



PHILIPPINE GENERAL HOSPITAL
The National University Hospital
University of the Philippines Manila
OFFICE OF ENGINEERING AND TECHNICAL SERVICES
Taft Avenue, Manila

*PHIC-Accredited Health Care Provider
ISO 9001:2008 Certified*

Project Title : PROPOSED ROOFING OF OLD O.R. BUILDING

Location : Philippine General Hospital, Taft Avenue, Manila

Subject : SCOPE OF WORKS & SPECIFICATIONS

GENERAL REQUIREMENTS

1. GENERAL CONDITIONS

- 1.1 The Contractor shall furnish all the materials, labor, tools, equipment, and supervision for the completion of all the works of the Project as indicated on the plans, specifications and contract documents.
- 1.2 The Contractor shall visit and carefully examine the site and check all the possible interference and conditions affecting the works.
- 1.3 Extra care must be observed during dismantling works to avoid damage on the existing facilities such as Telephone and Internet Lines, Paging System Accessories, Medical Gas Lines, Sewer and Water Lines, etc. Any damaged thereof should be restored to its original status at the expense of the Contractor within two (2) weeks. Otherwise, construction activity will be stopped.
- 1.4 The Contractor shall engage under him, a registered Civil Engineer or Architect to supervise his work.
- 1.5 The Plans and Specifications shall be interpreted only by a competent registered Engineer. The Contractor is enjoined to confer with the Project Engineer of OETS on drawing/items he failed to understand before submitting his bid. No excuses shall be entertained for misinterpretation on the Plans and Specifications after the award of the Contract. All work as deemed provided by the OETS shall be carried out properly by the Contractor.
- 1.6 The Plans and Specifications are complimentary to each other, whatever is not mentioned in one but mentioned on the other shall be considered as if mentioned on both and shall be carried out properly by the Contractor.

- 1.7 Any inconsistency or discrepancy between the Plans and Specifications shall be brought immediately to the attention of the OETS Project Engineer/s who shall decide the correct version of the two.
- 1.8 No addition or alteration that will result in a change order from the contract shall be allowed without the approval of the PGH Administration. The Contractor shall bring the case to the OETS Project Engineer/s.
- 1.9 One set of the Plans, Specifications and Log Book shall always be kept at the jobsite to be available to the Project Inspector or his representative upon his request during the construction period.
- 1.10 Prior to the installation of any item or material the Contractor shall submit sample with complete specifications to OETS for evaluation. In case of testing, the Contractor shall notify the OETS and End-user at least one week in advance of making the required tests so that the arrangements can be made for their presence to witness the tests. The necessary materials, labor, devices and all others required to conduct such tests at no additional cost the Owner.
- 1.11 The Contractor is solely responsible for the safety, protection, and security of his personnel, the works, equipment, installations and the like. The Contractor shall adopt or apply the protective measures in accordance with the standards set by the Safety Organizations and the Department of Labor Standards.
- 1.12 The Contract Period of this project is **FORTY FIVE (45) CALENDAR DAYS.**

2. SITE WORKS

2.1 Dismantling

The procedures proposed for the accomplishment of salvage and demolition or removal works shall be submitted for approval. The procedures shall provide for safe conduct of the work, removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress and timely disconnection of utility services.

2.2 Scope of work

- a. Dismantle, hauling and disposal of dilapidated GI roofing and other construction debris.

3. ROOFING WORKS

3.1 Scope of Works

- a. Furnish materials and equipment and perform labor required to complete fittings and installation of Galvanized Metal Roofing with Heat Insulation, Flashing, Ridge Roll, Gutter Fascia Board and fixing hardware and other materials to make the roof watertight and leak proof.

3.2 Materials

- a. Panels shall be Gauge #24 (0.60mm), Pre-painted, long span metal roofing.

