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

BILL OF QUANTITIES

CONSTRUCTION OF SPRINT TRAINING AND EXHIBIT HALL
ABC: ₱5,012,312.19 **Bill of Quantities**
COLLEGE/UNIT/CAMPUS: MAIN CAMPUS

Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	EARTHWORKS (Pesos _____ _____ _____ and _____ centavos)				
II	CONCRETEWORKS (Pesos _____ _____ _____ and _____ centavos)				
III	MASONRY WORKS (Pesos _____ _____ _____ and _____ centavos)				
IV	TILE WORKS (Pesos _____ _____ _____ and _____ centavos)				
V	CARPENTRY WORKS (Pesos _____ _____ _____ and _____ centavos)				
VI	MISCELLANEOUS WORKS (Pesos _____ _____ _____ and _____ centavos)				
VII	TRUSSES AND ROOFING WORKS (Pesos _____ _____ _____ and _____ centavos)				
VIII	ELECTRICAL 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 SPRINT TRAINING AND EXHIBIT HALL

GENERAL NOTES:

1. The project should be finished in 180 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. Earthworks

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. Excavation, Chipping and Dismantling Works

1. Dismantling of existing structure.
2. Excavation of columns/wall footings, tie beams, catch basins and cistern/septic tank.
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

A. Cast-in-place concrete

1. Concrete works include columns, stiffener columns, beams and all other concrete components needed to complete the structure.
2. Concrete mix should be **3500 psi @ 28 days** .
3. Concrete works should be plastered with plain cement including the anchorage of old structure to the new.
4. Deformed bar to be used shall be grade 40. See plan for the sizes of bars to be used.
5. Provide necessary tools and equipment needed to complete concrete works.

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

IV. Tile Works

Supply and installation of the following:

1. Ceramic colored tiles (locally-made) 0.40 m. x 0.40 m. for the whole area of ground. 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 tiles for the entire wall (from floor to ceiling)
    c. Granite tiles for the lavatory concrete counter including 0.6 m of its wall.
3. Consult the end user for color preference of tiles.

V. Carpentry Works

1. Provide necessary form lumber and scaffolding needed for the completion of the project.
2. Provide ceiling works for the comfort room.
    a. Use cement board 3/16" thick for ceiling board.
    b. Use metal furring as ceiling runner and ceiling joist at 0.40 m. on center both ways.
    c. Provide decorative wooden 3” X 12” molding to all ceiling perimeter and corners.
    d. Provide 3/16" x 1" flat bar coated with primer and paint for ceiling hanger every

1.20 m. both ways.
e. Provide ceiling ventilation for every 3 meters and all corners of the eaves.

3. Provide ceiling works for the whole eaves of SPRINT building.
   a. Use pre-painted spandrel 4" for the whole area of eaves.
   b. Provide ceiling ventilation for every 3 meters and all corners of the eaves.
4. Provide mezzanine for SPRINT building.
   a. Use phenolic board 3/4" thick for flooring.
   b. Use tubular bars 2" x 6" and 2" x 4" as floor joist.
   c. Provide steel stairs. (see existing at NCRDEC bldg.)
   d. Painting of two coats of epoxy primer and two coats of QDE.

VI. Miscellaneous Works

1. Doors
   a. **2 sets D-1** (1.60 m. x 2.10 m.) Aluminum frame door complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   b. **1 set D-2** (0.90 m. x 2.10 m.) Aluminum frame door complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   c. **2 sets D-3** (0.80 m. x 2.10 m.) Steel flush door on steel door jamb; complete with all accessories.
   d. **5 units D-4** Phenolic toilet partition system with doors for the CR cubicle complete & all accessories such indicator door lock
2. Windows
   a. **1 set W-1** (1.70 m. x 3.60 m.) Aluminum sliding window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   b. **4 sets W-2** (1.70 m. x 1.20 m.) Aluminum sliding window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   c. **2 sets W-3** (1.20 m. x 1.80 m.) Aluminum sliding window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   d. **1 set W-4** (1.20 m. x 3.60 m.) Aluminum sliding window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   e. **2 sets W-5** (0.60 m. x 1.20 m.) Aluminum awning window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   f. **8 sets W-6** (0.60 m. x 3.60 m.) Aluminum fixed window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.
   g. **4 sets W-7** (0.60 m. x 1.80 m.) Jalousie window complete with all accessories; with 3/8" thick tinted glass on colored powder coated finish aluminum framing.

