



David Schaeffer Engineering Ltd.

120 Iber Road, Suite 103

Stittsville, ON K2S 1E9

613-836-0856

dsel.ca

DEVIATIONS FROM GUIDELINES AND STANDARDS REPORT

FOR

BGO

PROPOSED RESIDENTIAL SUBDIVISION

1820-1846 BANK STREET
CITY OF OTTAWA

PROJECT NO.: 24-1369

FEBRUARY 2025

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**FOR
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1.0 INTRODUCTION

David Schaeffer Engineering Limited (DSEL) was retained to prepare a Deviations Report in support of BGO's submission for draft plan of subdivision. This report is intended to be read in conjunction with DSEL's Functional Servicing Report dated January 2025.

This report is prepared to support proposed deviations from the City of Ottawa Design Standards and to offer further rationale on the deviation. The deviation described in this report are specific to the design at 1820-1846 Bank Street and should not be considered precedent setting.

2.0 DESIGN GUIDELINES

The following design guidelines and standards are referenced for this report:

- **Ottawa Sewer Design Guidelines**
City of Ottawa, October 2012
(City Standards)
 - Technical Bulletin ISDTB-2014-01
City of Ottawa, February 5, 2014
(ITSB-2014-01)
 - Technical Bulletin PIEDTB-2016-01
City of Ottawa, September 6, 2016
(PIEDTB-2016-01)
 - Technical Bulletin ISTB-2018-01
City of Ottawa, March 21, 2018
(ISTB-2018-01)
 - Technical Bulletin ISTB-2018-04
City of Ottawa, June 27, 2018
(ISTB-2018-04)
 - Technical Bulletin ISTB-2019-02
City of Ottawa, July 8, 2019
(ISTB-2019-02)

- **Standard Detail Drawings**
 City of Ottawa, Various dates.
(Standard Details)

3.0 DEVIATIONS FROM GUIDELINES AND STANDARDS

A new 18.0m Right-of-Way (ROW) is proposed along the western boundary of the property at 1820-1846 Bank Street. The design includes deviations from the City of Ottawa Design Standards and standard practices, as outlined in the attached documentation. Figure 12 provides a detailed cross-section of the proposed ROW.

3.1 Bioretention Cell in Boulevard

To meet stormwater management targets, the proposed City ROW must achieve 80% Total Suspended Solids (TSS) removal and limit post-development flow rates to the 2-year storm event. Given the limited available space, DSEL has proposed a bioretention swale within the western boulevard of the ROW. This Low Impact Development (LID) feature will provide both water quality and quantity control through filtration. Additional details on the functionality of the bioretention cell are outlined in DSEL’s Functional Servicing Report (FSR). While this proposal deviates from current standards, it aligns with the City’s Environmental Compliance Approval (CLI-ECA).

To prevent infiltration into adjacent properties, the bioretention swale can be lined with a compacted clay liner. The low-permeability clay layer will help control seepage, ensuring stormwater is properly filtered while preventing unintended groundwater migration.

Similar systems are included in City of Toronto standards, which require a minimum width of 3.5m to accommodate the swale with trees. Refer to the attached specifications for applicable standards.

To ensure long-term performance, the City will need to undertake the following maintenance activities:

Short Term (Monthly-Quarterly)	<ul style="list-style-type: none"> - Inspection of outlets – Clear debris and blockages - Vegetation management – Trim and maintain to prevent overgrowth
Seasonal (Biannually-Annually)	<ul style="list-style-type: none"> - Sediment removal – Clean CBs of accumulated sediment - Snow and Ice Management – Avoid excessive use of road salt near the bioswale and clear snow piles that could block flow paths. - Soil Aeration – Aerate compacted soils - Erosion control and repair as required
Long Term (5+ years or as required)	<ul style="list-style-type: none"> - Vegetation replacement – replace dead or unhealthy vegetation

	- Substrate Replacement – replace or amend filtration media
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3.2 Pavement Width

The proposed roadway includes two standard travel lanes, each 3.5m wide, for a total pavement width of 7m. No parking lanes are required, and the typical 8.5m pavement width for local roads with on-street parking has been reduced accordingly.

