

**For discussion
on 24 April 2017**

**Legislative Council
Panel on Environmental Affairs**

**Construction of Dry Weather Flow Interceptors to
Improve Water Quality and Reduce Odour in Victoria Harbour and
Sewer Rehabilitation in Kowloon, Shatin and Sai Kung**

PURPOSE

This paper seeks Members' views on our proposal to upgrade the following sewerage items to Category A to improve water quality and reduce odour in Victoria Harbour -

- (a) **4380DS — Construction of Dry Weather Flow Interceptor at Cherry Street Box Culvert** at an estimated cost of \$664.6 million;
- (b) part of **4389DS — Upgrading of West Kowloon and Tsuen Wan Sewerage** at an estimated cost of \$277.4 million; and
- (c) **4393DS — Rehabilitation of Trunk Sewers in Kowloon, Shatin and Sai Kung** at an estimated cost of \$678.5 million,

in money-of-the-day (MOD) prices.

2. Details of the above proposals are at **Enclosures 1 to 3** respectively.

WAY FORWARD

3. We plan to seek funding approval from the Finance Committee (FC) for the proposed works under **4380DS**, part of **4389DS** and **4393DS** in June 2017 after consulting the Public Works Subcommittee (PWSC). Members are invited to comment on the proposed funding application.

**Environment Bureau
Drainage Services Department
April 2017**

4380DS - Construction of Dry Weather Flow Interceptor at Cherry Street Box Culvert

PROJECT SCOPE

The proposed scope of works under **4380DS** comprises the construction of –

- (a) an underground dry weather flow interceptor (DWFI)¹ with automatic penstocks² at Cherry Street box culvert (CSBC);
- (b) a pumping station;
- (c) an underground stormwater bypass box culvert;
- (d) about 270 metres (m) of underground twin rising main from the pumping station in (b) above to an existing sewer at Lin Cheung Road; and
- (e) ancillary works³.

A plan showing the location of the proposed works is at **Annex to Enclosure 1**.

JUSTIFICATIONS

2. Polluted urban runoff⁴ from the stormwater systems that serve Kowloon Tong, Mongkok and Yau Ma Tei districts is a major cause of the deterioration in water quality and associated odour problem in New Yau Ma Tei Typhoon Shelter (NYMTTS) and coastal area of West Kowloon.

3. The stormwater systems that serve Kowloon Tong, Mongkok and Yau Ma Tei districts are connected to the CSBC for discharge into NYMTTS. The

¹ DWFI is a device that intercepts and diverts polluted dry weather flow from stormwater drain / channel into the sewerage system during non-rainy days for treatment.

² Penstocks are tidal barriers to prevent the seawater from entering the box culvert and polluted stormwater from leaving it during normal operation. During heavy rains, the penstocks will automatically open for discharging the stormwater.

³ Ancillary works include building services and landscaping works required to complete the construction of the DWFI.

⁴ Sources of polluted urban runoff include expedient connections to sewers, leakage from sewers, discharge by street hawkers, open wet markets, rear lane / street cleansing activities such as vehicle and rubbish bin washing, etc.

“Review of West Kowloon and Tsuen Wan Sewerage Master Plans” completed in 2010 confirmed that the flow in the CSBC was polluted and adversely affected the quality of the waters of West Kowloon, particularly the waters in NYMTTS. It recommended the construction of a new DWFI at the outlet of the CSBC to intercept the discharge of polluted urban runoff into NYMTTS as a remedial measure.

4. We propose to construct an underground DWFI and pumping station along the seafront of NYMTTS to intercept and pump the polluted stormwater from the CSBC during dry weather period into a nearby sewerage system at Lin Cheung Road that leads to Stonecutters Island Sewage Treatment Works (SCISTW) for proper treatment and disposal. It is estimated that the DWFI can remove about 70% of the total annual pollution load that enters NYMTTS through the CSBC. It will be equipped with automatic penstocks and desilting facilities. An underground stormwater bypass box culvert will also be constructed to meet the operational needs during exceptionally heavy rainstorms and emergency situations. The underground DWFI, designed with landscaped features, will be set back to provide space for a waterfront promenade and the area above the proposed DWFI will be open to the public for enjoyment.

5. Subject to the approval of the Finance Committee (FC), we aim to commence construction of the proposed works in the third quarter of 2017 for completion in the fourth quarter of 2022.

FINANCIAL IMPLICATIONS

6. We estimate that the total capital cost of the proposed works as detailed in paragraph 1 above to be \$664.6 million in money-of-the-day (MOD) prices.

7. We estimate that the proposed works will create about 100 jobs (80 for labourers and 20 for professional or technical staff), providing a total employment of 5 400 man-months.

PUBLIC CONSULTATION

8. We consulted the Task Force on Harbourfront Developments in Kowloon, Tsuen Wan and Kwai Tsing of the Harbourfront Commission on 22 January and 16 May 2013, the Food and Environmental Hygiene Committee of the Yau Tsim Mong District Council on 7 March 2013. All parties supported the proposed works.

9. We gazetted the proposed works under the Foreshore and Seabed (Reclamations) Ordinance (Cap. 127) on 1 August 2014 and did not receive objection during the statutory objection period. The proposed works was subsequently authorised on 13 January 2017.

