the mixing drum or blades shall be operated uniformly at the mixing speed recommended by the manufacturer.

The pick-up and throw-over blades of mixers shall be restored or replaced when any part or section is worn 20 mm or more below the original height of the manufacturer's design. Mixers and agitators which have an accumulation of hard concrete or mortar shall not be used.

b. When bulk cement is used and the volume of the batch is 0.5 m^3 or more, the scale and weigh hopper for Portland cement shall be separate and distinct from the aggregate hopper or hoppers.

The discharge mechanism of the bulk cement weigh hopper shall be interlocked against opening before the full amount of cement is in the hopper. The discharging mechanism shall be interlocked against opening when the amount of cement in the hopper is underweight by more than one percent or overweight by more than 3 percent of the amount specified.

c. When the aggregates contain more water than the quantity necessary to produce a saturated surface dry condition, representative samples shall be taken and the moisture content determined for each kind of aggregate.

d. The batch shall be so charged into the mixer that some water enter in advance of cement and aggregates. All water shall be in the drum by the end of the first quarter of the specified mixing time.

e. Cement shall be batched and charged into the mixer by such means that it will not result in loss of cement due to the effect of wind, or in accumulation of cement on surfaces of conveyors or hoppers, or in other conditions which reduce or vary the required quantity of cement in the concrete mixture.

f. Where required, synthetic fibrous reinforcement shall be added directly to the concrete mixer after placing the sufficient amount of mixing water, cement and aggregates.

g. The entire contents of a batch mixer shall be removed from the drum before materials for a succeeding batch are place therein. The materials composing a batch except water shall be deposited simultaneously into the mixer.

h. All concrete shall be mixed for a period of not less that 3 minutes after all materials, including water, are in the mixer. During the period of mixing, the mixer shall operate at the speed for which it has been designed.

i. Mixers shall be operated with an automatic timing device that can be locked by the Engineer. The time device and discharge mechanism shall be so interlocked that during normal operation no part of the batch will be discharged until the specified mixing time has elapsed.

j. The first batch of concrete materials placed in the mixer shall contain a sufficient excess of cement, sand, and water to coat the inside of the drum without reducing the required mortar content of the mix. When mixing is to cease for a period of one hour or more, the mixer shall be thoroughly cleaned.

k. In case of rubble concrete, proper mixture and placing of concrete and stones/rocks

shall be in accordance to the approved plan. Methodology of work shall be approved by the Engineer.

3. MIXING CONCRETE IN TRUCKS

a. Truck mixers, unless otherwise authorized by the Engineer, shall be of the revolving drum type, watertight, and so constructed that the concrete can be mixed to insure a uniform distribution of materials throughout the mass. All solid materials for the concrete shall be accurately measured and charged into the drum at the proportioning plant. Except as subsequently provided, the truck mixer shall be equipped with a device by which the quantity of water added can be readily verified. The mixing water may be added directly to the batch, in which case a tank is not required. Truck mixers may be required to be provided with a means by which the mixing time can be readily verified by the Engineer.

b. The maximum size of batch in truck mixers shall not exceed the minimum rated capacity of the mixer as stated by the manufacture and stamped in metal on the mixer. Truck mixing shall, unless otherwise directed, be continued for not less than 100 revolutions after all ingredients, including water, are in the drum. The mixing speed shall not be less than 4 rpm, nor more than 6 rpm.

c. Mixing shall begin within 30 minutes after the cement has been added either to the water or aggregate, but when cement is charged into a mixer drum containing water or surface-wet aggregate and when the temperature is above 32 °C, this limit shall be reduced to 15 minutes. The limitation in time between the introduction of the cement to the aggregate and the beginning of the mixing may be waived when, in the judgment of the Engineer, the aggregate is sufficiently free from moisture, so that there will be no harmful effects on the cement.

d. When a truck mixer is used for transportation, the mixing time in stationary mixer may be reduced to 30 seconds and the mixing completed in a truck mixer. The mixing time in truck mixer shall be as specified for truck mixing.

JOINTS

1. No reinforcement, corner protection angles or other fixed metal items shall be run continuously through joints containing expansion-joint filler, through crack-control joints in slabs on grade and vertical surfaces.

2. Preformed Expansion Joint Filler

a. Joints with Joint Sealant

At expansion joints in concrete slabs to be exposed, and at other joints indicated to receive joint sealant, preformed expansion-joint filler strips shall be installed at the proper level below the elevation with a slightly tapered, dressed-and-oiled wood strip temporarily secured to the top thereof to form a groove. When surface dry, the groove shall be cleaned of foreign matter, loose particles, and concrete protrusions, then filled flush approximately with joint sealant so as to be slightly concave after drying.

b. Finish of concrete at joints

Edges of exposed concrete slabs along expansion joints shall be neatly finished with a slightly rounded edging tool.

c. Construction Joints

Unless otherwise specified herein, all construction joints shall be subject to approval of the Engineer. Concrete shall be placed continuously so that the unit will be monolithic in construction. Fresh concrete may be placed against adjoining units, provided the set concrete is sufficiently hard not to be injured thereby. Joints not indicated shall be made and located in a manner not to impair strength and appearance of the structure. Placement of concrete shall be at such rate that the surface of concrete not carried to joint levels will not have attained initial set before additional concrete is placed thereon. Lifts shall terminate at such levels as are indicated or as to conform to structural requirements as directed. If horizontal construction joints are required, a strip of 25mm square-edged lumber, beveled to facilitate removal shall be tacked to the inside of the forms at the construction joint. Concrete shall be placed to a point 25mm above the underside of the strip. The strip shall be removed one hour after the concrete has been placed. Any irregularities in the joint line shall be leveled off with a wood float, and all laitance removed. Prior to placing additional concrete, horizontal construction joints shall be prepared.

Construction Joint which is not indicated in the Drawings shall be located as to least affect the strength of the structure. Such locations will be pointed out by the Engineer.

PREPARATION FOR PLACING

Hardened concrete, debris and foreign materials shall be removed from the interior of forms and from inner surfaces of mixing and conveying equipment. Reinforcement shall be secured in position, and shall be inspected, and approved before placing concrete. Runways shall be provided for wheeled concrete-handling equipment. Such equipment shall not be wheeled over reinforcement nor shall runways be supported on reinforcement.

Notice of any concreting operations shall be served to the Engineer at least three (3) days ahead of each schedule.

PLACING CONCRETE

1. Handling Concrete

Concrete shall be handled from mixers and transported to place for final deposit in a continuous manner, as rapidly as practicable, and without segregation or loss of ingredients until the approved unit of work is completed. Placing will not be permitted when the sun, heat, wind or limitations of facilities furnished by the Contractor prevent proper finishing and curing of the concrete. Concrete shall be placed in the forms, as close as possible in final position, in uniform approximately horizontal layers not over 40cm deep. Forms splashed with concrete and reinforcement splashed with concrete or form coating shall be cleaned in advance of placing subsequent lifts. Concrete shall not be allowed to drop freely more than 1.5m in unexposed work nor more than 1.0 m in exposed work; where greater drops are required, tremie or other approved means shall be employed.

