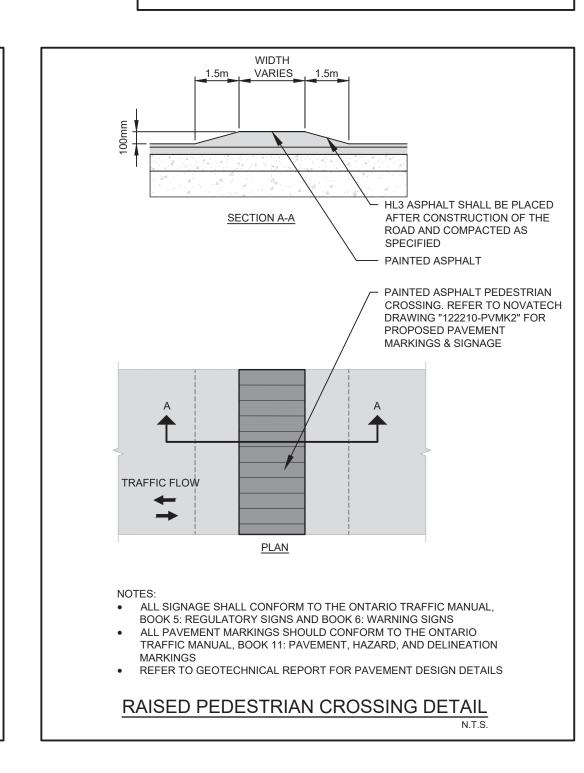


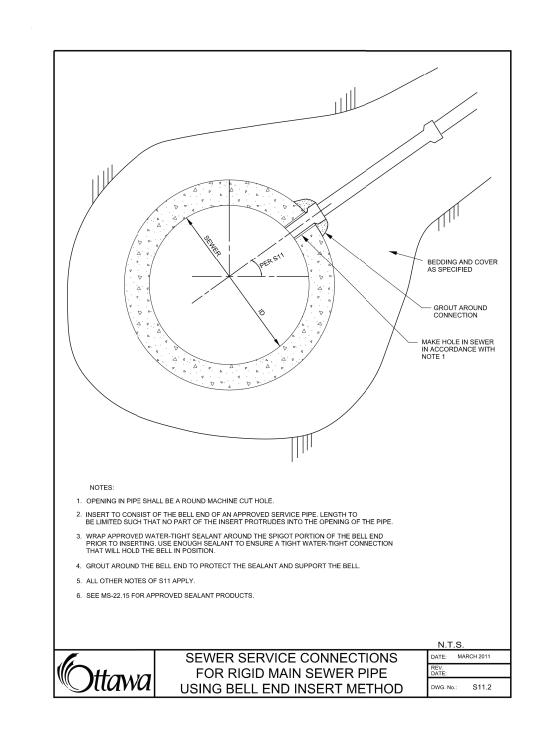












PIPE NSIDE
DIANETER
(mm)

CLEARANCE
(mm)

150 TO 900 CONC 450 PVC 450

FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.

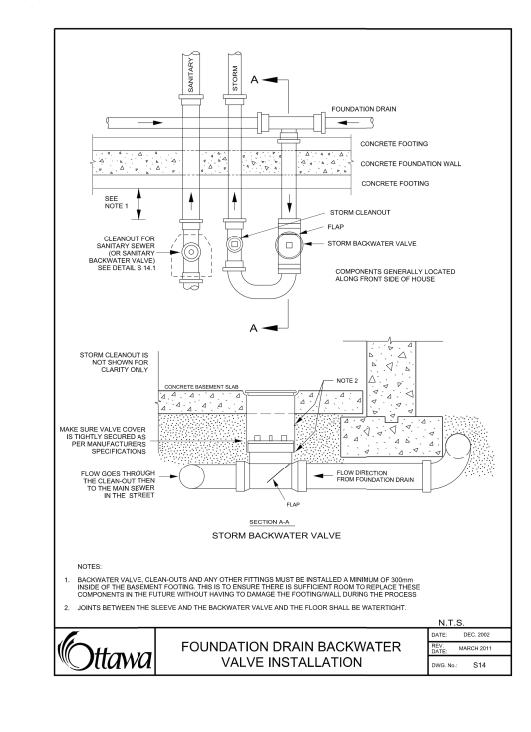
6. INITIAL BACKFILL: CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B'
WITH 100% PASSING THE 37.5mm SIEVE
PVC PIPE - GRANULAR 'A'

