

# Appendix J

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Implementation Status of  
Environment Mitigation  
Measures (Construction Phase)

Implement Status of Environment Mitigation Measures (Construction Phase)

EIA Ref	EM&A Log Ref	Recommended Environmental Protection Measures/ Mitigation Measures	Implementation Status
<b>Air Quality</b>			
<b>S4.3.10</b>	D1	- The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Implemented
<b>S4.3.10</b>	D2	- 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 should be conducted to achieve dust removal efficiencies 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 1.3 L/m <sup>2</sup> to achieve the dust removal efficiency.	Implemented
<b>S4.3.10</b>	D3	- 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;	Implemented
		- Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;	Implemented
		- A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones;	Implemented
		- 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;	Implemented
		- 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;	Implemented
		- When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided and properly maintained as far as practicable along the site boundary with provision for public crossing;	Implemented
		- 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;	Implemented
- 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;	Implemented		

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		- 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	Implemented
<b>S4.3.10</b>	D3	- 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;	N.O.
		- Any skip hoist for material transport should be totally enclosed by impervious sheeting;	Implemented
		- 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;	Implemented
		- Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;	N.O.
		- Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and	N.O.
		- Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete 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.	N.O.
<b>Noise (Airborne)</b>			
<b>S5.4.1</b>	N1	- Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;	Implemented
		- 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;	Implemented
		- Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;	Implemented
		- Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;	N.O.
		- Mobile plant should be sited as far away from NSRs as possible and practicable;	Implemented

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		- Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	N.O.
S5.4.1	N2	- Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Implemented
S5.4.1	N3	- Install movable noise barriers (typical design is wooden framed barrier with a small-cantilevered on a skid footing with 25mm thick internal sound absorptive lining), acoustic mat or full enclosure, screen the noisy plants including air compressors, generators and handheld breakers etc.	Implemented
S5.4.1	N4	- Use "Quiet plants".	Implemented
S5.4.1	N5	- Loading/unloading activities should be carried out inside the full enclosure of mucking out points.	N.O.
S5.4.1	N6	- Sequencing operation of construction plants where practicable.	Implemented
<b>Water Quality</b>			
S6.9.1.1	W1	<p><u>Construction Runoff</u></p> <p>- At the start of site establishment, 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 on site to direct stormwater to silt removal facilities;</p>	Implemented
		<p>- 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 site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates;</p>	Implemented
		<p>- The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. Sizes may vary depending upon the flow rate, but for a flow rate of 0.1 m<sup>3</sup>/s a sedimentation basin of 30m<sup>3</sup> would be required and for a flow rate of 0.5 m<sup>3</sup>/s the basin would be 150 m<sup>3</sup>;</p>	Implemented

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		- All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. Exposed slope surfaces should be covered by tarpaulin or other means;	N.O.
		- The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all traffic areas and access roads protected by coarse stone ballast;	N.O.
		- 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;	Implemented
		- Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they 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;	Implemented
		- Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m <sup>3</sup> 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;	Implemented
		- 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;	Implemented
S6.9.1.1	W1	- Precautions 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 summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes.	Implemented
		- 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;	Implemented

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		<ul style="list-style-type: none"> <li>- 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 prevent flushing during heavy rain;</li> </ul>	N.O.
		<ul style="list-style-type: none"> <li>- Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <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 water sensitive receivers nearby;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- All the earth works involving should be conducted sequentially to limit the amount of construction runoff generated from exposed areas during the wet season (April to September) as far as practicable.</li> </ul>	Implemented
S6.9.1.2	W2	<p><u>Tunnelling Works and Underground Works</u></p> <ul style="list-style-type: none"> <li>- Cut-&amp;-cover tunnelling work should be conducted sequentially to limit the amount of construction runoff generated from exposed areas during the wet season (April to September) as far as practicable;</li> </ul>	N.O.
		<ul style="list-style-type: none"> <li>- Uncontaminated discharge should pass through sedimentation tanks prior to off-site discharge;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- The wastewater with a high concentration of SS should be treated (e.g. by sedimentation tanks with sufficient retention time) before discharge. Oil interceptors would also be required to remove the oil, lubricants and grease from the wastewater;</li> </ul>	Implemented
S6.9.1.2	W2	<ul style="list-style-type: none"> <li>- Direct discharge of the bentonite slurry (as a result of D-wall and bored tunnelling construction) is not allowed. It should be reconditioned and reused wherever practicable. Temporary storage locations (typically a properly closed warehouse) should be provided on site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.</li> </ul>	Implemented
S6.9.1.3	W3	<p><u>Sewage Effluent</u></p> <ul style="list-style-type: none"> <li>- Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.</li> </ul>	Implemented
S6.9.1.5	W4	<p><u>Groundwater from Potential Contaminated Area</u></p> <ul style="list-style-type: none"> <li>- No direct discharge of groundwater from contaminated areas should be adopted;</li> </ul>	N.O.

