CB(1)660/04-05(01)

Information Paper for Legislative Council
LegCo Panel on Planning, Lands and Works

126WC –Water supply to housing developments at Anderson Road, near Choi Wan Road and Jordan Valley

Introduction

1. This paper informs Members of the background of the project **126WC** "Water supply to housing developments at Anderson Road, near Choi Wan Road and Jordan Valley" being undertaken by Water Supplies Department.

2. We intend to part-upgrade **126WC** to Category A, entitled "Remaining waterworks for development near Choi Wan Road and Jordan Valley", for completing the remaining part of the water supply system to serve the housing development near Choi Wan Road and Jordan Valley.

Background

3. Government is responsible for implementing the site formation and the associated infrastructure under **564CL** "Development near Choi Wan Road and Jordan Valley" and **566CL** "Development at Anderson Road". The site formation for the development near Choi Wan Road and Jordan Valley has commenced and the development will provide about 11 900 housing flats for a population of 37 200, with first population intake scheduled in 2008. As regards the development at Anderson Road, this project has been shelved, following a review of the long-term development needs in 2003.

4. The scope of **126WC** aims at providing water supply to both developments near Choi Wan Road and Jordan Valley and that at Anderson Road.

5. We upgraded part of the project to category A as **127WC** "Mainlaying within development near Choi Wan Road and Jordan Valley" in June 2001, which comprises laying of about 5.7 kilometres of fresh water mains of diameters ranging from 150 millimetres to 600 millimetres and about 5 kilometres of salt water mains of diameters ranging from 100 millimetres to 300 millimetres within the development near Choi Wan Road and Jordan Valley. The above mainlaying works commenced in November 2001, and will be completed in mid-2006 as part of the site formation project. There is a slippage of about five months in the target completion date of the mainlaying works mainly caused by the inclement weather. Such slight delay will not affect water supply to the housing development.

6. The part of the project we now propose to upgrade to Category A comprises the construction of the works as described in paragraph 8 below for completing the fresh and flushing water supply system for the development near Choi Wan Road and Jordan Valley.

7. The remainder of **126WC** which is to cope with the development at Anderson Road will be retained in Category B.

Scope of Works

8. The part of the project we now propose to upgrade to Category A comprises -

(a) construction of a fresh water service reservoir with a capacity of 8 700 cubic metres (m^3);

(b) construction of a salt water service reservoir with a capacity of 1 900 m^3;

(c) construction of a salt water pumping station and the associated inlet and outlet salt water mains in Shum Wan Shan with an output of 4 000 m^3 per day;

(d) uprating of the existing Cha Kwo Ling Salt Water Pumping Station to increase the output from 104 600 m^3 per day to 121 000 m^3 per day; and

(e) laying of about 600 metres long fresh water mains of diameter 600 millimetres.

9. Site plans showing the proposed works are at Enclosure 1. Perspective diagrams of the proposed works are shown at Enclosure 2.

Justification

10. To meet the demand for water arising from the proposed development near Choi Wan Road and Jordan Valley, we have commenced to construct the water supply facilities described in paragraph 5 above by incorporating these works into the site formation contract awarded under **564CL**.

11. We now propose to upgrade part of the works under **126WC** for constructing the water supply facilities described in paragraph 8 above to complete the water supply system for serving the development near Choi Wan Road and Jordan Valley. We have to commence the construction of the proposed works in June 2005 in order to provide water to meet the demand arising from the scheduled population intake of the development near Choi Wan Road and Jordan Valley in January 2008.

Financial Status

12. We estimate the capital cost of the proposed waterworks to be $137.1 million in money-of-the-day (MOD) prices, made up as follows –

		$ million
(a)	Fresh water service reservoir	33.9
(b)	Salt water service reservoir	12.7

(c)	Salt water pumping station		21.5	
(d)	Uprating of Cha Kwo Ling Salt Water Pumping Station		32.5	
(e)	Mainlaying		6.4	
(f)	Environmental mitigation measures		2.0	
(g)	Consultants' fees		16.5	
	(i) contract administration	0.7		
	(ii) site supervision	15.8		
(h)	Contingencies		12.5	
		Sub-total	138.0	(in September 2004 prices)
(i)	Provision for price adjustment		(0.9)	
		Total	137.1	(in MOD prices)

Owing to insufficient in-house staff resources, the Director of Water Supplies proposes to engage consultants to carry out the construction supervision.

13. We estimate the annual recurrent expenditure arising from the proposed works to be about $2.3 million.

14. The project by itself will lead to an increase in production cost of water by 0.09% in real terms by 2011[1].

1. The increase in production cost of water is calculated on the assumption that the water demand remains static during the period from 2005 to 2011 and at the present price level. There is no impact on water charge if the increase is covered by Government Subsidy.

