

4. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Introduction

- 4.1 The potential landscape and visual impacts during the construction and operation stages are presented in this chapter.
- 4.2 Landscape and visual impacts assessment are assessed in accordance with the criteria and guidelines as stated in Annexes 10 and 18 of the TM and the EIAO Guidance Note No.8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance".

Scope and Content of the Study

Project Description

- 4.3 Under the Project, major elements during the construction and operation phases that are of key landscape and visual concern include:
- a) Noise Mitigation Measures (NMM) at Portal 1A;
 - b) Demolition of existing Cheong Wan Road Viaduct and construction of new Realigned Cheong Wan Road (CWR);
 - c) North Side Ventilation Shafts (NSVS) at the north of Hung Hom Station;
 - d) South Side Ventilation Shafts (SSVS) at the south of Hung Hom Station;
 - e) Cooling Tower (CT) at the south of Hung Hom Station;
 - f) Barging Point (BP) at Hung Hom Freight Pier;
 - g) Temporary works area at Hung Hom Podium and Freight Terminal (TWA1); and
 - h) Temporary works area for Tunnel Construction at Chatham Road Interchange (TWA2).
- 4.4 Details of the Project are described in Chapter 3 of the Report.

Assessment Area

- 4.5 The assessment area for landscape impact assessment includes all areas within a 100m distance from the Project alignment and of all at grade works sites, including works areas away from the Project alignment. The assessment area for the visual impact assessment is defined by the visual envelope of the Project. The landscape and visual impact study boundary is shown in [Figure NEX2213/C/361/ENS/M54/501/A](#) and [Figure NEX2213/C/361/ENS/M54/502/A](#).

Review of Planning Framework

- 4.6 Relevant outline development plan(s), outline zoning plan(s), layout plan(s) or planning briefs and studies which may identify areas of high landscape value and visually sensitive areas are reviewed. The aim is to gain an insight to the future outlook of the area affected so as to assess whether the Project can fit into the surrounding setting. Any conflicts with statutory town plan(s) are highlighted and appropriate follow-up actions are recommended.

Landscape Impact Assessment

- 4.7 The existing landscape resources and character within the assessment area are described, appraised, analyzed and evaluated. A system is derived for judging landscape and visual impact significance as required under the EIAO TM. The sensitivity of the landscape framework and its ability to accommodate change are particularly focused on. The degree of compatibility of the Project with the existing and planned landscape setting is identified. The landscape impact assessment evaluates the potential landscape impact so as to illustrate the significance of such impacts arising from the proposed Project. Clear mapping of the baseline landscape resources, landscape character areas and the landscape impact are provided.

Visual Impact Assessment

- 4.8 The visual impacts of the projects are assessed. For above ground ancillary structures and at grade works areas of the Project, clear illustrations including mapping of visual impact are provided. The assessment adopts a systematic methodology and includes the following:
- (i) Identification and plotting of visual envelope of the proposed Project within the study area;
 - (ii) Identification of the key groups of sensitive receivers within the visibility envelope and their views at both ground level and elevated vantage points;
 - (iii) Description of the visual compatibility of the Project with the surrounding and the planned setting, and its obstruction and interference with the key views of the adjacent areas. Among other receivers, sensitive receivers include nearby residents;
 - (iv) Description of the severity of visual impacts in terms of distance, nature and number of sensitive receivers. The visual impacts of the Project with and without mitigation measures are included so as to demonstrate the effectiveness of the proposed mitigation measures; and
 - (v) Clear evaluations and explanation with supportive arguments of all relevant factors considered in arriving at the significant thresholds of visual impact.

Landscape and Visual Mitigation Measures

- 4.9 The merit of preservation in total, in parts or total destruction of existing landscape and the establishment of a new landscape character are evaluated. The mitigation measures proposed are not only concerned with damage reduction but also include consideration of potential enhancement of the existing landscape and visual quality. Mitigation measures to minimize the adverse effects identified above, including provision of a landscape design are recommended.
- 4.10 The mitigation measures include the preservation of vegetation, transplanting of trees of high amenity value, provision of screen planting, roof greening, reinstatement of disturbed lands, compensatory planting, re-provisioning of amenity areas and open spaces, design of structure, provision of finishes to structure, colour scheme and texture of material used, design integration of new station with existing station where applicable, minimization of additional land intake, sensitive design of station and related structures appropriate for the harbourfront setting, and any measures to mitigate the disturbance of the existing land use. Parties are identified for the on-going management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the operation phase of the Project. A practical programme and funding proposal for the implementation of the recommended measures are provided.

Significance of Landscape and Visual Impact

- 4.11 Annotated illustration such as coloured perspective drawings, plans and section/elevation, photographs taken at vantage points and computer-generated photomontage are adopted where appropriate to illustrate the significance of the landscape and visual impacts of the above ground ancillary structures of the Project.

Environmental Legislation, Standards and Guidelines

- 4.12 The following legislation, standards and guidelines are applicable to landscape and visual impact assessment associated with the construction and operation of the project:

- Environmental Impact Assessment Ordinance (Cap.499.S.16) and the Technical Memorandum on EIA Process (EIAO TM), particularly Annexes 10 and 18;
- Environmental Impact Assessment Ordinance Guidance Note 8/2010;
- Town Planning Ordinance (Cap 131);
- LAO Practice Note 7/2007 - Tree Preservation and Tree Removal Application for Building Development in Private Projects
- Hong Kong Planning Standards and Guidelines Chapters 4, 10 and 11;
- ETWB TC No. 25/92 - Allocation of Space for Urban Street Trees;
- ETWB TC No. 23/93 – Control of Visual Impact of Slopes;
- ETWB TC No. 12/2000 – Improvement to the Appearance of slopes in connection with ETWBTC 23/93;
- ETWB TC No. 30/2001 – Capital Works for Maintenance Works (including Tree Planting) Within or Adjacent to the Kowloon Canton Railway (Hong Kong) Section;
- ETWB TC No. 7/2002 – Tree Planting in Public Works;
- ETWB No. 36/ 2004 - Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS);
- 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. 3/2006 - Tree Preservation;
- Land Administration Office Instruction (LAOI) Section D-12 - Tree Preservation;
- GEO Publication (1999) – Use of Vegetation as Surface Protection on Slopes;
- GEO 1/2000 – Technical Guidelines on Landscape Treatment and Bio-engineering of Man-made Slopes and Retaining Walls; and
- Study on Landscape Value Mapping of Hong Kong.

- 4.13 The Outline Zoning Plans (OZPs) gazetted under the Town Planning Ordinance provide the statutory framework for land use development. The current OZPs relevant to the Project are as follows: -

- Approved Tsim Sha Tsui (KPA 1) Outline Zoning Plan No. S/K1/26 (6.5.2011);
- Draft Yau Ma Tei (KPA 2) Outline Zoning Plan No. S/K2/21 (29.10.2010);
- Draft Mong Kok (KPA 3) Outline Zoning Plan No. S/K3/28 (17.9.2010);
- Approved Ho Man Tin (KPA 6&7) Outline Zoning Plan No. S/K7/21 (12.8.2011) and

- Approved Hung Hom (KPA 9) Outline Zoning Plan No. S/K9/24 (5.10.2010).

Assessment Methodology

4.14 The landscape impacts have been assessed according to the following procedures.

- **Identification of the baseline landscape resources and landscape characters found within the study area.** This is achieved by site visits and desktop study of topographical maps, information databases and photographs.
- **Assessment of the degree of sensitivity of the landscape resources and landscape character areas.** This is influenced by a number of factors including whether the resource/character is common or rare, whether it is considered to be of local, regional, national or global importance, whether there are any statutory or regulatory limitations/requirements relating to the resource, the quality of the resource/character, the maturity of the resource and the ability of the resource/character to accommodate change.

The sensitivity of each landscape feature and character area is classified as follows:

High: Important landscape or landscape resource of particularly distinctive character or high importance, sensitive to relatively small change.

Medium: Landscape or landscape resource of moderately valued landscape characteristics reasonably tolerant to change.

Low: Landscape or landscape resource, the nature of which is largely tolerant to change.

- **Identification of potential sources of landscape impacts.** These are the various elements of the construction works and operation procedures that would generate landscape impacts.
- **Identification of the magnitude of landscape impacts.** The magnitude of the impact (or magnitude of change) depends on a number of factors including the physical extent of the impact, the landscape and visual context of the impact, the compatibility of the project with the surrounding landscape; and the time-scale of the impact - i.e. whether it is temporary (short, medium or long term), permanent but potentially reversible, or permanent and irreversible. Landscape impacts are quantified wherever possible.

The magnitude of landscape impacts is classified as follows:

Large: The landscape or landscape resource would suffer a major change.

Intermediate: The landscape or landscape resource would suffer a moderate change.

Small: The landscape or landscape resource would suffer slight or barely perceptible change.

Negligible: The landscape or landscape resource would suffer no discernible change.

- **Identification of potential landscape mitigation measures.** These may take the form of adopting alternative designs or revisions to the basic engineering and architectural design to prevent and/or minimize adverse impacts; remedial measures such as colour and textural treatment of building features; and compensatory measures such as the implementation of landscape design measures to compensate for unavoidable adverse impacts and to attempt to generate potentially beneficial long term impacts. A programme for the mitigation measures is provided. The agencies responsible for the funding, implementation, management and maintenance of the mitigation measures are identified.
- **Prediction of the significance of landscape impacts before and after the implementation of the mitigation measures.** By synthesizing the magnitude of the

various impacts and the sensitivity of the various landscape resources, it is possible to categorise impacts in a logical, well-reasoned and consistent fashion. [Table 4.1](#) shows the rationale for dividing the degree of significance into four thresholds, namely insubstantial, slight, moderate, and substantial, depending on the combination of a negligible-small-intermediate-large magnitude of impact and a low-medium-high degree of sensitivity of landscape resource /character.

Table 4.1 Relationship between Landscape Sensitivity and Impact Magnitude in Defining Impact Significance

Magnitude of Impact (Both Adverse and Beneficial Impact are assessed.)	Large	Moderate	Moderate / Substantial	Substantial
	Intermediate	Slight / Moderate	Moderate	Moderate / Substantial
	Small	Insubstantial / Slight	Slight / Moderate	Moderate
	Negligible	Insubstantial	Insubstantial	Insubstantial
		Low	Medium	High

Sensitivity of Landscape Resource and Landscape Character Area

Note: All impacts are Adverse unless otherwise noted with Beneficial.

The significance of landscape impacts is categorized as follows:

- Substantial:** Adverse / beneficial impact where the proposal would cause significant deterioration or improvement in existing landscape quality.
- Moderate:** Adverse / beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing landscape quality.
- Slight:** Adverse / beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing landscape quality.
- Insubstantial:** No discernible change in the existing landscape quality.

- **Prediction of Acceptability of Impacts.** An overall assessment of the acceptability, or otherwise, of the impacts according to the five criteria set out in Annex 10 of the EIAOTM.

4.15 The assessment of visual impacts has involved the following procedures.

- **Identification of the Zones of Visual Influence (ZVI) during the construction and operation phases of the project.** This is achieved by site visit and desktop study of topographic maps, photographs and preparation of cross-sections to determine visibility of the project from various locations.
- **Identification of the VSRs within the ZVIs at construction and operation phases.** These are the people who would reside within, work within, play within, or travel through, the ZVIs.
- **Assessment of the degree of sensitivity of the VSRs.** Factors considered include:
 - the type of VSRs, which is classified according to whether the person is at home, at work, at play, or travelling. Those who view the impact from their homes are considered to be highly sensitive as the attractiveness or otherwise of the outlook

from their home will have a substantial effect on their perception of the quality and acceptability of their home environment and their general quality of life. Those who view the impact from their workplace are considered to be only moderately sensitive as the attractiveness or otherwise of the outlook will have a less important, although still material, effect on their perception of their quality of life. The degree to which this applies depends on whether the workplace is industrial, retail or commercial. Those who view the impact whilst taking part in an outdoor leisure activity may display varying sensitivity depending on the type of leisure activity. Those who view the impact whilst travelling on a public thoroughfare will also display varying sensitivity depending on the speed of travel.

- other factors which are considered (as required by EIAO GN 8/2010) include the value and quality of existing views, the availability and amenity of alternative views, the duration or frequency of view, and the degree of visibility.

The sensitivity of VSRs is classified as follows:

High: The VSR is highly sensitive to any change in their viewing experience.

Medium: The VSR is moderately sensitive to any change in their viewing experience.

Low: The VSR is only slightly sensitive to any change in their viewing experience.

- **Identification of relative numbers of VSRs.** This is expressed in terms of whether there are “many”, “medium” and “few” VSRs in any one category of VSR.
- **Identification of potential sources of visual impacts.** These are the various elements of the construction works and operation that would generate visual impacts.
- **Assessment of the potential magnitude of visual impacts.** Factors considered include:
 - the compatibility with the surrounding landscape,
 - the duration of the impact,
 - the reversibility of the impact,
 - the scale of the impact and distance of the source of impact from the viewer, and
 - the degree of visibility of the impact, and the degree of which the impact dominates the field of vision of the viewer.

The magnitude of visual impacts is classified as follows:

Large: The VSRs would suffer a major change in their viewing experience.

Intermediate: The VSRs would suffer a moderate change in their viewing experience.

Small: The VSRs would suffer a small change in their viewing experience.

Negligible: The VSRs would suffer no discernible change in their viewing experience.

- **Identification of potential visual mitigation measures.** These may take the form of adopting alternative designs or revisions to the basic engineering and architectural design to prevent and/or minimize adverse impacts; remedial measures such as colour and textural treatment of building features; tree planting to screen the proposed above ground structures, integration of new station works with the existing Hung Hom Station and minimization of additional land intake and sensitive station design appropriate for the harbourfront setting. A programme for the mitigation measures is provided. The agencies responsible for the implementation, management and maintenance of the mitigation measures are identified.
- **Prediction of the significance of visual impacts before and after the implementation of the mitigation measures.** By synthesizing the magnitude of the various visual impacts

and the sensitivity of the VSRs, and the numbers of VSRs that are affected, it is possible to categorise the degree of significance of the impacts in a logical, well-reasoned and consistent fashion. [Table 4.2](#) shows the rationale for dividing the degree of significance into four thresholds, namely, insubstantial, slight, moderate and substantial, depending on the combination of a negligible-small-intermediate-large magnitude of impact and a low-medium-high degree of sensitivity of VSRs.

