

SERVICING & STORMWATER MANAGEMENT REPORT

OFFICE & EVENT HALL – 2821 8TH LINE ROAD



Project No.: CCO-24-3169

City File No.:

Prepared for:

Deimling Architecture & Interior Design
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October 10, 2025

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1.0 PROJECT DESCRIPTION

1.1 Purpose

Egis Canada (Egis) has been retained by Deimling Architecture & Interior Design to prepare this Servicing and Stormwater Management Report in support of the Site Plan Control process for the proposed development located at 2821 8th Line Road within the City of Ottawa.

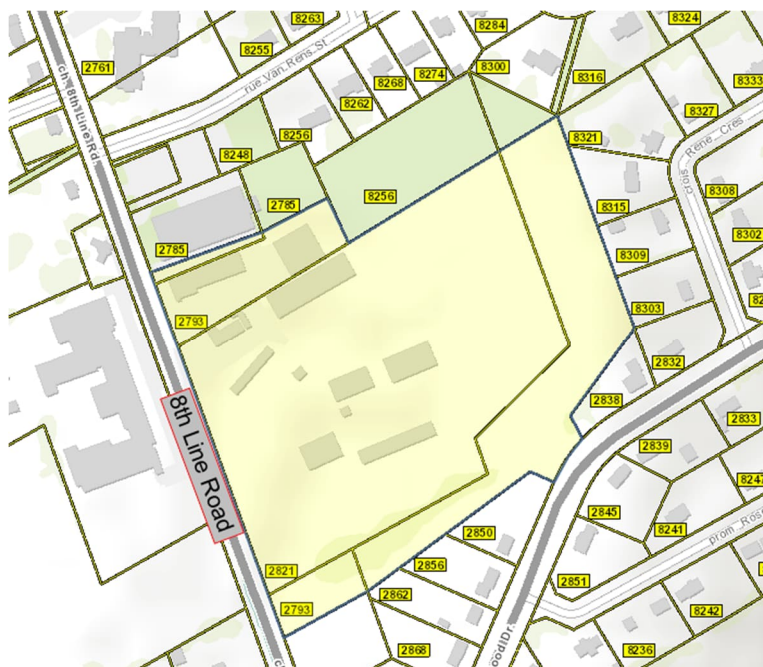
The main purpose of this report is to present a servicing design for the development in accordance with the recommendations and guidelines provided by the City of Ottawa (City), the South Nation Conservation Authority (SNCA), and the Ministry of the Environment, Conservation and Parks (MECP). This report will address the water, sanitary, and storm sewer servicing for the development, ensuring that proposed services will adequately service the development.

This report should be read in conjunction with the following drawings:

- CCO-24-3169, C101 – Lot Grading, Drainage, Erosion & Sediment Control Plan
- CCO-24-3169, C102 – Site Servicing Plan,
- CCO-24-3169, PRE – Pre-Development Drainage Area Plan (Appendix 'E'), and
- CCO-24-3169, POST – Post-Development Drainage Area Plan (Appendix 'F').

1.2 Site Description

Figure 1: Site Map



The property is located at 2821 8th Line Road within the City of Ottawa. It is described as Part of lots 23 and 22 Concession 8 and part of Block 79 Registered Plan 4M-896, Geographic Township of Osgoode, City of Ottawa. The land in question covers approximately 8.36 ha and is located along 8th Line Road between Van Rens Street and Glenwood Drive.

1.3 Proposed Development and Statistics

The proposed development consists of a new 1-storey 668 m² ground-floor area office and event hall, which will replace the existing fair office and dining hall buildings located at the Metcalfe Fairgrounds. Parking and drive aisles will be provided throughout the site. The development will be accessed via the existing site entrances from 8th Line Road.

1.4 Existing Conditions and Infrastructure

The existing site is a developed fairgrounds containing multiple buildings, including but not limited to a fair office, agricultural hall, curling club, and dining hall. The existing buildings are serviced by on-site wells, on-site septic systems, and holding tanks.

1.5 Approvals

The proposed development is subject to the City of Ottawa site plan control approval process. Site plan control requires the City to review, provided concurrence and approve the engineering design package. Permits to construct can be requested once the City has issued a site plan agreement.

An Environmental Compliance Approval (ECA) through the Ministry of Environment, Conservation and Parks (MECP) is not anticipated to be required given that industrial usage is not proposed.

2.0 BACKGROUND STUDIES, STANDARDS, AND REFERENCES

2.1 Background Reports / Reference Information

Background studies that have been completed for the proposed site include a topographical survey and a geotechnical report.

The topographic survey of the site was completed by Stantec Geomatics Ltd.

The Site Plan (SP-A01) was completed by Deimling Architecture & Interior Design.

The following reports have previously been completed and are available under separate cover:

- Geotechnical Investigation Report, Metcalfe Agricultural Society, completed by Paterson Group, dated May 2025.

2.2 Applicable Guidelines and Standards

City of Ottawa:

- ◆ Ottawa Sewer Design Guidelines, City of Ottawa, SDG002, October 2012. (*Ottawa Sewer Guidelines*)
 - Technical Bulletin ISTB-2014-01 City of Ottawa, February 2014. (*ISTB-2014-01*)
 - Technical Bulletin PIEDTB-2016-01 City of Ottawa, September 2016. (*PIEDTB-2016-01*)
 - Technical Bulletin ISTB-2018-01 City of Ottawa, January 2018. (*ISTB-2018-01*)
 - Technical Bulletin ISTB-2018-04 City of Ottawa, March 2018. (*ISTB-2018-04*)
 - Technical Bulletin ISTB-2019-02 City of Ottawa, February 2019. (*ISTB-2019-02*)
 - Technical Bulletin IWSTB-2024-04 City of Ottawa, September 2024. (*ISTB-2024-04*)
- ◆ Ottawa Design Guidelines – Water Distribution City of Ottawa, July 2010. (*Ottawa Water Guidelines*)
 - Technical Bulletin ISD-2010-2 City of Ottawa, December 15, 2010. (*ISD-2010-2*)
 - Technical Bulletin ISDTB-2014-02 City of Ottawa, May 2014. (*ISDTB-2014-02*)
 - Technical Bulletin ISTB-2018-02 City of Ottawa, March 2018. (*ISTB-2018-02*)
 - Technical Bulletin ISTB-2021-03 City of Ottawa, August 2021. (*ISTB-2021-03*)
 - Technical Bulletin IWSTB-2024-05 City of Ottawa, November 2024. (*IWSTB-2024-05*)

Ministry of Environment, Conservation and Parks:

- ◆ Stormwater Planning and Design Manual, Ministry of the Environment, March 2003. (*MECP Stormwater Design Manual*)
- ◆ Design Guidelines for Sewage Works, Ministry of the Environment, 2008. (*MECP Sewer Design Guidelines*)

Other:

- ◆ Water Supply for Public Fire Protection, Fire Underwriters Survey, 2020. (*FUS Guidelines*)

3.0 PRE-CONSULTATION SUMMARY

A pre-consultation meeting was conducted on April 4th, 2024, regarding the proposed site. Specific design parameters to be incorporated within this design include the following:

- The post-development peak flow rate must match the pre-development peak flow rate for the 2- and 100-year design storms.
- Quality control to be provided up to an enhanced level of treatment (80% TSS Removal).

The notes from the City of Ottawa can be found in Appendix 'B'.

4.0 WATER SERVICING

4.1 Existing Watermain

The subject site has no access to a municipal watermain. There are several existing wells located within the property. The Metcalfe Curling Club and the existing dining hall are serviced by an existing well located just outside of the proposed building footprint. This existing well is proposed to be decommissioned as part of redevelopment. Please refer to the Hydrogeological Report prepared by Stantec for additional information on existing wells.

4.2 Proposed Water Servicing

A new private drilled well has been installed to provide the proposed building and the existing Metcalfe Curling Club with domestic water supply. The well location can be seen on the Site Servicing Plan. The pump system and water service line will be designed by others. For the purposes of this report, the anticipated water demands have been assumed to be directly related to the anticipated sewage flow demand of 3,336 L/day for the new building, and 4,455 L/day for the Metcalfe Curling Club. For further information related to water quality and quantity, please refer to the Hydrogeological Report prepared by Stantec.

As per IWSTB-2024-05, the Ontario Building Code method was used to determine the required fire flow for the site. The 'K' factor (Water Supply Coefficient) for the OBC calculation was determined to be 18, based on combustible construction with fire separations and fire-resistance ratings provided in accordance with subsections 3.2.2. The building volume was provided by the architect as 1,948 m³. The results of the OBC calculations yielded a required fire flow of 2,700 L/min, and a required on-site storage volume of 42,077 litres. The detailed calculations for the OBC can be found in Appendix 'C'.

Fire protection is proposed to be provided by an existing remote fire protection system comprised of a 180,000-litre metal underground water storage tank complete with a draw pipe and chute. The existing tank is located approximately 200 metres from the proposed building in an unobstructed path of travel along 8th Line Road. Design drawings for the existing storage tank can be found in Appendix 'C'.

Ottawa Fire Services were contacted regarding fire protection for the site, and they've indicated they are satisfied with the level of fire protection provided by the existing on-site water supply. It should however be noted that Building Code Services are the Authority Having Jurisdiction, and so the requirement for additional fire protection will need to be confirmed during the building permit application.

As Ottawa Fire Services is Superior Tanker Shuttle Service accredited to provide 1,900 L/min of fire flow, a reduction in the required storage volume of up to 57,000 L (1,900 L/min x 30 min) applies. It should however be noted that the minimum tank size for on-site storage is 38,000 L. Should Building Code Services require additional fire protection, a new 38,000 litre water storage tank will be installed to satisfy the spacing requirement of OBC 3.2.5.7.

5.0 SANITARY SERVICING

5.1 Existing Sanitary Sewers

The subject site has no access to a municipal sanitary sewer. Neighbouring properties are serviced by private sewage systems. The site is currently serviced by the existing sewage systems:

- Class 4 sewage system servicing the Metcalfe Curling Club building, consisting of septic tank, pump chamber and absorption trench leaching bed (with a rated capacity of 4,455 L/day per MOE Use Permit 82 (23-VIII) 46) – scheduled to remain.
- Class 5 sewage system servicing the existing Fairground's Washroom Facilities, consisting of a concrete holding tank with an approximate working volume of 25,920 L (no sewage system permit available for review) – scheduled to remain.
- Class 5 sewage system servicing the existing Lions Den Building, consisting of a concrete holding tank of unknown volume (no sewage system permit available for review) – scheduled to be decommissioned and replaced with new Class 4 sewage system as part of proposed site redevelopment.

5.2 Proposed Sanitary Servicing

A new Class 4 sewage system located south of the proposed new building will be installed and sized to accommodate the redevelopment. The new sewage system will incorporate flow balancing via the use of a balancing pump chamber, as well as Level IV treatment via the incorporations of the BMEC-approved Eljen GSF system into the design.

Total Daily Design Sanitary Sewage Flow (TDDSSF) was calculated by Egis as 3,336 L/day for the new building. This is in addition to the existing TDDSSF of 4,455 L/day for the existing Metcalfe Curling Club, and the average TDDSSF of 2,209 L/day for the existing Fairgrounds Washroom building (no approvals available). It is understood that approval of on-site sewage systems will be governed by OBC, as the TDDSSF for the site will not exceed 10,000 L/day. Refer to the sewage system design and permit applications by Egis to be submitted to the Ottawa Septic System Office (OSSO) for the required permits and approvals, for both the new Class 4 sewage system servicing the new building, and retroactively for the existing Class 5 sewage system scheduled to remain.

In summary, the new system has been designed using a Class 4 – BMEC raised leaching bed, in combination with an Eljen GSF treatment system to treat up to 3,336 L/day of effluent. The septic tank is proposed to have a minimum working volume of 39,600 L and include an effluent filter, which will be used in combination with a 18,500 L balance pump chamber complete with a time-dosing pump arrangement using alternating duplex pumps.

6.0 STORM SEWER SERVICING

6.1 Existing Storm Sewers

There is an existing 375 mm diameter storm sewer at 0.30% slope within 8th Line Road that terminates at the north entrance to the Metcalfe Curling Club. An existing catch basin network extends from this storm sewer to service the Metcalfe Curling Club drive aisles and parking area. The remainder of the site is generally unserviced, with stormwater runoff surface draining towards existing 600 mm and 300 mm diameter culverts located towards the south of the property. As-built information indicates that parts of the site contain an existing drainage tile network which also discharges to the existing culvert outlet, however the exact extents are unknown as there has been significant development of the site since its installation.

6.2 Proposed Storm Servicing

No changes are proposed to existing storm servicing within the site. Runoff collected on the roof of the proposed building will discharge at grade within the parking area and drive aisles. Surface runoff is proposed to match existing drainage patterns. Foundation drainage is not anticipated to be required.

The Stormwater Management design for the subject property will be outlined in Section 7.0.

7.0 PROPOSED STORMWATER MANAGEMENT

7.1 Design Criteria and Methodology

Stormwater management for the proposed site will be maintained through positive drainage away from the proposed building and towards existing drainage paths. Stormwater management requirements will be achieved through a Site Plan approach by ensuring that pre-development drainage patterns are maintained and post-development runoff does not exceed existing conditions.

The quantitative and qualitative properties of the storm runoff for both the pre & post development flows are further detailed below.

In summary, the following design criteria have been employed in developing the stormwater management design for the site as directed by the City:

Quality Control

- A quality control requirement of 80% TSS removal has been specified.

Quantity Control

- Post development peak flow rate must match the pre-development peak flow rate for the 2-year and 100-year design storms.

7.2 Runoff Calculations

Runoff calculations presented in this report are derived using the Rational Method, given as:

$$Q = 2.78CIA \text{ (L/s)}$$

Where:

C	=	Runoff coefficient
I	=	Rainfall intensity in mm/hr (City of Ottawa IDF curves)
A	=	Drainage area in hectares

It is recognized that the Rational Method tends to overestimate runoff rates. As a result, the conservative calculation of runoff ensures that any SWM facility sized using this method is expected to function as intended.

The following coefficients were used to develop an average C for each area:

Roofs/Concrete/Asphalt	0.90
Gravel	0.60
Undeveloped and Grass	0.20

As per the *City of Ottawa - Sewer Design Guidelines*, the 2/5-year balanced 'C' value must be increased by 25% for a 100-year storm event to a maximum of 1.0.

7.3 Pre-Development Drainage

The existing site drainage limits and drainage patterns are demonstrated on the Pre-Development Drainage Area Plan included in Appendix 'E'. The site is 8.36 ha, with drainage generally divided between two catchment areas. A summary of the Pre-Development Runoff Calculations can be found in Table 1, below. Refer to Appendix 'G' for calculations.

