

DIRECTIONAL DRILL NOTES:

GENERAL NOTES

- EXISTING SERVICES AND UTILITIES SHOWN ON THESE CONTRACT DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE AND THEIR LOCATIONS ARE NOT GUARANTEED. THE CONTRACTOR SHALL INTERPRET THIS INFORMATION AS HE WISHES WITH THE UNDERSTANDING THAT THE OWNER DISCLAIMS ALL RESPONSIBILITY FOR ITS ACCURACY AND/OR SUFFICIENCY.
- UTILITY LOCATES PROVIDED BY
- CONTRACTOR TO PROVIDE DRILLING EXECUTION PLAN TO CONSULTANT FOR REVIEW (MINIMUM 14 CALENDAR DAYS) PRIOR TO MOBILIZATION ON SITE FOR HDD CONSTRUCTION ACTIVITIES.
- SANITARY PIPELINE INSTALLATION BY HORIZONTAL DIRECTION DRILLING TO CONFORM TO OPSS 450.

PIPE ALIGNMENT AND INSTALLATION

- ENTRY AND EXIT SIDE OVER BENDS TO BE ROLLED WITH SIDE BENDS WITH A MINIMUM RADIUS OF 50X PIPE EXTERNAL DIAMETER.
- THE PIPE LINE (HDD SUPPORT) CONTRACTOR WILL PROVIDE ASSISTANCE IN PREPARING THE SITE GRADING FOR SITE ACCESS, SITE GRADING, SETTING UP HDD EQUIPMENT AND REMOVAL OF HDD EQUIPMENT AND RESTORATION OF THE SITE.
- ALL EXISTING UTILITY DEPTHS SHALL BE VERIFIED IN THE FIELD BY THE HDD SUPPORT CONTRACTOR PRIOR TO THE START OF HORIZONTAL DIRECTIONAL DRILL. THE HDD SUPPORT CONTRACTOR SHALL ENSURE ALL UTILITIES IN THE AREA ARE PROTECTED AND NOT DAMAGED DUE TO HDD CONSTRUCTION ACTIVITIES.
- ALL DRILL PATH LENGTHS ARE ROUNDED TO THE NEAREST METER AND ANGLES ARE ROUNDED TO THE NEAREST DEGREE UNLESS OTHERWISE SPECIFIED.
- DRILL PATH DATA AS SHOWN ON THE DRAWINGS.
- THE HDD CONTRACTOR SHALL VERIFY APPROVED ENTRY/EXIT LOCATIONS AND DRILLING DIRECTION BASED ON THE SITE CONDITIONS DURING CONSTRUCTION.
- UNDER NO CIRCUMSTANCE SHALL THE PIPELINE BE INSTALLED OUTSIDE OF THE DESIGNATED R.O.W. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF THE PIPELINE WITH TESTING OF THE INSTALLED TRACER WIRE.
- THE PIPE PULL BACK SECTION SHALL BE ADEQUATELY SUPPORTED AT ALL TIMES DURING PULLBACK TO ENSURE THE CARRIER PIPE IS NOT OVERSTRESSED OR DAMAGED AS IT IS PULLED INTO THE BORE.
- A FINAL AS-BUILT PLAN AND PROFILE SHALL BE PROVIDED TO THE OWNER'S INSPECTOR AFTER COMPLETION OF THE WORK.
- THE HDD CONTRACTOR SHALL REVIEW THE GEOTECHNICAL INVESTIGATION AND SHALL CONSIDER ALL RISKS AND POTENTIAL FOR FRAC-OUT IN THEIR DRILLING EXECUTION PLAN.
- HDPE AND COBRA LOC CARRIER PIPE

- IN THE CASE OF INSUFFICIENT PULLBACK LAY DOWN AREA THE CARRIER PIPE PULLBACK WILL HAVE TO BE STOPPED TO ADD ON MORE CASING. STOPPAGE TIME OF THE PULLBACK OPERATION WILL BE KEPT TO THE MINIMUM REQUIRED FOR WELDING JOINT.
- IN ORDER TO VISUALLY ASSESS ANY PIPE DAMAGE, THE CONTRACTOR IS REQUIRED TO PULL AT LEASE 3M OF THE LEAD SECTION OF THE HDPE CARRIER PIPE COMPLETELY THROUGH THE BORE AS PER THE HDD SPECIFICATION.

PILOT BORE TOLERANCES

- THE PILOT BORE SHALL BE DRILLED TO THE TOLERANCE LISTED BELOW. HOWEVER IN ALL CASES, RIGHT-OF-WAY RESTRICTIONS AND CONCERNS FOR ADJACENT FACILITIES SHALL TAKE PRECEDENCE OVER THESE TOLERANCES:
  - ENTRY POINT: UP TO 1.0 METERS FORWARD OR BACK FROM THE DESIGNED ENTRY POINT; UP TO 1.0 METER RIGHT OR LEFT OF THE DESIGNED ALIGNMENT (EXCEPT AS PER NOTE 1.7).
  - EXIT POINT: UP TO 3.0 METERS SHORT OR 5.0 METERS LONG RELATIVE TO THE DESIGNED EXIT POINT; UP TO 1.0 METERS, RIGHT OR LEFT OF THE DESIGNED ALIGNMENTS (EXCEPT AS PER NOTE 1.7).
  - ELEVATION: UP TO 0.010 METER ABOVE OR BELOW THE DESIGN ELEVATION.
  - ALIGNMENT: UP TO 1.0 METER RIGHT OR LEFT OF THE DESIGN ALIGNMENT (EXCEPT AS PER NOTE 1.7).

- VERTICAL BENDING RADIUS: SHALL NOT BE LESS THAN THE MINIMUM RADIUS AS SPECIFIED BY THE PIPE MANUFACTURE FOR THE METHOD OF INSTALLATION SPECIFIED.
- STEERING CORRECTIONS DURING CONSTRUCTION OF THE PILOT BORE SHALL NOT RESULT IN BENDING RADI SMALLER THAN THE MINIMUM BENDING RADIUS SPECIFIED FOR THE CROSSING.

GEOTECHNICAL NOTES

- THE GEOTECHNICAL DATA PROVIDED IS ONLY DESCRIPTIVE OF THE LOCATIONS ACTUALLY SAMPLED. EXTENSION OF THIS DATA OUTSIDE OF THE ORIGINAL BORING MAY BE DONE TO CHARACTERIZE THE SOIL CONDITIONS; HOWEVER, THE OWNER AND HIS CONSULTANT COMPANY DO NOT GUARANTEE THESE CHARACTERIZATIONS TO BE ACCURATE. CONTRACTOR MUST USE HIS/HER OWN EXPERIENCE AND JUDGEMENT IN INTERPRETING THIS DATA.
- THE HDD CONTRACTOR SHALL REVIEW THE GEOTECHNICAL INVESTIGATION AND SHALL CONSIDER ALL RISKS AND POTENTIAL FOR FRAC-OUT IN THEIR DRILLING EXECUTION PLAN.

FORCEMAIN:

WASTEWATER FORCEMAIN SHALL BE GENERALLY DESIGNED IN ACCORDANCE WITH THE FOLLOWING CONSIDERATIONS:

- MINIMUM COVER OF 1.7m
- PIPE MATERIALS:
  - 100mm DIAMETER HDPE DR 11 PRESSURE PIPE AND FITTINGS CONFORMING TO OPSS,MUNI 1842 AND OPSS,MUNI 412. TO BE INSTALLED WITH 14 AWG TRACER WIRE OR, IF IN HORIZONTAL DIRECTIONAL DRILLING (HDD) APPLICATIONS, 4-8 GAUGE TRACER WIRE
- BEDDING MATERIAL TO BE GRANULAR A AND PLACED IN ACCORDANCE WITH OPSD 802.010 & OPSD 802.014 AND SHALL EXTEND FROM 150mm BELOW THE PIPE INVERT TO 300mm ABOVE THE PIPE OBVERT.

TESTING AND INSPECTION:

GENERAL

- ALL NEWLY CONSTRUCTED FORCEMAINS SHALL BE WATERTIGHT AND FREE FROM LEAKAGE.
- FORCE MAIN PRESSURE TEST – CONTRACTOR SHALL FILL AND PRESSURE TEST THE FORCE MAIN. THE MINIMUM REQUIRED TEST PRESSURE SHALL BE THE MAXIMUM FORCE MAIN OPERATING PRESSURE PLUS 50psi (10+50 = 60 psi)
- CCTV INSPECTIONS OF ALL SANITARY FORCE MAINS INCLUDING THE QUALIFIED REPRESENTATIVES COMMENTS ON THE REPORT SHALL BE REQUIRED PRIOR TO OCCUPANCY AND PRIOR TO ASSUMPTION OF THE SERVICE.
- TRACER WIRE INSPECTIONS AND CONDUCTIVITY TESTS SHALL BE CONDUCTED PRIOR TO ACCEPTANCE OF FORCEMAINS. INSPECTIONS ARE TO ENSURE THAT TRACER WIRE IS VISIBLE IN MAINTENANCE HOLES, AT PUMPING STATIONS, ETC. CONDUCTIVITY TESTS ARE TO ENSURE THAT THE TRACER WIRE IS APPROPRIATELY CONNECTED AND CONTINUOUS OVER ITS ENTIRE LENGTH.

TOWN OF EAST GWILLIMBURY GENERAL NOTES

GENERAL NOTES

- ALL SERVICES ARE TO BE TO THE TOWN OF EAST GWILLIMBURY ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE TOWN.
- LOCATIONS OF EXISTING SERVICES IS NOT GUARANTEED. THE CONTRACTOR IS TO NOTIFY UTILITY COMPANIES FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
- FOR DIMENSIONS AND DETAILS NOT SHOWN, SEE STANDARD DRAWING REFERRED TO ON THE PROFILE.
- ALL WORKS MUST BE CARRIED OUT ACCORDING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT (UPDATED 2011), REGULATIONS FOR CONSTRUCTION PROJECTS AND ALL RELATED ONTARIO REGULATIONS APPLICABLE TO CONSTRUCTION ACTIVITY.
- SEWER AND WATERMAIN TRENCHES SHALL BE BACKFILLED TO TOWN OF EAST GWILLIMBURY STANDARDS AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
- ALL STANDARD DRAWINGS SHALL BE PER O.P.S.D. (MOST RECENT REVISION) UNLESS OTHERWISE SPECIFIED.

MEASUREMENTS

- ALL DIMENSIONS SHALL BE IN METRES EXCEPT PIPE DIAMETER, WHICH IS IN MILLIMETRES, UNLESS OTHERWISE SPECIFIED.

ROADWORKS

- COMPACTION: ROAD SUBGRADE TO BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY. GRANULAR MATERIALS ARE TO BE SPREAD AND COMPACTED IN 200 MM LAYERS TO A MINIMUM OF 100% STANDARD PROCTOR DENSITY. ASPHALT IS TO BE COMPACTED TO MINIMUM 96% STANDARD PROCTOR DENSITY.

ITEM	COMPACTION REQUIRED (% OF STANDARD PROCTOR DENSITY)
GRANULAR "B"	MINIMUM 95%
GRANULAR "A" OR 16mm CRUSHER RUN STONE	MINIMUM 100%
HL-6 OR HL-8	MINIMUM 96%
HL-3	MINIMUM 96%

ROAD DESIGN – (MINIMUM)

ITEM	COMPACTED THICKNESS (RESIDENTIAL)
GRANULAR "B"	300mm
GRANULAR "A" OR 16mm CRUSHER RUN STONE	150mm
HL-6 OR HL-8	50mm
HL-3	40mm

NOTE: ASPHALT AND GRANULAR THICKNESS MAY VARY AS RECOMMENDED BY THE GEOTECHNICAL REPORT SUBJECT TO THE TOWN'S APPROVAL.

- CURBS:
  - URBAN – TOWN STANDARD OPSD 600.040 OR OPSD 600.070 (TWO-STAGE CURB)
  - ESTATE RESIDENTIAL – TOWN STANDARD OPSD 600.100
- INTERSECTIONS OF CURBS AND SIDEWALKS SHALL BE DEPRESSED, AS PER STANDARD OPSD 310.030.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE REINSTATED TO ORIGINAL OR BETTER CONDITION.
- SUB-DRAINS ARE TO BE INSTALLED THROUGHOUT UNLESS OTHERWISE APPROVED.
- NO MANHOLE COVERS WILL BE PERMITTED TO BE CONSTRUCTED IN ANY PART OF THE SIDEWALK.
- ALL NEW SIGNS WILL BE TYPE IV HIGH REFLECTIVITY SIGNS, MADE OF STEEL AND WILL INCLUDE THE TOWN NAME AND YEAR OF MANUFACTURE ON THE BORDER OF THE SIGN. SIGN RETRO-REFLECTIVITY IS DETERMINED USING MUTCD TABLE 2A.3 (THE STANDARDS IN THE OTM REFER TO NEW SIGN RETRO-REFLECTIVITY).

STORM SEWERS

- ALL CONCRETE PIPE SHALL HAVE SEALED JOINTS WITH GASKETS AND PIPE CLASS AS SHOWN ON DRAWINGS.
- ALL PVC GRAVITY SEWER PIPE SHALL CONFORM TO CSA SPECIFICATION B182.1 OR B182.2 (OR MOST RECENT VERSION) WITH "LOCK-IN" RUBBER SEALING RING.
- MANHOLES:
  - MANHOLES SHALL BE AS PER STANDARD DRAWINGS OPS 701.01 TO 701.08 (INCLUSIVE).
  - ALL STORM MANHOLES TO BE BENCHED THROUGHOUT TO THE CROWN OF ALL PIPES ON A VERTICAL PROJECTION FROM SPRING LINE, AS PER STANDARD DRAWINGS, EXCEPT AS OTHERWISE NOTED.
- SEWER BEDDING SHALL BE TO STANDARD DRAWING OPSD 802.03 CLASS "B" BEDDING OR AS APPROVED BY THE TOWN.
- CATCHBASINS:
  - CATCHBASINS SHALL BE AS PER STANDARD DRAWINGS (OPSD).
  - LEADS FOR A SINGLE CATCHBASIN SHALL BE 250mm AND FOR A DOUBLE CATCHBASIN 300mm.
  - ALL CATCHBASINS SHALL BE CONNECTED TO THE STORM SEWER BY TEES WHERE POSSIBLE, STANDARD DRAWINGS OPSD 700.01 AND 700.02.
- ALL STORM OUTFALLS THAT EMPTY INTO A DITCH OR WATERCOURSE MUST BLEND WITH THE FLOW OF SAME.
- ALL PVC JOINTS AT MANHOLES SHALL BE CONSTRUCTED BY MEANS OF A PVC MANHOLE ADAPTER.
- STORM SERVICE CONNECTION SHALL BE 150mm PVC, C/W 150 X 125 CLEANOUT AT PROPERTY LINE. SERVICES SHALL BE EXTENDED 1.5m INSIDE THE PROPERTY LINE AND PLUGGED. PIPE TO BE WHITE IN COLOUR. ALL SERVICES TO BE MARKED WITH 50mm X 100mm X 2.4m STAKES, PAINTED WHITE FOR STORM.

WATERMAIN

- WATERMAIN PIPE SHALL BE PVC AWWA 900 (THICK WALL PIPE) MINIMUM CLASS 150 (DR 18). PIPE IS TO BE WRAPPED WITH STRAND 14-GAUGE STRAND COPPER WIRE AND WIRE IS TO BE BROUGHT TO GRADE AT ALL MAINLINE VALVES AND HYDRANT SECONDARY VALVES, AND A HOLE DRILLED SIX INCHES (6") DOWN FROM UPPER SECTION AND WIRE INSERTED THROUGH THIS HOLE FOR PROTECTION. TOP OF WATERMAIN SHALL BE MINIMUM 1.7 M BELOW CENTRELINE OF ROAD GRADE. ALL SPLICES ARE TO BE DONE ABOVE GRADE OR USING A MOISTURE-PROOF SEAL.
- HYDRANTS AND VALVES SHALL BE PER TOWN STANDARDS DRAWING NO. OPSD 1105.010 ALL HYDRANTS ARE TO BE SELF-DRAINING (UNLESS IN AREAS WITH HIGH WATER TABLE). ALL HYDRANTS ARE TO BE EQUIPPED WITH ONE (1) FOUR-INCH (4") PUMPER PORT WITH MANUFACTURER'S "STORTZ" FITTING. TOWN-APPROVED HYDRANTS ARE CANADA VALVE (CANVAL) – ONLY.
- SERVICES:
  - RESIDENTIAL SERVICES SHALL BE 19mm, TYPE "K" COPPER, AS PER STANDARD DRAWING OPSD 1104.01 AND HAVE A MINIMUM COVER OF 1.6m.
  - ALL SERVICES SHALL BE SINGLE SERVICES TO THE MIDDLE OF THE LOT.
- ALL SERVICE CONNECTION STUBS SHALL BE MARKED WITH 50mm x 100mm x 2.4m STAKES, PAINTED BLUE FOR WATER.
- ALL CURB STOPS, MAIN STOPS AND COUPLINGS ARE TO BE COMPRESSION-TYPE FITTINGS, CAMBRIDGE SUCCESSOR BALL VALVE TYPE, WHICH MUST BE APPROVED BY THE TOWN C/W STAINLESS STEEL RODS AND BRASS PIN.
- ALL BENDS AND TEES SHALL BE OPSD 1103.01 AND 1103.02 AND BLOCKED TO UNDISTURBED GROUND. MECHANICAL RESTRAINING JOINTS ARE PERMITTED WHERE APPROVED BY THE TOWN.
- WHERE THE TOWN APPROVES WATERMAIN CONSTRUCTION WITH LESS THAN THE ABOVE NOTED MINIMUM COVER, THE WATERMAIN SHALL BE INSULATED TO THE TOWN'S SATISFACTION.
- ALL MECHANICAL CONNECTIONS SHALL BE PROTECTED AGAINST CORROSION THROUGH THE USE OF CORROSION PROTECTION DURATION NUTS. NUTS SHALL BE USED ON 50% OF ALL T-BOLTS PER CONNECTION AND ARE TO BE USED IN ADDITION TO STANDARD FASTENING NUTS, NOT IN PLACE OF STANDARD NUTS.

SANITARY SEWERS

- PIPE:
  - ALL PVC GRAVITY SEWER PIPE SHALL CONFORM TO CSA SPECIFICATION B182.1 OR B182.2 (OR MOST RECENT VERSION), DR35 WITH "LOCK-IN" RUBBER SEALING RING.
  - ALL HOUSE SERVICES SHALL BE CONNECTED TO SEWER WITH TEES. PIPE: 125mm PVC, C/W 125 X 100 PVC WATERTIGHT CLEANOUT AT PROPERTY LINE. SERVICES SHALL BE EXTENDED 1.5m INSIDE THE PROPERTY LINE AND PLUGGED. PIPE TO BE GREEN IN COLOUR. ALL SERVICES TO BE MARKED WITH 50mm x 100mm x 2.4m STAKES, PAINTED GREEN FOR SANITARY.
- ALL SEWER CONNECTIONS TO MANHOLES SHALL BE CONSTRUCTED BY MEANS OF A PVC MANHOLE ADAPTER.
- THE BEDDING MATERIAL SHALL EXTEND TO 300mm ABOVE THE PIPE AND COMPACTION TESTS ARE REQUIRED BEFORE THE TRENCH IS BACKFILLED. BACKFILL SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY.
- MANHOLES:
  - MANHOLES SHALL BE TO STANDARD DRAWINGS OPSD 701.01 TO 701.08 (INCLUSIVE).
  - ALL SANITARY MANHOLES SHALL BE BENCHED THROUGHOUT TO THE SPRING LINE, AS PER STANDARD DRAWINGS, EXCEPT AS OTHERWISE NOTED.
  - ALL SANITARY MANHOLES SHALL HAVE MONOLITHIC PRE-BENCHED BASES WITH PRE-MANUFACTURED CONNECTIONS.
  - ALL SANITARY MANHOLES CONSTRUCTED IN THE VICINITY OF LOW POINTS OR OUTSIDE OF THE PAVED ROADWAY SHALL HAVE WATERTIGHT COVERS. ALL MANHOLES LOCATED IN CUL-DE-SACS SHALL HAVE WATERTIGHT COVERS.
- SANITARY SEWER BEDDING SHALL BE TO STANDARD DRAWING OPSD 802.03, CLASS "B" (UNLESS OTHERWISE NOTED AND APPROVED).
- LATERALS – ALL LATERALS SHALL BE CONSTRUCTED ACCORDING TO STANDARD DRAWINGS OPSD 1006.01 AND 1006.02.



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Legend



Client/Project

LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT

THE ACORN DEVELOPMENT CORPORATION

Sharon, Ontario

Title

GENERAL NOTES

Project No.

160622990

Scale

N/A

Dwg No.

C-100

March 2025



1.

It is the responsibility of the Owner/ Developer or his Consultant responsible for administering the contract to notify their Contractor(s) to be familiar with and understand the foregoing conditions below. Contractors are expected to have sufficient knowledge, experience and equipment for working on Regional Roads.
2.

No start-up of road construction projects will be permitted after November 15<sup>th</sup> or prior to March 31<sup>st</sup> without special exemption and permission from York Region's Development Engineering Section.
3.

Winter Work: Any approved development construction within the Regional road allowance, between **November 15<sup>th</sup> and March 31<sup>st</sup>** in any given year, will be considered winter work. Any work (new or ongoing) in the road allowance between these dates may not commence or continue without the written consent of the Region's Supervisor of Development Construction. This written consent may be revoked by the Region at any time. **At the Region's discretion, any non-conforming work, in accordance with Provincial and Regional specifications, shall be removed and replaced at the developer's expense, or other measures implemented as determined by the Region.**

- Prior to demolishing for the winter (the "Winter Shut-Down"), the following requirements must be met:

(a)

All excavations must be backfilled;

(b)

The Site must be left clean, tidy and safe;

(c)

Road subgrade and/or road granulars shall not be exposed during the Winter Shut-Down, unless approved in advance by the Region upon written request from the Contractor. The Work shall be scheduled such that the asphalt base course is completed on any completed road granular base prior to the Winter Shut-Down. Gravel or milled pavement surfaces will not be permitted for the traveled roadway during the Winter Shut-Down period;

(d)

Roadways must have temporary or permanent pavement markings and appropriate traffic signage installed in accordance with the Ontario Traffic Manual (OTM), to be maintained at all times and all construction work areas shall be properly protected from the traveled lanes during winter shutdown;

(e)

Cut or fill slopes left without vegetative cover or erosion control blankets shall be treated before the on-set of winter with hydraulic mulch ground cover;

(f)

Positive flow for all storm culverts shall be maintained. If the Contractor is unable to complete the construction of the storm system within the allotted construction window, then additional measures to allow for positive drainage will be implemented by the contractor. This includes the provision of additional creek channelization and/or sand bags as needed to divert the flow to existing culverts or channels and maintain flow; and

(g)

Catchbasins and maintenance hole grates shall be adjusted to match the grade of asphalt, ensuring positive drainage and limiting snow removal hazards.
- Repairs to the roadway, interim drainage conditions, erosion control, signage and delineation shall be performed by the Contractor, as required, throughout the Winter Shut-Down period as required at the sole discretion of the Region.
- The Region will perform snow clearing and de-icing operations for roads which are open to the public during the Winter Shut-Down period.
- The Contractor shall be responsible for snow clearing, snow removal, and de-icing of any areas in which they have elected to perform work during the Winter Shut-Down period. Snow in these areas shall be removed from the right-of-way and must not impede with Regional efforts to keep traveled lanes clear of snow/winter debris.
4.

All traffic control devices and signage must be maintained in their proper locations, cleaned, weighted down by sandbags only, and maintained throughout the duration of the Contract. Regional forces will not reinstate temporary signage displaced by winter maintenance operations. The Contractor shall ensure that all construction signs affected by winter maintenance operations are immediately cleaned and reinstated or replaced. A safety log shall be kept ensuring that all temporary safety measures have been inspected regularly and are in good working condition. The Region may request this log at any time.
5.

Unless otherwise specified, Ontario Provincial Standards and Specifications and York Region Design Standard Drawings and construction specifications/practices shall be adhered to.
6.

A copy of the "Notice of Project" shall be submitted to the Development Construction Coordinator at the pre-construction meeting, posted on the contractor safety board on-site and attached to the pre-construction meeting minutes.
7.

The Owner/ Developer will ensure that the Regional road surfaces, ditches and boulevards are kept **clear of dust, mud/building and other debris** until the lands represented by this approval are fully developed and assumed by York Region Road Operations. The Owner/Developer acknowledges that the Region will carry out any work deemed necessary at the Owner's expense if such requirements are not carried out within 24 hours of notice being given to the applicant, consulting engineer, Owner or without any notice if, in the opinion of the Commissioner of Corporate Services Department or the designate, it is required immediately. **Repeat infractions will be considered a safety violation and may be subject to invoking a stop work order, revoking of the road occupancy Permit and/or the required reapplication of the construction access approval including a safety inspection fee of \$2,400.00, or as outlined in Schedule "A" to By-law No. 2020-04, as amended.**
- The Region reserves the right to require a **wheel wash station** if it is deemed necessary for the safety of the public, on per project basis.
- In the event that the Region must rectify any deficiencies, make any remedies or must carry out the cleanup of roads from mud, dust, refuse or debris, the Owner acknowledges that the **Region shall invoice the Owner, for each occurrence, a minimum of \$2,400.00 or twice the actual cost to perform the work, whichever is greater, as outlined in Schedule "A" to By-law No. 2020-04, as amended.**
8.

**Prior to starting any development construction work within the Regional Road allowance, please contact the following Development Construction Coordinator, 1-877-464-9675 or email to arrange for a pre-construction meeting prior to construction:**
- Ivan Gonzalez; 1-877-464-9675 ext. 75759; email: [ivan.gonzalez@york.ca](mailto:ivan.gonzalez@york.ca)  
Municipality Area: City of Vaughan

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Rafi Hamparian; 1-877-464-9675 ext. 73114; email: [rafi.hamparian@york.ca](mailto:rafi.hamparian@york.ca)  
Municipality Area: Town of Whitby/Church Steepleville, City of Markham

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Nasir Mahmood; 1-877-464-9675 ext. 76929; email: [nasir.mahmood@york.ca](mailto:nasir.mahmood@york.ca)  
Municipality Area: Town of Newmarket, Town of East Gwillimbury, Town of Georgina, Town of Aurora

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Joshua Ashfield; 1-877-464-9675 ext. 78012; email: [joshua.ashfield@york.ca](mailto:joshua.ashfield@york.ca)  
Municipality Area: City of Richmond Hill, Township of King
9.

It is the responsibility of the Owner/Developer or his Consultant for inspections to ensure that the contractor's **locates are staked out prior to any construction** and all utilities are relocated to the approved design grades and location.
10.

Prior to any related development construction activity on the Region Road allowance, the Owner/ Developer or designate shall apply to the Region to obtain a **Road Occupancy Permit (ROP)**. The Road Occupancy Permit application is now online only and can be obtained at [www.york.ca/roadpermits](http://www.york.ca/roadpermits). Specific traffic control measures such as temporary traffic lights are to be approved by Traffic Safety and Permit prior to implementation. For general inquiries please contact 1-877-464-9675, x75700 or [permits@york.ca](mailto:permits@york.ca).
11.

If the Region deems necessary, **portable variable messaging signs (PVMS)** shall be provided at least 1 week prior to start of development related road widenings and any other road works in the Region right of way to warn the public of potential traffic delays.
12.

It is the responsibility of the Owner/Developer or his Consultant to ensure that all emergency services, public transportation routes and school bus services, including York Region Roads Operations Dispatch ([tm\\_roads\\_operations\\_dispatch@york.ca](mailto:tm_roads_operations_dispatch@york.ca)), are notified of any partial or full Regional road closures at least 2 weeks prior to start of development.
13.

All existing Regional and local Municipal sanitary and storm infrastructure in the Regional Right-of-way is to be video inspected and condition assessed prior to commencement and post construction. Video and pictures of the existing site conditions to be submitted to the Construction Coordinator at the pre-construction meeting.
14.

All new sewer infrastructure installed within the Regional Right-of-way require a **post-construction video inspection** submitted to the Region, attention: Development Construction Coordinator prior to any security reductions/releases. This includes any extension to existing infrastructure (e.g. road culverts and sewer extensions).
15.

**Construction accesses** onto Regional roads are not permitted unless written approval is granted by the Region, provided the Owner/ Developer apply for approval to the York Region Development Engineering Division. Temporary "truck entrance" signs must be installed on the shoulder of the Regional right-of-way and visible from all approaches. Reference shall be made to the Book 7, Ontario Traffic Manual: Temporary Conditions for details on the use and placement of signs. The Owner shall be responsible for the costs of obtaining, erecting and maintaining these signs until the construction access is decommissioned. **Construction accesses shall be constructed as per York Region Drawing No. DS-217. The mud mat is to be fully paved for the entire width of the Regional boulevard (15.0 m typ.), when the hauling operations exceed 75,000 cu.m. total or 40 truck trips per day, whichever is greater.** Truck route is to be monitored and cleaned by the contractor/consultant/builders/developer as required and non-compliance will result in the work being completed by York Region's forces and/or full closure of the access and revoking of the Road Occupancy Permit at the full expense of the Owner/ Developer per By-Law 2020-04, as amended. After completion of the works, the construction access shall be removed and the road, curbs, ditches and boulevard restored to the satisfaction of the Development Construction Coordinator or designate.
- Any existing accesses such as old residential/commercial driveways/farm accesses, etc. to the Regional Road cannot be used as a construction access without expressed approval by the Region.**
16.

One lane of traffic in each direction on Regional roads **must be kept open** between the hours of 9:30 a.m. and 3:30 p.m. or as otherwise permitted by the ROP permit conditions. This is provided that the proper signage and flag persons are present to protect the workers and direct traffic safely through the work zone as per Occupational Health and Safety Act and Regulations for Construction Projects and Book 7 Ontario Traffic Manual Temporary Conditions. At all other times, all existing lanes of traffic shall be kept open.
- Loading and unloading of materials and equipment shall take place off the travelled portion of road wherever possible. Otherwise, loading and unloading of material and equipment shall only take place between the hours of 9:30 a.m. and 3:30 p.m. provided that proper signage and warning signs are present to protect the workers and direct traffic safely. All steel track equipment or other equipment that may cause damage to the road surface is not permitted for unloading off a Regional Road. **Any damages to the existing Regional Road surface due to lifting activities shall be reinstated in its entirety at the Owners cost and at the sole discretion of the Region.**
- Truck queuing on Regional Roads is not permitted at any time for the duration of the construction phase of the project.**
17.

All drainage works require **Erosion and Sediment Controls (ESC)** satisfactory to the approval agencies during construction periods. Prior to and during construction, procedures and controls need to be in place for the minimization of erosion and migration of sediment which might occur during construction. The Owner/ Developer shall ensure routine inspections, as well as after every major storm event, for the ESC control devices to maintain their efficiency as per design and field conditions. **Cleanup/hydrovac of existing infrastructure, including manholes, catchbasins, culverts, etc., may be required after ESC failures.** The Owner/ Developer or their consultants responsible for inspections are to ensure the contractor adheres to best construction practices and the TRCA / I.S.R.C.A.'s "Erosion & Sediment Control Guideline for Urban Construction" (current version) in all regulated areas. The Region is to be copied on all ESC reports.
18.

It is the responsibility of the Owner/ Developer or their Consultant responsible for inspections to ensure that an elevation detail of the existing aerial plant is submitted when overhead cabling is present. **Cables shall not be less than 5.0 m** clearance from the proposed finished grade to the lowest point of the aerial cable as per 3.2.5.3.6 - Access Route Design, Ontario Building Code Standards.
19.

Any **dewatering** discharge activity requires an approved application. Applications are available online by completing the form at [www.york.ca/sewage](http://www.york.ca/sewage) or contacting 1-877-464-9675 extension 75067 at Public Works Department, Environmental Services.
20.

**Tunnel shafts and auger pits** shall be located at the bottom of the ditch line and back slope of the ditch, or beyond the toe of slope in a fill area. All open excavations shall be protected with barricades with proper crash attenuation measures in place within the Regional road allowance. **No torpedo is to be used** under any of the Regional paved road at any time unless written approval is granted.
21.