Table 4.2 Relationship between Visual Receptor Sensitivity and Impact Magnitude in Defining Impact Significance

Magnitude of Impact (Both Adverse and Beneficial Impact are assessed.)	Large	Moderate	Moderate / Substantial	Substantial
	Intermediate	Slight / Moderate	Moderate	Moderate / Substantial
	Small	Insubstantial / Slight	Slight / Moderate	Moderate
	Negligible	Insubstantial	Insubstantial	Insubstantial
		Low	Medium	High

Sensitivity of Visually Sensitive Receivers (VSRs)

Note: All impacts are Adverse unless otherwise noted with Beneficial.

The significance of visual impacts is categorized as follows:

- Substantial:** Adverse / beneficial impact where the proposal would cause significant deterioration or improvement in existing visual quality.
- Moderate:** Adverse / beneficial impact where the proposal would cause a noticeable deterioration or improvement in existing visual quality.
- Slight:** Adverse / beneficial impact where the proposal would cause a barely perceptible deterioration or improvement in existing visual quality.
- Insubstantial:** No discernible change in the existing visual quality.

- **Prediction of Acceptability of Impacts.** An overall assessment of the acceptability, or otherwise, of the impacts according to the five criteria set out in Annex 10 of the EIAOTM.

Review of planning control framework

- 4.16 A review of the existing and planned development framework, including relevant outline development plan(s), outline zoning plan(s), layout plan(s) or planning briefs and studies (including Hung Hom District Study), for the proposed works and for the surroundings has been considered. It aims to gain an insight to the outlook of the area affected, identify potential resources and sensitive receivers and evaluate the compatibility between the Project and the existing and planned landuse setting.
- 4.17 The Study Area is covered by Approved Tsim Sha Tsui (KPA 1) Outline Zoning Plan No. S/K1/26 (6.5.2011), Draft Yau Ma Tei (KPA 2) Outline Zoning Plan No. S/K2/21 (29.10.2010), Draft Mong Kok (KPA 3) Outline Zoning Plan No. S/K3/28 (17.9.2010), Approved Ho Man Tin (KPA 6&7) Outline Zoning Plan No. S/K7/21 (12.8.2011) and Approved Hung Hom (KPA 9) Outline Zoning Plan No. S/K9/24 (5.10.2010). The review of OZPs has not only included a review of the plans, but also of the 'Notes' and "Explanatory Statements" which accompany these plans. The proposed development are overlaid on the affected OZPs are shown in [Figure NEX2213/C/361/ENS/M54/510/A](#).
- 4.18 Most of the proposed elements of the project are generally located within the Other Uses (OU) Zone of Approved Tsim Sha Tsui (KPA 1) Outline Zoning Plan No. S/K1/26 and Draft Yau Ma Tei (KPA 2) Outline Zoning Plan No. S/K2/21. The OU Zones are characterized by the Hung Hom Station Railway Terminus, railway corridor, Bus Terminus, Multi-story Car Park, Indoor Stadium, Commercial Facilities and Railway Pier. Elements proposed within the OU Zone include part of Cooling Tower (part of the Cooling Tower is located within Government, Institution and Community (G/IC) Zone), two banks of ventilation shafts at the north and south end of the Station Podium edge and Noise Mitigation Measures at Portal 1A. The proposed building and structures under this Project are within the permissible building height limits specified under these OZPs.
- 4.19 The urban design scheme of the Hung Hom District Study has already taken into account on the planned railway development in the area. In general, the proposed project would not be in conflict with the overall urban design and planning intention. The proposed elements are railway associated facilities which will not conflict with the current use and the planned continuous waterfront promenade with leisure, tourism and commercial activities after relocation of MTRC Freight Yard and International Mail Centre identified in the Hung Hom District Study.
- 4.20 Having reviewed the OZPs, the associated Notes and Explanatory Statements, it is considered that the proposed development would fit in well with the current and future planning settings and would not conflict with statutory town plans of areas.

Baseline Study

4.21 The baseline condition of existing landscape resources are described below.

Physical Landscape Resources

Landform

4.22 The study area generally comprises flat urban area with existing man-made slopes at both sides of the railway track. There is no natural topographical feature which is of any interest.

Water Body

4.23 Apart from Victoria Harbour, there is no other natural drainage or water body found in the study area.

Open Spaces

4.24 The study area is a densely urbanized area with a few number of open spaces identified, varying from small gardens such as Oi Sen Path Rest Garden, Princess Margaret Road Garden and Winslow Street Playground to large recreation ground such as King's Park Sports Ground. In general, within a densely urbanized area, all public open spaces are considered to be of high value and sensitivity due to their importance as landscape resources within the city.

Amenity Area

4.25 There are a number of roadside amenity areas found within the study area. These areas comprise of primarily amenity trees and shrubs planted in confined planting beds.

Existing Trees

4.26 A broad brush tree survey has been carried out within the study area. There are approximately 1,170 no. of trees within the works area boundary. None of these are Registered Old and Valuable Trees in the records of Leisure and Cultural Services Department. There are no rare species or endangered species but only common species. The dominant species are *Bauhinia blakeana*, *Bauhinia variegata*, *Caryota mitis*, *Erythrina variegata*, *Ficus benjamina*, *Livistona chinensis*, *Broussonetia papyrifera*, *Caryota ochlandra* and *Macaranga tanarius*. Of these trees, approximately 3% are large trees (Trunk Dia. > 0.29m), 22% are medium trees (Trunk Dia. > 0.14m) and 75% are small trees (Trunk Dia. < 0.14m) and approximately 8% are in good form and health, 65% are in medium form and health and 27% are in poor form and health. Many of the trees are found within roadside amenity areas. They are generally of medium amenity value and sensitivity.

4.27 Apart from trees and shrub planting found in the amenity areas and open spaces, there are no other vegetation which is of significant landscape value.

Human and Cultural Landscape Resources

4.28 There is no cultural landscape element of interest within the study area.

4.29 The details of baseline landscape resources which will be potentially affected by the development, together with their sensitivity are described in [Table 4.3](#). The locations of baseline landscape resources are mapped in [Figure NEX2213/C/361/ENS/M54/520/A](#). Photo views illustrating the landscape resources within the study area are illustrated in [Figure NEX2213/C/361/ENS/M54/521/A](#) and [522/A](#).

Table 4.3 Landscape Resources and Their Sensitivity

ID No.	Landscape Resources	Descriptions	Sensitivity
LR1.1	Roadside Amenity Areas at Chatham Road Interchange	Roadside Amenity Planting at Chatham Road Interchange consists of trees and shrubs planting. Dominant tree species include <i>Acacia auriculiformis</i> , <i>Bauhinia blakeana</i> , <i>Caryota ochlandra</i> , <i>Livistona chinensis</i> and <i>Macaranga tanarius</i> . Trees in this area are 2-14 metres in height; crown spread 1–8 metres; trunk diameters 100–760 mm with low to medium amenity value.	Medium
LR1.2	Roadside Amenity Areas along Cheong Wan Road	Roadside Amenity Area at Cheong Wan Road consists of trees and shrubs planting planted on raised planter. Dominant tree species include <i>Delonix regia</i> , <i>Bauhinia blakeana</i> , <i>Caryota ochlandra</i> , <i>Ficus microcarpa</i> and <i>Michelia alba</i> . Trees in this area are 2-22 metres in height; crown spread 1–12 metres; trunk diameters 100–960 mm with medium amenity value.	Medium
LR1.3	Roadside Amenity Areas at Hung Luen Road and Hung Lok Road	Roadside Amenity Areas at Hung Luen Road and Hung Lok Road consists of newly planted trees and shrubs planting at Hung Hom waterfront area. Tree species include <i>Caryota mitis</i> , <i>Bauhinia blakeana</i> , <i>Ficus benjamina</i> , <i>Livistona chinensis</i> and <i>Hibiscus tiliaceus</i> . Trees in this area are 2-8 metres in height; crown spread 1-6 metres; trunk diameters 100-480 mm with medium amenity value.	Medium
LR1.4	Roadside Amenity Areas at Salisbury Road and Hong Chong Road above the Portal of Cross Harbour Tunnel	Roadside Amenity Areas at Salisbury Road and Hong Chong Road above the Portal of Cross Harbour Tunnel consists of typical roadside trees and shrubs planting. Tree species include <i>Eucalyptus citriodora</i> , <i>Cassia surattensis</i> , <i>Koelreuteria bipinnata</i> , <i>Acacia confusa</i> , <i>Cassia alata</i> , etc. Most of them are planted along the Salisbury Road above portal of Cross Harbour Tunnel with around 2-8 m high; crown spread 2-8 m; trunk diameters 50-250 mm with medium amenity value.	Medium
LR2	Amenity Areas at Oi Sen Path	Amenity Areas at Oi Sen Path consist of common trees and shrubs planting. Dominant tree species include <i>Albizia lebbek</i> , <i>Bauhinia variegata</i> , <i>Litsea glutinosa</i> and <i>Melia azedarach</i> . Trees in this area are 2-4 metres in height; crown spread 1-3 metres; trunk diameters around 100 mm with low to medium amenity value.	Medium
LR3	Sport Field and associated amenity areas inside Hong Kong Polytechnic University (HKPU)	This LR comprises of Keith Legg Sports Field and associated amenity areas such as multiple sport grounds, amenity space, rest garden. Soft landscape resources in this areas are mainly buffer tree planting along the edge of HKPU. Dominant tree species include <i>Albizia lebbek</i> , <i>Bauhinia purpurea</i> , <i>Delonix regia</i> , <i>Melaleuca leucadendron</i> and <i>Ficus microcarpa</i> . Trees in this area are 3-12 metres in height; crown spread 3-10 metres; trunk diameters 200-500mm. These trees are in good form and high amenity value.	High

ID No.	Landscape Resources	Descriptions	Sensitivity
LR4	Amenity Areas at Hong Kong Coliseum	Amenity Areas at Hong Kong Coliseum consist of roadside trees and shrubs planting. They are planted in raised planter with common species. Tree species include <i>Ailanthus fordii</i> , <i>Erythrina variegata</i> , <i>Ficus microcarpa</i> , <i>Juniperus chinensis cv. Kaizuca</i> and <i>Thevetia peruviana</i> . Trees in this area are 2.5-9 metres in height; crown spread 1.5-3.5 metres; trunk diameters 100-330 mm with medium amenity value.	Medium
LR5	Victoria Harbour	The harbour itself is a valuable physical resource and is the one of the key primary elements that generates the unique landscape and visual identity and character of Hong Kong. The amenity value of this resource is high.	High
LR6	Hung Hom South Road Rest Garden	Hung Hom South Road Rest Garden is located at a linear space next to Royal Peninsula with pavilions, walking trails and sitting-out areas for passive leisure activities. Trees and shrubs mix planting along walking trails create a passive pocket space for users. Most of the trees are in good form and health. Dominant tree species include <i>Bauhinia spp.</i> , <i>Ficus microcarpa</i> , <i>Casuarina equisetifolia</i> , <i>Eucalyptus citriodora</i> , <i>Melaleuca leucadendron</i> , <i>Melia azedarach</i> and <i>Schefflera octophylla</i> . Trees in this area are around 5-10 m in height; 8-12 m spread with trunk diameter 100- 400mm. The open space is of locally importance and the landscape quality is high.	High
LR7	King's Park Sports Ground	This is a district open space of the area which provides both passive and active recreation activities. Key features of the park include a large multi-purpose sports facilities with two grass pitches and one all-weather pitch, rest garden and perimeter buffer tree planting. Trees found in the Sports Ground are in good form and health. Dominant tree species include <i>Acacia confusa</i> , <i>Bauhinia spp.</i> , <i>Ficus microcarpa</i> , <i>Casuarina equisetifolia</i> and <i>Melaleuca leucadendron</i> . Trees in this area are 4-13 metres in height; crown spread 5-10 metres; trunk diameters 150-600mm. This open space is of district importance and the landscape quality is high.	High
LR8	Winslow Street Playground	This is a local open space of the area which provides primarily passive and active recreation activities. Key features of the park include a children playground, seating areas and pavilion with perimeter trees and shrubs planting. Trees found in the Playground are in good form and health. Dominant tree species include <i>Bauhinia spp.</i> , <i>Ficus microcarpa</i> and <i>Michellia alba</i> . Trees in this area are 3-12 metres in height; crown spread 5-8 metres; trunk diameters 150-400mm. This open space is of local importance and the landscape quality is high.	High

ID No.	Landscape Resources	Descriptions	Sensitivity
LR9	Princess Margaret Road Garden	This is a garden which is primarily used as plant nursery. A number of mature trees are found at the perimeter of the garden. Trees found in the Garden are in good form and health. Dominant tree species include <i>Acacia confusa</i> , <i>Bauhinia spp.</i> , <i>Ficus microcarpa</i> , and <i>Melaleuca leucadendron</i> . Trees in this area are 5-12 metres in height; crown spread 4-8 metres; trunk diameters 200-800mm. This is a garden of local importance and the landscape quality is medium.	Medium
LR10	Man-made Slope at Chatham Road North	This is a man-made cut slope with mature tree planting. Tree species found include <i>Bauhinia variegata</i> , <i>Broussonetia papyrifera</i> , <i>Acacia confusa</i> , <i>Bombax ceiba</i> and <i>Macaranga tanarius</i> . Trees in this area are 5-15 metres in height; crown spread 2-5 metres; trunk diameters 100-300mm. Trees are in generally medium to poor form and health and medium to low amenity value.	Medium
LR11	Oi Sen Path Rest Garden	This is a small rest garden with a number of benches and pergolas. Dominant tree species found include <i>Chrysalidocarpus lutescens</i> . Trees are 3-4 metres in height; crown spread 1-2metres; trunk diameters 100-150mm. Trees are in generally medium form and health and medium amenity value.	Medium

Landscape Character Areas

4.30 Landscape character areas have been identified within the Study Area in accordance with the Study on Landscape Value Mapping of Hong Kong. Details and their sensitivity and ability to accommodate changes are described in [Table 4.4](#). The extent of landscape character areas within the study area are mapped in [Figure NEX2213/C/361/ENS/M54/530/A](#). Photo views illustrating the landscape character areas are illustrated in [Figures NEX2213/C/361/ENS/M54/531/A](#) and [532/A](#).

