FUNCTIONAL SITE SERVICING AND STORMWATER MANAGEMENT REPORT – 35 LAUREL STREET (PREVIOUSLY 75 BREEZEHILL AVENUE) REVISION 1

Stantec

Prepared for:
2729685 Ontario Inc.

Prepared by:
Stantec Consulting Ltd.

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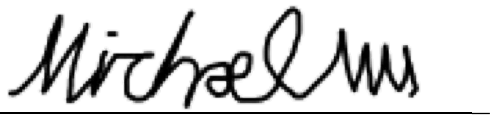

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Michael Wu, EIT

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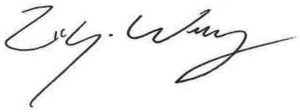

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1 Introduction

Stantec Consulting Ltd. is commissioned by 2729685 Ontario Inc. to prepare this Functional Servicing and Stormwater Management Report in support of an Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBLA) application to permit a proposed mixed-use high-rise building complex at 35 Laurel Street (previously 75 Breezehill Avenue North) in the City of Ottawa.

2729685 Ontario Inc. is proposing a mixed-use development with a site area that measures approximately 0.62 ha. The site is currently zoned IG1 H (11) and consists of a former industrial warehouse and commercial space. The site is bounded by Breezehill Avenue North and an existing commercial development to the west, Laurel Street to the south, the O-Train rail corridor to the east, and an existing commercial and light industrial development to the north, as shown in **Figure 1.1** below.

Figure 1.1 - Key Plan of Site

The proposed Site Plan (provided by RLA Architecture, September 13, 2024 – see **Appendix A.1**) consists of two residential high-rise buildings, an internal road, and an allocation of parkland. The parkland is intended to be dedicated to the City of Ottawa as a public park.

The preliminary mixed-use attributes for each building (Building A to the north and Building B to the south) are listed in **Table 1.1** below. The two levels of underground parking are shared between Building A and Building B.

Table 1.1: Preliminary Attributes of Proposed Buildings

Use/Attribute	Total	Building A	Building B
Number of Above Ground Storeys			
Podium	-	6	6
High-Rise Tower	-	21	23
Total	**-**	**27**	**29**
Underground Parking Levels	2	-	-
Commercial Retail (m^2)	429	0	429
Residential Apartment Rental Units	479	232	247
Residential Apartment Unit Types			
Studio	48	25	23
One-bedroom	131	51	80
One-bedroom with Study	77	29	48
Two-bedroom	193	117	76
Three-bedroom	30	10	20

The site is proposed to be accessed by vehicles via a private driveway from Laurel Street. Additional pedestrian access is available by a proposed mixed-use pathway (MUP) through the public park space from Breezehill Avenue N, or the future City MUP from Laurel Street along the east property line (between the Site and the rail corridor). Within the site, the internal road provides access to the underground parking at the northwest corner of Building A.

The topographic survey of the site is included in **Appendix A.2**.

1.1 Objective

This functional report presents a preliminary servicing scheme and preliminary stormwater management (SWM) concept that is generally consistent with the City of Ottawa Design Guidelines. Additional project specific criteria are outlined in the Pre-Application Consultation Meeting Minutes & Preliminary Comments dated February 7, 2023, and the Phase 2 Pre-Consultation: Meeting Feedback dated May 2, 2024 (see **Appendix B.1**).

Details of the existing infrastructure located within the Breezehill Avenue North and the Laurel Street right of way (ROW) are obtained from available as-built drawings from the City of Ottawa and site topographic survey by Stantec Geomatics Ltd. (completed May 5, 2021). Recent underground and surface works within the Laurel Street corridor (completed in summer 2024, see **Appendix B.2**) are included in the civil conceptual drawings based on the latest plan-profile construction drawings provided by the City GeoInformation Centre. Formal as-built drawings will not be available for Laurel Street until 2025. Surface

and new underground features along Laurel Street should be confirmed by topographic survey prior to detailed design.

Criteria and constraints provided by the City of Ottawa are used as a basis for the preliminary servicing design supporting the proposed development. Limiting encumbrance on the public parkland further influences the proposed servicing scheme.

Preliminary general and applicable site-specific objectives considered are summarized below. Specific technical design criteria details are described in the associated servicing sections of this report.

Functional Potable Water Servicing

- Develop a functional assessment of the potable water and fire flow demand for the site.
- Identify that the City of Ottawa water distribution can supply adequate water pressure to the site for typical operational and emergency conditions.

Functional Wastewater (Sanitary) Servicing

- Develop a functional assessment of the wastewater flow projected for the site.
- Identify that the City of Ottawa sanitary sewer system can support the project wastewater flow from the site.

Functional Stormwater Management and Stormwater Servicing

- Identify allowable flow contributions from the site to the adjacent storm sewer system.
- Identify applicable water quality control targets.
- Develop a functional assessment of the SWM system for the site to achieve applicable water quantity (minor and major system) control and water quality control targets.

Functional Site Grading Plan

- Prepare a preliminary grading plan to support the proposed Site Plan, the servicing assessments, and identify compatibility with existing conditions along the site boundaries.

To demonstrate the feasibility of servicing and stormwater management at a functional level, the accompanying Drawings and Figures illustrate the preliminary servicing scheme for the site.

To reflect changes in design conditions, related objectives and/or assessment findings may be adjusted as needed through subsequent stages of the development application process.

Other information associated with utility service, approval process information, and the project geotechnical investigation is also included herein.

1.2 Background Resources

Documents referenced in preparing this report include:

- *City of Ottawa Sewer Design Guidelines* (SDG), City of Ottawa, October 2012, including all subsequent technical bulletins
- *City of Ottawa Design Guidelines – Water Distribution*, City of Ottawa, July 2010, including all subsequent technical bulletins
- *Design Guidelines for Drinking Water Systems*, Ministry of the Environment, Conservation, and Parks (MECP), 2008
- *Fire Protection Water Supply Guideline* for Part 3 in the Ontario Building Code, Office of the Fire Marshal (OFM), October 2020
- *Water Supply for Public Fire Protection*, Fire Underwriters Survey (FUS), 2020
- *Geotechnical Investigation Proposed Multi-Use High Rise Complex 75 Breezehill Avenue North,* Paterson Group, February 26, 2024
- Site Survey Plan, Stantec Geomatics Ltd., March 20, 2023
- Pre-Consultation Meeting Minutes & Preliminary Comments, City of Ottawa, February 7, 2023
- Phase 2 Pre-Consultation: Meeting Feedback – Proposed Official Plan Amendment and Zoning By-law Amendment Application – 75 Breezehill Ave and 35 Laurel Street, City of Ottawa, May 2, 2024

2 Water Servicing

2.1 Existing Conditions

The existing municipal watermains adjacent to the site includes a 150 mm diameter UCI local watermain in Breezehill Avenue North, a 200 mm diameter UCI local watermain in Laurel Street, and a 1370 mm diameter backbone watermain lies within the Breezehill Avenue North and Laurel Street ROWs. No connection is permitted to the backbone watermain.

The watermains are within the City of Ottawa water distribution system '1W' pressure zone.

2.2 Design Criteria

Preliminary potable water demands are calculated using the City of Ottawa Water Distribution Guidelines (2010) as amended, and ISTB 2021-03 Technical Bulletin (see detailed calculations in **Appendix C.1**).

Residential Apartment Population Rate	
Studio and One Bedroom	1.4 persons / unit
One Bedroom w/ Study and Two Bedroom	2.1 persons / unit
Three Bedroom	3.1 persons / unit

Residential Apartment Demand	
Average Daily (AVDY)	280 L/cap/day
Maximum Daily (MXDY)	2.5 x AVDY
Peak Hour (PKHR)	2.2 x MXDY

Commercial Area Demand	
Average Daily (AVDY)	28,0000 L/gross ha/day
Maximum Daily (MXDY)	1.5 x AVDY
Peak Hour (PKHR)	1.8 x MXDY

Allowable Water Pressure	
MXDY Flow	345 kPa (50 psi) to 552 kPa (80 psi)
PKHR Flow Minimum	276 kPa (40 psi.)
MXDY + Fire Flow	140 kPa (20 psi.)
Maximum Allowable for Occupied Area	552 kPa (80 psi)

2.2.1 Fire Flow and Hydrant Capacity

Preliminary fire flow requirements are assessed using the Fire Underwriters Survey (FUS) methodology (2020). Site specific criteria considered are noted in Section 2.3.2.

2.3 Water Demands

2.3.1 Domestic Water Demand

The assessed demand for the site is summarized in **Table 3.1** below and detailed in **Appendix C.1**.

Table 3.1: Estimated Water Demands

Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
Commercial		0.04	0.01	0.02	0.04
Residential	911	-	2.95	7.38	16.23
Total Site	**911**	**0.04**	**2.96**	**7.40**	**16.27**

2.3.2 Fire Flow Demand

The building complex is to be of non-combustible construction, have a two-hour fire resistance rating of all structural elements, be fully sprinklered with a supervised sprinkler system to the NFPA 13 standard, and to have full protection of all vertical openings (one hour fire rating).

The total effective building area is determined by adding the gross floor area of the largest floor plus 25% of the floor area of each of the two immediately adjoining floors (page 22 of FUS document).

The fire flow demand is assessed based on the following.

- Type II - Noncombustible Construction / Type IV-A - Mass Timber Construction (i.e., building construction materials with a 1-hour fire resistance rating).
- Total effective building area is the gross floor area of the two largest floors plus 50% of the floor area for eight adjoining floors.
  - Vertical openings are not protected.
- Occupancy and contents factor considering limited-combustible materials.
- A fully supervised automatic sprinkler system that conforms to the NFPA 13 standard supplied by a standard water supply.
- Exposure distances based on the proposed and existing adjacent structures having the following.
  - Type I-II (fire resistive or non-combustible rating) construction with unprotected openings, with a sprinkler system.
  - Type V (wood frame) construction with no sprinkler system.

Both buildings are assessed to require a fire flow of approximately 4,000 L/min (67 L/s). Supporting calculations per the FUS methodology are provided in **Appendix C.2**.

2.4 Available Level of Service

2.4.1 Boundary Conditions

The assessed domestic water and fire flow demands are used to confirm the level of servicing available for the proposed development from the adjacent municipal watermain and hydrants. **Table 3.2** outlines the boundary conditions provided by the City of Ottawa on November 14, 2023 (see **Appendix C.3**), for a connection to the local 200 mm diameter watermain in Laurel Street.

Table 3.2: Boundary Conditions

Connection	Laurel Street
Min. HGL (m)	107.4
Max. HGL (m)	115.1
Max. Day + FF (67 L/s) (m)	104.3

2.4.2 Allowable Domestic Pressure

The proposed finished floor elevation for the ground floor of the apartment buildings at 64.44 m serves as the reference elevation for the calculation of residual pressures at ground level. From the boundary condition HGL elevations, the onsite pressures at ground level are expected to range from 421.2 kPa to 496.9 kPa (61.1 psi to 72.0 psi) under normal operating conditions.

The anticipated pressures should not exceed he maximum allowable for occupied areas under the potential maximum pressure condition. Pressure reducing measures are not anticipated to be required.

To ensure adequate water pressure above the first-floor elevation of the apartment buildings, booster pump requirements are to be confirmed by the mechanical engineering consultant during subsequent stages of the development application process.

2.4.3 Fire Flow Pressures

The boundary condition HGL elevations show that the water distribution system can provide the required fire flows for the site (67 L/s) while maintaining a residual pressure of 138 kPa (20 psi).

2.4.4 Fire Hydrant Coverage

There are two existing hydrants in the proximity of the proposed development site and one proposed onsite, as shown on **Figure 2.4.1**. The buildings will be sprinklered and a Siamese (fire department) connection is provided on the southwest corner of Building B and to the north of the Building A main

entrance. As per Section 3.2.5.16 of the Ontario Building Code, the distance between a hydrant and a building Siamese connection cannot exceed 45 m.

The location for the Building B Siamese connection is near the proposed internal road intersection with Laurel Street. As indicated on **Drawing SSP-1**, the Building B Siamese connection is within 45 m of two of the three adjacent existing fire hydrants.

According to the NFPA 1 Table 18.5.4.3 in Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02, a hydrant situated less than 76 m away from a building can supply a maximum capacity of 5,678 L/min, while one more than 76 m but less than 152 m away from the building can supply a maximum capacity of 3,785 L/min. The required fire flow for this site (4,000 L/min) can be achieved with either existing hydrant on Laurel Street, HYD-02 and HYD-03. However, See **Appendix C.4** for fire hydrant coverage table calculations and NFPA Table 18.5.4.3.

Table 3.3: Fire Hydrant Coverage Table

Location	Hydrants
Building A	HYD-1, HYD-3
Building B	HYD-2, HYD-3

Each building has a unique fire department connection (Siamese connection). The proposed onsite fire hydrant, HYD-1 is required to have a hydrant within 45m of the Building A Siamese connection. HYD-3 is within 45m of the Building B Siamese connection. HYD-1 is located within two metres of Building B, hence it should not be considered for the fire flow to Building B, per NFPA 24 7.2.3 for private hydrants*: "a hydrant shall be located not less than 40 ft (12.2 m) from the building to be protected."*

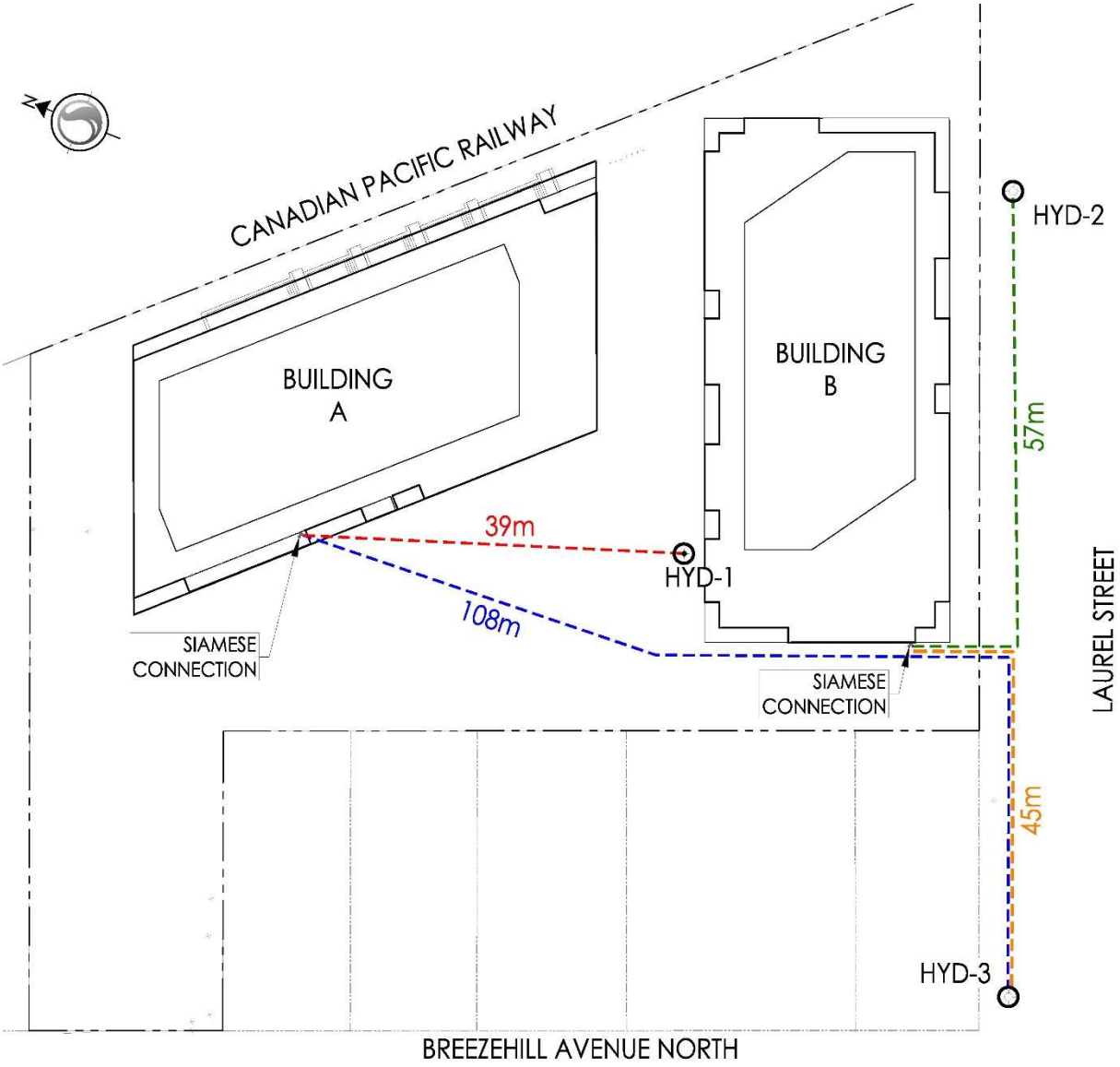

Figure 2.4.1 - Fire Hydrant Coverage Sketch

2.5 Proposed Water Servicing

The development is to be serviced by two 150 mm diameter building service laterals separated by an isolation valve. An onsite fire hydrant (internally plumbed by the mechanical consultant) is to be provided for adequate fire protection of Building A. The preliminary water servicing is shown on **Drawing SSP-1**.

Based on City of Ottawa Design Guidelines and the boundary conditions provided by the City, the existing 200 mm diameter watermain on Laurel Street is anticipated to provide adequate fire and domestic flows for the subject site.

It is understood that Building A and Building B will share a common internal water service system. The mechanical engineering consultant is responsible for the internal plumbing, confirming the service lateral size, and determining internal pumping requirements to ensure the water pressures within each building are adequate to meet building code requirements.

3 Wastewater Servicing

3.1 Existing Conditions

The subject site at 35 Laurel Street is in a mixed sewer area of the City of Ottawa. However, separate sanitary sewers are adjacent to and available to service the site. The relevant existing sewers adjacent to the site include two 300 mm diameter concrete sanitary local sewers within Breezehill Avenue N, and a 1050 mm diameter concrete sanitary trunk sewer within Laurel Street and Breezehill Avenue N. The sanitary sewers flow from east to west on Laurel Street and south to north on Breezehill Avenue.

3.2 Design Criteria

Preliminary wastewater servicing is assessed using the City of Ottawa Sewer Design Guidelines (2012) as amended, and the MECP Design Guidelines for Sewage Works. The following design criteria are considered with the assessment of wastewater servicing for the site.

Population criteria are the same as that applied for the water demand analysis (see Section 2.3.1).

Residential Wastewater Flow	
Average Flow Generation	280 L/cap/day
Peaking Factor	Harmon Equation (max. residential = 4.0)
Harmon Correction Factor	0.80
Infiltration Allowance	0.33 L/s/ha

Sewer Design	
Minimum Velocity	0.6 m/s (0.8 m/s for upstream sections)
Maximum Velocity	3.0 m/s
Minimum Service Size	135 mm
Manning Roughness Coefficient	0.013
Minimum Service Slope	1.0 % (2.0 % preferred)
Minimum Service Cover	2.0 m

3.3 Wastewater Generation and Servicing Design

The peak wastewater flow is assessed based on the current site plan, the unit breakdown as shown in **Table 1.1**, and the design criteria described in Section 3.2. The assessed wastewater peak flow generated from the proposed development and projected population is summarized in **Table 3.1**: Estimated Total Wastewater Peak Flow.

Table 3.1: Estimated Total Wastewater Peak Flow

Peak Residential Wastewater Flow			Commercial Wastewater Flow	Infiltration Flow (L/s)	Total Peak Flow (L/s)
Population	Peak Factor	Peak Flow (L/s)			
911	3.261	9.6	0.02	0.2	9.8

Preliminary sanitary sewage generation calculations are included in **Appendix D.1**.

The anticipated peak wastewater flows for the proposed development were provided to the City of Ottawa staff to evaluate the adequacy of the receiving municipal sanitary sewer system in the vicinity of the site and downstream network. During the September 23, 2024, MS Teams meeting with City Staff, Shawn Wessel A.Sc.T., rcji, confirmed that the 1,050 mm diameter sanitary trunk sewer on Laurel Street has the downstream capacity to receive the 11.1 L/s peak sanitary flows (per the previous design iteration) from the proposed development. The peak sanitary flows are anticipated to be only 9.82 L/s from the current Site Plan design, and consequently the municipal sanitary sewer system is confirmed to have adequate capacity to service the proposed development. See correspondence in **Appendix D.2**.

3.4 Proposed Sanitary Servicing

A 200 mm diameter sanitary sewer lateral is proposed for the building connection. As directed by the City, the sanitary service lateral will be connected to the 1050 mm diameter sanitary trunk sewer in Laurel Street (see correspondence in **Appendix D.2**).

The preliminary sanitary servicing is shown on **Drawing SSP-1** and **Figure 3.1**. The work completed in Laurel Street (2023-2024) as shown in the plan-profile construction drawings provided by the City (see **Appendix B.3, DWG 20 and DWG 14**) showed the intent to install a sanitary lateral with a connection to the deep 1050 mm diameter sanitary trunk sewer. The size, material, and condition of this lateral shall be verified at detailed design. At present, it is intended that the proposed sanitary building service lateral will use this existing lateral connection. The sanitary service lateral will include a sanitary monitoring manhole (anchored as per S.P. No. F-4070) between the building and the existing lateral stub.

The mechanical engineering consultant is responsible to confirm the service size required and that the appropriate backwater valve requirements are satisfied. This confirmation is to occur during subsequent stages of the development application process.

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POPULATION
SANITARY DRAINAGE AREA ha.

SANITARY DRAINAGE AREA
PROPOSED SANITARY SEWER
EXISTING SANITARY SEWER

Client/Project
2729685 Ontario Inc.
35 Laurel Street (previously 75 Breezehill Avenue North)
High-Rise Development - Zoning By-law and Official Plan Amendment

Figure No.
3.1

Title
FUNCTIONAL
SANITARY DRAINAGE PLAN

4 Stormwater Management and Servicing

4.1 Background

Breezehill Avenue North and Laurel Street have urban roadway sections complete with major and minor storm drainage systems including, curbs, gutters, and catch basins. There are no local storm sewers adjacent to the site, only the 1350 mm diameter storm collector sewer within Laurel Street and Breezehill Avenue North.

4.2 Design Criteria

Preliminary stormwater management (SWM) and storm sewer servicing is assessed using the City of Ottawa Sewer Design Guidelines (2012) as amended, and the pre-application consultation notes provided by the City of Ottawa (see **Appendix B.1**). The following design criteria are considered with the assessment of SWM and storm sewer servicing for the site.

General

- Use of the dual drainage principle.
- Wherever feasible and practical, site-level measures should be used to reduce and control the volume and rate of runoff.
- Consider the impact of 100-year event outlined in the City of Ottawa Sewer Design Guidelines on the major and minor drainage systems.

Storm Sewer & Inlet Controls

- Discharge for each storm event to be restricted to a 2-year storm event pre-development rate with a maximum pre-development C coefficient of 0.5.
- Peak flows generated from events greater than the 2-year and including the 100-year storm must be detained onsite.
- The preferred stormwater system outlet for this site is the 1350 mm diameter storm sewer within Laurel Street.
- The foundation drainage system is to be independently connected to sewer main unless being pumped with appropriate back up power, sufficient sized pump, and backflow prevention.
- Time of flow for modified rational method calculations should be not less than 10 minutes.

