

Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermains

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SITE SERVICING & STORMWATER MANAGEMENT REPORT

TIM HORTONS
2300 BANK STREET
OTTAWA, ONTARIO

REPORT No. 25051

DECEMBER 17, 2025
REVISED APRIL 9, 2026

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1.0 INTRODUCTION

This report has been prepared in support of the Site Plan Control application for the redevelopment of 2300 Bank Street (located at the corner of Daze Street) in Ottawa for a proposed 486 m² Tim Hortons with a drive-through lane. This report describes the servicing for the proposed building and stormwater management for the 0.26 ha developed portion of the property. (The entire property is about 0.36 ha in area, but Sawmill Creek flows through the western part of the property, and the 0.10 ha area adjacent to the creek is, and will remain, undeveloped.) The property is currently occupied by a bank building with a drive-through lane for an ATM. The 458 m² bank building will be demolished. Refer to Pre-Application Consultation meeting notes in Appendix D.

This report forms part of the site servicing and stormwater management design for the proposed development. Also refer to drawings C-1 to C-6 prepared by D.B. Gray Engineering Inc.

2.0 WATER SERVICING

2.1 WATER SUPPLY FOR FIREFIGHTING

There is an existing municipal Class AA fire hydrant located adjacent to the northeast of the property. It is about a 24 m unobstructed distance to the closest entrance to the proposed building, which is less than the maximum 90 m required by the Ontario Building Code (OBC); therefore, a private fire hydrant is not required.

In accordance with City of Ottawa Technical Bulletin IWSTB-2024-05, when calculating the required fire flow on private property in urban areas, the OBC method is to be used. Using the OBC method, the required fire flow is calculated to be 2,700 L/min (45 L/s) for the proposed building. Refer to calculations in Appendix A.

The boundary conditions for the 300 mm Daze Street municipal watermain, provided by the City of Ottawa, for the 45 L/s fire flow at the subject property indicate a hydraulic grade line (HGL) of 127.6 m. This HGL calculates to be 395 kPa (57 psi). Since the pressure is above the OBC's minimum required pressure of 140 kPa (20 psi), there is an adequate water supply for firefighting from the existing municipal water distribution system. Refer to Appendix A.

In accordance with City of Ottawa Technical Bulletin ISTB-2018-02, the aggregate flow of all contributing fire hydrants within 150 m of the building shall not be less than the required fire flow. In accordance with City of Ottawa Technical Bulletin ISTB-2018-02 Appendix I:

Class	Distance (m)	Contribution (L/min)
AA	≤ 75	5,700
	> 75 and ≤ 150	3,800

Since the existing municipal Class AA fire hydrant discussed above is within 75 m of the proposed building it can contribute 5,700 L/min (95 L/s); therefore, the flow from this hydrant is greater than the required fire flow of 2,700 L/min (45 L/s).

2.2 DOMESTIC WATER SUPPLY

In accordance with

- i. the City of Ottawa Sewer Design Guidelines Appendix 4-A for the daily flow (200 L/seat/day for a 24-hour restaurant), and
 - ii. the City of Ottawa Water Design Guidelines for the peaking factors, and
- based on 75 seats, the daily flow is calculated to be 15,000 L/day, and the average daily demand is calculated to be 0.2 L/s, the maximum daily demand is calculated to be 0.3 L/s, and the maximum hourly demand is calculated to be 0.5 L/s. Refer to calculations in Appendix A.

The boundary conditions in the 300 mm Daze Street municipal watermain provided by the City of Ottawa at the subject property indicate a minimum HGL of 124.3 m and a maximum HGL of 131.4 m. Refer to Appendix A. Based on these boundary conditions, the pressure at the water meter in the proposed building is calculated to vary between 358 kPa (52 psi) and 427 kPa (62 psi). This is an acceptable range for the proposed development.

The existing 50 mm water service (connecting to the existing 300 mm Daze Street municipal watermain) is proposed to remain.

3.0 SANITARY SERVICING

In accordance with

- i. the City of Ottawa Sewer Design Guidelines Appendix 4-A for the daily flow (200 L/seat/day for a 24-hour restaurant), and
 - ii. City of Ottawa Technical Bulletin ISTB-2018-01 for the infiltration allowance, and
- based on 75 seats, the daily flow is calculated to be 15,000 L/day, and the sanitary flow rate is calculated to be 0.35 L/s. Refer to calculations in Appendix B.

The existing 150 mm sanitary sewer service (assumed to have a minimum 1% slope and 14.43 L/s capacity) is proposed to remain. The sanitary sewer service connects (via an existing manhole and an existing 200 mm sanitary sewer) to the existing 250 mm municipal sanitary sewer in Daze Street

4.0 STORMWATER MANAGEMENT

As stated in the Pre-Consultation: Meeting Feedback, the stormwater management Criteria, for the subject site, is to be based on the following:

- *“If existing stormwater management is present, this shall be accounted for in the revised design. If significant additional hard surfacing is proposed, quantity control will be required as per the criteria noted below. If no existing controls are present and only the building is being relocated, please control the building to the criteria noted below.”*
- *“In separated areas, the pre-development runoff shall be the lower of the existing coefficient or a maximum equivalent ‘C’ of 0.5, whichever is less (§ 8.3.7.3).”*
- *“A calculated time of concentration (cannot be less than 10 minutes).”*
- *“Flows to the storm sewer in excess of the 2-year storm release rate, up to and including the 100-year storm event, must be detained on site.”*
- *“Storm sewer outlets should not be submerged.”*

- "Quality control (80% TSS removal) will be required if significant additional hard surfacing is proposed. Quality control will not be required only the building relocation is proposed."
- "Stormwater should include a review of peak and total flow impacts, as the site outlets to Sawmill Creek which has been identified as being prone to erosion downstream. It is acknowledged that the site is already developed, thus any improvements to on-site stormwater management and infiltration, where possible, is encouraged."

4.1 QUANTITY CONTROL

The stormwater management report for the existing development is not available. It is believed that the existing roof drains are not flow control roof drains, and a site review reveals that the existing stormwater management quantity control consists of a Type A inlet control device (ICD) located in the outlet pipe of the existing onsite catch basin /manhole. However, the existing site grading provides practically no storage (only about 0.34 m³); therefore, the existing quantity control for the site is not effective.

The stormwater quantity control target used is to control the post-development 100-year peak flow rate to the pre-development 2-year peak flow rate using a calculated pre-development runoff coefficient not more than 0.5 and a calculated pre-development time of concentration not less than 10 minutes. It is calculated that the pre-development conditions reflect a 2-year runoff coefficient of 0.76. The 2-year runoff coefficients are increased by 25% to a maximum of 1.00 to calculate the 100-year runoff coefficient. The Rational and Modified Rational Methods are used to calculate the post-development flow rates and corresponding storage volumes. Using a 0.76 runoff coefficient and a 10-minute time of concentration, the pre-development flow rates are calculated be 110.13 L/s during the 100-year event and 42.00 L/s during the 2-year event. Using a 0.5 runoff coefficient and a 10-minute time of concentration, the flow rate is calculated be 28.13 L/s; therefore, the target release rate is 28.13 L/s. Refer to calculations in Appendix C.

Drainage Area I (Uncontrolled Flow Off Site – 580 m²)

The area to the north of the proposed building will drain uncontrolled off site. The flow rates are calculated at a time of concentration of 10 minutes.

	100-Year Event	2-Year Event
Maximum Flow Rate	20.94 L/s	7.99 L/s

Drainage Area II (Proposed Building Roof – 248 m²)

The two proposed roof drains are to be adjustable flow control type roof drains, which will restrict the flow of stormwater and cause it to pond on the roof. Roof drains are to be Watts RD-100 c/w a Watts Adjustable Accutrol Weir in the 1/4 open position or approved equal. The opening at the top of the flow control weir is to be a minimum 50 mm in diameter. A minimum of two scuppers each, a minimum 375 mm wide, are to be installed 150 mm above the roof drains. Refer to architectural for exact locations and details. The roof is to be designed to carry the load of water having a 50 mm depth at the scuppers (i.e. 200 mm depth at the roof drains). Refer to structural.

	100-Year Event	2-Year Event
Maximum Release Rate	1.84 L /s	1.52 L/s
Maximum Depth at Roof Drains	143 mm	91 mm
Maximum Volume Stored	8.10 m ³	2.09 m ³

Drainage Area III (1,807 m²)

As previously stated, the existing site grading provides practically no storage; therefore, most of the site will be regraded to so that up to 54.29 m³ will be provided (the practical maximum provided given the constraints of the existing development). The existing inlet control device (ICD) will be removed and a new ICD installed in the outlet pipe of the proposed catch basin/manhole CB/MH-1 will restrict the flow of stormwater and cause it to backup into the upstream infrastructure and pond above CB/MH-1, the existing CB/MH and the existing catch basin. The ICD will be a vortex style manufactured by Hydrovex or approved equal, sized by the manufacturer for a discharge rate of 9.22 L/s at 2.31 m. It is calculated that an orifice area of 7,854 mm² (100 mm dia.) with a discharge coefficient of 0.174 will achieve the release rate of 9.22 L/s at 2.31 m. Based on this orifice the maximum release rate for the 2-year storm event is calculated to be 9.07 L/s at 2.23 m.

