

For discussion on
25 November 2008

Legislative Council Panel on Development

7343CL – Central Reclamation Phase III – engineering works

PURPOSE

This paper seeks Members' support for the proposal to –

- (a) extend the scope of project **7343CL** – Central Reclamation Phase III – engineering works for implementing protection works (“Protection Works”) at the Central Reclamation Phase III (CRIII) in order to remove constraints to the development of the new Central harbourfront in light of delays to the implementation programme of the Central-Wan Chai Bypass and Island Eastern Corridor Link (the Trunk Road); and
- (b) increase the approved project estimate (APE) of **7343CL** from \$3,561.5 million by \$2,200.0 million to \$5,761.5 million in MOD prices to meet the cost for implementing the Protection Works and also the higher-than-expected contract price fluctuation payment under the project.

PROJECT SCOPE AND NATURE

2. The project **7343CL** aims to provide the necessary land for construction of essential transport infrastructure, notably, the Trunk Road

and construction of primary distributor roads and related facilities. The approved scope of the project is set out at **Annex A**.

PROTECTION WORKS

3. For reasons stated in paragraphs 4 to 9 below, we propose to extend the scope of **7343CL** for implementing Protection Works under the project. A layout plan for the Protection Works is at **Annex B**.

4. We have awarded three construction contracts for the project. We commenced the first contract for the core part of the proposed works (items (a) – (g), (h)(part), (i) – (m), (n)(part) and (o) at Annex A) in February 2003 and anticipate substantial completion of the works by end 2009. We commenced the second contract for the construction of the marine works associated with the PCWA relocation (part of item (n) at Annex A) in May 2003 and completed the works in October 2003. We commenced the third contract for the construction of the hinterland drainage works (part of item (h) at Annex A) in December 2003 and have substantially completed the works in October 2008.

5. The section of the Trunk Road within CRIII comprises a dual three-lane underground tunnel of approximately 950 metres in length. To minimize interface issues, the original intention was to construct this part of the Trunk Road tunnel box together with the reclamation assuming that the statutory procedure for the Trunk Road project could be completed in time. Pending authorization of the Trunk Road works made under the Roads (Works, Use and Compensation) Ordinance (Cap 370), a “section

subject to excision”¹ has been included in the first contract for this purpose. However, the implementation programme of the Trunk Road has been subject to considerable delays and uncertainty as a result of successive judicial challenges. As a result, it is evident that it will not be possible for the Trunk Road works to be implemented under the first contract.

6. Arising from this programme mismatch between CRIII and the Trunk Road, a substantial part of the reclaimed land completed under CRIII by end 2009 would have to lie idle pending implementation of the Trunk Road works at a later stage. Based on latest assessment of the programme for the Trunk Road, the earliest that the reclaimed land could be released for harbourfront development would be mid 2013. This would be most undesirable given the prime location of the new Central harbourfront and the public’s aspiration for a vibrant and accessible harbourfront to be available for public enjoyment as soon as possible. Worse still, parts of the reclaimed land in Central would have to be dug up to make way for works on the Trunk Road. The Tamar Development Project which will house the new Government Headquarters and the Legislative Council is scheduled to be completed by 2011. If the reclaimed land in front of the Tamar development were to be dug up for the works on the Trunk Road, there would be considerable nuisance to members of the public as well as users of the offices at Tamar.

7. To address the above problems, we propose to implement Protection Works at the CRIII which comprise essentially building diaphragm sidewalls with a top slab along the future Trunk Road

¹ A section subject to excision is a separately identified part of the works included in the contract and this could only be implemented at the decision of the Employer which decision could be made and conveyed to the contractor within a period prescribed in the contract.

alignment. The Protection Works would provide the necessary environment to ensure that the Trunk Road tunnel box can be safely constructed underground in future without opening up the reclaimed land. It would also reduce disruption to the above ground traffic at the reclamation arising from future construction of the Trunk Road. In any case, the diaphragm walls could be reused as permanent works when the Trunk Road is built at a later stage.

