

# TERMS OF REFERENCE

## Procurement of Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

### 1. RATIONALE

- 1.1. A fire protection, detection and alarm system are an important component of a building's safety plan, regardless of whether it's a commercial facility, hospital or educational facility. Without a fire protection system, the lives of those who are inside the building are placed at a high risk in the event of an emergency. A building's fire protection, detection and alarm system play an important role in providing the building and its occupants with protection in the event of a fire. Each system approaches the threat differently, but is critical to the integrity of the building and the safety of those inside. However, in order for these systems to work properly they need to be maintained and kept up-to-date with the latest fire safety code.
- 1.2. To address this situation, it is highly recommended that in order to ensure safety and security of the building being the workplace of all employees and its service partners and prevent endangering the limbs and lives of people going in and out of the premises, the **National Electrification Administration (NEA for brevity)**, a Government-Owned and Controlled Corporation duly organized and existing under and by virtue of P.D. 269, as amended by R.A. 10531, with principal office address at NEA Building, Barangay Pinyahan, Diliman, Quezon City, needs the services of a qualified/professional fire protection, detection and alarm system service firm ("**CONTRACTOR**", for brevity) which can provide manpower, equipment, supplies, materials and technical expertise for the total rehabilitation of fire detection and alarm system (FDAS) of **NEA** building.

### 2. APPROVED BUDGET FOR THE CONTRACT

- 2.1. For and in consideration of the performance and accomplishment of the **TOTAL REHABILITATION OF FDAS, NEA** shall pay the **CONTRACTOR** the total amount of **FOUR MILLION PESOS (Php4,000,000.00)** for the contract price. Subject to pertinent laws on government contracts and auditing procedures.
- 2.2. The contract price is inclusive of all duties and taxes.
- 2.3. No changes shall be made on the Contract Price by reason of escalation in currency. Any adjustment in Contract Price shall be done in accordance with guidelines provided by law.
- 2.4. The payment of escalation costs shall be subject to the unilateral and written approval of **NEA** and to availability of funds.

### 3. PROJECT DURATION

- 3.1. The project duration covering the total rehabilitation of FDAS in **NEA** shall be for a period of **one hundred eighty (180) days** from the issuance of Notice to Proceed (NTP).
- 3.2. The **CONTRACTOR's** proposed Work Plan shown in Gantt Chart, which is a mandatory part of the Technical Proposal, should provide a more detailed schedule of activities. Unless approved in writing by **NEA** on the written request of the **CONTRACTOR**, the coverage – *from mobilization to demobilization*, should not extend beyond the derivable dates as indicated here below.

Work Clusters	Nth Cal-days from Contractor's Date of Receipt of Notice-to-Proceed	
	Start	Finish
1. Notice to Proceed	1 <sup>st</sup>	1 <sup>st</sup>
2. Mobilization of construction materials and consumables; deployment of manpower and equipment; secure necessary permits; provision of safety signage's and paraphernalia; and, submission of shop drawings and project Bar Chart/S-Curve and PERT/CPM Network Diagram for NEA's approval prior to project implementation.	2 <sup>nd</sup>	14 <sup>th</sup>
3. Prepare surfaces in a skillful manner; removal/dismantle of old existing components; installation, integration, testing, commissioning of all equipment; submission of documents and manuals; and conduct Technical Training to <b>NEA</b> personnel for the administration, operation, maintenance and handling of the products to be supplied	15 <sup>th</sup>	164 <sup>th</sup>
4. Punch-listing, Rectification of Punch-list Items, Cleaning, Restoration of all affected facilities/areas/landscape, and other related-fixtures due to rehabilitation works; and, Project Turn-Over including submission of as-built plans duly signed and sealed by appropriate professional engineer/s and other contract documents.	165 <sup>th</sup>	180 <sup>th</sup>

- 3.3. Exact dates of delivery and/or completion should be reckoned from the date of **CONTRACTOR's** receipt of NTP.
- 3.4. The liquidated damages shall be imposed for the inability of the **CONTRACTOR** to comply with the **Approved Construction Schedule**, unless a written request for time extension been approved in writing by **NEA**.

#### 4. QUALIFICATION OF THE CONTRACTOR

- 4.1. The **CONTRACTOR** must be competent and experienced in the field of FDAS works with a minimum of **five (5) years** prior experience on similar projects.
- 4.2. The **CONTRACTOR** is required to submit a company profile, list of present and previous clientele, and certifications issued by past/present clients indicating the Contractor's satisfactory performance.
- 4.3. The Project-in-Charge who will administer the Rehabilitation Works must be well trained and experienced Registered Electrical Engineer with at least three (3) years' relevant experience.

