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Note: Chapters 1 to 3 of the EIA report present the background information of the Project, identified designated project, concurrent projects, objectives and scope for various environmental aspects. Chapters 4 to 11 of the EIA report present the EIA findings and mitigation measures are described below with cross-reference to the EIA report. Chapters 12, 13 & 14 summarize the environmental monitoring requirements, environmental outcomes and conclusion.

EIA Ref.	EM&A Log Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns to address	Location of the measures	Implementation Agent	Implementation Stage [1]				Relevant Legislation & Guidelines
						D	C	O	Dec	
Construction Dust Impact										
S4.7.2 to S4.7.5	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 91.7%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.75 L/m^2 to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	All construction sites	Contractor		√			• APCO • To control the dust impact to meet HKAQO and TM-EIAO
S4.7.6	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	All construction sites	Contractor		√			• APCO • To control the dust impact to meet HKAQO and TM-EIAO
S4.7.6	D3	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;	Minimize dust impact at the nearby sensitive receivers	All construction sites	Contractor		√			• APCO • To control the dust impact to meet HKAQO and TM-EIAO

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		• Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked								

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		with the material filling line and no overfilling is allowed; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.								
S4.7.7	D4	Implement regular dust monitoring under EM&A programme during the Construction phase.	Monitoring of dust impact	Selected representative dust monitoring station	Contractor		√			• TM-EIAO
Noise Impact (Construction Phase)										
S5.6.9	N1	Implement the following good site management practices: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise	All construction sites where practicable	Contractor		√			Annex 5, TM-EIAO
S5.6.11 to S5.6.13	N2	Use of "Quiet" Plant and Working Methods.	Reduce the noise levels of plant items	All construction sites where practicable	Contractor		√			Annex 5, TM-EIAO

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S5.6.14	N3	Install temporary site hoarding (approx 2.5m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	All construction sites where practicable	Contractor		√			Annex 5, TM-EIAO
S5.6.15 to S5.6.18	N4	Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	All construction sites where practicable	Contractor		√			Annex 5, TM-EIAO
S5.6.19	N5	Sequencing operation of construction plants equipment.	Operate sequentially within the same work site to reduce the construction airborne noise	All construction sites where practicable	Contractor		√			Annex 5, TM-EIAO
S5.6.34	N6	Implement temporary noise barrier along Road L4.	Further reduce the construction airborne noise	Road L4 of ARQ	Contractor		√			Annex 5, TM-EIAO
S5.6.35	N7	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Selected representative noise monitoring stations	Contractor		√			TM-EIAO
Noise Impact (Operational Phase)										
S5.7.7	N8	Allow different setback distances of 5m, 8m and 10m from the nearest site boundary in different residential sites.	Reduce operational airborne noise due to road traffic	R2-1, R2-2, R2-3, R2-5, R2-6, R2-7 (facing north), R2-7 (facing east), R2-8 (facing north), R2-8 (facing east), R2-9&10, RS-1	Future developers			√		Annex 5, TM-EIAO
S5.7.8	N9	Provision of non-openable windows/ maintenance window that are not opened for ventilation.	Reduce operational airborne noise due to road traffic	R2-7 (facing east), R2-8 (facing north), R2-9&10, E-2	Future developers			√		Annex 5, TM-EIAO

