



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

BILL OF QUANTITIES

REPAIR AND IMPROVEMENT OF PLANNING AND IDO OFFICE					
ABC: ₱4,996,923.68				Bill of Quantities	
COLLEGE/UNIT/CAMPUS: MAIN CAMPUS					
Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	MOBILIZATION (Pesos _____ _____ and _____ centavos)				
II	CONCRETE WORKS (Pesos _____ _____ and _____ centavos)				
III	MASONRY AND TILE WORKS (Pesos _____ _____ and _____ centavos)				
IV	CARPENTRY WORKS (Pesos _____ _____ and _____ centavos)				
V	MISCELLANEOUS WORKS (Pesos _____ _____ and _____ centavos)				
VI	TRUSSES AND ROOFING WORKS (Pesos _____ _____ and _____ centavos)				
VII	ELECTRICAL WORKS (Pesos _____ _____ and _____ centavos)				
VIII	PLUMBING WORKS (Pesos _____ _____ and _____ centavos)				

IX	FIRE DETECTION AND ALARM SYSTEM (Pesos _____ _____ and _____ centavos)				
X	PAINTING WORKS (Pesos _____ _____ and _____ centavos)				
XI	PARKING AREA (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. REPAIR AND IMPROVEMENT OF PLANNING AND IDO OFFICE

GENERAL NOTES:

1. The project should be finished in 210 calendar days.
2. There is an existing structure and verification of the actual site 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.

B. Technical Description

I. Mobilization

A. Site Preparation/ Temporary Enclosure/ Mobilization/ Demobilization/ Office/ Bunkhouses/ Comfort Rooms/etc.

Provide the following:

- Billboard
- Bankhouse with office
- Temporary comfort rooms
- Site temporary enclosure may be blue sack or any suitable materials that may enclose the workplace

B. Dismantling, Chipping and Excavation Works

1. This work also includes the excavation for column footing of the stairs.
2. Dismantling of existing canopy, gutter, ceiling, electrical components, trusses, roofing. Included also are the dismantling of beams and slab for water and sewer lines.
3. All dismantled items will be subjected to inventory and inspection by the project inspector/end-user and will be hauled by PPS Personnel.

II. Concrete Works

1. This work includes gutter and cantilever beam. Adopt the existing architectural design.
2. This work also includes the additional footings, columns, beams and slab for the stairs.
3. Concrete strength to be adopted shall be 3,500 psi.
4. Concrete works should be plain cement finished.
5. Adopt grade 40 deformed steel bars for reinforcement.
6. Provide necessary tools and equipment for the completion of the scope 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 4" to be installed for comfort room, pantry and support of concrete counter.

B. Sahara Plastering

1. Area of gutter for plastering with sahara is 165.0 sq.m.
2. Thickness of plaster is 1 inch.
3. Also included is the waterproofing of the entire concrete gutter by adding 1 bag of sahara plastering for every bag of cement.

C. Tile Works

1. All existing floor tiles should be chipped, dismantled and disposed properly.
 - a. Clearing and hauling of all chipped tiles and concrete from the site location.
 - b. Unusable tile components will be hauled by PPS Personnel.
2. Supply and installation of the following
 - a. 24" x 24" granite tiles for flooring.
 - b. Ceramic colored tiles 16" x 16" for flooring of comfort rooms.
 - c. Decorative ceramic colored tiles 12" x 24" for wall (floor to ceiling).
 - d. Granite slab for the counter at comfort room and pantry.
 - e. Pebbles #5 for the stairs and terrace.
 - f. Bricks for all columns and wall (see plan for details)
 - g. Tiles must be installed by using tile adhesive and finished with appropriate tile grout.
3. Consult the end user for the color preference of tiles.

IV. Carpentry Works

- A. Formworks and Scaffolding
 - 1. Provide necessary form lumber and scaffolding needed for the completion of the project.
- B. Dry Wall Partition
 - 1. Provide dry wall partition at grid B-F/1-3
 - a. Use 1/4" thick fiber cement board for partition board (double wall).
 - b. Use metal stud @ 0.40m. on center and metal tracks.
- C. Ceiling
 - 1. Provide ceiling works for upper ground ceiling only
 - 2. Use 3/16" thick fiber cement board for upper ground ceiling.
 - 3. Use metal furring as ceiling runner and ceiling joist @ 0.40 m. on center both ways.
 - 4. Use wall angle on the perimeter walls.
 - 5. Use rivet or black screw for connections.
 - 6. Provide 3" decorative ceiling cornice/wooden molding to all ceiling perimeter and corners.

