

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT
Civil Engineering – Land Development
332CL – West Kowloon Reclamation – main works (remainder)

Members are invited to recommend to the Finance
Committee -

- (a) the upgrading of part of **332CL**, entitled “West Kowloon Reclamation – main works (remainder) – footbridge at the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po”, to Category A at an estimated cost of \$331.9 million in money-of-the-day prices; and
- (b) the retention of the remainder of **332CL** in Category B.

PROBLEM

We need to construct a footbridge system to enhance the connectivity of new and existing developments, as well as road safety, in the vicinity of the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po.

/PROPOSAL

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade part of **332CL** to Category A, at an estimated cost of \$331.9 million in money-of-the-day (MOD) prices, for the construction of a footbridge system at the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po.

PROJECT SCOPE AND NATURE

3. The part of **332CL** which we propose to upgrade to Category A (the proposed works) comprises –

- (a) a covered four-span footbridge system at the junction of Sham Mong Road and Hing Wah Street West, with the length of each span ranging from about 45 metres (m) to 58 m (222 m in total) and the clear width of about 4 m;
- (b) seven lifts, four covered escalators and two covered staircases linking the proposed footbridge system with the existing and future adjacent developments;
- (c) associated road works and ancillary works, including footpaths, drainage, utilities, electrical and mechanical (E&M) and landscaping works; and
- (d) necessary environmental mitigation measures.

— A site plan with elevations and an artist's impression of the proposed works are at Enclosure 1.

4. Subject to funding approval of the Finance Committee (FC) of the Legislative Council, we plan to commence the proposed works in the third quarter of 2019 for substantial completion in the third quarter of 2023. To meet the programme, we plan to invite tenders in parallel to enable early commencement of the proposed works. The contract will only be awarded after obtaining FC's funding approval.

5. The remainder of **332CL** covers a remaining footbridge system at the junction of Sham Mong Road and Yen Chow Street West in Sham Shui Po. We plan to seek upgrading of the remainder of **332CL** upon completion of the necessary statutory procedures and design work.

/JUSTIFICATION

JUSTIFICATION

6. The proposed works will enhance the walking environment and connectivity of new and existing developments in the vicinity of the road junction of Sham Mong Road/Hing Wah Street West in Sham Shui Po including the MTR Nam Cheong Station and the public transport interchanges. On a wider geographical context, the proposed works, together with the footbridge system at the junction of Sham Mong Road and Tonkin Street West under construction¹ and another proposed footbridge system at the junction of Sham Mong Road and Yen Chow Street West referred to in paragraph 5 above, will form a continuous grade-separated pedestrian network, thereby providing a convenient, barrier-free and covered walking environment round-the-clock to serve the nine existing and future major housing developments nearby² covering a total population of about 72 000 in 2022 as well as 10 existing primary and secondary schools³ attended by about 9 000 students (please see Enclosure 2). The proposed works will also enhance road safety and improve junction capacity. The design capacity of the proposed footbridge system will be able to cope with the estimated peak two-way pedestrian flow of about 1 400 pedestrians per hour per span in 2031.

7. The proposed works will be equipped with a total of seven lifts, four covered escalators and two covered staircases for greater pedestrian convenience and way-out. There are strong demands for the early implementation of the proposed works from the local community and nearby schools so that a continuous grade-separated pedestrian network could be provided in a timely manner as major housing developments in the vicinity take place.

/FINANCIAL

¹ The FC approved in June 2016 the funding proposal for the construction of the footbridge system at the junction of Sham Mong Road and Tonkin Street West (see paragraph 27). Construction commenced in September 2016 for completion in the third quarter of 2019.

² The existing developments include Nam Cheong Estate, Fu Cheong Estate, Hoi Lai Estate and Aqua Marine. The future developments include housing developments at Fat Tseung Street West, North West Kowloon Reclamation Site 6, atop MTR Nam Cheong Station and at Lin Cheung Road Sites 3 and 5. These new developments are expected to be completed progressively in 2021/2022.

