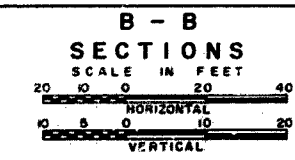
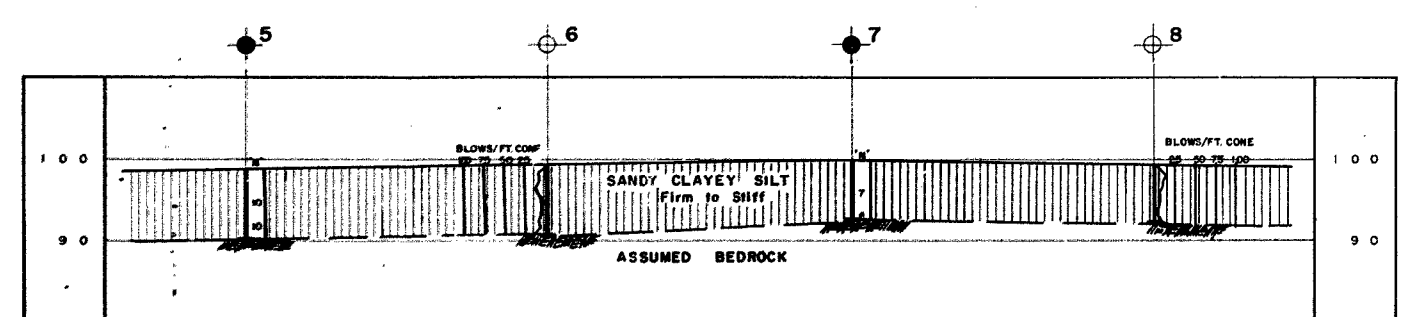
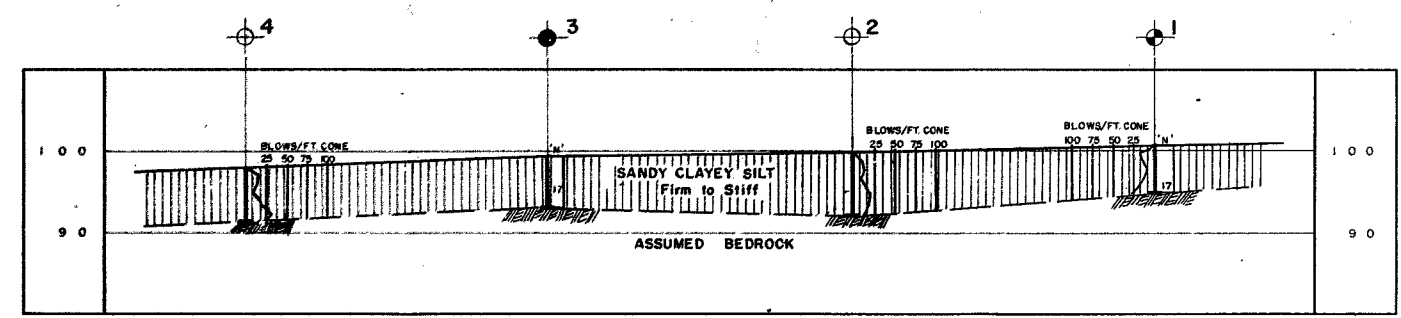
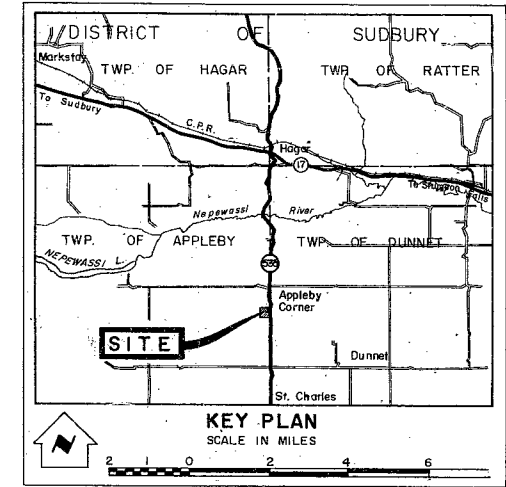
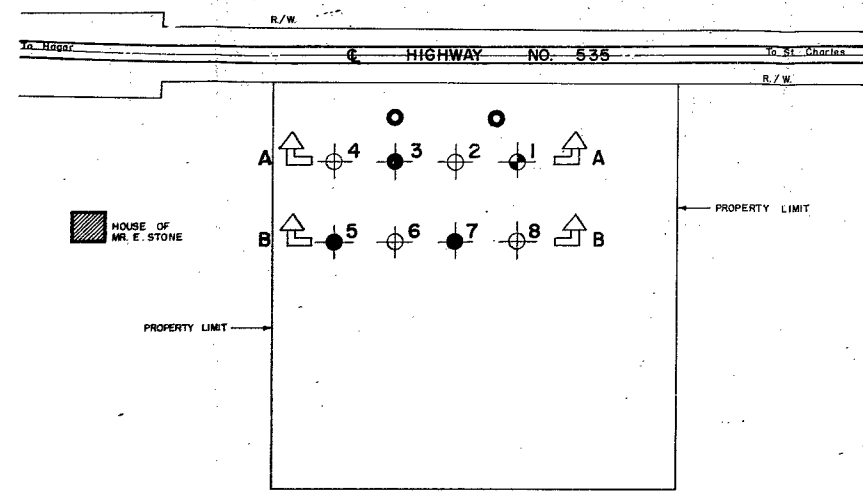


63-F-89
HWY. # 535
PROP. D.H.O.
PATROL YARD,
APPLEBY TWP.



