

## Evolugen

Trail Road BESS

Ottawa, ON

Letter Report

**Site Servicing Letter**

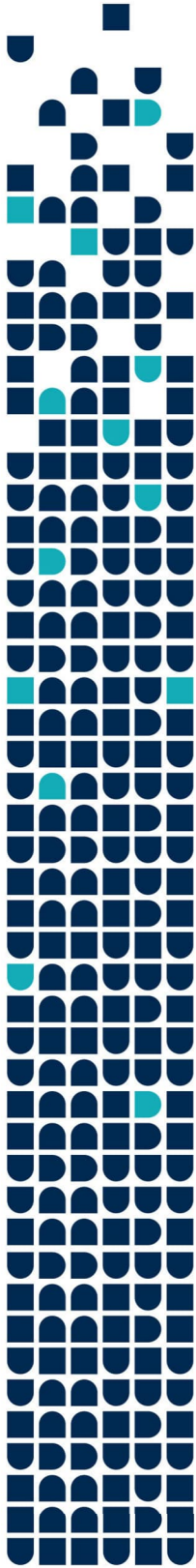
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### **FOR PERMITTING**

Do not use for construction

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## REVISION HISTORY

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R02	For permitting	2025-10-27

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This study has been conducted to support the applicant (Evolugen) with the permitting process for the Trail Road – Battery Energy Storage System (BESS) project. The applicant proposes an industrial development at 4186 William McEwen Drive, Ottawa, ON. The BESS and substation portion of the site is approximately 3 ha of a 21.5 ha property. Part of the property is currently being used for agricultural purposes, while the rest is covered by trees, with existing residential dwellings on the east side. This project proposes the installation of 150 MW batteries and a substation.

BBA has been retained by the Client to prepare civil plans, a stormwater management report, a geometric traffic assessment report, and a site servicing study for the proposed development. The site servicing report explains how the site design complies with the City of Ottawa's design guidelines, discusses the existing and future service connections, and provides information about access roads and fire services for the development area.

This report will evaluate site serviceability regarding sanitary, water, and storm services, and will also evaluate the stormwater management (SWM) strategy that will be implemented to meet the City of Ottawa SWM requirements. These requirements have been provided by the City of Ottawa in the pre-consultation letter dated November 12, 2024. The project overall site layout and general arrangement plans can be found in drawings 7154024-200000-41-D20-0001 and 7154024-200000-41-D20-0002.

The detailed topography of the existing site conditions was prepared by Tulloch Geomatics. The document "Topographic Plan of Survey of Part of the Southeast 1/4 of Lot 3 Concession 4 Rideau Front Geographic Township of Nepean City of Ottawa (file 241437)" is dated March 12, 2025.

## Property and right-of-way requirements

To provide sufficient distance from nearby residential structures, a 350 m setback has been provided and is shown on the site plan. An easement for Ontario Hydro has been identified to cross the east side of the site and can be seen on the overall site plan (7154024-200000-41-D20-0001). The new development area does not conflict with existing easements.

## Transportation/traffic management

The proposed development will be connected to the William McEwen Drive through a new gravel access road. This access road is approximately 8 m wide and deemed adequate for commuting project design vehicles. Additional information can be found in the traffic geometric study (BBA document No. 7154024-100000-41-ERA-0002).



## Servicing requirements

The following requirements apply for site servicing:

### ■ **Drainage/environment:**

The Thomas Baxter municipal drain runs north-south through the lot, along with a seasonal watercourse, and intersects with the proposed site access road. Culverts will be provided under the access road to maintain existing watercourses. Access road stormwater will be drained through a ditch along the south site of the road.

Stormwater of the proposed pad will release to an existing swale south-west of the property. Stormwater management modelling was used to size the wet pond to meet water quantity, quality, as well as erosion and sediment control criteria caused by additional runoff due to the new development. All elements of the stormwater management system are based on the City of Ottawa's design criteria and rainfall values from Ottawa Design Guidelines IDF curve data.

An erosion and sediment control plan during construction was completed by BBA and can be found in document "7154024-200000-41-D10-0001."

Plans were developed according to the applicable land development guidelines and best management practices to manage soil erosion and sedimentation during the construction phase of the project.

A stormwater management report has been prepared and is part of the civil engineering package (BBA document No. 7154024-100000-41-ERA-0001). The retention pond, swales, ditches and culvert have been sized using computing analysis found in the stormwater management report.

### ■ **Water distribution:**

There are no proposed buildings within the new development area. As such, the proposed development does not require any domestic water connection. However, for fire protection, an underground water tank with a capacity of 85,000 L (22,500 gallons) is proposed to be placed northeast of the pad and connected to a series of fire hydrants throughout the site. The size of the water tank has been recommended by the fire service department of the City of Ottawa.

The main fire water line is set to 200 mm and the connection to the fire hydrant is 150 mm. This was established from the City of Ottawa's Design Guidelines (Water Distribution Guideline).





Following the assumption of having 100 PSI from the pump outlet, it was determined that the two farthest hydrants would have 250GPM at 82 PSI each. On this site, the water network has been designed to ensure the internal pressure would be withstanding. The HDPE DR11 can resist to an internal pressure of 200 PSI. The materials and thrust restraint methods have proven sufficient for water lines with 200 mm diameter.

A hydrant connected to the water tank was designed to be used by the fire truck in case of fire. The fire truck will connect the hose to this hydrant and then pump the water to the water network in the site. Each fire hydrant covers a circle with a 60 m radius, assuming 30 m for the hose length and a 30 m spray distance.

It should be noted that all access roads are designed to provide enough space for maneuvering fire trucks. Additional details can be found in BBA's geometric study in document No. 7154024-100000-41-ERA-0002.

- **Sanitary wastewater disposal:**

There are no proposed buildings within the new development area. As such, the proposed development does not require any sanitary connection.

- **Commercial utilities:**

The proposed development will be serviced with hydro and telecommunication lines according to utility requirements and city standards.

We trust you will find the report satisfactory. For more information, please contact the undersigned at your convenience.

**BBA**