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SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)
B3J 3C9
Halifax
Nova Scot

Title - Sujet SSP and Fenders	
Solicitation No. - N° de l'invitation EB144-151504/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client EB144-15-1504	Date 2014-12-22
GETS Reference No. - N° de référence de SEAG PW-\$PWA-219-5180	
File No. - N° de dossier PWA-4-72060 (219)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-01-08	Time Zone Fuseau horaire Atlantic Standard Time AST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Richard (PWA), Linda	Buyer Id - Id de l'acheteur pwa219
Telephone No. - N° de téléphone (902) 496-5261 ()	FAX No. - N° de FAX (902) 496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

MODIFICATION 001

La présente modification a été apportée pour répondre aux questions ci-dessous.

Question 1:. Quelle est la portance du quai?

Réponse 1: Il appartient à l'entrepreneur d'évaluer l'état de la structure.

Question 2: Auriez-vous des documents sur les trous de sondage?

Réponse 2: Voir document ci-joint.

Question 3: Deux dimensions soit indiquées pour les raidisseurs, soit 200 sur 250 et 250 sur 250. Pourriez-vous indiquer laquelle est la bonne?

Réponse 3: Tous les raidisseurs en bois mesurent 250 mm sur 200 mm.

Question 4: J'ai aussi remarqué que la flèche indiquant le nord sur le plan ne pointe pas dans la bonne direction.

Réponse 4: La flèche erronée sera corrigée dans les plans des travaux finis.

Toutes les autres conditions demeurent inchangées.

**BORING
REPORT
NO.**

3549

Department of Public Works
Testing Laboratories
Ottawa, Ontario

REPORT ON
SUBSOIL INVESTIGATION
FOR WHARF EXTENSION

LOWER EAST PUEBICO, N.S.

SEPTEMBER, 1972

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Appendix 1:	Symbols and Terms	(9 sheets)
Appendix 2:	Bore Hole Logs	(3 sheets)
Appendix 3:	Site Plan	(1 sheet)

Department of Public Works
of Canada
Testing Laboratories

Subsoil Investigation for
Wharf Extension at
Lower East Pubnico, N.S.

Our File No.: 32/1-382
Project No.: 3549
September 1972

1. Introduction

This subsoil investigation at Lower East Pubnico was performed in response to the request dated July 31, 1972 from the Project Manager Engineering, D.P.W. Halifax.

The object of the investigation was to determine foundation conditions for the proposed extension to the existing wharf. The proposed extension represents an additional 90 feet of wharf (20 ft. wide) which will project at an angle of 45° to the existing structure.

Previous subsoil investigations performed at this site are described in Report Nos. S39/70 and S55/65, Testing Laboratories, D.P.W., Ottawa.

2. Procedure

The borings were performed by diamond drill and the holes advanced by driving NX casing and running BX casing. The borings were taken over water and local fishing boats were used as floating craft to support the drill.

The borings commenced on August 29, 1972 and were completed by September 6, 1972. A total of 2 borings were drilled and a dynamic cone test taken at locations as shown in the site plan.

13 standard penetration tests were taken but soil samples from only 7 of these could be recovered.

The holes were located by the District Office, D.P.W. Halifax and the soundings taken by the drilling technician were reduced to LWOOST Datum using the bench mark on the existing structure (elev. +17.4 LWOOST).

3. Site and Geotechnical Conditions

Site and subsoil conditions under the existing structure have been described in detail in Report Nos. S29/70 and S55/65.

The results of this present investigation confirm that conditions under the proposed extension of the structure are more or less the same as proved elsewhere at this site.

Borings were advanced only into the top of the dense layer in the overburden and bedrock was not intercepted at any location.

Department of Public Works
of Canada
Testing Laboratories

Subsoil Investigation for
Wharf Extension at
Lower East Pubnico, N.S.