2. Time Interval between Mixing and Placing

Concrete mixed in stationary mixers and transported by non-agitating equipment shall be

placed in the forms within 30 minutes from the time ingredients are charged into the mixing drum. Concrete transported in truck mixers or truck agitators shall be delivered to the site of work, discharged in the forms within 45 minutes from the time ingredients are discharged into the mixing drum. Concrete shall be placed in the forms within 15 minutes after discharged from the mixer at the jobsite.

3. Hot Weather Requirements

The temperature of concrete during the period of mixing while in transport and/or during placing shall not be permitted to rise above 36 °C. Any batch of concrete which had reached a temperature greater than 36 °C at any time in the aforesaid period shall not be placed but shall be rejected, and shall not thereafter be used in any part of the permanent works.

a. Control Procedures

Provide water cooler facilities and procedures to control or reduce the temperature of cement, aggregates and mixing handling equipment to such temperature that, at all times during mixing, transporting, handling and placing, the temperature of the concrete shall not be greater than 36 °C.

b. Cold Joints and Shrinkage

Where cold joints tend to form or where surfaces set and dry too rapidly or plastic shrinkage cracks tend to appear, concrete shall be kept moist by fog sprays, or other approved means, applied shortly after placement, and before finishing.

c. Supplementary Precautions

When the aforementioned precautions are not sufficient to satisfy the requirements herein above, they shall be supplemented by restricting work during evening or night. Procedure shall conform to American Concrete Institute Standard ACI 305.

4. Conveying Concrete by Chute, Conveyor or Pump

Concrete may be conveyed by chute, conveyor, or pump if approved in writing. In requesting approval, the Contractor shall submit his entire plan of operation from the time of discharge of concrete from the mixer to final placement in the forms, and the steps to be taken to prevent the formation of cold joints in case the transporting of concrete by chute, conveyor or pump is disrupted. Conveyors and pumps shall be capable of expeditiously placing concrete at the rate most advantageous to good workmanship. Approval will not be given for chutes or conveyors requiring changes in the concrete materials or design mix for efficient operation.

a. Chutes and Conveyors

Chutes shall be of steel or steel lined wood, rounded in cross section rigid in construction, and protected from overflow. Conveyors shall be designed and operated and chute sections shall be set, to assure a uniform flow of concrete from mixer to final place of deposit without segregation of ingredients, loss of mortar, or change in slump. The discharged portion of each chute or conveyor shall be provided with a device to prevent segregation. The chute and conveyor shall be thoroughly cleaned before and after each run. Waste material and flushing water shall be discharged outside the forms.

b. Pumps shall be operated and maintained so that a continuous stream of concrete is delivered into the forms without air pockets, segregation or changes in slump. When pumping is completed, concrete remaining in the pipeline shall be ejected and wasted without contamination of concrete already placed. After each operation, equipment shall be thoroughly cleaned and the flushing water shall be splashed outside the forms.

5. Wall and Abutments

No load shall be placed upon finished walls, foundations or abutments until authorized by the Engineer. Minimum time before loading shall be 7 days.

6. Concrete Placing on Wharf

When placing concrete on wharf decks, the Contractor shall:

Ensure that rate of placing is sufficient to complete proposed placing, finishing and curing operations within the scheduled time; that experienced finishing machine operators and concrete finishers are provided to finish the deck; that curing equipment and finishing tools and equipment are at the site of work and in satisfactory condition for use.
Immediately prior to placing, the Contractor shall place scaffolding and wedges and make necessary adjustments. Care shall be taken to ensure that settlement and deflection due to added weight of concrete will be minimal. The Contractor shall provide suitable means to readily permit measurement of settlement deflection as it occurs.

Should any event occur which, in opinion of the Engineer, would prevent the concrete conforming to specified requirements, the Contractor shall discontinue placing of concrete until corrective measures are provided satisfactory to the Engineer. If satisfactory measures are not provided prior to initial set of concrete in affected areas, the Contractor shall discontinue placing concrete and install a bulkhead at a location determined by the Engineer. Concrete in place beyond bulkheads shall be removed. The Contractor shall limit the size of casting to that which can be finished before beginning of initial set.

COMPACTION

1. Immediately after placing, each layer of concrete shall be completed by internal concrete vibrators supplemented by hand-spading, rodding, and tamping. Tapping or other external vibration of forms will not be permitted unless specifically approved by the Engineer. Vibrators shall not be used to transport concrete inside the forms. Internal vibrators submerged in concrete shall maintain a speed of not less than 7,000 impulses per minute. The vibrating equipment shall at all times be adequate in number of units and power to properly consolidate all concrete.

2. Spare units shall be on hand as necessary to insure such adequacy. The duration of vibrating equipment shall be limited to the time necessary to produce satisfactory consolidation without causing objectionable segregation. The vibrator shall not be inserted into the lower courses that have begun to set. Vibrator shall be applied vertically at uniformly spaced points not further apart than the visible effectiveness of the machine.

EPOXY BONDING COMPOUND

Before depositing new concrete on or against concrete that has set, the surfaces of the set concrete shall be thoroughly cleaned so as to expose the coarse aggregate and be free of laitance, coatings, foreign matter and loose particles. Forms shall be re-tightened. The cleaned surfaces shall be moistened, but shall be without free water when concrete is placed. ASTM C 881. Provide Type I for bonding hardened concrete to hardened concrete; Type II for bonding freshly mixed concrete to hardened concrete; and Type III as a binder in epoxy mortar or concrete, or for use in bonding skid-resistant materials to hardened concrete. Provide Class B if placement temperature is between 4 to 16 °C; or Class C if placement temperature is above 16°C.

FINISHES OF CONCRETE

Within 12 hours after the forms are removed, surface defects shall be remedied as specified herein. The Temperature of the concrete, ambient air and mortar during remedial work including curing shall be above 10 °C. Fine and loose material shall be removed. Honeycomb, aggregate pockets, voids over 13mm in diameter, and holes left by the rods or bolts shall be cut out to solid concrete, reamed, thoroughly wetted, brush-coated with neat cement grout, and filled with mortar. Mortar shall be a stiff mix of one part Portland cement to not more than 2 parts fine aggregate passing the No. 16 mesh sieve, with a minimum amount of water. The color of the mortar shall match the adjoining concrete color. Mortar shall be thoroughly compacted in place. Holes passing entirely through walls shall be completely filled from the inside face by forcing mortar through the outside face. Holes which do not pass entirely through wall shall be packed full. Patchwork shall be finished flush and in the same plane as adjacent surfaces. Exposed patchwork shall be finished to match adjoining surfaces in texture and color. Patchwork shall be damp-cured for 72 hours. Dusting of finish surfaces with dry material or adding water to concrete surfaces will not be permitted.

CONCRETE FINISHING DETAILS

1. Concrete Paving

   After concrete is placed and consolidated, slabs shall be screeded or struck off. No further finish is required.