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S5.7.9	N10	A non-sensitive structure in between the road traffic and the noise sensitive receivers could block the propagation of the road traffic noise.	Reduce operational airborne noise due to road traffic	E-2	Future developers			√		Annex 5, TM-EIAO
S5.7.10	N11	Orient the sensitive buildings such that the non-sensitive use such as kitchen, bathroom or store room of residential and staircase or store room of schools are located to the road traffic. Those sensitive uses such as bedrooms/ living rooms of residential and classroom of schools could be oriented away from the road traffic.	Reduce operational airborne noise due to road traffic	E-1, E-2	Future developers			√		Annex 5, TM-EIAO
S5.7.13	N12	Semi-enclosure with opening at east, Approx. 265m long, 7m high semi-enclosure.	Reduce operational airborne noise due to road traffic	Road L4 of ARQ	Project Proponent / Contractor		√			TM-EIAO
S5.7.13	N13	Implement a road traffic noise monitoring under EM&A programme.	Ascertain the effectiveness of the semi-enclosure	Site C2 – R102	Contractor			√		TM-EIAO
S5.8.4	N14	Provide rooftop at proposed public transport terminus within ARQ.	Reduce public transport terminus noise	Public transport terminus at the northern part of ARQ	Project Proponent / Contractor		√			HKPSG
S5.8.9	N15	Install acoustic silencers, noise barriers and acoustic louvers where appropriate to ensure that the specified maximum SWLs of fixed plant noise. A noise commissioning test for all fixed plant noise is proposed.	Reduce fixed plant noise	Pumping station for saltwater and freshwater, ventilation shafts of rock cavern	Project Proponent / Contractor		√			TM-EIAO
Water Quality Impact (Construction Phase)										
S6.6.3	W1	<u>Construction Runoff</u> In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), best management practices should be implemented as far as practicable as below: • At the start of site establishment, perimeter cut-off drains to direct	Control construction runoff	All construction sites	Contractor		√			WPCO, EIAO, TM-EIAO

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		off-site water around the site should be constructed with internal drainage works. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped. • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas.								

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		• Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of 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. • 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 runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit 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-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The 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 bypass should be provided for the oil interceptors to								

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		prevent flushing during heavy rain. • Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. • 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 water sensitive receivers nearby. • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the rivers.								
S6.6.6 and 6.6.7	W2	Sewage from Workforce Portable chemical toilets should be provided for handling the construction sewage generated by the workforce. Assume that the capacity of the chemical toilets would be 0.4m^3 and suck up twice a day under normal practices, around 45 chemical toilets would be required for the whole site at peak hour. And it should be noted that under normal construction periods, less chemical toilets would be needed. In addition, the total number of the chemical toilets would be subject to later detailed design, the capacity of the chemical toilets, and contractor's site practices. Nevertheless, a licensed contractor should be employed to provide appropriate and adequate portable toilets to cater around 37.5 m^3/day sewage and be responsible for appropriate disposal and maintenance. Since portable chemical toilets will be provided, no adverse water quality impact from the workforce sewage is anticipated. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.	Handling of site sewage	All construction sites	Contractor		√			WPCO, EIAO, TM-EIAO

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S6.6.8 and 6.6.9	W3	<u>Accidental Spillage</u> To prevent accidental spillage of chemicals, proper storage and handling facilities should be provided. All the tanks, containers and storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and storm drains. The Contractor is required to register as a chemical waste producer if chemical wastes would be generated from the construction activities. Storage of chemical waste arising from the construction activities should be well managed with suitable labels and warnings while disposal of those chemical wastes should be comply with the requirement states in Waste Disposal Ordinance (Cap 354) as well as Waste Disposal (Chemical Waste) (General) Regulations.	Prevention of accidental spillage	All construction sites	Contractor		√			WPCO, EIAO, TM-EIAO
S6.6.11-S6.6.14	W4	<u>Groundwater from Contaminated Area</u> The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater discharge. Prior to the excavation works within these potentially contaminated areas, the groundwater quality should be reviewed during the process of discharge license application. The compliancy to the TM-DSS and the existence of prohibited substance should be confirmed after further SI. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, the contaminated groundwater should be either properly treated in compliance with TM-DSS or properly recharged into the ground. If wastewater treatment is deployed, the wastewater treatment unit shall deploy suitable treatment process (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (e.g. Petroleum Carbon Ranges (PCRs)). All treated effluent from wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be discharged into the foul sewers. If groundwater recharging wells are deployed, recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in the Section 2.3 of TM-DSS. The baseline groundwater quality shall be determined prior to the selection of the	Minimize contaminated groundwater impacts	All construction sites	Contractor		√			WPCO, EIAO, TM-EIAO

