TERMS OF REFERENCE & TECHNICAL SPECIFICATION

CONVERSION OF THREE STOREY BLDG.INTO INTERIM BLDG. for College of Medicine at BPSU Main Campus

F.Y. 2023-2024

TERMS OF REFERENCE

DESIGN AND BUILD

PROJECT NAME: CONVERSION OF THREE STOREY BLDG. INTO INTERIM BLDG. for College of Medicine at BPSU Main Campus

LOCATION: BATAAN PENINSULA STATE UNIVERSITY (Main Campus) Balanga City, Bataan

SECTION 1: THE PROJECT

PROJECT NAME:	**CONVERSION OF THREE STOREY BLDG. INTO INTERIM BLDG. for College of Medicine at BPSU Main Campus**
LOCATION:	**BATAAN PENINSULA STATE UNIVERSITY (Main Campus) Balanga City, Bataan**
APPROVED BUDGET FOR CONTRACT (ABC):	**PHP 7,531,165.47**
TOTAL BUILDING FLOOR AREA:	**2,446 sq.m**
PROJECT DURATION:	**150 Calendar Days**

GENERAL SCOPE OF WORK:

Conversion of Three Storey Building into INTERIM Building for College of Medicine at BPSU Main Campus with the following work breakdown:

1. **General Requirements**
   a. Mobilization and Demobilization
   b. Temporary power and Water supply
   c. Site Security, Health and Safety
   d. Construction Aids, Equipment and Service Rentals
   e. Cleaning and Waste Management
   f. Miscellaneous

2. **Architectural Works:**

   a. Masonry Works
      - Door opening
      - Laboratory's sink repair
   b. Painting Works
      - Exterior and Interior Wall
      - Repainting of Ceiling
   c. Tiling Works
   d. Ceiling Works
      - Repair of Ceiling
   e. Supply and Installation of Doors
   f. Repair of Existing Door Knob & hinges and Door Leaf
   g. Landscape Plant Box
   h. Faculty Room Drywall Partition

i. Outdoor Signage
   - Interim Building & College of Medicine
j. Hazardous Storage Cabinet (third floor)
k. Roof deck Canopy (Metal Framing with Polycarbonate)
l. Miscellaneous

3. Electrical Works:

1. Cable laying and conduit laying
2. Installation of panels and breakers
3. Installation of lighting fixtures and power fixtures
4. Termination
5. Testing and commissioning
   a. Single phase design
   b. Service Entrance included
   c. Design of
      i. Service Entrance
      ii. Ground, Second, Third Floor Lighting Layout
      iii. Ground, Second, Third Floor Power Layout
      iv. Schedule of Load computation
      v. Single line diagram
      vi. Notes and Specification
      vii. Legends and Symbols
   d. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Professional Electrical Engineer (PEE)

4. Plumbing Works

a. Rehabilitation of Water lines
b. Replacement of Faucet and Additional Service Faucet
c. Supply and Installation of additional and Replacement plumbing fixtures & Fittings (as per approval) (Water closet & Bidet)
d. Pipe Cleaning /Flushing (Sanitary line)
e. Sanitary and water line of Laboratory Table
f. Additional Net for Sanitary Line Connected to Storm drain
g. Roof deck Downspout /Drain repair pipe layout
h. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Master Plumber