Our File No.: 32/1-382
Project No.: 3549
September 1972

3. Site and Geotechnical Conditions (continued)

Briefly, the main geological features of the site include a soft organic silt deposit overlying a dense glacial till deposit. Between those two main deposits there is also a thin layer of sand.

The ground surface was found to be at about -5 ft. LWOST in the area of the proposed extension.

Properties of the overburden may be described as follows:

.1 Organic Silt

This is a moderately organic deposit 10 to 15 feet thick, grey to black in color with 4 to 8% organic matter. Water content ranges from 5 to 100% and the shear strength is very low.

It is not a suitable foundation layer and will not contribute significantly to load carrying capacity of piles.

.2 Silt and Sand Layer

Sand or Silt and Sand layers occur between the Organic Silt and the Glacial Till deposits.

In Bore Hole 2 only a Sand layer 2 feet thick was identified. In Bore Hole 1, a silt layer above this sand layer was also observed. The silt layer was about 5 feet thick and contained cobbles and probably boulders.

This sand layer may be considered as transitional between the loose organic material above and the dense glacial till below.

In previous reports detailed tests on samples from this stratum have been described and the following appropriate average properties recommended:

Relative Density (D_r) 0.67%
Effective Friction Angle (ϕ') 32°

.3 Sand, Gravel and Cobbles (glacial till)

From previous investigations, this stratum was found to lie directly on bedrock and it may be over 30 feet thick.

Boulders and cobbles existing in the glacial till make it difficult to correlate standard penetration values with relative density. Normally it was found that the casing could not be driven more than 4 or 5 feet into the deposit. Further penetration was possible by running BX casing.

Department of Public Works
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Subsoil Investigation for
Wharf Extension at
Lower East Pubnico, N.S.

Our File No.: 32/1-382
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September 1972

3. Site and Geotechnical Conditions (continued)

- .3 Sand, Gravel and Cobbles (glacial till) (continued)
Driving a dynamic cone into the deposit was also attempted and again, refusal was obtained after a few feet of penetration.

These tests tend to confirm that the deposit is dense and that the previously recommended properties are applicable. These are:

Buoyant density 80 p.c.f.
Friction Angle 47°

4. Recommendations

The proposed method of construction the wharf extension is based on the use of creosoted timber bearing piles.

This investigation has confirmed that this method of construction is feasible.

It is recommended that the timber piles be driven to obtain suitable end-bearing in the dense glacial till deposit. No resistance should be experienced in penetrating the soft organic deposit which varies between 10 and 15 feet in thickness. Using normal timber pile driving equipment, refusal should occur about 10 feet below the top of the glacial till deposit i.e. at about elevation -30 feet LWOST.

Some care should be taken to check that individual piles are not left "hung-up" on boulders near the base of the organic silt deposit. Piles reaching refusal above elevation -20 feet LWOST should therefore be suspect.

The glacial till deposit was too dense to obtain N values other than refusal. The bearing capacity of timber piles will thus depend more on the pile design and driving method than on the subsoil.

For estimating purposes an end bearing capacity of up to 60 tons per pile could be assumed for piles driven to about elevation -30 feet LWOST.

The presence of cobbles and boulders in and above the glacial till deposit suggests that there will be some variation in the depth of penetration likely to be obtained across this site.