2. Smooth Finish

   Required only where specified; screed concrete and float to required level with no coarse aggregate visible. After surface moisture has disappeared and laitance has been removed, the surface shall be finished by float and steel trowel. Smooth finish shall consist of thoroughly wetting and then brush coating the surfaces with cement to not more than 2 parts fine aggregate passing the no. 30 mesh sieve and mixed with water to the consistency of thick paint.

3. Broom Finish

   Required for paving; the concrete shall be screeded and floated to required finish level with no coarse aggregate visible. After the surface moisture has disappeared and laitance has been removed, surface shall be float-finished to an even, smooth finish. The floated surfaces shall be broomed with a fiber bristle brush in a direction transverse to the direction of the main traffic.

ITEM 06 : CONCRETE PAVEMENT

SCOPE OF WORK

The works include the furnishing of all labor, materials and equipment required for the construction of gravel base course and concrete pavement. The works shall be in accordance with the lines and grades shown on the Drawings and in conformity with the Specifications.

MATERIAL REQUIREMENTS

Cement

Portland cement shall conform to the requirements of the Section "Reinforced Concrete".

Fine Aggregate

The fine aggregate shall be well-graded from coarse to fine and shall conform to the requirements of the Section "Reinforced Concrete".

Coarse Aggregate

Coarse aggregate shall conform to the requirements of the Section "Reinforced Concrete".

Water

Clean, fresh, potable water shall be used for the mixing of all concrete and mortar and shall be from a source approved by the Engineer. Sea water or brackish water shall not be used.

Admixture

Admixture shall only be used with the written permission of the Engineer. If air-entraining agents, water reducing agents, set retarders or strength accelerators are permitted to be used, they shall not be used in greater dosages than those recommended by the manufacturer, or as permitted by the Engineer. The cost shall be considered as already in the Contractor's unit cost bid for concrete.

TIE BARS AND SLIP BARS

Tie bars shall be deformed bars conforming to the requirements specified in AASHTO M 31 or M 42, except that rail steel shall not be used for tie bars that are to be bent and re-straightened during construction, sizes as indicated on the Drawings. The deformed bars shall be Grade 40 and shall be shipped in standard bundles, tagged and marked in accordance with the Code of Standard practice of the Concrete Reinforcement Steel Institute.

Slip bars shall be smooth round steel bars conforming to the requirements specified in AASHTO M 31 or plain M 42.

Joint Filler

Poured filler for joint shall conform to the requirements of AASHTO M173.

EXECUTION

Concrete Class

The concrete for pavement shall satisfy the following requirements:

Minimum 28-day comprehensive strength	:	24 MPa
Minimum Flexural Strength	:	3.8 MPa
Maximum Aggregate size	:	25 mm
Maximum water cement ratio	:	0.52

Proportioning, Consistency and Mixing of Concrete

The proportioning, consistency and mixing of concrete shall conform to the requirements of the Section "Reinforced Concrete".

Preparation

The base shall be watered and thoroughly moistened prior to placing of the concrete.

Formwork Construction

Formwork shall comply with the requirements of the Section "Reinforced Concrete". Forms shall be of steel, of an approved section and shall be straight and of a depth equal to thickness of the pavement at the edge. The base of the forms shall be of sufficient width to provide necessary stability in all directions. The flange braces must extend outward on the base not less than 2/3 the height of the form.

All forms shall be rigidly supported on a bed of thoroughly compacted material during the entire operation of placing and finishing the concrete. They shall be set with their faces vertical so as to produce a surface complying with the required tolerance.

Adjacent lanes may be used in lieu of forms for supporting finishing equipment provided that proper protection is afforded to the concrete of the adjacent lanes to prevent damage, and provided further that the surface of the concrete carrying the finishing equipment does not vary by more than 3mm in each meter length. Adjacent lanes in lieu of forms may not be used until the concrete is at least seven (7) days old. Flanged wheels of the finishing equipment shall not be operated on the concrete surface. The inside edge of supporting wheels of the finishing machine shall not operate closer than 100mm from the edge of the concrete lane.

Alternative to placing forms, slip-forming may be used. Slip-form paving equipment shall be equipped with the traveling side forms of sufficient dimensions, shape and strength to support the concrete laterally for a sufficient length of time during placement to produce pavement of the required cross section. No abrupt changes in longitudinal alignment of the pavement will be permitted. The horizontal deviation shall not exceed 20mm from the proper alignment established by the Engineer.

Joints

All joints, longitudinal, transverse, etc., shall be constructed as shown on the Drawings and shall be clean and free of all foreign material after completion of shoulder work prior to acceptance of the work and in accordance with the following provisions:

Longitudinal and Transverse Contact Joints:

Longitudinal contact joints are joints formed between lanes that are poured separately. Transverse contact joints are joints formed between segments of a lane that are poured separately. Transverse contact joints shall be formed perpendicular to pavement centerline at the end of each day of concrete placing, or where concreting has been stopped for 30 minutes or longer but not nearer than 1.5 meters from sawed contraction joints. All contact joints shall have faces perpendicular to the surface of the pavement. Tie bars of the size, length and spacing shown on the Drawings shall be placed across longitudinal and transverse contact joints.

Placing Concrete

The concrete shall be deposited and spread in order that segregation will not occur and place a uniform layer of concrete whose thickness is approximately 20 mm greater than that required for the finished pavement is placed. Rakes shall not be used for handling concrete.

In order to prevent the introduction into the concrete of earth and other foreign materials, the men whose duties require them to work in the concrete, shall in general, confine their movements to the area already covered with fresh concrete. Whenever it becomes necessary for these men to step out of the concrete, their footwear shall be washed or otherwise thoroughly cleaned before returning to the concrete. Repeated carelessness with regard to this detail will be deemed sufficient cause for removing and replacing such worker.

During the operation of striking off the concrete, a uniform ridge of concrete at least 70 mm in height shall be maintained ahead of the strike-off screed for its entire length. Except when making a construction joint, the finishing machine shall at no time be operated beyond that point where this surplus can be maintained in front of the strike-off screed.

After the first operation of the finishing machine, additional concrete shall be added to all low places and honeycombed spots and the concrete rescreeded. In any rescreeding, a uniform head of concrete shall be maintained ahead of the strike-off for its entire length. Honeycombed spots shall not be eliminated by tamping or grouting.

Workers on the job shall have mobile footbridges at their disposal so that they need not walk on the wet concrete.

In conjunction with the placing and spreading, the concrete shall be thoroughly spaded and vibrated along the forms, bulkhead, and joints.

The internal vibrators shall be of pneumatic, gas-driven, or electric type, and shall operate at a frequency of not less than 3,200 pulsations per minute.

Whenever the placing of the concrete is stopped or suspended for any reason, for a period of 30 minutes or longer, a suitable bulkhead shall be placed so as to produce a vertical transverse joint. If an emergency stop occurs within 2.5 meters of the contraction or an expansion joint the concrete shall be removed back to the joint. When the placing of the concrete Is resumed, the bulkhead shall be removed and a new concrete placed and vibrated evenly and solidly against the face of previously deposited concrete. Any concrete

in excess of the amount needed to complete a given section or that has been deposited outside the forms shall not be used in the work.