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		recharge wells, and submit a working plan (including the laboratory analytical results showing the quality of groundwater at the proposed recharge location(s) as well as the pollutant levels of groundwater to be recharged) to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Prior to recharge, any prohibited substances such as PCRs should be removed as necessary by installing the petrol interceptor.								
Water Quality Impact (Operational Phase)										
S6.7.4	W4	Non-point source pollution Runoff will be by controlled by best management practice. Runoff will be intercepted by properly designed and managed silt traps at appropriate spacings so that common roadside debris, refuse and fallen leaves etc can be captured before allowing the runoff to drain into Ma Yau Tong Stream. Regular cleaning, perfectly prior to rainstorm events, of drainage system should be provided.	Minimize non point source pollution	All drainage system	Operator			√		WPCO, EIAO, TM-EIAO, TM-DSS
S6.7.6	W5	Sewage There will be adequate capacity for existing sewage system and all the sewage will be diverted to the existing sewage system. No sewage overflow and emergency discharge is anticipated and no additional mitigation measure is required.	Minimize sewage implication	Whole site	Operator			√		WPCO, EIAO, TM-EIAO
Sewerage and Sewage Treatment Implication (Operational Phase)										
S7.5.1	S1	400m of the downstream sewers at Po Lam Road are recommended to be upgraded from size 225mm to 450mm diameter.	Provide adequate freeboard to the downstream existing sewerage system	Selected sewerage system	Operator			√		DSD's Sewerage Manual
Waste Management (Construction Waste)										

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S8.5.2	WM1	<u>Good Site Practice</u> The following good site practices are recommended throughout the construction activities: • nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	Minimize waste generation during construction	All construction sites	Contractor		√			• Waste Disposal Ordinance
S8.5.2 (6)	WM2	The contractor should submit a Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) in accordance with the ETWB TC(W) No. 19/2005 for construction phase. The EMP should be submitted to the Engineer for approval. Mitigation measures proposed in the EIA Report and the EM&A Manual should be adopted.	Minimize waste generation during construction	All construction sites	Contractor		√			• ETWB TCW No. 19/2005
S8.5.3	WM3	<u>Waste Reduction Measures</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimize the potential for	Reduce waste generation	All construction sites where practicable	Contractor		√			• Waste Disposal Ordinance

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		damage and contamination of construction materials; • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.								
S8.5.5	WM4	<u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: • waste such as soil should be handled and stored well to ensure secure containment; • stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; • different locations should be designated to stockpile each material to enhance reuse;	Minimize waste impacts from storage	All construction sites	Contractor		√			• Waste Disposal Ordinance
S8.5.6	WM5	<u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimize the impacts: • remove waste in timely manner; • employ the trucks with cover or enclosed containers for waste transportation; • obtain relevant waste disposal permits from the appropriate authorities; and • disposal of waste should be done at licensed waste disposal	Minimize waste impacts from storage	All construction sites	Contractor		√			• Waste Disposal Ordinance

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		facilities.								
S8.5.8	WM6	Excavated and C&D Material Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • implement a recording system for the amount of waste generated, recycled and disposed of for checking; The recommended C&D materials handling should include: • On-site sorting of C&D materials • Reuse of C&D materials • Use of Standard Formwork and Planning of Construction Materials purchasing • Provision of wheel wash facilities	Minimize waste impacts from excavated and C&D materials	All construction sites	Contractor		√			• Land (Miscellaneous Provisions) Ordinance • Waste Disposal Ordinance • ETWB TCW No. 19/2005
S8.5.15	WM7	Contaminated Soil As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	Remediate contaminated soil	All construction sites where applicable	Contractor		√			• Practice Guide for Investigation and Remediation of Contaminated Land
S8.5.17	WM8	Chemical Waste • If chemical wastes are produced at the construction site, the	Control the chemical waste and ensure proper storage, handling and	All construction sites	Contractor		√			• Waste Disposal (Chemical Waste)

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		Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	disposal.							General) Regulation • Code of Practice on the Packaging, Labelling and Storage of Chemical Waste
S8.5.18	WM9	<u>General Waste</u> • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.	Minimize production of the general refuse and avoid odour, pest and litter impacts	All construction sites	Contractor		√			• Waste Disposal Ordinance
S8.5.19	WM10	<u>Sewage</u> • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.	Minimize production of sewage impacts	All construction sites	Contractor		√			• Waste Disposal Ordinance
Land Contamination										
S 9.6.3	LC1	Undertaking environmental site investigation (SI) for all potentially contaminated sites as listed in the Contamination Assessment Plan (CAP).	Verify the land contamination potential before the commencement of construction	All potentially contaminated sites as listed in the CAP	Project Proponent / Detailed Design Consultant / Contractor	√				• Annex 19 of the TM-EIAO, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3 : Potential Contaminated