Roof components:

- Base Metal : Cold rolled steel
- Tensile Strength : 550Mpa (880,000 psi), 275 Mpa (40,000 psi) per JISG 3302 and ASTM 446, Commercial quality.
- Temper : Available in full hard and annealed.
- Nominal Width : 1.070m
- Effective Width : 0.995m
- Substrate : Zinc-aluminum coated complying with ISO-14788
- Paint Coating : Zinc Phosphate, and oil free polyester paints. Oven baked to achieve full curing of organic coating to meet PNS 201; 1990 and JISG 3312 requirements.
- Standard Coating :

Top Coat	15 - 18 Microns
Primer Coat	5 - 7 Microns
Service Coat	5 - 7 Microns

- b. Bended Accessories

- Ridge/Hip Roll and Flashing shall be gauge 24 (0.60mm), pre-painted, pre-bended, metal sheet.
- Gutter shall be gauge 24 (0.60mm) Stainless Steel, Spanish Type.
- Miscellaneous roof accessories shall be gauge 24 (0.60mm) pre-painted, pre-bended, metal sheet.

3.3 Installation

- a. In accordance with manufacturer's approved installation instructions, and approved drawings, except as specified otherwise. Install panels in full and firm contact with each other at 2-1/2 corrugation side overlap.
- b. Where panels are cut in field or where factory-applied coating is damaged and necessary repairs have been made with material of the same type and color as finish coating.
- c. Remove defective materials.

3.4 Heat Insulation

The heat insulation material shall be a light weight, pliable insulation, consist of one (1) compact layers of first grade high density polyethylene (HDPE) air bubble pockets sandwiched between one side of high reflective pure aluminum. The insulation shall have a Reflectivity of 97% and R-Value: 9.2.

4. MISCELLANEOUS WORKS

4.1 Construction of Storm Drainage Line

- a. Construction of Catch Basin
- b. Provision of downspout
- c. Laying of storm drainage pipe
- d. Materials

-Downspout and Drainage Pipe shall be PVC, S1000, Color: Orange.

-Catch Basin

Use 4" thick Concrete Hollow Block (CHB).

Cement shall be Portland Cement, Type I, C-150, all throughout.

Fine aggregate shall be washed sand.

Coarse aggregate shall be gravel or crushed stone.

Reinforcement shall be structural grade bars conforming to ASTM specifications

Concrete mixture shall be Class 'B'.

4.2 Eaves Ceiling

- a. Ceiling shall be 6mm thick Cement Board, "Hardiflex". Framing shall consist of light steel channel, double furring, 19mm x 50mm x 0.40mm in thickness, suspended plumb from slab. Framing spacing shall be 0.40m x 0.50m on center both ways. Hangers spacing shall be 1.00m on center anchored to the structural slab.

- b. Air Ventilation shall be wood slats with aluminum mosquito screen.

- c. Installation

-Hangers shall be anchored to the structural slab/trusses with proper anchorage materials.

-No hangers shall be anchored on the piping or ducting.

4.3 Fascia board shall be 25mm thick x 350mm width, Cement Board or S4S, KD Lumber

4.4 Painting

All painting works shall be done with the use of First Class or Class "A" quality paints. Before any painting is done all surfaces shall be cleaned, smoothed and freed from dust,

dirt, grease, mortar, rust and other foreign substances where paint shall be spread evenly and carefully.

Touch up knots, pitch streaks and sappy spots where finish calls for interior /exterior paint. Fill carefully all cracks, nail holes and other defects with putty.

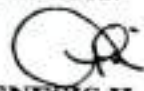
Schedule of Paint Application:

- a. Ceiling – Flat wall enamel paint three (3) coats
- b. PVC Downspout – Semi-gloss latex paint in three (3) coats

Prepared by:


ENGR. LORNA V. GRAVOSO
Head, Project Management Unit-OETS

Favorably Endorsed:

 12 Oct 2017
ENGR. GENESIS H. JIMINEZ
Chief, OETS

Recommending Approval:

 12-20-2017
A'ERICSON B. BERBERABE, MD
Coordinator for Flagship & Special Projects