³ Including Tack Ching Girls' Secondary School, Tsung Tsin Christian Academy, S.K.H. St. Mary's Church Mok Hing Yiu College, S.K.H. St. Andrew's Primary School, Maryknoll Fathers' School (Primary Section), Laichikok Catholic Primary School, Sham Shui Po Government Primary School, Ying Wa College, Ying Wa Primary School and St. Margaret's Co-educational English Secondary and Primary School.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the proposed works to be \$331.9 million in MOD prices, broken down as follows -

		\$ million (in MOD prices)
(a)	Covered footbridge -	240.0
(i)	main spans and columns	162.0
(ii)	escalators and staircases	36.0
(iii)	lift towers and lifts	42.0
(b)	Associated road works and ancillary works	30.0
(c)	Environmental mitigation measures	4.0
(d)	Consultants' fees for	5.5
(i)	contract administration	2.7
(ii)	management of resident site staff (RSS)	2.8
(e)	Remuneration of RSS	21.9
(f)	Contingencies	30.5
Total		<u>331.9</u>

9. Due to insufficient in-house resources, we propose to engage consultants to undertake contract administration and site supervision of the proposed works. A breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 3.

10. Subject to funding approval, we plan to phase the expenditure as follows –

Year	\$ million (MOD)
2019 – 2020	19.0
2020 – 2021	59.7
2021 - 2022	86.4
2022 – 2023	71.1
2023 - 2024	39.3
2024 - 2025	25.2
2025 - 2026	20.9
2026 - 2027	10.3
	<hr/>
	331.9

11. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2019 to 2027. Subject to funding approval, we will deliver the works under a re-measurement contract because the quantities of works may vary depending on actual ground conditions. The contract will provide for price adjustment.

12. We estimate the annual recurrent expenditure arising from the proposed works to be about \$4.7 million.

PUBLIC CONSULTATION

13. On 7 June 2018, we consulted the Transport Affairs Committee under the Sham Shui Po District Council on the proposed footbridge systems. Members generally supported the proposed works.

14. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 30 November 2018 and no objection was received. The authorisation notice was gazetted on 29 March 2019.

/15.

15. On 19 March 2019, we consulted the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)⁴ on the aesthetic design of the proposed works. The Committee accepted the aesthetic design.

16. We consulted the Legislative Council Panel on Development on the proposed works on 30 April 2019. Members supported the proposed works.

ENVIRONMENTAL IMPLICATIONS

17. This is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The proposed works will not cause long-term adverse environmental impact. We have included in the project estimate the cost to implement suitable mitigation measures to control short-term environmental impacts.

18. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

19. At the planning and design stages, we have considered the alignment, design level and construction method of the proposed works 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 and rock fill) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁵. We will encourage the contractor 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.

/20.

⁴ ACABAS is responsible for vetting the design of bridges and other structures associated with the highway system, from the aesthetic and visual impact points of view. It comprises representatives of the Hong Kong Institute of Architects, Hong Kong Institute of Engineers, Hong Kong Institute of Planners, academic institutions, Architectural Services Department, Highways Department, Housing Department, and Civil Engineering and Development Department.

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

20. At the construction stage, we will 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 the 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

21. We estimate that the proposed works will generate in total about 18 270 tonnes of construction waste. Of these, we will reuse about 10 000 tonnes (55%) of inert construction waste on site and deliver about 8 000 tonnes (44%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining about 270 tonnes (1%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.6 million for this project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities, and \$200 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

22. 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.

TRAFFIC IMPLICATIONS

23. During the construction stage, the proposed works will not cause any significant traffic impact. Temporary traffic arrangements will be implemented to facilitate the construction works which require temporary road closure. We will display publicity boards on site giving details of the temporary traffic arrangements, and the anticipated completion dates of individual section of works. In addition, we will set up a telephone hotline to respond to public enquires or complaints. Upon completion of the proposed works and removal of the existing at-grade pedestrian crossings, traffic capacity of the road junction of Sham Mong Road and Hing Wah Street West will be improved.

LAND ACQUISITION

24. The proposed works do not require land acquisition.

BACKGROUND INFORMATION

25. We upgraded **332CL** to Category B in November 1989.

26. In June 1990, FC approved the upgrading of **354CL** “West Kowloon Reclamation – consultants’ fees and site investigation” to Category A with an approved project estimate of \$287 million. Since June 1990, we have already upgraded 16 separate parts of the project to Category A for engagement of consultants to conduct design and site investigation for the West Kowloon Reclamation project providing a total of 340 hectares of land along the West Kowloon waterfront and associated supporting infrastructure. We have completed the design and site investigation under **354CL** except the remaining footbridge system as mentioned in paragraph 5 above.