	100-Year Event	5-Year Event
Maximum Release Rate	9.22 L/s	9.07 L/s
Maximum Water Elevation	86.70 m	86.62 m
Maximum Volume Stored	54.29 m ³	12.89 m ³

Summary

	100-Year Event	5-Year Event
Pre-Development Flow Rate	110.13 L/s	42.00 L/s
Target Release Rate	28.13 L/s	28.13 L/s
Maximum Release Rate	31.99 L/s	18.58 L/s
Maximum Volume Required	62.39 m ³	14.98 m ³
Maximum Volume Stored	62.39 m ³	14.98 m ³

The maximum post-development release rate during the 100-year event is calculated to be 31.99 L/s, which is 71% less than the pre-development flow rate during the 100-year event; but is 14% greater than the target release rate. This is the lowest release rate that can be achieved, given the maximum storage volume that can be provided. The maximum post development release rate during the 2-year event is calculated to be 118.58 L/s, which is 56% less than the pre-development flow rate during the 2-year event and 34% less than the target release rate. The post-development reduction in flow is expected to have a positive impact on the existing municipal storm sewer system and Sawmill Creek.

4.2 QUALITY CONTROL

There are no existing quality control measures on the property, and since the proposed hard surfacing will be slightly less (about 2%) than the existing, quality control is not required.

4.3 EROSION & SEDIMENT CONTROL PLAN

An Erosion & Sediment Control Plan has been developed to be implemented during construction. Refer to drawing C-4 and notes 2.1 to 2.5 on drawing C-5. Refer to drawing C-4 and notes 2.1 to 2.5 on drawing C-5. The subject site is currently fully developed and virtually the entire site currently drains to an existing storm sewer system; (existing grading and curbs direct stormwater into the existing sewer system and away from draining directly to the watercourse). This remains virtually unchanged with the proposed re-

development. Prior to commencement of construction sediment capture filter sock inserts are to be installed in all existing and proposed catch-basins and catch-basin/manholes adjacent to and within the site. Immediately after the existing asphalt is removed a silt sock is proposed at the entrance. Throughout construction any material deposited on the public road is to be removed. Silt fence barriers are proposed for small areas to the north and west of the site (that do not drain into the existing storm sewer system) where water can drain off the site.

5.0 CONCLUSIONS

1. A private fire hydrant is not required.
2. There is an adequate water supply for firefighting from the existing municipal water distribution system.
3. The flow available from the existing municipal fire hydrant is greater than the required fire flow.
4. There is an acceptable range of water pressures in the existing municipal water distribution system.
5. The post-development sanitary flow rates will be adequately handled by the existing sanitary sewer connection.
6. The maximum post-development release rate during the 100-year event is calculated to be 71% less than the pre-development flow rate during the 100-year event. The maximum post development release rate during the 2-year event is 56% less than the pre-development flow rate. The post-development reduction in flow is expected to have a positive impact on the existing municipal storm sewer system and Sawmill Creek.
7. The post-development reduction in stormwater flow is expected to have a positive impact on the existing municipal storm sewer.
8. An Erosion & Sediment Control Plan has been developed to be implemented during construction.

Prepared by D.B. Gray Engineering Inc.



NOT VALID UNLESS
SIGNED & DATED

APPENDIX A

WATER SERVICING



Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermains

700 Long Point Circle
Ottawa, Ontario K1T 4E9

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d.gray@dbgrayengineering.com

December 3, 2025
REVISED December 17, 2025

2300 Bank Sreet

Ottawa, Ontario

FIRE FLOW CALCULATIONS OBC Method

Q = Required water supply in litres
= KVS_{Total}

K = Water supply coefficient as per OBC A-3.2.5.7. Table 1
= 39 Group E Occupancy (restaurant that has a capacity of 30 or fewer people), Building is of combustible construction with fire separations without fire resistance ratings.

V = Building volume in cubic meters

	Floor Area (sq.m)	Height (m)	Volume (cu.m)
3rd Floor:	244	6.7	1,635

S_{Total} = Total of spatial coefficients from exposure distances
= $1.0 + S_{Side\ 1} + S_{Side\ 2} + S_{Side\ 3} + S_{Side\ 4}$

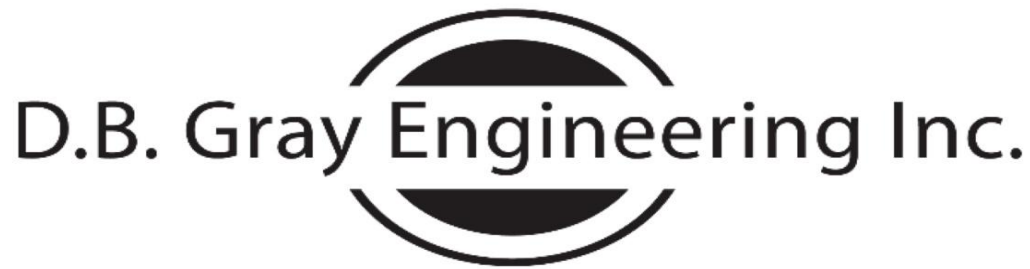
	Spatial Coefficient	Exposure Distance (m)	
$S_{Side\ 1}$	0.0	51	(to centerline of Daze Street)
$S_{Side\ 2}$	0.0	46	(to SW property line)
$S_{Side\ 3}$	0.0	19	(to SE property line)
$S_{Side\ 4}$	0.0	38	(to centerline of Bank Street)
S_{Total}	1.0		Need not exceed 2.0

Q = 63,757 L
= 2,700 L/min as per OBC A-3.2.5.7. Table 2
= 45 L/s

45 L/s Fire Flow HGL: 127.6 m

Elevation at Fire Hydrant: 87.3 m

Static Pressure at Fire Hydrant: 40.3 m 395 kPa 57 psi



D.B. Gray Engineering Inc.

Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermains

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December 3, 2025
December 17, 2025

REVISED

2300 Bank Sreet

Ottawa, Ontario

WATER DEMAND CALCULATIONS

As per Ottawa Sewer Design Guidelines, Appendix 4-A, 24-hour Restaurant:

75	seats	L/seat/day	200	15,000	L/day				
				24	hour day				
				10.4	L/min	0.2	L/s	2.8	USgpm
		Maximum Daily Demand:		1.5	(Peaking factor as per City of Ottawa Water Design Guidelines)				
				15.6	L/min	0.3	L/s	4.1	USgpm
		Maximum Hourly Demand:		1.8	(Peaking factor as per City of Ottawa Water Design Guidelines)				
				28.1	L/min	0.5	L/s	7.4	USgpm

Elevation of Water Meter: 87.81 m ASL

Finish Floor Elevation: 86.91 m ASL

MINIMUM HGL: 124.3 m ASL

MAXIMUM HGL: 131.4 m ASL

Static Pressure at Water Meter

52 psi 358 kPa

62 psi 427 kPa

RE: Boundary Conditions Request - 2300 Bank St

1 message

Bramah, Bruce <bruce.bramah@ottawa.ca>
To: Douglas Gray <d.gray@dbgrayengineering.com>
Cc: "c.white" <c.white@dbgrayengineering.com>

Thu, Dec 11, 2025 at 1:49 PM

Hi Doug,

Please see the BC below and attached:

The following are boundary conditions, HGL, for hydraulic analysis at [2300 Bank Street \(zone 2W2C\)](#) assumed to be connected to the 305 mm watermain on Daze Street (see attached PDF for location).

Minimum HGL = 124.3 m

Maximum HGL = 131.4 m

Max Day + Fire Flow (45.0 L/s) = 127.6 m

These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation. Fire Flow analysis is a reflection of available flow in the watermain; there may be additional restrictions that occur between the watermain and the hydrant that the model cannot take into account.

Thanks,

--

Bruce Bramah, P.Eng

Project Manager

Planning, Development and Building Services department (PDBS) / Direction générale des services de la planification, de l'aménagement et du bâtiment (DGSPAB) - South Branch

City of Ottawa | Ville d'Ottawa

[110 Laurier Avenue West Ottawa, ON](#) | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1

613.580.2424 ext. 29686, Bruce.Bramah@ottawa.ca

Classified as City of Ottawa - Internal / Ville d'Ottawa - classé interne

From: Bramah, Bruce
Sent: December 04, 2025 8:03 AM
To: Douglas Gray <d.gray@dbgrayengineering.com>
Cc: c.white <c.white@dbgrayengineering.com>
Subject: RE: Boundary Conditions Request - 2300 Bank St

Morning Doug,

Received. Typical BC response times are 2 weeks.

Thanks,

--

Bruce Bramah, P.Eng

Project Manager

Planning, Development and Building Services department (PDBS)/ Direction générale des services de la planification, de l'aménagement et du bâtiment (DGSPAB) - South Branch

City of Ottawa | Ville d'Ottawa

110 Laurier Avenue West Ottawa, ON | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1

613.580.2424 ext. 29686, Bruce.Bramah@ottawa.ca

From: Douglas Gray <d.gray@dbgrayengineering.com>

Sent: December 04, 2025 7:18 AM

To: Bramah, Bruce <bruce.bramah@ottawa.ca>

Cc: c.white <c.white@dbgrayengineering.com>

Subject: Boundary Conditions Request - 2300 Bank St

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Hi Bruce

We are working on a project that proposes to convert an existing former bank building to Tim Horton's at [2300 Bank St](#). Please provide the boundary conditions. We have calculated the following expected demands:

Average daily demand: 0.2 L/s.

Maximum daily demand: 0.3 L/s.

Maximum hourly daily demand: 0.5 L/s

Fire Flow demand: 45.0 L/s

Fire Flow + Max Day: 45.3 L/s

Our calculations are attached. Also attached is a sketch showing the approximate location of the existing 50mm water service connection.

Regards, Doug

Douglas B. Gray, P.Eng.

