

PROJECT PROFILE

Revision 1

NOTE: This Project Profile is a replacement of the version advertised on the 12th September 1998. In this version, dredging for the pier, pier foundation and some pier construction works will be entrusted to CED to be undertaken during their maintenance dredging of the fish culture zone. All mariculture in the fish culture zone will be relocated for the duration of this work.

BASIC INFORMATION

<p>Project Title</p> <p>RPIS Minor Rural Improvement Works Package 1&2, Extension of Pier at Lo Tik Wan, North Lamma Project ID Code: IS-078</p>
<p>Purpose and nature of the project</p> <p>The objective of the project is to extend the existing pier to provide better berthing and landing facilities for kaitos.</p>
<p>Name of the Proponent</p> <p>Home Affairs Department Rural Planning and Improvement Strategy Section 4/F, Centre Point Commercial Building 181-185 Gloucester Road, Wanchai Hong Kong</p>
<p>Location and scale of project</p> <p>The site boundary is shown in Drawing 1 and location plan in Drawing 2. The scope of works includes the construction of a new section of pier, together with the provision of handrails, a navigation light, bollards and fendering systems. It is proposed to extend the pier to 18m long and 5.41m wide. The affected area of the foreshore and sea bed will be approximately 1500 m². Dredging will be carried out to a maximum depth of 2.5m, with a total of 600 m³ of material being removed during the works.</p>

<p>Number and Types of designated projects to be covered by the project profile</p> <p>1 project under section c12(a) (v) of schedule 2, Environmental Impact Assessment Ordinance</p>
<p>Name and telephone number of contact person(s)</p>

OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

<p>How will the project be planned and implemented</p> <p>The Consultants (Mouchel Asia Limited) will design the project. The construction works will be planned and implemented by the Contractor.</p>
<p>What is the project time table</p> <p>As some works may affect the nearby mariculture, dredging, laying of pier foundations and some pier construction will be entrusted to CED to be undertaken during their fish culture zone maintenance dredging during the period of November 1998 to January 1999. Dredging and the pier foundations will take a total of 2-3 weeks to complete and the pier construction will require approximately 3 weeks.</p> <p>Finishing works, which will not affect the water quality, will be carried out in 1999 in accordance with the Contractor's programme. The construction works will be followed by a 6 months maintenance period.</p>
<p>Are there any interactions with broader programme requirements or other projects that shall be considered</p> <p>The site of IS-085 (Construction of Pier at Luk Chau Tsuen, North Lamma) is approximately 700m, northwest of this project site (IS-078) as shown in Drawing 2.</p> <p>However, CED will carry out maintenance dredging in the vicinity of both pier sites during the period November to January and the dredging works for both the sites will be entrusted to CED to be undertaken during this time.</p>

MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

Outline existing and planned sensitive receivers and sensitive parts of the natural environment which might be affected by the proposed project

Planning Areas:-

The nearest point of Fish Culture Zone (Lo Tik Wan) is approximately 136m away from the site.

Noise:-

Noise sensitive receivers (NSRs) include approximately 25 properties along the coast, within 200m of the project site (as shown in Drawing 1).

Marine water quality and Aquaculture:-

Sensitive receivers would normally include the cultivated fish stock located in the Lo Tik Wan Fish Culture Zone, the nearest point of which is 136m from the site. However, construction activities with the potential to affect water quality, namely the dredging and pier foundation laying works, will be undertaken by CED during their maintenance dredging during which time the fish cages will be relocated away from the area. In the unlikely event that some marine works are undertaken during a period when the fish culture zone is operational, the works will be undertaken with a silt curtain to minimise any effects.

Ecology:-

No gazetted areas of conservation interest have been identified for the area.

The estimated affected area of foreshore and sea bed will be approximately 1500m². The sea bed and its benthic fauna within the site boundary will be the sensitive receivers. In addition, there is a small vegetated area located within 10m of the shore. While this vegetation will be susceptible to minor dust impact, the significance will not be high.

POSSIBLE IMPACTS ON THE ENVIRONMENT

Outline any processes involved, including process flow diagrams, site plans, storage requirements and information on emissions and discharges

The main process will be initial dredging works to prepare a suitable bed on which to lay the foundation of the pier. Pre-cast concrete blocks will be laid to form the pier and once complete, fittings will be attached. See Drawing 1 for site boundary and work locations, Drawing 2 for location of the site.