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										Land Issues); • Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management; • Guidance Notes for Contaminated Land Assessment and Remediation; and • Practice Guide for Investigation and Remediation of Contaminated Land • Recommendations in Health Risk Assessment
S 9.6.5	LC2	Preparation and submission of Contamination Assessment Report (CAR) for all potentially contaminated sites listed in the CAP to EPD for agreement.	Present the findings of SI and evaluate the level and extent of potential contamination	All potentially contaminated sites listed in the CAP	Project Proponent / Detailed Design Consultant	√				Ditto
S 9.6.6	LC3	Preparation and submission of Remediation Action Plan (RAP) for potentially contaminated sites as listed in the CAP to EPD for agreement if land contamination is confirmed	Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is required	All potentially contaminated sites listed in the CAP	Project Proponent / Detailed Design Consultant	√				Ditto
S 9.6.7	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP	All potentially contaminated sites listed in the CAP	Project Proponent / Detailed Design Consultant / Remediation Contractor	√				Ditto

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Ecology (Prior to Construction Phase)										
S. 10.7.2 to 10.7.6	E1	Preparation and submission of Wooded Area Proposal to EPD/LCSD/AFCD for agreement.	Recommend appropriate compensatory planting programme, planting and post-transplantation monitoring methodology, action plan for monitoring the compensatory planting and maintenance programme.	Northern part of the proposed Quarry Park.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Wooded Area Proposal.	√				Compensatory planting and establishment requirements to be detailed in Wooded Area Proposal. EIAO-TM.
S. 10.7.7 to 10.7.9	E2	Preparation and submission of a Vegetation Survey Report and Transplantation Proposal (if needed as concluded in the Vegetation Survey Report) to AFCD for agreement.	The Vegetation Survey will report the presence, as well as update the conditions, number, locations and habitat types of any identified floral species of conservation importance to be impacted by the development, and evaluate suitability and/or practicality of transplantation. The Transplantation Proposal (if needed) will recommend locations of the receptor site(s), transplantation methodology, implementation programme of transplantation, post-transplantation monitoring and	Within the Project Area where applicable.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Vegetation Survey Report and Transplantation Proposal.	√				Survey findings and transplantation methodology to be detailed in Vegetation Survey Report and Transplantation Proposal (if needed) respectively. EIAO-TM.

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						D	C	O	Dec	
			maintenance programme.							
S 10.8.1 to 10.8.3	E3	Active search and relocate any individuals of Hong Kong Newts (or other species of conservation significance) found within the works areas.	Minimize the impacts on the faunal species of conservation significance found within the works areas, and relocate the affected individuals to other appropriate receptor sites.	Within the Project Area where applicable.	Project Proponent/ Detailed Design Consultant (qualified ecologist).	√				EIAO-TM
Ecology (Construction Phase)										
S. 10.7.2 to 10.7.6	E4	Re-provision of Wooded Area for ecological function at the future Quarry Park.	Compensate for the loss of three woodland patches of a total area of about 1.13ha.	Northern part of the proposed Quarry Park.	Contractor/ Detailed Design Consultant (qualified botanist/ horticulturist/ Certified Arborist to supervise the planting).		√			
S.10.7.10	E5	Construction phase *in situ* mitigation measures to minimize impacts on hydrological condition and water quality of hillside watercourses include: • Temporary sewerage and drainage will be designed and installed to collect wastewater and prevent it from entering nearby watercourses; • Proper locations well away from nearby watercourses will be used for temporary storage of materials (i.e. equipment, fill materials, chemicals and fuel) and temporary stockpile of construction debris and spoil, and these will be identified before commencement of works; • To prevent muddy water entering nearby watercourses, work sites close to nearby watercourses will be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures will also be taken to ensure that no pollution or siltation occurs to the water gathering	Minimize impacts on hydrological condition and water quality of hillside watercourses.	All construction sites.	Contractor		√			EIAO-TM.