27. In June 2016, part of **332CL** entitled “West Kowloon Reclamation – main works (remainder) – footbridge at the junction of Sham Mong Road and Tonkin Street West in Sham Shui Po” was upgraded to Category A at an approved estimated cost of \$368.9 million. The construction works commenced in September 2016 and the works are on schedule for completion in the third quarter of 2019.

28. The proposed works will involve the removal of three trees. All trees to be removed are not important trees⁶. We will incorporate planting proposals as part of the project, including a total of three trees and about 6 600 shrubs.

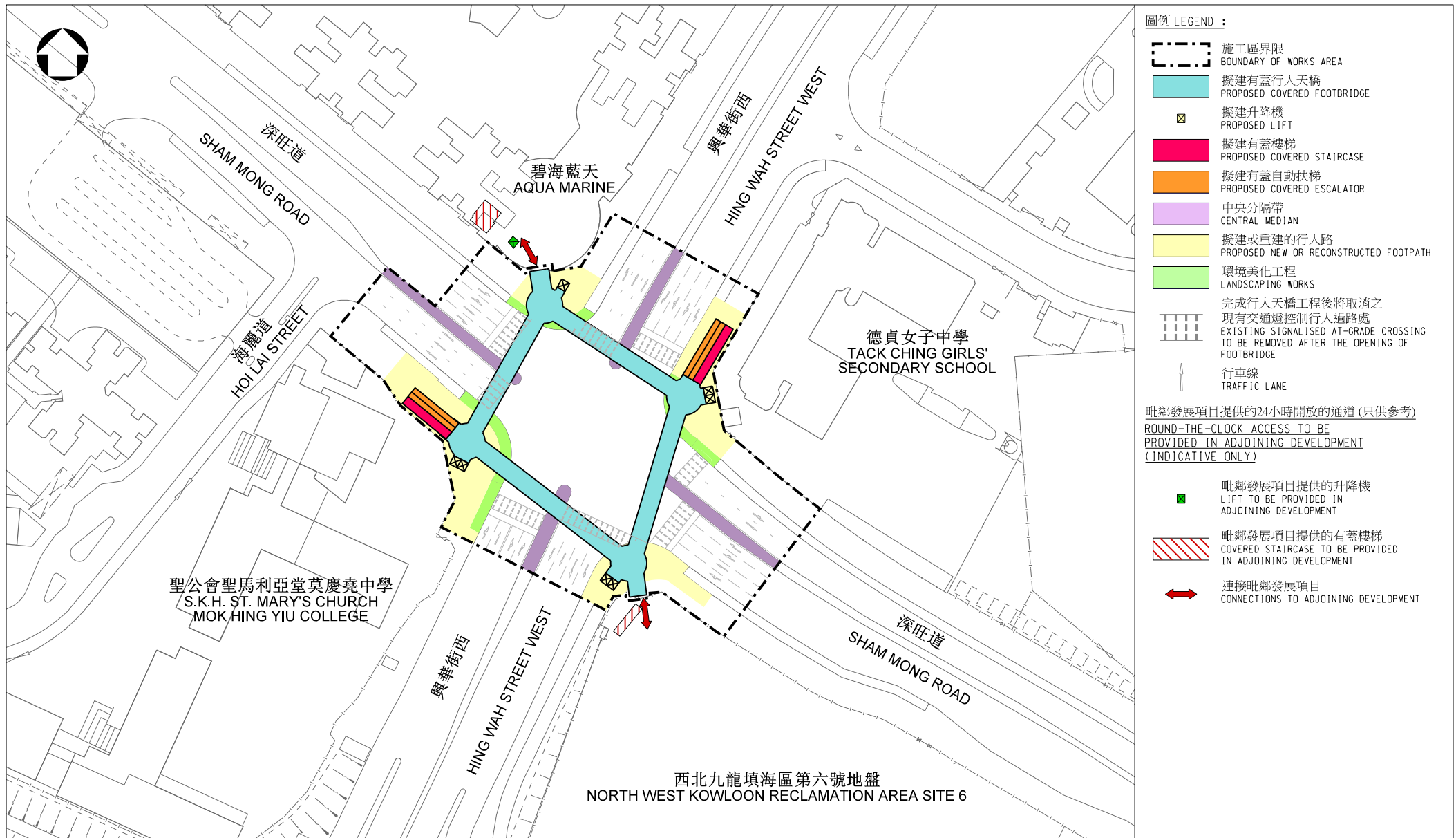
/29.

