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## PROPOSED 30-STOREY MIXED-USE DEVELOPMENT 1052, 1060 & 1064 St. Laurent Boulevard

Assessment of Adequacy of  
Public Services Report



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**PROPOSED 30-STOREY MIXED-USE DEVELOPMENT  
1052, 1060 & 1064 ST. LAURENT BOULEVARD**

**ASSESSMENT OF ADEQUACY OF  
PUBLIC SERVICES REPORT**

Prepared by:

**NOVATECH**

Suite 200, 240 Michael Cowpland Drive  
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January 26, 2026

**Revised August 24, 2026**

Ref: R-2025-73

Novatech File No. 125075

August 24, 2026

1001182489 ONTARIO Inc.  
c/o Stan Bernard Automotive Ltd.  
1469 Youville Drive,  
Ottawa, Ontario  
K1C 4R1

**Attention: John McEwan**

**Re: Assessment of Adequacy of Public Services Report  
Proposed 30-Storey, Mixed-Use Development  
1052, 1060 & 1064 St. Laurent Boulevard, Ottawa, ON  
Novatech File No.: 125075**

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Enclosed is a copy of the revised 'Assessment of Adequacy of Public Services Report' for the proposed 30-storey mixed-use development located at the 1052, 1060 & 1064 St. Laurent Boulevard properties in the City of Ottawa. The purpose of this report is to demonstrate that the proposed development can be serviced by the nearby existing municipal infrastructure. This report is being submitted in support of Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBLA) applications.

Please contact the undersigned, should you have any questions or require additional information.

**NOVATECH**



François Thauvette, P. Eng.  
Senior Project Manager

cc: Shawn Wessel (City of Ottawa)  
Scott Alain (Fotenn)  
Ryan Koolwine (Project 1 Studio)

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## 1.0 INTRODUCTION

Novatech has been retained by 1001182489 ONTARIO Inc. to assess the adequacy of the existing public services related to the proposed re-development of the 1052, 1060 & 1064 St. Laurent properties. The purpose of this report is to demonstrate that the proposed development can be serviced by the nearby existing municipal infrastructure. This report is being submitted in support of Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBLA) applications.

### 1.1 Location and Site Description

The 0.356-hectare site to be re-developed currently consists of existing commercial lots located on the west side of St. Laurent Boulevard, just north of Queen Mary Street. The subject site is bordered by other commercial properties to the north, south and east, as well as residential properties to the west. The legal description of the site is designated as Part of Lots 1, 2, 3 & 4, Registered Plan 79, City of Ottawa.

**Figure 1: Aerial View of the Subject Site**



Image Source: geoOttawa (City of Ottawa)

### 1.2 Pre-Consultation Information

An initial pre-consultation meeting was held with the City of Ottawa on March 11, 2025, at which time the client was advised of the general submission requirements. Subsequent discussions were held with City of Ottawa staff related to site servicing options and sewer capacity constraints. Refer to **Appendix A** for a summary of the correspondence related to the proposed development.

### 1.3 Proposed Development

The proposed development will consist of a 30-storey mixed-use building with a podium ranging from 4-9 storeys. The conceptual plan also includes a loading space, access to underground parking, minimal surface parking as well as outdoor amenity space. The development will include a (right-in, right-out) site entrance off St. Laurent Boulevard.

## 2.0 SITE SERVICING

The objective of this report is to demonstrate that proper sewage outlets (sanitary and storm) as well as a suitable domestic water supply and appropriate fire protection are available for the proposed development. The servicing criteria, the expected sewage flows, and water demands are to conform to the requirements of the City of Ottawa municipal design guidelines for sewer and water distribution systems.

### 2.1 Sanitary Servicing

There are two distinct existing 225mm dia. concrete municipal sanitary sewer systems in St. Laurent Boulevard adjacent to the proposed development that direct flows both towards the north and towards the south. It is unclear into which sewer system existing sewage flows from the 1052 St. Laurent Blvd. property are currently being directed, however, flows from the 1060 & 1064 St. Laurent Blvd. properties are being directed to the south flowing sanitary sewer. Both sanitary sewer systems adjacent to the subject property ultimately discharge into the 1950mm-2100mm dia. collector sewer flowing north along North River Road, east of the Rideau River.

Under post-development conditions, the proposed development will be serviced by the 225mm dia. sanitary sewer flowing north in St. Laurent Boulevard. Based on correspondence from the City of Ottawa, sanitary flows will not be directed into the sanitary sewer flowing south in St. Laurent Boulevard due to potential downstream sewer capacity constraints related to other proposed developments. As part of the proposed development, the City has requested an extension of the municipal sanitary sewer, flowing north, to accommodate a service lateral. It is understood that an extension of the municipal sanitary sewer will require Municipal Consent and Environmental Compliance Approval (ECA) applications, which will be reviewed at the Site Plan Control application stage.

Based on criteria in Section 4 of the City of Ottawa Sewer Design Guidelines, the total theoretical peak sanitary flow from the proposed development will be approximately 7.15 L/s, including infiltration. Refer to **Table 1** below for a summary of the post-development sanitary sewage flows, and to **Appendix B** for detailed calculations and correspondence with the City of Ottawa.

**Table 1: Theoretical Post-Development Sanitary Flows**

| Proposed Development   | Unit Count | Design Population / Area | Average Flow (L/s) * | Peaking Factor | Sanitary Peak Flow (L/s) * |
|------------------------|------------|--------------------------|----------------------|----------------|----------------------------|
| Residential Units      | 401        | 649                      | 2.10                 | 3.33           | 7.01                       |
| Commercial             | -          | 587 m <sup>2</sup>       | 0.02                 | 1.0            | 0.02                       |
| Infiltration Allowance | -          | 0.356 ha                 | -                    | -              | 0.12                       |
| <b>Total</b>           | <b>401</b> | <b>-</b>                 | <b>2.12</b>          | <b>-</b>       | <b>7.15</b>                |

\*Represents rounded values

The existing 225mm dia. concrete sanitary sewer in St. Laurent Boulevard is approximately 2.0m deep, with an invert elevation of 67.47+/- . The roadway elevation is approximately 69.50+/- at the anticipated service connection location. Refer to **Figure 2** showing the existing sanitary sewer infrastructure and conceptual servicing layout.

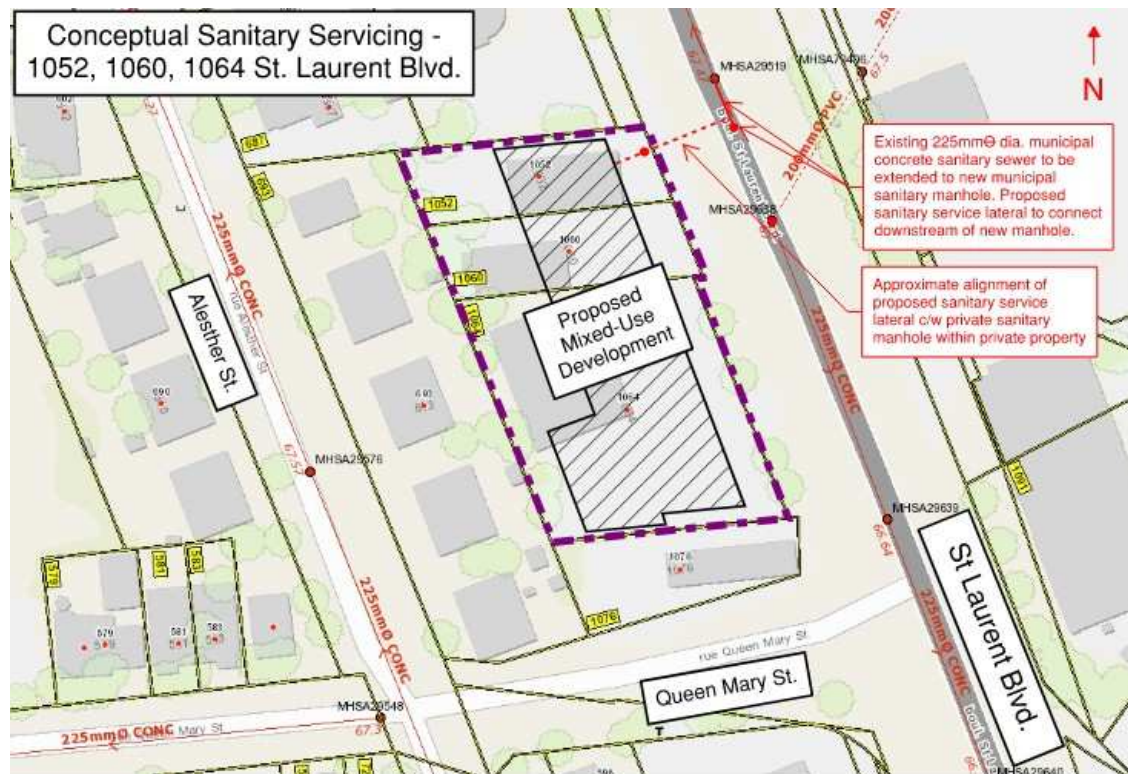
**Figure 2: Conceptual Sanitary Servicing Layout**

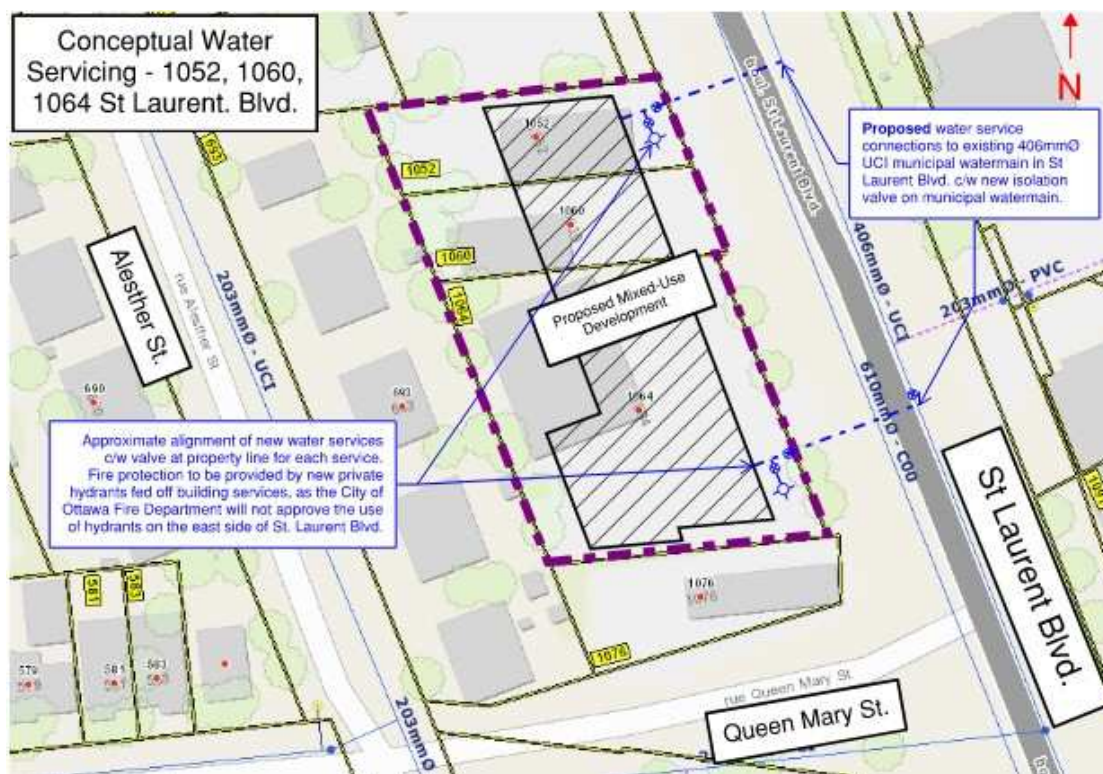
Image Source: geoOttawa (City of Ottawa)

The sanitary sewage calculations and servicing design will be refined as part of the Site Plan Control application to the City of Ottawa.

## 2.2 Water Supply for Domestic Use and Firefighting

The subject site is located within the City of Ottawa 1E pressure zone. It is assumed that the existing buildings are currently being serviced by the 400mm dia. UCI watermain in the northbound lanes of St. Laurent Boulevard. There is also a 600mm dia. feedermain in the southbound lanes of St. Laurent, however based on feedback from City staff, the proposed development will not be allowed to connect to this larger diameter feedermain.

Under post-development conditions, the proposed development will continue to be serviced by the 400mm dia. watermain in St. Laurent Boulevard. The anticipated daily water demands are expected to be greater than 50m<sup>3</sup>/day (~0.58 L/s), therefore the proposed development will require two (2) water supplies for redundancy purposes, as well as a new isolation valve between the service laterals. As discussed with the City of Ottawa, the water servicing configuration will be determined at the Site Plan Control application stage. Refer to **Figure 3** showing the existing watermain infrastructure and conceptual servicing layout.

**Figure 3: Conceptual Water Servicing Layout**

- Minimum system pressures are to be 140 kPa (20 psi) under Max Day + Fire Flow demands

Table 3 summarizes preliminary hydraulic analysis results based on municipal watermain boundary conditions provided by the City as indicated in the correspondence from the City of Ottawa.

**Table 3: Hydraulic Boundary Conditions Provided by the City**

| Municipal Watermain Boundary Condition                          | Boundary Condition Head of Water (m)             | Normal Operating Pressure Range (psi) | Anticipated WM Pressure (psi)* |
|-----------------------------------------------------------------|--------------------------------------------------|---------------------------------------|--------------------------------|
| <b>Connections to 400mm dia. watermain in St. Laurent Blvd.</b> |                                                  |                                       |                                |
| Minimum HGL<br>(Peak Hour Demand)                               | 110.3 m                                          | 40 psi (min.)                         | ~ 61 psi                       |
| Maximum HGL<br>(Max Day Demand)                                 | 118.4 m                                          | 50-70 psi                             | ~ 72 psi                       |
| HGL<br>Max Day + Fire Flow (150 L/s)                            | 112.9 m (Connection 1)<br>113.0 m (Connection 2) | 20 psi (min.)                         | ~ 65 psi                       |

\*Based on approximate roadway elevations of 69.50m (Connection 1) and 69.50 (Connection 2) in St. Laurent Blvd.  
Design pressure = (HGL – (Avg. Ground Elevation – Watermain Depth)) x 1.42197 PSI/m

\*\*A multi-hydrant approach to firefighting will be necessary.

Based on preliminary calculations and correspondence received from the City of Ottawa, it is anticipated that the pressure within the municipal watermain network will be within the normal operating pressure range during the Peak Hour, Max HGL, and Max Day + Fire Flow Conditions. Given the height of the proposed tower, it is anticipated that a booster pump(s) will be required to provide adequate water pressure to the upper floors (details to be determined by the mechanical consultant as part of the detail design of the building).

A multi-hydrant approach to firefighting will be required to supply the fire flow calculated above. Based on a review of the geoOttawa website, there are no municipal hydrants available within 150m of the subject site. Nearby hydrants appear to be private hydrants fed off private watermains or off private service laterals. Furthermore, the City of Ottawa Fire Department will not approve the use of fire hydrants on the east side of St. Laurent Blvd. to service the proposed development located on the west side. To provide fire protection for the proposed development, two new private hydrants fed off the proposed building service laterals will be required, similar to the current configuration for the nearby plaza immediately to the north. Based on the City of Ottawa Technical Bulletin ISTB-2018-02, Class AA (blue bonnet) hydrants within 75m of the building should provide a capacity 95 L/s each (at a pressure of 20 PSI) while hydrants between 75m and 150m should provide at least 63 L/s (at a pressure of 20 PSI). The combined maximum flow from these hydrants should exceed the Fire Flow requirement (150 L/s) of the proposed development. This multi-hydrant approach to firefighting is in accordance with the City of Ottawa Technical Bulletin ISTB-2018-02.

Refer to **Appendix C** for preliminary domestic water demand, FUS fire flow calculations and correspondence with the City of Ottawa related to the municipal watermain network and fire flow available for the proposed development. An updated analysis will need to be provided as part of

the Site Plan Control application to the City of Ottawa.