GW/dp


G. Wilson,
Project Soils Engineer.

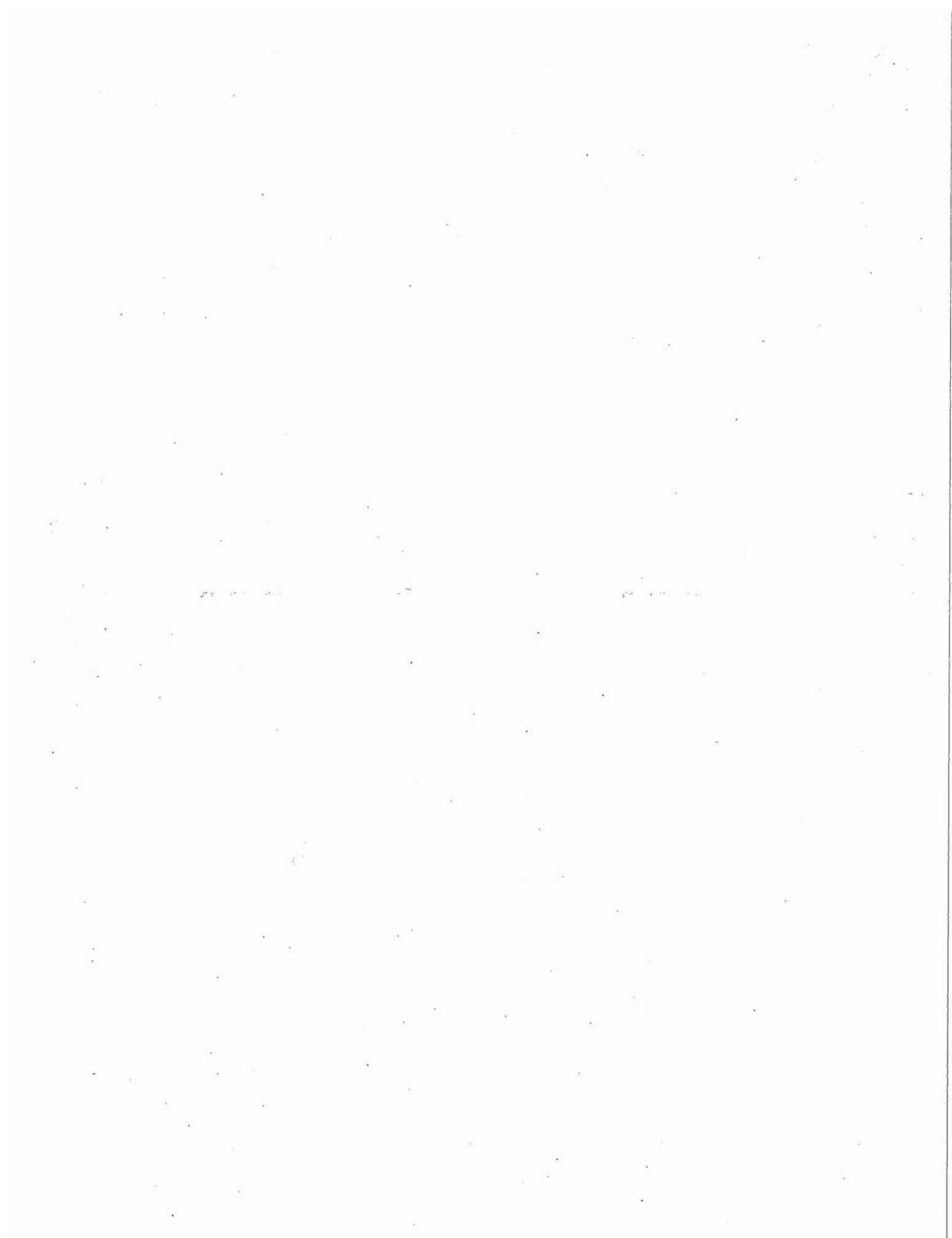
RECORD OF BORE HOLE DEPARTMENT OF PUBLIC WORKS, CANADA TESTING LABORATORIES				LOCATION: L. East Pubnico		DATE: 29-30/8/72		HOLE NO.: 1	
PROJECT: WHARF EXTENSION				BORING BY: A.S.		FILE NO.: 32/1-382			
BORING NO.: 3549		DRAWN: J.F.		CHECKED: R.B.		APPROVED:		PENETRATION RESISTANCE	
SAMPLE TYPE		ELEVATION (FT.)		STD. PEN. RESISTANCE, N		NATURAL WATER CONTENT, w, %			
UNDISTURBED		LWOST		2 INCH DIA. CONE		LIQUID LIMIT, w _L , %			
DISTURBED		GROUND SURFACE: - 5.5		CASINO		PLASTIC LIMIT, w _P , %			
ROCK CORE		GROUND WATER: -		UNDRAINED SHEAR STRENGTH, q _u , lb		BULK DENSITY, γ, lb/ft ³			
GAUGE READING: +11.5		BEDROCK SURFACE: -		FORMS:		BUOYANT DENSITY, γ _s , lb/ft ³			
BOTTOM OF HOLE: -34.8		QUICK TRIAXIAL		UNCONFINED COMPRESSION (q _u /2), lb		PRECONSOLIDATION PRESSURE, p _s , lb			
FIELD VANE		FIELD VANE		FIELD VANE		FIELD VANE			
SAMPLE NO. TYPE		DESCRIPTION OF OVERBURDEN AND BEDROCK		ELEV. (FT.)		DEPTH (FT.)		N 10 20 30 40 50 BLOWS/FT	
		WATER		+11.5		0.0			
		Ground Surface		- 5.5		17.0			
1		ORGANIC SILT, brown, Soft						pushed	
2		Boulder		-16.0		27.5		pushed	
3		SILT with SAND and COBBLES, compact		-21.5		33.0			
		SAND, compact		-23.5		35.0			
		SAND GRAVEL and		-28.5		40.0		101/1.0'	
		COBBLES, dense		-34.8		46.3		78/0.7'	
		End of Hole						105/0.8'	
REMARKS				NX Driven to 27.5		BX Drilled to 45.5			

