

**Flyover at Junction of Che Kung Miu  
Road and Hung Mui Kuk Road**

**Project Profile**

**Civil Engineering and Development  
Department**

**October 2007**

**Flyover at Junction of Che Kung Miu Road  
and Hung Mui Kuk Road**

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**DRAWINGS**

60028703/FIG1 - LOCATION PLAN

60028703/FIG2 - REPRESENTATIVE SENSITIVE RECEIVERS

## **1. BASIC INFORMATION**

### **1.1 Project Title**

1.1.1 Flyover at Junction of Che Kung Miu Road and Hung Mui Kuk Road

### **1.2 Purpose and Nature of Project**

1.2.1 With operation of Route 8 connecting Cheung Sha Wan and Sha Tin and population build up in the area upon completion of new residential developments, which include the one above Kowloon Canton Railway Corporation (KCRC) Tai Wai Maintenance Centre, Tai Wai Station and Che Kung Temple Station, it is estimated that the roundabout at junction of Che Kung Miu Road and Hung Mui Kuk Road (the Roundabout) will be operating beyond capacity. Continual queuing will occur along its approach roads in particular Che Kung Miu Road and Mei Tin Road. As both Che Kung Miu Road and Mei Tin Road are primary distributors serving as connectors between Tai Wai/Mei Tin/Hin Tin and other districts in Sha Tin New Town as well as Kowloon (via Lion Rock Tunnel Road, Route 8, or Tai Po Road), continual queuing will have far-reaching adverse effect on traffic circulation in the entire Tai Wai/Mei Tin/Hin Tin area. Moreover, the queuing will seriously affect the operation of the Tai Wai public transport interchange right adjacent to the Roundabout, which serves major bus routes running both internal and external services.

1.2.2 To resolve the forecast traffic capacity problem of the Roundabout and avoid the above adverse traffic situation, a flyover along Che Kung Miu Road crossing the Roundabout connecting to the slip roads of Route 8 (Sha Tin Heights Section) and providing single lane connection in each direction to the Che Kung Miu Road fronting KCRC Tai Wai Maintenance Centre and Tin Sam Village (the Flyover) is proposed.

### **1.3 Name of Project Proponent**

1.3.1 The Project Proponent is the New Territories East Development Office of Civil Engineering and Development Department, Government of the Hong Kong Special Administrative Region (HKSAR).

### **1.4 Location and Scale of Project**

1.4.1 The Project is located at Sha Tin Che Kung Miu Road near the KCRC Tai Wai Station. A location plan (Drawing no. 60028703/FIG1) is attached.

- 1.4.2 The scope of the Project includes the following:
- (a) construction of approximate 600 metres long dual 2-lane flyover along Che Kung Miu Road crossing the junction with Hung Mui Kuk Road;
  - (b) construction of approximate 170 metres long single lane slip road connection in each direction to the Che Kung Miu Road fronting KCRC Tai Wai Maintenance Centre and Tin Sam Village;
  - (c) realignment of the existing Che Kung Miu Road to accommodate the up ramp/down ramp of the Flyover;
  - (d) modification of the existing footbridge system at the junction of Che Kung Miu Road and Hung Mui Kuk Road; and
  - (e) associated works for landscaping, drainage, traffic aids, noise mitigation measures, and utilities diversions.

## 1.5 **Number and Types of Designated Project to be Covered by the Project Profile**

- 1.5.1 This project profile only covers the project “Flyover at Junction of Che Kung Miu Road and Hung Mui Kuk Road”. The flyover is a trunk road and this project is classified as a Designated Project under Schedule 2, Part I, A.1 of the Environmental Impact Assessment (EIA) Ordinance. An environmental permit is required for the project.

## 1.6 **Name and Telephone Number of Contact Persons**

- 1.6.1 All enquiries regarding the project can be addressed to:

Mr WONG Chung-sang      Chief Engineer/Sha Tin  
New Territories East Development Office  
Civil Engineering and Development Department  
Tel. No.: 2301 1383  
Fax No.: 2721 8630

**2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME****2.1 Project Planning and Implementation**

2.1.1 The Project Proponent will engage consultants to undertake investigation, environmental impact assessment (EIA) study, design and supervision of construction of the project.