ENVIRONMENTAL IMPLICATIONS

10. The proposed works is a designated project and requires an environmental permit (EP) under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) for its construction and operation. Having regard to the project profile, the Director of Environmental Protection (DEP) is satisfied that the impact of the proposed works and the mitigation measures meets the requirements of the Technical Memorandum on Environmental Impact Assessment Process. The permission to apply directly for an EP was granted on 17 September 2015 with conditions, and the EP was granted on 23 December 2016 under the EIAO. We will implement the environmental mitigation measures and the environmental monitoring and audit programme in accordance with the EP conditions. We have included in the project estimate of the proposed works the cost for implementation of the necessary environmental mitigation measures.

11. For the construction phase, we will request the contractors to implement the recommended mitigation measures including the use of silenced construction equipment and temporary noise barriers to reduce noise impact. In addition, water-spraying to the construction site will be applied regularly to minimise emission of fugitive dust, and on-site treatment of site run-off will be carried out to minimise potential water quality impact. We will also carry out regular site inspections to ensure that these recommended mitigation measures and good practices will be properly implemented on site.

12. At the planning and design stages, we have considered ways to reduce the generation of construction waste (e.g. to minimise the size of the proposed DWFI to minimise excavation works) where possible. In addition, we will request the contractors to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible in order to minimise the need for disposal of inert construction waste to the public fill reception facilities (PFRF⁵). We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

⁵ PFRF are specified in Schedule 4 of Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

13. We will also request the contractors to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will request the contractors to separate inert and non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

14. We estimate that the proposed works will generate 4 550 tonnes of construction waste. Of these, we will reuse 850 tonnes (19%) on site, and deliver the 3 250 tonnes (71%) of inert construction waste to PFRF for subsequent reuse and 450 tonnes (10%) non-inert construction wastes to landfill sites for disposal. The total cost for accommodating the aforementioned construction waste at PFRF and landfill sites is estimated to be \$320,000⁶.

HERITAGE IMPLICATIONS

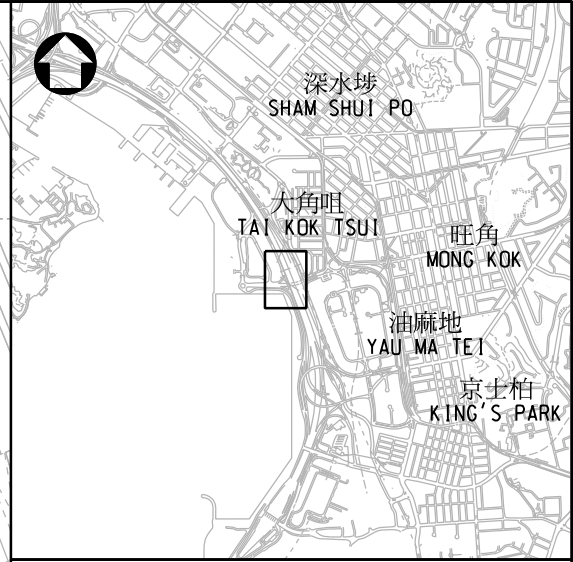
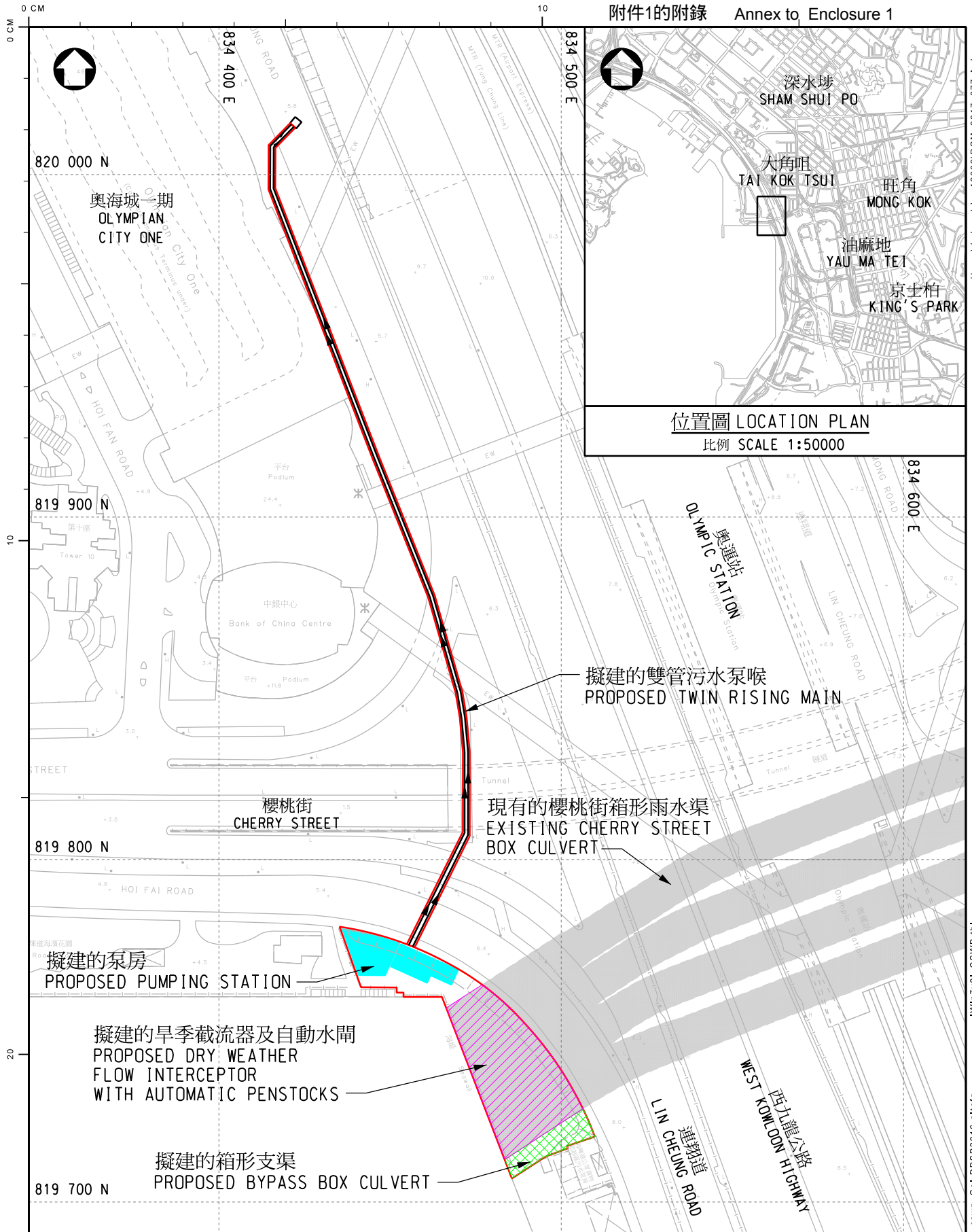
15. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

