

# EMPLOYER'S REQUIREMENTS FOR SUPPLY & INSTALLATION OF SEWER PROVISIONS FOR VINARES COMMERCIAL AREA

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## 1. PROJECT DETAILS

This Project consists of the supply and installation of sewer provisions for Vinares commercial areas. The purpose of these provisions is to provide a common pipe for ease of connection by tenants to the sewer mains.

## 2. SITE DATA

The Project Site is located at Vinares Housing Complex in Hulhumalé Phase II, as shown in the Drawings. The provisions are required in to the commercial areas located in the Ground and 1<sup>st</sup> floors of 10 buildings.

## 3. GENERAL REQUIREMENTS

The general scope of the Project is to undertake the supply and installation of sewer provisions for Vinares commercial areas, to complete as per these requirements and as specified in the detail drawings and specifications. The Contractor shall execute and complete all the Works and remedy the defect therein.

The Contractor shall visit and inspect the Site and identify the existing Site conditions and submit their proposal inclusive of all identified Site requirements. The Employer will provide the detail drawings and specifications.

The Contractor shall provide all necessary labour, supervision, Materials and other equipment to accomplish the following Works by utilizing trained employees, directly employed, supervised and scheduled by the Contractor. The Contractor shall provide temporary water, electricity, and communication connections including cost for connection, monthly charges, termination costs and all associated costs or establish alternative solutions at Site to ensure the availability of temporary utility services. The Contractor will be responsible for the health and safety of their staff. The Contractor will have to conform to the Laws of the Republic of Maldives in all respects in executing the Works.

The Contractor shall verify the requirements prior to supply, fabrication and installation Works. The Contractor shall not deviate from the design & specifications without prior approval from the Employer. Any details not shown in the attached drawings, but are required for the completion of the Project, shall be prepared by the Contractor and approved by the Employer. The Contractor shall also prepare all necessary shop drawings for the completion of the Works.

The work progress and quality of work will be inspected by the Employer throughout the Project duration, to check whether the Works conform with the documents stated in this Employer's Requirements. The Contractor shall facilitate the Employer to carry out these inspections.

The Contractor shall execute and complete the Works within the duration of the Project stipulated in the Conditions of the Contract.



All system components (if applicable) shall be installed in accordance with the manufacturer's recommendations. If installation of a component in accordance with the manufacturer's recommendations is not possible, advice should be sought from the manufacturer or supplier. The Contractor shall make sure that all the equipment is installed at safe and protected locations.

The Contractor shall submit all the documents stated in Employer's Requirements (particularly all documents stated herein under Clause 5 [Contractor's Documents]) and Conditions of Contract for review and approval. The Employer will check/review whether the submitted documents are practical and give approval/comments. The review period by the Employer is 7 calendar days from the date of full submission of each document.

Notwithstanding the aforementioned, Contractor can commence the physical Works on Site only for Works which he has obtained written approval from the Employer.

#### 4. SCOPE OF WORK

The Works shall include, but not be limited to, the following. All Works carried out shall be as per the drawings and specifications.

- Conduct all necessary surveys, studies and investigations to assess the existing Site conditions and identify all obstructions on Site and prepare reports.
- Preparation of all construction and shop drawings including for supports for proposed pipes, inspection chambers, oil traps and any other details required for the completion of the Works.
- Arrangement and assembly of any machinery, scaffolding and temporary works necessary for carrying out the proposed works.
- Supply and laying of 100mm diameter sewer pipes and 63mm diameter wastewater pipes inside the ground floor service trench, including tapping points for ground floor commercial units and all necessary preparatory and civil works required for the placement of pipes.
- Supply and installation of 100mm diameter sewer pipes and 63mm diameter wastewater pipes under first-floor slab including tapping points for first floor commercial units, hanging pipe supports, connection to existing sewer downpipe and proposed wastewater downpipe and all necessary preparatory and civil works required for the placement of pipes.
- Extending 100mm diameter sewer pipes and 50mm diameter wastewater pipes for each commercial unit (as tapping points) on the first floor and ground floor, including core cutting in the concrete trench covers & first floor slab as required and all necessary preparatory and civil works required for the placement of pipes. All tapping points should be covered with end cap.