The Contractor shall provide suitable equipment for protecting the fresh concrete in case of rain, such as screens which will cause the rain water to run off beyond the edges of the paving, rain proof tarpaulins or other methods approved by the Engineer. The equipment shall be sufficient to shelter from rain all areas equal to that paved in two hours of work.

Finishing Concrete

The concrete shall be compacted and finished by a mechanical, self-propelled finishing machine of approved type, having two independently operated screeds. If a machine possessing only one screed is approved, the screed will not be less than 450 mm wide and shall be equipped with compensating springs to minimize the effect of the momentum of the screed on the side forms. The number of driving wheels, the weight of the machine and the power of the motor shall be so coordinated as to prevent slippage. The top of the forms and the surface of the finishing machine wheels shall be kept free from concrete or dirt.

The machine shall at all times be in first-class mechanical condition and shall be capable of compacting and finishing the concrete are herein described. Any machine which causes displacement of the side forms from the line or grade to which they have been properly set, or causes undue delay due to mechanical difficulties, shall be removed from the work and replaced by a machine meeting the Specifications.

The finishing machine shall be operated over each section of pavement two or more times and at such intervals as will produce the desired results. Generally, two passes of the finishing machine are considered the maximum desirable.

The concrete shall be vibrated, compacted, and finished by a vibratory finishing machine. The vibratory machine shall meet the requirements for ordinary finishing, and shall be one of the following type:

1. The machine shall have two independently operated screeds; the front screed shall be equipped with vibratory units with a frequency of not less than 3,500 pulsations per minute. There shall be not less than one vibratory unit for each 2.5 meters length or portion thereof, of vibratory screed surface. The front screed shall not be less than 300mm wide and shall be equipped with a "bull nose" front edge built on a radius of not less than 50mm. This type of vibratory finishing machine shall be operated in such manner that each section of pavement will receive at least one vibratory pass, but not more than two passes, unless otherwise directed, or;

2. The machine shall be equipped with an independently operated vibratory "pan" (or pans) and two (2) independently operated screeds, the "pan" shall be mounted in a manner that will permit it to come in contact with the forms and will permit vibration of the full width of lane simultaneously.

   There shall be not less than one vibratory unit for each 2 m. length or portion thereof, of vibrating pan surface. The vibratory units in any individual pan shall be synchronized and have a frequency of not less than 3,500 pulsations per minute. The front screed shall be capable of operating in a position that will strike off the concrete at a sufficient height above the top of the forms to allow for proper compaction with the vibrating pan. This type of vibratory finishing machine shall be operated in such

manner than each section of pavement will receive at least one vibratory pass but not more than two passes, unless otherwise directed.

After the final pass of the finishing machine and when the concrete has started to dry, the surface of the pavement shall be finished with an approved longitudinal float. The float may be operated either manually or by mechanical means. The float may be either of wood or metal shall be straight and smooth and light in weight so as not to displace or sink into the concrete surface.

To be effective, the float shall be at least 300mm wide and 3m long. When manually operated, the float shall be moved from edge to edge with a wiping motion and advance one (1) meter or more.

The succeeding trip shall overlap the previous trip. A light smoothing lute at least 3 meters long may be used provided approved by the Engineer.

The surface of the pavement shall be tested by the Contractor, before the final belting, with an approved standard straightedge 3 meter in length. Irregularities so detected shall be corrected immediately. Special attention shall be given to the concrete adjacent to transverse joints to insure that the edges thereof are not above the grade specified or the adjacent concrete below grade. All depressions or projections shall be corrected before any initial set has developed in the concrete.

After the concrete has been brought to the required grade, contour and smoothness, it shall be finished by passing over the concrete a drag of one or two burlap clothes, which give the surface the required roughness. The vehicles used to carry these cloths may be independent of the concrete-laying machine or may be incorporated with it and may be operated either by hand or mechanically.

Hand finishing will be permitted only on variable width sections of the pavement and other places where the use of the finishing machine would be impractical. Hand finishing shall be accomplished by means of the hand-operated strike-off template of either steel or steel-shod wood construction. The striking template shall be operated forward with a combined longitudinal and transverse motion and shall be so manipulated that neither end will be raised off the side forms. A similar tamper shall be used for tamping the concrete.

As soon as the concrete has attained its initial set, the edges of the pavement, the longitudinal joints, the construction dummy and expansion joints not sawn shall be carefully finished with an edging tool having radius of at least 5mm. The tools, the special accessories for cutting impressed joints and methods of workmanship shall be such as will produce a joint whose edges are of the same quality of concrete as the other portion of the pavement. Methods and workmanship which make use of excess mortar or grout in this area shall be eliminated. Unnecessary tool marks shall be eliminated during work, and the edges left smooth and true to line.

Striking Forms

Forms shall remain in place at least 12 hours after the concrete has been placed. When working conditions are such that the early strength gain of the concrete is delayed, the forms shall remain in place for a longer period, as directed by the Engineer. Bars or heavy load shall not be used against the concrete when still in the forms. Any damage to concrete resulting from removal shall be repaired promptly by the Contractor as directed by the Engineer without any additional payment to the Contractor.

Curing Concrete

Unless otherwise ordered by the Engineer, curing of concrete shall be done by any method specified in the Section "Reinforced Concrete".

Cleaning and Sealing Joints

After completion of the required curing and before opening of the pavement to traffic, all joints shall be thoroughly cleaned of all concrete aggregate fragments or other materials.

After removal of side forms, the ends at transverse expansion joints at the edges of the pavement shall be carefully cleaned of any concrete within the expansion spaces for the entire depth of slab, care being taken not to injure the ends of the joints. Expansion and contraction joints shall then be poured with a hot joint sealer to the depth as indicated on the Drawings. Joint sealer shall be poured using approved hand pouring pots, with liquid at a temperature not less than that recommended by the approved manufacturer.

Opening to Traffic

The pavement shall be closed to traffic, including the vehicles of the Contractor, for a period of 10 days after the concrete is placed or longer if in the opinion of the Engineer, the weather conditions make it necessary to extend this time. The Contractor shall furnish, place and maintain satisfactory barricades and lights as directed, to exclude all traffic from the pavement.

Any damage to the pavement due to traffic shall be repaired or replaced at the expense of the Contractor. Paving mixers, mechanical concrete spreaders and finishers and other heavy paving equipment shall not be operated on completed concrete lanes in order to construct alternate lanes until after the regular curing period is completed. Even then, planks shall be laid on the finished pavement or other precautions taken to prevent damage to the concrete pavement.

Pavement Smoothness, Thickness and Tolerance

Portland cement concrete pavement shall be constructed to the designed level and transverse slope shown on the Drawing. The allowable tolerance shall be as listed hereunder

1.	Permitted variation from design thickness of layer	+ - 5mm
2.	Permitted variation from design level of surface	+ - 5mm

The thickness of the pavement will be determined by measurement of cores from the completed pavement in accordance with AASHTO T 148.

The completed pavement shall be accepted on a lot basis. A lot shall be considered as 2,500 sq.m of pavement. The last unit in each slab constitutes a lot in itself when its length is at least ½ of the normal lot length. If the length of the last unit is shorter than ½ of the normal lot length, it shall be included in the previous lot.

