

For discussion
on 25 February 2014

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

**PWP Item No. 747CL -
Advance Site Formation and Engineering Infrastructure Works
at Kwu Tung North New Development Area
and Fanling North New Development Area**

Detailed Design and Site Investigation

PURPOSE

This paper seeks Members' support for our proposal to upgrade part of **747CL** "Advance site formation and engineering infrastructure works at Kwu Tung North new development area and Fanling North new development area", to Category A at an estimated cost of \$342.6 million in money-of-the-day (MOD) prices for engaging consultants to undertake detailed design and site investigation for the advance site formation and engineering infrastructure works at Kwu Tung North (KTN) New Development Area (NDA) and Fanling North (FLN) NDA (the Advance Works).

PROJECT SCOPE

2. The part of **747CL** that we propose to upgrade to Category A comprises -

- (a) detailed design of the following -
 - (i) site formation of about 62 hectares of land at the KTN and FLN NDAs for housing and local rehousing¹, and community facilities;
 - (ii) engineering infrastructure works including roads, drainage, sewerage, waterworks, pumping

¹ To help maintain the social fabric of the existing communities, two sites in the KTN and FLN NDAs have been reserved for local rehousing purpose to accommodate eligible households affected by the NDAs development.

stations, fresh water and flushing water service reservoirs;

- (iii) upgrading and expansion of Shek Wu Hui Sewage Treatment Works²;
 - (iv) provision of resite area for the Home of Loving Faithfulness (HOLF)³ and reprovisioning of North District Temporary Wholesale Market⁴;
 - (v) soil remediation;
 - (vi) landscaping works; and
 - (vii) implementing the environmental mitigation measures for the works mentioned in (i) to (vi) above.
- (b) investigation study for district cooling system (DCS);
 - (c) associated site investigation works and supervision; and
 - (d) preparation of tender documents and assessment of tenders for construction of works described in item (a) above.

3. Two plans showing the proposed Advance Works are at **Enclosures 1 and 2**.

4. Subject to funding approval of the Finance Committee (FC), we plan to start the proposed detailed design and associated site investigation works in August 2014 for completion by end 2020.

² The upgrading and expansion works involve an additional capacity of about 20 000 cubic metres (m³)/day at tertiary treatment level to cater for sewage from developments under the Advance Works.

³ The HOLF is a non-profit making social welfare facility for severely handicapped/disabled persons, and its site will be affected by the KTN NDA development. With the support of the Labour and Welfare Bureau, the proposed resite area will be at A Kung Kok Shan Road, Sha Tin.

⁴ The existing North District Temporary Wholesale Market for agricultural products is proposed to be relocated due to conflict with the proposed Fanling Bypass.

5. We shall retain the remainder of **747CL** in Category B, for which we shall seek funding in phases to dovetail with the implementation programme of the project. The remaining part of **747CL** covers mainly construction of the site formation and engineering infrastructure works described in paragraph 2(a) above.

JUSTIFICATION

Need for North East New Territories (NENT) NDAs

6. We are facing a tight housing and land supply situation. We need to boost land supply for accommodating various land uses to meet Hong Kong's medium to long-term housing, economic and social needs. The 2014 Policy Address put forward initiatives to increase the supply of housing land for the growing population. Amongst these initiatives, the NENT NDAs is essential to Hong Kong's medium and long-term land supply.

7. The Planning and Development Study on NENT (NENT Study) back in 2003 identified KTN, FLN and Ping Che/Ta Kwu Ling (PC/TKL) as suitable areas for the development of NDAs. The NENT Study also confirmed the preliminary planning and engineering feasibility of these NDAs. The Hong Kong 2030: Planning Vision and Strategy (HK2030 Study) promulgated in 2007 further recommended proceeding with these NDAs to address the long-term housing demand and to provide employment opportunities.

8. In 2008, the NENT NDAs Planning and Engineering Study (NENT NDAs Study) was commissioned to establish a planning and development framework for the KTN, FLN and PC/TKL NDAs. Following a three-stage public engagement process, we reviewed the scope and planning of these NDAs. We looked into the feasibility of adjusting development intensity and increased the public housing proportion while maintaining quality living environment in the KTN and FLN NDAs. The PC/TKL NDA was originally planned for low density residential and special industrial developments, and would now be re-planned in the context of identifying further development opportunities in New Territories North⁵.

