For information

Legislative Council Panel on Transport

76TI – Bus-bus interchanges on Tuen Mun Road

- Enhancement of Proposal Following Deliberation of the Public Works Subcommittee of the Finance Committee on 16.12.2009

Purpose

The Public Works Subcommittee (PWSC) of the Finance Committee deliberated on the captioned proposal at its meeting on 16 December 2009, and Members made a number of suggestions and observations in respect of the project. Members requested the Administration to enhance the proposal before re-submission to the PWSC.

2. This paper sets out for the information of the Transport Panel the Administration's response to the suggestions and observations made at PWSC meeting, including measures to enhance the proposal in view of the PWSC discussion.

Aim of the project

3. The aim of the project, as set out in our paper submitted to the Panel on the proposal (copy at <u>Enclosure 1</u>), is the provision of a wider coverage of bus services to different parts of the territory for the community along Castle Peak Road (CPR) and Tuen Mun Road (TMR) by way of improvement in the efficiency of the bus network along CPR and TMR through the provision of bus-bus interchanges (BBIs). The BBIs will provide a convenient interchanging facility for bus passengers to switch

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among bus routes from/to North West New Territories operating via CPR and TMR, thus providing them with more choices of bus services at the BBIs, improving network efficiency and providing opportunity for bus rationalization.

4. The operation of the BBIs would necessarily involve review and reorganization of bus routes along CPR and TMR. For this, the Administration has commenced discussion with the concerned bus companies with a view to coming up with proposals for further discussion with the Tuen Mun District Council. The actual number of bus routes to be diverted to use the BBIs and the consequential re-organization of existing routes that could be achieved would be dependent on the outcome of such discussion. That said, whatever is the number of remaining bus routes operating along CPR and TMR, the Administration will make use of the interchanging arrangements at the BBIs to optimize passenger convenience and to reduce traffic congestion and road-side air pollution through better bus network efficiency.

5. In the route review and re-organization process, we will also encourage the bus companies to provide fare concessions to attract passengers to use the BBIs. We will report to Members on the outcome, when concluded.

Enhancement of facilities at the BBIs

6. One key message expressed by Members at the PWSC meeting is that we should enhance the service to be provided to passengers using the BBIs. In this regard, we have already undertaken at the PWSC meeting the following –

(a) seats will be provided at the sheltered areas of the BBIs, on the basis that the queuing of passengers would not be obstructed (a

location plan showing the proposed locations of the sitting benches is at **Enclosure 2**);

- (b) covers with more extensive coverage will be provided to allow maximum possible protection of passengers from inclement weather; and
- (c) to arrange for the provision of one fixed line telephone kiosk at each of the BBIs (locations denoted on the plan at <u>Enclosure 2</u>).

7. Subsequent to the PWSC meeting, we have also given further thoughts to the other suggestions made by Members at the meeting. We set out below our plan on how those suggestions are to be taken forward –

(a) <u>Provision of passenger drop-off / pick-up area</u>

The BBIs are currently designed for the sole use of bus passengers for interchanging buses running different routes along CPR and TMR. Hence, in the current design of the BBIs, space has not been provided for passenger taking other transport modes to drop-off / pick-up at the BBIs. That said. the Administration accepts that to better encourage public use of bus services at the BBIs, it would be desirable to facilitate passengers arriving by other modes of transports to make use of the bus services at the BBIs by allowing passengers drop-off / pick-up while the efficiency of the BBI operation should not be undermined because of such activities. But whether the BBIs would be overloaded with too many vehicle trips thus affecting their operation could be assessed only when further discussion with the local community and relevant bus companies on the number of bus routes going past the BBIs and the actual arrangements is completed (paragraph 4 above refers).

Notwithstanding the above, even if not all passengers drop-off / pick-up activities could be accommodated inside the BBIs due

to limited capacity, the Administration will strive to provide suitable locations in close vicinity of the BBIs to allow for passengers drop-off / pick-up. For the Tuen Mun-bound BBI, private cars may use the re-provisioned car parking spaces next to the BBI for drop-off and pick-up while the section of CPR just next to the BBI can also be used by all vehicle types for the purpose. For the Kowloon-bound BBI, the immediately adjacent section of CPR may also be used for drop-off and pick-up if needed. The above-mentioned locations (as denoted on the plans at <u>Enclosure 3</u>) are within reasonable walking distance from the respective BBI in question. Consultation with the Tuen Mun District Council on the arrangement would be carried out nearer the time.

