

13 CONCLUSION

13.1 INTRODUCTION

13.1.1 An assessment of potential environmental impacts associated with the construction and operation phase of the Project has been conducted in accordance with the requirements of the EIA Study Brief and EIAO-TM.

13.1.2 This section summarises the findings of the EIA study and the recommended mitigation measures (where necessary) associated with the Project.

13.2 CONCLUSION OF ENVIRONMENTAL IMPACTS

13.2.1 The summaries of environmental impacts are structured as follows for each of the technical assessment completed under this EIA study:

- Sensitive receivers/ assessment points;
- Assessment Methodology and Criteria;
- Key Construction Impacts;
- Key Operation Impacts;
- Key Mitigation Measures;
- Residual Impacts; and
- Compliance with the guidelines and criteria of the EIAO-TM.

Air Quality

13.2.2 **Table 13.1** presents a summary of the key findings of the assessment of potential impacts to air quality as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 3** of this EIA Report.

Table 13.1 Summary of Environmental Assessment and Outcomes – Air Quality

Item	Description
Air Sensitive Receivers (ASRs)	<p>The Assessment Area is defined as an area within 500m from the boundaries of the Project site and the work areas of the Project as stated in Section 3.4.4.2 of the EIA Study Brief.</p> <p>A total of 28 ASRs (25 existing and 3 planned) have been identified in accordance with the criteria in EIAO-TM Annex 12 and are illustrated in Figure 3.3.</p>
Assessment Methodology and Criteria	<ul style="list-style-type: none"> ● The principal legislation for the management of air quality in Hong Kong is the <i>Air Pollution Control Ordinance (APCO) (Cap 311)</i>. The AQOs implemented on 1 January 2022 have been used as the assessment criteria for this assessment. ● A maximum hourly TSP level of 500 $\mu\text{g m}^{-3}$ at ASRs as stipulated in Annex 4 of the <i>EIAO-TM</i> is adopted to assess

Item	Description
	<p>potential construction dust impacts. The measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> should also be followed to ensure that any dust impacts are minimised.</p> <ul style="list-style-type: none"> ● Requirements stipulated in the <i>Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation</i> and <i>Air pollution Control (Fuel Restriction) Regulation</i> will be followed to control potential emissions from non-road mobile machinery. ● As per Clause 3(ii) of Appendix B of the EIA Study Brief, qualitative assessment of the construction dust impact has been carried out given that fugitive dust impact associated with the construction of the Project are considered minor and not expected to cause exceedance of relevant assessment criteria as stipulated in the EIAO-TM and AQOs at nearby ASRs with dust control measures in place. ● As per Clause 4(i) of the EIA Study Brief, a quantitative assessment has been carried out to evaluate the operational air quality impact at the identified ASRs. Cumulative NO₂, RSP and FSP impacts, identified as the key air pollutants of concern during operation phase, have been quantitatively assessed at the identified ASRs making reference to EPD's <i>Guidelines on Assessing the 'Total' Air Quality Impacts</i>, taking into account Tier 1, Tier 2 and Tier 3 emission source contributions.
Key Construction Impacts	<p>Minor excavation works due to slope and piling works during the construction phase of the Project are identified to be the potential dust generating activities. Considering the minor excavation works with limited extent of the excavation areas at any one time, no adverse dust impact arising from the construction activities of the Project is anticipated with proper implementation of dust control measures and good site practices.</p>
Key Operation Impacts	<p>Air quality impact would arise from the vehicular emissions generated from the proposed roads of the Project during operation phase. The cumulative NO₂, RSP and FSP impacts at the identified ASRs comply with the relevant AQOs during the operation phase of the Project. Adverse air quality impact arising from the operation of the Project is not anticipated.</p>
Key Mitigation Measures	<p><u>Construction Phase:</u></p> <p>Dust control measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> and as recommended in Section 3.9 will be implemented.</p> <p><u>Operation Phase:</u></p> <p>No specific mitigation measures are required during the operation phase.</p>

Item	Description
Residual Impacts	<p><u>Construction Phase:</u></p> <p>With the implementation of the recommended dust control measures and EM&A dust monitoring programme, no adverse residual impact is anticipated.</p> <p><u>Operation Phase:</u></p> <p>No adverse residual impact is anticipated during the operation phase.</p>
Compliance with EIAO-TM	The potential air quality impacts associated with construction and operation of the Project are in compliance with the EIAO-TM Annexes 4 and 12 and applicable assessment standards/ criteria.