Steel Liners are required to be installed for watermain, sanitary sewer and sanitary forcemain crossing Regional Road within ultimate pavement area and extend a minimum of 1.0 m beyond the ultimate edge of pavement or ultimate back of curb. Steel liners shall have a minimum cover of 2.1 m below centre line of road. Steel Liners are not required when watermain, sanitary sewer or sanitary forcemain crossing of Regional Road is installed via directional drilling.
22.

**Trenches** proposed across Regional roads shall be backfilled with unshrinkable fill as per OPSS 1359 material specification for unshrinkable backfill up to road subgrade. Placement shall be a minimum of 1.0 m beyond the existing edge of pavement or back of curb. The trench shall be covered for a minimum of 24 hours with steel plates of sufficient strength to support traffic prior to restoration of granular and asphalt make up. **The steel plates shall be recessed** into a 300 mm wide by 50 mm deep step joint provided in the existing pavement. If the sewer or Regional within the Regional right-of-way is less than 1.2 m in depth, insulation shall be installed with 50 mm of SM insulation or approved equal, in accordance with OPSD 1109.030 & OPSS MUNI 1605, and self-compacting 19 mm (¾") crushed granular material in lieu of unshrinkable fill shall be placed. **The use of High Performance or other rounded granular stone is not permitted.** No traffic is permitted on the granular backfill unless it is protected by approved road plates or asphalt pavement as specified.
23.

Where the stability, safety or function of the existing roadway or underground facilities may be impaired due to the contractor's method of operations, the contractor shall provide such protection as may be required. This protection may include **sheathing, shoring and the driving of piles** where necessary, to prevent damage to existing adjacent services or proposed works. Construction for shoring, bracing and protection schemes shall conform to the specifications of OPSS MUNI 404 and OPSS MUNI 339 current version. Additionally, all works shall be carried out in conformity with the Occupational Health and Safety Act and Regulations for Construction Projects. The Consulting Engineer responsible for inspections and/or York Region Development Engineering Division staff **shall notify the Ministry of Labour**, if in their opinion, unsafe conditions exist on site in accordance with Ontario Regulation for Construction Projects and the Owner fails to rectify said unsafe conditions in a timely manner.
24.

In urban sections, **all subdrains** shall be 150 mm diameter perforated pipe (OPSS 405) wrapped in nonwoven geotextile (OPSS 1860). In rural sections, subdrains will be required where granular base does not connect with the ditch invert. Ditch inverts shall be at a lower elevation than the granular base to ensure positive drainage. All rural subdrains shall be 150 mm diameter perforated pipe (OPSS 405) wrapped in nonwoven geotextile (OPSS 1860) with rodent gates installed at all outlets spaced at 50.0 m to 70.0 m intervals.
25.

**All curb returns** to Regional curbs and gutter to be constructed in accordance with the Regional standard curb return drawing number DS-216, OPSS MUNI 353 and OPSS MUNI 1350 current versions for all standard entrances unless otherwise approved. Curb returns in rural sections shall be offset 0.5 m from the edge of travelled portion of the road.
26.

When determined by the Region, **catchbasin lids** on existing maintenance holes shall be replaced with a **maintenance hole cover** OPSD 401.01 and the new catchbasin with frame & grate shall be OPSD 400.110.
27.

**Granular road base** on Regional Roads shall be installed as per OPSS 314 and MUNI 1010 and shall be a minimum of 450 mm Granular "B Type 1" and 150 mm Granular "A" or match existing depths, whichever is greater, or as approved by the Region. All granular material placed under pavement shall be compacted to 100% of the maximum dry density. All other native materials shall be compacted to 95% of the maximum dry density. The results of the compaction tests and analysis shall be monitored by the geotechnical consultant on a **full-time basis**, and reports shall be submitted to the York Region, Development Engineering Division, and attention: Development Construction Coordinator. **Recycled granular material will not be accepted.**
28.

**All new asphalt shall be:**
  - **Base course** – minimum of 100 mm (2 lifts of 50 mm) Superpave 19.0 PGAC 64-28 Category 'D' Roadway, compacted to between 91.0% to 96.5% of MRD
    - The maximum RAP content allowed in SP 19.0 hot-mix asphalt is 15%.
    - The use of recycled shingle tabs in any mix is not permitted.
    - The use of slag as an aggregate in any mix is not permitted.
    - 4.8% PGAC content
    - 5.0% PGAC content is to be used instead of 4.8% when the base course asphalt will be exposed over one or more winter periods.
  - **Top course** – minimum of 50 mm Superpave 12.5 FC-1 PGAC 64-28 Category 'D' Roadway. Compacted to between 92.0% to 97.5% of MRD
    - No RAP to be used in SP 12.5 top course asphalt
    - 5.0% PGAC content
  - **Tack coat** required between lifts, on existing asphalt, at step joints and on areas specified by the Geotechnical Engineer and/or Development Construction Coordinator in accordance with OPSS 310
  - The Contractor shall use a **material transfer vehicle** that has on-board mixing capabilities, and a minimum storage capacity of 25 tonnes. A material transfer system such as a shuttle buggy (Roadtec SB-2500C Shuttle Buggy ® or approved equivalent) shall be used (note: delete this requirement if scope of work is relatively small i.e. paving small areas)
  - **Joint heaters** shall be used in the construction of longitudinal joints to eliminate the occurrence of cold joints
  - **Longitudinal and transverse step joints** between the new hot mix asphalt (HMA) pavement and the previously paved pavement shall be constructed by trimming the previously paved pavement edge to a straight, clean, vertical surface of at least 50 mm
  - All mixed designs to be submitted to York Region's Development Construction Coordinator **at least 48hrs prior to commencing paving operations**
  - A **pre-paving meeting** shall be scheduled by the Owner/ Consultant at the discretion of York Region's Development Construction Coordinator
  - The results of the **compaction tests and analysis** shall be submitted to the York Region, Development Engineering Division, Attention: Development Construction Coordinator. The Region requires copies of original asphalt material tickets and summaries to verify material type and quantities
  - All asphalt placed shall be in accordance with OPSS 310, MUNI 1101, MUNI 1151 current versions.
  - Placing of Hot Mix Asphalt must adhere to OPSS-310.07.06.02 Operational Constraints
29.

**Single Unit Residential Driveway** construction makeup:  
Min. 300 mm of Granular "A"  
Min. 50 mm HL-3 top asphalt
- Multiple Unit Residential/Condominium/Commercial/Industrial Driveway** construction makeup:  
Min. 450 mm of Granular "A"  
Min. 100 mm HL-8 base asphalt  
Min. 50 mm HL-3 H/S top asphalt
30.

All asphalt tapers and road widening(s) require a **fully paved shoulder** with full depth asphalt for all rural cross-sections. Typical paved shoulder width is 2.5 m, following a granular rounding to the edge of top of slope.
31.

All asphalt joints shall include a minimum 500 mm wide by 50 mm depth **step joint** into the existing top course asphalt. Depending on specific site conditions, the width of the step joint may be required to **be increased at the Region's discretion beyond 500 mm** to ensure proper cross-fall from the existing road cross-section and ensure a stable joint into the existing pavement. In any case, the Development Construction Coordinator shall be contacted in advance for an on-site field inspection prior to any paving. All joints will require root and seal as per material specification OPSS-1212 and construction specification OPSS-341, DensoBand (OPSS.MUNI 1103) or approved equivalent.
32.

All permanent durable pavement markings shall be installed in accordance with Regional Specifications and conform to OPSS 710, OPSS 1712, OPSS 1713, OPSS 1714 & OPSS 1750.
33.

All new **curb drops** to follow OPSD 600.040 concrete barrier curb and gutter standard. Concrete **sidewalk ramps** at intersections to be AODA compliant in accordance with standard drawing DS-119, 120 and 121 and/or as shown in the approved electrical drawings.
34.

Any existing driveways, curb drops or ramps that are not proposed/approved **shall be removed** and replaced with full curb as per OPSD 600.040 in urbanized areas or replaced with proper ditch sloping in rural areas, with 100 mm topsoil and sod to stabilize the restoration. Existing driveways cannot be used as construction accesses without approval from the Region as this is a change of the driveway's use.
35.

No landscaping, hoarding, fencing, signs, steps, stairs, canopy, sprinkler systems, temporary accesses or any other **encroaching structures are to be permitted** within the Regional road allowance without written approval or encroachment permit from York Region Development Engineering Division.
36.

**All grassed areas** disturbed during construction on the Regional Road right-of-way shall be restored with 100 to 200 mm of topsoil and sod placed (staked on slopes and ditches) to the bottom of the granular "A" shoulder rounding or as required by the Development Construction Coordinator, in accordance with OPSS 803 current version. **All revegetated areas to be maintained periodically or as required (grass watering, grass cutting and boulevard maintenance) by the applicant until final release of securities and assumption by the Region.**
37.

Final **restoration works** are to be completed within 6 months of asphalt placement and non- compliance may result in work completed by York Region forces at the expense of the owner with the project application securities used or withheld to ensure payment and final work.
38.

Approved drawings, including engineering, underground, landscaping, electrical and detailed traffic management plans **must be adhered to at all times** unless otherwise directed by the Development Construction Coordinator. All works on Regional right-of-way shall be carried out as per the approved drawings and Regional standards/guidelines, OPSS & OPSD drawings & regulatory specifications, policies and/or as required by the Region's Development Construction Coordinator or designate.
39.

**New intersections and/or new legs of an existing intersection are not to be opened to any use** until all traffic control measures are installed, including all illumination, signalization, pavement markings, and signage. For new signalized intersections, a signal inspection shall be scheduled by York Region Electrical prior to energization. Final approval for opening shall be determined by York Region Electrical Construction Coordinators and Traffic Operations Technologists. New intersections are to be barricaded to prevent access until specific permission has been given by the Region.
40.

**Regulatory and hazard warnings signs** as per OTM Book 5 and Book 6 shall be shown on the approved drawings and/or as required on site by the Development Construction Coordinator and/or the Electrical Construction Coordinator. All permanent signage in the Region's right-of-way shall be installed on minimum **100 mm x 100 mm pressure treated wooden posts** and as per OTM/York Region standards.
41.

The approach ends of a **raised median** on the Regional road shall have the typical "Keep Right" sign and object marker as per the Region specification E-7.01, installed immediately after the median construction. Right in/right
- out access controlled by a raised median requires a "one way" regulatory control sign as per Book 5, which must be installed prior to the opening of the access.
42.

Approved **emergency accesses** to Regional roads are to be in place prior to any building permits being issued for the subdivision. **All gates, bollards etc. shall be located on private property/local municipal lands.** Temporary construction accesses shall be closed off permanently on the Regional road prior to the first residential occupancy or if the Owner/ Developer can demonstrate to the Region that there is no residential use. Temporary sales access use shall be for sales access only and be relocated to the new adjacent road (if applicable) once constructed and open to public traffic.
43.

It is the responsibility of the Owner/Developer to **protect all existing survey monumentation** on or adjacent to the site that may be destroyed/ disturbed during construction. Should these monuments be damaged in any way, the owner shall have the survey monuments replaced by an Ontario Land Surveyor prior to the reduction or release of any security.
44.

All **landscape features** including retaining walls, steps/stairs, footings and columns, fencing, sprinkler systems, etc., to be located on the Private Property and/or behind 0.3 m reserve, will require an Ontario Land Surveyor's Certificate in confirmation, **along with a copy of the survey/drawing/sketch** submitted prior to reduction or release of any security. OLS must certify that all 0.3 m reserves through accesses (ie: new intersections or driveways) have been lifted prior to public use.
45.

**Interlocking concrete paving stones** must be supported on 125 mm concrete base (including wire mesh and spacing of drainage holes) as per York Region standard SS-100.
46.





The Owner/Developer or their Consulting Engineer responsible for inspections shall advise the Contractor that the integrity of the above and below ground Regional road facilities shall be properly located and maintained. Any above/below ground infrastructure damaged during construction is to be reported to the appropriate Regional Development Construction Coordinator, and the repair may require the work to be completed by the Region at the Owner's expense.
47.

**All construction correspondence** is to be directed to the York Region Construction Coordinator, Development Engineering Division, and must specify the appropriate **Regional approval and file numbers.**
48.

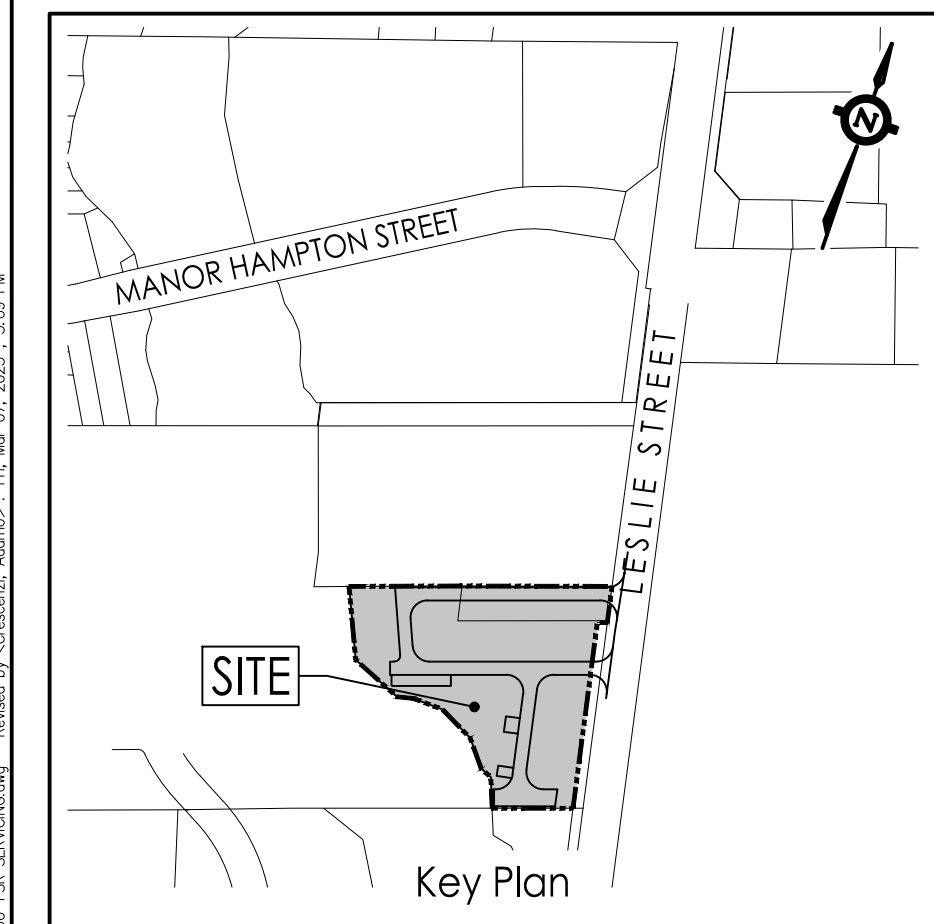
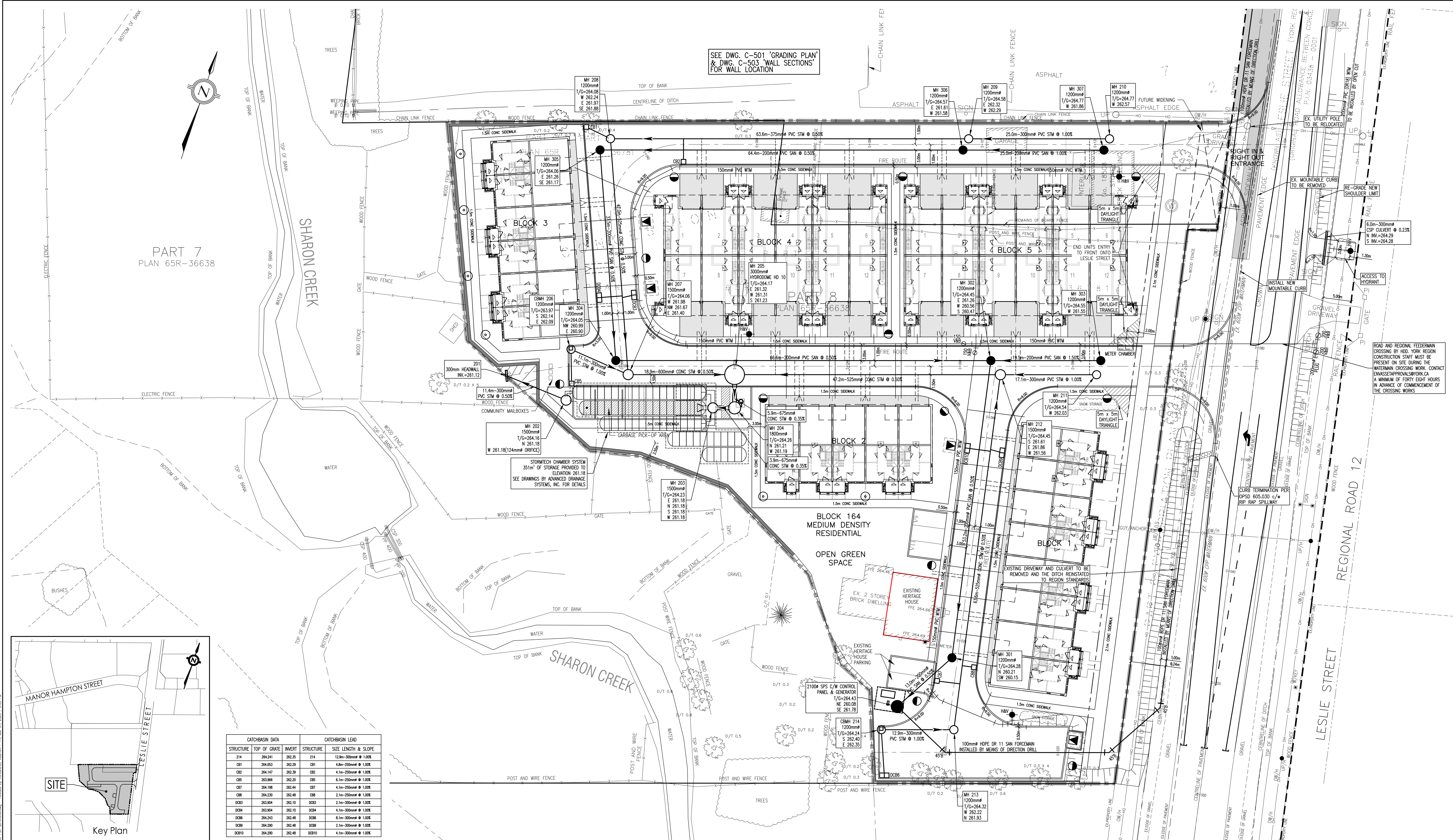
Prior to any **security release or reduction** of the development security deposit, all applicable requirements listed in the "York Region Security Release and Reduction List of Requirements" (current version) shall be submitted to the attention of the appropriate Development Construction Coordinator for Regional clearance. A final inspection must be conducted by the Region and Owner's/Developer's consultant prior to any security reduction or release.
49.

The Owner/Developer agrees to **indemnify** the Region, and its employees, elected officials, contractors and agents against any and all actions, causes of action, suites, claims and demands whatsoever which may arise either directly or indirectly by reason of undertaking any of the Owner/ Developer's work with respect to the development approvals and construction.
50.

The Owner/ Developer must retain a Consulting Engineer or Consultant to ensure compliance of all work within the Region's right-of-way. The Region **at any time may request a copy of the daily construction reports or other timing/scheduling as required** at the sole discretion of the Region.
51.

It is a condition of Regional Approval that the Owner/ Developer or their Consultant (responsible for inspections and compliance) **is liable with respect to all work done on Regional property.** This liability shall extend to such time as the works have been granted final compliance, including all invoices paid, land conveyances and listed Region requirements are completed to the Region's satisfaction prior to reduction or release of any security.
- STANDARD DEVELOPMENT CONSTRUCTION PRACTICES FOR WORK ON YORK REGION ROADS  
Development Engineering Division  
Planning and Economic Development Branch, Corporate Services Department  
Revised February 2023
- 
- STANDARD DEVELOPMENT CONSTRUCTION PRACTICES FOR WORK ON YORK REGION ROADS  
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- 
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- Legend
- Client/Project
- LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT
- THE ACORN DEVELOPMENT CORPORATION
- Sharon, Ontario
- Title
- STANDARD DEVELOPMENT  
CONSTRUCTION PRACTICES FOR  
WORKS ON YORK REGION ROADS
- Project No.
- 160622990
- Scale
- N/A
- Dwg No.
- C-100R
- March 2025
- ORIGINAL SHEET - ARCH D





CATCHBASIN DATA			CATCHBASIN LEAD	
STRUCTURE	TOP OF GRATE	INVERT	STRUCTURE	SIZE LENGTH & SLOPE
214	264.241	262.35	214	12.9m-300mm @ 1.00%
CB1	264.053	262.29	CB1	4.8m-250mm @ 1.00%
CB2	264.147	262.39	CB2	4.1m-250mm @ 1.00%
CB5	263.966	262.20	CB5	6.1m-250mm @ 1.00%
CB7	264.198	262.44	CB7	4.1m-250mm @ 1.00%
CB8	264.230	262.48	CB8	2.1m-250mm @ 1.00%
DCB3	263.894	262.10	DCB3	2.1m-300mm @ 1.00%
DCB4	263.894	262.10	DCB4	4.1m-300mm @ 1.00%
DCB6	264.243	262.48	DCB6	8.1m-300mm @ 1.00%
DCB9	264.290	262.48	DCB9	2.1m-300mm @ 1.00%
DCB10	264.290	262.48	DCB10	4.1m-300mm @ 1.00%



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Legend	
	EXISTING STORM MANHOLE
	STORM MANHOLE
	PIPE TO BE INSULATED
	SINGLE/DOUBLE CATCHBASIN
	STREET LIGHT
	BOLLARD LIGHT
	HYDRO TRANSFORMER
	EXISTING SANITARY MANHOLE
	SANITARY MANHOLE
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	HYDRANT & VALVE
	EXISTING RIGHT OF WAY
	PROPERTY LINE
	LIMIT OF CONSTRUCTION
	RETAINING WALL

**NOTES:**

1. THE OWNER AND THEIR RESPECTIVE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE REGIONAL WATERMAIN DURING ALL PHASES OF CONSTRUCTION.
2. THE EXISTING 600mm CPP PIPE IS TO BE DAYLIGHTED TO VERIFY THE DEPTH AND HORIZONTAL LOCATION AT THE LESLIE STREET 150MM PROPOSED WATERMAIN PIPE CROSSING LOCATION. THE EXCAVATION SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE THE PIPE AND UNSHINKABLE FILL TO SUBGRADE. THE REGIONS CONSTRUCTION STAFF MUST BE PRESENT ON SITE DURING THE CROSSING WORK. PLEASE CONTACT (ENVASSTAPPROVALS@YORK.CA). FORTY EIGHT HOURS ADVANCED NOTICE IS REQUIRED.
3. SANITARY SEWERS ARE TO BE CONSTRUCTED AND COMMISSIONED TO THE TOWN OF EAST GUILMBURY'S SUSTAINABLE DEVELOPMENT INCENTIVE PROGRAM (SDIP) STANDARDS, WATERTIGHT, ZERO INFLOW AND INFILTRATION.



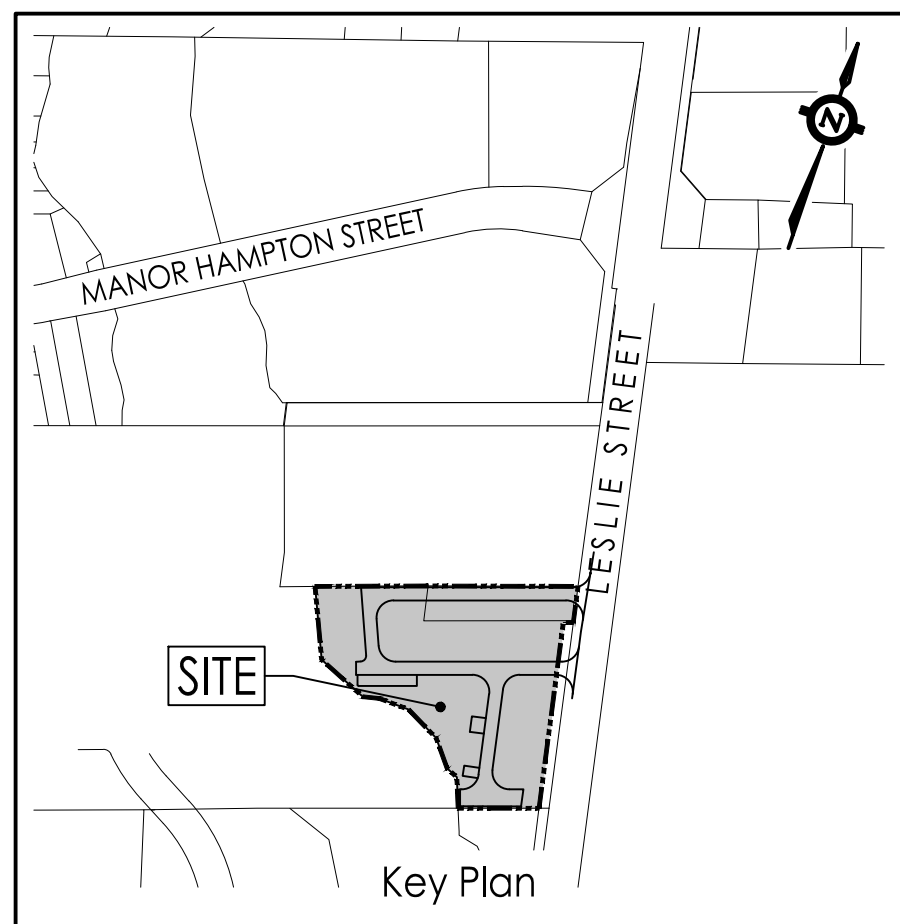
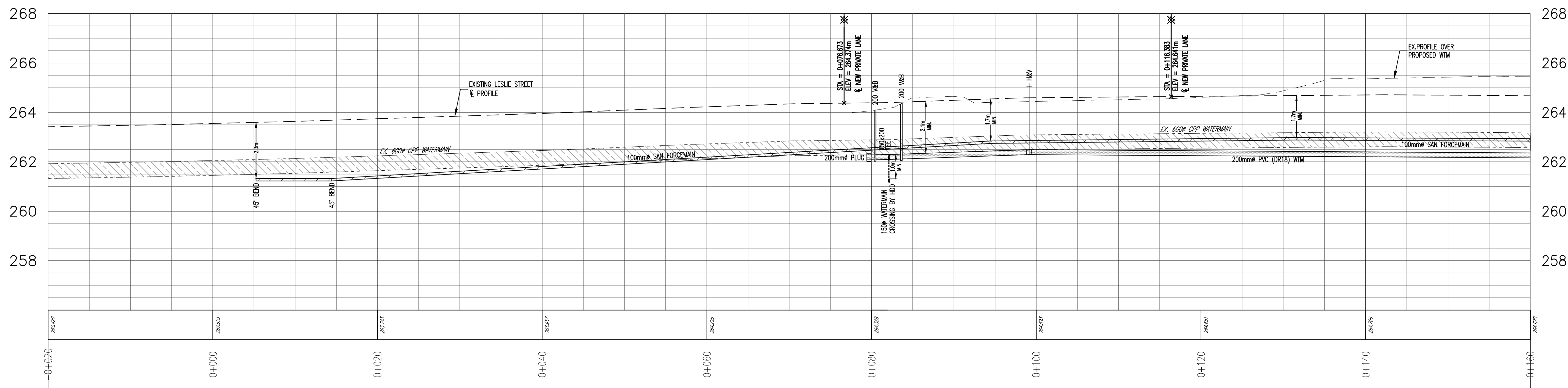
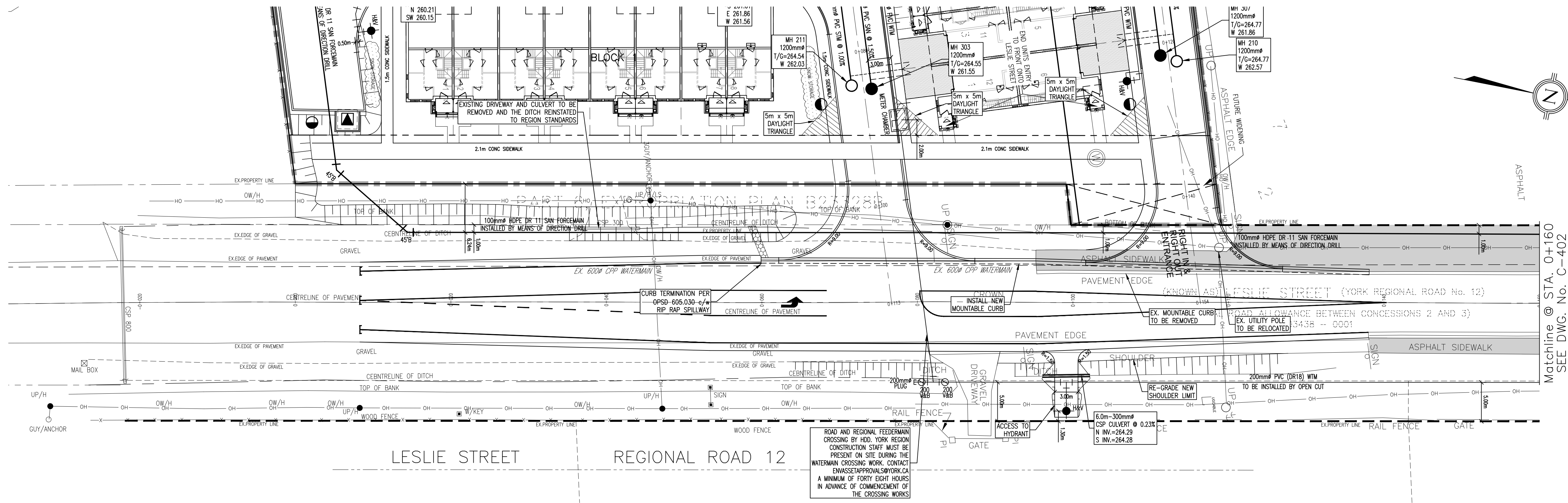
Client/Project  
**LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT**  
  
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario  
  
March 2025

Title  
**SERVICING PLAN 1**  
  
Project No. 160622990  
Scale 1:300  
Dwg No. C-101

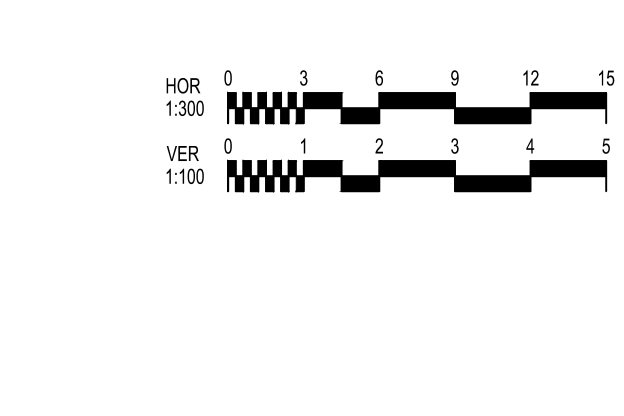








Legend	
	EXISTING STORM MANHOLE
	STORM MANHOLE
	PIPE TO BE INSULATED
	SINGLE/DOUBLE CATCHBASIN
	STREET LIGHT
	BOLLARD LIGHT
	HYDRO TRANSFORMER
	EXISTING SANITARY MANHOLE
	SANITARY MANHOLE
	EXISTING WATERMAIN
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	LIMIT OF CONSTRUCTION
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Client/Project  
LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT  
  
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario  
  
March 2025

Title  
LESLIE STREET PROFILE  
STA. 0+000 TO STA. 0+160  
  
Project No. 160622990  
Scale 1:300  
Dwg No. C-401

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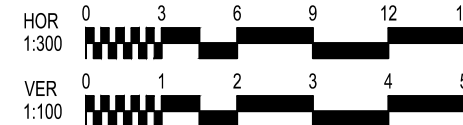
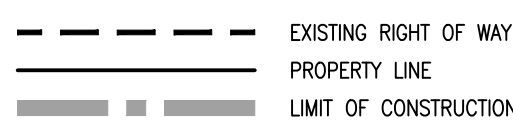
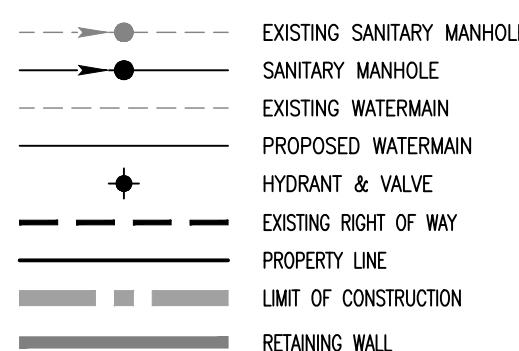
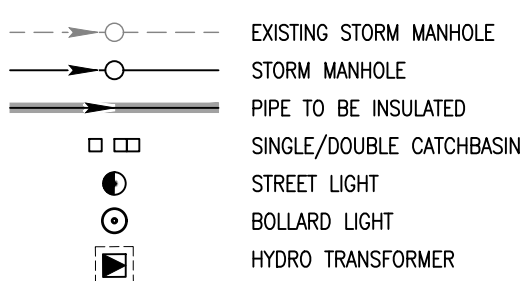
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#### Legend



#### NOTES:

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#### Client/Project

LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT

THE ACORN DEVELOPMENT CORPORATION

Sharon, Ontario

March 2025

#### Title

LESLIE STREET PROFILE  
STA. 0+160 TO STA. 0+310

Project No.