(b) <u>Provision of bus and traffic information to passengers</u>

We confirm that three pairs of variable message signs (to be connected to such signs to be installed on both ways of Tuen Mun Road) will be provided at the two BBIs – one pair in Kowloon-bound direction and two pairs in Tuen Mun-bound direction (one pair on CPR and one pair on TMR) so that they can display traffic congestion messages in respect of both ways of TMR to waiting passengers at the two BBIs (locations as indicated on the plan at **Enclosure 2**). TD will also explore with the concerned bus companies further improvements to the mode of provision of bus route-related information for passengers (such as bus schedules, bus stops in the direction the bus is travelling and bus fares), currently provided vide multi-sided route information panels at bus stops, having regard to technical viability.

(c) Provision of small office or similar facilities to facilitate the operation of the BBIs by the bus companies concerned Depending on the operational needs, bus companies may erect kiosks for their staff at the major interchanges. At the currently proposed BBIs, we have reserved suitable sites for the kiosks. If required, we could arrange for the provision of basic facilities such as electricity and telephone line connection. Before the operation of the BBIs, TD will remind the bus companies to assess the need for erecting kiosks and assist the interested bus companies to seek the necessary approvals from the concerned government departments.

(d) <u>Provision of public toilets</u>

We will provide portable toilets upon the commissioning of the BBIs (see location on the plan at <u>Enclosure 2</u>). The need for permanent toilet facilities will be assessed on the basis of the patronage of the portable toilets. We have reserved suitable sites at the BBIs for the construction of permanent public toilets.

To address safety concerns arising from the dangerous goods warehouse in the vicinity of the proposed Kowloon-bound BBI

8. A dangerous goods warehouse is located near the proposed Kowloon-bound BBI. We have carefully assessed the potential safety risk of the warehouse prior to taking forward the proposal. The warehouse meets the safety requirements of the Fire Services Department and has obtained the required licence for its operation. In particular, it is fenced off by a cladding wall and its entrance is controlled and restricted to authorized vehicles and personnel only. Moreover, the dangerous goods stored inside the warehouse are placed in special units inside the premises with fire wall and protective doors to enhance safety. We are hence satisfied that the warehouse would not pose any additional risk to the passengers using, or staff of the bus companies stationing at, the BBIs.

9. Notwithstanding the above, we have drawn to the attention of the Fire Services Department the public's concern over the dangerous goods warehouse in the vicinity of the Kowloon-bound BBI. The department has confirmed that it has paid special attention to the warehouse concerned.

Way forward

10. We will re-submit a revised funding application for this project to the PWSC at its meeting 20 January 2010 for its reconsideration of our proposal to upgrade the project to Category A. Subject to funding approval, we plan to start the construction works in April 2010 for completion by April 2013.

Advice sought

11. Members are invited to note the contents of this paper.

Transport and Housing Bureau Highways Department Transport Department

December 2009

For information

Legislative Council Panel on Transport

76TI – Bus-bus interchanges on Tuen Mun Road

PURPOSE

This paper informs Members of our proposal to upgrade 76TI – Bus-bus interchanges on Tuen Mun Road (the Project) to Category A for the construction of two bus-bus interchanges (BBIs) on Tuen Mun Road (TMR) to improve the efficiency of the bus network for the community along Castle Peak Road (CPR) and TMR.

PROJECT SCOPE AND NATURE

- 2. The scope of **76TI** comprises
 - (a) construction of a BBI on TMR Kowloon bound near Siu Lam Interchange comprising mainly –
 - (i) a road of about 220 metres (m) long and 8.5m wide parallel to TMR;
 - (ii) a bus drop-off facility and a passenger holding area with floor area of about 1 040 square metres (m²) and 680 m² respectively;
 - (iii) modification of the signalised junction of CPR and the slip road from TMR Kowloon bound and the junction of CPR and an unnamed road;