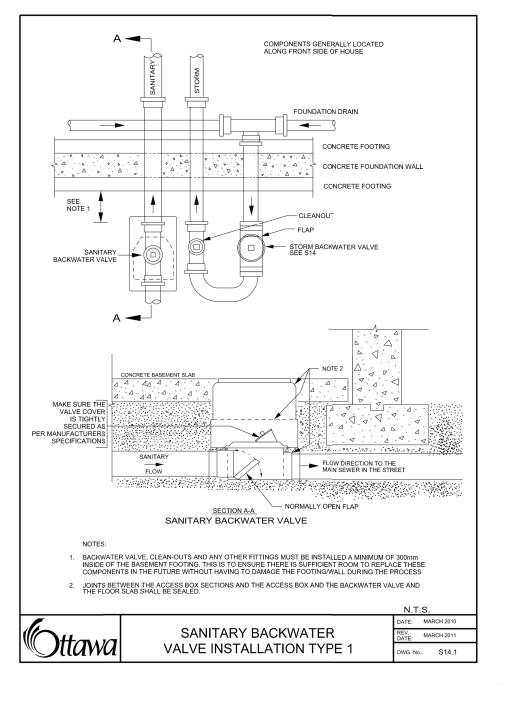
Isewers & Sewer Services)

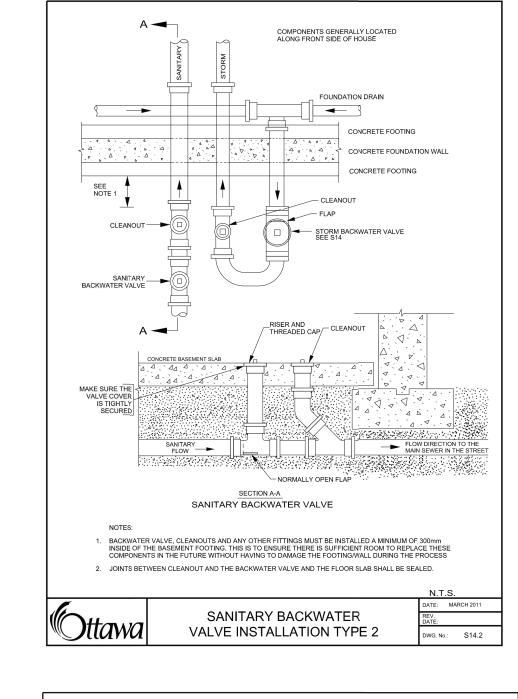
2. CONDITION SEWER SERVICES

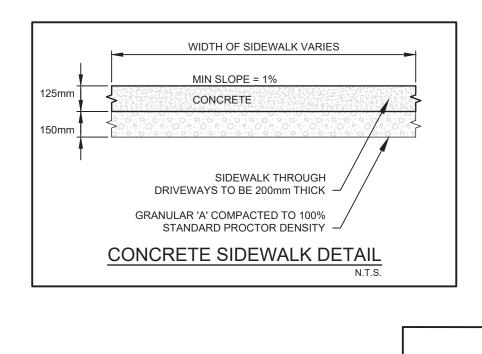
EARTH 150 Min. 150 Min.

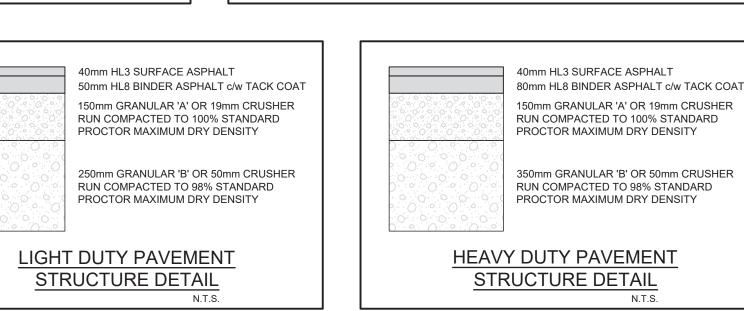
ROCK 300 Min. 300 Min.