16. Only government lands will be involved for implementation of the proposed works. No land resumption is required.

**Environment Bureau
Drainage Services Department
April 2017**

⁶ The cost is calculated based on a unit charge rate of \$71 per tonne for disposal at PFRF and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).



位置圖 LOCATION PLAN
比例 SCALE 1:50000

擬建的雙管污水泵喉
PROPOSED TWIN RISING MAIN

現有的櫻桃街箱形雨水渠
EXISTING CHERRY STREET BOX CULVERT

擬建的泵房
PROPOSED PUMPING STATION

擬建的旱季截流器及自動水閘
PROPOSED DRY WEATHER FLOW INTERCEPTOR WITH AUTOMATIC PENSTOCKS

擬建的箱形支渠
PROPOSED BYPASS BOX CULVERT

新油麻地避風塘
NEW YAU MA TEI TYPHOON SHELTER

A	06 APR 2017	GENERAL REVISION	SIGNED S. Y. LAU E/CM16
版 no.	日期 date	修改項目 description	簡簽 initial

圖則名稱 drawing title 工務工程計劃編號 4380DS - 建造櫻桃街箱形雨水渠旱季截流器 PWP ITEM NO. 4380DS - CONSTRUCTION OF DRY WEATHER FLOW INTERCEPTOR AT CHERRY STREET BOX CULVERT	繪畫 drawn SIGNED K. S. LEUNG	日期 date 3 MAR 2017	圖則編號 drawing no. DCM/2017/077A	比例 scale N. T. S.
	核對 checked SIGNED Ir S. Y. LAU	日期 date 3 MAR 2017		
	批核 approved SIGNED Ir H. L. WONG	日期 date 3 MAR 2017	保留版權 COPYRIGHT RESERVED	
部門 office 顧問工程管理部 CONSULTANTS MANAGEMENT DIVISION			香港特別行政區政府渠務署 DRAINAGE SERVICES DEPARTMENT GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION	

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A4 297x210

4389DS - Upgrading of West Kowloon and Tsuen Wan Sewerage

PROJECT SCOPE

The part of **4389DS** that we propose to upgrade to Category A comprises the phase 1 upgrading of West Kowloon and Tsuen Wan sewerage –

- (a) the construction of four dry weather flow interceptors (DWFIs)¹ in Tsuen Wan;
- (b) the construction of four DWFIs in West Kowloon;
- (c) the modification of 43 existing DWFIs in West Kowloon; and
- (d) ancillary works².

———— A plan showing the locations of the proposed works is at **Annex to Enclosure 2**.

JUSTIFICATIONS

2. Polluted urban runoff³ from the stormwater systems that serve Mongkok, Yau Ma Tei, Sham Shui Po and Tsuen Wan districts is a major cause of the deterioration in water quality and associated odour problem in the coastal area of West Kowloon and Tsuen Wan Bay.

3. The stormwater systems that serve Mongkok, Yau Ma Tei and Sham Shui Po districts are equipped with 43 small-scaled DWFIs. Their operational effectiveness has been declining with time and the continual redevelopment of these areas. The “Review of West Kowloon and Tsuen Wan Sewerage Master

¹ DWFI is a device that intercepts and diverts polluted dry weather flow from a stormwater drain / channel into the sewerage system during non-rainy days for treatment.

² Ancillary works include the utility diversion, road and drainage works required to complete the construction / modification / decommissioning of the DWFIs.

³ Sources of polluted urban runoff include expedient connections to sewers, leakage from sewers, discharge by street hawkers, open wet markets, rear lane / street cleansing activities such as vehicle and rubbish bin washing, etc.

Plans” (the Review) completed in 2010 confirmed that the interception efficiency of these existing DWFIs was relatively low, principally owing to seawater inflows during high tides, debris accumulation and insufficient intercepting capacity. The Review recommended that existing DWFIs in West Kowloon should be modified and new DWFIs be constructed at critical locations in West Kowloon and Tsuen Wan to intercept the polluted stormwater and convey it to SCISTW for proper treatment and disposal.

