

For information on
22 January 2010

LegCo Panel on Home Affairs and Panel on Development
Joint Subcommittee to Monitor the Implementation of
the West Kowloon Cultural District Project

**The Impact of the West Kowloon Terminus of the
Guangzhou-Shenzhen-Hong Kong Express Rail Link
on the West Kowloon Cultural District**

Purpose

This paper aims to brief Members on the impact of the West Kowloon Terminus (WKT) of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) on the West Kowloon Cultural District (WKCD).

The Guangzhou-Shenzhen-Hong Kong Express Rail Link

2. The XRL is an express rail, which will link up Hong Kong, Shenzhen and Guangzhou. It will shorten the journey time between Hong Kong and Guangzhou significantly from about 100 minutes to 48 minutes. The railway scheme of the Hong Kong section of the XRL (including the proposed land and strata to be resumed) was gazetted on 28 November and 5 December 2008; and the amendments to the scheme were gazetted on 30 April and 8 May 2009. The Chief Executive-in-Council has authorised the Hong Kong section of the XRL scheme, and the notices of authorisation were gazetted on 30 October and 6 November 2009. The Finance Committee of the Legislative Council has approved the funding on 16 January 2010, and the construction of the Hong Kong section of the XRL is expected to complete in 2015. The daily patronage of the XRL is estimated to be 99 000 in 2016.

Design of the West Kowloon Terminus

3. The WKT is the southern terminus of the XRL at a depth of over 20m with a total of 9 long haul and 6 shuttle platforms (**Annexes 1 and 2**). It is located at the north of the WKCD, between the Airport Railway Kowloon Station and the West Rail Austin Station. A portion of the WKT will be located below ground within the WKCD with an area of about 3.3 hectares. The underground terminus comprises 5 major floor levels, i.e. the ground floor

level, the ticketing hall, arrival hall level, departure hall level and platform level.

4. According to the information provided by the MTR Corporation Limited (MTRCL), the overall design vision for the WKT is to create a vibrant, low carbon emission, and accessible environment which will allow a wide spectrum of uses and activities to take place at the same time. The MTRCL also points out that while the WKT would enjoy a unique and distinctive identity to signify itself as the southern gateway to the Mainland, the design of the WKT would be subdued and neutral so that it would be able to blend in well with the adjacent developments, including the WKCD.

5. According to the MTRCL's design of the WKT, a large-scale at-grade pedestrian plaza and a number of footbridges and pedestrian subways will be built in front of the WKT to link up the WKCD, the WKT, the Kowloon Station and the Austin Station (**Annexes 3 and 4**). There will be a substantial amount of landscaping at the plaza, measuring approximately 8 000 square metres in area. Green open space will be created so as to provide a spacious pedestrian environment to cater for the needs of the West Kowloon area including a large pedestrian flow of the WKCD, and serve as a quality public open space for the public.

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6. The WKCD Authority (WKCDA) Board considers that the strategic location of the WKT, being next to the WKCD and situated between the Kowloon Station and Austin Station, would draw visitors from the Pearl River Delta region to Hong Kong and increase people flow in the WKCD. The Board is of the view that the WKT upon commissioning will be beneficial to the WKCD.

7. The WKCDA notes that a portion of the WKT will encroach into the underground strata of the WKCD. The MTRCL will carry out the enabling works, which include those for the foundation, noise and vibration mitigation and the transfer plate, in the strata of the extension area of the WKT so that the WKCDA can develop medium-rise structures up to a maximum height of 70 metres above Principal Datum (i.e. about 15 to 20 storeys, i.e. maximum building height restriction within the area stipulated in the existing draft statutory Outline Zoning Plan) where sophisticated noise and vibration mitigation measures are not required. The design of the foundation and relevant structures of the WKT within the WKCD has taken into account the maximum possible loading of medium-rise structures up to a maximum height

of 70 metres above Principal Datum. Besides, the design of the transfer plate of the WKT would be flexible in order to tie in with the selected Conceptual Plan of the WKCD. The MTRCL also promises that should the WKCD decide to use the space reserved for the transfer plate for other purposes, such as loading/unloading area or car park, etc., the design and construction of the transfer plate could be suitably refined to accommodate planning requirements of the WKCD. There is no need for the WKCD to bear the related cost.

