

**THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION**

ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT

**Agreement No. CE 49/2013 (EM)
District Cooling System (DCS) at Kai Tak
Development (KTD)
Phase III (Remaining)
- Design and Construction**

Draft Brief

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Phase III (Remaining)
- Design and Construction

BRIEF

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BRIEF

1 Introduction

This Brief is to be read in conjunction with the Memorandum of Agreement, the General Conditions of Employment of Engineering and Associated Consultants for a Design and Construction Assignment (1997 edition) (hereinafter referred to as “the General Conditions of Employment”), Special Conditions of Employment, Schedule of Fees, and Schedule of Resident Site Staff (RSS) Standards and Duties and any other instructions as may be issued by the Director’s Representative (DR) from time to time. For the avoidance of doubt but without prejudice to Clause 7 of the General conditions of Employment, the performance of the Services specified herein shall be subject to Clause 22 of the General Conditions of Employment.

2 Description of the Project

2.1 The Government is implementing a project - “45CG District Cooling System (DCS) at the Kai Tak Development (KTD)”. The project is to construct a large scale centralized air-conditioning system which produces chilled water at its central chiller plants and distributes the chilled water to user buildings in KTD through an underground water piping network. The implementation of DCS is one of the initiatives to promote environmental-friendly and sustainable development at the KTD.

2.2 Given the scale and complexity of KTD and to enable the KTD to be developed in a co-ordinated and orderly manner, the KTD works items are divided into three packages, i.e. Package I (2013), Package II (2014 – 2016), Package III (2017 – 20121). These three Packages only indicate banding for completion of various development components within KTD and some of the development components will need to complete in advance of the specified target year. The DCS supply shall be planned to match with the developments in these three Packages.

2.3 The DCS project will be implemented in three phases. The first two phases (namely Phase I and Phase II) of the DCS project have been commenced in 2011 to match with the target completion of KTD Package I by 2013. Phase I with laying of DCS pipes along Road L2 at North Apron which has been completed and is now under the maintenance period. Phase II is under construction which include engineering design of the whole DCS, building a northern chiller plant room, a southern underground chiller plant room, a seawater pump room, laying of chilled water distribution pipes and provision of E&M equipment for KTD Package I users. The Phase II Contractor is also the operator of the DCS plants. Phase IIIA includes laying sections of the DCS pipes at North Apron and a section of DCS pipes across the Kai Tak Approaching Channel at South Apron. The pipe laying works and E&M works have been commenced in July 2013 to serve the KTD Package II and III users.

2.4 The DCS Phase III (Remaining) (hereinafter called “the Project”) is expected to commence in early 2015 and the scope includes installation of E&M equipment at the northern chiller

plant room, southern underground chiller plant room, sea water pump room and substations of the user buildings; as well as laying of the remaining underground DCS pipes, sea water pipes, and associated interface connections with Phase II & IIIA pipes so as to provide chilled water to the upcoming DCS users in KTD.

- 2.5 The Project includes laying of water pipes along the new roads to meet the scheduled road works contracts, which are managed by CEDD. To minimize possible site interface problems and works programming conflicts and eliminate contractual disputes for having two contractors working at the same site area, the DCS pipe laying works along these new roads are planned to be entrusted to CEDD's roadworks contracts.
- 2.6 Several contracts are to be issued to cover the Phase III (Remaining) works. Contracts for the installation of E&M equipment inside the two chiller plant rooms, sea water pump room and the substations of the user buildings are hereinafter called "the E&M Contracts". Other contracts for the extension of the underground DCS pipes and sea water pipes are hereinafter called "the Pipe Laying Contracts". The E&M Contracts and the Pipe Laying Contracts together are hereinafter called "the Contracts" and the contractors to be employed under the Contracts are hereinafter called "the Contractors".
- 2.7 At least two E&M Contracts shall be issued in stages to include the supply and installation, testing and commissioning of the E&M installation together with a 12-month Defect Liability Period as detailed below:-

Section EM1 – E&M installation works to be completed by 2017, including:

- (i) One (1) 5,000 TR seawater cooled chillers for the northern chiller plant, and associated variable speed drive primary chilled water pumps, cooling towers, fresh water condenser pumps, seawater pumps, switchboards, associated pipe works and electrical accessories, together with additional monitoring and control equipment connecting to the existing DCS systems; and
- (ii) Installation of heat exchangers and all associated pipe works and electrical/control accessories at the substations of 3 user buildings including Shatin-Central Link (SCL) Kai Tak Station, SCL Sung Wong Toi Station and the Police Headquarters in KTD.

Section EM2 – E&M installation works to be completed by 2021 (may further divided into sub-sections), including:

- (i) Seven (7) nos of 5,000 TR seawater cooled chillers for the northern chiller plant, three (3) nos of 5,000 TR plus two (2) 2,500TR seawater cooled chillers for the southern chiller plant, and associated variable speed drive primary chilled water pumps, seawater pumps, switchboards, associated pipe works and electrical accessories, together with additional monitoring and control equipment connecting to the existing DCS systems; and
 - (ii) Installation of heat exchangers and all associated pipe works and electrical/control accessories at the substations of the remaining user buildings (up to 50 nos).
- 2.8 The Pipe Laying Contracts shall comprise Sections B2, B3, R1 – R6 to cover the remaining underground DCS pipes and seawater pipes at both North Apron and South Apron; and to provide tee-off at the site boundary of the user buildings.

Section B2 – Promenade behind the Centre of Excellence in Paediatrics (CEP)

Section B3 – Portion of District Distributor Road D3 adjacent to the Southern DCS Plant

Section R1 – Portion of District Distributor Road D3 connect to Road D2

Section R2 – Middle Portion of District Distributor Road D3
Section R3 – Portion of District Distributor Road L10 parallel with Trunk Road T2
Section R4 – Portion of District Distributor Road L10 adjacent to CKR
Section R5 – Existing Cheung Yip Street and District Distributor Road D4
Section R6 - Extension of Promenade
Section R7 – Portion of District Distributor Road L9 adjacent to Stadium

- 2.9 Notwithstanding the grouping of the E&M works or Pipe Laying works mentioned above , the DR may from time to time direct, or the Consultants may propose for the DR's agreement, re-grouping of the works with a view to meeting the implementation programme of KTD, resolving project interfaces and ensuring cost effectiveness and timely delivery of the Project.
- 2.10 The Conceptual Layout Plan with the project boundary is shown in **Appendix A** in this Brief. The Project area is not limited to the area within the boundary of the Project but also covers surrounding areas, which include land and water bodies, as proposed by the Consultants and agreed by the DR or as instructed by the DR.
- 2.11 A set of referenced preliminary design drawings and a summary of the estimated cooling load distribution schedule are shown in **Appendix B & C** in this Brief.
- 2.12 A set of Recommended Outline Development Plan (RODP) with development schedule issued in January 2013 is attached in **Appendix G** in this Brief, for reference.

3 Objectives of the Assignment

- 3.1 The main objectives of the Assignment is to design and construct the remaining DCS pipes at the KTD and to provide DCS chilled water supply to the user buildings, and all necessary associated works to enable timely implementation of the planned developments (KTD Package II & III) target to be completed by 2017 and 2021 respectively.

4 Description of the Assignment

4.1 Phasing of the Assignment

- 4.1.1 The Assignment under this Agreement is divided into the following Phases:

- (a) Review Phase;
- (b) Design Development and Detailed Design Phase;
- (c) Tender Phase;
- (d) Construction Phase; and
- (e) Completion Phase

The Design Development and Detailed Design Phase, Tender Phase, Construction Phase and Completion Phase of each Section of works have been designed as "Phases Subject to Incorporation" pursuant to Clause SCE9 of the Special Conditions of Employment. The DR may as necessary, from the due date for commencement of the Agreement as stated in Clause 7 of this Brief until completion of different Phases of the Assignment, instruct the Consultants to proceed with other Phases Subject to Incorporation of each Sections of works.

- 4.1.2 The Project / Works will need to be implemented through a number of works contracts to cover various Sections of works of the Project to meet the KTD delivery programme and

also different programming constraints. Thus, every works contract will possess a set of specific commencement and completion dates of the Review Phase, Design Development and Detailed Design Phase, Tender Phase, Construction Phase and Completion Phase as indicated in Clause 7 of this Brief. These key dates may be revised by the DR to suit circumstances OR as recommended by the Consultants with the DR's agreement.

4.1.3 The Consultants shall not commence any Phases Subject to Incorporation or part thereof without written instructions from the DR. Separate instruction for commencing each of these Phases should be sought for every Section of works of the Project and the Consultants shall seek the DR's instruction in good time to avoid delay to the implementation programme of the Project. No premature commencement of any Phases or part of any Phases will be allowed and the Consultants need to justify the commencement of each Phase for each Section of works. The Consultants shall refer to this Brief to ascertain the full requirements for any particular Phase under the Assignment.

4.1.4 At the absolute discretion of the Employer, any Phases or part of any Phases may be carried out in series, in parallel with or in advance of any preceding Phase(s) if required. The Consultants shall take cognizance of the requirements of the implementation programme in Clause 7 of this Brief and plan their work accordingly, including performing all critical tasks concurrently. The DR may instruct the commencement of a Phase Subject to Incorporation or its part before completion of the preceding Phase.

4.1.5 Review Phase

- (a) The Consultants shall commence the Review Phase upon the commencement of this Agreement.
- (b) The Consultants shall take into account the findings of previous studies / reports / preliminary designs for and related to the Project, and update all related information pertaining to the Project.
- (c) The Review Phase is deemed completed upon DR's acceptance of the final Review Report.

4.1.6 Design Development and Detailed Design Phase

- (a) Each Section of works will have its own Design Development and Detailed Design Phase.
- (b) The Consultants shall provide all inputs required for design development studies, review of preliminary design, detailed design, co-ordination, surveys, preparation of document for tendering, recruitment of RSS for each Section of works / works contract of the Project under respective Detailed Design Phases as detailed in Clause 6.7 of this Brief.
- (c) The Consultants shall, where appropriate, also prepare documents for prequalification exercise for works contracts and assist in the prequalification exercises.
- (d) The Consultants shall assist in the funding application procedures although some or all of these procedures may be carried out after commencement of Tender Phase.
- (e) For each Section of works, the Consultants shall carry out and complete studies for design development as appropriate and also the review of Preliminary Design and Design Memorandum in accordance with the requirements stipulated in Clause 6.7

of this Brief as part of the tasks under the Design Development Phase, and take into account the results of the study / investigation findings and review so completed to proceed with the detailed design of the subject Section of works under its Detailed Design Phase.

- (f) The Design Development and Detailed Design Phase of a Section of works is deemed completed upon DR's acceptance of the corresponding tender documents and design calculations and Check/ Design Certificates.

4.1.7 Tender Phase

- (a) The Consultants shall assist in the tender gazette, distribution of tender document to bidders, responding to tender queries, issuance of tender addendums, tender assessments, preparing tender reports and submission to the Central Tender Board or other tender boards as appropriate.
- (b) The Consultant shall ensure that RSS are available in good time for each works contract.
- (c) The Consultants shall recommend to the Employer the date for commencing the Tender Phase of each Section of works in order to meet the key dates specified in Clause 7 of this Brief but shall not commence the Tender Phase of any works contract without a written instruction from the DR to proceed with the Tender Phase.
- (d) The Tender Phase of a works contract is deemed completed upon acceptance of the tender report for the works contract by the Central Tender Board or other tender boards as appropriate.

4.1.8 Construction Phase

- (a) The Construction Phase of a works contract commences when the Employer awards the subject works contract. The Consultants shall arrange for the signing and commencement of works contracts, supervision and contract administration of the works contracts.
- (b) The Consultants shall co-ordinate various works contracts and other projects that may have interfaces with the Project.
- (c) The Construction Phase of a Section of works is deemed completed upon issue of the completion certificate of the construction works, or where there are more than one completion certificate, upon issue of the last completion certificate.

4.1.9 Completion Phase

- (a) The Consultants shall finalize accounts of works contracts and resolve contractual disputes.
- (b) The Completion Phase of a Section of works shall commence upon issue of the completion certificate of the contract, or where there are more than one completion certificate, upon issue of the first completion certificate.
- (c) The Completion Phase of a Section of works is deemed completed when all the site records and other Deliverables have been submitted to the DR; the final certificate has been issued; and all the contractual disputes have been settled.

- (d) The completion of the entire Assignment should be deemed achieved if and only if:
- All tasks in relation to the Project have been fully completed, with all Deliverables including responses / papers / reports submitted and accepted; and
 - The Completion Phases of all Sections of works / works contracts under the Project have been completed and the services under the Assignment have been satisfactory discharged by the Consultants including submission of all site records, final design calculations & related documents, and final accounts to the DR.

4.2 Outline of duties under Review, Design Development and Detailed Design, Tender, Construction and Completion Phases

4.2.1 The Assignment comprises all works and inputs required for the review of findings, studies for design development, detailed design, co-ordination, testing, surveys, risk assessments, management, project administration (including programme and financial monitoring and control), tender documentation, tendering and assessment (including any pre-qualification where necessary), contract administration and construction supervision, all for the purpose of or in connection with the Project.

4.2.2 The outline of the duties to be performed for the Project under various Phases of the Assignment is as follows:

- (a) Review and scrutinize the available preliminary design, various reports, and all other relevant document related to the Project;
- (b) Review and as appropriate take on board relevant findings / investigations and other interface projects including but not limited to roadworks, Metro Parks, Central Kowloon Route (CKR), Multi-purpose Sports Complex (MPSC), Shatin Central Link (SCL), Trunk Road T2, Police Headquarters;
- (c) Recommend to the DR any revisions, modifications or amendments to the findings and preliminary design on the Project, and where appropriate propose any further studies for design development, after the review in (a) and (b) above;
- (d) Conduct assessments / studies for design development as required under this Brief and also those identified under the review above;
- (e) Based on the findings and recommendations in (d) above, conduct reviews on the Preliminary Design and Design Memorandum for each Section of works of the Project;
- (f) Organize and facilitate Systematic Risk Management workshops for the Project, where directed by the DR;
- (g) Propose construction options and contract packages for the Project and produce respective cost estimates and programmes;
- (h) Devise, arrange, procure and supervise all site investigations, inspection works, trial tests and associated field and laboratory testing required for detailed design of the Project;
- (i) Carry out all surveys necessary for completion of detailed design of the Project;

- (j) Carry out all necessary statutory procedures;
 - (k) Co-ordinate with other parties on all projects that may have interface with the Project and take on board their on-going findings / recommendations;
 - (l) Carry out detailed design and produce pre-tender cost estimates for individual Sections of works / works contracts of the Project;
 - (m) Assist the DR to conduct tendering exercises of all works contracts, including any pre-qualification exercises where necessary;
 - (n) Administer, manage, supervise and finalize all works contracts for the Project;
 - (o) Conduct ground settlement monitoring at areas within and adjacent the Project area;
 - (p) Co-ordinate installations, diversion, alteration, decommissioning and / or removal of the utilities not being undertaken by contractors of the works contracts;
 - (q) Provide information, plans, drawings and statistical data to Government data bank organizers with respect to the labour, plant, materials, consultants, contractors and works items in different categories and combinations;
 - (r) Provide as-built records and operation and maintenance manuals for works constructed, and arrange to handover the completed works to the DCS operator;
 - (s) Complete and provide final accounts for works contracts; and
 - (t) Any other work necessary for implementation and materialization of the Project.
- 4.2.3 Estimates of cost of the Project shall be deemed to refer to the estimated capital and recurrent costs of all the items of works described in Clause 2.7 & 2.8 of this Brief and the associated consultancy fees and RSS costs. The Consultants shall liaise with other consultants and departments and coordinate estimate of the cost of the relevant PWP Items and Cat D Items for the Project.
- 4.2.4 The Consultants are required to retain records of all the works contracts in accordance with Clause SCE 17 of the Special Conditions of Employment.
- 4.2.5 Entrustment to other parties for construction of some items under this Agreement may be instructed by the DR if considered beneficial to the satisfactory implementation of the Project under Clause 17(A) of the General Conditions of Employment. Any entrustment of works ordered by the DR under this Clause shall be construed as deduction of services and the lump sum fee shall be revised accordingly in accordance with Clause 34 of the General Conditions of Employment.
- 4.2.6 Entrustment by other parties for the implementation of some items of works for other projects, which originally are not included in this Assignment, under this Project may be instructed by the DR if considered beneficial to the satisfactory implementation of both projects pursuant to Clause 17(A) of the General Conditions of Employment. Any entrustment of items of works ordered by the DR under this Clause shall be construed as addition to Services and the lump sum fee shall be revised accordingly in accordance with Clause 33 of the General Conditions of Employment.