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						D	C	O	Dec	
		grounds of the works site; • Stockpiling of construction materials, if necessary, will be properly covered and located away from nearby watercourses; • Erection of temporary geotextile silt fences will be carried out around earth-moving works to trap any sediments and prevent them from entering watercourses; • Construction debris and spoil will be covered and/or properly disposed as soon as possible to avoid being washed into nearby watercourses; • Exposed soil will be covered as quickly as possible following formation works, followed, where appropriate, by covering with biodegradable geotextile blanket for erosion control purposes; • Where appropriate, earth-bunding will be carried out of areas where soils have been disturbed or where vegetation has been cleared, to ensure that surface runoff will not move soils off-site; • Construction effluent, site run-off and sewage will be probably collected and/or treated. Wastewater from any construction site will be minimised via the following in descending order: reuse, recycling and treatment; • Proper locations for discharge outlets of wastewater treatment facilities well away from sensitive receivers will be identified and used; • Silt traps will be installed at points where drainage from the site enters local watercourses; • Appropriate sanitary facilities for on-site workers will be provided; • The site boundary will be clearly marked and any works beyond the boundary strictly prohibited, and • Regular water monitoring and site audit will be carried out at suitable points. If the monitoring and audit results show that pollution occurs, adequate measures including temporary cessation of works will be considered.								

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						D	C	O	Dec	
S.10.7.11	E6	Implement an emergency contingency plan during the construction phase and the plan will include, but not be limited to, the following: • Potential emergency situations; • Chemicals or hazardous materials used on-site (and their location); • Emergency response team; • Emergency response procedures; • List of emergency telephone hotlines; • Locations and types of emergency response equipment, and • Training plan and testing for effectiveness.	Minimize impacts on hydrological condition and water quality of hillside watercourses.	All construction sites.	Contractor		√			EIAO-TM.
Ecology (Operational Phase)										
S.10.7.2 to10.7.6	E7	Establishment, maintenance and monitoring of a Wooded Area at the future Quarry Park (~1.2ha).	Compensate for the loss of three woodland patches of a total area of about 1.13ha.	Northern part of the proposed Quarry Park.	Project Proponent / Contractor / Maintenance Authority.			√		Monitoring methodology and successfulness of survival of compensatory planting should follow Wooded Area Proposal. EIAO-TM.
S10.7.12 to10.7.13	E8	Minimize the potential indirect light disturbance on the wildlife groups inhabiting the terrestrial habitats surrounding the Project Site during operation phase. General measures include: • Installation of environmentally-friendly lighting system in open space areas, landscaping areas, and commercial and recreational buildings in the proposed development; • Avoid pointing light sources directly toward terrestrial habitats (i.e. plantations, secondary woodlands, shrubby grassland and watercourses) within and adjacent to the Study Area; • Appropriate engineering design of the artificially lit areas and	Reduce light pollution and impact on the nearby habitats and their associated wildlife groups, particularly nocturnal mammals and amphibians.	The whole project area where applicable.	Detailed Design/ Consultant/ Operator.			√		EIAO-TM.

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						D	C	O	Dec	
		lighting system and consider options to reduce light pollution on the ecosystems, such as a limit the duration of lighting at night (high levels of lighting may not be necessary in the middle of the night), change the intensity of lighting, avoid sky glow and limit the number of intensively lit buildings by green building design, change the spectral composition of lighting, and reduce lights infringing into areas that are not intended to be lit; and • Careful design of any lighting systems proposed for public and commercial uses on or nearby the plantations and secondary woodlands within the Project Site, where high diversity of fauna were identified.								
Landscape and Visual (Design Phase)										
S11.14.22, Table 11.8 DM1	LV1	Control of building heights to preserve the ridgelines of Tai Sheung Tok	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM2	LV2	Creation of extensive pedestrian linkages and open space network system connected to Kwun Tong Region.	Minimize landscape impact	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM3	LV3	Preservation of high landscape value ,rehabilitation zone and enhancement on Quarry Berms	Minimize landscape impact and enhance local landscape value	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM4	LV4	Incorporation of visual connections and breezeways through preserve of visual corridor and natural air flows	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM5	LV5	Proper disposition of building mass and avoidance of excessive height and bulk of site building and structure to minimise intrusive views to visual resources	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8	LV6	Proper design of road layout and streetscape, open space network in	Minimize landscape impact and enhance	The whole project area where	Detailed Design	√				• TM-EIAO

