Contents

Tables

Figures

Appendix

Nomenclature and Abbreviations

CA	Conservation Area
CP	Country Park
DIA	Drainage Impact Assessment
EIA	Environmental Impact Assessment
EIAO	Environmental Impact Assessment Ordinance
EIAO-TM	Technical Memorandum on Environmental Impact Assessment Process
LCAs	Landscape Character Areas
LIA	Landscape Impact Assessment
LRs	Landscape Resources
NWNT	Northwest New Territories
OZP	Outline Zoning Plan
PE	Public Engagement
TLCP	Tai Lam Country Park
TPRP	Tree Preservation and Removal Proposal
TMB	Tuen Mun Bypass
VE	Visual Envelope
VSRs	Visually Sensitive Receivers
WIA	Water Impact Assessment
WSD	Water Supplies Department
ZVI	Zones of Visual Influence

11 Landscape and Visual Impact

11.1 Introduction

11.1.1.1 This section presents the findings of the assessment of potential landscape and visual impacts associated with the Project.

11.1.1.2 Landscape and visual impacts assessment are assessed in accordance with the criteria and guidelines as stated in Annexes 10 and 18 of the Technical Memorandum (TM) and the Environmental Impact Assessment Ordinance (EIAO) Guidance Note No. 8/2010 on "Preparation of Landscape and Visual Impact Assessment under the EIAO".

11.1.1.3 The assessment area for landscape impact assessment shall include areas within a 100m distance from the site boundary of the Project and any other areas likely to be impacted by the Project. The assessment area for the visual impact assessment shall be defined by the visual envelope of the Project.

11.1.1.4 The list of all designated projects under Schedule 2 within the assessment area is listed in **Section 1.2** of this EIA Report. The alternative options/alignments/designs for the Project considered are discussed in **Section 2** of this Report.

11.2 Relevant Legislations and Guidelines

11.2.1.1 The following legislation, standards, guidelines and references are applicable to landscape and visual impact assessment associated with the construction and operation of the Project:

- EIAO (Cap. 499) and EIAO-TM, particularly Annexes 10 (Criteria for Evaluating Visual and Landscape Impact, and Impact on Sites of Cultural Heritage) and 18 (Guidelines for Landscape and Visual Impact Assessment);
- EIAO Guidance Note 8/2010 (Preparation of Landscape and Visual Impact Assessment under the EIAO);
- Town Planning Board Guidelines on Submission of Visual Impact Assessment for Planning Application to The Town Planning Board TPB PG-NO.41;
- Town Planning Ordinance (Cap131);
- Hong Kong Planning Standards and Guidelines (HKPSG) issued by PlanD;
- Landscape Character Map of Hong Kong (2005 Edition);
- Government General Regulation 740 – sets out restrictions on the preservation and felling of trees in Hong Kong;
- AFCD Nature Conservation Practice Note No.2 - Measurement of Diameter at Breast Height (DBH);
- AFCD Publication – Rare and Precious Plants of Hong Kong (2003);
- AFCD Publication – Check List of Hong Kong Plants 2012;
- AFCD NCPN No. 02 – Measurement of Diameter at Breast Height (DBH);
- DEVB TC(W) No. 5/2020 - Registration and Preservation of Old and Valuable Trees;
- DEVB TC(W) No. 4/2020 - Tree Preservation;
- DEVB TC(W) No. 1/2018 - Soft Landscape Provisions for Highway Structures – Greening on Footbridges & Flyovers;
- DEVB TC(W) No. 5/2017 - Community Involvement in Planting Works;
- DEVB TC(W) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features;
- DEVB TC(W) No. 3/2012 - Site Coverage of Greenery for Government Building Projects;
- DEVB TC(W) No. 2/2012 - Allocation of Space for Quality Greening on Roads;
- ETWB TC(W) 8/2005 - Aesthetic Design of Ancillary Buildings in Engineering Projects;
- ETWB TC(W) No. 36/2004 – The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS);
- CEDD Technical Circular No. 5/2018 – Vetting Committee on Slope Appearance;
- Study on Landscape Value Mapping of Hong Kong;

- GEO Publication 1/2011 - Technical Guidelines on Landscape Treatment for Slopes;
- GEO Publication (1999) - Use of Vegetation as Surface Protection on Slopes;
- Lands Administration Office Practice Note (LAO PN) No. 1/2020 - Compliance of Landscape Clause under Lease;
- Lands Administration Office Practice Note (LAO PN) No. 2/2020 - Tree Preservation and Removal Proposal for Building Development in Private Projects-Compliance of Tree Preservation Clause under Lease;
- Guidelines on Tree Transplanting (9/2014), GLTM of DEVB;
- Guidelines on Tree Preservation during Development (4/2015), GLTM of DEVB;
- Green Infrastructure, GLTM of DEVB - Website: http://www.greening.gov.hk/en/new_trend/green_infrastructure.html;
- Measures on Tree Preservation, GLTM of DEVB - Website: http://www.greening.gov.hk/en/management/tree_m_and_m.html#tree_maintenance;
- Drainage Services Department (DSD). 2015. DSD Practice Note No. 1/2015 – Guidelines on Environmental and Ecological Considerations for River Channel Design;
- Restrictions on the preservation and felling of trees in Hong Kong are specified in Government General Regulation 740. The Forests and Countryside Ordinance (Cap. 96) prohibits felling, cutting, burning or destroying of trees and growing plants in forests and plantations on government land. Its subsidiary regulations prohibit the picking, felling or possession of listed rare and protected plant species. The list of protected species in Hong Kong is defined in the Forestry Regulations, made under Section 3 of the Forests and Countryside Ordinance (Cap. 96);
- Environmental Protection Department (EPD), 9/2019, Guidelines on Handling Yard Waste for Recycling and Disposal;
- "AFCD Survey of Local Fung Shui Woods", Hong Kong Biodiversity Newsletter Issue No. 8, AFCD (March 2005); and
- "Venturing Fung Shui Woodlands", Friends of the Country Parks, AFCD, Cosmos Books Ltd. (2004).

11.3 Assessment Methodology

11.3.1 Study Area

11.3.1.1 According to EIA Study Brief (No. ESB-352/2022), the assessment area for the landscape impact assessment (LIA) shall include all areas within 100m of the Project boundary of the Project. The assessment of landscape character areas and landscape resources will include all areas within the 100m landscape assessment area. The assessment area for the visual impact assessment shall be defined by the visual envelope of the Project and associated works.

General Approach

11.3.1.2 This section has been structured around the criteria and guidelines as stated in Annexes 10 and 18 of the TM and EIAO Guidance Note No. 8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance" for evaluating and assessing combined landscape and visual impacts of the Project and associated works. In accordance with the EIAO, the assessment will take into account the potential impacts of all existing / planned / approved land use. Planned use includes the land use in the draft or approved plans prepared under the Town Planning Ordinance (Cap. 131) or any other land use plans published by the Government. A general qualitative appraisal of the landscape and visual impacts using existing available information has been adopted.

11.3.1.3 The LIA shall identify, describe and quantify any potential landscape and visual impacts, and evaluate the significance of such impacts on sensitive receivers. Both the landscape and visual assessments shall propose measures to avoid or mitigate landscape and visual impacts.

11.3.1.4 Only aboveground construction activities including temporary structures and permanent structures are assessed in this report. All underground activities and facilities are unlikely to impose landscape and visual impacts, and hence are not assessed.

11.3.1.5 A broad brush tree and vegetation survey has been carried out within 100m from the boundary of the Project, which is in accordance with the EIA Study Brief (No. ESB-352/2022), to identify the dominant tree species, maturity, rarity, and any plant species of conservation interest, etc. for the baseline study on Landscape Resources (LRs) and Landscape Character Areas (LCAs). Refer to **Appendix 11.1** for details of the broad brush tree and vegetation survey within Landscape Impact Assessment area.

Assessment Methodology

11.3.1.6 Landscape and visual impacts have been assessed separately for the construction and operational phases.

11.3.2 Methodology for Assessment of Landscape Impacts

Landscape Impact Assessment

11.3.2.1 The assessment of landscape impacts has involved the following procedures:

- **Identification of the baseline Landscape Resources (LRs) and Landscape Character Areas (LCAs)** found within the assessment area. The assessment area includes all areas within 100m of the Project area. This has been achieved by site visit and desktop study of topographical maps, information databases and photographs. In this report, buildings, roads and pavement are not considered

landscape resources and have therefore not been included in the mapping of resources. However, it is inevitable that during the process of identification for broad areas of LRs, some buildings, roads, hard paving, or other features may be included, or conversely some trees or other resource may be left out. This report attempts to formalise boundaries between distinct areas of LRs for the purpose of impact assessment and should not be construed as reflecting every single variable on the ground.

11.3.2.2 Assessment of the degree of sensitivity of the LRs. This is influenced by a number of factors including:

- Quality and maturity, condition and value of LRs/LCAs, taking into account information from the broad brush tree survey and general quality, maturity and condition of other types of vegetation (Ranked as High, Medium or Low).
- Importance/rarity of LRs/LCAs (Ranked as High, Medium or Low).
- Whether a LR/LCA is considered to be of local, regional, national or global importance (Taken into account and included in the descriptive text where relevant).
- Whether there are any statutory or regulatory limitations/requirements relating to the LRs/LCAs (Taken into account and included in the descriptive text where relevant).
- Ability of the LRs/LCAs to accommodate change without compromising their essential nature (Ranked High, Medium or Low).

11.3.2.3 The sensitivity of each LRs and LCA is classified as follows:

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

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

Low: Landscape or LR, 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 change.** The 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) and therefore reversible, permanent but potentially reversible, or permanent and irreversible. Landscape impacts have been quantified wherever possible. The magnitude of landscape impacts is classified as follows:

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

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

  Small: The landscape or LR would suffer slight or barely perceptible changes.

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

- **Duration of potential landscape impacts.** The duration of the potential impacts during construction and operation is determined based on the following ratings:

  Temporary: Elements of the Project that will have an impact for a period of time (short, medium, or long-term) but will disappear with minimal intervention or mitigation. Short-term impacts would disappear at an early stage in the construction or operational phase, medium term impacts would disappear part way through the construction or operational phase, and long-term impacts would disappear at a late stage through the construction or operational phase.

  Permanent: Elements of the Project that will have permanent impacts during the construction and/or operational phases. These permanent impacts may be determined potentially reversible, or irreversible.

- **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 minimise adverse impacts; remedial measures such as colour and textural treatment of building features; and compensatory measures such as the implementation of landscape design elements (e.g. tree planting, creation of new open space, etc.) 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 parties 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 synthesising the magnitude of the various impacts and the sensitivity of the various LRs, it is possible to categorise impacts in a logical, well-reasoned and consistent fashion. **Table 11.3.1** below shows the rationale for dividing the degree of significance, namely insubstantial, slight, moderate, and substantial, depending on the combination of a negligible-small-intermediate-large magnitude of change and a low-medium-high degree of sensitivity of LR / landscape character. The significances are defined 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 EIAO-TM.

Table 11.3.1 Relationship between Sensitivity and Magnitude of Change in Defining Significance of Landscape Impact

MAGNITUDE OF CHANGE				
	Large	Moderate	Moderate or Substantial	Substantial
	Intermediate	Slight or Moderate	Moderate	Moderate or Substantial
	Small	Insubstantial or Slight	Slight or Moderate	Moderate
	Negligible	Insubstantial	Insubstantial	Insubstantial
		Low	**Medium**	**High**
	SENSITIVITY OF LANDSCAPE CHARACTER AREA AND RESOURCE			

11.3.2.4 **Conclusion:** from an analysis of the significance thresholds derived for landscape (and visual) impacts, an overall conclusion in terms of impact significance for the Project is determined in accordance with the five evaluation criteria set out in Annex 10 of the EIAO-TM:

- **Beneficial:** The project impact is beneficial if it will complement the landscape and visual character of its setting, will follow the relevant planning objectives and will improve overall visual amenity.
- **Acceptable:** The project impact is acceptable if the assessment indicates that there will be no significant effects on the landscape, no significant visual effects caused by the appearance of the Project, or no interference with key views.
- **Acceptable with Mitigation Measures:** The project impact is acceptable with mitigation measures if there will be some adverse effects, but these can be eliminated, reduced or offset to a large extent by specific measures.
- **Unacceptable:** The project impact is unacceptable if the adverse effects are considered too excessive and are unable to be practically mitigated.
- **Undetermined:** The project impact is undetermined if significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required of the specific effects in question.

11.3.3 Methodology for Assessment of Visual Impacts

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

- **Identification of the Zones of Visual Influence (ZVI)** during the construction and operational phases of the Project. This is achieved by site visit and desktop study of topographic maps and photographs, and preparation of cross-sections to determine visibility of the Project from various locations.
- **Identification of the Visually Sensitive Receivers (VSRs)** within the ZVIs at construction and operational phases. These are the people who would reside within, work within, play within, or travel through, the ZVI.

- **Assessment of the degree of sensitivity to change of the VSRs.** Factors considered include: the type of VSR, 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. For example, cyclists have a higher sensitivity due to a slower travel speed and heightened awareness of their surroundings resulting in pronounced and prolonged exposure to the visual impact.
- 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 the relative numbers of VSRs.** This is expressed in terms of whether there are very few, few, many or very many VSRs in any one category of VSR.
- **Identification of potential sources of visual impacts.** These are the various elements of the construction works and operational procedures that would generate visual impacts.

Assessment of Potential Magnitude of Visual Impacts

11.3.3.2 Visual impacts are determined by evaluating the conditions of the existing landscape and the visual character of the subject site and its surroundings, as well as the degree of integration of the proposed Project's components with the existing landscape. Other major factors affecting the magnitude of changes for assessing visual impacts are as follows:

- Scale of development;
- Compatibility of the proposed development with the surrounding landscape;
- Reversibility of change;
- Viewing distance;
- Potential blockage of view; and
- Duration of visual impacts under construction and operational phases.

11.3.3.3 The potential magnitude of change is classified into four categories:

Negligible: The VSRs are likely to suffer no discernible change in their viewing experience.

Small: The VSRs are likely to suffer a slight change in their viewing experience.

Intermediate: The VSRs are likely to suffer a moderate change in their viewing experience.

Large: The VSRs are likely to suffer a significant change in their viewing experience.

Determination of the Visual Impacts during Construction and Operational Phases Before and After Implementation of Mitigation Measures

11.3.3.4 The significance of the visual impacts is categorised as follows:

Insubstantial: No discernible change to the existing visual quality.

Slight: Adverse / beneficial impact where the proposed development would cause a barely perceptible deterioration/ improvement to existing visual quality.

Moderate: Adverse / beneficial impact where the proposed development would cause a noticeable deterioration/ improvement to existing visual quality.

Substantial: Adverse / beneficial impact where the proposed development would cause significant deterioration/ improvement to existing visual quality.

11.3.3.5 The impact significance will be determined. **Table 11.3.2** below shows the relationshipbetween sensitivity and magnitude of change.

Table 11.3.2 Impact Significance Relationship between Sensitivity and Magnitude of Change

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

11.3.3.6 The assessment of visual impacts will be presented in a matrix format considering the factors including location of VSRs, type and approximate number of VSRs, descriptionof existing view and degree of visibility of the proposed development, receiver sensitivity, sources of visual impacts, minimum viewing distance of VSRs, magnitude of change, significance thresholds of potential visual impacts (before mitigation), mitigation measures, and significance thresholds of residual impacts (upon mitigation) during operational phase on Day 1 and in Year 10.

Recommendation of Mitigation Measures to Minimise Adverse Visual Impacts

11.3.3.7 Mitigation strategies will be developed to reduce the overall visual impacts derived from the proposed development during construction and operational phases. The description in this text establishes the principles underlying the mitigation measures.

Prediction of Acceptability of Impacts

11.3.3.8 An overall assessment of the acceptability, or otherwise, of the impacts is stated according to the five criteria set out in Annex 10 of the EIAO-TM, namely beneficial, acceptable, acceptable with mitigation measures, unacceptable and undetermined.

11.4 Review of Planning and Development Control Framework

11.4.1 Review of Preliminary Outline Development Plan and Outline Zoning Plan

11.4.1.1 A review of the existing and planned development framework for the proposed works and for the surroundings has been considered. It aims at identifying issues for the neighbouring planned land uses, identifying potential resources and sensitive receivers, and ensuring a high compatibility between the proposed project and the surroundings.

11.4.1.2 The Study Area is covered by seven OZPs, namely:

- Approved Tuen Mun Outline Zoning Plan No. S/TM/37
- Approved Hung Shui Kiu and Ha Tsuen Outline Zoning Plan No. S/HSK/2
- Approved Lam Tei and Yick Yuen Outline Zoning Plan No. S/TM- LTYY/12
- Approved So Kwun Wat Outline Zoning Plan No. S/TM-SKW/14
- Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14
- Approved Tsuen Wan West Outline Zoning Plan No. S/TWW/20
- Approved North-East Lantau Outline Zoning Plan No. S/I-NEL/12

11.4.1.3 The alignment of Route 11 will encroach into "Green Belt (GB)", "Government, Institution or Community (G/IC)", "Residential (Group B) (R(B))", "Residential (Group C) (R(C))", "Residential (Group D) (R(D))", "Village Type Development (V)", "Other Specified Uses (OU)" and "Undetermined (U)" zones (**Figure 11.4.8, Figures 11.4.8.1** to **11.4.8.3**). The Land Use Zoning to be potentially affected by the Project is summarised in **Table 11.4.1.**

Table 11.4.1 Summary of the Review of Planning and Development Control Framework

Proposed Works	Land Use Zoning	Approximate Area (sq.m.) of the Land Use Zones to be affected by the Project
Lam Tei Quarry Interchange	GB	59,000
	R(D)	18,000
	OU	68,000
So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section	GB	184,000
	V	700
	G/IC	200
	R(B)	6,000
	R(C)	39,000
Tai Lam Chung Tunnel (North Section)	GB	35,000
	G/IC	3,000
Tai Lam Chung Tunnel (South Section)	GB	22,000
	G/IC	6,000
	V	3,000
Tsing Lung Tau Interchange	GB	45,000
	R(B)	2,000
	V	100
	U	60,000
North Lantau Interchange	GB	149,000
	U	4,000

11.4.1.4 The Conservation Area (CA) shown in OZP Nos. S/TM-LTYY/12 and S/YL-TYST/14 are located outside of Lam Tei Quarry at the east and connected with the boundary of the Tai Lam Country Park (TLCP). The CA zone is designated for protecting and retaining existing natural landscape, ecological, topographical and archaeological features of the area for conservation, educational and research purposes and to separate the sensitive environment such as Tai Lam Country Park from the adverse effects of development. TLCP is located within the 100m landscape assessment area of the proposed works. The location of TLCP is shown in **Figures 11.4.1** to **11.4.7**.

11.4.1.5 According to the Town Planning Ordinance (Cap. 131), any works or use authorized under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) shall be deemed to be approved. Since the proposed works under the Project will be authorized under the Roads (Works, Use and Compensation) Ordinance (Cap. 370), planning permission from Town Planning Board for the Project will not be required.

11.4.1.6 The review of OZPs has not only included a review of the plans, but also the Notes which form part of these plans and the Explanatory Statements which accompany the plans.

11.5 Landscape Baseline Study

11.5.1 Study Area

11.5.1.1 The landscape impact assessment area is 100m distance from the boundary of the Project, as stipulated in the EIA Study Brief Clause 3.4.12.2. This 100m landscape assessment area is illustrated in **Figures 11.5.1** to **11.5.6**.

Lam Tei Quarry Interchange

11.5.1.2 The Lam Tei Quarry Interchange of Route 11 is a connection between the Lam Tei Tunnel in Lam Tei Quarry, Yuen Long Highway and Kong Sham Western Highway as well as the proposed Tuen Mun Bypass (under separate project), as shown in **Figure 11.5.2**.

11.5.1.3 The Lam Tei Tunnel is a tunnel underneath TLCP. The northern tunnel portal, which connects to the Lam Tei Quarry Interchange, is located in Lam Tei Quarry, outside the boundary of TLCP. The southern tunnel portal is located adjacent to So Kwun Wat Tsuen and Pak Shek Hang, which connects to the So Kwun Wat Interchange, as shown in **Figure 11.5.3**. The southern tunnel portal is also located outside TLCP.

So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section

11.5.1.4 The So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section are located in So Kwun Wat area as shown in **Figures 11.5.3** to **11.5.4**. The So Kwun Wat Link Road, which is a tunnel underneath TLCP, has the main purpose of connecting Tuen Mun Road to Route 11, via the So Kwun Wat Interchange to the east of So Kwun Wat.

11.5.1.5 This section runs east to west along the southern border of TLCP. The aboveground structures including the tunnel portals and ventilation buildings are outside TLCP.

11.5.1.6 Elevated viaducts connect the western tunnel portal of the So Kwun Wat Link Road to Tuen Mun Road and So Kwun Wat Road, and elevated connections connect the eastern tunnel portal to the So Kwun Wat Interchange. Elevated slip roads from the So Kwun Wat Interchange connect to a dual-4 lane at-grade road section, along the eastern side of So Kwun Wat and western side of Tai Lam Chung Reservoir, and link to the Tai Lam Chung Tunnel (North Section).

Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange

11.5.1.7 This section connects the So Kwun Wat Interchange to the Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange and the Tsing Lung Bridge to the North Lantau Interchange as shown in **Figures 11.5.3** and **11.5.5**. This section also contains two tunnel sections of the Tai Lam Chung Tunnel with the Tai Lam Chung River Viaduct in between. The Tai Lam Chung Tunnel (South Section) passes partly underneath TLCP but all tunnel portals and ventilation buildings are outside the country park boundary.

11.5.1.8 The approximately 0.4km long Tai Lam Chung River Viaduct over Tai Lam Chung River is at an elevated level, being at about +35mPD. The elevated nature of the bridge will result in large construction platforms being required for the construction of eastern portal of Tai Lam Chung Tunnel (North Section) and the western portal of Tai Lam Chung Tunnel (South Section).

11.5.1.9 The 100m landscape assessment area of this alignment section covers the coastal areas of Tsing Lung Tau, marine works are required for the reclamation at Tsing Lung Tau for construction of bridge tower.

Tsing Lung Bridge and North Lantau Interchange

11.5.1.10 The Tsing Lung Bridge is proposed to span across the Ha Pang Fairway from Tsing Lung Tau to Kwai Shek at North Lantau, as shown in **Figures 11.5.5** to **11.5.6**. Although the 100m landscape assessment area of this alignment section covers the coastal areas of North Lantau, no reclamation at North Lantau is required.

11.5.1.11 The North Lantau interchange comprises slip roads, viaducts and tunnels connecting Tsing Lung Bridge to North Lantau Highway, Lantau Link, proposed Tsing Yi - Lantau Link (TYLL) (under separate project), proposed Hong Kong Island West-Northeast Lantau Link (under separate project) and the proposed Road P1 (under separate project).

11.5.2 Landscape Resources and Landscape Character Areas

11.5.2.1 The locations of baseline LRs and LCAs are mapped in **Figures 11.5.1** to **11.5.6**, and **Figures 11.5.11** to **11.5.16** respectively. Photo views illustrating the LRs and LCAs within the 100m landscape assessment area are illustrated in **Figures 11.5.7** to **11.5.10** and **Figure 11.5.17** to **11.5.20** respectively. For the ease of reference and co-ordination between text, tables and figures, each LR and LCA is given an identity number.

11.5.2.2 The baseline LRs and LCAs within the LIA study area, together with their sensitivity, are described in **Table 11.5.1** and **Table 11.5.2** below.

Table 11.5.1 Landscape Resources and Their Sensitivity to Change

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
Lam Tei Quarry Interchange		
LR-LT1	**Secondary Woodlands in Lam Tei** This LR covers an area of approximately 6.5 ha within the 100m landscape assessment area. It is estimated that there are approximately 600 nos. of trees within the 100m Landscape Impact Assessment area. This LR refers to the woodland located in Lam Tei Quarry, with the main patches located on the lower hillslopes to the north of Tai Lam Country Park (TLCP) and south of the alignment along Yuen Long Highway. Some woodland patches also fall within the fringe area of TLCP. There is also a smaller area to the north of Yuen Long Highway and to the east of Tsoi Yuen Tsuen. The main species in this LR include a combination of exotic plantation species such as Taiwan Acacia (*Acacia confusa)*, Brisbane Box (*Lophostemon confertus)*, Chinese Red Pine *(Pinus massoniana)*, Slash Pine (*Pinus elliottii)* and Swamp Mahogany (*Eucalyptus robusta)*. These areas also include some common native species such as Castanopsis *(Castanopsis fissa)*, Oak *(Quercus* spp.*)* and Machilus *(Machilus* spp.*)*. Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in this LR; for details please refer to **Section 9.4.2** of the Ecology Chapter.	High

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	No registered OVT is identified within the 100m landscape assessment area. Generally, this LR is considered to form an important part of the overall landscape context and so its sensitivity is considered to be **High**.	
LR-LT2	**Plantations in Lam Tei** This LR covers an area of approximately 13.3 ha within the 100m landscape assessment area and, together with the local topography, is influential in forming the landscape character and amenity of the local area. It is estimated that there are approximately 1,400 nos. of trees within the 100m Landscape Impact Assessment area. This plantation was largely planted as part of the mitigation for the infrastructural works in this area, such as the junction of Yuen Long Highway and Kong Sham Western Highway near Fuk Hang Tsuen, and as part of the mitigation planting of Lam Tei Quarry. Some parts of this plantation fall within TLCP and its fringe. Dominant species including planted trees and shrubs as well as natural growth, such as Camel's Foot Tree (*Bauhinia variegata*), Queen Crape Myrtle (*Lagerstroemia speciosa*), Elephant's Ear (*Macaranga tanarius* var. *tomentosa*), Opposite-leaved Fig (*Ficus hispida*) and the Chinese Banyan (*Ficus microcarpa*). The invasive weed White Popinac (*Leucaena leucocephala*) could also be found. No registered OVT is identified within the 100m landscape assessment area. Despite some non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightly activities, results in the sensitivity of this LR being considered to be **Medium**.	Medium
LR-LT7	**Watercourses in Lam Tei** This LR represents the streams with approximately 1,070m total length found within the 100m landscape assessment area. This LR refers to the streams in Lam Tei, including the channelised section of the upper reaches of Tuen Mun River to the north-west, a series of smaller streams to the north of Fuk Hang Tsuen, an elbow shaped course of a stream from Lam Tei Irrigation Reservoir to the west. Dominant species identified in the riparian zones include the Shining Eurya (*Eurya nitida*), Thin Evodia (*Melicope pteleifolia*) and Dwarf Mountain Pine (*Baeckea frutescens*). No registered OVT is identified within the 100m landscape assessment area. Given the existing condition of the watercourses which make up this LR, its sensitivity is considered to be **Medium**.	Medium
LR-LT11	**Developed Areas in Lam Tei** This LR covers approximately 40.4 ha within the 100m landscape assessment area. It is estimated that there are approximately 620 nos. of trees within the 100m Landscape Impact Assessment area.	Low

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	Development in this LR ranges from 3-storey village houses in areas such as Tsoi Yuen Tsuen and Tuen Mun San Tsuen, more modern high and medium-rise development to the north-west, significant infrastructure such as the elevated Yuen Long Highway and Kong Sham Western Highway, Light Rail and the disturbed landscape of Lam Tei Quarry. The developed areas in Lam Tei supports a limited floral species due to intensive human disturbance. Dominant species include Paper-bark Tree (*Melaleuca cajuputi* subsp. *cumingiana*), Chinese Red Pine (*Pinus massoniana*) and the Many-flowered Silvergrass (*Miscanthus floridulus*). No registered OVT is identified within the 100m landscape assessment area. Given the developed nature of this LR, the sensitivity of this LR is considered to be **Low**.	
<u>So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section</u>		
LR-SK1	**Secondary Woodlands in So Kwun Wat** This LR covers an area of approximately 57.1 ha within the 100m landscape assessment area. It is estimated that there are approximately 6,650 nos. of trees within the 100m Landscape Impact Assessment area. This LR is mainly located in the following areas: ▪ On the lower hillside south of the boundary of TLCP; ▪ North and west of the Bloomsway and immediately south of Tuen Mun Road; ▪ Between the TLCP boundary and So Kwun Wat Road; ▪ Southwest of Kwun Chui Road; and ▪ A large area of woodland at So Kwun Wat, extending east to Tai Lam Chung Reservoir, south to Siu Lam north and around the south-western edge of Tai Lam Chung Reservoir. No registered OVT is identified within the 100m landscape assessment area. The dominant species in this LR include a combination of exotic plantation species such as Taiwan Acacia (*Acacia confusa*), Brisbane Box (*Lophostemon confertus*), Chinese Red Pine (*Pinus massoniana*), Slash Pine (*Pinus elliottii*) and Swamp Mahogany (*Eucalyptus robusta*), as well as some common native species such as Castanopsis (*Castanopsis fissa*), Oak (*Quercus* spp.) and Machilus (*Machilus* spp.). Fung shui woodland is identified in the vicinity of Pak Shek Hang. Only the Ching Uk Tsuen Fung Shui Woodland (Eastern) is within the 100m landscape assessment area. Species identified in this Ching Uk Tsuen Fung Shui Woodland (CUTFSW) includes *Ixonanthes reticulata, Microcos nervosa, Schefflera heptaphylla, Polyspora axillaris, Litsea glutinosa, Tetradium glabrifolium, Syzygium levinei, Antidesma bunius , Ficus hispida, Ficus microcarpa, Itea chinensis, Ormosia emarginata, Sterculia lanceolata, Ficus variegata, Aporosa dioica,* etc. Based on site visit observation, we noticed that the canopy coverage of the *Ixonanthes reticulata* (TPI) is approximately at least 40% within the	High