⁶ “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one of more of the following criteria –

- (a) trees of 100 years 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 important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree size, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height or canopy spread equal or exceeding 25 m.

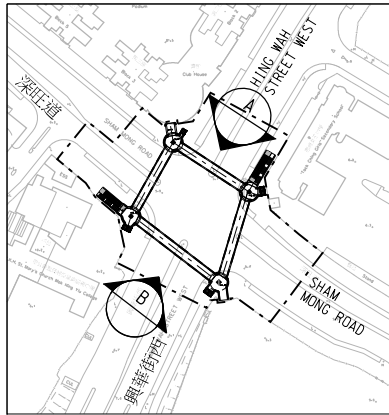
29. We estimate that the proposed works will create about 95 jobs (75 for labourers and another 20 for professional or technical staff) providing a total employment of about 3 900 man-months.

Development Bureau
June 2019

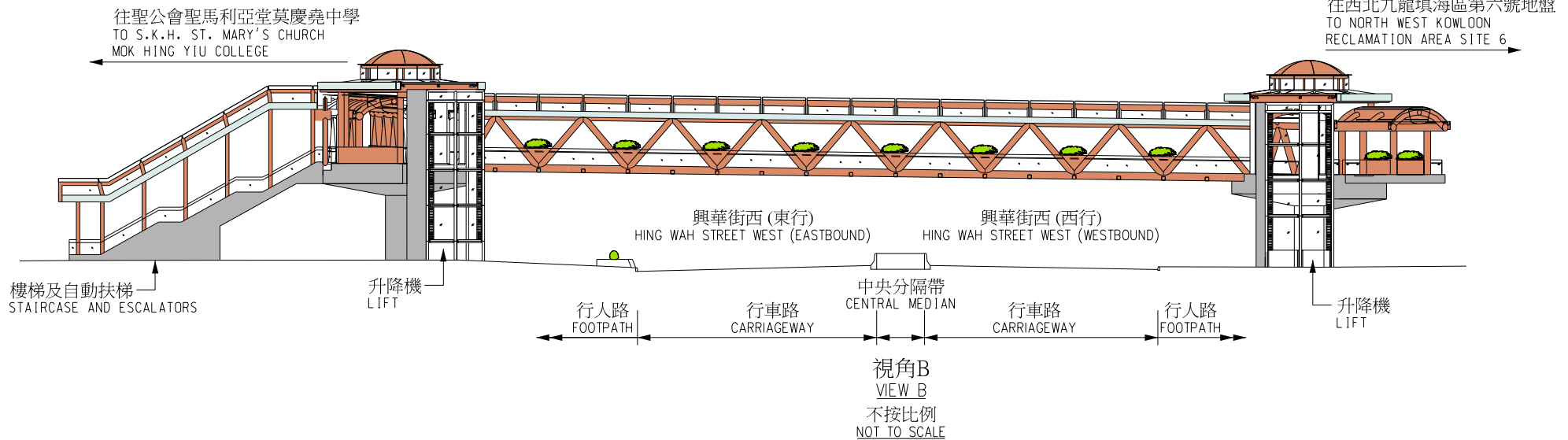
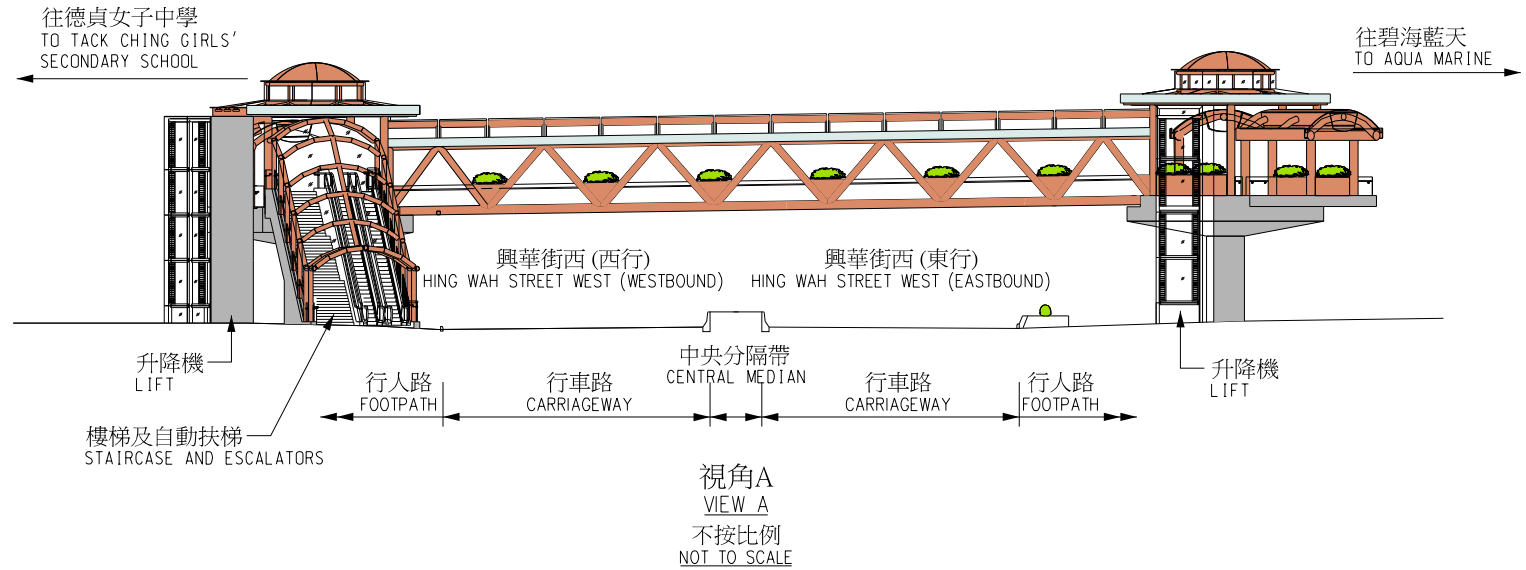


