TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX

11 LANDSCAPE AND VISUAL IMPACT

11.1 Introduction

11.1.1 This section presents the assessment on the potential landscape impact associated with the construction and operational phases of the Project, and the potential visual impact from the operational phase of the Project. The landscape and visual impact assessment has been conducted in accordance with the requirement in Annexes 10 and 18 of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) and the requirements in Section 3.4.11 and Appendix J of the EIA Study Brief (ESB-363/2023).

11.2 Environmental Legislation, Standards and Guidelines

11.2.1 The following legislation, standards and guidelines are referenced in the preparation of landscape and visual impact assessment associated with the construction and operational phases of the Project:

- Environmental Impact Assessment Ordinance (Cap. 499);
- EIAO-TM, particularly Annexes 3, 10, 11, 18, 20 and 21;
- Environmental Impact Assessment Ordinance (EIAO) Guidance Note No. 8/2023 - Preparation of Landscape and Visual Impact Assessment under the EIAO;
- DEVB TC(W) No. 3/2012 - Site Coverage of Greenery for Government Building Projects;
- DEVB TC(W) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features;
- DEVB TC(W) No. 1/2018 - Soft Landscape Provisions for Highway Structures;
- DEVB TC(W) No. 4/2020 - Tree Preservation;
- DEVB TC(W) No. 5/2020 - Registration and Preservation of Old and Valuable Trees;
- DEVB TC(W) No. 9/2020 - Blue-Green Drainage Infrastructure;
- DEVB TC(W) No. 3/2024 - Allocation of Space for Quality Greening along Roads;
- LAO PN 6/2023 – Processing of Tree preservation and Removal Proposals for Building Development in Private Projects – Compliance with Tree Preservation Clause under Lease;
- CEDD TC No. 03/2025 - Tree Works Vetting Panels;
- TPB PG No.41 - Guidelines on Submissions of Visual Impact Assessment for Planning Applications to the Town Planning Board;
- ETWB TC(W) No. 5/2005 - Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works;
- ETWB TC(W) No. 13/2003 - Guidelines and Procedures for Environmental Impact Assessment of Government Projects and Proposals;

- GEO Publication No. 1/2011 - Technical Guidelines on Landscape Treatment for Slopes;
- Town Planning Ordinance (Cap. 131) and Town Planning (Amendment) Ordinance;
- AFCD Nature Conservation Practice Note No. 1 - Clearing Mikania;
- AFCD Nature Conservation Practice Note No. 2 - Measurement of Diameter at Breast Height (DBH);
- AFCD Nature Conservation Practice Note No. 3 - The Use of Plant Names;
- Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislations;
- Plant Varieties Protection Ordinance (Cap. 490);
- Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Hong Kong Planning Standards and Guidelines Chapters 4, 10 and 11;
- Guidelines for Tree Risk Assessment and Management Arrangement (10th Edition);
- DEVB Guidelines on Tree Transplanting;
- DEVB Guidelines on Tree Preservation during Development;
- DEVB Guiding Principles on Use of Native Plant Species in Public Works Projects;
- Requirements for Handover of Vegetation to Highways Department;
- LCSD General Standards and Maintenance Requirements for Landscape Works to be Handed Over to LCSD for Horticultural Maintenance; and
- Study on Landscape Value Mapping of Hong Kong.

11.3 Assessment Methodology

Assessment Area

11.3.1 As defined in the EIA Study Brief No. ESB-363/2023, the assessment area for landscape impact assessment includes all areas within 100 m from the boundary of the Project Site, while that for visual impact assessment is defined by the visual envelope of the Project. The landscape and visual impact assessment areas are shown in **Figure 11.1** and **Figure 11.8** respectively.

Landscape Impact Assessment

11.3.2 The existing and planned landscape resources and characters within the assessment area should be described, appraised, analysed and evaluated. A system should be derived for judging landscape impact significance as required under the EIAO-TM and its relevant guidance note. The sensitivity of the landscape framework and its ability to accommodate change should be particularly focused on. The degree of compatibility of the Project with the existing and planned landscape setting should be identified. The potential landscape impact should be quantified and qualified as far as possible so as to illustrate the significance of such impact arising from the Project. Direct impacts upon specific landscape elements, in

particular on landscape with special interest, distinctive quality and value; and the overall pattern of landscape elements that give rise to landscape character, and local and regional distinctiveness should be studied. Clear mapping of the landscape impact should be provided. Broad brush tree and vegetation survey including distinctive landscape resources (e.g. Old and Valuable Trees and trees of particular interest) within the assessment area should be carried out and the impacts on them should be assessed. Cumulative landscape impact of the Project with other committed and planned developments should be assessed.

Visual Impact Assessment

11.3.3 The visual impact of the Project should be assessed. Clear illustrations including mapping of visual impact from aboveground structures should be provided. Cumulative visual impact of the Project with other existing, committed and planned developments in the assessment area should be assessed. The assessment should include the following:

- Identification and plotting of visual envelope of the Project;
- Appraisal of existing visual resources and characters as well as future outlook of the visual system of the assessment area;
- Assessment of the degree of sensitivity of the viewers of the vantage points (VPs) identified;
- Identification of sources of visual change for the Project;
- Assessment of the magnitude of visual change experienced by the views at the identified key public VPs for the Project; and
- Recommendation of visual mitigation measures for the Project.

Landscape and Visual Mitigation Measures

11.3.4 Examples of mitigation measures include preservation of vegetation and natural landscape resources (e.g. transplanting of trees in good condition and value), provision of buffer planting, re-vegetation of disturbed area, woodland restoration, compensatory planting, erection of decorative screen hoarding compatible with surrounding setting, provisioning/reprovisioning of amenity areas and open spaces, design and layout of structures, façade treatment, creation of interesting landscape or visual features and any measures to mitigate the impact on existing and planned land uses and viewers.

11.3.5 Parties should be identified for the on-going management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the implementation of the Project. A practical programme for the implementation of the recommended measures should be provided.

Significance of Landscape and Visual Impact

11.3.6 Annotation illustration materials such as coloured perspective drawings, plans and section/elevation diagrams, oblique aerial photographs, photographs taken at public viewing points, and computer-generated photomontage should be adopted to fully illustrate the landscape and visual impacts of the Project.

Landscape Impact Assessment Methodology

11.3.7 The landscape impact has been assessed according to the following procedures:

- ***Identification and description of the baseline landscape resources (LRs) and landscape character areas (LCAs) found within the assessment area***

  The assessment area includes all areas within 100 m from the Project Site. This was achieved by desktop study of topographical maps, information databases, aerial photographs, as well as undertaking site visits and broad brush tree and vegetation survey within the assessment area.

- ***Assessment of the degree of sensitivity of the identified LRs and LCAs***

  This is influenced by a number of factors including whether the resource/character is common or rare, whether it is considered to be of local, regional, national or global importance, whether there are any statutory or regulatory limitations/requirements relating to the resource, the quality of the resource/character, the maturity of the resource and the ability of the resource/character to accommodate change.

  The sensitivity of each LR and LCA is classified as follows:

  Low: Landscape resources and characters, the nature of which is largely tolerant to change.

  Medium: Landscape resources and characters of moderately valued landscape characteristics reasonably tolerant to change.

  High: Important landscape resources and characters of particularly distinctive in character or high importance, sensitive to relatively small changes.

- ***Identification of potential sources of landscape changes***

  These are the various elements of the construction works and operation procedures that would generate landscape impact.

- ***Identification of the magnitude of landscape impact***

  Factors to be considered include:

  - the compatibility (of the project) with the surrounding landscape;
  - the duration of the impact under construction and operational phases;
  - scale of development; and
  - reversibility of change.

  The magnitude of changes on LR and LCA is classified as follows:

  Negligible: Landscape resources and characters would incur no discernible change.

  Slight: Landscape resources and characters would incur slight or barely perceptible changes.

  Moderate: Landscape resources and characters would incur a moderate change.

  Substantial: Landscape resources and characters would incur a major change.

- ***Identification of potential landscape mitigation measures***

  These may take the form of adopting basic engineering design to prevent and/or minimise adverse landscape impact before adopting other mitigation or compensatory measures to alleviate the impacts. Potential mitigation measures should include the preservation of vegetation and natural landscape resources; transplanting trees with good condition and high amenity value; enhancement of existing landscape quality by providing planting with screening, shading and ornamental value; re-vegetation of disturbed lands; compensatory planting and any measures to mitigate the impact on the existing and planned land uses. A programme for the implementation of recommended mitigation measures should be provided. The relevant authorities responsible for the funding, implementation, management and maintenance of the mitigation measures should also be identified.

- ***Prediction of the significance of residue landscape impact with the implementation of mitigation measures***

  Potential mitigation measures suggested would alleviate the landscape impact and enhance the landscape quality by reinstating the disturbed lands and improve the compatibility with the surrounding. By synthesising the magnitude of the change and the sensitivity of the various LRs and LCAs, it is possible to categorise impacts in a logical, well-reasoned and consistent fashion. **Table 11.1** shows the rationale in assessing the potential significances of landscape impact.

Table 11.1 Relationship between Landscape Sensitivity and Impact Magnitude in Defining Impact Significance

		Sensitivity of LRs / LCAs		
		Low	**Medium**	**High**
Magnitude of Change	**Substantial**	Moderate	Moderate / Substantial	Substantial
	Moderate	Slight / Moderate	Moderate	Moderate / Substantial
	Slight	Slight	Slight / Moderate	Moderate
	Negligible	Negligible	Negligible	Negligible

Remark: All impacts are adverse unless otherwise noted with beneficial.

The landscape impact is categorised into five levels of significance as follows:

Beneficial: The proposal would complement the existing landscape character of its setting and/ or improve the overall landscape quality;

Negligible: No noticeable effects or insignificant effects in the existing landscape quality;

Slight: Slight adverse impact where the proposal would cause a barely perceptible deterioration in existing landscape quality;

Moderate: Some adverse impact where the proposal would cause a noticeable deterioration in existing landscape quality; and

Substantial: Adverse impact where the proposal would cause substantial deterioration in existing landscape quality.

Visual Impact Assessment Methodology

11.3.8 The visual impact has been assessed according to the following procedures:

- ***Identification and plotting of visual envelope of the Project***

  This was achieved by site visit and desktop study of topographical maps, photographs and preparation of cross-sections to determine visibility of the Project from various locations.

- ***Identification of the VPs within the Visual Envelope.*** Key public VPs are identified where members of the public or tourists can assess or view the site easily.

- ***The sensitivity of viewers of VPs is classified as follows:***

  The sensitivity of viewers of VPs can be broadly classified as follows:

  Low: The viewers are slightly sensitive to any changes in their viewing experience.

  Medium: The viewers are moderately sensitive to any changes in their viewing experience.

  High: The viewers are highly sensitive to any changes in their viewing experience.

- ***Appraisal of visual changes***

  Factors to be considered include:

  - **Visual Composition:** the total visual effects of all the visual elements due to their variation in locations, massing, heights, dispositions, scales, forms, proportions and characters vis-a-viz the overall visual backdrop. It may result in visual balance, compatibility, harmony, unity or contrast. This appraisal should have due regard to the overall visual context and character within the wider and local contexts;
  - **Visual Obstruction:** this appraisal should assess the degree of visual obstruction and loss of views or visual openness due to the Project from all key public viewing points within the assessment area. Blockage or partial blockage of views which substantially reduce visual permeability, existing panorama, vistas, visual resources or visual amenities should be avoided or minimised, in particular with regard to impact on prominent ridgelines, the harbour, natural coastlines, open sea horizon, skyline, scenic areas, valued landscape, special landmark, heritage features to be preserved, etc; and
  - **Visual Changes:** this appraisal should assess the impacts on changes with direct sightlines (considering degree of visibility and viewing distance) to the existing and future public views by comparing before and after the proposed sites.

- ***Assessment of the magnitude of visual changes***

  The magnitude of changes of visual changes are classified as follows:

  Negligible: The viewers of the VP would suffer no discernible change in their viewing experience;

  Slight: The viewers of the VP would suffer a small change in their viewing experience;

Moderate: The viewers of the VP would suffer a moderate change in their viewing experience; and

Substantial: The viewers of the VP would suffer a major change in their viewing experience.

- ***Recommendation of visual mitigation measures***

  These may take the form of adopting basic engineering design to prevent and/or minimise adverse visual impact before adopting other mitigation or compensatory measures to alleviate the impacts. Potential mitigation measures should include the preservation of vegetation and natural landscape resources; provision of screen planting; re-vegetation of disturbed lands; compensatory planting; aesthetic design of aboveground structures including provision of finishes, colour scheme, texture of materials used and any measures to mitigate the impact on the existing and planned land uses and VPs. A programme for the implementation of mitigation measures should be provided. The relevant authorities responsible for the funding, implementation, management and maintenance of the mitigation measures should also be identified.

- ***Prediction of the significance of residue visual impact with the implementation of mitigation measures***

  By synthesising the magnitude of the various visual impact and the sensitivity of the viewers of each VPs that are affected, it is possible to categorise the degree of significance of the impacts in a logical, well-reasoned and consistent fashion. **Table 11.2** shows the rationale in assessing the potential significance of visual impact.

Table 11.2 Relationship between Viewers of VPs Sensitivity and Magnitude of Change in Defining Impact Significance

		Sensitivity of Viewers of VPs		
		Low	**Medium**	**High**
Magnitude of Change	**Substantial**	Moderate	Moderate / Substantial	Substantial
	Moderate	Slight / Moderate	Moderate	Moderate / Substantial
	Slight	Negligible / Slight	Slight / Moderate	Moderate
	Negligible	Negligible	Negligible	Negligible

Remark: All impacts are adverse unless otherwise noted with beneficial.

The visual impact is categorised into five levels of significance as follows:

Beneficial: The proposal would complement the visual character of the setting and/ or improve the overall visual quality;

Negligible: No noticeable effects or insignificant effects in the existing visual quality;

Slight: Slight adverse impact where the proposal would cause a barely perceptible deterioration in existing visual quality;

Moderate: Some adverse impact where the proposal would cause a noticeable deterioration in existing visual quality; and

Substantial: Adverse impact where the proposal would cause substantial deterioration in existing visual quality.

