SERVICING BRIEF

Lorron Technologies

Borden Avenue, Belmont Ontario

INTRODUCTION

This Servicing Brief is submitted as part of the Site Plan Approval process for the development of the site located on the south side of Borden Avenue approximately 200 meters of west of Belmont, Ontario.

EXISTING CONDITIONS

The site is currently vacant and has been previously used as agricultural lands. It has received large volumes of fill in the past to raise the existing grades. It generally drains from the north to the southwest within portions of the land tributary to large ponds on the property. It is serviced for sanitary sewage and water (both domestic and fire) via municipal services along Borden Avenue.

Proposed Site

The proponent intends to construct a new 2,571 square metre facility on the subject lands. The building will contain offices and a large workshop to service its own fleet of vehicles involved in the installation of telecommunication cables. In addition to the building, the site will contain a storage area for materials needed on a daily basis. It is intended to service the site for sanitary and water via the municipal services on Borden Avenue. The site will be serviced for stormwater via the existing pond on site. The servicing strategy for each of these items is discussed in detail below.

Water Servicing

It is proposed to service the site for domestic and fire protection via the existing watermain along Borden Avenue. Therefore, a connection to the watermain will be required with a 150mm diameter watermain. Domestic water usage will be required for the toilets, sinks, and vac-truck filling on a daily basis. It is expected that the maximum occupancy of the building will be 20 people. The anticipated usages are as follows:

Domestic, Toilet, Sinks, Lunchroom for 20 people at 75L/day/person	= 1,500L/day
Vac-Truck and Drilling Water Usage	= 18,900L/day

These usages equate to an average flow rate of 0.26L/s. Fire protection for the site will be provided in accordance with the Ontario Building Code with the building requiring a standard pipe and hose system.

Sanitary Servicing

With respect to sanitary sewers the bulk of flow generated will come from the usage of toilets, sinks, and the lunchroom, with flow based on an estimated 75L/day/person. These flows in total will generate 1,500L/day (0.02L/s) which will be discharged to the



municipal sewers. It is proposed to connect the building to the municipal sanitary sewer on Borden Avenue with a 150mm diameter sewer. The sewer will have an inspection manhole along the property line for testing purposes. The capacity of the 150mm diameter exceeds the anticipated flows with a capacity of 31.2L/s.

Storm Servicing and Stormwater Management

The site will contain large impervious areas which will require storm sewers and stormwater management to manage the flows. The lands are currently tributary to the large pond at the rear of the property and will continue to be after development. Storm sewers will be constructed in accordance with the Ontario Building Code with maintenance holes, catchbasins, and catchbasin maintenance holes installed at appropriate low points and changes in direction.

As large flows will be generated from the impervious areas the site will require stormwater management. Quantity control will be utilized via parking lot storage to a depth of 0.25m. Flows will be restricted via a single orifice to the 5-year pre-development flows for all events to the 100-year storm. The key site flow and storage data are listed below:

Site area = 1.46ha., C = 0.875-year storm pre-development flow = 110L/s at tc = 15 minutes 100-year post-development flow = 0.613L/s at tc = 10 minutes Required storage volume 100-year event = 317 cubic meters Provide storage volume = 320 cubic meters

<u>SUMMARY</u>

In closing, the proposed servicing strategy will have minimal challenges to implement and will not affect the surrounding lands.

Yours Truly, SPRIET ASSOCIATES LONDON LIMITED J.M. Spriet, P.Eng

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