**2.2 Project Timetable**

2.2.1 The tentative implementation programme is as follows:

Selection of EIA consultant	Late 2007	-	Late 2007
Investigation Study and Preliminary Design	Late 2007	-	Mid 2008
Detailed Design and Tendering	Mid 2008	-	Mid 2010
Construction	Mid 2010	-	Early 2013

**2.3 Interaction with Other Projects**

2.3.1 The project may have interaction with the other projects including, but not limited to the following:

- a) Construction of Road T3;
- b) Trunk Road T4;
- c) Route 8 (Sha Tin Section);
- d) Replacement and Rehabilitation of Watermains Stage 1 Phase 1;
- e) KCRC Tai Wai Station of Ma On Shan Railway Property Development;  
and
- f) KCRC Tai Wai Maintenance Depot of Ma On Shan Railway Property Development.

2.3.2 The above list of projects is not intended to be exhaustive and will be reviewed during the EIA Study.

### **3. POSSIBLE IMPACT ON THE ENVIRONMENT**

The potential environmental impacts of the proposed works that may arise during both construction and operational phases are described below:

#### **3.1 Gaseous Emissions**

3.1.1 Vehicle and plant exhaust emissions from the site are not considered to be a significant source of air pollutants during the construction phase. However, vehicular traffic will be the main source of gaseous emissions during the operational phase. Gaseous emissions shall be assessed and the associated mitigation measures shall be recommended, where necessary, under the EIA study, such that the air quality is complied with the Air Pollution Control Ordinance.

#### **3.2 Dust**

3.2.1 Potential impacts arising from the construction phase would include dust generated due to exposed site areas, stockpiling of materials, movement of vehicles along the road and excavation and handling of construction materials. In general, dust control measures of the Air Pollution Control (Construction Dust) Regulation shall be followed to suppress the dust emission during the construction phase. During operational phase, particulates will be generated from vehicle emissions. The air quality shall be assessed and the associated mitigation measures shall be recommended, where necessary, under the EIA study, such that the air quality is complied with the Air Pollution Control Ordinance.

#### **3.3 Noisy Operations**

3.3.1 During the construction phase, powered mechanical equipment (PME) which are expected to generate noise include: breakers (both portable and excavator-mounted), power units for various types of plant, including air compressors, excavators, ready mixed concrete lorries and poker vibrators, drilling machines and cranes. Moreover, major noisy activities include breaking road surface, excavation, piling, concreting, road surfacing and handling of earth materials. The construction noise impacts shall be critically assessed in the EIA study and the contractor will be governed by the licensing conditions of construction noise permits issued under the Noise Control Ordinance.

3.3.2 During the operational phase, traffic noise from the new road may have impact to the sensitive receivers. The traffic noise impacts shall be assessed and appropriate mitigation measures shall be recommended, where necessary, under the EIA study.

### 3.4 **Solid Waste**

- 3.4.1 Waste generated will comprise excavated materials, construction and demolition waste and general refuse during the construction phase. Waste generation will first be avoided and reduced prior to reusing materials on-site in order to minimize the off-site waste disposal as far as practicable, with proper waste management, adverse impact from this project is unlikely.

### 3.5 **Water Quality**

- 3.5.1 The key issues pertinent to water pollution include site run-off, discharge of contaminated wastewater, silting of the existing drainage etc. during the construction phase. It is anticipated that there would be no adverse impacts to water quality with the implementation of suitable mitigation measures. Similarly, the potential water quality impacts arising from land based construction activities could be readily controlled through a series of “good practice” methods as outlined in Section 5.1(c) to control wastewater discharges from the construction sites. The water quality will be assessed and appropriate mitigation measures will be recommended, where necessary, under the EIA study.