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	eastern part of CUTFSW. In this connection, it is estimated that there are at least hundreds of *Ixonanthes reticulata* (TPI) located within the Ching Uk Tsuen Fung Shui Woodland is within the 100m landscape assessment area. For details of the Fung Shui Woodland, please refer to **Section 9.2.3** – Important Habitats under the Ecology Chapter, and **Figure 9.5** – location of the 8 nos. directly impacted *Ixonanthes reticulata* under the **Chapter 9** – Ecology Chapter. There are approximately 59 nos. *Ixonanthes reticulata* (TPI) (size range: 5 to 22m height, 100 to 570mm DBH, 2 to 12m crown) identified within and near the works area within the LR (**Figure no. 11.5.3** and **Table 11.5.5**). The quality of this resource is high and the ability of this resource to accommodate changes is low. This LR is considered to form an important part of the overall landscape context and so its sensitivity is considered to be **High**.	
LR-SK2	**Plantations in So Kwun Wat** This LR covers an area of approximately 33.1 ha within the 100m landscape assessment area. It is estimated that there are approximately 5,120 nos. of trees within the 100m Landscape Impact Assessment area. Plantation is located to the west of So Kwun Wat at the periphery of the Bloomsway and the Harrow International School Hong Kong, and located within the Tuen Mun Road corridor. There are also thin strips of plantation along MacLehose Trail Section 10 (WSD maintenance road). Further to the west, there are areas of plantation in close proximity to the Siu Lam Fresh Water Supplies Reservoir and a larger belt on either side of path leading to the summit above the Glorious Praise Fellowship (Hong Kong) Treatment Centre. No registered OVT is identified within the 100m landscape assessment area. Despite the non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightly activities, results in the sensitivity of this LR being considered as **Medium**.	Medium
LR-SK4	**Shrublands in So Kwun Wat** This LR covers an area of approximately 29.2 ha within the 100m landscape assessment area. It is estimated that there are approximately 1,830 nos. of trees within the 100m Landscape Impact Assessment area. This LR is mainly located on the south facing hill slopes of TLCP to the north and to a lesser extent to the south of MacLehoseTrail Section 10. There are also areas of shrubland on the uplands along the western shore of Tai Lam Chung Reservoir, to the south of Siu Lam Fresh Water Supplies Reservoir and a smaller area to the south of the summit above the Glorious Praise Fellowship (Hong Kong) Treatment Centre. This LR is located at elevations ranging from +20.0 mPD to +400 mPD.	High

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	The average height of the shrubland vegetation ranges from 0.5m to 2m interspersed with small trees such as *Pinus massoniana*. Rose Myrtle (*Rhodomyrtus tomentosa),* Chinese Scaleseed Sedge (*Lepidosperma chinense),* Dichotomy Forked Fern (*Dicranopteris pedata)* and Dwarf Mountain Pine (*Baeckea frutescens)* are the dominant shrub species. No registered OVT is identified within the 100m landscape assessment area. Given its extensive cover and visual prominence, this LR is considered to form an important part of the overall landscape context and so its sensitivity is considered to be **High.**	
LR-SK7	**Watercourses in So Kwun Wat** This LR covers the watercourses in So Kwun Wat and Tai Lam Chung with a total approximate length of 1,390m within the 100m landscape assessment area. The watercourse located north-west of So Kwun Wat Interchange is largely channelized in lower section within urban area but more natural in the upper sections. The semi-natural streams give rise to a number of stream tributaries flowing south and south-west. These stream courses are some 3.24 km in length and have an elevation ranging from +70.0 mPD to +80.0 mPD. The watercourse in Tai Lam Chung runs along from north to south, from the Tai Lam Chung Reservoir Main Dam towards to the Ha Pang Fairway. Another watercourse is located to the south-east of So Kwun Wat Interchange and flows from the Tai Lam Chung Reservoir subsidiary dam at Siu Lam Road towards Sui Lam. The watercourse has a length of approximately 1.79 km and ranges in height from +20.0 mPD to +60.0 mPD. This LR is largely channelised along the boundary of the TLCP. The dominant species along this LR include common wetland species such as Umbrella Plant (*Cyperus involucratus),* Uni-spike Kyllinga *(Kyllinga nemoralis)* and Whorled Pennywort *(Hydrocotyle verticillate).* No registered OVT is identified within the 100m landscape assessment area. Given the existing condition of the watercourses which make up this LR, its sensitivity is considered to be **Medium**.	Medium
LR-SK11	**Developed Areas in So Kwun Wat** This LR covers an area of approximately 41.4 ha within the 100m landscape assessment area. It is estimated that there are approximately 850 nos. of trees within the 100m Landscape Impact Assessment area. The main developed areas within the So Kwun Wat are located within the Tuen Mun Road corridor. Alongside the Tuen Mun Road, the development has a modern character in the west with modern high and medium-rise residential developments and includes developments such as the Harrow International School Hong Kong. To the east, the developmentsare largely low-rise three-storey village houses with small areas of industrial / open storage uses. To the south-	Low

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	west of road in So Kwun Wat, there are areas of infrastructure and residential development, such as the Siu Lam Service Reservoir and to the south, a combination of medium-rise modern residential development and small agricultural andvillage developments alongside Siu Lam Road. The developed areas in So Kwun Wat comprises the villages and roads of So Kwun Wat Tsuen and its surroundings and is characterised by low-rise village developments interspersed with vegetation. Dominant vegetation types include self-colonised species such as the White Popinac (*Leucaena leucocephala*), Chinese Scaleseed Sedge (*Lepidosperma chinense*), Guinea Grass (*Panicum maximum*) and planted exotic species such as Paper-bark Tree (*Melaleuca cajuputi* subsp. *cumingiana*). One *Ficus elastic* (T228) in mature size (18m height, 1900mm DBH, 23m crown) (TPI) with a number of aerial roots are located along Siu Lam Road (**Figure no. 11.5.3** and **Appendix 11.1**). One *Ficus benghalensis* (T229) in mature size (20m height, 3150mm DBH, 28m crown) (TPI) with a number of aerial roots are located within Crossroads Foundation (private land) (**Figure no. 11.5.4**). There are approximately 4 nos. *Ixonanthes reticulata* (TPI) (size range: 3 to 5m height, 60 to 160mm DBH, 1 to 2m crown) identified within and near the works area in this LR (**Figure no. 11.5.3** and **Table 11.5.5**.) No registered OVT is identified within the 100m landscape assessment area. Given the nature of the development, the sensitivity of this LR is generally considered to be **Low**.	
LR-SK12	**Carriageway and Roadside Planter in So Kwun Wat** This LR refers to the roadside planter and vegetation on roadside engineered slopes in Tuen Mun Road, which is approximately 1,800m length within the 100m landscape assessment area. It is estimated that there are approximately 250 nos. of trees within the 100m Landscape Impact Assessment area. Tree species found are common roadside pioneer species in Hong Kong. Common trees found such as *Acacia confusa, Celtis sinensis, Eucalyptus tereticornis, Lophostemon confertus and Sterculia lanceolata*, generally in semi-mature to mature size, average form and health condition. The quality of this LR is considered as medium. 8 nos. saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in this LR. These saplings are located in a planter within expressway boundary and are likely planted. For details please refer to **Section 9.4.2** of the Ecology Chapter. No registered OVT is identified within the 100m landscape assessment area. Despite the non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightly activities, results in the sensitivity of	Medium

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	this LR being considered as **Medium**.	
Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange		
LR-TL1	**Secondary Woodlands in Tsing Lung Tau** This LR covers an area of approximately 5.5 ha within the 100m landscape assessment area. It is estimated that there are approximately 1,700 nos. of trees within the 100m Landscape Impact Assessment area. With an elevation ranging from +20.0 mPD to +120.0 mPD. This LR comprises an area of secondary woodland located to the east of the Tsing Lung Tau Interchange, situated on a low, longitudinal shaped hill and scattered either side of the Tuen Mun Road, with the majority located north of Tuen Mun Road and immediately outside TLCP. Dominant species include the Hong Kong Gordonia *(Polyspora axillaris),* Hong Kong Hawthorn *(Rhaphiolepis indica)* and the Wax Tree *(Rhus succedanea).* Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in this LR; for details please refer to **Section 9.4.2** of the Ecology Chapter. No registered OVT is identified within the 100m landscape assessment area. Generally, this LR is considered to form an important part of the overall landscape context and so its sensitivity is considered to be **High**.	High
LR-TL2	**Plantations / Mixed Woodlands in Tsing Lung Tau** This LR covers an area of approximately 26 ha within the 100m landscape assessment area. It is estimated that there are approximately 2,200 nos. of trees within the 100m Landscape Impact Assessment area. Exotic plantation species dominated by *Acacia* spp., *Eucalyptus* spp. and *Casuarina equisetifolia* are found on man-made slopes lining Tuen Mun Road, Castle Peak Road – Tsing Lung Tau and at the periphery of Hong Kong Garden; these trees are generally in moderate maturity. Large swathe of mixed woodlands dominated by native tree species like *Aporusa dioica, Garcinia oblongifolia, Macaranga tanarius var. tomentosa, Schefflera heptaphylla, Schima superba, Sterculia lanceolata* mixed with some exotic plantation species could be found on natural slopes to the north of Castle Peak Road – Tsing Lung Tau; these trees are small to moderately sized due to exposure and form a landscape buffer to the south along the coastline. No registered OVT is identified within the 100m landscape assessment area. Despite the non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightlyland uses, results in the sensitivity of this LR being considered as **High**.	High
LR-TL4	**Shrublands in Tsing Lung Tau** This LR covers an area of approximately 5 ha within the 100m landscape assessment area. It is estimated that there are approximately 400 nos. of	Medium

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	trees within the 100m Landscape Impact Assessment area. And it is located at an elevation ranging from +20.0 mPD to +100.0 mPD. This LR is mainly located on the southward-facing hill slopes inside TLCP facing Tuen Mun Road. Dominant species include *Pinus elliottii, Pinus massoniana, Lophostemon confertus, Eucalyptus robusta, Acacia confusa, Machilus breviflora,* and *Castanopsis fissa*. No registered OVT is identified within the 100m landscape assessment area. Being located on the slopes between the Tuen Mun Road and Castle Peak Road (Tsing Lung Tau), this LR creates a landscape buffer. As such, it is important to the overall landscape character and amenity of this area and so the sensitivity of this LR is considered as Medium.	
LR-TL7	**Watercourses in Tsing Lung Tau** This LR covers the watercourses with total length of approximately 270m within the 100m landscape assessment area. Several watercourses were identified in Tsing Lung Tau. These narrow watercourses are located in the hillside and are relatively undisturbed, with slow and limited flows and substrates consisting of sand and rocks. The riparian zone of these natural watercourses are characterised by dense vegetation, which is dominated by the species such as Six-angular Pipewort (*Eriocaulon sexangulare)* and the Chinese Scaleseed Sedge *(Lepidosperma chinense).* No registered OVT is identified within the 100m landscape assessment area. Given the existing condition of the watercourses which make up this LR, its sensitivity is considered to be **High**.	High
LR-TL11	**Developed Areas in Tsing Lung Tau** This LR covers an area of approximately 11.8 ha within the 100m landscape assessment area. It is estimated that are approximately 200 nos. of trees within the 100m Landscape Impact Assessment area. These developed areas range in elevation from +6.0 mPD to +50.0 mPD. The main types of development include the Tuen Mun Road and Castle Peak Road – Tsing Lung Tau, with carriageways and associated highway structures including the slope works and nearby low to high-rise developments such as Ka Loon Tsuen, Hong Kong Garden and Vista Cove. Dominated plant species are mainly for landscape amenity purposes, with some weedy and shrub species. No registered OVT is identified within the 100m landscape assessment area. Given the nature of the development, the sensitivity of this LR is generally considered to be **Low**.	Low
LR-TL12	**Carriageway and Roadside Planter in Tsing Lung Tau**	Medium

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	This LR refers to the roadside planter and vegetation on roadside engineered slopes in Tuen Mun Road, which is approximately 1,200m in length. It is estimated that are approximately 100 nos. of trees within the 100m Landscape Impact Assessment area. Tree species found are common roadside pioneer species in Hong Kong. Common trees found such as *Acacia confusa, Celtis sinensis, Eucalyptus tereticornis, Lophostemon confertus and Schima superba*, generally in semi-mature to mature size, average form and health condition. The quality of this LR is considered as medium. No registered OVT is identified within the 100m landscape assessment area. Despite the non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightly activities, results in the sensitivity of this LR being considered as **Medium**.	
Tsing Lung Bridge and North Lantau Interchange		
LR-NL1	**Secondary Woodlands in North Lantau** This LR covers an area of approximately 7.2 ha within the 100m landscape assessment area, and located at elevations ranging from +20.0 mPD to +180.0mPD. It is estimated that there are approximately 1,100 nos. of trees within the 100m Landscape Impact Assessment area. The secondary woodland within the 100m landscape assessment area is located on the lower hillslopes along the coastal edge at the base of Ng Kwu Leng, in woodland belts along the northern side of the North Lantau Highway and in the small side valleys on the lower hill slopes of Tai Yam Teng and Fa Peng Teng. Common trees found such as *Gordonia axillaris, Schima superba, Alangium chinense, Rhus succedanea* and *Litsea glutinosa.* Generally, in semi-mature to mature size, average form and good health condition. No registered OVT is identified within the 100m landscape assessment area. Generally, this LR is considered to form an important part of the overall landscape context and so its sensitivity is considered to be **High**.	High
LR-NL2	**Plantations in North Lantau** This LR covers an area of approximately 27.4 ha within the 100m landscape assessment area, and largely located along the northern and southern sides of the North Lantau Highway, often associated with the mitigation measures for engineered slope works and forming infill planting between areas of secondary woodland. It is estimated that there are approximately 1,850 nos. of trees within the 100m Landscape Impact Assessment area. This LR is dominated by exotic species such as *Bauhinia variegata* and *Casuarina equisetifolia.* No registered OVT is identified within the 100m landscape assessment area.	Medium

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	Given its relative maturity, its importance to the overall landscape character and amenity and its importance in terms of the mitigation of existing engineering works, thesensitivity of this LR is considered to be **Medium**.	
LR-NL4	**Shrublands in North Lantau** This LR covers an area of approximately 23 ha within the 100m landscape assessment area, with elevations of between +20.0 mPD to +273.0 mPD. It is estimated that there are approximately 500 nos. of trees within the 100m Landscape Impact Assessment area. The higher elevations of Ng Kwu Leng and the slopes of Tai Yam Teng and Fa Peng Teng hills to the south of North Lantau Interchange are clothed in shrubs and coarse grassland. This LR is mainly located on the hillside within the headland and further inland. Dominant species comprising the Oriental Blechnum (*Baeckea frutescens)* and Blood-red Melastoma (*Melastoma sanguineum)*. No registered OVT is identified within the 100m landscape assessment area. This LR forms an important component in views of North Lantau and the mountain backdrop in views from the coastal and maritime locations to the north and east and more elevated views from the uplands of North Lantau. As such the sensitivity of this LR is considered as **High**.	High
LR-NL7	**Watercourses in North Lantau** This LR covers the watercourses with total approximately 570m length within the 100m landscape assessment area. This LR comprises two watercourses on either side of the headland at relatively low elevations and with a total length of around 0.72 km. The watercourse is a concrete channel with limited flow located at the edge of area of concrete hard standing and jetty area with a slow flow. These watercourses support a relatively low vegetation diversity, with the Giant Alocasia (*Alocasia macrorrhizos)* and *Bidens alba* being the most common. No registered OVT is identified within the 100m landscape assessment area. Given the engineered character of this LR, and the low floral diversity, the sensitivity of this LR is generally considered to be **Low**.	Low
LR-NL10	**Seawater Body and Shorelines at Ha Pang Fairway** This LR covers an area of approximately 49.6 ha within the 100m landscape assessment area. This LR comprises the coastal and maritime areas between Tsing Lung Tau to Kwai Shek at North Lantau. This is a relatively large area of open water bounded by existing infrastructure such as Castle Peak Road, the MTR Tung Chung Line and North Lantau Highway. The shoreline is characterised by a combination of rocky shore (approximately 360 m length), sandy shore (approximately 40 m length) and artificial seawall (approximately 100 m length) in North Lantau, as well as rocky shore (approximately 320 m length), sandy	Medium

ID. No.	Landscape Resources	Sensitivity (Low, Medium, High)
	shore (approximately 70 m length) and artificial seawall (approximately 160 m length) in Tsing Lung Tau respectively. Areas which are free from human disturbance are dominated by plant species like Screw Pine (*Pandanus tectorius)*, Chinese Bitter-sweet (*Celastrus hindsii)*, Bentham's Rosewood (*Dalbergia benthamii)*, Wild Coffee (*Psychotria asiatica)* and Cerbera (*Cerbera manghas)*. No registered OVT is identified within the 100m landscape assessment area. Given the engineered nature of this LR, its sensitivity is generally considered to be **Medium**.	
LR-NL11	**Developed Areas in North Lantau** This LR covers an area of approximately 24.8 ha and range in elevation from +6.0 mPD to +55.0 mPD within the 100m landscape assessment area. It is estimated that there are approximately 250 nos. of trees within the 100m Landscape Impact Assessment area. This LR has a highly engineered character and comprises areas associated with the North Lantau Highway and industrial areas, namely, the Tsing Chau Tsai Shipyard and the staging area at To Kau Wan, and structures associated with the MTR Tung Chung Line. The development areas in North Lantau is largely limited to the North Lantau Highway / Tung Chung Line corridor and the shore of Tsing Chau Wan. Dominant plant species mainly are amenity and self-colonised plants including the Chinese Banyan (*Ficus microcarpa)*, Lantana (*Lantana camara)* and Orange-jessamine (*Murraya paniculata)* in roadside planters along North Lantau Highway. No registered OVT is identified within the 100m landscape assessment area. Given the artificial nature and level of the existing development, the sensitivity of this LR is generally considered to be **Low**.	Low
LR-NL12	**Carriageway and roadside planter in North Lantau** This LR refers to the roadside planter and vegetation on roadside engineered slopes in North Lantau Highway, which is approximately 660m in length. It is estimated that are approximately 100 nos. of trees within the 100m Landscape Impact Assessment area. Tree species found are common roadside pioneer species in Hong Kong. Common trees found such as *Acacia confusa*, *Acacia mangium*, *Celtis sinensis*, *Eucalyptus tereticornis*, *Lophostemon confertus*, *Sapium sebiferum* and *Schima superba*, generally in semi-mature to mature size, average form and health condition. The quality of this LR is considered as medium. No registered OVT is identified within the 100m landscape assessment area. Despite the non-native species composition, this LR's relative maturity, its importance to the overall landscape character and amenity and its importance in screening unsightly activities, results in the sensitivity of this LR being considered as **Medium**.	Medium

Table 11.5.2 Landscape Character Areas and Their Sensitivity to Change

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
Lam Tei Quarry Interchange		
LCA-LT1	**Lam Tei Rural Fringe Landscape** This LCA covers an area of approximately 30.9 ha within the 100m landscape assessment area, at an elevation of approximately +20.0mPD. This LCA refers to the flat, low lying landscape of low-rise village housing and medium and high-rise developments neary Fuk Hang Tsuen, which is traversed by extensive infrastructure developments. The residential developments are interspersed with mature specimen trees and small clumps of trees. The area is both crossed and bounded by large scale road infrastructure such as Castle Peak Road – Lam Tei and the elevated Yuen Long Highway and Kong Sham Western Highway. No registered OVT is identified within the 100m landscape assessment area. Given the disturbed nature of the existing landscape, the quality of this LCA is considered to be low and the sensitivity of this LCA to change is assessed as **Low**.	Low
LCA-LT2	**Lam Tei Upland Fringe Landscape** This LCA covers an area of approximately 4.3 ha within the 100m landscape assessment area, and ranges in height from +20.0 mPD to +40.0 mPD. This LCA is formed by a combination of wooded hill slopes, works area around Lam Tei Quarry and scattered low-intensity village developments at Lo Fu Hang and Fu Tei Ha Tsuen. No registered OVT is identified within the 100m landscape assessment area. Given the disturbed nature of the existing landscape, the quality of this LCA is considered to be low and the sensitivity of this LCA to change is assessed as **Low**.	Low
LCA-LT3	**Lam Tei Rural Landscape** This LCA covers an area of approximately 18.2 ha within the 100m landscape assessment area, and ranges in elevation from +20.0 mPD to +100.0 mPD. This LCA is located to the west of Lam Tei Tunnel and comprises single storey dwellings set within a landscape of traditional strip fields, small orchards and specimen trees. The southern portion of this LCA is dominated by the Lam Tei Quarry with its disturbed landscape and terraced slopes with tree planting as part of the rehabilitation approach. No registered OVT is identified within the 100m landscape assessment area. As a result of its developed nature, the quality of this LCA is considered to be medium and its overall sensitivity to change is assessed as **Medium**.	Medium
LCA-LT4	**Lam Tei Upland Landscape** This LCA covers an area of approximately 4.1 ha within the 100m	High

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
	landscape assessment area. This LCA is at an elevation of approximately +20.0 mPD to +120.0 mPD. Part of this LCA falls within the TLCP. It is generally covered with hillside woodland. The more natural parts of the hillsides are covered by lush secondary woodland where native species like *Castanopsis fiss*a, *Machilus spp*., *Macaranga tanarius var. tomentosa*, *Ficus hispida* etc. are common; trees in these secondary woodlands are generally mature. No registered OVT is identified within the 100m landscape assessment area. The naturalistic character of these landscape features is considered to have a high quality, and their sensitivity to change is assessed as **High**.	
<u>So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section</u>		
LCA-SK3	**So Kwun Wat Village Landscape** This LCA covers an area of approximately 5.7 ha within the 100m landscape assessment area. This LCA contains the settlements of So Kwun Wat Tsuen and So Kwun Wat San Tsuen located within the northern and north-eastern portion of the Study Area, at the foot of the Tai Lam Country Park uplands and following the engineered course of the drainage channel at So Kwun Wat. This area is characterisedby a combination of three storey village houses with an organic settlement pattern punctuated by specimen mature trees. No registered OVT is identified within the 100m landscape assessment area. With the village type developments bounded by a more naturalistic landscape, the quality of this LCA is considered to be medium, and its overall sensitivity to change is assessed as **Medium**.	Medium
LCA-SK4	**Tai Lam Country Park Upland Landscape** This LCA covers an area of approximately 27.3 ha within the 100m landscape assessment area. This LCA is formed by southward facing hill slopes traversed by shallow valleys and clothed in a combination of shrubs and coarse grasslands at higher elevations (+20.0 mPD to +400 mPD), with secondary woodlands and plantations at thebase of the slopes. The lower hillslopes contain a Water Supplies Department (WSD) maintenance road which also forms part of the MacLehose Trail (Section 10). No registered OVT is identified within the 100m landscape assessment area. The naturalistic character of this landscape is considered to have a high quality, and itssensitivity to change is also assessed as **High**.	High
LCA-SK5	**Tuen Mun Road Urban Corridor Landscape** This LCA covers an area of approximately 26.4 ha and ranges in elevation from +6.0 mPD to +50.0 mPD. The western portion of this LCA is traversed by the Tuen Mun Road corridor and its associated development patchwork of modern high, medium and low-rise residential developments such as the Harrow	Medium

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
	International School Hong Kong and The Bloomsway. These developments are set within a framework of secondary woodland and plantation and are interspersed by amenity landscapes. No registered OVT is identified within the 100m landscape assessment area. As a result of its developed nature the quality of this LCA is considered to be medium, and its overall sensitivity to change is assessed as **Medium**.	
LCA-SK6	**Siu Lam and Tai Lam Chung Foothill Landscape** This LCA covers an area of approximately 86.7 ha within the 100m landscape assessment area, and is formed by the foothills south of the TLCP,an undulating landscape of small hills, with elevations ranging from +20.0 mPD to +100.0 mPD, traversed by a shallow valley and clothed in a patchwork of a secondary woodland, plantation and shrub and coarse grassland. This LCA is punctuated by small developments such as the Siu Lam Fresh Water Supplies Reservoir to the west and a combination of modern medium-rise residential development and small rural residential clusters in the shallow valley to the south. This area also forms the south-western shore of the Tai Lam Chung Reservoir, with its incised water edge following the natural landform and the Tai Lam Chung Reservoir subsidiary dam at Siu Lam Road at the head of the small valley. Ching Uk Tsuen Fung Shui Woodland (CUTFSW) is identified in the vicinity of Pak Shek Hang. For detail, please refer to LR-SK1 in **Table 11.5.1** and **Section 9.2.3** – Important Habitats of the ecology chapter. The Tai Lam Chung foothills are located at the western periphery and to the west of the Tai Lam Chung valley. This LCA forms a series of small summits leading south-west from the Tai Lam Chung Reservoir, with anelevation of between +20.0 mPD and +141.0 mPD, and is largely clothed in a combination of shrubs and coarse grasslands with secondary woodlands on the west facing slopes. The east facing slopes have exposed rock outcrops. No registered OVT is identified within the 100m landscape assessment area. The naturalistic character of this landscape is considered to have a high quality and itssensitivity to change is assessed as **High**.	High
LCA-SK7	**Tai Lam Chung River Valley Landscape** This LCA covers an area of approximately 17.4 ha within the 100m landscape assessment area. The valley landscape containing the Tai Lam Chung River flows south-west from the Tai Lam Chung Reservoir main dam to the coast cutting, through the undulating hills of the coastal strip, with an elevation of between +6.0 mPD and +60.0 mPD. The upper, northern portion of the valley and the river channel meanders westward and is enclosed by relatively steep sides vegetated with a combination of secondary woodland and shrubland. This northern part has been developed and is characterised by relatively large structures associated with the Tai Lam Correctional Institution. The central portion of the valley narrows with the river course before	Medium

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
	opening up again to the south. No registered OVT is identified within the 100m landscape assessment area. Despite the developed nature of the valley floor and the engineered character of the river course, the naturalistic valley sides lend this LCA a medium quality and its sensitivity to change is assessed as **Medium**.	
Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange		
LCA-TL5	**Tsing Lung Tau Urban Landscape** This LCA covers an area of approximately 43 ha within the 100m landscape assessment area, in which located between Tuen Mun Road and Castle Peak Road (Tsing Lung Tau) with an elevation ranging from about +6.0 mPD to +120.0 mPD. This LCA includes a landscape of coastal development with remnants of the natural landform and naturalistic vegetation cover. It has been modified by various developments including the Tuen Mun Road and CastlePeak Road (Tsing Lung Tau) corridors, with associated highway structures including the slope works, and the high and medium-rise development associated with the HongKong Garden, L'Aquatique and Vista Cove. No registered OVT is identified within the 100m landscape assessment area. As a result of its developed nature, the quality of this LCA is considered to be low andits overall sensitivity to change **Low**.	Low
LCA-TL6	**To Hang Tung Foothill Landscape** This LCA covers an area of approximately 5.5 ha within the 100m landscape assessment area. Forming the south-western portion, the To Hang Tung foothills are largely part of the Tai Lam Country Park with an elevationranging from +40.0 mPD to +280.0 mPD. This LCA is characterised by a series of undulating hills with ridgelines with an east-west orientation. The vegetation cover is a combination of shrubland on the north facing slopes and coarse grassland with exposed rock outcrops on the south facing slopes. There are three main areas of secondary woodland including at the western periphery where it interfaces with the TaiLam Chung River Valley and two areas in the south-eastern portion on the lower hillslopes which descend towards the coastline and the Tuen Mun Road corridor. No registered OVT is identified within the 100m landscape assessment area. Given the naturalistic character of this landscape, it is considered to have a high qualityand its sensitivity to change is, also, assessed as **High**.	High
Tsing Lung Bridge and North Lantau Interchange		
LCA-NL4	**North Lantau Fa Peng Teng Upland Landscape** This LCA covers approximately 4.6 ha within the 100m landscape assessment area. The upland landscape to the south of the North Lantau Highway is characterised by the summit of Fa Peng Teng (274 mPD),	High

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
	with a spur / ridgeline descending to the East andan elevated saddle to the west with the summit of Tai Yam Teng (186 mPD). At higher elevations, the vegetative cover is largely a combination shrub growth and coarse grassland, whilst at lower levels, in the shallow stream gullies and the north facing slopes, the vegetation includes Secondary Woodland. No registered OVT is identified within the 100m landscape assessment area. The upland landscape of North Lantau is important to the setting of the North Lantau Highway and the wider landscape of the Ha Pang Fairway to the north. As such the landscape character and amenity quality of this LCA is considered to be high and its overall sensitivity to change **High**.	
LCA-NL8	**Ha Pang Fairway Maritime Landscape** This LCA covers approximately 49.4 ha within the 100m landscape assessment area, at an elevation of around +6.0 mPD. This LCA comprises the largest portion, with the bridge crossing the Ha Pang Fairway maritime area from Tsing Lung Tau to Kwai Shek at North Lantau. At the proposed crossing, this area comprises a wide expansive landscape enclosed by the mountains of the Tai Lam Country Park to the North and Lantau Islandto the South. With the exception of the Ng Kwu Leng Peninsular, the coastal area is developed with infrastructure such as Castle Peak Road, the MTR Tung Chung Line and North Lantau Highway. No registered OVT is identified within the 100m landscape assessment area. Given its importance to the overall landscape character and amenity of the area, the quality of this LCA is considered to be high and its overall sensitivity to change **High**.	High
LCA-NL9	**Ng Kwu Leng Peninsular Landscape** This LCA covers an area of approximately 48 ha within the 100m landscape assessment area. The Ng Kwu Leng Peninsular has a south-east to north-west orientation, with elevations ranging from +6.0 mPD to +100.0 mPD. The area is truncated by the alignment of the North Lantau Highway to the south. The landform rises steeply from the coastline and is initially clothed in secondary woodland, which then gives way to a combination of shrub growth and coarse grassland at higher elevations. No registered OVT is identified within the 100m landscape assessment area. Through a combination of its natural character and visual prominence, the quality of this LCA is considered to be high and its overall sensitivity to change **High**.	High
LCA-NL10	**North Lantau Highway Corridor Landscape** This LCA covers approximately 28.8 ha within the 100m landscape assessment area, with elevations of ranging from +6.0mPD to +55.0 mPD. The landscaped character of the North Lantau Highway Corridor is dominated by the large carriageway surfaces, including the extensive engineered slope works on either side required to accommodate the	Low

ID. No.	Landscape Characters Areas	Sensitivity (Low, Medium, High)
	highway and the structures associated with its operation. The landscape is largely visually enclosed, with the tree planting lining the highway comprising a combination of secondary woodland on natural slopes and plantation on the engineered slopes. No registered OVT is identified within the 100m landscape assessment area. The extent of the modification of this LCA, owing to the scale of the existing engineering structures, has resulted in a landscape character and amenity quality being considered to be low and its overall sensitivity to change **Low**.	
	Note: LT: Lam Tei SK: So Kwun Wat TL: Tsing Lung Tau NL: North Lantau Island	

11.5.2.3 The sensitivity of all identified LRs and LCAs within the 100m Landscape Assessment Area are summarised in **Table 11.5.3** and **Table 11.5.4** below.