D. B. Gray Engineering Inc.

[700 Long Point Circle](#)

[Ottawa, ON K1T 4E9](#)

613-425-8044

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 **2300 Bank Street December 2025.pdf**
1107K

Boundary Conditions for 2300 Bank Street



2202

Connection



305mm

1805mm

51mm

1280

152mm

406mm

152mm
102mm

rue Daze St.

2300

rue Bank-St.

2400

2380

2380

2400

2400

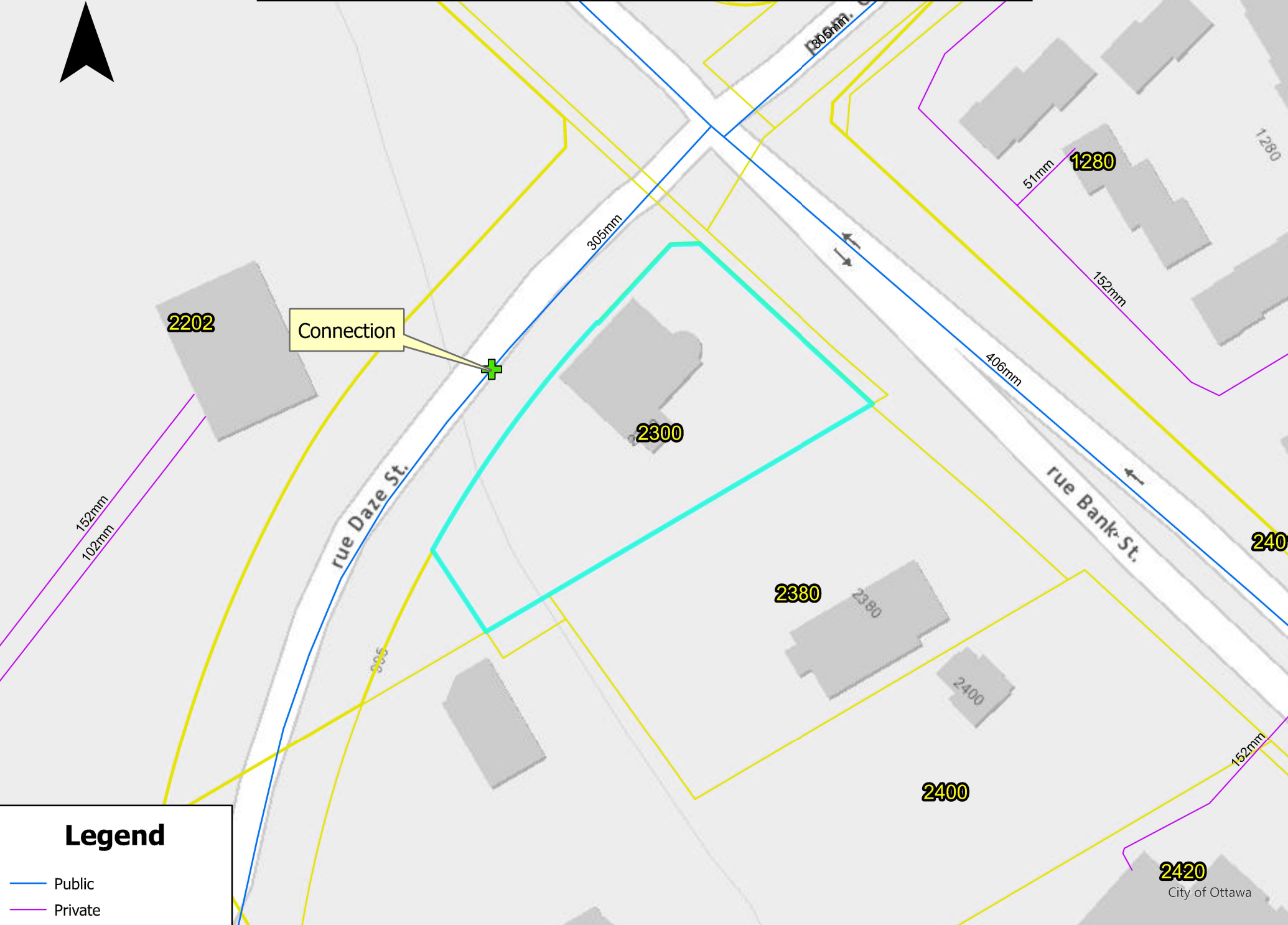
152mm

2420

City of Ottawa

Legend

- Public
- Private



APPENDIX B

SANITARY SERVICING

APPENDIX C

STORMWATER MANAGEMENT

SUMMARY TABLES

100-YEAR EVENT						
Drainage Area	Pre-Development Flow Rate (L/s)	Pre-Development 2-Year C=0.5 (L/s)	Maximum Release Rate (L/s)	Pre-Development Volume Stored (cu.m)	Maximum Volume Required (cu.m)	Maximum Volume Stored (cu.m)
AREA I (Uncontrolled Flow Off Site)	36.65	-	20.94	-	-	-
AREA II (Roof)		-	1.84	0.00	8.10	8.10
AREA IV	73.48	-	9.22	0.34	54.29	54.29
TOTAL	110.13	28.13	31.99	0.34	62.39	62.39

2-YEAR EVENT						
Drainage Area	Pre-Development Flow Rate (L/s)	Pre-Development 2-Year C=0.5 (L/s)	Maximum Release Rate (L/s)	Pre-Development Volume Stored (cu.m)	Maximum Volume Required (cu.m)	Maximum Volume Stored (cu.m)
AREA I (Uncontrolled Flow Off Site)	14.08	-	7.99	-	-	-
AREA II (Roof)		-	1.52	0.00	2.09	2.09
AREA III	27.91	-	9.07	0.34	12.89	12.89
TOTAL	42.00	28.13	18.58	0.34	14.98	14.98

2300 Bank Street

Ottawa, Ontario

STORMWATER MANAGEMENT CALCULATIONS

Modified Rational Method

PRE-DEVELOPMENT 2-YEAR RUNOFF: C=0.5

Area (A):	2,635	sq.m
Time of Concentration:	10	min
Rainfall Intensity (i):	77	mm/hr (2-Year Event)
Runoff Coefficient (C):	0.50	

Maximum Allowable Release Rate (2.78AiC): 28.13 L/s

PRE-DEVELOPMENT CONDITIONS

100-YEAR EVENT

DRAINAGE AREA I + II (Uncontrolled Flow Off Site)

(PRE-DEVELOPMENT 100-YEAR EVENT)

			C
Roof Area:	459	sq.m	1.00
Hard Area:	231	sq.m	1.00
Soft Area:	<u>193</u>	<u>sq.m</u>	<u>0.25</u>
Total Catchment Area:	883	sq.m	0.84
Area (A):	883	sq.m	
Time of Concentration:	10	min	
Rainfall Intensity (i):	179	mm/hr	
Runoff Coefficient (C):	0.84		
Flow Rate (2.78AiC):	36.65	L/s	

DRAINAGE AREA III

(PRE-DEVELOPMENT 100-YEAR EVENT)

			C
Roof Area:	0	sq.m	1.00
Hard Area:	1,405	sq.m	1.00
Soft Area:	<u>347</u>	sq.m	<u>0.25</u>
Total Catchment Area:	1,752	sq.m	0.85
Water Elevation:	86.53	m	
Head:	1.89	m	
Centroid of ICD Orifice:	84.64	m	
Invert of Outlet Pipe Existing CB/MH-1:	84.58	m	
Orifice Area:	6,695	sq.mm	
Discharge Coefficient:	0.610		
Maximum Release Rate:	24.88	L/s	
Maximum Overflow Rate:	48.60	L/s	
Total:	<u>73.48</u>	L/s	

CB/MH	Top Area	Depth	Volume
Existing CB/MH	20	0.05	0.34 cu.m

Maximum Volume Stored: 0.34 cu.m

Maximum Volume Required: 0.34 cu.m

DRAINAGE AREA III (Continued)

(PRE-DEVELOPMENT 100-YEAR EVENT)

Time (min)	i (mm/hr)	2.78AiC (L/s)	ICD		Total Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
			Release Rate (L/s)	Overflow Rate (L/s)			
10	179	74.05	24.88	48.60	73.48	0.57	0.34
15	143	59.26	24.88	34.00	58.88	0.38	0.34
20	120	49.74	24.88	24.58	49.46	0.28	0.34
25	104	43.07	24.88	17.96	42.84	0.23	0.34
30	92	38.10	24.88	13.03	37.91	0.19	0.34
35	83	34.25	24.88	9.20	34.08	0.16	0.34
40	75	31.16	24.88	6.14	31.02	0.14	0.34
45	69	28.64	24.88	3.63	28.51	0.13	0.34
50	64	26.52	24.88	1.53	26.41	0.11	0.34
55	60	24.73	24.73	0.00	24.73	0.00	0.00
60	56	23.18	23.18	0.00	23.18	0.00	0.00
65	53	21.83	21.83	0.00	21.83	0.00	0.00
70	50	20.65	20.65	0.00	20.65	0.00	0.00
75	47	19.60	19.60	0.00	19.60	0.00	0.00
80	45	18.66	18.66	0.00	18.66	0.00	0.00
85	43	17.81	17.81	0.00	17.81	0.00	0.00
90	41	17.05	17.05	0.00	17.05	0.00	0.00
95	39	16.35	16.35	0.00	16.35	0.00	0.00
100	38	15.72	15.72	0.00	15.72	0.00	0.00
105	36	15.14	15.14	0.00	15.14	0.00	0.00
110	35	14.60	14.60	0.00	14.60	0.00	0.00
115	34	14.10	14.10	0.00	14.10	0.00	0.00
120	33	13.64	13.64	0.00	13.64	0.00	0.00
125	32	13.21	13.21	0.00	13.21	0.00	0.00
130	31	12.81	12.81	0.00	12.81	0.00	0.00
135	30	12.44	12.44	0.00	12.44	0.00	0.00
140	29	12.09	12.09	0.00	12.09	0.00	0.00
145	28	11.76	11.76	0.00	11.76	0.00	0.00
150	28	11.45	11.45	0.00	11.45	0.00	0.00
180	24	9.91	9.91	0.00	9.91	0.00	0.00
210	21	8.77	8.77	0.00	8.77	0.00	0.00
240	19	7.88	7.88	0.00	7.88	0.00	0.00
270	17	7.17	7.17	0.00	7.17	0.00	0.00
300	16	6.59	6.59	0.00	6.59	0.00	0.00
330	15	6.10	6.10	0.00	6.10	0.00	0.00
360	14	5.69	5.69	0.00	5.69	0.00	0.00

