orders for material for finishing works shall be made without his approval.

3. Samples of all walls finishes, measuring not less than 1000mm x 1000mm shall be submitted to the Engineer for approval as to its finish texture and workmanship.

**GRANITE TILES**

a. Selected granite slabs for toilet countertops, fascia and splashboard. Dimensions as shown on the drawings.

b. Shall be sound material with uniform and favorable working qualities and with very limited natural faults.

c. Color, veining and quality shall be approved by Engineer.

d. Veining shall run vertically on all vertical surfaces and direction of veining shall continue in same directions over horizontal surfaces except as directed by the Engineer.

e. Sealer

e. 1. Shall be a commercial penetrating type free from harmful alkali or acid content specially prepared for marble work
e. 2. Shall have a Ph factor between 7 and 9
e. 3. Shall not discolor
e. 4. Shall produce a slip resistant surface
e. 5. Shall have a flash point not less than 35 °C

f. Cleaning fluid

f. 1. Shall be commercial neutral liquid type especially prepared for marble work
f. 2. Shall have a Ph factor between 7 and 9
f. 3. Shall be free from crystallizing salts or water soluble alkaline salts
f. 4. Shall be biodegradable and phosphate free

INSTALLATION OF DOORS / GLASS PANELS

1. Surface Preparation

Ensure surfaces to receive panels are structurally sound, even, smooth, clean, dry, and free from defects detrimental to work.

INSTALLATION OF WINDOWS

1. Surface Preparation

Ensure surfaces to receive panels are structurally sound, even, smooth, clean, dry, and free from defects detrimental to work.

Mirror Glass

Mirror glass shall be of high quality float glass free from imperfections and impurities, 6.3 mm (1/4 inch) thick. Silvering shall be performed by modern continuous operation under controlled conditions. The coating shall be of pure silver and of adequate thickness to provide reflectivity of 83% or more of incident light, and shall be without pinholes or other defects visible to the naked eye.

Refer to plans for locations, dimensions and details.

# ITEM 12 : ELECTRICAL WORKS

## GENERAL DESCRIPTION

The work to be done under this Item of Specifications consists of fabrication, furnishing, delivery and installation, complete with all specifications of electrical work, in the subject area and all work materials related to the proper completion of the installation, except for those parts of the work that are expressly stated to be performed by others. All works shall be in accordance with the governing Codes and Regulations and the Specifications, except where the same is contrary to such codes, etc., as will later govern. The requirements regarding the materials and equipment required for the complete installation of the work specified herein and indicated on the drawings. The Specifications are intended to provide a broad outline of the equipment required, but are not intended to include all details of design and construction details.

## WORK INCLUDED

The work to be done under this Item shall include the furnishing of all tools, labor, supervision, equipment, fixtures and all necessary materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in this specifications but not limited to the following items of works.

a. All works and material for a complete lighting and power systems including cables and conduits, circuit breakers, panel board and connection to all lighting fixtures and power outlets, air condition, switches, supports and accessories.

b. All steel support for conduits, wires, panel board, boxes, lighting fixtures, etc. as indicated or as required to the completion of the installation.

c. Termination of all electrical system and the complete grounding system.

d. A complete testing and commissioning of all electrical and auxiliary systems. The Contractor shall provide all necessary testing instruments.

e. All items incidentals to and or required for the proper completion such as painting of boxes, conduits and the likes.

f. Coordination with other companies/offices including handling of all material related to material testing and application of electrical permits in the expense of the Contractor.

g. Preparation of necessary shop drawings required for the proper execution of the works subject to the approval of the Engineer.

## SUBMITTALS

Obtain approval before procurement, fabrication or delivery of items to the job site. Partial submittals will not be entertained and will be returned without review. Submittals shall include the manufacturer's name, trade name, place of manufacturer, catalogue model of number, nameplate data, size, layout dimensions, capacity, project specification and paragraph reference and technical society publication references, and other information necessary to establish contract compliance of each item to be furnished.

a. Shop Drawings

In addition to the requirements of the contract clauses, shop drawings shall meet the following requirements:

1. Drawings shall be a minimum of 210 mm x 297 mm in size or in A3 size, except as specified otherwise.

2. Drawings shall include wiring diagrams and installation details indicating the proposed location layout and arrangement, control panels, accessories, and other items that must be shown to assure a coordinated installation.

3. Wiring diagrams shall identify circuit termination and the internal wiring for each item of equipment and its interconnection.

4. Drawings shall indicate adequate clearances for operation, maintenance and replacement of equipment devices. If the layout is disapproved, revise the layout and resubmit.

b. Manufacturer's Data

Submittals for each manufactured item shall include manufacturer's descriptive literature, equipment drawings, diagrams, performance and characteristic curves and catalog cuts. Each submittal shall have the manufacturer's name, trade name, catalogue model or number, name plate data, size, layout dimensions, capacity, specification references and all other information necessary to establish contract compliance.

c. Standard Compliance

When material or equipment must conform to the standards of organizations such as American National Standard Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturer's Association (NEMA) and Underwriters Laboratories (UL), proof of such conformance shall be submitted to the Engineer for approval.

If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence, unless otherwise specified in the individual sections. In lieu of the label or listing, the Contractor shall submit a certificate from an independent testing organization, which is competent to perform acceptable test and is approved by the Engineer. The certificate shall state that the item has been tested in accordance with specified organization's test methods and that the item conforms to the specified organization's standard. For materials and equipment whose compliance with organizational standards or specifications is not regulated by an organization using its own listing or label as proof of compliance, a certificate of compliance from the manufacturer shall be submitted for approval.

The certificate shall identify the manufacturer, the product and the referenced standard and shall simply state that the manufacturer certifies that the product conforms to all requirements of the project specification and of the referenced standards listed.

**DELIVERY AND STORAGE**

Equipment and materials shall be properly stored and adequately protected and carefully handled to prevent damage before and during installation. Equipment and materials shall be handled, stored

and protected in accordance with the manufacturer's recommendations and as approved by the Engineer. Electrical conduit shall be stored to provide protection from the weather and accidental damage. Cables shall be sealed, stored and handled carefully to avoid damage to the outer covering or insulation and damage from moisture and weather. Damaged or defective items shall be replaced with new items at no cost to the Owner.

**CATALOGUED PRODUCTS**

Materials and equipment shall be catalogued products of manufacturers regularly engaged in production of such materials or equipment and shall be at manufacturer's latest standard design that complies with the specification requirements. When two or more units of the same type, class and size of equipment are required, these units shall be products of a single manufacturer; however, the component parts of the system need not be the products of the same manufacturer. Each major component of equipment shall have the manufacturer's name, address and the model of the serial number on a nameplate securely affixed in a conspicuous places, the name plate of the distributing agent will not be acceptable.

**MANUFACTURER'S RECOMMENDATIONS**

Where installation procedures or any parts thereof are required to be in accordance with manufacturer's recommendations, furnish printed copies of the recommendation prior to installation. Installation of the items shall not proceed until recommendations are received. Failure to furnish recommendations shall be cause for rejection of the equipment or materials.

**WORKMANSHIP**

The work throughout shall be executed in the best and most thorough manner under the direction of the Contractor and to the satisfaction of the Owner and Engineers, who will jointly interpret the meaning of the drawings and specifications and shall have the authority to reject any work materials which, in their judgment, are not in full accordance therewith

The Contractor shall have on file, for ready access and reference, a set of drawings indicating all work as actually installed incorporating in the same all changes and additions. Upon the termination of the Contract, he shall prepare a set of tracings indicating thereon the Electrical Work as actually and finally installed. These drawings shall be turned over to the Engineers.

The Contractor shall be responsible for keeping stocks of material and equipment stored at the premise in a neat and orderly manner. The exposed surfaces of wirings, conduit system or equipment which have become covered with dirt, plaster or other material during handling and construction shall be thoroughly cleaned by Contractor before such surfaces are prepared for final finish, painting or concealment within the building structure.

The Contractor shall employ skilled craftsmen experienced in installation of the types of electrical materials and equipment specified. Use specialized installation tools and equipment as applicable. Produce acceptance installation free of defects.

**MATERIALS / TESTS**

All materials to be installed shall be brand new and shall conform to specifications except as otherwise noted on the drawings. All materials where not specified shall be of the best of their respective kind. Samples of said material including its manufacturer's data shall be submitted for approval. Necessary tests on the installations shall be made by the Contractor in the presence of the Engineer. These tests shall include but not limited to ground test, performance test, phase sequence test, etc. Records of approved tests result shall be relayed to the Engineer in writing. This Contractor shall within ten (10) days after the award of the contract, submit a list of materials he proposes to use. All materials installed without prior approval shall be at the risk of the Contractor.

## COORDINATION / GUARANTEES / SUSPENSION OR DELAY

The Contractor shall be familiar with the specifications of the other trades and coordinate with them thoroughly so that he can arrange his work and dispose his materials without interfering the work of other Contractors. The Contractor shall guarantee that the electrical systems shall be free from all defects of workmanship and of materials, and that it will remain so for a period of one year from the date of acceptance by the Engineer. Any remedy to correct defects deemed to be caused by such shall be made at the expense of the Contractor.

The Contractor shall not suspend or delay the work without justifiable cause. Subsequent delays shall be deemed as a sufficient cause for penalties or termination of contract in which the Engineer shall have the right to take-over the work and all materials on the site and make arrangements necessary to complete the work. It shall be the sole responsibility of the Contractor to ensure that the Electrical sub-contractor conducts coordination of his activities to other trades.

## SLEEVES / INSERTS / CUTTING / PATCHING

The Contractor shall provide all openings, sleeves, also inserts in walls, floors, and beams as required for his work. All unused openings shall be grouted in. The Contractor shall do all patching requirements necessary and these shall be done so as to exactly match the surrounding area without the evidence of alteration or patching.

## TEMPORARY LIGHT AND POWER

The Contractor shall make all arrangements and pay for the provisions of the necessary electrical power of the type and capacity required for the performance of the work of all trades engaged in the construction of the building.

## CODES, INSPECTION, PERMITS AND FEES

The work under this contract is to be installed according to the requirements of the latest edition of the Philippine Electrical Code, the rules and regulations of the local authorities of Port of Bauan, Batangas and the requirements of local Power Company of First Bay Electric Cooperative.

All necessary permits and electrical fees required for this work shall be obtained by and at the expense of the Contractor. The contractor shall furnish the Engineers and the Owner final certificate of electrical inspection and approval from the proper government authorities after completion of the work. The Contractor shall prepare all as-built and all forms and documents required by the approving authorities.

Power service application including drawings for the work shall be obtained by and at the expense of the Contractor. The Contractor shall comply with all requirements of the utility company regarding service applications.

## ELECTRICAL CHARACTERISTICS

The electrical characteristics for this project shall be 230V, three phase (3Ø) wire, and 60Hz or as per system requirements as shown in the plan.

**CLEANING UP**

The Contractor shall remove all dirt, debris, and rubbish and waste materials caused by him in the process of his work. He shall also remove all tools, temporary power installation, scaffolding and surplus materials after completion and acceptance of work.

***MATERIAL REQUIREMENTS***

**NAMEPLATES**

Provide laminated plastic nameplates for each panel board, switch, and device. Each nameplate inscription shall identify the function and when applicable, the position. Nameplate shall be melamine plastic, 3.2mm thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the black core. Minimum size of nameplates shall be 25mm x 38mm. Lettering shall be a minimum of 6mm, high normal block style.

**EXECUTION**

**NAMEPLATE MOUNTING**

Provide number, location, and letter designation of nameplates as indicated. Fasten nameplates to the device with a minimum of two sheet-metal screws or two rivets.

***INTERIOR WIRING SYSTEMS***

**SUBMITTALS**

a. Shop Drawings: Submit for the following:

1. Location of panel boards and circuit breaker
2. Conduit support / hanger's installation drawing

b. Manufacturer's data: Submit for the following:

1. Circuit Breakers
2. Switches
3. Conduit and fittings (each type)
5. Device Plates
6. Insulated conductors
7. Floor duplex convenience outlet and utility / junction boxes

**PRODUCTS**

**CONDUIT AND FITTINGS**

a. Conduit shall be polyvinyl-chloride conduit (PVC) where specified, shall be heavy wall, high impact resistant Schedule 40, with factory made bends, couplings and fittings. PVC cement for joints shall be of the same brand as for the PVC pipe.

b. No conduits shall be used in any system smaller than 20mm (1/2") diameter electric trade size, nor shall have more than four (4) 90 degree bends in any one run and where necessary, pull boxes shall be provided as directed.

c. No wire shall be pulled into any conduit until the conduit system is completed in all details, in the case of concealed work until all rough plastering masonry has been completed, and in the case of exposed work until the conduit work has been completed in every detail.

d. The ends of all conduits shall have tightly plugged to exclude plaster, dust and moisture while the construction of the building is in progress. All conduits shall be reamed to remove all burrs.

**OUTLETS, BOXES AND FITTINGS**

a. At all outlets whatever kind, for all system, there shall be provided a suitable fitting, which shall be either a box or other device especially designed to receive the type of fitting to be mounted thereon.

b. The Contractor shall consult with the Engineer as to the nature of the various fittings to be used before installing his outlet fittings, and shall conform strictly in the use of fittings, to the nature of the appliance to be mounted on them, so that the work, when the completed will be a finished design.

c. All outlets on concealed conduit work provide galvanized pressed steel outlet boxes on standard make. These boxes shall be in all cases standard and where such boxes are not available on the market, special boxes shall be secured by the Contractor at his owned expense. In general outlet boxes shall be at least 100mm diameter, 53mm deep and No. 16 minimum gauge.

**JUNCTION AND PULL BOXES**

a. Junction and pull boxes, of code gauge steel, galvanized shall be provided as indicated or as required for facilitating the pulling of wires and cables. Pull boxes as finished places shall be located and installed with the permission and to the satisfaction of the Engineer.

b. All junction and pull boxes on exposed conduit work shall be provided with hubs for threaded pipe entry and covers provided with neoprene gaskets.

**WIRES AND CABLES**

a. All wires shall be copper, soft-drawn and annealed, shall be 100% conductivity, shall be smooth and true of a cylindrical form and shall be within the actual size called for.

b. All wires and cables shall comply with the requirements of the Underwriters Laboratories, the ASTM and ICEA as they apply to the particular usage.

c. Wires and cables for power and lighting system shall be plastic insulated for 600 volts working pressure type "THHN/THWN-2" unless otherwise noted on plans or specified.

d. Tag Marking

In general, branch circuit conductors and cables shall be properly marked by means of a printed tag taped on each wire indicating origin/load and or panel(s) where load is connected.

e. Splices and Termination Components

As applicable, for wire connectors and for insulating tapes. Connectors for 5.5 $mm^2$ and smaller diameter wires shall be insulated, pressure-type in accordance with (twist-on splicing connector). Provide solderless terminal lugs on stranded conductors.

## DEVICE PLATES

Provide, one piece device plates for outlets and fittings to suit the devices installed. Plates on unfinished walls and on fittings shall be of zinc-coated sheet steel or cast metal having round or beveled edges. Plates on finished walls shall be satin finish stainless steel or brushed –finished aluminum, minimum 0.03 inch thick. Screws shall be machine type with countersunk heads in a color to match the finish of the plate. The use of sectional type device plates will not be permitted. Plates installed in wet locations shall be sealed in gasket. Device plates for telephone and intercommunication outlets shall have a 3/8 inch bushed opening in center.

## WALL SWITCHES AND PLATES

Wall switches in general shall be rated 10 amperes at 230 volts or with ampere and voltage ratings as required. Switches shall be flush mounting and of the rocker type, spring operated. The type of switches shall be tumbler operation and the color, plating and appearance of wall plates shall be as selected by the Engineer. Appropriate samples shall be submitted prior to purchase of wall switches and face plates.

## WALL RECEPTACLE AND PLATES

a. Receptacle outlets shall be 15 amperes, 230 volts, 2 pole, 3 wire parallel slot, grounding type. Parallel slot outlet rated 15 amps. 125 v grounded type shall be acceptable for use with 230v system. Locking type and other special purpose outlets shall be as indicated in the plans.

b. Provide weather proof receptacle plate cover for each convenience receptacle outlet indicated as weatherproof.

## PANELS AND CABINETS

a. Standard panels and cabinets, as much as possible shall be used and assembled on job. All panels shall be dead front construction, furnished with trims for flush or surface mounting. Cabinets shall be of code gauge steel with gutters at least 100mm wide and if necessary, it has to be made wider. The trim for all panels shall be finished in industrial grey enamel over a coat of rust inhibitor.

b. Lighting panels shall be equipped with branch circuit breakers as required and mains as noted on Plans or Panel Schedule.

c. Panel board main bus work shall be ampacity rated to equal or exceed overcurrent protective device immediately ahead of it. All buss work shall be properly secured to withstand available short circuit forces at the location.

d. Distribution panels shall be of the same type as lighting panels except equipped with one pole, two poles and three poles air circuit breakers of sizes, voltages ratings and interrupting capacity as called for on plans.

**INDIVIDUAL BREAKERS**

a. Provide individual circuit breakers where indicated on plans. Voltage ratings shall be suitable in each case of service application. Enclosures shall be General Purpose, NEMA type I, except where specifically noted on plans or assembled on panel cabinets.

All protective devices shall meet NEMA and U.L specifications. Short circuit rating shall be as indicated on the plan.

b. Circuit breakers shall consist of a quick-make, quick -break type entirely trip-free operating mechanism with contacts, arc-interrupter, and thermal magnetic trip unit for each pole, all enclosed in a molded-phenolic case. The thermal magnetic trip unit shall provide time-delayed overload protection, and in case of overload or short circuit current in any one pole the circuit trips instantaneously. Circuit breaker shall be trip indicating, when tripped position of breaker handle midway between "ON" and "OFF" positions.

c. All circuit breakers shall be bolt-on type unless noted otherwise.

d. All circuit breakers rated above 225 amps shall have interchangeable trip units. Unless otherwise specified, minimum interrupting rating for 230 volts circuit breakers shall be 10,000 amperes.

**PANELBOARD BUSES**

All bus panels shall be copper support bus bars on bases independent of circuit breakers. Main buses and back pans shall be designed so that breakers may be changed without machining, drilling, or lapping. Provide separate ground bus for connecting grounding conductors; bond to steel cabinet.

**EXECUTION**

**INSTALLATION**

**a. Wiring Methods**

Provide insulated conductors installed in conduits, except where specifically indicated or specified otherwise or required by PEC and NFPA to be installed otherwise. Provide insulated, equipment grounding conductor in feeder and branch circuits, including lighting circuits. Provide insulated, conductor for grounding conductors installed in conduits or raceways.

**b. Conduit Installation**

Unless indicated otherwise, conceal conduit within finished walls, ceilings, and floors. Keep conduit a minimum of 150mm away from parallel runs of flues and steam or hot water pipes. Install conduit parallel with or at right angles to ceilings, walls, and structural members where located above accessible ceilings and where conduit will be visible after completion of project. Run conduits in crawl space under slab as if exposed.

1. Where conduits rise through floor slabs, curved portion of bends shall not be visible above finish slab.

2. Conduit Support:

Conduit shall be supported by pipe straps, wall brackets, hangers, or ceiling trapeze. Fasten by wood screws to wood; by toggle bolts on hollow masonry units; by concrete inserts or expansion bolts on concrete or brick; and by machine screws, welded studs, or spring tension clamps on steelwork. Threaded C-clamps may be used on rigid steel conduit only. Do not weld conduits or pipe straps to steel structures. Load applied to fasteners shall not exceed one-fourth proof test load. Fasteners attached to concrete ceilings shall be vibration resistant and shock resistant. Holes cut to depth of more than 40mm in reinforced concrete beams or to depth of more than 20mm in concrete joints shall not cut main reinforcing bars. Fill unused holes. In partitions of light steel construction, use sheet metal screws. In suspended-ceiling construction, run conduit above ceiling. Do not support conduit by ceiling support system. Spring-steel fasteners may be used for lighting branch circuit conduit supports in suspended ceilings in dry locations.

3. Changes in direction of runs with symmetrical bends or cast-metal fittings. Make field-made bends and offsets with hickey or conduit-bending machine. Do not install crushed or deformed conduits. Avoid trapped conduits. Prevent plaster, dirt or trash from lodging in conduits, boxes, fittings, and equipment during construction. Free clogged conduits of obstructions.

4. The Contractor shall install pull wires in empty conduits in which wire is to be installed by others. The pull wire shall be 2.0mm$^2$ zinc- coated steel or plastic having not less than 91 kgs tensile strength. Leave not less than 300mm of slack at each end of the pull wire.

5. Conduit Installed in Concrete Floor Slabs

Locate so as not to adversely affect structural strength of slabs. Install conduit within middle one-third of concrete slab. Do not stack conduits. Space conduit horizontally at a minimum of three diameters, except at cabinet locations. Curved portions of bends shall not be visible above the finish slab. Increase slab thickness as necessary to provide minimum 25 mm cover over conduits. Where embedded conduits cross expansion joints, provide suitable watertight expansion fittings and bonding jumpers. Conduit larger than 25mm trade size shall be parallel with or at right angles to main reinforcement; when at right angles to the reinforcements, the conduit shall be closed to one of the supports of the slab.

6. Fasten conduits to sheet metal boxes and cabinets with two locknuts where required by PEC and NFPA 70, where insulated bushings are used, and where bushing cannot be brought into firm contact with the box; otherwise, use minimum single locknut and bushing. Locknuts shall have sharp edges for digging into wall of metal enclosures. Install bushings on ends of conduits, and provide insulating type where required by PEC and NFPA 70.

7. Flexible Connection:

Provide flexible connection of short length, 1.8 meters maximum for recessed and semi-recessed lighting fixtures.

**c. Boxes, Outlets, and Supports**

Provide boxes in wiring or raceway systems wherever required for pulling of wires, making connections, and mounting of devices or fixtures. Boxes for metallic raceways shall be cast-metal, hub-type when located in wet locations, when surface mounted on outside of exterior surfaces, when installed exposed up to 2.1meters above interior floors and walkways, or when installed in hazardous areas. Boxes in other locations shall be sheet steel, except that aluminum boxes may be used with aluminum conduit. Each box shall have the volume required by PEC and NFPA 70 for the number of conductors enclosed in the box. Boxes for mounting lighting fixtures shall not be less than 100 mm2 or octagonal, except that smaller boxes may be installed as required for fixture configurations as approved. Boxes for use in masonry-block or tile walls shall be square-cornered, tile-type, or standard boxes having square-cornered, tile-type covers. Provide gaskets for cast-metal boxes installed flush with outside of exterior surfaces. Provide separate boxes for flush or recessed fixtures when required by fixture terminal operating temperature. Fixtures shall be readily removable for access to boxes unless ceiling access panels are provided. Support boxes and pendants for surface-mounted fixtures on suspended ceilings independently of ceiling supports, or make adequate provisions for distributing load over ceiling support members. Fasten boxes and supports with wood screws on wood, with bolts and expansion shields on concrete or brick, with toggle bolts on hollow masonry units, and with machine screws or welded studs on steel. In open overhead spaces, cast boxes threaded to raceways need not separately supported except where used for fixture support; support sheet metal boxes directly from building structure or by bar hangers. Where bar hangers are used, attach bar to raceways on opposite sides of box, and support raceway with approved type fastener maximum 600mm from the box. When penetrating reinforced concrete members, avoid cutting reinforcing steel.

1. Boxes for use with raceway systems shall be minimum 40mm deep, except where shallower boxes required by structural conditions are approved. Boxes for other than lighting fixture outlets shall be minimum 100mm2, except that 100 by 50mm boxes may be used where only one raceway enters outlet.

2. Pull Boxes:

   Pull boxes shall be constructed of not less than the minimum size required by PEC and NFPA 70 of code-gauge aluminum or galvanized sheet steel, except where cast-metal boxes are required in locations specified herein. Boxes shall be furnish with screw-fastened covers. Where several feeders pass through common pull box, the Contractor shall tag the feeders to indicate clearly electrical characteristics, circuit number, and panel designation.

**d. Mounting Heights**

The Contractor shall mount panelboards, and circuit breakers, and main disconnecting panel so the height of the operating handle at its highest position is maximum 1.8 meters above floor. Mount lighting switches 1.4 meters above finished floor, receptacles 300mm above finished floor and other devices. The Contractor shall measure mounting heights of wiring devices and outlets to center of device or outlet.

**e. Conductor Identification**

Provide conductor identification within each enclosure where tap, splice, or termination is made.

**f. Splices**

Make splices in accessible locations. Make splices in conductors 5.5 $mm^2$ and smaller diameter with insulated, pressure-type connector. Make splices in conductors 8.0 $mm^2$ and larger diameter with solderless connector, and cover with insulation material equivalent to conductor insulation.

**g. Covers and Device Plates**

Install with edges in continuous contact with finished wall surfaces without use of mats or similar devices. Plaster fillings are not permitted. Plates shall be installed with alignment tolerance of 3mm. Use of sectional-type device plates are not permitted. Plates installed in wet locations shall be gasketed.

**h. Electrical Penetrations**

Openings around electrical penetrations through fire resistance-rated walls, partitions, floors, or ceilings shall be sealed to maintain fire resistive integrity as tested per ASTM E 814.

**i. Grounding and Bonding**

In accordance with PEC and NFPA 70. Ground all exposed, noncurrent-carrying metallic parts of electrical equipment, metallic raceway systems, grounding conductor in metallic and non-metallic raceways, and conductor of wiring systems. Make ground connection to driven ground rods on exterior of building. Where ground fault protection is employed, ensure that connection of ground does not interfere with correct operation of fault protection.

1. Grounding Conductor

Provide insulated, equipment grounding conductor in feeder and branch circuits, including lighting circuits. Grounding conductor shall be separate from electrical system neutral conductor. Provide insulated, conductor for grounding conductors installed in conduit or raceways.

2. Resistance

Maximum resistance-to-ground of grounding system shall not exceed 10 ohms under normally dry conditions. Where the resistance obtained exceeds 10 ohms, contact the Engineer for further instructions.

