



Office of the Civil and Sanitary Works Unit
Cagayan de Oro

Project Title : **PROPOSED College of Medicine**
Location : USTP CDO Campus, C.M. Recto Avenue, Lapasan, Cagayan de Oro City
Owner : University of Science and Technology of Southern Philippines
Subject : **SPECIFICATIONS**

I. INTRODUCTION

The drawings and the Specification are complementary to each other. Drawings are graphic means of showing works to be done. They are particularly suited to showing where materials are located. Thus, drawing exists essentially to show sizes, location, and placement. Not all works, however, can be presented in the drawings. Generalized works are usually in statement form; hence the Contractor is strongly advised to read the specification carefully.

Specification on the other hand, is used to describe the materials, construction techniques, samples, shop drawings, guarantee, and the other contract requirements. Together, the Drawings and the Specification are used to inform the contractor. In cases where specified brand carries with it the manufacture's specifications, the manufacture's specification shall hold the precedence over this specification.

II. THE LANGUAGE OF THE SPECIFICATIONS:

The specifications are the abbreviated type and include incomplete sentences. The selection of sentence structure depends on the underlying principles of the specifications:

- a. That the technical specifications are only one part of the Contract Document.
- b. That the contract is between the Owner and the General Contractor; and
- c. That the General Contractor is the only party responsible for completing the work in accordance with the Contract Document

Therefore:

- A. Only the General Contractor is referred to in the specification so as not to violate the intent of the contract and so as not to undermine the proper chain of command.
- B. Any reference to Specialty Trade Contractors in the technical Specifications is made only in so far a selection of specialty Trade Contractors is made through bidding. Once the Specialty Trade Contractions are selected and assigned to the General Contractor, the General Contractor assumes all responsibilities for the execution of the whole project in accordance with the Contract Documents. Therefore, in the contract between the Owner and the General Contractor, the Specialty Trade



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Contractor, the Specialty Trade Contractor is not referred to the entire Contract Document, the work "Contractor" referred to the General Contractor.

C. The omission of the phrase "the contractor shall" is intentional because the whole specifications are directed to the Contractor. Omitted words or phrases shall be supplied by the interference in the same manner, as they are when a "note" occurs in the drawings.

D. Where "as shown", "as intended", "as detailed", or words similar import are used, it shall be understood that the reference in the drawings accompanying the specifications is made unless otherwise stated.

E. Where "as directed", "as required", "as permitted", "as authorized", "as approved", "as accepted", or other words similar import are used, it shall be understood that the direction, requirements, permission, authorization, approval, or acceptance of the Architect is intended unless otherwise stated.

F. As used herein, "provide" shall be understood to mean "provide complete in place" that is "furnished and installed".

III. GENERAL REQUIREMENTS:

1. The contractor shall secure from the government agencies all necessary licenses and permits needed.
2. Cleanliness shall be maintained at all times within the job site and its immediate premises.
3. If errors or omissions appear in the drawings, specifications or other documents, these shall be referred to the designing architect.
4. The building site shall be filled up to the required grade.
5. All fills shall be in layers of 0.15m in thickness, each layer being thoroughly compacted by wetting and tamping.
6. All applicable provisions of the different divisions of the specification for each work trade shall apply for all items cited in this summary.
7. Materials deemed necessary to complete the work but not specifically mentioned in the specification, working drawings, or in the Contract Document, shall be supplied and installed by the Contractor without extra cost to the Owner. Such material shall be of the highest quality available and install and applied in a workmanlike manner at prescribed or appropriate locations.
8. Materials specifically mentioned in this Summary shall be installed following efficient and sound Engineering and Construction practice, and especially as per Manufacturer's application and installation specification, which shall govern over all works, alluded in this Specification.
9. The Contractor shall clean the site and dispose waste after the completion of the project.



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IV. PREPARATION OF SITE:

1. The owner shall take out the building accurately and shall establish grades according to plans and specifications.
2. Basic batter board references as directed by the project engineer shall be erected at such places where they will not be disturbed during construction.

