File #:	**2418**
Date:	**July 20, 2021**

Mr. Peter Middaugh
AECOM
105 Commerce Valley Drive West
Thornhill, ON, L3Y 7W3

Dear Mr. Middaugh:

Re:	**Existing Drainage Conditions** **102 Prouse Road** **Lincolnville, Township of Uxbridge, Region of Durham**

Further to your comments and request, we are pleased to provide the following existing drainage report for the property located at 102 Prouse Road (former Forterra Pressure Pipe site) in the community of Lincolnville, Township of Uxbridge in the Region of Durham. This report has been prepared at the request of the Town in support of the Re-zoning application for the repurposing of the site to include an allowance for a soil remediation processing operation.

The Site is located north-east of the intersection of York Durham Line and Prouse Road, as shown in **Figure 1**.

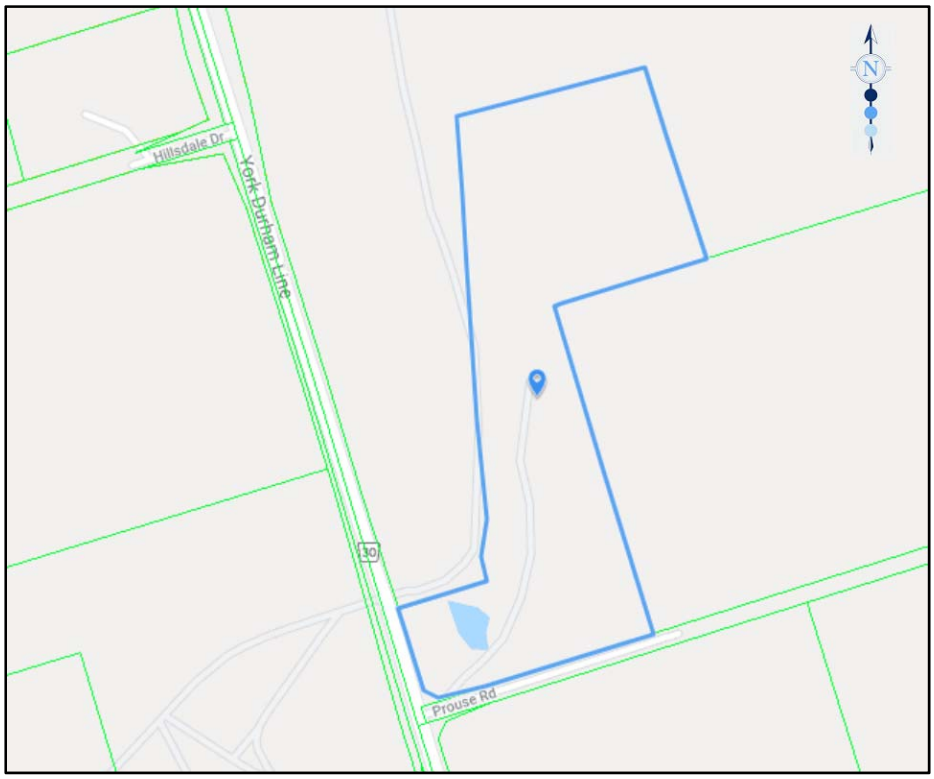


Figure 1 – Site Location

The subject property is the former Forterra Pressure Pipe, previously acting as a manufacturer of precast concrete products, including pipes, manholes, bridge beams, and other structures since 1992. The property includes various buildings on site, as well as a crushed concrete recycling area, well house, outside storage space and a parking lot. The impervious area is limited to the lands at the entrance/exit of the site closest to York Durham Line and Prouse Road and includes the building roof tops and asphalt/paved areas, comprising approximately 5% of the site. The majority of the site consists of gravel cover utilized for parking/driving and storage. The south and southwest portions of the Site include a grassed septic bed area and a pond.