POST DEVELOPMENT CONDITIONS

100-YEAR EVENT

DRAINAGE AREA I (Uncontrolled Flow Off Site)

(POST DEVELOPMENT 100-YEAR EVENT)

			C
Roof Area:	0	sq.m	1.00
Hard Area:	369	sq.m	1.00
Soft Area:	<u>211</u>	<u>sq.m</u>	<u>0.25</u>
Total Catchment Area:	580	sq.m	0.73
Area (A):	580	sq.m	
Time of Concentration:	10	min	
Rainfall Intensity (i):	179	mm/hr	
Runoff Coefficient (C):	0.73		
Flow Rate (2.78AiC):	20.94	L/s	

DRAINAGE AREA II (Roof)

(POST DEVELOPMENT 100-YEAR EVENT)

				C	
Total Catchment Area:	248	sq.m		1.00	
No. of Roof Drains:	2				
Wier Opening:	1/4				
Depth at Roof Drains:	143	mm			
Maximum Release Rate:	1.84	L/s		Pond Area:	170.2 sq.m
				Maximum Volume Stored:	8.10 cu.m
				Maximum Volume Required:	8.10 cu.m

Time (min)	i (mm/hr)	2.78AiC (L/s)	Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
10	179	12.31	1.84	10.47	6.28
15	143	9.85	1.84	8.01	7.21
20	120	8.27	1.84	6.43	7.72
25	104	7.16	1.84	5.32	7.98
30	92	6.33	1.84	4.50	8.09
35	83	5.69	1.84	3.86	8.10
40	75	5.18	1.84	3.34	8.02
45	69	4.76	1.84	2.92	7.89
50	64	4.41	1.84	2.57	7.72
55	60	4.11	1.84	2.27	7.50
60	56	3.85	1.84	2.02	7.26
65	53	3.63	1.84	1.79	6.99
70	50	3.43	1.84	1.60	6.70
75	47	3.26	1.84	1.42	6.39
80	45	3.10	1.84	1.26	6.07
85	43	2.96	1.84	1.12	5.73
90	41	2.83	1.84	1.00	5.38
95	39	2.72	1.84	0.88	5.02
100	38	2.61	1.84	0.78	4.65
105	36	2.52	1.84	0.68	4.28
110	35	2.43	1.84	0.59	3.89
115	34	2.34	1.84	0.51	3.50
120	33	2.27	1.84	0.43	3.10
125	32	2.20	1.84	0.36	2.69
130	31	2.13	1.84	0.29	2.28
135	30	2.07	1.84	0.23	1.87
140	29	2.01	1.84	0.17	1.45
145	28	1.96	1.84	0.12	1.02
150	28	1.90	1.84	0.07	0.59
180	24	1.65	1.65	0.00	0.00
210	21	1.46	1.46	0.00	0.00
240	19	1.31	1.31	0.00	0.00
270	17	1.19	1.19	0.00	0.00
300	16	1.10	1.10	0.00	0.00
330	15	1.01	1.01	0.00	0.00
360	14	0.95	0.95	0.00	0.00

DRAINAGE AREA III

(POST DEVELOPMENT 100-YEAR EVENT)

			C
Roof Area:	0	sq.m	1.00
Hard Area:	1,430	sq.m	1.00
Soft Area:	<u>377</u>	<u>sq.m</u>	<u>0.25</u>

Total Catchment Area: 1,807 sq.m 0.84

Water Elevation: 86.70 m

Head: 2.31 m

Centroid of ICD Orifice: 84.39 m

Invert of Outlet Pipe of CB/MH-1: 84.34 m

Orifice Diameter: 100 mm

Orifice Area: 7,854 sq.mm

Discharge Coefficient: 0.174

Maximum Release Rate: 9.22 L/s

CB/MH	Top Area	Depth	Volume	
Existing CB	283	0.17	16.04	cu.m
Existing CB/MH	348	0.22	25.52	cu.m
CB/MH-1	191	0.20	<u>12.73</u>	cu.m

Maximum Volume Stored: 54.29 cu.m

Maximum Volume Required: 54.29 cu.m

DRAINAGE AREA III (Continued)

(POST DEVELOPMENT 100-YEAR EVENT)

Time (min)	i (mm/hr)	2.78AiC (L/s)	ICD Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
10	179	75.66	9.22	66.44	39.86
15	143	60.55	9.22	51.33	46.20
20	120	50.83	9.22	41.61	49.93
25	104	44.00	9.22	34.78	52.17
30	92	38.93	9.22	29.71	53.47
35	83	34.99	9.22	25.77	54.12
40	75	31.84	9.22	22.62	54.29
45	69	29.26	9.22	20.04	54.10
50	64	27.10	9.22	17.88	53.64
55	60	25.27	9.22	16.04	52.94
60	56	23.68	9.22	14.46	52.07
65	53	22.31	9.22	13.09	51.04
70	50	21.10	9.22	11.88	49.88
75	47	20.02	9.22	10.80	48.61
80	45	19.06	9.22	9.84	47.25
85	43	18.20	9.22	8.98	45.80
90	41	17.42	9.22	8.20	44.28
95	39	16.71	9.22	7.49	42.69
100	38	16.06	9.22	6.84	41.04
105	36	15.47	9.22	6.24	39.34
110	35	14.92	9.22	5.70	37.59
115	34	14.41	9.22	5.19	35.80
120	33	13.94	9.22	4.72	33.97
125	32	13.50	9.22	4.28	32.10
130	31	13.09	9.22	3.87	30.20
135	30	12.71	9.22	3.49	28.27
140	29	12.35	9.22	3.13	26.31
145	28	12.02	9.22	2.80	24.32
150	28	11.70	9.22	2.48	22.31
180	24	10.13	9.22	0.91	9.80
210	21	8.96	8.96	0.00	0.00
240	19	8.05	8.05	0.00	0.00
270	17	7.33	7.33	0.00	0.00
300	16	6.73	6.73	0.00	0.00
330	15	6.24	6.24	0.00	0.00
360	14	5.81	5.81	0.00	0.00

PRE-DEVELOPMENT CONDITIONS

2-YEAR EVENT

DRAINAGE AREA I + II (Uncontrolled Flow Off Site)

(PRE-DEVELOPMENT 2-YEAR EVENT)

			C
Roof Area:	459	sq.m	0.90
Hard Area:	231	sq.m	0.90
Soft Area:	<u>193</u>	<u>sq.m</u>	<u>0.20</u>
Total Catchment Area:	883	sq.m	0.75
Area (A):	883	sq.m	
Time of Concentration:	10	min	
Rainfall Intensity (i):	77	mm/hr	
Runoff Coefficient (C):	0.75		
Flow Rate (2.78AiC):	14.08	L/s	

DRAINAGE AREA III

(2-YEAR EVENT)

			C
Roof Area:	0	sq.m	0.90
Hard Area:	1,405	sq.m	0.90
Soft Area:	<u>347</u>	<u>sq.m</u>	<u>0.20</u>

Total Catchment Area: 1,752 sq.m 0.76

Water Elevation: 86.53 m

Head: 1.89 m

Centroid of ICD Orifice: 84.64 m

Invert of Outlet Pipe Existing CB/MH: 84.58 m

Orifice Area: 6,695 sq.mm

Discharge Coefficient: 0.610

Maximum Release Rate: 24.88 L/s

Maximum Overflow Rate: 3.03 L/s

Total: 27.91 L/s

CB/MH	Top Area	Depth	Volume	
Existing CB/MI	20	0.05	0.34	cu.m

Maximum Volume Stored: 0.34 cu.m

Maximum Volume Required: 0.34 cu.m

DRAINAGE AREA III (Continued)

(2-YEAR EVENT)

