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17 May 2018

Clerk to Public Accounts Committee
 Legislative Council,
 Legislative Council Complex
 1 Legislative Council Road
 Central, Hong Kong

(Attn.: Mr Anthony CHU)

Dear Sirs,

Public Accounts Committee

Consideration of Chapter 8 of the Director of Audit's Report No. 70

Sha Tin Section of Route 8

Thanks for your letter of 3 May 2018 requesting information about the administration of Contracts A and B. The requested information set out in your letter is enclosed at the **Annex**.

Yours faithfully,

(Kelvin K W LO)
 for Director of Highways

c.c. STH (Attn.: Ms CHUNG Sui-kei, Judy)
SDEV (Attn.: Mr CHAN Fuk-yiu, Victor)
DCED (Attn.: Mr LAM Tat-ming, Terence)
SFST (Attn.: Ms HSIA Mai-chi, Margaret)
Director of Audit (Attn.: Mr TEO Wing-on)

Public Accounts Committee

Consideration of Chapter 8 of the Director of Audit's Report No. 70

Sha Tin Section of Route 8

- (a) *guidelines, documents and handbook stipulating the role and responsibilities of a public works consultant and the client department, such as the Highways Department (“HyD”);*

The roles and responsibilities of a public works consultant are mainly laid down in the following documents:

- i) General Conditions of Employment of Engineering and Associated Consultants for a Design and Construction Assignment (“GCE”) (**Appendix A**);
- ii) General Conditions of Contract for Civil Engineering Works (“GCC”) (**Appendix B**). The consultant is designated as “the Engineer” referred to therein;
- iii) Project Administration Handbook for Civil Engineering Works (“PAH”) (paragraph 3.7 of Chapter 4, Chapter 5 and paragraph 3.12 of Chapter 6 at **Appendix C**); and
- iv) Works Technical Circulars of Development Bureau (“DEVB TC(W)”) (DEVB TC(W) Nos. 5/2017, 6/2017, 7/2017, 8/2010, 8/2017, 1/2018, 3/2018 and 19/2005)¹ (**Appendix D**).

The roles and responsibilities of a client department are mainly laid down in the following documents:

- i) GCE (**Appendix A**);
- ii) Handbook on Selection, Appointment and Administration of Engineering and Associated Consultants (Clause 8.1.1 to 8.1.3 of the Handbook at **Appendix E**);
- iii) GCC (**Appendix B**);
- iv) PAH (paragraph 3.7 of Chapter 4, Chapter 5 and paragraphs 3.12 of Chapter 6 at **Appendix C**);
- v) Sections 345 to 350 in Chapter 3 of Stores and Procurement Regulations

¹ PAH is regularly revised to incorporate the applicable DEVB TC(W). The latest revision of PAH Chapters 4 to 6 were promulgated from Oct to end 2017 and the newly promulgated DEVB TC(W) listed above have not yet been subsumed in the current version of PAH.

***Note by Clerk, PAC:** *Appendices A to E not attached.*

(Appendix F); and

- vi) Works Technical Circulars of Development Bureau (“DEVB TC(W)”) (DEVB TC(W) Nos. 5/2017, 6/2017, 7/2017, 8/2010, 8/2017, 1/2018, 3/2018 and 19/2005)¹ (**Appendix D**).

(b) in relating to Consultant X for Contract A in Part 2 of the Audit Report, any additional guidelines, documents or contract provisions which stipulate the role and responsibilities of the consultant and HyD;

In addition to the standard documents listed in part (a), the roles and responsibilities of the consultant and HyD in relation to Consultant X for Contract A are laid down in the following documents:

- i) The consultancy agreement for Agreement No. CE 50/98 – Route 8 between Cheung Sha Wan and Sha Tin Design and Construction Assignment (“Consultancy Agreement”) (**Appendix G**); and
- ii) Special Conditions of Contract of the contract documents for Contract No. HY/2003/01 – Route 8 Lai Chi Kok Viaduct (**Appendix H**). The consultant is designated as “the Engineer” referred to therein.