3.3 Hammerhead Turnaround

A hammerhead turnaround is proposed at the northern section of the ROW, where the road dead-ends. This design accommodates 3-point turns for emergency services and larger vehicles (e.g., garbage trucks) while minimizing hard surface area compared to a traditional P-style turnaround.

The turnaround will facilitate interim site development, with future extensions planned to standardize the roadway cross-section.

3.4 Servicing

Pipe separations are shown in the proposed Cross Section, Figure 12.

3.5 Joint Utility Trench

A JUT is proposed on the east side of the ROW below the proposed sidewalk.

3.6 Sidewalk

A 2.0m pedestrian sidewalk is proposed on the east side of the ROW.

3.7 Curb

To facilitate drainage and enhance the bioretention cell's filtration, a fully depressed curb is proposed on the western side of the ROW, while a barrier curb will be installed on the eastern side.

3.8 Grading

Consistent crossfall is being proposed from east to west to facilitate drainage.

4.0 CONCLUSION

The proposed City of Ottawa 18.0m ROW deviates from the City of Ottawa Design Guidelines. It includes a Bioretention Cell and revisions to the grading to accommodate storm water management.

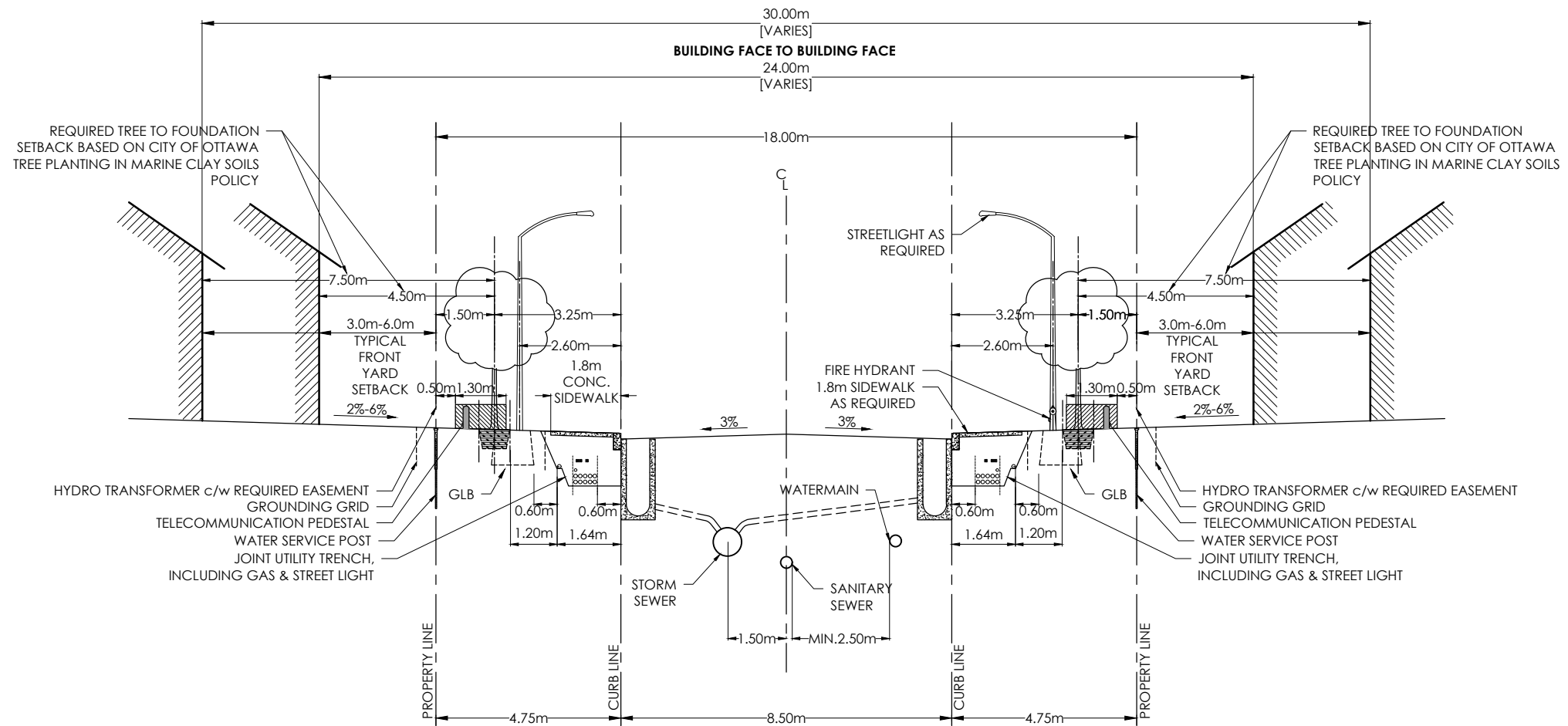
Based on the justification provided in this report, it is proposed that the City of Ottawa considers this deviation acceptable.