Noise

13.2.3 **Table 13.2** presents a summary of the key findings of the assessment of potential impacts to noise as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 4** of this EIA Report.

Table 13.2 Summary of Environmental Assessment and Outcomes – Noise

Item	Description
Noise Sensitive Receivers (NSRs)	<p>The Assessment Area is defined as an area within 300m from the boundaries of the Project site and the work areas of the Project as stated in Appendix C of the EIA Study Brief.</p> <p>A total of 41 NSRs (38 existing and 3 planned) and 37 NSRs (32 existing and 5 planned) have been identified at HWR Project site and LFR Project site respectively in accordance with the criteria in EIAO-TM Annex 13 and are illustrated in Figure 4.1.</p>
Assessment Methodology and Criteria	<p><u>Construction Phase:</u></p> <p>The methodology for the noise impact assessment is in accordance with the procedures outlined in the GW-TM, which is issued under the NCO and the EIAO-TM.</p> <p><u>Operation Phase:</u></p> <p>Road traffic noise prediction is carried out based on the traffic flows, following strictly the procedures stipulated in the “Calculation of Road Traffic Noise (CRTN)” (1988) published by Department of Transport, UK.</p>
Key Construction Impacts	<p>Potential sources of noise impacts during the construction phase of the Project will mainly arise from powered mechanical equipment (PME) operating at the construction work sites.</p> <p>With the implementation of the recommended noise mitigation measures, the predicted construction noise levels arising from the Project at all the identified NSRs comply with the EIAO-TM construction noise criteria, except during examination period of</p>

Item	Description
	<p>some identified schools. The Contractor shall liaise with the school's management for the schedule of construction works, to avoid carrying out noisy construction activities during examination period. Thus, adverse construction noise impact arising from the Project is not anticipated.</p>
<p>Key Operation Impacts</p>	<p>Road traffic noise would be generated due to vehicular movement on the proposed Project roads during operation phase.</p> <p>With the implementation of the recommended noise mitigation measures, the predicted noise levels at the identified representative NSRs would either comply with the traffic noise criteria or that the noise contribution due to Project roads is less than 1dB(A). Thus, adverse road traffic noise impact arising from operation of the Project is not anticipated.</p>
<p>Key Mitigation Measures</p>	<p><u>Construction Phase:</u></p> <p>Mitigation measures such as use of quiet PME and temporary movable noise barriers are recommended to minimise the noise impact at the affected NSRs during non-restricted working hours.</p> <p>Movable noise barriers have been proposed for some of the PME. The movable temporary noise barriers should be located close to noisy plant and be moved iteratively with the plant along a worksite as far as practicable. The movable noise barriers should be a wooden framed barrier with a small cantilevered upper portion of superficial density no less than 14kg/m² on a skid footing with 25mm thick internal sound absorptive lining.</p> <p>The Contractor shall liaise with the school's management for the schedule of construction works, to avoid carrying out noisy construction activities during examination period. Thus, adverse construction noise impact arising from the Project is not anticipated.</p> <p><u>Operation Phase:</u></p> <p>Direct noise mitigation measures to be implemented during the operation of the Project are as follows:</p> <ul style="list-style-type: none"> ● Low Noise Road Surfacing (LNRS) of about 470m in length along the proposed LFRSR NB; and ● LNRS of about 690m in length along the proposed LFRSR SB.
<p>Residual Impacts</p>	<p><u>Construction Phase:</u></p> <p>With the implementation of the proposed mitigation measures, the predicted noise levels at the representative NSRs during construction phase would comply with the construction noise criteria. No adverse residual noise impact is expected during construction phase.</p>

Item	Description
	<p><u>Operation Phase:</u></p> <p>With the implementation of all the proposed direct noise mitigation measures, the noise contribution from Project roads to the overall noise levels at all NSRs would be less than 1.0 dB(A) and the predicted noise levels due to Project roads at all NSRs would comply with the relevant noise criteria. No adverse residual noise impact during operation phase is anticipated.</p>
Compliance with EIAO-TM	The potential noise impacts associated with construction and operation of the Project are acceptable. It is in compliance with the EIAO-TM Annexes 5 and 13 and applicable assessment standards/ criteria.

Water Quality

13.2.4 **Table 13.3** presents a summary of the key findings of the assessment of potential impacts to water quality as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 5** of this EIA Report.