5. -

a. -
b. -

6. INTERIOR FURNITURES & FIXTURES

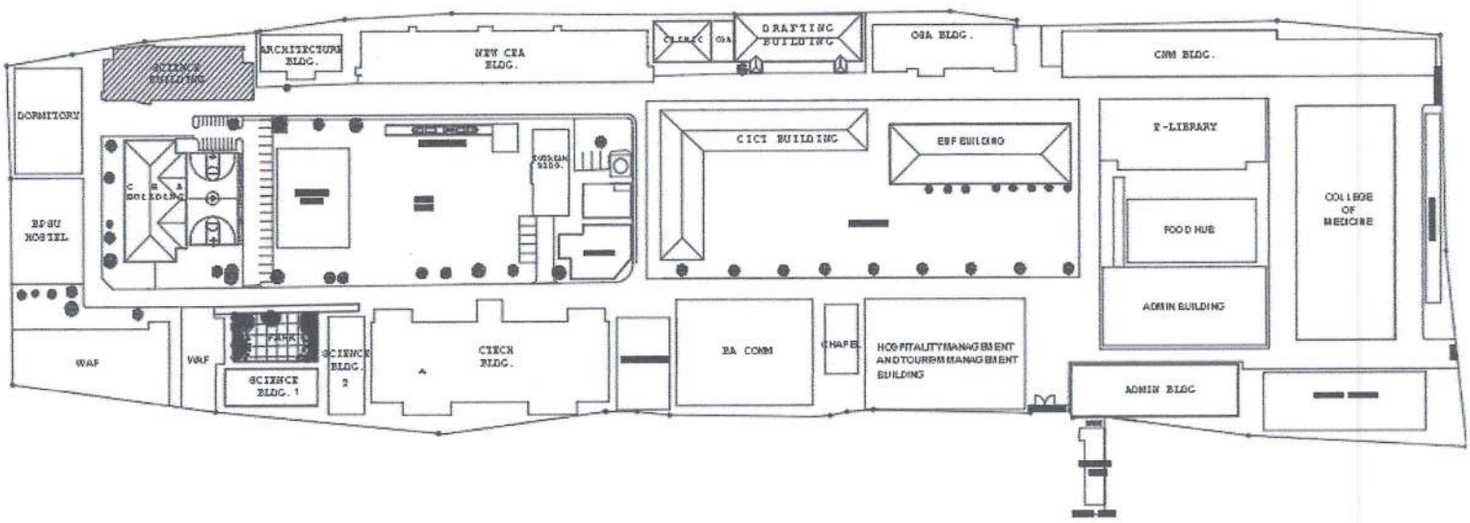
a. Supply and Installation of INTERIOR FURNITURES & FIXTURES

Note: Verify the Actual Numbers of Furnitures and Fixtures as per Architect / Engineers Approval.

7. GASLINE WORKS

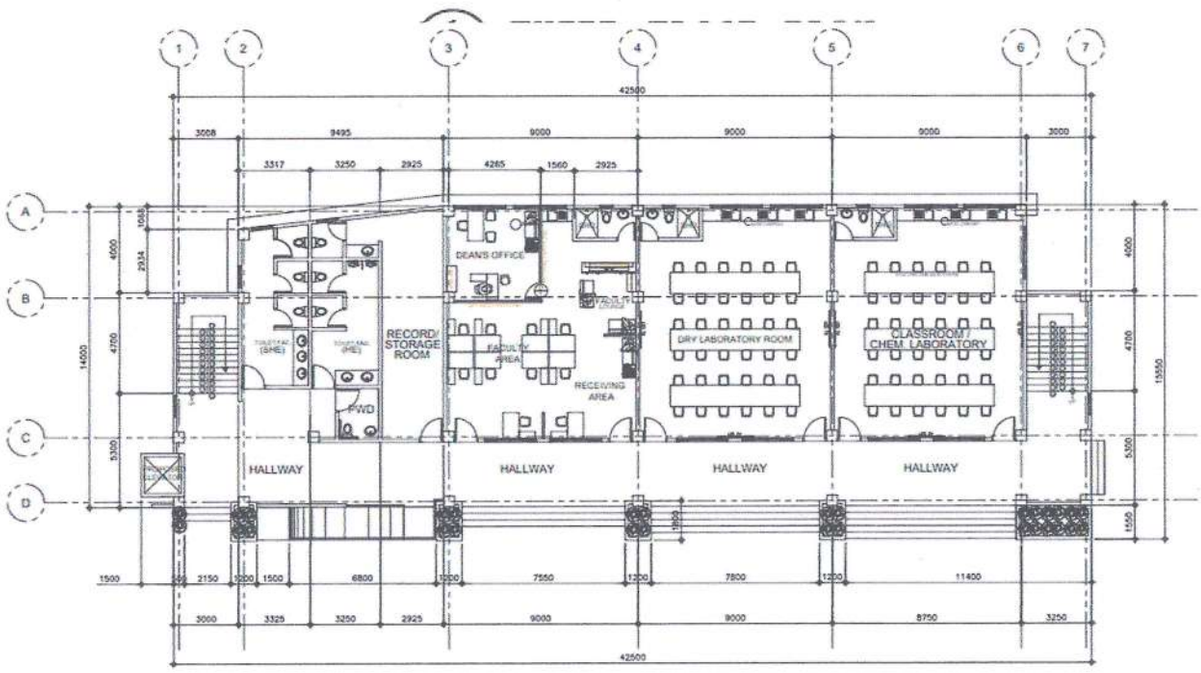
a. Supply and Installation of GAS lines
b. Fume hood Duct Installations and accessories
c. Termination
d. Testing and commissioning
e. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Master Plumber

