

STRUCTURAL REPORT Retaining Wall Alteration

Date: April 28, 2021 **No. of Pages:** 2 + Encl.

Project: 20 Grove Street Retaining Wall - Proposed Alterations **Project No.:** TE-37813-21

Address: 20 Grove Street, Guelph Permit No.: n/

Client: Sutcliffe Homes

Distribution: Phill McFadden Sutcliffe Homes pmcfadden@sutcliffehomes.ca

Background

Tacoma Engineers has been retained by Sutcliffe Homes to provide a preliminary analysis of the proposed alterations to a site located at 20 Grove Street in Guelph, specifically with respect to the anticipated impact to the existing City-owned retaining wall separating the property from the roadway along the south elevation.

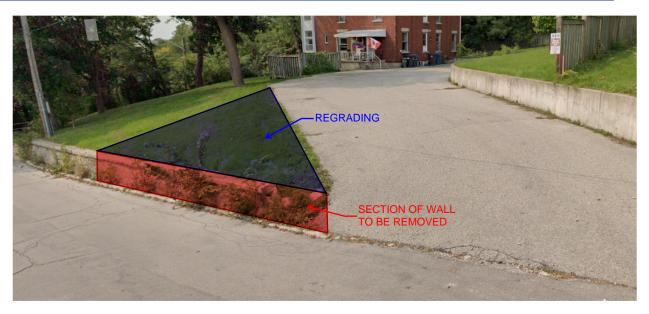
A general review of the site conditions was carried out on the morning of March 10th, 2021, following which a schematic wall section was prepared for the purposes of planning and application.

Comments

Preliminary site plans indicate that the upper parking area will be widened and will require a new retaining wall. This new retaining wall is described in the schematic wall design (attached for reference). It should be noted that this new wall will be founded at an elevation well below the anticipated zone of influence of the roadway retaining wall. As such, the new proposed retaining wall bounding the altered parking area is not expected to negatively impact the existing roadway retaining wall.

Additional proposed changes include an alteration to the course of the entry to the site which will necessitate the removal of approximately 10m of the roadway retaining wall. The supported grade along this length of wall is relatively small (less than 1.0m), and the wall appears to be in fair condition with limited deterioration of the masonry and no sign of global failure (overturning or sliding). As part of this regrading, the intent is to reduce the height of soil in this area, resulting in an overall reduction in the lateral forces on the wall. The removal of this section of wall is not expected to negatively impact the retained lengths of wall.





Note the following:

- The final site grading must account for changes in slope required to accommodate the new retaining wall at the parking area and alterations to the City-owned retaining wall.
- When carrying out removals, carefully cut the existing wall and reinstate the masonry to match surrounding materials. Do not use machine-mounted chipping hammers or other heavy percussive demolition equipment prior to complete separation from the section of wall to be retained.

Final retaining wall design and analysis can be completed following receipt of the completed grading and site plans.

