



FUNCTIONAL SERVICING REPORT

FOR THE PROPERTY LOCATED AT

8605 PROMENADE CAMPEAU DRIVE, OTTAWA, ON



Prepared By:

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Functional Servicing Report

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1. INTRODUCTION

1.1 Study Area

The study area is an undeveloped area with approximate size of 1.18ha located at south-east quadrant of Palladium and Campeau Dr. intersections. The civic address for this property is 8605 Promenade Campeau Dr, Ottawa, Ontario and is shown in FIGURE 1.

This study has been prepared on behalf of Suncor Energy Products to address the servicing requirements of the site which includes water, sanitary and storm development located in Ottawa, Ontario.

2. BACKGROUND

2.1 Background Information

The proposed development is within the Kanata West Business Park, previous design brief for Kanata West Business Park – Phase 5 425 Huntmar Drive prepared by IBI were obtained and reviewed prior to the preparation of this Servicing Report.

2.2 Land Use

The existing study area is undeveloped with no service connections into municipal infrastructure. The client intends to develop the parcel of land constructing two (x2) single storey commercial buildings, pump islands, associated canopy, and underground tanks.

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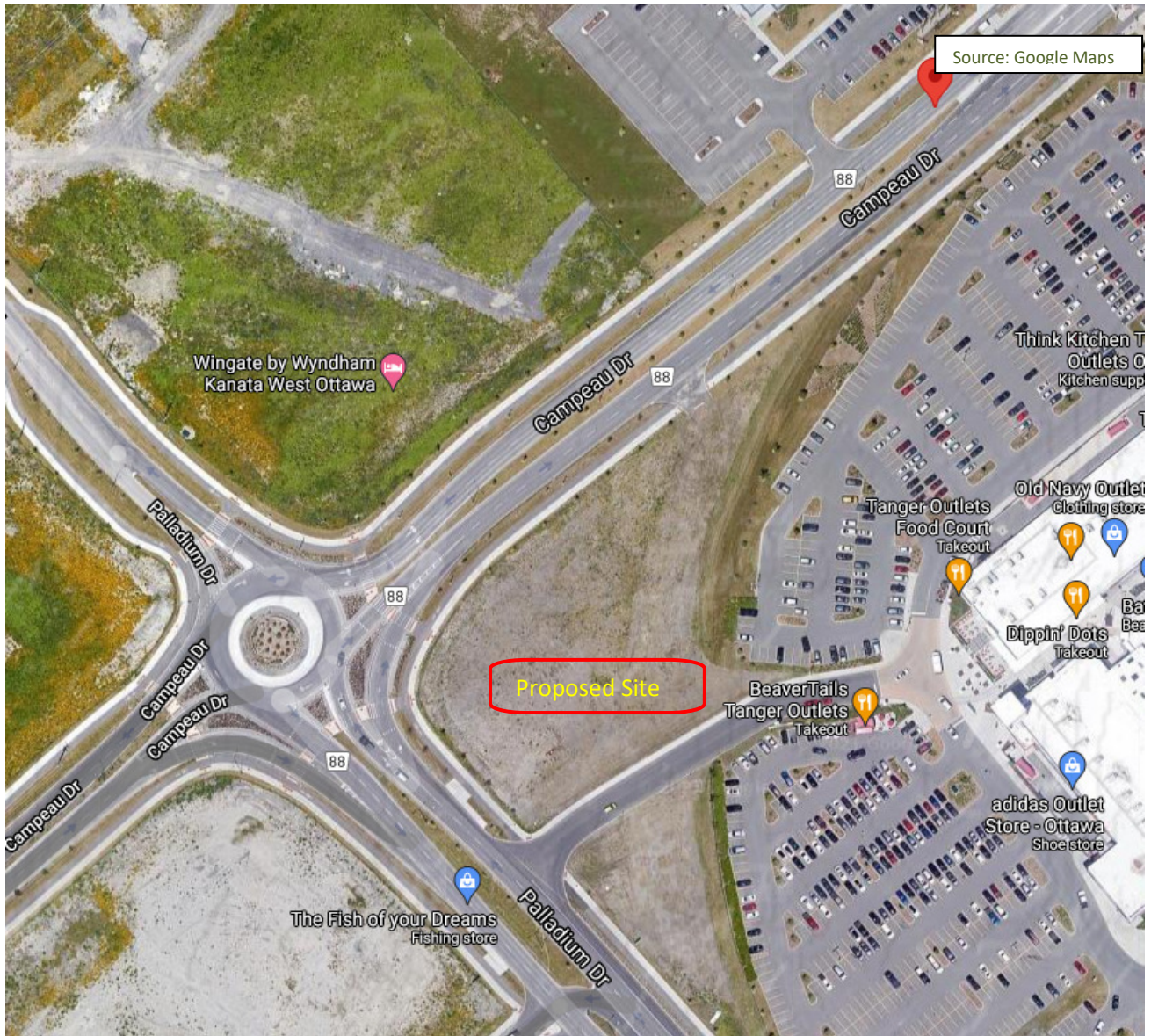