Table 11.5.3 Sensitivity of Identified Landscape Resources

ID No.	Descriptions	Quality of existing landscape (Low / Medium /High)	Importance / Rarity of landscape elements (Low / Medium / High)	Ability to accommodate change (Low / Medium /High)	Maturity of Landscape (Young / Semi-mature / Mature)	Sensitivity (Low / Medium / High)
Lam Tei Quarry Interchange						
LR-LT1	Secondary Woodlands in Lam Tei	High	High / High	Low	Mature	High
LR-LT2	Plantations in Lam Tei	Medium	Medium / Medium	Low	Mature	Medium
LR-LT7	Watercourses in Lam Tei	Medium	Medium / Medium	Low	Mature	Medium
LR-LT11	Developed Areas in Lam Tei	Low	Low / Low	High	Mature	Low
So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section						
LR-SK1	Secondary Woodlands in So Kwun Wat	High	High / High	Low	Mature	High
LR-SK2	Plantations in So Kwun Wat	Medium	High / High	Low	Mature	Medium
LR-SK4	Shrublands in So Kwun Wat	High	Medium / Medium	Low	Mature	High
LR-SK7	Watercourses in So Kwun Wat	Medium	Medium / Medium	Low	Mature	Medium
LR-SK11	Developed Areas in So Kwun Wat	Low	Low / Low	High	Mature	Low
LR-SK12	Carriageway and roadside planter in So Kwun Wat	Medium	Medium / Medium	High	Mature	Medium
Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange						
LR-TL1	Secondary Woodlands in Tsing Lung Tau	High	High / High	Low	Mature	High
LR-TL2	Plantations / Mixed Woodlands in Tsing Lung Tau	Medium	Medium / Medium	Low	Mature	High
LR-TL4	Shrublands in Tsing Lung Tau	medium	Medium / Medium	Low	Mature	Medium
LR-TL7	Watercourses in Tsing Lung Tau	High	Medium / Medium	Low	Mature	High
LR-TL11	Developed Areas in Tsing Lung Tau	Low	Low / Low	High	Mature	Low
LR-TL12	Carriageway and roadside planter in Tsing Lung Tau	Medium	Medium / Medium	High	Mature	Medium

ID No.	Descriptions	Quality of existing landscape (Low / Medium /High)	Importance / Rarity of landscape elements (Low / Medium / High)	Ability to accommodate change (Low / Medium /High)	Maturity of Landscape (Young / Semi-mature / Mature)	Sensitivity (Low / Medium / High)
Tsing Lung Bridge and North Lantau Interchange						
LR-NL1	Secondary Woodlands in North Lantau	High	High / High	Low	Mature	High
LR-NL2	Plantations in North Lantau	Medium	Medium / Medium	Low	Mature	Medium
LR-NL4	Shrublands in North Lantau	High	Medium / Medium	Low	Mature	High
LR-NL7	Watercourses in North Lantau	Low	Low / Low	High	Mature	Low
LR-NL10	Seawater Body and Shorelines at Ha Pang Fairway	Medium	Medium / Medium	Low	Mature	Medium
LR-NL11	Developed Areas in North Lantau	Low	Low /low	High	Mature	Low
LR-NL12	Carriageway and roadside planter in North Lantau	Medium	Medium / Medium	High	Mature	Medium

Table 11.5.4 Sensitivity of Identified Landscape Character Areas

ID No.	Descriptions	Quality of existing landscape (Low / Medium / High)	Importance / Rarity of landscape elements (Low / Medium / High)	Ability to accommodate change (Low/medium / High)	Maturity of Landscape (Young / semi mature/ mature)	Sensitivity (Low / medium / high)
Lam Tei Quarry Interchange						
LCA-LT1	Lam Tei Rural Fringe Landscape	Low	Low / Low	Medium	Mature	Low
LCA-LT2	Lam Tei Upland Fringe Landscape	Low	Low / Low	Medium	Mature	Low
LCA-LT3	Lam Tei Rural Landscape	Medium	Low / Low	Medium	Mature	Medium
LCA-LT4	Lam Tei Upland Landscape	High	High / High	Low	Mature	High
So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section						
LCA-SK3	So Kwun Wat Village Landscape	Medium	Low / Low	Medium	Mature	Medium
LCA-SK4	Tai Lam Country Park Upland Landscape	High	High / High	Low	Mature	High
LCA-SK5	Tuen Mun Road Urban Corridor Landscape	Medium	Low / Low	Medium	Mature	Medium
LCA-SK6	Siu Lam and Tai Lam Chung Foothill Landscape	High	High / High	Low	Mature	High
LCA-SK7	Tai Lam Chung River Valley Landscape	Medium	Low / Low	Medium	Mature	Medium
Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange						
LCA-TL5	Tsing Lung Tau Urban Landscape	Low	Low / Low	Medium	Mature	Low
LCA-TL6	To Hang Tung Foothill Landscape	High	High / High	Low	Mature	High
Tsing Lung Bridge and North Lantau Interchange						
LCA-NL4	North Lantau Fa Peng Teng Upland Landscape	High	High / High	Low	Mature	High
LCA-NL8	Ha Pang Fairway Maritime Landscape	High	High / High	Low	Mature	High
LCA-NL9	Ng Kwu Leng Peninsular Landscape	High	High / High	Low	Mature	High
LCA-NL10	North Lantau Highway Corridor Landscape	Low	Low / Low	Medium	Mature	Low

11.5.3 Broad Brush Tree Survey

11.5.3.1 A broad brush tree and vegetation survey has been carried out within 100m from the boundary of the Project in accordance with the Appendix J of the EIA Study Brief to identify dominant tree species, maturity, rarity and any plant species of conservation interest, etc. to provide baseline information on the LRs and LCAs. The broad brush tree and vegetation survey includes site walk and reviewing aerial photo within the Landscape Impact Assessment Area and tree group survey and individual tree survey within boundary of the Project for a more detailed impact assessment.

11.5.3.2 The broad brush tree and vegetation survey findings including broad brush tree survey report, tree survey plans and tree schedule are illustrated in **Appendix 11.1** and to be read in conjunction with Habitat Map in **Section 9** of this EIA Report.

11.5.3.3 It is estimated there are total approximate 25,720 nos. of existing trees within the 100m landscape impact assessment area.

11.5.3.4 There is no Registered OVT within the 100m landscape impact assessment area.

11.5.3.5 Meanwhile, total 65 nos. of Tree of Particular Interest (TPI), which include 63 nos. of *Ixonanthes reticulata* which is a tree species with conservation interest and 2 nos. of large mature trees (*Ficus elastic* and *Ficus benghalensis*) with DBH of over 1m, are identified within and near the works area. (refer to **Table 11.5.5** and **Appendix 11.1** for the Tree Assessment Schedule for TPI and Tree Survey Plan respectively).

11.5.3.6 Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in LR-LT1 - Secondary Woodlands in Lam Tei (**Figure 11.5.2),** LR-SK12 - Carriageway and Roadside Planter in So Kwun Wat (**Figure 11.5.4**), LR-TL1 - Secondary Woodlands in Tsing Lung Tau (**Figure 11.5.5**); for details please refer to **Section 9.4.2** of the Ecology Chapter.

11.5.3.7 The common undesirable species *Leucaena leucocephala* is an invasive, exotic and self-seeding tree that has aggressive and invasive growing habits and is able to prevent natural succession of native species. In accordance with DEVB TC(W) No. 4/2020 paragraph 25(a), a Tree Preservation and Removal Proposal (TPRP) is not required for removal of common undesirable species. Therefore, any record of this species in this report is for record and reference only.

Lam Tei Quarry Interchange

11.5.3.8 Existing trees at and around Lam Tei Quarry Interchange area mainly consist of exotic woodland plantation and natural secondary growth. Exotic species like *Acacia* spp. *Eucalyptus* spp., *Lophostemon confertus* and *Pinus elliottii*, etc. are commonly found along roadside man-made slopes and as part of rehabilitation plantings for Lam Tei Quarry. *Melaleuca cajuputi* subsp. *cumingiana* is commonly planted as amenity trees along major roads. These exotic species are fast growing and generally mature.

11.5.3.9 The more natural parts of the hillsides are covered by lush secondary woodland where native species like *Castanopsis fissa*, *Machilus* spp., *Macaranga tanarius* var. *tomentosa*, *Ficus hispida* etc. are common; trees in these secondary woodlands are generally mature.

11.5.3.10 At the fringe of village areas and brownfields where human disturbances are prevalent, fruit trees like *Mangifera indica* and *Clausena lansium*, pioneering species like *Macaranga tanarius* var. *tomentosa*, naturalized species like *Bauhinia variegata* as well as the weed tree *Leucaena leucocephala* are common; these trees are generally of young to moderate maturity.

So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section

11.5.3.11 For trees found near So Kwun Wat Link Road area, exotic species like *Acacia* spp. *Eucalyptus* spp. and *Casuarina equisetifolia*, etc. are commonly found as woodland plantations on roadside man-made slopes and adjoining foothills along major highways. Amenity trees like *Spathodea campanulata*, *Lagerstroemia speciosa*, *Melaleuca cajuputi subsp. cumingiana*, *Cinnamomum camphora*, etc. are commonly planted as roadside street trees along roads with footpaths. These trees are generally of moderate maturity.

11.5.3.12 Trees found near So Kwun Wat Interchange area are located mostly on natural hillsides covered by lush secondary woodlands or as sparse tree growths within grasslands/shrublands. Patches of Fung Shui Woodlands could be found in the vicinity of Pak Shek Hang, where mature trees including *Ixonanthes reticulata*, *Microcos nervosa*, *Schefflera heptaphylla*, *Polyspora axillaris*, *Litsea glutinosa*, *Tetradium glabrifolium*, *Syzygium levinei*, *Antidesma bunius*, *Ficus hispida*, *Itea chinensis*, *Ormosia emarginata*, *Sterculia lanceolata*, *Ficus variegata*, *Aporosa dioica*, etc. are found. In particular, *Ixonanthes reticulata* is a species with conservation interest; individuals of this species meeting the definition of trees (i.e. with a DBH of 95mm or more) are individually surveyed as Trees of Particular Interest (TPIs) and listed in **Table 11.5.5** and under **Appendix 11.1**. There are approximate 63 nos. *Ixonanthes reticulata* (TPI) (size range: 5 to 22m height, 100 to 570mm DBH, 2 to 12m crown) are identified within and near the works area within LR-SK1 (Secondary Woodlands in So Kwun Wat) (**Figure 11.5.3**) and LR-SK11 (Developed Areas in So Kwun Wat). One *Ficus elastic* (T228) in mature size (18m height, 1900mm DBH, 23m crown) (TPI) with a number of aerial roots are located along Siu Lam Road, which are within the LR-SK11 (developed areas in So Kwun Wat) (**Figure 11.5.3**). One *Ficus benghalensis* (T229) in mature size (20m height, 3150mm DBH, 28m crown) (TPI) are located within LR-SK11 (Developed areas in So Kwun Wat) in Crossroads Foundation (private land) (**Figure 11.5.4**).

11.5.3.13 In village areas at So Kwun Wat, fruit trees like *Litchi chinensis*, *Dimocarpus longan*, *Clausena lansium* and common village trees like *Ficus microcarpa*, *Celtis sinensis*, *Macaranga tanarius* var. *tomentosa* are common. These trees are generally of moderate maturity.

11.5.3.14 For details of the Fung Shui Woodlands, please refer to **Section 9.2.3** – Important Habitats, and **Figure 9.5** – Location of the 8 nos. directly impacted *Ixonanthes reticulata* under **Chapter 9** – Ecology Chapter.

Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange

11.5.3.15 Tree condition near Tai Lam Chung River Viaduct area is similar to So Kwun Wat Interchange area given their relative proximity, where a mix of fruit trees and common village trees are found in Tai Lam Chung Tsuen area, and native trees like

Microcos nervosa, *Schefflera heptaphylla*, *Litsea glutinosa*, *Ficus hispida*, etc. on foothill secondary woodlands.

11.5.3.16 Tai Lam Chung River Viaduct and Tsing Lung Tau Interchange area is characterized by exposed, southward facing hillsides close to the sea. Only exotic species like *Acacia* spp. *Eucalyptus* spp. and *Casuarina equisetifolia*, etc. that are planted on roadside man-made slopes could grow to relatively mature size. Secondary growths on natural hillsides are much shorter in statue due to exposure; common native species found include *Macaranga tanarius* var. *tomentosa*, *Sterculia lanceolata*, *Polyspora axillaris*, *Rhus succedanea* and *Hibiscus tiliaceus*, etc.

Tsing Lung Bridge and North Lantau Interchange

11.5.3.17 Trees could be found lining the lower levels of Ng Kwu Leng at North Lantau, where native, seaside tolerant and common hillside species like *Pandanus tectorius*, *Celtis sinensis*, *Ficus microcarpa*, *Schefflera heptaphylla*, *Litsea glutinosa*, etc. could be found along the natural shorelines and as secondary woodlands on foothills. Most of these trees are dwarfed due to exposure. Meanwhile, the middle to upper levels of Ng Kwu Leng are mostly covered by shrublands/grasslands.

11.5.3.18 Extensive woodland plantations could be found along the northern and southern sides of North Lantau Highway on man-made slopes and infill planting between areas of secondary woodland. These planted trees are dominated by exotic species such as *Casuarina equisetifolia*, *Acacia* spp. and *Bauhinia variegata*, and some native species like *Ficus microcarpa* and *Hibiscus tiliaceus*. These planted trees are generally in moderate maturity.

Table 11.5.5 Trees of Particular Interest

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
T003	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	20	240	9	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T004	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	18	270	9	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T012	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	12	150	5	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T013	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	16	270	9	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper; Low live crown ratio
T015	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	150	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T020	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	110	3	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T035	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	20	390	7	H	L	On slope; Poor form	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Moderate asymmetric crown Tree top level (existing ground level + tree height) = +53.1 mPD; Base of viaduct (3.5m structural depth below road level) = +50.3 mPD; i.e. top of 2.8m tree crown affected (estimated).
T036	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	20	320	8	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Poor taper, Tree top level (existing ground level + tree height) = +53.5 mPD; Base of viaduct (3.5m structural depth below road level) = +50.3 mPD; i.e. top of 3.2m tree crown affected (estimated).
T040	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	14	330	6	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems
T041	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	120	5	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant branches; Poor taper; Low live crown ratio
T043	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	6	100	3	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T045	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	110	3	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T048	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	170	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T058	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	22	400	8	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper; Low live crown ratio; Tree top level (existing ground level + tree height) = +51.8 mPD; Base of viaduct (3.5m structural depth below road level) = +49.9 mPD; i.e. top of 1.9m tree crown affected (estimated).

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
T065	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	300	5	H	L	On slope; Poor form	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio Under shade of proposed viaduct.
T067	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	13	310	4	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio Tree top level (existing ground level + tree height) = +51.8 mPD; Base of viaduct (3.5m structural depth below road level) = +50.3 mPD; i.e. top of 1.5m tree crown affected (estimated)
T068	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	210	4	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately bent trunk; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T069	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	13	240	5	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper; Low live crown ratio; Tree top level (existing ground level + tree height) = +51.8 mPD; Base of viaduct (3.5m structural depth below road level) = +50.5 mPD; i.e. top of 1.3m tree crown affected (estimated).
T070	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	14	570	8	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems Tree top level (existing ground level + tree height) = +54.4 mPD; Base of viaduct (3.5m structural depth below road level) = +50.5 mPD; i.e. top of 3.9m tree crown affected (estimated).
T075	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	7	270	5	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Heavily leaning, Under shade of proposed viaduct.
T079	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	400	5	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper Tree top level (existing ground level + tree height) = +50.7 mPD; Base of viaduct (3.5m structural depth below road level) = +50.3 mPD; i.e. top of 0.4m tree crown affected (estimated).
T080	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	6	120	3	H	L	On slope; Poor form & structure	Indirectly affected - under shade	Retain	Tree of Particular Interest (Rare and precious species);On slope; Moderately leaning; Low live crown ratio Under shade of proposed viaduct.

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
											of proposed viaduct		
T081	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	200	5	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T083	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	16	340	6	H	L	On slope; Poor form & structure	Direct conflict with proposed viaduct	Remove	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio Tree top level (existing ground level + tree height) = +50.2 mPD; Base of viaduct (3.5m structural depth below road level) = +49.7 mPD; i.e. top of 0.5m tree crown affected (estimated).
T088	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	110	2	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Heavily leaning; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T092	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	280	6	H	L	On slope; Poor form	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio Under shade of proposed viaduct.
T094	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	15	390	7	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Low live crown ratio
T099	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	15	320	6	H	L	On slope; Poor form	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio Under shade of proposed viaduct.
T111	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	450	5	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T154	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	300	10	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species);On slope; Codominant stems; Low live crown ratio
T155	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	15	270	6	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio
T156	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	10	210	5	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
T157	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	10	310	7	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems
T160	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	140	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Poor taper; Low live crown ratio
T162	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	6	110	2	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T163	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	180	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T164	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	140	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Low live crown ratio
T165	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	7	130	3	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T166	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	150	4	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems
T167	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	120	3	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T168	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	220	6	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species);On slope; Moderately leaning; Low live crown ratio
T172	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	190	6	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Poor taper; Low live crown ratio
T176	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	140	5	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Low live crown ratio
T178	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	150	5	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio
T191	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	330	6	H	L	On slope; Poor form, health & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codominant stems; Multiple broken trunks Under shade of proposed viaduct.
T201	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	180	2	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T202	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	10	260	3	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Poor taper; Low live crown ratio Under shade of proposed viaduct.

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
T203	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	11	260	2	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Poor taper; Low live crown ratio Under shade of proposed viaduct.
T207	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	9	200	3	H	L	On slope; Poor form	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Poor taper; Low live crown ratio; Under shade of proposed viaduct.
T209	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	6	180	4	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Heavily leaning; Low live crown ratio; Under shade of proposed viaduct.
T210	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	8	210	5	H	L	On slope; Poor form & structure	Indirectly affected - under shade of proposed viaduct	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning; Poor taper; Low live crown ratio; Heavily vined; Under shade of proposed viaduct.
T228	1008	*Ficus elastica*	印度榕	-	18	1900	23	M	L	On slope; Poor form	-	Retain	Tree of Particular Interest (DBH >= 1m); On slope; Multi-trunk; Low branching; Under shade of proposed viaduct.
T229	1007	*Ficus benghalensis*	孟加拉榕	-	20	3150	28	H	L	Root zone covered by concrete, impractical to prepare root ball	-	Retain	Tree of Particular Interest (DBH >= 1m); Root zone covered by concrete; Multi-trunk Outside proposed limit of works
T230	1014	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	13	390	10	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codomiant stems; Heavily vined
T231	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	3	60	1	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); Undersized (DBH < 95mm); For record only; On slope; Moderately leaning; Moderate asymmetric crown
T232	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	100	2	H	L	On slope; Poor form & health	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Multiple wounds on trunk; Moderate trunk borer activity
T233	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	85	2	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); Undersized (DBH < 95mm); For record only; On slope; Moderately leaning
T234	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	160	2	H	L	On slope; Poor form & structure	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Codomiant stems; Moderate trunk borer activity

Tree No.	Drawings in Appendix 11.1	Scientific Name	Chinese Name	Conservation Status	Height (m)	DBH (mm)	Crown Spread (m)	Amenity Value (High(H)/ Medium(M) /Low(L)	Suitability for Transplanting		How the Tree is Affected	Recommendation (Retain / Transplant / Remove)	Additional Remarks
									(High(H)/ Medium(M)/Low(L)	Remarks			
T235	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	4	80	2	H	L	On slope	-	Retain	Tree of Particular Interest (Rare and precious species); Undersized (DBH < 95mm); For record only; On slope
T236	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	4	65	2	H	L	On slope	-	Retain	Tree of Particular Interest (Rare and precious species); Undersized (DBH < 95mm); For record only; On slope
T237	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	6	110	4	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning
T238	1016	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	5	110	3	H	L	On slope	-	Retain	Tree of Particular Interest (Rare and precious species); On slope
T239	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	17	420	8	H	L	On slope	-	Retain	Tree of Particular Interest (Rare and precious species); On slope
T240	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	17	390	10	H	L	On slope	-	Retain	Tree of Particular Interest (Rare and precious species); On slope
T241	1015	*Ixonanthes reticulata*	黏木	RPPHK; IUCN:VU	18	500	12	H	L	On slope; Poor form	-	Retain	Tree of Particular Interest (Rare and precious species); On slope; Moderately leaning

Note: This table records TPI with trunk diameter measures 95 mm or more at a height of 1.3m above the ground level within and near the works area, as per AFCD Nature Conservation Practice Note No. 02 - Measurement of Diameter at Breast Height (DBH) .

11.6 Visual Baseline Study

11.6.1 Visual Envelope and Zones of Visual Influence

11.6.1.1 The Study Area for the Visual Impact Assessment (VIA) is identified by the visual envelope for the Project in accordance with EIAO GN No. 8/2010. The visual envelope (zone of visual influence) is generally defined as the view shed formed by natural or manmade features such as vegetation, landform and/or built development and contains areas which are fully, partially visible, glimpsed or unseen from the Route 11 and its associated works. The extent of the VE is illustrated in **Figures 11.6.1** to **11.6.7**.

11.6.1.2 Visual Envelope (VE) is the zone of visual influence which is generally the viewshed formed by natural or man-made features such as ridgeline or building blocks. Visual Envelope of the Lam Tei Quarry Interchange is bounded by Yuen Long Highway, Kong Sham Western Highway and a combination of villages and low-to-high-rise developments to the north and west; the Kung Um Shan range of hills to the east; and the hills at Lam Tei Quarry to the south. Meanwhile, Visual Envelope of the So Kwun Wat and Tai Lam Chung is bounded by Ma Wan Channel, Ma Wan and Kap Shui Mun to the east; the ridgeline from Lantau Peak, Sunset Peak of Lantau Island to the south; Urmston Road to the west the ridgeline from Castle Peak, Tai Lam, high rise commercial and residential development at Sham Tseng to the north.

Lam Tei Quarry Interchange

11.6.1.3 At lower elevations, the VE will be contained by the large wooded berm to the south of the Yuen Long Highway and to the north by a combination of existing village development and mature vegetation. This includes medium-rise developments, such as The Sherwood to the north-west, and the low-rise 3 storey village houses to the north and north-east. The VE, also, extends some way along the carriageways of the Yuen Long Highway to the east and west of the proposed scheme and north along the Kong Sham Western Highway (**Figure 11.6.2** refers).

11.6.1.4 To the west, the VE is contained at lower elevations by the landform and mature vegetation at the edge of Lam Tei Quarry and at higher elevations visual access extends to developments such as the Fu Tai Estate and Parkland Villas. To the east, the VE is contained by the Kung Um Shan range of hills and ridgeline and to the south, the VE is contained by the hills to the south of the Lam Tei Quarry.

11.6.1.5 The VE is contained in relatively close proximity to the proposed alignment owing to a combination of the existing topography and the density of the adjacent village development.

So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section

11.6.1.6 This section is located in the So Kwun Wat area and has the main purpose of connecting the Tuen Mun Road, at the So Kwun Wat Link Road to the east of So Kwun Wat (**Figures 11.6.3** to **11.6.4**). Together with the So Kwun Wat Interchange at east So Kwun Wat, this Section comprises the So Kwun Wat Link Road, So Kwun Wat Interchange, and So Kwun Wat – Siu Lam Open Road Section. The tunnel portion of So Kwun Wat Link Road runs east to west along the southern border of TLCP. However, the aboveground structures including the tunnel portals

and ventilation buildings (approximate building height of 24m) are located outside of TLCP. Elevated viaducts connect the western tunnel portal to Tuen Mun Road and So Kwun Wat Road, and elevated connections connect the eastern portal to the So Kwun Wat Interchange. Elevated slip roads from the interchange connect to a dual-4 lane at-grade road section, along the eastern side of So Kwun Wat and western side of the Tai Lam Chung Reservoir, and links to the Tai Lam Chung Tunnel (North Section) (**Figures 11.6.3** to **11.6.4** refer).

11.6.1.7 The VE for this section has two main areas, the first around the alignment of the tunnel portal of Lam Tei Tunnel, elevated bridges at either side of the So Kwun Wat Link Road Tunnel and the So Kwun Wat Interchange near Pak Shek Hang to the east. The VE for this first section at Pak Shek Hang extends north to the first ridgeline of the hills of the Tai Lam Country Park (**Figure 11.6.3**). It extends east to the low, undulating hills bordering the Tai Lam Chung Reservoir from Pak Shek Hang in the north and to Siu Lam Road in the south. To the west of the alignment, the VE extends from the eastern periphery of So Kwun Wat Tsuen, following the ridgeline of the low hills to the Palatial Coast and Siu Lam Road (**Figure 11.6.4**).

11.6.1.8 At this location, the VE extends north to the ridgeline of the hills of TLCP. To the east, the VE extends to the start of So Kwun Wat Tsuen Road where it is contained by a combination of the existing landform, mature woodland and village development. To the south-east, the VE extends to the medium-rise development Avignon and to the south, the VE extends to the mature vegetation ling So Kwun Wat Road, across the Tuen Mun Road to the south-west and the high-rise residential towers of the Aegean Coast development. To the west, this VE extends just beyond the Tuen Mun Road corridor to The Bloomsway residential development and to the north-west of the Harrow International School Hong Kong (**Figures 11.6.4**).