11.4 Baseline Study

Broad brush tree and vegetation survey

11.4.1 A broad brush tree and vegetation survey was carried out within the Assessment Area between November 2023 to May 2024, and July to August 2025 to identify dominant tree species, maturity, rarity and any plant species of conservation interest, etc., which would be potentially affected to provide baseline information on the LRs and LCAs. Apart from the broad- brush tree survey, a few shrub individuals *Aralia chinensis* in species of conservation importance, is identified within 100m assessment area in the vegetation survey of **Section 9** of the EIA Report. A few individuals are identified in the Village/ Orchard (LR12), some individuals are identified in Mixed Woodland (LR8), some individuals are identified in Woodland (LR7), and the others are identified in Developed Area (LR13). Details are discussed under the **Section 9** of this EIA Report. The broad brush tree and vegetation survey findings including 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.

11.4.2 It is estimated that approximately 32,000 nos. of trees were surveyed within the 100 m Assessment Area in the broad brush tree and vegetation survey, in which approx. 19,000 nos. of trees identified within the Project Site Boundary. The most abundant tree species recorded within the Project Site include *Acacia confusa, Macaranga tanarius* var. *tomentosa, Leucaena leucocephala, Melaleuca cajuputi* subsp. *Cumingiana and Casuarina equisetifolia*, etc.. The above are mainly common native species or exotic fruit trees species which are common in rural fringe areas.

11.4.3 One registered Old and Valuable Tree (OVT) (i.e. LCSD YL/7 *Melaleuca cajuputi* subsp. *Cumingiana*) was identified outside and to the west of the Project Site, though within the assessment area.

11.4.4 For the purpose of this EIA Study, 109 nos. tree of particular interest (TPI) will be directly impacted from the construction works under the Project. Among the identified TPI, 48 nos. are very large size with DBH equal or over 1 m, while 61 nos. are protected species. A detailed Tree Preservation and Removal Proposal (TPRP) will be prepared and submitted to CEDD's tree works vetting panel during the detailed design stage, to finalise tree treatment. The locations of the TPIs are illustrated in **Appendix 11.1**.

Landscape Resources (LR)

11.4.5 There were 15 LRs identified within the 100 m assessment area. A review of these LRs together with their sensitivity are described in **Table 11.3**. The locations and photographs of these LRs are mapped in **Figure 11.2** and **Figure 11.3.1-11.3.3** respectively.

Table 11.3 Baseline Landscape Resources and their Sensitivity

LRs	Description	Sensitivity	Approx. Area (ha) / Length (km)
LR1	Marsh/ Reed This LR is mostly derived from settlement of soils from abandoned ponds. A majority of the identified marshes/ reeds are within the Project Site, with scattered arrangements and small sizes. They are mainly located in Yau Tam Mei Tsuen, to the southeast of the Project Site, and along Ngau Tam Mei Road. It mostly consists of herbaceous vegetation and common reed grass with some self-seeding small trees evolving from natural selection with human disturbances such as agricultural activities in the proximity. Considering the small size, scattered nature, exposure to human disturbance and consists of common vegetation species, the quality, rarity, significance in local and regional context, are regarded as medium with a medium to high ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	2.7 ha
LR2	Pond This LR refers to the freshwater ponds often associated with adjacent village/orchard, marsh/reed and grassland areas. They are mostly small in scale and fragmented in Yau Tam Mei Tsuen and on both sides of the bank of Ngau Tam Mei Drainage Channel (NTMDC). A majority of the ponds are largely inactive, abandoned and overgrown; some active fishponds are identified at the southeast of the Project Site and adjacent to the southern bank of the NTMDC. These active fishponds include rectangular concrete fish tanks and traditional fishponds with managed pond bunds. Herbaceous vegetation and common reed grass with a few small fruit trees at the pond bunds that are commonly found. It is also observed that the ponds were mostly interspersed with village areas and inaccessible. Considering the small size, fragmented nature, exposure to human disturbance and consists of common vegetation species, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	7.1 ha
LR3	Natural Watercourse This LR refers to abandoned meanders which run from west to east in slow flow rate and some discharging into others via underground culvert. It is identified within the Project Site and run through grassland and developed areas. The width of these abandoned meanders were approximately 1.0 m to 1.5 m with turbid and gentle water flow. Herbaceous vegetation and some trees from the adjacent woodland are found at the edge of the habitat. Considering the small size, scattered nature, exposure to some degree of human disturbance and consists of common vegetation species, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	1.2 km

LRs	Description	Sensitivity	Approx. Area (ha) / Length (km)
LR4	Modified Watercourse This LR includes mainly the NTMDC, the largest modified watercourse within the Project Site. It is channelised, trapezoidal in shape with concrete and grasscrete lining and subject to tidal influence at the downstream section. During low tide and dry season, water flow was restricted to the dry weather flow channel of about 0.5 m wide in the middle. Herbaceous vegetations are found in the drainage channels with regular trim and maintenance. Sporadic patches of aquatic herbs and ruderal plants (e.g. seedlings of Leucaena leucocephala) grew on the grasscrete area of the embankment. The vegetation is trimmed regularly during maintenance. Considering its constant exposure to human disturbance with common vegetation species, the rarity, landscape value and quality are regarded as low to medium with a medium ability to accommodate the changes. Considering watercourse has a relatively large size in the Project Site, it is considered to have a medium to high significance in local and regional context. Hence, the overall sensitivity is considered as **Medium**.	Medium	3.7 km
LR5	Semi-natural Watercourse This LR refers to watercourses with banks mostly altered, however, the stream bed is relatively natural comprised mostly of sandy or muddy material with moderate flow rate. They are mostly observed in areas to the south of the NTMDC. The width of these semi-natural watercourses ranged from approximately 0.5 m to 1.0 m. A range of flow and water quality were observed across the various tributaries ranging from gentle flow with turbid stream water, to fast flowing watercourses with turbid water. Herbaceous vegetation with some predominantly exotic or invasive tree species at the edge of the habitat including Leucaena leucocephala are commonly found. Considering the small size, scattered nature, exposure to some degree of human disturbance and consists of common vegetation species, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	3.1 km
LR6	Agricultural Land This LR refers to a mosaic of active and inactive fields. They are identified on both sides of the NTMDC which are mostly within the village areas and inaccessible. Herbaceous vegetation and some fruit trees at the periphery are commonly found on active fields. Inactive fields may have been temporarily abandoned and overgrown with ruderal herbs. Considering the small size, scattered nature, exposure to constant human disturbance and consists of common vegetation species, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	7.2 ha

LRs	Description	Sensitivity	Approx. Area (ha) / Length (km)
LR7	Woodland The LR mainly comprised closed canopy with trees ranging from 13 m to 17 m tall approximately. They are mostly located at the southern area with large areas scattered over the hills bordering the Project Site that rise steeply to form a dramatic green backdrop. Their surrounding environment were mainly developed area and village/orchard area, the woodland margin was exposed to regular human disturbance. The canopy primarily comprises *Machilus pauhoi, Schefflera heptaphylla, Sterculia lanceolata*. Other exotic trees such as *Acacia spp.* and *Lophostemon confertus* were recorded. Flora species of conservation importance, *Aquilaria sinensis*, is also recorded. Considering the small size, most vegetation are common in Hong Kong and exposed to some degree of human disturbance, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	2.7 ha
LR8	Mixed Woodland This LR mainly comprised semi-closed canopy with trees ranging from 8 to 10 m tall. It is scattered at the hillside of Ngau Tam Shan, to the north of Ngau Tam Mei Road, at the northwest of the assessment area, at the centre of the Project Site, to the east of San Wai Tsuen, and to the north to Ching Yau Road. The canopy primarily comprised *Acacia spp., Leucaena leucocephala, Ficus macrocarpa*, and *Machilus pauhoi*. Some young canopies consisting of exotic trees *Acacia confusa* and *Melia azedarach* were recorded. Two flora species of conservation importance, *Aquilaria sinensis and Aralia chinensis*, were also recorded. Considering most vegetation are common in Hong Kong and exposed to some degree of human disturbance, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	20.1 ha
LR9	Plantation This LR refers to plantations mostly along hillside and roadside areas such as Ngau Tam Shan, to the south of Ching Yau Road, along San Tin highway and landscape planting areas currently managed by AFCD along the northern bank of the NTMDC. Species recorded within this LR including *Acacia auriculiformis, Acacia confusa, Bauhinia spp., Bombax ceiba, Ehretia acuminata, Ficus microcarpa, Ficus hispida, Lophostemon confertus* and *Macaranga tanarius var. tomentosa, Melia azedarach* and *Sapium sebiferum. Flora species of conservation importance, Aquilaria sinensis are also recorded.* Considering most vegetation are young and the margins were exposed to regular human disturbance, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	10.7 ha

LRs	Description	Sensitivity	Approx. Area (ha) / Length (km)
LR10	Shrubland This LR refers to vegetation likely succeeded from abandoned agricultural lands. They are located on the southern side of the NTMDC and often associated with adjacent villages/orchards and dry agricultural land areas. They are located among the village areas and currently inaccessible. Short trees and shrubs such as native species *Celtis sinensis*, *Macaranga tanarius* var. *tomentosa* and exotic *Melia azedarach* are identified within the resource areas. Considering most vegetation are young and the margins were exposed to regular human disturbance, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	11.3 ha
LR11	Grassland This LR refers to vegetation likely succeeded from fallow fields or dried up ponds. They are in relatively small size and scattered in low-lying area mainly concentrated on both sides of the NTMDC. A main area of grassland is identified near Yau Tam Mei Tsuen. Most of this LR areas were fenced off or located among the village areas. A few short trees and shrubs are identified within the resource areas. Considering the small size, most vegetation relatively young and margins are exposed to some degree of human disturbance, the quality, rarity, significance in local and regional context, are regarded as medium with a medium ability to accommodate the changes. Hence, the overall sensitivity is considered as **Medium**.	Medium	10.8 ha
LR12	Village/ Orchard This LR refers to recognised village or low-rise residential areas of lower density dominated by domestic structures (mainly of 2-3 storeys) interwoven with roads and paths and limited other large overground structures. These areas include ancestral hall, shrines and temple and often small orchard areas associated with private gardens, as well as amenity planting among the built structures. They are identified to be mostly concentrated on the southern area of the NTMDC. The floral composition in these village/orchard areas at Ngau Tam Mei was similar and comprised predominately fruit trees and ornamental plants. Considering most vegetation are common in Hong Kong and exposed to constant human disturbance, the quality, rarity, significance in local and regional context, are regarded as low with a high ability to accommodate the changes. Hence, the overall sensitivity is considered as **Low**.	Low	52.8 ha

LRs	Description	Sensitivity	Approx. Area (ha) / Length (km)
LR13	Developed Area This LR refers to low-lying urbanised areas that are spatially defined by the patterns of surrounding human developments such as roads, rural residential developments, and parking uses etc. with very limited and low amenity greening at their site peripheral. This LR is largely scattered and cover a large proportion of the Project Site. This LR was man-made in nature and subject to human disturbance. Tree species are mostly ornamental and self-seeding such as *Macaranga tanarius var. tomentosa*, *Acacia confusa and Melaleuca cajuputi subsp. Cumingiana* were recorded within this LR. Considering most vegetation are common in Hong Kong and exposed to constant human disturbance, the quality, rarity, significance in local and regional context, are regarded as low with a high ability to accommodate the changes. Hence, the overall sensitivity is considered as **Low**.	Low	95.3 ha
LR14	Wasteland This LR refers to low-lying areas that are heavily adapted for human industrial use such as open areas for storage, parking, or other associated activities such as industrial/ open-air storage, logistic and parking uses. They are characterised by small internal roads with very little existing vegetation, in which most are self-seeded trees and shrubs scattered around the areas. Considering most vegetation are common in Hong Kong and exposed to constant human disturbance, the quality, rarity, significance in local and regional context, are regarded as low with a high ability to accommodate the changes. Hence, the overall sensitivity is considered as **Low**.	Low	33.2 ha

Landscape Character Areas (LCAs)

11.4.6 There were 6 LCAs identified within 100 m assessment area. A review of these LCAs together with their sensitivity are described in **Table 11.4**. The locations and photographs of these LCAs are mapped in **Figure 11.5** and **Figure 11.6** respectively.