8. We intend to implement the Protection Works under the first contract for CRIII, under which the reclamation and associated engineering works are actively in progress. This would have the following major benefits -

- (a) Some large underground utilities and structures, including a three-cell drainage culvert (Culvert F) and an approach ramp of a road underpass (Road P2 Underpass), will be constructed in this contract. These will lie above the alignment of the Trunk Road. Constructing the Protection Works in conjunction with these utilities and structures will greatly facilitate the future construction of the Trunk Road and minimize any abortive works that would otherwise be generated.
- (b) The Trunk Road will lie partly underneath the primary distributor Roads P1 and P2 yet to be constructed in this contract. The relevant road sections would not have to be dug up again when the Trunk Road is constructed in future with the Protection Works in place.
- (c) The construction of the Trunk Road at CRIII will generate about

900,000 tonnes of construction waste. With the Protection Works implemented under this contract, about 190,000 tonnes of the inert construction waste could be reused directly in the remaining reclamation works instead of disposal at public fill reception facilities.

9. If the Protection Works are not implemented, the presence of underground utilities and structures upon the completion of CRIII will further constrain the future construction of the Trunk Road and add to the complexity of works. Part of these utilities and structures may even have to be removed temporarily for the construction of the Trunk Road, resulting in abortive work and possible disruption to provision of services or necessary replacement services. Road sections above the future Trunk Road would also need to be dug up, necessitating traffic diversions, and adverse effects on the traffic in the area could not be ruled out.

10. We plan to commence the Protection Works in early 2009 for completion by mid 2011 subject to funding approval. This would also tie in with the scheduled completion of the new Government Headquarters at Tamar.

11. We propose to extend the environmental monitoring and audit (EM&A) programme, the services of consultants and resident site staff for construction supervision, and the employment of non-civil service contract (NCSC) staff for the implementation of the proposed Protection Works².

² As approved by the Public Works Sub-Committee, Finance Committee and the Financial Services and Treasury Bureau in June and September 2002, five NCSC Engineers have been employed since 2002 for the implementation of the CRIII project. Due to successive judicial challenges and additional improvement works, completion of the CRIII works is deferred to mid-2011. In view of the size of the project, the implementation programme, the high degree of complexity, as well as the large amount of

HARBOURFRONT ENHANCEMENT

12. Victoria Harbour is an important natural asset shared by all the people of Hong Kong. We are committed to protecting and preserving the Harbour and to enhancing it for the enjoyment of residents and visitors alike, working together with the community. As pledged by the Chief Executive in the 2008-09 Policy Address, Development Bureau (DEVB) will co-ordinate the work of different government departments to ensure the effective implementation of projects to beautify and revitalize the harbourfront area. Our ultimate objective is to develop continuous promenades along both sides of Victoria Harbour. We will set up a dedicated team to handle harbourfront-related planning and land issues, including coordination of government bureaux/departments' effort in the implementation of such proposals. We plan to consult this Panel soon on a proposal to create a Principal Assistant Secretary post in the Planning and Lands Branch of DEVB to lead this dedicated team.

13. One of the major benefits of implementing the Protection Works is to remove constraints to the development of the new Central harbourfront arising from the delays to the implementation programme of the Trunk Road. The Central harbourfront will be the centerpiece of Hong Kong. Planning Department is undertaking the Urban Design Study for the New Central Harbourfront (UDS) to refine the urban design framework for the new Central harbourfront and to provide detailed planning and design guidelines. Stage 2 Public Engagement for the UDS

coordination and interfacing work, the extra staff resources are required until the end of the CRIII contract.

was carried out in April to July 2008. The study consultants are in the process of examining the public opinions collected and revising the design proposals where appropriate. We plan to brief this Panel on the outcome of the Stage 2 Public Engagement by end 2008 or in the first quarter of 2009, and then formulate revised designs on the basis of views received.