Figure 1 Study Area

3. WATER SUPPLY AND APPURTENANCES

3.1 Water Supply Existing

The existing parcel does not have water service, however, based on Figure 3 of KWBP – Phase 5 Design Brief, there is an existing 200mm watermain along the Tanger Mall driveway entrance teeing off a 250mm watermain along Palladium Drive.



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3.2 Water Supply Proposed

To calculate the peak flow water demand, the following design criteria have been utilized:

- Fixture units to gal/min based on OBC table no. 7.4.10.5

The required domestic flow for this development is 2.775 L/sec. (Refer to Appendix B for calculation.)

A 65mm and a 40mm diameter type 'K' copper water service is proposed for the C-store and the other proposed building which will feed off the existing 200mm watermain at the Tanger Mall driveway entrance off of Palladium Drive (see Site Servicing Plan P-301 in Appendix A).

3.3 Watermain Appurtenances

The subject property is will be serviced by an existing fire hydrant located within the Campeau Drive right of way (ROW) approximately 75m from the furthest fuelling dispenser and another existing fire hydrant along Palladium Dr. right of way (ROW) approximately 90m from the furthest dispenser. No additional fire hydrants are required for the proposed development.

The new water meter will be located withing the C-store mechanical room. The meter room will need to be accessible by the City and provide remote read-out locations for the City's use in reading the meters. The details of the room layout will be provided by the mechanical engineer during the detailed design stage. The floor area of the proposed convenience store is 284.76 m²; a fire sprinkler system is not required for this development.

For the details of proposed water connections see attached Servicing Drawing P-301 in Appendix A.

4. SANITARY SEWEGE SYSTEM

4.1 Existing Sanitary Sewage System

Under existing conditions there is currently no SAN service or a septic system as the lot is not being used or serviced. There is an existing 300mm sanitary pipe along Campeau Dr. fronting the proposed development (Figure 3 of KWBP – Phase 5 Design Brief)

4.2 Proposed Sanitary Sewage System

The proposed development will connect to the existing 300 mm sanitary service located on Campeau Dr. The site will be serviced by a 150mm connection. Refer to the site servicing drawing P-301 in Appendix C.

Our findings and conclusions for the sanitary servicing are as follows:

- The anticipated sanitary peak flow for the entire development is 0.0654 l/s. For calculation see Appendix B.



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- There is no contribution of rainwater runoff to the sanitary sewer.
- Sanitary servicing for the proposed development will consist of one (x1) 150mm diameter sanitary lateral to the existing sanitary MH located on Campeau Dr. which discharges into an existing 300mm sanitary sewer running along Campeau Dr.

5. STORM DRAINAGE SYSTEM

A Stormwater Management Report for this development has been prepared under a separate cover. It identifies the stormwater quantity and quality controls under which this site will operate to comply with the City's Design Criteria.