Table 11.4 Baseline LCAs and their Sensitivity

LCAs	Description	Sensitivity	Approx. Area (ha)
LCA1	Settled Valley Landscape This LCA refers to landscapes characterised by low density settlements and man-made features situated at a valley floor between the ridges of Ngau Tam Shan and Kai Kung Leng. This LR consists of a mosaic of active and abandoned agricultural areas at which some were converted into open storage/ logistics/ industrial/ parking areas; hence the incoherent features and their associated structures have little formal relationship to each other. This LCA situated around watercourses of varying modification degrees from the largest channelised river system in the area – NTMDC. Outside the Project Site, Tam Mei Barracks is located at its north, Ngau Tam Mei Water Treatment Works at the far east, and Ngau Tam Mei Fresh Water Primary Service Reservoir and Ngau Tam Mei Animal Waste Composting Plant at the south. Given the high human disturbance to the area with vegetation and watercourses of low to medium amenity value, and high ability to accommodate change, the sensitivity of this LCA considered as **Medium**.	Medium	108.1

LCAs	Description	Sensitivity	Approx. Area (ha)
LCA2	Upland Plateau Landscape This LCA comprises of areas of woodland on hillocks, greenbelts in proximity to a conservation area. It includes the foothill Ngau Tam Shan and pedestrian footpaths connecting the peaks to their lower valley areas. The low development density allows a relatively rich vegetation cover with grassland and shrubland at the margins and woodlands emerging along the foothill, only small areas of graves at the lower hillside. Such vegetation forms a natural green backdrop of Ngau Tam Mei. This LCA is important and significant to the adjacent district with low ability to accommodate change, and hence its sensitivity is considered as **High**.	High	37.3
LCA3	Comprehensive Residential Development Landscape This LCA refers to the low to medium density residential housing comprises mainly of detached houses of low-build elements and private front yard, and surrounded with roadside greenery. It consists of a mostly homogeneous and ordered landscape. It is located in the northwest of the assessment area outside the Project Site, located on the edge of urban areas, including portions of The Vineyard, La Maison Vineyard and Wai Tsai Tsuen are found within this LCA. Given the high human disturbance to the area with vegetation of low amenity value, and high ability to accommodate change, the sensitivity of this LCA considered as **Low**.	Low	9.2
LCA4	Rural Inland Plain Landscape This LCA comprises of flat and expansive lowland landscapes with a low/moderate density ratio of built development. It has generally retained its rural characteristics. Often there is significant ongoing change from traditional rural land uses to non-intensive development (typified by abandoned agricultural land, highways development or storage yards). It locates at the edges of rural areas including a portion of Yau Mei San Tsuen is identified within the assessment area and outside the Project Site. Vegetation coverage is usually high within these areas. Given the high human disturbance to the area with vegetation of low to medium amenity value, and high ability to accommodate change, the sensitivity of this LCA considered as **Medium**.	Medium	3.3
LCA5	Miscellaneous Rural Fringe Landscape This LCA comprises of a wider spread of abandonment of agricultural fields, emerging into its subsequent uses including open storage areas, rural/urban residential areas, transport corridors, and parking connected by footpaths and lanes which are commonly found in New Territories. The vegetation within this LCA is a combination of matured nature within agricultural areas and unplanned roadside/self-seeded clusters along and within areas with other uses. Given the high human disturbance to the area with vegetation of low amenity value, and high ability to accommodate change, the sensitivity of this LCA considered as **Low**.	Low	89.9
LCA6	Transportation Corridor Landscape This LCA is characterised by its highly urbanised and manmade nature, mainly comprising the San Tin Highway connecting San Tin to Yuen Long. Major features include elevated flyover, signage gantries, interchange, traffic islands and associated roadside buffer planting area and tree rows. Given the high human disturbance to the area with vegetation of low amenity value, and high ability to accommodate change, the sensitivity of this LCA considered as **Low**.	Low	10.9

Visual Resource, Visual Envelope and View Points

11.4.7 The most prominent visual resource around the Project Site is a series of mountainous backdrop i.e. Kai Kung Leng to the southeast and Ngau Tam Shan to the northeast and the existing water body, NTMDC running east-west through the Project Site. The mountainous backdrop, hillside greenery and drainage channel are visible to most residents in the surrounding areas and provide a lush green backdrop and blue elements to the Project Site.

11.4.8 As a result of the very level landscape throughout the Development Area and hillsides to the north and south, a very broad view corridor is orientated on an east-west axis. From this axis, views towards the local peak and ridgelines are readily available as illustrated in **Figure 11.8**.

11.4.9 The visual envelope is formed at the north of the Project Site bounded by developments of The Vineyard and Wai Tsai Tsuen, in the northeast by ridges of Ngau Tam Shan where it meets Kai Kung Leng ridges at the east edge of the Project Site near NTMWTW. At the southeast to south of the Project Site, village settlements of Sheung Chuk Yuen, San Wai Tsuen and Chuk Yuen Tsuen are observed near the base of a continuous mountainous backdrop. Part of Lam Tsuen Country Park (LTCP), including Lung Tam Shan, Kai Kung Leng and Kai Kung Shan, forms a natural backdrop across the entire south fringe of the Project Site. On the west of the Project Site, the visual envelope is bounded by residential developments such as Fairview Park and Palm Spring at the northwest, and Tai Sang Wai and Pok Wai Village along the Kam Tin River at the southwest. The visual envelope is illustrated in **Figure 11.8**.

11.4.10 There are mainly Recreational (REC) and Traveller (T) viewers, identified within or in the proximity of the visual envelope. The locations of these key public VPs are indicated in **Figure 11.8**, with their descriptions and sensitivities evaluated in **Table 11.5** below.

11.4.11 The Recreational (REC) viewers include recreational users and hikers from Ngau Tam Shan, Kai Kung Leng, travellers/visitors along/to Yau Pok Road Nullah and Mai Po area near Tam Kon Chau Road and visitors to nearby public recreational destinations near Wai Tsai Tsuen. The remaining viewers are Travellers (T) which include commuters along San Tin Highway.

Table 11.5 Key Public Viewers and Their Sensitivity

VP. ID	Location of VPs and Description	Type of Viewers	Description and Value of Existing Views	Viewer Sensitivity (Low, Medium, High)
VP1	View from Pedestrian Bridge Along San Tin Highway (South) - Elevated VP viewing at the western portion of the Project Site, including a partial view of DP1 - Located at around 100 m from the Project Site Approx. no. of viewers: Medium	Traveller	- The general view of this VP consists of San Tin highway at the foreground; roadside planting and industrial/ open storage sites in the middle ground; and Ngau Tam Shan ridgeline in the far background. - The duration of view is transient as the viewers are travelling on a footbridge. - Value of existing view: Fair	Low
VP2	View from Pedestrian Bridge Along San Tin Highway (North) - Elevated VP viewing at the western portion of the Project Site, including a partial view of DP1 - Located at around 200 m from the Project Site Approx. no. of viewers: Medium	Traveller	- The general view of this VP consists of San Tin highway at the foreground; roadside planting and local road in the middle ground; and Kai Kung Leng ridgeline in the far background. - The duration of view is transient as the viewers are travelling on a footbridge. - Value of existing view: Fair	Low
VP3	View from Wai Tsai Tsuen Public Toilet - Ground level VP viewing at the western portion of the Project Site partially - Located at around 100 m from the Project Site Approx. no. of viewers: Medium	Recreational	- The general view of this VP consists of Ngau Tam Mei Road in the foreground; roadside planting and low rise residentials in the middle ground. - The duration of view is transient to short as this viewpoint mainly comprises the residentials and a short sidewalk. - Value of existing view: Fair	Low
VP4	View from hiking trail at Ngau Tam Shan - Elevated vantage point viewing at northeast portion of the Project Site partially - Located at around 250 m from the Project Site Approx. no. of viewers: Few	Recreational	- The general view of this VP consists of lush hillside vegetation in the foreground; the village settlements at lowlands in the middle ground; and the ridgeline of Kai Kung Leng at the background. The existing view featured with unobstructed view towards the rolling green terrain and ridgeline of Kai Kung Leng. - The duration of view is transient to short as most of the viewers will only have short rest at the lookout point and then continue their hiking journey on unmaintained paths. - Value of existing view: Good	High

VP. ID	Location of VPs and Description	Type of Viewers	Description and Value of Existing Views	Viewer Sensitivity (Low, Medium, High)
VP5A & 5B	View (looking north and north-east) from unmaintained path at Kai Kung Leng - Elevated vantage point viewing at the west portion of the Project Site including a panorama view of DP 1&2 - Located at around 1000 m from the Project Site Approx. no. of viewers: Few	Recreational	- The general views of these VPs consist of the village settlements at lowlands in the middle ground, and an unobstructed view towards Mai Po wetlands and Shen Zhen at the background. - The duration of views is transient to short as most of the viewers will only have short rest at the lookout point and then continue their hiking journey on unmaintained paths. - Value of existing view: Good	High
VP6	View from Nam Sang Wai River Education Trail - Ground level VP along Nam Sang Wai River Education Trail viewing at southwest of the Project Site partially - Located at around 2100 m from the Project Site Approx. no. of viewers: Few	Recreational	- The general view of this VP consists of vegetation on the river embankments in the foreground; the Kam Tin River in the middle ground; vegetation on the opposite embankment and ridgeline of Kai Kung Leng at the background. - The duration of view is transient to short as most of the viewers will only have short rest at the lookout point and then continue their journey on the footpath. - Value of existing view: Good	Medium
VP7	View from Tam Kon Chau Road near Mai Po - Ground level VP within Mai Po Natural Reserve viewing at the northwest of the Project Site partially - Located at around 2000 m from the Project Site Approx. no. of viewers: Few	Recreational	- The general view of this VP consists of vegetation on the pond embankments in the foreground in Mai Po area; shrubs and a few scattered tree clusters in the middle ground; distant ridges of Kai Kung Shan and Kai Kung Leng at the background. - The duration of view is transient to short as most of the viewers will only have short rest at the lookout point and then continue their journey on the sidewalk. - Value of existing view: Good	Medium

Committed/ Planned Developments

11.4.12 Committed/ planned developments identified in the proximity of assessment area include:

- Northern Link Main Line
- San Tin Lok Ma Chau Development Node (also known as San Tin Technopole (STT))
- Ngau Tam Mei Water Treatment Works (NTMWTW) Extension
- Site Formation and Infrastructure Works for Public Housing Development at Sha Po, Yuen Long
- Proposed Residential Development of Various Lots in D.D. 104 and the adjoining Government Land in Yuen Long, New Territories
- Proposed Comprehensive House and Wetland Habitat Development, Wo Shang Wai, Mai Po, Yuen Long
- Proposed Government, Institution or Community Facility, Ngau Tam Mei, Yuen Long
- Proposed Light Public Housing Development, Yau Pok Road, Yuen Long
- Proposed Temporary Transitional Housing, Ngau Tam Mei, Yuen Long
- Proposed House Development, Mai Po, Yuen Long, New Territories
- Proposed Residential Development with Wetland Habitat, North of Kam Pok Road East, Pok Wai, Yuen Long
- Proposed Comprehensive Development with Wetland Enhancement at Nam Sang Wai and Lut Chau, Yuen Long, New Territories
- Proposed Comprehensive Residential Development with wetland restoration area at Wing Kei Tsuen, Nam Sang Wai, Yuen Long
- Proposed comprehensive residential development wetland restoration area at West of Castle Peak Road – Tam Mi, Yuen Long
- Proposed comprehensive residential development at West of Castle Peak Road – Tam Mi, Yuen Long

11.5 Landscape Impact Assessment

11.5.1 Potential sources of landscape impact during construction phase would arise from:

- Site clearance (including potential tree and vegetation removal) and site formation works;
- Road works and infrastructure works;
- Foundation and building works;
- NTMDC revitalisation works;
- Potential transplanting;

- Temporary works site/areas for site offices, storage of construction materials, equipment and plants; hoarding, haul road, construction traffic, etc.; and
- Dust and construction debris.

11.5.2 Potential sources of landscape impact during operational phase would arise from:

- Operation of individual development within building lots;
- Operation and maintenance of proposed open space areas;
- Provision of noise mitigation measures such as noise barriers;
- Residual impacts of permanent removal of existing trees and other vegetation; and
- Changes of landscape character permanently due to the Project.

11.5.3 The magnitude of change on LRs and LCAs associated with the construction and operational phases of the Project has been assessed and are described in **Table 11.6** and **Table 11.7**, respectively.

Table 11.6 Magnitude of Changes on Landscape Resources during Construction and Operational Phases

LR ID	Landscape Resource	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LR1	Marsh/ Reed	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 72% (approx. 1.9 ha) of this LR area would be affected permanently. • Vegetation consisting of some small trees at the edges would be affected.	Moderate	Moderate
LR2	Pond	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and infrastructure works.	• Approx. 77% (approx. 5.5 ha) of this LR area would be affected permanently, taken up by site formation works. • Vegetation consisting of a relatively small amount of small trees at the edges would be affected.	Moderate	Moderate
LR3	Natural Watercourse	• Site formation and associated road works for Project area. • NTMDC revitalisation works including drainage channel diversion and realignment.	• Approx. 81% (approx. 1 km) of this LR area would be affected permanently. • Vegetation consisting of a relatively small amount of trees at the edges would be affected.	Moderate	Moderate

LR ID	Landscape Resource	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LR 4	Modified Watercourse	• Site formation and associated road works for Project area. • NTMDC revitalisation works including drainage channel widening and realignment.	• Approx. 53% (approx. 2 km) of this LR area would be affected temporarily by NTMDC revitalisation works. • Approx. 19% of this LR area would be affected permanently. • Vegetation consisting of a relatively small amount of trees at the edges would be affected.	Moderate	Moderate
LR 5	Semi-natural Watercourse	• Site formation and associated road works for Project area. • NTMDC revitalisation works including drainage channel widening and realignment.	• Approx. 14% (approx. 0.4 km) of this LR area would be affected temporarily by NTMDC revitalisation works. • Approx. 63% (approx. 2 km) of this LR area would be affected permanently. • Vegetation consisting of a relatively small amount of trees at the edges would be affected.	Moderate	Moderate
LR 6	Agricultural Land	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 91% (approx. 6.6 ha) of this LR area would be affected permanently. • Vegetation consisting of some fruit trees at the edges would be affected.	Moderate	Moderate
LR 7	Woodland	• Associated road works for Project area. • Construction of road connection to/from STT.	• Approx. 28% (approx. 0.8 ha) of this LR area would be affected permanently. • A relatively small portion of vegetation especially trees at the foothills would be affected.	Slight	Slight
LR 8	Mixed Woodland	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 10% (approx. 2 ha) of this LR will be preserved. • Approx. 27% of this LR area would be affected permanently. • No impacts to the preserved areas. • A portion of vegetation including trees at the foothills would be affected.	Slight	Slight

LR ID	Landscape Resource	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LR9	Plantation	• Associated road works for Project area. • Construction of road connection to/from STT • Site formation and associated road works for Project area • Construction of open spaces adjacent to NTMDC revitalisation works, public facilities, and road works.	• Approx. 42% (approx. 4.5 ha) of this LR area would be affected permanently. • A portion of vegetation consist of relatively young trees at the foothills and along nullah would be affected.	Moderate	Moderate
LR10	Shrubland	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works. • Construction of road connection to/from STT.	• Approx. 24% (approx. 2.7 ha) of this LR area would be affected permanently. • A relatively small portion of vegetation consisting of small trees at the edges would be affected.	Slight	Slight
LR11	Grassland	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 56% (approx. 6 ha) of this LR area would be affected permanently. • Vegetation consisting of a relatively small amount of small trees at the edges would be affected.	Moderate	Moderate
LR12	Village/ Orchard	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 75% (approx. 39.6 ha) of this LR area would be affected permanently. • Vegetation consisting of a small amount of ornamental trees would be affected.	Substantial	Substantial
LR13	Developed Area	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 41% (approx. 39.1 ha) of this LR area would be affected permanently. • Vegetation consisting of common and ornamental tree species would be affected.	Moderate	Moderate

