



SOIL-MAT ENGINEERS & CONSULTANTS LTD.

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PROJECT No.: SM 156011-G

December 16, 2025

NIAGARA YORK ROAD INC.
366 King Street West
Hamilton, Ontario
L8P 1B3

Attention: Mr. Darko Vranich

**GROUNDWATER COMMENTS
RE: PROPOSED HOTEL AND COMMERCIAL DEVELOPMENT
524 YORK ROAD
NIAGARA-ON-THE-LAKE, ONTARIO**

Dear Mr. Vranich,

As requested by Mr. Peter Horn of Horn Design & Consulting Inc., please find our comments below regarding the groundwater conditions on the above noted site.

In reviewing our records for our original reports prepared for 524 York Road (previously referred to as “525 York Road”), I note that our 2015 study of the site did not involve the installation of wells, however the groundwater level was estimated, based on observations of the site subsoils, to be between 4 and 6 metres below grade, which would allow for the construction of a single basement level without long-term groundwater control. Our findings in the wells installed in 2024 during our study of Parcels 6 and 7 to the south demonstrate a groundwater flow toward the north east with a static groundwater level of approximately 6.5 metres below grade approximately 200 metres to the south of the 524 York Road site. In addition, MOECP groundwater well records (attached) for properties to the north fronting onto Queenston Road demonstrate static groundwater levels of 10, 14.6 and 20.7 metres (33, 48 and 68 feet) approximately 300 metres to the north, which all demonstrate that the groundwater level will be well below the proposed basement depth of the planned development at 524 York Road.

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GROUNDWATER COMMENTS
PROPOSED HOTEL AND COMMERCIAL DEVELOPMENT
524 YORK ROAD
NIAGARA-ON-THE-LAKE, ONTARIO



Should you require any additional information or clarification as to the contents of this document, please do not hesitate to contact the undersigned.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

A handwritten signature in blue ink, appearing to read "Stephen R. Sears".

Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP_{ESA}
Senior Engineer



Attachments: MOECP Queenston Road Well Records

Distribution: Horn Design and Consulting Inc. [1, plus pdf]

WPM [] Z [] E
 [9] R [] N
 Elev. [9] R []
 Basin [24] []



Rec'd
 38
 Oct 31/51 940

The Well Drillers Act
 Department of Mines, Province of Ontario

NIAGARA - ON - THE - LAKE

Water Well Record (NIAGARA)

Village, Town or City Stantham
 or City)
 R.R. 4, ST. CATHARINES, ONT.

Date Completed 15 MAY 1950 Cost of Well (excluding pump)

Pipe and Casing Record

Pumping Test

Casing diameter(s) <u>8"</u>	Date <u>10 MAY 1950</u>
Length(s) of casing(s) <u>74'</u>	Static level <u>33'</u>
Type of screen	Pumping level <u>85'</u>
Length of screen	Pumping rate <u>100 GALS PER DAY</u>
Distance from top of screen to ground level	Duration of test
Is well a gravel-wall type? <u>No</u>	Distance from cylinder or bowls to ground level

Water Record

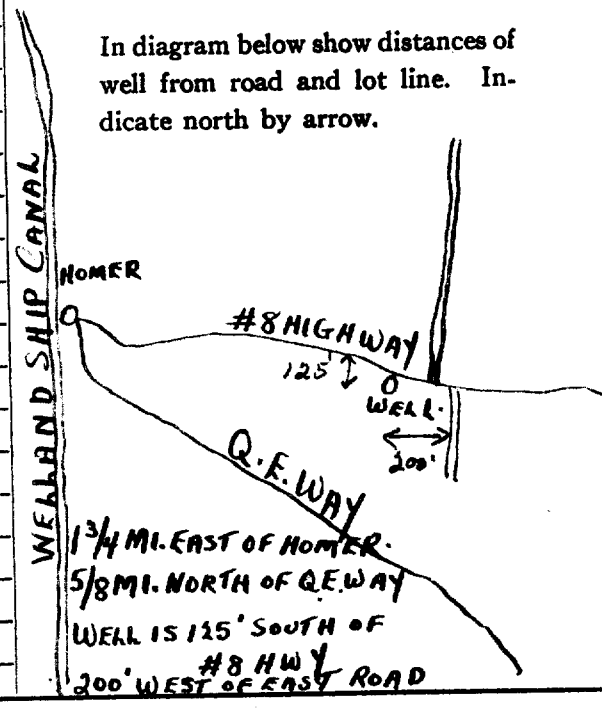
Kind (fresh or mineral) <u>FRESH</u>	Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Quality (hard, soft, contains iron, sulphur, etc.)	<u>85'</u>	<u>FRESH</u>	<u>52 FT.</u>
Appearance (clear, cloudy, coloured) <u>CLEAR</u>			
For what purpose(s) is the water to be used? <u>SCHOOL HOUSE GEN USE</u>			
How far is well from possible source of contamination? <u>NONE NEAR</u>			
What is the source of contamination?			
Enclose a copy of any mineral analysis that has been made of water			