The site area is approximately 13.81 hectares. The adjacent land uses include aggregate pit sites with a haul road to the north, east and west of the site as well as agricultural lands south of Prouse Road. An aerial photograph of the site is shown in **Figure 2**.

Figure 2 – Aerial Photograph

The investigation was based on the following information:

- Legal information provided by Geowarehouse;
- Aerial Topography, SCS Consulting Group, July 2021;
- Lake Simcoe Watershed Mapping provided by the Lake Simcoe Region Conservation Authority;
- Soil Map of York County provided by the Ontario Soil Survey;
- Regulated Area Mapping provided by the Lake Simcoe Region Conservation Authority;
- GIS Mapping provided by the Region of Durham;
- Topographic information from Region of Durham Interactive Maps.

PROPOSED SITE USE

As noted above, the site re-zoning is proposed to allow a soil processing land use to be incorporated into the site. The proposed soils processing operation will occur within the existing large building in the southern portion of the site. The existing concrete production facility will be maintained. There are no proposed changes to the site surface treatment, the site drainage systems or the site grading to facilitate the proposed re-zoning. Since there are no proposed changes to the site characteristics to accommodate the proposed re-zoning, this letter has focused on a description of the existing site drainage characteristics for information purposes.

EXISTING DRAINAGE AND STORMWATER MANAGEMENT

The Site is located within the Pefferlaw Brook subwatershed within the Lake Simcoe watershed. As shown on the LSRCA regulation mapping below in **Figure 3**, the site in on the southern edge of the Lake Simcoe drainage shed. The southern watershed boundary of Lake Simcoe along the boundary of the site is shown in greater detail in **Figure 5** by the green watershed limit boundary.

