For information **PWSCI(2000-01)37**

NOTE FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

Supplementary information on
71LC - Reconstruction of Hei Ling Chau Pier

INTRODUCTION

When Members considered PWSC(2000-01)62 at the Public Works Subcommittee meeting held on 22 November 2000, the Administration undertook to provide the following information on the reconstruction of Hei Ling Chau Pier project -

(a) the environmental assessment on whether the Cheung Sha Wan fish culture zone would be affected by the project; and

(b) a more detailed location plan showing the Hei Ling Chau typhoon shelter, the Correctional Services Department's institutions and the existing ancillary facilities of the pier.

THE ADMINISTRATION'S RESPONSE

Environmental impact on nearby fish culture zone

2. The proposed works under PWP item **71LC** will involve the following activities -

(a) monitoring of water quality;

(b) installation of a temporary pontoon;

(c) installation of silt curtain;

(d) demolition of the existing reinforced concrete pier structures including extraction of existing piles;

/(e) .....

(e) piling works for the foundation of the pier;

(f) construction of reinforced concrete suspended deck structures for the pier;

(g) construction of roof; and

(h) installation of fenders, bollards, lighting and other facilities.

This is a small project and does not involve any dredging and filling works. In accordance with the Preliminary Environmental Review as approved by the Director of Environmental Protection, we shall, among other things, install a silt curtain around the project site which will further minimize any possible water quality impacts from the proposed works to nearby waters. We do not expect the proposed works to have any adverse impact on the Fish Culture Zone at Cheung Sha Wan, Lantau. A copy of the Preliminary Environmental Review completed in December 1998 is at Enclosure 1.

Justification for not locating the pier at the typhoon shelter

3. Existing facilities near Hei Ling Chau Pier include visitors' waiting room, visit rooms, legal visit rooms, registration area, store rooms for hand-in articles from visitors, toilets, etc. These are required to provide ancillary services to inmates and visitors. Should the pier be relocated within the typhoon shelter or any other location, these facilities will need to be reprovisioned. In addition, the daily routine and operations of the various institutions will need to be adjusted. This will have capital cost and operational implications.

4. The shoreline surrounding the typhoon shelter is rocky and currently has no vehicular access. The provision of a new pier within the typhoon shelter with linked vehicular access will incur capital costs as substantial geotechnical works including earthworks, rock cutting and slope stabilization would be required.

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5. A plan showing the existing vehicular access, the proposed pier and the existing typhoon shelter at Hei Ling Chau is at Enclosure 2.

Security Bureau
December 2000

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1. INTRODUCTION

This Preliminary Environmental Review (PER) is prepared by Port Development Division of Civil Engineering Office, Civil Engineering Department (CED).

The purpose of the PER is to identify, at the earliest possible stage, potential environmental problems associated with the proposed development package, so that necessary further studies can be defined, initiated, and a budget allocated.

The PER does not attempt to cover any issues in great detail. The report is the outcome of consideration of outline information and professional judgement. Where possible, an indication is provided of the potential scale of impacts so that suitable provision can be made for detailed study. Any potentially unresolved environmental problems will be highlighted, if necessary.

2. OUTLINE OF THE PROJECT

Background

A consultancy study was commissioned by the Civil Engineering Department in 1995 to conduct a detailed condition audit of 93 piers in the territory. The condition audit revealed that the Hei Ling Chau pier was in an extremely poor condition with widespread reinforcement corrosion and spalling. The study concluded that the extent of deterioration of the elements in the Hei Ling Chau pier has severely compromised structural integrity and therefore it should be replaced.

Brief Description

The project comprises the reconstruction of the Hei Ling Chau pier and the proposed scope includes:-

(a) demolition of the existing Hei Ling Chau piled pier;
(b) temporary reprovisioning of the existing piled pier during the re-construction stage;
(c) construction of a replacement pier
(d) construction of a roof;

Major construction activities include:-

(i) erection of the temporary floating jetty
(ii) demolition of the reinforced concrete pier structures
(iii) piling works for the foundation of the pier
(iv) construction of reinforced concrete suspended deck structures for the pier
(v) construction of the fenders, bollards and roof
(vi) installation of lightings and other facilities

The project will be planned and designed in-house by Port Development Division, Civil Engineering Office of Civil Engineering Department. It is expected that the construction will be executed by a contractor to be appointed through tendering exercise. The construction of the project is planned to start at mid 2001 for completion at early 2003. The estimated cost of the project is 22 million.

The drawing No. PD 10120 showing the layout of the existing pier to be reconstructed is enclosed for easy reference.

