



WMSU - PPO -FR - 007A.00 Effective Date: 08 - Sep - 2021

#### PHYSICAL PLANT AND ENGINEERING SERVICES

PROJECT TITLE: REPAIR OF ROOFING, CEILING AND RETILING OF COLLEGE OF

CRIMINAL JUSTICE EDUCATION

PROJECT LOCATION: WMSU-MAIN CAMPUS, LOT-2 NORMAL ROAD, BALIWASAN,

**ZAMBOANGA CITY** 

SUBJECT: SUMMARY OF WORKS, GENERAL REQUIREMENTS AND TECHNICAL

**SPECIFICATIONS** 

#### I. SUMMARY OF WORKS

#### A. INTRODUCTION

The Works in this Contract is for the REPAIR OF ROOFING, CEILING AND RETILING OF COLLEGE OF CRIMINAL JUSTICE EDUCATION to be located at WMSU-MAIN CAMPUS, LOT-2 NORMAL ROAD, BALIWASAN, ZAMBOANGA CITY. The WMSU-Physical Plant and Engineering Services shall perform the construction management services including the management of project deliverables and all issues arising from this Contract Document.

#### B. NAME OF PROJECT

REPAIR OF ROOFING CEILING AND RETILING OF COLLEGE OF CRIMINAL JUSTICE EDUCATION to be located at WMSU-MAIN CAMPUS, LOT-2 NORMAL ROAD, BALIWASAN, ZAMBOANGA CITY

#### C. START AND COMPLETION OF DATES

The Contractor shall be held responsible for meeting intermediate dates as contained within the attached documents. Such dates are binding, and damages will apply to intermediate as well as end dates:

Start on Site : Based on date stipulated on Notice to Proceed

Punch listing :

All Works Complete :



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#### D. WORK AREAS

All works shall be done within the confine of the lot boundaries. Provide temporary work enclosures on all sides affected by building repair works. Provide appropriate announcement boards and signage's, to include all construction permits, clearances, and duration of works

#### E. SCOPE OF WORK - GENERAL

The Scope of Work includes the furnishing of all labors, materials, equipment, and tools including supervision necessary to complete all the Works stated herein. All Works are to be complete in accordance with the Contract Documents and as directed by the WMSU-Physical Plant and Engineering Services to result in a completely functional facility.

The Scope of Work shall consist of the following in accordance with the Drawings and Specifications, including Supplemental Agreement but is not limited to the following;

#### E.1 Site Works

- a. Health, Safety, & Environment
- b. Security
- c. Temporary Enclosures
- d. Clearing of site and disposal off-site debris, etc.

#### E.2 Architectural Works

- a. Roofing, flushings, rain gutter, etc.
- b. Tiling and wall finishes as indicated in Drawings
- Ceiling works as indicated in drawings.
- d. Painting of Ceiling

#### E.3 As-Built (Record) Drawings & Related Documents





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#### II. GENERAL REQUIREMENTS

#### A. GENERAL

The works shall be carried out according to the Technical Specifications and shall govern the methods of construction and the kind of materials to be used for the repair of ceiling and retiling of College of Criminal Justice as shown in the plans and detail drawings.

The plans, detailed drawings and this Specification, shall be considered as complementing to each other, so that what is mentioned or shown in one, although not mentioned or shown in the other, shall be considered as appearing on both. In case of discrepancy, between the Technical Specifications and Approved Detailed Drawings, the Technical Specifications shall prevail.

All works shall be carried out in coordination with carpentry, masonry, electrical, plumbing, ancillary, and other building works. Materials not conforming to Specifications shall be rejected.

#### B. **GENERAL CONDITIONS**

Prior to execution of works, the Contractor shall verify the existing condition of the structural and project boundaries. Total demolition of existing portion of the structure within the proposed project site is required.





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#### C. CONTRACTOR'S OFFICE & ACCOMODATION

Provision of Contractor's Temporary Facility is required. The structure of the building shall be adequate, rainproof, spacious, airy and hygienic with proper lightings and toilet facilities. The area shall be kept neat and clean. Any garbage or sewage shall be disposed at a location and in a manner approved by WMSU-Physical Plant and Engineering Services.

Space allocation for storage of various materials such as cement, reinforcement steel and petroleum products, etc. shall be clearly separated to avoid contamination. Petroleum products shall be stored and handled in a way that avoids contamination of ground water. Workshops shall be installed with oil and grease traps for the same purpose.

The Contractor shall provide, at its own expense, adequate temporary accommodation and toilet facilities for its own workmen and keep the same in good conditions. The Contractor shall construct suitable soak pits along with room of pit-type latrines. Sufficient water must be provided and maintained in the toilets. Proper methods of sanitation and hygiene should be employed during the whole project duration. The above-mentioned temporary structures shall be removed on the completion of the works at Contactor's own cost. All materials and labor cost shall be provided by the Contractor.

The Contractor shall provide at his own expense calibrated meters for each water and electricity connection and pay billings thereof.