Table 1: Pre-Development Runoff Summary

Drainage Area	Area (ha)	Runoff Coefficient (2/5-Year)	Runoff Coefficient (100-Year)	2-Year Peak Flow (L/s)	100-Year Peak Flow (L/s)
A1	0.25	0.75	0.85	39.70	104.67
A2	8.11	0.32	0.38	553.76	1547.59
Total	8.36			593.46	1652.26

Area A1 represents runoff collected by the existing catch basin network servicing the Metcalfe Curling Club drive aisles and parking lot. Runoff from the catch basin network is conveyed to the 375 mm diameter storm sewer within 8th Line Road before discharging to the municipal ditch on Van Rens Street.

Area A2 represents the remainder and majority of the site. Runoff from Area A2 generally surface drains towards an existing 600 mm diameter and then 300 mm diameter culvert located near the gravel tracks at the south of the property. In the existing condition, drainage from the proposed development area appears to follow a flow path from the existing grandstands (Building 5) towards the gravel tracks and 300/600 mm diameter culverts. The existing 300 mm diameter culvert discharges to a swale at the property line. The swale then conveys runoff south along the shared property line between 2867 8th Line Road and 2874 Glenwood Drive before discharging through a culvert of unknown size to the municipal ditch along Glenwood Drive.

While it's understood that the existing 300 mm diameter culvert is undersized from a pipe capacity perspective based on the Rational Method design flows listed above, there have been no drainage issues observed on site based on discussions with the Metcalfe Fair Board and through observations during site visits. Based on the findings of the Geotechnical Report prepared by Stantec, it is expected that this is a result of stormwater infiltrating through the shallow fractured bedrock.

The Rock Quality Designation of samples taken ranged from 6% to 33%, indicating that bedrock is "Severely Fractured" to "Very Severely Fractured". Bedrock depth was measured between 0.8 m and 1.1 m below ground surface, and groundwater was not observed in any of the boreholes. It should also be noted that borehole samples taken as part of Stantec's investigation were located within a previously developed area (the existing parking lot), and so it is anticipated that bedrock is shallower in undeveloped areas of the site.

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With the combination of minimal overburden, low groundwater, and shallow fractured bedrock, it is expected that rainfall can easily infiltrate through the void space of the fractured bedrock without contributing significantly to surface runoff. During larger storm events where saturated overburden limits infiltration rates, it is possible that the existing 300 mm diameter culvert outlet was specified to act as a restriction and limit the release rate from the site.

7.4 Post-Development Drainage

The post-development site drainage limits and drainage patterns are demonstrated on the Post-Development Drainage Area Plan. See CCO-24-3169 - *POST* in Appendix 'F' of this report for more details. A summary of the Post-Development Runoff Calculations can be found in Table 2, below.

Table 2: Post-Development Uncontrolled Runoff Summary

Drainage Area	Area (ha)	Runoff Coefficient (2/100-Year)	2-Year Peak Flow (L/s)	100-Year Peak Flow (L/s)
B1	0.25	0.75 / 0.85	39.70	104.67
B2	8.11	0.32 / 0.38	553.73	1547.54
Total	8.36		593.43	1652.21

See Appendix 'G' for calculations.

Area B1 represents runoff collected by the existing catch basin network servicing the Metcalfe Curling Club drive aisles and parking lot. No changes are proposed to area B1, and the size of each drainage area has remained unchanged.

Area B2 represents the remainder and majority of the site, including the development area. Within the development area, runoff from the roof of the proposed building will discharge via downspouts along the perimeter of the building to the parking lot and drive aisles. Runoff from the parking lot and drive aisles will be conveyed southeast towards the existing asphalt pathway, where flow will then turn west and follow existing drainage patterns towards the existing 600 mm diameter and 300 mm diameter culverts. Runoff will then be conveyed from the 300 mm diameter culvert to an existing swale before discharging to the municipal ditch within Glenwood Drive.

A site plan approach is proposed for stormwater management, as various site constraints would make a conventional stormwater management design impractical. There is insufficient bedrock depth to allow for an infiltration practice, there is no municipal ditch outlet available within 8th Line Road, and the existing 375 mm diameter storm sewer within 8th Line Road is expected to have limited capacity based on its as-built slope of 0.30%. Furthermore, invert constraints would make extending the municipal storm sewer impractical.

As a result, the Site Plan has been designed to reduce hardscape and promote pervious surfacing to ensure that post-development peak flow rates do not exceed existing flow rates. As seen in Table 2, above, post-development peak flow rates for the site will be less than pre-development peak flow rates, satisfying quantity control requirements.

7.5 Quality Control

To achieve quantity control requirements, the site plan was developed to minimize hardscape and maximize pervious surfaces. This design approach will additionally provide quality control benefits to the site.

Considering the proposed roof area of approximately 777 m² is over twice the existing combined roof area of approximately 334 m² for the existing dining hall and fair office, reducing the imperviousness of the site required significant reductions to the amount of asphalt surface. The area of asphalt surfacing will be reduced by more than 450 m² as part of redevelopment.

It is anticipated that this change alone will result in significantly improved runoff quality, as not only has there been a reduction in drive surface, but there has been an increase in roof area from which runoff is generally considered clean.

Runoff leaving the development area will continue to flow across a combination of grass and gravel surfaces before reaching the culvert outlet. The total length of grass in an approximate flow path between the grandstand building and the culvert inlet is approximately 109 m. The grass will provide filtration of larger particles and reduce runoff velocity to allow settlement of smaller particles. As per the Credit Valley Conservation Authority guidelines, a grass filter strip is described as a Group 2 practice which can achieve a removal efficiency of up to 60% TSS.

Runoff exiting the outlet culvert will be conveyed to a grass swale before discharging to the municipal ditch along Glenwood Drive. While the exact length of the grass swale could not be confirmed due to the possible presence of additional culverts within the neighbouring properties, it is estimated to be approximately 150 m. The grass swale will provide additional quality treatment by reducing runoff velocity and promoting filtration and settlement of suspended solids. As per the Credit Valley Conservation Authority guidelines, a grass swale is also described as a Group 2 practice which can achieve a removal efficiency of up to 60% TSS.

Additional suspended solids removal will be provided by the existing sandy silt overburden present throughout the site, which acts as a sand filter or media filter. As the first flush is directed from impervious surfaces towards grassed areas, surface runoff will infiltrate through the sandy silt overburden towards the shallow fractured bedrock, while suspended solids will be restricted by the sandy silt.

Based on the length of the flow path through grassed areas, the length of the flow path through the grassed swale, and infiltration through the silty sand overburden, it is anticipated that a total suspended solids removal of 80% will be achieved for the site. Given the reduction in asphalt that will take place as part of redevelopment, water quality will also be improved from existing conditions.

8.0 EROSION AND SEDIMENT CONTROL

8.1 Temporary Measures

Before construction begins, temporary silt fence, straw bale or rock flow check dams will be installed at all natural runoff outlets from the property. It is crucial that these controls be maintained throughout construction and inspection of sediment and erosion control will be facilitated by the Contractor or Contract Administration staff throughout the construction period.

Silt fences will be installed where shown on the final engineering plans, specifically along the downstream property limits. The Contractor, at their discretion or at the instruction of the City, Conservation Authority or the Contract Administrator shall increase the quantity of sediment and erosion controls on-site to ensure that the site is operating as intended and no additional sediment finds its way off site. The rock flow, straw bale & silt fence check dams and barriers shall be inspected weekly and after rainfall events. Care shall be taken to properly remove sediment from the fences and check dams as required. Fibre roll barriers are to be installed at all existing curb inlet catchbasins and filter fabric is to be placed under the grates of all existing catchbasins and manholes along the frontage of the site and any new structures immediately upon installation. The measures for the existing/proposed structures are to be removed only after all areas have been paved. Care shall be taken at the removal stage to ensure that any silt that has accumulated is properly handled and disposed of. Removal of silt fences without prior removal of the sediments shall not be permitted.

Although not anticipated, work through winter months shall be closely monitored for erosion along sloped areas. Should erosion be noted, the Contractor shall be alerted and shall take all necessary steps to rectify the situation. Should the Contractor's efforts fail at remediating the eroded areas, the Contractor shall contact the City and/or Conservation Authority to review the site conditions and determine the appropriate course of action. As the ground begins to thaw, the Contractor shall place silt fencing at all required locations as soon as ground conditions warrant. Please see the *Site Grading, Drainage Plan* and *Sediment & Erosion Control Plan* for additional details regarding the temporary measures to be installed and their appropriate OPSD references.

8.2 Permanent Measures

Rip-rap will be placed at all locations that have the potential for concentrated flow. It is crucial that the Contractor ensure that the geotextile is keyed in properly to ensure runoff does not undermine the rip rapped area. Additional rip rap is to be placed at erosion prone locations as identified by the Contractor / Contract Administrator / City or Conservation Authority. It is expected that the Contractor will promptly ensure that all disturbed areas receive topsoil and seed/sod and that grass be established as soon as possible. Any areas of excess fill shall be removed or levelled as soon as possible and must be located a sufficient distance from any watercourse to ensure that no sediment is washed out into the watercourse. As the vegetation growth within the site provides a key component to the control of sediment for the site, it must be properly maintained once established. Once the construction is complete, it will be up to the landowner to maintain the vegetation and ensure that the vegetation is not overgrown or impeded by foreign objects.

9.0 SUMMARY

- A new 668 m² office and event hall is proposed at 2821 8th Line Road.
- Domestic water servicing will be provided by a new drilled well designed by others.
- Fire protection will be provided by an existing on-site water storage tank.
- Sanitary servicing will be provided by a new on-site septic system.
- Stormwater management will be provided by matching existing release rates and drainage patterns.
- Stormwater quality will be improved upon as a result of reduced driving surfaces. Quality control will be provided by an existing combination of LID practices.

10.0 RECOMMENDATIONS

Based on the information presented in this report, we recommend that City of Ottawa approve this Servicing and Stormwater Management Report in support of the proposed development located at 2821 8th Line Road.

This report is respectfully being submitted for approval.

Regards,

Egis Canada Ltd.



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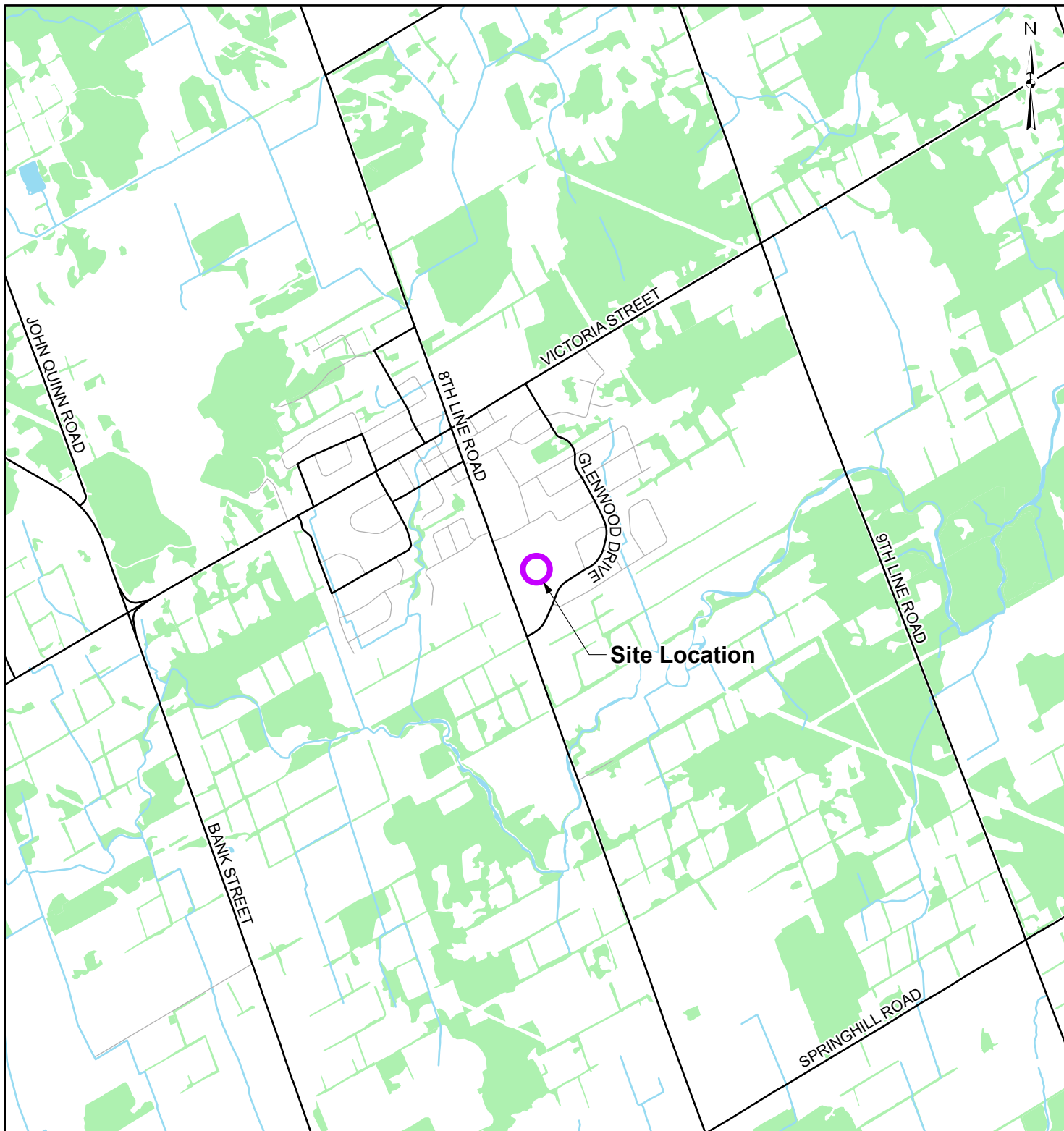
11.0 STATEMENT OF LIMITATIONS

This report was produced for the exclusive use of Deimling Architecture & Interior Design. The purpose of the report is to assess the existing stormwater management system and provide recommendations and designs for the post-construction scenario that are in compliance with the guidelines and standards from the Ministry of the Environment, Conservation and Parks, City of Ottawa and local approval agencies. Egis Canada reviewed the site information and background documents listed in Section 2.0 of this report. While the previous data was reviewed by Egis Canada and site visits were performed, no field verification/measures of any information were conducted.








Any use of this review by a third party, or any reliance on decisions made based on it, without a reliance report is the responsibility of such third parties. Egis Canada accepts no responsibility for damages, if any, suffered by any third party as a result of decisions or actions made based on this review.

