

BY FAX

MEMO

<i>From :</i>	Secretary for Development	<i>To :</i>	Distribution
<i>Ref :</i>	DEVB(CS) 1/2/5	<i>Attn :</i>	
<i>Tel No :</i>	3509 8277	<i>Your Ref. :</i>	in
<i>Fax No :</i>	2801 5043	<i>dated :</i>	<i>Fax. No. :</i>
<i>Date :</i>	1 August 2019	<i>Total Pages :</i>	2

**Amendment to ETWB TC(W) No. 12/2004 -
Computer Facilities for Works Contracts**

In view of the fast development of computer facilities in the last decade, we have conducted a review of the captioned Circular.

2. Since the promulgation of the Circular in 2004, there had been decrease in cost of computer facilities and increase in cost of works contracts. We have analysed the cost data of works contracts awarded in the recent years, consulted all Works Departments and agreed that paragraph 8(c) of the Circular should be superseded by the following paragraph-

“The proposal of Contract Computer Facilities with an estimated cost not exceeding \$10 million or 0.5% of the estimated contract sum whichever is the lower has to be approved by an officer at D1 rank or above. If the aforementioned limit is to be exceeded, a submission with justification has to be made to an officer at D2 rank or above for approval.”

3. This measure shall take effect for all works tenders to be invited on or after **4 October 2019**.

4. If you have any enquiry, please contact Mr Eric CHAN, AS(IT) at telephone no. 3509 8387.



(Thomas TY CHAN)
for Secretary for Development

Distribution

Director of Architectural Services

Director of Civil Engineering and Development

Director of Drainage Services

Director of Electrical & Mechanical Services

Director of Highways

Director of Water Supplies

c.c.

Head of Departmental Computer Service Unit / Information Technology
Management Unit of ArchSD, CEDD, DSD, EMSD, HyD & WSD

香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

政府總部
環境運輸及工務局
香港花園道美利大廈



Environment, Transport
and Works Bureau
Government Secretariat
Murray Building, Garden Road,
Hong Kong

Ref. : ETWB(CS) 1/2/5
Group : 5, 17

25 June 2004

Environment, Transport and Works Bureau
Technical Circular (Works) No. 12/2004

Computer Facilities for Works Contracts

Scope

This Circular promulgates the policies, guidelines and standards for procurement of computer facilities under works contracts for the purposes of contract management on site, site supervision, site survey, site records and other related activities on site.

2. This Circular applies to all works contracts managed by departments under the Environment, Transport and Works Bureau (ETWB).

Effective Date

3. This Circular takes immediate effect.

Effect on Existing Circulars

4. This Circular supersedes WBTC No. 9/99 and WBTC No. 9/99A which are hereby cancelled.

Definition

5. In this Circular, unless the context otherwise requires:-

"Approving Officer" means an officer at D1 rank or above;

"Contract Computer Facilities" means the computer equipment (including hardware and software), support services and training which are provided by the contractors under Works Contracts to the staff of the Engineer/Architect for the purpose of managing the works contract on site. For avoidance of doubt, software may include electronic document management system;

"DCSU" means Departmental Computer Services Unit;

"Government Standing Offer Agreement of Computer Equipment" means the Supply of PC/LAN Equipment and Related Services under the Standing Offer Agreement and its replacement procurement arrangements;

"ITMU" means Information Technology Management Unit;

"Project Officer" means a member or members of the professional staff responsible directly for the management of a Works Contract;

"SPR" means the Stores & Procurement Regulations;

"Works Contract" means a works contract funded under the Public Works Programme or General Revenue Account;

"ETW Department" means Architectural Services Department, Civil Engineering Department, Drainage Services Department, Electrical and Mechanical Services Department, Environmental Protection Department, Highways Department, Territory Development Department, Transport Department or Water Supplies Department.

