

Annex A

Proforma for Construction Phase EM&A Programme

ANNEX A

Environmental Mitigation Implementations Schedule
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ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

Location	Reference Section⁽¹⁾	Environmental Protection Measures^{(2), (3)}	Agent	Timing
<i>Construction Noise Mitigation</i>				
Wu Kwai Sha New Village (1)	S 3.5.29	Mitigation Option 2	HyD Contractor	Construction Phase Qtrs 1 - 9
Wu Kwai Sha New Village (2)	S 3.5.27 S 3.5.29	Mitigation Option 1 Mitigation Option 2	HyD Contractor	Construction Phase Qtr 1-2 & 5-9 Construction Phase Qtrs 3 & 4
Lok Wo Sha (1)	S 3.5.27	Mitigation Option 1	HyD Contractor	Construction Phase Qtrs 1 - 9
Lok Wo Sha (2)	S 3.5.27 S 3.5.29	Mitigation Option 1 Mitigation Option 2	HyD Contractor	Construction Phase Qtrs 1, 2, 5, 6, 8, 9 Construction Phase Qtrs 3,4 & 7
Kam Lung Court (1)	S 3.5.29	Mitigation Option 2 Reschedule the construction of drainage to avoid the final quarter of 2001 Reschedule the construction of road furniture to avoid the final quarter of 2001 and 2002	HyD Contractor	Construction Phase Qtrs 1 - 9 Construction Phase Qtr 4 Construction QTR 4 and 8
Kam Lung Court (2)	S 3.5.29	Mitigation Option 2 Reschedule the construction of drainage to avoid the final quarter of 2001 Reschedule the construction of road furniture to avoid the final quarter of 2001 and 2002	HyD Contractor	Construction Phase Qtrs 1 - 9 Construction Phase Qtr 4 Construction QTR 4 and 8
Lee On Estate (1)	S 3.5.29 S 3.5.31	Mitigation Option 2 Reschedule the construction of drainage to avoid the final quarter of 2001 Reschedule the construction of road furniture to avoid the final quarter of 2001 and 2002 Schedule the construction of the Sai Sha Road Alignment (within 40m of Lee Wing House) to avoid it coinciding with the footbridge and MOS rail construction (within 40m of Lee Wing House)	HyD Contractor	Construction Phase Qtrs 1, 8, 9 Construction Phase Qtr 4 Construction QTR 4 and 8 Construction Phase Qtrs 2 - 7
Lee On Estate (2)	S 3.5.29	Mitigation Option 2 Reschedule the construction of drainage to avoid the final quarter of 2001 Reschedule the construction of road furniture to avoid the final quarter of 2001 and 2002	HyD Contractor	Construction Phase Qtrs 1 - 9 Construction Phase Qtr 4 Construction QTR 4 and 8

