

65-F-77

HWY # 86 &

CANAGAGIGUE

RIVER BRIDGE

Mr. B. E. Davis,
Bridge Engineer,
Bridge Division.

Foundation Section,
Materials & Testing Div.,
Room 107, Lab. Bldg.

Attention: Mr. W. D. Birch,
Bridge Maintenance
Engineer

September 27, 1965

FOUNDATION INVESTIGATION REPORT
For
Proposed Bents at
Canagagigue River Bridge, Hwy. 86
Elmira, Ont., Dist. 3 (Stratford)
W.J. 65-F-77 -- W.P. (Nil)

A request for a foundation investigation at the site of proposed bents for support of the main span, where transverse cracks were observed in all of the concrete beams, at Canagagigue River Bridge, Hwy. 86, near the Town of Elmira, was received from Mr. W. D. Birch, Bridge Maintenance Engineer, in a memo dated July 2, 1965. Subsequently, a foundation investigation consisting of 2 sampled boreholes and 2 cone penetration tests, was carried out at the site.

A verbal recommendation for a safe bearing capacity of 2 tons/sq.ft. has already been given to your Office at an earlier date.

As for recording purposes, we are sending you the locations, elevations of the boreholes and the inferred subsoil stratigraphy which are shown on Drawing No. 65-F-77A.

Should further information be required in connection this project, please feel free to contact our office.

MYL/mdeF
Attach.

cc: Foundations Office
Gen. Files

K. Y. Lo
K. Y. Lo,
SUPERVISING FOUNDATION ENGR.
For
M. G. Sternac,
PRINCIPAL FOUNDATION ENGR.

APPENDIX I

28-3

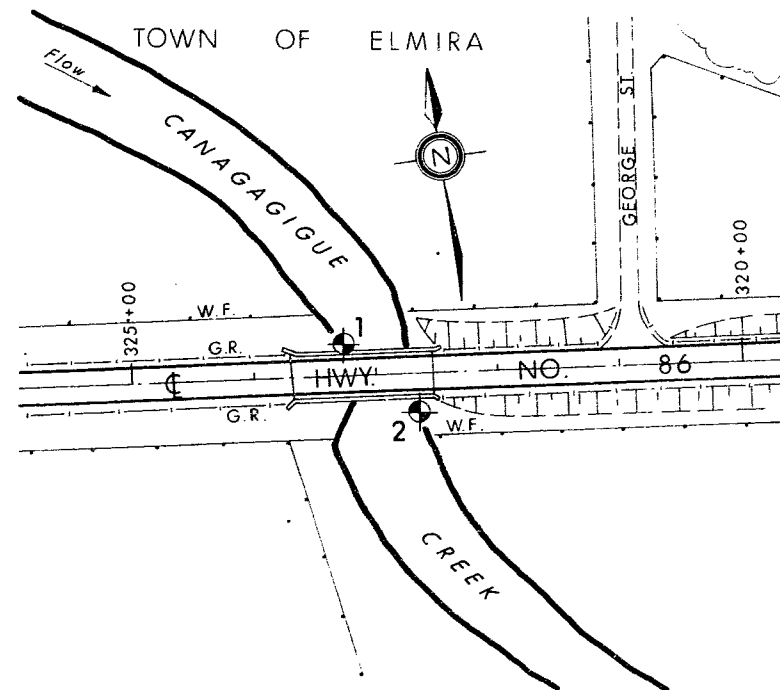
FOUNDATION SECTION

DATUM G.S.C. BOREHOLE TYPE Washboring using NX Casing. CHECKED BY M.D.

