Table J-1: Environmental Mitigation Measures Implementation Status (September 2021)

EM&A Ref.	Recommendation Measures	Zone 2A	<b>Zone 2B &amp; 2C</b>
Air Quality In	npact (Construction)		
2.1	General Dust Control Measures	<b>√</b>	✓
	Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)		
2.1	Best Practice For Dust Control		
	The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:		
	Good Site Management	Obs	✓
	• Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.		
	Disturbed Parts of the Roads	✓	✓
	• Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or		
	• Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	1	✓
	Exposed Earth	N/A	N/A
	• Exposed earth should be properly treated by compaction, hydroseeding, vegetation	No exposed earth in this project.	No exposed earth in this project.

Ref. Recommendation Measures	Zone 2A	<b>Zone 2B &amp; 2C</b>
planting or seating with latex, vinyl, bitumen within six months after the last		
construction activity on the site or part of the site where the exposed earth lies.		
Loading, Unloading or Transfer of Dusty Materials	✓	✓
<ul> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul>		
Debris Handling	✓	✓
<ul> <li>Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides.</li> </ul>		
Before debris is dumped into a chute, water should be sprayed so that it remains wet	N/A	N/A
when it is dumped.	No debris chute on-site	No debris chute on-site
Transport of Dusty Materials	✓	✓
<ul> <li>Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.</li> </ul>		
Wheel washing	✓	✓
<ul> <li>Vehicle wheel washing facilities should be provided at each construction site exit.</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>		
Use of vehicles	✓	✓
• The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site.		
<ul> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</li> </ul>	1	1
<ul> <li>Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> </ul>	1	✓
Site hoarding	✓	/
Where a site boundary adjoins a road, street, service lane or other area accessible to	•	•
the public, hoarding of not less than 2.4m high from ground level should be provided		
along the entire length of that portion of the site boundary except for a site entrance or		

**Noise Impact (Construction)** 

EM&A Ref.	Recommendation Measures	Zone 2A	Zone 2B & 2C
3.1	Good Site Practice		
	Good site practice and noise management can significantly reduce the impact of construction		
	site activities on nearby NSRs. The following package of measures should be followed during		
	each phase of construction:		
	only well-maintained plant to be operated on-site and plant should be serviced regularly	✓	✓
	during the construction works;		
	• machines and plant that may be in intermittent use to be shut down between work	✓	✓
	periods or should be throttled down to a minimum		
	• plant known to emit noise strongly in one direction, should, where possible, be	✓	✓
	orientated to direct noise away from the NSRs;		
	• mobile plant should be sited as far away from NSRs as possible; and	✓	✓
	• material stockpiles and other structures to be effectively utilised, where practicable, to	✓	✓
	screen noise from on-site construction activities.		
3.1	Adoption of Quieter PME	✓	✓
	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME		
	Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26		
	in the EIA report. It should be noted that the silenced PME selected for assessment can be		
	found in Hong Kong.		
3.1	Use of Movable Noise Barriers	✓	✓
	Movable noise barriers can be very effective in screening noise from particular items of plant		
	when constructing the Project. Noise barriers located along the active works area close to the		
	noise generating component of a PME could produce at least 10 dB(A) screening for stationary		

EM&A Ref.	Recommendation Measures	Zone 2A	Zone 2B & 2C
	plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the		
	NSRs is blocked.		
3.1	Use of Noise Enclosure/ Acoustic Shed	✓	✓
	The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor		
	and concrete pump. With the adoption of the noise enclosure, the PME could be completely		
	screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance		
	Note No. 9/2010.		
3.1	Use of Noise Insulating Fabric	✓	✓
	Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc).		
	The fabric should be lapped such that there are no openings or gaps on the joints. According		
	to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise		
	reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.		
3.1	Scheduling of Construction Works outside School Examination Periods	✓	✓
	During construction phase, the contractor should liaise with the educational institutions		
	(including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy		
	construction activities during school examination periods.		
Water Qualit	y Impact (Construction)		
4.1	Construction site runoff and drainage		
	The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable		

in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid

Zone 2A Zone 2B & 2C

water quality impacts:

- 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, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction;
- Sand/silt removal facilities such as sand/silt traps and sediment basins should be
  provided to remove sand/silt particles from runoff to meet the requirements of the TM
  standards under the WPCO. The design of efficient silt removal facilities should be based
  on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending
  upon the flow rate. The detailed design of the sand/silt traps should be undertaken by
  the WKCDA's Contractor prior to the commencement of construction.
- 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 during rainstorms. Deposited silt and grit should be regularly removed, at
  the onset of and after each rainstorm to ensure that these facilities are functioning
  properly at all times.
- Measures should be taken to minimize the ingress of site drainage into excavations. If
  excavation of trenches in wet periods is necessary, they should be dug and backfilled in
  short sections wherever practicable. Water pumped out from foundation excavations
  should be discharged into storm drains via silt removal facilities.
- All vehicles and plant should be cleaned before leaving a construction site to ensure no

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**Zone 2B & 2C** 

earth, mud, debris and the like is deposited by them on roads. An adequately designed
and sited wheel washing facility should be provided at construction site exit where
practicable. Wash-water should have sand and silt settled out and removed regularly 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.

- Open stockpiles of construction materials or construction wastes onsite 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 be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers.
- Precautions should be taken at any time of the year when rainstorms are likely. Actions should 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 Note 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.
- Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations 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 Note PN 1/94

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Obs

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N/A
No bentonite slurries are used in this project.

No bentonite slurries are used in this project.

N/A

Zone 2A

**Zone 2B & 2C** 

should be adhered to in	the handling and o	disposal of bentonite	slurries.
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#### 4.1 Barging facilities and activities

Recommendations for good site practices during operation of the proposed barging point include:

- All vessels should be sized so that adequate clearance is maintained between vessels
  and the seabed in all tide conditions, to ensure that undue turbidity is not generated by
  turbulence from vessel movement or propeller wash;
- Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation;
- All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and
- Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.

N/A
No barging facilities in this project at this stage.

N/A

No barging facilities in this project at this stage.

N/A

No barging facilities in this

project at this stage.

N/A
No barging facilities in this project at this stage.

N/A

No barging facilities in this project at this stage.

N/A

No barging facilities in this project at this stage.

N/A

No barging facilities in this project at this stage.

N/A

No barging facilities in this project at this stage.

#### 4.1 Sewage effluent from construction workforce

Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.

✓

#### 4.1 General construction activities

M&A Ref.	Recommendation Measures	Zone 2A	<b>Zone 2B &amp; 2C</b>
	Construction solid waste, debris and refuse generated on-site should be collected,	Obs	✓
	handled and disposed of properly to avoid entering any nearby storm water drain.		
	Stockpiles of cement and other construction materials should be kept covered when not		
	being used.		
	Oils and fuels should only be stored in designated areas which have pollution prevention	Obs	✓
	facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all		
	fuel tanks and storage areas should be provided with locks and be sited on sealed areas,		
	within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The		
	bund should be drained of rainwater after a rain event.		
/aste Mana	gement Implications (Construction)		
.1	Good Site Practices		
	Recommendations for good site practices during the construction activities include:		
	Nomination of an approved person, such as a site manager, to be responsible for 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 proper waste management and chemical handling	✓	✓
	procedures		
	Provision of sufficient waste disposal points and regular collection of waste	✓	✓
	Appropriate measures to minimise windblown litter and dust/odour during	✓	✓
	transportation of waste by either covering trucks or by transporting wastes in enclosed		
	containers		
	Provision of wheel washing facilities before the trucks leaving the works area so as to	✓	✓
	minimise dust introduction to public roads		

