



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

**BILL OF QUANTITIES**

<b>CONSTRUCTION OF FRUITS AND VEGETABLE PROCESSING CENTER – 2<sup>nd</sup> POSTING</b> <b>ABC: ₱ 13,999,981.31</b> <b>COLLEGE/UNIT/CAMPUS: MAIN CAMPUS</b>					
<b>Bill of Quantities</b>					
Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	EARTHWORKS (Pesos _____ _____ and _____ centavos)				
II	CONCRETE WORKS (Pesos _____ _____ and _____ centavos)				
III	MASONRY AND TILE WORKS (Pesos _____ _____ and _____ centavos)				
IV	CARPENTRY WORKS (Pesos _____ _____ and _____ centavos)				
V	TRUSSES AND ROOFING WORKS (Pesos _____ _____ and _____ centavos)				
VI	ELECTRICAL WORKS (Pesos _____ _____ and _____ centavos)				
VII	PLUMBING WORKS (Pesos _____ _____ and _____ centavos)				

VIII	FIRE PROTECTION WORKS (Pesos _____ _____ and _____ centavos)				
<b>GRAND TOTAL</b> _____					
<b>Write grand total in words</b> _____ _____ _____					

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name of Bidder/Bidder's Representative: \_\_\_\_\_  
 Position: \_\_\_\_\_  
 Construction Company/Contractor: \_\_\_\_\_

## CAVITE STATE UNIVERSITY

### SCOPE OF WORK:

#### A. CONSTRUCTION OF FRUITS AND VEGETABLE PROCESSING CENTER – 2<sup>nd</sup> POSTING

##### GENERAL NOTES:

1. The project should be finished for 300 calendar days.
2. Actual site inspection is a must. Existing structure should be demolished.
3. The area should be cleared/cleaned before and after the construction work at least six meters away from the building line. Unusable used formworks, excessive soil fill and all other unwanted debris of construction works should be disposed properly.

#### B. Technical Description

##### I. Earthworks

###### A. Mobilization

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

###### B. Excavation/backfilling/clearing

1. This work includes excavation for all column/wall footings and tie beam, catch basin and cisterns and septic tank.

###### C. Additional fill and soil poisoning.

1. Provide additional fill for the whole area.
2. The entire area for the proposed building should be treated with termite proofing.
3. Gravel fill = 0.05 m. thick.

##### II. Concrete Works

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

1. Concrete works include columns, footings, stiffener columns, slab, beams, stairs, roof beams, gutter, lavatory counters, ledge/canopy and all other concrete components needed to complete the structure.
  - Provide lintel beams for the opening of windows and doors.
2. Strength of concrete to be adopted shall be **3,500 psi**.
3. Concrete works should be plain cement finished.
4. Provide necessary tools and equipment needed for concrete works.

###### B. Steel Reinforcement

1. Use deformed bar grade 40.
2. Provide necessary tools and equipment needed for steel works.
3. See plan for details and extent of work.

###### C. Material testing should be provided by the contractor and witnessed by the inspectors.

##### 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 6" for the perimeter/exterior walls and septic tank.
  - b. CHB 4" for interior/partition walls.
2. Masonry works should be plastered plain cement.

###### B. Tile Works

###### Supply and installation of the following

1. Ceramic colored tiles (locally-made) 0.40m x 0.40m for Pilot Plant and Production Area only (from Grid 4 to 7 and Grid A to G). Tiles must be accented with dark colors.
2. Granite tiles with groove for the stairs.
3. For the comfort room:
  - a. Ceramic colored tiles 12" x 12" for flooring.
  - b. 12" x 12" glazed ceramic tiles for the entire wall (from floor to ceiling).
  - c. Granite slab for lavatory concrete counter including 0.6m of its wall.
4. Consult the end user for color preference of tiles.