9. The final development proposals of the KTN and FLN NDAs were promulgated in July 2013. The KTN and FLN NDAs will provide about 60 000 new flats for an additional population of about 173 000. These NDAs will also offer work places for about 37 000 new jobs.

⁵ As an on-going initiative under the 2014 Policy Address, the Government has commissioned the Preliminary Feasibility Study on Developing the New Territories North in January 2014 with a view to exploring scope for developing a new town of similar scale as Fanling/Sheung Shui.

Proposed Advance Works

10. The NENT NDAs development will be implemented in phases for full completion by 2031. The Government has prioritised the works packages so that major housing sites, in particular public housing sites, can be formed first with population intake by 2023 to meet the acute housing demand. These sites are also in close proximity to the proposed public transport interchanges. The Advance Works are the first phase of the NDAs development, involving site formation and associated engineering infrastructure for about 16 000 housing flats to accommodate a total population of about 46 500. Engineering infrastructure includes the eastern section of Fanling Bypass, which is a 5-kilometre long dual two lane carriageway, and a new interchange at Pak Shek Au for road connection to Fanling Highway. The other phases comprise the First Stage Works⁶ and remaining packages⁷.

11. The existing Shek Wu Hui Sewage Treatment Works is anticipated to fully reach its design capacity of 93 000 m³/day by 2018 and the Drainage Services Department (DSD) has planned for upgrading and expansion works by increasing its capacity by 40 000 m³/day to cater for development and village sewerage connection in North District⁸. It is expected that the works will commence in 2016 for completion in 2022. We propose to implement further upgrading and expansion of the plant with an additional capacity of 20 000 m³/day⁹ to tertiary treatment level under the Advance Works to cater for sewage from future developments in the NDAs, and carry out the proposed upgrading and expansion works with those of DSD concurrently. It is expected that the works to be funded under the Advance Works will commence in 2021 for completion in 2023. To mitigate the odour impact, we plan to improve existing facilities by providing covers and deodorization measures where required.

12. The Advance Works also includes ground remediation prior to development at KTN. Our preliminary estimate indicates that about 700 000 m³

⁶ The “First Stage of Site Formation and Engineering Infrastructure at Kwu Tung North New Development Area and Fanling North New Development Area” (First Stage Works) under **759CL** comprises environmental mitigation measures, which are pre-requisites for the remaining packages, and the relocation sites for police facilities.

⁷ The remaining packages would be developed in phases for subsequent population intake, with the works starting after the Advance Works.

⁸ DSD proposes to carry out upgrading and expansion of Shek Wu Hui Sewage Treatment Works by stages, with an additional capacity of 40 000 m³/day to tertiary treatment level, under **388DS** “Shek Wu Hui Sewage Treatment Works – Further Expansion Phase 1A”.

⁹ The additional capacity of 20 000 m³/day will cater for sewage generated from all developments under the Advance Works and the First Stage Works.

of contaminated soil will require remediation. We will undertake a detailed survey to ascertain the profile of contamination and formulate suitable soil remediation plan. We will strictly comply with the approval conditions of the EIA report in carrying out the remediation works.

13. To promote green living environment, we have completed a preliminary assessment on use of DCS¹⁰. The findings initially indicated that the cooling load of offices and other non-domestic developments in the KTN NDA might warrant the provision of a DCS¹¹. We propose to examine the case for adopting DCS in the KTN NDA in greater detail and map out the way forward.

14. To ensure timely provision of adequate infrastructure, we need to start the detailed design and site investigation for the Advance Works in August 2014. In line with the usual arrangements for works projects, these technical preparations would be proceeded in parallel with other implementation steps for the project, including statutory planning process and land clearance preparation. It is also necessary to proceed with the technical work while the Government continues to communicate with the affected local stakeholders regarding the project. During the detailed design stage, community liaison teams will be set up to assist in communication and handling of issues arising from the project. Proceeding these steps in parallel would save the implementation time of the project, while taking them sequentially would imply a much more prolonged timeframe for implementation and delivery of the project.