4.1 Existing Condition

The subject property is approximately 1.18ha in size and is currently undeveloped with no storm infrastructure in place. Based on existing topography, the site drains in the south east direction into an existing conveyance swale and eventually towards the Tanger Mall Outlet parking lot.

4.2 Minor Storm Drainage System

According to the Design Brief - Kanata West Business Park (KWBP) – Phase 5, 425 Huntmar Drive report prepared by IBI, the subject property is part of the overall development and is identified as Block 135A (Table 4.2) with a contribution area of 1.12 ha with an established allowable release rate of 257 L/s and required storage of 111m³. This parcel is designed to discharge to Pond 6 East (Figure 1 of KWBP – Phase 5 Design Brief) located to the east of the Tanger Mall Outlet and will provide both quantity and quality treatment.

Considering the proposed development is approximately ~5% larger in size 1.18ha when compared the KWBP Design Brief, in which Block 135A was based on 1.12ha, we have increased the required storage by 5% to 116.55m³ and maintained the same allowable release rate.

4.3 Major Storm Drainage System

The major storm system is a conveyance system for flows in excess of the minor system flows. For the development of this site, the grading design will be prepared such that the surface (i.e. roads and landscaped areas) grades will direct surface drainage away from the buildings to approved outlets, such as the adjoining public rights-of-way.

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6. CONCLUSION

WATER DISTRIBUTION

The proposed development will be serviced via new 65mm water service which will be fed from an existing 200mm water service located at the Palladium Drive - Tanger Mall outlet driveway entrance. A 2.77 l/sec domestic water demand has been calculated for this project. Sizing and location of the proposed water services to the proposed buildings will be coordinated with the mechanical consultant at the detailed design stage. Additional fire hydrants are not required for this development.

SANITARY SEWAGE

Sanitary sewage from this development will be conveyed to the existing 300 mm diameter sanitary sewer on Campeau Dr. through the proposed 150mm sanitary lateral connection.

STORM DRAINAGE

Based on the design brief - Kanata West Business Park (KWBP) – Phase 5, 425 Huntmar Drive report prepared by IBI, the subject property is part of the overall development and is identified as Block 135A (Table 4.2) with a contribution area of 1.12 ha with an established allowable release rate of 257 L/s and required storage of 111m³. This parcel is designed to discharge to Pond 6 East (Figure 1 of KWBP – Phase 5 Design Brief) located to the east of the Tanger Mall Outlet and will provide both quantity and quality treatment.

