

TECHNICAL SPECIFICATIONS

Project : **PROPOSED CONSTRUCTION OF GRANDSTAND**
Location : **Southern Leyte State University, Main Campus, Sogod, Southern Leyte**
Owner : **Southern Leyte State University- Main Campus**

GENERAL REQUIREMENTS

Mobilization shall include obtaining all permits; moving all plant and equipment onto the site; furnishing and erecting plants, temporary buildings, and other construction facilities; implementing security requirements, all as required for the proper performance and completion of the WORK. Mobilization shall include the following principal items:

1. Moving all the CONTRACTOR's plant and equipment required for operations onto the site.
2. Providing all on-site communication facilities, including radios and cellular phones.
3. Providing on-site facilities.
4. Obtaining all required permits.
5. Establishment of safety programs.
6. Having the Contractor's superintendent at the jobsite full time.
7. Submitting initial submittals.

Demobilization includes the clean-up of the site and the removal of materials, debris, waste, etc., and making good damages or temporary alterations, restoration of damages to the surrounding area (including vegetation, minor structures etc.) resulting from the construction or construction-related activities.

EARTHWORKS

This item shall consist of clearing, grubbing, removing and disposing all vegetation and debris as designated in the Contract, except those objects that are designated to remain in place or are to be removed in consonance with other provisions of the DPWH Specification. The work shall also include the preservation from injury or defacement of all objects designated to remain.

CONCRETE WORKS

This item shall conform to Item No. 900 of DPWH Standard Specification for Public Works Structures. It shall consist of furnishing, placing, and finishing concrete in buildings and related structures in accordance with this specification and conforming to lines, grades, and dimensions shown on the plans.

Portland Cement

Cement shall conform to the requirements of the following cited Specifications for the type specified or permitted: Portland Cement - AASHTO M 85 (ASTM C 150), Blended Hydraulic Cements- AASHTO M 240 (ASTM C 595), Masonry Cement- AASHTO M 150-74 (ASTM C 91).

Coarse Aggregates

Coarse aggregate shall conform to the requirements of subsection 311.2.2 and 311.2.3 under Item 311 of Vol II Blue Book and ASTM C33 for lightweight aggregates. Maximum size of the aggregate shall be not larger than one-fifth (1/5) of the narrowest dimension between sides of forms of the member for which the concrete is to be used nor larger than three fourths of the minimum clear spacing between individual reinforcing bars.

Fine Aggregates

Fine aggregates shall be composed of washed sand with uncoated granules, strong, durable, reasonably clean and free from organic matter.

Metal Reinforcement

Reinforcing steel bars shall conform to the requirement for deformed steel bars for concrete reinforcement (ASTM 615) AASHTO M31.

MASONRY WORKS

For walls and partitions shown on the detailed drawings requiring concrete hollow blocks, the contractor shall use concrete hollow blocks upon approval of the TWG. Reinforcement shall be laid with a mortar composed of one part Portland cement and three parts sand. It shall be done in accordance with the structural plans as to size, spacing and other requirements.

CEILING AND PARTITION WORKS

Provisions and installation.

Ceiling

Sheeting for ceiling shall be made of fiber cement board one-fourth (1/4) inches thick with 5mm gap in all terminations in compliance to with the approved shop drawings. Wall angle 25mm x 25mm x 0.4mm thick, 2.40m, Ga 26, single and double furring 19mm x 50mm x 0.4mm thick, 5m, Ga 26, carrying channel 12mm x 38mm x 0.80mm thick, 5m, Ga 22 shall be of light metal frame.

Partition

Sheeting for partition shall be made of 13mm Compact Laminate Board new graphite color toilet Partition, aluminum overhead brace, aluminum snap-in, aluminum box blade leg, with complete Accessories according to plans and specifications.

HARDWARE

This shall conform to Item 1004 Vol II DPWH Standard Specification for Public Works Structures.

Rough Hardware

All rough hardware such as nails, screws, bolts and other related fasteners required for carpentry works shall be first class quality and locally available.

All finishing hardware consisting of lockset, latches, bolts, and other devices, door closers, knobs, handles, hinges and other similar hardware shall be first quality available locally and conforming with the following specifications:

6.2.1 Door Locksets

It shall be of durable construction, preferably the product of single reputable manufacturer for consistent quality and master keying. Locks shall be keyed in sets and subsets. Where locks are required by the owner to be keyed alike in one system furnish a total of 4 keys for each set.