(c) whether HyD has a duty to vet output of its consultants? If yes, any guidelines papers or handbook on the workflow and procedure for HyD to vet a consultant’s work, such as contract drawings and responses to a tender query;

For civil engineering projects for which consultants are engaged to provide professional services (“Services”), the terms of the consultancy agreements (e.g. the Memorandum of Agreement) stipulate that the consultants shall provide and complete the Services in accordance with the agreements. The Services cover the preparation of the tender documents, drawings and other deliverables.

For HyD’s consultancies (i.e. with HyD as the client department), the consultants shall submit deliverables, including but not limited to tender documents and drawings, to HyD for acceptance as required and in accordance with the consultancy agreements. Generally, the consultants will submit the draft deliverables to HyD and other departments concerned for comments. The departments will review and provide comments on the respective parts of deliverables falling within their ambit. For HyD itself, to ensure that the

****Note by Clerk, PAC: Appendices F to H not attached.***

consultants' work complies with the requirements stipulated in the PAH (Appendix C) and the consultancy agreements, HyD had issued a document entitled "HQ/GN/02 Guidelines for Checking Submissions of Consultants" ("HQ/GN/02") (Appendix J) setting out the principles for checking the submissions prepared by the consultants.

After the consultants have resolved the comments by departments and revised the deliverables accordingly, HyD will accept the deliverables according to the consultancy agreements if the submitted deliverables are in order. Nevertheless, no such approval shall affect the responsibility of the consultants in connection with the Services according to GCE Clause 15(C).

- (d) *the workflow and procedure for HyD to vet the contract drawings and response to a tender query produced by Consultant X (paragraphs 2.15-2.24 of the Audit Report refer), including a chronology of communication between HyD and Consultant X on the matters referred in the Audit Report, and the number, rank and qualifications of HyD staff involved and whether other government bureau/departments were consulted;*

Contract Drawings

Consultant X had been employed to provide professional services in respect of the Project. According to the terms of the Consultancy Agreement (Appendix G) and PAH (Appendix C):

- i) Consultant X shall carry out detailed design with specifications, drawings, dimensions, sections, design data and calculations, checking and other information, of all aspects of the work, under the Consultancy Agreement (see Clause 6.3.1 of the Brief in the Consultancy Agreement at Appendix G);
- ii) The design submission shall be accompanied by a certification that the design calculations have been checked by another qualified independent designer in the Consultants' employ and that the drawings are in accordance with the calculated designs (see Clause 11 of the Brief at Appendix G);
- iii) The designs of highway structures shall be submitted to the then Structures Division (now renamed as Bridges and Structures Division) of the Highways Department ("B&S") for comments on the proposed structural form and maintenance aspects (see Clause 11.1, Appendix 2 of the Brief

***Note by Clerk, PAC: Please see Appendix 21 of this Report for Appendix J.**

at Appendix G);

- iv) In addition, the project management office (“PMO”) of HyD (i.e. the client office/division) shall be kept informed according to the Consultancy Agreement (see Clauses 5.1 and 6.1.21 of the Brief at Appendix G); and
- v) The consultants shall also submit a complete set of design drawings to the client office/division) at the end of the design stage, together with a certification for the proper completion of the design process and checking of the design (see paragraph 3.7 of PAH Chapter 4 at Appendix C and Clauses 6.3 and 11 of the Brief at Appendix G)

The B&S is to provide technical input on the structural aspects of the design while the PMO is responsible for administrating the consultants and ensuring the requirements of the Consultancy Agreement are properly followed. In vetting contract drawings, HyD follows HQ/GN/02 (Appendix J) to carry out spot checks, which are defined as detailed checks on specific areas or items (see Clause 3.3 at Appendix J).