Prepared by,
David Schaeffer Engineering Ltd.



Per: Jeremy Chouinard, P.Eng.

1. STANDARD CROSS-SECTIONS TO BE READ IN CONJUNCTION WITH THE GENERAL STANDARD CROSS-SECTION NOTES AND OTHER APPLICABLE CITY AND UTILITY PLANS AND DETAILS.
2. 18M RIGHT-OF-WAY NOT TO BE USED ON STREETS WITH BUS SERVICE.
3. CONCRETE CURBS TO BE CONSTRUCTED AS PER CITY OF OTTAWA STANDARD DETAILS.
4. TYPICAL FRONT YARD SETBACK IS TO BE CLEAR AND UNENCUMBERED OF ANY SUBSURFACE BUILDING ENCROACHMENTS.
5. FIRE HYDRANTS TO BE LOCATED ON THE WATERMAIN SIDE OF THE STREET.
6. CATCH BASINS TO BE PER CITY OF OTTAWA DETAIL S2.
7. GAS MAIN SHALL HAVE A MINIMUM OF 0.6M CLEARANCE FROM STRUCTURES E.G. CATCH BASINS AND HYDRANTS) AND 1.2 M FROM TREE ROOT BALL.
8. STREETLIGHTS CAN BE LOCATED ON EITHER SIDE OF THE RIGHT-OF-WAY.
9. JOINT-USE UTILITY TRENCH (JUT) UNDER SIDEWALK AS PER DETAIL UDS0049. HELD BY HYDRO OTTAWA.
10. GRADE LEVEL BOX (GLB) AS DRAWN SHOWS GLB3660. EXACT LOCATION TO BE CONFIRMED.
11. THIS CROSS-SECTION CANNOT BE USED WHERE A CONCRETE ENCASED HYDROELECTRIC DUCT OR ANOTHER SEPARATE UTILITY DUCT IS REQUIRED.
12. TREE CLEARANCES TO HYDRO OTTAWA PLANT SHALL FOLLOW GCS0038.
13. CLEARANCES SHOWN ARE MINIMUMS.



18.0m ROW CROSS SECTION

REV. DATE: AUG. 2022

DWG. No. ROW-18.0

NOTES:

1. THE STANDARD ROW CROSS SECTIONS INDICATE MINIMUM DIMENSIONS THAT ARE TO BE INCORPORATED INTO THE DESIGN OF ANY NEW DEVELOPMENTS INVOLVING NEW AND EXISTING STREETS. ANY VARIATIONS TO THE STANDARD ROW CROSS SECTIONS ARE SUBJECT TO THE INFRASTRUCTURE SERVICES DEVIATION PROCESS. CONTACT THE STANDARDS UNIT AT STANDARDSSECTION@OTTAWA.CA FOR MORE INFORMATION.
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH APPLICABLE CITY STANDARDS, GUIDELINES, AND POLICES, INCLUDING COORDINATED UTILITY PLANS, GRADING PLANS AND LOCAL AREA PLANS. REFER ALSO TO UTILITY PARTNER STANDARD PLANT LOCATIONS.
3. ALL CROSS SECTIONS MAY BE SUBJECT TO SUBSEQUENT TRAFFIC CALMING MEASURES, TO BE DETERMINED THROUGH PLAN OF SUBDIVISION OR SEPARATE TRANSPORTATION STUDIES.
4. TYPICAL CROSS SECTION BOULEVARD WIDTH SHALL BE MAINTAINED WHEN CONSTRUCTING CUL-DE-SACS AND CORNER LOTS, REGARDLESS OF ROADWAY GEOMETRY.
5. WATERMAINS, WATER SERVICES, AND ASSOCIATED APPURTENANCES SHALL BE CONSTRUCTED PER THE WATER DESIGN GUIDELINES.
6. WATERMAIN AND HYDRANTS TO BE INSTALLED ON SOUTH AND EAST SIDE OF ROW, WHERE POSSIBLE.
7. SEWERS AND SEWER SERVICES SHALL BE CONSTRUCTED PER THE SEWER DESIGN GUIDELINES.
8. IN-ROAD CATCH BASINS SHALL ONLY BE USED ON RESIDENTIAL ROADS WITHOUT BUS TRAFFIC OR AS OTHERWISE DIRECTED BY THE SEWER DESIGN GUIDELINES.
9. BARRIER CURB SHALL BE USED ON ALL RESIDENTIAL ROADS WITH SINGLE FAMILY DWELLINGS. MOUNTABLE CURB MAY ONLY BE USED FOR AREAS WITH FREQUENT CURB-CUTS, SUCH AS TOWNHOME DEVELOPMENTS, WITH APPROVAL FROM THE CITY.
10. WATER AND SEWER SERVICES SHALL BE LAID AS PER CITY STANDARD DETAIL DRAWINGS, THE COORDINATED UTILITY PLAN, AND IN COORDINATION WITH ALL OTHER ELEMENTS IN THE ROW.
11. WHERE LOCATING WATER AND SEWER SERVICES UNDERNEATH LANDSCAPED AREAS WOULD PREVENT THE PLANTING OF A TREE, THEY MAY BE RUN UNDERNEATH THE DRIVEWAY OR OTHER HARDSCAPED AREAS.
12. MINIMUM 1.5 M CLEARANCE, AT-GRADE, TO BE MAINTAINED AROUND WATER SERVICE POST FROM TREE, TRANSFORMER, UTILITY PEDESTAL, TRAFFIC POLE, AND STREETLIGHT.
13. UTILITY PEDESTALS ARE TO BE GROUPED TOGETHER WITH THE HYDROELECTRIC TRANSFORMER, OR ON THE HOUSE SIDE OF THE UTILITY TRENCH.
14. STREETLIGHT CABLE SHALL BE LOCATED IN JOINT USE TRENCH (JUT). WHERE NO JUT EXISTS, ENSURE CLEARANCES TO TREE, HYDRANTS, AND WATER SERVICE POST.
15. TRAFFIC SIGNAL CABLE SHALL BE LOCATED IN THE JUT OR AT THE SAME OFFSET AS STREETLIGHT POLES IN A SEPARATE TRENCH.
16. TRAFFIC COMMUNICATIONS CABLE SHALL BE LOCATED IN THE JUT OR IN A TRENCH LOCATED AT THE SAME OFFSET AS THE STREETLIGHT POLES.
17. THE PREFERRED LOCATION FOR TRAFFIC HANDHOLES IS IN HARD SURFACES. WHEN HANDHOLES ARE PLACED IN THE BOULEVARD, A CONCRETE COLLAR SHALL BE PROVIDED.
18. THE DEVELOPER SHALL SUPPLY AND INSTALL DUCTS FOR UTILITY CROSSINGS AT INTERSECTIONS.
19. TREE PLACEMENT, NUMBER, AND SPECIES SHALL BE PER CITY POLICY, THE LANDSCAPE PLAN, COORDINATED-UTILITY-PLAN, AND THE DEVELOPMENT AGREEMENTS.
20. THE HYDRO TRANSFORMER BASE SHALL BE LOCATED A MINIMUM OF 2.0 M FROM THE DRIVEWAY EDGE.