Background

6. The WBTC No. 9/99 and WBTC No. 9/99A were issued in 1999 to promulgate the policy on the provision of computer facilities in Works Contracts, the procedures for the inclusion of computer facilities, and their technical specifications. With the rapid development of information technology and the need to streamline the procedures in administering Works Contracts, we have reviewed WBTC Nos. 9/99 and 9/99A to

- (a) simplify the procedures on maintaining and revising the Departmental Technical Specification by delegating to the DCSU/ITMU the authority to maintain and revise, where necessary, the Departmental Technical Specification taking account of the operational needs and the latest information technology;
- (b) highlight the necessity to take account of the SPR in drafting the Departmental Technical Specification;
- (c) change the rank of the Approving Officer from D2 to D1 at the advice of the Working Sub-group for Updating and Reviewing Chapter 5 of the PAH; and
- (d) update the guidelines on the transfer of ownership of Contract Computer Facilities and security.

Policy

7. It is the policy to make use of information technology to improve the effectiveness of contract management. For this purpose, ETW Departments should include appropriate Contract Computer Facilities in Works Contracts in accordance with the provisions of this Circular.

Proposal for Contract Computer Facilities

8. The Project Officers should, at an appropriate stage, formulate proposals for Contract Computer Facilities in accordance with the following principles:-

- (a) The proposal should have due regard given to:-
 - (i) the intended areas of contract management where the Contract Computer Facilities will be used;
 - (ii) the site supervisory staff establishment; and
 - (iii) training to be given to the site supervisory staff;
- (b) Subject to paragraph 16 below, the Contract Computer Facilities should comply with the Departmental Technical Specification

stipulated in paragraph 11 below; and

- (c) The estimated cost of the proposed Contract Computer Facilities should not exceed 1% of the estimated contract sum.

9. The proposal for Contract Computer Facilities should contain the following:-

(a) Basic information

- (i) the anticipated site supervisory staff establishment; and
- (ii) locations for the installation of the Contract Computer Facilities;

(b) Proposed Contract Computer Facilities

- (i) list of hardware and software items with those items not listed in the Departmental Technical Specification explicitly highlighted;
- (ii) networking requirements including connection with other computer systems stipulated in Section 2 of Annex 3;
- (iii) requirements for support services and the proposal for providing such services;
- (iv) training requirements;
- (v) transfer of data to maintenance agency upon the completion of the works; and
- (vi) the estimated cost of the proposed Contract Computer Facilities.

(c) Justifications

- (i) justifications for the proposed Contract Computer Facilities; and
- (ii) justifications for hardware and software items not listed in the Departmental Technical Specification;

(d) Contract provisions for specifying and paying for Contract Computer Facilities prepared on the basis of the Particular Specification and

Special Conditions of Contract clauses in Annex 2.

10. Contract Computer Facilities should normally comply with the Departmental Technical Specification. Project Officer shall submit the proposal to an Approving officer for approval before it is incorporated into the contract. Project Officer shall further seek the endorsement of the DCSU/ITMU if the proposal includes any one or all of the following:-

- (a) hardware or software items not listed in the Departmental Technical Specification;
- (b) those network connection modes as stated in Annex 3 that requires the approval of the DCSU/ITMU;
- (c) transfer of ownership of part or all of the Contract Computer Facilities to the Government subject to the requirements as stated in Annex 3;
- (d) Particular Specification or Special Conditions of Contract clauses different from those in Annex 2; and
- (e) part or all of the Contract Computer Facilities not to be installed in the site office.

Notwithstanding the above, Project Officer or Approving Officer may seek advice from the DCSU/ITMU if considered necessary.

Departmental Technical Specification

11. The Departmental Technical Specification consists of two parts, the Hardware Specification and the Software Specification. DCSU/ITMU should develop the Departmental Technical Specification based on the specifications of hardware and software of the Government Standing Offer Agreement of Computer Equipment as far as possible with the necessary modifications to suit the particular technical computing needs on works site. DCSU/ITMU should take account of the requirements of the SPR, in particular Appendix III(F) in drafting the Departmental Technical Specification.

12. The contents of the Departmental Technical Specification are stipulated in Annex 1.

13. Each ETW Department is responsible for issuing, reviewing and

revising its Departmental Technical Specification from time to time when necessary for use in conjunction with this Circular. The Departmental Technical Specification will apply to all Works Contracts managed by the respective ETW Department.

