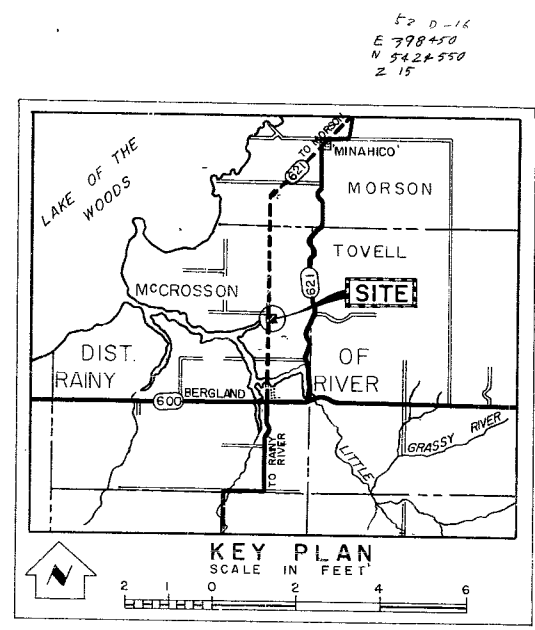
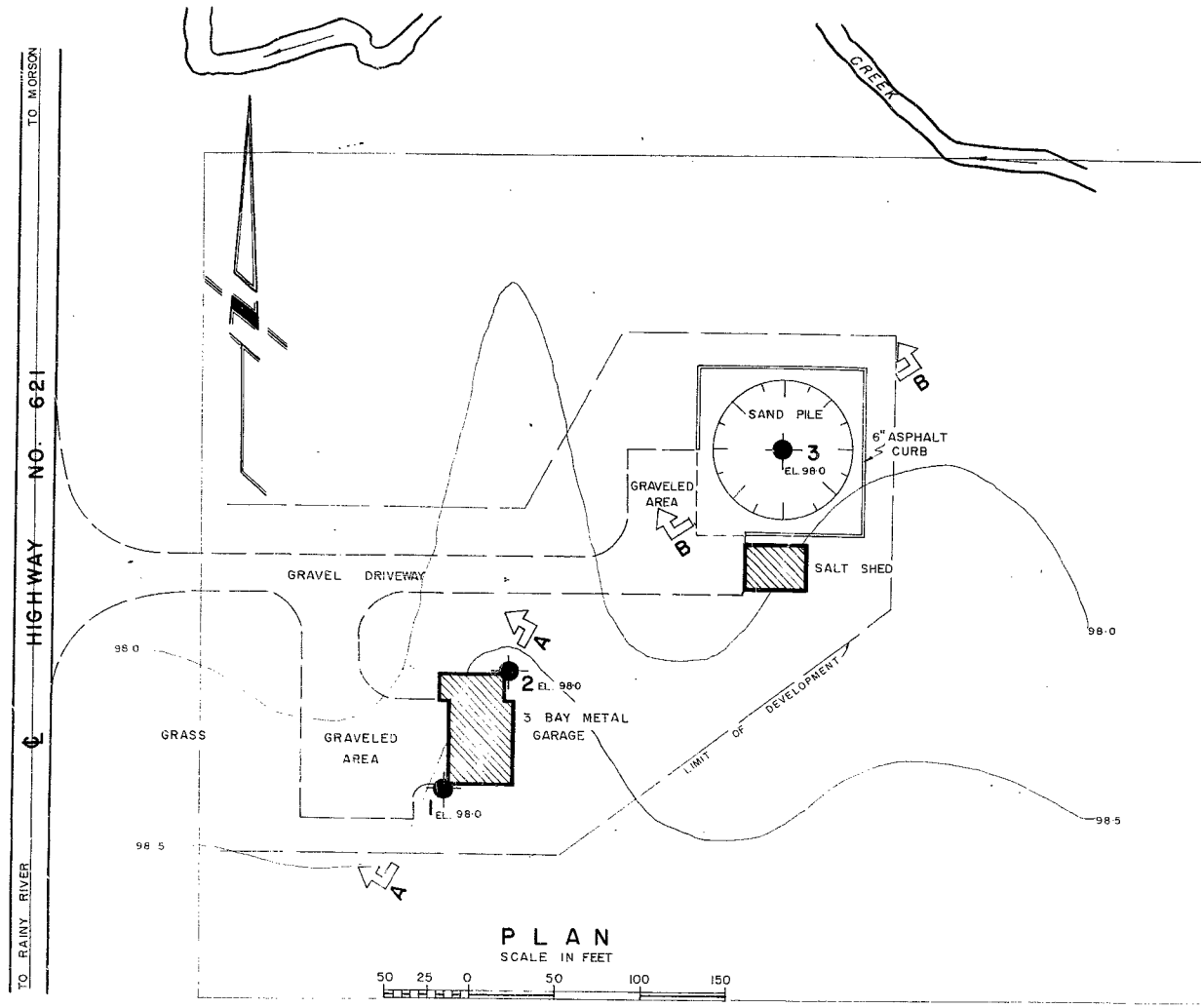


62-F-123

PROPOSED

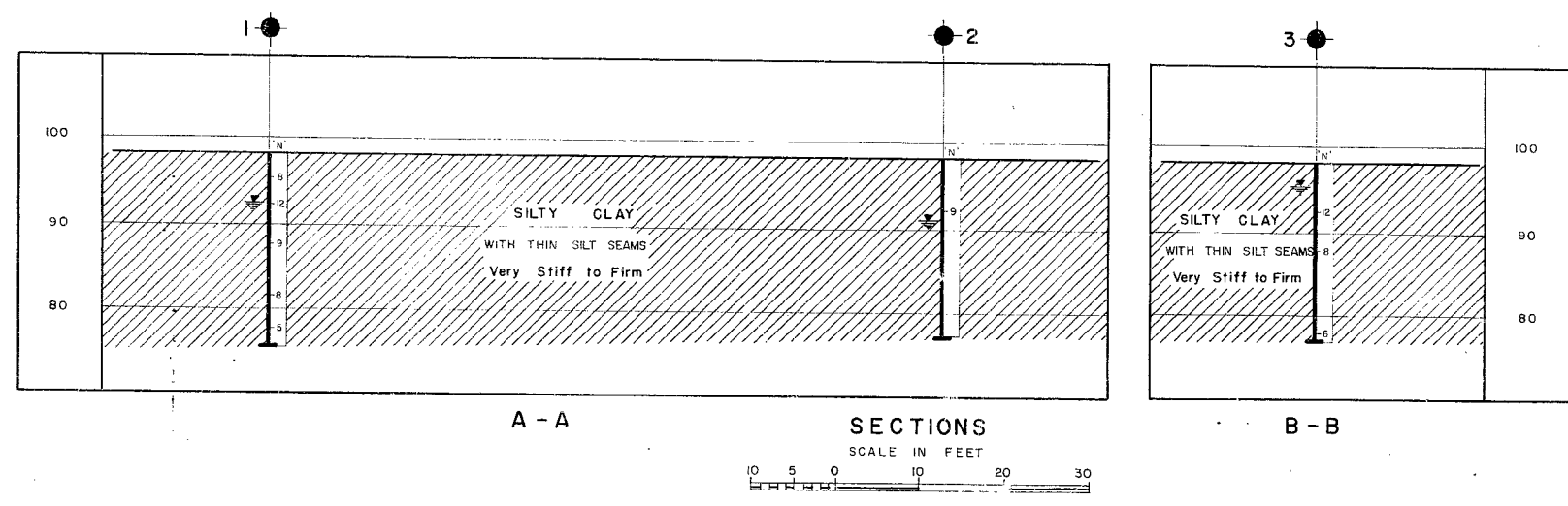
PATROL YARD

BERGLAND



● Bore Hole
 ▽ Water Levels established at time of field investigation. (Nov. 7, 1962)

- 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		
BERGLAND PATROL YARD		
ORIGINATED T. WIDDIS	DISTRICT NO. 20	DATE NOV. 22, 1962
DRAWN F. CLARK	W.P. NO. —	JOB NO. 62-F-123
CHECKED <i>[Signature]</i>	SCALE	DRAWING NO.
APPROVED <i>[Signature]</i>	AS SHOWN	62-F-123A



ONTARIO
DEPARTMENT OF HIGHWAYS

Memo to Mr. F. E. Cavell, *Date* Nov. 23, 1962.
Superintendent,
Special Services Section. *Subject* D.H.O. FOUNDATION INVESTIGATION
REPORT.
From Materials & Research Division. W.J. 62-F-123 -- W.P. (Nil).
(Foundation Section)

RE: PROPOSED PATROL YARD, BERGLAND, ONTARIO.
District #20.

It is proposed to construct a D.H.O. Patrol Yard on Highway 621 at Bergland. For design purposes, a foundation investigation of the site was requested by the Special Services in a memo dated October 19, 1962.

To determine the subsoil conditions at the site, three sampled boreholes were made using a small core drill. Undisturbed samples were recovered using 2-inch I.D. Shelby tubes and where possible in-situ vane testing was carried out. The locations and elevations of these boreholes, together with the inferred stratigraphical profile are shown on Drawing #62-F-123A, which also shows the proposed layout of the Patrol Yard.

The subsoil at the site consists of a uniform layer of silty clay containing irregularly placed very thin silt seams. The top 10.0 feet of this silty clay is oxidized being brown in colour. The unconfined shear strength of the

clay varies from in excess of 2000 p.s.f. in the oxidized portion to a minimum of 470 p.s.f. at a depth of 16 feet below ground surface. The waterlevels as recorded in the boreholes at the time of the field investigation are plotted on the drawing.

It is recommended that the garage be supported on spread footings placed in the silty clay with a safe design load of 0.5 tons/sq. ft.

The footings should be placed as near the surface of the ground as frost conditions will allow.

Dewatering of the excavations during construction should not prove to be a problem.

The maximum height of the sand pile should not exceed 25 feet.

For all service roads, parking lots and other areas to be paved or gravelled, the topsoil should be removed and replaced with 12" of acceptable sand cushion and topped with 4 inches of G.B.C. Class 'A'. Surfacing material for the roadways and parking areas should consist of a 3 inch layer of H.L. 4.

The field work performed on November 7, 1962, together with the preparation of this report, was carried out by Mr. T. F. Widdis, under the general supervision of Mr. M. Devata of the Foundation Section.

cont'd. /3 ...

Equipment was owned and operated by Canadian Longyear
Ltd., Port Arthur, Ontario.

TFW/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. R. Robertson

Foundations Office✓
Gen. Files