Other areas such as intersections, entrances, crossovers, ramp, etc., will be grouped together to form a lot. Small irregular areas may be included with other unit areas to form a lot.

ITEM 07 : PROJECT BILLBOARD

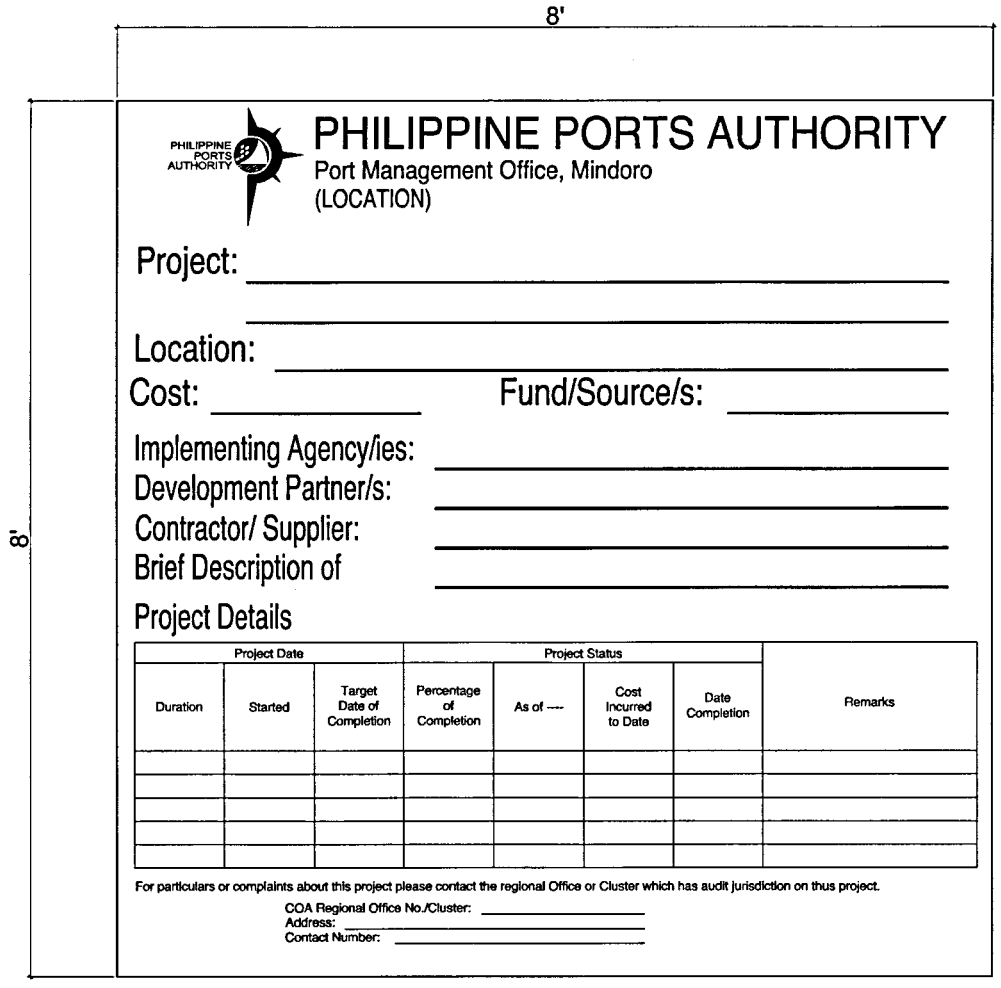
SPECIFICATION

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 8ft. x 8ft. (2,400mm 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.



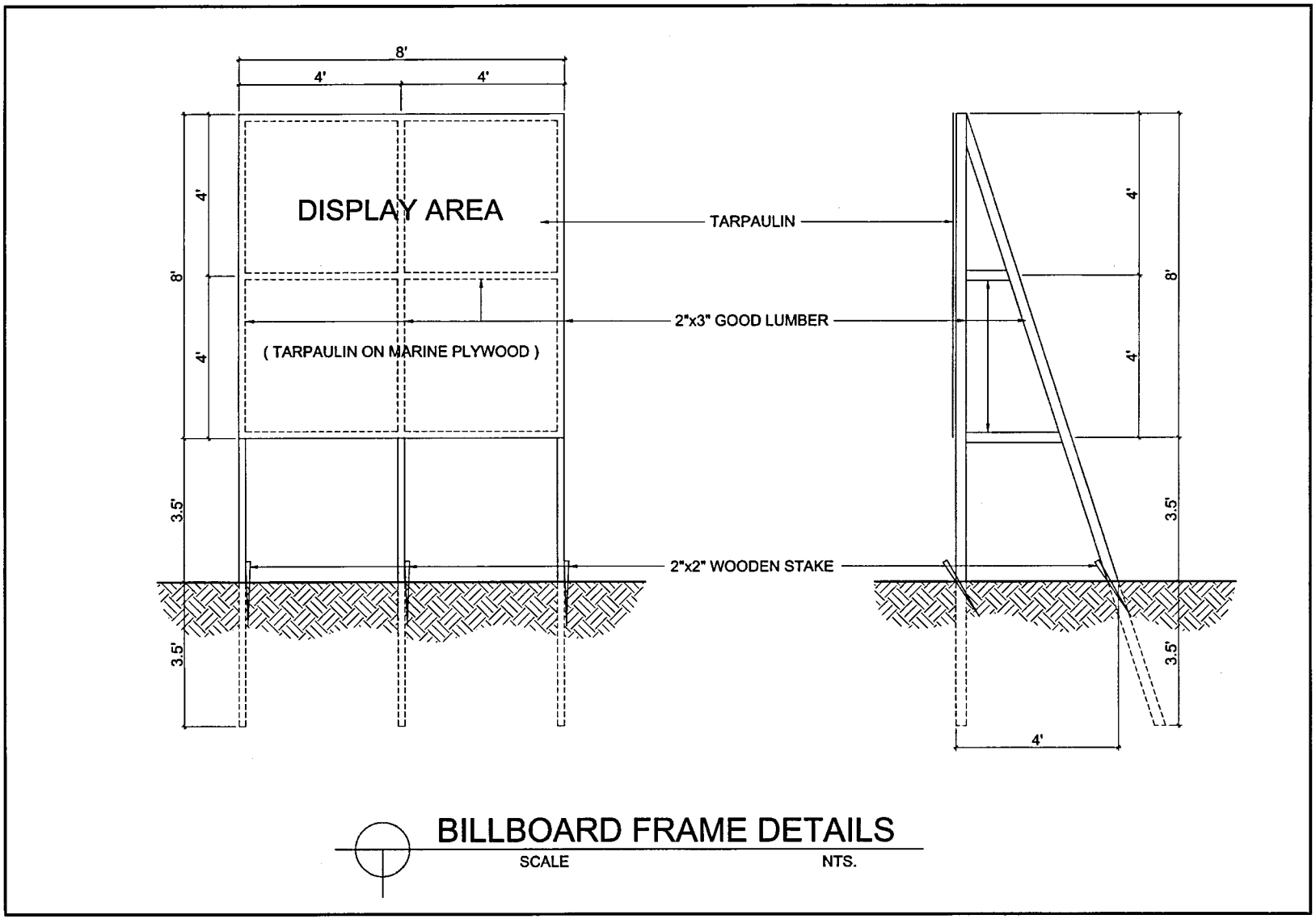
WHITE BACKGROUND
COLOR SHADE COMBINATION

CYAN	:	0
MAGENTA	:	7
WHITE	:	78
KEY	:	0

NOTE:

FONT:	HELVETICA
FONT SIZE:	MAIN INFORMATION 3"
	SUB INFORMATION 1"
FONT COLOR:	BLACK

STANDARD PROJECT BILLBOARD



BILLBOARD FRAME DETAILS

SCALE NTS.