Table 13.3 Summary of Environmental Assessment and Outcomes – Water Quality

Item	Description
Water Sensitive Receivers (WSRs)	In accordance with Section 3.4.6.2 of the EIA Study Brief, the Assessment Area for the water quality impact assessment includes areas within 500m from the boundary of the Project site and covers the North Western WCZ under the WPCO. A total of 11 WSRs are identified, covering marine water, major river, typhoon shelter, minor streams, catchwater, country park, bathing beaches, seawater intake. The identified existing WSRs are shown in Figure 5.1 .
Assessment Methodology and Criteria	The potential impacts due to the construction of the Project were assessed following the EIAO-TM Annex 6 guidelines and the impacts evaluated based on the criteria in EIAO-TM Annex 14. Potential water quality impacts on WSRs were evaluated according to the corresponding WQO criteria.
Key Construction Impacts	Wastewater may be generated from the construction site runoff and construction activities. Sewage effluent from construction workforce and runoff from work sites may be generated during the construction phase. Chemical wastes would also be produced from use of chemicals during construction. Unacceptable water quality impact from the site runoff and construction activities, sewage effluent from construction workforce, or accidental spillage of chemicals/ chemical wastes is not expected provided that the recommended mitigation measures are properly implemented.
Key Operation Impacts	Slight increase to road runoff may be resulted from the proposed road works during operation. Such runoff typically contains elevated levels of suspended solids, grits as well as trace amount

Item	Description
	of oil and grease from vehicles, which could affect the water quality of the receiving waters. With the implementation of proposed mitigation measures and management practices (e.g. proper road drainage system fitted with appropriate pollutant removal devices such as grit traps), no unacceptable water quality impact associated with road runoff is expected.
Key Mitigation Measures	<p><u>Construction Phase:</u></p> <p>Standard site practices outlined in <i>ProPECC PN 1/94 "Construction Site Drainage"</i> will be followed as far as practicable in order to reduce surface runoff. Relevant control measures from <i>ETWB TCW No. 5/2005 Protection of Natural Streams/Rivers from Adverse Impacts arising from Construction Works</i> should also be implemented where applicable to avoid adverse change in water quality in the overflow channel. Sufficient number of chemical toilets should also be provided and be regularly clean, maintained and emptied by licenced contractor.</p> <p><u>Operation Phase:</u></p> <p>Drainage system should be fitted with appropriate design measures to control pollution of drainage water.</p>
Residual Impacts	With the implementation of the recommended mitigation measures, no adverse residual impact is anticipated during the construction and operation phases.
Compliance with EIAO-TM	The potential water quality impacts associated with construction and operation of the Project are acceptable. It is in compliance with the EIAO-TM Annexes 6 and 14 and applicable assessment standards/ criteria.

Waste Management

13.2.5 **Table 13.4** presents a summary of the key findings of the assessment of the waste management implications associated with the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 6** of this EIA Report.

Table 13.4 Summary of Environmental Assessment and Outcomes – Waste

Item	Description
Assessment Methodology and Criteria	<p>The potential environmental impacts associated with the handling and disposal of waste arising from the construction and operation of this Project have been assessed in accordance with the criteria presented in Annexes 7 and 15 of the EIAO-TM:</p> <ul style="list-style-type: none"> ● Estimation of the types and quantities of the wastes to be generated; and ● Assessment of the secondary environmental impacts due to the management of waste with respect to potential hazards,

Item	Description
	air and odour emissions, noise, wastewater discharges and traffic.
Key Construction Impacts	The type of wastes to be generated during the construction phase include (1) C&D materials from site clearance, minor slope and excavation works, as well as piling and superstructure works, (2) chemical waste (e.g. used paint, spent oils/ fluids from mechanical machinery) from construction works, and (3) general refuse from construction workforce. All the wastes produced during the construction phase are of small quantity and will be disposed of according to their nature and relevant regulations, avoiding any potential adverse impact.
Key Operation Impacts	No waste is expected to be generated during the operation of the Project. No waste management issues are expected during the operation phase.
Key Mitigation Measures	<p><u>Construction Phase:</u></p> <p>A Waste Management Plan (WMP) will be devised which incorporates recommended mitigation measures that have been proposed to avoid or reduce potential adverse environmental impacts associated with handling, collection, transport and disposal of waste arising from the construction of this Project. A trip-ticket system will also be established in accordance with <i>DevB TC(W) No. 6/2010</i> to monitor the disposal of construction waste at landfill and to control fly-tipping. All dump trucks should be equipped with GPS or equivalent system for monitoring of their transportation routes and parking locations to prohibit illegal dumping and landfilling of C&D materials. The Contractor should maintain a recording system to record the amount of C&D materials generated, recycled and disposed of at the disposal sites as well as the transportation routing and parking locations of the dump trucks.</p> <p><u>Operation Phase:</u></p> <p>No specific mitigation measure is required during operation phase.</p>
Residual Impacts	With the implementation of the recommended mitigation measures, no adverse residual impact related to waste management is anticipated during the construction and operation phases of the Project.
Compliance with EIAO-TM	The potential waste management implications associated with the Project are acceptable. It is in compliance with the EIAO-TM Annexes 7 and 15 and applicable assessment standards/ criteria.

