

February 12, 2024

## TERMS OF REFERENCE

- A. Project Name** : **SUPPLY AND INSTALLATION OF AUTOMATIC FIRE SPRINKLER SYSTEM AT THE FTI ADMINISTRATION BUILDING (DESIGN AND BUILD)**
- B. Implementing Agency** : Food Terminal, Inc.
- C. Location** : FTI Admin. Building, FTI Complex, East Service Road, South Super Highway, Taguig City.
- D. Project Description** : The project is the hiring of a contractor for the supply of labor, tools, equipment, and technical supervision necessary for the Supply and Installation of Automatic Fire Sprinkler System at the FTI Administration Building.
- E. Objectives**
- : To enhance fire safety measures within FTI Admin. Building by implementing a fire protection system.
  - : To minimize the risk of fire-related incidents, protect lives and property, and ensure a swift and effective response to potential fire emergencies.
  - : To promote gender equality and women involvement through hiring of women for operational activity.
- F. Expected Completion/Commissioning Time** : 3<sup>rd</sup> Quarter of 2024
- E. Project Estimated Cost** : ₱20,000,000.00 VAT Inclusive
- F. Bidders Classifications** : Size Range, Small B  
License Category C & D
- G. Time Frame/Project Duration** : 120 Calendar Days
- H. Terms of Payment** : 15% Mobilization  
Three (3) Monthly Progress Billings  
and 100% Completion as Final Billing
- I. Warranty** : The project shall have TWO (2) year warranty to be free from any defects in materials and workmanship after 100% completion and turn-over. Any defects and poor workmanship that may arise during the warranty period shall be repaired at the Contractor's expense.
- J. Scope of Work:**
1. **Division 1:**
    - 1.1 **Definitions**

- 1.1.1 **Owner** - Whenever the term "Owner" is used in the bid and Contract documents, it refers to **Food Terminal Inc.** All correspondence to the Owner will be directed to the President and CEO.
- 1.1.2 **Contractor** - Whenever the term "Contractor" is used in the documents, it refers to the person or company, including their representative, named in the Contract Agreement, who was employed by the Owner to execute and complete the Works.
- 1.1.3 **Estate Engineering and Maintenance Unit** - Whenever the term "Estate Engineering and Maintenance Unit" is used in the documents, it refers to Engineering Unit who's in charge in construction works.
- 1.1.4 **Project Name and Location** - The project is known as **SUPPLY AND INSTALLATION OF AUTOMATIC FIRE SPRINKLER SYSTEM AT FTI ADMIN. BUILDING** Whenever the term "Site" is used, it refers to the area defined by the boundaries of the Project at **FTI Admin. Building, FTI Complex, East Service Road, South Super Highway, Taguig City**

## 1.2 General Provisions

### 1.2.1 **Mobilization/Demobilization**

- 1.2.1.1. The Contractor shall remove all temporary facilities, debris and excess materials upon completion of the project.
- 1.2.1.2. The Contractor shall observe extreme care when excavating and clearing the jobsite. A plan should be included in the emergency/safety plan.

### 1.2.2 **Permits, Clearances and Taxes**

- 1.2.2.1. Obtain Building Permits from the Local Government Unit (LGU).
- 1.2.2.2. Secure Permit/Clearance for Fire Safety Installation Certificate to Bureau of Fire Protection (BFP).
- 1.2.2.3. Provide a complete set of plans, duly signed and sealed Sprinkler / Fire Protection System plans, signed and sealed by Professional Mechanical Engineer all expenses to be paid by the Contractor.
- 1.2.2.4. The Contractor shall secure all necessary permits, unless otherwise stated, to complete the works. The cost related to all fees, licenses and permits, demandable under laws, decrees, ordinances, regulations, acts, charter, executive orders and rules set by the Government of the Philippines shall be deemed included in the cost proposal. Provide a breakdown of permits and licenses.
  - 1.2.2.4.1. Government Fees and Taxes
  - 1.2.2.4.2. Building Permit
  - 1.2.2.4.3. Occupancy Permit
  - 1.2.2.4.4. Others

### 1.2.3 **Permits, Bonds and Insurances**

- 1.2.3.1. Prior to the commencement of the Works, the Contractor shall submit all documentary evidence and/or policies and receipts for the insurance required by the Contract Agreement, to the Construction Project Managers. All bonds and insurances shall be secured



insurance required by the Contract Agreement, to the Construction Project Managers. All bonds and insurances shall be secured