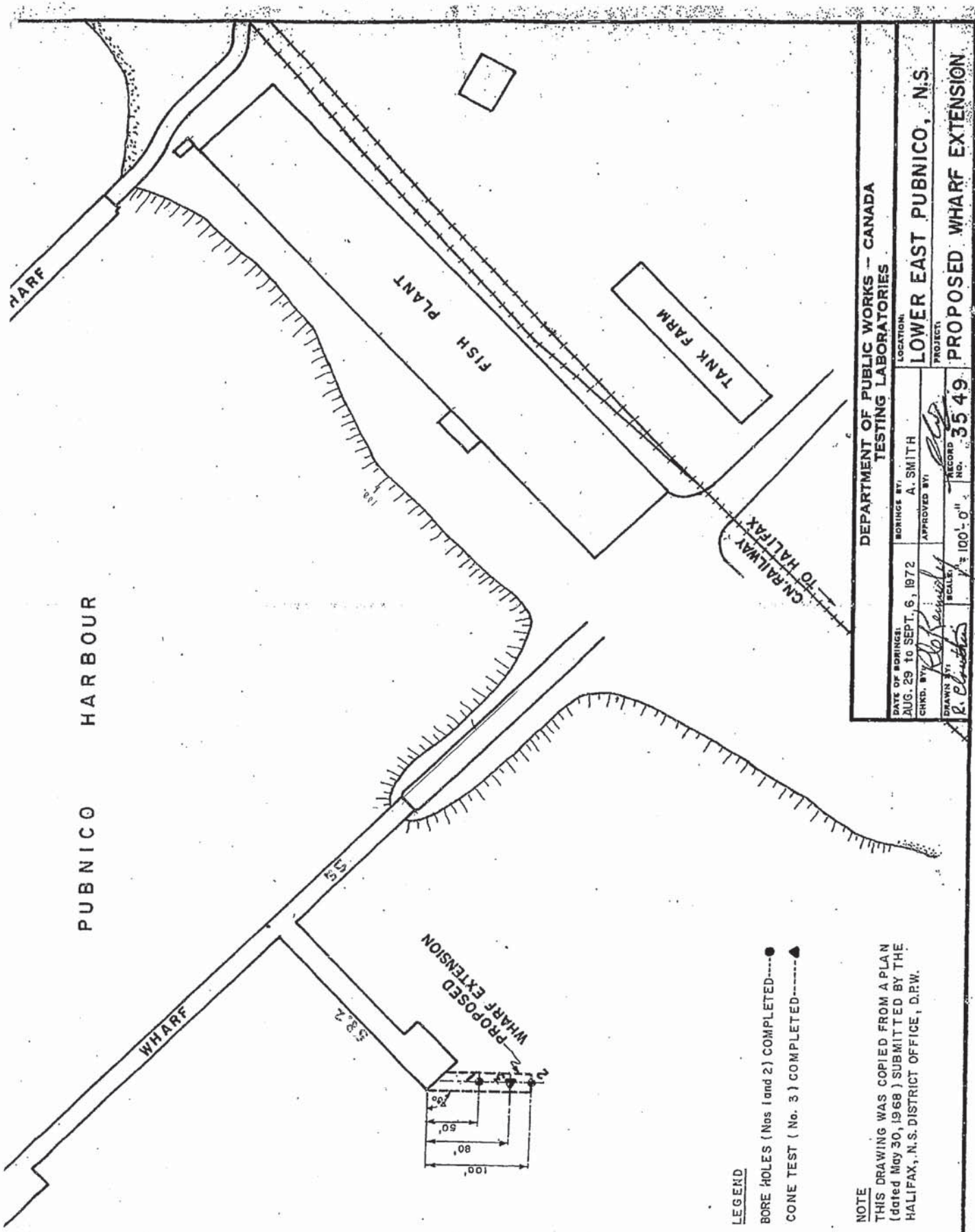
RECORD OF BORE HOLE DEPARTMENT OF PUBLIC WORKS, CANADA TESTING LABORATORIES				LOCATION: L. East Pubnico		DATE: 31/8/72		HOLE NO.: 2	
PROJECT: WHARF EXTENSION				BORING BY: A.S.		FILE NO.: 32/1-382			
BORING RECORD NO.: 3549		DRAWN: <i>272 ROK</i>		CHECKED: <i>ROK</i>		APPROVED:		PENETRATION RESISTANCE	
SAMPLE TYPE		ELEVATION (FT.)		STD. PEN. RESISTANCE, N		2 INCH DIA. CONE		NATURAL WATER CONTENT, w	
UNDISTURBED		DAYUM: LWOSE		GROUND SURFACE: - 5.6		CASING		LIQUID LIMIT, w _L	
DISTURBED		GROUND WATER: -		BEDROCK SURFACE: -		UNDRAINED SHEAR STRENGTH, s _u		PLASTIC LIMIT, w _p	
ROCK CORE		GAUGE READING: +11.0		BOTTOM OF HOLE: -35.5		FORMS: UNCONFINED COMPRESSION (q _u /2)		BULK DENSITY, γ	
						QUICK TRIAXIAL		BUOYANT DENSITY, γ'	
						FIELD VANE		PRECONSOLIDATION PRESSURE, p _c	
SAMPLE NO. TYPE		DESCRIPTION OF OVERBURDEN AND BEDROCK		ELEV. (FT.)		DEPTH (FT.)		N 10 20 30 40 50 BLOWS/FT	
		WATER		+11.0		0.0			
		GROUND SURFACE		- 5.6		16.6			
4		ORGANIC SILT							
5		brown, (soft)							
6				-20.5		31.5			
7		SAND (compact)		-22.5		33.5			
		SAND GRAVEL and COBBLES (V. Dense)		-35.5		46.5		87/12 80/0.5 51/0.5	
		Bottom of Hole							
REMARKS				NX Driven to 35.0 (V. Hard) BA Drilled 35.0 to 46.5 ft.					