Land Contamination

13.2.6 Table 13.5 presents a summary of the key findings of the assessment of the land contamination associated with the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 7** of this EIA Report.

Table 13.5 Summary of Environmental Assessment and Outcomes – Land Contamination

Item	Description
Assessment Methodology and Criteria	<p>Land contamination assessment was undertaken in accordance with the criteria set out in Annex 19 of the EIAO-TM, as well as the following guiding documents:</p> <ul style="list-style-type: none"> ● Guidance Note for Contaminated Land Assessment and Remediation (the RBRGs Guidance Note); ● Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management (the RBRGs Guidance Manual); and ● Practice Guide for Investigation and Remediation of Contaminated Land (the Practice Guide).
Key Construction Impacts	<p>Neither storage/ handling of hazardous chemical and chemical waste nor equipment repair/ maintenance activities were observed within all Project sites. No potential land contamination facilities, such as underground fuel oil storage tanks, underground oil pipelines, chemical and chemical waste storage areas, dangerous goods stores, wastewater treatment facilities and transformer rooms were observed at all Project sites. No evidence of oil stains or chemical leakages/ spillages was observed. Also, no signs of obvious/ suspected contamination such as abnormal odour and/or distressed vegetation were identified at all Project sites. As advised by EPD and FSD, there are no record of chemical spillage incident or chemical leakage incident within all Project sites.</p> <p>Land contamination issue associated with the construction of the Project is not anticipated. Further site investigation and mitigation measures are considered not necessary.</p>
Key Operation Impacts	<p>Land contamination impact associated with the operation of the Project is not anticipated.</p>
Key Mitigation Measures	<p>No specific mitigation measure related to land contamination is required during construction and operation phases.</p>
Residual Impacts	<p>No adverse residual impact in respect of land contamination within the Project site is expected.</p>
Compliance with EIAO-TM	<p>The potential land contamination impacts associated with the Project are acceptable. It is in compliance with the EIAO-TM Annexes 19 and applicable assessment standards/ criteria.</p>

Ecology

13.2.7 Table 13.6 presents a summary of the key findings of the assessment of potential impacts to ecology as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 8** of this EIA Report.

Table 13.6 Summary of Environmental Assessment and Outcomes – Ecology

Item	Description
<p>Assessment Methodology and Criteria</p>	<p>Ecological impact assessment was undertaken in accordance with the criteria set out in Annexes 8 and 16 of the EIAO-TM, as well as the following legislation/ standards/ guidelines/ literature:</p> <ul style="list-style-type: none"> • Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislation, the Forestry Regulations; • Wild Animals Protection Ordinance (Cap. 170); • Environmental Impact Assessment Ordinance (EIAO) (Cap. 499); • Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) and its subsidiary legislation. • Hong Kong Planning Standards and Guidelines (HKPSG) Chapter 10, "Conservation"; • PELB Technical Circular 1/97 / Works Branch Technical Circular 4/97, "Guidelines for Implementing the Policy on Off-site Ecological Mitigation Measures"; • EIAO Guidance Note No. 3/2010 - Flexibility and Enforceability of Mitigation Measures Proposed in an Environmental Impact Assessment Report; • EIAO Guidance Note No. 6/2010 - Some Observations on Ecological Assessment from the Environmental Impact Assessment Ordinance Perspective; • EIAO Guidance Note No. 7/2010 – Ecological Baseline Survey for Ecological Assessment; and, • EIAO Guidance Note No. 10/2010 – Methodologies for Terrestrial and Freshwater Ecological Baseline Surveys • List of Wild Animals under State Protection, promulgated by the State Council • List of Wild Plants under State Protection, promulgated by the State Council • The International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species • China Plant Red Data Book; • China Species Red List; • China Red Data Book of Endangered Animals; • Category I or II protected species in mainland China; • Threatened Species List of China’s Higher Plants (Qin et al. 2017); • Red List of China’s Vertebrates; • Rare and Precious Plants of Hong Kong (2003);

Item	Description
	<ul style="list-style-type: none"> • The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); • PRC Wild Animal Protection Law; • Wild animals to watch: Terrestrial and freshwater fauna of conservation concern in Hong Kong; and • Hong Kong vascular plants: distribution and status.
Key Construction Impacts	Permanent loss of small area of mixed woodland (0.08 ha) which is considered of Minor potential direct ecological impact. Surface runoff to the semi-natural watercourse located within and closely to the west of the HWRSR site and the downstream aquatic/marine habitat including sea is anticipated to pose Minor to Moderate potential indirect ecological impact.
Key Operation Impacts	Potential bird collision due to the re-provided noise barriers are anticipated to cause Minor potential ecological impact.
Key Mitigation Measures	<p>Water quality mitigation measures suggested in the Water Quality Section should be followed to mitigate the potential ecological caused by surface run-off during construction phase.</p> <p>Compensatory tree planting should be carried out to mitigate the potential ecological impact caused by permanent loss of small area of mixed woodland.</p> <p>Bird friendly design for the noise barrier should be adopted to mitigate the potential ecological impact caused by potential bird collision.</p>
Residual Impacts	<p>Permanent loss of 1.1 ha of plantation and 0.08 ha of mixed woodland. This loss of mixed woodland will be mitigated by compensatory tree planting.</p> <p>With the implementation of the recommended mitigation measures, no adverse residual impact related to ecology is anticipated during the construction and operation phases of the Project.</p>
Compliance with EIAO-TM	The potential ecological impacts associated with construction and operation of the Project are acceptable. It is in compliance with the EIAO-TM Annexes 8 and 16 and applicable assessment standards/ criteria.

Landscape and Visual

13.2.8 **Table 13.7** presents a summary of the key findings of the assessment of potential impacts to landscape and visual as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 9** of this EIA Report.

Table 13.7 Summary of Environmental Assessment and Outcomes – Landscape and Visual

Item	Description
Sensitive Receivers	Existing Landscape Resources (LRs) (22) and Landscape Character Areas (LCAs) (5) and Visually Sensitive Receivers (VSRs) (24) within the assessment area.
Assessment Methodology and Criteria	The study methodology follows the criteria and guidelines as stated in Annexes 10 and 18 of the EIAO-TM, and the Environmental Impact Assessment Ordinance Guidance Note 8/2010.
Key Construction Impacts	<p>Key Affected LR:</p> <p><u>Substantial adverse:</u></p> <ul style="list-style-type: none"> • LR2.1 Roadside Planation, • LR2.2 Engineered Slope (Vegetated) • LR2.3 Hillside Woodland <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> • LR3.1 Sitting-out area <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> • LR4.1 Public Housing Estate <p>Key Affected LCAs:</p> <p><u>Substantial adverse:</u></p> <ul style="list-style-type: none"> • LCA1 Upland and Hillside Landscape <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> • LCA4 Industrial Urban Landscape • LCA5 Transportation Corridor Landscape <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> • LCA3 Residential Urban Landscape • LCA5 Transportation Corridor Landscape <p>Key Affected VSRs:</p> <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> • Residential and Occupational VSRs (VSR1, VSR2, VSR3, VSR4, VSR5, VSR6, VSR7, VSR8, VSR9, VSR10, VSR11, VSR19, VSR20) • Travelling VSRs (VSR12, VSR13, VSR14, VSR15, VSR16, VSR17 and VSR24) • Recreation VSRs (VSR18) <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> • Residential and Occupational VSRs (VSR22, VSR23)

