

**PRELIMINARIES FOR CONSTRUCTION WORKS**  
**(EDITION 1/2024)**

## PRELIMINARIES FOR CONSTRUCTION WORKS

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## **PRELIMINARIES FOR CONSTRUCTION WORKS**

### **1 SCOPE OF WORKS**

- 1.1. The extent of Works included in this Contract shall be as described in the documents forming the Contract or reasonably inferred therefrom.
- 1.2. The Contractor shall carefully study the Contract Documents, and satisfy himself as to the full extent, character and nature of the Works to be performed under this Contract. The Employer shall not entertain any claim arising from the Contractor's failure to study these Documents.

### **2 CONDITIONS OF CONTRACT**

- 2.1. The Contractor shall refer to the Form of Tender for the version and type of Conditions of Contract applicable for this contract. The Conditions of Contract shall be the Public Sector Standard Conditions of Contract (PSSCOC) issued by Building and Construction Authority (BCA), including the Appendix, any Option Modules, Particular Conditions and supplementary amendment thereto. The document can be downloaded from BCA's website at <http://www1.bca.gov.sg> under "Procurement" → "Post-tender Stage" → "Public Sector Standard Conditions of Contract(PSSCOC)."
- 2.2. The Contractor shall refer to the full text of the abovementioned and shall be fully responsible for taking into account all the implications.

### **3 REGISTERED SURVEYOR**

- 3.1. The setting out of the Works shall be carried out by a registered surveyor. All survey marks and pegs shall be protected and maintained. If any of the survey marks and pegs is displaced, the Contractor shall reinstate it at his own expense.
- 3.2. The registered surveyor shall certify that Works have been correctly set out in accordance with the Drawings. One set of tracings and four sets of prints of "as set-out drawings" as prepared and endorsed by the registered surveyor shall be submitted to the SO within two months after completion of the Works.
- 3.3. The Contractor shall note that employing a registered surveyor to set out Works on his behalf does not relieve him of his responsibility under the Contract. Should any inaccuracy occur, the cost of any corrective measure and legal claim shall be borne by the Contractor. The Employer shall not entertain any claim for such costs or loss of time incurred as a result of inaccurate setting out.
- 3.4. The Contractor shall, as and when directed by the SO, provide adequate surveying equipment on Site for use of the SO for checking purposes.

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### **4 AS-CONSTRUCTED DRAWINGS**

- 4.1. The Contractor shall prepare and submit the As-constructed drawings and documentation listed in the Particular Specification, in accordance with the requirements, within three (3) months after the completion of the Works.

### **5 PROGRAMME FOR THE WORKS**

- 5.1. The Contractor shall submit his Baseline Programme for the Works in accordance with the requirements of the Contract and the programme shall be in the form as specified in the Particular Specification subject to the acceptance of the SO.
- 5.2. The Contractor shall submit the electronic copy of the Baseline programme in original file format and pdf format in suitable media acceptable to the SO.

### **6 PROGRESS REPORT**

- 6.1. The Contractor shall monitor the progress of the Works and submit weekly and monthly reports to the SO showing the actual progress of the Works compared with the scheduled progress in the programme.
- 6.2. The report shall include the progress status for each trade of work, number and types of workmen employed, materials delivered and construction equipment used, compared with the planned activities and resources.

### **7 LANGUAGE OF CORRESPONDENCE**

- 7.1. All correspondence and submissions to the Employer shall be in the English Language.

### **8 CONTRACT PERIOD**

- 8.1. The Contractor shall complete the whole of the Works by the Time for Completion as specified in the Appendix to the Conditions of Contract.
- 8.2. The period of completion of the Works shall be deemed to include Sundays and Public Holidays.

### **9 STAR RATES**

- 9.1. Where the Contractor contends that work is not of a similar character or executed under similar conditions as priced in the Contract, he shall give to the

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SO a written notice within seven days from the time of receipt of the instruction from the SO with regard to such work for the SO's consideration. Unit rates for such items shall be termed 'Star Rates' and will be indicated thus '\* ', if so decided by the SO.

- 9.2. The Contractor shall declare on the prescribed form D9 (given in the Particular Specification) that the prices quoted in the supporting vouchers/invoices are nett of trade discounts. The SO may request for documentary evidence of the amount paid by the Contractor to his suppliers and/or subcontractors.

### **10 PROGRESS/VARIATION MEETINGS**

- 10.1. The Contractor shall attend regular progress/variation meetings convened by the SO. The meetings shall be chaired by the SO and held once a month to monitor progress and verify variations issued and to settle variation claims.
- 10.2. The Contractor shall provide all facilities at the Site for the purpose of conducting joint site meetings between the Contractor and the SO (or his representatives) to monitor the progress of the Works.
- 10.3. The Contractor shall submit to the SO an up-to-date statement of his variation claims at the variation meetings and he shall ensure that the claims are made in accordance with the provisions of the Contract.
- 10.4. The Contractor will be required to attend the same as and when notified and he shall make available a responsible person with authority to accept and make decisions and to act on his behalf. All site meetings shall be properly minuted and recorded by the Contractor.

### **11 PROVISIONAL QUANTITIES**

- 11.1. Where provisional quantities are provided against any item of works, such works shall be subject to admeasurement on completion and valued at rates tendered by the Contractor in the Provisional Quantities Bill.

### **12 FINANCIAL YEAR**

- 12.1. The Contractor shall note that the Employer's financial year begins on 1st April and ends on 31st March. For the month of March, the Contractor shall submit his application for an interim certificate within the first seven days of the month or such shorter period as may be notified by the SO.

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### **13 ADDITIONAL CONDITIONS**

- 13.1. The Contractor shall not alter any terms contained in the Conditions of Contract or attach to his tender any additional conditions.
- 13.2. If the Contractor shall vary any of the terms contained in the Conditions of Contract or introduce additional conditions, his tender may be rejected.

### **14 ALTERATIONS TO TEXT**

- 14.1. No alteration shall be made by the Contractor to the text of the Specifications, the Preliminaries and all other parts of the Tender Document. If any alteration, addition or note is made by him, such alteration, addition or note will not be recognised and the text as originally prepared will be strictly adhered to.

### **15 BLANKET INSURANCE SCHEME**

- 15.1. The Employer has taken out under the Blanket Insurance Scheme the following insurance for and on behalf of the Contractor:-

Builders' Risk (BR) / Third Party Liability (TPL)

- Section 1 - Builders' Risks (BR)
- Section 2 - Third Party Liability (TPL)

- 15.2. The Contractor is advised to read through the terms of the Blanket Insurance Policy and to ascertain for himself the extent to which his interests are covered. The Employer shall not be under any liability to the Contractor for any loss to the Contractor that may arise from any deficiency in the insurance taken out on his behalf.
- 15.3. The policy shall be retained by the Employer. A copy of the Blanket Insurance Policy is enclosed in the Particular Specification for reference.
- 15.4. The insurance taken out for Builders' Risks / Third Party Liability shall commence from the date of commencement of the Works up to and including the date of substantial completion including any extension of time (or the latest date of substantial completion if more than one) plus the Defects Liability Period.