**FIELD QUALITY CONTROL**

Furnish test equipment and personnel and submit written copies of test results. Give the Engineer five (5) working days notice prior to each test.

a. Devices Subject to Manual Operation

Each device subject to manual operation shall be operated at least five times, demonstrating satisfactory operation each time.

b. Test on 600 volt wiring

Test 600 volt wiring to verify that no short circuits or accidental grounds exist. Perform insulation resistance tests on wiring No. 14$mm^2$ (6 AWG) and larger diameter using

instrument which applies voltage of approximately 500 volts to provide direct reading of resistance. Minimum resistance shall be 25,000 ohms.

c. Grounding System Test

The Grounding system shall be tested to ensure continuity and resistance to ground is not excessive. Test each ground rod for resistance to ground before making connections to rod; tie grounding system together and test for resistance to ground. Make resistance measurements in dry weather, not earlier than 48 hours after rainfall. Submit written results of each test to the Engineer and indicate location of rods as well as resistance and soil conditions at the time measurements were made.

## INTERIOR LIGHTING

### SUBMITTALS

Data, shop drawings showing mounting heights, and reports shall employ the terminology, classifications, and methods prescribed by the IES Lighting Handbook, as applicable, for the lighting system specified.

a. Manufacturer's Data

1. Recessed louvre housing including T-8 LED Tube lamps
2. Outdoor wall light
3. Vertical downlight recess mounted
4. Vertical downlight surface mounted type

## PRODUCT

### T-8 LED FLUORESCENT TUBE

a. The T8 LED Tube light Industrial – designed as a retrofit for the standard fluorescent lamp fittings.

It has better energy efficiency and long service life compared to its predecessor. As a result, this turns into cost savings.

Powered by light emitting diodes and circuitry, another advantage is that it does away with dangerous chemicals found in your typical fluorescent tubes making it nonhazardous and likewise Eco-friendly.

b. Outdoor wall light

c. Vertical downlight recess mounted type

This fixture with glass cover looks very simple but provides protection to led bulbs. Metal sheet housing gives durability, while mirrored reflection brings additional lighting effect. Equipped with glass cover that provides smart solution to overhead illumination, very modern and contemporary for decoration. Best for indoor lightings

d. Vertical downlight surface mounted type

Surface Downlight – the housing or frame of this fixture is made of steel plate and with powder coating under high temperature. It is resistant to abrasion as well as pressure, not easy to be tarnished. As you will notice, it is specialized with light

reflector that is made by high quality pure aluminum. Endurable lamp holder for extremely high temperature guarantees the safety and durability of the LED light bulbs. The other parts like springs, elastic slices and other tightening fittings make the down light firmly recessed and easy to install.

**RECESS AND FLUSH MOUNTED FIXTURES**

The Contractor shall provide the type of materials as shown in the plan.

**LED BULB**

Being the next modern, energy-efficient lighting, it offers brighter lights than both its predecessors improving on lower wattage at the same brilliance and longer life spans. This is definitely a lot of savings in terms of lower electricity bills and maintenance costs.

Powered by light emitting diodes and circuitry. Another advantage is that it does away with dangerous chemicals found in your typical compact bulb. LED making it non-hazardous and likewise Eco-friendly. With an exceptionally low defect rate of 1% a year and over 30,000 hours lifespan. Therefore, this product will stand the test of time.

Specifically designed so that you can easily transition to LEDs without necessarily revamping your current lighting setup. LED bulbs have a wide range of applications from lighting households, schools, and offices, illuminating covered parking lots, warehouses.

This LED Bulb provide each and every household or business in the Philippines access to energy efficient and environmentally friendly lighting alternatives set at reasonably low and affordable prices.

**EXECUTION**

**INSTALLATION**

Installing or retrofitting a T-8 tube light ensures optimal performance. This guide is intended for qualified electricians or lighting technicians.

It is the responsibility of the contractor, to install, maintain and operate the device in such a manner as to comply with all state and local laws, ordinances and regulations.

No power to the fixture at source. Ensure you are working with standard T-8 Fluorescent Light fixture; unpack the LED Tube Light; Open the fixture housing; Re-connect the Hot (L) wire to one end and Neutral (N) wire to the other end; Check to ensure wiring is done correctly then close the fixture housing; Affix warning labels to fixtures near socket so they are visible to tube light installers. Re-connect power to the fixture and turn on switch.

Recessed and semi-recessed fixtures may be supported from suspended ceiling support system ceiling tees if the ceiling system support rods or wires are provided at a minimum of four rods or wires per fixture and located not more than 150 mm from each corner of each fixture. Do not support fixtures by ceiling acoustical panels. Where fixtures of size less than the ceiling grid are indicated to be centered in the acoustical panel, support such fixtures independently or with at least two 20mm metal channels spanning, and secured to, the ceiling tees. Provide rods or wires for lighting fixture supports under this section of the specifications. Additionally, for recessed fixtures, provide support clips securely fastened to ceiling grid members, a minimum of one at or near each corner of each fixture.

## GROUNDING

Ground non-current-carrying parts of equipment as specified in "Interior Wiring Systems." Where the copper grounding conductor is connected to a metal other than copper, provide specially treated or lined connectors suitable for this purpose.

## FIELD TESTS

The Contractor will provide electric power and apparatus / instruments required and carry out the field tests.

a. Operating Test

Upon completion of the installation, conduct an operating test to show that the equipment operate in accordance with the requirements of this section.

b Insulation Resistance Test

Perform as specified in "Interior Wiring Systems", both before and after connection of fixtures and equipment.

c. Ground Resistance Tests
Perform as specified in "Interior Wiring System."

## ITEM 13 : ALUMINUM COMPOSITE PANEL

### I.INTRODUCTION

#### A. MATERIAL COMPOSITION

Aluminum Composite Panel (ACP) is a lightweight durable panel made of laminated aluminum and polyethylene core compound, coated with an advanced fluorocarbon paint Polyvinylidine Flouride (PVDF) to ensure the excellent durability of the surface finish. It is an excellent material for exterior and
Interior cladding of new building construction as well as retro fit applications. It also has a high degree of levelness top reserve the fine architectural design and can be roller bended to suit various design shapes. The laminated structure of ACP ensures exceptional strength of the panel.

THICKNESSES:
3mm (Polyester) 4 to 6mmPVDF/+Nano

#### B. CHARACTERISTICS

1. Flatness–as the composite material is rigid, the flat surface can be preserved. This is considered a major advantage of ACP.

2. Fire Resistance–ACP are laminated at
Temperatures from 200˚ to 250˚ to bond aluminum sheets to the polyethylene core. The non-flammable aluminum cover sheets protect the plastic core.

3. Light Weight–as the weight is less than ½ to ⅓
Of the weight of porcelain enamel, iron, copper, stainless and other metal panels, consequently it can reduce the weight of the building.

4. Durability–ACP is highly resistant to chemical corrosion due to the PVDF coating. The composite material is rigid, resistant to blows, breakage, and pressure and has high bending and breaking strength.

#### SPECIFICATION

I. Aluminum Composite Panel (ACP) must be composed of density polyethylene core sandwiched between two sheets of aluminum,

II. It must be strong, lightweight approximately 5.5kg/sqm. But must be exceptionally flat.

III. The ACP composition

- Two sheets of aluminum
- Front side aluminum roll coated with polyvinylidine fluoride PVDF according to AAMA605.2 requirements.

IV. PVDF coating finish adhere to the following standards.

| Testing Item | Standard | Result |
|---|---|---|
| Finished coat thickness | ISO 2360 (CNS 8406) | 27.6m |
| Gloss | ASTM D532-88 | 20 ~ 45 % |
| Pencil hardness | ASTM D3363-00 | 2H |
| Toughness | ASTM D4145-83 | 2T no rill |
| Adhesive force | ASTM 3359-97 | 4B |
| Impact resistance | ASTM D2794-93 | >100 kg. cm. |
| Abrasion resistance | ASTM D968-93 | 64.6 L/mil |
| Mortar resistance | ASTM 805.2-90 | 24 Hrs. pat test exceed |
| Himidity resistance | ASTM D714-97 | 3000 hr no blister |
| | ASTM D2247-02 | |
| Boiling- water resistance | ASTM D3359-B | Passed |
| Salt-spray resistance | ASTM D117-03 | 3000 hr no blister |
| Acid resistance | ASTM D1308-87 | No effect |
| | AAMA 605.2-91, TEST #7, 7.31 | |
| Alkali resistance | ASTM D1308-87 | Passed |
| Solvent resistance | ASTM D2248-73 | Passed |
| | ECCAT T5 & NCCA No. 11-18 | |
| Color retention | ASTM D2244-93 | $\Delta E = 0.34$ |
| Chalk resistance | ASTM D4214-98 | No chalking |
| Gloss retention | ASTM D2244-93 | 84.2 % |

V. Total thickness must be 4.0mm minimum (standard)

VI. Framing must also be made of aluminum to prevent corrosion of the panels.

VII. Aluminum Composite panel supplier must be the same company that will install the framing and will fabricate and install all panels. This is to insure optimum workmanship. All labor and installation must have a warranty of not less than one year.

**Methodology**

## II.SUBMITTALS

### A. PRODUCT DATA

Manufacturer's printed product literature, specifications, and data sheets

### B. SHOP DRAWINGS

1.Indicate project layout and elevations; dimensions and thickness of panels; connections; details and locations of joints and sealant; methods of anchorage; number of anchors; supports; reinforcement; flashings; accessories; materials; and finishes.

2. Indicate proposed joints details providing watertight and structurally sound panel system that allows no uncontrolled water penetration on inside face of panel system as determined by ASTME331.

### C. SAMPLES

1. Sample of panel system materials for selection
and verification of finishes, colors, and sealant colors.

2. Sample of panel assembly.

D. TEST REPORTS (as requested)

Certified test reports for ACP from approved independent testing laboratories indicating compliance with specifications for specified performance, characteristics, and physical properties.

## III. QUALITY ASSURANCE

A. Fabricator / installer to be accepted by the manufacturer.

B. Fabricator / installer to have work similar in scope and size to this project.

C. Take field measurements prior to completion of shop fabrication. Coordinate fabrication schedule with construction progress to avoid delay of work. Field fabrication should be allowed to ensure proper fit and keep it to minimum with majority of fabrication being done under controlled shop conditions.

D. Maximum deviation from vertical and horizontal alignment of erected panels should be made.

E. Assume responsibility for components of exterior panel system including, but not limited to, attachment to sub-construction, panel-to-panel joinery, panel-to-dissimilar-material joinery, and joint seal associated with panel system.

## IV. DELIVERY, STORAGE, and HANDLING

A. Cover exposed surfaces with pressure-sensitive heavy protection paper or apply strippable plastic coating, before shipping to the job site.

B. Leave protective covering in place until final cleaning of building.

C. Deliver materials in (manufacturer's) original sealed packaging.

D. Store panels and accessories in a dry, secure location and protect from weather.
E. Protect finish and edges of panel.

## V. LOADING AND UNLOADING

A. Panels must be handled carefully to prevent damage
B. Panels may buckle if they are not properly supported.
C. A forklift may be used for panels up to 10 feet (3 meters) long. However, some means of supporting the panel load over a longer distance from the forks may be used.

## VI. PREPARATION

Ensure surfaces to receive panels are structurally sound, even, smooth, clean, dry, and free from defects detrimental to work. Notify consultant thru writing of conditions unfavorable to proper and timely completion of work. Do not proceed with erection until unsatisfactory conditions have been corrected.

## VII. ACCESSORIES

A. Extrusions, formed members, sheet, and plate are in accordance with ASTMB209 and recommendations of Manufacturer's

B. Panel stiffeners are structurally fastened or restrained at ends and secured to rear face of ACP with double-sided tape of sufficient size and strength to maintain panel flatness.

C. Sealant within panel system to conform with Manufacturer's standards to meet performance requirements.

D. Fasteners are not exposed except where unavoidable.

**Aluminum Composite Panel Color / Thickness/ Location**

| | | |
|---|---|---|
| Concrete Canopy | - | 4mm thick ACP (As Selected by the Architect) |
| Parapet Wall | - | 4mm thick ACP (As Selected by the Architect) |
| Exposed Columns | | 4mm thick ACP (As Selected by the Architect) |

Details are shown in the plans.

## ITEM 14 : SIGNAGES AND LOGO

### SCOPE OF WORK

Furnish materials and perform labor to include miscellaneous works required for the installation of Port, building, and room identification.

SAMPLE AND SHOP DRAWINGS

The Contractor shall submit samples for approval by the Architect. Notify the Architect for any changes, clarifications and discrepancies.
For the room I.D. full size lettering layout and installation method shall be submitted to the Architect for approval before start of work.

### EXECUTION

WORKMANSHIP

Workmanship shall be executed in high quality comparable with artworks.

MOUNTING

For all mounted assemblies, appropriate mounting hardware and connectors which are concealed shall be sufficiently used.

Assemblies shall be mounted plumb, straight, level, and at prescribed heights.

INSTALLATION

Installation shall be done in a secure and permanent manner at prescribed heights and/or layout. The backwall shall not be mutilated. After the dowels are positioned, fill with expanding grout, or other approved fillers, and retouch, flashed to the backwall surface.

## ITEM 15 : FINISHES (INDENT ORDERS)

### GENERAL NOTES

The contractor should observe special consideration to indent order items that require longer lead time and checking of material availability under specified conditions of sale, the acceptance of which by the supplier constitutes a contract of sale.

The following are listed as the indent items:

- Aluminum Composite Panels
- Polycarbonate roofings
- Signages and logos

# ITEM 16 : PROJECT BILLBOARD

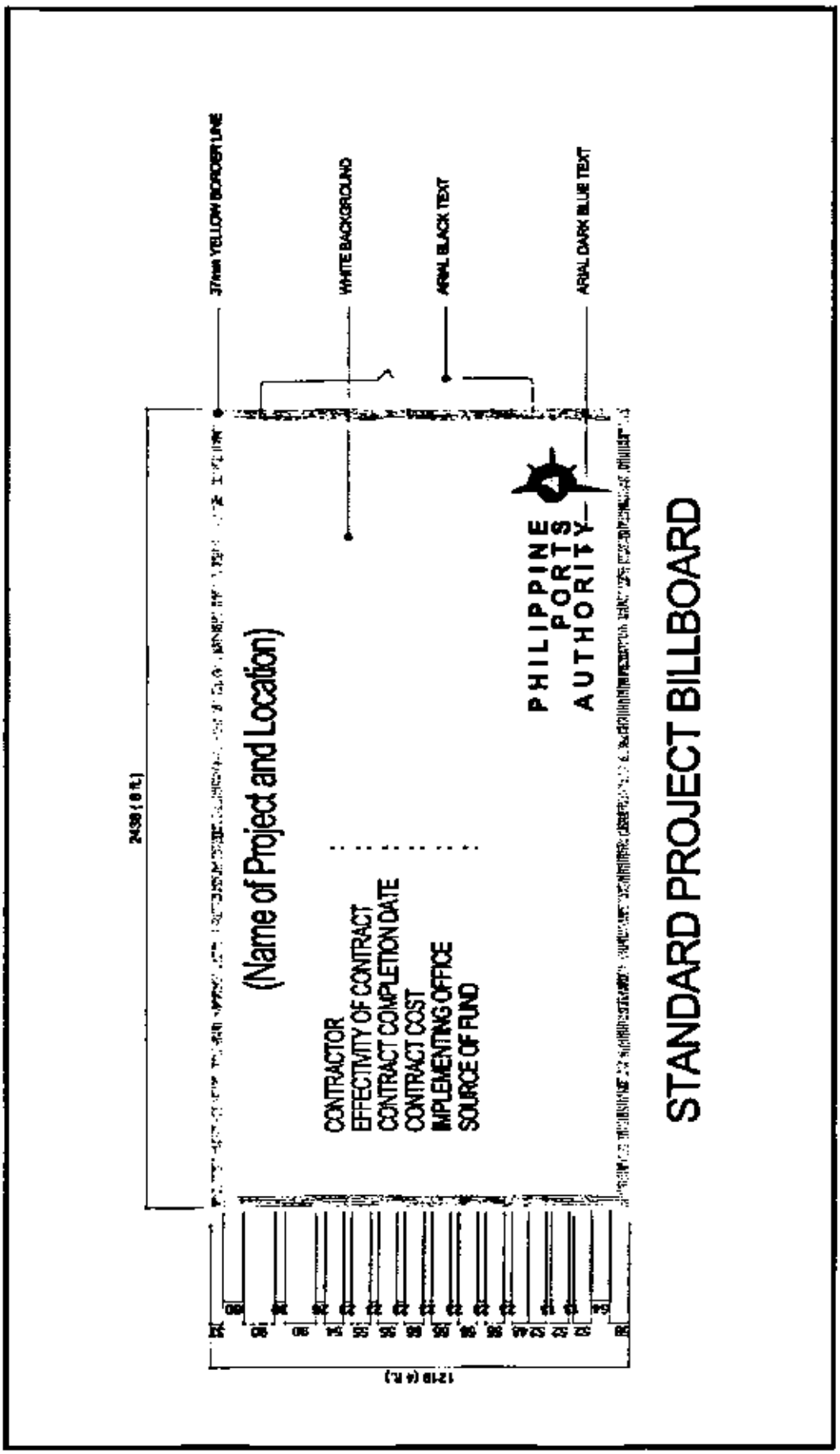
## SPECIFICATION

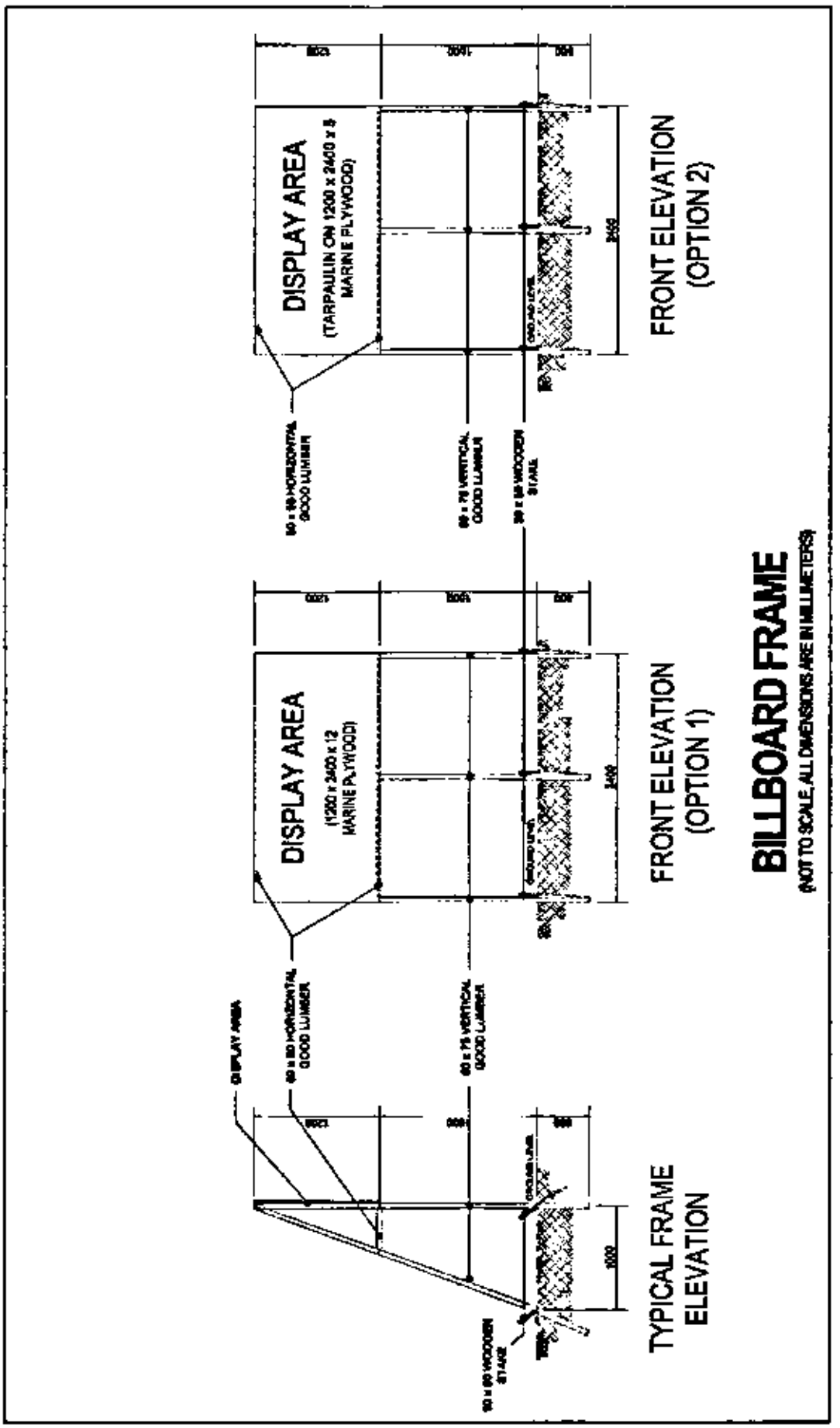
The Project Billboard shall be installed at location(s) designated by the Engineer.

The size and specifications of materials for the standard billboard shall be 4ft. x 8ft. (1,200mm x 2,400mm) using ½ inch (12mm) marine plywood or tarpaulin poster on 3/16 inch (5mm) marine plywood.

Project billboards shall not contain Name(s) and/or picture(s) of any personages.

See attached drawings for further details of the standard billboard.


STANDARD PROJECT BILLBOARD
PHILIPPINE PORTS AUTHORITY
(Name of Project and Location)
CONTRACTOR
EFFECTIVITY OF CONTRACT
CONTRACT COMPLETION DATE
CONTRACT COST
IMPLEMENTING OFFICE
SOURCE OF FUND
37mm YELLOW BORDER LINE
WHITE BACKGROUND
ARIAL BLACK TEXT
ARIAL DARK BLUE TEXT


BILLBOARD FRAME
(NOT TO SCALE, ALL DIMENSIONS ARE IN MILLIMETERS)
DISPLAY AREA
(TARPAULIN ON 1200 x 2400 x 8 MARINE PLYWOOD)
FRONT ELEVATION
(OPTION 2)
DISPLAY AREA
(1200 x 2400 x 12 MARINE PLYWOOD)
FRONT ELEVATION
(OPTION 1)
TYPICAL FRAME
ELEVATION

# *SECTION VII*

# *DRAWINGS*
# *(APPROVED PLANS)*

# SECTION VII

# DRAWINGS AND APPROVED PLANS
## (SEE ISSUED APPROVED PLANS)

**LIST OF DRAWINGS:**

1 of 22 - Development Plan, Vicinity Map

2 of 22 - Perspective

3 of 22 - Floor Plan, Front and Rear Elevation

4 of 22 - Schedule of Doors and Windows

5 of 22 - Right Side and Left Side Elevation, Longitudinal Section "A", Cross Section "B"

6 of 22 - Tie Beam to Footing Detail, Schedule of Tie Beam

7 of 22 - Column Footing Details, Interior and Exterior CHB Wall Details,

8 of 22 - Handrail Connection Detail, Detail of Step-Up, Detail of Ramp

9 of 22 - Beam Plan, Roof Beam Plan

10 of 22 – Detail of Parapet Wall, Canopy, Concrete Gutter, Cantilever Beam, & Truss Connection

11 of 22 - Schedule of Beam, Roof Beam, Edge Beam, and Cantilever Beam

12 of 22 - Roof Framing Plan, Detail of Half Truss - 1

13 of 22 - Detail of Hip Truss-1, Detail of Half Truss-2, Detail of Half Truss-3, Detail of End Wall Bracing

14 of 22 - Detail of Truss Column Connection, PPA Logo Detail, Lintel Beam Plan, Firewall Column Plan

15 of 22 - General Notes, Sanitary Sewage Layout, Water Line Layout

16 of 22 - Isometric Drawing Sanitary Sewage Layout

17 of 22 - Isometric Drawing Water Line Layout

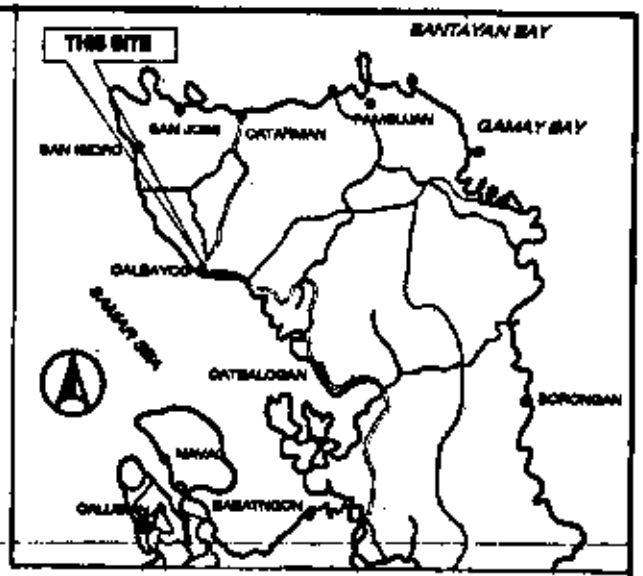
18 of 22 - Detail of Septic Tank, Detail of Catch Basin

19 of 22 – Comfort Room Plan, Section Thru "A", Section Thru "B", Section Thru "C", Section Thru "D", Section Thru "E", Section Thru "F"

20 of 22 - Lighting Layout Plan, Power Layout Plan

21 of 22 - General Notes, Schedule of Loads, Riser Diagram

22 of 22 - Electrical Auxiliary Layout Plan, Single Line Diagram (Fire Detection Alarm System, Community Antenna Television, Background Music / Public Address System)