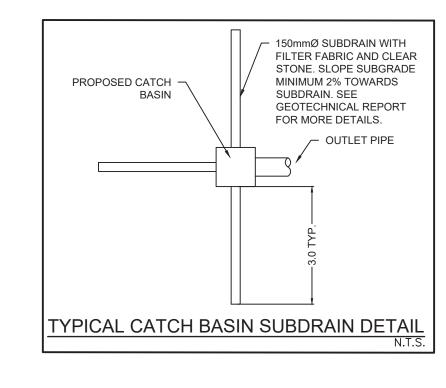


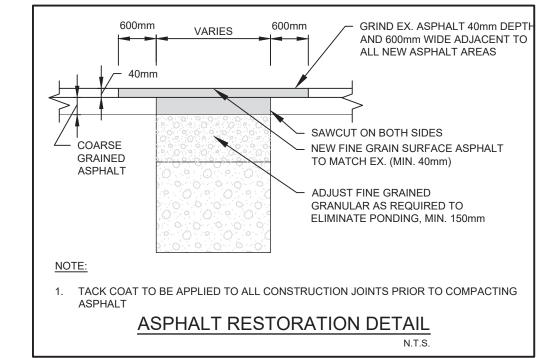


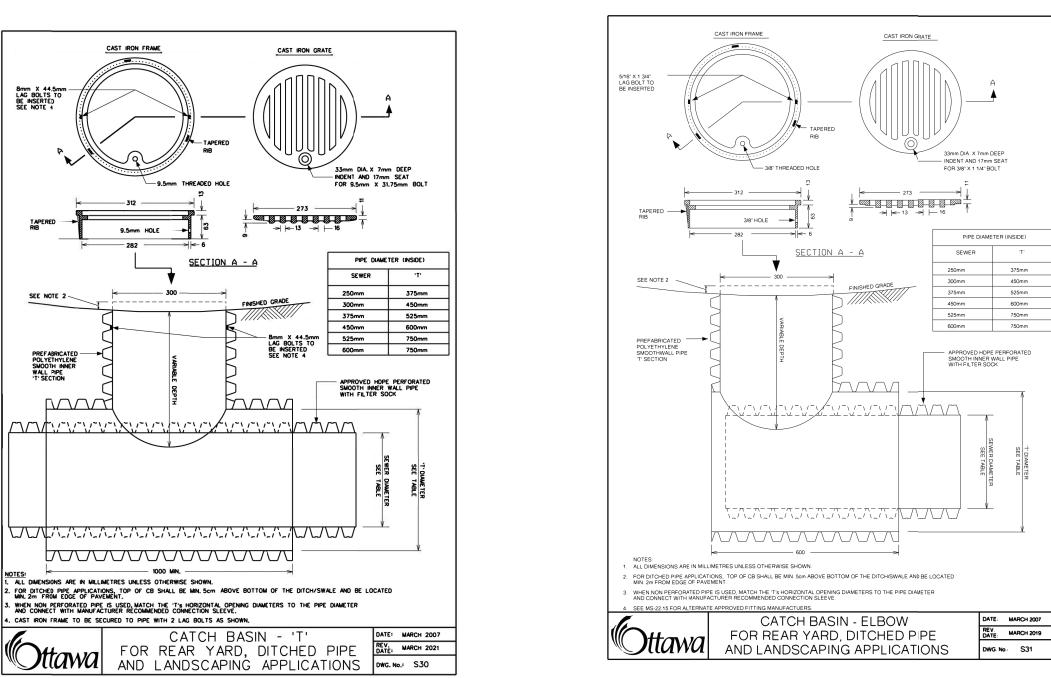


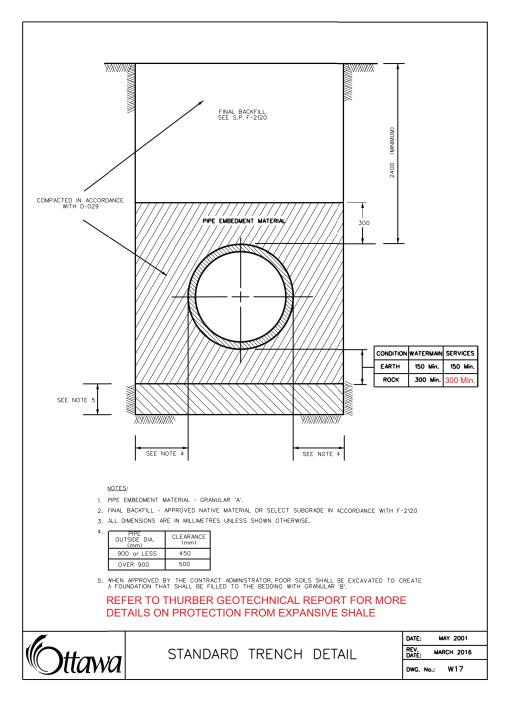


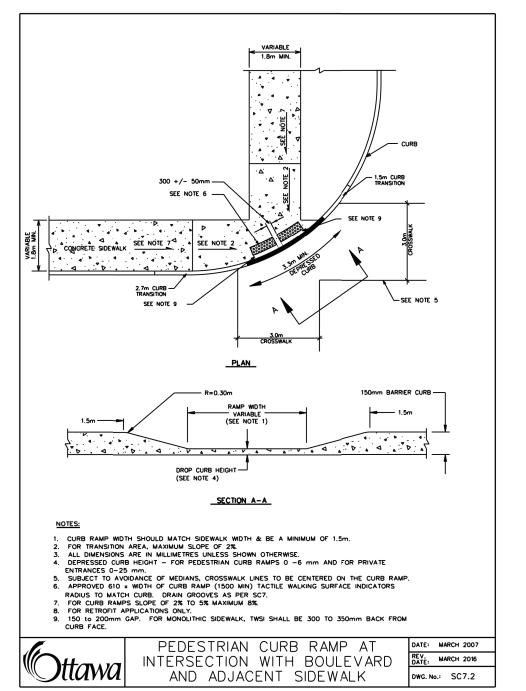


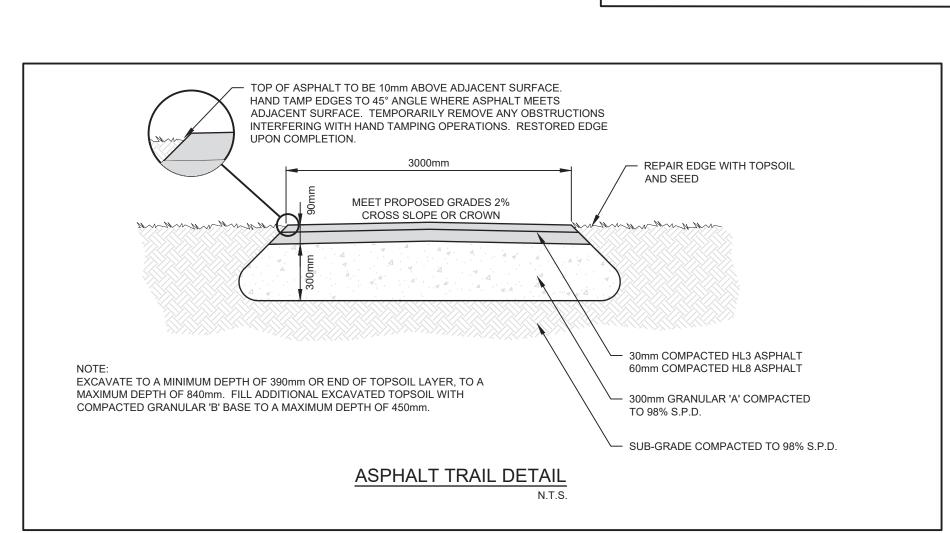