- (iv) widening of the unnamed road of about 150 m long to a two-lane carriageway to connect to the bus drop-off area mentioned in paragraph 2(a)(ii) above;
- (v) realignment and widening of a section of CPR of about 300 m in length; and
- (vi) reprovisioning of the single-lane road between CPR and TMR Kowloon bound;
- (b) construction of a BBI on TMR Tuen Mun bound near Tai Lam Kok roundabout comprising mainly –
 - (i) a road about 280 m long and 8.5 m wide parallel to the TMR with a passenger holding area of about 560 m^2 in size;
 - (ii) a U-shaped road of a minimum width of 6 m at Tai Lam Kok roundabout together with a sheltered passenger holding area of about 250 m² in size;
 - (iii) construction of a link bridge of 2.5 m clear width and about 30 m long with two lifts to connect the two passenger holding areas mentioned in paragraphs 2(b)(i) and (b)(ii) above; and
 - (iv) widening of Brothers' Bridge by about 17 m to form part of the road mentioned in paragraph 2(b)(i);
- (c) associated works including road reconstruction, provision of shelters, drainage, landscaping, traffic aids and street lighting, and slope works; and
- (d) implementation of an environmental monitoring and audit (EM&A) programme for the works mentioned in paragraphs 2(a) to 2(c) above.

A plan showing the proposed works with cross sections is at **Enclosure 1**.

3. We have substantially completed the detailed design for the Project. We plan to commence construction works in April 2010 for completion in April 2013.

JUSTIFICATION

4. At present, there are 57 bus routes running along either CPR or TMR connecting Tuen Mun with other parts of Hong Kong. Residents of Tuen Mun, especially those living along CPR, have been repeatedly requesting for a long time a wider coverage of bus services to different parts of the territory. Instead of introducing additional bus routes, which will induce traffic increase and cause inefficient use of the existing bus network, we believe BBIs should be provided on TMR near Siu Lam to address the public's request. Indeed, during the consultation of the project on the "Reconstruction and Improvement of Tuen Mun Road" in November 2006, members of the Tuen Mun District Council (TMDC) also proposed to provide BBIs along the TMR to improve the efficiency of bus networks.

5. The Project will provide two BBIs, one on Kowloon bound and the other on Tuen Mun bound of TMR. The proposed BBIs aim at providing a convenient interchanging facility for passengers to switch amongst bus routes between CPR and TMR. This arrangement will not only provide the existing passengers with more choices of bus services at the BBIs, but also greatly enhance the overall efficiency of the bus network in the Northwest New Territories.

6. The widening of Brothers' Bridge will form part of the road to be constructed parallel to TMR (see paragraph 2(b) above) with a holding area allowing buses to drop off/pick up passengers at the holding area of the Tuen Mun bound BBI without affecting the existing traffic of TMR. There is a 7m level difference between the holding area of the Tuen Mun bound BBI at TMR and the holding area of the Tuen Mun bound BBI at Tai Lam Kok. The construction of the link bridge will allow passengers to travel on foot from the holding area at TMR to the holding area at Tai Lam Kok to switch buses. In this connection, two lifts will be constructed in connection with the link bridge above to provide access to people with disabilities.

FINANCIAL IMPLICATIONS

7. We estimate the cost of **76TI** to be \$162.3 million in money-of-the-day (MOD) prices, made up as follows –

\$	million
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(a)	Roads and drains	27.6
(b)	Earthworks and slopeworks	30.1
(c)	Bridge widening works	34.2
(d)	Passenger holding areas	19.2
(e)	Link bridge with two lifts	14.5
(f)	Landscaping	3.5
(g)	Consultant's fees(i)construction0.4supervision and contract administration-(ii)management of resident site staff0.1(iii)EM&A programme0.6	1.1
(h)	Remuneration of resident site staff	13.0
(i)	Contingencies	12.8
	Sub-total	156.0 (in September 2009 prices)

\$ million

(j)	Provision for price adjustmen	ıt	6.3	
		Total	162.3	(in MOD prices)

8. We estimate that the proposed works will create about 184 jobs (34 for professional/technical staff and 150 for labourers) providing a total employment of about 3 187 man-months.

PUBLIC CONSULTATION

9. During the consultation of the project on the "Reconstruction and Improvement of Tuen Mun Road" in November 2006, members of the TMDC also proposed to provide BBIs along the TMR to improve the efficiency of bus networks. We consulted the TMDC Traffic and Transport Committee on 14 March 2008 and 12 September 2008 on the conceptual plan and preliminary design of the Project respectively. Members were generally supportive of the proposed road scheme and hoped that the Administration would take it forward as soon as possible. On the other hand, some of the members were concerned about the longer travelling time due to bus interchange arrangements, and requested the Transport Department to carefully consider the routes and the fares of the interchange bus services.

10. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures¹ on the aesthetic design of the proposed extension of Brothers' Bridge, as well as footbridge and lifts under the Project in March 2009. The Committee accepted the proposed aesthetic design.

¹ The Advisory Committee on the Appearance of Bridges and Associated Structures (which comprises representatives of the Hong Kong Institute of Architects; the Hong Kong Institution of Engineers; the Hong Kong Institute of Planners; an academic institution; Architectural Services Department; Highways Department; Housing Department; and Civil Engineering and Development Department) is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and enclosures, from the aesthetic and visual impact points of view.

11. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (the Ordinance) on 16 January 2009 and received one objection. The details of the objection and the Administration's response are at **Enclosure 2**. No response was received from the objector after we provided our response to his second round of questions. The objection is thus considered unresolved.

12. Having considered the unresolved objection, the Chief Executive-in-Council authorised the proposed works under the Ordinance on 3 November 2009. The authorization notice was gazetted on 20 November 2009.

ENVIRONMENTAL IMPLICATIONS

13. The Project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have nevertheless carried out an environmental review covering noise, air and water quality impacts during construction as well as landscape, visual and waste management issues. The review concluded that the Project would not cause long-term environmental impacts. We will implement all the recommended mitigation measures to mitigate environmental impacts to within the established standards and guidelines.

14. In particular, during construction, we will control noise, dust and site run-off nuisance to comply with established criteria through the implementation of appropriate mitigation measures in the works contract. We will implement an EM&A programme during the course of construction to ensure that suitable measures are adopted to avoid the occurrence of adverse environmental impacts on the public.

15. We will require the contractor to reuse inert construction waste (e.g. excavated rock and soil materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of construction waste to public fill reception facilities². We will encourage the contractor to maximise the use of recycled or recyclable inert construction

² 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.

waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

16. 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 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 to public fill reception facilities and landfills respectively through a trip-ticket system.

17. We estimate that the Project will generate in total about 59 120 tonnes of construction waste. Of these, we will reuse about 30 000 tonnes (50.8%) of inert construction waste on site and deliver 28 220 tonnes (47.7%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 900 tonnes (1.5%) 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 about \$0.9 million for this Project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne³ at landfills).

HERITAGE IMPLICATIONS

18. 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.

³ This estimate has taken into account the cost of 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.

LAND ACQUISITION

19. The proposed works do not require any land acquisition.

TREE PROPOSAL

20. Of the 250 trees within the project boundary, 56 trees will be preserved while 194 trees will be removed (including 190 to be felled and four to be transplanted within the project site). None of the trees to be removed are important trees⁴. We will incorporate planting proposals as part of the Project, including an estimation of about 3 630 trees, 15 400 shrubs and 3 370 square metres of grassed area.

WAY FORWARD

21. We intend to submit a funding application to the Public Works Sub-committee and Finance Committee of the Legislative Council on 16 December 2009 and 8 January 2010 respectively to upgrade the Project to Category A. Subject to funding approval, we plan to start the construction works in April 2010 for completion by April 2013.

ADVICE SOUGHT

22. Members are invited to note the contents of this paper.

Transport and Housing Bureau November 2009

[&]quot;Important trees" refer 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;