The findings, conclusions and/or recommendations of this report are only valid as of the date of this report. No assurance is made regarding any changes in conditions subsequent to this date. If additional information is discovered or becomes available at a future date, Egis Canada should be requested to re-evaluate the conclusions presented in this report, and provide amendments, if required.

APPENDIX A KEY PLAN



LEGEND

-  Site Location
-  Local Road
-  Major Road
-  Railroad
-  Watercourse
-  Waterbody
-  Wooded Area

REFERENCE

GIS data provided by the Ontario Ministry of Natural Resources and Forestry, 2025.

800 400 0 800
Scale 1:30,000 Metres

CLIENT:	DEIMLING ARCHITECTURE & INTERIOR DESIGN		
PROJECT:	METCALFE FAIRGROUNDS- FAIR OFFICE		
TITLE:	SITE LOCATION		
 750 Palladium Dr, Suite 310, Kanata, ON K2V 1C7 Tel: 613-836-2184 Fax: 613-836-3742	PROJECT NO: CCO-24-3169	FIGURE:	
	Date	Jun., 25, 2025	
	GIS	CZ	
	Checked By	PP	
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APPENDIX B BACKGROUND DOCUMENTS

April 9, 2024

Bridgette Alchawa
Egis Canada Ltd.
Via email: bridgette.alchawa@egis-group.com

**Subject: Pre-Consultation: Meeting Feedback
Proposed Site Plan Control Application – 2821 8th Line Road**

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on April 4, 2024.

Pre-Consultation Preliminary Assessment

1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>	5 <input type="checkbox"/>
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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. Please proceed to complete a Phase 2 Pre-consultation Application Form and submit it together with the necessary studies and/or plans to planningcirculations@ottawa.ca.
2. In your subsequent pre-consultation submission, please ensure that all comments or issues detailed herein are addressed. A detailed cover letter stating how each issue has been addressed must be included 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 before the Phase 3 pre-consultation, you may be required to complete or repeat the Phase 2 pre-consultation process.

Supporting Information and Material Requirements

- 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.

- The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.

Consultation with Technical Agencies

- 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

Comments:

The applicant is proposing a site plan control application to demolish the existing fair office building and replace it with a larger 1 storey building, which is planned to have a gross floor area of approximately 595 m² and building area of approximately 768 m². The proposal includes two PINs. The new building will primarily be used as an office for the fairground, as well as an assembly area.

1. Official Plan

- a. The subject property is designated Village as per Schedule B9 of the Official Plan.
- b. The subject property is within the Consolidated Villages Secondary Plan for the Village of Metcalfe in Volume 2B. The subject property is designated Village Park in the Village of Metcalfe Designation Plan.
- c. As per Section 4.6, lands designated as Village Park in the schedules of this plan are typically publicly-owned parks. The following policies apply to these lands:
 - i. Public parks are permitted in all land use designations.
 - ii. Acquisition and development of parklands is guided by policies within the Official Plan.
 - iii. Design and development of parks will ensure adequate connectivity to the surrounding village area.

2. Zoning

- a. The subject property is zoned RI4 (Rural Institutional Subzone 4).

- b. A Fairground, meaning lands where fairs, circuses or exhibitions are held primarily outdoors, and includes any accessory and temporary buildings, is permitted in the R14 zone.
- c. An office, accessory to the Fairground is a permitted use.
- d. R14 Zone Provisions

TABLE 224B - R14 SUBZONE PROVISIONS		
I ZONING MECHANISMS		II PROVISIONS
(a) Minimum lot width (m)		75
(b) Minimum lot area (ha)		1.0
(c) Minimum front yard setback (m)		9
(d) Minimum rear yard setback (m)	(i) abutting a residential use or zone	10
	(ii) all other cases	10
(e) Minimum interior side yard setback (m)		9
(f) Minimum corner side yard setback (m)		9
(g) Maximum principal building height		12
(h) Maximum lot coverage (%)		30
(i) Minimum landscaped area (%)		20

- e. Please ensure the zoning provisions (required and proposed) are provided on the site plan.
- f. Please ensure a Fire Route, with appropriate turning around, is shown on the site plan.

3. Parking requirements

- a. There is no minimum parking space rate for a fairground (Table 101 N35).
- b. The minimum parking space rate for an office is 2.4 per 100 m² of gross floor area (Table 101 N59).
- c. The minimum parking space rate for a place of assembly is 10 per 100 m² of gross floor area of assembly area (Table 101 N65).
- d. Where a building contains more than one use, bicycle parking must be provided for that building in accordance with the proportion of the building occupied by each use and the rate set for each use.
 - i. The minimum bicycle parking space rate for an office is 1 per 250 m² of gross floor area (Table 111A (e)).

- ii. The minimum bicycle parking space rate for a fairground is 1 per 1500 m² of gross floor area (Table 111A (i)).
- iii. The minimum bicycle parking space rate for a place of assembly is 1 per 1500 m² of gross floor area (Table 111A (i)).

e. Section 110 Landscaping Provisions for Parking Lots

- i. (1) Except in the case of an industrial zone, a minimum of 15% of the area of any parking lot, whether a principal or an accessory use, must be provided as perimeter or interior landscaped area comprised of the following:
 - 1. A landscaped buffer must be provided between the perimeter of the parking lot and a lot line in accordance with Table 110. A driveway may cross the landscaped buffer.
 - 2. In addition to the landscaped buffer, interior landscaping may be provided including various landscaped islands, landscaped medians, pedestrian pathways or public plazas to meet the minimum 15% requirement.

Table 110- Minimum Required Width of a Landscaped Buffer of a Parking Lot (OMB Order, File #PL080959 issued September 18, 2009)			
I Location of Landscaped Buffer	Minimum Required Width of Landscaped Buffer		
	II For a parking lot containing 10 or fewer spaces	III For a parking lot containing more than 10 but fewer than 100 spaces	IV For a parking lot containing 100 or more spaces
(a) Abutting a street	3 metres		
(b) Not abutting a street	None	1.5 metres	3 metres

- ii. (3) All outdoor refuse collection and refuse loading areas contained within or accessed via a parking lot must be:
 - 1. Located at least 9.0 metres from a lot line abutting a public street;
 - 2. Located at least 3.0 metres from any other lot line; and
 - 3. Screened from view by an opaque screen with a minimum height of 2.0 metres.
 - 4. Where an in-ground refuse container is provided, the screening requirement of Section (3) (c) above may be achieved with soft landscaping.

Feel free to contact Erica Ogden-Fedak (erica.ogden-fedak@ottawa.ca), Planner, for follow-up questions.

Urban Design

Comments:

4. Comments on Preliminary Design: Applicants are to provide a response to these comments in the Submission.
 - a. Please remove parking from the roadway frontage
 - b. Please prioritize maintaining existing trees on the site and providing additional tree planting along 8th Line.
 - c. Please consider providing additional tree planting and landscaping surrounding the new building or altered portions of the site.
 - d. Please ensure that the building faces 8th Line.
 - e. Please reference the direction within the Design Guidelines for Rural Villages to help inform the design of the building as the design progresses. The architectural directions in the guidelines should guide the building design as closely as possible. Please provide a short description of how the building design meets the intent of the guidelines.
5. Submission Requirements:
 - a. Additional drawings and studies are required as shown on the ASPIL. Please follow the terms of references ([Planning application submission information and materials | City of Ottawa](#)) the prepare these drawings and studies.
 - i. Site Plan
 - ii. Landscape Plan
 - iii. Elevations
 - iv. Floor plans (conceptual)

Feel free to contact Lisa Stern (lisa.stern@ottawa.ca), Planner (Urban Design), for follow-up questions.

Engineering

Overview:

- Site Servicing Study/Brief

- Grading and Drainage Plan
- Erosion and Sediment Plan
- Geotechnical Brief
- Hydrogeological and Terrain Analysis

Comments:

6. Site Servicing Study/Brief

- a. A **Site Servicing Study/Brief** will be required with the Site Plan application. This report should be completed exceeding the minimum requirements laid out in the Site Servicing Study Terms of Reference. The report will serve to address how the design of the site complies with City design guidelines, Official Plan policies, among other evaluation criteria noted in the Terms of Reference. Stormwater management, which is a component of the Servicing Study, is required to mitigate the effects of urbanization on the hydrologic cycle including increased runoff and decreased infiltration, of rain and snowmelt. Without proper stormwater management, a site can negatively impact the environment by reducing baseflow, degrading water quality, and increasing flooding and erosion. This leads to reduced diversity of aquatic life, fewer opportunities for human uses of water resources, and loss of property and human life. The City looks to lessen these risks by reviewing development to ensure stormwater management practices are being implemented, infrastructure is resilient to future climate conditions, including extreme weather events, and using low impact development where feasible to manage smaller, infrequent events. The Official Plan, which receives authority through the Planning Act, identifies in Policy 6, section 2.2.3, that flooding is the costliest type of natural disaster in Canada.
 - i. In terms of the Stormwater Management for the Site Plan Control application, the quantity criteria will be that the post development peak flow rate must match the pre-development peak flow rate for the 2-year and 100-year design storms. This criteria is applied on an exemption basis.
 - ii. A calculated time of concentration cannot be less than 10 minutes as described in section 5.1.4 of the Sewer Design Guidelines.
 - iii. The water quality control should be an enhanced level treatment, 80% long term suspended sediment removal. Reporting of TSS removal shall be extensive and if peer reviewed and published papers are relied on for conclusions,

the conclusions shall be patently clear and the report shall show overwhelming agreement.

- iv. Runoff will need to be conveyed to a legal and sufficient outlet. If it is proposed to discharge storm water to the existing ditches in the ROW, the ditches will need to be shown to provide continuous flow to an outlet. This comment is sourced from the Official Plan which notes in policy 8, section 4.7.1, that proof of legal and sufficient outlet for proposed stormwater management and drainage systems will be required as a condition of future Site Plan Control.
- v. Low Impact Development (LID) is to be implemented as per the bulletin from the former MOECC (now MECP) titled Expectations RE: Stormwater Management released in February 2015. The infiltration target for the site is typically determined from an applicable higher-level study, which is confirmed through on-site infiltration/percolation testing. The reporting should identify the treatment train of processes proposed for the development. The Official Plan defines LID as a stormwater management strategy that seeks to mitigate the impacts of increased runoff and stormwater pollution by managing runoff as close to its source as possible. LID comprises a set of site design strategies that minimize runoff through distributed, small scale structural practices that mimic natural or predevelopment hydrology through the processes of infiltration, evapotranspiration, harvesting, filtration and detention of stormwater. These practices can effectively remove nutrients, pathogens and metals from runoff, and they reduce the volume and intensity of stormwater flows. The City has released a document titled 'Low Impact Development Technical Guidance Report – Implementation in Areas with Potential Hydrogeological Constraints' which aids sites which may have constraints such as low permeability or high groundwater.

7. Fire-fighting water supply

- a. The Site Servicing Study/Brief must include a section addressing the provision of a water supply for fire suppression, determination of the required fire flow, and confirm whether any on-site storage will be required. It is the responsibility of the owner to ensure that an adequate water supply for firefighting is provided. Generally, the FUS (Fire Underwriters Survey) methodology, as opposed to the OBC methodology is applied for all rural areas, however, should the structure be less than 600 m² and contain a low hazard occupancy, the OBC method can be applied on an exemption basis.

- b. Fire Routes now require designation with By-law through the Site Plan process by contacting fireroutes@ottawa.ca once preliminary Site Plan approval has been provided.

8. Grading and Drainage Plan

- a. A **Grading and Drainage Plan** will be required with the Site Plan Control application identifying the existing and proposed drainage patterns and their relationship with the surface runoff control. As part of a complete Site Plan Control application, the Grading and Drainage Plan should identify and implement site, grading, building, and servicing design measures to protect new development from flooding as per policy 6, section 4.7.1 of the Official Plan. The Grading and Drainage Plan forms part of the requirements for Site Plan Control applications noted in the Studies and Plan Identification List, provided with the feedback documents.
- b. The Plan should have a note that references the horizontal and vertical datums that were used and tied into to complete the project. The drawing should also make reference (on the face of the plan) to a site benchmark that can be used by anyone with a level to carry out checks on the particular project.

9. Erosion and Sediment Control Plan

- a. An **Erosion and Sediment Control Plan** will be required with the Site Plan Control Application. Erosion and sediment control plans shall have regard to Canadian Standards Association (CSA) W202 Erosion and Sediment Control Inspection and Monitoring Standard (as amended).

10. Geotechnical (including, where applicable, detailed sensitive marine clay investigation)

- a. A **Geotechnical Brief** will be required with the Site Plan Control application. The report should provide sufficient soils and engineering information to confirm that the site(s) are suitable or can be made suitable for development based on the requirements of the council-approved Geotechnical Investigation and Reporting Guidelines for Development Applications in the City of Ottawa.
- b. OGS mapping for the site indicates that the overburden appears to be less than 2 meters in the area and the site may have thin soils. Sensitive marine clays may be present on portions of the parcel, which should be confirmed during the investigation.
- c. The scope of the Geotechnical Brief should include at a minimum the long term groundwater monitoring results & recommendations for

foundation design, pavement structure design (as required), among other requirements of the Terms of Reference.

11. Hydrogeological and terrain analysis requirements (private servicing only)

- a. A **Hydrogeological and Terrain Analysis** will be required for the Site Plan Control application to establish that there is an adequate quantity and quality of groundwater to support the proposed development(s). The requirements for the Hydrogeological and Terrain Analysis Report are outlined in the City of Ottawa Hydrogeological and Terrain Analysis Guidelines, 5.0 for Site Plans. The study forms part of the requirements for Zoning Amendment and Site Plan Control applications noted in the Studies and Plan Identification List, provided with the feedback documents.
- b. The proposed well(s) must be tested to confirm water quantity and quality suitability, prior to site plan approval. Support must be provided for the pump test rate, which should be the maximum day rate (not average weekly use) for the development (conducted for 8 hours or more). The rate should consider the cumulative, existing and proposed use. If multiple wells are or will be in use, then each well must be tested individually. Pump test rate must be justified.
- c. Any water table measurements needed to support the design consider seasonality and the pump test analysis must consider groundwater seasonal variations.
- d. If there are existing water well(s) and septic bed(s) on site, the report needs to provide an assessment of the physical state of the existing well(s) and the septic bed(s), if they are to remain in use.
- e. The consultant should do an inspection of the well(s) and confirm that the well(s) meet(s) current regulation (at minimum, inspection should confirm well structure, minimum casing stickup, grading around the well, etc. – all to meet O.Reg. 903).
- f. If they need to be decommissioned, the well(s) need to be decommissioned in accordance with Well Regulation (O.Reg. 903) under the Ontario Water Resources Act (See O.Reg. 903 - Section 21(3)), and the MECP well decommissioning record must be included in the report, and the septic bed(s) need(s) to be decommissioned in accordance with the OSSO requirements and to the satisfaction of the OSSO. All these details need to be investigated and included in the report.
- g. The report should provide a direction on strategic placement of wells, if new wells are planned; and should discuss protection of all supply wells. The locations of the wells should be shown on all plans; the

grading plan should indicate that grading around the well meets O.Reg. 903 requirements, i.e., minimum well casing height above ground surface and the land around the well must slope away from the well to prevent pooling.