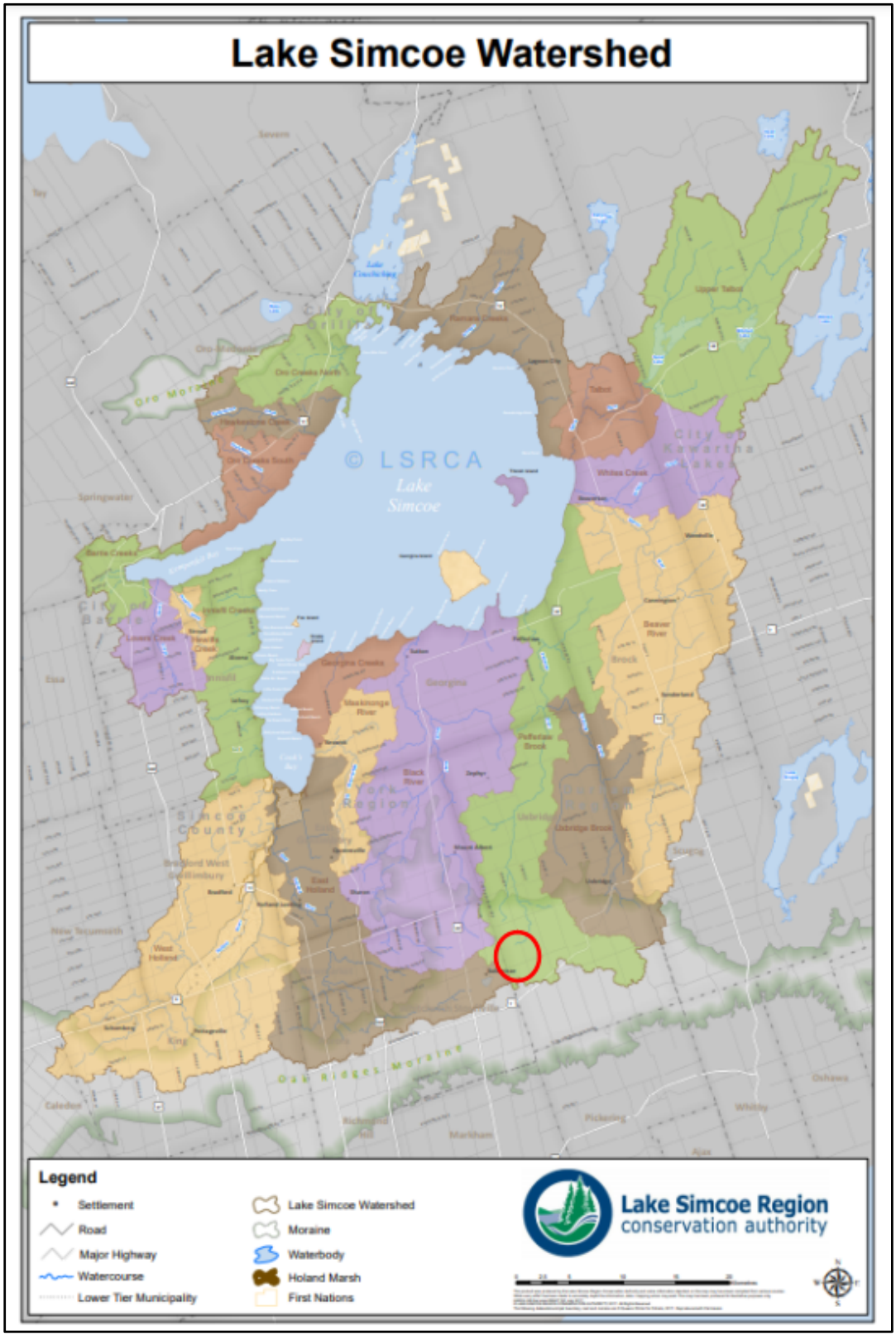


Figure 3 – Lake Simcoe Watershed

As shown on **Figure D1** (attached), the southwest portion of the site (catchment area 2) drains to a trapped drainage pond via a storm sewer system and includes a portion of the building roofs, parking lot, and surrounding area. A storm sewer extending from the existing building drains to an existing oil/grit separator (OGS) and ultimately to the trapped drainage pond in the south-west corner of the site. There are also several catchbasins located along the north and northeast sides of the building.

The existing trapped drainage pond located in the southwest corner of the Site collects approximately 7.96ha of runoff from Catchment Area 2. This pond also collects external drainage through a 900mm dia. culvert located east of the York Durham Line Right-of-way. The normal water level of the existing pond was 351m in July 2021. The headwall invert elevation is approximately 352.5m, and the spillway elevation (on the north side of the pond) is approximately 355m. This pond does not have a piped outlet, therefore, any runoff entering the pond is retained, infiltrated or evaporated prior to any flow leaving the pond over the spill elevation and draining north along the adjacent gravel pit haul road. The pond appears to have a high infiltration capacity since the normal water level is approximately 4m below the spill elevation. Based on visual observations, there was no evidence of high water marks on surrounding landscape or evidence of debris that would indicate high water levels. The site also has sandy soils, as shown on the Soil Map of York County below in **Figure 4** and **Figure 4.1**.

