

## **7. LANDSCAPE AND VISUAL IMPACT**

### **7.1 Introduction**

7.1.1 This chapter of the report outlines the landscape and visual impact assessment associated with the Proposed Road Improvement Works in West Kowloon Reclamation.

### **7.2 Relevant Environmental Legislation, Standards and Guidelines**

7.2.1 The environmental legislations, standards and guidelines below are relevant to the preliminary landscape and visual assessment for this Project.

- DEVB TCW No. 2/2012 - Allocation of Space for Quality Greening on Roads,
- WBTC No. 7/2002 - Tree Planting in Public Works,
- Environmental Impact Assessment Ordinance Guidance Note 8/2010,
- ETWB TCW No. 13/2003A - Guidelines and Procedures for Environmental Impact Assessment of Government Projects and Proposals Planning for Provision of Noise Barriers,
- ETWB TCW No. 2/2004 - Maintenance of Vegetation and Hard Landscape Features,
- ETWB TCW No. 29/2004 - Registration of Old and Valuable Trees, and Guidelines for their Preservation,
- ETWB TCW No. 10/2005 - Planting on Footbridges and Flyovers,
- ETWB TCW No. 3/2006 - Tree Preservation,
- Land Administration Office Instruction (LAOI) Section D-12 - Tree Preservation,
- Structure Design Manual for Highways and Railways – Chapter 17 on Aesthetics,
- HyD Guidelines No. HQ/GN/15 – Guidelines for Greening Works along Highways,
- Environmental Impact Assessment Ordinance (Cap.499.S.16) and the Technical Memorandum on EIA Process (EIAO TM), particularly Annexes 10 and 18, and
- Landscape Value Mapping of Hong Kong, Planning Department

### **7.3 Proposed Assessment Area**

#### **Landscape Assessment**

7.3.1 According to the Study Brief, the landscape assessment area includes all areas within 500m extended from the boundary from the Project. In the following text, “study area” refers to the assessment area, while “works area” refers to the boundary of the Projects.

#### **Visual Assessment**

7.3.2 The Visual Assessment Area is identified by the visual envelope of this Project and its associated works. The visual envelope (zone of visual influence) is generally the viewshed formed by natural or man-made features such as ridgeline or building blocks. It contains areas which are fully, partially visible or unseen from this Project and its associated works. The defined visual envelope is shown on **Figure 7.4**.

## 7.4 Proposed Assessment Methodology

7.4.1 Landscape and visual assessments are conducted separately for both construction and operational phases.

### Landscape Assessment

7.4.2 Landscape impact is quantified as much as possible to predict the magnitude and significance of impact arising from this Project and its associated works. Landscape resources (LRs) and landscape character areas (LCAs) are identified, numbered and assessed. The difference between mitigated and unmitigated conditions is properly highlighted to demonstrate the effectiveness of proposed recommended mitigation measures.

7.4.3 Significance impact is made up of magnitude of change and sensitivity of each LR and LCA. These two components are evaluated according to the following criteria.

7.4.4 **Magnitude of change** – this is evaluated by a number of different factors such as:

- duration of impact, i.e. whether it is temporary or long-term
- scale of impact
- reversibility of changes
- compatibility of the Project and associated works with existing and planned landscape

7.4.5 The above factors are analyzed carefully and the results of each LR and LCA are classified into four different categories. They are as follows:

- **Large** - Landscape resource or area will suffer a major change.
- **Medium** - Landscape resource or area will suffer a moderate change.
- **Small**: Landscape resource or area will suffer a slight change.
- **Negligible** - Landscape resource or area will suffer no discernible change.

7.4.6 **Sensitivity** - this is evaluated by a number of different factors such as:

- the quality of landscape resources or character areas
- importance and rarity of landscape resources or character areas
- significance of change in local and regional context
- maturity of the landscape
- ability of landscape resources and character areas to accommodate change

7.4.7 The above factors are considered and analyzed before each LR and LCA are classified into the following three categories:

- **High** - A landscape resource or area has a distinctive character or is of high importance and sensitive to relatively small changes.
- **Medium** - A landscape resource or area has a moderately valued landscape character that is reasonably tolerant to change.
- **Low** - A landscape resource or area has a low-valued landscape character that is highly tolerant to change.

7.4.8 It should be noted that the landscape assessment for construction phase and operational phase is conducted separately due to the different potential sources affecting the magnitude of change on landscape impact. Evaluation of the sensitivity and magnitude of change on various landscape resources and character areas is conducted in a logical, reasonable and consistent manner for both construction and operational phases. Each LR and LCA is given a degree of impact significance depending on the severity of sensitivity and magnitude. **Table 7.1** illustrates the underlying principle for each of the four significance thresholds.

**Table 7.1 Significance Thresholds**

Magnitude of Change	Sensitivity		
	Low	Medium	High
Large	Moderate	Moderate/Substantial	Substantial
Medium	Slight/Moderate	Moderate	Moderate/Substantial
Small	Slight	Slight/Moderate	Moderate
Negligible	Insubstantial	Insubstantial	Insubstantial

Note: Substantial – Adverse / beneficial impact where the Project would cause significant deterioration or improvement.

Moderate – Adverse / beneficial impact where the Project would cause noticeable deterioration or improvement.

Slight – Adverse / beneficial impact where the Project would cause barely noticeable deterioration or improvement.

Insubstantial – The Project would cause no discernible change.

7.4.9 The overall assessment of acceptability, or otherwise, for landscape impact is set out in five different levels of significance according to Annex 10 of EIAO-TM, and are described in **Section 7.5**.

### Visual Assessment

7.4.10 First, the visual assessment is conducted by identifying key visual receivers. Secondly, the assessment of the severity impact in terms of nature, distance and the number and type of sensitive receivers is conducted. Thirdly, the visual compatibility or impact magnitude of this Project and its associated works with the existing and planned users and possible interference with key views is analyzed. Each visual sensitive receiver (VSR) is given an identity number and used in all relevant tables and figures. The difference between mitigated and unmitigated conditions is properly highlighted to demonstrate the effectiveness of proposed recommended mitigation measures.

7.4.11 **Type of sensitive receivers** – this is classified according to the activities, the number, availability of alternative views, duration and frequency of the view and the degree of visibility from a sensitive receiver’s point of view. In general, the type of receivers can be separated into five categories:

- **Residents** – These VSRs can view the impact from their homes. They are considered to be highly sensitive as their visual perception has a substantial effect on their quality of life and home environment.
- **Workers** – These VSRs can view the impact from their workplace or school. They are considered to be moderately sensitive as the visual perception is less important

and has a lesser effect on their quality of life. The degree of impact is dependent on the type of workplace, i.e. industrial, retail or commercial.

- **Outdoor leisure activity participants** – These VSRs can view the impact whilst taking part in an outdoor leisure activity. The degree of sensitivity is denoted by the type and duration of the leisure activity.
- **Travellers** – These VSRs can view the impact whilst travelling to another location. The degree of sensitivity is dependent on the duration and speed of their travel.
- **Community** – These VSRs can view the impact whilst in a communal building or area. The degree of sensitivity is dependent on the type of activities and services that takes place.

7.4.12 The quantity of different types of VSRs is expressed in terms of few, medium or many VSRs. Further analysis of VSR sensitivity is conducted through studies of the frequency, type and duration of alternative or amenity views. Findings are evaluated and grouped into three different general categories, which aids in identifying particular VSRs that require mitigation measures. The categories are summarized below:

- **High** - The VSRs are highly sensitive to any changes in their visual experience.
- **Medium** - The VSRs are moderately sensitive to any changes in their visual experience.
- **Low** - The VSRs are slightly sensitive to any changes in their viewing experience.

7.4.13 **Magnitude of change** – this is evaluated by a number of different factors such as:

- Compatibility of the project with the surroundings
- Duration of impact, i.e. whether the impact is temporary or permanent
- Scale of development
- Reversibility of impact
- Viewing distance of impact from the viewer
- Potential blockage of the view

7.4.14 **Sensitivity of receivers** – this is evaluated by a number of different factors such as:

- Value and quality of existing views
- Availability and amenity alternative views
- Type and estimated number of receiver population
- Duration or frequency of view
- Degree of visibility

7.4.15 The above factors is carefully analyzed and classified in the following categories:

- **Large:** The VSRs will suffer a major change in their visual experience.
- **Intermediate:** The VSRs will suffer a moderate change in their visual experience.
- **Small:** The VSRs will suffer a slight change in their visual experience.

- **Negligible:** The VSRs will suffer no discernible change in their visual experience.

7.4.16 The visual assessments for construction and operational phases are conducted individually due to the disparate visual experience from different potential sources of visual impact from this Project and its associated works. Evaluation of the sensitivity and magnitude of VSRs is conducted in a logical, reasonable and consistent manner for both construction and operational phases. Each VSR is given a degree of visual impact significance depending on the severity of sensitivity and magnitude. The rationale for categorizing the degree of visual impact significance into four thresholds is illustrated in **Table 7.1**. The overall assessment of acceptability, or otherwise, for visual impact is set out in five different levels of significance according to Annex 10 of EIAO-TM.

7.4.17 Existing trees within the works area are preserved as far as possible by considering different construction methods and engineering design. For example, affected trees near pile caps are reduced by providing temporary lateral support system to the excavation for foundation construction, instead of adopting open-cut excavation which would remove the tree in the process. However, tree preservation in totality is impossible because there are trees in direct conflict with the alignment of the proposed road. For trees unavoidably affected by the Project that have to be removed, practical transplantation will be chosen as the top priority method. If this is not possible or practical (e.g. the tree has a low survival rate), compensatory planting will be provided.

## 7.5 General Approaches to Mitigate Predicted Landscape and Visual Impact

7.5.1 After identifying LR, LCAs and VSRs that require mitigation measures to reduce the degree of impact, possible mitigation measures that can be conducted will be reviewed and evaluated. Identification of potential mitigation measures may include:

- Alternative designs or revisions to basic engineering or architecture designs to prevent or minimize adverse impact
- Remedial measures during and after construction phase
- Compensatory measures for unavoidable adverse impact and attempt to generate beneficial long term impact.

7.5.2 Recommended mitigation measures are evaluated for comparison before adopting as a mitigation or compensatory measure. This is conducted through evaluating possible mitigation measures by the degree of residual impact assessment to illustrate mitigation effectiveness. Residual impact are evaluated by the sensitivity and magnitude of change for both landscape and visual assessments. The degree of impact significance is categorized into four thresholds as illustrated in **Table 7.1**.

7.5.3 In accordance to Annex 10 of EIAO TM, the overall assessment of residual landscape and visual impact for this Project is placed into one of the following five thresholds.

- **Beneficial** – The project complements the landscape and visual character of its setting and follows the relevant planning objectives. It will improve overall landscape or visual quality.
- **Acceptable** – There is no significant effects on landscape or visual effects caused by this Project.
- **Acceptable with mitigation measures** – There will be some adverse effects that may be eliminated, reduced, or offset by specific mitigation measures.

- **Unacceptable** – The adverse effects are considered to be excessive with implemented mitigation measures.
- **Undetermined** – Significant adverse effects are likely but the extent of which they occur or may be mitigated cannot be determined from this study. Further detailed study may be required.

## 7.6 Review of Planning and Development Framework Guideline

- 7.6.1 The existing and planned development framework for the proposed works and for the surrounding has been reviewed. The planned land uses, compatibility of proposed works, potential resources and sensitive receivers have been identified to aid analyzing the compatibility of the proposed works to the existing surrounding environment.
- 7.6.2 It was found that the study area for Scheme H, I, and J falls within the South West Kowloon OZP (Outline Zoning Plan) S/K20/27, Mong Kok OZP S/K3/30 and Yau Ma Tei OZP S/K2/21, and Interim Scheme Q falls within the South West Kowloon OZP (Outline Zoning Plan) S/K20/27, Tsim Sha Tsui S/K1/27 and Yau Ma Tei OZP S/K2/21. The proposed road improvement works are located within the existing road corridor network and parts of the highway amenity planting. Land use zoning areas and the proposed works are shown in **Figure 7.1**.
- 7.6.3 As the project's objective is to improve existing traffic circulations and increase potential traffic from the developing West Kowloon area, it will cause minor alterations within the existing road layout and zoning plan. Most of the proposed works falls within the transportation infrastructure zone, while the remaining falls within the other specified use zone.
- 7.6.4 The planning intention for other specified use zoning includes public convenience and public utility installation. Thus, the project falls within the guidelines of this zone and no part of the proposed alignment will conflict with the current zoning of these regions.
- 7.6.5 There will be no conflict with the current landscape strategies, landscape frameworks, urban design concepts, height profiles, landmarks, view corridors, open space networks and landscape links of this area except for the planned West Kowloon Cultural District (WKCD) which is yet to be finalized.
- 7.6.6 This project does not involve any bargaining point.
- 7.6.7 Overall, the proposed works should fall within the OZP guidelines and planning goals as well as helping to improve West Kowloon's and Tsim Sha Tsui's vehicular connectivity to nearby districts.

## 7.7 Cumulative Impact

- 7.7.1 A number of projects are planned within the Study Area, which will result in landscape and visual impact including degradation of landscape character and visual amenity, and the loss of landscape resources. Mitigation measures to address landscape and visual impact have been incorporated into the design of each of the approved projects. The resulting changes to the existing landscape character, landscape resources and visual amenity have been taken into account in the baseline assessment. Cumulative impact from these projects is therefore taken into account through their inclusion in the baseline conditions.