### **16 ADDITIONAL INSURANCES**

- 16.1. The insurances taken out under the Blanket Insurance Scheme do not cover any design responsibilities assumed by the Contractor or his consultants under the Contract. In addition, they do not cover any liability in respect of personal injuries or death which the Contractor or his sub-contractors may incur towards any employee employed by the Contractor or subcontractors, whether under

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the provisions of any written law or regulation (including the Work Injury Compensation Act) or at common law. The Contractor shall at his own cost and expense, take out insurance to cover such design responsibilities and his liabilities as an employer.

- 16.2. He shall also, at his own cost, take out any other additional insurances which he deems necessary to cover any risks not included or not sufficiently included in the Blanket Insurance Scheme.

## **17 INSURANCE**

- 17.1. The Contractor shall before commencement of any works under the Contract effect and maintain insurance policies in compliance with the Conditions of Contract throughout the contract duration including any extension therein.
- 17.2. The Contractor shall allow for all costs and expenses in connection with the provision of insurance coverage as specified under the Conditions of Contract and any other insurance policy which he considers to be necessary to meet his obligations pursuant to the Contract.
- 17.3. All insurance policies shall be deposited with the SO before the commencement of any work on Site and evidence of the premium paid under such policies must be presented to the SO.

## **18 TREASURE TROVE**

- 18.1. Any treasure trove, coins or objects of antiquity which are discovered on the Site during the progress of the Works shall become the property of the Employer.
- 18.2. The Contractor shall immediately notify the SO upon the discovery of any treasure trove, coins or objects of antiquity and shall exercise due care and protection to prevent them from damage.

## **19 USE OF THE SITE**

- 19.1. The Contractor shall use the Site solely for the purpose of the Works. All activities occurring on the Site must be in connection with and exclusive to the Works. There must be no "spin-off" business activities and the Contractor shall not use the Site for other profit-making activities.



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### 20 ACTS AND REGULATIONS

20.1. The Contractor shall comply with any written law and byelaws, rules and regulations of any government ministry, statutory boards or other public authorities which are applicable or relevant to the execution of the Works. These include, but are not limited, to the following :-

- i. Requirements of Ministry of the Environment and Water Resources relating to the proper provision, erection, and subsequent disposal of toilet facilities; the proper disposal of trade effluent; the erection and operation of canteens; control of water pollution and drainage; control of air pollution and the control of noise.
- ii. Requirements of the WSH (Construction) Regulations, WSH (Noise) Regulations and WSH (Medical Examinations) Regulations.
- iii. Requirements of the Ministry of Manpower forbidding the employment of illegal workers.
- iv. Requirements of the "Building Control (Temporary Buildings) (Amendment) Regulations".
- v. Code of Practice on Safety and Health in Roadworks, Excavation, Sewer Maintenance and Renovation Works.
- vi. Requirements of Environmental Public Health Act relating to the employment of a competent person to act as Environmental Control Officer (ECO) as stated in **Appendix B** of the Particular Specification.
- vii. Requirements of Workplace Safety and Health Act 2006 relating to the employment of a competent person to act as Workplace Safety and Health Officer (WSHO) as stated in **Appendix B** of the Particular Specification.

### 21 TEMPORARY ACCESS

21.1. The Contractor shall provide and maintain throughout the duration of the Contract all necessary temporary roads, crossing over drains and/ or channels, etc. to gain proper access to and within the Site. On Substantial Completion, he shall clear them away and make good all works disturbed to the satisfaction of the SO and any authority concerned or pay charges for such making good as may be required by such authority.

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**22 HOARDINGS**

22.1. The Contractor shall provide, erect and maintain throughout the duration of the Contract temporary hoardings painted to design as specified in the Particular Specification including gates, access doors and fastenings, for the proper execution of the Works, for the protection of the public and occupants of adjoining premises and for meeting the requirements of the SO and the relevant authorities. On Substantial Completion, he shall clear them away and make good all works disturbed to the satisfaction of the SO.

**23 PROTECTIVE BARRIERS, SCREENS, ETC.**

23.1. The Contractor shall provide all necessary barricades, tarpaulins, screens, etc. for the protection of the workpeople, occupants of adjoining property and the public, and shall alter, adapt and maintain them as necessary.

**24 LTA SIGNBOARD**

24.1. The Contractor shall provide and maintain on the Site, where directed, 1 No of approved LTA signboard as specified in the Drawing of the Particular Specification. Including letterings and description of the project to the approval of the SO and remove within two weeks of the Substantial Completion of the Works.

**25 SITE OFFICES**

25.1. The Contractor shall provide and erect, at locations approved by the SO, temporary site offices with a security door locking system opened by passcode or from inside for the use of the SO's staff together with all necessary air-conditioning, ventilation, lighting, fire precaution, lightning protection to the latest SS CP 33, fresh water and electricity supply, drainage, telephone service, attendance, maintenance, equipment supplies, watching and protection, consumable stores to the satisfaction of the SO so as to be habitable and operational at all times till the Time for Completion.

25.2. The Contractor shall provide the minimum office space, furnishing and equipment as follows:

1.	Office Space	37.0 m <sup>2</sup>
2.	Toilet	1 No.
3.	Furniture:	
	Executive desk & chair	1 Set

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	Office desk with drawer, lock & chair	2 Sets
	Conference Table	1 No.
	Chairs for Conference Table	10 No.
	4-drawer filing cabinet with suspension rails & file holders	1 No.
	Plan Rack with 12 holders	1 Set
	Pin-up Board	1 No.
	Whiteboard	2 No.
	High Steel Cabinet	1 No.
	Sample Rack	1 No.
4.	Equipment:	
	Photocopy Machine - Multi-Function Device (MFD) (with photocopying and printing functions) with at least 2 cassette trays for A3 & A4 and 1 bypass tray. Scanning function to be disabled and Hard Disk Drive removed.	1 No.
	Common desktop computer with minimally twenty-two inches (22") of LED monitor exclusively at the Superintending Officer's office for internet access and connection to multi-function device for printing. The specifications of the computer shall follow Clause 19 for common computer specifications.	1 No.
	Facsimile Machine	1 No. with 1 Line
	Telephone	1 Line
	Telephone answering machine	1 No.
	Hotline with voice mail/ answering machine	1 No. with 1 Line