### 3.6 **Landscape and Visual Impact**

- 3.6.1 Since the construction works will be carried out in the existing busy roads, significant landscape impact during the construction phase is not expected. The potential visual impacts on residents in the vicinity of the construction site during the construction phase shall be addressed with suitable mitigation measures. During the operational phase, there will be visual impacts arisen from the flyover structures, retaining wall and any proposed noise barriers/enclosures. These impacts will be assessed and appropriate mitigation measures will be recommended, where necessary, under the EIA study. Consideration shall be given at the design stage in order to harmonize the works with the environment.

### 3.7 **Traffic Generation**

- 3.7.1 Construction traffic will add to the overall traffic volume in Che Kung Miu Road. Temporary traffic diversions during the construction stage will be formulated in order to minimize the traffic impacts. It is considered that the traffic impacts will not be severe.

### 3.8 **Cultural Heritage**

- 3.8.1 Che Kung Temple, which is a Grade II historic building, is located near to the project area. The construction of the flyover will however be approximately 200m away from the Che Kung Temple and will unlikely affect the building.

### 3.9 Ecological Impact

- 3.9.1 The project is not inside a recognized site of conservation importance. It does not encroach on or affect important habitats and there are unlikely to be any species of conservation importance present. Ecological impacts during construction and operation will therefore be minimal.

## 4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 4.1 The major existing and planned sensitive receivers that may be affected by the proposed projects are summarized as follows. The locations of these receivers are shown in the attached drawing no. 60028703/FIG2.

Ref	Sensitive Receiver	Type	Status
1	Che Kung Miu Road Playground	Open Space	Existing
2	Tin Sam	Residential	Existing
3	Sun Chui Estate	Residential	Existing
4	Cheong Wong Wai Primary School	Educational	Existing
5	Shatin Tsung Tsin Secondary School	Educational	Existing
6	Ng Yuk Secondary School	Educational	Existing
7	Che Kung Temple	Place of Public Worship	Existing
8	Carmel Alison Lam Primary School	Educational	Existing
9	Hin Yiu Estate	Residential	Existing
10	Carado Garden	Residential	Existing
11	Free Methodist Bradbury Chun Lei Primary School	Educational	Existing
12	San Tin Village	Residential	Existing
13	Buddhist Monastery	Place of Public Worship	Existing
14	Hin Tin Swimming Pool	Open Space	Existing
15	KCRC Tai Wai Maintenance Centre Property Development	Residential	Planned
16	Tai Wai Station Property Development	Residential	Planned
17	Christian Alliance Cheng Wing Gee College	Educational	Existing
18	Hung Mui Kuk Road Playground	Open Space	Existing
19	Grandway Garden	Residential	Existing
20	Tai On Building	Residential	Existing
21	Tai Wai Playground	Open Space	Existing
22	Man Lai Court	Residential	Existing

## **5. ENVIRONMENTAL PROTECTION MEASURES AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS**

### **5.1 Measures to Minimize Environmental Impacts**

#### **(a) Air**

The following dust control measures to minimize the dust nuisance during the construction phase should be considered:

- vehicle wheel and body washing facilities at site exits
- reduction of vehicular speed and unpaved roads
- regular wetting of the site (using browsers, sprays or vapour mists) to reduce dust
- the earthmoving activities must be carefully and well planned. Such planning shall include the transportation routes as well as protective measures such as the employment of water-spraying and tarpaulin sheets to suppress the dust generated during and after excavation.

Dust, which is predominantly associated with construction, is not expected to be an issue during the operational phase. Exhaust gaseous emission by vehicles should be considered in the air quality assessment under the EIA Study.

