

61-F-41

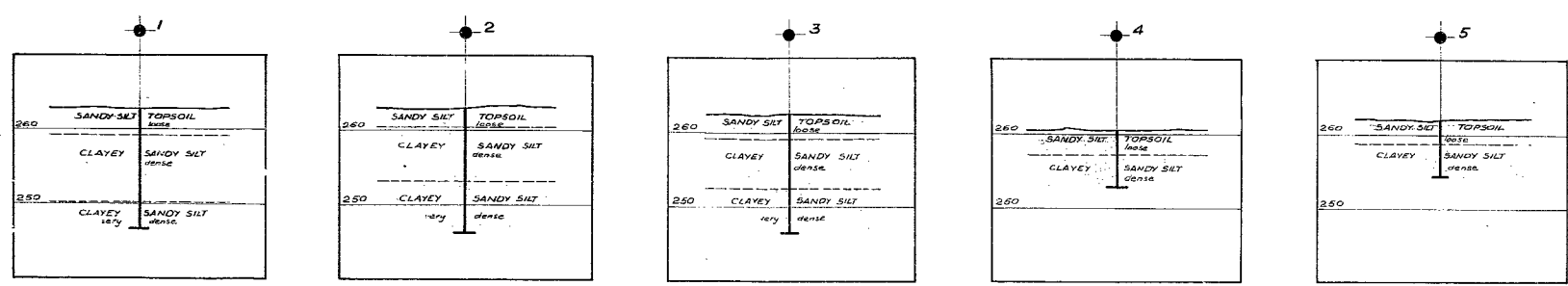
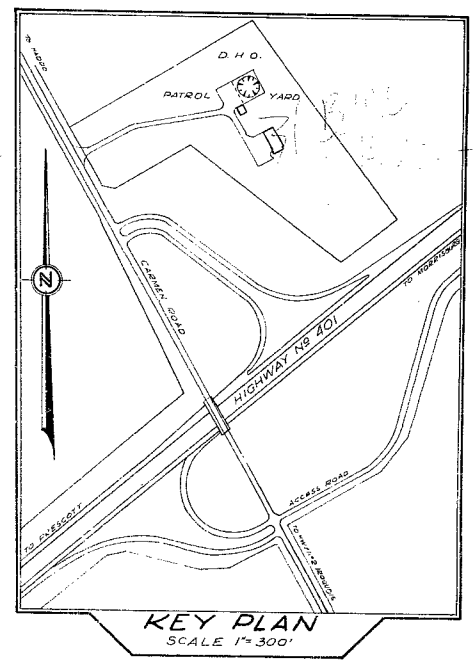
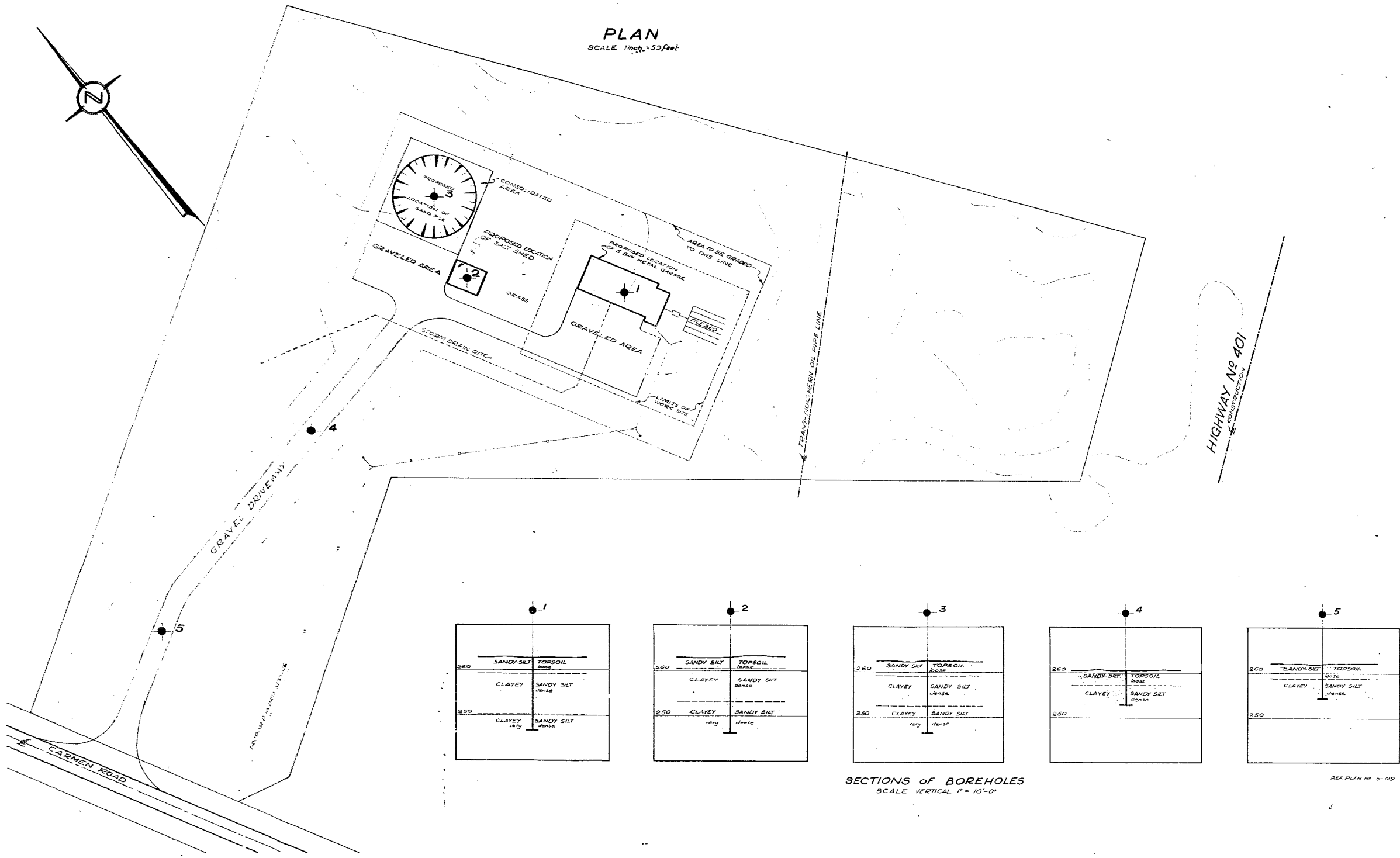
Hwy. # 401 E