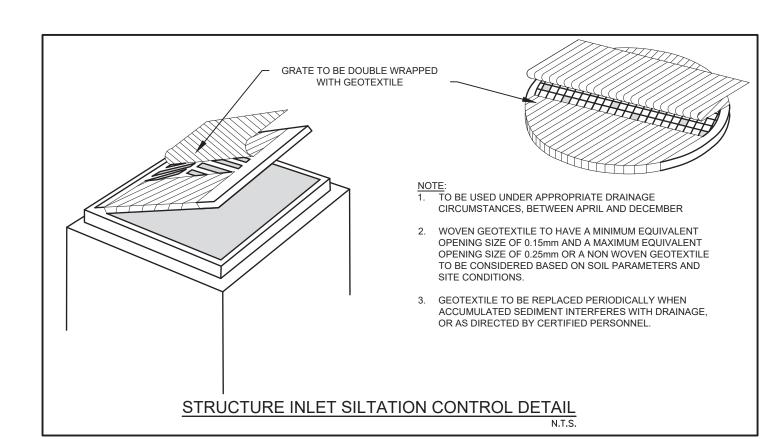


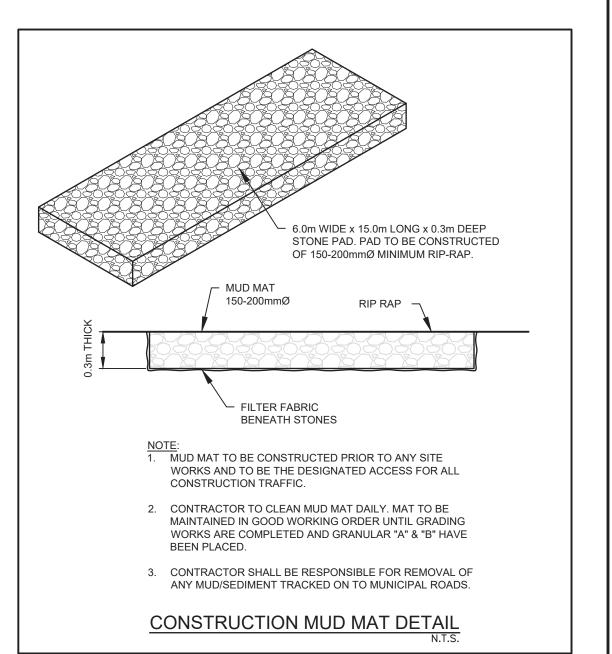




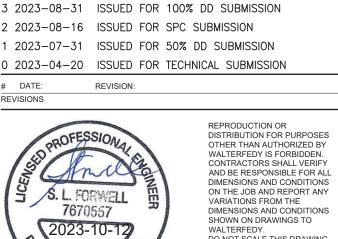












6 2023-10-13 ISSUED FOR SPC RE-SUBMISSION

5 2023-09-29 ISSUED FOR 50% CD SUBMISSION

4 2023-09-18 ISSUED FOR SPC RE-SUBMISSION

