

**Legislative Council Panel on Housing**

**PWP Item No. 653TH – Road Improvement Works  
in association with the Proposed Re-alignment of  
Ngau Tau Kok Fourth Street and Fifth Street and  
Construction of nearby Footbridge Links**

**Purpose**

This paper seeks Members' support for the Administration's proposal to upgrade PWP Item No. 653TH (653TH) to Category A for the proposed re-alignment of existing Ngau Tau Kok (NTK) Fourth Street and Fifth Street and construction of two nearby footbridge links.

**Project Scope**

2. The scope of works under 653TH comprises –
  - (a) re-alignment of NTK Fourth Street and Fifth Street with construction of new carriageway of about 160 metres (m) long between NTK Road and Kwun Tong Road and the associated footpaths, roundabout, run in/run out, taxi stand, public light bus and bus lay-bys and refuge islands;
  - (b) widening of a section of both NTK Road and Kwun Tong Road at junctions with the re-aligned NTK Fourth Street and Fifth Street;
  - (c) permanent closure of existing NTK Fourth Street and Fifth Street of about 230 m long upon completion and opening of the re-aligned road mentioned in (a) above;
  - (d) construction of a footbridge link about 10 m long and 6 m wide connecting the existing footbridge leading to NTK Municipal Services Building with the proposed elevated walkway to be implemented under the housing development project at Lower Ngau Tau Kok (LNTK) Estate (footbridge link FB1);
  - (e) construction of a covered footbridge link about 80 m long and 4m wide connecting the existing footbridge leading to Kowloon Bay MTR Station with the proposed elevated walkway to be implemented under the housing development project at LNTK Estate (footbridge link FB2);

- (f) demolition of an existing footbridge staircase and provision of a new staircase connecting footbridge link FB2 with the future district open space (DOS) at LNTK; and
- (g) ancillary works including drainage, sewerage, water, landscaping and electrical and mechanical (E&M) works.

A site plan showing the proposed works is at **Annex 1**. Perspective diagrams of the proposed footbridge links FB1 and FB2 are at **Annex 2** and **Annex 3** respectively.

3. We plan to commence the works in June 2009 for completion of the re-aligned road (including closure of existing roads) and the footbridge links by October 2011 and March 2012 respectively.

### **Justifications**

4. The existing LNTK Estate will be redeveloped for provision of public rental housing, a Cross District Cultural Centre (CDCC) and a DOS. The Kwun Tong District Council (KTDC) has been consulted and supported the proposed redevelopment.

5. To make land available for implementation of the CDCC for providing more cultural and recreational facilities serving the population of Kwun Tong and the adjacent districts and to maintain/facilitate the existing traffic/transport operations, the existing NTK Fourth Street and Fifth Street have to be re-aligned. Adequate transport facilities including taxi-stand, public light bus and bus lay-bys will be provided at the re-aligned road.

6. Other than the transport facilities, it is essential to put in place an elevated pedestrian passageway with linkages between the Kowloon Bay MTR Station, NTK Municipal Services Building, Upper NTK Estate, LNTK Estate (under redevelopment) and proposed LNTK DOS. To better serve the local residents with this provision, it is necessary to construct two footbridge links connecting the existing footbridges across NTK Road (footbridge link FB1) and Kwun Tong Road (footbridge link FB2) with the future elevated walkways within the LNTK public rental housing estate upon redevelopment.

7. The sites for the re-aligned road and a substantial part of footbridge link FB2 are currently occupied by the building blocks of LNTK (II) Estate, demolition of which is scheduled by Hong Kong Housing Authority (HA) for completion by end 2010. As the new re-aligned road and closure of existing NTK Fourth Street and Fifth Street have to be completed in October 2011 for

handing over a cleared site to Architectural Services Department for the CDCC construction, the proposed road works need to be implemented under a fast-track programme. Besides, implementation of the two footbridge links has to tie in with the adjoining LNTK Phase 1 public rental housing development, which is scheduled for completion by March 2012.