CONTRACT PRICE FLUCTUATION

14. A negative provision of -\$58.5M was allowed for in the original APE for price adjustment in accordance with the forecast construction price inflation and project cashflow in 2002. However, in accordance with the contract price fluctuation mechanism applicable to the CRIII contracts and the actual price indices compiled by the Census & Statistics Department, the total payment for contract price fluctuation³ (CPF) under the project has already amounted to \$368.9M by end September 2008. The approved project estimate is not sufficient to cover the anticipated total CPF payment. A comparison of the forecast price movements and the actual price inflation over the project period to date is at Annex C.

INCREASE IN APPROVED PROJECT ESTIMATE

15. Upon a review of the financial position of the project, we consider it necessary to increase the APE of **7343CL** from \$3,561.5

³ Under the provision of the Contract, the sum payable in any interim or final payment certified by the Engineer being due shall be increased or decreased in accordance with any changes in the Index Figures listed in the "Index Numbers of the Costs of Labour and Materials used in Public Sector Construction Projects" compiled by the Censes and Statistics Department.

million by \$2,200.0 million to \$5,761.5 million in MOD prices to meet the cost for implementing the Protection Works and the higher-than-expected price fluctuation payment. A summary of the proposed increase of \$2,200 million is as follows -

| | Amount (\$ million) | % of the total increased amount |
|--|--------------------------------|--|
| (a) Protection Works | | |
| (i) Diaphragm walls | 1,080.0 | 49.1% |
| (ii) Top slab and other structures | 520.0 | 23.6% |
| (iii) EM&A programme | 6.1 | 0.3% |
| (iv) Consultants' fee for – | 115.0 | 5.2% |
| (a) construction stage | 12.0 | |
| (b) resident site staff | 103.0 | |
| (v) Employment of NCSC staff | 5.0 | 0.2% |
| (b) Provision for price adjustment | 968.5 | 44.0% |
| Partly offset by- | | |
| (c) Lower-than expected tender outturn prices | (475.8) | (21.6%) |
| (d) Drawdown from Contingencies | <u>(18.8)</u> | <u>(0.9 %)</u> |
| Total (in MOD prices) | 2,200.0 | 100.0% |

16. The proposed increase in the APE will not give rise to additional recurrent expenditure.

17. We estimate that the proposed Protection Works and the remaining works under the project will create about 1,390 jobs (1,130 laborers and another 260 professional/technical staff), providing a total employment of 37,600 man-months.

PUBLIC CONSULTATION

18. We consulted the Harbour-front Enhancement Committee (HEC), the Traffic and Transport Committee of the Central and Western District Council on 31 October and 13 November 2008 respectively on the proposed Protection Works. Members of HEC and Central and Western District Council support this initiative. We will also consult the Wan Chai District Council on 18 November 2008.

ENVIRONMENTAL IMPLICATIONS

19. CRIII is a designated project under the Environmental Impact Assessment Ordinance (Chapter 499) and an Environmental Permit has been for the project. The Environment Permit has covered the construction of about 950 metres of the Trunk Road tunnel box within the CRIII. Since the proposed Protection Works is similar in scale and nature to the construction of the Trunk Road tunnel box, no variation of the Environmental Permit is required.

WAY FORWARD

20. We intend to submit the proposal of extending the scope of **7343CL** for implementing the Protection Works and increasing its APE from \$3,561.5 million by \$2,200.0 million to \$5,761.5 million in MOD prices to the Public Works Sub-committee and Finance Committee of the Legislative Council on 15 December 2008 and 9 January 2009 respectively. Subject to funding approval, we plan to commence the Protection Works in early 2009 for completion by mid 2011.

ADVICE SOUGHT

21. Members are invited to comment on the above proposal.

ANNEXES

Annex A Project Scope

Annex B Proposed Protection Works

Annex C Comparison of the Forecast Price Movement (as at June 2002)
and the Actual Price Inflation

