

## **12. IMPLEMENTATION SCHEDULE**

### **12.1. INTRODUCTION**

- 12.1.1. Various mitigation measures have been presented to minimise possible pollution and implement adverse impact control in planning, design, construction and operation stages. **Table 12.1** below provides the Environmental Mitigation Implementation Schedule (EMIS) for the recommended mitigation measures of the Project which should be implemented as far as practicable in the work areas as specified. For each of the measures, both the location and timing for the measures, and the responsible parties for implementing the measures and for maintenance, are well identified.

**Table 12.1 Environmental Mitigation Implementation Schedule for the Project**

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
<b>Air Quality</b>							
4.7.2	2.2.1	Dust suppression measures stipulated in the <i>Air Pollution Control (Construction Dust) Regulation</i> and good site practices: <ul style="list-style-type: none"> <li>• Use of regular watering, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather;</li> <li>• Use of frequent watering for particularly dusty construction areas close to ASRs;</li> <li>• Use of frequent watering or water sprinklers for major haul roads, material stockpiling areas and other dusty activities within the construction site;</li> <li>• Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines;</li> </ul>	To minimize the dust impact generated from various construction activities at the work sites	Contractor and sub-contractors	All work sites	Construction phase	Air Pollution Control Ordinance

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		<ul style="list-style-type: none"> <li>• Provide hoardings of not less than 2.4 m high from ground level along the site boundary except for site entrance or exit;</li> <li>• Open temporary stockpiles should be avoided or covered. Prevent placing dusty material storage plies near ASRs;</li> <li>• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations;</li> <li>• Establishment and use of vehicle wheel and body washing facilities at the exit points of the Site;</li> <li>• Provide wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.</li> <li>• Imposition of speed controls for vehicles on unpaved site roads. 8 km/hr is the recommended limit;</li> </ul>					

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		<ul style="list-style-type: none"> <li>• Where possible, routing of vehicles and positioning of construction plants should be at the maximum possible distance from ASRs;</li> <li>• Avoid position of material stockpiling areas, major haul roads and dusty works within the construction site close to concerned ASRs; and</li> <li>• Avoid unnecessary exposed earth.</li> </ul>					
4.7.3	2.2.1	<p>Guidelines of dust suppression stipulated in EPD's <i>Recommended Pollution Control Clauses for Construction Contracts</i>:</p> <ul style="list-style-type: none"> <li>• The Contractor shall observe and comply with the <i>APCO</i> and its subsidiary regulations, particularly the <i>Air Pollution Control (Construction Dust) Regulation</i>;</li> <li>• The Contractor shall undertake at all times to prevent dust nuisance as a result of the construction activities;</li> <li>• The Contractor shall ensure that there will be adequate water supply / storage for dust suppression;</li> <li>• The Contractor shall devise and arrange methods of working and carrying out the works</li> </ul>	To minimize the dust impact generated from various construction activities at the work sites	Contractor and sub-contractors	All work sites	Construction phase	Air Pollution Control Ordinance

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		<p>in such a manner so as to minimise dust impacts on the surrounding environment, and shall provide experienced personnel with suitable training to ensure that these methods are implemented; and</p> <ul style="list-style-type: none"> <li>• Before the commencement of any work, the Contractor may be required to submit the methods of working, plant, equipment and air pollution control system to be used on the Site for the Engineer inspection and approval.</li> </ul>					
4.7.4	2.2.1	<p>To minimise the exhaust emission from NRMM during the construction phase, below measures in relation to <i>DEVB TC(W) No. 1/2015 – Emissions Control of Non-road Mobile Machinery in Capital Works Contracts of Public Works</i> shall be applied as far as practicable:</p> <ul style="list-style-type: none"> <li>• Connection construction plant and equipment to main electricity supply and avoid use of diesel generators and diesel-powered equipment;</li> <li>• Exempted NRMMs shall be avoided;</li> </ul>	To minimize exhaust emission from NRMMs during construction phase	Contractor and sub-contractors	All work sites	Construction phase	DEVB TC(W) No.1/2015

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		<ul style="list-style-type: none"> <li>Deploy electrified NRMMS as far as practicable.</li> </ul>					
4.7.5	2.2.1	In order to help reduce carbon emission and pollution, timely application of temporary electricity and water supply as well as wider use of electric vehicles in public works contracts would be adopted in accordance with <i>DEVB TC(W) No. 13/2020 – Timely Application of Temporary Electricity and Water Supply for Public Works Contracts and Wider Use of Electric Vehicles in Public Works Contracts in the Project.</i>	To reduce carbon emission and pollution	Contractor and sub-contractors,	All work sites	Construction phase	DEVB TC(W) No.13/2020
<b>Noise</b>							
5.8.3	3.3.1 – 3.3.2	Selection and Optimisation of Construction Processes <ul style="list-style-type: none"> <li>Carefully arrange the timing and sequencing of the various construction activities according to the actual site work situation;</li> <li>Limit the number of concurrent activities;</li> <li>Avoid simultaneous operation of noisy PME; and</li> <li>Limit the percentage on-time of PME</li> </ul>	To minimize construction noise impact arising from the Project	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance

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5.8.4-5.8.9	3.3.1-3.3.2	<p>Use of Quieter Alternative Construction Equipment/Methods</p> <p>The Contractor shall consider quieter construction methods or technologies to reduce the noise at its source if they are technically feasible and applicable for the proposed construction works.</p> <ul style="list-style-type: none"> <li>• For site preparation works, hydro-demolition will be adopted as far as practicable for the removal of existing carpark slab.</li> <li>• For foundation works, socketed steel H-piling will be adopted;</li> <li>• For the main building construction, localised precast concrete construction will be adopted to minimize in-situ work; and</li> <li>• Reinforced concrete MiC by fully making use of Building Information Modelling (BIM).</li> </ul>	To minimize potential impacts to the nearby NSRs	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance
5.8.10 – 5.8.12	3.3.1 – 3.3.2	<p>Use of QPME</p> <ul style="list-style-type: none"> <li>• Specify maximum SWL for specific plant equipment; and</li> </ul>	To minimize construction noise impact arising from the Project	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance

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		<ul style="list-style-type: none"> <li>Obtain particular models of plant that are quieter than the QPMEs listed</li> </ul>					
5.8.13 – 5.8.14	3.3.1 – 3.3.2	<p>Use of Movable Noise Barriers</p> <ul style="list-style-type: none"> <li>The use of movable noise barrier for certain PME could further minimize the construction noise impact. In general, 5dB(A) reduction for mobile PME and 10dB(A) for stationary PME can be achieved provided that the direct line-of site of the PME is blocked.</li> <li>The Contractor shall be responsible for the design of the movable noise barrier with due consideration given to the size of the PME and the requirement of intercepting the line of sight between the NSRs and the PME, as well as ensuring that the barriers should have no openings and gaps.</li> </ul>	To minimize construction noise impact arising from the Project	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance
5.8.15	3.3.1 – 3.3.2	Implementation of Good Site Practices:	To minimize construction noise	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance



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		<ul style="list-style-type: none"> <li>• Use of well-maintained and regularly-serviced plant during the works;</li> <li>• Turn off or throttle down the plant in intermittent use to a minimum;</li> <li>• Orient the plant known to emit noise strongly in one direction to face away from the NSRs;</li> <li>• Use silencers, mufflers and enclosures for plant where possible and maintain properly throughout the works;</li> <li>• Site fixed plant as far away from NSRs as possible; and</li> <li>• Use stockpiles of excavated materials and other structures such as site buildings effectively to screen noise from the works.</li> </ul>	impact arising from the Project				
5.8.16 – 5.8.17	3.3.1-3.3.2	Preparation of Construction Noise Management Plan (CNMP). <ul style="list-style-type: none"> <li>• CNMP shall be prepared and submitted to the Director of EP no later than 2 months before the issuance of the tender of the Project and before commencement of the project implementation;</li> </ul>	To minimize construction noise impact arising from the Project	Contractor and sub-contractors	All work sites	Construction phase	EIAO, Noise Control Ordinance, EIAO GN No. 9/2023

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		<ul style="list-style-type: none"> <li>If there is any change to the construction noise mitigation measures and/or plant inventory recommended in the submitted CNMP, an updated CNMP should be submitted to the Director, no later than one month before the implementation of any of such change; and</li> <li>The CNMP shall be prepared and checked by Certified Noise Modelling Professional as recognized by Hong Kong Institute of Qualified Environmental Professionals Limited (HKIQEP) or equivalent.</li> </ul>					
5.8.17 – 5.8.18	3.3.4	<p>The following noise reduction measures should be considered as far as practicable:</p> <ul style="list-style-type: none"> <li>Apply noise mitigation measures including silencers, acoustic louvers and acoustic enclosure where necessary;</li> <li>As part of the design process, commissioning test should be conducted to ensure the compliance of relevant fixed plant noise criteria; and</li> <li>Develop and implement a regularly scheduled plant maintenance programme to ensure that equipment is properly operated and serviced in order to maintain controlled level of noise. The</li> </ul>	To minimize the fixed plant noise impact	Contractor and sub-contractors, HKO	Annex Block and Red House at HKO Headquarters	Design phase, operation phase	EIAO, Noise Control Ordinance

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		programme should be implemented by properly trained personnel.					
<b>Water Quality and Sewerage</b>							
6.7.1	4.2.1	<p>In accordance with Professional Persons Environmental Consultative Committee Practice Notes (<i>ProPECC PN</i>) 2/23, potential water quality impact shall be minimised by the implementation of construction phase mitigation measures and general good site practice including the following:</p> <ul style="list-style-type: none"> <li>At the establishment of works site, perimeter cut-off drains to direct off-site water around the Site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided to divert the stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction, followed by proper maintenance and management practices throughout the construction phase;</li> <li>Dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should</li> </ul>	To minimize water quality impacts	Contractor and sub-contractors	All work sites	Construction phase	Water Pollution Control Ordinance

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		<p>be provided to facilitate the run-off discharge into an appropriate watercourse, through a silt/sediment trap. Silt/sediment traps should also be incorporated in the permanent drainage channels to enhance deposition rates;</p> <ul style="list-style-type: none"> <li>The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of <i>ProPECC PN 2/23</i>, which states that the retention time for silt/sand traps should be less than 5 minutes under maximum flow conditions. The sizes may vary depending upon the flow rate, but for a flow rate of 0.1m<sup>3</sup>/s, a sedimentation basin of 30m<sup>3</sup> would be required and for a flow rate of 0.5m<sup>3</sup>/s the basin would be 150m<sup>3</sup>. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction.</li> <li>The construction works should be programmed to minimise surface excavation works during rainy seasons (April to September), as far as possible. All exposed earth areas should be completed and vegetated as soon as possible after completion of the earthwork, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during</li> </ul>					

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		<p>the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means; temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surface. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.</p> <ul style="list-style-type: none"> <li>• The overall slope of works sites should be kept to a minimum to reduce the erosive potential of surface water flows, and all trafficked areas and access roads should be protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during the prolonged periods of inclement weather and the reduction of surface sheet flows;</li> <li>• All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure their proper and efficient operation at all times particularly following rainstorms. Deposited</li> </ul>					