14. If an ETW Department does not require the use of Contract Computer Facilities, it will be exempted from the requirement of issuing the Departmental Technical Specification.

15. In drafting and revising the Departmental Technical Specification, the responsible officers should consider all relevant factors including, without limitations:-

- (a) items that are available and listed in the Government Standing Offer Agreement of Computer Equipment;
- (b) development in information technology;
- (c) latest market trends;
- (d) computing requirements for Works Contracts;
- (e) provisions of ITSD Circular 8/2003 - Exchanging Electronic Documents Involving Different Office Software Products and its replacement circulars;
- (f) compatibility between the Departmental Technical Specification and current departmental standards on hardware and software; and
- (g) transfer of data to maintenance agency upon the completion of the works.

Guidelines on Networking and Control of Use of Contract Computer Facilities

16. ETW Departments shall observe the guidelines given in Annex 3 in connection with:-

- (a) networking of Contract Computer Facilities; and
- (b) control of use of Contract Computer Facilities, including transfer of

ownership.

Contract Variations

17. The provisions of this Circular, in particular the approval procedures stipulated in paragraph 8 to 10 above, also apply to Contract Computer Facilities procured through contract variations. Furthermore, the aggregate values of Contract Computer Facilities procured under the original contract and contract variations should not exceed the limit prescribed in paragraph 8(c) above.

Enquiries

18. Enquires on this Circular may be made to Information Technology and Services Promotion Section of the Environment, Transport and Works Bureau at email address it&sps@etwb.gov.hk or fax no. 2905 1181.

(C S WAI)
Deputy Secretary for the Environment,
Transport and Works (Works)2

Annex 1 - Contents of Departmental Technical Specification

1. The contents of the Hardware Specification may include, without limitations:-
 - (a) a list of hardware items;
 - (b) configuration of the hardware items;
 - (c) functional requirements of the hardware items;
 - (d) technical details of the components of the hardware items;
 - (e) environmental specification of the hardware items;
 - (f) requirements for documentation; and
 - (g) requirements for training.

2. The contents of the Software Specification may include, without limitations:-
 - (a) a list of software items;
 - (b) functional requirements of the software items;
 - (c) requirements for documentation; and
 - (d) requirements for training

Annex 2

Particular Specification and Special Conditions of Contract

Sample Particular Specification

(Sub-clauses G and H on Y2K compliance are mandatory for all contracts that incorporate provisions for Contract Computer Facilities. ETW Departments may adapt other sub-clauses to suit their requirements provided that the spirit of these sub-clauses is adhered to.)

CONTRACT COMPUTER FACILITIES FOR THE *ARCHITECT/ENGINEER

- A. "Contract Computer Facilities" shall comprise items specified in Appendix ** ____ of the PS "Schedule of Contract Computer Facilities".
- B. Within 14 days of the acceptance of the Tender, or such other period as specified in the Contract, the Contractor shall submit for the *Architect/Engineer's approval details of the Contract Computer Facilities to be provided. The proposed equipment shall be well proven and shall not infringe any copyrights.
- C. Within 14 days of receiving the *Architect/Engineer's approval or other such date agreed by the *Architect/Engineer, the Contractor shall deliver the Contract Computer Facilities to the *Architect/Engineer's office at** _____. All software shall be delivered to the location specified by the *Architect/Engineer, in intact shipping cartons with all seals unbroken. At the time of delivery, the originals of all warranty agreements, invoices and other supporting documents related to the price of the equipment shall be produced for inspection by the *Architect/Engineer.
- D. Software included in the Contract Computer Facilities shall be licensed in the name of the Government of HKSAR.
- E. Within five working days of delivery, the Contractor shall arrange for the equipment to be installed and tested to complete working order to the satisfaction of the *Architect/Engineer.

