

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT Recreation, Culture and Amenities - Sports Facilities 259RS – Cycle tracks connecting North West New Territories with North East New Territories

Members are invited to recommend to Finance Committee –

- (a) the upgrading of part of **259RS**, entitled “Cycle tracks connecting North West New Territories with North East New Territories - Sheung Shui to Ma On Shan section” to Category A at an estimated cost of \$230.3 million in money-of-the-day prices; and
- (b) the retention of the remainder of **259RS** in Category B.

PROBLEM

As part of our efforts to improve the quality of living in Hong Kong by developing a comprehensive cycle track network in the New Territories (shown at Enclosure 1), we need to proceed with construction of the part of the network linking Sheung Shui, Fanling, Tai Po, Sha Tin and Ma On Shan.

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PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade part of **259RS** to Category A at an estimated cost of \$230.3 million in money-of-the-day (MOD) prices for construction of part of the New Territories cycle track network linking Sheung Shui, Fanling, Tai Po, Sha Tin and Ma On Shan.

PROJECT SCOPE AND NATURE

3. The full scope of **259RS** comprises the construction of the cycle track network starting from Tuen Mun in the west and connects via Yuen Long, Sheung Shui, Fanling, Tai Po, Sha Tin to Ma On Shan in the east.

4. The part of **259RS** which we propose to upgrade to Category A comprises –

- (a) construction of a new cycle track (with footpath) about 5 kilometres (km) in length to link up the existing cycle tracks in Fanling and Tai Po, including the associated bridges, decking of about 300 metres (m) of an existing nullah and reconstruction of a section of an existing access road (about 2 km in length) along the cycle track;
- (b) improvement works to selected sections of existing cycle tracks in Sheung Shui, Fanling, Tai Po and Sha Tin (about 1 km in length in total) including widening to current standards and provision of additional road signs;
- (c) two entry/exit hubs in Sheung Shui (near the MTR Sheung Shui Station) and Sha Tin (adjacent to the MTR University Station);
- (d) four resting stations in Tong Hang in Fanling, Mui Shue Hang in Tai Po, Tai Shui Hang and Nai Chung in Ma On Shan;
- (e) general facilities including cycle rental/repair kiosks, cycle parking spaces, route maps, information boards, first aid stations, refreshment kiosk, toilets provided at the entry/exit hubs, resting stations and along the cycle track network at suitable intervals;
- (f) associated landscaping, traffic aids and ancillary works; and

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- (g) provision of necessary environmental mitigation measures and implementation of an environmental monitoring and audit (E&MA) programme for the works mentioned in 4(a) to (f) above.

5. A plan showing the proposed works is at Enclosure 2. Layout of the two entry/exit hubs that will serve as strategic doorways to the cycle track networks are included at Enclosures 3 and 4 respectively. Layouts of the resting stations that will serve as stopover for cyclists are illustrated by the one in Tong Hang, Fanling at Enclosure 5.

6. We plan to commence the construction works in September 2009 for completion in July 2012.

JUSTIFICATION

7. Government has been incorporating provision of cycle tracks in the planning and development of new towns, such as Sha Tin, Tai Po, Fanling, Sheung Shui, Tin Shui Wai, Yuen Long and Tuen Mun. These cycle tracks, particularly the one connecting Sha Tin and Tai Po along Tolo Highway, have become attractions to the public for leisure/recreational purpose. However, despite their popularity, the existing cycle tracks are mostly confined to individual areas. Access to some of them is not convenient due to inadequate provision of public transport services. Moreover, while some supporting facilities are provided, they have turned out to be inadequate to meet the increasing demand and higher expectation for a quality city life. As such, there is strong aspiration for linking the cycle tracks together to form a continuous cycle track network and for improving access to the cycle tracks and their supporting facilities.

8. To enhance the recreational value of the cycle tracks for better enjoyment of the public, the Development Bureau pledged in the 2007-08 Policy Agenda to develop a comprehensive cycle track network in the New Territories for improving the quality of living.

