

Mr. F. E. Cavell,
Superintendent,
Special Services Section.
Materials & Research Division.

June 14, 1962.

D.H.O. FOUNDATION INVESTIGATION
REPORT.

W.J. 62-F-55 -- W.P. (Nil).

(Foundation Section).

RE: PROPOSED D.H.O. HAWKESBURY PATROL YARD AT HWY. #17.
TWP. OF LONGUEUIL, COUNTY OF PRESCOTT, DISTRICT #9.

It is proposed to erect a D.H.O. Patrol Garage on Hwy. #17 approx. 4 miles west of the Town of Hawkesbury. A request for foundation investigation was received from Mr. F. E. Cavell, dated May 25th, 1962.

In order to determine the properties of the soil and decide on the type of foundation, an investigation was carried out by this section. The field investigations were confined to three sampled boreholes, supplemented by one penetration test. Boreholes Nos. 1 and 2 were taken down 26'-6" below existing ground elevations; borehole no. 3 was taken down 31'-6" below existing ground elevation.

The elevations, as well as the locations of the boreholes, are shown on Drawing No. 62-F-55A attached to this report.

The stratigraphy of the soil, throughout the site was found to be quite uniform. The upper 3'-0" to 4'-0" feet consist of slightly organic topsoil, followed by 10' to 15' of firm to stiff clay with the undrained shear strength ranging from 710 lbs./sq. ft. to 950 lbs./sq. ft., which in turn is underlain by very dense silty sand and gravel (Till).

The safe bearing pressure for spread footings 2 feet wide, at a depth 6 feet below ground elevation; is estimated to be 2000 lbs./sq. ft.

At the time of the investigation, the water level, was found approx. 8'-0" below the existing ground elevations.

Due to the relatively low shear strength of the clay layer, the sand pile should not be built higher than 20'-0" feet, and if possible spread over a wider area.

Access roads may be built on the slightly organic soil, topsoil stripping should be carried out according to D.H.O. standards. For roadways and parking areas a total minimum thickness of 18" of acceptable granular material, is recommended. The upper 6" of this should consist of class "A" G.B.C. material.

Surfacing material should consist of 3½" base and top of H.L. 4, the top 1½" may be modified to allow the use of a sandier mix.

The field work, performed May 27, 1962 to May 28, 1962, together with the preparation of this report, was undertaken by Mr. W. W. Kulmatickas. The investigation was carried out under the general supervision of Mr. K. G. Selby, who reviewed this report.

We believe the information contained in this report will suffice for your future design work, however, should future information be required, please do not hesitate to contact our office.

WWK/tt

cc: Messrs. F. E. Cavell (4)
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K. Y. Lo
Supervising Foundation Engr.

For: A. G. Stermac
Principal Foundation Engr.

APPENDIX I.

62-F-55
Hwy [#] 17
HAWKESBURY
PATROL
YARD