Tai Lam Chung River Viaduct, Tsing Lung Tau Interchange, Tsing Lung Bridge and North Lantau Interchange

11.6.1.9 This Section connects the So Kwun Wat Interchange to the Tsing Lung Tau Interchange and the Tsing Lung Bridge crossing the North Lantau Interchange. This section comprises two tunnel sections of the Tai Lam Chung Tunnel, with the Tai Lam Chung River Viaduct in between. The 400m long bridge over the Tai Lam Chung River is at an elevated level, being at about +35mPD. The elevated nature of the bridge will result in large construction platforms being required for the construction of eastern portal of the Tai Lam Chung Tunnel (North Section) and the western portal of the Tai Lam Chung Tunnel (South Section) (**Figures 11.6.5** to **11.6.7** refer).

11.6.1.10 The VE for the Tai Lam Chung section extends over the Tai Lam Chung valley and small hills which form the valley sides. In this area to the north, the VE extends to the main dam of the Tai Lam Chung Reservoir and beyond to the hills of the Tai Lam Country Park which form the watershed for the reservoir. To the east, the VE extends to the hills to the North and South of Tai Lam Chung. Further south, the VE extends along the corridor of the Tai Lam Chung River to its mouth at Brothers Point. The VE is contained to the east at this location by the existing landform and development lining the watercourse (**Figures 11.6.3**).

11.6.1.11 The Tsing Lung Bridge is proposed to span across the Ha Pang Fairway from Tsing Lung Tau to Kwai Shek at North Lantau. Tsing Lung Bridge, which is an

approximately 1.9 km long dual 4-lane carriageway suspension bridge (approximate +81.5mPD), crossing over the Ha Pang Fairway and connecting the proposed Tsing Lung Tau Interchange and North Lantau Interchange, with reclamation of approximately 2.2 ha for construction of bridge tower at Tsing Lung Tau (**Figures 11.6.5** to **11.6.6**). The top levels of the bridge towers located in Tsing Lung Tau and North Lantau will be at approximately +238mPD and +184mPD respectively (refer to **Figure 2.2h** for details).

11.6.1.12 The VE for the Tsing Lung Tau section covers the coastal strip between Tsing Lung Tau to the east and west towards Brothers Point and the mouth of the Tai Lam Chung River. To the north, the VE is contained by both the low hills to the south of Wong Uk Tsuen, and the much higher landform of the hills to the south of TLCP. To the south, the VE extends beyond the coastline into the marine channel and potentially further onto the hills on the northern side of Lantau Island (**Figure 11.6.5**).

11.6.1.13 The VE will extend north to the hills of TLCP and along the coastal strip either side of the Tuen Mun Road corridor. To the east, the VE would extend to Sham Tseng, the Ting Kau Bridge and the western side of Ma Wan and the southern extent of the VE will extend to the hills on the northern side of Lantau Island and potentially include the North Lantau Highway corridor. To the west, the VE extends further into the Ha Pang Fairway channel and along the coastal strip to the north of the channel.

11.6.1.14 The VE for the Tsing Lung Bridge and the North Lantau Interchange will be largely contained to the north within the North Lantau Highway corridor, although there may be limited views from the channel to the north and the hills on the southern side of TLCP. To the East, the VE extends to the Kap Shui Mun Bridge and Ma Wan and to the south-east, to Tang Lung Chau and the Ma Wan Channel and potentially to the western shores of Tsing Yi. To the south, the VE is likely to be contained by the hills of Ng Kwu Leng along the northern side of Lantau Island and the western extent of the VE is likely to be largely contained with the North Lantau Highway corridor (**Figure 11.6.6** to **Figure 11.6.7**).

11.6.2 Visual Resources

11.6.2.1 The major visual resources within the visual envelope include the ridgeline of the Lantau Peak and Sunset Peak to the south, the southern areas from Lung Kwu Tan through Tuen Mun and Gold Coast to Sham Tseng, as well as TLCP, which provide a dramatic natural backdrop to the Study Area and forms the valuable natural visual resources as viewed from Tuen Mun, Tsing Lung Tau and Lantau.

11.6.2.2 Kap Shui Mun and Ma Wan Channel to Urmston Road is a unique public asset and natural visual resource of Lantau, providing an open seascape along the northern coast of Lantau Island and the south coast of Tuen Mun.

11.6.3 Visually Sensitive Receivers (VSRs)

11.6.3.1 There are no vantage points identified in the Urban Design Guidelines under Hong Kong Planning Standards and Guidelines.

11.6.3.2 The type of VSRs 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 generally have low sensitivity.

11.6.3.3 The sensitivity of VSRs is assessed in accordance with EIAO Guidance Note No. 8/2010. Key factors including type and estimated number of receiver population, value and quality of existing views, availability and amenity of alternative views, degree of visibility and duration or frequency of view of the VSRs are evaluated. The sensitivity of the VSRs shall also be determined by numbers of the individuals within the VSR category, the quality of existing views, availability of alternative views, minimum distance between VSRs and impact source, degree of visibility, duration of view and frequency of view.

11.6.3.4 There are four types of key VSR types identified in the VEs of the Project, which are residential VSRs, institutional VSR, recreational VSR and travelling VSR.

Lam Tei Quarry Interchange

11.6.3.5 The main representative visually sensitive receivers (VSRs) for the Lam Tei Quarry Interchange (including the northern portal of Lam Tei Tunnel) are indicated on **Figure 11.6.2** and summarised in **Table 11.6.1**. The representative VSRs are located in publicly accessible locations comprising residents, pedestrians and vehicle travellers in existing village areas and planned residential areas, such as Fuk Hang Tsuen, Tsoi Yuen Tsuen and planned residential areas at brownfields, although existing views from these locations also feature some existing elevated road structures. South of the Yuen Long Highway, views are likely to be contained by the existing woodland and the sides of Lam Tei Quarry. Trail Walkers near Lam Tei Irrigation Reservoir may also have limited views to the proposed road structures.

11.6.3.6 The VSRs selected for this section include the following:

- VSR-LT1 – Residents of Parkland Villas;
- VSR-LT2 – Residents of Fu Tai Estate;
- VSR-LT3 – Residents of Lo Fu Hang;
- VSR-LT4 – Vehicle Travellers on Yuen Long Highway (Eastbound);
- VSR-LT5 – Residents of Fuk Hang Tsuen;
- VSR-LT6 – Residents of The Sherwood;
- VSR-LT7 – Vehicle Travellers on Kong Sham Western Highway (Southbound);
- VSR-LT8 – Residents of Tsoi Yuen Tsuen;
- VSR-LT9 – Vehicle Travellers on Yuen Long Highway (Westbound);
- VSR-LT10 – Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir; and
- VSR-LT11 – Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai.

11.6.3.7 Residential VSRs are living in medium-rise residential developments along the Yuen Long Highway, in Fu Tai Estate and Lam Tei.

11.6.3.8 Residents in medium-rise residential developments in Lam Tei include residents of The Sherwood (VSR-LT6) and the rating of sensitivity are considered as **High** (**Table 11.6.1**).

11.6.3.9 For high-rise residential VSRs located farther away from the Project involve those in Fu Tai Estate and Parkland Villas, and the rating of sensitivity are considered as **High** (**Table 11.6.1**), namely, residents of Fu Tai Estate (VSR-LT2), and residents of Parkland Villas (VSR-LT1) as well as planned VSR-LT11 Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai).

11.6.3.10 Residents in village residential developments in Lam Tei include residents of Lo Fu Hang (VSR-LT3), residents of Fuk Hang Tsuen (VSR-LT5) and residents of Tsoi Yuen Tsuen (VSR-LT8). The ratings of sensitivity are considered as **High** (**Table 11.6.1**).

11.6.3.11 For the vehicular travelling VSRs with occasional frequency of view, sensitivity of the VSR with partial degree of visibility to the Project is graded as **Low** (**Table 11.6.1**), namely, vehicle travellers on Yuen Long Highway (Eastbound) (VSR-LT4), vehicle travellers on Kong Sham Western Highway (Southbound) (VSR-LT7) and vehicle travellers on Yuen Long Highway (Westbound) (VSR-LT9).

11.6.3.12 For recreational VSRs, the sensitivity of trail walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir (VSR-LT10), with good quality of existing views, rare view with partial visibility to the project is graded as **High** (**Table 11.6.1**).

So Kwun Wat Link Road

11.6.3.13 The main representative visually sensitive receivers (VSRs) for So Kwun Wat Link Road are indicated on **Figures 11.6.3** to **11.6.4** and summarised in **Table 11.6.1**.

11.6.3.14 VSRs for this section include trail walkers on MacLehose Trail (Section 10), vehicle travellers and pedestrians on existing roads e.g. Tuen Mun Road and Castle Peak Road – So Kwun Wat, residential VSRs in the surrounding villages, medium and high-rise developments, together with and staff and students at a number of government and educational institutions.

11.6.3.15 The VSRs selected for this section include the following:

- VSR-SK1 – Trail walkers on MacLehose Trail Section 10 (West);
- VSR-SK2 – Vehicle Travellers on Tuen Mun Road;
- VSR-SK3 – Residents of The Bloomsway;
- VSR-SK4 – Students and Staff at Harrow International School Hong Kong;
- VSR-SK5 – Residents of Hong Kong Gold Coast;
- VSR-SK6 – Residents of Aegean Coast;
- VSR-SK7 – Residents of Avignon;
- VSR-SK26 – Vehicle Travellers on Castle Peak Road – So Kwun Wat;
- VSR-SK27 – Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School; and
- VSR-SK28 – Students and Staff at Chu Hai College of Higher Education.

11.6.3.16 Residents in medium-rise residential developments in So Kwun Wat include residents of The Bloomsway (VSR-SK3), residents of Hong Kong Gold Coast (VSR-SK5), residents of Aegean Coast (VSR-SK6) and residents of Avignon (VSR-SK7). Among the residential VSRs, the sensitivities of VSR-SK3, VSR-SK5, VSR-SK6 and VSR-SK7 are considered as **High** in view of the many number of population and good quality of existing view with partial degree of visibility to the project.

11.6.3.17 Institutional VSRs at work or at study include students and staff at Harrow International School Hong Kong (VSR-SK4), students and staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School (VSR-SK27) and students and staff at Chu Hai College of Higher Education (VSR-SK28). Among the institutional VSRs, the sensitivity of VSR-4 is considered as **High** since it has good quality of existing view facing south. The institutional VSR-SK27 and VSR-SK28 have occasional frequency of view and degree of visibility to be partial and glimpse visibility to the site, and are considered as **Medium** and **Low** sensitivities.

11.6.3.18 For the vehicular travelling VSRs with occasional frequency of view, sensitivity of the VSR with partial degree of visibility to the Project is graded as **Low**, namely, vehicle travellers on Tuen Mun Road (VSR-SK2) and vehicle travellers on Castle Peak Road – So Kwun Wat (VSR-SK26).

11.6.3.19 For recreational VSRs, the sensitivity of Trail walkers on MacLehose Trail Section 10 (West) (VSR-SK1), with good quality of existing views, occasional view with partial visibility to the project is graded as **High**.

So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section

11.6.3.20 This section (including the southern portal of Lam Tei Tunnel and the western portal of Tai Lam Chung Tunnel) passes through or close to villages and residential areas at So Kwun Wat and through the low hills to the south-west of the Tai Lam Chung Reservoir. In these areas, VSRs are limited to the peripheries of the adjacent villages, trails, institutions and roads at So Kwun Wat and along the Tai Lam Chung River valley. VSRs are indicated on **Figures 11.6.3** and summarised in **Table 11.6.1**.

11.6.3.21 The VSRs selected for this section include the following:

- VSR-SK8 – Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road;
- VSR-SK9 – Trail Walkers on MacLehose Trail Section 10 (East);
- VSR-SK10 – Residents of So Kwun Wat Tsuen;
- VSR-SK11 – Residents of So Kwun Wat San Tsuen;
- VSR-SK12 – Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre;
- VSR-SK13 – Vehicle Travellers on Siu Lam Road;
- VSR-SK14 – Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road;
- VSR-SK15 – Residents of Palatial Coast; and
- VSR-SK16 – Residents of Siu Lam.

11.6.3.22 Residents in village residential developments in So Kwun Wat include residents of So Kwun Wat Tsuen (VSR-SK10) and residents of So Kwun Wat San Tsuen (VSR-

SK11). The sensitivities of VSR-SK10 and VSR-SK11 are considered as **High** in view of the fair quality and frequent of existing view to the Project.

11.6.3.23 Residents in village residential developments in Siu Lam include residents of Siu Lam (VSR-SK16). The sensitivity of VSR-SK16 is considered as **High** in view of the fair quality and frequent of existing view to the Project.

11.6.3.24 Residents in medium-rise residential developments in Siu Lam include residents of Palatial Coast (VSR-SK15), in which the sensitivity is considered as **High**.

11.6.3.25 For recreational VSRs, the sensitivity of trail walkers on MacLehose Trail Section 10 (East) (VSR-SK9), trail walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road (VSR-SK14) and visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre (VSR-SK12) with good quality of existing views, occasional view with glimpse visibility to the project is graded as **High**.

11.6.3.26 For the vehicular travelling VSRs with occasional frequency of view, sensitivity of the VSR with partial degree of visibility to the Project is graded as **Low**, namely, vehicle travellers and Pedestrians on So Kwun Wat Tsuen Road (VSR-SK8) and vehicle travellers on Siu Lam Road (VSR-SK13).

Tai Lam Chung River Viaduct

11.6.3.27 VSRs for the this Section – Tai Lam Chung River Viaduct including the eastern portal of Tai Lam Chung Tunnel (North Section) and western portal of Tai Lam Chung Tunnel (South Section) are indicated on **Figures 11.6.3** and summarised in **Table 11.6.1**. These VSRs include visitors to the Tai Lam Country Park, cyclists and trail walkers using the trails around the Tai Lam Chung Reservoir, vehicle travellers and pedestrians on the adjacent road network, as well as villages and government institutions along the Tai Lam Chung River valley.

11.6.3.28 The VSRs selected for this section include the following:

- VSR-SK21 – Trail walkers and cyclists on Tai Lam Chung Reservoir Main Dam;
- VSR-SK22 – Pedestrians on footbridge over Tai Lam Chung River;
- VSR-SK23 – Vehicle travellers and pedestrians on Castle Peak Road – Tai Lam;
- VSR-SK24 – Trail walkers on summit of Hill 141;
- VSR-SK25 – Trail walkers at South of To Hang Tung;
- VSR-SK29 – Residents of Tai Lam Chung Tsuen;
- VSR-SK30 – Students and staff members at Hong Kong Customs College; and
- VSR-SK31 – Staff members and visitors at Tai Lam Correctional Institution.

11.6.3.29 For recreational VSRs, the sensitivity of trail walkers and cyclists on Tai Lam Chung Reservoir Main Dam (VSR-SK21), and pedestrian on footbridge over Tai Lam Chung River (VSR-SK22) with good quality of existing view and partial degree of visibility to the Project is considered as **High**. The sensitivity of trail walkers on summit of Hill 141 (VSR-SK24) and trail walkers at south of To Hang Tung (VSR-SK25) with good quality of existing view and glimpse visibility to the project are considered as **Medium**.

11.6.3.30 Residents in village residential developments in Tai Lam include residents of Tai Lam Chung Tsuen (VSR-SK29). The sensitivities of VSR-SK29 are considered as **High** in view of the good quality and frequent of existing view to the Project.

11.6.3.31 For the institutional VSRs in Tai Lam, the sensitivity of staff members and visitors at Tai Lam Correctional Institution (VSR-SK31) with fair quality of existing view, occasional frequency of view and partial visibility to the project is **Low**. The sensitivity of students and staff members at Hong Kong Customs College (VSR-SK30) with good quality of existing view and glimpse visibility to the project is **Low**.

11.6.3.32 For the travelling VSR in Castle Peak Road - Tai Lam (VSR-SK23) with rare frequency of view, sensitivity of VSR-SK23 with partial degree of visibility is rated as **Low**.

Tsing Lung Tau Interchange and Tsing Lung Bridge (North)

11.6.3.33 VSRs for this Section – Tsing Lung Tau Interchange and Tsing Lung Bridge (North) (including the eastern portal of Tai Lam Chung Tunnel (South Section)) includes vehicle travellers and pedestrians on Tuen Mun Road and Castle Peak Road – Tsing Lung Tau, residents of villages, medium and high-rise developments at Tsing Lung Tau, as well as from seaside locations and high-rise developments at Sham Tseng. VSRs are indicated on **Figures 11.6.5** and **Figure 11.6.7**, and summarised in **Table 11.6.1**.

11.6.3.34 The VSRs selected for this section include the following:

- VSR-TL1 – Vehicle travellers on Tuen Mun Road (Westbound);
- VSR-TL2 – Residents of Bellagio and Ocean Pointe ;
- VSR-TL3 – Residents of Hong Kong Garden, Vista Cove and L'Aquatique;
- VSR-TL4 – Vehicle travellers and pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound);
- VSR-TL5 – Vehicle travellers on Tuen Mun Road (Eastbound).
- VSR-TL11 – Pedestrians on footbridge across Castle Peak Road – Tsing Lung Tau;
- VSR-TL12 – Travellers in Tsing Lung Tau Ferry Pier;
- VSR-TL13 – Travellers in Sham Tseng Public Pier; and
- VSR-TL14 – Residents of Sea Crest Villa Phase 4;

11.6.3.35 Residents in high-rise residential developments in Tsing Lung Tau include residents of Bellagio and Ocean Pointe (VSR-TL2) and residents of Sea Crest Villa Phase 4 (VSR-TL14). The sensitivities of VSR-TL2 and VSR-TL14 are considered as **High** in view of many number of population, good quality of existing views, and full degree of visibility to the Project. Residents in medium-rise residential developments in Tsing Lung Tau include residents of Hong Kong Garden, Vista Cove and L'Aquatique (VSR-TL3), in which the sensitivity is considered as **High**.

11.6.3.36 For recreational VSRs, the sensitivity of travellers in Tsing Lung Tau Ferry Pier (VSR-TL12) and travellers in Sham Tseng Public Pier (VSR-TL13) as well as pedestrians on footbridge across Castle Peak Road – Tsing Lung Tau (VSR-TL11) are considered as **Medium**, as occasional frequency of view and few number of visitors / travellers at these VSRs.

11.6.3.37 For the vehicular travelling VSRs with occasional frequency of view, sensitivity of the VSR with partial degree of visibility to the Project is graded as **Low**, namely, vehicle travellers on Tuen Mun Road (Westbound) (VSR-TL1), vehicle travellers and pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound) (VSR-TL4) and vehicle travellers on Tuen Mun Road (Eastbound) (VSR-TL5).

Tsing Lung Bridge (South) and North Lantau Interchange

11.6.3.38 VSRs for this Section – Tsing Lung Bridge (South) and North Lantau Interchange include vehicle travellers on North Lantau Highway, Kap Shui Mun Bridge and the proposed Road P1, as well as maritime travellers at Ha Pang Fairway. At further distances, there would be residents and visitors at Ma Wan / Park Island, trail walkers at North Lantau, as well as future users at the planned Sunny Bay reclamation area. VSRs are indicated on **Figures 11.6.6** and summarised in **Table 11.6.1**.

11.6.3.39 The VSRs selected for this section include the following:

- VSR-NL1 – Vehicle travellers on North Lantau Highway (Westbound);
- VSR-NL2 – Trail walkers on summit of Fa Peng Teng;
- VSR-NL3 – Vehicle travellers at Lantau Link Toll Plaza;
- VSR-NL4 – Travellers in Ma Wan Public Pier;
- VSR-NL5 – Vehicular travellers on Kap Shui Mun Bridge;
- VSR-NL6 – Visitors at Sunny Bay Promenade;
- VSR-NL7 – Maritime travellers in Ha Pang Fairway;
- VSR-NL8 – Residents of Park Island;
- VSR-NL9 – Future users at planned Sunny Bay Reclamation Area; and
- VSR-NL10 – Future vehicle travellers on planned Road P1.

11.6.3.40 Residents in medium-rise residential developments in Ma Wan include residents of Park Island (VSR-NL8). The sensitivity of VSR-NL8 is considered as **High** in view of many number of population, good quality of existing view and full degree of visibility to the project. Future users at the planned Sunny Bay reclamation area (VSR-NL9) with good quality of view, sensitivity of VSR-NL9 with full degree of visibility to the project is rated as **High**.

11.6.3.41 For recreational VSRs, the sensitivity of trail walkers on summit of Fa Peng Teng (VSR-NL2), travellers in Ma Wan Public Pier (VSR-NL4) and visitors at Sunny Bay Promenade (VSR-NL6) with good quality of existing views, occasional frequency of view and full visibility to the Project are graded as **Medium**.

11.6.3.42 For travelling VSRs with transient duration of view, the sensitivity of Vehicular Travellers on Kap Shui Mun Bridge (VSR-NL5), vehicle travellers at Lantau Link Toll Plaza (VSR-NL3) and vehicle travellers on North Lantau Highway (Westbound) (VSR-NL1) with partially degree of visibility to the Project is graded as **Low**. The sensitivity of maritime travellers in Ha Pang Fairway (VSR-NL7) will be **Medium** as this VSR has good quality of existing view and partial degree of visibility to the Project. For the future vehicle travellers on the planned Road P1 (VSR-NL10) with fair quality of view, partial degree of visibility to the project is rated as **Low** sensitivity.

Table 11.6.1 Visual Sensitive Receivers (VSRs) and Their Sensitivity to Change

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
Lam Tei Quarry Interchange								
VSR-LT1	Residents of Parkland Villas	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial / Glimpsed	High
VSR-LT2	Residents of Fu Tai Estate	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-LT3	Residents of Lo Fu Hang	Residents / Few	Fair	Permanent	Yes (Fair)	Frequent	Partial	High
VSR-LT4	Vehicle Travellers on Yuen Long Highway(Eastbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-LT5	Residents of Fuk Hang Tsuen	Residents / Few	Fair	Permanent	Yes (Fair)	Frequent	Partial	High
VSR-LT6	Residents of The Sherwood	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-LT7	Vehicle Travellers on Kong Sham Western Highway (Southbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Glimpsed	Low
VSR-LT8	Residents of Tsoi Yuen Tsuen	Residents / Few	Fair	Permanent	Yes (Fair)	Occasional	Partial / Glimpsed	High
VSR-LT9	Vehicle travellers on Yuen Long Highway(Westbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-LT10	Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Partial	High
VSR-LT11	Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai	Residents / Many	Fair	Permanent	Yes (Fair)	Frequent	Partial	High

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
So Kwun Wat Link Road								
VSR-SK1	Trail Walkers on MacLehose Trail Section 10 (West)	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Partial	High
VSR-SK2	Vehicle Travellers on Tuen Mun Road	Travellers /Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-SK3	Residents of The Bloomsway	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK4	Students and Staff at Harrow InternationalSchool Hong Kong	Occupational / Many	Good	Permanent	Yes (Good)	Occasional	Partial	High
VSR-SK5	Residents of Hong Kong Gold Coast	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK6	Residents of Aegean Coast	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK7	Residents of Avignon	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK26	Vehicle Travellers on Castle Peak Road – So Kwun Wat	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-SK27	Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School	Occupational / Many	Good	Permanent	Yes (Good)	Occasional	Partial	Medium
VSR-SK28	Students and Staff at Chu Hai College of Higher Education	Occupational / Many	Fair	Permanent	Yes (Fair)	Occasional	Glimpsed	Low

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section								
VSR-SK8	Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road	Travellers / Few	Fair	Transient	Yes (fair)	Occasional	Partial	Low
VSR-SK9	Trail Walkers on MacLehose Trail Section 10 (East)	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Glimpsed	High
VSR-SK10	Residents of So Kwun Wat Tsuen	Residents / Few	Fair	Permanent	Yes (Fair)	Frequent	Partial	High
VSR-SK11	Residents of So Kwun Wat San Tsuen	Residents / Few	Fair	Permanent	Yes (Fair)	Frequent	Partial	High
VSR-SK12	Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Glimpsed	High
VSR-SK13	Vehicle Travellers on Siu Lam Road	Travellers / Few	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-SK14	Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Glimpsed	High
VSR-SK15	Residents of Palatial Coast	Residents / Many	Fair	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK16	Residents of Siu Lam	Residents / Few	Fair	Permanent	Yes (Fair)	Frequent	Partial	High

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
Tai Lam Chung River Viaduct								
VSR-SK21	Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Partial	High
VSR-SK22	Pedestrians on Footbridge over Tai Lam Chung River	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Partial	High
VSR-SK23	Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam	Travellers / Many	Fair	Transient	Yes (Fair)	rare	Partial	Low
VSR-SK24	Trail Walkers on Summit of Hill 141	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Glimpsed	Medium
VSR-SK25	Trail Walkers at South of To Hang Tung	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Glimpsed	Medium
VSR-SK29	Residents of Tai Lam Chung Tsuen	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Partial	High
VSR-SK30	Students and Staff at Hong Kong Customs College	Occupational / Many	Good	Permanent	Yes (Fair)	Occasional	Glimpsed	Low
VSR-SK31	Staff and Visitors at Tai Lam Correctional Institution	Occupational / Many	Fair	Permanent	Yes (Fair)	Occasional	Partial	Low
Tsing Lung Tau Interchange and Tsing Lung Bridge (North)								
VSR-TL1	Vehicle Travellers on Tuen Mun Road (Westbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
VSR-TL2	Residents of Bellagio and Ocean Pointe	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Full	High
VSR-TL3	Residents of Hong Kong Garden, Vista Cove and L'Aquatique	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Full	High
VSR-TL4	Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-TL5	Vehicle Travellers on Tuen Mun Road (Eastbound)	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-TL11	Pedestrian Footbridge across Castle Peak Road - Tsing Lung Tau	Travellers / Few	Good	Transient	Yes (Good)	Occasional	Full	Medium
VSR-TL12	Travellers in Tsing Lung Tau Ferry Pier	Recreational / Travellers / Few	Good	Transient	Yes (Good)	Occasional	Full	Medium
VSR-TL13	Travellers in Sham Tseng Public Pier	Recreational / Travellers / Few	Good	Transient	Yes (Good)	Occasional	Partial	Medium
VSR-TL14	Residents of Sea Crest Villa Phase 4	Residents / Many	Good	Permanent	Yes (Good)	Frequent	Full	High
Tsing Lung Bridge (South) and North Lantau Interchange								
VSR-NL1	Vehicle Travellers on North Lantau Highway (Westbound)	Travellers / Very Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low

VSR ID	Visually Sensitive Receiver (VSR)	VSR Type and Number (Very Few, Few, Many, Very Many)	Quality of Existing Views (Good, Fair, Poor)	Duration of View (Transient / Permanent Receiver)	Alternate Views and Amenity (Poor, Fair, Good)	Frequency of View (Very Frequent, Frequent, Occasional, Rare)	Degree of Visibility (Full, Partial, Glimpsed, No View)	Sensitivity (Low / Medium/ High)
VSR-NL2	Trail Walkers on Summit of Fa Peng Teng	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Full	Medium
VSR-NL3	Vehicle Travellers at Lantau Link Toll Plaza	Travellers / Very Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-NL4	Travellers in Ma Wan Public Pier	Recreational / Travellers / Few	Good	Transient	Yes (Good)	Occasional	Full	Medium
VSR-NL5	Vehicular Travellers on Kap Shui Mun Bridge	Travellers / Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low
VSR-NL6	Visitors at Sunny Bay Promenade	Recreational / Few	Good	Transient	Yes (Good)	Occasional	Full	Medium
VSR-NL7	Maritime Travellers in Ha Pang Fairway	Travellers / Few	Good	Transient	Yes (Good)	Occasional	Partial	Medium
VSR-NL8	Residents of Park Island	Residents / Very Many	Good	Permanent	Yes (Good)	Frequent	Full	High
VSR-NL9	Future Users at Planned Sunny Bay Reclamation Area	Recreational / Occupational / Many	Good	Permanent	Yes (Good)	Frequent	Full	High
VSR-NL10	Future Vehicle Travellers on Planned Road P1	Travellers / Very Many	Fair	Transient	Yes (Fair)	Occasional	Partial	Low

11.7 Landscape Impact Assessment

11.7.1 Sources of Landscape Impacts

11.7.1.1 During the construction period, the proposed works may give rise to the following sources of temporary and reversible construction phase impacts:

- The commencement of construction activities and their impact on the existing site (e.g. site clearance / removal of existing vegetation / vegetated surface and conversion to bare soil, gravel or hard paved surface, site formation and excavation works, presence of construction equipment, machinery and plant, temporary storage of construction materials, setting up of construction site offices, parking and yards, and night-time security lighting etc.);
- Modification of the existing landform to accommodate the development proposals including the introduction of new embankments, cuttings, tunnel portals and bridges;
- Construction works for the proposed Tsing Lung Bridge including structures, the associated approaches and the small reclamation area for the bridge tower;
- Loss of vegetation, particularly trees and shrubs;
- Impacts arising from the presence of incomplete (partly constructed without proposed decorative finishes and greening etc.) construction; and
- Construction traffic near the alignment within the works area; and
- Temporary works area .