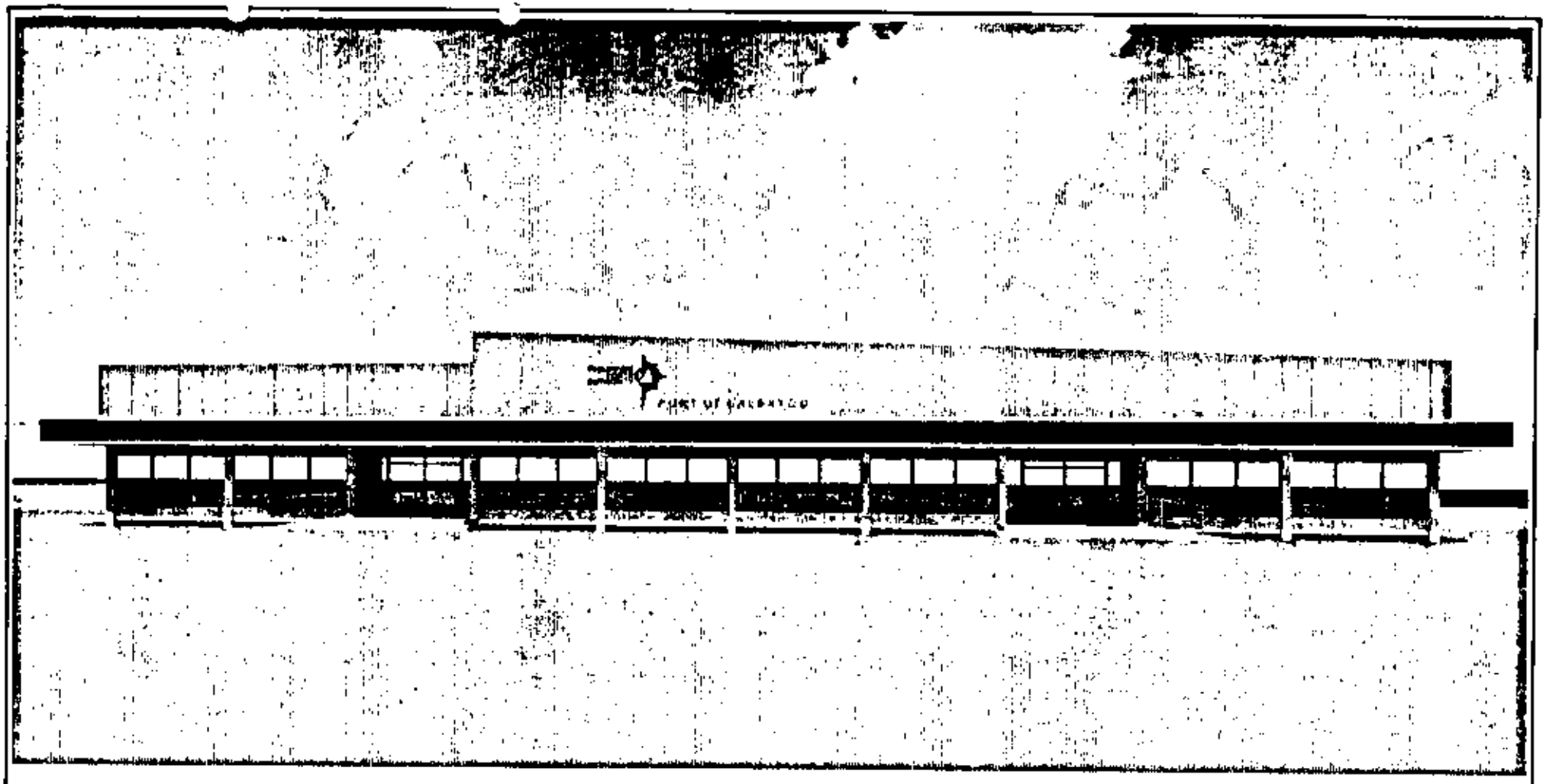



VICINITY MAP



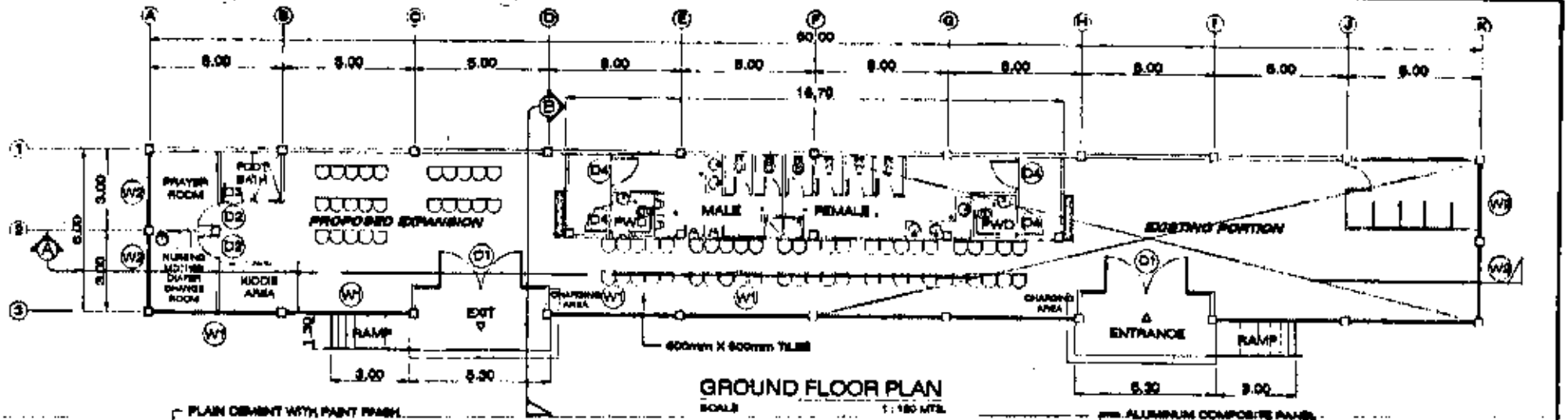

PORT LAYOUT PLAN
PORT OF CALBAYOG
SCALE 1 : 1000 MTS.

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JEYKURTZ D. CHABING | CHECKED BY: | RECOMMENDING APPROVAL: ROSARIA Z. NUEVO | APPROVED: MANUEL A. ROSALAND | SHEET CONTENTS: | SHEET NO. A1 22 |



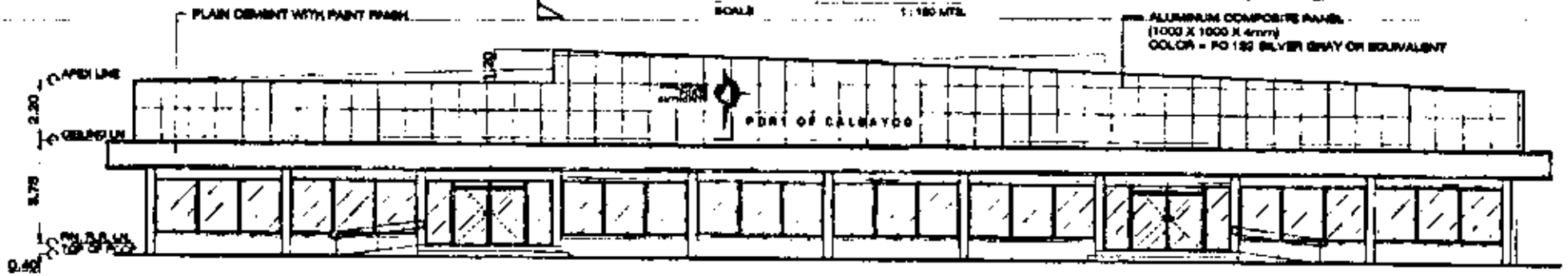
**PERSPECTIVE**

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYRURTZ U. CAMERO | CHECKED BY: | RECOMMENDING APPROVAL: ROSEMARIE Z. NUEVO | APPROVED: MANUEL A. BONDAND | SHEET CONTENTS: AS SHOWN | SHEET NO.: A2 22 |



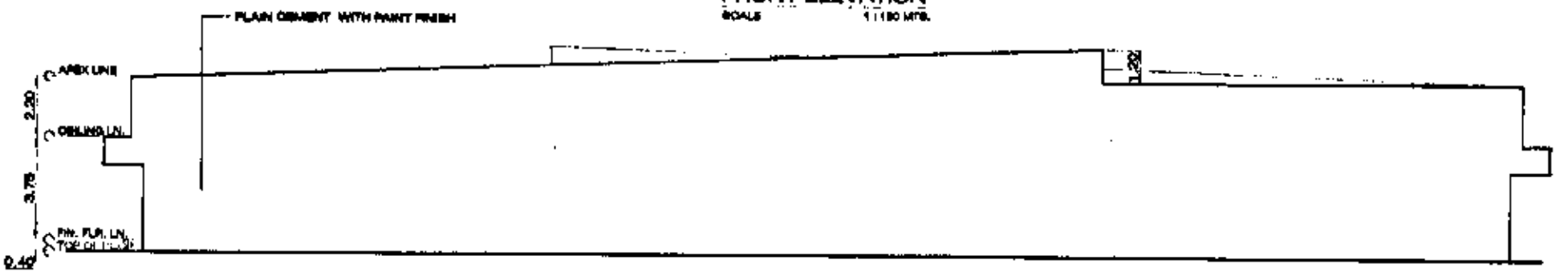

## GROUND FLOOR PLAN

SCALE 1 : 150 MTS.




## FRONT ELEVATION

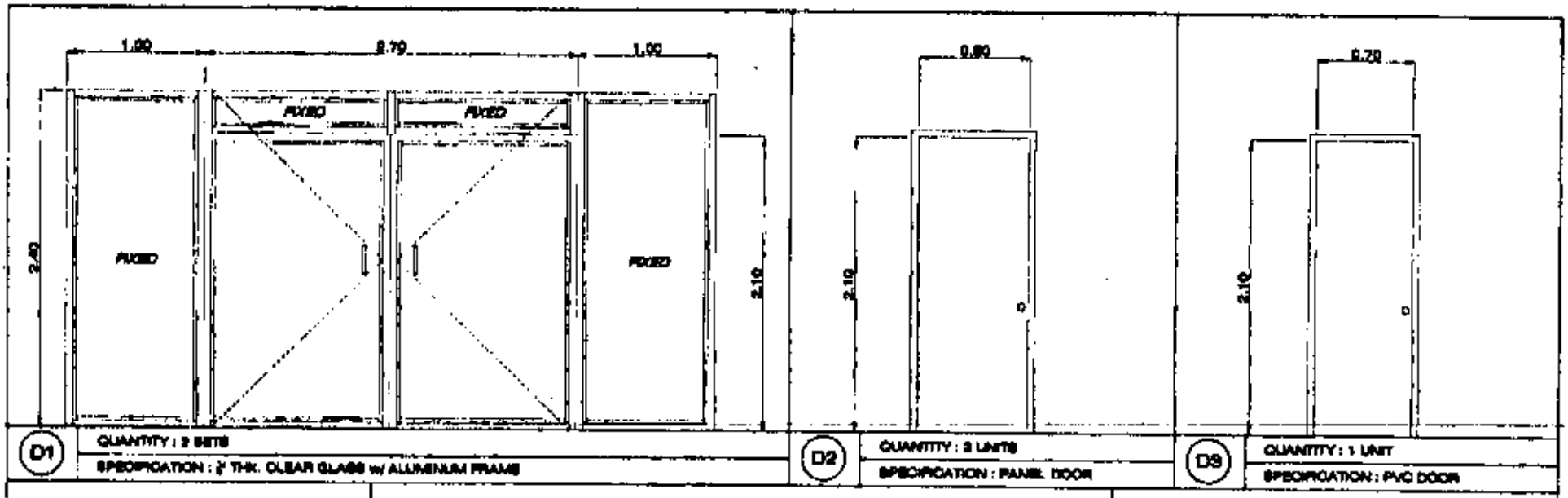
SCALE 1 : 150 MTS.



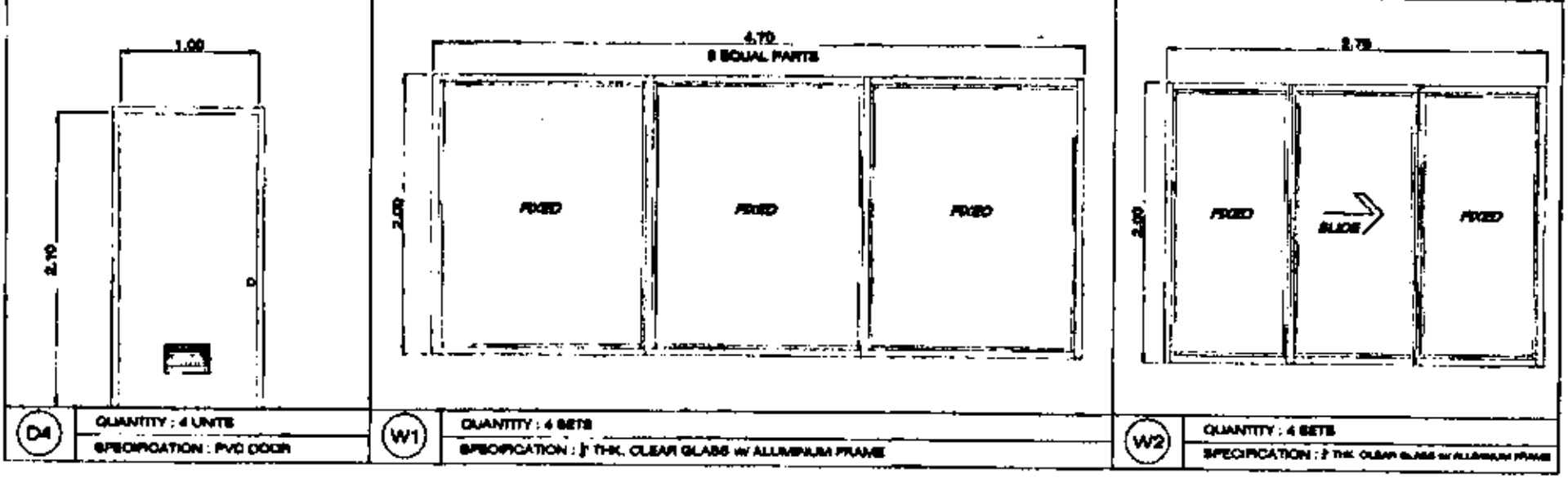

## REAR ELEVATION

SCALE 1 : 150 MTS.

| PROJECT TITLE: | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET NO: |
|---|---|---|---|---|---|---|
| IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | MOQUINTZ G. CAMERO, Engineering Assistant - A | | ROSALIA Z. NUEVO, Acting Division Manager - BAC | MANUEL A. SCHOLAND, Port Manager | AS SHOWN | A2 22 |




| | | | | | |
|---|---|---|---|---|---|
| D1 | QUANTITY : 2 SETS<br>SPECIFICATION : ¼" THK. CLEAR GLASS w/ ALUMINUM FRAME | D2 | QUANTITY : 2 UNITS<br>SPECIFICATION : PANEL DOOR | D3 | QUANTITY : 1 UNIT<br>SPECIFICATION : PVC DOOR |

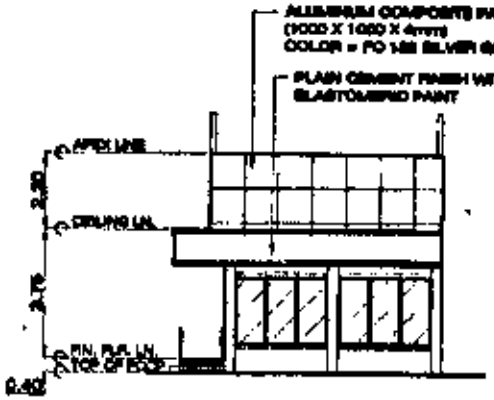



| | | | | | |
|---|---|---|---|---|---|
| D4 | QUANTITY : 4 UNITS<br>SPECIFICATION : PVC DOOR | W1 | QUANTITY : 4 SETS<br>SPECIFICATION : ¼" THK. CLEAR GLASS w/ ALUMINUM FRAME | W2 | QUANTITY : 4 SETS<br>SPECIFICATION : ¼" THK. CLEAR GLASS w/ ALUMINUM FRAME |

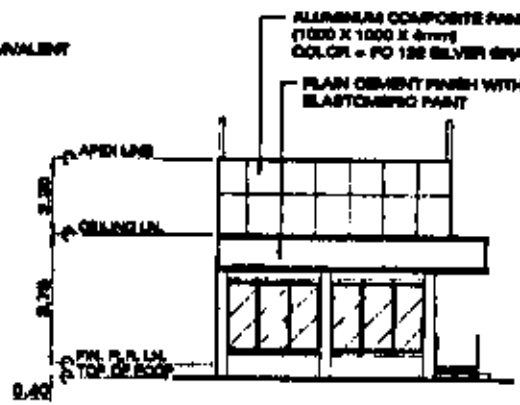
## SCHEDULE OF DOORS AND WINDOWS

SCALE 1 : 50 MTS.

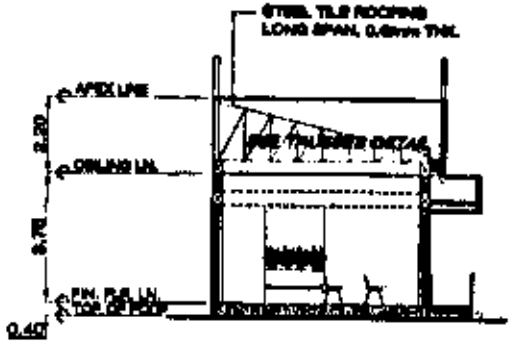
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PROJECT TITLE<br>IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY<br>ENGR. JUVY Z. CAMERO<br>Engineering Assistant - A | CHECKED BY<br>ENGR. [illegible]<br>Engineering Assistant - A | RECOMMENDING APPROVAL<br>ENGR. EDWARD Z. NUEVO<br>Acting Division Manager - MIS | APPROVED<br>MANUEL A. BONGLAD<br>Port Manager | SHEET CONTENTS<br>AS STATED | SHEET NO.<br>A4<br>22 |



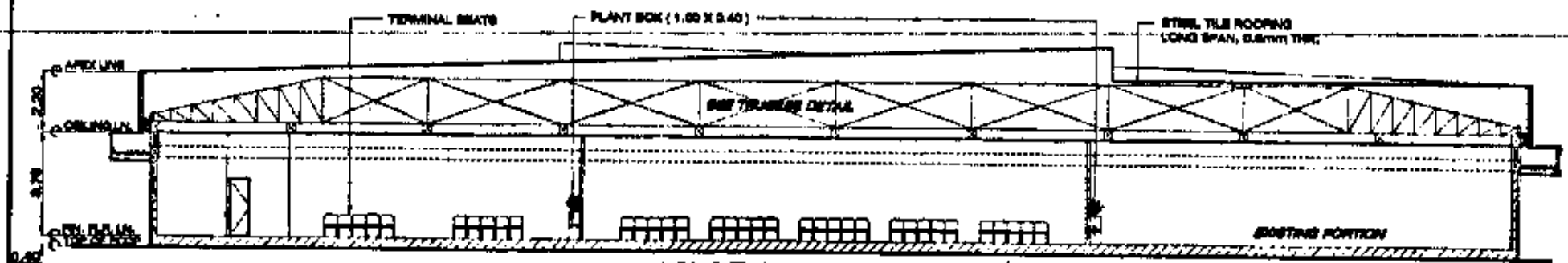

RIGHT SIDE ELEVATION
SCALE 1 : 100 MTS.



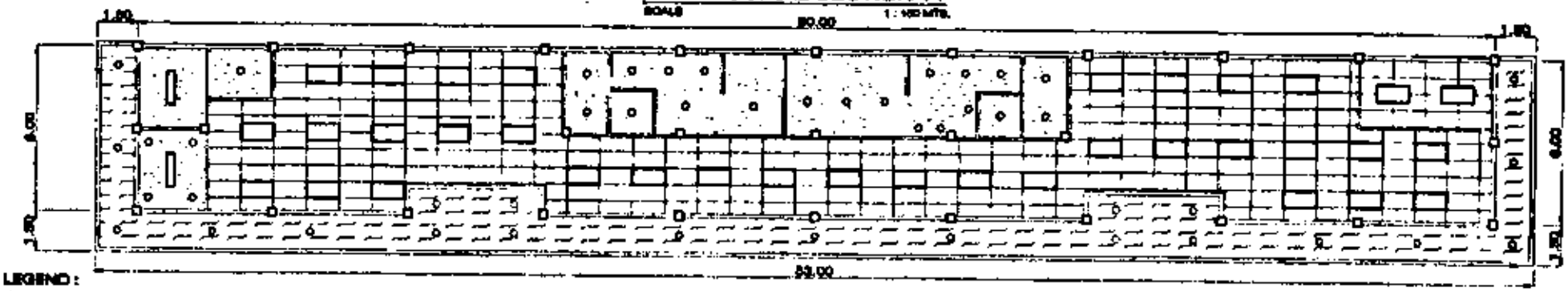

LEFT SIDE ELEVATION
SCALE 1 : 100 MTS.




CROSS SECTION " B "
SCALE 1 : 100 MTS.




LONGITUDINAL SECTION "A"
SCALE 1 : 100 MTS.

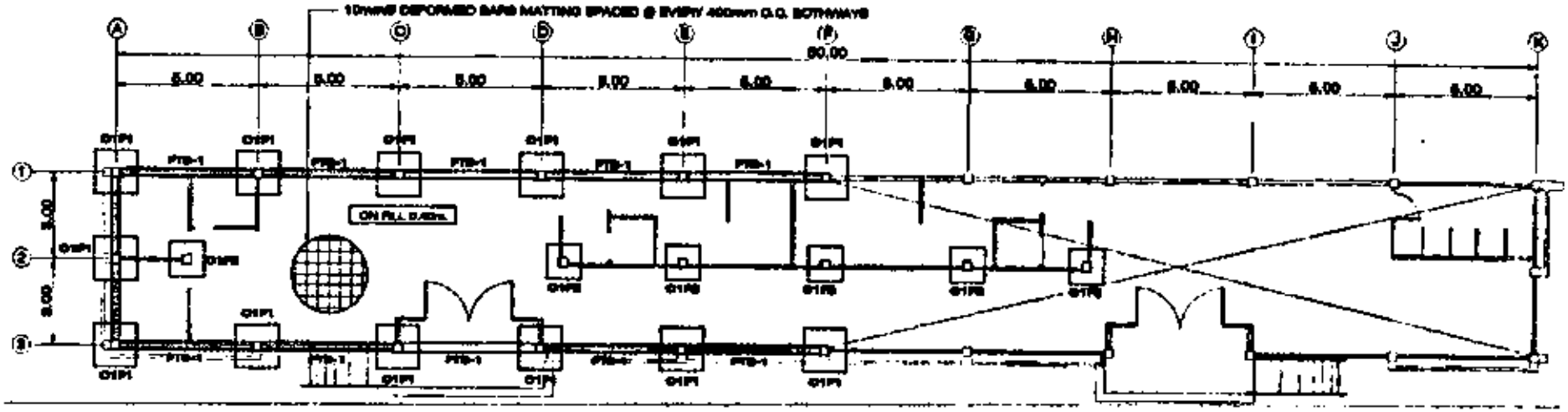



LEGEND :

4.8mm HARDIFLEX | GYMSUM BOARD CEILING | 600 X 1200 X 6mm Thk. SOPAL VINYL CEILING ON ALUMINUM T - RUNNERS

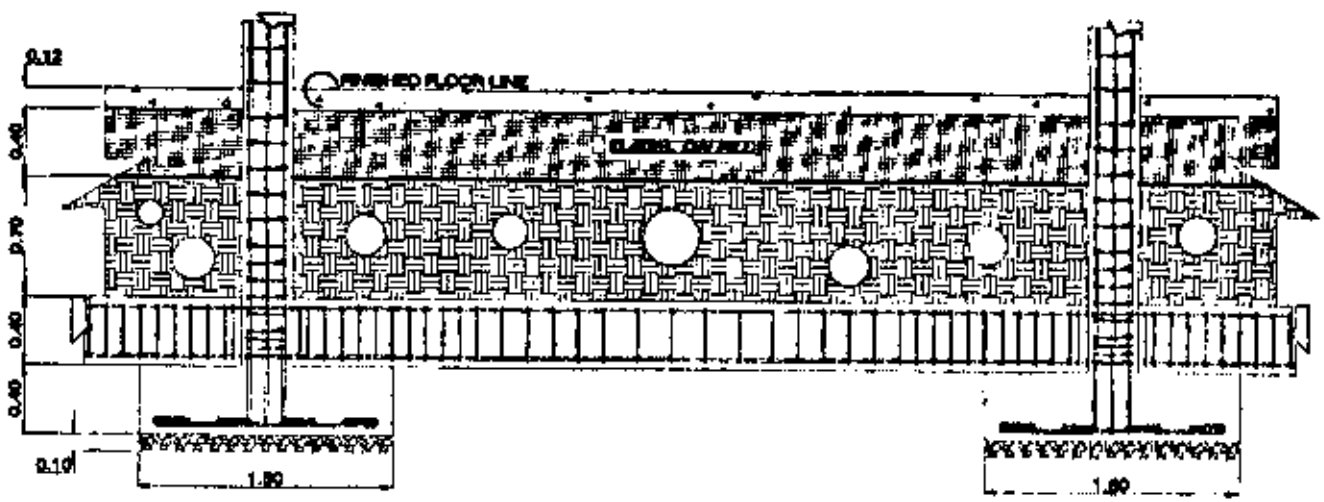
REFLECTED CEILING PLAN
SCALE 1 : 100 MTS.

| | | | | | |
|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: WENSLITZ G. GAVANG, Engineering Assistant - A | CHECKED BY: Acting Project Supervisor - A | RECOMMENDING APPROVAL: ROSELINA Z. NUEVO, Acting Division Manager, EED | APPROVED: MANUEL A. ROHOLANG, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: AS 22 |




## GROUND FLOOR PLAN

SCALE 1 : 100 MTS.



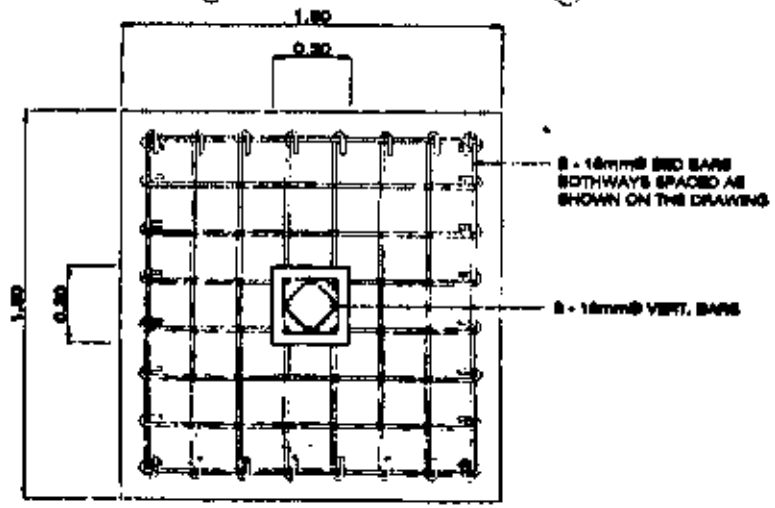

## TYPICAL TIE BEAM TO FOOTING DETAILS

SCALE 1 : 50 MTS.