LR ID	Landscape Resource	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LR14	Wasteland	• Site formation and associated road works for Project area. • Construction of open spaces, public facilities, new buildings and road works.	• Approx. 72% (approx. 23.9 ha) of this LR area would be affected permanently. • Vegetation consisting of common and undesirable species would be affected.	Moderate	Moderate

Table 11.7 Magnitude of Changes on Landscape Character Areas during Construction and Operational phases

LCA ID	Landscape Character Area	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LCA1	Settled Valley Landscape	• Site formation and associated road works for project area. • Construction of open spaces adjacent to NTMDC revitalisation works, public facilities, new buildings, infrastructure and road works • NTMDC revitalisation works including drainage channel widening and realignment.	• Approx. 74% (approx. 80 ha) of this LCA would be affected permanently. • The LCA will be substantially replaced by a new institutional landscape character.	Substantial	Substantial
LCA2	Upland Plateau Landscape	• Site formation and associated road works for Project area. • Construction of road connection to/from STT.	• Approx. 17% (approx. 6.3 ha) of this LCA would be affected permanently. • A small portion of the LCA would be replaced as part of STT transportation corridor landscape.	Slight	Slight
LCA3	Comprehensive Residential Development Landscape	• No temporary works and permanent works proposed	• Nil	Negligible	Negligible
LCA4	Rural Inland Plain Landscape	• Associated road works for Project area. • Construction of road connection to/from STT.	• Approx. 1% (approx. 0.03 ha) of this LCA would be affected permanently. • The character of this LCA would remain the same as the existing due to the similar development nature.	Slight	Slight

LCA ID	Landscape Character Area	Description of Works	Descriptions of Impacts	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)	
				Construction	Operational
LCA5	Miscellaneous Rural Fringe Landscape	• Site formation and associated road works for Project area. • Construction of open spaces adjacent to NTMDC revitalisation works, public facilities, new buildings, infrastructure and road works • NTMDC revitalisation works including drainage channel widening and realignment.	• Approx. 57% (approx. 51.2 ha) of this LCA would be affected permanently. • The LCA will be substantially replaced by a mixed modern comprehensive urban development landscape, some portions will become part of institutional landscape.	Moderate	Moderate
LCA6	Transportation Corridor Landscape	• Associated road works for Project area. • Construction of road connection to/from STT.	• Approx. 11% (approx. 1.2 ha) of this LCA would be affected permanently. • The character of this LCA would remain the same as the existing due to the similar development nature.	Negligible	Negligible

Significance of Unmitigated Landscape Impact

11.5.4 The significance of landscape impact, before implementation of mitigation measures, during the construction and operational phases have been assessed and are presented in **Table 11.6** and **Table 11.7**.

11.5.5 The significance of unmitigated impacts on the affected LRs and LCAs are described as below.

Landscape Resources

LR1-Marsh/ Reed

11.5.6 The herbaceous vegetation and some small trees at the edge are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its small size, scattered nature, exposure to human disturbance and consists of common vegetation species. During the construction stage, the vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. Considering that the affected areas are scattered and relatively moderate in scale, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR2-Pond

11.5.7 Freshwater ponds and some small trees at the edge of the ponds are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to exposure to constant human disturbances and consists of mainly common species. During the construction stage, existing vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. Considering that the affected areas are scattered, relatively moderate in scale, the major landscape resources are man-made and re-creatable, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR3-Natural Watercourse

11.5.8 Small meanders and some small trees at the edge of the watercourse are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to the small size, scattered nature, exposure to some degree of human disturbance. During the construction stage, the watercourses would be permanently affected by drainage channel diversions and existing vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be rediverted as part of the revitalisation of NTMDC, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. While the affected areas within this LR is considerably large, this LR is generally scattered and small in scale, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR4-Modified Watercourse

11.5.9 Channelised watercourses and self-seeding / cultivated vegetation at the embankments are the key landscape resources of this LR which is man-made, re-creatable and exposed to constant human disturbances. Considering its scale within the Assessment area, it has some local and regional significance. Hence, the sensitivity of this LR is identified as **medium**. During the construction stage, the majority of this LR (approx. 53%), NTMDC will be retained and temporarily affected, with a small portion (approx. 19%) permanently affected. The existing vegetated area would be permanently affected. Upon completion of works, the majority of this LR, NTMDC will be widened and revitalised, while the rest of this LR will be affected permanently. The affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium to high and the changes are partly reversible at the operational phase. The widened and revitalised NTMDC will better fulfill the future increase drainage and flood surge needs, enhancing its local and regional significance and landscape compatibility. Considering that the majority affected areas are temporary and would be enhanced in quality, while the permanently affected areas are relatively small in scale and consists of mainly re-creatable man-made structures, the magnitude of impact on this LR due to the Project is considered as **moderate** with beneficial impacts. The resultant unmitigated impact during construction and operational phases is considered as **beneficial**.

LR5-Semi-natural Watercourse

11.5.10 Watercourses with banks mostly altered and some small trees at the edge are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to the small size, scattered nature, exposure to some degree of human disturbance. During the construction stage, a small portion within NTMDC (approx. 14%) of watercourses will be temporarily affected during the NTMDC revitalisation works, while a moderate portion (approx. 63%) will be permanently affected by drainage channel diversions. The existing vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, portions within NTMDC will be widened and revitalised, while the rest of this LR will be affected permanently. The affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium to high and the changes are partly reversible at the operational phase. Considering that the affected areas are relatively moderate in scale and consists of re-creatable man-made structures, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR6-Agricultural Land

11.5.11 The herbaceous vegetation and some fruit trees at the edge are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its small size, scattered nature, exposure to constant human disturbance and consists of common and cultivated vegetation species. During the construction stage, the vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. While the affected areas within this LR is considerably large, this LR is generally scattered and small in scale, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR7-Woodland

11.5.12 The hillside vegetation is the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its consists of mainly common species and exposed to some degree of human disturbance. During the construction stage, among the extensive vegetation cover, only a relatively small area at the foothills will be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is low and the changes are irreversible. Considering that the affected areas are relatively small in scale, the magnitude of impact on this LR due to the Project is considered as **slight**. Considering currently the LR constitutes one of the sources of greenery, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR8-Mixed Woodland

11.5.13 The hillside vegetation is the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its consists of mainly common species and

exposed to some degree of human disturbance. During the construction stage, among the extensive vegetation cover, approx. 10% of area will be preserved and other areas mainly at the foothills will be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, approx. 10% of this LR will be retained, while the other portions would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is low and some of the changes are irreversible. Considering that the affected areas are relatively small in scale, the magnitude of impact on this LR due to the Project is considered as **slight**. Considering currently the LR constitutes one of the sources of greenery, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR9-Plantation

11.5.14 The landscape planting areas currently under AFCD's management are the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its relatively young age and exposure to human disturbance. During the construction stage, among the extensive vegetation cover, a small area at the foothills and along the nullah will be permanently affected for site formation, construction of access roads and the revitalisation of NTMDC. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. Considering that the affected areas are relatively small in scale, the major landscape resources are man-made and re-creatable, the magnitude of impact on this LR due to the Project is considered as **moderate**. Considering the LR is mostly of cultivated nature, the resultant unmitigated impact during construction and operational phases is **moderate**.

LR10-Shrubland

11.5.15 The hillside vegetation is the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its consists of relatively young vegetation and exposed to some degree of human disturbance. During the construction stage, among the extensive vegetation cover, only a relatively small area at the low-lying areas will be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is medium and the changes are irreversible. Considering that the affected areas are relatively small in scale, the magnitude of impact on this LR due to the Project is considered as **slight**. Considering that the LR constitutes young vegetation, the resultant unmitigated impact during construction and operational phases is **slight.**

LR11-Grassland

11.5.16 The hillside vegetation is the key landscape resources of this LR. The sensitivity of this LR is identified as **medium** due to its small size, consists of relatively young vegetation and exposed to some degree of human disturbance. During the construction stage, among the extensive vegetation cover, only the scattered portions at the low-lying areas will be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is moderate and the

changes are irreversible. Considering that the affected areas are relatively moderate in scale and mostly scattered, the magnitude of impact on this LR due to the Project is considered as **moderate**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate.**

LR12-Village/ Orchard

11.5.17 The ornamental vegetation is the key landscape resources of this LR. The sensitivity of this LR is identified as **low** due to its exposure to constant human disturbance and consists of common vegetation. During the construction stage, existing vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is high and the changes are irreversible. Considering that the affected areas are relatively large in scale, the magnitude of impact on this LR due to the Project is considered as **substantial**. Hence, the resultant unmitigated impact during construction and operational phases is **moderate.**

LR13-Developed Area

11.5.18 The ornamental and self-seeding vegetation are the key landscape resources of this LR. The sensitivity of this LR is identified as **low** due to its exposure to constant human disturbance and consists of common vegetation. During the construction stage, existing vegetated area would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is high and the changes are irreversible. Considering that the affected areas are relatively moderate in scale and the major landscape resources are man-made and re-creatable, the magnitude of impact on this LR due to the Project is considered as **moderate**. Considering the LR constitutes mainly of man-made elements, the resultant unmitigated impact during construction and operational phases is **slight.**

LR14-Wasteland

11.5.19 The brownfields and self-seeding vegetation are the key landscape resources of this LR which has poor quality and low compatibility with the surrounding rural natural landscape resources. The sensitivity of this LR is identified as **low**. During the construction stage, existing brownfields and scattered vegetations would be permanently affected for site formation, construction of access roads and proposed developments. Upon completion of works, this LR would be redeveloped, including open spaces, railway depot with commercial/ residential uses, and the affected vegetated area would be provided in the Open Space land use or roadside greenery subject to the future development scheme. The compatibility of the proposed works is high and the changes are irreversible. The affected areas are relatively moderate in scale and the major landscape resources are man-made and re-creatable, hence, the magnitude of impact on this LR due to the Project is considered as **moderate** with beneficial impacts. Considering the rationalisation of the scattered brownfield operations which is a landscape resource of low quality, the resultant unmitigated impact during construction and operational phases is considered as **beneficial.**

Landscape Character Areas

LCA1-Settled Valley Landscape

11.5.20 This LCA refers to low density settlements and man-made structures in a valley around streams including NTMDC between Ngau Tam Shan and Kai Kung Leng. Its sensitivity is considered as **medium** due to its high human disturbance to the area with vegetation and watercourses of low to medium amenity value. During the construction stage, the existing settlements and man-made features including orchards and open storage areas will be permanently removed. The NTMDC will be temporarily affected for widened and revitalisation works. Upon the completion of works, the proposed developments consisting of mainly Government, Institution or Community (GIC) and UniTown will take up most of the area on both sides of the revitalised NTMDC. The changes are irreversible, and compatibility of works is low to medium. As the affected area is relatively extensive, the magnitude of impact to this LCA is considered as **substantial**. Considering that the LR constitutes the most significant coverage among all LRs, the unmitigated landscape impact on this LCA during construction and operational phases is considered as **substantial**.

LCA2-Upland Plateau Landscape

11.5.21 This LCA refers to the existing vegetated hillsides at Ngau Tam Shan and areas of woodland on hillocks. Its sensitivity is considered as **high** due to its importance as a natural green backdrop of Ngau Tam Mei with vegetation of medium amenity value. During the construction stage, a small portion of the vegetation at the foothills, especially at the northeast portion will be temporarily and permanently affected for natural terrain mitigation measures and slope cutting works. Upon completion of works, the disturbed natural hillside would be removed permanently, replaced by modified slopes and road connection to/from STT. The nature of the Project is not similar as the existing character with low to medium compatibility of the proposed works and the changes are irreversible. Considering that the affected area is relatively small in scale, hence, the magnitude of impact to this LCA is considered as **slight**. The unmitigated landscape impact on this LCA during construction and operational phases is considered as **moderate**.

LCA3-Comprehensive Residential Development Landscape

11.5.22 This LCA refers to the low to medium density residential housing of generally homogeneous character at the Ngau Tam Mei and around San Tin Highway. Its sensitivity is considered as **low**. Considering that no works would be proposed during both the construction and operational phase within this LCA, the degree of compatibility is high, the magnitude of impact from the Project to this LCA is **negligible** and the unmitigated landscape impact on this LCA during construction and operational phases is considered as **negligible**.

LCA4-Rural Inland Plain Landscape

11.5.23 This LCA refers to low/moderate density ratio of built development on flat and expansive lowland landscapes. Its sensitivity is considered as **medium** due to high human disturbance with vegetation of low to medium amenity value. During the construction stage, a small portion of this LCA, especially near San Tin Highway will be temporarily and permanently affected by the proposed road works. Upon completion of works, the disturbed area would be removed permanently and replaced by footbridges and road connection to/from STT. The nature of the Project is similar as the existing character with high compatibility of the proposed works and the changes are irreversible. As the affected area is relatively small in scale, the magnitude of impact to this LCA is considered as **slight**. Considering that the LR

constitutes only a small portion at the furthest western fringe of the assessment area, the unmitigated landscape impact on this LCA during construction and operational phases is considered as **slight**.

LCA5-Miscellaneous Rural Fringe Landscape

11.5.24 This LCA would have resembled the Settled Valley Landscape traditionally, however, it underwent a change with a wider spread of abandonment of agricultural fields, emerging into its subsequent uses as brownfields. The current LCA has low compatibility with its natural rural setting and tends to become increasingly incoherent. The sensitivity is regarded as **low**. During the construction stage, the existing man-made features including low density settlements and brownfields will be permanently removed. Upon the completion of works, proposed developments consisting of mainly railway depot with commercial/ residential development, open spaces and GIC will take up most of the area on both sides of the revitalised NTMDC. The changes are irreversible, and compatibility of works is high. As the affected area is moderate in scale, the magnitude of impact to this LCA is considered as **moderate**. Considering that the rationalisation of the scattered brownfield operations which is a landscape character area of low quality, the impact of the proposed development is considered as beneficial with higher compatibility with the surrounding comprehensive residential development landscapes. The unmitigated landscape impact on this LCA during construction and operational phases is considered as **beneficial**.