ITEM 08 : SAFETY SIGNAGES AND BARRICADES

DESCRIPTION

This work includes the furnishing and installing of safety signages and barricades in accordance with the specifications and to the details shown below in the drawings, or as directed by the Engineer.

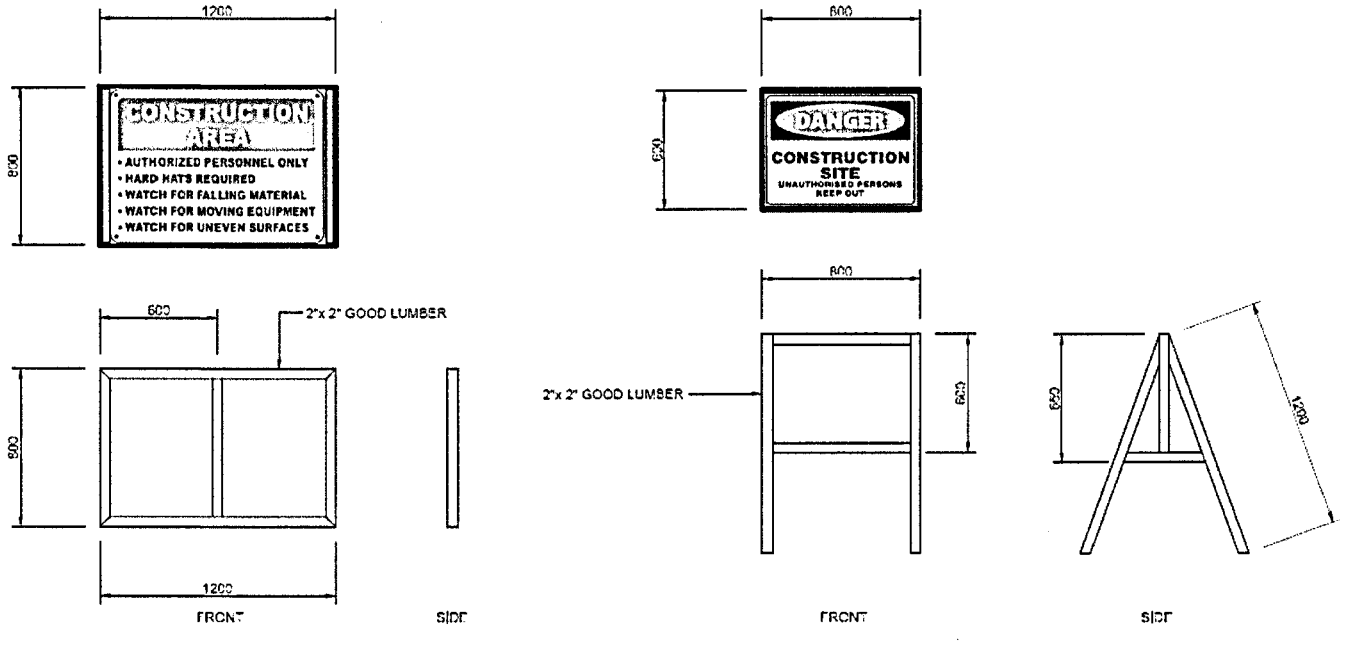
SPECIFICATION

The Signage's and Barricades shall be installed at location(s) designated by the Engineer.

The sizes of the standard signages shall be 2-2/3ft x 4ft (800mm X 1,200mm) for fixed type and 2ft x 2–2/3ft (600mm x 800mm) for mobile type. For barricade standard 2ft x 2–2/3ft (600mm x 800mm) shall be provided.

The materials to be used for signages and barricades are ½ inch (12mm) marine plywood or tarpaulin poster on 2" x 2" (50mm x 50mm) good lumber frame (see drawing below).

The printing or painting shall be the discretion of the Engineer.



STANDARD PLAN FOR SIGNAGES AND BARRICADES

SECTION VII

DRAWINGS
(APPROVED PLANS)

SECTION VII

DRAWINGS AND APPROVED PLANS
(SEE ISSUED APPROVED PLANS)

LIST OF DRAWINGS:

SHEET 1 OF 5-	DEVELOPMENT PLAN
SHEET 2 OF 5 -	PAVING BLOCKS PLAN
SHEET 3 OF 5 -	DRAINAGE LAYOUT PLAN
SHEET 4 OF 5-	DETAIL OF DRAINAGE, DETAIL OF MANHOLE
SHEET 5 OF 5 -	PAVEMENT PLAN, SECTION DETAIL OF PAVEMENT