4. To improve the situation, we propose to modify these 43 existing DWFIs and construct eight new DWFIs with flow restricting device in West Kowloon and Tsuen Wan. Modification of the existing DWFIs includes enhancement of 28 existing DWFIs while decommissioning the remaining 15. The enhancement works include mainly the construction of chambers for desilting, flow limiting devices and associated works whereas decommissioning works include the removal of existing dry weather flow intercepting features and associated sewerage works. Upon completion, it is estimated that the modified and new DWFIs can remove about 70% of the total annual pollution loading from their respective stormwater systems.

5. Subject to the approval of the FC, we aim to commence construction of the proposed works in the third quarter of 2017 for completion in the second quarter of 2022. We will retain the remainder of **4389DS** in Category B for the future upgrading of West Kowloon and Tsuen Wan sewerage to increase sewers capacity. The remainder of **4389DS** comprises the upgrading of existing sewers and provision of internal lining at sewer crossings within stormwater box culverts in West Kowloon and Tsuen Wan. Funding for the remainder of **4389DS** will be sought at a later stage after completion of the detailed design.

FINANCIAL IMPLICATIONS

6. We estimate that the total capital cost of the proposed works as detailed in paragraph 1 above to be \$277.4 million in MOD prices.

7. We estimate that the proposed works will create about 60 jobs (45 for labourers and 15 for professional or technical staff), providing a total employment of 3 100 man-months.

PUBLIC CONSULTATION

8. We consulted the Environmental and Health Affairs Committee and the Traffic and Transport Committee of Tsuen Wan District Council on

2 July 2015 and 9 May 2016 respectively, the Food and Environmental Hygiene Committee of Yau Tsim Mong District Council and the Environment and Hygiene Committee of Sham Shui Po District Council on 16 July 2015. All parties supported the proposed works.

ENVIRONMENTAL IMPLICATIONS

9. The proposed works is not designated project under the EIAO (Cap. 499). The Drainage Services Department completed a Preliminary Environmental Review (PER) for the proposed works in March 2016. The PER has concluded and the DEP agreed that the proposed works would not have any long-term adverse environmental impacts. We have included in the project estimate the cost for implementation of the environmental mitigation measures.

10. For short-term environmental impact during construction, we will control noise, dust and site run-off to levels within the established standards and guidelines through implementation of the recommended mitigation measures including the use of silenced construction equipment and temporary noise barriers to reduce noise impact. In addition, water-spraying to the construction site will be applied regularly to minimise emission of fugitive dust, and on-site treatment of site run-off will be carried out to minimise potential water quality impact. We will also carry out regular site inspections to ensure that these recommended mitigation measures and good practices will be properly implemented on site.

11. At the planning and design stages, we have considered ways to reduce the generation of construction waste (e.g. to minimise the size of the proposed DWFiS to minimise excavation works) where possible. In addition, we will request the contractors to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible in order to minimise the need for disposal of inert construction waste to PFRF⁴. We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

12. We will also request the contractors to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste.

⁴ PFRF are specified in Schedule 4 of Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

We will ensure that the day-to-day operations on site comply with the approved plan. We will request the contractors to separate inert and non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

13. We estimate that the proposed works will generate 2 850 tonnes of construction waste. Of these, we will reuse 700 tonnes (24%) on site, and deliver 2 100 tonnes (74%) of inert construction waste to PFRF for subsequent reuse and 50 tonnes (2%) non-inert construction waste to landfill sites for disposal. The total cost for accommodating the aforementioned construction waste at PFRF and landfill sites is estimated to be \$160,000⁵.