## 2.3 Storm Drainage and Stormwater Management

Storm drainage from the site is currently being directed towards the 900mm dia. municipal storm sewer in St. Laurent Boulevard. The trunk sewer system flows south along St. Laurent Boulevard, west along Coventry Road, and ultimately discharges into the Rideau River, >2km downstream of the subject site. Under post-development conditions, stormwater runoff from the site will continue to be directed to the municipal storm sewer in St. Laurent Boulevard and on-site stormwater management will be implemented to meet the requirements of the City of Ottawa. Refer to **Figure 4** showing the existing storm sewer infrastructure and conceptual servicing layout.

### Figure 4: Conceptual Storm Servicing Layout

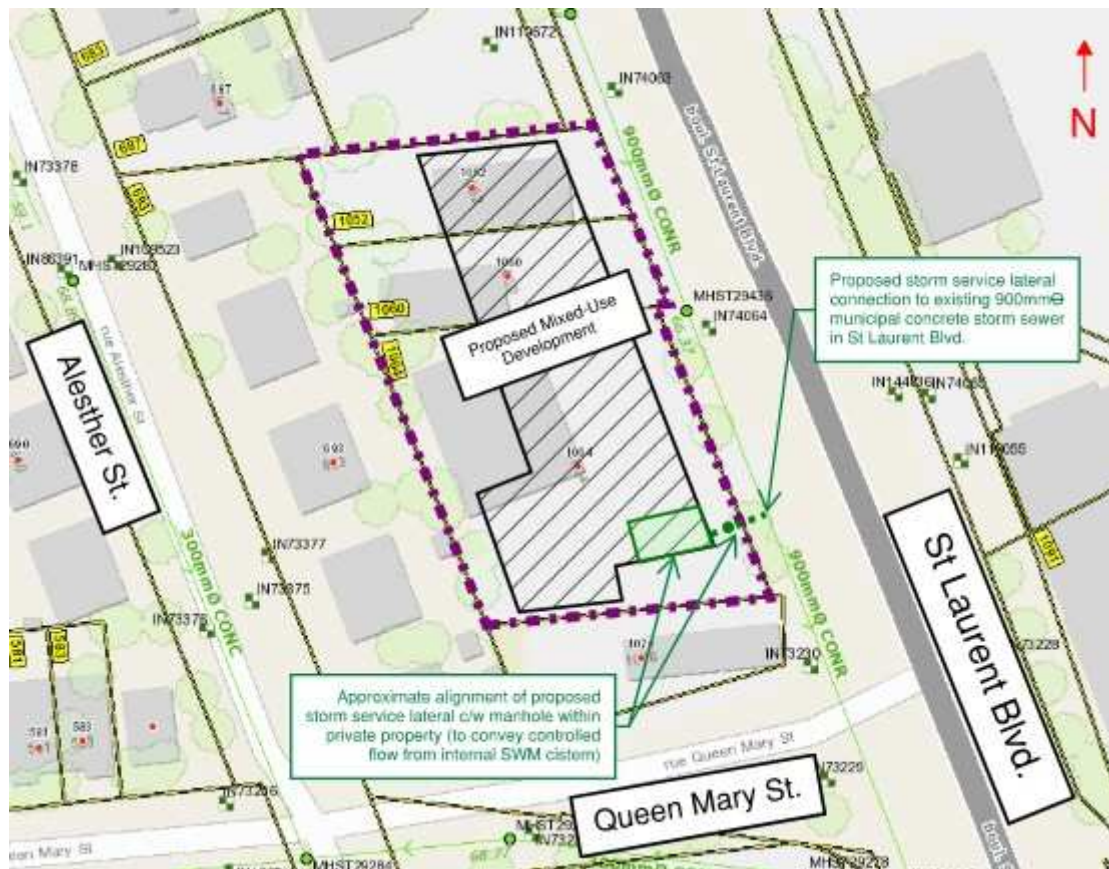


Image Source: geoOttawa (City of Ottawa)

The 900mm dia. storm sewer in St. Laurent Boulevard is approximately 3.1 m deep, with an approximate invert elevation of 66.35+/- . The roadway elevation is approximately 69.50m+/- at the proposed service connection location. The post-development stormwater flows from the site may need to be pumped to the municipal storm sewer; however, this will be determined at the detailed design stage. A backflow preventor will be required per OBC and Ottawa Sewer Design Guidelines to ensure the proposed building is protected from any potential backflow from the municipal storm sewer system.

On-site stormwater management (SWM) will be required and will be provided in the form of quantity control measures. Stormwater quality control measures are not anticipated to be required, as the site's area is mostly comprised of building roofs and landscaped areas, which are generally considered clean for the purposes of water quality and aquatic habitat protection.

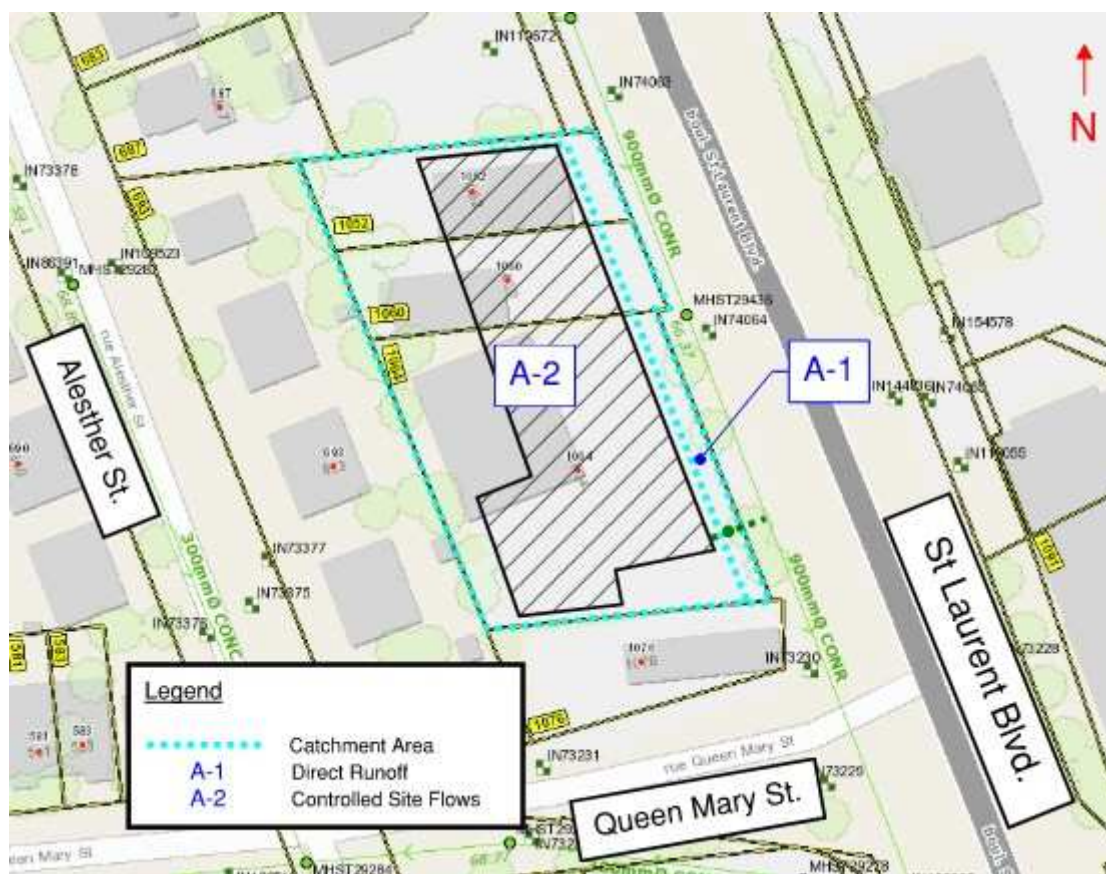
Furthermore, on-site parking will generally be provided within the underground parking levels, with the exception of a few surface visitor parking stalls.

The SWM criteria were provided during a pre-consultation meeting with the City of Ottawa. The allowable release rate from the site has been calculated using the Rational Method, with a maximum allowable runoff coefficient equivalent to existing conditions, but in no case greater than  $C=0.5$ , a time of concentration of 10 minutes and a 2-year rainfall intensity from City of Ottawa IDF curves. Based on a runoff coefficient ( $C_w=0.5$ ) and a time of concentration of 10 mins., the allowable release rate for the site was calculated using the Rational Method to be approximately 38.0 L/s. The portion of the total allowable release rate will be allotted to the various catchment areas on site, depending on the relative size and imperviousness as well as the potential storage available within the sub-catchment areas. For the purpose of this report (and preliminary calculations), the total site area (0.356 ha) was divided into the following sub-catchment areas with an estimated allotted allowable release rate:

- A-1: Uncontrolled direct runoff (~0.044 ha) – Allotted 100-year release rate = 14.3 L/s
- A-2: Controlled Site Flow (~0.312 ha) – Allotted 100-year release rate = 23.0 L/s

Refer to **Figure 5** showing the conceptual stormwater management plan and approach to on-site stormwater management.

**Figure 5: Conceptual Stormwater Management Plan**



**Table 3** compares the post-development flows from the proposed development to both the uncontrolled pre-development flows and to the allowable release rate specified by the City of Ottawa, for both the 5-year and the 100-year design events. Refer to **Appendix D** for preliminary

SWM calculations and to **Appendix A** for a copy of the pre-consultation correspondence from the City of Ottawa.

**Table 3: Preliminary Stormwater Flow Comparison Table**

| Design Event | Drainage Areas             |                              |                             |                |                   |
|--------------|----------------------------|------------------------------|-----------------------------|----------------|-------------------|
|              | Pre-Development Conditions |                              | Post-Development Conditions |                |                   |
|              | Uncontrolled Flow (L/s)    | Allowable Release Rate (L/s) | A-1 Flow (L/s)              | A-2 Flow (L/s) | Total Flow (L/s)* |
| 5-Yr         | 85.0                       | 38.0                         | 7.4                         | 23.0           | 30.4              |
| 100-Yr       | 162.4                      |                              | 14.3                        | 23.0           | 37.3              |

\*Reduced flow compared to pre-development uncontrolled conditions

It is anticipated that all controlled flows, whether from roof drains, deck drains, or landscape area drains, will be directed to an internal SWM storage tank, then pumped out to the existing 900mm dia. storm sewer in St. Laurent Boulevard via the storm service lateral.

**Table 4** summarizes the approximate storage volume requirements for the various sub-catchment areas, based on the allotted release rates.

**Table 4: Preliminary Stormwater Storage Requirements Table**

| Design Event | Post-Development Storage Volume Requirements |                                        |                              |
|--------------|----------------------------------------------|----------------------------------------|------------------------------|
|              | A-1 Direct Runoff                            | A-2 Controlled Flows (m <sup>3</sup> ) | Total Site (m <sup>3</sup> ) |
| 5-Yr         | -                                            | ~30                                    | ~30                          |
| 100-Yr       | -                                            | ~83                                    | ~83                          |

Represents preliminary calculations only.

Refer to **Appendix D** for preliminary SWM calculations and to **Figure 5** showing the conceptual stormwater management plan.

The subject site is located within the jurisdiction of the Rideau Valley Conservation Authority (RVCA) and is tributary to the Ottawa River. Conservation authorities typically consider runoff from landscaped areas and roof tops as clean for the purpose of protecting water quality for aquatic habitat. Additionally, as most of the site parking will be provided within the underground parking levels, and the distance to the stormwater outlet is >2 km downstream, on-site stormwater quality control will not be provided.

A complete stormwater management (SWM) analysis of the development will be included as part of the Site Plan Control submission to the City of Ottawa.

### 3.0 CONCLUSION

Based on our analysis of the information available, the existing municipal watermain, sanitary and storm sewers should have adequate capacity to service the proposed development. On-site stormwater management will be implemented to meet the requirements of the City of Ottawa and other Authorities Having Jurisdiction. A complete servicing, grading and SWM design will be included as part of the Site Plan Control submission to the City.

### NOVATECH

Prepared by:



Kynan D'sa, B.A.Sc. (Engineering)  
CAD Designer | Land Development

Reviewed by:



François Thauvette, P. Eng.  
Senior Project Manager | Land Development

## **APPENDIX A**

### **Project Correspondence**



File No.: PC2025-0065 (Phase 1 Pre-con for OPA & ZBLA)

March 28, 2025

Mark Ouseley  
Fotenn Planning + Design  
Via email: ouseley@fotenn.com

**Subject: Phase 1 Pre-Consultation: Meeting Feedback  
Proposed Official Plan Amendment and Zoning By-law Amendment  
Application – 1052, 1060, 1064 St. Laurent Blvd**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on March 11, 2025.

**Pre-Consultation Preliminary Assessment**

|                                       |                            |                            |                            |                            |
|---------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 <input checked="" type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
|---------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|

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

**Next Steps**

1. A review of the proposal and materials submitted for the above-noted pre-consultation has been undertaken. For your next submission, please submit the associated Application Form together with the necessary studies and/or plans to [planningcirculations@ottawa.ca](mailto:planningcirculations@ottawa.ca).
2. In your subsequent pre-consultation or application submission, please ensure that all comments or issues detailed herein are addressed. A detailed cover letter stating how each issue has been addressed is requested with the submission materials. Please coordinate the numbering of your responses within the cover letter with the comment number(s) herein.
3. Please note, if your development proposal changes significantly in scope, design, or density it is recommended that a subsequent pre-consultation application be submitted.
4. The Urban Design Review Panel (UDRP) Report is listed as a required submission material in the Study and Plan Identification List. The applicant must visit the UDRP prior to formally submitting the planning application. The UDRP report is required for the application to be considered complete.

## **Supporting Information and Material Requirements**

1. The attached **Study and Plan Identification List** outlines the information and material that has been identified, during this phase of pre-consultation, as either required (R) or advised (A) as part of a future complete application submission.
  - a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on [Ottawa.ca](http://Ottawa.ca). These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.

## **Consultation with Technical Agencies**

1. You are encouraged to consult with technical agencies early in the development process and throughout the development of your project concept. A list of technical agencies and their contact information is enclosed.

## **Planning**

### **General:**

1. Subject Site:
  - a. The subject site is an amalgamation of three properties known municipally as 1052, 1060, 1064 St Laurent and is located in the Overbrook neighbourhood.
  - b. The site is located mid-block on the west side of St Laurent Boulevard. It is a long and shallow rectangular lot, with approximately 80 metres of frontage along St Laurent Blvd and a lot depth of 45 metres.
  - c. The site is occupied by a one-storey automobile body shop (1064 St Laurent Blvd), one-storey restaurant (1060 St Laurent Blvd), and a two-storey commercial building (1052 St Laurent Blvd).
  - d. The site is surrounded by low-rise commercial, residential, and light-industrial uses.
2. Proposal:
  - a. This is a Phase 1 pre-consultation for an Official Plan and Zoning By-law amendment application to permit a 30-storey residential building with a nine-storey podium facing St Laurent and four-storeys at the rear of the property, containing 300 dwelling units.
3. The following applications will be required to pursue this proposal:
  - a. Official Plan Amendment application

- b. Zoning By-law Amendment – Major application
  - c. Site Plan Control – Complex application
4. Official Plan Amendment application
- a. It is understood from the pre-consultation meeting that the applicant's intent would be amend the maximum building height in the Inner East Lines 1 and 3 Stations Secondary Plan for 1064 St Laurent and amend the Official Plan for all subject lands to introduce a site-specific policy.
  - b. The subject property is:
    - i. Located within the Inner Urban Transect Policy area of the Official Plan. 1064 St Laurent is designated "Hub" and 1060 and 1052 St Laurent is designated "Mainstreet Corridor" (St Laurent). The property 1064 St Laurent is also within a "Protected Major Transit Station Area" (1060 and 1052 St Laurent is not within the PMTSA).
    - ii. 1064 St Laurent is located within the Inner East Line 1 and 3 Stations Secondary Plan and the site is designated "Area B: Maximum height 20 storeys and minimum density 250 units per net hectare (residential) and/or 1.0 floor space index (non-residential). 1060 and 1052 St Laurent is not within the study boundaries of this secondary plan.
    - iii. 1064 St Laurent is located within the study area of the Transit-Oriented Development (TOD) Plans: Lees, Hurdman, Tremblay, St. Laurent, Cyrville and Blair. Specifically, Section 10.4 St Laurent Transit-Oriented Development Plan. 1060 and 1052 St Laurent are just north of this boundary.
    - iv. An Official Plan Amendment application would be required to address all the criteria listed in Section 12.3(1) of the Official Plan to address area-specific policies and to address the maximum heights in Inner East Line 1 and 3 Stations Secondary Plan.
5. Zoning By-law Amendment application
- a. It is understood from the pre-consultation meeting that the applicant's intent would be to rezone the entire site to be under one zone with a site specific provisions and height schedule.
  - b. The subject property is dual-zoned:
    - i. 1064 St Laurent is zoned AM – Arterial Mainstreet.