Public Consultation

15. We consulted the Kwun Tong District Council on the proposed works in November 2004. The District Council supported the proposed works.

Environmental Implications

16. We completed a Preliminary Environmental Review (PER) for **126WC** in February 2000. The PER concluded that the project would not have long term adverse environmental impacts. The Director of Environmental Protection has agreed that an Environmental Impact Assessment will not be required and has agreed to the environmental mitigation measures recommended in the PER. These, which include frequent watering of the site, provision of wheel washing facilities to reduce emission of fugitive dust and the use of silenced construction plant to reduce noise generation, will contain the short-term environmental impacts within established standards and guidelines. The implementation of noise control measures into the pumping station design as recommended in the PER e.g. provision of acoustic louvres, silencers, dampers and noise absorptive lining and limiting the sound power level of the equipment, will reduce the operational noise impact to within acceptable level. We have included $2.0 million in the project estimate for implementation of these mitigation measures.

17. At the planning and design stages, we have considered measures to reduce the generation of construction and demolition (C&D) materials. We have optimised the design of the levels and layouts of the proposed works and will reuse suitable excavated material for filling within site to minimize off-site disposal. We estimate that the proposed works will generate about 7 800 m^3 of C&D materials. Of these, about 2 200 m^3 (28.2%) will be reused on site, 5 550 m^3 (71.2%) will be reused as fill in public filling areas[2], and 50 m^3 (0.6%) will be disposed of at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be $6,250 for these works

[2] A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering and Development.

(based on a notional[3] unit cost of $125/m^3).

18. We will require the contractor to submit a waste management plan for approval. The waste management plan will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved waste management plan. To further minimize the generation of C&D materials, we will encourage the contractor to use non-timber formwork and recyclable material for temporary works. We will require the contractor to reuse the excavated material as filling material on site or on other construction sites as far as possible to minimize the disposal of public fill to public filling facilities. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required to separate reusable materials from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

19. The proposed works will involve felling of one tree. The tree to be felled is not an important tree[4]. We will incorporate planting proposals as part of the project, including estimated quantities of 50 trees, 760 shrubs and 2 700 m^2 of grassed area.

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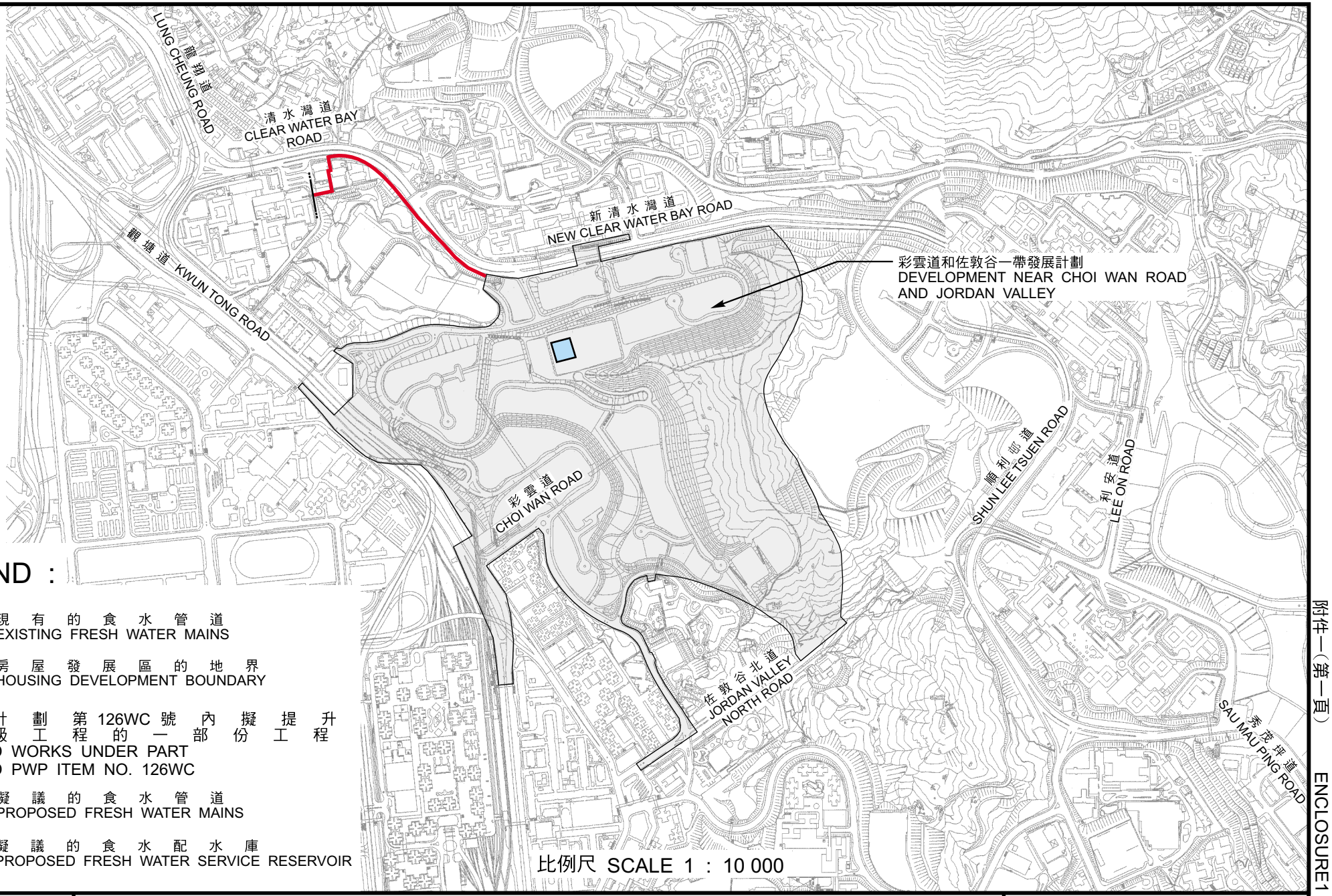
3 This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at $90/m^3), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