These concurrent projects are listed below:

- Express Rail Link (XRL) – The development of the express rail link borders the Eastern side of the proposed works area. VSRs facing the proposed works site would be able to see into construction works of Express Rail Link.
- West Kowloon Cultural District (WKCD) – The development of the West Kowloon Cultural District is located on the south side of the proposed works area. It will contribute to a cumulative impact in the local area with the transformation of undeveloped construction site to an urbanized commercial character. It is expected that the construction of medium and low-rise developments along the waterfront will serve to integrate with the high-rise development in the surrounding area.
- Road Works at West Kowloon – Road works are located at Austin Road West, Hoi Wang Road and Wui Cheung Road. They are located by and large outside the zone of visual influence of this project (except some insubstantial encroachments at the boundaries of the visual influence zone), but are within the landscape assessment boundary. The project is anticipated to complete in 2014.
- Construction of Dry Weather Flow Interceptor at Cherry Street Box Culvert and Other Works – The project will provide a dry weather flow interceptor at Cherry Street box culvert and its associated pumping facilities, located at approximately 310m north of the northern most part of the proposed structures in this Project.
- Trenchless Cable Duct Crossings at Nga Cheung Road – The total 290m long (approx.) trenchless cable duct project is targeted to complete in 2015.

Central Kowloon Route and Widening of Gascoigne Road Flyover (CKR) – The works are located towards the north east boundary of the proposed works assessment area. The site of Central Kowloon Route is located mostly on existing undeveloped land and the project is anticipated to last from 2015 to 2020. The cumulative impact of the concurrent projects identified above in terms of landscape and visual are discussed below in **Sections 7.9.43 and 7.9.46**.

## 7.8 Existing Baseline Conditions

7.8.1 The landscape baseline of the study area comprises Landscape Resources (LRs) and Landscape Character Areas (LCAs) within 500m from the works area, and the Visually Sensitive Receivers (VSRs) within the Zone of Visual Influence (ZVI). **Figures 7.2 to 7.4** show the location of each LR, LCA and VSR. Broad brush tree survey plans showing the distribution of tree groups within the study area are shown in **Figures 7.51 to 7.55**, with estimated tree numbers and dominant tree species described below in **7.8.3 to 7.8.12**. Detailed tree survey plans for trees within the works limits are shown in **Figures 7.5a to 7.5g**.

### Landscape Resources (LRs)

7.8.2 The landscape resources identified within the study area falls into 15 categories and may be a temporary or permanent resource as described as follow. **Figure 7.2** illustrates the location of each LR. **Figure 7.7a** contains the photo of each LR.

7.8.3 **Roadside Amenity Planting Areas – West Kowloon Highway (LR1.1)** - This LR includes mainly trees and other vegetation planted close to roads or highways. They are utilized for creating visual barriers to sites of low visual amenity, for shade or

greening purposes. It is part of the Greening Master Plan of Yau Ma Tei/Mong Kok with the theme “Coastal Scenery”. There are approximately 1700 trees within the defined study areas. Of the 1700 trees, a total number of 482 trees were recorded falling within the works areas. Dominant tree species are *Acacia confusa*, *Acacia mangium*, *Casuarina equisetifolia*, *Alstonia scholaris* and *Bauhinia blakenana*. Trees found here are all common species with a moderate to low maturity and low to medium amenity value. The sensitivity of this LR is considered as medium.

7.8.4 **Roadside Amenity Planting Areas – Cherry Street and Other Local Distributor Road (LR1.2)** This LR is considered a part of the Greening Master Plan of Yau Ma Tei/Mong Kok with the theme “Coastal Scenery”. Approximately over 250 trees are found within the area. Tree species include *Lagerstroemia speciosa*, *Ficus microcarpa*, *Celis sinensis*, and *Leucaena leucocephala*. Trees in this area are 5 – 10 metres tall. Trees found here are all common species with a moderate to low maturity and low to medium amenity value. No trees in this area fall within the works areas. The respective sensitivity of this LR is considered as low.

7.8.5 **Roadside Amenity Planting Areas – Canton Road (LR1.3)** This LR includes mainly trees and other vegetation planted close to roads or highways. They are utilized to beautify Canton Road. This LR contains approximately 74 trees. Dominant tree species are *Aleurites moluccana* and *Melaluca cajuputi subsp. Cumingiana*. Trees found here are all common species with a moderate to low maturity and low to medium amenity value. The respective sensitivity of this LR is considered as medium.

7.8.6 **Roadside Amenity Planting Areas –Kowloon Park and Nathan Road (LR1.4)**  
This LR includes mainly trees and other vegetation planted close to roads. It is a part of the Greening Master Plan of Tsim Sha Tsui. Approximately around 100 trees are found in the area. A line of *Ficus microcarpa* and *Cinnamomum camphora* are present on the street, between the Austin Road-Hoiphong Road section. Trees in this section have a moderate to high maturity and high amenity value. Many of which have reached OVT status with an average height of 13m and an average crown spread of 14m. However, none of these registered or potential OVTs and other trees and vegetations was identified within the project limits and its vicinity based on the criteria and guidelines set out in ETWB TCW No. 29/2004. The respective sensitivity of this LR is considered as high.

7.8.7 **Roadside Amenity Planting Areas –Austin Road, Jordon Road and other Local Distributor Roads (LR1.5)** – This LR is considered a part of the Greening Master Plan of Yau Ma Tei/Mong Kok with the theme “Coastal Scenery”. Approximately around 400 trees are found in the area. Tree species along Jordon Road include *Leucaena leucocephala*, *Crateva trifoliata*, *Bauhinia purpurea* and *Archontophoenix alexandrae*. Trees in this area are 5 – 10 metres tall. Trees found here are all common species with a moderate to low maturity and low to medium amenity value. No trees in this area fall within the works areas. As there is currently major construction along Austin Road, there is no plantation along the road. The respective sensitivity of this LR is considered as low.

7.8.8 **Roadside Amenity Planting – West Kowloon Corridor and Other Local Distributor Roads (LR1.6)** – Approximately 200 trees are located in the roadside planting in this LR. The predominant tree species are *Bauhinia variegata*, *Roystonea regia*, *Archontophoenix alexandrae*, *Crateva trifoliata*, *Melaleuca*

*quinquenervia* and *Livistona chinensis*. The sensitivity of this LR is considered as medium.

- 7.8.9 **Water Resources (LR2)** – This LR in the assessment area falls within the Yau Ma Tei Typhoon Shelter area, west of the project's works area of scheme H,I, and J. This resource is primarily made up of a cove with a narrow opening between man-made breakwaters leading to open waters. Yachts, sampans, trawlers, container and cargo ships can be seen frequenting this resource. People can be seen fishing to the northern edge of the typhoon shelter near the shoreline. As for area around Interim Scheme Q, the LR falls within Victoria Harbour by the Hong Kong China Ferry Terminal and Pacific Club, Kowloon. The backdrop of Sheung Wan stretching across the waters could be seen. These waters are used by ships and ferries bringing passengers from places outside Hong Kong. This is an important resource as it controls the flow of visitors and tourists into this region. The respective sensitivity of this LR is considered as high.
- 7.8.10 **Urban Recreational Areas – Northbound (LR3.1)** – This LR is mostly identified as public parks or landscaped gardens that are readily accessible and properly maintained. They may contain recreational facilities, such as children's playgrounds, amphitheatres, garden walks, basketball courts and football fields. This LR consists of two playgrounds beside Olympian City 1 and Island Harbourview, Cherry Street Park and Anchor Street Playground. There are approximately 340 trees in the LR. Species include *Cassia javanica* var. *Indochinensis*, *Lagerstroemia speciosa*, *Melaleuca quinquenervia*, *Crateva unlivularis*, *plumeria rubra* cv. *Acutifolia*, *Spathodea campanulate* and *Schefflera actinophylla*. Trees in this area are approximately 3 – 8 metres tall. Trees found here are all common species with low maturity and low to medium amenity value. None of the trees in the areas fall within the works areas. The respective sensitivity of this LR is considered as medium.
- 7.8.11 **Urban Recreational Areas – Southbound (LR3.2)**  
This LR consists of King George V's Memorial Park, Saigon Street Playground and Shanghai Street Playground. There are approximately 230 trees in the LR. Species in the areas include *Bauhinia blakena*, *Fiscus benjamina*, *Hibiscus tiliaceus*, *Archonotophonenix alexandrae*, and *Delonix regia*. The trees found here are approximately 3m to 10m tall. Trees found here are all common species with medium to high maturity and low to medium amenity value. One registered OVT (Old & Valuable Tree) is found in King George V's Memorial Park. Other than this, no other OVTs are found with the assessment limit. No trees will be affected by the construction. The respective sensitivity of this LR is considered as high.
- 7.8.12 **Public Amenity Areas (LR4)** – This LR consists of open space with some landscaping, designed to create a comfortable and attractive environment, thereby increasing the value of the surrounding real estates and location. Two areas are identified within the assessment area. One is located just outside of Central Park and Park Avenue with a taxi terminal between the two open space amenity areas. Approximately around 90 trees are found in the area, and the dominant tree species are *Roystonea Regia* and *Ficus microcarpa*. The respective sensitivity of this LR is considered as medium.
- 7.8.13 **Landscape within Residential Development (LR5)** – There are about 200 trees within the residential developments at locations such as podium garden, private open space playground and along the access roads within the private development areas.

Amenity value is considered to be medium. The condition of the trees range from poor to fair. Predominant species consists of *Phoenix sylvestris*, *Bauhinia spp.*, *Ficus microcarpa* and *Roystonea regia*. The sensitivity of this LR is considered as medium.

- 7.8.14 **Kowloon Park (LR6)** – This LR is a public park that is readily accessible and properly maintained. It contains many recreational facilities, such as children’s playgrounds, amphitheatres, tree walks, basketball courts and swimming pools. It also contains a number of cafes, open street vendors and museums, such as a godown of Hong Kong Museum of History and HK Heritage Discovery Centre. There is also an aviary where the public can enjoy viewing a number of rare birds kept in their enclosures. There are over 1100 trees in the park. Species planted are common, including *Ficus spp.*, *Albizia lebeck*, *Casuarina equisetifolia*, *Plumeria spp.*, *Lagerstroemia speciosa*, *Prunus Mume*, *Melaleuca quinquenervia*, *Erythrina spp.*, *Koelreuteria bipinnate*, *Bauhinia spp.*, *Michelia x alba*, *Pterocarpus indicus*, *Callistemon spp.*, and *Delonix regia*. The trees found here are approximately 5m to 15m tall. Trees found here have medium to high maturity and medium to high amenity value. There are 52 registered OVTs in Kowloon Park. No trees in the LR fall within the works area. The respective sensitivity of this LR is considered as high.
- 7.8.15 **Vegetation within Vacant Land (LR7)** – There are approximately 600 trees in this LR, of which about 450 trees are located within the site area of West Kowloon Cultural District. Amenity value is considered to be low. Predominant tree species are *Leucaena leucocephala*, *Casuarina equisetifolia*, *Melia azedarach*, *Hibiscus tiliaceus*, *Acacia auriculiformis*, *Ficus microcarpa*, *Ficus virens*, *Morus alba* and *Celtis sinensis*. The condition of the trees range from poor to fair. The sensitivity of this LR is considered as low.
- 7.8.16 **Amenity Tree Planting Area (LR8)** – Dense tree planting is found near the Hong Kong Observatory Building. Approximately 100 trees are found in this LR, with high amenity value. Predominant tree species consist of *Ficus microcarpa*, *Celtis sinensis*, *Cratogeomys cochinchinense*, *Livistona chinensis*, *Bombax ceiba*, *Aleurites moluccana*, *Acacia confusa*, *Sterculia lanceolata*, *Syzygium jambos*, *Ficus variegata var. chlorocarpa*, *Macaranga tanarius* and *Casuarina equisetifolia*. The condition of the trees range from poor to fair. The sensitivity of this LR is considered as high.

#### **Landscape Character Areas (LCAs)**

- 7.8.17 The study area consists of 10 distinct landscape character areas which are described below. **Figure 7.3** illustrates the location of each LCA. **Figure 7.7b** contains the photo of each LCA.
- 7.8.18 **Urban Residential Landscape Character Area (LCA1)** - This LCA can be found in the north part of Scheme H (Note: Neither Scheme H(A) and Scheme H(B) encroaches into this area) towards Olympic City and in the north part of Interim Scheme Q towards Yau Ma Tei. This landscape character consists of high-rise residential apartments with mixed used development surrounding or beneath a podium. Podium gardens, roadside amenity plantings and facilities with restricted access can be seen here. This type of landscape character is common around this area. As this area is fairly recently developed, the planting here have yet to reach mature size with an average height of 5m. The species chosen here are picked for their instant greening effect or a long flowering period capability, such as *Ficus benjamina*, *Phoenix roebelinii* and *Calliandra haematocephala*. The respective sensitivity of this LCA is considered as medium.