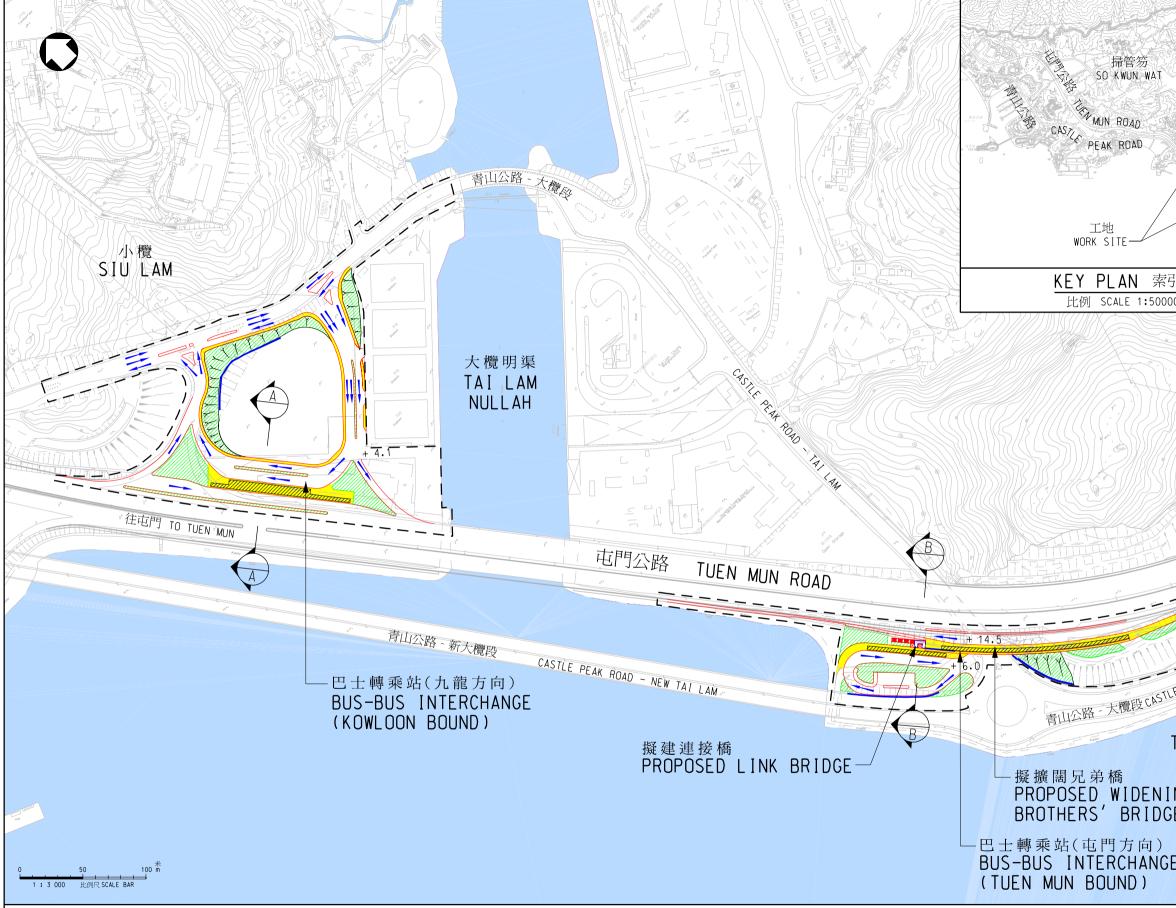
⁽b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument and trees in memory of important persons or events;

⁽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 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.