- F. The Contractor shall license and maintain the equipment until the expiry of the Maintenance Period, or where there is more than one such period, the expiry of the latest Period or other agreed date if so directed by the *Architect/Engineer.
- G. The Contract Computer Facilities shall be Year 2000 compliant meaning that neither their performance nor functionality will be affected by dates prior to, during and after Year 2000.
- H. Without affecting the generality of paragraph G above, the Contract Computer Facilities shall satisfy the following requirements with respect to Year 2000 compliance:-
- (a) No value of current date will cause any interruption in operation;
 - (b) Date-based functionality shall behave consistently for dates prior to, during and after Year 2000;
 - (c) In all interfaces and data storage, the century in any date shall be specified either explicitly or by unambiguous algorithms or inferring rules;
 - (d) Year 2000 shall be recognized as a leap year.

[This following clause should be included only if the Contract Computer Facilities are to be transferred to the Government upon the completion of the contract. Otherwise, it should be omitted. If this clause is included, there should be an item in the Bill of Quantities to pay for the assignment of the computer facilities and for the extension of software licences beyond the period prescribed in sub-clause F above.]

- I. Upon the expiry of the Maintenance Period, or where there is more than one such period, the expiry of the latest Period, the Contractor shall assign to the Employer the ownership of the Contract Computer Facilities. The assignment shall include any existing warranty agreements for these facilities.

* - delete inappropriate term

** - provide details to suit the specific contract

Special Conditions of Contract

(The following clause is mandatory for all contracts that incorporate provisions for Contract Computer Facilities. For sub-clause A, paragraph (c1) should be used if the computer facilities are to be returned to the Contractor upon the expiry of the Maintenance Period. Paragraph (c2) should be used if the computer facilities are to be transferred to the Government upon the expiry of the Maintenance Period.)

Year 2000 Warranty for Contract Computer Facilities

- A. For the purpose of this Special Condition of Contract-
- (a) "Contract Computer Facilities" means the Contract Computer Facilities defined in Clause **__ of the Particular Specification;
 - (b) "Commencement Date" means the date on which the Contract Computer Facilities are delivered to the Architect's/Engineer's office;
 - (c1) *"End Date" means the expiry of the Maintenance Period or if there is more than one such period, the expiry of the latest Maintenance Period.¹*
 - (c2) *"End Date" means a date **__ calendar years from the expiry of the Maintenance Period or if there is more than one such period, the expiry of the latest Maintenance Period.²*
- B. The Contractor shall warrant that the Contract Computer Facilities are Year 2000 compliant as specified in clause **__ of the Particular Specification. The period of the warranty (the "Warranty period") shall commence on the Commencement Date and shall subsist until the End Date.
- C. Notwithstanding any provisions of the General Conditions of Contract, the Contractor shall during the warranty period and upon a notice regarding Year 2000 non-compliance given by the Architect/Engineer* promptly carry out necessary work to the Contract Computer Facilities so as to

¹ Use this definition of End Date if the computer facilities are to be returned to the Contractor upon the expiry of the Maintenance Period.

² This alternative definition should be used if the computer facilities are to be transferred to the Government upon the expiry of the Maintenance Period.

render the Contract Computer Facilities Year 2000 compliant. If the Contractor shall fail to carry out rectification work to render the Contract Computer Facilities Year 2000 compliant promptly, the Employer shall be entitled to engage his employees or agents or other contractors to carry out such work. Without prejudice to any other remedy, all additional expenditure properly incurred by the Employer in having such work carried out shall be recoverable by the Employer from the Contractor.

- D. The liability of the Contractor under this Special Condition of Contract shall not in any way be affected by an independent inquiry or investigation into the Year 2000 compliance of the Contract Computer Facilities or any matter related thereto whether carried out by or on behalf of the Employer or any liability or right of action which may arise out of such inquiry or investigation.
- E. For the avoidance of doubt, the Contractor shall indemnify and keep indemnified the Employer against all losses, claims, costs, demands and expenses that may arise out of or in consequence of any breach of this Special Condition of Contract.

* - *delete inappropriate term*

** - *provide details to suit the specific contract*

Annex 3

Guidelines on Networking and Control of Use of Contract Computer Facilities

1. Contents

1.1. This annex covers guidelines on

- (a) networking of Contract Computer Facilities; and
- (b) control of use of Contract Computer Facilities, including transfer of ownership.