LCA6-Transportation Corridor Landscape

11.5.25 This LCA refers to highways and associated roadside buffer planting areas in a highly urbanised environment. Its sensitivity is considered as **low** due to high human disturbance with vegetation of low amenity value. During the construction stage, a small portion of this LCA, especially near San Tin Highway will be temporarily and permanently affected by the proposed road works. Upon completion of works, the disturbed area would be removed permanently and replaced by footbridges and roads connecting to San Tin Highway. The nature of the Project is similar as the existing character with high compatibility of the proposed works and the changes are irreversible. As the affected area is relatively small in scale, the magnitude of impact to this LCA is considered as **negligible**. Considering that the LR, upon completion of works, will remain under the same character, the unmitigated landscape impact on this LCA during construction and operational phases is considered as **negligible**.

11.6 Visual Impact Assessment

11.6.1 Potential sources of visual impact during the operational phase would be:

- Operation of the proposed aboveground structures, including GIC and residential developments, and their associated activities;
- Operation of the proposed noise mitigation measures such as noise barriers;
- Permanent removal of existing trees and vegetation, and other natural or rural features;
- Landscape maintenance works; and
- Increased road traffic and road lighting.

11.6.2 The locations and development details of permanent aboveground structures that would cause potential visual impact are summarised in **Table 11.8**.

Table 11.8 Locations and Development Details of Permanent Aboveground Structures

Site	Type of Land Use		Max. No. of Storey / Max. Building height	Floor to Floor Height (m)
OU(RDCRD).1	Other Specified Uses	Residential and Commercial Development on Railway Depot	200/220 mPD	3.15 (TYPICAL)
R.1	Private Residential	Private Housing	180 mPD	3.15 (TYPICAL)
R.2	Private Residential	Private Housing	200 mPD	3.15 (TYPICAL)
R.3	Private Residential	Private Housing	180 mPD	3.15 (TYPICAL)
R.4	Private Residential	Private Housing	200 mPD	3.15 (TYPICAL)
RSc.1	Private Residential	Dedicated Rehousing Estate (DRE)	180 mPD	3.15 (TYPICAL)
E.1	Education	Secondary School	8 storeys	4
E.2	Education	Primary School	8 storeys	4
G.1	G/IC	Sewage Pumping Station	3 storeys	5
G.2	G/IC	G/IC Reserve	3 storeys	N/A
G.3	G/IC	Electricity Substation	3 storeys	5
G.4	G/IC	Refuse Collection Point & Community Recycling Centre	8 storeys	5
G.5	G/IC	Fire Station cum Ambulance Depot and Staff Quarters	140 mPD	3.15 (domestic) (TYPICAL) 5 (Fire Station cum Ambulance Depot) (TYPICAL)
G.6	G/IC	UniTown	100 mPD	5 (TYPICAL)
G.7	G/IC	Refuse Collection Point	3 storeys	5
G.8	G/IC	Integrated Hospital	140 mPD	5 (TYPICAL)
G.9	G/IC	Electricity Substation	3 storeys	5
G.10	G/IC	UniTown	8 storeys	5 (academic buildings)
G.11 & 12	G/IC	UniTown	100 / 140 mPD	5 (academic buildings) 3.15

Site	Type of Land Use		Max. No. of Storey / Max. Building height	Floor to Floor Height (m)
				(hostels and quarters) (TYPICAL)
G.13	G/IC	G/IC Reserve	8 storeys	N/A

Remark: Exact levels, heights and dimensions would be subject to detailed design.

Magnitude of Visual Changes on existing VPs

11.6.3 The magnitude of visual changes during operational phase have been assessed and are described subject to the visual composition, visual obstruction and visual change in text and shown in **Table 11.9** in accordance with EIAO GN No. 8/2023. Photomontages have been prepared for the proposed VPs as per the requirements of the EIA Study Brief.

11.6.4 The criteria for the selection of representative viewpoints for photomontages include:

- the viewpoints which cover the aboveground structure(s) viewed from major public viewpoint would be potentially affected by the proposed permanent structures; and
- the viewpoints should be able to represent the worst-case scenarios and demonstrate the compatibility of the aboveground structures to the adjacent visual context and illustrate the visual effect during operations with mitigation measures.

Table 11.9 Magnitude of Visual Change during Operational Phase

VP. ID	Location of VPs	Source of Visual Impact	Visual Composition	Visual Obstruction	Visual Change	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)
VP1	Pedestrian Bridge Along San Tin Highway (South)	Aboveground structures of proposed private housing, DRE, primary school, secondary school and associated roadworks	- The proposed high-rise residential developments, educational institution and associated roadworks of the Project would be visible at a relatively short viewing distance from this elevated VP. - The Project will contrast with the open sky view and mountain ridgeline. The foreground view of San Tin Highway and its associated roadside planting would remain unchanged.	- As shown in the photomontage, the Project would inevitably create partial visual obstruction to the roadside amenity planting, open sky view and obstruction to the distant ridgeline of Ngau Tam Shan. The general visual openness is reduced.	- Before the proposed development, the value of this view is primarily attached to the roadside amenity planting, distant mountain backdrop and open sky view. - The proposed development would maintain most of the foreground vegetation as visual amenity. It will mainly alter the character of the middle ground and background of this view which results in complete blockage to the mountain ridgeline and partial blockage to the sky view. - Degree of visibility: Partial - Viewing distance: Short	Moderate
VP2	Pedestrian Bridge Along San Tin Highway (North)	Aboveground structures of proposed private housing and DRE	- The proposed high-rise residential developments and associated roadworks of the Project rising above the roadside planting would be visible at a relatively short viewing distance from this elevated VP. - The Project will contrast with the open sky view and dense roadside planting. The foreground view of San Tin Highway and its associated roadside planting would remain unchanged.	- As shown in the photomontage, the Project would inevitably create partial visual obstruction the distant mountain ridgeline of Kai Kung Leng and to the sky view. The rest of the ridgeline is slightly visible through the roadside trees. The general visual openness is reduced.	- Before the proposed development, the value of this view is primarily attached to the roadside amenity planting, distant mountain backdrop and open sky view. - The proposed development would maintain the foreground vegetation as visual amenity. It will mainly alter the character of the middle ground and background of this view which results in complete blockage to the mountain ridgeline and partial blockage to the sky view. - Degree of visibility: Partial - Viewing distance: Short	Moderate

VP. ID	Location of VPs	Source of Visual Impact	Visual Composition	Visual Obstruction	Visual Change	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)
VP3	Wai Tsai Tsuen Public Toilet	Aboveground structures of proposed private housing	- The proposed high-rise residential development of the Project will be visible at a relatively short viewing distance behind the existing low-rise village houses and will appear relatively large when compare to the existing village houses in the middle ground. The existing rural fringe character will be altered.	- The existing open sky view will inevitably be partially obstructed due to the proposed high-rise residential development in the background. The general visual openness will be slightly decreased.	- Before the proposed development, the value of this view is primarily attached to the open sky view. - The proposed development would preserve the foreground vegetation as visual amenity. It will mainly obstruct the open sky view partially. - Degree of visibility: Partial - Viewing distance: Short	Moderate
VP4	Hiking trail at Ngau Tam Shan	Aboveground structures of DRE, private housing, UniTown and Integrated Hospital	- As shown in the photomontage, due to the elevated nature of this VP, a large portion of the proposed developments and their roofs of the Project would be visible and will be a dominant element of this view, standing in contrast to Kai Kung Leng. From this VP, the proposed DRE site, private housing, UniTown and Integrated Hospital will be visible. - There will be a visual disconnection between the Kai Kung Leng ridges, settled valley, and the foreground of Ngau Tam Shan due to the relatively large scale of the Development. In the foreground, vegetation at Ngau Tam Shan would remain.	- As shown in the photomontage, the Project would inevitably create a significant visual obstruction to distant natural views and areas beyond in the background. The vegetated slopes of Kai Kung Leng and distant ridgeline of Tai Lam Country Park will be blocked by the Project. Most of the Kai Kung Leng ridgeline will remain visible. The general visual openness of the lowlands is decreased due to addition of building massing on the settled valley, but the open sky view largely remains visible due to the VP elevation.	- Before the proposed development, the value of this view is primarily attached to its rural nature, consisting of lush vegetation in the foreground, rural valley settlement in the middle ground, mountainous and open sky view in the backdrop. - The proposed development would maintain the foreground vegetation as visual amenity. However, it will obstruct the mountainous backdrop and the central portion of settle valley area will be lost. - Degree of visibility: Partial - Viewing distance: Short	Moderate
VP5A & 5B	Unmaintained path at Kai Kung Leng	Aboveground structures of DRE, private housing, UniTown and Integrated Hospital	- Due to the elevated nature of this VP, some proposed buildings and streetscapes of the Project are entirely or largely visible at a long viewing distance. A sweeping view from this VP will allow visibility of the entire Project.	- The Project will create slight visual obstruction to the greenery at the centre and background of the view. The Project will slightly block the existing distant view of fishponds at the northwest and Ngau Tam Shan in the northeast. Deep Bay, Mai Po and the Shenzhen skyline remain visible in	- Before the proposed development, the value of this view is primarily attached to its openness and rural nature. It consists of rural valley settlement in the middle ground, Deep Bay, Mai Po, Shenzhen skyline, mountainous and open sky view in the backdrop.	Moderate

VP. ID	Location of VPs	Source of Visual Impact	Visual Composition	Visual Obstruction	Visual Change	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)
			- There will be a visual disconnection between foothills of Ngau Tam Shan and greenery among the existing villages. The rural character of the immediate area will be contrasted by the scale of the Project. However, the visuals of the Project will balance with the planned STT, other planned comprehensive residential developments (by others) and Shenzhen urban area in the background.	the distant background. Proposed view corridors aligned with the ridgelines of Ngau Tam Shan and Kai Kung Leng preserve view connections between the Project Site, surrounding mountain ridgelines and neighbouring village settlements.	- After the proposed development, the foothills of Ngau Tam Shan and vegetation in the foreground of Kai Kung Leng will remain unaffected in this view and continue serve as a visual amenity. The Project will mainly obstruct distant fishponds and ridges partially and replace the entire central portion of the settled valley. - Degree of visibility: Partial - Viewing distance: Medium	
VP6	Nam Sang Wai River Education Trail	Aboveground structures of private housing	- The view by the riverside features Kam Tin River predominantly in the foreground. From this VP, some of the proposed DRE site of the Project will be visible behind the lower slopes of Kai Kung Leng and stand in contrast to the mountainous backdrop. - There are existing industrial developments beside the river and planned comprehensive residential developments (by others) in view contributing to a regional urban fringe visual character.	- As shown in the photomontage, the Project will not cause visual obstruction to Kam Tin River in the foreground and the lower slopes Kai Kung Leng. The open sky closer to the horizon will be partially blocked. The mountain stands more prominent than the development with partial obstructions by planned developments.	- Before the proposed development, the value of this view is primarily attached to the embankment vegetation, distant mountain backdrop and open sky view. - With the planned developments, there will be no visual obstruction to the key visual resource, river, but partial obstruction to the mountain in background. The overall openness of the view will be slightly affected by the developments, and the rural character of the landscape will be transformed into urban fringe generally. - Degree of visibility: Partial - Viewing distance: Long	Moderate
VP7	Tam Kon Chau Road near Mai Po	Aboveground structures of DRE, private housing and UniTown	- As shown in the photomontage, the tops of the proposed DRE site and private residential developments and UniTown of the Project would be visible at a long viewing distance near the lower slopes of Kai Kung Leng.	- As shown in the photomontage, the Project and planned developments will partially block the lower slopes of Kai Kung Leng, while the ridges' visual connection with its surrounding remains intact	- Before the proposed development, the value of this view is primarily attached to the embankment vegetation, distant mountain backdrop and open sky view. - After the proposed development, it will partially obstruct only the lower	Slight

VP. ID	Location of VPs	Source of Visual Impact	Visual Composition	Visual Obstruction	Visual Change	Magnitude of Change (Negligible/ Slight/ Moderate/ Substantial)
			- Given the Project being small in scale due to viewing distance and the presence of the planned comprehensive residential developments (by others), while there are some contrasts with the natural surroundings. The Project is considered part of a regional urban fringe visual character. The existing natural character in the foreground, overall mountainous backdrop, and open sky view will also remain unchanged.	and general visual openness remains unchanged.	portion of Kai Kung Leng with majority of the mountainous backdrop remaining intact. Character and vegetation in the foreground will remain unaffected and continue to serve as visual amenity. - Degree of visibility: Partial - Viewing distance: Long	

11.7 Landscape and Visual Mitigation Measures

Urban Design Considerations

11.7.1 Coherent and legible urban structure, key activity nodes and residential communities of different intensities are planned with regards to the existing context and natural resources, including the surrounding green backdrop of Ngau Tam Shan and Kai Kung Leng, as well as the revitalisation of the existing NTMDC for the provision of blue-green infrastructure and source of open space.

11.7.2 The Project is within an area of rural settlements and low-rise, low-density villages as well as open storage yards and rural industries. The proposed building height profile within the Project will provide a sensible skyline and transition against the existing setting. As a broad general principle, the maximum development height permitted will be reduced as they approach villages, low rise developments and open space. While high-rise development should be considered at transit-oriented development with critical pedestrian and vehicular entry.

11.7.3 View corridors are proposed and strategically aligned with surrounding visual resources as illustrated in **Figure 11.9**. The key design concepts of the view corridors encapsulated in the Recommended Outline Development Plan (RODP) are briefly summarised below.

- **East-west oriented view corridor along the multi-functional blue-green spine**: This view corridor aligns with the landscape resource, water body NTMDC and connects the eastern and western portions of the Project Site.