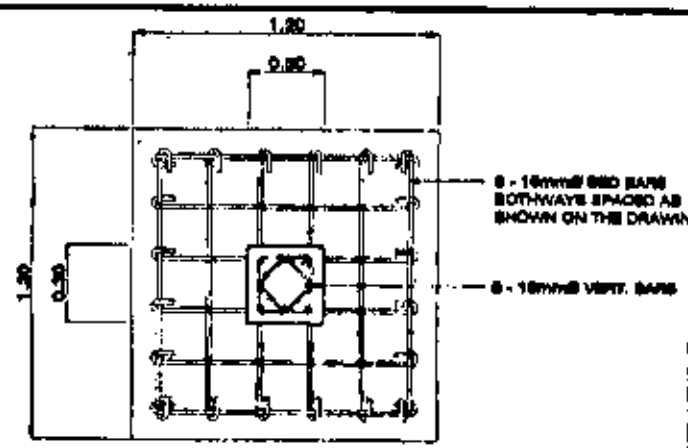
| MARK | TIE BEAM SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| TB -1 | | | |
| SIZE (MM) | 300X400 | 300X400 | 300X400 |
| TOP BARS | 5 - 16mmØ | 5 - 16mmØ | 5 - 16mmØ |
| BOTTOM BARS | 3 - 16mmØ | 3 - 16mmØ | 3 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 200mm O.C. | | |

## SCHEDULE OF TIE BEAM

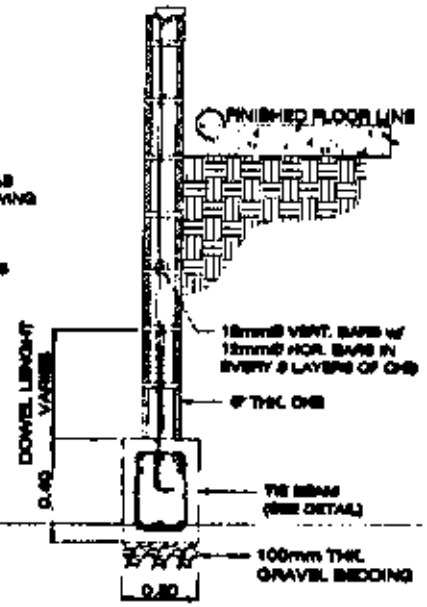
| | PROJECT TITLE: | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL | APPROVED: | SHEET CONTENTS: | SHEET NO.: |
|---|---|---|---|---|---|---|---|
| | IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | JAYCURTZ G. GAMERO Engineering Assistant - A | VICTOR ANGELO CRUZ Acting Principal Engineer - A | ROSARIO S. NUEVO Acting Division Manager, OIC | MANUEL A. BOLISLANO Port Manager | All Shown | PS 29 |




PLAN

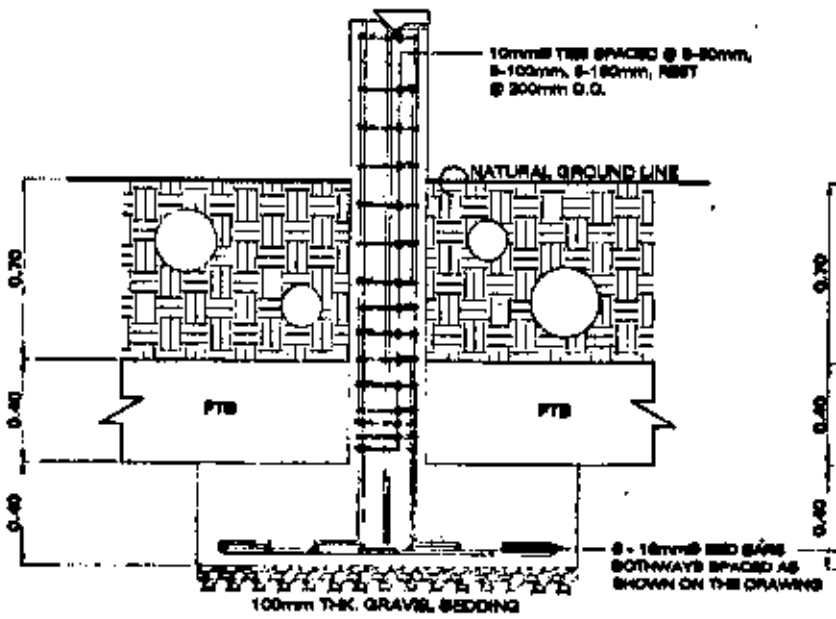



PLAN



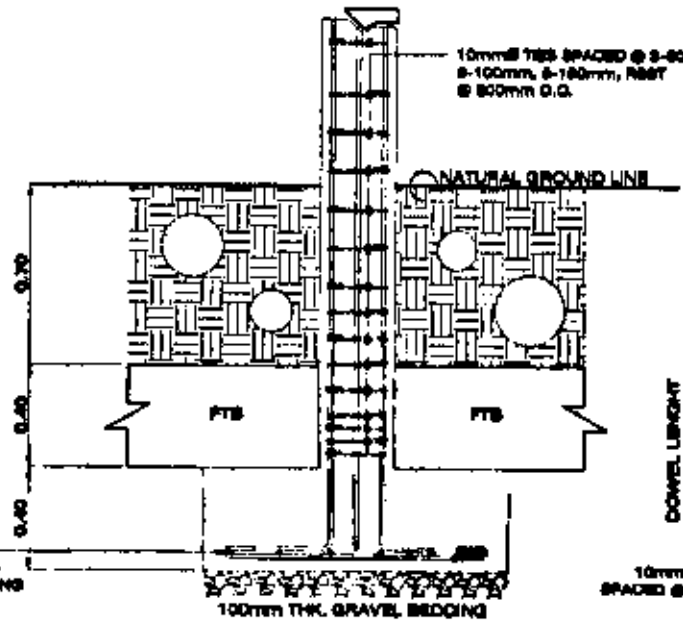

TYPICAL DETAIL OF EXTERIOR CHB WALL

SCALE 1 : 20 MTS.



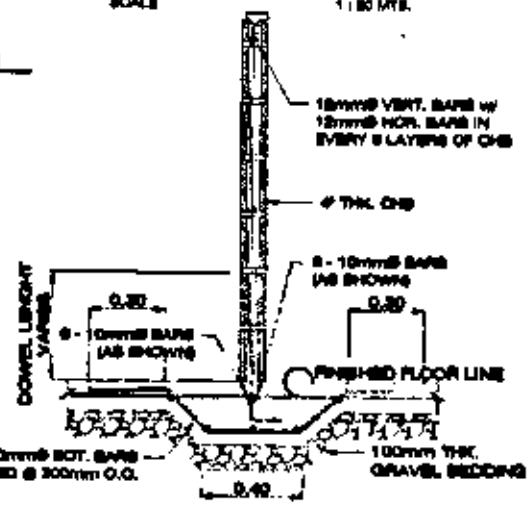

DETAIL OF C1F1

SCALE 1 : 20 MTS.




DETAIL OF C1F2

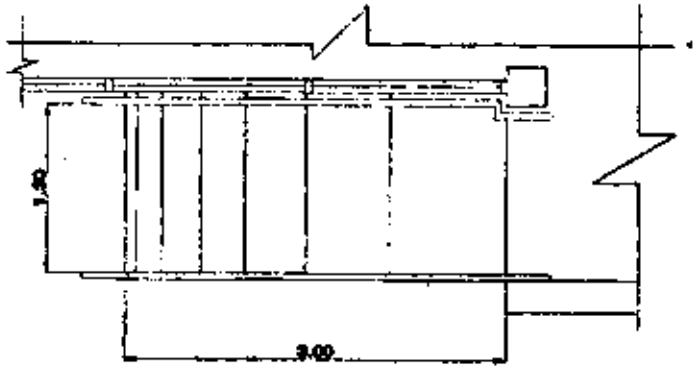
SCALE 1 : 20 MTS.



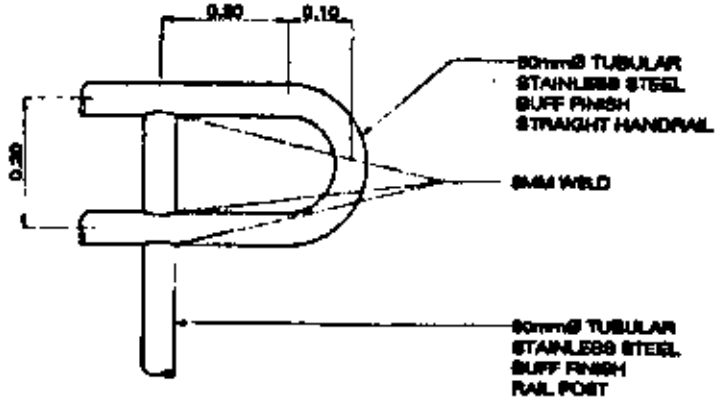

TYPICAL DETAIL OF INTERIOR CHB WALL

SCALE 1 : 20 MTS.

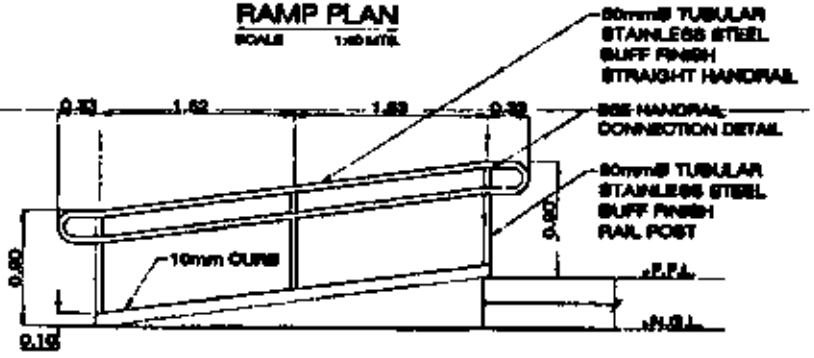
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYKRISTA G. GAMERO Engineering Assistant - A | CHECKED BY: VILMAR [illegible] Acting Project Engineer - A | RECOMMENDING APPROVAL: ROSEANN T. NUEVO Acting Division Manager, ESD | APPROVED: MANUEL A. BONGLAND Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: ST-22 |



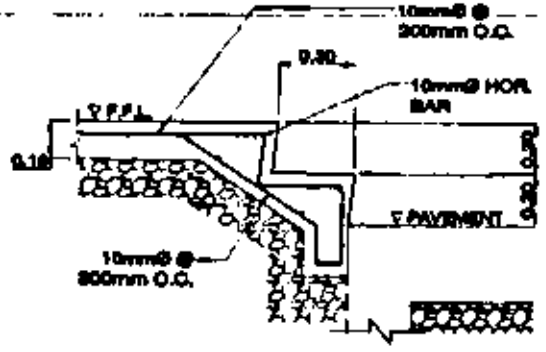

RAMP PLAN
SCALE 1:50 MTS.



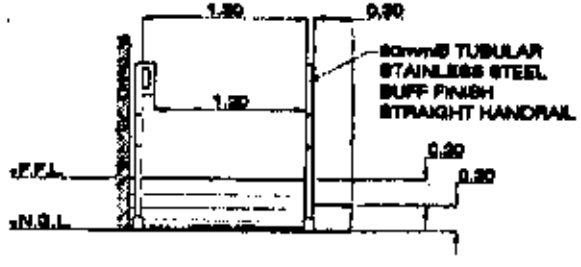

HANDRAIL CONNECTION DETAIL
SCALE 1:10 MTS.



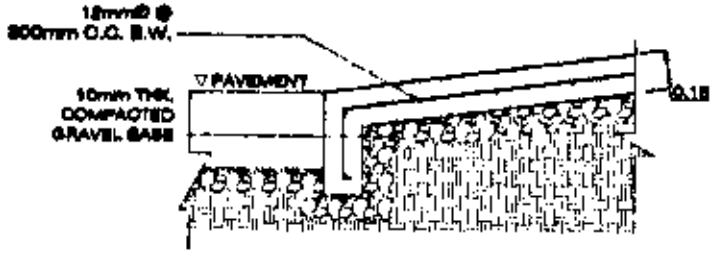

FRONT ELEVATION
SCALE 1:50 MTS.




TYP. DETAIL OF STEP-UP
SCALE 1:20 MTS.

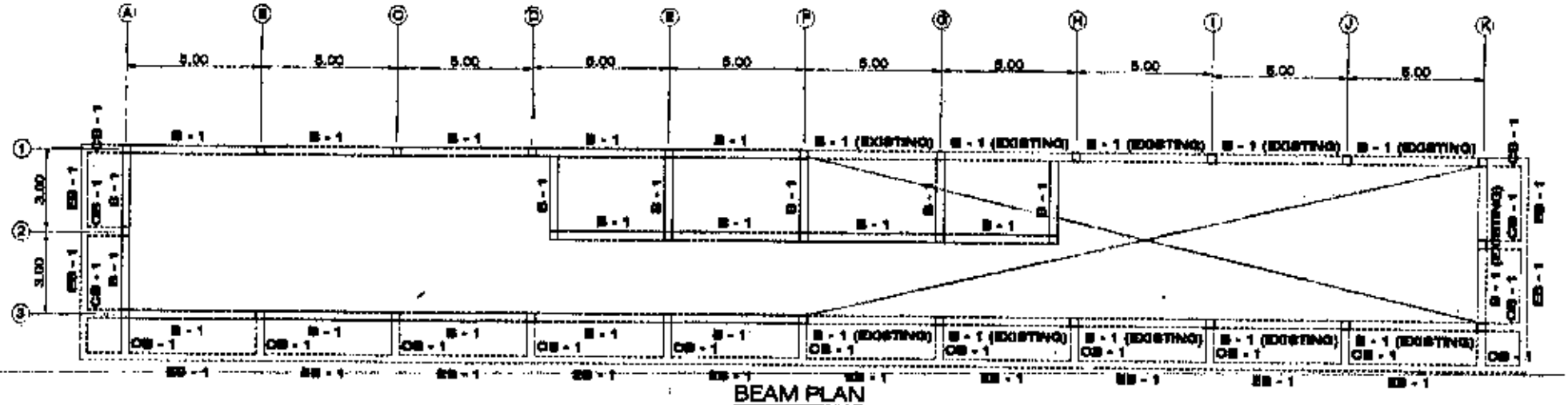



RIGHT SIDE ELEVATION
SCALE 1:50 MTS.



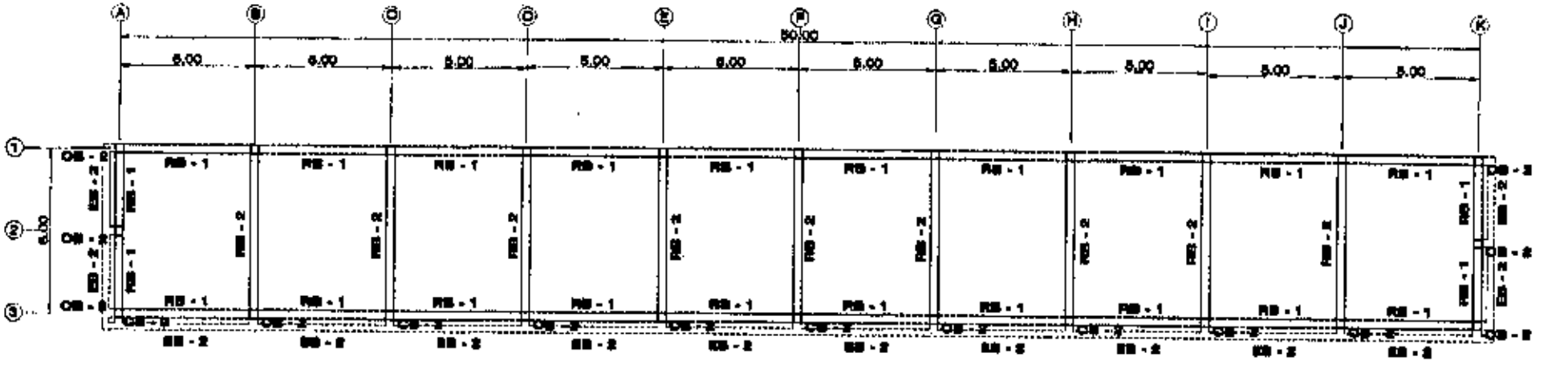

TYP. DETAIL OF RAMP
SCALE 1:20 MTS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON 'TISOY' | PREPARED BY: JAYLUITZ G. CAMERO, Engineering Assistant - A | CHECKED BY: VICTOR [illegible], Acting Project Engineer - A | RECOMMENDING APPROVAL: ROSELLA E. NUEVO, Acting Division Manager, ISD | APPROVED: MANUEL A. BOYSLANG, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: 22/32 |




BEAM PLAN

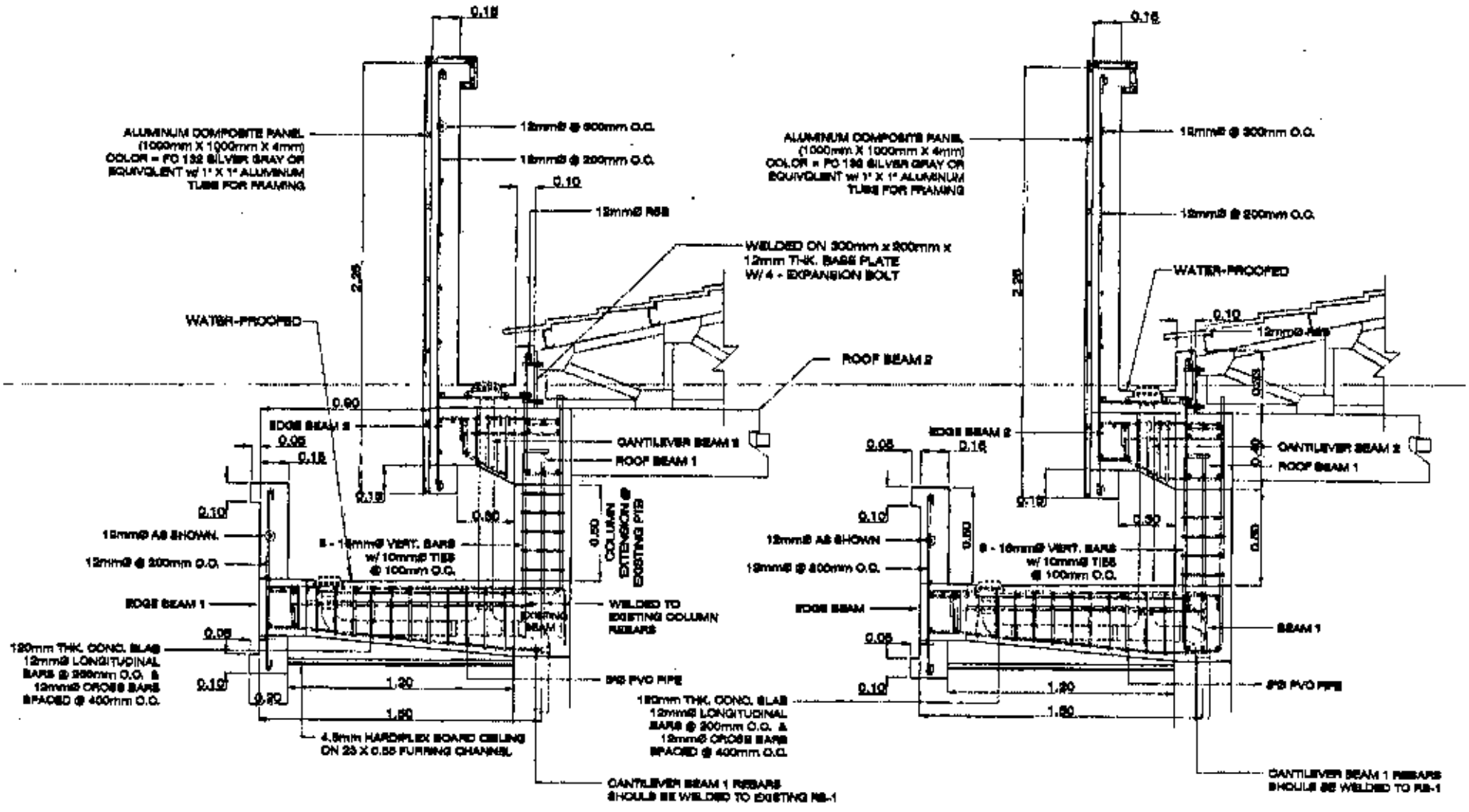
SCALE 1 : 150 MTS.




ROOF BEAM PLAN

SCALE 1 : 150 MTS.

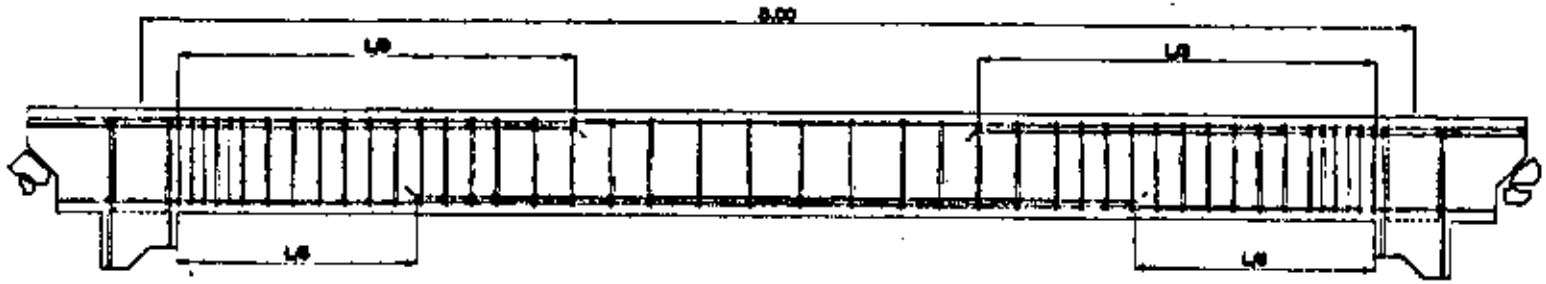
| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYKURTZ D. DAMERO, Engineering Assistant - A | CHECKED BY: VICTOR ANGELO [illegible], Acting Principal Engineer - A | RECOMMENDING APPROVAL: ROSSANA Z. NUEVO, Acting Division Manager, BSD | APPROVED: MANUEL A. BONGLAND, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO: 39 / 92 |



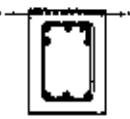

## DETAIL OF PARAPET WALL, CANOPY, CONC. GUTTER, CANTILEVER BEAM, & TRUSS CONNECTION

SCALE 1 : 20 MTR.

| PROJECT TITLE: | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET NO: |
|---|---|---|---|---|---|---|
| IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | JAYKURT C. CAMERO, Engineering Assistant - A | Acting Principal Engineer - A | ROSEMARK Z. NUEVO, Acting Division Manager, BID | MANUEL A. SOGDIANG, Port Manager | As shown | S10 / 22 |




## TYPICAL INTERMEDIATE BEAM REINFORCEMENT AT BEAM SUPPORT

| MARK | ROOF BEAM 1 SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| RB-1 |  |  |  |
| SIZE (MM) | 300X400 | 300X400 | 300X400 |
| TOP BARS | 5 - 16mmØ | 3 - 16mmØ | 5 - 16mmØ |
| BOTTOM BARS | 3 - 16mmØ | 5 - 16mmØ | 3 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 300mm O.C. | | |

| MARK | BEAM 1 SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| RB-2 |  |  |  |
| SIZE (MM) | 300X350 | 300X350 | 300X350 |
| TOP BARS | 5 - 16mmØ | 3 - 16mmØ | 5 - 16mmØ |
| BOTTOM BARS | 3 - 16mmØ | 5 - 16mmØ | 3 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 300mm O.C. | | |

| MARK | EDGE BEAM 1 SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| B-1 |  |  |  |
| SIZE (MM) | 300X400 | 300X400 | 300X400 |
| TOP BARS | 5 - 16mmØ | 3 - 16mmØ | 5 - 16mmØ |
| BOTTOM BARS | 3 - 16mmØ | 5 - 16mmØ | 3 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 300mm O.C. | | |

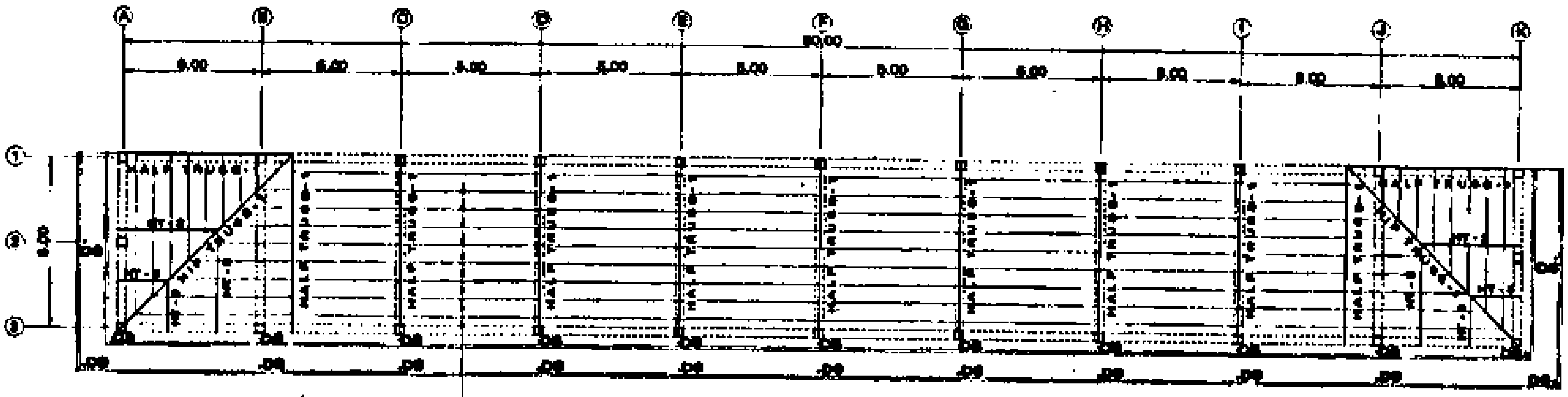
| MARK | EDGE BEAM 1 SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| EB-1 |  |  |  |
| SIZE (MM) | 250X300 | 250X300 | 250X300 |
| TOP BARS | 3 - 16mmØ | 2 - 16mmØ | 3 - 16mmØ |
| BOTTOM BARS | 2 - 16mmØ | 2 - 16mmØ | 2 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 300mm O.C. | | |

| MARK | EDGE BEAM 2 SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| EB-2 |  |  |  |
| SIZE (MM) | 200X300 | 200X300 | 200X300 |
| TOP BARS | 3 - 16mmØ | 2 - 16mmØ | 3 - 16mmØ |
| BOTTOM BARS | 2 - 16mmØ | 2 - 16mmØ | 2 - 16mmØ |
| STIRRUPS | 10mmØ : 5@50mm, 10@100mm, 5@150mm REST @ 300mm O.C. | | |

| MARK | CANTILEVER BEAM SECTION | | |
|---|---|---|---|
| | LEFT END SECTION | MID SPAN SECTION | RIGHT END SECTION |
| CB - 1<br>CB - 2 |  |  |  |
| SIZE (MM) | 300X300 | VARY - L | 300X400 |
| TOP BARS | 5 - 16mmØ | 5 - 16mmØ | 5 - 16mmØ |
| BOTTOM BARS | 3 - 16mmØ | 3 - 16mmØ | 3 - 16mmØ |
| STIRRUPS | 10mmØ : SPACED @ 100mm O.C. | | |