- h. A cumulative impact assessment may be required if the new site water demand increases significantly compared to the existing situation; the cumulative impact assessment will provide calculations of the potential impact of the increased water extraction on existing nearby well users and the natural environment. This requirement can be discussed during a technical consultation with the City's hydrogeologist.
- i. Based on City Guidelines, the water quality parameters that must be analyzed are the "subdivision suite", as well as trace metals and VOCs. In addition, it is recommended that petroleum hydrocarbons (PHC) and BTEX also be included in the groundwater sampling. The hydrogeological consultant should also review land uses and, if available, the ESA, to determine if any additional parameters should be included, such as chlorinated solvents, pesticides, etc. The water quality sampling needs to be performed on all wells present and proposed on site.
- j. The local Medical Officer of Health shall be notified if a sodium concentration of 20 mg/l, or greater, is found.
- k. The geochemistry data in the vicinity of the site shows elevated parameters such as DOC, Color, Sodium and total coliform in the area. And given the setting and density of development in the Village of Metcalfe, the sewage systems will most likely be a source of elevated nitrate, ammonia and bacteria.
- l. The site falls in a HG policy area for the Village of Metcalfe for which the groundwater assessment program previously showed groundwater quality concerns in the shallow bedrock aquifer which supplies water to many wells in the area. The majority of the wells in the vicinity of the site are completed in a relatively shallow bedrock aquifer that is susceptible to effects from surface or near-surface sources. Thus, the aquifer groundwater quality is anticipated to be poor, however the details need to be confirmed through pump test and groundwater sampling results.
- m. If the onsite well system is expected to provide groundwater to serves the public, it will be a regulated drinking water system under O.Reg. 319 and must also follow any requirements set by Ottawa Public Health. Any requirements related to the regulated system must be fulfilled prior to the use of the system.

- n. If a SWM pond, infiltration trench or similar stormwater management infrastructure is proposed, then supporting information needs to be harmonized and included in the Hydrogeological and Terrain Analysis Report and infiltration, percolation testing needs to be undertaken at the location of the proposed infiltration facility.
- o. A Septic System Impact Risk Assessment must be completed as part of the Hydrogeological and Terrain Analysis Report, as per the City's Hydrogeological and Terrain Analysis Report Guidelines and MECP Guideline D-5-4. Please refer to the City of Ottawa HGTA Guidelines for the predictive assessment for commercial/industrial developments (not residential developments). A septic impact assessment is required to confirm that there is sufficient septic dilution to not contaminate the underlying aquifer, resulting from a proposed new septic system installation and/or expansion of the existing septic system.
- p. If the sewage design flow from sewage systems (collectively from all septic systems on the lot), including any existing systems, exceeds 10,000 L/d, a Reasonable Use Assessment must accompany the application to the City. Sewage systems with design flows exceeding 10,000 L/d require the issuance of an Environmental Compliance Approval (ECA) from the MECP prior to Site Plan Approval being granted.
- q. Since this a site plan application (not lot creation or zoning), the septic treatment (i.e. tertiary treatment with nitrate dilution) may be considered as part of the septic impact assessment calculations. A system certified though NSF or BNQ should be recommended, if advanced treatment is needed to meet nitrate impact targets.
- r. Thin soils (less than 2 m in overburden thickness) are mapped in the north and north-west portions of the site, hence enhanced discussion and mitigation of the thin soils is required in the Terrain Analysis. The report therefore needs to investigate if the site is hydrogeologically sensitive. If the site is hydrogeologically sensitive, then mitigative measures are to be recommended, to protect the underlying supply aquifer, this can include increased casing depth for any new drilled wells, increased separation distance between wells and SWM and septic systems, strategic placement of wells and septic system, based on direction of groundwater flow and existing soil thickness, and additional protective construction measures for the septic systems such as a clay seal or advanced septic treatment.
- s. The report should outline the existing and proposed activities onsite and discuss how the aquifer is protected from any potentially

contaminating activities. This may include a discussion on how activities are managed through existing and/or future ECAs, if any.

- t. Bollards, or other means of preventing vehicle access, will need to be provided between areas with vehicle access and the proposed septic system(s). The City has a standard detail drawing for this application, F5 – 100mm Diameter Steel Bollard Installation for Parking Lots/Parks. It is expected that the septic system will be provided meeting the minimum setbacks of the Ontario Building Code and that the system(s) are protected from drive aisles (traffic).
- u. Technical consultation with the hydrogeological report reviewer, Obai Mohammed, at obai.mohammed@ottawa.ca, is encouraged prior to commencing the field work program, please provide a work plan to the assigned Infrastructure Project Manager for comment in advance of work on-site.

12. Construction constraints

- a. **Lot Utilization** - Servicing the building will be a challenge given the lack of pervious area available for the location of a septic system, well, and stormwater management. The site is heavily developed, which will be a challenge for the future engineering consultant.
- b. **Building Straddling Lot Line** - The proposed building straddling the lot line is not a suggested approach for building location and may not meet other City requirements. It may also pose additional challenges with regards to ECA exemptions for stormwater management facilities and total sewage daily design flow with regards to the two parcels.
- c. **Sanitary Servicing** - For the proposed development, the applicant will be required to address and provide adequate, long term servicing given the proposed usage. It is anticipated that a septic system will be required to service the proposed uses. Septic systems require adequate space for septic dilution (grassed area) and this will be a challenge given the amount of impervious area on the site, in addition to any hydrogeological sensitivity. Should the proposal seek to propose a new or continue using the existing holding tank, they will need to sufficiently address the long term servicing to the City, in addition to providing confirmation from Building Code Services and the Ottawa Septic System Office that a temporary solution, such as a holding tank, would be sufficient.
- d. **Well Setbacks** - There is an existing well beside the existing building at the northwest end, which does not and would not meet the minimum setback requirements of 3 meters from the building and drive aisles of section 5 of the Hydrogeological and Terrain Analysis Guidelines,

March 2021. It is expected that the water supply will be protected from vehicular traffic and remains fully accessible for future maintenance and repair.

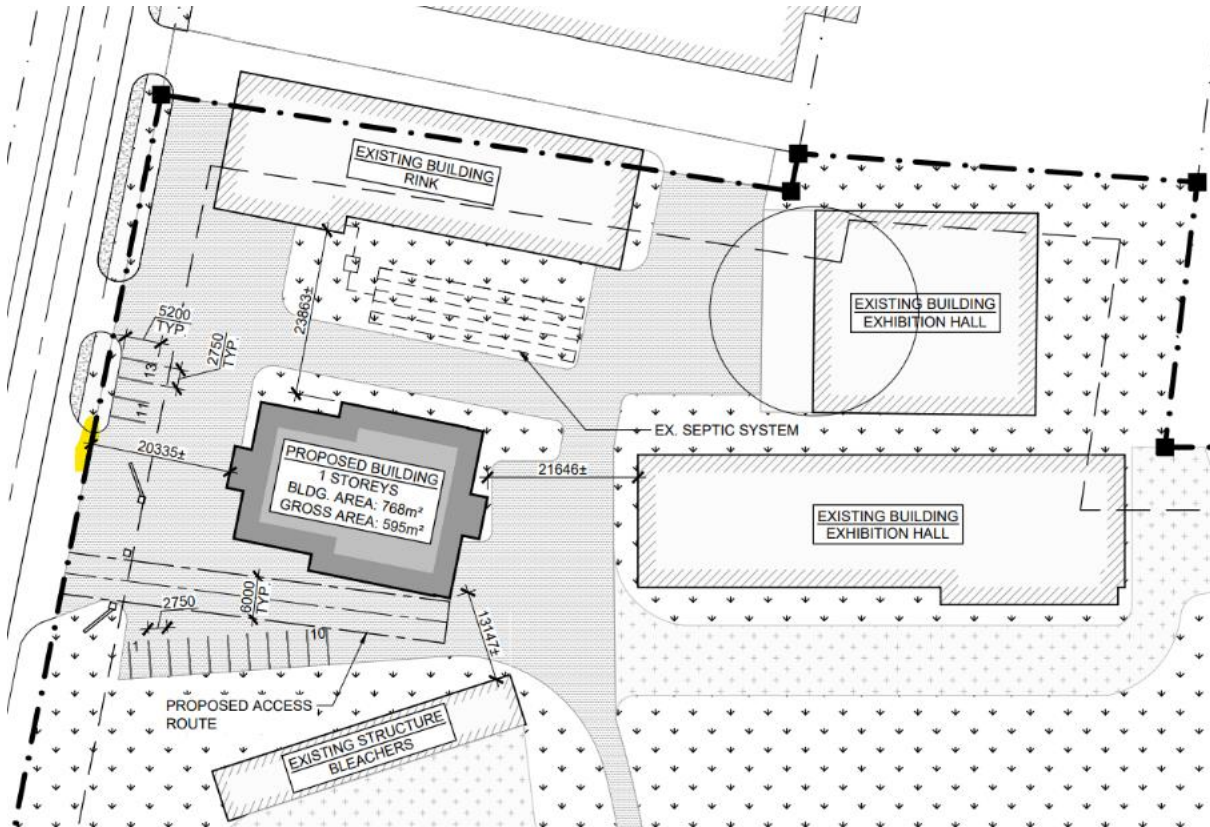
- e. **Expected Groundwater Quality** - The City has completed a village study in this area titled *Village of Metcalfe - Groundwater Assessment and Review of Alternative Servicing Solutions*. This report studies the groundwater and surface water in the Village and provides guidance to development based on anticipated geological conditions. It is noted that there are likely exceedances for chlorides, hardness, and sodium.
- f. **Thin Soils & Hydrogeological Sensitivity** - The site has potential for thin soils which could render the site hydrogeologically sensitive. A site would be considered hydrogeologically sensitive if there is less than 2 meters of overburden over bedrock. This would require additional mitigating measures to be discussed in the Hydrogeological and Terrain Analysis report.
- g. **ECA Requirements** - The reporting, in the Site Servicing Brief, should confirm where there is a requirement for a new or amended Environmental Compliance Approval (ECA) for the existing or proposed SWM facilities and sewage works. If the stormwater management facilities are shared by more than one lot or parcel of land it would not meet the exemption requirements under O.Reg. 525/98.
 - i. An MECP Environmental Compliance Approval would be required for the proposed stormwater management facilities, LID works, or sewage works if the exemption requirements of O.Reg. 525/98 are not met. Please contact the Ministry of the Environment, Conservation and Parks, Ottawa District Office to arrange a pre-submission consultation.
 - ii. Please note that the process for ECAs is undergoing changes and may be different upon time of submission. Currently, once the development application has been submitted, a request can be made to the City to consider a Transfer of Review (ToR) ECA for SWM works (ponds, ditches, culverts, etc.) for private property, instead of a direct submission ECA. This is subject to approval by the City and MECP.

Feel free to contact Travis Smith (travis.smith@ottawa.ca), Project Manager, for follow-up questions.

Transportation

Comments:

13. Transportation Impact Assessment (TIA) is not required.
14. Consider extending the island so there is no gap between the gate and the existing island.



15. Right-of-way protection is 26m (13m from the centerline) for rural collectors. Ensure this is protected and shown on the site plan.

- a. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management.

Feel free to contact Neeti Paudel (neeti.paudel@ottawa.ca), Transportation Project Manager, for follow-up questions.

Environment

Comments:

16. An Environmental Impact Statement (EIS) is not required for this application.
There are no natural heritage features, surface water features, or species-at-risk habitat on or adjacent to the site that would trigger the need for an EIS.
17. Consider additional tree plantings to help meet the City's forest canopy goals as well as reducing the impacts of climate change and the urban heat island effect.
The City prefers that all plantings be of native and non-invasive species.
18. Consider implementing the mitigation measures provided in the Bird Safe Design Guidelines (BSDG). The BSDG's can be [found at this link](#).

Feel free to contact Mark Elliott (mark.elliott@ottawa.ca), Environmental Planner, for follow-up questions.

Forestry

Comments:

19. A Tree Conservation Report is required to show the City owned trees will be adequately protected through the construction. The location of services and decommissioning of existing services is expected to be done without impacting existing City trees.
20. Tree Conservation Report requirements - The following Tree Conservation Report (TCR) requirements have been adapted from the Schedule E of the Urban Tree Protection Guidelines – for more information on these requirements please contact hayley.murray@ottawa.ca
 - a. A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City
 - b. City-owned trees of any diameter requires a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 – 340); the permit will be based on an approved TCR and made available at or near plan approval.
 - c. The TCR must contain 2 separate plans:
 - i. Plan/Map 1 - show existing conditions with tree cover information.
 - ii. Plan/Map 2 - show proposed development with tree cover information.

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

21. Landscape Plan (LP) only required if new trees are proposed.

- a. LP Terms of Reference Requirements for Planting on Private and City Property.
- b. Landscape Plan Terms of Reference must be adhered to: (https://documents.ottawa.ca/sites/documents/files/landscape_tor_en.pdf). For more information on these requirements please contact hayley.murray@ottawa.ca
- c. Additional Elements for Tree Planting in the Right of Way:
 - i. Please ensure any retained trees are shown on the LP
 - ii. Sensitive Marine Clay - Please follow the City's 2017 Tree Planting in Sensitive Marine Clay guidelines.
 - iii. The city requests that consideration be given to planting native species wherever there is a high probability of survival to maturity.
 - iv. Efforts shall be made to provide as much future canopy cover as possible at a site level, through tree planting and tree retention. The Landscape Plan shall show/document that the proposed tree planting and retention will contribute to the

City's overall canopy cover over time. Please provide a projection of the future canopy cover for the site to 40 years

v. Minimum Setbacks

1. Maintain 1.5m from sidewalk or MUP/cycle track or water service laterals.
2. Maintain 2.5m from curb
3. Coniferous species require a minimum 4.5m setback from curb, sidewalk, or MUP/cycle track/pathway.
4. Maintain 7.5m between large growing trees, and 4m between small growing trees. Park or open space planting should consider 10m spacing, except where otherwise approved in naturalization / afforestation areas.
5. Adhere to Ottawa Hydro's planting guidelines (species and setbacks) when planting around overhead primary conductors.

d. Tree specifications

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

e. Hard surface planting

- i. If there are hard surface plantings, a planting detail must be provided.
- ii. Curb style planter is highly recommended.