附件一(兩張中的

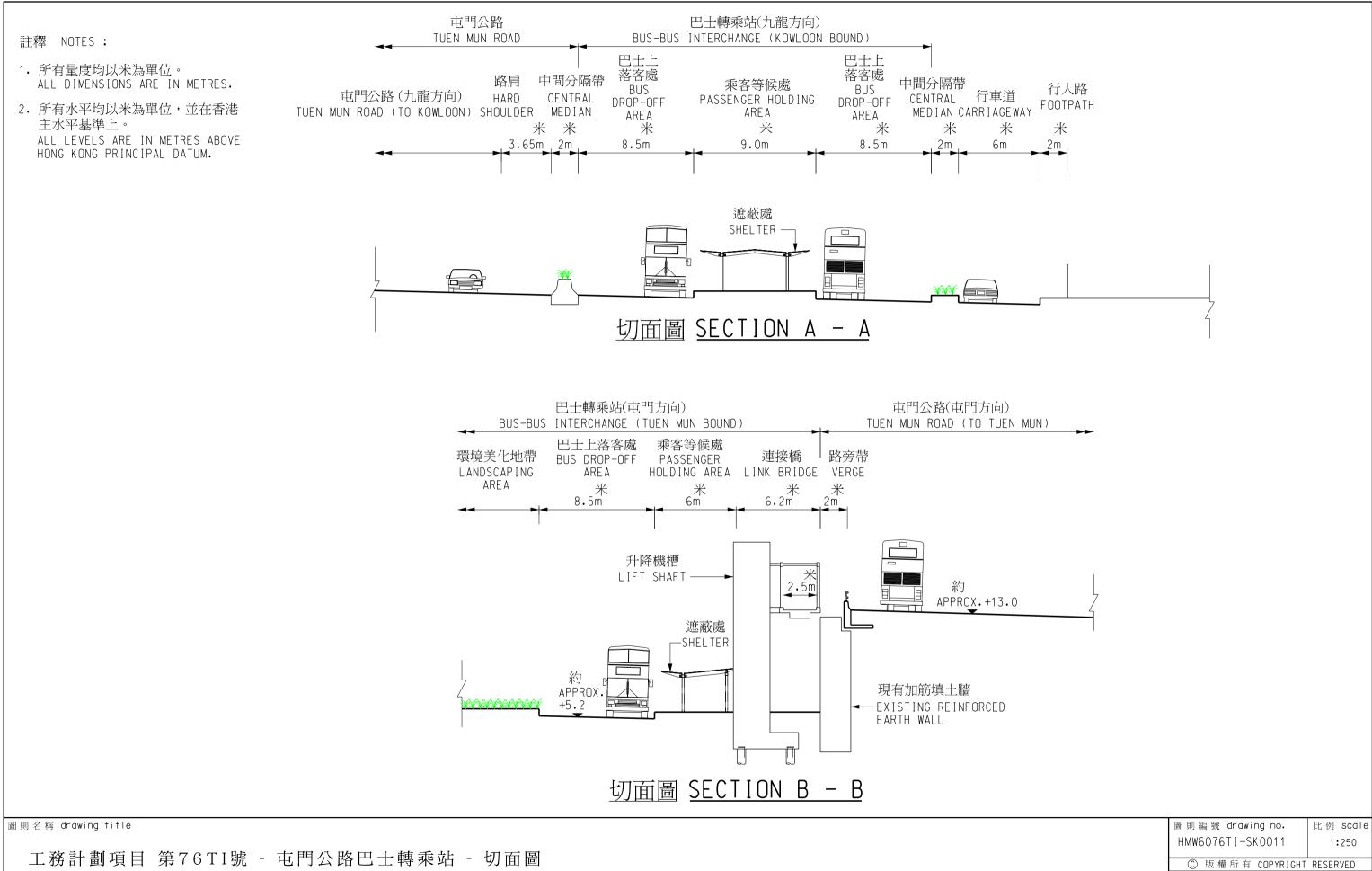


圖則名稱 drawing title

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 平面圖 PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - LAYOUT PLAN

注釋: NOTES: 1.所有水平均以米為單位,並在香港 主水平基準上。 ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM.	
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附件一(兩張中的第二張) ENCLOSURE 1 (SHEET 2 OF 2)



PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - SECTIONS

圖則編號 drawing no.	比例 scale
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HIGHWAYS DEPARTME HONG KON	NT 政 _選

Enclosure 2

Objection under the Roads (Works, Use and Compensation) Ordinance in respect of 76TI – Bus-bus interchanges on Tuen Mun Road

The objector is a resident of Tuen Mun and objected to the locations of the proposed BBIs. The objector considered that the proposed Tuen Mun bound BBI would affect the road safety and the public's leisure use of the waterfront at Tai Lam Kok. The objector counter-suggested that the proposed Tuen Mun bound BBI be located on the western side of the entry to Tai Lam nullah by reclamation of land.

2. The objector also objected to the location of the proposed Kowloon bound BBI which would be located near a dangerous goods warehouse. In addition to his concern over traffic safety, the objector considered that the proposed works would adversely affect the warehouse and create potential environmental impact. He suggested that the Government should review the land use of the warehouse.

3. We responded to the objector that the design of the proposed BBIs would comply with the current road standards to ensure smooth traffic circulation and road safety. The objector's counter-suggestion for the location of the proposed Tuen Mun bound BBI was not recommended due to its considerable engineering and environmental impacts. In particular, the reclamation works suggested by the objector would likely cause adverse impacts on the marine ecology.

4. For the proposed Kowloon bound BBI, we explained to the objector that the concerned dangerous goods warehouse was fenced off by cladding wall and its entrance are controlled and restricted to authorized vehicles and personnel only. The warehouse would not create additional risk to the Kowloon bound BBI. Notwithstanding the above, and that the objector's request for reviewing the land use of the warehouse would be outside the scope of the proposed works, HyD has referred the case to concerned departments for future consideration.