9. In view of the considerable length of the proposed cycle track network, we are implementing the network in phases so as to bring forward the completion of individual sections for early enjoyment of the public. The Tuen Mun – Ma On Shan backbone section is being taken forward in two phases under item **259RS**. We now propose to construct the first phase covering the part

/between

between Sheung Shui and Ma On Shan. The works are scheduled to commence in September 2009 for completion in July 2012. Pending completion of statutory procedures, construction of the second phase covering the part between Tuen Mun and Sheung Shui will follow for commencement in August 2010 and completion in July 2013.

FINANCIAL IMPLICATIONS

10. We estimate the cost of the project to be \$230.3 million in MOD prices (see paragraph 11 below), made up as follows –

	\$ million
(a) Construction of 5 km of cycle track with footpath -	134.3
(i) site formation	26.9
(ii) bridges and nullah deck	44.4
(iii) road work	41.5
(iv) reconstruction of access road	21.5
(b) Improvement works to selected sections of existing cycle tracks	3.0
(c) Supporting facilities (including two entry/exit hubs and four resting stations)	22.9
(d) Associated landscaping, traffic aids and ancillary works	13.8
(e) Environmental mitigation measures and EM&A programme for works mentioned in (a) to (d) above	2.9
(f) Consultants' fee	3.3
(i) contract administration	2.7
(ii) management of resident site staff	0.6

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		\$ million	
(g)	Remuneration of resident site staff	16.6	
(h)	Contingencies	<u>19.6</u>	
	Sub-total	216.4	(in September 2008 prices)
(i)	Provision for price adjustment	<u>13.9</u>	
	Total	<u>230.3</u>	(in MOD prices)

Due to insufficient in-house resources, we propose to engage consultants to supervise the proposed works. A detailed breakdown of the estimates for the consultants' fees and resident site staff costs by man-months is at Enclosure 6.

11. Subject to approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2008)	Price adjustment factor	\$ million (MOD)
2009 – 2010	38.4	1.03500	39.7
2010 – 2011	76.8	1.05570	81.1
2011 – 2012	75.6	1.07681	81.4
2012 – 2013	25.6	1.09835	28.1
	<u>216.4</u>		<u>230.3</u>

12. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices for public sector building and construction output from 2009 to 2013. We will tender the works for the two entry/exit hubs through a lump-sum contract as the quantities of the majority of such works have been determined at the design stage. We will separately tender the remaining works for the project through a standard re-measurement contract because the quantities may vary depending on actual site conditions. Both contracts will provide for price adjustments.

13. We estimate the annual recurrent expenditure arising from this project to be about \$2.6 million.

/PUBLIC

PUBLIC CONSULTATION

14. We consulted the North District Council, the Culture, Sports and Community Development Committee of the Sha Tin District Council and the Tai Po District Council on the proposed works under **259RS** on 26 July 2007, 30 August 2007 and 4 September 2007 respectively and obtained their support. We also consulted various cyclist groups including Hong Kong Cycling Association, Hong Kong Cycling Tour Association, Hong Kong Cyclist Club and Hong Kong Cycling Alliance on the proposed works in September 2005 and January 2007 and obtained their support. We have considered their suggestions on alignment of the new cycle track, improvements to existing cycle tracks, cycling safety and provision of supporting facilities in designing cycle track network.

15. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 6 June 2008 and received five objections. One of these had been withdrawn after clarification of project details and Government policies on land clearance and resumption. Another two were withdrawn after the extent of land resumption had been reduced by modification of the layout of the cycle track. The remaining two objections remained unresolved even after we made modifications to the cycle track alignment and proposed improvements to an affected village access road. On 31 March 2009, the Chief Executive in Council overruled these two objections and authorised the road scheme with the modifications.