- ii. 1060 and 1052 St Laurent are zoned AM10[2199] – Arterial Mainstreet, Suzone 10, Exception 2199.
6. The lands are subject to a road widening. As per the Official Plan Schedule C16, St Laurent has a 44.5m metre Right-of-Way to be protected.
7. As per the Next Steps section, prior to applying for any of the above applications a submission and attendance at an Urban Design Review Panel (UDRP) meeting is required. This project is subject to the UDRP as it is within a Design Priority Area (as per Official Plan Schedule C7A). 1064 St Laurent is within the Cyrville Mixed Use Centre Centre / St Laurent TOD and 1060 and 1052 St Laurent are within the St Laurent Arterial Mainstreet Design Priority Area. The proposal meets the thresholds for UDRP review. A UDRP report is required to form a complete application.
8. Please note that the property is not subject to the Evolving Neighbourhood Overlay. This Overlay only applies to properties within the Neighbourhood designation, as defined in the Official Plan.

Scale and Massing of Tower and Podium:

9. Staff support the redevelopment of the site; however, the scale and massing of the proposal lacks appropriate transition to the abutting low-rise residential to the west and lacks a human-scaled, articulated podium massing to address the St Laurent frontage. Given the site constraints and policy context, staff have concern with the current proposal.
10. The **scale and height of the tower** does not currently address the surrounding context or recognize the size and constraints (such as lot depth) of the subject site. The proposal is for a 30-storey tower height; whereas **policy direction** is as follows:
  - a. 1064 St Laurent is permitted a maximum height of 20 storeys (Inner East Line 1 and 3 Stations Secondary Plan, Sch A); and
  - b. 1060 and 1054 St Laurent is subject to Official Plan policies 5.2.3(2) for Mainstreet Corridors, which allows for “high-rise” subject to being on a parcel that is “*of sufficient size to allow for transition in built form and massing*” (5.2.3(2)(a)) and subject to being “*limited further on lots too small to accommodate an appropriate height transition*” (5.2.3(2)(c)(ii)).
11. Further to comment 10(b) above, staff have concern that the amalgamated three-lot site is not of sufficient size to allow for adequate height transitions to the current proposed scale of development. The site has a number of **site constraints**, including:
  - a. Shallow lot depth

- b. Road widening requirement, further reducing existing shallow depth.
- c. Required street tree planting along St Laurent Boulevard may increase the front yard setback and reduce the buildable area on-site.
- d. Abutting low-rise development to the west that requires adequate transition in massing.
- e. Located mid-block, requiring sensitivity to abutting interior lot lines/neighbouring lots to the north and south.
- f. Tight areas for vehicular movement on-site.
- g. Abutting hydro infrastructure running along the rear of the property.

**12. Tower relationship to abutting low-rise:** Greater contextual analysis is required to assess an appropriate transition to the low-rise residential context abutting the site to the west. Please note the following:

- a. Official Plan Section 4.6.6(1) and (2) encourages new development to minimize its impacts on adjacent Neighbourhood properties and on the public realm through gradual transition in building heights in accordance with applicable design guidelines. Built form transition between a Hub/Corridor and surrounding Low-rise areas should occur within the Hub/Corridor. Currently, the proposal requires greater transition on-site.
- b. The Urban Design Guidelines for High-rise Buildings state that where a proposed high-rise building abuts lots where only low-rise residential buildings are permitted, the lot should be of sufficient width or depth to establish desirable transition (UDG for High-rise Buildings, Section 1.17(b)). Note that this would apply to this property as the low-rise neighbourhood to the west of the subject site is designated Neighbourhood within the Evolving Overlay and permits low-rise residential development (up to four storeys).
- c. The Urban Design Guidelines for Development Along Arterial Mainstreets encourages creating a transition in scale and density of the built form on the site when located next to lower density neighbourhoods to mitigate any potential impact (UDG for Development along AM, Guideline 14).

**13. Tower relationship to broader community:** Greater contextual analysis is also required to assess the height of the tower in relationship to the broader community/area.

- a. The subject site, which is approximately 650 metres from the St Laurent O-Train Station, is on the fringe of the Secondary Plan and TOD Plan area.

- i. Only one of the three properties (1064 St Laurent) is designated Hub and within a PMTSA and the study area for the Secondary Plan and TOD.
  - ii. The Official Plan, Section 6.1.1 (3)(a) directs the highest density developments to be closest to the transit station. Given the site's current location at the furthest point within a Hub from the transit station, that the development should be lower density.
- b. The Urban Design Guidelines for High-rise Buildings:
- i. states that buildings nearer the edge of a growth area are to be progressively lower in height than those in the "centre" (UDG for High-rise Buildings, Section 1.10). As this property is on the edge of the growth area, the heights proposed may be out of line with how the community as a whole develops (may be higher / out of scale than developments taking place closer to the transit station).
  - ii. encourage lots with a high-rise building to abut the public realm, including streets, parks, plazas, and POPS on at least two sides (UDG for High-rise Buildings, Section 1.15). This property is not on a corner lot, nor does it abut the public realm via a plaza/park/POPS on one side.
  - iii. encourage a small tower floor plate to minimize shadow and wind impacts, loss of skyviews, and allow the passage of natural light into interior spaces, with a maximum floorplate size of 750sqm in the urban area.

#### **14. Podium relationship to St Laurent:**

- a. The proposal also includes a nine-storey podium facing St Laurent; whereas:
  - i. The Official Plan Section 5.2.3(2)(c)(i) states that: "*The wall heights directly adjacent to a street, on the heights of the podiums of High-rise Buildings, where permitted, shall be proportionate to the width of the abutting right of way, and consistent with the objectives in the urban design section on mid-rise and high-rise built form in Subsection 4.6.6, Policies 7), 8), and 9).*"
  - ii. While it is acknowledged by staff that the width of the abutting right of way along St Laurent is large (currently approximately 41.7m; and planned for 44.5m), and that a 9-storey podium could meet the first half of the above Official Plan Section 5.2.3(2)(c)(i) policy, staff are not satisfied that it would be consistent with the second half of the policy, speaking to the objectives in Subsection 4.6.6 (8) and (9)

- iii. Subsection 4.6.6 Policy (8) requires that high-rise buildings be designed to respond to context and transect area policies and that space at-grade be provided for soft landscaping and trees. Currently, the proposal requires greater sensitivity to its context and does not provide space at-grade for trees.
- iv. Subsection 4.6.6 Policy (9) requires that separation distances for towers be provided and shared equally between owners of all properties where high-rise buildings are permitted. High-rises are permitted to the north and south of the subject site.
  - 1. North of the site: the proposal should provide an analysis of the future development potential of the lot to the north (1012 St Laurent), which is subject to the same policy direction as 1052 and 1060 St Laurent.
  - 2. South of the site: Currently, the proposal provides a 4.8m setback to the tower component to the southern lot line. Consideration should be given to how the proposed development will impact the developability of the corner lot to the south (1076 St Laurent).
- b. Decrease the height of the podium and break-up the massing along the St. Laurent frontage at-grade.
  - i. The effect of the the long frontage (~80m) as well as the height and massing of the podium, and its relationship to the public realm along St Laurent requires further review.
  - ii. Staff do not support an 80m long, 9-storey high built form directly abutting the street. This frontage will require undulation in massing and a lower-scale podium to create a human-scaled environment and articulation at-grade. Step-backs, tree planting and active entrances are also required to facilitate a more hospitable public realm treatment and pedestrian experience along St Laurent.
- c. The Urban Design Guidelines for High-Rise Buildings provides the following direction for articulation of the base and middle of high-rise buildings:
  - i. Create a comfortable pedestrian scale by: breaking up a long façade vertically through massing and architectural articulation to fit into the existing finer grain built form context (UDG for High-rise Buildings, Guideline 2.20). The current design does not demonstrate this yet.

- ii. The ground floor of the base should be animated and highly transparent. (UDG for High-rise Buildings, Guideline 2.23). More details on the current design are required to demonstrate this.
- iii. step back the tower from the base, including balconies, to allow the base to be the primary defining element for the site and the adjacent public realm. A step back of 3m or greater, including balconies, is encouraged (UDG for High-rise Buildings, Guideline 2.29).
- d. The Urban Design Guidelines for Development Along Arterial Mainstreets also provides direction for podium massing along Arterial Mainstreets (applies to St Laurent):
  - i. Design street sections with a ratio building height to road corridor width of 1:2 (high) (UDG for Development along AM, Guideline 9). These guidelines consider a “high” podium ratio to be 1:2; therefore, providing a podium height equal to half of the road corridor width would better meet this guideline.

**15. Podium relationship to low-rise:** The proposal must include stepbacks in massing that provide a transition to the low-rise residential west of the site. An angular plane should be used to provide a frame of reference for transition in scale from proposed high-rise buildings down to low scale areas (UDG for High-rise Buildings, Guideline 1.13).

### Uses

16. Consider a mixed-use building, with at-grade commercial uses.

- a. The *Transit Oriented Development (TOD) Plans: Less, Hurdman, Tremblay, St. Laurent, Cyrville and Blair*, Section 10.4 “St Laurent Transit-Oriented Development Plan Area” (p. 83), Figure 53: St. Laurent Land Use Framework identifies 1064 St Laurent as “Mixed-Use” with “Active Frontage”.
- b. At-grade commercial would increase animation along the St Laurent frontage.

### Landscaping

- 17. As the design progresses, please work with a landscape architect to ensure the front yard setback provides for sufficient soil volume to allow for street trees along St Laurent Blvd.
- 18. Consider what type of soft landscaping can thrive and survive on top of the underground parking garage and adjacent to the hydro wires in the rear yard amenity space.

#### Driveways/Parking/Waste

19. Vehicular movement on-site: please be aware of vehicular pinch points, private approach setback requirements for egresses from lot lines, and appropriate vehicular turning radiuses.
20. Are any EV parking spaces proposed?
21. The subject site is in close proximity to bike lanes along Donald Street, Ogilvie Road, Cyrville Road, and Coventry Road. Please provide bicycle parking at over a 1:1 ratio.
22. Please elaborate on the purpose and functionality of the loading space. The access appears to be very tight for appropriate turning radii.
23. Please confirm how garbage and waste is being collected, and how a truck will navigate the site if applicable.

#### Amenity area

24. The current design proposes an outdoor amenity area at the rear of the property. Given the hydro infrastructure running along the rear of the property, consider what type of buffer (landscape or otherwise) can be incorporated to provide for privacy and buffers to the abutting rear yards of the residential buildings that front Alesther Street.
25. A shadow analysis will be a required submission document. Explore how shadows will impact surrounding properties. Will the proposed soft landscaped amenity area be in the shade?
26. Are there other forms of amenity area proposed on the site, such as terraces above the podiums or balconies?

#### Other

27. If a zero-metre front yard setback is proposed, please be aware of if there will be any door swing/window opening into the right-of-way that will need to be addressed.
28. Section 37 requirements / Community Benefits Charge
  - a. 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](mailto:Ranbir.Singh@ottawa.ca).

## **Policy Planning Team**

29. The subject, consolidated properties have split Official Plan designations:
- a. Southerly parcel at 1064 St. St Laurent – Hub
  - b. Southerly parcels at 1052 and 1060 St. St Laurent – Mainstreet Corridor
30. The Inner East Line 1 and 3 Stations Secondary Plan. Schedule A – Maximum Heights and Minimum Densities permits 1064 St Laurent (designated Area B) a maximum height 20 storeys, with minimum density 250 units per net hectare (residential) and/or 1.0 floor space index (non-residential)
31. While the Hub designation may generally offer the most permissive height and densities in the city, where the context is appropriate, there are important policies regarding their application including clarifying direction where lower building heights should be implemented, for example:
- a. 5.2.3. Policy 1(c ) and (d) state where properties are outside of 300m radius or 400m walking distance from an existing rapid transit station high-rise buildings must be of sufficient size to allow for a transition in built form massing within the Hub designation;
  - b. Moreover, the height of high-rise buildings shall be the lowest at the outer edge of the Hub (conversely, tallest at the center of the Hub near a transit station).
  - c. 6.1.1. Policy 3 directs for development within a Hub to have the highest density closest to the transit station or stop.
32. Under such policies, a site of this general size, configuration, location and context in a Hub designation abutting a Neighbourhood designation would typically yield permissions for relatively low high-rise buildings. Given the Secondary Plan permits 20-storeys, Policy Planning is of the opinion that a building up to 20 storeys may be appropriate with careful site and building design.
33. Buildings taller than the designated 20-storey permission requires consideration under the height transition policies of the Official Plan, which as outlined, are not favourable to such an increase, particularly given the distance and difficult access from this site to the St. Laurent O-Train Station, as well as the transitions required to the existing low-rise residential uses abutting it to the west.
34. We note that acquiring abutting properties could play a role in supporting a meaningful transition to the existing residential area, including:
- a. 1076 St. Laurent (Joe’s Smoke Shop); although it’s noted by the proponent this avenue as been explored unsuccessfully; and

- b. 693, 699, 703, 707, 713 Alesther St; noted by the proponent as owned by Ottawa Community Housing.

35. Regarding Mainstreet Corridor designations, building height transition policies will apply to the properties at 1052 and 1060 St. St Laurent, where policies, such as 5.2.3, Policy 2, require appropriate height transitions, setbacks, and angular planes, notably to create a high-quality public realm along the frontage, and to provide appropriate transition to residential uses abutting the rear façade and built form.

Feel Free to contact Taavi Siitam, Policy Planning, for follow-up questions.

### **Zoning and Intensification Team**

36. It is still too early to provide feedback on the details of the zoning, but the applicant should be aware that the City is currently preparing a new Zoning By-law, which is expected to go to Council in December 2025. The draft by-law includes transition provisions for applications approved under the current Zoning By-law (2008-250) that allow for five years after approval for building permit issuance. This would only apply when provisions in the new Zoning By-law are more restrictive or substantially different from those in the old by-law so that a development would be rendered non-conforming. However, depending the final zoning for this project, the transition provisions may not be relevant.

37. Exceptions will also generally be carried forward unless new provisions have made them or parts of them unnecessary.

Feel Free to contact Jeff Nadeau, Zoning & Intensification, for follow-up questions.

### **Urban Design**

#### **Submission Requirements**

38. An Urban Design Brief is required. Please see attached customized Terms of Reference to guide the preparation of the submission.

- a. The Urban Design Brief should be structured by generally following the headings highlighted under Section 3 – Contents of these Terms of Reference.
- b. Please note that the Urban Design Brief will also serve as the submission to the Urban Design Review Panel (see notes below).

39. Additional drawings and studies are required as shown on the SPIL. Please follow the terms of reference ( Planning application submission information and materials | City of Ottawa) to prepare these drawings and studies.

### Urban Design Review Panel Review and Report

40. The site is located within a Design Priority Area and is subject to review by the Urban Design Review Panel. UDRP review occurs within the Preconsultation stage. To proceed with a UDRP review, please contact [udrp@ottawa.ca](mailto:udrp@ottawa.ca).
41. The submission of a UDRP report is a requirement for deeming an application complete. Please follow the instructions provided in the Terms of Reference available here: [Urban Design Review Panel Report \(ottawa.ca\)](http://ottawa.ca)

### Comments on Preliminary Design

42. The following element of the preliminary design are of concern:
- a. Regarding OCH lands, modeling and a site section including the residential lands to the west would be helpful for us to have a fulsome conversation about transition and the impact of the massing on the surrounding context.
  - b. Please provide a street section.
  - c. First blush, I would argue a low-rise expression in the podium design would be more appropriate to respond to the context and this can be achieved with a low-rise expression around the building.
  - d. The 9 storey podium also appears very long and would become very impactful to the -lands to the west in casting shadows, as well as on the public right-of-way. A Shadow analysis will be an important tool to evaluate.
  - e. A discrete point tower: Tower floorplate max 750m<sup>2</sup>.