#### 5. GENERAL REQUIREMENTS

- 5.1. The **CONTRACTOR** will provide technical supervision, skilled manpower, tools, equipment and suitable highest quality materials within the specified period to complete the project.
- 5.2. As-built Drawings is to be done and submitted by **CONTRACTOR**.
- 5.3. Provide coordination and collaborative works with **NEA** to complete respective works in accordance with approved drawings, specifications and method of installation.
- 5.4. Provide all materials necessary to complete the works although not specifically mentioned in the Specifications, working drawings or in on other contract documents without extra cost to the **NEA**.
- 5.5. Comply with all applicable Environmental, Health and Safety regulations required by law.
- 5.6. Secure and submit all necessary bonds, permits and insurances required in the contract.
- 5.7. Submit on time, the required work schedule, delivery schedule, table of organization, manpower schedule, samples product data, safety plan, methodology and other requirements deemed necessary.
- 5.8. Ensure the quality of materials and workmanship needed to complete and render ready for acceptance by the owner.
- 5.9. Responsible for the safety requirements (safety shoes, vest, hard hat, safety harness, lifeline) and provision of fire extinguishers and all other fire protection provisions in working areas.
- 5.10. Compliance to provisions of safety provisions for warehousing/storage of their materials and equipment.

- 5.11. Medical Requirements of **CONTRACTOR** workers will be part of preliminaries of **CONTRACTORS**.
- 5.12. Hauling and disposal of garbage inside the building perimeter.
- 5.13. Protect and maintain in the required acceptable conditions of all rehabilitation works and accessories during construction until hand over.
- 5.14. Ensure that the performance, appearance and proper functioning of the works are not affected by any movements, settlement or deflection in the building structure. Also take into account the construction accuracy of works by others to which the rehabilitation works are attached.
- 5.15. Coverage of the rehabilitation works is approximately **13,311.18 square meters** covering areas such as but not limited to the following:

Location	Area (sqm)
Basement 2	1,344.00
Basement 1	1,344.00
Ground Floor	1,374.00
Second Floor	1,517.65
Third Floor	1,398.00
Fourth Floor	1,398.00
Fifth Floor	1,398.00
Sixth Floor	1,551.00
Seventh Floor	1,635.00
Penthouse	181.25
Machine Room	60.00
Genset Room	45.00
Main Distribution Panel Room	22.50
Distribution Transformer Room	22.50
Main Electrical Room	20.28
<b>Total</b>	<b>13,311.18</b>

## 6. SCOPE OF WORK

- 6.1. The **CONTRACTOR** shall undertake the works implementation of the “**Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building**”, all in accordance with the specifications and subject to the terms and conditions of the contract.

### 6.1.1. Mobilization and Provision of Temporary Facilities

- 6.1.1.1. The **CONTRACTOR** shall provide safety signage/early warning signs visible at the jobsite.
- 6.1.1.2. The **CONTRACTOR** shall make available Protective Gears for the workers.

- 6.1.1.3. Temporary Facilities shall be of a design and materials acceptable to **NEA**.
- 6.1.1.4. The **CONTRACTOR** shall provide suitable portable toilet facilities at approved location with proper enclosures for the use of workmen, and shall maintain same in sanitary operable conditions, all in conformity with the local regulations.
- 6.1.1.5. The **CONTRACTOR** shall provide such other temporary building as maybe required for use of his/her workers and safe storage of tools and materials. Such structures shall be located only where previously approved.
- 6.1.1.6. **NEA** shall provide for temporary power facility required for the entire rehabilitation works phase. The **CONTRACTOR** shall provide conduits, wires, connections and accessories and labor.
- 6.1.1.7. **NEA** shall provide temporary water facility that will be used during the entire rehabilitation works stage.
- 6.1.1.8. The **CONTRACTOR** shall install, operate and maintain adequate number of temporary hoists, scaffolds, runways, ladders, and the like as required for the proper execution of the work. Safety precautions shall at all times be observed.
- 6.1.1.9. All temporary services and facilities installed by the **CONTRACTOR** shall be removed by the **CONTRACTOR** on completion of this Contract or as directed by **NEA**. The **CONTRACTOR** shall restore any damage, alteration, caused by such removal and during the project implementation.