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	Consumables Stores such as toilet paper rolls, soap, washing liquid, detergent, plastic bags for rubbish and replacement of fluorescent tubes and all others necessary for the maintenance and upkeep of the office.	-
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- 25.3. In addition, the Contractor shall submit a plan showing the design and layout of the LTA Site office area for the approval by the SO. The LTA Site office area shall be at least **400m<sup>2</sup>** comprising of the SO’s office, covered carpark, toilet & covered linkway to connect the SO’s office, carpark and toilet. Each office shall be painted to the design/pattern as approved by the SO. The LTA Site office area shall be concreted and a metal hoarding of minimum height to details in the Particular Specification shall be erected throughout its perimeter. The SO’s office shall be modular type made with steel frame with panel and capable of being dismantled. The access provided for the LTA Site office area shall be properly paved with concrete and maintained from the commencement date of the Contract till the Time for Completion.
- 25.4. A LTA logo shall be painted on the external wall of each site office as approved by the SO. Each office shall be painted to the design/pattern as approved by the SO.
- 25.5. The Contractor shall, when instructed in writing by the SO, remove the office(s) and toilet(s) leaving the Site in a clean and tidy condition. The items of furniture and equipment provided therefore shall revert to the Contractor upon removal.
- 25.6. The Site Office shall be ready for occupation within the timeline as specified under the Particular Specification. Temporary site offices shall be provided for the SO and his staff, subject to SO’s acceptance, whilst any site activity takes place before completion of the above accommodation.
- 25.7. The Contractor shall seek the SO’s acceptance in the event he proposes rental of commercial space or any other alternative in lieu of the above site office provision.

**26 SITE OFFICES**

- 26.1. The Contractor shall provide and erect, at locations approved by the SO, temporary site offices with a security door locking system opened by passcode or from inside for the use of the SO's staff together with all necessary air-conditioning, ventilation, lighting, fire precaution, lightning protection to the latest SS CP 33, fresh water and electricity supply, drainage, telephone service, attendance, maintenance, equipment supplies, watching and protection, consumable stores to the satisfaction of the SO so as to be habitable and operational at all times till the Time for Completion.

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26.2. The Contractor shall provide the minimum office space, furnishing and equipment as follows:

1.	Office Space	74.0 m <sup>2</sup>
2.	Toilet	1 No.
3.	Furniture:	
	Executive desk & chair	1 Set
	Office desk with drawer, lock & chair	5 Sets
	Conference Table	1 No.
	Chairs for Conference Table	15 No.
	4-drawer filing cabinet with suspension rails & file holders	1 No.
	Plan Rack with 12 holders	2 Sets
	Pin-up Board	2 No.
	Whiteboard	4 No.
	High Steel Cabinet	1 No.
	Sample Rack	1 No.
4.	Equipment:	
	Photocopy Machine - Multi-Function Device (MFD) (with photocopying and printing functions) with at least 2 cassette trays for A3 & A4 and 1 bypass tray. Scanning function to be disabled and Hard Disk Drive removed.	1 No.
	Common desktop computer with minimally twenty-two inches (22") of LED monitor exclusively at the Superintending Officer's office for internet access and connection to multi-function device for printing. The specifications of the computer shall follow Clause 19 for common computer specifications.	1 No.

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	Facsimile machine	1 No. with 1 line
	Telephone	2 Line with 4 extensions
	Telephone answering machine	1 No.
	Hotline with voice mail/ answering machine	1 No. with 1 Line
	Consumables Stores such as toilet paper rolls, soap, washing liquid, detergent, plastic bags for rubbish and replacement of fluorescent tubes and all others necessary for the maintenance and upkeep of the office.	-

- 26.3. In addition, the Contractor shall submit a plan showing the design and layout of the LTA Site office area for the approval by the SO. The LTA Site office area shall be at least **800m<sup>2</sup>** comprising of the SO's office, covered carpark, toilet & covered linkway to connect the SO's office, carpark and toilet. The LTA Site office area shall be concreted and a metal hoarding of minimum height to details in the Particular Specification shall be erected throughout its perimeter. The SO's office shall be modular type made with steel frame with panel and capable of being dismantled. The access provided for the LTA Site office area shall be properly paved with concrete and maintained from the commencement date of the Contract till the Time for Completion.
- 26.4. A LTA logo shall be painted on the external wall of each site office as approved by the SO. Each office shall be painted to the design/pattern as approved by the SO.
- 26.5. The Contractor shall, when instructed in writing by the SO, remove the office(s) and toilet(s) leaving the Site in a clean and tidy condition. The items of furniture and equipment provided therefore shall revert to the Contractor upon removal.
- 26.6. The Contractor's proposals for the construction of the offices shall be submitted within two weeks of the award of the Contract and erected within six weeks of the date for commencement of the Works.
- 26.7. The Contractor shall seek the SO's acceptance in the event he proposes rental of commercial space or any other alternative in lieu of the above site office provision.

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**27 SITE OFFICES**

- 27.1. The Contractor shall provide and erect, at locations approved by the SO, temporary site offices with a security door locking system opened by passcode or from inside for the use of the SO's staff together with all necessary air-conditioning, ventilation, lighting, fire precaution, lightning protection to the latest SS CP 33, fresh water and electricity supply, drainage, telephone service, attendance, maintenance, equipment supplies, watching and protection, consumable stores to the satisfaction of the SO so as to be habitable and operational at all times till the Time for Completion.
- 27.2. The Contractor shall provide the minimum office space, furnishing and equipment as follows:

1.	Office Space	92.5 m <sup>2</sup>
2.	Toilet	2 No.
3.	Furniture:	
	Executive desk & chair	2 Sets
	Office desk with drawer, lock & chair	7 Sets
	Conference Table	1 No.
	Chairs for Conference Table	20 No.
	4-drawer filing cabinet with suspension rails & file holders	2 No.
	Plan Rack with 12 holders	3 Sets
	Pin-up Board	3 No.
	Whiteboard	5 No.
	High Steel Cabinet	2 No.
	Sample Rack	1 No.
4.	Equipment:	

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	Photocopy Machine - Multi-Function Device (MFD) (with photocopying and printing functions) with at least 2 cassette trays for A3 & A4 and 1 bypass tray. Scanning function to be disabled and Hard Disk Drive removed.	1 No.
	Common desktop computer with minimally twenty-two inches (22") of LED monitor exclusively at the Superintending Officer's office for internet access and connection to multi-function device for printing. The specifications of the computer shall follow Clause 19 for common computer specifications.	1 No.
	Facsimile machine	1 No. with 1 Line
	Telephone	4 Lines with switching facilities for 8 extensions
	Telephone answering machine	1 No.
	Hotline with voice mail/ answering machine	1 No. with 1 Line
	Consumables Stores such as toilet paper rolls, soap, washing liquid, detergent, plastic bags for rubbish and replacement of fluorescent tubes and all others necessary for the maintenance and upkeep of the office.	-

27.3. In addition, the Contractor shall submit a plan showing the design and layout of the LTA Site office area for the approval by the SO. The LTA Site office area shall be at least **900m<sup>2</sup>** comprising of the SO's office, covered carpark, toilet & covered linkway to connect the SO's office, carpark and toilet. The LTA Site office area shall be concreted and a metal hoarding of minimum height to details in the Particular Specification shall be erected throughout its perimeter. The SO's office shall be modular type made with steel frame with panel and capable of being dismantled. The access provided for the LTA Site office area shall be properly paved with concrete and maintained from the commencement date of the Contract till the Time for Completion.