### Other Comments

43. This is an exciting project in an area full of potential. We look forward to helping you achieve its goals with the highest level of design resolution. We are happy to assist and answer any questions regarding the above. Good luck.

Feel free to contact Christopher Moise, Urban Designer, for follow-up questions.

### **Forestry**

44. A conceptual landscape plan is required to show their will be adequate space and soil volume for trees (OP Section 4.8.2):
- a. Ensure the front yard setback allows for large canopy trees to be planted within the right of way along St-Laurent. With hydro wires along the property rear, this is the primary space available to support large canopy species.

- b. Consider implications of sensitive soils on the site and surrounding properties. Ensure the geotechnical consultant comments on how the underground parking structure influences tree planting setbacks. Its expected due to the depth of the parking garage that there will not be tree planting restrictions on site.
45. Planning Forestry has concerns with the ability to fit trees within the proposed site design. To provide a livable space for future residents and contribute to the urban forest canopy, suitable soil volume must be provided. While a detailed landscape plan is not required, please provide the following:
- a. Dimensions of the soft landscaped area available
  - b. Estimated soil volume, based on at least 1 m depth
  - c. The number and size class of tree that could feasibly be planted (table for reference).

| Tree Type/Size | Single Tree Soil Volume (m <sup>3</sup> ) | Multiple Tree Soil Volume (m <sup>3</sup> /tree) |
|----------------|-------------------------------------------|--------------------------------------------------|
| Ornamental     | 15                                        | 9                                                |
| Columnar       | 15                                        | 9                                                |
| Small          | 20                                        | 12                                               |
| Medium         | 25                                        | 15                                               |
| Large          | 30                                        | 18                                               |
| Conifer        | 25                                        | 15                                               |

*\*These minimums do not apply where sensitive marine clay soils are present. Please refer to the "Tree Planting in Sensitive Marine Clay Soils - 2017 Guidelines Background: Existing" for soil volumes related to tree planting in the right of way\*\**

46. Please provide a Tree Conservation Report. This is to show existing tree condition, particularly along the boundaries and adjacent properties with critical root zones extending into the development site. This will influence what setbacks are necessary to ensure proper tree retention of neighbour owned trees.

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

## **Engineering**

47. For servicing, please provide Adequacy Report
48. The Stormwater Management Criteria, for the subject site, is to be based on the following, and should be used to review adequacy and for detailed design, during Site Plan Control Application:

- a. The 2-year storm event using the IDF information derived from the Meteorological Services of Canada rainfall data, taken from the MacDonald Cartier Airport, collected 1966 to 1997.
- b. For separated sewer systems built up until 2016, the design of the storm sewers were based on a 5-year storm; storm systems after such time are, generally, based on a 2-year level-of-service.
- c. In separated areas, the pre-development runoff shall be the lower of the existing coefficient or a maximum equivalent 'C' of 0.5, whichever is less (§ 8.3.7.3).
- d. A calculated time of concentration (cannot be less than 10 minutes).
- e. Flows to the storm sewer in excess of the 2-year storm release rate, up to and including the 100-year storm event, must be detained on site.
- f. Storm sewer outlets should not be submerged.
- g. The quantity control criteria (100-year post-development to 2-year pre-development or  $c = 0.5$  or some other criteria).
- h. Two separate sewer laterals (one for sanitary and other for storm) will be required.

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

- a. Provide existing servicing information and the recommended location for the proposed connections. Services should ideally be grouped in a common trench to minimize the number of road cuts.
- b. Provide information on the monitoring manhole requirements – should be located in an accessible location on private property near the property line (ie. Not in a parking area).
- c. Review provision of a high-level sewer.
- d. CCTV sewer inspection of city infrastructure is required to record pre and post construction conditions and ensure there is no damage to City infrastructure.
- e. Sewer connections to be made above the springline of the sewermain as per:
  - i. Std Dwg S11 (for rigid main sewers) – lateral must be less than 50% the diameter of the sewermain,
  - ii. Std Dwg S11.2 (for rigid main sewers using bell end insert method) – for larger diameter laterals where manufactured inserts are not

available; lateral must be less than 50% the diameter of the sewermain,

- iii. Connections to manholes permitted when the connection is to rigid main sewers where the lateral exceeds 50% the diameter of the sewermain. – Connect obvert to obvert with the outlet pipe unless pipes are a similar size.
- iv. No submerged outlet connections.
- v. Where three or more road cuts are required for a development, any road cuts within 12 meters of one another must be resurfaced together as per City of Ottawa Standard Detail Drawings (STD DWG R10) and road cut resurfacing policy. An asphalt overlay must be shown on the plan showing as one large trench reinstatement including all required servicing trenches, 1-2 meters away from any iron works or MHs. Additionally, a 40mm lift of HMA Superpave 12.5 mm PG 58-34 Level B should be shown to cover the extent of the road cuts. Provide the resurfacing areas in square meters required for securities at a rate of \$50.0/m<sup>2</sup> to be paid.

## Water

A 610 mm dia. Backbone Watermain (c. 1961) is available on St-Laurent Blvd.

- a. As per ISTB-2021-03, Industrial, commercial, institutional service areas with a basic day demand greater than 50 m<sup>3</sup>/day and residential areas serving 50 or more dwellings shall be connected with a minimum of two watermains, separated by an isolation valve, to avoid the creation of a vulnerable service area. Individual residential facilities with a basic day demand greater than 50 m<sup>3</sup>/day shall be connected with a minimum of two water services, separated by an isolation valve, to avoid the creation of a vulnerable service area.
- b. According to the MECP crossing requirements, Section 10.11.3 Crossings, the watermains should cross above sewers wherever possible. Whether the watermain is above or below the sewer, a minimum vertical distance of 0.5 m (20 in) between the outside of the watermain and the outside of the sewer should be provided to allow for proper bedding and structural support of the watermain and sewer pipe.
- c. **Vibration and settlement monitoring on Backbone Watermain:** A 610mm dia. backbone watermain is located within St-Laurent Blvd. Please note that to ensure the integrity of the nearby watermain the applicant will be required to develop a Vibration and Settlement Monitoring Program, under Site Plan Control Application.

A Vibration and settlement Monitoring Specialist Engineer shall undertake monitoring, develop a vibration and settlement monitoring plan, and prepare a protection plan, an emergency response plan, ensure conformance and shall issue certificates of conformance. The Vibration and settlement Monitoring Specialist Engineer shall be a licensed engineer in the Province of Ontario with a minimum of five years of experience in the field of Vibration and settlement monitoring. Vibration and settlement monitors are to be placed directly on the watermain. The maximum peak particle velocities are to be in accordance with Table 1 of the City of Ottawa Specification F-1201.

Note: In addition to requirement of a vibration specialist engineer required to design and monitor vibration, a certificate of liability insurance shall be submitted to the City wherein the Owner is the named insured and the City of Ottawa is an additional insured. The limits of the policy shall be in the amount of \$25M, separate from the \$5M SPC policy, and shall be kept in full force and effect for the term of the construction work. It is a condition, vetted through Water Department and Legal.

[https://documents.ottawa.ca/sites/default/files/documents/enviro\\_noise\\_guide\\_en.pdf](https://documents.ottawa.ca/sites/default/files/documents/enviro_noise_guide_en.pdf)

- d. Existing water services are to be blanked at the watermain.
- e. Water Boundary condition requests must include the location of the service (map or plan with connection location(s) indicated) and the expected loads required by the proposed development, including calculations. Please provide the following information:
  - i. Location of service
  - ii. Type of development
  - iii. The amount of fire flow required (per OBC or FUS).
  - iv. Average daily demand: \_\_\_\_ l/s.
  - v. Maximum daily demand: \_\_\_\_ l/s.
  - vi. Maximum hourly daily demand: \_\_\_\_ l/s.
  - vii. Note: 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.

#### Fire-fighting flow rate(s)

Fire flow demand requirements shall be based on ISTB-2024-05.

- b. Please review Technical Bulletin ISTB-2024-05, 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.
- c. 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.

#### Sanitary Sewer

A 225mm dia. concrete Sanitary sewer is available on St-Laurent Blvd.

- d. For the Sanitary sewer capacity, please provide the new Sanitary sewer discharge and we confirm if Sanitary sewer main has the capacity.
- e. Include correspondence from the Architect within the Appendix of the report confirming the number of units and a unit type breakdown to support the calculated building populations.
- f. Please apply the wastewater design flow parameters in Technical Bulletin PIEDTB-2018-01.

#### Storm Sewer

A 900mm dia. concrete Storm sewer (c. 1968) is available on St-Laurent Blvd.

Connection to the 900mm dia. Storm sewer trunk is typically not permitted without asset management permission (SDG 4.4.4.13, 4.4.4.14).

No surface or roof water is to discharge onto the hydro easement without obtaining written permission. All stormwater flows must be managed on-site and directed to municipal infrastructure or the City's right-of-way (ROW).

**Note: 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.**

Underground Storage:

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 or model it. Alternatively, the consultant may choose to use a submersible pump in the design to ensure a constant release rate**

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.

Due to the limited green space area on the property, all roof drains and foundation drainage (weeping tile) systems must be connected independently to the City infrastructure services using their own lateral services, rather than discharging to surface level. Please note that it is no longer permitted to connect the roof drains directly to the weeping tile (SDG 5.7.2, 4.4.1.4) and connect them to the City services using a singular pipe due to the possibility of the flooding issues. If a cistern is required, it can be permitted to use a larger service pipe and connect roof drains down stream of the foundation drain.

#### 49. Survey Plan and Erosion

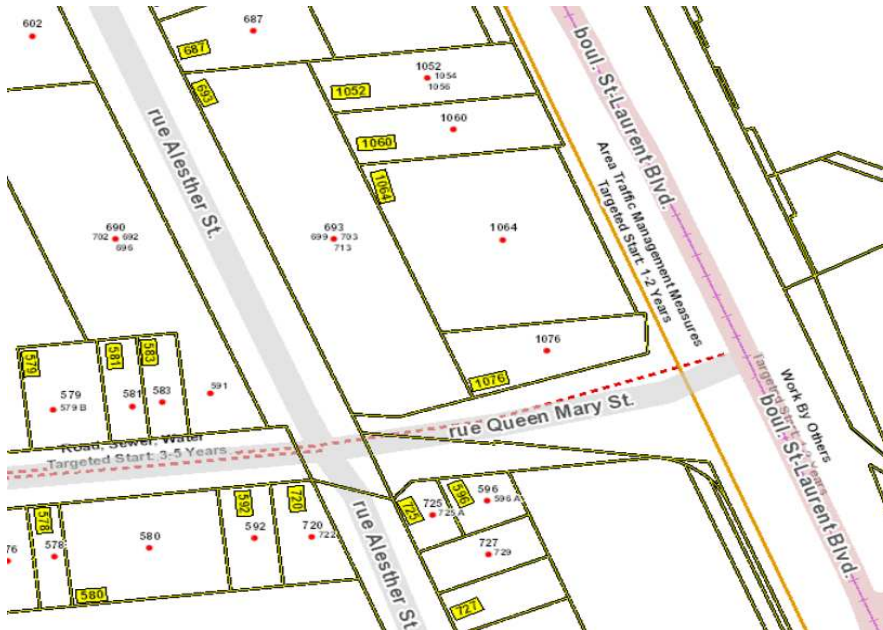
- a. A topographical plan of survey shall be provided as part of the submission.

#### 50. Geotechnical

- a. A Geotechnical Study/Investigation shall be prepared in support of this development proposal.
- b. 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.
- c. Geotechnical Study shall be consistent with the Geotechnical Investigation and Reporting Guidelines for Development Applications. [Geotechnical Investigation and Reporting \(ottawa.ca\)](#). See the Studies Plans and Identification List for more information.

#### 51. [Capital Works Projects](#) scheduled

Several capital works projects are scheduled near the subject site, including traffic management measures that may involve road widening and potential line work by others, planned for implementation within the next 1-2 years. Please refer to the image below from GeoOttawa for reference.



### 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.*

## 52. 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 patterns 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).

## 53. Wind analysis

A Wind Study is required for all buildings or dwellings exceeding 9 stories in height. 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.

[https://documents.ottawa.ca/sites/default/files/wind\\_analysis\\_for\\_en.pdf](https://documents.ottawa.ca/sites/default/files/wind_analysis_for_en.pdf)

Please refer to the City of Ottawa Guide to Preparing Studies and Plans [Engineering]: [Planning application submission information and materials](#). The guide outlines the requirement for a statement to be provided on the plan about where the property boundaries have been derived from.

Feel free to contact Shawn Wessel, Infrastructure Project Manager at [shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca), or Farbod Azimi, Engineering Graduate, Infrastructure Development Review at [farbod.azimi@ottawa.ca](mailto:farbod.azimi@ottawa.ca) for follow-up questions.

### **Noise**

Comments:

54. A Transportation Noise Assessment is required as the subject development is located attached to the St-Laurent Blvd existing Arterial Road and within 100m proximity of an existing Collector Road.

55. 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.

Feel free to contact Shawn Wessel, Infrastructure Project Manager at [shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca), or Farbod Azimi, Engineering Graduate, Infrastructure Development Review at [farbod.azimi@ottawa.ca](mailto:farbod.azimi@ottawa.ca) for follow-up questions.

### **Environmental Remediation Unit**

56. Phase One & Two ESAs are required.

57. Due to the proposed land use change to a more sensitive use (i.e. I/C/C to R/P/I) filing a Record of Site Condition (RSC) is also required prior to a Building Permit issuance for constructing any structures associated with the proposed residential use.

Feel Free to contact Vahid Arasteh, Specialist, Environmental Remediation, for follow-up questions.

### **Transportation**

#### **Zoning By-law Amendment Comments**

58. The Screening Form has indicated that TIA Triggers have been met. Please proceed with the TIA Step 2 – Scoping Report. The consultant is to address how they plan to enable and encourage travel by sustainable modes (i.e., to make walking, cycling, transit, carpooling and telework more convenient, accessible, safe, and comfortable). Please complete the City of Ottawa’s *TDM Measures Checklist*.

59. Area Traffic Management Measures along St Laurent Blvd targeted to start 1-2 years.

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| Forecast ID           | LN57739                                            |
| Type of Work          | Area Traffic Management Measures                   |
| Project Type          | Renewal                                            |
| STATUS                | Planned                                            |
| Construction Year     | This Year                                          |
| Delivered By          | IS                                                 |
| CLIENT                | Traffic Services - Traffic Operations Branch (PWD) |
| Construction Contract | CP000787                                           |
| Project Manager       | Giamberardino, Nick                                |

60. Work by others along St Laurent Blvd targeted to start 1-2 years.

|                       |                |
|-----------------------|----------------|
| Forecast ID           | LN61115        |
| Type of Work          | Work By Others |
| Project Type          | Renewal        |
| STATUS                | Planned        |
| Construction Year     | This Year      |
| Delivered By          | Not Available  |
| CLIENT                |                |
| Construction Contract | Not Available  |
| Project Manager       | Curry, Court   |

61. St Laurent Blvd is designated as an Arterial Road within the City’s Official Plan with a ROW protection limit of 44.5 metres between Donald Street and Smyth Road. The ROW protection limit and the offset distance (22.25 metres) are to be dimensioned from the existing centerline of pavement and shown on the drawings. The Certified Ontario Land Surveyor is to confirm the ROW protected limits and any portion that may fall within the private property to be conveyed to the City. Ensure that the development proposal complies with the Right-of-Way protection requirements of the Official Plan’s Schedule C16.