Surface Storage & Overland Flow

- Building openings to be a minimum of 0.30 m above the 100-year water level.
- Maximum depth of flow under either static or dynamic conditions shall be less than 0.30 m.
- Provide adequate emergency overflow conveyance off-site with a minimum vertical clearance of 0.15 m between the spill elevation and the ground elevation at the building envelope in the proximity of the flow route or ponding area.

- No surface drainage is permitted to be directed east towards the O-Train rail corridor.

Water Quality Control

- Water quality control is not required. See Section 4.4.3 for additional information.

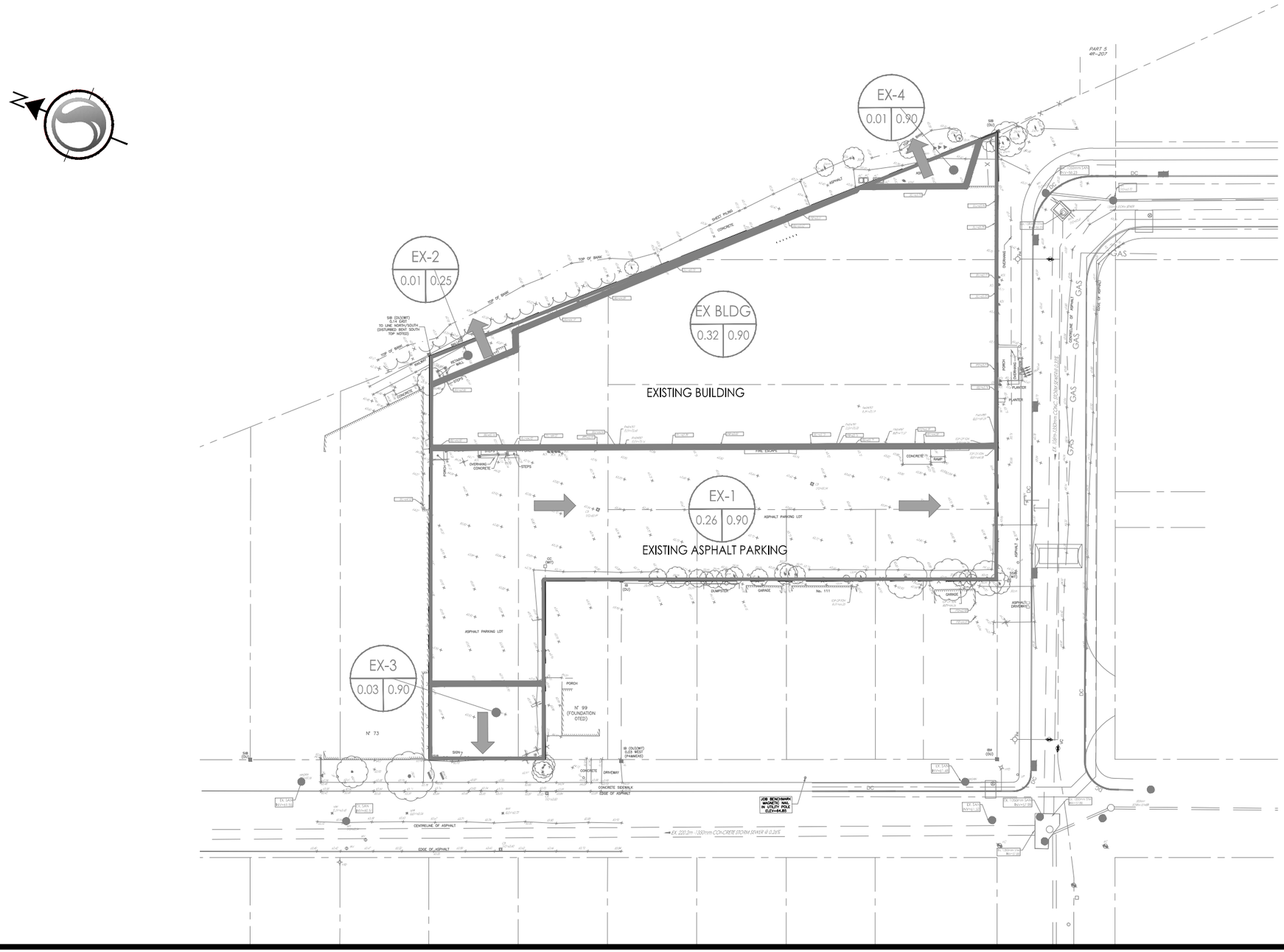
4.3 Existing Conditions

The 0.62 ha site area currently consists of an existing 1-storey commercial building with a paved parking lot. The parking lot drains to a catch basin that is anticipated to be connected to the existing storm sewer system. The nature of the existing roof drainage is unknown. The eastern boundary of the site drains uncontrolled to the east. **Figure 4.1** (Existing Storm Drainage Plan) shows the existing surface conditions and related runoff coefficients considered.

The pre-development imperviousness of the site is calculated at 98% (C = 0.89). Supporting calculations are provided in **Appendix E.1**.

4.4 Stormwater Management Design

Preliminary runoff coefficient values for storm sewer design calculations and imperviousness allocations are assigned to each drainage area based on the anticipated finished surface condition (e.g., asphalt, concrete, gravel, grass, etc.) typically associated with the associated land use. A summary of drainage areas and runoff coefficients are provided in **Table 4.2**. Supporting calculations are provided in **Appendix E.1**, while **Figure 4.2** illustrates the proposed post-development drainage conditions.



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AREA ID
RUNOFF COEFFICIENT
STORM DRAINAGE AREA ha.
EXISTING STORM DRAINAGE BOUNDARY

EXISTING DIRECTION OF OVERLAND FLOW
EXISTING STORM SEWER
EXISTING CATCHBASIN

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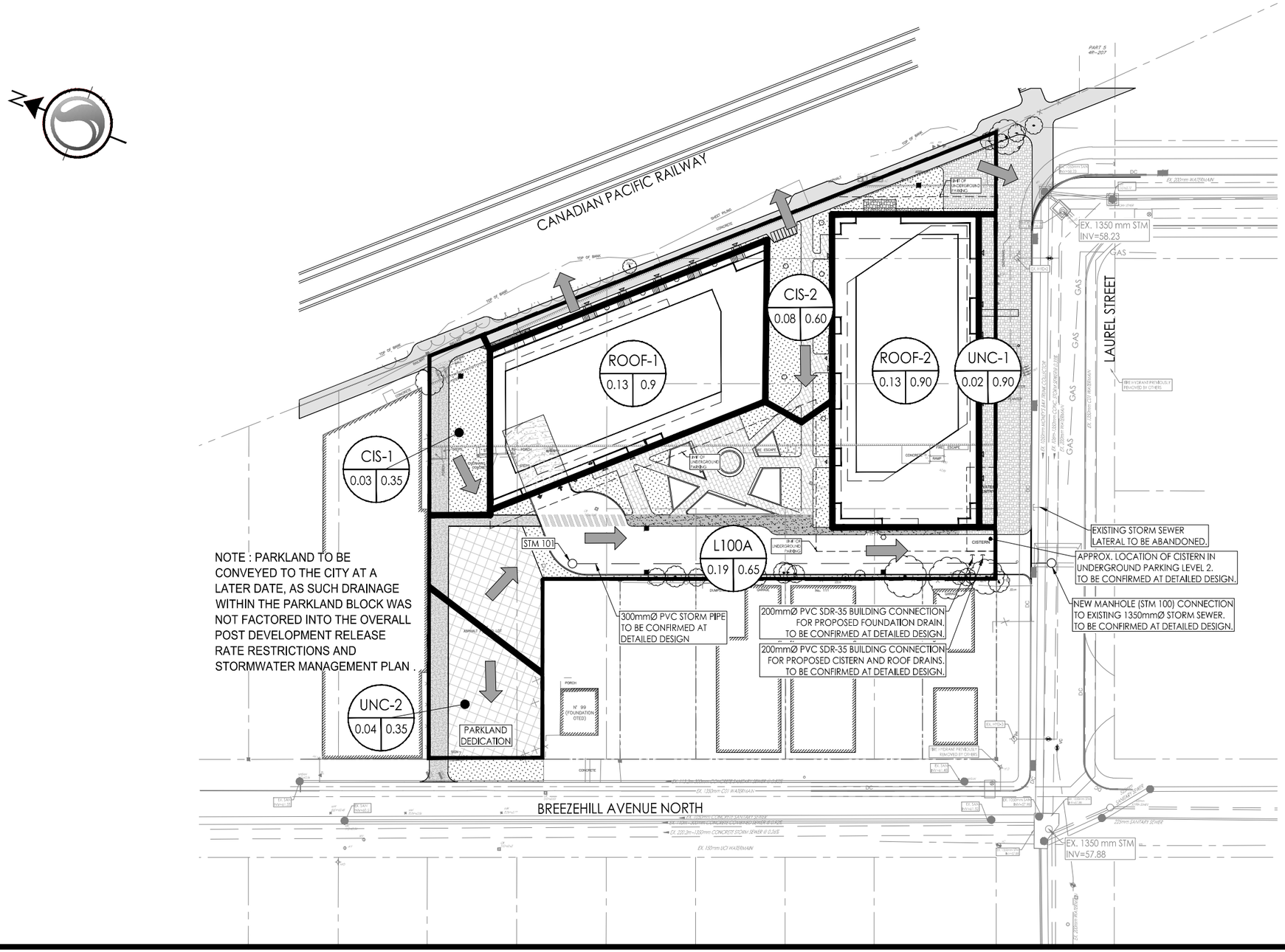
35 Laurel Street (previously 75 Breezehill Avenue North)
High-Rise Development - Zoning By-law and Official Plan Amendment

Figure No.
4.1

Title
EXISTING
STORM DRAINAGE PLAN



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DIRECTION OF OVERLAND FLOW
PROPOSED STORM SEWER
PROPOSED CATCHBASIN
PROPOSED AREA DRAIN
EXISTING STORM SEWER
EXISTING CATCHBASIN

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Figure No.
4.2

Title
FUNCTIONAL
STORM DRAINAGE PLAN

Table 4.1: Summary of Post-Development Drainage Areas

Catchment Areas	Area (ha)	Runoff Coefficient, C	Outlet
L100A	0.19	0.65	1350 mm Storm Sewer (Laurel St. ROW)
ROOF-1	0.13	0.90	1350 mm Storm Sewer (Laurel St. ROW)
ROOF-2	0.13	0.90	1350 mm Storm Sewer (Laurel St. ROW)
CIS-1	0.03	0.35	1350 mm Storm Sewer (Laurel St. ROW)
CIS-2	0.08	0.60	1350 mm Storm Sewer (Laurel St. ROW)
UNC-1	0.02	0.90	Laurel St. ROW
UNC-2	0.08	0.35	Breezehill Ave. North ROW

4.4.1 Allowable Release Rate

The rational method equation (Q = 2.78 CiA) is used to assess the allowable pre-development release rate from the site. The following parameters are used to assess the allowable release rate.

- Based on the calculated C value of 0.89 for the applicable existing site condition (areas listed in **Appendix E-1**), a runoff coefficient of 0.50 is used to establish the allowable release rate.
- Rainfall intensity is for the City of Ottawa 2-year design storm. A Time of Concentration of ten minutes is applied based on the small site size and the proximity to the existing drainage system. The resultant intensity is 76.81 mm/hr.
- Contributing area is for the post-development area draining to Laurel Street.

Table 4.2: Allowable Target Release Rate

Design Storm	Pre-Development Flow Rate (L/s) for C=0.50, i=76.81 mm/hr, A=0.57 ha
2-Year	61

Supporting calculations are provided in **Appendix E.1**.

For the site area draining to Laurel Street (sewer or right of way), the target allowable release rate of 61 L/s is used to determine the functional stormwater quantity control measures.

4.4.1.1 Uncontrolled Areas

Given the limitations of site grading, existing topography, and the proposed public park, 0.06 ha of uncontrolled drainage is anticipated from the property boundary (areas 'UNC-1' and 'UNC-2' as listed in **Table 4.2** and illustrated on **Figure 4.2**).

Relative to the existing site condition with no known runoff control, a post-development 2-year flow control for 0.56 ha of the site is anticipated to reduce the total 100-year stormwater discharge from the site. The data summarized in **Table 4.3** indicates that the proposed SWM plan reduces the overall site storm runoff release rate by 54% compared to the pre-development C=0.50, 100-year design storm event.

Table 4.3: Comparison of Pre- and Post-Development Release Rates for Total Site

Drainage Area	100-Year Discharge (L/s)
	Pre-Development Release Rates
Pre-Development Total (0.62 ha)	153.0
	Post-Development Release Rates
UNC-1 + UNC-2 (0.10 ha)	17.6
L100A + ROOF-1 + ROOF-2 + CIS-1 + CIS-2 (0.52 ha)	52.9
Post-Development Total (0.62 ha)	70.5
Difference (Post minus Pre)	**-82.5 (-54%)**

4.4.2 Quantity Control

Based on the proposed change to the site condition, quantity control measures are needed to manage stormwater runoff to the allowable 2-year pre-development runoff flow rate.

A spreadsheet approach using the modified rational method (MRM) is applied to assess the quantity control volume required to control the 100-year post-development runoff rate to the 2-year pre-development runoff rate. The calculations consider the allowable release rate of 61 L/s and the runoff coefficient associated with the anticipated post-development catchments. The MRM calculations used to establish the storage volume requirement are provided in **Appendix E.2**.

A storage volume of 144 m^3 is required to attenuate the 100-year peak flows from the applicable site area to the 2-year pre-development runoff rate of 61 L/s.

For the 144 m^3 total storage volume, some storage is anticipated to be accommodated within the internal plumbing system of the proposed building, and some is to be accommodated externally to the building in other areas of the site. The specific storage methods shall be confirmed through subsequent stages of the development application process.

4.4.3 Quality Control

Through correspondence with the City of Ottawa, it was confirmed that no stormwater quality control measures are required, as there is no surface parking proposed for the site. Correspondence regarding the quality control requirements for the site is found in **Appendix E.4**.

4.5 Proposed Stormwater Servicing

The development is to be serviced with a 300 mm connection to the existing storm sewer in Laurel Ave. A design sheet identifying the preliminary storm sewer sizing is included in **Appendix E.3**. See **Drawing SSP-1** and **Figure 4.2** for the proposed preliminary locations of the storm sewer infrastructure. Connections and service requirements are to be consistent with City of Ottawa guidelines and specifications.

The final sizing and layout of the infrastructure, including the method(s) of flow attenuation and storage conditions outside the building envelope, shall be confirmed through subsequent stages of the development application process.

The mechanical engineering consultant is responsible to confirm that the appropriate backwater valve requirements are satisfied, the nature of the foundation drainage system, and that any roof drainage systems (including internal storage systems, roof drains, scuppers, etc.) or cisterns are adequate for accommodating the 100-year design storm conditions. It is noted that the 100-year SWM design condition is more stringent than the design condition associated with the typical building code requirements.

5 Site Grading

A functional grading plan (see **Drawing GP-1**) is provided to satisfy the stormwater management requirements, as detailed in **Section 4.0**. The functional grading scheme considers emergency overland flow routes required for stormwater management and anticipated cover requirements over sanitary and storm sewers. It provides preliminary high and low point elevations in critical areas to demonstrate the overall drainage patterns. The functional grading plan is aligned with the Site Plan and preliminary SWM concept. The plan ties-in to existing elevations at the property lines and no drainage is directed to the adjacent properties. The MUP along the east side of the site is to be completed in the future, therefore coordination with the City of Ottawa and National Capital Commission (NCC) is required for the grading tie-in to the MUP at detailed design.

The building finished floor elevation is indicated based on ensuring suitable elevation ties to the surrounding existing conditions, the relative maximum allowable elevation change between the existing curb and the building entrances to ensure appropriate accessibility conditions are achieved, and that positive drainage away from the building face is achieved.

6 Other Considerations

6.1 Geotechnical

Geotechnical conditions for the site are investigated by Paterson Group with findings presented in the supporting investigation report dated February 26, 2024 (provided under separate cover in support of the development application process). Recommendations from the geotechnical report are intended to be followed as they relate to the proposed servicing strategy for the site.

6.2 Utilities

Existing utilities from Hydro Ottawa, Bell, Rogers, and Enbridge are anticipated to be used to service this site. The detailed design of the required utility services is to be further investigated as part of the composite utility planning process, which is to follow design circulation for the servicing plans. The relocation of existing utilities which may conflict with the proposed development is to be coordinated as needed with the individual utility providers as part of the site plan approval process.

6.3 Erosion and Sediment Control During Construction

To protect downstream water quality and prevent sediment build-up in catch basins and storm sewers, erosion and sediment control measures must be implemented during construction. Erosion and sediment control (ESC) measures are the responsibility of the contractor. Recommendations for ESC implementation are summarized as follows.

- Implement best management practices to provide appropriate protection of the existing and proposed drainage system and the receiving water course(s).
- Limit the extent of the exposed soils at any given time.
- Re-vegetate exposed areas as soon as possible.
- Minimize the area to be cleared and grubbed.
- Protect exposed slopes with geotextiles, geogrid, or synthetic mulches.
- Install silt barriers/fencing around the perimeter of the site to prevent the migration of sediment offsite.
- Install track out control mats (mud mats) at the entrance/egress as shown in Drawing ECDS-1 to prevent migration of sediment into the public ROW.
- Provide sediment traps and basins during dewatering works.
- Install sediment traps (such as SiltSack® by Terrafix) between catch basins and frames.
- Schedule the construction works at times which avoid flooding due to seasonal rains.

The Contractor is also required to complete inspections and guarantee the proper performance of erosion and sediment control measures at least after every rainfall. The inspections are to include:

- Verification that water is not flowing under silt barriers.
- Cleaning and changing the sediment traps placed on catch basins.

The proposed location of silt fences, sediment traps, and other erosion control measures will be shown on appropriate drawings through subsequent stages of the development application process.

6.4 Regulatory Approvals

While the site will be under single ownership and discharge to existing sewers, an Environmental Compliance Approval (ECA) from the Ministry of the Environment, Conservation and Parks (MECP) will likely be required for the proposed onsite storm sewer network. The specific requirements for the ECA are to be determined through subsequent stages of the development application process.

Requirements for the completion of registration for potential groundwater pumping with the Environmental Activity and Sector Registry (EASR) and the preparation of a Water Taking and Discharge Plan as stipulated under O.Reg. 63/16 are to be coordinated by the geotechnical and/or hydrogeological engineer and the excavation contractor as needed. Additionally, although not anticipated, an MECP Permit to Take Water (PTTW), required for dewatering volumes exceeding 400,000L/day is to be coordinated by the geotechnical and/or hydrogeological engineer and the excavation contractor as needed.

7 Closing

The water, wastewater, and storm water servicing conditions assessed in this report indicate that the existing public services immediately adjacent to the project site and the proposed servicing strategy are adequate to support the proposed development.

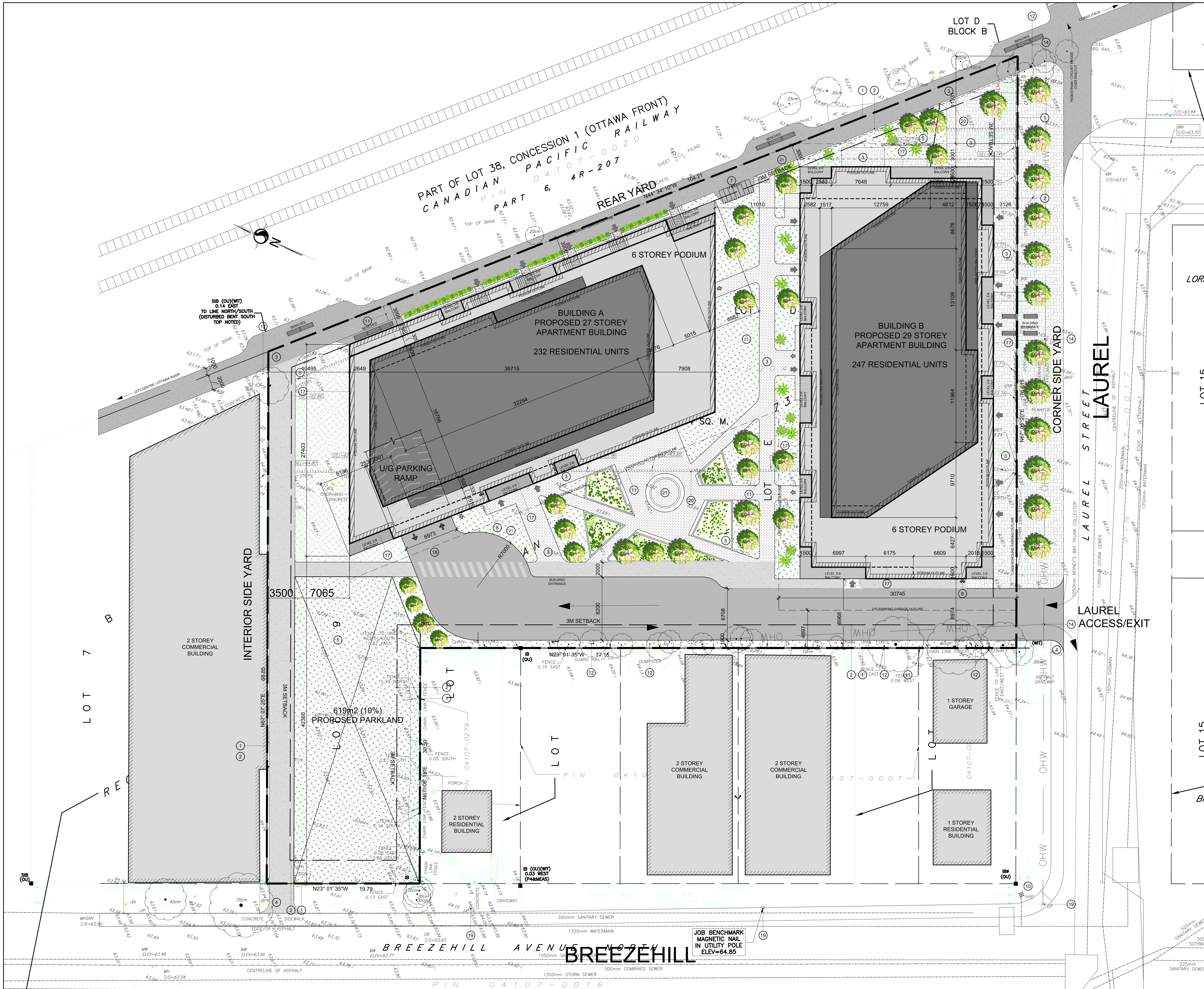
The mechanical engineering consultant is responsible to confirm:

- The water pressure within each building is adequate to meet building code requirements.
- The appropriate sanitary sewer backwater valve requirements are satisfied.
- The appropriate storm sewer backwater valve requirements are satisfied, the nature of the foundation drainage system, and that any roof drainage systems (including internal storage systems, roof drains, scuppers, etc.) are adequate for accommodating the 100-year design storm conditions. It is noted that the 100-year SWM design condition is more stringent than the design condition associated with the typical building code requirements.