The chronology of communication between HyD and Consultant X on the viaduct design before the tender close is summarized as follows:

Date	Details of the communication
2 April 2002	Consultant X submitted the design to the PMO
10 April 2002	The PMO provided comments on the design
12 April 2002	Consultant X submitted a design certification to the PMO
23 April 2002	The PMO provided comments on the design certification submission
14 May 2002	Consultant X submitted the design to B&S
2 July 2002	Consultant X responded to the PMO's comments on the design certification submission
30 July 2002	B&S provided comments on the design
30 August 2002	The Consultant circulated the general layout drawings
10 September 2002	B&S provided comments on the general layout drawings
18 December 2002	Consultant X submitted a complete set of drawings

The rank, number and qualification of HyD staff involved are as follows:

Rank	Number		Qualifications
	PMO	B&S	
Chief Engineer	1	-	Corporate Membership of the Hong Kong Institution of Engineers (Civil Discipline) or equivalent
Senior Engineer	1	1	
Engineer	1	1	

According to the record, the drawings were circulated to HyD and the following departments for review and record:

- i) Transport Department;
- ii) Drainage Services Department;
- iii) Water Supplies Department;
- iv) Territory Development Department; and
- v) Civil Engineering Department.

Tender Query

Regarding tender queries, PAH Chapter 6 (Appendix C) sets out the requirements for responding timeframe and providing the same information to all tenderers for fairness and transparency. There is no requirement to vet the consultants' responses.

The chronology of communication between HyD and Consultant X on the tender query in the Audit Report is summarized as follows:

Date	Details of the communication
17 April 2003	A tenderer issued the tender query to Consultant X.
22 April 2003	Consultant X forwarded the tender query to HyD for information.
5 May 2003	Consultant X issued the response to the tender query to the tenderers and copied the response to the tender query to HyD.

The rank, number and qualification of HyD staff involved are as follows:

Rank	Number	Qualifications
Chief Engineer	1	Corporate Membership of the Hong Kong Institution of Engineers (Civil Discipline) or equivalent
Senior Engineer	1	
Engineer	1	

No other departments were consulted concerning the tender query.

- (e) *a chronology of communication between HyD and the Financial Services and the Treasury Bureau (“FSTB”) and/or other departments regarding the extra-contractual settlement of claims with Contractor A (paragraphs 2.30 and 2.31 of the Audit Report refer);*

The chronology of communication between HyD and the FSTB and/or other department regarding the extra-contractual settlement of claims with Contract A is as follows:

Date	Details of the communication
20 July 2010	Memo from Legal Advisory Division (Works) of Development Bureau (“LAD(W)”) to HyD regarding the proposed payment-into-court ² (“payment-in”)
21 July 2010	Memo from HyD to FSTB submitting a paper and seeking FSTB’s approval for a proposed amount of payment-in
1 December 2010	Memo from FSTB to HyD giving approval for the proposed amount of payment-in
1 June 2012	Memo from LAD(W) to HyD regarding the proposal of increasing the amount of payment-in
21 June 2012	Memo from HyD to FSTB submitting a paper and seeking FSTB’s approval for increasing the amount of payment-in
17 July 2012	Email from HyD to LAD(W) informing LAD(W) that Contractor A approached HyD for exploring the possibility of settling the disputes without continuing the arbitration proceedings
18 July 2012	Meeting between HyD and LAD(W) regarding the possibility of settling the disputes
27 July 2012	Email from HyD to LAD(W) enclosing a draft version of the settlement proposal for LAD(W)’s comment
31 July 2012	Meeting between HyD and LAD(W) regarding the

² Arrangements for “payment-into-court” and the associated costs implications are set out in the Rules of the High Court. If the Contractor does not accept the “payment-into-court” and if the sum awarded by the arbitrator is less than the “payment-into-court”, the following order on costs (i.e. the costs of the arbitration proceedings including legal fees, experts’ fees and fees and expenses of the arbitrator) will usually be made: (a) the Contractor will receive its costs up to the time allowed for acceptance of the “payment-into-court” (i.e., 14 days after the date of receipt of notice of the “payment-into-court”); and (b) the Contractor will have to pay Government’s costs as from that date up to the conclusion of the arbitration.

	proposed settlement
10 August 2012	Email from HyD to FSTB requesting the suspension of processing the application submitted on 21 June 2012
24 August 2012	Memo from LAD(W) to HyD regarding the proposed settlement
24 August 2012	Memo from HyD to FSTB submitting a paper and seeking FSTB's approval for the proposed settlement sum after reaching a non-committal consensus with Contractor A
11 October 2012	Memo of FSTB to HyD giving approval for the proposed settlement sum
24 October 2012	The Government and Contractor executed the Settlement Agreement