- Supply, construction and installation of proposed wastewater downpipes, oil traps newinspection chambers including all connecting pipe work, necessary preparatory and civil works required to complete. [Inspections chambers and oil traps shall be as per MWSC guidelines and requirements]
- Connecting existing drainage pipe from garbage room at ground floor to the grey water/wastewater network including necessary connection & associated works.
- Construction and completion of new soak pits.
- Connecting the existing rain water stack to the new soak pits including all connection & associated works.
- Connection from Inspection chambers to MWSC mains including all necessary preparatory and civil works required to complete the Works in accordance to MWSC guidelines.
- Testing and commissioning of complete system.

**NOTE:**

- Contractor may propose alternatives to the proposed specifications subject to acceptance and approval of the Employer.
- Contractor shall measure and verify all existing dimensions on-Site prior to any design, fabrication/construction Works.
- Contractor shall prepare all necessary shop drawings for fixing and connections where required.
- Contractor shall make good of any and all affected areas (due to the construction works) same as before.
- Contractor shall be responsible for cleaning and removing all debris from Site.

## 5. CONTRACTOR'S DOCUMENTS

### 5.1. Project Management Plan & Work Programme

The Contractor shall submit the followings documents as soon as practicable after the Contract is signed, but no later than the date stated in Conditions of Contract. These documents should be revised during construction/Implementation when required.

- (a) Detail Work Programme showing the list of Works/tasks in detail with planned start and end dates, durations for each work/task and any other details S in the Conditions of the Contract. The Programme shall also include the critical path with all relevant predecessors properly identified. The Programme shall also include the timelines when specific areas of the Site would be provided to the Contractor.
  - a. Manpower schedule showing the number and timing of required personals

for Works.

- b. Equipment schedule showing the supplying quantity and timing of major apparatus, machinery, vehicles or any other equipment required for the Works.
- (b) Work methodology or method statement showing the method each work will be carried out, responsibilities of the Contractor's Personnel, inspections and any testing that needs to be carried out.

## 5.2. Project monitoring documents

The Contractor shall submit the followings documents as detailed below, after the Contract is signed.

- (a) Daily progress reports should be submitted daily, showing all the activities carried out at Site, the number of personnel (both direct and indirect), machinery and Plant, major Materials used, weather condition and any other important incidents at Site.
- (b) Weekly progress report should be submitted weekly, showing all the activities carried out at Site, the planned activities for the following week, the number of personnel (both direct and indirect), machinery and Plant, major Materials used, weather condition, progress photos and any other important incidents at Site.
- (c) Monthly progress report should be submitted monthly, at the end of each 30-day period from the Commencement Date, showing all the progress at Site (planned versus actual using a Gantt chart), the number of personnel (both direct and indirect), machinery and Plant, major Materials used, weather chart, Materials approved, claim Notice and claims, variations, financial status, progress photos and any other important incidents at Site and off Site. Additionally, the report shall include the following as a minimum requirement:
  - Ongoing works and upcoming works for next month
  - Incidents/accidents report (if any)
  - Issues and challenges on Site
  - List of attended inspections and its reports
  - List of instructions given on-Site
  - Documentation of approved methodologies
  - Test and analysis report (if any)

Note: Contractor shall arrange periodic sessions where the Employer can carry out a headcount to verify the personnel mentioned in the reports.

## 5.3. Quality Assurance Documents

The Contractor shall submit the following, as soon as practicable after the Contract is signed. A format of these documents will be provided by the Employer during the implementation as a guide;

however, the Employer may amend these formats at any time.

- a) Material Approval form should be submitted along with the physical sample where applicable, and with other specifics and certificates.
- b) Request for Information should be submitted whenever the Contractor has any doubt about any matter, especially on the drawings or specifications.
- c) Request for Inspection request should be submitted after making the work ready for inspection.

#### **5.4. Billing Format**

Interim applications: Billing should be made in the format approved by the Employer; Employer may amend these formats at any time and inform the Contractor.

#### **5.5. Shop Drawings**

The Contractor shall submit all shop drawings required to carry out the Works, prior to commencement of any work. The Contractor shall also submit any additional shop drawings requested by the Employer.

#### **5.6. As-built**

The Contractor shall submit as-built records as described in the Conditions of Contract. These as-built records shall include (but shall not be limited to):

- (a) As built drawings (1 set each of hard copy and soft copy).
- (b) Technical specifications, operating and maintenance manuals.

### **6. KEY PERSONNEL**

The Contractor must ensure that the professional, technical and administrative inputs required to deliver on the Project are considered, costed and made available to the Works as necessary.

The Contractor shall provide sufficient evidence and detail of qualifications, certification, experience and availability of the Contractor's personnel, and these personnel must be available at the time(s) they are required to allow the Contractor to deliver on the requirements of the Contract.

