For information **FCRI(2004-05)6**

NOTE FOR FINANCE COMMITTEE

Progress Report on
72LC – Prison Development Plan at Hei Ling Chau
Feasibility study and preliminary site investigation
for land formation and infrastructure works

PURPOSE

This paper informs Members of progress on the feasibility study and preliminary site investigation for land formation and infrastructure works for the proposed prison development at Hei Ling Chau.

BACKGROUND

2. The Finance Committee (FC) approved funding of $46.7 million for carrying out the feasibility study in two stages at its meeting on 16 May 2003. The Administration undertook then to report to the FC the findings of Stage 1 of the feasibility study estimated to cost $7 million; and to seek the FC's approval before proceeding to Stage 2.

3. Under the prison development plan, all penal institutions on Hong Kong Island and in Kowloon, as well as all the remand facilities in the territory, would be relocated to the proposed prison complex. The feasibility study is to examine the engineering feasibility of land formation and infrastructure works for the proposal. The feasibility study should also cover public consultations.

PROGRESS

4. The Civil Engineering Department (CED) commissioned Mott Connell Limited to conduct the two-stage feasibility study in September 2003. Stage 1 of the study is now under way. A first round of public consultation to gauge the public's views on eight preliminary options for land formation and four preliminary options for a fixed crossing linking Hei Ling Chau and Lantau Island was carried out from December 2003 to February 2004.

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5. Taking into account the views received in the first round of public consultation and having balanced the merits and demerits of various preliminary options, CED, on the advice of the consultant, has drawn up a preferred option. The preferred option comprises reclamation of about 80 hectares of land within the Hei Ling Chau Typhoon Shelter and a bridge linking Hei Ling Chau and Mui Wo, with a bypass around Mui Wo town to South Lantau Road. New breakwaters will be constructed for reprovisioning the anchorage area affected by the reclamation.

6. We will embark on another round of public consultation starting from 31 May 2004 to collect public views on the preferred option. We have prepared a set of material for the second round of public consultation, comprising a Consultation Digest containing the key findings of the option assessments and the details of the preferred option; and an Information Pamphlet on the policy background to the proposal. These documents are now attached at Enclosures 1 and 2 respectively for Members' reference.

Encls. 1 - 2

7. The preferred option will be further assessed and refined after the second round of public consultation. Upon completion of Stage 1 of the study, we will report findings and seek Members' agreement before embarking on Stage 2.

Security Bureau
May 2004

Feasibility Study for
Land Formation and Infrastructure Works
For Prison Development at Hei Ling Chau

Second Round of Public Consultation

Consultation Digest

May 2004

Civil Engineering Department
Government of the Hong Kong
Special Administrative Region

Mott Connell 萬隆

Project Background

Overcrowding is a long standing problem of our prisons. Also, many facilities are outdated and in archaic conditions. In the long run, the problem is predicted to deteriorate. Government therefore proposes to build a new prison complex with 7,220 penal places. It will group all the existing penal facilities on Hong Kong Island and in Kowloon together with the reception facilities scattered around the territory plus an additional 2,600 places to meet the forecast growth in the penal population up to 2015. To maintain security, the complex will be divided into units and each unit will have its own security wall for effective separation.

Benefits

The new prison complex will not only solve the problems of overcrowding and archaic facilities in the prisons, but will also meet the forecast growth in penal population up to 2015. In addition, the project will bring benefits to the community by:

- achieving considerable economies of scale from the co-location of penal facilities, thus saving recurrent operational and manpower costs to the Correctional Services Department (CSD) in the long term;
- enabling the CSD to run the rehabilitation programmes more effectively and efficiently, to the benefit of the inmates and eventually to the benefit of society as a whole; and
- releasing existing penal sites on Hong Kong Island and in Kowloon for redevelopment to meet other community needs.

Feasibility Study

The Civil Engineering Department (CED), has commissioned Mott Connell Limited (the consultants) in a 2-stage study (the "Study") to examine the engineering feasibility of the land formation and infrastructure works for a new prison complex at Hei Ling Chau.

Currently, we are in Stage 1 of the Study. We have drawn up a preferred option of the land formation and infrastructure works for public consultation. Details of the preferred option are presented in this Consultation Digest.

After completion of the Stage 1 of the Study, we will present the findings and recommendations to the Finance Committee of the Legislative Council. It is only upon the approval of the Finance Committee that we will proceed to Stage 2 of the Study. Detailed assessments of the preferred option, which will include a statutory environmental impact assessment, will then follow.

First Round of Public Consultation

We conducted a first round of public consultation from December 2003 to February 2004. We have consulted a total of 35 parties, including local community groups, green groups and other interest groups, for their views on eight preliminary land formation options and four preliminary fixed crossing options. We have received valuable comments on these preliminary options as well as other views on non-technical aspects of the project.

Comments and concerns on the technical aspects of the land formation and infrastructure works mainly include:

- Potential visual and landscape impacts of the new prison complex, the fixed crossing and the associated land access routes;
- Potential impacts on terrestrial and marine ecology;
- Potential impacts on water quality and tidal flow;
- Planning implications on the conservation and tourism use of South Lantau;
- Potential impacts on the land traffic in South Lantau;
- Potential impacts on fishery; and
- Re-provisioning of the affected anchorage space if the Hei Ling Chau typhoon shelter is partly reclaimed for the land formation.

Preliminary preferences of the public on the preliminary options are:

Land formation
(For location of options, please refer to Annex A)

- Options within the typhoon shelter (i.e. Options B, C and D) are considered more preferable or having lesser impacts; and
- Options A, G and H are considered less preferable or having greater impacts

Fixed crossing and associated land access routes
(For location of options, please refer to Annex B)

- Option 2 is considered more preferable or having lesser impacts; and
- Options 1 and 4 are considered less preferable or having greater impacts

As regards the concerns on the non-technical aspects of the project, they are mainly related to the need for constructing the prison complex and the site search issues. We have responded to these questions during the first round of public consultation. The information about these issues is provided in the Information Pamphlet accompanying this Consultation Digest.

