

62-F-24

Hwy. # 83 & # 21

PROP. GARAGE

SITE

GRAND BEND

list # 28-3

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

Materials & Research Division,
(Foundation Section)

Attention: Mr. K. Hobby

March 20, 1962.

D.H.O. FOUNDATION INVESTIGATION
REPORT.

W.J. 62-F-24 -- W.F. (N11).

RE: PROPOSED PATROL GARAGE, HWY. 83 & 21, GRAND BEND, DIST. #3.

A patrol garage is planned to be rebuilt at the D.H.O. yard near the junction of Hwy. 83 & 21. A foundation investigation was requested by the Special Services Section via a memo dated February 16, 1962. In order to determine the subsoil conditions at this site and decide on the type and elevation of footings to be recommended, an investigation, consisting of five sampled borings and two dynamic cone penetration tests, was carried out. Attached to this report is a sketch showing the boring locations.

Soil conditions in the area are fairly uniform and very favourable. Underlying a layer of topsoil, is a thick overconsolidated layer of till material consisting of silty clay with a trace of sand and fine gravel. This till material is in a hard to very stiff state of consistency. It is brown in colour and desiccated down to 10', at which depth the colour changes to grey. It extends to a depth of 23'. Below this layer, dense sand

cont'd. /2 ...

and gravel material was encountered. In boring #3 only, a layer of water-bearing sand was encountered between 8'-6" and 11'-0" below the ground level.

Ground water was encountered in boring #3 at a depth of 8', and in boring #2 at 23' below the ground surface. No ground water was observed in any other borings during the investigation.

Spread footings are recommended. A safe bearing load of 2.5 t.s.f. can be used. The minimum footing depth to provide for adequate frost protection should be 4' below the finished surface. No dewatering problems are anticipated.

For all service roads, parking lots and other areas to be paved or gravelled, a minimum of 12" of topsoil should be stripped and an allowance should be made for 18" of acceptable granular fill which includes 6" of G.B.C. Class 'A' material.

A 3-1/2" thickness of H.L.-4 is recommended for all paved areas. This should be comprised of a 2" base course and a 1-1/2" wearing surface.

We trust that the given recommendations are sufficient for your future design work. However, should there be any additional questions you would like to discuss, please feel free to call on our Office.

BMG/MdeF

Attach.

cc: F. E. Cavell (2)

K. Hobby

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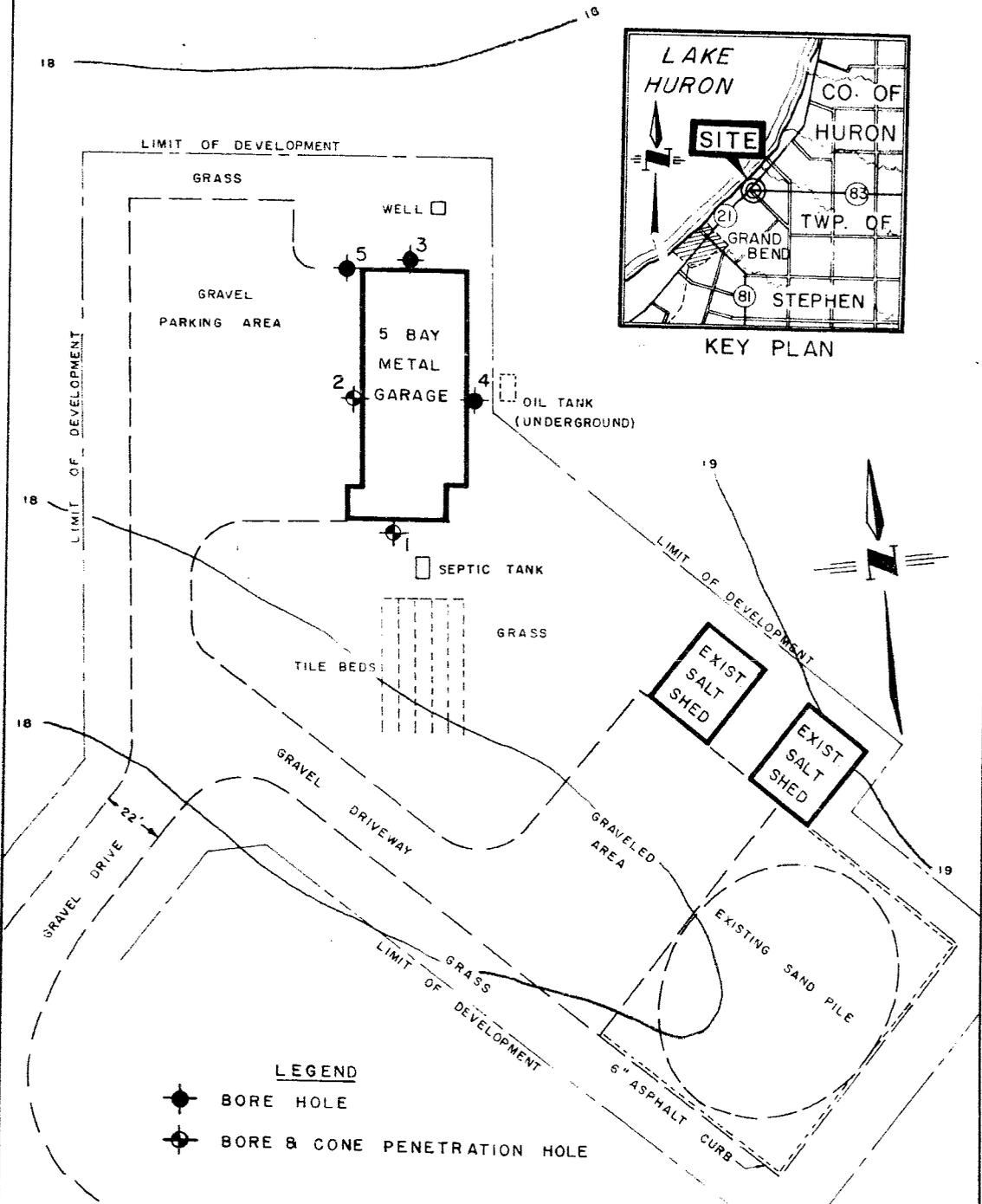
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K. G. Selby,
SR. PROJECT FDN. ENGR.

APPENDIX I.



KEY PLAN



LEGEND

-  BORE HOLE
-  BORE & CONE PENETRATION HOLE

ORIGINATED B. GHADIALI
 DRAWN F. CLARK
 CHECKED HR
 APPROVED R. L. Kelly
 DATE MARCH 28, 1962

DEPARTMENT OF HIGHWAYS - ONTARIO
MATERIALS & RESEARCH SECTION
 PROPOSED GARAGE SITE
 GRAND BEND

SCALE 1" = 50'
 W. P. NO. _____
 JOB NO. 62-F-24
 DWG NO. 62-F-24A