



TERMS OF REFERENCE & TECHNICAL SPECIFICATION

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 / Engineer, 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 / Engineer 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 / Engineer shall be under subsequent rejection and shall make the Contractor responsible and liable for any workmanship and execution defects.



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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)
 - i. DO_39_S2020
 - b. National Building Code of the Philippines (NBCP) National Structural Code of the Philippines, 2010
 - c. Philippines Electrical Code (PEC)
 - d. Sanitary Code of the Philippines
 - e. National Plumbing Code of the Philippines
 - f. Philippine Mechanical Engineering Code (PMC)
 - g. Accessibility Law (BP344)
 - h. Fire Code of the Philippines (RA 9514)
 - i. Philippine Environmental Code (P.D. 1152)



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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.

VERIFICATION OF EXISTING CONDITIONS

- 3.) Verify and examine the site of work to familiarize with the character of materials to be encountered and all other existing conditions affecting the work.

SUBSTITUTION OF MATERIALS

Should the contractor desire to substitute any material or brand or manufacturer other than those specified material proposed, the substitution must be equal or superior in quality to the material specified in the specifications. The Contractor shall submit to the Architect or Engineer a written request signed by Material Engineer for approval for the proposed substitution and if possible, shall be accompanied by samples of the proposed substitution.



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DIVISION 03– MASONRY

SEC. 03100 DELIVERY, HANDLING, STORAGE AND PROTECTION

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.

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.

SEC. 03200 PRODUCTS/MATERIALS

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.

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.

REINFORCEMENT

1. Lintel and vertical reinforcing bars shall conform to ASTM Specifications A-15 "Specifications for Billet Steel Bars of Concrete Reinforcement". Allowable f_s = 18,000 psi.
2. Horizontal reinforcing bars shall conform to ASTM Specifications A-82.
3. Use Structural Steel for connection to existing Multi-purpose Hall Building. See plans for reference.



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DIVISION 04– METALS

SEC. 04100 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 Steel and Iron Institute. All welding materials and workmanship shall conform to the requirements of the American Welding Society.
2. Steel required for this structure should conform to ASTM A-36 for structural grade unless otherwise noted in plans or in the specifications

SEC. 04200 SHOP PAINTING

1. Paint shall be delivered to the shop and job in original sealed containers, which shall be clearly marked with the manufacturer’s name and the identifying brand number or name. The paint to be used as prepared by the manufacturers shall be without thinning or another admixture.
2. All paintings shall be done on dry surfaces, free from rust, scale, and grease. Steel shall be flame-cleaned in the shop to remove mill scale. Surfaces in contact shall be cleaned by effective means but painted, except that the contact surfaces of exposed exterior steel, such as tank supports, shall be painted.
3. All steel, except where it is to be encased in concrete shall receive one coat of shop paint. (Surfaces that are to be field welded shall not receive a shop coat.) The shop coat shall be two (2) coats of epoxy-based primer with two (2) coats of topcoat. Primer color shall be different color tone from the topcoat in order to distinguished level of application.
4. All rivets, bolts, field welds and serious abrasions to the shop coat shall be spot-painted with the material for the primer coat.
5. Steel encased in concrete shall not be painted. However, steel with only furring (plaster on exposed metal) shall be painted.

SEC. 04300 RAILINGS

STAIR RAILING MATERIAL

1. Use 316L 2” dia. Stainless Steel Pipe for Handrail and newel post
2. Use 316L 1 1/2” dia. Stainless Steel Pipe for Baluster and Horizontal pipe

DIVISION 05– THERMAL AND MOISTURE PROTECTION

SEC. 05100 WATERPROOFING

Use 2-Ply Modified Bitumen Membrane Waterproofing for use in all suspended toilets.

1. Apply water proofing to all canopies
2. Apply water proofing to all wall of toilet facility
3. Apply water proofing to all cold joints



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DIVISION 06– METAL ROOFING

SEC. 06100 SCOPE OF WORK

Furnish materials, equipment and perform labor required to complete fitting and installation of metal roofing, flashing components, strap and rivet units as the application of supplementary materials to make the roof unit water tight and leak proof.