The Preferred Option

We have assessed the eight preliminary land formation options and the four preliminary fixed crossing options based on a set of criteria covering various aspects including visual and landscape impacts, ecology and other environmental aspects, land use, transport, social issues, engineering and cost. The key findings are presented in Annexes A and B.

Based on the findings, we consider that the preliminary land formation options within the typhoon shelter and Option 2 of the fixed crossing together with a bypass around the Mui Wo Town are better than the others. Having balanced the merits and demerits of the options and taking into account the public views collected in the first round of public consultation, we have drawn up a preferred option as shown in Figure 1.

The preferred land formation is an optimized layout of the preliminary options within the typhoon shelter to draw upon the advantages offered by Options B, C and D. It is about 80 hectares in area. For part of the existing anchorage area affected by the reclamation, the consultants propose on-site reprovisioning by reconstructing parts of the existing breakwaters.

For the fixed crossing, we have assessed the merits and demerits of the bridge and tunnel options. Although the bridge option will have greater visual impacts to the environment, it will not require additional reclamation for the approach roads and have lesser temporary impacts on the water quality during construction. Also, the capital and recurrent costs of a bridge will be significantly lower than that of a tunnel. After considering all factors, the consultants recommend the bridge option be adopted.

The consultants estimate that the capital cost of the preferred option of land formation and infrastructure works is about $2.5 billion at September 2003 price level. This estimate will be reviewed in Stage 2 of the Study when more detailed assessments are available.

In summary, the key advantages of the preferred option are:

<u>Land Formation</u>

- Lesser visual impacts
- Minimal impacts on the natural topography and vegetation on Hei Ling Chau
- Minimal impacts on terrestrial and marine ecology
- Lesser impacts on water quality and tidal flow
- Conservation potential of Hei Ling Chau and Sunshine Island not affected
- Better integration with the existing penal institutions on Hei Ling Chau
- No impacts on the existing fairway

Fixed Crossing and Land Access Route (with a bypass)

- Minimal impacts on terrestrial and marine ecology for the fixed crossing; minor local impacts on some plantation and secondary woodland at Mui Wo due to the bypass
- Minimal impacts on Lantau South Country Park
- Minimal impacts on existing and planned land uses
- Archaeological sites not affected
- Efficient traffic connection

Preliminary Assessments of the Preferred Option

Key findings of the preliminary assessments of the preferred option are presented in this Section. We will carry out detailed assessments and refine the preferred option in Stage 2 of the Study. Further public consultation will be carried out during that stage.

Visual and landscape impacts

Land Formation

- Effective screening by the topography of Hei Ling Chau
- Not visible from Peng Chau, Discovery Bay, Lamma Island and Hong Kong Island south
- Only partly visible from Mui Wo, Chi Ma Wan and Cheung Chau
- Minimal impacts on the natural topography and vegetation on Hei Ling Chau

Fixed Crossing

- Readily visible from Peng Chau, Mui Wo and Chi Ma Wan; the visual impacts will be higher at Mui Wo

We will consider mitigation measures including landscaped berms for the land formation and a lightweight bridge structure design with subtle colour scheme for the fixed crossing during Stage 2 of the Study.

Ecology

- Minimal impacts on terrestrial and marine ecology due to the land formation. It will not require massive site formation works on Hei Ling Chau. The shoreline, foreshore and seabed within the typhoon shelter are generally of low ecological value.
- The land access route will not require construction of new roads within the Lantau South Country Park. The bypass will have minor local impacts on some plantation and secondary woodland at Mui Wo.

Regarding the Bogadek's Burrowing Lizards which had previously been reported to be residing on Hei Ling Chau and Sunshine Island, they were not found in the field surveys conducted in the Stage 1 Study. The consultants consider that the land formation works will unlikely affect their habitat on Hei Ling Chau. We will carry out detailed terrestrial and marine ecological surveys in Stage 2 of the Study.

Impacts on water quality and tidal flow

- Critical tidal flow sections to the east of Chi Ma Wan and south of Man Kok Tsui of Lantau Island will not be affected. The new breakwaters and piers of the bridge fixed crossing will have potential local effects on water quality and tidal flows, but it can be minimized by effective mitigation measures
- Temporary water quality impacts during construction of the new breakwaters and land formation works

Impacts on planning of South Lantau

- Lantau South Country Park and the existing and planned land uses in Mui Wo not affected
- Minimal impacts on Mui Wo as a tourism gateway because the operational traffic will use the bypass to gain access to South Lantau Road
- Conservation potential of Hei Ling Chau and Sunshine Island not affected. No natural topography will be affected under the proposed land formation. The preferred option is within the typhoon shelter where there are already existing penal facilities near the shore.

Land traffic impacts on Lantau Island

- Minor impacts on Tung Chung Road and South Lantau Road. Chartered ferry services are anticipated to be the preferred mode of transport for most staff working in the new prison complex. The estimated volumes (counting both in-coming and out-going) of land traffic are 700 vehicles per day and 67 vehicles during the peak hours. It will take up about 8% of the capacity of Tung Chung Road and South Lantau Road during the peak hours.
- Minimal impacts on local roads of Mui Wo Town

Impacts on fishery

- Minor loss of fishing ground
- Potential temporary water quality impacts on nearby fish culture zone due to the dredging and construction works for the new breakwaters.

We will implement mitigation measures to control the impacts to acceptable levels. In addition, close monitoring will be carried out during the construction stage.

Preliminary Sustainability Assessment

The preliminary sustainability assessment draws on results from the various preliminary technical assessments. The key findings are:

- The new prison complex will relieve the problem of overcrowding of existing institutions.