27.4. A LTA logo shall be painted on the external wall of each site office as approved by the SO. Each office shall be painted to the design/pattern as approved by the SO.



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- 27.5. The Contractor shall, when instructed in writing by the SO, remove the office(s) and toilet(s) leaving the Site in a clean and tidy condition. The items of furniture and equipment provided therefore shall revert to the Contractor upon removal.
- 27.6. The Contractor's proposals for the construction of the offices shall be submitted within two weeks of the award of the Contract and erected within six weeks of the date for commencement of the Works.
- 27.7. The Contractor shall seek the SO's acceptance in the event he proposes rental of commercial space or any other alternative in lieu of the above site office provision.

**28 SITE OFFICES**

- 28.1. The Contractor shall provide and erect, at locations approved by the SO, temporary site offices with a security door locking system opened by passcode or from inside for the use of the SO's staff together with all necessary air-conditioning, ventilation, lighting, fire precaution, lightning protection to the latest SS CP 33, fresh water and electricity supply, drainage, telephone service, attendance, maintenance, equipment supplies, watching and protection, consumable stores to the satisfaction of the SO so as to be habitable and operational at all times till the Time for Completion.
- 28.2. The Contractor shall provide the minimum office space, furnishing and equipment as follows:

1.	Office Space	111.0 m <sup>2</sup>
2.	Toilet	2 No.
3.	Furniture:	
	Executive desk & chair	3 Sets
	Office desk with drawer, lock & chair	9 Sets
	Conference Table	1 No.
	Chairs for Conference Table	20 No.
	4-drawer filing cabinet with suspension rails & file holders	3 No.

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	Plan Rack with 12 holders	4 Sets
	Pin-up Board	4 No.
	Whiteboard	6 No.
	High Steel Cabinet	3 No.
	Sample Rack	1 No.
4.	Equipment:	
	Photocopy Machine - Multi-Function Device (MFD) (with photocopying and printing functions) with at least 2 cassette trays for A3 & A4 and 1 bypass tray. Scanning function to be disabled and Hard Disk Drive removed.	1 No.
	Common desktop computer with minimally twenty-two inches (22") of LED monitor exclusively at the Superintending Officer's office for internet access and connection to multi-function device for printing. The specification of the computer shall follow Clause 19 for common computer specifications.	1 No.
	Facsimile machine	1 No. with 1 Line
	Telephone	6 Lines with switching facilities for 12 extensions
	Telephone answering machine	1 No.
	Hotline with voice mail/ answering machine	1 No. with 1 Line
	Consumables Stores such as toilet paper rolls, soap, washing liquid, detergent, plastic bags for rubbish and replacement of fluorescent tubes and all others necessary for the maintenance and upkeep of the office.	-

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- 28.3. In addition, the Contractor shall submit a plan showing the design and layout of the LTA Site office area for the approval by the SO. The LTA Site office area shall be at least **1000m<sup>2</sup>** comprising of the SO's office, covered carpark, toilet & covered linkway to connect the SO's office, carpark and toilet. The LTA Site office area shall be concreted and a metal hoarding of minimum height to details in the Particular Specification shall be erected throughout its perimeter. The SO's office shall be modular type made with steel frame with panel and capable of being dismantled. The access provided for the LTA Site office area shall be properly paved with concrete and maintained from the commencement date of the Contract till the Time for Completion.
- 28.4. A LTA logo shall be painted on the external wall of each site office as approved by the SO. Each office shall be painted to the design/pattern as approved by the SO.
- 28.5. The Contractor shall, when instructed in writing by the SO, remove the office(s) and toilet(s) leaving the Site in a clean and tidy condition. The items of furniture and equipment provided therefore shall revert to the Contractor upon removal.
- 28.6. The Contractor's proposals for the construction of the offices shall be submitted within two weeks of the award of the Contract and erected within six weeks of the date for commencement of the Works.
- 28.7. The Contractor shall seek the SO's acceptance in the event he proposes rental of commercial space or any other alternative in lieu of the above site office provision.

**29 COMMON COMPUTER ROOM**

- 29.1. The Contractor shall provide a Common Computer Room within the LTA's site office to house any IT hardware (e.g. router, network switches, computers, printers, etc. to be decided by the SO). The Computer Room shall comply with the following requirements:
- i. Dimensions of Common Computer Room, which form part of the LTA's site office floor area, shall be decided by the SO but not less than 5m x 3m;
  - ii. Provide a separate electrical distribution board (DB);
  - iii. Telecommunications DB for the LTA's site office shall terminate at the Computer Room without intermediate DB box to the source;
  - iv. The Common Computer Room shall be secure and provided with an approved locking system. Any windows within the Common Computer Room shall be complete with lockable window grilles;

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- v. An earthing point connected to the earth electrode via an earth cable shall be provided for the equipment rack;
- vi. Provide and maintain air-conditioning system comprising of 2 separate units to operate on a 24hr x 7 days basis with 100% redundancy;
- vii. Provide at least eight (8) numbers of 13 amp power points;
- viii. Provide all furniture / equipment specified in the Particular Specifications; and
- ix. Other ancillary fixtures and fittings necessary for effective operation of computer room.

### **30 IT CONNECTIVITY REQUIREMENTS**

- 30.1. The Contractor shall be responsible for the supply, installation and maintenance of IT equipment and associated peripherals within the LTA's site office in accordance with the requirements set out in the Particular Specification for IT connectivity Requirements.
- 30.2. The Contractor shall be responsible for the application, submission and liaison with any authorised telco services provider for the supply, installation and maintenance of an internet service at the LTA's site office and undertake to pay the installation charges, the related monthly subscription charges and termination charges, if any, of the internet services to any authorised telco service provider. The Contractor shall also be responsible to supply and install the telephone line and point required for broadband service with proper termination and label. Contractor shall provide all necessary bridging cabling between the internet line to the router / switch / modem for connectivity.
- 30.3. The Contractor's pricing in this Contract shall include all requirements in ensuring continuous uninterrupted functionality, including backup system and the subscription of the internet service throughout the duration of the Contract.