VII. Trusses and Roofing Works

1. Fabrication/supply & installation of steel trusses and roofing.
   A. Trusses:
      1. See plans for sizes of pipe and other details for the installation of steel trusses. Use schedule 40 for all pipes.
      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 4" at 0.60 m. on center.
      6. Use CEE purlins ga. 16, 2 - 2" x 6" as fascia board.
      7. Provide 1/4" x 1 1/2" angle bar & 1/4" x 1 1/2" flat bar for fascia board cladding.
      8. All joint connections should be fully welded.
   B. Roofing:
      1. Adopt gauge 26 (0.5mm) curved type green pre-painted roof sheet sandwich panel.
         Insulation Thickness : 20 mm.
         Metal thickness : 0.50mm
      2. Supply and installation of stainless gutter.
      3. All attachment for roofing sheet shall be 3 1/2" teck screw for metal.
      4. Provide water sealant for all attachment (water sealant should be provided for

both inside and outside surface of teck screw head).

C. Painting Works
   1. Apply epoxy primer by brush or spray. Allow to dry for 24 hours. Apply a suitable putty on imperfections. Sand to a smooth finish.
   2. Apply two coats of Quick Dry Enamel in the desired color.

VIII. Electrical Works

1. Installation of panel boards and their circuit breakers. Bolt-on type Nema Standard should be used.
2. Installation of wiring/conductors and PVC conduits/junction box/utility box from sub-main panel boards to convenience outlet/light outlet/ACU outlet.
   a. 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.
   b. PVC conduit orange pipe (20 mm min.)
   c. Utility and junction boxes should be PVC & deep type.
3. Supply and installation of electrical fixtures/switches/outlets and other electrical devices.
   a. Switches (Bticino, National or approved equal)
   b. Convenience outlet (Bticino, National or approved equal)
   c. 2-T5 LED fluorescent lamp with diffuser (8 sets)
   d. 2-T8 LED fluorescent lamp with diffuser (17 se8ts)
   e. Pin light 7W LED (7 sets)
   f. Floor mounted ACU 2.5HP inverter (3 units)
   g. Junction box
   h. ACU Outlet
   i. Emergency light outlet
   j. Three phase KWH electric meter with meter base and accessories
4. Installation of concrete pedestal, conduit pipes, conductor wires, support brackets and accessories for Electrical Service Entrance.
5. Tap to the source is included (90 meters from source to building).
6. Supply and installation of two units electrical post (4" G.I. pipe S-40) with secondary racks and concrete footing.
7. Consult plan and inspectors for details and extent of work.

IX. Plumbing Works

A. Water Supply Line
   1. Adopt PPR pipes (PN 20) and fittings for water lines.
      a. 1" and 1/2" Ø for water line
      b. Provide 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 the septic vault fittings.
      a. Use 4" Ø for main line, downspout and water closet.
      b. Use 2" Ø for lavatory and ventilation.
   2. Provide one unit septic tank with pipes extending to the nearest disposal area.
   3. Provide catch basin with RCP. See plan for sizes.

C. Fixtures
   1. Provide the following for the comfort rooms:
      a. Brass floor drain (4 pcs.)
      b. Colored tank type water closet and urinal
      c. American standard made faucets (plain bibb) for every cubicle and lavatory.

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

X. Painting Works

A. This scope includes painting of the whole structure.
   1. Painting of the exterior and interior walls of the building.
      a. Repair surface imperfections with suitable putty. Let it dry and smothered by sanding.
      b. Scraping /chipping should be done as needed.
      c. Apply two coats of dirt resistant exterior latex paint

d. Paint application should be by brush or roller.

2. Formworks/scaffolding needed shall be provided by the contractor.
3. Clean/clear all areas affected by the works.

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.

C. Building permits, necessary clearances and other government taxes should be shouldered and settled by the contractor.

D. 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.

E. 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.**

F. 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.**

G. 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**.**

H. Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.

I. 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.