#### **(b) Noise**

To mitigate the construction noise impacts, the following measures should be considered:

- the use of silenced equipment
- the use of mufflers, silencers and acoustic linings for noisy mechanical equipment
- the employment of alternative concrete breaking techniques
- the siting of equipment
- the careful scheduling of work, especially near the educational institution where examination periods shall be taken into consideration
- the use of temporary acoustic barriers
- the proper maintenance of equipment
- the utilization of construction noise specification and clauses
- adequate site supervision to ensure that every practical means is utilized to minimize the noise impacts

To reduce traffic noise during the operational phase, the following measures should be considered:

- noise enclosure and/or barrier
- noise reducing road surfacing

(c) Water

Temporary drainage systems, with interceptor manholes and appropriate sediment settlement measures, will be required to trap oil pollutants and debris initiating from within the site, and to separate pollutants prior to discharging into the drainage system. The following mitigation measures should also be considered:

- Before commencement of demolition works, sewer and drainage connections should be sealed to prevent debris entering the public sewers/drain.
- Stockpiles should be covered to avoid erosion and washing of solid waste into the drainage system.

During the operation phase, pollutants will be generated by the increased traffic flow. The following mitigation measures should be considered to reduce storm water runoff:

- Provision of silt traps to reduce the concentration of silt/sediments in storm water runoff; and
- Regular inspection and maintenance of the drainage system should be conducted to ensure that sediment traps and other pollutant removal facilities are cleared and in good working order.

(d) Waste

The main source of solid waste during the construction phase will be excavated spoil. Other materials including surplus construction materials, used products and municipal type waste will also be generated. To minimize impacts, the following mitigation measures should be taken into consideration:

- solid materials and waste shall be removed from the site and taken to a designated disposal site
- construction vehicles to and from the site will be routed to avoid sensitive receivers where possible.

(e) Landscape and visual

Mitigation measures to minimize the landscape and visual impacts may include but not limited to:

- compensatory planting
- aesthetic design of elevated structures, retaining walls and noise mitigation measures

**5.2 Possible Severity, Distribution and Duration of Environmental Effects**

5.2.1 All construction impacts are short-term effects. Air and noise pollution will be the main environmental concerns. Appropriate control measures and a monitoring programme will be developed in the EIA study to ensure compliance with the established standards. All recommendations will be fully implemented on site to address the pollution due to construction activities.