- The co-location of penal facilities at Hei Ling Chau would require less additional manpower in managing the 7,220 penal places due to considerable economies of scale.

- Existing penal sites on Hong Kong Island and in Kowloon could be released for redevelopment to meet other community needs.

- The impacts on landscape quality, natural topography and vegetation, ecology, environment, traffic and recreational resources are not expected to be significant provided that suitable design and appropriate mitigation measures are incorporated.

- For visual impacts, land formation options within the typhoon shelter are preferred. Although the bridge option for the fixed crossing is less advantageous than the tunnel option due to greater visual impacts, the capital and recurrent costs of the bridge option will be significantly lower than that of the tunnel option.

- Further study should be carried out to assess the various impacts in detail, and propose appropriate mitigation measures to minimize the impacts to acceptable levels. Other issues such as penal securities and public views should be carefully addressed.

Your Views

Your views on the preferred option are very important to us. They will form a valuable input for the refinement of the preferred option. Please convey your views to us before 31 July 2004 by:

(a) Post to Chief Engineer/Development
Development Division,
Civil Engineering Department,
2/F, Civil Engineering Building,
101 Princess Margaret Road, Homantin,
Kowloon; or

(b) Fax to 2714 0079; or

(c) Email to ceinfo@ced.gov.hk

Any person submitting views and comments should be aware that the Government may publish all or part of the views and comments received and disclose the identity of the source in such manner as the Government considers appropriate, unless he/she requests any part of the views and comments and/or his/her identity be treated in confidence.

This Consultant Digest and the Information Pamphlet and other relevant information can be found at CED's website www.ced.gov.hk/eng/projects/hlcfs/hlcfs_f.htm.

For enquiries, please call the Development Division of CED at 2762 5670.

Figure 1 - The Preferred Option

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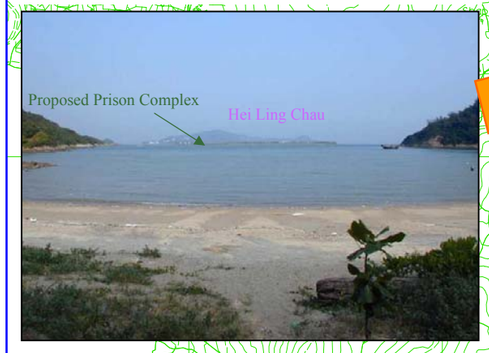
View from Discovery Bay (2)

View from Peng Chau (1)

View from Hong Kong Island (Cyberport) (7)

View from Mui Wo (Silvermine Bay) (3)

View from Chi Ma Wan (4)



View from Cheung Chau North (5)

View from Ferries (6)

Proposed Bypass

Existing Mui Wo Ferry Pier Road

Proposed Fixed Crossing and Access Road

Proposed Breakwaters

Proposed Reclamation Area (about 80 ha)