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		<ul style="list-style-type: none"> <li>- A discharge license under the WPCO through the Regional Office of EPD for groundwater discharge should be applied. Prior to the excavation works within these potentially contaminated areas, the groundwater quality should be reviewed during the process of discharge license application. The compliance to the Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters (TM-DSS) and the existence of prohibited substance should be confirmed. 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 the requirements of the TM-DSS or properly recharged into the ground;</li> <li>- 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. TPH) to undetectable range. All treated effluent from wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be discharged into the foul sewers;</li> <li>- 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.</li> </ul>	<p style="text-align: center;">N.O.</p> <p style="text-align: center;">N.O.</p> <p style="text-align: center;">N.O.</p>
S6.9.1.6	W6	<p><u>Accidental Spillage</u></p> <ul style="list-style-type: none"> <li>- All the tanks, containers, storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and stormwater drains;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- The Contractor should register as a chemical waste producer if chemical wastes would be generated. Storage of chemical waste arising from the construction activities should be stored with suitable labels and warnings. Disposal of chemical wastes should be conducted in compliance with the requirements as stated in the Waste disposal (Chemical Waste) (General) Regulation.</li> </ul>	Implemented
<b>Waste Management</b>			
S7.4.1	WM1	<p><u>On-site sorting of C&amp;D materials</u></p> <ul style="list-style-type: none"> <li>- Geological assessment should be carried out by competent persons on site during excavation to identify materials which are not suitable to use as aggregate in structural concrete (e.g. volcanic rock, Aplite dyke rock, etc). Volcanic rock and Aplite dyke rock should be separated at the source sites as far as practicable and stored at designated stockpile areas preventing them from delivering to crushing facilities. The</li> </ul>	N.O.

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		<p>crushing plant operator should also be reminded to set up measures to prevent unsuitable rock from ended up at concrete batching plants and be turned into concrete for structural use. Details regarding control measures at source site and crushing facilities should be submitted by the Contractors for the Engineer to review and agree. In addition, site records should also be kept for the types of rock materials excavated and the traceability of delivery will be ensured with the implementation of Trip Ticket System and enforced by site supervisory staff as stipulated under DEVB TC(W) No. 6/2010 for tracking of the correct delivery to the rock crushing facilities for processing into aggregates. Alternative disposal option for the reuse of volcanic rock and Aplite Dyke rock, etc should also be explored.</p>	
<b>S7.5.1</b>	WM2	<p><u>Construction and Demolition Materials</u></p>	Implemented
		<ul style="list-style-type: none"> <li>- Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- Carry out on-site sorting;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible;</li> </ul>	N.O.
		<ul style="list-style-type: none"> <li>- Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> </ul>	Implemented
<b>S7.5.1</b>	WM3	<p><u>C&amp;D Waste</u></p>	
		<ul style="list-style-type: none"> <li>- Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage;</li> </ul>	Implemented



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		<ul style="list-style-type: none"> <li>- The Contractor should recycle as much of the C&amp;D materials as possible on-site. Public fill and C&amp;D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.</li> </ul>	Implemented
S7.5.1	WM5	<p><u>Land-based Sediment</u></p> <ul style="list-style-type: none"> <li>- All construction plant and equipment shall be designed and maintained to minimize the risk of silt, sediments, contaminants or other pollutants being released into the water column or deposited in the locations other than designated location;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- Requirement in the ETWB TCW No. 34/2002 shall be followed;</li> </ul>	N.O.
		<ul style="list-style-type: none"> <li>- For Type 3 special disposal treatment, sealing of contaminant with geosynthetic containment before dropping into designated mud pit would be a possible arrangement. A geosynthetic containment method is a method whereby the sediments are sealed in geosynthetic containers and, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping at the disposal site, thereby fulfilling the requirements for fully confined mud disposal.</li> </ul>	N.A.
S7.5.1	WM6	<p><u>Chemical Waste</u></p> <ul style="list-style-type: none"> <li>- Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes;</li> </ul>	Implemented
		<ul style="list-style-type: none"> <li>- Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation;</li> </ul>	Implemented
S7.5.1	WM6	<ul style="list-style-type: none"> <li>- The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated;</li> <li>- Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive</li> </ul>	Partially Implemented