V. Miscellaneous Works

- A. Doors
 - 1. Supply and installation of the following:
 - a. **4.0 sets of D-1:** 1.80m x 2.10m Double swing glass door w/ 1/4" thick clear glass on a powder coated aluminum frame complete with accessories
 - b. **5.0 sets of D-2:** 0.90m x 2.10m Steel panel door complete with all accessories
- B. Windows
 - 1. Supply and installation of the following:
 - a. **13.0 sets of W-1:** 3.35m x 1.50m Aluminum casement swing window with fixed glass complete with all accessories with 1/4" thick clear glass
 - b. **2.0 sets of W-2:** 0.60m x 0.60m Awning window on aluminum casement with 1/4" thick clear glass complete with all accessories
- C. Stair Glass Railings
 - 1. Supply and installation of stair glass railing on 2" x 2" Stainless framing with 12mm. thick frosted glass; complete with all accessories.
- D. Cabinets
 - 1. Supply and installation of white powder coated aluminum bus body cabinet for comfort room and pantry.

VI. Trusses and Roofing Works

- A. Trusses
 - 1. See plans for sizes of bar and other details for the installation of steel trusses.
 - 2. Provide necessary tools and equipment for the completion of the scope of work.
 - 3. All joint connections should be fully welded.
 - 4. Use indicated sizes of steel bars/sheets for trusses, gusset plate, cross bracing, sag rod, purlins and base plate.
 - 5. Provide water sealant for all attachments and connections.
- B. Roofing
 - 1. Adopt gauge 26 (0.5mm) rib type pre-painted roofing sheet.
 - 2. Adopt gauge 26 x 18 (0.5mm) prefabricated and pre-painted ridge roll.
 - 3. All attachment for roofing sheet and ridge roll shall be 2 1/2" teck screw for metal.
 - 4. Provide water sealant for all attachments and connections.

VII. Electrical Works

- 1. Supply and installation of panel board and circuit breakers.
 - a. MDP - Main 150AT (200AF, 3P, 230V, MCCB) and Branches (1-40 AT, 1-125 AT, 1-15 AT and 1-spare).
 - b. LP1 - Main 40AT (50AF, 3P, 230V, MCCB) and Branches (4-15 AT, 2-20AT and 2-spare).
 - c. ACP - Main 125AT (200AF, 3P, 230V, MCCB) and Branches (4-40 AT, 2-30 AT and 2-spare).
 - d. 30A, 2P, 230V Circuit breaker w/ NEMA 3r Panel enclosure for ACU (**2 sets**).
 - e. 40A, 2P, 230V Circuit breaker w/ NEMA 3r Panel enclosure for ACU (**4 sets**).

NOTE: Bolt-on type, NEMA Standard should be used.
- 2. Supply and installation of conductors and PVC/RSC conduit/junction & utility box from main panel to electrical equipment/ devices.
 - a. PVC conduit orange pipe.
 - b. RSC or IMC pipe for service entrance
 - c. THHN and THW stranded wire, Phelp dodge or approved equal.

- Refer to the Schedule of loads for proper color coding of conductor wires.
 - THW type of conductor wires for outdoor installation.
 - d. Utility and junction boxes should be PVC and deep type.
 - e. Galvanized support brackets for conduits.
3. Supply and installation of electrical fixtures/switches/outlets and other electrical devices in accordance with the plan.
 - a. 2-18W (4") LED fluorescent lamp w/ diffuser (28 sets).
 - b. 1-9W (6") LED Pin light, surface type, vertical round fixture (22 sets).
 - c. Emergency light twin head (4 sets).
 - d. Switches (Bticino, National or its equivalent).
 - e. Convenience outlets (Bticino, National or its equivalent).
 - f. Electric KWH meter, Three Phase, 230V, 200 Amps, 60 Hz, 4 wire, Digital Type with ST7 Meter base.
 4. Supply and installation of split type air conditioning units complete w/ all accessories.
 - a. 3.0 HP split type AC unit (4 sets).
 - b. 1.5 HP split type AC unit (1 set).
 5. Supply and installation of secondary steel pole and secondary attachments (2 sets).
 6. Electrical wiring and layout is to be connected from MDP to Distribution Transformer as indicated in the plan. Provide the necessary connectors & equipment for the wiring installation.
 7. Include tapping to the source, testing and commissioning.
 - a. Phase sequence test.
 - b. Continuity test.
 - c. Insulation test.
 8. Consult inspectors for details and extent of work.