Appendices

Appendix A Reference Documents

A.1 Site Plan (Provided by RLA Architecture, September 13, 2024)



DRAWING NOTES

1. PROPERTY LINE
2. EXISTING BUILDING SETBACKS
3. HARD SURFACE PAVING, SEE LANDSCAPE PLAN FOR PATTERN AND TYPE
4. DEPRESSED CURB AND SIDEWALK TO CITY OF OTTAWA STANDARD DETAIL
5. GROUND COVER IN CONCRETE PLANTERS
6. RESERVED
7. BICYCLE PARKING SPACES
8. SIAMESE CONNECTION @ GROUND FLOOR
9. RESERVED
10. EXISTING FIRE HYDRANT
11. OUTLINE OF UNDERGROUND PARKING LEVELS
12. EXISTING TREE TO BE REMOVED
13. RESERVED
14. RELOCATE EXISTING UTILITY POLE AND GUIDE CABLES
15. RESERVED
16. RESERVED
17. EXTENT OF GROUND FLOOR
18. ENTRY DRIVEWAY TO U/G PARKING GARAGE
19. EXISTING UTILITY POLE
20. EXISTING 2 STOREY BUILDING TO BE REMOVED
21. SPLASH PAD
22. P.O.P.S AREA - 150 SQ METERS/ 1,315 SQ FT

SITE PLAN SYMBOLS

- CONCRETE UNIT PAVERS SURFACE
- PROPOSED CONCRETE SURFACE
- EXISTING CONCRETE CITY SIDEWALK
- NCC MULTI-USE PATHWAY
- SOFT LANDSCAPING
- BIKE RACK
- TWO WAY VEHICLE CIRCULATION
- MAIN/COMMERCIAL ENTRANCE / BIKE ROOM/RESIDENTIAL ENTRANCE
- FIRE EXIT
- PROPERTY LINE
- ZONING SETBACKS

PROPERTY OWNER

FRED UNSWORTH
Ottawa, ON
E-Mail:fg_unsworth@rogers.com

LEGAL DESCRIPTION

SURVEYOR'S REAL PROPERTY REPORT
LOT D (BLOCK B),
PARTS of LOTS 10, 11, 12, 13 & 14
And **ALL OF LOTS D, E, AND 9**
(BLOCK J)
And **LORETTA AVE**
REGISTERED PLAN 73
CITY OF OTTAWA
Surveyed by Stantec Geomatics Ltd.

SURVEYOR

Stantec Geomatics Ltd.
Ontario Land Surveyors
1331 Clyde Avenue, Suite 400,
Ottawa, Ontario K2C 3G4
Tel: (613) 722-4420
E-Mail: brian.webster@stantec.com

URBAN PLANNER

FoTenn Consultants Inc.
223 McLeod Street
Ottawa, ON Canada, K2P 0Z8
Tel.: (613) 730-5709
E-Mail: beed@fotenn.com

LANDSCAPE ARCHITECT

CIVIL ENGINEER

Stantec Civil Ltd.
Civil Engineering
1331 Clyde Avenue, Suite 400,
Ottawa, Ontario K2C 3G4
Tel: (780) 917-8567
E-Mail: Alyssa.Gladish@stantec.com

PROJECT INFORMATION

EXISTING ZONING	IG1 H(11)
PROPOSED ZONING	MC
Zoning By-Law 2008-250	
SITE AREA	6172 sq. m. (66,433) sq. ft.
OPEN AREA	41.3% 2548 sq. m.(27,426) sq. ft.
BUILDING HEIGHT - VARIES	85M, 91M

PROJECT STATISTICS

BUILDING HEIGHT	BLDG. A	27 STOREY - 85 M
	BLDG. B	29 STOREY - 91 M
AMENITY AREA	6 m² PER UNIT (479 UNITS)	2,874 sq. m.

GROSS BUILDING - AREAS (27 STOREY BLDG.)
(CITY OF OTTAWA'S DEFINITION)

PARKING LEVELS (2 LEVELS U/G)		N/A
GROUND FLOOR		367 sq. m. (3,950) sq. ft.
L2 FLOOR		1,138 sq. m. (12,249) sq. ft.
L3-6 FLOOR	4 x 1,085 sq. m. 4 x (11,679) sq. ft.	4,340 sq. m. (46,716) sq. ft.
L7 FLOOR		277 sq. m. (2,982) sq. ft.
L8-27 FLOOR	20 x 562 sq. m. 20 x (6,049) sq. ft.	11,240 sq. m. (120,980) sq. ft.
TOTAL AREA		17,362 sq. m. (186,877) sq. ft.

GROSS BUILDING - AREAS (29 STOREY BLDG.)
(CITY OF OTTAWA'S DEFINITION)

PARKING LEVELS (2 LEVELS U/G)		N/A
GROUND FLOOR		N/A
L2-6 FLOOR	5 x 1,070 sq. m. 5 x (11,517) sq. ft.	5,350 sq. m. (57,585) sq. ft.
L7 FLOOR		320 sq. m. (3,444) sq. ft.
L8-29 FLOOR	22 x 546 sq. m. 22 x (5,877) sq. ft.	12,012 sq. m. (129,294) sq. ft.
MECHANICAL FLOORS		N/A
TOTAL AREA		17,682 sq. m. (190,323) sq. ft.

UNIT STATISTICS

STUDIO UNIT	48	10.0%
1 BEDROOM UNIT	131	27.3%
1 BEDROOM + STUDY UNIT	77	16.1%
2 BEDROOM UNIT	193	40.3%
3 BEDROOM UNIT	30	6.3%
TOTAL	479	
COMMERCIAL RETAIL Bldg A - 27 storey		0 sq. m. (0) sq. ft.
COMMERCIAL RETAIL Bldg B - 29 storey		429 sq. m. (4,615) sq. ft.
TOTAL AREA		429 sq. m. (4,615) sq. ft.

CAR PARKING

REQUIRED by ZONING BY-LAW

RESIDENCE	- 0.5 PER UNIT (479 UNITS) (AFTER 12 UNITS -10% FOR UG)	234
VISITOR	- 0.1 PER DWELLING UNIT (AFTER 12 UNITS -MAX 30)	30
COMMERCIAL RETAIL (RETAIL FOOD, BANK & CONVENIENCE STORE)	- 0 UNDER 500 sq.m.PER UNIT	0
TOTAL		264

PROVIDED

2 LEVEL UNDER GROUND PARKING	124
SURFACE	0
TOTAL	124

BICYCLE PARKING

REQUIRED

RESIDENCE	- 0.5 PER UNIT (479 UNITS)	240
COMMERCIAL RETAIL	- 1.0 PER 250m² OF G.F.A.	2
TOTAL		242

PROVIDED

EXTERIOR	7
INDOOR ON GROUND FLOOR	132
INDOOR ON P1 & P2 PARKING LEVELS	539
TOTAL	678

AMENITY AREA

PRIVATE AT GRADE	96 sq. m.
EXTERIOR COMMUNAL AT GRADE	2205 sq. m.
1st FLOOR LOBBIES	189 sq. m.
1st FLOOR COMMUNAL AMENITY	366 sq. m.
7th FLOOR COMMUNAL AMENITY	1385 sq. m.
PRIVATE BALCONIES	4312 sq. m.
TOTAL =	8553 sq. m.
TOTAL COMMUNAL =	4145 sq. m.
REQUIRED - 6.0M² PER UNIT (479) =	2,874 sq. m.
REQUIRED COMMUNAL @ 50% =	1,437 sq. m.

rla/architecture

SITE PLAN

SCALE: 1: 200

PLOT DATE: September 13, 2024

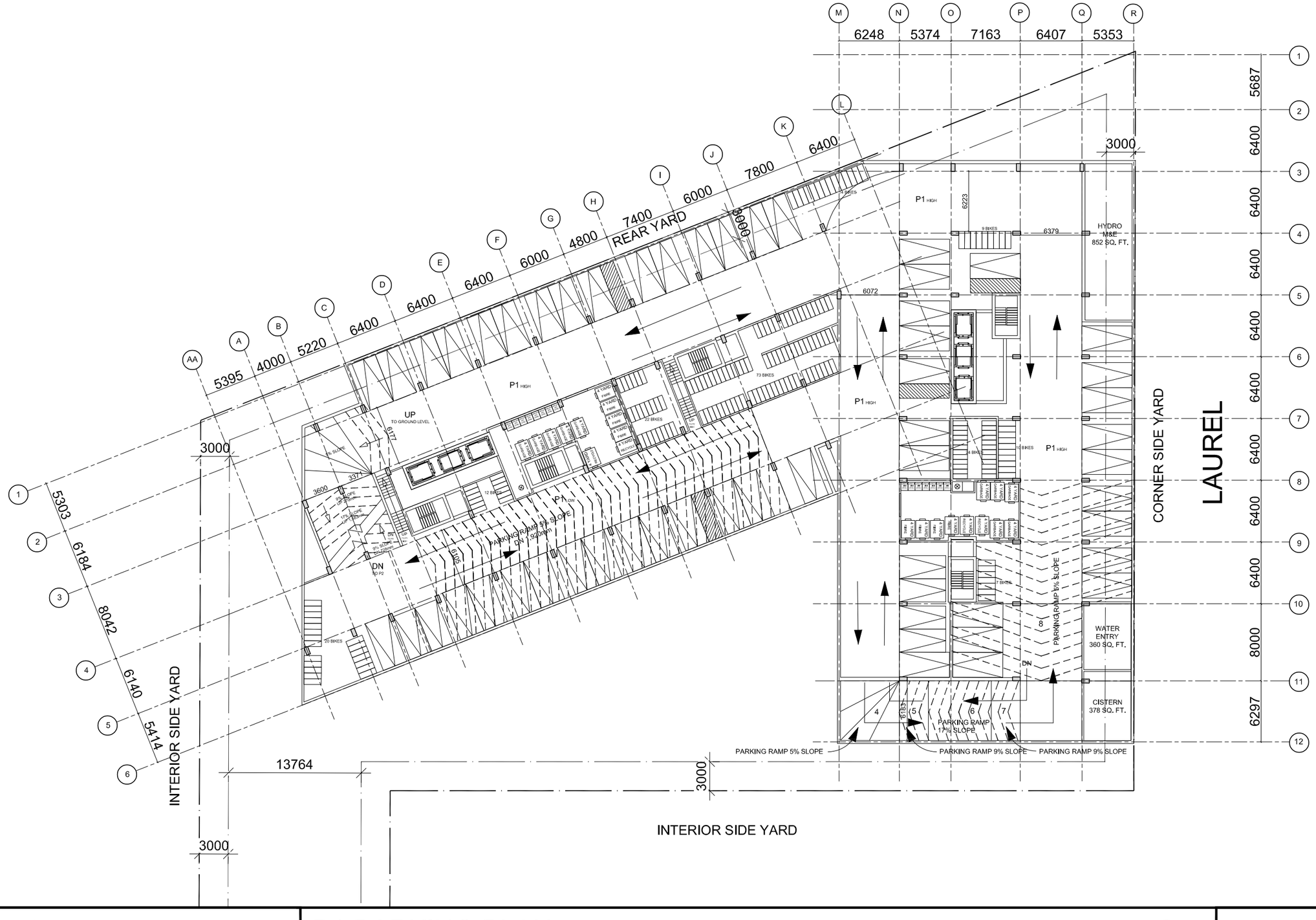
ISSUED FOR: REVISED ZONING AMENDMENT

75 Breezehill Avenue

OTTAWA ONTARIO

SHEET # 1

PROJ. # 2113



rla/architecture

P1 PARKING PLAN

SCALE 1:400

PLOT DATE: October 04, 2024

GFA

P1 PARKING: 41,631 SQ.FT.

191 BICYCLES STALLS + 55 CAR STALLS

75 Breezehill Ave.

OTTAWA, ONTARIO

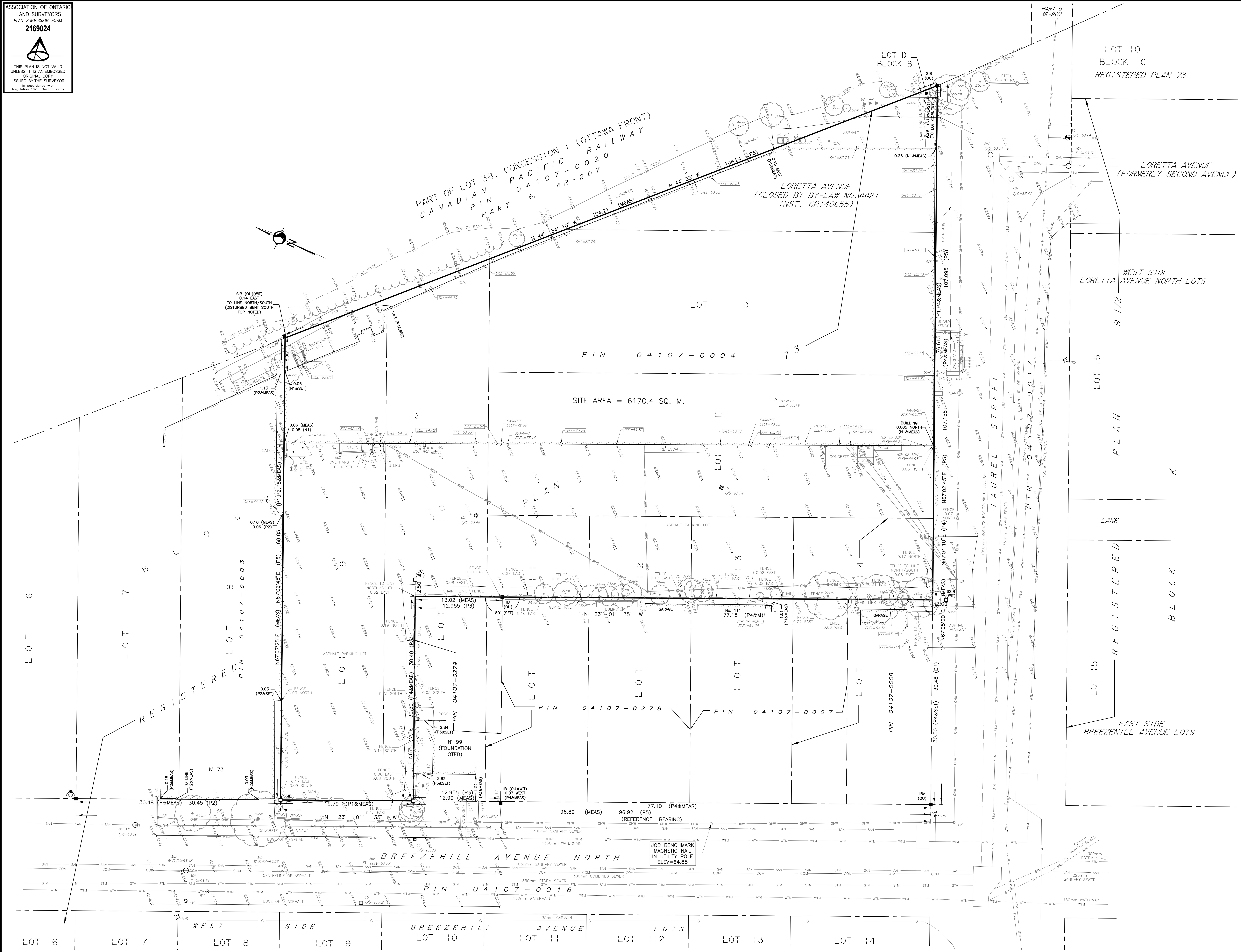
SHEET # 2

PROJ. # 2113

A.2 Plan of Topographic Survey

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2169024

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29(3)



TOPOGRAPHIC PLAN OF SURVEY OF

LOT D (BLOCK B), PARTS OF LOTS 10, 11, 12, 13 AND 14 AND ALL OF LOTS D, E AND 9 (BLOCK J) AND LORETTA AVENUE (CLOSED BY BY-LAW NO. 4221, INST. CR104655) REGISTERED PLAN 73 CITY OF OTTAWA

Scale 1:250

5 0 5 10 15 METRES

METRIC CONVERSION
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048 .

BEARING NOTE
BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE EASTERLY LIMIT OF BREEZEHILL AVENUE NORTH, HAVING A BEARING OF N23°01'55"W AS SHOWN ON PLAN 4R-207.

UTILITY NOTE
LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE AND PER THE CITY OF OTTAWA SHEETS, AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.

ELEVATION NOTE
ELEVATIONS SHOWN HEREON ARE GEODETIC (CGVD-1928:1978) AND ARE DERIVED FROM THE CAN-NET VRS NETWORK MONUMENT: OTTAWA ELEVATION=95.230.

LEGEND (IF APPLICABLE)

■	DENOTES	FOUND MONUMENTS
□	"	SET MONUMENTS
IB	"	IRON BAR
IBØ	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
SG, W&S	"	STANTEC GEOMATICS LTD.
P	"	REGISTERED PLAN 73
P1	"	PLAN BY 647 DATED NOVEMBER 4, 1980
P2	"	PLAN BY 1262 DATED JUNE 25, 1976
P3	"	PLAN BY 725 DATED JULY 30, 1975
P4	"	PLAN BY W&S DATED AUGUST 28, 1998
P5	"	PLAN 4R-207
N1	"	FIELD NOTE BY 647 DATED NOV. 4, 1980
ACU	"	AIR CONDITIONING UNIT
AN	"	ANCHOR
BKR	"	BIKE RACK
BENCH	"	BENCH
BOL	"	BOLLARD
BOUL	"	BOULDER
CB	"	CATCH BASIN
DCB	"	DOUBLE CB
CBMH	"	CB MANHOLE
DCBMH	"	DOUBLE CB MANHOLE
SICB	"	SIDE INLET CB
GP	"	POLE GUYWIRE
GSR	"	GAS SERVICE REGULATOR
GV	"	GAS VALVE
HM	"	HYDRO METER
HTN	"	HYDRO TRANSFORMER
HYD	"	FIRE HYDRANT
JBX	"	JUNCTION BOX
LS	"	LIGHT STANDARD
MB	"	MAILBOX
MP	"	MONITORING PIN
MH	"	MAINTENANCE HOLE UNIDENTIFIED
MHB	"	MAINTENANCE HOLE BELL
MHF	"	MAINTENANCE HOLE FIBRE OPTIC
MHH	"	MAINTENANCE HOLE HYDRO
MHSA	"	MAINTENANCE HOLE SANITARY
MHST	"	MAINTENANCE HOLE STORM
MHT	"	MAINTENANCE HOLE TRAFFIC
MW	"	MONITORING WELL
OW	"	OBSERVATION WELL
PKM	"	PARKING METER
PLBX	"	PULL BOX
RWSL	"	RAILWAY SIGNAL LIGHT
RWSS	"	RAILWAY SWITCH STAND
SAT	"	SATELLITE DISH
SCLP	"	SCULPTURE
SCP	"	SUMP/CATCH PIT
SCV	"	SPRINKLER CONTROL VALVE
SN	"	SIGN
TB BELL	"	TERMINAL BOX - BELL
TB CATV	"	TERMINAL BOX - CABLE
TCB	"	TRAFFIC CONTROL BOX
UP	"	UTILITY POLE
VB	"	VALVE BOX
VC	"	VALVE CHAMBER
WV	"	WATER VALVE
	"	TREE STUMP
	"	TREE CONIFEROUS
	"	TREE DECIDUOUS

COM — COM
COMBINED SEWER

SAN — SAN — SAN
SANITARY SEWER

WTM — WTM — WTM
WATERMAIN

G
GASMAIN

STM — STM — STM
STORM SEWER

OHW — OHW — OHW
OVERHEAD UTILITY WIRE

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 5th DAY OF MAY, 2021.

DATE

FRANCIS LAU
ONTARIO LAND SURVEYOR

SRO MAP COORD.= 366051.60, 5029812.79

Stantec Geomatics Ltd.
CANADA LANDS SURVEYORS
ONTARIO LAND SURVEYORS
1331 CLYDE AVENUE, SUITE 400
OTTAWA, ONTARIO, K2C 3G4
TEL. 613.722.4420
stantec.com

DRAWN: NJ	CHECKED: KJ	PM: KJ	FIELD: ES/ZL	PROJECT No.: 161614358-110

This plan was signed with a scanned signature as a result of the Emergency Order related to the COVID-19 pandemic.

Appendix B General Correspondence

B.1 Pre-consultation Minutes

Pre-Application Consultation Meeting Minutes & Preliminary Comments

Property Address: 75 Breezehill Avenue
PC2022-0089: Meeting #2

Tuesday, February 7th, 2023, between 1:00PM to 2:15PM via Microsoft Teams

Attendees: Andrew McCreight, Manager, Development Review Central – City of Ottawa
Kimberley Baldwin, Parks Planner – City of Ottawa
Nader Kadri, Urban Designer – City of Ottawa
Taavi Siitam, Urban Planner / Designer – City of Ottawa
Reza Bakhit, Infrastructure Project Manager – City of Ottawa
Wally Dubyk, Transportation Project Manager – City of Ottawa
Timothy Beed, Planner – Fotenn
Thomas Freeman, Planner – Fotenn
Kevin Reid – RLA Architecture
Victoria McCartney – RLA Architecture
Jay Baltz, Hintonburg Community Association – City of Ottawa
Eric Forhan, Development Review Planner (File Lead) – City of Ottawa

Regrets: Mark Richardson, Forestry Planner – City of Ottawa
Sami Rehman, Environmental Planner – City of Ottawa
Nick Stow – City of Ottawa
Jerico Gapas, O-Train team – City of Ottawa

Subject Site: 75 Breezehill Avenue

Meeting notes & Preliminary Comments:

1. Overview of Proposal (Applicant)

- This meeting was the 2nd pre-application consultation meeting (formal) for two high-rise buildings of 35 and 30 storeys respectively at 75 Breezehill Avenue. The applicant proposes to maintain largely the same concept, which was presented to Staff at an informal pre-application consultation meeting in April 2022. The proposed development requires an Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA).

- The applicant proposes to maintain the two-tower approach, one 35-storey (Tower A) and one 30-storey (Tower B), as well as the 6-storey podiums, which provide the base to the tower portions and are separate from each other.

- The applicant has revised their proposal to provide a 25-metre separation between Tower A and Tower B. A 25-metre separation distance is appropriate since one of the proposed high-rises exceeds 30 storeys.

- The applicant has improved the separation distance between Tower A and the north side lot line (side yard), from 10.7 metres to 15.4 metres.

- The internal private open space west of Tower A and north of Tower B, which can be accessed from the proposed private road/ two-way drive aisle, has been revised to provide a communal outdoor space and increase circulation through the site.

- The treatment proposed along Laurel Street provides a larger private space that improves activation at-grade and better complements the adjacent public realm.

- Half of the width of the proposed multi-use pathway, running parallel (abutting) to the O-Train corridor to the east, is provided within the boundary of the subject property. The previous plan showed the full width of the multi-use pathway being included within the boundary of the subject property.

- The Hintonburg Community Association (HCA) was present to provide their comments, which are included in this letter.