Time (min)	i (mm/hr)	2.78AiC (L/s)	ICD		Total Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
			Release Rate (L/s)	Overflow Rate (L/s)			
10	77	28.48	24.88	3.03	27.91	0.57	0.34
15	62	22.90	22.90	0.00	22.90	0.00	0.00
20	52	19.29	19.29	0.00	19.29	0.00	0.00
25	45	16.75	16.75	0.00	16.75	0.00	0.00
30	40	14.85	14.85	0.00	14.85	0.00	0.00
35	36	13.37	13.37	0.00	13.37	0.00	0.00
40	33	12.19	12.19	0.00	12.19	0.00	0.00
45	30	11.21	11.21	0.00	11.21	0.00	0.00
50	28	10.40	10.40	0.00	10.40	0.00	0.00
55	26	9.70	9.70	0.00	9.70	0.00	0.00
60	25	9.11	9.11	0.00	9.11	0.00	0.00
65	23	8.58	8.58	0.00	8.58	0.00	0.00
70	22	8.13	8.13	0.00	8.13	0.00	0.00
75	21	7.72	7.72	0.00	7.72	0.00	0.00
80	20	7.35	7.35	0.00	7.35	0.00	0.00
85	19	7.03	7.03	0.00	7.03	0.00	0.00
90	18	6.73	6.73	0.00	6.73	0.00	0.00
95	17	6.46	6.46	0.00	6.46	0.00	0.00
100	17	6.21	6.21	0.00	6.21	0.00	0.00
105	16	5.98	5.98	0.00	5.98	0.00	0.00
110	16	5.77	5.77	0.00	5.77	0.00	0.00
115	15	5.58	5.58	0.00	5.58	0.00	0.00
120	15	5.40	5.40	0.00	5.40	0.00	0.00
125	14	5.23	5.23	0.00	5.23	0.00	0.00
130	14	5.08	5.08	0.00	5.08	0.00	0.00
135	13	4.93	4.93	0.00	4.93	0.00	0.00
140	13	4.79	4.79	0.00	4.79	0.00	0.00
145	13	4.66	4.66	0.00	4.66	0.00	0.00
150	12	4.54	4.54	0.00	4.54	0.00	0.00
180	11	3.94	3.94	0.00	3.94	0.00	0.00
210	9	3.49	3.49	0.00	3.49	0.00	0.00
240	8	3.14	3.14	0.00	3.14	0.00	0.00
270	8	2.86	2.86	0.00	2.86	0.00	0.00
300	7	2.63	2.63	0.00	2.63	0.00	0.00
330	7	2.44	2.44	0.00	2.44	0.00	0.00
360	6	2.28	2.28	0.00	2.28	0.00	0.00

POST DEVELOPMENT CONDITIONS

2-YEAR EVENT

DRAINAGE AREA I (Uncontrolled Flow Off Site)

(2-YEAR EVENT)

			C
Roof Area:	0	sq.m	0.90
Hard Area:	369	sq.m	0.90
Soft Area:	<u>211</u>	<u>sq.m</u>	<u>0.20</u>
Total Catchment Area:	580	sq.m	0.65
Area (A):	580	sq.m	
Time of Concentration:	10	min	
Rainfall Intensity (i):	77	mm/hr	
Runoff Coefficient (C):	0.65		
Flow Rate (2.78AiC):	7.99	L/s	

DRAINAGE AREA II (Roof)

(2-YEAR EVENT)

Total Catchment Area:	248	sq.m	C	0.90
No. of Roof Drains:	2			
Wier Opening:	1/4			
Depth at Roof Drains:	91	mm		
Maximum Release Rate:	1.52	L/s	Pond Area:	68.9 sq.m
			Maximum Volume Stored:	2.09 cu.m
			Maximum Volume Required:	2.09 cu.m

Time (min)	i (mm/hr)	2.78AiC (L/s)	Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
10	77	4.77	1.52	3.25	1.95
15	62	3.83	1.52	2.32	2.09
20	52	3.23	1.52	1.71	2.06
25	45	2.80	1.52	1.29	1.93
30	40	2.48	1.52	0.97	1.75
35	36	2.24	1.52	0.72	1.52
40	33	2.04	1.52	0.52	1.26
45	30	1.88	1.52	0.36	0.98
50	28	1.74	1.52	0.22	0.67
55	26	1.62	1.52	0.11	0.36
60	25	1.52	1.52	0.01	0.03
65	23	1.44	1.44	0.00	0.00
70	22	1.36	1.36	0.00	0.00
75	21	1.29	1.29	0.00	0.00
80	20	1.23	1.23	0.00	0.00
85	19	1.18	1.18	0.00	0.00
90	18	1.13	1.13	0.00	0.00
95	17	1.08	1.08	0.00	0.00
100	17	1.04	1.04	0.00	0.00
105	16	1.00	1.00	0.00	0.00
110	16	0.97	0.97	0.00	0.00
115	15	0.93	0.93	0.00	0.00
120	15	0.90	0.90	0.00	0.00
125	14	0.88	0.88	0.00	0.00
130	14	0.85	0.85	0.00	0.00
135	13	0.82	0.82	0.00	0.00
140	13	0.80	0.80	0.00	0.00
145	13	0.78	0.78	0.00	0.00
150	12	0.76	0.76	0.00	0.00
180	11	0.66	0.66	0.00	0.00
210	9	0.58	0.58	0.00	0.00
240	8	0.53	0.53	0.00	0.00
270	8	0.48	0.48	0.00	0.00
300	7	0.44	0.44	0.00	0.00
330	7	0.41	0.41	0.00	0.00
360	6	0.38	0.38	0.00	0.00

DRAINAGE AREA III

(2-YEAR EVENT)

			C
Roof Area:	0	sq.m	0.90
Hard Area:	1,430	sq.m	0.90
Soft Area:	<u>377</u>	sq.m	<u>0.20</u>

Total Catchment Area: 1,807 sq.m 0.75

Water Elevation: 86.62 m

Head: 2.23 m

Centroid of ICD Orifice: 84.39 m

Invert of Outlet Pipe of CB/MH-1: 84.34 m

Orifice Diameter: 100 mm

Orifice Area: 7,854 sq.mm

Discharge Coefficient: 0.174

Maximum Release Rate: 9.07 L/s

CB/MH	Top Area	Depth	Volume	
Existing CB	86	0.09	2.71	cu.m
Existing CB/M	149	0.14	7.15	cu.m
CB/MH-1	73	0.12	<u>3.03</u>	cu.m

Maximum Volume Stored: 12.89 cu.m

Maximum Volume Required: 12.89 cu.m

DRAINAGE AREA III (Continued)

(2-YEAR EVENT)

Time (min)	i (mm/hr)	2.78AiC (L/s)	ICD Release Rate (L/s)	Stored Rate (L/s)	Required Storage Volume (cu.m)
10	77	29.09	9.07	20.02	12.01
15	62	23.39	9.07	14.33	12.89
20	52	19.71	9.07	10.64	12.77
25	45	17.11	9.07	8.04	12.06
30	40	15.17	9.07	6.10	10.98
35	36	13.66	9.07	4.59	9.64
40	33	12.45	9.07	3.38	8.11
45	30	11.45	9.07	2.38	6.44
50	28	10.62	9.07	1.55	4.66
55	26	9.91	9.07	0.84	2.78
60	25	9.30	9.07	0.23	0.84
65	23	8.77	8.77	0.00	0.00
70	22	8.30	8.30	0.00	0.00
75	21	7.88	7.88	0.00	0.00
80	20	7.51	7.51	0.00	0.00
85	19	7.18	7.18	0.00	0.00
90	18	6.87	6.87	0.00	0.00
95	17	6.60	6.60	0.00	0.00
100	17	6.34	6.34	0.00	0.00
105	16	6.11	6.11	0.00	0.00
110	16	5.90	5.90	0.00	0.00
115	15	5.70	5.70	0.00	0.00
120	15	5.52	5.52	0.00	0.00
125	14	5.34	5.34	0.00	0.00
130	14	5.18	5.18	0.00	0.00
135	13	5.04	5.04	0.00	0.00
140	13	4.90	4.90	0.00	0.00
145	13	4.76	4.76	0.00	0.00
150	12	4.64	4.64	0.00	0.00
180	11	4.02	4.02	0.00	0.00
210	9	3.57	3.57	0.00	0.00
240	8	3.21	3.21	0.00	0.00
270	8	2.92	2.92	0.00	0.00
300	7	2.69	2.69	0.00	0.00
330	7	2.49	2.49	0.00	0.00
360	6	2.33	2.33	0.00	0.00



Adjustable Accutrol Weir

Tag: _____

Adjustable Flow Control for Roof Drains

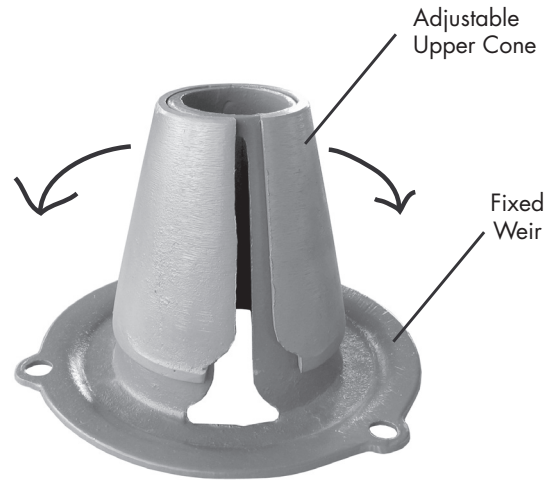
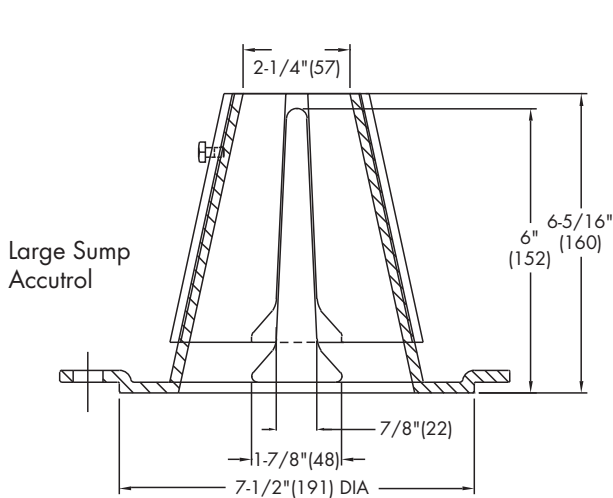
ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below.
 Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2" of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3" of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be:
 [5 gpm (per inch of head) x 2 inches of head] + 2-1/2 gpm (for the third inch of head) = 12-1/2 gpm.