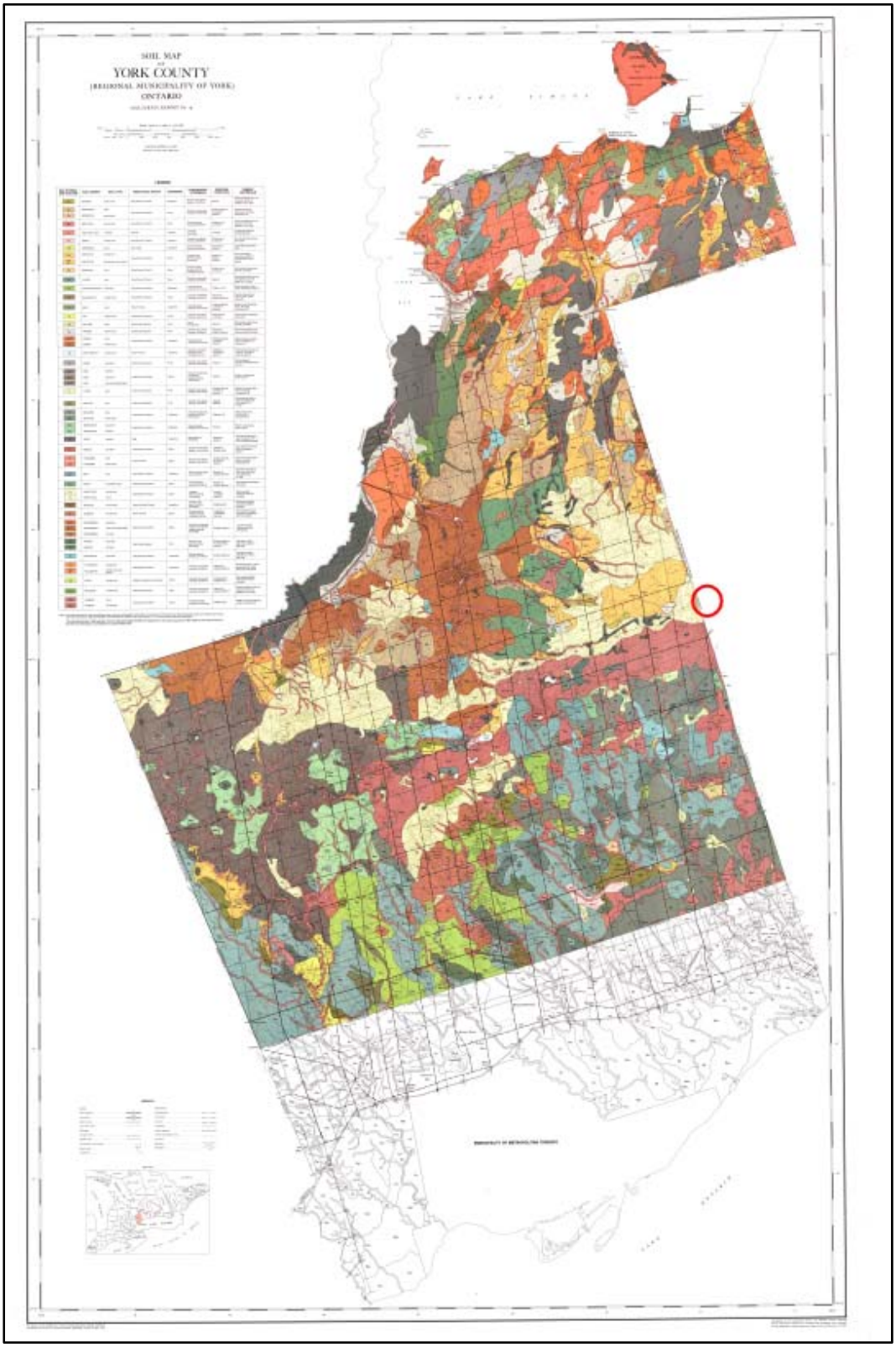


Figure 4 – Soil Map of York County

Psl Ps	PONTYPOOL sandy loam PONTYPOOL sand	Grey-Brown Podzolic	Good	Irregular steeply sloping. Few stones	Neutral to slightly alkaline	Poorly sorted, calcareous sandy outwash

Figure 4.1 – Soil Type

The north and easterly portion of Catchment Area 2 gently slopes (0.5 to 2% across the pervious gravel cover toward the south-west trapped drainage pond.

As shown on Figure D-1, the north and eastern portion of the site (Catchment Area 1), drain overland across the granular site surface toward an existing pond with a perforated pipe outlet that is located in the north-eastern portion of the site and collects approximately 5.71ha of storm drainage. The pond outlets onto rip-rap and existing vegetation and drains northerly into the existing aggregate pit external to the site.

The site is not within an area regulated by Lake Simcoe Region Conservation Authority and is located at the southernmost drainage boundary of the Lake Simcoe watershed, as shown in **Figure 5** below.