SITE LOCATION:

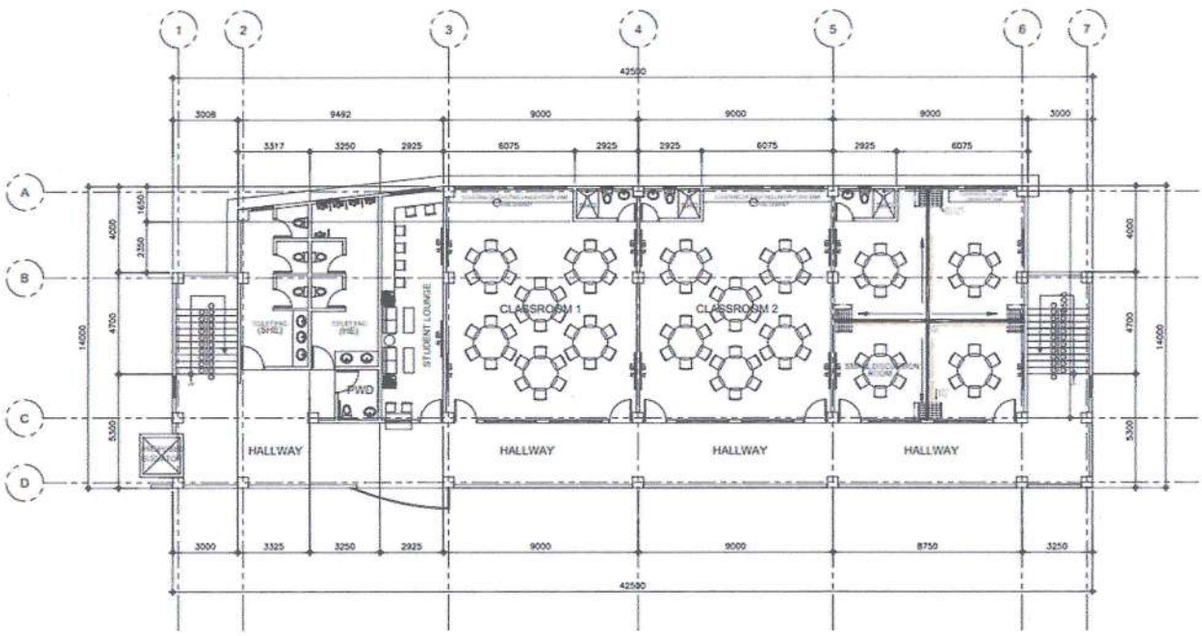


3 / A-1 PROPOSED INTERIM BUILDING FOR COLLEGE OF MEDICINE
SITE DEVELOPMENT PLAN
SCALE NTS.