- 7.8.19 **City Mixed Urban Grid Urban Landscape Character Area (LCA2)** - This landscape features a mixed light industrial, commercial and residential use landscape in a grid complex of medium high-rises to the east of Scheme H, I and J and north of Interim Scheme Q and Road Junction Improvement Works at junction of Canton Road/Ferry Street/Jordan Road. This type of urban planning setting is typical in older districts and it reflects Hong Kong in the past. Due to space constraints, streets are narrow and are often without amenity planting with medium-sized buildings placed within close proximity to each other. Newer, modern high-rises are occasionally seen along Nathan Road, but the earlier grid layout could still be seen prominently. The respective sensitivity of this LCA is considered as medium.
- 7.8.20 **Ongoing Development Landscape Character Area (LCA3)** – This LCA includes parts of the West Kowloon Cultural District, the open field area between Jordan Street and Waterloo Street and part of XRL construction site. The landscape features may include flat, low-lying open fields with temporary open parking lots awaiting for development, government offices that may be demolished for future development or on-going construction activities. The respective sensitivity of this LCA is considered as low.
- 7.8.21 **Port / Dock Landscape Character Area (LCA4)** - The location of this LCA is along the coast, west of the sites. The area along the typhoon shelter is a busy open storage working port with open parking spaces for large vehicles. Trucks, heavy and light goods vehicles and cargo ships can be seen regularly entering and leaving this area. The respective sensitivity of this LCA is considered as low.
- 7.8.22 **Transportation Corridor Landscape Character Area – West Kowloon Highway (LCA5.1)** – This LCA includes the main transportation links around Scheme H, I and J, leading towards West Harbour Tunnel, Tsim Sha Tsui and Yau Ma Tei and Mong Kok. It is characterized by major roads, such as the West Kowloon Highway, Jordan Road, and Austin Road with amenity planting at the dividers or at the borders. The respective sensitivity of this LCA is considered as medium.
- 7.8.23 **Transportation Corridor Landscape Character Area – Canton Road (LCA5.2)** - This LCA includes the main transportation links around Interim Scheme Q and Road Junction Improvement Works, leading towards West Kowloon, Tsim Sha Tsui and Yau Ma Tei and Mong Kok. It is characterized by major roads, such as the Canton Road, Ferry Street, Jordan Road, and Austin Road with amenity planting at the dividers or at the borders. The respective sensitivity of this LCA is considered as medium.
- 7.8.24 **Typhoon Shelter Landscape Character Area (LCA6)** – The typhoon shelter hosts mainly cargo ships and leisure boats, marine police boats, and sampans. Sampans can be seen temporarily docked along the coast close to LCA1 or around the middle of the typhoon shelter at sea. In the past, fishermen or boat people lived on boats in typhoon shelters with their own unique traditions and culture. However, most of these people have moved on shore now, and much of the past unique landscape character is lost. The typhoon shelter nowadays is used mainly for its designated function. The respective sensitivity of this LCA is considered as medium.
- 7.8.25 **Urban Recreational Area (LCA7)** – This LCA consists of Cherry Street Park, Kowloon Park, King George V Memorial Park and several small playgrounds. It is characterized by properly maintained landscaped gardens and parks with recreational facilities that are open to public and located close to urban development. There are

plenty of recreational facilities for the public to enjoy, such as jogging tracks, tennis courts and soccer fields. Passive and active recreational activities takes place here and it is frequented by different groups of people of all ages. As both Kowloon Park and King George V Memorial Park are relatively well-established, OVTs can be found in both. In particular, Kowloon Park, due to its size, has an OVT street tree line along Nathan Road and Haiphong Road. Many trees here have reached the mature status. Rare plant species and wall trees can also be found in Kowloon Park. The respective sensitivity of this LCA is considered as high.

- 7.8.26 **Urban Commercial Landscape Character Area (LCA8)** – This downtown area is a mix of commercial and business district. Modern high-rise office towers and hotels with a superb view of the Hong Kong skyline are lined along Canton Road. Beneath them are many branded high-end boutiques shops, outlets and cinemas. This area used to be one of colonial Hong Kong’s original commercial wharfage and dockside warehousing complex, but was rebuilt in 1966. It is one of the Hong Kong’s tourist spots and attractions. Due to the lack of space, amenity planting takes the form of hanging flowerpots. Plants are rotated out depending on their flowering season. The respective sensitivity of this LCA is considered as medium.
- 7.8.27 **Strait Landscape Character Area (LCA 9)** – This area includes Hong Kong China Ferry Terminal, Pacific Club Kowloon, and the associated piers and docks. The Hong Kong China Ferry Terminal is one of the three cross-border ferry terminals in Hong Kong. It aids in increasing visitors to Hong Kong from Macau and Mainland China. Across from the terminal is the Pacific Club Kowloon. It is a private club with recreational facilities, restaurants, bars and lounges exclusively for its members. Both have a magnificent view of the Hong Kong skyline. The respective sensitivity of this LCA is considered as high.
- 7.8.28 **Late 20C/Early 20C Commercial-Residential Mixed Landscape Character Area (LCA 10)** – This area includes the development complex next to Kowloon Station in the southbound and the one around Olympic Station in the northbound. This area contains the most recent buildings in the study area and is characterised by large podium containing shopping centres (e.g. Olympian City and the Element), parking lots and public transport interchanges (e.g. MTR stations and bus terminals). Commercial and residential high-rises are developed in phases and they are closely connected, i.e. connected by footbridges or a common podium. The respective sensitivity of this LCA is considered as medium.

### **Tree Survey**

- 7.8.29 A tree survey within the proposed works area was undertaken to identify trees of high amenity for prioritised preservation.

## Findings

- 7.8.30 A total of 556 trees were identified in the tree survey within the works area (approximately 5400 trees are located within the study boundary). There are approximately 30 different tree species, made up of mostly landscaping or amenity trees commonly found in parks around Hong Kong. The most common occurring species include *Acacia auriculiformis*, *Acacia confusa*, *Acacia mangium*, *Aleurites moluccana*, *Bauhinia spp*, and *Delonix regia*, which made up of 60% of the trees located in or close to the proposed works area. No trees of conservation interest were recorded within the project limit.
- 7.8.31 The tree survey reveals that amongst the 556 surveyed trees, a total of 310 would be felled and 33 trees would be transplanted due to the works. The other 213 trees can be retained on site during and after the construction of the project. The full schedule of the tree survey is found in **Appendix 7.1** and the locations of these trees are shown in **Figure 7.5a to 7.5g**.
- 7.8.32 The affected trees are located as **Roadside Amenity Planting along West Kowloon Highway and Canton Road (LCA1.1 and 1.3)**. These are also mostly amenity tree species such as *Acacia confusa*, *Acacia mangium*, and *Casuarina equisetifolia*.

## Transplanting/Felling Proposal

- 7.8.33 According to the findings of the survey results, a total of 410 heavy standard trees would be planted to compensate the tree felling and a total 33 trees will be transplanted. Areas around Scheme H and J as shown in **Figure 7.6a to 7.6e** are chosen for all the compensatory transplanting trees. This will be detailed at a later stage when preparing the tree felling / transplanting application in accordance with ETWB TCW 3/2006.

## 7.9 Landscape Assessment

### Potential Sources of Landscape and Visual Impact

- 7.9.1 During the construction phase, potential impact affecting landscape and visual amenity may arise from:
- Construction works for excavation at Hoi Po Road to West Kowloon Highway in Scheme H, Lin Cheung Road to Nga Cheung Road in Scheme J, and Canton Road in Interim Scheme Q and Road Junction Improvement Works.
  - Construction of roads, retaining walls, pile cap, piers, decks of elevated roads and associated structures and facilities,
  - Temporary storage of construction and demolition materials, storage of construction equipment and plants,
  - Temporary traffic and road diversions,
  - Contractor's temporary works area, such as site accommodation and temporary parking areas,
  - Dust during dry weather.
- 7.9.2 During operational phase, potential impact affecting landscape and visual amenity may arise from:
- Operation of new roads and link roads

### **Cumulative Impact from Concurrent Projects**

7.9.3 The concurrent projects are listed in **Section 2.4**. Most of these are construction sites or undeveloped areas. These projects are studied as **LCA3** for this EIA.

### **Magnitude of Change of Landscape Impact**

The magnitude of change of landscape impact of the identified LRs and LCAs were assessed in accordance with the criteria stated in **Section 7.4**. A summary of magnitude of change is presented in **Table 7.2**.

**Table 7.2 Summary of Magnitude of Change of Landscape Resources and Landscape Character Areas**

Ref No.	Landscape Resources/ Landscape Character Areas	Compatibility (Good/Fair/ Poor)	Duration of Impact (Permanent/Temporary)		Scale of Development (Large/ Medium/ Small)	Reversibility of Change (Reversible/ Irreversible)	Magnitude of Change	
			Construction	Operation			Construction	Operation
<b>Landscape Resources</b>								
LR1.1	Roadside Amenity Planting Areas - WKH	Fair	Temporary	Permanent	Large	Irreversible	Large	Large
LR1.2	Roadside Amenity Planting Areas – Cherry Street, Hoi Wang Road and Lai Cheung Road	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR1.3	Roadside Amenity Planting Areas – Canton Street,	Good	Temporary	Permanent	Medium	Irreversible	Small	Small
LR1.4	Roadside Amenity Planting Areas – Kowloon Park and Nathan Road	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR1.5	Roadside Amenity Planting Areas – Austin Road West and Jordon Road	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible
LR1.6	Roadside Amenity Planting Areas – West Kowloon Corridor and Other Local Distributor Roads	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR2	Water Resources	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR3.1	Urban Recreational Areas - Northbound	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR3.2	Urban Recreational Areas - Southbound	Good	Temporary	Permanent	Medium	Irreversible	Negligible	Negligible
LR4	Public Amenity Areas	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR5	Landscape within Residential Development	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR6	Kowloon Park	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR7	Vegetation within Vacant Land	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LR8	Amenity Tree Planting Area	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*

Landscape Character Areas								
LCA1	Urban Residential	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LCA2	City Mixed Urban Grid Urban	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible
LCA3	Ongoing Development	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible
LCA4	Port/Dock	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LCA5.1	Transportation Corridor – West Kowloon Highway	Good	Temporary	Permanent	Medium	Irreversible	Medium	Small
LCA5.2	Transportation Corridor – Canton Road	Good	Temporary	Permanent	Large	Irreversible	Medium	Medium
LCA6	Typhoon Shelter	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LCA7	Urban Recreational	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible
LCA8	Urban Commercial	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible
LCA9	Strait	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*	N.A.*
LCA10	Late 20C/ Early 21C Commercial-Residential Complex	Good	Temporary	Permanent	Small	Irreversible	Negligible	Negligible

\*Remark: The LR/LCAs marked with N.A. are outside the works boundary and would not be affected by this Project.

*Large Magnitude of Change*

- 7.9.4 The magnitude of change for **Roadside Amenity Planting Areas along West Kowloon Highway (LR1.1)** is **Large** during both construction and operation phases as the majority of the assessed trees would be likely to be affected (either felled or transplanted) by the works.

*Medium Magnitude of Change*

- 7.9.5 The magnitude of change for **Transportation Corridor – Canton Road (LCA5.2)** will also experience an irreversible permanent change. The existing footpath will become a traffic lane in the road widening works, and the associated roadside planting on the footpath will be removed. A **medium** magnitude of change is expected during the construction phase.

*Small Magnitude of Change*

- 7.9.6 The magnitude of change for **Roadside Amenity Planting Areas along Canton Road (LR1.3)** is **small** during both construction and operation phases as only 9 out of 74 trees (all common species with a moderate to low maturity and low to medium amenity value) along Canton Road will be affected due to the construction.

*Medium Magnitude of Change*

- 7.9.7 **Transportation Corridor – West Kowloon Highway (LCA5.1)** will also experience a medium-scale irreversible permanent change. Most of the works will be conducted in this LCA with proposed new roads to be constructed on existing roadside planting areas. Therefore, the associated roadside planting in the site areas will unavoidably be affected. Hence, a **medium** magnitude of change is expected during the construction phase.

*Negligible Magnitude of Change*

- 7.9.8 The rest of the LRs and LCAs have a negligible magnitude of change as they will not be affected by the proposed works in the construction phase.

**Sensitivity of Landscape Impact**

- 7.9.9 The sensitivity of landscape impact of the identified LRs and LCAs were assessed in accordance with the criteria stated in **Section 7.4**. A summary of sensitivity is presented in **Table 7.3**.