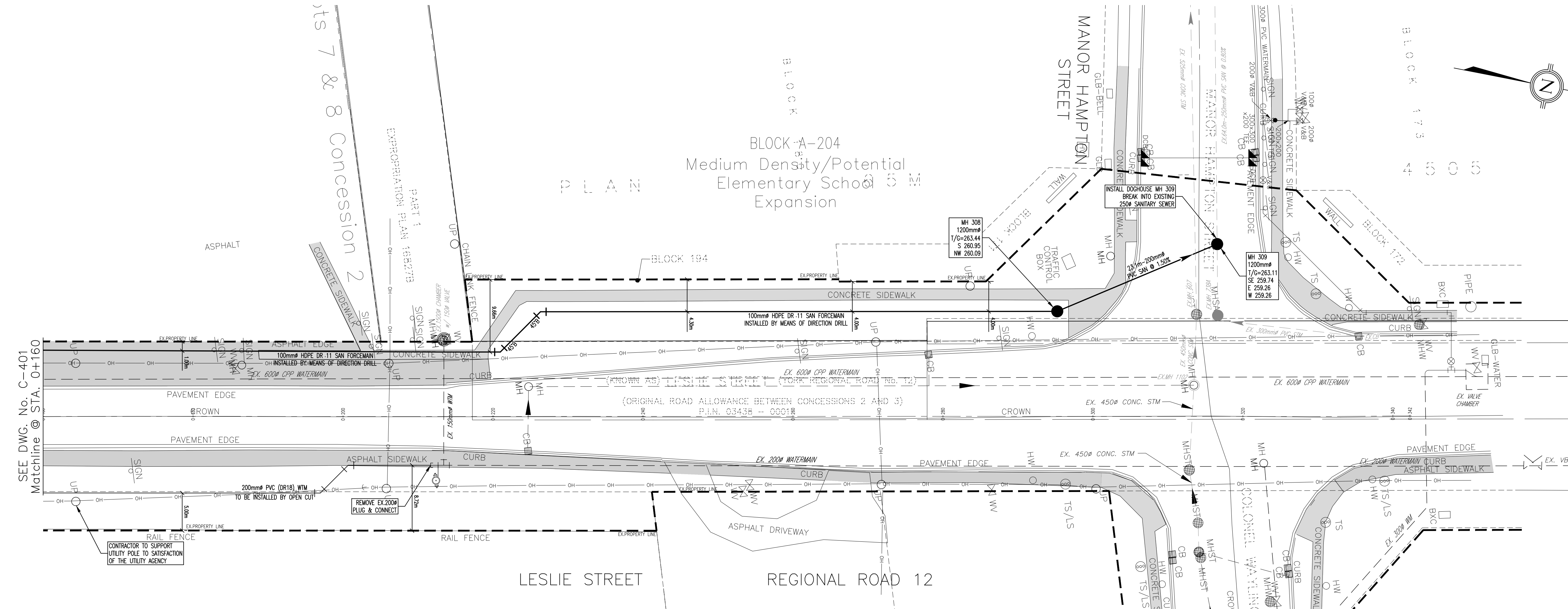
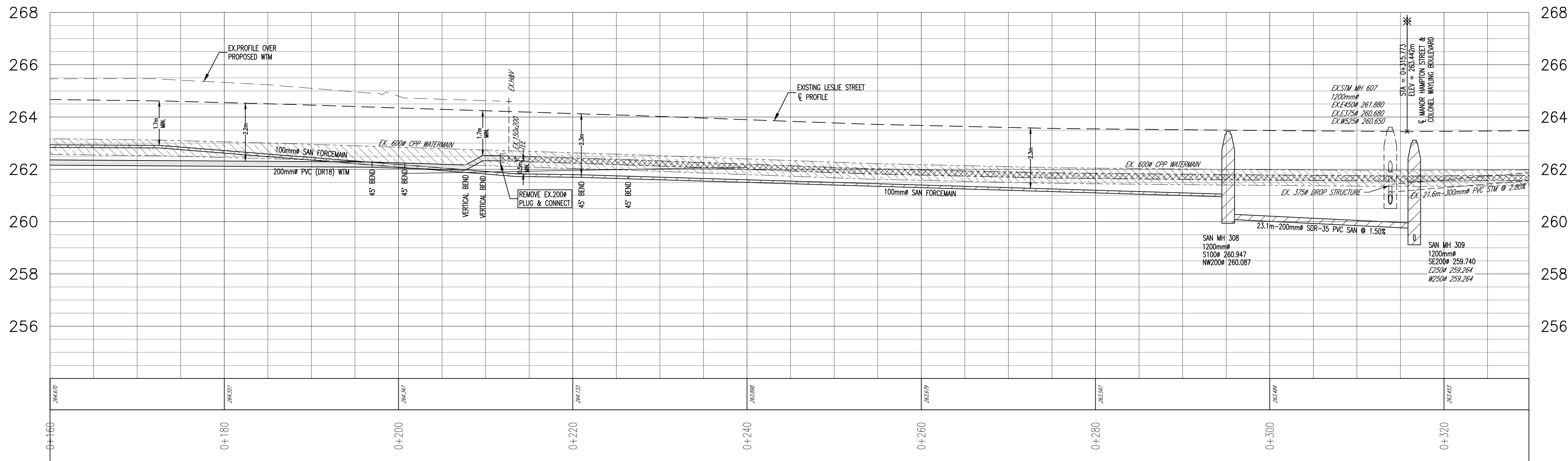
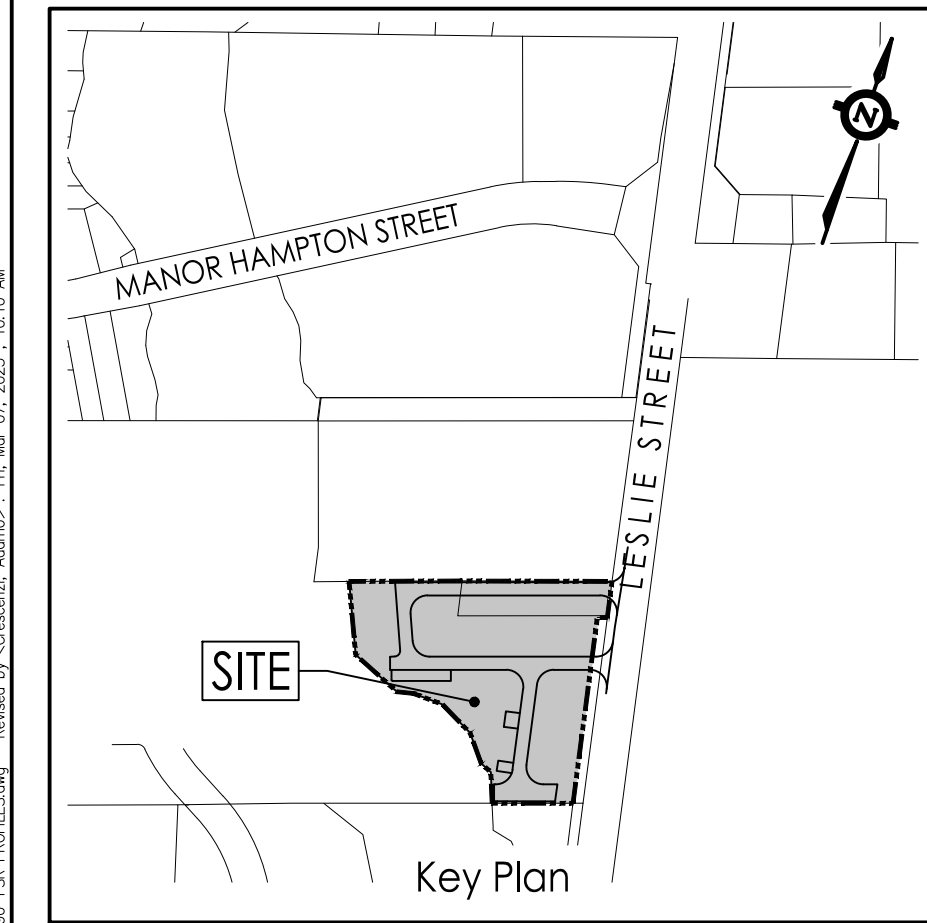
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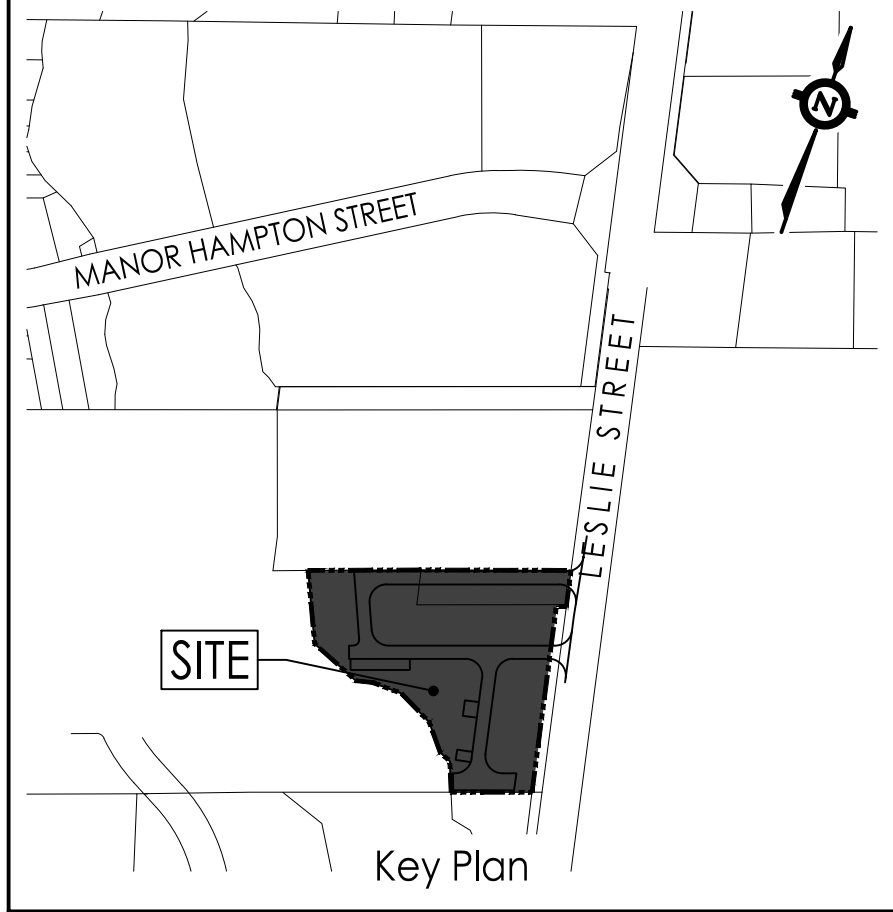
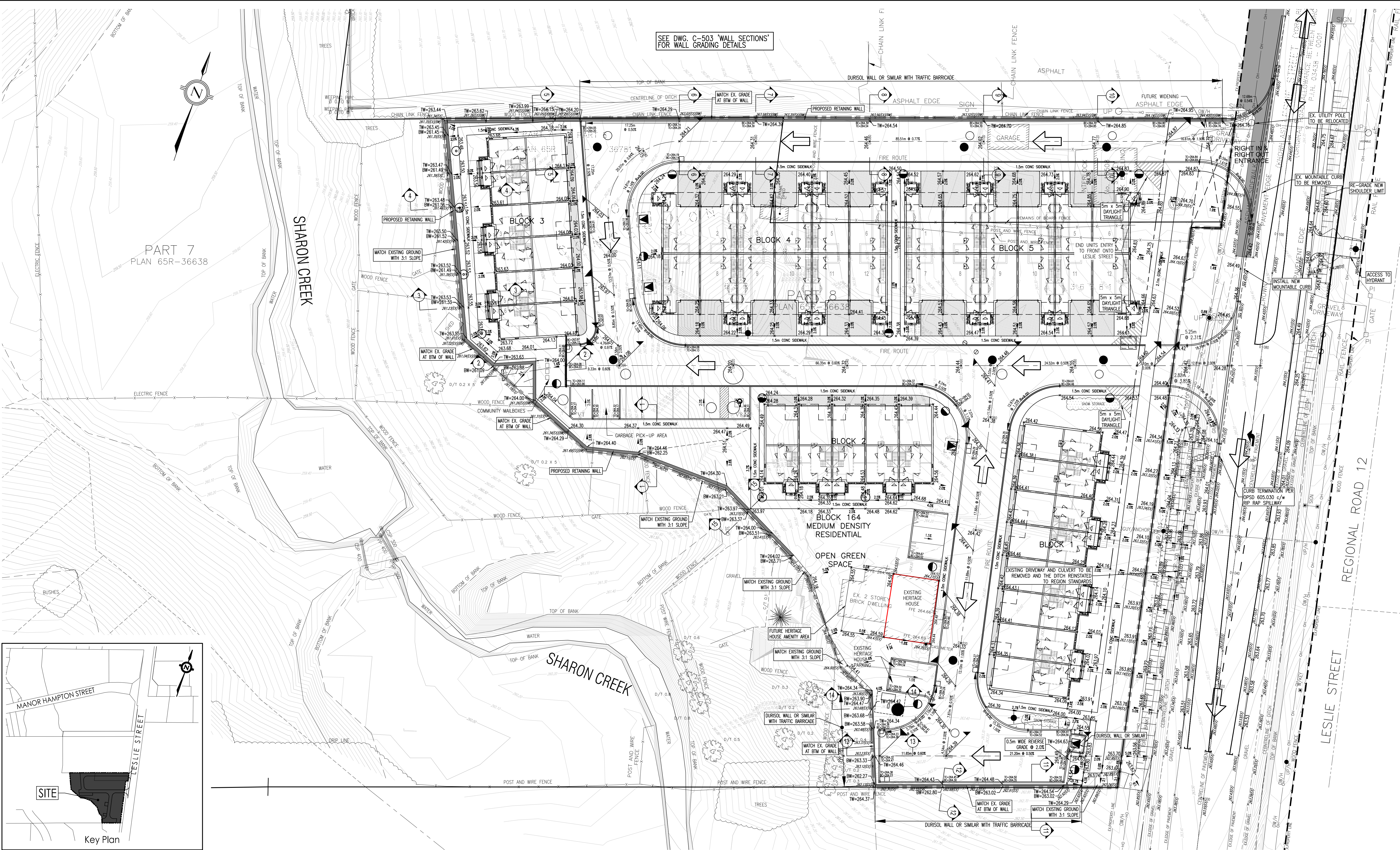
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Dwg No.

C-402







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Legend			
PROPOSED SPOT ELEVATION	○	EXISTING STORM MANHOLE	—
PROPOSED ELEVATION AT BTM OF WALL	●	EXISTING SANITARY MANHOLE	—
PROPOSED ELEVATION AT TOP OF WALL	○	STORM MANHOLE	—
EXISTING ELEVATION	○	SANITARY MANHOLE	—
PROPOSED ELEVATION MATCHES EXISTING ELEVATION AT BTM OF WALL	○	HYDRANT & VALVE	—
LOT/BLOCK NUMBER	□	SINGLE/DOUBLE CATCHBASIN	—
3:1 SLOPE	△	VALVE & BOX AND SIZE	—
EXISTING CONTOUR AND ELEVATION	○	EXISTING HYDRO/UTILITY POLE	—
OVERLAND FLOW ROUTE	→	EXISTING OVERHEAD WIRE	—
	○	EXISTING WELL	—
	○	FULL HEIGHT CURB	—
	○	DROP HEIGHT CURB	—
	○	ASPHALT DRIVEWAY	—
	○	STREET LIGHT	—
	○	BOLLARD LIGHTS	—
	○	HYDRO TRANSFORMER	—
	○	EXISTING RIGHT OF WAY	—
	○	PROPERTY LINE	—
	○	LIMIT OF CONSTRUCTION	—
	○	RETAINING WALL	—

**NOTE**

1. MANUFACTURED STONE RETAINING WALL SYSTEM SUCH AS M-CO STONE STRONG SYSTEM OR APPROVED EQUIVALENT. MANUFACTURER TO UNDERTAKE DESIGN AND PROVIDE DESIGN DRAWINGS SEALED BY A QUALIFIED ENGINEER LICENSED TO PRACTICE IN ONTARIO.

2. THE TOP OF ALL RETAINING WALLS TO BE PROVIDED WITH PROTECTION RAILINGS/FENCING IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.