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#### D. SAFETY MEASURES

The Contractor shall be responsible for safety of all workmen and other persons entering the Works and shall be all at his own expense take all measures necessary to ensure their safety. Such measures shall be subject to the approval of WMSU-Physical Plant and Engineering Services shall include but not limited to:

- Appropriate personal protective equipment (helmet, dust mask, safety shoes, vest, and hand gloves) must be provided and worn by workmen.
- 2. First Aid Cabinet must be fully equipped and readily available for treatment of sickness and injuries;
- 3. Provide safety and emergency regulations for fire and electric shock prevention;
- 4. Safe control of flowing water; and
- 5. Conduct regular safety meeting.

#### E. NOTICE BOARD

The Contractor shall erect notice board (3' x 6') at the site giving details of the Contract in the format provided by COA. It shall be removed upon receipt of Certificate of Completion.

#### F. ENVIRONMENTAL PROTECTION WORKS

The environment means surrounding area including human and natural resources to be affected by execution and after completion of works. The Contractor shall take all precautions for safeguarding the environment during the course of construction of the works. He shall abide by all prevalent laws, rules and regulations governing pollution and environmental protection. The Contractor shall prohibit employees from cutting trees and the former shall be the responsible for the action of the latter.





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Waste materials must be collected, stored, and transported to approved dump / disposal area.

The WMSU-Physical Plant and Engineering Services shall have the power to disallow the method of construction and / or the use of any borrow / quarry area, if the stability and safety of the works or any adjacent structure will be compromised, or there is undue interference with the natural or artificial drainage, or the method or use of the area will promote undue erosion.

#### G. MATERIALS AND WORKMANSHIP

All materials and equipment used in the Works shall be new and best in quality, design and performance. All materials used shall be of the quality specified and where not specified shall be in accordance with the relevant Standards **Acceptable by the University Architect.** 

All materials and work necessary for the efficient functioning of the installation shall be provided even if not explicitly mentioned in the Contract Documents

All works shall be carried out to the best engineering practice by fully competent tradesmen.

#### H. DELAYS

In the event the Contractor falls behind the Project Schedule, then he may be required to accelerate his work. In such cases, the Contractor shall immediately apply appropriate extra resources at his own expense until such time as the schedule slippage has been recovered.

#### I. SITE DIARY OR MANUAL FIELD / LOGBOOK

The Contractor shall keep Site Diary or Manual Field Book wherein full details of the work carried out during each day shall be fully recorded. The Site Dairy or Manual Field Book shall be available for inspection by the WMSU-Physical Plant and Engineering Services anytime during normal office hours. It shall include:



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- 1. Project Name;
- 2. Contractor's Name;
- 3. Contractor's Representative;
- 4. Weather Conditions, rainfall, and water level (indicate "NO WORK "if unworkable days)
- 5. Description, quality, and location of work performed;
- 6. Shift and working hours;
- 7. Number and category of workers working at the site;
- 8. Test carried out and results;
- 9. Inspection carried out by PPO;
- 10. Problems or abnormal occurrence;
- 11. DEFECTIVE / Non-Compliant Work & Corrective Action.
- 12. Site Instructions;
- 13. Visitors; and
- 14. Accidents (if any)





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#### III. TECHNICAL SPECIFICATIONS

#### A. SITE PREPARATION / DEMOLITION WORKS

#### I CLEARING / DEMOLITION

- Works herein include the removal of existing Tiles, damaged Roofing Sheet (Monaco Tile), Spandrel
  Eaves Ceiling and Dilapidated Ceiling Board, including to handling, savaging, piling, and disposing
  off the cleared materials with all leads and lifts.
- 2. All existing electrical fixtures to remove shall be re-installed to its location after the installation of the new ceiling.
- 3. Materials obtained from removed existing tiles, roofing sheet damage (Monaco Tile), Spandrel Eaves Ceiling and Dilapidated Ceiling Board shall be turned over WMSU-Property Management Office (PMO) for assessment. Demolished materials assessed by PMO for discarding shall be disposed of by the Contractor. Burning of demolished or any unwanted materials shall not be allowed.

#### B. ROOFING AND RAFTERS

 All materials to be used herein shall be brand new and passing Philippine Standard material quality control requirements. It shall have cast, stamp or indelible marks on it like manufacturer's trademarks or name, weight, type, or classes of products when so required.

#### **II.A ROOFING WORKS**

 Works herein shall include supply and installation of 0.40mm thick x 1m x 2m Monaco Roofing Sheets, Long Span (Spanish Red) and 0.40mm thick x 1m x 10m Monaco Roofing Sheets, Long Span (Spanish Red)., roofing sheets and accessories as shown in the plans.