- iii. No grates are to be used and if guards are required, City of Ottawa standard (which can be provided) shall be used.
- iv. Trees are to be planted at grade.
- v. Soil Volume - Please demonstrate as per the Landscape Plan Terms of Reference that the available soil volumes for new plantings will meet or exceed the minimum soil volumes requested.

Feel free to contact Hayley Murray (hayley.murray@ottawa.ca), Planning Forester, for follow-up questions.

Parkland

Comments:

- 22. The amount of parkland dedication required is to be calculated as per the City of Ottawa [Parkland Dedication By-law No. 2022-280](#). Calculated as 2% of the gross land area of the site being developed/redeveloped for commercial or industrial purposes, including buildings, roads, parking lot and other associated land.
- 23. Please provide the City with a surveyor's area certificate/memo which specifies the exact gross land area of the site being developed/redeveloped. For industrial or commercial redevelopment, this includes the portion of the property that is impacted by the proposed redevelopment, but not including any hazard lands or natural heritage features identified in the official plan, an approved Secondary Plan, or through an environmental impact study accepted by the City.
- 24. Please note that the park comments are preliminary and will be finalized (and subject to change) upon receipt of the development application and any requested supporting documentation. Additionally, if the proposed land use changes, then the parkland dedication requirement will be re-evaluated accordingly.
- 25. Parks and Facilities Planning will be requesting **cash-in-lieu of conveyance of parkland** for parkland dedication in accordance with the Parkland Dedication By-law No. 2022-280.

Feel free to contact Warren Bedford (warren.bedford@ottawa.ca), Parks Planner, for follow-up questions.

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

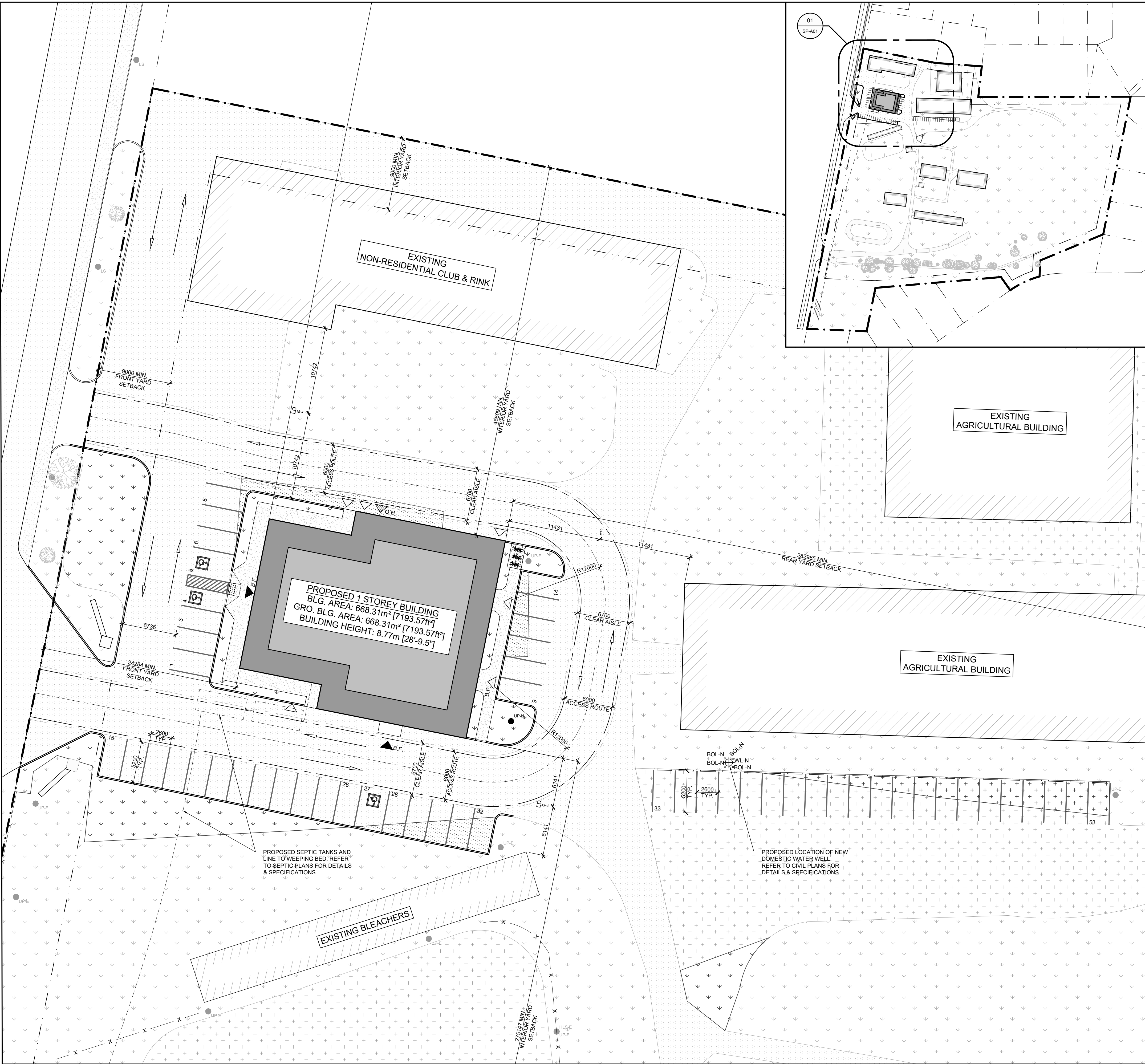
Yours Truly,

A handwritten signature in dark ink that reads "Erica C Ogden-Fedak".

Erica C. Ogden-Fedak, MCIP, RPP
Planner II

Encl. Study and Plan Identification List
List of Technical Agencies to Consult
Supplemental Development Information

c.c. Travis Smith – Infrastructure Project Manager
Jasdeep Brar – Planner I
Neeti Paudel – Transportation Project Manager
Lisa Stern – Planner (Urban Design)
Mark Elliott – Environmental Planner
Hayley Murray – Forester
Warren Bedford – Parks Planner



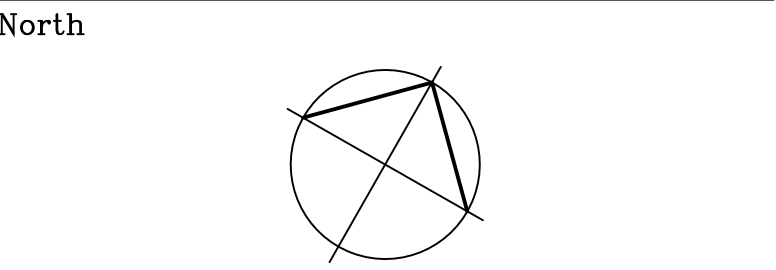
01 SITE PLAN
SP-A01 SCALE: 1:250

ZONING INFORMATION

1.0 GENERAL INFORMATION:	
LEGAL DESCRIPTION: PART OF LOTS 23 & 22, CONCESSION 8, AND PART OF BLOCK 79 REGISTERED PLAN 4M-896 CITY OF OTTAWA	
BUILDING AREA (B.A.):	198.87m ²
• OFFICE:	469.43m ²
• COMMUNITY CENTER:	668.30m ²
• TOTAL:	668.30m ²
GROSS FLOOR AREA (G.F.A.):	198.87m ²
• OFFICE:	469.43m ²
• COMMUNITY CENTER:	668.30m ²
• TOTAL:	668.30m ²
PROPOSED USE: COMMUNITY CENTER	
2.0 ZONING PROVISIONS (PER SECTION 13):	
DESIGNATION: RURAL INSTITUTIONAL ZONE (R14)	
LOT AREA:	10,000.00m ² (1.00 ha) (MIN.)
REQUIRED:	87,636.54m ² (8.76 ha)
PROPOSED:	
LOT WIDTH (FRONTAGE):	75.00m
REQUIRED:	354.86m
PROPOSED:	
SETBACKS:	
FRONT YARD:	9.00m
• REQUIRED:	24.28m
• PROPOSED:	
CORNER SIDE YARD:	9.00m (MIN.)
• REQUIRED:	N/A
• PROPOSED:	
INTERIOR SIDE YARD:	9.00m (MIN.)
• REQUIRED:	46.50m (MIN.)
• PROPOSED:	
REAR YARD:	10.00m (MIN.)
• REQUIRED:	282.96m
• PROPOSED:	
LOT COVERAGE:	30% (MAX.)
REQUIRED:	7%
PROPOSED:	
LANDSCAPING:	
REQUIRED:	20% (MIN.)
PROPOSED:	79%
BUILDING HEIGHT:	12.00m (MAX.)
REQUIRED:	8.77m
PROPOSED:	
3.0 PARKING (PER SECTION 3.19):	
MIN. REQUIRED:	PLACE OF ASSEMBLY: AREA D 10.00 PER 100m ² GROSS BLDG. AREA
	OFFICE: AREA D 2.40 PER 100m ² GROSS BLDG. AREA
• REQUIRED:	(469.43m ² + 100m ²) x 10.00 SPACES 46.95 SPACES = 47.00 SPACES
	(198.87m ² + 100m ²) x 2.40 SPACES 4.77 SPACES = 5.00 SPACES
	52 SPACES (MIN.)
• PROVIDED:	53 SPACES
MIN. BARRIER FREE:	CAPACITY OF PUBLIC PARKING AREA 22-99 = 1 SPACE
• REQUIRED:	52 REQUIRED SPACES = 1 SPACE
• PROVIDED:	2 SPACES
MIN. BICYCLE:	OTHER NON-RESIDENTIAL USES (PLACE OF ASSEMBLY & FAIRGROUNDS): 1.00 PER 1,500m ² GROSS BLDG. AREA
	OFFICE: 1.00 PER 250m ² GROSS BLDG. AREA
• REQUIRED:	((4,415m ² + 469.43m ²) + 1,500m ² /SPACE) 3.26 SPACES = 4.00 SPACES
	198.87m ² + 250m ² /SPACE 0.80 SPACES = 1.00 SPACES
	5 SPACES (MIN.)
• PROVIDED:	6 SPACES

SYMBOL LEGEND

---	SITE PROPERTY LINE
- - - -	ADJACENT PROPERTY LINE
---	SETBACK LINE
---	MUNICIPAL ROAD CENTRELINE
---	DRIVE AISLE BOUNDARY
---	FIRE ROUTE BOUNDARY
---	EXIST. CHAIN LINK FENCE
---	MUNICIPAL ROAD BOUNDARY
---	DIRECTION OF TRAVEL
---	PROPOSED BUILDING
---	EXISTING BUILDING
---	HEAVY DUTY ASPHALT (EXIST. OR NEW)
---	LANDSCAPED AREA (EXIST. OR NEW)
---	CONCRETE SIDEWALK (EXIST. OR NEW)
---	GRAVEL (EXIST. OR NEW)
---	UTILITY POLE (EXIST. OR NEW)
---	LIGHT STANDARD (EXIST. OR NEW)
---	HYDRO LIGHT STANDARD (EXIST. OR NEW)
---	MAIN (BARRIER FREE) BUILDING ENTRANCE
---	SECONDARY (BARRIER FREE) BUILDING ENTRANCES AND/OR EMERGENCY EXITS
---	FIRE ROUTE/NO PARKING SIGNAGE (INSTALLED 25m MAX. ALONG ROUTE (SEE DETAIL THIS SHEET))
---	BARRIER-FREE PARKING SIGN
---	FIRE HYDRANT (EXISTING)
---	NEW VEGETATION



Revisions			
No.	By	Description	Date
10	W.P.	ISSUED FOR SITE PLAN CONTROL	03 OCT 2025
09	W.P.	ISSUED FOR COORDINATION	30 SEP 2025
08	W.P.	ISSUED FOR PERMIT	26 SEP 2025
07	A.P.	ISSUED FOR 99% REVIEW	11 SEP 2025
06	A.P.	ISSUED FOR 66% REVIEW	01 AUG 2025
05	W.P.	ISSUED FOR COORDINATION	03 JUL 2025
04	A.P.	ISSUED FOR CLIENT REVIEW	19 JUN 2025
03	A.P.	ISSUED FOR CLIENT REVIEW	11 JUN 2025
02	W.P.	ISSUED FOR COORDINATION	04 APR 2025
01	W.P.	ISSUED FOR CLIENT REVIEW	17 JUN 2024

Project
METCALFE AGRICULTURAL SOCIETY
METCALFE FAIRGROUNDS
NEW BUILDING IMPLEMENTATION
2821 8TH LINE ROAD, METCALFE, ON

Drawing
SITE PLAN

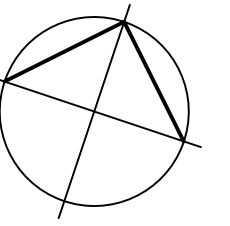
Scale	AS NOTED	Stamp	
Drawn	W.P.		
Checked	C.D.		



Project No. 24-125
Date MAY, 2024
Drawing No. **SP-A01**



North



Revisions

No.	By	Description	Date
06	W.P.	ISSUED FOR SITE PLAN CONTROL	03 OCT 2025
05	A.P.	ISSUED FOR CLIENT REVIEW	19 JUN 2025
04	A.P.	ISSUED FOR CLIENT REVIEW	11 JUN 2025
03	W.P.	ISSUED FOR CLIENT REVIEW	09 MAY 2025
02	W.P.	ISSUED FOR CLIENT REVIEW	11 APR 2025
01	A.P.	ISSUED FOR CLIENT REVIEW	06 JUN 2024

Project

**METCALFE AGRICULTURAL
SOCIETY
METCALFE FAIRGROUNDS
NEW BUILDING IMPLEMENTATION**

2821 8TH LINE ROAD, METCALFE, ON

Drawing

CONCEPT FLOOR PLAN

Scale

1:75

Drawn

W.P.

Checked

C.D.

Stamp



Project No.