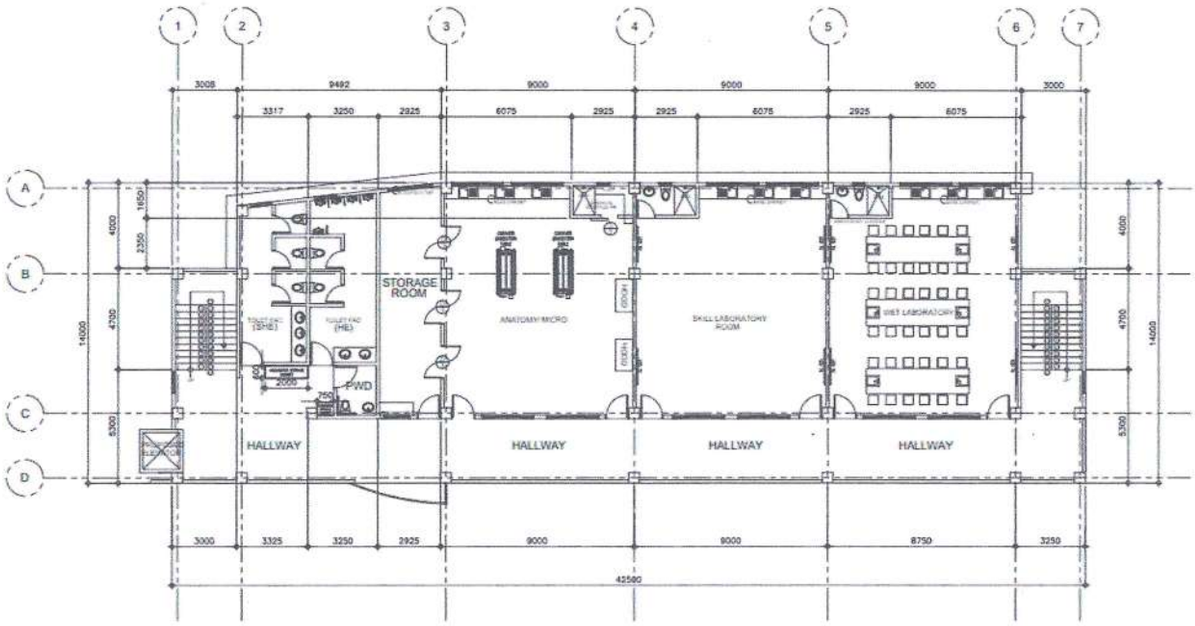
PROPOSED BUILDING:



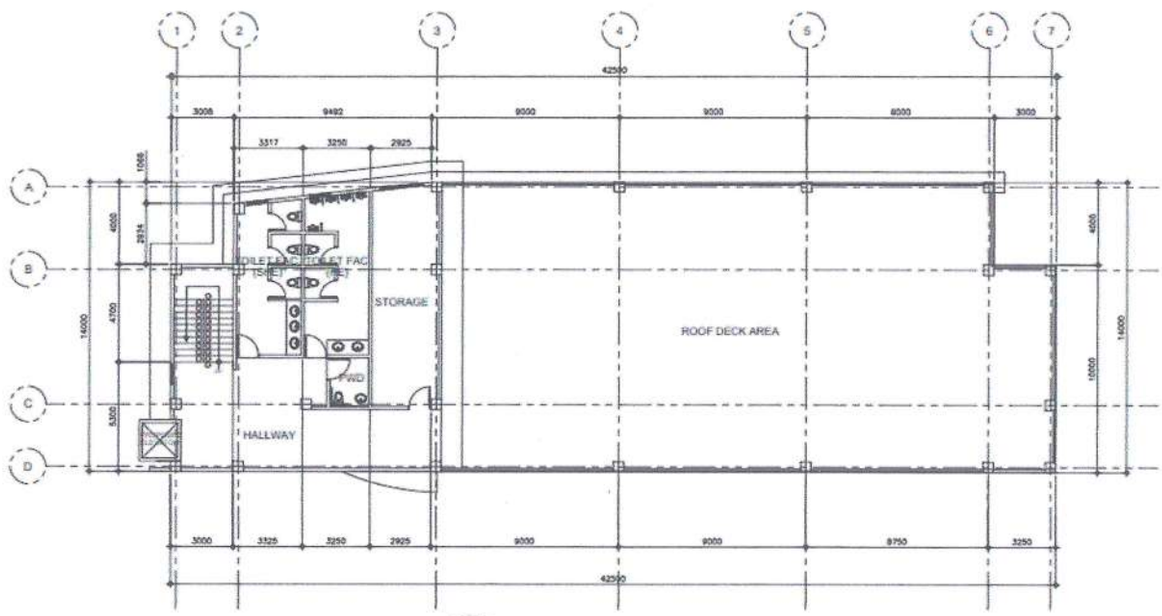
1 / A-2 **GROUND FLOOR PLAN**
SCALE 1:100MTS.