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		- chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.	
<b>S7.5.1</b>	WM6	<u>General Refuse</u> - General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes;	Partially Implemented
		- A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law;	Implemented
		- Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible;	Implemented
		- Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor.	N.O.
<b>Land Contamination</b>			
<b>S8.10, S8.12 &amp; Appendix 8.4</b>	LC1	<u>Remaining SI Works</u> - The potential for land contamination issues at EBH1 and EBH2 will be confirmed by site investigation after site possession and utility diversion by the construction contractor. Following the completion of the remaining SI works, the Project Proponent would prepare and submit a Second Supplementary CAR/RAP to EPD to present the findings of the SI works and to recommend specific remediation measures, if required. Upon completion of the remediation works, if any, a Remediation Report (RR) would be prepared and submitted to EPD for agreement prior to commencement of the construction works.	N.O.
<b>Hazard to Life</b>			
<b>S9.18</b>	H1	- Blasting activities regarding transport and use of explosives should be supervised and audited by competent site staff to ensure full compliance with the blasting permit conditions.	N.O.
<b>S9.6, para 4</b>	H2	- Detonators shall not be transported in the same vehicle with other Category 1 Dangerous Goods.	N.O.
<b>S9.6, para 8</b>	H3	- The explosives delivery trucks should be approved by Mines Division and should meet the regulatory requirements for transport of explosives.	N.O.

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<b>S9.10, para 7 and S9.18</b>	H4	- Blast doors should be provided for tunnels and blast cover should be provided for shaft at HMT, and kept closed during blasting. Provision of blast doors or heavy duty blast curtains should be implemented at the shafts, adits and other suitable locations to prevent flyrock and control the air overpressure.	N.O.
<b>S9.18</b>	H5	- Only the required quantity of explosives for a particular blast should be transported to avoid the return.	N.O.
<b>S9.18</b>	H6	- Maximum instantaneous charge (MIC) should be within the MIC as specified for the given section.	N.O.
<b>S9.18</b>	H7	- The approved truck dedicated for transport of explosives should comply with the "Guidance Note on Requirements for Approval of an Explosives Delivery Vehicle" issued by CEDD Mines Division. The truck should be periodically inspected and properly maintained in good operation conditions. The fuel carried in the fuel tank should be minimized to reduce the duration of fire. Adequate fire-fighting equipment shall be provided, inspected and replaced periodically (e.g. fire extinguishers).	N.O.
<b>S9.18</b>	H8	- The driver and his assistant should be physically healthy, experienced and have good safe driving records. The driver should hold a proper driving license for the approved transport truck. Dedicated training programme and regular road safety briefing sessions / workshops should be provided to enhance their safe driving attitude and practice. Smoking should be strictly prohibited.	N.O.
<b>S9.18</b>	H9	- Emergency response plans in case of road accident should be prepared and implemented. The driver and his assistant should be familiar with the emergency procedures including evacuation, and proper communication / fire-fighting equipment should be provided to the driver and his assistant.	Implemented
<b>S9.18</b>	H10	- Close liaison and communication among Mines Division, contractors for transport of explosives, and working staff of the tunnel blasting should be established. In case of any change of work schedule leading to cancellation or variation of explosives required, relevant parties should be informed in time to avoid unused explosives at the work sites.	Implemented
<b>S9.18</b>	H11	- Close liaison and communication with Fire Services Department should be established to reduce the accidental detonation escalated from a fire. The contractors for transport of explosives should use the preferred transport routes as far as practicable.	Implemented
<b>S9.18</b>	H12	- Contingency plan should be prepared for transport of explosives under severe weather conditions such as rainstorms and thunderstorms.	Implemented
<b>S9.18</b>	H13	- For explosive transport, all packages of explosives on the truck should be properly stored in the truck compartment as required. Packaging of the explosives should remain intact (i.e. damage free) until they are transferred to the blasting site.	N.O.