Item	Description
	<ul style="list-style-type: none"> Recreational VSRs (VSR21)
Key Operation Impacts	<p>Key Affected LRs:</p> <p><u>Substantial adverse:</u></p> <ul style="list-style-type: none"> LR2.1 Roadside Planation, LR2.2 Engineered Slope (Vegetated) LR2.3 Hillside Woodland <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> LR3.1 Sitting-out area <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> LR4.1 Public Housing Estate <p>Key Affected LCAs:</p> <p><u>Substantial adverse:</u></p> <ul style="list-style-type: none"> LCA1 Upland and Hillside Landscape <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> LCA4 Industrial Urban Landscape LCA5 Transportation Corridor Landscape <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> LCA3 Residential Urban Landscape <p>Key Affected VSRs:</p> <p><u>Moderate adverse:</u></p> <ul style="list-style-type: none"> Residential and Occupational VSRs (VSR1, VSR2, VSR3, VSR4, VSR5, VSR6, VSR7, VSR8, VSR9, VSR10, VSR11, VSR19, VSR20) Recreational VSRs (VSR18) <p><u>Slight adverse:</u></p> <ul style="list-style-type: none"> Travelling VSRs (VSR12, VSR13, VSR14, VSR15, VSR16, VSR17 and VSR24) Residential and Occupational VSRs (VSR22, VSR23) Recreational VSRs (VSR21)
Key Mitigation Measures	<p><u>Construction Phase:</u></p> <ul style="list-style-type: none"> Preservation of Existing Vegetation (CM1) Transplanting of Affected Trees (CM2) Control of Night-time Lighting Glare (CM3) Good Site Practice (CM4)

Item	Description
	<ul style="list-style-type: none"> Erection of Decorative Screen Hoarding (CM5) <p>Operation Phase:</p> <ul style="list-style-type: none"> Compensatory Tree Planting (OM1) (compensation ratio is 1:1.013 (988:1,001)) Roadside Planting (OM2) Provision of Aesthetic Pleasing Treatment on Noise Barriers (OM3) Aesthetically pleasing design for carriageways and other highways structures (OM4)
Residual Impacts	<p>Key Affected LRs:</p> <p><u>Moderate</u> residual impact during Construction and <u>Slight</u> residual impact during day 1 of operation and year 10 of operation on affected Landscape Resources (LR2.3 Hillside Woodland).</p> <p><u>Moderate</u> residual impact during Construction and <u>Slight</u> residual impact during day 1 of operation and <u>insubstantial</u> residual impact during year 10 of operation on affected Landscape Resources (LR2.1 Roadside Planation, LR2.2 Engineered Slope (Vegetated))</p> <p><u>Slight</u> residual impact during Construction and day 1 of operation and <u>insubstantial</u> residual impact during year 10 of operation on affected Landscape Resources (LR3.1 Sitting-Out Area)</p> <p><u>Slight</u> residual impact during Construction and <u>insubstantial</u> residual impact during day 1 of operation and year 10 of operation on affected Landscape Resources (LR4.1 Public Housing Estate)</p> <p>Key Affected LCAs:</p> <p><u>Moderate</u> residual impact during Construction and <u>Slight</u> residual impact during day 1 of operation and <u>insubstantial</u> residual impact during year 10 of operation on affected landscape Character areas (LCA1 Upland and Hillside Landscape)</p> <p><u>Slight</u> residual impact during Construction and <u>insubstantial</u> residual impact during day 1 of operation and year 10 of operation on affected Landscape Character areas (LCA3 Industrial Urban Landscape)</p> <p><u>Slight</u> residual impact during Construction and day 1 of operation and <u>insubstantial</u> residual impact during year 10 of operation on affected Landscape Character areas (LCA4 Industrial Urban Landscape) and (LCA5 Transportation Corridor Landscape)</p> <p>Key Affected VSRs:</p> <p><u>Moderate</u> residual impact during day 1 of operation and during year 10 of operation on the affected visually sensitive receivers</p> <ul style="list-style-type: none"> Occupational VSRs (VSR6, VSR7, VSR8, VSR9)

Item	Description
	<p><u>Slight</u> residual impact during day 1 of operation and <u>insubstantial</u> residual impact during year 10 of operation on the affected visually sensitive receivers</p> <ul style="list-style-type: none"> • Residential and Occupational VSRs (VSR1, VSR3, VSR10, VSR11) • Slight residual impact during day 1 of operation and during year 10 of operation on the affected visually sensitive receivers • Residential and Occupational VSRs (VSR2, VSR4, VSR5) • Travelling VSRs (VSR15) <p><u>Insustantial</u> residual impact during day 1 of operation and during year 10 of operation on the affected visually sensitive receivers</p> <ul style="list-style-type: none"> • Residential and Occupational VSRs (VSR19, VSR20, VSR22, VSR23) • Recreational VSRS (VSR18, VSR21) • Travelling VSRs (VSR12, VSR13, VSR14, VSR16, VSR17, VSR24)
Compliance with EIAO-TM	The potential landscape and visual impacts associated with construction and operation of the Project are acceptable. It is in compliance with the EIAO-TM Annexes 10 and 18 and applicable assessment standards/ criteria.