Existing Breakwater to be Removed

1 2 3 4 5 6 7

Key Findings of Preliminary Assessments for Land Formation Options

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Annex A

Criteria	Option A	Option B	Option C	Option D	Option E	Option F	Option G	Option H
								
Visual and Landscape	• Readily visible from Peng Chau, Discovery Bay and Hong Kong Island south • Significant loss of natural coastline landscape resources (2.8km) • Moderate loss of natural landscape resources due to new access road to fixed crossing	***2nd favoured*** • Partly visible from Mui Wo • Moderate loss of natural coastline landscape resources (2.4km) within the typhoon shelter	***Most favoured*** • Least visible from Mui Wo compared with Options B and D • Minimal loss of natural coastline landscape resources (1.0km) within the typhoon shelter • Low loss of natural landscape resources due to new access road to fixed crossing	• Most visible from Mui Wo compared with Options B and C • Moderate loss of natural coastline landscape resources (1.5km) within the typhoon shelter	• Readily visible from Hong Kong Island south, Lamma Island and ferry passengers • Moderate loss of natural coastline landscape resources (2.1km) • Moderate loss of natural landscape resources due to new access road to fixed crossing	• Readily visible from Hong Kong Island south, Lamma Island and ferry passengers • Moderate loss of natural coastline landscape resources (2.1km) • Significant loss of wooded slopes and hilltops (36 ha) • Moderate loss of natural landscape resources due to new access road to fixed crossing	• Farthest away from Mui Wo but readily visible from Chi Ma Wan and ferry passengers • Minimal loss of natural coastline landscape resources (0.4km)	• Farthest away from Mui Wo but readily visible from Chi Ma Wan and ferry passengers • Minimal loss of natural coastline landscape resources (0.7km) • Significant loss of wooded slopes and hilltops (16.4ha)
Ecology	• High ecological value shoreline affected (2.8km) • Higher impacts on corals	• Low ecological value shoreline affected (2.4km) • No impacts on corals	***Most favoured*** • Low ecological value shoreline affected (1.0km) • No impacts on corals	***2nd favoured*** • Low ecological value shoreline affected (1.5km) • No impacts on corals	• High ecological value shoreline affected (2.1km) • Low impacts on corals	• Significant impacts on terrestrial habitats (36 ha) • High ecological value shoreline affected (2.1km) • Low impacts on corals	• High ecological value shoreline affected (0.4km) • Low impacts on corals	• Significant impacts on terrestrial habitats (16.4 ha) • High ecological value shoreline affected (0.7km) • Low impacts on corals
Environmental Aspects (Other) - *Tidal flow and water quality* - *Construction air and noise*	• Lesser impacts on tidal flow and water quality • Low impacts on existing institutions	***Most favoured*** • Least impacts on tidal flow and water quality compared with other options • High impacts on existing institutions	***Most favoured*** • Least impacts on tidal flow and water quality compared with other options • High impacts on existing institutions	• Lesser impacts on tidal flow and water quality • Highest impacts on existing institutions	• Lesser impacts on tidal flow and water quality • Moderate impacts on existing institutions	• Lesser impacts on tidal flow and water quality • Moderate impacts on existing institutions	• Significant impacts on tidal flow and water quality ***Most favoured*** • Least impacts on existing institutions	• High impacts on tidal flow and water quality ***2nd favoured*** • Low impacts on existing institutions
Land Use	• Conservation potential of Sunshine Island affected • Incompatible with existing natural character	***Most favoured*** • Re-provisioning of typhoon shelter required (35ha) • Compatible with existing land use character	***Most favoured*** • Re-provisioning of typhoon shelter required (35ha) • Compatible with existing land use character	• Re-provisioning of typhoon shelter required (50ha) • Compatible with existing land use character	• Incompatible with existing natural character	• Conservation potential of Hei Ling Chau significantly affected • Incompatible with existing natural character	• Incompatible with existing natural character	• Conservation potential of Hei Ling Chau affected • Incompatible with existing natural character
Transport	• Long travel distance to fixed crossing (4.5km) • Widening of existing roads (0.7km) and construction of new roads required (1.5km) • Low impacts on marine traffic	***Most favoured*** • Direct connection with fixed crossing • Widening of existing roads and construction of new roads not required • No impacts on marine traffic	• Long travel distance to fixed crossing (3.9km) • Widening of existing roads (1.0km) and construction of new roads required (0.3km) • No impacts on marine traffic	***Most favoured*** • Direct connection with fixed crossing • Widening of existing roads and construction of new roads not required • No impacts on marine traffic	• Long travel distance to fixed crossing (4.0km) • Widening of existing roads (0.7km) and construction of new roads required (1.0km) • Low impacts on marine traffic	• Long travel distance to fixed crossing (3.7km) • Widening of existing roads (0.6km) and construction of new roads required (0.9km) • Low impacts on marine traffic	• Direct connection with fixed crossing (Option 4) • Widening of existing roads (1.0km) and construction of new roads required (0.6km) (for connection with existing institutions) • Highest impacts on marine traffic	• Direct connection with fixed crossing (Option 4) • Widening of existing roads (1.0km) and construction of new roads required (0.6km) (for connection with existing institutions) • Highest impacts on marine traffic
Social Issues	• Two high quality beaches and water sport activities affected • Large loss of fish catching area (82ha) • Potential temporary impacts on existing fish culture zones	***2nd favoured*** • Small loss of fish catching area (35ha) • Potential temporary impacts on existing fish culture zones	***Most favoured*** • Small loss of fish catching area (35ha) • Potential temporary impacts on existing fish culture zones • Least security concerns to local residents compared with Options B and D	• Moderate loss of fish catching area (50ha) • Potential temporary impacts on existing fish culture zones	• Large loss of fish catching area (85ha) • Potential temporary impacts on existing fish culture zones	• Moderate loss of fish catching area (45ha) • Potential temporary impacts on existing fish culture zones	• Large loss of fish catching area (84ha) • Potential temporary impacts on existing fish culture zones	- Moderate loss of fish catching area (69ha) - Potential temporary impacts on existing fish culture zones
Engineering /Cost	• Relocation of an existing submarine watermain required • Capital cost: $1.40B • Recurrent cost: $10.1M	• Relocation of existing breakwater required (1.82km) • Interface constraints with existing institutions and typhoon shelter • Capital cost: $1.52B • Recurrent cost: $9.8M	• Relocation of existing breakwater required (1.46km) • Interface constraints with existing institutions and typhoon shelter • Efficient layout for prison facilities • Capital cost: $1.46B • Recurrent cost: $10.0M	***2nd favoured*** • Relocation of existing breakwater required (1.75km) • Interface constraints with existing institutions and typhoon shelter • Efficient layout for prison facilities • Capital cost: $1.49B • Recurrent cost: $10.0M	***Most favoured*** • Least construction difficulties and interface constraints • Capital cost: $1.53B • Recurrent cost: $10.2M	• Significant amount of slope cutting and excavation works required • Capital cost: $1.65B • Recurrent cost: $10.2M	• Interface constraints with existing typhoon shelter and marine traffic • Inefficient layout for prison facilities • Capital cost: $1.53B • Recurrent cost: $10.1M	• Interface constraints with existing typhoon shelter and marine traffic • Significant amount of slope cutting and excavation works required • Inefficient layout for prison facilities • Capital cost: $1.57B • Recurrent cost: $10.1M

Key Findings of Preliminary Assessments for Fixed Crossing Options

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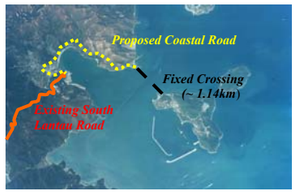
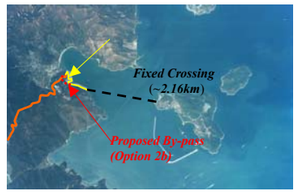
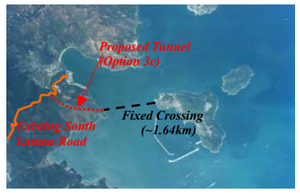
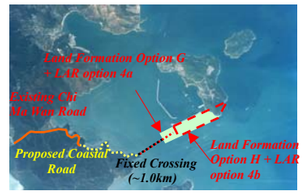
Criteria	Option 1		Options 2a and 2b *		Options 3a and 3b *		Option 3c		Option 4	
										