Describe the environmental impacts or issues that arise during the construction, operation or decommissioning of the project, where applicable

During Construction

Noise :-

Dredging of marine deposits, for the new pier foundations, using powered mechanical equipment (a small grab dredger) will generate noise but noise levels are not anticipated to exceed the daytime construction noise guideline of 75dB(A) at any of the sensitive receivers.

Other construction activities, such as provision of a navigation light, bollards, fendering system and repair of the access track are also not anticipated to cause adverse noise impacts.

Marine Water Quality/Aquaculture:-

Dredging of marine deposits may increase the suspended solid content in the water column. However, the dredging will be carried out at an approximate rate of 30-40 m³/hr, and, as indicated by the borehole log provided in Drawing 3a (location of the borehole is shown on Drawing 3b), the dredged material will consist of coarse gravel and cobbles and will precipitate rapidly. Thus suspended solids will be low. In addition, the dredged material does not constitute contaminated mud and therefore no special handling or disposal specifications are required.

In addition, the fish cages in the fish culture zone will be relocated for the duration of the dredging and pier laying operations. However, should any marine works extend to when the fish culture zone is operational, a silt curtain to confine the works will be employed.

A detailed water quality monitoring and audit programme will be undertaken by CED during their maintenance dredging works. The monitoring programme provides suitable coverage of the pier dredging and foundation works and additional stations for IS-078 are not required.

Ecology:-

Destruction of a relatively small area of sea bed and disturbance to sea bed fauna is anticipated. Although the loss of a small area of the sea bed will be permanent, ecological niches should be established in time. The sea bed in this area is likely to be of medium conservation interest and, thus, the impact is of low magnitude and medium significance.

During Operation

No major or significant impacts are expected in this phase.

ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED

Describe measures to minimise environmental impacts

Noise:-

Noise mitigation measures are not considered as being required during this project. However, procedures for dealing with any complaints should be put in place.

Aquaculture and Marine Water Quality:-

CED will adopt the use of a silt curtain to protect nearby coral communities at Luk Chau. Further mitigation is not anticipated as being required as the fish cages will be relocated during the dredging, pier foundation and pier and seawall construction works. However, should any marine works extend into a period when the fish culture zone is operational, a silt curtain to fully enclose the works will be employed.

A water quality EM&A programme has been specified by CED to identify and control suspended solid concentrations during dredging operations. This programme provides adequate coverage of the pier site and thus additional stations for IS-085 are not required.

Careful on-site practice should be strictly implemented especially in the areas where dredging activities are required.

Terrestrial ecology:-

Vegetated areas along the shoreline should be disturbed as little as possible during the construction activities including site clearance and materials storage.

Requirements for mitigation works will be written into the construction Contract in accordance with the requirements of the Environmental Protection Guidance Notes for RPIS Minor Projects (EPD 1997).