Contract B

- (f) guidelines, documents and handbook on the procedure of drafting and vetting a works contract with scale similar to Contract B, and procedure and workflow on drafting and vetting contract clause and contract drawing of Contract B (paragraphs 3.5 to 3.9 of the Audit Report refer), including the number, rank and qualifications of HyD staff involved, and whether other government bureaux/departments were consulted;*

In general, the drafting and vetting of a works contract with scale similar to Contract B follow the requirements laid down in PAH Chapters 4, 5 and 6 (Appendix C). The key requirements are set out as follows:

- i) Paragraph 3.7 of PAH Chapter 4 stipulates that the consultants should submit a complete set of design drawings to the client office/division at the end of the design stage, together with a certification for the proper completion of the design process and checking of the design;
- ii) Paragraph 1.4 of PAH Chapter 5 stipulates that the responsibility for ensuring that tender documents are properly prepared rests with the professional officers handling the project. They would seek advice from the project office's contract adviser on tender documents if necessary;
- iii) Paragraph 1.5.1 of PAH Chapter 5 stipulates that all tender documents for contracts estimated to exceed \$300M in value must be submitted through the project office's contract adviser to the LAD(W) for legal vetting prior to calling for tenders;
- iv) Paragraph 2.2 of PAH Chapter 5 stipulates that the inclusion of the standard Special Conditions of Tender clauses requires the approval of an officer at D1 rank or above. When non-standard Special Conditions of Tender clauses are needed, approval will have to be given by an officer of at least D2 rank;
- v) Paragraph 5.2.3 of PAH Chapter 5 stipulates that all non-standard Special Conditions of Contract clauses may be drafted and used as required on the approval of the Head of Department/Office or those officers (not below the rank at D1) to whom this responsibility has been delegated;
- vi) Paragraph 9.40 of PAH Chapter 5 stipulates that project departments may adopt Special Conditions of Contract clauses for mega project contracts including any modifications thereto on the approval of the Head of

Department or his delegate. This delegation should not be down below the rank of D2 level;

- vii) Paragraph 6.1 of PAH Chapter 5 stipulates that amplifications and modifications to the General Specification (GS) should be made in the Particular Specification (PS). In supplementing the GS by a PS, compatibility of all changes must be ensured by the department preparing the tender documents. If changes are considered necessary, the revised items together with the reasons for the changes shall be submitted to the D1 (or higher) level officer administering the contract for approval; and
- viii) Paragraph 4.1.2 of PAH Chapter 6 stipulates that the project office needs to complete a tender procedure checklist and also the tender routing sheet, checklist and estimates summary to ensure that all relevant actions/procedures have been completed prior to tender invitation.

Furthermore, HQ/GN/02 (Appendix J) sets out the principle for checking submissions from the consultants. HyD will spot check the submissions according to this.

For Contract B, the contract clauses and contract drawings were drafted by Consultant X. HyD followed the aforementioned requirements set out in PAH (Appendix C) and HQ/GN/02 (Appendix J) in vetting contract clauses and contract drawings of Contract B. In summary, the PMO's officers handling the project spot checked the clauses and drawings, then the PMO's contract adviser commented and gave advice, and finally LAD(W) carried out a legal vetting of the concerned parts of the tender documents.

The rank, number and qualification of HyD staff involved are as follows:

Rank	Number	Qualifications
Chief Engineer	1	Corporate Membership of the Hong Kong Institution of Engineers (Civil Discipline) or equivalent
Senior Engineer	1	
Engineer	1	
Assistant Engineer	1	Assistant professional

According to the record, the contract clauses and contract drawings were circulated to HyD and the following departments for review and record:

- i) Transport Department;
- ii) Electrical and Mechanical Services Department;
- iii) Drainage Services Department;
- iv) Architectural Services Department;
- v) Fire Services Department;
- vi) Agriculture, Fisheries and Conservation Department;
- vii) Leisure and Cultural Services Department;
- viii) Water Supplies Department;
- ix) Territory Development Department; and
- x) Civil Engineering Department.