4.2.7 The scope of the Assignment will also be reviewed by the DR from time to time. Based upon other considerations, the DR may direct the addition or deletion of items of work under Clause 17(A) of the General Conditions of Employment. Any changes in the lump sum fee resulted from such additions or deletions will be negotiated and agreed with the Consultants in accordance with Clauses 5 and 6 of the Schedule of Fees respectively.

5.0 Deliverables

5.1 The Consultants shall produce and submit the documents outlined below as part of the Assignment. The submitted Deliverables shall become the property of Government. The Consultants shall be responsible for the circulation of the documents directly to the DR, Government departments, organizations, public utility companies and any other parties as directed by the DR. The Consultants shall also provide advance soft copies of the deliverables, if considered necessary by the DR, through internet.

5.2 The Consultants shall prepare and furnish all working papers and reports accompanied by all such designs, drawings, dimensions, sections, plans, specification, reports on ground, groundwater, soils or special investigations and tests, estimates of cost and other documents as may be necessary for examination or consideration of the DR, authorities, departments and concerned parties.

5.3 The Consultants shall be responsible for the delivery of the Deliverables to the DR and the relevant parties for comments and / or actions according to the distribution list to be proposed by the Consultants and agreed by the DR.

5.4 The Consultants shall copy all correspondence with public utility companies, departments, other authorities, bodies or persons affected by the Assignment to the DR for his information.

5.5 Inception Report (up to 3 copies for each of the draft and final versions)

5.5.1 The Consultants shall prepare and submit the Inception Report, which forms the bases for the Assignment that has to be completed satisfactorily within the timeframe specified in Clause 7 of this Brief. The Report shall consist of at least the following:

- (a) An understanding and appreciation of the objectives of the Assignment;
- (b) A list of work tasks under the Assignment, with a brief description, approach and outline methodology for each task;
- (c) An outline programme on submission of reports, working papers, plans, tender documents and any other necessary deliverables, carrying out site investigations / surveys / laboratory testing, special procurements, perceived works construction schedules and any other tasks, all as required in the Assignment; and
- (d) The overall project organization of the Consultants and the project team / management structure including sub-consultants/ specialists and a list of key staff with respective responsibilities.

5.6 Review Report (up to 3 copies for each of the draft and final versions)

5.6.1 A Review Report shall be produced in accordance with Clause 6.6 of this Brief.

5.7 Gazette Materials (for each gazette notice, up to 3 copies for each of the draft and final versions)

5.7.1 The Consultants shall provide the draft and final scheme, plans drawings, press release and other necessary information / documents, including their subsequent revisions, for each statutory gazettal under different ordinances for works elements of each works contract of the Project.

5.8 Deliverables for Systematic Risk Management (up to 3 copies each of the draft, final and updated versions)

5.8.1 The Consultants shall prepare, and update quarterly thereafter, the risk management plans, risk registers, risk treatment plans, etc in accordance with ETWB TCW No. 6/2005 and ETWB Risk Management User Manual.

5.9 Deliverables for Construction Design and Management (up to 3 copies for each of the draft and final versions)

5.9.1 The Consultants shall prepare and upkeep the "health and safety file" as required in the Guidance Notes on Construction Design and Management (or its latest version as appropriate), published by the former ETWB, which is available at the following websites:

http://www.devb-wb.gov.hk/FileManager/EN/press_releases_and_publications/publications/CDM_Guidance_Notes.doc

OR

[http://www.devbwb.gov.hk/FileManager/EN/press_releases_and_publications/publications/CDM%20Guidance%20Notes\(21%20Sept%2006\).doc](http://www.devbwb.gov.hk/FileManager/EN/press_releases_and_publications/publications/CDM%20Guidance%20Notes(21%20Sept%2006).doc)

5.10 Programme of Implementation

5.10.1 The Consultants shall submit up to 3 copies each of the draft programmes and programmes and their subsequent revisions and re-submissions as referred to in Clauses 7.2 and 7.3 of this Brief on Bi-monthly basis and at such times as requested by the DR.

5.11 Monthly Progress Reports (up to 5 copies each)

5.11.1 In accordance with Clause 8 of this Brief, the Consultants shall prepare and distribute the monthly Progress Reports on or before the fifth day of the calendar month following the month to be reported. The Consultants shall also prepare and distribute separate Progress Reports for each works contract.

5.12 Monthly Financial Reports (up to 5 copies each)

5.12.1 In accordance with Clause 9 of this Brief, the Consultants shall prepare and distribute the monthly Financial Reports on or before the fifth day of the calendar month following the month to be reported. The Consultants shall also prepare and distribute Financial Reports for each works contract.

5.13 Specific deliverables for the Design Development, Detailed Design, Tendering, Construction and Completion Phases

5.13.1 The Consultants shall produce the following deliverable for the design development, detailed design, tendering, construction and completion of the different works contracts under the Project:

- (a) Up to 3 copies each of the draft and final versions of RSS establishments and RSS Manuals as well as any subsequent updating and revisions for each works contract.

5.13.2 For each works contract including works to be entrusted to other parties, the Consultants shall produce and submit the following deliverables (hardcopies and softcopies with editable and scanned files) under the Design development Phase and / or Detailed Design Phase:

- (a) Up to 5 copies each of the draft and final detailed landscape proposal, tree survey report and Tree Felling Application, as necessary;
- (b) Up to 3 copies of the finalized drawings of "design" status of size as specified.
- (c) Up to 3 copies of the bill of Quantities or Schedule of Rates with estimates, breakdown and supporting cost information.
- (d) Up to 3 copies (including both hardcopy and softcopy) of the finalized calculations of "design" status (one hardcopy and one softcopy) including a statement of the standards, procedures and codes of practice adopted together with appropriate Design Certificates and Independent Check Certificates.
- (e) Up to 3 copies of the summary sheet tabulating the essential correspondence exchanged, final agreement to the proposed works with the DCS operator along with their requirements on the records and calculations upon taking over of the completed works, and the deliverables to the DCS operator according to the summary sheet.
- (f) Up to 3 copies each of the draft and final operation and maintenance manuals, where necessary in separately bound volumes, for proposed works, to the DCS operator.
- (g) Up to 3 copies each of the design calculations and Design Memorandum and corresponding Check / Design Certificates, where necessary in separately bound volumes, for proposed works, to the DCS operator.
- (h) Up to 3 copies each of the draft and final Quality Site Supervision Plan.
- (i) Up to 3 copies of revised Quality Site Supervision Plan upon major modifications and / or update.
- (j) Up to 3 copies each of the draft and final tender documents.

5.13.3 For each works contract under the Tender Phase, the Consultants shall produce the following deliverables (hardcopies and softcopies with editable and scanned files):

- (a) Up to 40 copies of the tender documents and drawings including any addenda for the collection of the interested parties. The original documents and subsequent

addenda shall be certified before dissemination.

- (b) Electronic dissemination package in accordance with Environment, Transport and Works Bureau Technical Circular (Works) (ETWB TCW) No. 11/2005, for tender documents.
- (c) Up to 3 copies of the tender assessment report.

5.13.4 For each works contract under the Construction Phase, the Consultants shall produce the following deliverables (hardcopies and softcopies with editable and scanned files):

- (a) Up to 5 copies of the contract documents with certification.
- (b) Up to 5 copies of the contract documents and true size drawings of "contract" status for the execution of the Articles of Agreement for signing (The Government Printer's copy of General Conditions of Contract for each set shall be provided by the Consultants).
- (c) Up to 5 copies of certified true copies of the contract documents after execution of Articles of Agreement.
- (d) Up to 5 copies each of the drawings of "working" status of size as specified immediately after the execution of the Articles of Agreement and their subsequent revisions plus any additional working drawings subsequently deemed necessary.
- (e) For significant changes to the original design, up to 5 copies of certified calculations of "working" status.
- (f) For every 3 months or a period of time as agreed by DR, up to 3 copies of a Design Review Report to give a brief of change in design.

5.13.5 For each works contract under the Completion Phase, the Consultants shall produce the following deliverables (hardcopies and softcopies with editable and scanned files):

- (a) Two full sets (1 print plus 1 digital copy in a CD-ROM in Microstation (DGN) and Acrobat (pdf) formats) of drawings of "as-constructed" status.
- (b) Two full sets (1 hard copy and 1 in CD-ROM) of operation and maintenance manuals and any testing and commissioning records.
- (c) Two sets of final design calculations in book form.
- (d) Two full sets (1 hard copy and 1 in CD-ROM) of calculations of "as-constructed" plus that for "design" and "working" status as appropriate and other relevant design information, including updated Design Memorandum and corresponding Check / Design Certificates.
- (e) One full set of all site records upon instruction by the DR in relation to Clause 5.19 of this Brief after finalization of the contract and settlement of all the contractual disputes.

5.14 Other Deliverables

5.14.1 The Consultants shall also submit the following documents:

- Site inspection records;
- Meeting minutes;
- Records of approval of alternative materials and equipment;
- Financial management reports;
- Interim Payment Certificates;
- Cost analysis;
- Site instruction and variation works;
- Extension of time;
- Reports on assessment of contractual claims;
- Reports on Contractors' and sub-contracts' performance;
- Records of employment of Qualified Tradesmen and Intermediate Tradesmen;
- Records of training;
- Monthly Return of Site Labour Deployment and Wage rates for Construction Works;
- Questionnaires of quarterly Employment Survey;
- Employment Statistics of Construction Sites;
- Site safety records and accident reports;
- Suspension Notice, Notice of Re-entry;
- Testing and commissioning schedules and records, including information for witnessing of testing and commissioning of installations;
- List of defects and outstanding works;
- Site records;
- Completion Certificate;
- Handover Certificate;
- List of additional works;
- Report on rectification of outstanding and defective works;
- Project appraisal report, if required; and All documents after finalization of the Project.

5.15 Requirements on format, size and delivery of Deliverables

- 5.15.1 The hard copies of reports, working papers, presentation materials, pre-qualification, tender and contract documents and design calculation books shall be in A4 size whereas the drawings attached should be of convenient sizes not exceeding A3 size unless otherwise agreed by the DR.
- 5.15.2 The hard copies of drawings of "design", "pre-qualification", "tender", "contract" or "working status (not being attached in the documents) for the distribution to the interested parties or execution of the Articles of Agreement should normally be of A0 or A1 size. However the hard copies of all kinds of drawings for the DR's general use shall be of A1 size.
- 5.15.3 The programme to be submitted in accordance with this Brief shall not exceed A3 size unless with the prior agreement of the DR. The draft programme of Programme as required under Clause 26 of the General Conditions of Employment shall not exceed A1 size.
- 5.15.4 To minimize waste paper production, the Consultants shall endeavour to observe the following environmental-friendly measures in preparing documents: -
- (a) All reports, working papers, prequalification documents, tender documents, contract documents and other relevant documents including their draft forms should be printed on both sides of recycled paper. Recycled paper with not less than 50% recycled materials and not exceeding 80 gsm shall be used as a general

rule. Bleached paper should not be used if possible. The logo of recycled paper is preferably printed in prominent area of the reports;

- (b) Unnecessary or excessive use of plastic laminates, glossy covers or double covers shall be avoided as far as possible. Use of recyclable non-glossy art board paper as document covers shall be encouraged;
- (c) All reports shall be of single line spacing and printed on both sides of the paper;
- (d) Excessive white space around the borders and in between the paragraphs of all documents prepared by the Consultants should be avoided. A margin of 2 cm should be sufficient. Excessive use of blank papers should be avoided as far as possible; and
- (e) Number of pages can be reduced by reducing the size of typeface (font). For example "Time New Roman" or "C.G. Times" of font size not exceeding 10 characters per inch (cpi) or equivalent to point 12 can be used in balancing legibility and clarity against the waste reduction objective. The appearance and readability of the document can be improved by using two columns where the font size used is less than 12 points.

5.16 Provision of Deliverables in Digital Format

5.16.1 The Consultants shall provide the finalized versions of the Deliverables stated below in digital format to the DR: -

- Working papers;
- All reports, executive summaries and manuals except progress reports;
- Design memorandum;
- Consultation materials;
- Gazette documents
- Drawings;
- Programmes;
- Design certificates;
- Design calculations;
- Tender / contract documents;
- Operation and maintenance manuals; and
- Other Deliverables as required by the DR.

The digital copy shall be saved in a Recordable Digital Versatile Disc (DVD-R) and kept in a protective packet attached to the hard copy delivered.

5.16.2 When requested, the Consultants shall also provide the digital copies of the draft versions of the Deliverables mentioned in Clause 5.16.1 of this brief.

5.16.3 Unless otherwise agreed by the DR, the Deliverables referred to in Clause 5 shall be accompanied with the Electronic Document Files.

5.16.4 The Electronic Document Files should be provided in two forms:

- Native Files – these are files containing the contents of the documents in the native format of the application used for creating these files; and
- Image Files – these are files containing the printed image of the Native Files.

5.16.5 The following files formats may be used for electronic document files:

Type of File	Format for Native File
Report and any other text documents	Microsoft Rich Text Format (RTF) Microsoft Word document (DOC) Adobe Acrobat portable document (PDF) <i>(in non-raster format to allow for text extraction)</i>
Bills of Quantities, Schedule of Rates and any other schedules	Microsoft Excel format (XLS) Microsoft Rich Text Format (RTF) Microsoft Word document (DOC) Adobe Acrobat portable document (PDF) <i>(in non-raster format to allow for text extraction)</i>
Scanned text documents	Searchable PDF Adobe Acrobat portable document (PDF)
Programme	MS Project Adobe Acrobat portable document (PDF) <i>(in non-raster format to allow for content extraction)</i>
Drawings	Microstation DGN Adobe Acrobat portable document (PDF) <i>(in non-raster format to allow for content extraction)</i>
Scanned photographs, illustrations, portraits, documents provided by others and documents involving signatures	Tag Image File Format (TIFF), Joint Photographic Experts Group (JPEG) Portable Network Graphres (PNG) Adobe Acrobat portable document (PDF) in non-raster format to allow for content extraction
Video, movie	MPEG-4

5.16.6 The Electronic Document Files shall be saved on DVD-R's complying with the requirements of ISO 9660 and kept in protective cases submitted together with the hard copy. The compact discs shall be clearly labelled on the surfaces and the protective cases with the date of production of the compact discs, the agreement number and title of the Assignment, the name and logo of EMSD, and the name and company chop of the Consultants. In addition, the spines of the cases shall be marked with the agreement number. When requested, the Consultants shall also provide the Electronic Document Files of the draft versions of the Deliverables.

5.16.7 All drawings shall conform to the Computer-Aided-Drafting Standard for Works Projects (latest version) as posted on the Development Bureau's web site <http://www.devb.gov.hk/cswp>.

5.16.8 Upon completion of the Assignment, the Consultants shall submit to the DR two sets of *Draft Brief*

DVD-R(s) kept in rigid plastic cases: -

- (a) The first set of disc(s) shall contain all digital copies of the Deliverables mentioned in Clauses 5.16.1 and 5.16.1 of this Brief.
- (b) The second set of disc(s) shall contain only the Final design Report.

In addition, the first set of DVD-R(s) shall include a digital copy of the Brief to be provided by the DR and an index file in HTML or equivalent format containing the salient points of the Assignment and the following information about each of the digital copies provided: -

- (a) Title of the Deliverables;
- (b) Version number and date of issue of the Deliverables;
- (c) File name of the Deliverables;
- (d) Software used to create the Deliverables;
- (e) Version of the software; and
- (f) Highlights of any intellectual property rights belonging to a third party.

A sample of the index file is included in **Appendix I**.

- 5.16.9 All data generated and computer software / programmes which are developed by the Consultants for the purpose of the Assignment shall be compatible with the Government's computer hardware and shall be submitted to the DR before completion of the Assignment. They shall be properly documented. Licences for computer programmes shall be assigned to the Employer unless prohibited by licensors. The Employer shall have the right to use, or pass to other consultants to use, the computer software, models, data, etc. submitted by the Consultants under this Assignment for further analysis and assessment in relation to the Assignment or other Government projects.
- 5.16.10 The Consultants shall provide the necessary hardware and software to extract the information if it is transferred in compressed format.
- 5.16.11 All documents including reports and any supporting notes, sketches, plans, drawings, photographs, photo montages, charts, models, databases, software programmes prepared or designed for the Assignment and all related digital storage media shall be returned to and shall become the property of the Employer with full copyright. Such documents and information shall be submitted to the DR no later than 60 days of the handover date of the DCS installations by the Contractors.
- 5.16.12 Then requested by the DR, the Consultants shall seek the agreement of the owners of the intellectual property rights to allow the Government to copy, distribute or amend those Deliverables in respect of which there is a pre-existing intellectual property right.
- 5.17 Copyright and Intellectual Property (IP)
 - 5.17.1 The Consultants shall draw the Employer's attention for any Deliverables that are under license and any pre-existing copyright or patent on any Deliverables and any other restriction whatsoever affecting the Employer's use of the same and, if required by the DR, to establish the existence of any license, copyright, patent or restriction and to assist DR in procurement of the necessary license for the proper use of the materials.
- 5.18 All the records must be stored in a safe place by the Consultants before submitting the same to the DR upon the completion of the Assignment or any other dates as instructed by the DR.