## SCHEDULE OF BEAM, ROOF BEAM, EDGE BEAM AND CANTILEVER BEAM

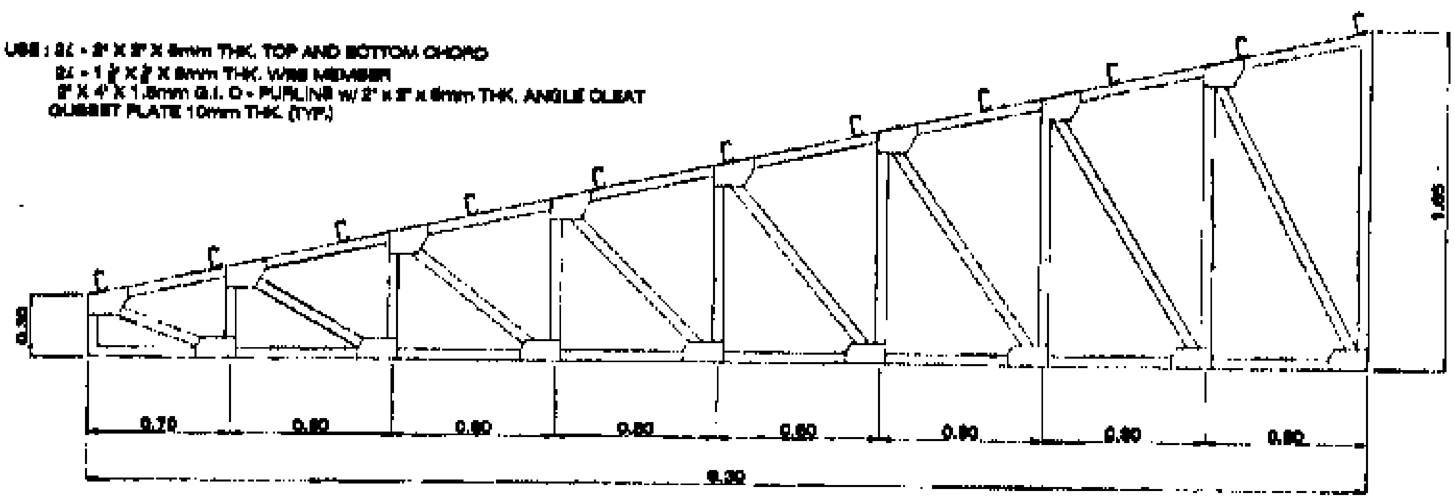
| | | | | | |
|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYSUSTE G. DAMERO, Engineering Assistant - A | CHECKED BY: [illegible], Acting Project Engineer - A | RECOMMENDING APPROVAL: ROSHAN Z. NUEVO, Acting Division Manager, BED | APPROVED: MANUEL A. BOHOLANO, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: 11 / 22 |




## ROOF FRAMING PLAN

SCALE 1 : 150 MTS.

USE : 2L - 2" X 2" X 6mm THK. TOP AND BOTTOM CHORD
2L - 1 ½ X 2 X 6mm THK. WEB MEMBER
2" X 4" X 1.5mm G.I. C - PURLINS w/ 2" x 2" x 6mm THK. ANGLE CLEAT
GUSSET PLATE 10mm THK. (TYP.)

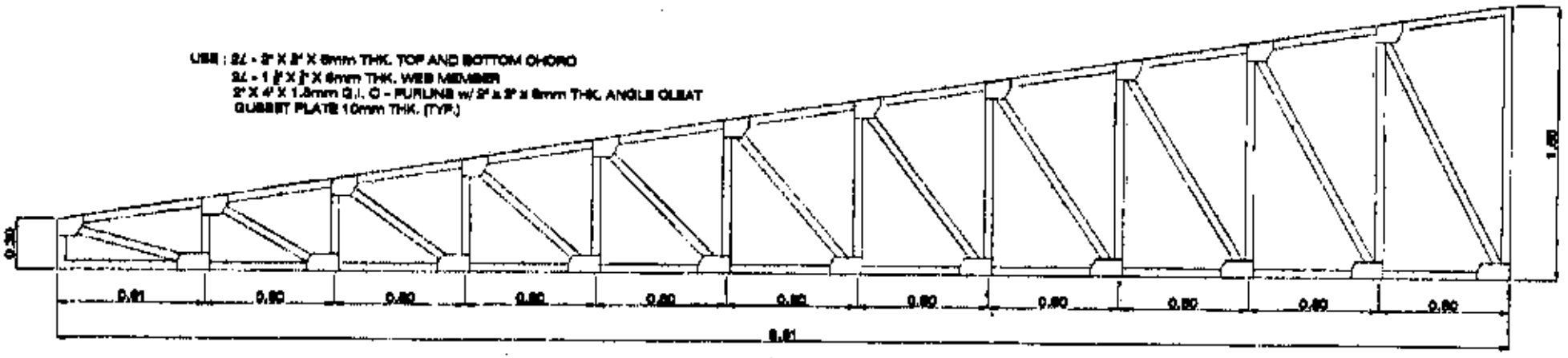



## DETAIL OF HALF TRUSS - 1 (11 UNITS)

SCALE 1 : 30 MTS.

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYKURTZ O. CAMERO, Engineering Assistant - A | CHECKED BY: Acting Principal Engineer - A | RECOMMENDING APPROVAL: ROMEL A. NUEVO, Acting Division Manager | APPROVED: MANUEL A. SOROLANO, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: S12 / 22 |

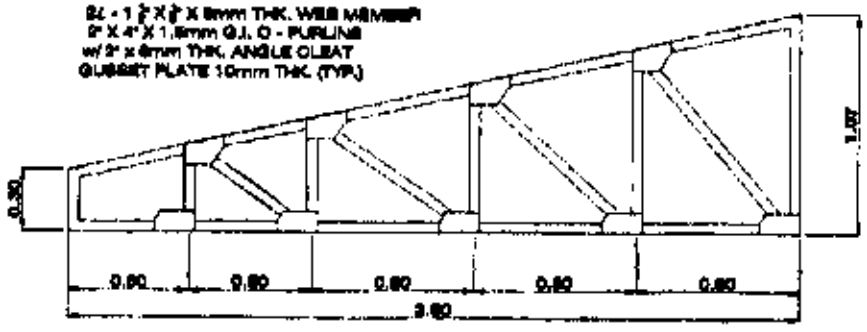
USE : 2L - 2" X 2" X 6mm THK. TOP AND BOTTOM CHORD
2L - 1 ½" X ½" X 6mm THK. WEB MEMBER
2" X 4" X 1.6mm G.I. C - PURLINS w/ 2" x 2" x 6mm THK. ANGLE CLEAT
GUSSET PLATE 10mm THK. (TYP.)




## DETAIL OF HIP TRUSS - 1 (2 UNITS)

SCALE 1 : 25 MTS.

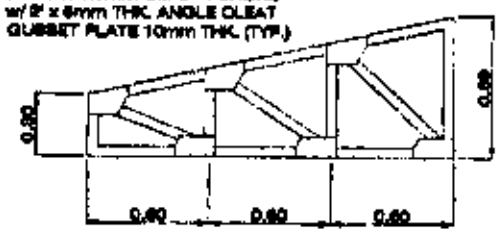
USE : 2L - 2" X 2" X 6mm THK. TOP AND BOTTOM CHORD
2L - 1 ½" X ½" X 6mm THK. WEB MEMBER
2" X 4" X 1.6mm G.I. C - PURLINS
w/ 2" x 6mm THK. ANGLE CLEAT
GUSSET PLATE 10mm THK. (TYP.)




## DETAIL OF HALF TRUSS - 2 (4 UNITS)

SCALE 1 : 25 MTS.

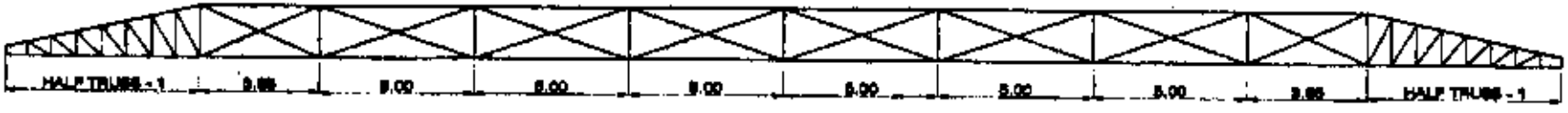
USE : 2L - 2" X 2" X 6mm THK. TOP AND BOTTOM CHORD
2L - 1 ½" X ½" X 6mm THK. WEB MEMBER
2" X 4" X 1.6mm G.I. C - PURLINS
w/ 2" x 6mm THK. ANGLE CLEAT
GUSSET PLATE 10mm THK. (TYP.)




## DETAIL OF HALF TRUSS - 3 (4 UNITS)

SCALE 1 : 25 MTS.

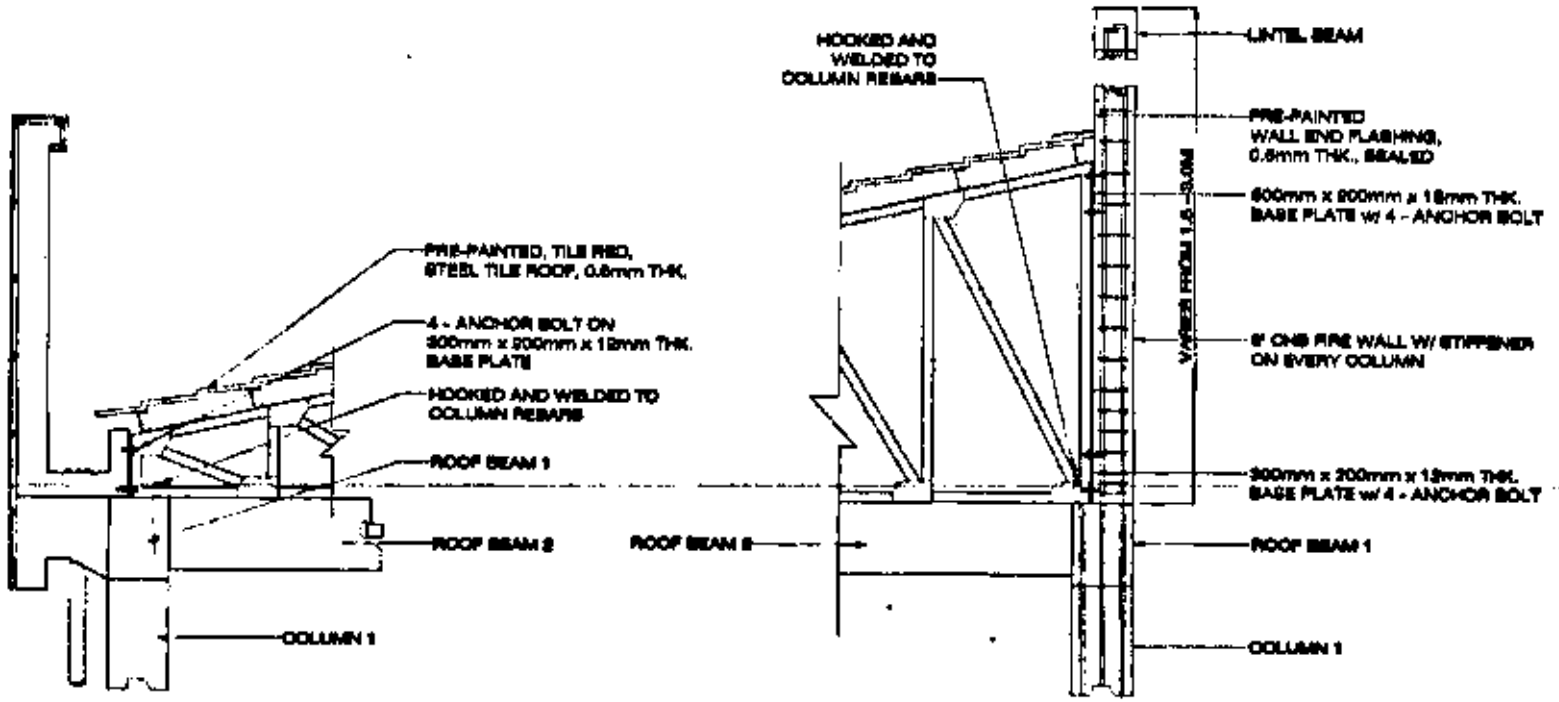
USE : 2L - 2" X 2" X 6mm THK. TOP & BOT. BARS
2L - 1 ½" X ½" X 6mm THK. WEB MEMBERS
GUSSET PLATE 10mm THK. (TYP.)




## DETAIL OF END WALL BRACING

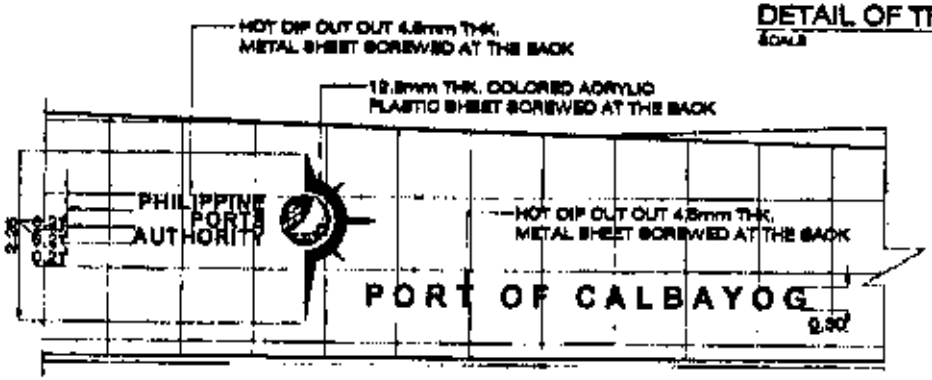
SCALE 1 : 150 MTS.

| | | | | | |
|---|---|---|---|---|---|
| PROJECT TITLE : IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY : JAYMURTZ G. GAVIERO, Engineering Assistant - II | CHECKED BY : VICTOR [illegible], Engineer - II | RECOMMENDING APPROVAL : ROSEMARIE T. NUEVO, Acting Division Manager, DEB | APPROVED : MANUEL A. ROXELAS, Port Manager | SHEET CONTENTS : AS SHOWN | SHEET NO. : 21 / 22 |



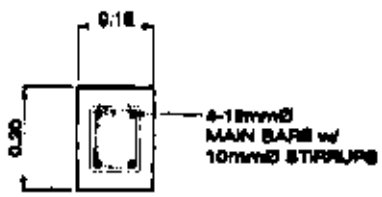

## DETAIL OF TRUSS-COLUMN CONNECTION

SCALE 1:50 MTS.



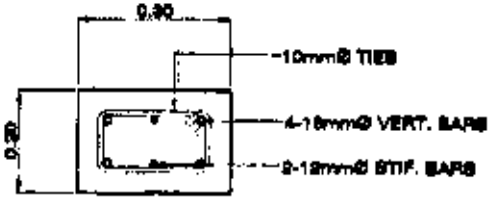

## PPA LOGO DETAIL

SCALE NTS




## LINTEL BEAM PLAN

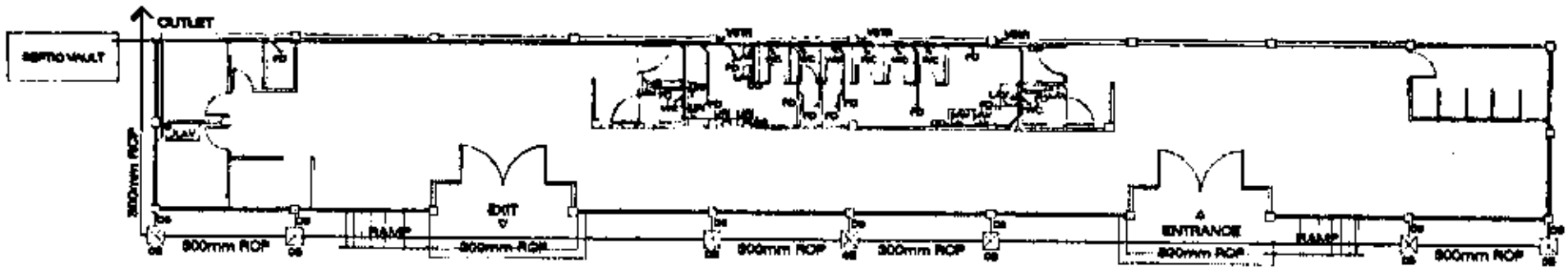
SCALE 1:10 MTS.




## FIREWALL COLUMN PLAN

SCALE 1:10 MTS.

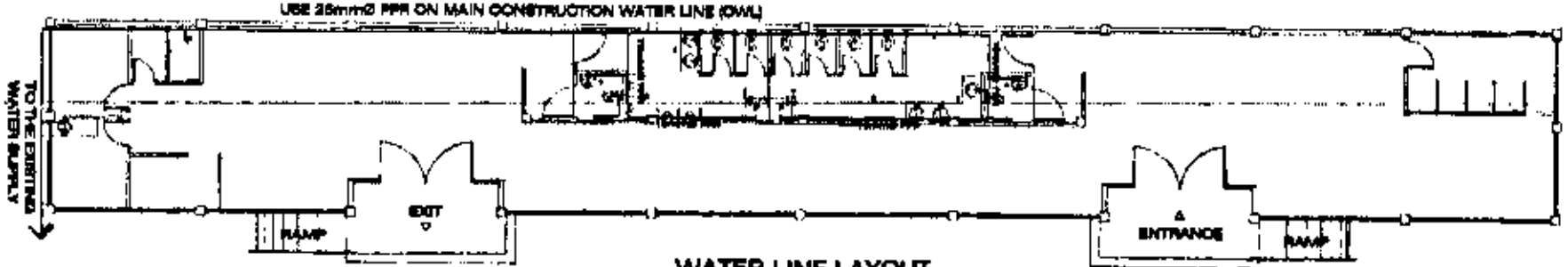
| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JEVILLITO O. CAMERO, Engineering Assistant - A | CHECKED: VICTOR [illegible], Acting Project Engineer - A | RECOMMENDING APPROVAL: ROSS[illegible] A. ALBANO, Acting Division Manager | APPROVED: MARIVIC A. BORGUINO, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO. S14 22 |




SANITARY SEWAGE LAYOUT

SCALE 1 : 150 MTS.

USE 25mmØ PPR ON MAIN CONSTRUCTION WATER LINE (OWL)




WATER LINE LAYOUT

SCALE 1 : 150 MTS.

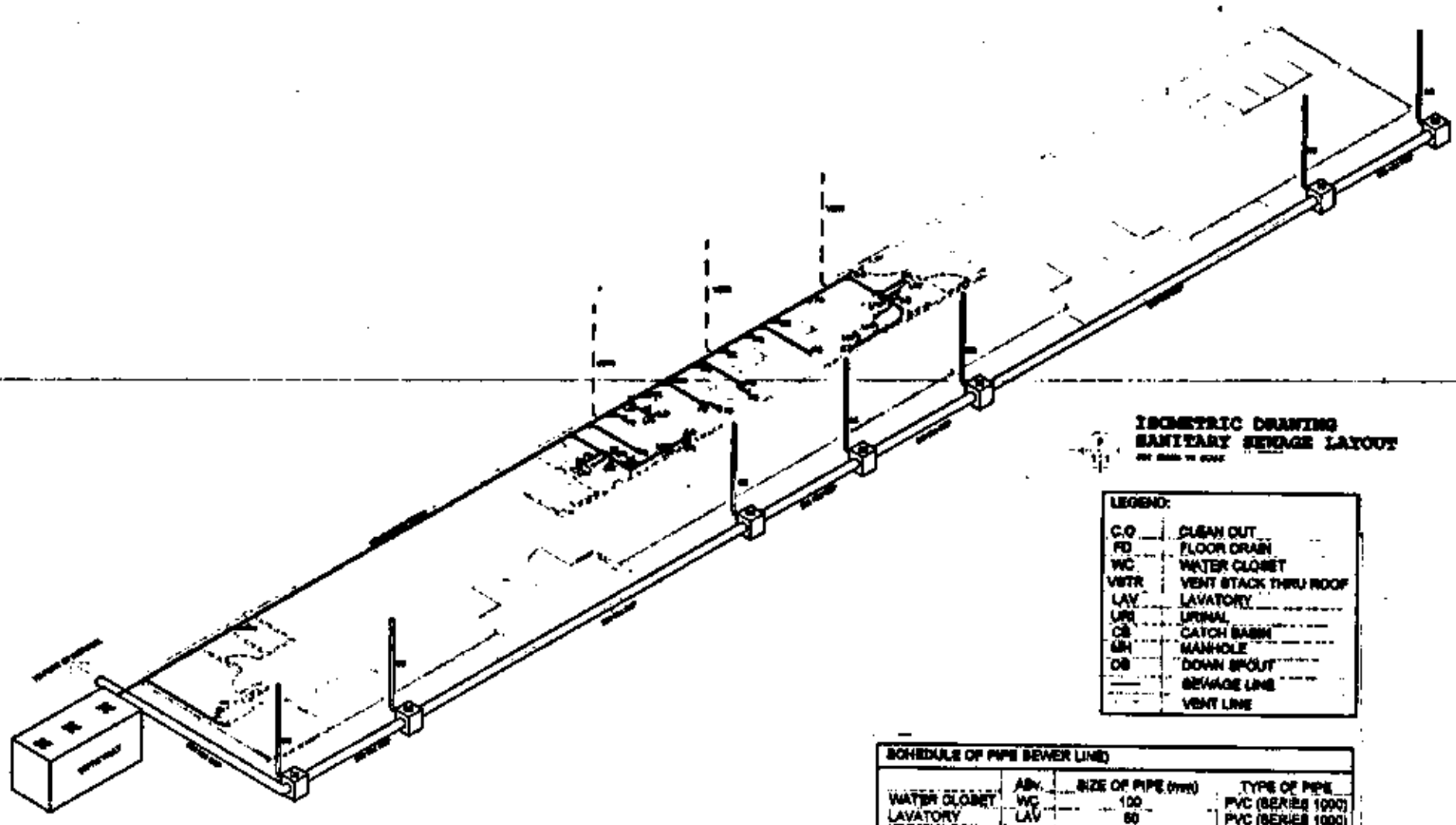
## GENERAL NOTES:

1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED IN ACCORDANCE TO THE PROVISIONS OF THE PHILIPPINE PLUMBING CODE, THE NATIONAL BUILDING CODE AND THE RULES AND REGULATIONS OF THE LOCAL MUNICIPALITY.
2. COORDINATE THE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS. THE ENGINEER AND THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND HEREIN.
3. ALL PIPES SHALL BE INSTALLED AS INDICATED. ANY RELOCATION REQUIRED FOR PROPER EXECUTION OF THE PLUMBING WORK SHALL BE WITH PRIOR APPROVAL OF THE ENGINEER AND THE ARCHITECT.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR
5. ALL SLOPES AND HORIZONTAL DRAINAGE SHALL MAINTAIN ONE PERCENT (0.01) AND ONE-HALF PERCENT (0.005) MINIMUM UNLESS OTHERWISE SPECIFIED.
6. WATER SUPPLY PIPE TO FIXTURE SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. ALL BRANCHES OF FIXTURES OR GROUP OF FIXTURES SHALL BE PROVIDED WITH AIR CHAMBER MADE OF CAPPED VERTICAL EXTENSION PIPE.
8. ALL WATER LINES SHALL BE HYDROSTATICALLY TESTED @ 100 PSI A PERIOD OF TWO (2) HOURS BEFORE BURIED OR COVERED.
9. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE & COORDINATE THE WORK WITH THE SEWER AND STORM DRAINAGE LINE EFFLUENT DISPOSAL POINT AND WATERLINE SERVICE CONNECTING/ TAPPING POINT.
10. ALL PIPE SIZES AND OTHER DIMENSIONS ARE IN MILLIMETER (MM) UNLESS OTHERWISE SPECIFIED.