8. Taking into account the above tight implementation programme, it is considered necessary from both administrative and programming points of view to entrust the design and construction of the project to HA for implementation by the Housing Department. This arrangement will ensure better co-ordination of the works and the adjoining public rental housing development and secure timely completion of the project through incorporation of the works in HA's demolition/building contracts.

### Financial Implications

9. We estimate the capital cost of the project to be \$130.110 million in September 2008 prices, made up of the following –

	<u>\$ million</u>	<u>\$ million</u>
(a) Roadworks		15.204
(b) Footbridge link FB1		6.022
(i) civil works	5.540	
(ii) E&M works	0.482	
(c) Footbridge link FB2		69.066
(i) civil works	65.944	
(ii) E&M works	3.122	
(d) Drainage, sewerage and waterworks		14.374
(e) Landscaping works		0.474
(f) On-cost payable to HA <sup>1</sup>		14.456
(g) Contingencies		10.514
<b>Total</b>		<b>130.110</b> (in September 2008 prices)

### Public Consultation

10. We consulted the Traffic and Transport Committee (T&TC) of the KTDC on the proposed re-alignment of NTK Fourth Street and Fifth Street and construction of footbridge links FB1 and FB2 on 23 January 2008. Members had no objection to the proposed works.

<sup>1</sup> We will pay on-costs to the HA for the entrusted works at 12.5% of the estimated construction cost.

11. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (Roads Ordinance) on 25 April 2008 and received no objection. The Permanent Secretary for Transport and Housing (Transport) (PS(T)), under delegated authority from the Secretary for Transport and Housing, authorised the proposed works under the Roads Ordinance on 10 July 2008 and the notice of authorisation was gazetted on 18 July 2008.

12. With an objective to further improve the pedestrian flows at connection with Kowloon Bay MTR Station, we further consulted the T&TC of KTDC on the proposed amendments to the layout of footbridge link FB2 on 29 July 2008. Members had no objection to the proposed amendments, but with a condition requiring the Administration to construct a covered walkway within the future DOS site at LNTK.

13. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)<sup>2</sup> on the aesthetic design of footbridge links on 19 August 2008. The ACABAS accepted the proposed aesthetic design.

14. We gazetted the proposed amendments to the layout of footbridge link FB2 under Section 7 of the Roads Ordinance on 17 October 2008. As the proposed amendments serve to improve the layout of footbridge link FB2 which have been discussed at and agreed by the KTDC, authorisation of these amendments from PS(T) in end December 2008 is expected.

## **Environmental Implications**

15. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). It is unlikely to give rise to adverse environmental impact. We undertake to implement the standard pollution control measures during construction, as promulgated by the Director of Environmental Protection.

16. We have included in the project estimate for implementing suitable mitigation measures to control short-term environmental impact during construction. HA will specify in the relevant contract the requirement for the contractor to implement mitigation measures to control noise, dust, and site run-off nuisances during construction within the level specified under the

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<sup>2</sup> The ACABAS, which comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institute of Engineers, an academic institution, Architectural Services Department, Highways Department, Housing Department, Planning Department and Civil Engineering and Development Department, is responsible for vetting the design of bridges and other structures associated with the public highway system from the aesthetic and visual impact points of view.

established standards and guidelines. 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.

17. We have optimised the design of the levels and layout of the re-aligned road and minimised the number of footbridge columns 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, to minimise the disposal of inert construction waste to public fill reception facilities<sup>3</sup>. 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.

18. 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.

19. We estimate that the project will generate in total about 5 690 tonnes of construction waste. Of these, we will reuse about 40 tonnes (0.7%) of inert construction waste on site and deliver about 5 600 tonnes (98.4%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of about 50 tonnes (0.9%) 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 \$157,450 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne at landfills<sup>4</sup>).

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<sup>3</sup> 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.