- LEGEND**
- Bore Hole
 - ⊕ Cone Penetration Hole
 - ⊗ Bore & Cone Penetration Hole
 - ⬇ Water Levels established at time of field investigation (Aug. 1963)
 - Old Well

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.

DEPARTMENT OF HIGHWAYS - ONTARIO		
MATERIALS & RESEARCH SECTION		
ST. CHARLES PATROL YARD		
ORIGINATED W. KULMATICAS	DISTRICT NO. 13	DATE 23 AUG. 1963
DRAWN D. MUMFORD	W.P. NO.	JOB NO. 53-F-89
CHECKED <i>[Signature]</i>	SCALE	DRAWING NO.
APPROVED <i>[Signature]</i>	AS SHOWN	63-F-89 A

REF NO 62/3602

MEMORANDUM

28-13

NORTH BAY

To: Mr. C. S. Moase,
Manager,
Special Services Section.

From: Mr. A. G. Stermac,
Principal Foundation Engr.,
Foundation Section,
Materials & Research Division.

Date: August 27, 1963

Our File Ref.

In Reply To

SUBJECT:

FOUNDATION INVESTIGATION REPORT

For

Proposed D.H.O. Patrol Yard, Hwy. 535,
Lot 1, Conc. III, Twp. of Appleby,
District of North Bay, Dist. No. 13.
W.J. 63-F-89 -- W.P. (Nil)

It is proposed to erect a D.H.O. Patrol Garage on Hwy. #535, approximately 1½ miles North of the Village of St. Charles. A request for a foundation investigation was received from Mr. C. S. Moase, dated July 30, 1963.

In order to determine the properties of the soil and decide on the type of foundations, an investigation was carried out by this Section. The field investigation was confined to four sampled boreholes, supplemented by four dynamic cone penetration tests.

The elevations, as well as the locations of the boreholes, are shown on Dwg. No. 63-F-89A, attached to this report.

The stratigraphy of the soil, throughout the site, was found to be quite uniform. The upper 12" consists of black organic topsoil, followed by a layer approx. 6 to 9 feet thick of firm to stiff sandy clayey silt, which in turn, is underlain by bedrock.

cont'd. /2 ...

August 27, 1963

The safe bearing pressure for footings formed directly on bedrock, is estimated to be 20 tons/sq.ft.

At the time of the investigation, no ground water level was encountered. It may be assumed that the water level will vary with the seasons of the year.

The sand pile may be built anywhere without danger of base failure.

The recommendations given by the Regional Materials Engineer, Mr. E. R. Saint, for grading and paving, are as follows:

Twenty-four (24) inches of granular material should be placed on the driveways and parking areas. This should consist of 6 inches of G.B.C. Class 'A' and 18 inches of Sand Cushion.

The 12-inch layer of organic material should be removed from the areas to be covered with the granular base.

Pavement to be $3\frac{1}{2}$ inches of HL-4. This will consist of one 2-inch layer of HL-4 Binder Course and one $1\frac{1}{2}$ -inch layer of HL-4 Surface Course.

Attention is drawn to the existing well (drilled in bedrock) located approx. 700 feet North of the site. If the bedrock has cracks in the direction of the well, the salt may contaminate it.

The field work performed during August 16, 1963, together with the preparation of this report, was undertaken by Mr. W. W. Kulmattickas, Project Foundation Engineer. The investigation was carried out under the general supervision of Mr. K. G. Selby, Senior Foundation Engineer, who reviewed this report.

cont'd. /3 ...

August 27, 1963

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

WWK/MdeF
Attach.

cc: Messrs. C. S. Moase
E. J. Orr
H. D. McMillan
G. Martens
E. R. Saint
A. Watt

Foundations Office
Gen. Files ✓

K. Y. Lo
K. Y. Lo,
SUPERVISING FOUNDATION ENGR.
For:
A. G. Stermac,
PRINCIPAL FOUNDATION ENGR.

APPENDIX I.

MEMORANDUM

CHARLES
63-F-89

To: Mr. A. Stermac
Principal Foundations Engineer
Materials & Research
Downsview, Ontario

FROM: Materials & Research
North Bay, Ontario

DATE: August 22, 1963

OUR FILE REF.

IN REPLY TO

SUBJECT: Patrol Garage-Lot 1, Con. III Appleby Township Dist. 13

The logs of the foundation borings indicate that the soil on this site is a sandy clay silt below a 12 inch layer of topsoil.

It is recommended that 24 inches of granular material be placed on the driveway and parking areas. This should consist of 6 inches of G.B.C. Class "A" and 18 inches of sand cushion.

The 12 inch layer of organic material should be removed from the areas to be covered with the granular base.

Pavement to be $3\frac{1}{2}$ inches of HL4. This will consist of one 2 inch layer of HL4 binder course and one $1\frac{1}{2}$ inch layer of HL4 surface course.

E.R. Saint

E.R. Saint
Regional Materials Engineer

ERS/ef
c.c. G.A. Wrong
File.