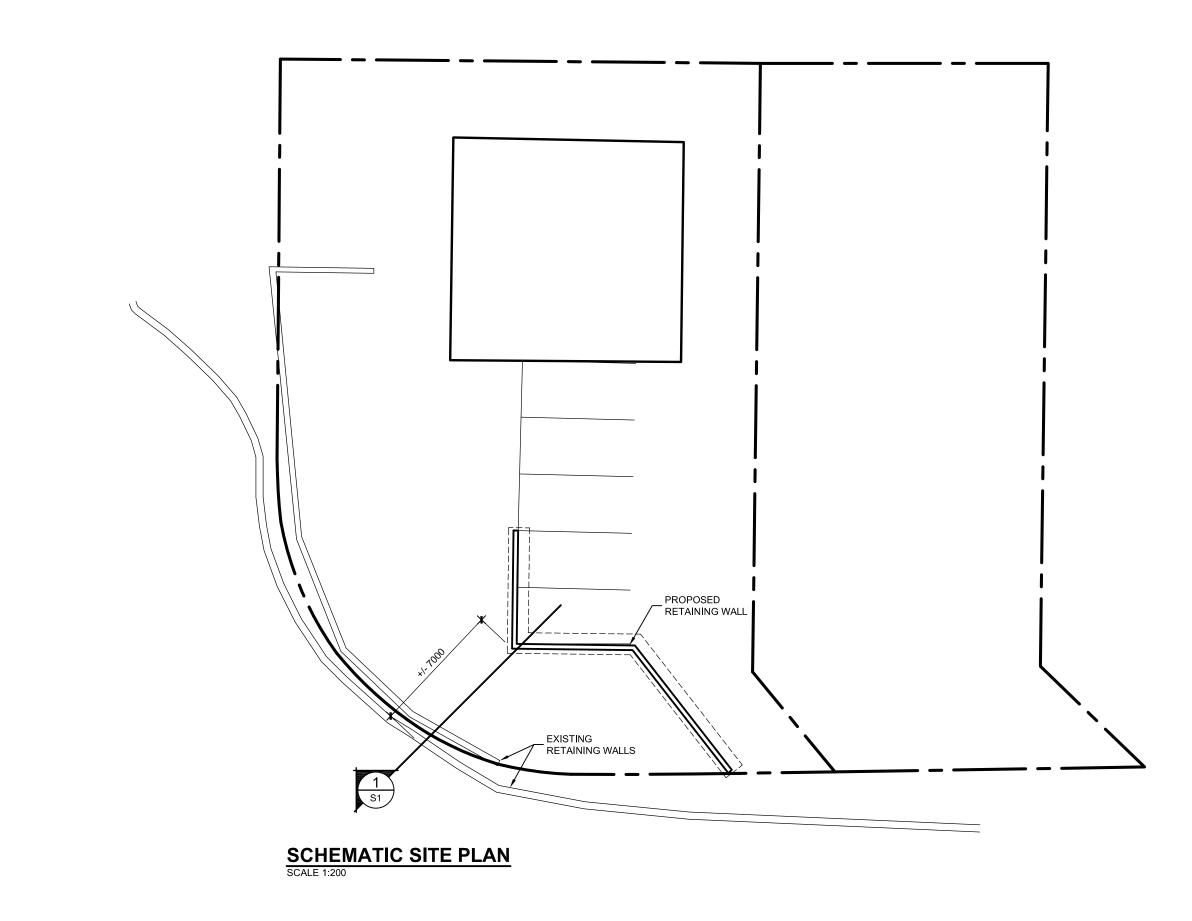
April 28, 2021

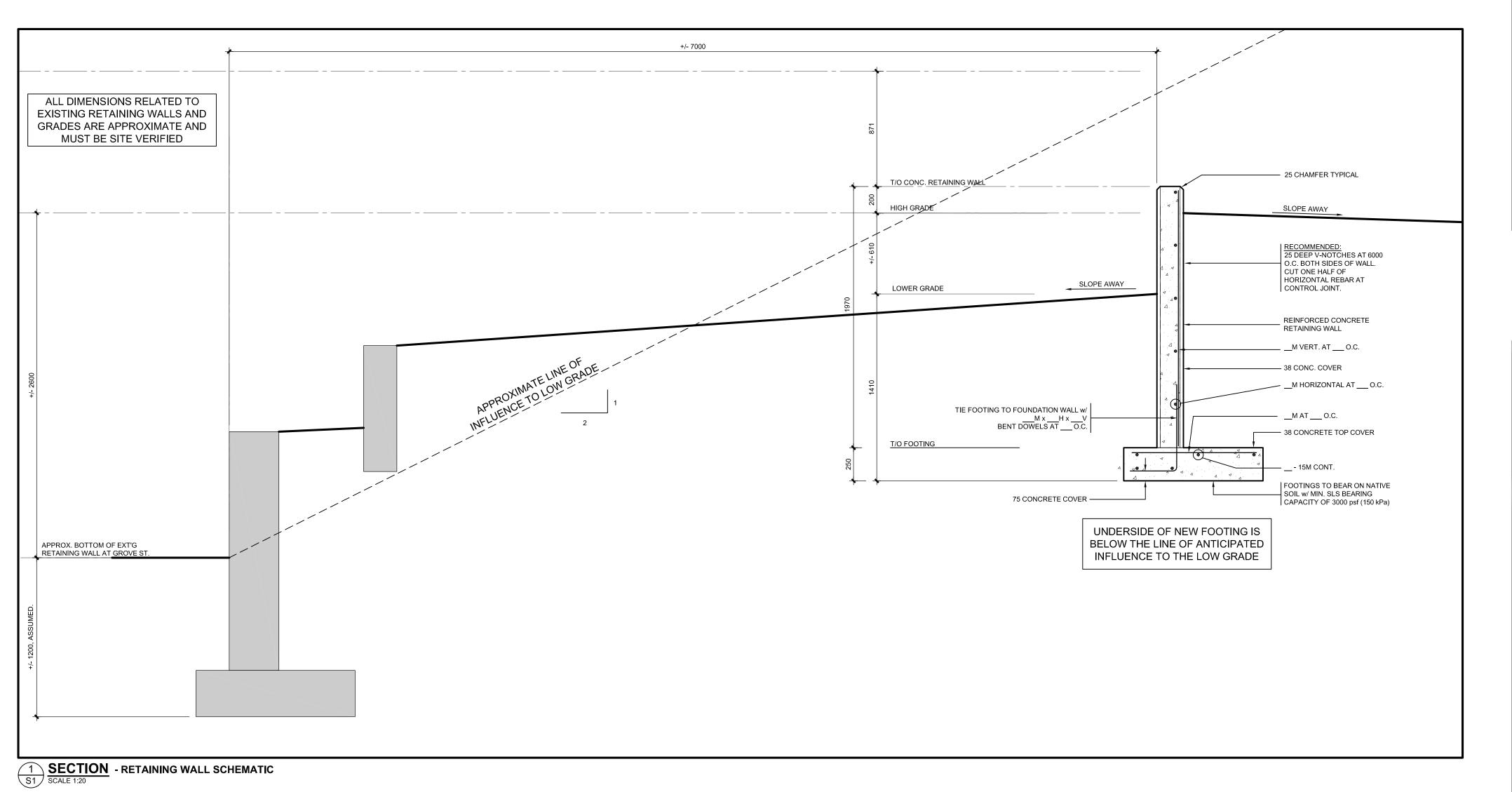
TE-37813-21

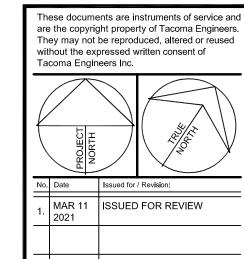
Per

Gerry Zegerius, P.Erg., CAHP Structural Engineer, Senior Associate Tacoma Engineers

HOVINCE OF ON Encl. 1 page S1, Schematic site plan and retaining wall section









176 Speedvale Avenue West Guelph, Ontario N1H 1C3 Tel: 519.763.2000 www.tacomaengineers.com

SUTCLIFFE HOMES

GUELPH, ON

PROPOSED RETAINING WALL

20 GROVE ST. GUELPH, ON

SCHEMATIC SITE PLAN & DETAIL

 Project No.
 Drawn By:

 TE-37813-21
 JDH

S1