HERITAGE IMPLICATIONS

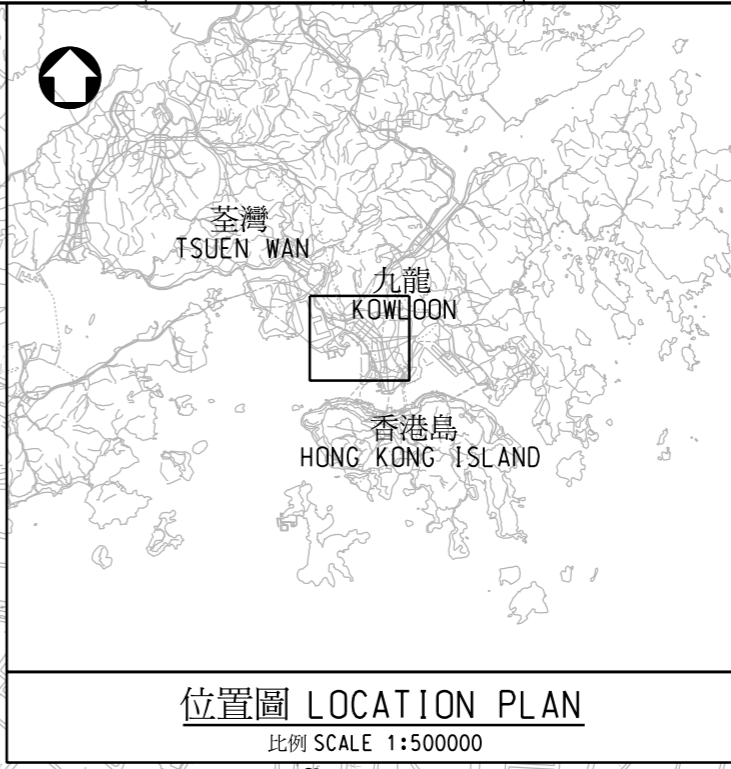
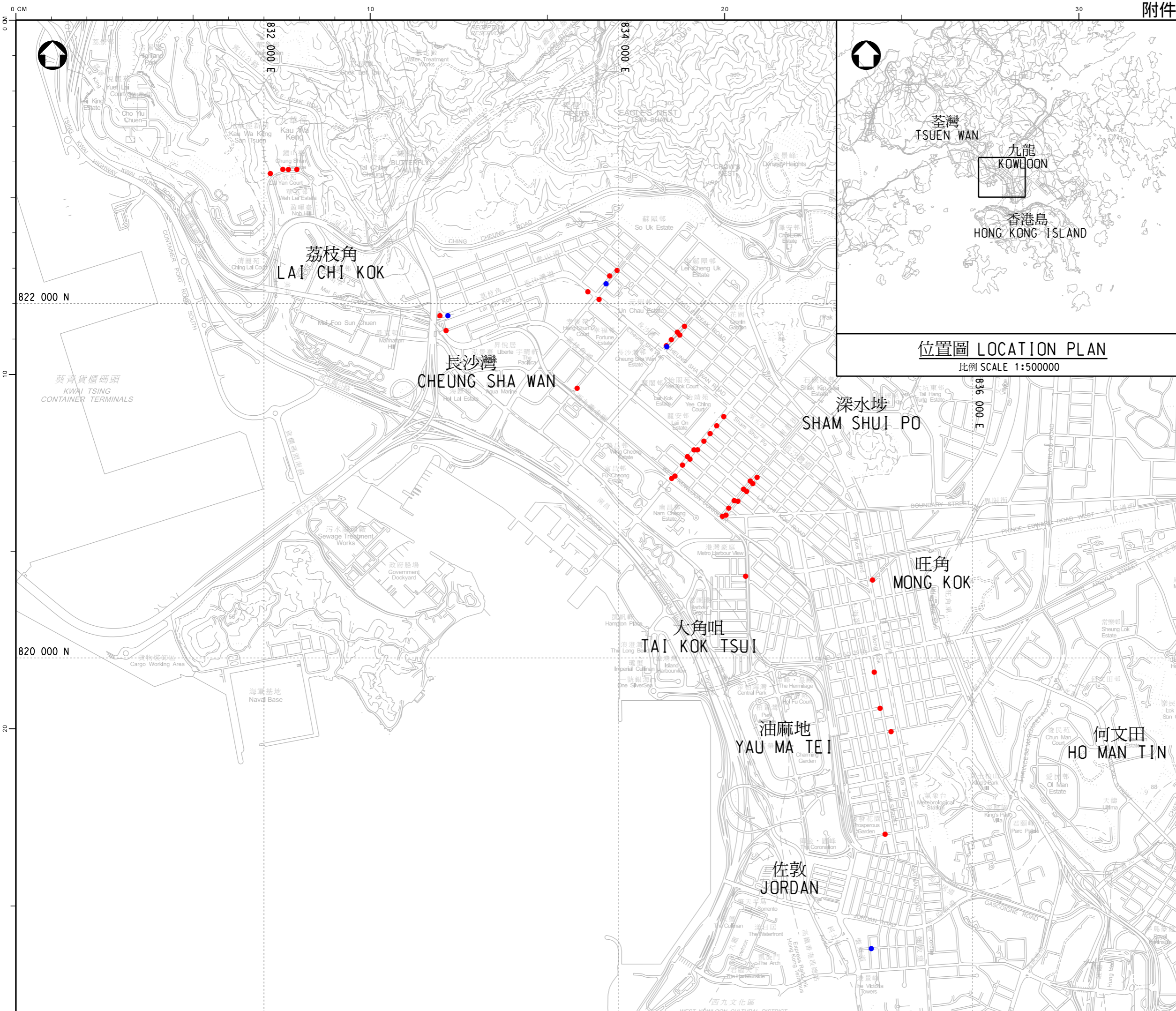
14. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

15. Only government lands will be involved for implementation of the proposed works. No land resumption is required.

**Environment Bureau
Drainage Services Department
April 2017**

⁵ The cost is calculated based on a unit charge rate of \$71 per tonne for disposal at PFRF and \$200 per tonne at landfills, as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).



- 註 NOTES :
- 圖例 LEGEND :
- 擬建旱季截流器
PROPOSED CONSTRUCTION OF NEW DRY WEATHER FLOW INTERCEPTOR
 - 擬改善之現有旱季截流器
PROPOSED MODIFICATION OF EXISTING DRY WEATHER FLOW INTERCEPTOR

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		姓名 name	日期 date
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檔案編號 file no.			
工程編號 project no.			
合約名稱 contract			