No areas within the site drain toward the Prouse Road or York Durham Line Rights-of-way. A topographic map extending beyond the property line is shown in **Figure 6** below.

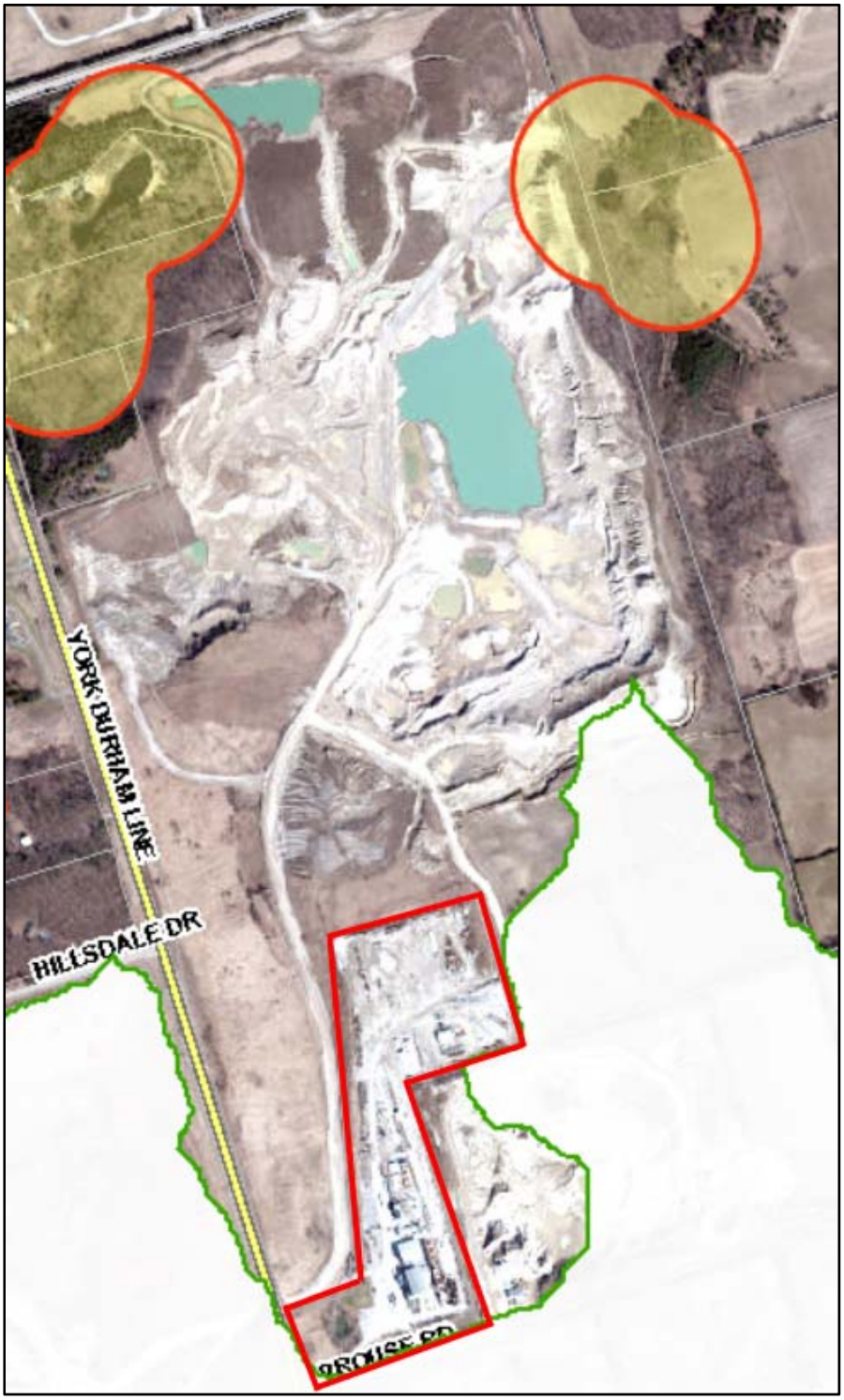


Figure 5 – LSRCA Regulated Areas (Highlighted in Yellow)