## LEGEND:

| | |
|---|---|
| WC | WATER CLOSET |
| LAV | LAVATORY |
| URI | URINAL |
| FD | FLOOR DRAIN |
| CO | CLEAN OUT |
| F | FAUCET |
| CB | CATCH BASIN |
| VSTR | VENT STACK THRU ROOF |
| RCP | REINFORCED CONCRETE PIPE |
| CB | CATCH BASIN |
| DS | DOWNSPOUT |
| PPR | POLYPROPYLENE RANDOM |

| PROJECT TITLE | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET NO. |
|---|---|---|---|---|---|---|
| IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | JAYKURTZ D. CAMERO, Engineering Assistant - A | VIC [illegible], Acting Project Engineer - A | ROSEMARIE Z. NUEVO, Acting Division Manager, BSD | MANUEL A. SCHOLARS, Port Manager | AS SHOWN | A16 / 32 |



## ISOMETRIC DRAWING
## SANITARY SEWAGE LAYOUT

| LEGEND: | |
|---|---|
| C.O | CLEAN OUT |
| FD | FLOOR DRAIN |
| WC | WATER CLOSET |
| VSTR | VENT STACK THRU ROOF |
| LAV | LAVATORY |
| URI | URINAL |
| CB | CATCH BASIN |
| MH | MANHOLE |
| DS | DOWN SPOUT |
| ——— | SEWAGE LINE |
| - - - - | VENT LINE |

**SCHEDULE OF PIPE SEWER LINE)**

| | ABV. | SIZE OF PIPE (mm) | TYPE OF PIPE |
|---|---|---|---|
| WATER CLOSET | WC | 100 | PVC (SERIES 1000) |
| LAVATORY | LAV | 50 | PVC (SERIES 1000) |
| VENT STACK THRU ROOF | VSTR | 100 | PVC (SERIES 1000) |
| URINAL | URI | 50 | PVC (SERIES 1000) |
| DOWNSPOUT | DS | 100 | PVC (SERIES 1000) |
| MAIN LINE | | 150 | PVC (SERIES 1000) |

PROJECT TITLE:

IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY

PREPARED BY:

ENGR. [illegible]
Engineering Assistant - II

CHECKED BY:

ENGR. [illegible]
Acting Chief, [illegible]

RECOMMENDING APPROVAL:

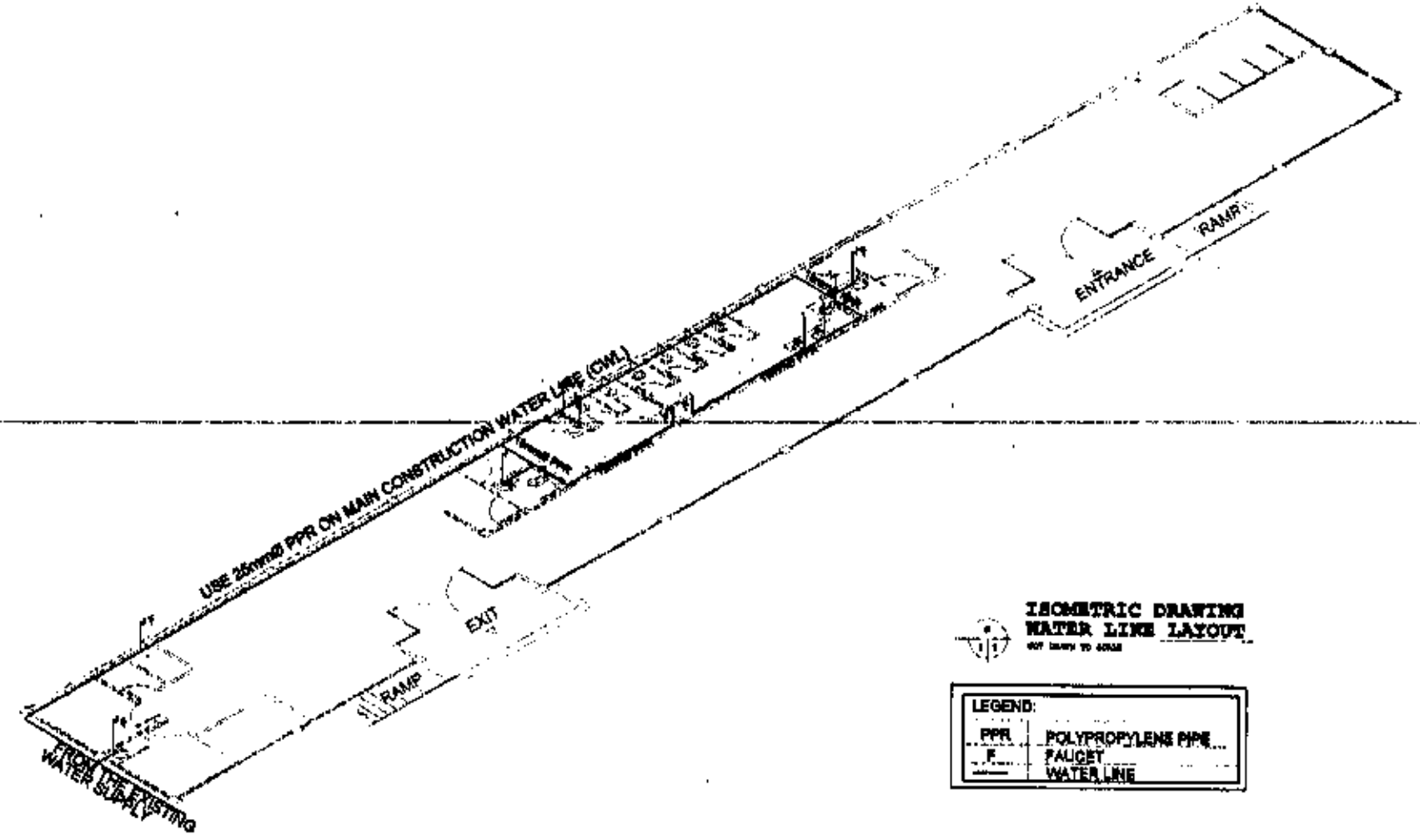
ENGR. ROMULO Z. NIÑO
Acting Division Manager, BEO

APPROVED:

ENGR. MARIVIC A. BENOLIRAO
Port Manager

SHEET CONTENTS: AS SHOWN

SHEET NO.: P16 / 27

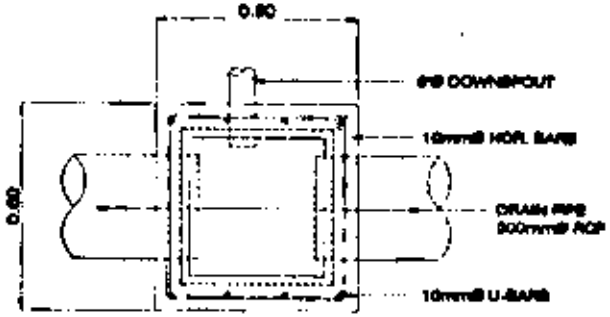



## ISOMETRIC DRAWING
## WATER LINE LAYOUT

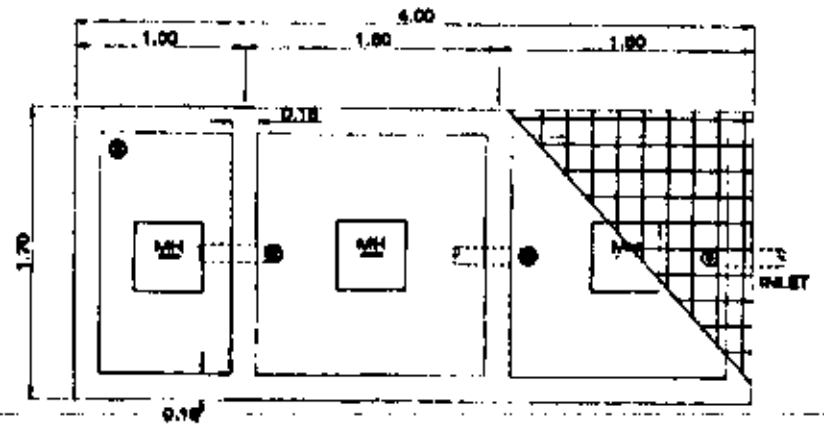
not drawn to scale

| LEGEND: | |
|---|---|
| PPR | POLYPROPYLENE PIPE |
| F | FAUCET |
| ——— | WATER LINE |

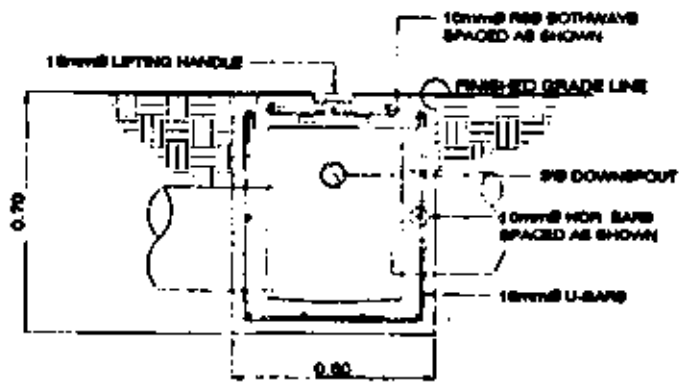
| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYCUSTER C. CAMERO, Engineering Assistant - A | CHECKED BY: [signature], Acting Project Engineer - A | RECOMMENDING APPROVAL: ROBERTO T. MARIO, Acting Division Manager, MIS | APPROVED: [signature], Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO. P17 of 22 |




PLAN



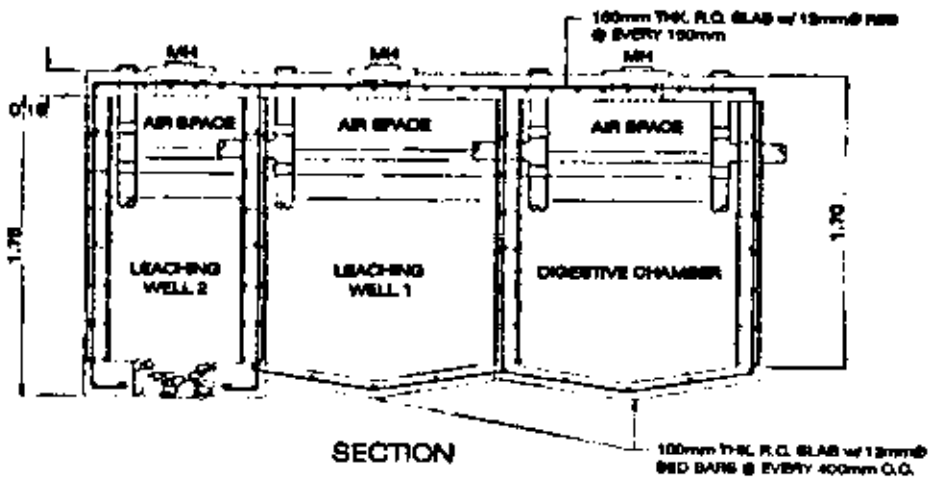

PLAN




SECTION

DETAIL OF CATCH BASIN

SCALE 1 : 15 MTS.

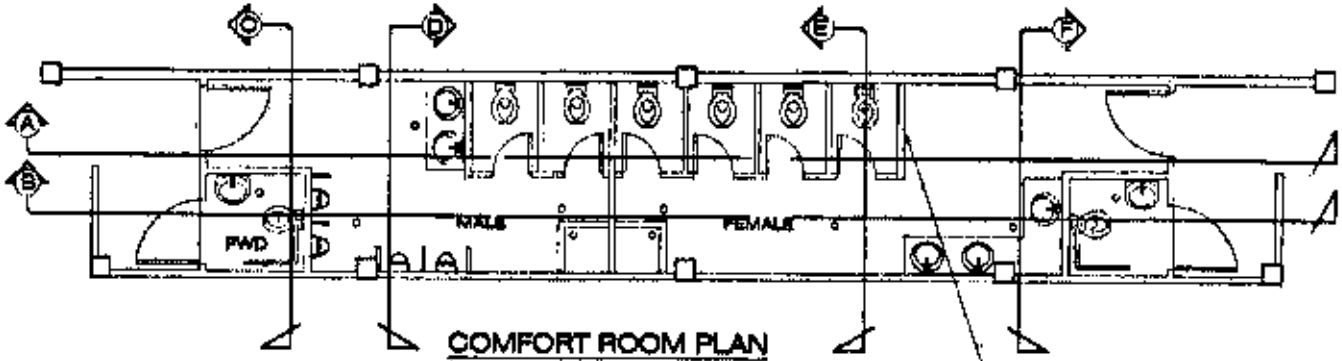



SECTION

DETAIL OF SEPTIC TANK

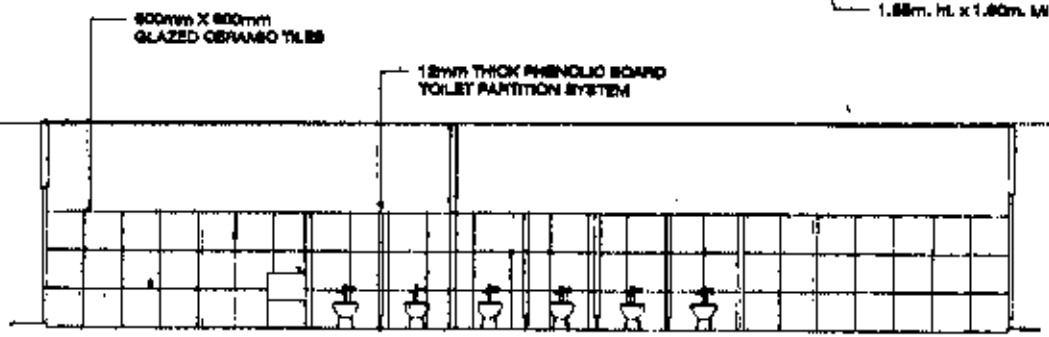
SCALE 1 : 20 MTS.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYKURTZ D. CAMERO, Engineering Assistant - A | CHECKED BY | RECOMMENDING APPROVAL: ROSEANN Z. NUEVO, Acting Division Manager, BEO | APPROVED: MANUEL A. BONDLADO, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO.: PTB 22 |

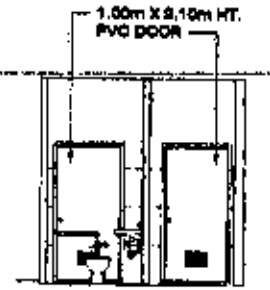



COMFORT ROOM PLAN
SCALE 1 : 50 MTS.

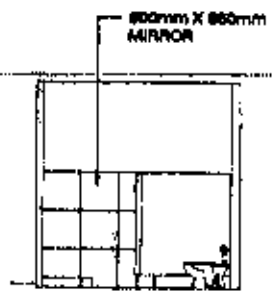
1.55m. ht. x 1.00m. MIRROR



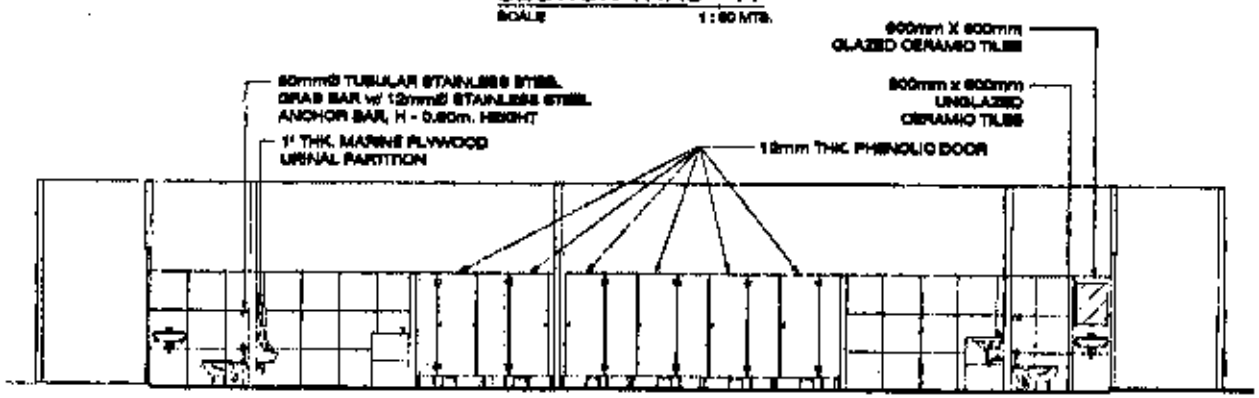

SECTION THRU - 'A'
SCALE 1 : 50 MTS.



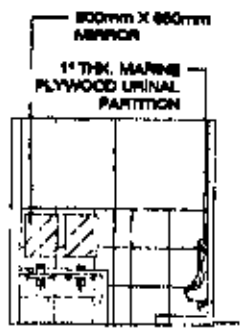

SECTION THRU - 'C'
SCALE 1 : 50 MTS.



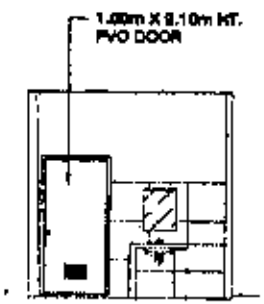

SECTION THRU - 'E'
SCALE 1 : 50 MTS.




SECTION THRU - "B"
SCALE 1 : 50 MTS.

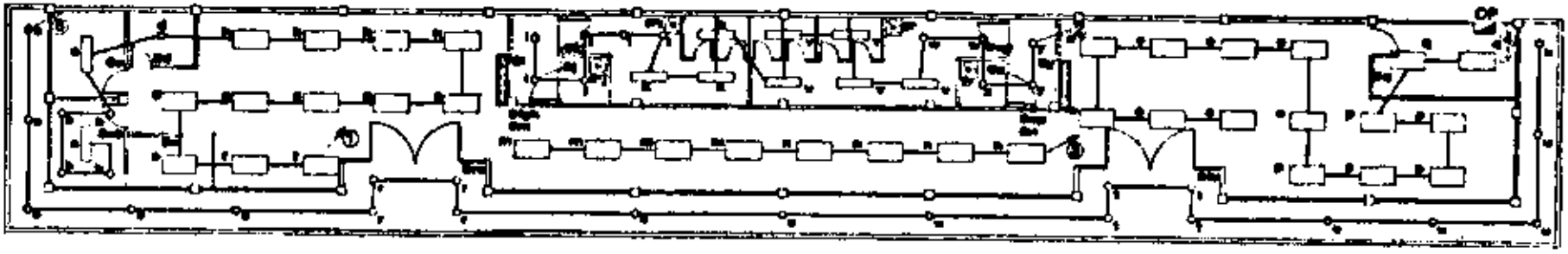



SECTION THRU - "D"
SCALE 1 : 50 MTS.



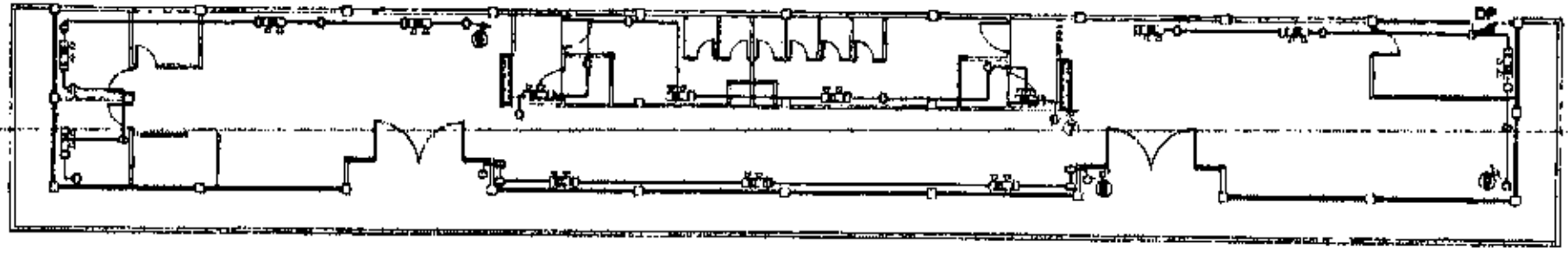

SECTION THRU - "F"
SCALE 1 : 50 MTS.

| PROJECT TITLE: | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET NO.: |
|---|---|---|---|---|---|---|
| IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY<br>Location: PORT OF CALBAYOG, CITY OF CALBAYOG, SAMAR | JAYMI-PETE G. CAMARIN<br>Engineering Assistant - A | VICTOR [illegible]<br>Acting Principal Engineer - A | ROSSANA Z. NIEVO<br>Acting Division Manager, BAO | MANUEL A. BONGLANG<br>Port Manager | AS SHOWN | P1B 22 |



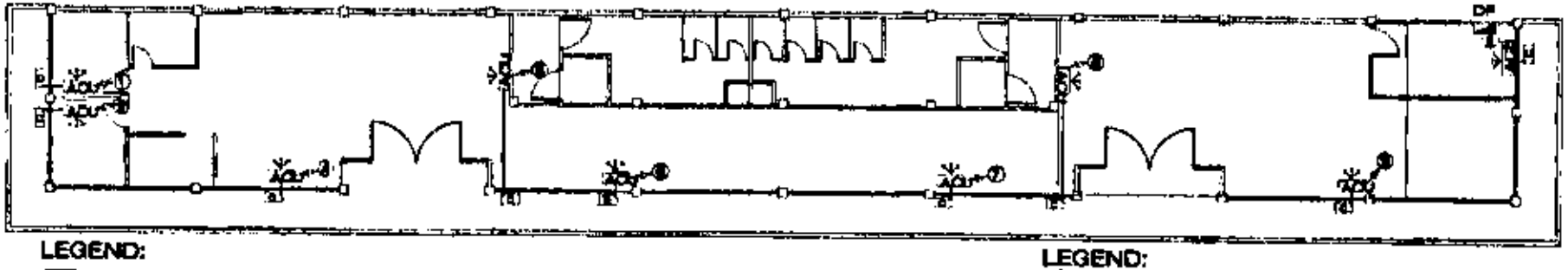
## LIGHTING LAYOUT PLAN

SCALE 1 : 150 MTS.



## POWER LAYOUT PLAN (CONVENIENCE OUTLET)

SCALE 1 : 150 MTS.



**LEGEND:**

- 2 - 18W LED FLOURESCENT LIGHTING FIXTURE (LUMINAIRE w/ ALUMINUM REFLECTOR - RECESSED TYPE)
- 1 - 18W LED FLOURESCENT LIGHTING FIXTURE (LUMINAIRE w/ ALUMINUM REFLECTOR - RECESSED TYPE)
- 18W PINLIGHT, LED
- 18W DOWNLIGHT, LED
- EMERGENCY LIGHT

## POWER LAYOUT PLAN (ACU)

SCALE 1 : 150 MTS.

**LEGEND:**

- ACU AIR CONDITIONING UNIT
- ACCU AIRCON. CONDENSING UNIT
- S SWITCH
- EF EXHAUST FAN, CEILING-MOUNTED
- CIRCUIT HOMERUN
- PANEL BOARD

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: AS SHOWN | SHEET NO: E20 / 22 |

## SCHEDULE OF LOADS (LIGHT AND CONVENIENCE OUTLET)

| CKT. NO. | DESCRIPTION | OUTLETS LO | OUTLETS CO | VOLTS | WATTS | AMPERES AB | AMPERES BC | AMPERES CA | CIRCUIT PROTECTION | SIZE OF WIRE & CONDUIT |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LIGHTING OUTLET | 19 | | 220 | 1900 | 8.64 | | | 15 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 2 | LIGHTING OUTLET | 19 | | 220 | 1900 | 8.64 | | | 15 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 3 | LIGHTING OUTLET | 8 | | 220 | 800 | | 3.63 | | 15 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 4 | LIGHTING OUTLET | 15 | | 220 | 1500 | | 6.82 | | 15 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 5 | LIGHTING OUTLET | 21 | | 220 | 2100 | | | 9.55 | 15 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 6 | CONVENIENCE OUTLET | | 10 | 220 | 3600 | | | 16.36 | 20 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 7 | CONVENIENCE OUTLET | | 10 | 220 | 3600 | 16.36 | | | 20 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 8 | CONVENIENCE OUTLET | | 8 | 220 | 3240 | 14.73 | | | 20 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 9 | CONVENIENCE OUTLET | | 8 | 220 | 3240 | | 14.73 | | 20 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 10 | SPARE | | | - | - | | 0.00 | | 20 AT, 2P | - |
| 11 | SPARE | | | - | - | | | 0.00 | 20 AT, 2P | - |
| 12 | SPARE | | | - | - | | | 0.00 | 20 AT, 2P | - |
| | TOTAL | | | 220 | | 48.87 | 30.19 | 35.91 | 100 AT, 3P | 5 - 30mm² THHN COPPER WIRE ON 32mmØ PVC PIPE |

## SCHEDULE OF LOADS (AIR CONDITIONING UNIT)

| CKT. NO. | DESCRIPTION | VOLTS | WATTS | AMPERES AB | AMPERES BC | AMPERES CA | CIRCUIT PROTECTION | SIZE OF WIRE & CONDUIT |
|---|---|---|---|---|---|---|---|---|
| 1 | WALL-MOUNTED ACU, 1HP | 220 | 1060 | 4.77 | | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 2 | WALL-MOUNTED ACU, 1HP | 220 | 1060 | 4.77 | | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 3 | WALL-MOUNTED ACU, 2HP | 220 | 1960 | | 8.69 | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 4 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | | 17.27 | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 5 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | | | 17.27 | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 6 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | | | 17.27 | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 7 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | 17.27 | | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 8 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | 17.27 | | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 9 | FLOOR-MOUNTED ACU, 3TR | 220 | 3800 | | 17.27 | | 30 AT, 2P | 2 - 5.5mm² THHN COPPER WIRE ON 20mmØ PVC PIPE |
| 10 | SPARE | - | - | | 0.00 | | 30 AT, 2P | - |
| 11 | SPARE | - | - | | | 0.00 | 30 AT, 2P | - |
| 12 | SPARE | - | - | | | 0.00 | 30 AT, 2P | - |
| | TOTAL | 220 | | 44.08 | 43.18 | 44.54 | 125 AT, 3P | 3 - 38mm² THHN COPPER WIRE ON 32mmØ PVC PIPE |

## GENERAL NOTES:

1. ALL WORKS SHALL HEREIN SHALL COMPLY WITH THE LATEST EDITION PHILIPPINE ELECTRICAL CODE (PEC), CITY ORDINANCES AND LOCAL CO., REQUIREMENTS
2. INSTALLATION SHALL BE IN RSC FOR SERVICE ENTRANCE AND PVC INSIDE CONCRETE.
3. MATERIALS AND EQUIPMENT TO BE USED SHALL BE NEW AND APPROVED TYPE FOR LOCATION AND PURPOSES.
4. ONLY ONE SERVICE DROP AT ONE BUILDING.
5. ADEQUATE AND EFFECTIVE GROUNDING IS PROVIDED.
6. POWER SUPPLY 220 VOLTS, 60HZ, 3Ø, 3-WIRE.
7. ALL WORKS SHALL BE IN DIRECT SUPERVISION OF REG ELECTRICAL ENGINEER OR DULY LICENSED PROFESSIONAL ELECTRICAL ENGINEER, PEE. THE MOUNTING HEIGHTS OF WIRING DEVICES SHALL BE AS FOLLOWS.