<i>Location</i>	<i>Reference Section⁽¹⁾</i>	<i>Environmental Protection Measures^{(2), (3)}</i>	<i>Agent</i>	<i>Timing</i>
Residential Development STTL446	S 3.5.27	Mitigation Option 1	HyD Contractor	Construction Phase Qtrs 1 - 9
Residential Development at Wu Kai Sha DD206	S 3.5.27	Mitigation Option 1	HyD Contractor	Construction Phase Qtrs 1 - 9
<i>Operational Noise Mitigation</i>				
Wu Kwai Sha and Lok Wo Sha	S 3.6.16 Figures 8 & 9a	130m long, 600mm high concrete parapet wall, extending east from Kam Ying Road junction along the left hand side of Sai Kung bound carriageway; and a solid abutment below the first slope of the footbridge on the Sai Kung bound carriageway.	HyD Contractor	During the construction of the concerned section of Sai Sha Road
Kam Lung Court	S 3.6.18 Figures 8 & 9	100m long, absorptive cantilever barrier, extending east from the Kam Ying Road junction, 2m from the Sha Tin bound carriageway; and 320 m long, cantilever absorptive (both sides) noise barrier, consisting of a 5 m vertical section with a cantilevered section protruding 1 m vertically and 2 m horizontally. The barrier will be positioned 1 m from the right hand side of the Sai Kung bound carriageway, beginning immediately north east of the Kam Ying Road junction.	HyD Contractor	Construction Phase Qtr 7 - 8 Construction Phase Qtr 5
Lee On Estate	S 3.6.21 Figure 8 & 9	120m long absorptive cantilever barrier, extending east of the proposed footbridge, 2m from the left hand side of the Sha Tin bound carriageway; and 320 m long, cantilever absorptive (both sides) noise barrier, consisting of a 5 m vertical section with a cantilevered section protruding 1 m vertically and 2 m horizontally. The barrier will be positioned 1 m from the right hand side of the Sai Kung bound carriageway, beginning immediately north east of the proposed footbridge.	HyD Contractor	Construction Phase Qtr 7 - 8
Proposed Development at Wu Kai Sha Village (DD206)	S 3.5.26 Figure 8	100m long, 5m tall vertical barrier alongside the slip road leading from Sai Sha Road to Trunk Road T7	HyD Contractor	During the construction of the concerned section of Sai Sha Road

Location	Reference Section ⁽¹⁾	Environmental Protection Measures ^{(2),(4)}	Agent	Timing
<i>Construction Phase Landscape and Visual Mitigation Measures</i>				
All Scheme Roads	S 4.5.1	<ul style="list-style-type: none"> · conservation of topsoils; · screening of site construction works by use of hoardings; · surface treatment of site hoardings to enhance visual interest and harmony with surrounding landscape / townscape; · locating site offices and other temporary buildings in least visually prominent locations; · efficient programming of construction works to reduce duration of construction works; · staging of construction works to minimise areas requiring site hoardings which creates visual intrusion; and · re-routing of pedestrian routes away from the work site where possible; · retaining existing trees and minimising damage to vegetation where possible. Care shall be taken not to damage those trees identified in the Tree Survey Report to be retained during the construction phase; and · careful and efficient transplanting of existing vegetation carried out under the supervision of a professional landscape architect. 	Hyd Contractor	During the construction period
<i>Operational Phase Landscape and Visual Mitigation Measures</i>				
All Scheme Roads	S 4.5.2 - 4.5.3 (Figures 20-23)	<ul style="list-style-type: none"> · compensatory planting to be included in the landscape works such that the number of compensatory trees shall not be less than the number of trees to be felled; · natural slopes or soil berms to be developed to facilitate soft landscape establishment during the planning and construction stage where possible; · transplanting of good existing trees; · regrading of any new formed slopes to tie in with adjacent levels; · retention of existing tree and shrub planting not affected by the works; · dense tree or tree and shrub planting, on all new formed slopes, where possible, to form landscape buffer zones and visual screens; · ornamental tree and shrub planting to central medians, traffic islands and the roundabout, where possible and in accordance with required sightlines and traffic engineering requirements; · consideration of the design of, and hard materials finishes to, pedestrian subway entrances and retaining walls; · use of hard materials sympathetic to the surrounding environment for pavements, cycle tracks and the road; · noise barriers and semi-enclosure systems to be designed to create elements that are 	Hyd Contractor	During appropriate construction Phase Quarters

Location	Reference Section ⁽¹⁾	Environmental Protection Measures ^{(2), (3)}	Agent	Timing
		<ul style="list-style-type: none"> · integrated within the scheme and surrounding landscape and to minimise the undesirable effects of glare; · tree and / or shrub planting to roadside amenity strips with raised planters where possible; · footbridges, ramps and staircases to be designed in the context of the scheme and as elements integrated with the surrounding landscape; · consideration of the design of subway portals, ramps and staircases; and · soft landscape treatment of the central public transport reserve, although the final design will be limited by the engineering requirements of the reserve. 		

Notes:

- (1) EIA Ref/EM&A Log Ref/Design Document Ref
- (2) All recommendations and requirements resulted during the Course of EIA/EA Process, including ACE and /or accepted public comment to the proposed project
- (3) The dimensions of the noise barriers specified in this EIA are subject to detailed design when suitable equivalent configurations may be deemed more appropriate.
- (4) All noise barriers are to be funded by the Project Proponent (HyD) and implemented by HyD's contractor. The barriers are to be maintained and managed by the HyD's contractor during the 1 year establishment period after construction and to be handed over to HyD for their maintenance and management afterward.
- (5) All landscape planting to be funded by the project Proponent (HyD) and implemented by HyD's contractor. The landscape planting are to be maintained by the HyD's contractor during the 1 year establishment period after construction and to be maintained and managed by HyD afterward if necessary until the landscape planting are handed over to RSD for their long-term maintenance and management. HyD would seek and obtain the written in-principle agreement from RSD regarding the long-term maintenance and management.

Acceptance by Project Proponent

Signed by : _____ Name: _____

On Behalf of : _____ Date: _____

Sample Template for Interim Notifications of Environmental Quality Limits Exceedances

Incident Report on Action Level or Limit Level Non-compliance

Project	
Date	
Time	
Monitoring Location	
Parameter	
Action & Limit Levels	
Measured Level	
Possible reason for Action or Limit Level Non-compliance	
Actions taken / to be taken	
Remarks	

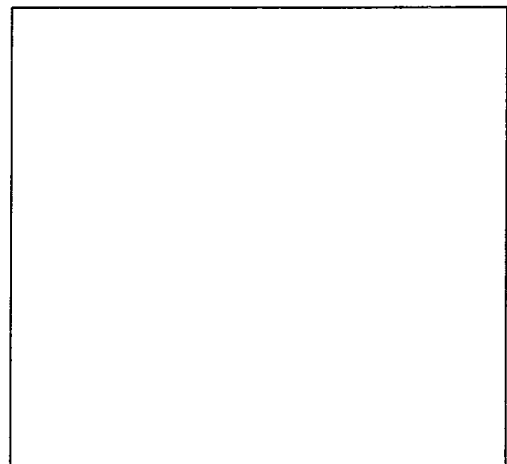
Location Plan

Prepared by : _____

Designation : _____

Signature : _____

Date : _____



Construction Noise Monitoring Field Record Sheet

Monitoring Location		
Description of Location		
Date of Monitoring		
Measurement Start Time (hh:mm)		
Measurement Duration (min.)		
Weather Conditions		
Noise Meter Model/Identification		
Calibrator Model/Identification		
Measurement Results	L ₉₀ (dB(A))	
	L ₁₀ (dB(A))	
	Leq (dB(A))	
Major Construction Noise Source(s) During Monitoring		
Other Noise Source(s) During Monitoring		
Remarks		

Name & Designation

Signature

Date

Recorded By : _____

Checked By : _____

Operational Noise Monitoring Field Record Sheet

Monitoring Location		
Description of Location (inc floor level)		
Date of Monitoring		
Measurement Start Time (hh:mm)		
Measurement Duration (min.)		
Weather Conditions		
Noise Meter Model/Identification		
Calibrator Model/Identification		
Measurement Results	L ₉₀ (dB(A))	
	L ₁₀ (dB(A))	
	Leq (dB(A))	
Hourly Traffic Flow during Monitoring		
% HGVs of Hourly Traffic		
Estimate of Average Vehicle Speed (Kph)		
Mitigation Measures in Place Measurement Location		
Other Noise Source(s) During Monitoring		
Remarks		

Name & Designation

Signature

Date

Recorded By : _____

Checked By : _____

Visual Monitoring Field Record Sheet

Monitoring Location	
Description of Location	
Date of Monitoring	
Accompanying Photographs	
Remarks	

Name & Designation

Signature

Date

Recorded By : _____

Checked By : _____