- Following this meeting, the applicant team provided an updated design package, dated February 8th, 2023 to reflect minor revisions that were discussed in the meeting.

2. Planning

- **Please note:** the Planning comments provided below are additional comments and do not, in any way, replace the preliminary comments provided to your team via email on May 12th, 2022.

- The City's current Official Plan (West Downtown Core Secondary Plan) and Zoning By-law need to be amended to allow for the proposed development.

- Given that Staff still have some significant concerns with the latest pre-con submission, we recommend a follow-up meeting occur prior to your submission to review revisions based on our feedback below.

Context Discussion:

- The presentation package points to various high-rise developments along or in the vicinity of the O-Train corridor in different areas of the City in an attempt to provide some contextual justification for the proposed heights of 35 and 30 storeys. Examples provided on pages 30 and 32 of the presentation are found on lands that reside outside the Corso Italia District boundary and are not considered to be within the same context as the subject lands. Many of these development precedents are located closer to O-Train stations and guided by different policies that afford them greater building heights (e.g. mainstreet corridor). Staff question the relevancy of these precedents for determining the local built-form and height context:

- Based on the relevant (local) context, what is the justification for two high-rise towers at the proposed heights of 35 and 30 storeys?

- Further, slides 26 and 27 demonstrate that an 18-storey tower(s), when compared to 35 or 30 storey high-rise tower, fits better within the surrounding built-form context from a pedestrian perspective:

  - Would you be able to provide what the 18-storey tower(s) would look like in this context from an aerial perspective?

Main Policy Discussion:

- Policy references to our current Official Plan, which were sent via email correspondence on May 12th, 2022 are still relevant and have not, in our opinion, been adequately addressed in this latest submission/ presentation.

- The West Downtown Core Secondary Plan provides the precedence for policy: land use designations, maximum building heights, tower locations and built-form direction, including high-rise criteria, all of which guide the development of a high-rise building in this area and, specifically, on this site. The Corso Italia Secondary Plan was adopted under the previous Official Plan, less than two years ago, and underwent significant public consultation and Staff review, including engagement with landowners regarding the maximum building heights affecting their lands. This Secondary Plan was readopted as a part of our current Official Plan and is further deemed to conform to its policies.

- In our opinion, the proposed development represents a significant departure from the overall vision and policies of the Corso Italia District in the Secondary Plan, with a proposal that represents over three times the amount of height and density currently envisioned and allowed by the Secondary Plan.

  - What is the rationale for considering a new vision in this secondary plan area?

  - What will the community gain from the proposed increase in height and density?

- The Secondary Plan envisions the tallest heights to locate within the station area and calls for transition elsewhere. The site is not found within a designated station area; rather, the site is designated Mixed Use Neighbourhood, further within the Breezehill Avenue North Character Area. Only one (1) high-rise tower of 18 storeys is permitted without consolidation with the abutting lands to the north, and the remainder of the lands are permitted to be developed up to 6-storeys:

  - How does the proposal align with the vision, objectives and policies of a Secondary Plan which calls for transition to occur outside the Station Area?

- Further review of distance, both radial distance and measured walking distance between the furthest points of the subject property and the O-Train platform is required.

It is problematic that the closest distance between the subject property and the nearest O-Train station is approximately 250 metres (radius) based on the presentation. The full depth of the lot from the southern property line abutting Laurel Street to the northern property line is approximately 100 m, which suggests that at least half of the subject property's depth could be located outside the 300-metre radius. Although Staff's position is that the Secondary Plan takes precedence over the underlying land use designation, the Downtown Transect policy direction for lands designated Hub is that high-rise be concentrated within the 300 m radius and everything outside this radius be limited to six storeys to support transition to low-rise neighbourhoods. This limit of six storeys is consistent with the Secondary Plan, where high-rises are only permitted where tower locations have been identified on Schedule 'M' (maximum height).

- Based on the above and subject to further review, what is the policy justification for two high-rise buildings on this site?

- Further, why is the tallest building (35 storeys) proposed farther from the nearest O-Train station than the shorter high-rise building?

- Section 11.2 of the Corso Italia District (Secondary Plan) provides the following:

  Policy 2(c):

  The City shall direct that all contributions collected through development applications within the Corso Italia Station District pursuant to community benefits as per Volume 1 of the Official Plan, Section 11.6, Policy 15). be used within the Corso Italia Station District

  Policy 3(a):

  The City shall give priority to the acquisition and development of parks and improvement projects at the 1010 Somerset Street West property, Plant Recreation Centre and Plouffe Park site and 933 Gladstone Avenue site, including the Active Transportation Bridge, as highlighted in Schedule N: Corso Italia District Public Realm over the next 15 years;

  How does the development proposal plan to address these policies above?

Housing:

- Section 3.2, Table 3a of the Official Plan provides the large household dwelling targets for sites found within the Hub designation. The target for large household dwellings is 10 percent of all proposed dwellings, with a minimum requirement of 5 percent of all proposed dwellings.

  - How does the development proposal plan to achieve this policy requirement?

- As it relates to the provision of affordable housing through the proposed development, slides 28 and 29 of the presentation and design package require further explanation:

- It should be noted that affordable units are encouraged and welcomed, regardless of the built-form and building height.

- Where does the development proposal's target of 10% affordable housing units come from? Section 8(1) of Chapter 3 (Corso Italia Station District) the Secondary Plan calls for affordable housing to provided in accordance with Official Plan targets:

  Section 8: Housing

  1) Affordable housing should be provided in accordance with Official Plan targets and in conformity with any requirements that may be enacted in an Inclusionary Zoning By-law.

- Section 4.2.2(4) of the Official Plan provides the following in order to maximize the ability to provide affordable housing throughout the city:

  - *In accordance with the City's 10-Year Housing and Homelessness Plan, the City shall set a target that 20 per cent of all new residential units be affordable. Of all affordable units, 70 per cent are to be targeted to households whose needs fall within the definition of core affordability, and the remaining 30 per cent are to be targeted to households whose needs fall within the definition of market-affordability.*

- In relation to the affordable housing numbers shown on Slides 28 and 29 of the presentation: assuming half of the unit count for two 18-storey towers, it is possible that one 18-storey high-rise building with 20 percent of the units being affordable could generate the same number of affordable units as the proposal for two 18-storey towers (38) and only 28 units less than the proposal for 35 and 30 storey towers (66), as indicated in the presentation. Given both the policy context and the significant increase in height and density proposed, it is reasonable to suggest that more affordable units should be contemplated:

  - How does the development proposal plan to address Section 4.2.2 of the Official Plan, as encouraged by Section 8(1) of Chapter 3 (Corso Italia Station District) the Secondary Plan?

<u>*High-rise Development*</u>

- The Secondary Plan only envisions one 18-storey high-rise building for this site without consolidation with the abutting lot to north and the remainder of the site is permitted to be developed up to 6-storeys. Outside the tower location, anything proposed beyond 6 storeys, would still require an Official Plan Amendment.

- The tallest height permitted within the Secondary Plan and found within the Station Area is 35 storeys. The location of where this height is permitted in the SP is less than 100 metres from the O-Train Station and its height is justified based on this proximity and its

location within the Station Area designation. The subject property is farther from the O-Train station, not within the Station Area and, therefore, any development on the site should support height transition from the Station Area to align with the policies of the Secondary Plan.

  - How does the development proposal support height transition from the tallest heights planned near the O-Train station/ Station Area?

- **Please note:** Regarding Section 4.2(22), the Secondary Plan (Chapter 3) prescribes a separation distance of at least 20 metres between towers of 30 storeys or less. This policy suggests that a high-rise building greater than 30 storeys should be separated from another high-rise by more than 20 metres. In this context, a separation distance of 25 metres is generally welcomed where the proposal involves multiple high-rise towers, where at least one represents a building height that is greater than 30 storeys.

- The shadowing studies provided on page 37 of the presentation / design package do not appropriately show lot fabric, property boundaries and building footprints on lands east of the O-Train corridor. These need to be provided to understand the full range of shadowing impacts on parks, publicly accessible private spaces and neighbourhoods. We do have some concern with the potential shadowing impacts resulting from the proposed development on lands to the east of the O-Train. Please ensure that the shadowing analysis includes these items.

- Regarding Section 77 of Zoning By-Law 2008-250, lands within Area A on zoning Schedule 402 require a minimum rear yard and interior side yard setback of 10 m for each tower portion. The proposed development provides a rear yard setback of approximately 7 metres for Tower A. The proposed Tower setback reduction, from 10 to 7 metres, is not appropriate or justified in this context, especially considering the potential shadowing impacts resulting from the development and how the Secondary Plan provides a tower location on Schedule 'M' that is consistent with this requirement.

Site Layout and Function

- In keeping with the policies of the Secondary Plan, the following is commonly requested of private developers in this context and should be closely reviewed in addition to Staff's policy concerns above regarding building height and built form transition, as well as other design considerations made in this letter (Active Transportation, Urban Designer, Parks Planner):
  - The design and integration of the full multi-use pathway (MUP) along the eastern property line.
  - Anticipating the Laurel Street bridge extension through site design and development.
  - Public access between Breezehill Avenue and the planned MUP/ O-Train corridor, via the proposed mid-block connection.
  - Anticipating future development along Breezehill Avenue through the internal private road, where a public access easement could be explored.

- The design and integration of a public park on the site, in accordance with Parks comments.

Planning Requirements

- **Planning Application Requirements:** For the OPA and ZBA: A Planning Rationale is required and shall be prepared in accordance with the City's Terms of Reference and include an analysis of the policies of the City's Official Plan, approved by the Minister on November 4th, 2022. As discussed, an updated shadow study is required.

- **High Performance Development Standards:** in effect since Minister's approval of the Official Plan on November 4th, 2022. Please review the requirements and timing based on the City's website, as this may be in effect at the time of submission: High Performance Development Standards | City of Ottawa

- **Community Benefits Charge:** The former Section 37 regime has been replaced with a "Community Benefits Charge", By-law No. 2022-307, of 4% of the land value. This charge will be required for ALL buildings that are 5 or more storeys and 10 or more units and will be required at the time of building permit unless the development is subject to an existing registered Section 37 agreement. Questions regarding this change can be directed to Ranbir.Singh@ottawa.ca.

3. Parks

Please find below Parks & Facilities Planning (PFP) comments from the Pre-consultation meeting held on February 7, 2023.

Official Plan Policy:

- Section 4.4 – Parks and Recreation Facilities of the Official Plan (2021)
  - "To prioritize land for parks on-site over cash-in-lieu of parkland."
  - "Where the development site is more than 4,000 square metres, the City shall place a priority on acquisition of land for park(s) as per the Planning Act and the Parkland Dedication By-law."

- As per Section 4.4.1, parkland conveyance is to:
  - Be free of encumbrances above and below ground
  - Be a usable shape, topography and size that reflects its intended use
  - Meet applicable provincial soil regulations; and
  - Meet the minimum standards for drainage, grading and general condition.

Parkland Dedication By-law:

- The amount of parkland dedication that is required is to be calculated as per the Parkland Dedication By-law No.2022-280, as amended

- Note: By-law 2022-280 was amended by the Planning Act on November 28 2022. For residential development, the maximum amount of land that can be conveyed or paid in lieu is now capped at 10% of the land or its value for sites under 5 hectares.

- As per the applicant's pre-consultation form, the gross land area = 6,174 sq m
    - Residential uses - 10% of the gross land area = 617.4 sq m of required parkland.
    - Commercial uses – 2% of gross land area of required parkland or cash-in-lieu of parkland. 2% of gross land area = 123.48 sq m of required parkland
- For mixed-use development, the conveyance requirements shall be based on the By-law 2022-280, or as amended, and shall be calculated as follows:
    - Where land is developed for a mix of land uses that are located on discrete parts of the site, the cumulative sum for each use, as calculated using the applicable rate and based upon the portion of the site allocated to each use, including, but not limited to, required and provided parking spaces, amenity space, landscape buffers, driveways, and drive aisles;
    - Where land is developed for a mix of uses within a building, the required conveyance shall be the cumulative sum for each use, as calculated using the applicable rate prorated proportionally to the gross floor area allocated to each use
- PFP is requesting **land conveyance** for parkland dedication.
- PFP will request a surveyor's certificate to confirm parkland dedication required, prior to any zoning by-law amendment approval.

Parks Comments on the proposed Official Plan Amendment:

- The proposed development is three times more dense than what was contemplated in the West Downtown Core Secondary Plan, Chapter 3: Corso Italia Station District Plan.
- If additional density is considered at this location, new parkland should be provided to balance the increased number of people living and visiting this neighbourhood.

Parkland Design Criteria and Surroundings:

- PFP are requesting a Parkette. Please see the Park Development Manual – 2nd edition for detailed design criteria.
- The proposed parkette requires frontage on a public street.
- Connect the proposed parkette to the existing/future greenspace network as well as the surrounding existing/future pedestrian and cycling network.

- When a park block is conveyed to the City, new property line(s) are created. Provide appropriate setbacks/stepbacks between the proposed buildings/underground parking garages and the park property line(s).

Process (for Land Conveyance)

- Official Plan Amendment Process – Please prepare park policy(ies) to be incorporated into the West Downtown Core Secondary Plan, Chapter 3: Corso Italia Station District Plan.

- Zoning By-law Amendment Process – Please identify and appropriately zone the park block in the proposed amendment. Please also identify proposed building setbacks/stepbacks from the proposed park property lot lines.

Reference Documents

- Please review the following City of Ottawa reference documents which outline the requirements for parkland dedication and park block conveyance to the City;
    - Official Plan (2021)
    - Parks and Recreation Facilities Master Plan (2021)
    - Park Development Manual, 2nd edition
    - Parkland Dedication By-Law (2022-280) and Planning Act amendments
    - City of Ottawa Standard Parks Conditions.

If you have any questions, please contact Kimberley.Baldwin@ottawa.ca.

4. Urban Design

Please find below urban design comments on the formal pre-consultation for 75 Breezehill Avenue N:

General:

- Design Priority Area – encourage informal visit to the UDRP, a formal visit will be required once a submission is received.
- Design Brief required – TOR attached.
- The proposed scheme presents a substantial deviation from the Corso Italia Station District Secondary Plan (SP). Staff encourage the Applicant to prepare a robust design submission that demonstrates the added height and density is appropriate relative to the planned and emerging context.
- A block plan is needed. The block plan should illustrate:
    - the redevelopment of immediate light industrial/commercial uses surrounding the site (Somerset Street, Breezehill Avenue, Laurel Street, Rail Corridor);

- a comprehensive open space strategy that explores the potential for on-site parkland and POPS spaces (MUP included) and;
- a circulation strategy (pedestrian, cyclist, and auto).

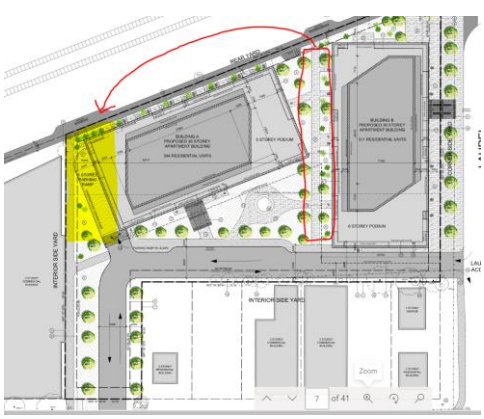
Public Realm:

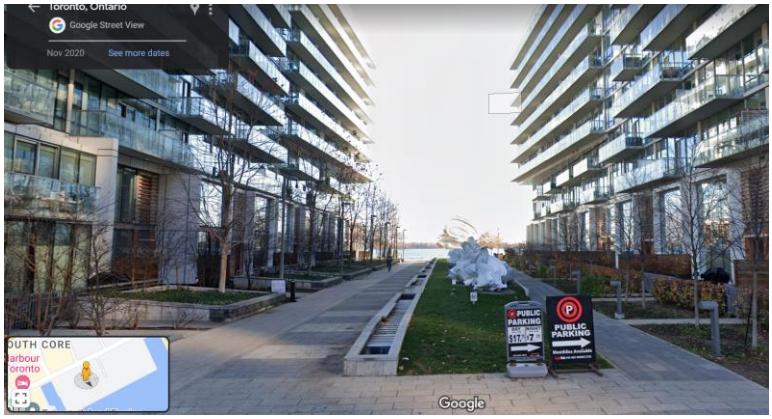
- This area is expected it to transition from a light industrial/commercial area to a mixed-use area. Explore the potential for a public road connection to enable the full development potential of the block and to remove parking access, loading, waste removal off of Laurel and Breezehill. Three public frontages also needed for a high-rise development per the SP.

- Ground floor animation is required on all sides of the proposed buildings. Grade-related and commercial appreciated. Bicycle parking should not occupy large frontage along open space.

- Laurel should continue to evolve with a generous public realm to support the pedestrian connection planned over the rail corridor.

- East-west connection from Breezehill to MUP is more important than the connection between two proposed towers and should be enhanced significantly. Parking ramp should be internal to the building.





- MUP connection – explore the potential for additional greening.

- Encourage the Applicant to consider microclimate conditions when sculpting the built form as it relates to the placement of private and POPS spaces.

Built-Form:

- The facing distance between the two podiums needs to be improved. The site might be better suited for one larger podium.

- The podium edge is too close to MUP, especially for grade related units. Grade related units should have a generous landscaped front yard condition. Explore the potential for additional trees.

- The tower (or towers) should be placed on the property in a manner that limits shadow impacts on the adjacent school yard and planned park on the other side of rail corridor.

- Please ensure that the development appropriately transitions to the adjacent low-rise residential neighbourhood.

- When considering policy direction and requests for parkland, public access, and a more robust public realm, the property is probably better suited for one tower. See precedent below:

- Continue to apply the City's Tall Building Guidelines:
    - Tower floor plates currently significantly less than 750 sq m which is OK.
    - In a two tower 30+ storey scheme a separation distance of 25 metres will be necessary.
    - Base, middle, top for tower.

Other comments:

- Encourage the Applicant to explore a broader range of unit types.
- Amenities need to support a variety of users.
- Sustainability details needed as part of the Applicant's formal submission.

If you have any questions, please contact Nader Kadri: nader.kadri@ottawa.ca

5. Engineering

- Note that the information is considered preliminary, and the assigned Development Review Project Manager may modify and/or add additional requirements and conditions upon review of an application if deemed necessary.

General:

- It is the sole responsibility of the consultant/applicant to investigate the location of existing underground utilities in the proposed servicing area and submit a request for locates to avoid conflict(s). The location of existing utilities and services shall be documented on an **Existing Conditions Plan**.

- Any easements on the subject site shall be identified and respected by any development proposal and shall adhere to the conditions identified in the easement agreement. A **legal survey plan** shall be provided and all easements shall be shown on the engineering plans.

- **Concern** about Sanitary sewer capacity, Please provide the new Sanitary sewer discharge and we confirm if sanitary sewer main has the capacity. Also provide the size proposed sanitary service.

- A deep excavation and dewatering operations have the potential to cause damages to the neighboring adjacent buildings/ City infrastructure. Document that construction activities (excavation, dewatering, vibrations associated with construction, etc.) will not have an impact on any adjacent buildings and infrastructure.

- A **Record of Site Condition (RSC) in accordance with O.Reg.** 153/04 will be required to be filed and acknowledged by the Ministry prior to issuance of a building permit due to a change to a more sensitive property use.

- Existing buildings require a CCTV inspection and report to ensure existing services to be re-used are in good working order and meet current minimum size requirements. Located services to be placed on site servicing plans.

- Reference documents for information purposes :
  - Ottawa Sewer Design Guidelines (October 2012)
  - Technical Bulletin PIEDTB-2016-01
  - Technical Bulletins ISTB-2018-01, ISTB-2018-02 and ISTB-2018-03.
  - Ottawa Design Guidelines - Water Distribution (2010)
  - Technical Bulletin ISTB-2021-03
  - Geotechnical Investigation and Reporting Guidelines for Development Applications in the City of Ottawa (2007)

- City of Ottawa Slope Stability Guidelines for Development Applications (revised 2012)
- City of Ottawa Environmental Noise Control Guidelines (January 2016)
- City of Ottawa Accessibility Design Standards (2012) (City recommends development be in accordance with these standards on private property)
- Ottawa Standard Tender Documents (latest version)
- Ontario Provincial Standards for Roads & Public Works (2013)
- Record drawings and utility plans are also available for purchase from the City (Contact the City's Information Centre by email at InformationCentre@ottawa.ca or by phone at (613) 580-424 x.44455).

- Please note that this is the applicant responsibility to refer to the latest applicable guidelines while preparing reports and studies.

Disclaimer: *The City of Ottawa does not guarantee the accuracy or completeness of the data and information contained on the above image(s) and does not assume any responsibility or liability with respect to any damage or loss arising from the use or interpretation of the image(s) provided. This image is for schematic purposes only.*

Stormwater Management Criteria and Information:

- **Water Quantity Control:** In the absence of area specific SWM criteria please control post-development runoff from the subject site, up to and including the **100-year storm event**, to **a 2-year pre-development level.** The pre-development runoff coefficient will need to be determined **as per existing conditions** but in no case more than 0.5. [**If 0.5 applies it needs to be clearly demonstrated in the report that the pre-development runoff coefficient is greater than 0.5**]. The time of concentration (T_c) used to determine the pre-development condition should be calculated. *Tc should not be less than 10 min. since IDF curves become unrealistic at less than 10 min; T_c of 10 minutes shall be used for all post-development calculations*].

- Any storm events greater than the established **2-year allowable** release rate, up to and including the **100-year storm event**, shall be detained on-site. The SWM measures required to avoid impact on downstream sewer system will be subject to review.

- Please note that foundation drainage is to be independently connected to sewer main unless being pumped with appropriate back up power, sufficient sized pump and back flow prevention. **It is recommended that the foundation drainage system be drained by a sump pump connection to the storm sewer to minimize risk of basement flooding as it will provide the best protection from the uncontrolled sewer system compared to relying on the backwater valve.**

- Note that this is an uncontrolled 2 year storm system with surcharge issues. Water can surcharge to basement levels in this system. Also, any entrance to underground parking would need to be humped to stop any street drainage from entering the underground parking.

- **Overland flow to the rail ROW is not permitted.**

- **Water Quality Control:** Please consult with the local conservation authority (RVCA) regarding water quality criteria prior to submission of a Site Plan Control Proposal application to establish any water quality control restrictions, criteria and measures for the site. Correspondence and clearance shall be provided in the Appendix of the report.

- Please note that as per *Technical Bulletin PIEDTB-2016-01 section 8.3.11.1 (p.12 of 14)* **there shall be no surface ponding on private parking areas during the 5-year storm rainfall event**.

- **Underground Storage:** Please note that the Modified Rational Method for storage computation in the Sewer Design Guidelines was originally intended to be used for above ground storage (i.e. parking lot) where the change in head over the orifice varied from 1.5 m to 1.2 m (assuming a 1.2 m deep CB and a max ponding depth of 0.3 m). This change in head was small and hence the release rate fluctuated little, therefore there was no need to use an average release rate.