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		<p>silts and grits should be removed regularly and disposed of by spreading evenly over stable, vegetated areas;</p> <ul style="list-style-type: none"> <li>• Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet season is inevitable, they should be dug and backfilled in short sections wherever practicable. The water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;</li> <li>• All open stockpiles of construction materials (for example, aggregates, sand and fill materials) should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;</li> <li>• Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm run-off being directed into foul sewers;</li> <li>• Precautions to be taken at any time of the year when rainstorms are likely, actions to be taken</li> </ul>					

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		<p>when a rainstorm is imminent or forecasted and during or after rainstorms, are summarised in Appendix A2 of <i>ProPECC PN 2/23</i>. Particular attention should be paid to the control of silty surface run-off during storm events;</p> <ul style="list-style-type: none"> <li>• All vehicles and plants should be cleaned before leaving the Project Site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at the exit of Project Site where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-washing bay to public roads should be paved with sufficient backfall toward the wheel-washing bay to prevent vehicle tracking of soil and silty water to public roads and drains;</li> <li>• Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. Oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A</li> </ul>					

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		<p>bypass should be provided for oil interceptors to prevent flushing during heavy rain. Any drainage channels connecting storm drains via designed sand/silt removal facilities should be disconnected/removed after completion of construction stage to prevent any direct discharge to the stormwater system;</p> <ul style="list-style-type: none"> <li>• The construction solid waste, debris and rubbish on-site should be collected, handled and disposed of properly to avoid causing any water quality impacts. The requirements for solid waste management are detailed in <i>Section 8</i> of EIA report; and</li> <li>• All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching the nearby WSRs;</li> <li>• Groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction, and groundwater seepage pumped out of tunnels or caverns under construction should be discharged into</li> </ul>					



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		<p>storm drains after the removal of silt in silt removal facilities;</p> <ul style="list-style-type: none"> <li>• Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities;</li> <li>• Bentonite slurries used in diaphragm wall and bore-pile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis;</li> <li>• If the used bentonite slurry is intended to be disposed of through the public drainage system, it should be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out</li> </ul>					

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		<p>in the <i>WPCO Technical Memorandum on Effluent Standards</i>;</p> <ul style="list-style-type: none"> <li>• Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand etc. from entering public sewers/drains;</li> <li>• Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the stormwater drainage system. If the wastewater is to be discharged into foul sewers, it should undergo the removal of settleable solids in a silt removal facility, and pH adjustment as necessary; and</li> <li>• Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. If there is no public foul sewer in the vicinity, the neutralized wastewater should be tankered off site for disposal into foul sewers</li> </ul>					

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		or treated to a standard acceptable to storm drains and the receiving waters.					
6.7.3	4.2.1	There is a need to apply to the EPD for a discharge licence for discharge of effluent from the construction site under the <i>WPCO</i> . The discharge quality must meet the requirements as specified in the discharge licence. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the Technical Memorandum. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes. In addition, no new effluent discharges in nearby typhoon shelters should be allowed. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., would minimise water consumption and reduce the effluent discharge volume.	To minimize water quality impacts	Contractor and sub-contractors	All work sites	Construction phase	Water Pollution Control Ordinance
6.7.4	4.2.1	Portable chemical toilets and sewage holding tanks are recommended for the handling of the construction sewage generated by the workforce. A licenced Contractor should be employed to provide appropriate and adequate portable toilets and be	To minimize water quality impacts	Contractor and sub-contractors	All work sites	Construction phase	Water Pollution Control Ordinance

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		responsible for appropriate disposal and maintenance.					Waste Disposal (Chemical Waste) (General) Regulation
6.7.5	4.2.1	The Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The <i>Waste Disposal Ordinance (Cap. 354)</i> and its subsidiary regulations in particular the <i>Waste Disposal (Chemical Waste) (General) Regulation</i> should be observed and complied with for control of chemical wastes.	To minimize water quality impacts	Contractor and sub-contractors	All work sites	Construction phase	Water Pollution Control Ordinance Waste Disposal (Chemical Waste) (General) Regulation
6.7.6	4.2.1	Any maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken within the areas appropriately equipped to control these discharges.	To minimize water quality impacts	Contractor and sub-contractors	All work sites	Construction phase	Water Pollution Control Ordinance
6.7.7	4.2.2	All sewage arising from the Project should be collected and diverted to the public sewerage system via proper connections to minimise water quality impact from the operation of the Project and ensure compliance with WPCO-TM on Standards for Effluents Discharged into Drainage and Sewerage	To minimize sewage impacts	Contractor and sub-contractors,	Annex Block and Red House at HKO Headquarters	Design phase, operation phase	Water Pollution Control Ordinance

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		Systems, Inland and Coastal Waters under the <i>WPCO</i> .					
6.7.8	4.2.2	To minimise the impact from increased surface runoff, the Project should be designed with adequate drainage system to cater for the runoff from 50 year-return-period rainstorm; and provided with appropriate screening facilities and oil interceptors, as required. The design of stormwater drains shall follow the relevant guidelines and practices as given in the <i>ProPECC PN 1/23</i> . Manholes, gullies and oil interceptors should be cleaned and inspected regularly. Additional inspection and cleansing should be carried out before forecast heavy rainfall.	To minimize impact from increased surface runoff	Contractor and sub-contractors, HKO	Annex Block and Red House at HKO Headquarters	Design phase, operation phase	Water Pollution Control Ordinance
<b>Waste Management</b>							
7.6.1-7.6.5	5.2.1	Recommendations for general mitigation measures: <ul style="list-style-type: none"> <li>Provide training for site staff for the concept of site cleanliness, chemical handling procedures and appropriate waste management procedures, including waste reduction, reuse and recycle;</li> <li>Develop and provide toolbox talk for on-site sorting of C&amp;D materials to enhance workers' awareness in handling, sorting, reuse and</li> </ul>	To ensure proper management of waste disposal	Contractor and Sub-contractors	All works sites and related transportation route of waste	Construction phase	Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, DEVB TC(W) No. 6/2010, ETWB TC(W) No.