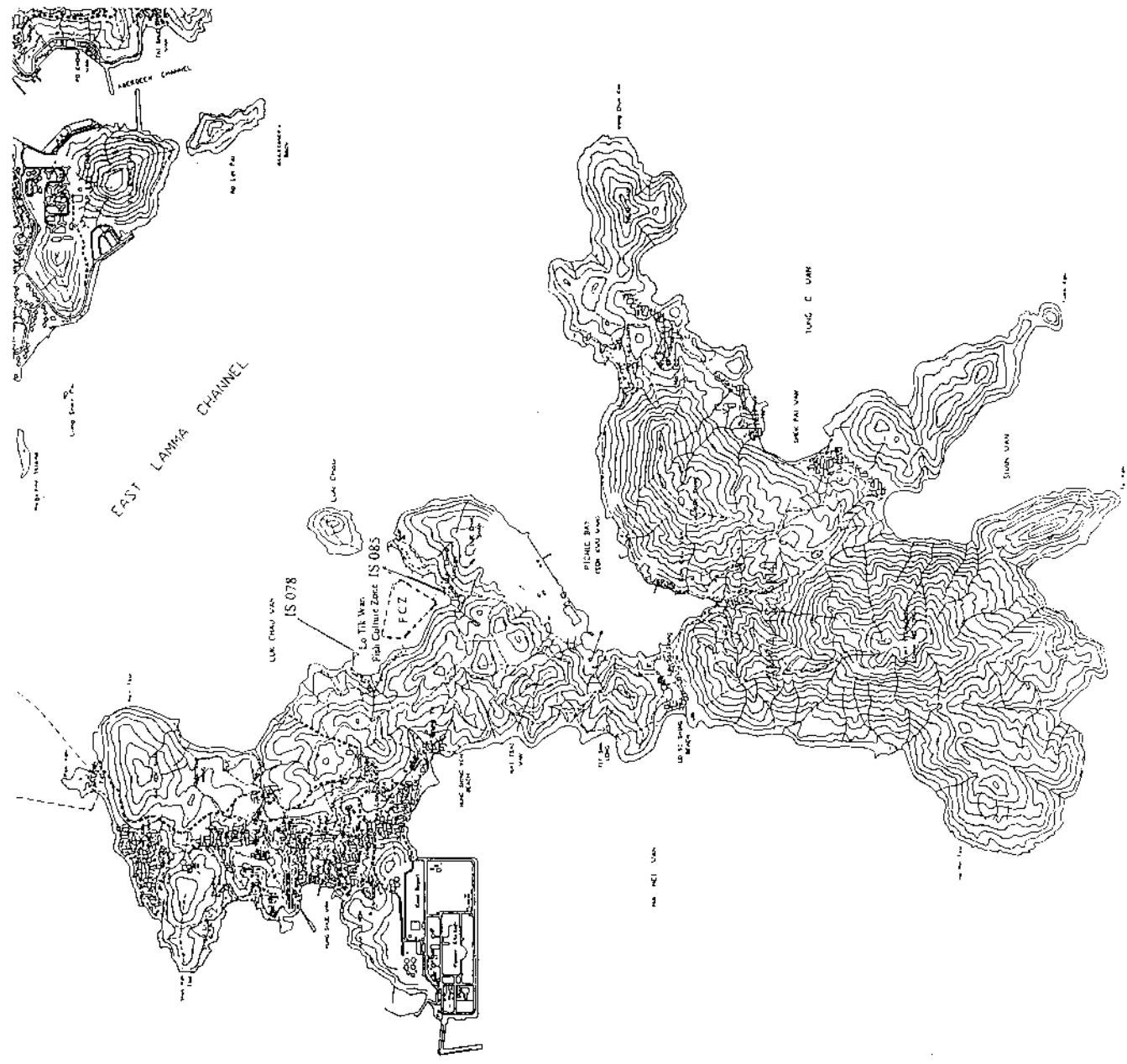
Comment on the possible severity, distribution and duration of environmental effects

As the fish culture zone will not be operational for the duration of the dredging and pier foundation works, no adverse effects on this key sensitive receiver will occur. However, in the unlikely event that marine works extend into the period when the fish culture zone is operational, the works will be conducted within a silt curtain which will ensure that this sensitive receiver will be protected from adverse water quality impacts.

The loss of sea bed will be permanent but is not considered to be severe as benthic habitats will re-establish in time.

Comment on any further implications

This Project has been previously assessed by EPD and judged that no EIA was required.