工務計劃項目第 332CL 號 (部分) 西九龍填海計劃 - 主要工程 (餘下部分) -
位於深水埗深旺道與興華街西交界處的行人天橋 - 平面圖

PWP ITEM NO. 332CL (PART) WEST KOWLOON RECLAMATION - MAIN WORKS (REMAINDER) -
FOOTBRIDGE AT THE JUNCTION OF SHAM MONG ROAD AND HING WAH STREET WEST IN SHAM SHUI PO - SITE PLAN



位置圖
LOCATION PLAN



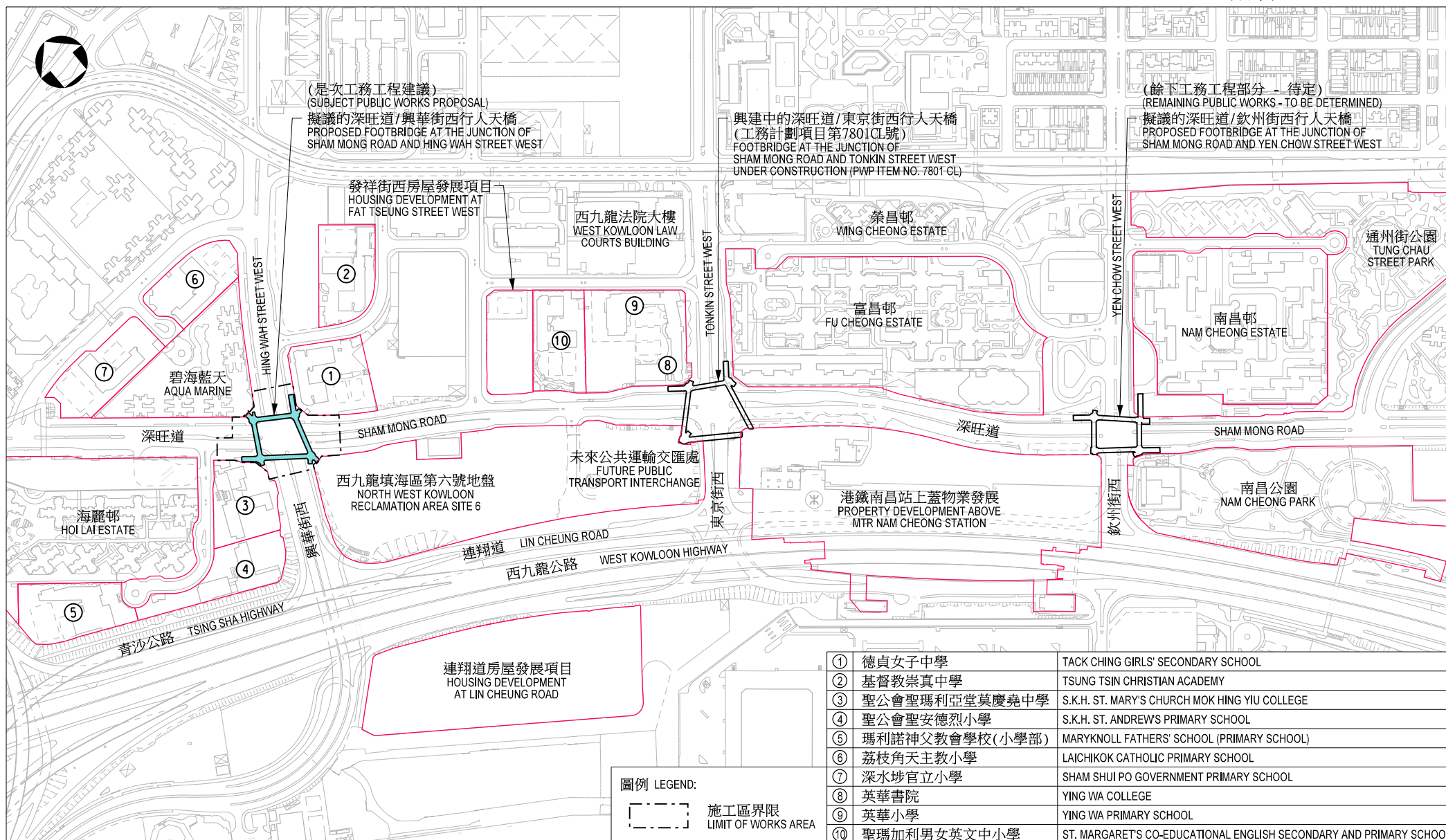
工務計劃項目第 332CL 號 (部分) 西九龍填海計劃 - 主要工程 (餘下部分) -
位於深水埗深旺道與興華街西交界處的行人天橋 - 立視圖

PWP ITEM NO. 332CL (PART) WEST KOWLOON RECLAMATION - MAIN WORKS (REMAINDER) -
FOOTBRIDGE AT THE JUNCTION OF SHAM MONG ROAD AND HING WAH STREET WEST IN SHAM SHUI PO - ELEVATION



工務計劃項目第 332CL 號 (部分) 西九龍填海計劃 - 主要工程 (餘下部分) -
位於深水埗深旺道與興華街西交界處的行人天橋 - 構想圖

PWP ITEM NO. 332CL (PART) WEST KOWLOON RECLAMATION - MAIN WORKS (REMAINDER) -
FOOTBRIDGE AT THE JUNCTION OF SHAM MONG ROAD AND HING WAH STREET WEST IN SHAM SHUI PO - ARTIST IMPRESSION



工務計劃項目第 332CL 號西九龍填海計劃 - 主要工程 (餘下部分) -
深旺道行人天橋

PWP ITEM NO. 332CL WEST KOWLOON RECLAMATION - MAIN WORKS (REMAINDER) -
FOOTBRIDGE SYSTEMS AT SHAM MONG ROAD

Enclosure 3 to PWSC(2019-20)16

332CL (part) – West Kowloon Reclamation – main works (remainder) – footbridge at the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2018 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for contract administration (Note 2)				
	Professional	–	–	–	1.6
	Technical	–	–	–	0.7
				Sub-total	2.3#
(b)	Resident site staff (RSS) costs (Note 3)				
	Professional	71	38	1.6	9.3
	Technical	245	14	1.6	11.3
				Sub-total	20.6
	Comprising –				
	(i) Consultants' fees for management of RSS				2.3#
	(ii) Remuneration of RSS				18.3#
				Total	22.9

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of RSS supplied by the consultants (as at now, MPS salary point 38 = \$81,975 per month and MPS salary point 14 = \$28,725 per month).
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **332CL**. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade part of **332CL** to Category A.
3. The actual man-months and fees will only be known after the completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 8 of the main paper.