Development Bureau
November 2008

7343CL – Central Reclamation Phase III – engineering works

Project Scope

The approved scope of the project comprises –

- (a) reclamation of about 18 ha of seabed from the “Star” Ferry Piers at Central to Lung King Street including construction of 1.2 kilometres (km) of seawalls;
- (b) construction of primary distributor Roads P1 and P2 of about 1.1 km in total length, including a 200-metre (m) depressed road/underpass, and other district distributor roads D5, D6, D7, D8, D9 and D11 of about 1.4 km in total length;
- (c) construction of a network of emergency vehicular access (EVA) cum promenade of about 1.3 km in total length;
- (d) construction of three at-grade public transport interchanges and drop-off facilities;
- (e) construction of a footbridge of about 300 m and an at-grade covered walkway of about 120 m;
- (f) construction of associated footpaths and roadside amenities;
- (g) construction of associated stormwater drainage and sewerage works;
- (h) construction of stormwater box culverts of about 925 m in total length and hinterland drainage improvement works to cope with the proposed reclamation;
- (i) construction of a berth of about 150 m and associated facilities for use by the Chinese People’s Liberation Army Forces Hong Kong;

- (j) refurbishment of the existing Ferry Pier No. 7 and construction of a new Ferry Pier No. 8 and associated structures for reprovisioning of the “Star” Ferry Piers to be affected by the proposed reclamation;
- (k) construction of two public piers No. 9 and 10 and associated facilities for reprovisioning of the Queen’s Pier and other public landing steps to be affected by the proposed reclamation;
- (l) construction of new waterfront pumping station structures to be reserved for the future cooling water pumping systems of planned developments at CRIII;
- (m) reprovisioning of the Government and private cooling water pumping systems to be affected by the proposed reclamation;
- (n) relocation of the Tamar Government helipad to be affected by the proposed roads to Wan Chai Basin, and relocation of the Public Cargo Working Area (PCWA) at Wan Chai Basin to be affected by the proposed helipad relocation to Chai Wan Basin;
- (o) interim landscaping works to vacant development sites formed;
- (p) implementation of an environmental monitoring and audit (EM&A) programme for the works mentioned in items (a) to (o) above; and
- (q) employment of project specific, temporary staff in the Civil Engineering and Development Department¹ (formerly the Territory Development Department) for the delivery of works in relation to CRIII.

¹ The then Territory Development Department and Civil Engineering Department were merged to form the Civil Engineering and Development Department on 1 July 2004.

圖例
LEGEND :