#### 6.1.2. Area Preparation

- 6.1.2.1. Prepare surfaces in a skillful manner to produce finished work of first-class appearance and durability.
- 6.1.2.2. Enforce any precautionary measures required to ensure work is safe and protected.
- 6.1.2.3. All existing/old fire alarm control unit (FACU), notification devices, initiating devices, power source, auxiliary devices, electrical wirings, conduits and others shall be removed/dismantled and shall be turned over to **NEA** authorized representatives.
- 6.1.2.4. Haul and dispose debris properly and to be placed to designated areas provided by **NEA**.

### 6.1.3. Installation

- 6.1.3.1. The **CONTRACTOR** shall perform the installation, integration, testing, commissioning of all equipment. All necessary tests, services and inspections to assure the system functions shall be checked and approved before the acceptance test. Consideration shall be given to the fact that installation or tests of other systems within the same building may be carried out during the same period.
- 6.1.3.2. The **CONTRACTOR** shall install all devices and equipment of the FDAS as per Drawings and Specifications.
- 6.1.3.3. **CONTRACTOR** shall include a detailed implementation schedule of the project to avoid interruptions in the operation of **NEA**.
- 6.1.3.4. Provide **NEA's** General Services Division to have the right to observe during the installation procedures.
- 6.1.3.5. **CONTRACTOR** shall provide complete schematics diagrams and operational manual for **NEA** reference.
- 6.1.3.6. The **CONTRACTOR** shall ensure that all fits and finishes are precise with professional standard for quality and workmanship. All equipment shall be adjusted accordingly for proper symmetry and operation.
- 6.1.3.7. **CONTRACTOR** shall install the FDAS equipment and devices without any changes or damage done in the room during any chipping works, etc. Any damage, accidental or not, shall be on the account and shall be restored to original form and appearance by the **CONTRACTOR**.
- 6.1.3.8. All outdoor cables should be properly installed inside the Electrical Metallic Tubing (EMT) conduit pipe.
- 6.1.3.9. All roughing-ins, civil works, including supports, boxes, fittings, mounting brackets and etc. should be provided by the **CONTRACTOR**.

### 6.1.4. Manuals

- 6.1.4.1. Manuals shall give a full overview of the integration of the various sub-systems.
- 6.1.4.2. Documents and manuals shall give an outline of the complete system as delivered. It shall be adapted to the engineering and maintenance staff and described how the system is composed and how it functions.

6.1.4.3. It shall give a general overview of the sub-system and outline the structure of associated documentation.

6.1.4.4. This manual shall give a detailed description of all system operation functions, including input actions and error response.

6.1.4.5. Operations Manual:

6.1.4.5.1. This manual shall give a detailed description of all functions, seen from the user's point of view.

6.1.4.6. Equipment Manual:

6.1.4.6.1. The Equipment Manual shall give full details of sub-systems or units on the following subjects as a minimum, general description, complete line diagrams and schematic diagrams.

6.1.5. Training Requirements

6.1.5.1. The **CONTRACTOR** shall conduct Technical Training to **NEA** personnel for the administration, operation, maintenance and handling of the products to be supplied.

6.1.5.2. This covers the requirements for operational and technical training to enable correct use, operation and maintenance of the FDAS.

6.1.5.3. Training documentation requirements are included.

6.1.5.4. The comprehensive trainings shall be provided to ensure that operation and maintenance personnel will be capable to competently operate and maintain the system.

6.2. Punch List, Cleaning, Clearing and Turn-Over

6.2.1. Correct all noted punch lists, defects and/or needed replacements identified and observed.

6.2.2. Provide an SLA (Service Level Agreement) including but not limited to three-level escalation support:

6.2.2.1. Unlimited phone support indicating contact numbers.

6.2.2.2. **CONTRACTOR** technical support with 24-hour response time starting from the time of report and indicating all necessary contact information.

6.2.2.3. Product manufacturer local technical support.

6.2.3. The **CONTRACTOR** shall review the specifications and determine the numbers and nature of each shop drawing submittal. Five (5) sets of the duly signed and sealed 20"x30" sheets As-Built Drawings and CAD copy shall be submitted with reference made to the appropriate section of the specification.

6.2.3.1. Detailed Electrical Plans containing but not limited to the following:

6.2.3.1.1. Location and Site Plan;

6.2.3.1.2. Legends and Abbreviations; and

6.2.3.1.3. Power Lay-outs and Riser Diagram.

6.2.4. Restore to its original condition any facilities and fixtures that has been damaged due to rehabilitation works and accidents arising during implementation, if any.