EM&A Ref.	Recommendation Measures	Zone 2A	Zone 2B & 2C
	Well planned delivery programme for offsite disposal such that adverse environmental	✓	✓
	impact from transporting the inert or non-inert C&D materials is not anticipated		
6.1	Waste Reduction Measures		
	Recommendations to achieve waste reduction include:		
	<ul> <li>Sort inert C&amp;D material to recover any recyclable portions such as metals</li> </ul>	✓	✓
	Segregation and storage of different types of waste in different containers or skips to	✓	✓
	enhance reuse or recycling of materials and their proper disposal		
	Encourage collection of recyclable waste such as waste paper and aluminium cans by	✓	✓
	providing separate labelled bins to enable such waste to be segregated from other		
	general refuse generated by the work force		
	Proper site practices to minimise the potential for damage or contamination of inert	✓	✓
	C&D materials		
	Plan the use of construction materials carefully to minimise amount of waste generated	✓	✓
	and avoid unnecessary generation of wastes		
6.1	Inert and Non-inert C&D Materials		
	In order to minimise impacts resulting from collection and transportation of inert C&D		
	material for off-site disposal, the excavated materials should be reused on-site as fill material		
	as far as practicable. In addition, inert C&D material generated from excavation works could		
	be reused as fill materials in local projects that require public fill for reclamation.		
	The surplus inert C&D material will be disposed of at the Government's PFRFs for	✓	✓
	beneficial use by other projects in Hong Kong.		
	• Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal	✓	✓
	of the inert C&D materials at PFRF is underway. No construction work is allowed to		

**Zone 2B & 2C** 

proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD.

- The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.
- In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site.

#### 6.1 Chemical Waste

• If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to

✓ N/A

Chemical waste storage area is under preparation in the

reporting period.

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EM&A Ref	. Recommendation Measures	Zone 2A	Zone 2B & 2C
	transport and dispose of the chemical wastes at the approved Chemical Waste		
	Treatment Centre or other licensed recycling facilities, in accordance with the Waste		
	Disposal (Chemical Waste) (General) Regulation.		
	<ul> <li>Potential environmental impacts arising from the handling activities (including storage,</li> </ul>	✓	N/A
	collection, transportation and disposal of chemical waste) are expected to be minimal		Chemical waste storage area is
	with the implementation of appropriate mitigation measures as recommended.		under preparation in the
			reporting period.
6.1	General Refuse	✓	✓
	General refuse should be stored in enclosed bins or compaction units separated from inert		
	C&D materials. A reputable waste collector should be employed by the Contractor to remove		
	general refuse from the site, separately from inert C&D materials. Preferably an enclosed and		
	covered area should be provided to reduce the occurrence of 'wind blown' light material.		
Land Contar	mination (Construction)		
7.1	The potential for land contamination issues at the TST Fire Station due to its future relocation		
	will be confirmed by site investigation after land acquisition. Where necessary, mitigation		
	measures for minimising potential exposure to contaminated materials (if any) or remediation		
	measures will be identified. If contaminated land is identified (e.g., during decommissioning		
	of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed		
	in order to minimise the potentially adverse effects on the health and safety of construction		
	workers and impacts arising from the disposal of potentially contaminated materials. The		
	following measures are proposed for excavation and transportation of contaminated material:		
	To minimize the chance for construction workers to come into contact with any	N/A	N/A

Zone 2A

**Zone 2B & 2C** 

contaminated materials, bulk earth-moving excavation equipment should be employed;

- Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site;
- Stockpiling of contaminated excavated materials on site should be avoided as far as possible;
- The use of contaminated soil for landscaping purpose should be avoided unless pretreatment was carried out;
- Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;
- Truck bodies and tailgates should be sealed to stop any discharge;

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

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N/A

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N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

N/A

TST Fire Station is out of this project boundary, no mitigation measure is required.