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	...ft.
<u>HARD CLAY</u>	<u>0</u>	<u>40</u>
<u>BLUE CLAY</u>	<u>40</u>	<u>51</u>
<u>HARD PAN</u>	<u>51</u>	<u>67</u>
<u>SAND</u>	<u>67</u>	<u>74</u>
<u>ROCK (RED MEDINA)</u>	<u>74</u>	<u>85</u>
<u>" " " WATER</u>	<u>74</u>	<u>85</u>
<u>" " " "</u>	<u>85</u>	<u>87</u>

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Situation: Is well on upland, in valley, or on hillside? Upland
 Drilling Firm W.A. Lounsbury & Sons
 Address 32 Berryman Ave. St. Catharines, Ont.
 Name of Driller W.A. Lounsbury Address as above
 Date 30 May 1950 Licence Number 309
W.A. Lounsbury
 Signature of Licensee

UTM Z E
 9 R N
 Elev. 9 R
 Basin 24
 Con IX



RECEIVED
 38 No 942
 GEOLOGICAL SURVEY
 DEPARTMENT OF MINES

The Water-well Drillers Act, 1954
 Department of Mines

NIAGARA-ON-THE-LAKE

Water-Well Record

(NIAGARA)

County or Territorial District Lincoln Township, Village, Town or City Stamthams
 Village, Town or City.....
 Address

Date completed
 (day) (month) (year)

Pipe and Casing Record

Pumping Test

Casing diameter(s) 6 1/2" casing
 Length(s) 6 lengths
 Type of screen 5/8" screen
 Length of screen

Static level 4.8'
 Pumping rate 600 G.P.H.
 Pumping level 90 ft
 Duration of test 5-6 hrs.

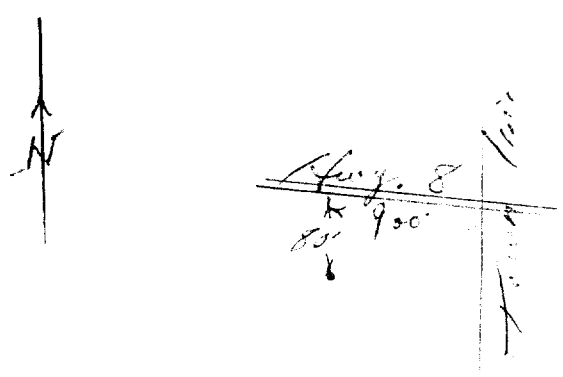
Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth (s) at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
<u>black top soil</u>	0	3			
<u>Hard clay</u>	3	18	118'	70'	fresh
<u>Soft blue clay</u>	18	24			
<u>Sandy clay</u>	24	107			
<u>Soft clay</u>	107	114			
<u>Hard clay</u>	114	118			
<u>Red shale</u>	118	122			

For what purpose(s) is the water to be used?
Household use
 Is water clear or cloudy? clear
 Is well on upland, in valley, or on hillside?
Upland
 Drilling firm W.A. Tompkins & Sons
 Address 30 Dundas St. E.
 Name of Driller W.A. Tompkins
 Address 35 Spadina St.
St. Catharines
 Licence Number 710

Location of Well
 In diagram below show distances of well from road and lot line. Indicate north by arrow.



I certify that the foregoing statements of fact are true.

Date Nov 12/55 W.A. Tompkins
 Signature of Licensee

UTM Z E
 9 R N
 Elev. 9 R
 Basin 24



GROUP No. 38
 JUL 25 1960
 ONTARIO WATER RESOURCES COMMISSION
 943

The Ontario Water Resources Commission Act, 1957

NIAGARA-ON-THE-LAKE

WATER WELL RECORD

(NIAGARA)

County or District Lennox Township, Village, Town or City South

completed 28 June 1960
 (day month year)
 ess # 8 Hung RR # 4 St. Catharines

Casing and Screen Record

Inside diameter of casing 6 3/4"
 Total length of casing 135 ft.
 Type of screen no screen
 Length of screen no screen
 Depth to top of screen no screen
 Diameter of finished hole 6 3/4"

Pumping Test

Static level 68 ft.
 Test-pumping rate 1400 - 1500 G.P.M. ^{Hour}
 Pumping level 100 ft.
 Duration of test pumping 7 hrs.
 Water clear or cloudy at end of test clear
 Recommended pumping rate 1800 G.P.H. G.P.M.
 with pumping level of 100 ft.

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
<u>hard clay</u>	<u>0</u>	<u>21</u>	<u>151'</u>	<u>23'</u>	<u>fresh</u>
<u>soft blue clay</u>	<u>21</u>	<u>74</u>			
<u>hard clay</u>	<u>74</u>	<u>92</u>			
<u>sandy clay</u>	<u>92</u>	<u>122</u>			
<u>small</u>	<u>122</u>	<u>131</u>			
<u>coarse gravel</u>	<u>131</u>	<u>135</u>			

For what purpose(s) is the water to be used?
power and farm
 Is well on upland, in valley, or on hillside?
upland hillside
 Drilling Firm M.A. Lonsbury Inc.
 Address 35 Spruce St. St. Catharines
 Licence Number
 Name of Driller Mr. Lonsbury
 Address 35 Spruce St.
 Date June 28 1960
Mr. Lonsbury
 (Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.