Client/Project  
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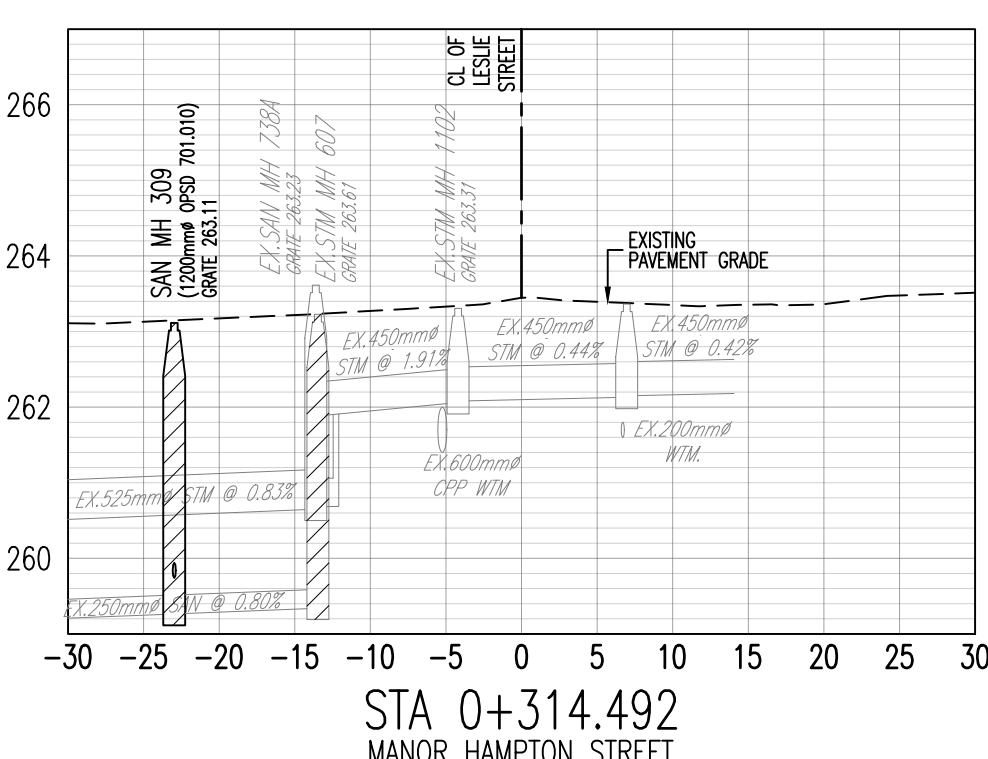
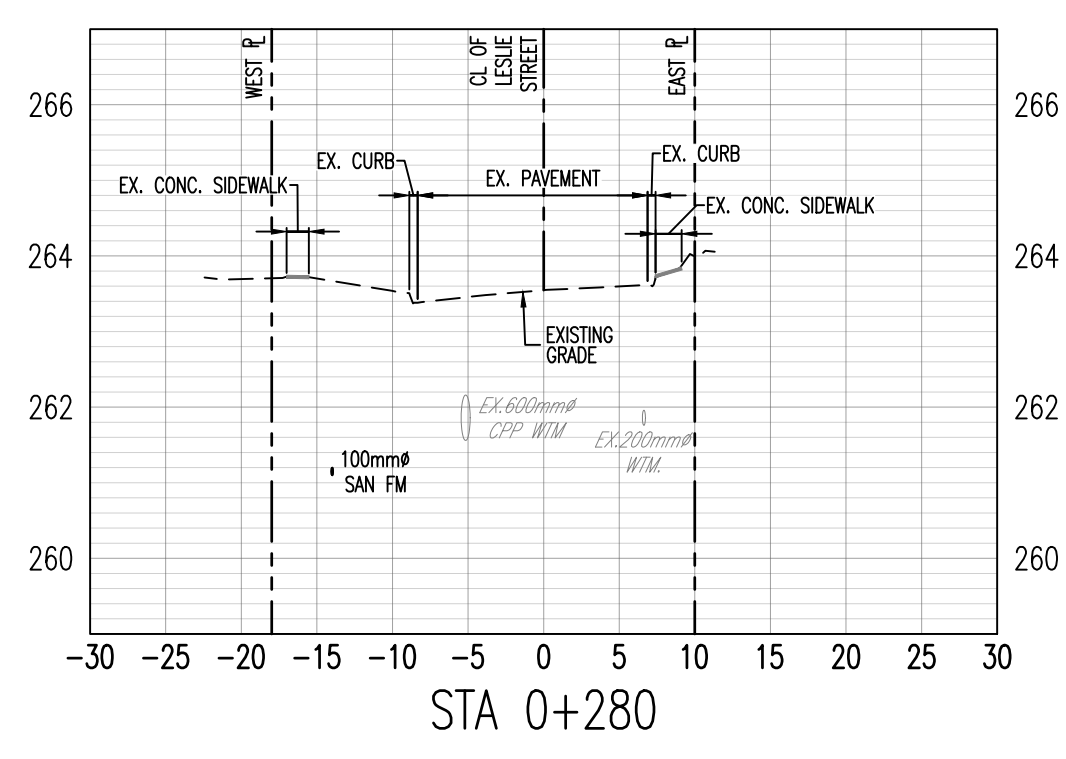
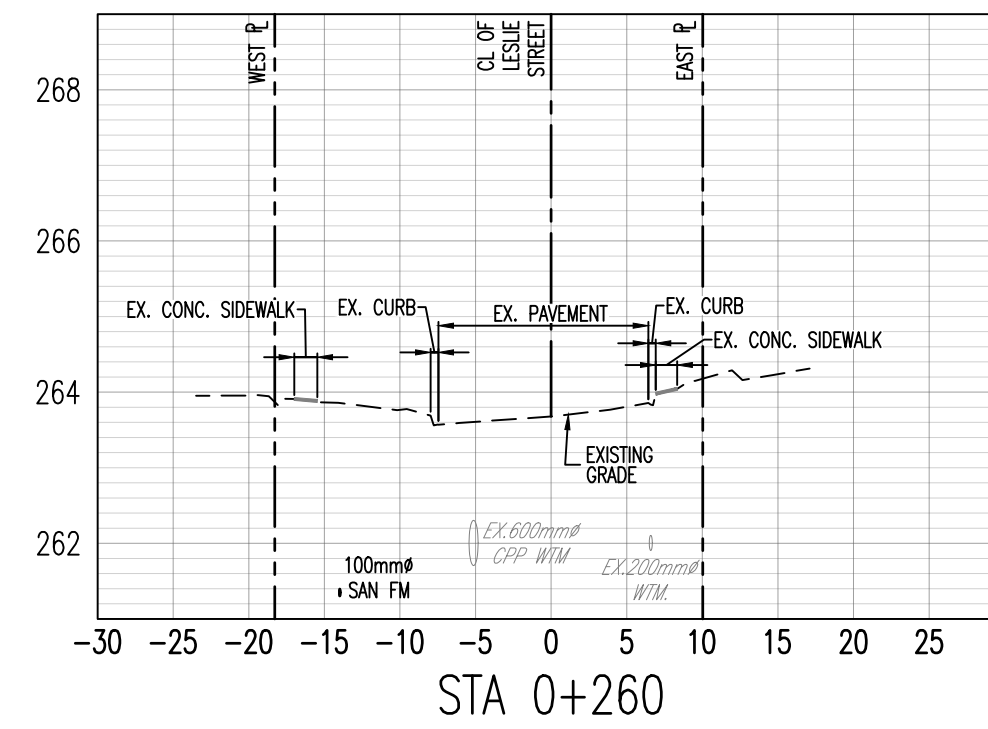
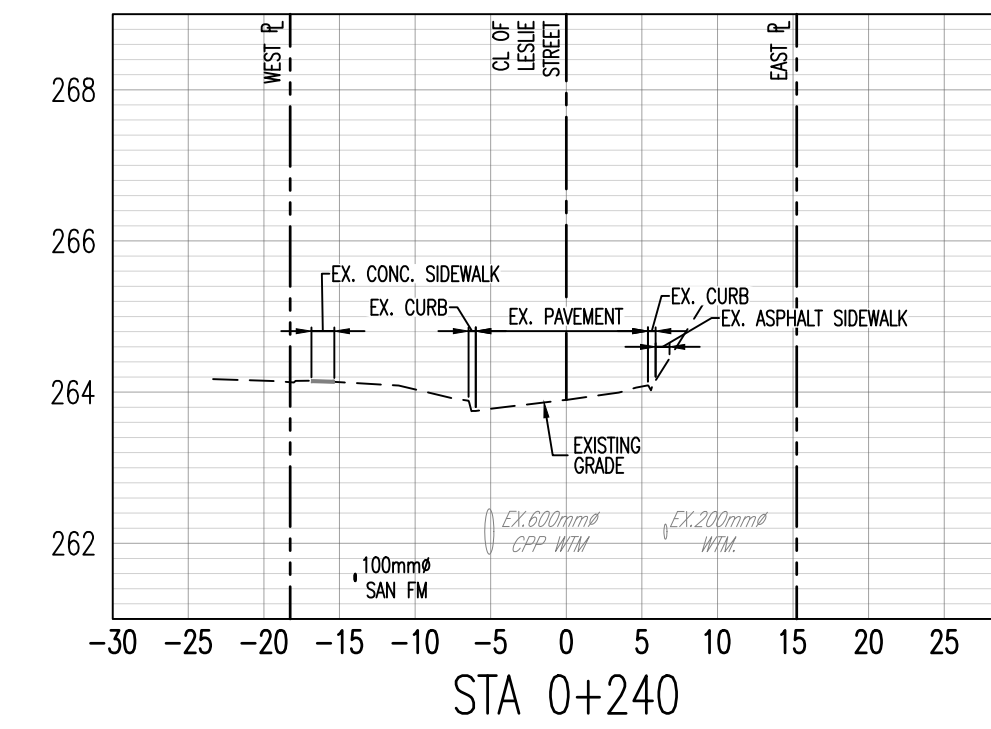
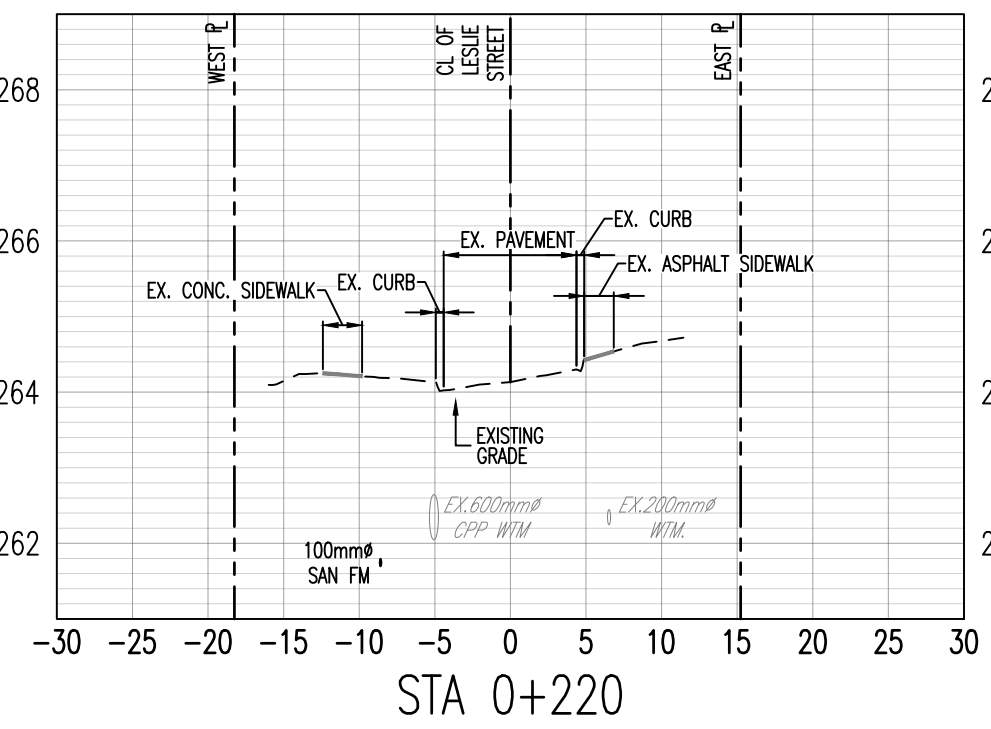
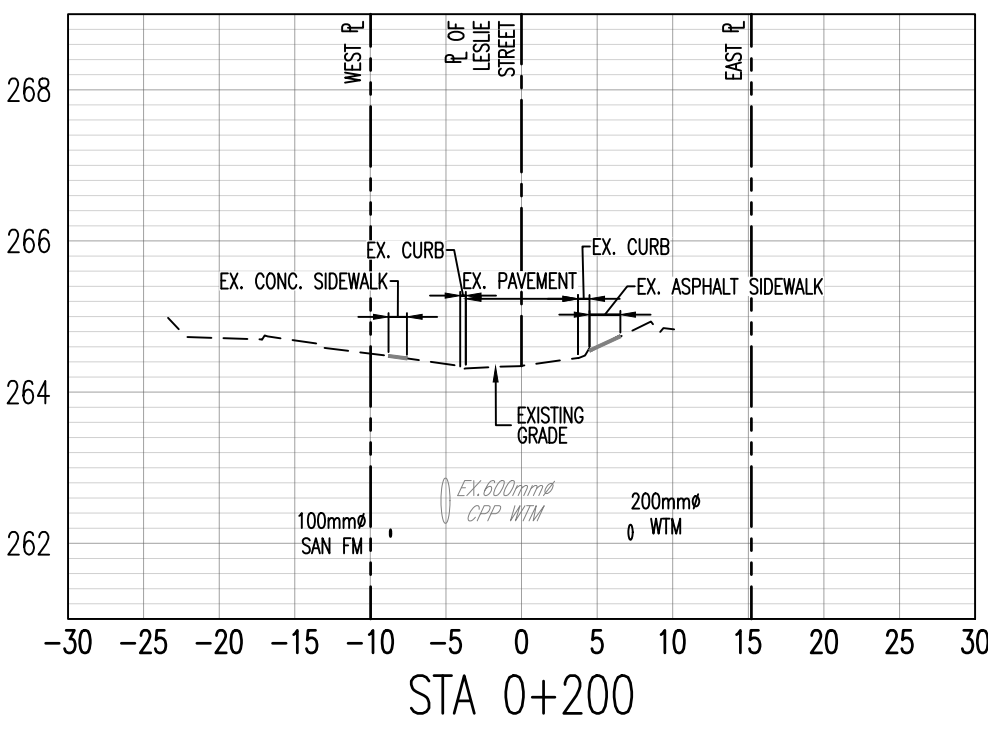
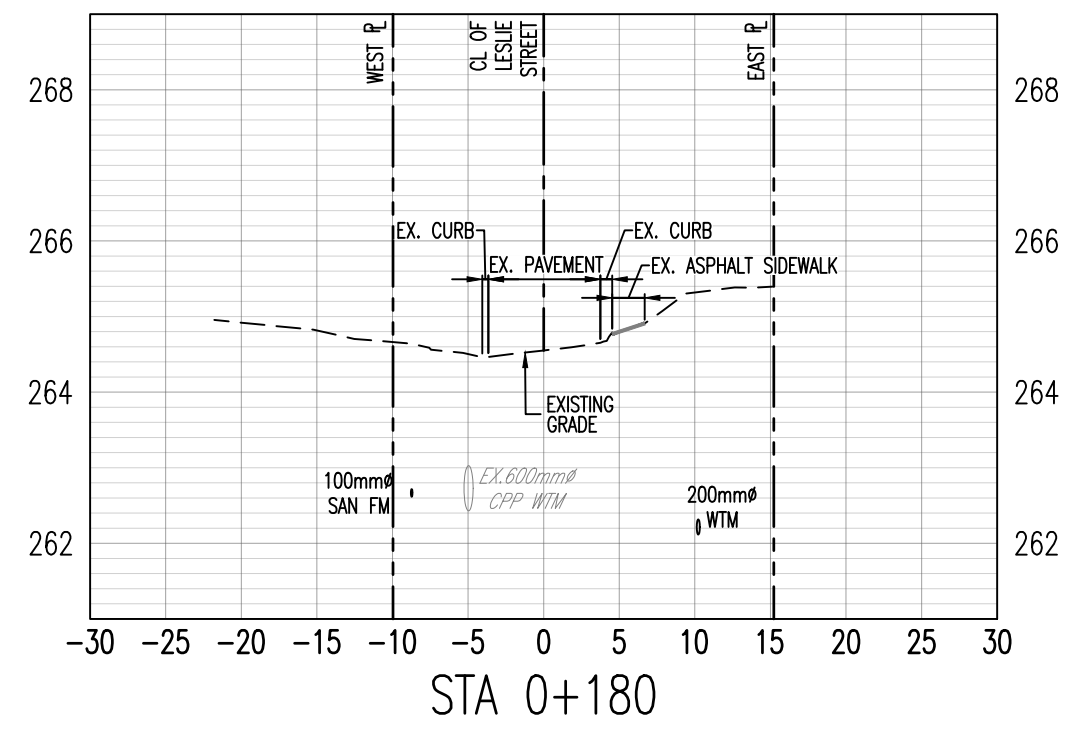
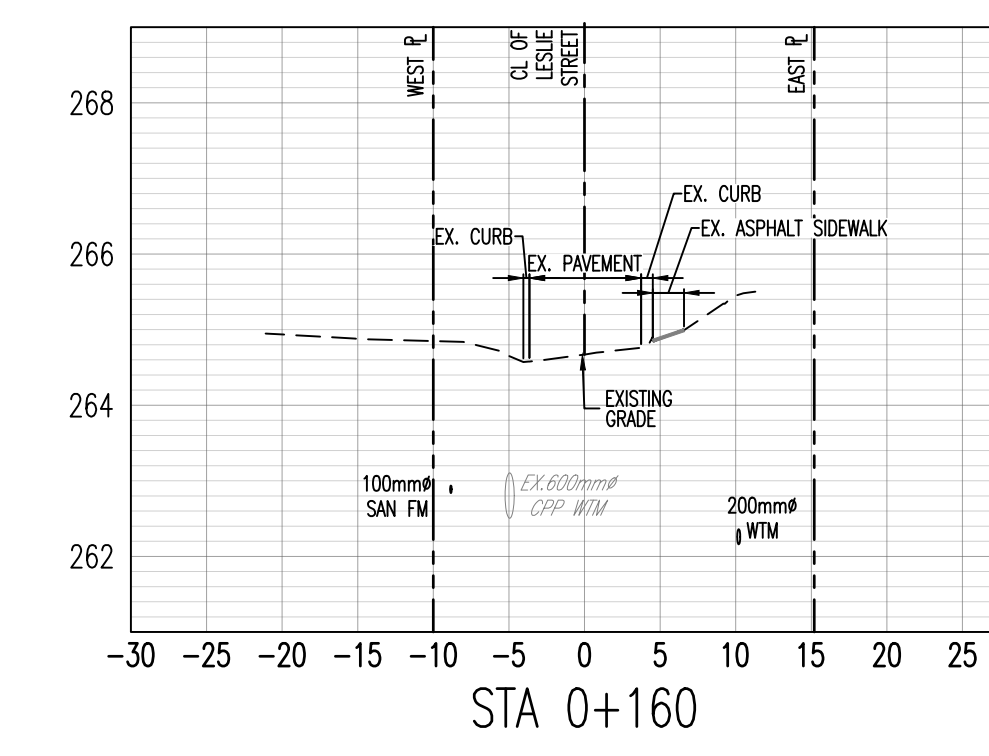
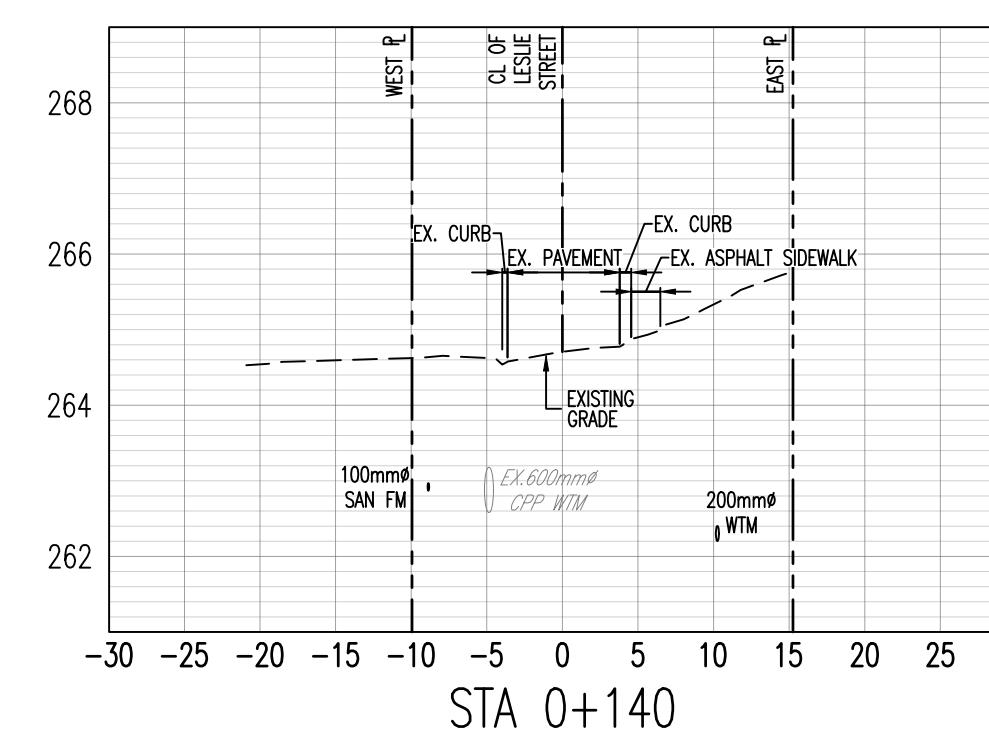
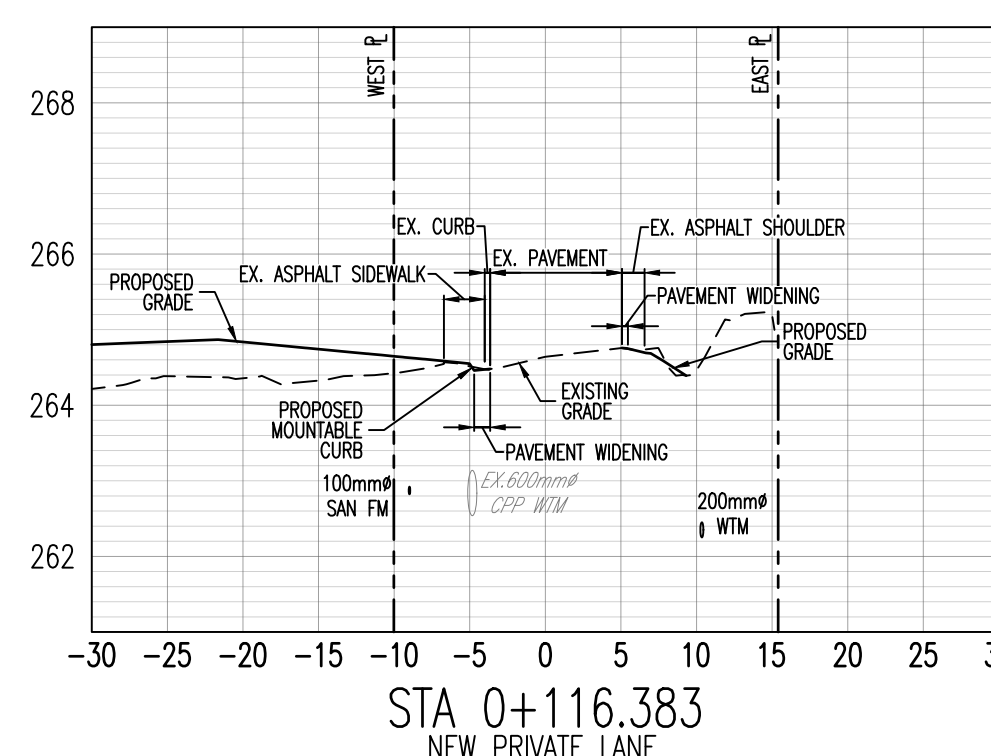
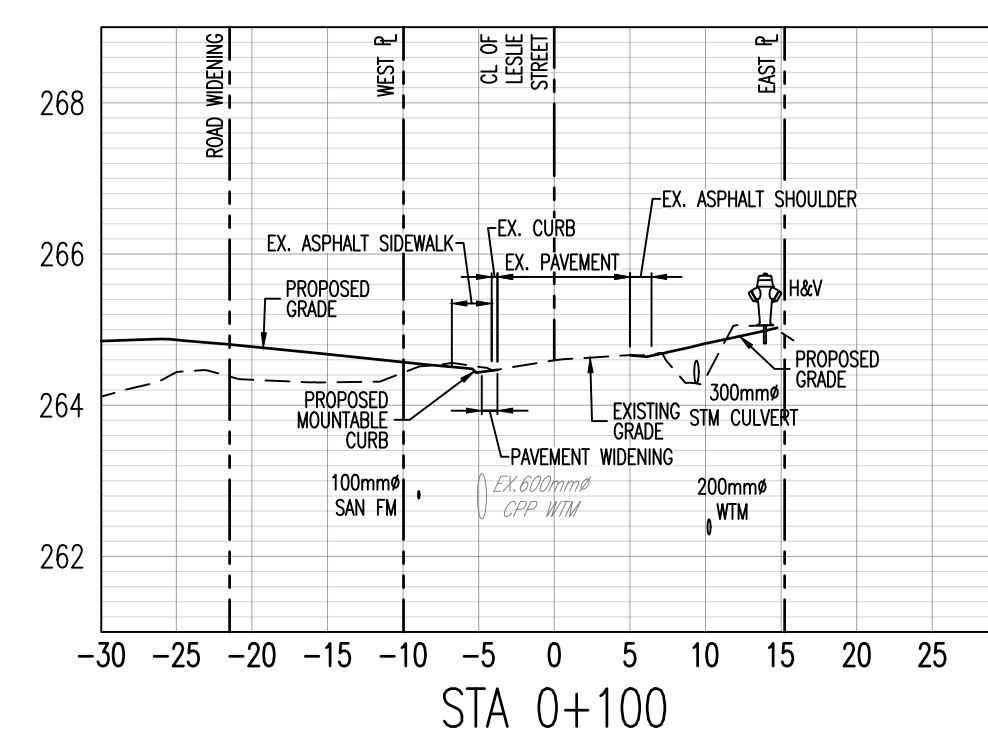
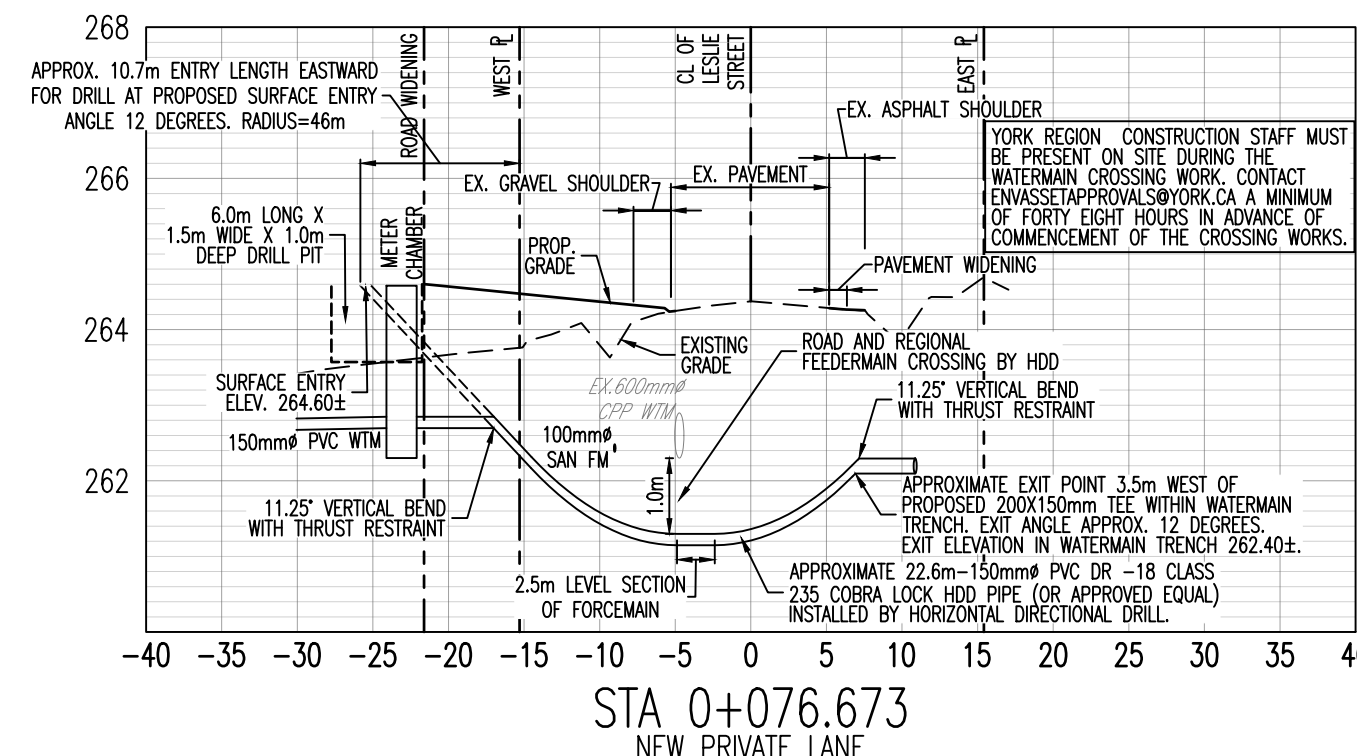
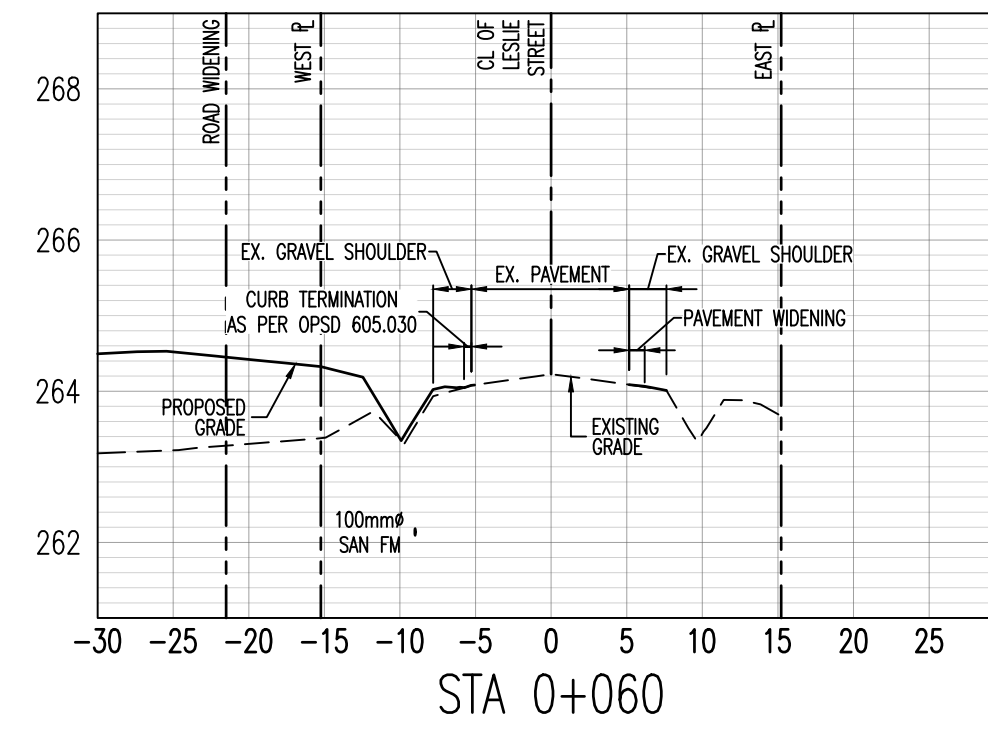
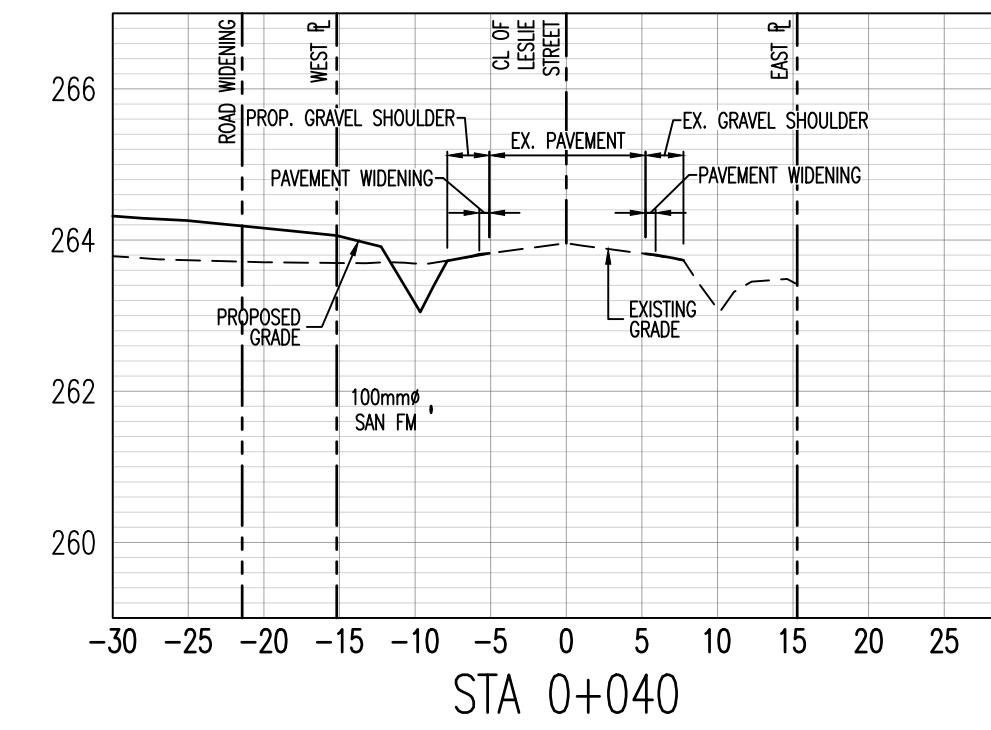
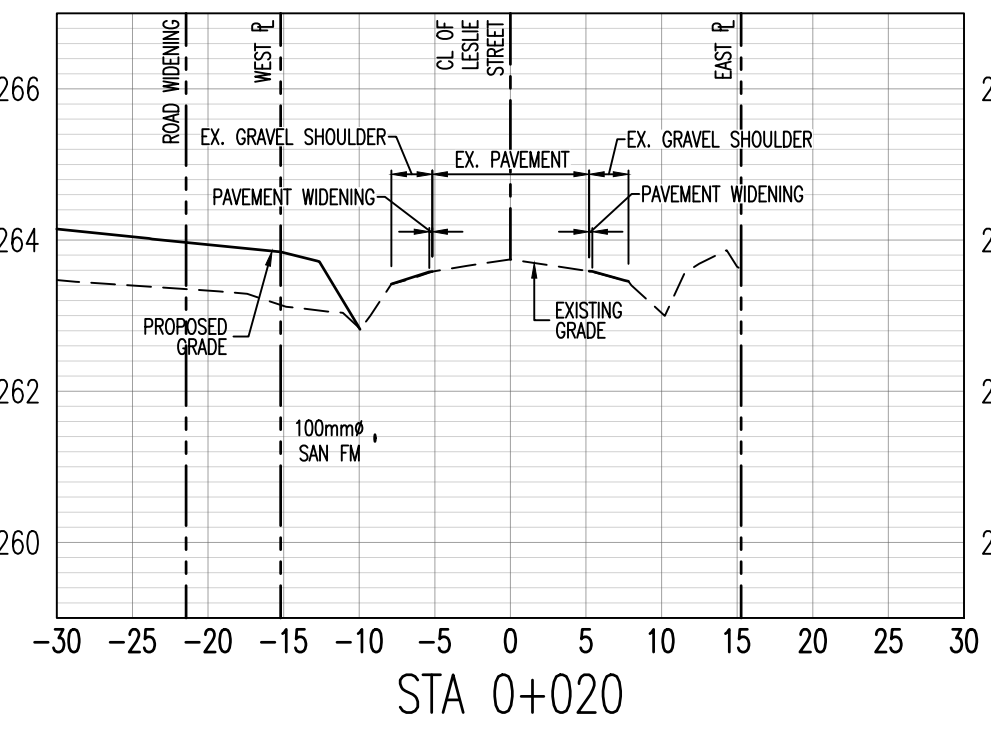
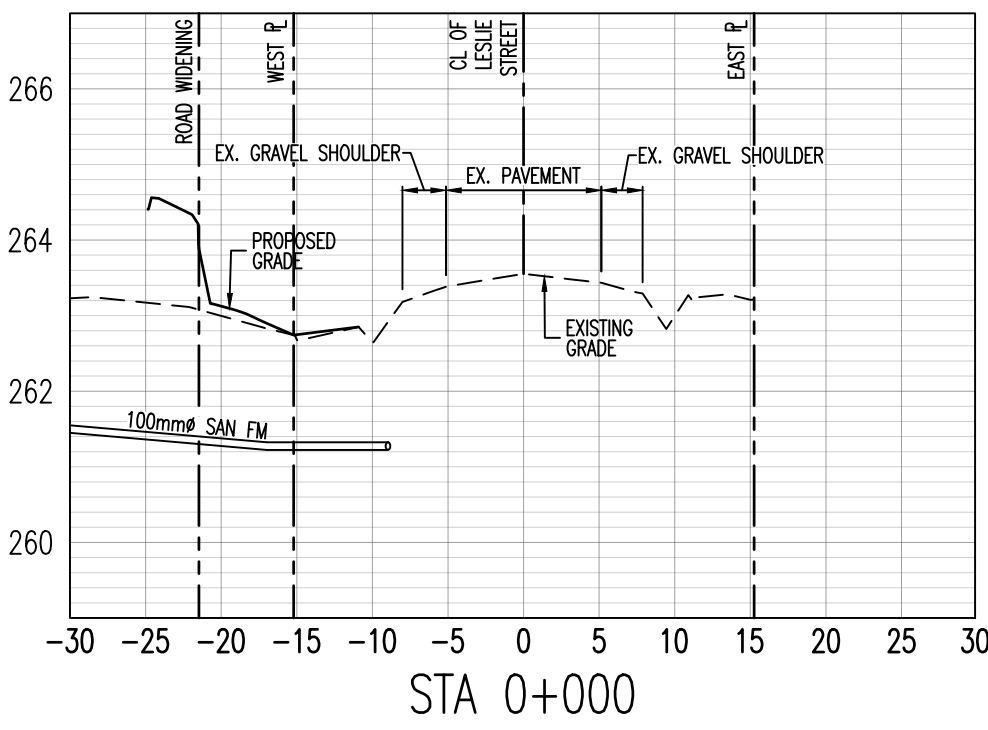
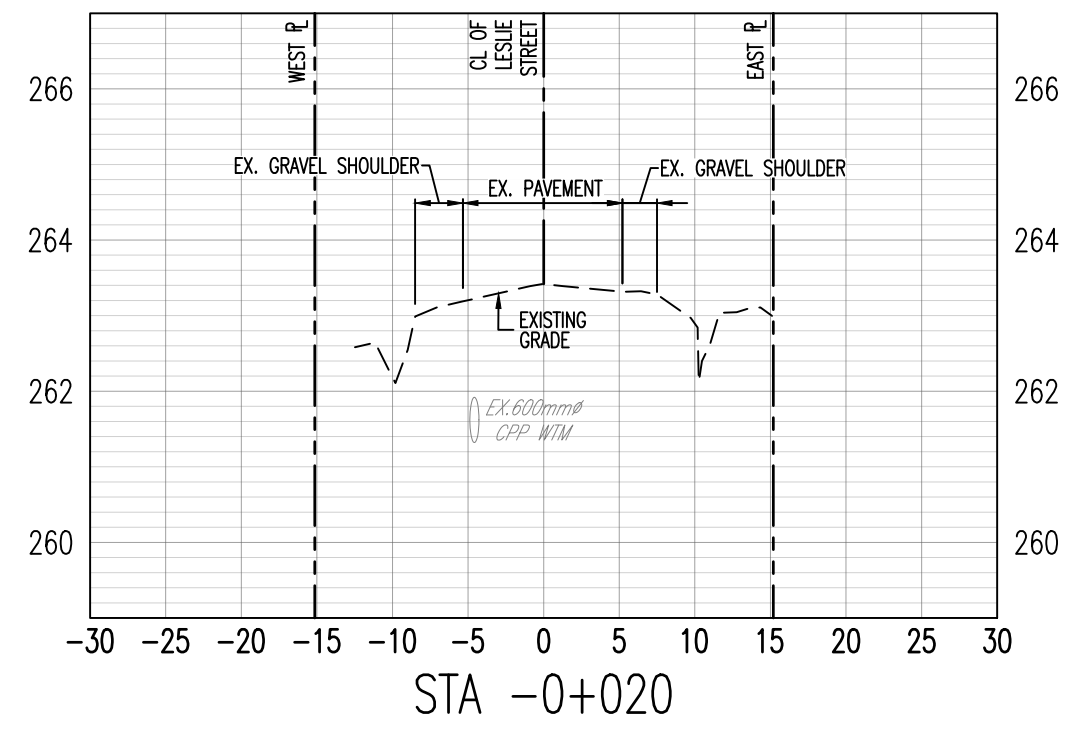
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario

March 2025

Title  
GRADING PLAN

Project No. 160622990  
Scale 1:300  
Dwg No. C-501





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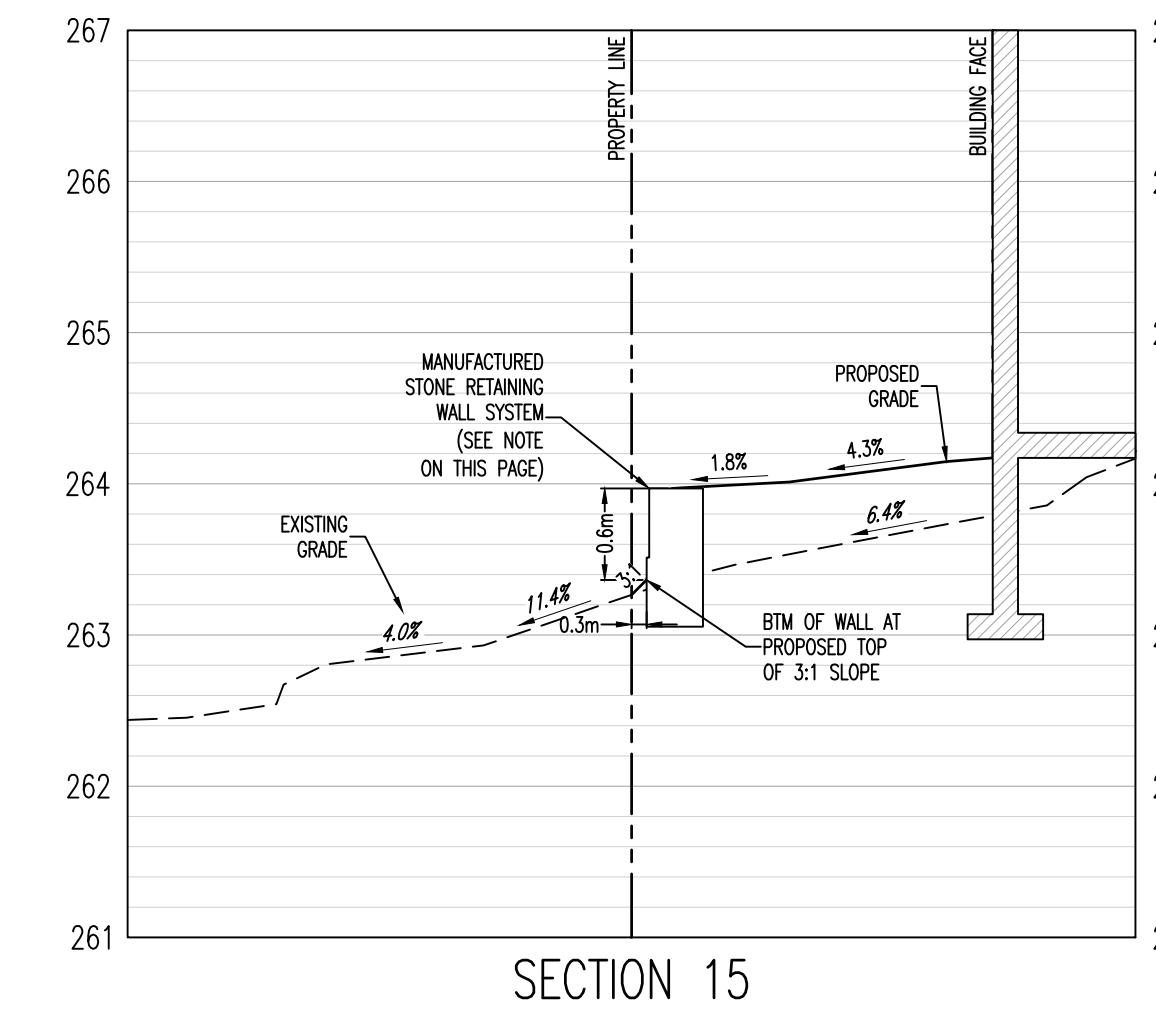
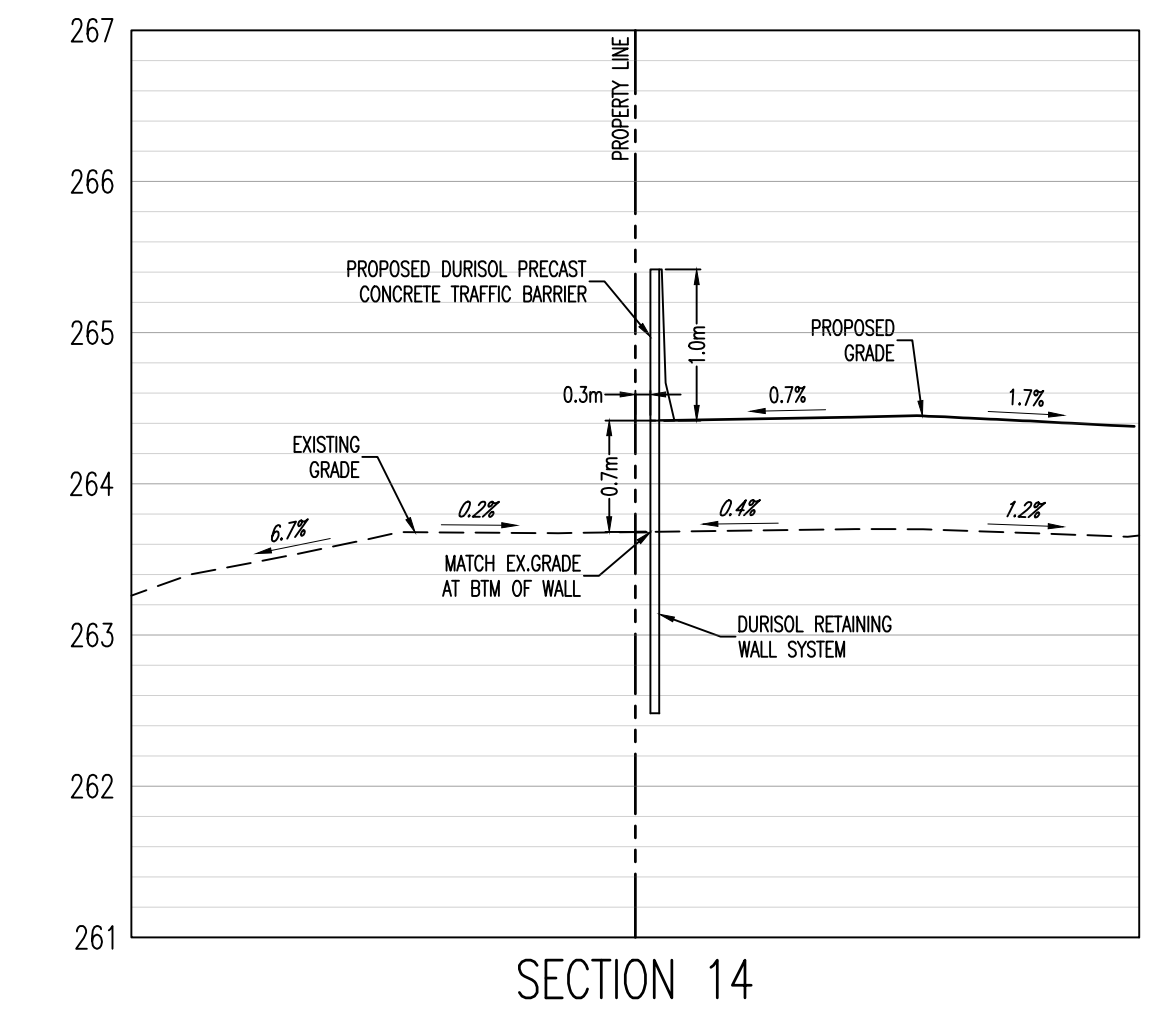
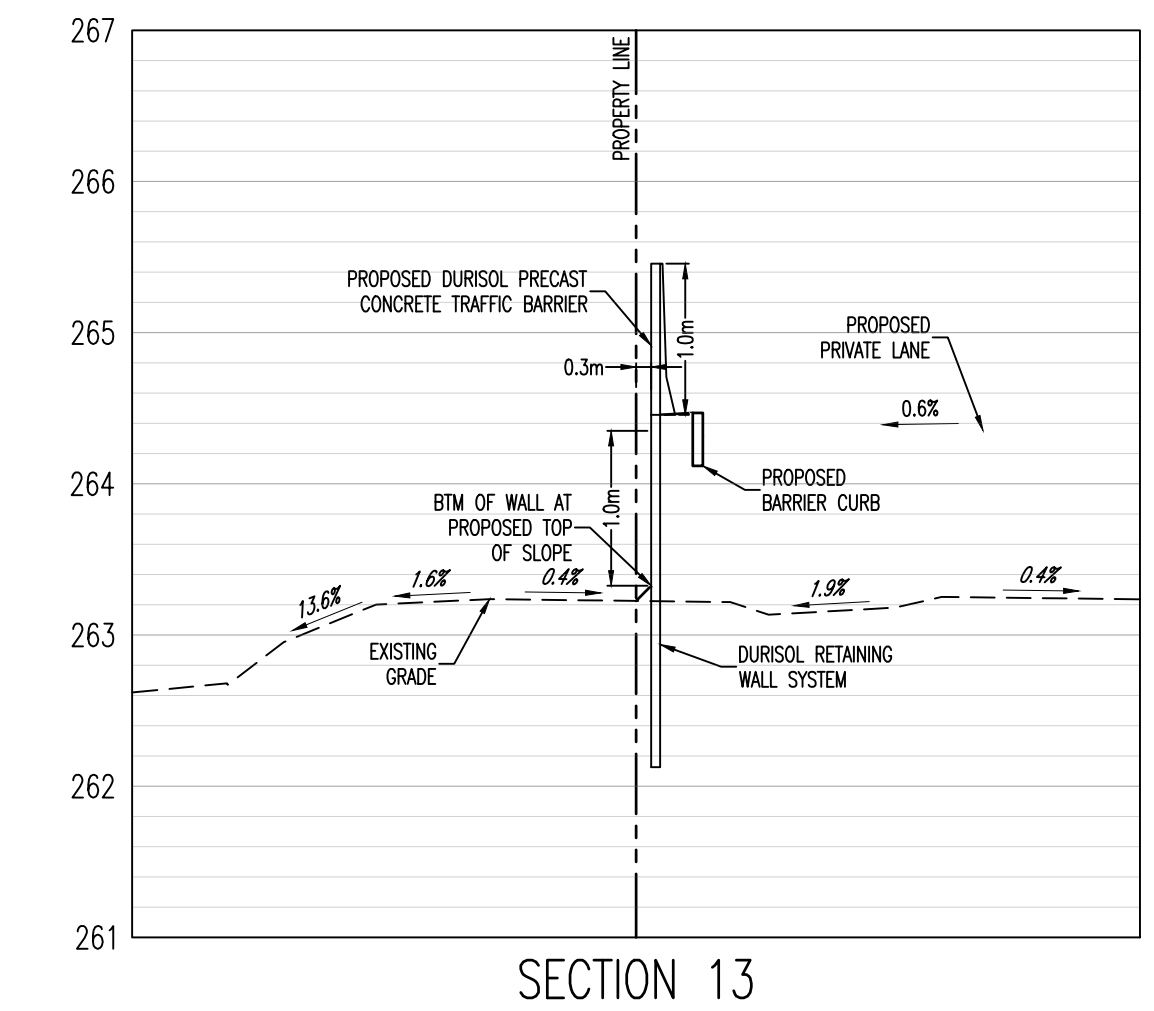
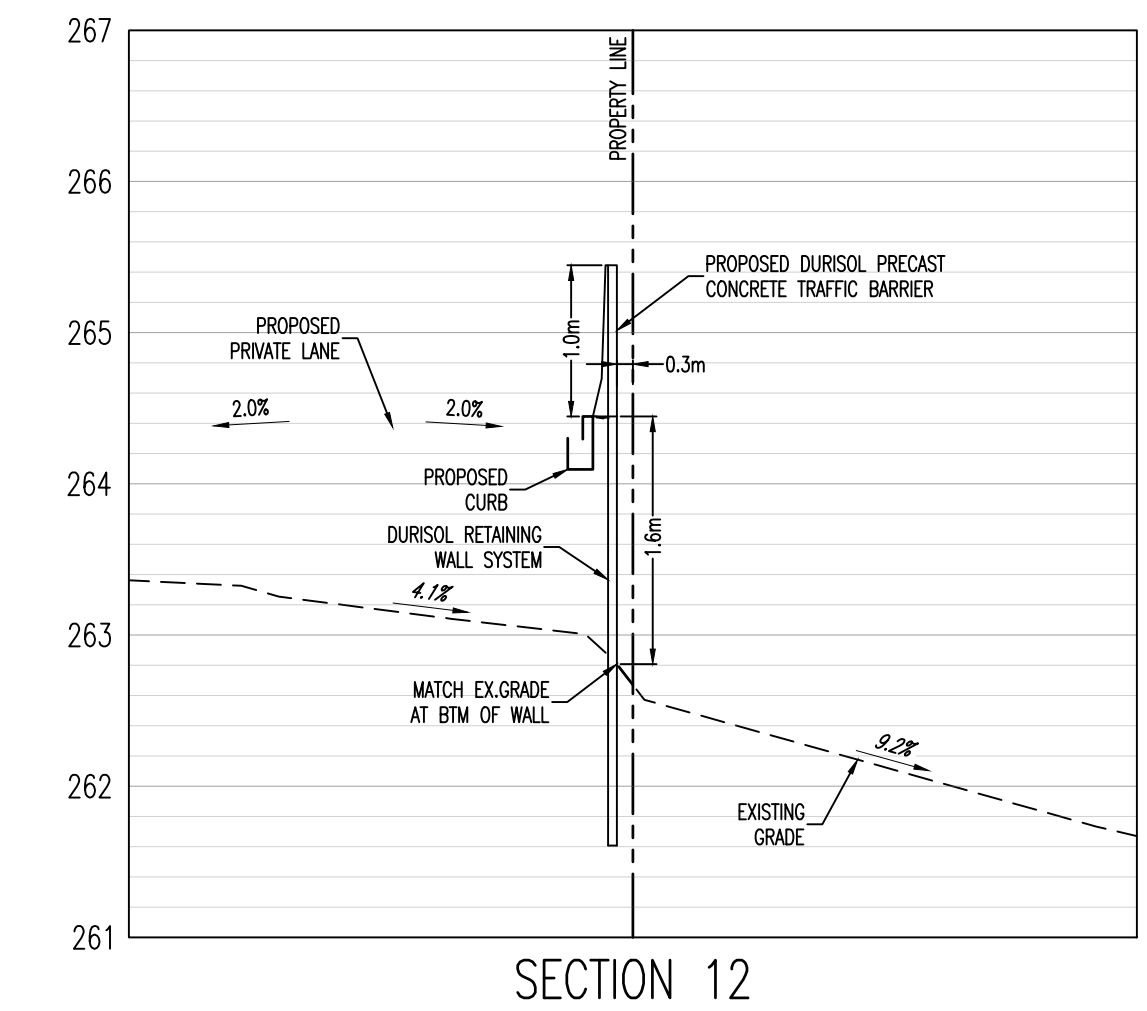
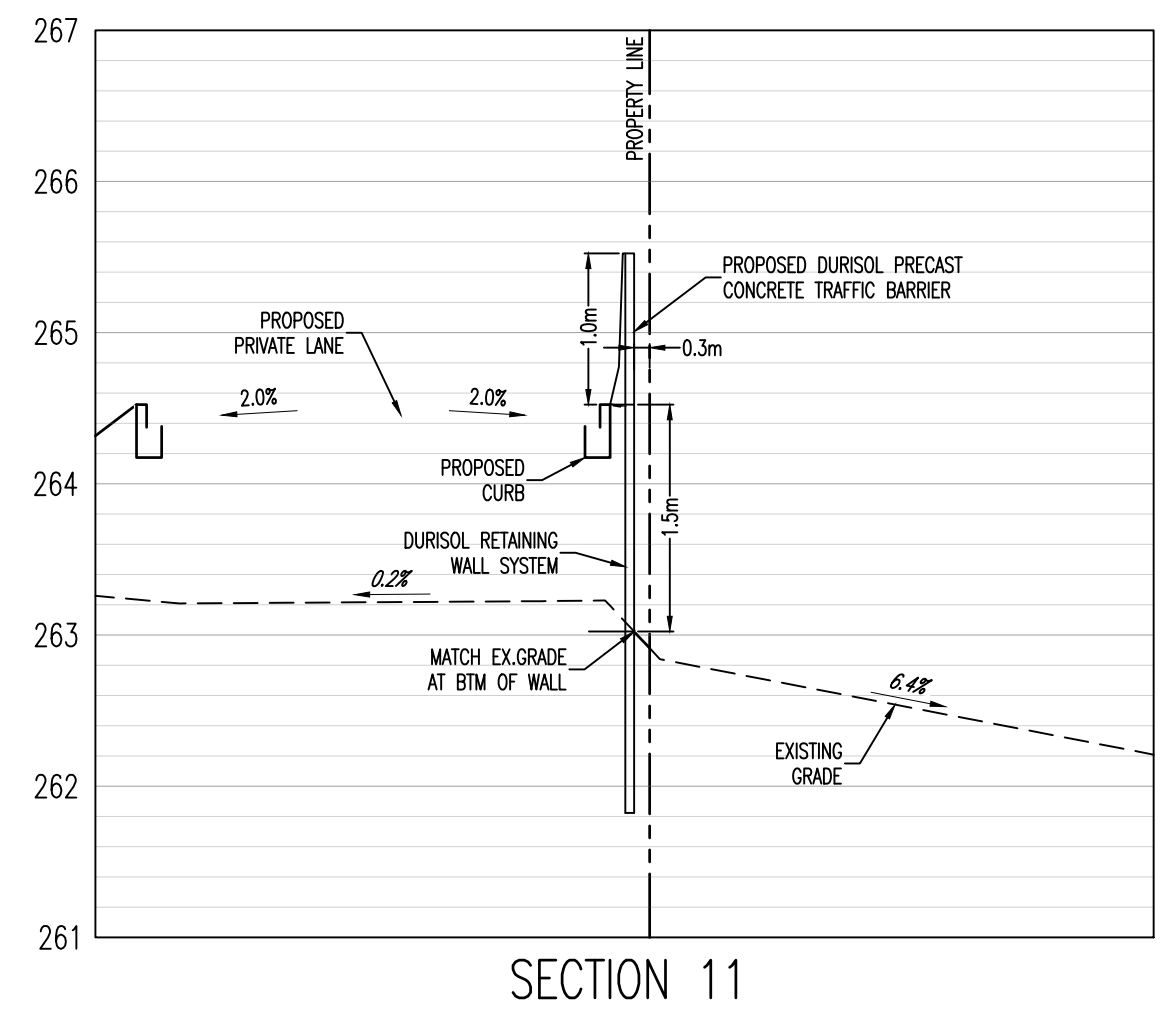
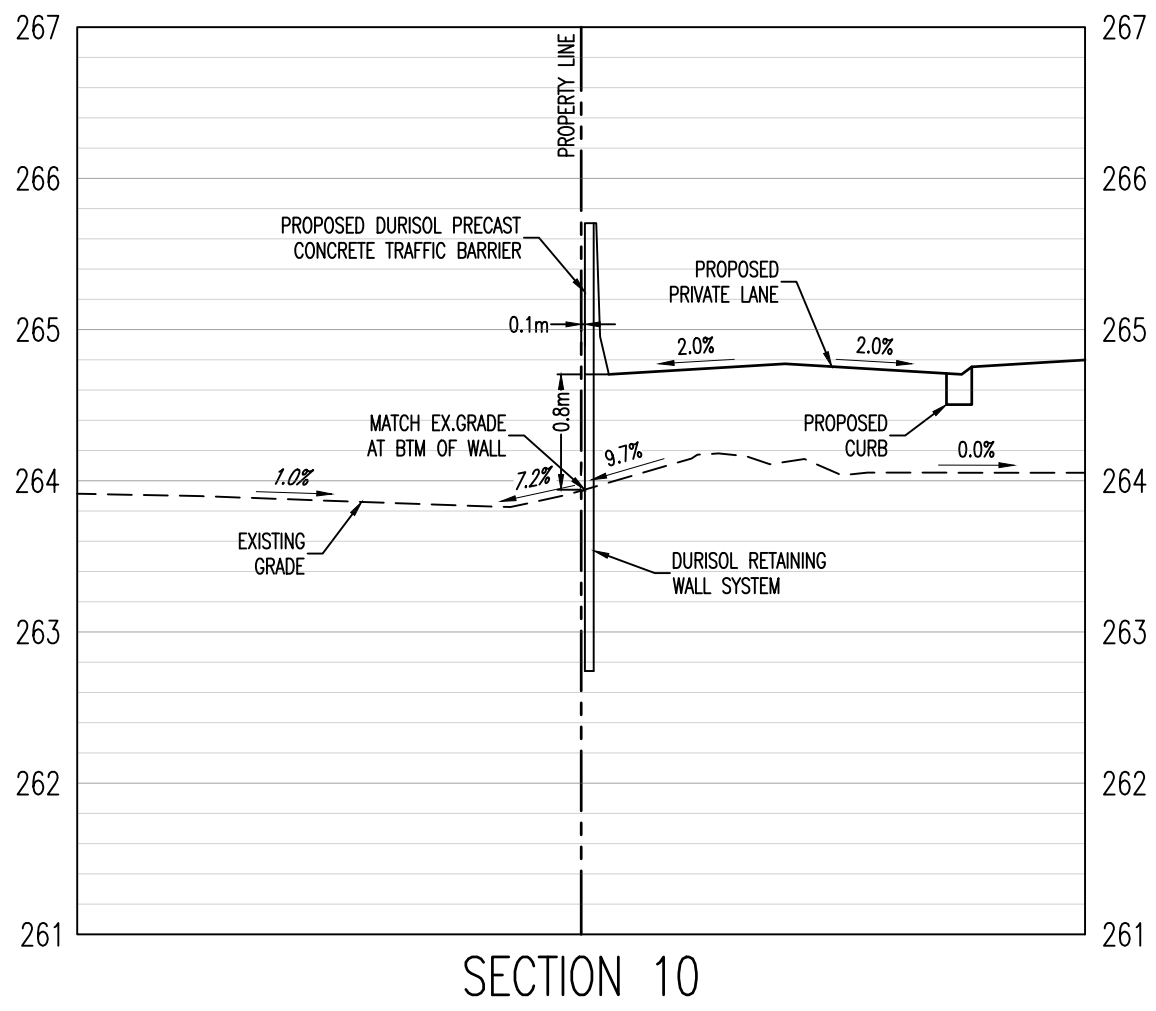
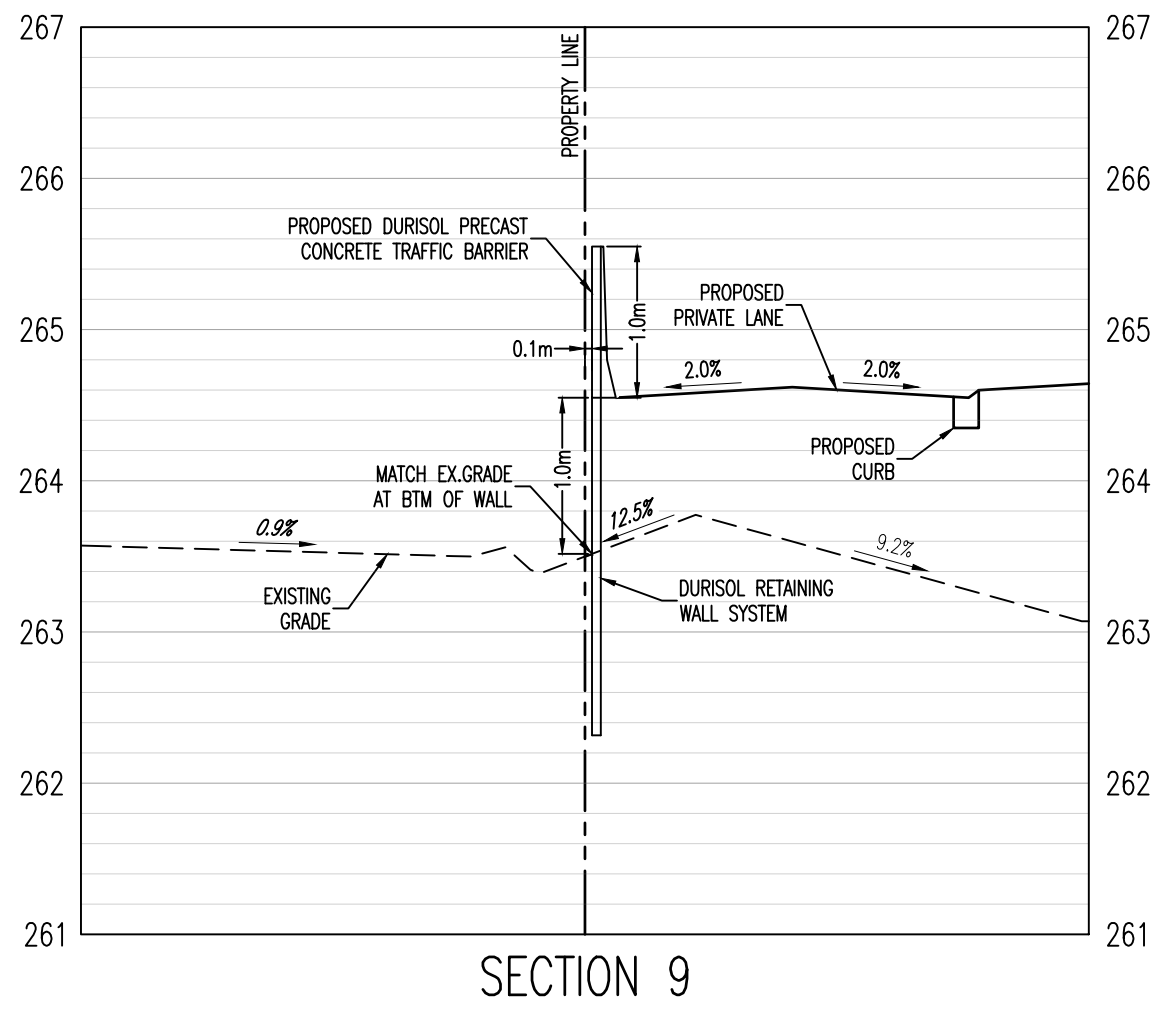
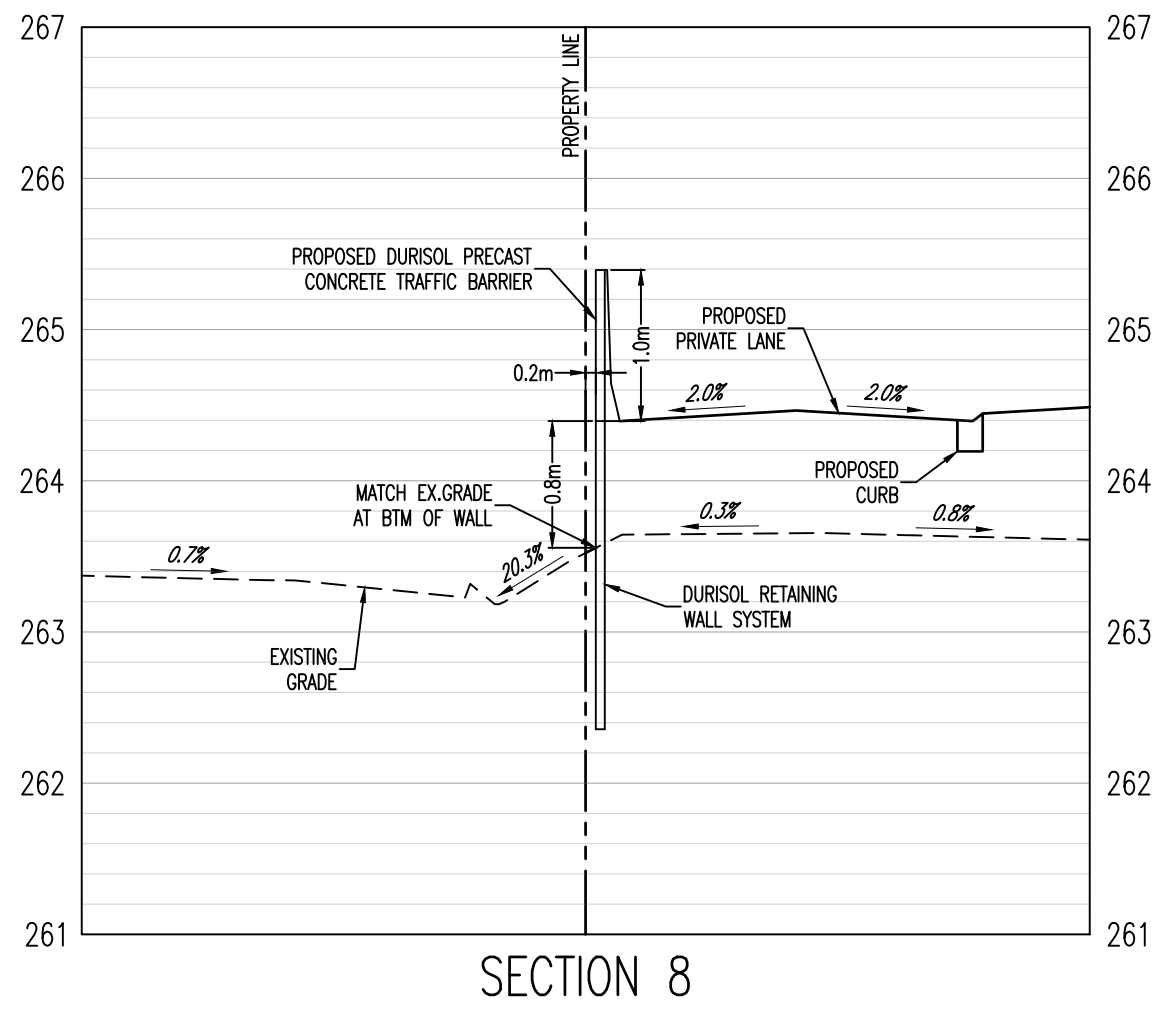
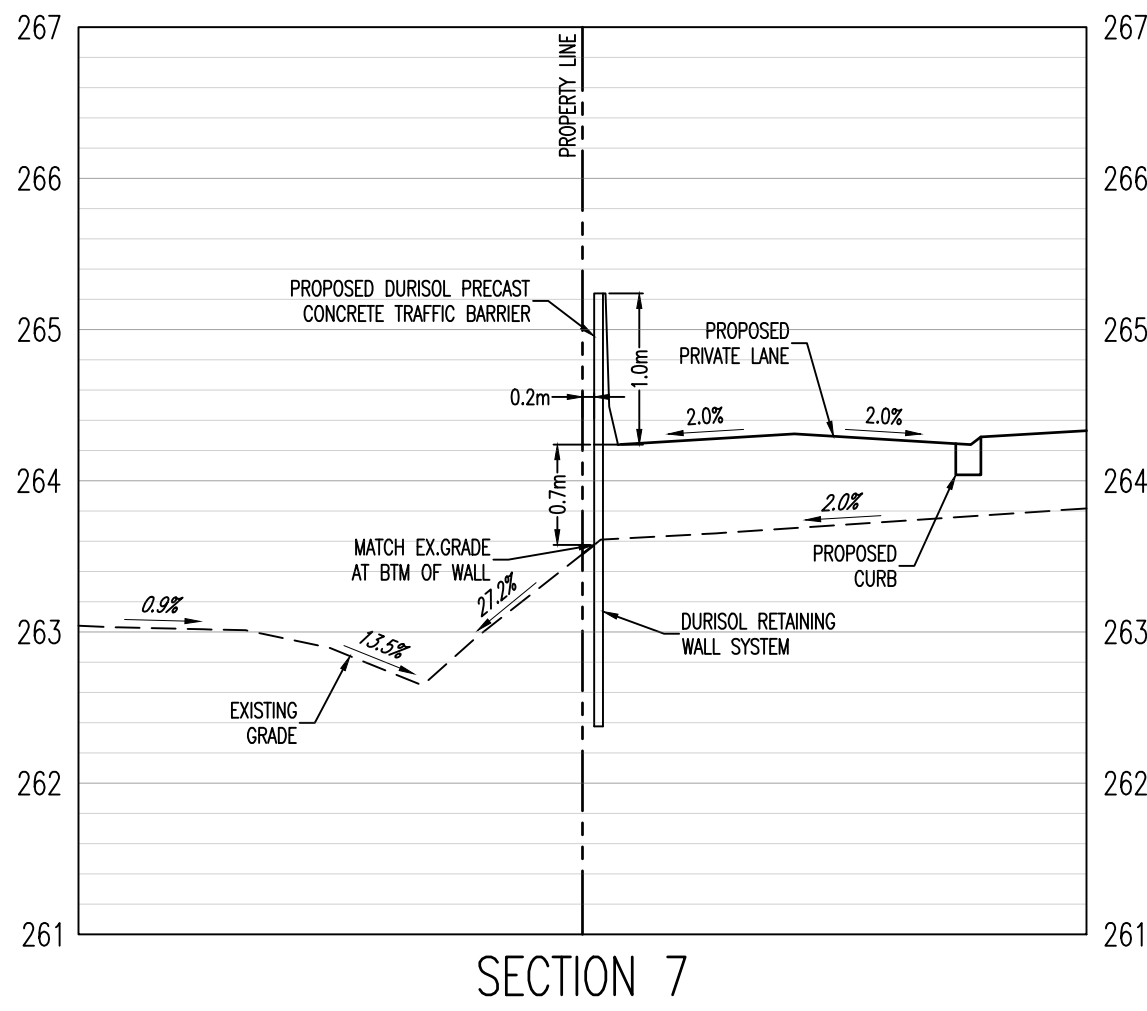
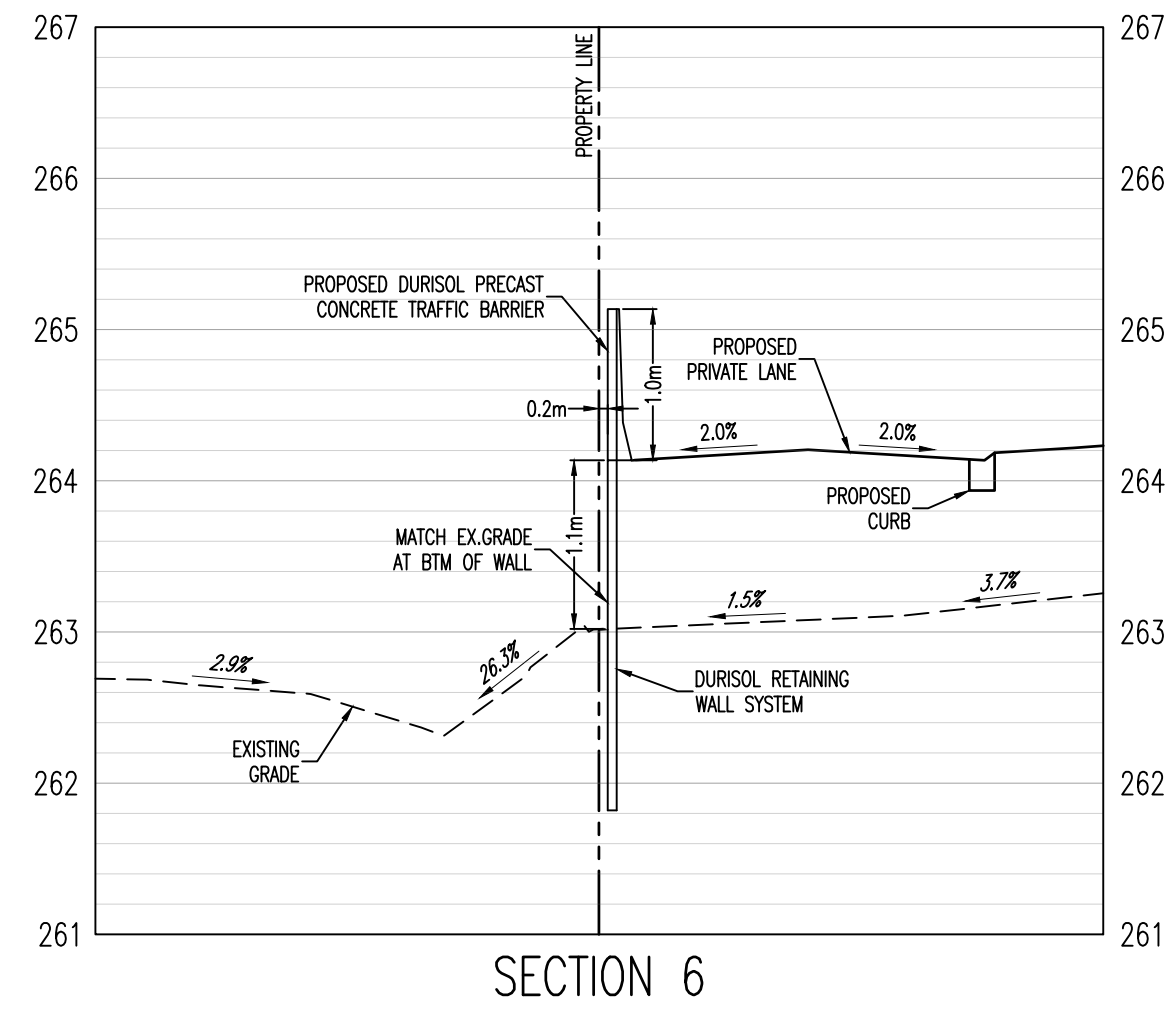
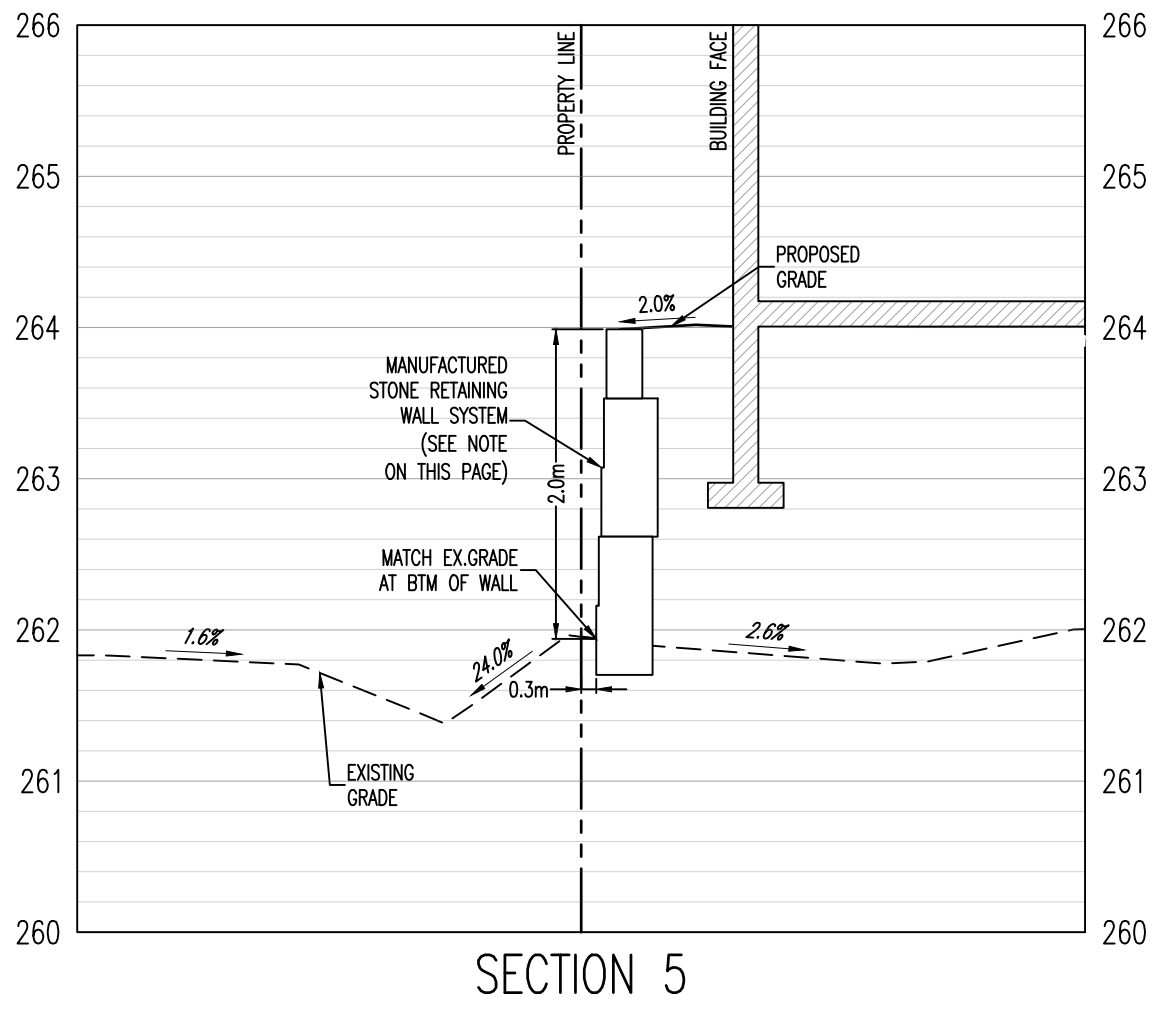
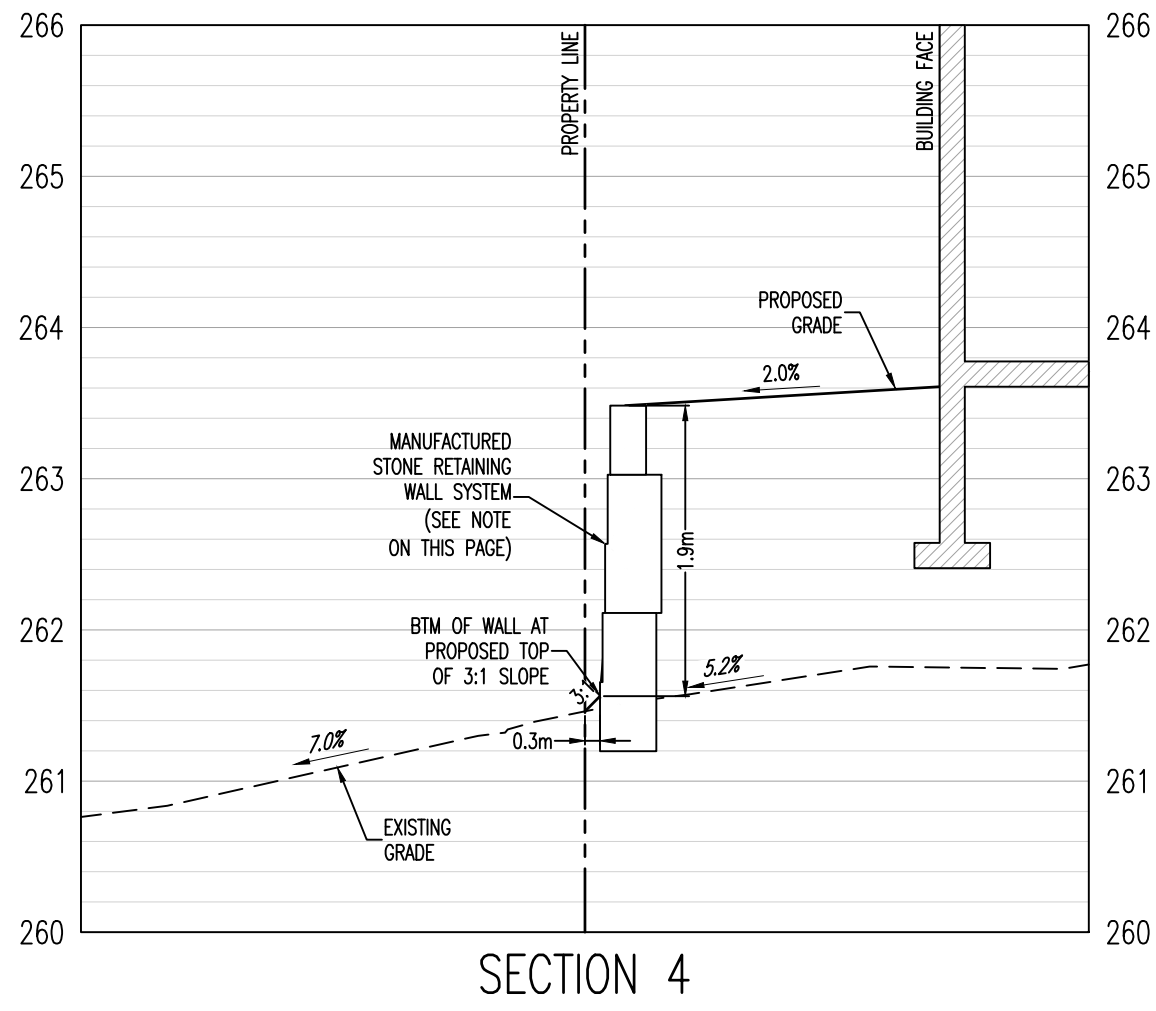
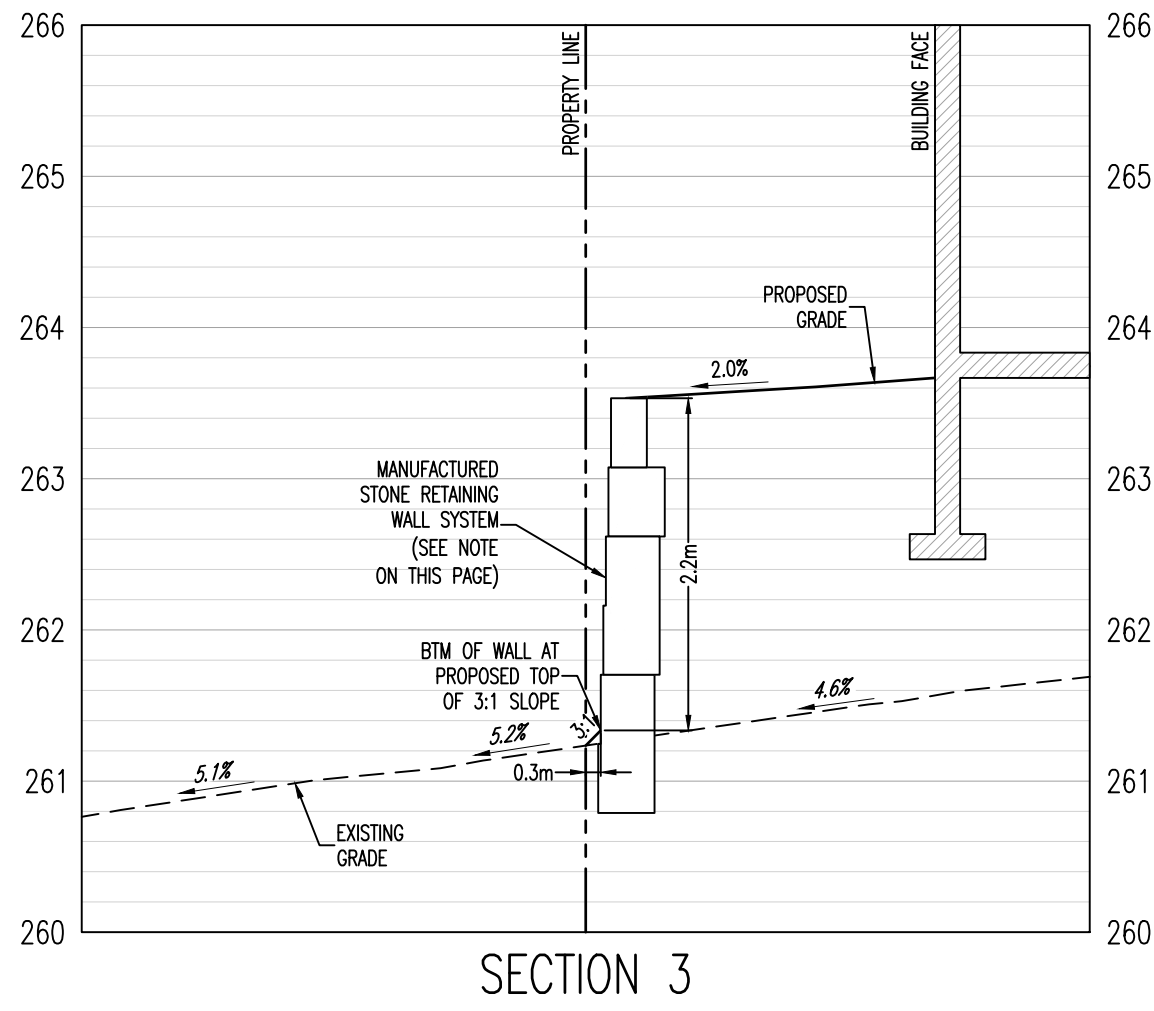
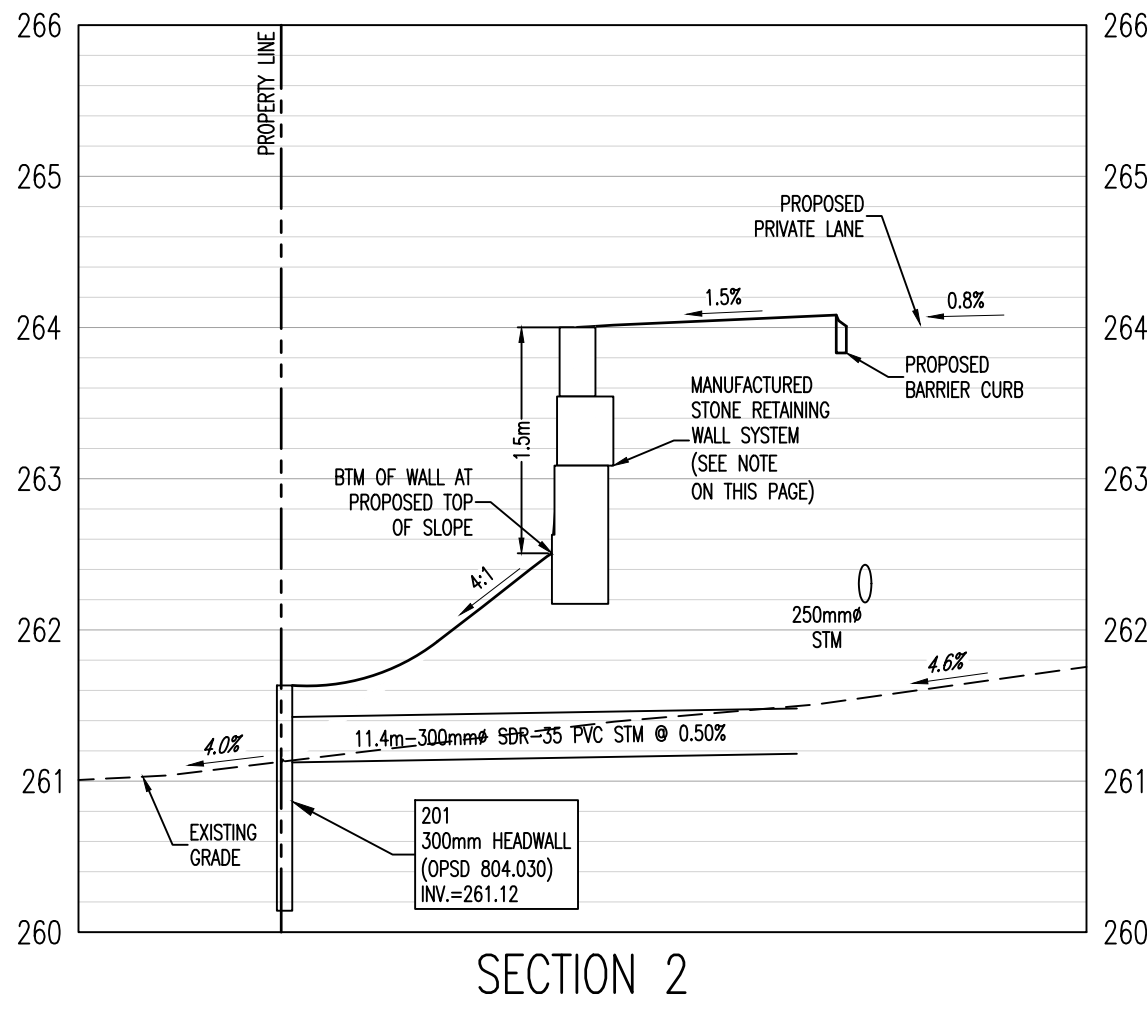
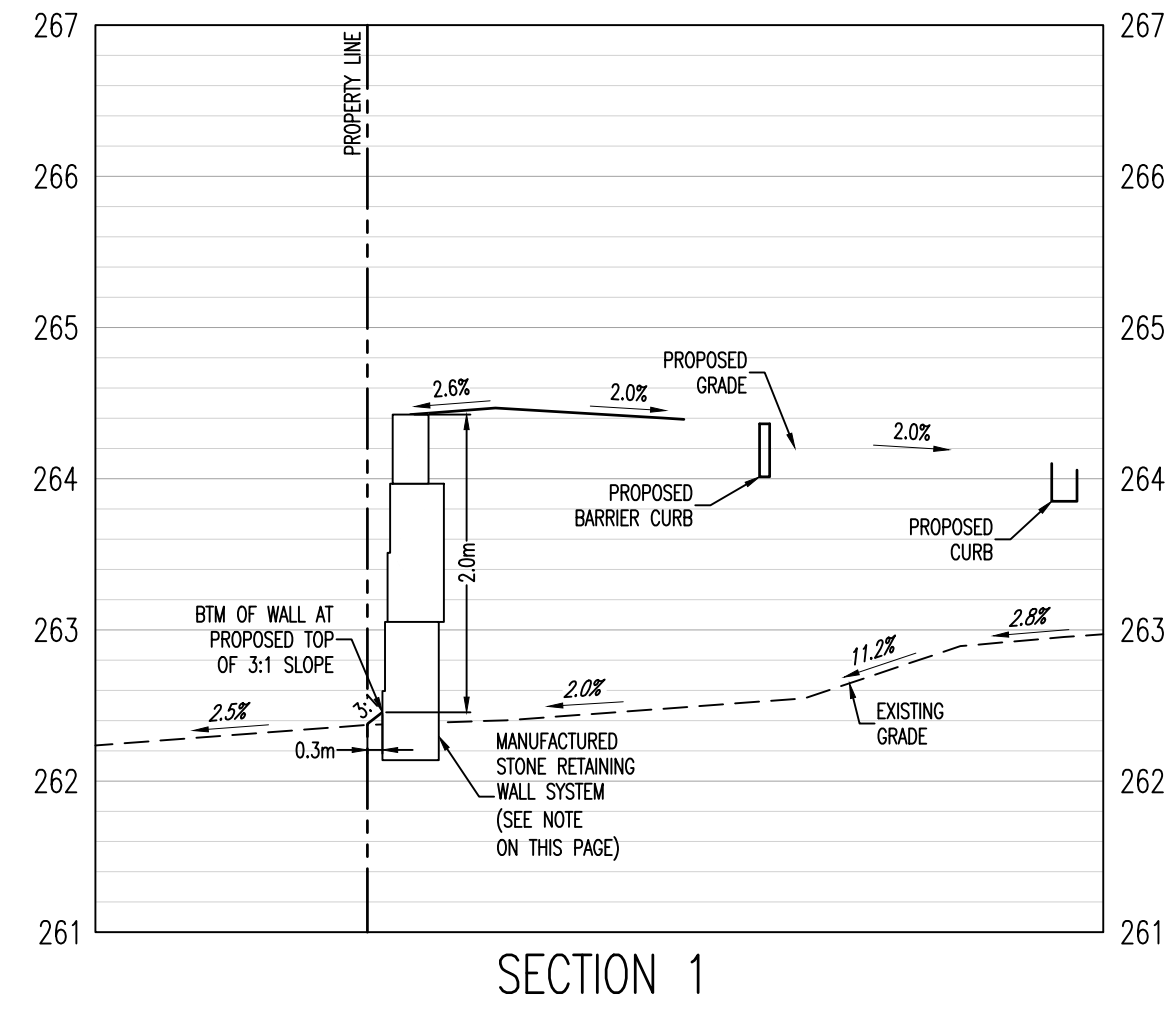
Client/Project  
LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT  
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario

Title  
LESLIE STREET SECTIONS  
STA. -0+020 TO STA. 0+320

Project No. 160622990  
Scale HOR 1:500, VER 1:100  
Dwg No. C-502

March 2025





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Legend

### NOTE

1. MANUFACTURED STONE RETAINING WALL SYSTEM SUCH AS M-CON STONE STRONG SYSTEM OR APPROVED EQUIVALENT. MANUFACTURER TO UNDERTAKE DESIGN AND PROVIDE DESIGN DRAWINGS SEALED BY A QUALIFIED ENGINEER LICENSED TO PRACTICE IN ONTARIO.
2. THE TOP OF ALL RETAINING WALLS TO BE PROVIDED WITH PROTECTION RAILINGS/FENCING IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.



Client/Project  
LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT  
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario

Title  
WALL SECTIONS  
Project No.  
160622990  
Scale  
HOR 1:150, VER 1:50  
Dwg No.  
C-503

March 2025

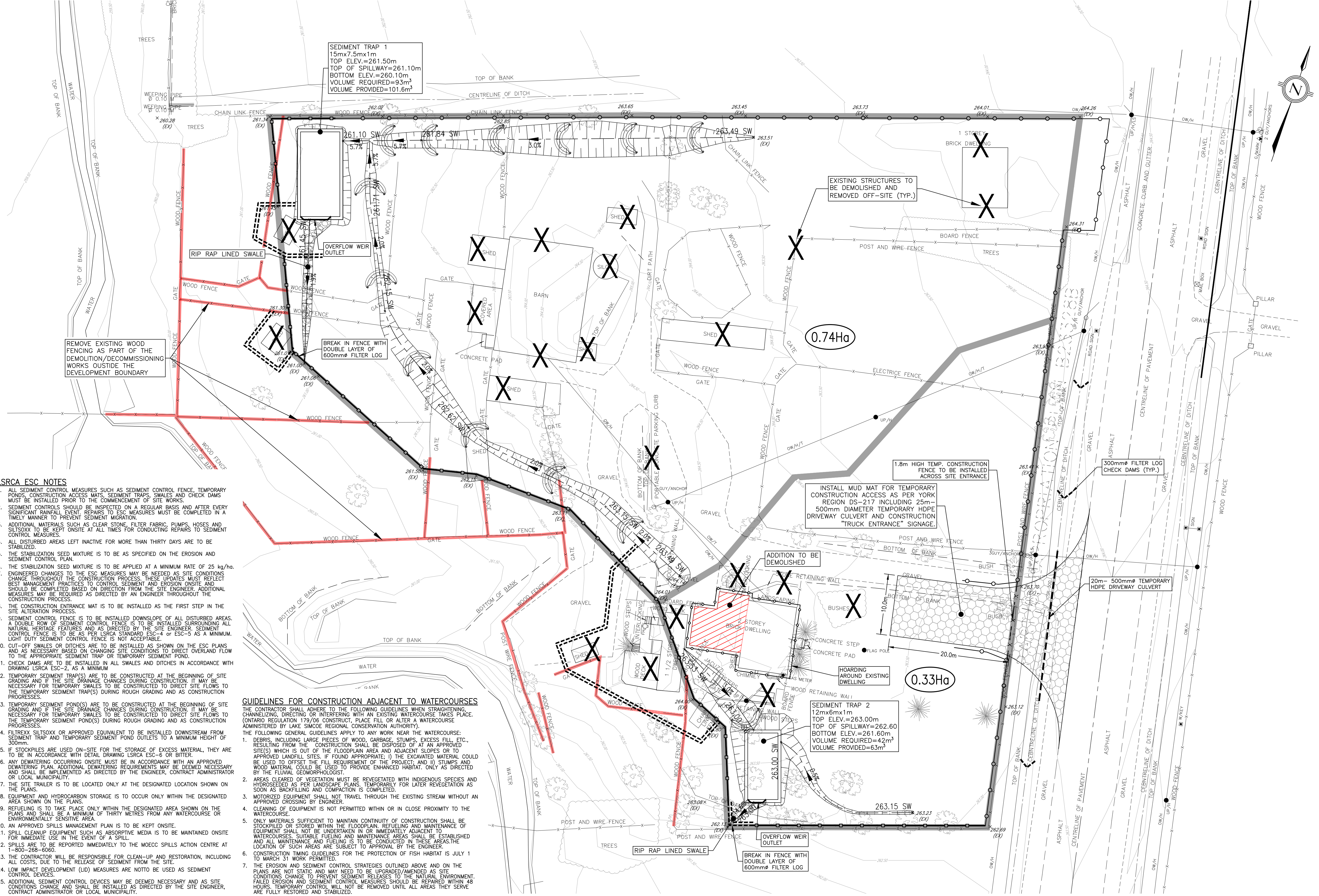
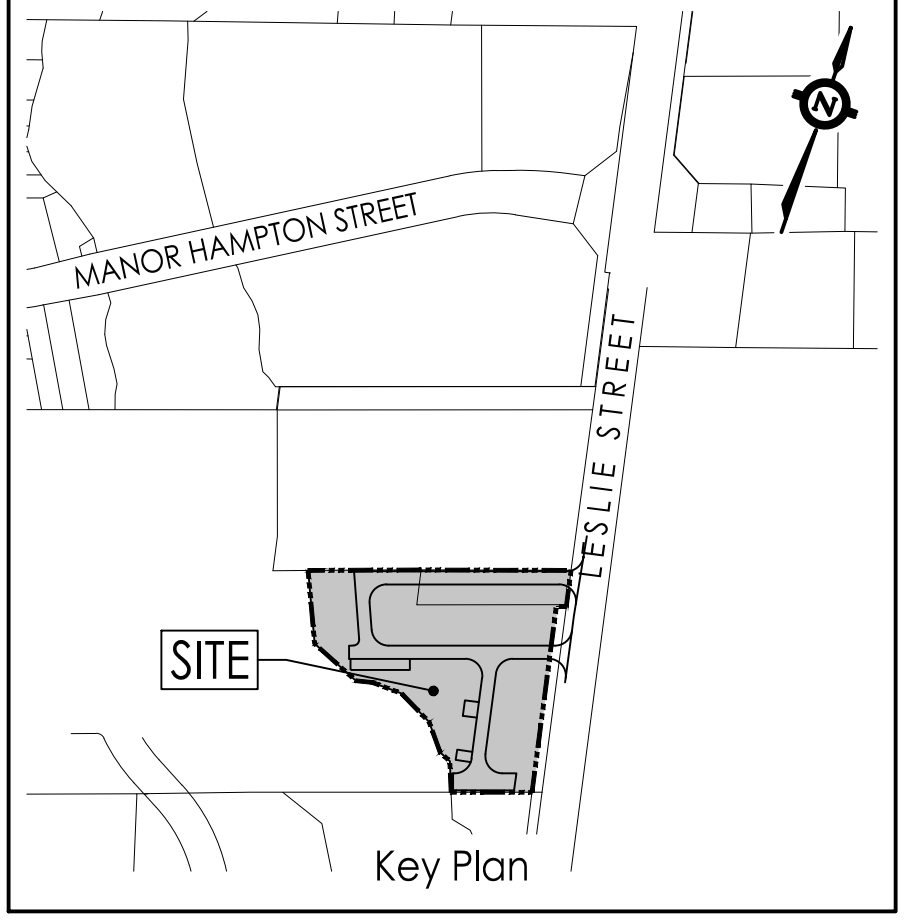


WORK PLAN (SEQUENCE OF WORKS INTERNAL)

- 1) PRELIMINARY ESC
- PRIOR TO ANY WORKS ONSITE, INSTALL:
- MUD MAT
  - EROSION CONTROL LOGS IN THE LESLIE STREET ROADSIDE DITCH
  - SEDIMENT FENCE (ALLOWING FOR ACCESS BEYOND THE DEVELOPMENT BOUNDARY FOR COMPLETION OF DEMOLITION/ DECOMMISSIONING WORKS.
- 2) DEMOLITION/ DECOMMISSIONING
- DEMOLITION/ DECOMMISSIONING WORKS SHOULD COMMENCE IN AREAS OUTSIDE THE DEVELOPMENT BOUNDARY WITH CARE TAKEN TO MITIGATE DISTURBANCE TO THE GROUND SURFACE TO THE EXTENT POSSIBLE.
  - UPON COMPLETION OF ALL DEMOLITION/ DECOMMISSIONING WORKS OUTSIDE THE DEVELOPMENT BOUNDARY, ALL DISTURBED GROUND IS TO BE TOPSOILED AND SEEDED IMMEDIATELY.
  - UPON COMPLETION OF TOPSOILING AND SEEDING OUTSIDE THE DEVELOPMENT BOUNDARY, SILTATION FENCING IS TO BE COMPLETED ACROSS THE ENTIRE LIMIT OF DEVELOPMENT IN ACCORDANCE WITH THE ESC PLANS.
  - ONCE ALL SEDIMENT FENCE IS INSTALLED, THE REMAINDER OF THE DEMOLITION AND DECOMMISSIONING WORKS WITHIN THE DEVELOPMENT BOUNDARY ARE TO BE COMPLETED.
- 3) TOPSOIL STRIPPING
- PRIOR TO TOPSOIL STRIPPING, INSTALL THE SEDIMENT TRAPS AT THE NW AND SW CORNERS OF THE SITE AS INDICATED.
  - STRIP AND EXPORT TOPSOIL OFF SITE TO AN APPROVED RECEIVING SITE AFTER SEDIMENT TRAPS ARE INSTALLED, AND CUT SWALES DIRECTING SHEET DRAINAGE TO TRAPS ONCE LANDS ARE STRIPPED.
  - SOME NATIVE TOPSOIL IS TO BE RETAINED ONSITE FOR SLOPE STABILIZATION WORKS.
- 4) EARTH IMPORT AND CUT/FILL GRADING
- THE SITE IS TO BE PLACED ON PRE-GRADE WITH GRADING COMMENCING AT THE EAST LIMIT OF THE SITE AND PROGRESSING WESTWARD. SWALES ARE TO BE RE-GRADED AS NECESSARY TO DIRECT FLOWS TO THE TRAPS AS GRADES ARE ADJUSTED.
  - AS ENGINEERED FILL APPROACHES THE NW CORNER OF THE SITE, THE SEDIMENT TRAP IN THAT LOCATION IS TO BE DECOMMISSIONED AND A NEW SWALE IS TO BE INSTALLED DIRECTING FLOWS TO THE TRAP AT THE SW CORNER.
  - ONCE GRADING WORKS ARE COMPLETE, SLOPES ARE TO BE STABILIZED WITH TOPSOIL AND SEED AT THE WESTERN END OF THE SITE (NOTE RETAINING WALLS WILL BE CONSTRUCTED IN COMBINATION WITH THE BUILDING PROGRAM).
- 5) SERVICING AND ROADWORKS
- DURING SERVICING, SWALES ARE TO BE MANAGED DYNAMICALLY SUCH THAT FLOWS ARE DIRECTED TO THE SW SEDIMENT TRAP.
  - AFTER THE ROADS ARE CUT TO SUB-GRADE, LOT DRAINS ARE TO BE INSTALLED AS INDICATED AND THE SW SEDIMENT TRAP IS TO BE DECOMMISSIONED.
  - AFTER ROADS CONSTRUCTION, SILT SACKS ARE TO BE INSTALLED IN ALL CATCH BASINS.
- 6) BUILDING PROGRAM / COMPLETION
- ONCE STRUCTURES ARE COMPLETED, LANDSCAPING, TOPSOILING AND SEEDING IS TO PROCEED AS PROMPTLY AS IS REASONABLY FEASIBLE.
  - ONCE THE BUILDING PROGRAM IS COMPLETE AND ALL LANDS STABILIZED, AN INSPECTION SHALL BE COMPLETED WITH THE ENGINEER AND APPLICABLE AGENCY STAFF. UPON ACCEPTANCE, PERIMETER SEDIMENT FENCE AND ALL REMAINING ESC MEASURES CAN BE REMOVED.