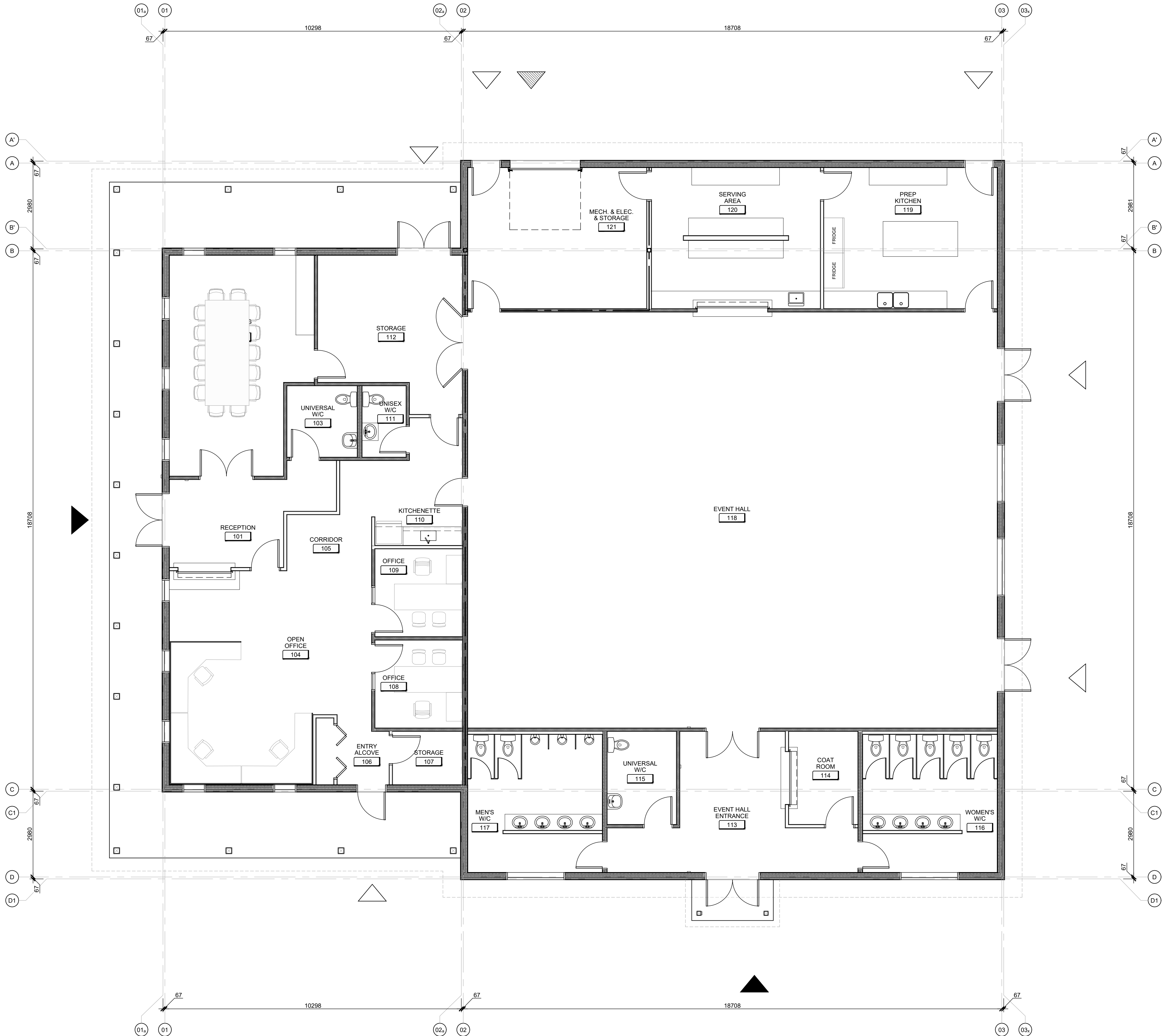
24-125

Date

MAY, 2024

Drawing No.

A01





North

Revisions

No.	By	Description	Date
03	W.P.	ISSUED FOR SITE PLAN CONTROL	03 OCT 2025
03	A.P.	ISSUED FOR CLIENT REVIEW	19 JUN 2025
02	A.P.	ISSUED FOR CLIENT REVIEW	11 JUN 2025
01	W.P.	ISSUED FOR CLIENT REVIEW	09 MAY 2025

Project

**METCALFE AGRICULTURAL
SOCIETY
METCALFE FAIRGROUNDS
NEW BUILDING IMPLEMENTATION**

2821 8TH LINE ROAD, METCALFE, ON

Drawing

PROPOSED ELEVATIONS

Scale
AS NOTED

Drawn
W.P.

Checked
C.D.

Stamp

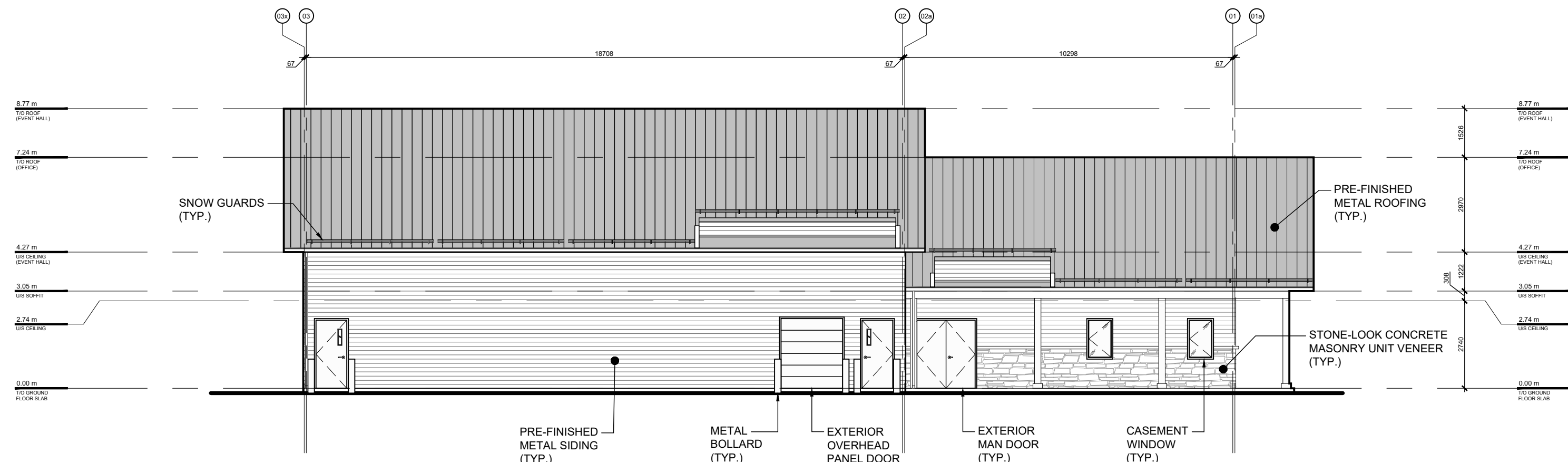


Project No.
24-125

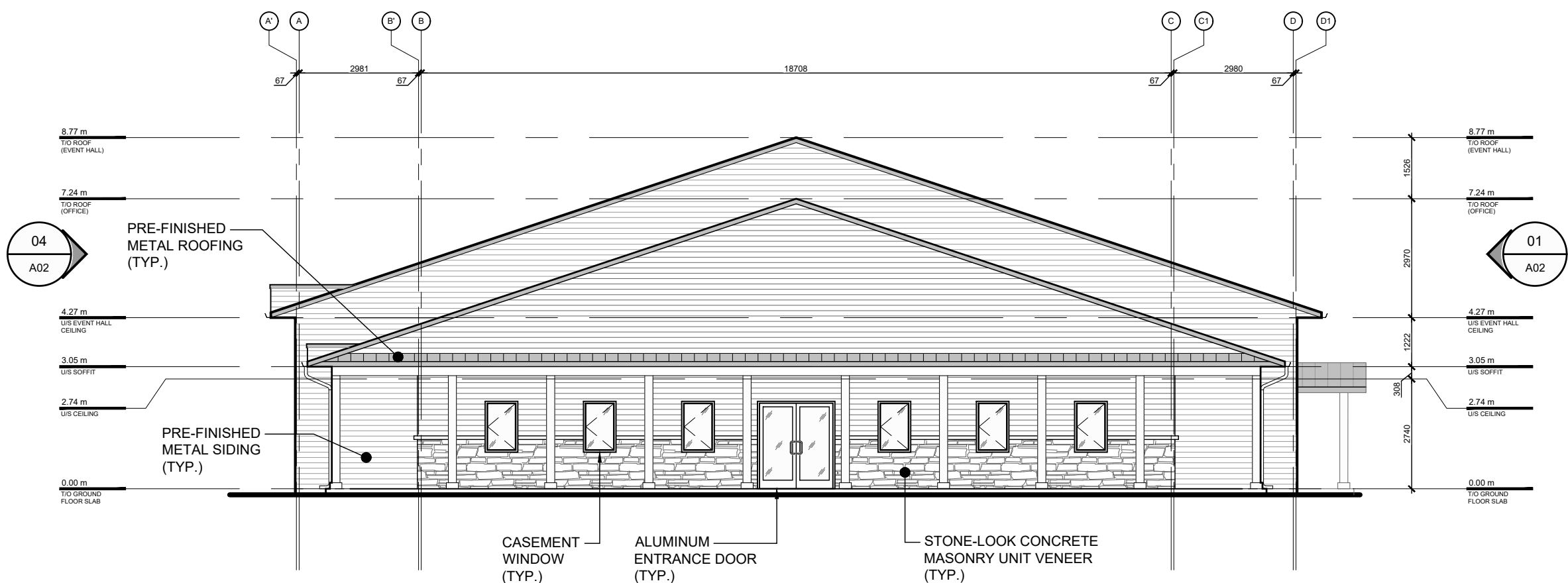
Date
MAY, 2024

Drawing No.

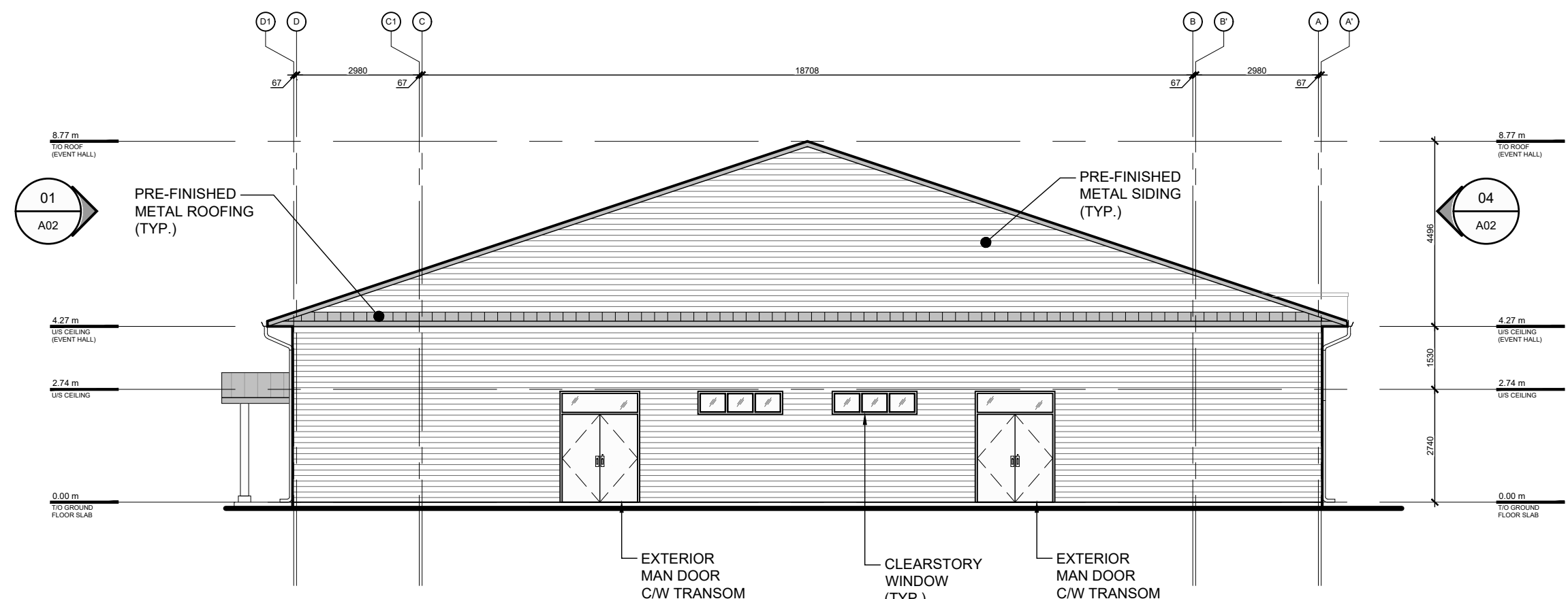
A02



04 NORTH ELEVATION
A02 SCALE: 1:125



03 WEST ELEVATION
A02 SCALE: 1:125



02 EAST ELEVATION
A02 SCALE: 1:125



01 SOUTH ELEVATION
A02 SCALE: 1:125

APPENDIX C FIRE PROTECTION

CCO-24-3169 - Metcalfe Fairgrounds - OBC Fire Calculations

Project:	Metcalfe Fairgrounds
Project No.:	CCO-24-3169
Designed By:	FV
Checked By:	CJM
Date:	September 26, 2025

Ontario 2006 Building Code Compendium (Div. B - Part 3)

Water Supply for Fire-Fighting - Office & Event Hall

Building is classified as Group : A-2 and D (from table 3.2.2.55)
 Building is of combustible construction with fire separations and fire resistance ratings provided in accordance with Subsection 3.2.2., including loadbearing walls, columns and arches. Noncombustible construction may be used in lieu of fire-resistance

From Div. B A-3.2.5.7. of the Ontario Building Code - 3. Building On-Site Water Supply:

$$(a) Q = K \times V \times Stot$$

where:

Q = minimum supply of water in litres

K = water supply coefficient from Table 1

V = total building volume in cubic metres

Stot = total of spatial coefficient values from the property line exposures on all sides as obtained from the formula:

Stot = 1.0 + [Sside1+Sside2+Sside3+...etc.]