6.2.5. Clean, clearing of the area, and hauling and disposal of debris properly before turn-over.

6.2.6. Demobilize and turn-over the entire project for acceptance of **NEA** or its authorized representative.

## **7. MATERIALS REQUIREMENTS & SPECIFICATIONS**

7.1. The product and system's design shall be in accordance with the following Codes and Standards:

7.1.1. Codes:

7.1.1.1. National Building Code of the Philippines and its New IRR;

7.1.1.2. Fire Code of the Philippines;

7.1.1.3. Philippine Electrical Code;

7.1.1.4. National Electrical Code; and

7.1.1.5. Existing Local Codes and Ordinances.

7.1.2. Standards:

7.1.2.1. National Fire Protection Association;

7.1.2.2. British Standards Institution;

7.1.2.3. European Committee for Standardization;

7.1.2.4. Underwriters Laboratory;



- 7.1.2.5. Loss Prevention Certification Board Approved;
  - 7.1.2.6. CE Marking;
  - 7.1.2.7. Factory Mutual Approvals; and
  - 7.1.2.8. National Electrical Manufacturer's Association (NEMA)
- 7.2. The fire detection and alarm system shall be manufactured by an ISO 9001:2008 certified company and meet the requirements of BS EN9001:ANSI/ASQC Q9001-1994.
  - 7.3. The system shall be certified for seismic application in accordance with the International Building Code (IBC). The basis for qualification of seismic approval shall be via shake table testing.
  - 7.4. The **CONTRACTOR** shall submit certificates confirming that the system or components being installed is complying with the codes and standards mentioned above.
  - 7.5. All components should be BRAND NEW. The system components should be unused and completely new. The **CONTRACTOR** is required to submit a manufacturer's letter certifying that the components being supplied are brand new.
  - 7.6. The fire detection and alarm system shall be of multiplex, microprocessor-controlled addressable fire detection, alarm and communication system.
  - 7.7. Actuation of the protective signaling system shall occur by manual pull station, automatic smoke or heat detector, sprinkler flow switch and tamper switch.
  - 7.8. Annunciator must be per floor level.
  - 7.9. The system shall be able to monitor the status of flow switches and supervisory switches installed at the sprinkler system risers. These monitoring points are also addressable in the same way as the detectors are making them easily recognizable at the control panel.
  - 7.10. Occupant notification shall be accomplished automatically. Notification will be general, audible alarm type complying with appropriate section of NFPA.
  - 7.11. Delivery of the materials must be supported by an official receipt duly signed by the authorized representative of the manufacturer attesting that the paint was sourced from the manufacturer which will be subject to inspection and documents validation by the **NEA** or its authorized representative.

## 8. WARRANTY

- 8.1. The **CONTRACTOR** shall guarantee the work done to be free from defects for a period of **one (1) year** reckoned from acceptance of the project. Form of warranty shall be in accordance with the provisions in Section 62 of the Revised Implementing Rules and Regulations (IRR) of R.A. 9184.
- 8.2. The **CONTRACTOR** shall provide a one-year preventive maintenance for the FDAS starting from completion until acceptance of the project.

## 9. RESPONSIBILITIES OF THE CONTRACTOR

- 9.1. The principal features of the work do not in any way limit the responsibilities of the **CONTRACTOR** to the general description of his/her scope of work. He/she shall perform all the work fully and make operational to the intent of the project.
- 9.2. The **CONTRACTOR** shall be responsible for the proper execution and coordination of his/her work. He/she shall schedule and program all necessary work activities according to the specified completion period.
- 9.3. The **CONTRACTOR** shall observe the required standards of safety and procedures and that its contract and workers shall be properly insured against all risks. He/she shall provide/equip its workers with Personal Protective Equipment (PPE) during the course of construction/installation. He/she shall observe the **NEA's** house regulations to be issued together with the Work Permit.
- 9.4. The **CONTRACTOR** shall be responsible for securing **NEA** issued work permits and compliance with other **NEA** rules and regulations related to the construction works. All workers/engineers working at site are required to wear company uniforms indicating their company name.
- 9.5. The **CONTRACTOR** is not allowed to erect quarters for workers within **NEA** premises; sleeping is also not allowed. **CONTRACTOR's** workers are limited to the designated working area only. Loitering around and inside the **NEA** premises is not allowed.
- 9.6. The **CONTRACTOR** shall be responsible for clearing and cleaning of the designated project site of unused materials, left over and other debris at the site and disposal of the same outside of the **NEA** premises. A daily inspection of the work area shall be conducted by the **CONTRACTOR** and **NEA** or its authorized representative to ensure that the working area and storage area assigned to the **CONTRACTOR** is clean and in order at all times.
- 9.7. The **CONTRACTOR** shall protect adjacent areas against any damage by his/her employees, or by his/her materials, equipment and tools during the execution of the work. Any damage done by him/her or his/her employees shall be repaired at his own expense, without additional compensation beyond the contract.