Table 4.4 Landscape Character Areas and Their Sensitivity

ID No.	Landscape Characters	Descriptions	Sensitivity
LCA01	Hung Hom Mixed Modern Comprehensive Urban Development LCA	This is an area of urban landscape formed by residential development and service apartment. Lush vegetation is found in the landscape garden and podium of the development. This is a common landscape character in Hong Kong with high sensitivity.	High
LCA02	Hung Hom Residential Urban LCA	This is a landscape character area (LCA) which is largely given over to residential land use in Hung Hom. It is developed on flat reclaimed land and characterised by its medium to high-rise residential estates, set amongst open space, together with associated highways, footbridges, school or community facilities and retail facilities. Vegetation includes roadside trees and shrubs planting and planting in open spaces and around residential estates. The result is a fairly homogenous, ordered landscape comprising largely built elements softened to a certain extent by the effects of surrounding planting and greenery. This is a high quality landscape in urban area with high sensitivity.	High
LCA03	Hung Hom City Grid Mixed Urban LCA	This is a mixed urban character developed in regular city grid in Hung Hom. It consists of mainly retail land use at street level with high/medium-rise commercial or residential development above. Streets are often busy with traffic and the large numbers of people using these areas. Street life is vibrant but with limited street tree planting and shrub planting in occasional pocket open spaces. It is a common landscape character to older reclamations of Hong Kong and Kowloon. This type of LCA is generally less sensitive to underground railway development.	Low
LCA04	Valley Road Miscellaneous Urban Fringe LCA	This is a transitional landscape character which is currently undergoing large scale construction and re-development. Many of the areas are vacated platforms which are awaiting re-development. This LCA has high ability to accommodate change and less sensitive to underground railway development.	Low

ID No.	Landscape Characters	Descriptions	Sensitivity
LCA05	Ho Man Tin Residential Urban LCA	This is a LCA which is largely given over to residential land use in Ho Man Tin. It is characterised by its medium to high-rise residential estates, set amongst open space, together with associated highways, footbridges, school or community facilities and retail facilities. Vegetation includes roadside planting and planting in open spaces and around residential estates. The result is a fairly homogenous, ordered landscape comprising largely built elements softened to a certain extent by the effects of surrounding planting and greenery. This is a high quality landscape in urban area with high sensitivity.	High
LCA06	Hung Hom Transportation Corridor LCA	This LCA is characterised by the major highways and railways corridors. Major features include flyovers, signage gantries, interchange, traffic islands, footbridges, railway line and associated uses. Between the roads and railways are landscaped embankments and islands, generally with a semi-mature amenity vegetation of trees and shrubs. This type of LCA is common to Hong Kong and is generally less sensitive to railway development.	Low
LCA07	King's Park Residential Urban Fringe LCA	This is a LCA which is largely given over to residential land use in King's Park area. It is characterised by its medium to high-rise residential estates, set amongst open space, together with associated highways, footbridges, school or community facilities and retail facilities. Vegetation includes roadside trees and shrubs planting and planting in open spaces and around residential estates. Trees found in open spaces are very mature and high amenity value. The result is a fairly homogenous, ordered landscape comprising largely built elements softened to a certain extent by the effects of surrounding planting and greenery. This is a high quality landscape in urban area with high sensitivity.	High
LCA08	The Hong Kong Polytechnic University (HKPU) Institutional LCA	This LCA is characterised predominantly by university uses. It generally comprises extensive complexes of buildings (usually low or medium rise) separated by open areas used for circulation or public gathering, with a high coverage of semi-formal landscape and vegetation. Vegetation found is mature. The landscape quality is high and the landscape is high sensitivity.	High

ID No.	Landscape Characters	Descriptions	Sensitivity
LCA09	Tsim Sha Tsui Medium/High- Rise Commercial Urban Landscape	This landscape character is located on flat, low-lying and reclaimed land in Tsim Sha Tsui with hotel, commercial and retail uses. It consists of narrow and medium-width streets organised on a largely orthogonal grid, medium and high-rise commercial and retail uses, malls with offices above connected by pedestrian bridges, modern, prestige architecture and limited open space and street tree planting. It is characterised by a high sense of enclosure, a predominance of man-made features and artificial colours, a distinct sense of verticality and busy, vibrant street activity. It is common landscape with high ability to accommodate changes. This type of LCA is generally less sensitive to underground railway development.	Low
LCA10	Victoria Harbour Strait LCA	Victoria Harbour Strait LCA is an area of inshore coastal water enclosed by significant development on both sides, creating a sense of enclosure or containment. It is characterized predominantly by its surrounding dense high-rise development in Hong Kong Island and Kowloon including passing vessels, and marine activities of all kinds, including anchorages, shipping lanes and ferry traffic. This is rare and high quality landscape character of Hong Kong and has significant territorial importance. It is very sensitivity to reclamation.	High

Visual Envelope

4.31 The visual envelope of the Project during the construction and operation phases is illustrated in [Figure NEX2213/C/361/ENS/M54/502/A](#). Visual envelopes will be identified by site visit and desktop study of topographic maps and photographs to determine visibility of the project from various locations. The project will be within the urban areas in Kowloon. During construction stage, the visual envelope will be confined by the existing buildings around the works areas. During operation stage, the proposed above ground structures are relatively small compared with adjacent high rise developments. The visual envelope will be reduced and confined to the areas around the above ground structures.

Visually Sensitive Receivers (VSRs)

- 4.32 Within the Visual Envelope, a number of key VSRs have been identified during construction and operation phase. They are listed, together with their baseline assessment and sensitivity, in [Table 4.5](#) and mapped in [Figure NEX2213/C/361/ENS/M54/540/A](#). Photo views illustrating the VSRs within the study area are shown in [Figures NEX2213/C/361/ENS/M54/541/A to 544/A](#).
- 4.33 The sensitivity of VSRs is assessed in accordance with EIAO Guidance Note No. 8/2010. Key factors including type of VSRs, number of individuals within the VSRs, quality of existing view, availability of alternative views, degree of visibility, duration of view and frequency of view of the VSRs are evaluated.
- 4.34 Types of VSRs are generally categorized in accordance with the landuse of the areas where the VSRs are located. There are 5 types of VSRs. They are Commercial, Institutional, Recreational, Residential and Travelling VSRs.
- 4.35 The number of individuals within each VSRs are estimated. Number of individuals for all travelling VSRs in busy public through routes is considered as many except travellers in Oi Sen Path is considered as medium. The number of individuals in VSRs in high-rise development and residential estates are all considered as many. Number of individuals in commercial and institutional VSRs in

hotels, schools, office building and freight terminal is considered as medium. Large recreational ground contains many individuals. Small sitting out area contain few numbers of individuals.

- 4.36 The quality of existing views generally varies from good to poor depending whether the VSRs have a long and distant view and the orientation of the building windows where the VSRs are occupying. The quality of existing views for VSRs who have long distant view, sea view or garden view is considered as good. VSRs who are facing transport corridor, transport interchange and workshop with moderate distant view have fair quality of view.
- 4.37 Most of the VSRs identified within the study boundary have alternative views except for OU2 who has confined view within the work place of the Freight Terminal and T5 Travellers on MTR East Rail Line who has laterally confined view within the railway corridor.
- 4.38 The degree of visibility of VSRs is described whether the existing VSRs have full view, partial view or glimpse view to the proposed project. VSRs at high level would have full view to the project. VSRs at low level or travelling VSRs who travel at speed would have glimpse view to the project. .
- 4.39 The duration of view and frequency of view mainly depend on the nature and the habit of VSRs. Residential VSRs have long duration of view and frequent view. Recreational and Institutional VSRs have medium duration of view and occasional view. Travelling VSRs have short duration of view and occasional to rare frequency of view.

Sensitivity of VSRs

- 4.40 In general, the sensitivity of VSRs during construction and operation phases would be the same. Some planned development such as R04 and CDA1 would only exist during operation phase. The assessment of sensitivity of VSRs is presented in [Table 4.5](#) and described below.
- 4.41 C1 - C8 are generally commercial VSRs with people at work in office or people staying in Hotels or services apartment. Number of individuals are considered as medium. The quality of existing views varies from good to fair. They generally have alternative views and full to partial visibility. However, they have only medium duration of view and occasional frequency of view. Their sensitivity is considered as medium.
- 4.42 CDA1 is non-residential VSRs (Commercial, Industrial or Institutional) with medium number of individuals. The quality of existing view is considered as fair. They have alternative views and partial visibility. As they have medium duration and occasional view, their sensitivity is considered as medium.
- 4.43 GIC1 – GIC6 are generally Institutional VSRs with medium number of individuals. The quality of existing views varies from good to fair. They have alternative view and full to partial visibility. However, they have medium duration and occasional frequency of view. Their sensitivity is considered as medium.
- 4.44 O1 – O2 are recreational VSRs with medium to many number of individuals. The quality of existing views is considered as good. They have alternative view and partial visibility. They have medium duration and occasional frequency of view. Their sensitivity is considered as high.
- 4.45 OU1 and OU4 are recreational VSRs with many to few number of individuals. The quality of existing view is considered as fair. They have alternative view and partial visibility. They have medium duration and occasional to rare frequency of view. Their sensitivity is considered as medium.
- 4.46 OU2 and OU3 are institutional VSRs with few to medium number of individuals. The quality of existing view is poor. They would have full visibility, medium to short duration and occasional to rare frequency of view. Their sensitivity is considered as low.
- 4.47 R01 to R09 are residential VSRs with many number of individuals. The quality of existing view is generally good and alternative views are available. They would have partial to full visibility, long duration and frequent view. Their sensitivity is considered as high.
- 4.48 T1 to T8 are travelling VSRs with medium to many number of individuals. The quality of existing view varies from good to fair. They all have alternative views except T5 as their views are only confined to the both sides of the railway corridor. T1 to T8 have glimpse visibility, short duration and rare to occasional view. Their sensitivity is considered as low.

Table 4.5 Visually Sensitive Receivers (VSRs) and Their Sensitivity

VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRs	Number of Individuals (Many/Medium/Few)	Quality of Existing View (Good/Fair/Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivity (Low, Medium, High)
C1	Hotel Nikko Hong Kong	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
C2	Intercontinental Grand Stanford	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
C3	MTR Hung Hom Building	Commercial	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
C4	China Travel Cargo Logistics Centre	Commercial	Medium	Fair	Yes	Full	Medium	Occasional	Medium
C5	Harbour Plaza Metropolis	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
C6	Harbourview Horizon	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
C7	Harbourfront Horizon	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
C8	The Metropolis Tower and Mall	Commercial	Medium	Good	Yes	Full	Medium	Occasional	Medium
CDA1	Future Development at Winslow Street	Non Residential	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
GIC1	Carmel Secondary School	Institutional	Medium	Good	Yes	Full	Medium	Occasional	Medium
GIC2	Hong Kong Polytechnic University	Institutional	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
GIC3	Hong Kong Polytechnic University Teaching Hotel	Institutional	Medium	Good	Yes	Partial	Medium	Occasional	Medium
GIC4	Hong Kong Polytechnic University Student Hostel	Institutional	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
GIC5	Ma Tau Chung Government Primary School	Institutional	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
GIC6	Future Development of Hong Kong Polytechnic University Phase 8	Institutional	Medium	Fair	Yes	Partial	Medium	Occasional	Medium
O1	King's Park Sport Ground	Recreational	Many	Good	Yes	Partial	Medium	Occasional	High

VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRS	Number of Individuals (Many/Medium/Few)	Quality of Existing View (Good/Fair/Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivity (Low, Medium, High)
O2	King's Park Service Reservoir Playground	Recreational	Medium	Good	Yes	Partial	Medium	Occasional	High
OU1	Hong Kong Coliseum	Recreational	Many	Fair	Yes	Full	Medium	Rare	Medium
OU2	Freight Terminal	Institutional	Medium	Poor	No	Full	Medium	Occasional	Low
OU3	Public Mortuary, Sai Sing, International and Universal Funeral Parlour	Institutional	Few	Poor	Yes	Full	Short	Rare	Low
OU4	Chi Man Street sitting out area	Recreational	Few	Fair	Yes	Partial	Medium	Occasional	Medium
R01	Oi Man Estate	Residential	Many	Good	Yes	Full	Long	Frequent	High
R02	Parc Palais	Residential	Many	Good	Yes	Full	Long	Frequent	High
R03	Wylie Court	Residential	Many	Good	Yes	Full	Long	Frequent	High
R04	Property Development at future Ho Man Tin Station	Residential	Many	Good	Yes	Full	Long	Frequent	High
R05	Metropolis Residence	Residential	Many	Good	Yes	Full	Long	Frequent	High
R06	Harbour Place	Residential	Many	Good	Yes	Full	Long	Frequent	High
R07	Royal Peninsula	Residential	Many	Good	Yes	Full	Long	Frequent	High
R08	Medium Rise Central Hung Hom Residence	Residential	Many	Good	Yes	Partial	Long	Frequent	High
R09	Yee Fu and Wai King Building	Residential	Many	Good	Yes	Partial	Long	Frequent	High
T1	Hung Hom Station	Travelling	Many	Fair	Yes	Glimpse	Short	Occasional	Low
T2	Hung Hom Station Carpark	Travelling	Many	Fair	Yes	Glimpse	Short	Occasional	Low
T3	Travellers on Cheong Wan Road	Travelling	Many	Fair	Yes	Glimpse	Short	Occasional	Low

VSR ID.	Visually Sensitive Receiver (VSR)	Type of VSRs	Number of Individuals (Many/Medium/Few)	Quality of Existing View (Good/Fair/Poor)	Availability of Alternative Views (Yes/No)	Degree of Visibility (Full/ Partial/ Glimpse)	Duration of View (Long/ Medium/ Short)	Frequency of View (Frequent/ Occasional/ Rare)	Sensitivity (Low, Medium, High)
T4	Travellers on Salisbury Flyover	Travelling	Many	Fair	Yes	Glimpse	Short	Occasional	Low
T5	Travellers on MTR East Rail Line	Travelling	Many	Fair	No	Glimpse	Short	Occasional	Low
T6	Travellers in Victoria Harbour	Travelling	Many	Good	Yes	Glimpse	Short	Occasional	Low
T7	Oi Sen Path	Travelling	Medium	Fair	Yes	Glimpse	Short	Rare	Low
T8	Footbridge Linkage to Hung Hom Station	Travelling	Many	Fair	Yes	Glimpse	Short	Occasional	Low