- WORK PLAN (EXTERNAL SERVICING)
- THE WATERMAIN CROSSING OF LESLIE STREET IS CONTEMPLATED TO BE COMPLETED BY TRENCHLESS METHOD. ADDITIONALLY, BOTH THE PROPOSED 1200MM DIAMETER FORCEMAIN INSTALLATION AND THE 1200MM DIAMETER WATERMAIN EXTENSION ARE EXPECTED TO TAKE PLACE WITHIN THE LESLIE STREET BOULEVARD. AS SUCH, NO IMPACTS TO THE LESLIE STREET ROAD SURFACE OR LANE CLOSURE REQUIREMENTS ARE ANTICIPATED FRONTING THE SITE TO ACCOMMODATE THE PROPOSED WORKS.
  - FORCEMAIN INSTALLATION FRONTING SHARON PUBLIC SCHOOL MAY BE INSTALLED BY OPEN CUT OF TRENCHLESS METHODOLOGY. IF OPEN CUT IS IMPLEMENTED, COMPLETE SURFACE RESTORATION OF THE ASPHALT APRON ON THE BOULEVARD WILL BE REQUIRED.
  - THE FORCEMAIN IS TO BE CONNECTED TO EX.SAN MH738A AT THE WEST SIDE OF THE MANOR HAMPTON AND LESLIE STREET INTERSECTION. EXCAVATION WITHIN THE ROADWAY AND LANE CLOSURES WILL BE REQUIRED TO ACCOMPLISH THIS WORK. UPON COMPLETION, ROAD RESTORATION IS TO BE COMPLETED TO REGION STANDARDS.
  - ESC MEASURES ARE TO BE IMPLEMENTED FOR OPEN CUT WORKS AS APPLICABLE DURING EXTERNAL SERVICING AS REQUIRED. ALL SURFACE RESTORATION WITHIN THE LESLIE STREET RIGHT OF WAY IS TO BE COMPLETED IN ACCORDANCE WITH REGION STANDARDS.

- GENERAL NOTES:
- ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
  - ALL WORK AND MATERIALS TO CONFORM WITH THE CURRENT PROVINCIAL BUILDING CODE, MINISTRY OF THE ENVIRONMENT OF ONTARIO, REGIONAL MUNICIPALITY OF YORK, TOWN OF AURORA, ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY.
  - THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IN LOCATION (VERTICAL OR HORIZONTAL) IS TO BE REPORTED TO THE SITEWORK ENGINEER OF RECORD 48 HRS PRIOR TO CONSTRUCTION. LOT AND LANE CLOSURES WILL BE REQUIRED TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND ELEVATIONS AS NOTIFIED BY THE SITEWORK ENGINEER OF RECORD OR ANY CONFLICTS 48 HRS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE ROAD ALLOWANCE. AS REQUIRED BY THE MUNICIPALITY OR AUTHORITY. ALL UNDERGROUND SERVICING WORK ON THE RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE AUTHORITY PRIOR TO BACKFILLING.
  - CONTRACTOR WILL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO FACILITATE NEW CONSTRUCTION.



LSRCA ESC NOTES

- ALL SEDIMENT CONTROL MEASURES SUCH AS SEDIMENT CONTROL FENCE, TEMPORARY POND, CONSTRUCTION ACCESS MATS, SEDIMENT TRAPS, SWALES AND CHECK DAMS MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE WORKS.
- SEDIMENT CONTROLS SHOULD BE INSPECTED ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT. REPAIRS TO ESC MEASURES MUST BE COMPLETED IN A TIMELY MANNER TO PREVENT SEDIMENT MIGRATION.
- ADDITIONAL MATERIALS SUCH AS CLEAR STONE, FILTER FABRIC, PUMPS, HOSES AND SILTBOXES TO BE KEPT ONSITE AT ALL TIMES FOR CONDUCTING REPAIRS TO SEDIMENT CONTROL MEASURES.
- ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN THIRTY DAYS ARE TO BE STABILIZED.
- THE STABILIZATION SEED MIXTURE IS TO BE AS SPECIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- THE STABILIZATION SEED MIXTURE IS TO BE APPLIED AT A MINIMUM RATE OF 25 kg/ha.
- ENGINEERED CHANGES TO THE ESC MEASURES MAY BE NEEDED AS SITE CONDITIONS CHANGE THROUGHOUT THE CONSTRUCTION PROCESS. THESE UPDATES MUST REFLECT BEST MANAGEMENT PRACTICES TO CONTROL SEDIMENT AND EROSION ONSITE AND SHOULD BE COMPLETED BASED ON DIRECTION FROM THE SITE ENGINEER. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY AN ENGINEER THROUGHOUT THE CONSTRUCTION PROCESS.
- THE CONSTRUCTION ENTRANCE MAT IS TO BE INSTALLED AS THE FIRST STEP IN THE SITE ALTERATION PROCESS.
- SEDIMENT CONTROL FENCE IS TO BE INSTALLED DOWNSLOPE OF ALL DISTURBED AREAS. A DOUBLE ROW OF SEDIMENT CONTROL FENCE IS TO BE INSTALLED SURROUNDING ALL NATURAL HERITAGE FEATURES AND AS DIRECTED BY THE SITE ENGINEER. SEDIMENT CONTROL FENCE IS TO BE AS PER LSRCA STANDARD ESC-4 OR ESC-5 AS A MINIMUM. LIGHT DUTY SEDIMENT CONTROL FENCE IS NOT ACCEPTABLE.
- CUT-OFF SWALES OR DITCHES ARE TO BE INSTALLED AS SHOWN ON THE ESC PLANS AND AS NECESSARY BASED ON CHANGING SITE CONDITIONS TO DIRECT OVERLAND FLOW TO THE APPROPRIATE SEDIMENT TRAP OR TEMPORARY SEDIMENT POND.
- CHECK DAMS ARE TO BE INSTALLED IN ALL SWALES AND DITCHES IN ACCORDANCE WITH DRAWING LSRCA ESC-2, AS A MINIMUM.
- TEMPORARY SEDIMENT TRAP(S) ARE TO BE CONSTRUCTED AT THE BEGINNING OF SITE GRADING AND IF THE SITE DRAINAGE CHANGES DURING CONSTRUCTION, IT MAY BE NECESSARY FOR TEMPORARY SWALES TO BE CONSTRUCTED TO DIRECT SITE FLOWS TO THE TEMPORARY SEDIMENT TRAP(S) DURING ROUGH GRADING AND AS CONSTRUCTION PROGRESSES.
- FILTREX SILTBOX OR APPROVED EQUIVALENT TO BE INSTALLED DOWNSLOPE FROM SEDIMENT TRAP AND TEMPORARY SEDIMENT POND OUTLETS TO A MINIMUM HEIGHT OF 300mm.
- IF STOCKPILES ARE USED ON-SITE FOR THE STORAGE OF EXCESS MATERIAL, THEY ARE TO BE IN ACCORDANCE WITH DETAIL DRAWING LSRCA ESC-3 OR BETTER.
- ANY DETERIORATING OCCURRING ONSITE MUST BE IN ACCORDANCE WITH AN APPROVED DETERIORATING PLAN. ADDITIONAL DETERIORATING REQUIREMENTS MAY BE DEEMED NECESSARY AND SHALL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.
- THE SITE TRAILER IS TO BE LOCATED ONLY AT THE DESIGNATED LOCATION SHOWN ON THE PLANS.
- EQUIPMENT AND HYDROCARBON STORAGE IS TO OCCUR ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS.
- REFUELLING IS TO TAKE PLACE ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS AND SHALL BE A MINIMUM OF THIRTY METRES FROM ANY WATERCOURSE OR ENVIRONMENTALLY SENSITIVE AREA.
- AN APPROVED SPILLS MANAGEMENT PLAN IS TO BE KEPT ONSITE.
- SPILL CLEANUP EQUIPMENT SUCH AS ABSORPTIVE MEDIA IS TO BE MAINTAINED ONSITE FOR IMMEDIATE USE IN THE EVENT OF A SPILL.
- SPILLS ARE TO BE REPORTED IMMEDIATELY TO THE MOECC SPILLS ACTION CENTRE AT 1-800-268-6060.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEAN-UP AND RESTORATION, INCLUDING ALL COSTS, DUE TO THE RELEASE OF SEDIMENT FROM THE SITE.
- LOW IMPACT DEVELOPMENT (LID) MEASURES ARE NOT TO BE USED AS SEDIMENT CONTROL DEVICES.
- ADDITIONAL SEDIMENT CONTROL DEVICES MAY BE DEEMED NECESSARY AND AS SITE CONDITIONS CHANGE AND SHALL BE INSTALLED AS DIRECTED BY THE SITE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.

GUIDELINES FOR CONSTRUCTION ADJACENT TO WATERCOURSES

- THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING GUIDELINES WHEN STRAIGHTENING, CHANNELIZING, DIRECTING OR INTERFERING WITH AN EXISTING WATERCOURSE TAKES PLACE. (ONTARIO REGULATION 179/06 CONSTRUCT, PLACE FILL OR ALTER A WATERCOURSE ADMINISTERED BY LAKE SIMCOE REGIONAL CONSERVATION AUTHORITY).
- THE FOLLOWING GENERAL GUIDELINES APPLY TO ANY WORK NEAR THE WATERCOURSE:
- DEBRIS, INCLUDING LARGE PIECES OF WOOD, GARBAGE, STUMPS, EXCESS FILL, ETC., RESULTING FROM THE CONSTRUCTION SHALL BE DISPOSED OF AT AN APPROVED SITE(S) WHICH IS OUT OF THE FLOODPLAIN AREA AND ADJACENT SLOPES OR TO APPROVED LANDFILL SITES. IF FOUND APPROPRIATE, I) THE EXCAVATED MATERIAL COULD BE USED TO OFFSET THE FILL REQUIREMENT OF THE PROJECT; AND II) STUMPS AND WOOD MATERIAL COULD BE USED TO PROVIDE ENHANCED HABITAT, ONLY AS DIRECTED BY THE FLUVIAL GEOMORPHOLOGIST.
  - AREAS CLEARED OF VEGETATION MUST BE REVEGETATED WITH INDIGENOUS SPECIES AND HYDROSEEDS AS PER LANDSCAPE PLANS, TEMPORARILY FOR LATER REVEGETATION AS SOON AS BACKFILLING AND COMPACTION IS COMPLETED.
  - MOTORIZED EQUIPMENT SHALL NOT TRAVEL THROUGH THE EXISTING STREAM WITHOUT AN APPROVED CROSSING BY ENGINEER.
  - CLEANING OF EQUIPMENT IS NOT PERMITTED WITHIN OR IN CLOSE PROXIMITY TO THE WATERCOURSE.
  - ONLY MATERIALS SUFFICIENT TO MAINTAIN CONTINUITY OF CONSTRUCTION SHALL BE STOCKPILED OR STORED WITHIN THE FLOODPLAIN. REFUELING AND MAINTENANCE OF EQUIPMENT SHALL NOT BE UNDERTAKEN IN OR IMMEDIATELY ADJACENT TO WATERCOURSES. SUITABLE FUELING AND MAINTENANCE AREAS SHALL BE ESTABLISHED AND ALL MAINTENANCE AND FUELING IS TO BE CONDUCTED IN THESE AREAS. THE LOCATION OF SUCH AREAS ARE SUBJECT TO APPROVAL BY THE ENGINEER.
  - CONSTRUCTION TIMING GUIDELINES FOR THE PROTECTION OF FISH HABITAT IS JULY 1 TO MARCH 31 WORK PERMITTED.
  - THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ABOVE AND ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASES TO THE NATURAL ENVIRONMENT. FAILED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED WITHIN 48 HOURS. TEMPORARY CONTROL WILL NOT BE REMOVED UNTIL ALL AREAS THEY SERVE ARE FULLY RESTORED AND STABILIZED.

**Stantec**

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**Legend**

- DOUBLE SILT FENCE AND STRAW BALES
- SILTATION CONTROL FENCE
- TEMP. DOUBLE HEAVY DUTY SILT FENCE (NO STRAW BALE) FOR DEMOLITION/DECOMMISSIONING WORKS OUTSIDE OF DEVELOPMENT BOUNDARY
- TEMPORARY INTERCEPTOR SWALE
- REMOVE EX-WOOD FENCING AS PART OF THE DEMOLITION/DECOMMISSIONING WORKS OUTSIDE OF THE DEVELOPMENT BOUNDARY
- 300mm FIBER ROLL CHECK DAM AS PER OPSD 219.191
- TEMPORARY MUD MAT / CONSTRUCTION ACCESS
- PROPERTY BOUNDARY

- OVERLAND FLOW DIRECTION
- MATCH TO EXISTING GRADES
- PROPOSED SWALE GRADES
- CONTRIBUTING DRAINAGE BOUNDARY

**L.A. BEATON**  
100170163  
MAR. 07, 2025  
PROVINCE OF ONTARIO

Client/Project  
**LESLIE STREET - SHARON**  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT

THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario

Title  
**EROSION AND SEDIMENT  
CONTROL PLAN STAGE 1**

Project No. 160622990  
Scale 1:300  
Dwg No. C-701

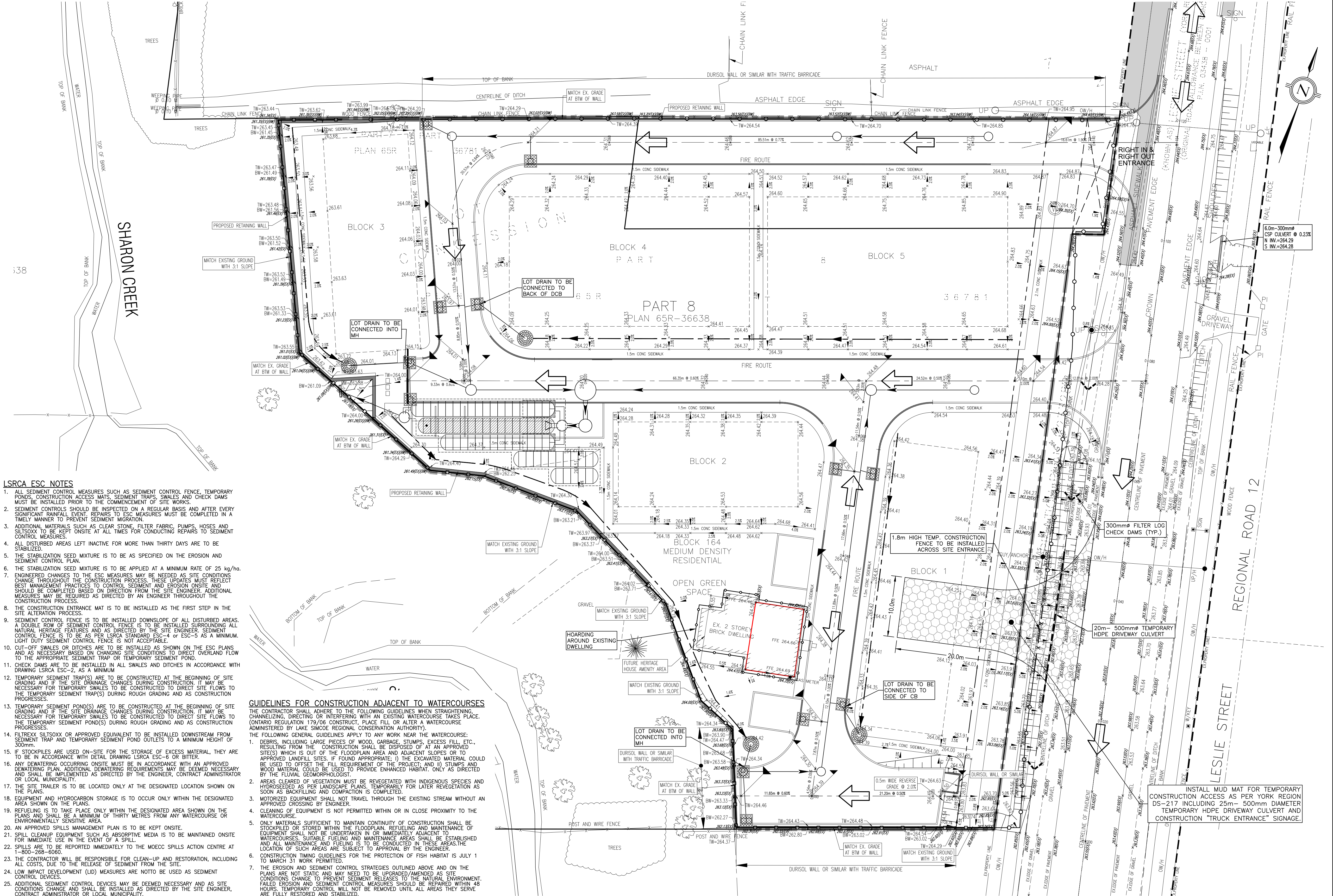
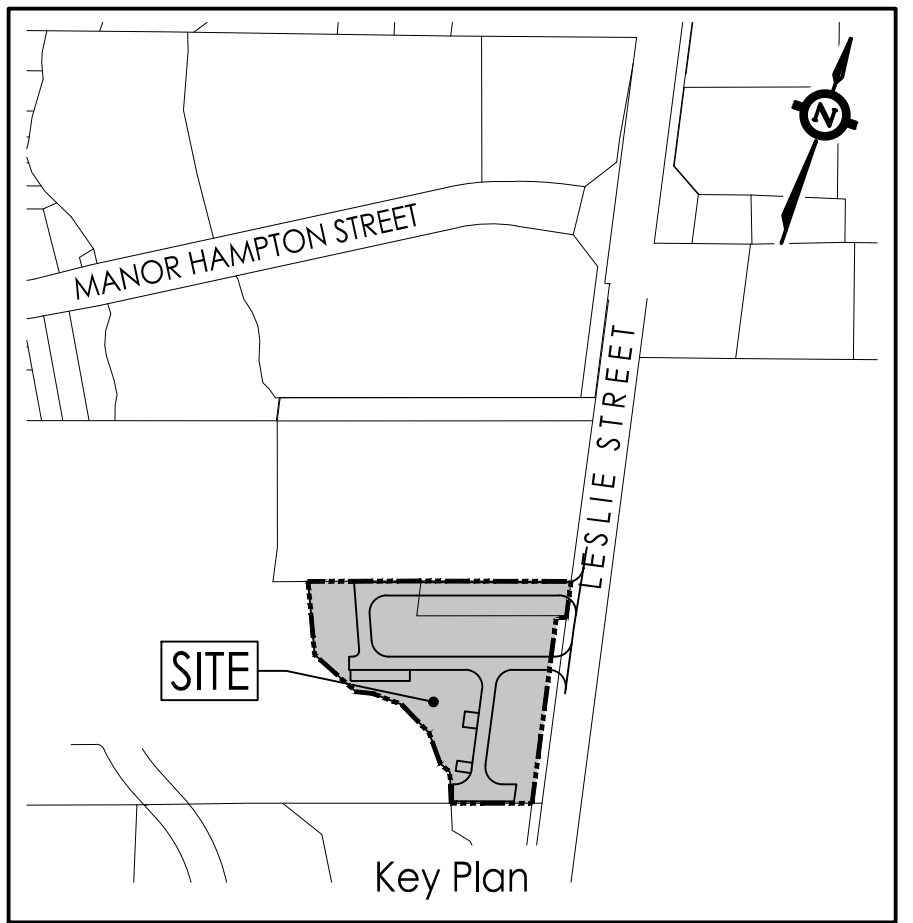


WORK PLAN (SEQUENCE OF WORKS INTERNAL)

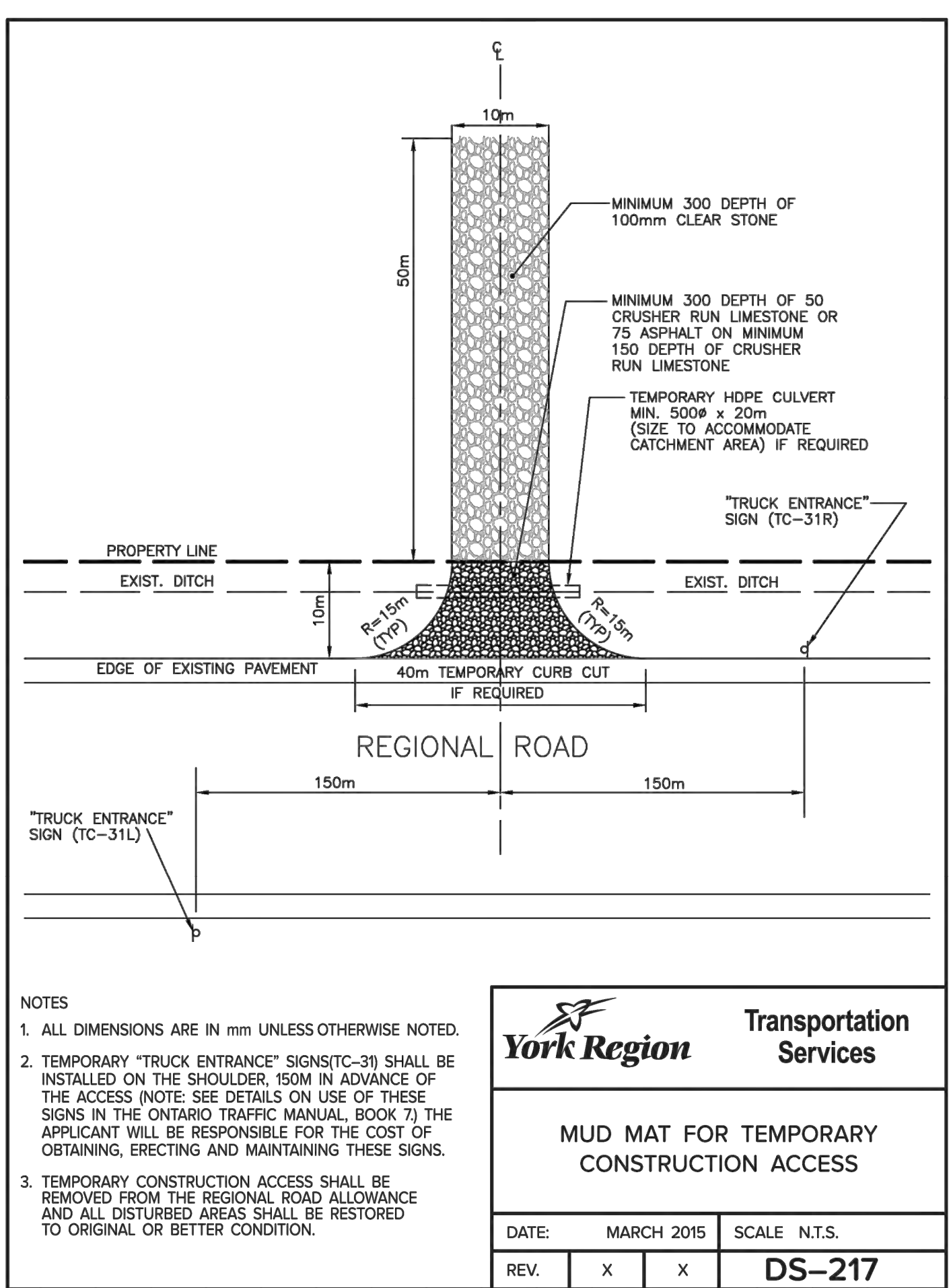
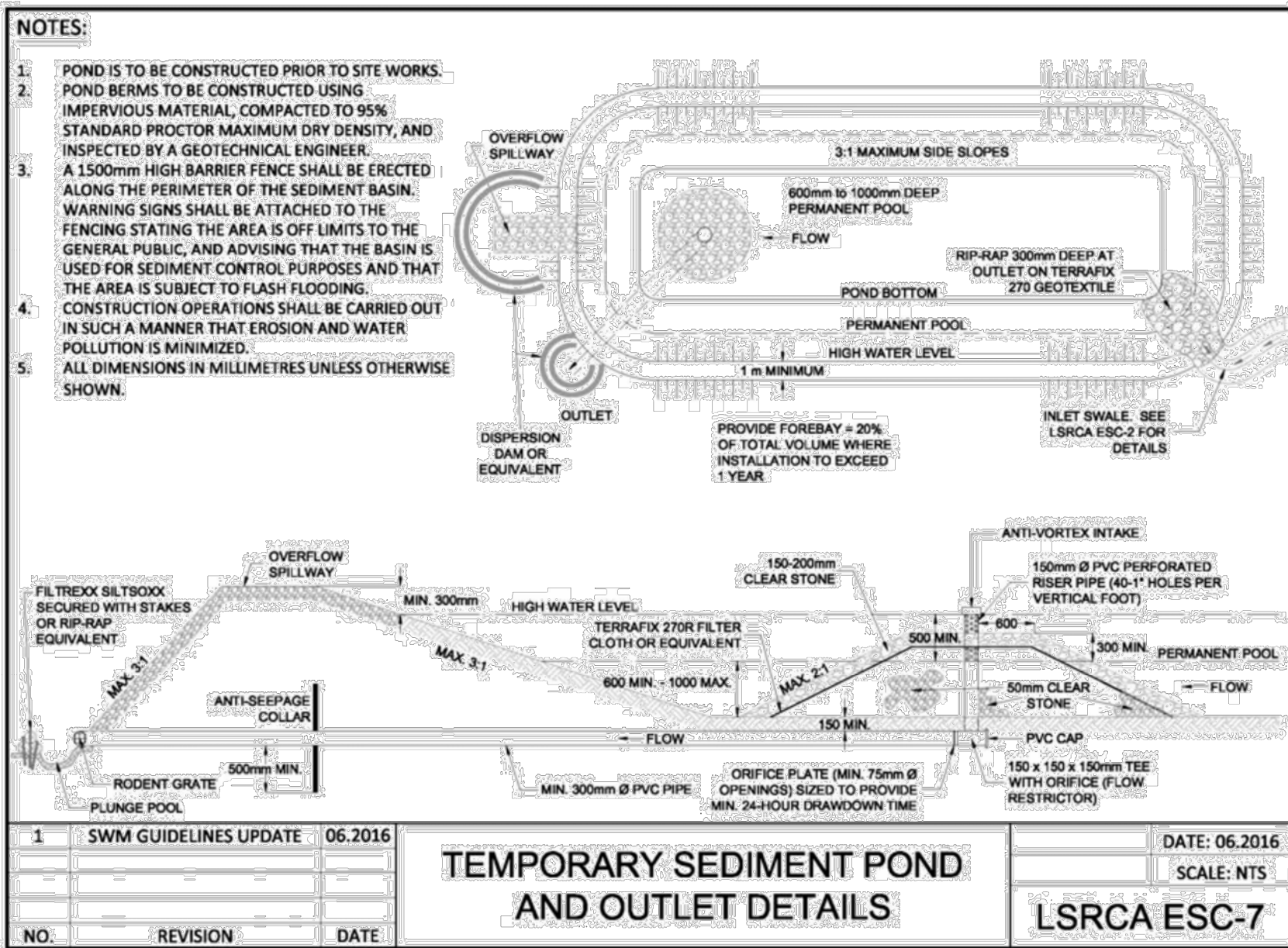
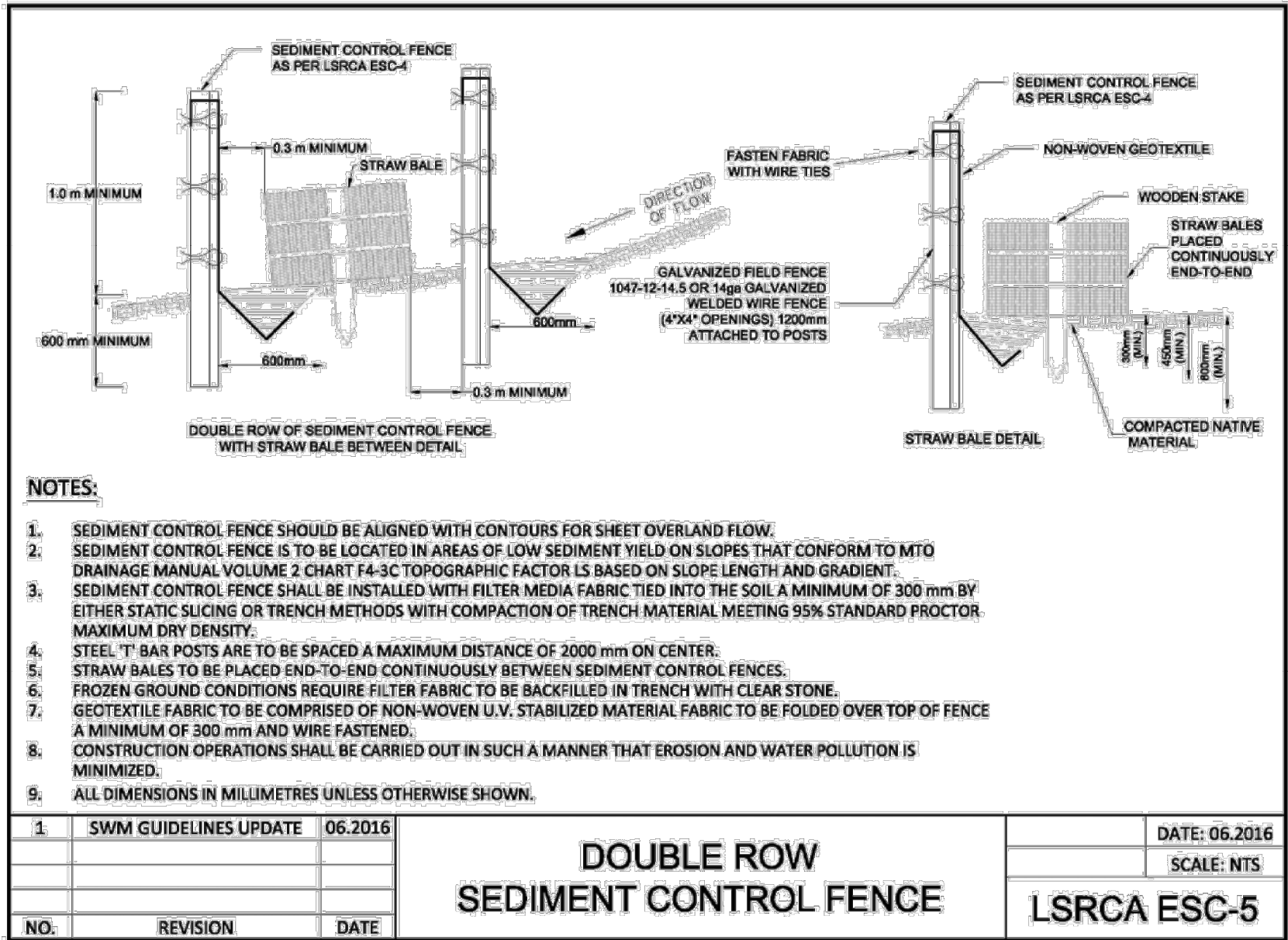
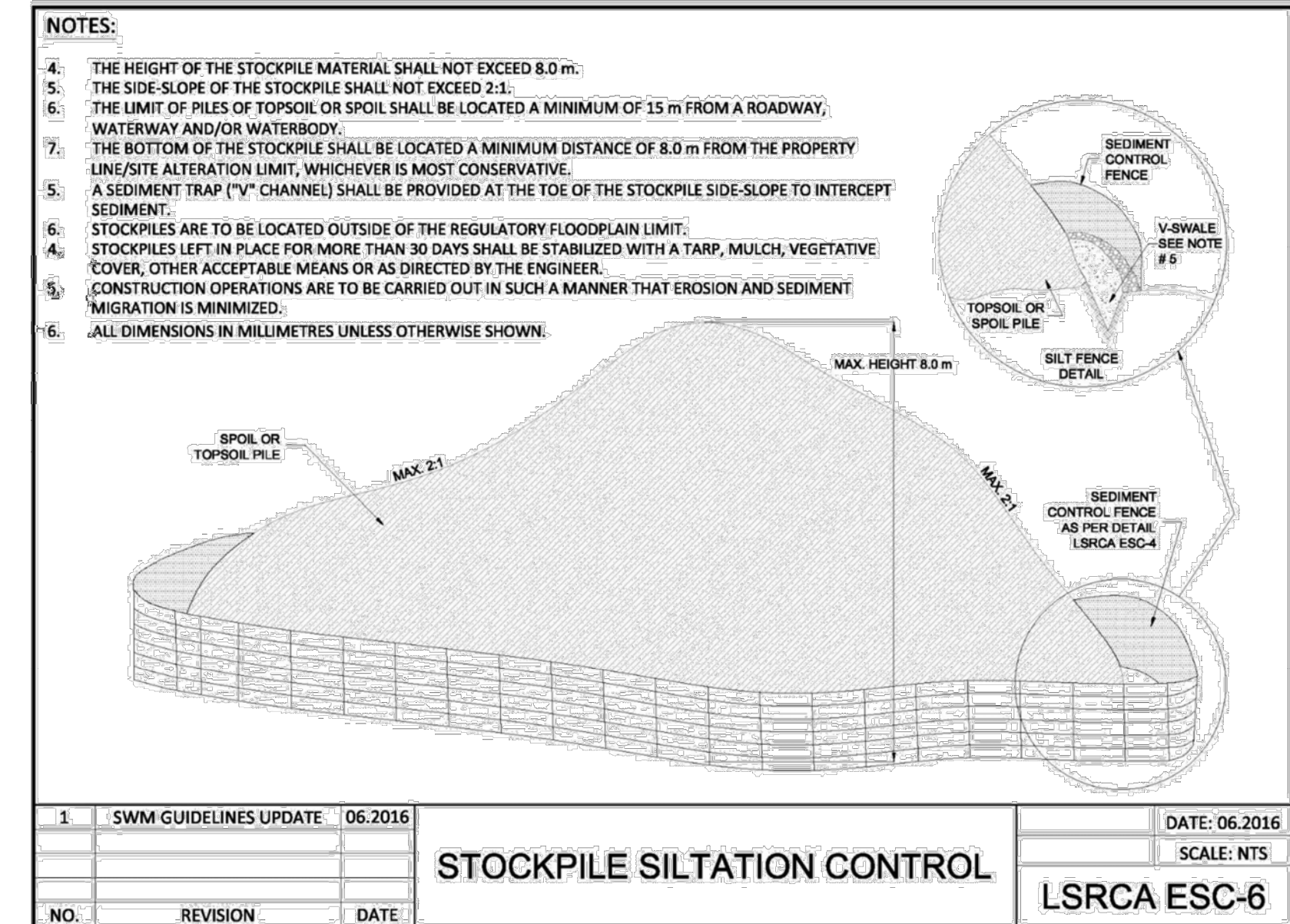
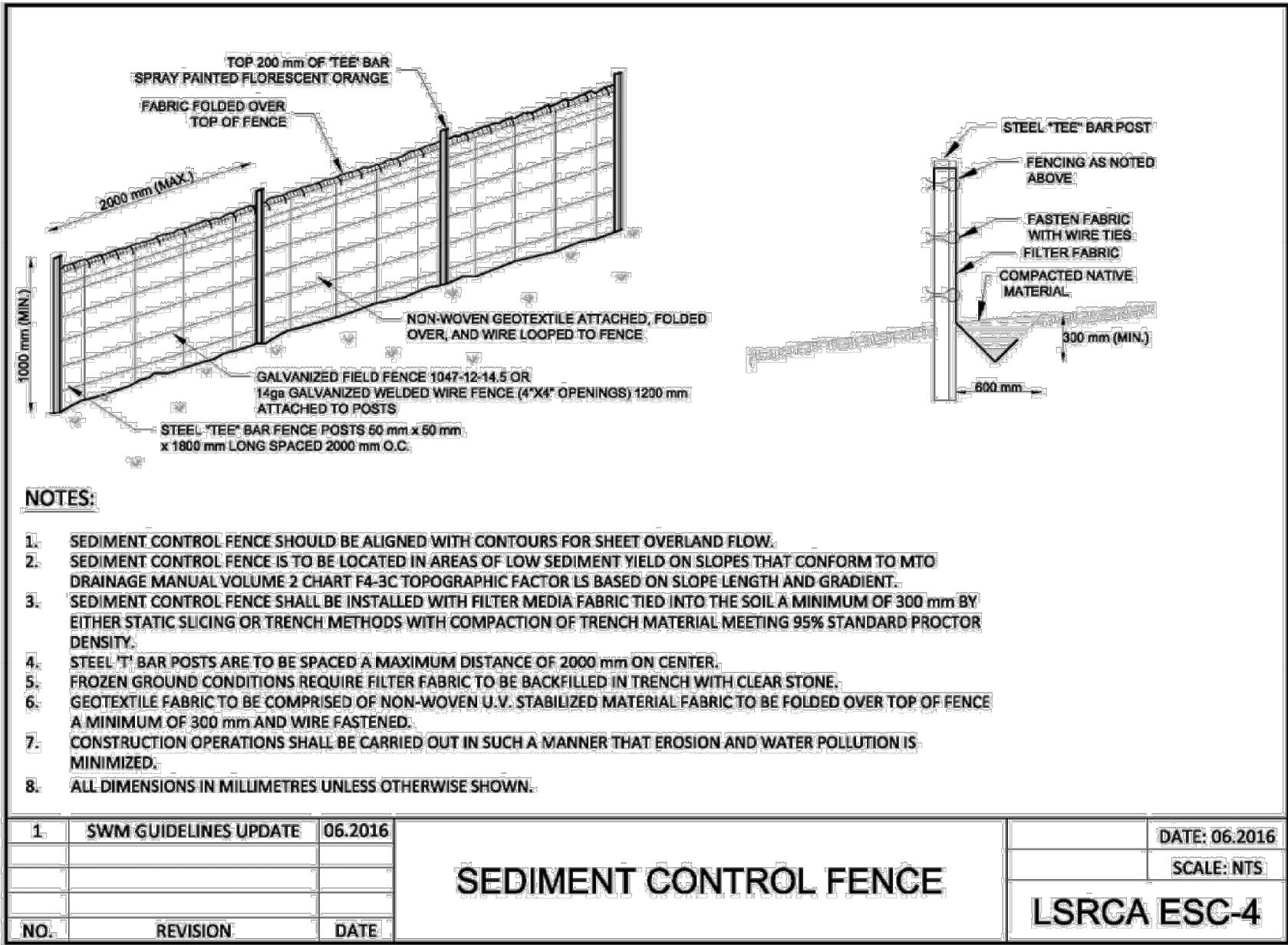
- 1) PRELIMINARY ESC
- PRIOR TO ANY WORKS ONSITE, INSTALL:
- MUD MAT
  - EROSION CONTROL LOGS IN THE LESLIE STREET ROADSIDE DITCH
  - SEDIMENT FENCE (ALLOWING FOR ACCESS BEYOND THE DEVELOPMENT BOUNDARY FOR COMPLETION OF DEMOLITION/ DECOMMISSIONING WORKS.
- 2) DEMOLITION/ DECOMMISSIONING
- DEMOLITION/ DECOMMISSIONING WORKS SHOULD COMMENCE IN AREAS OUTSIDE THE DEVELOPMENT BOUNDARY WITH CARE TAKEN TO MITIGATE DISTURBANCE TO THE GROUND SURFACE TO THE EXTENT POSSIBLE.
  - UPON COMPLETION OF ALL DEMOLITION/ DECOMMISSIONING WORKS OUTSIDE THE DEVELOPMENT BOUNDARY, ALL DISTURBED GROUND IS TO BE TOPSOILED AND SEEDED IMMEDIATELY.
  - UPON COMPLETION OF TOPSOILING AND SEEDING OUTSIDE THE DEVELOPMENT BOUNDARY, SILTATION FENCING IS TO BE COMPLETED ACROSS THE ENTIRE LIMIT OF DEVELOPMENT IN ACCORDANCE WITH THE ESC PLANS.
  - ONCE ALL SEDIMENT FENCE IS INSTALLED, THE REMAINDER OF THE DEMOLITION AND DECOMMISSIONING WORKS WITHIN THE DEVELOPMENT BOUNDARY ARE TO BE COMPLETED.
- 3) TOPSOIL STRIPPING
- PRIOR TO TOPSOIL STRIPPING, INSTALL THE SEDIMENT TRAPS AT THE NW AND SW CORNERS OF THE SITE AS INDICATED.
  - STRIP AND EXPORT TOPSOIL OFF SITE TO AN APPROVED RECEIVING SITE AFTER SEDIMENT TRAPS ARE INSTALLED, AND CUT SWALES DIRECTING SHEET DRAINAGE TO TRAPS ONCE LANDS ARE STRIPPED.
  - SOME NATIVE TOPSOIL IS TO BE RETAINED ONSITE FOR SLOPE STABILIZATION WORKS.
- 4) EARTH IMPORT AND CUT/FILL GRADING
- THE SITE IS TO BE PLACED ON PRE-GRADE WITH GRADING COMMENCING AT THE EAST LIMIT OF THE SITE AND PROGRESSING WESTWARD. SWALES ARE TO BE RE-GRADED AS NECESSARY TO DIRECT FLOWS TO THE TRAPS AS GRADES ARE ADJUSTED.
  - AS ENGINEERED FILL APPROACHES THE NW CORNER OF THE SITE, THE SEDIMENT TRAP IN THAT LOCATION IS TO BE DECOMMISSIONED AND A NEW SWALE IS TO BE INSTALLED DIRECTING FLOWS FROM THE NORTHERN PORTION OF THE SITE TO THE TRAP AT THE SW CORNER.
  - ONCE GRADING WORKS ARE COMPLETE, SLOPES ARE TO BE STABILIZED WITH TOPSOIL AND SEED. EROSION CONTROL LOGS AND TEMPORARY RETAINING WALLS WILL BE CONSTRUCTED IN COMBINATION WITH THE BUILDING PROGRAM.
- 5) SERVICING AND ROADWORKS
- DURING SERVICING, SWALES ARE TO BE MANAGED DYNAMICALLY SUCH THAT FLOWS ARE DIRECTED TO THE SW SEDIMENT TRAP.
  - AFTER THE ROADS ARE CUT TO SUB-GRADE, LOT DRAINS ARE TO BE INSTALLED AS INDICATED AND THE SW SEDIMENT TRAP IS TO BE DECOMMISSIONED.
  - AFTER ROADS CONSTRUCTION, SILT SACKS ARE TO BE INSTALLED IN ALL CATCH BASINS.
- 6) BUILDING PROGRAM / COMPLETION
- ONCE STRUCTURES ARE COMPLETED, LANDSCAPING, TOPSOILING AND SEEDING IS TO PROCEED AS PROMPTLY AS IS REASONABLE. FERTILIZERS ARE TO BE APPLIED AS NECESSARY TO PROMOTE VEGETATION.
  - ONCE THE BUILDING PROGRAM IS COMPLETE AND ALL LANDS STABILIZED, AN INSPECTION SHALL BE COMPLETED WITH THE ENGINEER AND APPLICABLE AGENCY STAFF. UPON ACCEPTANCE, PERIMETER SEDIMENT FENCE AND ALL REMAINING ESC MEASURES CAN BE REMOVED.

