MTE Consultants
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MTE File No.: C51732-200

Paul Di Losa
Development Services
City of London
300 Dufferin Avenue
London, Ontario N6A 4L9

Dear Paul:

RE: Sanitary Capacity Analysis
Western University New Student Residence
London, Ontario

MTE Consultant Inc. was retained by Architects Tillmann Ruth Robinson to conduct a sanitary capacity analysis for the proposed Western University student residence building to be constructed at the northwest corner of the University Drive and Richmond Street intersection. The site area is approximately 0.962ha. The proposed development for the site is the construction of an eight-storey building with one level of basement for a portion of the building, driveway access to Tower Lane, and outdoor amenity areas. This report outlines the findings of the downstream sanitary capacity analysis for the development.

Sanitary Servicing

There is an existing 250mm diameter municipal sanitary sewer on Tower Lane which drains west to the existing Broughdale pumping station. The closest manhole to the site is located near the northeast corner of the site. It is understood that the pumping station pumps the effluent around Elgin Hall, into the existing gravity sewers on Sunset Street. Based on correspondence with the City of London, it is understood that the existing Broughdale pumping station does not have adequate capacity to accommodate the additional flows expected from the proposed development.

There is an existing 200mm diameter municipal sanitary sewer on the west side of Richmond Street which drains south. The closest manhole to the site is located approximately 40m south of the Richmond Street and University Drive intersection. As per City of London's Locates Map, the top of grate elevation of this manhole is 242.43 and the downstream sewer invert is approximately 2.5m below the top of grate elevation.

Sanitary Capacity Analysis

As recommended by the City of London, the effluent from the site will be directed to the existing 200mm diameter municipal sewer on the west side of Richmond Street. The updated anticipated peak flow rate from the proposed development is approximately 9.1L/s. Due to elevation constraints, the effluent will be pumped to the above-mentioned manhole located on the west side of Richmond Street via a 100mm diameter forcemain. The forcemain will be positioned on University property except for the connection point in the right-of-way. Refer to

MTE Drawing C2.2B for details. The 100mm diameter forcemain shall have a scouring velocity greater than 0.9L/s per City of London guidelines. PVC SDR 26 pressure pipe per ASTM D2241/CSA B137.3 is proposed for the forcemain material. The sanitary pumping assembly will be located inside the basement of the new building, sized by the mechanical engineer, and detailed on the mechanical design documents prior to building permit. The existing 200mm diameter municipal sewer on Richmond Street has a slope of 0.44% and an approximate capacity of 21.8L/s. Refer to the appended design sheet for details.

Based on the Sewer Engineering comments provided by the City of London, dated January 19, 2024, it is understood that the downstream sewers for the proposed sanitary strategy have adequate capacity to accommodate the previously expected peak flow rate of 8.0L/s. It is assumed that the downstream sewers will be able to accommodate the newly calculated peak flow rate of 9.1L/s; however, this is to be confirmed by the City.

Please contact us should you have any comments or questions.

Yours Truly,

MTE Consultants Inc.

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