**Table 7.3 Summary of Sensitivity of Landscape Resources and Landscape Character Areas**

Ref No.	Landscape Resources/ Landscape Character Areas	Quality (Good/Medium/ Poor)	Importance and Rarity (High/ Medium/Low)	Significance of Change (Large/Medium/Small/negligible)	Maturity (High/ Medium/ Low)	Ability to Accommodate the Change (Good/ Fair/ Poor)	Sensitivity
Landscape Resources							
LR1.1	Roadside Amenity Planting Areas – WKH	Medium	Low	Large	Medium	Good	Medium
LR1.2	Roadside Amenity Planting Areas – Cherry Street, Hoi Wang Road and Lai Cheung Road	Medium	Low	Small	Medium	Good	Low
LR1.3	Roadside Amenity Planting Areas – Canton Road	Medium	Low	Medium	Medium	Good	Medium
LR1.4	Roadside Amenity Planting Areas –Kowloon Park and Nathan Road	Good	High	Large	High	Poor	High
LR1.5	Roadside Amenity Planting Areas – Austin Road West and Jordan Road	Poor	Low	Small	Medium	Good	Low
LR1.6	Roadside Amenity Planting Areas – West Kowloon Corridor and Other Local Distributor Roads	Medium	Low	Small	Medium	Good	Medium
LR2	Water Resources	Good	High	Large	High	Poor	High
LR3.1	Urban Recreational Areas - Northbound	Good	Medium	Medium	Low	Fair	Medium
LR3.2	Urban Recreational Areas - Southbound	Good	Medium	Large	Medium	Fair	High
LR4	Public Amenity Areas	Medium	Medium	Small	High	Fair	Medium
LR5	Landscape within Residential Development	Medium	Medium	Large	Low	Fair	Medium
LR6	Kowloon Park	Good	High	Large	High	Poor	High
LR7	Vegetation within Vacant Land	Poor	Low	Medium	Low	Good	Low
LR8	Amenity Tree Planting Area	Medium	High	Large	Medium	Poor	High

Ref No.	Landscape Resources/ Landscape Character Areas	Quality (Good/Medium/ Poor)	Importance and Rarity (High/ Medium/Low)	Significance of Change (Large/Medium/Small/negligible)	Maturity (High/ Medium/ Low)	Ability to Accommodate the Change (Good/ Fair/ Poor)	Sensitivity
Landscape Character Areas							
LCA1	Urban Residential	Good	Low	Medium	High	Good	Medium
LCA2	City Mixed Urban Grid Urban	Medium	Low	Medium	High	Good	Medium
LCA3	Ongoing Development	Low	Low	Negligible	Low	Good	Low
LCA4	Port/Dock	Poor	Low	Small	Medium	Good	Low
LCA5.1	Transportation Corridor – West Kowloon Highway	Medium	Low	Medium	Medium	Good	Medium
LCA5.2	Transportation Corridor – Canton Road	Medium	Low	Small	Medium	Good	Medium
LCA6	Typhoon Shelter	Medium	Low	Small	Medium	Good	Low
LCA7	Urban Recreational	Good	High	High	High	Poor	High
LCA8	Urban Commercial	Good	Medium	Medium	Medium	Good	Medium
LCA9	Strait	Good	High	Medium	High	Poor	High
LCA10	Late 20C/ Early 21C Commercial-Residential Complex	Good	Medium	Small	Low	Good	Medium

*High Sensitivity*

- 7.9.10 The sensitivity is considered to be **high** for the following LRs and LCAs – **Roadside Amenity Planting Areas (Kowloon Park and Nathan Road), Water Resources, Urban Recreational Areas (Northbound and Southbound), Kowloon Park, and Urban Recreational Landscape Character Areas and Strait (LR1.4, LR2, LR3.1, LR3.2, LR6, LR8, LCA7 and LCA9)**. They all contain significant unique features or sense of place that allows the public and visitors to enjoy. In particular, these LRs include the Kowloon Park, the Cherry Street Park and the King George V Memorial Park, which are large public parks with diversified tree species and significant amount of visitors. Changes to the landscape are not recommended here.

*Medium Sensitivity*

- 7.9.11 The sensitivity is considered to be **medium** for the following LRs and LCAs – **Roadside Amenity Planting Areas (West Kowloon Highway, Canton Road), Public Amenity Areas, Urban Residential, City Mixed Grid Urban Landscape Resources, Transport Corridor, Urban Commercial, and Late 20C/Early 21C Commercial-Residential Mixed Landscape Character Areas (LR1.1, LR1.3, LR1.6, LR4, LR5, LCA1, LCA2, LCA5.1, LCA5.2, LCA8 and LCA10)**. The largely roadside planting areas contain some unique landscape elements or features. For example, the dominant tree species *Roystonea Regia* and *Ficus microcarpa* in LR4 form regular pattern and constitute unique landscape elements. These areas have low to medium importance and rarity in the vicinity. Therefore, small changes are acceptable if kept to a minimal area as the local context will not be disturbed much.

*Low Sensitivity*

- 7.9.12 The rest of the LRs and LCAs have a low sensitivity due to the lack of unique and quality landscape features and elements, low significance in local and regional context and its high ability to accommodate change.

**Landscape Impact Significance**

- 7.9.13 Based on the findings in the above sections, the landscape impact significance of each LR and LCA is determined in accordance with the table shown in **Section 7.4**. Mitigation measures are also recommended if necessary. The summary of landscape impact significance is shown in **Table 7.4**. The detail of the evaluation for each LR and LCA is elaborate as in the following sections.

**Landscape Impact Significance during Construction Phase without Mitigation**

*Substantial Adverse Impact Significance*

- 7.9.14 **Roadside Amenity Planting Areas along West Kowloon Highway (LR1.1)** will experience **substantial adverse** impact significance. Majority of the trees within the works areas will be affected. Out of the 1700 trees within the study area, 482 trees are within the works areas and 334 of which will be affected (31 trees to be transplanted and 303 trees to be felled). The impact imposed in the construction stage is irreversible. Due to large magnitude of change and medium sensitivity, this LR is considered to have **substantial adverse** impact significance.

*Moderate Adverse Impact Significance*

- 7.9.15 **Roadside Amenity Planting Areas along Canton Road (LR1.3)** will be considered to have **moderate adverse** impact significance with no mitigation measures because 9

out of 74 number of trees located within the works area would be affected and the magnitude of change due to the works will be small. The 9 trees are affected by works in Interim Scheme Q. Of the 9 affected trees, 2 trees will be transplanted (to area within this LR) and 7 trees will be felled according to the latest detailed tree survey results.

**Transportation Corridor – Canton Road (LCA5.2)** will experience **moderate adverse** impact significance during the construction stage without mitigation measures. Impact includes shallow excavation and backfilling for underground utilities diversion, road widening works and road junction improvement works. However, the effect is temporary as no landscaping character area will be permanently affected except 7 trees along Canton Road will be felled.

- 7.9.16 **Transportation Corridor – West Kowloon Highway (LCA5.1)** will experience **moderate adverse** impact significance during the construction stage without mitigation measures. The proposed viaducts are all located within this LCA, and therefore the existing trees and other vegetation at locations of the proposed viaducts will be affected. Impact includes excavation, ELS, backfilling, temporary works and associated structural works. Most works will be conducted on the West Kowloon Highway. However, the effect is temporary and the works mainly affects the area of the new road alignment which has an area of about 4,800m<sup>2</sup>. 482 trees are within the works areas and 334 of which will be affected (31 trees to be transplanted and 303 trees to be felled). No district open space is affected.

*Insubstantial Impact Significance*

- 7.9.17 All other landscape resources and character areas as follows are considered to have insubstantial impact significance as they are unaffected by the works due to their locations.

- LR1.5 – Roadside Amenity Planting Areas – Austin Road West and Jordon Road
- LR3.2 – Urban Recreational Areas – Southbound
- LCA2 – City Mixed Urban Grid Urban
- LCA3 – Ongoing Development
- LCA7 – Urban Recreational
- LCA8 – Urban Commercial
- LCA10 – Late 20C/ Early 21C Commercial – Residential Complex

**Landscape Impact Significance during Operational Phase without Mitigation**

*Substantial Adverse Impact Significance*

- 7.9.18 **Roadside Amenity Planting Areas along West Kowloon Highway (LR1.1)** will experience **substantial adverse** impact significance without mitigation because of the loss of large number of trees.

*Slight Adverse Impact Significance*

- 7.9.19 **Roadside Amenity Planting Areas along Canton Road (LR1.3)** will experience **slight adverse** impact significance in the operation phase. Out of the existing 74 trees, only 9 trees will be affected due to the construction (all common species with a moderate to low maturity and low to medium amenity value) along Canton Road. Out

of the 9 affected trees, 7 will be felled and 2 will be transplanted within the same LR. These 9 trees are unavoidably affected because they are located on the existing footpath that will become carriageway under the proposed road widening works.

*Insubstantial Impact Significance*

- 7.9.20 **Transportation Corridor – Canton Road (LCA5.2)** will experience an impact that is insubstantial because of the small scale of road widening and junction improvement works. In this stage the proposed works should be able to blend in with the surrounding transportation corridor landscape environment. Additional vehicular traffic caused during construction stage should be cleared. As this is a road improvement works project, the transportation corridor and vehicular circulation should improve and become more efficient. It is expected to have **insubstantial** impact significance from the newly proposed road works as no landscaping character area will be permanently lost.

*Slight Adverse Impact Significance*

- 7.9.21 **Transportation Corridor – West Kowloon Highway (LCA5.1)** will experience an irreversible direct impact as the proposed works are located within this LCA. In this stage the proposed works should be able to blend in with the surrounding transportation corridor landscape environment. Additional vehicular traffic caused during the construction stage should be cleared. As this is a road improvement works project, the transportation corridor and vehicular circulation should improve and become more efficient. The only impact on the landscape is the deterioration of view due to loss of green amenity. It is expected to have **slight adverse** impact significance from the newly proposed unsightly hard structures which has a landscape area of about 4,800m<sup>2</sup>.

*Insubstantial Impact Significance*

- 7.9.22 All other landscape resources and character areas as indicated in the following are considered to have insubstantial impact significance as they are unaffected by the works due to their distance from the site works or their compatibility with the finished works.

- LR1.5 –Roadside Amenity Planting Areas – Austin Road West and Jordon Road
- LR3.2 – Urban Recreational Areas – Southbound
- LCA2 – City Mixed Urban Grid Urban
- LCA3 – Ongoing Development
- LCA7 – Urban Recreational
- LCA8 – Urban Commercial
- LCA10 – Late 20C/ Early 21C Commercial – Residential Complex

**Landscape and Visual Mitigation Measures**

- 7.9.23 The recommended mitigation measures are described below:

Construction phase mitigation measures should be adopted from the commencement of construction throughout the entire construction period. Proposed construction phase mitigation measures (CM) include:

- CM1 – Minimize the construction period as far as possible, so as to reduce the duration of impact.
- CM2 – The works limit should be clearly defined to avoid further impact on adjacent offsite landscapes. Screens or hoardings around the site limit should be in visually unobtrusive colours to screen the proposed works.
- CM3 – Protection of preserved trees identified in the tree survey under this Project based on the recommendation of detailed tree assessment report and the approval of Tree Removal Application under ETWB TCW No. 3/2006 – Tree Preservation.
- CM4 – Unavoidable trees affected by the works and considered for transplant where feasible in accordance with ETWB TCW No. 3/2006 – Tree Preservation, should be maintained until the end of the establishment period.

7.9.24 The following mitigation measures should be adopted during the detailed design stage and built as part of the construction works. The full effect of these measures may not be appreciated until a few years it is implemented. A proposed operational phase mitigation measure (OM) includes:

- OM1 – Compensatory planting will be provided in accordance with ETWB TCW 3/2006 to mitigate potential impact on existing landscape resource of trees. The potential planting areas are shown in **Figure 7.6a to 7.6e**, which will be further refined subject to detailed designs of the project. The compensatory planting refers to trees only, while shrubs and climbers are categorized under OM2 below.
- OM2 – Provide vertical greening at piers of elevated roads and shrub planting near amenity planting strips to soften the hard landscape (e.g. climber and shrub for hiding central dividers), shown in **Figure 7.71 to 7.78**.
- OM3 – An aesthetically pleasing, integrated design in terms of form, textures, finishes, colours, and landscaping of the proposed development components and associated structures should be compatible with the existing surroundings. The mitigation measures are to adopt similar built-forms, configurations and aesthetic appearance as the nearby structures for the newly proposed viaducts. In fact, the structural form, landscaping, and aesthetic appearance of the highway structures of Scheme H(A), Scheme H(B), Scheme I, & Scheme J was approved by the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS) during the 352<sup>nd</sup> ACABAS meeting held on 21 May 2013.

7.9.25 According to ETWB TCW 3/2006 Compensatory planting of a ratio no less than 1:1 in terms of quality and quantity will be provided for any potential tree felling within the site as far as possible. Thus, 410 heavy standard trees must be planted to compensate the trees felled in LR1.1 and LR1.3. The locations are shown in **Figure 7.6a to 7.6e**. It should be noted that any tree protection, tree transplanting and compensation tree planting proposal will be submitted to relevant Government Departments for approval.

#### **Landscape Impact during Construction Phase with Mitigation**

7.9.26 The significance thresholds of residual impact upon mitigation during construction phase after mitigation have been assessed and summarised below. Recommended mitigation measures are detailed in **Section 7.9** and a summary of the assessment is presented in **Table 7.4**.

*Slight Adverse Impact Significance*

- 7.9.27 **Roadside Amenity Planting Areas and Transportation Corridor along Canton Road (LR1.3 and LCA5.2)** will be affected during construction. Approximately 9 out of 74 trees will be affected, of which 7 trees is recommended for felling and 2 trees are recommended for transplanting. Most of the affected trees are common medium or low amenity value trees. No LCSD champion trees or OVTs were found within the proposed works area.
- The affected trees will either be transplanted or compensated by compensatory planting. This LR comprises of carriageway and footpath in Canton Road, and all suitable landscape areas for planting on the existing footpath are already planted with trees. As a result, the compensatory planting are located off-site. The impact significance for this LR will be **slight adverse** during the construction phase. 9 trees are unavoidably affected because they are located on the proposed carriageway under the road widening works.
- 7.9.28 **Roadside Amenity Planting Areas along the West Kowloon Highway (LR1.1)** will be affected during construction. In total 334 out of 482 assessed trees will be affected due to the works. With the mitigation measures, 31 of which will be transplanted. Most of the affected trees are common medium or low amenity value trees. No LCSD champion trees or OVTs were found within the proposed works area.
- 7.9.29 All affected trees which are to be removed, will be either transplanted or compensated by compensatory planting. Approximately 39% of the compensated trees will be located off-site outside the works limit, because the suitable landscape areas within this LR1.1 (West Kowloon Highway) are inadequate to cater for all the compensatory trees. The impact significance is **substantial adverse**.
- 7.9.30 Removal of trees is unavoidable in this LR, as the existing trees are in direct conflict with the alignment of the proposed roads. However, the landscape impacts are reduced and minimized. In excavation for pile cap construction, lateral support systems will be adopted instead of open cut method to reduce the numbers of trees affected. 148 trees are retained on works area within this LR. When tree removal is unavoidable, transplanting is considered. 31 trees will be transplanted within the same works area in this LR. For trees that need to be removed and transplant is not feasible, 410 compensatory trees will be planted. The compensatory trees will be planted within the same works area as far as practicable (about 61%).
- 7.9.31 **Transportation Corridor – West Kowloon Highway (LCA5.1)** will experience direct impact from the works area as it is located mainly in this LCA. 343 trees will inevitably be removed along the alignment of the proposed roads under the Project. Most works will be conducted on the West Kowloon Highway along these routes. With the mitigation measures implemented in the LCA, the impact significance during the construction stage is considered to be **moderate adverse** as an landscape area of about 4,800m<sup>2</sup> will be permanently affected.
- 7.9.32 While impact to landscape character is unavoidable due to direct conflict with the proposed roads, it is reduced and minimized. Existing trees are retained on site, otherwise transplanting and compensatory plantings are adopted. The newly proposed viaducts will adopt similar built-forms and configurations that will be compatible with the surroundings.