## Site Plan Application Comments

62. The purchaser, tenant or sub-lessee acknowledges the unit being rented/sold is not provided with any on-site parking and should a tenant/purchaser have a vehicle for which they wish to have parking that alternative and lawful arrangements will need to be made to accommodate their parking need at an alternative location. The Purchaser/Tenant also acknowledges that the availability and regulations governing on-street parking vary; that access to on-street parking, including through residential on-street parking permits issued by the City cannot be guaranteed now or in the future; and that a purchaser, tenant, or sub-lessee intending to rely on on-street parking for their vehicle or vehicles does so at their own risk.
63. All underground and above ground building footprints and permanent walls need to be shown on the plan to confirm that any permanent structure does not extend either above or below into the sight triangles and/or future road widening protection limits.
64. 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.
65. The consultant should review the sight distance to the access and any obstructions that may hinder the view of the driver.
66. The concrete sidewalk should be 2.0 metres in width and be continuous and depressed through the proposed accesses (please refer to the City's sidewalk and curb standard drawing SC7.1 for unsignalized entrance).
67. The closure of an existing private approach shall reinstate the sidewalk, shoulder, curb, and boulevard to City standards.
68. 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.
69. 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.
70. Bicycle parking spaces are required as per Section 111 of the Ottawa Comprehensive Zoning By-law. Bicycle parking spaces should be in safe, secure places near main entrances and preferably protected from the weather.

71. Should the property Owner wish to use a portion of the City's Road allowance for construction staging, prior to obtaining a building permit, the property Owner must obtain an approved Traffic Management Plan from the Manager, Traffic Management, Transportation Services Department. The city has the right for any reason to deny use of the Road Allowance and to amend the approved Traffic Management Plan as required.

Feel free to contact Wally Dubyk, Transportation Project Manager, for follow-up questions.

### **Parkland**

#### 72. Parkland Dedication

- a. The proposal is for 332 dwelling units contained within a 9 storey podium and a 30 storey tower. Residential density is greater than 18 units/hectare, therefore the rate of one hectare per 1,000 net residential units to a maximum of 10% of the gross land area for sites under 5 hectares.

#### 73. Form of Parkland Dedication:

- a. PFP will be requesting cash-in-lieu of conveyance of parkland for parkland dedication in accordance with the Parkland Dedication By-law.
- b. *Preliminary* parkland conveyance calculations based on information provided/identified in the pre-application consultation, is calculated to be 356.10 square meters.
- c. Please note, if the proposed unit count or land use changes, then the parkland dedication requirement will be re-evaluated accordingly.
- d. Cash-in-lieu of conveyance of parkland will be required as a condition of the future planning application for part lot control. The Owner shall also pay the parkland appraisal fee.

74. Please note that the park comments are preliminary and will be finalized (and subject to change) upon receipt of the development application and the requested supporting documentation.

Feel free to contact Ryan Paliga, Parks Planner, for follow-up questions.

### **Community Issues: Overbrook Community Association**

**Steven Boyle, representing the Overbrook Community Association, provided the following comments:**

75. A 332 unit high-rise apartment building is proposed to be developed on three lots located a little north of the Queen Mary Street and St. Laurent Boulevard

intersection. It would have a 30 storey main tower and nine and four stories lower sections. The site is 800 metres north of the St. Laurent LRT station.

Here are our review comments for this redevelopment proposal:

Comment #1 – Extra height (ten more stories)

76. The Inner East Lines 1 and 3 Stations Secondary Plan, applying to the south part of the site and dating from prior to the new Official Plan, has a 20 storey height limit for that area. While the Official Plan does permit higher buildings on lands in Hub and Mainstreet designations we understand higher density development, such as 30 storey buildings, are best located in close proximity to rapid transit stations. Here we are 800 metres away. Additionally, such higher building heights should have appropriate height transitions, step backs, angular planes and allow for a transition in built form massing to the adjacent residential neighbourhoods (here Overbrook to the west). A clearer explanation is needed as to why this 30 storey height is suitable and “good planning” for this narrow site situated adjacent to the low-rise residential community to the west.

Comment #2 – Urban Design

77. The “big shadow” is a concern, not just over the immediate nearby lots on Alesther Street but further into the community. It is not the same as a high-rise developments along the south side of Scott Street that shadows Scott Street and the LRT (not the low-rise neighbourhood to the south) or a high-rise development on the south side of Baseline Road that shadows northward on the Experimental Farm (not the low-rise neighbourhood to the south). Here on St. Laurent Boulevard with the north-south lotting and building orientation next to the community shadow impacts will be considerable for part of each day through the year.

78. The 70m long building face on the St. Laurent Boulevard frontage presents a massive wall at street level. Articulation of sections of it or architectural and design elements are needed to “soften” this large expanse of building. We hope that the Urban Design Review Panel may offer useful guidance on this matter.

79. We agree with the design having the mass of the tower at the south end of the site for the reasons cited: no future similar tower is likely on the small parcel to the south at the corner and the tower would be spaced or separated should a high-rise be built on the lands to the north.

80. To address both comments #1 and #2 it would be good to have elevation and aerial (bird’s eye) visualizations of this proposed building and these not just showing only on a blank back ground of no neighbouring buildings. It would be useful to also see illustration of the referenced potential redevelopment plans for the OCH lands to the immediate west and how the two sites with their buildings would relate to one another.

### Comment #3 – Adjacent OCH lands and parklands

81. It was good to hear of discussions having occurred with OCH both in relation to the existing (low-rise residential) and that corporation's planned longer-term redevelopment (4 or up to 9 stories) of their abutting property on Alesther Street, to the immediate west the subject site on St. Laurent Boulevard. As stated, back in 2020 the Overbrook Community Association (Community Planning Committee) had proved OCH with comments on possible redevelopment (by the corporation or others) of some of their landholdings in Overbrook including this site on the east side of Alesther Street. We had indicated that far greater intensification of the site was suitable given it backs onto lands on St. Laurent Boulevard (a Main Street) subject to redevelopment possibilities.
82. We request that further discussion occur with OCH to see as to the possibility of a future public parkette on OCH lands (as a new parkland dedication for redevelopment of this and other OCH lands in that area) and as to whether this new parkette might be able to be positioned to back onto the green private rear side amenity space of this site, so to group green areas of both sites.

### Comment #4 – St. Laurent Boulevard Transit Priority EA Study

83. Review the cross-section (updated from the old Regional Road Corridor Design Guidelines) for this segment of St. Laurent Boulevard per the on-going EA study. In your supportive concept plans illustrate the cycle track, sidewalk and street tree ameliorations to this current far too car-friendly roadway.

### Comment #5 – Car parking and bicycle parking

84. The planned around 0.5 parking spaces per unit, with two underground parking levels, is more appropriate compared to what we consider as excessive amounts of parking to be provided for similar planned 20 to 30 high-rise residential buildings on Coventry Road.
85. Maximize the amount of bicycle parking that is to be provided for the approximately 500 residents of this building. We expect a minimum of 1 space per unit to be provided. Exterior visitor bicycle parking also needs to be provided.

### Comment #6 – Unit mix and mixed-use

86. Unit mix – it is unknown at this time what would be the proposed mix of three, two and one bedroom and bachelor units. A housing mix of units with two- and three-bedroom units is needed to attract a wide tenant base more reflective of the neighbourhood population that includes not just one and two person households.
87. Mixed-use – on the ground floor will there be an effort to have mixed-uses, e.g. retail, service businesses, etc. rather than have the building only be 100%



residential on that street fronting level? The building would have a more than 70m long wall along the street and animation with various uses on that ground floor would make for a more attractive streetscape.

### **Submission Requirements and Fees**

1. A Major Zoning By-law Amendment, Official Plan Amendment, and Complex Site Plan Control application will be required to facilitate the proposed development. This Phase 1 Pre-consultation was only in relation to a potential Zoning and Official Plan Amendment.
  - a. Additional information regarding fees related to planning applications can be found [here](#).
2. The attached **Study and Plan Identification List** outlines the information and material that has been identified as either required (R) or advised (A) as part of a future complete application submission for a Zoning and Official Plan Amendment.
  - a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on [Ottawa.ca](http://Ottawa.ca). These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.
3. All of the above comments or issues should be addressed to ensure the effectiveness of the application submission review.

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

Sincerely,

Margot Linker

Planner II, Development Review Central

Encl. Urban Design Brief

c.c. Ann O'Connor, Planner III, Development Review Central  
Taavi Siitam, Planner II, Policy Planning  
Jeff Nadeau, Planner III, Zoning and Intensification  
Christopher Moise, Planner II, Public Realm & Urban Design  
Hayley Murray, Forester, Natural Systems  
Shawn Wessel, Infrastructure Project Manager, Development Review  
Farbod Azimi, Engineering Graduate, Infrastructure, Development Review  
Vahid Arasteh, Specialist, Environmental Remediation  
Wally Dubyk, Transportation Project Manager, Development Review  
Ryan Paliga, Parks Planner II, Parks and Facility Planning  
Steven Boyle, Overbrook Community Association

## **APPENDIX B**

### **Preliminary Sanitary Sewage Calculations and E-mail Correspondence from the City of Ottawa**

## 1052, 1060, 1064 ST LAURENT - 30-Storey Tower and Podium POST-DEVELOPMENT SANITARY FLOWS

| Residential Flows                                         |  | Post-Development |                |
|-----------------------------------------------------------|--|------------------|----------------|
| Number of 1-Bedroom Units, Studio & Den                   |  | 276              |                |
| Persons per 1-Bedroom Units, Studio & Den                 |  | 1.4              |                |
| Number of 2-Bedroom Units                                 |  | 125              |                |
| Persons per 2-Bedroom Units                               |  | 2.1              |                |
| Total Number of Units                                     |  | 401              |                |
| Design Population                                         |  | 649              |                |
| Average Daily Residential Flow (280 L/c/day)              |  | 2.10             | L/s            |
| Peak Factor (Harmon Formula)                              |  | 3.33             |                |
| <b>Peak Residential Flow</b>                              |  | <b>7.01</b>      | <b>L/s</b>     |
|                                                           |  |                  |                |
| Commercial Flows                                          |  |                  |                |
| Ground Floor Area                                         |  | 587              | m <sup>2</sup> |
| Average Daily Commercial Flow (2.8 L/m <sup>2</sup> /day) |  | 0.02             | L/s            |
| Peaking Factor (Commercial Contribution <20%)             |  | 1.0              |                |
| <b>Peak Commercial Flows</b>                              |  | <b>0.02</b>      | <b>L/s</b>     |
|                                                           |  |                  |                |
| Extraneous Flow                                           |  |                  |                |
| Site Area                                                 |  | 0.356            | ha             |
| Infiltration Allowance                                    |  | 0.33             | L/s/ha         |
| <b>Peak Extraneous Flow</b>                               |  | <b>0.12</b>      | <b>L/s</b>     |
|                                                           |  |                  |                |
| <b>Total Peak Sanitary Flow</b>                           |  | <b>7.14</b>      | <b>L/s</b>     |

## Kynan Dsa

---

**From:** Wessel, Shawn <shawn.wessel@ottawa.ca>  
**Sent:** Wednesday, September 3, 2025 10:33 AM  
**To:** Francois Thauvette; Kynan Dsa  
**Cc:** O'Connor, Ann; Linker, Margot; Azimi, Farbod  
**Subject:** RE: 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075) - City # PC2025-0065  
**Attachments:** 1052 St Laurent Conceptual San Servicing.pdf; 125075-SAN-Flows-Adequacy.pdf

Hello Francois and Kynan, good morning.

Further to your request, the following was provided by the Water Resource Dept.:

We recommend proceeding with the north connection and will request a sanitary main extension instead of a long radius bend.  
In addition, the south connection should be avoided due to existing applications on Coventry Road.

For the connection, please refer to City of Ottawa Sewer Design Guidelines (as amended), section 4.4.4.12 where it states the following:

4.4.4.12

Connections shall not be made directly into a maintenance hole. In the case of a cul-de-sac, maintenance-hole connections are permitted. The connection should be aligned within 15 degrees of the main sewer direction and provide for a drop across the maintenance hole of not less than 100 mm with completely formed benching to define a channel equal to the bottom semicircle of 150 mm diameter pipe. Pre-benching maintenance holes are not permitted in this application.

A sewer extension and new MH will be required to bring the extended sewermain to an adequate location fronting the site so that a direct connection to the new main can be made. The MH will require an appropriate benching.

Thank you

*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 bâtiment (DGSPAB)

City of Ottawa | Ville d'Ottawa

110 Laurier Ave. W. | 110, avenue Laurier Ouest, Ottawa ON K1P 1J1

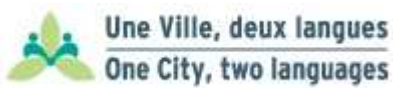
(613) 580 2424 Ext. | Poste 33017

Int. Mail Code | Code de Courrier Interne 01-14

[shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca)

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**Vacation Alert : October 21-24, inclusive**



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

**From:** Wessel, Shawn

**Sent:** Friday, August 15, 2025 4:39 PM

**To:** 'Francois Thauvette' <f.thauvette@novatech-eng.com>; Azimi, Farbod <farbod.azimi@ottawa.ca>

**Cc:** Kynan Dsa <k.dsa@novatech-eng.com>

**Subject:** RE: 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075) - City # PC2025-0065

Thanks Francois

Received, including Capacity info, and sent to the appropriate depts.

Have a nice weekend!

*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  
bâtiment (DGSPAB)

City of Ottawa | Ville d'Ottawa

110 Laurier Ave. W. | 110, avenue Laurier Ouest, Ottawa ON K1P 1J1

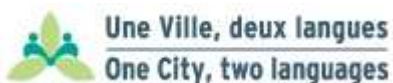
(613) 580 2424 Ext. | Poste 33017

Int. Mail Code | Code de Courrier Interne 01-14

[shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca)

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**Vacation Alert : August 1 – August 5 (inclusive)**



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**From:** Francois Thauvette <[f.thauvette@novatech-eng.com](mailto:f.thauvette@novatech-eng.com)>

**Sent:** Friday, August 15, 2025 2:25 PM

**To:** Wessel, Shawn <[shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca)>; Azimi, Farbod <[farbod.azimi@ottawa.ca](mailto:farbod.azimi@ottawa.ca)>

**Cc:** Kynan Dsa <[k.dsa@novatech-eng.com](mailto:k.dsa@novatech-eng.com)>

**Subject:** FW: 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075) - City # PC2025-0065

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Hi Shawn & Farbod,

Please see e-mail below requesting water servicing configuration information and resulting WM boundary conditions related to the proposed re-development of the 1052, 1060 & 1064 St Laurent properties. Please review and let us know if you require anything else from us to be able to provide feedback so that we may complete our Assessment of Adequacy of Public Services Report. We would be happy to have a quick Teams call, if easier for you.

Regards,

**François Thauvette**, P. Eng., Sr. Project Manager | Land Development & Public-Sector Engineering

**NOVATECH**

Engineers, Planners & Landscape Architects

240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | T: 613.254.9643 Ext: 219 | C: 613.276.0310

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---

**From:** Kynan Dsa <[k.dsa@novatech-eng.com](mailto:k.dsa@novatech-eng.com)>

**Sent:** Friday, August 15, 2025 12:12 PM

**To:** Francois Thauvette <[f.thauvette@novatech-eng.com](mailto:f.thauvette@novatech-eng.com)>

**Subject:** 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075)

Hi François,

As discussed, please forward the e-mail below to the City of Ottawa regarding the proposed water servicing configuration and municipal watermain boundary conditions request for the 1052 St. Laurent development.

---

We are sending this e-mail with anticipated domestic and fire flow water demands to obtain feedback on the proposed water servicing configuration options and to obtain municipal watermain boundary conditions to complete the watermain network analysis in support of our ZBLA application. The proposed re-development of 1052, 1060, and 1064 St. Laurent Boulevard will seek to demolish the three existing buildings and merge the properties, followed by the construction of a 30-storey tower with a podium

ranging from 4-9 stories containing at-grade commercial units with residential units above. Parking will mainly be provided within an underground parking structure, with a few at-grade visitor spots.

There are two existing large-diameter municipal watermains (406mm dia. and 610mm dia. per geoOttawa) in St. Laurent Boulevard adjacent to the proposed development. The City does not typically allow new connections to municipal feeder mains, therefore we assume that the City would prefer connections to the existing 406mm dia. municipal watermain.