PHILIPPINE PORTS AUTHORITY

PMO- MINDORO

REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA

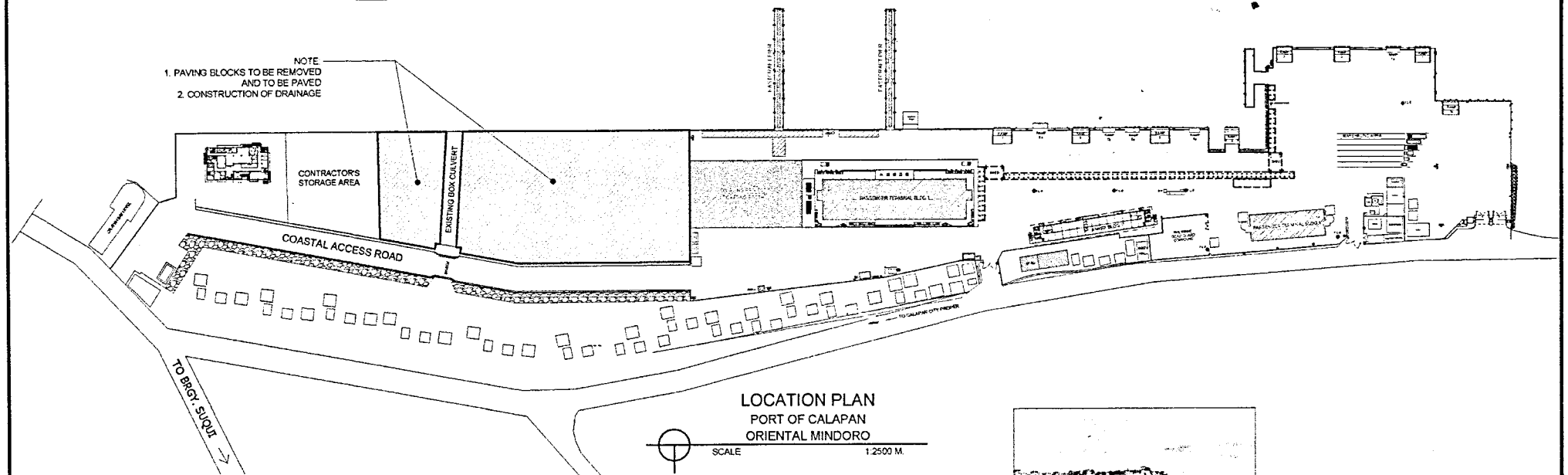
PORT OF CALAPAN, ORIENTAL MINDORO





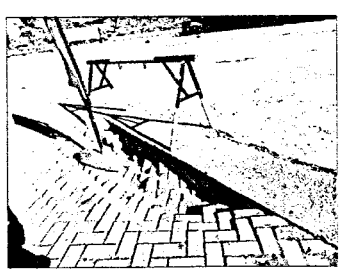


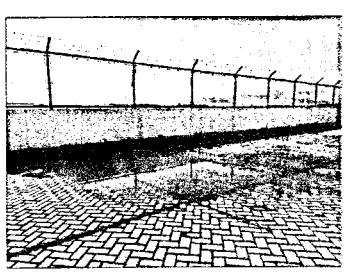
NOTE
1. PAVING BLOCKS TO BE REMOVED AND TO BE PAVED
2. CONSTRUCTION OF DRAINAGE



LOCATION PLAN
PORT OF CALAPAN
ORIENTAL MINDORO
SCALE 1:2500 M.