MARIA TERESA JULIETA U. BENEDICTO, MD
Deputy Director for Administration

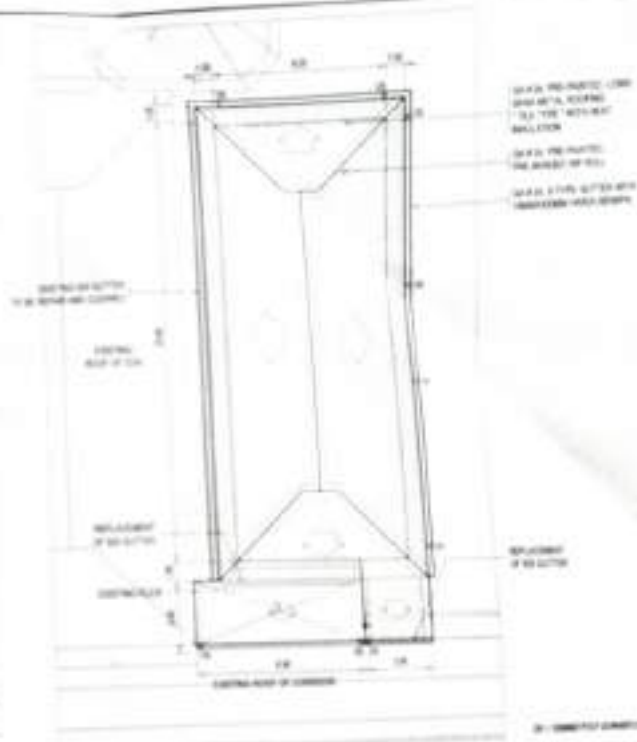
Approved:


GERARDO D. LEGASPI, MD
Director, UP-PGH

SITE



LOCATION PLAN



ROOF PLAN, OLD O.R. BUILDING

Office of Engineering
& Technical Services
Philippine General Hospital
University of the Philippines
Taft Avenue, Ermita, Manila



PROPOSED ROOFING OF OLD O.R. BUILDING

LOCATION: Old O.R. Building, UP-UPGH Compound,
Taft Avenue, Ermita, Manila

DATE: 21-12-2017

APPROVED BY:

DR. JOSE L. LARIN
Head, Project Management Unit

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Head, Project Management Unit

RECOMMENDING OFFICIAL:

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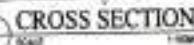
DR. JOSE L. LARIN
Head, Project Management Unit

SHEET NO.

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COURT REPORTERS & RECORDERS

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ASCHOLSON, B. J. 1994. *Phylogeny and Biogeography of the Plant Kingdom*. Cambridge University Press, Cambridge, England.



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RIGHT SIDE ELEVATION
SCALE 1/200

REAR ELEVATION
SCALE 1/200

Office of Engineering
& Technical Services
Philippine General Hospital
University of the Philippines



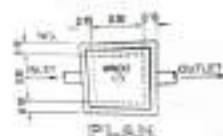
PROJECT TITLE
**PROPOSED ROOFING
OF OLD O.R. BUILDING**
LOCATION: Old O.R. Building, UP-PGH Compound,
Taft Avenue, Ermita, Manila

PREPARED BY
Engr. LARRY Y. SANCHEZ
Head, Project Management Unit
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PROJECT ENGINEER

RECOMMENDING APPROVAL
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Head, Project Management Unit

APPROVED
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DATE
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DETAIL OF CATCH BASIN (CB)
SCALE 1/200

STORM DRAINAGE LAY-OUT
SCALE 1/200



Office of Engineering
& Technical Services
Philippine General Hospital
University of the Philippines
Tafel Avenue, Ermita, Manila



PROJECT TITLE
**PROPOSED ROOFING
OF OLD O.R. BUILDING**
LOCATION: Old O.R. Building, UP-PGH Compound,
Tafel Avenue, Ermita, Manila

CAD BY: Danilo Plaza

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PREPARED BY
J.S. (Jr.)
Project Management, Inc.
INCORPORATED
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RECOMMENDING APPROVAL
APPROVED BY: [Signature]
COORDINATOR FOR TAPPING & SPECIAL PROJECTS
APPROVED BY: [Signature]
DEPUTY CHIEF OF ADMINISTRATION

APPROVED
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