15. Due to insufficient in-house resources, we propose to engage consultants to undertake the detailed design and supervision of the associated site investigation works for the Advance Works.

FINANCIAL IMPLICATIONS

16. We estimate the cost of the proposed detailed design and associated site investigation works to be \$342.6 million in MOD prices, broken down as follows –

	\$ million
(a) Consultants' fees for	216.9
(i) detailed design	183.0

¹⁰ DCS is a system in which chilled water is distributed in pipes from a central cooling plant to different buildings through a network of underground pipes for space cooling. The cooling and heat rejection are provided from a central plant thereby achieving higher energy efficiency as compared with conventional local systems.

¹¹ The total estimated cooling load for the DCS in KTN NDA is about 200 megawatts, which is comparable with that of Kai Tak Development.

		\$ million	
(ii)	investigation study for DCS	15.5	
(iii)	preparation of tender documents and assessment of tenders	18.2	
(iv)	management of resident site staff for site investigation works	0.2	
(b)	Remuneration of resident site staff for site investigation works	3.8	
(c)	Site investigation works	41.0	
(d)	Contingencies	26.1	
	Sub-total	<u>287.8</u>	(in September 2013 prices)
(e)	Provision for price adjustment	<u>54.8</u>	
	Total	<u>342.6</u>	(in MOD prices)

17. The proposed detailed design and associated site investigation works will not give rise to any recurrent expenditure.

PUBLIC CONSULTATION

18. We consulted the North District Council on 12 December 2013 on the proposed detailed design and site investigation works and circulated a paper to the Sheung Shui District Rural Committee and Fanling District Rural Committee for their reference and views. While they generally supported the proposal, they requested that reasonable compensation and rehousing arrangements be made available to affectees, including residents in the areas earmarked for the implementation of the NDAs, the elderly at Dills Corner Garden, farmers and other types of business undertakings. We note their views and are considering how best the requests could be acceded to. We have also consulted the Development and Housing Committee of the Sha Tin District Council (STDC DHC) on 2 January 2014 on the relocation of the HOLF to Sha Tin. While the STDC DHC did not raise objection to the proposed relocation, some members

suggested enhancing transport service and strengthening the capacity of the reprovisioned facility. We will further consider their views and consult STDC DHC again during the detailed design stage.

19. The draft Outline Zoning Plans for the two NDAs have been exhibited for public inspection under the Town Planning Ordinance (Cap. 131) since 20 December 2013.

ENVIRONMENTAL IMPLICATIONS

20. The proposed detailed design and site investigation works are not designated projects under the Environmental Impact Assessment (EIA) Ordinance and should not generate adverse environmental impacts. An EIA on the NENT NDAs was conducted under the NENT NDAs Study and was approved with conditions under the EIA Ordinance in October 2013. We will comply with the approval conditions and implement relevant recommendations in the EIA report during the detailed design stage.

21. The proposed site investigation works will only generate minimal construction waste. We will fully consider measures to minimise the generation of construction waste and to reuse/ recycle construction waste during construction stage.

HERITAGE IMPLICATIONS

22. The proposed detailed design and site investigation works will not affect any declared monuments, proposed monuments, graded historic sites/buildings and Government historic sites as identified by the Antiquities and Monuments Office. As the site investigation works may affect the Sheung Shui Wa Shan Site of Archaeological Interest and archaeological potential areas, we will implement appropriate mitigation measures in accordance with the recommendations of the EIA report.

LAND ACQUISITION

23. The proposed detailed design and site investigation works do not require any land acquisition. The details and scope of the land acquisition required will be ascertained in the detailed design stage.

BACKGROUND INFORMATION

24. The NENT Study was commissioned in January 1998 and completed in 2003 under **559CL** "Planning and development studies on North East New

Territories: consultants' fees and site investigation" with LegCo's funding approval. It identified the areas at KTN, FLN and PC/TKL as suitable for the development of NDAs in the NENT. However, in the light of a slower population growth, the NDA proposals were shelved in 2003. The HK2030 Study promulgated in 2007 has revisited the NDAs identified in the NENT Study and proposed to proceed with the NDAs.

