## **TERMS OF REFERENCE**

# SUPPLY OF LABOR AND MATERIALS FOR THE WATERPROOFING OF VARIOUS AREAS OF THE BUREAU OF THE TREASURY CENTRAL OFFICE.

# A. OBJECTIVE

The Bureau of the Treasury (BTr) aims to provide the waterproofing of various areas of the Ayuntamiento Building, with heavy rainfall, leaks occur. Water can seep into the concrete slabs, retaining walls, balconies, and false doors and damage the structure and other components of the building. Therefore, this area must undergo waterproofing to avoid potential damage and save costly and time-consuming repairs.

# B. APPROVED BUDGET FOR THE CONTRACT (ABC)

Eight Hundred Sixty-Five Thousand Pesos (PhP865,000.00) *Inclusive of all applicable taxes.* 

SPECIFICATIONS AND SCOPE OF WORK	Bidder's Statement of
	Compliance
AREA COVERAGE	
A. BASEMENT AREA: Electrical Room, Generator Set,	
Communication and Records Division. Basement Parking	
Area.	
B. GROUND FLOOR AREA: Receipts, Investment and	
Disbursement Division, Hallway (Sto Tomas and Aduana)	
1.1. SCOPE OF WORKS	
- Retaining Wall Epoxy Injection	
a. Removal of all paints, concrete plaster,	
contaminations, or any deteriorated areas of the concrete surface.	
b. Grinding the surface of the identified areas.	
c. Installation of copper tube and water plug.	
d. Application of epoxy injection.	
e. Removal of excess copper tube and surface	
clearing.	
f. Restoration of the affected areas.	
- Application of Crystalline Waterproofing	
a. Removal of all paints, contaminations, dirt, or any	
deteriorated areas of the concrete surface.	
b. Terminate active leakages using appropriate water	
plug, for severe infiltration.	
c. All cracks and holes should be filled with crystalline	
waterproofing	
*Manufacturer's Methodology	
d. Cleaning/restoration of the affected areas.	
AREA COVERAGE	
A. SECOND FLOOR AREA: Balconies of the Ayuntamiento	
Building, Concrete Slab at Roofdeck	

## 1.2. SCOPE OF WORKS

- Waterproofing of construction joints.
  - a. Installation of scaffolding/ladder
  - b. Scraping/removal of existing waterproofing/paint, dirt, or any contaminations.
  - c. Waterproofing of balcony area.
  - d. Installation of rubber strips on doors of Sala de Sesiones and fake doors at the balconies of the Ayuntamiento Building.
  - e. Flood testing minimum of 24 hours
  - Depth of water: 1-3 inches

# **AREA COVERAGE**

A. False Doors at the Façade of the Building and Windows at the Goiti Lounge

# 1.3. SCOPE OF WORKS

- Application of sealant
- a. Removal of existing sealant, dirt or any contaminations.
- b. The surface must be thoroughly cleaned with a suitable solvent.
- c. Application of new sealant.

## B. MATERIAL SPECIFICATIONS

- 1. Surface Preparation
  - 1.1. Remove and dispose of existing concrete topping as well as old waterproofing materials.
  - 1.2. Clean horizontal and vertical concrete surfaces until said surfaces are smoothly finished, fully cured, dry clean and free from dirt/foreign materials.
  - 1.3. De-clogging and repair of all defective storm drainpipes, including leak test.
- 2. Concrete Repair
  - 2.1. Repair/seal cracks on concrete, cold joint, construction and expansion joint.
    - 2.1.1. For thin hairline cracks: cracks (0.25 mm or under) shall not be opened or cut but the cracks shall be cleaned, filled, and sealed with epoxy grout by using a stiff brush, trowel, or putty knife.
    - 2.1.2. For large cracks and voids: cracks shall be routed out along their entire length (to a depth not less than 6.35 mm and a width of 9.5 mm) and cleaned groove by vacuuming or blowing off all dust and loose particles and primed with pure epoxy-resin binder adhesive to ensure a weld bond after which the epoxy mortar shall be applied with a trowel or putty knife flush with the adjoining surface.
    - 2.1.3. *In case of deep cracks and cleavage:* where the size of the opening permits, the cracks shall be filled with epoxy grout by pumping epoxy resin mix under pressure into cracks, allowed to harden, then the surface coated with epoxy mortar.
  - 2.2. Inspect all areas to be waterproofed.
  - 2.3. Certify if areas are free from any structural defect and therefore ready for waterproofing installation.

- 3. Waterproofing Installation
  - 3.1. Contractor may propose and adopt other types and methodologies if they fulfill the obligations in the contract which is to fully waterproof the entire areas subject to be waterproofed so that leaks and seepages are prevented.
  - 3.2. Prepare surface/substrate slab. The application of the waterproofing material will require END-USER or its authorized representative's formal approval before application.

Note: Construction and expansion joints should be double covered with the strip of the same graded waterproofing material of about 1 foot wide centered on the axis on the corner or joint.

3.3. Install waterproofing material as indicated and in accordance with the respective manufacturer's application/installation instructions and recommendations or in accordance with Department of Public Works and Highways Department Order No. 110, Series of 2017, DPWH Standard Specification for Item 1016 - Waterproofing.

Note: If crystalline waterproofing will be applied, the concrete surface to be treated must be clean and free of laitance, dirt, film, paint, coatings, or other foreign matter and rout out cracks, faulty construction joints, and other structural defects to a depth of 1.5 inches (37 mm) and a width of one inch (25 mm).

Note: If liquid membrane waterproofing will be applied, it should be sound and cured without the use of a curing compound. It should not be applied unless the ambient temperature is 4.44 Centigrade or higher and should not proceed during inclement weather conditions.

- 3.3.1. *For Drains*: extend waterproofing material down the drains at about 2 inches in length.
- 3.3.2. For Pipe Embedded thru Slab: treat area or extend waterproofing material around the embedded pipe.
- 3.3.3. For Horizontal Surface: extend waterproofing material to about 12 inches high from slab if terminated to adjoining walls.
- 3.4. Remove the layer of waterproofing materials exposed to moisture and repeat the procedure until completion of the process.

# 3.5. Flood Testing

- 3.5.1. Flood testing the waterproof areas with 2-inch depth of water for at least 48 hours to determine any leakage or defect on the materials used and/or workmanship.
- 3.5.2. Repeat the waterproofing installation procedures if leaks manifest
- 4. Punch List, Final Flood Testing, Cleaning, Clearing and Turn Over.
  - 4.1. Correct all noted punch lists, defects and/or needed replacements identified and observed.
  - 4.2. Conduct final flood testing of all areas for the duration of two (2) days.
  - 4.3. Restore to its original condition any facilities and fixtures that has been damaged due to waterproofing works and accidents arising during implementation, if any.

4.4. Clearing of the area, and hauling and disposal of debris properly before turn-over.

#### C. GENERAL REQUIREMENTS

- The Contractor will provide technical supervision, skilled manpower, tools, equipment, and suitable highest-quality materials within the specified period to complete the project.
- 2. Provide all materials necessary to complete the works although not specifically mentioned in the Specifications, working drawings, or in on other documents without extra/additional cost to the end user.
- 3. Comply with all applicable Environmental, Health, and Safety regulations required by Law.
- 4. Ensure the quality of materials and workmanship needed to complete the project.
- 5. Hauling and disposal of waste material inside the premises of the building.
- 6. Coverage of the waterproofing works such as but not limited to the following:

Location	Unit	Qty
Retaining Wall Epoxy Injection with Crystalline Waterproofing		
BASEMENT		
Electrical Room	1	Lot
Communication and Records Division	1	Lot
Basement Parking Area	1	Lot
GROUND FLOOR		
Receipts, Investment and Disbursement Division	1	Lot
Hallway (Sto Tomas, Cabildo, and Aduana)	1	Lot
Application of Elastomeric Waterproofing		
Construction Joints at the Façade of the Building	200.00	Sq.m
Concrete Slab at Roofdeck	35.00	Sq.m
Installation of Door Sealant		
False Door at the Façade of the Building	165.00	Ln.m
Windows at the Goiti Lounge	45.00	Ln.m

#### D. PROJECT STANDARDS AND REQUIREMENTS

To ensure accomplishment of the Project objectives, the following are the minimum requirements for the Contractor:

#### I. Track Record

1. The Contractor must be a Filipino firm with at least five (5) years of continuous existence and engagement in the construction industry.

## II. Contractor's Personnel

- 1. The contractor's personnel and laborers must be provided with official uniform with ID while within the roof deck and premises of the Ayuntamiento Building.
- 2. The contractor shall be solely and exclusively responsible for any act or omission of all its employees and laborers. Drinking alcoholic beverages or taking regulated or prohibited drugs while performing task are strictly prohibited.
- 3. The contractor shall be responsible in the discipline and administration of all its/his employees and laborers and shall conform to existing labor laws and implementing rules and regulations of the Labor Code.

#### **E. CONTRACT DURATION**

The Project must be completed within Sixty (60) calendar days from the issuance of Purchase Order.

#### F. TERMS OF PAYMENT

Payment shall be by one-time payment method

## G. WARRANTY COVERAGE

The **CONTRACTOR** shall guarantee the work done to be free from defects for a period of **five (5) years** reckoned from acceptance of the project. The 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.

#### H. LIQUIDATED DAMAGES

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 contract, **BTr** shall rescind the contract, without prejudice to other courses of action and remedies open to it.

## I. RESERVATION CLAUSE

The BTr reserves the right to reject documents or consider any submission of documents as substantial compliance, reject any and all bids, declare a failure of bidding, annul the bidding process, or not to award contract, without thereby incurring any liability to the affected bidder or bidders or if the funds/allotment for the project has been withhold or reduced through no fault of the BTr.

The BTr assumes no responsibility whatsoever to compensate or indemnify bidders for any expenses incurred in the preparation of bid.

Prepare by: Submitted by:

**ENGR CHARLES NIXON. BALTAZAR** 

Administrative Officer V
Facilities Maintenance Division

LORETO O. HIDALGO, MNSA

Chief Treasury Operations Officer II
Facilities Maintenance Division