EM&A Ref.	Recommendation Measures	Zone 2A	Zone 2B & 2C
	Only licensed waste haulers should be used to collect and transport contaminated	N/A	N/A
	material to treatment/disposal site and should be equipped with tracking system to	TST Fire Station is out of this	TST Fire Station is out of this
	avoid fly tipping;	project boundary, no mitigation	project boundary, no mitigation
		measure is required.	measure is required.
	• Speed control for trucks carrying contaminated materials should be exercised;	N/A	N/A
		TST Fire Station is out of this	TST Fire Station is out of this
		project boundary, no mitigation	project boundary, no mitigation
		measure is required.	measure is required.
	• Observe all relevant regulations in relation to waste handling, such as Waste Disposal	N/A	N/A
	Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354)	TST Fire Station is out of this	TST Fire Station is out of this
	and obtain all necessary permits where required; and	project boundary, no mitigation	project boundary, no mitigation
		measure is required.	measure is required.
	• Maintain records of waste generation and disposal quantities and disposal	N/A	N/A
	arrangements.	TST Fire Station is out of this	TST Fire Station is out of this
		project boundary, no mitigation	project boundary, no mitigation
		measure is required.	measure is required.
Ecological Im	pact (Construction)		
	No mitigation measure is required.		
Landscape ar	d Visual Impact (Construction)		
Table 9.1	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable	✓	✓
(CM1)	due to construction impacts, trees will be transplanted or felled with reference to the stated		
	$criteria\ in\ the\ Tree\ Removal\ Applications\ to\ be\ submitted\ to\ relevant\ government\ departments$		

	Recommendation Measures	Zone 2A	Zone 2B & 2C
	for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.		
Table 9.1	Compensatory tree planting shall be incorporated to the proposed project and maximize the	N/A	N/A
(CM2)	new tree, shrubs and other vegetation planting to compensate tree felled and vegetation	Compensatory tree planting is	Compensatory tree planting is
	removed. Also, implementation of compensatory planting should be of a ratio not less than	being reviewed.	being reviewed.
	1:1 in terms of quality and quantity within the site.		
Table 9.1	Buffer trees for screening purposes to soften the hard architectural and engineering structures	N/A	N/A
(CM3)	and facilities.	Roof garden is designed to be	Roof garden is designed to be
		built, but it has not been	built, but it has not been
		completed yet.	completed yet.
Table 9.1	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping	N/A	N/A
(CM4)	plants, etc, to maximize the green coverage and soften the hard architectural and engineering	Climbing or weeping plants are	Climbing or weeping plants are
	structures and facilities.	designed to be planted, but	designed to be planted, but
		proposal is being reviewed for	proposal is being reviewed for
		the planting location.	the planting location.
Table 9.1	Roof greening by means of intensive and extensive green roof to maximize the green coverage	N/A	N/A
(CM5)	and improve aesthetic appeal and visual quality of the building/structure.	Roof garden is designed to be	Roof garden is designed to be
		built, but it has not been	built, but it has not been
		completed yet.	completed yet.
Table 9.1	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A
(CM6)		Greening along the seafront is	Greening along the seafront is
		proposed, and under review.	proposed, and under review.
Table 9.1	Structure, ornamental planting shall be provided along amenity strips to enhance the	N/A	N/A

EM&A Ref.	Recommendation Measures	Zone 2A	Zone 2B & 2C
(CM7)	landscape quality.	Gardens are designed to be	Gardens are designed to be
		built, and under review.	built, and under review.
Table 9.1	Landscape design shall be incorporated to architectural and engineering structures in order to	N/A	N/A
(CM8)	provide aesthetically pleasing designs.	Roof garden is designed to be	Roof garden is designed to be
		built, and under review.	built, and under review.
Table 9.1	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to	N/A	N/A
(CM9)	minimize the affected extent to the waterbody	No marine facilities for this	No marine facilities for this
		project.	project.
Table 9.2	Use of decorative screen hoarding/boards	✓	✓
(MCP1)			
Table 9.2	Early introduction of landscape treatments	N/A	N/A
(MCP2)		No landscape treatments during	No landscape treatments during
		this stage.	this stage.
Table 9.2	Adoption of light colour for the temporary ventilation shafts for the basement during the	N/A	N/A
(MCP3)	transition period.	No ventilation shafts for this	No ventilation shafts for this
		project.	project.
Table 9.2	Control of night time lighting	✓	✓
(MCP4)			
Table 9.2	Use of greenery such as grass cover for the temporary open areas will help achieve the visual	N/A	N/A
(MCP5)	balance and soften the hard edges of the structures.	No temporary open areas for	No temporary open areas for
		this project.	this project.

N/A - Not Applicable

✓ - Implemented

Obs - Observed

Rem - Reminder