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		recycling of C&D materials; <ul style="list-style-type: none"> <li>• Requirements for staff training shall be included in the Contractor’s Environmental Management Plan (EMP). The EMP shall be submitted to the Engineer for approval before construction works;</li> <li>• Good planning and site management practices shall be employed to eliminate over ordering or mixing of construction materials and reduce wastage. Proper storage and site practices will minimize the damage or contamination of construction materials; and</li> <li>• Where waste generation is unavoidable, the potential for recycling or reuse shall be considered. If waste cannot be recycled, disposal routes described in the EMP shall be followed. The amount of waste generated, recycled, and disposed shall be recorded. Trip-ticket system shall also be implemented in accordance with Development Bureau TC(W) No. 6/2010 to monitor the disposal of C&amp;D material and control fly-tipping.</li> </ul>					19/2005, EIAO, WBTC No.2/93 , WBTC No.2/93B

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7.6.6	5.2.1	<p>Recommendations for good site practices:</p> <ul style="list-style-type: none"> <li>Nominate approved personnel, such as a site manager to be responsible for implementation of good site practices, arrangements for waste collection and effective disposal to an appropriate facility;</li> <li>Prepare EMP to include monthly and yearly Waste Flow Tables that indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and which shall be regularly updated;</li> <li>The reuse/ recycling of all materials on site shall be investigated prior to treatment/ disposal off-site</li> <li>Proper site practices shall be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimization;</li> <li>Minimise windblown litter and dust during transportation of waste such as by either covering trucks or by transporting wastes in</li> </ul>	To ensure proper management of waste disposal	Contractor and Sub-contractors	All works sites and related transportation route of waste	Construction phase	Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, DEVB TC(W) No. 6/2010, ETWB TC(W) No. 19/2005, EIAO, WBTC No.2/93 , WBTC No.2/93B

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		enclosed containers; and <ul style="list-style-type: none"> <li>• Adoption of appropriate measures to minimise windblown litter and dust during transportation of waste such as either covering trucks or by transporting wastes in enclosed containers; and</li> <li>• Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites).</li> </ul>					
7.6.7	5.2.1	Recommendations for waste reduction measures: <ul style="list-style-type: none"> <li>• Encourage collection of aluminum cans, paper and plastic and glass bottles by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce;</li> <li>• Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>• Make provisions in contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>• Minimize over-ordering and wastage through</li> </ul>	To ensure proper management of waste disposal and minimize waste quantity	Contractor and Sub-contractors	All works sites and related transportation route of waste	Construction phase	Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, DEVB TC(W) No. 6/2010, ETWB TC(W) No. 19/2005, EIAO, WBTC No.2/93 , WBTC No.2/93B



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		<p>careful planning during purchasing of construction materials;</p> <ul style="list-style-type: none"> <li>• Use of steel formwork instead of timber formwork to reduce the generation of timber waste;</li> <li>• Proper site practices to minimise the potential for damage or contamination of inert C&amp;D materials; and</li> <li>• Plan the delivery and stock of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>					
7.6.8	5.2.1	<p><u>C&amp;D Materials:</u></p> <ul style="list-style-type: none"> <li>• Sort and segregate on-site materials into inert and non-inert C&amp;D materials, to be recycled or reused.</li> <li>• Make arrangements for the collection of the recyclable materials. Collected Timber and woody materials will be delivered to Yard Waste Recycling Centre in Y-Park as far as possible. Any remaining non-inert C&amp;D materials shall be collected and disposed of at</li> </ul>	To ensure proper management of C&D materials and minimize quantity of C&D waste	Contractor and Sub-contractors	All work sites and related transportation route of waste	Construction phase	Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, DEVB TC(W) No. 6/2010, ETWB TC(W) No. 19/2005, EIAO,

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		<p>landfills whilst any inert C&amp;D materials shall be re-used on site as far as possible.</p> <ul style="list-style-type: none"> <li>• Surplus inert materials can be delivered to Public Fill Reception Facilities after obtaining the appropriate licence;</li> <li>• A trip ticket system with CCTV monitoring at the vehicular entrance and exit shall be established at the outset of the construction to monitor the disposal of C&amp;D materials and solid wastes from the Site to public filling facilities and landfills;</li> <li>• All dump trucks should be equipped with GPS or equivalent system for the monitoring of their travel routings and parking locations to prohibit illegal dumping and landfilling of C&amp;D materials.</li> <li>• Cover properly with tarpaulin or similar impervious sheeting to prevent dust nuisance and site runoff;</li> <li>• Prior to disposal off-site, non-inert C&amp;D materials will have to be temporarily put in a suitably covered storage area where it will have to be regularly cleaned and maintained to avoid attracting vermin and pests; and</li> </ul>					<p>WBTC No.2/93 , WBTC No.2/93B</p>

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<ul style="list-style-type: none"> <li>Dump trucks with mechanical cover shall be used to minimize windblown litter and dust during transportation of waste.</li> </ul>					
7.6.8	5.2.1	<p><u>Chemical Waste:</u></p> <ul style="list-style-type: none"> <li>The Contractor shall be registered as Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated on site;</li> <li>Suitable containers shall be used for specific types of chemical wastes. The containers shall be properly labelled and closely secured to prevent spillage/leakage in the vicinity. Stored volume shall not be kept more than 450 litres.</li> <li>Storage area shall be enclosed by three sides by a wall, partition of fence that is at least 2m height or height of tallest container with adequate ventilation and space;</li> <li>Used lubricants should be collected and stored in individual containers which are fully labelled in English and Chinese and stored in a designated secure place. The licensed chemical waste collector should regularly take chemical waste to a licensed chemical waste</li> </ul>	To minimize impacts arising from collection and transportation of chemical waste for off-site disposal	Contractor and sub-contractors	All work sites	Construction phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>treatment facility (such as the CWTC in Tsing Yi);</p> <ul style="list-style-type: none"> <li>• No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site;</li> <li>• Drip tray should be provided to chemical waste containers. The drip tray should be cleaned up regularly. Clean up should be done before foreseeable inclement weather such as typhoon or heavy rain.</li> </ul>					