Note: R = Residential; C = Commercial, CDA = Commercial Development Area, GIC = Government/Institution/Community, I = Industrials, O = Open space, OU = Others Use; T = Transport related

Landscape Impact Assessment

Sources of Landscape Impacts

- 4.49 The sources of landscape impacts due to the Project would create varying levels of landscape impact during the construction and operation phases. Potential impacts would result from the temporary and permanent works during the construction phase and permanent above ground structure elements during the operation phase.
- 4.50 The sources of landscape impacts in the construction phase would include:
- construction of Noise Mitigation Measures (NMM) at Portal 1A;
 - demolition of existing Cheong Wan Road Viaduct and construction of new realigned Cheong Wan Road (CWR);
 - construction of North Side Ventilation Shafts (NSVS) at the north of Hung Hom Station;
 - construction of South Side Ventilation Shafts (SSVS) at the south of Hung Hom Station;
 - construction of Cooling Tower (CT) at the south of Hung Hom Station;
 - temporary works area at Hung Hom Podium and Freight Terminal (TWA1);
 - construction of cut-and-cover tunnel works and associated works sites and temporary access road at Chatham Road Interchange including temporarily alienation of existing amenity area and slope stabilization works along Oi Sen Path (TWA2);
 - Barging Point (BP) at Hung Hom Freight Pier;
 - loss of existing trees and other vegetation during construction; and
 - change of landscape character temporarily due to the construction works.
- 4.51 The sources of landscape impacts in the operation phase would include:
- operation of Noise Mitigation Measures (NMM) at Portal 1A;
 - operation of realigned Cheong Wan Road (CWR);
 - operation of North Side Ventilation Shafts (NSVS) at the north of Hung Hom Station;
 - operation of South Side Ventilation Shafts (SSVS) at the south of Hung Hom Station;
 - operation of Cooling Tower (CT) at the south of Hung Hom Station;
 - permanent removal of existing trees and other vegetation; and
 - change of landscape character permanently due to the proposed development.

Magnitude of Landscape Impacts

4.52 The magnitude of unmitigated landscape impacts associated with the construction phase and operational phase of the Project are assessed and described in [Table 4.6](#).

Table 4.6 Magnitude of Landscape Impacts during Construction and Operation Phases

ID No.	Landscape Resources/ Landscape Character Areas	Source of Impact from Project	Description of Unmitigated Impacts	Magnitude of Impact (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation
LR1.1	Roadside Amenity Areas at Chatham Road Interchange	Construction of cut-and-cover tunnel and associated works during construction phase.	During construction phase, approximately 8,200sqm of the amenity area with shrub planting will be temporarily alienated. Approximately 416 nos. of trees will be removed during construction. Tree species include <i>Caryota ochlandra</i> , <i>Bauhinia blakeana</i> , <i>Macaranga tanarius</i> , <i>Melia azedarach</i> and <i>Bauhinia variegata</i> . Affected trees are in the range of 2-14m high, 1-8m spread and 100-600mm trunk diameter.	Large	Large
LR1.2	Roadside Amenity Areas along Cheong Wan Road	Temporary works areas at Hung Hom during construction phase	During construction phase, approximately 900sqm of amenity areas with shrub planting will be temporarily alienated. Approximately 27 trees will be removed.	Small	Small
LR1.3	Roadside Amenity Areas at Hung Luen Road and Hung Lok Road	Temporary works areas at Hung Hom during construction phase	During construction phase, approximate 1,050 sqm of amenity area will be temporarily alienated.	Small	Small
LR1.4	Roadside Amenity Areas at Salisbury Road and Hong Chong Road above the Portal of Cross Harbour Tunnel	Temporary works areas at Hung Hom during construction phase	During construction phase, approximately 540sqm of amenity will be temporarily alienated.	Small	Small
LR2	Amenity Areas at Oi Sen Path	Construction of cut-and-cover tunnel and associated works including slope works at Oi Sen Path during construction phase.	During construction phase, Oi Sen Path will be temporarily alienated. Approximately 45 nos. of trees will be removed. Tree species include <i>Albizia lebbek</i> , <i>Bauhinia variegata</i> , <i>Litsea glutinosa</i> and <i>Melia azedarach</i> . Affected trees are in the range of 2-4m high, 1-3m spread and around 100mm trunk diameter.	Large	Large
LR3	Sport Field and associated amenity areas inside Hong Kong Polytechnic University (HKPU)	Nil	Nil	Negligible	Negligible
LR4	Amenity Areas at Hong Kong Coliseum	Nil	Nil	Negligible	Negligible
LR5	Victoria Harbour	Nil	Nil	Negligible	Negligible
LR6	Hung Hom South Road Rest Garden	Nil	Nil	Negligible	Negligible
LR7	King's Park Sports Ground	Nil	Nil	Negligible	Negligible
LR8	Winslow Street Playground	Nil	Nil	Negligible	Negligible
LR9	Princess Margaret Road Garden	Nil	Nil	Negligible	Negligible
LR10	Man-made Slope at Chatham Road North	Temporary works areas for tunnel construction during construction phase	During construction, 148 nos of trees will be removed. Tree species include <i>Acacia confusa</i> , <i>Bombax ceiba</i> , <i>Leucaena leucocephala</i> , <i>Macaranga tanarius</i> and <i>Melaleuca leucadendron</i> .	Large	Large

ID No.	Landscape Resources/ Landscape Character Areas	Source of Impact from Project	Description of Unmitigated Impacts	Magnitude of Impact (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation
			Affected trees are in the range of 5-15m high, 2-5m spread and 100-300 trunk diameter.		
LR11	Oi Sen Path Rest Garden	Nil	Nil	Negligible	Negligible
LCA01	Hung Hom Mixed Modern Comprehensive Urban Development LCA	Nil	Nil	Negligible	Negligible
LCA02	Hung Hom Residential Urban LCA	Nil	Nil	Negligible	Negligible
LCA03	Hung Hom City Grid Mixed Urban LCA	Nil	Nil	Negligible	Negligible
LCA04	Valley Road Miscellaneous Urban Fringe LCA	Nil	Nil	Negligible	Negligible
LCA05	Ho Man Tin Residential Urban LCA	Nil	Nil	Negligible	Negligible
LCA06	Hung Hom Transportation Corridor LCA	Direct impact due to construction of Noise Mitigation Measures at Portal 1A, Realignment of Cheong Wan Road, South and North Side Ventilation Shafts, Cooling Tower and their subsequent operation. Direct impact due to the temporary works areas at Hung Hom Podium and Freight Terminal, temporary works areas at Chatham Road Interchange and Barging Point at Hung Hom Freight Pier during construction phase	During the construction phase, there will be significant change and landscape characters due to relatively extensive works areas which cover majority of this LCA. During operation phase, there would be relatively small and localized change of landscape character due to the proposed structures. More significant impact on the change on LCA is due to the erection of Ho Man Tin Mitigation Structure along the railway corridor.	Large	Large
LCA07	King's Park Residential Urban Fringe LCA	Nil	Nil	Negligible	Negligible
LCA08	The Hong Kong Polytechnic University (HKPU) Institutional LCA	Nil	Nil	Negligible	Negligible
LCA09	Tsim Sha Tsui Medium/High-Rise Commercial Urban Landscape	Nil	Nil	Negligible	Negligible
LCA10	Victoria Harbour Strait LCA	Nil	Nil	Negligible	Negligible

Note: Exact no. of trees to be retained, transplanted and felled to be determined during Tree Removal Application under ETWB TCW No. 3/2006.

Significance of Unmitigated Landscape Impacts

- 4.53 The significance of landscape impacts, before implementation of mitigation measures, in the construction and operation phases are assessed and presented in [Table 4.11](#).
- 4.54 For LR1.1 – Roadside Amenity Areas at Chatham Road Interchange, during the construction phase, there would be large impact due to the large extent of temporary works areas and a large number of existing trees would be affected. Since the sensitivity of this resource is medium, the significance of the unmitigated impact is considered as moderate. The unmitigated impact during the operation is the same as that during construction without mitigation measures and therefore the impact on this landscape resource during operation remains moderate.
- 4.55 For LR1.2 – Roadside Amenity Areas along Cheung Wan Road, during construction phase, small number of existing trees would be removed. There would be small impact due to temporary alienation of part of this resource. Since the sensitivity of this resource is medium, the significance of the unmitigated impact is considered as slight. The unmitigated impact during the operation would be the same as that during construction phase without mitigation measures and therefore the impact on this landscape resource during operation remains slight.
- 4.56 For LR1.3 - Roadside Amenity Areas at Hung Luen Road and Hung Lok Road, during construction phase, there would be small impact due to approximately 1,050sqm of amenity area will be temporarily alienated. Since the sensitivity of this resource is medium, the significance of unmitigated impact is slight. The unmitigated impact during the operation would be the same as that during construction phase without mitigation measures and therefore the impact on this landscape resource during operation remains slight.
- 4.57 For LR1.4 – Roadside Amenity Areas Salisbury Road and Hong Chong Road above Portal of Cross Harbour Tunnel, there would be small impact due to the temporary alienation of approximately 540sqm of amenity area. Since the sensitivity of this resource is medium, the significance of unmitigated impact is considered as slight. The unmitigated impact during the operation would be the same as that during construction phase without mitigation measures and therefore the impact on this landscape resource during operation remains slight.
- 4.58 For LR2 – Amenity areas at Oi Sen Path, during construction phase, there would be large impact on the amenity areas at Oi Sen Path since the Oi Sen Path will be temporarily alienated due to the tunnel construction works. Since the sensitivity of this resource is medium, the significance of the unmitigated impact is considered as moderate. The unmitigated impact during the operation is the same as that during construction without mitigation measures and therefore the impact on this landscape resource during operation remains moderate.
- 4.59 For LR10 – Man-made Slope at Chatham Road North, during the construction phase, there would be large impact as this LR will be temporarily alienated and large number of existing trees will be affected. Since the sensitivity of this resource is medium, the significance of the unmitigated impact is considered as moderate. The unmitigated impact during the operation is the same as that during construction without mitigation measures and therefore the impact on this landscape resource during operation remains moderate.
- 4.60 For LCA06 - Hung Hom Transportation Corridor LCA, during construction phase, there would be large magnitude of direct landscape impact due to the construction of Cooling Tower, North and South Side Ventilation Shafts, realignment of Cheung Wan Road, Noise Mitigation Structure at Portal 1A and associated temporary works at Chatham Road Interchange, Hung Hom Podium and Freight Terminal and Hung Hom Freight Pier. The sensitivity of this LCA is low and therefore the resultant significance of unmitigated landscape impact is moderate. The unmitigated landscape impact remains moderate during operation phase.
- 4.61 There would not be any discernable landscape impact on other LRs and LCAs and therefore significance of unmitigated impact on the remaining LRs and LCAs is insubstantial.

Visual Impact Assessment

Sources of Visual Impacts

- 4.62 The sources of visual impacts due to the Project would create varying levels of visual impact during the construction and operation phases. Potential impacts would result from the temporary works during construction phase and permanent above ground structure elements during the operation phase.
- 4.63 The sources of visual impacts in the construction phase would include:
- construction of Noise Mitigation Measures (NMM) at Portal 1A;
 - demolition of existing Cheong Wan Road Viaduct and construction of new realigned Cheong Wan Road (CWR);
 - construction of North Side Ventilation Shafts (NSVS) at the north of Hung Hom Station;
 - construction of South Side Ventilation Shafts (SSVS) at the south of Hung Hom Station;
 - construction of Cooling Tower (CT) at the south of Hung Hom Station;
 - temporary works area at Hung Hom Podium and Freight Terminal (TWA1);
 - construction of cut-and-cover tunnel works and associated works sites and temporary access road at Chatham Road Interchange including temporarily alienation of existing amenity area and slope stabilization works along Oi Sen Path (TWA2);
 - Barging Point (BP) at Hung Hom Freight Pier;
 - temporary site access areas, site cabins and heavy machinery;
 - loss of existing trees and other vegetation during construction;
 - after dark lighting; and
 - dust during dry weather.
- 4.64 The sources of visual impacts in the operation phase would include:
- operation of Noise Mitigation Measures (NMM) at Portal 1A;
 - operation of realigned Cheong Wan Road (CWR);
 - operation of North Side Ventilation Shafts (NSVS) at the north of Hung Hom Station;
 - operation of South Side Ventilation Shafts (SSVS) at the south of Hung Hom Station;
 - operation of Cooling Tower (CT) at the south of Hung Hom Station; and
 - permanent removal of existing trees and other vegetation.
- 4.65 Tables indicating the location and development details such as building heights, coverage for permanent aboveground structures are shown in [Table 4.7](#). Temporary aboveground structures on works areas are mainly site offices and storage areas which would not cause any significant visual impact. Any potential environmental impacts will be reviewed when there is any update on temporary aboveground structures.

Table 4.7 Locations and Development Details of Permanent Aboveground Structures

Permanent Aboveground Structures	Locations	Approximate height and coverage (Metre)
Noise Mitigation Measures (NMM) at Portal 1A	At the base of deep cutting through to the West of Oi Man Estate	Approx. 150m (L) x 17.5m (W) x 11m (H)
North Side Ventilation	At the north of Hung Hom Station	Approx. 75m (L) x 7.8m (W) x 11.5m (H)

Shafts (NSVS)		
South Side Ventilation Shafts (SSVS)	At the south of Hung Hom Station	Approx. 62m (L) x 7.8m (W) x 11.5m (H)
HUH Cooling Tower (CT)	Current loading area of the International Mail Centre (IMC)	Approx. 41m (L) x 9m (W) x 8.7m (H)

Note: Height of the HUH Ventilation Shafts is measured from the HUH Podium level +13.8m.

