

**FIELD REVIEW REPORT #1
SOILS INVESTIGATION
CONC. 20, PART LOT 3 RP 16R4491; PART 2 - GREY ROAD 17
AMANDA OLDER AND ELI VERMILYEA
TOWNSHIP OF GEORGIAN BLUFFS**

File No. 221367

<u>DATE OF REVIEW:</u>	October 4, 2021
<u>TECHNICIAN:</u>	Ethan Webb, E.I.T.
<u>WEATHER:</u>	Partly Cloudy, 17°C

REMARKS:

At the request of Mr. Eli Vermilyea, the undersigned visited the above noted site to review the subgrade soils for the proposed residential development.

The proposed residence is located on a property with a portion of the property designated by the Grey Sauble Conservation Authority (GSCA) as an Environmentally Protected Area (EPA). The residence is located in the southeast corner of the property, outside of the EPA but within the 30 m EP Zone buffer line as part of O. Reg 151/06. In order to proceed with the development as is proposed, a minor variance is required. To support the minor variance, GSCA requires that the underlying soil conditions be reviewed by a qualified engineer.

The drawings made available for review include the house plans prepared by Greg Williamson Design (dated May 11, 2021) and the lot grading and site plans prepared by WSP (dated April 2021). The contractor, Ryke Construction, provided a "mini" excavator to dig some testholes across the site. The testholes locations are seen on the attached Figure 1.

A total of four (4) shallow testholes were excavated on site to verify the soils conditions along the EP zone. The subsurface encountered was consistent at all four testholes, with approximately 200 mm to 300 mm of surficial topsoil and organics, underlaid by a brown and grey sandy silt and clay with varying gravel and cobble inclusions. The subgrade soils were probed with a steel rod and are considered stiff to very stiff. Minor groundwater infiltration was visible at the bottom of all of the excavated testholes at approximately 209.80 m. The excavation contractor indicated that the subsurface conditions were consistent with the front portion of the site, where the topsoil had been stripped prior to placement of granular fill for access to the site. The testhole logs are appended to this report.

Based on the subgrade soils encountered at the testhole locations, the inorganic soils are considered sufficient to provide the minimum design bearing capacity of 75 kPa as outlined in the Ontario Building Code.

The encountered subgrade elevation at the testholes varied from 210.30 m to 210.42 m. From the grading plan, the proposed finished floor elevation of the residence is 212.11 m. The foundation design indicates that the underside of footing grade is to be 1.37 m (4 ft. 6 in.) below the finished slab grade. This places the underside of footing elevation near 210.74 m. This is approximately 0.44 m to 0.30 m above the encountered subgrade elevation. Therefore, the foundation design is to be adjusted in order to extend the foundation walls to allow the footings to bear on the native undisturbed soils.

Additional site reviews will be completed as required with advanced notice to this office.

GM BLUEPLAN ENGINEERING LIMITED

Per:

A handwritten signature in blue ink that reads 'Ethan Webb'.

Ethan Webb, E.I.T.
EW/md

Encl.

cc:

Owner: Amanda Older and Eli Vermilyea - eli@fbmcontracting.ca, amandaolder1@gmail.com
Township of Georgian Bluffs – via Owner
Grey Sauble Conservation Authority- via Owner
GMBP: Ethan Webb – ethan.webb@gmblueplan.ca
GMBP: Bill Dubeau – bill.dubeau@gmblueplan.ca
File No. 221367



Wm E. Dubeau, P. Eng.

A handwritten signature in blue ink that reads 'Wm E. Dubeau'.

TOWNSHIP OF
GEORGIAN
BLUFFS



LEGEND:

✦ TEST HOLE

TEST HOLE
LOCATION MAP
CONC. 20, PT. LOT 3
RP 16R4491: PT. 2
GREY COUNTY ROAD 17
SOILS INVESTIGATION

Figure No. 1



221367
SEPTEMBER 2021
N.T.S.

Project No: 221367

Log of Testhole: 1

Project: Soils Investigation - Part Lot 3, Conc. 20 - Grey Rd. 17 Excavation Date: October 4, 2021

Client: Amanda Older and Eli Vermilyea

Field Technician: E. Webb

Location: Warton, ON

Excavation Company: Ryke Construction

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth	Elevation	Symbol	Description	% Moisture 5 15 25	Ground Water and Sampling Details
0 ft 0 m	210.64		Ground Surface		
			Black Topsoil and Organics		
1	210.39		Brown and Grey Sandy Silt and Clay with Gravel and Cobble Inclusions. Moist and Stiff to Very Stiff when probed with a steel rod.		
2					
	209.84				Minor Groundwater Infiltration
3					
4					
5					
6					

Notes:

Equipment: Kubota Mini Excavator

GM BluePlan Engineering Limited
Guelph, Owen Sound, Listowel, Kitchener, Exeter, Hamilton, GTA
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Project No: 221367

Log of Testhole: 2

Project: Soils Investigation - Part Lot 3, Conc. 20 - Grey Rd. 17 Excavation Date: October 4, 2021

Client: Amanda Older and Eli Vermilyea

Field Technician: E. Webb

Location: Warton, ON

Excavation Company: Ryke Construction

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth	Elevation	Symbol	Description	% Moisture 5 15 25	Ground Water and Sampling Details
0 ft	210.61		Ground Surface		Minor Groundwater Infiltration
0 m			Black Topsoil and Organics		
1	210.36		Brown and Grey Sandy Silt and Clay with Gravel and Cobble Inclusions. Moist and Stiff to Very Stiff when probed with a steel rod.		
2					
2					
3	209.81				
4					
5					
6					

Notes:

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Equipment: Kubota Mini Excavator

Project No: 221367

Log of Testhole: 3

Project: Soils Investigation - Part Lot 3, Conc. 20 - Grey Rd. 17 Excavation Date: October 4, 2021

Client: Amanda Older and Eli Vermilyea

Field Technician: E. Webb

Location: Wiarton, ON

Excavation Company: Ryke Construction

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth	Elevation	Symbol	Description	% Moisture 5 15 25	Ground Water and Sampling Details
0 ft	210.50		Ground Surface		Minor Groundwater Infiltration
0 m			Black Topsoil and Organics		
	210.30				
1			Brown and Grey Sandy Silt and Clay with Gravel and Cobble Inclusions. Moist and Stiff to Very Stiff when probed with a steel rod.		
2					
	209.70				
3					
4					
5					
6					

Notes:

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Equipment: Kubota Mini Excavator

Project No: 221367

Log of Testhole: 4

Project: Soils Investigation - Part Lot 3, Conc. 20 - Grey Rd. 17 Excavation Date: October 4, 2021

Client: Amanda Older and Eli Vermilyea

Field Technician: E. Webb

Location: Wiarton, ON

Excavation Company: Ryke Construction

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth	Elevation	Symbol	Description	% Moisture 5 15 25	Ground Water and Sampling Details
0 ft 0 m	210.72		Ground Surface		Minor Groundwater Infiltration
			Black Topsoil and Organics		
1	210.42		Brown and Grey Sandy Silt and Clay with Gravel and Cobble Inclusions. Moist and Stiff to Very Stiff when probed with a steel rod.		
2	210.02				
3					
4					
5					
6					

Notes:

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Equipment: Kubota Mini Excavator