16. On 27 May 2008, we briefed the Legislative Council Panel on Development on the proposed implementation plan for developing a comprehensive cycle track network for the New Territories broadly comprising a backbone section and branching off sections. Members supported the proposal. We consulted the Legislative Council Panel on Development on the proposed works on 28 April 2009. Members supported the proposed works.

ENVIRONMENTAL IMPLICATIONS

17. The construction of the cycle track between Sheung Shui and Ma On Shan is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499) and an environmental permit is not required for the construction and operation of the proposed works.

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18. In November 2008, we completed an Environmental Review (ER) report for the proposed works which was accepted by the Director of Environmental Protection in February 2009. The ER indicates that, with implementation of the proposed mitigation measures for construction and operation phases, the proposed works will not cause adverse environmental impacts. We will incorporate into the works contract mitigation measures recommended in the ER report to control pollution arising from construction works to within established standards and guidelines. Furthermore, we will implement the EM&A programme recommended in the ER report. We have included \$2.9 million in the project estimate for implementing the environmental mitigation measures and EM&A programme.

19. We have considered the levels and layout of the proposed works and construction sequence in the planning and design stages to reduce the generation of construction waste where possible. In addition, we will require the contractor 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 disposal of inert construction waste to public fill reception facilities¹. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

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

21. We estimate that the project will generate in total about 58 060 tonnes of construction waste. Of these, we will reuse about 43 030 tonnes (74.1%) of inert construction waste on site and deliver 14 580 tonnes (25.1%) of inert construction waste to public fill reception facilities for subsequent reuse. In

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¹ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

addition, we will dispose of 450 tonnes (0.8%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$449,910 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne² at landfills).

HERITAGE IMPLICATIONS

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

LAND ACQUISITION

23. We will resume about 3 637 square metres (m²) of agricultural land involving 52 lots for the proposed works. The land resumption affects one household comprising 5 persons. We will clear 59 temporary structures from Government land and 79 temporary structures from resumed private land for the proposed works. The temporary structures include fence, gates, porch, storage, carport and some business undertakings. A number of Short Term Tenancies will need to be terminated with demolition of structures and site clearance works involved. The land acquisition and clearance costs are estimated to be about \$10.7 million and will be charged to **Head 701 – Land Acquisition**. A breakdown of the estimate for land resumption and clearance cost is at Enclosure 7.

BACKGROUND INFORMATION

24. We upgraded **259RS** to Category B in January 2006.

25. We engaged consultants to carry out investigation and detailed design for the proposed works in September 2006. We have charged the cost of about \$6.98 million to **Subhead 7100CX** “New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme”.

/26.

² 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/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