- **North-east to south-west view corridor to the open space adjacent to the Ngau Tam Mei Station:** This view corridor aligns with the visual resource, preserved existing vegetation and Ngau Tam Shan in the north. It also strengthens the view connection with the Project Site and neighbouring village settlements.

- **North-south view corridor to the open space and mountain backdrop:** This view corridor aligns with the visual resource, ridgelines of Ngau Tam Shan in the north and Kai Kung Leng in the south.

- **North-south view corridors within the UniTown:** This view corridor aligns with the visual resources, ridgelines of Ngau Tam Shan in the north and Kai Kung Leng in the south.

Mitigation Measures for Construction and Operational Phases

11.7.4 The proposed landscape and visual mitigation measures, together with an indication of funding, implementation and maintenance agencies, during the construction and operational phases are listed in and **Table 11.10** and **Table 11.11** below. The management and maintenance agencies are identified as per DEVB TC(W) No. 6/2015. The proposed landscape and visual mitigation measures are illustrated in **Figure 11.9.1 to 11.9.5**, and would be further reviewed during the detailed design stage of the Project.

Table 11.10 Landscape Mitigation Measures for Construction Phase (Overall for Schedule 3 DP and Schedule 2 DPs)

ID No.	Landscape Mitigation Measures	Relevant DPs	Funding Agency	Implementation Agency
Applicable to both Landscape and Visual Impact				
CM1	Preservation of Existing Vegetation Existing woodland/ tree groups should be retained and preserved as far as practicable to promote the maintenance of the local / regional landscape distinctiveness/ characteristics. All the existing vegetation and trees to be retained and not to be affected by the Project should be carefully protected during construction in accordance with DEVB TC(W) No. 4/2020 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTMS of DEVB. A detailed TPRP will be prepared and submitted to CEDD's tree works vetting panel during the detailed design stage.	Schedule 3 DP; and Schedule 2: DP1	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)
CM2	Minimise Disturbance on Watercourses Good site practices as described in *ETWB TC(W) No. 5/2005 Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works* should be adopted to avoid any pollution entering the watercourses to be preserved and not affected where applicable. Details of the watercourse mitigation are provided in **Sections 5** and **9**.	Schedule 3 DP; and Schedule 2: DP2	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)
CM3	Management of Construction Facilities and Activities Construction facilities and activities at works sites and areas, which include site office, temporary storage areas, temporary works etc., should be carefully managed and controlled to minimise any potential adverse landscape and visual impact.	Schedule 3 DP; and Schedule 2: DP1, DP2	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)
CM4	Reinstatement of Temporarily Disturbed Landscape Areas All hard and soft landscape areas disturbed temporarily during construction should be reinstated on like-for-like basis, to the satisfaction of the relevant Government Departments.	Schedule 3 DP; and Schedule 2: DP1, DP2	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)
Applicable to Visual Impact				
CM5	Erection of Decorative Screen Hoarding Decorative hoarding, which is compatible with the surrounding natural settings, should be erected during construction to minimise the potential landscape and visual impact due to the construction works and activities.	Schedule 3 DP; and Schedule 2: DP1, DP2	Government (CEDD for DPs in Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)

Table 11.11 Landscape and Visual Mitigation Measures for Operational Phase (Overall for Schedule 3 DP and Schedule 2 DPs)

ID No.	Preliminary Landscape and Visual Mitigation Measures	Relevant DPs	Funding Agency	Implementation Agency	Maintenance and management agency
Applicable to both Landscape & Visual Impact					
OM1	Compensatory Tree Planting for Loss of Existing Trees Any trees to be removed due to the Project should be compensated in accordance with *DEVB TC(W) No. 4/2020 Tree Preservation*. The compensatory plantings should be realistic, practicable and sustainable with a holistic consideration to balance the quantity and quality of tree planting and follow the "Right Tree, Right Place" principles. The proposed planting species should be made reference to the *Greening Master Plan* issued by CEDD and the *Street Tree Selection Guide* issued by DEVB, and *GEO publication No. 1/2011*.	Schedule 3 DP; and Schedule 2: DP1, DP2	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)	Government (LCSD for Schedule 3 and 2 DPs; HyD for DP1)
OM2	Provision of Roadside and Amenity Planting Roadside amenity trees and understory planting should be planted along EVA and access road within the Project Site, as green buffers for the proposed structures. The proposed planting species could make reference to the *Greening Master Plan* issued by CEDD, *Street Tree Selection Guide* issued by DEVB, *DEVB TC(W) No. 3/2024 Allocation of Space for Quality Greening along Roads* and *DEVB TC(W) No. 1/2018 Soft Landscape Provisions for Highway Structures*.	Schedule 3 DP; and Schedule 2: DP1	Government (CEDD for Schedule 3 and 2 DPs)	Government (CEDD for Schedule 3 and 2 DPs)	Government (LCSD for Schedule 3 and 2 DPs; and HyD for DP1)
OM3	Sensitive and Aesthetically Pleasing Design of Aboveground Structures Sensitive and aesthetically pleasing design as regard to the form, material and finishes(1) should be incorporated to the proposed above-ground structures. The layout and massing of the proposed above-ground structures as regard to maintain the views to key visual resources, view corridors and compatibility with the surrounding urban fringe visual character should be considered.	Schedule 3 DP Schedule 2: DP1	Government (CEDD, DSD, ASD and HA for Schedule 3 DP; and HyD for Schedule 2 DP1)	Government (CEDD, DSD, ASD and HA for Schedule 3 DP; and HyD for Schedule 2 DP1) / Land developer	Government (ASD, DSD, LCSD and HA for Schedule 3 DP; and HyD for Schedule 2 DP1), Land developer
OM4	Provision of Buffer Planting Buffer planting should be provided at the aboveground structures including retaining slopes and perimeter of the	Schedule 3 DP; and Schedule 2: DP1,	Government (CEDD, DSD, ASD and HA for Schedule 3	Government (CEDD, DSD, ASD and HA for Schedule 3 DP; and CEDD for	Government (ASD, DSD, LCSD and HA for Schedule 3

ID No.	Preliminary Landscape and Visual Mitigation Measures	Relevant DPs	Funding Agency	Implementation Agency	Maintenance and management agency
	development lots to screen and soften the hard surfaces from public views. For planting to be proposed on slopes, the guidelines for planting stipulated in GEO Publication *No. 1/2011 Technical Guidelines on Landscape Treatment for Slopes* will be followed. For other developments, the provision of buffer planting shall follow relevant guidelines / Practice Notes (e.g. APP-151, APP-152) issued by Buildings Department.	DP2	DP; and CEDD for Schedule 2 DPs) r	Schedule 2 DPs)	DP; HyD for Schedule 2 DP1; LCSD for Schedule 2 DP2)
OM5	Provision of Green Roof Green Roof should be proposed to enhance the landscape quality of aboveground structures and mitigate any potential adverse visual impact on viewers at elevated VPs. The extent of roof greening should be in accordance with *DEVB TC(W) No. 3/2012 Site Coverage of Greenery for Government Building Projects*.	Schedule 3 DP	Government (CEDD, DSD, ASD, HyD and HA, for Schedule 3 DP) / Land developer	Government (CEDD, DSD, ASD, HyD and HA for Schedule 3 DP) / Land developer	Government (ASD, DSD, HyD, HA and LCSD for Schedule 3 DP), Land developer
OM6	Revitalisation of Drainage Channel to Create a Blue-Green Network The largest watercourse in the Project - NTMDC will be widened and revitalised to facilitate future drainage, flood-relief needs and enhance landscape and visual quality. The newly formed banks should be planted with new planting including riparian species to promote blue-green infrastructure implementation as promulgate in DEVB TC(W) 9/2020.	Schedule 3 DP; and Schedule 2: DP2	Government (CEDD for Schedule 2 and 3 DPs, Schedule 2 DP2)	Government (CEDD for Schedule 2 and 3 DPs, DSD for Schedule 2 DP2)	Government (LCSD for Schedule 3 DP; DSD for Schedule 2 DP2)
OM7	Maximise greening on building structures and surfaces Provision of greenery including tree planting and vertical greenery should be maximised for proposed buildings and associated structures as far as appropriate. Areas abutting street level and areas visible to the public, visitors or occupiers should be prioritised for greenery provision to provide a source of green visual relief, minimise any potential adverse landscape and visual impact, and to blend in the structures to the adjacent landscape and visual context. Where technically feasible and appropriate (i.e., where suitable depth of planting medium, maintenance access and enough light penetration to ground level available) climber should be proposed at vertical surfaces such as greening facade of building blocks,	Schedule 3 DP Schedule 2: DP1	Government (CEDD, DSD, ASD, HyD and HA for Schedule 3 DP) / Land developer	Government (CEDD, DSD, ASD, HyD and HA for Schedule 3 DP) / Land developer	Government (ASD, DSD, HyD, HA and LCSD for Schedule 3 DP) / Land developer

ID No.	Preliminary Landscape and Visual Mitigation Measures	Relevant DPs	Funding Agency	Implementation Agency	Maintenance and management agency
	viaduct piers or noise barriers to break up the appearance of uniform engineered structures and surfaces. For Government Building Projects, the provision of greenery should be in accordance with DEVB TC(W) No. 3/2012 Site Coverage of Greenery where appropriate. For other developments, the provision of greenery shall follow relevant guidelines / Practice Notes (e.g. APP-151, APP-152) issued by Buildings Department.				

Note:
(1) For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, bridges, buildings and noise barriers.

11.7.5 The following good site practice measures will also be incorporated in the construction phase of the Project:

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

Implementation Programme of Landscape and Visual Mitigation Measures

11.7.6 The construction phase mitigation measures listed in **Table 11.10** should be adopted from the commencement of construction and should be in place throughout the construction period. While the operational phase mitigation measures listed in **Table 11.11** should be adopted during the detailed design stage and should be built as part of the construction works so that they are in place at the date of commissioning of the Project. However, it should be noted that the full effect of the soft landscape mitigation measures would require several years to mature.

11.8 Mitigated Landscape and Visual Impact

Landscape Resources

11.8.1 The assessment followed the proposed methodology and assumed that the appropriate mitigation measures identified in **Table 11.10** and **Table 11.11** would be implemented and matured with the full effect of the soft landscape mitigation measures realised. The landscape impact is shown in the Landscape Resource Impact Plan and Landscape Character Area Impact Plan in **Figures 11.4** and **11.7** respectively.

11.8.2 For LR1, LR2, LR6, LR9 and LR11, there will be **moderate** impact significance due to the **moderate** magnitude of change arising from their scattered nature which accumulates to a moderate scale of total affected areas within the Project Area. During the construction phase, the existing vegetation which are mostly self-seeded

or cultivated herbaceous plants and small trees would be permanently removed due to the proposed site formation and associated road works. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the roads. It is considered that the residual impact on these LRs is **moderate** during the construction phase, and would be improved to **slight** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.3 For LR4 there will be **moderate** magnitude of change with beneficial impacts. During the construction phase, the majority of modified watercourse is proposed to be retained for NTMDC revitalisation with temporary loss due to widening and realignment works, while a small portion of small scattered channels will be permanently lost due to the proposed site formation and associated road works. The existing vegetation which are mostly self-seeded or cultivated and scattered trees would be permanently removed. During the operational phase, the widened and revitalised NTMDC will improve the flood resilience and adaptation to climate change of the Development Area. The affected trees will be compensated at roadside or landscape areas within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the revitalised NTMDC embankments. It is considered that the residual impact on this LR is **beneficial** during the construction phase and operational phase with plantings matured and sensitive designs completed.

11.8.4 For LR3 and LR5, there will be **moderate** impact significance due to the **moderate** magnitude of change arising from the proposed NTMDC revitalisation works and site formation works. During the construction phase, some portions of the watercourses, especially those within NTMDC are proposed to be retained for revitalisation with temporary losses due to widening and realignment works, while the others will be permanently lost to the proposed site formation and associated road works. The existing vegetation which are mostly self-seeded or cultivated and scattered trees would be permanently removed. During the operational phase, the widened and revitalised NTMDC will improve the flood resilience and adaptation to climate change of the Project Area. The affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the NTMDC embankments. It is considered that the residual impact on these LRs is **moderate** during the construction phase, and would be improved to **slight** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.5 For LR7 and LR8, there will be **moderate** impact significance due to the **slight** magnitude of change arising from the proposed site formation and associated roadworks at the lower lying areas. During the construction phase, a small portion of the existing vegetation mainly at the margins of foothills and low lying shrubland areas would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the roads. It is considered that the residual impact on these LRs are **moderate** during the construction phase, and would be improved to **slight** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.6 For LR10, there will be **slight** impact significance due to the **slight** magnitude of change arising from the proposed site formation and associated roadworks at the lower lying areas. During the construction phase, a small portion of the existing vegetation mainly at the margins of foothills, embankments and low lying shrubland areas would be permanently removed. During the operational phase, the affected

trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. It is considered that the residual impact on these LRs are **slight** during the construction phase, and would be improved to **negligible** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.7 For LR12, there will be **moderate** impact significance due to the **substantial** magnitude of change arising from the proposed site formation and associated roadworks. During the construction phase, the existing vegetation, mainly consisting of self-seeding and ornamental species, would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes shall also be provided. Mitigation measures including roof greening and buffer screen planting would be provided on the proposed building structures strategically to enhance landscape amenity values. It is considered that the residual impact on this LR is **moderate** during the construction phase, and would be improved to **slight** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.8 For LR13, there will be **slight** impact significance due to the **moderate** magnitude of change arising from the proposed site formation and associated roadworks. During the construction phase, the existing vegetation, mainly consisting of self-seeding and ornamental species, would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided. Mitigation measures including roof greening and buffer screen planting would be provided on the proposed building structures strategically to enhance landscape amenity values. It is considered that the residual impact on this LR is **slight** during the construction phase, and would be improved to **negligible** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.9 For LR14, there will be **moderate** magnitude of change and **beneficial** impacts arising from the rationalisation of the scattered brownfield operations for the proposed site formation and associated roadworks of higher quality landscape resources such as open spaces and trees planted by the “Right Tree, Right Place” principle. During the construction phase, the existing vegetation, mainly consisting of self-seeding species, would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided. Mitigation measures including roof greening and buffer screen planting would be provided on the proposed building structures strategically to enhance landscape amenity values. It is considered that the residual impact on this LR is **beneficial** during the construction phase and operational phase with plantings matured and sensitive designs completed.