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S9.18	H14	- Availability of a parking space should be ensured before commencement of transport of explosives. Location for loading and unloading of explosives should be as close as possible to the shaft or the adit. No hot work should be performed in the vicinity during the time of loading and unloading.	N.O.
S9.18	H15	- Good communication and coordination should be performed for safe blasting of different chainage locations on the same day.	N.O.
S9.18	H16	- Evacuation and secure refugee areas should be implemented / provided to the working staff.	N.O.
S9.18	H17	- Healthy competent licensed shotfirers and blasting engineers should be employed to conduct the blasting work.	N.O.
S9.18	H18	- Proper control measures should be enforced during explosive transport within the tunnel and charging the blast holes, such as speed limit for the truck, no hot work in the vicinity, etc.	N.O.
S9.18	H19	- Ground vibrations of the blasting operation should be monitored and MICs should be adjusted according to the actual geotechnical features to ensure blasting vibrations within the specified PPV limit.	N.O.
S9.18	H20	- For tunnel blasting near gas facilities, requirement of the "Gas Production and Supply Code of Practice - Avoiding Danger from Gas Pipes" should be respected. Close liaison and coordination with HKCG should be established to provide sufficient notice of the planned blasting activities in an appropriate format within a reasonable time period prior to blasting. Emergency response procedures should be prepared and implemented in case of gas leaks.	N.O.
S9.18	H21	- For tunnel blasting near MTRC railway tunnels, close liaison and coordination with MTRC should be established to provide sufficient notice of the planned blasting activities in an appropriate format within a reasonable time period prior to blasting. Emergency response procedures should be prepared and implemented in case of any damage to the railway facilities.	N.O.
S9.18	H22	- It is recommended to explore to minimize the use of the cartridge emulsion explosives and maximize the use of bulk emulsion explosive as far as practicable.	N.O.
S9.18	H23	- The use of bulk emulsion where the maximum instant charge (MIC) envisaged for a particular blast is above 0.5kg. This prevents the occurrence of excessive vibrations due to potential bulk emulsion dosing inaccuracy in the case of low MIC. It is recommended to explore the bulk emulsion dosing technology so as to maximize the use of bulk emulsion explosive as far as practicable.	N.O.
S9.18	H24	- It is recommended to explore to use smaller explosive charges such as 'cast boosters' or 'mini-cast booster' instead of cartridge emulsion as primers for bulk emulsion. This is option reduces the quantity of explosives required for transportation for the sections where bulk emulsion will be used.	Implemented

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S9.18	H25	- Instrumentation and monitoring plan should be submitted to all relevant stakeholders for agreement prior to the commencement of the tunnel blasting works. Such plan should be implemented during construction of CKR tunnels.	Implemented
S9.18	H26	- Contingency plan should be submitted to all relevant stakeholders for agreement prior to the commencement of the tunnel blasting works.	Implemented
<b>Landscape and Visual</b>			
<b>S10.10.1, Table 10.11</b>	LV3	<p><u>Good Site Management</u></p> <p>- Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV4	<p><u>Screen Hoarding</u></p> <p>- Decorative screen hoarding should be erected to screen the public from the construction area. It should be designed to be compatible with the existing urban context.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV5	<p><u>Lighting Control during Construction</u></p> <p>- All lighting in the construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residencies and GIC. The contractor shall consider other security measures, which shall minimize the visual impacts.</p>	Implemented
<b>S10.10.1, Table 10.11</b>	LV6	<p><u>Erosion Control</u></p> <p>- The potential for soil erosion shall be reduced by minimizing the extent of vegetation disturbance on site and by providing a protective cover over newly exposed soil.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV7	<p><u>Tree Protection &amp; Preservation</u></p> <p>- Carefully protected during construction. Tree protection measures will be detailed at the Tree Removal Application stage and plans submitted to the relevant Government Department for approval in due course in accordance with ETWB TC no. 3/2006.</p>	Partially Implemented
<b>S10.10.1, Table 10.11</b>	LV8	<p><u>Tree Transplantation</u></p> <p>- For trees unavoidably affected by the Project that have to be removed, where practical transplantation will be chosen as the top priority method of removal. If this is not possible or practical compensatory planting will be provided for trees unavoidably felled (See LV10). For trees unavoidably affected by the</p>	N.O.