Our preferred water service configuration would be to extend water service laterals from the north and south ends of the proposed development to the existing 406mm dia. municipal watermain, with a new isolation valve installed on the 406mm dia. watermain between the connections. See attached Conceptual Water Servicing figure for details. We anticipate requiring two water service connections as the average daily demand for the proposed development is anticipated to exceed 50,000 L/day. The anticipated water demands for the proposed development are as follows:

- Average Day Demand = 2.4 L/s
- Maximum Day Demand = 5.9 L/s
- Peak Hour Demand = 13.0 L/s
- Maximum Fire Flow Demand Range = 150 L/s

Refer to the attached Domestic Water Demand calculation sheet and FUS Fire Flow calculation sheet for details.

A multi-hydrant approach to firefighting is anticipated to be required. The fire hydrants on the east side of St. Laurent Boulevard will be difficult for fire services to use given the width of the R.O.W., therefore we are proposing that two new hydrants are installed on the west side of St. Laurent Boulevard adjacent to the proposed development. The two new hydrants would be fed off the proposed water service laterals, similar to the configuration required for the adjacent 1012 St. Laurent Boulevard property. Given the size of the proposed development, St. Laurent Boulevard will be the fire route; in other words, the fire truck will not drive onto the site.

Please review and advise if the proposed water servicing configuration is acceptable.

Thanks,

**Kynan D'sa**, B.A.Sc. (Engineering) (He/Him)

**NOVATECH**

Engineers, Planners & Landscape Architects

240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6

Tel: 613.254.9643 Ext. 276 | Cell: 705.821.2278

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,

## **APPENDIX C**

### **Preliminary Water Demands, FUS Calculations, Watermain Boundary Conditions and E-mail Correspondence from the City of Ottawa**

## 1052, 1060, 1064 ST LAURENT - 30-Storey Tower and Podium POST-DEVELOPMENT WATER DEMANDS

### DOMESTIC WATER DEMAND

| Residential Water Demands                  |  | Post-Development          |
|--------------------------------------------|--|---------------------------|
| Number of 1-Bedroom Units & Den            |  | 276                       |
| Persons per 1-Bedroom Units & Den          |  | 1.4                       |
| Number of 2-Bedroom Units                  |  | 125                       |
| Persons per 2-Bedroom Units                |  | 2.1                       |
| Total Number of Units                      |  | 401                       |
| Design Population                          |  | 649                       |
| Average Daily Flow per resident            |  | 280 L/c/day               |
| <b>Average Day Demand</b>                  |  | <b>2.10 L/s</b>           |
| <b>Maximum Day Demand (2.5 x avg. day)</b> |  | <b>5.26 L/s</b>           |
| <b>Peak Hour Demand (2.2 x max. day)</b>   |  | <b>11.57 L/s</b>          |
| <b>Commercial Water Demands</b>            |  |                           |
| Ground Floor Area                          |  | 587 m <sup>2</sup>        |
| Average Commercial Daily Demand            |  | 2.8 L/m <sup>2</sup> /day |
| <b>Average Day Demand</b>                  |  | <b>0.02 L/s</b>           |
| <b>Maximum Day Demand (1.5 x avg. day)</b> |  | <b>0.03 L/s</b>           |
| <b>Peak Hour Demand (1.8 x max. day)</b>   |  | <b>0.05 L/s</b>           |
| <b>TOTALS</b>                              |  |                           |
| <b>Average Day Demand</b>                  |  | <b>2.12 L/s</b>           |
| <b>Maximum Day Demand</b>                  |  | <b>5.29 L/s</b>           |
| <b>Peak Hour Demand</b>                    |  | <b>11.62 L/s</b>          |

### BOUNDARY CONDITIONS (CONNECTION #1 TO 406mm dia. WM IN ST. LAURENT BLVD.)

|                           |       |   |
|---------------------------|-------|---|
| Minimum HGL (Peak Hour) = | 110.3 | m |
| Maximum HGL =             | 118.4 | m |
| Max Day + Fire Flow =     | 112.9 | m |

### BOUNDARY CONDITIONS (CONNECTION #2 - 406mm dia. WM IN ST. LAURENT BLVD.)

|                           |       |   |
|---------------------------|-------|---|
| Minimum HGL (Peak Hour) = | 110.3 | m |
| Maximum HGL =             | 118.4 | m |
| Max Day + Fire Flow =     | 113.0 | m |

### PRESSURE TESTS

|                                                                                                                                     | CONNECTION #1 | CONNECTION #2 | UNITS |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|-------|
| Existing ground elevation at connection                                                                                             | 69.5          | 69.5          | m     |
| Low Pressure Pressure = (Min. HGL - (Avg. Ground Elevation - Watermain Depth) ) x 1.42 PSI/m (should be > 40 PSI)                   | 61.0          | 61.0          | PSI   |
| High Pressure Pressure = (Max HGL - (Avg. Ground Elevation - Watermain Depth) ) x 1.42 PSI/m (should be between 50- 70 PSI)         | 72.0          | 72.0          | PSI   |
| Max Day + Fire Flow Pressure = (Max Day + Fire Flow - (Avg. Ground Elevation - Watermain Depth) ) x 1.42 PSI/m (should be > 20 PSI) | 65.0          | 65.0          | PSI   |

To convert Head(m) to PSI: multiply by 1.42

PSI

m OF HEAD

1.42197

1

# FUS - Fire Flow Calculations

Novatech Project #: 125075  
Project Name: 1052, 1060, 1064 St Laurent  
Date: 8/13/2025  
Input By: B. Nichols  
Reviewed By: F. Thauvette  
Drawing Reference:

Legend: Input by User

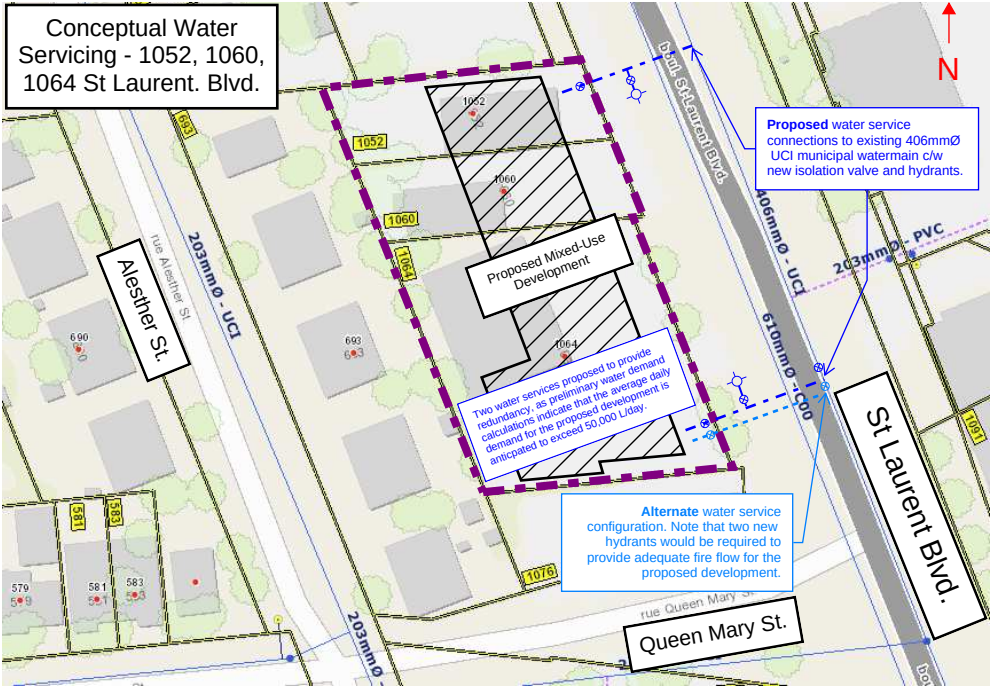
No Input Required

Reference: Fire Underwriter's Survey Guideline (2020)  
Formula Method

Building Description: 30-Storey building with varying height podiums  
Type II - Non-combustible construction

| Step             |                                                         |                                                        |             | Choose      |                     | Value Used | Total Fire Flow |
|------------------|---------------------------------------------------------|--------------------------------------------------------|-------------|-------------|---------------------|------------|-----------------|
| 5%               |                                                         |                                                        |             |             |                     |            |                 |
| Base Fire Flow   |                                                         |                                                        |             |             |                     |            |                 |
| 1                | Construction Material                                   |                                                        |             |             | Multiplier          |            |                 |
|                  | Coefficient related to type of construction<br><b>C</b> | Type V - Wood frame                                    |             | 1.5         | 0.8                 |            |                 |
|                  |                                                         | Type IV - Mass Timber                                  |             | Varies      |                     |            |                 |
|                  |                                                         | Type III - Ordinary construction                       |             | 1           |                     |            |                 |
|                  |                                                         | Type II - Non-combustible construction                 | Yes         | 0.8         |                     |            |                 |
|                  |                                                         | Type I - Fire resistive construction (2 hrs)           |             | 0.6         |                     |            |                 |
| 2                | Floor Area                                              |                                                        |             |             |                     |            |                 |
|                  | <b>A</b>                                                | Podium Level Footprint (m <sup>2</sup> )               | 1922        |             |                     |            |                 |
|                  |                                                         | Total Floors/Storeys (Podium)                          | 6           |             |                     |            |                 |
|                  |                                                         | Tower Footprint (m <sup>2</sup> )                      | 1388        |             |                     |            |                 |
|                  |                                                         | Total Floors/Storeys (Tower)                           |             |             |                     |            |                 |
|                  |                                                         | Protected Openings (1 hr)                              |             |             |                     |            |                 |
|                  | 16.3                                                    |                                                        |             | 7,688       |                     |            |                 |
|                  | <b>F</b>                                                | Base fire flow without reductions                      |             |             |                     | 15,000     |                 |
|                  |                                                         | <b>F</b> = 220 <b>C</b> ( <b>A</b> ) <sup>0.5</sup>    |             |             |                     |            |                 |
|                  | Reductions or Surcharges                                |                                                        |             |             |                     |            |                 |
| 3                | Occupancy hazard reduction or surcharge                 |                                                        |             | FUS Table 3 | Reduction/Surcharge |            |                 |
|                  | (1)                                                     | Non-combustible                                        |             | -25%        | -15%                | 12,750     |                 |
|                  |                                                         | Limited combustible                                    | Yes         | -15%        |                     |            |                 |
|                  |                                                         | Combustible                                            |             | 0%          |                     |            |                 |
|                  |                                                         | Free burning                                           |             | 15%         |                     |            |                 |
|                  |                                                         | Rapid burning                                          |             | 25%         |                     |            |                 |
| 4                | Sprinkler Reduction                                     |                                                        |             | FUS Table 4 | Reduction           |            |                 |
|                  | (2)                                                     | Adequately Designed System (NFPA 13)                   | Yes         | -30%        | -30%                | -6,375     |                 |
|                  |                                                         | Standard Water Supply                                  | Yes         | -10%        | -10%                |            |                 |
|                  |                                                         | Fully Supervised System                                | Yes         | -10%        | -10%                |            |                 |
|                  |                                                         | Cumulative Sub-Total                                   |             |             | -50%                |            |                 |
|                  |                                                         | Area of Sprinklered Coverage (m <sup>2</sup> )         | 11532       | 100%        |                     |            |                 |
| Cumulative Total |                                                         |                                                        | -50%        |             |                     |            |                 |
| 5                | Exposure Surcharge per                                  |                                                        | FUS Table 6 |             | Surcharge           |            |                 |
|                  | (3)                                                     | North Side                                             | 10.1 - 20 m |             | 5%                  | 2,933      |                 |
|                  |                                                         | East Side                                              | >30m        |             | 0%                  |            |                 |
|                  |                                                         | South Side                                             | 3.1 - 10 m  |             | 10%                 |            |                 |
|                  |                                                         | West Side                                              | 10.1 - 20 m |             | 8%                  |            |                 |
|                  |                                                         | Cumulative Total                                       |             |             | 23%                 |            |                 |
| Results          |                                                         |                                                        |             |             |                     |            |                 |
| 6                | (1) + (2) + (3)                                         | Total Required Fire Flow, rounded to nearest 1000L/min |             |             |                     | L/min      | 9,000           |
|                  |                                                         | (2,000 L/min < Fire Flow < 45,000 L/min)               |             |             | or                  | L/s        | 150             |
|                  |                                                         |                                                        |             |             | or                  | USGPM      | 2,378           |

Conceptual Water  
Servicing - 1052, 1060,  
1064 St Laurent. Blvd.



Proposed water service  
connections to existing 406mmØ  
UCI municipal watermain c/w  
new isolation valve and hydrants.

Two water services proposed to provide  
redundancy, as preliminary water demand  
calculations indicate that the average daily  
demand for the proposed development is  
anticipated to exceed 50,000 L/day.

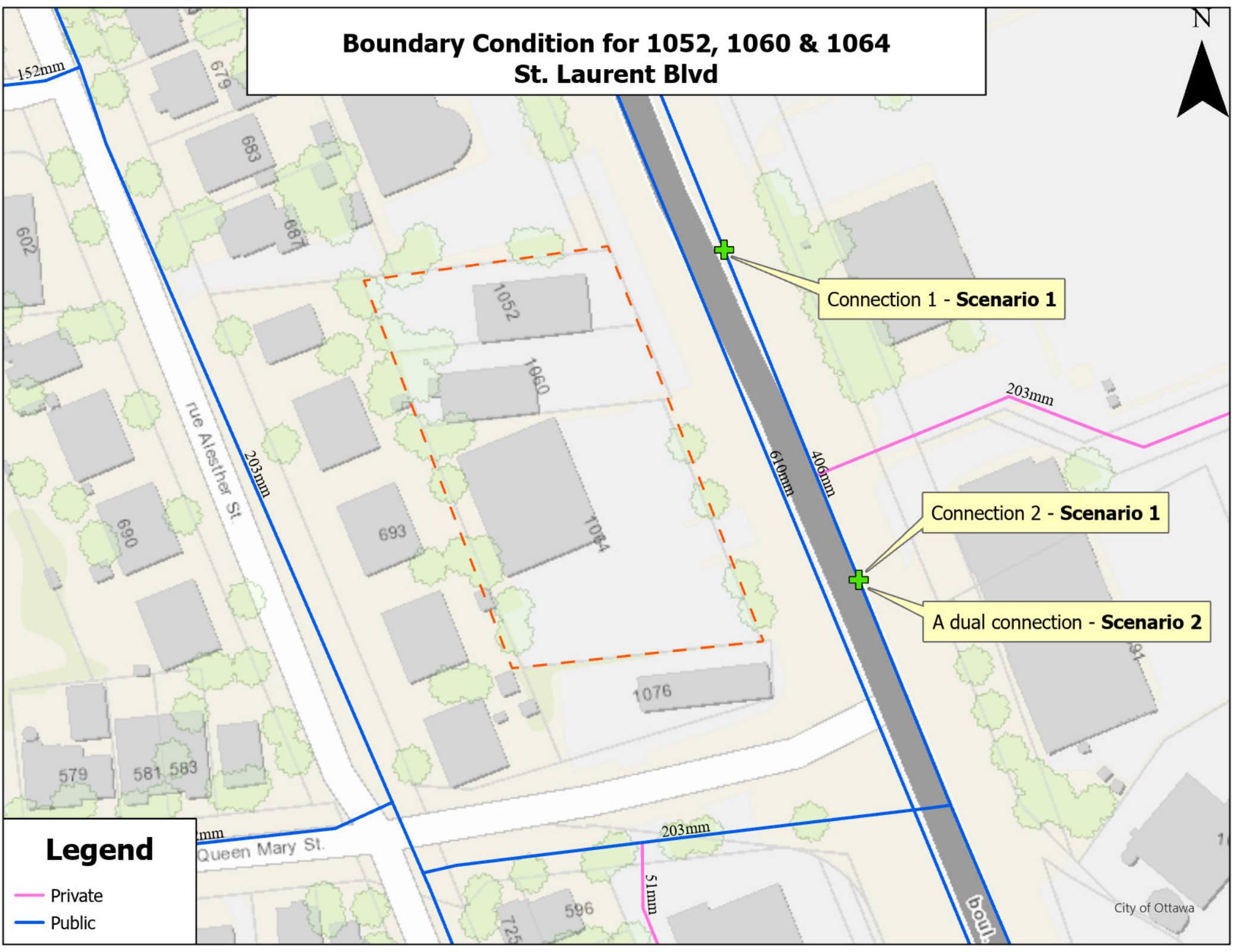
Alternate water service  
configuration. Note that two new  
hydrants would be required to  
provide adequate fire flow for the  
proposed development.