- 5.19 For the avoidance of doubt, the Consultants shall note that under Clause SCE17 of the Special Conditions of Employment, the Consultants are required to retain and keep under custody records of all the works contracts. The Employer may take over the site records from the Consultants 2 years after the final certificate of the last works contract has been issued and all the contractual disputes have been settled.

6. Services to be provided by the Consultants

- 6.1 The Services to be provided by the Consultants shall be as defined in the General Conditions and Special Conditions of Employment and as amplified, extended and set out in this Brief. The general services as described in all sub-clauses to Clause 6.5 of this Brief shall, as appropriate and applicable, apply to all phases of the Assignment.
- 6.2 The Consultants shall provide personnel with appropriate qualifications and relevant experience to manage all tasks and shall direct, control and undertake, where appropriate, the services detailed in the following Clauses. The Consultants shall note that the Project is a complex multi-disciplinary project, well qualified specialist staff shall be provided as specified in subsequent clauses of this Brief.
- 6.3 The Consultants shall supervise and direct the execution of the contract works rendered under the E&M Contracts and Pipe Laying Contracts.
- 6.4 Unless otherwise explicitly stated, the Services to be provided by the Consultants as described in this Brief shall be covered by the lump sum fee.

6.5 General

- 6.5.1 The Consultants shall identify all existing or planned facilities, installations and rights that will be temporarily or permanently affected by the Project and recommend optimum diversion / relocation solutions and shall submit the proposals to relevant parties for comments and agreement.
- 6.5.2 The Consultants shall identify any resumption, clearance and reprovisioning that may be required and advise on all aspects of land matters, land values, resumption cost and reprovisioning cost. The Consultants shall avoid land being sterilized and minimize land acquisition and clearance. In this regard, land requirement plans showing the extent of land requirements for alternative options shall be prepared.
- 6.5.3 The Consultants shall liaise and assist in negotiation with Government departments and the general public for any reprovisioning works that may be required in connection with the Project. The Consultants shall make sure that the reprovisioning works will not result in any undue interruption to existing services and facilities.
- 6.5.4 The Consultants shall produce plans, drawings, profiles, sections, specifications and calculations as required for the satisfactory completion of the Assignment. The Consultants shall also produce plans and drawings in appropriate scale containing the setting out details of the boundaries of all development sites within the Project Area, having regard to the proposed Project land requirements such as STGLA from LandsD.
- 6.5.5 The Consultants shall comply with all reasonable instructions of the DR and with guidelines and requirements as stipulated in the latest versions of the Project Administration Handbook, Contractor Management Handbook, circulars of DEVB, ETWB, and Works Bureau, and departmental instructions and circulars from concerned Government departments including but not limited to those from EMSD / CEDD / EPD /

FSD / HyD / LandsD / LCSD / PlanD / TD and WSD, together with other statutory regulations and ordinances in connection with the Project works when performing their Services and providing every assistance to the DR in fulfilling such guidelines and requirements. The Consultants shall also comply with all other Government handbooks, manuals, circulars, standing instructions, technical memoranda, guidance documents and Government regulations that are in force at the relevant time and that may be relevant to the Assignment or as reasonably directed by the DR. Should there be any apparent inconsistencies amongst the concerned documents and guidelines, the Consultants shall draw the DR's attention to the matter for clarification whilst pursuing the Assignment with due diligence in parallel. Some of the relevant circulars and documents are listed in **Appendix D** of this Brief.

- 6.5.6 The Consultants shall comply with and observe all ordinances, by-laws, regulations and rules for the time being in force in Hong Kong. The Consultants shall provide all necessary assistance and input to obtain necessary licence and permits for the implementation of the Project.
- 6.5.7 The Consultants shall undertake any special investigations as may from time to time be required subject to the approval by the DR.
- 6.5.8 The Consultants shall undertake additional work directly or indirectly related to the Project, which may be instructed by the DR and shall form part of the overall scope of the Assignment and be covered by the terms of the Assignment.
- 6.5.9 The Consultants shall ensure that the procedures stipulated in the Stores and Procurement Regulation are followed, and a fair and competitive tendering process is undertaken by them, as far as possible, for the reimbursable items, and that the tender sum / rates are reasonable and present the best value for money.
- 6.5.10 Upon request from the DR, the Consultants shall provide a draft reply to all sorts of complaints, expression of dissatisfaction, accusations and queries raised by the general public, District Councils, local organizations or Government departments in connection with the design development, detailed design and construction of the Project.
- 6.5.11 The Consultants shall consult, liaise, co-ordinate, respond to enquiries and / or complaints, communicate and correspond directly with all relevant Government departments, utilities companies, authorities, public or private bodies and / or individuals, consultants, contractors and developers to obtain information in connection with the Project and on all matters that may be related to the implementation of the Project. In this respect, a selected and non-exclusive list of relevant parties is listed in **Appendix E**. Any correspondence, notes or minutes arising from liaison with these parties shall be copied to the DR. Any problem in consultation, liaison and co-ordination shall be promptly referred to the attention of the DR together with the Consultants' recommendation on how to resolve the problem.
- 6.5.12 Where appropriate, the Consultants shall liaise and co-operate with the vendors, manufacturers or suppliers of plant, materials and proprietary products and take all necessary steps to obtain from them all details, specifications, reference records necessary for the timely and satisfactorily completion of the Assignment.
- 6.5.13 The Consultants shall assist in applying for Excavation Permits (XPs) in connection with the Project through the Internet Interface for Utility Management System (IUMS) implemented by HyD and temporary land allocations in accordance with relevant procedures specified by LandsD. The Consultants shall prepare drawings and relevant information required for application of XPs; input, update and maintain and upload / download the data required

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for XP application through the respective HyD's website. The Consultants shall be responsible for planning, applying, co-ordinating with HyD and LandsD, relevant authorities and Government departments and utility undertakers to obtain XPs and temporary and allocations for ground and site investigations and the contract works. The Consultants are also required to resolve any conflict cases during processing of Excavation Permit applications in the IIUMS and temporary land allocation applications by LandsD. The Consultants shall inform the DR the progress and status of the XP applications and temporary land allocation applications and identify problems that may cause possible delay to the programme of the Assignment. In the implementation stage of XPs and temporary land allocations, the Consultants shall assist the DR in the submission of excavation permit application and temporary land allocation, extension of applications, making advance notification of commencement of works and notification of completion of works, monitoring of the contractor's performance in complying with the requirements, etc. of LandsD and HyD.

- 6.5.14 The Consultants shall, in considering different engineering options for the works elements, pay particular attention to the operation and maintenance requirements of the works and shall only recommend those options that are acceptable to the DCS operator. The Consultants shall in this regard coordinate and liaise with these authorities / parties to ascertain their requirements and secure the necessary agreement to the design solution and corresponding operation and maintenance manuals. The Consultants shall obtain the DSC operator's agreement on design, drawings, contract specifications, handover and commissioning requirements prior to tendering.
- 6.5.15 The Consultants shall coordinate with the DCS operator to assess and update the recurrent consequences for different Sections of works as and when required by the DR.
- 6.5.16 The Consultants shall identify and take cognizance of other projects and all interface issues relating to the Project and identify and resolve any potential or actual conflicts that may arise when they carry out the Assignment. In particular, the Consultants shall identify, assess and manage the interfaces between the Project and the projects and / or assignments and, where appropriate, shall comment on proposals relating to those projects and / or assignments which are in progress / under planning. List of projects and / or assignments which are in progress / under planning are list in **Appendix F**.
- 6.5.17 Specifically, the Consultants shall take into consideration the following specific project interfaces:
- CEDD's Agreement No. CE30/2008(CE) – Kait Tak Development – Infrastructure at Former Runway and Remaining Areas of North Apron and Improvement of Adjacent Waterways – Design and Construction, including Road D3 scheduled to commence in mid 2016 and completed by 2021.
 - CEDD's Agreement No. CE38/2008(HY) – Kai Tak Development – Trunk Road T2 and infrastructure at South Apron – Investigation, Design and Construction, scheduled to commence in
 - HyD's Agreement No. CE43/2010(HY) - Central Kowloon Route (CKR) - Design and Construction. A section of Road D3 will be in the form of a vehicular bridge spanning over CKR. The tentative programme for construction is from early 2015 to end 2020.
 - ArchSD works for Waterfront Promenade behind the Centre of excellence in Paediatrics, scheduled to commence in late 2016.

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The Design Development Phase of respective works packages / contracts shall be carried out with due regard to the key interface issues mentioned above. The Consultants shall in this regard take into consideration extra time required for seeking additional information from respective parties and make sufficient allowance in the implementation programme of the Review, Design Development and Detailed Design Phases. Where additional information is not timely available, the Consultants shall come up with their own proposals and recommendations for reviewing and designing the respective works packages / elements for agreement / approval of the DR, relevant Government departments and other concerned parties. To suit the contract packaging and implementation programme, review of preliminary design of individual works packages / contracts as part of their Design Development Phase shall be carried out and completed in stages as directed by the DR.

- 6.5.18 The Consultants shall note that the Construction Phase of the Project will likely be overlapped with some of the projects mentioned in Clauses 6.5.16 and 6.5.17 of this Brief. The Consultants are required to liaise with relevant parties to resolve the interface issues and to devise, review and update the contract packaging and implementation programme of the Project from time to time.
- 6.5.19 The Consultants shall perform the duties of the Engineer as described in the EMSD's PAH.
- 6.5.20 The Consultants shall be responsible for arranging and directing the inspection and testing of materials, proprietary products and plant involved in the Project, within or outside Hong Kong.
- 6.5.21 The Consultants shall provide, compile and where necessary co-ordinate the periodic returns and statistical information relating to the works contracts pursuant to various Government circulars in force and as required by the DR, and submit the same to the relevant Government departments and / or authorities. The information to be compiled and submitted may include but not limited to plans, drawings and statistical data with respect to the labour, plant, materials, consultants, contractors, works items, etc in different categories and combination.
- 6.5.22 The Consultants shall provide all relevant information relating to the Assignment as may from time to time be required by the DR.
- 6.5.23 The Consultants shall, as early as practicable, agree with the respective departments, authorities, maintenance parties and the DCS operator the arrangements for handing over the completed works, including any acceptance and commissioning tests that may be required. The Consultants shall ensure that the agreed arrangements would be fully allowed for in the construction contracts.
- 6.5.24 The Consultants shall observe and comply with EMSD's requirements on quality assurance system under ISO 9001 and environmental management system under ISO 14001, and carry out tasks and work required for compliance with EMSD's Integrated Management System (IMS).
- 6.5.25 Systematic Risk Management (SRM)
- (a) The Consultant shall perform SRM in accordance with ETWB TCW No. 6/2005 and ETWB Risk Management User Manual to identify risks and uncertainties of the Project and its interfaces with all other projects within the KTD boundary and recommend treatment measures aiming to reduce these risks and uncertainties to acceptable level and to ensure timely completion of the Project within budget and to the required quality. This may include arranging risk management workshops,

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meetings with relevant stakeholders, preparing the risk treatment plans, risk management plans and risk registers, etc. The Consultant shall employ a dedicated professional staff equipped with relevant experience in this field to perform the duty of the Risk Manager.

- (b) The Consultants shall hold all necessary Risk Management (RM) Workshops at venues provided by the Consultants as part of his duty to perform SRM for the Project and its interfaces with all other projects within the KTD boundary. The maximum number of workshops shall not be more than 15. The Report on RM workshop shall be submitted to the DR two weeks after each RM workshop is held. The Risk Manager shall be responsible for reviewing the contractor's risk management plan during the Construction Phase. The Consultants shall also follow ETWB TCW No. 17/2004 in respect of management of risks for the Project.
- (c) The Consultants shall prepare and submit to the DR the Risk Management Plan (RMP), Risk Register (RR) and Risk Treatment Plans (RTP) as described in the relevant circulars, technical guidance note, manual and code of practice. The first set of the document shall be submitted at the time as described in Clause 7 of this Brief. The Consultants shall update thereafter the documents from time to time in accordance with relevant circulars, technical guidance note, manual and code of practice and submit the updated versions to the DR quarterly and at such times as directed by the DR.
- (d) The Consultants shall engage insurance experts to advise on specific insurance needs for the Project in accordance with ETWB TCW No. 7/2005. The Consultants shall adopt a risk-based assessment approach and apply the SRM process to assess whether insurance procurement is appropriate and, if so, what are the appropriate procurement options, coverage and policy wording for construction insurance. The likely premium for procuring such insurance shall also be provided. The Consultants shall assess the compatibility of existing Government standard policy on insurance procurement with the current insurance market and, where appropriate, provide recommendation to modify the standard policy to suit prevailing market conditions. The insurance expert shall exercise his duties free of conflict of interest.

6.5.26 Statutory Gazetting

- (a) Where any works packages / contract elements of the Project require gazetting under relevant ordinances, the Consultants shall prepare and provide in advance draft and final gazette schemes, plans, drawings, press releases and other necessary information / documents, which should be agreed and cleared by all relevant bureaux and departments, to enable early commencement of gazetting procedures.
- (b) The Consultants shall assist the DR to go through all necessary statutory procedures and to resolve objections arising from gazetting of the Project or its parts under various statutory provisions.
- (c) The Consultants may need to modify the design (both engineering scheme and Land Requirement Plans) where necessary to meet the demands of the objectors. The Consultants shall assess the implications of such modifications in terms of engineering, land use, environmental impact, programme, cost and other relevant aspects, for the consideration of the DR, amend the design of the concerned works to suit and make recommendations for submission to the relevant authorities for final decision. The Consultants shall also provide all such technical assistance to the DR until authorization of the proposed schemes of the Project under all relevant ordinances. The Consultants shall observe that it is the intention to authorize all

gazetted works within 4 months of the date for gazetting the schemes and the Consultants shall in this regard assign adequate resources for carrying out all the tasks in this connection.

- (d) For temporary traffic diversions during construction, the Consultant shall, in advance of and / or during the Construction Phase, prepare draft press / gazette notices together with copies of the layouts agreed by relevant Government departments, including Traffic Police and Transport department, and submit to the authorities at least three weeks prior to the gazette date. The Consultants shall update and distribute to relevant Government departments a list of all temporary arrangements being implemented.

6.5.27 Site investigations and surveys

- (a) Except otherwise explicitly stated in this Brief, all surveys, investigations, measurements, recordings and inspections as necessary for the satisfactory completion of the Assignment are to be carried out by the Consultants and the costs so arising are deemed to be covered by the lump sum fee. For avoidance of doubt, all land topographical surveys, environmental surveys, tree surveys necessary are to be carried out by qualified persons of the Consultants as part of the Services.

6.5.28 Laboratory Testing Demand

- (a) Unless otherwise agreed by the DR, all materials compliance testing specified in the works contracts or required by the Engineer for the construction contracts must be done through the Public Works Laboratories following WBTC No. 14/2000. The Consultants shall advise and keep reviews the demand for laboratory testing for the Project to be conducted by the Public Works Laboratories. The Consultants shall forecast and submit the first laboratory testing demand advice comprising the number of different types of testing required for the Project with breakdown for each works contract soon after commencement of the Design Development Phase.

6.5.29 Construction Design and Management

- (a) The Consultants shall appoint a Project Supervisor and for each works contract a Contract Supervisor responsible for performing all the tasks and delivering the documents stipulated in the Guidance Notes on Construction Design and Management published by the former ETWB. The Consultants shall propose for DR's prior approval suitably experienced professionals, of sufficient seniority commensurate with the complexity of the project, for the posts of the Project Supervisor and the Contract Supervisors. The Contract Supervisors shall have professional background in construction. The Consultants shall be responsible for the satisfactory performance of the Project Supervisor / Contract Supervisors and, whenever necessary or as required by the DR, propose replacements for DR's approval.
- (b) The Project Supervisor / Contract Supervisors shall, at various stages of the Project in accordance with the Guidance Notes, submit to the DR the updated "health and safety file" containing the Hazard and Impact Summary, Pre-tender Health and Safety Plan, Outline Health and Safety Plan, Construction Health and safety Plan, Health and Safety Information on Operation and Maintenance and other relevant health and safety information as required by the Guidance Notes. Separately, the Summary of Health and Safety Concerns and the Hazard and Impact Summary shall also be prepared and submitted. During the Construction Phase of each works contract, the Project Supervisor and Contract Supervisors shall keep the content of

the “health and safety file” updated and provide such revisions to the DR quarterly and at such times as directed by the DR.