Cultural Heritage

13.2.9 **Table 13.8** presents a summary of the key findings of the assessment of potential impacts to cultural heritage as a result of the construction and operation of the Project. Full details of the assessment and mitigation measures are presented in **Section 10** of this EIA Report.

Table 13.8 Summary of Environmental Assessment and Outcomes – Cultural Heritage

Item	Description
Sensitive Receivers	No declared or proposed monuments, sites, buildings/ structures or SAI have been identified within the cultural heritage assessment area (150m from Project site boundary). Two graded historic buildings and six built heritage items have been identified within the cultural heritage assessment area.
Assessment Methodology and Criteria	The study methodology follows the criteria and guidelines as stated in Annexes 10 and 19 of the EIAO-TM as stated in the EIA Study Brief.

Item	Description
Key Construction Impacts	<p>The proposed works areas of the Project are located in area with no archaeological potential. No archaeological survey is required. Potential impact on archaeological resources is not anticipated.</p> <p>Due to sufficient separation distance (more than 50m) from the Project works areas, potential direct impact to the identified built heritage items and the identified graded historic building (i.e. No. 3 San Shek Wan North Road (GB-02)) is not anticipated. The identified graded historic building (i.e. Shing Miu (GB-01)) is located within 50m from the Project works areas, but direct impact is not expected provided that the recommended mitigation measures are in place.</p>
Key Operation Impacts	<p>The Project involves no excavation works during operation phase, no adverse archaeological impact is anticipated.</p> <p>No direct or indirect built heritage impacts are anticipated during operation phase.</p>
Key Mitigation Measures	<p><u>Construction Phase:</u></p> <p>The project proponent and his/her contractor are required to inform AMO immediately when any antiquities or supposed antiquities under the Antiquities and Monuments Ordinance (Cap. 53) are discovered during the course of works.</p> <p>A baseline condition survey and baseline vibration impact assessment is recommended to be conducted for Shing Miu (GB-01) and seven other associated building structures including the Castle Peak Sam Shing Hui Village Office, Hau Shi Tong (孝思堂), Tai Sui Din (太歲殿), Office of Shing Miu, Fook Tak Tsz (福德祠), an Earth God Shrine and an Arch by a qualified building surveyor or qualified structural engineer during pre-construction stage of the Project to evaluate on the necessary construction monitoring and structural strengthening measures for AMO's consideration.</p> <p>The temple owner/ manager of Earth God Shrine and Shing Miu shall be consulted to agree on appropriate mitigation measure to be adopted. This may include relocate the Shrine to another location in the compound permanently or temporarily. If temporary blockage or diversion of the access path from the Arch to Shing Miu is required, the temple owner/manager shall be consulted to agree on appropriate access to Shing Miu during construction stage.</p> <p>During construction stage of the Project adjacent to the Arch, it shall be physically fenced off from the works area to minimise potential physical disturbance of construction works towards the Arch.</p> <p>If there are any buildings / structures both at grade level and underground which were built in or before 1969, the project proponent is required to alert AMO in an early stage or once identified.</p>

Item	Description
	<p><u>Operation Phase:</u> No specific mitigation measure is required during operation phase.</p>
Residual Impacts	With the implementation of the recommended mitigation measures, no adverse residual impact is anticipated.
Compliance with EIAO-TM	The potential cultural heritage impacts associated with construction and operation of the Project are acceptable. It is in compliance with the EIAO-TM Annexes 10 and 19 and applicable assessment standards/ criteria.

Conclusion

- 13.2.10 The assessment of the potential environmental impacts associated with the construction and operation phases of the Project demonstrated that the implementation of the Project will not cause adverse or unacceptable environmental impacts in accordance with the requirements of the EIA Study Brief and criteria stipulated in the EIAO-TM.
- 13.2.11 An environmental audit programme will be implemented to audit the environmental performance of the Contractor(s) during the implementation of the construction activities and verify the findings of the EIA study.