- WORK PLAN (EXTERNAL SERVICING)
- THE WATERMAIN CROSSING OF LESLIE STREET IS CONTEMPLATED TO BE COMPLETED BY TRENCHLESS METHOD. ADDITIONALLY, BOTH THE PROPOSED 100MM DIAMETER FORCEMAIN INSTALLATION AND THE 100MM DIAMETER WATERMAIN EXTENSION ARE EXPECTED TO TAKE PLACE WITHIN THE LESLIE STREET ROADSIDE DITCH. NO IMPACTS TO THE LESLIE STREET ROAD SURFACE OR LANE CLOSURE REQUIREMENTS ARE ANTICIPATED FRONTING THE SITE TO ACCOMMODATE THE PROPOSED WORKS.
  - FORCEMAIN INSTALLATION FRONTING SHARON PUBLIC SCHOOL MAY BE INSTALLED BY OPEN CUT OF TRENCHLESS METHODOLOGY. IF OPEN CUT IS IMPLEMENTED, COMPLETE SURFACE RESTORATION OF THE ASPHALT APRON ON THE BOULEVARD WILL BE REQUIRED.
  - THE FORCEMAIN IS TO BE CONNECTED TO EX.SAN MH738A AT THE WEST SIDE OF THE MANOR HAMPTON AND LESLIE STREET INTERSECTION. EXCAVATION WITHIN THE ROADWAY AND LANE CLOSURES WILL BE REQUIRED TO ACCOMPLISH THIS WORK. UPON COMPLETION, ROAD RESTORATION IS TO BE COMPLETED TO REGION STANDARDS.
  - ESC MEASURES ARE TO BE IMPLEMENTED FOR OPEN CUT WORKS AS APPLICABLE DURING EXTERNAL SERVICING AS REQUIRED. ALL SURFACE RESTORATION WITHIN THE LESLIE STREET RIGHT OF WAY IS TO BE COMPLETED IN ACCORDANCE WITH REGION STANDARDS.

- GENERAL NOTES:
- ALL WORK SHALL BE CARRIED OUT IN COMPLIANCE WITH THE APPLICABLE HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
  - ALL WORK AND MATERIALS TO CONFORM WITH THE CURRENT PROVINCIAL BUILDING CODE, MINISTRY OF THE ENVIRONMENT OF ONTARIO, REGIONAL MUNICIPALITY OF YORK, TOWN OF AURORA, ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY.
  - THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IN LOCATION (VERTICAL OR HORIZONTAL) IS TO BE REPORTED TO THE SITEWORK ENGINEER OF RECORD 48 HRS PRIOR TO CONSTRUCTION. LOST AND/OR ANY ADDITIONAL WORKS DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND ELEVATIONS AS NOTIFIED BY THE SITEWORK ENGINEER OF RECORD OR ANY CONSULTANTS 48 HRS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE ROAD ALLOWANCE IF REQUIRED BY THE MUNICIPALITY OR AUTHORITY. ALL UNDERGROUND SERVICING WORK ON THE RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE AUTHORITY PRIOR TO BACKFILLING.
  - CONTRACTOR WILL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO FACILITATE NEW CONSTRUCTION.







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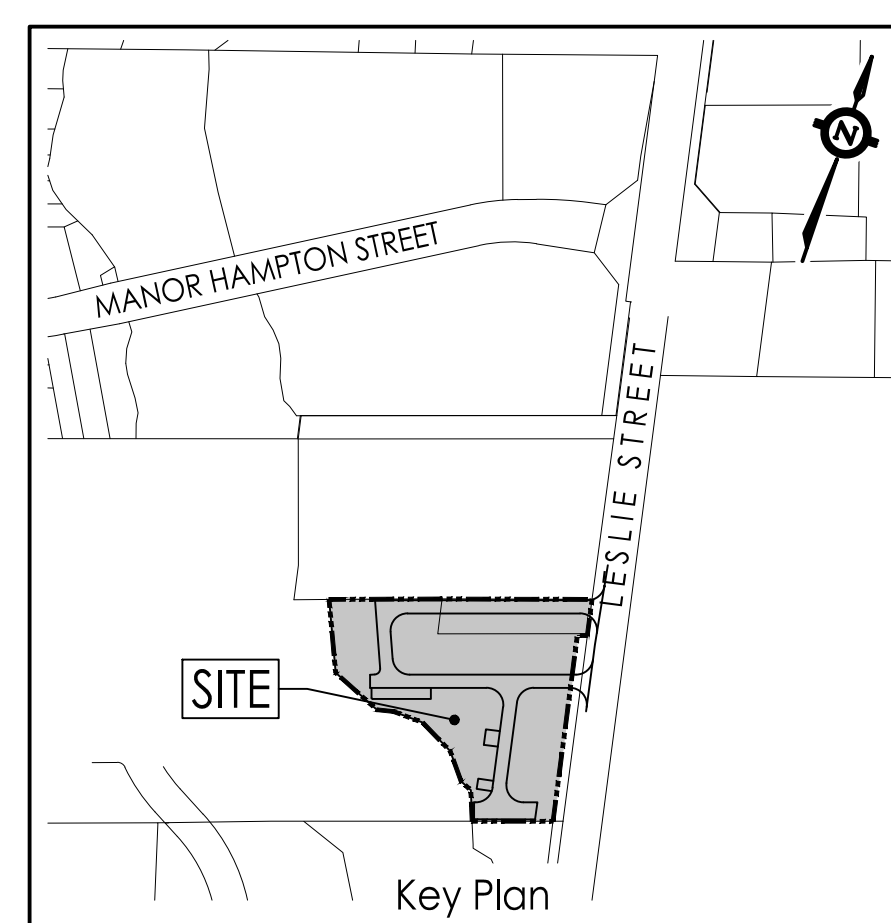
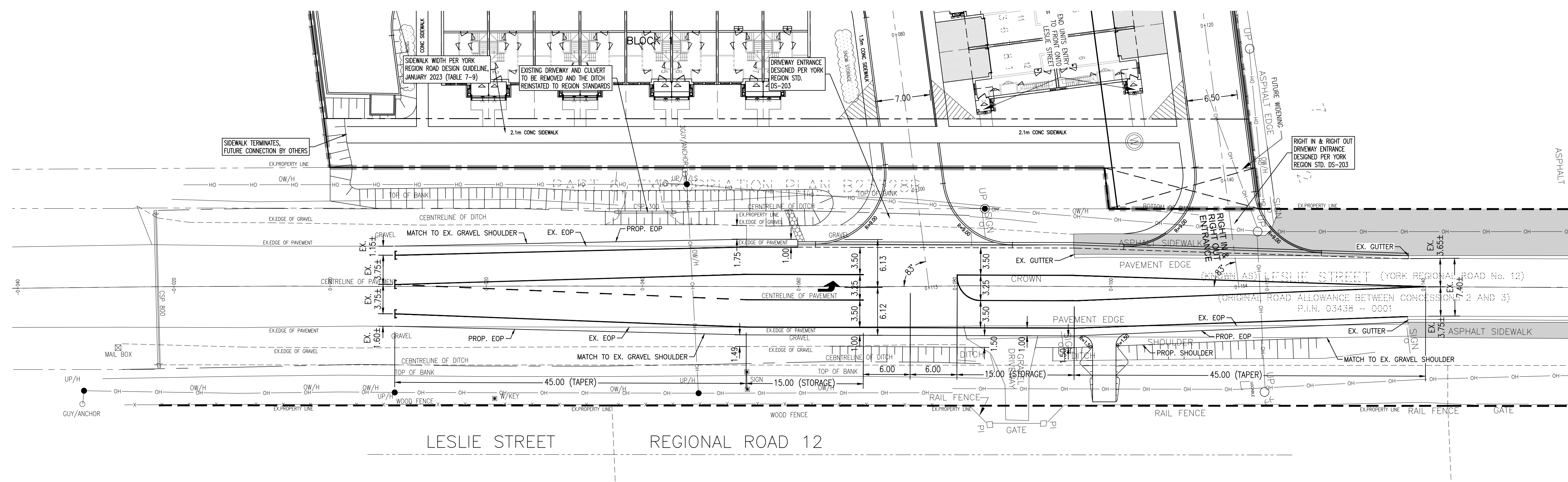
Client/Project  
LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT  
  
THE ACORN DEVELOPMENT CORPORATION  
Sharon, Ontario

Title  
EROSION AND SEDIMENT CONTROL  
DETAILS


Project No. 160622990  
Scale N.T.S.  
Dwg No. C-703

March 2025





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 EXISTING RIGHT OF WAY  
 PROPERTY LINE  
 LIMIT OF CONSTRUCTION



March 2025

Scale  
1:300

Dwg No.  
C-801





2. CHAMBERS SHALL BE STORMTRENCH MC-450.
3. CHAMBERS SHALL BE ARCH-SHAPE AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COMPOUNDERS.
4. CHAMBERS SHALL BE CERTIFIED TO CSA R14 "POLYMERIC SUB-SURFACE STORMWATER MANAGEMENT STRUCTURES" AND MEET THE REQUIREMENTS OF ASTM F418 "STANDARD PRACTICE FOR SUB-SURFACE STORMWATER MANAGEMENT (PP) CORRUGATED WALL STORMWATER CHAMBERS".
5. CHAMBER RINGS SHALL PROVIDE CONTINUOUS UNOBTSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
6. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE CHAMBERS WILL BE ABLE TO WITHSTAND THE LOADS SPECIFIED IN THE DESIGN SPECIFICATIONS. SECTION 12.2 ARE MEET FOR 1. LONG-URATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE CSA 8.6-26 CLASSES AND THE AASHTO DESIGN SPECIFICATIONS.
7. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F371 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". CHAMBERS SHALL BE DESIGNED TO WITHSTAND THE FOLLOWING LOADS: 1) ALLOWABLE LIVE LOADS (UNIFORM COVER 2) MAXIMUM PERMANENT (75-PSI COVER LOAD) AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
8. REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - a. CHAMBERS SHALL BE DESIGNED TO WITHSTAND THE SHIPPING AND HANDLING. CHAMBERS SHALL HAVE INTERNAL, INTERLOCKING STACKING LOGS.
  - b. CHAMBERS SHALL BE SECURE JOINT DURING INSTALLATION AND BACKFILL. THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 75 mm (3").
  - c. TO MAINTAIN THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, AT THE ARCH STRUCTURE CONSTANT SHALL BE GREATER THAN OR EQUAL TO 100 LB/FT<sup>2</sup>. THE ARCH IS DEFINED IN SECTION 8.2.6 OF ASTM F418. AND TO RESIST THE CORROSION OF THE CHAMBERS, THE CHAMBERS SHALL BE STORED AT TEMPERATURES ABOVE 23° C (73° F). CHAMBERS SHALL BE PROTECTED FROM REFLECTIVE GLOD OR YELLOW CLODS.
9. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGNER, THE ENGINEER SHALL PROVIDE A LIST OF APPROVED CHAMBERS. THE CHAMBERS SHALL BE APPROVED FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
  - a. THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.35 FOR ALL LOADS AND THE CHAMBERS SHALL BE ABLE TO WITHSTAND THE LOADS SPECIFIED IN THE DESIGN SPECIFICATIONS.
  - b. THE CHAMBERS SHALL BE APPROVED CHAMBERS SPECIFIED IN SECTION 12.2 F777 AND BY SECTIONS 3.1 AND 3.2 12-10 OF THE AASHTO DESIGN SPECIFICATIONS FOR THERMOPLASTIC.
  - c. THE CHAMBERS SHALL BE THE 75-YEAR MODULUS USED FOR CERTIFIED.
10. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 DESIGN MANUFACTURING FACILITY.

1. STORMTIE MC-4000 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLER.
2. STORMTIE MC-4000 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTIE MC-3000MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS.  
STORMBROOKER RECOMMENDS BACKFILL METHODS:  
 a. STORMBROOKER LOCATED OFF THE CHAMBER BED.  
 b. BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.  
 c. BACKFILL FROM OUTSIDE THE EXCAVATION USING AN END ROOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELLED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 230 mm (9") SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANHOLES MUST BE INSERTED A MINIMUM OF 300 mm (12") INTO CHAMBER END CAPS.
8. EMBARKMENT STONE SURROUNDINGS CHAMBERS MUST BE A CLEAR, GRASSY, ANGULAR STONE WALL GRADED BETWEEN 1/2" AND 2" (20-40 mm) ABOVE THE CHAMBER TOP SURFACE.
9. STONE SHALL BE BROUGHT UP EVENLY ON ADJACENT CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 30 mm (1 1/2") BETWEEN ADJACENT CHAMBER ROWS.
10. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
11. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
12. ACS RECOMMENDS THE USE OF "TELESTOM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

1. STORMTIECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTIECH MC-3500/MC-4500 CONSTRUCTION GUIDE".

2. THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:

- NO EQUIPMENT IS ALLOWED ON CHAMBER DECKS.
- NO RUBBER TIED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE STORMTIECH MC-3500/MC-4500 CONSTRUCTION GUIDE.
- WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT ARE FOUND IN THE "STORMTIECH MC-3500/MC-4500 CONSTRUCTION GUIDE".

3. FILL 800 mm (8") OF STABILIZED COVER MATERIAL OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAILER, OR DUMPING.

USE OF A DOZER TO PUSH EMBODIMENT SOIL BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPT BACKFILL METHOD. CHAMBERS DAMAGED BY USING THE "DUMP" AND "PUSH" METHOD ARE NOT COVERED UNDER THE STORMTIECH STANDARD WARRANTY.

CONTACT STORMTIECH AT 1-888-862-2654 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

25.885 m

600 mm x 600 mm ADS N-12 TOP MANIFOLD  
INVERT 585 mm ABOVE CHAMBER BASE  
TYPICAL 2 PLACES

300 mm x 300 mm ADS N-12 BOTTOM MANIFOLD  
INVERT 30 mm ABOVE CHAMBER BASE

INSPECTION PORT

INSTALL FLAMP ON 600 mm ACCESS PIPE  
PART# MCFLAMP

600 mm PARTIAL CUT END CAP, PART#  
MC4000EP24B OR MC4000EP24BW  
TYP OF ALL MC-4500 600 mm BOTTOM  
CONNECTIONS AND ISOLATOR PLUS ROWS

OUTLET MH 209 PER PLAN  
MAXIMUM OUTLET FLOW 53 L/s  
(DESIGN BY ENGINEER / PROVIDED BY OTHERS)

1.227 m

22.552 m

MH SIGS PER PLAN  
ELEVATED BYPASS MANIFOLD (RELOCATED)  
MAXIMUM INLET FLOW 53 L/s  
(DESIGN BY ENGINEER / PROVIDED BY OTHERS)

600 mm PARTIAL CUT END CAP,  
PART# MC4500EP24T OR MC4000EP24TW  
TYP OF ALL MC-4500 600 mm TOP CONNECTIONS

5.742 m

3.268 m

2.768 m

3.680 m

12.069 m

8.134 m

8.516 m

ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 5.33 m OF ADSPLUS125 WOVEN GEOTEXTILE  
OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET  
FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

THERMOPLASTIC LINER (SEE TECHNICAL NOTE 6.50 /  
PROVIDED BY OTHERS / DESIGN BY OTHERS)

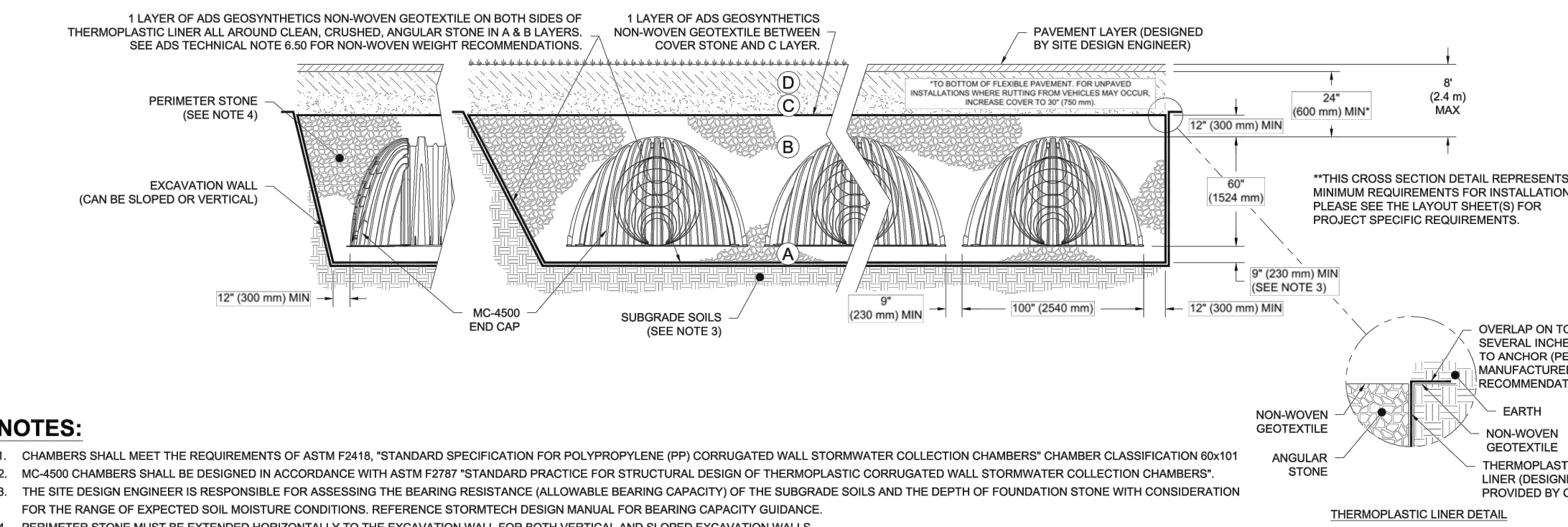
PLEASE NOTE:

1. THE LISTED MASHBTO DESIGNATIONS ARE FOR GRADATIONS ONLY. STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (MASHBTO #4) STONE".

2. STORMWATER COMPACTOR REQUIREMENTS ARE BASED ON (A) LOCATION MATERIALS WHEN PLACED AND COMPACTED IN (B) 270 mm (10.63") MAXIMUM LIFTS USING TWO FULL CIRCLES WITH A VIBRATORY COMPACTOR.

WHEN LIFTING MATERIALS MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNERS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

3. ONCE LAYER C2 IS PLACED, ANY SUBMATERIAL CAN BE PLACED IN LAYER U2 TO THE FINISHED GRADE. MOST MOVEMENT SUBGRADE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER C2 OR U2 AT THE SITE DESIGN ENGINEERS' DISCRETION.



CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2414, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 50x101 MC-4000 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2378 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE BEARING RESISTANCE (AVAILABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. THE PERMIT DESIGN SHALL BE BASED ON THE FOLLOWING:

- PERMITTER SITE SHALL BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION
  - TO MAINTAIN THE WALL CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTERNAL, INTERLOCKING STACKING LOGS.
  - TO ENSURE A SECURE JOINT, CHAMBERS SHALL BE DESIGNED WITH A MINIMUM JOINT HEIGHT OF 1.5" (38.1mm) AND SHALL NOT BE LESS THAN 1.5".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, (A) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.0.2 OF ASTM F2414 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT<sup>2</sup> AND (B) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 72° F / 22° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORED POLYPROPYLENE.

**COVER PIPE CONNECTION TO END CAP WITH ADS - GEOSYNTHETICS 8011 NON-WOVEN GEOTEXTILE**

**INSTALL FLAMP ON 24" (600 mm) ACCESS PIPE PART #: MCFLAMP**

**OPTIONAL INSPECTION PORT**

**MC-4500 END CAP**

**STORMTECH HIGHLY RECOMMENDS FLEXFORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES**

**ELEVATED BYPASS MANIFOLD**

**SUMP DEPTH TIED BY SITE DESIGN ENGINEER (24" [600 mm] MIN. RECOMMENDED)**

**CATCH BASIN OR MANHOLE**

**24" (600 mm) HDPE ACCESS PIPE REQUIRED USE FACTORY PARTIAL CUT END CAP PART # MC4500EP24BC OR MC4500EP24BW**

**ONE LAYER OF ADS/PL155 WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 10.3' (3.1 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS**

**MC-4500 ISOLATOR ROW PLUG DETAIL**  
NTS

**CONCRETE COLLAR**

**PAVEMENT**

**CONCRETE SLAB 8" (200 mm) MIN THICKNESS**

**18" (450 mm) MIN WIDTH**

**CONCRETE FOR UNPAV**

**12" (300 mm) DRAIN BODY PART # 2712 SOLID COVER**

**6" (150 mm)**

**6" (150 mm) INSERTA TEE PART # 2702B150TIP**

**INSERTA TEE TO BE CENTERED IN VALLEY OF CORRUGATIONS**

**MC-4500 CH**

**\* THE PARTS USED TO COMPOSE INSPECTED**

**INSPECTION & MAINTENANCE**

**STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT**

- INSPECTION PORTS (IF PRESENT)
  - REMOVE COVER LID ON INLET/OUTLET INLINE DRAIN
  - REMOVE AND CLEAN FLEXFORM FILTER\* IF INSTALLED
  - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTHS OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.

**B. ALL ISOLATOR PLUS ROWS**

- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- MIRRORS OR PILES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
  - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.

**STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS**

- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- VACUUM STRUCTURE SUMP AS REQUIRED

**STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.**

**STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.**

**NOTES**

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

**MC-4500 6" (150 mm) INSPECTION PORT DETAIL**

[illegible]

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Client/Project

LESLIE STREET - SHARON  
FUNCTIONAL SERVICING AND  
STORMWATER MANAGEMENT REPORT

THE ACORN DEVELOPMENT CORPORATION

Sharon, Ontario

Title

STORMTECH CHAMBER SYSTEM  
PRELIMINARY DESIGN DETAILS 1  
BY ADS INC.

Project No.

160622990

Scale

NTS

Dwg No.

C-901



March 2025

Project No.	Scale	Dwg No.
160622990	N.T.S.	C-901



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Sharon, Ontario

Title  
STORMTECH CHAMBER SYSTEM  
PRELIMINARY DESIGN DETAILS 2  
BY ADS INC.

Project No. 160622990  
Scale N.T.S.  
Dwg No. C-902

March 2025