### **31 OTHER SITE BUILDINGS**

- 31.1. Other site buildings shall only be erected in positions approved by the SO and shall be such a form of construction that is approved by the SO. All temporary buildings must be cleared away within two weeks of the completion of the Works.
- 31.2. Any storage area used by the Contractor shall be paved with premix. The Contractor shall erect a metal hoarding of minimum height throughout the perimeter of the storage area to details in the Particular Specification. The access provided for the storage area shall be properly paved with concrete

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

and maintained from the commencement date of the Contract till the Time for Completion.

- 31.3. The Contractor shall allow for maintaining the site buildings for the duration of the Contract and keeping them in a clean condition.

### **32 LAND IDENTIFIED FOR CONTRACTOR'S USE**

- 32.1. Worksites on State Land and Non-State Land, which in the opinion of the SO are required for the purposes of the Contract, are shown on the Employer's Drawings and identified in the Particular Specification. Notwithstanding, it is the responsibility of the Contractor to determine the location and size of the worksites and the period of intended use to suit his construction requirements.

- 32.2. The worksites identified by the Employer are classified under two categories:

Category 1 (the Contractor is not required to pay TOL/licence fees)

Category 1 worksites include worksites within or adjoining railway area/street reserve used for the following non-exhaustive purposes ("authorised purposes"): construction and maintenance of road structures, road related facilities and railway, working areas for construction of road structures, road related facilities and railway, site offices, fabrication/casting yard, batching plants, storage of equipment/materials, staging areas, substation, stockpile, workshops and access roads.

Category 2 (the Contractor is required to pay TOL/licence fees)

Category 2 worksites include worksites not within or adjoining railway area/street reserve, and worksites within or adjoining railway area/street reserve used for the following non-exhaustive purposes: dormitory/workers' quarters, canteen, displacement of structures/facilities.

- 32.3. Should the Contractor require more land in addition to those identified by the Employer, he shall seek the SO's acceptance of the location of the additional land. The Contractor shall be responsible to secure such land, obtain necessary permits and pay all costs, rents and charges in connection with the use and occupation of the land.
- 32.4. The Employer may, at any point of time during the Contract period and at its own discretion, determine that a worksite is no longer required for the purposes of the Contract, in which case it shall give the Contractor six (6) months advance notice to clear the land and reinstate the land to the landowner's requirement(s), and return the land to the landowner.
- 32.5. The Contractor must clear the land, reinstate the land to the landowner's requirement(s), and return the land to the landowner by the date of substantial completion of the whole of the Works. The Contractor must provide

## PRELIMINARIES FOR CONSTRUCTION WORKS

justifications and seek approval from the Employer at least six (6) months in advance if it intends to occupy the land beyond the date of substantial completion of the whole of the Works. For category 1 worksites, the Employer may, at its own discretion, allow the Contractor's continued occupation of the land for not more than three (3) months after the date of substantial completion of the whole of the Works (without the need to pay TOL/licence fees). For continued occupation beyond three (3) months after the date of substantial completion of the whole of the Works, the Contractor is required to obtain the Employer's approval and to apply and pay for the relevant TOL/license fees. For category 2 worksites, the Contractor is required to obtain the Employer's approval and to apply and pay for the relevant TOL/license fees for continued occupation of the land after the date of substantial completion of the whole of the Works.

### 32.6. State Land

- 32.6.1. For category 1 worksites, the Employer may at its own discretion authorise the Contractor to enter upon State land for authorised purposes. The Contractor shall not be required to pay TOL fees. If the Contractor breaches any conditions in its use of State land as a category 1 worksite, or ceases to use the State land for the authorised purposes (collectively "unauthorised use"), the Contractor is required to remedy such unauthorised use immediately. The Contractor may also be required to pay TOL fees levied by the SLA for such unauthorised use. The Contractor shall indemnify and keep indemnified the Employer against any claims, costs, proceedings, or actions whatsoever arising from the unauthorised use of the said State land.
- 32.6.2. For category 2 worksites, the Employer may at its own discretion assist the Contractor in obtaining in-principle clearance from the Singapore Land Authority (SLA) or its managing agent for the Contractor to enter the State land shown on the Employer's Drawings before the commencement of the Works. After clearance to use State land has been obtained, the Contractor shall apply to SLA or its managing agent to take up such TOLs as may be required by SLA or its managing agent. The Contractor shall pay TOL fees and all charges related to the application(s) levied by SLA or its managing agent and comply with the conditions of the TOL. The Contractor should refer to SLA for the applicable rates.
- 32.6.3. In the submission of the application(s) to SLA, the Contractor shall provide all plans (site plan of buildings/structures, alignment/general arrangement plan of tunnels, site utilisation plan, survey plan, etc) and information as required by SLA or its managing agent. Upon approval, the Contractor shall notify the Employer with a full set of the approved documents. No works on State land shall be carried out until approval has been granted.

## PRELIMINARIES FOR CONSTRUCTION WORKS

32.6.4. The Contractor shall cease occupation of the State land under TOL as soon as the works have been completed, even if the TOL has yet to expire. The Contractor shall reinstate the land to SLA's requirements so as to minimise the impact or disruption to the urban environment and to allow development works by other authorities or developers.

32.6.5. The Contractor is required to make due allowance for TOL fee hikes that may arise during the period of his occupation of State land. The Contractor shall price for all such TOL fees and costs for the use of the State land in his Contract Sum, and the Contract Sum will not be adjusted if there is any change in the prevailing rates payable by the Contractor for the duration of the Contract.

### 32.7. Non-State Land (statutory board/government agencies/private land)

32.7.1. For category 1 worksites, the Employer may at its own discretion authorise the Contractor to enter upon statutory board land and/or government agencies land for authorised purposes. The Contractor shall not be required to pay TOL fees.

32.7.2. For category 2 worksites, the Contractor shall liaise with the relevant statutory board/government agency to enter into arrangements to secure such land and pay all costs and license fees for the use of the land. The statutory board/government agencies are free to impose any rate that is different from those charged by SLA on State land, and the Contractor is to factor in such costs and license fees in the Contract Sum.

32.7.3. The Contractor shall cease occupation of the non-State land as soon as the works have been completed, even if the licence has yet to expire. The Contractor shall reinstate the land to the landowner's requirements so as to minimise the impact or disruption to the urban environment and to allow development works by other authorities or developers.

32.7.4. The Employer may at its own discretion authorise the Contractor to enter upon private land for the construction of Permanent Works (road structures/road related facilities/railway) and to use the private land as working areas for the construction of road structures, road related facilities and railway.

32.7.5. For worksites outside the scope stipulated above, the Contractor shall liaise with the private landowner to enter into arrangements to secure such land and pay all costs and license fees for the use of the land. The private landowner is free to impose any rate that is different from those charged by SLA on State land as TOL fees,

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

and the Contractor is to factor in such costs and license fees in the Contract Sum.