- (c) The Summary of Health and Safety Concerns shall record major potential concerns or hazards identified by stakeholders, including clients, end-users, maintenance parties, the DCS operator etc., at the Review Phase. The designer’s initial responses and any strategic decisions taken or actions required, together with the appropriate action parties should be set out in the document. The document shall also provide an important basis to facilitate subsequent risk assessment and identification of cost-effective control measures.
- (d) The Hazard and Impact Summary shall contain a detailed summary of significant hazards and impacts expected to be encountered during construction and maintenance of the project. The document shall set out corresponding risk control measures and key decisions that have been considered by the designers in the detailed design in addressing the hazards and impacts.
- (e) The Pre-tender Health and Safety Plan shall contain information based on the Hazard and Impact Summary and should be included in the tender documents for reference by the tenderers.
- (f) Upon completion of the construction works, the Contract Supervisors shall ensure that all the health and safety information relevant to the operation and maintenance of the project are provided by the contract. This is called the “Health and safety Information on Operation and Maintenance” which forms part of the health and safety file.

6.5.30 Energy Saving

- (a) The Consultants shall incorporate suitable energy efficient features and renewable technologies in the design following the guidelines as set out in ETWB TC(W) No. 16/2005 and such provisions shall be allowed for in the project estimate. The consultants shall carry out the design in accordance with the information and codes published by EMSD and / or other relevant standards.

6.5.31 In particular, the Consultants shall:

- (a) Draw the attention of the DR to the need to consider any legal implications and consequences arising out of or in relation to the Assignment;
- (b) Closely coordinate and liaise with the DCS Phase II and Phase III (A) consultants, DCS management consultants, DCS operator, relevant roadworks consultants and other maintenance authorities / parties;
- (c) Take into account, where applicable, the findings of all previous and current relevant environmental impact assessment studies, in particular the EIA studies for the KTD;
- (d) Carry out pipe stress analyses for the complete designed and as-built DCS pipeline system; and
- (e) Updating the total cooling load capacity of the whole DCS at KTD such that installation of any additional E&M equipment could be well planned.

6.5.32 The Consultants shall develop and recommend the mode, system, mechanism and structure to administer, supervise and monitor the performance of the Contractors throughout the execution of the Contracts during the Assignment period. Based on the Consultants' duties as defined in this Brief, the Consultants shall submit a working paper detailing the control and supervision of the Contracts for satisfactory implementation of the Project. The working paper shall include the assessment and recommendations on the following items:

- (a) Review on the Consultants' duties as defined in this Brief for satisfactory control and supervision of the E&M Contracts and Pipe Laying Contracts;
- (b) The strategy for site supervision and the RSS requirements etc;
- (c) Employer's input for supervision, monitoring and control of the implementation and operation of the Project at various stages;
- (d) Control on sub-contracting of the Project;
- (e) The roles and liabilities of the Consultants, the Contractors and the Employer and their inter-relationship;
- (f) Control on programme and progress;
- (g) Detailed design checking procedures for the E&M Contracts and Pipe Laying Contracts in regard to the design and construction of the works and ensure that the Contractors' works are in full compliance with the contracts;
- (h) Construction checking procedures;
- (i) Auditing mechanism;
- (j) Safety and environmental controls on site;
- (k) Site records checking procedure;
- (l) Handling enquiry and complaints from the customers and public;
- (m) Appraisal system on the Contractors;
- (n) Quality assurance procedures;
- (o) Flow chart on major activities and management decision points; and
- (p) Any other items the Consultants consider appropriate.

6.6 Review Phase

6.6.1 The review shall focus on issues in relation to the Project scope, estimated project cost, project justification, construction options, land requirements, site investigations, surveys, environmental implications, project implementation, project programme, key statutory / administrative / consultative steps, in-principle solutions to the basic engineering aspect for use in the Design Development Phase and Detailed Design Phase and any further assessments / studies required for design development under the Design Development Phase of works contracts.

6.6.2 The specific aspects to be addressed during the review shall include but not limited to the follows:

- (a) Alignment and programme of interface roadworks projects;

- (b) Treatment and disposal methods of dredged materials including pre-disposal treatments;
 - (c) Management of construction and demolition (C&D) materials, including on-site sorting / crushing / recycling of inert C&D materials, on-site reuse of sorted / recycled inert C&D materials (e.g. as concrete aggregates or granular bedding materials or seawall rubbles / armour stones, etc), temporary stockpiling and / or off-site disposal of non-inert and also inert C&D materials; and
 - (d) Programme and practicability of the implementation proposals including contract forms.
- 6.6.3 The Consultants shall take into consideration the short timeframe available for seeking additional information from respective parties and therefore should take timely actions for completing the Review Phase. Where additional information is not timely available, the Consultants shall review the works packages / contracts / elements of the Project by coming up with their own proposals and recommendations which are to be further developed under the Design development Phase of works contracts.
- 6.6.4 The Consultants shall identify any requirements on reprovisioning and entrustment works as a result of the Project works and assist in negotiations with the concerned parties and drafting of entrustment agreements.
- 6.6.5 The Consultants shall also, having regard to the findings and recommendations in Clauses 6.6.1 to 6.6.4 as well as the interfacing issues in Clauses 6.5.16 and 6.5.17 of this Brief, also identify and propose strategies / solutions for the following:
- (a) Timely relocation of the existing utilities affected by the Project;
 - (b) All critical issues and constraints which affect the construction sequence and programme of the Project;
 - (c) Phasing and packages for implementation and associated tendering strategy and site supervision arrangement;
 - (d) Design / construction options;
 - (e) Tree felling requirement and tree felling proposal; and
 - (f) Cost estimate, breakdown, cash flows and re-current consequences for each works contract.
- 6.6.6 The Consultants shall prepare, submit and circulate a Review Report for this Review, covering all aspects and summarizing the work done, findings, recommendations and any revisions, additions or modifications required to previous findings and recommendations.

6.7 Design Development Phase and Detailed Design Phase

- 6.7.1 The services as described in Clauses 6.7.2 to 6.7.19 of this Brief shall, appropriate and applicable, apply to both the Design development Phase and Detailed design Phase of the Assignment. Services specific to Design Development Phase are described in Clauses 6.7.20 & 6.7.21 of this Brief, whereas those specific to Detailed Design Phase are set out in Clauses 6.7.22 to 6.7.26 of this Brief.

6.7.2 General

- The Consultants shall not proceed with the Detailed Design Phase of a Section of works of the Project unless and until completion of the Design Development phase of that Section of works and that the Consultants have received the written instruction of the DR. The Consultants shall in this regard propose for agreement of the DR the commencement dates of Design Development Phase and Detailed Design Phase for different Sections of works, having regarded to the programme dates for their corresponding Construction Phases stated in Clause 7 of this Brief and also the timing of availability of interfacing information with other KTD projects.
- Before commencement of the Design Development Phase of a Section of works, the Consultants shall propose and agree with the DR the scope of works to be carried out. In this connection, the Consultants shall seek agreement from all relevant parties and take into account the latest information provided when preparing their proposed scope of works. Upon commencement of the Design Development Phase of a Section of works, the Consultants shall submit a Design Development Phase and Detailed Design Phase programme of that Section of works showing the critical activities and milestone / key dates for the agreement of the DR. The Consultants shall amend the Design Development Phase and Detailed Design Phase programme and reschedule the activities if so instructed by the DR.

6.7.3 The Consultants shall liaise with the consultants of other design consultancies for KTD to ensure consistency between the design under this Assignment and the designs of other KTD projects.

6.7.4 The Consultants shall prepare detailed design, specifications, drawings, dimensions, sections, plans with such design data, design parameters and assumptions, calculations and other information as may be required by the DR for the purpose for or in connection with each Section of works of the Project. In particular, the design shall take into account method of construction and plants likely to be available economically in the market. Quality Control and Environmental Management clauses shall be included in specification for works, where appropriate.

6.7.5 The Consultants shall provide necessary information including updated drawings, estimates, expenditure forecast and programmes and assist the DR to prepare submissions for obtaining funds and authorities for proceeding with the tender and construction phases of each Section of works.

6.7.6 The Consultants shall also identify and advise the DR the need of advance ordering and purchasing of materials, plant, etc. necessary for the construction of the works but not supplied under the contracts for the works. The Consultants shall prepare all necessary bills of quantities, schedules, documents and drawings for the placement of orders by the DR and assist the DR in the placement of orders. The Consultants shall, when necessary and upon instruction of the DR, carry out off-shore inspection of such materials and plant including supervision of the corresponding testing. For avoidance of doubt, the cost so incurred by the Consultants shall be deemed to have been covered by the lump sum fee.

6.7.7 The Consultants shall liaise with the vendors, manufacturers or suppliers of plant, materials and proprietary products to obtain necessary information and details for the timely completion of the Works. The Consultants shall also take into account methods of construction and available plant in choosing particular types of design.

6.7.8 The Consultants shall liaise with relevant bodies, and assist in negotiation for any necessary reprovisioning / relocation works. The Consultants shall also prepare detailed

design necessary for reprovisioning and modification works for existing facilities and installations affected by the Works. The Consultants shall obtain prior agreement from the owners of the facilities and installations regarding the proposed reprovisioning and modifications. The Consultants shall also liaise with relevant utility undertakers regarding their proposed laying of new services in advance of or in conjunction with the Works for meeting the tentative programme or its updated versions.

- 6.7.9 The Consultants shall also plan and design the provisions for preventing trespasses, illegal occupation and dumping at the work sites / areas, taking into consideration the phased completion and handing-over requirements. Agreements to these provisions shall be sought from relevant Government departments.
- 6.7.10 The Consultants shall take into account implementation programme of other KTD projects and identify the need for partial handing over of the completed works and interface problems. The Consultants shall as early as practicable seek prior agreements from the DCS operator on the timing and procedure for handing over. The Consultants shall as necessary include appropriate provisions in the works contract so that temporary maintenance works are carried out by the contractor until the completed works are taken over by the DCS operator.
- 6.7.11 The Consultants shall submit working programmes for each Section of works at the start of the Design development Phase. Along with the working programme, an implementation strategy including the sequence of works, form of contract and plant & labour required should also be prepared. The programme and strategy for each Section of works should be self-contained, able to achieve the objectives of the Assignment and well co-ordinated with other contracts / packages.
- 6.7.12 The works to be constructed under different works contracts shall be compatible and able to function normally and independently at all times. The DCS supply provided in stages shall be able to function effectively notwithstanding the phased completion and handing-over of the works. The normal operation of the DCS supply should not be disturbed.
- 6.7.13 The Consultants shall recommend the types of contract for the works with justifications, the provisions for extension of time, payment method and contract conditions for the approval of the DR.
- 6.7.14 For entrusted works designed by others, the Consultants shall liaise with the original designers to satisfy themselves in all aspects the adequacy of the design of the entrustment works before incorporating the same into the works contracts.
- 6.7.15 For part of the Works to be entrusted to others, the Consultants shall be responsible for preparing, submitting for comments and obtaining agreements / approvals on the relevant design including assumptions, calculations, drawings specifications, schedules, programme, bills of quantities, cost estimate and other documents where appropriate. The Consultants shall also answer queries raised on design of the entrustment works and make design amendment where necessary for proper execution of the entrusted works till completion and to assist in evaluation of offers made by tenderers and to make recommendations when so required during the course of tender assessment.
- 6.7.16 Land Requirement Report and Plans
- (a) The Consultants shall prepare and submit Land Requirement Plans at 1:1000 scales for each works contract under the Project and liaise with the relevant District Lands Offices for timely resolution of any land issues affecting the land acquisition process and, where necessary, prepare revised Land Requirement plans. The Plans shall

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cover lands for all works sites, works areas, stockpiling areas and land / marine construction access needed for completion of the Project. Additionally, tables shall be added to the Plans indicating the registered numbers, approximate area, required clearance dates and anticipated occupation period for each area to be resumed / cleared. The Consultants shall also prepare the setting out drawings, of scale 1:1000 and with co-ordinates.

- (b) In accordance with ETWB TCW No. 27/2003 and other relevant circulars, the Consultants shall also prepare for each works contract/ package of the Project a Land Requirement Report. The Consultants shall assist in the liaison and negotiation with relevant parties for resumption, acquisition, clearance and reprovisioning works for the Works.
 - (c) The Consultants shall also identify the extent of road openings required for any part of the Project that is to be carried out in part of the existing road / footway and to liaise with and to assist to apply for road opening permits from HyD and the Lands Department.
 - (d) The Consultants shall prepare and revise where necessary the design to suit the land requirement plans or revised land requirement plans.
 - (e) The Consultants shall, by making reference to Clause 6.7.22 of this Brief, work out the projected surplus / deficit of the C&D materials for the Project over the implementation timeframe of the Project, taking into account the implementation programme of KTD components and the possible re-use of these materials by other KTD projects, and propose for agreement of the DR the required temporary stockpiling area(s) in terms of the size(s), location(s), accesses and where appropriate the timing for relocations(s). In case temporary stockpiling area(s) cannot be identified within the Project Boundary or KTD area, the Consultants shall propose for agreement by the DR and relevant departments the possible ways to handle the surplus C&D materials and where instructed, assist and provide technical input to conduct a site search exercise for identifying suitable temporary stockpiling area(s).
- 6.7.17 The Consultants shall exercise their best endeavour to preserve trees within and adjacent to the works area. If after exhausting all the practical means and it is still inevitable to fell tree(s) for the purpose of the Project, the Consultants shall submit a Tree Felling Application in the form of a report with drawings and photos covering tree survey information, with recommendations on preservation, treatment, transplanting or felling of trees and compensatory planting proposal, for approval by appropriate authorities. In this respect, the Consultants shall conduct comprehensive consultations with all relevant parties including District Councils, the local residents and Green Groups to solicit their views on the tree preservation / transplanting / felling proposal, as necessary. Applications to fell any tree, accompanied with 2 copies of tree survey plan and tree schedule, shall be sent to Lands Department and / or relevant authorities as appropriate. The plan shall show the accurate location of trees, height, circumference of the trunk and tree spread. The schedule shall also indicate the same plus the tree species, conditions and photographs. The Consultants shall note the permission to remove trees should be sought normally 12 months in advance so that there will be sufficient time for preparing the root system of any tree suitable for transplanting is required.

6.7.18 Utilities

- (a) The Consultants shall closely liaise and co-ordinate with all utility undertakers and relevant Government departments / parties to drive for advance and timely planning, laying and connection of all required utilities, facilities, services and installations (including the existing DCS) to tie-in with the development programme of KTD.
- (b) The Consultants shall identify all existing, planned or proposed utilities, facilities, services and installations (including the existing DCS) having interfaces with the Works and recommend any plans for installation / diversion and any provisions for accommodating these utilities, facilities, services and installations in conjunction with the Works.
- (c) The Consultants shall consult, liaise and meet with other Government departments, utility undertakers and other authorities, bodies, consultants, etc on matters related to the Works and obtain their requirements, comments, agreements and approvals where necessary. The co-ordination of all works in respect of utilities and other services rendered necessary as a result of the Works shall also be the responsibility of the Consultants.

Design Development Phase

- 6.7.19 To suit the contract packaging and implementation programme, review of preliminary design and design memorandum shall be carried out and completed in phases as required by the DR.
- 6.7.20 By completion of this part of the Assignment, the Consultants shall satisfy themselves as to the adequacy of all aspects of the Project and shall wholly assume the design responsibility for the scheme that would be carried forward to the subsequent Detailed Design Phase.

Detailed Design Phase

- 6.7.21 The Consultants shall, for each Section of works, carry out amongst other tasks the detailed design including the preparation of all necessary design drawings and tender documents as part of the Services under the Detailed Design Phase.

6.7.22 Environmental issues

- (a) The Consultants' design output and proposed Works must be free from any unacceptable standalone or cumulative environmental impacts resulting from the proposed works.
- (b) The Consultants shall minimize the generation of C&D materials and maximize the reuse of inert C&D materials in the works of all contracts. If surplus C&D materials are inevitable, the Consultants shall liaise with EPD and the Public Fill Committee (PFC) in respect of the disposal requirements and determine the most appropriate means of disposal of the contaminated / uncontaminated materials and non-inert materials including any remediation measures and post-remediation monitoring. The Consultants shall prepare a topic report on the proposed C&D materials management plans (C&DMMPs) including programme of generation and consumption of inert C&D materials for the Project as well as separate C&DMMPs for each of individual works contracts. In accordance with ETWB TCW No. 33/2002,

if the project generates in excess of 300,000m³ of C&D material or require imported fill exceeding 300,000m³, the proposed C&DMMP should be vetted and endorsed by the departmental Vetting Committee before submitting it to the PFC for approval. The C&DMMPs shall be updated from time to time as required by the DR.

- (c) The Consultants shall incorporate the requirements of waste management plan in all works contracts.