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						D	C	O	Dec	
DM6		adjacent areas	visual amenity	applicable	Consultant/					
S11.14.22, Table 11.8 DM7	LV7	Tree Preservation/ Removal/ Transplanted Application should be obtained prior to implementation at early design stage in accordance with **ETWB TCW No. 29/2004**, **10/2013** and **LAO GN No. 7/2007**	Minimize landscape impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM8	LV8	Greening Provision in the early project planning stage in accordance with **DEVB TCW No. 2/2012** and **PNAP APP-152**	Minimize landscape impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM9	LV9	**ACABAS** submission upon completion of conceptual design should be accordance with **ETWB TCW No. 36/2004**	Minimize landscape impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
S11.14.22, Table 11.8 DM10	LV10	Maintenance responsibilities should be obtained agreement with concerned party in accordance with **ETWB TCW no. 2/2004**	Minimize landscape impact and enhance visual amenity	The whole project area where applicable	Detailed Design Consultant/	√				• TM-EIAO
Landscape and Visual (Construction Phase)										
S11.14.23, Table 11.9, CM1 [4]	LV11	All existing trees to be retained shall be carefully protected during construction.	Avoid disturbance and protect ion of the existing trees	The whole project area where applicable	Detailed Design Consultant/	√	√			• TM-EIAO
S11.14.23, Table 11.9, CM2 [3]	LV12	Tree Transplantation - Should removal of trees be unavoidable due to construction impacts, trees will be transplanted or felled. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with **LAO GN No. 7/2007**, **ETWB TCW No. 29/2004** and **10/2013**. Final locations of transplanted trees shall be agreed prior to commencement of the work.	Minimize landscape impact and retention of landscape resources	Onsite where possible. Otherwise consider offsite locations	Detailed Design Consultant/	√	√			• TM-EIAO • LAO GN No. 7/2007 • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004

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						D	C	O	Dec	
S11.14.23, Table 11.9, CM3 [4]	LV13	Control of operation night-time glare with well-planned lighting operation system to minimize potential glare impact to adjacent VSRs	Minimize glare impact to adjacent VSRs	The whole project area where applicable	Contractor/ CEDD		√			• TM-EIAO
S11.14.23, Table 11.9, CM4 [4]	LV14	Erection of decorative screen hoarding.	Minimize visual impact	The whole project area where applicable	Contractor/ CEDD		√			• TM-EIAO
S11.14.23, Table 11.9, CM5 [2]	LV15	Minimise disturbance and limitation of run-off – temporary structures and construction works should be planned with care to minimise disturbance to adjacent landscape, vegetation, natural stream habitats.	Minimize visual impact	The whole project area where applicable	Contractor/ CEDD		√			• TM-EIAO
Landscape and Visual (Operation Phase)										
S11.14.23, Table 11.10, OM1 [2], [3]	LV16	Compensatory tree / Woodland planting should be incorporated into the proposed projects where trees are affected. (Along non-expressway public roads and within open spaces)	Enhance local landscape value	The whole project area where applicable	LCSD (responsible parties for trees will be further discussed with government departments in accordance with Technical Circular ETWB TCW No. 10/2013 in detailed design stage)	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23, Table 11.10, OM1a [2], [3]	LV17	Compensation of wooded area	Minimize landscape and visual impact and enhance visual amenity	The whole project area where applicable	Detailed design consultant/ Contractor /Operator	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013

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						D	C	O	Dec	
										• ETWB TCW No. 2/2004
S11.14.23, Table 11.10, OM2 [2]	LV18	Tall buffer advance screen tree / shrub / climber planting, vertical green and green roof where appropriate should be incorporated to soften tall and hard engineering structures and facilities.	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Proposed maintenance/management party of the respective facilities: ArchSD /WSD/LSCD/ HyD	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23, Table 11.10, OM3	LV19	Sensitive streetscape design, which should be compatible with surrounding context, shall be incorporated along all new roads to reflect the new urban development in ARQ (Along non-expressway public roads outside country park)	Minimize visual impact and enhance visual amenity	The whole project area where applicable	LSCD	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23 Table 11.10, OM4	LV20	Structure, ornamental tree / shrub / climber planting should be provided along roadside amenity strips and central dividers to enhance the townscape quality, where practicable. (Along non-expressway public roads outside country park)	Minimize visual impact and enhance visual amenity	The whole project area where applicable	LSCD	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23 Table 11.10, OM5	LV21	Sensitive and aesthetically pleasing design as regard to the form, height, material and finishes which should be visually unobtrusive, non-reflective compatible with surrounding context shall be incorporated to all buildings, noise barriers, engineering structures and associated infrastructure facilities.	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Proposed maintenance/management party of the respective facilities: ArchSD/WSD/LSC	√	√	√		• TM-EIAO