### **33 SCAFFOLDING FOR ALL TRADES**

- 33.1. The Contractor shall provide all necessary temporary scaffolding, staging, planks, catwalks, gangways, ladders, etc. of whatever height for the proper execution and completion of the Works (including the works to be executed by Sub-Contractors, Suppliers and Specialists) and pay all costs and charges in connection therewith. He shall alter, shift and adapt from time to time as necessary and remove same on completion of the Works.
- 33.2. The Contractor shall be fully responsible for the design and safety of scaffolding and must allow for obtaining approval from the relevant authorities and for submitting design details if required.
- 33.3. Should the Contractor strike any of his scaffolding before ascertaining whether it is required by any of his Sub-Contractor or by any public authority, he must re-erect it if so required at his own cost and expenses.

### **34 WATER FOR THE WORKS**

- 34.1. The Contractor shall provide and maintain a temporary water supply and distribution system sufficient for the execution of the Works (including the works to be executed by Sub-Contractors, Suppliers and Specialists). The temporary water supply installation shall comply with the requirements of the Public Utilities Board. The Contractor shall alter, adapt, maintain as necessary and remove the installation upon completion of the Works, reinstate all works disturbed to the satisfaction of the SO and the Public Utilities Board and pay all costs, charges and fees in connection therewith.

### **35 TEMPORARY LIGHTING AND POWER**

- 35.1. The Contractor shall provide and maintain a temporary water supply and distribution system sufficient for the execution of the Works (including the works to be executed by Sub-Contractors, Suppliers and Specialists). The temporary water supply installation shall comply with the requirements of the Public Utilities Board. The Contractor shall alter, adapt, maintain as necessary and remove the installation upon completion of the Works, reinstate all works disturbed to the satisfaction of the SO and the Public Utilities Board and pay all costs, charges and fees in connection therewith.



**PRELIMINARIES FOR CONSTRUCTION WORKS****36 PROVISION OF BULK BINS AND DUMPING OF DEBRIS AND WASTE, ETC.**

- 36.1. The Contractor shall not dump construction debris, rubbish and waste at the Site, vacant plot of land, roadside or drains as it may cause obstruction, pollution and chokage to the drains and water courses. All rubbish, construction debris and waste arising from the Contractor's occupation of the Site or Works, including the works to be executed by Sub-Contractors, Suppliers and Specialists, must be collected, stored and removed off the Site.
- 36.2. The Contractor shall provide proper bulk bins for construction debris. For storage of all inorganic waste such as building debris, dust, litter, timber, boxes, the bulk bins shall be of size not less than one cubic metre each. Separate bins with tight lid covers shall be provided for the storage of organic waste such as waste from canteens and each bin shall be of a capacity not less than 85 litres.
- 36.3. The Contractor shall make all necessary arrangements for the collection and storage of such materials in the bins provided and remove them as often as necessary to the Tuas Marine Transfer Station.
- 36.4. No empty container or receptacle capable of collecting water and forming breeding places for mosquitoes shall be left in the open and the Contractor shall take all necessary steps to prevent the breeding of mosquitoes in the areas handed over to him from the commencement date of the Contract till the Time for Completion.

**37 MAINTENANCE AND TEMPORARY DIVERSION OF UTILITY SERVICES AND WATERCOURSES**

- 37.1. The Contractor shall maintain and protect all public drains, sewers, gas mains, water mains, electrical mains, telephone cables and the like in connection with the Works and shall make good all damage to such public utilities during the execution of the Works and shall indemnify the Employer against any claim arising therefrom.
- 37.2. The approximate positions of certain services etc. may have been indicated in the Contract Drawings for the guidance of the Contractor but such details are not to be taken as complete. The Contractor shall, at his own expense determine the existence of other services etc. which are not shown in the Drawings by either cutting trial trenches or by making enquiries with the relevant service departments/ companies.
- 37.3. The items for maintenance and temporary diversion of utility services and watercourses shall include for:-

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

- (a) locating, marking and protecting all services; in particular, employing licensed cable detection workers to carry out cable detection work prior to commencement of any earthworks all in accordance with Section 67B of the Public Utilities Act;
- (b) preparing drawings and documents relating to this items and submitting for approval;
- (c) attending meetings, liaising with relevant authorities and users;
- (d) supplying and installing all materials for maintenance and temporary diversion of Utility Services;
- (e) providing all trial holes and pilot trenches required;
- (f) supports;
- (g) notifying relevant authorities and users;
- (h) maintaining flow of watercourses;
- (i) making connections;
- (j) all necessary work to protect and maintain existing Utility Services;
- (k) unless otherwise stated in the Contract, reinstating to original conditions to the satisfaction and approval of the Superintending Officer.

### **38 ATTENDANCE ON PERMANENT DIVERSION OF SERVICES BY UTILITY AGENCIES**

- 38.1. The items for attendance on permanent diversions of services by Utility Agencies shall include for:-
- (a) liaising with Utility Agencies;
  - (b) preparing plans and statements;
  - (c) attending meetings;
  - (d) planning and co-ordinating the diversion work with the Works;
  - (e) progressing the diversion work;
  - (f) attendance while the Utility Agencies carry out permanent diversions.

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

### **39 TESTING & TESTING FACILITIES**

- 39.1. The Contractor shall carry out or arrange to carry out all tests stipulated in the Specifications or as directed by the SO and arrange for submission of copies of test results to the SO as soon as they are available. All tests and checks on Site shall be carried out as directed by or in the presence of the SO.
- 39.2. Prior to the commencement of any concreting, the Contractor shall provide on Site at a shaded area at least one lockable water- tight curing tank of approved material and design. The Contractor shall provide a sufficient number of tanks to accommodate the expected number of cubes, before they are sent for testing.
- 39.3. The Contractor shall also provide and maintain for the duration of the Contract adequate apparatus on Site for concrete testing to the approval of the SO.
- 39.4. The cost of all tests, samples, transport and other expenses incidental to testing shall be borne by the Contractor.

### **40 WATCHING**

- 40.1. The Contractor shall provide for all necessary watching as may be required at all times and everything else necessary for the protection and security of the Works from the commencement date of the Contract till the Time for Completion.

### **41 HOUSEKEEPING & FIRE SAFETY ON SITE**

- 41.1. The Contractor shall maintain a high standard of housekeeping and ensure fire safety on Site for the duration of the Contract. He shall keep the Site of his operations in as clean, neat and safe a condition as possible.
- 41.2. All materials, particularly timber and other combustible materials, must be properly stored. Fire extinguishers shall be provided by the Contractor for all temporary buildings and at strategic points on the Site.
- 41.3. All rubbish, debris, etc (including those left by Sub- Contractors, Suppliers or Specialists) shall be cleared from time to time. In particular, the Contractor shall, at all times, keep all accesses free of debris, excavated materials and other obstructions.