- 9.8. Permits, Laws, Ordinances and Standards – the installation provided for and specified herein shall comply with laws and regulations of the local government unit and any government agency having jurisdiction. All necessary permits and other requirements shall be secured and for the account of the **CONTRACTOR**. Said requirements shall be turned-over to **NEA** upon project completion.
- 9.9. The **CONTRACTOR** shall assign a fulltime Engineer as Project-In-Charge (PIC) for the project to supervise the works mentioned herein. The PIC shall be a certified Registered Electrical Engineer designated for the project by the **CONTRACTOR**. Said PIC must be the one to report on a weekly/monthly basis of the status/progress of the project as agreed during the kick-off meeting and who shall be the one responsible for all coordination works with the **NEA** or its authorized representative.
- 9.10. All other items of work not specifically mentioned but are necessary to complete the works in accordance with the plans and specifications and other related documents shall be provided by the **CONTRACTOR** at no additional cost to the **NEA**.

## 10. SUBMITTALS

- 10.1. Before commencing any work or providing any materials at the jobsite for this project, the **CONTRACTOR** shall submit samples, project Bar Chart/S-Curve and PERT/CPM Network Diagram for the **NEA's** approval **within five (5) calendar days** upon receipt of Notice to Proceed.
- 10.2. The Contractor's All-Risk Insurance (CARI) shall be submitted to **NEA within ten (10) calendar days** upon receipt of Notice of Award (NOA) to be issued by the BAC Secretariat.
- 10.3. The **CONTRACTOR** shall submit to **NEA**, the proposed delivery of materials, tools and equipment, and manpower schedules for proper monitoring **five (5) calendar days** after the Pre-construction/kick-off meeting.
- 10.4. The **CONTRACTOR** shall submit samples and/or technical brochures of all materials to be used in the project **within ten (10) calendar days** upon receipt of Notice to Proceed which include but may not be limited to the following for **NEA's** approval:
  - 10.4.1. FDAS Materials/Brochures with technical specifications.
  - 10.4.2. Manufacturer's printed Product Installation Instructions.
- 10.5. Prior to issuance of the Certificate of Completion (COC) the following shall be submitted to **NEA**. **NEA** reserves the right not to issue a Certificate of Satisfactory Performance on the basis of the non-submission of any of the items below:

- 10.5.1. Original Copy of “Record Drawing/Plan” complete with legend, technical specifications and measurements.
  - 10.5.2. Final Project Report including photo documentations before, during and after implementation works. Each photo-documentation should have the date and time stamps in jpg-format.
  - 10.5.3. As-built Plans – Plans should be approved by **NEA**. The **CONTRACTOR** shall submit shop drawings as required by **NEA**. A complete set of As-Built Drawings in printed form (20” x 30”) and/or A3 whichever is required by **NEA** and an electronic copy in AutoCAD.
  - 10.5.4. Warranty Certificate of at least two (2) years against poor workmanship and defects traceable to materials.
- 10.6. The **CONTRACTOR** is required to have a suitable Construction Safety and Health Program, which must be in accordance with Occupation Safety and Health (OSH) Standard, rules and issuances by the DOLE. The program shall state the following:
- 10.6.1. Composition of Construction Safety and Health Committee.
  - 10.6.2. Specific safety policies which the **CONTRACTOR** shall observe at the area of construction which include but not limited to Fall Protection, Chemical Hazards, and Materials Handling and Storage.
  - 10.6.3. Penalties and sanctions for violations of the program.
  - 10.6.4. The manner of disposing waste arising from the construction.
  - 10.6.5. The safety program shall also include the appointment of a full-time safety officer-in-charge of the implementation of the said program.

## 11. PAYMENTS

- 11.1. Payments to the **CONTRACTOR** will be made only for the actual accomplishment and/or material utilized, certified by the **NEA** as performed by the **CONTRACTOR** in accordance with the plans, specifications and program of works/construction schedule.
- 11.2. Payments in accordance with the above paragraph shall be considered full compensation for furnishing materials, labor, tools and equipment, and for performing all work contemplated and embraced under the Contract.
- 11.3. Payment shall be made upon complete submission of all documents required by **NEA** as indicated in this Terms of Reference and other contract documents.
- 11.4. It is responsibility of the **CONTRACTOR** to ensure that their performance bond is updated and valid until the **NEA** issue the final Certificate of

Acceptance. The **CONTRACTOR** shall submit the endorsement or amendments to **NEA** on extension or revisions to its validity, as maybe necessary, not later than **seven (7) days** before the expiration of the originally submitted Performance Bond. No payment shall be made unless the Performance is updated.