 擬建之保護工程
PROPOSED PROTECTION WORKS

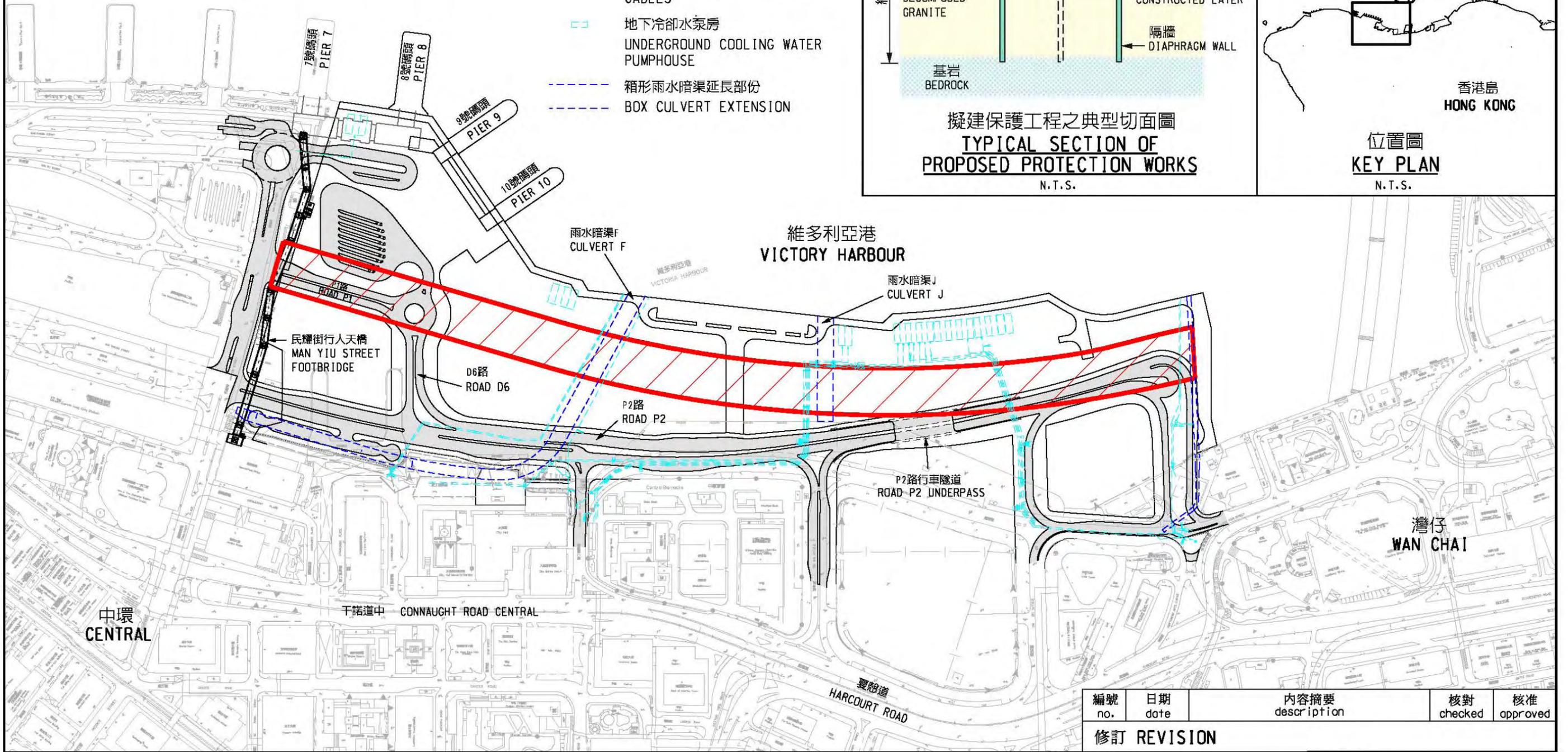
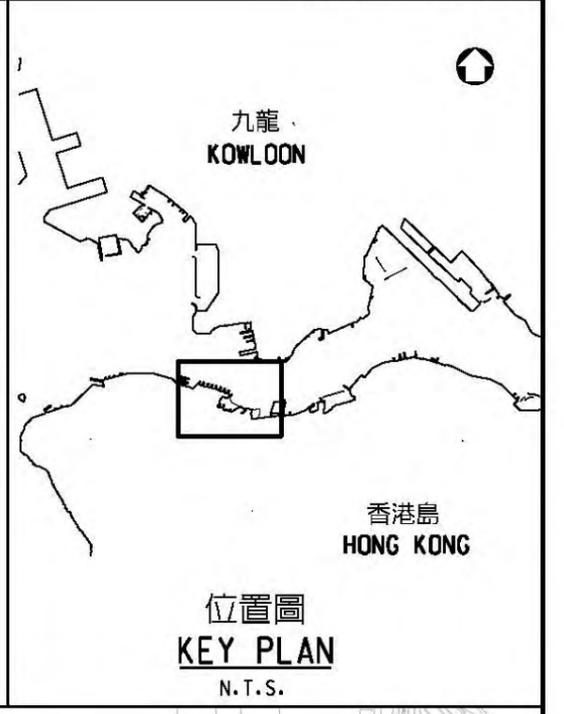
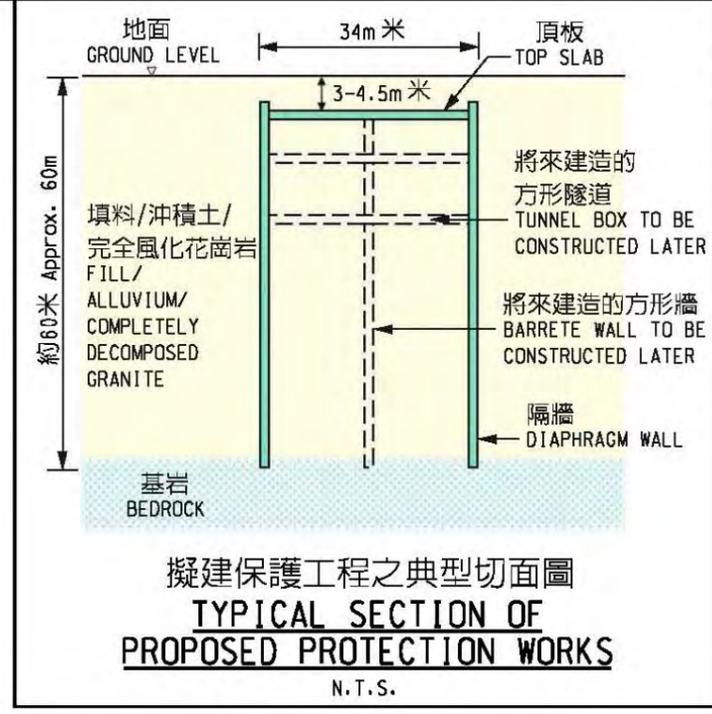
 中環填海計劃第三期內之道路網
ROAD NETWORK IN CENTRAL RECLAMATION PHASE III