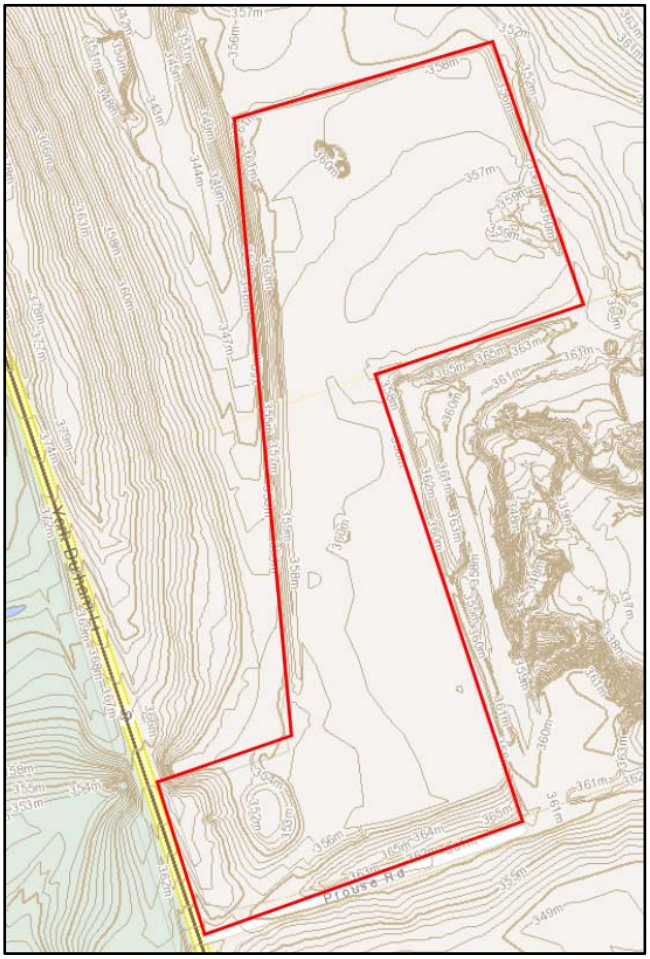


Figure 6 – Topographic View

Please contact the undersigned if you have any questions or require any additional information.