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		Project works that are transplanted, transplantation must be carried out in accordance with ETWBTC 2/2004 and 3/2006.	
<b>S10.10.1, Table 10.11</b>	LV9	<p><u>Compensatory Planting</u></p> <p>- All felled trees shall be compensated for by planting trees 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 ETWBTC 3/2006. Compensatory tree planting may be incorporated into public open spaces and along roadside amenity areas affected by the construction works and therefore be part of the bigger wider planting plans. Onsite compensation planting is preferred but if necessary, additional receptor sites outside the Works Area shall be agreed separately with Government during the Tree Felling Application process.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV10	<p><u>Screen Planting</u></p> <p>- Tall screen/buffer trees, shrubs and climbers should be planted, in so far as is possible, to soften and screen proposed structures such as roads and central strip, vertical edges and buildings and to enhance streetscape greening effect where appropriate. Indiscriminate use of trees for screening must be avoided and the principle of 'right tree for the right place' must be followed.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV11	<p><u>Green Roof</u></p> <p>- Roof greening is recommended be established on ventilation and administration buildings to reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV12	<p><u>Reinstatement</u></p> <p>- All works areas, excavated areas and disturbed areas for tunnel construction and temporary road diversion or any other proposed works shall be reinstated to former conditions or better, with reasonable landscape treatment and to the satisfaction of the relevant Government departments. (Specific mitigation for disturbance to public open space is detailed separately under LV14).</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV13	<p><u>Reprovisioning of Public Open Space</u></p> <p>- All areas of public open space affected by the Project will be re-provisioned either at the same location following the completion of temporary works, or at a separate site, as agreed with relevant Government departments. Open space should be re-provisioned in an enhanced manner.</p>	N.O.
<b>S10.10.1, Table 10.11</b>	LV14	<p><u>Landscape enhancement</u></p> <p>- Implement a comprehensive landscape plan to maximize the greening opportunity and create a unique landscape for the project to blend in with the surrounding, including in re-provisioned areas. In particular:</p>	N.O.

EIA Ref	EM&A Log Ref	Recommended Environmental Protection Measures/ Mitigation Measures	Implementation Status
		<ul style="list-style-type: none"> <li>- landscape enhancement of re-provisioned Public Transport Interchange;</li> <li>- landscape deck on tunnel portals;</li> <li>- viaduct planters for trailer planting.</li> </ul>	
<b>Cultural Heritage</b>			
<b>S11.4.4</b>	CH1	<ul style="list-style-type: none"> <li>- The contractor should be alerted during the construction on the possibility of locating archaeological remains and as a precautionary measure, AMO shall be informed immediately in case of discovery of antiquities or supposed antiquities in the subject sites.</li> </ul>	N.A.
<b>S12.6.1, Table 12.2</b>	CH5	<p><u><i>Tin Hau Temple (CKR-02)</i></u></p> <ul style="list-style-type: none"> <li>- The Alert, Alarm and Action (AAA) vibration limit is recommended to be set at 3/4/5 mm/s and a condition survey shall be carried out by the project proponent prior to the construction phase to confirm this assessment;</li> <li>- Vibration monitoring of the structure shall be employed during the construction phase to ensure that the level is not exceeded. . The monitoring proposal should be sent to AMO for comment.</li> </ul>	N.A.
<b>S12.6.1, Table 12.2</b>	CH6	<p><u><i>Kowloon Methodist Church (CKR-10)</i></u></p> <ul style="list-style-type: none"> <li>- The Alert, Alarm and Action (AAA) vibration limit is recommended to be set at 5/6/7.5 mm/s;</li> <li>- Vibration monitoring of the structure shall be employed during the construction phase to ensure that the level is not exceeded, and as such appropriate vibration monitoring on the building should be complied with as appropriate. The monitoring proposal should be sent to AMO for comment.</li> </ul>	N.A.
<b>S12.6.1, Table 12.2</b>	CH7	<p><u><i>Ma Tau Kok Animal Quarantine Depot (CKR-12)</i></u></p> <ul style="list-style-type: none"> <li>- The Alert, Alarm and Action (AAA) vibration limit is recommended to be set at 5/6/7.5 mm/s;</li> <li>- Vibration monitoring of the structure shall be employed during the construction phase to ensure that the level is not exceeded, and as such appropriate vibration monitoring on the building should be complied with as appropriate. The monitoring proposal should be sent to AMO for comment.</li> </ul>	N.A.
<b>S12.6.1, Table 12.2</b>	CH11	<p><u><i>Air raid precaution tunnels of the K1 Network (CKR-14)</i></u></p> <ul style="list-style-type: none"> <li>- A condition survey for the tunnel network should be undertaken by the project proponent to determine the present condition of the air raid tunnels and to recommend protective measures to ensure that the tunnels are not damaged by the construction works. and as such appropriate vibration monitoring on the building should be complied with as appropriate. The monitoring proposal should be sent to AMO for comment.</li> </ul>	N.A.

Remarks:

*N.A. Not Applicable at this stage as no such site activities were conducted in the reporting period*

*N.O. Not Observed during site inspection in the reporting period.*