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7.6.8	5.2.1	<p><u>General Refuse:</u></p> <ul style="list-style-type: none"> <li>A sufficient number of covered bins shall be provided on site for the containment of general refuse to prevent visual impacts and nuisance to the sensitive surroundings. These bins shall be cleared daily and the collected waste disposed of to WENT Landfill. The Contractor is required to maintain a clean and hygienic site throughout the Project works;</li> <li>Waste collection facilities (e.g. litter bins) and separate collection bins for glass bottles, aluminium cans, plastic containers and paper wastes shall be provided. Recyclable materials shall be separated and delivered to the local recyclers; and</li> <li>General refuse generated on-site shall be stored in enclosed bins or skips and collected separately from other construction and chemical wastes and disposed of at WENT Landfill. The removal of waste from the Site shall be arranged on a daily basis by the Contractor to minimize any potential odour impacts, minimize the presence of pests, vermin and other scavengers and prevent unsightly accumulation of waste; and.</li> </ul>	To minimize impacts arising from collection and transportation of general refuse for off-site disposal	Contractor and sub-Contractor(s)	All work sites	Construction phase	Waste Disposal Ordinance, Development Bureau TC(W) No. 8/2010

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		<ul style="list-style-type: none"> <li>Disposal of general refuse is recommended before foreseeable inclement weather such as typhoon or heavy rain.</li> </ul>					

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
7.6.9- 7.6.10	5.2.2	<ul style="list-style-type: none"> <li>Waste collection facilities (e.g. litter bins) and recycling bins for aluminium cans, plastic drinks bottles and paper wastes shall be provided. Other non-recyclable general refuse would be collected by licensed collectors daily and disposed of at WENT Landfill.</li> <li>General refuse shall be removed on a daily basis to minimize potential odour, pest and litter impact.</li> </ul>	To avoid and minimize impacts arising from waste management	HKO	Annex Block and Red House at HKO Headquarters	Operation phase	Waste Disposal Ordinance

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<b>Cultural Heritage</b>							
8.8.4	6.2.1	<p>Recommended mitigation measures for the archaeological perspective:</p> <ul style="list-style-type: none"> <li>As a precautionary measure, the Project Proponent is 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.</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Design phase, construction phase	Antiquities and Monuments Ordinance



EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
8.8.10	6.2.1	<p>Recommended mitigation measures for the proposed construction of New Annex Block with various greening strategies:</p> <ul style="list-style-type: none"> <li>• Photographic and cartographic survey of the heritage site including the affected CDEs shall be carried out before the commencement of works;</li> <li>• Condition survey should be carried out before, during (at a regular interval during works period) and upon completion of the Project;</li> <li>• Interpretation strategy should be properly formulated and the historic development and changes of the heritage site should be presented to enhance and reinforce the understanding of its cultural significance;</li> <li>• The Project Proponent should be reminded to inform AMO immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</li> <li>• Details of the construction of underground plant room should be submitted to AMO at the</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Design phase, construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		implementation stage for further review.  <b>Any construction works of the temporary works during construction stage to be outside project site boundary should be reversible and shall have minimum disturbance to existing historic landscape.</b>					
8.8.11	6.2.1	Recommended mitigation measures for the proposed geotechnical works for the construction of new Annex Block: <ul style="list-style-type: none"> <li>• Photographic and cartographic survey of the heritage site including the affected CDEs shall be carried out before the commencement of works.</li> <li>• Condition survey should be carried out to record conditions of the affected CDEs before, during (at a regular interval during works period) and upon completion of the Project so as to ensure that the CDEs of historic buildings and / or surrounding within the HKO</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>Headquarters would be properly monitored. All the survey reports should be submitted for AMO's record.</p> <ul style="list-style-type: none"> <li>• Interpretation strategy should be properly formulated and the historic development and changes of the heritage site should be presented to enhance and reinforce the understanding of its cultural significance.</li> <li>• The Project Proponent should be reminded to inform AMO immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</li> <li>• The proposed works for the construction of new Annex Block (including site formation works, foundation works, slope upgrading and improvement works, superstructure and external works etc.) shall have minimum disturbance to existing historic landscape.</li> <li>• The proposed works for the construction of new Annex Block shall take into account of the existing historic buildings in the close vicinity which shall not incur ground settlement, and impose vibration and tilting to the historic buildings, and should not undermine or cause</li> </ul>					

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>damage to the foundation of the historic structures.</p> <ul style="list-style-type: none"> <li>• During the construction stage, works boundary should be set away from the historic buildings within the HKO Headquarters as far as practical and physical barrier should be provided to fence off heritage sites from the works area.</li> <li>• Foundation information of the historic structures shall be verified on site where necessary, sufficient lateral support should be provided and de-watering (if required) should be carried out with great cautions to control ground movement and change of ground water regime at the heritage site.</li> </ul>					
8.8.12	6.2.1	<p>Recommended mitigation measures for the provision of a widened access road to the new Annex Block for the EVA:</p> <ul style="list-style-type: none"> <li>• Photographic and cartographic survey of the heritage site including the affected CDEs shall be carried out before the commencement of works;</li> <li>• Condition survey should be carried out to record conditions of the affected CDEs before,</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Annex Block and the widened access road	Design phase, construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>during (at a regular interval during works period) and upon completion of the Project;</p> <ul style="list-style-type: none"> <li>• Interpretation strategy should be properly formulated and the historic development and changes of the heritage site should be presented to enhance and reinforce the understanding of its cultural significance.</li> <li>• The Project Proponent should be reminded to inform AMO immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</li> <li>• The widened access road will be constructed in a way such that the major access from the Nathan Road site entrance to the main area is still maintained.</li> <li>• The site entrance from Nathan Road will need to be widened in order to achieve the widened EVA. The affected gate posts shall be salvaged and re-installed in a new location as far as technically feasible.</li> </ul>					