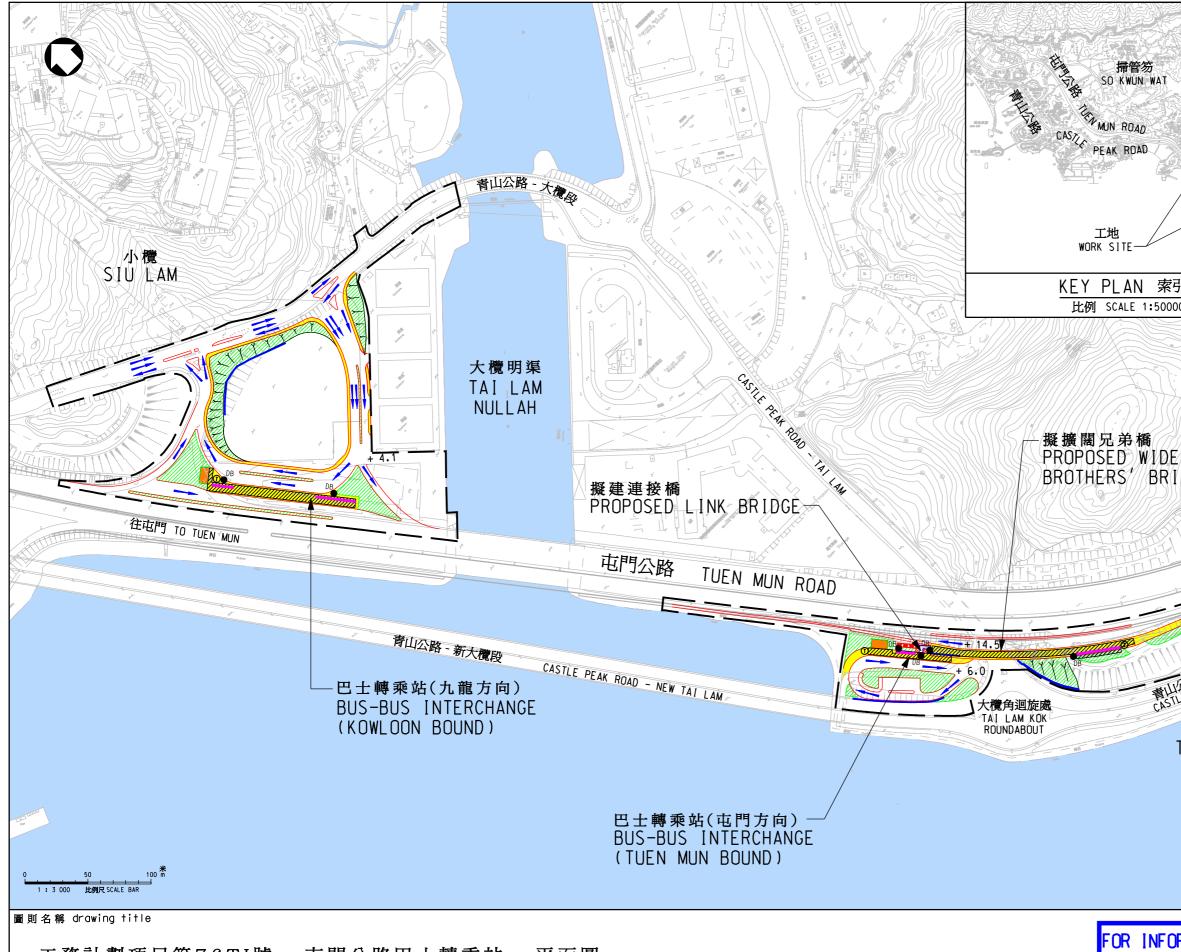
5. The objector subsequently expressed further concern on a weather radar station on a hill top near the proposed Tuen Mun bound BBI. He considered that the microwave to be emitted by the radar might impose health hazard on the passengers using BBI.

6. After consultation with the Hong Kong Observatory, it was confirmed that the proposed radar would only emit microwave in a horizontal or an upward direction. The radar would also be equipped with mechanical stops to prevent it from scanning downward. Hence, the microwave emission would not affect the health of the passengers using the proposed Tuen Mun bound BBI.

7. Despite our explanation, the objector maintained his objection and expressed further concern over the location of the proposed Kowloon bound BBI as a high-pressure gas main would be in its vicinity.

8. We explained to the objector that as advised by the gas company, the high-pressure gas main, which is connected to the gas main leading to the marine police station at Siu Lam, lies on the bed of the Tai Lam nullah. The gas main runs underneath water surface of the nullah and will not impose additional risk to the surrounding structures.

9. No further response was received from the objector to our further reply. The objection is, thus, considered unwithdrawn.



工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 平面圖 PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - LAYOUT PLAN

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