	Form of Fixed Crossing		**Form of Fixed Crossing**		**Form of Fixed Crossing**		**Form of Fixed Crossing**		**Form of Fixed Crossing**	
	Bridge	**Tunnel**	**Bridge**	**Tunnel**	**Bridge**	**Tunnel**	**Bridge**	**Tunnel**	**Bridge**	**Tunnel**
Visual and Landscape	• Significant loss of landscape resources due to the land access route to Mui Wo (4.1km)		***2nd favoured (Option 2a) - Tunnel*** • Minimal loss of landscape resources due to the by-pass for Option 2b (0.4km)		• Moderate loss of landscape resources due to the land access route to Mui Wo (Option 3a: 1.0km; Option 3b: 1.4km)		***Most favoured - Tunnel*** • Minimal loss of landscape resources due to the tunnel portals and ventilation shafts for tunnel connection to South Lantau Road		• Significant loss of landscape resources due to the land access route at Chi Ma Wan (2.2km)	
	• Bridge fixed crossing readily visible from Discovery Bay, Peng Chau, Mui Wo and Chi Ma Wan	• Tunnel portals and ventilation shafts visible from Discovery Bay, Peng Chau, Mui Wo and Chi Ma Wan	• Bridge fixed crossing readily visible from Peng Chau, Mui Wo and Chi Ma Wan	• Tunnel portals and ventilation shafts visible from Peng Chau, Mui Wo and Chi Ma Wan	• Bridge fixed crossing readily visible from Peng Chau, Mui Wo and Chi Ma Wan	• Tunnel portals and ventilation shafts visible from Peng Chau, Mui Wo and Chi Ma Wan	• Bridge fixed crossing readily visible from Peng Chau, Mui Wo and Chi Ma Wan	• Tunnel portals and ventilation shafts visible from Peng Chau, Mui Wo and Chi Ma Wan	• Bridge fixed crossing readily visible from Chi Ma Wan and Cheung Chau	• Tunnel portals and ventilation shafts visible from Chi Ma Wan and Cheung Chau
Ecology	• Significant impacts on terrestrial habitats • Higher impacts on corals		***Most favoured (Option 2a)*** • Minimal impacts on terrestrial habitats for Option 2a, whilst Option 2b may have minor local impacts • No impacts on corals		• Moderate impacts on terrestrial habitats • Low ecological value shoreline affected (1.0km) • No impacts on corals		***Most favoured*** • Minimal impacts on terrestrial habitats due to the tunnel portals and ventilation shafts for tunnel connection to South Lantau Road • No impacts on corals		• Significant impacts on terrestrial habitats • Low ecological value shoreline affected (2.0km) • Low impacts on corals	
Other Environmental Aspects	• Moderate operational traffic air and noise impacts • Four known archaeological sites affected		***2nd favoured (Option 2b) - Bridge*** • Moderate operational traffic air and noise impacts, with Option 2b having lesser impacts compared with Option 2a		***2nd favoured (Option 3b) - Bridge*** • Moderate operational traffic air and noise impacts, with Option 3b having lesser impacts compared with Option 3a		***Most favoured - Bridge*** • Moderate operational traffic air and noise impacts		• Low operational traffic air and noise impacts • Two known archaeological sites affected	
	• Lesser impacts on tidal flow and water quality	• Higher temporary impacts on tidal flow and water quality compared with the bridge fixed crossing but lesser long term impacts	• Lesser impacts on tidal flow and water quality	• Higher temporary impacts on tidal flow and water quality compared with the bridge fixed crossing but lesser long term impacts	• Lesser impacts on tidal flow and water quality	• Higher temporary impacts on tidal flow and water quality compared with the bridge fixed crossing but lesser long term impacts	• Lesser impacts on tidal flow and water quality	• Higher temporary impacts on tidal flow and water quality compared with the bridge fixed crossing but lesser long term impacts	• Highest impacts on tidal flow and water quality among all bridge fixed crossing options	• Higher temporary impacts on tidal flow and water quality compared with the bridge fixed crossing but lesser long term impacts
Land Use	• Incompatible with existing natural character due to the new road at Mui Wo • Significant impacts on private lots (3.3ha) and land resumption required		***Most favoured (Option 2b), 2nd favoured (Option 2a)*** • Minimal impacts on Lantau South Country Park • Re-provisioning of an existing helipad required • No private lots affected • More compatible with tourism and existing land use in Mui Wo for Option 2b compared with Option 2a		• Construction of new roads within Lantau South Country Park required (1.0km) • Re-provisioning of an existing helipad required • No private lots affected • More compatible with tourism and existing land use in Mui Wo for Option 3b compared with Option 3a		• Construction of tunnel portals and ventilation shafts within Lantau South Country Park required • No private lots affected • A graveyard affected (7.3ha) • More compatible with tourism and existing land use in Mui Wo		• Construction of new roads in the Lantau South Country Park required (2.0km) • Significant impacts on private lots (2.4ha) and land resumption required • Incompatible with the planning of the country park and natural setting in Chi Ma Wan Peninsula	
Transport	• Significant traffic impacts on Mui Wo Town • Distance from Tung Chung Road**: 12.3km		***Most favoured (Option 2b)*** • Minimal traffic impacts on Mui Wo Town, with lesser impacts for Option 2b compared with Option 2a • Distance from Tung Chung Road**: 9.5km		***2nd favoured (Option 3b)*** • Minimal traffic impacts on Mui Wo Town, with lesser impacts for Option 3b compared with Option 3a • Distance from Tung Chung Road**: 9.8km		***2nd favoured*** • Minimal traffic impacts on Mui Wo Town • Distance from Tung Chung Road**: 9.7km		• Minimal traffic impacts on Chi Ma Wan; upgrading of Chi Ma Wan Road required to improve the standard • Distance from Tung Chung Road**: 9.7km	
Social Issues	• The new road at North Mui Wo considered by some local communities as improved infrastructure		***2nd favoured (Option 2b)*** • Less impacts on tourism at Mui Wo for Option 2b compared with Option 2a due to the traffic diversion by the by-pass		***Most favoured (Option 3b)*** • Less impacts on tourism at Mui Wo for Option 3b compared with Option 3a due to the traffic diversion by the by-pass		• Less impacts on tourism at Mui Wo due to the traffic diversion by the tunnel connection to South Lantau Road • Potential fung shui issue due to tunnel connection to South Lantau Road passing underneath a graveyard		• Natural coastline / beaches for recreation at Chi Ma Wan affected	
Engineering/ Cost	• Significant amount of slope cutting and excavation works required for the new access road		***Most favoured (Option 2a) - Bridge*** • Minimal amount of slope cutting and excavation works required for the by-pass		***2nd favoured (Option 3a) - Bridge*** • Moderate amount of slope cutting and excavation works required for the new access road		• Significant amount of slope cutting and excavation works required for the tunnel connection to South Lantau Road		• Significant amount of slope cutting and excavation works required for the new access road	
	• Capital cost: $1.23B • Recurrent cost: $3.6M	• Capital cost: $2.37B • Recurrent cost: $9.7M	• Capital cost: $0.81B (2a) $0.90B (2b) • Recurrent cost: $2.1M (2a) $2.4M (2b)	• Capital cost: $2.53B (2a) $2.61B (2b) • Recurrent cost: $10.0M (2a) $10.4M (2b)	• Capital cost: $0.78B (3a) $0.87B (3b) • Recurrent cost: $2.3M (3a) $2.6M (3b)	• Capital cost: $2.33B (3a) $2.42B (3b) • Recurrent cost: $9.6M (3a) $9.9M (3b)	• Capital cost: $1.39B • Recurrent cost: $7.7M	• Capital cost: $2.88B • Recurrent cost: $14.8M	• Capital cost: $1.15B (4a) $1.27B (4b) • Recurrent cost: $4.3M (4a) $4.6M (4b)	• Capital cost: $2.08B (4a) $2.37B (4b) • Recurrent cost: $10.0M (4a) $10.9M (4b)