3. ENVIRONMENTAL CONSTRAINTS

In view of the small scale of the project, the impacts on the environment relating to construction and operation are minimal in general and summarised below:-

Potential Impact	Construction	Operation
Gaseous emissions	low - site marine traffic	low - remain unchanged
Dust	low - demolition of the existing reinforced concrete suspended deck structure. In view of the small size of the pier (120 sq.m in size), the dust emitted is considered as minimal	low - remain unchanged
Odour	low	low - remain unchanged
Noisy operation	moderate - piling works involved	low - remain unchanged
Night-time operation	N.A.	low - remain unchanged
Traffic generation	low - site marine traffic	low - remain unchanged
Liquid effluent, discharges or contaminated run-off	low - the amount of site marine traffic involved is minimal	low - remain unchanged
Generation of waste or by-products	low	low -remain unchanged
Storage, handling, transport or disposal of hazardous or hazard materials or wastes	low	low
Disposal of spoil material, including potentially contaminated material	low	low
Disruption of water movement	low - in view of the small size of the pier	low -remain unchanged
Ecology	low - in view of the small size of the pier	low
Visual	low	low

Summary of Environmental Constraints

Levels of impact without mitigation

Low	minimal impact anticipated
Moderate	impact anticipated - assessment required to confirm level of impact/ mitigation requirement
High	potential for unmitigated impact in excess of legislative, HKPSG requirements

The potential constraints due to the development are summarised as follows:-

Dust

- demolition of the existing reinforced concrete pier

Noise

- piling work for foundation of the pier

All the above constraints will not impose severe impact to the surroundings in view of the small scale of the project.

Works carried out concurrently and may have cumulative impact to the surroundings are:

- nil

4. SENSITIVE RECEIVERS

- no fish culture zone nearby.
- a prison on Hei Ling Chau.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Air Quality

Air quality impact arising from the project is considered minimal in view of the small scale of the project. Standard clauses including requiring the contractor to spray water on the part to be demolished during demolition of the existing pier, will be included into the contract documents to further minimise the impact.

5.2 Noise

Noise is generated mainly from piling operation. The noise level can be controlled through imposition of restrictions on the permitted hours of operation as well as the type and number of equipment items allowed to be used. For non-restricted hours, the daytime construction noise criteria stipulated in ProPECC Note 2/93 will be followed.

5.3 Water Quality

No dredging and reclamation works is involved. The demolition of the existing reinforced concrete pier may arouse water quality impact to the surroundings. Although there are local fishing activities around Hei Ling Chau, the impact is expected to be minimal in view of the small scale of the project but as advised by D of AF, ex-gratia payment is required owing to loss of fishing ground. Silt Curtains shall be installed prior to the commencement of the construction works and be maintained in good and effective condition throughout the construction process.

The water flow will not be affected by the presence of the new pier by virtue of a pile-type foundation being adopted.

5.4 Visual Impact

Nil

5.5 Waste Management

No additional domestic waste will be generated from the project. During construction stage, the contractor will be required to minimise the amount of construction waste polluting the water bodies nearby. The building debris generated during demolition of the existing pier should be properly removed in order to minimise any disturbance to the mud at the seabed. Silt Curtains shall be installed prior to the commencement of the demolition works and be maintained in good and effective condition throughout the process.

5.6 Ecological Impacts

The impact on the ecology is considered minimal in view of the small scale of the project.

5.7 Cultural Heritage

The demolition and reconstruction works will be conducted adjacent to the existing pier, thus no impact on cultural heritage is expected.

6 CONCLUSIONS

The project is not a Designated Project under the Environmental Impact Assessment Ordinance. Further environmental studies are not required. The mitigation measures recommended in the PER shall be implemented through relevant works contract to control environmental impacts within the acceptable levels.

7. REFERENCE

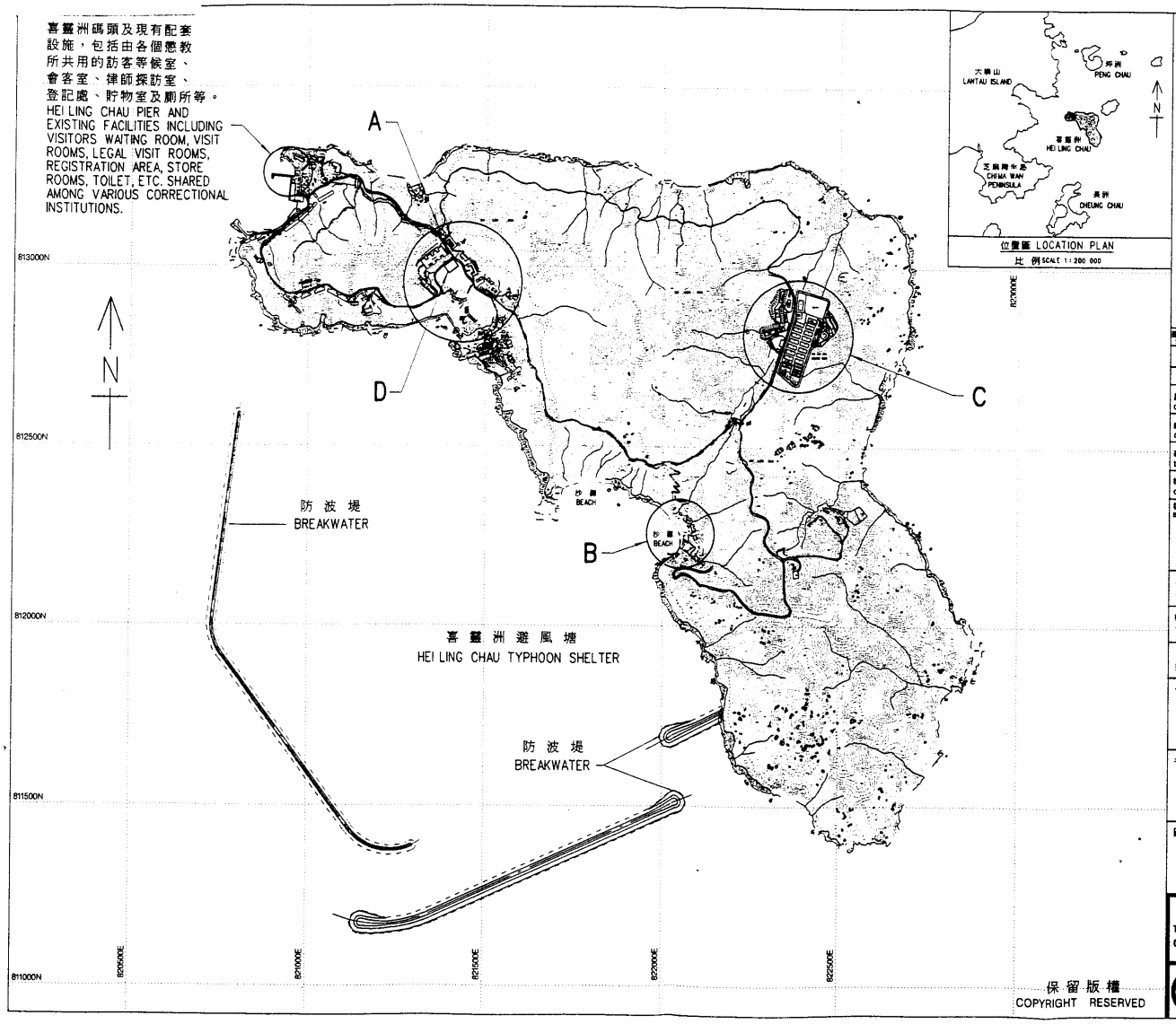
1. Condition Audit of Reinforced Concrete Piers and Review of Concrete Design for the Marine Environment - CED, Technical Services Division.

Reconstruction of Hei Ling Chau Pier
Preliminary Environmental Review (PER) Report

December 1998

(Final)

喜靈洲碼頭及現有配套設施，包括由各個懲教所共用的訪客等候室、會客室、律師探訪室、登記處、貯物室及廁所等。
HEI LING CHAU PIER AND EXISTING FACILITIES INCLUDING VISITORS WAITING ROOM, VISIT ROOMS, LEGAL VISIT ROOMS, REGISTRATION AREA, STORE ROOMS, TOILET, ETC. SHARED AMONG VARIOUS CORRECTIONAL INSTITUTIONS.



位置圖 LOCATION PLAN
比例 SCALE 1 : 200 000

注釋
NOTES

圖例
LEGEND:

- 喜靈洲碼頭 HEI LING CHAU PIER
- 現有車輛通道 EXISTING VEHICULAR ACCESSES
- 現有小徑 EXISTING FOOTPATH
- 防波堤 BREAKWATER
- A 喜靈洲戒毒所 HEI LING CHAU ADDICTION TREATMENT CENTRE
- B 喜靈洲戒毒所(附屬中心) HEI LING CHAU ADDICTION TREATMENT CENTRE (ANNEX)
- C 喜靈洲懲教所 HEI LING CHAU CORRECTIONAL INSTITUTION
- D 勵新懲教所 LAI SUN CORRECTIONAL INSTITUTION
- 峭壁 CLIFF

編號 no.	日期 date	說明 description	核對 checked	核准 approved
修訂 REVISION				

	姓名 name	簽署 initial	日期 date
設計 designed	Y K AU	SIGNED	23.11.00
繪圖 drawn	S M WONG	SIGNED	23.11.00
描圖 traced	S M WONG	SIGNED	23.11.00
核對 checked	F P MA	SIGNED	23.11.00

核准 approved
SIGNED
(F. M. LUK)
總工程師 Chief Engineer
日期 date : 23.11.00

合約編號 contract no.

檔案編號 file no.

工程編號 project no.

合約 contract

名稱 drawing title
喜靈洲碼頭位置圖
LOCATION PLAN OF HEI LING CHAU PIER

圖則編號 drawing no.	比例 scale
TS 1389	1 : 10 000

office
TECHNICAL SERVICES DIVISION 工程技術部
CIVIL ENGINEERING OFFICE 土木工程處

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