1/2 Weir Opening Exposed Shown Above

TABLE 1. Adjustable Accutrol Flow Rate Settings

Weir Opening Exposed	1"	2"	3"	4"	5"	6"
	Flow Rate (gallons per minute)					
Fully Exposed	5	10	15	20	25	30
3/4	5	10	13.75	17.5	21.25	25
1/2	5	10	12.5	15	17.5	20
1/4	5	10	11.25	12.5	13.75	15
Closed	5	5	5	5	5	5

Job Name _____
 Job Location _____
 Engineer _____

Contractor _____
 Contractor's P.O. No. _____
 Representative _____

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

USA: Tel: (800) 338-2581 • Fax: (828) 248-3929 • Watts.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca
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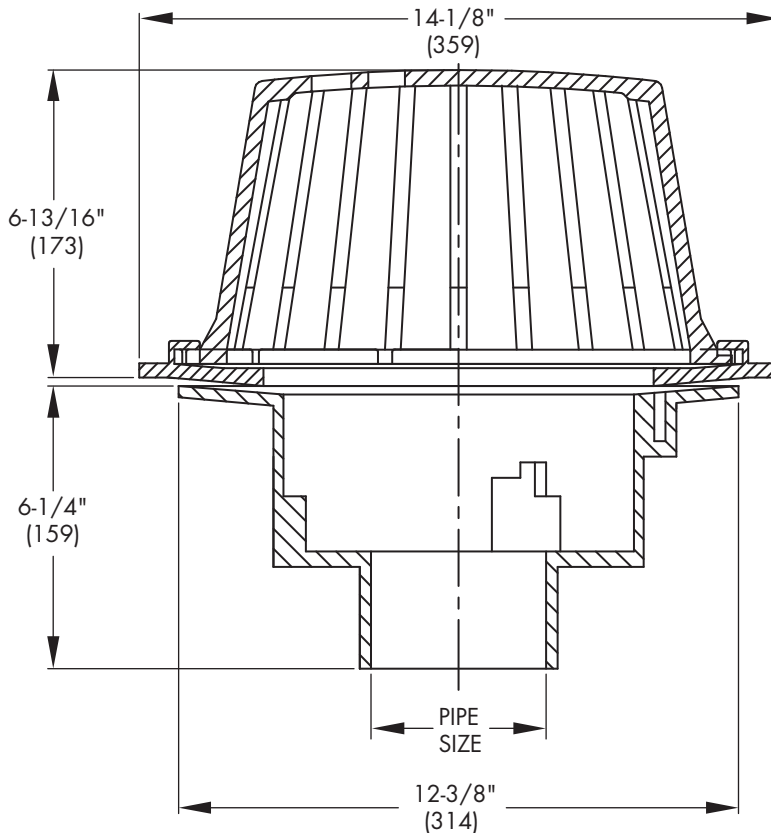




Tag: **RD-100** _____

Large Area Roof Drain

SPECIFICATION: Watts Drainage RD-100 epoxy coated cast iron roof drain with flashing clamp with integral gravel stop, self-locking polyethylene dome, and no hub (standard) outlet.



Free Area Sq. In.
137

**Deck opening 10" (254)
with sump receiver 13-1/4" (337)**

Components	
B2	B2-FLG
B2-DM	FC-2

Pipe Sizing (Select One)		
Suffix	Description	
2	2" (51) Pipe Size	<input type="checkbox"/>
3	3" (76) Pipe Size	<input type="checkbox"/>
4	4" (102) Pipe Size	<input type="checkbox"/>
5	5" (127) Pipe Size	<input type="checkbox"/>
6	6" (152) Pipe Size	<input type="checkbox"/>

Outlet Type (Select One)		
Suffix	Description	
NH	No Hub (MJ)	<input type="checkbox"/>
P	Push On	<input type="checkbox"/>
T	Threaded Outlet	<input type="checkbox"/>
X	Inside Caulk	<input type="checkbox"/>

Options (Select One or More)		
Suffix	Description	
-13	Galvanized Body & Flashing Clamp	<input type="checkbox"/>
-A	Accutrol Flow Restrictor	<input type="checkbox"/>
-B	Sump Receiver	<input type="checkbox"/>
-D	Underdeck Clamp	<input type="checkbox"/>
-F	Adjustable Extension Flange	<input type="checkbox"/>
-GSS	Stainless Steel Ballast Guard	<input type="checkbox"/>
-K	Ductile Iron Dome	<input type="checkbox"/>
-K13	Galvanized Dome	<input type="checkbox"/>
-K40	Ductile Iron Low Dome (4" high)	<input type="checkbox"/>
-K81	Rough Bronze Dome	<input type="checkbox"/>
-K80	Aluminum Dome	<input type="checkbox"/>
-K83	SS Mesh Covered Dome	<input type="checkbox"/>
-L	Vandal Proof Dome	<input type="checkbox"/>
-R	2" External Water Dam	<input type="checkbox"/>
-SO	Side Outlet (2,3,4" only)	<input type="checkbox"/>
-V	Fixed Extension (1-1/2", 2", 3", 4")	<input type="checkbox"/>

Optional Body Material		
Suffix	Description	
-60	PVC Body w/Socket Outlet	<input type="checkbox"/>
-61	ABS Body w/Socket Outlet	<input type="checkbox"/>

Job Name _____ Contractor _____

Job Location _____ Contractor's P.O. No. _____

Engineer _____ Representative _____

WATTS Drainage reserves the right to modify or change product design or construction without prior notice and without incurring any obligation to make similar changes and modifications to products previously or subsequently sold. See your WATTS Drainage representative for any clarification. Dimensions are subject to manufacturing tolerances.



Specification Drainage Products

USA: 100 Watts Road, Spindale, NC, 28160-2298; TEL: 828-288-2179 TOLL-FREE: 1-800-338-2581 www.watts.com

APPENDIX D

PRE-APPLICATION CONSULTATION MEETING FEEDBACK

April 22, 2025

Paul Black
 Fotenn Planning + Design
 Via email: black@fotenn.com

**Subject: Pre-Consultation: Meeting Feedback
 Proposed Site Plan Control and Zoning By-law Amendment
 Applications – 2300 Bank Street**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on April 8, 2025.

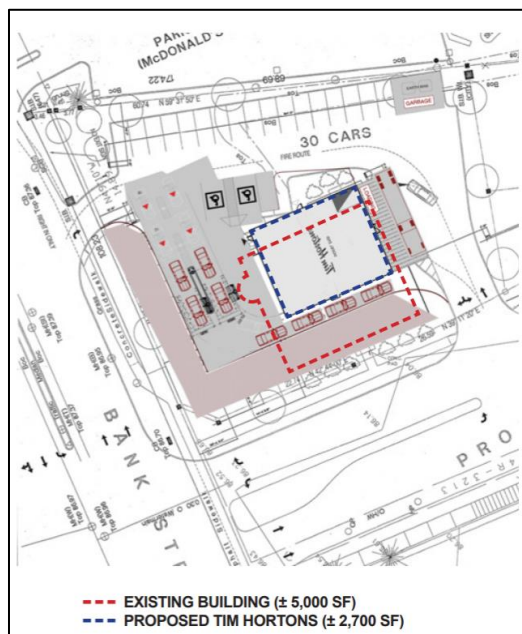
Pre-Consultation Preliminary Assessment

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One (1) indicates that considerable revisions are required while five (5) suggests that the proposal appears to meet the City’s key land use policies and guidelines. This assessment is purely advisory and does not consider technical aspects of the proposal or in any way guarantee application approval.

Concept Plan Reviewed:

Demolition of existing 1-storey bank with drive through and construction of a new 2700 square foot, 1- storey Tim Horton’s with a drive through at 2300 Bank Street.



Planning

Comments:

1. The site is zoned Mixed-Use Centre with exception 2288 (MC[2288] S349-h) on the east side and Environmental Protection (EP) on the west side of the site. The purpose of the MC zone is to accommodate transit-supportive uses in a compact and pedestrian-oriented built form. The purpose of the EP zone is to recognize and protect lands that contain important environmental resources. Zoning provisions to make note of include but are not limited to:
 - a. Exception 2288 outlines the holding symbol requirements.
 - i. The holding symbol may be removed if it is demonstrated that the proposed development contributes to achieving the urban design and active frontage directions in the South Keys to Blossom Park Secondary Plan and in the South Keys to Blossom Park Community Design Plan.
 1. At this time, City Staff are not convinced that a single storey drive-through facility meets the policies and guidelines set out in those plans (see Comments #3 and #4 below).
 - ii. A change in use within an existing building and a new use within an addition to an existing building are permitted without the need to lift the holding (see Comment #2.b).
 - b. Permitted uses on EP lands are environmental preserve and education area and forestry operation therefore the proposed development cannot be located within the EP zoning boundaries onsite.
 - c. The Flood Plain Overlay (Section 58 of the zoning by-law) applies to the western portion of the site.
 - d. Parking Requirements:
 - i. Vehicular parking requirements follow Area Z: Near Major LRT Stations. There are no minimum off-street motor vehicle parking requirements for Area Z.
 - ii. Bicycle parking is required. Bicycle parking shall be provided in highly visible, well-lit, areas near building entrances and where appropriate they should be sheltered.
 - e. Provisions for Drive-Through Operations (Section 112 of the zoning by-law) applies.

2. The Official Plan designates the site Mainstreet Corridor/Hub/Greenspace in the Outer Urban Transect. Additionally, the site is located in a Protected Major Transit Station Area due to its proximity to the South Keys station. Some key sections and policies to note from the Official Plan include:
 - a. Section 2.2.3 Policy 1 encourages higher-density development in areas close to transit to promote a compact and connected city.
 - b. Section 2.2.3 Policy 2.h supports the adaptive reuse or retrofit of existing buildings.
 - c. Section 3.2 supports and directs intensification to Hubs and Corridors.
 - d. Within the Outer Urban Transect (Section 5.3) development shall be generally mid- or high-rise in Hubs and mixed-use developments close to rapid transit stations are supported.
 - e. Hubs (Section 6.1) are intended for compact, higher density and mix-used communities. Generally automobile oriented, dependent and prioritizing uses like drive-through facilities are prohibited in Hubs and Protected Major Transit Station Areas (see Section 6.1.1 Policy 4 and Section 6.1.2 Policy 2).
 - f. In Protected Major Transit Station Areas the minimum building height is 4 storeys when located within 300 metres radius or 400 metres walking distance, whichever is greatest, from a rapid transit station and 2 storeys when located outside that area (Section 6.1.2 Policy 4).
 - g. Bank Street is identified as a Scenic Route on Schedule C13. Please see the policies in Section 4.6.2 of the Official Plan that speak to enhancing Scenic Routes through orienting buildings toward the Scenic Route and screening surface parking lots and outside storage.
 - h. Table 3a outlines density requirements for Hubs, Mainstreets, and Protected Major Transit Station Areas. Please refer to the South Keys Protected Major Transit Station Area density requirements.
 - i. There are Urban Natural Features onsite (see Schedule C11 and C12).
 - j. The OP Flood Plain goes through the site (see Schedule C15).
3. The site falls within the South Keys Secondary Plan. The area is intended to be mixed-use, connected, and an attractive place for pedestrians and cyclists. Key policies include but are not limited to:
 - a. Section 4.1 Policy 2 requires applicants to demonstrate how the proposed development provides pedestrian and cycling facilities, parks (including Transit Plazas and Town Square), streets, active frontage elements,

service access etc. consistent with Schedule B - Public Realm Plan and other applicable policies in the secondary plan as well as the guidelines contained in the Community Design Plan.

- b. See Section 4.1 Policy 12 for the placement of buildings and active frontage requirements along Bank Street.
4. The site falls within the South Keys to Blossom Park Community Design Plan (CDP). The subject site is designated as a Hub with the intent for a dynamic, higher density, mixed-use, walkable and transit supportive development. Ensure the CDP is reviewed, and applicable policies are met.
5. Please refer to the City of Ottawa's Terms of Reference for each of the required plans and studies identified on the Studies and Plans Identification List.
6. You are encouraged to consult with technical agencies early in the development process and throughout the development of your project concept. A list of technical agencies and their contact information is enclosed.

Feel free to contact Tracey Scaramozzino, Planner II, and Tess Peterman, Planner I, for follow-up questions.

Urban Design

Comments:

Please note that the following comments should not be interpreted as support for the project. Urban Design staff understand that there is policy and regulatory direction that would prevent this development from moving forward without significant amendments.

7. If the Applicant proceeds with a retrofit of the existing building with some minor tweaks to the drive-through layout and parking area, staff require architectural drawings including a Site Plan and Building Elevations, as well as a Landscape Plan.
8. If the Applicant proceeds with redevelopment, for a smaller drive-through restaurant, staff require an Urban Design Brief (TOR attached), architectural drawings including a Site Plan and Building Elevations, as well as a Landscape Plan.
9. The project will need to consider the City of Ottawa Urban Design Guidelines for Drive-Through Facilities:
https://documents.ottawa.ca/sites/default/files/urban_design_drivethrus_en.pdf
10. The project needs to consider the Secondary Plan and CDP for this area. A mid-rise building with a restaurant use on the ground floor may be more appropriate for this property.

11. The new building should locate at the corner and have an active entrance to Bank Street.
12. The new building should contain clear glazing to interface with Bank Street and Daze Street.
13. The new building should be a minimum of two-storeys to adhere to the direction within the Official Plan and Zoning By-law for the site.
14. The drive-through should be designed to meet zoning standards and locate in the side or rear yard where it can be entirely screened from the public realm.
15. The Applicant is encouraged to explore an outdoor patio along Bank Street or Daze Street to support the restaurant use.
16. The right in/right out access along Bank Street should be removed, and a formal arrangement between the McDonalds site and this site should be established to facilitate vehicular circulation to and from both sites from Bank Street and Daze via the existing access.
17. Waste areas need to be screened entirely from the public realm.
18. The public realm should be improved with additional tree planting and landscaping.
19. Staff would be happy to review revised concepts in advance of the Applicant's formal submission to the City.

Feel free to contact Nader Kadri, Urban Design, for follow-up questions.

Engineering

Comments:

20. The Stormwater Management Criteria, for the subject site, is to be based on the following:
 - a. If existing stormwater management is present, this shall be accounted for in the revised design. If significant additional hard surfacing is proposed, quantity control will be required as per the criteria noted below. If no existing controls are present and only the building is being relocated, please control the building to the criteria noted below.
 - b. Application of the IDF information derived from the Meteorological Services of Canada rainfall data, taken from the MacDonald Cartier Airport, collected 1966 to 1997.

- c. In separated areas, the pre-development runoff shall be the lower of the existing coefficient or a maximum equivalent 'C' of 0.5, whichever is less (§ 8.3.7.3).
- d. A calculated time of concentration (cannot be less than 10 minutes).
- e. Flows to the storm sewer in excess of the 2-year storm release rate, up to and including the 100-year storm event, must be detained on site.
- f. Storm sewer outlets should not be submerged.
- g. Quality control (80% TSS removal) will be required if significant additional hard surfacing is proposed. Quality control will not be required only the building relocation is proposed.
- h. Stormwater should include a review of peak and total flow impacts, as the site outlets to Sawmill Creek which has been identified as being prone to erosion downstream. It is acknowledged that the site is already developed, thus any improvements to on-site stormwater management and infiltration, where possible, is encouraged.

21. Deep Services (Storm, Sanitary and/or Water Supply)

- a. Provide existing servicing information and the recommended location for the proposed connections. Services should ideally be grouped in a common trench to minimize the number of road cuts.
- b. Connections to trunk sewers and easement sewers are typically not permitted.
- c. Provide information on the monitoring manhole requirements – should be located in an accessible location on private property near the property line (ie. Not in a parking area).
- d. Review provision of a high-level sewer.

22. Water

- a. Water Boundary condition requests must include the location of the service (map or plan with connection location(s) indicated) and the expected loads required by the proposed development, including calculations. Please provide the following information:
 - i. Location of service
 - ii. Type of development
 - iii. The amount of fire flow required (per OBC or FUS).

- iv. Average daily demand: ___ l/s.
- v. Maximum daily demand: ___ l/s.
- vi. Maximum hourly daily demand: ___ l/s.

23. Please note Bank Street will be resurfaced in 2025. A road cut moratorium will be in place.

Feel free to contact Bruce Bramah, Project Manager, for follow-up questions.

Transportation

Comments:

24. Follow Transportation Impact Assessment Guidelines:

- a. A Transportation Impact Assessment is required. Please submit the Scoping report to rochelle.fortier@ottawa.ca at your earliest convenience. The applicant is responsible to submit the Scoping Report and must allow for a 14-day circulation period and sign-off prior to the Strategy Report submission.
- b. The Strategy Report must be submitted for review at the latest with the formal submission package. The applicant is still encouraged to submit the Strategy Report to the TMP before submission and allow for a 14-day circulation period.
- c. If an RMA is required to support the proposed development, the functional plan and/or RMA plans must be submitted with the formal submission to deem complete, per the TIA Guidelines. Request base mapping asap if RMA is required. Contact [Engineering Services](#).

25. Ensure that the development proposal complies with the Right-of-Way protection requirements - See [Schedule C16 of the Official Plan](#).

- a. Corner triangles on the final plan will be required (measure on the property line/ROW protected line; no structure above or below this triangle). The development proponent should protect the corner triangles to accommodate protected intersections per policies 2.1.1 (e) & (f). The City requires the following corner triangles at these locations:
 - i. Arterial/Collector: two overlapping 5 metre x 15 metre triangles
- b. ROW and corner triangles must be unincumbered and conveyed at no cost to the City. Note that conveyance of the ROW/corner triangle will be required prior to registration of the SP agreement. Additional information on the conveyance process can be provided upon request.

- c. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management. The applicant shall submit support evidence and rationale to support any relief to Transportation Planning satisfaction.
26. Clear throat requirements for fast food restaurants that is greater than 200m² on an arterial is 40m and on a collector is 15m. Ensure this length is provided. The clear throat length is measured from the ends of the driveway curb return radii at the roadway and the point of first conflict on-site.
 - a. The proposed queuing spaces are located within close proximity of the Bank Street access. This configuration is not supported. The Bank Street access will need to be closed should the queuing spaces remain in the currently proposed location. No spillback onto Bank Street is allowed.
27. Closing shared access to the 2380 Bank (McDonalds) property will require you to assess traffic impacts due to the reassignment of site trips. Please include the Bank Street median break/McDonalds access in the TIA analysis.
28. Nearby [planned construction and infrastructure projects](#) include:
 - a. Road resurfacing on Bank Street (targeted start this year).
 - b. Intersection modifications at Bank/Hunt Club (targeted start 2-3 years).
 - c. Cycling project on Daze. Current plans include a bike lane across the site's access, maintaining existing curb lines.
29. As the proposed site is commercial and for general public use, AODA legislation applies.
 - a. Ensure all crosswalks located internally on the site provide a TWSI at the depressed curb, per requirements of the Integrated Accessibility Standards Regulation under the AODA.
 - b. Clearly define accessible parking stalls and ensure they meet AODA standards (include an access aisle next to the parking stall and a pedestrian curb ramp at the end of the access aisle, as required).
 - c. Please consider using the [City's Accessibility Design Standards](#), which provide a summary of AODA requirements.
30. On site plan:
 - a. Ensure site accesses meet the [City's Private Approach Bylaw](#) and all driveways/aisles meet the requirements outlined in [Section 107 of the Zoning By-law](#).

- b. Show all details of the roads abutting the site; include such items as pavement markings, accesses and/or sidewalks.
- c. Turning movement diagrams required for all accesses showing the largest vehicle to access/egress the site.
- d. Turning movement diagrams required for internal movements (loading areas, garbage).
- e. Show all curb radii measurements; ensure that all curb radii are reduced as much as possible and fall within TAC guidelines (Figure 8.5.1).
- f. Show dimensions for site elements (i.e. lane/aisle widths, access width and throat length, parking stalls, sidewalks, pedestrian pathways, etc.)
- g. Sidewalk is to be continuous across access as per City Specification 7.1.
- h. Parking stalls at the end of dead-end parking aisles require adequate turning around space
- i. Grey out any area that will not be impacted by this application.

Feel free to contact Rochelle Fortier-Lesage, Transportation Project Manager, for follow-up questions.

Environment

Comments:

31. The presence of EP zoning on site normally triggers the need for an Environmental Impact Statement. However, the EIS Guidelines provide the option for Staff to waive the need for an EIS if it is determined that “the risk of negative impacts occurring as a result of the proposed project is extremely low to non-existent, such that the completion of the Minor EIS Form would not afford any useful benefit to the environment, the applicant or the City.”

As the proposed development is located away from the protected features (Sawmill Creek), is taking place on an already-developed area, and there remains development in the intervening space, it is unlikely that any further harm to the environment will occur as a result of this proposal. Staff believe that this meets the criteria for waiving the EIS.

An EIS is not required as part of this submission.

32. The proposed development will likely have minimal impacts to the surrounding development. However, some additional tree plantings to help meet the City’s forest canopy goals, as well as to reduce the impacts of climate change and the

urban heat island effect, would be appreciated. Plantings closer to the watercourse to the west would be ideal.

33. This site is within the airport bird hazard zone, which affects what types of trees should be planted. A list of species to avoid will be provided.
34. This site is located within the Sawmill Creek Subwatershed Study Area. More specifically, this is the 'Railway Reach' of Sawmill Creek. The setback requirements of the subwatershed study are already incorporated into the zoning, with the EP zoned lands west of the site representing the required setbacks. This supersedes the usual 30m watercourse setback.

Feel free to contact Mark Elliott, Environmental Planner, for follow-up questions.

Forestry

Comments:

35. A Landscape Plan and Tree Conservation Report are submission requirements for the ZBA/SPC.
36. The conceptual plan shows the islands supporting the existing trees surrounding the property will be maintained. This aligns with policy the Official Plan which aims to protect existing trees rather than removal and replacement (OP Section 4.8.2, policy 3d).
37. The Official Plan (Policy 4.1.3) and the Secondary Plan (Policy 21) provide direction to incorporate street trees through redevelopment. Trees must be incorporated at regular spacing along Bank Street and Daze Street.
38. Do not locate the building too close to Daze Street that there isn't space for trees but still satisfies Urban Design comments. This can be discussed further with Planning Forestry and Urban Design if desired.
39. Tree Conservation Report requirements. The following Tree Conservation Report (TCR) requirements have been adapted from the Schedule E of the Urban Tree Protection Guidelines – for more information on these requirements please contact hayley.murray@ottawa.ca
 - a. A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City.
 - b. Any tree 10 cm in diameter or greater and City-owned trees of any diameter requires a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 – 340); the permit will be based on an approved TCR and made available at or near plan approval.
 - c. The TCR must contain 2 separate plans/maps:

- i. Plan/Map 1 - show existing conditions with tree cover information.
 - ii. Plan/Map 2 - show proposed development with tree cover information.
- d. The TCR must list all trees on site, as well as off-site trees if the CRZ (critical root zone) extends into the developed area, by species, diameter, and health condition. Please note that averages can be used if there are forested areas.
- e. Please identify trees by ownership – private onsite, private on adjoining site, city owned, co-owned (trees on a property line).
- f. If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained.
- g. The removal of trees on a property line will require the permission of both property owners.
- h. All retained trees must be shown, and all retained trees within the area impacted by the development process must be protected as per City guidelines available at Tree Protection Specification or by searching Ottawa.ca
- i. The City encourages the retention of healthy trees; if possible, please seek opportunities for retention of trees that will contribute to the design/function of the site.
- j. Removal of a City tree is not permitted unless justified. If justified, monetary compensation for the value of the tree must be paid before a tree removal permit is issued.

40. Landscape Plan (LP) requirements.

- a. Landscape Plan Terms of Reference must be adhered to for all tree planting: [Click Here](#). For more information on these requirements please contact hayley.murray@ottawa.ca

41. Additional Elements for Tree Planting in the Right of Way:

- a. Please ensure any retained trees are shown on the LP.
- b. Sensitive Marine Clay - Please follow the City's 2017 Tree Planting in Sensitive Marine Clay guidelines.

- c. Soil Volume - Please demonstrate as per the Landscape Plan Terms of Reference that the available soil volumes for new plantings will meet or exceed the minimum soil volumes requested.
- d. The city requests that consideration be given to planting native species wherever there is a high probability of survival to maturity.
- e. Efforts shall be made to provide as much future canopy cover as possible at a site level, through tree planting and tree retention. The Landscape Plan shall show/document that the proposed tree planting and retention will contribute to the City's overall canopy cover over time. Please provide a projection of the future canopy cover for the site to 40 years.
- f. Minimum Setbacks
 - i. Maintain 1.5m from sidewalk or MUP/cycle track or water service laterals.
 - ii. Maintain 2.5m from curb
 - iii. Coniferous species require a minimum 4.5m setback from curb, sidewalk, or MUP/cycle track/pathway.
 - iv. Maintain 7.5m between large growing trees, and 4m between small growing trees. Park or open space planting should consider 10m spacing, except where otherwise approved in naturalization / afforestation areas.
 - v. Adhere to Ottawa Hydro's planting guidelines (species and setbacks) when planting around overhead primary conductors.
- g. Tree specifications
 - i. Minimum stock size: 50mm tree caliper for deciduous, 200cm height for coniferous.
 - ii. Maximize the use of large deciduous species wherever possible to maximize future canopy coverage.
 - iii. Tree planting on city property shall be in accordance with the City of Ottawa's Tree Planting Specification; and if possible, include watering and warranty as described in the specification.
 - iv. No root barriers, dead-man anchor systems, or planters are permitted.
 - v. No tree stakes unless necessary (and only 1 on the prevailing winds side of the tree).

Feel free to contact Hayley Murray, Planning Forester, for follow-up questions.

Parkland

Comments:

42. Unless it is demonstrated that Cash-in-lieu of Parkland (CILP) was previously paid, CILP will be required at a rate of 2% of the Gross Land Area.
43. Please make sure to maintain the existing exterior natural amenity area along the watercourse. There shall be no loss of greenspace including trees.

Feel free to contact steve.gauthier@ottawa.ca for follow-up questions.

Rideau Valley Conservation Authority

Comments:

44. The watercourse connecting through the southern portion of the lot is regulated by the Rideau Valley Conservation Authority. Any development activity (structure or grading) would be subject to permits from our office.
45. The existing buffer should be maintained as part of the proposed site plan and does not appear to be affected as shown on the proposed sketch.
46. Stormwater should include a review of peak and total flow impacts, as the site outlets to Sawmill Creek which has been identified as being prone to erosion downstream. It is acknowledged that the site is already developed, thus any improvements to on-site stormwater management and infiltration, where possible, is encouraged.

Feel free to contact Stephen.bohan@rvca.ca, Rideau Valley Conservation Authority, for follow-up questions.

Other

47. The High-Performance Development Standard (HPDS) is a collection of voluntary and required standards that raise the performance of new building projects to achieve sustainable and resilient design and will be applicable to Site Plan Control and Plan of Subdivision applications.
 - a. The HPDS was passed by Council on April 13, 2022, but is not in effect at this time, as Council has referred the 2023 HPDS Update Report back to staff with the direction to bring forward an updated report to Committee at a later date. The timing of an updated report to Committee is unknown at this time, and updates will be shared when they are available.
 - b. Please refer to the HPDS information at ottawa.ca/HPDS for more information.

Submission Requirements and Fees

1. Applications required would be an Official Plan Amendment, a Zoning By-Law Amendment to lift the holding and a Site Plan Control Application.
 - a. Additional information regarding fees related to planning applications can be found [here](#).
2. The attached **Study and Plan Identification List** outlines the information and material that has been identified as either required (R) or advised (A) as part of a future complete application submission.
 - a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.
3. All of the above comments or issues should be addressed to ensure the effectiveness of the application submission review.

Should there be any questions, please do not hesitate to contact myself or the contact identified for the above areas / disciplines.

Yours Truly,
Tracey Scaramozzino

Encl. Study and Plan Identification List
Pre-con Supplementary Development Information
HPDS Overview for Applicants
HPDS Example Checklist
ADS Site Plan Checklist
Urban Design Terms of Reference

c.c. Commenting Staff as per above