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

### **42 CLEANING UP AND REINSTATEMENT OF WORKS ON COMPLETION**

- 42.1. The Contractor shall leave every part of the Works included in this Contract in a clean, sound and perfect condition free from all flaws, cracks and settlement whatsoever at completion of the Works.
- 42.2. On completion, huts, sheds, etc. shall be removed and the area occupied by same and used by the Contractor shall be reinstated and left clean and in perfect condition to the satisfaction of the SO.
- 42.3. All turf disturbed or destroyed by excavation, site huts, dumps of materials, lorries and the construction works, etc. shall be reinstated at completion and watered and rolled, etc. to the satisfaction of the SO.

### **43 MATERIALS**

- 43.1. All materials and fittings shall be in accordance with the latest revised B.S. or S.S. current at the time of tendering. Should no standard be quoted the materials or fittings shall be to the approval and satisfaction of the S.O.

### **44 LOCALLY MANUFACTURED MATERIALS**

- 44.1. Wherever any construction materials required for the Works is manufactured in the Republic of Singapore and bearing the PSB Mark of quality, the Employer will give preference to the use of that material in lieu of an equivalent imported material provided that, in the opinion of the SO, the material is considered satisfactory with regard to quality, etc. In case of doubt, the Contractor shall refer to the SO on the availability of any locally manufactured materials of acceptable standards which can be used in the Works.

### **45 ORDERING MATERIALS**

- 45.1. The Contractor shall place his orders for specified materials at the earliest possible date after notification of acceptance of his tender or at such times as may be specifically stated elsewhere for any particular material. If, in the opinion of the SO the Contractor by his failure to order any specified material, or by his failure to deliver to the Site any specified material within the time stated for same, causes interruption or delay in the progress of the Works, then in either case, the SO may be at liberty to purchase such specified materials in whatever quantities he deems necessary and at the rates current in local markets at the time of purchase and all charges in connection therewith including delivery charges shall be borne by the Contractor and shall be deducted from money due or to become due to him under this Contract and neither profit nor extension of time shall be allowed to the Contractor in respect of such items.

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

### **46 ITEMS SPECIFIED BY NAME**

- 46.1. Where a material, article, product or equipment is specified by trade name, brand, catalogue reference or manufacturer's name, the Contractor shall use only such material, article, product or equipment as specified. Where a list of alternatives is given in the specification, the Contractor may use any of the listed alternatives.
- 46.2. Where the phrase "or equal and approved" appears after a material, article, product or equipment specified by trade name, brand, catalogue reference or manufacturer's name, the Contractor may propose substitutes for consideration in his tender submission, together with such drawings, specifications, samples, manufacturer's literature, performance data and test results, and cost proposal and other information as are necessary for the Employer to evaluate the proposed substitutes completely.
- 46.3. If the Contractor did not propose any substitute for the consideration of Employer in his tender, then he shall be bound to provide the listed item. If a substitute proposed by the Contractor is not in compliance with the specifications, his tender may be rejected, unless in his tender submission, he has clearly confirmed that he would provide the listed item should the proposed substitute be found unacceptable.

### **47 SUBSTITUTION AFTER AWARD OF CONTRACT**

- 47.1. After the award of the Contract, the Contractor shall not substitute any material, article, product, or equipment specified (hereinafter called the "specified item") in the Contract without the prior written approval of the SO.
- 47.2. If the Contractor wishes to propose a substitution for a specified item, he shall make a timely written request to the SO, stating the reasons (as supported by documentary evidence) for the request. He shall also provide such drawings, specifications, samples, manufacturer's literature, performance data and test results, and other information as are necessary for the SO to evaluate the proposed substitution completely. Any deviation from or non-compliance with the contract requirements shall be highlighted and brought to the attention of the SO, failing which the Contractor shall be deemed to warrant that the proposed substitute will comply with the contract requirements.
- 47.3. The Contractor shall also submit details of the comparative prices for the specified item and the substitute to the SO, and indicate the savings accruing to the Employer.
- 47.4. For the avoidance of doubt, the Contractor is bound to provide the specified item under the Contract. The decision whether or not to consider the request for substitution and to accept or reject it is entirely a matter of discretion for the SO and the Employer whose decision shall be final and binding. Any delay

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

or alleged delay on the part of the SO or the Employer in considering the Contractor's request for substitution or in coming to a decision shall not entitle the Contractor to an extension of time or additional payment.

### **48 PRODUCT WARRANTY**

- 48.1. The Contractor shall obtain all warranties specified in the Specifications on formats approved by the SO covering the workmanship and materials for the periods agreed from such Sub-Contractors, Suppliers and Specialists as directed by the SO. The original warranty shall be forwarded to the SO within the time stated in the Contract Documents.

### **49 TRAFFIC CONTROL AND ROAD SAFETY**

- 49.1. The Contractor shall plan, design, implement, operate and maintain the Temporary Traffic Control Plan in accordance with the Code of Practice for Traffic Control at Work Zone (Latest Edition) including but not limited to:
1. Appointment of qualified Engineer/Consultant to plan and design Temporary Traffic Control Plan.
  2. The Contractor shall submit 3 sets of Temporary Traffic Control Plan to the SO for approval.
  3. Project Safety Review of Temporary Traffic Control Plan longer than 9 months.
  4. Provision of Traffic Control Devices.
  5. Appointment of Person with Authority to be overall responsible for Temporary Traffic Control.
  6. Employment of full time Trained Supervisor.
  7. Training of Workers.
  8. Provision of Safety Vehicle.
  9. Watchman for Temporary Traffic Control.
  10. Provision of Inspection Vehicle.
  11. Maintenance of Traffic Control Devices.
  12. Assistance to remove breakdown vehicles.

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13. Provision of Video Camera/Sky Camera.

### **50 TRAFFIC CONTROL AND ROAD SAFETY**

- 50.1. The Contractor shall provide for all necessary traffic and directional signs, barriers, warning lamps, rubber cones etc. to guide and inform the public that the working area is closed or partially closed to all traffic (vehicular as well as pedestrians) from the commencement date of the Contract till the Time for Completion and shall replace/resite or remove all those signs etc. as directed by the SO or the Traffic Police and other relevant authorities.
- 50.2. The Contractor shall also provide one (1) inspection Vehicular with driver to facilitate the inspection of the works, where applicable under the Contract.
- 50.3. In the event, the Contractor has to carry out works on expressways or roads with speed limit 70kph and above, the Contractor shall also provide collision attenuators or truck mounted attenuators complete with spare units, shadow vehicles, arrow panels, flashing lights, etc. all in accordance to the Specifications.