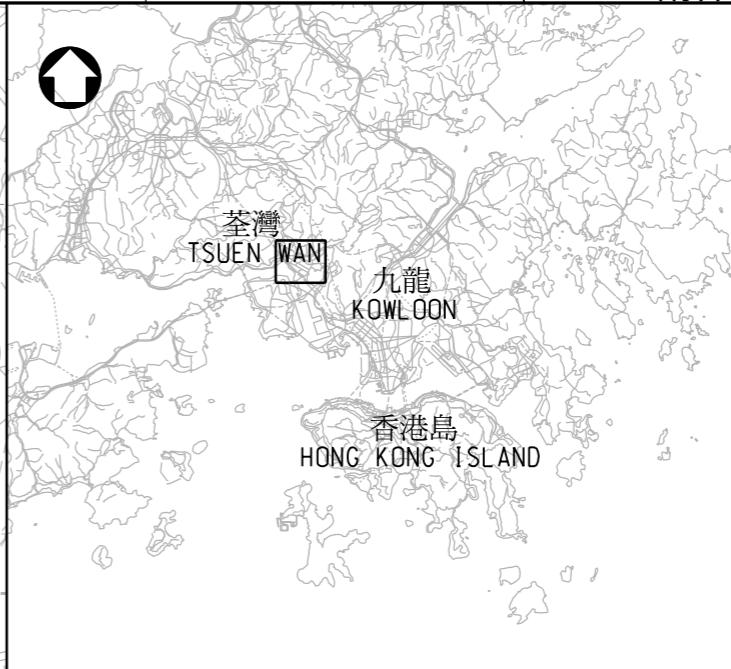
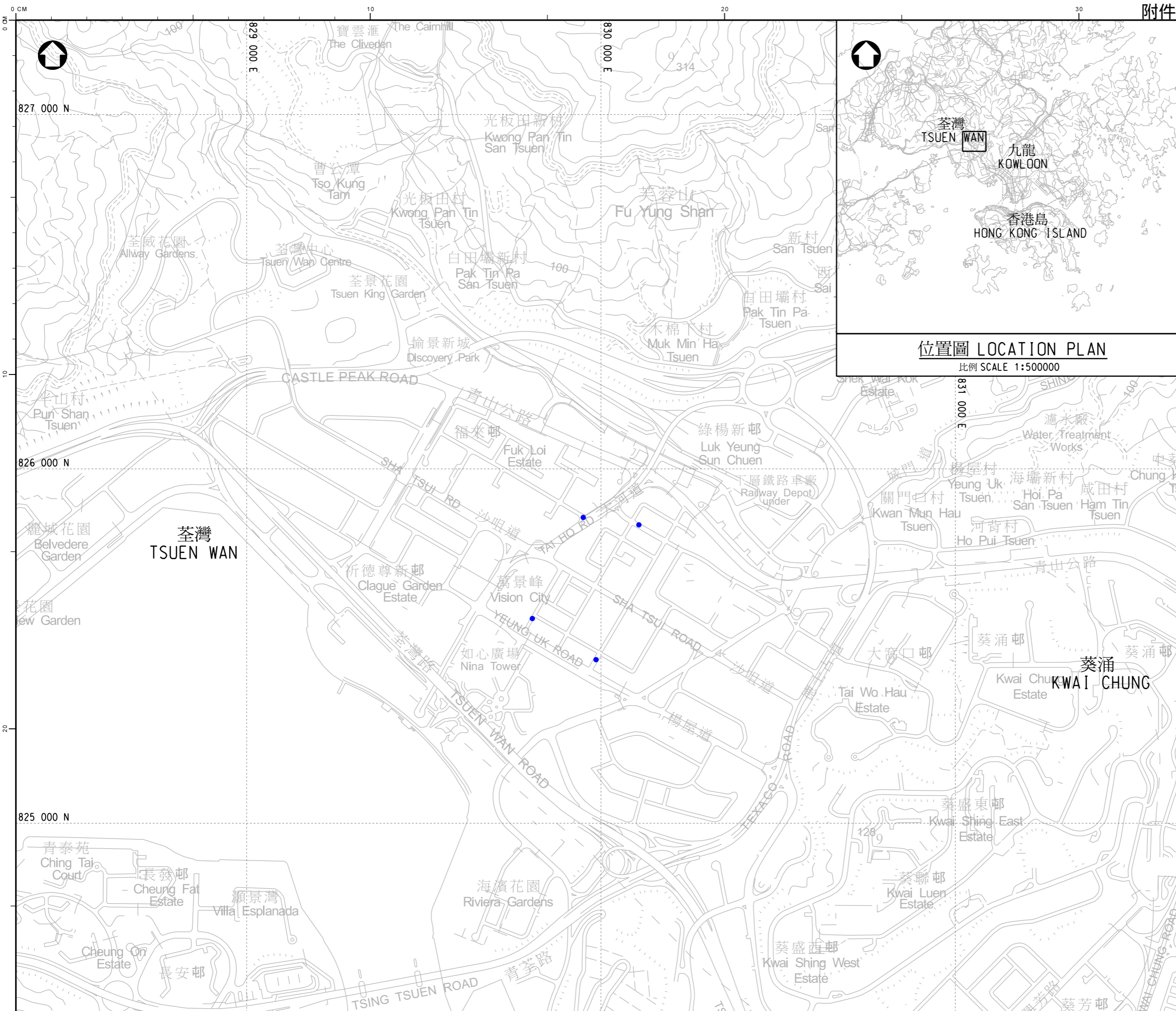
圖則名稱 drawing title
工務工程計劃編號 4389DS
- 九龍西部及荃灣污水系統改善工程
PWP ITEM NO. 4389DS
- UPGRADING OF WEST KOWLOON AND TSUEN WAN SEWERAGE (SHEET 1 OF 2)

圖則編號 drawing no.	比例 scale
DCM/2017/080	N.T.S.