與保護工程相關的主要地下設施：
MAJOR UTILITIES HAVING AN INTERFACE WITH THE PROTECTION WORKS:

 冷卻水水管和電線
COOLING WATER PIPELINES AND CABLES

 地下冷卻水泵房
UNDERGROUND COOLING WATER PUMPHOUSE

 箱形雨水暗渠延長部份
BOX CULVERT EXTENSION



| 編號 no. | 日期 date | 內容摘要 description | 核對 checked | 核准 approved |
|-------------|---------|------------------|------------|-------------|
| 修訂 REVISION | | | | |

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| 圖則名稱 drawing title 中環填海計劃第三期 - 擬建之保護工程 CENTRAL RECLAMATION PHASE III - PROPOSED PROTECTION WORKS | 繪圖 drawn S.H.CHENG | 簽署 initial SIGNED | 日期 date 10-11-08 | 項目編號 item no. 7343CL | 辦事處 office 港島及離島拓展處 HONG KONG ISLAND AND ISLANDS DEVELOPMENT OFFICE  土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT |
| | 核對 checked S.K.KEUNG | 簽署 initial SIGNED | 日期 date 13-11-08 | 比例 scale 1 : 4000 | |
| | 核准 approved K.S.LI | 簽署 initial SIGNED | 日期 date 13-11-08 | 圖則編號 drawing no. HKI-487 | |

7343CL - Central reclamation phase III - engineering Works

Comparison of the Forecast Price Movement (as at June 2002) and the Actual Price Inflation

| Project Period | Forecast Price Movement | Actual Price Inflation |
|-----------------------|--------------------------------|-------------------------------|
| Feb 2003 | -1.4% | 5.8% |
| Jun 2003 | -1.6% | 4.6% |
| Sep 2003 | -1.6% | 3.9% |
| Dec 2003 | -1.6% | 10.3% |
| Mar 2004 | -1.6% | 22.6% |
| Jun 2004 | -1.6% | 18.6% |
| Sep 2004 | -1.6% | 20.6% |
| Dec 2004 | -1.6% | 21.4% |
| Mar 2005 | -1.6% | 22.9% |
| Jun 2005 | -1.6% | 22.4% |
| Sep 2005 | -1.6% | 22.2% |
| Dec 2005 | -1.6% | 20.5% |
| Mar 2006 | -1.6% | 22.0% |
| Jun 2006 | -1.6% | 28.2% |
| Sep 2006 | -1.6% | 25.6% |
| Dec 2006 | -1.6% | 27.1% |
| Mar 2007 | -1.6% | 29.7% |
| Jun 2007 | -1.6% | 41.9% |
| Sep 2007 | -1.6% | 45.4% |
| Dec 2007 | -1.6% | 56.5% |
| Mar 2008 | -1.6% | 83.2% |
| Jun 2008 | -1.6% | 104.6% |
| Aug 2008 | -1.6% | 105.9% |