CARMEN RD.

PROP. PATROL YD.

1.5 MILES N. OF

IROQUOIS V.



SECTIONS OF BOREHOLES
SCALE VERTICAL 1" = 10'-0"

DEPARTMENT OF HIGHWAYS - ONTARIO			
MATERIALS & RESEARCH SECTION			
PROPOSED IROQUOIS PATROL YARD			
ORIGINATED BY KULMATICZAS	DISTRICT NO. 9	DATE 30 MAY 1961	
DRAWN BY Fregeau	W.P. NO.	JOB NO. 61-F-27	
CHECKED BY	SCALE	DRAWING NO.	
APPROVED	AS SHOWN	61-F-41A	

28-9.

Mr. F. E. Cavell,
Superintendent,
Special Services Section.

May 16, 1961.

Materials and Research Section,
(Foundations Office.)

D.H.O. FOUNDATION INVESTIGATION
REPORT
W.J. 61-F-41 -- (W.P. - Nil -)

Re: Proposed Site of D.H.O. Patrol Garage
at
King's Hwy. No. 401 and Carmen Road -
(Approx. 1.5 Miles North of the Village of Iroquois)
Twp. of Matilda, County of Dundas, District No. 9.

It is intended to erect a D.H.O. Patrol Garage near the intersection of King's Hwy. No. 401 and Carmen Road, approx. 1.5 Miles North of the Village of Iroquois.

In order to determine the soil properties and decide on the type of foundations, an investigation was carried out by this Section. The field investigations have been confined to five sampled boreholes. Boreholes No. 1, 2 & 3 have been taken down to 16'-6" below ground elevation, and Boreholes No. 4 & 5 have been terminated 7'-6" below existing ground level.

The elevations, as well as the locations of the boreholes, are given on Drawing No. 61-F-41A, attached to this report.

The stratigraphy of the soil throughout the site was found to be quite uniform. The top 2'-6" to 3'-0" feet are formed by topsoil, underlain by dense, sandy gravelly silt (till). The density of the silt increases with depth. Dynamic penetration tests carried out in the first ten feet, gave an average 'N' value of 25 blows/foot. At the depth of 15 feet, the average 'N' value

increased to 49 blows/foot. On this basis, the safe bearing pressure for spread footings 2 feet wide, established at a depth of 5 feet below ground level, can be set at 2 tons per square foot. No difficulty, below the topsoil, will be encountered in excavating; problems due to water seeping into the excavations will largely depend on the time of the year.

The sand pile may be built to any height on this material without danger of base failure.

Due to extensive rain previous to the investigation, the ground water table was found at the surface.

Access roads may be built on the layer of the sandy, clayey silt after removing the topsoil. For roadways and parking areas, a total minimum thickness of 18" of granular material is recommended. This should include at least 6" of Class 'A' G.B.C. material.

Surfacing materials should consist of a 2" binder course of H.L.-6 or H.L.-8, and a 1-1/2" wearing course of H.L.-1 or H.L.-3. The H.L.-1 or H.L.-3 should be modified to allow the use of a sandier mix.

WKF/ndef
Attch.

L. G. Soderman,
PRINCIPAL FOUNDATION ENGINEER
Per:

REPORT PREPARED BY: *K. H. Sully*
101 W. W. Kulmickas, Project Foundation Engr.

REPORT APPROVED BY: *A. G. Sterane*
A. G. Sterane, Supervising Foundation Engr.

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