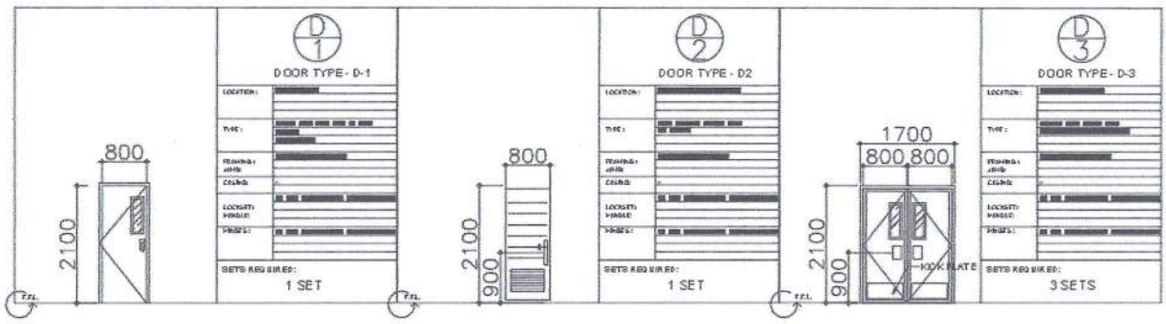
1 / A-3 **SECOND FLOOR PLAN**
SCALE 1:100 MTS.



1 / A-4 **THIRD FLOOR PLAN**
SCALE 1:100MTS.



1 / A-5 **ROOF DECK PLAN**
SCALE 1:125MTS.



2 / A-5 SCHEDULE OF DOORS
SCALE NTS.

Note:
See Electrical Layout, and Gas line Layout.

Project Description:

Conversion of Three Storey Building into INTERIM Building to cater the Launching of the Upcoming College of Medicine Students

II. OBJECTIVES:

1. To provide a background information regarding the proposed project which should be handled in the shortest possible time, at an acceptable quality and performance to the contractor.
2. To outline the "Scope of work" that has to be performed under the terms of its contract.
3. To establish a gender-neutral facilities
4. To create a Safe, Functional and Energy Efficient Building considering all specification given and space requirements and ready to use building.

- END OF SECTION -

SECTION 2: THE PROCUREMENT AND IMPLEMENTATION OF CONTRACTS FOR INFRASTRUCTURE PROJECTS

The guidelines for the procurement and implementation of contracts for infrastructure projects shall be govern by the Annex "G" of the 2016 Revised Implementing Rules and Regulations of RA 9184 otherwise known as the "Government Procurement Reform Act"

-END OF SECTION -

SECTION 3: TECHNICAL SPECIFICATIONS

DIVISION 01: GENERAL REQUIREMENTS

1. The work covered under this Contract consists of the furnishing all materials, labor, equipment, transportation, incidentals, facilities, and superintendence necessary to complete the project.

2. The Contractor is expected and required to attend the important phases of the bidding process of the said project. All concerns and questions shall be discussed on the Pre-Bid Phase.

3. The Contractor shall be responsible for carefully examining, comparing and verifying the data furnished by the Plans and specifications, the Contractor shall submit the matter to the Architect or his authorized representative for the proper explanation or necessary correction, before any adjustment shall be made. Any adjustment by the Contractor without such determination shall be at his risk and expense.