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DRAINAGE SERVICES DEPARTMENT
GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION



位置圖 LOCATION PLAN

比例 SCALE 1:500000

註 NOTES :

圖例 LEGEND :

- 擬建旱季截流器
PROPOSED CONSTRUCTION OF NEW DRY WEATHER FLOW INTERCEPTOR

版 no.	日期 date	修改項目 description	簡簽 initial
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修訂 REVISION

	姓名 name	日期 date
繪畫 drawn	SIGNED K. S. LEUNG	11 APR 2017
核對 checked	SIGNED Ir Y. L. WONG	11 APR 2017
批核 approved	SIGNED Ir K. F. SEIT	11 APR 2017

合約編號 contract no.

檔案編號 file no.

工程編號 project no.

合約名稱 contract

圖則名稱 drawing title
工務工程計劃編號 4389DS
- 九龍西部及荃灣污水系統改善工程
PWP ITEM NO. 4389DS
- UPGRADING OF WEST KOWLOON AND TSUEN WAN SEWERAGE (SHEET 2 OF 2)

圖則編號 drawing no.	比例 scale
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4393DS - Rehabilitation of Trunk Sewers in Kowloon, Shatin and Sai Kung

PROJECT SCOPE

The proposed scope of works under **4393DS** comprises –

- (a) the rehabilitation of a 1 050 millimetres (mm) diameter sewer of about 400 metres (m) long along Lung Cheung Road near Ngau Chi Wan;
- (b) the rehabilitation of a 1 kilometre (km) long sewer consisting of a section of 700 m long with 1 650 mm diameter and a section of 300 m long with 1 950 mm diameter from Kwei Chow Street to To Kwa Wan Preliminary Treatment Works;
- (c) the rehabilitation of a 1 500 mm diameter sewer of about 50 m long and the construction of an additional 1 500 mm diameter sewer of about 400 m long along Yuen Wo Road near Shatin Sewage Pumping Station;
- (d) the rehabilitation of a 600 mm diameter submarine sewer of about 200 m long and the construction of an additional 900 mm diameter sewer of about 400 m long across Sai Kung Hoi linking Sai Kung Town and Tui Min Hoi; and
- (e) ancillary works¹.

A plan showing the locations of the proposed works is at **Annex to Enclosure 3**.

JUSTIFICATIONS

2. Four existing sewers in Sai Kung, Shatin and Kowloon with diameters ranging from 600 mm to 1950 mm have been in service for about 30 to 40 years. These sewers had registered 12 incidents of sewer collapses and

¹ Ancillary works include the utility diversion, road and drainage works required to facilitate the rehabilitation of the existing sewers.

one incident of sewer cracking in the past ten years. Recent inspections revealed that they are in poor structural conditions. Structural failure of the sewers may result in road subsidence and overflow of raw sewage. Apart from leading to traffic congestion on main traffic lines including Lung Cheung Road and road safety concern, it may bring about environmental and hygiene problems, as well as adverse impact on the water quality of Victoria Harbour, Shing Mun River and Sai Kung Hoi.

3. We propose to rehabilitate these sewers by specialised methods such as installation of internal lining and laying diversion sewers to free up the existing sewers for conducting the rehabilitation works. The diversion sewers to be constructed at Yuen Wo Road and Sai Kung Hoi as mentioned in paragraphs 1(c) and 1(d) above will be retained for permanent use. Trenchless technologies will be employed, where appropriate, for rehabilitation works and sewer laying to reduce inconvenience to the public. Upon completion of the proposed works, the risk of sewage overflow from these sewers will be greatly reduced.

4. Subject to the approval of the FC, we aim to commence construction of the proposed works in the fourth quarter of 2017 for completion in the first quarter of 2022.

FINANCIAL IMPLICATIONS

5. We estimate that the total capital cost of the proposed works as detailed in paragraph 1 above to be \$678.5 million in MOD prices.

6. We estimate that the proposed works will create about 160 jobs (130 for labourers and 30 for professional or technical staff), providing a total employment of 7 500 man-months.

PUBLIC CONSULTATION

7. We consulted the Housing and Infrastructure Committee of the Kowloon City District Council on 23 July 2015, Traffic and Transport Committee of the Kwun Tong District Council on 17 September 2015, Traffic and Transport Committee of the Wong Tai Sin District Council on 31 May 2016, Housing and Environmental Hygiene Committee of the Sai Kung District Council on 14 July 2016, as well as Traffic and Transport Committee of the Sha Tin District Council on 7 March 2017. All these Committees supported the proposed works.

ENVIRONMENTAL IMPLICATIONS

8. The proposed works is not a designated project under the EIAO (Cap. 499). The proposed works at Ngau Chi Wan and To Kwa Wan are expected to have very little potential for giving rise to adverse environmental impacts but standard pollution control measures promulgated by the DEP will be implemented. For the proposed works at Sai Kung and Shatin, we have completed the PERs in April 2015 and April 2017 respectively. The PERs concluded and DEP agreed that the proposed works would not have any long-term adverse environmental impacts. We have included in the project estimate of the proposed works the cost for implementation of the necessary environmental mitigation measures.

9. For the construction phase, we will request the contractors to implement the recommended mitigation measures including the use of silenced construction equipment and temporary noise barriers to reduce noise impact. In addition, regular water-spraying to the construction site will be applied regularly to minimise emission of fugitive dust, and on-site treatment of site run-off will be carried out to minimise potential water quality impact. We will also carry out regular site inspections to ensure that these recommended mitigation measures and good practices will be properly implemented on site.