11.5. **NEA** shall pay the **CONTRACTOR** based on the following payment schedule:

11.5.1. **Fifteen Percent (15%)** upon signing of the contract;

11.5.2. **Thirty Percent (30%)** upon turn-over of the removed/dismantled old existing components to the **NEA** representatives and delivery and acceptance of As-Planned detailed design drawings, technical specifications, detailed bill of quantities and summary of works;

11.5.3. **Forty-Five Percent (45%)** upon delivery and acceptance of complete set of Signed and Sealed As-Built Drawings in printed form (20" x 30") and/or A3 whichever is required by **NEA** and an electronic copy in AutoCAD, manuals, and conduct of technical training to **NEA** personnel for the administration, operation, maintenance and handling of the products to be supplied; and

11.5.4. **Ten Percent (10%)** retention upon issuance of Certificate Final Inspection and Acceptance.

11.6. All payments made shall be subject to the usual government accounting and auditing rules and regulations.

## 12. LIQUIDATED DAMAGES

12.1. Failure to comply with the terms and conditions of the contract will result in the payment of corresponding penalties/liquidated damages in the amount to 1/10 of 1% of the cost of the unperformed portion for every day of delay. Once the cumulative amount of liquidated damages reaches 10% of the amount of the contract, **NEA** shall rescind the contract, without prejudice to other courses of action and remedies open to it.

### TECHNICAL WORKING GROUP

**FEDERICO P. VILLAR JR.**  
Member

**SHIRLEY J. SALVADOR**  
Member

**CYNTHIA E. LISONDRA**  
Member

**RAFAEL B. BARRIENTOS**  
Member

**MARCELINO D. CACDAC**  
Member

**HERNANDO N. GABOTERO**  
Member

**CESAR F. JACINTO**  
Member

**ESTRELLITA S. VOLANTE**  
End-user

**MA. CHONA O. DELA CRUZ**  
Vice-Chairperson

**GWEN P. ENCISO-KYAMKO**  
Chairperson

Bill of Quantities/Bid Form

Procurement of Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

LOCATION: NEA Building, #57 NIA Road, Government Center, Diliman, Quezon City

SUBJECT: Bill of Quantities / Bid Form

ITEM NO.	DESCRIPTION	MATERIALS				LABOR	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
		QTY	UNIT MEASURE	UNIT COST	AMOUNT			OCM	PROFIT	%	VALUE				
		(1)		(2)	(3)	(4)	(5) (3 + 4)	(6)	(7)	(8) (6 + 7)	(9) (5 X 8)	(10) 5%(5 + 9)	(11) (9 + 10)	(12) (5 + 11)	(13) (12 / 1)
<b>1.0.</b>	<b>GENERAL REQUIREMENTS</b>														
	1.1. Mobilization and demobilization.	1.00	lot												
	1.2. Bonds, Permits and Insurances.	1.00	lot												
	1.3. Environmental, Safety and Health.	1.00	lot												
	1.4. Temporary Facilities.	1.00	lot												
<b>2.0.</b>	<b>AREA PREPARATION AND INSTALLATION OF FIRE DETECTION AND ALARM SYSTEM AT NEA BUILDING</b>														
	2.1. Removal of all existing old fire detection and alarm system components and hauling the same for proper disposal by the contractor to a designated location.	13,311.18	sq.m.												
	2.2. Preparation of surface area. Installation, integration, testing and commissioning of fire detection and alarm system as per scope of work and specifications.	13,311.18	sq.m.												
	2.3. Submission of documents and manuals. Conduct Technical Training to NEA personnel for the administration, operation, maintenance and handling of the products to be supplied.	1.00	lot												
	<b>TOTAL PROJECT COST</b>														

CONTRACTOR: \_\_\_\_\_  
 Complete Address: \_\_\_\_\_  
 Name of Authorized Representative and Signature: \_\_\_\_\_  
 Telephone No.: \_\_\_\_\_  
 Email Account: \_\_\_\_\_

**Detail Unit Price Analysis (DUPA)**

Procurement of Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

SUBJECT: Detail Unit Price Analysis (DUPA)