When underground storage is used, the release rate fluctuates from a maximum peak flow based on maximum head down to a release rate of zero. This difference is large and has a significant impact on storage requirements. **We therefore require that an average release rate equal to 50% of the peak allowable rate shall be applied to estimate the required volume. Alternatively, the consultant may choose to use a submersible pump in the design to ensure a constant release rate.**
In the event that there is a disagreement from the designer regarding the required storage, The City will require that the designer demonstrate their rationale utilizing dynamic modelling, that will then be reviewed by City modellers in the Water Resources Group.

Please provide information on UG storage pipe. Provide required cover over pipe and details, chart of storage values, capacity etc. How will this pipe be cleaned of sediment and debris?
Provide information on type of underground storage system including product name and model, number of chambers, chamber configuration, confirm invert of chamber system, top of chamber system, required cover over system and details, interior bottom slope (for self-cleansing), chart of storage values, length, width and height, capacity, entry ports (maintenance) etc.

Provide a cross section of underground chamber system showing invert and obvert/top, major and minor HWLs, top of ground, system volume provided during major and minor events. UG storage to provide actual 2- and 100-year event storage requirements.

In regard to all proposed UG storage, ground water levels (and in particular HGW levels) will need to be reviewed to ensure that the proposed system does not become surcharged and thereby ineffective.

Modeling can be provided to ensure capacity for both storm and sanitary sewers for the proposed development by City's Water Distribution Dept. – Modeling Group, through PM and upon request.

- Please note that the minimum orifice dia. for a plug style **ICD is 83mm and the minimum flow rate from a vortex ICD is 6 L/s** in order to reduce the likelihood of plugging.

- Post-development site grading shall match existing property line grades in order to minimize disruption to the adjacent residential properties. A **topographical plan of survey** shall be provided as part of the submission and a note provided on the plans.

- Please provide a **Pre-Development Drainage Area Plan** to define the pre-development drainage areas/patterns. **Existing drainage patterns shall be maintained and discussed as part of the proposed SWM solution**.

- **If rooftop control** and storage is proposed as part of the SWM solutions sufficient details (Cl. 8.3.8.4) shall be discussed and document in the report and on the plans.

Roof drains are to be connected downstream of any incorporated ICDs within the SWM system and not to the foundation drain system. Provide a **Roof Drain Plan** as part of the submission.

- There must be at least **15cm of vertical clearance** between the spill elevation and the ground elevation at the building envelope that is in proximity of the flow route or ponding area. The exception in this case would be at reverse sloped loading dock locations. At these locations, a minimum of 15cm of vertical clearance must be provided below loading dock openings. Ensure to provide discussion in report and ensure grading plan matches if applicable.

Storm Sewer:

- A 1350mm dia. CONC storm sewer (1967) is available within Laurel Street.

- A 1350mm dia. CONC storm sewer (1967) is available within Breezehill Ave.

Sanitary Sewer Maclaren St:

- A 300 mm dia. CONC Sanitary sewer (1967) is available within Breezehill Ave**.**

- A 300 mm dia. CONC Sanitary sewer (1985) is available within Breezehill Ave.

- A 1050mm dia. CONC Sanitary sewer (1985) is available within Laurel Street. (Collector . No connection is permitted).

- Please provide the new Sanitary sewer discharge and we confirm if sanitary sewer main has the capacity. An analysis and demonstration that there is sufficient/adequate residual capacity to accommodate any increase in wastewater flows in the receiving and downstream wastewater system is required to be provided. Needs to be demonstrated that there is adequate capacity to support any increase in wastewater flow.

- Please apply the wastewater design flow parameters *in Technical Bulletin PIEDTB-2018-01.*

- Sanitary sewer monitoring maintenance hole is required to be installed at the property line (on the private side of the property) as per City of Ottawa Sewer-Use By-Law 2003-514 (14) *Monitoring Devices*.

- A backwater valve is required on the sanitary service for protection.

Water:

- A 203 mm dia. UCI watermain (1972) is available within Laurel street.

- A 152 mm dia. UCI watermain (1909) is available within Breezehill Ave.

- A 1372 mm dia watermain (1972) is available within Breezehill Ave. (No connection is permitted)

- Existing residential service to be blanked at the main.

- **Water Supply Redundancy:** Residential buildings with a basic day demand greater than 50m^3/day (0.57 L/s) are required to be connected to a minimum of two water services separated by an isolation valve to avoid a vulnerable service area as per the *Ottawa Design Guidelines - Water Distribution, WDG001, July 2010 Clause 4.3.1 Configuration.*

- Please **review Technical Bulletin ISTB-2018-0**, maximum fire flow hydrant capacity is provided in Section 3 Table 1 of Appendix I. A **hydrant coverage figure** shall be provided and **demonstrate there is adequate fire protection for the proposal**. Two or more public hydrants are anticipated to be required to handle fire flow.

- Boundary conditions are required to confirm that the require fire flows can be achieved as well as availability of the domestic water pressure on the City street in front of the development. Use Table 3-3 of the MOE Design Guidelines for Drinking-Water System to determine Maximum Day and Maximum Hour peaking factors for 0 to 500 persons and use Table 4.2 of the Ottawa Design Guidelines, Water Distribution for 501 to 3,000 persons. Please provide the following information to the City of Ottawa via email to request water distribution network boundary conditions for the subject site. Please note that once this information has been provided to the City of Ottawa it takes approximately 5-10 business days to receive boundary conditions.
    - Type of Development and Units
    - Site Address
    - A plan showing the proposed water service connection location.
    - **Average Daily Demand** (L/s)
    - **Maximum Daily Demand** (L/s)
    - **Peak Hour Demand** (L/s)
    - **Fire Flow** (L/min)
      [*Fire flow demand requirements shall be based on **Fire Underwriters Survey (FUS)** Water Supply for Public Fire Protection 1999*]

      [Fire flow demand requirements shall be based on ISTB-2021-03]

      Note: The OBC method can be used if the fire demand for the private property is less than 9,000 L/min. If the OBC fire demand reaches 9000 L/min, then the FUS method is to be used.

      Exposure separation distances shall be defined on a figure to support the FUS calculation and required fore flow (RFF).

    - **Hydrant capacity shall be assessed to demonstrate the RFF can be achieved**. Please identify which hydrants are being considered to meet

the RFF on a fire hydrant coverage plan as part of the boundary conditions request.

IMPORTANT

Infrastructure renewal: Please note that an infrastructure renewal project has been planned for the Breezehill and Laurel area. It is the designer's responsibility to contact the City and obtain the latest information on the WAT, SAN and STM mains within the ROW, and other information they require for their design. Furthermore, a construction restriction zone is in place in this area and coordination with the City's construction team will be needed to avoid any conflict with the renewal projects.

Snow Storage:

- Any portion of the subject property which is intended to be used for permanent or temporary snow storage shall be as shown on the approved site plan and grading plan. Snow storage shall not interfere with approved grading and drainage patters or servicing. Snow storage areas shall be setback from the property lines, foundations, fencing or landscaping a minimum of 1.5m. Snow storage areas shall not occupy driveways, aisles, required parking spaces or any portion of a road allowance. If snow is to be removed from the site please indicate this on the plan(s).

Gas pressure regulating station:

- A gas pressure regulating station may be required depending on HVAC needs (typically for 12+ units). Be sure to include this on the Grading, Site Servicing, SWM and Landscape plans. This is to ensure that there are no barriers for overland flow routes (SWM) or conflicts with any proposed grading or landscape features with installed structures and has nothing to do with supply and demand of any product.


Gas Pressure Regulating Station.pdf

Regarding Quantity Estimates:

- Please note that external Garbage and/or bicycle storage structures are to be added to QE under Landscaping as it is subject to securities.In addition, sump pumps for Sanitary and Storm laterals and/or cisterns are to be added to QE under Hard items as it is subject to securities, even though it is internal and is spoken to under SWM and Site Servicing Report and Plan.

Required Engineering Plans and Studies:

- **PLANS:**

- Existing Conditions and Removals Plan
- Site Servicing Plan
- Grade Control and Drainage Plan
- Erosion and Sediment Control Plan
- Roof Drainage Plan
- Topographical survey

- **REPORTS:**

  - Site Servicing and Stormwater Management Report
  - Geotechnical Study/Investigation
  - Slope Stability Assessment Reports (if required, please see requirements below)
  - Noise Control Study
  - Phase I ESA
  - Phase II ESA (Depending on the Phase I recommendation)
  - RSC (Record of the site Conditions)
  - Site lighting certificate
  - Wind analysis
  - Shadow Study

- Please refer to the **City of Ottawa Guide to Preparing Studies and Plans [Engineering]:**

  - Specific information has been incorporated into both the Guide to Preparing Studies and Plans for a site plan. The guide outlines the requirement for a statement to be provided on the plan about where the property boundaries have been derived from.

  - Added to the general information for servicing and grading plans is a note that an **O.L.S.** should be engaged when reporting on or relating information to property boundaries or existing conditions. The importance of engaging an **O.L.S**. for development projects is emphasized.

Phase One Environmental Site Assessment:

- A Phase I ESA is required to be completed in accordance with Ontario Regulation 153/04 in support of this development proposal to determine the potential for site contamination. Depending on the Phase I recommendations a Phase II ESA may be required.

- The Phase I ESA shall provide all the required Environmental Source Information as required by O. Reg. 153/04. ERIS records are available to public at a reasonable cost and need to be included in the ESA report to comply with O.Reg. 153/04 and the Official Plan. The City will not be in a position to approve the Phase I ESA without the inclusion of the ERIS reports.

- Official Plan Section 4.8.4:

- https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-4-review-development-applications#4-8-protection-health-and-safety

Geotechnical Investigation:

- A Geotechnical Study/Investigation shall be prepared in support of this development proposal.
- Reducing the groundwater level in this area can lead to potential damages to surrounding structures due to excessive differential settlements of the ground. The impact of groundwater lowering on adjacent properties needs to be discussed and investigated to ensure there will be no short term and long term damages associated with lowering the groundwater in this area.
- Geotechnical Study shall be consistent with the Geotechnical Investigation and Reporting Guidelines for Development Applications.

Link: https://documents.ottawa.ca/sites/documents/files/geotech_report_en.pdf

Slope Stability Assessment Reports:

- A report addressing the stability of slopes, prepared by a qualified geotechnical engineer licensed in the Province of Ontario, should be provided wherever a site has slopes (existing or proposed) steeper than 5 horizontal to 1 vertical (i.e., 11 degree inclination from horizontal) and/or more than 2 metres in height.
- A report is also required for sites having retaining walls greater than 1 metre high, that addresses the global stability of the proposed retaining walls.

Link: https://documents.ottawa.ca/en/document/slope-stability-guidelines-development-applications

Noise Study:

- A **Transportation Noise Assessment** is required as the subject development is located within 100m proximity of an Arterial Road.
- A **Stationary Noise Assessment** is required in order to assess the noise impact of the proposed sources of stationary noise (mechanical HVAC system/equipment) of the development onto the surrounding residential area to ensure the noise levels do not exceed allowable limits specified in the City Environmental Noise Control Guidelines.

Link: https://documents.ottawa.ca/sites/default/files/documents/enviro_noise_guide_en.pdf

Wind analysis:

When greater than 9 storey in height Wind Study for all buildings/dwellings.

- A wind analysis must be prepared, signed and stamped by an engineer who specializes in pedestrian level wind evaluation. Where a wind analysis is prepared by a company which do not have extensive experience in pedestrian level wind evaluation, an independent peer review may be required at the expense of the proponent.

Link: Terms of Reference: Wind Analysis (ottawa.ca)

Shadow Study:

- When greater than 9 storey in height, a Shadow Study required for all buildings/dwellings. Please see attached Terms of Reference.

Exterior Site Lighting:

- Any proposed light fixtures (both pole-mounted and wall mounted) must be part of the approved Site Plan. All external light fixtures must meet the criteria for Full Cut-off Classification as recognized by the Illuminating Engineering Society of North America (IESNA or IES), and must result in minimal light spillage onto adjacent properties (as a guideline, 0.5 fc is normally the maximum allowable spillage). In order to satisfy these criteria, the please provide the City with a **Certification (Statement) Letter** from an acceptable professional engineer stating that the design is compliant.

Fourth (4th) Review Charge:

Please be advised that additional charges for each review, after the 3rd review, will be applicable to each file. There will be no exceptions.

If you have any questions, please contact Infrastructure Project Manager (IPM), Reza Bakhit: reza.bakhit@ottawa.ca

6. Transportation Engineering

Transportation Comment

- The Screening Form has indicated that the TIA Triggers have been met. Please proceed with the TIA Step 2 – Scoping report.

Updated General Comments

- Road, Sewer, Water along both Breezehill Ave and Laurel St is targeted to start this season.

- Both Breezehill Avenue and Laurel Street are classified as Local roads. There are no additional protected ROW limits identified in the OP.
- Permanent structures such as curbing, stairs, retaining walls, and underground parking foundation also bicycle parking racks are not to extend into the City's right-of-way limits.
- The consultant should review the sight distance to the access and any obstructions that may hinder the view of the driver.
- The concrete sidewalk is to meet City standards and be 2.0 metres in width and to be continuous along the Laurel Street property frontage and depressed through the proposed access (please refer to the City's sidewalk and curb standard
- The Owner acknowledges and agrees that all private accesses to Roads shall comply with the City's Private Approach By-Law being By-Law No. 2003-447 as amended https://ottawa.ca/en/living-ottawa/laws-licences-and-permits/laws/law-z/private-approach-law-no-2003-447 or as approved through the Site Plan control process.
- The closure of an existing private approach shall reinstate the sidewalk, shoulder, curb and boulevard to City standards.
- No person shall construct a private approach within 3.0 metres of any property line as stated in By-Law No. 2003-447 Section 25 (o).
- The Owner shall be required to enter into maintenance and liability agreement for all pavers, plant and landscaping material placed in the City right-of-way and the Owner shall assume all maintenance and replacement responsibilities in perpetuity.
- Bicycle parking spaces are required as per Section 111 of the Ottawa Comprehensive Zoning By-law. Bicycle parking spaces should be located in safe, secure places near main entrances and preferably protected from the weather.

If you have any questions, please contact Transportation Project Manager (TPM), Wally Dubyk: Wally.Dubyk@ottawa.ca

Active Transportation Comments:

- Ideally the MUP along the west side of the O-Train corridor meets standard 3.0 m paved width.
- The Active Transportation bridge over the O-Train corridor is planned to be car-free and as Laurel Street is constructed east of the rail corridor, it will become a MUP as it links to existing Laurel so that motor vehicles will have to use a different route to get to Preston Street.

- The sooner the AT bridges over Trillium Pathway (second one is an extension of Old Wellington Street to City Centre) can be built, the sooner local residents will have incentive to walk or ride to their destinations throughout the area.

7. **Environment**

- No concerns.
- No requirement for an Environmental Impact Statement (EIS).

8. **Forestry**

Planning Forester Tree Conservation Report (TCR) requirements:

- Please note that all process for reviewing and approving TCRs are changing at the City – in order to effectively review your submission in a timely manner the Planning Forester will need to ensure that all TCR requirements have been addressed.
- A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City
    - an approved TCR is a requirement of Site Plan approval.
- Any removal of privately-owned trees 10cm or larger in diameter, or 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.
- The TCR must contain 2 separate plans:
    - Plan/Map 1 - show existing conditions with tree cover information
    - Plan/Map 2 - show proposed development with tree cover information
    - Please ensure retained trees are shown on the landscape plan
- The TCR must list all trees on site, as well as off-site trees if the CRZ extends into the developed area, by species, diameter and health condition
- Please identify trees by ownership – private onsite, private on adjoining site, city owned, co-owned (trees on a property line)
    - Compensation may be required for the removal of city owned trees.
- If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained
- 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
- The location of tree protection fencing must be shown on the plan

- Show the critical root zone of the retained trees

- 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.

- For more information on the process or help with tree retention options, contact Mark Richardson mark.richardson@ottawa.ca or on City of Ottawa

Planning Forester Landscape Plan (LP) Tree Planting Requirements:

- Please note that all process for reviewing and approving LP tree planting has changed at the City – in order to effectively review your submission in a timely manner the Planning Forester will need to ensure that all the bullets listed below have been addressed.

- Minimum Setbacks
    - Maintain 1.5m from sidewalk or MUP/cycle track or water service laterals.
    - Maintain 2.5m from curb
    - Coniferous species require a minimum 4.5m setback from curb, sidewalk or MUP/cycle track/pathway.
    - 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. Adhere to Ottawa Hydro's planting guidelines (species and setbacks) when planting around overhead primary conductors.

- Tree specifications
    - Minimum stock size: 50mm tree caliper for deciduous, 200cm height for coniferous.
    - Maximize the use of large deciduous species wherever possible to maximize future canopy coverage
    - Tree planting on city property shall be in accordance with the City of Ottawa's Tree Planting Specification; and include watering and warranty as described in the specification (can be provided by Forestry Services).
    - Plant native trees whenever possible
    - No root barriers, dead-man anchor systems, or planters are permitted.
    - No tree stakes unless necessary (and only 1 on the prevailing winds side of the tree)

- Hard surface planting
    - Curb style planter is highly recommended
    - No grates are to be used and if guards are required, City of Ottawa standard (which can be provided) shall be used.
    - Trees are to be planted at grade

- Soil Volume
    - Please document on the LP that adequate soil volumes can be met:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

- Sensitive Marine Clay
    - Please follow the City's 2017 Tree Planting in Sensitive Marine Clay guidelines

9. City Surveyor

- The determination of property boundaries, minimum setbacks and other regulatory constraints are a critical component of development. An Ontario Land Surveyor (O.L.S.) needs to be consulted at the outset of a project to ensure properties are properly defined and can be used as the geospatial framework for the development.

- Topographic details may also be required for a project and should be either carried out by the O.L.S. that has provided the Legal Survey or done in consultation with the O.L.S. to ensure that the project is integrated to the appropriate control network.

Questions regarding the above requirements can be directed to the City's Surveyor, Bill Harper, at Bill.Harper@ottawa.ca

10. Waste Services

- New multi-unit residential development, defined as containing six (6) or more units, intending to receive City waste collection services will be required, as of June 1, 2022, to participate in the City's Green Bin program in accordance with Council's approval of the multi-residential waste diversion strategy. The development must include adequate facilities for the proper storage of allocated garbage, recycling, and green bin containers and such facilities built in accordance with the approved site design. Questions regarding this change and requirements can be directed to Andre.Laplante@ottawa.ca.

11. Construction Approach

- Please contact the Right-of-Ways Permit Office TMconstruction@ottawa.ca early in the Site Plan process to determine the ability to construct site and copy File Lead on this request.

12. Community Association representative

- The Hintonburg Community Association would oppose this proposal, which is essentially unchanged from that presented at the first consultation.

- We essentially agree with the comments made by City staff, that the Corso Italia Secondary Plan is very new, is clear on what is envisioned in the vicinity of this site and conforms to the new Official Plan and current Planning Act. The height of the proposed towers, and the proposal for two rather than a single tower, are counter to the Plan. I will not restate the points made by Staff, since they will be in the report. They generally reflect the likely majority view of the community.

- A single, 18-storey tower is appropriate for this site, as permitted by the Secondary Plan. Redevelopment, especially for housing, is appropriate for that site.

- The "context" presented as justification included buildings as far away as 1.1 km (Claridge Icon). This is much too far to count as context for this proposal. While there are closer buildings that are of similar heights to this proposal, they are all on main streets and are not in a similar context to this interior lot with access from local streets. The correct context would be the other internal areas of the Corso Italia Plan area.

- This site is located at the edge of the Hub and therefore is within the area where height transitions should be taking place.

- The justification made by the applicants' representatives seems to rely on a claim that Bill 23 and the new City Official Plan permit very different built forms, heights, or densities than the previous Plan. However, this would not appear to be valid. The proposed building site, while within a "Hub," is not on a main street nor close enough to the station to warrant any increase over what the Secondary Plan permits. It should also be noted that the Secondary Plan was incorporated into the new OP and was not altered in substance by Council or the Ministry from the previous Plan. It therefore should be considered as conforming to the current OP.

- The towers were previously separated by 20m and are now proposed to be separated by 25m, a separation that would now conform to the separations mandated in the Secondary Plan. However, the proposed orientation of the towers means that the gap would not be visible from the low-rise residential area that lies to the approximate southwest, starting at the Corner of Breezehill and Laurel. The towers will appear as a single large tower from that vantage point, eliminating any benefit from the tower separation.

- The applicants use the term "public space" to describe what would actually be their private space along Laurel St. If they wish to put forward this space as a public benefit, then it would have to be either deeded to the City or an easement created to ensure public access.

13. Submission requirements and fees

- Outline the submission requirements and fees.
- Additional information regarding fees related to planning applications can be found here.
- Plans are to be standard A1 size (594 mm x 841 mm) or Arch D size (609.6 mm x 914.4 mm) sheets, dimensioned in metric and utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400 or 1:500).
- All PDF submitted documents are to be unlocked and flattened.

Next steps

- Please review the attached required list of plans and studies.
- It is anticipated that, as a result of the *More Homes for Everyone Act, 2022*, new processes in respect of pre-application consultation and application submission may be in place prior to your application being submitted and/or deemed complete to/by City Staff in accordance with *Planning Act* requirements.
- The new processes are anticipated to require a multiple phase pre-application consultation approach before an application will be deemed complete. Applicants who have not filed a complete application by the effective date may be required to undertake further pre-application consultation(s) consistent with the provincial changes. The by-laws to be amended include By-law 2009-320, the Pre-Consultation By-law, By-law 2022-239, the planning fees by-law and By-law 2022-254, the Information and Materials for Planning Application By-law.
- City Staff strongly recommend the applicant resolve outstanding matters and send revised concepts to Staff prior to the submission of the applications for Official Plan Amendment and Zoning By-Law Amendment. We recommend a third (3) pre-application consultation meeting to review revisions prior to submission.
- City Staff encourage the applicant to continue to discuss the proposal with the Ward Councillor, community groups and neighbours.
- Subject to the above, these pre-con comments are only valid for one year.