11.7.1.2 Impacts during the operational phase will be permanent and irreversible. Sources of operational phase impact will include the following:

- Introduction of new built structures (noise mitigation measures, ventilation buildings, etc.) into a rural landscape;
- Operation of the new roads, interchanges, viaducts, bridge and ventilation buildings;
- Loss of vegetation, particularly trees and shrubs; and
- Operation of tunnel administration area including the tunnel administration buildings and associated slope works.

11.7.1.3 As the construction of tunnels are conducted below ground, it is anticipated that there would not be any potential landscape impacts caused by the tunnelling works.

11.7.2 Magnitude of Landscape Impacts

11.7.2.1 The magnitude of unmitigated landscape impacts associated with the construction phase and operational phase of the Project are assessed, and described under **Table 11.7.1** for each LRs and LCAs respectively. During the construction phase, works will be limited to within the works area.

Table 11.7.1 Magnitude of Landscape Impacts During Construction and Operation

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
Lam Tei Quarry Interchange											
LR-LT1	6.5	26,900 m^2	Large	Poor	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Secondary Woodlands in Lam Tei	During construction, this LR will be affected by construction of the Lam Tei Quarry Interchange and associated slope works in Lam Tei. Approximate 26,900 sq.m. (**41%** of this LR) will be affected. Approximate 190 nos. of existing trees are being affected by construction of the Lam Tei Quarry Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel and the planned Tuen Mun Bypass (under separate project) to Kong Sham Western Highway and Yuen Long Highway. Saplings of *Aquilaria sinensis*, a species of conservation interest and TPI, are identified in this LR, and will not be affected. The Magnitude of change is rated as **intermediate**.										
LR-LT2	13.3	54,800 m^2	Large	Poor	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Plantations in Lam Tei	During construction, this LR will be affected by construction of the Lam Tei Quarry Interchange, tunnel portals and associated slope works in Lam Tei. Approximate 54,800 sq.m. (**41%** of this LR) will be affected. Approximate 309 nos. of existing trees are being affected by construction of the Lam Tei Quarry Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel and the planned Tuen Mun Bypass (under separate project) to Kong Sham Western Highway and Yuen Long Highway, tunnel portals and associated slope works in Lam Tei. The magnitude of change is rated as **intermediate**.										
LR-LT7	1,070m	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	negligible	negligible
Watercourses in Lam Tei	**None**										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-LT11	40.4	93,300 m^2	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Developed Areas in Lam Tei	During construction, this LR will be affected by construction of the Lam Tei Quarry Interchange, and viaducts linking with Yuen Long Highway and Kong Sham Western Highway. Approximate 93,300 sq.m. (**23%** of this LR) will be affected. Although this area is largely disturbed with open storage and small industrial / logistics type uses, It is estimated that approximate 437 nos. of existing trees are being affected by construction of the Lam Tei Quarry Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel and the planned Tuen Mun Bypass (under separate project) to Kong Sham Western Highway and Yuen Long Highway, and viaducts linking with Yuen Long Highway and Kong Sham Western Highway. The magnitude of change is rated as **intermediate.**										
LCA-LT1	30.9	32,300 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Lam Tei Rural Fringe Landscape	During construction, this LCA will be affected by construction of the Lam Tei Quarry Interchange, and the viaducts linking with Yuen Long Highway and Kong Sham Western Highway. Approximate 32,300 sq.m. (**10%** of this LCA) will be affected. Approximate 510 nos. of existing trees are being affected by construction of the Lam Tei Quarry Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel and the planned Tuen Mun Bypass (under separate project) to Kong Sham Western Highway and Yuen Long Highway, and the viaducts linking with Yuen Long Highway and Kong Sham Western Highway. The magnitude of change is rated as **intermediate.**										
LCA-LT2	4.3	9,200 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Lam Tei Upland Fringe Landscape	During construction, this LCA will be affected by construction of the Lam Tei Quarry Interchange, and the viaducts linking with Yuen Long Highway and Kong Sham Western Highway. Approximate 9,200 sq.m. (21**%** of this LCA) will be affected. The magnitude of change is rated as **small**.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LCA-LT3	18.2	80,900 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Lam Tei Rural Landscape	During construction, this LCA will be affected by construction of the Lam Tei Quarry Interchange and associated slope works in Lam Tei. Approximate 80,900 sq.m. (**44%** of this LCA) will be affected. Approximate 430 nos. of existing trees are being affected by the construction of Lam Tei Quarry Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel and the planned Tuen Mun Bypass (under separate project) to Kong Sham Western Highway and Yuen Long Highway and associated slope works in Lam Tei. Saplings of *Aquilaria sinensis*, a species of conservation interest and TPI, are identified in this LR, and will not be affected. The magnitude of change is rated as **large**, as the proposed infrastructure works are incompatible with the rural landscape character.										
LCA-LT4	4.1	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	negligible	negligible
Lam Tei Upland Landscape	During construction, this LCA will not be affected by construction of the Lam Tei Quarry Interchange and associated slope works in Lam Tei under the R11 project. However, it is anticipated that this LCA will be affected by another planned road network (under separate projects). The magnitude of change is rated as **negligible**.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section											
LR-SK1	57.1	121,700 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Secondary Woodlands in So Kwun Wat	During construction, this LR will be affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange and associated slope works, as well as temporary works area in Siu Lam. Approximate 121,700 sq.m. (**21%** of this LR) will be affected and permanently lost. (**Figure no. 11.5.3 – 11.5.4**). A small part (~0.22ha) of the fung shui woodland within this LR will be overpassed by a viaduct (span across ~55m, lowest road level +56mPD, lowest level of viaduct bottom + 52.5mPD (viaduct depth: 3.5m, viaduct width: 50m). Alignment of the viaduct is revised to avoid direct impact on the fung shui as far as practicable during construction phase, and viaduct has been elevated to minimize tree pruning. Species identified in fung Shui woodland includes, *Ixonanthes reticulata, Microcos nervosa, Schefflera heptaphylla, Polyspora axillaris, Litsea glutinosa, Tetradium glabrifolium, Syzygium levinei, Antidesma bunius , Ficus hispida, Itea chinensis, Ormosia emarginata, Sterculia lanceolata, Ficus variegata, Aporosa dioica.* Approximate 1,320 nos. of existing trees are being affected by construction of the So Kwun Wat Interchange, the So Kwun Wat – Siu Lam Open Road Section and associated slope works as well as the junction of So Kwun Wat Link Road joining the Tuen Mun Road. 8 nos. of *Ixonanthes reticulata* (TPI) within the Fung Shui Woodland will be unavoidably affected by the viaduct at So Kwun Wat, and proposed to be removed (**Figure 9.5** – location of the 8 nos. directly impacted *Ixonanthes reticulata*). For the shading effect on the Fung Shui Woodland, please refer to **Section 9.5.5.17** for details. The magnitude of change is rated as **large**.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-SK2	33.1	97,800 m^2	Medium	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Plantations in So Kwun Wat	During construction, this LR will be affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange and associated slope works, as well as temporary works area in Siu Lam. Approximate 97,800 sq.m. (**30%** of this LR) will be affected. Approximate 738 nos. of existing trees are being affected by:- • So Kwun Wat Interchange, which comprises slip roads and viaducts, connecting the proposed Lam Tei Tunnel, So Kwun Wat Link Road and So Kwun Wat – Siu Lam Open Road Section • So Kwun Wat Link Road, which comprises an approximately 2.0 km long dual 2-lane carriageway tunnel and associated slip roads and viaducts, connecting to Tuen Mun Road and So Kwun Wat Road, and the proposed So Kwun Wat Interchange The magnitude of change is rated as **Large.**										
LR-SK4	29.2	42,300 m^2	Medium	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Shrublands in So Kwun Wat	During construction, this LR will be affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange, the Tai Lam Chung Tunnel (North Section), the Tai Lam Chung River Viaduct and associated slope works, as well as temporary works area in Siu Lam. Approximate 42,300 sq.m. (14**%** of this LR) will be affected. Approximate 468 nos. of existing trees are being affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange, the Tai Lam Chung Tunnel (North Section), the Tai Lam Chung River Viaduct and associated slope works. The magnitude of change is rated as **intermediate**.										
LR-SK7	1390m	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
Watercourses in So Kwun Wat	**None**										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-SK11	41.4	23,030 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Developed Areas in So Kwun Wat	During construction, this LR will be affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange and associated slope works along Tuen Mun Road, as well as road widening of Tai Lam Chung Road and temporary works area located in Tai Lam Chung Road. Approximate 23,030 sq.m. (**6%** of this LR) will be affected. Approximate 358 nos. of existing trees are being affected. One *Ficus elastic* (T228) in mature size (18m height, 1900mm DBH, 23m crown) (TPI) located along Siu Lam Road (**Figure no. 11.5.3**) are identified within LR-SK11, and will not be affected and to be retained. One *Ficus benghalensis* (T229) in mature size (20m height, 3150mm DBH, 28m crown) (TPI) are located within Crossroads Foundation (private land) (**Figure no. 11.5.4**) are identified within LR-SK11, and will not be affected and recommended to be retained. 4 nos *Ixonanthes reticulata* (TPI) (T232, T231, T233, T234) (size range: 3 to 5m height, 60 to 160mm DBH, 1 to 2m crown) located on the periphery of a proposed temporary works area are identified within this LR , and will not be affected and to be retained (**Figure no. 11.5.3**). The magnitude of change is rated as **small**.										
LR-SK12	1800m	780m (in length)	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Carriageway and roadside planter in So Kwun Wat	During construction, this LR will be affected by construction of the So Kwun Wat Link Road and associated slope works along Tuen Mun Road. Approximate 780m (in length) (**43%** of this LR) will be affected. Approximate 120 nos. of existing trees and 8 nos. likely planted saplings of *Aquilaria sinensis* are being affected by construction of the So Kwun Wat Link Road, which comprises an approximately 2.0 km long dual 2-lane carriageway tunnel and associated slip roads and viaducts, connecting to Tuen Mun Road and So Kwun Wat Road, and the proposed So Kwun Wat Interchange and associated slope works along Tuen Mun Road. For details of the saplings of *Aquilaria sinensis*, please refer to **Section 9.4.2** of the Ecology Chapter.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
	The magnitude of change is rated as **small**.										
LCA-SK3	5.7	9,800 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
So Kwun Wat Village Landscape	During construction, this LCA will be affected by construction of the So Kwun Wat Link Road and associated slope works in So Kwun Wat Road. Approximate 9,800 sq.m. (**17%** of this LCA) will be affected. Approximate 300 nos. of existing trees are being affected by construction of the So Kwun Wat Link Road, which comprises an approximately 2.0 km long dual 2-lane carriageway tunnel and associated slip roads and viaducts, connecting to Tuen Mun Road and So Kwun Wat Road, and the proposed So Kwun Wat Interchange and associated slope works in So Kwun Wat Road. The magnitude of change is rated as **small**.										
LCA-SK4	27.3	76,000 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Tai Lam Country Park Upland Landscape	During construction, this LCA will be affected by construction of the So Kwun Wat Link Road, the So Kwun Wat Interchange and associated slope works. Approximate 76,000 sq.m. (**28%** of this LCA) will be affected. Approximate 1,320 nos. of existing trees are being affected by construction of the So Kwun Wat Link Road, which comprises an approximately 2.0 km long dual 2-lane carriageway tunnel and associated slip roads and viaducts, connecting to Tuen Mun Road and So Kwun Wat Road, and the proposed So Kwun Wat Interchange, the So Kwun Wat Interchange and associated slope works. The magnitude of change is rated as **large**, as the proposed works are incompatible with the country park landscape character**.**										
LCA-SK5	26.4	32,900 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Tuen Mun Road Urban Corridor Landscape	During construction, this LCA will be affected by construction of the So Kwun Wat Link Road linking with Tuen Mun Road and associated slope works in So Kwun Wat. Approximate 32,900 sq.m. (**12%** of this LCA) will be affected. Approximate 360 nos. of existing trees and 8 nos. likely planted saplings of *Aquilaria sinensis* are being affected by construction of the So Kwun Wat Link Road, which comprises an approximately 2.0 km										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
	long dual 2-lane carriageway tunnel and associated slip roads and viaducts, connecting to Tuen Mun Road and So Kwun Wat Road, and the proposed So Kwun Wat Interchange and associated slope works in So Kwun Wat. One *Ficus benghalensis* (T229) in mature size (20m height, 3150mm DBH, 28m crown) (TPI) are located within Crossroads Foundation (private land) (**Figure no. 11.5.14**) are identified within this LCA, and will not be affected and recommended to be retained" The magnitude of change is rated as **small**.										
LCA-SK6	86.7	197,300 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Siu Lam and Tai Lam Chung Foothill Landscape	During construction, this LCA will be affected by construction of the So Kwun Wat Interchange, the tunnel portals for Tai Lam Chung Tunnel (North Section), the Tai Lam Chung River Viaduct and associated slope works. Approximate 197,300 sq.m. (**23%** of this LCA) will be affected. Approximate 890 nos. of existing trees are being affected by construction of the So Kwun Wat Interchange, the tunnel portals for Tai Lam Chung Tunnel (North Section), the Tai Lam Chung River Viaduct and associated slope works. 8 nos. of *Ixonanthes reticulata* (TPI) within the Fung Shui Woodland in this LCA will be unavoidably affected by the viaduct at So Kwun Wat, and proposed to be removed (**Figure 9.5** – location of the 8 nos. directly impacted *Ixonanthes reticulata*). For details, please refer to LR-SK1 Secondary Woodlands in So Kwun Wat in **Table 11.5.1**- Landscape Resources and Their Sensitivity to Change. One *Ficus elastic* (T228) in mature size (18m height, 1900mm DBH, 23m crown) (TPI) located along Siu Lam Road (**Figure no. 11.5.3**) are identified within this LCA, and will not be affected and to be retained (**Figure no. 11.5.13**). 4 nos *Ixonanthes reticulata* (TPI) (T232, T231, T233, T234) (size range: 3 to 5m height, 60 to 160mm DBH, 1 to 2m crown) located on the periphery of a proposed temporary works area are identified within this LCA , and will not be affected and to be retained (**Figure no. 11.5.13**). The magnitude of change is rated as **large**, as the proposed works are incompatible with the foothill landscape character.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LCA-SK7	17.4	30,400 m^2	Medium	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Tai Lam Chung River Valley Landscape	During construction, this LCA will be affected by the construction of the tunnel portals of Tai Lam Chung River Viaduct and associated slope works, as well as road widening of Tai Lam Chung Road. Approximate 30,400 sq.m. (**17%** of this LCA) will be affected. Approximate 93 nos. of existing trees are being affected by construction of the tunnel portals of Tai Lam Chung River Viaduct and associated slope works. The magnitude of change is rated as **intermediate**.										
Tsing Lung Tau Interchange											
LR-TL1	5.5	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
Secondary Woodlands in Tsing Lung Tau	Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in this LR, and will not be affected; for details please refer to **Section 9.4.2** of the Ecology Chapter.										
LR-TL2	26	77,800 m^2	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Plantations / Mixed Woodlands in Tsing Lung Tau	During construction, this LR will be affected by construction of the Tsing Lung Tau Interchange and associated slope works along Tuen Mun Road. Approximate 77,800 sq.m. (**30%** of this LR) will be affected. Approximate 584 nos. of existing trees are being affected by construction of the Tsing Lung Tau Interchange, which comprises slip roads, viaducts and tunnel, connecting the proposed Tai Lam Chung Tunnel and Tsing Lung Bridge to Tuen Mun Road, as well as re-alignment of an approximately 1.4 km long section of Tuen Mun Road at Tsing Lung Tau.. The magnitude of change is rated as **intermediate**.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-TL4	5	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
Shrublands in Tsing Lung Tau	**None**										
LR-TL7	270m	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
Watercourses in Tsing Lung Tau	**None**										
LR-TL11	11.8	70,200 m^2	Large	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Developed Areas in Tsing Lung Tau	During construction, this LR will be affected by road realignment of Tuen Mun Road, construction of Tsing Lung Tau Interchange and the associated slope works along Tuen Mun Road. Approximate 70,200 sq.m. (**60%** of this LR) will be affected by re-alignment of an approximately 1.4 km long section of Tuen Mun Road at Tsing Lung Tau. Due to the road network nature, there are nil tree affected in this LR. For affected trees, please refer to LR-TL12 - Carriageway and roadside planter in Tsing Lung Tau. The magnitude of change is rated as **intermediate**.										
LR-TL12	1200m	550m	Large	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Carriageway and roadside	During construction, this LR will be affected by construction of the Tsing Lung Tau Interchange and associated slope works along Tuen Mun Road. Approximate 550m (**45%** of this LR) will be affected. Approximate 10 nos. of existing trees are being affected by construction of the re-alignment of an approximately 1.4 km long section of Tuen Mun Road at Tsing Lung Tau.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
planter in Tsing Lung Tau	The magnitude of change is rated as **intermediate**.										
LCA-TL5	43	146,000 m^2	Large	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Tsing Lung Tau Urban Landscape	During construction, this LCA will be affected by construction of the Tsing Lung Tau Interchange, tunnel portals, ventilation building and associated slope works along Tuen Mun Road. Approximate 146,000 sq.m. (**34%** of this LCA) will be affected. Approximate 590 nos. of existing trees are being affected by construction of the re-alignment of an approximately 1.4 km long section of Tuen Mun Road at Tsing Lung Tau, and the Tsing Lung Tau Interchange, which comprises slip roads, viaducts and tunnel, connecting the proposed Tai Lam Chung Tunnel and Tsing Lung Bridge to Tuen Mun Road. Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in this LCA (**Figure no. 11.5.15**) and will not be affected; for details please refer to **Section 9.4.2** of the Ecology Chapter. The magnitude of change is rated as **intermediate**.										
LCA-TL6	5.5	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
To Hang Tung Foothill Landscape	**None**										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
Tsing Lung Bridge and North Lantau Interchange											
LR-NL1	7.2	6,640 m^2	Small	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Secondary Woodlands in North Lantau	During construction, this LR will be partially affected by construction of the Tsing Lung Bridge, the North Lantau Interchange and associated slope works. Approximate 6,640 sq.m. (**9%** of this LR) will be affected. Approximate 73 nos. of existing trees are being affected by construction of the Tsing Lung Bridge, the North Lantau Interchange and associated slope works. The magnitude of change is rated as **small**.										
LR-NL2	27.4	31,500 m^2	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Plantations in North Lantau	During construction, this LR will be affected by construction of the North Lantau Interchange and associated slope works. Approximate 31,500 m.sq. (**11%** of this LR) will be affected. Approximate 280 nos. of existing trees are being affected by construction of the North Lantau Interchange and associated slope works. The magnitude of change is rated as **intermediate**.										
LR-NL4	23	103,800 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Shrublands in North Lantau	During construction, this LR will be affected by construction of the North Lantau Interchange, administration building and associated slope works. Approximate 103,800 sq.m. (**45%** of this LR) will be affected. Approximate 190 nos. of existing trees are being affected by construction of the North Lantau Interchange, administration building and associated slope works. The magnitude of change is rated as **large**, as the shrublands and the landform in Ng Kwu Leng will be permanently lost.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-NL7	570m	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	Negligible	Negligible
Watercourses in North Lantau	**None**										
LR-NL10	49.6	22,000 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Seawater Body and Shorelines at Ha Pang Fairway	During construction, this LR will be affected by construction of the reclamation. Approximate 22,000 sq.m. (**4%** of this LR) will be permanently lost due to the reclamation of approximately 2.2 ha for construction of bridge tower at Tsing Lung Tau. The magnitude of change is rated as **negligible.**										
LR-NL11	24.8	148,900 m^2	Medium	Fair	Fair	Temporary	N/A	Irreversible	Irreversible	Intermediate	Intermediate
Developed Areas in North Lantau	During construction, this LR will be affected by road realignment of North Lantau Highway, and the associated slope works, as well as temporary works area in To Kau Wan. Approximate 148,900 sq.m. (**60%** of this LR) will be affected. Due to the road network nature, there are nil tree in this LR. For affected trees, please refer to LR-NL12 - Carriageway and roadside planter in North Lantau. The magnitude of change is rated as **intermediate**.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LR-NL12	660m	250m	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
Carriageway and roadside planter in North Lantau	During construction, this LR will be affected by construction of the North Lantau Interchange and associated slope works. Approximate 250m (**38%** of this LR) will be affected. No existing trees are being affected by construction of the North Lantau Interchange and associated slope works. The magnitude of change is rated as **intermediate**.										
LCA-NL4	4.6	Nil	Nil	N/A	N/A	N/A	N/A	Irreversible	Irreversible	negligible	negligible
North Lantau Fa Peng Teng Upland Landscape	**None**										
LCA-NL8	49.4	22,000 m^2	Small	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Small	Small
Ha Pang Fairway Maritime Landscape	During construction, this LR will be affected by construction of the reclamation. Approximate 22,000 sq.m. (**4%** of this LCA) will be permanently lost due to the reclamation of approximately 2.2 ha for construction of bridge tower at Tsing Lung Tau. The magnitude of change is rated as **small.**										
LCA-NL9	48	208,900 m^2	Large	Poor	Poor	Temporary	Permanent	Irreversible	Irreversible	Large	Large
Ng Kwu Leng Peninsular Landscape	During construction, this LCA will be affected by construction of the North Lantau Interchange, administration building and associated slope works. Approximate 208,900 sq.m. (**43%** of this LCA) will be affected. Approximate 320 nos. of existing trees are being affected by construction of the North Lantau Interchange, administration building and associated slope works. The magnitude of change is rated as **large**, as the proposed works are incompatible with the peninsular landscape character.										

LR/ LCA	Approx. Area within study area (ha)	Approx. affected extent (m/m^2)	Physical extent of impact (Nil /Small/ Medium/ Large)	Compatibility with Surrounding Landscape (Good /Fair /Poor)		Duration of Impact (Temporary, Permanent)		Reversibility of Change (Reversible/ Irreversible)		Magnitude of Change (Large/ Intermediate/ Small/ Negligible)	
				Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation
LCA-NL10	28.80	87,100 m^2	Medium	Fair	Fair	Temporary	Permanent	Irreversible	Irreversible	Intermediate	Intermediate
North Lantau Highway Corridor Landscape	During construction, this LCA will be affected by construction of the North Lantau Interchange and associated slope works. Approximate 87,100 sq.m. (**30%** of this LCA) will be affected. Approximate 220 nos. of existing trees are being affected by construction of the North Lantau Interchange and associated slope works. The magnitude of change is rated as **intermediate.**										

Note : N/A = not applicable

11.8 Visual Impact Assessment

11.8.1 Sources of Visual Impacts

11.8.1.1 The sources of visual impacts in the construction phase would include:

- Site clearance and tree removal/transplanting;
- Site formation works;
- Modification and construction of the tunnel portal areas with major slope works and associated ventilation buildings;
- Construction of new roads, widening of existing roads, construction of noise barriers/ semi-noise enclosures and associated slope works;
- Construction of Tsing Lung Bridge, which is an approximately 1.9 km long dual 4-lane carriageway suspension bridge, crossing over the Ha Pang Fairway and connecting the proposed Tsing Lung Tau Interchange and North Lantau Interchange, with reclamation of approximately 2.2 ha for construction of bridge tower at Tsing Lung Tau;
- Temporary site areas, site offices, haul road, materials, plant, hoarding, construction traffic, etc.
- Dust and construction debris; and
- Potential night-time glare arising from the lighting of construction activities.

11.8.1.2 The sources of visual impacts in the operational phase would include:

- Operation of tunnel portal areas with major slope works and associated ventilation buildings;
- Operation of tunnel administration area including the tunnel administration buildings, vehicular bridge, pedestrian footbridge and associated slope works;
- Operation of Tsing Lung Bridge, which is an approximately 1.9 km long dual 4-lane carriageway suspension bridge, crossing over the Ha Pang Fairway and connecting the proposed Tsing Lung Tau Interchange and North Lantau Interchange, with reclamation of approximately 2.2 ha for construction of bridge tower at Tsing Lung Tau;
- Operation of new lanes, widened existing slip roads, noise barriers/ semi-noise enclosures and associated slope works; and
- Increased road traffic and road lighting.

11.8.1.3 The locations and development details of permanent aboveground structures that would cause potential visual impact are summarised in **Table 11.8.1**. Please refer to **Section 2.7** and **Figure 2.2a** to **Figure 2.2h** for locations and details.

Table 11.8.1 Locations and Development Details of Permanent Aboveground Structures

Location	Approximate Height of the Structure (m)
Lam Tei Quarry	9m (Administration building & Workshop) 24m (Ventilation Building)
So Kwun Wat	24m (Ventilation Building)
Pak Shek Hang	24m (Ventilation Building)
Tai Lam Chung	24m (Ventilation Building)
Tsing Lung Tau	24m (Ventilation Building)
North Lantau	9m (Administration building & Workshop)

11.8.1.4 As the construction of tunnels are conducted below ground, it is anticipated that there would not be any potential visual impacts. The magnitude of changes during construction and operational phases are assessed based on the compatibility of the Project with the surrounding landscape, scale of development, reversibility of change, approximate viewing distance, and potential blockage of view as shown in **Table 11.8.2**.

11.8.1.5 The significance of visual impacts, before the implementation of mitigation measures, in the construction phase and operational phase are assessed in accordance with the methodology set out in **Table 11.3.2** of the Report.