Sheet No.	Description	No.	Date	Drawn By

Rural Planning & Improvement Strategy

Home Affairs Department
Hong Kong Government

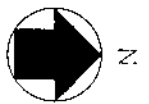
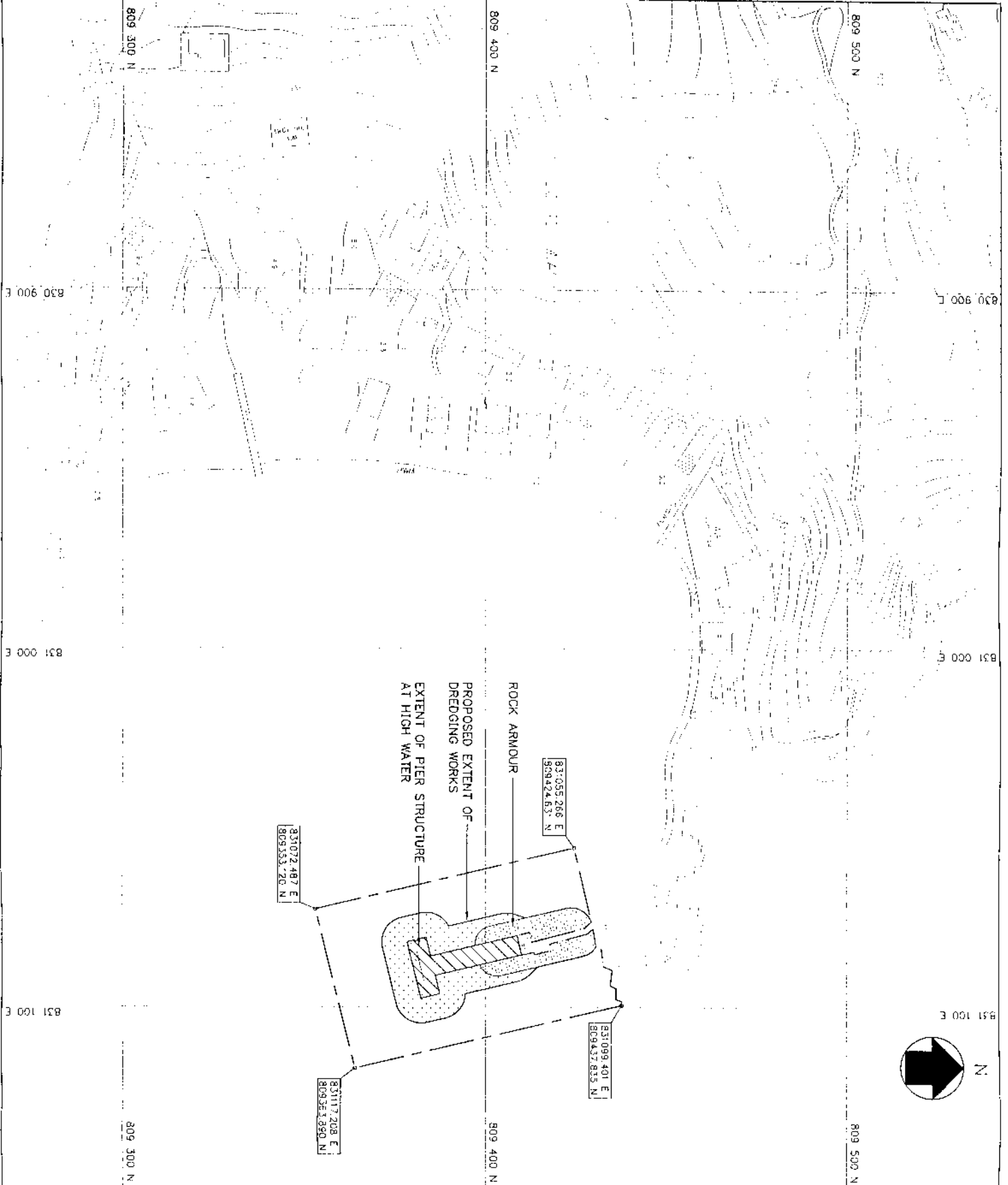
RPIS MINOR RURAL IMPROVEMENT WORKS PACKAGES 1 & 2

IS 078
EXTENSION OF PIER AT LO TIK WAN, NORTH LAMMA

LOCATION PLAN

Mouchel Mouchel Asia Limited Consulting Engineers	Drawn	Date
	Checked	7.8.98
	Approved	8.8.98
	Scale	1:500

DRAWING NO. 2



NOTES
 1. THIS DRAWING IS PART-PLAN OF SURVEY SHEET NO. 15N/MT/16

LEGEND :
 --- NSRS WITHIN 200M OF THE SITE BOUNDARY
 - - - - - SITE BOUNDARY

Drawn	Checked	By	Date

Rural Planning & Improvement Strategy

Home Affairs Department
 Hong Kong Government

RPI'S MINOR RURAL IMPROVEMENT WORKS PACKAGES 1 & 2
























































EXTENSION OF PIER AT LO TIK WAN, NORTH LAMMA IS078

PIER LOCATION SITE BOUNDARY AND NSRS

Mouchel
 Mouchel Asia Limited
 Consulting Engineers

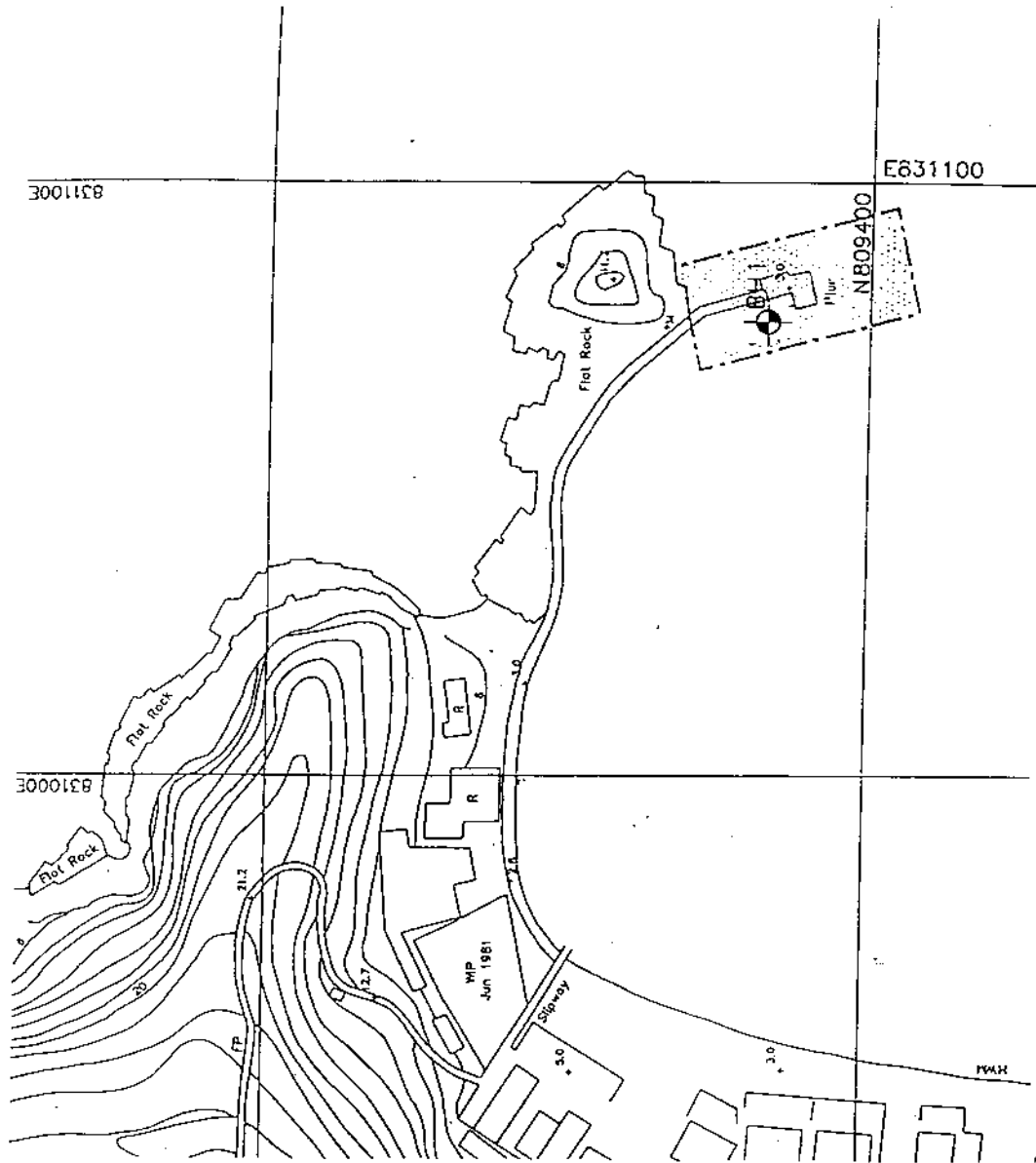
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 Date: 12/11/16

RPIS Package 1 & 2

				DRILLHOLE RECORD				HOLE NO. IS078BH1																																	
				CONTRACT NO. GE/95/08				SHEET 1 of 1																																	
PROJECT RPIS MINOR RURAL IMPROVEMENT WORKS PACKAGE 1 AND 2 MARINE GROUND INVESTIGATION																																									
METHOD CP + RO + RC			CO-ORDINATES E 831076.40 N 809417.60			W.O. NO. GE/95/08.9																																			
MACHINE & No. CLAIRE						DATE 7/6/96 to 10/6/96																																			
FLUSHING MEDIUM WATER			ORIENTATION Vertical			GROUND LEVEL 0.10 mPD																																			
Drilling Progress	Casing size	Water level (m) Shift start/end	TCR%	SCR%	ROD%	FI	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description																												
1	HX	1.10m 07:30	45					T2-101	0.00	0.00			Grey (5Y), angular COBBLES and coarse GRAVEL of rock fragments. (FILL)																												
		1.80m 18:30	100	100	100	N.A.		T2-101	-0.64	0.74		III	Moderately strong, grey, spotted black, equigranular, moderately decomposed, medium grained GRANODIORITE. (CORESTONE)																												
2		1.10m 07:30	66	66	52			T2-101	-2.02																																
	HX					N.R.			-2.38	2.48		V	2.12-2.48m: No recovery assumed to be completely decomposed granodiorite washed out by flushing medium.																												
3			100	100	64			T2-101		3.42		III	Moderately strong, grey, spotted black, equigranular, moderately decomposed, medium grained GRANODIORITE.																												
4			100	100	75			T2-101		3.80			Joints, closely to medium spaced, smooth planar and rough undulating, limonite stained, dipping 15° to 20°, 30°, 45° to 50°, 65° and subvertical from 3.87 to 4.13m, 4.65 to 4.86m and 5.68 to 6.06m.																												
5			76	76	50			T2-101		4.24																															
6			82	77	61			T2-101		5.04																															
7		1.60m 19:30	100	50	45			T2-101		5.89																															
		1.30m 07:30	100	100	85			T2-101		6.42																															
8									-7.50				End of hole at 7.60m.																												
<table border="0"> <tr> <td> SMALL DISTURBED SAMPLE</td> <td> STANDARD PENETRATION TEST</td> <td>LOGGED</td> <td><u>R. T. Wu</u></td> <td rowspan="4">REMARKS</td> </tr> <tr> <td> PISTON SAMPLE</td> <td> IN SITU VANE SHEAR TEST</td> <td>DATE</td> <td><u>12/06/96</u></td> </tr> <tr> <td> U76 UNDISTURBED SAMPLE</td> <td> PERMEABILITY TEST</td> <td>CHECKED</td> <td><u>H.T. BURBIDGE</u></td> </tr> <tr> <td> U100 UNDISTURBED SAMPLE</td> <td> IMPRESSION PACKER TEST</td> <td>DATE</td> <td><u>15/06/96</u></td> </tr> <tr> <td> WATER SAMPLE</td> <td> PACKER TEST</td> <td></td> <td></td> <td></td> </tr> <tr> <td> SPT LINER SAMPLE</td> <td> PIEZOMETER</td> <td></td> <td></td> <td></td> </tr> <tr> <td> OBSERVATION WELL TAP</td> <td> OBSERVATION WELL TAP</td> <td></td> <td></td> <td></td> </tr> </table>										 SMALL DISTURBED SAMPLE	 STANDARD PENETRATION TEST	LOGGED	<u>R. T. Wu</u>	REMARKS	 PISTON SAMPLE	 IN SITU VANE SHEAR TEST	DATE	<u>12/06/96</u>	 U76 UNDISTURBED SAMPLE	 PERMEABILITY TEST	CHECKED	<u>H.T. BURBIDGE</u>	 U100 UNDISTURBED SAMPLE	 IMPRESSION PACKER TEST	DATE	<u>15/06/96</u>	 WATER SAMPLE	 PACKER TEST				 SPT LINER SAMPLE	 PIEZOMETER				 OBSERVATION WELL TAP	 OBSERVATION WELL TAP			
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Extension of Pier at Lo Tik Wan, Lamma - IS-078 Borehole Log

Mouchel
Drawing number 3a



Extension of Pier at Lo Tik Wan, Lamma - IS-078
Borehole Location

Mouchel

Drawing number 3b