V. SPECIFICATION OUTLINE:

WORK ITEM	DESCRIPTION
1. Mobilization/Demobilization	<p>Mobilization shall include all activities and associated costs for transportation of Contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the Contractor's operations at the site</p> <p>Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal and site cleanup, of offices, buildings and other facilities assembled on the site specifically for this contract.</p>
2. Temporary Facilities	<p>The Temporary Facilities shall consist of: offices, accommodation, toilets, material storage; including payment of water and electric utilities; and access way and fences for security purposes; it includes also the security and protection.</p> <p>The contractor shall identify the location of the temporary facilities at the construction site. Materials to be used in constructing the temporary facilities shall be constructed at the expense of the contractor.</p>



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3. Demolition Works and Debris Disposal

Prior to any structural demolitions taking place, the contractor must identify the location to be demolished of as per drawing. Any found damages that are not included to the demolition must be repair at the expense of the contractor. The USTP Engineer should be informed prior to any repair.

Specify the materials/equipment to be used during the activity. Wear safety gears during the activity. All the workers, site supervisors and engineers are briefed with the potential hazards and process of demolitions.

All debris must dispose to the specified disposal area as per approved by USTP Engineer assigned.

4. Masonry Work

Unless otherwise indicated on the Plans, masonry mortar shall be composed of one part Portland Cement or air-entraining Portland Cement and two parts fine aggregate by volume to which hydrated lime has been added in an amount equal to ten (10) mass percent of the cement.

For masonry walls not exceeding 1.8 m (6 feet) in height, a mortar composed of one-part masonry cement and two parts fine aggregate by volume maybe substituted for the above mixture of Portland Cement, lime and fine aggregate. For other construction, masonry cement may be used if and as shown on the Plans.

Masonry cement shall conform to the requirements of AASHTO M 150 - 74 (ASTM C 91).

Fine aggregate shall conform to the requirements of AASHTO M 45 (ASTM C 144).

4.1

Block laying & Mortar Filler: Concrete Hollow Block shall be of Approved sample (ASTM C129) with minimum compressive Strength of 450 PSI. 100mm (4") and 150 mm (6") thickness as indicated in the plans.



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4.2 & 4.3

Masonry Plastering & Reinforcement: 6" Concrete Hollow Blocks (CHB) with concrete mix in the hollow core, with reinforcing bars as indicated in the plan. Plain Cement Plaster finished on both side unless otherwise specified.

5. Partition Works

Dry walls must be constructed according to the plan, its required materials and its location. The USTP Engineer must inspect the work of the contractor prior to its approval.

Painting of all dry walls must be according to the required paints as per drawing and shall be approved by the USTP Architect.

6. Electrical System

All work hereunder shall comply with the latest Philippine Electrical Code, the rules and regulations of the Electrical Ordinances of Cagayan de Oro City, the rules and regulations other governing authorities and with Republic Act No. 184 as applied or enforced in Cagayan de Oro City, Misamis Oriental.

Upon completion of work as described herein six (6) copies of the "As Built" plans for future reference and maintenance purposes, shall be submitted.

ALL TEMPORARY POWER REQUIREMENTS DURING THE CONSTRUCTION SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. This includes the temporary lighting facilities; power may requirement for power tools. In the case of civil overtime works, which may require power adjustments or alignments, civil work Foreman shall notify the electrical Contractor for overtime staff.

6.1 Wires

All electrical wiring shall be Philflex Columbia or approved equivalent.

6.2 Lighting Fixtures/Receptacles

Lightings shall be Osram, Philips, Toshiba, G.E, Eurolux or approved equivalent. Lighting fixtures are as indicated in the



plan. Receptacles & wall plates shall be of approved quality as specified in the plan.

6.3 Control Devices

All control devices shall be Panasonic, Toshiba, Bticino wide series or approved equivalent. Color shall be white.

7. Carpentry Works

All rough carpentry work shall be in accordance with detail drawings or where not detailed shall be in accordance with recognized carpentry standards. Rigidly construct all wood framing true to line, levels and dimensions and adequately braced, anchored or secured.

Surfaces or wood works in contact with concrete or masonry shall be coated with two (2) coats of asphalt applied hot.