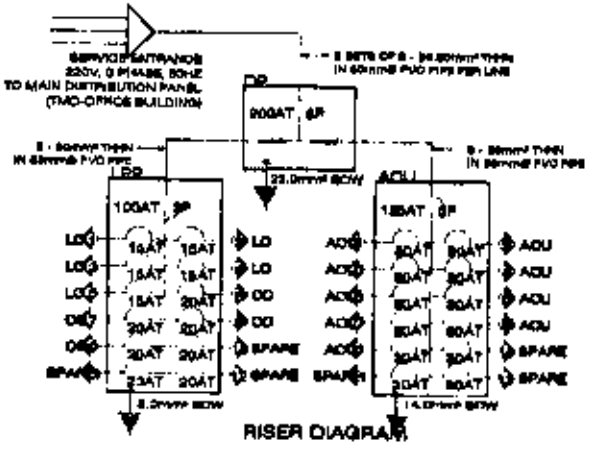
A) LIGTING SWITCHES ..... 1.40m ABOVE FLOOR FINISH

B) CONVENIENCE OUTLET ..... 0.30m. ABOVE FLOOR FINISH OR AS REQUIRED

C) TELEPHONE OUTLETS ..... 0.30m. ABOVE FLOOR FINISH OR AS REQUIRED

D) PANELBOARDS & CABINETS ... 1.80m. ABOVE FLOOR FINISH AT TOP OR AS REQUIRED

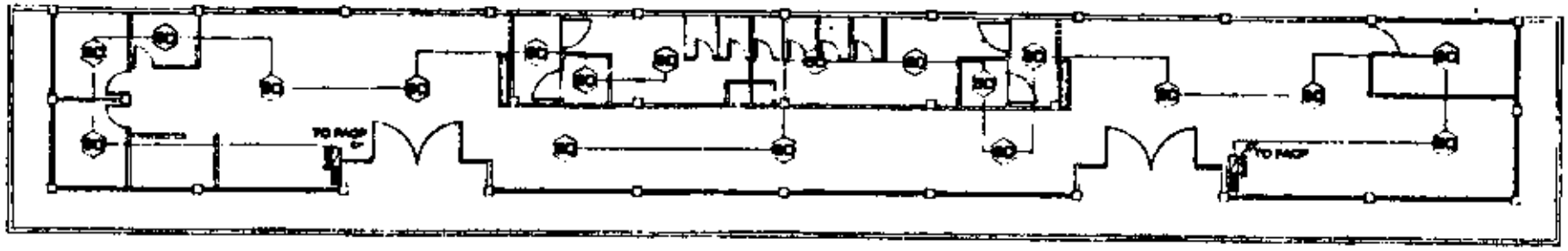
E) CONVENIENCE OUTLETS ..... 0.15m. ABOVE COUNTER



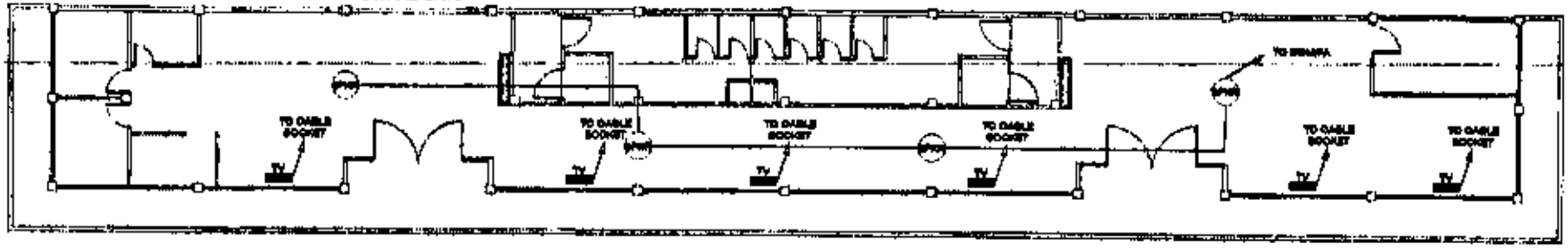

RISER DIAGRAM

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT TITLE: IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TISOY | PREPARED BY: JAYSURTZA CAMERO, Engineering Assistant A | CHECKED BY: [illegible] | RECOMMENDING APPROVAL: ROBERTO Z. NUEVO, Acting Division Manager (Bid) | APPROVED: MANUEL A. BONGLAND, Port Manager | SHEET CONTENTS: AS SHOWN | SHEET NO: E21 / 22 |

FIRE DETECTION ALARM




BACKGROUND MUSIC / PUBLIC ADDRESS SYSTEM AND CATV

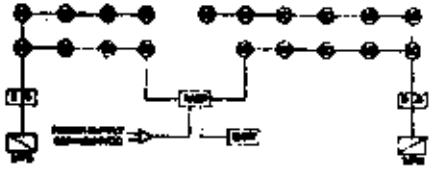



## ELECTRICAL AUXILLARY LAYOUT PLAN

SCALE 1:150 MTS.

LEGEND:

- SD — SMOKE DETECTOR
- SPKR — SPEAKER
- MPS — MANUAL PULL STATION
- S S — SOUNDER STROBE
- FACP — FIRE ALARM CONTROL PANEL
- TV — CABLE TELEVISION



FIRE DETECTION ALARM SYSTEM



COMMUNITY ANTENNA TELEVISION



BACKGROUND MUSIC / PUBLIC ADDRESS SYSTEM

## SINGLE LINE DIAGRAM

| PROJECT TITLE: | PREPARED BY: | CHECKED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET NO. |
|---|---|---|---|---|---|---|
| IMPROVEMENT/EXPANSION OF PASSENGER TERMINAL BUILDING (PTB) DAMAGED BY TYPHOON TIBOY | JAYRANTE S. CAMERO, Engineering Assistant - A | VICTOR [illegible], Acting Port Manager - A | ROBERTA Z. NUÑO, Acting Division Manager, BMD | MANUEL [illegible], Port Manager | AS SHOWN | E2.2 / 22 |

# *SECTION VIII*

# *BILL OF QUANTITIES and ATTACHMENTS*

# BID SUMMARY

## IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING DAMAGED BY TYPHOON "TISOY"

**Port of Calbayog, Calbayog, Samar**

| NO. | DESCRIPTION OF WORK | AMOUNT (Pesos) |
|---|---|---|
| BILL NO. 1 | General Expenses | |
| BILL NO. 2 | Improvement / Expansion of Passenger Terminal Building | |
| | BID PRICE | - |

Name of Firm

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Date

# BILL OF QUANTITIES

## IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING DAMAGED BY TYPHOON "TISOY"

**Port of Calbayog, Calbayog, Samar**

| NO. (1) | DESCRIPTION OF WORK (2) | UNIT (3) | QTY. (4) | UNIT PRICE (Pesos) (5) | AMOUNT (Pesos) (4) x (5) |
|---|---|---|---|---|---|
| BILL NO. | **1 General Expenses** | | | | |
| | 1.01 Mobilization/ Demobilization and Clean-up | l.s. | 1.00 | | |
| | 1.02 Provide Construction Safety and Health Program in the execution of the Project | days | 300.00 | | |
| **TOTAL FOR BILL NO.1** | | | | | - |

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

# BILL OF QUANTITIES

## IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING DAMAGED BY TYPHOON "TISOY"

**Port of Calbayog, Calbayog, Samar**

| NO. (1) | DESCRIPTION OF WORK (2) | UNIT (3) | QTY. (4) | UNIT PRICE (Pesos) (5) | AMOUNT (Pesos) (4) x (5) |
|---|---|---|---|---|---|
| BILL NO. | **2 Improvement / Expansion of Passenger Terminal Building** | | | | |
| 2.01 | Demolition and disposal of remaining damaged covered walk | lot | 1.00 | | |
| 2.02 | Removal and disposal of existing roofing, trusses, ceiling, and existing comfort room of PTB | sq.m. | 150.00 | | |
| 2.03 | Installation of batter board, cutting, breaking and disposal of concrete pavement | sq.m. | 107.00 | | |
| 2.04 | Excavation for column footing, foot tie beams, storm drainage and septic tank and disposal of waste | cu.m. | 100.00 | | |
| 2.05 | Supply and place 3500 psi concrete on footing, column, beams, tie beams, duct bank, canopy, flooring, ramp, catch basin and parapet | cu.m. | 181.00 | | |
| 2.06 | Supply and install reinforcement bars for item 2.05 | kgs | 16,552.00 | | |
| 2.07 | Supply, spread and compact fill materials and gravel bedding | cu.m. | 79.00 | | |
| 2.08 | Supply and place CHB wall, CR partition, septic tank & fire wall | sq.m. | 524.00 | | |
| 2.09 | Supply & install steel trusses, half truss, hip truss, end wall bracing, & c-purlins | sq.m. | 350.00 | | |
| 2.10 | Supply and install steel tile roofing and accessories | sq.m. | 350.00 | | |
| 2.11 | Supply and install interior acoustic board & exterior ceiling | sq.m. | 396.00 | | |
| 2.12 | Supply and place doors, windows, and gang chair | lot | 1.00 | | |
| 2.13 | Supply and install plumbing pipes, tilings and fixtures | lot | 1.00 | | |
| 2.14 | Supply and install stainless steel handrails | lot | 1.00 | | |
| 2.15 | Supply and place floor tiles | sq.m. | 265.00 | | |

# BILL OF QUANTITIES

## IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING DAMAGED BY TYPHOON "TISOY"

**Port of Calbayog, Calbayog, Samar**

| NO. (1) | DESCRIPTION OF WORK (2) | UNIT (3) | QTY (4) | UNIT PRICE (Pesos) (5) | AMOUNT (Pesos) (4) x (5) |
|---|---|---|---|---|---|
| 2.16 | Supply and install electrical wirings and fixtures, panel box, breakers and other accessories | lot | 1.00 | | |
| 2.17 | Supply, install, testing and commisioning of airconditioning units, fire alarm system, tv, breakers and accessories | lot | 1.00 | | |
| 2.18 | Supply and install aluminum composite panel, PPA Logo and siganges | sq.m. | 150.00 | | |
| 2.19 | Surface preparation and apply two (2) coats of paint on entire building | sq.m. | 614.00 | | |

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

## BASIS OF PAYMENT FOR WORK ITEMS INCLUDED IN THE PROPOSAL

The work items included in the proposal and the basis of payments are as follows:

## BILL NO. 1

## GENERAL EXPENSES

**Item 1.01 Mobilization, demobilization, and clean-up**

The quantity to be paid for shall be the minimum equipment requirement enumerated in the bid documents mobilized, demobilized and cleaning of the site and accepted by the Engineer. The contract lump sum price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to mobilize and demobilize all the minimum equipment requirement enumerated in the bid documents including cleaning of the site. Fifty percent (50%) of the total amount shall be payable after the mobilization activity while the remaining (50%) payable after demobilization and clearing.

**Item 1.02 Provide Construction Safety and Health Program in the execution of the Project**

The quantity to be paid for shall be the actual implementation of construction safety and health program and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, tools, and incidentals necessary to complete the implementation of the Construction Safety and Health Program, as required and approved by the Department of Labor and Employment (DOLE).

## BILL NO. 2

## IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING

**Item 2.01 Demolition and disposal of remaining damaged covered walk.**

The quantity to be paid for shall be in lot of the removed existing damaged covered walkway and turn-over to PMO-Tacloban the usable materials for safekeeping in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, to include hauling, segregation of removed materials and turn-over necessary to complete the work.

**Item 2.02 Removal and disposal of existing roofing, trusses, ceiling, and existing comfort room of PTB.**

The quantity to be paid for shall be the actual area in square meters off the removed existing roofing, trusses, ceiling, and comfort room to include disposal as directed by the engineer in accordance with the plans and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work including segregation and disposal.

**Item 2.03** **Installation of batter board, cutting, breaking, and disposal of concrete pavement.**

The quantity to be paid for shall be the actual area in square meters of the removed cutting and breaking of pavement to include disposal as directed by the engineer in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work to include segregation and disposal.

**Item 2.04** **Excavation for column footing, foot tie beams, storm drainage, and septic tank, and disposal of waste.**

The quantity to be paid for shall be the actual volume in cubic meters of excavated existing materials for foundation, drainage line, septic tank, and catch basin including disposal of excess materials, in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.05** **Supply and place 3500 psi concrete on footing, column, beams, tie beams, duct bank, canopy, flooring, ramp, catch basin and parapet.**

The quantity to be paid for shall be the actual volume in cubic meters (cu.m) of supplied and placed 3,500psi concrete for RC deck in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work to include formworks.

**Item 2.06** **Supply and install reinforcement bars for item 2.05.**

The quantity to be paid for shall be the actual weight in kilograms (kgs) of steel reinforcement supplied, fabricated and installed steel reinforcements for item 2.05 in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.07** **Supply, spread and compact fill materials and gravel bedding.**

The quantity to be paid for shall be the actual volume in cubic meters (cu.m) of supplied, spread and compact fill materials and gravel bedding in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work to include formworks.

**Item 2.08** **Supply and place CHB wall, CR partition, septic tank, & fire wall.**

The quantity to be paid for shall be the actual area in square meters of supplied and placed various sizes of CHB wall to include steel reinforcements and 25mm thk. plastering works in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.09 Supply and install steel trusses, half truss, hip truss, end wall bracing, & c-purlins.**

The quantity to be paid for shall be the actual area in square meters of supplied and installed steel trusses, c-purlins, tie rod with turnbuckle, threaded sag rods parapet framing and accessories including painting in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.10 Supply and install steel tile roofing and accessories.**

The quantity to be paid for shall be the actual area in square meters of supplied, fabricated and install 0.60mm thk. long span Pre-painted steel tile roofing including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.11 Supply and install interior acoustic board & exterior ceiling.**

The quantity to be paid for shall be the actual area in square meters of supplied, delivered and installed 9.5mm thk. Acoustic Board ceiling to include its accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.12 Supply and place doors, windows, and gang chair.**

The quantity to be paid for shall be the actual lot of supplied and installed doors, windows, and gang chair including accessories, in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.13 Supply and install plumbing pipes, tiling and fixtures.**

The quantity to be paid for shall be the actual lot of supplied and installed plumbing pipes, supply water line, phenolic board partition, tiling, fixtures including accessories, in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.14 Supply and install stainless steel handrails.**

The quantity to be paid for shall be in lot of supplied, fabricated and installed 50mmØ stainless steel handrails to include its accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.15 Supply and place floor tiles.**

The quantity to be paid for shall be the actual area in square meters of supplied and installed various sizes of unglazed ceramic floor tiles, non-slip floor tiles, glazed ceramic wall tiles and border tiles in accordance with the plans and specifications and

accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.16 Supply and install electrical wirings and fixtures, panel box, breakers, and other accessories.**

The quantity to be paid for shall be the actual lot of supplied and installed electrical system to include conduit pipes, electrical wires, lighting, electrical fixtures and bolt-on type panel board in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.17 Supply, install, testing and commissioning of air conditioning unit, fire alarm system, tv, breakers and accessories.**

The quantity to be paid for shall be the actual lot of supplied, installed, testing and commissioning of ACU, fire alarm system, tv, breakers including accessories, in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

**Item 2.18 Supply and install aluminum composite panel, PPA Logo, and signages.**

The quantity to be paid for shall be the area in square meters of the improved damaged logo to include repainting existing signages/logo in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work to include demolition, removal, and installation.

**Item 2.19 Surface preparation and apply two (2) coats of paint on entire building.**

The quantity to be paid for shall be the actual area in square meters of supplied and applied two (2) coats of paint including base preparation on concrete surfaces in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

# MINIMUM MAJOR EQUIPMENT REQUIREMENTS

| | | |
|---|---|---|
| 1 | unit | Generator Set, 10kVA, owned/leased |
| 1 | unit | Electric Jackhammer, owned |
| 1 | units | Dump Truck (6.88-9.17cu.m.), owned/leased |
| 2 | unit | Oxy/Acetylene Cutting Outfit, owned |
| 1 | unit | Payloader (1.06 cu.m., 80hp), owned/leased |
| 1 | units | Concrete Cutter (5hp), owned/leased |
| 1 | units | Backhoe (0.40 cu.m., 9.43 hp), owned/leased |
| 1 | unit | Plate Compactor, 7 hp, owned/leased |
| 1 | unit | Concrete Mixer, One Bagger, owned |
| 1 | unit | Concrete Vibrator (3.5hp), owned |
| 1 | unit | Electric Bar Cutter (25mmØ, minimum), owned/leased |
| 1 | unit | Electric Bar Bender (25mmØ, minimum), owned/leased |
| 1 | unit | Welding Machine, 300 Amps, owned/leased |

# CONSTRUCTION SAFETY AND HEALTH REQUIREMENT

The Contractor shall implement the construction safety and health program in accordance with the applicable provisions of the Occupational Safety and Health Standards (OSHS) of the Department of Labor and Employment (DOLE).

The Contractor, subject to the approval of the Engineer shall provide and maintain throughout the duration of the contract a medical room with at least 15 square meters together with all necessary supplies to be sited in the Contractor's main area.

The Contractor shall provide the following minimum requirements:

**L A B O R**

1 no. Safety Officer

**EQUIPMENT / MATERIALS**

Personnel Protective Equipment

25 sets. Personal Protective Equipment ( Helmets, shoes, belts, gloves, etc.)

Safety Devices

1 lot Safety Devices ( barricades, warning signs, fire extinguisher, & other.)

Medical and First Aid System - 300 CD

NOTE:

The Contractor shall provide the above-cited minimum construction safety and health requirements or as required by the Engineer.

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# REVISED SCHEDULE OF MINIMUM TEST REQUIREMENTS OF CONSTRUCTION MATERIALS FOR PPA INFRASTRUCTURE PROJECTS

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| **I. Construction of Pier/Wharf, Platform and Ramp** | | |
| Structural Concrete (SC) | | |
| A Portland Cement | Quality Test | For every 2,000 bags (40kg) or fraction thereof |
| B Fine Aggregate | Quality Test for Grading, Elutriation (wash), Bulk Specific Gravity, Absorption, Mortar Strength, Soundness, Organic Impurities, Unit Weight, % Clay Lumps and Shale | For every 1,500 cubic meter or fraction thereof |
| C Coarse Aggregate | Quality Test for Grading, Bulk Specific Gravity, Absorption and Abrasion | For every 1,500 cubic meter or fraction thereof |
| D Water | Certificate from the Engineer or Quality Test for Density and Chloride Content | One per source |
| E Steel Bars | Mill Certificate and Quality Test for Chemical Composition and Mechanical Properties | For every 10,000 kg or fraction thereof |
| F Concrete | Compressive Strength on cylinder samples | 1 set consisting of 3 concrete cylinder samples shall be taken from each day's pouring and to represent not more than 75 cu. m of concrete or fraction thereof |
| | Slump Test | For every mix |
| G Admixture and Concrete Curing Materials | Quality Test | One per shipment |
| Piling (P) | | |
| A Concrete Piles | Fabrication Report | One per fabrication |
| 1 Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| 2 Steel Bars | Same test as for SC (E) | Same frequency as SC (E) |
| 3 High Tension Strand | Test for Chemical Composition and Mechanical Properties | For every 20000kg or fraction thereof |

| Materials/Items of Work | Required Tests | Minimum Incremental Frequency of Tests |
|---|---|---|
| 4 Coarse Aggregates | Same Test as for SC (C) | Same frequency as SC (C) |
| 5 Fine Aggregates | Same Test as for SC (B) | Same frequency as SC (B) |
| 6 Steel Pipe Piles | Fabrication Report, Mill Certificate and Quality Test for Chemical and Mechanical properties | One per fabrication |
| 1 Steel | Chemical Composition (refer below) | |
| | - Under 14" (355.60mm) Outside Diameter | 2 from 200 pipe of fraction thereof |
| | - 14" to 36" (355.6 to 914mm) Outside Dia | 2 from 100 pipe or fraction thereof |
| | - Over 36" (914mm) Outside Diameter | 2 from 3000ft (914m) or fraction thereof |
| | Mechanical/Tensile | One (1) tension test shall be made on one length or fraction thereof of each size, or one piece of skelp representing each lot of 200 lengths or fraction thereof of each size |
| 2 Polyurethane Coating | Mill Certificate and Quality Test | One per fabrication |
| 3 Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| 4 Fine Aggregate | Same test as for SC (B) | Same frequency as SC (B) |
| 5 Coarse Aggregate | Same test as for SC (C) | Same frequency as SC (C) |
| 6 Steel Bars | Same Test as SC (E) | Same frequency as SC (E) |
| 7 Water | Same Test as SC (D) | Same frequency as SC (D) |
| Rubber Dock Fenders (RDF) | Physical Test | All units |
| | Performance Test for Energy Absorption and Reaction Force | All units |
| Accessories | | |
| Washer and Foang Bolt, Anchor Bolt | Physical Test | All units |
| | Quality Test for Chemical Composition and Mechanical Properties | One per fabrication |

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| Mooring Bollard (MB) and Accessories (Hexagon Nuts, Plain Washer, Anchor Ring and Anchor Bolt) | Physical Test<br><br>Quality Test for Chemical Composition and Mechanical Properties | All Units<br><br>One per fabrication |
| **II. Construction of Back-Up Area, Causeway and Pavement** | | |
| Sheet Piling (SP) | | |
| A Concrete Sheet Piles | | |
| 1 Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| 2 Steel Bars | Same test as for SC (E) | Same frequency as SC (E) |
| 3 High Tension Strands | Same test as for P (A 3) | Same frequency as P (A 3) |
| 4 Fine Aggregates | Same test as for SC (B) | Same frequency as SC (B) |
| 5 Coarse Aggregates | Same Test as for SC (C) | Same frequency as SC (C) |
| B Steel Pipe Piles | | |
| 1 Steel | Same test as for P (B1) | Same frequency as P (B1) |
| 2 Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| 3 Fine Aggregate | Same test as for SC (B) | Same frequency as SC (B) |
| 4 Steel Bars | Same test as for SC (E) | Same frequency as SC (E) |

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| Rocks | Test for Apparent Specific Gravity and Abrasion | For every 1,500 cubic meter or fraction thereof |
| Geotextile Filter | Physical and Mechanical Test<br><br>Mill Certificate | One per batch<br><br>One per batch |
| Sand and Gravel Fill | Quality Test for Organic Impurities and Grading | For every 1,500 cubic meter or fraction thereof |
| Selected Fill | Quality Test for Grading, Plasticity and Laboratory Compaction Test<br><br>Laboratory California Bearing Ratio (CBR)<br><br>Field Density Test | For every 1,500 cubic meter or fraction thereof<br><br>For every 2,500 cubic meter or fraction thereof<br><br>For every layer of 150mm of compacted depth at least one group of three in-situ density test for every 500 sq m or fraction thereof |
| Aggregate Base Course | Quality Test for Grading and Plasticity<br><br>Quality Test for Grading, Plasticity, Abrasion and Laboratory Compaction Test<br><br>Laboratory California Bearing Ratio (CBR)<br><br>Field Density Test | For every 300 cubic meter or fraction thereof<br><br>For every 1,500 cubic meter or fraction thereof<br><br>Same frequency as Selected Fill<br><br>Same frequency as Selected Fill |
| Portland Cement Concrete Pavement (PCCP) | | |
| A Portland Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregate | Same test as for SC (B) | Same frequency as SC (B) |
| C Coarse Aggregate | Same test as for SC (C) | Same frequency as SC (C) |
| D Water | Same test as for SC (D) | Same frequency as SC (D) |
| E Steel Bars (Dowels) | Same test as for SC (E) | Same frequency as SC (E) |
| F Joint Filler | Quality Test | One (1) per shipment |

| Materials/Items of Work | Required Tests | Minimum Incremental Frequency of Tests |
|---|---|---|
| G Admixture and Concrete Curing Material | Same test as for SC (G) | Same frequency as SC (G) |
| H Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| | Flexural Test | 3 beam samples for every 330 sq m or fraction thereof |
| I Completed Pavement | Core Test | 1 set (3 specimen) for every 2,500 sq m and fraction thereof |
| Interlocking Concrete Blocks | | |
| A Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregate | Same test as for SC (B) | Same frequency as SC (B) |
| C Coarse Aggregate | Same test as for SC (C) | Same frequency as SC (C) |
| D Water | Same test as for SC (D) | Same frequency as SC (D) |
| E Admixture & Concrete Curing Materials | Same test as for SC (G) | Same frequency as SC (G) |
| F Completed Blocks | Physical Test and Compressive Strength | 8 blocks per day of fabrication |
| Cement Treated Base Course (CTB) | | |
| A Portland Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine & Coarse Aggregates | Quality Test for Grading, Abrasion and Soundness | For every 1,500 cubic meter or fraction thereof |
| C Water | Same test as for SC (D) | Same frequency as SC (D) |
| D Completed CTB | Field Density Test | For every layer of 150mm of compacted depth at least one group of three in-situ density test every 500 sq m or fraction thereof |
| Retaining Wall/Coping Wall/RC Curb/RC Ditch/Shear Key/Concrete Blocks/Lean Concrete | | |
| A Portland Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregate | Same test as for SC (B) | Same frequency as SC (B) |

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| C Coarse Aggregates | Same test as for SC (C) | Same frequency as SC (C) |
| D Water | Same test as for SC (D) | Same frequency as SC (D) |
| E Steel Bars | Same test as for SC (E) | Same frequency as SC (E) |
| F Admixture and Concrete Curing | Same test as for SC (G) | Same frequency as SC (G) |
| G Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| Tie Rod | | |
| A Steel | Same test as for SC (E) | One per batch |
| B Assembly | Performance Test (Tension) | One per batch |
| Tie Bars and Dowels | Same test as for SC (E) | For every 10,000 kg or fraction thereof per Tie bars and Dowels |
| Pipe Culverts and Storm Drains | | |
| A Pipes | Test for Strength, Absorption and Physical | For every 50 pieces |
| B Mortar or Joint | Same Test as for SC (A,B and D)<br>Alternative Test Same test as for SC (F) and Inspection Report | For every 25 pieces |
| Concrete Hollow Blocks | | |
| A Portland Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregates | Same test as for SC (B) | Same frequency as SC (B) |
| C Water | Same test as for SC (D) | Same frequency as SC (C) |
| D Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| E Completed CHB | Quality Test | One for every 500 pieces or fraction thereof |
| Construction Joints (CJ) | | |
| A Angle Bars | Test for Physical and Mechanical Properties | One per batch |
| B Steel Bars | Same test as for SC (E) | One per batch |
| C Zinc (Hot Dip Galvanizing) Coatings | Physical Test for Appearance, Stripping, Weighing, Adherence and Adhesion | All units |
| | Coating Thickness<br>Magnetic Thickness Measurement | 1 set (3 specimen) for every 100,000 sq mm or fraction thereof |