6.7.23 Particular provisions in contracts and documentation

- (a) The Consultant shall, for each works contract, prepare the tender documents including Conditions of Contracts, Drawings, Specifications, Bills of Quantities, Schedule of Rates and a revised estimate of cost together with all documents, matters or things that may be necessary or required to enable the Employer to invite tenders or otherwise place order for the works. The Consultants shall supply the required copies of draft and finalized tender documents to the DR for each works contract.
- (b) The Consultants shall, as far as possible, adopt the standard Government contract documents in particular the Government's contemporary version of Conditions of Contract, Special Conditions of Contract, Conditions of tender, Form of Tender, Special Conditions of Tender, Standard Drawings, Specifications, Bill of Quantities and Schedule of Rates being maintained in the library or prevalently used by the Employer.
- (c) The General Conditions of Contract shall remain unaltered. Any necessary amendments required shall be by means of Special Conditions of Contract authorised in writing by the DR. In case any non-standard Special Conditions of Contract is deemed necessary, the Consultants shall recommend and provide justifications to the DR for approval. The Consultants shall make due allowance in their programme to obtain such approval.
- (d) The Consultants shall submit any revisions to established technical specifications for comments and approval by the DR.
- (e) Regarding the computer facilities including software for works contracts, the Consultants might be allowed to acquire computer facilities via works contracts provided that the purposes of such facilities are solely for the supervision of the Works. The Consultants shall justify the necessity of the facilities along the cost estimate for the approval by the DR and exercise their best endeavour to prevent any use of unauthorized or pirated software.
- (f) The Consultants shall prepare, in respect of the Project and its individual works contracts, detailed estimates of the costs (both capital and recurrent costs) and expenditure pattern and overall financial implications including cash flow projection and detailed breakdown of the estimates, using risk analysis technique in accordance with WBTC No. 22/93, and update the estimates in accordance with the programme referred to in Clause 7 of this Brief and / or as required by the DR during the course of the Assignment. The risks to be included and assessed in preparing the cost estimates shall cover those identified from the Systematic Risk Management process. In addition, the Consultants shall take cognizance that the Employer may seek funding approval before the completion of the detailed design / tender documentation and the Consultants shall in this regard prepare a reasonably

accurate estimate (both capital and recurrent costs) for each works contract for the purpose.

6.7.24 Quality Site Supervision Plan (QSSP)

- (a) Upon completion of the detailed design, the Consultants are required to prepare a QSSP and their own quality management system. The Consultants shall prepare and submit a QSSP for each works contract in line with the strategy of site supervision recommended in its Design Development Phase, which shall include, but not limited to the following details:
- (i) A detailed site supervision arrangement, including arrangements for supervision of construction activities that are required to be carried out outside the normal working hours of the RSS;
 - (ii) A list of critical construction activities and structural elements that require special attention together with the associated supervision requirements for such items, where appropriate the level of supervision and the rank of staff who should perform the supervision of such items and / or sign the Request for Inspection Form (or a purposely made inspection form for a particular activity or test);
 - (iii) If necessary, the Consultants shall also specify any critical construction activities, structural elements and particular aspects or details that should be noted by the inspection officer on the Request for Inspection Form for future reference;
 - (iv) A guideline on the details of inspection to be recorded for specialist works or critical elements; and
 - (v) In case it is envisaged that construction of fabrication works will be carried out outside Hong Kong, the Consultants shall formulate supervision requirements and inspection arrangement for such works. The Consultants shall also prepare comprehensive guidelines to be followed by the RSS who need to conduct inspection visits outside Hong Kong. The guideline shall include the three minimum requirements as given below:
 - In the event that production activities in a works contract are undertaken outside Hong Kong, the supervisory staff conducting inspections on the production sites outside Hong Kong shall, to the best of their knowledge, declare to the Engineer for the contract if the main contractor, sub-contractor for the production activities, or any of their employees in his spouse, family member, or close relatives.
 - Such inspection visits shall also be subject to the approval of the Consultants. Where the contractor makes arrangement for transportation, accommodation and entertainment including meals, such arrangement shall be agreed to by the Engineer for the contract beforehand. Other than the agreed arrangement, supervisory staff shall not be allowed to receive any form of hospitality or entertainment from the contractor during such inspection visits.
 - Should the supervisory staff incur reimbursement expenses in the course of inspection, all claims for reimbursement should all be made to the Consultants in accordance with the prevailing rules and regulations for

such. The Consultants will in turn seek reimbursement from the contractor where applicable. Under no circumstances should any staff seek reimbursement direct from the contractor.

- (b) The QSSP and its execution shall be subject to Employer's technical audits.
 - (c) The Consultants shall review the QSSP with the RSS during the Construction Phase.
 - (d) The requirement on QSSP as stipulated in Clauses 6.7.24(a) & (c) of this Brief shall also be applicable to any site investigations and surveys conducted under this Assignment.
- 6.7.25 On completion of the Detailed Design Phase of each works contract, the Consultants shall submit full sets of design calculations to the DR. Where necessary, the Consultants shall also update and revise the Design Memorandum to incorporate any changes for submission to the DR.
- 6.8 Tender Phase**
- 6.8.1 The Consultants shall not proceed with the Services under this Phase in respect of any individual works contracts until instructed in writing by the DR for the subject works contracts. No expenditure under this Phase shall be incurred without the prior agreement of the DR. Upon the instruction from the DR, the Consultants shall carry out the Services as detailed in this Phase. Where necessary, the Consultants shall prepare any briefing notes, updated estimates for the works contracts and provide all necessary assistance to enable the DR to obtain authority to proceed with them.
- 6.8.2 The Consultants shall invite tender for each Section of works at least 4 months prior to the date of commencement of each Section of works specified in Clause 7 of the Brief.
- 6.8.3 The Consultants shall recommend the List of Public Works Contractors eligible for tendering.
- 6.8.4 The Consultants shall note the requirements for the contractors and tenderers in respect of the requirements for the ISO9001 certificate when preparing the tender documents.
- 6.8.5 The Consultants shall certify the tender documents & drawings of "tender" status and the associated construction programme prior to submitting to the DR for approval. All drawings supplied under this Clause shall have been signed by the designer and also signed by the designer and checker and also signed as approved by the Project Director. In connection with Clause SCE7 of the Special Conditions of Employment, any major revisions to the approved documents shall be submitted to the DR for approval before dissemination.
- 6.8.6 The Consultants shall provide sufficient copies of the tender documents and associated documents for each works contract in hard copies and electronic dissemination package for collection by interested parties.
- 6.8.7 The Consultants shall assist the DR in calling tenders for the works contracts in accordance with ETWB TCW No. 33/2004, by undertaking inter alia the following:
- (a) Distributing tender documents;
 - (b) Where necessary, holding pre-tender meeting;

- (c) Answering queries on tender documents;
- (d) Issuing tender addenda; and
- (e) Any other tasks relating to tendering.

In respect of (d) above, any tender addenda shall be approved by the DR before dissemination.

- 6.8.8 The Consultants shall note the requirements on design and alternative design by tenderers and be responsible for assessing the feasibility of any alternative tenders submitted. The Consultants shall advise on the acceptability of the alternative tenders.
- 6.8.9 The Consultants shall assess the tenders obtained, advising on the selection of a tender for acceptance and prepare the tender assessment / recommendation report including obtaining any clarification or confirmation from tenderers, evaluating alternative tender offers, answering queries from Tender boards and assisting the Employer in negotiating with the tenderers. The Consultants shall timely submit the tender assessment reports for the DR's endorsement with a view to submitting the tender reports to the appropriate tender board within 3 (three) weeks from the tender closing date. The Consultants shall observe the requirements in respect of avoiding conflict of interest in assessing tender submissions. In particular, the Consultants shall incorporate a statement about avoidance of conflict of interest into the assessment report.
- 6.8.10 The Consultants shall provide advice as may be required by the DR up to the acceptance of the preferred tender and Contract award and assist the DR to seek approval from the relevant tender board on the acceptance of recommended tender.
- 6.8.11 The Consultants shall be responsible for informing all the unsuccessful tenderers of their individual results after acceptance of the assessment report by the Central Tender Board or other appropriate tender boards. The Consultants shall also assist the DR to provide feedback including holding post-tender meetings and debriefing to unsuccessful bidders in accordance with ETWB TCW No. 42/2002.
- 6.8.12 The Consultants shall recruit RSS as required. The Consultants shall propose and submit for the DR's agreement the RSS establishment necessary for supervision of the Works. The Consultants shall consult the DR with regard to the suitability of the RSS prior to their appointments. The Consultants shall also prepare and submit to the DR a RSS Manual giving details on authorities, duties, responsibilities and contract arrangements and works supervision procedures for the guidance of all grades of the site establishment. Before recruitment, the Consultants shall obtain prior consent from the DR to ensure that funds are available for the RSS salary costs. The Consultants shall draft newspaper advertisement for the DR's agreement and arrange for posting on newspapers in good time. The newspaper advertisement costs shall be on reimbursable basis.

6.9 Construction Phase

- 6.9.1 The Consultants shall not proceed with the Services under this Phase, for any Section of works, until instructed in writing by the DR for that respective Section of works. No expenditure under this Phase shall be incurred without the prior agreement of the DR.

6.9.2 Execution of the Articles of Agreement

- (a) The Consultants shall firm up the list of correspondence forming part of the contract. The contractors' written agreement on the list of correspondence forming part of the contracts shall be sought and copied to the DR.
- (b) The Consultants shall prepare and provide contract documents including the drawings of "contract" status for purpose of executing the Articles of Agreement.
- (c) The Consultants shall prepare at least 4 (four) sets of documents for the Employer to execute the Articles of Agreement. The original set shall contain originals of all the correspondence forming part of the contract including the letter of acceptance. The duplicate set shall be delivered to the contractors for their retention and the contractors' acknowledgement letter shall be sought and copied to the Employer. The DR shall retain the triplicate set whereas the quadruplicate set shall be kept by the Consultants for the production of certified true copies of the documents as required by this Brief.
- (d) The Consultants shall prepare publicity materials of the contract signing ceremony and press release where directed by the DR.

6.9.3 Contract Administration & Management

- (a) The Consultants shall carry out the duties of the Engineer under the terms of the contracts and as detailed in the EMSD's PAH for the construction, completion, maintenance and supply of the works contracts which shall be deemed to include the coordination works with utilities, authorities, Government departments, bodies or persons for or in connection with or necessitated by the Assignment. The Consultants shall administer the works contracts including timely dealing with claims, negotiating rates for variations and issuing variation orders, and appoint Engineer's Representative on site for carrying out day-to-day supervision of the works.
- (b) The Consultants shall submit detailed cost estimates and expenditure forecast of the works contracts with detailed breakdown to the DR to facilitate the Employer in budgeting exercises and funding applications according to Clause 9 of this Brief.
- (c) The Consultants shall report on any difficulties experienced during construction and the suitability of alternative construction methods for similar works elsewhere within and outside Hong Kong.
- (d) The Consultants shall be responsible for assessing feasibility, checking details of alternative designs submitted by contractors, making recommendation and preparing agreements for acceptance of contractors' alternative designs by the Employer. The Consultants shall carry out similar duties for contractors' alternative designs for works designed by the Consultants and entrusted to others for construction.
- (e) The Consultants are to observe the timing and submission requirements of the monthly wage returns to the Census & Statistics Department, the Employer and other departments for works contracts and other statistical returns as required by the DR and various DEVB/ ETWB TCWs and other departmental circulars.

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- (f) According to Clause SCE7 of the Special Conditions of Employment, the Consultants shall report to the DR all claims for additional payment by the contractors and refer the principles underlying their assessment of each claim to enable the Employer to provide his view.
- (g) According to Clause SCE7 of the Special Conditions of Employment, the Consultants shall report to the DR any delay and refer the principles underlying their assessment on extension of time for completion to enable the Employer to provide his view.
- (h) The Consultants shall prepare the contractors' performance report and performance index and provide sufficient supporting evidence for substantiating the report.
- (i) The Consultants shall devise a handing over plan, with flexibility of phased handing over (or opening to public) of the completed works (including plan for temporary maintenance of completed works if necessary) for agreement by the DCS operator for the handover of the completed works. The Consultants shall ascertain with the DCS operator in well advance their detailed requirements on the handing-over pre-requisites (e.g. submission of information, general layout plans, as-constructed drawings, maintenance manuals, calculations, certificates, approvals, etc) necessary for operation and maintenance of the contract works and utilities.
- (j) The Consultants shall give at least three months' notice to the DR of the intension to issue to a contractor a completion or taking-over certificate for the whole or part of the contract works under any works contracts. Before issuing the completion certificate, the Consultants shall arrange a joint inspection for the purpose of handing over the completed works to Government and / or other concerned parties with representatives of the DR and the DSC operator. The Consultants shall provide, at least three weeks prior to this inspection, all such handing-over prerequisites as necessary for handing over. Where requested by the DCS operator, the Consultants shall advance the preparation of and complete these pre-requisites to facilitate smooth handing over of the works.
- (k) The Consultants shall also carry out all other duties and tasks necessary for the satisfactory completion of the works contracts including but not limited to the following:
 - (i) Prepare all revisions to the designs prepared in the Detailed Design Phase, further designs, drawings, bill of quantities, schedules, estimates and related things necessary for the completion of the contract works;
 - (ii) Prepare progress reports and estimates of expenditure for the works contracts and attend meetings on monthly basis or as required during the progress of the contract works;
 - (iii) Prepare information or consultation papers for submission and presentation to LegCo, District Councils, authorities, committees, local community groups, institutions, professional bodies, interested groups, members of public, etc;
 - (iv) Advise on, arrange where necessary and direct the inspection and testing of materials and plant supplied for the contract works, either within or outside Hong Kong (for RSS to undertake outside work, prio written approval of the DR must be obtained. Guidelines on outside work to be undertaken by RSS issued by the Development Bureau should be referred. With the exception set

out in the Guidelines, failure to obtain such approval may result in disapproval of the employment of the RSS);

- (v) Check and liaise with relevant Government departments on the actual traffic diversion and management proposals made by the contractors. The Consultants shall also liaise with various utilities regarding their relocation / reprovisioning and laying of apparatus in conjunction with the contract works;
- (vi) Submit timely any major revisions to approved designs and / or technical specifications of the contract works, having sought the consent of the DR, for comments and approval to those Government departments that will occupy, operate and / or maintain the completed contract works;
- (vii) Timely prepare draft press / gazette notices together with copies of the layouts agreed b relevant Government departments, including Traffic Police and Transport Department, on temporary traffic diversions to be implemented during construction for submission to the authorities at least three weeks prior to the gazette date;
- (viii) If so required by the DR, reporting and / or giving briefing to Government officials or external parties and appropriate on difficulties experienced during construction and the suitability of the type of construction for similar works else where in Hong Kong;
- (ix) Agree with the DR / DCS operator the methodologies, duration, criteria etc. of the testing, commissioning and acceptance arrangement for equipment and system. The period for process commissioning shall be recommended by the Consultants fro the agreement by the DR / DCS operator. The Consultants shall submit a working paper which includes the followings:
 - The types, details and justifications of the recommended commissioning tests;
 - The schedule of the tests;
 - The acceptance criteria of the tests;
 - The reporting format of the tests; and
 - Any other items the Consultants consider appropriate.
- (x) Assist in settling disputes or differences between the Employer and contractors except mediation, adjudication, arbitration and litigation for which the Consultants shall assist by providing all the necessary data and information; and
- (xi) Prepare "as-constructed" film drawings immediately as and when the respective parts of the contract works have been completed.

6.9.4 Supervision

- (a) The Consultants shall be responsible for the supervision and directing the execution of all the construction contracts under the Project as well as the appointment and management of RSS. The Consultants shall regularly review the RSS establishment, taking into account the diminishing workloads towards the completion of construction contracts, and submit for the DR's agreement the revised RSS establishment necessary for the site supervision works. The Consultants shall observe that the appointment of RSS for site supervision of construction contracts

does not absolve the Consultants' eventual responsibilities in contract administration and financial control.