10. At the planning and design stages, we have considered ways to reduce the generation of construction waste where possible. In addition, we will request the contractors to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the need for disposal of inert construction waste to PFRF². We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

11. We will also request the contractors to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will request the contractor to separate inert and non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

² PFRF are specified in Schedule 4 of Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

12. We estimate that the proposed works will generate 9 110 tonnes of construction waste. Of these, we will reuse 3 000 tonnes (33%) on site, and deliver 3 260 tonnes (36%) of inert construction waste to PFRF for subsequent reuse and 2 850 tonnes (31%) non-inert construction waste to landfill sites for disposal. The total cost for accommodating the aforementioned construction waste at PFRF and landfill sites is estimated to be \$800,000³.

HERITAGE IMPLICATIONS

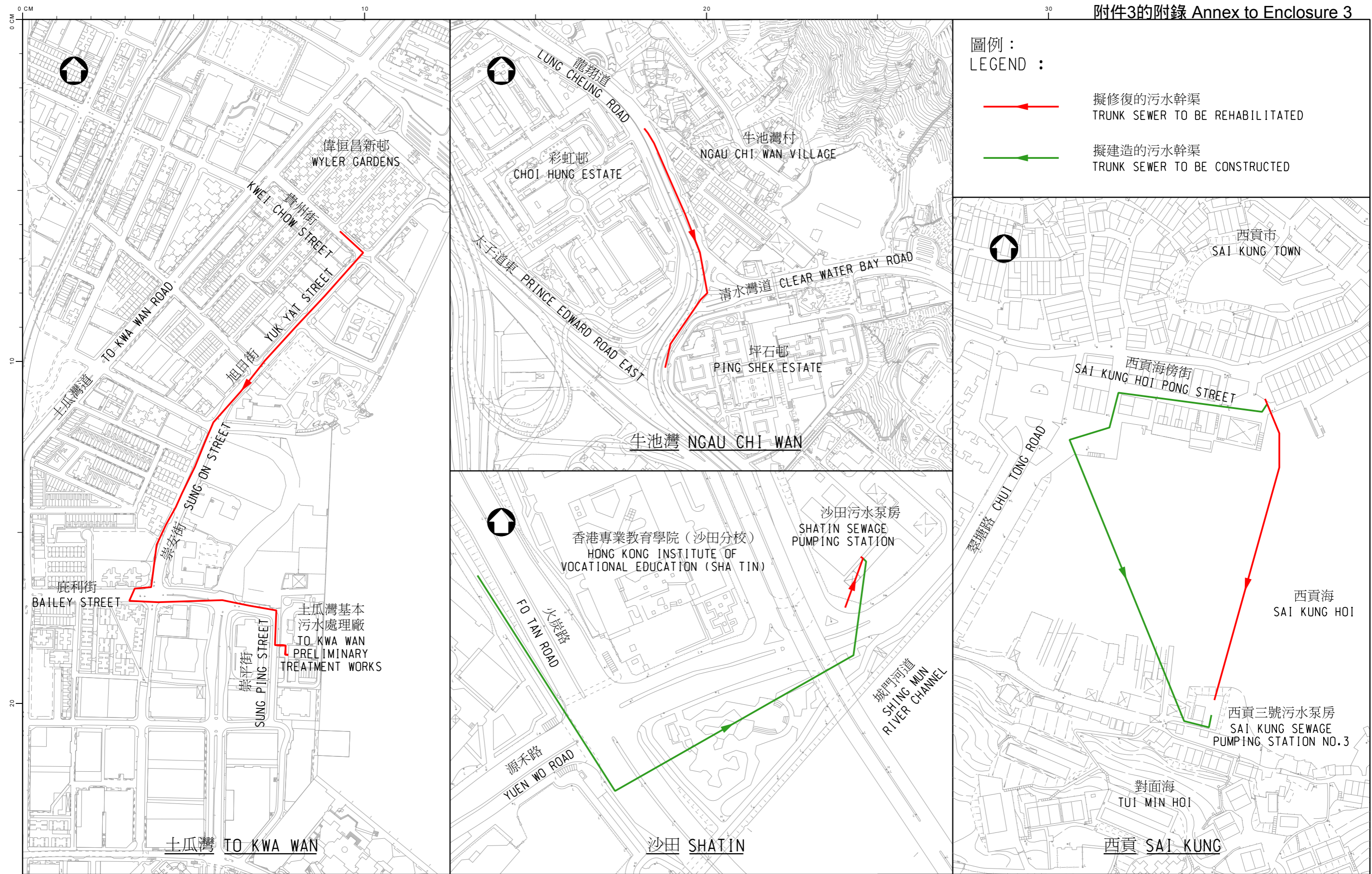
13. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

14. Only government lands will be involved for implementation of the proposed works. No land resumption is required.

**Environment Bureau
Drainage Services Department
April 2017**

³ The cost is calculated based on a unit charge rate of \$71 per tonne for disposal at PFRF and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).



圖則名稱 drawing title
 工務工程計劃編號 4393DS
 - 九龍、沙田及西貢污水幹渠修復工程
 PWP ITEM NO. 4393DS
 - REHABILITATION OF TRUNK SEWERS IN KOWLOON, SHATIN AND SAI KUNG

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