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| Sacked Concrete | | |
| A Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregates | Same test as for SC (B) | Same frequency as SC (B) |
| C Coarse Aggregates | Same test as for SC (C) | Same frequency as SC (C) |
| D Water | Same test as for SC (D) | Same frequency as SC (D) |
| E Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| F Sack (jute) | Physical Test | One for every 50 pieces |
| Rubble Concrete | | |
| A Cement | Same test as for SC (A) | Same frequency as SC (A) |
| B Fine Aggregates | Same test as for SC (B) | Same frequency as SC (B) |
| C Coarse Aggregates | Same test as for SC (C) | Same frequency as SC (C) |
| D Water | Same test as for SC (D) | Same frequency as SC (D) |
| E Concrete | Same test as for SC (F) | Same frequency as SC (F) |
| F Rocks | Same test as for ROCKS | Same frequency as ROCKS |
| Earthworks | | |
| A Sub-grade preparation | Grading Test<br>Plasticity Test (LL,PL,PI)<br>Laboratory Compaction Test | For every 1,500 cubic meter or fraction thereof |
| | Density Test | For every layer of 150mm of compacted depth at least one group of three in-situ density test every 500 sq m or fraction thereof |
| B Structure Excavation | If excavated materials shall be used as Backfill<br>Grading Test<br>Plasticity Test (LL,PL,PI)<br>Laboratory Compaction Test | For every 1,500 cubic meter or fraction thereof |
| | Density Test | For every layer of 150mm of compacted depth at least one group of three in-situ density test every 500 sq m or fraction thereof |

| *Materials/Items of Work* | *Required Tests* | *Minimum Incremental Frequency of Tests* |
|---|---|---|
| **III Port Operations Building/Passenger Terminal Building/Transit Shed/Warehouse** | | |
| *STRUCTURAL WORKS* | Refer to Structural Concrete (SC) and Piling Works (P) | |
| *ARCHITECTURAL WORKS* | | |
| Ceramic – Filled Liquid Membrane / Water Proofing, Hydrophobic Poreblocking Ingredients with Superplasticizer | Physical Property, Mechanical and Chemical Property, Leak Test / Flood Test | One per shipment |
| Paint | Quality Test | One 4-L can for every 100 cans or fraction thereof |
| Ceramic Tile | Inspection and Evaluation Report from the Engineer | One per shipment |
| Stainless Steel | Inspection and Evaluation Report from the Engineer | One per shipment |
| Roofing Materials | Inspection and Evaluation Report from the Engineer | One per shipment |
| Ceiling Materials | Inspection and Evaluation Report from the Engineer | One per shipment |
| *ELECTRICAL AND MECHANICAL WORKS* | | |
| Wires / Cables | Inspection and Evaluation Report from the Engineer<br>Testing and Commissioning | One per shipment |
| Electrical Devices | Inspection and Evaluation Report from the Engineer<br>Testing and Commissioning | One per shipment |
| Fire Alarm System | Inspection and Evaluation Report from the Engineer<br>Testing and Commissioning | One per item |
| Wiring Devices | Inspection and Evaluation Report from the Engineer<br>Testing and Commissioning | One per shipment |

| Materials/Items of Work | Required Tests | Minimum Incremental Frequency of Tests |
|---|---|---|
| Protective Devices | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per shipment |
| Telephone System | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| CCTV System | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| CATV System | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| Background Music and Paging System | Inspection and Evaluation Report from the Engineer, Testing and Commissioning | One per item |
| Air Conditioning Units & Ventilation | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| Conduit Pipes | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| Lighting Fixtures | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| **PLUMBING WORKS** | | |
| Pipes | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |

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| Materials/Items of Work | Required Tests | Minimum Incremental Frequency of Tests |
|---|---|---|
| Fixtures | Inspection and Evaluation Report from the Engineer<br><br>Testing and Commissioning | One per item |
| Pipe Culverts | Compressive Strength<br><br>Inspection and Evaluation Report from the Engineer | For every size not more than 25 pipes cast in the field |
| **IV Miscellaneous Materials**<br>Fencing<br>A Barbed Wire, Cyclone Wire Mesh, Chain Link<br><br>B Concrete Post | Physical Test (Dimensions and Coatings)<br><br>Refer to Superstructure (SC) | One per Batch<br><br>Refer to Superstructure (SC) |
| Lamp Post<br>A Structural Steel<br><br>B Zinc (Hot Dip Galvanizing) Coatings | Physical Test (Dimensions)<br>Same test as for SC (E)<br><br>Same test as for CJ (C) | All units<br><br>One per batch |
| Drainage Steel Grating | Same test as for SC (E)<br><br>Inspection Report | One (1) batch |
| Metal Pipe (Cast Iron Galvanized, etc ) | Physical Test (Dimensions and Coatings) | 1 per delivery |
| Welding Works | Destructive and Non Destructive Test | One (1) per lot |

**NOTES**
1. **Testing of RDF shall be performed only by an independent Testing Laboratory duly accredited by BRS, DOST and PPA**
2. **Testing of other materials shall be performed only by an independent Testing Laboratory duly accredited by BRS and PPA.**
3. **All other issuances which are otherwise inconsistent herewith are hereby revoked or otherwise amended.**

Approved

**RAUL T. SANTOS**
Officer-in-Charge,
Office of the General Manager

# *SECTION IX*

# *CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS*

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

*Class "A" Documents*

*Legal Documents*

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages)

*Technical Documents*

☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**

☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**

☐ (d) Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
**or**
Original copy of Notarized Bid Securing Declaration; **and**

(f) Project Requirements, which shall include the following:

☐ a. Organizational chart for the contract to be bid;

☐ b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;

☐ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

☐ (g) Original duly signed Omnibus Sworn Statement (OSS);
**and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

*Financial Documents*

☐ (h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

***Class "B" Documents***

☐ (i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
**or**
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

## II. FINANCIAL COMPONENT ENVELOPE

☐ (j) Original of duly signed and accomplished Financial Bid Form; **and**

*Other documentary requirements under RA No. 9184*

☐ (k) Original of duly signed Bid Prices in the Bill of Quantities; **and**

☐ (l) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**

☐ (m) Cash Flow by Quarter.

# *SECTION X*

# *BIDDING FORM*

# Bid Form for the Procurement of Infrastructure Projects

***[shall be submitted with the Bid]***

## BID FORM

Date : _____
Project Identification No. : _____

To: **Philippine Ports Authority**
PPA Building, Bonifacio Drive,
South Harbor, Port Area, Manila

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers _____, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: **Improvement / Expansion of Passenger Terminal Building Damaged by Typhoon "Tisoy"**;

b. We offer to execute the Works for this Contract in accordance with the PBDs;

c. The total price of our Bid in words and figures, excluding any discounts offered below is: _____;

d. The discounts offered and the methodology for their application are: _____;

e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,

f. Our Bid shall be valid within the period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;

g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of _____ percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[1] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process,

[1] currently based on GPPB Resolution No. 09-2020

other than alternative offers in accordance with the Bidding Documents;

i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the **Improvement / Expansion of Passenger Terminal Building Damaged by Typhoon "Tisoy"** of the **Philippine Ports Authority**.

l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____

## STATEMENT OF THE BIDDER'S ALL ONGOING GOVERNMENT AND PRIVATE CONTRACTS, INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED

I hereby declare that all ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid are listed below:

| Name of outstanding Contracts 1] | Owner's Name and Address | Scope of Work 2] | Contractor's Role and Percentage of Participation 3] | Total Contract Amount or Value 4] | Date of Contract and NOA 5] | Value of Outstanding Works 6] | Accomplishment (in percentage, %) 7] | | Contract Duration 8] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Planned | Actual | Start of Project | Estimated Completion Date |
| A) Government Contracts<br>I. On-going<br>II. Awarded but not yet started | | | | | | | | | | |
| B) Private Contracts<br>I. On-going<br>II. Awarded but not yet started | | | | | | | | | | |

**NOTE:**

1] As appearing in the contract executed by the parties.
2] With special reference to the Scope of Works of the Project as described/enumerated in the Contract.
3] Indicate the percentage of participation and whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium.
4] Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso.
5] As appearing in the Contract and Notice of Award (NOA).
6] Amount or value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid.
7] Percentage of Accomplishment as of the preceding month which should not be earlier than two (2) months from the date of bid submission.
8] As appearing in the Notice to Proceed and Contract.

This Statement shall be supported by:

a) Notice of Award
b) Notice to Proceed and Contract

| Name of Firm | Name of Bidder/Authorized Representative (Signatory's Legal Capacity) | Date |
|---|---|---|

Revised: September 2021

## STATEMENT OF THE BIDDER'S SINGLE LARGEST COMPLETED CONTRACT (SLCC) SIMILAR TO THE CONTRACT TO BE BID

| Name of the completed Contract 1] | Owner's Name and Address | Scope of Work 2] | Contractor's Role and Percentage of Participation 3] | Total Contract Value At 4] | | | Date of Award 5] | Contract Duration 6] | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Award | Completion | Escalated Value to Present Prices | | Start | Completed |
| | | | | | | | | | |

**NOTE :**

1] As appearing in the contract executed by the parties.
2] With special reference to the Scope of Works of the Project as described/enumerated in the Contract.
3] Indicate the percentage of participation and whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium.
4] Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso. Attached the computation for the escalated contract value.
5] As appearing in the Notice of Award.
6] As appearing in the Notice to proceed and Certificate of Completion.

A. The bidder must have an experience of having completed a SLCC that is similar to the contract to be bid equivalent to at least fifty percent (50%) of the ABC, adjusted if necessary, by the Bidder to current prices using the PSA consumer price indices. A contract is considered to be "similar" to the contract to be bid if it has the same Major Categories of Work as stated in the Bid Data Sheet (BDS).

B. This Statement shall be supported by:
   a. Notice of Award, Notice to Proceed and Contract.
   b. Project Owner's Certificate of Final Acceptance issued by the owner and/ or Constructors Performance Evaluation System (CPES) Final Rating, which must be at least Satisfactory. The said Certificate of Acceptance shall contain the following: 1) Name of project owner that issued the certificate, 2) Name of Contractor/ Constructor, 3) Name of Contract, and 4) Contract Duration.
   c. Recapitulation or Final Bill of Quantities.

| Name of Firm | Name of Bidder/Authorized Representative (Signatory's Legal Capacity) | Date |
|---|---|---|

Revised: September 2021

## STATEMENT OF THE BIDDER'S EXPERIENCE ON MAJOR CATEGORIES OF WORK OF THE SLCC INCLUDING OTHER COMPLETED CONTRACTS SIMILAR TO THE CONTRACT TO BE BID

| Major Categories of Work 1] | Unit of Measure 1] | Quantity 1] | SLCC similar to the contract to be bid 2] | Other completed contracts similar to the contract to be bid 2] | | | Unit of Measure 2] | Quantity 2] |
|---|---|---|---|---|---|---|---|---|
| | | | Name of the contract | Name of the contract | Name of the contract | Name of the contract | | |
| 1. Construction of Building | sq.m. | 150.00 | | | | | | |

**NOTE:**
1] As stated in the Bid Data Sheet.
2] As appearing in the Recapitulation and/ or Final Bill of Quantities.
This statement shall be supported by:

a. Notice of Award, Notice to Proceed and Contract.
b. Project Owner's Certificate of Final Acceptance issued by the owner and/ or Constructors Performance Evaluation System (CPES) Final Rating, of at least satisfactory. The said Certificate of Acceptance shall contain the following: 1) Name of project owner that issued the certificate, 2) Name of Contractor/Constructor, 3) Name of Contract, and 4) Contract Duration.
c. Recapitulation and/ or Final Bill of Quantities.

Name of Firm

Name of Bidder/Authorized Representative
Signatory's Legal Capacity

Date

Revised: September 2021

# FINANCIAL DATA

A. The prospective bidder's audited Financial Statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "RECEIVED" by the Bureau of Internal Revenue (BIR), or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission.

| | Year |
|---|---|
| 1. Total Assets | |
| 2. Current Assets | |
| 3. Total Liabilities | |
| 4. Current Liabilities | |
| 5. Net worth (1-3) | |
| 6. Net Working Capital (2-4) | |

B. The computation of the bidders Net Financial Contracting Capacity (NFCC) must be at least equal to the ABC to be bid, as follows:

NFCC = [ (Current assets minus current liabilities) (15) ] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid.

NFCC = _____

Attached herewith are certified true copies of the audited financial statements stamped received by the BIR or BIR authorized collecting agent for the latest/immediately preceding calendar year.

_____
Name of Firm/Applicant

_____
Authorized Signing Official

Date:_____

*NOTES:*

If Partnership or Joint Venture, each Partner or Member Firm of Joint venture shall submit separate financial statements.

## STATEMENT OF THE BIDDER'S KEY PERSONNEL PLEDGED FOR THE CONTRACT TO BE BID

I hereby declare that the following key personnel are qualified and available for the duration of the contract to be bid:

| Position of Key Personnel 1] | Name | No. of Key Personnel | Similar Experience in the Position (Years) 2] | Total Experience in the Position (Years) | Attachment(s) | Annex(es) |
|---|---|---|---|---|---|---|
| Project Manager | | | | | PRC License (CE Preferred)<br>Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Project Engineer | | | | | PRC License (CE Preferred)<br>Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Project Architect | | | | | PRC License (Architect Preferred)<br>Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Materials Engineer I | | | | | PRC License (CE Preferred)<br>Submit Valid and Renewed DPWH Certificate of Accreditation<br>Submit Accreditation Identification Card as Materials Engineer<br>Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Construction Safety and Health Officer | | | | | Certificate of Safety and Health Construction Related Course issued by DOLE Accredited Trainings<br>Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Foreman | | | | | Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |
| Other Position(s) | | | | | Complete Qualification and Experience Data<br>Certificate of Commitment | Annex "_" |

**NOTE:** 1] As stated in the Bid Data Sheet
2] The number of years of experience of the key personnel shall be as indicated in the qualification and experience data or curriculum vitae.

Minimum qualification requirements: The key personnel must have a work experience that is similar in nature and complexity to the contract to be bid.

Project Manager - Five (5) years
Project Engineer - Three (3) years
Foreman - Five (5) years
Construction Safety and Health Officer – One (1) year
Project Architect - Three (3) years
Materials Engineer – One (1) year
Materials Engineer I – for projects costing up to 100M
Materials Engineer II – for projects costing more than 100M

| Name of Firm | Name of Bidder/Authorized Representative<br>(Signatory's Legal Capacity) | Date |
|---|---|---|

Revised: September 2021

## STATEMENT OF THE BIDDER'S EQUIPMENT PLEDGED FOR THE CONTRACT TO BE BID

I hereby declare that the following equipment are in good operating condition and available for the duration of the contract to be bid:

| DESCRIPTION (Type, Model, Make) | No. of Unit(s) | Capacity/ Output 1] | Owned, Leased, and/or under purchased agreement 2] | Proof of Ownership/ Leased/ Under Purchase Agreement (Mark as Annex "A.....Z") 3] | OTHER INFORMATION (As Applicable) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Manufacturer | Engine Serial No. | Chassis No./ Name of Vessel | Location | Status |
| | | | | | | | | | |

**NOTE:**

1] The unit of capacity of the pledged equipment shall be as indicated in the Proof of Ownership, i.e. GW (for crane barge), DWT (for deck barge and hopper barge), Ton (for crane, road roller and drop hammer), kg.-m/blow (for diesel hammer), cu.m. (for dump truck), hp (for tugboat, road grader, bulldozer and concrete vibrator), cfm (for compressor), gal (for water truck with pump), amp (for welding machine), bagger (for concrete mixer). If the capacity of the pledged equipment is not indicated in the Proof of Ownership/Leased Contract/Purchased Agreement, submit other proof of capacity such as specifications, brochures or other verifiable printouts indicating the model name, model number and other details of the equipment.

2] Indicate if the pledged equipment are owned, leased or under purchase agreement.

3] If the pledged equipment is owned, it should be in the name of the bidder. Submit proof of ownership, i.e. deed of sale, sales invoice, official receipt; For owned Water Truck, Dump Truck and Transit Mixer submit LTO Certificate of Registration and valid Official Receipt; For owned barge/tugboat, submit Marina Certificate of Ownership and valid Cargo Ship Safety Certificate.

If the pledged equipment is leased/under purchased agreement, submit the following:

For equipment under lease agreement:

a. certification of availability of equipment from the equipment lessor for the duration of the project
b. duly Notarized copy of lease contract
c. For Water Truck, Dump Truck, Cargo Truck and Transit Mixer submit LTO Certificate of Registration and valid Official Receipt

For equipment under purchase agreement:

a. certification of availability of equipment from the equipment vendor
b. duly Notarized copy of purchase agreement
d. For Water Truck, Dump Truck, Cargo Truck and Transit Mixer submit LTO Certificate of Registration and valid Official Receipt or copy of conduction sticker, whichever is applicable.

If the pledged barge/tugboat is leased/under purchase agreement, submit certification of availability of barge/tugboat from the equipment lessor/vendor for the duration of the project, and duly Notarized copy of leased contract/purchased agreement together with a copy of the Marina Certificate of Ownership and valid Cargo Ship Safety Certificate.

The Minimum Major Equipment Requirements are listed in Section 6, Annex 3.

Name of Firm

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Date

Revised: September 2021

# Omnibus Sworn Statement for Sole Proprietorship

***[shall be submitted with the Bid]***

REPUBLIC OF THE PHILIPPINES )
CITY/MUNICIPALITY OF _____ ) S.S.

## AFFIDAVIT

I, _____, of legal age, [Civil Status], [Nationality], and residing at _____, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the sole proprietor or authorized representative of _____ with office address at _____;

2. As the owner and sole proprietor, or authorized representative of _____, I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Improvement/ Expansion of Passenger Terminal Building Damaged by Typhoon "Tisoy"**, Port of Calbayog, Calbayog Samar of the **Philippine Ports Authority**, as shown in the attached duly notarized Special Power of Attorney;

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. The owner or sole proprietor is not related to the Head of the Procuring Entity, Procuring Agent if engaged, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

   a. Carefully examining all of the Bidding Documents;
   b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
   c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and

d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

**IN WITNESS WHEREOF,** I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

_____
Name of Bidder/ Authorized Representative
(Signatory's Legal Capacity)
AFFIANT

***[Jurat]***
*[Format shall be based on the latest Rules on Notarial Practice]*

## Omnibus Sworn Statement for Partnership or Cooperative

***[shall be submitted with the Bid]***

REPUBLIC OF THE PHILIPPINES )
CITY/MUNICIPALITY OF _____ ) S.S.

**AFFIDAVIT**

I, _____, of legal age, [Civil Status], [Nationality], and residing at _____, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the duly authorized and designated representative of _____ with office address at _____;

2. I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Improvement / Expansion of Passenger Terminal Building Damaged by Typhoon "Tisoy"**, Port of Calbayog, Calbayog, Samar, as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, Procuring Agent if engaged, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

   a. Carefully examining all of the Bidding Documents;
   b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
   c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and

d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

**IN WITNESS WHEREOF,** I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

_____
Name of Bidder/ Authorized Representative
(Signatory's Legal Capacity)
AFFIANT

***[Jurat]***
*[Format shall be based on the latest Rules on Notarial Practice]*

# Omnibus Sworn Statement for Corporation or Joint Venture

***[shall be submitted with the Bid]***

REPUBLIC OF THE PHILIPPINES )
CITY/MUNICIPALITY OF _____ ) S.S.

## AFFIDAVIT

I, _____, of legal age, [Civil Status], [Nationality], and residing at _____, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the duly authorized and designated representative of _____ with office address at _____;

2. I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Improvement/ Expansion of Passenger Terminal Building Damaged by Typhoon "Tisoy"**, Port of Calbayog, Calbayog Samar, as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, Procuring Agent if engaged, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

   a. Carefully examining all of the Bidding Documents;
   b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
   c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
   d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

**IN WITNESS WHEREOF,** I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

_____
Name of Bidder/ Authorized Representative
(Signatory's Legal Capacity)
AFFIANT

***[Jurat]***
*[Format shall be based on the latest Rules on Notarial Practice]*

# Bid Securing Declaration Form

***[shall be submitted with the Bid if bidder opts to provide this form of bid security]***

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

## BID SECURING DECLARATION
**Project Identification No.: _____**

To: **Philippine Ports Authority**
PPA Building, Bonifacio Drive,
South Harbor, Port Area, Manila

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:

   a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
   b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
   c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month] [year]* at *[place of execution]*.

_____
Name of Bidder/ Authorized Representative
(Signatory's Legal Capacity)
AFFIANT

***[Jurat]***
*[Format shall be based on the latest Rules on Notarial Practice]*

# CONSTRUCTION METHODOLOGY

Name of Project : Improvement / Expansion of Passenger Terminal Building Damaged By Typhoon "Tisoy"

Project Description :

Location : Port of Calbayog, Calbayog, Samar

## MINIMUM SCOPE OF CONSTRUCTION METHODOLOGY

### A. IMPROVEMENT / EXPANSION OF PASSENGER TERMINAL BUILDING

- Demolition and disposal of remaining damaged covered walk.
- Removal and disposal existing roofing, trusses, ceiling, and comfort room of PTB.
- Cutting, Breaking and disposal of concrete pavement for expansion of PTB.
- Excavation for column footing, foot tie beam, storm drainage, and septic tank.
- Spread and compaction of fill materials and gravel bedding.
- Supply, fabricate and install steel reinforcements for item 2.05.
- Supply, place 3500psi concrete for footing, column, beams, tie beams, duct bank, canopy, flooring, ramp, catch basin and parapet. To include formworks.
- Place CHB wall, CR partition, septic tank, and fire wall.
- Supply and install plumbing pipes, tiling and fixtures.
- Supply and Install electrical wiring and fixtures, panel board, breakers, and accessories.
- Supply & Install steel trusses, half truss, hip truss, end wall bracing & c-purlins.
- Supply and install steel tile roofing.
- Supply and install interior acoustic board and exterior ceiling.
- Supply and install stainless steel handrails.
- Supply and place floor tiles.
- Supply and place doors, windows, and gang chairs.
- Supply, install, testing and commissioning of ACU, fire alarm system, tv, breaker and accessories.
- Supply and install aluminum composite panel, PPA logo, and signages.
- Surface preparation and apply two (2) coats of paint on entire building

**NOTES:**

**NOTES:**

The narrative construction method will guide and familiarize the contractor and the PPA on how the project shall be carried out in accordance with the highest standard of workmanship.

The construction method shall be consistent with the Bar Chart / S-Curve Schedule, Equipment Schedule and Manpower Schedule.

_____
Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Revised: September 2021

# MANPOWER SCHEDULE

Name of Project : _____

Project Description : _____

Location : _____

| MANPOWER (Minimum) | CONTRACT DURATION (_____ Calendar Days) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MONTHLY | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Project Manager | | | | | | | | | | | | | | | | | | | |
| Project Engineer | | | | | | | | | | | | | | | | | | | |
| Project Architect | | | | | | | | | | | | | | | | | | | |
| Materials Engineer I | | | | | | | | | | | | | | | | | | | |
| Construction Safety and Health Officer | | | | | | | | | | | | | | | | | | | |
| Foreman | | | | | | | | | | | | | | | | | | | |
| Specify other applicable positions, ie.: | | | | | | | | | | | | | | | | | | | |
| - Carpenter | | | | | | | | | | | | | | | | | | | |
| - Steelman | | | | | | | | | | | | | | | | | | | |
| - Mason | | | | | | | | | | | | | | | | | | | |
| - Electrician | | | | | | | | | | | | | | | | | | | |
| - Rigger | | | | | | | | | | | | | | | | | | | |
| - Others | | | | | | | | | | | | | | | | | | | |

_____
Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Revised: September 2021

## EQUIPMENT UTILIZATION SCHEDULE

Name of Project : ______________________________

Project Description : ______________________________

Location : ______________________________

| EQUIPMENT (Minimum) | No. of Units | CONTRACT DURATION (_____ Calendar Days) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M O N T H L Y | | | | | | | | | | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | | | | | | | | | | | | | | | | | | | | | |
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______________________________
Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Revised: September 2021

# CASHFLOW BY QUARTER AND PAYMENT SCHEDULE

Name of Project: : _____

Project Description : _____

Location : _____

| Project Duration (days or months) | Payment Schedule (Monthly, In Pesos) | Cash flow (Quarterly, in Pesos) |
|---|---|---|
| | | |
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***NOTES***

- The cash flow by quarter and payment schedule should be consistent with the Bar Chart and S-curve.
- Payment schedule shall not be more than once a month.

_____
Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

# Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

***[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]***

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## CONTRACT AGREEMENT

THIS AGREEMENT, made this _____ day of _____, _____ between **Philippine Ports Authority** with principal office at PPA Building, Bonifacio Drive, South Harbor, Port Area, Manila (hereinafter called the "Entity") and **[name and address of Contractor]** (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute **[name and identification number of contract]** (hereinafter called "the Works") and the Entity has accepted the Bid for **[contract price in words and figures in specified currency]** by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:

   a. Philippine Bidding Documents (PBDs);
      i. Drawings/Plans;
      ii. Specifications;
      iii. Bill of Quantities;
      iv. General and Special Conditions of Contract;
      v. Supplemental or Bid Bulletins, if any;

   b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

   Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

   c. Performance Security;

   d. Notice of Award of Contract and the Bidder's conforme thereto; and

   e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of **[total contract price in words and figures]** or such other sums as may be ascertained, **[Named of the bidder]** agrees to **[state the object of the contract]** in accordance with his/her/its Bid.

4. The **Philippine Ports Authority** agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

| | |
|---|---|
| **JAY DANIEL R. SANTIAGO**<br>General Manager | **Name of Bidder/ Authorized Representative**<br>(Signatory's Legal Capacity) |
| for: | for: |
| **Philippine Ports Authority** | **Contractor** |

**Acknowledgment**

*[Format shall be based on the latest Rules on Notarial Practice]*