K	18	(from Table 1 pg A-31)
V	1,948	(Total building volume in m³.)
Stot	1.2	(From figure 1 pg A-32)
Q =	42,076.80 L	



			From Figure 1 (A-32)
Snorth	12 m	0.0	
Seast	11 m	0.0	
Ssouth	8 m	0.2	
Swest	33 m	0.0	

*approximate distances

From Table 2: Required Minimum Water Supply Flow Rate (L/s)

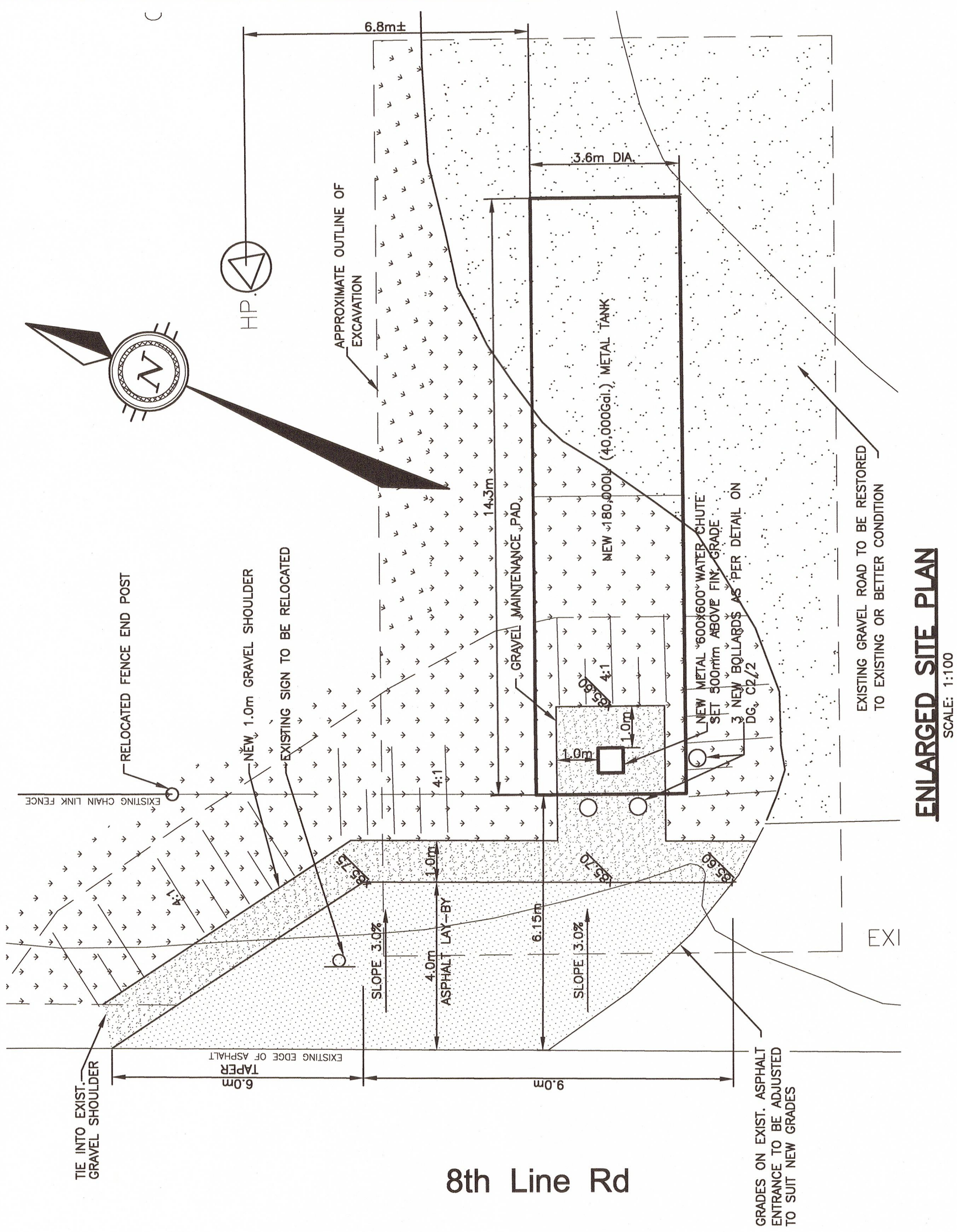
2,700 L/min if Q < 108,000 L
 713 gpm

GENERAL NOTES

1. ALL WORKS AND CONSTRUCTION METHODS TO POSS. SPECIFICATIONS OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND BRACING, ALONG WITH BACKFILL AND REINSTATEMENT TO STANDARDS SPECIFIED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA WATER FILL STATION FIGURES 1-7, & P4 AND THE DETAIL SHEET.
3. AS-BUILT ELEVATIONS AND LOCATIONS TO BE OBTAINED & MAINTAINED ON SITE BY THE CONTRACTOR.
4. ALL GRANULAR FOR LAY-BY AND MAINTENANCE PAD AREAS SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR DENSITY.
5. CONTRACTOR TO CONTROL WATER RUNOFF FROM THE CONSTRUCTION SITE IN ACCORDANCE WITH THE "SEDIMENT AND EROSION CONTROL NOTES".
6. THE CONTRACTOR SHALL ARRANGE WITH THE APPROPRIATE UTILITY COMPANIES FOR THE STAKE OUT OF ALL UNDERGROUND UTILITIES AND SERVICE CONNECTIONS WHICH MAY AFFECT THE WORK.
7. THE LOCATION OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES AND FACILITIES IS NOT WHERE SHOWN. THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND FACILITIES IS NOT GUARANTEED.
8. EXCESS AND/OR UNSUITABLE MATERIAL, INCLUDING CONCRETE AND ASPHALT, SHALL BE REMOVED FROM THE SITE AT NO COST TO THE OWNER.
9. STRAIGHT LINE INTERPOLATION BETWEEN SPECIFIED GRADES SHALL BE UTILIZED IF THERE IS ANY QUESTION REGARDING GRADES. THE ENGINEER SHALL PROVIDE CLARIFICATION AS REQUIRED.
10. PRIOR TO PAVING, CONTRACTOR SHALL FINE GRADE AND RE-COMPACT ENTIRE AREA.
11. TOPSOIL TO BE STRIPPED FROM CONSTRUCTION AREA AND STOCKPILED ON SITE FOR USE IN REINSTATEMENT AFTER CONSTRUCTION IS COMPLETE.
12. ALL LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL RECEIVE TOPSOIL & HYDROSEED WITH MULCH.
13. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PREPARED BY LWM #033-B-0000789-B-GE-R-001-00 DATED MAY, 2012, INCLUDED WITH TENDER DOCUMENTS.

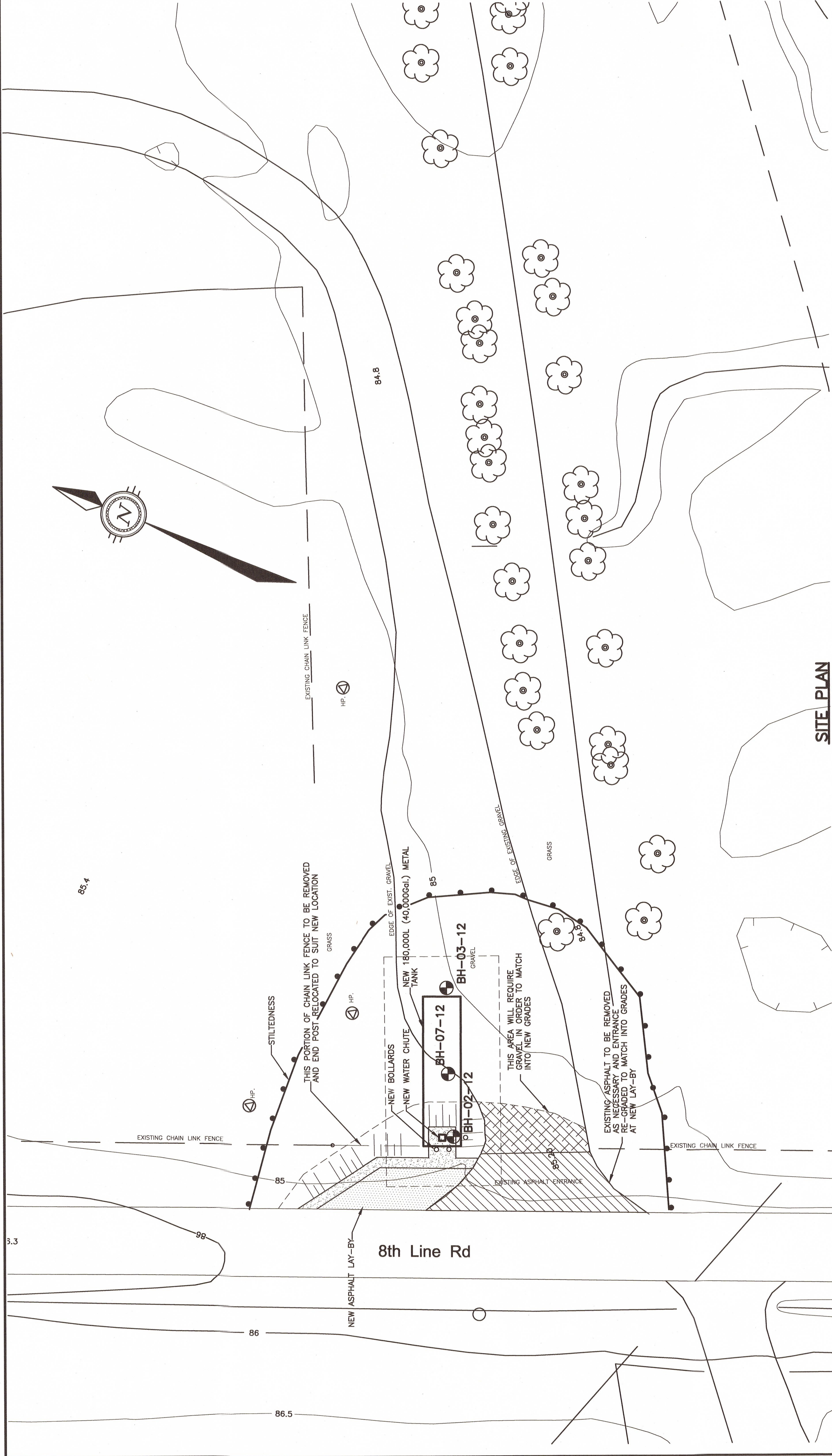
LEGEND

- NEW ASPHALT LAY-BY
- 40mm SP 12.5mm LEVEL C (PG58-34)
 - 40mm SP 19.0mm LEVEL C (PG58-34)
 - 150mm GRANULAR 'A'
 - 450mm GRANULAR 'B'
- NEW GRAVEL SHOULDER & MAINTENANCE PAD
- 150mm GRANULAR 'A'
 - 300mm GRANULAR 'B'
- GRAVEL ROAD RESTORATION
- 150mm GRANULAR 'A'
 - 350mm GRANULAR 'B'
- NEW LANDSCAPED AREA
- 100mm TOPSOIL
 - HYDROSEED WITH MULCH
- NEW ELEVATION
- EXISTING CONTOUR
- APPROX. BOREHOLE LOCATION



ENLARGED SITE PLAN

SCALE: 1:100



SITE PLAN

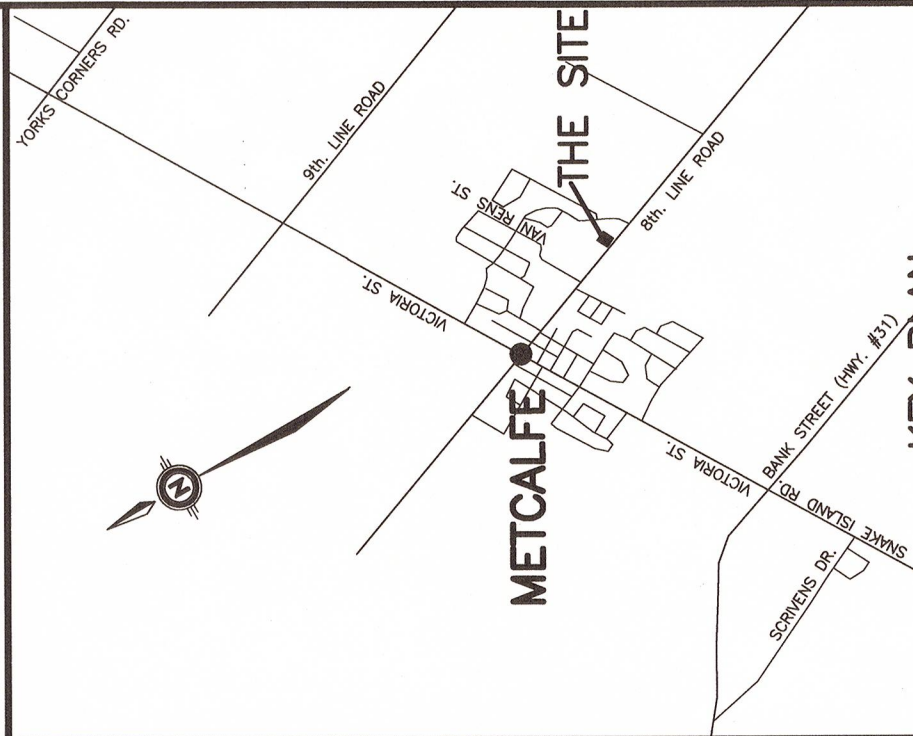
SCALE: 1:250

SEDIMENT & EROSION CONTROL NOTES

- DURING ALL CONSTRUCTION ACTIVITIES EROSION AND SEDIMENTATION SHALL BE CONTROLLED BY THE FOLLOWING TECHNIQUES:
1. REVEGETATION OF EXPOSED AREAS AS SOON AS POSSIBLE.
 2. INSTALLATION OF FILTER CLOTH BETWEEN FRAME AND COVER ON ALL EXISTING AND PROPOSED CATCH BASINS, DITCH INLET AND CATCH BASIN MANHOLES.
 3. A VISUAL INSPECTION SHALL BE COMPLETED DAILY ON SEDIMENT CONTROL BARRIERS AND ANY DAMAGE REPAIRED IMMEDIATELY. CARE WILL BE TAKEN TO PREVENT DAMAGE DURING CONSTRUCTION OPERATIONS.
 4. IN SOME CASES SOME BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE THE CONSTRUCTION OPERATIONS. THE AFFECTED BARRIERS WILL BE REINSTATE AT NIGHT WHEN CONSTRUCTION IS COMPLETED.
 5. THE SEDIMENT CONTROL DEVICES WILL BE CLEANED OF ACCUMULATED SILT AS REQUIRED. THE DEPOSITS WILL BE DISPOSED OF AS PER THE REQUIREMENTS OF THE CONTRACT.
 6. DURING THE COURSE OF CONSTRUCTION IF THE ENGINEER BELIEVES THAT ADDITIONAL PREVENTION METHODS ARE REQUIRED TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR WILL INSTALL ADDITIONAL SILT FENCES OR OTHER METHODS AS REQUIRED TO THE SATISFACTION OF THE ENGINEER.
 7. PROVIDE SEDIMENT TRAPS IF DEWATERING REQUIRED.
 8. ESTABLISH MATERIAL STOCKPILES AWAY FROM WATER COURSES.
 9. CONSTRUCTION & MAINTENANCE REQUIREMENTS FOR EROSION & SEDIMENT CONTROLS TO COMPLY WITH ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) OPSS 577 & CITY OF OTTAWA SPECIFICATIONS.

NOTE: TOPOGRAPHICAL INFORMATION INCLUDING EXISTING CONTOURS FOR BASE PLAN, WERE PROVIDED BY THE CITY OF OTTAWA

FOR / POUR
INFRASTRUCTURE SERVICES
DESIGN & CONSTRUCTION



KEY PLAN

N.T.S.

