地鐵公司
MTR Corporation

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE (CAP499)S.5(1)(a)

West Island Line

Project Profile

July 2005

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PROJECT PROFILE FOR WEST ISLAND LINE (WIL)

1.0 Basic Information

1.1 Project Title

West Island Line (WIL)

1.2 Purpose and Nature of the Project

The WIL Project Profile describes the construction and operation of a new railway line on the North-West Coast of Hong Kong Island. The Government has recently requested that the MTR Corporation proceed with the design development of this railway.

The 3 km fully underground WIL will extend the existing Island Line (ISL) from Sheung Wan Station (SHW) to the west with three new stations; Sai Ying Pun Station (SYP), University Station (UNI) and Kennedy Town Station (KET). The WIL will also improve availability for passengers traveling from Kennedy Town on Hong Kong Island helping to improve the road congestion from this area.

1.3 Detailed Project Description

1.3.1 The WIL will extend the full ISL service to KET via SYP and UNI, adding approximately 3km route length of underground tracks to the ISL. The proposed scheme in the WIL/SIL Feasibility Study is shown on the attached figure and described in the following paragraphs.

1.3.2 West of SHW, the WIL alignment runs in a westerly direction along the railway reserve until Des Voeux Road West where it swings to run in a south-westerly direction towards SYP station. A new tunnel between SHW and SYP stations will be constructed to form the eastbound tunnel, while the existing overrun tunnel west of SHW station will be modified to form the westbound tunnel for the WIL.

1.3.3 SYP station is proposed to be located under Centre Street/High Street. It is envisaged that SYP station will connect with the Centre Street Pedestrian Link to be constructed by Government.

1.3.4 Beyond SYP station, the WIL alignment continues to run in a westerly direction towards UNI and KET stations. UNI station will be the future interchange station between the WIL and the future South Island Line (West).

1.3.5 UNI station is proposed to be located under Pok Fu Lam Road near the main campus of Hong Kong University (HKU), while KET station is proposed to be located under the Forbes Street Playground. The station box for KET is located close to the existing "tree wall" along Forbes Street, which will require further consideration.

1.3.6 West of KET station, overrun/turnback tunnels are proposed to allow the ISL westbound trains to reverse and to provide one stabling berth for failed trains. During non-operational hours, these tunnels will be used for outstabling ISL trains.

1.3.7 SHW station is currently the terminal station for the ISL. Passenger movements are uni-directional at the platforms, i.e. out-going movement on the westbound platform and incoming movement on the eastbound platform. Following the implementation of the WIL, SHW station will become an intermediate station and both in and out movements will occur on the platforms. As part of the WIL project, the existing SHW station will need to be modified to cope with the change in passenger movements. The scope of these modifications consists mainly of internal changes for which some work may need to be undertaken in Non Traffic Hours, between 0100 – 0530 hours.

1.4 Proposed Method of Construction

1.4.1 The SWH-to-SYP section is generally in CDG/mixed ground. It is expected that this section will be constructed using soft ground tunnelling techniques, and may require ground treatment from the surface and compressed air operation.

1.4.2 West of SYP, the alignment is expected to be mainly in rock. This section could be constructed using the drill-and-blast method or possibly tunnel boring machines, except the station box for KET is expected to be constructed using the cut-and-cover method.

1.4.3 Entrances to stations and the ventilation towers would require sheet piling or other temporary and permanent retaining structures. If significant environmental impacts are predicted, noise enclosures or barriers will be provided.

1.5 Name of Project Proponent

The project proponent will be the MTR Corporation Ltd.

1.6 Location and Scale of the Project

A location plan for the WIL is attached for reference.

1.7 Number and Types of Designated Projects

This Project Profile describes one (1) Designated Project, a new railway line.

1.8 Contact Person and Details

Dr Glenn Frommer, Sustainability Development Manager
Telephone 2993 3543

2.0 Planning and Implementation Programme

Due to the difficult nature of this project and the need to develop environmental mitigation together with the WIL design, the EIA would commence together with the Preliminary Design in October 2005.

The Environmental Impact Assessment will be undertaken by a specialist consultant independently from the engineering design over a period of about 16 months including the time needed to apply for the Environmental Permit. The Corporation's Sustainability Development Manager will manage the EIA directly. The EIA consultant will be appointed in October 2005.

Construction of the main civil works is expected to commence in the third quarter of 2007 and will be completed in early 2012.

Allowing 4 months for testing and commissioning, the WIL is scheduled to open in mid 2012.

A preliminary WIL programme which is subject to further refinement is attached for reference.

3.0 Environmental Appraisal

3.1 Construction Impacts

It is envisioned that standard construction methodology and equipment would be used throughout the construction of the WIL. It is however noted that the construction is generally underground and the resultant noise and air quality impacts are greatly minimized.

3.1.1 As noted above the SWH-to-SYP section is generally in CDG/mixed ground and will most probably be constructed using soft ground tunnelling technique, requiring ground treatment and compressed air operation. This technique may also require 24-hour working and the positioning and enclosure of the supporting electrical and mechanical equipment would require careful consideration. Similar considerations of 24 hour working will also be considered for the other sections as well.

3.1.2 As noted above, west of SYP, the alignment is expected to be mainly in rock and may be constructed using the drill-and-blast method or possibly tunnel boring machines. Drill and blast is a well known method in Hong Kong and mitigation against impacts is straight forward and has been employed previously. Given the depth of the tunnels below residences, it is unlikely that ground borne impacts would be significant.

3.1.3 The station box for KET is expected to be constructed using the cut-and-cover method. This methodology has already been implemented on the MTR Tsim Sha Tsui Station Modification works and is not expected to present any particular difficulty or unacceptable environmental impact.

3.1.4 Consideration will be to be given to the 'tree wall' along Forbes Street and King George V Memorial Park in the vicinity of KET and SYP stations.

3.1.5 Entrances to stations and ventilation towers may require sheet piling for retaining walls, and if significant environmental impacts are predicted, noise enclosures or barriers would be needed. Spoil removal will also be considered in detail during the Preliminary Design.

3.1.6 As the railway is underground and significantly away from the shoreline, no significant water quality impacts are expected. The availability of a barging position for spoil removal will be considered to reduce the need for road based transport. No reclamation for this would be needed.

3.2 Operational Impacts

The operational railway will be fully underground in tunnel with only entrances to the railway stations and ventilation towers above ground level. No adverse impacts are expected as the ventilation towers would be designed to comply with the Noise Control Ordinance.

3.3 Additional Assessments

Given the proposed alignment and scope provided above, there is no need to include a detailed visual or landscape assessment. Furthermore, as no Potentially Hazardous Installations have been identified, there is no need for these types of assessments. It is envisaged that a cultural heritage impact assessment study will be needed for the HKU Senior Staff Quarters and Workmen's Quarters near the WSD Service Reservoir.

Given that the only minor impacts will be at station entrances within the already built up urban areas and which will be designed accordingly, detailed ecological studies and the use of 3-dimensional computer modeling for examining the visual impacts of this project are deemed unnecessary.

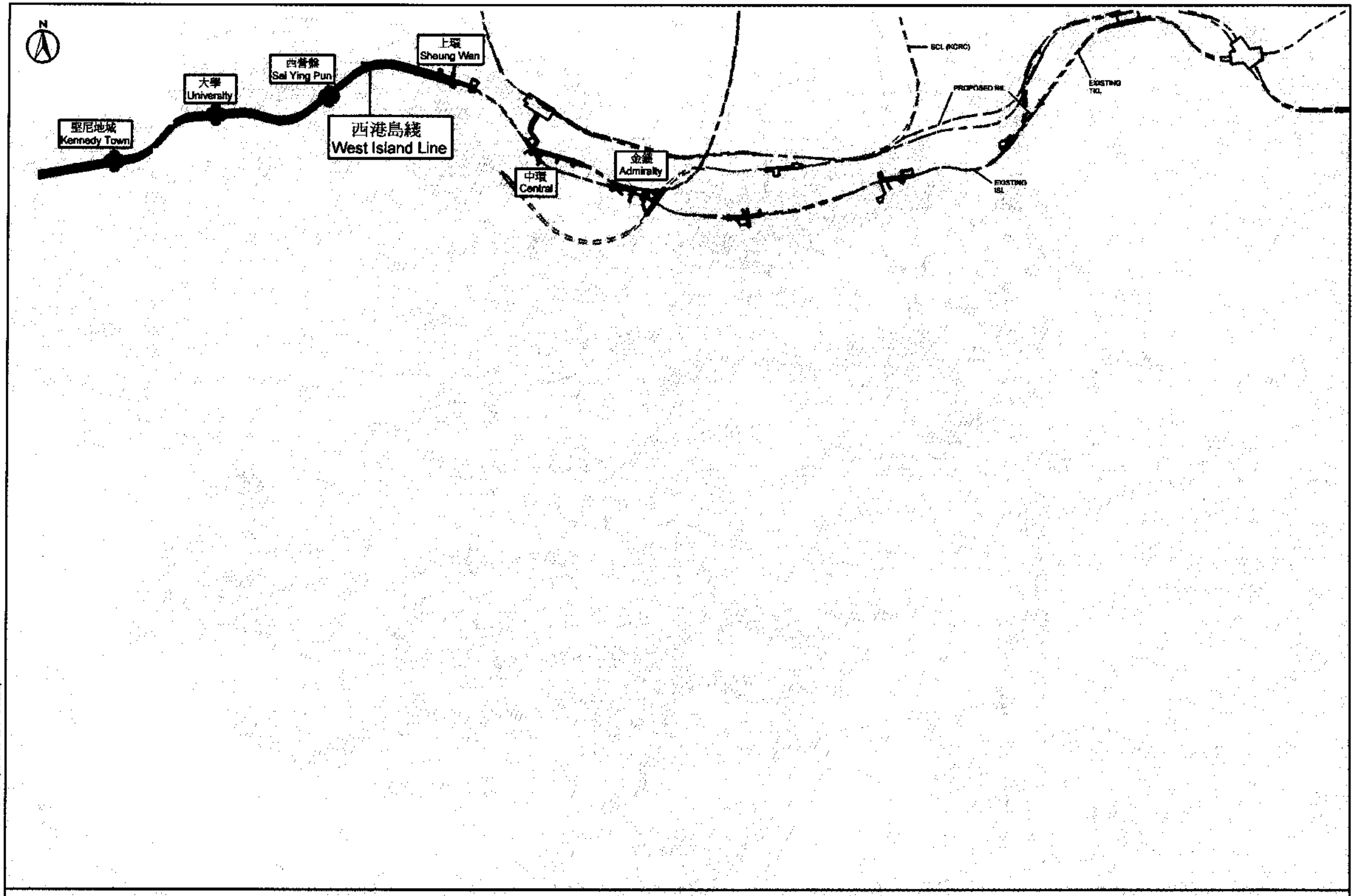
3.4 Public Consultation

The Corporation has already undertaken considerable public consultation on the WIL and the public has found this consultation informative and helpful. MTR will continue this consultation throughout the preliminary and detailed design of the WIL as well as during the construction of the railway.

As such additional conditions on MTR's public consultation are not considered necessary.

3.5 Conclusions

It would appear that at most locations, the impacts from the construction of the WIL should be capable of being controlled to acceptable levels by the implementation of standard mitigation measures. Detailed assessments of noise and air and qualitative assessments waste impacts will be undertaken in the detailed EIA.



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西港島綫
WEST ISLAND LINE

ACT ID	ACTIVITY DESCRIPTION	2005				2006				2007				2008				2009				2010				2011				2012			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A010	PRELIMINARY DESIGN																																
A020	EIA STUDY & APPROVAL																																
A030	SCHEME GAZETTAL PROCESS UNDER THE RAILWAYS ORDINANCE																																
A040	DETAILED DESIGN																																
A050	CONSTRUCTION																																

PRELIMINARY

地鐵公司
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WEST ISLAND LINE
PRELIMINARY PROJECT PROGRAMME

Prog. No. : WIL / O / 00 / PPD / N30 / 998 A

日期	修定版	編制	審查
20.07.05	第一版本	李志雲	彭志剛

E:/S/P/WIL/XLS/ WIL Preliminary Project Prog (EIA Consultancy)