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						D	C	O	Dec	
					D/ HyD					
S11.14.23, Table 11.10, OM6 [2], [3]	LV22	Landscape enhancement and restoration of the Quarry rock face and landscape berms.	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Proposed maintenance/management party of the respective slopes: LCSD/HyD/LandsD/HD (responsible parties will be further discussed with government departments in detailed design stage)	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23, Table 11.10, OM7 [2], [3]	LV23	Landscape treatments on slope to enhance the landscape and visual amenity value of proposed man made slope	Enhance visual amenity	The whole project area where applicable	Proposed maintenance/management party of the respective slopes: LCSD/HyD/LandsD/HD (responsible parties will be further discussed with government departments in detailed design stage)	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23 Table 11.10, OM8 [2], [3], [4]	LV24	Reinstatement of disturbed areas to match adjacent area or to condition to suit future land use	Minimize visual impact and enhance visual amenity	The whole project area where applicable	Original maintenance/management parties of the areas concerned	√	√	√		• TM-EIAO

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						D	C	O	Dec	
S11.14.23, Table 11.10, OM9 [2], [3], [4]	LV25	Trees and Shrubs Planting shall be incorporated to enhance the landscape and visual amenity value of planned open space such as Quarry Park, Summit Outlook, Gateway features, Children Playground, Civic Square, Green Promenade	Minimize landscape and visual impact and enhance visual amenity	The whole project area where applicable	Detailed design consultant/ Contractor /Operator	√	√	√		• TM-EIAO • ETWB TCW No. 29/2004 • ETWB TCW No. 10/2013 • ETWB TCW No. 2/2004
S11.14.23, Table 11.10, OM10	LV26	Environmentally-friendly lighting design and system, and a well-planned lighting operation strategy shall be incorporated into open space areas, landscaping areas, and commercial and recreational buildings in the proposed ARQ development to match with the ambient light condition. Specific requirements include: • Appropriate design of the mounting height and the direction of lighting fixtures to avoid the light sources directly pointing to adjacent VSRs within the Study Area; and • Adoption of appropriate lighting operation strategy to reduce lighting levels to the minimum for operation requirement, which includes but not limited to preventing use of unnecessary lighting, adjusting the intensity of lighting, avoiding sky glow and limiting the number of intensively lit buildings by green building design, changing the spectral composition of lighting and reducing lights infringing into areas that are not intended to be lit.	Minimize visual and glare impact and enhance visual amenity	The whole project area where applicable	Proposed maintenance/management party of the respective facilities: ArchSD/WSD/LSCD/ HyD	√	√	√		• TM-EIAO

Note:

[1] D = Design; C = Construction; O = Operation; Dec = Decommissioning

[2] The maintenance of the interim greening measures will be undertaken by contractor for the first 12-month establishment period. In the case that the site is still not allocated after the establishment period, CEDD would liaise with relevant government departments to agree on the subsequent maintenance agent of the interim greening measures. Contractor would be responsible for the maintenance of the interim greening measures before any agreement is made.

[3] The management and maintenance agencies of mitigation measures have been identified in accordance with ETWBTC 2/2004. The agreement and approval of the implementation, management and maintenance agencies of the Project will be sought from relevant parties during detailed design stage of the project. Contractor would be responsible for maintenance and management of trees, transplantation, vegetation and the associated facilities (eg. irrigation system) within the permanent site boundary. The maintenance matrix and responsible parties for trees outside the permanent site boundary are yet to be confirmed. To facilitate with the confirmation process, CEDD would be responsible for the maintenance works before any agreement is made.

[4] Mitigation measures refer to Good Site Practices.