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VALENTI Francis

From: Evans, Allan <Allan.Evans@ottawa.ca>
Sent: September 29, 2025 3:48 PM
To: VALENTI Francis
Cc: MELANSON Curtis
Subject: RE: Metcalfe Fairgrounds - Fire Protection

Follow Up Flag: Follow up
Flag Status: Flagged

!! Courriel externe - Merci d'être prudent avec les liens et les pièces jointes !! External email - Please be careful with links and attachments !!

Hi Francis- Chief Roy and I had a quick discussion today, and even with the existing tank approximately 200m away, we are both okay at only having that water tank for the site (ie: no additional storage required).

Building Code Services is the AHJ here, so I can only make a recommendation.

A

Allan Evans

Fire Protection Engineer / Ingénieur de Protection d'Incendies

Prevention Division / Prévention des Incendies

Ottawa Fire Services / Service des Incendies d'Ottawa

1445 Carling Avenue / 1445 Avenue Carling

Ottawa, ON K1Z 7L9

Allan.Evans@Ottawa.ca

☎ (613) 913-2747 | ☎ (613) 580-2424 x24119 | 📠 (613) 580-2866 | 📧 Mail Code: 25-102 |

[Book time with Evans, Allan](#)



An internationally accredited agency 2019-2024



OTTAWA FIRE SERVICES
SERVICE DES INCENDIES D'OTTAWA

Protecting Our Nation's Capital With Honour
Protéger notre capitale nationale avec honneur

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

From: VALENTI Francis <Francis.VALENTI@egis-group.com>
Sent: Friday, September 26, 2025 11:48 AM
To: Evans, Allan <Allan.Evans@ottawa.ca>

Cc: curtis.melanson <curtis.melanson@egis-group.com>

Subject: Metcalfe Fairgrounds - Fire Protection

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

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

Good morning, Allan,

We're working on a project at the Metcalfe Fairgrounds located at 2821 8th Line Rd, and I just wanted to reach out to discuss fire protection requirements. The proposed development involves demolition of the existing fair office building, and construction of a new 1-storey 668 m² unsprinklered office & event hall in the same location.

I've attached the site plan for reference. Per IWSSTB-2024-05, the OBC calculation was completed and yielded a required fire flow of 2,700 L/min and an on-site storage volume of approximately 42,000 litres. The property currently contains an underground storage tank with 180,000 litres of water storage, but the storage tank is located approximately 185m from the proposed building (or approximately 200m measured in an unobstructed path along 8th Line Road). I've included our OBC calculations as well as the storage tank design drawings for reference.

Can you please confirm if any credit can be applied for the existing on-site storage, or if a new 38,000 litre tank will be required?

Thank you,



Francis VALENTI

Junior Project Engineer | Sustainable Cities

750 Palladium Drive, Suite 310

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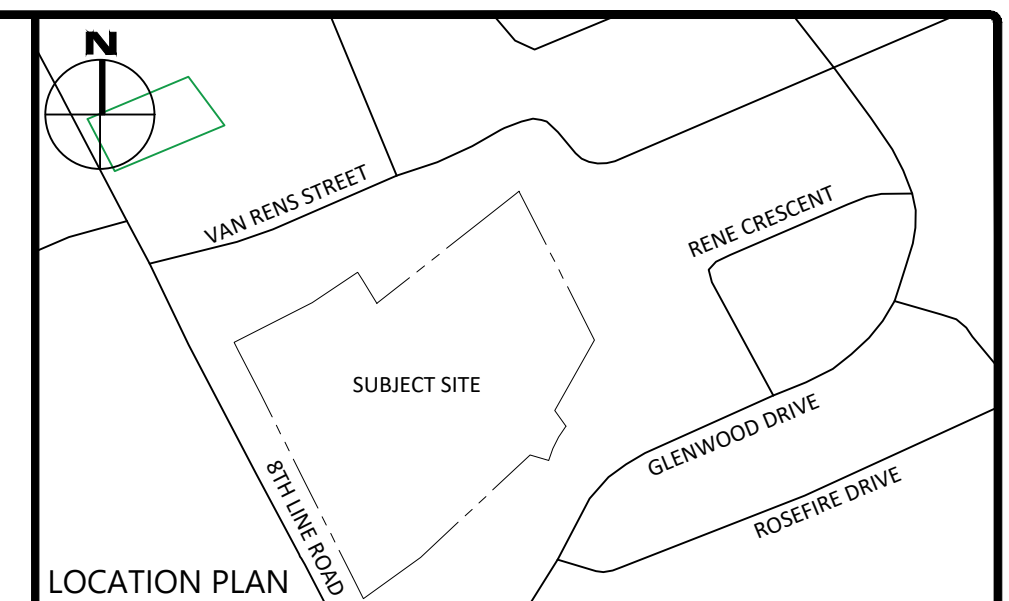
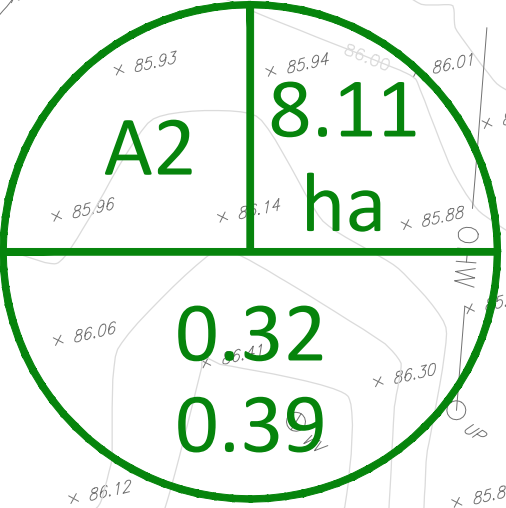
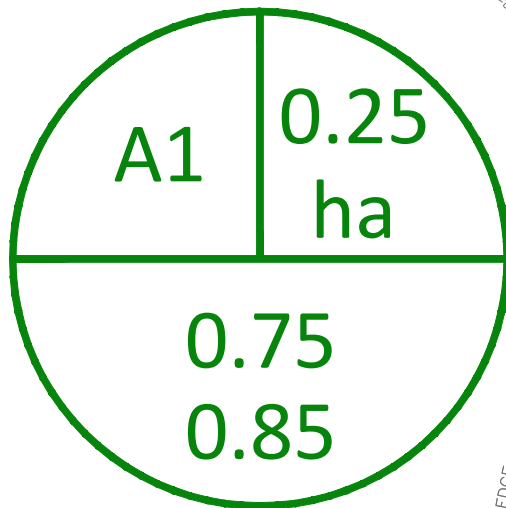


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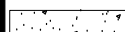
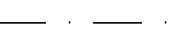





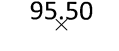

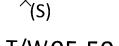







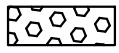



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Data sensitivity - Internal

APPENDIX E PRE-DEVELOPMENT DRAINAGE PLAN



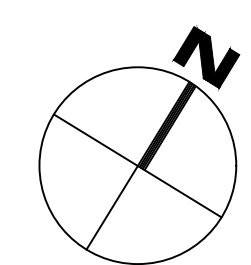
LEGEND

	CONCRETE BARRIER CURB		LIMIT OF GRADING
	CONCRETE WALKWAY		DRAINAGE SWALE
	PROPOSED ASPHALT		DRAINAGE DITCH
	LANDSCAPING CATCHBASIN		SLOPING AT 3:1 UNLESS SPECIFIED
	CATCHBASIN MANHOLE		SURFACE ELEVATION
	CATCHBASIN		SWALE ELEVATION
	SANITARY SEWER MANHOLE		TOP OF WALL ELEVATION BOTTOM OF WALL ELEVATION
	FIRE HYDRANT		OVERLAND FLOW ROUTE
	WATER VALVE		SILT FENCE BARRIER
	WATER METER		STRAW BALE CHECK DAM
	REMOTE WATER METER		MUD MAT
	RETAINING WALL		

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

[illegible]

Check and verify all dimensions before proceeding with the work	Do not scale drawings
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Stamp:

Client: **DEIMLING ARCHITECTURE & INTERIOR DESIGN**
1010 POLYTEK STREET, UNIT #16
OTTAWA, ON K1H 9H9

Project:

METCALFE FAIRGROUNDS - FAIR OFFICE
2821 8TH LINE ROAD

Drawing Title:

PRE-DEVELOPMENT DRAINAGE AREA PLAN

Scale:	1:750	Project Number:	CCO-24-3169
Drawn By:	FV		
Checked By:	CJM	Drawing Number:	PRE
Designed By:	CJM		

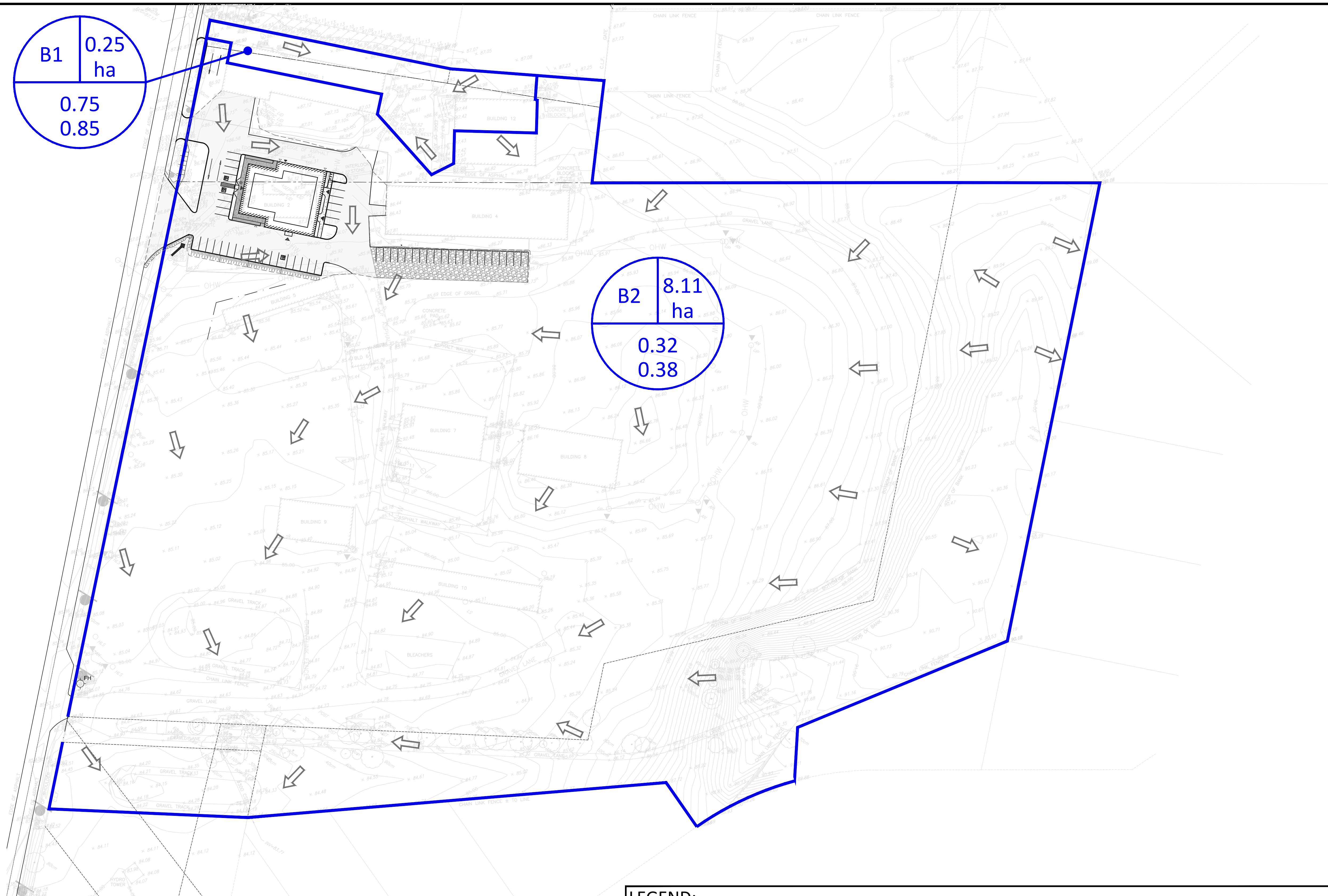
PRE

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LAST SAVED: Friday, October 03, 2025 LAST SAVED BY: Ivalene
LAST PLOTTED: Friday, October 03, 2025 CTB FILE USED: MP-CY-STANDARD.ctb

D07-12-XX-XXXX

APPENDIX F POST-DEVELOPMENT DRAINAGE PLAN



APPENDIX G STORMWATER MANAGEMENT CALCULATIONS

Tc (min)	Intensity (mm/hr)	
	2-Year	100-Year
20	52.0	120.0
10	76.8	178.6

C-Values	
Impervious	0.90
Gravel	0.60
Pervious	0.20

Pre-Development Runoff Coefficient

Drainage Area	Impervious Area (m ²)	Gravel (m ²)	Pervious Area (m ²)	Average C (2-Year)	Average C (100-Year)
A1	1,726	381	386	0.75	0.85
A2	9,936	6,882	64,317	0.32	0.38

Pre-Development Runoff Calculations

Drainage Area	Area (ha)	C 2/5-Year	C 100-Year	Tc (min)	Q (L/s)	
					2-Year	100-Year
A1	0.25	0.75	0.85	10	39.70	104.67
A2	8.11	0.32	0.38	10	553.76	1547.59
Total	8.36				593.46	1652.26

Post-Development Runoff Coefficient

Drainage Area	Impervious Area (m ²)	Gravel (m ²)	Pervious Area (m ²)	Average C (2-year)	Average C (100-year)
B1	1,726	381	386	0.75	0.85
B2	9,932	6,886	64,317	0.32	0.38

Post-Development Runoff Calculations

Drainage Area	Area (ha)	C 2-Year	C 100-Year	Tc (min)	Q (L/s)	
					2-Year	100-Year
B1	0.25	0.75	0.85	10	39.70	104.67
B2	8.11	0.32	0.38	10	553.73	1547.54
Total	8.36				593.43	1652.21

Post-Development Restricted Runoff Calculations

Drainage Area	Unrestricted Flow (L/S)		Restricted Flow (L/S)		Storage Required (m ³)		Storage Provided (m ³)	
	2-Year	100-Year	2-Year	100-Year	2-Year	100-Year	2-Year	100-Year
B1	39.70	104.67	39.70	104.67	-	-	-	-
B2	553.73	1547.54	553.73	1547.54	-	-	-	-
Total	593.43	1652.21	593.43	1652.21	-	-	-	-