ONSITE LOCATES INC.
UTILITY LOCATE SERVICES
A wholly owned subsidiary of J.D. Barnes Ltd.

July 5, 2023

Evan Dai
Regency Management Inc.
9140 Leslie St. Suite 306
Richmond Hill, ON L4B 0A9

Re: **Subsurface Utility Mapping (SUM) – 1155 North Service Rd W., Oakville**
OnSite Locates Project Ref#: 23-46-34208

Project Summary

OnSite Locates Inc. (OSL) was engaged to complete Subsurface Utility Mapping of the above noted property by J.D. Barnes Limited (the client) on 4th May 2023

The SUM Investigation was completed in accordance with *CI/ASCE Standard 38-02: Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data*.

The work was conducted on 26th May 2023 and was successful in designating the alignment of the underground utilities within the Project Area.

The following utilities were identified:

- Telecommunication
- Gas
- Hydro
- Sanitary, Storm, and Water

This Report was created to supplement the digital file(s) *23-46-34208-Jul05.dgn* that make up the final deliverable of the project.

Project Area

Subsurface Utility Mapping Investigation Standards

OnSite Locates Inc. performed the SUM Investigation in accordance with the *CI/ASCE Standard 38-02: Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data*.

CI/ASCE Standard 38-02 Summary

Quality Level D (QL-D) - information derived from utility records or oral recollections.

Quality Level C (QL-C) - Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to quality level D information.

Quality Level B (QL-B) - Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality

level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Quality Level A (QL-A) - Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy as defined or expected by the project owner.

Equipment and Techniques

JDB/OSL survey crews are trained to use the tools provided to them in accordance with the JDB/OSL Standard Operating Procedures, project scope, conditions, and the manufacturer's instructions to ensure the work is completed safely, accurately, and on time. Below is a description of the equipment and techniques used by JDB/OSL during the SUM Investigation.

Electromagnetic Designating Equipment
JDB/OSL uses industry standard electromagnetic cable and pipe locate kits. This equipment consists of a transmitter and receiver operating at a range of frequencies. In essence, the transmitter is used to induce a signal on a utility either through direct connection to the utility or electromagnetic induction and the signal is detected by the transmitter allowing the operator to mark on the ground the approximate horizontal location of the utility. The receiver also provides a depth estimation of the buried utility.

It is important to note that this type of equipment has its limitations, since it is the electromagnetic field that is detected, and not the utility itself. It will not locate non-metallic lines such as plastic pipes. Additionally, there are several factors that may distort the signal, causing the designation to be inaccurate, or making the utility impossible to detect. These factors are broken tracer wires, utility congestion, and change in utility material etc.

Invert Measurement
Sewer invert depths were manually measured using measuring tapes from the lid/grate of the given feature.

Survey Equipment
JDB/OSL employs the use of typical surveying instruments such as Total Stations and high accuracy Global Navigation Satellite Systems (GNSS). GNSS units are primarily used, with Total Stations being an alternative when there is no good satellite signal: under trees, near buildings etc.

Computer-Aided Design (CAD) Drafting
JDB/OSL employs the use of industry standard programs e.g., MicroStation and AutoCAD to manipulate and present data.

Subsurface Utility Mapping Investigation Summary

Utility Circulation Request

The record search process commenced on 5th May 2023 and the final records were obtained on 6th June 2023. We obtained most of the records by putting in a design and planning request on the Ontario 1 Call portal. The results and status of the records search is provided below:

- Bell Telecommunication – Received – 25th May 2023
- Enbridge Gas – Received – 5th May 2023
- Rogers Telecommunication – Received – 19th May 2023
- Oakville Hydro – Received – 29th May 2023
- Hamilton Community Enterprises Telecommunication – Received – 24th May 2023
- Town of Oakville – Received – 26th May 2023
- Municipality of Halton – Received – 23rd May 2023
- Site plans – Received – 6th June 2023

Field Investigation

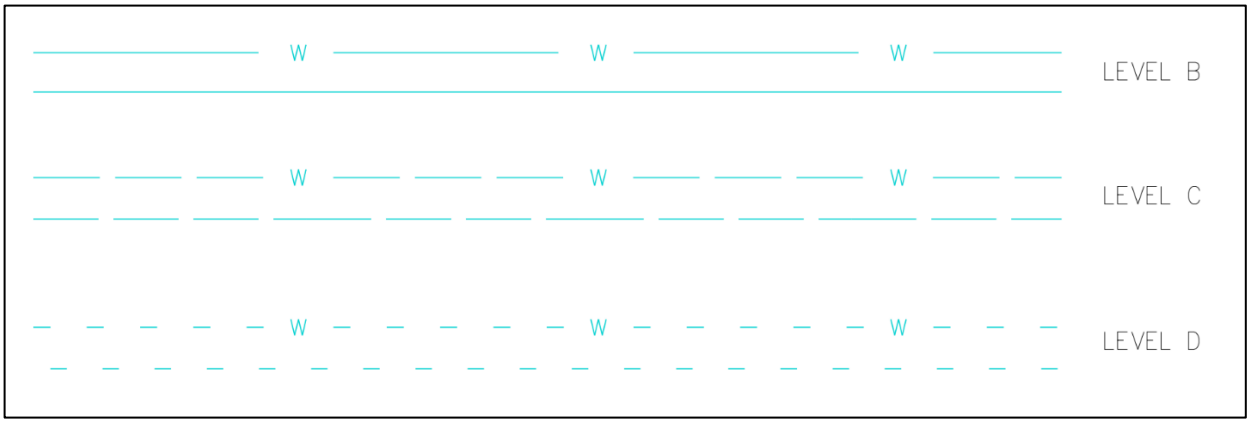
The field investigation was conducted using geophysical locate techniques. All above ground features related to underground utilities, such as catch basins, manholes and water valves etc. were investigated.

Data Analysis

Field and record data were analyzed using professional judgement to provide a comprehensive presentation of the utility plant and infrastructure within the workspace.

CAD Presentation

Line styles are designated as per the CI/ASCE Standard 38-02 and are depicted in the CAD deliverable as seen below.



Report Prepared by:
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Utility Surveys