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		<ul style="list-style-type: none"> <li>The proposal and works on the entrance, the gate and the posts should be conducted upon AMO's approval as appropriate.</li> </ul>					
8.8.13	6.2.1	<p>Recommended mitigation measures for Proposed UU diversion works:</p> <ul style="list-style-type: none"> <li>Condition survey should be carried out to record conditions of the affected CDEs before, during (at a regular interval during works period) and upon completion of the Project so as to ensure that the CDEs of historic buildings and / or surrounding within the HKO Headquarters would be properly monitored. All the survey reports should be submitted for AMO's record.</li> <li>The proposed works area of UU diversion will both make use of existing trenches and form new trenches along the existing paths.</li> <li>In case of forming new trenches:                             <ul style="list-style-type: none"> <li>The forming of new trenches will require excavation of 1.8m from the ground level. The proposed works for the UU diversion shall take into account of the existing historic buildings in the close vicinity which shall not incur ground settlement,</li> </ul> </li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Design phase, construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>and impose vibration and tilting to the historic buildings, and should not undermine or cause damage to the foundation of the historic structures.</p> <ul style="list-style-type: none"> <li>- The exact boundary for the excavation works shall be refined and determined in detailed design stage in order to avoid disturbance to the foundation of existing buildings. Trial pits shall be carried out subject to AMO's approval.</li> <li>- The excavation works will be limited to the use of small excavator and handheld tools for shallow excavations to minimise the indirect vibration/settlement / tilting impact.</li> <li>- New underground utilities will be grouped together when entering the affected buildings at localised locations.</li> <li>- Any new openings for passage of the underground utilities should be at less prominent locations, and should be agreed prior to the works. The forming of the new openings shall be subject to the advice from Registered Structural Engineer.</li> </ul>					

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		<ul style="list-style-type: none"> <li>• In case of making use of the existing trenches:               <ul style="list-style-type: none"> <li>- Existing openings should be utilised as far as technically feasible so that minimum number of openings will be made on the walls.</li> <li>- In the event that it is necessary to enlarge existing openings, the extent of the enlargement shall be determined by Registered Structural Engineer. Disturbance to the existing structure shall be kept to a minimum as far as possible.</li> </ul> </li> <li>• The proposed works for the UU diversion works shall have minimum disturbance to existing historic buildings and landscape.</li> <li>• Monitoring measures are required during the construction stage upon commencement of any works till the works completed to ensure the structural integrity of the historic buildings.</li> <li>• Three levels of control criteria, Alert, Alarm and Action levels (AAA system) would be adopted for monitoring during excavations for the UU diversion works. Checkpoints and markers relating to ground settlement, services settlement, building tilting, vibration and</li> </ul>					



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		<p>water table would be installed for the monitoring.</p> <ul style="list-style-type: none"> <li>• Different sets of monitoring points should be provided in the vicinity of the Project Site and the historic buildings of HKO Headquarters respectively, with locations and frequency to be agreed by AMO. Monitoring criteria would be subjected to review by AMO.</li> <li>• Construction works shall be suspended immediately when a vibration monitoring reading is found to exceed the limits given in the vibration control / monitoring scheme. An investigation report and remedial proposal shall be submitted to Project Team, ArchSD and AMO to examine the construction method and review ground response history of the monitoring record. The construction works shall only be resumed after the acceptance of the investigation report and remedial proposal by Project Team, ArchSD and AMO.</li> <li>• Periodic visual inspections of the historic buildings shall be conducted by Contractor during the course of construction works, and the monitoring data should be submitted for Project Team and AMO's noting, comment and record.</li> </ul>					

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		<ul style="list-style-type: none"> <li>The Project Proponent should be reminded to inform AMO immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</li> </ul>					
8.8.14	6.2.1	<p>Recommended mitigation measures for refurbishment of the Red House for the purpose of providing a history room:</p> <ul style="list-style-type: none"> <li>Photographic and cartographic survey of Red House including the affected CDEs shall be carried out before the commencement of works.</li> <li>Interpretation strategy should be properly formulated and the historic development and changes of the Red House should be presented to enhance and reinforced the understanding of its cultural significance.</li> <li>The new use as a history room will make use of the existing internal layout and will not impose any impact to the original spatial arrangement.</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Red House at HKO Headquarters	Construction phase	Antiquities and Monuments Ordinance

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8.8.15	6.2.1	<p>Recommended mitigation measures for removal of existing later-added window-type A/C units:</p> <ul style="list-style-type: none"> <li>• The later-added window-type A/C units are undesirable interventions to the Red House and shall be removed. Reinstating those affected windows could reveal the original façade and window design.</li> <li>• Detailed documentation including photographic survey and cartographic survey should be carried out to the affected building elements prior to the removal.</li> <li>• New timber windows to be installed should make reference to the existing timber windows of period style in terms of materials, dimensions, texture, colour, and ironmongeries.</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Red House at HKO Headquarters	Design phase, construction phase	Antiquities and Monuments Ordinance
8.8.16	6.2.1	<p>Recommended mitigation measures for removal of existing internal fittings identified to be later additions (e.g. false ceilings):</p> <ul style="list-style-type: none"> <li>• The later-added internal fittings are undesirable interventions to the Red House and shall be removed. Reinstating those</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Red House at HKO Headquarters	Design phase, construction phase	Antiquities and Monuments Ordinance