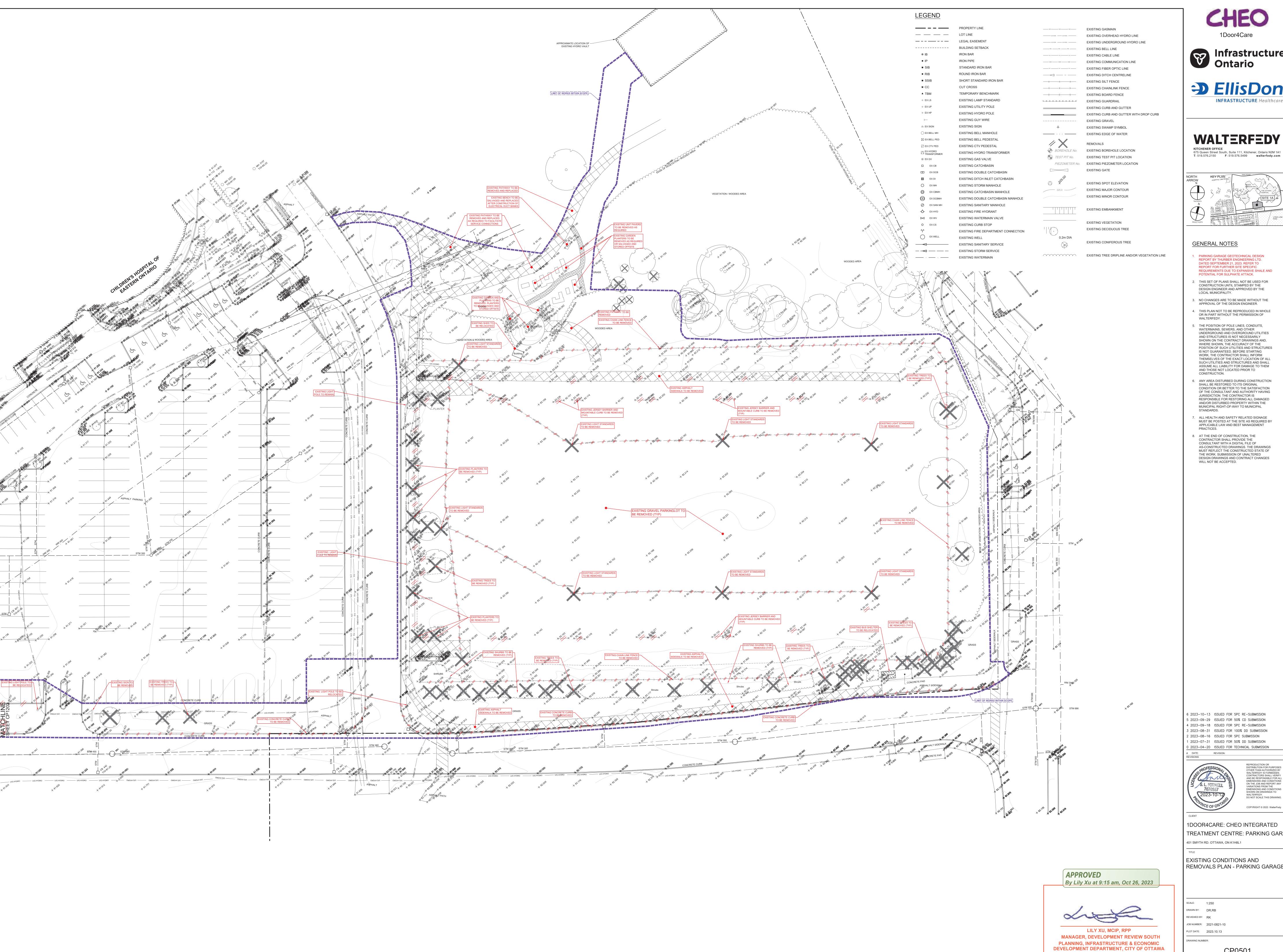


401 SMYTH RD. OTTAWA, ON K1H8L1

TYPICAL DETAILS AND NOTES PLAN (SHEET 3 OF 3)

TREATMENT CENTRE: PARKING GARA

SCALE: AS NOTED DRAWN BY: DR,RB REVIEWED BY: RK JOB NUMBER: 2021-0821-10 PLOT DATE: 2023.10.13 DRAWING NUMBER:











GENERAL NOTES

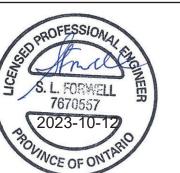
PARKING GARAGE GEOTECHNICAL DESIGN

- REPORT BY THURBER ENGINEERING LTD. DATED SEPTEMBER 21, 2023. REFER TO REPORT FOR FURTHER SITE SPECIFIC REQUIREMENTS DUE TO EXPANSIVE SHALE AND POTENTIAL FOR SULPHATE ATTACK.
- THIS SET OF PLANS SHALL NOT BE USED FOR CONSTRUCTION UNTIL STAMPED BY THE DESIGN ENGINEER AND APPROVED BY THE LOCAL MUNICIPALITY.
- . NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER.
- . THIS PLAN NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF WALTERFEDY.
- 5. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS, AND OTHER 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 THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM AND THOSE NOT LOCATED PRIOR TO CONSTRUCTION.
- CONDITION OR BETTER TO THE SATISFACTION OF THE CONSULTANT AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO MUNICIPAL STANDARDS.

SHALL BE RESTORED TO ITS ORIGINAL

- . ALL HEALTH AND SAFETY RELATED SIGNAGE MUST BE POSTED AT THE SITE AS REQUIRED BY APPLICABLE LAW AND BEST MANAGEMENT PRACTICES.
- 8. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CONSULTANT WITH A DIGITAL FILE OF AS-CONSTRUCTED DRAWINGS. THE DRAWINGS MUST REFLECT THE CONSTRUCTED STATE OF THE WORK. SUBMISSION OF UNALTERED DESIGN DRAWINGS AND CONTRACT CHANGES WILL NOT BE ACCEPTED.

6 2023-10-13 ISSUED FOR SPC RE-SUBMISSION 5 2023-09-29 ISSUED FOR 50% CD SUBMISSION 4 2023-09-18 ISSUED FOR SPC RE-SUBMISSION 3 2023-08-31 ISSUED FOR 100% DD SUBMISSION 2 2023-08-16 ISSUED FOR SPC SUBMISSION 1 2023-07-31 ISSUED FOR 50% DD SUBMISSION



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1DOOR4CARE: CHEO INTEGRATED TREATMENT CENTRE: PARKING GARA 401 SMYTH RD. OTTAWA, ON K1H8L1

EXISTING CONDITIONS AND REMOVALS PLAN - PARKING GARAGE

REVIEWED BY: RK JOB NUMBER: 2021-0821-10

CP0501

PLAN #: 18912 DEVELOPMENT #: D07-12-22-0170



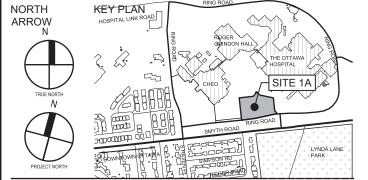






WALTERFEDY

KITCHENER OFFICE
675 Queen Street South, Suite 111, Kitchener, Ontario N2M 1A1
T: 519.576.2150 F: 519.576.5499 walterfedy.com



GENERAL NOTES

LOCAL MUNICIPALITY.

WALTERFEDY.

CONSTRUCTION.

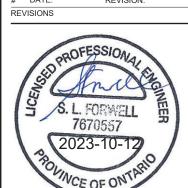
- 1. PARKING GARAGE GEOTECHNICAL DESIGN
 REPORT BY THURBER ENGINEERING LTD.
 DATED SEPTEMBER 21, 2023. REFER TO
 REPORT FOR FURTHER SITE SPECIFIC
 REQUIREMENTS DUE TO EXPANSIVE SHALE AND
 POTENTIAL FOR SULPHATE ATTACK.
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 2. THIS SET OF PLANS SHALL NOT BE USED FOR CONSTRUCTION UNTIL STAMPED BY THE DESIGN ENGINEER AND APPROVED BY THE
- 3. NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER.
- 4. THIS PLAN NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF
- 5. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, 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 THEMSELVES OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM AND THOSE NOT LOCATED PRIOR TO
- SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CONSULTANT AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO MUNICIPAL STANDARDS.

6. ANY AREA DISTURBED DURING CONSTRUCTION

- ALL HEALTH AND SAFETY RELATED SIGNAGE MUST BE POSTED AT THE SITE AS REQUIRED BY APPLICABLE LAW AND BEST MANAGEMENT PRACTICES.
- 8. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CONSULTANT WITH A DIGITAL FILE OF AS-CONSTRUCTED DRAWINGS. THE DRAWINGS MUST REFLECT THE CONSTRUCTED STATE OF THE WORK. SUBMISSION OF UNALTERED DESIGN DRAWINGS AND CONTRACT CHANGES WILL NOT BE ACCEPTED.