<sup>4</sup> 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/m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

20. Of the 132 trees within the project boundary, 27 trees will be preserved. The proposed project will involve the removal of 105 trees including 36 trees to be felled and 69 trees to be transplanted outside the project site. All the trees to be removed are not important trees<sup>5</sup>. We will incorporate planting proposal as part of the project, including provision of approximately 30 m<sup>2</sup> of planters on footbridge links FB1 and FB2.

### **Heritage Implications**

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

### **Land Acquisition**

22. The project does not require any land acquisition.

### **Way Forward**

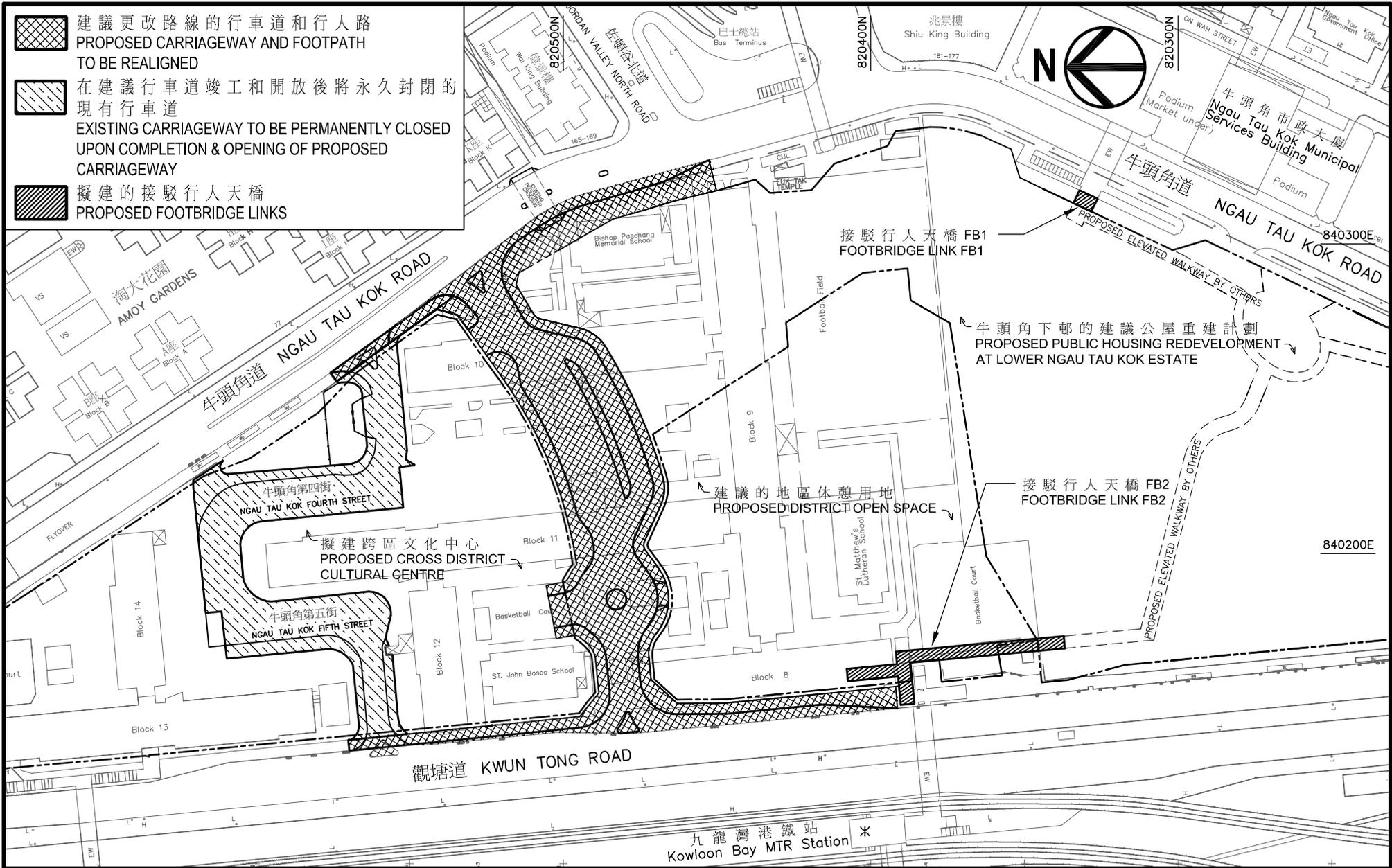
23. In September 2008, we upgraded 653TH to Category B which covers the re-alignment of NTK Fourth Street and Fifth Street and construction of footbridge links FB1 and FB2. Subject to Members' support, we will seek funding approval from the Public Works Sub-Committee and Finance Committee of the Legislative Council in January 2009 and February 2009 respectively for upgrading 653TH to Category A, so that the construction can commence in June 2009 for completion of the re-aligned road and the footbridge links by October 2011 and March 2012 respectively.

