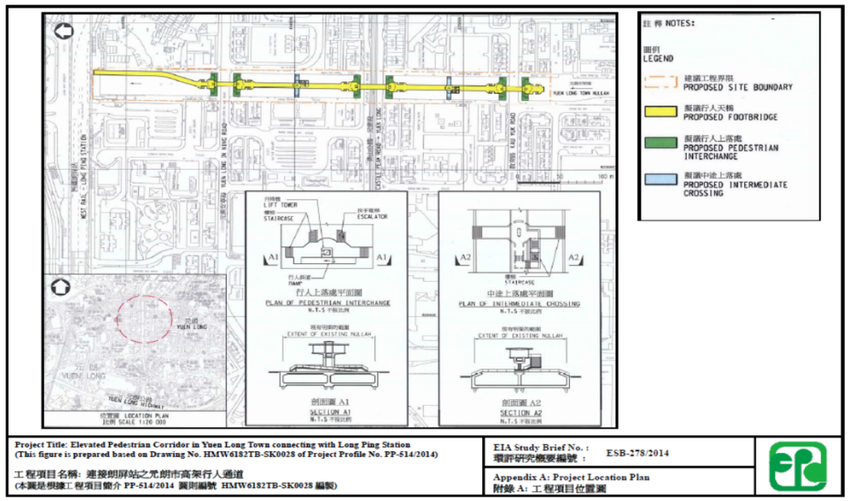
Sections of the EIA Study Brief	Specific Requirements	Compliance Check
1.	**BACKGROUND**	
1.1	An application (No. ESB-278/2014) for an Environmental Impact Assessment (EIA) Study Brief under section 5(1)(a) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the Applicant on 7 August 2014 with a project profile (No. PP-514/2014) (the Project Profile).	The process of study brief application is described in Section 1.2.1.1 of the report.
1.2	The Project is to construct an elevated pedestrian corridor above Yuen Long Town Nullah from West Rail Long Ping Station (WRLPS) crossing over Yuen Long On Ning Road (YLONR), Castle Peak Road – Yuen Long Section (CPRYLS) to the south of Kau Yuk Road (KYR) with provision for future extension to Yuen Long South areas. The main components of the Project include the following: (i) Construction of a covered footbridge of about 540m in length and 6m clear width with staircases/lifts/escalators along Yuen Long Town Nullah from WRLPS to the south of KYR; (ii) Connection of the footbridge with WRLPS; (iii) Connection of the footbridge with at-grade footways in YLONR, CPRYLS and KYR; (iv) Provision at the southern end of the footbridge to allow for future extension; (v) Measures for mitigating drainage impact for the sections of Yuen Long Town Nullah underneath the footbridge; (vi) Landscaping and streetscape works of the footpaths along both sides of Yuen Long Town Nullah between WRLPS and KYR; and (vii) Associated civil, road, drainage, geotechnical, traffic aids, utility diversion, street lighting, landscaping, E&M works and environmental mitigation measures and temporary traffic arrangement during construction stage. The location of the Project is shown in Appendix A.	Project components are described in Section 2.1 of the report.
1.3	Pursuant to section 5(7)(a) of the EIAO, the Director issues this EIA study brief to the Applicant to carry out an EIA study on the Project.	The EIA has been carried out in accordance with the study brief and compliance is demonstrated below.
1.4	The Project consists of, at least, a designated project under Item I.1(b), Part I, Schedule 2 of the EIAO, i.e. a drainage channel or river training and diversion works which discharges or discharge into an area which is less than 300m from the nearest boundary of an existing or planned (i) site of special scientific interest; (ii) site of cultural heritage; (iii) marine park or marine reserve; (iv) fish culture zone; (v) wild animal protection area; (vi) coastal protection area; or (vii) conservation area.	Designated Project which is relevant to the Project is described in Section 2.2 of the report.
1.5	The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project. This information will contribute to decisions by the Director on : (i) the acceptability of any adverse environmental consequences that are likely to arise as a result of the Project; (ii) the conditions and requirements for the design, construction and operation of the Project to mitigate against adverse environmental consequences; and (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.	Noted.
2	**OBJECTIVES OF THE EIA STUDY**	
2.1	The objectives of the EIA study are as follows : (i) to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project; (ii) to identify and describe the elements of the community and environment likely to be affected by the Project and/or likely to cause adverse impacts to the Project, including both the natural and man-made environment and the associated environmental constraints; (iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses; (iv) to identify and quantify any potential losses or damage to flora, fauna and wildlife habitats; (v) to identify and evaluate any potential landscape and visual impacts and to propose measures to mitigate these impacts; (vi) to propose the provision of infrastructure or mitigation measures to minimize pollution, environmental disturbance and nuisance during the construction and operation of the Project; (vii) to investigate the feasibility, effectiveness and implications of the proposed mitigation measures; (viii) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation phases of the Project in relation to the sensitive receivers and potentially affected uses; (ix) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels; (x) to design and specify environmental monitoring and audit requirements; and (xi) to identify any additional studies necessary to implement the mitigation measures or monitoring and proposals recommended in the EIA report.	The objectives of the EIA study are described in Section 1.3 of the report.
3	**DETAILED REQUIREMENTS OF THE EIA STUDY**	
3.1	**The Purpose**	
3.1.1	The purpose of this study brief is to scope the key issues of the EIA study and to specify the environmental issues that are required to be reviewed and assessed in the EIA report. The Applicant has to demonstrate in the EIA report that the criteria in the relevant sections of the Technical Memorandum on the Environmental Impact Assessment Process of the Environmental Impact Assessment Ordinance (hereinafter referred to as "the TM") are complied with.	The purpose of the EIA study brief is described in Section 1.2 of the report.
3.2	**The Scope**	
3.2.1	The scope of this EIA study shall cover the Project proposed in the Project Profile. The EIA study shall address the likely key issues described below, together with any other key issues identified during the course of the EIA study: (i) potential air quality and noise impacts on the sensitive receivers during construction and operation of the Project;	The scope and structure of the EIA report is described in Section 1.4 of the report. Potential air quality and noise impacts on the sensitive receivers during construction and operation of the Project are discussed in Sections 4.3 - 4.5 and Sections 5.2 - 5.4 of the report respectively.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	(ii) potential water quality impacts on water system(s) including the Deep Bay Water Control Zone and relevant water sensitive receivers (e.g. Shan Pui River), during construction and operation of the Project;	Potential water quality impacts on water system(s) during construction and operation of the Project are discussed in Sections 6.3 - 6.5 of the report.
	(iii) potential waste management issues and impacts during construction and operation of the Project;	Potential waste management issues and impacts during construction and operation of the Project are discussed in Sections 7.3 and 7.4 of the report.
	(iv) potential ecological impact during construction and operation of the Project;	Potential ecological impacts during construction and operation of the Project are discussed in Sections 9.6 of the report.
	(v) potential landscape impact arising from the Project and potential visual impact arising from the above-ground structures of the Project;	Potential landscape and visual impacts arising from the Project are discussed in Sections 10.7 and 10.8 of the report respectively.
	(vi) potential impacts on sites of cultural heritage from construction and operation of the Project; and	Potential impacts on sites of cultural heritage from construction and operation of the Project are discussed in Sections 11.3 - 11.4 of the report.
	(vii) potential cumulative impacts of the Project, through interaction or in combination with other existing, committed and planned projects e.g. "Improvement of Yuen Long Town Nullah (Town Centre Section)" in the vicinity of the Project.	Potential cumulative impacts of the Project through interaction or in combination with other existing, committed and planned projects are discussed in Section 3.7 of the report.
3.3	**Consideration of Alternative**	
3.3.1	Background and History of the Project The Applicant shall provide information on the background and history of the Project, including the purpose and objectives of the Project, and describe the scenarios with and without the Project.	The background and history of the Project as well as description of the scenarios with and without Project are described in Chapter 1 and Sections 2.3.6 of the report.
3.3.2	Consideration of Alternative Design and Layout The Applicant shall present in the EIA report the consideration of alternative design and layout of the Project. Factors or constraints affecting the design and layout of the Project shall be stated.	Alternative design and layout of the Projects considered are described in Sections 3.3 to 3.4 of the report.
3.3.3	Consideration of Alternative Construction Methods and Sequences of Works Taking into consideration of the combined effect with respect to the severity and duration of the construction impacts to the affected sensitive receivers, the EIA study shall explore different construction methods and sequences of works of the Project with a view to avoiding or minimizing adverse environmental impacts during construction of the Project. A comparison of the environmental benefits and disbenefits of applying different construction methods and sequences of works shall be included in the EIA study.	Alternative construction methods and sequences of works which takes into account the severity and duration of the construction impacts to the affected sensitive receivers are described in Section 3.4 and 3.5 of the report.
3.4	**Technical Requirements**	
	The Applicant shall conduct the EIA study to address the environmental aspects of the Project as described in section 3.2 above. The assessment shall be based on the best and latest information available during the course of the EIA study. The Applicant shall include in the EIA report details of the construction and operational programme and the methodologies for assessing the environmental impacts of the Project. The Applicant shall clearly state in the EIA report the time frame and works programmes of the Project and other concurrent projects, and assess the cumulative environmental impacts from the Project and the interacting projects as identified in the EIA study.	The EIA report addresses the environmental aspects of the Project as described in section 3.2 of the study brief. The scope and structure of the EIA report is described in Section 1.4 of the report. The assessment has been carried out based on the best and latest information available during the course of the EIA study. The construction and operation programme of the Project is described in Section 3.
	The EIA study shall include the following technical requirements on specific impacts.	The EIA study follows the specified technical requirement in the EIA study brief as shown in this checklist.
3.4.1	**Air Quality Impact**	
3.4.1.1	The Applicant shall follow the criteria and guidelines for evaluating and assessing air quality impact as stated in section 1 of Annex 4 and Annex 12 of the TM.	Annex 4 and Annex 12 of the TM-EIAO have been referenced when evaluating and assessing air quality impacts of the Project as stated in Section 4.1 of the report.
3.4.1.2	The study area for air quality impact assessment shall be defined by a distance of 500 meters from the boundary of the Project site or other project locations as identified in the EIA, which shall be extended to include major existing, planned and committed air pollutant emission sources that may have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, planned and committed sensitive receivers within the study area as well as areas where air quality may be potentially affected by the Project. The assessment shall be based on the best available information at the time of the assessment.	A distance of 500 metres from the Site boundary and the works of the Project within the study area is defined as the assessment area as mentioned in Sections 4.3 of the report. Key existing, committed and planned air pollutant emission sources in the vicinity of the Project have been identified and are described in Sections 4.4.1 and 4.5.1 of the report. Key existing, committed and planned sensitive receivers within the assessment area are identified and described in Section 4.3 of the report.
3.4.1.3	The Applicant shall follow the requirements stipulated under the Air Pollution Control (Construction Dust) Regulation to ensure that construction dust impacts are controlled within the relevant standards as stipulated in Section 1 of Annex 4 of the TM.	Construction dust assessment has been presented in Section 4.4.1.2 - 4.4.1.6, 4.4.2.1 - 4.4.2.2, 4.4.3.2.
3.4.1.4	The Applicant shall evaluate the likely odour impact that may arise from the construction and associated activities of the Project, and propose suitable measures to control/ minimize potential odour nuisance.	Odour impact has been presented in Section 4.4.1.9, 4.4.2.4 - 4.4.2.5 and odour control measures has been presented in Section 4.4.3.3 - 4.4.3.4.
3.4.1.5	A monitoring and audit programme for the construction phase of the Project shall be devised to verify the effectiveness of the proposed control measures so as to ensure proper control of fugitive dust and odour emissions.	The EM&A requirement during construction phase has been presented in Section 4.4.4.
3.4.2	**Noise Impact**	
3.4.2.1	The Applicant shall follow the criteria and guidelines for evaluating and assessing noise impact as stated in Annexes 5 and 13 of the TM respectively.	Annex 5 and Annex 13 of the TM-EIAO have been referenced when evaluating and assessing noise impacts of the Project as stated in Section 5.1.1 of the report.
3.4.2.2	Assessment shall include construction noise impact assessment of the existing, committed and planned NSRs earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board, in the vicinity of the Project.	The existing NSRs are identified by means of topographic maps, aerial photos, land status plans, S.16 / S.12a Town Planning Ordinance and site inspections. Planned / committed NSRs are identified by making reference to relevant Outline Zoning Plans (OZP), Outline Development Plans (ODP), Layout Plans and other published plans in relation to the Town Planning Board. Details are described in Section 5.2 of the report. Assessment has included construction airborne noise and construction groundborne noise. Details of assessments in relevant sections are listed below: - Construction airborne noise: Section 5.3 - Construction groundborne noise: Section 5.4
3.4.2.3	The noise impact assessment of the Project shall follow the detailed technical requirements given in Appendix B of this EIA Study Brief.	See Compliance check for Appendix B items below.
3.4.3	**Water Quality Impact**	
3.4.3.1	The Applicant shall follow the criteria and guidelines for evaluating and assessing water pollution as stated in Annexes 6 and 14 of the TM.	Annex 6 and Annex 14 of the TM-EIAO have been referenced when evaluating and assessing water quality impacts of the Project as stated in Section 6.1.4.1 of the report.
3.4.3.2	The study area for the water quality impact assessment shall cover the Deep Bay Water Control Zone as designated under the Water Pollution Control Ordinance (Cap 358) and water sensitive receivers in the vicinity of the Project. The study area shall be extended to include other areas if they are found also being impacted during the course of the EIA study and have a bearing on the environmental acceptability of the Project.	Assessment has included Deep Bay Water Control Zone and the water sensitive receivers in the vicinity of the Project as stated in Section 6.2.1 - 6.2.3.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
3.4.3.3	The water quality impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in Appendix C.	See Compliance check for Appendix C items below.
3.4.4	**Waste Management Implication and Land Contamination**	
3.4.4.1	The Applicant shall follow the criteria and guidelines for evaluating and assessing waste management implication as stated in Annexes 7 and 15 of the TM.	Annex 7 and Annex 15 of the TM-EIAO have been referenced when evaluating and assessing waste management implicationa as stated in Section 7.1.1.1 and Section of the report.
3.4.4.2	The assessment of the waste management implication arising from construction and operation of the Project shall follow the detailed technical requirements given in Appendix D.	See Compliance check for Appendix D items below.
3.4.4.3	The Applicant shall follow the guidelines for evaluating and assessing potential land contamination issue as stated in Section 3.1 of Annex 19 of the TM.	Section 3.1 of Annex 19 of the TM-EIAO have been referenced when evaluating and assessing land contamination issue as stated in Section 8.1.1.1 and Section of the report.
3.4.4.4	The assessment of the potential land contamination issue shall follow the detailed requirements given in Appendix D.	See Compliance check for Appendix D items below.
3.4.5	**Ecological Impact (Terrestrial and Aquatic)**	
3.4.5.1	The Applicant shall follow the criteria and guidelines for evaluating and assessing ecological impact as stated in Annexes 8 and 16 of the TM.	Annex 8 and Annex 16 of the TM-EIAO have been referenced when evaluating and assessing ecological impact as stated in Section 9.1.1.1 and Section of the report.
3.4.5.2	The assessment area for the purpose of this ecological impact assessment shall include areas within 500m distance from the boundary of the Project and any other areas likely to be impacted by the Project. For aquatic ecology, the assessment area shall be the same as the water quality impact assessment described in section 3.4.3.	The assessment area for ecology has followed the study brief requirements and described in Section 9.2.1.1.
3.4.5.3	The ecological impact assessment for construction and operation of the Project shall follow the detailed technical requirements given in Appendix E.	See Compliance check for Appendix E items below.
3.4.6	**Landscape and Visual Impacts**	
3.4.6.1	The Applicant shall follow the criteria and guidelines as stated in Annexes 10 and 18 of the TM and the EIAO Guidance Note No.8/2010 on "Preparation of Landscape and Visual Impact Assessment under the Environmental Impact Assessment Ordinance" for evaluating and assessing the landscape and visual impacts.	Section 10.3 Assessment Methodology has discussed methologies under Annex 10 and 18 of the TM-EIAO and the EIAO Guidance Note No. 8/2010 "Preparation of Landscape and Visual Impact Assessment under the EIAO"
3.4.6.2	The assessment area for landscape impact assessment shall include all areas within a 100m distance from the site boundary of the Project. The assessment area for the visual impact assessment shall be defined by the visual envelope of the Project.	
3.4.6.3	The landscape and visual impact assessments for construction and operation of the Project shall follow the detailed technical requirements given in Appendix F.	See Compliance check for Appendix F items below.
3.4.7	**Impact on Cultural Heritage**	
3.4.7.1	The applicant shall follow the criteria and guideline for evaluating and assessing the cultural heritage impacts as stated in Annexes 10 and 19 of the TM.	Annex 10 and Annex 19 of the TM-EIAO have been referenced when evaluating and assessing cultural heritage impacts of the Project as stated in Section 11.1.1.1 of the report.
3.4.7.2	The cultural heritage impact assessment shall include a Built Heritage Impact Assessment (BHIA). Details of the technical requirements of the BHIA are shown in Appendix G.	The cultural heritage impact assessment has been carried out according to the requirements and guidelines stated in Appendix G. See compliance check for Appendix G items below.
3.4.8	**Summary of Environmental Outcomes**	
3.4.8.1	The EIA report shall contain a summary of key environmental outcomes arising from the EIA study, including environmental benefits of the Project and the environmental protection measures recommended, population and environmentally sensitive areas protected, recommended environmentally friendly designs, key environmental problems avoided and any compensation areas included.	Summary of key environmental outcomes is described in Chapter 13.
3.4.9	**Environmental Monitoring and Audit (EM&A) Requirements**	
3.4.9.1	The Applicant shall identify and justify in the EIA study whether there is any need for EM&A activities during the construction and operation phases of the Project and, if affirmative, define the scope of EM&A requirements for the Project in the EIA study.	Chapter 12 and EM&A Manual have identified and justified the need and scope for EM&A activities during the construction and operation phase.
3.4.9.2	Subject to the confirmation of the EIA study findings, the Applicant shall follow the guidelines for an EM&A programme as stated in Annex 21 of the TM.	The EM&A Manual has followed the guidelines for an EM&A programme as stated in Annex 21 of the TM (Section 13.2) and EM&A Manual Section 1.2.
3.4.9.3	The Applicant shall prepare a Project Implementation Schedule in the form of a checklist as shown in Appendix H of this EIA study brief. It shall contain the EIA study recommendations and mitigation measures with reference to the implementation programme.	Project Implementation Schedule has been prepared and included in Appendix 4.1 of the EM&A Manual.
4	**DURATION OF VALIDITY**	
4.1	The Applicant shall notify the Director of the commencement of the EIA study. If the EIA study does not commence within 36 months after the date of issue of this EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief before commencement of the EIA study.	Noted.
5	**REPORTING REQUIREMENTS**	
5.1	In preparing the EIA report, the Applicant shall refer to Annex 11 of the TM for the contents of an EIA report. The Applicant shall also refer to Annex 20 of the TM, which stipulates the guidelines for the review of an EIA report.	Noted.
5.2	The Applicant shall supply the Director with hard and electronic copies of the EIA report and the executive summary in accordance with the requirements given in Appendix I. The Applicant shall, upon request, make additional copies of EIA report/documents available to the public, subject to payment by the interested parties of full costs of printing.	Noted.
6	**OTHER PROCEDURAL REQUIREMENTS**	
6.1	If there is any change in the name of Applicant for this EIA study brief during the course of the EIA study, the Applicant must notify the Director immediately.	Noted.
6.2	If there is any key change in the scope of the Project mentioned in Section 1.2 of this EIA study brief and in Project Profile (No. PP-514/2014), the Applicant must seek confirmation from the Director in writing on whether or not the scope of issues covered by this EIA study brief can still cover the key changes, and the additional issues, if any, that the EIA study must also address. If the changes to the Project fundamentally alter the key scope of the EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief.	Noted.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
7	**LIST OF APPENDICES**	
7.1	This EIA Study Brief includes the following appendices: Appendix A - Project Location Plan Appendix B - Requirements for Noise Impact Assessment Appendix C - Requirements for Water Quality Impact Assessment Appendix D - Requirements for Assessment of Waste Management Implication and Land Contamination Appendix E - Requirements for Ecological Impact Assessment (Terrestrial Appendix F - Requirements for Landscape and Visual Impact Assessments Appendix G - Requirements for Built Heritage Impact Assessment Appendix G-1 - Guidelines for Cultural Heritage Impact Assessment Appendix H - Implementation Schedule of Recommended Mitigation Measures Appendix I - Requirements for EIA Report Documents	Noted.
Appendix A	**Project Location Plan**	
		Noted.
Requirements for Noise Impact Assessment		
The air quality impact assessment shall include the following:		

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
Appendix B 1	**Description of the Noise Environment**	
	The Applicant shall describe the prevailing noise environment in the EIA report.	The existing environment are described in section 5.2.
Appendix B 2	**Construction Noise Impact Assessment**	
Appendix B 2.1	Construction Noise Impact Assessment Methodology	
Appendix B 2.1.1	The Applicant shall carry out construction noise impact assessment (excluding percussive piling) of the Project during daytime, i.e. 7am to 7pm, on weekdays other than general holidays in accordance with methodology in paragraphs 5.3 and 5.4 of Annex 13 of the TM.	Construction noise impact assessment has been described in Section 5.3.
Appendix B 2.1.2	For ground-borne construction noise impact, the Applicant shall propose assessment methodology and computational model which shall be confirmed with the Director, with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment. Site measurements at appropriate locations may be required in order to obtain the empirical input parameters required in the computational model.	A noise assessment methodology working paper was submitted to DEP for approval.
Appendix B 2.2	Identification of Construction Noise Impact	
Appendix B 2.2.1	Identification of Assessment Area and Noise Sensitive Receivers (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the construction noise impact assessment shall generally include areas within 300 metres from the boundary of the Project and the works of the Project. (b) The Applicant shall identify all existing NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out quantitative construction noise impact assessment described below. (c) The assessment points shall be confirmed with the Director prior to the commencement of the quantitative construction noise impact assessment and may be varied subject to the best and latest information available during the course of the EIA study. (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.	The assessment area has been described in Section 5.2.1.2. The first layerof NSRs in the assessment area has been selected and described in Section 5.2. A noise assessment methodology working paper was submitted to DEP for approval. The representative NSRs are shown in Figure 5.1 and Appendix 5.1.
Appendix B 2.2.2	Inventory of Noise Sources The Applicant shall identify and quantify an inventory of noise sources for representative construction equipment for the purpose of construction noise impact assessment.	The inventory of noise sources for representative construction equipment has been given in Appendix 5.2 and Section 5.3.1.
Appendix B 2.3	Prediction and Evaluation of Construction Noise Impact	
Appendix B 2.3.1	Phases of Construction The Applicant shall identify representative phases of construction that would have noticeable varying construction noise emissions at existing NSRs at the assessment area for agreement of the Director before commencing the construction noise impact assessment.	A noise assessment methodology working paper was submitted to DEP for approval.
Appendix B 2.3.2	Scenarios The Applicant shall quantitatively assess the construction noise impact, with respect to criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at different phases of construction of the Project.	The unmitigated and mitigated construction airborne noise impacts have been discussed in Sections 5.3.5 and 5.3.7 respectively. Section 5.4 presents the unmitigated construction groundbonre noise impacts. Since the Project does not involve drilling and blasting, or the use of Tunnel Boring Machine (TBM). Besides piling rigs would be used in the Project instead of percussive piling. Hence, it is anticipated that construction groundborne noise will not cause significant impact.
Appendix B 2.3.3	Prediction of Noise Impact (a) The Applicant shall present the predicted noise levels in Leq (30 min) dB(A) at the selected assessment points at various representative floor levels (in m P.D.) on tables and plans of suitable scale. (b) The assessment shall cover the cumulative construction noise impact resulting from the construction works of the Project and other concurrent projects identified during the course of the EIA study on existing NSRs within the assessment area. (c) The potential construction noise impact under different phases of construction shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM. (d) The Applicant shall, as far as practicable, formulate a reasonable construction programme so that no work will be required in restricted hours as defined under the Noise Control Ordinance (NCO). In case the Applicant needs to evaluate whether construction works in restricted hours as defined under the NCO are feasible or not in the context of programming construction works, reference should be made to relevant technical memoranda issued under the NCO. Regardless of the results of construction noise impact assessment for restricted hours, the Noise Control Authority will process Construction Noise Permit (CNP) application, if necessary, based on the NCO, the relevant technical memoranda issued under the NCO, and the contemporary conditions/situations. This aspect should be explicitly stated in the noise chapter and the conclusions and recommendations chapter in EIA report.	The predicted noise levels at various representative floor levels are presented in Appendix 5.6 and 5.8. Since there is no overlapping of noisy consturction works within assessment area, no cumulative construction noise impact is anticipated. No dwellings, classrooms and other noise sensitive receivers will exceed noise criteria with the implementaion of noise mitigation meaasures. The construction programme is given in Appendix 5.3 and no work will be required in restricted hours as defined under the Noise Control Ordinance (NCO).
Appendix B 2.4	Mitigation of Construction Noise Impact Direct Mitigation Measures Where the predicted construction noise impact exceeds the criteria set in Table 1B of Annex 5, TM, the Applicant shall consider and evaluate direct mitigation measures including but not limited to, movable barriers, enclosures, quieter alternative methods, re-scheduling, restricting hours of operation of noisy tasks, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the criteria in the TM or to maximize the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.	Section 5.3.6 describes the mitigation measures.
Appendix B 2.5	Evaluation of Residual Construction Noise Impact	

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the relevant criteria in Annex 5 of TM, the Applicant shall identify, predict, evaluate the residual construction noise impact in accordance with Section 4.4.3 of the TM and estimate the total number of existing dwellings, classrooms and other noise sensitive elements that will be exposed to residual noise impact exceeding the criteria set in Annex 5 in the TM.	With the implementation of noise mitigation measures, no exceedance over relevant construction noise criteria is predicted at the representative noise sensitive receivers.
Requirements for Water Quality Impact Assessmennt		
Appendix C 1	The Applicant shall identify and analyse physical, chemical and biological disruptions of the water system(s) arising from the construction and operation of the Project.	Section 6.3 identifies the pollution sources during both construction and operational phase. Section 6.4 and 6.5 predict and evaluate the impact during both construction and operational phase. For the construction phase, the major source of impact would from the construction activities within Yuen Long Town Nullah, construction site runoff and sewage from workforce. for operational phase, the major source of impact would be the surface runoff from the footbridge.
Appendix C 2	The Applicant shall predict, quantify and assess any water quality impacts arising from the construction and operation of the Project. Possible impacts due to the effluent discharge, biocide discharge, and site runoff shall include changes in hydrology, flow regime, sediment erosion and deposition patterns, morphological change of riverbed/seabed profile, water quality and sediment quality. The prediction shall include possible different construction stages or sequences of the Project. Affected sensitive receivers shall be identified by the assessment tool with indications of degree of severity.	Section 6.3 identifies the pollution sources during both construction and operational phase. Section 6.4 and 6.5 predict and evaluate the impact during both construction and operational phase. Section 6.2.3 identifies the water sensitive receivers.
Appendix C 3	The assessment shall include, but not be limited to the following:	
	(i) the water quality impacts of the site run-off generated during the construction stage such as the effluents generated from dewatering associated with piling activities, grouting and concrete washing and those specified in the ProPECC Practice Note 1/94;	Section 6.1.1.1 and 6.1.7 describes the ProPECC Practice Note 1/94. Section 6.3.1 identifies the pollution source during construction phase is mainly from construction activities within Yuen Long Town Nullah, construction site runoff and sewage from workforce. Section 6.4 evaluates the impact from the identified construction pollution source.
	(ii) the assessment on operation stage shall have regard to the frequency, duration, volume and flow rate of the discharges and its pollutant;	Section 6.5 evaluates the impact from surface runoff and permanent structure of the elevated pedestrain corridor during operaional phase.
	(iii) the water quality impacts during construction and operation stages of the Project;	Section 6.4 and 6.5 evaluates the water quality impacts during constrcution and operation stages of the Project.
Appendix C 4	The Applicant shall address water quality impacts due to the construction phase and operational phase of the Project. Essentially, the assessment shall address the following :	
	(i) collect and review background information on affected existing and planned water systems, their respective catchments and sensitive receivers which might be affected by the Project;	Section 6.2 collects and reviews background information on affected existing and planned water systems, their respective catchments and sensitive receivers which might be affected by the Project.
	(ii) characterize water quality of the water systems and sensitive receivers, which might be affected by the Project based on existing best available information or through appropriate site survey and tests;	Section 6.2.2 describes the existing baseline water quality conditions within the study area which was based on EPD's River Water Quality in Hong Kong 2014.
	(iii) identify and analyse relevant existing and planned future activities, beneficial uses and water sensitive receivers related to the affected water system(s). The Applicant should refer to, inter alia, those developments and uses earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans and Layout Plans, and any other relevant published landuse plans;	Section 6.2.3 identifies the water sensitive receivers in the vicinity of the site and the indicative of locations is shown in Figure 6.2.
	(iv) identify pertinent water quality objectives and establish other appropriate water quality criteria or standards for the water system(s) and the sensitive receivers identified in (i), (ii) & (iii) above;	Section 6.1.2 presents relevant WQOs. Section 6.1.3 presents Technical Memorandum for Effluents Discharge into Drainage and Sewerage Systems, Inlands and Coastal Waters.
	(v) review the specific construction methods and configurations, and operation of the Project to identify and predict the likely water quality impacts arising from the Project;	Section 6.3.1, 6.3.2, 6.4.1 - 6.4.3 reviews the specific construction methods and configurations and identify the likely water quality impacts arising from the Project. Section 6.5.1 and 6.5.2 identifies the sources and likely water quality impacts during operational phase.
	(vi) identify any alternation of any water courses, natural streams, ponds, wetlands, flow regimes of water bodies, catchment types or areas, erosion or sedimentation due to the Project and any other hydrological changes in the study area;	Since no adverse impacts is anticipated after implementation of the recommended mitigation measures during both construction and operational stage of the Project, significant hydrological changes in the study area is not anticipated.
	(vii) identify and quantify existing and likely future water pollution sources, including point discharges and non-point sources to surface water runoff, sewage from workforce and polluted discharge generated from the Project;	Section 6.3.1, 6.3.2, 6.4 and 6.5 identify existing and likely future water pollution sources.
	(viii) provide an emission inventory on the quantities and characteristics of those existing and future pollution sources in the study area. Field investigation and laboratory test, shall be conducted as appropriate to fill relevant information gaps;	Section 6.4 and 6.5 identifies the impact of these pollution sources. Pollution loading inventory and field investigation is not necessary.
	(ix) predict and quantify the water quality impacts arising from those alternations and changes identified in (vi) to (viii) above. The prediction shall take into account and include possible different construction and operation stages of the Project;	Section 6.4 and 6.5 predicts the water quality impacts at different construction and operation stages of the Project.
	(x) assess the cumulative impacts due to other related concurrent and planned projects, activities or pollution sources within the study area that may have a bearing on the environmental acceptability of the Project;	Section 6.4.4 and 6.5.3 describe the cumulateive impacts due to other related concurrent and planned projects.
	(xi) analyze the provision and adequacy of existing and planned future facilities to reduce pollution arising from the point and non-point sources identified in (vii) above;	Section 6.6 and 6.7 describes the recommended mitigation measures during both construction and operational stage. The mitigation measures are considered appropriate as no unacceptable adverse residual impact was predicted for the construction and operation phase.
	(xii) develop effective infrastructure upgrading or provision, contingency plan, water pollution prevention and mitigation measures to be implemented during construction and operation stages, including emergency sewage discharge in the case of sewage treatment works and sewage pumping stations, so as to reduce the water quality impacts to within standards. Effluent generated from the Project shall require appropriate collection, treatment and disposal to ensure that there is no net increase in pollution load to Deep Bay. Requirements to be incorporated in the Project contract document shall also be proposed;	Section 6.6 and 6.7 presents the proper mitigation measures to be implemented during constrution and operation stages.
	(xiii) investigate and develop best management practices to reduce storm water and non-point source pollution as appropriate;	Section 6.6 and 6.7 presents the proper mitigation measures to be implemented during constrution and operation stages.
	(xiv) evaluate and quantify residual impacts on water system(s) and the sensitive receivers with regard to the appropriate water quality objectives, criteria, standards or guidelines;	Section 6.8 describes the residual impacts. The mitigation measures are considered appropriate and the Project would not generate unacceptable residual water quality impacts.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
Requirements for Assessment of Waste Management Implication and Land Contamination		
The assessment of waste management implication and land contamination shall cover the following:		
Appendix D 1	Analysis of Activities and Waste Generation	
	The Applicant shall identify the quantity, quality and timing of the wastes arising as a result of the construction and operation activities of the Project based on the sequence, duration, method and process of these activities, e.g. any dredged/excavated sediment/mud, construction and demolition materials, floating refuse, sewage sludge, screening, grits, chemical waste and other wastes which will be generated during construction and operation stages. The Applicant shall adopt appropriate design, general layout, construction methods and programme to minimize the generation of public fill/inert construction and demolition (C&D) materials and maximize the use of public fill/inert C&D materials for other construction works.	Quantity, quality and timing of waste generation from construction phase (inert C&DM, non-inert C&DM, excavated sediment, chemical waste, general refuse and general sewage) is summarised in Tables 7.2. Section 7.3.1.3 - 7.3.1.5, 7.3.1.8 - 7.3.1.21 describes the generation of pulic fill/inert construction and demolition (C&D) materials.
Appendix D 2	Proposal for Waste Management (i) Prior to considering the disposal options for various types of wastes, opportunities for reducing waste generation, on-site or off-site re-use and recycling shall be evaluated. Measures that can be taken in the planning and design stages e.g. by modifying the design approach and in the construction stage for maximizing waste reduction shall be separately considered; (ii) After considering the opportunities for reducing waste generation and maximizing re-use, the types and quantities of the wastes required to be disposed of as a consequence shall be estimated and the disposal methods/options for each type of wastes shall be described. The disposal methods/options recommended for each type of wastes shall take into account the result of the assessment in Section 2 (iv) below;	Relevant construction activities and construction programme have been carefully planned and developed. The estimate amount of waste to be reuse on-site is presented in Table 7.2, Section 7.3.1.4. The opportunities for reducing waste generation and maximizing re-use is described in Section 7.3.1.3 -7.3.1.21.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	(iii) The EIA report shall state the transportation routings and the frequency of the trucks/vessels involved, any barging point or conveyor system to be used, the stockpiling areas and the disposal outlets for the wastes identified; and	Transportation routings and the frequency of the trucks/vessels involved is described in Section 7.3.1.6 - 7.3.1.7.
	(iv) The impact caused by handling (including stockpiling, labelling, packaging & storage), collection, transportation and re-use/disposal of wastes shall be addressed and appropriate mitigation measures shall be proposed. This assessment shall cover the following areas: - potential hazard; - air and odour emissions; - noise; - wastewater discharge; - ecology; and - public transport.	The evaluation of potential impacts and mitigation measures are described in Section 7.3.1 and 7.3.2.
Appendix D 3	<u>Land Contamination</u> (i) The Applicant shall identify land lots and sites within the Project boundary which, due to their past or present land uses, are potentially contaminated sites. A detailed account of the present activities and past land use history in relation to possible land contamination shall be provided.	The decription of potentially contaminated sites is presented in Section 8.2 and 8.4.
	(ii) The list of potential contaminants which are anticipated to be found in these potentially contaminated sites shall be provided and relevant remediation options shall be presented.	As no potentially contaminated sites are identified, no further investigation and remediation is required.
Appendix D 4	<u>Dredging/Excavation, Filling and Dumping</u> (i) The Applicant shall identify and quantify all excavation/dredging, excavated/dredged sediment/mud transportation and disposal activities and requirements. Potential dumping ground to be involved shall also be identified. Appropriate field investigation, sampling and chemical and biological laboratory tests to characterize the sediment/mud concerned shall be conducted. The ranges of parameters to be analyzed; the number, type and methods of sampling; sample preservation; chemical and biological laboratory test methods to be used shall be agreed with the Director (with reference to Section 4.4.2(c) of the TM) prior to the commencement of the tests and document in the EIA report for consideration. The categories of sediment/mud which are to be disposed of in accordance with a permit granted under the Dumping at Sea Ordinance (DASO) shall be identified by both chemical and biological tests and their quantities shall be estimated. If the presence of any serious contamination of sediment/mud which requires special treatment/disposal is confirmed, the Applicant shall identify the most appropriate treatment and/or disposal arrangement and demonstrate its feasibility. The Applicant shall provide supporting document, such as agreement by the relevant facilities management authorities, to demonstrate the viability of any treatment/disposal plan.	A Sediment Sampling and Testing Plan specifying the proposed site investigation procedures and the chemical and biological testing schedule has been agreed by EPD. The SSTP is annexed in Appendix 7.1. The summary of sediment sampling test and laboratory report is annexed in Appendix 7.2 and 7.3.
	(ii) The Applicant shall identify and evaluate the best practical dredging/excavation methods to minimize dredging/excavation and dumping requirements based on the criterion that existing sediment/mud shall be left in place and not to be disturbed as far as possible.	The best practical dredging/excavation method is described in Section 7.3.2.14 - 7.3.2.15.
<u>Requirements for Ecological Impact Assessment (Terrestrial and Aquatic)</u>		
Appendix E 1	In the ecological impact assessment, the Applicant shall examine the flora, fauna and other components of the ecological habitats within the assessment area. The aim shall be to protect, maintain or rehabilitate the natural environment. In particular, the Project shall avoid or minimise impacts on recognised sites of conservation importance and other ecologically sensitive areas such as the Mai Po Inner Deep Bay Ramsar Site, Wetland Conservation Area (WCA) and Wetland Buffer Area (WBA) as defined in Town Planning Board Guideline 12C and mudflats / mangrove along the embankment and at confluence of Kam Tin River and Shan Pui River. The assessment shall identify and quantify as far as possible the potential ecological impacts arising from the Project including its construction and operation phases.	The ecological characteristics of the survey area is described in Section 9.4. The evaluation of habitats and species is described in Section 9.5. Potential ecological impacts can be referred to Sections 9.6.
Appendix E 2	The assessment shall include the followings:	
Appendix E 2 (i)	Review of the findings of relevant studies/surveys and collection of the available information regarding the ecological characters of the assessment area;	The relevant studies reviewed in the Project are listed in Section 9.3.1.
Appendix E 2 (ii)	Evaluation of information collected and identification of any information gap relating to the assessment of potential ecological impact, and determine the ecological field surveys and investigations that are needed for an impact assessment as required in the following sections;	In view of the highly disturbed and urbanised nature of the Project Area and the areas within 500m distance from the Project Boundary, and comprehensive data on the ecological resources at the sites of conservation importance in the downstream area, ecological field surveys are considered not necessary, as agreed with AFCD. Nonetheless, site visits have been conducted in both dry season and wet season to verify the ecological status of the areas. The ecological assessment in Chapter 9 has been conduted based on literature review as well as observation during site visits.
Appendix E 2 (iii)	Carrying out necessary field surveys and investigations to verify the information collected in (i) above, to fill the information gaps identified and to fulfill the objectives of the EIA study;	Same as Appendix E 2 (ii).
Appendix E 2 (iv)	Establishment of the general ecological profile of the assessment area based on data of relevant previous studies/surveys and results of the ecological field surveys, if any, and description of the characteristics of each habitat found. Major information to be provided shall include :	The ecological profile is presented in Section 9.5
	(a) description of the physical environment, including all recognized sites of conservation importance and other ecologically sensitive areas, and assessment of whether these sites/areas will be affected by the Project or not;	The description of the environment is included in Section 9.2 and 9.4. The evaluation of potential imact is presented in Section 9.5.
	(b) habitat maps of suitable scale (1:1000 to 1:5000) showing the types and locations of habitats/species in the assessment area;	The Habitat Map is shown in Figure 9.2.
	(c) ecological characteristics of each habitat type such as size, type, species present, dominant species found, species diversity andabundance, community structure, seasonal pattern, ecological value and inter-dependence of the habitats and species, and presence of any features of ecological importance;	The evaluation of each type of habitat is presented in Section 9.5.
	(d) representative colour photos of each habitat type and any important ecological features identified; and	Color photos have been included the Habitat Map in Figure 9.2. No important ecological features has been identified.

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	(e) species found that are rare, endangered and/or listed under local legislation, international conventions for conservation of wildlife/ habitats or red data books.	No species of conservation importance has been identified.
Appendix E 2 (v)	Investigation and description of the existing wildlife uses of the various habitats with special attention to those wildlife groups and habitats with conservation interests, including: (a) Natural and man-made wetland habitats including mudflat, mangrove; (b) migratory and overwintering waterbirds roosting and/or feeding in the wetland habitats above; (c) breeding egrets and herons foraging in the wetland habitats above; (d) waterbirds and other wetland-dependant or associated fauna such as bent-winged firefly; and (e) any other habitats or species identified as having special conservation interests by this study.	No habitat of high conservation importance has been identified within 500m distance from the Project Boundary.
Appendix E 2 (vi)	Using suitable methodology and considering also other projects in the vicinity of the Project area reasonably likely to occur at the same time, identification and quantification as far as possible of any direct, indirect, on-site, off-site, primary, secondary and cumulative ecological impacts, reduction of species abundance/diversity, loss of feeding grounds, reduction of ecological carrying capacity, habitat fragmentation, and in particular the followings : (a) indirect ecological impacts due to changes in the water quality, hydrodynamics properties, sedimentation rates and pattern as well as hydrology. in the drainage channels, and its downstream wetland habitats in the assessment area during construction and operation phases.	The potential ecological impacts, including direct, indirect and cumulative impacts, have been evaluated in Section 9.6.
Appendix E 2 (vii)	Evaluation of ecological impact based on the best and latest information available during the course of the EIA study, using quantitative approach as far as practicable and covering construction and operation phases of the Project	As ecological survey is considered not necessary, quantitative assessment is not conducted for the asseesment.
Appendix E 2 (viii)	Recommendations for practicable mitigation measures to avoid, minimize and/or compensate for the adverse ecological impacts identified during construction and operation of the Project;	Mitigation measures are proposed in Section 9.7.
Appendix E 2 (ix)	Evaluation of the feasibility and effectiveness of the recommended mitigation measures and definition of the scope, type, location, implementation arrangement, resources requirement, subsequent management and maintenance of such measures;	Mitigation measures are proposed in Section 9.7.
Appendix E 2 (x)	Determination and quantification as far as possible of the residual ecological impacts after implementation of the proposed mitigation measures;	Evaluation of potential residual impacts is presented in Section 9.8.
Appendix E 2 (xi)	Evaluation of the significance and acceptability of the residual ecological impacts by making reference to the criteria in Annex 8 of the TM; and	No residual impact is anticipated.
Appendix E 2 (xii)	Review of the need for and recommendation on any ecological monitoring programme required.	No ecological monitoring programme is proposed.
Requirements for Landscape and Visual Impact Assessments		
Appendix F 1	The Applicant shall review relevant plan(s) and/or studies which may identify areas of high landscape value. Any guidelines on landscape and urban design strategies and frameworks that may affect the appreciation of the Project shall also be reviewed. The aim is to gain an insight to the future outlook of the area affected so as to assess whether the Project can fit into the surrounding setting. Any conflict with the statutory town plan(s) and any published land use plans shall be highlighted and appropriate follow-up action shall be recommended.	In section 10.1 and 10.2, related documents and information have been reviewed including Annexes 10 and 18 of the EIAO-TM and the EIAO Guidance Note No. 8/2010.
Appendix F 2	The Applicant shall describe, appraise, analyse and evaluate the existing and planned landscape resources and character of the assessment area. A system shall be derived for judging landscape and visual impact significance. Annotated oblique aerial photographs and plans of suitable scale showing the baseline landscape character areas and landscape resources and mapping of impact assessment shall be extensively used to present the findings of impact assessment. Descriptive text shall provide a concise and reasoned judgment from a landscape and visual point of view. The sensitivity of the landscape framework and its ability to accommodate change shall be particularly focused on. The Applicant shall identify the degree of compatibility of the Project with the existing and planned landscape setting, recreation and tourism related uses, and scenic spot. The landscape impact assessment shall quantify the potential landscape impact as far as possible so as to illustrate the significance of such impacts arising from the proposed development. Clear mapping of the landscape impact is required. A Broad Brush Tree Survey shall be carried out and the impacts on existing trees shall be addressed. Cumulative landscape and visual impacts of the Project with other committed and planned developments shall be assessed.	LR plan and photos are shown in Figure 10.1201-10.1204 while LCA plan and photos are illustrated in Figure 10.1301 -10.1302. Landscape baseline study including broad brush tree survey is discussed in Section 10.6.
Appendix F 3	The Applicant shall assess the visual impacts of the Project. Clear illustration including mapping of visual impact is required. The assessment shall include the following: (i) identification and plotting of visual envelope of the Project; (ii) identification of the key groups of existing and planned sensitive receivers within the visual envelope with regard to views from ground level and elevated vantage points; (iii) description of the visual compatibility of the Project with the surrounding and the planned setting, and its obstruction and interference with the key views of the study areas; (iv) identification of the severity of visual impacts in terms of distance, nature and number of sensitive receivers. The visual impacts of the Project with and without mitigation measures shall be included so as to demonstrate the effectiveness of the proposed mitigation measures;	Visual Envelop is shown in Figure 10.1401. Visual Sensitive Receivers Plans are shown in Figure 10.1401-1406. Visual compatibility is discussed in Table 10.5a. Details showing VSR nature, distance, number etc. are listed in Table 10.5b. Visual impacts have been evaluated for comparison before adopting mitigation or compensatory measures in Table 10.8.
Appendix F 4	The Applicant shall evaluate the merits of preservation in totality, in parts or total destruction of existing landscape and the establishment of a new landscape character area. In addition, alternative location, layout, design, built-form and construction method that will avoid or reduce the identified landscape and visual impacts shall be evaluated for comparison before adopting other mitigation or compensatory measures to alleviate the impacts. The mitigation measures proposed shall not only be concerned with damage reduction but shall also include consideration of potential enhancement of existing landscape and visual quality. The Applicant shall recommend mitigation measures to minimize adverse effects identified above, including provision of a master landscape plan.	Landscape and visual impacts have been evaluated for comparison before adopting mitigation or compensatory measures in Tables 10.8, 10.9.

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Appendix F 5	The mitigation measures shall also include the preservation of vegetation, transplanting trees in good condition and value, provision of screen planting, re-vegetation of disturbed lands, compensatory planting, design of structure, provision of finishes to structure, colour scheme and texture of material used and any measures to mitigate the impact on the existing and planned land use and visually sensitive receivers. Parties shall be identified for the on going management and maintenance of the proposed mitigation works to ensure their effectiveness throughout the construction phase and operation phase of the Project, associated works, supporting facilities and essential infrastructures. A practical programme and funding proposal for the implementation of the recommendation measures shall be provided.	Various mitigation measures have been considered. Management and maintenance parties are identified with the related mitigation measures in Table 10.6-10.7.
Appendix F 6	Annotated illustration materials such as colour perspective drawings, plans and section/elevation diagrams, annotated oblique aerial photographs, photographs taken at vantage points, and computer-generated photomontage shall be adopted to fully illustrate the landscape and visual impacts of the proposal. In particular, the landscape and visual impacts of the Project with and without mitigation measures from representative viewpoints, particularly from views of the most severely affected visually sensitive receivers (i.e. worst case scenario), shall be properly illustrated in existing and planned setting at four stages (existing condition, Day 1 with no mitigation measures, Day 1 with mitigation measures and Year 10 with mitigation measures) by computer-generated photomontage so as to demonstrate the effectiveness of the proposed mitigation measures. Computer graphics shall be compatible with Microstation DGN file format. The Applicant shall record the technical details in preparing the illustration, which may need to be submitted for verification of the accuracy of the illustration.	Annotated VSR photos are shown in Figure 10.1402-1406. The Photomontages of the proposed project without and with mitigation measures at Day 1 and Year 10, illustrating the appearance of the proposed works, and the locations of viewpoints, are shown in Drawing no. 10.1701-1719.
Requirements for Built Heritage Impact Assessment		
Appendix G	The built heritage impact assessment shall include areas within a distance of 100m from the site boundary of the Project, associated works, supporting facilities and essential infrastructures. The Applicant shall conduct a built heritage impact assessment (BHIA), taking the results of the previous studies and other background of the site into account, to identify known and unknown built heritage items within the assessment area that may be affected by the Project and its associated works and to assess the direct and indirect impacts on built heritage items. The impacts include visual impact, impacts on the fung shui/visual corridor of the historic buildings and structures through change of water-table, vibration caused by the Project. Assessment of impacts on cultural heritage shall also take full account of, and allow where appropriate, the Guidelines for Landscape and Visual Impact Assessment of Annex 18 of the TM. The Applicant shall demonstrate that all reasonable efforts have been made to avoid or keep the adverse impacts of built heritage items to the minimum through modification of design of the Project, or use of latest construction / engineering techniques. For those built heritage items that might still be directly and indirectly affected by the Project, the Applicant shall recommend practicable mitigation measures and monitoring to avoid or keep the adverse impact to the minimum. A checklist including all the affected sites of cultural heritage, impacts identified, recommended mitigation measures as well as the implementation agent and period shall also be included in the EIA report. The Applicant shall draw necessary reference to relevant sections of the "Guidelines for Cultural Heritage Impact Assessment" at Appendix G-1 for detailed requirement.	Section 11.3 presents the built heritage impact assessment within a distance of 100m from the site boundary of the Project. Section 11.2, 11.3.2, 11.4.2 summarise the baseline conditions, including desktop review and site survey. present the assessment methodology. Section 11.3.2 describes the baseline conditions. Section 11.3.3 identifies and evaluates the potential impacts. As no potential impact on built heritage resources is identified during both consturction and operational phase. No mitigation measures is required. No site of archaeological interest, government historical site and area of significant archaeological potential were identified witin the 100m assessment area. No potential impact and no archaeological survey is necessary. See compliance check in Appendix G-1.
Guidelines for Cultural Heritage Impact Assessment (as at January 2012)		
Appendix G-1	**Introduction**	
	The purpose of the guidelines is to assist the understanding of the requirements in assessing impact on archaeological and built heritage. The guidelines which will be revised by the Antiquities and Monuments Office (AMO) of the Leisure and Cultural Services Department from time to time, where appropriate, and when required should be followed in the interest of professional practice. A comprehensive Cultural Heritage Impact Assessment (CHIA) includes a baseline study, an impact assessment study associated with the appropriate mitigation measures proposed and to be implemented by project proponents.	Section 11.3 and 11.4 presents built heritage impact assessment and archaeological impact assessment.
Appendix G-1 (1)	**Baseline Study**	
Appendix G-1 (1.1)	A baseline study shall be conducted: a. to compile a comprehensive inventory of heritage sites within the proposed project area, which include: (i) all recorded sites of archaeological interest (both terrestrial and marine); (ii) all declared monuments; (iii) all proposed monuments; (iv) all buildings/ structures/ sites graded or proposed to be graded by the Antiquities Advisory Board (AAB); (v) Government historic sites identified by AMO; (vi) buildings/ structures/ sites of high architectural / historical significance and interest which are not included in items (i) to (v) above; and (vii) cultural landscapes include places associated with historic event, activity, or person or exhibiting other cultural or aesthetic values, such as b. to identify the direct and indirect impacts on the heritage sites at the planning stage in order to avoid causing any negative effects. The impacts include the direct loss, destruction or disturbance of an element of cultural heritage, impact on its settings or impinging on its character through inappropriate sitting or design, potential damage to the physical fabric of archaeological remains and historic buildings/ structures/ sites through air pollution, change of ground water level, vibration, ecological damage, new recreation or other daily needs to be caused by the new development. The impacts listed are merely to illustrate the range of potential impacts and not intended to be exhaustive.	 No site of archaeological interest and government historic site was identified within the assessment area of the Project. There is no records of declared monuments published and maintained by AMO within the 100m assessment area. There is no proposed monuments identified within the 100m assessment area. Section 11.3.2.3-11.3.2.4 presents all buildings/ structure/ sites graded or proposed to be graded by the AAB. No government historic sites identified by AMO. No other heritage resources with significant value were identified within the assessment area. No cultural landscapes were identified within the assessment area. Section 11.3.3and Table 11.1 and Table 11.2 identifies and evaluates the potential impact to the identified built heritage resources during construction and operational phase. Section 11.4 indicates that no site of archaeological interest, governemnt historic site and area of significant archaeological potential were identified within the assessment area. Thus no potential archaeological impact is anticipated.
Appendix G-1 (1.2)	The baseline study shall also include a desk-top research and a field evaluation.	Section 11.3.1 and 11.4.1 describes the baseline study which includes both desk-top research and field evaluation.
Appendix G-1 (1.3)	Desk-top Research	
Appendix G-1 (1.3.1)	Desk-top research should be conducted to analyse, collect and collate the best available information. It shall include (if applicable) but not limited to:	

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	a. List of declared and proposed monuments protected by the Antiquities and Monuments Ordinance (Chapter 53).	The desktop study has been conducted to reveal information in accordance with list of declared and proposed monuments protected by the Antiquities and Monuments Ordinance (Chapter 53). Details are in Section 11.3.2.
	b. Graded and proposed graded historic buildings/ structures/ sites.	The desktop study has been conducted to reveal information on graded and proposed graded historic buildings/ structures/ sites. Details are in Section 11.3.1.1.
	c. Government historic sites identified by AMO.	The desktop study has been conducted to reveal information on government historic sites identified by AMO. Details are in Section 11.3.1.1.
	d. Lists and archives kept in the Reference Library of AMO including sites of archaeological interest, declared monuments, proposed monuments and recorded historic buildings/ structures/ sites identified by AMO.	The desktop study has been conducted to reveal information on lists and archives kept in the Reference Library of AMO including sites of archaeological interest, declared monuments, proposed monuments and recorded historic buildings/ structures/ sites identified by AMO. Details are in Section 11.3.1.1.
	e. Publications on local historical, architectural, anthropological, archaeological and other cultural studies, such as, Journals of the Royal Asiatic Society (Hong Kong Branch), Journals of the Hong Kong Archaeological Society, AMO Monograph Series and so forth.	Details are in Section 11.3.1.1.
	f. Other unpublished papers, records, archival and historical documents through public libraries, archives, and the tertiary institutions, such as the Hong Kong Collection and libraries of the Department of Architecture of the University of Hong Kong and the Chinese University of Hong Kong, Public Records Office, photographic library of the Information Services Department and so forth.	Details are in Section 11.3.1.1.
	g. Any other unpublished archaeological investigation and excavation reports kept by AMO.	Details are in Section 11.3.1.1.
	h. Relevant information from AMO's website.	The desktop study has been conducted to reveal information on relevant information from AMO's website. Details are in Section 11.3.1.1 and 11.4.1.1.
	i. Historical documents in the Public Records Office, the Land Registry, District Lands Office, District Office and the Hong Kong Museum of History and so forth.	Not applicable.
	j. Cartographic and pictorial documents. Old and recent maps and aerial photos searched in the Map and Aerial Photo Library of the Lands Department.	Not applicable.
	k. Existing geological and topographic information (for archaeological desk-top research).	The desktop study has been conducted to reveal information on existing geological and topographic information. Details are in Section 11.4.1.1.
	l. Discussion with local informants.	Not applicable.
Appendix G-1 (1.4)	Field Evaluation	
Appendix G-1 (1.4.1)	General The potential value of the project area with regard the cultural heritage could be established easily where the area is well-documented. However, it does not mean that the area is devoid of interest if it lacks information. In these instances, site inspections and consultations with appropriate individuals or organisations should be conducted by those with expertise in local heritage to clarify the situation.	Desktop review on built heritage and a subsequent field survey were conducted to assess the potential value of the project area with regard the cultural heritage. Details of methodology are in Section 11.3.1 and impacts to cultural heritage during construction and operational phases are in Section 11.3.3.
Appendix G-1 (1.4.2)	Field survey on historic buildings/ structures/ sites a. Field scan of all the historic buildings/ structures/ sites within the project area.	Not applicable
	b. Photographic recording of each historic building/ structure/ site including the exterior (the elevations of all faces of the building premises, the roof, close up for the special architectural details) and the interior (special architectural details), if possible, as well as the surroundings, the associated cultural landscape features and the associated intangible cultural heritage (if any) of each historic building/ structure/ site.	Appendix 11.1 and 11.2 summarises the detailed description and photographs of the historic buildings.
	c. Interview with local elders and other informants on local historical, architectural, anthropological and other cultural information related to the historic buildings/ structures/ sites.	Not applicable
	d. Historical and architectural appraisal of the historic buildings/ structures/ sites, their associated cultural landscape and intangible cultural elements.	Not applicable
Appendix G-1 (1.4.3)	Archaeological Survey a. Appropriate methods for pricing and valuation of the archaeological survey, including by means of a Bill of Quantities or a Schedule of Rates should beadopted when appropriate in preparing specifications and relevant documents for calling tenders to carry out the archaeological survey. The specifications and relevant documents should be sent to AMO for agreement prior to calling tenders to conduct the archaeological survey.	A site visit has been conducted to supplement the information gathered in the desk-based study. Since the area is a highly urbanized town centre, majority of the assessment area are covered by buildings, concrete-paved roads and footpaths. The archaeological potential of the assessment area is considered as low. No archaeological field investigation is needed.
	b. For archaeologists involved in contract archaeological works, they should adhere to recognized standards for professional practice and ethical conduct in undertaking commissioned archaeological works under contracts. They should make themselves fully understand recognized principles and guidelines regarding contract archaeological works, such as those of the Institute for Archaeologists, European Associations of Archaeologists and in Mainland China.	
	c. A licence shall be obtained from the Antiquities Authority for conducting archaeological field work. It takes at least two months to process an application.	
	d. An archaeological brief/proposal, as an outline framework of the proposed archaeological works, should be prepared. The brief/proposal should clearly state the project and archaeological background, address necessary archaeological works required, elaborate the strategy and methodology adopted, including what particular research question(s) will be resolved, how the archaeological data will be collected and recorded, how the evidence will be analysed and interpreted and how the archaeological finds and results will be organized and made available. Effective field techniques including method and sampling details are required to be demonstrated clearly in the brief/proposal. Monitoring arrangement, reporting, contingency plan for field and post-excavation works and archive deposition (including finds, field and laboratory records, etc.) should also be addressed in the brief/proposal. The brief/proposal should be submitted to AMO for agreement prior to applying for a licence. Prior site visit to the project site before the submission of the brief/proposal is required so as to ascertain the feasibility of the proposed strategy and methodology as well as the availability of the proposed locations for auger survey and test pitting.	
	e. The following methods of archaeological survey (but not limited to) should be applied to assess the archaeological potential of the project area:	
	(i) Definition of areas of natural land undisturbed in the recent past.	

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	(ii) Field scan of the natural land undisturbed in the recent past in detail with special attention paid to areas of exposed soil which were searched for artifacts. (iii) Conduct systematic auger survey and test pitting. The data collected from auger survey and test pitting should be able to establish the horizontal spread of cultural materials deposits. (iv) Excavation of test pits to establish the vertical sequence of cultural materials. The hand digging of 1 x 1 m or 1.5 x 1.5 m test pits to determine the presence or absence of deeper archaeological deposits and their cultural history. (v) The quantity and location of auger holes and test pits should be agreed with AMO prior to applying for a licence. Additional auger holes and test pits may be required to ascertain and demarcate the extent of archaeological deposits and remains. (vi) A qualified land surveyor should be engaged to record reduced levels and coordinates as well as set base points and reference lines in the course of the field survey. (vii) All archaeological works should be properly completed and recorded to agreed standards. f. Archaeologists should adhere to all the agreed professional and ethical standards for archaeological works, such as the standards and guidelines of the Institute for Archaeologists, English Heritage, European Associations of Archaeologists, Society for American Archaeology and in Mainland China. g. A Marine Archaeological Investigation (MAI) following Guidelines for MAI may be required for projects involving disturbance of seabed.	
Appendix G-1 (1.4.4)	If the field evaluation identifies any additional heritage sites within the study area which are of potential historic or archaeological importance/interest and not recorded by AMO, the findings should be reported to AMO as soon as possible.	Not applicable.
Appendix G-1 (1.5)	The Report of Baseline Study	
Appendix G-1 (1.5.1)	The study report should unequivocally include all the direct and concrete evidence to show that the process of the above desk-top and field survey has been satisfactorily completed. This should take the form of a detailed inventory of the heritage sites supported by full description of their significance. The description should contain detailed geographical, historical, archaeological, architectural, anthropological, ethnographic and other relevant data supplemented with illustrations below and photographic and cartographic records, if required.	Section 11.3.2 presents the baseline conditions of the assessment area. Appendix 11.1 and 11.2 presents detailed information and photographs of those identified historic buildings. No site of archarological interest and government historic site was identified within the assessment area of the Project.
Appendix G-1 (1.5.2)	A master layout plan showing all the identified archaeological and built heritage sites within the study area should be provided in the report. All the identified heritage sites should be properly numbered with their locations indicated on the master layout plan.	Locations of those identified historic buildings are shown in Figure 11.1.
Appendix G-1 (1.5.3)	Historic Buildings/ Structures/ Sites a. A map in 1:1000 scale showing the boundary of each historic item. b. Photographic records of each historic item. c. Detailed recording form of each historic item including its construction year, previous and present uses, architectural characteristics, as well as legends, historic persons and events, cultural landscape features and cultural activities associated with the structure. d. A cross-referenced checklist including the reference number of each historic item, their photo and drawing reference, as well as the page number of the detailed recording form of each identified historic item for easy cross-checking of individual records.	This map scale has been adopted in drawings. Appendix 11.1 and 11.2 shows photographic records of each historic items. Detailed information of those identified historic buildings are shown in Appendix 11.1 and 11.2. Appendix 11.1 and 11.2 shows the reference number of each historic item, their photo and drawing reference.
Appendix G-1 (1.5.4)	Sites of Archaeological Interest a. A map showing the boundary of each site of archaeological interest as supported and delineated by field walking, augering and test-pitting. b. Drawing of stratigraphic section of test-pits excavated which shows the cultural sequence of a site. c. Reduced levels, coordinates, base points and reference lines should be clearly defined and certified by a qualified land surveyor. d. Guidelines for Archaeological Reports should be followed (Annex 1).	Not applicable since no archaeological interest and government historic site was identified within the assessment area.
Appendix G-1 (1.5.5)	A full bibliography and the source of information consulted should be provided to assist the evaluation of the quality of the evidence, including the title of the relevant material, its author(s), publisher, publication place and date. To facilitate verification of the accuracy, AMO will reserve the right to examine the full details of the research materials collected under the baseline study.	Appendix 11.1 and 11.2 shows the source of information.
Appendix G-1 (1.6)	Finds and Archives	
Appendix G-1 (1.6.1)	Archaeological finds and archives should be handled following Guidelines for Handling of Archaeological Finds and Archives (Annex 2).	Not applicable.
Appendix G-1 (1.7)	Safety Issue	
Appendix G-1 (1.7.1)	During the course of the CHIA Study, all participants shall comply with all Ordinances, Regulations and By-laws which may be relevant or applicable in safety aspect in connection with the carrying out of the CHIA Study, such as site safety, insurance for personal injuries, death and property damage as well as personal safety apparatuses, etc.	The CHIA Study are carried out in accordance with all with all Ordinances, Regulations and By-laws which may be relevant or applicable in safety aspect. Details are in Section 11.1.
Appendix G-1 (1.7.2)	A Risk Assessment for the fieldwork shall be carried out with full consideration to all relevant Ordinances, Regulations and By-laws.	The requirement has been noted.
Appendix G-1 (1.8)	Information Disclosure	
Appendix G-1 (1.8.1)	For releasing any information on the CHIA Study, the archaeologist/expert involved should strictly comply with the terms and conditions set in the contract/agreement and avoid conflict of interest.	The requirement has been noted.
Appendix G-1 (2)	Impact Assessment Study	
Appendix G-1 (2.1)	Identification of impact on heritage	
Appendix G-1 (2.1.1)	The impact assessment study must be undertaken to identify the impacts on the heritage sites which will be affected by the proposed development subject to the result of desktop research and field evaluation. The prediction of impacts and an evaluation of their significance must be undertaken by expert(s) in local heritage.	Section 11.3.3 identifies and evaluates the potential impact to the historic buildings.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
Appendix G-1 (2.1.2)	During the assessment, both the direct impacts such as loss or damage of important features as well as indirect impacts should be clearly stated, such as adverse visual impact on heritage sites, landscape change to the associated cultural landscape features of the heritage sites, temporary change of access to the heritage sites during the work period, change of ground level or water level which may affect the preservation of the archaeological and built heritage in- situ during the implementation stage of the project.	Section 11.3.3 identifies and evaluates both direct and indirect impacts.
Appendix G-1 (2.1.3)	The evaluation of cultural heritage impact assessment may be classified into five levels of significance based on type and extent of the effects concluded in the CHIA study: a. Beneficial impact: the impact is beneficial if the project will enhance the preservation of the heritage site(s) such as improving the flooding problem of the historic building after the sewerage project of the area; b. Acceptable impact: if the assessment indicates that there will be no significant effects on the heritage site(s); c. Acceptable impact with mitigation measures: if there will be some adverse effects, but these can be eliminated, reduced or offset to a large extent by specific measures, such as conduct a follow-up Conservation Proposal or Conservation Management Plan for the affected heritage site(s) before commencement of work in order to avoid any inappropriate and unnecessary interventions to the building; d. Unacceptable impact: if the adverse effects are considered to be too excessive and are unable to mitigate practically; e. Undetermined impact: if the significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required for the specific effects in question.	Table 11.1 and 11.2 evaluates the cultural heritage impact as acceptable.
Appendix G-1 (2.1.4)	Preservation in totality must be taken as the first priority as it will be a beneficial impact and will enhance the cultural and socio-economical environment if suitable measures to integrate the heritage site into the proposed project are carried out.	Preservation of cultural heritage has been carefully considered as stated in Section 11.1.
Appendix G-1 (2.1.5)	If, due to site constraints and other factors, only preservation in part is possible, this must be fully justified with alternative proposals or layout designs which confirm the impracticability of total preservation.	Preservation of cultural heritage has been carefully considered as stated in Section 11.1.
Appendix G-1 (2.1.6)	Total destruction must be taken as the very last resort in all cases and shall only be recommended with a meticulous and careful analysis balancing the interest of preserving local heritage as against that of the community as a whole. Assessment of impacts on heritage sites shall also take full account of, and follow where appropriate, paragraph 4.3.1(c), item 2 of Annex 10, items 2.6 to 2.9 of Annex 19 and other relevant parts of the Technical Memorandum on Environmental Impact Assessment (EIA) Process (Technical Memorandum).	Not applicable.
Appendix G-1 (2.2)	Mitigation Measures	
Appendix G-1 (2.2.1)	It is always a good practice to recognize the heritage site early in the planning stage and site selection process, and to avoid it, i.e. preserve it in-situ, or leaving a buffer zone around the site with full justifications demonstrating the best practice of heritage conservation.	Consideration of alternative layout is discussed in Chapter 3.
Appendix G-1 (2.2.2)	Mitigation is not only concerned with minimizing adverse impact on the heritage site but also should give consideration of potential enhancement if possible (such as to improve the access to the heritage site or enhance the landscape and visual quality of the heritage site).	Since potential impact on the identified built heritage resources is not anticipated. No mitigation measures is necessary.
Appendix G-1 (2.2.3)	Mitigation measures shall not be recommended or taken as de facto means to avoid preservation of heritage sites. They must be proved beyond all possibilities to be the only practical course of action. Heritage sites are to be in favour of preservation unless it can be demonstrated that there is a need for a particular development which is of paramount importance and outweighs the significance of a heritage site.	Since potential impact on the identified built heritage resources is not anticipated. No mitigation measures is necessary.
Appendix G-1 (2.2.4)	If avoidance of the heritage site is not possible, amelioration can be achieved by minimizing the potential impacts and the preservation of the heritage site, such as physically relocating it. Measures like amendments of the sitting, screening and revision of the detailed design of the development are required to lessen its degree of exposure if it causes visual intrusion to the heritage site and affects the character and integrity of the heritage site.	Not applicable.
Appendix G-1 (2.2.5)	A rescue programme, when required, may involve preservation of the historic building or structure together with the relics inside, and its historic environment through relocation, detailed cartographic and photographic survey or preservation of site of archaeological interest “by record”, i.e. through excavation to extract the maximum data as the very last resort.	Not applicable.
Appendix G-1 (2.3)	The Impact Assessment Report	
Appendix G-1 (2.3.1)	A detailed description and plans should be provided to elaborate on the heritage site(s) to be affected. Besides, please also refer to paragraph 4.3.1(d), items 2.10 to 2.14 of Annex 19 and other relevant parts of the Technical Memorandum and the Guidance Notes, other appropriate presentation methods for mitigation proposals like elevations, landscape plan and photomontage shall be used in the report extensively for illustrating the effectiveness of the measures.	Assessment of impacts on heritage sites have taken full account of Annex 19 of TM-EIAO as stated in Section 11.1. Section 11.3 has provided a detailed elaboration on impacts to cultural heritage during construction and operational phases.
Appendix G-1 (2.3.2)	To illustrate the landscape and visual impacts on heritage sites, as well as effects of the mitigation measures, choice of appropriate presentation methods is important. These methods include perspective drawings, plans and section/ elevation diagrams, photographs on scaled physical models, photo-retouching and photomontage. These methods shall be used extensively to facilitate communication among the concerned parties.	This should be refer to Ch.10 for landscape and visual impacts on heritage sites.
Appendix G-1 (2.3.3)	The implementation programme for the agreed mitigation measures should be able to be executed and should be clearly set out in the report together with the funding proposal. These shall form an integral part of the overall redevelopment project programme and financing of the proposed redevelopment project. Competent professionals must be engaged to design and carry out the mitigation measures.	No mitigation measures is required therefore this item is not applicable.
Appendix G-1 (2.3.4)	For contents of the implementation programme, reference can be made to Annex 20 of the Technical Memorandum and the Guidance Notes. In particular, item 6.7 of Annex 20 requires to define and list out clearly the proposed mitigation measures to be implemented, by whom, when, where, to what requirements and the various implementation responsibilities. A comprehensive plan and programme for the protection and conservation of the preserved heritage site, if any, during the planning and design stage of the proposed project must be addressed in details.	Not applicable.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
Appendix G-1 (2.3.5)	Supplementary information to facilitate the verification of the findings shall be provided in the report including but not limited to: a. layout plan(s) in a proper scale illustrating the location of all heritage sites within the study area, the extent of the work area together with brief description of the proposed works; b. all the heritage sites within the study area should be properly numbered, cross-reference to the relevant drawings and plans. c. an impact assessment cross-referenced checklist of all the heritage sites within the study area including heritage site reference, distance between the heritage site and work area, summary of the possible impact(s), impact level, summary of the proposed mitigation measure(s), as well as references of the relevant plans, drawings and photos; and d. a full implementation programme of the mitigation measures for all affected heritage sites to be implemented with details, such as by whom, when, where, to what requirements and the various implementation responsibilities of individual parties. * This Guidelines for Cultural Heritage Impact Assessment was first set out in August 2008 based on the Criteria for Cultural Heritage Impact Assessment and revised subsequently in December 2008, July 2010, October 2010, March 2011, April 2011 and January 2012.	The layout plan and brief description of the works should refer to Chapter 2. Those identified built heritage are presented in Figure 11.1-11.3, Appendix 11.1-11.2. No mitigation measures is required.
Annex 1	**Guidelines for Archaeological Reports (As at April 2011)**	Not applicable.
Annex 1-I	**General**	
	1. All reports should be written in a clear, concise and logical style. 2. All the constituent parts (text, figures, photos and specialist reports (if any)) should provide full cross-reference. Readers should be able to find their way around the report without difficulty. 3. The reports should be submitted in A4 size and accompanying drawings of convenient sizes. 4. Draft reports should be submitted to the Antiquities and Monuments Office (AMO) for comments within two months after completion of archaeological work unless otherwise approved by AMO. 5. The draft reports should be revised as required by AMO and relevant parties. The revised reports should be submitted to AMO within three weeks after receiving comments from AMO and relevant parties. 6. At least 5 hard copies of the final reports should be submitted to AMO for record purpose. 7. At least 2 digital copies of the final reports in both Microsoft Word format and Acrobat (.PDF) format without loss of data and change of appearance compared with the corresponding hard copy should be submitted to AMO. The digital copies should be saved in a convenient medium, such as compact discs with clear label on the surface and kept in protective pockets. 8. Errors are the responsibilities of the author(s) and should so far as possible be identified and rectified before submission to AMO. 9. The guidelines which will be revised by the AMO of the Leisure and Cultural Services Department from time to time, where appropriate, and when required should be followed in the interest of professional practice.	Not applicable.
Annex 1-II	**Suggested Format of Reports**	
	1. Front page: - Project/Site name - Nature of the report e.g. (Draft/Final) Archaeological Investigation/Survey Report Archaeological Impact Assessment Report Watching Brief Report Rescue Excavation Report Post-excavation Report - Organization - Date of report 2. Contents list Page number of each section should be given. 3. Non-technical summary (both in English and Chinese with approximate 150 -300 words each) This should outline in plain, non-technical language, the principal reasons for the archaeological work, its aims and main results, and should include reference to authorship and commissioning body. 4. Introduction This should set out background leading to the commission of the reports. The location, area, scope and date of conducting the archaeological work must be given. The location of archaeological work should be shown on maps in appropriate scales and with proper legends. 5. Aims of archaeological work These should reflect the aims set in the project design. 6. Archaeological, historical, geological and topographical background of the site Supporting aerial photos and maps (both old and present) in appropriate scales, with proper legends and with the site locations clearly marked on should be provided. 7. Methodology The methods used including any variation to the agreed project design should be set out clearly and explained as appropriate.	Not applicable.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	8. Results - The results should outline the findings, known and potential archaeological interests by period and/or type. Their significance and value with reference/inclusion of supporting evidence should be indicated. If more than one interpretation is possible, the alternatives should also be presented, at least in summary. - The results should be amplified by the use of drawings and photographs. - Tables summarizing features and artifacts by trench/grid/test pit together with their interpretation should be included. - The method, sampling details, results and interpretation as well as appropriate supporting data of the analysis for the environmental materials, e.g. ecofacts identified and/or collected during the fieldwork should be included. - For impact assessment, the likely effect of the proposed development on the known or potential archaeological resource should be outlined. 9. Conclusion This should include summarization and interpretation of the result. 10. Recommendation Recommendations on further work and the responsible party as well as a brief planning framework should be outlined. 11. Reference and bibliography A list of all primary and secondary sources including electronic sources used should be given in full detail, including the title of the relevant material, its author(s), publisher, publication place and date. 12. Archaeological team The director and members of the archaeological team and the author(s) of the report should be clearly specified. 13. Copyright and dissemination The copyright of the report should be clearly identified. To facilitate future research studies, please specify that the report can be made available to the public in the Reference Library of the Heritage Discovery Centre. 14. Supporting illustrations They should be clearly numbered and easily referenced to the text. They should be scanned and saved in TIFF or JPEG formats. A. Maps A location plan of the project site should be included. Archaeological work locations, such as auger hole and test pit locations (with relevant coordinates certified by a qualified land surveyor), should be clearly shown on maps in appropriate scales, with proper legends, grid references (in 8 digits) and captions. B. Drawings of test pits, archaeological features, special finds1, selected representative samples from general finds Drawings of all excavated test pits (at least one cross section of each test pit), all excavated archaeological features (both plan and cross section of each archaeological feature), all special finds identified in the excavation and selected representative samples from general finds (at least front view and section of each finds) should be included. All drawings should be clearly numbered and easily referenced to the text. The drawing scales stipulated below should be followed: Cross section and profile drawings of test pits 1:20 Archaeological feature drawings 1:10 Finds drawings 1:1 If drawings of the above stated scales are not appropriate to be incorporated into the report under certain occasions, reduced copy of the drawings with the same scales are acceptable. Proper captions, legends and indication of reduced size should be given. C. Photos of project site and the surrounding area, test pits, archaeological features, special finds, selected representative samples from general finds Photos of project site and the surrounding area, all excavated test pits (at least one cross section of each test pit), all excavated archaeological features (both plan and cross section of each archaeological feature), all special finds identified in the excavation and selected representative samples from general finds (at least front view of each of the finds) should be included. All photos should be at least in 3R size with proper captions and scales. They should be clearly numbered and easily referenced to the text. They should be scanned and saved in TIFF or JPEG formats. 15. Supporting data in appendices These should consist of essential technical details to support the result. These may include stratigraphic record of test pits and auger holes, records of general and special finds as well as ecofacts discovered with description, quantity and context number/stratigraphic sequence, result of laboratory testing, index of field archives. 16. Other professional views/comments This can reflect any issues/difficulties regarding the archaeological project observed/encountered by the archaeological team. 17. Comment and response All comments and responses from AMO and relevant parties should be attached in full.	
Annex 1-III	**Green Measures**	
	1. All reports should be of single line spacing and printed on both sides of the paper. 2. Excessive page margins should be avoided. A top/bottom margin of 2 cm and left/right margin of 2.5 cm are sufficient. 3. Use of blank paper should be avoided as far as possible. 4. Suitable font type of font size 12 should be used generally in balancing legibility and waste reduction objective.	Not applicable.
Annex 2	**Guidelines for Handling of Archaeological Finds and Archives (As at 28 November 2011)**	
Annex 2-I	**General Remark**	
	1. The guidelines which will be revised by the Antiquities and Monuments Office (AMO) of the Leisure and Cultural Services Department from time to time, where appropriate, and when required should be followed in the interest of professional practice.	Not applicable.

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	2. Please use the site code (_____)** for the archaeological project, namely _____. Licensee must use this unique site code for the whole project. ** If an archaeological project covers more than one archaeological site/location, licensee should contact the Central Archaeological Repository (CAR) at 2384 5446 or aciamoar@lcsd.gov.hk to obtain relevant site codes. 3. Licensee should contact the CAR at 2384 5446 or aciamoar@lcsd.gov.hk regarding the handover of archaeological finds and archives when post-excavation research and excavation report have been completed and accepted by the AMO. 4. If a huge quantity of similar general finds was discovered from a single archaeological project, licensee is advised to consult the AMO regarding the collecting strategy as early as possible. 5. For the preparation of archaeological finds and archives for long-term curation by the CAR, the guidelines as set out below should be followed. 6. If the licensee does not handle the finds and archives in accordance with this guidelines, the AMO may inform the project proponent to revise the relevant data. The arrangement of handover may subsequently be deferred.	
Annex 2-II	**Archaeological Finds**	
	7. Cleaning The excavated finds should be properly cleaned with water, except: (i) the finds are identified for scientific analysis; (ii) metal & organic objects (e.g. bone, wood, leather, textile objects and etc.) should not be cleaned with water. Licensee is advised to consult the AMO if in doubt. 8. Marking a. The excavated finds should be cleaned before marking object number. b. "Sandwich" technique1 should be adopted for marking permanent object number. c. Each special find should be marked with site code, context number and SF number, etc. d. Any representative samples selected from the general finds for discussion on the excavation report should be marked with site code, context number, sample number and bagged separately. e. The general finds should be marked with site code and context number. f. For the finds which are too small, organic objects (e.g. bone, wood, leather, textile objects and etc.) or have unstable surface, object number should not be marked on the object directly. These finds should be bagged separately and attached with a label containing information about the site code, context number, find number and description of find. 9. Labeling and bagging a. Two labels should be provided for each bag which contains finds, one is adhered on the surface of the bag while the other is kept inside the bag for easy reference. b. The label inside the bag should be kept separately with a smaller plastic bag so that the label can be kept much longer. c. Information about the site code, context number, test-pit number, object number (or bag number) and description of finds should be written clearly on the label. d. Finds under the same context should be bagged together. If those finds, however, have been categorized according to their typology, materials or characteristics, separate bagging is required. 10. Conservation a. To refit and reconstruct pottery vessels with appropriate adhesive. A heat and waterproof adhesive, e.g. product of H. Marcel Guest Ltd., is recommended. b. Any adhesives which are not reversible or would damage the finds should not be applied on the finds. Archaeologist is advised to consult the AMO if in doubt. 11. Finds register A standard finds register, for both special finds and general finds, with information about the find's number, name, description, quantity, type, weight, dimensions and field data should be duly filled in. Licensee should contact the CAR at 2384 5446 or aciamoar@lcsd.gov.hk to obtain the standard finds register (in Excel format). Special finds and general finds should be inputted in individual register. Both hard & soft copies (in Excel format) of the duly completed register should be handed over. 12. Sample register of eco-facts A clear sample register with information about the description of the sample, quantity, type and weight should be prepared for handover.	Not applicable.
Annex 2-III	**Field Records and Finds Processing Records**	
	13. Field records include field diary, site record for individual test pit/trench/square, context recording sheet, special finds recording sheet, soil sample & eco-facts sample recording sheet, map, survey sheet, photograph/ audio-visual records, etc. 14. Finds processing records include conservation record, measured drawings and photographs, laboratory reports, etc. 15. Measured drawing, both hard & soft copies (in pdf format), and photograph (in jpg format) of each special find should be handed over. 16. All the aforesaid records stated in paragraphs 12 to 14 should be handed over to the CAR when post-excavation research and excavation report have been completed. Please note: - all the field records should be submitted together with indexes. - the video footage should be submitted together with index describing the content of the video footage. - all the slides, colour/ black & white negatives or digital photographs should be submitted together with photo register.	Not applicable.
Annex 2-IV	**Handover of Finds**	

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
	17. Packing - Each special find should be packed and protected with tissue paper, bubble sheet or P.E. foam to avoid shocking when transporting to the repository. No packing material other than the aforesaid items should be used. - The general finds should be protected with bubble sheet or P.E. foam and packed in heavy duty plastic container. - The heavy duty plastic container, e.g. product of the Star Industrial Co., Ltd. (No. 1849 or 1852), is recommended. - For oversized finds, prior advice on packing method should be sought from the AMO. 18. Handover procedure - The licensee should make an appointment with the CAR for the handover and arrange to transport the finds and archives to the repository. - Prior to handover, licensee is required to supply with the aforesaid finds register, field records register and associated records to the CAR for checking at least three working days in advance. Exact date of handover will be arranged subsequently. - Handover forms for finds and archives should be signed by the representatives of the licensee and the AMO.	Not applicable.
Implementation Schedule of Recommended Mitigation Measures		
Appendix H	(see table below)	Not applicable.

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve

Sections of the EIA Study Brief	Specific Requirements	Compliance Check
<u>Requirements for EIA Report Documents</u>		
Appendix I - 1	The Applicant shall supply the Director with the following number of copies of the EIA report and the executive summary: (i) 30 copies of the EIA report and 30 copies of the bilingual (in both English and Chinese) executive summary as required under section 6(2) of the EIAO to be supplied at the time of application for approval of the EIA report. (ii) When necessary, addendum to the EIA report and the executive summary submitted in item (i) above as required under section 7(1) of the EIAO, to be supplied upon advice by the Director for public inspection. (iii) 20 copies of the EIA report and 50 copies of the bilingual (in both English and Chinese) executive summary with or without Addendum as required under section 7(5) of the EIAO, to be supplied upon advice by the Director for consultation with the Advisory Council on the Environment.	Noted.
Appendix I - 2	To facilitate public inspection of EIA report via EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA report and the executive summary prepared in HyperText Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later). For the HTML version, a content page capable of providing hyperlink to each section and sub-section of the EIA report and the executive summary shall be included in the beginning of the document. Hyperlinks to figures, drawings and tables in the EIA report and the executive summary shall be provided in the main text from where respective references are made. Graphics in the report shall be in interlaced GIF format.	Noted.
Appendix I - 3	The electronic copies of the EIA report and the executive summary shall be submitted to the Director at the time of application for approval of the EIA report.	Noted.
Appendix I - 4	When the EIA report and the executive summary are made available for public inspection under section 7(1) of the EIAO, the content of the electronic copies of the EIA report and the executive summary must be the same as the hard copies and the Director shall be provided with the most updated electronic copies.	Noted.
Appendix I - 5	To promote environmentally friendly and efficient dissemination of information, both hardcopies and electronic copies of future EM&A reports recommended by the EIA study shall be required.	Noted.

Sections of the TM	Specific Requirements	Compliance Check
ANNEX 20: GUIDELINES FOR THE REVIEW OF AN EIA REPORT		
1. General Approach		
Organisation of the Information		
1.1	Is information logically arranged in sections ?	The EIA has been divided into 14 chapters following the order that is presented in the EIA Study Brief. All chapters also contain sub sections following a logical order.
1.2	Is the location of information identified in an index or table of contents ?	A table of contents is provided at the beginning of the EIA report.
1.3	When information from external sources has been introduced, has a full reference to the source been included ?	References to external sources adopted by individual chapters are listed within or at the end of each individual chapter.
Presentation of Information		
1.4	Has information and analysis been offered to support all conclusions drawn ?	Air Quality – background information and impact evaluation have been given in Chapter 4 and illustrated with figures. Conclusions are drawn with the support of the above mentioned items.
		Noise – Conclusion is drawn from the findings of noise impact assessment, where quantitative analysis for construction airborne noise was carried out based on methodologies as listed out in Section 5.3.
		Water Quality – The conclusion is drawn from the findings of the water quality impact assessment and proposed measures are presented in Chapter 6.
		Waste Management - Quantity, quality, timing of waste generation from constrcuction phase and management options are summarised in Table 7.2.
		Land Contamination - The conclusion is drawn from both desktop review and site visits as presented in Chapter 8.
		Ecology - The conclusion is drawn from the analysis of information gathered from literarure review approved EIAs, published and unpublished scientific studies, and site visits. The impact evaluation is presented in Chapter 9.
		Landscape and Visual - The most current and most relevant information available has been researched and analysed to produce and support all findings and conclusions drawn in Chapter 10.
		Cultural Heritage - Information on the cultural heritage within the assessment area has been reviewed and analysis has been conducted in Chapter 11.
1.5	Has information and analysis been presented so as to be comprehensive to the non-specialist using maps, tables and graphical material as appropriate ?	Air Quality – Care has been taken to explain technical findings and keep superfluous information to a minimum. Detailed descriptions/ information are given in the appendices. Drawings have been used to illustrate the location of air sensitive receivers.
		Noise – Assessment results have been summarised in tables, against relevant noise criteria for easy comparison throughout Chapter 5. Drawings have been used to illustrate locations of construction activities and proposed mitigation measures.
		Water Quality – impact assessment has been presnented qualitatively that are easy for non-specialist readers to understand. Drawings have been used to illustrate the identified water sensitive receivers.
		Waste Management - The information has been summarised in table that are easy for non-specialist readers to understand.
		Land Contamination - Historical aerial photos are shown in Appendix 8.1 which are easy for non-specialist readers to understand.
		Ecology - Baseline infotmation was presented in form of tables and figures (Locations of recognized site of conservation importance and habitat map).
		Landscape and Visual - The information and analysis presented within the report has been clearly and logically defined in a simple and straightforward approach. Information and analysis has been illustrated and tabulated in Chapter 10 with supporting drawings shown in figures and appendix.
		Cultural Heritage - The information and analysis has been presented with maps and tables where appropriate. Maps and photos have also been presented as part of the results.

Sections of the TM	Specific Requirements	Compliance Check
ANNEX 20: GUIDELINES FOR THE REVIEW OF AN EIA REPORT		
1.6	Are all the important data and results discussed in an integrated fashion within the information ?	Air Quality – The representative air sensitive receivers are identified within Section 4.3.And the potential air quality impact was discussed in Section 4.4 and 4.6.
		Noise – Results have been presented in tables together with information integrated into detailed discussion.
		Water Quality – discussion of the results is integrated with the presentation of the data results to enable a logical discussion.
		Waste Management – The types and quantities of construction and operational wastes required to be disposed of are estimated and the disposal methods are summarised in Chapter 7.
		Land Contamination – Past land uses history were reviewed with the aid of records received from relevant government departments and historical aerial photographs in Chapter 8. Present land use and site reconnaissance surveys were undertaken to identify the present land use.
		Ecology – The evaluation of ecological importance of the key habitats/sites of conservation importance were conducted base on the integration of baseline information collected from literature review and site visits as presented in Chapter 9. The impact evaluation was carried out based on the ecological evaluation
		Landscape and Visual – All important data and findings are discussed clearly and logically within the report with the use of drawings, tables and clearly articulated text in Chapter 10.
		Cultural Heritage – Discussion of literature review data and summary results have been presented with the information integrated into the discussion in Chapter 11.
1.7	Has superfluous information (ie information not needed for the decision) been avoided ?	Air Quality – superfluous information has been avoided and is not included in the air quality impact assessment.
		Noise – Superfluous information has been to avoided in Chapter 5.
		Water Quality – Unnecessary information has been removed from the chapter.
		Waste Management – Only the necessary information has been presented in the chapter.
		Land Contamination – Information not needed for the decision has not been discussed.
		Ecology – The technical information and details of the literature review and site visit findings were provided in Figures where appropriate. Key findings were summarised in the main text to avoid superfluous information.
		Landscape and Visual – The Landscape and Visual Impact assessment does not include any unnecessary information
		Cultural Heritage – the information presented in the assessment are considered to be required as per EIA Study Brief requirements, and unnecessary information have been avoided.
1.8	Has the information been presented in a concise form with a consistent terminology and are there logical links between different sections ?	Air Quality – The information been presented in a concise form with consistent terminology and logical links among different sections.
		Noise – Information has been presented in a concise form and uses the same terminology throughout the chapter. Relevant links have been provided to refer between different sections.
		Water Quality – The structure of the chapter follows the standard structure of the EIA report and uses the same terminology. The chapter is presented in a logical order and where applicable, relevant links are provided to refer between sections.
		Waste Management – The chapter is discussed in accordance to Annex 7 and 15 of the TM.
		Land Contamination – The chapter is discussed in accordance to Sections 3.1 and 3.2 of Annex 19 of the TM.
		Ecology – The structure of the chapter follows the standard structure of the EIA report and uses the same terminology. The chapter is presented in a logical order and where applicable, relevant links are provided to refer between sections and chapters.
		Landscape and Visual –The report has been rationally formatted in order to present a concise and reasoned assessment. Consistent terminology is use throughout the chapter and references to other sections of the report have been provided.
		Cultural Heritage – The information has been presented in a consistent form and are kept concise where possible. References have been provided to link between different sections where necessary.

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1.9	Have prominence and emphasis been given to severe adverse impacts, to substantial environmental benefits, and to controversial issues ?	Air Quality – No adverse impacts are anticipated during both construction and operation phases. Initiatives to reduce air pollutant emissions from construction activities and operations, which can help alleviate the air quality impacts, have been appropriately discussed in Chapter 4.
		Noise – With implementation of noise mitigation measures recommended in the EIA report, no adverse impacts, substantial environmental benefits, and controversial issues for noise impacts are anticipated.
		Water Quality – No adverse impact is anticipated.
		Waste Management– No adverse impact is anticipated.
		Land Contamination – No adverse impact is anticipated.
		Ecology – With implementation of the mitigation measures recommended in the EIA report, no residual impact is anticipated.
		Landscape and Visual – Severe adverse impacts on the landscape and visually sensitive receivers have been discussed thoroughly in Chapter 10.
		Cultural Heritage – No adverse impact is anticipated.
1.10	Is the information objective ?	Air Quality – Information is based on best available data and is objective.
		Noise – Information adopted for various noise assessments such as construction plant inventory have been reviewed by relevant government department / authorities.
		Water Quality – Qualitative assessment is based on data which have been verified and agreed from the project engineers.
		Waste Management – Information is based on best available data and is objective.
		Land Contamination – Information is based on best available data and site observations and is objective.
		Ecology – Both quantitative and qualitative assessments are based on data from approved EIAs, EM&A reports and updated site visits conducted. Data from other projects are taken from published sources or are based on information provided by the respective project proponents.
		Landscape and Visual – Information provided in the assessment is quantified (where possible), qualitative, and factual. The assessment findings have been carefully considered with conclusions reflecting an objective assessment.
		Cultural Heritage – The assessment has taken into account the findings of the desktop review and site visits to determine the cultural heritage and archaeological
Public Concerns		
1.11	Does the information identify and address the main concerns of the general public and special interest groups (clubs, societies etc) who may be affected by the project.	Air Quality – Key concerns relating to air pollution and representative air sensitive receivers within the assessment areas have been taken into consideration. Impacts on the sensitive receivers due to the key pollutants have been assessed against the relevant legal requirements.
		Noise – Potential noise impacts from construction noise, road traffic noise, fixed noise, aircraft noise, rail noise, helicopter noise and marine traffic noise on the identified NSRs have been assessed against relevant criteria.
		Water Quality – the main water quality concerns have been addressed in the water quality impact assessment.
		Waste – The information identifies and address the main concerns of the general public who may be affected by the project.
		Land Contamination – The information identifies and addresses the main concerns of the general public who may be affected by the project.
		Ecology – literature reviews and ecological surveys were conducted to collect baseline information for the support of impact assessment to address the general public concerns.
		Landscape & Visual – The assessment addresses the main concerns of the general public affected by the project. The general public are included as visually
		Cultural Heritage – no adverse impact is anticaipted regarding cultural heritage.

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1.12	Does the information take account of the main concerns of the relevant statutory or advisory bodies.	Air Quality – the methodology of the assessment followed the EIAO-TM and the EIA Study Brief requirements and has been agreed by the relevant statutory and advisory bodies.
		Noise – The noise impact assessment have strictly followed the EIA Study Brief requirement and EIAO-TM. Advisory comments from EPD and other relevant statutory bodies have been taken into consideration in all noise impact assessments.
		Water Quality – the main concerns of the statutory and advisory bodies have been accounted for in the water quality impact assessment
		Waste – The waste managenment implication have strictly followed the EIA Study Brief requirement and EIAO-TM. Advisory comments from EPD and other
		Land Contamination – The Sediment Sampling and Testing Plan (SSTP) is submitted to DEP for endorsement as shown in Appendix 7.1 and information of dangerous goods storage, fire and accidential spillage incidents from FSD are shown in Appendix 8.2.
		Ecology – The statutory and advisory bodies have been consulted during the course of the EIA
		Landscape & Visual – The relevant statutory and advisory bodies have provided comment on the LVIA chapter, such comments were taken into account when revising the text. The assessment addresses the main concerns of the relevant statutory and advisory bodies.
		Cultural Heritage – relevant statutory and advisory bodies have been consulted as part of the submission of the draft EIA reports, and comments from various parties have been addressed.
2. Description of the Project		
Features of the Project		
2.1	Are the purpose(s) and objectives of the project explained ?	The purpose and objectives of the project have been explained in Chapter 1 and 2.
2.2	Are the nature and status of project decision(s), for which the EIA study is undertaken, clearly indicated ?	The main components of the project for which the EIA study is undertaken has been described in Section 2.1.
2.3	Is the estimated duration of the construction phase, operational phase and, where appropriate, decommissioning phase given, together with the programme within these phases ?	The estimated duration and programme for the project is described and presented in Section 3.6.
2.4	Is the design and size of the project described, using diagrams, plans and/or maps as necessary ?	The design and size of the project is presented in Chapter 2 and 3. Figures and drawings have been used in Chapter 2 and 3 to illustrate this.
2.5	Are the methods of construction described ?	Construction methodologies are described in Section 3.5.
2.6	Are the nature and methods of production or other types of activity involved in operation of the project described ?	The nature of operation of the project is described in Section 1.1.
2.7	Has the land taken up by the project site(s), construction sites, and any associated access arrangements, auxiliary facilities and landscaping areas, been clearly shown on a scaled map?	The project boundary and main components are clearly shown in Figure 2.1 to 2.3.

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2.8	For a linear project, has the land corridor, vertical and horizontal alignment and need for tunnelling, and earthworks been described ?	Not applicable.
2.9	Have the uses to which the project will be put been described and the different land use areas demarcated ?	The uses of the project and different land areas are described in Section 2.1 and presented in Figures 2.1 to 2.3.

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Residues and Emissions		
2.10	Have the types and quantities of waste matter, energy (noise, vibration, light, heat, radiation etc) and residual materials generated during construction and operation of the project, and the rate at which these will be produced, been	Air Quality – the key activities that would potentially result in dust and odour emissions during construction and operational phase of the project have been identified.
		Noise – Noise impacts generated throughout the construction period have been estimated quantitatively based on the type and quantity of powered mechanical equipment expected to be used for scheduled construction activities.
		Water Quality – Types of wastewater from various construction activities, concurrent projects and operational phase have been estimated and evaluated.
		Waste – Quantity, quality and timing of waste generation from construction phase and operational phases are summarised in Table 7.2.
		All other technical chapters – not applicable
2.11	Have the ways in which it is proposed to handle and/or treat these wastes and residual materials prior to release/disposal been indicated, together with the routes	Air Quality – Dust and odour contorl measures have been discussed in Section 4.4.3.
		Noise – Measures to reduce construction airborne noise impact are proposed and discussed in Chapter 5.3.6
		Water Quality – the proposed handling method of the wastewater generated during construction and operation phase has been identified.
		Waste – Transportation routings for construction wastes isdescribed in Section 7.3. and
		All other technical chapters – not applicable
2.12	Have any special or hazardous wastes which will be produced been identified as such and the methods for their disposal been described, as regards their likely main environmental impacts?	Waste – Chemical waste to be generated from construction phase and disposal method are discussed in Sections 7.3.
		All other technical chapters – not applicable
2.13	Have the means by which the quantities of residuals and wastes were estimated been indicated and has uncertainty been acknowledged and ranges provided where appropriate ?	Not applicable.
3. Background and History of the Project		
3.1	Where appropriate does the information include reference to the consideration of the project's siting or alignment by the project proponent ?	Consideration of alternatives for Project elements and construction methodologies are presented in Chapter 3.
3.2	Are the reasons for selecting the proposed project or its siting and alignment, and the part environmental factors played in the selection, adequately described ?	The reasons for selecting the preferred option are presented in Section 3.3 to 3.4.

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3.3	Have the main environmental impacts of different siting or alignment options been compared clearly and objectively with those of the proposed project and with the likely future environmental conditions in the absence of the project ?	The main environmental impacts of alternatives have been clearly compared in Section 3.3 to 3.4. The likely future environmental conditions in the absence of the project is discussed in Section 2.3.6.

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4. Description of the Environment		
Description of the Area Occupied by and Surrounding the Project		
4.1	Have the areas expected to be significantly affected by the various aspects of the project been indicated with the aid of suitable maps ?	Air Quality – Locations of representative air sensitive receivers within the assessment areas is shown in Figure 4.1.
		Noise – Potential affected areas and locations of noise sensitive receivers identified is shown in Figure 5.1 and Appendix 5.1.
		Water Quality – The potentially affected water sensitive receivers are shown in Figure 6.1 in Chapter 6.
		Waste – The proposed sediment sampling locations is shown in Figure 7.1 in Chapter 7.
		Land Contamination – Aerial photographs are used for review of past land uses and are discussed in Chapter 8 as well as shown in Appendix 8.1.
		Ecology – The locations of recognized sites of conservation importance and habitat map are shown in figures in Chapter 9.
		Landscape and Visual – The areas to be affected by the project have been clearly illustrated at appropriate scales on figures in Chapter 10.
		Cultural Heritage – The assessment area for built heritage resources have been indicated in figures in Chapter 11.
4.2	Have the land uses on the site(s) and in the surrounding areas been described ?	Air Quality – Existing land uses on the sites and in the surrounding areas have been described in Sections 4.3.
		Noise – Existing land uses on the site and in the surrounding areas been described in Section 5.2.
		Water Quality – Baseline condition has been described in Section 6.2.
		Waste – Description of the environment has been described in Section 7.2.
		Land Contamination – The review of historical land use and geology, site visit were included in Section 8.2.
		Ecology – The description of the environment, ecological characterisitcs of the survey area were described in Sections 9.2, 9.4, Figure 9.1 to 9.2.
		Landscape and Visual – The baseline information has been described in Section 10.6.
		Cultural Heritage – The baseline conditions of the site and surrounding areas including land use have been reviewed and presented in Section 11.2.
4.3	Has the affected environment been defined broadly enough to include any potentially significant effects occurring away from the immediate areas of construction and operation ?	Air Quality – According to the EIA Study Brief, the construction and operational phase air quality impacts are assessed within the 500 m assessment area from the project boundary. Such assessment areas are adequate to cover potentially significant effects occurring away from the immediate areas of construction and operation.
		Noise – The assessment areas for noise assessment was defined in accordance with the EIA Study Brief or proposed and was agreed by EPD.
		Water Quality – The study area of the water quality impact assessment follows the requirements of the EIA Study Brief.
		Waste – The affected environment been defined broadly enough to include any potentially significant effects occurring away from the immediate areas of construction and operation.
		Land Contamination – The affected environment been defined broadly enough to include any potentially significant effects occurring away from the immediate areas of construction and operation.
		Ecology – The study area of the ecological impact assessment follows the requirements of the EIA Study Brief.
		Landscape and Visual – The limit of the landscape impact study was based on the EIA study brief.
		Cultural Heritage – The cultural heritage assessment is based on the 100m assessment area fromt the project boundary.

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Baseline Conditions		
4.4	Have the components of the environment potentially affected by the project been identified and described sufficiently for the prediction of impacts ?	Air Quality – Baseline concentrations of relevant air pollutants in the project area in past five years have been reviewed in Sections 4.2.
		Noise – The potential noise sources of the project have been identified and described in Section 5.3.1.
		Water Quality – The potential sources of water quality impact due to the project have been identified and described in Section 6.3.
		Waste – The components of the environment potentially affected by the project have been identified and described sufficiently for the prediction of impacts.
		Land Contamination – The components of the environment potentially affected by the project have been identified and described sufficiently for the prediction of impacts.
		Ecology – Baseline conditions were summarised in Section 9.2 and 9.4.
		Landscape and Visual – Landscape resources, landscape character areas and visual sensitive receivers has been identified in Section 10.6.
		Cultural Heritage – Cultural heritage resources that may be affected by the project have been identified in Section 11.3 and have been described in sufficient detail to enable prediction of impacts.
4.5	Were the methods used to investigate the affected environment appropriate to the size and complexity of the assessment task ?	Air Quality – The impact evaluation was in accordance to EIAO-TM Annex 4 and Annex 12.
		Noise – The method used to investigate the construction airborne noise follows the EIA Study Brief requirements. Method used for noise assessment is internationally adopted, in accordance with EIA Study Brief requirements, and agreed with EPD.
		Water Quality – Qualitative assessment follows the EIA Study Brief requirements.
		Waste – The waste assessment was in accordance with relevant regulations, associated guidance notes and EIA Study Brief requirements.
		Land Contamination – The methods used to evaluate the land contamination include desktop review and site visits.
		Ecology – The impact evaluation was in accordance to EIAO-TM Annexes 8 and 16.
		Landscape and Visual – The LVIA chapter presents an assessment of the potential landscape and visual impacts in accordance with the TM-EIAO and the requirements of the EIA Study Brief. The methods used to investigate the affected landscape and visual environment were appropriate to the size and complexity of the project. The methods included site visits and desk-top studies of topographical maps, information databases, approved EIAs of the committed projects and aerial photographs.
		Cultural Heritage – The methods used to investigate built heritage items include desktop review and relevant surveys within the project.
4.6	Has a prediction of the likely future environmental conditions in the	Air Quality – Future ambient air quality in Section 4.2.2.
		All other technical chapters – not applicable

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4.7	Have existing technical data sources, including local records and studies carried out for environmental agencies and/or interest groups been searched ?	Air Quality – Historical air pollutant data from relevant EPD's air quality monitoring stations has been identified for reference.
		Noise – Existing data sources of PME's SWLs have been adopted from EPD.
		Water Quality – Existing data sources have been reviewed as part of baseline conditions.
		Waste Management – The existing technical data sources have been searched.
		Land Contamination – The existing aerial photos have been searched.
		Ecology – The literature review has covered both approved EIAs, EM&A, published and non-published scientific studies, records from non-government organisations.
		Landscape and Visual – Existing technical data sources, including local records and studies have been researched and considered in the landscape and visual impact assessment.
		Cultural Heritage – Existing data sources from various published records have been reviewed as part of the baseline review.
4.8	Have local, regional and national plans and policies been reviewed and other data collected as necessary to predict future environmental conditions ?	Air Quality – The local, regional and national plans and policies have been reviewed and mentioned in Section 4.1.
		Noise – Local, regional and national plans and policies have been reviewed and other data has been collected in Section 5.1.
		Water Quality – Relevant data have been reviewed and mentioned in Section 6.1
		Waste Management – The local, regional and national plans and policies have been reviewed and mentioned in Section 7.1.
		Land Contamination – The local, regional and national plans and policies have been reviewed and mentioned in Section 8.1.
		Ecology – The local, regional and national plans and polices been reviewed and mentioned in Section 9.1.
		Landscape and Visual – The local, regional and national plans and policies have been reviewed and mentioned in Section 10.2.
		Cultural Heritage – The local, regional and national plans and policies have been reviewed and mentioned in Section 11.1.
4.9	Have relevant departments and agencies holding information on baseline environmental conditions been approached ?	Air Quality – EPD has been approached to collect the relevant historical air pollutant monitoring data of the project area.
		Noise – Not applicable.
		Water Quality – Information from EPD's monitoring stations are publically available and have been obtained for determining baseline conditions.
		Waste – Not applicable.
		Land Contamination – FSD has been contacted for fire/chemical spillage records. EPD has been contacted for chemical waste producer and incident record. The correspondences with government departments are shown in Appendix 8.2.
		Ecology – DSD, scientific studies from non-government organisation have been approached in seeking for baseline information.
		Landscape and Visual – Relevant departments and agencies have been approached to receive applicable information regarding the baseline conditions and concurrent projects for the landscape and visual impact assessment.
		Cultural Heritage – Information from AMO's databases have been searched and reviewed as part of the baseline reivew.

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5. Description of Impacts		
5.1	Have the direct and indirect/secondary effects of constructing, operating and, where relevant, after use or decommissioning of the project been considered (including both positive and negative effects) ?	Air Quality – Both the direct and cumulative effects of constructing and operating the project have been considered.
		Noise – Direct noise impacts of the project have been considered in Chapter 5.
		Water Quality – Direct and cumulative impacts from the project has been considered in Chapter 6.
		Waste – The impact of waste generation from construction and operation phase are discussed in Chapter 7.
		Land Contamination – Not applicable.
		Ecology – Direct and indirect impacts from construction and operation phase have been identified in Chapter 9.
		Landscape and Visual – The direct and indirect impact of the construction and operating phases of the project have been considered in the assessment in Chapter 10.
		Cultural Heritage – Direct and indirect impact on cultural heritage resources have been considered as part of the impact assessment in Chapter 11.
5.2	Does the information include consideration of whether effects will arise as a result of "consequential" development ie whether additional development, which it would be difficult to resist, will be included in the area, leading to further environmental effects ? For a project with multiple stages, are the impacts caused by overlapping of different stages considered and determined?	All the development stages have been considered.
5.3	Have the above types of impacts been investigated in so far as they affect the following: - air and climate; - water and soils; - noise; - landscape; - ecology;	Air Quality – Air quality impacts due to the project have been assessed in Chapter 4.
		Noise – Noise impacts have been investigated in Chapter 5.
		Water Quality - Impacts to water quality have been investigated and addressed in Chapter 6
		Waste Management – Impact assessment of the waste generation has been carried out and discussed in Chapter 7.
		Land Contamination – Impact assessment has been carried out and discussed in Chapter 8.
		Ecology – The impact have been investigated and addressed in Chapter 9.
		Landscape and Visual – The impacts on the landscape have been investigated in Chapter 10.
		Cultural Heritage– The impacts to cultural heritage have been investigated in Chapter 11.

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5.4	If any of the above are not of concern in relation to the specific project and its location is this clearly stated in the information ?	All of the above are of potential concern in relation to the project and have been evaluated accordingly.
5.5	Is the investigation of each type of impact appropriate to its importance for the decision, avoiding unnecessary information and concentrating on the key issues ?	Air Quality – The investigation of air quality impact has been carried according to the EIA Study Brief requirements and is therefore appropriate to its importance for the decision. Chapter 4 has been prepared to focus on the key air quality issues and to avoid unnecessary information.
		Noise – The significance and importance of each type of noise impact has been considered to determine the level of investigation and hereby focusing on the key issues and avoiding presentation of unnecessary. Information such as detailed predicted noise levels at each NSR have been moved to appendix and the main text are concentrating on the key issues.
		Water Quality – The level of investigation of each type of impact has taken into account the significance of that impact. Assessments focus on the key compliance requirement and unnecessary information / results have been avoided.
		Waste Management – The investigation of each type of impact is appropriate to its importance for the decision, avoiding unnecessary information and concentrating on the key issues.
		Land Contamination – Not applicable.
		Ecology – The investigation of each type of impact was focused on the key ecological sensitive receivers and habitats.
		Landscape and Visual – The investigation for each impact is appropriate outlined in Chapater 10.
		Cultural Heritage – The investigation has focused on built heritage items.
5.6	Are impacts which may not be themselves significant, but which may contribute incrementally to a significant effect considered ?	Air Quality – During the construction phase, the cumulative air quality impacts due to construction works of the project and the concurrent projects have been evaluated.
		Noise – Cumulative noise impacts have been considered.
		Water Quality – Cumulative impacts have been considered and incorporated into relevant assessments.
		Waste – All the impacts related to waste management are considered in Chapter 7.
		Land Contamination – Not applicable.
		Ecology – Cumulative impacts were also assessed in Chapter 9.
		Landscape and Visual – All landscape and visual impacts have been considered and reflected in the findings of the assessment in Chapter 10.
		Cultural Heritage – Impacts to cultural heritage due to the project have been considered and reflected in the findings of the assessment.
5.7	Does the information include a description of the methods/approaches used to identify impacts and the rationale for using them ?	Air Quality – The assessment methodology follows Annex 4 and Annex 12 of the TM and is described in Section 4.3.
		Noise – The methods / approaches used to identify impacts and the rationale for using them are described in Section 5.3.
		Water Quality – The assessment methodology follows as Annex 6 and Annex 14 of the TM and is described in Section 6.3 to Section 6.5.
		Waste Management – The assessment methodology follows as Annex 7 and Annex 15 of the TM
		Land Contamination – not applicable.
		Ecology – The methodology for ecological impact assessment is described in Section 9.3.
		Landscape and Visual – The methodology for landscape and visual impact assessment is described in Section 10.3.
		Cultural Heritage – The methods and approaches used to identify cultural heritage resources and site of archaeological interest are described in Section 11.3 and 11.4.

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5.8	If the nature of the project is such that accidents are possible which might cause severe damage within the surrounding environment, has an assessment of the probability and likely consequences of such events been carried out and the main findings reported ?	Not applicable in this Project.
Magnitude of Impacts		
5.9	Are impacts described in terms of the nature and magnitude of the change occurring and the nature (location, number, value, sensitivity) of the affected receiver ?	Air Quality – During both construction and operation phases of the project, the predicted air quality impacts at the identified air sensitive receivers have been assessed against the relevant criteria and standards. Details of the assessment findings are presented in Sections 4.3 to 4.5.
		Noise – Predicted construction airborne noise impact at the identified noise sensitive receivers has been quantitatively assessed in Section 5.3.
		Water Quality – The impact assessment has been presented in Section 6.4 and 6.5.
		Waste Management – Quantity, quality and timing of waste generation from construction phase are summarised in Section 7.3.
		Land Contamination – Not applicable.
		Ecology – The impact assessment has been presented in Section 9.6.
		Landscape and Visual – The landscape and visual impact assessment describes these in Sections 10.7 and 10.8.
		Cultural Heritage – The impact assessment for construction and operation phase are described in Sections 11.3 and 11.4.
5.10	Has the timescale over which the effects will occur been predicted such that it is clear whether impacts are short, medium or long term, temporary or permanent, reversible or irreversible?	Air Quality – The timescale of the effects has been presented in Section 4.3 to 4.5.
		Noise – The timescale of the effects has been presented in Section 5.3.
		Water Quality – The timescale of the effects has been presented in Section 6.4 and 6.5.
		Waste – The timescale of the effects has been presented in Section 7.3.
		Land Contamination – Not applicable.
		Ecology – The timescale of the effects has been presented in Section 9.6.
		Landscape and Visual – The timescale of the effects has been presented in Section 10.7 and 10.8.
		Cultural Heritage – The timescale of the effects has been presented in Section 11.3 and 11.4.

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5.11	Where possible, have predictions of impacts been expressed in quantitative terms ? Otherwise, have qualitative descriptions been defined ?	Air Quality – Due to the insignificant impact, only qualitative assessment has been conducted.
		Noise – Construction airborne noise impact has been assessed quantitively.
		Water Quality – Only qualitative assessment has been conducted.
		Waste – The quantities of waste to be generated in construction phase is identified in Section 7.3.
		Land Contamination – Not applicable.
		Ecology – Qualitative assessment has been conducted.
		Landscape and Visual – Quantitative impacts have been predicted where possible based on the assessment findings. Qualitative descriptions have also been provided where quantification is not feasible.
		Cultural Heritage – The number of potentially affected cultural heritage resources are quantified.
5.12	Where quantitative predictions have been provided is the level of uncertainty attached to the results described ?	Air Quality – Not applicable.
		Noise – Worst case scenario has been adopted in noise impact assessment.
		Water Quality – Not applicable.
		Waste – Estimates of waste quantities due to the project are based on engineers' practical estimation, which are the best available information at the time.
		Land Contamination – Not applicable.
		Ecology – Not applicable.
		Landscape and Visual – Quantitative predictions are based on worst case scenario.
		Cultural Heritage – The assessment is based on the best available information.
Data and Methods		
5.13	Have the methods used to predict the nature, size and scale of impacts been described and are they appropriate to the importance of each projected impact ?	Air Quality – The methods used to predict the nature, size and scale of air quality impacts are developed according to the EIA Study Brief requirements.
		Noise – The methods / approaches used to identify impacts and the rationale are described in Section 5.3.2 to 5.3.4 and are in accordance with the EIA Study Brief requirements and/or agreed with relevant statutory bodies.
		Water Quality – The methods adopted to predict the water quality impacts follow the requirements of the EIA Study Brief.
		Waste – The assessment methodology of the waste management issues associated with construction and operation phases is described in Section 7.2.
		Land Contamination – The assessment methodology of land contamination issues associated with construction phase is described in Section 8.2.
		Ecology – The methods used to predict the nature, size and scale of impacts been described in Section 9.3 and in accordance to EIAO-TM Annex 8.
		Landscape and Visual – The methodology for the predictions is in accordance with the Environmental Impact Assessment Ordinance (EIAO), the Technical Memorandum on EIA Process (TM-EIAO) and the requirements of the EIA Study Brief and is described in Section 10.3.
		Cultural Heritage – Methods used for cultural heritage and archaeological impact assessment are presented and described in Section 10.3 and 10.4. The methodology follows the requirements specified in the EIA Study Brief.

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5.14	Are the data used to estimate the size and scale of the main impacts sufficient for the task, are they clearly described and have their sources been clearly identified ?	The data has been used to estimate the size and scale of the main impacts. The impacts have been clearly described and their sources have been clearly identified.
6. Mitigation		
Description of		
6.1	Has the mitigation of significant negative impacts been considered and, where feasible, have specific measures been proposed to address each impact ?	Air Quality – Specific and practicable dust and odour control measures during the construction phase have been recommended, as detailed in Section 4.4.
		Noise – Mitigation measures have been considered and proposed to alleviate predicted noise impacts, and are discussed in Sections 5.3.
		Water Quality – Specific mitigation measures have been recommended to address relevant impacts. These are listed in Sections 6.6 and 6.7.
		Waste Management – Mitigation measures for both construction phase and operation phase for each type of waste to be generated are identified in Section 7.3 and 7.4.
		Land Contamination – Not applicable.
		Ecology – Mitigation measures was specified in Section 9.7.
		Landscape and Visual – Mitigation measures for adverse impacts has been proposed and included in the report. Mitigation measures for both landscape and visual impacts are described in Section 10.9.
		Cultural Heritage – Not applicable.
6.2	Have the reasons for choosing the particular type of mitigation, and the other options available, been described ?	Air Quality – The construction phase dust and odour control measures are recommended based on the impact evaluation, as detailed in Sections 4.4.3.
		Noise – Proposed noise mitigation measures are standard measures that have been proposed in past EIAs and are well established and accepted.
		Water Quality – The mitigation measures proposed are generally standard measures that are well established and accepted.
		Waste – The reasons for choosing mitigation measures for each type of waste to be generated from the project are identified under Section 7.3 and 7.4.
		Land Contamination – Not applicable.
		Ecology – Mitigation measures was specified in Section 9.7.
		Landscape and Visual – The reasons for choosing mitigation measures are described in Section 10.9.
		Cultural Heritage – Not applicable.

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6.3	Where mitigating measures are proposed, has the significance of any impact remaining after mitigation been described ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
6.4	Where appropriate, do mitigation methods considered include modification of project design, construction and operation, the replacement of facilities/resources, and the creation of new resources, as well as "end-of-pipe" technologies for pollution control ?	Air Quality – The construction phase mitigation measures are recommended based on the impact evaluation, as detailed in Sections 4.4.3. Noise – Proposed noise mitigation measures are standard measures that have been proposed in past EIAs and are well established and accepted. Water Quality – The mitigation measures proposed are generally standard measures that are well established and accepted. Waste – The reasons for choosing mitigation measures for each type of waste to be generated from the project are identified under Section 7.3 and 7.4. Land Contamination – Not applicable. Ecology – Mitigation measures was specified in Section 9.7. Landscape and Visual – The reasons for choosing mitigation measures are described in Section 10.9. Cultural Heritage – Not applicable.
6.5	Is it clear to what extent the mitigation methods will be effective ?	Air Quality – The construction phase mitigation measures are recommended based on the impact evaluation, as detailed in Sections 4.4.3. Noise – Proposed noise mitigation measures are standard measures that have been proposed in past EIAs and are well established and accepted. Water Quality – The mitigation measures proposed are generally standard measures that are well established and accepted. Waste – The reasons for choosing mitigation measures for each type of waste to be generated from the project are identified under Section 7.3 and 7.4. Land Contamination – Not applicable. Ecology – Mitigation measures was specified in Section 9.7. Landscape and Visual – The reasons for choosing mitigation measures are described in Section 10.9. Cultural Heritage – Not applicable.
6.6	Where the effectiveness is uncertain or depends on assumptions about operating procedures, climatic conditions, etc, or where there is a risk that mitigation will not work, is this made clear and has data been introduced to justify the acceptance of the assumptions ?	Air Quality – The effectiveness of the proposed mitigation measures were justified with experience. Noise – Worst case scenario and conservative approach has been adopted in noise impact assessment. Monitoring of the effectiveness of mitigation measures have been proposed in the EM&A Manual. Water Quality – All the recommended mitigation measures have been assessed to be effective in achieving compliance with the relevant criteria and all these measures are feasible and practicable. Waste – The effectiveness of the proposed mitigation measures were justified with experience. Land Contamination – Not applicable. Ecology – The effectiveness of the proposed mitigation measures were justified with experience. Landscape & Visual – The effectiveness of the proposed mitigation measures were justified with experience. Cultural Heritage – Not applicable.

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Implementation of Mitigation Measures		
6.7	Have details of how the mitigation measures will be implemented and function over the time span for which they are necessary been presented ? Does the report list out clearly what mitigation measures would be implemented, by whom, when, where and to what requirements ? Is the responsibility for implementing the recommended mitigation measures clearly defined ?	Implementation of mitigation measures including by whom, when, where and to what requirements are clearly listed out in PIS (Appendix 12.1)
Environmental Effects of Mitigation		
6.8	Have any adverse environmental effects of mitigation measures been investigated and described ?	Air Quality – No adverse effects of mitigation measures are anticipated.
		Noise – No adverse effects of mitigation measures are anticipated.
		Water Quality – No adverse effects of mitigation measures are anticipated.
		Waste – No adverse effects of mitigation measures are anticipated.
		Land Contamination – Not applicable.
		Ecology – No adverse effects of mitigation measures are anticipated.
		Landscape & Visual – No adverse effects of mitigation measures are anticipated.
		Cultural Heritage – Not applicable.
6.9	Has the potential for conflict between the benefits of mitigating measures and their adverse impacts been considered ?	Air Quality – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Noise – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Water Quality – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Waste Management – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Land Contamination – Not applicable.
		Ecology – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Landscape and Visual – The recommended mitigation measures will not give rise to adverse environmental effects, and hence no potential conflict issues.
		Cultural Heritage – Not applicable.

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7. Evaluation of Residual Impacts		
7.1	Have the available standards, assumptions and criteria which can be used to evaluate the impacts been discussed ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
7.2	Have the predicted impacts been compared to the available standards	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
7.3	Have the residual impacts, which are the net impacts with the mitigation measures in place, been described and evaluated against the available Government policies, standards and criteria ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
7.4	Have the residual impacts been discussed and evaluated in terms of the impact on the health and welfare of the local community and on the protection of environmental resources ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
7.5	Have the magnitude, location and duration of the residual impacts been discussed in conjunction with the value, sensitivity and rarity of the resource ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.

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7.6	Where there are no generally accepted standards or criteria for the evaluation of residual impacts, have alternative approaches been discussed and, if so, is a clear distinction made between fact, assumption and professional judgement ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
7.7	Have the residual impacts, if any, arising from the implementation of the proposed mitigation measures, been considered ?	All chapters - not adverse residual impacts are anticipated with the implementaion of recommended mitigation measures.
8. Environmental Monitoring and Audit Proposals		
8.1	If impacts are uncertain, have monitoring arrangements been proposed to check the environmental impacts resulting from the implementation of the project and their conformity with the predictions made ?	Noise – Monitoring has been proposed to check construction noise impact.
		Water Quality – Monitoring has been proposed as part of the environmental monitoring and audit programme to check the water quality during construction phase ans post construction phase.
		All other technical aspects - Not applicable.
8.2	Does the scale of any proposed monitoring arrangements correspond to the potential scale and significance of deviations from expected impacts ?	Noise – Proposed monitoring arrangements have been determined based on findings from associated noise impact assessment and relevant criteria. 2 construction noise monitoring locations was proposed.
		Water Quality – The scale of water quality monitoring has taken into account the scale of the project in determining the appropriate number and locations of monitoring stations. A total of 2 monitoring locations have been proposed.
		All other technical aspects - Not applicable.
8.3	Is the need for and the scope of the monitoring and audit requirements defined in the report ?	Air Quality – The need for and scope of audit work is detailed in EM&A Manual.
		Noise – The need for monitoring and audit requirements have been detailed in the EM&A Manual.
		Water Quality – The need for monitoring and audit requirements have been detailed in the EM&A Manual.
		Waste – The need for and scope of audit work is detailed in EM&A Manual.
		Land Contamination – Not applicable.
		Ecology – The need for and scope of audit work is detailed in EM&A Manual.
		Landscape & Visual – The need for monitoring and audit requirements have been detailed in the EM&A Manual.
		Cultural Heritage – Not applicable.
8.4	Does the report contain an Environmental Monitoring and Audit programme, as prescribed in Annex 21, if it is found to be needed ?	An environmental monitoring and audit programme is specified in the EM&A Manual for this project.

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9. Difficulties Compiling the Information		
9.1	Have any gaps in the required data been indicated and the means used to deal with them in the assessment been explained ?	Air Quality – No significant gaps in the data required for air quality impact assessment.
		Noise – No significant gaps in the data required for noise impact assessment.
		Water Quality – No significant gaps in the data required for water quality impact assessment.
		Waste - Not applicable.
		Land Contamination – No significant gaps in the data required for land contamination assessment.
		Ecology – The assessment has been conducted based on both literature review and desktop studies and where there are gaps in the information, site surveys have been conducted to fill in the missing information.
		Landscape & Visual – The assessment has been conducted based on both literature review and desktop studies and where there are gaps in the information, site surveys have been conducted to fill in the missing information.
		Cultural Heritage – The assessment has been conducted based on both literature review and desktop studies and where there are gaps in the information, site surveys have been conducted to fill in the missing information.
9.2	Have any difficulties in assembling or analysing the data needed to predict impacts been acknowledged and explained ?	Air Quality – Not applicable.
		Noise – No significant difficulties in assembling or analysing data to predict impacts.
		Water Quality – No significant difficulties in assembling or analysing data to predict impacts.
		Waste – Not applicable.
		Land Contamination – Not applicable.
		Ecology – No significant difficulties in assembling or analysing data to predict impacts.
		Landscape & Visual – No significant difficulties in assembling or analysing data to predict impacts.
		Cultural Heritage – Not applicable.
10. Executive Summary		
10.1	Does the executive summary contain at least a brief description of the project and the environment, an account of the main mitigation measures to be implemented by the developer, and a description of any remaining or residual impacts ?	A brief description of the project is given in Chapter 1 of the Executive Summary. A description of mitigation measures to be implemented and any residual impacts is presented in individual technical chapters of the Executive Summary.
10.2	Have technical jargons been avoided as far as possible in the executive summary ?	Unnecessary technical jargon has been avoided.
10.3	Does the executive summary present the main findings of the assessment and cover all the main issues ?	The main findings of the assessment are presented in individual technical chapters of the Executive Summary.
10.4	Does the executive summary include a brief explanation of the overall approach to the assessment ?	The overall approach of individual assessments are presented in individual technical chapters of the Executive Summary.
10.5	Does the executive summary provide an indication of the confidence which can be placed in the results ?	The description of the approach and findings of the assessment presented in individual technical chapters of the Executive Summary gives an indication of the confidence of the results.

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10.6	Is the executive summary presented in both English and Chinese ?	The executive summary is presented in both English and Chinese.

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EXECUTIVE SUMMARY IN ENGLISH AND CHINESE	
- Summary of main issues, findings, conclusions and recommendations	The Executive Summary (in English and Chinese version) contains a summary of each technical aspect including the findings, conclusions and recommendations from each environmental assessment.
INTRODUCTION	
- Background of the project	Project background is presented in Section 1.1.
- Purpose of the EIA study	The purpose of the EIA Study is described in Section 1.3.
- The approach	The approach of the study follows that of the EIAO-TM and EIA Study Brief requirements, which are summarised in Section 1.2.
DESCRIPTION OF THE PROJECT	
- Key project requirements	The key project elements are described in Section 2.1.
- Site location and site history	The site location and site history are described in Section 2.1 and 2.3.
- Nature, scope and benefits of the project	The Project aims to improve the pedestrain environment within Yuen Long Town Centre which is described in Section 2.3. The scope of Project is described in Section 2.1. The benefits of the Project are descibed in Section 2.3.5.
- Size or scale, shape and design of the project	The recommended size, shape and design of the key components of the project are described in Section 2.1, Chapter 3.
- Project timetable and phasing of the project	The implementation programme and phasing of the Project is described in Section 3.6.
- Means by which the project will be implemented	The project is programmed to commence operation in different phases. These are described in Section 3.6.
- Any related projects	Other concurrent projects that may have interface with this project are described in Section 3.7.
- Type, scope, scale, frequency and duration of the construction, operational or decommissioning (if relevant) activities	Details of the various construction and operational activities are summarised in Section 3.5 and 3.6.
- Background and history of the project, including considerations given to different options, and the project's different siting or alignment	The background and history of the project are presented in Section 2.3. The consideration of different options and alternatives are evaluated in Section 3.3 and 3.4.
- Description of scenarios with or without the project	Scenarios with and without the project have been evaluated in Sections 2.3.5 and 2.3.6.
ENVIRONMENTAL LEGISLATION, POLICIES, PLANS, STANDARDS AND CRITERIA	
- Applicable environmental ordinances and regulations	Air Quality – Section 4.1.
- Applicable government environmental policies and plans	Noise – Section 5.1.
- Applicable environmental standards and criteria	Water Quality – Section 6.1.
- Other references	Waste Management - Section 7.1. Land Contamination - Section 8.1 Ecology - Section 9.1. Landscape and Visual - Section 10.2. Cultural Heritage - Section 11.1.

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DESCRIPTION OF THE ENVIRONMENT - Baseline environmental conditions - Environmental trends	 Air Quality – EPD's air quality monitoring data is given in Section 4.2. Noise – Description of the environment is given in Section 5.2. Water Quality – EPD's baseline water quality monitoring data is given in Section 6.2. Waste Management - Description of existing waste mangement practices, where applicable, have been incorporated as part of the analysis of waste related impacts in Section 7.2. Land Contamination - Descriptions on historical and existing land uses are given in Section 8.2. Ecology - The existing ecological baseline conditions obtained by means of literacture review and site visits are described in Section 9.2 and 9.4. Landscape and Visual - The baseline conditions for landscape and visual are given in Section 10.6. Cultural Heritage - A review of the baseline cultural heritage conditions is presented in Section 11.3.2 and 11.4.2.
DESCRIPTION OF ASSESSMENT METHODOLOGIES - Assessment methodologies, assumptions and criteria, including sample calculations and input and output files of a typical model run for all mathematical modelling	 Air Quality – the assessment methodologies are described in Section 4.4 to 4.5. Noise – Construction airborne noise assessment is based on the methodology described in Section 5.3.2 and calculation inputs are presented in Appendix 5.4 to 5.8. Water Quality – the assessment methodologies are described in Section 6.3 to 6.5. Waste – the assessment method for waste related activities associated with the project include analysis of construction / operation phase activities and waste generation, estimation of waste quantities and development of proposals for waste management. These are described in Section 7.3 to 7.4. Land Contamination – the assessment method comprises desktop appraisal and site reconnaissance, followed by sampling and testing where necessary. This is described in Section 8.3. Ecology - literacture review and site visits were conducted to provide the baseline of ecological impacts. This is described in Section 9.3. Landscape and Visual – the landscape and visual impact assessment methodology including the method for identifying the magnitude and significance of impacts are described in Section 10.3. Cultural Heritage – the assessment methodology for built heritage impact assessment and archaeological impact assessmennt is descirbed in Section 11.3.1 and 11.4.1 respectively.

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IDENTIFICATION OF ENVIRONMENTAL IMPACTS - Potential environmental impacts including the types, characteristics and estimated quantities of emissions, discharges, wastes, potential risks, disturbances or displacement associated with the activities relating to the project during construction, operation and decommissioning phases - Description of resources or receivers which are vulnerable to change or environmental impacts	Air Quality – air sensitive receivers are shown in Table 4.4 and Figure 4.1. The potential sources of construction phase air quality impacts are identified in Section 4.4.1. No potential air pollutants and odour emission sources during operational phase is identified. Noise – representative noise sensitive receivers are shown in Section 5.2, Appendix 5.1 and Figure 5.1. For construction airborne noise assessment, the noise sources that may general noise impacts are described in Section 5.3.1 and 5.3.3. Water Quality – potential water quality impacts associated with the project during construction and operation phase are described in Section 6.4 to 6.5. Water sensitive receivers are identified and listed in Section 6.2.3 and shown in Figure 6.1. Waste – both construction phase and operation phase waste activities and impacts have been identified in Section 7.3.1 and 7.4.1. Construction phase impacts considered include waste from excavated and C&D materials,sediment, chemical waste, general refuse and sewage. Operation phase impacts identified include general refuse. Land Contamination – identification of potential impacts is mainly through a review of information on the existing land uses of the project area, including review of information from aerial photographs and site reconnaissance. Details are provided in Section 8.3 to 8.4. Ecology – the ecological baseline conditions are described in Section 9.4 to 9.5, while potential impacts are identified in Section 9.6. Landscape and Visual – The potentially affected landscape resources, landscape character areas and visual sensitive receivers are identified and described in Section 10.6 to 10.8. Cultural Heritage – the impacts on built heritage resources are described in Section 11.3.3. Since there is no site of archaeological interest identified within the assessment area, no significant archaeological impact is anticipated.
PREDICTION AND EVALUATION OF ENVIRONMENTAL IMPACTS - Prediction of environmental impacts (including beneficial or adverse; direct or indirect; short term or long term; reversible or irreversible; transboundary; cumulative) - Evaluation of predicted environmental impacts against applicable environmental legislation, policies, plans, standards and criteria	Air Quality – the predicted construction phase air quality impacts are evaluated against the applicable criteria in Sections 4.4. Since there is no identified air pollutants and odour emission sources of the Project during operational phase, adverse air quality impact is not anticipated. Noise – Construction airborne noise impact are described and evaluated in Section 5.3.5 to Section 5.3.7. Water Quality – the predicted water quality impacts for both construction and operational phase are presented and evaluated against their relevant criteria in Section 6.4 to 6.5. Waste – based on the identified waste types and waste generating activities, the quantities and potential impacts associated with each type of waste has been assessed and described in Section 7.3.1.2-7.3.1.21. Reference is made to applicable standards and requirements. Land Contamination – potential impacts due to land contamination has been evaluated based on the findings obtained from review of aerial photographs as well as from the site reconnaissance. The evaluation is presented in Section 8.4. Ecology – the direct impact on potential temporary loss of major channelized watercouse during construction phase was presented in Section 9.6.1. The indirect impact during construction phase is presemted om Section 9.6.2. Landscape and Visual – landscape impacts is described in Section 10.7.7 to 10.7.8, visual impacts is described in Section 10.9.2 to 10.9.6. Cultural Heritage - evaluation of impacts to built heritage resources are described in Section 11.3.3. Since there is no site of archaeological interest identified within the assessment area, no significant archaeological impact is anticipated.

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MITIGATION OF ADVERSE ENVIRONMENTAL IMPACTS - Measures to eliminate, reduce or remedy adverse environmental impacts	Air Quality – recommended control measures to be implemented during construction phase are described in Section 4.4.3. No mitigation measure is required for operational phase. Noise – mitigation measures for construction airborne noise are presented in Section 5.3.6 and Section 5.3.8, and the assessment results of mitigated scenario are presented in Section 5.3.7. Water Quality – mitigation measures recommended for minimisation of water quality impacts are presented in Section 6.6 to 6.7. Waste – measures have been recommended to reduce and remedy potential waste related impacts due to the project. These include good site practices, waste reduction measures, storage, transportation of waste, etc. Details are provided in Section 7.3.2. Land Contamination – since the project area has been a concrete-line nullah for more than 20 years, and no historical or existing contaminating activities are identified. Potential soil contamination is not anticipated and no mitigation measures is required. Ecology - Construction phase mitigation measures is described in Section 9.7.1. No ecological impact is identified during operation phase, therefore, no mitigation measures is required. Cultural Heritage – No mitigation measures are required for built heritage as the level of impact is acceptable after evaluation. Since no site of aracheological interest is identified within the assessment area, no mitigation measures is required.
DEFINITION AND EVALUATION OF RESIDUAL ENVIRONMENTAL IMPACTS - Definition and evaluation of net environmental impacts with mitigation measures in place	Air Quality – No adverse residual impacts are anticipated during both construction and operational phases. Noise – for noise assessments, the evaluation shows that there will be no residual impacts with the mitigation measures (where applicable) in place. Water Quality – the findings of the water quality impact assessment has shown that with the mitigation measures in place, there would be no adverse residual impact due to the project. Waste – with the implementation of the recommended mitigation measures, no adverse residual impacts are anticipated during construction and operation phase. Land Contamination – no residual impact on land contamination is anticipated. For land-based sediment, with the implementation of mitigation measures, no residual impact is anticipated (Details refer to Chapter 7). Ecology – no residual impact is anticipated after implementation of the recommended mitigation measures. Landscape and Visual – The residual landscape impact in construction phase is described in Section 10.10.3 to 10.10.10. Residual landscape impact in operation phase is described in Section 10.10.11 to 10.10.40. Residual visual impact is described in Section 10.10.41 to 10.10.49. Cultural Heritage – No residual impacts are anticipated.

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ENVIRONMENTAL MONITORING AND AUDIT - Need for and scope of monitoring and audit - Environmental monitoring and audit requirements, if found to be necessary, and the related environmental monitoring and audit programme	The need for environmental monitoring and audit, where applicable, is presented in Chapter 12. The details relating to the environmental monitoring and audit requirements, methods and programme are presented in the Environmental Monitoring and Audit Manual.
CONCLUSIONS AND RECOMMENDATIONS	A summary of the conclusions and recommendations arising from each environmental assessment is summarised in Chapter 13 and Chapter 14.
SCHEDULE OF RECOMMENDED MITIGATION MEASURES - A schedule of all mitigation measures recommended in the EIA report, listing out what the mitigation measures are, by whom, when, where and to what requirements, and including the key	A schedule of all mitigation measures recommended in the EIA report, including by whom, when, where and to what requirements are tabulated for each technical aspect in the PIS (Appendix 12.1).
APPENDIX Responses to comments received	Response to comments received from government departments have been provided to the relevant parties separately.