Queen Mary St.

St Laurent Blvd.

Alesther St.

# Boundary Condition for 1052, 1060 & 1064 St. Laurent Blvd



## Legend

- Private
- Public

## Kynan Dsa

---

**From:** Wessel, Shawn <shawn.wessel@ottawa.ca>  
**Sent:** Friday, August 22, 2025 3:04 PM  
**To:** Francois Thauvette; Azimi, Farbod  
**Cc:** Kynan Dsa  
**Subject:** RE: 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075) - City # PC2025-0065  
**Attachments:** 1052, 1060 & 1064 St. Laurent Blvd August 2025.pdf

Good afternoon, Francois.

Please find response from Water Dept. regarding your BC request, below:

The following are boundary conditions, HGL, for hydraulic analysis at 1052, 1060 & 1064 St. Laurent Blvd (zone 1E) assumed to be connected via two connections to the 406 mm watermain on St. Laurent Blvd **[Scenario 1] OR** a dual connection to the 406 mm watermain on St. Laurent Blvd **[Scenario 2]** (see attached PDF for location).

**Scenario 1:**

Both Connections:

Minimum HGL: 110.3 m

Maximum HGL: 118.4 m

Max Day + Fire Flow (150 L/s): 112.9m (Connection 1), 113.0m (Connection 2)

**Scenario 2:**

Minimum HGL: 110.3 m

Maximum HGL: 118.4 m

Max Day + Fire Flow (150 L/s): 113.0 m

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

*Disclaimer:*

*The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation. Fire Flow analysis is a reflection of available flow in the watermain; there may be additional restrictions that occur between the watermain and the hydrant that the model cannot take into account. "The IWSD has recently updated their water modelling software. Any significant difference between previously received BC results and newly received BC results could be attributed to this update."*

Thank you

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 bâtiment (DGSPAB)

City of Ottawa | Ville d'Ottawa

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(613) 580 2424 Ext. | Poste 33017

Int. Mail Code | Code de Courrier Interne 01-14

[shawn.wessel@ottawa.ca](mailto:shawn.wessel@ottawa.ca)



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**Vacation Alert : August 1 – August 5 (inclusive)**



Une Ville, deux langues  
One City, two languages

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

---

**From:** Francois Thauvette <f.thauvette@novatech-eng.com>

**Sent:** Friday, August 15, 2025 2:25 PM

**To:** Wessel, Shawn <shawn.wessel@ottawa.ca>; Azimi, Farbod <farbod.azimi@ottawa.ca>

**Cc:** Kynan Dsa <k.dsa@novatech-eng.com>

**Subject:** FW: 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075) - City # PC2025-0065

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Hi Shawn & Farbod,

Please see e-mail below requesting water servicing configuration information and resulting WM boundary conditions related to the proposed re-development of the 1052, 1060 & 1064 St Laurent properties. Please review and let us know if you require anything else from us to be able to provide feedback so that we may complete our Assessment of Adequacy of Public Services Report. We would be happy to have a quick Teams call, if easier for you.

Regards,

**François Thauvette**, P. Eng., Sr. Project Manager | Land Development & Public-Sector Engineering

## NOVATECH

Engineers, Planners & Landscape Architects

240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6 | T: 613.254.9643 Ext: 219 | C: 613.276.0310

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**From:** Kynan Dsa <[k.dsa@novatech-eng.com](mailto:k.dsa@novatech-eng.com)>

**Sent:** Friday, August 15, 2025 12:12 PM

**To:** Francois Thauvette <[f.thauvette@novatech-eng.com](mailto:f.thauvette@novatech-eng.com)>

**Subject:** 1052 St Laurent - Preliminary Water Demand Calculations and Proposed Servicing (125075)

Hi François,

As discussed, please forward the e-mail below to the City of Ottawa regarding the proposed water servicing configuration and municipal watermain boundary conditions request for the 1052 St. Laurent development.

---

We are sending this e-mail with anticipated domestic and fire flow water demands to obtain feedback on the proposed water servicing configuration options and to obtain municipal watermain boundary conditions to complete the watermain network analysis in support of our ZBLA application. The proposed re-development of 1052, 1060, and 1064 St. Laurent Boulevard will seek to demolish the three existing buildings and merge the properties, followed by the construction of a 30-storey tower with a podium ranging from 4-9 stories containing at-grade commercial units with residential units above. Parking will mainly be provided within an underground parking structure, with a few at-grade visitor spots.

There are two existing large-diameter municipal watermains (406mm dia. and 610mm dia. per geoOttawa) in St. Laurent Boulevard adjacent to the proposed development. The City does not typically allow new connections to municipal feeder mains, therefore we assume that the City would prefer connections to the existing 406mm dia. municipal watermain.

Our preferred water service configuration would be to extend water service laterals from the north and south ends of the proposed development to the existing 406mm dia. municipal watermain, with a new isolation valve installed on the 406mm dia. watermain between the connections. See attached Conceptual Water Servicing figure for details. We anticipate requiring two water service connections as the average daily demand for the proposed development is anticipated to exceed 50,000 L/day. The anticipated water demands for the proposed development are as follows:

- Average Day Demand = 2.4 L/s
- Maximum Day Demand = 5.9 L/s
- Peak Hour Demand = 13.0 L/s
- Maximum Fire Flow Demand Range = 150 L/s

Refer to the attached Domestic Water Demand calculation sheet and FUS Fire Flow calculation sheet for details.

A multi-hydrant approach to firefighting is anticipated to be required. The fire hydrants on the east side of St. Laurent Boulevard will be difficult for fire services to use given the width of the R.O.W., therefore we are proposing that two new hydrants are installed on the west side of St. Laurent Boulevard adjacent to the proposed development. The two new hydrants would be fed off the proposed water service laterals, similar to the configuration required for the adjacent 1012 St. Laurent Boulevard property. Given the size of the proposed development, St. Laurent Boulevard will be the fire route; in other words, the fire truck will not drive onto the site.

Please review and advise if the proposed water servicing configuration is acceptable.

Thanks,

**Kynan D'sa**, B.A.Sc. (Engineering) (He/Him)

**NOVATECH**

Engineers, Planners & Landscape Architects

240 Michael Cowpland Drive, Suite 200, Ottawa, ON, K2M 1P6

Tel: 613.254.9643 Ext. 276 | Cell: 705.821.2278

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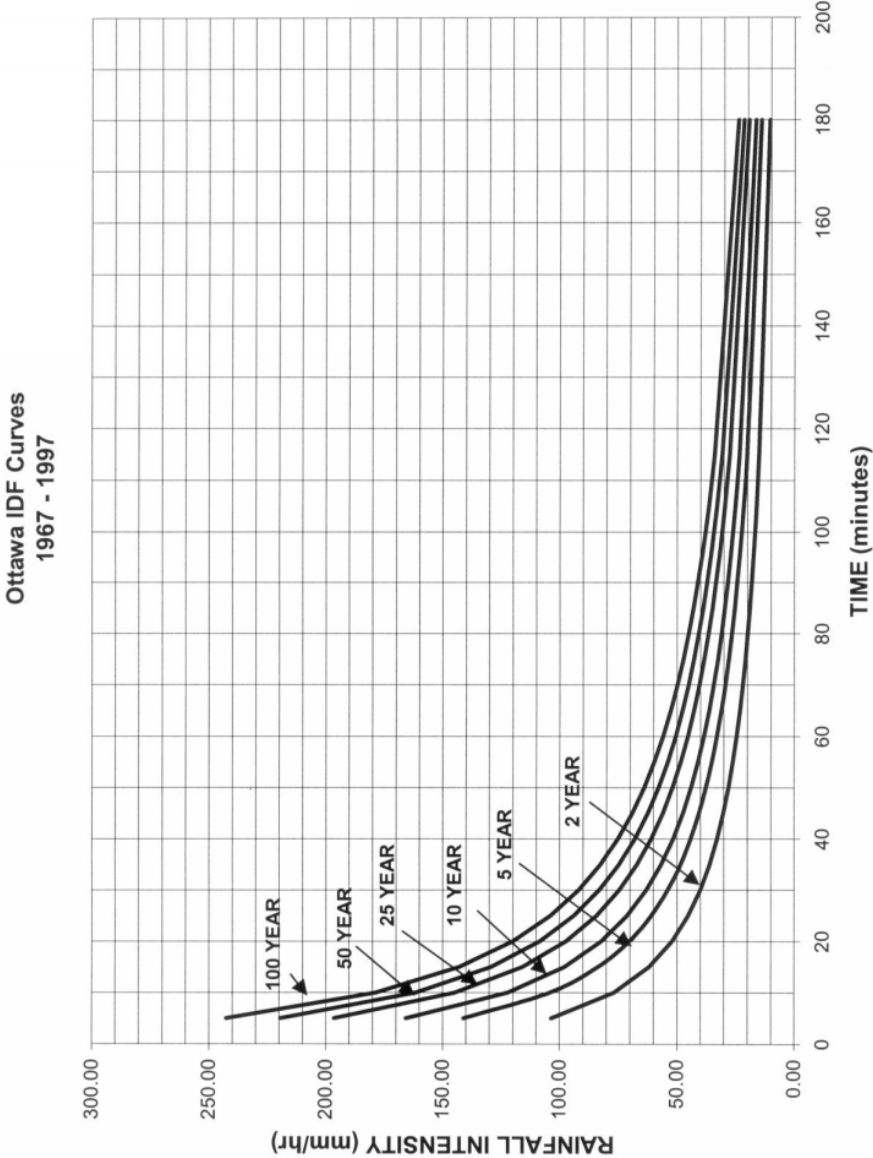
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,

## **APPENDIX D**

### **IDF Curves and Preliminary SWM Calculations**

APPENDIX 5-A OTTAWA INTENSITY DURATION FREQUENCY (IDF) CURVE



Proposed High-Rise Mixed-Use Development  
1052, 1060, and 1064 St. Laurent Boulevard

| Pre - Development Site Flows         |           |                                       |                                   |                                     |                             |                            |                      |                        |                                      |                |
|--------------------------------------|-----------|---------------------------------------|-----------------------------------|-------------------------------------|-----------------------------|----------------------------|----------------------|------------------------|--------------------------------------|----------------|
| Description                          | Area (ha) | A <sub>impervious</sub> (ha)<br>C=0.9 | A <sub>gravel</sub> (ha)<br>C=0.6 | A <sub>pervious</sub> (ha)<br>C=0.2 | Weighted<br>C <sub>w5</sub> | Weighted C <sub>w100</sub> | 5-Year Flow<br>(L/s) | 100-Year<br>Flow (L/s) | Allowable<br>C <sub>w</sub> =0.5 Max | Allowable Flow |
|                                      |           |                                       |                                   |                                     |                             |                            |                      |                        |                                      | 2-year (L/s)   |
| Site to be Developed                 | 0.356     | 0.317                                 | 0.000                             | 0.038                               | 0.82                        | 0.92                       | 85.0                 | 162.4                  | 0.50                                 | 38.0           |
| C=0.5 (Max.) T <sub>c</sub> = 10mins |           |                                       |                                   |                                     |                             |                            |                      |                        |                                      |                |