### **51 USE OF ROADS AND HIGHWAYS**

- 51.1. All operations necessary for the execution of the Works and the construction of any temporary works shall as far as practicable be carried out so as not to interfere unnecessarily or improperly with the use of public or private roads and footpaths, highways or bridges or property whether in the possession of the Employer or of any other person.
- 51.2. The Contractor shall use every reasonable means to prevent damage to existing roads, highways, footpaths, culverts, bridges, etc. caused by any traffic of the Contractor or any of his sub-contractors etc. He shall not subject any of the roads, highways or bridges communicating with or on the routes to the Site to extraordinary traffic and in particular shall select routes and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of plant and materials or manufactured or fabricated articles from and to the Site shall be limited as far as reasonably possible.
- 51.3. The Contractor shall make good all damage to existing roads, footpaths, culverts, bridges, etc. caused by or in any way attributable to his workpeople, his or any vehicle or plant entering or leaving the Site, and shall at his own expense maintain, repair and reinstate the aforesaid to their original condition to the satisfaction of the SO.

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

- 51.4. The Contractor shall verify with the authorities whether any restrictions exist as regards free passage at any time of vehicles or plant approaching or leaving the Site; and he shall provide against any limitation of such free passage.
- 51.5. The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to the aforesaid matters.

### **52 LIABILITY FOR NUISANCE, ETC.**

- 52.1. The Contractor shall bear all risks and responsibilities in carrying out the Works and shall be responsible during the progress of the Works for any damage or disturbance to existing or adjoining properties, or annoyance or nuisance to residents and users of these properties arising out of the execution of the Works.
- 52.2. The Contractor shall be responsible for restricting his workmen only to the Site of the Works and shall prevent trespass into adjoining properties and existing buildings.
- 52.3. The Contractor shall indemnify the Employer against all claims resulting from the above liabilities.

### **53 NUISANCE CAUSED BY THE LITTERING OF PUBLIC HIGHWAYS WITH EARTH, ETC.**

- 53.1. The Contractor shall not litter public highways with earth, mud, debris, etc. To prevent littering of the public highways by vehicles moving out of a muddy site, the Contractor shall provide facilities and labourers to wash off mud and earth before any vehicle leaves the Site.
- 53.2. The Contractor shall allow for any cost incurred in complying with this requirement. Should the Contractor fail to comply with this requirement, the SO may employ labourers and/or take whatever necessary actions to comply with the requirement and any cost incurred shall be deducted from any money due or to become due to the Contractor.

### **54 PROGRESS PHOTOGRAPHS**

- 54.1. The Contractor shall allow for the cost of taking photographs to show the progress of works as directed by the SO.
- 54.2. After construction activities start at the site, the Contractor shall furnish progress photographs each month until substantial completion of the Works. Compact Discs (CDs) capturing the progress photographs into digital format



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and compatible for use on Microsoft Office Software shall be submitted The photographs shall show progress during the month. The actual number of photographs taken and the subject photographs shall be directed by the SO. Each photograph shall have a title block in the lower right-hand corner which shall show the following information:-

LAND TRANSPORT AUTHORITY  
CONTRACT NO: \_\_\_\_\_  
CONTRACT NAME: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_  
PHOTOGRAPH \_\_\_\_\_ DATE: \_\_\_\_\_  
NO: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_

- 54.3. The ownership and copyright of all photographs, negatives and slides shall be vested in the Employer and these shall not be used for any purpose whatsoever by the Contractor without the approval of the SO.

**55 PHOTOGRAPHS OF COMPLETED PROJECT**

- 55.1. Upon completion of the project, the Contractor shall engage a professional photographer approved by the SO to take colour photographs.
- 55.2. Compact Disks (CDs) capturing these photographs into digital format compatible for use on Microsoft Office software shall be provided.
- 55.3. The ownership and copyrights of all photographs shall be vested in the Employer and these shall not be used for any purpose whatsoever without the SO's approval.

**56 SAFETY, HEALTH AND ENVIRONMENT**

- 56.1. The Contractor shall comply with all construction safety, health and environmental requirements for all persons entitled to be upon the Site and shall keep the Site and Works in an orderly state as described in **Appendix B** of the Particular Specification.
- 56.2. The Contractor's attention is brought to **Annex A-g of Appendix B** of the Particular Specification. The Contractor shall allow for the implementation and maintenance of the Erosion Control Measures and Sediment Control Measures as detailed in PUB website [www.pub.gov.sg/ECM](http://www.pub.gov.sg/ECM) and the Specifications. The Contractor shall also engage a Qualified Erosion Control Professional (QECF) to design and submit an Earth Control Measures proposal to the acceptance of the SO and the Director, PUB (Drainage) Department.

## **PRELIMINARIES FOR CONSTRUCTION WORKS**

- 56.3. The Contractor shall comply with all safety and housekeeping requirements described in the Contract including Option Module E.

### **57 SAFETY, HEALTH AND ENVIRONMENT**

- 57.1. The Contractor shall comply with all construction safety, health and environmental requirements for all persons entitled to be upon the Site and shall keep the Site and Works in an orderly state as described in **Appendix B** of the Particular Specification.
- 57.2. The Contractor's attention is brought to **Annex A-g Appendix B** of the Particular Specification. The Contractor shall allow for the implementation and maintenance of the Erosion Control Measures and Sediment Control Measures as detailed in PUB website [www.pub.gov.sg/ECM](http://www.pub.gov.sg/ECM) and the Specifications. The Contractor shall also engage a Qualified Erosion Control Professional (QECP) to design and submit an Earth Control Measures proposal to the acceptance of the SO and the Director, PUB (Drainage) Department.
- 57.3. The Contractor shall comply with all safety and housekeeping requirements described in the Contract including Option Module E.
- 57.4. The Contractor shall comply with all Environmental, Safety and Security Consideration (ESS) requirements described in Option Module F.

### **58 PROJECT MANAGEMENT PERSONNEL**

- 58.1. The Contractor shall comply with the requirements of the project management personnel as specified in the Particular Specification.
- 58.2. The Contractor shall submit to the SO from the onset of the Contract, the personnel particulars including the documentary evidence of the level of educational qualification of the personnel employed for the Works for the SO's acceptance within one (1) month from the award of the Contract. The SO's acceptance shall be obtained prior to the commencement of any works.
- 58.3. This clause shall not be construed to limit the Contractor's responsibility and obligation in respect of adequate staffing at the sites, and in the event that any additional personnel, suitably qualified as mentioned earlier are considered necessary, the Contractor shall provide such additional staff at no extra cost to the Employer.

**PRELIMINARIES FOR CONSTRUCTION WORKS**

**59 CONSTRUCTION QUALITY ASSESSMENT SYSTEM (CONQUAS)**

- 59.1. The Contractor shall apply to BCA for CONQUAS assessment before the commencement of construction work. The Contractor shall allow for all costs and expenses in obtaining the Building Quality Assessment Services from the BCA to give an independent quality assessment of the Works.
- 59.2. The Contractor is to work towards achieving the bonus threshold score and fully comply with the requirements as specified in the Particular Specification.