Remark: * The difference between Options 2a and 2b is that Option 2b has a by-pass of about 350m in length. The same applies to Option 3a and Option 3b

** From junction of Tung Chung Road and South Lantau Road to eastern end of fixed crossing

Prison Development Plan at Hei Ling Chau

Information Pamphlet

May 2004

Security Bureau
Government of the Hong Kong
Special Administrative Region

Foreword

This information pamphlet has been prepared to deal with the questions most frequently raised during the first round of public consultations in Stage 1 of the Feasibility Study on Land Formation & Infrastructure Works for the proposed Prison Development at Hei Ling Chau. Those questions had more to do with the policy background to the proposal than with the Feasibility Study. Hence, they are separately addressed in this information pamphlet.

Introduction

The policy objectives of our correctional services are to take offenders into custody in a manner that is secure to the public, safe for the inmates and compatible with human dignity, and to provide the best possible opportunity for the inmates to rehabilitate for reintegration into society. The ultimate aim is to protect the public and reduce crime. In the process, we also strive for efficiency and cost-effectiveness.

To achieve these objectives, the Correctional Services Department (CSD) needs adequate penal institutions with enough places to meet the demand for such places, and with suitable supporting facilities.

CSD currently operates a total of 24 penal institutions with a capacity for some 11,000 inmates. The institutions are located at various parts of the territory – seven on Hong Kong Island, one in Kowloon and 16 in the New Territories (including six on Lantau and three on Hei Ling Chau). These facilities are, unfortunately, inadequate to meet current or forecast needs.

The Prison Development Plan

For the purpose of a long-term prison development plan, we propose to build a prison complex at Hei Ling Chau with a capacity of 7,220 penal places. Under the proposal, all penal institutions on Hong Kong Island and in Kowloon, as well as all the remand facilities in the territory, will be relocated to the proposed prison complex. The complex will also provide 2,600 additional penal places.

The proposed prison complex will therefore comprise a number of co-located but stand-alone penal institutions. Each institution will be physically separate and retain its independent operation. To meet the operational needs of the prison complex, a fixed crossing will be provided to connect Hei Ling Chau with the land-based transportation network on Lantau Island.

Given the scale of the proposed project, the Government has appointed a consultant to conduct a two-stage feasibility study and preliminary site investigation for land formation and infrastructure works, which is now under way.

Why is the Proposed Prison Complex Needed?

<u>Prison overcrowding and penal population growth</u>

CSD has been suffering from a serious problem of prison overcrowding for the past decade. As at 30 April 2004, the penal population stood at 13,238,

representing an occupancy rate of about 115%. Overcrowding was most serious in maximum-security prisons, remand facilities and female prisons, which were operating at occupancy rates of 135%, 155% and 183% respectively. The overcrowding creates not only difficulties for prison management in maintaining order and discipline within the prisons, but also tension among inmates, which makes it difficult for prison staff to administer rehabilitation programmes effectively to prepare inmates for reintegration into society.

The penal population is projected to grow to 14,000 by 2015 and 15,000 by 2024. The latter figure represents an increase of about 0.88% per annum, compared with the forecast growth of the general population at the rate of 1% per annum over the same 20-year period.

Archaic facilities

Of the 24 existing penal institutions, half will be over 40 years old by 2013, the earliest expected date of completion of the proposed prison complex, and eight were converted from buildings previously used for other purposes. These outdated or non-purpose-built institutions, with their poor environment and sub-standard facilities, are presenting prison management with considerable operational and security problems. Because of the lack of space and relevant facilities, important rehabilitation work is also affected.

Benefits of the Proposal

Meeting present and future needs

The new prison complex would solve the problems of overcrowding and archaic facilities in the prisons. It would meet the forecast growth in the penal population up to at least 2015.