*Insubstantial*

- 7.9.33 All other landscape resources and character areas are considered to have insubstantial impact significance as they are unaffected by the works.

**Landscape Impact during Operational Phase with Mitigation**

- 7.9.34 During the operational phase, mitigation measures will be utilized to restore the landscape to its original amenity value as far as practicable. Total 410 compensatory trees will be provided. Mitigation measures provided are stated above in **Section 7.9.26**.

- 7.9.35 However, about 39% of compensatory planting will be located off-site outside the works limit. Therefore, adverse impacts still exist after mitigation in LR1.1, LR1.3, LCA5.1 and LCA5.2. Most of the proposed works are located in these LR/LCAs. Works limit of the Project in these LR/LCAs are mainly areas of existing carriageways in West Kowloon Highway and Canton Road. As a result, there are inadequate landscape areas within the works limit to cater for all the compensatory trees and off-site compensatory planting is unavoidable. Though impact is unavoidable, mitigation measures are adopted to reduce and minimize the impact. Recommended mitigation measures are detailed in **Section 7.9.25** and summary of the assessment is presented in **Table 7.4**.

- 7.9.36 All other LCAs and LRs as listed below will experience insubstantial residual impact significance with mitigation during the operational phase (Day 1) and the operation phase (Year 10) as detailed in **Table 7.4**:

- LR1.5 – Roadside Amenity Planting Areas – Austin Road West and Jordon Road
- LR3.2 – Urban Recreational Areas – Southbound
- LCA2 – City Mixed Urban Grid Urban
- LCA3 – Ongoing Development
- LCA7 – Urban Recreational
- LCA8 – Urban Commercial
- LCA10 – Late 20C/ Early 21C Commercial – Residential Complex

**Management and Maintenance Responsibility of the Mitigation Measures**

- 7.9.37 During the construction stage, the project proponent (i.e. Highways Department, and its consultant and contractor) will be responsible for the management and maintenance of the mitigation measures, including but not limited to those that are incorporated into the EIA, EM&A Manual, and EP.

- 7.9.38 During the operation stage, Highway Department as the overall management and maintenance authority for all public roads in Hong Kong will be responsible for management and maintenance of the works, which are all public roads and footpaths, constructed under this project. Highway Department will provide the necessary maintenance to ensure that the aesthetic appearance of the highway structures (including Scheme H(A), Scheme H(B), Scheme I, Scheme J) as approved by ACABAS is maintained. Responsibility to maintain the vegetation and hard landscape features are shared among various Government departments based on the policy as set out in ETWB TCW No. 2/2004.

7.9.39 In particular: -

- Highways Department will be responsible for maintenance of the vegetation within the boundary of expressways;
- Other Government department(s) will be responsible for maintenance of the vegetation within public roads and footpaths (except those vegetation within the boundary of expressways which will be maintained by Highways Department) in accordance with ETWB TCW No. 2/2004.

7.9.40 Highway Department and other Government department(s) will be responsible for maintenance of the various hard landscaping features of Scheme H(A), Scheme H(B), Scheme I, Scheme J, and Interim Scheme Q in accordance with the provisions set out in ETWB TCW No. 2/2004.

#### **Cumulative Landscape Impacts**

7.9.41 Cumulative landscape impacts during the construction and operation phase of the Project and other concurrent projects at the vicinity are assessed. The concurrent projects are listed in **Section 2.4 and Section 7.7**. These projects are studied as **LR7** and **LCA3** for this EIA as construction sites or undeveloped areas, and are assessed as having insubstantial impacts as shown in **Table 7.4**.

7.9.42 The key concurrent projects identified are XRL, CKR, Road Works at West Kowloon (RWWK) and WKCD. They are designated projects under the EIAO, in which landscape impacts will be assessed and reduced/minimized with mitigation measures.

**Table 7.4 Summary of the Assessment of Landscape Resources and Landscape Character Areas**

Ref No.	Landscape Resources/ Landscape Character Areas	Magnitude of Change		Sensitivity	Impact Significance* BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance* AFTER Mitigation		
		Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
Landscape Resources										
LR1.1	Roadside Amenity Planting Areas - WKH	Large	Large	Medium	Substantial	Substantial	CM2, 3, 4, OM1-3	Substantial	Moderate	Slight
LR1.3	Roadside Amenity Planting Areas – Canton Street,	Small	Small	Medium	Moderate	Slight	CM2, 3, 4, OM3	Slight	Slight	Insubstantial
LR1.5	Roadside Amenity Planting Areas – Austin Road West and Jordon Road	Negligible	Negligible	Low	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial
LR3.2	Urban Recreational Areas - Southbound	Negligible	Negligible	High	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial

Ref No.	Landscape Resources/ Landscape Character Areas	Magnitude of Change		Sensitivity	Impact Significance* BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance* AFTER Mitigation		
		Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
Landscape Character Areas										
LCA2	City Mixed Urban Grid Urban	Negligible	Negligible	Medium	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial
LCA3	Ongoing Development	Negligible	Negligible	Low	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial
LCA5.1	Transportation Corridor – West Kowloon Highway	Medium	Small	Medium	Moderate	Moderate	CM2-4, OM1-3	Moderate	Moderate	Slight
LCA5.2	Transportation Corridor – Canton Road	Medium	Small	Medium	Moderate	Insubstantial	CM2-4, OM3	Slight Adverse	Insubstantial	Insubstantial
LCA7	Urban Recreational	Negligible	Negligible	High	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial
LCA8	Urban Commercial	Negligible	Negligible	Medium	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial
LCA10	Late 20C/ Early 21C Commercial-Residential Complex	Negligible	Negligible	Medium	Insubstantial	Insubstantial	n/a	Insubstantial	Insubstantial	Insubstantial

\*Remark: All impact significances refer to adverse impact significances.

## 7.10 Visual Assessment

7.10.1 The visual assessment is separated into two areas – the area around Scheme H, I, and J and the area around Interim Scheme Q and Road Junction Improvement Works

### Scheme H, I, and J

7.10.2 A total of 17 representative VSRs are identified. These locations are chosen to illustrate the worst case scenario as they are located closest to the works, and therefore should have the highest impact. The representative VSRs within the ZVI are mapped in **Figure 7.4**. Views experienced in the respective VSRs are shown in **Figure 7.7c**. For the ease of reference, each VSR is given a distinct number which is used in the following text, figures and tables. Each VSR will be described by type (residents, workers, travellers, outdoor leisure activity participant or community), the height of the building, and their approximate distance to the closest source. Identified VSRs are listed in **Table 7.5**.

7.10.3 Potential sources of visual impact arising from this Project are stated in **Section 7.9**. As different areas have different works programme, this may result in varying levels of visual impact during construction and operational phases.

### Cumulative Impact from Concurrent Projects

7.10.4 The concurrent projects are listed in **Section 2.3**. Most of these are construction sites or undeveloped areas. The ongoing construction works of concurrent projects are located at the ground level. As most of the VSRs are located in high-rise buildings, it is possible for them to overlook the construction to view the open port vista beyond. Hence, many of the receivers have a fair rating for their existing views which may change after the completion of the multiple concurrent projects nearby.

**Table 7.5 Description of VSRs around Scheme H, I, and J**

VSR	Description	Closest Impact Source
1	<b>Residents at Island Harbourview</b> – A group of 39-storey residential buildings approximately 135m away from the impact source. These VSRs will be able to view the works from above. As one ascends, the viewing distance increase, but the amount of potential blockage from roadside trees decreases.	Scheme H (Part A) northern section
2	<b>Workers and Travellers at Olympic Station (MTR)</b> – MTR station, part of Tung Chung Line, situated approximately 1m away from the impact source. Aside from traffic signs there are few viewing blockages to the site. Fortunately, there are also very few windows to allow VSRs to view the proposed works area, being located close to staff entrances and emergency exits. Most VSRs will not stay for long in the areas where windows are located.	Scheme H (Part A) northern section
3	<b>Travellers along West Kowloon Highway</b> – northward bound travellers on West Kowloon Highway about 1m away from the impact source. There is no potential blockage for this type of VSR. However, the time duration exposed to these works are few as this is a highway.	Scheme H (Part A) northern section
4	<b>Outdoor leisure activity participant at Olympian City Phase II podium garden</b> – garden located 3 storeys above ground, located approximately 95m from the closest impact source. A line of roadside	Scheme H (Part A)

VSR	Description	Closest Impact Source
	amenity planting can block part of the works from view. Another line of short shrubs planted on the perimeter of the playground on the roof may also block the view from this VSR.	
5	<b>Travellers along Hoi Fai Road</b> – mainly workers and heavy goods vehicles travel along this route. It is situated approximately 10m away from the impact source. A line of amenity trees separating Hoi Fai Road from West Kowloon Highway can block the view. These travelers are mostly in vehicles; hence the duration exposed to the works will not be long.	Scheme H (Part A) northern section
6	<b>Community at HKMA David Li Kwok Po College</b> – An 8-storey high school situated about 186m away from the impact source. The works will be partially blocked by an existing construction site, roadside amenity planting and highway or school infrastructure. It cannot be seen in the classrooms, only seen by the stairs or corridors on the higher floors or school roof. Therefore, the duration exposed to the works will be fairly short.	Scheme J
7	<b>Community at Polyu Hong Kong Community College</b> – A 15-storey community college situated about 281m away from the impact source. Roadside amenity planting and the existing construction site aids in blocking the view of the works and making it more compatible with its surroundings respectively. As one ascends, the impact may increase due to decrease viewing blockage from above.	Scheme J
8	<b>Workers at Civil and Service Headquarters</b> – An 8-storey office and training facilities located about 103m away from the impact source. Part of the works will be blocked from view due to roadside amenity planting. As this VSR is mostly surrounded by construction site, the proposed works will be compatible during the operation and construction phase.	Scheme J
9	<b>Travellers along Jordan Road and Nga Cheung Road Junction</b> – heavily travelled vehicular route located about 1m away from the impact source. The elevated pedestrian footpath to be affected is rarely used. Therefore, travellers mainly consist of vehicular travellers with a short duration impact. There will be a partial view blockage from existing highway infrastructure.	Scheme H (Part B)
10	<b>Residents at Sorrento</b> – A group of 81-storey high rise residential buildings located approximately 41m away from the closest impact source. As this building is quite tall, most of the works can be seen from above. The works further away (Scheme J) can be partially blocked by roadside amenity planting. For the higher floors, the view itself may be partially blocked by the angle of visibility.	Scheme H (Part B)
11	<b>Workers at the International Commerce Centre</b> – A 118-storey high rise office tower located approximately 68m away from the closest impact source. As this building is quite tall, most of the works can be seen from above. There may be some view blockage cause by large advertisement signs at the lower floors. For the higher floors, the view itself may be partially blocked by the angle of visibility.	Scheme I
12	<b>Residents at The Cullinan</b> – A 68-storey high rise residential building located about 23m away from the closest impact source. As	Scheme H

VSR	Description	Closest Impact Source
	this building is quite tall, most of the works can be seen from above. There may be some view blockage cause by large advertisement signs at the lower floors. For the higher floors, the view itself may be partially blocked by the angle of visibility.	(Part B)
13	<b>Workers at CLP Power Centenary Substation at To Wah Road</b> – A 9-storey office building located about 50m away from the closest impact source. Part of the works will be blocked from view via highway infrastructure and roadside amenity planting.	Scheme H (Part B)
14	<b>Residents at Charming Garden</b> – A group of 24-stoery high rise residential buildings located about 150m away from the closest impact source. The works can be seen clearer on higher floors. It is partially blocked from the existing construction site and roadside amenity planting.	Scheme H (Part A) southern section, Scheme J
15	<b>Residents at Park Avenue and Central Park</b> – A 51-storey high rise residential complex located about 140m away from the closest impact source. The works can be seen clearly from above on higher floors. There’s minimal blockage from traffic signs, roadside amenity planting and passing vehicles.	Scheme H (Part A) southern section
16	<b>Workers at HSBC Centre Tower</b> – An 18-storey office building located about 120m away from the closest impact source. The works can be seen from above on higher floors. The view of the works will be partially blocked by surrounding buildings and infrastructure, such as the Olympic MTR Station.	Scheme H (Part A) northern section
17	<b>Resident at The Coronation</b> – A 38-storey high rise residential building located about 300m away from Scheme J, the closest impact source. The works can be seen clearly from higher floors. There is minimal blockage from roadside amenity planting and passing vehicles.	Scheme J

### Magnitude of Change for VSRs

7.10.5 Each VSR experiences various threshold of magnitude of change, ranged from negligible to intermediate. The criteria of the evaluation are listed in **Section 7.4**. The summary of the magnitude of change for the VSRs is shown in **Table 7.6**. All changes are well-compatible with the surroundings and irreversible. The duration of impact for all changes is temporary in the construction phase and permanent in the operation phase. Due to the temporary nature, all VSRs have small to negligible magnitude of change in the construction phase. The evaluation for the operation phase is further explained as follows:

#### *Intermediate Magnitude of Change*

7.10.6 Although all changes are well-compatible with the surroundings, **VSR3, 5, 9, 10, 11, 12, and 13**, are determined to have intermediate magnitude of change due to their close distance to the works. Furthermore, it is expected that there is no potential blockage to the views and the VSRs are likely to see the works clearly.