Thank you,

Eric Forhan
Development Review Planner

To: Timothy Beed, Senior Planner – Fotenn
Thomas Freeman, Planner – Fotenn
Cc: Andrew McCreight, Manager, Development Review Central – City of Ottawa
Kimberley Baldwin, Parks Planner – City of Ottawa
Nader Kadri, Urban Designer – City of Ottawa
Taavi Siitam, Urban Planner / Designer – City of Ottawa
Reza Bakhit, Infrastructure Project Manager – City of Ottawa
Wally Dubyk, Transportation Project Manager – City of Ottawa
Jay Baltz, Hintonburg Community Association – City of Ottawa

B.2 Laurel Street Construction Works (2023-2024)

Gladish, Alyssa

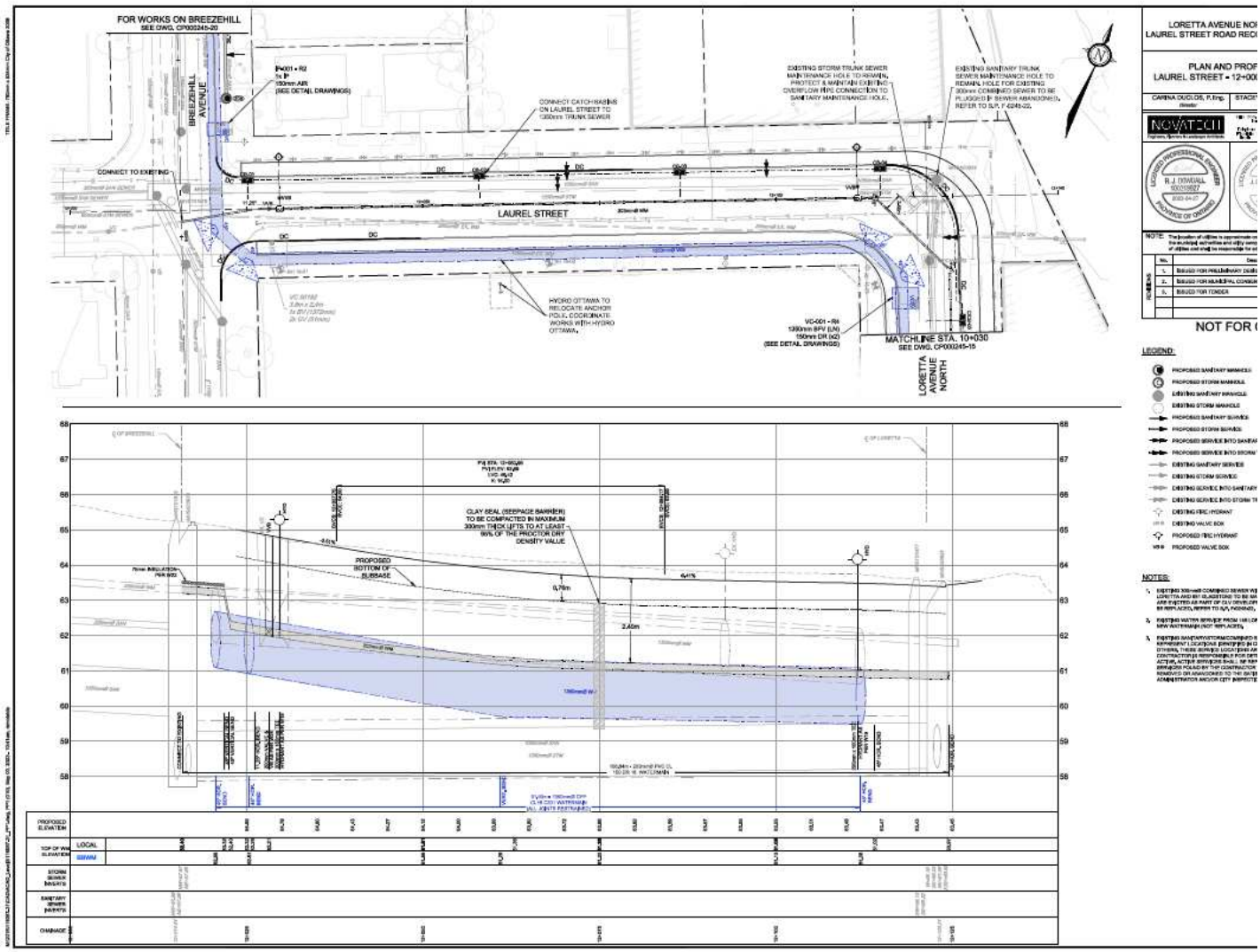
From: Rathwell, Stacey <stacey.rathwell@ottawa.ca>
Sent: Thursday, August 3, 2023 2:56 PM
To: Gladish, Alyssa
Cc: Bakhit, Reza
Subject: RE: Breezehill Avenue North and Laurel Street - Infrastructure Renewal Project

Hi Alyssa,

Sorry for the delay in getting back to you. I've responded to your questions and included a snip of the servicing plan fronting 73 Breezehill below.

1. What is the scope of the project?
   a. We are replacing the large diameter 1350mm backbone watermain on Loretta Ave N and Laurel St, as well as some local infrastructure throughout project limits (local watermain on Laurel St)
2. Will there be improvements or changes to the underground infrastructure?
   a. Yes, see below.
3. What stage is the project at? Are there construction drawings available?
   a. We have awarded to RW Tomlinson, and have begun some construction activity on site. The bulk of the underground is planned this year, with road and surface work extending into next year.

Let me know if you have additional questions, or if you'd like to meet to discuss. I have availability next Thursday or Friday.



Cheers,

Stacey Rathwell, CET, CAPM
Project Manager
City of Ottawa | Infrastructure Services | Design & Construction – Municipal
Cell: 613-915-0424
Email: Stacey.Rathwell@ottawa.ca

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: July 28, 2023 9:41 AM
To: Rathwell, Stacey <stacey.rathwell@ottawa.ca>
Cc: Bakhit, Reza <reza.bakhit@ottawa.ca>
Subject: RE: Breezehill Avenue North and Laurel Street - Infrastructure Renewal Project

Hello Stacey,

I am writing to check if you received my email below.

Can you please provide a timeline for when I might hear back from you with this information?

Thank you kindly,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Gladish, Alyssa
Sent: Tuesday, July 25, 2023 9:16 AM
To: stacey.rathwell@ottawa.ca
Subject: Breezehill Avenue North and Laurel Street - Infrastructure Renewal Project

Good morning, Stacey,

I am working on the Functional Civil Servicing for the 75 Breezehill Avenue North Development ZBLA/OPA Applications. (PC2022-0089). Reza Bakhit is the engineering reviewer on the file who provided me with your contact.

In our pre-consultation meeting minutes, the following note was included:

Infrastructure renewal: Please note that an infrastructure renewal project has been the Breezehill and Laurel area. It is the designer's responsibility to contact the City the latest information on the WAT, SAN and STM mains within the ROW, and other i they require for their design. Furthermore, a construction restriction zone is in plac and coordination with the City's construction team will be needed to avoid any cont renewal projects.

I was wondering if you could provide me any information on this renewal project that might help us to better prepare the servicing scheme for 75 Breezehill Avenue.

1. What is the scope of the project?
2. Will there be improvements or changes to the underground infrastructure?
3. What stage is the project at? Are there construction drawings available?

Feel free to give me a call or we can set up a Teams meeting to facilitate the discussion. I am available anytime after 10am Wednesday and Thursday this week.

Thank you kindly,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

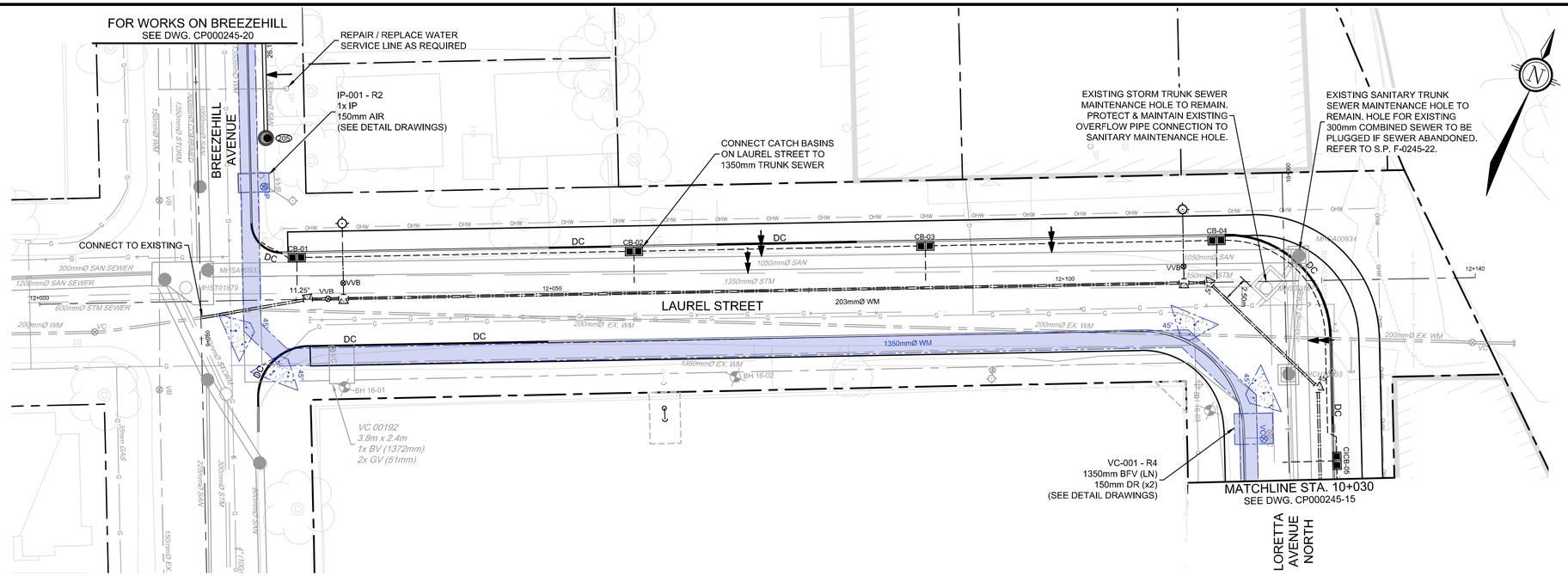
Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

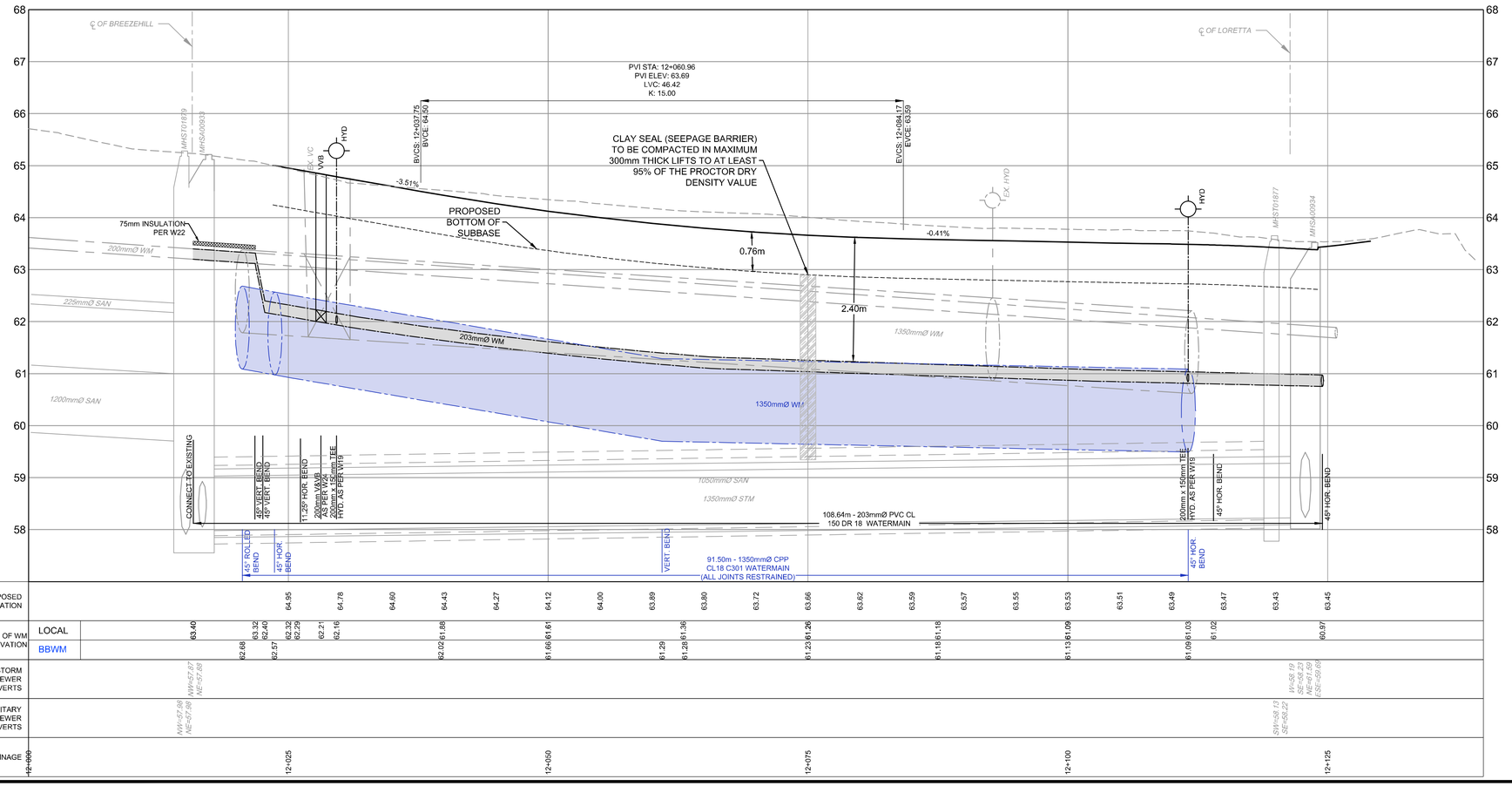
Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

'

'

B.3 Laurel Street Plan-Profile Drawings 14 and 20





LORETTA AVENUE NORTH AND LAUREL STREET ROAD RECONSTRUCTION

PLAN AND PROFILE
LAUREL STREET - 12+000 TO 12+140

CARINA DUCLOS, P.Eng. *Director*	STACEY RATHWELL, C.E.T. *Project Manager*

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Kanata, Ontario, Canada
K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Email novatech-eng.com

LICENSED PROFESSIONAL ENGINEER
R. J. DOWDALL
100219927
2023-06-16
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
J. D. MARCUCCIO
100214940
June 16, 2022
PROVINCE OF ONTARIO

Ottawa

Contract No.	Dwg. No.
CP000245	14

Sheet 14 of 47

Asset No.

Asset Group ISD

Des.	Chk'd.
JDM	RJD
Dwn.	Chk'd.
MJM	JDM
Utility Circ. No.	Index No.

Const. Inspector

Scale: HORIZONTAL (1:250)
0 2 4 6 8 10
VERTICAL (1:50)
0 0.5 1.0 1.5 2.0

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

REVISIONS

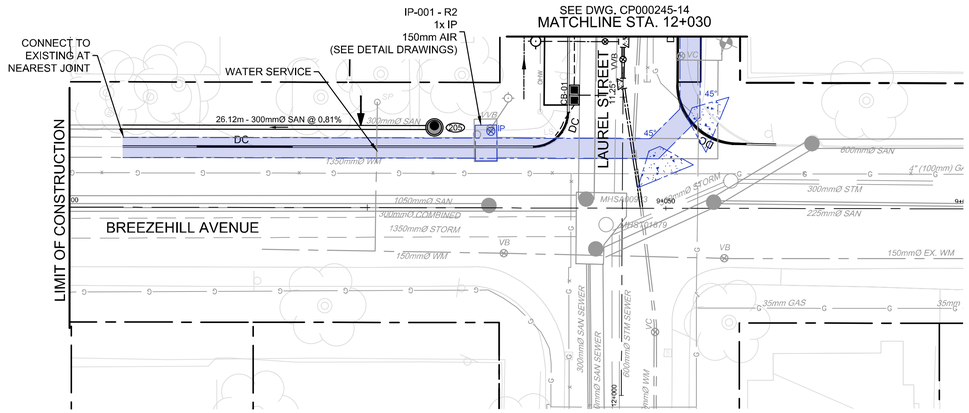
No.	Description	By	Date (dd/mm/yy)
1.	ISSUED FOR CONSTRUCTION	JDM	16/06/2023

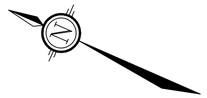
LEGEND:

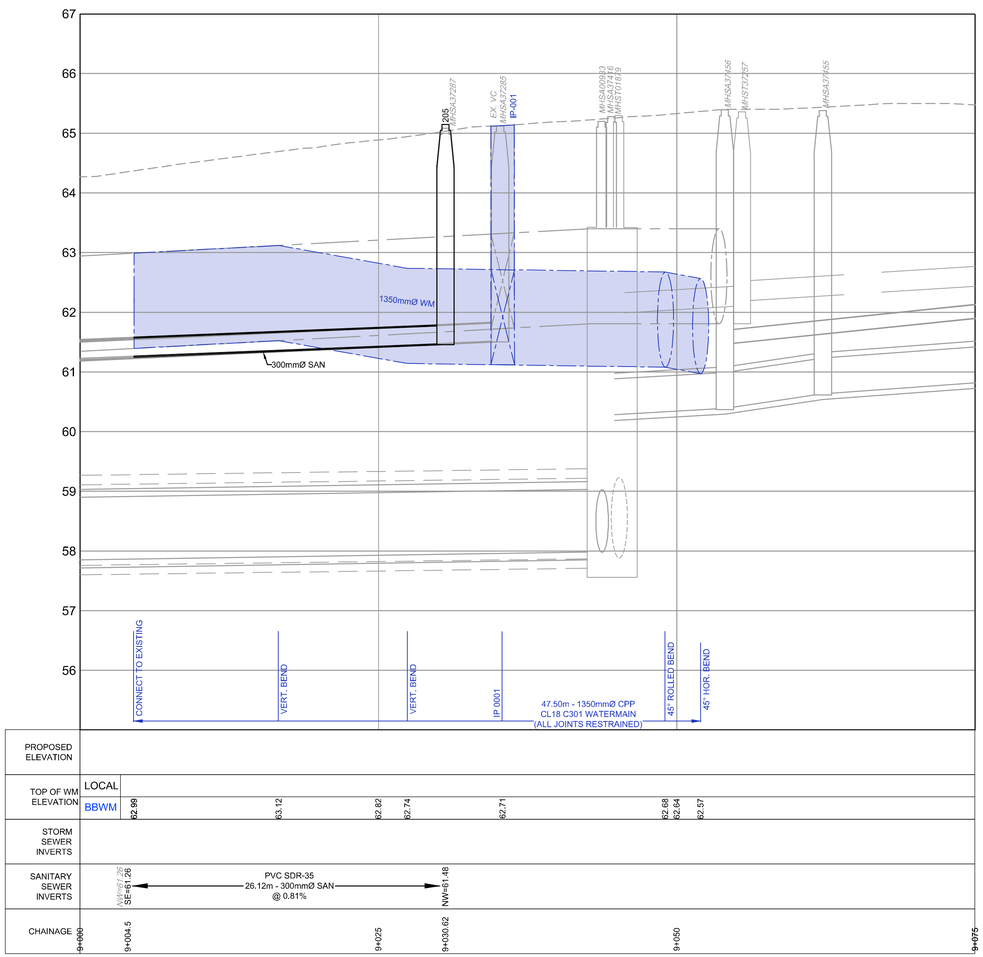
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM SERVICE
- PROPOSED SERVICE INTO SANITARY TRUNK
- PROPOSED SERVICE INTO STORM TRUNK
- EXISTING SANITARY SERVICE
- EXISTING STORM SERVICE
- EXISTING SERVICE INTO SANITARY TRUNK
- EXISTING SERVICE INTO STORM TRUNK
- EXISTING FIRE HYDRANT
- VB EXISTING VALVE BOX
- PROPOSED FIRE HYDRANT
- VB PROPOSED VALVE BOX

NOTES:

1. EXISTING 300mmØ COMBINED SEWER WITH ALL SERVICE CONNECTIONS TO 145 LORETTA AND 951 GLADSTONE TO BE MAINTAINED UNTIL 2024 AND ADDRESSES ARE EVICTED AS PART OF CLV DEVELOPMENT. THESE SERVICES ARE NOT TO BE REPLACED, REFER TO S.P. F-0245-22.
2. EXISTING WATER SERVICE FROM 145 LORETTA AVE TO BE RECONNECTED TO NEW WATERMAIN (NOT REPLACED).
3. EXISTING SANITARY/STORM/COMBINED SERVICES INCLUDED ON PLANS REPRESENT LOCATIONS IDENTIFIED IN CCTV REPORTING COMPLETED BY OTHERS. THESE SERVICE LOCATIONS ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING WHICH SERVICES ARE ACTIVE. ACTIVE SERVICES SHALL BE REPLACED TO THE PROPERTY LINE. SERVICES FOUND BY THE CONTRACTOR TO NOT BE ACTIVE ARE TO BE REMOVED OR ABANDONED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND/OR CITY INSPECTION STAFF.







LORETTA AVENUE NORTH AND
LAUREL STREET ROAD RECONSTRUCTION

PLAN AND PROFILE
BREEZEHILL AVENUE - 9+000 TO 9+075

CARINA DUCLOS, P.Eng. *Director*	STACEY RATHWELL, C.E.T. *Project Manager*

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Kanata, Ontario, Canada
K2M 1P6
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Facsimile (613) 254-5867
Email novainfo@novatech-eng.com

Contract No.	CP000245
Dwg. No.	20
Sheet	20 of 47
Asset No.	
Asset Group	ISD
Des.	JDM
Chk'd.	RJD
Dwn.	MJM
Chk'd.	JDM
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Appendix C Functional Water Servicing

C.1 Domestic Water Demands

35 Laurel Street (75 Breezehill Avenue North), Ottawa, ON - Domestic Water Demand Estimates

Site Plan provided by RLA Architecture (2024-09-13)

Stantec Project No. 160401738

Created By:	P. Mott	**Revision No.**	2
Date Created:	6/13/2023	**Revision Date:**	12/4/2024
Checked By:	A. Gladish	**Revision By:**	Z. Wang

Densities as per City Guidelines:		
Apartment Units		
Studio	1.4	ppu
1 Bedroom	1.4	ppu
1 Bedroom + Study	2.1	ppu
2 Bedroom	2.1	ppu
3 Bedroom	3.1	ppu

Stantec

Building ID	Commerical Area (m²)	No. of Units	Population[1]	Daily Rate of Demand [2 3] (L/cap/day or L/ha/day)	Avg Day Demand		Max Day Demand [4 5]		Peak Hour Demand [4 5]	
					(L/min)	(L/s)	(L/min)	(L/s)	(L/min)	(L/s)
Building A & Building B										
Apartment Units										
Studio		48	67	280	13.1	0.22	32.7	0.54	71.9	1.20
1 Bedroom		131	183	280	35.7	0.59	89.2	1.49	196.1	3.27
1 Bedroom + Study		77	162	280	31.4	0.52	78.6	1.31	172.9	2.88
2 Bedroom		193	405	280	78.8	1.31	197.0	3.28	433.4	7.22
3 Bedroom		30	93	280	18.1	0.30	45.2	0.75	99.5	1.66
Total Building A & B		**479**	**911**	**1400**	**177.1**	**2.95**	**442.7**	**7.38**	**973.8**	**16.23**
Total Commercial Area	429			28000	0.8	0.014	1.3	0.021	2.3	0.038
Total Site :		**479**	**911**		**177.9**	**2.96**	**443.9**	**7.40**	**976.1**	**16.27**

1 Population density for all residential units based on an population densities provided in Table 4.1 - Per Unit Populations of the City of Ottawa Water Distribution Design Guidelines (July 2010).

2 Average day water demand for residential areas: 280 L/cap/d per ISTB-2021-03

3 Average day water demand for commercial areas: 28,000 L/ha/d per *Table 4.2 Consumption Rates for subdivisions of 501 to 3,000 persons* (Ottawa Design Guidelines - Water Distribution, 2010)

4 The City of Ottawa water demand criteria used to estimate peak demand rates for residential areas are as follows:

maximum day demand rate = 2.5 x average day demand rate for residential

peak hour demand rate = 2.2 x maximum day demand rate for residential

5 Water demand criteria used to estimate peak demand rates for amenity/common areas are as follows:

maximum daily demand rate = 1.5 x average day demand rate

peak hour demand rate = 1.8 x maximum day demand rate

C.2 Fire Flow Demands (FUS 2020)

Stantec

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401738
Project Name: 35 Laurel Street
Date Created: 9/27/2023
Fire Flow Calculation #: 1
Description: Building A

Created By: P. Mott
Revision No.: 2
Revised By: Z. Wang
Revision Date: 12/4/2024
Checked By: M. Wu

Notes: Building A: 27-storey residential high-rise with indoor amenities. Largest floor area Levels 3-6. Information taken from Site Plan by RLA architecture dated September 13, 2024. Sprinklered with floor assemblies / load bearing walls as 1hr rated assemblies per OBC 3.2.2.52

Step	Task	Notes										Value Used	Req'd Fire Flow (L/min)
1	Determine Type of Construction	Type II - Noncombustible Construction / Type IV-A - Mass Timber Construction										0.8	-
2	Determine Effective Floor Area	Sum of Largest Floor + 25% of Two Additional Floors					Vertical Openings Protected?					YES	-
		1251	1251	1251	1251	654	680	680	680	680	680	1876.5	-
3	Determine Required Fire Flow	($F = 220 \times C \times A^{1/2}$). Round to nearest 1000 L/min										-	8000
4	Determine Occupancy Charge	Limited Combustible										-15%	6800
5	Determine Sprinkler Reduction	Conforms to NFPA 13										-30%	-3400
		Standard Water Supply										-10%	
		Fully Supervised										-10%	
		% Coverage of Sprinkler System										100%	
6	Determine Increase for Exposures (Max. 75%)	Direction	Exposure Distance (m)	Exposed Length (m)	Exposed Height (Stories)	Length-Height Factor (m x stories)	Construction of Adjacent Wall					-	-
		North	10.1 to 20	26	2	41-60	Type I-II - Unprotected Openings				YES	0%	136
		East	> 30	0	0	0-20	Type V				NO	0%	
		South	10.1 to 20	26	27	> 100	Type I-II - Protected Openings				YES	0%	
		West	20.1 to 30	17	2	21-49	Type V				NO	2%	
7	Determine Final Required Fire Flow	Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min											4000
		Total Required Fire Flow in L/s											66.7
		Required Duration of Fire Flow (hrs)											1.50
		Required Volume of Fire Flow (m^3)											360

Stantec

FUS Fire Flow Calculation Sheet - 2020 FUS Guidelines

Stantec Project #: 160401738
Project Name: 35 Laurel Street
Date Created: 9/27/2023
Fire Flow Calculation #: 2
Description: Building B

Created By: P. Mott
Revision No.: 2
Revised By: Z. Wang
Revision Date: 12/4/2024
Checked By: M. Wu

Notes: Building B: 29-storey residential high-rise with indoor amenities and commercial space. Largest floor areas Levels 2-6. Information taken from Site Plan by RLA architecture dated September 13, 2024. Sprinklered with floor assemblies / load bearing walls as 1hr rated assemblies per OBC 3.2.2.52

Step	Task	Notes										Value Used	Req'd Fire Flow (L/min)
1	Determine Type of Construction	Type II - Noncombustible Construction / Type IV-A - Mass Timber Construction										0.8	-
2	Determine Effective Floor Area	Sum of Largest Floor + 25% of Two Additional Floors					Vertical Openings Protected?					YES	-
		1238	1238	1238	1238	1238	627	627	627	627	627	1857	-
3	Determine Required Fire Flow	($F = 220 \times C \times A^{1/2}$). Round to nearest 1000 L/min										-	8000
4	Determine Occupancy Charge	Limited Combustible										-15%	6800
5	Determine Sprinkler Reduction	Conforms to NFPA 13										-30%	-3400
		Standard Water Supply										-10%	
		Fully Supervised										-10%	
		% Coverage of Sprinkler System										100%	
6	Determine Increase for Exposures (Max. 75%)	Direction	Exposure Distance (m)	Exposed Length (m)	Exposed Height (Stories)	Length-Height Factor (m x stories)	Construction of Adjacent Wall		Firewall / Sprinklered ?			-	-
		North	10.1 to 20	26	27	> 100	Type I-II - Protected Openings		YES			0%	1088
		East	> 30	0	0	0-20	Type V		NO			0%	
		South	> 30	0	0	0-20	Type V		NO			0%	
		West	3.1 to 10	18	2	21-49	Type V		NO			16%	
7	Determine Final Required Fire Flow	Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min											4000
		Total Required Fire Flow in L/s											66.7
		Required Duration of Fire Flow (hrs)											1.50
		Required Volume of Fire Flow (m^3)											360

C.3 Boundary Conditions

Gladish, Alyssa

From: Wu, John <John.Wu@ottawa.ca>
Sent: Monday, November 4, 2024 11:22 AM
To: Gladish, Alyssa
Cc: Wessel, Shawn
Subject: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

No changes for the BC.

John Wu, P.Eng.
Senior Engineer, Infrastructure Approval
Development Review (Urban Services)
Ingenieur Principal, Approbation de L'infrastructure
Examen des projects d'amenagement (Services urbains)
Planning, Infrastructure and Economic Development Department
Services de planification, d'infrastructure et de développement économique
City of Ottawa | Ville d'Ottawa
110 Laurier Avenue West. Ottawa, ON | 110, avenue. Laurier Ouest. Ottawa (Ontario) K1P 1J1
613.580.2424 ext./poste 27734, fax/téléc:613-560-6006, john.wu@ottawa.ca

'

'

Gladish, Alyssa

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 5:07 PM
To: Gladish, Alyssa
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Thanks Alyssa

I have forwarded to our Water Dept. for comment.

As I am away, please contact John Wu at John.Wu@ottawa.ca as I have asked them to send to him in the interim.

Have a nice weekend.

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Development & Building Services Department (PDBS) | Direction générale des services de la planification, de l'aménagement et du bàtiment (DGSPAB)
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(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Friday, November 1, 2024 4:10 PM

To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Shawn,

Thank you. I appreciate the prompt response regarding the sanitary servicing.

Regarding the water servicing:

1. Domestic **water demands** have decreased from the previous submission and required fire flow remains unchanged at 4,000 L/min (67 L/s).

	Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
1st Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	1028	-	3.34	8.33	17.9
	Total Site	**1028**	**0.04**	**3.35**	**8.35**	**18.4**
2nd Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	911	-	2.95	7.38	16.23
	Total Site	**911**	**0.04**	**2.96**	**7.4**	**16.27**
Difference	**Total Site**	**-117**	**0**	**-0.39**	**-0.95**	**-2.13**

   Since the domestic water demands have decreased, and fire flow remains unchanged, please confirm that the boundary conditions received Nov 14, 2023, (attached) are sufficient for the current submission.

Thank you very much and wishing you also have an excellent weekend.

Sincerely,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 3:37 PM

Gladish, Alyssa

From: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Sent: Tuesday, November 14, 2023 4:41 PM
To: Gladish, Alyssa
Cc: Mottalib, Abdul; McCreight, Andrew
Subject: FW: Sanitary Sewer Capacity & Updated Boundary Conditions
Attachments: 75 Breezehill Ave North November 2023.pdf

Please see the email below.

--

Thanks,

Abdul
Mohammad Abdul Mottalib, P. Eng.
Extension: 27798

From: …
Sent: November 14, 2023 10:41 AM
To: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Cc: ……..
Subject: RE: Sanitary Sewer Capacity & Updated Boundary Conditions

Good morning Abdul,

The following are boundary conditions, HGL, for hydraulic analysis at 75 Breezehill Avenue North, (zone 1W) assumed to be a dual connection to the 203 mm watermain on Laurel Street (see attached PDF for location).

Minimum HGL: 107.4 m

Maximum HGL: 115.1 m

Maximum Day + Fire Flow (67 L/s): 104.3 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.

From: Mott, Peter
Sent: Wednesday, October 11, 2023 5:07 PM
To: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: Sanitary Sewer Capacity & Updated Boundary Conditions

Good afternoon Abdul,

Sanitary Servicing

As part of the functional servicing for the proposed development on 75 Breezehill Avenue North, we would like to confirm if there is sufficient capacity within the receiving 300 mm diameter sanitary sewer within Breezehill Avenue North to receive an additional peak flow of **13.0 L/s** from the proposed development, based on site plan updates. I don't imagine that this marginal increase should have any impact on your capacity analysis, but wanted your confirmation as outlined in the pre-consultation. Please find our sanitary design sheet and location map attached for your information.

Water Servicing

Additionally, we would like to request updated boundary conditions based on the changes to the unit count for the development. Please find attached the key map showing the location of the proposed development with the identified connection locations, domestic water demand calculations, fire flow calculations, a conceptual site plan, and the fire hydrant coverage map with associated tables to demonstrate adequate emergency flow for the proposed development.

A summary of the proposed site is provided below:

We anticipate two (2) connection to service the development: two connections to the existing 203 mm diameter watermain within Laurel Street. The following connection is expected for servicing:

➢Connections (2) to the existing 203 mm watermain on Laurel Street (Existing).

For the purpose of the boundary conditions request, may you please provide us with the boundary conditions for the following servicing options:

i. Watermain connections to the above listed connections; assuming a fire flow requirement of **4,000 L/min (67 L/s)** for the site in addition to the domestic water demands provided below.

- The intended land use is a combination of residential and commercial/mixed use per the summary provided in the Domestic Demands spreadsheet.
- Estimated fire flow demand per the FUS methodology: 4,000 L/min (67 L/s) for the worst-case scenario (Building A)
- Domestic water demands for the entire development:
    - **Average day: 201.0 L/min (3.35 L/s)**
    - **Maximum day: 501.5 L/min (8.36 L/s)**
    - **Peak hour: 1102.6 L/min (18.38 L/s)**

Thank you for your time and please contact me at your earliest convenience if any additional information or clarification is required.

Best regards,

Peter Mott EIT
Engineering Intern, Community Development

Mobile: +1 (613) 897-0445
Teams: +1 (613) 724-4370
Peter.Mott@stantec.com
Stantec
300 - 1331 Clyde Avenue
Ottawa ON K2C 3G4

'

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C.4 Fire Hydrant Coverage Table

Stantec	Project:	**35 Laurel Street, Ottawa, ON**		160401738
	TABLE 1: FIRE HYDRANT COVERAGE TABLE			
	Revision:	03	Prepared By:	PM
	Revised By:	ZW	Date Created:	2023-10-11
	Revision Date:	2024-12-04	Checked By:	AG

Description	Hydrants[1]			Total Available Fire Flow (L/min)	Total Required Fire Flow[2] (L/min)
	HYD-1	**HYD-2**	**HYD-3**		
Building A					
Distance from building Siamese connection (m)	39	-	108	-	-
Maximum fire flow capacity[3] (L/min)	5,678	-	3,785	**9,463**	4,000
Building B					
Distance from building Siamese connection (m)	-	57	45	-	-
Maximum fire flow capacity[3] (L/min)	-	3,785	5,678	**9,463**	4,000

NFPA 1 Table 18.5.4.3	
Distance to Building (m)	Maximum Capacity (L/min)
≤ 76	**5,678**
> 76 and ≤ 152	**3,785**
> 152 and ≤ 305	**2,839**

Notes:

1. Hydrant locations as per Laurel Street Infrastructure Upgrades IFC Drawings. Refer to fire hydrant coverage sketch (Figure 2.2.1).
2. See FUS Calculations for fire flow requirements.
3. See NFPA 1 Table 18.5.4.3 for maxiumim fire flow capacity of hydrants by distance to building.

Appendix D Functional Sanitary Servicing

D.1 Sanitary Sewer Calculation Sheet

Stantec

SUBDIVISION:

35 LAUREL STREET

REVISION DATE:	12/4/2024
REVISION NO.:	2
DESIGNED BY:	PM
REVISED BY:	ZW
CHECKED BY:	AG

SANITARY SEWER DESIGN SHEET

(City of Ottawa)

FILE NUMBER: 160401738

DESIGN PARAMETERS

MAX PEAK FACTOR (RES.)=	4.0	AVG. DAILY FLOW / PERSON	280 l/p/day	MINIMUM VELOCITY	0.60 m/s
MIN PEAK FACTOR (RES.)=	2.0	COMMERCIAL	28,000 l/ha/day	MAXIMUM VELOCITY	3.00 m/s
PEAKING FACTOR (INDUSTRIAL):	2.4	INDUSTRIAL (HEAVY)	55,000 l/ha/day	MANNINGS n	0.013
PEAKING FACTOR (ICI >20%):	1.5	INDUSTRIAL (LIGHT)	35,000 l/ha/day	BEDDING CLASS	B
PERSONS / 1 BEDROOM & STUDIO	1.4	INSTITUTIONAL	28,000 l/ha/day	MINIMUM COVER	2.50 m
PERSONS / 2 BEDROOM & 1 BEDROOM WITH STUDY	2.1	INFILTRATION	0.33 l/s/Ha	HARMON CORRECTION FACTOR	0.8
PERSONS / 3 BEDROOM	3.1				

LOCATION			RESIDENTIAL AREA AND POPULATION									COMMERCIAL		INDUSTRIAL (L)		INDUSTRIAL (H)		INSTITUTIONAL		GREEN / UNUSED		C+I+I	INFILTRATION			TOTAL	PIPE							
AREA ID	FROM	TO	AREA	UNITS			POP.	CUMULATIVE		PEAK	PEAK	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	PEAK	TOTAL	ACCU.	INFILT.	FLOW	LENGTH	DIA	MATERIAL	CLASS	SLOPE	CAP.	CAP. V	VEL.	VEL.
NUMBER	M.H.	M.H.		1 BED & STUDIO	2 BED & 1BED +STUDY	3 BED		AREA	POP.	FACT.	FLOW		AREA		AREA		AREA		AREA		AREA	FLOW	AREA	AREA	FLOW							(FULL)	PEAK FLOW	(FULL)	(ACT.)
			(ha)					(ha)			(l/s)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(l/s)	(ha)	(ha)	(l/s)	(l/s)	(m)	(mm)			(%)	(l/s)	(%)	(m/s)	(m/s)
BLDG A, BLDG B	BLDG B	SAN 1	0.255	179	270	30	911	0.255	911	3.261	9.6	0.043	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.255	0.255	0.1	9.7	2.6	200	PVC	SDR 35	1.24	37.2	**26.1%**	1.17	0.82
G1A	SAN1	EXISTING	0.362	0	0	0	0	0.617	911	3.261	9.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.362	0.617	0.2	9.8	1.5	200	PVC	SDR 35	1.04	34.1	**28.8%**	1.07	0.77

2. Studio apartments assumed to have ppu of 1.4; One bedroom assumed to have ppu of 1.4; One bedroom with study assumed to have ppu of 2.1
3. See Figure FIG-2 for functional sanitary drainage plan

D.2 Confirmation of Sanitary Sewer Connection

Gladish, Alyssa

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 3:37 PM
To: Gladish, Alyssa
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

My apologies Alyssa

As there are no other options and Laurel is the preferred option, a connection to that Trunk Sewer on Laurel is acceptable.

For some reason I thought that one was a local sewer there also.

Sorry about the confusion.

Have a nice weekend!

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Development & Building Services Department (PDBS) | Direction générale des services de la planification, de l'aménagement et du bàtiment (DGSPAB)
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110 Laurier Ave. W. | 110, avenue Laurier Ouest, Ottawa ON K1P 1J1
(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

Please consider the environment before printing this email

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Friday, November 1, 2024 2:19 PM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Shawn,

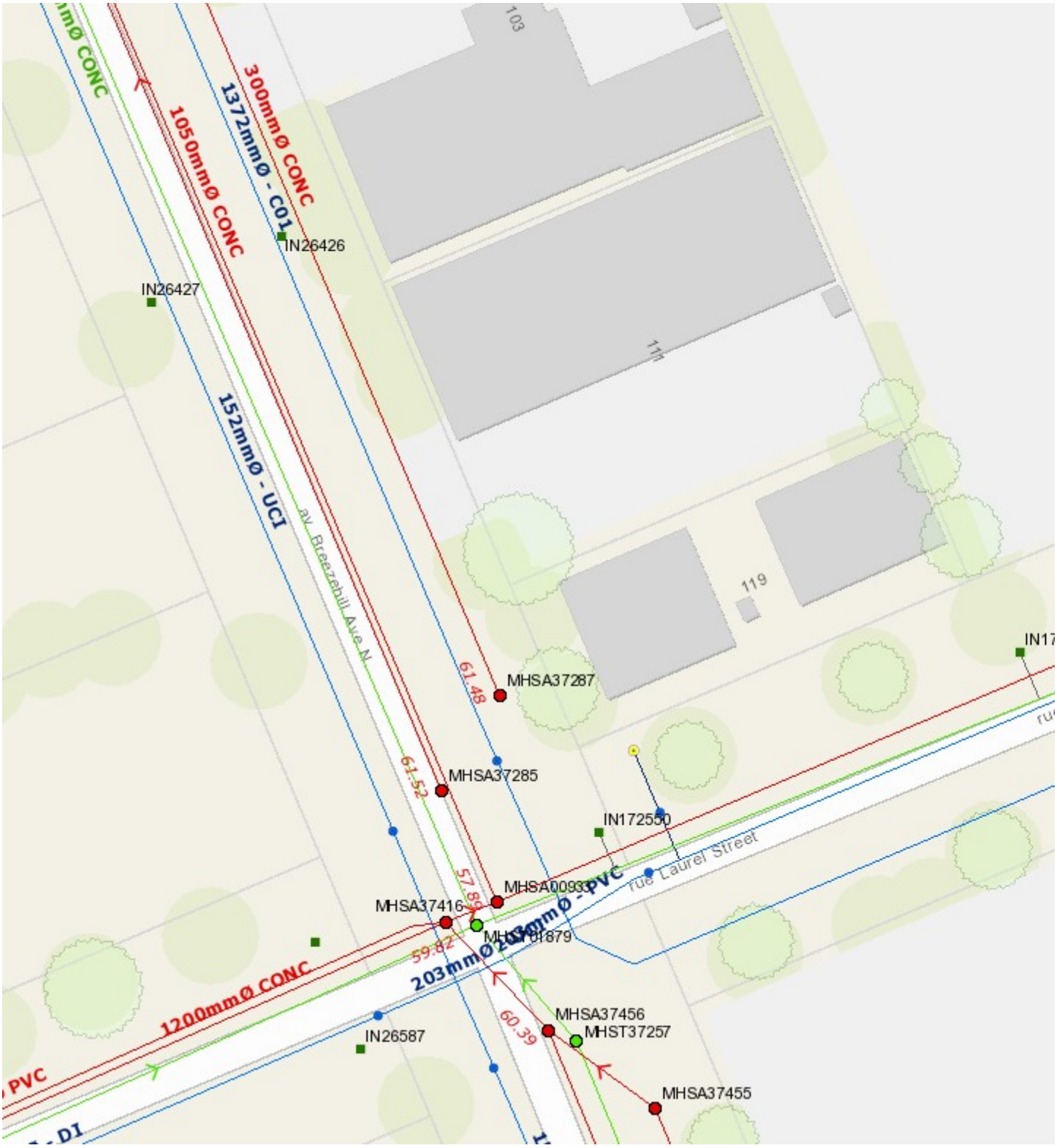
Thank you for your email.

1. Can you please also provide a response for question #1 below?
2. Sanitary:

   Thank you for re-confirming the downstream sanitary sewer capacity.

   Thank you for confirming that a sanitary connection to Laurel is the preferred option to avoid encumbering the parkland area, which fronts Breezehill Avenue. This was my understanding from our meeting September 23, 2024.

   During the September 23, 2024 meeting you indicated that Asset Management was allowing for the connection to the trunk sewer for this site, because we have to make the sanitary connection to Laurel Street to avoid encumbering the parkland, the trunk sewer has the capacity to receive the projected flows and because there are no local sanitary sewers in Laurel Street (it is the only pipe available). Please confirm this is correct, and that we may proceed with the sanitary servicing design.



Thank you kindly for your time,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Wessel, Shawn <shawn.wessel@ottawa.ca>
Sent: Friday, November 1, 2024 1:57 PM
To: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hi Alyssa

Laurel is the preferred option, due to Park location and local sewer available, in case I didn't make that clear.

Have a nice weekend!

Thank you

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
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shawn.wessel@ottawa.ca

Please consider the environment before printing this email

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Wessel, Shawn
Sent: Friday, November 1, 2024 1:50 PM
To: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: RE: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132

Hello Alyssa

From discussions with Nishant, who is now with the modeling group with Eric Tousignant, I have been asked to relay the following:

Either of the two local sewers (300 mm) are to be used and the trunk sewer is to be avoided. There is ample capacity in both. Trunk sewer is deep, a critical asset and Asset Management will only allow connection under certain circumstances, one being the only sewer available and is on a case-by-case basis, always.
No sanitary capacity concerns on Laurel or Breezehill for the proposed 9.8L/s

A park is proposed for N/W corner of property and next to ROW. Parks do not permit servicing infrastructure within their park lands and generally do not want any SWM works within said lands.

If you require additional information or clarification, please do not hesitate to contact me anytime.

Thank you

Please be advised that I will be away Nov 4-12 inclusive. Please contact the City File Lead or Sr. Engineer in my absence.

Regards,

Shawn Wessel, A.Sc.T.,rcji
Pronouns: he/him | Pronom: il
Project Manager - Infrastructure Approvals
Gestionnaire de projet – Approbation des demandes d'infrastructures

Development Review Central Branch | Direction de l'examen des projets d'aménagement, Centrale
Planning, Development & Building Services Department (PDBS) | Direction générale des services de la planification, de l'aménagement et du bàtiment (DGSPAB)
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(613) 580 2424 Ext. | Poste 33017
Int. Mail Code | Code de Courrier Interne 01-14
shawn.wessel@ottawa.ca

*****Please also note that, while my work hours may be affected by the current situation and am working from home, I still have access to email, video conferencing and telephone. Feel free to schedule video conferences and/or telephone calls, as necessary.*****

From: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Sent: Monday, October 28, 2024 2:37 PM
To: Wessel, Shawn <shawn.wessel@ottawa.ca>
Subject: 35 Laurel Street (previously 75 Breezehill Avenue North) - File No. PC2024-0132
Importance: High

Hello Shawn,

I wanted to follow-up with you regarding the 35 Laurel Street development (previously 75 Breezehill Avenue North) – City of Ottawa File No. PC2024-0132.

1. Domestic **water demands** have decreased from the previous submission and required fire flow remains unchanged at 4,000 L/min (67 L/s).

	Demand Type	Population	Area (ha)	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
1st Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	1028	-	3.34	8.33	17.9
	Total Site	**1028**	**0.04**	**3.35**	**8.35**	**18.4**
2nd Submission	Commercial		0.04	0.01	0.02	0.04
	Residential	911	-	2.95	7.38	16.23
	Total Site	**911**	**0.04**	**2.96**	**7.4**	**16.27**
Difference	**Total Site**	**-117**	**0**	**-0.39**	**-0.95**	**-2.13**

   a) Since the domestic water demands have decreased, and fire flow remains unchanged, please confirm that the boundary conditions received for the first submission (Nov 14, 2023, attached) are sufficient for the current submission.