Streamlining penal operations

The purpose-built prison complex would allow the strengthening and streamlining of penal operations. As different institutions are co-located at one place, it would enable CSD to pool staff for standby and emergency response duties, and thereby strengthen contingency arrangements as well as reduce related staff costs. Greater flexibility and shorter response time would be achieved in staff mobilisation during emergencies.

Economies of scale

Co-location would lead to considerable economies of scale. With streamlined operations, the manning scale for the prisons could be improved. Supporting facilities and services, such as visitors' reception, prison hospital, kitchen,

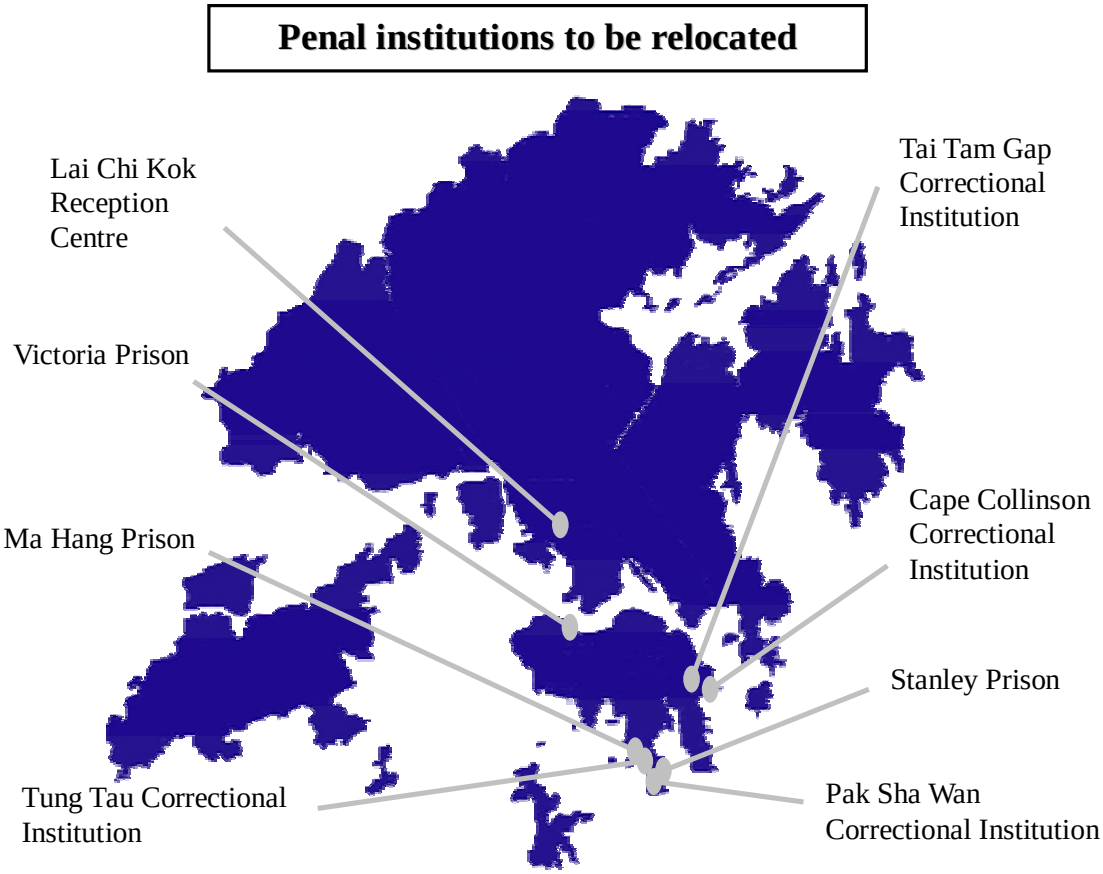
laundry, escort and transport services and emergency response units, could be combined and shared among the institutions. These would result in substantial savings in operational and manpower costs in the long run.

Improving rehabilitation services

The proposal would provide an opportunity to renew and upgrade installations and systems currently in use, which are out-dated or reaching the end of their serviceable periods, and help to bring down maintenance costs. Modern facilities, such as mock office set-ups and computer rooms, would enable the provision of better education and vocational training for inmates. CSD and other non-government organisations would be able to run rehabilitation programmes more effectively.

Release of urban sites for alternative development

The existing penal sites could be released for redevelopment to meet other community needs. Planning and land use on a territorial basis would be improved.



Other Options Considered

Building stand-alone new prisons at various places

Consideration has been given to building three to five new prisons to provide the additional penal places required. However, this is not without difficulties and constraints. Apart from the question of cost, it is extremely difficult to identify suitable sites for prison development. Moreover, the opportunity to derive maximum benefit from the economies of scale that would be possible from co-location would be foregone and the existing out-dated and sub-standard facilities would continue to incur substantial improvement and maintenance costs.

Redeveloping some of the existing institutions to upgrade the archaic and sub-standard facilities

Upgrading existing facilities is possible only to a very limited extent, because of physical constraints posed by the old buildings themselves and the surrounding topography and environment. The lack of decanting facilities to enable such improvement works without jeopardising the security and operation of the institutions is also a stumbling block to any such redevelopment.

Site Selection Process

Since the inception of the prison co-location concept, the Government has conducted a thorough territorial search to identify suitable sites for the proposed prison complex according to a set of reasonable and objective criteria. Many sites have been considered and eliminated in the territorial search because of their failure in meeting the criteria.

Five site options (Kong Nga Po, Heung Yuen Wai, Lin Ma Hang, Tung Lung Chau and Hei Ling Chau) were identified for a preliminary assessment, which took into account the pros and cons of each of the five sites. Both Heung Yuen Wai and Lin Ma Hangare located at the boundary within the Frontier Closed Area (FCA). Apart from pre-empting possible cross-boundary uses in the future, they are subject to various development constraints, such as rugged topography, significant impact on existing villages and flooding problems. Tung Lung Chau has high conservation value and has been endorsed by the Country and Marine Parks Board for designation as a Country Park. Hei Ling Chau and Kong Nga Po were eventually short-listed for further study.