Door

It shall be made of good quality for parts of the structures as enumerated or when indicated in the plan. Screws, nuts, bolts, rivets, and other miscellaneous fastening devices shall be made of non-corrosive materials

Window

Frames and panel members shall be fabricated from good quality materials true to details with clean, straight, sharply defined profiles and free from defects impairing strength, durability and appearance. Screws, nuts, bolts, rivets, and other miscellaneous fastening devices shall be made of non-corrosive materials.

TILE WORKS

The color scheme of the material shall be approved by the TWG.

ROOFING WORKS

Fabrication and Installation of Steel Truss w/ complete members and support according to plans and specifications.

Provisions and installation of long span Roofing according to plans and specifications.

Application of Epoxy Primer gray w/ catalyst at Steel Truss.

PAINTING WORKS

The color scheme of the material shall be approved by the TWG. Painting works shall cover the interior and exterior of the building. All surfaces are to be painted with primer coat and minimum two top coats of intended paints for surfaces as per approved color scheme, after drying and thoroughly cleaned to remove all loose scale and loose rust. Surfaces not in contact but inaccessible after shop assembling, shall receive the full specified protective treatment before assembling.

PLUMBING WORKS

All piping materials, fixtures and appliances fitting accessories whether mentioned or not but necessary to complete this item shall be furnished and installed. Pipes and fittings for waterlines shall be made of Polypropylene Random. Pipes and fittings for sanitary line shall be made of PVC series 1000 pipe.

Special Plumbing Fixtures

Built in appliances such as urinal, lavatory and sink shall be installed as indicated on plans. Exposed surfaces to be tile wainscoting complete with fitting accessories required as practiced in this specialty trade. Water closet shall be front round type water closet with tank fitting, seat and cover, flexible hose, bidet hose, angle valve, soap & tissue holder, and all units shall be Sensor Operated.

Septic Tank

It shall be provided as shown on the plans including all pipe vents and fittings. Concrete masonry work shall conform to the corresponding Item of this specification. Inlet and outlet pipes shall conform to the latest edition of the National Plumbing Code.

RAILINGS AND OTHER ARCHITECTURAL

Provisions and installation.

Railings

The Contractor shall provide Prefab railings 38mmØ 304 Stainless pipe, 20mmØ Stainless Steel Plain Round bar standard, (and/or specified in the plan), stainless welding rod, and other miscellaneous fastening devices shall be made of non-corrosive materials (see plans, detail and specs).

Aluminum Composite Panels and Composite Panel Frame

The Contractor shall provide 0.40mm thk Aluminum Composite Panels with complete Accessories, including frame 1½"x1½"x1/4" thk angle bar standard, welding rod, and other miscellaneous fastening devices shall be made of non-corrosive materials (see plans, detail and specs).

Basketball Court Flooring

The Contractor shall provide sample or photo of items to the TWG for approval. (Preferable Material for flooring - Junckers Unobat45 system in 22mm Sylvasport Beech premium lacquered
22mm x 129mm x 1800mm-3700mm)

ELECTRICAL WORKS

Furnishing and installation of underground service entrance, conduits and conductors, and all items required by local utility power company's policy, rules and regulations.

Furnishing and installation of panel boards at location indicated on the plan and electrical riser layout, including all accessories required.

Furnishing and installation of feeder and branch circuit conductors with necessary conduits, approved type of fittings and devices as indicated in the electrical plans.

Furnishing and installation of all types of utilization devices, outlets and wall switches with properly installed cover plate.

All lighting fixtures shall be furnished and installation by the contractor. They shall be as shown on the drawings or specified on the schedule of lighting fixtures.

TESTING

The Contractor shall furnish a copy of the certification showing the results for steel bars and concrete subjected to tensile and compressive strength test respectively.

Leak test shall also be conducted by the Contractor together with the supervising Engineer or TWG prior to plastering and upon final inspection of the building.

Flood test shall be conducted to test the functionality of the piping system and its drainage capacity.

Electrical test shall be conducted to ensure the functionality of the whole wiring and electrical system.

The drawings and specifications are meant to be complementary to each other, and what is called for by one shall be binding as if called for both.

Any apparent conflict between the drawings and specifications, and any controversial or unclear points in either shall be referred to the supervising Engineer or Technical Working Group for final interpretation and decisions.