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		affected CDEs could reveal the original historic fabrics and interior. <ul style="list-style-type: none"> <li>• Detailed documentation including photographic survey and cartographic survey should be carried out to the affected building elements prior to the removal.</li> </ul>					
8.8.17	6.2.1	Recommended mitigation measures for installation of building services systems such as electrical system, fire services system, air conditioning system, etc.: <ul style="list-style-type: none"> <li>• Existing building services installation should be followed as far as technically feasible. All the locations of new openings should be submitted to AMO for approval.</li> <li>• New building services will be grouped together when entering the Red House so that minimum number of openings will be made on the walls.</li> <li>• Instead of forming new holes, existing openings on walls should be utilised as far as technically feasible.</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Red House at HKO Headquarters	Design phase, construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<ul style="list-style-type: none"> <li>• New openings for passage of pipes should be at less prominent location, and should be agreed prior to the works.</li> <li>• Cable trunking should be used instead of individual electrical conduits.</li> <li>• Minimise disturbance to the historic walls as far as possible. The openings shall be formed by removal of masonry units subject to the advice from Registered Structural Engineer.</li> <li>• No new conceal type conduit and pipe is allowed at existing historic fabrics. The exposed routing should be carefully designed at less prominent locations and tidily aligned to keep minimum disturbance and visual impact to historic fabrics.</li> </ul>					
8.8.18	6.2.1	<p>Recommended mitigation measures for the proposed geotechnical works including retaining structure, slope improvement works and excavation, lateral support works for pile cap construction, substructure and superstructure works for the construction of new Annex Block:</p> <ul style="list-style-type: none"> <li>• The proposed works for the construction of new Annex Block (including foundation, ELS, geotechnical works, substructure and</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Design phase, construction phase	Antiquities and Monuments Ordinance

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<p>superstructure works etc.) shall have minimum disturbance to existing historic buildings and landscape.</p> <ul style="list-style-type: none"> <li>• The proposed works for the construction of new Annex Block shall take into account of the existing historic buildings in the close vicinity which shall not incur ground settlement, and impose vibration and tilting to the historic buildings, and should not undermine or cause damage to the foundation of the historic structures.</li> <li>• Foundation information of the historic structures shall be verified on site where necessary, and sufficient lateral support should be provided and de-watering (if required) should be carried out with great cautions to control ground movement and change of ground water regime at the heritage site.</li> <li>• The excavation and foundation works for the construction of the new Annex Block shall be carried out by a non-percussive method to minimise the disturbance to existing historic building. Percussive method shall be avoided as far as practicable.</li> <li>• Monitoring measures are required during the construction stage upon commencement of</li> </ul>					

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		<p>any works till the works completed to ensure the structural integrity of the historic buildings.</p> <ul style="list-style-type: none"> <li>• Three levels of control criteria, AAA system would be adopted for monitoring during foundation and ELS works. Checkpoints and markers relating to ground settlement, services settlement, building tilting, vibration and water table would be installed for the monitoring.</li> <li>• Different sets of monitoring points should be provided in the vicinity of the Project Site and the historic buildings of HKO Headquarters respectively, with locations and frequency to be agreed by AMO. Monitoring criteria would be subjected to review by AMO upon updates of grading status of heritage sites.</li> <li>• Construction works shall be suspended immediately when a vibration monitoring reading is found to exceed the limits given in the vibration control / monitoring scheme. An investigation report and remedial proposal shall be submitted to Project Team, ArchSD and AMO to examine the construction method and review ground response history of the monitoring record. The construction works</li> </ul>					

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		<p>shall only be resumed after the acceptance of the investigation report and remedial proposal by Project Team, ArchSD and AMO.</p> <ul style="list-style-type: none"> <li>Periodic visual inspections of the historic buildings shall be conducted by Contractor during the course of construction works, and the monitoring data should be submitted for Project Team and AMO's noting, comment and record.</li> <li>The Project Proponent should be reminded to inform AMO immediately in case of discovery of antiquities or supposed antiquities in the course of works, so that appropriate mitigation measures, if needed, can be timely formulated and implemented in agreement with AMO.</li> </ul>					
8.8.19	6.2.1	<p>Recommended mitigation measures for the proposed construction of new Annex Block with various greening strategies</p> <ul style="list-style-type: none"> <li>The new Annex Block will be located away from the main area of HKO Headquarters and the building height is capped at +45 mPD for the least visual impact in the perception of the overall setting.</li> </ul>	To minimize impacts to the cultural heritage resources	Contractor and Sub-contractors	Within Project Site	Design phase, construction phase	Antiquities and Monuments Ordinance



EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to Address	Who to Implement the Measure?	Location of the Measure	When to Implement the Measure?	What Requirements or Standards for the Measure to Achieve?
		<ul style="list-style-type: none"> <li>• The location of the new Annex Block is carefully chosen, which is mainly in the supporting area and partly in the area with supplementary facilities, and these areas are with lower significance and experienced interventions throughout the history of the Site.</li> <li>• The appearance of the new Annex Block should be compatible with but distinguishable from the heritage site.</li> <li>• Various greening strategies adopted in the design such as vertical green walls and roof trellis with climber plants could soften the appearance of the new Annex Block, while stepped terraces with planting serves as green buffer towards adjacent buildings.</li> <li>• The new Annex Block will be located away from Red House, where a new outdoor space is introduced in-between to minimize visual impact.</li> </ul>					