A detailed evaluation of these two site options was then carried out, covering cost-effectiveness, operational effectiveness, planning, engineering and environmental considerations and long-term potential for alternative development from a territorial planning perspective. Both sites met the CSD's

operational requirements and presented advantages and disadvantages in different aspects. From an overall territorial planning perspective, and after considering the alternative development potential of both sites, Hei Ling Chau was selected for the feasibility study.

Kong Nga Po is situated centrally within the FCA. Given its unique strategic location, the FCA has great development potential for purposes that would facilitate closer economic integration between Hong Kong and the Pearl River Delta Region. During the Study on HK 2030 : Planning Vision and Strategy conducted by the Planning Department, the public also called for judicious use of the FCA to foster the economic prosperity of Hong Kong. The large-scale construction of penal institutions at Kong Nga Po would pre-empt such long-term development. Details of the HK 2030 study can be found at its website (www.info.gov.hk/hk2030/).

Summing Up

There is a clear and pressing need to build new penal facilities to address the perennial prison overcrowding problem, to meet the forecast growth in penal population in the next decade and beyond, and to replace the archaic facilities in many of the existing penal institutions. Given the scale of the project, it is difficult, if not impossible, to identify a "problem-free" site. In our view, compared with other locations in Hong Kong, Hei Ling Chau is the best available option in the overall context. While reclamation and construction works will be involved, all necessary mitigation measures will be implemented to minimise the impact on the environment. We also appreciate that the public, especially residents of the outlying islands, may have strong views on the proposed development. We are therefore carrying out extensive public consultations during the course of the feasibility study for maximum transparency, and with a view to finding the most acceptable engineering option for land formation and infrastructure works to be carried out at Hei Ling Chau. Stage 1 of the feasibility study is now under way. Upon completion of Stage 1, we will present the findings and recommendations to the Finance Committee of the Legislative Council before proceeding to Stage 2 of the feasibility study.

Frequently Asked Questions

How do you forecast future penal population?

The methodology takes into account regular updating of the numbers of arrests/prosecutions as projected by the Police and the Immigration Department, as well as factors such as crime rate, crime detection rate, conviction rate, sentencing pattern and general population growth.

Is it safe to put a large number of prisoners together in one place?

The security of the complex will be the subject of major planning. Under the co-location concept, the proposed facility at Hei Ling Chau would comprise clusters of prisons. The prisons would each be segregated physically and managed separately, while sharing some common facilities such as kitchens and visitors' rooms. Any emergency situation would be confined to a small number of prisoners within an institution. Established contingency measures are already in place in CSD to mobilise manpower and resources to deal with emergencies of different scales. We are confident that the security of the prisons would not be compromised.

Why a fixed crossing to Hei Ling Chau?

The fixed crossing connecting Hei Ling Chau and Lantau Island is absolutely necessary to meet the operational and emergency needs of the proposed prison development. On a daily basis, it will provide an alternative to sea transport and meet specific transport needs. During inclement weather, when marine transport is affected, the crossing will provide secure access to the proposed prison development to ensure normal or reduced-scale operation. In emergency situations, it will provide essential land access to the prison complex to ensure expeditious, large-scale dispatch of disciplined services forces to the prison complex for reinforcement of prison staff.

Why do you need 80 hectares of land?

The estimated land requirement includes the clusters of prisons and reception centres, common and support facilities, internal road network, as well as the area required for landscape mitigation measures. The land requirement reflects the scale of the facilities to be provided and the low-rise approach for the development.

80 hectares is a preliminary estimate at this conceptual stage of the project development. As the project is developed, the specific land requirement will be constantly reviewed through the design process in order to ensure efficient land use.

What were the site search criteria?

The territorial location search for a suitable site for the proposed development was based on a set of objective criteria:

- Level land as far as possible to minimise cut and fill and allow a contiguous development.
- Avoid villages, burial and *fung shui* grounds as far as possible.
- Avoid Ramsar Sites* and as far as possible, wetland and ecological sites.
- Avoid Sites of Special Scientific Interest and, as far as possible, sites of conservation importance, including archaeological sites.
- Avoid Country Parks and proposed Country Parks that are at an advanced stage of planning.
- Avoid developed areas and agreed new development areas and be as far away as possible from planned and potential development areas.
- Avoid private land as far as possible
- Preferably land-based. If not possible, then on an island with a fixed crossing.

* "Wetland of International Importance" as listed under the Convention on Wetlands of International Importance (the Ramsar Convention).

Will the proposed project have a serious environmental impact on Hei Ling Chau and the surrounding areas?

The proposed project is designated under the Environmental Impact Assessment Ordinance. The potential environmental impact will be assessed in detail through a comprehensive Environmental Impact Assessment (EIA), which will form part of the detailed feasibility study. The proposed project must pass the EIA and obtain an environmental permit issued by the Environment Protection Department before it can proceed.

Why spend $12 billion on prisons?

The provision of sufficient penal places with adequate supporting facilities is an essential, integral part of our system to ensure public safety and the maintenance of law and order. A broad-brush estimate of the cost of building the new prison complex is around $12 billion. This also covers the provision of infrastructure, land resumption, site formation and all support facilities. This cost estimate is for preliminary reference at the conceptual stage only and will be updated upon completion of the feasibility study.

On the benefits side, there would be significant reduction in manpower requirements and other recurrent costs, as well as the release of eight existing sites in the urban areas of Hong Kong Island and Kowloon for alternative developments. A full cost-benefit analysis will be conducted as part of the feasibility study.

Security Bureau
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