(g) guidelines, documents and handbook on the procedure of drafting and vetting tender documents regarding contract clauses for the measurement of output of works (e.g. for tunneling works), and procedure and workflow on drafting and vetting tender documents regarding contract clauses for the measurement of Contract B (paragraphs 3.10 to 3.15 of the Audit Report refer), including the number, rank and qualifications of HyD staff involved, and whether other government bureau/departments were consulted; and

In general, the drafting and vetting tender documents regarding contract clauses for the measurement of output of works with scale similar to Contract B follow the requirements laid down in PAH Chapters 5 and 6 (Appendix C). The key requirements are set out as follows:

- i) Paragraph 1.4 of PAH Chapter 5 stipulates that the responsibility for ensuring that tender documents are properly prepared rests with the professional officers handling the project. They would seek advice from the project office's contract advisers on tender documents if necessary;
- ii) Paragraph 1.5.1 of PAH Chapter 5 stipulates that all tender documents for contracts estimated to exceed \$300M in value must be submitted through the project office's contract adviser to the LAD(W) for legal vetting prior to calling for tenders;
- iii) Paragraphs 7.1 and 7.3 of PAH Chapter 5 stipulates that any amendments or alterations to the SMM to be adopted in the preparation of the BQ shall have the prior approval of an officer at D1 rank or above;
- iv) Paragraph 3.12 of PAH Chapter 6 stipulates the particulars of the quality assurance procedures to be followed for the preparation of bills of

- quantities and particular preambles. Nevertheless, this requirement had not yet been included in the PAH (2008 version) at the time; and
- v) Paragraph 4.1.2 of PAH Chapter 6 stipulates that the project office needs to complete a tender procedure checklist and also the tender routing sheet, checklist and estimates summary to ensure that all relevant actions/procedures have been completed prior to tender invitation.

Furthermore, HQ/GN/02 (Appendix J) sets out the principle for checking submissions from the consultants. HyD will spot check the submissions according to this.

For Contract B, the contract clauses for the measurement of output of works were drafted by Consultant X. HyD followed the aforementioned requirements set out in PAH (Appendix C), except the requirement stipulated in paragraph 3.12 of PAH Chapter 6 which was not yet promulgated at the time of tender preparation of Contract B, and HQ/GN/02 (Appendix J) in vetting these clauses. In summary, the PMO's officers handling the project spot checked the clauses, then the PMO's contract adviser commented and gave advice, and finally LAD(W) carried out a legal vetting of the concerned parts of the tender documents.

The rank, number and qualification of HyD staff involved are as follows:

Rank	Number	Qualifications
Chief Engineer	1	Corporate Membership of the Hong Kong Institution of Engineers (Civil Discipline) or equivalent
Senior Engineer	1	
Engineer	1	
Assistant Engineer	1	Assistant professional

(h) guidelines and handbooks on the scale of preliminary ground investigations to be conducted for a public works project with scale similar to Contract B (paragraph 3.22 to 3.24 of the Audit Report refer).

Guideline on the scale of preliminary ground investigations to be conducted for a public works project with scale similar to Contract B is included in the following document:

- i) Geoguide 2 – Guide to Site Investigation published by Geotechnical Engineering Office (GEO) (**Appendix K**).

Concerning the documents referred to in our reply for items (a) to (h) above, we have, for environmental reasons, enclosed the relevant excerpts of the documents listed below as the full documents are too voluminous. The full version of these documents can be accessed via the web links listed as follows:

Appendix	Document and Web Link
C	Project Administration Handbook for Civil Engineering Works (Web Link: http://www.cedd.gov.hk/eng/publications/standards_handbooks_cost/stan_pah.html)
E	Handbook on Selection, Appointment and Administration of Engineering and Associated Consultants (Web Link: http://www.cedd.gov.hk/eng/publications/handbook_circulars/index.html)
F	Chapter 3 of Stores and Procurement Regulations (Web Link: https://www.fstb.gov.hk/tb/en/docs/espr_chapter3.pdf)
K	Geoguide 2 – Guide to Site Investigation published by Geotechnical Engineering Office (GEO) (Web Link: http://www.cedd.gov.hk/eng/publications/geo/geo_g2.html)

***Note by Clerk, PAC: Appendix K not attached.**