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		<ul style="list-style-type: none"> <li>The new Annex Block should be understated in design which should not overwhelm the appearance of Red House.</li> </ul>					
<b>Landscape and Visual</b>							
<b>Construction phase</b>							
Section9.9- Table 9.19	7.2.1	<u>Minimisation of Temporary Works</u> The construction area and Contractor's temporary works areas shall be minimised to avoid impacts on adjacent landscape.	To avoid impacts on adjacent landscape	Main Contractor	All work sites	Planning phase, construction phase	Approved TPRP; Detailed Design Drawings and Specifications
Section9.9- Table 9.19	7.2.1	<u>Optimisation of Construction Period</u> Reduction of construction period to practical minimum.	To minimize the duration of impacts on VSRs.	Main Contractor	All work sites	Planning phase, construction phase	Approved project programme.
Section9.9- Table 9.19	7.2.1	<u>Construction Traffic Control</u> Construction traffic including construction plant shall be kept to a practical minimum.	To minimize visual impacts on surrounding VSRs	Main Contractor	All work sites	Planning phase, construction phase	Comply with Particular Specification and approved method statements for use of traffic and plant.

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Section9.9- Table 9.19	7.2.1	<u>Screen Hoarding</u> Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	To maximize screening of works from surrounding VSRs	Main Contractor	All work sites	Construction phase	Compliance with Particular Specification and approved hoarding design.
Section9.9- Table 9.19	7.2.1	<u>Reduction of Visual Intrusion of Temporary Built Forms</u> Avoidance of excessive height and bulk of site buildings and structures.	To avoid visual obstruction and intrusion on surrounding VSRs.	Main Contractor	Annex Block and Red House at HKO Headquarters	Planning phase, construction phase	Compliance with Particular Specification and approved Contractor's submissions for temporary built forms.
Section9.9- Table 9.19	7.2.1	<u>Light Control</u> Control of night-time lighting by hooding all lights and through minimisation of night working periods.	To minimize visual impacts on surrounding VSRs	Main Contractor	All work sites	Planning phase, construction phase	Compliance with Particular Specification and approved Contractor's submissions for night

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							lighting and working.
Section9.9- Table 9.19	7.2.1	<u>Tree Protection &amp; Preservation</u> All existing trees to be retained shall be carefully protected before, during and after construction. A Detailed Tree Protection Specification shall be provided in the Contract Specification, under which the Contractor shall be required to submit for approval a detailed method statement for the protection of trees prior to undertaking any works adjacent to all retained trees or trees to be transplanted, including trees in Contractor's works areas. Early preparation of trees to be transplanted shall be undertaken to increase their likely survival rate following transplanting.	To protect the existing trees	Main Contractor	All work sites	Planning phase, construction phase	Compliance with approved TPRP, DEVB TC(W) No. 4/2020; Tree Protection Particular Specification and approved Contractor's tree protection method statement.
Section9.9- Table 9.19	7.2.1	<u>Tree Transplantation</u> Trees unavoidably affected by the construction works shall be transplanted where practical. Detailed	To transplant the trees unavoidably affected	Main Contractor	Within Project Site and/or offsite	Planning phase, construction phase	Compliance with approved TPRP, Transplanting Particular

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		transplanting proposals shall be submitted to relevant government departments for approval.					Specification and approved transplanting method statement.
<b>Operation phase</b>							
Section 9.10- Table 9.20	7.2.1	<u>Sensitive Design of Building Massing</u> Sensitive design of buildings in terms of scale, height and bulk (visual weight).	To minimize visual impact to surrounding VSRs	Architect and Main Contractor	Annex Block	Design phase, construction phase, operation phase	Detailed Design Drawings and Specifications
Section 9.10- Table 9.20	7.2.1	<u>Treatment of Built Structures</u> Use of appropriate building materials and colours to complement surroundings.	To integrate building and minimise visual impact to surrounding VSRs	Architect and Main Contractor	Annex Block	Design phase, construction phase, operation phase	Detailed Design Drawings and Specifications
Section 9.10- Table 9.20	7.2.1	<u>Careful Design and Positioning of Building Footprint</u> Design of building footprint to minimise impact on existing slopes and vegetation.	To minimize impact on existing slopes and vegetation	Architect and Main Contractor	Annex Block	Design phase, construction phase, operation phase	Detailed Design Drawings and Specifications

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Section 9.10- Table 9.20	7.2.1	<u>Compensatory Planting</u> Compensatory tree planting shall be provided at 1:1 ratio as far as possible based on felled tree numbers and to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under Development Bureau <i>Technical Circular (Works) No. 4/2020 – Tree Preservation</i>	To mitigate the loss of existing trees	Landscape Sub-Contractor	Within Project Site and/or offsite	Design phase, construction phase, operation phase	As per approved TPRP, Detailed Design Drawings and Particular Specification
Section 9.10- Table 9.20	7.2.1	<u>Vertical Greening/ Green Roofs</u> Provision of planting on podium, terraces and roofs and vertical greening of facades to increase greening and provide visual mitigation.	To increase greening and provide visual mitigation	Landscape Sub-Contractor	Podium, terraces and roofs of the Annex Block	Design phase, construction phase, Operation phase	Detailed Design Drawings and Particular Specifications
Section 9.10- Table 9.20	7.2.1	<u>Provision of Amenity Landscape Area</u> Provision of 30% amenity planting/ greenery area .The exact layout of the greenery area will be subject to detailed design of the Project.	To provide adequate green amenity landscape area to minimize landscape and visual impacts	Main Contractor and Landscape Sub-contractor	Within Project Site and/or offsite	Design phase, construction phase, operation phase	DEVB TC(W) No.3/2012; Detailed Design Drawings and Specifications

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Section 9.10- Table 9.20	7.2.1	<u>Night Lighting Control</u> Road lighting units to be directional and minimise unnecessary light spill and glare.	To minimize impacts on surrounding VSRs	Main Contractor	Roads within Project Site	Design phase, construction phase, operation phase	Detailed Design Drawings and Specifications

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