## **Transport and Housing Bureau October 2008**

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<sup>5</sup> "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 the memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of 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 trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.



圖則名稱：  
DRAWING TITLE：  
建議更改牛頭角第四街及第五街道路路線和建造接駁行人天橋 - 平面圖  
PROPOSED RE-ALIGNMENT OF NGAU TAU KOK FOURTH STREET AND FIFTH STREET AND  
CONSTRUCTION OF FOOTBRIDGE LINKS - SITE PLAN

工程計劃編號：  
PWP NO.：  
**653TH**

 房屋署  
HOUSING  
DEPARTMENT



現有行人天橋  
EXISTING FOOTBRIDGE

FOOTBRIDGE LINK FB1  
FAIRFACED CONCRETE  
WITH FLUTE PATTERN  
TO MATCH EXISTING  
FOOTBRIDGE  
接駁行人天橋FB1  
採用直紋原身混凝土設計  
以配合現有行人天橋

行人路  
PEDESTRIAN FOOTPATH

工務計劃編號 PWP No. 653TH

圖則編號 DRG NO  
KL49/1/FB/A/FB-B-SV/P01

圖則名稱 DRAWING TITLE  
FOOTBRIDGE LINK FB1 - STREET VIEW  
接駁行人天橋FB1-街景

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CHAU KU & LEUNG ARCHITECTS & ENGINEERS LTD.  
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AutoCAD 2000 A3 420 x 297  
CAD Ref: KL49\_1\_site\_a\_FB.dwg  
房屋署 HOUSING DEPARTMENT

現有港鐵接駁行人天橋和升降機  
EXISTING MTRC PEDESTRIAN LINK BRIDGE AND LIFT

地區休憩用地  
DOS

牛頭角下邨第1和2期  
LOWER NGAU TAU  
KOK ESTATE PHASES I AND II

GMS  
WITH PAINT FINISH (LIGHT BLUE)  
TO MATCH EXISTING COLOR  
鍍鋅軟鋼  
塗料飾面(淺藍色)以配合現有行人天橋

GMS MAIN STEEL TRUSS  
WITH PAINT FINISH (LIGHT GRAY)  
鍍鋅軟鋼桁架  
塗料飾面(淺灰色)

現有渠務署泵房  
DSD PUMP ROOM

NEW STAIRS TO MTRC  
PEDESTRIAN LINK BRIDGE  
往港鐵接駁行人天橋的  
新建樓梯

接駁行人天橋FB2  
FOOTBRIDGE LINK FB2

工務計劃編號 PWP No. 653TH

圖則編號 DRG NO  
KL49/1/SITE/A/FB-C-SV/P00

圖則名稱 DRAWING TITLE

FOOTBRIDGE LINK FB2 - STREET VIEW FROM KWUN TONG ROAD  
接駁行人天橋FB2-從觀塘道所見的街景

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AutoCAD 2000 A3 420 x 297  
CAD Ref: KL49\_1\_site\_a\_FB.dwg  
房屋署  
HOUSING DEPARTMENT