Landscape Character Areas

11.8.10 For LCA1, there will be **substantial** impact significance due to the **substantial** magnitude of change arising from the proposed site formation and associated roadworks. During the construction phase, the existing vegetation, mainly consisting of self-seeding and ornamental species, would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes shall also be provided. Mitigation measures including roof greening and buffer screen planting would be provided on the proposed building

structures strategically to enhance landscape amenity values. It is considered that the residual impact on this LR is **substantial** during the construction phase, and would be improved to **moderate** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.11 For LCA2, there will be **moderate** impact significance due to the **slight** magnitude of change arising from proposed site formation and associated roadworks at the lower lying areas. During the construction phase, a small portion of the existing vegetation mainly at the margins of foothills would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes shall also be provided along the roads. It is considered that the residual impact on this LR is **moderate** during the construction phase, and would be improved to **slight** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.12 For LCA3 there would be no residual landscape impact during the construction phase as there is no works to be conducted in this LCA. During the operational phase, the residual landscape impact would be **negligible**.

11.8.13 For LCA4 there will be **slight** impact significance due to the **slight** magnitude of change arising from proposed associated roadworks at the margins. During the construction phase, a small portion of the existing self-seeding or cultivated scattered trees would be permanently removed. A small portion of the existing modified watercourse would be retained and mitigation measures are proposed to minimise disturbance. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the roads and embankments. It is considered that the residual impact on this LR is **slight** during the construction phase, and would be improved to **negligible** residual impact during operational phase with plantings matured and sensitive designs completed.

11.8.14 For LCA5, there will be **moderate** magnitude of change and **beneficial** impacts arising from the rationalisation of the scattered brownfield operations for the proposed site formation and associated roadworks of developments such as open spaces and residential buildings. During the construction phase, the existing vegetation, mainly consisting of self-seeding species, would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided. Mitigation measures including roof greening and buffer screen planting would be provided on the proposed building structures strategically to enhance landscape amenity values. It is considered that the residual impact on this LR is **beneficial** during the construction and operational phases with plantings matured and sensitive designs completed.

11.8.15 For LCA6 there will be **negligible** impact significance due to the **negligible** magnitude of change arising from proposed associated roadworks at the margins. During the construction phase, a small portion of the existing cultivated roadside trees would be permanently removed. During the operational phase, the affected trees will be reinstated as roadside planting or landscaping within the Open Space land use as far as practicable. Landscape treatments on slopes should also be provided along the roads. It is considered that the residual impact on this LR is **negligible** during the construction phase, and would be improved to **negligible** residual impact during operational phase with plantings matured and sensitive designs completed.

Summary on Recommendation in Broad brush tree and vegetation survey

11.8.16 Approximately 90% of the 19,000 nos. of surveyed existing trees within Project Site Boundary will be unavoidably affected by the Project under the site formation and engineering infrastructure works. One registered OVT (i.e. LCSD YL/7 Melaleuca cajuputi subsp. Cumingiana) was identified outside the Project Site, though within the assessment area. For the purpose of this EIA Study, 109 nos. tree of particular interest (TPI) will be directly impacted from future construction works. Among the identified TPI, 48 nos. are very large size with DBH equal or over 1 m, while 61 nos. are protected species. A detailed TPRP will be prepared and submitted to CEDD's tree works vetting panel during the detailed design stage to finalise tree treatment. The locations of the TPIs are illustrated in **Appendix 11.1**. As stipulated under DEVB TC(W) No. 4/2020, tree compensation in a ratio of 1:1 as far as possible is advisable, under the current development proposal under purview of CEDD, areas are mainly public roads and engineering infrastructure works. Future residential/ commercial sites, G/IC sites and UniTown which are outside the purview of CEDD and not considered for tree compensation under this assessment. In view of the above, approximately 3,200 trees are proposed to be compensated within Project Site. Proposed new trees will be planted in roadside amenity areas, open space sites, and amenity sites. To reinstate planting as far as practicable and considering the principle of 'Right Tree, Right Place', heavy standard trees are proposed for the proposed roadside amenity areas and open space as far as possible, while whip trees are proposed for amenity areas at slopes $\leq 35^{\circ}$. The proposed species will be commonly used in roadside environment and be native for areas adjoining hillside area where appropriate so as to enhance the surrounding landscape and ecological value. Reference will be made to the *Greening Master Plan* issued by CEDD and *Street Tree Selection Guide* promulgated by DEVB. TPRP(s) including compensation planting scheme shall be submitted to CEDD's tree works vetting panel in accordance with *DEVB TC(W) No. 4/2020 Tree Preservation*.

11.8.17 As mentioned above, tree compensation is proposed to be provided at a 1:1 tree compensatory ratio at the roadside amenity areas and open space to compensate for tree loss due to the Project as far as practicable. Areas within the Project Site and off-site areas for compensatory tree planting should be explored and negotiated with relevant project proponent(s) to achieve 1:1 ratio in compensatory tree planting number as far as practicable. The compensatory planting should include mix of standard to heavy standard trees of native tree species with reference to *Guiding Principles on Use of Native Plant Species in Public Works Projects* promulgated by DEVB to improve the vegetation diversity, enhance ecological value and re-creation of vegetation habitat particular for areas adjoining the hillside area.

Visual Impact

11.8.18 The magnitude of change of the visual impact is provided in **Table 11.9**. The assessment followed the proposed methodology and assumed that the appropriate mitigation measures recommended in **Section 11.7** and **Table 11.11** would be implemented and the full effect of the visual mitigation measures established during operational phase.

11.8.19 For VP1 and VP2, given the relatively short viewing distance, the proposed development will occupy the middle ground of this VP, creating a partial visual obstruction to the open sky view and distant ridgeline, while most of the existing visual elements in the foreground such as roadside greenery would remain unchanged. To alleviate the visual impact, mitigation measures such as aesthetic pleasing design of the aboveground structures are proposed to be implemented. With the magnitude of changes as **moderate** and the viewers' sensitivities as **low**,

it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **moderate**.

11.8.20 For VP3, given the relatively short viewing distance, the proposed development will occupy the middle ground of this VP, creating a partial visual obstruction to the open sky view, while most of the existing visual elements in the foreground such as roadside greenery would remain unchanged and the appear compatible with the surrounding village houses. To alleviate the visual impact, mitigation measures such as aesthetic pleasing design of the aboveground structure are proposed to be implemented. With the magnitude of changes as **moderate** and the viewers' sensitivities as **low**, it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **moderate**.

11.8.21 For VP4, due to the relatively short viewing distance and relatively large scale of proposed developments, obstruction to the middle ground visual amenities and resources such as rural valley settlements and vegetated foothills leading up to Kai Kung Leng is anticipated. To alleviate the impact, mitigation measures such as aesthetic pleasing design of the aboveground structure, provision of building edge-greening and green roofs are proposed. With **moderate** magnitude of change and viewers' **high** sensitivity, it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **moderate**.

11.8.22 For VP5A and 5B, despite the medium viewing distances, the relatively large scale of proposed development is anticipated to cause a change with partial obstruction to existing natural views and visual access to middle ground amenities. To alleviate the visual impact, mitigation measures such as aesthetically pleasing design of the aboveground structure, provision of greenery at open space and green roofs are proposed. With the magnitude of change being **moderate** and the viewers' sensitivity being **high**, it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **moderate**.

11.8.23 For VP6, despite the far viewing distance, partial visual obstruction to the key visual elements such as mountain ridgeline in the background and open sky view is anticipated due to the holistic considerations of other planned developments. However, the proposed development has high compatibility with the planned developments, anticipating a compatible visual composition. To alleviate the visual impact, mitigation measures such as aesthetic pleasing design of the aboveground structure are proposed. With the magnitude of change is **moderate** and the viewers' sensitivity of VP6 is **medium**, it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **moderate**.

11.8.24 For VP7, due to the far viewing distance, relatively small portion of proposed development is visible to the viewers and most of the existing visual elements such as hillside vegetation and open sky view would remain unchanged. To alleviate the visual impact, mitigation measures such as aesthetic pleasing design of the aboveground structure are proposed. With the magnitude of change is **slight** and the viewers' sensitivity of VP7 is **medium**, it is expected that the impact after mitigation measures established with plantings matured and sensitive designs completed would be **slight**.

Table 11.12 Assessment of Landscape Impact during Construction and Operational Phases

ID No.	Landscape Resource / Character Areas	Sensitivity (High, Medium, Low)		Magnitude of Change (Substantial/ Moderate / Slight/ Negligible)		Impact Significance before Mitigation (Negligible/ Slight/ Moderate/ Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Negligible/ Slight/ Moderate/ Substantial)	
		Construction	Operational	Construction	Operational	Construction	Operational		Construction	Operational
Landscape Resources										
LR1	Marsh/ Reed	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR2	Pond	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR3	Natural Watercourse	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1-5 OM4-6	Moderate	Slight
LR4	Modified Watercourse	Medium	Medium	Moderate	Moderate	Beneficial	Beneficial	CM1-5 OM4-6	Beneficial	Beneficial
LR5	Semi-natural Watercourse	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1-5 OM4-6	Moderate	Slight
LR6	Agricultural Land	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR7	Woodland	Medium	Medium	Slight	Slight	Moderate	Moderate	CM1, 3-5 OM1	Moderate	Slight
LR8	Mixed Woodland	Medium	Medium	Slight	Slight	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR9	Plantation	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR10	Shrubland	Medium	Medium	Slight	Slight	Slight	Slight	CM1, 3-5 OM1,2,4	Slight	Negligible
LR11	Grassland	Medium	Medium	Moderate	Moderate	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LR12	Village/ Orchard	Low	Low	Substantial	Substantial	Moderate	Moderate	CM1, 3-5 OM1,2,3-5	Moderate	Slight
LR13	Developed Area	Low	Low	Moderate	Moderate	Slight	Slight	CM1, 3-5 OM1,2,3-5	Slight	Negligible

ID No.	Landscape Resource / Character Areas	Sensitivity (High, Medium, Low)		Magnitude of Change (Substantial/ Moderate / Slight/ Negligible)		Impact Significance before Mitigation (Negligible/ Slight/ Moderate/ Substantial)		Recommended Mitigation Measures	Significance of Residual Impact (Negligible/ Slight/ Moderate/ Substantial)	
		Construction	Operational	Construction	Operational	Construction	Operational		Construction	Operational
LR14	Wasteland	Low	Low	Moderate	Moderate	Beneficial	Beneficial	CM1, 3-5 OM1,2,3-5	Beneficial	Beneficial
Landscape Character Areas										
LCA1	Settled Valley Landscape	Medium	Medium	Substantial	Substantial	Substantial	Substantial	CM1- 5, OM1-6	Substantial	Moderate
LCA2	Upland Plateau Landscape	High	High	Slight	Slight	Moderate	Moderate	CM1, 3-5 OM1,2,4	Moderate	Slight
LCA3	Comprehensive Residential Development Landscape	Low	Low	Negligible	Negligible	Negligible	Negligible	Not Required	Negligible	Negligible
LCA4	Rural Inland Plain Landscape	Medium	Medium	Slight	Slight	Slight	Slight	CM1-5 OM2,3	Slight	Negligible
LCA5	Miscellaneous Rural Fringe Landscape	Low	Low	Moderate	Moderate	Beneficial	Beneficial	CM1- 5, OM1-6	Beneficial	Beneficial
LCA6	Transportation Corridor Landscape	Low	Low	Negligible	Negligible	Negligible	Negligible	Not Required	Negligible	Negligible

Table 11.13 Assessment of Visual Impact during Operational Phase

VP ID.	Location of VPs / Key Public Viewers	Sensitivity (High / Medium / Low)	Magnitude of Change (Substantial/ Moderate / Slight/ Negligible)	Recommended Mitigation Measures	Significance thresholds of visual impact (after mitigation measures established) (Substantial/ Moderate / Slight/ Negligible)
					Operational
VP1	Pedestrian Bridge Along San Tin Highway (South)	Low	Moderate	OM3	Moderate
VP2	Pedestrian Bridge Along San Tin Highway (North)	Low	Moderate	OM3	Moderate
VP3	Wai Tsai Tsuen Public Toilet	Low	Moderate	OM3	Moderate
VP4	Hiking Trail at Ngau Tam Shan	High	Moderate	OM3,5,7	Moderate
VP5A & 5B	Unmaintained Path at Kai Kung Leng	High	Moderate	OM1-7	Moderate

VP ID.	Location of VPs / Key Public Viewers	Sensitivity (High / Medium / Low)	Magnitude of Change (Substantial/ Moderate / Slight/ Negligible)	Recommended Mitigation Measures	Significance thresholds of visual impact (after mitigation measures established) (Substantial/ Moderate / Slight/ Negligible)
					Operational
VP6	Nam Sang Wai River Education Trail	Medium	Moderate	OM3	Moderate
VP7	Tam Kon Chau Road near Mai Po	Medium	Slight	OM3	Slight

Evaluation of the Residual Impacts

11.8.25 Considering the scale and nature of the Project, it would inevitably result in certain levels of residual landscape and visual impacts after mitigation measures established in relation to the loss of vegetation and loss of some water bodies in LRs (LR1 to LR3, LR5 to LR13) and LCAs (LCA1 to LCA2), as well as the views of ridgelines and open views from hilltop (i.e. VP1, VP2, VP4 to VP7). The residual landscape and visual impacts are evaluated below in accordance with Section 4.4.3 of EIAO-TM:

i) Effects on public health and health of biota or risk to life:

The residual landscape and visual impacts would not cause adverse effects on public health and the health of biota or pose risk to life.

ii) The magnitude of the adverse environmental impacts:

The magnitude of residual landscape and visual impacts after mitigation measures established for LR10, LR13, LCA3. LCA4 and LCA6 are negligible. The residual landscape impact on LR1 to LR3, LR5 to LR9, LR11 to LR12, LCA2 and VP7 are related to loss of vegetation, loss of some water bodies and views of ridgelines and/or open sky view are slight. The residual landscape and visual impact after mitigation measures established for LCA1, VP1 to VP6 are moderate, due to loss of vegetation of larger scale and views that overlook the proposed developments from elevated hilltop locations. Nevertheless, the proposed developments incorporating the design principles set in the urban design considerations and mitigation measures such as provisions of blue-green network, view corridors, aesthetically pleasing design of aboveground structures, building height restrictions, greenery coverage etc. could ameliorate the overall landscape and visual qualities.

iii) The geographic extent of the adverse environmental impacts:

The geographic extent of LR12 to LR14, LCA1 to LCA2 and LCA5 includes around approximately 416 ha in total, primarily consist of developed areas and wasteland. LR3 to LR5 involve approx. 81% (approximately 936 m) of natural water courses, 14% (approximately 517 m) of modified watercourse and 63% (approximately 1,976 m) of semi-nature watercourse will be permanently affected by site formation and NTMDC revitalisation works. However, these affected extents are localised and the major modified drainage channel (i.e. NTMDC) will be revitalised. All visual impact after mitigation measures established are confined within the visual envelope, and the visual impact generated by the proposed developments would be negligible beyond the visual envelope.

iv) The duration and frequency of the adverse environmental impacts:

The residual landscape impact and visual impact after mitigation measures established are long term and permanent due to the nature of site formation works. The durations of view on all VPs are short and transient, as most of the public viewers (VP4, VP5A and 5B) will only take short rest at the lookout point and then continue their hiking journey, while public viewers at VP1 to VP3, VP6 and VP7 are traversing pedestrian bridges or sidewalks.

v) The likely size of the community or the environment that may be affected by the adverse impacts:

The residual landscape impact is localised and confined to the loss of vegetation and water bodies within the Project Site. No country park and Wetland Conservation Area would be affected. The residual visual impact after mitigation measures established would affect relatively few public viewers, mainly hikers in hiking trails or unmaintained paths of Ngau Tam Shan and Kai Kung Leng respectively, as well as travellers along pedestrian bridges and sidewalks.

vi) The degree to which the adverse environmental impacts are reversible:

The residual landscape impact is irreversible due to the nature of site formation works. The residual visual impact is also long term and irreversible with the introduction of new developments in the area. Nevertheless, the proposed developments include the revitalisation of a major modified drainage channel (i.e. NTMDC) and rationalisation of the scattered brownfield operations, and the majority of the proposed developments are located within developed/ wasteland/ man-made re-creatable landscapes, while the visual impact is confined within the visual envelope involving few numbers of public viewers along footbridges, hiking trails and unmaintained paths viewing infrequently and in short durations.

vii) The ecological context:

The residual landscape and visual impact would not occur in ecologically fragile areas such as country parks and Wetland Conservation Area.

viii) The degree of disruption to sites of cultural heritage:

The residual landscape and visual impacts would not disrupt any cultural heritage context.

ix) International and regional importance:

The residual landscape and visual impacts would not involve any distinctive landscape resource, landscape character and vantage viewing point with international or regional importance.

x) Both the likelihood and degree of uncertainly of adverse environmental impacts:

The residual landscape and visual impacts would be foreseeable without uncertainty at the time of EIA preparation.

11.8.26 As discussed above, the residual landscape and visual impacts after mitigation measures established ranged from negligible to moderate, long term and irreversible due to the nature of site formation works, are inevitable. Nevertheless, the residual landscape impact is localised and limited to the Project Site only. The proposed developments include revitalisation of a major modified drainage channel (i.e. NTMDC), rationalisation of the scattered brownfield operations, and the majority of the proposed developments located within developed/ wasteland/ man-made re-creatable landscapes. For visual impact after mitigation measure established, they are confined within the visual envelope involving few numbers of public viewers along footbridges, hiking trails and unmaintained paths viewing

infrequently and in short durations. Although not all landscape and visual impacts can be fully reduced or eliminated through the implementation of mitigation measures, the urban design considerations of the Project provide enhancement by specifically outlining and dedicating areas for open spaces, roadside amenity areas, blue-green network, view corridors, building height restrictions, aesthetic above-ground structure design, greenery coverage, provision of compensatory planting proposal, etc. The design, construction and operational phases of the Project would also fully comply with relevant ordinances, regulations, standards and guidelines as stated in **Section 11.2**. In view of the above, with full implementation of the recommended mitigation measures, no unacceptable adverse residual landscape and visual impacts are expected, as evaluated based on the relevant factors in Section 4.4.3 of the EIAO-TM.

Cumulative Impacts

11.8.27 The Project's construction works are anticipated to commence in 2027 with first population intake in 2033 (**Table 2.6** refers), while the major concurrent projects identified is also summarised in **Section 2.10**. Many of the major concurrent projects will be completed in advance of the construction programme for this Project, and as some would be constructed as underground structures, in view of their nature, potential cumulative landscape and visual impacts with this Project are not anticipated. Cumulative landscape and visual impacts of the Project with other existing, committed and planned developments in the assessment area have been assessed.

11.9 Environmental Monitoring and Audit

Construction Phase

11.9.1 Detailed landscape and engineering design of the Project should be undertaken so as to ensure the implementation of the landscape and visual mitigation measures recommended in **Table 11.10** and **Table 11.11**. Implementation of the recommended mitigation measures should be regularly audited during construction phase to ensure that they are fully realised such that that any potential conflicts between the proposed landscape measures and any other project works as well as operational requirements could be resolved at the earliest possible date without compromising the intention of the proposed mitigation measures. Details of environmental monitoring and audit requirement are discussed in a separate EM&A Manual.

Design of Landscape and Visual Mitigation Measures

11.9.2 The detailed design of the landscape and visual mitigation measures should be undertaken so as to ensure compliance with the proposed aforementioned mitigation measures.

Site supervision of Landscape Measures

11.9.3 The implementation of the landscape measures during the construction phase and establishment period should be inspected throughout the site audit programme.

Operational Phase

11.9.4 All landscape and visual mitigation measures should be monitored during the landscape establishment period to check that the intended mitigation effects are realised.

11.10 Conclusion

11.10.1 The overall planning of the Project adhered to the planning objectives to transform the existing rural landscape in Ngau Tam Mei into a vibrant, mixed-use community as part of its broader Northern Metropolis (NM) initiative, contributing to the region's economic and sustainable growth. It is developed with strong emphasis on "integration" between local assets, active lifestyles and resilience. Coherent and legible urban structure, key gateway nodes, residential and institutional communities of different intensities are planned regarding the existing context and landscape resources, including the surrounding green backdrop, as well as the revitalisation of a major drainage channel (i.e. NTMDC). Considering that the Project will be designed in a holistic manner under the same principle, the overall design as set out in the urban design and landscape design framework should work in unison with the aforementioned mitigation measures to ensure an attractive new town replacing the existing mix of open storage, agricultural use to achieve a positive impact as a result of the new town development.

11.10.2 During construction and operational phases, the Project will inevitably result in some landscape and visual impacts. Among the approx. 19,000 nos. of existing trees within the Project Site Boundary, approximately 90% would be inevitably affected by the proposed works and proposed to be removed or transplanted as far as practicable. One registered OVT (i.e. LCSD YL/7 *Melaleuca cajuputi* subsp. *Cumingiana*) was identified outside the Project Site, though within the assessment area. For the purpose of this EIA Study, 109 nos. TPI will be directly impacted from future construction works. Among the identified TPI, 48 nos. are very large size with DBH equal or over 1 m and 61 nos. are protected species. A detailed TPRP will be prepared and submitted to CEDD's tree works vetting panel during the detailed design stage, to finalise tree treatment. The locations of the TPIs are illustrated in **Appendix 11.1**. Tree compensation strategy would be proposed along the proposed roadside amenity areas, open space and amenity areas in accordance with the latest design layout. As stipulated under *DEVB TC(W) No. 4/2020*, tree compensation in a ratio of 1:1 as far as possible is advisable, under the current development proposal under purview of CEDD, areas are mainly public roads and engineering infrastructure works. Future residential/ commercial sites and UniTown which are outside the purview of CEDD and not considered for tree compensation under this assessment. In view of the above, approximately 3,200 trees are proposed to be compensated within Project Site. The exact number and location are subject to the detailed design and construction stages of this Project, areas within the Project Site and off-site areas for compensatory tree planting should be explored and negotiated with relevant project proponent(s) to achieve 1:1 ratio in compensatory tree planting number as far as practicable. Reference should be made to Greening Master Plan issued by CEDD, Street Tree Selection Guide issued by DEVB, GEO publication No. 1/2011, and Guiding Principles on Use of Native Plant Species in Public Works Projects promulgated by DEVB to optimise the use of native species and/or species with ecological value to enhance biodiversity and integrity of the landscape network/ open spaces and Project as a whole.

11.10.3 In terms of the landscape impact, Modified Watercourse (LR4) and Wasteland (LR14) would have **beneficial** residual impacts arising from the revitalisation of the major channel NTMDC and rationalisation of the scattered brownfield operations during operational phase respectively. Marsh / Reed (LR1), Pond (LR2), Natural Watercourse (LR3), Semi-natural Watercourse (LR5), Agricultural Land (LR6), Woodland (LR7), Mixed Woodland (LR8), Plantation (LR9), Grassland (LR11) and Village/ Orchard (LR12) would have **moderate** impact significance before completion of works, landscape mitigation measures such as tree compensation as far as practicable, reinstatement of affected landscaping area based on like-for-like

basis and provision of buffer screen planting, greenery provision at planned open space and roof greening where implemented as appropriate. With the implementation of these mitigation measures, it is considered that residual impacts on most of these LRs would be improved to **slight** at operational phase after the maturity of mitigation measures. Meanwhile, Shrubland (LR10) and Developed Area (LR13) would have **slight** impact significance due to the proposed development. It is assumed that residual impacts on these LRs would be improved to **negligible** during operational phase after the maturity / completion of mitigation measures.

11.10.4 For the landscape character area (LCA), Miscellaneous Rural Fringe Landscape (LCA5) would have **beneficial** residual impacts due to the rationalisation of the scattered brownfield operations after the maturity / completion of mitigation measures during operational phase. Comprehensive Residential Development Landscape (LCA3) would be preserved in total, hence the significance threshold of impact is **negligible**. The majority of permanent works such as site formation and associated road works would be located within Settled Valley Landscape (LCA1). Hence, it is anticipated that the impact significance before mitigation would be **substantial** at construction. With the implementation of mitigation measures, the residual impact is anticipated to be reduced to **moderate** during the operational phase. A small portion of Upland Plateau Landscape (LCA2) of high sensitivity would also irreversibly and permanently affected, the residual impact is anticipated as **moderate** during the construction, and would be reduced to **slight** during operational phase after the maturity / completion of mitigation measures. Some proposed works such as constructing footbridges and slip roads within Rural Inland Plain Landscape (LCA4) and Transportation Corridor Landscape (LCA6) would slightly alter the existing landscape character. It is anticipated that there would be **slight** and **negligible** impact significance to these LCAs respectively. With the implementation of mitigation measures, the residual impact on these LCAs would be reduced to **negligible** during operational phase.

11.10.5 In terms of the visual impact, considering that the Project is relatively extensive in terms of development scale, it is anticipated that the existing visual context of the selected VPs would be affected inevitably in various levels.

11.10.6 For the VP7, given the relatively long viewing distance, a small portion of the proposed development would be visible to viewers, while the existing key visual elements remain unobstructed. Given the magnitude of visual change is expected to be **slight**, it is anticipated that the significance thresholds of visual impact after mitigation measures established would be **slight**. For the VP6, partial obstruction to the key visual elements is anticipated with high visual complementary to proposed developments, the magnitude of visual change is expected to be **moderate**, it is anticipated that the significance thresholds of visual impact after mitigation measures established would be **moderate**. At VP4, the proposed developments would inevitably block the majority of the valley village settlement in the middle ground and a portion of distant mountain and open sky view in the background. As new urbanised visual context at Ngau Tam Shan takes the middle-ground area, contrasting with the existing natural scenery, the magnitude of visual change is expected to be **moderate**. It is anticipated that the significance thresholds of visual impact after mitigation measures established would be **moderate.** Given the medium viewing distance and elevated view at VP5A and VP5B, the proposed project would be visible panoramically with partial obstruction to existing continuous ridgeline. The significance thresholds of visual impact after mitigation measures established is anticipated to be **moderate**. For the VP1, VP2 and VP3 viewing to the proposed development at a short distance, the proposed development would be considered as the extension of existing urbanised area (i.e. San Tin Highway and village houses). Despite the preservation of visual amenities including vegetation in

the foreground, a portion of the Ngau Tam Shan and open sky view would be blocked. Hence, it is expected there would be **moderate** magnitude of change for VP1, VP2, and VP3. It is anticipated that the significance thresholds of visual impact after mitigation measures established would remain same at **moderate** as the views mostly consist of development massing.

11.10.7 Considering the scale and nature of the Project, it would inevitably result in certain levels of landscape and visual impacts in relation to the loss of water bodies, woodlands and the views from hilltop. Efforts have been exhausted to ameliorate the potential visual impact of the Project as far as possible. There would be residual landscape impact arising from the revitalisation of a major modified drainage channel (i.e. NTMDC), rationalisation of the scattered brownfield operations, but the majority of the proposed developments is located within developed/ wasteland/ man-made re-creatable landscapes, while the residual visual impact is confined within the visual envelope involving few numbers of public viewers along footbridges, hiking trails and unmaintained paths viewing infrequently and in short durations. With the implementation of the proposed landscape mitigation measures, the overall amenity of the Project should contribute to its surrounding area and complementary to the surrounding proposed developments as an urban fringe landscape, the overall residual landscape impact would be ranging from **beneficial** to **moderate** during operational phase, and the overall significance thresholds of visual impact after mitigation measures established would range from **slight** to **moderate**, no unacceptable adverse landscape and visual impacts with mitigation measures implemented are expected.