Magnitude of Visual Impacts

- 4.66 The magnitude of impacts during construction and operation phases is assessed based on the viewing distance compatibility of the project with the Surrounding Landscape, Duration of Impacts, Scale of Development, Reversibility of Change, Potential Blockage of View as shown in [Table 4.8](#).
- 4.67 The proposed Project is mainly located within existing railway corridor which is characterized by major railway tracks and associated facilities. The proposed permanent aboveground structures include Cooling Tower, Ventilation Shafts and the Noise Mitigation Measures at Portal 1A are all railway associated facilities. It is considered that during the operation phase, the permanent aboveground structures with their height, shape, proportion, colour and material used are highly compatible with the surrounding railway corridor landscape. During the operation phase, the duration of impact is considered as long. The scale of development varies from small and localized Ventilation Shafts, Cooling Tower and Realignment of Cheong Wan Road to medium scale Noise Mitigation Measures at Portal 1A. All the proposed developments are permanent and irreversible. There would not be any potential of blockage of view to VSRs except T5. Lateral view of T5 would be partly blocked by the proposed Noise Mitigation Measures at Portal 1A.
- 4.68 During the construction phase, the proposed temporary construction works are considered as medium compatibility with the surrounding. The duration of impact is medium. The scale of construction varies from medium to small. All temporary works during construction phase is considered as reversible. There would not be any potential blockage of view to VSRs except T5.
- 4.69 During the construction phase, there would be small magnitude of impact on VSRs C3, C6, C7, GIC4, GIC5, R06, R08, R09, T1, T2, T3, T6 and T8 due to the temporary works areas and barging point. There would not be any impact on these VSRs during operation phase when the main source of visual impact comes from the temporary works and barging point are removed during operation phase. There would be small magnitude of impact on VSRs C1, C2, GIC3 during construction and operation phase because the proposed works for Cooling Tower and associated temporary works areas are considered as small and they view the works from a distance over 200m.
- 4.70 There would be intermediate magnitude of impact on VSRs C4, C5, C8, GIC2, OU1, OU2, OU3, R05, R07 and T4 who can see the proposed Cooling Tower, South Side Ventilation Shafts, North Side Ventilation Shafts and/or Realignment of Cheong Wan Road at a closer distance of less than 100m during construction phase. The scale of the development during the operation phase would be localized and significantly reduced. The magnitude of impact on these VSRs would be reduced to small during operation phase.
- 4.71 During the construction phase, there would be intermediate magnitude of impact on VSRs CDA1, GIC1, GIC6, O1, O2, OU4, R01, R02, R03, T5 and T7 mainly due to the construction of Noise Mitigation Measures at Portal 1A and temporary works at Chatham Road Interchange including loss of existing greenery. During the operation phase, the main source of impact on these VSRs would be mainly due to the operation of the Noise Mitigation Measures at Portal 1A and the magnitude of impact would be reduced to small.
- 4.72 There would also be some small magnitude of impact on planned VSRs R04 during the operation phase who can view the proposed Noise Mitigation Measures for Portal 1A from a distance of 300m away.

Significance of Unmitigated Visual Impacts

- 4.73 The significance of visual impacts, before the implementation of mitigation measures, in the construction phase and operation phase are assessed in accordance with the methodology set out in [Table 4.2](#) of the Report and described in [Table 4.12](#). All impacts are adverse unless otherwise stated.
- 4.74 During construction phase, before implementation of any mitigation measures, there would be slight impact significance for VSRs C3, C6, C7, GIC4, GIC5, T1, T2, T3, T6 and T8 and moderate impact significance for VSRs R06, R08 and R09 due to the temporary works areas and barging point. There would not be any impact significance on these VSRs during operation phase when the main source of visual impact comes from the temporary works and barging point are removed.

- 4.75 There would be slight impact significance for VSRs C1, C2 and GIC3 before implementation of any mitigation measures due to the construction and operation of Cooling Tower.
- 4.76 There would be moderate impact significance at construction phase for C5, CDA1, GIC1, GIC2, GIC6, OU1, OU2, OU3, T4, T5 and T7, before implementation of any mitigation measures due to the proposed Cooling Tower, South Side Ventilation Shafts, North Side Ventilation Shafts, Realignment of Cheong Wan Road and/or Noise Mitigation Measures at Portal 1A and associated temporary works. The impact significance would be reduced to slight during the operation phase as the scale of the development is localized and significantly reduced to the permanent above ground structures.
- 4.77 There would be moderate impact significance for O1, O2, OU4, R01, R02, R03 and T5 before implementation of any mitigation measure due to the proposed Noise Mitigation Measures at Portal 1A and associated temporary works areas during construction phase. The impact significance would still be moderate during operation phase.
- 4.78 There would be moderate impact significance for C4, C8, R05 and R07 before implementation of any mitigation measure due to the proposed North Side Ventilation Shafts and Realignment of Cheong Wan Road and associated temporary works areas during construction phase. The impact significance would still be moderate during operation phase.
- 4.79 There would be moderate impact significance for R04 before implementation of mitigation due to the proposed Noise Mitigation Measures at Portal 1A during operation phase.

Recommendation on Photomontage Viewpoints

- 4.80 Photomontages at representative locations showing comparison between existing views, proposals on Day 1 after completion without mitigation measures, on day 1 after completion with mitigation measures, and in Year 10 after completion with mitigation measures will be provided in accordance with EIAO Guidance Note No. 8/2010.
- 4.81 Based on the location of the proposed above ground structures, proposed viewpoint from key representative VSRs are mapped in [Figure NEX2213/C/361/ENS/M54/570/A](#) and shown in [Figures NEX2213/C/361/ENS/M54/571/A](#) and [576/A](#). They are described as follow:
- Viewpoint V1 from Oi Man Estate to proposed Noise Mitigation Measures (NMM) at Portal 1A;
 - Viewpoint V2 from Royal Peninsula to proposed North Side Ventilation Shafts (NSVS) at north of Hung Hom Station Podium and North Approach Tunnel Trough proposed under SCL (TAW-HUH);
 - Viewpoint V3 from Podium of Hong Kong Coliseum to proposed Cooling Tower (CT) and South Approach Tunnel Trough proposed under SCL (TAW-HUH);
 - Viewpoint V4 from Freight Terminal to proposed South Side Ventilation Shafts (SSVS) at south of Hung Hom Station Podium;
 - Viewpoint V5 from Parc Palais to proposed Noise Mitigation Measures (NMM) at Portal 1A; and
 - Viewpoint V6 from Hong Kong Polytechnic University to proposed North Side Ventilation Shafts (NSVS) and Realignment of Cheong Wan Road at north of Hung Hom Station Podium.
- 4.82 The criteria for the selection of representative viewpoints for photomontages include: -
- the viewpoints which cover the above ground structure viewed from major public viewpoint represents key VSRs or VSR groups who would be potentially affected by the proposed permanent structures; and
 - the viewpoints which shall be able to represent the worst case scenarios and demonstrate the compatibility of the above ground structures to the adjacent visual context and illustrate the visual effect during Day 1 without mitigation measures, Day 1 with mitigation measures and Year 10 with mitigation measures.

Table 4.8 Magnitude of Visual Impact during Construction and Operation Phases

VSR ID.	Visually Sensitive Receiver (VSR)	Source of Visual Impact	Viewing Distance (m)	Compatibility of the Project with the Surrounding Landscape (High/ Medium/ Low)		Duration of Impacts (Long/ Medium/ Short)		Scale of Development (Large/ Medium/ Small)		Reversibility of Change (Yes/ No)		Potential Blockage of View (Full/ Partial/ Nil)		Magnitude of Impact (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
C1	Hotel Nikko Hong Kong	TWA1, CT	250	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Small	Small
C2	Intercontinental Grand Stanford	TWA1, CT	200	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Small	Small
C3	MTR Hung Hom Building	TWA1	0	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
C4	China Travel Cargo Logistics Centre	TWA1, NSVS, CWR	0	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
C5	Harbour Plaza Metropolis	TWA1, SSVS	20	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
C6	Harbourview Horizon	TWA1	50	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
C7	Harbourfront Horizon	TWA1, BP	10	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
C8	The Metropolis Tower and Mall	TWA1, NSVS, CWR	20	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
CDA1	Future Development at Winslow Street	TWA1, TWA2, NMM	70	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
GIC1	Carmel Secondary School	TWA2, NMM	40	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
GIC2	Hong Kong Polytechnic University	TWA2, SSVS, CWR	60	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
GIC3	Hong Kong Polytechnic University Teaching Hotel	TWA1, CT	200	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Small	Small
GIC4	Hong Kong Polytechnic University Student Hostel	TWA1	50	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
GIC5	Ma Tau Chung Government Primary School	TWA1	800	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-

VSR ID.	Visually Sensitive Receiver (VSR)	Source of Visual Impact	Viewing Distance (m)	Compatibility of the Project with the Surrounding Landscape (High/ Medium/ Low)		Duration of Impacts (Long/ Medium/ Short)		Scale of Development (Large/ Medium/ Small)		Reversibility of Change (Yes/ No)		Potential Blockage of View (Full/ Partial/ Nil)		Magnitude of Impact (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
GIC6	Future Development of Hong Kong Polytechnic University Phase 8	TWA2, NMM	0	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
O1	King's Park Sport Ground	TWA2, NMM	50	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
O2	King's Park Service Reservoir Playground	TWA2, NMM	150	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
OU1	Hong Kong Coliseum	TWA1, CT, SSVS	20	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
OU2	Freight Terminal	TWA1, CT, SSVS	0	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
OU3	Public Mortuary Sai Sing, International and Universal Funeral Parlour	TWA1, TWA2, NSVS, CWR	0	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
OU4	Chi Man Street sitting out area	TWA2, NMM	10	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
R01	Oi Man Estate	TWA2, NMM	40	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
R02	Parc Palais	TWA2, NMM	80	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
R03	Wylie Court	TWA2, NMM	100	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
R04	Property Development at future Ho Man Tin Station	TWA2, NMM	300	-	High	-	Long	-	Medium	-	No	-	Nil	-	Small
R05	Metropolis Residence	TWA1, TWA2, NSVS, CWR	50	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
R06	Harbour Place	TWA1, BP	400	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
R07	Royal Peninsula	TWA1, TWA2, NSVS, CWR	100	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
R08	Medium Rise Central Hung Hom Residence	TWA1, TWA2	100	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-

VSR ID.	Visually Sensitive Receiver (VSR)	Source of Visual Impact	Viewing Distance (m)	Compatibility of the Project with the Surrounding Landscape (High/ Medium/ Low)		Duration of Impacts (Long/ Medium/ Short)		Scale of Development (Large/ Medium/ Small)		Reversibility of Change (Yes/ No)		Potential Blockage of View (Full/ Partial/ Nil)		Magnitude of Impact (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
R09	Yee Fu and Wai King Building	TWA2	80	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
T1	Hung Hom Station	TWA1	0	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
T2	Hung Hom Station Carpark	TWA1	0	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
T3	Travellers on Cheong Wan Road	TWA1	0	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
T4	Travellers on Salisbury Flyover	TWA1, CT, SSVS	50	Medium	High	Medium	Long	Medium	Small	Yes	No	Nil	Nil	Intermediate	Small
T5	Travellers on MTR East Rail Line	TWA2, NSVS, CWR	0	Medium	High	Medium	Long	Medium	Medium	Yes	No	Partial	Partial	Intermediate	Intermediate
T6	Travellers in Victoria Harbour	TWA1, BP	200	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-
T7	Oi Sen Path	TWA2, NMM	20	Medium	High	Medium	Long	Medium	Medium	Yes	No	Nil	Nil	Intermediate	Small
T8	Footbridge Linkage to Hung Hom Station	TWA1	30	Medium	-	Medium	-	Small	-	Yes	-	Nil	-	Small	-

Note: R = Residential; C = Commercial, CDA = Commercial Development Area, GIC = Government/Institution/Community, I = Industrials, O = Open space, OU = Others Use; T = Transport related

NMM – Noise Mitigation Measures at Portal 1A; CWR – Realignment of Cheong Wan Road; NSVS – North Side Ventilation Shafts; SSVS – South Side Ventilation Shafts;

CT – Cooling Tower; TWA1 – Temporary works areas at Hung Hom Podium and Freight Terminal, TWA2 – Temporary works areas at Chatham Road Interchange,

BP – Barging Point at Hung Hom Freight Pier;

Remarks: 1. There is no rating on the compatibility of the project with the surrounding landscape, duration of impacts, scale of development, reversibility of change, potential blockage of view and magnitude of impact for some VSRs during operation phase because the main source of visual impact that comes from the temporary works are removed during operation phase.

2. There is no rating on the compatibility of the project with the surrounding landscape, duration of impacts, scale of development, reversibility of change, potential blockage of view and magnitude of impact for some planned VSRs during construction phase because the planned VSRs do not exist during the construction phase.

Landscape and Visual Mitigation Measures

Landscape and Aesthetic External Design Measures incorporated in the Proposed Scheme

- 4.83 The design of above ground structures shall attempt to pose a positive gesture to integrate with the surrounding urban environs in an elegant manner. All the above ground elements shall have a 'line-wide' consistency in architectural articulation and material palette so that they are easily recognizable as part of the MTR system. Landscape and Aesthetic External Design Measures incorporated in the proposed scheme are illustrated in [Figures NEX2213/C/361/ENS/M54/550/A to 558/A](#). Details of these measures are described below.

Noise Mitigation Measures (NMM) at Portal 1A

- 4.84 The Noise Mitigation Measures (NMM) at Portal 1A are located at the base of a deep cutting through which the railway runs. They will be overlooked by the high rise developments of Oi Man Estate to the north and Parc Palais to the north west. Views of the structures may also be experienced by travellers on Princess Margaret Road to the south west and pedestrians using Oi Sen Path to the north east. The design approach adopted is to blend the structures into this existing backdrop by using a similar palette of muted blues and greens. The panels will be coloured to create a series of linear bands parallel with the cutting sides. This complements the trend of other linear elements in the adjacent environs which include the slope drainage, roads and footpaths.
- 4.85 Green roof and vertical greening have been considered but not recommended due to the following constraints: -
- as there would be limited space for planting at the both sides of the structure as the structure is sandwiched by steep slopes and there would not be adequate sunlight for healthy growth of planting on vertical green panels.
 - There would be high risk of falling plant materials on the railway track that would potential affect the operation of the railway line.
 - There is a high risk to maintenance personnel when carrying out regular maintenance to the planting within the live railway area.