- (b) The Consultants shall agree with the DCS operator on the procedures for site acceptance tests of equipment and system, supplied under the contracts and those works to be handed over to them, prior to the tests being carried out. Such tests shall, where possible, be carried out in the presence of representative of the relevant parties.
- (c) The Consultants shall closely monitor the progress of the works and report to the DR any adverse impacts to the programme, quality and cost of the works. The Consultants shall recommend options for any necessary remedy to mitigate the impacts arisen including the associated cost of the options and the effects on the completion of the contracts.
- (d) The Consultants shall ensure that any notifiable accidents occurred in the sites are reported and that the procedures in reporting accidents under CEDD TC No. 3/2008 are fully complied with.
- (e) Without prejudice to Clause 14 of the General Conditions of Employment, the Consultants including RSS on site shall provide assistance and facilities to the following EMSD staff for carrying out their duties under their ambits:
 - Contract Advisor for conducting technical audits of works contract;
 - Safety Advisor for conducting site safety inspection and audits.
 - External and internal EMSD Integrated Management System (IMS) audit teams for conducting IMS audits.
- (f) The Consultants shall engage suitably qualified and experienced geotechnical supervision personnel to supervise the geotechnical works (including associated temporary works and blasting activities, the construction of which could pose significant risk to public life and property) and the related construction activities and the ground investigation under the works contracts.
- (g) The Consultants shall provide training and refresher courses to the RSS. The Consultants shall also identify special training requirement regarding the supervision of critical construction activities and critical structural elements and provide the necessary training to the RSS.
- (h) The Consultants shall, at the commencement of works, review the QSSP (against the activities described by the contractor in his quality plan prior to the execution of works), and conduct regular reviews of the QSSP with the RSS subsequently, and as the need arises, and make necessary updating and modification in order to suit the actual circumstances, and the Consultants shall report in the progress reports the status of implementing the QSSP and any major modifications to it as a result of the reviews. The Consultants shall submit a revised QSSP to the DR if there is a major revision and as requested by the DR.

6.9.5 Excavation Permits (XPs)

- (a) The Consultants shall nominate a professional acceptable to the Employer to be named as the contact person of the Employer in applications for XPs and, where

applicable, emergency XPs pursuant to the requirements of the Land (Miscellaneous Provisions) Ordinance, Cap 28.

- (b) (i) The Consultants shall carry out all duties imposed upon the Employer under the Land (Miscellaneous Provisions) Ordinance, Cap 28 or under the conditions of the XP and, where applicable, emergency XPs in so far as such duties have not been imposed only on the contractor under the Ordinance or under the works contract.
 - (ii) Notwithstanding (i) above, the Consultants shall not be liable to the Employer in respect of the obligations, stipulated under the following conditions of the XPs and, where applicable emergency XPs:
 - The condition stipulated in the XPs and, where applicable, the emergency XPs relating to the obligation and liability of the Permittee to indemnify the Government against all losses and claims for injury or damage to any person or property, nuisance, disruption or interference whatsoever which may arise out of or in consequence of the work of the Permittee, and against all claims, demands, proceedings, damage, costs charges or expenses whatsoever in respect thereof or in relation thereto; and
 - The condition stipulated in the XPs and, where applicable, emergency XPs relating to the obligation and liability of the Permittee to make good or pay for any works as a result of or in consequence of the work of the Permittee.
 - (iii) (ii) above is without prejudice to Clause 22 of the General Conditions of Employment.
- (c) The Consultants shall ensure that the contractor complies with the permit conditions imposed by the Authority under the Land (Miscellaneous Provisions) Ordinance, Cap 28, including those conditions stipulated in the XPs and, where applicable, emergency XPs to be observed by the Nominated Permittee or by both the Permittee and Nominated Permittee and those stipulated in the XPs and, where applicable, emergency XPs to be observed by the Permittee but which the contractor is required to comply with under the works contract.
 - (d) In respect of permit conditions which are stipulated in the XPs and, where applicable, emergency XPs to be complied with by the Permittee by which are required to be complied with by the contractor under the works contract, if notwithstanding (i) above, the contractor has failed to comply with these conditions, the consultant shall take such actions so as to ensure that these conditions are complied with by the Employer in his capacity as the Permittee irrespective of whether these actions are required to be carried out by the contractor under the works contract.
 - (e) Clauses 6.9.5(a) to (c) above shall apply only with respect to excavation in streets maintained by HyD that requires XPs and, where applicable, emergency XPs under the Ordinance for execution of the Works.
 - (f) The Consultants shall engage a competent person to supervise the excavation works on behalf of the Employer, maintain a documented system for supervising the excavation works and maintain a documented system to ensure that the contractor complies with his duties in relation to excavation works. The attention of

the Consultants is drawn to Section 10T(5) and (6) of the Land (miscellaneous Provisions) Ordinance, Cap 28.

- (g) In case the Employer is to re-enter the site before contract completion, the Consultants shall ascertain the work done by the expelled contractor and arrange the necessary re-entry. The Consultants shall only be reimbursed the input for preparing the completion contract for completing the outstanding works left over due to re-entry.

6.10 Completion Phase

- 6.10.1 The Consultants shall carry out the duties of the Engineer under the terms of the works contracts for the completion, maintenance and supply of the contract works which shall be deemed to include the co-ordinating of the works carried out by others in connection with or necessitated by the Assignment. The Consultants shall also administer the works contracts in the maintenance period and the establishment period and supervise any outstanding / remedial works carried out within these periods.
- 6.10.2 The Consultants shall evaluate and assess contractor's outstanding claims on extension of time and variations promptly such that the contract accounts could be finalized as early as possible. The Consultants shall endeavour to finalize the contract accounts in accordance with the time requirements stipulated in Clause 7 of this Brief.
- 6.10.3 The Consultants shall devise a handing over plan, with flexibility of phased handing over (or opening to public) of the completed works (including plan for temporary maintenance of completed works if necessary) for agreement by the DCS operator for the handover of the completed works. The Consultants shall ascertain with the DCS operator in well advance their detailed requirements on the handing-over pre-requisites (e.g. submission of information, general layout plans, as-constructed drawings, maintenance manuals, calculations, certificates, approvals, etc.) necessary for operation and maintenance of the contract works and utilities.
- 6.10.4 The Consultants shall give at least three months' notice to the DR of the intention to issue to a contractor a completion or taking-over certificate for the whole or part of the contract works under any works contracts. Before issuing the completion certificate, the Consultants shall arrange a joint inspection for the purpose of handing over the completed works to Government and / or other concerned parties with representatives of the DR and the DCS operator. The Consultants shall provide, at least three weeks prior to this inspection, all such handing-over pre-requisites as necessary for handing over. Where requested by the DCS operator, the Consultants shall advance the preparation of and complete these pre-requisites smooth handing over of the works.
- 6.10.5 Before expiry of the maintenance period for any certified completed works, the Consultants shall arrange final joint inspections of the contract works with representatives of the DR and the DCS operator respectively and jointly. The "as-constructed" drawings shall be submitted prior to these final inspections. Before the issue of any maintenance certificates for the whole of the works or parts of the works, the Consultants shall confirm with representatives of the DR and the DCS operator that there are no outstanding works or repairs.
- 6.10.6 The Consultants shall prepare and submit for completed works the as-constructed drawings, all necessary operation and maintenance manuals, survey data, works instructions, revised design calculations (in hard copies and electronic files as required).

- 6.10.7 The Consultants shall ensure that all the site records are stored in a safe location before handing over them to the DR upon request or until such a date to be agreed with the DR. The site records and accounts submitted for the works contracts shall be equipped with proper classification / indexing system to enable easy retrieval of information.
- 6.10.8 The Consultants shall be required to participate in the dispute resolution processes, namely mediation, adjudication, arbitration and litigation. For the avoidance of doubt, the extra-contractual negotiations (including the preparation of agreements) involving only the Employer, Contractor and the Engineer for resolving any disagreement, argument or settlement of claims for works contracts shall not be considered as any dispute resolution process and the Consultants' input in negotiation shall form part of the Services under this Agreement.
- 6.10.9 Where directed by the DR, the Consultants shall carry out regular settlement survey and monitoring for the completed works and the adjoining areas and submit the document results to the DR, together with assessment on the ground behaviour and reasons for settlement/ movements as well as recommendations on any required remedial measures.

6.11 Overall completion of the Assignment

- 6.11.1 The Consultants shall respond to queries raised until completion of the Assignment.
- 6.11.2 Should the Consultants consider all the Services under the assignment have been accomplished and obligations fulfilled, they shall then seek the DR's explicit confirmation of completion of the Assignment by referring to this Clause. Upon explicit written agreement by the DR in this regard, the Assignment is then deemed completed. Otherwise, the Consultants are required to continue their Services until receipt of the DR's agreement.

7.0 Programme of Implementation

- 7.1 The due date for commencement of the Agreement is **April 2014**.
- 7.2 Pursuant to Clause 26(B) of the General Conditions of Employment, the Consultants shall submit a draft programme and the revised draft programmes and the DR for comments, agreement or instruction in accordance with the following schedule:

Submission of the draft programme	:	Within 2 weeks after the commencement of the Agreement
Agreement of the draft programme or instruction to submit a revised draft (by the DR)	:	Within 2 weeks from receipt of the draft programme until acceptance by the DR
Submission of revised draft programme	:	Within 2 weeks from the instruction by the DR

The draft programme and revised draft programme shall detail the activities to be carried out, target dates for particular tasks and any decision dates that may be required for the uninterrupted progress of the Assignment. The Consultants shall discuss with the DR during the above periods to agree the timing of submission of reports, other documents and plans for each of the main elements of the Assignment, for inclusion in the draft

programme and revised draft programme. The critical path(s) shall be clearly highlighted in the programme.

7.3 In addition to the programme referred to in Clause 7.2 of this Brief, the Consultants shall submit detailed works programmes as detailed below for each Section of works showing the activities to be carried out from Design development Phase through to Completion Phase. These work programmes and their subsequent revisions shall form the baseline for monitoring and measurement of milestone achievements. The consultants shall keep close vigilance of the progress on their own work, report immediately and deviations from the work programme, propose and implement necessary measures to make up the deviations:

- (a) When seeking the DR's approval to the commencement of the respective Design Development Phase and Detailed Design Phase of each Section of works, the Consultants shall submit a programme showing but not limited to the key dates of the design development and detailed design phases, overall design plan, milestone, consultation and key dates for critical events based on the scope of that Section of works.
- (b) The Consultants shall upon instruction by the DR or three months before the commencement of the tendering of the construction contract, whichever is the earlier, submit a programme for activities in the Tender Phase plus a preliminary programme for each Section of works / works contract showing the construction period of all significant elements of works for the DR's agreement.
- (c) The Consultants shall submit a detailed construction programme for DR's reference at least one month prior to the tendering of the works contract.
- (d) During the Construction Phase of any works contract, the Consultants shall, based on the contractor's programme, forward a construction programme adequate for project management purposes for inclusion in the Progress Reports for DR's reference. This programme shall be updated monthly to take account of all changes and the Consultants shall in this regard assess and advise the DR their own views on the anticipated completion dates of the works contracts and their respective Sections of works.
- (e) Within 14 days from the issue of the completion certificate of a works contract, the Consultants shall submit a programme for preparation of the drawings & calculations of "as-constructed" status and the particular Deliverables to the DCS operator for completed works under certification. The Consultants shall update the programme upon issue of every subsequent completion certificate by incorporating the additional preparation works into the previously agreed programme.

7.4 The key dates referred to in Clauses 7.2 and 7.3 of this Brief shall include but not be limited to the following:

Item	Work Package / Contract	Key Date
1	Commencement of construction for works in Section B2	February 2015
2	Commencement of construction of works in Section B3	May 2015
3	Commencement of construction of works in Section R1	July 2016
4	Commencement of construction works in Section R2	December 2015
5	Commencement of construction works in Section R3	December 2015
6	Commencement of construction works in Section R4	December 2015
7	Commencement of construction works in Section R5	December 2015

8	Commencement of construction works in Section R6	December 2015
9	Commencement of construction works in Section R7	August 2016
10	Commencement of E&M works, Section EM1	December 2015
11	Commencement of E&M works, Section EM2	June 2017

Submission of Key Deliverables

1.	Draft Inception Report	Within 2 weeks from due date for commencement of the Assignment
2.	Final Inception Report	Within 1 week after endorsement of the Draft Inception Report
3.	Draft Review Reports	Within 2 months from due date for commencement of the Assignment
4.	Final Review Report	Within 4 months from due date for commencement of the Assignment
5.	Draft documentation on SRM	Within 5 months from due date for commencement of the Assignment
6.	Final documentation on SRM	Within 7 months from due date for commencement of the Assignment
7.	Draft documentation on Construction Design and Management Plan for each works contract	At least 3 months prior to commencement of Detailed Design Phase of the subject works contract
8.	Final documentation on Construction Design and Management Plan for each works contract	At least 1 month prior to commencement of Detailed Design Phase
9.	Draft Preliminary Design and Design Memorandum Review Report for each works contract	At least 4 months prior to commencement of Detailed Design Phase
10.	Final Preliminary Design and Design Memorandum Review Report for each works contract	At least 1 months prior to commencement of Detailed Design Phase
11.	Draft Land Requirement Report and Plans for each works contract	: At least 4 months prior to commencement of Detailed Design Phase
12.	Final Land Requirement Report and Plans for each works contract	: At least 2 months prior to commencement of Detailed Design Phase
13.	Draft Tree Survey Report, Detailed Landscape Proposal and Tree Fell Application for each works contract	At least 5 months prior to commencement of Detailed Design Phase
14.	Final Tree Survey Report, Detailed Landscape Proposal and Tree Fell Application for each works contract	At least 3 months prior to commencement of Detailed Design Phase
15.	Draft C&D materials management plan for each works contract	: At least 2 months prior to commencement of Detailed Design Phase

16.	Final C&D materials management plan for each works contract	:	By commencement of Detailed Design Phase
17.	Draft statutory gazettal documents for each works contract	:	At least 3 months prior to each publication of gazette notice
18.	Final statutory gazettal documents for each works contract	:	At least 1 month prior to each publication of gazette notice
19.	Draft RSS establishment, Manual and QSSP for works contracts	:	At least 4 months prior to commencement of the first works contract or within 1 month upon instruction of the DR
20.	Final RSS establishment, Manual and QSSP for works contracts	:	At least 2 months prior to commencement of the first works contract or within 1 month upon instruction of the DR
21.	Updated final resident site staff establishment, Manual and QSSP for works contracts	:	At least 2 months prior to commencement of each works contract or within 1 month upon instruction of the DR
22.	Design calculation and update of Design Memorandum of each works contract	:	At least 2 months prior to tender invitation
23.	Draft pre-tender cost estimate for each works contract	:	At least 4 months prior to tender invitation
24.	Final pre-tender cost estimate for each works contract	:	At least 1 months prior to tender invitation
25.	Draft tender document for each works contract	:	At least 4 months prior to tender invitation
26.	Final tender document for each works contract	:	At least 1 month prior to tender invitation
27.	Draft tender assessment report for each works contract	:	Within 2 weeks after tender closing
28.	Final tender assessment report for each works contract	:	Within 3 weeks after tender closing
29.	Contract document for each works contract	:	At least 1 week prior to commencement
30.	As-constructed drawings, survey data, revised Design Memorandum and revised design calculations with Design Certificates for each works contract	:	2 months before the target handing-over date or within 1 month following the issuance of completion Certificate
31.	Draft Operation and Maintenance Manuals for each works contract	:	At least 4 months prior to completion of detailed design
32.	Final Operation and Maintenance Manuals for each works contract	:	At least 1 months prior to completion of detailed design
33.	Updated final Operation and Maintenance Manuals for each works contract	:	At least 2 months prior to issue of Completion Certificate

34.	Final account for each works contract :	Within 10 months following issuance of Completion Certificate
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- 7.5 The consultants shall endeavour to ensure that the Assignment is implemented in accordance with the programme and, when necessary, submit revised version for agreement of the DR to suit circumstances.
- 7.6 The Consultants shall submit an abridge version of the programme or the revised programme agreed by the DR as part of the Progress Reports as required in Clause 8 of this Brief.

8. Progress Reports

- 8.1 The Consultants shall submit to the DR progress reports at monthly intervals on all aspects of the Services relating progress to the programme referred to in Clause 7 of this Brief. The reports shall include a list of those parts of works under the E&M Contracts and the Pipe Laying Contracts, the execution of which are behind the programme with explanations for the delay, together with proposals to expedite progress so as to complete the Assignment on time. The Reports shall also highlight any change to the Consultants' team / management structure and give justifications for the change.
- 8.2 A schedule of deliverables shall be appended to the Progress Report showing the latest position of all submitted and outstanding deliverables, including the required, target and actual dates of distribution, addresses of individual deliverables, and date of response from each addresses.
- 8.3 A schedule of meetings shall be appended to the Progress Report showing all meetings, with dates, held between the Consultants and various parties involved in the Assignment.
- 8.4 The Consultants shall attend meetings with the DR to review the Consultants' work and progress and to receive guidance and instructions from the DR.
- 8.5 The Consultants shall prepare, update and submit bar chart programmes with critical activities identified for the implementation of the Project for inclusion in the Progress Report. The programmes shall include a time schedule for gazette, land clearance and acquisition, utility diversions, tendering, particulars and progress of works contracts and action to deal with critical interface with other projects. The programmes shall also include a schedule of key decisions to be made by the Government and the latest dates that these decisions must be made so that the Project programme would not be delayed. The programmes shall be in MicroSoft Project (Windows version).