6 2023-10-13 ISSUED FOR SPC RE-SUBMISSION
5 2023-09-29 ISSUED FOR 50% CD SUBMISSION
4 2023-09-18 ISSUED FOR SPC RE-SUBMISSION
3 2023-08-31 ISSUED FOR 100% DD SUBMISSION
2 2023-08-16 ISSUED FOR SPC SUBMISSION
1 2023-07-31 ISSUED FOR 50% DD SUBMISSION
0 2023-04-20 ISSUED FOR TECHNICAL SUBMISSION



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1DOOR4CARE: CHEO INTEGRATED
TREATMENT CENTRE: PARKING GARA
401 SMYTH RD. OTTAWA, ON K1H8L1

EROSION AND SEDIMENT CONTROL - PARKING GARAGE

SCALE: 1:250

DRAWN BY: DR,RB

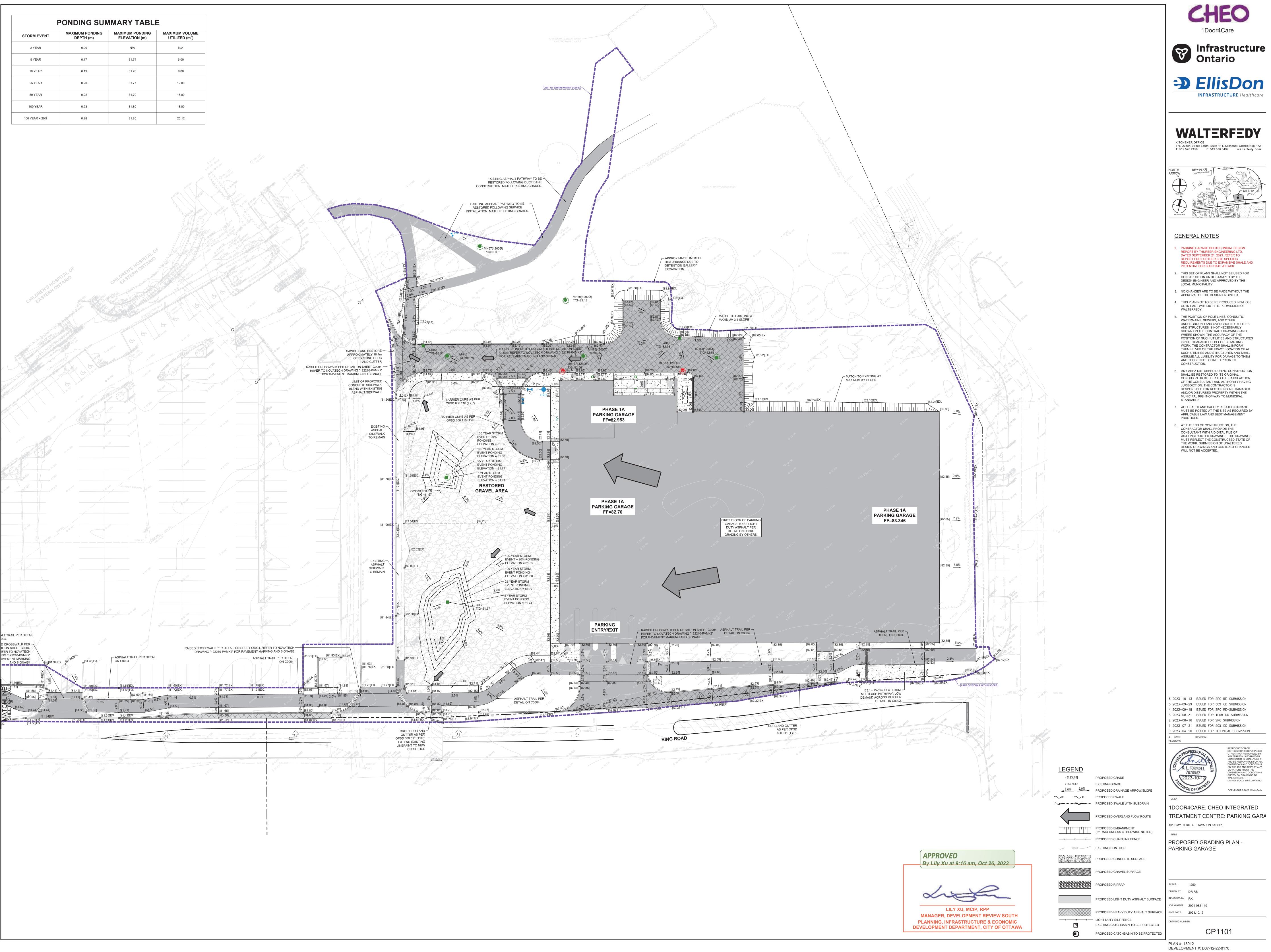
REVIEWED BY: RK

JOB NUMBER: 2021-0821-10

PLOT DATE: 2023.10.13

DRAWING NUMBER:

CP0601







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TREATMENT CENTRE: PARKING GARA









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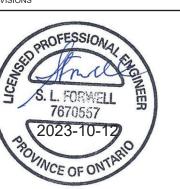
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PER THE GEOTECHNICAL REPORT: "WHERE THE FOUNDATIONS AND/OR EXTERIOR WALLS [OR UNDERGROUND STRUCTURES ARE POURED [/PLACED] DIRECTLY IN CONTACT WITH SHALE, CONSIDERATION SHOULD BE GIVEN TO THE USE OF CSA TYPE MS OR HS CEMENTS."

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1DOOR4CARE: CHEO INTEGRATED TREATMENT CENTRE: PARKING GARA 401 SMYTH RD. OTTAWA, ON K1H8L1

PROPOSED SERVICING PLAN -PARKING GARAGE

SCALE: 1:250 DRAWN BY: DR,RB REVIEWED BY: RK JOB NUMBER: 2021-0821-10

PLOT DATE: 2023.10.13

DRAWING NUMBER:

PLAN #: 18912 DEVELOPMENT #: D07-12-22-0170





<u>LEGEND</u>

IB • IP

SIB

RIB

* CC

PROPERTY LINE

— – – — LEGAL EASEMENT

BUILDING SETBACK

STANDARD IRON BAR

SHORT STANDARD IRON BAR

ROUND IRON BAR

CUT CROSS

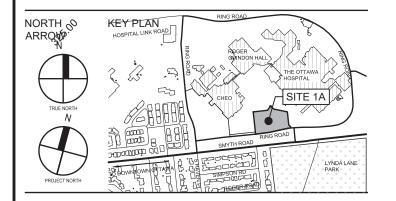
IRON BAR

IRON PIPE





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PROPOSED CATCHBASIN MANHOLE PROPOSED DOUBLE CATCHBASIN MANHOLE DICBMH(A) PROPOSED DITCH INLET CATCHBASIN MANHOLE (TYPE A)

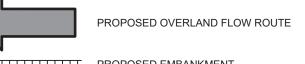
DICBMH(B) PROPOSED DITCH INLET CATCHBASIN MANHOLE (TYPE B) PROPOSED STORM MANHOLE PROPOSED SANITARY MANHOLE PROPOSED FIRE HYDRANT PROPOSED WATERMAIN VALVE PROPOSED CURB STOP

REDUCER PROPOSED REDUCER PROPOSED FIRE DEPARTMENT CONNECTION EXISTING CATCHBASIN EXISTING DOUBLE CATCHBASIN EXISTING DITCH INLET CATCHBASIN EXISTING STORM MANHOLE

EXISTING CATCHBASIN MANHOLE EXISTING DOUBLE CATCHBASIN MANHOLE EXISTING SANITARY MANHOLE EXISTING FIRE HYDRANT EXISTING WATERMAIN VALVE EXISTING CURB STOP EXISTING FIRE DEPARTMENT CONNECTION

PROPOSED STORM SEWER/SERVICE PROPOSED WATERMAIN/SERVICE EXISTING SANITARY SERVICE — — — — EXISTING STORM SERVICE —— · —— EXISTING WATERMAIN PROPOSED SUBDRAIN

2.0% PROPOSED DRAINAGE ARROW/SLOPE PROPOSED SWALE PROPOSED SWALE WITH SUBDRAIN



PROPOSED EMBANKMENT
(3:1 MAX UNLESS OTHERWISE NOTED) —x—x—x— PROPOSED CHAINLINK FENCE

PROPOSED CONCRETE SURFACE

LILY XU, MCIP, RPP

MANAGER, DEVELOPMENT REVIEW SOUTH PLANNING, INFRASTRUCTURE & ECONOMIC

DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

PROPOSED GRAVEL SURFACE PROPOSED RIPRAP

PROPOSED HEAVY DUTY ASPHALT SURFACE ——————— LIGHT DUTY SILT FENCE

EXISTING CATCHBASIN TO BE PROTECTED PROPOSED CATCHBASIN TO BE PROTECTED

WEST MUP AND DUCT BANK CONNECTION - PARKING GARAGE

401 SMYTH RD. OTTAWA, ON K1H8L1

1DOOR4CARE: CHEO INTEGRATED

TREATMENT CENTRE: PARKING GARA

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2 2023-08-16 ISSUED FOR SPC SUBMISSION

SCALE: 1:250 DRAWN BY: DR,RB REVIEWED BY: RK JOB NUMBER: 2021-0821-10 PLOT DATE: 2023.10.13

DRAWING NUMBER:

CP1202