2. Networking of Contract Computer Facilities

2.1 Introduction

2.1.1 This section describes the guidelines on networking of Contract Computer Facilities including

- (a) local area network for site offices; and
- (b) connection between Contract Computer Facilities and other computer systems.

2.1.2 In this section, unless the context otherwise require:-

- (a) "Dial-up Connection" means connections made through dial-up facilities or broadband connections;
- (b) "E-mail Only Connection" means connections that allow only exchange of e-mail messages but prohibit any other access to Contract Computer Facilities, in particular access to file systems, databases and user accounts;
- (c) "External Connection" means connection between Contract Computer Facilities and the computer facilities of other organizations including consultants and contractors;

- (d) "Fixed Connection" means connections made through leased lines;
- (e) "Internet Connection" means connection with the Internet;
- (f) "Main Office" means the office of an ETW Department other than the site offices; and
- (g) "Office Network" means the computer networks in the Main Offices.

2.2 Local Area Network (LAN)

2.2.1 Contract Computer Facilities may include local area networks (LAN) if they are required for efficient contract management. As networked systems require more support than standalone systems, Project Officers proposing LAN's should give due consideration to the requirements for support services on site.

2.3 Connection with other computer systems

2.3.1 ETW Departments may connect Contract Computer Facilities with other computer systems for the purpose of exchanging information provided that the following guidelines are observed:-

(a) External Connections

As connection between the Contract Computer Facilities and the computer facilities of other organizations (including consultants and contractors) will give rise to issues of security and contractual liability, these connections should not be allowed. Project Officers should seek approval from their DCSU/ITMU and/or other authorities as stated in their Departmental IT Security Policy if the connection is deemed necessary;

(b) Connection with Office Network

(i) Fixed Connections

Fixed Connections between Contract Computer Facilities and Office Networks should be considered as extensions to the Office Network. Project Officers should seek approval from their DCSU/ITMU and/or other authorities as stated in their

Departmental IT Security Policy for these connections;

(ii) Dial-up Connections

If there is no Fixed Connection with the Office Network and appropriate security measures will be implemented, E-mail Only Connections between Contract Computer Facilities and the Office Network may be provided by means of Dial-up Connections.

Other forms of dial-up connections are vulnerable to hacker attack and should not be allowed. This restriction applies particularly to remote control software;

(c) Connection with standalone computer facilities in the Main Offices

If there is no fixed connection with the site office network and appropriate security measures will be implemented, Dial-up Connections between Contract Computer Facilities and standalone computer facilities in the Main Offices may be provided;

(d) Internet Connection

(i) Dial-up Internet Connections

If there is no fixed connection with the site office network and appropriate security measures will be implemented, Internet Connections by means of Dial-up Connections in site offices may be provided. Otherwise, use of dial-up Internet connections shall be avoided;

(ii) Fixed Internet Connections

If there is no Fixed Connection with the Office Network, Internet Connections by means of Fixed Connections for site offices may be provided subject to implementing the appropriate security measures including, without limitations, Internet firewalls.

If there are Fixed Connections with the Office Network, Project Officers should seek approval from their DCSU/ITMU and/or

other authorities as stated in their Departmental IT Security Policy for Internet Connections by means of Fixed Connections.

Without affecting the generality of sub-paragraph (a) above, Project Officers should not allow any other parties (including consultants and contractors) to access Contract Computer Facilities through Internet Connections by means of Fixed Connections. Project Officers should seek approval from their DCSU/ITMU and/or other authorities as stated in their Departmental IT Security Policy if such access is deemed necessary;

(e) Applications to contracts managed by consultants

Sub-paragraphs (a) to (d) above also apply to contracts managed by consultants.

3. Control of Use of Contract Computer Facilities

3.1 Procurement of support services

3.1.1 ETW Departments may procure services for user support, system administration, equipment installation and equipment configuration using one or a combination of the following arrangements:-

- (a) deployment of in-house staff resources;
- (b) outsourcing of support services through
 - (i) appropriate provisions in works contracts for support services;
 - (ii) appropriate provisions in consultancy agreements; and
 - (iii) other types of service contracts.

