

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

October 10, 1962.

Materials & Research Division.

D.H.O. FOUNDATION INVESTIGATION  
REPORT.

W.J. 62-F-118 -- W.P. 172-6.2

(Foundation Section)

RE: PROPOSED D.H.O. MAINTENANCE YARD PART OF  
LOT 14, CONC. I E.H.S. TWP. OF CALEDON, HWY. #10.  
DISTRICT NO. 6.

It is proposed to establish a new D.H.O. maintenance yard at the site, which is now an open field. The yard is to consist of a 4-bay metal garage, a frame salt shed and a paved area to accommodate the future sand pile, together with paved parking areas and driveways.

A request for a foundation investigation at the site, was received from Mr. F. E. Cavell, Superintendent of Special Services, dated August 13, 1962.

In order to determine the properties of the subsoil and decide on the type of foundation, an investigation was carried out by this Section on Oct. 4, 1962.

The field investigation consisted of 5 sampled boreholes, supplemented by one penetration test. The locations of all boreholes are shown on the attaching drawing No. 62-F-118A.

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The stratigraphy of the subsoil, throughout the site, was found to be generally uniform. The upper 1 to 2 feet consist of loose sandy topsoil, followed by very dense sand, gravel and boulders.

Local information confirmed that sand and gravel extends at least 50 ft. below the ground surface. A drilled well, in the vicinity of the proposed garage, proved 75 ft. of sand and gravel. The well goes down some 150 feet and has an abundant supply of water at 30 feet.

At the time of the investigation, the water table was found to be 17.0' below the ground at borehole #5.

The safe net bearing pressure for spread footings 2 feet wide is estimated to be 2 tons per square foot. The sand pile at the indicated location, may be built, without danger of base failure.

It is recommended that the footings, for the proposed buildings, be placed as close to the ground surface, as frost conditions will allow.

Access roads may be built on the sand and gravel deposit, providing that topsoil stripping is carried out according to current E.H.O. standards. The soil at the site is suitable for use as granular borrow, providing the occasional boulders are removed. Prior to paving, a minimum thickness of 6" of class "A" G.B.C. material should be placed.

Surface material should consist of 2-inch binder course of H.L. 4, the top 1½ inches to consist of H.L. 3, which may be modified to allow use of a sandier mix.

The field work was performed by G. Mierzynski who also prepared this report under the general supervision of Mr. M. Devata of the Foundation Section. Equipment was owned and operated by the Johnston Drilling Co. of Ottawa.

GM/tt  
Attach.

*K. Y. Lo*  
K. Y. Lo,  
SUPERVISING FOUNDATION ENGR.  
For:

A. G. Stermac,  
PRINCIPAL FOUNDATION ENGR.

cc: Messrs. F. E. Cavell (4)  
H. A. Tregaskes  
H. D. McMillan  
C. Fraser

Foundations Office  
Gen. Files./

APPENDIX I.

# 62-F-118

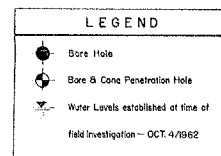
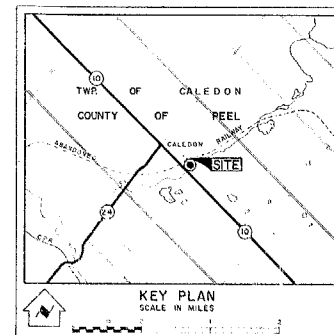
W.P. # 172-62

MAINTENANCE

YARD AT

CALEDON

3-119-1  
 2 571200  
 9-481010  
 2 17



**NOTE**  
 The boundaries between soil strata have been established only at Bore Hole locations. Between Bore Holes the boundaries are assumed from geological evidence and may be subject to considerable error.

NOTE: DATUM ELEV. ASSUMED 100.0 AT BORE HOLE N#1.

DEPARTMENT OF HIGHWAYS - ONTARIO			
MATERIALS & RESEARCH SECTION			
CALEDON PATROL YARD			
ORIGINATED BY: MRS. J. W. M. (M/R)	OUTRIEY NO. 6	DATE: OCT. 30/62	
BY: J. W. M.	W.F. NO. 173-12	JOB NO. 52-F-119	
CHECKED BY: J. W. M.	SCALE: AS SHOWN	DRAWING NO.	
APPROVED BY: J. W. M.			62-F-118A