RECORD OF BORE HOLE DEPARTMENT OF PUBLIC WORKS, CANADA TESTING LABORATORIES				LOCATION: L.E. Pubnico		DATE: 6/9/72		HOLE NO.: Test 3			
				PROJECT: WHARF EXTENSION		BORING BY: A.S.		FILE NO.: 32/1-382			
DRAWING NO.: 3549		DRAWN: <i>828</i>		CHECKED: <i>RKS</i>		APPROVED:					
SAMPLE TYPE		ELEVATION (FT.)		PENETRATION RESISTANCE				CONSISTENCY			
<input type="checkbox"/> UNDISTURBED <input checked="" type="checkbox"/> DISTURBED <input type="checkbox"/> ROCK CORE		DAYUM: LWOSE GROUND WATER: - GAUGE READING: +11.3		GROUND SURFACE: - 5.7 BEDROCK SURFACE: - BOTTOM OF HOLE: -25.2		STD. PEN. RESISTANCE, N 2 INCH DIA. CONE CASINO UNDRAINED SHEAR STRENGTH, s_u FORMS: UNCONFINED COMPRESSION ($q_u/2$) QUICK TRIAXIAL FIELD VANE				NATURAL WATER CONTENT, w LIQUID LIMIT, w_L PLASTIC LIMIT, w_p BULK DENSITY, γ BUOYANT DENSITY, γ' PRECONSOLIDATION PRESSURE, p'_c	
SAMPLE NO. TYPE		DESCRIPTION OF OVERBURDEN AND BEDROCK		ELEV. (FT.)		DEPTH (FT.)		N 20 40 60 80 100 BLOWS/FT			
		▼		+11.3		0.0					
		WATER		- 5.7		17.0					
		Very Soft Material		-16.3		27.6					
		Compact to dense material		-25.2		36.5					
		End of cone test (refusal)									
REMARKS											