*Small Magnitude of Change*

- 7.10.7 **VSR 2** is determined to have small magnitude of change due to further distances from the changes.

*Negligible Magnitude of Change*

- 7.10.8 The rest of the VSRs have negligible magnitude of change due to long distances from the changes (around 200m to 300m). Moreover, there are potential or full blockade of the views from roadside amenity planting and passing vehicles.

**Table 7.6 Magnitude of Change for the identified VSRs for Scheme H, I, and J**

VSR No.	Key Visual Sensitive Receivers	Compatibility (Good/Fair/Poor)	Duration of Impact		Scale of Development (Large/Medium/Small)	Reversibility of Change (reversible/irreversible)	Approximated Viewing Distance	Roadside Amenity Planting as Mitigation Measure (Yes/No)	Magnitude of Change (Large/Intermediate/Small/Negligible)	
			Construction	Operation					Construction	Operation
1	Island Harbourview	Good	Temporary	Permanent	Small	irreversible	200m	No	Negligible	Negligible
2	Olympic Station	Good	Temporary	Permanent	Medium	irreversible	50m	No	Negligible	Small
3	West Kowloon Highway	Good	Temporary	Permanent	Large	irreversible	N/A	No	Small	Intermediate
4	Olympic City Phase II Podium Garden	Good	Temporary	Permanent	Medium	irreversible	100m	No	Negligible	Negligible
5	Hoi Fai Road	Good	Temporary	Permanent	Large	irreversible	N/A	No	Small	Intermediate
6	HKMA David Li Kwok Po College	Good	Temporary	Permanent	Small	irreversible	200m	No	Negligible	Negligible
7	Polyu Hong Kong Community College	Good	Temporary	Permanent	Small	irreversible	320m	No	Negligible	Negligible
8	Civil and Service Headquarters	Good	Temporary	Permanent	Medium	irreversible	100m	No	Negligible	Small
9	Jordan Road and Nga Cheung Road Junction	Good	Temporary	Permanent	Large	irreversible	N/A	No	Negligible	Intermediate
10	Sorrento	Good	Temporary	Permanent	Medium	irreversible	<50m	No	Small	Intermediate
11	International Commerce Centre	Good	Temporary	Permanent	Medium	irreversible	<50m	No	Small	Intermediate
12	The Cullinan	Good	Temporary	Permanent	Medium	irreversible	<50m	No	Small	Intermediate
13	CLP Power Centenary Substation at To Wah Road	Good	Temporary	Permanent	Medium	irreversible	<50m	No	Small	Intermediate
14	Chatming Garden	Good	Temporary	Permanent	Small	irreversible	150m	No	Negligible	Negligible
15	Park Avenue/Central Park	Good	Temporary	Permanent	Small	irreversible	120m	No	Negligible	Negligible
16	HSBC Centre Tower	Good	Temporary	Permanent	Small	irreversible	200m	No	Negligible	Negligible
17	The Coronation	Good	Temporary	Permanent	Small	irreversible	300m	No	Negligible	Negligible

### Sensitivity to Change for VSRs

7.10.9 The summary of the deciding factors of sensitivity and the corresponding results for each VSR is shown in **Table 7.7**.

**Table 7.7 Summary of the Deciding Factors of Sensitivity for Scheme H, I, and J**

VSR	Key Visual Sensitive Receivers	Type of VSRs	No. of Individuals (Many/Medium/Few)	Quality of Existing View (Good/Fair/Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/Partial/None)	Frequency of View	Sensitivity
1	Island Harbourview	Residential	Many	Good	Yes	Full	Frequent	High
2	Olympic Station	Travellers	Many	Fair	Yes	Full	Occasional	Low
3	West Kowloon Highway	Travellers	Many	Fair	Yes	Full	Frequent	Low
4	Olympic City Phase II Podium Garden	Outdoor leisure activity participant	Many	Good	Yes	Full	Occasional	Medium
5	Hoi Fai Road	Travellers	Medium	Fair	Yes	Full	Occasional	Low
6	HKMA David Li Kwok Po College	Community/Government Institutional	Medium	Fair	Yes	None	Occasional	Low
7	Polyu Hong Kong Community College	Community/Government Institutional	Medium	Fair	Yes	None	Occasional	Low
8	Civil and Service Headquarters	Workers	Medium	Fair	Yes	None	Occasional	Low
9	Jordan Road and Nga Cheung Road Junction	Travellers	Medium	Fair	Yes	Full	Frequent	Low
10	Sorrento	Residential	Many	Good	Yes	Full	Frequent	High
11	International Commerce Centre	Workers	Medium	Good	Yes	Full	Frequent	Medium
12	The Cullinan	Residential	Many	Good	Yes	Full	Frequent	High
13	CLP Power Centenary Substation at To Wah Road	Workers	Medium	Fair	Yes	Full	Occasional	Medium
14	Chatming Garden	Residents	Many	Fair	Yes	Full	Occasional	High
15	Park Avenue/Central Park	Residents	Many	Good	Yes	Full	Frequent	High
16	HSBC Centre Tower	Workers	Medium	Fair	Yes	Full	Occasional	Medium
17	The Coronation	Residents	Many	Fair	Yes	Partial	Occasional	Medium

#### 7.10.10 Interim Scheme Q and Road Junction Improvement Works

A total of 14 representative VSRs are identified. The representative VSRs within the ZVI are mapped in **Figure 7.4**. Views experienced in the respective VSRs are shown in **Figure 7.7d**. For the ease of reference, each VSR is given a distinct number which is used in the following text, figures and tables. Each VSR will be described by type

(residents, workers, travellers, outdoor leisure activity participant or community), the height of the building, and their approximate distance to the closest source. Identified VSRs are listed in **Table 7.8**.

**Table 7.8 Description of VSRs around Interim Scheme Q and Road Junction Improvement Works**

VSR	Description	Closest Impact Source
18	<b>Travellers along Jordan Road</b> – pedestrians and vehicular users on Jordan Road situated about 1m away from impact source. The view is a typical transportation landscape of clear roads. There are no long distance views available. Along Jordan Road towards the west, building crowd along the road, leaving space only for pedestrian pathways. To the east, is construction hoarding crowing along the road, leaving space only for rarely used pedestrian pathways.	Road Junction Improvement Works
19	<b>Travellers along Ferry Street</b> – pedestrians and vehicular users on Jordan Road situated about 10m away from impact source. Similar to VSR18, the view of the road is clear, but long distance views are not available. Buildings crowd along both sides of Ferry Street, interspersed with construction hoarding on both sides. Taller buildings can be seen jutting from the skyline behind the hoardings.	Road Junction Improvement Works
20	<b>Outdoor leisure activity participant at King George V Memorial Park</b> – public park located at the junction of Canton Road and Jordan Road, situated approximately 2m away from the impact source. This is a typical view of a busy intersection framed with the foliage from the crowns of taller trees in the park. There are no long distance views available. Construction hoarding buildings and passing vehicles obstruct the views towards Austin Station Man Wah Building, Austin Station and taller residential buildings by Olympic Station can be seen jutting out from behind the low-rise buildings and construction hoarding.	Road Junction Improvement Works
21	<b>Workers at Kwun Chung Municipal Service Building</b> – An 8-storey high government building, which contains a wet and cooked foods market and a sports centre, about 20m away from the impact source. Residents here have a clear street view of the busy Canton Road. Although there are shrubs and tree plantings in front of the building, it cannot completely hide the traffic or the high-rises beyond the construction site.	Interim Scheme Q
22	<b>Residents at Wai On Building</b> – A 6-storey old residential building situated about 2m away from the impact source. Residents here have a clear street view of the busy Canton Road. Although there are shrubs and tree plantings in front of the building, it cannot completely hide the traffic or the high-rises beyond the XRL and WKCD construction site.	Interim Scheme Q
23	<b>Travellers along Canton Road</b> – pedestrians and vehicular users on Canton Road situated about 1m away from impact source. Both sides of the road tend to be crowded with buildings or construction hoarding, interspersed with green areas such as George V Memorial Park. This creates a tunnel vision that encourages the viewer to look down the road.	Interim Scheme Q
24	<b>Residents at Victoria Towers</b> – A 62-storey high-rise residential complex situated about 2m away from the impact source. As one of the taller high-rises around Canton Road, additional height allows one to view the quite a length of Canton Road and over the construction hoarding of the WKCD site clearly. Nearby buildings, being lower than Victoria Towers, will not block the view.	Interim Scheme Q

VSR	Description	Closest Impact Source
25	<b>Community at Lai Chack Middle School and Canton Road Government Primary School</b> – A 6-storey middle school located about 2m away from the impact source. The height of the school cannot compete with the heights of office buildings across Canton Road. Hence, the views closest to the sea are blocked. The views are limited to the street views of Canton Road.	Interim Scheme Q
26	<b>Outdoor leisure activity participant at Canton Road Playground</b> – a children’s playground located by schools at approximately 2m away from the impact source. The playground is located atop of a short flight of stairs. The additional height gives the viewers a longer view of Canton Road. However, as the playground is surrounded by tall buildings and a ramp, longer, wider views are blocked.	Interim Scheme Q
27	<b>Workers at Lifung Tower</b> – A 15-storey office building with underground parking located approximately 2m away from the impact source. The view towards Canton Road is limited by the school and the ramp of the flyover. Higher floors could look over the ramp into the green slope on the edge of Kowloon Park. There are no long distance views or vistas.	Interim Scheme Q
28	<b>Residents at Man Wah Building</b> – An 18-storey residential building located approximately 80m away from the impact source. The Man Wah Building faces a bus terminal that is usually empty. Further across the terminal, the construction site of WKCD and XRL and Canton Road can be seen. Views are limited by the tall buildings on the East side of Ferry Street. Most of this view is dominated by construction sites and busy roads.	Road Junction Improvement Works
29	<b>Residents at Yue Tak Building</b> – A 16-storey residential building located approximately 15m away from the impact source. The view is partially blocked the King George V Memorial Park and its facilities and buildings along Jordan Road and Canton Road. Beyond the busy intersection of Canton Road and Jordan Road, construction hoarding blocks the view towards the East. The Austin Station and high-rises by Olympic Station can be seen in the background, blocking out most of the sky.	Road Junction Improvement Works
30	<b>Residents at the committed residential developments above Austin Station</b> – A major residential development located at KIN No. 11126 and 11129. The development is expected to be completed in phases up to 2014, which is within the construction period of this Project. The residents are expected to clearly oversee the construction of Interim Scheme Q.	Interim Scheme Q
31	<b>Working staff at Tsim Sha Tsui Fire Station and Regional Office of Fire Service Department</b> – A 15-storey government institutional building located approximately 2m away from the impact source. The view towards Canton Road is limited by the school and the ramp of the flyover. Higher floors could look over the ramp into the green slope on the edge of Kowloon Park. There are no long distance views or vistas.	Interim Scheme Q

### Magnitude of Change for Identified VSRs

7.10.11 Each VSR experiences various threshold of magnitude of change, ranged from negligible to intermediate. The criteria of the evaluation are listed in **Section 7.4**. The summary of the magnitude of change for the VSRs is shown in **Table 7.9**. All changes are well-compatible with the surroundings, irreversible, and very close to the VSRs. The duration of impact for all changes is temporary in the construction phase and permanent in the operation phase. The evaluation is further explained as follows:

#### *Intermediate*

7.10.12 Although all changes are well-compatible with the surroundings and small in scale, **all except VSR 21 and 30** are determined to have intermediate magnitude of change due to their close distance to the changes. Furthermore, it is expected that there is no potential blockage to the views and the VSRs are likely to see the works clearly.

*Small*

7.10.13 **VSR 21** is determined to have small magnitude of change because it locates 10 m from the concerned area and there is some roadside amenity planting as mitigation measure.

*Negligible*

7.10.14 **VSR 30** has negligible magnitude of change as it is consider as a concurrent residential development project with the Project. Thus, the impact of the permanent change is negligible.

**Table 7.9 Magnitude of Change for the identified VSRs for Interim Scheme Q and Road Junction Improvement Works**

VSR No.	Key Visual Sensitive Receivers	Compatibility (Good/Fair/Poor)	Duration of Impact		Scale of Development (Large/Medium/Small)	Reversibility of Change (reversible/irreversible)	Approximated Viewing Distance	Roadside Amenity Planting as Mitigation Measure(Yes/No)	Magnitude of Change (Large/Intermediate/ Small/ Negligible)	
			Construction	Operation					Construction	Operation
18	Jordan Road	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
19	Ferry Street	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
20	King George V Memorial Park	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
21	Kwun Chung Municipal Services Building	Good	Temporary	Permanent	Small	irreversible	10m	Yes	Negligible	Small
22	Wai On Building	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
23	Canton Road	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
24	The Victoria Towers	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
25	Lai Chack Middle School and Canton Road Government Primary School	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
26	Canton Road Playground	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
27	Lifung Tower	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
28	Man Wah Building	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
29	Yue Tak Building	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate
30	Developments above Austin Station	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Negligible	Negligible
31	Tsim Sha Tsui Fire Station and Regional Office of Fire Service Department	Good	Temporary	Permanent	Small	irreversible	N/A, very close	No	Small	Intermediate

### **Sensitivity to Change for VSRs**

- 7.10.15 The summary of the deciding factors of sensitivity and the corresponding results for each VSR is shown in **Table 7.10**.
- 7.10.16 The ongoing construction works located at the ground level. As most of these VSRs are located in high-rise buildings, it is possible for them to overlook the construction to view the open port vista beyond. Hence, many of the receivers have a fair rating for their existing views which may change after the completion of the Project.

**Table 7.10 Summary of the Deciding Factors of Sensitivity for Interim Scheme Q and Road Junction Improvement Works**

VSR	Key Visual Sensitive Receivers	Type of VSRs	No. of Individuals	Quality of Existing View	Availability of Alternative Views	Degree of Visibility	Frequency of View	Compatibility to Surroundings	Scale of Impact	Sensitivity
18	Jordan Road	Travellers	Many	Poor	Yes	Full	Frequent	High	Small	Low
19	Ferry Street	Travellers	Many	Poor	No	Full	Frequent	High	Small	Low
20	King George V Memorial Park	Outdoor leisure activity participants	Many	Good	Yes	Full	Occasional	Low	Small	High
21	Kwun Chung Municipal Services Building	Community	Medium	Good	Yes	Full	Glimpse	Medium	Small	Medium
22	Wai On Building	Residents	Medium	Fair	Yes	Full	Frequent	Low	Small	High
23	Canton Road	Travellers	Many	Poor	No	Full	Very Frequent	High	Small	Low
24	The Victoria Towers	Residents	Many	Good	Yes	Full	Frequent	Low	Small	High
25	Lai Chack Middle School and Canton Road Government Primary School	Community	Medium	Fair	Yes	Full	Frequent	Medium	Small	Medium
26	Canton Road Playground	Outdoor leisure activity participants	Few	Fair	Yes	Full	Frequent	Low	Small	Medium
27	Lifung Tower	Workers	Medium	Fair	Yes	Full	Frequent	Medium	Small	Medium
28	Man Wah Building	Residents	Medium	Fair	Yes	Full	Frequent	High	Small	High
29	Yue Tak Building	Residents	Medium	Fair	Yes	Partial	Frequent	High	Small	High
30	Developments above Austin Station	Residents	Many	Fair	Yes	Full	Frequent	High	Small	High
31	Tsim Sha Tsui Fire Station and Regional Office of Fire Service Department	Working staff	Medium	Fair	Yes	Full	Frequent	Medium	Small	Medium

### **Visual Impact during Construction Phase without Mitigation**

7.10.17 The visual impact on the existing views during the construction phase may include the removal of existing roadside amenity planting, importation of building materials, and other activities associated with construction works. The assessment follows the proposed methodology set out in this report. The summary of visual impact significance can be found in **Table 7.9 and 7.10**.

#### ***Scheme H, I, and J***

7.10.18 A new connection road from Hoi Po Road to West Kowloon Highway Northbound will be built in Scheme H (Part A). The widening of Nga Cheung Road will be joined with the existing works in the Scheme H (Part B). Next to Scheme H (Part B), a new link road from Nga Cheung Road and West Harbour Crossing will be built in Scheme I. To the east of Scheme H (Part A), A new link road from West Kowloon Highway Southbound to Nga Cheung Road will be built in Scheme J. Due to the height of the surrounding buildings, the works of Scheme H and I can be clearly seen without significant blockade. It should be noted that although all the works will begin construction at approximately the same time, the construction of Scheme J would be complete earlier than the other schemes. However, the Central Kowloon Route construction would be expected to be started by that time. Thus the visual impact should remain about the same during the proposed works' construction phase. The evaluation is explained below.

7.10.19 **Residents of Sorrento and Cullinan (VSR 10 and VSR12)** will experience reversible **moderate adverse** impact significance during the construction stage without mitigation measures. This is because these VSRs are located within close proximity to the proposed works with an intermediate magnitude of change. The works will potentially decrease the visual amenity of the typhoon shelter and the sea channel vistas. Also, the residents can view the proposed works from their homes, which could decrease their quality of life significantly. As these VSRs are located mostly in high rise buildings, they would be able to overlook most the construction activities at ground level.

7.10.20 **Travellers along West Kowloon Highway and Hoi Fai Road, and workers at International Commerce Centre and CLP Centenary Substation at To Wah Road (VSR3, VSR5, VSR11 and VSR13)** will experience **slight adverse** impact significance during the construction phase due to their brief impact period with a small magnitude of change and their relatively long viewing distance from the proposed site works. Their open views will not be blocked by the proposed works. As most of these VSRs are workers or travellers, they will not be exposed to the proposed works for a prolonged period of time. Therefore will not significantly decrease their quality of life.

7.10.21 **For VSRs affected only by Scheme J (VSR6, 7, 8 and 17)** the concurrent project of Central Kowloon Route construction takes place in the same time period. Hence, it will make little difference to the existing view as it will only be a slight extension added to the existing construction area. Moreover, due to the blockade of surrounding planting, the works of Scheme J can hardly be seen. The impact significance for these VSRs will be **insubstantial** as both projects will have mitigation measures in place and have a certain distance from the works.

7.10.22 The rest of the VSRs will experience **insubstantial** impact significance as they have negligible magnitude of change.

#### ***Interim Scheme Q and Road Junction Improvement Works***

- 7.10.23 The junction of Austin Road and Canton Road, the junction of Wui Cheung Road and Canton Road, and the junction of Jordan and Canton Road will be modified. The vehicular passages of these junctions will be widened. Due to height of the surrounding buildings and the close distance between the works and surrounding buildings, the works can be clearly seen without significant blockade. The evaluation is explained below.
- 7.10.24 **Residents of Wai On Building, The Victoria Towers, Man Wah Building and Yue Tak Building, outdoor leisure activity participants at King George V Memorial Park and Canton Road playground and Canton Road Playground, and community at Lai Chack Middle School and Canton Road Government Primary School (VSR20, VSR22, VSR24, VSR25, VSR26, VSR28, VSR 29 and VSR 31)** will experience **moderate adverse** impact significance during the construction stage without mitigation measures. This is because these VSRs are located within close proximity to the proposed works and can view the proposed works from their homes or place of relaxation, which could decrease their quality of life significantly.
- 7.10.25 All other VSRs will experience **slight adverse** or **insubstantial** impact significance during the construction phase due to their brief impact period. Most of these VSRs are exposed to the works from their workplace. Similarly, travellers on Canton Road, even with their close proximity to the impact source, will only be exposed for a short duration due to the small scale of the proposed works. Additionally, these VSRs have alternative views of similar visual amenity available.

#### **Visual Impact during Operational Phase without Mitigation**

- 7.10.26 The visual impact on the existing views during the operational phase may include operation of new roads and links, which is irreversible. **Table 7.9 and 7.10** show the summary of the visual impact significance.

#### ***Scheme H, I, and J***

- 7.10.27 **Residents of Sorrento and the Cullinan and the workers of workers at International Commerce Centre and CLP Centenary Substation at To Wah Road (VSR 10, 11, 12 and 13)** will overlook the entire Scheme H (part B) and Scheme I and will experience **moderate adverse** impact significance in the operation phase due to their intermediate magnitude of change and medium to high sensitivity. The view of the West Harbour Crossing Entrance and Yau Ma Tei Shelter will be permanently changed.
- 7.10.28 **Travellers at Olympic Station and along West Kowloon Highway, Hoi Fai Road and Jordan Road (VSR2, VSR3, VSR5, and VSR9)** will experience **slight adverse** impact significance. This is because the VSRs have small to intermediate magnitude of changes but low sensitivity. Moreover, the proposed work's hard structures could be seen clearly without blockage or softening effect by vegetation. Piers are placed in parallel to the existing piers and will not overly affect the view of travellers. As these VSRs are mostly travellers, it is likely that they can only view these changes in a passing glimpse.
- 7.10.29 The impact significance for all other VSRs are **insubstantial** in the operational phase as they have negligible magnitude of change. The changes are compatible with the surrounding landscape and do not block existing amenity views.

### *Interim Scheme Q and Road Junction Improvement Works*

- 7.10.30 **Residents of Wai On Building, The Victoria Towers, Man Wah Building and Yue Tak Building, workers of Lifung Tower and Tsim Sha Tsui Fire Station and Regional Office of Fire Service Department, outdoor leisure activity participants at King George V Memorial Park and Canton Road playground and Canton Road Playground, and community at Lai Chack Middle School and Canton Road Government Primary School (VSR20, VSR22, VSR24, VSR25, VSR26, VSR27, VSR28, VSR 29 and VSR31)** will experience **moderate adverse** impact significance in the operation phase without mitigation measures due to intermediate magnitude of changes and medium to high sensitivity to changes. The VSRs are expected to overlook the permanent changes of views. The impact is introduced by decreasing in amenity planting areas and creating a streetscape with no softening effect on the hard edges or a distinctive and clear separation between the pedestrian footpaths.
- 7.10.31 The rest of the VSRs will experience **slight adverse** impact significance for this option. The VSRs will have similar experience described above. However, as these VSRs are mostly travellers, they will have glimpse exposure to the changes and thus the impact significance of the VSRs is determined to be slight adverse.

### **Visual Impact during Construction Phase with Mitigation**

- 7.10.32 Visual impact during construction is all irreversible. Recommended mitigation measures are detailed in **Section 7.9**. The potential significances of visual impact during the construction phase after mitigation and summarised below in **Tables 7.11 and 7.12**.

### *Scheme H, I, and J*

- 7.10.33 **Residents of Sorrento and the Cullinan (VSR 10 and 12)** will experience **slight adverse** impact in the construction phase after mitigation due to high sensitivity for the VSRs. Despite the implementation of various mitigation measures, the VSRs are still expected to overlook the construction because of their height. The mitigation measures can only slightly improve the affected view.
- 7.10.34 Due to the fact that most VSRs will be able to view the proposed works from adjacent high-rise buildings, mitigation measures to hide the works' area will not be completely effective. Partially blocked views are aided in minimizing exposure to the proposed works at **VSR4, 5, 11, 14, and 16**. The difference in height profile between the proposed works and VSRs, allow all VSRs to overlook the site area into the sea channel vista beyond. The relative short period of exposure to the proposed works concludes that all VSRs will experience **insubstantial** impact significance.
- 7.10.35 The option of providing a separate elevated structure at Nga Cheung Road will only induce minimal visual impact changes on **VSR9** and no substantial change on the residual impact. This is because the works area cannot really be seen as it is being blocked by nearby structures and works. However, **VSR9** will have the greatest visual impact to this option because of their proximity to the works and alternative views are not available to them. These travellers are usually in fast-moving vehicles, which decrease the time of exposure. Pedestrians rarely use the footway. **VSR9** will experience **insubstantial** impact significance if this option is undertaken.
- 7.10.36 The rest of the VSRs are expected to experience **insubstantial** impact significance after the mitigation.

- 7.10.37 The impact is at an **acceptable** level (insubstantial or slight adverse) with mitigation measures for all VSRs.

***Interim Scheme Q and Road Junction Improvement Works***

- 7.10.38 Due to short distances between the VSRs and the works, all VSRs will have a **slight adverse** impact during the construction phase with mitigation measures. The slight loss of amenity planting by Canton Road and the construction works and hoarding mean that these VSRs will experience slight adverse impact significance. Most amenities planting along Canton Road can be retained with adequate tree protection procedures. The impact is at an acceptable level with mitigation measures for all VSRs.

**Visual Impact during Operational Phase with Mitigation**

- 7.10.39 During the operation phase, the quality of view prior to the construction of proposed works could be restored with mitigation measures in place. In accordance with the EIAO Guidance Note No.8/2010, the significance thresholds of residual impact upon mitigation on Operation Day 1 and Year 10 have been assessed. As this is a highway project and the scale is relatively small, the impact on Operation Day 1 and Year 10 would be very similar and would further reduce in Year 10. **Section 7.9** illustrates the recommended mitigation measures and summary of the assessment is presented in **Table 7.9 and 7.10**. As a matter of concern, photomontages showing the visual implication of Scheme H (Part A), H (Part B), I and Road Improvement Works are included in **Figure 7.10a and 7.10b**. Because of poor visibility of Scheme J from any of the VSRs, photomontages for Scheme J are not included in the report. The viewpoints of the photomontages are selected from listed VSRs as described in **Table 7.5**. The selected viewpoints have complete views and relatively high frequency of view of the proposed roads. Illustration for the mitigation measures are also indicated in **Figure 7.9a to 7.9c**.

***Scheme H, I, and J***

- 7.10.40 **Residents of Sorrento and the Cullinan and the workers at International Commerce Centre and CLP Centenary Substation at To Wah Road (VSR10, VSR11, VSR12, and VSR13)** will experience insubstantial impact significance with mitigation during the operational phase.