2. **Sanitary** peak flows have decreased from 11.1 L/s to 9.8L/s from the first to the current submission, respectively.

   a. Please confirm that the 1050mm diameter concrete collector sewer on Laurel Street and the downstream infrastructure has the capacity to receive the proposed 9.8 L/s peak sanitary flows for the proposed development.

   b. Please confirm in writing that the servicing connection to the 1050mm diameter concrete collector sewer on Laurel Street is the preferred sanitary servicing connection option.

   c. The construction drawings indicate that a sanitary sewer lateral was connected to the 1050 mm sewer during the upgrade work completed in 2023-2024 (highlighted yellow in the second PDF attached). Do you have any information regarding the size, material, and invert of this lateral?

Thank you,
Alyssa

Alyssa Gladish E.I.T.
Project Manager, Community Development

Direct: 780 917-8567
Mobile: 587 721-1241
Alyssa.Gladish@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

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Appendix E Functional Stormwater Management and Servicing

E.1 Rational Method (RM) Sheet for Existing Conditions

Stormwater Management Calculations

File No: **160401738**
Project: **35 Laurel Street**
Date: **2024-Dec-04**

EXISTING STORM DRAINAGE CONDTIONS

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table

Catchment Type	Sub-catchment Area ID / Description		Area (ha) "A"		Runoff Coefficient "C"	"A x C"		Overall Runoff Coefficient
Uncontrolled - Tributary	EX BLDG	Hard	0.315		0.9	0.284		
		Soft	0.000		0.2	0.000		
		Subtotal		0.315048			0.2835432	0.900
Uncontrolled - Tributary	EX-1	Hard	0.256		0.9	0.230		
		Soft	0.000		0.2	0.000		
		Subtotal		0.256084			0.2304756	0.900
Uncontrolled - Non-Tributary	EX-2	Hard	0.001		0.9	0.001		
		Soft	0.012		0.2	0.002		
		Subtotal		0.012881			0.0032203	0.250
Uncontrolled - Non-Tributary	EX-3	Hard	0.026		0.9	0.023		
		Soft	0.000		0.2	0.000		
		Subtotal		0.025627			0.0230643	0.900
Uncontrolled - Non-Tributary	EX-4	Hard	0.007		0.9	0.007		
		Soft	0.000		0.2	0.000		
		Subtotal		0.007465			0.0067185	0.900
Total				**0.617**			**0.547**	
Overall Runoff Coefficient= C:								**0.886**

Total Roof Areas	**0.00 ha**
Total Tributary Surface Areas (Controlled and Uncontrolled)	**0.57 ha**
Total Tributary Area to Outlet	**0.57 ha**
Total Uncontrolled Areas (Non-Tributary)	**0.05 ha**
Total Site	**0.62 ha**

Stormwater Management Calculations

Project #160401738, 35 Laurel Street
Rational Method Calculations for Existing Conditions

2 yr Intensity
City of Ottawa

$I = a/(t + b)^c$

a =	732.951
b =	6.199
c =	0.81

t (min)	I (mm/hr)
5	103.57
10	76.81
15	61.77
20	52.03
25	45.17
30	40.04
35	36.06
40	32.86
45	30.24
50	28.04
55	26.17
60	24.56

2 YEAR Predevelopment Release from Site

Subdrainage Area: Predevelopment Tributary Area to Outlet
Area (ha): 0.62
C: 0.89

Typical Time of Concentration

tc (min)	I (2 yr) (mm/hr)	Q2yr (L/s)
10	76.81	**116.80**

100 yr Intensity
City of Ottawa

$I = a/(t + b)^c$

a =	1735.688
b =	6.014
c =	0.820

t (min)	I (mm/hr)
5	242.70
10	178.56
15	142.89
20	119.95
25	103.85
30	91.87
35	82.58
40	75.15
45	69.05
50	63.95
55	59.62
60	55.89

100 YEAR Predevelopment Release from Site

Subdrainage Area: Predevelopment Tributary Area to Outlet
Area (ha): 0.62
C: 0.89

Estimated Time of Concentration after Development

tc (min)	I (100 yr) (mm/hr)	Q100yr (L/s)
10	178.56	**271.54**

E.2 Modified Rational Method (MRM) Design Sheet for Post-Development Conditions

Post-Development Storm Drainage Areas - Summary Sheet

File No: **160401738**
Project: **35 Laurel Street (75 Breezehill Avenue North)**
Date: **04-Dec-2024**

SWM Approach:
Post-development to Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

Runoff Coefficient Table

Catchment Type	ID / Description		Sub-catchment Area (ha) "A"		Runoff Coefficient "C"	"A x C"		Overall Runoff Coefficient
Controlled Subcatchment Areas (Tributary to Onsite Storm Sewer System)								
Roof	ROOF-1	Hard	0.129		0.9	0.116		
		Soft	0.000		0.2	0.000		
		Subtotal		0.13			0.116	0.90
Roof	ROOF-2	Hard	0.133		0.9	0.120		
		Soft	0.000		0.2	0.000		
		Subtotal		0.13			0.120	0.90
Controlled - Tributary	L100A	Hard	0.120		0.9	0.108		
		Soft	0.065		0.2	0.013		
		Subtotal		0.19			0.121	0.65
Controlled - Tributary	CIS-2	Hard	0.045		0.9	0.041		
		Soft	0.034		0.2	0.007		
		Subtotal		0.08			0.047	0.60
Controlled - Tributary	CIS-1	Hard	0.006		0.9	0.006		
		Soft	0.024		0.2	0.005		
		Subtotal		0.03			0.011	0.35
Sub-Total				**0.56**			**0.41**	
Overall Runoff Coefficient= C:								**0.74**
Uncontrolled Subcatchment Areas (Non-Tributary to Onsite Storm Sewer System)								
Uncontrolled - Non-Tributary to Laurel Street	UNC-1	Hard	0.016		0.9	0.015		
		Soft	0.000		0.2	0.000		
		Subtotal		0.02			0.015	0.90
Uncontrolled - Non-Tributary to Breezehill Avenue	UNC-2	Hard	0.009		0.9	0.008		
		Soft	0.034		0.2	0.007		
		Subtotal		0.04			0.015	0.35
Sub-Total				**0.06**			**0.03**	
Overall Runoff Coefficient= C:								**0.50**

Total (Tributary) Roof Areas	**0.26 ha**
Total (Tributary) Surface Areas	**0.29 ha**
Total Tributary Area to Outlet (1350 mm Dia. Storm Sewer on Laurel Street)	**0.56 ha**
Uncontrolled Areas to Laurel Street ROW (Non-Tributary)	**0.02 ha**
Total Controlled Areas (Tributary) to Laurel Street Storm Sewer	**0.56 ha**
Total Site Area Outletting to Laurel Street	**0.57 ha**
Uncontrolled Areas to Breezehill Avenue ROW (Non-Tributary)	**0.04 ha**
Total Site	**0.62 ha**

Project #160401738, 35 Laurel Street (75 Breezehill Avenue North)
Modified Rational Method Calculatons for Storage

2 yr Intensity
City of Ottawa

$I = a/(t + b)^c$

a =	732.951
b =	6.199
c =	0.81

t (min)	I (mm/hr)
10	76.81
20	52.03
30	40.04
40	32.86
50	28.04
60	24.56
70	21.91
80	19.83
90	18.14
100	16.75
110	15.57
120	14.56

100 yr Intensity
City of Ottawa

$I = a/(t + b)^c$

a =	1735.688
b =	6.014
c =	0.820

t (min)	I (mm/hr)
10	178.56
20	119.95
30	91.87
40	75.15
50	63.95
60	55.89
70	49.79
80	44.99
90	41.11
100	37.90
110	35.20
120	32.89

2 YEAR Predevelopment Target Release to Laurel Street

Subdrainage Area: Areas Outletting to Laurel Street

Area (ha)	C	tc (min)	I (2 yr) (mm/hr)	Qtarget (L/s)
0.57	**0.50**	**10**	76.81	**61.2**

100 YEAR Predevelopment Target Release to Laurel Street

Subdrainage Area: Areas Outletting to Laurel Street

Area (ha)	C	tc (min)	I (100 yr) (mm/hr)	Q100 (L/s)
0.57	**0.50**	**10**	178.56	**142.2**

2 YEAR Modified Rational Method for Controlled Portion of Site to Laurel Street Outlet

Subdrainage Areas: ROOF-1, ROOF-2, L100A, CIS-1, CIS-2 — Controlled - Tributary
Total Controlled Area (ha): 0.56
C: 0.74

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)
10	76.81	88.5	52.9	35.6	**21.4**
20	52.03	59.9	52.9	7.1	8.5
30	40.04	46.1	46.1	0.0	0.0
40	32.86	37.9	37.9	0.0	0.0
50	28.04	32.3	32.3	0.0	0.0
60	24.56	28.3	28.3	0.0	0.0
70	21.91	25.2	25.2	0.0	0.0
80	19.83	22.8	22.8	0.0	0.0
90	18.14	20.9	20.9	0.0	0.0
100	16.75	19.3	19.3	0.0	0.0
110	15.57	17.9	17.9	0.0	0.0
120	14.56	16.8	16.8	0.0	0.0

Stage	Head (m)	Maximum Allowable Discharge (L/s)	Vreq (cu. m)	Vavail (cu. m)	Volume Check
-	-	58.0	21.4	150.0	OK

100 YEAR Modified Rational Method for Controlled Portion of Site to Laurel Street Outlet

Subdrainage Area: ROOF-1, ROOF-2, L100A, CIS-1, CIS-2 — Controlled - Tributary
Total Controlled Area (ha): 0.56
C: 0.93

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)
10	178.56	257.2	52.9	204.3	122.6
20	119.95	172.7	52.9	119.9	**143.8**
30	91.87	132.3	52.9	79.4	142.9
40	75.15	108.2	52.9	55.3	132.8
50	63.95	92.1	52.9	39.2	117.6
60	55.89	80.5	52.9	27.6	99.4
70	49.79	71.7	52.9	18.8	79.0
80	44.99	64.8	52.9	11.9	57.1
90	41.11	59.2	52.9	6.3	34.1
100	37.90	54.6	52.9	1.7	10.2
110	35.20	50.7	50.7	0.0	0.0
120	32.89	47.4	47.4	0.0	0.0

Stage	Head (m)	Maximum Allowable Discharge (L/s)	Vreq (cu. m)	Vavail (cu. m)	Volume Check
-	-	52.9	143.8	150.0	OK

2 YEAR Modified Rational Method for Uncontrolled Portion of Site to Laurel Street Outlet

Subdrainage Area: UNC-1 — Uncontrolled - Non-Tributary
Total Uncontrolled Area (ha): 0.02
C: 0.90

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.81	3.1	3.1
20	52.03	2.1	2.1
30	40.04	1.6	1.6
40	32.86	1.3	1.3
50	28.04	1.1	1.1
60	24.56	1.0	1.0
70	21.91	0.9	0.9
80	19.83	0.8	0.8
90	18.14	0.7	0.7
100	16.75	0.7	0.7
110	15.57	0.6	0.6
120	14.56	0.6	0.6

100 YEAR Modified Rational Method for Uncontrolled Portion of Site to Laurel Street Outlet

Subdrainage Area: UNC-1 — Uncontrolled - Non-Tributary
Total Uncontrolled Area (ha): 0.02
C: 1.00

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.56	8.1	8.1
20	119.95	5.4	5.4
30	91.87	4.2	4.2
40	75.15	3.4	3.4
50	63.95	2.9	2.9
60	55.89	2.5	2.5
70	49.79	2.3	2.3
80	44.99	2.0	2.0
90	41.11	1.9	1.9
100	37.90	1.7	1.7
110	35.20	1.6	1.6
120	32.89	1.5	1.5

SUMMARY TO LAUREL STREET OUTLET

			Vrequired	Vavailable*		
Tributary Area	0.56	ha				
Total 2yr Flow to Sewer	52.9	L/s	21.4	150.0	m^3	Ok
Non-Tributary Area	0.02	ha				
Total 2yr Flow Uncontrolled	3.1	L/s				
Total Site Area to Laurel Street Outlet	0.57	ha				
Total 2yr Flow to Laurel Street	56	L/s				
Target Release Rate to Laurel Street	61	L/s				

SUMMARY TO LAUREL STREET OUTLET

			Vrequired	Vavailable*	
Tributary Area	0.56	ha			
Total 100yr Flow to Sewer	52.9	L/s	143.8	150.0	m^3
Non-Tributary Area	0.02	ha			
Total 100yr Flow Uncontrolled	8.1	L/s			
Total Site Area to Laurel Street Outlet	0.57	ha			
Total 100yr Flow to Laurel Street	61	L/s			
Target Release Rate to Laurel Street	61	L/s			

Project #160401738, 35 Laurel Street (75 Breezehill Avenue North)
Modified Rational Method Calculatons for Storage

2 YEAR Predevelopment Target Release to Breezehill Avenue Outlet

Subdrainage Area: Areas Outletting to Breezehill Avenue

Area (ha)	C	tc (min)	I (2 yr) (mm/hr)	Q2 (L/s)
0.04	**0.50**	**10**	76.81	**4.6**

2 YEAR Modified Rational Method for Breezehill Avenue Outlet

Subdrainage Area: UNC-2 Uncontrolled - Non-Tributary
Total Uncontrolled Area (ha): 0.04
C: 0.35

tc (min)	I (2 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	76.81	3.3	3.3
20	52.03	2.2	2.2
30	40.04	1.7	1.7
40	32.86	1.4	1.4
50	28.04	1.2	1.2
60	24.56	1.0	1.0
70	21.91	0.9	0.9
80	19.83	0.8	0.8
90	18.14	0.8	0.8
100	16.75	0.7	0.7
110	15.57	0.7	0.7
120	14.56	0.6	0.6

SUMMARY TO BREEZEHILL AVENUE OUTLET

Non-Tributary Area	0.04	ha
Total 2yr Flow Uncontrolled to Breezehill Avenue	3.3	L/s

100 YEAR Predevelopment Target Release to Breezehill Avenue Outlet

Subdrainage Area: Areas Outletting to Breezehill Avenue

Area (ha)	C	tc (min)	I (100 yr) (mm/hr)	Q100 (L/s)
0.04	**0.50**	**10**	178.56	**10.8**

100 YEAR Modified Rational Method for Breezehill Avenue Outlet

Subdrainage Area: UNC-2 Uncontrolled - Non-Tributary
Total Uncontrolled Area (ha): 0.04
C: 0.44

tc (min)	I (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)
10	178.56	9.4	9.4
20	119.95	6.3	6.3
30	91.87	4.9	4.9
40	75.15	4.0	4.0
50	63.95	3.4	3.4
60	55.89	3.0	3.0
70	49.79	2.6	2.6
80	44.99	2.4	2.4
90	41.11	2.2	2.2
100	37.90	2.0	2.0
110	35.20	1.9	1.9
120	32.89	1.7	1.7

SUMMARY TO BREEZEHILL AVENUE OUTLET

Non-Tributary Area	0.04	ha
Total 100yr Flow Uncontrolled to Breezehill Avenue	9.4	L/s

E.3 Storm Sewer Design Sheet

Stantec

35 LAUREL STREET
(PREVIOUSLY 75 BREEZEHILL AVENUE NORTH)

DATE: 04-Dec-2024
REVISION: 3
DESIGNED BY: ZW
CHECKED BY: AG

FILE NUMBER: **160401738**

STORM SEWER DESIGN SHEET
(City of Ottawa)

DESIGN PARAMETERS

$I = a / (t+b)^c$ (As per City of Ottawa Guidelines, 2012)

	1:2 yr	1:5 yr	1:10 yr	1:100 yr
a =	732.951	998.071	1174.184	1735.688
b =	6.199	6.053	6.014	6.014
c =	0.810	0.814	0.816	0.820

MANNING'S n = 0.013 BEDDING CLASS = B
MINIMUM COVER: 2.00 m
TIME OF ENTRY 10 min

LOCATION			DRAINAGE AREA																						PIPE SELECTION										
AREA ID NUMBER	FROM M.H.	TO M.H.	AREA (2-YEAR) (ha)	AREA (5-YEAR) (ha)	AREA (10-YEAR) (ha)	AREA (100-YEAR) (ha)	AREA (ROOF) (ha)	C (2-YEAR) (-)	C (5-YEAR) (-)	C (10-YEAR) (-)	C (100-YEAR) (-)	A x C (2-YEAR) (ha)	ACCUM AxC (2YR) (ha)	A x C (5-YEAR) (ha)	ACCUM. AxC (5YR) (ha)	A x C (10-YEAR) (ha)	ACCUM. AxC (10YR) (ha)	A x C (100-YEAR) (ha)	ACCUM. AxC (100YR) (ha)	T of C (min)	$I_{2\text{-YEAR}}$ (mm/h)	$I_{5\text{-YEAR}}$ (mm/h)	$I_{10\text{-YEAR}}$ (mm/h)	$I_{100\text{-YEAR}}$ (mm/h)	$Q_{CONTROL}$ (L/s)	ACCUM. $Q_{CONTROL}$ (L/s)	Q_{ACT} (CIA/360) (L/s)	LENGTH (m)	PIPE WIDTH OR DIAMETE (mm)	PIPE HEIGHT (mm)	PIPE SHAPE (-)	MATERIAL (-)	CLASS (-)	SLOPE %	Q_{CAP} (FULL) (L/s)	% FULL (-)	VEL. (FULL) (m/s)	VEL. (ACT) (m/s)	TIME OF FLOW (min)
Tributary (Controlled) Areas	STM 101	STM100	0.52	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.390	0.390	0.000	0.000	0.000	0.000	0.000	0.000	10.00	76.81	104.19	122.14	178.56	52.9	52.9	52.9	81.6	300	300	CIRCULAR	PVC	-	0.50	68.0	**77.81%**	0.97	0.95	1.44
																				11.44									300	300									

E.4 SWM Quality Control Measures

From: Bakhit, Reza
To: Wu, Michael
Cc: Gladish, Alyssa; Mott, Peter
Subject: RE: 75 Breezehill Avenue N Sanitary Sewer Capacity Confirmation Request
Date: Tuesday, July 4, 2023 8:54:24 AM

Hi Michael,

The City is working on developing a system for the quality control measures.
At this point , we review and request the quality control , on case-by-case bases. The SWM quality control not required if there is no surface parking.

Regards,

Reza Bakhit, P.Eng, C.E.T
Project Manager
Planning, Real Estate and Economic Development Department / Direction générale de la planification, des biens immobiliers et du développement économique
Development Review - Centeral 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./poste 19346, reza.bakhit@ottawa.ca
Please note: Given the current pandemic, I will be working from home until further notice; reaching me by email is the easiest. I will be checking my voicemail, just not as frequently as I normally would be.

From: Wu, Michael <Michael.Wu@stantec.com>
Sent: Tuesday, July 04, 2023 8:39 AM
To: Bakhit, Reza <reza.bakhit@ottawa.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Mott, Peter <Peter.Mott@stantec.com>
Subject: RE: 75 Breezehill Avenue N Sanitary Sewer Capacity Confirmation Request

Hi Reza:

I can confirm that the only parking spaces proposed for this project are in the underground parking garage, so no surface parking.

Thanks,

Michael Wu EIT

Civil Engineering Intern, Community Development

Direct: 1 (613) 738-6033
Michael.Wu@stantec.com

Stantec
300-1331 Clyde Avenue
Ottawa ON K2C 3G4

From: Bakhit, Reza <reza.bakhit@ottawa.ca>
Sent: Tuesday, July 4, 2023 8:30 AM
To: Wu, Michael <Michael.Wu@stantec.com>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Mott, Peter <Peter.Mott@stantec.com>
Subject: RE: 75 Breezehill Avenue N Sanitary Sewer Capacity Confirmation Request

Hi Michael,

Could you please confirm if surface parking proposed in this project ?

Thanks,

Reza Bakhit, P.Eng, C.E.T
Project Manager
Planning, Real Estate and Economic Development Department / Direction générale de la planification, des biens immobiliers et du développement économique
Development Review - Centeral 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./poste 19346, reza.bakhit@ottawa.ca
Please note: Given the current pandemic, I will be working from home until further notice; reaching me by email is the easiest. I will be checking my voicemail, just not as frequently as I normally would be.

From: Wu, Michael <Michael.Wu@stantec.com>
Sent: Tuesday, July 04, 2023 8:26 AM
To: Bakhit, Reza <reza.bakhit@ottawa.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>; Mott, Peter <Peter.Mott@stantec.com>
Subject: RE: 75 Breezehill Avenue N Sanitary Sewer Capacity Confirmation Request

E.5 Storm Sewer Capacity Confirmation

Gladish, Alyssa

From: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>
Sent: Tuesday, September 19, 2023 4:27 PM
To: Mott, Peter
Cc: Gladish, Alyssa; Mottalib, Abdul
Subject: RE: Strom Sewer Capacity Analysis Breezehill 75

Hi Peter,
With the discharge 66L/s to the existing 1350mm storm sewer should not be a problem. Please note, if the discharge exceeds 66L/s, it will need to be approved by the city again.

Any questions related to the site ; you can direct them to me. However, please follow the suggestions below from Reza, when you want to contact us.

--

Thanks,

Abdul
Mohammad Abdul Mottalib, P. Eng.
Extension: 27798

From: Bakhit, Reza <reza.bakhit@ottawa.ca>
Sent: September 19, 2023 12:20 PM
To: Mott, Peter <Peter.Mott@stantec.com>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: RE: Strom Sewer Capacity Analysis Breezehill 75

Hi Peter,

I have moved to another position within the City . I forwarded your email to my colleagues in planning, and someone will be assigned to coordinate this fille going forward.
Two notes for your consideration.

- Please make sure to send your questions regarding the capacity in one shot. That would be very helpful to expedite the process and makes it easier for the modelling team .
- Also please make sure to include the address of the site in the subject line . That is necessary especially when we forward your request to other teams and as you know , they might not have the full history .

Kind regards,

Reza Bakhit, P.Eng. C.E.T
Asset Management Analyst
Building and Park Assets Unit
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reza.bakhit@ottawa.ca

Pronouns: he / him

From: Mott, Peter <Peter.Mott@stantec.com>
Sent: September 19, 2023 11:54 AM
To: Bakhit, Reza <reza.bakhit@ottawa.ca>
Cc: Gladish, Alyssa <Alyssa.Gladish@stantec.com>
Subject: Strom Sewer Capacity Analysis

Hello Reza,

In reviewing the City's Civil Engineering Responses to the second pre-application consultation meeting minutes and preliminary comments issued March 7, 2023 (attached, Page 15), we would like to ensure that adequate capacity is available within the existing 1350mm diameter storm sewer within Laurel Street to receive the target release rate (based on the 2-year event, C=0.5, tc=10 min) of 66 L/s from the proposed development. If you could please confirm it would be much appreciated.

Best,

Peter Mott EIT
Engineering Intern, Community Development

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