- 1.2.3.1.1. Contractor's All Risk Insurance:  
**100% of Contract Price**
- 1.2.3.1.2. Surety Bond (Down / Advance Payment Guarantee):  
**15% of Contract Price**
- 1.2.3.1.3. Performance Bond:  
**30% of Contract Price**
- 1.2.3.1.4. Retention Bond or Guarantee Bond:  
**10% of Contract Price**

1.2.3.2. The Owner shall not be held liable for or in respect of any damages or compensation payable at law in respect of or in consequence of any accident or injury to any workman or other person whether in the employment of the Contractor. The Contractor shall indemnify and keep indemnified the Owner against all such damages or compensation and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

#### **1.2.4 Environment, Health and Safety Requirements**

- 1.2.4.1. The Contractor shall enforce the wearing of efficient safety helmets, and where necessary, face masks, eye goggles, ear protectors, safety harnesses and other personal protection equipment for all personnel. The Contractor shall submit for approval detailed proposals for emergency procedures and safety regulations. The Contractor shall provide all Owner's representatives and consultants employed necessary safety gadgets i.e. safety helmets, safety shoes, etc.
- 1.2.4.2. The Contractor shall allow the pro-active dissemination of emergency procedures that covers typhoon, earthquake, fire, environmental and other emergencies to the project organization.
- 1.2.4.3. The Contractor is to take every precaution necessary to protect the public from injury or death during the course of the works.
- 1.2.4.4. The Contractor shall be responsible for the safety of the people and security on the jobsite and shall regularly report status to the Owner.

#### **1.2.5 Shop Drawings**

- 1.2.5.1. The Contractor shall allow cost related to the review and submission of materials for approval by the Owner. No claims or time extension will be granted for delays due to non-approval of material submittals.
- 1.2.5.2. The Contractor shall submit shop drawings for the Owner's approval. Such drawings shall include the manner and methodology of which it will be installed. **No work shall commence until the shop**

**drawings are approved.** Any rejected works executed without prior Owner's Approval shall be at the expense of the Contractor.

- 1.2.5.3. Sample catalogs, technical specifications, and shop-drawings of the offered Sprinkler equipment and devices, wires and all other materials must be submitted for FTI's review and evaluation. EEMU approve the catalogs and technical specifications prior to delivery and installation process.

#### **1.2.6 As - Built Drawings**

- 1.2.6.1. The Contractor shall submit five copies of accurate as built drawings at the completion of the works. The Owner may require the contractor to submit as built drawings on certain portions of works in advance.
- 1.2.6.2. The Contractor shall maintain a whole set of construction records easily accessible to the Owner and must be kept up to date. As-built drawings should be maintained both in the Contractor's and Owner representative's office.

#### **1.2.7 Progress Report**

- 1.2.7.1. The Contractor shall allow for reporting of site activities by printed pictures, properly labeled and identified. Such reports shall be submitted to the Owner on a weekly basis. The Owner has the right to suspend work with non-compliance of this clause.

**Notes:** Weekly coordination meetings will be held every Wednesday

#### **1.2.8 Material Testing / Testing and Commissioning / Hydro Testing**

- 1.2.8.1. The Contractor shall allow the Owner to check the quality, compliance and accuracy of the works by providing the tools to verify completed work. The Owner reserves the right to reject any work that is not conforming to the stipulated tolerances and quality requirements. The contractor specifications, shall allow for material testing on site and third party laboratories on work items requiring material testing.
- 1.2.8.2. Equipment and Devices Approvals: CE-RoHS
- 1.2.8.3. The contractor shall conduct all the testing and commissioning activities with the presence of owner's representatives. Submit a complete commissioning datasheet and test results.
- 1.2.8.4. The contractor shall provide training of Fire Safety Personnel and Fire Detection and Alarm System
- 1.2.8.5. Hydro Testing is a must.

#### **1.2.9 Scaffoldings**

- 1.2.9.1. The Contractor will erect and maintain suitable & safe scaffoldings, supports, platforms and the like for the Owner and its Consultants inspect thoroughly any portion of the work, with complete safety.