The Employer reserves the right to accept or reject proposed key personnel based on changes to the Contractor's personnel.

The Contractor shall make available all the key personnel required for the whole duration that the Works are being executed as per the Conditions of the Contract.

<b>Position</b>	<b>Qualification</b>
Project Manager	Degree in Project management or relevant field with 3 years of Project Management experience.
Site engineer	Degree in Civil engineering with 1 years of Site management experience
Site supervisor	Diploma in Civil engineering or construction related field with 2 years of experience, or 5 years of experience in Construction field

## 7. WORK PROGRESS

The work progress and quality of work will be inspected by the Employer throughout the Project duration, to check whether the Works conform with the above-mentioned documents. The Employer will share forms via which inspections shall be requested by the Contractor.

The actual work progress will be determined by the Employer in reference to the submitted Work Programme as per the Conditions of the Contract.

## 8. STANDARDS

All supply, installation, fabrication, installation and construction Works shall be carried out in accordance with the detail drawings, and in compliance with the specifications. If no particular standard is stated, then the relevant “British Standard” shall apply.

All material and equipment shall meet the local authority standards and guidelines.

## 9. Attachments

- Detail drawing set
- As-Built drawing set

## 10. Additional Information:

The Contractor shall inspect and assess the Site prior to submitting proposal and clarify all information necessary. The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of his tender for the Works and of the lump sum price stated in the quotation, which shall be inclusive of all ancillary and other Works and expenditure whether

separately or specifically mentioned or described in these Requirements and Contract documents or not, which are either indispensably necessary to carry out and bring completion of the Works described in the Contract documents or which may contingently become necessary to overcome difficulties before completion.

Site:

The Project Site is located at Vinares Housing Complex (10 buildings). The Contractor will be given access to Site area giving the Site boundaries as per the Contract. The buildings are occupied by residents and commercial unit tenants and some other contractors are on site to undertake other construction works. The Contractor shall assess and take into consideration the difficulties and challenges in respect to all the Site conditions. The work Programme, project duration and Contract sum shall be inclusive of such considerations.

Contractor should check the requirement and verify if any additional items are required to complete the Project and inform the Employer during the Tender inquiry period.

The Contractor shall take on-Site measurements and verify all dimensions prior to fabrication and installation Works.

The Contractor shall also examine the accessibility of routes to Site, nearest Material unloading and loading ports/harbor, and take all these matters into considerations. The Contract sum shall be inclusive of such considerations.

Material storage at Site

Sufficient working space will be provided, however as the Site is part of an on-going project site, the Employer is unable to provide storage areas within the Site and right of access to all parts of Site will be subject to agreed work Programme. The Contractor is expected to make own arrangements for storage of Materials, tools, Plants and machinery and staff accommodation as applicable.

Safety and Precautions

Contractor should take all necessary safety measures when carrying out the Works. Contractor shall also abide to the guidelines of the municipal and relevant local authorities when carrying out the Works.

Working Hours:

Normal working hours shall be from 7:30 am to 5:30 pm for all days except Friday which is a day of rest.

Temporary Services:

The Contractor should examine the accessibility of temporary and permanent services. Regarding temporary connections, it is Contractor's responsibility to obtain the temporary water and electricity from the service providers, to carry out the construction Works and terminate all the temporary

connections when the Project is completed. All the cost should be borne by the Contractor including initial setup & termination costs and ongoing monthly bills. If such services are not available in the Site area, Contractor shall provide on Contractor's own cost alternative methods to obtain electricity, water and any other utility service which is required to complete the Works.

The Contractor shall provide and maintain temporary fencing/barriers and gates/access to Site and provide all the necessary safety precautions while carrying out the project as necessary.

No temporary land will be allocated Contractor's temporary facilities, Plant, machinery, vehicles, etc. All necessary logistics & safe transportation of Materials to the Site shall be part of Contractor's scope & respective costs shall be included in the Contract amount.

Others:

All Materials shall be approved by Employer prior to commencing Works on Site. The Contractor shall submit a sample with all necessary information including specification/manual/tests certificate etc. to the Employer for Material approval.

On practical completion of a project, the Contractor should at no extra cost remove all the debris and clear the Site. This shall include all the routes taken on Site for transportation of Materials and any other Site areas the Contractor used for Works.

Contractor shall pay all the applicable duties, taxes such as Goods and Services Tax (GST), Withholding Tax (WHT), Business Profit Tax (BPT), other levies empowered by the Maldivian Government for the execution and completion of the whole Works and remedying of any defects therein.