<b>PAY ITEM:</b>	<b>1.0. GENERAL REQUIREMENTS</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST (Php)</b>
<b>DESCRIPTION:</b>	<b>1.1. Mobilization and Demobilization.</b>	<b>1.00</b>	<b>lot</b>		
<b>A.</b>	<b>EQUIPMENT</b>				
<b>Ref. No.</b>	<b>Name and Specification of Equipment</b>	<b>No. of Units</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
<b>B.</b>	<b>LABOR</b>				
<b>Ref. No.</b>	<b>Designation of Personnel</b>	<b>No. of Personnel</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
<b>OUTPUT=</b>	<b>Quantity / Total Working Hours</b>				
<b>C.</b>	<b>MATERIALS</b>				
<b>Ref. No.</b>	<b>Designation of Materials</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
<b>D.</b>	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
<b>E.</b>	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		<b>TDC</b> )	
<b>F.</b>	<b>PROFIT</b>	(		<b>TDC</b> )	
<b>G.</b>	<b>VALUE ADDED TAX</b>	(		<b>of D+E+F+G</b> )	
<b>H.</b>	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
<b>I.</b>	<b>UNIT COST</b>				

Prepared by:



PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

SUBJECT: Detail Unit Price Analysis (DUPA)

PAY ITEM:	1.0. GENERAL REQUIREMENTS	QTY	UNIT	UNIT COST	TOTAL COST (Php)
DESCRIPTION:	1.2. Bonds, Permits and Insurances.	1.00	lot		
A.	EQUIPMENT				
Ref. No.	Name and Specification of Equipment	No. of Units	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
B.	LABOR				
Ref. No.	Designation of Personnel	No. of Personnel	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
OUTPUT=	Quantity / Total Working Hours				
C.	MATERIALS				
Ref. No.	Designation of Materials	Unit	Quantity	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
D.	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
E.	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		TDC)	
F.	<b>PROFIT</b>	(		TDC)	
G.	<b>VALUE ADDED TAX</b>	(		of D+E+F+G)	
H.	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
I.	<b>UNIT COST</b>				

Prepared by:

SUBJECT: Detail Unit Price Analysis (DUPA)

PAY ITEM:	1.0. GENERAL REQUIREMENTS	QTY	UNIT	UNIT COST	TOTAL COST (Php)
DESCRIPTION:	1.3. Environmental, Safety and Health.	1.00	lot		
<b>A.</b>	<b>EQUIPMENT</b>				
Ref. No.	Name and Specification of Equipment	No. of Units	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
<b>B.</b>	<b>LABOR</b>				
Ref. No.	Designation of Personnel	No. of Personnel	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
<b>OUTPUT=</b>	<b>Quantity / Total Working Hours</b>				
<b>C.</b>	<b>MATERIALS</b>				
Ref. No.	Designation of Materials	Unit	Quantity	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
<b>D.</b>	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
<b>E.</b>	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		TDC)	
<b>F.</b>	<b>PROFIT</b>	(		TDC)	
<b>G.</b>	<b>VALUE ADDED TAX</b>	(		of D+E+F+G)	
<b>H.</b>	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
<b>I.</b>	<b>UNIT COST</b>				

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SUBJECT: Detail Unit Price Analysis (DUPA)

PAY ITEM:	1.0. GENERAL REQUIREMENTS	QTY	UNIT	UNIT COST	TOTAL COST (Php)
DESCRIPTION:	1.4. Temporary Facilities.	1.00	lot		
A.	EQUIPMENT				
Ref. No.	Name and Specification of Equipment	No. of Units	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
B.	LABOR				
Ref. No.	Designation of Personnel	No. of Personnel	No. of Days	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
OUTPUT=	Quantity / Total Working Hours				
C.	MATERIALS				
Ref. No.	Designation of Materials	Unit	Quantity	Unit Cost	Total Cost (Php)
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
D.	<b>TOTAL DIRECT COST</b>		( A+B+C )		
E.	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>		(	TDC)	
F.	<b>PROFIT</b>		(	TDC)	
G.	<b>VALUE ADDED TAX</b>		(	of D+E+F+G)	
H.	<b>TOTAL COST</b>		( D+E+F+G+H )		
I.	<b>UNIT COST</b>				

Prepared by:

PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

SUBJECT: Detail Unit Price Analysis (DUPA)