| Post - Development Site Flows |                               |           |                |                   |                 |                         |                    |                         |          |                       |          |                                    |          |
|-------------------------------|-------------------------------|-----------|----------------|-------------------|-----------------|-------------------------|--------------------|-------------------------|----------|-----------------------|----------|------------------------------------|----------|
| Area                          | Description                   | Area (ha) | $A_{imp}$ (ha) | $A_{gravel}$ (ha) | $A_{perv}$ (ha) | C <sub>5</sub>          | C <sub>100</sub>   | Uncontrolled Flow (L/s) |          | Controlled Flow (L/s) |          | Storage Required (m <sup>3</sup> ) |          |
|                               |                               |           | C=0.9          | C=0.6             | C=0.2           |                         |                    | 5-year                  | 100-year | 5-year                | 100-year | 5-year                             | 100-year |
| A-1                           | Direct Runoff                 | 0.044     | 0.024          | 0.000             | 0.020           | 0.58                    | 0.66               | 7.4                     | 14.3     | -                     | -        | -                                  | -        |
| A-2                           | Controlled Site Flow (Pumped) | 0.312     | 0.256          | 0.000             | 0.056           | 0.77                    | 0.87               | -                       | -        | 23.0                  | 23.0     | 29.8                               | 82.7     |
|                               |                               | 0.356     |                |                   |                 |                         | Total Site Flows : |                         | 30.4     | 37.3                  |          |                                    |          |
|                               |                               |           |                |                   |                 | T <sub>c</sub> = 10mins | Overcontrolled=    | 7.6                     | 0.7      |                       |          |                                    |          |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:2 YEAR EVENT<br>AREA A-1 Direct Runoff |                   |         |            |                       |
|------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|------------|-----------------------|
| OTTAWA IDF CURVE                                                                                                             |                   |         |            |                       |
| Area =                                                                                                                       | 0.044             | ha      | Qallow =   | 5.4 L/s               |
| C =                                                                                                                          | 0.58              |         | Vol(max) = | 0.0 m <sup>3</sup>    |
| Time (min)                                                                                                                   | Intensity (mm/hr) | Q (L/s) | Qnet (L/s) | Vol (m <sup>3</sup> ) |
| 5                                                                                                                            | 103.57            | 7.34    | 1.90       | 0.57                  |
| 10                                                                                                                           | 76.81             | 5.44    | 0.00       | 0.00                  |
| 15                                                                                                                           | 61.77             | 4.38    | -1.07      | -0.96                 |
| 20                                                                                                                           | 52.03             | 3.69    | -1.75      | -2.11                 |
| 25                                                                                                                           | 45.17             | 3.20    | -2.24      | -3.36                 |
| 30                                                                                                                           | 40.04             | 2.84    | -2.60      | -4.69                 |
| 35                                                                                                                           | 36.06             | 2.55    | -2.89      | -6.06                 |
| 40                                                                                                                           | 32.86             | 2.33    | -3.11      | -7.47                 |
| 45                                                                                                                           | 30.24             | 2.14    | -3.30      | -8.91                 |
| 50                                                                                                                           | 28.04             | 1.99    | -3.45      | -10.36                |
| 55                                                                                                                           | 26.17             | 1.85    | -3.59      | -11.84                |
| 60                                                                                                                           | 24.56             | 1.74    | -3.70      | -13.32                |
| 65                                                                                                                           | 23.15             | 1.64    | -3.80      | -14.82                |
| 70                                                                                                                           | 21.91             | 1.55    | -3.89      | -16.33                |
| 75                                                                                                                           | 20.81             | 1.47    | -3.97      | -17.85                |
| 80                                                                                                                           | 19.83             | 1.40    | -4.04      | -19.37                |
| 85                                                                                                                           | 18.94             | 1.34    | -4.10      | -20.90                |
| 90                                                                                                                           | 18.14             | 1.29    | -4.16      | -22.44                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:5 YEAR EVENT<br>AREA A-1 Direct Runoff |                   |         |            |                       |
|------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|------------|-----------------------|
| OTTAWA IDF CURVE                                                                                                             |                   |         |            |                       |
| Area =                                                                                                                       | 0.044             | ha      | Qallow =   | 7.4 L/s               |
| C =                                                                                                                          | 0.58              |         | Vol(max) = | 0.0 m <sup>3</sup>    |
| Time (min)                                                                                                                   | Intensity (mm/hr) | Q (L/s) | Qnet (L/s) | Vol (m <sup>3</sup> ) |
| 5                                                                                                                            | 141.18            | 10.00   | 4.56       | 1.37                  |
| 10                                                                                                                           | 104.19            | 7.38    | 1.94       | 1.16                  |
| 15                                                                                                                           | 83.56             | 5.92    | 0.48       | 0.43                  |
| 20                                                                                                                           | 70.25             | 4.98    | -0.46      | -0.56                 |
| 25                                                                                                                           | 60.90             | 4.31    | -1.13      | -1.69                 |
| 30                                                                                                                           | 53.93             | 3.82    | -1.62      | -2.92                 |
| 35                                                                                                                           | 48.52             | 3.44    | -2.00      | -4.21                 |
| 40                                                                                                                           | 44.18             | 3.13    | -2.31      | -5.55                 |
| 45                                                                                                                           | 40.63             | 2.88    | -2.56      | -6.92                 |
| 50                                                                                                                           | 37.65             | 2.67    | -2.77      | -8.32                 |
| 55                                                                                                                           | 35.12             | 2.49    | -2.95      | -9.74                 |
| 60                                                                                                                           | 32.94             | 2.33    | -3.11      | -11.18                |
| 65                                                                                                                           | 31.04             | 2.20    | -3.24      | -12.64                |
| 70                                                                                                                           | 29.37             | 2.08    | -3.36      | -14.11                |
| 75                                                                                                                           | 27.89             | 1.98    | -3.46      | -15.59                |
| 80                                                                                                                           | 26.56             | 1.88    | -3.56      | -17.08                |
| 85                                                                                                                           | 25.37             | 1.80    | -3.64      | -18.58                |
| 90                                                                                                                           | 24.29             | 1.72    | -3.72      | -20.09                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:100 YEAR EVENT<br>AREA A-1 Direct Runoff |                   |         |            |                       |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|------------|-----------------------|
| OTTAWA IDF CURVE                                                                                                               |                   |         |            |                       |
| Area =                                                                                                                         | 0.044             | ha      | Qallow =   | 14.3 L/s              |
| C =                                                                                                                            | 0.66              |         | Vol(max) = | 0.0 m <sup>3</sup>    |
| Time (min)                                                                                                                     | Intensity (mm/hr) | Q (L/s) | Qnet (L/s) | Vol (m <sup>3</sup> ) |
| 5                                                                                                                              | 242.70            | 19.48   | 5.15       | 1.54                  |
| 10                                                                                                                             | 178.56            | 14.33   | 0.00       | 0.00                  |
| 15                                                                                                                             | 142.89            | 11.47   | -2.86      | -2.58                 |
| 20                                                                                                                             | 119.95            | 9.63    | -4.70      | -5.64                 |
| 25                                                                                                                             | 103.85            | 8.33    | -6.00      | -8.99                 |
| 30                                                                                                                             | 91.87             | 7.37    | -6.96      | -12.52                |
| 35                                                                                                                             | 82.58             | 6.63    | -7.70      | -16.18                |
| 40                                                                                                                             | 75.15             | 6.03    | -8.30      | -19.92                |
| 45                                                                                                                             | 69.05             | 5.54    | -8.79      | -23.73                |
| 50                                                                                                                             | 63.95             | 5.13    | -9.20      | -27.59                |
| 55                                                                                                                             | 59.62             | 4.79    | -9.55      | -31.50                |
| 60                                                                                                                             | 55.89             | 4.49    | -9.84      | -35.44                |
| 65                                                                                                                             | 52.65             | 4.23    | -10.11     | -39.41                |
| 70                                                                                                                             | 49.79             | 4.00    | -10.33     | -43.40                |
| 75                                                                                                                             | 47.26             | 3.79    | -10.54     | -47.42                |
| 80                                                                                                                             | 44.99             | 3.61    | -10.72     | -51.45                |
| 85                                                                                                                             | 42.95             | 3.45    | -10.88     | -55.50                |
| 90                                                                                                                             | 41.11             | 3.30    | -11.03     | -59.57                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:100 YR + 20% IDF Increase<br>AREA A-1 Direct Runoff |                   |         |            |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------|------------|-----------------------|
| OTTAWA IDF CURVE                                                                                                                          |                   |         |            |                       |
| Area =                                                                                                                                    | 0.044             | ha      | Qallow =   | 17.2 L/s              |
| C =                                                                                                                                       | 0.66              |         | Vol(max) = | 0.0 m <sup>3</sup>    |
| Time (min)                                                                                                                                | Intensity (mm/hr) | Q (L/s) | Qnet (L/s) | Vol (m <sup>3</sup> ) |
| 5                                                                                                                                         | 291.24            | 23.37   | 9.04       | 2.71                  |
| 10                                                                                                                                        | 214.27            | 17.20   | 2.87       | 1.72                  |
| 15                                                                                                                                        | 171.47            | 13.76   | -0.57      | -0.51                 |
| 20                                                                                                                                        | 143.94            | 11.55   | -2.78      | -3.33                 |
| 25                                                                                                                                        | 124.62            | 10.00   | -4.33      | -6.49                 |
| 30                                                                                                                                        | 110.24            | 8.85    | -5.48      | -9.87                 |
| 35                                                                                                                                        | 99.09             | 7.95    | -6.38      | -13.39                |
| 40                                                                                                                                        | 90.17             | 7.24    | -7.09      | -17.02                |
| 45                                                                                                                                        | 82.86             | 6.65    | -7.68      | -20.74                |
| 50                                                                                                                                        | 76.74             | 6.16    | -8.17      | -24.51                |
| 55                                                                                                                                        | 71.55             | 5.74    | -8.59      | -28.34                |
| 60                                                                                                                                        | 67.07             | 5.38    | -8.95      | -32.21                |
| 65                                                                                                                                        | 63.18             | 5.07    | -9.26      | -36.11                |
| 70                                                                                                                                        | 59.75             | 4.80    | -9.54      | -40.05                |
| 75                                                                                                                                        | 56.71             | 4.55    | -9.78      | -44.01                |
| 80                                                                                                                                        | 53.99             | 4.33    | -10.00     | -47.99                |
| 85                                                                                                                                        | 51.54             | 4.14    | -10.19     | -51.99                |
| 90                                                                                                                                        | 49.33             | 3.96    | -10.37     | -56.00                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:2 YEAR EVENT<br>AREA A-2 Controlled Site Flow (Pumped) |                      |            |               |                          |                |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|---------------|--------------------------|----------------|
| OTTAWA IDF CURVE                                                                                                                             |                      |            |               |                          |                |
| Area =                                                                                                                                       | 0.312                | ha         | Qallow =      | 23.0                     | L/s            |
| C =                                                                                                                                          | 0.77                 |            | Vol(max) =    | 17.1                     | m <sup>3</sup> |
| Time<br>(min)                                                                                                                                | Intensity<br>(mm/hr) | Q<br>(L/s) | Qnet<br>(L/s) | Vol<br>(m <sup>3</sup> ) |                |
| 5                                                                                                                                            | 103.57               | 69.55      | 46.55         | 13.97                    |                |
| 10                                                                                                                                           | 76.81                | 51.58      | 28.58         | 17.15                    |                |
| 15                                                                                                                                           | 61.77                | 41.48      | 18.48         | 16.63                    |                |
| 20                                                                                                                                           | 52.03                | 34.94      | 11.94         | 14.33                    |                |
| 25                                                                                                                                           | 45.17                | 30.33      | 7.33          | 11.00                    |                |
| 30                                                                                                                                           | 40.04                | 26.89      | 3.89          | 7.00                     |                |
| 35                                                                                                                                           | 36.06                | 24.22      | 1.22          | 2.55                     |                |
| 40                                                                                                                                           | 32.86                | 22.07      | -0.93         | -2.23                    |                |
| 45                                                                                                                                           | 30.24                | 20.31      | -2.69         | -7.27                    |                |
| 50                                                                                                                                           | 28.04                | 18.83      | -4.17         | -12.51                   |                |
| 55                                                                                                                                           | 26.17                | 17.57      | -5.43         | -17.90                   |                |
| 60                                                                                                                                           | 24.56                | 16.49      | -6.51         | -23.43                   |                |
| 65                                                                                                                                           | 23.15                | 15.55      | -7.45         | -29.07                   |                |
| 70                                                                                                                                           | 21.91                | 14.72      | -8.28         | -34.79                   |                |
| 75                                                                                                                                           | 20.81                | 13.98      | -9.02         | -40.60                   |                |
| 80                                                                                                                                           | 19.83                | 13.32      | -9.68         | -46.48                   |                |
| 85                                                                                                                                           | 18.94                | 12.72      | -10.28        | -52.42                   |                |
| 90                                                                                                                                           | 18.14                | 12.18      | -10.82        | -58.41                   |                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:5 YEAR EVENT<br>AREA A-2 Controlled Site Flow (Pumped) |                      |            |               |                          |                |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|---------------|--------------------------|----------------|
| OTTAWA IDF CURVE                                                                                                                             |                      |            |               |                          |                |
| Area =                                                                                                                                       | 0.312                | ha         | Qallow =      | 23.0                     | L/s            |
| C =                                                                                                                                          | 0.77                 |            | Vol(max) =    | 29.8                     | m <sup>3</sup> |
| Time<br>(min)                                                                                                                                | Intensity<br>(mm/hr) | Q<br>(L/s) | Qnet<br>(L/s) | Vol<br>(m <sup>3</sup> ) |                |
| 5                                                                                                                                            | 141.18               | 94.81      | 71.81         | 21.54                    |                |
| 10                                                                                                                                           | 104.19               | 69.97      | 46.97         | 28.18                    |                |
| 15                                                                                                                                           | 83.56                | 56.11      | 33.11         | 29.80                    |                |
| 20                                                                                                                                           | 70.25                | 47.18      | 24.18         | 29.01                    |                |
| 25                                                                                                                                           | 60.90                | 40.90      | 17.90         | 26.84                    |                |
| 30                                                                                                                                           | 53.93                | 36.22      | 13.22         | 23.79                    |                |
| 35                                                                                                                                           | 48.52                | 32.58      | 9.58          | 20.12                    |                |
| 40                                                                                                                                           | 44.18                | 29.67      | 6.67          | 16.01                    |                |
| 45                                                                                                                                           | 40.63                | 27.28      | 4.28          | 11.57                    |                |
| 50                                                                                                                                           | 37.65                | 25.29      | 2.29          | 6.86                     |                |
| 55                                                                                                                                           | 35.12                | 23.59      | 0.59          | 1.94                     |                |
| 60                                                                                                                                           | 32.94                | 22.12      | -0.88         | -3.16                    |                |
| 65                                                                                                                                           | 31.04                | 20.85      | -2.15         | -8.39                    |                |
| 70                                                                                                                                           | 29.37                | 19.72      | -3.28         | -13.76                   |                |
| 75                                                                                                                                           | 27.89                | 18.73      | -4.27         | -19.22                   |                |
| 80                                                                                                                                           | 26.56                | 17.84      | -5.16         | -24.78                   |                |
| 85                                                                                                                                           | 25.37                | 17.04      | -5.96         | -30.41                   |                |
| 90                                                                                                                                           | 24.29                | 16.31      | -6.69         | -36.12                   |                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:100 YEAR EVENT<br>AREA A-2 Controlled Site Flow (Pumped) |                      |            |               |                          |                |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|---------------|--------------------------|----------------|
| OTTAWA IDF CURVE                                                                                                                               |                      |            |               |                          |                |
| Area =                                                                                                                                         | 0.312                | ha         | Qallow =      | 23.0                     | L/s            |
| C =                                                                                                                                            | 0.87                 |            | Vol(max) =    | 82.7                     | m <sup>3</sup> |
| Time<br>(min)                                                                                                                                  | Intensity<br>(mm/hr) | Q<br>(L/s) | Qnet<br>(L/s) | Vol<br>(m <sup>3</sup> ) |                |
| 5                                                                                                                                              | 242.70               | 182.15     | 159.15        | 47.74                    |                |
| 10                                                                                                                                             | 178.56               | 134.01     | 111.01        | 66.60                    |                |
| 15                                                                                                                                             | 142.89               | 107.24     | 84.24         | 75.82                    |                |
| 20                                                                                                                                             | 119.95               | 90.02      | 67.02         | 80.43                    |                |
| 25                                                                                                                                             | 103.85               | 77.94      | 54.94         | 82.40                    |                |
| 30                                                                                                                                             | 91.87                | 68.95      | 45.95         | 82.70                    |                |
| 35                                                                                                                                             | 82.58                | 61.97      | 38.97         | 81.85                    |                |
| 40                                                                                                                                             | 75.15                | 56.40      | 33.40         | 80.15                    |                |
| 45                                                                                                                                             | 69.05                | 51.82      | 28.82         | 77.82                    |                |
| 50                                                                                                                                             | 63.95                | 48.00      | 25.00         | 74.99                    |                |
| 55                                                                                                                                             | 59.62                | 44.75      | 21.75         | 71.76                    |                |
| 60                                                                                                                                             | 55.89                | 41.95      | 18.95         | 68.21                    |                |
| 65                                                                                                                                             | 52.65                | 39.51      | 16.51         | 64.39                    |                |
| 70                                                                                                                                             | 49.79                | 37.37      | 14.37         | 60.34                    |                |
| 75                                                                                                                                             | 47.26                | 35.46      | 12.46         | 56.09                    |                |
| 80                                                                                                                                             | 44.99                | 33.77      | 10.77         | 51.67                    |                |
| 85                                                                                                                                             | 42.95                | 32.24      | 9.24          | 47.11                    |                |
| 90                                                                                                                                             | 41.11                | 30.85      | 7.85          | 42.41                    |                |

| Proposed Mixed-Use Development<br>Novatech Project No. 125075<br>REQUIRED STORAGE - 1:100 YR + 20% IDF Increase<br>AREA A-2 Controlled Site Flow (Pumped) |                      |            |               |                          |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|---------------|--------------------------|----------------|
| OTTAWA IDF CURVE                                                                                                                                          |                      |            |               |                          |                |
| Area =                                                                                                                                                    | 0.312                | ha         | Qallow =      | 23.0                     | L/s            |
| C =                                                                                                                                                       | 0.87                 |            | Vol(max) =    | 107.9                    | m <sup>3</sup> |
| Time<br>(min)                                                                                                                                             | Intensity<br>(mm/hr) | Q<br>(L/s) | Qnet<br>(L/s) | Vol<br>(m <sup>3</sup> ) |                |
| 5                                                                                                                                                         | 291.24               | 218.58     | 195.58        | 58.67                    |                |
| 10                                                                                                                                                        | 214.27               | 160.81     | 137.81        | 82.68                    |                |
| 15                                                                                                                                                        | 171.47               | 128.69     | 105.69        | 95.12                    |                |
| 20                                                                                                                                                        | 143.94               | 108.03     | 85.03         | 102.03                   |                |
| 25                                                                                                                                                        | 124.62               | 93.52      | 70.52         | 105.78                   |                |
| 30                                                                                                                                                        | 110.24               | 82.74      | 59.74         | 107.52                   |                |
| 35                                                                                                                                                        | 99.09                | 74.37      | 51.37         | 107.87                   |                |
| 40                                                                                                                                                        | 90.17                | 67.67      | 44.67         | 107.22                   |                |
| 45                                                                                                                                                        | 82.86                | 62.19      | 39.19         | 105.80                   |                |
| 50                                                                                                                                                        | 76.74                | 57.60      | 34.60         | 103.79                   |                |
| 55                                                                                                                                                        | 71.55                | 53.70      | 30.70         | 101.30                   |                |
| 60                                                                                                                                                        | 67.07                | 50.34      | 27.34         | 98.42                    |                |
| 65                                                                                                                                                        | 63.18                | 47.41      | 24.41         | 95.21                    |                |
| 70                                                                                                                                                        | 59.75                | 44.84      | 21.84         | 91.73                    |                |
| 75                                                                                                                                                        | 56.71                | 42.56      | 19.56         | 88.01                    |                |
| 80                                                                                                                                                        | 53.99                | 40.52      | 17.52         | 84.09                    |                |
| 85                                                                                                                                                        | 51.54                | 38.68      | 15.68         | 79.99                    |                |
| 90                                                                                                                                                        | 49.33                | 37.02      | 14.02         | 75.73                    |                |