VIII. Plumbing Works

- A. Water Supply Line
 1. Adopt PPR pipes and fittings for water line
 - a. 1" and 1/2" Ø for water line.
 - b. Provide gate valve.
 2. Tapping to the source is included.
 3. No pipe should be embedded without testing it to leak.
- B. Sewer Lines
 1. Adopt PVC heavy duty orange pipes and fittings (Sanimold type with O-ring or its equivalent)
 - a. Use 4" Ø for main line and water closet.
 - b. Use 2" Ø for lavatory and ventilation.
 2. Downspout will be connected to the existing drainage.
 3. Provide additional 2 sets of 4" Ø downspout from gutter to ground floor drainage canal. See plan for details.
 4. Chipping of concrete slab at the existing flooring at the upper ground and ground floor drainage canal.
 5. Rehabilitation/repair of damaged concrete during chipping of concrete is included.
- C. Fixtures
 1. Supply and installation of the following:
 - a. Twin tub stainless kitchen sink with two faucets complete with all accessories.
 2. Provide the following for the comfort rooms:
 - a. Brass floor drain
 - b. Colored tank type water closet, urinal and wall hung lavatory.
 - c. American standard made faucets (plain bibb) for cubicles and lavatory.

NOTE: All fixtures must be HCG, American STD. Toto or approved equivalent.

IX. Fire Detection and Alarm System

1. Supply and Installation of conductors, PVC conduit/junction box and accessories.
2. Supply and Installation of the following:
 - a. 5 - units stored pressure type HCFC 123 CEA fire extinguisher
 - b. 2 - units Fire alarm bell with control
 - c. 1 - unit fire alarm control panel
 - d. 8 - units smoke detector
3. Include testing and commissioning.
4. Consult inspectors for details and extent of work.

X. Painting Works

1. This work includes the painting of the interior and exterior of the whole structure.

2. Treat the surface with concrete neutralizer. Mix one part with 16 parts water by volume.
3. Apply latex flat as primer. Repair minor surface imperfections with a suitable putty. Let dry, then sand.
4. 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.

XI. Parking Area

- A. Earthworks
 1. This work includes excavation for wall footing.
 2. This work includes the clearing of the site before and after construction. The area should be cleared/cleaned before and after the construction work at least ten meters away from the building line.
- B. Concrete and Masonry Works
 1. Concrete works include footings, slab and zocalo wall.
 2. Concrete and masonry works should be plastered plain cement.
 3. Adopt concrete strength of 3500 psi @ 28 days.
- C. Formworks and Scaffolding
 1. Provide necessary form lumber and scaffolding needed for the completion of the project.
- C. Contractor of the said project must provide an as-built plan of the project at the end of the contract as a requirement for the release of their final billing.
- D. For color/types of any fixtures or materials to be used on site, consult the end-user and the inspector for approval. Consult the plan and the scope of work for the extent of tasks of the contract. If possible, let the end-user sign your sample as proof of approval. **Note: In the event that discrepancies on plans and scope of work occur, generally, the scope of work prevails.**
- E. Resident site engineer is a must for the projects to be undertaken by the contractor of the university. In cases where there are electrical works, it is required that an electrical engineer or a master electrician be a part of the contractor's team to supervise all electrical works. Likewise, master plumbers must supervise plumbing works. It can be considered when only one person is the master plumber and master electrician at the same time as long as his major duty is supervision of both fields. Safety engineer is a must as per DOLE requirement. **Note: All key personnel should be included in the list of personnel for submission.**
- F. In cases of participation in two or more projects, the set of workers and foreman shall be different per project, however, the set of engineers and equipment may be reused.
- G. Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.
- H. 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.