DWG. NO. A473

FORM TL/TF 213





LEGEND

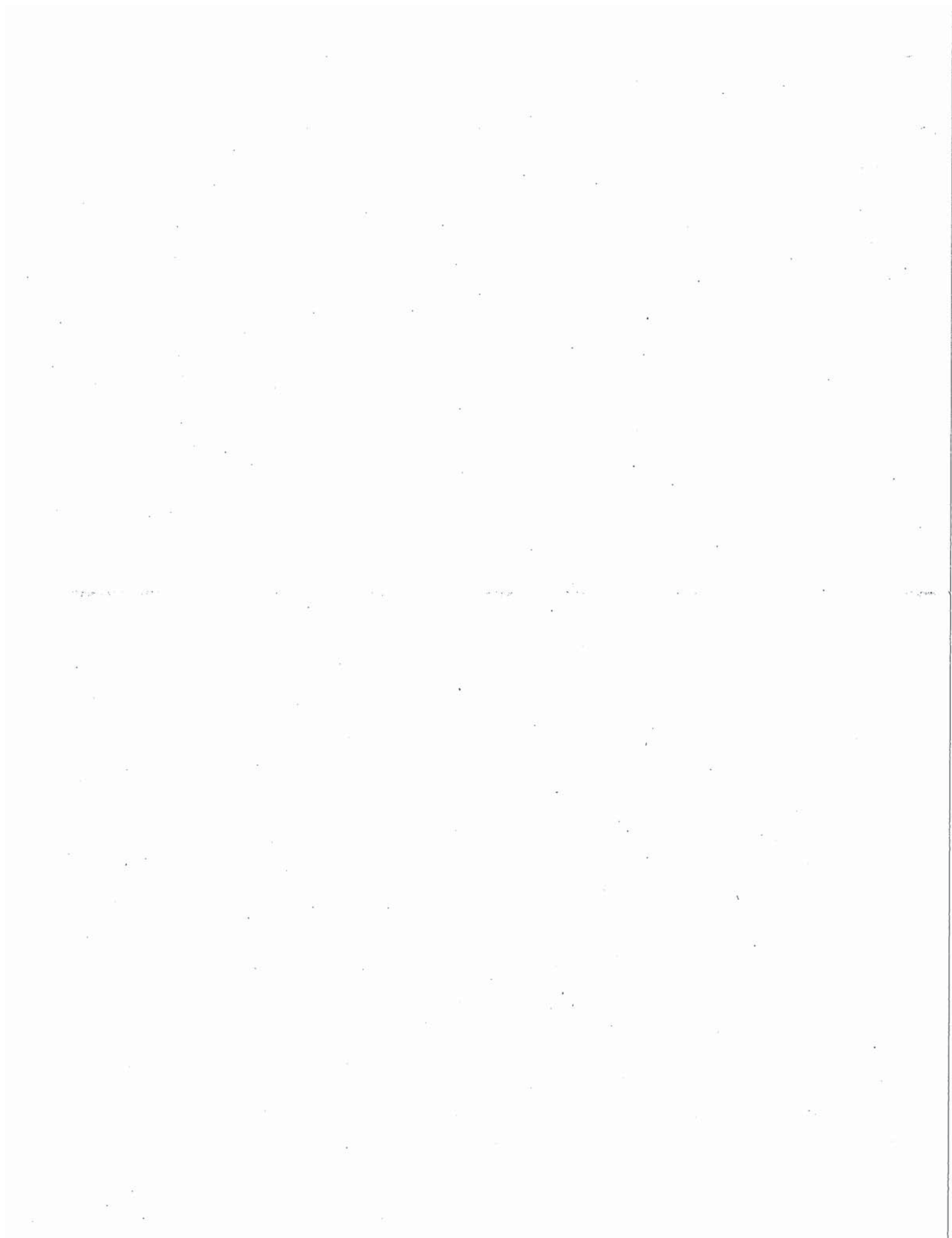
- BORE HOLES (Nos 1 and 2) COMPLETED
- ▲ CONE TEST (No. 3) COMPLETED

NOTE

THIS DRAWING WAS COPIED FROM A PLAN (dated May 30, 1968) SUBMITTED BY THE HALIFAX, N.S. DISTRICT OFFICE, D.P.W.

DEPARTMENT OF PUBLIC WORKS - CANADA TESTING LABORATORIES			
DATE OF BORINGS: AUG. 29 to SEPT. 6, 1972	BORINGS BY: A. SMITH	LOCATION: LOWER EAST PUBNICO, N.S.	PROJECT: PROPOSED WHARF EXTENSION
CHRGD. BY: <i>R. Kennedy</i>	APPROVED BY: <i>R. Kennedy</i>	RECORD NO.: 3549	
DRAWN BY: <i>R. Kennedy</i>		SCALE: 1" = 100'-0"	

1:1250 ±





MARITIME TESTING (1985) LIMITED
CONSULTING ENGINEERING & PROFESSIONAL SERVICES

BOREHOLE LOG

PROJECT

PWC - Lower East Pubnico
Yarmouth County, Nova Scotia

LOGGED/DWN. TKM/TKM

CKD.

DATE OF INVEST. 24 Jan 1988

JOB NO. NG00117

HOLE NO. 4

CASING RESISTANCE blows/foot (0-3m)

WATER CONTENT %

Wp-□

W.O-○

W_i-△

DEPTH

m

SOIL SYMBOL

SOIL DESCRIPTION

DATUM

Chart Datum

SURFACE ELEVATION

-1.85 m

CONDITION

TYPE

PENETRATION
RESISTANCE

DRILL TYPE

Diamond
Drilling

OTHER TESTS

ELEV: -1.85m

ORGANICS - soft, silty, black

ELEV: -3.27m

SILT - soft, some sand, trace
of clay, organic odour,
olive grey

ELEV: -9.15m

SAND - medium dense to dense,
gravelly, trace of silt,
medium to coarse grained,
grey to dark grey

- cobbles and small boulders

ELEV: -11.95m

SAND - medium dense to dense,
silty, fine grained, grey to
olive grey

ELEV: -17.35m

End of hole at 15.5 metres

Sampler Sank
Under Weight
of Hammer

Non-Plastic

Grain Size,
See Plate 26

Non-Plastic

Grain Size,
See Plate 27

D 38

D 40

D 22

D 53