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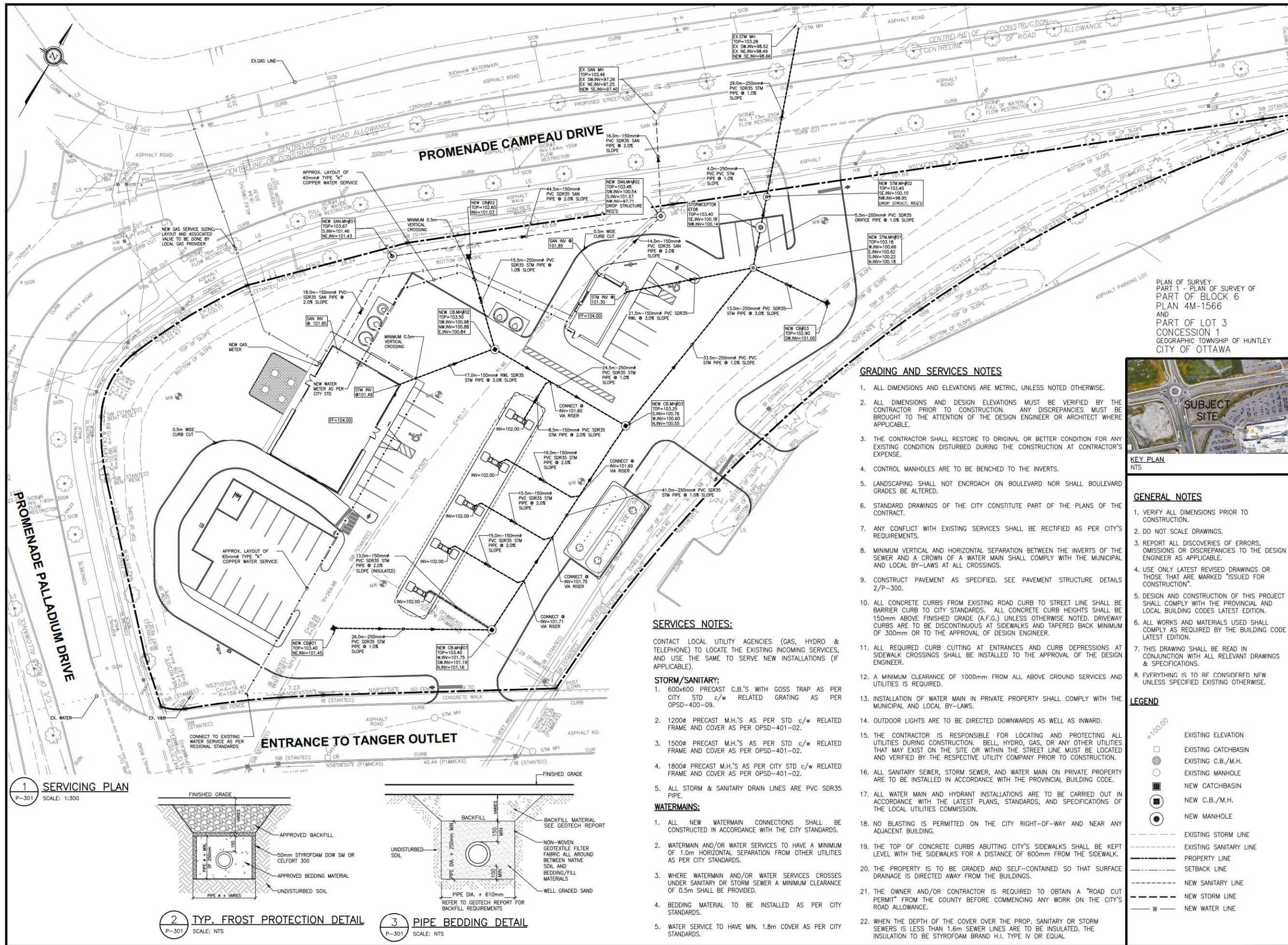
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8605 Campeau Drive
Ottawa, ON

Appendix A

SITE SERVICING PLAN



REVISION TABLE		
REV.	DESCRIPTION	DATE
0	REVISED AS PER THE CLIENT'S COMMENTS	11 FEB 21

ISSUE TABLE		
TO	FOR	DATE
SUNCOR	75% REVIEW	11 NOV 20
SUNCOR	PRICING	04 DEC 20
SUNCOR	ISSUED FOR SPA	18 DEC 20

METRIC
 ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED. CONTRACTOR TO CHECK/VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. ALL DISCREPANCIES TO BE REPORTED TO THE PROJECT DESIGNER. DO NOT SCALE DRAWINGS.



SERVICING PLAN
 OTTAWA, ON

PROMENADE PALLADIUM DRIVE @ PROMENADE CAMPEAU DRIVE

DRAIN BY: RP	CAD INFO: SHEET SIZE D (559 x 864)
DRIVING SCALE: 1:300	PETRO-CANADA CAD FILE No.
DATE DRAIN: 2020-10-14	CONSULTANT CAD FILE No. 200258-P301
CHECKED BY: BR	PLOT SCALE 1:1
APPROVED BY: JS	PLOT DATE
STD No./OUTLET No. 10565	P301