8. The MTRCL has also conducted an environmental impact assessment to assess the ground borne noise induced by the operation of the railway. The assessment revealed that the residual ground borne noise due to vibration will comply with the requirement as stipulated under the Environmental Impact Assessment Ordinance (EIAO) and the Noise Control Ordinance, as the design of the XRL has adopted vibration mitigation system (isolation track slab). Depending on the selected Conceptual Plan for the WKCD, if arts and cultural facilities are to be built on top of the WKT, the installation of appropriate vibration and noise mitigation devices in those facilities can comply with the relevant standards.

9. Two ventilation shafts and emergency exits will be built on top of the WKT within the WKCD. They are essential for the operation of the XRL (including the provision of track side ventilation) and would provide fireman access points to important areas of the WKT. Fixed plant noise in the ventilation shafts would be controlled by appropriate measures to allowable maximum sound power levels, for complying with the EIAO noise criteria at noise sensitive receivers. Highways Department and the MTRCL will maintain close liaison with the WKCD on the layout of the transfer plate, so that the relevant emergency access of the two emergency exits can utilize the space reserved for the transfer plate as far as possible so as to minimise the impact on the WKCD. **Annex 5** sets out the preliminary location of the ventilation shafts and emergency exits. The MTRCL has briefed the WKCD Board and its Development Committee on the location of and the need for the ventilation shafts. The Board understands the need for the two ventilation shafts, but is concerned that they might affect the overall appearance of the WKCD. Making reference to a number of successful cases in Hong Kong and overseas, the XRL project team will closely liaise with the WKCD to ensure that the design of the ventilation shafts and emergency exits will be integrated with the future WKCD buildings.

Views on the Transport Plan of the West Kowloon New Development Area

10. To tie in with the development of West Kowloon, the Transport Department completed the West Kowloon Reclamation Development Traffic Study in 2009. The purpose of the study is to improve the road network in

West Kowloon, tackle the congestion at some road junctions in the area and address the future traffic need of the entire West Kowloon development area (including the WKCD and WKT). The basic principle adopted in the study is to utilize a three-storey road network (i.e. one at-grade and two below ground), including the construction of an underpass connecting Austin Road West (near Canton Road) and Lin Cheung Road (north of Jordan Road) to segregate the through traffic from the local traffic and to provide direct access to major roads within the area and the nearby highways so as to ensure free access to and from the WKCD, the WKT and the Kowloon Station.

11. The Development Committee under the WKCDA Board was also briefed by the Transport Department (TD) on the progress of the pedestrian linkages and road schemes in the West Kowloon area, and considers that flexibility must be provided in any traffic and pedestrian linkage plans so as to tie in with the preparation of the Conceptual Plan Options by the WKCDA's consultants. Besides, the design of pedestrian linkages should be convenient, direct and comfortable, and should provide suitable environment and ancillary facilities to increase the attractiveness of the linkages. The design should also ensure that the visual appearance of the relevant structures is well integrated with the surrounding developments and buildings (including the WKCD). The Development Committee has also recommended that TD should study the issue of marine transport linkage in the WKCD to allow people to travel to the WKCD from other parts of Hong Kong (e.g. Hong Kong Island).

12. In addition to hearing the progress reports of the Development Committee on discussions on the transport connectivity between the WKCD and its neighbouring areas, the WKCDA Board was briefed by the TD on the latest development of the West Kowloon Reclamation Development Traffic Study as well as the overall transport plan of the West Kowloon New Development Area including road, public transport, and pedestrian facilities and the relationship between these facilities and the WKCD at the Board meeting held on 26 November 2009. The Board agreed to the views of the Development Committee, and requested TD to consider installing an automatic people mover system inside the underground pedestrian subway linking the Jordan Station and the Austin Station. The WKCDA also arranged an on-site briefing by TD to the Conceptual Plan Consultants and the Project Consultant on 9 December 2009 for them to better understand the details of the proposals and to prepare the Conceptual Plans accordingly or to propose amendments to the Government. TD will maintain close liaison with the WKCDA and its consultants, and will explain in more detail the traffic impact assessment and public transport interchanges so as to ensure that the transport and pedestrian linkages between the WKCD and its neighbouring areas can tie in with the development of the WKCD.

Works Areas of the XRL Project within the WKCD and the Usage Timetable

13. The works areas of the XRL in the WKCD can be divided into three main areas (Annex 6)-

(a) Temporary Works Areas (Green area in Annex 6)

7.5 hectare (ha) of temporary works areas of the XRL are planned to be set up within the WKCD. The temporary works areas, including two barging facilities and the associated areas and vehicle access to the barging facilities etc. will support the construction of the terminus.

These temporary works areas will be required as soon as the construction of the XRL commences. To accommodate the development of the WKCD, the MTRCL and the Highways Department (HyD) have liaised with the WKCDA. Both sides have agreed that the areas can be used for the construction of the XRL until March 2012. They will then be returned in phases according to WKCDA's requirement.

(b) The extension of the WKT into the WKCD and other relevant works areas (Blue area in Annex 6)

The current design of the WKT will be extended into approximately 3.3 hectares of the underground strata of the WKCD. Similar to other parts of the terminus, this area involves complicated construction works including earthwork, foundation and construction of the station structure. Moreover, the 2.2 hectares of land at sides will be required to provide construction space for the construction of terminus facilities and part of the underground vehicle access of Austin Road West. Starting from end 2013, the land will be returned to the WKCDA in phases.

(c) Temporary Barging Facilities (Orange area in Annex 6)

During the peak of bulk excavation, another 1 hectare of extra temporary works area will be required from October 2010 to March 2012 for three barging facilities. The WKCDA Board hopes that the MTRCL can reduce the number of barging facilities required and the duration of land occupation in order to provide as much land at the waterfront as possible for the WKCDA to organise arts and cultural activities when necessary. In response to the request by the WKCDA, the HyD and MTRCL will review the requirements and programme for the barging facilities, with a view to further minimising the impact on

the arts and cultural activities that could possibly be held in the WKCD.

Development Timetables of the XRL and WKCD

14. The construction timetables of the WKCD and the Hong Kong section of the XRL are as follows:

Time	Development of the WKCD	Development of Hong Kong section of the XRL
End of 2009 /Early 2010	<p>Stage 1 of the Public Engagement Exercise to collect views from the public and stakeholders on the planning of the WKCD.</p> <p>The three Conceptual Plan Consultants, taking into consideration views of the public and stakeholders, will each prepare a Conceptual Plan Option. The Project Consultant will also take into consideration views of the public and stakeholders and prepare the preliminary Schedules of Accommodation for the arts and cultural facilities in the WKCD.</p>	<p>Construction of Hong Kong section of the XRL commences.</p> <p>The extended area of the WKT into the WKCD and other relevant works area (Blue area in Annex 6) and temporary works area (Green area in Annex 6) will be required.</p>
Summer 2010	<p>Commencement of Stage 2 of the Public Engagement Exercise to collect public views on the three Conceptual Plan Options and the preliminary Schedules of Accommodation for the facilities in the WKCD.</p>	
End of 2010	The WKCDA will select a	(From October 2010 to

	<p>preferred Conceptual Plan Option after the completion of Stage 2 of the Public Engagement Exercise.</p> <p>The Project Consultant will, according to the selected Conceptual Plan Option, formulate a detailed Development Plan and carry out detailed technical feasibility studies, such as environmental impact assessment, engineering assessment, traffic impact assessment, etc.</p>	<p>March 2012)</p> <p>Additional works areas for barging facilities are required during the peak of excavation works of the WKT. (Orange area in Annex 6)</p>
2011	<p>Stage 3 of the Public Engagement Exercise commences to collect public views on the detailed Development Plan and the detailed Schedules of Accommodation for the facilities in the WKCD.</p> <p>Submit the detailed Development Plan to Town Planning Board for consideration.</p> <p>Detailed design of the arts and cultural facilities commences.</p>	
2012	<p>Construction of facilities commences once the Development Plan is approved.</p>	<p>(From March 2012 onwards)</p> <p>Substantial completion of excavation works.</p> <p>Temporary works areas and barging facilities to be returned in phases according to WKCDA's requirement (Green and</p>

		Orange area in Annex 6).
Early 2013	Construction in progress.	Completion of foundation works of the WKT and neighbouring road network. Construction works will focus on the underground facilities and superstructure of the WKT.
End of 2013	As the foundation for facilities above the encroachment part of the WKT is about to complete, the WKCDA can immediately commence works above ground in that area.	Return the remaining works areas of the WKCD (5.5 hectares) in phases starting from end 2013 (Blue area in Annex 6).
2015	The Hong Kong section of the XRL completes; Completion of Phase 1 facilities of the WKCD in phases	

15. As shown in the above table, the excavation works of the Hong Kong section of the XRL will be substantially completed when the construction works of the WKCD commence. Hence, the two projects can be well-coordinated and can be completed as scheduled.

Coordination between the XRL and WKCD Projects

16. When it was established in October 2008, the WKCDA noted that the Government had decided to locate the XRL terminus in West Kowloon and a portion of the terminus will extend into the underground area of the WKCD. In view that the two projects are closely related, the Development Committee under the WKCDA Board held three meetings last year to discuss the XRL project and the WKCD project. The Development Committee was also briefed at the three meetings by the HyD and MTRCL on the progress of the design of the WKT with a view to ensuring better interface between the two projects. The Development Committee is of the view that pedestrian links and landscaping are of great importance, and considers that the design of WKT, especially the design of pedestrian links and landscaping, should echo that of the WKCD. The XRL project team will continue to listen to the WKCDA's views and keep the WKCDA regularly updated on the design of the WKT.

17. In addition to hearing the progress reports given by the Development Committee on discussions on the coordination between the XRL and WKCD projects, the WKCDA Board was briefed by the Government and MTRCL on the latest development of the WKT at the Board meeting held on 26 November 2009. At the Board meeting, the Board requested that the HyD and MTRCL should return the works sites within the WKCD on schedule, reduce the number of required barging facilities at the waterfront and the duration of land occupation, and bear the full cost of the enabling works for extending part of the WKT into the WKCD, including the cost of foundation, noise and vibration mitigation and transfer plate, etc.

18. The WKCDA has provided prospective Conceptual Plan Consultants and Project Consultants with information on the extension of the WKT into the WKCD during the tender exercise. Moreover, all the consultants invited by the WKCDA to submit technical and fee proposals were briefed by the HyD and MTRCL on the preliminary design of the WKT on 23 January 2009. After the appointment of the three Conceptual Plan Consultants and the Project Consultant, the WKCDA has from time to time arranged meetings for them to meet with relevant government bureaux and departments and the MTRCL in order to provide them with the latest information on the planning and design of the XRL.

19. The HyD and MTRCL have maintained close liaison with the WKCDA over matters concerning the interface between the XRL project and the WKCD project, including the progress of projects, the design report of the WKT, as well as the area, size and occupation duration of any works sites within the WKCD required for the XRL project. In addition, a standing inter-departmental coordinating committee has been established with participation of representatives from the Home Affairs Bureau, Transport and Housing Bureau, HyD, Transport Department, Civil Engineering and Development Department, WKCDA and MTRCL. The committee provides a platform for all concerned parties to discuss and coordinate the planning and construction of the WKCD and its nearby infrastructural projects, including the XRL project.

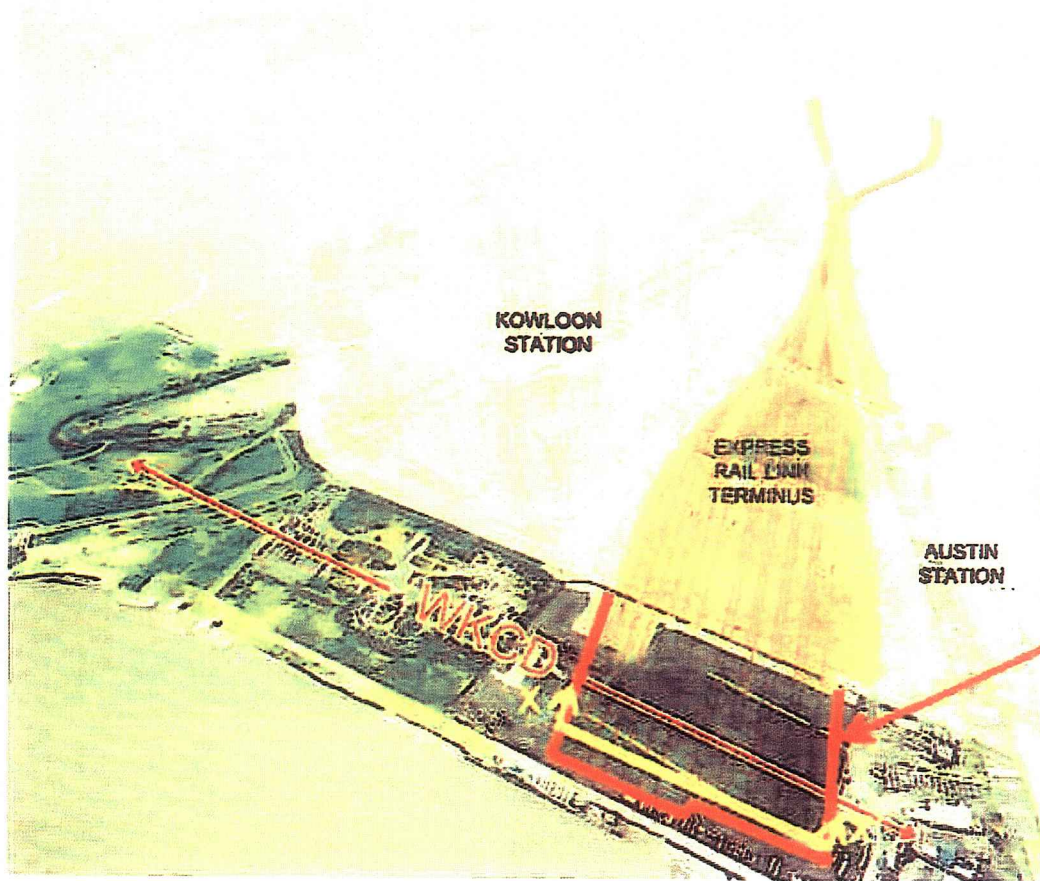
20. The coordinating efforts mentioned above will be sustained to ensure the timely completion of both the Hong Kong section of the XRL and Phase 1 development of the WKCD in 2015.

**Home Affairs Bureau
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西九龍總站位置

Location of the West Kowloon Terminus

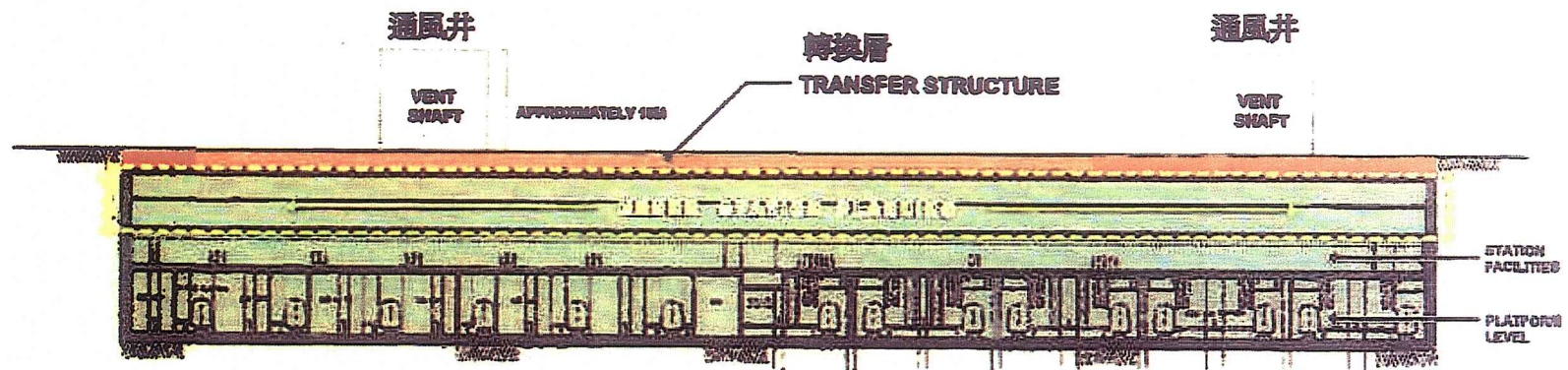
附件一
Annex 1



位於西九文化區內的
西九龍總站
Location of the WKT
within the WKCD

位於西九文化區內的西九龍總站

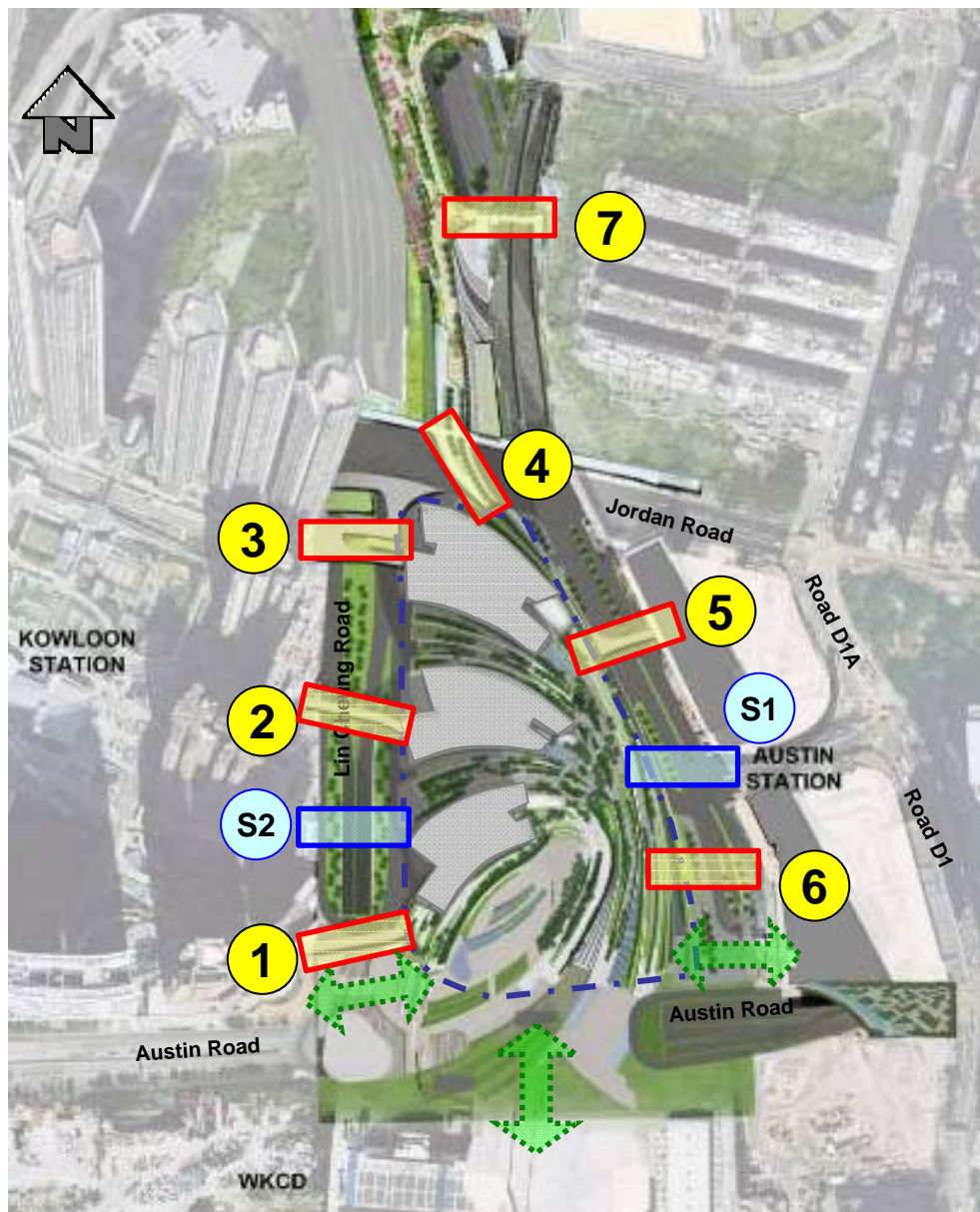
Cross Section through WKCD



Cross Section X - X'

行人網絡 Connectivity Network

附件三
Annex 3

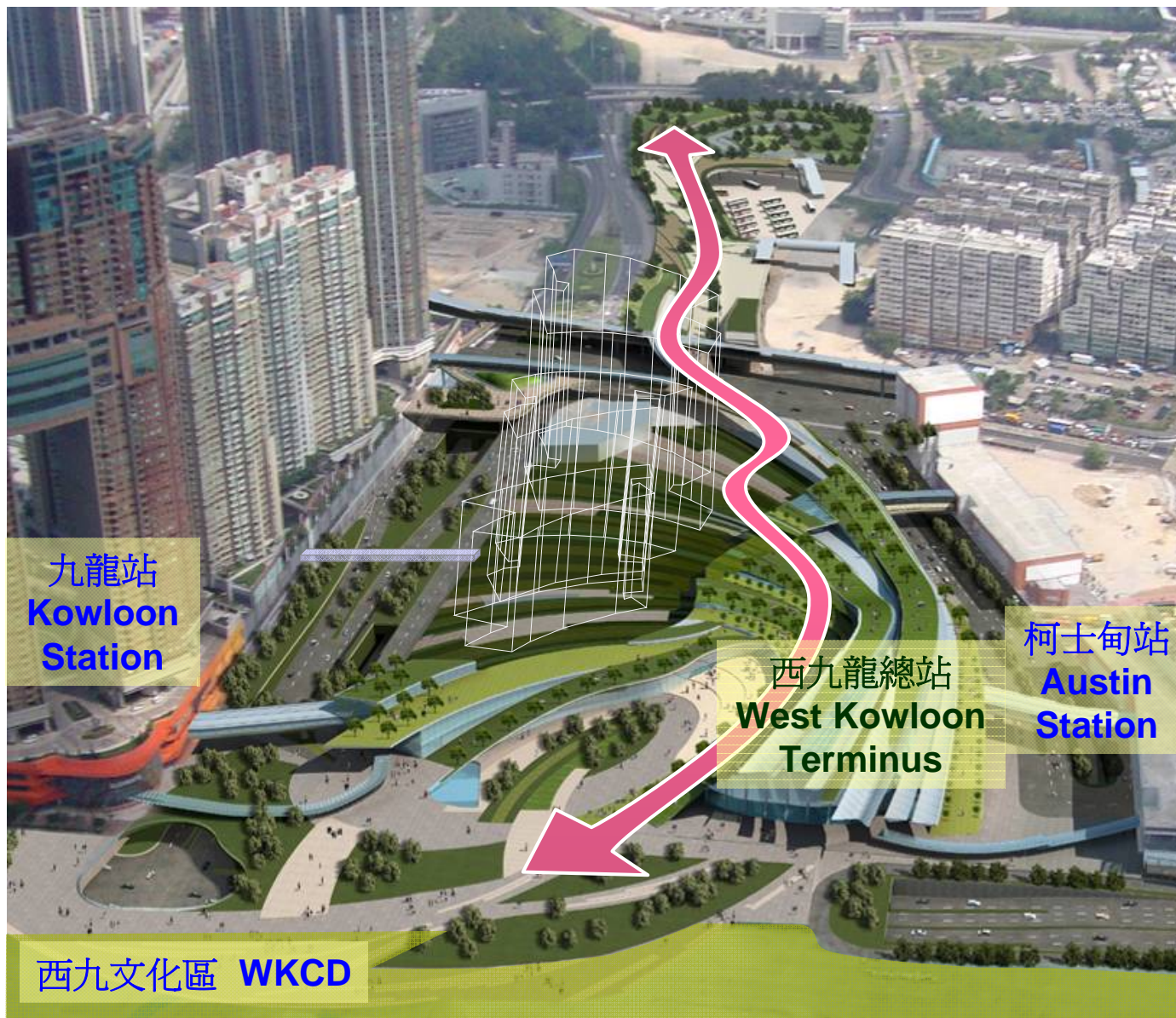


行人天橋 Footbridge	連接點 Connecting Location
①	西九龍總站及圓方的東南角 WKT and the southeast corner of Elements
②	西九龍總站及圓方的正東部 WKT and the east part of Elements
③	西九龍總站及圓方的東北角 WKT and the northeast corner of Elements
④	西九龍總站及佐敦道以北的公共運輸交匯處 WKT and PTI at north of Jordan Road
⑤	西九龍總站及柯士甸站北部 WKT and the north of AUS
⑥	西九龍總站及柯士甸站南部 WKT and the south of AUS
⑦	公共運輸交匯處及八大文樓等 PTI and Man Cheong Buildings etc

	Footbridge 行人天橋
	Subway 行人隧道
	At-grade Walkway 地面行人區

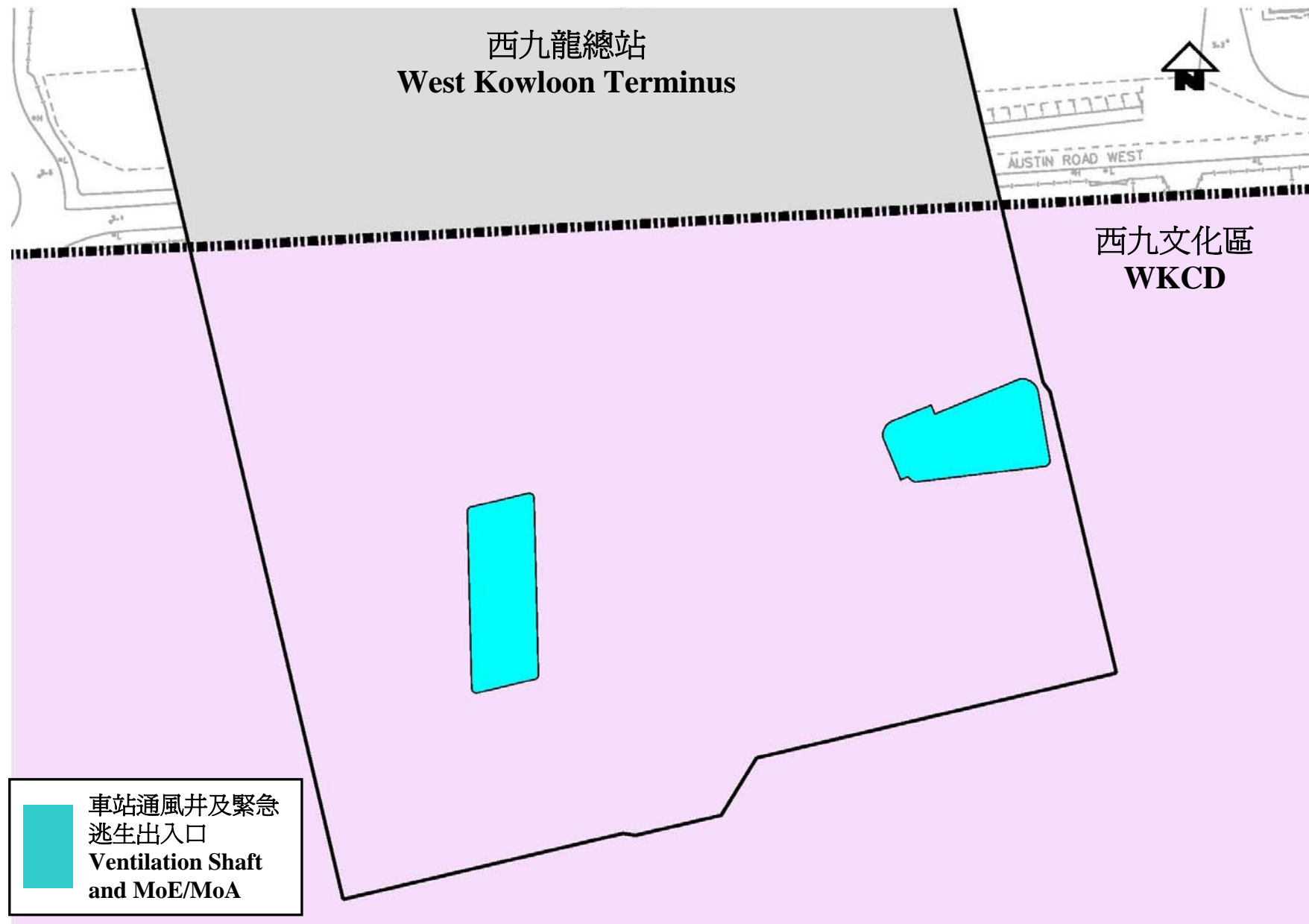
行人網絡 Connectivity Network

附件四
Annex 4



於西九文化區的高鐵通風井及緊急逃生出入口位置 Locations of XRL Ventilation Shafts & MoE/MoA in WKCD

附件五
Annex 5



擬於西九文化區設置之高鐵工地/地盤

Proposed works Area for the construction of XRL in the WKCD