4. Omitted or wrongly described details of work, which are manifestly necessary to carry out the true intent of the drawings and specifications, shall be performed as if fully and correctly set forth and described in the drawings and specifications.

5. The procuring entity may, from time to time, make changes in the specifications and construction drawings. However, if the cost to the Contractor shall be materially increased by such change, the Procuring Entity shall pay the Contractor for the reasonable cost in accordance with the changes.

6. The contractor shall comply with the laws, City or Municipal Ordinances and all government specifications and regulations in so far as they are binding upon or affecting the portion the work hereto. The Contractor or those engaged thereon shall obtain all necessary licenses and permits and pay all taxes or fees, which may due to the local and/or National Government in connection with the prosecution of the work. He shall also be responsible for all damages to persons or property that may occur.

7. Unless otherwise specified, all materials shall be new and free from defects and imperfection. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall be performed in the best and acceptable manner in strict accordance with the requirements of the Plans and Specifications. Preference will be given to articles or materials that are locally manufactured, conditions of quality and price being equal.

8. When called for by the Architect, the Contractor shall furnish, for approval, full information and satisfactory evidence as to the kind and quality of materials or articles he will incorporate in the work. The contractor shall furnish, for Architect's approval, all samples when so directed.

9. The work shall be in accordance with approved samples. Materials and articles installed or used without such approval shall be at the risk of subsequent rejection. Any failure on the part of the Contractor to conform use materials that are not specified herein shall be under subsequent rejection, unless subject for approval.

10. Any alteration or revision of material usage without approval from the Architect shall make the Contractor responsible and liable in terms of guarantee, workmanship and defects.

11. Workmanship shall be in accordance with the best standard practices and all operations required under any and all parts of the Specification shall be undertaken in a neat, workman-like manner. Only skilled personnel with sufficient experience in similar operations shall be allowed to undertake the same.

12. Any alteration or revision on the execution of drawings without approval from the Architect shall be under subsequent rejection and shall make the Contractor responsible and liable for any workmanship and execution defects.

13. Defective workmanship shall be remedied by the Contractor, at his expense. He shall not be entitled to any payment hereunder until defective workmanship has been remedied.

14. The Contractor shall provide and maintain adequate weather-tight facilities with water, light, and toilet facilities. He shall keep such places clean and free from flies. He shall remove all connections and appliances connected there with prior to the completion of the Contract and leave the premises perfectly clean.

15. The Contractor shall furnish all temporary water, lights and power and shall pay all expenses in connection therewith. Furthermore, the Contractor shall provide and pay for all water expenses for building purposes that are required by all trades.

16. The Contractor shall put up safety measures and continuously maintain adequate protection of all his work from damage and shall protect the Procuring Entity's property, as well as all materials furnished and delivered to him by the Entity. He shall make good any such damage, injury or loss, except such as may be caused by agents or employees of the Procuring Entity, or due to causes considered as an Act of God.

17. The Contractor shall enclose the site he possessed by a security fence with gate. See-through security fence shall not be allowed.

18. With respect to the construction of the buildings and other structures, the design and specifications shall conform to the standards set by:

a. Department of Public Works and Highways (DPWH)
b. National Building Code of the Philippines (NBCP)
c. National Structural Code of the Philippines, 2010
d. Electrical Code of the Philippines
e. Sanitary Code of the Philippines
f. Plumbing Code of the Philippines
g. Accessibility Law
h. Fire Code of the Philippines
i. Environmental Impact Statement as defined by the DENR other Engineering Standards.

DIVISION 02: SITE CONSTRUCTION

SEC. 02100 SITE PREPARATION:

SCOPE
Furnish equipment and perform labor required to complete demolition of the existing structures, removal of salvaged materials, and disposal of resulting trash, waste, and other vegetation. See drawings for area coverage of work involved.