25. On 9 May 2008, the FC approved upgrading of **726CL** "Review studies on North East New Territories new development areas – consultants' fees and site investigation" to Category A at an approved project estimate of \$54.2 million in MOD prices for engaging consultants to undertake the NENT NDAs Study. The Study was substantially completed in December 2013.

26. We upgraded **747CL** to Category B in September 2010.

27. We upgraded **759CL** "First stage of site formation and engineering infrastructure at Kwu Tung North new development area and Fanling North new development area" to Category B in September 2012.

28. Five old and valuable trees have been identified at Castle Peak Road Kwu Tung Section. Although these trees fall within the boundary of the NENT NDAs, they will be preserved and will not be affected. The proposed site investigation works will not involve any tree removal or planting proposals. We will take into consideration the need for tree preservation, and formulate tree preservation, removal, compensatory and new planting proposals during the detailed design stage. Such proposals will be implemented in the construction phase.

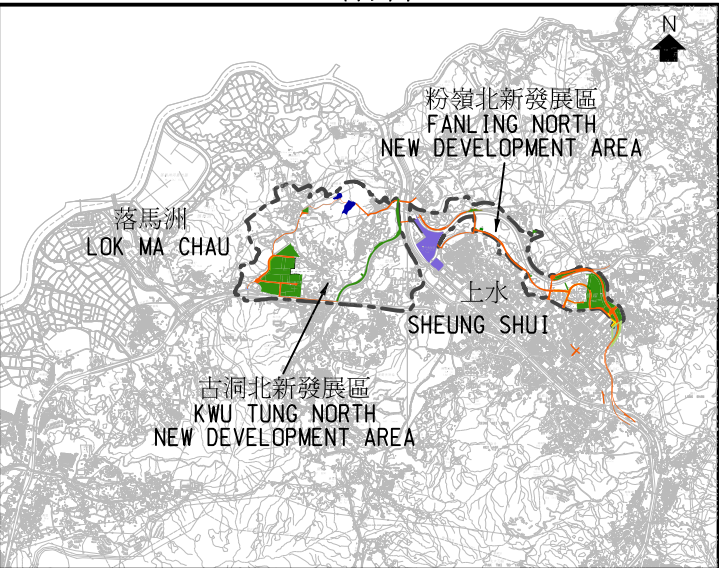
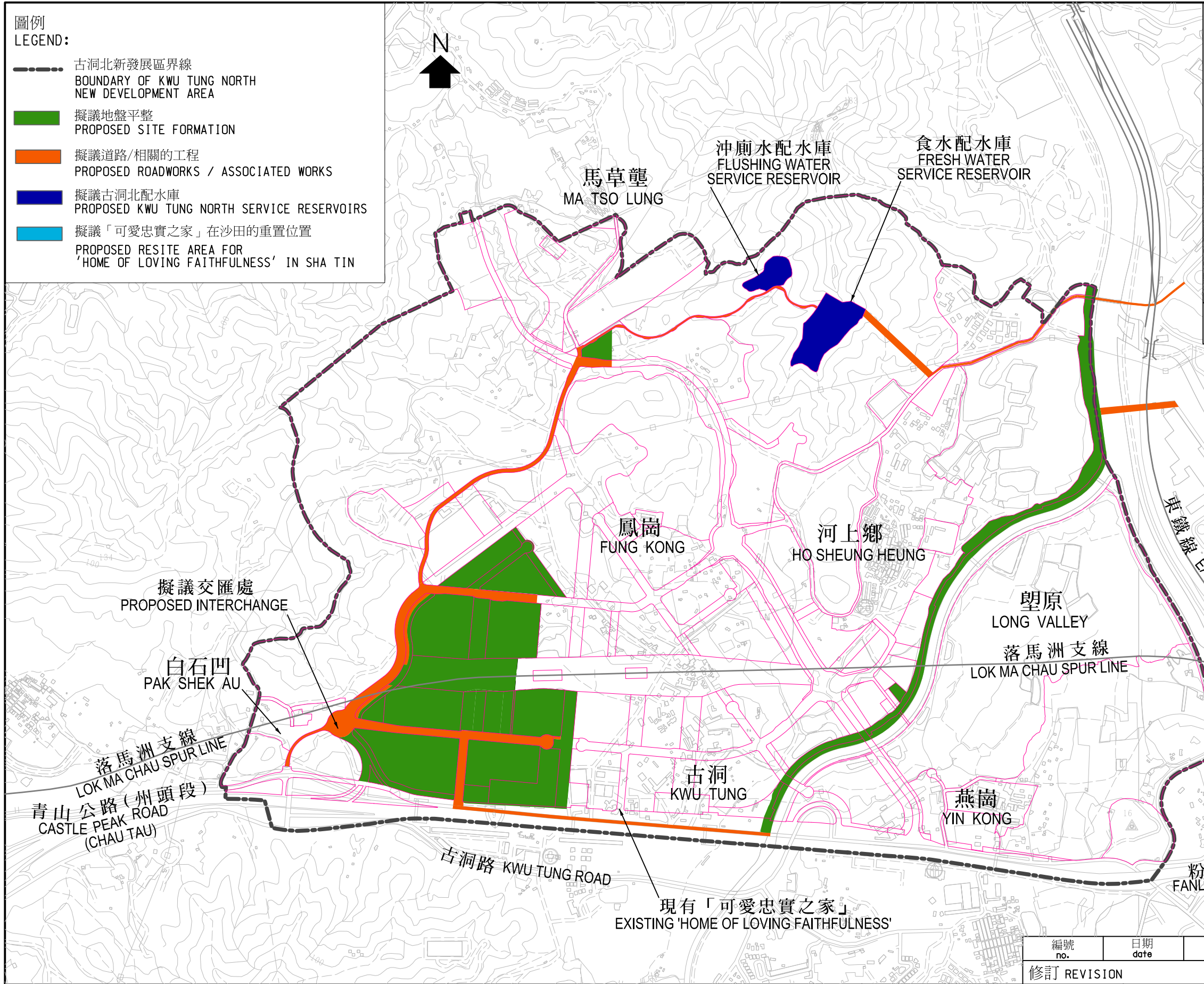
29. We estimate that the proposed detailed design and associated site investigation works will create about 73 jobs (12 for labourers and another 61 for professional/technical staff), providing a total employment of 2 060 man-months.

WAY FORWARD

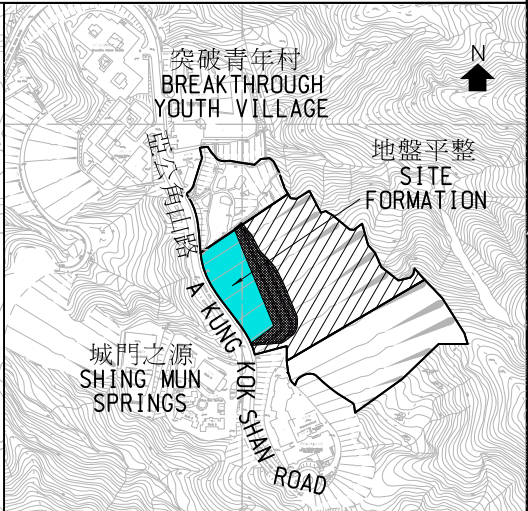
30. Subject to Members' support, we plan to seek the endorsement of the Public Works Subcommittee in March 2014 for upgrading part of **747CL** to Category A with a view to seeking funding approval from the FC in May 2014.

Development Bureau
Civil Engineering and Development Department
February 2014

- 圖例
LEGEND:
- 古洞北新發展區界線
BOUNDARY OF KWU TUNG NORTH NEW DEVELOPMENT AREA
 - 擬議地盤平整
PROPOSED SITE FORMATION
 - 擬議道路/相關的工程
PROPOSED ROADWORKS / ASSOCIATED WORKS
 - 擬議古洞北配水庫
PROPOSED KWU TUNG NORTH SERVICE RESERVOIRS
 - 擬議「可愛忠實之家」在沙田的重置位置
PROPOSED RESITE AREA FOR 'HOME OF LOVING FAITHFULNESS' IN SHA TIN



位置圖 LOCATION PLAN



擬議「可愛忠實之家」在沙田的重置位置
PROPOSED RESITE AREA FOR 'HOME OF LOVING FAITHFULNESS' IN SHA TIN

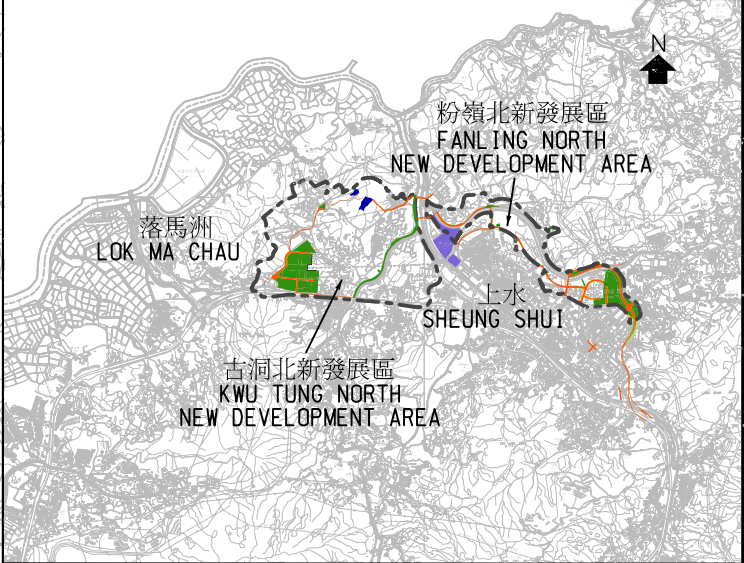
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修訂 REVISION