SEC. 06200 MATERIALS

1. Metal Sheet Roofing – rib type pre-painted (white color with zinc-aluminum alloy coated steel complying with ASTM A792 GA. 24 for roofing.
2. Flashing, Trims and Mouldings – GA.24 pre-painted with zinc-aluminum alloy from plain sheets, performed with matching shape and fitting provisions as per drawings.
3. Fasteners and Fixation – Use appropriate connectors recommended by the manufacturer and approved by the Architect / Engineer. Paint same color as roof, all exposed fixation consistent, even and standard manner. Apply strip of butyl rubber-based caulking compound along all end lap joints and passing over pre-drilled fixation holes. For fixation of metal sheet to “C” purlins and when lapped over another metal sheet. For fixation of flashing, use ‘tekscrews’ for roof eaves area where roof frames are exposed.
4. Use stainless gutter Ga. 24 with screen
5. See structural plans for truss details

DIVISION 07– DOORS AND WINDOWS

SEC. 07100 SCOPE OF WORK

Furnish materials and equipment and perform labor required to complete:

1. Supply and Installation of metal doors and door jamb with lockset, hinges and doorknob
 2. Supply and Installation of Unplasticized Polyvinyl Carbon (uPVC) Windows color white
- See drawings and schedules for sizes, details and location of required work.
3. Supply and Installation of Roll-up doors

DIVISION 08– FINISHES

This Division applies to all specifications of the Finishes for the Proposed Project.

SEC. 08100 FLOORING

Furnish materials and equipment and perform labor required to complete all types of tiling work and stone works.

1. Use Ceramic Vitrified Tiles, see drawings and details for location and extent of work required.



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SEC. 08200 CEILING

Furnish materials and equipment and perform labor required to complete all types of ceiling works.

1. CF-1 – Use 4.50mm x 1200mm x 2400 mm Fiber cement Board
2. CF-2 – Use PVC Ceiling panel wood finish
3. CF-3 – Use Spandrel wood grain finish

SEC. 08300 WALL FINISHES

1. Wall tiles of toilet facility is from floor to ceiling including 100mm CHB Wall partition.
Use Ceramic Tiles.
Color: subject for Architect's Approval
2. Supply and Installation of Vanity Mirrors to Female and Male Comfort Rooms
3. Use aluminum Composite Panels, see drawings for location and extent of work required.

SEC. 08400 PAINTS AND COATINGS

1. For Interior and Exterior Masonry Wall:
 - a First Coat: Flat Latex, 10% Acrylic, water-based Masonry Putty
 - b. Second and Final coat: Semi-gloss Latex PaintPaint colors: Subject for Architect's Approval for wall paint color and base board paint color
2. For Fiber Cement board:
 - a. First Coat: Flat Latex, 10% Acrylic, water-based Putty
 - b. Second and Final coat: Semi-gloss Latex PaintPaint colors: Subject for Architect's Approval
3. For Metal Surface and wood surface:
 - a. Use Epoxy Primer Gray, finish with two (2) coats Quick Drying Enamel (QDE)Paint colors: Subject for Architect's Approval

Note:

All exposed finish hard wares, plumbing fixtures and accessories, lighting fixtures and accessories, glasses and the like shall be adequately protected that these are not stained with paint and other painting materials prior to painting works. All other surfaces which would be endangered by stains and paint marks should be taped and covered with draft paper or equal.

Protect the work and adjacent work and materials at all times by a suitable covering or by other methods. Upon completion of the work, remove paint and varnish spots from floors, glass and finish hardware.

SEC. 08500 ROOM MARKER, FIXED WHITEBOARD AND SIGNAGES

1. Room marker – Use Acrylic Signages for all Rooms, CR and way finding signages
2. Building Marker – Use the standard BPSU Building Marker