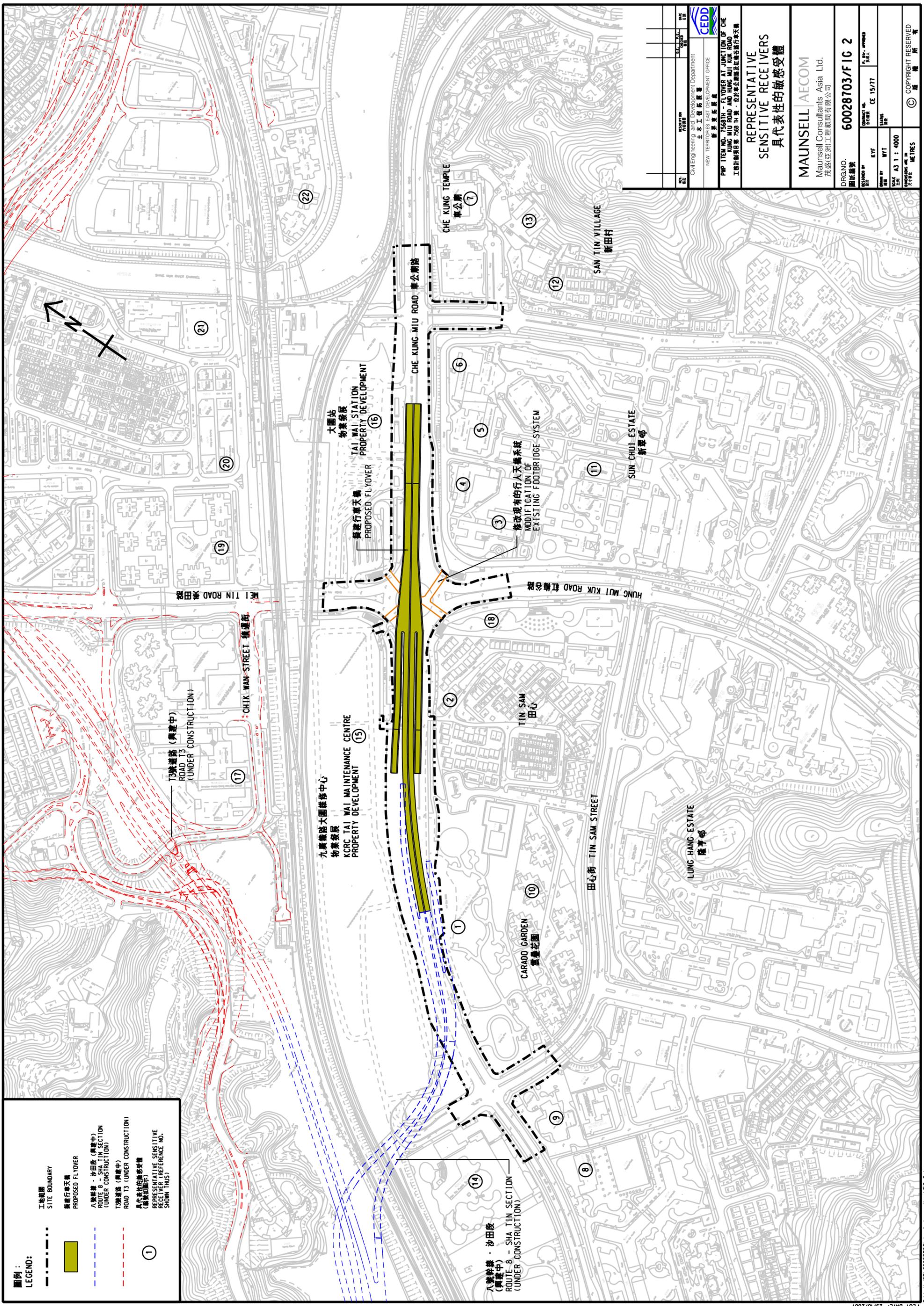
5.2.2 Operational impacts are long-term effects. Further assessment will be carried out to determine the traffic noise impact in detail and the requirement of suitable mitigation measures. The EIA study will also address the air quality, visual and landscape impact and assess the requirement for mitigation measures. Moreover, whether the project will affect any site of cultural interest or not, will be determined in the cultural heritage impact assessment.

5.2.3 It is envisaged that with proper implementation and monitoring of the mitigation measures, adverse environmental effects shall be minimized during the construction and operation phases.

**6. USE OF PREVIOUSLY APPROVED EIA REPORT**

6.1 No previously approved EIA report has been referred to in the preparation of this Project Profile.





**圖例 :**  
**LEGEND:**

- 工務範圍  
SITE BOUNDARY
- 擬議行人天橋  
PROPOSED FLYOVER
- 八號幹線 - 沙田段 (興建中)  
ROUTE 8 - SHA TIN SECTION  
(UNDER CONSTRUCTION)
- T3 幹線 (興建中)  
ROAD T3 (UNDER CONSTRUCTION)
- ① 具代表性的敏感受體  
REPRESENTATIVE SENSITIVE  
RECEIVER (REFERENCE NO.  
SHOWN INSIDE)

PROJECT NO. 項目編號	CE 15/177
DESIGNED BY 設計	KYF
CHECKED BY 校核	WYT
SCALE 比例	A3 1 : 4000
DATE 日期	29/10/2007

City Engineering and Development Department  
 土木工程發展署  
 NEW TERRITORIES EAST DEVELOPMENT OFFICE  
 新界東北發展處

PROJECT TITLE  
 項目名稱  
 PMP ITEM NO. 7588 7588 01 01 - 沙田公路及沙田公路行人天橋  
 KUNG MIU ROAD AND HUNG MUI KUK ROAD  
 工務計劃項目號 7588 01 01 - 沙田公路及沙田公路行人天橋

**REPRESENTATIVE SENSITIVE RECEIVERS**  
 具代表性的敏感受體

**MAUNSELL AECOM**  
 Maunsell Consultants Asia Ltd.  
 茂盛(亞洲)工程顧問有限公司

DRGNO.  
 圖紙編號  
**60028703/F IG 2**

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