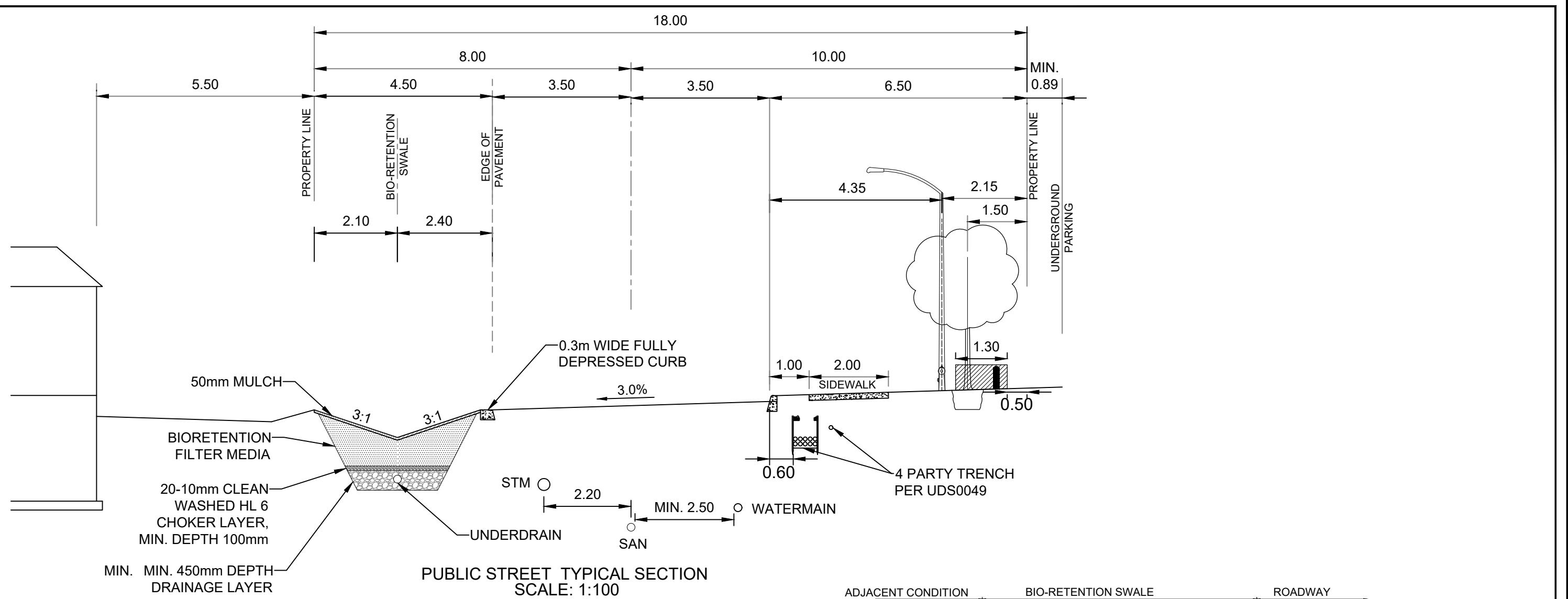
TITLE:

STANDARD NOTES ROAD ALLOWANCE

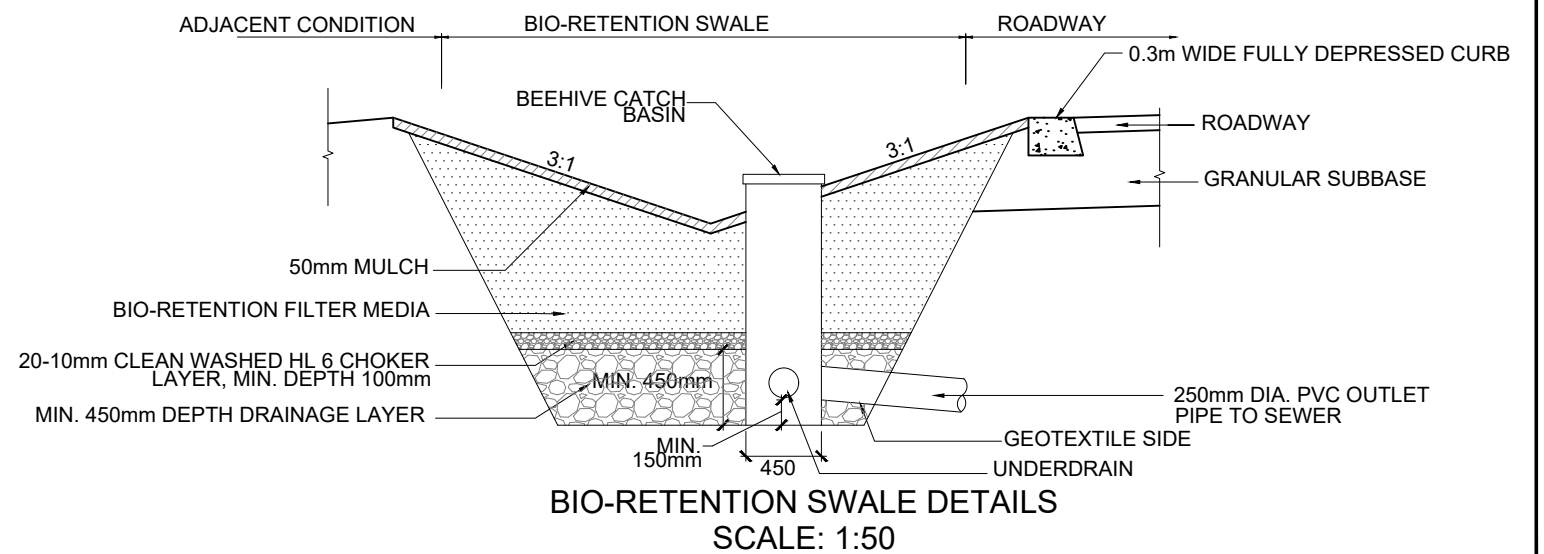
DATE: MAR 2009

REV: SEPT 2022

DWG No: ROW-NOTES



PUBLIC STREET TYPICAL SECTION
SCALE: 1:100



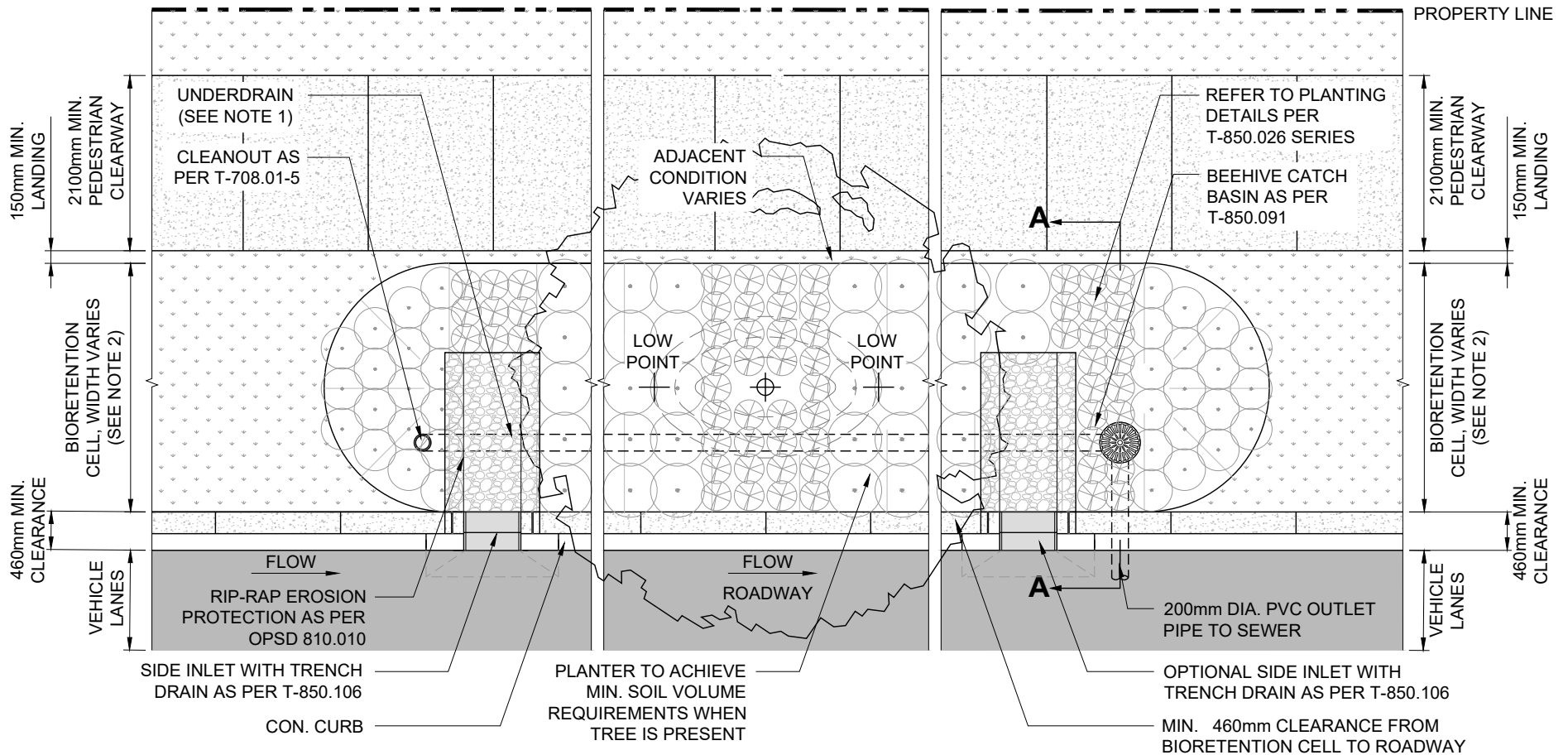
BIO-RETENTION SWALE DETAILS
SCALE: 1:50



120 Iber Road, Unit 103
Stittsville, ON K2S 1E9
TEL: (613) 836-0856
FAX: (613) 836-7183
www.DSEL.ca

BGO - 1822 BANK ST
TYP ROAD SECTION AND BIO-RETENTION SWALE DETAILS
CITY OF OTTAWA

PROJECT No.:	23-1369
SCALE:	AS SHOWN
DATE:	February 2025
FIGURE:	12



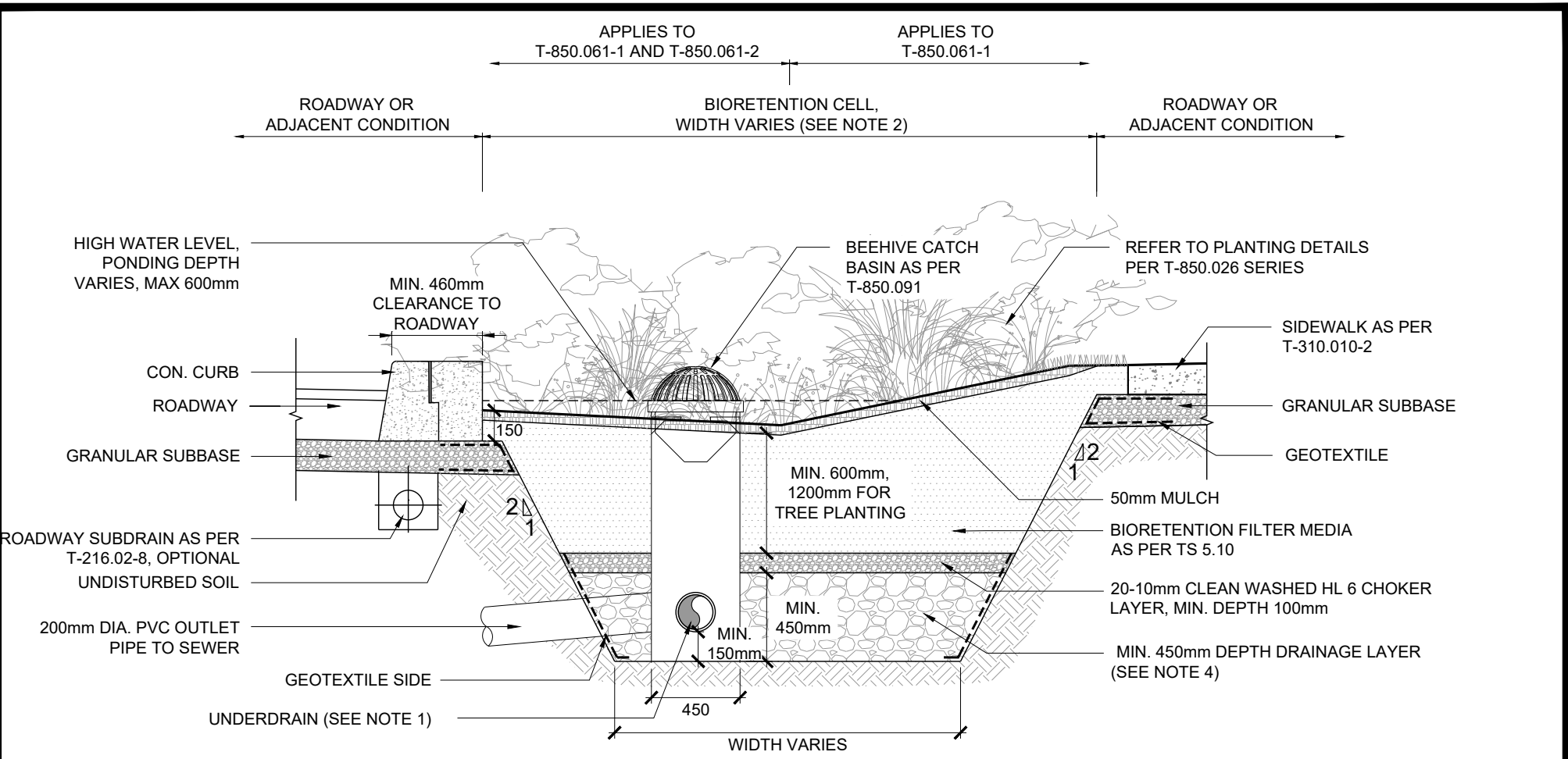
PLAN

NOTES:

1. UNDERDRAIN IS REQUIRED WHERE NATIVE SOIL INFILTRATION RATES ARE LESS THAN 15mm/hr, WHEN TREE PLANTINGS ARE PRESENT, OR WHEN GREEN INFRASTRUCTURE SYSTEM IS MEMBRANE LINED. UNDERDRAIN TO BE 200mm DIA. SMOOTH INTERIOR WALLED PERFORATED PIPE WRAPPED IN GEOTEXTILE FABRIC, INSTALLED 150mm MIN. ABOVE BASE OF GREEN INFRASTRUCTURE SYSTEM.