#### **1.2.10 Site Management**

- 1.2.10.1. The Contractor shall provide on-site Project Staff working in full time capacity and shall be in-charge of all the works on site.
- 1.2.10.2. The Project & Construction Manager shall be licensed Mechanical Engineer with at least FIVE (5) years of relevant experience in projects involving similar or comparable projects in different locations. The Project & Construction Manager should have a proven record of managerial and technical capability. The Contractor shall allow for cost of an onsite Safety Officer. The Safety Officer must be an accredited safety practitioner by the Department of Labor and Employment (DOLE) and must have undergone the prescribed forty (40) hour Construction Safety and Health Training (COSH).
- 1.2.10.3. The Contractor shall provide an onsite Admin/Document Controller. The Admin/Document Controller records, controls, facilitate the timely flow of documents not limited to those related to time, budget and quality management.
- 1.2.10.4. The above key personnel listed is the minimum requirement. Tenderers shall attach each individual's CV, PRC license of the professional staff, certificates of training and all other pertinent documents proving the said professional expertise.
- 1.2.10.5. The Contractor shall submit a project organizational chart showing designations, responsibilities, qualifications, experience, age, profession and other relevant information.
- 1.2.10.6. Conduct thorough site assessment to identify existing structures, utilities, and potential hazards.
- 1.2.10.7. Implement safety measures, including fencing, warning signs, and proper personal protective equipment for workers.
- 1.2.10.8. Follow environmentally friendly demolition practices, recycling materials whenever possible.

#### **1.2.11 Temporary Facilities**

- 1.2.11.1. All temporary facilities should include conference room and site offices for the contractor.
- 1.2.11.2. The Contractor shall allow temporary housing for workers, project staff with bed and Kitchen provisions.

#### **1.2.12 Temporary Utilities**

- 1.2.12.1. The Contractor shall allow for temporary power and lighting not in compliance with the capacity available or existing at site.
- 1.2.12.2. The Contractor shall allow for temporary water, drainage and sewer utilities.

### **1.3 Project Billboard**

### **1.4 COA Billboard**

## **2. Division 2: Site Construction**

### **2.1 Site Preparation**

#### **2.1.1 Site survey and layout**

##### **2.1.1.1. Cistern Tank**

## 2.2 Earthworks

### 2.2.1 Excavation

#### 2.2.1.1. Cistern Tank

#### 2.2.1.2. Pump Room (Foundation)

### 2.2.2 Backfill and Compaction

### 2.2.3 Hauling and Disposal

#### 2.2.3.1. Hauling and disposal of excess excavated materials outside of FTI Complex.

#### 2.2.3.2. Hauling of demolished debris materials outside of FTI Complex.

## 2.3 Site Restoration

## 2.4 Reinforcing Steel

2.4.1 Supply, Fabricate and Fix reinforcing steel bars including necessary dowels for block works, all necessary splices, dowels, haunches, control joints, chair bars, spacers, all necessary hard wares and fixing accessories, usage of tools and equipment and all necessary items to complete the works.

## 2.5 Structural Concrete

2.5.1 Supply, Delivery and Placing of concrete including necessary grouting, vibrating, hammering, tamping, consolidating, curing, hardening, wetting, sealing, booming, scratching, protecting, sampling, all fixing accessories, use of plant, tools and equipment, and all necessary items to complete the works.

## 3. Division 3: Masonry

### 3.1 Concrete Masonry Units

## 4. Division 4: Thermal and Moisture Protection

4.1 Supply, Delivery and Application of **Concrete Additive Crystalline / Integral Waterproofing** including all fixing accessories, use of tools and equipment, and all necessary items and surface preparations to complete the works

#### 4.1.1 Cistern Tank

## 5. Division 5: Finishes

### 5.1 Portland Cement Plaster

5.1.1 Supply, Delivery and Installation of **25mm thick Concrete Plaster/ Rubbed Concrete** including all fixing accessories, use of tools and equipment, and all necessary items to complete the works.

#### 5.1.1.1. To Wall

##### 5.1.1.1.1. Cistern Tank

##### 5.1.1.1.2. Pump Room

### 5.2 Flooring

5.2.1 Supply, Delivery and Installation of **Smooth, Plain Cement finish** including all necessary surface preparation, and all necessary items to complete the work.

#### 5.2.1.1.1. Cistern Tank

#### 5.2.1.1.2. Pump Room

### 5.3 Paints and Coatings



5.3.1 Supply, Delivery and Application of **Exterior and Interior Walls; color: varies (for approval)** including all necessary surface preparation, and all necessary items to complete the work.

5.3.1.1. Exterior and Interior Wall

5.3.1.1.1. Pump Room

## **6. Division 6: Construction**

6.1 Supply, Delivery and Installation of **Fire Protection Works / Automatic Fire Sprinkler System** complete with testing and commissioning and necessary accessories. This should be shown on drawings and in accordance with specifications required to make the system operational.