9. Financial Management

- 9.1 The Consultants shall prepare the project estimate for funding applications and pre-tender estimate for works contracts. For pre-tender estimate, detailed bills of quantities with assessed unit rates showing the build-up, including justifications for adopting the unit rates for major works items, shall be submitted.
- 9.2 Together with the monthly Progress Reports, the Consultants shall include updated reports on the actual and forecast expenditure on the Assignment, including but not limiting to fees due to the Consultants, expenditure on reimbursable items, resident site staff costs and on-costs, as well as those on the Contracts in a form to be agreed by the

DR. Updated estimate of the costs of the various elements of works of this Assignment shall also be submitted as and when required by the DR.

9.3 The Consultants shall ensure that no payment certificates certified to the contractors will result in exceeding the approved project estimate (APE) of any project vote, approved contract sum (ACS) of any contract and authorized expenditure of any Allocation Warrant, etc.

9.4 The Consultants shall closely monitor progress and expenditure on any works contracts, and be alert to the possibility of the ACS of each works contract or the APE(s) of the PWP Item, in Clause 9.3 of this Brief being exceeded. They shall advise the DR immediately if there is any likelihood of the ACS(s) / APE(s) being exceeded. To ensure sufficient time to obtain the necessary authorities and make funds available, the Consultants shall give the DR at least four months and six months notice in writing, with all necessary supporting information, of the need to increase the ACS(s) / APE(s) to meet contractual payments, except that if the need cannot be foreseen so far ahead, then the Consultants shall give as much notice as is possible in the circumstances. The following information shall be provided:

(a) Full details of the proposed net increase broken down into the following categories:

(i) Price fluctuation payment under the works contract. An arithmetical derivation based on the projected percentage and the estimated final effective value of work done is required;

(ii) Additional works and savings arising from the Bills of Quantities items and variation orders. Reasons shall be given for increases/ decreases in compared with the earlier estimates; and

(iii) Claims from the contractors. These shall be the Consultants' estimates of the amounts which will likely be certified for payment.

(b) An assessment of increase in the consultancy fees and the Resident Site Staff costs if the contract period is likely to be extended or additional Resident Site Staff are required.

(c) A revised projected monthly cash flow pattern of contract payments, consultancy fees and all other expenditures.

9.5 The Consultants shall note and observe the requirements as stated in the EMSD's PAH regarding ordering of variations, increase in contract sum and related authority in a works contract.

10. Standards and Specifications

10.1 The Consultants shall adopt such technical and design standards and specifications as are in current use by the EMSD, CEDD, ArchSD and concerned Government departments, or if non-existent, relevant International Standard, Codes of Practice and Specifications or equivalent. Should instances arise for which suitable standards or specifications do not exist or for which the current standards or specifications appear to require modification or if by the adoption of current standards the Consultants would incur additional expenses not within reasonable contemplation, the Consultants shall submit recommendations on appropriate alternatives to the DR for agreement.

- 10.2 The Consultants shall state whether any part of the works is not designed in accordance with current Government standards with full explanations and justifications. After obtaining comments from relevant Government departments, maintenance authorities / parties and the DCS operator, the Consultants shall prepare a summary of comments received, actions taken by the Consultants, final agreements reached and any deviation from current Government standards for agreement by the DR.

11. Checking and Certification of the Design

- 11.1 The Consultants shall submit, at different Phases, to the DR in accordance with Clause of this Brief, appropriate sets of design calculations (or revised design calculations as appropriate) for each Section of works of the Project including a statement of the standards, procedures and codes of practice adopted. It shall be accompanied by a certificate that the design calculations (or revised design calculations as appropriate) have been checked by another qualified independent designer in the Consultants' employ and that the drawings are in accordance with the calculated designs. The standard form of "Design Certificate" set out in **Appendix J** in this Brief shall be used for this purpose wherever applicable.
- 11.2 The "tender" document (draft and final) including any addendum and "contract" document shall be checked and certified by an experienced engineer independent from the project team.
- 11.3 The standard form of Design Certificate set out at Appendix 4.7 in the Handbook on Selection, Appointment and Administration of Engineering and Associated Consultants shall be used for this purpose wherever applicable.

12. Variations and Other Commitments

- 12.1 The value of variation to the contract works or other expenditure commitment for the purposes of Clause 24 of the General Conditions of Employment is \$300,000.00.
- 12.2 All variations to the contract works shall be covered by a variation order in a form to be agreed by the DR, except that no variation order will be required for increase or decrease in quantities arising from re-measurement of the items in the bill of quantities. These changes in quantities, including any missing items in the bills of quantities, shall however be properly documented and duly taken into consideration for determining the sufficiency of funds before ordering any variations.
- 12.3 The Director's Representative shall advise the Consultants of his approval or otherwise under Clause 24 of the General Conditions of Employment within 14 days of submission. The reasons for non-approval, which may include insufficiency of supporting information provided with the submission, will be provided to the Consultants at the same time. If, because of the need for consultation or referral elsewhere, the DR is unable to give his decision within the period stated then he shall inform the Consultants immediately and advise them of when he will give his decision. Provided that, in any case, a different period can be applied by mutual agreement.
- 12.5 Under Clause 25(iii) of the General Conditions of Employment as amended by sub-clause (A)(iii) of Clause SCE7 of the Special Conditions of Employment, the Consultants shall report all claims to the DR within 14 days of their receipt. The DR shall provide the Employer's view to the Consultants within 60 days of receipt of the Consultants' principles of assessment of a claim.

- 12.6 Under Clause 25(iv) of the General Conditions of Employment as amended by sub-clause (A)(iv) of Clause SCE7 of the Special Conditions of Employment, the Consultants shall report all delays to the DR within 14 days of the delay being identified. The DR shall provide the Employer's view to the Consultants within 28 days of receipt of the Consultants' assessment of extension of time.
- 12.7 The Consultants shall use their best endeavours to chase the contractors for timely submission of all required details and particulars for evaluation claims and variations and where considered appropriate, the Consultants shall, in the capacity of the Engineer for the contracts, assess and determine the quantum of the claims and variations based on the information available.

13. Resident Site Staff

- 13.1 The establishment, duties, appointment, direct employment or deployment, remuneration, conditions of employment and administration of Resident Site Staff (RSS) shall be in accordance with the Special Conditions of Employment, including the related Appendices and the part of Schedule of Fees relating to RSS and the Schedule of Resident Site Staff Standards and Duties.
- 13.2 RSS are engaged to supervise the works on site comprising watching, inspecting and measuring works, maintaining records and providing information to the Engineer and the DR for the preparation of interim and final certificates, settlement of Contractors' claims and preparation of as-constructed drawings. The RSS shall be responsible for ensuring that the contractors' temporary works are carried out in a safe and timely manner, and in compliance with the contract. RSS will carry out the instructions of the Consultants for the execution of the duties under the terms of the contracts and as delegated in writing by the Engineer for the contracts.
- 13.3 The Consultants shall submit to the DR for approval the proposed RSS establishment and RSS Manual prior to commencing the recruitment process. The Consultants shall also submit reports on RSS organisation at quarterly intervals with reference to its structure, establishment and strength as well as staff cost projection.
- 13.4 For the employment of the Labour Relation Officer (LRO), the Consultants shall, within 14 days of commencement of the Contract, or as the case may be, within 14 days after being notified by the DR of his disapproval of employment of any person as LRO, submit the name and particulars of the person they intend to employ as the LRO to the DR for his approval. The Consultants shall furnish further information within 7 days pertinent to the employment of such person if required by the DR.
- 13.5 The RSS shall provide assistance and facilities for Contract Advisers, Construction Quality Audit Team and also the staff of Audit Commission and the ISO 9001 and 14001 certification bodies in performing their duties in respect of auditing. The RSS shall also carry out the environmental audit, prepare and submit the audit reports, and carry out all required follow up actions for the works contracts pursuant to the EMS requirements of EMSD.
- 13.6 The Consultants shall be provided with free uniform for the RSS under the works contracts. The Consultants shall ensure that RSS, except those who are not involved in site work, such as office-based staff, or those engaged in work requiring personal protective equipment which, in the opinion of the Consultants, render the wearing of uniform

unsuitable or impractical, wear the uniform in carrying out their duties of administration and site supervision of the works contracts.

14. Director's Representative

- 14.1 The DR as defined in the General Conditions of Employment shall be the Chief Engineer B of Energy Efficiency Office of EMSD or such other person as may be authorised by the Director in writing and notified to the Consultants. The DR may delegate any of the powers and functions vested in him to other officers. The Consultants shall take up the duties of the Engineer for the E&M Contract and Pipe Laying Contracts. If the Consultants are dissatisfied with a decision or instruction of any such officer, the matter shall be referred to the DR for a ruling.
- 14.2 The Chief Engineer B is responsible for the day-to-day management of the Assignment. During the course of this Agreement, the Consultants shall report directly to the DR vide the Chief Engineer B as appropriate.

15. Control of the Project and Assignment

- 15.1 The Consultants shall report directly to the DR and shall attend meetings as required by the DR to discuss any aspects related to the Project. The method of reporting and the day-to-day administration of the Assignment shall be in the form of monthly Progress Meetings and informal meetings. The informal meetings will be held when necessary to assist the management of the Assignment and at times requested by the Consultants or by the DR or his staff. It is envisaged that such informal meetings will have a typical duration of one hour and a typical frequency of once every month. The Consultants shall also provide all necessary materials, papers and reports for discussion.
- 15.2 In amplification of Clause 13 of the General Conditions of Employment of Engineering and Associated Consultants for a Design and Construction Assignment (1997 Edition), the Consultants will be required to attend Steering Group, Working Groups and other liaison and ad hoc meetings in connection with the Project, and also meetings of District Councils, Town Planning Board, District Land Conference, Legislative Council Public Works Sub-committee and Finance Committee, and other committees or public consultation bodies as required by the DR. In this connection, the Consultants shall be required to attend a maximum of 150 numbers of these external meetings. Additional attendances at these external meetings beyond the maximum number stated above should be paid for as additional Services based on time charges. The above meetings will be in addition to the meetings, which are not regarded as external and shall also form part of the Services for this Assignment, with Steering Committee and its Working Groups, relevant Government bureaux/departments, utility companies, railway operators, other consultants and other parties who may be affected by the Project.
- 15.3 The Consultants shall prepare and supply all necessary drawings, papers, documents and presentation materials for public consultation at the relevant councils, committees, public bodies, other stake holders and forums. A maximum of Fifty (50) copies of the consultation materials in both Chinese and English languages for each submission shall be prepared by the Consultants. The Consultants shall attend meetings to present the Project and to answer questions in connection with public consultations and seeking endorsement of any findings, conclusions and recommendations arising from the Project. The Consultants shall have staff available to give presentations and answer questions in either Chinese or English. The Consultants shall prepare a summary of responses to the questions raised by the committees consulted, within 5 days from the meetings attended.

15.4 The Consultants shall maintain necessary liaison and consultation with relevant Government departments and other relevant parties throughout the course of the Assignment. The DR shall be involved in such discussions wherever necessary. All correspondence, notes, minutes or decisions arising from such liaison and consultation with Government departments and other parties shall be copied to the DR and other departments which are likely to be affected.

16. Information and Facilities Provided by the Employer

16.1 All available information relevant to the Assignment will be provided to the Consultants. Relevant documents including reports, drawings and other background materials are listed in Appendix H to this Brief. The Consultants shall indicate for guidance those documents that they currently hold and those of which a copy would be needed, should the Assignment be awarded to them. Subject to availability of stock, a copy of each of the documents indicated as needed will be supplied free of charge or loaned by the DR on request from the Consultants, except those currently available from the Publication Sales Unit of the Information Services Department of the Hong Kong Government. In the case of plans and drawings, one transparency and two prints of each plan or drawing shall be provided free of charge if requested by the Consultants.

17. Consultants' Office and Staffing

17.1 Upon commencement of this Agreement, the Consultants shall notify the DR the names of the Project Director, the Project Manager, the Project Team members and other personnel involving in the Assignment. All the Staff shall be resident in Hong Kong for the length of their individual involvement in the Assignment.

17.2 The Consultants shall submit with the Progress Reports a current organization chart of the Project Team for the DR's information. The Consultants shall maintain for the duration of this Assignment an office in Hong Kong under the control of the Project Director of the Consultants who shall be responsible for this Assignment. He shall have adequate authority and sufficient professional, technical and administrative support staff in all relevant disciplines to ensure that the progress of the Assignment and the Project to the satisfaction of the DR. The Project Director of the Consultants shall be resident in Hong Kong during the entire period of the Assignment. The Project Director of the Consultants shall provide the necessary Curricula Vitae of the professional staff of the Project Team.

17.3 The Consultants shall provide the staff and manpower input in accordance with the technical proposal made for this Assignment. The DR shall have the right to check the time-log record of the Consultants' staff deployed for the Assignment. Failure of the Consultants to adhere to their staffing proposal thus causing an adverse impact on the performance shall be duly reflected as "Unacceptable" in the aspect of "Competency and adequacy of staff" under Part II(B) of the performance report in the performance assessment of the Consultants.

17.4 If the DR considers that the performance of the Consultants is not satisfactory due to inadequate staffing and manpower input allocated to the Assignment, the Consultants shall, upon the request of the DR the time-log record of the staff deployed for the Assignment for the DR to check against the Technical Proposal.

17.5 The Consultants' failure to adhere to their staffing proposal, in particular the employment of core personnel of the Consultants and their sub-consultants, thus causing an adverse

impact on the performance of the Services, shall be duly reflected in the Employer's performance report on the Consultants.

- 17.6 If the Consultants are unable to maintain any of the core personnel specified in the Technical Proposal, the Consultants shall as soon as possible report this to the DR and propose, for the DR's approval, a revised personnel arrangement which is equivalent to or better than the existing personnel arrangement, in terms of qualifications, experience and competence.
- 17.7 Consultants in joint ventures / consortia shall give an assurance that each of the collaborating parties involved will be jointly and severally bound to the undertaking until the satisfactory completion of the Assignment.
- 17.8 Each key staff member and expert shall have appropriate qualifications and relevant experience in similar assignments for the design, construction and operation of similar plants and facilities and/or for contract arrangements:

In addition to the Project Director and relevant project delivery staff the following specialist staff shall be included in the project team at appropriate time throughout the Assignment unless agreed otherwise by the DR:

- (i) Civil Engineer;
- (ii) Electrical and Mechanical Engineer;
- (iii) Structural Engineer;
- (iv) Landscape Architect;
- (v) Contract Procurement Specialist with extensive experience in procurement for the E&M Contracts and Pipe Laying Contracts;
- (vi) Financial Specialist with extensive experience of financial matters similar to the Project;
- (vii) Risk Management Specialist with extensive experience in identifying, assessing, quantifying, making recommendations on mitigating and allocating risks similar to the Project; and
- (viii) Insurance Adviser.

18. Specialist and Sub-consultant Services

- 18.1 The Consultants shall provide all specialist and sub-consultant services required for the satisfactory completion of the Assignment. No additional fees or expenses for the provision of such services rendered locally or overseas shall be payable by the Employer except as otherwise provided for in the Schedule of Fees. The specialists and sub-consultants including their staff members proposed in the Consultants' Technical Proposal shall be resident in Hong Kong for the length of period of their individual involvements in the Assignment.
- 18.2 The specialists and sub-consultants proposed in the Consultants' Technical Proposal shall be binding on the main consultant(s) under the Agreement.

Annex 1

- 18.3 The specialist proposed shall be available whenever required to manage, advise, carry out, check or supervise any works, inspections, investigations or preparation and a review of documents associated with their fields of expertise, and to provide assistance to help resolve any matters of importance, which may arise during the period of the Assignment.
- 18.4 Without derogating from the generality of Clause 38(i) of the General Conditions of Employment, the Consultants shall, upon the award of this Agreement and save as otherwise agreed by the DR, appoint the sub-consultants as proposed in their Technical Proposal for the Assignment. The DR shall have the right to check the sub-consultancy agreements. If the DR considers that the performance of the Consultants is not satisfactory due to inadequate staffing and manpower input allocated to the Assignment, the Consultants shall, upon the request of the DR, forthwith submit to the DR a certified copy of any or all of the sub-consultancy agreements.

19. NOT USED

20. Insurance

- 20.1 The amount of insurance cover to be maintained in accordance with Clause SCE 8 of the Special Conditions of Employment shall be equal to two times of the Lump Sum, subject to a minimum of HK\$5 million and a maximum of HK\$75 million.
- 20.2 The Consultants shall submit the Certificate of insurance policy as described in Clause SCE8 of the Special Conditions of Employment prior to the commencement of the Agreement and thereafter annually or upon any change in insurer or terms of the Insurance Policy.