4 Important trees include trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria:
(a) trees over 100 years old;
(b) trees of cultural, historical or memorable significance;
(c) trees of precious or rare species;
(d) trees of outstanding form; or
(e) trees with trunk diameter exceeding one metre (measured at one metre above ground level).

Programme of Works

20. We intend to submit the proposed part-upgrading of **126WC** for consideration by the Public Works Subcommittee in February 2005 with a view to seeking funding approval of the Finance Committee in March 2005. Upon approval by the Finance Committee, we will commence the construction in June 2005 for completion in January 2008.

Housing, Planning & Lands Bureau
January 2005



核准 APPROVED

總工程師/顧問工程管理 CE/CM

/ / /2005

（甲級工程）
(CAT 'A' Submission)

工務計劃項目第 126WC 號 — 彩雲道和佐敦谷一帶房屋發展項目的供水計劃

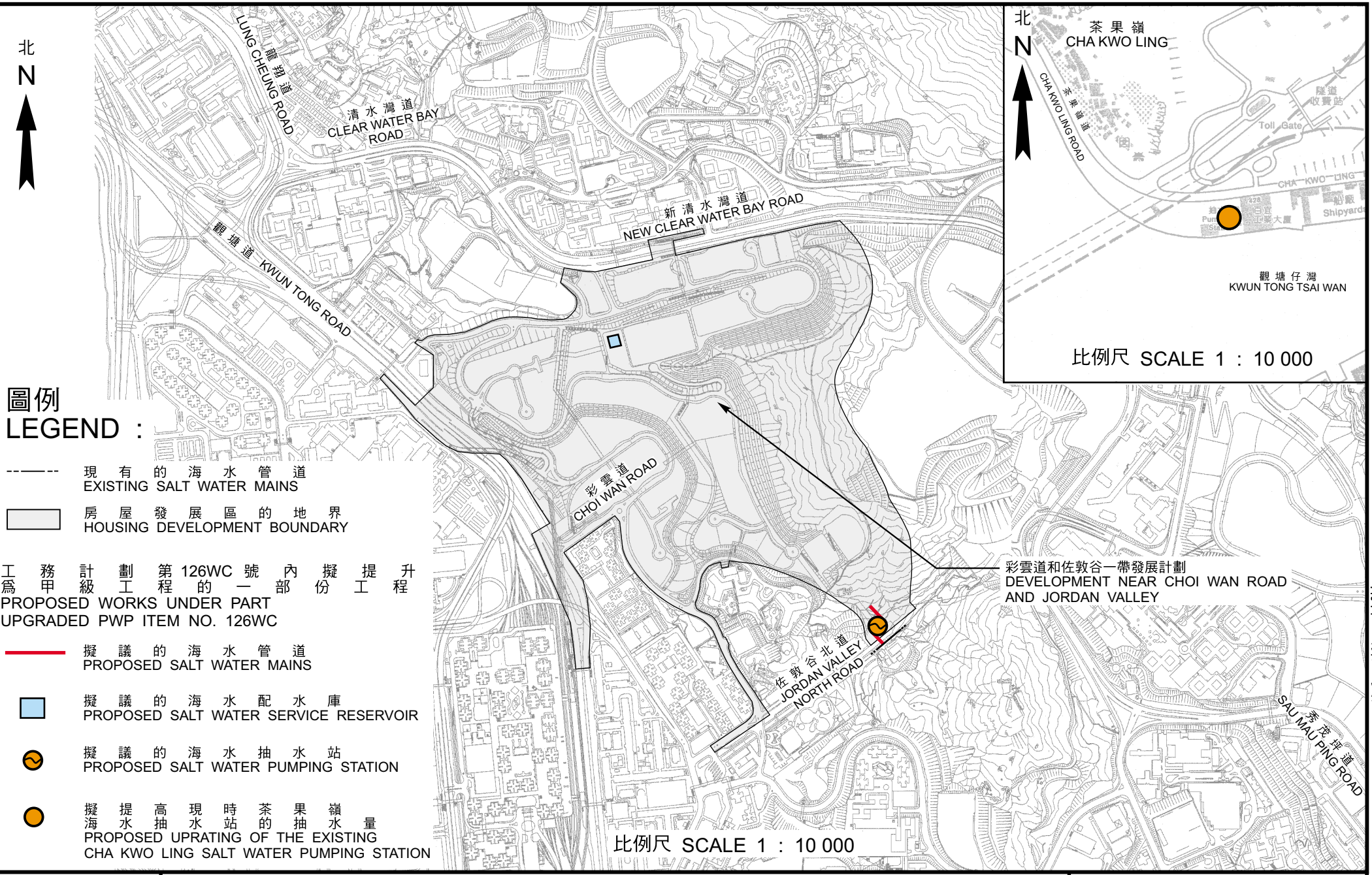
P.W.P. ITEM NO. 126WC - WATER SUPPLY TO HOUSING DEVELOPMENT NEAR CHOI WAN ROAD AND JORDAN VALLEY

水務署
WATER SUPPLIES DEPT.

草圖編號 SKETCH NO. SK 62004 / 058 / 001

REF. 62405801.CDR

附件一（第一頁） ENCLOSURE1 (SHEET 1)



圖例 LEGEND :

現有的海水管道
EXISTING SALT WATER MAINS

房屋發展區的地界
HOUSING DEVELOPMENT BOUNDARY

工務計劃第126WC號內擬提升爲甲級工程的一部份工程
PROPOSED WORKS UNDER PART UPGRADED PWP ITEM NO. 126WC

擬議的海水管道
PROPOSED SALT WATER MAINS

擬議的海水配水庫
PROPOSED SALT WATER SERVICE RESERVOIR

擬議的海水抽水站
PROPOSED SALT WATER PUMPING STATION

擬提高現時茶果嶺海水抽水站的抽水量
PROPOSED UPRATING OF THE EXISTING CHA KWO LING SALT WATER PUMPING STATION

核准 APPROVED

總工程師/顧問工程管理 CE/CM

4 / 1 / 2005

（甲級工程）
(CAT 'A' Submission)

工務計劃項目第 126WC 號 — 彩雲道和佐敦谷一帶房屋發展項目的供水計劃

P.W.P. ITEM NO. 126WC - WATER SUPPLY TO HOUSING DEVELOPMENT NEAR CHOI WAN ROAD AND JORDAN VALLEY

水務署
WATER SUPPLIES DEPT.

草圖編號 SKETCH NO. SK 62004 / 058 / 002

REF. 62405802.CDR

附件一（第二頁） ENCLOSURE 1 (SHEET 2)

遠觀圖
PERSPECTIVE VIEW

核准 APPROVED 總工程師/顧問工程管理 CE/CM 4 / 1 / 2005	工務計劃項目第126WC 號 – 彩雲道和佐敦谷一帶房屋發展項目的供水計劃 P.W.P. ITEM NO. 126WC - WATER SUPPLY TO HOUSING DEVELOPMENT NEAR CHOI WAN ROAD AND JORDAN VALLEY (甲級工程) (CAT 'A' Submission)	水務署 WATER SUPPLIES DEPT. 草圖編號 SKETCH NO. SK 62004 / 058 / 003

附件二(第一頁) ENCLOSURE 2 (SHEET 1)

遠觀圖
PERSPECTIVE VIEW

核准 APPROVED 總工程師/顧問工程管理 CE/CM 4 / 1 / 2005	工務計劃項目第126WC 號 – 彩雲道和佐敦谷一帶房屋發展項目的供水計劃 P.W.P. ITEM NO. 126WC - WATER SUPPLY TO HOUSING DEVELOPMENT NEAR CHOI WAN ROAD AND JORDAN VALLEY (甲級工程) (CAT 'A' Submission)	水務署 WATER SUPPLIES DEPT. 草圖編號 SKETCH NO. SK 62004 / 058 / 004

附件二(第二頁) ENCLOSURE 2 (SHEET 2)