6.1.1 **Pumps and Accessories**

6.1.2 **Fire & Jockey Pump Accessories**

6.1.3 **Wet Stand Pipe and Drain Riser**

6.1.4 **Fire Department Connection**

6.1.4.1. Supply, Delivery and Installation of **Cast Iron (CI) Pipes Sch. 40, Fittings & Accessories**, including accessories, hangers, supports, markings, paintings, and other miscellaneous items in accordance to specification and as required to complete the system and make it operational.

6.1.5 **Fire Protection Piping System**

6.1.6 **Supervisory & Water Flow Assembly**

6.1.6.1. Supply, Delivery and Installation of **Valves and Accessories**, including accessories, hangers, supports, markings, paintings, and other miscellaneous items in accordance to specification and as required to complete the system and make it operational.

6.1.7 Supply, Delivery and Installation of **Sprinkler Heads and Sprinkler Spare Cabinet**, including accessories, hangers, supports, markings, paintings, and other miscellaneous items in accordance to specification and as required to complete the system and make it operational.

6.1.7.1. Pendent type, Quick response

6.1.7.2. Upright type, Quick response

6.1.8 **Fire Hose Cabinet (FHC) Assembly**

6.1.9 **Hangers & Supports**

## **7. Division 7: Electrical**

7.1 Supply, Delivery and Installation of **Fire Protection Works** complete with testing and commissioning and necessary accessories. This should be shown

7.1 Supply, Delivery and Installation of **Fire Protection Works** complete with testing and commissioning and necessary accessories. This should be shown on drawings and in accordance with specifications required to make the system operational.

7.1.1 Conduits & Fittings

7.1.2 Fire Rated Cable

7.1.3 Pull Box

7.1.4 Hangers & Supports

## 8. General Notes

The Contractor shall consider the following requirements when designing the Fire Sprinkler System at the FTI Administration Building but should not be limited to the following:

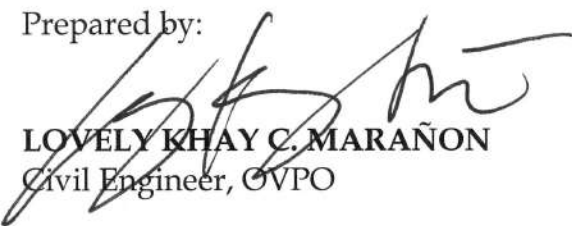
1. All works to be designed shall be executed according to the provision of the National Fire Protection Association (USA) and Loss Prevention Council (UK).
2. The exact locations of all sprinkler heads shall be coordinate with the architectural ceiling layout and shall be subjected to both Architects and Fire Protection Engineers approval.
3. Location of drain pipes and of the back-up supply lines shall be coordinated with the plumbing contractor.
4. Pipe supports hangers and bracing shall be of the approved type and shall be independent from ceiling and duct support.
5. Power supply to the fire protection equipment shall be by the fire alarm contractor.
6. Control wiring from fire protection flow switches shall be by the fire alarm contractor.
7. Access for control valves should be located at common areas.
8. Conduct on-site inspection to consider all existing electrical, plumbing, ceiling, HVAC, etc., installations of the existing building from Ground Floor to 4<sup>th</sup> Floor and to evaluate the appropriate considerations needed in the design plan.
9. Automatic Fire Sprinkler System Layout shall meet all Local Fire Protection Standards, Philippine Electrical Code and all other standards for compliance.

## 9. Submissions:

1. Submission of hard copy (A3 size) of the conceptual design and plan, fire protection system layout from Ground Floor to 4<sup>th</sup> Floor of the FTI Administration building.
2. Submit sample catalog and technical specifications of the offered equipment, monitor switch, submersible pumps, vertical turbine pumps and etc.
3. Submit hard copy of detailed Cost Estimates.
4. Submit hard copy of detailed engineering design including details of installations, schedule of equipment, schedule of pie sleeves, pump pressure setting, installations on site of all equipment to be signed and sealed by a licensed professional Engineers.
5. Submit As-Built Plans.
6. Submit operations/maintenance training manuals after completion and acceptance.

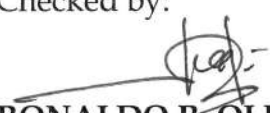


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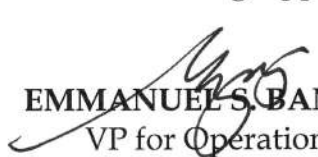
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