<b>PAY ITEM:</b>	<b>2.0. AREA PREPARATION AND INSTALLATION OF FIRE DETECTION AND ALARM SYSTEM AT NEA BUILDING</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST (Php)</b>
<b>DESCRIPTION:</b>	2.1. Removal of all existing old fire detection and alarm system components and hauling the same for proper disposal by the contractor to a designated location.	13,311.18	sq.m.		
<b>A.</b>	<b>EQUIPMENT</b>				
<b>Ref. No.</b>	<b>Name and Specification of Equipment</b>	<b>No. of Units</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
<b>B.</b>	<b>LABOR</b>				
<b>Ref. No.</b>	<b>Designation of Personnel</b>	<b>No. of Personnel</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
<b>OUTPUT=</b>	<b>Quantity / Total Working Hours</b>				
<b>C.</b>	<b>MATERIALS</b>				
<b>Ref. No.</b>	<b>Designation of Materials</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
<b>D.</b>	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
<b>E.</b>	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		TDC)	
<b>F.</b>	<b>PROFIT</b>	(		TDC)	
<b>G.</b>	<b>VALUE ADDED TAX</b>	(		of D+E+F+G)	
<b>H.</b>	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
<b>I.</b>	<b>UNIT COST</b>				

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PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

SUBJECT: Detail Unit Price Analysis (DUPA)

<b>PAY ITEM:</b>	<b>2.0. AREA PREPARATION AND INSTALLATION OF FIRE DETECTION AND ALARM SYSTEM AT NEA BUILDING</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST (Php)</b>
<b>DESCRIPTION:</b>	2.2. Preparation of surface area. Installation, integration, testing and commissioning of fire detection and alarm system as per scope of work and specifications.	13,311.18	sq.m.		
<b>A.</b>	<b>EQUIPMENT</b>				
<b>Ref. No.</b>	<b>Name and Specification of Equipment</b>	<b>No. of Units</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
<b>B.</b>	<b>LABOR</b>				
<b>Ref. No.</b>	<b>Designation of Personnel</b>	<b>No. of Personnel</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
<b>OUTPUT=</b>	<b>Quantity / Total Working Hours</b>				
<b>C.</b>	<b>MATERIALS</b>				
<b>Ref. No.</b>	<b>Designation of Materials</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
<b>D.</b>	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
<b>E.</b>	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		TDC)	
<b>F.</b>	<b>PROFIT</b>	(		TDC)	
<b>G.</b>	<b>VALUE ADDED TAX</b>	(		of D+E+F+G)	
<b>H.</b>	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
<b>I.</b>	<b>UNIT COST</b>				

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PROJECT: Supply of Labor, Materials, Supervision and other Consumables for the Total Rehabilitation of Fire Detection and Alarm System of NEA Building

SUBJECT: Detail Unit Price Analysis (DUPA)

<b>PAY ITEM:</b>	<b>2.0. AREA PREPARATION AND INSTALLATION OF FIRE DETECTION AND ALARM SYSTEM AT NEA BUILDING</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST (Php)</b>
<b>DESCRIPTION:</b>	<b>2.3. Submission of documents and manuals. Conduct Technical Training to NEA personnel for the administration, operation, maintenance and handling of the products to be supplied.</b>	<b>1.00</b>	<b>lot</b>		
<b>A.</b>	<b>EQUIPMENT</b>				
<b>Ref. No.</b>	<b>Name and Specification of Equipment</b>	<b>No. of Units</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL EQUIPMENT COST</b>				
<b>B.</b>	<b>LABOR</b>				
<b>Ref. No.</b>	<b>Designation of Personnel</b>	<b>No. of Personnel</b>	<b>No. of Days</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL LABOR COST</b>				
<b>OUTPUT=</b>	<b>Quantity / Total Working Hours</b>				
<b>C.</b>	<b>MATERIALS</b>				
<b>Ref. No.</b>	<b>Designation of Materials</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost (Php)</b>
	1.				
	2.				
	3.				
	4.				
	5.				
	<b>TOTAL MATERIALS COST</b>				
<b>D.</b>	<b>TOTAL DIRECT COST</b>	(	<b>A+B+C</b>	)	
<b>E.</b>	<b>OVERHEAD, CONTINGENCES &amp; MISC.</b>	(		TDC)	
<b>F.</b>	<b>PROFIT</b>	(		TDC)	
<b>G.</b>	<b>VALUE ADDED TAX</b>	(		of D+E+F+G)	
<b>H.</b>	<b>TOTAL COST</b>	(	<b>D+E+F+G+H</b>	)	
<b>I.</b>	<b>UNIT COST</b>				

Prepared by: