



Republic of the Philippines  
**CAVITE STATE UNIVERSITY**  
 Don Severino delas Alas Campus  
 Indang, Cavite

### BILL OF QUANTITIES

NAME OF PROJECT: REPAIR AND IMPROVEMENT OF MATERIAL TESTING LABORATORY ABC: PhP 3,007,036.96 COLLEGE/UNIT/CAMPUS: CEIT, Indang Campus					
Bill of Quantities					
Item No.	Description	Unit	Quantity	Unit Price ( Pesos )	Amount ( Pesos )
I.	EARTHWORKS (Pesos _____ and _____ centavos )				
II.	CONCRETE WORKS (Pesos _____ and _____ centavos )				
III.	MASONRY/TILE WORKS (Pesos _____ and _____ centavos )				
IV.	CARPENTRY WORKS (Pesos _____ and _____ centavos )				
V.	TRUSSES & ROOFING WORKS (Pesos _____ and _____ centavos )				
VI.	MISCELLANEOUS WORK (Pesos _____ and _____ centavos )				
VII.	ELECTRICAL WORKS (Pesos _____ and _____ centavos )				
VIII.	PLUMBING WORKS (Pesos _____ and _____ centavos )				
IX.	PAINTING WORKS (Pesos _____ and _____ centavos )				
GRAND TOTAL					_____
Write grand total in words					_____

Submitted by: \_\_\_\_\_

Date : \_\_\_\_\_

Name of Bidder /Bidder's Representative : \_\_\_\_\_

Position : \_\_\_\_\_

Construction Company / Contractor: \_\_\_\_\_

V01-2018-06-14

## **Scope of Work:**

### **A. REPAIR AND IMPROVEMENT OF MATERIAL TESTING LABORATORY**

1. The project should be finished for 120 calendar days.
2. Actual site inspection is a must.
3. The area should be cleared/cleaned before and after the construction work at least ten meters away from the building line. Unusable used formworks, excessive soil fill and all other unwanted debris of construction works should be disposed properly.
4. The construction works will be from grid A to G. (SEE/CONSULT PLAN FOR ALL DETAILS OF WORK)

### **B. TECHNICAL DESCRIPTION**

#### **I. Earthworks**

##### **A. Mobilization**

1. Provide the following:
  - Billboard
  - Bunkhouse, temporary office and temporary comfort rooms
  - Site enclosure

##### **B. Demolition works**

1. Remove and replace all existing trusses/roofing, ceiling, partition, doors and windows.

##### **C. Excavation / backfilling /clearing**

1. This work includes excavation for all column/wall footings and septic tank.

##### **C. Additional fill & soil poisoning**

1. Provide additional soil fill for the whole area of flooring. Finish floor elevation @ 0.40 m. above the existing.
2. The entire area for the proposed building should be treated with termite proofing.

#### **II. Concrete Works**

##### **A. Cast-in-place concrete**

1. Strength of concrete to be adopted shall be **3,500 psi**.
2. Concrete works include columns, footings, stiffener columns, slab, roof beams and all other concrete components needed to complete the structure.
  - Provide lintel beams for the opening of windows and doors.

*Note:* Lintel beam should be 0.10m x 0.15m reinforced with 2-12 mm Ø deformed bar and 10 mm Ø deformed bar spaced @ 0.15 m on center.

3. Concrete works should be plain cement finished.
4. Provide necessary tools and equipment needed for concrete works.
5. See plan for details and extent of work.

#### **III. Masonry and Tile Works**

##### **A. CHB laying**

1. Installation of CHB reinforced with 10 mm Ø deformed bar spaced at 0.60 m. on center every three layers.
  - a. CHB 5" for the perimeter/exterior walls and septic tank.
  - b. CHB 4" for interior/partition walls and open canal.
2. Masonry works should be plastered plain cement finished.

##### **B. Tile Works**

Supply and installation of the following:

1. Ceramic colored tiles (locally-made) 0.40 m. x 0.40 m. for the entire floor area and counters.
  - Tiles must be accented with dark colors.
2. For the comfort room:
  - a. Ceramic colored tiles 12" x 12" for flooring
  - b. 12" x 12" glazed ceramic colored tiles for the entire wall (floor to ceiling)
3. Consult the end user for color preference of tiles.

#### **IV. Carpentry & Ceiling Works**

1. Provide necessary form lumber and scaffolding needed for the completion of the project.
2. Provide ceiling works.
  - a. Use cement board for ceiling board.
  - b. Use metal furring as ceiling runner and ceiling joist at 0.40 m. on center both ways.

- c. Use pre-painted spandrel 4" for the whole area of eaves.
- d. Provide ceiling ventilation for every 3 meters and all corners of the eaves.

## **V. Trusses & Roofing Works**

### **A. Trusses:**

1. See plans for sizes of bar and other details for the installation of steel trusses.
2. This work also includes painting of two (2) coats each of epoxy primer and quick dry enamel black.
3. Provide necessary tools and equipment.
4. All joint connections should be fully welded.
5. Use galvanized CEE purlins 16, 2" x 4" @ 0.60 m. on center.
6. Provide 16 mm. O plain bar with standard turnbuckle for horizontal cross bracing
7. Provide 4-16 mm. O anchor bolts with nut and washer for each support.
8. Provide 12 mm. O with nut and washer for sag rod.
9. Use galvanized CEE purlins ga. 16, 2" x 6" as fascia board with pre-painted fascia cover.

### **B. Roofing:**

1. Adopt gauge 26 (0.5 mm.) rib type pre-painted roof sheet.
2. Adopt gauge 26 x 18 (0.5 mm.) pre-fabricated and pre-painted ridge roll.
3. Adopt gauge 26 (0.5 mm.) pre-fabricated and pre-painted fascia cover.
4. All attachment for roofing sheet and ridge roll shall be 2 1/2" teckscrew for metal.
5. Provide water sealant for all attachment (water sealant should be provided for both inside and outside surface of teckscrew head).

## **VI. Miscellaneous Works**

Supply and Installation of the following:

### **1. Doors**

- |     |      |   |
|-----|------|---|
| 2.0 | sets | D-1 Glass door with aluminum frame, complete with all accessories.  |
| 1.0 | set  | D-2 Glass door with aluminum frame, complete with all accessories.  |
| 3.0 | sets | D-3 Powder coated steel door & jamb, complete with all accessories.   |
| 1.0 | set  | D-4 Powder coated steel door & jamb, complete with all accessories.   |
| 1.0 | set  | D-5 Powder coated steel door & jamb, complete with all accessories.   |
| 1.0 | set  | D-6 Louver type swing door 1" x 2" aluminum louvers on powder coated aluminum frame, complete with all accessories. |

### **2. Windows**

- |     |      |  |
|-----|------|--|
| 2.0 | sets | W-1 Sliding window with fixed on powder coated alum. frame, complete with accessories. |
| 1.0 | set  | W-2 Sliding window on powder coated alum. frame, complete with all accessories.        |
| 1.0 | set  | W-3 Sliding window with fixed on powder coated alum. frame, complete with accessories. |
| 1.0 | set  | W-4 Aluminum fixed window with 1/4" thk. clear glass on powder coated alum. frame,     |
| 1.0 | set  | W-5 Aluminum fixed window with 1/4" thk. clear glass on powder coated alum. frame,     |
| 1.0 | set  | W-6 Steel casement window with 1/4" thk. clear glss, complete with all accessories.    |
| 4.0 | sets | W-7 Steel casement window with 1/4" thk. clear glss, complete with all accessories.    |
| 1.0 | set  | W-8 Steel casement window with 1/4" thk. clear glss, complete with all accessories.    |
| 1.0 | set  | W-9 Steel casement window with 1/4" thk. clear glss, complete with all accessories.    |

Note: All exterior/perimeter windows should be provided with steel grills using 1/4" thick flat bar framing with 12 mm O round bar.

### **3. Steel grating for open canal (front only).**

- Provide 1/4" x 2 angle bar with 16 mm O deformed bar.

## **VII. Electrical Works**

1. Supply and Installation of Feeder lines (from MDP to existing MDP).
2. Supply and Installation of panel board and circuit breakers.  
note: Bolt-on type, Nema Standard should be used.
3. Supply and Installation of conductors and PVC conduit/junction box/utility box from main panel to convenience outlet/light outlet.
  - a. PVC conduit orange pipe.
  - b. Utility and junction boxes should be PVC and deep type.

4. Supply and Installation of electrical fixtures/switches/outlets and other electrical devices.
  - a. Switches (Bticino, National or its equivalent)
  - b. Convenience outlets (Bticino, National or its equivalent)
  - c. 2-18W (4') LED fluorescent lamp w/ diffuser (16 sets)
  - e. Pinlight 9W (8 sets)
  - g. Emergency light twin head (5 units)
  - i. Ceiling fan 16" (9 units)
5. Tap to the source is included.

#### VIII. Plumbing Works

##### A. Water Supply Line

1. Adopt PPR pipes (PN 20) and fittings for water line.
  - a. 1/2" o for water line
  - b. Provide gate valve and faucet for every comfort room.
2. Tapping to the source is included.
3. No pipe should be embedded without testing it to leak.

##### B. Sewer Line

1. Adopt PVC heavy duty orange pipes and fittings for ventilation and the whole sewer line system including the septic vault fittings.
  - a. Use 4" o for main line and water closet.
  - b. Use 2" o for lavatory and ventilation.
2. Provide one unit septic tank with pipes extending to the nearest disposal area.

##### C. Fixtures

1. Provide the following:
  - a. Brass floor drain (2 pcs.)
  - b. Colored tank type water closet, urinal and counter top type.

Note: All fixtures must be **HCG, American Std**, or approved equivalent complete with all accessories.

- c. Stainless sink deep type with faucet (4 pcs.)
- d. American standard made faucets (plain bibb) 6 pcs.

#### IX. Painting Works

For painting works: (PAINTING OF THE WHOLE BUILDING)

Note: Color of paint will depend upon the preference of the end-user. Paints and its accessories to be used shall be Boysen brand or approved equal.

- X. See plans for details and extent of work. The silence of specification, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of a detailed description or definition of the quality of materials and workmanship, shall be regarded to mean that only materials and workmanship of first class quality are to be used/employed.