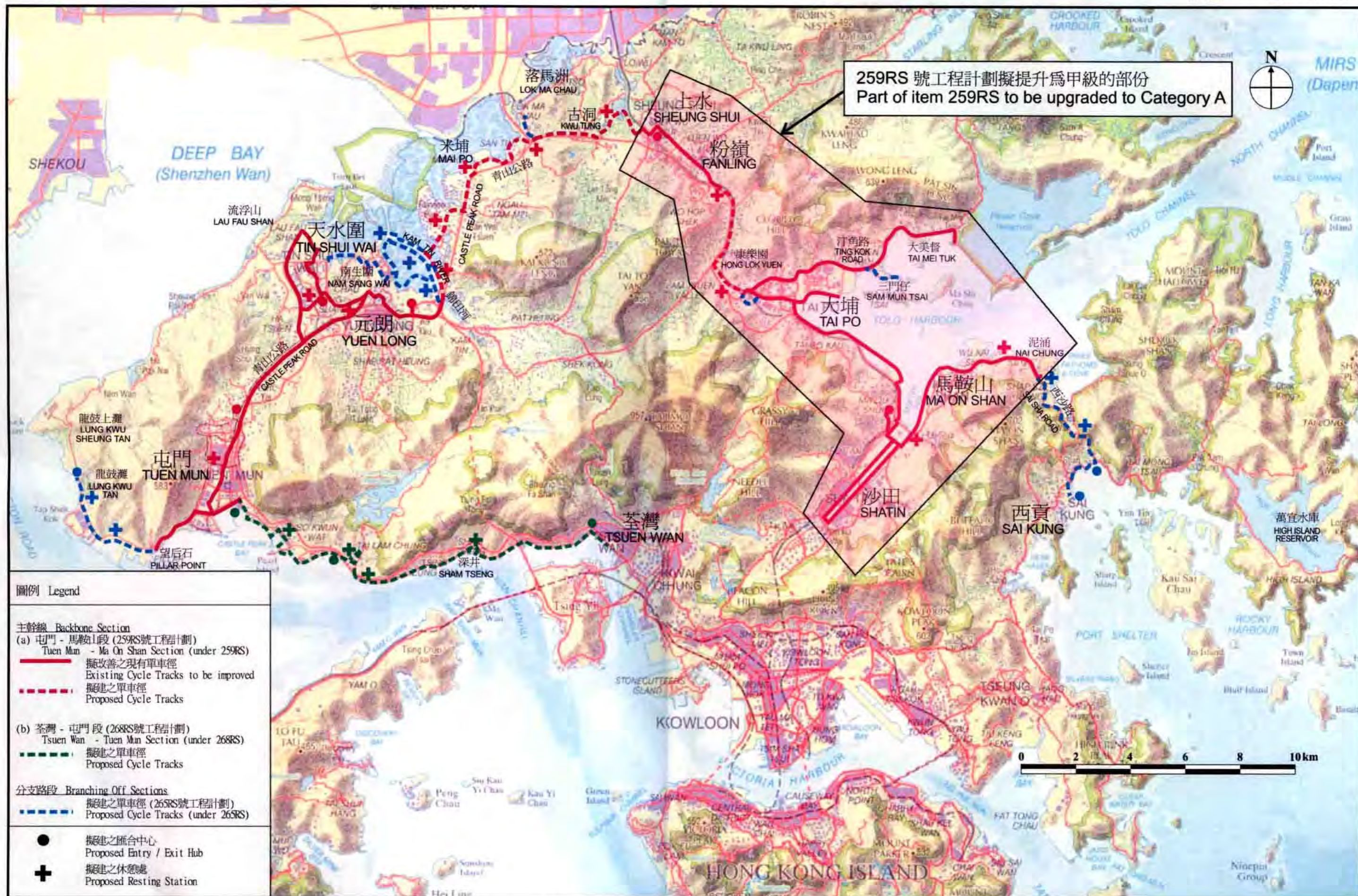
26. There are 430 trees within the project boundary. The proposed works will involve removal of 289 trees including 153 trees to be felled and 136 trees to be transplanted within the project site. All trees to be removed and transplanted are not important trees³. We will incorporate planting proposals as part of the project, including estimated quantity of 900 trees along the cycle track and inside the supporting facilities.

27. We estimate that the proposed works will create about 227 jobs (185 for labourers and another 42 for professional/technical staff), providing a total employment of 6 136 man-months.

Development Bureau
May 2009

³ “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance, e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of the overall tree sizes, shape and any special features), e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with a trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.



圖例 Legend

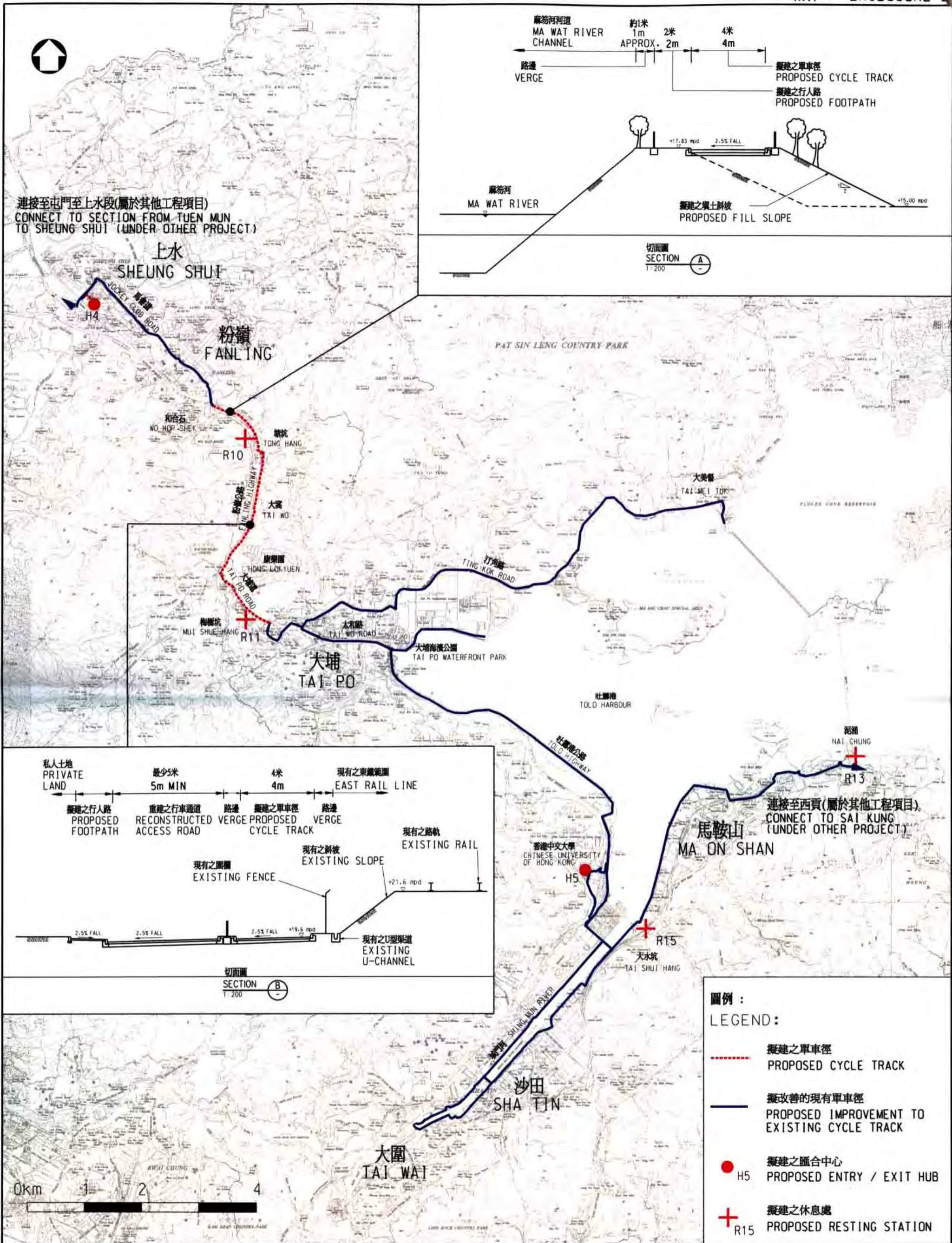
主幹線 Backbone Section
 (a) 屯門 - 馬鞍山段 (259RS號工程計劃)
 Tuen Mun - Ma On Shan Section (under 259RS)
 擬改善之現有單車徑 Existing Cycle Tracks to be improved
 擬建之單車徑 Proposed Cycle Tracks

(b) 荃灣 - 屯門段 (268RS號工程計劃)
 Tsuen Wan - Tuen Mun Section (under 268RS)
 擬建之單車徑 Proposed Cycle Tracks