##### IV. Carpentry Works

1. Provide necessary form lumber and scaffolding for the completion of the project.

## V. Trusses and 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 of epoxy primer and two (2) coats of quick dry enamel black.
3. Provide necessary tools and equipment.
4. All joint connections should be fully welded.
5. Use galvanized CEE purlins ga. 16, 2" x 6" at 0.60 m. on center.
6. Provide 16mm Ø plain bar with standard turnbuckle for horizontal cross bracing.
7. Provide 4-16 mm Ø anchor bolts with nut and washer for each support.
8. Provide 12mm Ø with nut and washer for sag rod.
9. Use galvanized CEE purlins 16, 2" x 6" as fascia board with pre-painted fascia cover.

### B. Roofing

1. Adopt gauge 26 (0.50 mm) rib type red pre-painted roof sheet.
2. Adopt gauge 26 (0.50 mm) pre-fabricated and pre-painted flashing.
3. Adopt gauge 26 (0.50 mm) stainless gutter (10" x 7")
4. Provide 1" thick aluminum insulation (double) with 1" x 1" plastic screen.
5. All attachment to roofing sheet shall be 2 1/2" teckscrew.
6. Provide water sealant for all attachment (water sealant should be provided for both inside and outside surface of teckscrew head).

## VI. Electrical Works

1. Supply and installation of panel board and circuit breakers.  
Note: Bolt-on type, Nema Standard should be used.
2. Supply and installation of conductors and PVC conduit/junction box/utility box from main panel to convenience outlet/light outlet.
  - a. Provide PVC conduit orange pipe.
  - b. Utility and junction boxes should be PVC and deep type.
3. 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. 150 watts, 6000K (Daylight), 220, 1200 Lumens, Size: 360mm. x 358mm. (H), IP20, Beam angle: 100 degrees (3 sets only)
  - d. 2-TB (4') LED fluorescent lamp with diffuser (48 sets)
  - e. Pinlight 5W (15 sets)
  - f. Provide perimeter pin light with switch (6 sets)
4. Supply and installation of the following:
  - a. Three units transformer 50 kva (brand new) including its all accessories.
  - b. One-unit 45' electrical concrete post and its accessories
  - c. Include testing and commissioning.
  - d. One-unit electrical concrete entrance post and its accessories
  - e. Consult inspectors for details and extent of work.
5. Tap to the source is included.

## VII. Plumbing Works

### A. Water Supply Line

1. Adopt PPR pipes (PN 20) and fittings for water line.
  - a. 1" and 1/2" Ø for water line.
  - b. Provide gate valve for every comfort room.
  - c. 1" PPR pipes and fittings from existing main line to cistern tank.
    - Provide PPR stop valve 1" from main line.
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 (Sanimold type with O-ring or its equivalent) for ventilation, downspout and the whole sewer line system including septic vault fittings.
  - a. Use 6" Ø for downspout.
  - b. Use 4" Ø for main line and water closet

- c. Use 2" Ø for lavatory and ventilation.
  2. Provide two units septic tank with pipes extending to the nearest disposal area.
  3. Provide 21 units catch basin with 4" PVC pipes. See plan for sizes.
- C. Storm Drainage
1. See plan for details.
- D. Fixture
1. Provide the following for the comfort rooms:
    - a. Brass floor drain (13 pcs)
    - b. Colored tank type water closet and counter top type lavatory.  
\*Note: All fixtures must be **HCG, American Std, Toto** or approved equivalent
    - c. Stainless sink deep type with goose neck faucet. (10 sets)
    - d. American standard made faucets (plain bibb) for every cubicle and lavatory. (18 pcs)

**VIII. Fire Protection Works**

1. Supply and installation of the following:
    - a. 2 units fire hose with cabinet
    - b. 4 units stored pressure type HCFC 123 CEA fire extinguisher
    - c. 2 units fire alarm bell with control
    - d. 1 unit fire alarm control panel
    - e. 12 units smoke detector
    - f. Dry stand pipe 2" with 2 ½" Siamese fitting
- C. See plans/consult the end-user and project inspector for details and extent of work. The silence of specifications, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of 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 used or employed.