EXAMINATION OF SITE
Visit the site of the work and examine the premises to fully understand all existing conditions relative to the work. No increase in cost or extension of performance time will be considered from failure to verify and know actual site conditions.

PERMITS
Secure and pay for all necessary permits needed for the work.

PROTECTION
Protect adjacent properties, persons, shrubs, trees, lawns, structures, and utilities against harm or damage.

DISPOSAL OF MATERIALS
1. All salvageable material shall remain the property of the Owner. Hauling and stacking of salvaged materials within a 300-meter radius to Owner's specified storage shall be at the account of the Contractor.
2. All debris and other materials resulting from the demolition work shall be immediately removed from the premises and dumped at sites provided by the Contractor in a manner approved by the Architect.

DEMOLITION
1. Demolish and remove from site existing structures and other obstructions within the building and as indicated in the plans.
2. Where existing concrete on ground is to be demolished, remove all existing concrete and other obstructions to a depth of 300 mm below grade.
3. Cap all existing utility lines. Consult Owner before commencing work.

REPAIRS
Repair damage done to property of any person or persons on or of the premises, by reason of the required work for Demolition. Clearing and Grubbing.

DIVISION 02– MASONRY

I.DELIVERY, HANDLING, STORAGE AND PROTECTION

A. MASONRY UNITS

Immediately upon delivery to site, concrete masonry units shall be stocked on platforms or stored in such manner as to protect them from contact with soil or weather. Care in handling masonry units shall be exercised to avoid chipping and breakage. Storage piles, stacks or bins shall be protected from unnecessary traffic construction operations or any kind of damage.

B. LIME AND CEMENT MATERIALS

Cement and lime shall be stored off the ground under weather-tight cover and away from sweating walls and other damp surfaces until ready for use. Damage or deteriorated materials shall be removed from the premises.

II.PRODUCTS/MATERIALS

A. CONCRETE HOLLOW BLOCK

Unless otherwise indicated or specified, concrete hollow blocks shall be in modular dimensions. Block shall be standard machine vibrated and shall have fine, even texture and well-defined edges. The load bearing concrete hollow blocks shall have a minimum compressive strength of 1000 lbs. per sq. inch computed from the average of three (3) units based on the average gross area and a minimum of 700 lbs. per sq. inch for the individual unit. For the non-load bearing, 350 lbs. per sq. inch computed from the average of five (5) units based on the average gross area, and a minimum of 300 lbs. per sq. inch for the individual unit.

B. CEMENT

1. Cement shall be PORTLAND CEMENT conforming to ASTM Specifications C-type I.
2. Water for mixing shall be clean, portable and free from injurious amounts of oils, soluble salts, acids, alkalis of organic matter, or other deleterious substances.
3. Sand shall be clean, hard natural sands and free from deleterious substances.
4. Lime shall be Type S; ASTM Specifications C207 for hydrated lime for masonry purpose or quick lime for structural purposes C-5.

C. REINFORCEMENT

1. Lintel and vertical reinforcing bars shall conform to ASTM Specifications A-15 "Specifications for Billet Steel Bars of Concrete Reinforcement". Allowable fs = 18,000 psi.
2. Horizontal reinforcing bars shall conform to ASTM Specifications A-82.

D. At door openings, unless otherwise shown on details, the jamb blocks and beam blocks over opening and below window sill shall be reinforced as follow:

1. Jamb blocks for 100 mm and 150-mm thick walls use two (2) 10-mm ø bars.
2. Jamb blocks for 200-mm thick walls use two (2) 12-mm ø bars.
3. Beam blocks below window sill, use two (2) 12-mm ø bars for 100 mm, 150 mm and 200-mm thick walls.

DIVISION 03–METALS

SEC. 05100 STRUCTURAL STEEL

1. Materials And workmanship shall be in accordance to the requirements of the American Institute of Steel Construction "Manual of Steel for Bridges & Buildings" and American Steeland Iron Institute. All welding materials and workmanship shall conform to the requirements of the American Welding Society.