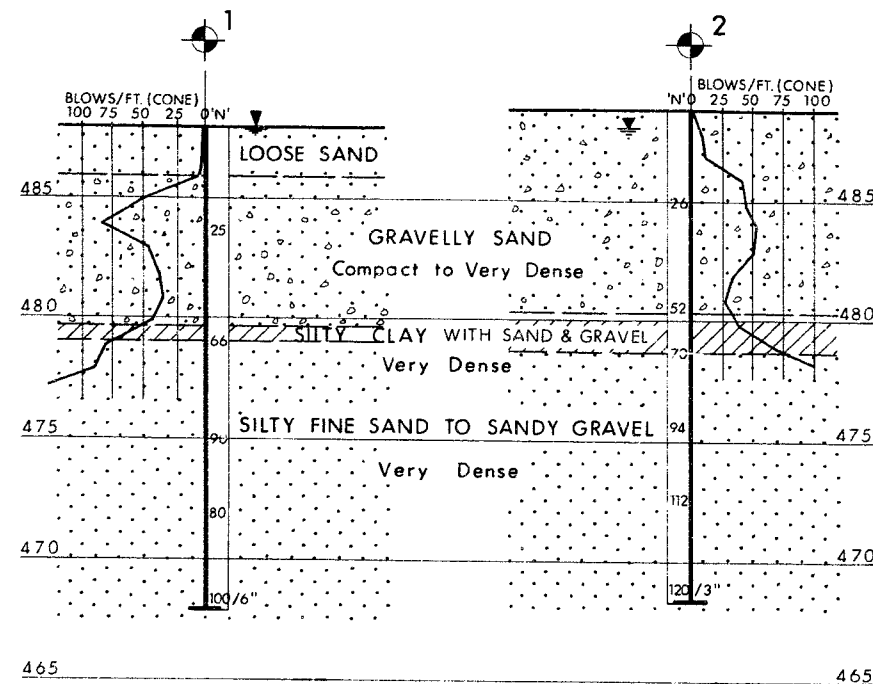
SOIL PROFILE			SAMPLES			ELEV. SCALE	DYNAMIC PENETRATION RESISTANCE		LIQUID LIMIT ——— w _L PLASTIC LIMIT ——— w _P WATER CONTENT ——— w		BULK DENSITY P.C.F.	REMARKS
ELEV. DEPTH	DESCRIPTION	STRAT. PLOT	NUMBER	TYPE	BLOWS / FOOT		BLOWS / FOOT	SHEAR STRENGTH P.S.F.	WATER CONTENT % 10 20 30			
487.9	Groundlevel											
0.0	Loose sand.											
485.9												
2.0	Gravelly sand. Compact greyish brown.		1	SS	25							
479.6						480						
8.3	Silty clay with sand and gravel, very dense.		2	SS	66							
479.1												
8.8												
	Silty fine sand to sandy gravel. Very dense greyish brown.		3	SS	90							
			4	SS	80							
						470						
466.9			5	SS	100/6"							
21.0	End of borehole.											
						460						

JOB 65-F-77 LOCATION Hwy 86 at Canagagigue Bridge (Sta. 322+65, 31' Lt. E) ORIGINATED BY D.W.
 W.P. _____ BORING DATE July 9, 1965. COMPILED BY D.W.
 DATUM G.S.C. BOREHOLE TYPE Washboring using NX Casing. CHECKED BY M.D.

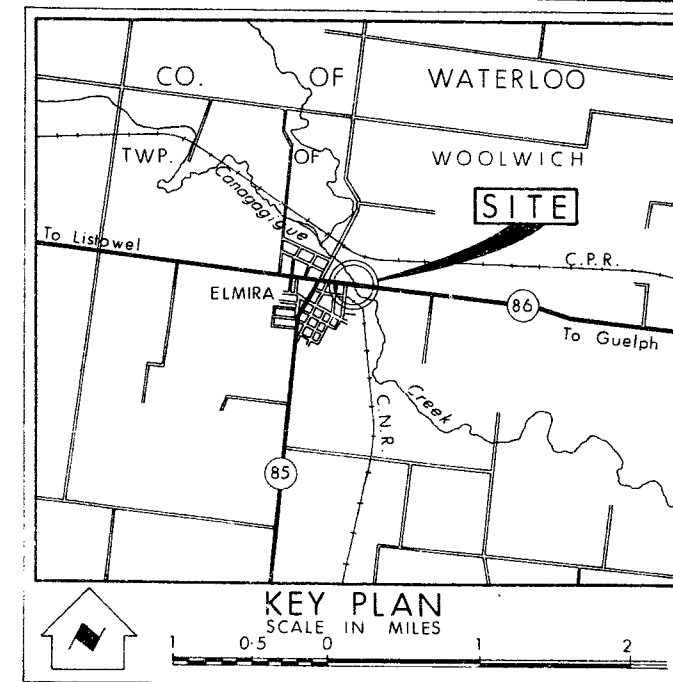
[illegible]



PLAN
SCALE
100 50 0 100 200 FEET



BORE HOLE DETAILS



KEY PLAN
SCALE IN MILES

- LEGEND**
- Bore & Cone Penetration Hole
 - Water Level (8 July 1965)



CANAGAGIGUE CREEK
BRIDGE
HWY. 86 - ELMIRA, ONTARIO

REF. NO. B-267-3

DATE 20 AUG. 1965

APPROVED *D. Smith*

DRAWING NO. 65-F-77A

65-F-77

DEPARTMENT OF HIGHWAYS ONTARIO

MEMORANDUM

To: Mr. K. Y. Lo, FROM: Bridge Division,
Supervising Foundation Engineer, Downsview, Ontario.
Room 107, Lab. Bldg.

Attention: Mr. M. Devata, DATE: July 2, 1965.
Senior Foundation Engineer.

OUR FILE REF. IN REPLY TO

SUBJECT: Investigation of soil conditions for proposed
bents at Canagagigue River Bridge, Hwy. 86 (Elmira)

Cracks have appeared in all of the concrete beams of the main span of this structure at points shown in red on the enclosed print.

It is proposed to place steel bents under the main span at these points. These bents would be supported on spread footings placed in the river bed.

Since piles have been used in the abutment foundations it is thought that soil conditions at this site may not be favorable for spread footings.

Your assistance in determining the conditions present is therefore requested and would be appreciated.

BC/im

B. Carney
B. Carney,
for W. D. Birch,
Bridge Maintenance Engineer.