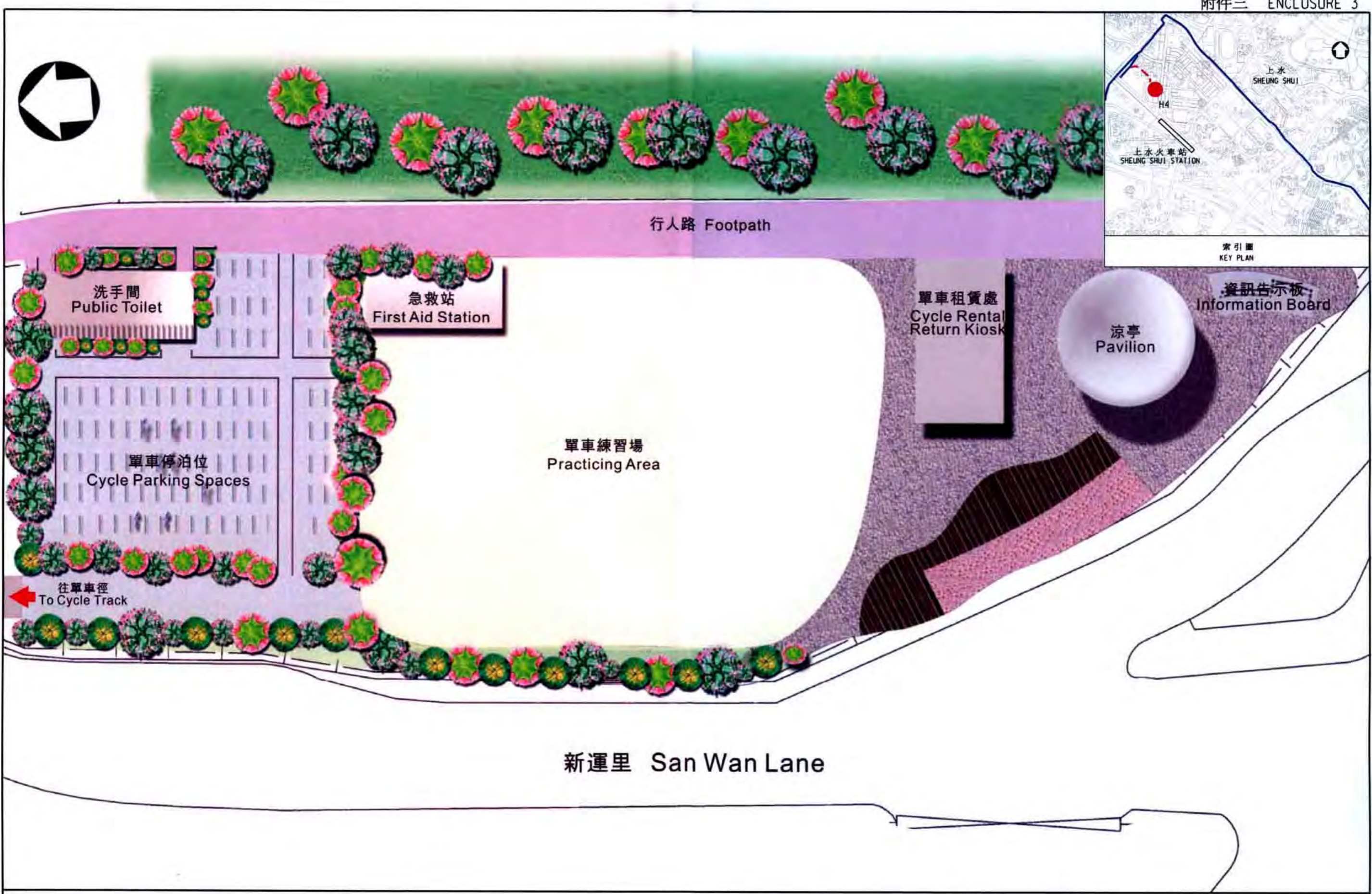
分支路段 Branching Off Sections
 擬建之單車徑 (265RS號工程計劃) Proposed Cycle Tracks (under 265RS)

● 擬建之匯合中心 Proposed Entry / Exit Hub
 + 擬建之休憩處 Proposed Resting Station

新界單車徑網絡
 NEW TERRITORIES CYCLE TRACK NETWORK



圖則名稱 drawing title
 連接新界西北及新界東北之單車徑 (上水至馬鞍山段) - 平面圖
 CYCLE TRACKS CONNECTING NORTH WEST NEW TERRITORIES WITH NORTH EAST NEW TERRITORIES (SECTION FROM SHEUNG SHUI TO MA ON SHAN) - LAYOUT PLAN



港鐵上水站附近的匯合中心

ENTRY/EXIT HUB NEAR MTR SHEUNG SHUI STATION



港鐵東鐵綫 MTR East Rail

港鐵大學站
University Station

洗手間
Public Toilet

急救站
First Aid Station

單車練習場
Practicing Area

單車停泊位
Cycle Parking Spaces

涼亭
Pavilion

單車租賃處

Cycle Rental
Return Kiosk

資訊告示板
Information Board

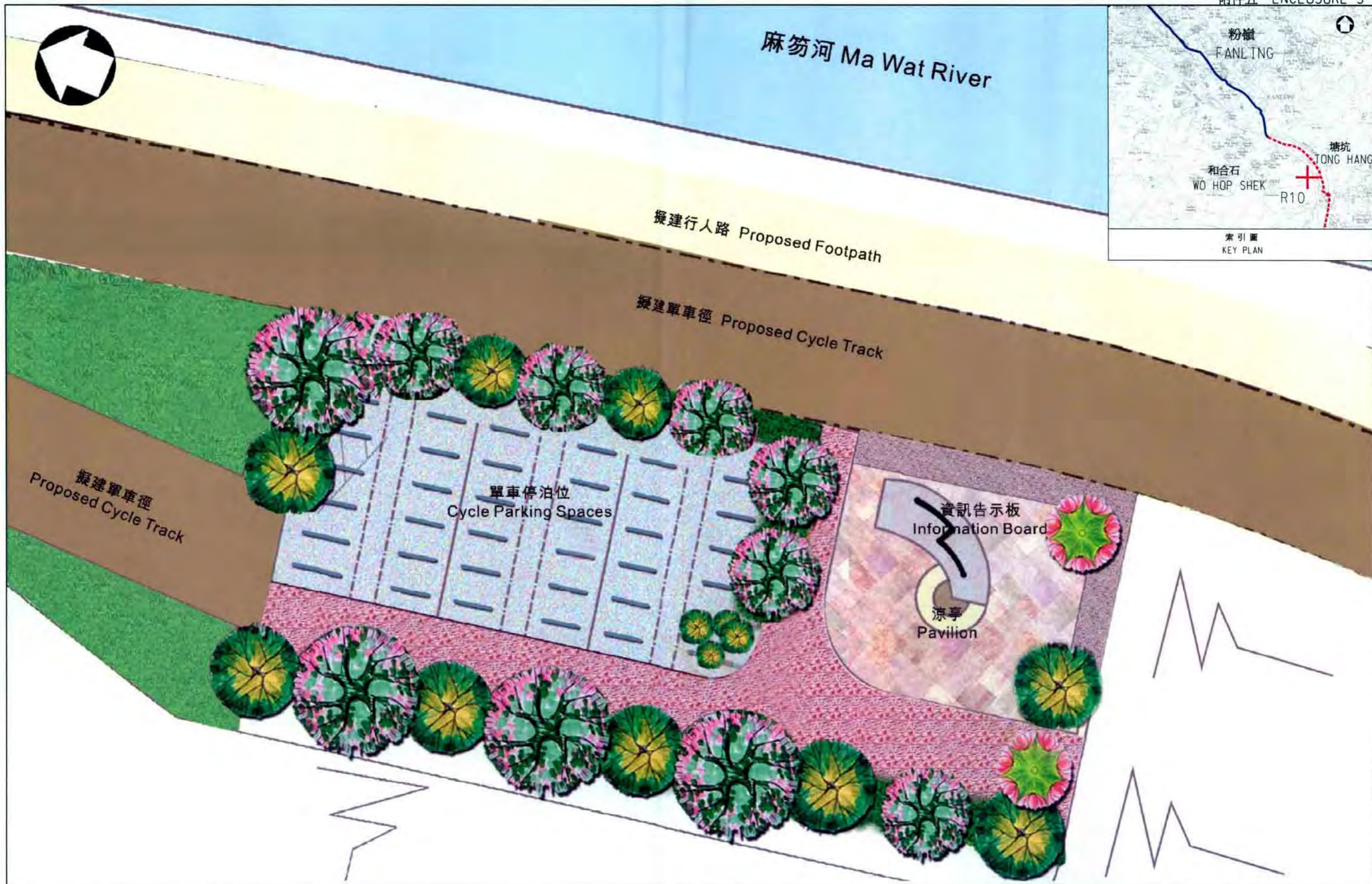
行人路
Footpath

單車徑
Cycle Track

澤祥街
Chak Cheung Street

港鐵大學站旁的匯合中心

ENTRY/EXIT HUB ADJACENT TO MTR UNIVERSITY STATION



位於粉嶺塘坑的休息處 RESTING STATION IN TONG HANG, FANLING

**259RS – Cycle Track Connecting North West New
Territories with North East New Territories**

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2008 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)
(a) Consultants' fees for contract administration (Note 2)	Professional	--	--	--	1.7
	Technical	--	--	--	1.0
				Sub-total	<hr/> 2.7
(b) Resident site staff costs (Note 3)	Professional	84	38	1.6	8.1
	Technical	288	14	1.6	9.1
				Sub-total	<hr/> 17.2
Comprising –					
(i) Consultants' fees for management of resident site staff					0.6
(ii) Remuneration of resident site staff					16.6
				Total	<hr/> 19.9

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 April 2008, MPS pt. 38 = \$60,535 per month and MPS pt. 14 = \$19,835 per month.)
2. The consultants' staff cost for the contract administration is calculated in accordance with the existing consultancy agreement. The cost will be only incurred upon Finance Committee's approval to upgrade the proposed works to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.

**259RS – Cycle Track Connecting North West New
Territories with North East New Territories**

Breakdown of land resumption and clearance costs

	\$ million	
Estimated land resumption cost		8.689
(a) “Zone A” Agricultural Land Ex-gratia Compensation (Including six lots of private land)	1.604	
3 385 square feet (sq. ft.) or 314.6 m ² @ \$474 per sq. ft. ^(note)		
(b) “Zone C” Agricultural Land Ex-gratia Compensation (Including 46 lots of private land)	7.063	
35 764 sq. ft. or 3 322.5 m ² @ \$197.5 per sq. ft. ^(note)		
(c) Interest payment on land compensations for private land	0.022	
Clearance cost		2.024
(a) Compensation for crops	1.552	
(b) Ex-gratia compensation for miscellaneous permanent improvements to farms	0.170	
(c) Clearance of structures	0.240	
(d) Ex-gratia compensation for Business Undertakings	0.012	
(e) “Tun Fu” ceremonial fees	0.050	
Total land resumption and clearance costs		10.713 say 10.7

Note:

The agricultural land to be resumed in the project is within Compensation Zone “A” and Zone “C”. The ex-gratia compensation rates for Zone “A” is 120% and Zone “C” is 50% of the Basic Rate for agricultural land respectively. The Basic Rate for agricultural land is \$395 per sq. ft. effective from 1 April 2009. Hence the ex-gratia compensation rate used for estimating the resumption cost of Zone “A” and Zone “C” are \$474 per sq. ft. and \$197.5 per sq. ft. respectively (i.e. 120% and 50% of \$395 per sq. ft.).