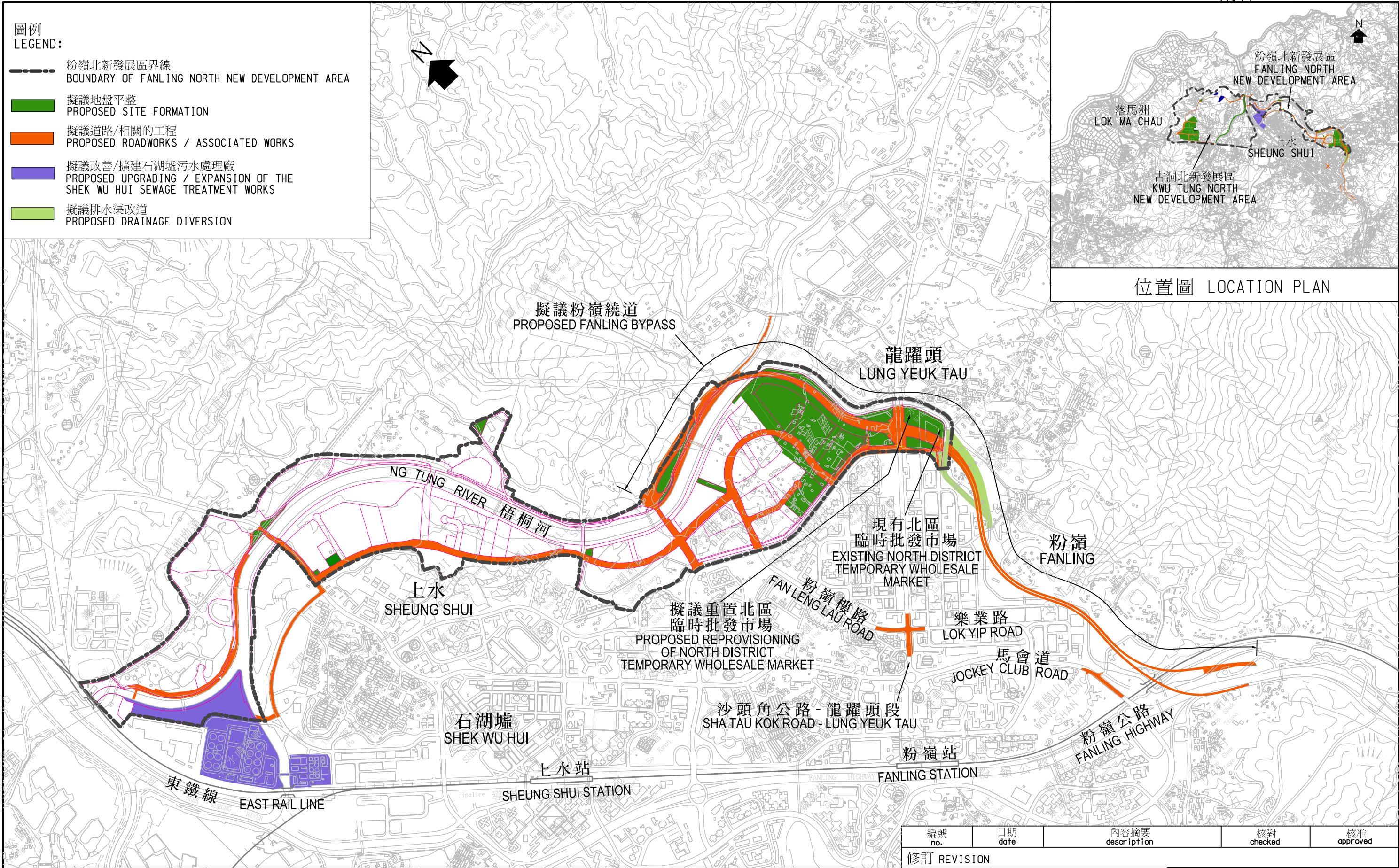
圖則名稱 drawing title	繪圖 drawn		簽署 initial	日期 date	項目編號 item no.	辦事處 office
	Y C LAM		SIGNED	10-02-2014	7747CL	
	核對 checked		簽署 initial	日期 date	比例 scale	
	K S CHAN		SIGNED	10-02-2014	1:12 000 (A3)	
古洞北及粉嶺北新發展區前期地盤平整和基礎建設工程平面圖 LAYOUT PLAN FOR ADVANCE SITE FORMATION AND ENGINEERING INFRASTRUCTURE WORKS AT KWU TUNG NORTH NEW DEVELOPMENT AREA AND FANLING NORTH NEW DEVELOPMENT AREA	核准 approved		簽署 initial	日期 date	圖則編號 drawing no.	土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
	C K LEUNG		SIGNED	10-02-2014	NTWZ 2015	

圖例
LEGEND:

- 粉嶺北新發展區界線
BOUNDARY OF FANLING NORTH NEW DEVELOPMENT AREA
- 擬議地盤平整
PROPOSED SITE FORMATION
- 擬議道路/相關的工程
PROPOSED ROADWORKS / ASSOCIATED WORKS
- 擬議改善/擴建石湖墟污水處理廠
PROPOSED UPGRADING / EXPANSION OF THE SHEK WU HUI SEWAGE TREATMENT WORKS
- 擬議排水渠改道
PROPOSED DRAINAGE DIVERSION



位置圖 LOCATION PLAN



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

圖則名稱 drawing title	繪圖 drawn	簽署 initial	日期 date	項目編號 item no.	辦事處 office 新界西及北拓展處 NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE
	Y C LAM	SIGNED	10-02-2014	7747CL	
	核對 checked	簽署 initial	日期 date	比例 scale	
	K S CHAN	SIGNED	10-02-2014	1:15 000 (A3)	
古洞北及粉嶺北新發展區前期地盤平整和基礎建設工程平面圖 LAYOUT PLAN FOR ADVANCE SITE FORMATION AND ENGINEERING INFRASTRUCTURE WORKS AT KWU TUNG NORTH NEW DEVELOPMENT AREA AND FANLING NORTH NEW DEVELOPMENT AREA	核准 approved	簽署 initial	日期 date	圖則編號 drawing no.	土木工程拓展署 CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
	C K LEUNG	SIGNED	10-02-2014	NTWZ 2016	