Table 11.8.2 Magnitude of Change in Views for VSRs

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
Lam Tei Quarry Interchange										
VSR-LT1	Residents of Parkland Villas	Medium	Medium	No	950m	Partial / Glimpsed	Short	Long	Intermediate	Intermediate
VSR-LT2	Residents of Fu Tai Estate	Medium	Medium	No	500m	Partial	Short	Long	Intermediate	Intermediate
VSR-LT3	Residents of Lo Fu Hang	Medium	Large	No	120m	Partial	Short	Long	Large	Large
VSR-LT4	Vehicle Travellers on Yuen Long Highway(Eastbound)	High	Medium	No	10m	Partial	Short	Long	Intermediate	Small
VSR-LT5	Residents of Fuk Hang Tsuen	Medium	Large	No	50m	Partial	Short	Long	Large	Large
VSR-LT6	Residents of The Sherwood	Medium	Large	No	110m	Partial	Short	Long	Large	Large
VSR-LT7	Vehicle Travellers on Kong Sham Western Highway (Southbound)	High	Medium	No	10m	Glimpsed	Short	Long	Intermediate	Small
VSR-LT8	Residents of Tsoi Yuen Tsuen	Medium	Large	No	50m	Partial / Glimpsed	Short	Long	Large	Large
VSR-LT9	Vehicle Travellers on Yuen Long Highway(Westbound)	High	Medium	No	10m	Partial	Short	Long	Intermediate	Small

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-LT10	Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir	Low	Large	No	70m	Partial	Short	Long	Negligible	Negligible
VSR-LT11	Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai	Low	Large	No	90m	Full	Short	Long	Large	Large
So Kwun Wat Link Road										
VSR-SK1	Trail Walkers on MacLehose Trail Section 10 (West)	Low	Large	No	10m	Partial	Short	Long	Large	Large
VSR-SK2	Vehicle Travellers on Tuen Mun Road	High	Medium	No	10m	Partial	Short	Long	Small	Small
VSR-SK3	Residents of The Bloomsway	Medium	Medium	No	220m	Partial	Short	Long	Large	Intermediate
VSR-SK4	Students and staff at Harrow International School Hong Kong	Medium	Medium	No	120m	Partial	Short	Long	Large	Intermediate
VSR-SK5	Residents of Hong Kong Gold Coast	Medium	Medium	No	160m	Partial	Short	Long	Intermediate	Small

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-SK6	Residents of Aegean Coast	Medium	Medium	No	290m	Partial	Short	Long	Large	Intermediate
VSR-SK7	Residents of Avignon	Medium	Medium	No	70m	Partial	Short	Long	Intermediate	Small
VSR-SK26	Vehicle Travellers on Castle Peak Road – So Kwun Wat	High	Medium	No	350m	Partial	Short	Long	Small	Small
VSR-SK27	Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School	Low	Medium	No	160m	Partial	Short	Long	Intermediate	Small
VSR-SK28	Students and Staff at Chu Hai College of Higher Education	Low	Medium	No	300m	Glimpsed	Short	Long	Intermediate	Small
So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section										
VSR-SK8	Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road	Low	Medium	No	500m	Partial	Short	Long	Large	Intermediate
VSR-SK9	Trail Walkers on MacLehose Trail Section 10 (East)	Low	Large	No	10m	Glimpsed	Short	Long	Large	Intermediate

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-SK10	Residents of So Kwun Wat Tsuen	Low	Medium	No	600m	Partial	Short	Long	Large	Intermediate
VSR-SK11	Residents of So Kwun Wat San Tsuen	Low	Medium	No	330m	Partial	Short	Long	Large	Intermediate
VSR-SK12	Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre	Low	Medium	No	200m	Glimpsed	Short	Long	Large	Intermediate
VSR-SK13	Vehicle Travellers on Siu Lam Road	Low	Medium	No	10m	Partial	Short	Long	Large	Intermediate
VSR-SK14	Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road	Low	Large	No	170m	Glimpsed	Short	Long	Small	small
VSR-SK15	Residents of Palatial Coast	Low	Large	No	320m	Partial	Short	Long	Large	Intermediate
VSR-SK16	Residents of Siu Lam	Low	Large	No	120m	Partial	Short	Long	Large	Intermediate
Tai Lam Chung River Viaduct										
VSR-SK21	Visitors on Tai Lam Chung Reservoir Main Dam	Low	Large	No	710m	Partial	Short	Long	Large	Intermediate

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-SK22	Pedestrians using the footbridge over Tai Lam Chung River	Low	Large	No	200m	Partial	Short	Long	Large	Intermediate
VSR-SK23	Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam	Low	Large	No	660m	Partial	Short	Long	Intermediate	Intermediate
VSR-SK24	Trail walkers on the summit of Hill 141	Low	Large	No	50m	Glimpsed	Short	Long	Large	Intermediate
VSR-SK25	Trail walkers on the summit to the south of To Hang Tung	Low	Large	No	520m	Glimpsed	Short	Long	Intermediate	Intermediate
VSR-SK29	Residents of Tai Lam Chung Tsuen	Low	Large	No	100m	Partial	Short	Long	Large	Intermediate
VSR-SK30	Students and Staff at Hong Kong Customs College	Low	Large	No	550m	Glimpsed	Short	Long	Large	Intermediate
VSR-SK31	Staff and Visitors at Tai Lam Correctional Institution	Low	Large	No	60m	Partial	Short	Long	Large	Intermediate
Tsing Lung Tau Interchange and Tsing Lung Bridge (North)										
VSR-TL1	Vehicle travellers on Tuen Mun	Medium	Medium	No	350m	Partial	Short	Long	Small	Small

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
	Road (westbound)									
VSR-TL2	Residents of Bellagio / Ocean Pointe	Medium	Large	No	2500m	Full	Short	Long	Intermediate	Intermediate
VSR-TL3	Residents of Hong Kong Garden, Vista Cove and L'Aquatique	Medium	Large	No	200m	Full	Short	Long	Large	Large
VSR-TL4	Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (East Bound)	Medium	Medium	No	500m	Partial	Short	Long	Intermediate	Intermediate
VSR-TL5	Vehicle Travellers on Tuen Mun Road (eastbound)	Medium	Medium	No	450m	Partial	Short	Long	Intermediate	Intermediate
VSR-TL11	Pedestrian Footbridge across Castle Peak Road - Tsing Lung Tau	Medium	Large	No	550m	Full	Short	Long	Large	Large
VSR-TL12	Travellers in Tsing Lung Tau Ferry Pier	Medium	Large	No	890m	Full	Short	Long	Large	Large
VSR-TL13	Travellers in Sham Tseng Public Pier	Medium	Medium	No	2090m	Partial	Short	Long	Intermediate	Intermediate

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-TL14	Residents of Sea Crest Villa Phase 4	Medium	Large	No	1300m	Partial	Short	Long	Intermediate	Intermediate
– Tsing Lung Bridge (South) and North Lantau Interchange										
VSR-NL1	Vehicle Travellers on North Lantau Highway (Westbound)	High	Medium	No	10m	Partial	Short	Long	Large	Intermediate
VSR-NL2	Trail Walkers on Summit of Fa Peng Teng	Low	Large	No	550m	Full	Short	Long	Intermediate	Intermediate
VSR-NL3	Vehicle Travellers at Lantau Link Toll Plaza	High	medium	No	10m	Partial	Short	Long	Large	Intermediate
VSR-NL4	Travellers in Ma Wan Public Pier	Medium	Large	No	1060m	Full	Short	Long	Intermediate	Intermediate
VSR-NL5	Vehicular Travellers on Kap Shui Mun Bridge	High	Large	No	360m	Partial	Short	Long	Intermediate	Intermediate
VSR-NL6	Visitors at Sunny Bay Promenade	Low	Large	No	1000m	Full	Short	Long	Intermediate	Intermediate
VSR-NL7	Maritime Travellers in Ha Pang Fairway	Medium	Large	No	1100m	Partial	Short	Long	Intermediate	Intermediate

VSR ID	Visually Sensitive Receiver (VSR)	Compatibility of Project with Surroundings (High, Medium, Low, Negligible)	Scale of Development (Large, Medium, Small, Negligible)	Reversibility of Change (Yes, No)	Approximate Viewing Distance (m)	Degree of Visibility (Full, Partial Blockage of View, Glimpsed, No View)	Duration of Impacts (Short, Long)		Magnitude of Change (Small, Intermediate, Large)	
							Construction	Operation	Construction	Operation
VSR-NL8	Residents of Park Island	Medium	Large	No	1300m	Full	Short	Long	Intermediate	Intermediate
VSR-NL9	Future Users at Planned Sunny Bay Reclamation Area	Low	Large	No	250m	Partial	Short	Long	Intermediate	Intermediate
VSR-NL10	Future Vehicle Travellers on Planned Road P1	High	Large	No	800m	Partial	Short	Long	Intermediate	Intermediate

11.9 Landscape and Visual Mitigation Measures

11.9.1 Background

11.9.1.1 Mitigation measures are proposed to minimise impacts on the landscape and visual amenity of the area within the visual envelope. These measures include strategies for reducing, offsetting and compensating impacts during construction and operational phases are described in **Table 11.9.1** and **Table 11.9.2**.

11.9.2 Preliminary Recommended Mitigation Measures

11.9.2.1 The assumption has been made in the assessment that all mitigation proposals in this assessment are practical and achievable within the known parameters of funding, implementation, management and maintenance.

11.9.2.2 The construction phase mitigation measures described in **Table 11.9.1** will be adopted from the commencement of construction and will be in place throughout the entire construction period.

Table 11.9.1 Proposed Visual Enhancement and Landscape Mitigation Measures – Constructional Phase

ID No.	Construction Phase Mitigation Measures	Funding Agency	Implementation Agency
CM01	**Tree Protection and Preservation** Trees within the works areas which are not affected by the works shall be protected and preserved during the detailed design stage and construction phase. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at the detailed design stage for further retention of individual trees. The preservation of existing tree shall provide instant greening and screening effect for proposed works. Tree protection works to be undertaken in accordance with DEVB TC(W) 4/2020 on "Tree Preservation" and tree risk assessment in accordance with "Guidelines for Tree Risk Assessment and Management Arrangement" by DEVB. The performance of the retained trees shall be monitored throughout the construction period on a monthly basis by a qualified arborist. The Contractor shall submit monthly record photo throughout the construction period for all retained trees, to demonstrate the trees' health condition. All monthly record photos for the retained trees shall be prepared by a tree specialist or a qualified arborist, and endorsed by a Registered Landscape Architect (RLA).	HyD	HyD (via Contractor)
CM02	**Tree Transplantation** Should removal of trees be unavoidable due to construction impacts, trees should be transplanted to other permanent locations, if practicable. Detailed transplanting proposal will be submitted to relevant government departments for approval, and shall be in accordance with "Guidelines on Tree Transplanting" by DEVB. Final locations of transplanted trees shall be agreed prior to commencement of the work.	HyD	HyD (via Contractor)

ID No.	Construction Phase Mitigation Measures	Funding Agency	Implementation Agency
	The performance of the transplanted trees shall be monitored throughout the construction period by a qualified arborist. The monthly record photos shall be prepared by a qualified arborist, and are endorsed by a Registered Landscape Architect (RLA).		
CM03	**Works Area and Temporary Works Areas** Construction area control, where possible, to ensure that the landscape and visual impacts arising from the construction activities are minimized, and all affected area will be reinstated accordingly. This includes the reduction of the extent and location of working areas to avoid sensitive LRs, siting of offices or temporary structures so that they are not visually prominent, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimize soil erosion.	HyD	HyD (via Contractor)
CM04	**Advance Implementation of Mitigation Planting** Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase. The priority shall be areas at the periphery of the site to ensure that proposed planting fulfils its role in mitigating the predicted impacts including screening views of the proposals as early as possible during the operational phase.	HyD	HyD (via Contractor)
CM05	**Decorative Screen Hoarding** Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publicly accessible routes and/or is close to visually sensitive receivers (VSRs) to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	HyD	HyD (via Contractor)
CM06	**Control of Night-time Lighting** Control of night-time lighting and Construction traffic (land and sea) reduced to practical minimum.	HyD	HyD (via Contractor)

11.9.2.3 In addition to measures described in the **Table 11.9.1**, there are a number of measures such as construction site controls, including the storage of materials, and the location and appearance of site accommodation and site storage, the control of night-time lighting to reduce potential glare and the preservation of existing topsoil for re-use which are considered good site practice. In addition, the construction of

the Project shall be coordinated with the implementation programme for concurrent projects to minimise impacts and where possible reduce the period of disturbance.

11.9.2.4 The operational phase measures are described in **Table 11.9.2** below, together with an indication of Funding and implementation agency, and illustrated in **Figure 11.9.1** to **Figure 11.9.14.**

Table 11.9.2 Proposed Visual Enhancement and Landscape Mitigation Measures – Operational Phase

ID No.	Mitigation Measures	Funding Agency	Implementation Agency
OM01	**Integrated Design Approach** The aboveground structures of the Project including viaducts, tunnel portals, ventilation buildings, tunnel administration buildings, etc. in the regard of layouts, forms, materials and finishes shall be sensitively designed and an integrated design approach, so as to blend in the structures to the adjacent landscape and visual context. Design concepts like matching colour schemes among the existing building façade and the new administration building shall be fully explored in the design stage in order to maintain the original sentiment. ACABAS submission upon completion of conceptual design should be in accordance with ETWB TC(W) No. 36/2004 – The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS). Aesthetic treatment and design of the associated structures and tunnel ventilation buildings should be vetted and advised upon by ArchSD in accordance with ETWB TC(W) No. 8/2005 – Aesthetic Design of Ancillary Buildings in Engineering Projects.	HyD	HyD (via Contractor)
OM02	**Roadside Buffer Planting / Roadside Planting** These planting areas will utilize largely native tree and shrub species either with high canopy and thin foliage to allow visual access in the views from the adjacent landscape to the distant roadside or rural landscape or dense foliage at selected locations to provide shaded environment for pedestrians and the creation. Greening provision in the early project planning stage and shall be in accordance with DEVB TC(W) No. 2/2012 – Allocation of Space for Quality Greening on Roads. Native tree planting on the existing and proposed cut slopes will improve the ecological connectivity between existing woodland habitats with the advantage of creating a more coherent landscape framework. Vertical greening with native self-clinging climbing would be adopted as far as practical.	HyD	HyD (via Contractor)

ID No.	Mitigation Measures	Funding Agency	Implementation Agency
OM03	**Compensatory Planting Proposals** In accordance with DEVB TC(W) No. 4/2020, the compensatory planting proposal should have the basic primary objective of planting compensatory trees in a ratio not less than 1:1 in terms of quantity as far as practicable. With the implementation of the proposed compensatory planting plan, there will be no net loss of trees in terms of quantity as far as practicable. The number of trees to be planted will be determined following the completion of the detailed tree survey in Detail Design stage of the project.	HyD	HyD (via Contractor)
OM04	**Post-Planting Monitoring** Post-planting monitoring of the compensatory trees shall be undertaken (namely duration of the post-planting monitoring and monitoring methodology). The monitoring will be aimed to assess the success and performance of the compensatory planting trees, monitor the growth performance of the planted seedlings and whips, and identify any need of vegetation and site maintenance work. All monthly record photos shall be prepared by a tree specialist or a qualified arborist, and endorsed by a Registered Landscape Architect (RLA).	HyD	HyD (via Contractor) / AFCD
OM05	**Greening Works on Slopes and Associated Structures** The design and implementation of the aesthetic appearance of the retaining wall and slopes will be undertaken in accordance with GEO Publication No. 1/2011 – Technical Guidelines on Landscape Treatment for Slopes (2011), and WBTC No. 17/2000 on Improvement to the Appearance of Slopes. All aesthetic treatment shall seek the committee's view in accordance with the ETWB TC(W) No. 36/2004 – The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS). The engineered structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting to give these man-made features a more natural appearance and blending them into the local rural landscape. Light standard sized tree planting will be used on the face of soil cut slopes with a gradient of less than 30 degrees, at the crest and toe of the slope, and within berm planters. These smaller, younger plants will adapt to their new growing conditions more quickly than larger sized stock	HyD	HyD (via Contractor)

ID No.	Mitigation Measures	Funding Agency	Implementation Agency
	and establish a naturalistic effect more rapidly. Slopes with a gradient of greater than 30 degrees will be hydroseeded using a mixture of native trees and shrubs. Vertical greening measures shall also be considered on engineering structures. This includes the use of climbing and trailing plants both planted at the crest and toe of the features, and within pockets within the slopes. It is proposed that native species be used to enhance the ecological value of the road corridor and minimize potential maintenance requirements. These measures will be applied to the retaining walls and newly regraded slopes features. Vertical greening with native self-clinging climbing would be adopted as far as practical.		
OM06	**Design of Tunnel Portals and Landscape Treatment** The design of the tunnel portals shall be sensitive form, height and disposition to minimize impact on perceived bulk and views to visual resources. The "natural terrain" idea will be applied to the design of tunnel portals, and should provide: ▪ Tunnel entry and exit portals and approaches with a minimal physical and visual footprint, retaining or reinstating as much as possible of the surrounding landform and vegetation; ▪ Simple, sculptural portal structures (preferably elliptical, parabolic or circular forms) against a backdrop of vegetation; and ▪ Compatible and blend in with existing site context and background. All aesthetic treatment shall seek the committee's view in accordance with the ETWB TC(W) No. 36/2004 – The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS). Vertical greening with native self-clinging climbing would be adopted as far as practical.	HyD	HyD (via Contractor)
OM07	**Design of an Elegant Bridge Structure and Approach Roads** The proposed Tsing Lung Bridge across the Ha Pang Fairway, from Tsing Lung Tau to Kwai Shek at North Lantau will be large and visually prominent structure. As such it is important that careful attention is given to the design of the structure, the associated approaches and the small reclamation for bridge tower on Tsing Lung Tau. Bridge structure shall seek the committee's view in accordance with the ETWB TC(W) No. 36/2004 – The	HyD	HyD (via Contractor)

ID No.	Mitigation Measures	Funding Agency	Implementation Agency
	Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS).		
OM08	**Provision of Visually Pleasing Aesthetic Treatment of Noise Mitigation Measures** Translucent plexiglass with aesthetic pattern will be fully considered for design of noise barrier and noise enclosure to enhance visual interest. Where opaque panels are used, colour and tone of panels will match with the existing and/or future landscape context. To ensure the design compatibility of the proposed noise barriers and noise enclosure are integrated with the surrounding landscape setting, the design will consider architectural and aesthetical considerations in determining the overall form and articulation of the surface textures and colours. The design will make reference to the "Guidelines on Design of Noise Barriers" jointly published by EPD and HyD, and Guidelines on Greening of Noise Barriers (4/2012), GLTM of DEVB. All noise mitigation measures shall seek the committee's view in accordance with the ETWB TC(W) No. 36/2004 – The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS).	HyD	HyD (via Contractor)
OM09	**Provision of Green Roof** Green Roof shall be proposed to enhance the landscape quality of the Aboveground Structures including Tunnel Administration Building and Ventilation Buildings and mitigate any potential adverse visual impact on adjacent VSRs. The extent of roof greening shall be in accordance with DEVB TC(W) No. 3/2012 – Site Coverage of Greenery for Government Building Projects.	HyD	HyD (via Contractor)

11.10 Residual Impact

11.10.1 Significance of Residual Landscape Impacts

11.10.1.1 The assessment assumes that the proposed landscape mitigation measures during the construction and operational phases are described in **Table 11.9.1** and **Table 11.9.2** above are fully implemented.

11.10.1.2 There will be a number of impacts on LRs and LCAs from the Route 11 alignment during both the construction and operational phases, following the implementation of the proposed mitigation measures. However, these impacts will be confined to areas within the 100m landscape assessment area.

11.10.1.3 Potential impacts on LRs and LCA with mitigation during the construction and operational phases for each road section as described in the sections below. An evaluation of the potential impacts for each road section and the residual landscape impacts for the LRs and LCAs are also presented below and summarised in **Table 11.10.2**.

11.10.2 Residual Impacts on LRs and LCAs

Lam Tei Quarry Interchange

11.10.2.1 The main impacts for the LRs associated with the Lam Tei Quarry Interchange will be the loss of about 26,900m² of LR-LT1 Secondary Woodlands in Lam Tei and about 54,800m² of LR-LT2 Plantations in Lam Tei, due to the alignment of the elevated viaducts from the Yuen Long Highway and Kong Sham Western Highway to the Lam Tei Quarry Interchange at Lam Tei Quarry. It is estimated that approximate 190 nos. and 309 nos. of existing trees of LR-LT1 (secondary woodlands in Lam Tei) and LR-LT2 (plantations in Lam Tei) will be affected respectively. Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in LR-LT1 Secondary Woodlands in Lam Tei , and will not be affected. Given the relative scale of the proposals, and with the implementation of proposed mitigation (**Table 11.9.1** and **Table 11.9.2**), the residual impact significance after mitigation during construction phase would be **moderate** for both LR-LT1 (Secondary Woodlands in Lam Tei) and LR-LT2 (Plantations in Lam Tei).

11.10.2.2 During the operational phase, with the planting of new trees within the works areas for the proposed Lam Tei Quarry Interchange, it is anticipated that the resulting impact significance of LR-LT1 (Secondary woodlands in Lam Tei) and LR-LT2 **(**Plantations in Lam Tei**)** after mitigation will be **Moderate** at Day 1 and **Slight** at Year 10.

11.10.2.3 It is predicted that there would not be any discernible impact on LR-LT7 Watercourses in Lam Tei.

11.10.2.4 Other potential impacts include the loss of about 93,300m² of LR-LT11 (Developed areas in Lam Tei), in the village area of Fuk Hang Tsuen, although this area is largely disturbed with open storage and small industrial / logistics type uses. It is estimated that approximate 437 nos. of existing trees are affected. As such, during both the construction phase and the operational phase, the magnitude of change will be **Intermediate**. It is anticipated that the impact significance after mitigation will continue to be **Slight** at Day 1 and **Insubstantial** at Year 10.

11.10.2.5 The Lam Tei Quarry Interchange will potentially impact three LCAs, namely LCA-LT1 Lam Tei Rural Fringe Landscape, LCA-LT2 Lam Tei Upland Fringe

Landscape, and LCA-LT3 Lam Tei Rural Landscape, although these areas are largely disturbed landscapes owing to the current land uses. It is estimated that approximate 510 nos., and 430 nos. of existing trees of LCA-LT1 Lam Tei Rural fringe Landscape, and LCA-LT3 Lam Tei Rural Landscape will be affected respectively. With the implementation of the proposed mitigation measures in Day 1 and Year 10 of the operational phase,including roadside tree and shrub planting, the residual impact significance of LCA-LT1 Lam Tei Rural Fringe Landscape and LCA-LT2 Lam Tei Upland Fringe Landscape are expected to be **Insubstantial**, while LCA-LT3 Lam Tei Rural Landscape is expected to be **Slight**.

So Kwun Wat Link Road, So Kwun Wat Interchange, So Kwun Wat – Siu Lam Open Road Section

11.10.2.6 The Route 11 alignment in the So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section will lead to a loss of about 121,700m² of LR-SK1 Secondary Woodlands in So Kwun Wat on either side of the Tuen Mun Road and at the eastern end to the north-east of So Kwun Wat Tsuen. An area in Pak Shek Hang in So Kwun Wat will also be permanently and irreversibly affected. It is estimated that approximate 1,320 nos. of existing trees are affected. 8 nos. of *Ixonanthes reticulata* (TPI) (Tree ID no. T035, T036, T058, T067, T069, T070, T079, T083) within the Fung Shui Woodland will be unavoidably affected by the So Kwun Wat viaduct, and proposed to be felled (refer to **Figure 9.5** – location of the 8 nos. directly impacted *Ixonanthes reticulata*). For the shading effect on the Fung Shui woodland, please refer to **Section 9.5.5.17** of the Ecology chapter for details. During the construction phase with mitigation, the impact significance would be **moderate**. With the planting of new roadside trees as part of the mitigation approach, the impact significance at Day 1 and Year 10 would be both **Moderate** respectively.

11.10.2.7 There are also areas where LR-SK2 Plantations in So Kwun Wat will be permanently and irreversibly affected resulting in **Large** magnitude of change during the construction phase with mitigation and an impact significance of **Moderate**. It is estimated that approximate 738 nos. of existing trees are affected. With the planting of new trees as part of the mitigation measures along the So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section, it is anticipated that the residual impact significance after mitigation will be **Moderate** at Day 1 and **Slight** at Year 10.

11.10.2.8 The So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section would also lead to the permanent loss of about 42,300m² of LR-SK4 Shrublands in So Kwun Wat, located to the east and west of So Kwun Wat Tsuen and with a small area located in Pak Shek Hang. It is estimated that approximate 468 nos. of existing trees are affected. It is anticipated that the residual impact significance after mitigation will be **Moderate** at Day 1 and **Slight** at Year 10.

11.10.2.9 It is predicted that there would not be any discernible impact on LR-SK7 Watercourses in So Kwun Wat.

11.10.2.10 Approximately 23,030m² of LR-SK11 Developed Areas in So Kwun Wat would be permanent and irreversibly affected by the So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section, although these areas are largely disturbed and comprising of hardstanding for serving as open storage. It

is estimated that approximate 358 nos. of existing trees are affected. They include areas immediately adjacent to the Tuen Mun Road, north-east of So Kwun Wat Tsuen and the development north-east of Siu Lam, as well as along Tai Lam Chung Road. With the implementation of the mitigation measures, the residual impact significance during Day 1and Year 10 of the operational phase would be **Slight** and **Insubstantial**.

11.10.2.11 Approximately 780m (in length) of LR-SK12 Carriageway and roadside planter in So Kwun Wat, located on roadside engineered slopes in Tuen Mun Road will be affected. It is estimated that approximate 120 nos. of existing trees and 8 nos. of likely planted saplings of *Aquilaria sinensis* are affected. For details of the saplings of *Aquilaria sinensis*, please refer to **Section 9.4.2** of the Ecology Chapter. With the adoption of the proposed landscape mitigation measures, including new shrub planting during the operational phase, the magnitude of changewill be **Small** and the impact significance will be **Insubstantial** at Day 1 and Year 10.

11.10.2.12 The LCA-SK3 So Kwun Wat Village Landscape will experience changes to its character from the introduction of engineering road into the landscape setting. It is anticipated that about 9,800m² (17% of this LCA) of LCA-SK3 So Kwun Wat Village Landscape will be permanently lost. It is estimated that approximate 300 nos. of existing trees are affected. Residual impact significance is expected to be **Slight** and **Insubstantial** in Day 1 and Year 10 of the operational phase.

11.10.2.13 The use of a tunnel section will also mitigate some of the potential impacts for LCA-SK4 Tai Lam Country Park Upland Landscape. It is anticipated that about 76,000m² (28% of this LCA) will be used to accommodate the tunnel portals and approach roads at the eastern and western ends of the So Kwun Wat Link Road. It is estimated that approximate 1,320 nos. of existing trees are affected. With the implementation of the proposed landscape mitigation measures during Day 1 and Year 10 of the operational phase, the impact significance will be **Moderate** and **Slight**.

11.10.2.14 At the western end of the So Kwun Wat Link Road, the alignment interface with the Tuen Mun Road, impacting upon about 32,900m² (12% of this LCA) of LCA-SK5 Tuen Mun Road Urban Corridor Landscape and leading to the loss of roadside vegetation. It is estimated that approximate 360 nos. of existing trees and 8 nos. likely planted saplings of *Aquilaria sinensis* are affected. The adoption of the landscape mitigation measures at Day 1 and Year 10 of the operational phase will lead to a residual impact significance of **Slight** and **Insubstantial**.

11.10.2.15 Despite the use of two tunnel sections, the works for the portal of Tai Lam Chung Tunnel (South Section) and Tai Lam Chung River Viaduct will have potential impacts upon LRs including LR-SK1 Secondary woodland in So Kwun Wat and LR-SK4 Shrublands in So Kwun Wat, located on the valley sides to the east and west of the Tai Lam Chung watercourse.

11.10.2.16 The use of tunnel design largely avoids impacts to LCA-SK6 Siu Lam and Tai Lam Chung Foothill Landscape, with impacts being limited to the tunnel portal at the western side of the Tai Lam Chung River. The foothill landscape area will experience changes to its character from the introduction of large (viaduct width : 50m, viaduct depth : 3.5m) engineering structure into the foothill setting. It is estimated that approximate 890 nos. of existing trees are affected. Established planting will help reducing impacts to a certain extent. With the implementation of

the proposed landscape mitigation measures, the residual impact significance at Day 1 and Year 10 will be **Moderate** and **Slight**.

11.10.2.17 During the construction phase despite the implementation of mitigation measures, the Tai Lam Chung River Viaduct over the Tai Lam Chung River will also lead to an impact on LCA-SK7 Tai Lam Chung River Valley Landscape. It is estimated that approximate 93 nos. of existing trees are affected. The viaduct will be elevated up to a maximum of +33mPD. The foothill will experience changes to its character form the introduction of a large, elevated linear element into the landscape and slope cutting works. Columns, road deck, slope cuts, and night lighting will affect LCA-SK7 - Tai Lam Chung River Valley Landscape. The sensitivity of this resource is medium. The magnitude of change is expected to be intermediate and unmitigated impact is moderate. Despite the incorporation of the proposed mitigation measures during Day 1 and Year 10 of the operational phase, the residual impact significance after mitigation will be **Moderate** and **slight** respectively.

Tsing Lung Tau Interchange

11.10.2.18 It is predicted that there would not be any discernible impact on LR-TL1 Secondary Woodlands in Tsing Lung Tau, LR-TL4 Shrublands in Tsing Lung Tau and LR-TL7 Watercourses in Tsing Lung Tau. Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in LR-LT1 Secondary Woodlands in Lam Tei, and will not be affected.

11.10.2.19 The main potential impacts on LRs associated with the Tsing Lung Tau Interchange are likely to be the loss of plantation in Tsing Lung Tau adjacent to Tuen Mun Road and Castle Peak Road at Tsing Lung Tau due to the construction of the Tsing Lung Tau Interchange and modification of existing Tuen Mun Road, road widening, noise barriers/enclosures and associated slope works. There is expected that about 77,800m² (30% of this LR) of LR-TL2 Plantations / Mixed Woodlands in Tsing Lung Tau will be affected. It is estimated that approximate 584 nos. of existing trees are affected. During Day 1 of the operational phase with the adoption of landscape mitigation measures, including new tree planting, the impact significance will be **Moderate**. Proposed treatment of engineered slopes (OM5) is expected to compensate for the loss of plantation. This planting should be well established after 10 years, residual impact is expected to be **Slight**.

11.10.2.20 It is anticipated that 70,200m² (60% of this LR) of LR-TL11 Developed Areas in Tsing Lung Tau will be affected by the construction of the Tsing Lung Tau Interchange located in Tuen Mun Road and Castle Peak Road in Tsing Lung Tau. Owing to the low sensitivity of this LR, and with the implementation of the proposed mitigation measures, theimpact significance at Day 1 and Year 10 will be **Slight** and **Insubstantial**.

11.10.2.21 It is anticipated that 550m (length) (45% of this LR) of LR-TL12 Carriageway and roadside planter in Tsing Lung Tau will be affected by the construction of the Tsing Lung Tau Interchange, noise barriers/enclosures and associated slope works in Tuen Mun Road. It is estimated that approximate 10 nos. of existing trees are affected. The loss will be compensated by roadside planting (OM2) and compensatory planting (OM3). This planting will be established well in Year 10 and residual impact significance is expected to be **Insubstantial**.

11.10.2.22 LCA-TL5 Tsing Lung Tau Urban Landscape will experience changes to its character from the introduction of a large, elevated viaduct structure into the landscape, slope cutting and land formation. Columns, road decks, access paths, slope cuts and night lightings will impact on LCA-TL5 Tsing Lung Tau Urban Landscape. It is anticipated that 146,000m² (34% of this LCA) of LCA-TL5 Tsing Lung Tau Urban Landscape will be affected. It is estimated that approximate 590 nos. of existing trees are affected. The impact will be compensated by roadside planting (OM2 and OM5). This planting will be established well in Year 10, and residual impact significance is expected to be **Insubstantial**.