Sincerely,

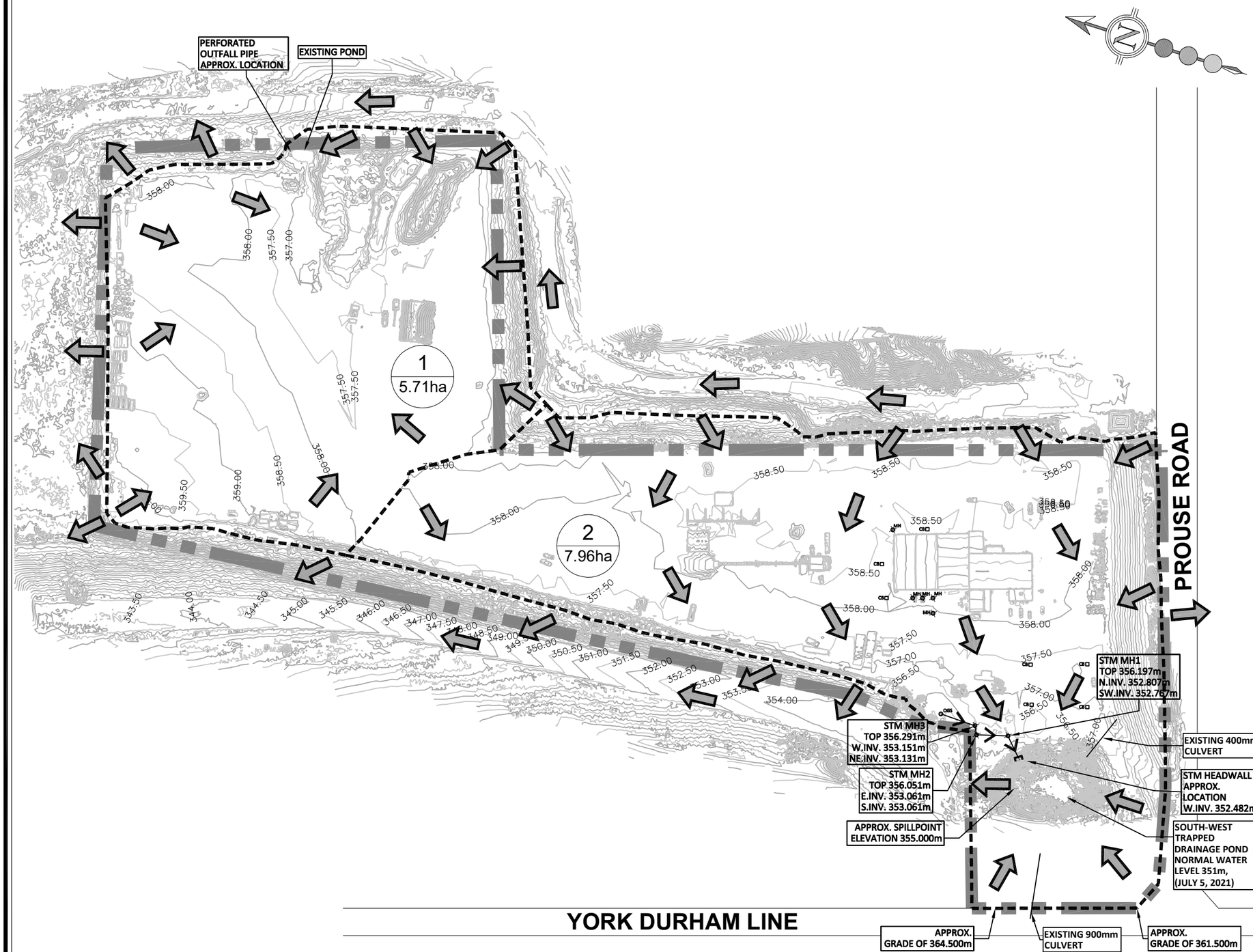
SCS Consulting Group Ltd.

Sherri Meiboom, C.E.T.
smeiboom@scsconsultinggroup.com

Attachments: Figure D1 – Existing Drainage

c. Mr. Vince Figliomeni, TACC Developments (via email)

P:\2418 Tacc - 102 Prouse Rd - Uxbridge\Correspondence\Letters\2418-sem-Existing Drainage Conditions-20Jul21.DOCX



LEGEND:

- SITE BOUNDARY
- STORM DRAINAGE BOUNDARY
- 358.50 — EXISTING CONTOUR AND ELEVATION
- 1 / 5.71ha — CATCHMENT ID; DRAINAGE AREA (HECTARES)
- EXISTING SITE FLOW DIRECTION
- ASSUMED PIPE LAYOUT
- EXISTING CATCHBASIN
- EXISTING MANHOLE
- EXISTING OGS

*NOTE: EXISTING STORM INFRASTRUCTURE LAYOUT IS SCHEMATIC ONLY.

SCS consulting group ltd
30 CENTURIAN DRIVE, SUITE 100
MARKHAM, ONTARIO L3R 8B8
TEL: (905) 475-1900
FAX: (905) 475-8335

102 PROUSE RD UXBRIDGE

EXISTING DRAINAGE

DESIGNED BY: P.C. / S.M.	CHECKED BY: S.M.S.
SCALE: 1:2500	DATE: JULY 2021
PROJECT No: 2418	FIGURE No: D1