North and South Side Ventilation Shafts Design Proposal

- 4.86 The ventilation shafts design has been carefully considered and studies have been carried out to achieve a form and shape that would be both highly functional and aesthetically pleasing with a limited visual impact.
- 4.87 The amalgamation and siting of the shafts will be the main driver to mitigate the visual impact. As such the ventilation shafts associated with HUH will be integrated into two banks, one at the immediate north ends of the Hung Hom Station Podium and the other at the immediate south of the same podium. Thereby minimising the exposure to immediate environment and sensitive receivers. The vent openings will be carefully orientated so to minimize potential impact to the nearby residents. The massing of the ventilation shafts will also be carefully articulated to keep the height of these vents under the parapet level of the existing podium.
- 4.88 The ventilation shafts themselves will be lined with a proprietary stainless steel mesh, which will offer almost 70% open air as opposed to 50% for the aluminium louvers, effectively minimising the size of the vent opening and the resultant ventilation shafts from being too large.
- 4.89 Opportunities for vertical greening on ventilation shafts have been considered. Whilst North Side Ventilation Shafts is proposed with green roof, South Side Ventilation Shafts is proposed with green roof and suitable trees planting in suspended concrete box which will be visible from the coliseum podium level. Vertical plantings in form of trained climbers are also proposed at the south vent array.

Cooling Tower External Design and Landscape Proposals

- 4.90 The cooling tower for the SCL station will be located between the Shatin To Central Link - Tai Wai to Hung Hom Section [SCL (TAW-HUH)] south approach trough and the existing ventilation building of the tunnel to ETS. The area is currently used as the loading area of the International Mail Centre (IMC), which will be vacated in late 2012. The proposed external design and landscape proposals are illustrated in [Figures NEX2213/C/361/ENS/M54/557/A](#) and [558/A](#).

- 4.91 To minimise potential adverse visual impacts to the future waterfront redevelopment, the cooling tower structure:
- will occupy a very narrow footprint;
 - will be placed as close as possible to the existing East Rail portal i.e. offset 3.5m from the portal to maintain a minimum but sufficient space for air intake and exhaust of the cooling towers; and
 - will only be one-storey high with the top level of +13.5mpd, which does not exceed the top level of existing portal structure and ventilation shafts.
- 4.92 The concept of the external design concept is to treat the Cooling Tower as 3 articulated structures. They will be the stainless steel mesh screened cages at the south lower end and the north upper end of the Cooling Tower, enclosing the cooling towers and air cooled chillers, plus the central plant room body clad with gabion cage or stone panels at the bottom and finished by rendering at the top. A green roof will also be introduced to the middle block to mitigate any potential visual impact from receivers at HUH Podium level. The steel mesh of the cladding treatment will offer a visual continuity to this new structure with the adjacent station ventilation shafts cladding.
- 4.93 The ground level building surrounds will not lie in the public realm and will only be seen and used by operational staff. It is therefore proposed to provide simple ground level paving treatment for the building surrounds comprising clay or concrete block pavers.
- 4.94 Greening opportunities within the boundary of Cooling Tower have been explored as much as possible. The open area at north and east side of the cooling tower is an EVA hammer-head reserved for fire appliances manoeuvring. Greening at such area is therefore considered not feasible.
- 4.95 Bamboo strip planting is proposed along the boundary wall of SCL (TAW-HUH) south approach trough, shrub and climbers will also be planted at the frontage of Cooling Tower; with green roof proposed at middle building; the overall greening effect and facade treatments will blend well and strengthen the adjacent landscape and visual amenity of Hom Hung Area,
- 4.96 The proposed landscape and visual mitigation measures in the construction and operation are listed in [Table 4.9](#) and [4.10](#) below, together with an indication of Funding, Implementation and Maintenance Agencies and illustrated in [Figures NEX2213/C/361/ENS/M54/550/A to 558/A](#).

Table 4.9 Proposed Landscape and Visual Mitigation Measures for Construction Phase

ID No.	Landscape and Visual Mitigation Measures	Funding Agency ⁽¹⁾	Implementation Agency
CM1	Trees unavoidably affected by the works shall be transplanted as far as possible in accordance with ETWB TCW 3/2006 – Tree Preservation.	MTR Corporation	MTR Corporation
CM2a	Compensatory tree planting shall be provided in accordance with ETWB TCW 3/2006 – Tree Preservation.	MTR Corporation	MTR Corporation
CM2b	Compensatory shrub planting shall be provided to compensate for the loss of shrub planting in amenity areas.	MTR Corporation	MTR Corporation
CM3	Control of night-time lighting glare	MTR Corporation	MTR Corporation
CM4	Erection of decorative screen hoarding compatible with the surrounding setting.	MTR Corporation	MTR Corporation
CM5	Management of facilities on work sites which give control on the height and disposition/arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs.	MTR Corporation	MTR Corporation
CM6	All hard and soft landscape areas disturbed temporarily during construction shall be reinstated to equal or better quality, to the satisfaction of the relevant Government Departments.	MTR Corporation	MTR Corporation

Note:

(1) The HKSAR Government will adopt the Concession Approach with MTR Corporation to provide funding for the capital cost of SCL.

Table 4.10 Proposed Landscape and Visual Mitigation Measures for Operation Phase

ID No.	Landscape and Visual Mitigation Measures	Funding Agency ⁽¹⁾	Implementation Agency	Maintenance/ Management Agency ⁽²⁾
OM1	Aesthetically pleasing design as regard to the form, material and finishes shall be incorporated to MTR Ventilation Shafts, Cooling Tower and associated engineering facilities of the project so as to blend in the structures to the adjacent landscape and visual context.	MTR Corporation	MTR Corporation	MTR Corporation
OM2a	Climbers shall be incorporated to the Ventilation Shafts and Cooling Tower to soften the structure.	MTR Corporation	MTR Corporation	MTR Corporation
OM2b	Trees and Shrubs Planting shall be incorporated to enhance the landscape and visual amenity value of the area.	MTR Corporation	MTR Corporation	LCSD ⁽¹⁾
OM2c	Bamboo planting is proposed along the boundary of the Cooling Tower to provide greening / landscape resources in Hung Hom Area.	MTR Corporation	MTR Corporation	MTR Corporation

ID No.	Landscape and Visual Mitigation Measures	Funding Agency ⁽¹⁾	Implementation Agency	Maintenance/ Management Agency ⁽²⁾
OM3	Green Roof shall be proposed to Cooling Tower, North and South Side Ventilation Shafts to enhance the landscape quality of the structures and mitigate any potential visual impact on adjacent VSRs.	MTR Corporation	MTR Corporation	MTR Corporation

Note:

(1) The HKSAR Government will adopt the Concession Approach with MTR Corporation to provide funding for the capital cost of SCL.

(2) The management and maintenance agencies of mitigation measures have been identified in accordance with ET WBTC 2/2004. The agreement and approval of the implementation, management and maintenance agencies of the Project will be sought from relevant parties during detailed design stage of the project. MTR Corporation would be responsible for maintenance and management of trees within the permanent site boundary. The maintenance matrix and responsible parties for trees outside the permanent site boundary are yet to be confirmed. To facilitate with the confirmation process, MTR Corporation would be responsible for the maintenance works before any agreement is made.

4.97 The following good site practice measures will also be incorporated in the construction phase of the project: -

- Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works.
- Existing trees to be retained on site shall be carefully protected during construction.

4.98 The construction phase mitigation measures listed above shall be implemented as early as possible in order to minimize the landscape impacts in the construction stage. The operation phase mitigation measures listed above shall be adopted during the detailed design and be built as part of the construction works at the last stage of the construction period so that they are in place at the date of commissioning of the Project. However, it should be noted that the full effect of the soft landscape mitigation measures would not be appreciated for several years. Photomontages of the proposed project without and with mitigation measures illustrating the appearance after 10 years of the proposed works are shown in [Figures NEX2213/C/361/ENS/M54/571/A to 576/A](#). Viewpoint locations of the photomontages are shown in [Figure NEX2213/C/361/ENS/M54/570/A](#).

Residual Impacts

Residual Landscape Impacts

4.99 After implementation of mitigation measures as illustrated in [Figures NEX2213/C/361/ENS/M54/550/A to 558/A](#), residual impacts on landscape resources of significance during construction and operation phase are described below: -

- LR1.1 - Roadside Amenity Areas at Chatham Road Interchange - Approximately 416 existing trees will be affected by the proposed works, of which, approximately 21 trees will be transplanted and approximately 395 trees to be felled. Trees to be felled are in the range of 2-14m height, 1-8m spread 100-600mm trunk diameter. Compensation for felled trees will be planted in the reinstated roadside amenity areas except for slope works which are exempted from the compensation planting ratio requirement ETWB TCW No. 3/2006 – Tree Preservation. Woodland whip trees and shrubs planting are proposed for slope works. During the operation phase, the temporarily alienated amenity areas will be reinstated on like to like basis. It is considered that the residual impact on this LR is still moderate during construction phase but slight during Day 1 of Operation when the affected areas are reinstated with compensatory tree planting. The residual impact would further reduce to insubstantial during Year 10 of Operation when the proposed compensated trees become mature.
- LR1.2 – Roadside Amenity Areas along Cheong Wan Road – Approximately 27 existing trees will be affected by the proposed works, of which, approximately 2 tree will be transplanted and approximately 25 trees will be felled. Approximately 900sqm amenity area will be temporarily alienated. After completion of temporary works, with the affected areas

will be reinstated on like to like basis. It is considered that the residual impact on this LR is still slight during construction phase but insubstantial in Day 1 when the affected areas are reinstated with compensatory tree planting. The residual impact would remain insubstantial in Year 10 during Operation when the compensated trees become mature.

- LR1.3 – Roadside Amenity Areas at Hung Luen Road and Hung Lok Road – Approximately 1,050 sqm of amenity areas will be temporarily alienated. It is considered that the residual impact on this LR is slight during construction phase but insubstantial during Operation in Day 1 when the affected areas are reinstated. The residual impact would remain insubstantial in Year 10 during Operation.
- LR1.4 – Roadside Amenity Areas Salisbury Road and Hong Chong Road above Portal of Cross Harbour Tunnel, approximately 540 sqm of amenity area will be temporarily alienated by temporary works during construction phase. After completion of temporary works, the affected areas will be reinstated on a like to like basis. It is considered that the residual impact on this LR is slight during construction phase but insubstantial during Operation in Day 1 when the affected areas are reinstated. The residual impact would remain insubstantial in Year 10 during Operation.
- LR2 – Amenity areas at Oi Sen Path – Approximately 45 trees will be affected and felled for the temporary works for tunnel construction. Tree species include *Albizia lebbek*, *Bauhinia variegata*, *Litsea glutinosa* and *Melia azedarach*. Affected trees are in the range of 2-4m high, 1-3m spread and around 100mm trunk diameter. Compensation for felled trees will be planted in accordance with ETWB TCW 3/2006 Tree Preservation after completion of temporary works. It is considered that the residual impact on this LR is still moderate during construction phase but slight during Day 1 of Operation when the affected areas are reinstated with compensatory tree planting. The residual impact would reduce to insubstantial in Year 10 during Operation when the compensated trees become mature.
- LR10 – Man-made Slope at Chatham Road North – Approximately 148 existing trees will be affected by the temporary works for tunnel construction, of which, approximately 3 trees will be transplanted and approximately 145 trees will be felled. Tree species affected include *Acacia confusa*, *Bombax ceiba*, *Leucaena leucocephala*, *Macaranga tanarius* and *Melaleuca leucadendron*. Affected trees are in the range of 5-15m high, 2-5m spread and 100-300 trunk diameter. Compensation for felled trees will be planted after completion of temporary works except for slope works. Woodland whip trees and shrubs planting are proposed for slope works. It is considered that the residual impact on this LR is still moderate during construction phase but slight during Day 1 of Operation when the affected areas are reinstated with compensatory tree planting. The residual impact would reduce to insubstantial in Year 10 during Operation when compensated trees become mature.

Preliminary Tree Impact Summary

4.100 With the proposed tree transplanting and compensation proposal as mitigation measures, preliminary tree impact summary including preliminary location for transplanted and compensation trees is tabled as below:

LR Ref.	Landscape Resources	Tree to be Affected ⁽¹⁾	Tree Transplanting		Tree Felling			Tree Compensation ⁽³⁾		
			Quantity (No.)	Preliminary Location for Transplanted Trees ⁽²⁾	Quantity (No.)	Avg. Girth (m)	Tree Trunk Diameter Loss (m)	Quantity (No.) and Avg. Size	Tree Trunk Diameter Compensation (m)	Preliminary Location for Compensated Trees
LR1.1	Roadside Amenity Areas at Chatham Road Interchange	416	21	Roadside Amenity Areas at Chatham Road Interchange	395	0.20	110	610Hvy std.	61	Landscape areas in roadside amenity areas at Chatham Road Interchange, amenity area along Cheong Wan Road, Hung Luen Road and Hung Lok Road, reinstated landscape areas at Chatham Road North
LR1.2	Roadside Amenity Areas along Cheong Wan Road	27	2	Roadside Amenity Areas along Cheong Wan Road	25	0.10				
LR2	Amenity areas at Oi Sen Path	45	-	Not Required	45	0.15				
LR10	Man-made Slope at Chatham Road North	148	3	Will be transplanted off-site	145	0.15				
	TOTAL	636	26		610		110	610 Hvy Std.	61	

Note: (1) The tree impact summary provided above is indicative only based on a preliminary broad brush tree survey data and preliminary landscape proposals.

(2) Transplanted trees planting shall be provided within the identified preliminary location as far as practicable.

(3) Compensatory tree planting shall be provided to compensate for felled trees as far as practicable. Compensatory tree planting proposal including location of compensatory shall be submitted separately to seek relevant government department's approval, in accordance with ETWB TCB No. 3/2006. Compensation tree species shall follow the tree planting theme of the Greening Master Plan of the area. Total number of compensatory planting will follow the minimum ratio of 1:1 in number except for slope works. Heavy standard (Hvy Std.) sized tree shall be tree with a trunk diameter of 75 to 125mm (i.e. average 100mm).