Lumber shall be of the approved quality of the respective kinds of various parts of the work, well-seasoned, thoroughly dry, and free from large, loose or unsound knots, saps, shakes, and other imperfections impairing its strength, durability or appearance. All exposed finishing lumber to be used shall be kiln-dried. All concealed lumber shall be treated with cuprinol or its approved equal.

8. Roofing Works

Materials use shall be as per drawing. See to it that the materials used shall be approved by the USTP Architect prior to its use. Where so indicated on the Plans, structural members shall be joined by welding. The welds shall be of the size and type indicated and shall be made by competent operators. Welding shall not be done when surfaces are wet from condensation or rain which is falling on the surfaces to be welded; nor during periods of high winds unless the welding operator and the work are properly protected. Implement the safety requirements and project specifications throughout the activity.

9. Ceiling Works

As indicated in the plan, an approved material or equivalent must be used on metal furring frames w/ standard thickness and spacing as specified by the manufacturers or supplier.

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Materials used must consider the appropriateness upon installation.

The ceiling works includes the ceiling vents as shown in the plan and must be approved by the architect prior to its use. Implement the safety requirements and project specifications throughout the activity.

10. Plumbing Works

All fixtures shall be completely new, free from defects, function efficiently and shall be cleaned, with trims polished and ready for use before acceptance.

All fixtures shall be provided with individual shut-off valves for cold water supplies so that any fixture may be separately controlled without affecting other fixtures supplied with the same distribution line.

Water running test shall be conducted for all fixtures in order to insure soundness, leakage-free and quiet operation. Implement the safety requirements and project specifications throughout the activity.

11. Installation of Doors and Windows

Refer to Door and Window schedules, material and workmanship as per approved drawing and specifications. Implement the safety requirements and project specifications throughout the activity.

12. Elevated Platform

Lay – out the correct position of the Hollow Rectangular Tube as per drawing. The materials to be used shall be checked and approved by the USTP Architect and Engineer prior to use. An elevated platform is created to protect the plumbing fixture in a contain area as per drawing.

13. Tileworks

Clean and prepare the surfaces; Plan on how to lay – out the tiles correctly as per drawing. Implement the safety requirements and project specifications throughout the activity.



The materials to be used shall be checked and approved by the USTP engineer prior to use. Mixing and applying the adhesive or mortar materials, laying and grouting of tiles shall be as per material data sheet or manufacturers recommendation. Setting of tiles shall be even and level during installation.

14. Painting Works

These works includes interior and exterior painting and varnishing and finishing of all items as required producing a finished painting job throughout all of the areas affected by work under this item.

All painting system should be approved by the architect first, and should in accordance to manufactures standards for old and new concrete/ masonry/ metal/ wood surfaces

All paint materials shall meet the requirements of the Standard Specifications of the Standardization Committee on Supplies and shall be delivered on the site in the original containers, with labels intact and seals unbroken.

Clean foreign materials on the surface such as dust, and dirt. Scrape-off loosely adhering old paint film and rust using a brush, broom, chisel, scraper, sandpaper, or other means of removal.

All paints to be used shall be Welcoat Paints, Boysen or its approved equivalent. Color shall be decided by the Architect

14.1 Masonry/Drywall partitions for Exterior/interior Wall:

Painted with Premium Elastomeric Waterproofing Paint satin finish, color refer to the architect

14.2 Metal Surfaces

Apply rust converter first to metal surfaces, then paint with two (2) coats of high quality metal primers.

15. Site Clearing



University of Science and Technology of Southern Philippines

Alubijid | Cagayan de Oro | Claveria | Jasaan | Oroquieta | Panaon

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Site must be cleaned and proper housekeeping must be observed on the construction area prior the turnover of the project.

Prepared by:


ENGR. ANICE T. C. NERI, JR.
HEAD, CSWS

Noted by:


AR. FERDINAND A. DUMPA
Director, Auxiliary Management Services

Recommending Approval:


ATTY. JONATHAN S. OCHE
Vice Chancellor, Finance and Administration

Recommending Approval:


ATTY. DIONEL O. ALBINA
Chancellor, CDO Campus

Approved by:


DR. AMBROSIO B. CULTURA II
USTP System President