GRADING AND SERVICES NOTES

- ALL DIMENSIONS AND ELEVATIONS ARE METRIC, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS AND DESIGN ELEVATIONS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER OR ARCHITECT WHERE APPLICABLE.
- THE CONTRACTOR SHALL RESTORE TO ORIGINAL OR BETTER CONDITION FOR ANY EXISTING CONDITION DISTURBED DURING THE CONSTRUCTION AT CONTRACTOR'S EXPENSE.
- CONTROL MANHOLES ARE TO BE BENCHMARKED TO THE INVERTS.
- LANDSCAPING SHALL NOT ENCROUGH ON BOULEVARD NOR SHALL BOULEVARD GRADES BE ALTERED.
- STANDARD DRAWINGS OF THE CITY CONSTITUTE PART OF THE PLANS OF THE CONTRACT.
- ANY CONFLICT WITH EXISTING SERVICES SHALL BE RECTIFIED AS PER CITY'S REQUIREMENTS.
- MINIMUM VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE INVERTS OF THE SEWER AND A CROWN OF A WATER MAIN SHALL COMPLY WITH THE MUNICIPAL AND LOCAL BY-LAWS AT ALL CROSSINGS.
- CONSTRUCT PAVEMENT AS SPECIFIED. SEE PAVEMENT STRUCTURE DETAILS 2/P-300.
- ALL CONCRETE CURBS FROM EXISTING ROAD CURB TO STREET LINE SHALL BE BARRIER CURB TO CITY STANDARDS. ALL CONCRETE CURB HEIGHTS SHALL BE 150mm ABOVE FINISHED GRADE (A.F.G.) UNLESS OTHERWISE NOTED. DRIVEWAY CURBS ARE TO BE DISCONTINUOUS AT SIDEWALKS AND TAPERED BACK MINIMUM OF 300mm OR TO THE APPROVAL OF DESIGN ENGINEER.
- ALL REQUIRED CURB CUTTING AT ENTRANCES AND CURB DEPRESSIONS AT SIDEWALK CROSSINGS SHALL BE INSTALLED TO THE APPROVAL OF THE DESIGN ENGINEER.
- A MINIMUM CLEARANCE OF 1000mm FROM ALL ABOVE GROUND SERVICES AND UTILITIES IS REQUIRED.
- INSTALLATION OF WATER MAIN IN PRIVATE PROPERTY SHALL COMPLY WITH THE MUNICIPAL AND LOCAL BY-LAWS.
- OUTDOOR LIGHTS ARE TO BE DIRECTED DOWNWARDS AS WELL AS INWARD.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. BELL, HYDRO, GAS, OR ANY OTHER UTILITIES THAT MAY EXIST ON THE SITE OR WITHIN THE STREET LINE MUST BE LOCATED AND VERIFIED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION.
- ALL SANITARY SEWER, STORM SEWER, AND WATER MAIN ON PRIVATE PROPERTY ARE TO BE INSTALLED IN ACCORDANCE WITH THE PROVINCIAL BUILDING CODE.
- ALL WATER MAIN AND HYDRANT INSTALLATIONS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST PLANS, STANDARDS, AND SPECIFICATIONS OF THE LOCAL UTILITIES COMMISSION.
- NO BLASTING IS PERMITTED ON THE CITY RIGHT-OF-WAY AND NEAR ANY ADJACENT BUILDING.
- THE TOP OF CONCRETE CURBS ABUTTING CITY'S SIDEWALKS SHALL BE KEPT LEVEL WITH THE SIDEWALKS FOR A DISTANCE OF 600mm FROM THE SIDEWALK.
- THE PROPERTY IS TO BE GRADED AND SELF-CONTAINED SO THAT SURFACE DRAINAGE IS DIRECTED AWAY FROM THE BUILDINGS.
- THE OWNER AND/OR CONTRACTOR IS REQUIRED TO OBTAIN A "ROAD CUT PERMIT" FROM THE COUNTY BEFORE COMMENCING ANY WORK ON THE CITY'S ROAD ALLOWANCE.
- WHEN THE DEPTH OF THE COVER OVER THE PROP. SANITARY OR STORM SEWERS IS LESS THAN 1.6m SEWER LINES ARE TO BE INSULATED. THE INSULATION TO BE STYROFOAM BRAND H.I. TYPE IV OR EQUAL.

SERVICES NOTES:

CONTACT LOCAL UTILITY AGENCIES (GAS, HYDRO & TELEPHONE) TO LOCATE THE EXISTING INCOMING SERVICES, AND USE THE SAME TO SERVE NEW INSTALLATIONS (IF APPLICABLE).

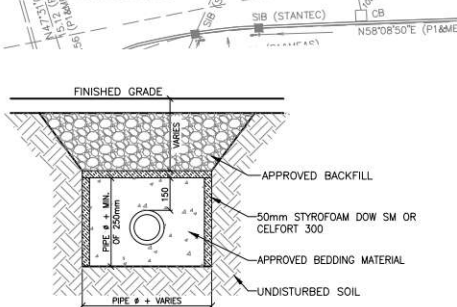
STORM/SANITARY:

- 600x600 PRECAST C.B.'S WITH GOSS TRAP AS PER CITY STD c/w RELATED GRATING AS PER OPSD-400-09.
- 1200# PRECAST M.H.'S AS PER STD c/w RELATED FRAME AND COVER AS PER OPSD-401-02.
- 1500# PRECAST M.H.'S AS PER STD c/w RELATED FRAME AND COVER AS PER OPSD-401-02.
- 1800# PRECAST M.H.'S AS PER CITY STD c/w RELATED FRAME AND COVER AS PER OPSD-401-02.
- ALL STORM & SANITARY DRAIN LINES ARE PVC SDR35 PIPE.

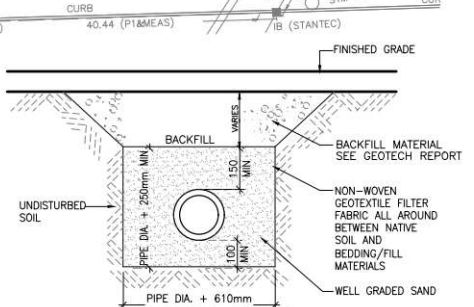
WATERMANS:

- ALL NEW WATERMAIN CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY STANDARDS.
- WATERMAIN AND/OR WATER SERVICES TO HAVE A MINIMUM OF 1.0m HORIZONTAL SEPARATION FROM OTHER UTILITIES AS PER CITY STANDARDS.
- WHERE WATERMAIN AND/OR WATER SERVICES CROSSES UNDER SANITARY OR STORM SEWER A MINIMUM CLEARANCE OF 0.5m SHALL BE PROVIDED.
- BEDDING MATERIAL TO BE INSTALLED AS PER CITY STANDARDS.
- WATER SERVICE TO HAVE MIN. 1.8m COVER AS PER CITY STANDARDS.

ENTRANCE TO TANGER OUTLET



2 TYP. FROST PROTECTION DETAIL
 SCALE: NTS



3 PIPE BEDDING DETAIL
 SCALE: NTS

1 SERVICING PLAN
 SCALE: 1:300



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Ottawa, ON

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Appendix B

WATER DEMAND CALCULATION



8605 Campeau Drive
Ottawa, ON

CITY OF OTTAWA
THEORETICAL DOMESTIC WATER DEMAND CALCULATION
8605 PROMENADE CAMPEAU DRIVE, OTTAWA, ON

Convenience Store
Domestic Code Water

Fixture Units	Flow ¹	Flow
	(gpm)	l/s
54	44	2.775

Note 1 Fixture units to gal/min based on OBC table no. 7.4.10.5



8605 Campeau Drive
Ottawa, ON

Appendix C

SANITARY FLOW CALCULATION



CITY OF OTTAWA
THEORETICAL DOMESTIC WATER DEMAND CALCULATION
8605 PROMENADE CAMPEAU DRIVE, OTTAWA, ON

Convenience Store

Unit Type	Nos.	Peak Commercial Flow	Total Flow
		l/d	l/s
i) Water Closet	3	950	0.0330
ii) Fuel Outlet ²	5	560	0.0324
Total Peak Flow			0.0654

Note 1 Water Closet volume based on OBC Table 8.2.1.3.B.

Note 2 Fuel Outlet volume based on OBC Table 8.2.1.3.B.