Public Open Space and Amenity Area Impact Summary

4.101 The quantitative descriptions of temporary and permanent alienation and compensation of the amenity areas and open spaces are tabled below to illustrate the residual impacts on landscape resources: -

ID	Landscape Resources	Existing Site Area	Temporarily alienated during construction	Permanently alienated during operation	Compensation and Reinstatement Proposals
LR1.1	Roadside Amenity Areas at Chatham Road Interchange	14,800sqm	8,200sqm	Nil	Temporary alienated areas will be reinstated on like to like basis.
LR1.2	Roadside Amenity Areas along Cheong Wan Road	4,030sqm	900sqm	Nil	Temporary alienated areas will be reinstated on like to like basis.
LR1.3	Roadside Amenity Areas at Hung Luen Road and Hung Lok Road	5,080sqm	1,050sqm	Nil	Temporary alienated areas will be reinstated on like to like basis.
LR1.4	Roadside Amenity Areas Salisbury Road	4,390sqm	540sqm	Nil	Temporary alienated areas will be reinstated

ID	Landscape Resources	Existing Site Area	Temporarily alienated during construction	Permanently alienated during operation	Compensation and Reinstatement Proposals
	and Hong Chong Road above Portal of Cross Harbour Tunnel				on like to like basis.
LR2	Amenity Areas at Oi Sen Path	300m long	300m long	Nil	Temporary alienated areas will be reinstated on like to like basis.
LR10	Man-made Slope at Chatham Road North	13,250sqm	11,000sqm	Nil	Temporary alienated areas will be reinstated on like to like basis.

There would not be any temporary and permanently loss of public open space and there would not be net permanently loss of amenity area due to the Project.

4.102 Approximately 640 existing trees will be affected by the proposed works, of which approximately 30 trees will be transplanted and approximately 610 trees will be felled. Many of the affected trees are of heavy standard to mature size. None of these are Registered Old and Valuable Trees. There are no rare species or endangered species but only common species. Under the proposed scheme for the Project, opportunities for tree compensation within the project boundary has been fully explored and incorporated in the proposed mitigation measures as much as practicable. Due to limited available space for tree planting within the project boundary, compensatory tree planting of a ratio of 1:1 in terms of quantity of heavy standard trees except for slope works are proposed. Since there is no permanently loss of landscape areas, trees to be removed from the landscape areas during construction will be replanted by same number of trees of smaller size in the same area. Heavy standard sized trees are proposed for long term healthy growth of the trees. Potential offsite mitigation measures for tree compensation have been identified in Long Valley, Ho Sheung Heung Priority Site and along Ng Tung River. However, it considered that such offsite mitigation measures are not effective solution and are not able to significantly mitigate loss of existing trees within the Project boundary. Therefore, offsite mitigation measures would only be considered as a last resort. However, detailed tree removal application will be submitted in accordance with ETWB TCW No. 3/2006 - Tree Preservation. Meanwhile, in addition to the compensated trees, new landscape resources such as horizontal greening including green roof, shrubs and bamboo planting (approximately 300m²), vertical greening including climbers (approximately 200m²) and slope greening with woodland whip trees and shrubs planting (approximately 2,800m²) are proposed as alternative compensatory planting proposals around the ventilation structures and cooling tower to optimize greening opportunities within the project boundary. It is considered that with the proposed compensated trees and the proposed new landscape resources, the overall residual impact on existing trees and greenery would be reduced to an acceptable level.

4.103 After implementation of mitigation measures, residual impacts on landscape character areas of significance during construction and operation phase are described below: -

- LCA06 - Hung Hom Transportation Corridor LCA – During the construction phase, there would be still moderate residual impact due to the relative large scale of construction works within this LCA. During the operation phase, there will be significant change in the character of the areas by the erection of the Noise Mitigation Measures at Portal 1A. With the aesthetic chromatic design to blend in the structures with the adjacent landscape context, there will be slight residual impact during Day 1 and Year 10 of the Operation Phase.

Table 4.11 Significance of Landscape Impacts during Construction and Operation Phases

ID No.	Landscape Resource / Landscape Character Areas	Sensitivity (Low, Medium, High)		Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
LR1.1	Roadside Amenity Areas at Chatham Road Interchange	Medium	Medium	Large	Large	Moderate	Moderate	CM1, CM2a, CM2b, CM6, OM2b	Moderate	Slight	Insubstantial
LR1.2	Roadside Amenity Areas along Cheong Wan Road	Medium	Medium	Small	Small	Slight	Slight	CM1, CM2a, CM2b	Slight	Insubstantial	Insubstantial
LR1.3	Roadside Amenity Areas at Hung Luen Road and Hung Lok Road	Medium	Medium	Small	Small	Slight	Slight	CM1, CM2a, CM2b	Slight	Insubstantial	Insubstantial
LR1.4	Roadside Amenity Areas at Salisbury Road and Hong Chong Road Above Portal of Cross Harbour Tunnel	Medium	Medium	Small	Small	Slight	Slight	CM1, CM2b	Slight	Insubstantial	Insubstantial
LR2	Amenity Areas at Oi Sen Path	Medium	Medium	Large	Large	Moderate	Moderate	CM1, CM2a, CM2b, CM6, OM2b	Moderate	Slight	Insubstantial
LR3	Sport Field and associated amenity areas inside Hong Kong Polytechnic University (HKPU)	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR4	Amenity Area at Hong Kong Coliseum	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR5	Victoria Harbour	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR6	Hung Hom South Road Rest Garden	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR7	King's Park Sports Ground	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR8	Winslow Street Playground	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial

ID No.	Landscape Resource / Landscape Character Areas	Sensitivity (Low, Medium, High)		Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
LR9	Princess Margaret Road Garden	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LR10	Man-made Slope at Chatham Road North	Medium	Medium	Large	Large	Moderate	Moderate	CM1, CM2a, CM2b, CM6, OM2b	Moderate	Slight	Insubstantial
LR11	Oi Sen Path Rest Garden	Medium	Medium	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA01	Hung Hom Mixed Modern Comprehensive Urban Development LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA02	Hung Hom Residential Urban LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA03	Hung Hom City Grid Mixed Urban LCA	Low	Low	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA04	Valley Road Miscellaneous Urban Fringe LCA	Low	Low	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA05	Ho Man Tin Residential Urban LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA06	Hung Hom Transportation Corridor LCA	Low	Low	Large	Large	Moderate	Moderate	CM1, CM2a, CM2b, CM3, CM4, CM5, CM6, OM1, OM2a, OM2b, OM2c, OM3	Moderate	Slight	Slight
LCA07	King's Park Residential Urban Fringe LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA08	The Hong Kong Polytechnic University (HKPU) Institutional LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial

ID No.	Landscape Resource / Landscape Character Areas	Sensitivity (Low, Medium, High)		Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
LCA09	Tsim Sha Tsui Medium/High- Rise Commercial Urban Landscape	Low	Low	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial
LCA10	Victoria Harbour Strait LCA	High	High	Negligible	Negligible	Insubstantial	Insubstantial	Not Required	Insubstantial	Insubstantial	Insubstantial

Residual Visual Impacts

- 4.104 After implementation of mitigation measures, residual visual impacts of significance during construction and operation phase are described below.
- 4.105 Due to the large scale of construction work, with the implementation of mitigation measure such as control of night time glare, decorative screening hoarding, management of facilities on work sites and reinstatement of hard and soft landscape areas, the residual impact on adjacent VSRs who can view the temporary works areas/sites during the construction phase would be generally reduced to slight.
- 4.106 During Day 1 of Operation Phase with mitigation measures for the proposed Noise Mitigation Measures at Portal 1A, such as the proposed aesthetically pleasing design treatment, there would still be slight residual impact on the VSRs (CDA1, GIC1, GIC6, O1, O2, OU4, R01, R02, R03 and T7) who have direct view towards the proposed Noise Mitigation Measures at higher level as illustrated in representative Photomontage V1 (viewing from R01 Oi Man Estate) and Photomontage V5 (viewing from P02 Parc Palais). The proposed Noise Mitigation Measures have slightly altered the visual context of the area. The residual impact on these VSRs in Year 10 of Operation is considered as slight.
- 4.107 The proposed Noise Mitigation Measures at Portal 1A would also change the viewing experience of T5 (Travellers on MTR East Rail Line) as the lateral view along that particular section of the railway corridor within the Noise Mitigation Measures will be permanently blocked. Since these VSRs are travelling at speed who have low sensitivity, it is considered that the residual impact on these VSRs would be slight during Day 1 and Year 10 of Operation Phase.
- 4.108 During Day 1 of Operation Phase with mitigation measures for Cooling Tower, such as the proposed aesthetically pleasing design treatment, climbers on the facade, green roof and bamboo planting along the boundary, there would be slight residual impact on the VSRs (C1, C2, GIC3, OU1, OU2 and T4) who have direct view towards the proposed Cooling Tower as illustrated in representative Photomontage V3 (viewing from OU1 Kong Kong Coliseum). The residual impact on these VSRs in Year 10 of Operation is considered as slight.
- 4.109 There would still be slight residual impact on VSRs (C5, OU1, OU2 and T4) who have direct view towards the proposed South Side Ventilation Shafts during Day 1 of Operation Phase with mitigation measures, such as the proposed aesthetically pleasing design treatment, climbers on the facade, trees and shrubs planting on the roof of Ventilation Shafts as illustrated in representative Photomontage V4 (viewing from OU2 Freight Terminal). The residual impact on these VSRs in Year 10 of Operation is considered as slight.
- 4.110 During Day 1 of Operation Phase with mitigation measures for North Side Ventilation Shafts and Realignment of Cheong Wan Road, such as the aesthetically pleasing design treatment proposed for North Side Ventilation Shafts and Realignment of Cheong Wan Road and the green roof and climbers on facade proposed for North Side Ventilation Shafts, there would be slight residual impact on the VSRs (C4, C8, GIC2, OU3, R05, R07 and T5) as illustrated in representative Photomontage V2 (viewing from R07 Royal Peninsula) and V6 (viewing from GIC2 Hong Kong Polytechnic University). The residual impact on these VSRs in Year 10 of Operation is considered as slight.

Table 4.12 Significance of Visual Impacts during Construction and Operation Phases

ID No.	VSRs	Sensitivity (Low, Medium, High)		Main Source of Visual Impact	Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation		Construction	Operation	Construction	Operation		Construction	Operation	
											Day 1	Year 10
C1	Hotel Nikko Hong Kong	Medium	Medium	TWA1, CT	Small	Small	Slight	Slight	CM3, CM4, CM5, CM6, OM1, OM2a, OM2c OM3	Slight	Slight	Slight
C2	Intercontinental Grand Stanford	Medium	Medium	TWA1, CT	Small	Small	Slight	Slight	CM3, CM4, CM5, CM6, OM1, OM2a, OM2c OM3	Slight	Slight	Slight
C3	MTR Hung Hom Building	Medium	Medium	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
C4	China Travel Cargo Logistics Centre	Medium	Medium	TWA1, NSVS, CWR	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2a, OM3	Slight	Slight	Slight
C5	Harbour Plaza Metropolis	Medium	Medium	TWA1, SSVS	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM2b	Slight	Slight	Slight
C6	Harbourview Horizon	Medium	Medium	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
C7	Harbourfront Horizon	Medium	Medium	TWA1, BP	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
C8	The Metropolis Tower and Mall	Medium	Medium	TWA1, NSVS, CWR	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2a, OM3	Slight	Slight	Slight

ID No.	VSRs	Sensitivity (Low, Medium, High)		Main Source of Visual Impact	Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation		Construction	Operation	Construction	Operation		Construction	Operation	
											Day 1	Year 10
CDA1	Future Development at Winslow Street	Medium	Medium	TWA1, TWA2, NMM	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, CM6, OM1, OM2b,	Slight	Slight	Slight
GIC1	Carmel Secondary School	Medium	Medium	TWA2, NMM	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, CM6, OM1, OM2b,	Slight	Slight	Slight
GIC2	Hong Kong Polytechnic University	Medium	Medium	TWA2, NSVS, CWR	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5 CM6, OM1, OM2a, OM3	Slight	Slight	Slight
GIC3	Hong Kong Polytechnic University Teaching Hotel	Medium	Medium	TWA1, CT	Small	Small	Slight	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM2c, OM3	Slight	Slight	Slight
GIC4	Hong Kong Polytechnic University Student Hostel	Medium	Medium	TWA1	Small	-	Slight	-	CM3, CM4, CM5, OM6	Slight	-	-
GIC5	Ma Tau Chung Government Primary School	Medium	Medium	TWA1	Small	-	Slight	-	CM3, CM4, CM5, OM6	Slight	-	-
GIC6	Future Development of Hong Kong Polytechnic University Phase 8	Medium	Medium	TWA2, NMM	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, CM6, OM1, OM2b,	Slight	Slight	Slight
O1	King's Park Sport Ground	High	High	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, CM6, OM1, OM2b,	Slight	Slight	Slight
O2	King's Park Service Reservoir Playground	High	High	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, CM6, OM1, OM2b,	Slight	Slight	Slight

ID No.	VSRs	Sensitivity (Low, Medium, High)		Main Source of Visual Impact	Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation		Construction	Operation	Construction	Operation		Construction	Operation	
											Day 1	Year 10
OU1	Hong Kong Coliseum	Medium	Medium	TWA1, CT, SSVS	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM2c, OM3	Slight	Slight	Slight
OU2	Freight Terminal	Low	Low	TWA1, CT, SSVS	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM2c, OM3	Slight	Slight	Slight
OU3	Public Mortuary, Sai Sing, International and Universal Funeral Parlour	Low	Low	TWA1, TWA2, NSVS, CWR	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM3	Slight	Slight	Slight
OU4	Chi Man Street sitting out area	Medium	Medium	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2b	Slight	Slight	Slight
R01	Oi Man Estate	High	High	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2b	Slight	Slight	Slight
R02	Parc Palais	High	High	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2b	Slight	Slight	Slight
R03	Wylie Court	High	High	TWA2, NMM	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, OM6, OM1, OM2b	Slight	Slight	Slight
R04	Property Development at future Ho Man Tin Station	-	High	TWA2, NMM	-	Small	-	Moderate	CM3, CM4, CM5, OM6, OM1, OM2b	-	-	Slight