11.10.2.23 It is predicted that there would not be any discernible impact on LCA-TL6 To Hang Tung Foothill Landscape.

Tsing Lung Bridge and North Lantau Interchange

11.10.2.24 The Tsing Lung Bridge and its associated infrastructure extends south from Tsing Lung Tau to Ng Kwu Leng on the northern shore of Lantau Island. The bridge will have an impact upon LR-NL10 Seawater Body and Shorelines at Ha Pang Fairway, due to reclamation in Tsing Lung Tau. It is anticipated that 22,000 m² (approximate 4% of this LR) of LR-NL10 Seawater Body and Shorelines at Ha Pang Fairway will be affected. It is not practicable to mitigate the potential landscape impacts on seawater body due to the small magnitude of change and with the reinstatement of shoreline in Tsing Lung Tau, the residual impact significance will be **Insubstantial** in Year 10.

11.10.2.25 Towards south, the project will cross Ha Pang Fairway to connect with North Lantau at Ng Kwu Leng via Tsing Lung Bridge (TLB), which will be in the form of a suspension bridge. This location is selected as it requires the shortest marine crossing. It is predicted that there would not be any discernible impact on LCA-NL4 North Lantau Fa Peng Teng Upland Landscape.

11.10.2.26 The scale of the proposed connections with the North Lantau Highway (NLH) associated with North Lantau Interchange is minimised as far as practicable. However, the proposals will have an impact on several LRs in North Lantau, namely, LR-NL1 Secondary Woodlands in North Lantau, LR-NL2 Plantations in North Lantau, LR-NL4 Shrublands in North Lantau, LR-NL11 Developed Areas in North Lantau and LR-NL12 Carriageway and roadside planter in North Lantau.

11.10.2.27 It is anticipated that 6,640m² (9% of this LR) of LR-NL1 Secondary Woodlands in North Lantau will be lost due to the construction of the Tsing Lung Bridge, columns and associated slope works in Ng Kwu Leng. It is estimated that approximate 73 nos. of existing trees are affected. Proposed compensatory planting (OM3) and post-planting monitoring is proposed to compensate for the lost. The planting should be well established after 10 years and the residual impact significance is expected to be **Insubstantial**.

11.10.2.28 The road corridor for the North Lantau Interchange also contains several areas of LR-NL2 Plantations in North Lantau. Approximate 31,500m² (11% of this LR) is expected to be lost. It is estimated that approximate 280 nos. of existing trees are affected. It is anticipated that the impact significance after mitigation would be **Moderate** and **Slight** in Day 1 and Year 10 of the operational phase.

11.10.2.29 The potentially magnitude of change on LR-NL4 Shrublands in North Lantau, located in clumps to the north and south of the NLH, on the remnants of a natural hill slope, will be **Large**. It is anticipated that 103,800m² (45% of this LR) of LR-

NL4 (Shrublands in North Lantau) located in Ng Kwu Leng will be affected by the construction of Administration Building and associated facilities. It is estimated that approximate 190 nos. of existing trees are affected. The landform of the foothill in Ng Kwu Leng will be permanently modified by the slope cutting, loss of vegetation, and the site formation works for administration building. Given the permanent and irreversible lost of LR-NL4 Shrublands in North Lantau, it is anticipated that the impact significance after mitigation would be **Moderate** in Day 1 and Year 10 of the operational phase.

11.10.2.30 It is predicted that there would not be any discernible change on LR-NL7 Watercourses in North Lantau.

11.10.2.31 The connection with the NLH will also have impact on LR-NL11 Developed Areas in North Lantau, which is the carriageway and associated highway structures. Approximately 148,900m² (60% of this LR) of LR-NL11 Developed Areas in North Lantau will be affected. Given this resource has a **Low** sensitivity to change, during Day 1 and Year 10 of the operational phase, with the adoption of the proposed landscape mitigation measures (OM2 and OM5), the impact significance would be **Slight** and **Insubstantial**.

11.10.2.32 The road corridor for the North Lantau Interchange, will impact on LR-NL12 Carriageway and roadside planter in North Lantau. It is anticipated that 250m long (38% of this LR) of LR-NL12 Carriageway and roadside planter in North Lantau will be affected due to the modification works of North Lantau Highway and construction of the North Lantau Interchange, and associated slope works. It is estimated that approximate 20 nos. of existing trees are recommended to be transplanted. During Day 1 and Year 10 of the operational phase, the road alignment with the implementation of the proposed landscape mitigation measures (OM2 and OM5), the impact significance is expected to be **Slight** and **Insubstantial**.

11.10.2.33 It is predicted that there would not be any discernible change on LCA-NL4 North Lantau Fa Peng Teng Upland Landscape. It is anticipated that there are 22,000m² (4% of this LCA) of LCA-NL8 Ha Pang Fairway Maritime Landscape will be affected. Given the high sensitivity and small magnitude of change, it is expected that the residual impact significance will be both **insubstantial** in Day 1 and Year 10.

11.10.2.34 The scale of the proposed viaducts across the Ng Kwu Leng Peninsular connecting the proposed Tsing Lung Bridge with the NLH will have impact on LCA-NL9 Ng Kwu Leng Peninsular Landscape. The LCA-NL9 will experience changes to its character from the introduction of a large, engineered structure into the natural landform. The North Lantau Interchange, administration building, slope cuts and night lighting will affect this area. It is anticipated that 208,900m² (43% of this LCA) of LCA-NL9 will be affected. It is estimated that approximate 320 nos. of existing trees are affected. Given the high sensitivity and large magnitude of change, it is expected that the residual impact significance will be **Substantial** and **Moderate** in Day 1 and Year 10.

11.10.2.35 The Tsing Lung Bridge and its associated infrastructure extends south from Tsing Lung Tau to Ng Kwu Leng on the northern shore of Lantau Island. The bridge will have an impact upon LCA-NL8 Ha Pang Fairway Maritime Landscape at Ha Pang Fairway, due to reclamation in Tsing Lung Tau. It is anticipated that 22,000m²

(approximate 4% of this LR) of LCA-NL8 at Ha Pang Fairway will be lost permanently. It is not practicable to mitigate the potential landscape impacts on seawater body due to the small magnitude of change and with the reinstatement of shoreline in Tsing Lung Tau, the residual impact significance will be **Insubstantial** in Year 10.

11.10.2.36 The landscaped character of the North Lantau Highway Corridor is dominated by the large carriageway surfaces, including the extensive engineered slope works on both sides, required to accommodate the highways and the structures associated with its operation. The North Lantau Interchange will impact on LCA-NL10 North Lantau Highway Corridor Landscape, and about 87,100m² (30% of this LCA) of LCA-NL10 North Lantau Highway Corridor Landscape will be affected. It is estimated that approximate 220 nos. of existing trees are affected. Given thatthis LCA is already characterised by large highway structures, the residual impact significanceat Day 1 and Year 10 of the operational phase is likely to be **Slight** and **Insubstantial**.

11.10.3 Broad Brush Tree Survey and Preliminary Recommendation

11.10.3.1 It is estimated there are total approximate 25,720 nos. of existing trees within the 100m LIA study area, with approximate 13,404 nos. of existing trees surveyed as tree groups and individual TPIs within and near the project boundary.

11.10.3.2 There is no Registered OVT within the 100m landscape impact assessment.

11.10.3.3 Meanwhile, total 65 nos. of Tree of Particular Interest (TPI), which include 63 nos. of *Ixonanthes reticulata* which is a tree species with conservation interest and 2 nos. of large mature trees (*Ficus elastic* and *Ficus benghalensis*) with DBH of over 1m, are identified within and near the project boundary (**Figure 11.5.3** and **11.5.4**). 8 nos. of *Ixonanthes reticulata* (TPI) would be affected by the proposed work and are proposed for removal.

11.10.3.4 An estimated approximate 5,077 nos. of affected trees in tree groups, together with 8 nos. of Tree of Particular Interest (TPI), namely *Ixonanthes reticulata* in Fung Shui Woodland near So Kwun Wat would be affected, and proposed to be removed due to low "Suitability for Transplanting" based on preliminary assessment at this stage (see tree assessment schedule in **Appendix 11.1**).

11.10.3.5 An estimated approximate 100 nos. of affected trees, mostly roadside amenity tree plantings, are considered suitable for transplanting.

11.10.3.6 The exact quantity, tree condition, proposed recommendations as well as future receptor locations of these trees shall be further reviewed in the formal TPRP submission, which to be prepared and submitted in the Detailed Design stage.

11.10.3.7 All affected trees and their proposed treatments will be subject to further review at the Detailed Design stage. All tree removal work shall be carried out in accordance with Section 26 of the General Specifications for Civil Engineering Works.

11.10.3.8 Summary tables for the preliminary assessment is provided below:

Table 11.10.1 Preliminary Assessment – Surveyed Tree Groups and TPIs

	COMMON TREE	TPI	TOTAL
No. of Trees to be Retained	8,162	57	8,219
No. of Trees to be Transplanted	100	0	100
No. of Trees to be Removed	5,077	8	5,085
TOTAL No. of Trees:	**13,339**	**65**	**13,404**

11.10.3.9 In addition, an estimated approximate 1,755 nos. of common undesirable species (i.e. *Leucaena leucocephala*) are recorded within the tree group survey boundary. In accordance with paragraph 25(a) of DEVB TC(W) No. 4/2020, removal of such trees would not require a TPRP.

11.10.3.10 An estimated total 5,085 nos. (5,077 nos. common trees + 8 nos. TPI) of existing trees (excluding all *Leucaena leucocephala* of which removal would not require a TPRP) would be affected by the proposed works and are proposed for removal.

11.10.3.11 To achieve a compensatory ratio of not less than 1:1 in terms of number of trees to be removed, at least 5,085 nos. of compensatory trees are required. 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. It is estimated that approximate 1,300 nos. compensatory tree planting in heavy standard size is proposed at roadside flat areas mainly near the tunnel portal area, toll plaza administration area in Lam Tei Quarry and in North Lantau and road verge area. Further, it is estimated that approximate 700 nos. light standard trees will be proposed along at-grade wall planters, subject to the gradient of the proposed new slopes. All proposed species shall be commonly used in roadside environment and be native for areas adjoining woodland area where appropriate, so as to enhance the surrounding landscape and ecological value. Reference could be made to Greening Master Plan issued by CEDD and Street Tree Selection Guide promulgated by DEVB. Tree Preservation and Removal Proposals including compensation planting scheme shall be submitted in accordance with DEVB TC(W) No. 4/2020 - Tree Preservation.

11.10.3.12 The native seedlings/whip trees for off-site Compensatory Woodland Planting Site, located in Tuen Mun West near Tsing Tip Ridge of Castle Peak, will be tentatively planted at an initial spacing of 1,500 mm in staggered pattern on planting area with gradient less than 35 degree, followed by thinning during the establishment period to decrease the potential competition between trees (Details of preliminary Compensatory Woodland Planting Site are discussed in **Section 9.8.3** and **Figure 9.7** of the ecological section of this EIA Report). It is anticipated that total area of approximate not less than 24.4ha will be proposed for not less than approximate 3,085 nos. compensatory whip tree planting (**Figure 11.9.9**).

Table 11.10.2 Significance of Landscape Impacts in Construction and Operational Phases (Note: All impacts are Adverse unless otherwise noted as Beneficial)

ID	Landscape Resource/ Landscape Character Area	Sensitivity (Low, Medium, High)	Magnitude of Change (Before Mitigation Measures) (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
			Construction	Operation	Construction	Operation		Construction	Operation	
									Day 1	Year 10
Landscape Resources										
Lam Tei Quarry Interchange										
LR-LT1	Secondary Woodlands in Lam Tei	High	Intermediate	Intermediate	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-LT2	Plantations in Lam Tei	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-LT7	Watercourses in Lam Tei	Medium	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
LR-LT11	Developed Areas in Lam Tei	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
So Kwun Wat Link Road, So Kwun Wat Interchange, So Kwun Wat – Siu Lam Open Road Section and Tai Lam Chung River Viaduct										
LR-SK1	Secondary Woodlands in So Kwun Wat	High	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Moderate
LR-SK2	Plantations in So Kwun Wat	Medium	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-SK4	Shrublands in So Kwun Wat	High	Intermediate	Intermediate	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-SK7	Watercourses in So Kwun Wat	Medium	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial

ID	Landscape Resource/ Landscape Character Area	Sensitivity (Low, Medium, High)	Magnitude of Change (Before Mitigation Measures) (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
			Construction	Operation	Construction	Operation		Construction	Operation	
									Day 1	Year 10
LR-SK11	Developed Areas in So Kwun Wat	Low	Small	Small	Slight	Slight	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LR-SK12	Carriageway and roadside planter in So Kwun Wat	Medium	Small	Small	Slight	Slight	CM01-CM05, OM01-OM06, OM09	Slight	Insubstantial	Insubstantial
Tsing Lung Tau Interchange										
LR-TL1	Secondary Woodlands in Tsing Lung Tau	High	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
LR-TL2	Plantations / Mixed Woodlands in Tsing Lung Tau	High	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-TL4	Shrublands in Tsing Lung Tau	Medium	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
LR-TL7	Watercourses in Tsing Lung Tau	High	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
LR-TL11	Developed Areas in Tsing Lung Tau	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LR-TL12	Carriageway and roadside planter in Tsing Lung Tau	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Slight	Insubstantial
Tsing Lung Bridge and North Lantau Interchange										
LR-NL1	Secondary Woodlands in North Lantau	High	Small	Small	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial

ID	Landscape Resource/ Landscape Character Area	Sensitivity (Low, Medium, High)	Magnitude of Change (Before Mitigation Measures) (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
			Construction	Operation	Construction	Operation		Construction	Operation	
									Day 1	Year 10
LR-NL2	Plantations in North Lantau	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LR-NL4	Shrublands in North Lantau	High	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Substantial	Moderate	Moderate
LR-NL7	Watercourses in North Lantau	Low	Negligible	Negligible	Insubstantial	Insubstantial	CM01-CM06, OM02, OM03, OM04, OM05,	Insubstantial	Insubstantial	Insubstantial
LR-NL10	Seawater Body and Shorelines at Ha Pang Fairway	Medium	Small	Small	Moderate	Moderate	CM03, CM06, OM07	Slight	Insubstantial	Insubstantial
LR-NL11	Developed Areas in North Lantau	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LR-NL12	Carriageway and roadside planter in North Lantau	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Slight	Insubstantial
Landscape Character Area										
Lam Tei Quarry Interchange										
LCA-LT1	Lam Tei Rural Fringe Landscape	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Insubstantial	Insubstantial
LCA-LT2	Lam Tei Upland Fringe landscape	Low	Small	Small	slight	slight	CM01-CM05, OM01-OM06, OM09	Slight	Insubstantial	Insubstantial
LCA-LT3	Lam Tei Rural Landscape	Medium	Large	Large	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Slight	Slight

ID	Landscape Resource/ Landscape Character Area	Sensitivity (Low, Medium, High)	Magnitude of Change (Before Mitigation Measures) (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
			Construction	Operation	Construction	Operation		Construction	Operation	
									Day 1	Year 10
LCA-LT4	Lam Tei Upland Landscape	High	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
So Kwun Wat Link Road, So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section and Tai Lam Chung River Viaduct										
LCA-SK3	So Kwun Wat Village Landscape	Medium	Small	Small	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LCA-SK4	Tai Lam Country Park Upland Landscape	High	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LCA-SK5	Tuen Mun Road Urban Corridor Landscape	Medium	Small	Small	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LCA-SK6	Siu Lam and Tai Lam Chung Foothill Landscape	High	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
LCA-SK7	Tai Lam Chung River Valley Landscape	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Moderate	Moderate	Slight
Tsing Lung Tau Interchange										
LCA-TL5	Tsing Lung Tau Urban Landscape	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial
LCA-TL6	To Hang Tung Foothill Landscape	High	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial
Tsing Lung Bridge and North Lantau Interchange										
LCA-NL4	North Lantau Fa Peng Teng Upland Landscape	High	Negligible	Negligible	Insubstantial	Insubstantial	N/A	Insubstantial	Insubstantial	Insubstantial

ID	Landscape Resource/ Landscape Character Area	Sensitivity (Low, Medium, High)	Magnitude of Change (Before Mitigation Measures) (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
			Construction	Operation	Construction	Operation		Construction	Operation	
									Day 1	Year 10
LCA-NL8	Ha Pang Fairway Maritime Landscape	High	Small	Small	Moderate	Moderate	CM03, CM06, OM07	Slight	Insubstantial	Insubstantial
LCA-NL9	Ng Kwu Leng Peninsular Landscape	High	Large	Large	Substantial	Substantial	CM01-CM05, OM01-OM06, OM09	Substantial	Substantial	Moderate
LCA-NL10	North Lantau Highway Corridor Landscape	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM05, OM01-OM06, OM09	Slight	Slight	Insubstantial

Note: N/A: NOT APPLICABLE

11.10.4 Significance of Residual Visual Impacts

11.10.4.1 The proposed visual enhancement and landscape mitigation measures during the construction and operational phases are described in **Table 11.9.1** and **Table 11.9.2** above. The significance of the potential impacts and the residual visual impacts are described below for each road section and summarised in **Section 11.10**.

11.10.4.2 The photomontage illustrating the potential visual impact during operation with and without mitigation measures from representative VPs due to the Project are shown in **Figure 11.10.8** to **11.10.21,** while the VP location are mapped in **Figures 11.10.1** to **11.10.7.** Artistic impressions are also provided in **Figures 11.9.21** to **11.9.27** to illustrate the proposed R11. The potential visual impacts are assessed and summarised as below:

*Viewpoint-LT5 – Residents of Fuk Hang Tsuen (**Figures 11.10.2** and **11.10.8**)*

11.10.4.3 The existing views for the residents of Fuk Hang Tsuen are characterised by some existing vegetation of Fuk Hang Tsuen Road in the foreground, Fuk Hang Tsuen Basketball Court in the middle ground and the mountain backdrop of Kung Um Shan as the background. Despite the partial views of the summits of the Kung Um Shan, the sensitivity of these VSRs is considered to be **High**.

11.10.4.4 The implementation of the proposed the Lam Tei Quarry Interchange linking with the Yuen Long Highway and Kong Sham Western Highway at some 50m from this VSR will lead to **Large** magnitude of change during the construction and operational phases. It is anticipated that the proposed works will result in visual blockage. **Figure 11.10.8** illustrates the potential landscape and visual impact due to the proposed Lam Tei Quarry Interchange in Lam Tei. The alignment of proposed interchange is carefully designed to minimize the works extent and avoid encroachment on TLCP. The form and colour of the viaduct structures and columns are also streamlined to reduce monotonous and bulkiness (OM7). Buffer planting with appropriate species is also proposed adjoining the proposed columns to screen and soften the structures. With the adoption of landscape mitigation measures during the construction phase, the visual impacts will be **substantial** and this will reduce to **moderate** in Day 1 and year 10 of the operational phase.

*Viewpoint-LT7 – Vehicle Travellers on Kong Sham Western Highway (Southbound) (**Figures 11.10.2** and **11.10.9**)*

11.10.4.5 The views available to vehicle travellers on the Kong Sham Western Highway (southbound) are currently interrupted and contained at low levels to the south-west and north-east by the existing noise mitigation structures, with glimpsed views of The Sherwood development beyond to the south and the ridgeline of TLCP. Views to the south-east extend along the carriageway are towards the ridgeline of TLCP. Given the quality of the existing views, these VSR are considered to have a **Low** sensitivity.

11.10.4.6 The construction of the Lam Tei Quarry Interchange with Kong Sham Western Highway in the vicinity, the Lam Tei Quarry Interchange are likely to lead to an **Intermediate** magnitude of change during the construction phase and a **Small** magnitude of change during the operational phase. Given the existing views are of a large infrastructure project, with the adoption of mitigation measures (OM3, OM5), the visual impact significance is likely to be **Slight** at Day 1 and in Year 10 of the operational phase.

*Viewpoint-LT10 – Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir (**Figures 11.10.2** and **11.10.10**)*

11.10.4.7 Trail walkers crossing the Lam Tei Irrigation Reservoir dam currently enjoy views to the Lam Tei Irrigation Reservoir and the shallow sided valley towards the Lam Tei Irrigation Reservoir at the mouth of the valley. The view of the proposed Lam Tei Quarry Interchange from the viewpoint-LT10 Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir will be fully obscured by the ridgeline located on the eastern side. The proposed Lam Tei Quarry Interchange will not be noticeable to the trail walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir, which means that significant changes are not expected. Residual impact significance is expected to be **Insubstantial** in Year 10. There are also distant views of Tin Shui Wai and beyond. The sensitivity of these VSRs is considered to be **High**.

*Viewpoint-SK9 – Trail Walkers on MacLehose Trail Section 10 (East) (**Figures 11.10.3** and **11.10.11**)*

11.10.4.8 Views from this section of the MacLehose Trial are initially characterised by the existing drainage and access road structures, together with a series of small engineered slopes. Owing to the twisting alignment of the trail, views are limited in length. In some locations views extend to the north to the hillsides of TLCP and south overlooking the low hills surrounding the Tai Lam Chung Reservoir. The sensitivity of these VSRs is considered to be **High**.

11.10.4.9 Although the footpath passes over the tunnel sections, based on the proximity, in the So Kwun Wat Interchange, which are as close as 10m, there will be slightly elevated glimpsed views of the proposed So Kwun Wat Interchange to the east. This would give rise to a **Large** and an **Intermediate** magnitude of change during the construction and operational phases. Given the scale and proximity of the ventilation building (approximate building height of 24m) in Pak Shek Hang, the impact significance with mitigation will be **Substantial** during the construction phase and **Substantial** during Day 1 of the operational phase and **Moderate** during Year 10.

*Viewpoint-SK10 – Residents of So Kwun Wat Tsuen (**Figures 11.10.3** and **11.10.12**)*

11.10.4.10 A small number of village houses on the eastern side of the settlement have views east up the valley towards Pak Shek Hang. These views are initially interrupted by mature tree growth on the valley floor although more elevated views extend to the wooded hillslopes on either side. The sensitivity of these VSRs is considered to be **High**.

11.10.4.11 With the implementation of the So Kwun Wat Interchange and the ventilation building (approximate building height of 24m) in Pak Shek Hang, they are likely to be partial and glimpsed views of the ventilation building in Pak Shek Hang. This is likely to cause a **Large** and **Intermediate** magnitude of change during the construction phase and operational phases. Following adoption of the mitigation measures (OM01 and OM06), the impact significance will be **Substantial** during the construction phase and **Moderate** during Day 1 and Year 10 of the operational phase.

*Viewpoint-SK22 – Pedestrians on Footbridge over Tai Lam Chung River (**Figures 11.10.3** and **11.10.13**)*

11.10.4.12 The view from the footbridge north-east is characterised with some development and by the low, wooded lower hill slopes which enclose the valley and which give way to shrub covered summits. At the head of the valley, there are views of the partial summits of the hills of TLCP. These VSRs are considered to have a **High** sensitivity.

11.10.4.13 Full views of the implementation of the proposed Tai Lam Chung River Viaduct will lead to the introduction of a bridge across the valley, flanked on either side by tunnel portals at distance of some 200m, resulting in a **Large** magnitude of change during the construction and **Intermediate** in operational phases. Given the visibility of the Tai Lam Chung River Viaduct and ventilation building (approximate building height of 24m) in Tai Lam Chung, with the adoption of mitigation measures, including a responsive structure form (OM6 and OM7) and tunnel portal design (OM1), the impact significance during the construction and operational phases in day one and in year 10 will be **Substantial** and **Moderate** respectively.

*Viewpoint-SK2 – Vehicle Travellers on Tuen Mun Road (**Figures 11.10.4** and **11.10.14**)*

11.10.4.14 The views available to east bound vehicle travellers, at some 10m, are currently enclosed to the north and south by a combination of the existing landform, roadside trees and the residential development beyond. The view extends along the carriageway and terminates at the low wooded hillslopes to the east. The sensitivity of these VSRs is considered to be **Low**.

11.10.4.15 The magnitude of change during the construction phase and operation phase will be small. Given the existing nature of the views along the highway road corridor, with the adoption of the proposed mitigation measures (OM2) the impact significance during Day 1 and Year 10 of the operational phase will be **Slight**.

*Viewpoint-SK7 – Residents of Avignon (**Figures 11.10.4** and **11.10.15**)*

11.10.4.16 For the most part of the towers in Avignon, the views are angled away from the proposed So Kwun Wat Link Road and associated slope works. The view for residents of north-west facing apartments is characterised by the existing Tuen Mun Road corridor and the hill slopes beyond. The sensitivity of these VSRs is considered to be **High**.

11.10.4.17 Despite the alignment immediately adjacent to the VSR are in tunnel, partial views of the implementation of the So Kwun Wat Link Road, at a distance of around 70m, are likely to lead to an **intermediate** magnitude of change during the construction and a **small** magnitude of change during the operational phase. With the adoption of the proposed mitigation measures (OM5), the impact significance during the construction phase will be **Moderate**, while the impact significance during Day 1 and at Year 10 of the operational phase would be **Slight**.

*Viewpoint-TL1 – Vehicle Travellers on Tuen Mun Road (Westbound) (**Figures 11.10.5** and **11.10.16**)*

11.10.4.18 The views available to south-west bound vehicle travellers, at some 350m from the proposed scheme, extend along the curvilinear alignment of the Tuen Mun Road corridor, which eventually becomes enclosed to the south by existing noise barriers

adjacent to the high-rise Hong Kong Garden development. To the north, the view is framed by the ridgeline of TLCP and the view is dominated by the engineered highway structures, including the slope works required to accommodate the alignment. The sensitivity of these VSRs is considered to be **Low**.

11.10.4.19 Implementation of the proposed Tsing Lung Tau Interchange will lead to a **small** magnitude of change during the construction and operational phases. Given that the view is already characterised by a relatively large scale road corridor, the residual impact significance will be both **slight** during Day 1 and during Year 10 of the operational phase.

*Viewpoint-TL2 – Residents of Bellagio and Ocean Pointe (**Figures 11.10.7** and **11.10.17**)*

11.10.4.20 The residents of Bellagio and Ocean Pointe developments enjoy views which extend west through the Ha Pang Fairway, bounded to the north by the mountains of TLCP range and to the south by the uplands of Lantau Island. These VSRs are considered to have **High** sensitivity.

11.10.4.21 Given the screening effect of the intervening landform and being at a distance of around 2500m, partial views of the Tsing Lung Tau Interchange are likely to be largely obscured. However, there will be views of the proposed Tsing Lung Bridge from Tsing Lung Tau to Kwai Shek at North Lantau and the landing on the Ng Kwu Leng peninsular. The Tsing Lung Tau Interchange and the Tsing Lung Bridge will lead to an **Intermediate** magnitude of change during the construction and operational phases. Given the visibility of the Tsing Lung Tau Interchange and also the Tsing Lung Bridge structure, with the adoption of mitigation measures including the adequate design (OM1, OM7) of the Tsing Lung Tau Interchange structures, the Tsing Lung Bridge and the landing point at Ng Kwu Leng peninsular will lead to a **Slight** impact significance during Day 1 and Year 10 of the operational phase.

*Viewpoint-TL12 – Travellers in Tsing Lung Tau Ferry Pier (**Figures 11.10.5** and **11.10.18**)*

11.10.4.22 The view of west and south-west from the end of the public pier affords travellers a view down the Ha Pang Fairway towards the coastline and central uplands of Lantau Island. To the north, the view is framed by the ridgeline of the TLCP range of hills as meet to the coastline punctuated by the high-rise form of the Hong Kong Garden development and the structures associated with Castle Peak Road. The existing coastline has an engineered appearance. The sensitivity of these VSRs is considered to be **Medium**.

11.10.4.23 The existing spur extending into the sea from the north will largely obscure views of the Tsing Lung Tau Interchange viaducts, but there will be full views of the Tsing Lung Bridge at a distance of approximately 890m and it's landing on the Ng Kwu Leng peninsular at Kwai Shek. This will result in a **Large** magnitude of change during the construction and operational phases. Given the scale of the Tsing Lung Bridge, there is little that can practicably be done to mitigate the impacts of the construction works. The impact significance during construction with mitigation measures will be **Slight**. With the adequate design (OM7) of the Tsing Lung Bridge, the impact significance during Day 1 and Year 10 of the operational phase will be **Slight**.

*Viewpoint-NL2 – Trail Walkers on Summit of Fa Peng Teng (**Figures 11.10.6** and **11.10.19**)*

11.10.4.24 This viewpoint refers to the public viewers of trail walkers (VSR-NL2) on summit of Fa Peng Teng (+270mPD); the closet distance to the study area is approximate 550m. The Trail walkers enjoy a view north from the summit of Fa Peng Teng over the Ng Kwu Leng peninsular to the Ha Pang Fairway and the northern shore with the mountains of TLCP forming the backdrop. To the east, the view includes Ma Wan and its medium rise residential development, the northern shore of Sham Tseng, Tsing Lung Tau, Brothers Point (Tai Lam Kok), the high-rise development around So Kwun Wat and more distant views of Tuen Mun. The sensitivity of these VSRs is considered to be **Medium**.

