



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

BILL OF QUANTITIES

CONSTRUCTION OF THREE - STOREY HRM LABORATORY BUILDING					
ABC: ₱ 5,992,943.96				Bill of Quantities	
COLLEGE/UNIT/CAMPUS: IMUS CAMPUS					
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	MISCELLANEOUS WORKS (Pesos _____ _____ and _____ centavos)				
VII	ELECTRICAL WORKS (Pesos _____ _____ and _____ centavos)				

VIII	FIRE PROTECTION WORKS (Pesos _____ _____ and _____ centavos)				
IX	PLUMBING WORKS (Pesos _____ _____ and _____ centavos)				
X	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: _____

CAVITE STATE UNIVERSITY

SCOPE OF WORK:

A. CONSTRUCTION OF THREE - STOREY HRM LABORATORY BUILDING AT IMUS CAMPUS

GENERAL NOTES:

1. The project should be finished in 240 calendar days.
2. Actual site inspection is a must.
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, perimeter fence, retaining walls and sidewalk.

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 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 4" for interior/partition walls.
 - b. CHB 5" for perimeter fence/ exterior walls and septic tank..
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 the whole area of ground floor and second floor of the building. Tiles must be accented with dark colors.
 - *Unglazed ceramic tiles for hallway and ramp.
2. Granite tiles with groove for the stairs.
3. 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.

2. Provide ceiling works for the third floor.
 - a. Use a cement board 5.0mm thick for ceiling board.
 - b. Use metal furring as ceiling runner and ceiling joist at 0.40m on center both ways.
 - c. Provide decorative wooden molding to all ceiling perimeter and corners.
 - d. Provide 3/16" x 1" flat bar coated with primer and paint for ceiling hanger every 1.20m both ways.
 - e. Use pre-painted spandrel 4" for the whole area of eaves.
 - f. Provide ceiling ventilation for every 3 meters and all corners of the eaves.

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 CEE purlins ga. 16, 2" x 6" at 0.60 m. on center.
6. Provide 4-16 mm Ø anchor bolts with nut and washer for each support.
7. Provide 12mm Ø with nut and washer for sag rod.
8. Use galvanized CEE purlins 16, 2" x 6" and 2" x 4" for fascia board.

B. Roofing

1. Adopt gauge 26 (0.50 mm) rib type red pre-painted roof sheet.
2. Adopt gauge 26 x 18 (0.50mm) prefabricated and pre-painted ridge roll.
3. Adopt gauge 26 (0.50 mm) prefabricated and pre-painted flushing.
4. All attachment for roofing sheet and ridge roll shall be 2 1/2" tek screw for metal.
5. Provide water sealant for all attachment (water sealant should be provided for both inside and outside surface of tek screw head).

VI. Miscellaneous Works

Supply and installation of the following:

a. Doors:

D-1 (6 sets) Aluminum door complete with all accessories with 1/4" thick colored glass on colored powder coated finish aluminum frame

b. Windows:

W-1 (27 sets) Steel casement window complete with all accessories with 1/4" thick clear glass

c. Stainless as countertop finish for preparation tables

Provide 1.5mm thick (304) stainless sheet for the whole preparation table including its walls

d. Aluminum cabinet with drawer for all preparation tables

Provide aluminum cabinet with drawer for the whole preparation tables

e. Stainless railing (stairs and hallways)

Provide 1.5mm thick (304) stainless tubing for railings. Use 2" & 1" tubing.

VII. Electrical Works

1. Supply and installation of panel board and circuit breakers.

Note: Bolt-on type, Nema standard should be used.
see plan for details on breaker ratings
2. 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 (see plan for details on pvc sizes)
 - 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. 1-T8 LED fluorescent lamp with diffuser (50 sets)
4. Construction of service entrance post (See plan for details).

5. Consult plan for details and extent of works.
6. Tapping to the source, commissioning and testing.

VIII. Fire Protection Works

1. Supply and installation of the following
 - a. 3 units fire hose with cabinet
 - b. 3 units fire alarm bell with control
 - c. 1 unit fire alarm control panel
 - d. Dry standpipe 2" S-40 with Siamese fitting

IX. Plumbing Works

- A. Water Supply Line
 1. Adopt PPR pipes (PN 20) and fittings for water lines.
 - a. 1/2" Ø for the water line.
 - b. Provide a gate valve 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 (Sanimold type with O-ring or its equivalent) for ventilation, downspout and the whole sewer line system including septic vault fittings.
 - a. Use 4" Ø for drainage and down spout
 - b. Use 2" & 3" Ø for lavatory.
 2. Provide two units septic tanks (1.2m x 1.2m x 1.2m)
 3. Provide a catch basin with 4" PVC pipes. See plan for sizes.
- C. Fixture
Supply and installation of the following:
 1. 5 pcs heavy duty faucet (swing type)
 2. 5 units stainless kitchen sink deep type (twin tub)

X. Painting Works

The whole building should be painted (both exterior and interior) including all windows.

1. Metal
 - a. Apply epoxy primer by brush or spray. Allow to dry for 24 hours. Apply suitable putty on imperfections, then sand.
 - b. Apply at least two coats of Quick Dry Enamel in the desired color.
2. Concrete
 - a. Treat the surface with concrete neutralizer. Mix one part with 16 parts water by volume.
 - b. Apply Latex flat as primer. Repair minor surface imperfections with a suitable putty. Let dry, then sand.
 - c. Apply at least two coats of colored dirt resistant semi-gloss latex paint (factory mixed).

Note: Color of paint will depend upon the preference of the end user. Paints and its accessories should be BOYSEN or approved equal.

- D. 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 be used or employed.