Appendix A: Conceptual Layout Plan of DCS Phase III (Remaining) Works

Appendix B - List of Reference Preliminary Design Drawings

Drawing No.	Rev	Drawing Title
TBA		TBA

Appendix C – A Summary of Estimated Cooling Load Distribution Schedule

Appendix D – List of Relevant Circulars and Documents

The Consultants shall take cognisance of the following documents (latest version) during the Assignment:

- Project Administration Handbook for Civil Engineering Works;
- Project Administration Handbook for E&M Engineering Works;
- Structural Design Manual for Highways and Railways;
- Transport Planning and Design Manual;
- Hong Kong Planning Standards and Guidelines;
- General Specification for Civil Engineering Works;
- General Specification for Building;
- General Specification for Air-conditioning, Refrigeration, Ventilation and Central Monitoring and Control System Installation in Government Buildings of the Hong Kong Special Administrative Region;
- General Specification for Electrical Installation in Government Buildings;
- General Specification for Fire Service Installation in Government Buildings of the Hong Kong Special Administrative Region;
- Standard Drawings of Civil Engineering Development Department (CEDD), Drainage Services Department (DSD), Highways Department (HyD), Water Supplies Department (WSD) and Arch SD;
- General Conditions of Contract for Civil Engineering Works;
- General Conditions of Contract for Building Works;
- General Conditions of Contract for Electrical and Mechanical Engineering Works;
- General Conditions of Contract for Design and Build Contracts;
- The Administrative Procedures for Use with the Government of the Hong Kong Special Administrative Region General Conditions of Contract for Design and Build Contracts;
- Standard Method of Measurement for Civil Engineering Works;
- Handbook on Selection, Appointment and Administration of Engineering and Associated Consultants (EACSB);
- EACSB Circulars;
- General / Technical Circulars issued by the following Bureau: -
 - a. Civil Service Bureau
 - b. Financial Services and the Treasury Bureau
 - c. Transport and Housing Bureau
 - d. Development Bureau

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- Public Works Departmental Circulars, Lands & Works Branch technical Circulars, Works Branch technical Circulars, Works Bureau Technical Circulars, Environment, Transport and Works Bureau Technical Circulars, and Development Bureau Circulars
- Technical Circulars of EMSD, CEDD, and ArchSD;
- Guidelines on Traffic Impact Assessment and Day-time Ban Requirements for Road Works on Traffic Sensitive Routes (HyD);
- Highways Department's Guidance Notes on Pavement Design;
- Code of Practice for the Lighting, Signing and Guarding of Road Works;
- Environmental Protection Department Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair / Dismantling Workshops
- Environmental Impact Assessment Ordinance (EIAO) Technical Memorandum;
- Technical Publications of the Geotechnical Engineering Office;
- Ground Investigation Note No. 1/2006 of the Geotechnical Engineering Office;
- Construction Site Safety Manual; and
- Contractor Management Handbook
- Stores and Procurement Regulations.

Appendix E - List of Government Departments, Bodies, Organizations, and Public Utility Companies

A. Consultation with Government Departments

- | | |
|---|---|
| Agriculture, Fisheries and Conservation Department | - on preservation of trees, protection of wildlife and wetland, and on matters related to ecology, nature conservation, agriculture, fisheries, farm access and irrigation facilities, and on matters affecting existing and proposed Country Parks, Marine Parks/Reserves, Special Areas and Sites of Special Scientific Interest. |
| Antiquities and Monuments Office, Leisure and Cultural Services Department (LCSD) | - on matters involving structures, objects or areas of historical and archaeological interests are involved. |
| Architectural Services Department | - on aesthetics, design and maintenance of building design, G/IC facilities and major structures, other than highway bridges and associated structures. Current and planned projects. |
| Advisory Committee on the Appearance of Bridges and Associated Structures | - on aesthetical aspects of any proposed highway bridges and associated structures. |
| Buildings Department | - on matters relating to building surveys. |
| Civil Aviation Department | - on matters affecting the airport facilities, and provision of heliport. |
| Planning Department | - on planning matters including land use, transport, urban design, landscape and visual impacts relating to the development of the area, outline zoning plans amendments and matters related to the Kai Tak Planning Review. |
| District Lands Office and District Survey Office of Lands Department | - on all land and land-related matters including surveying and mapping. |

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|---|---|---|
| Acquisition Section of Lands Department | - | on matters relating to private land resumption. |
| District Offices, Home Affairs Department | - | on matters which affect the public interest at large. |
| Drainage Services Department (DSD) | - | on matters relating to the drainage and sewerage project being undertaken by DSD and matters which involve or affect existing or proposed drainage facilities, or which will alter the flow regime of a drainage basin, particularly in flood prone areas, and on matters relating to the sewage treatment facilities, pumping stations, sludge handling and transportation and control centres and on matters relating to THEES. |
| Development offices of Civil Engineering and Development Department (CEDD) | - | on matters relating to new town developments and major development areas. |
| Civil Engineering Office of CEDD | - | on matters relating to public filling, fill requirements and if marine facilities are affected and if reclamation/marine works and port developments are involved. |
| Geotechnical Engineering Office (GEO), CEDD | - | on matters relating to slopes and retaining walls (see ETWB TCW 29/2002), tunnel works (see ETWB TCW 15/2005), geotechnical aspects of land use planning and land development, slope rehabilitation and matters relating to ground investigations and laboratory testing. |
| Environmental Protection Department | - | on matters relating to environmental and pollution aspects, and waste treatment and disposal, and planning of sewage infrastructure. |
| Fire Services Department (FSD) | - | on fire service installations and dangerous goods licence, emergency vehicular accesses, etc. |
| Geotechnical Engineering Office (GEO), Civil Engineering and Development Department | - | On matters relating to slopes and retaining walls (see WBTC No. 9/2000, ETWB TCW No. 29/2002 & 20/2004), tunnel works (see ETWB TCW No. 15/2005), geological and geotechnical aspects of |

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land use planning and land development, slope rehabilitation and matters relating to ground investigations and laboratory testing.

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| Electrical and Mechanical Services Department (EMSD) | - | on matters relating to renewable energy, energy efficiency and conservation, electricity supply security/safety, traffic signals, or any other electrical and mechanical involved. |
| Education Bureau | - | on matters relating to school developments. |
| Financial Services and the Treasury Bureau | - | on matters relating to school developments. |
| Food and Health Bureau | - | on matters relating to hospital sites. |
| Housing Department | - | on matters relating to public housing and the two public housing sites in Kai Tak, Ex-San Po Kong Flatted Factory Redevelopment Site and the proposed road link between Kai Tak and San Po Kong. |
| Marine Department | - | on matters relating to marine traffic and marine facilities, typhoon shelter, public cargo working areas, cruise vessels and reclamation / marine works and port development are involved. |
| Mines Division of CEDD | - | on matters involving the use of explosives and involving the quarrying sites. |
| Major Works Project Management Office of Highways Department (HyD) | - | on matters relating to Shatin to Central Link and other railway projects |
| Railway Development Office of HyD | - | on matters affecting planned railway lines and stations. |
| Regional Offices and Structures Division of HyD | - | on matters involving or affecting proposed or existing public roads and associated structures, and on roadside landscape works. |
| Landscape Unit of HyD | - | On matters related to roadside amenities and landscaping works. |
| Lighting Division of HyD | - | on matters involving installations of street lighting. |

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Major Works Project Management Office of HyD Hong Kong Police Force	- on matters relating to Central Kowloon Route. - on matters having policing implications and traffic management aspects.
Intellectual Property Department	- on matters involving intellectual property rights and Copyright Ordinance (Cap. 528).
Social Welfare Department	- On matters relating to social welfare / community facilities.
Transport Department (TD)	- Traffic Engineering Divisions on traffic matters, traffic aids, road alignment and layout generally; - Transport Operations Divisions on traffic matters, traffic aids, road alignment and layout Strategic Roads Division on TCSS matters; and - Management Services Division on matters relating to design and operational planning of tunnel facilities.
Leisure and Cultural Services Department (LCSD)	- on matters relating to parks in Kai Tak Development, promenades and open space developments.
Labour Department	- on occupational safety and health matters of the workers.
Water Supplies Department	- on matters relating to water supply, or if water gathering grounds, waterworks reserves and waterworks installations are affected, and matters relating to the chlorine dock at South Apron.
Transport and Housing Bureau	- on policy matters relating to Route 6, Cross Bay Link, Shatin to Central Link, heliport, and on matters relating to port, maritime and logistic policies and facilities.
Development Bureau	- on all policy matters relating to Kai Tak Development.
Commerce and Economic Development <i>Final Brief</i>	- on strategic tourism development matters, cruise

Bureau	terminal development.
Home Affairs Bureau	- on matters relating to the provision of territory-wide recreation and sport facilities, multi-purpose sports complex.
Government Property Agency	- on matters relating to Government properties and Kai Tak Government offices.
Other departments, offices and divisions	- on matters affecting their areas of responsibility.

B. Consultation with Others

Advisory Council on the Environment	- on matters relating EA and EIA Studies, environment and pollution.
Bus companies	- on matters affecting the bus routes and locations bus stops.
Ferry companies	- on matters affecting the ferry piers.
MTR Corporation Limited	- on matters affecting their existing and/or planned railway lines and stations.
Harbourfront Enhancement Committee and its sub-committees	- on matters relating to waterfront development and initiatives.
Hong Kong Sports Development Board	- on matters relating to provision of sport facilities.
Hong Kong Tourism Board	- on matters relating to tourism/recreation facilities.
Utility undertakers (including China Light and Powers Hong Kong Limited, Electricity Advisory Services Ltd., Hong Kong & China Gas Co., C & W HK Telecommunications Ltd., Hong Kong Telecom International, Rediffusion (H.K.) Ltd., Hutchison Telecom (HK) Ltd., New T & T (HK) Ltd., New World Telephone	- on matters affecting the existing and /or planned utilities facilities and installation.

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Co. Ltd., and Wharf Cable Ltd.

District Councils and their Sub-committees

- on matters affecting the public interests at large including those relating to traffic & transport, environmental impacts, development & project progress.

Appendix F – List of projects and / or assignments in KTD

- (a) CEDD's projects of Ktd Tak Development including Trunk Road T2;
- (b) DSD's Sewage Interception Scheme in Kowloon City project;
- (c) DSD's Control of Water Pollution at Jordan Valley Box Culvert project;
- (d) DSD's Improvement of Kai tak Nullah (section between Wong Tai Sin Police Station and Tung Kwong Road and Price Edward Road East) project;
- (e) DSD's Upgrading of Central and East Kowloon Sewerage project;
- (f) DSD's Drainage Improvement in East Kowloon project;
- (g) DSD's Improvement Works at Price Edward Road East (PERE) Culvert;
- (h) Education Bureau's school projects;
- (i) Government Property Agency (GPA) / ArchSD's Kai Tak Government Offices project;
- (j) HAB's Multi Purpose Sport Complex project;
- (k) Housing Department's public housing development project;
- (l) Highway Department's Central Kowloon Route project;
- (m) LCSD's Kai Tak Kowloon Bay Square, Station Square, Metro Park, Runway Park, Sports Centre, Public Library, Sung Wong Toi Park, waterfront promenade and open space developments projects;
- (n) WSD's Replacement and Rehabilitation of Water Mains in East Kowloon;
- (o) CLP Power's Electricity Substation project;
- (p) MTRCL's SCL project;
- (q) Cruise Terminal / Tourism Node development;
- (r) GPA's project for possible relocation of the existing Wanchai Government Offices buildings to Kai Tak;
- (s) Transportation Link to Kwun Tong Area; and
- (t) Any other relevant projects and assignments which may arise during the course of the Assignment.

Appendix G – Recommended Outline development Plan (RODP) with the development schedule
issued in January 2013

Appendix H - Relevant Information and Background Materials

The Consultants shall take cognizance of the relevant documents, reports, and other background materials produced by but not limited to the followings:

1. Kai Tak Development Engineering Study
 - Final Report and Executive Summary
2. Previous Studies
 1. Environmental Protection Department's Development of Master Plan for Sewerage Disposal for East Kowloon;
 2. Transport Department's Third Comprehensive Transport Study;
 3. Territory Development Department's Tseung Kwan O Feasibility Study of Opportunities for Further Development;
 4. Transport Department's Central Kowloon Traffic Study;
 5. Land Development Corporation's Comprehensive Redevelopment Study – Hung Hom South;
 6. Planning Department's Metroplan Study;
 7. Planning Department's Study on Industrial and Commercial Enterprises that Need Relocation with the Airport;
 8. Planning Department's Study to Investigate Port-Related Facilities at Kowloon Bay;
 9. Planning Department's Study on the Restructuring of Obsolete Industrial Areas;
 10. Planning Department's South East Kowloon Development Statement Study;
 11. Planning Department's Kowloon Density Study;
 12. Electrical and Mechanical Services Department's Preliminary Phase Consultancy Study on Wider Use of Water-Cooled Air-Conditioning Systems in Hong Kong;
 13. Electrical and Mechanical Services Department's Implementation Study for a District Cooling Scheme at South East Kowloon Development; and
 14. Electrical and Mechanical Services Department's Implementation Assessment Study for Kai Tak Development District Cooling System.
 15. EMSD's Agreement No. CE17/2007(EM) – Initial Engineering Design and Contract Formulation for Kai Tak Development District Cooling System - Investigation
3. Current and Forthcoming Studies/Projects
 1. Highways Department's Choi Hung Road Widening Feasibility Study;
 2. Highways Department's Design and Construction Consultancy for Central Kowloon Route;
 3. Drainage Services Department's North and South Kowloon Sewerage Stage I projects;
 4. Drainage Services Department's East Kowloon Sewerage Improvements and Pollution Control projects;
 5. Electrical and Mechanical Services Department's Initial Engineering Design and Contract Formulation for Kai Tak Development –Investigation;
 6. Civil Engineering Department's Design and Construction Consultancy for Development near Choi Hung Road and Jordan Valley;
 7. Water Supplies Department's Design and Construction Consultancy for Water Supply to South East Kowloon Development – Stage I;
 8. Drainage Services Department's West Kowloon Drainage Improvement Stage 2;

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9. Environmental Protection Department's Update on Cumulative Water Quality and Hydrological Effect of Coastal Developments and Upgrading of Assessment Tool
10. Drainage Improvements in East Kowloon;
11. Highways Department's Investigation Study for Central Kowloon Route;
12. DSD's Agreement No. CE61/2006 – Upgrading of Central and East Kowloon Sewerage;
13. DSD's Agreement No. CE4/2007 – Sewerage Interception Scheme in Kowloon City
14. Housing Department's planning consultancy study for the public housing development at the Ex-San Po Kong Flatted Factory;
15. KDO's Agreement No. 56/2008(CE) – Site formation for Kai Tak Cruise Terminal Development – Design and Construction;
16. KDO's Agreement No. CE30/2008(CE) - Kai Tak Development - Infrastructure at former runway and remaining areas of North Apron and improvement of adjacent waterways; and
17. EPD's Agreement No. CE 8/2008 (EP) - Planning and Site Review for the South East Kowloon Material Recovery and Transfer Station (SEKTS)-Feasibility Study.

Appendix I – Index Page for Deliverables

Details of Agreement

Agreement No.	
Title of Agreement	
Brief	Brief.htm ^{[1],[3]}

Details of Consultants ^[2]

Name of Consultants	
Address	
Telephone No	
Fax No	
E-mail Address	

Details of Sub-Consultants ^[2]

Name of Sub-Consultants	
Address	
Telephone No	
Fax No	
E-mail Address	

Deliverables

Title of deliverables	Version no.	Date of issue	Hyperlink ^[3] to constituent files	Software used to create the constituent files (with version)	Highlights of any pre-existing intellectual property right
<i>Report No. 1 – Inception Report</i>	3.1	3 Sept 2013	Main Text.doc	Microsoft Word 2000	NIL
			Table 1.xls	Microsoft Excel 97	NIL
			Appendix 1.doc	Microsoft Word 2000	NIL
			Photo 1.gif	Microsoft Photo Editor 3.01	Company X owns the copyright of this file. Their agreement for the Government to copy, distribute and amend this file has been obtained.

[1] A hyperlink to the finalised version of the Brief of the Assignment should be included. In case the Brief comprises several documents, hyperlinks to all such documents should be included.

[2] In case there are more than one consultant firm or sub-consultant, additional tables should be inserted and their information should be provided in the tables.

[3] The hyperlink should be set relative to the file location of this index file.

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Appendix J - Standard Form of Design Certificate

DESIGN CERTIFICATE

Agreement No. & Title :

Project Title :

Contract No. & Title :

Consulting Engineer :

We certify that:

- (i) Our design complies with the standards set out in the Agreement and with amendments agreed to by the Director's Representative.
- (ii) All reasonable and professional skill, care and diligence have been exercised.
- (iii) All in-house independent check of the design calculations and contract documents has been undertaken and the design and contract documentation comply with the requirements of the Agreement.

Signed
Name
Partner / Director

Professional Qualifications
Date