ID No.	VSRs	Sensitivity (Low, Medium, High)		Main Source of Visual Impact	Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation		Construction	Operation	Construction	Operation		Construction	Operation	
											Day 1	Year 10
R05	Metropolis Residence	High	High	TWA1, TWA2, NSVS, CWR	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, CM6, OM1, OM2a, OM3	Slight	Slight	Slight
R06	Harbour Place	High	High	TWA1, BP	Small	-	Moderate	-	CM3, CM4, CM5, CM6	Slight	-	-
R07	Royal Peninsula	High	High	TWA1, TWA2, NSVS, CWR	Intermediate	Small	Moderate	Moderate	CM3, CM4, CM5, CM6, OM1, OM2a, OM3	Slight	Slight	Slight
R08	Medium Rise Central Hung Hom Residence	High	High	TWA1, TWA2	Small	-	Moderate	-	CM3, CM4, CM5, CM6	Slight	-	-
R09	Yee Fu and Wai King Building	High	High	TWA2	Small	-	Moderate	-	CM3, CM4, CM5, CM6	Slight	-	-
T1	Hung Hom Station	Low	Low	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
T2	Hung Hom Station Carpark	Low	Low	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
T3	Travellers on Cheong Wan Road	Low	Low	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
T4	Travellers on Salisbury Flyover	Low	Low	TWA1, CT, SSVS	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2a, OM2c, OM3	Slight	Slight	Slight
T5	Travellers on MTR East Rail Line	Low	Low	TWA2, NSVS, CWR, NMM	Intermediate	Intermediate	Moderate	Moderate	CM3, CM4, CM5, CM6, OM1, OM2a, OM3	Slight	Slight	Slight

ID No.	VSRs	Sensitivity (Low, Medium, High)		Main Source of Visual Impact	Magnitude of Impact (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation		Construction	Operation	Construction	Operation		Construction	Operation	
											Day 1	Year 10
T6	Travellers in Victoria Harbour	Low	Low	TWA1, BP	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-
T7	Oi Sen Path	Low	Low	TWA2, NMM	Intermediate	Small	Moderate	Slight	CM3, CM4, CM5, OM6, OM1, OM2b	Slight	Slight	Slight
T8	Footbridge Linkage to Hung Hom Station	Low	Low	TWA1	Small	-	Slight	-	CM3, CM4, CM5, CM6	Slight	-	-

Note: R = Residential; C = Commercial, CDA = Commercial Development Area, GIC = Government/Institution/Community, I = Industrials, O = Open space, OU = Others Use; T = Transport related

NMM – Noise Mitigation Measures (NMM) at Portal 1A; CWR – Realignment of Cheong Wan Road; NSVS – North Side Ventilation Shafts; SSVS – South Side Ventilation Shafts; CT – Cooling Tower; TWA1 – Temporary works areas at Hung Hom Podium and Freight Terminal, TWA2 – Temporary works areas at Chatham Road Interchange, BP – Barging Points at Hung Hom Freight Pier;

Remarks: 1. There is no rating on the sensitivity, magnitude of impact, impact significance before mitigation measures and significance of residual impact in Day 1 and Year 10 for some VSRs during operation phase because the main source of visual impact comes from the temporary works are removed during operation phase.
2. There is no rating on the magnitude of impact, impact significance before mitigation measures and significance of residual impact in Day 1 and Year 10 for some planned VSRs during construction phase because the planned VSRs do not exist during the construction phase.

Cumulative Impacts

- 4.111 Cumulative landscape and visual impacts during the construction and operation phases from other projects in the vicinity are assessed. Key concurrent projects including Shatin to Central Link - Hung Hom to Admiralty Section [SCL (HUH-ADM)], Shatin to Central Link - Tai Wai to Hung Hom Section [SCL (TAW-HUH)], Kwun Tong Line Extension (KTE) and Other Works supporting the Project which might potentially cause cumulative impact to the Project are assessed.

Shatin to Central Link - Hung Hom to Admiralty Section [SCL (HUH-ADM)]

- 4.112 SCL (HUH-ADM) is an approximately 6 km extension of the East Rail Line from a new Hung Hom station (HUH) across the Harbour to new stations at Hong Kong Convention And Exhibition Centre (EXH) and Admiralty (ADM).
- 4.113 North Ventilation Building, Plant Rooms and Emergency Access (NOV) proposed under the SCL (HUH-ADM) will be permanent aboveground structure to be located within the study areas of the Project. NOV will be located at the Hung Hom Freight Terminal to the south of HUH Podium. Relevant drawings and visual illustrations for NOV extracted from SCL (HUH-ADM) EIA are included in the [Appendix 4.1](#) of this EIA report for reference. This structure would not constitute any impact on landscape resources within the study boundary. There would be small magnitude of landscape impact on LCA06 - Hung Hom Transportation Corridor LCA during construction and operation phases. However, with the implementation of aesthetic architectural design treatment and green roof proposed for NOV under SCL (HUH-ADM), it is predicted that there would be slight cumulative impact on LCA06 during construction and operation phases of the Project and would not be any insurmountable adverse cumulative impact.
- 4.114 The proposed NOV would also cause small magnitude of visual impacts on VSRs C5, OU1 and OU2 during construction and operation phases. However, with the implementation of aesthetic architectural design treatment and green roof proposed for NOV under SCL (HUH - ADM), it is predicted that there would be slight cumulative impact on VSRs C5, OU1 and OU2 during construction and operation phases of the Project and would not be any insurmountable adverse impact.

Shatin to Central Link - Tai Wai to Hung Hom Section [SCL (TAW-HUH)]

- 4.115 SCL (TAW-HUH) is an approximately 11km extension of the Ma On Shan Line (MOL) from Tai Wai through new stations at Diamond Hill (DIH), Kai Tak (KTA), To Kwa Wan (TKW), Ma Tau Wai (MTW), Ho Man Tin (HOM) and connects the West Rail Line (WRL) at Hung Hom (HUH).
- 4.116 Under the SCL (TAW-HUH), Oi Sen Path Rest Garden, Winslow Street Playground and Man-made Slope at Chatham Road North will be temporarily alienated by the proposed temporary works. Upon completion of temporary works, all these areas will be reinstated on a like to like basis to the satisfactory to relevant government departments. Approximately 270 trees will be affected and felled within Oi Sen Path Rest Garden, Winslow Street Playground and Man-made Slope at Chatham Road North. Compensation for felled trees will be in accordance with ETWB TCW No. 3/2006 - Tree Preservation. It is considered that with the implementation of the proposed mitigation measures under SCL (TAW-HUH), there would not be any insurmountable adverse cumulative impact on landscape resources.
- 4.117 During construction phase of the Project, there would be some temporary impact on LCA03 – Hung Hom City Grid Mixed Urban LCA and LCA04 – Valley Road Miscellaneous Urban Fringe LCA due to the change by SCL (TAW-HUH) in landscape character and temporary loss of greenery and recreational open spaces within Oi Sen Path Rest Garden, Winslow Street Playground and Man-made Slope at Chatham Road North. It is considered that with the implementation of tree compensation and open space reinstatement measures proposed under SCL (TAW-HUH), there would not be any insurmountable adverse cumulative impact on LCA03 – Hung Hom City Grid Mixed Urban LCA and LCA04 – Valley Road Miscellaneous Urban Fringe LCA.
- 4.118 Two permanent aboveground structures - North and South Approach Tunnel Troughs as shown in [Figure NEX2213/C/361/ENS/M54/501/A](#) are proposed under the SCL (TAW-HUH) to be located within the study areas of the Project. The North Approach Tunnel Trough is located at the north of HUH Podium and the South Approach Tunnel Trough is located at the south of Cooling Tower at Hung Hom Freight Terminal. Both North and South Approach Tunnel Troughs would not cause any

impact on landscape resources identified within the study boundary of this Project. These structures are railway and associated facilities that would contribute small magnitude of impact on LCA06 – Hung Hom Transportation Corridor LCA during construction and operation phases. With the implementation of aesthetic architectural design treatment proposed for both North and South Approach Tunnel Troughs under SCL (TAW-HUH), it is predicted that there would not be any insurmountable adverse cumulative impact on LCA06 – Hung Hom Transportation Corridor LCA.

- 4.119 The proposed temporary works under the SCL (TAW - HUH) at Oi Sen Path Rest Garden, Winslow Street Playground and Man-made Slope at Chatham Road North, would cause some temporary visual impact on VSRs R08, R09 and OU3 during construction phase of the project under the SCL (TAW - HUH). Upon reinstatement of the affected areas and compensation planting, it is predicted that there would not be any significant visual impact in operation phase.
- 4.120 The proposed North Approach Tunnel Trough would cause some small magnitude of visual impacts on VSRs C4, C8, CDA1, GIC2, OU3, R07 and T5 during construction and operation phases of the Project. However, with the implementation of proposed mitigation measures for SCL (TAW-HUH), it is predicted that there would be slight cumulative visual impact VSRs C4, C8, CDA1, GIC2, OU3, R07 and T5 during construction and operation phases and would not be any insurmountable adverse cumulative impact.
- 4.121 The proposed South Approach Tunnel Trough under the SCL (TAW – HUH), located to the east of Cooling Tower, would also cause some small magnitude of visual impacts on VSRs C5, OU1 and OU2 during construction and operation phases of the Project. However, with the implementation of aesthetic architectural design treatment proposed for both North and South Approach Tunnel Troughs under for SCL (TAW-HUH), it is predicted that there would be slight cumulative visual impact on VSRs C5, OU1 and OU2 during construction and operation phases and would not be any insurmountable adverse cumulative impact.

Kwun Tong Line Extension (KTE)

- 4.122 KTE is approximate 3.0 km extension of the existing Kwun Tong Line from Yau Ma Tei Station to a new railway station at Whampoa and with an interchange with the Shatin to Central Link (SCL) at the proposed Ho Man Tin Station.
- 4.123 There is no permanent aboveground structure proposed within close vicinity of the Project that constitutes cumulative impact on landscape resources. The Project also will share the same barging point with KTE at Hung Hom Freight Pier. The magnitude of impact on LCA06 Hung Hom Transportation Corridor LCA would remain the same due to the sharing of barging point. The sharing of the same barging point with KTE at Hung Hom Freight Pier would not add any significant visual impact on the surrounding VSRs. With the implementation of proposed mitigation measures on KTE, it is predicted that there would be negligible cumulative impacts.

Improvement Works for Viaducts

- 4.124 In order to provide and enhance better pedestrian connectivity from the station to the surrounding buildings, some improvement works has been proposed, which is small-scale standard civil works as follows:
- Upgrading of vehicular parapets for Cheong Wan Road; and
 - Upgrading of vehicular parapets for Chatham Road Slip Road Bridge.
- 4.125 For the upgrading works for Cheong Wan Road vehicular parapets, there would not be any impact on existing landscape resources. Since the proposed upgrading work is very small and minor in nature, the magnitude of impact on landscape character areas and VSRs is negligible. Therefore, it is considered that there would not be any significant adverse cumulative impact.
- 4.126 Upgrading of vehicular parapets for Chatham Road Slip Roads will be added to both sides of the bridge deck. The proposed works are considered as localized and minor. The magnitude of impact on landscape character areas and VSRs is negligible. Therefore, it is considered that there would not be any significant adverse cumulative impact.

Conclusion

- 4.127 The proposed works of the Project in Hung Hom areas will inevitably result in some landscape and visual impacts during construction and operation phases. These impacts have been minimized through careful consideration of alternatives, minimization of works areas, incorporation of aesthetic external designs and landscape treatments of proposed structures which include Cooling Tower, North and South Side Ventilation Shafts, Realignment of Cheong Wan Road and Noise Mitigation Measures at Portal 1A.
- 4.128 The proposed works will be located within the existing railway transport corridor network. Elements proposed under the Project will not conflict with the planned landuse of the area nor alter the planned continuous waterfront promenade proposed under the Hung Hom District Study. It is considered that the Project would fit in well with the current and future planning settings and would not conflict with statutory town plans of the areas.
- 4.129 Approximately 640 existing trees will be affected by the proposed works, of which approximately 30 trees will be transplanted and approximately 610 trees will be felled. Many of the affected trees are of heavy standard to mature size. None of these are Registered Old and Valuable Trees. There are no rare species or endangered species but only common species. Under the proposed scheme for the Project, opportunities for tree compensation within the project boundary has been fully explored and incorporated in the proposed mitigation measures as much as practicable. Due to limited available space for tree planting within the project boundary, compensatory tree planting of a ratio of 1:1 in terms of quantity except for slope works are proposed. Detailed tree removal application will be submitted in accordance with ETWB TCW No. 3/2006 - Tree Preservation. There will be no permanent alienation of landscape areas. All landscape areas which would be temporarily alienated will be reinstated on a like to like basis after completion of temporary works. In addition to the compensated trees, new landscape resources such as horizontal greening including green roof, shrubs and bamboo planting, vertical greening including climbers and slope greening with woodland whip trees and shrubs planting are proposed as alternative compensatory planting within the project boundary to optimize greening opportunities within the project boundary. It is considered that with the proposed compensated trees and the proposed new landscape resources, the overall residual impact on existing trees and greenery would be reduced to an acceptable level.
- 4.130 The proposed road works, located in an area with character dominant by railway development, is compatible with the existing landscape settings. There will be moderate impact on LCA06 – Hung Hom Transportation Corridor LCA due to the significant change in the character of the areas by the erection of large Noise Mitigation Measures during construction phase. With the aesthetic chromatic design to blend in the structures with the adjacent landscape character, there will still be slight residual impact in Day 1 and Year 10 during operation.
- 4.131 Due to the scale and the extent of the Project, there would be some change in the visual context of area. There will be slight adverse residual visual impact on the adjacent VSRs at high level during the construction phase. With the implementation of proposed mitigation measures for the proposed Noise Mitigation Structures at Portal 1A, Cooling Tower, North and South Ventilation Shafts and realignment of Cheong Wan Road, the residual impact on adjacent VSRs would be slight in Day 1 and Year 10 of Operation Phase.
- 4.132 Cumulative landscape and visual impacts during the construction and operation phases from other concurrent projects which include SCL (HUH-ADM), SCL (TAW-HUH), KTE, and Other Improvement Works for Viaduct are assessed. These concurrent projects would not cause any insurmountable cumulative landscape and visual impacts.
- 4.133 As a whole, overall, it is considered that the residual landscape and visual impacts of the proposed project is considered acceptable with mitigation measures implemented during construction and operation phases.