3.1.2 If ETW Departments adopt the outsourcing options, they should ensure that the service providers are independent and do not have close commercial relation with the contractors. The support personnel supplied by the service providers should not be required to service computer facilities that contain or have access to information classified as “ Restricted” or above in accordance with Security Regulations 161, 351 to 369.

3.1.3 For the avoidance of doubt, the order in which the options are enumerated in paragraph 3.1.1 above does not indicate any order of preference.

3.2 Location of Contract Computer Facilities

3.2.1 The locations for the installation of Contract Computer Facilities should be specified in the contract documents. These facilities should not be re-deployed to other locations without the prior approval of an Approving Officer.

3.2.2 In normal circumstances, Contract Computer Facilities should be installed in site offices. Subject to the prior approval of an Approving Officer, these facilities may be installed at other locations if there are circumstances that justify this arrangement. Such circumstances include cases in which some members of the site supervisory staff are not resident on site.

3.3 Archiving of data

3.3.1 Upon the completion of the works, the Project Officer should review the data stored on the Contract Computer Facilities and identify the data which should be archived. The types of data which may require archiving include, without limitations:-

- (a) data which may be required for maintenance of completed works;
- (b) data which may be required for completing the measurement of the contract and for settling the final account;
- (c) data which may be required for resolving outstanding contract issues;
- (d) data which may be required for auditing requirements; and
- (e) data which may be required for fulfilling any contractual or statutory requirements.

3.3.2 Archives should be made on durable media to be approved by the Project Officer. In case of doubt, the Project Officer should consult his DCSU/ITMU on the proposed archive media. Proper documentation should be prepared for data archived to facilitate their re-use and retrieval for the purpose

of maintaining the completed works. If archiving service is provided by the contractor, the archived data and the required documentation should be handed over to the Project Officer for further distribution.

3.3.3 If the completed works are maintained by another agency, the Project Officer should consider whether any data conversion is required to enable the agency to use the data archived.

3.4 Transfer of ownership

3.4.1 In view of the short life cycle of computer products, transfer of ownership of the Contract Computer Facilities is not recommended unless the data archived in accordance with the provision of paragraph 3.3 above requires dedicated computer equipment for its subsequent re-use.

3.4.2 If an ETW Department plans to transfer the Contract Computer Facilities to Government, it should seek the agreement of Environment, Transport and Works Bureau and approval of the Approving Officer before including the Contract Computer Facilities in the works tender document.

3.4.3 If an ETW Department requires to transfer the Contract Computer Facilities to Government after the award of the works contract, it should seek the agreement from Environment, Transport and Works Bureau before proceeding to transfer the Contract Computer Facilities to Government. As the transfer would involve a variation to the works contract, ETW Department should

- (a) seek approval to conduct negotiation with the works contractor in accordance with SPR 525 to vary the contract terms and to ask for the price of such Contract Computer Facilities; and
- (b) after completing the contract negotiation, seek approval from the relevant authorities for contract variation in accordance with SPR 520 and the Appendix V(B) of the SPR.

3.5 Security

3.5.1 ETW Departments should implement measures to ensure the security of Contract Computer Facilities and the data stored on these facilities in accordance with Chapter IX of the Security Regulations, the Baseline IT Security Policy promulgated by the ITSD and the derived Departmental IT

Security Policy that complies with the Security Regulations and the Baseline IT Security Policy, as well as other appropriate arrangements for preventing unauthorized access to computer equipment and data.

3.5.2 ETW Departments should also observe paragraph 2 above in networking Contract Computer Facilities.

3.5.3 ETW Departments should stipulate requirements in the site supervisory staff's employment contracts the need to comply with the Security Regulations and the Baseline IT Security Policy and their Departmental IT Security Policy.

3.6 Protection of Copyright

3.6.1 ETW Departments should remind users of the Contract Computer Facilities at regular interval that all software packages used on Contract Computer Facilities shall be properly licensed and use of unlicensed software is strictly prohibited.

3.7 Training

3.7.1 The Project Officer should ensure that there are adequate training provisions in the contract to enable users to acquire the necessary skills for making efficient use of Contract Computer Facilities.