2. BIORETENTION CELL WIDTH TO BE MIN. 3500mm WHERE TREES ARE PROPOSED AND MIN. 1850mm WITHOUT TREES.
3. FOR TREE HEALTH, LOCATE INLETS AWAY FROM ROOT BALLS TO MINIMIZE POTENTIAL DAMAGE.
4. LOW POINT TO BE MIN. 75mm BENEATH OVERFLOW RIM ELEVATION. WITHOUT TREES, CENTRALLY LOCATE THE LOW POINT. WITH TREES, POSITION LOW POINTS ON EITHER SIDE OF ROOT BALLS MOUND AND GRADE ACCORDINGLY.

All dimensions are in millimetres unless otherwise shown.

	ENGINEERING & CONSTRUCTION SERVICES STANDARD DRAWING		REV 0	SEP 2021
	BIORETENTION CELL IN BOULEVARD LAYOUT AND MATERIALS PLAN			
	T-850.061-1		NTS	SHEET 1



SECTION A-A

- NOTES:
1. UNDERDRAIN IS REQUIRED WHERE NATIVE SOIL INFILTRATION RATES ARE LESS THAN 15mm/hr, WHEN TREE PLANTINGS ARE PRESENT, OR WHEN GREEN INFRASTRUCTURE SYSTEM IS MEMBRANE LINED. UNDERDRAIN TO BE 200mm DIA. SMOOTH INTERIOR WALLED PERFORATED PIPE WRAPPED IN GEOTEXTILE FABRIC, INSTALLED 150mm MIN. ABOVE BASE OF GREEN INFRASTRUCTURE SYSTEM.
 2. BIORETENTION CELL WIDTH TO BE MIN. 3500mm WHERE TREES ARE PROPOSED AND MIN. 1850mm WITHOUT TREES.
 3. FOR TREE HEALTH, LOCATE INLETS AWAY FROM ROOT BALLS TO MINIMIZE POTENTIAL DAMAGE.
 4. GRAVEL USED FOR DRAINAGE LAYER TO BE 20 OR 50mm UNIFORMLY GRADED, CLEAN (MAXIMUM WASH LOSS OF 0.5%), CRUSHED ANGULAR STONE THAT HAS A POROSITY OF 0.4.
- All dimensions are in millimetres unless otherwise shown.

	ENGINEERING & CONSTRUCTION SERVICES STANDARD DRAWING	REV 0	SEP 2021
	BIORETENTION CELL IN BOULEVARD OR MEDIAN TYPICAL SECTION	T-850.061-3	
		1:30	SHEET 1