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- All roofing materials should be free from rust, dirt, and oil during time of installation. Screws and rivets shall be placed at top of corrugation and shall have gutter or silicon sealant application to prevent leakage.
- 3. Unnecessary holes made on the roofing materials shall be rejected. Valley gutters of gauge 24 shall be bolted with at least 450 mm each way under the roofing sheets and shall be properly secured to the framework. Rivets alongside of the valley shall be fastened at every second corrugation.
- 4. Ga. 26 G.I. flashing running parallel to sheet corrugation or at an angle thereto, shall lap at least 250 mm and the edge of flashing turned down at each corrugation. All roofing accessories like flashing, valley gutters, ridge cap shall be bent mechanically for best result.
- 5. All ends of sheets at junctions of pieces shall be hooked into each other and beaten flush to avoid leakage.



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#### C. CEILING AND EAVES

- 1. Works herein shall include supply and installation of fiber cement ceiling board on metal furring ceiling joist. All materials to be used herein shall be free of cracks, dents, and other imperfections.
- 3.5 mm thick x 4' x 8' fiber cement board shall be used for interior ceiling at second floor and (not including the hallway), and 0.40mm thick x 1½" x 1½" x 8' wall angle and 0.40mm thick x 0.14m x 1.30m spandrel for ceiling eves.
- 3. Interior ceiling joints shall be sealed with plaster of Paris and non-woven paper tapes without forming any bubble and joints shall be finished flush to make the ceiling in one piece.
- 4. Fiber Cement Boards shall be riveted by 1/8" Ø x ½" blind rivet to 0.40 mm thick x 3/4" x 2" metal furring, spaced at 0.60m both ways. Metal furring ceiling joist shall have adequate hangers and carrying metal runners to stay in perfect line and level.
- Prior to enclosure of ceiling, all dimensions, alignment of metal frames, material specifications, electrical and auxiliary rough ins, carrying metal runners shall be checked to comply with standard installation requirements.

#### D. PAINTING

- Works All works herein shall include supply and application of paints and painting materials as specified in the plans.
- All painting materials shall be delivered on site intact in the original drums or tins and shall be mixed
  and applied strictly in accordance with the manufacturer's instructions and to the approval of the
  WMSU-Physical Plant and Engineering Services Director or University Architect
- 3. All materials to be used herein shall be brand new and passing Philippine Standard material quality control requirements. It shall have cast, stamp or indelible marks on it like manufacturer's trademarks or name, weight, type, or classes of products when so required.



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4. All paint and painting materials shall be delivered to the building with sealed containers and stored in dry but adequately ventilated room. Paint type and number of coatings for each surface type shall be as follow:

- a. Building concrete surfaces ...... solvent based paint, gloss / 4 coatings
- b. Building fiber cement / wood surfaces ...... solvent based paint, flat / 4 coatings
- 5. Concrete surface shall be smooth and free from defects and shall be allowed to dry out thoroughly.
- 6. Surfaces shall be thoroughly brushed down and left free from dirt and dust.
- 7. The Contractor shall perform all painting and finishing works as shown in the plans
- 8. The priming undercoats and finishing coats shall each be of differing coats. "SAMPLE" cards and application sample of all paint type and colors shall be submitted to the WMSU-Physical Plant and Engineering Services for approval to become the standard of work quality.
- Each coat of paint shall be properly dried and shall be well rubbed down with fine sand paper before the next coat is applied.
- 10. The paintwork shall be finished smooth and free from brush marks.
- 11. Upon completion of painting works, the painting Contractor shall remove all paint spots from all finished works together with the equipment before leaving the premise and shall present the work to WMSU-Physical Plant and Engineering Services free from blemishes.

#### E. TILEWORKS

- Works herein shall include supply and placing of unglazed ceramic floor tiles as indicated in the plans and drawings.
- 2. The surface where the tile is laid must be level, true to elevation, dry and free from oil and other sediments.
- 3. Allow at least 7 days curing of the scratch coat and setting bed.



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4. Second floor and selected areas on the ground floor, shall be finished with 0.60m x 0.60m unglazed ceramic floor tiles.

5. The Tile grout color and 2" x 6.00m brass for the stair nosing shall be subject for the University Architect's approval. The Contractor shall submit sample of tiles to the WMSU-Physical Plant and Engineering Services for approval of type, quality, and color.

6. All materials to be used herein shall be brand new and passing Philippine Standard material quality control requirements. It shall have cast, stamp, or indelible marks on it like manufacturer's trademarks or name, weight, type, or classes of products when so required.

7. Before the tiles are placed, the surfaced shall be brushed cleaned and wetted. The surface shall be tested for levelness or conformity of slope by flooding it with water.

8. Tiles shall be installed by applying heavy duty adhesive to backs of tile and firmly pressing tile into the floating coat to true plane and position.

Joints shall be maintained uniformly wide by aligning spacer lugs on tile edges. All joint lines shall be kept straight and true to profiles, plumbed and internal corners rounded using the appropriate trims.

10. Flooring shall be sloped to floor drain as shown in the plans.

11. All tile work finishing shall be adequately protected from damage during the progress of construction. Chipped, cracked, or broken tile shall not be used, and all defective work shall be replaced and repaired to the approval of the WMSU-Physical Plant and Engineering Services at Contractor's expense.

APPROVED BY:

AR. JOSEPH ANDREW L. SAHIAL

Director, Physical Plant and Engineering Services