- 7.10.41 There will be no additional residual impact produced during this phase for the VSRs. Though the greening areas have decreased, the area is small and insignificant to the overall quality of the view. Compensatory and transplanted trees, as shown in **Figure 7.6a to 7.6e**, aid to blend the new hard structures of the elevated roads and associated facilities with the existing amenity roadside greening areas. An aesthetically pleasing design, such as the location of the piers, could help to further reduce the visual impact as most of the view remains unblocked.

- 7.10.42 The residual impact is an acceptable level with mitigation measures for all VSRs.

**Interim Scheme Q and Road Junction Improvement Works**

- 7.10.43 All VSRs will experience **slight adverse** impact significance at the operational phase (Day 1) due to the change of landscape at Canton Road and the Canton Road/Jordon Road/Ferry Street junction and the loss of roadside amenity planting. Compensatory planting within the works area is not possible as there is no sufficient space for compensatory tree planting. The compensatory planting will have to be allocated to off-site areas as shown in **Figure 7.6a to 7.6e**. However, the impact significance during

Operation (Year 10) will become **insubstantial** for all VSRs when the existing trees and other plants prosper after 10 years.

#### **Cumulative Visual Impact**

- 7.10.44 Cumulative visual impacts during the construction and operation phase of the Project and other concurrent projects at the vicinity are assessed. The concurrent projects are listed in **Section 2.4 and Section 7.7**.
- 7.10.45 The key concurrent projects identified are XRL, CKR, WKCD, and MTRC Property Development at Site C and Site D next to Austin Station (MTR Sites C and D). XRL, CKR and WKCD are designated projects under the EIAO and therefore visual impacts will be assessed and reduced/minimized with mitigation measures. For MTR Sites C and D, green areas abutting Canton Road with greening measures will be carried out by MTRC. Road Works at West Kowloon are located outside the zone of visual influence of this project (except some insubstantial encroachments at the boundaries of the visual influence zone).
- 7.10.46 There would be changes in visual context in West Kowloon Area. While the existing areas of these concurrent projects are mostly construction sites or undeveloped areas, the construction works will contribute cumulative visual impact on the adjacent VSRs during construction, but the effect will be temporary and will be reduced by the mitigation measures implemented under the projects to an environmentally acceptable level. There will not be any insurmountable cumulative visual impact with the implementation of mitigation measures.

**Table 7.11 Summary of Visual Impact Assessment for Scheme H, I and J**

VSR	Visually Sensitive Receiver	VSR Type	Number of VSRS	Source of Impact	Minimum Viewing Distance	Magnitude of Change		Sensitivity	Impact Significance BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance of Residual Impact AFTER Mitigation		
						Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
1	Island Harbourview	Residential	Many	Scheme H (Part A)	200m	Negligible	Negligible	High	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
2	Olympic Station	Travellers	Many	Scheme H (Part A)	50m	Negligible	Small	Low	Insubstantial	Slight Adverse	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
3	West Kowloon Highway	Travellers	Many	Scheme H (Part A)	N/A	Small	Intermediate	Low	Slight Adverse	Slight Adverse	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
4	Olympic City Phase II	Outdoor leisure activity participant	Many	Scheme H (Part A)	100m	Negligible	Negligible	Medium	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
5	Hoi Fai Road	Travellers	Medium	Scheme H (Part A)	N/A	Small	Intermediate	Low	Slight Adverse	Slight Adverse	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
6	HKMA David Li Kwok Po College	Community/ Government Institutional	Medium	Scheme J	200m	Negligible	Negligible	Low	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
7	PolyU Hong Kong Community College	Community/ Government Institutional	Medium	Scheme J	320m	Negligible	Negligible	Low	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
8	Civil and Service Headquarters	Workers	Medium	Scheme J	100m	Negligible	Negligible	Low	Insubstantial	Insubstantial	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
9	Jordan Road	Travellers	Medium	Scheme H (Part B)	N/A	Negligible	Intermediate	Low	Insubstantial	Slight Adverse	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
10	Sorrento	Residential	Many	Scheme H (Part B)	<50m	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1-4, OM1, OM3	Slight Adverse	Insubstantial	Insubstantial
11	International Commerce Centre	Workers	Medium	Scheme I	<50m	Small	Intermediate	Medium	Slight Adverse	Moderate Adverse	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
12	The Cullinan	Residential	Many	Scheme H (Part B)	<50m	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1-4, OM1, OM3	Slight Adverse	Insubstantial	Insubstantial
13	CLP Power Centenary Substation at To Wah Road	Workers	Medium	Scheme H (Part B)	<50m	Small	Intermediate	Medium	Slight Adverse	Moderate Adverse	CM1-4, OM1, OM3	Insubstantial	Insubstantial	Insubstantial
14	Charming Garden	Residents	Many	Scheme H (Part A)	150m	Negligible	Negligible	High	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
15	Park Avenue/ Central Park	Residents	Many	Scheme H (Part A)	120m	Negligible	Negligible	High	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial

VSR	Visually Sensitive Receiver	VSR Type	Number of VSRs	Source of Impact	Minimum Viewing Distance	Magnitude of Change		Sensitivity	Impact Significance BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance of Residual Impact AFTER Mitigation		
						Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
16	HSBC Centre Tower	Workers	Medium	Scheme H (Part A)	200m	Negligible	Negligible	Medium	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial
17	The Coronation	Residents	Many	Scheme J	300m	Negligible	Negligible	Medium	Insubstantial	Insubstantial	CM1-4, OM3	Insubstantial	Insubstantial	Insubstantial

**Table 7.12 Summary of Visual Impact Assessment for Interim Scheme Q and Road Junction Improvement Works**

VSR	Visually Sensitive Receiver	VSR Type	Number of VSRs	Source of Impact	Minimum Viewing Distance	Magnitude of Change		Sensitivity to Change	Impact Significance BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance AFTER Mitigation		
						Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
18	Jordan Road	Travellers	Many	Road Junction Improvement Works	N/A, very close	Small	Intermediate	Low	Slight Adverse	Slight Adverse	CM1-4, OM3	Slight Adverse	Slight Adverse	Insubstantial
19	Ferry Street	Travellers	Many	Road Junction Improvement Works	N/A, very close	Small	Intermediate	Low	Slight Adverse	Slight Adverse	CM1-4, OM3	Slight Adverse	Slight Adverse	Insubstantial
20	King George V Memorial Park	Outdoor leisure activity participants	Many	Road Junction Improvement Works	N/A, very close	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1-4, OM1, OM3	Slight Adverse	Slight Adverse	Insubstantial
21	Kwun Chung Municipal Services Building	Community	Medium	Interim Scheme Q	10m	Negligible	Small	Medium	Insubstantial	Slight Adverse	CM1	Insubstantial	Slight Adverse	Insubstantial
22	Wai On Building	Residents	Medium	Interim Scheme Q	N/A, very close	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1, OM-1	Slight Adverse	Slight Adverse	Insubstantial
23	Canton Road	Travellers	Many	Interim Scheme Q	N/A, very close	Small	Intermediate	Low	Slight Adverse	Slight Adverse	CM1	Slight Adverse	Slight Adverse	Insubstantial
24	The Victoria Towers	Residents	Many	Interim Scheme Q	N/A, very close	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1, OM-1	Slight Adverse	Slight Adverse	Insubstantial
25	Lai Chack Middle School and Canton Road Government Primary School	Community	Medium	Interim Scheme Q	N/A, very close	Small	Intermediate	Medium	Moderate Adverse	Moderate Adverse	CM1, OM-1	Slight Adverse	Slight Adverse	Insubstantial

VSR	Visually Sensitive Receiver	VSR Type	Number of VSRs	Source of Impact	Minimum Viewing Distance	Magnitude of Change		Sensitivity to Change	Impact Significance BEFORE Mitigation		Recommended Mitigation Measures	Impact Significance AFTER Mitigation		
						Construction	Operation		Construction	Operation		Construction	Operation (Day 1)	Operation (Year 10)
26	Canton Road Playground	Outdoor leisure activity participants	Few	Interim Scheme Q	N/A, very close	Small	Intermediate	Medium	Moderate Adverse	Moderate Adverse	CM1, OM-1	Slight Adverse	Slight Adverse	Insubstantial
27	Lifung Tower	Workers	Medium	Interim Scheme Q	N/A, very close	Small	Intermediate	Medium	Slight Adverse	Moderate Adverse	CM1	Slight Adverse	Slight Adverse	Insubstantial
28	Man Wah Building	Residents	Medium	Road Junction Improvement Works	N/A, very close	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1-4, OM1, OM3	Slight Adverse	Slight Adverse	Insubstantial
29	Yue Tak Building	Residents	Medium	Road Junction Improvement Works	N/A, very close	Small	Intermediate	High	Moderate Adverse	Moderate Adverse	CM1, OM-1	Slight Adverse	Slight Adverse	Insubstantial
30	Developments above Austin Station	Residents	Many	Interim Scheme Q	N/A, very close	Negligible	Negligible	High	Insubstantial	Insubstantial	CM1	Insubstantial	Insubstantial	Insubstantial
31	Tsim Sha Tsui Fire Station and Regional Office of Fire Service Department	Workers	Medium	Interim Scheme Q	N/A, very close	Small	Intermediate	Medium	Slight Adverse	Moderate Adverse	CM1	Slight Adverse	Slight Adverse	Insubstantial

## 7.11 Conclusion

7.11.1 As a whole, it is considered that residual landscape and visual impact are considered to be acceptable with mitigation measures. However, more attention could be paid on the effects of concurrent projects adjacent to the proposed work sites. Also, an alternative integrated works design that fulfils aesthetic and functional requirements could be considered so that mitigation measures that are more effective could take place. These issues would need to be investigated further at the detail design stage.

Mitigation measures recommended are summarized below:

- CM1 – Minimize works period.
- CM2 – Clearly defined works area
- CM3 – Protection of existing trees
- CM4 – Transplant trees as recommended in the tree assessment report and approval of Tree Removal Application
- OM1 – Compensatory planting is to be provided for felled trees with the ratio of at least 1:1 in terms of quality and quantity.
- OM2 – Vertical greening by planting climbers on piers of elevated roads and shrub planting on amenity planting strips to soften the hard landscape.
- OM3 - An aesthetically pleasing design that is compatible with the surrounding environment.

### Summary of Landscape Assessment

7.11.2 Fifteen Landscape Resources (LRs) and 10 Landscape Character Areas (LCAs) are identified within the study area, 500m from the works area. According to the assessment, **Roadside Amenity Planting Areas - West Kowloon Highway and Transportation Corridor – West Kowloon Highway and Canton Road (LR1.1 and LCA5.1 and 5.2)** will experience slight adverse impact significance during the construction phase. Meanwhile, **Roadside Amenity areas – Canton Road (LR1.3)** will experience moderate adverse impact significance.

7.11.3 All other LR and LCAs will experience an insubstantial impact.

7.11.4 During the operation phase (Day 1), all LR and LCAs will experience an insubstantial impact except **LR1.3**. During the operation phase (Year 10), all LR and LCAs will experience an insubstantial impact.

7.11.5 The proposed works is mainly located on West Kowloon Highway, parts of Hoi Fai Road (Scheme H, I and J), and parts of Canton Road (Interim Scheme Q and Road Junction Improvement Works). The quality of landscape resource and character areas is low within the works area. A total of 556 trees were identified in the tree survey within the works area (approximately 5400 trees are located within the study boundary). Out of the 556 trees within the works area, 310 trees are recommended for felling and 213 trees retained onsite. 33 trees are recommended for transplant. No important trees such as registered OVT or potential OVT were identified. Compensatory planting areas for compensatory trees are chosen near Scheme H and J. The number of compensatory trees is 410.

- 7.11.6 The landscape impact during the construction and operation phases after mitigation is considered acceptable.

### **Summary of Visual Assessment**

#### ***Scheme H, I, and J***

- 7.11.7 Seventeen visually sensitive receivers (VSR) are identified in the study area of these schemes. Due to the lack of space, some common visual mitigation measures, such as barriers, will not be erected to provide a temporary visual barrier to construction works. Fortunately, the duration of this Project is not long. There will only be slight adverse or insubstantial visual impact anticipated in the construction phase due to undesirable close-up views experienced by travellers or caused by other concurrent construction projects. For the identified VSRs, impact arisen from the project works is anticipated to be acceptable.

- 7.11.8 Overall, the residual impact stemming from this project is insubstantial. This is due to the fact that the proposed project is a road improvement works that falls within the planning guidelines and zoning. It would be compatible with the surrounding environment. During the operational phase, it is expected to have insubstantial impact significance caused by the proposed works. As there is a substantial distance from the concurrent construction project of Central Kowloon Route and the VSRs, the impact imposed by the project is minimal.

- 7.11.9 In summary, the visual impact for all VSRs are acceptable after mitigation.

#### ***Interim Scheme Q and Road Junction Improvement Works***

- 7.11.10 Fourteen visually sensitive receivers (VSR) are identified in the study area of these schemes. Due to the close distances, the impact significance during the construction phase for most of the VSRs is slight adverse after mitigation. However, because of the short duration of the construction, the visual impact is considered acceptable.
- 7.11.11 During the operation phase, the main cause of negative visual impact is from the permanent loss of roadside amenity. However, the proposed project falls within the planning guidelines and zoning. Thus, it would be compatible with the surrounding environment. The residual impact is insubstantial. However, the impact significance during Operation (Year 10) will become **insubstantial** for all VSRs when the existing trees and other plants prosper after 10 years.
- 7.11.12 The proposed works have an acceptable impact in both construction and operation phases with mitigation measures for Interim Scheme Q and the Road Junction Improvement Works.