11.10.4.25 With the implementation of the proposed works, the visible sections will be the viaducts over the Ng Kwu Leng peninsular at a closest distance of some 550m and the proposed Tsing Lung Bridge and North Lantau Interchange. Following the adoption of the proposed mitigation measures (OM5 and OM7), including the design of the Tsing Lung Bridge, the North Lantau Interchange and the establishment of roadside tree planting, the residual impact significance at Day 1 and Year 10 will be **Moderate**. This is due to the elevated viewing location overlooking the viaduct structures connecting to the proposed Tsing Lung Bridge and the lost of landform in Ng Kwu Leng.

*Viewpoint-NL4 – Travellers in Ma Wan Public Pier (**Figures 11.10.6**, **11.10.7** and **11.10.20**)*

11.10.4.26 The views available from the end of the Ma Wan Public Pier extend west and north-west with the middle ground being formed by the Kap Shui Mun Bridge, the Ng Kwu Leng peninsular, and the Ha Pang Fairway and Brothers Point (Tai Lam Kok) to the north. The sensitivity of these VSRs is considered to be **Medium**.

11.10.4.27 It is likely that the views of the Tsing Lung Tau Interchange would be obscured by the existing landform of Ma Kok Tsui. There would, however, be partial views of the Tsing Lung Bridge spanning over Ha Pang Fairway to the Ng Kwu Leng peninsular in North Lantau. Given the scale of the Tsing Lung Bridge, there will be an **Intermediate** magnitude of change during the construction and operational phases prior to mitigation which lead to a **Moderate** impact significance during the construction and operational phases. With the design of the Tsing Lung Bridge (OM7), the impact significance during Day 1 and Year 10 of the operational phase will be **Slight**.

*Viewpoint-NL8 – Residents of Park Island (**Figure 11.10.6**, **11.10.7** and **11.10.21**)*

11.10.4.28 The views available from the Park Island extend west and north-west with the middle ground being formed by the Ng Kwu Leng peninsular, Ha Pang Fairway, Brothers Point (Tai Lam Kok) and ridgeline of TLCP to the north. The sensitivity of these VSRs is considered to be **High**.

11.10.4.29 It is likely that the VP-NL8 will have full view of the North Lantau Interchange and the Tsing Lung Bridge, which is an approximately 1.9 km long dual 4-lane carriageway suspension bridge (approximate +81.5mPD). Given the scale of the Tsing Lung Bridge, the closest distance approximate 1.3km, there will be an **Intermediate** magnitude of change during the construction and operational phases prior to mitigation. With the adequate design of the Tsing Lung Bridge (OM7) and

its landing on the Ng Kwu Leng peninsular, the impact significance during Day 1 and Year 10 of the operational phase will be **Slight**.

*Viewpoint-SK14 – Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road (**Figures 11.10.3** and **11.10.22**)*

11.10.4.30 This viewpoint refers to the public viewers of trail walkers cross the Tai Lam Chung Reservoir Subsidiary Dam (+70mPD); the closet distance to the study area is approximate 170m. The sensitivity of these VSRs is considered to be **High**.

11.10.4.31 Due to the presence of the tall and dense green vegetation on the site, there will be partial views of the proposed alignment crosses the valley at a distance of approximately 170m to the south-west and will involve the construction of the viaduct linking to the So Kwun Wat Interchange and Tai Lam Chung Tunnel.

11.10.4.32 Given the elevation of the viaduct structure, the impacts significance during the construction phase with mitigation will be **moderate**. With the adequate design of the bridge structure (OM7) and integrated design approach (OM1), the impact significance during Day 1 and Year 10 of the operational phase will be **slight** .

Table 11.10.3 Significance of Visual Impacts in Construction and Operational Phases

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
Lam Tei Quarry Interchange											
VSR-LT1	Residents of Parkland Villas	High	High	Intermediate	Intermediate	Moderate or Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Slight
VSR-LT2	Residents of Fu Tai Estate	High	High	Intermediate	Intermediate	Moderate or Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-LT3	Residents of Lo Fu Hang	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-LT4	Vehicle Travellers on Yuen Long Highway (Eastbound)	Low	Low	Intermediate	Small	Slight or Moderate	Insubstantial or Slight	CM01-CM06, OM01-OM06, OM08-OM09,	Slight	Slight	Slight
VSR-LT5	Residents of Fuk Hang Tsuen	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-LT6	Residents of The Sherwood	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-LT7	Vehicle Travellers on Kong Sham Western Highway (Southbound)	Low	Low	Intermediate	Small	Moderate	Moderate	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Slight	Slight
VSR-LT8	Residents of Tsoi Yuen Tsuen	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-LT9	Vehicle Travellers on Yuen Long Highway (Westbound)	Low	Low	Intermediate	Small	Slight or Moderate	Insubstantial or Slight	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Slight	Slight

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-LT10	Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir	High	High	Negligible	Negligible	Insubstantial	Insubstantial	CM01-CM06, OM01-OM06, OM08-OM09	Insubstantial	Insubstantial	Insubstantial
VSR-LT11	Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai	High	High	Large	Large	Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
So Kwun Wat Link Road											
VSR-SK1	Trail Walkers on MacLehose Trail Section 10 (West)	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
VSR-SK2	Vehicle Travellers on Tuen Mun Road	Low	Low	Small	Small	Slight	Slight	CM01-CM06, OM01-OM06, OM08-OM09	Slight	Slight	Slight
VSR-SK3	Residents of The Bloomsway	High	High	Large	Intermediate	Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
VSR-SK4	Students and Staff at Harrow International School Hong Kong	High	High	Large	Intermediate	Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
VSR-SK5	Residents of Hong Kong Gold Coast	High	High	Intermediate	Small	Moderate or Substantial	Slight or Moderate	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Slight	Slight
VSR-SK6	Residents of Aegean Coast	High	High	Large	Intermediate	Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
VSR-SK7	Residents of Avignon	High	High	Intermediate	Small	moderate	Slight	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Slight	Slight
VSR-SK26	Vehicle Travellers on Castle Peak Road – So Kwun Wat	Low	Low	Small	Small	Slight	Slight	CM01-CM06, OM01-OM06, OM08-OM09	Slight	Slight	Slight

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-SK27	Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School	Medium	Medium	Intermediate	Small	Moderate	Slight	CM01-CM06, OM01-OM06, OM08-OM09	Slight	Slight	Slight
VSR-SK28	Students and Staff at Chu Hai College of Higher Education	Low	Low	Intermediate	Small	Slight	Slight	CM01-CM06, OM01-OM06, OM08-OM09	Slight	Slight	Insubstantial
So Kwun Wat Interchange and So Kwun Wat – Siu Lam Open Road Section											
VSR-SK8	Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road	Low	Low	Large	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM06, OM08-OM09	Moderate	Moderate	Moderate
VSR-SK9	Trail Walkers on MacLehose Trail Section 10 (East)	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Substantial	Moderate
VSR-SK10	Residents of So Kwun Wat Tsuen	High	High	Large	Intermediate	Substantial	Moderate or Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-SK11	Residents of So Kwun Wat San Tsuen	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM08-OM09	Substantial	Moderate	Moderate
VSR-SK12	Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre	High	High	Large	Intermediate	Substantial	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Moderate	Moderate
VSR-SK13	Vehicle Travellers on Siu Lam Road	Low	Low	Large	Intermediate	Moderate	Slight or Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Moderate	Moderate

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-SK14	Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road	High	High	Small	Small	Moderate	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Slight	Slight
VSR-SK15	Residents of Palatial Coast	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM09	Substantial	Moderate	Moderate
VSR-SK16	Residents of Siu Lam	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM09	Substantial	Moderate	Moderate
Tai Lam Chung River Viaduct											
VSR-SK21	Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM09	Substantial	Moderate	Moderate
VSR-SK22	Pedestrians on Footbridge over Tai Lam Chung River	High	High	Large	Intermediate	Substantial	Substantial	CM01-CM06, OM01-OM06, OM09	Substantial	Moderate	Moderate
VSR-SK23	Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Slight	Slight
VSR-SK24	Trail Walkers on Summit of Hill 141	Medium	Medium	Large	Intermediate	Substantial	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Moderate	Moderate
VSR-SK25	Trail Walkers at South of To Hang Tung	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Slight	Slight
VSR-SK29	Residents of Tai Lam Chung Tsuen	High	High	Large	Intermediate	Substantial	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Moderate	Moderate
VSR-SK30	Students and Staff at Hong Kong Customs College	Low	Low	Large	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Slight	Slight

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-SK31	Staff and Visitors at Tai Lam Correctional Institution	Low	Low	Large	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM06, OM09	Moderate	Slight	Slight
Tsing Lung Tau Interchange and Tsing Lung Bridge (North)											
VSR-TL1	Vehicle Travellers on Tuen Mun Road (Westbound)	Low	Low	Small	Small	Slight	Slight	CM01, CM03, CM04, CM05, CM06, OM02, OM03, OM04, OM05	Slight	Slight	Slight
VSR-TL2	Residents of Bellagio and Ocean Pointe	High	High	Intermediate	Intermediate	Moderate	Moderate	CM01, CM02, CM03, CM04, CM05, CM06, OM01, OM03, OM04, OM07	Moderate	Slight	Slight
VSR-TL3	Residents of Hong Kong Garden, Vista Cove and L'Aquatique	High	High	Large	Large	Substantial	Substantial	CM01-CM06, OM01-OM09	Substantial	Moderate	Moderate
VSR-TL4	Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound)	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-TL5	Vehicle Travellers on Tuen Mun Road (Eastbound)	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-TL11	Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau	Medium	Medium	Large	Large	Moderate	Moderate	CM01-CM06, OM01-OM09	Slight	Slight	Slight

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-TL12	Travellers in Tsing Lung Tau Ferry Pier	Medium	Medium	Large	Large	Moderate	Moderate	CM03, CM05, CM06, OM01, OM03, OM04, OM05, OM07	Slight	Slight	Slight
VSR-TL13	Travellers in Sham Tseng Public Pier	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-TL14	Residents of Sea Crest Villa Phase 4	High	High	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
Tsing Lung Bridge (South) and North Lantau Interchange											
VSR-NL1	Vehicle Travellers on North Lantau Highway (Westbound)	Low	Low	Large	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Moderate	Slight
VSR-NL2	Trail Walkers on Summit of Fa Peng Teng	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Moderate	Moderate
VSR-NL3	Vehicle Travellers at Lantau Link Toll Plaza	Low	Low	Large	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Moderate	Slight
VSR-NL4	Travellers in Ma Wan Public Pier	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM03, CM05, OM01, OM02, OM03, OM04, OM05, OM07	Slight	Slight	Slight
VSR-NL5	Vehicular Travellers on Kap Shui Mun Bridge	Low	Low	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-NL6	Visitors at Sunny Bay Promenade	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-NL7	Maritime Travellers in Ha Pang Fairway	Medium	Medium	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-NL8	Residents of Park Island	High	High	Intermediate	Intermediate	Moderate	Moderate	OM01, OM03, OM05, OM06, OM07	Moderate	Slight	Slight

VSR ID	Visually Sensitive Receiver (VSR)	Receptor Sensitivity (Low, Medium,High)		Magnitude of Change before Mitigation (Negligible, Small, Intermediate, Large)		Impact Significance before Mitigation (Insubstantial, Slight, Moderate, Substantial)		Recommended Mitigation Measures	Residual Impact Significance after Mitigation (Insubstantial, Slight, Moderate, Substantial)		
		Construction	Operation	Construction	Operation	Construction	Operation		Construction	Operation	
										Day 1	Year 10
VSR-NL9	Future Users at Planned Sunny Bay Reclamation Area	High	High	Intermediate	Intermediate	Moderate	Moderate	CM01-CM06, OM01-OM09	Moderate	Slight	Slight
VSR-NL10	Future Vehicle Travellers on Planned Road P1	Low	Low	Intermediate	Intermediate	Slight	Slight	CM01-CM06, OM01-OM09	Slight	Insubstantial	Insubstantial

11.11 Cumulative Impact

11.11.1.1 There are potential for cumulative landscape and visual impacts from other committed or planned projects within the landscape assessment Study Area and the identified VE that will be concurrent with the Route 11 Project. According to **Chapter 2**, it is noted that cumulative impacts from committed projects that will be completed before the commencement of the construction of the Route 11 Project form part of the landscape and visual baseline, and are not included in any cumulative assessment.

11.11.1.2 At this stage, it is not possible to confirm with certainty on other projects that may be implemented concurrently and give rise to cumulative impacts. However, according to **Table 2.6** – Summary of Potential Concurrent Projects, there are several future projects that will be located in the Study Area for the Route 11 project as follows:

- Tuen Mun Bypass, which is a new highway with an approximate length of 7.5km linking the Tuen Mun-Chek Lap Kok Link, Tuen Mun South and the Yuen Lung Highway and Kong Sham Western Highway;
- Sunny Bay Reclamation, close proximity to the southern reclamation of the Tsing Lung Tau Bridge at North Lantau ;
- Road P1 (Tai Ho – Sunny Bay Section);
- Tsing Yi - Lantau Link;
- Hong Kong Island West - Northeast Lantau Link under the Lantau Tomorrow Vision;
- Widening of Yuen Long Highway (Section between Lam Tei Quarry and Tong Yan San Tsuen Interchange), close proximity to the Lam Tei Quarry; and
- Cycle Track between Tsuen Wan and Tuen Mun.

11.11.1.3 Only the Road P1 (Tai Ho – Sunny Bay Section) project is assumed to be in place in 2030 based on available information. Construction implementation dates are not available for these projects and it is not confirmed whether they would be concurrent.

11.12 Summary and Conclusions

Summary of Landscape and Visual Impacts during Construction

11.12.1.1 During the construction phase, there will be adverse **Moderate** residual impacts for LR-LT1 Secondary Woodlands in Lam Tei, LR-LT2 Plantations in Lam Tei, LR-SK1 Secondary Woodlands in So Kwun Wat, LR-SK2 Plantations in So Kwun Wat, LR-SK4 Shrublands in So Kwun Wat, LR-TL2 Plantations / Mixed Woodlands in Tsing Lung Tau , LR-TL12 Carriageway and roadside planter in Tsing Lung Tau, LR-NL2 Plantations in North Lantau and LR-NL12 Carriageway and roadside planter in North Lantau, while the residual impacts for LR-NL4 Shrublands in North Lantau will be **Substantial**.

11.12.1.2 During the construction phase, there would be a **Moderate** adverse residual impact for LCA-LT3 Lam Tei Rural Landscape, LCA-SK4 Tai Lam Country Park Upland Landscape, LCA-SK6 Siu Lam and Tai Lam Chung Foothill Landscape and LCA-SK7 Tai Lam Chung River Valley Landscape.

11.12.1.3 During the construction phase, there would be a **Substantial** adverse residual impact for LCA-NL9 Ng Kwu Leng Peninsular Landscape.

11.12.1.4 The residual visual impacts during the construction phase include **Substantial** adverse impacts for VSR-LT1 Residents of Parkland Villas, VSR-LT2 Residents of Fu Tai Estate, VSR-LT3 Residents of Lo Fu Hang, VSR-LT6 Residents of The Sherwood, VSR-LT5 Residents of Fuk Hang Tsuen , VSR-LT8 Residents of Tsoi Yuen Tsuen, VSR-SK9 Trail Walkers on MacLehose Trail Section 10 (East), VSR-SK10 Residents of So Kwun Wat Tsuen, VSR-SK11 Residents of So Kwun Wat San Tsuen, VSR-SK15 Residents of Palatial Coast, VSR-SK16 Residents of Siu Lam, VSR-SK21 Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, VSR-SK22 Pedestrians on Footbridge over Tai Lam Chung River, VSR-TL3 Residents of Hong Kong Garden, and Vista Cove and L'Aquatique. These impacts are due to the relative scale, proximity and the visual prominence of the proposed works.

Summary of Landscape and Visual Impacts during Operational Phase in Year 10

11.12.1.5 During the operational phase, there will be **Moderate** adverse residual impacts in Year 10 for LR-SK1 Secondary Woodlands in So Kwun Wat, LR-NL4 Shrublands in North Lantau and LCA-NL9 Ng Kwu Leng Peninsular Landscape.

11.12.1.6 During the operational phase, there will be **Slight** adverse residual impacts in Year 10 for LR-LT1 Secondary Woodlands in Lam Tei, LR-LT2 Plantations in Lam Tei, LR-SK2 Plantations in So Kwun Wat, LR-SK4 Shrublands in So Kwun Wat, LR-TL2 Plantations / Mixed Woodlands in Tsing Lung Tau , LR-NL2 Plantations in North Lantau, LCA-LT3 Lam Tei Rural Landscape, LCA-SK4 Tai Lam Country Park Upland Landscape, LCA-SK6 Siu Lam and Tai Lam Chung Foothill Landscape, and LCA-SK7 Tai Lam Chung River Valley Landscape.

11.12.1.7 During the operational phase, there will be **Insubstantial** adverse residual impacts in Year 10 for LR-LT7 Watercourses in Lam Tei, LR-LT11 Developed Areas in Lam Tei, LR-SK7 Watercourses in So Kwun Wat, LR-SK11 Developed Areas in So Kwun Wat, LR-SK12 Carriageway and roadside planter in Ko Kwun Wat, LR-TL1 Secondary Woodlands in Tsing Lung Tau, LR-TL4 Shrublands in Tsing Lung Tau, LR-TL7 Watercourses in Tsing Lung Tau, LR-TL11 Developed Areas in

Tsing Lung Tau, LR-TL12 Carriageway and roadside planter in Tsing Lung Tau, LR-NL1 Secondary Woodlands in North Lantau, LR-NL7 Watercourses in North Lantau, LR-NL10 Seawater Body and Shorelines at Ha Pang Fairway, LR-NL11 Developed Areas in North Lantau, LR-NL12 Carriageway and roadside planter in North Lantau, LCA-LT1 Lam Tei Rural Fringe Landscape, LCA-LT2 Lam Tei Upland Fringe Landscape, LCA-LT4 Lam Tei Upland Landscape, LCA-SK3 So Kwun Wat Village Landscape, LCA-SK5 Tuen Mun Road Urban Corridor Landscape, LCA-TL5 Tsing Lung Tau Urban Landscape, LCA-TL6 To Hang Tung Foothill Landscape, LCA-NL4 North Lantau Fa Peng Teng Upland Landscape, LCA-NL8 Ha Pang Fairway Maritime Landscape and LCA-NL10 North Lantau Highway Corridor Landscape.

11.12.1.8 The residual visual impacts in Year 10 of the operational phase include **Moderate** adverse impacts for VSR-LT2 Residents of Fu Tai Estate, VSR-LT3 Residents of Lo Fu Hang, VSR-LT6 Residents of The Sherwood, VSR-LT8 Residents of Tsoi Yuen Tsuen, VSR-LT11 Future Residents of Potential Residential Development at Brownfield Clusters in Lam Tei North and Nai Wai, VSR-SK1 Trail Walkers on MacLehose Trail Section 10 (West), VSR-SK3 Residents of The Bloomsway, VSR-SK4 Students and Staff at Harrow International School Hong Kong, VSR-SK6 Residents of Aegean Coast, VSR-LT5 Residents of Fuk Hang Tsuen, VSR-SK8 Vehicle Travellers and Pedestrians on So Kwun Wat Tsuen Road, VSR-SK9 Trail Walkers on MacLehose Trail Section 10 (East), VSR-SK10 Residents of So Kwun Wat Tsuen, VSR-SK11 Residents of So Kwun Wat San Tsuen , VSR-SK12 Visitors to Glorious Praise Fellowship (Hong Kong) Treatment Centre, VSR-SK13 Vehicle Travellers on Siu Lam Road, VSR-SK15 Residents of Palatial Coast, VSR-SK16 Residents of Siu Lam, VSR-SK21 Trail Walkers and Cyclists on Tai Lam Chung Reservoir Main Dam, VSR-SK22 Pedestrians on Footbridge over Tai Lam Chung River, VSR-SK24 Trail Walkers on Summit of Hill 141, VSR-SK29 Residents of Tai Lam Chung Tsuen, VSR-TL3 Residents of Hong Kong Garden, Vista Cove and L'Aquatique, and VSR-NL2 Trail Walkers on Summit of Fa Peng Teng.

11.12.1.9 The residual visual impacts in Year 10 of the operational phase include **Slight** adverse impacts for VSR-LT1 Residents of Parkland Villas, VSR-LT4 Vehicle Travellers on Yuen Long Highway (Eastbound), VSR-LT7 Vehicle Travellers on Kong Sham Western Highway (Southbound), VSR-LT9 Vehicle Travellers on Yuen Long Highway (Westbound), VSR-SK2 Vehicle Travellers on Tuen Mun Road, VSR-SK5 Residents of Hong Kong Gold Coast, VSR-SK7 Residents of Avignon, VSR-SK14 Trail Walkers on Tai Lam Chung Reservoir Subsidiary Dam at Siu Lam Road, VSR-SK26 Vehicle Travellers on Castle Peak Road – So Kwun Wat, VSR-SK27 Students and Staff at PLK Women's Welfare Club Western District Fung Lee Pui Yiu Primary School and S.T.F.A. Lee Kam Primary School, VSR-SK23 Vehicle Travellers and Pedestrians on Castle Peak Road – Tai Lam, VSR-SK25 Trail Walkers at South of To Hang Tung, VSR-SK30 Students and Staff at Hong Kong Customs College, VSR-SK31 Staff and Visitors at Tai Lam Correctional Institution, VSR-TL1 Vehicle Travellers on Tuen Mun Road (Westbound), VSR-TL2 Residents of Bellagio and Ocean Pointe, VSR-TL4 Vehicle Travellers and Pedestrians on Castle Peak Road – Tsing Lung Tau (Eastbound), VSR-TL5 Vehicle Travellers on Tuen Mun Road (Eastbound), VSR-TL11 Pedestrians on Footbridge across Castle Peak Road – Tsing Lung Tau, VSR-TL12 Travellers in Tsing Lung Tau Ferry Pier, VSR-TL13 Travellers in Sham

Tseng Public Pier, VSR-TL14 Residents of Sea Crest Villa Phase 4, VSR-NL1 Vehicle Travellers on North Lantau Highway (Westbound), VSR-NL3 Vehicle Travellers at Lantau Link Toll Plaza, VSR-NL4 Travellers in Ma Wan Public Pier, VSR-NL5 Vehicular Travellers on Kap Shui Mun Bridge, VSR-NL6 Visitors at Sunny Bay Promenade, VSR-NL7 Maritime Travellers in Ha Pang Fairway, VSR-NL8 Residents of Park Island and VSR-NL9 Future Users at Planned Sunny Bay Reclamation Area.

11.12.1.10 The remaining VSR will be subject to an **Insubstantial** residual impact in Year 10 of the operational phase, namely, VSR-LT10 Trail Walkers on Fu Tei Country Trail and Lam Tei Irrigation Reservoir, VSR-SK28 Students and Staff at Chu Hai College of Higher Education and VSR-NL10 Future Vehicle Travellers on Planned Road P1.

11.12.2 **Summary on Recommendation in Broad Brush Tree Survey**

11.12.2.1 It is estimated there are total approximate 25,720 nos. of existing trees within the 100m landscape impact assessment area.

11.12.2.2 There is no Registered OVT within the 100m landscape impact assessment area.

11.12.2.3 There are approximate 63 nos. *Ixonanthes reticulata* (TPI) (size range: 5 to 22m height, 100 to 570mm DBH, 2 to 12m crown) are identified within and near the works area within LR-SK1 (Secondary Woodlands in So Kwun Wat) and LR-SK11 (Developed Areas in So Kwun Wat), as well as 2 nos. of mature *Ficus spp.* with DBH of over 1m at other locations are recorded within the 100m landscape assessment area, of which 8 nos. of *Ixonanthes reticulata* would be affected by the proposed work and would be proposed for removal. (refer to **Table 11.5.5** and **Appendix 11.1** for the Tree Assessment Schedule for TPI and Tree Survey Plan respectively).

11.12.2.4 Saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in LR-LT1 Secondary Woodlands in Lam Tei and LR-TL1 Secondary Woodlands in Tsing Lung Tau, and will not be affected.

11.12.2.5 8 nos. likely planted saplings of *Aquilaria sinensis*, a species of conservation interest, are identified in LR-SK12 Carriageway and roadside planter in So Kwun Wat will be affected by the road widening works and the construction of So Kwun Wat Link Road.

11.12.2.6 An estimated approximate 100 nos. of affected trees, mostly roadside amenity tree plantings, are considered suitable for transplanting. The exact quantity, tree condition, proposed recommendations as well as future receptor locations of these trees shall be further reviewed in the formal TPRP to be prepared and submitted in the Detailed Design stage.

11.12.2.7 An estimated approximate 5,077 nos. of affected trees in tree groups, together with 8 nos. of Tree of Particular Interest (TPI), namely *Ixonanthes reticulata* in Fung Shui Woodland near So Kwun Wat would be affected, and proposed to be removed due to low "Suitability for Transplanting" based on preliminary assessment at this stage (see tree assessment schedule in **Appendix 11.1**).

11.12.2.8 To achieve a compensatory ratio of not less than 1:1 in terms of number of trees to be removed, at least 5,085 nos. (5,077 nos common trees + 8 nos TPI) of compensatory trees are required. Compensatory planting proposals in the form of trees as well as other planting opportunities (e.g. slope greening, vertical greening,

landscape decks, etc.) shall be prepared as part of the formal TPRP in the Detailed Design stage for relevant government departments' agreement.

11.12.2.9 Summary tables for the preliminary assessment is provided below:

Table 11.12.1 Preliminary Assessment – Surveyed Tree Groups and TPIs

	COMMON TREE	TPI	TOTAL
No. of Trees to be Retained	8,162	57	8,219
No. of Trees to be Transplanted	100	0	100
No. of Trees to be Removed	5,077	8	5,085
TOTAL No. of Trees:	**13,339**	**65**	**13,404**

11.12.2.10 In addition, an estimated approximate 1,755 nos. of common undesirable species (i.e. *Leucaena leucocephala*) are recorded within the tree survey boundary. In accordance with paragraph 25(a) of DEVB TC(W) No. 4/2020, removal of such trees would not require a TPRP.

11.12.3 **Conclusions**

11.12.3.1 The Project will inevitably result in some landscape and visual impacts during construction and operational phases. These impacts have been minimized through careful consideration of alternatives to minimize direct conflict with TLCP, minimization of works areas, and incorporation of aesthetic external designs and appropriate landscape and visual treatments along the Route 11 alignment.

11.12.3.2 The design of the proposed scheme should seek to be as sensitive as possible, given the functional requirements, to the existing landscape and visual setting, including the use of extensive tunnel sections, namely, Lam Tei Tunnel, So Kwun Wat Link Road Tunnel and Tai Lam Chung Tunnel (North and South Sections). Important design considerations will also include the aesthetic treatment and the external appearance of the Tsing Lung Bridge structure, the Lam Tei Quarry Interchange, the So Kwun Wat Interchange, the So Kwun Wat – Siu Lam Open Road Section, the Tsing Lung Tau Interchange, the North Lantau Interchange, and the Tai Lam Chung River Viaduct. It is anticipated that the main landscape mitigation will centre on the use of extensive roadside plantation to provide a green buffer at the verge of the alignment, integrate with the existing (and future) landscape framework. These proposals are designed to address the predicted impacts during the construction and operational phases.

11.12.3.3 During the operational phase in Year 10, there will be **Moderate** adverse residual impacts on LR, namely, the LR-SK1 (Secondary Woodlands in So Kwun Wat) in Pak Shek Hang and LR-NL4 (Shrublands in North Lantau) in Ng Kwu Leng of North Lantau.

11.12.3.4 During the operational phase in Year 10, there will be **Moderate** adverse residual impacts on LCA, namely, LCA-NL9 (Ng Kwu Leng Peninsular Landscape) in Ng Kwu Leng of North Lantau, largely due to the proposed Tsing Lung Bridge structure, administration building and the access roads connecting the bridge to the North Lantau Highway.

11.12.3.5 Photomontages to illustrate the landscape and visual impacts are prepared in **Figure 11.10.8 to Figure 11.10.21** in accordance with paragraph 3.7(j) of

Environmental Impact Assessment Ordinance Guidance Note (EIAO GN) No. 8/2010.

11.12.3.6 In accordance with the criteria and guidelines for evaluating and assessing impacts as state in Annex 10, Clause 1.1(c) of the EIAO-TM, overall, it is considered that the residual landscape and visual impacts of the proposed development are **acceptable with mitigation** during the construction and operational phases.