PHILIPPINE PORTS AUTHORITY
PMO- MINDORO

PROJECT TITLE: REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA
PORT OF CALAPAN, ORIENTAL MINDORO

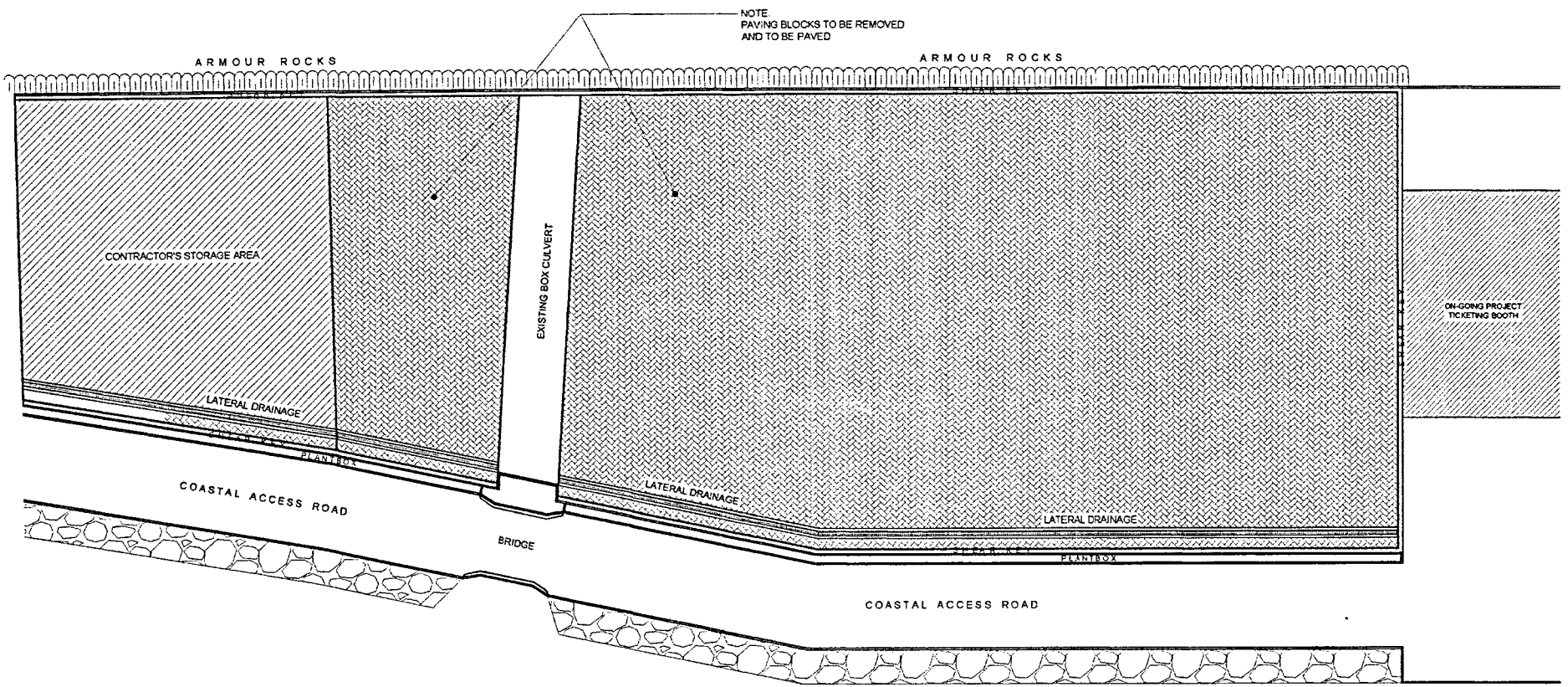
SHEET CONTENTS: AS SHOWN

SCALE: AS SHOWN

SHEET NO. 1 of 5

DATE : 13 JULY, 2026

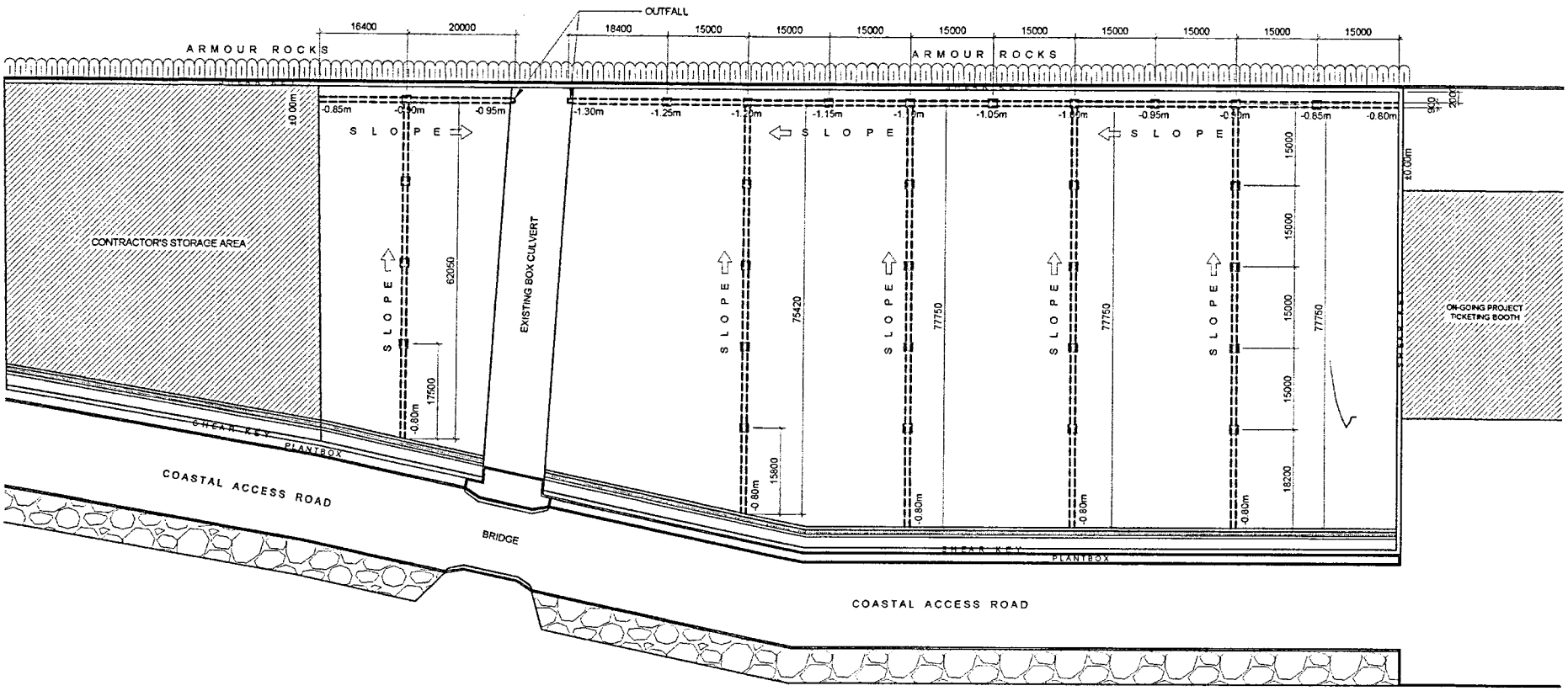
PREPARED BY:	SUBMITTED BY:	CHECKED / REVIEWED BY:	RECOMMENDING APPROVAL BY:	APPROVED BY:
CONRADO E CASAPAO JR	RONALD O MATIBAG	MARGARITO P DIMPLIG	JOSELITO A SINOCRUZ PhD	JAMES J GALITALAO
Supervising Engineer A	Principal Engineer A	Manager Engineering Services Division	Port Manager	Assistant General Manager for Engineering



PAVING BLOCKS PLAN

SCALE 1:800 M.

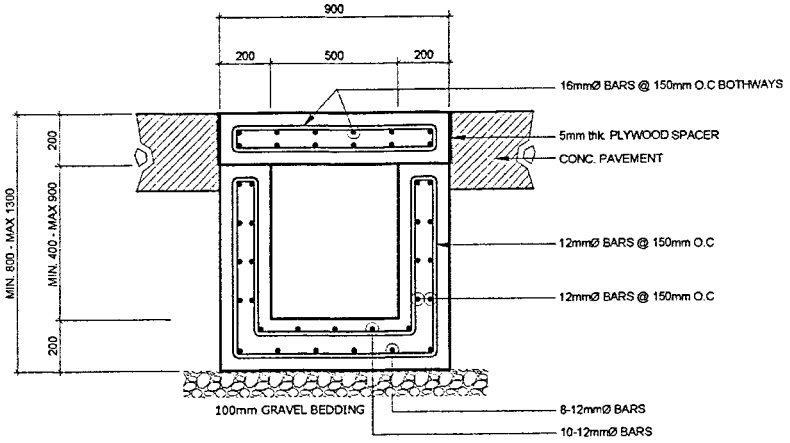
PHILIPPINE PORTS AUTHORITY PMO- MINDORO	PROJECT TITLE: REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA PORT OF CALAPAN, ORIENTAL MINDORO				SHEET CONTENTS:	SCALE: AS SHOWN
	PREPARED BY: CONRADO E CASAPAO JR Supervising Engineer A	SUBMITTED BY: RONALD O MATIBAG Principal Engineer A	CHECKED / REVIEWED BY: MARGARITO P DIMAILIG Manager Engineering Services Division	RECOMMENDING APPROVAL BY: JOSELITO O SINOCRUZ PhD Port Manager	APPROVED BY: JAMES J GANTALAO Asst. General Manager for Engineering	AS SHOWN	SHEET NO. 2 of 5
						DATE : 13 JULY, 2026



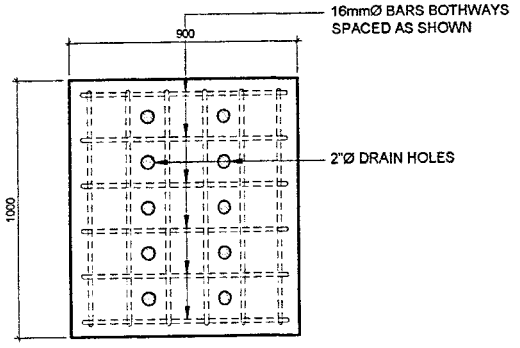
DRAINAGE LAYOUT PLAN

SCALE 1:800 M.

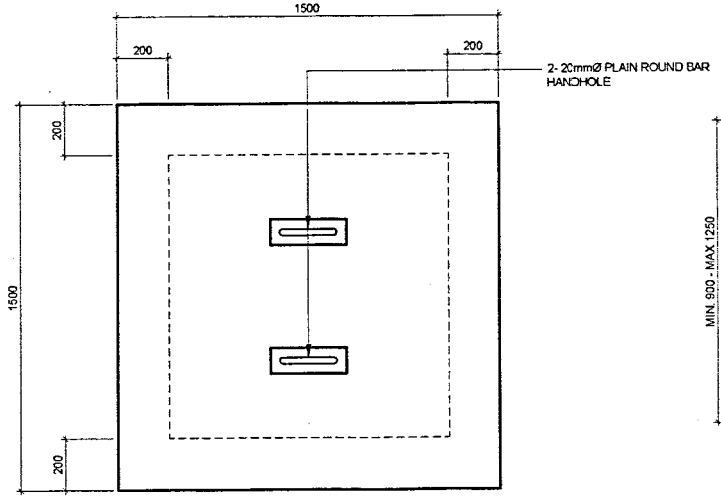
PHILIPPINE PORTS AUTHORITY PMO- MINDORO	PROJECT TITLE: REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA PORT OF CALAPAN, ORIENTAL MINDORO				SHEET CONTENTS:	SCALE: AS SHOWN
	PREPARED BY: CONRADO E CASAPAO JR Supervising Engineer A	SUBMITTED BY: RONALD O NATIBAG Principal Engineer A	CHECKED / REVIEWED BY: MARGARITO F DIMAILIG Manager Engineering Services Division	RECOMMENDING APPROVAL BY: JOSELITO D SINOCRUZ PhD Port Manager	APPROVED BY: JAMES J GANTALAO Assistant General Manager for Engineering	AS SHOWN	SHEET NO. 3 of 5 DATE : 13 JULY, 2026



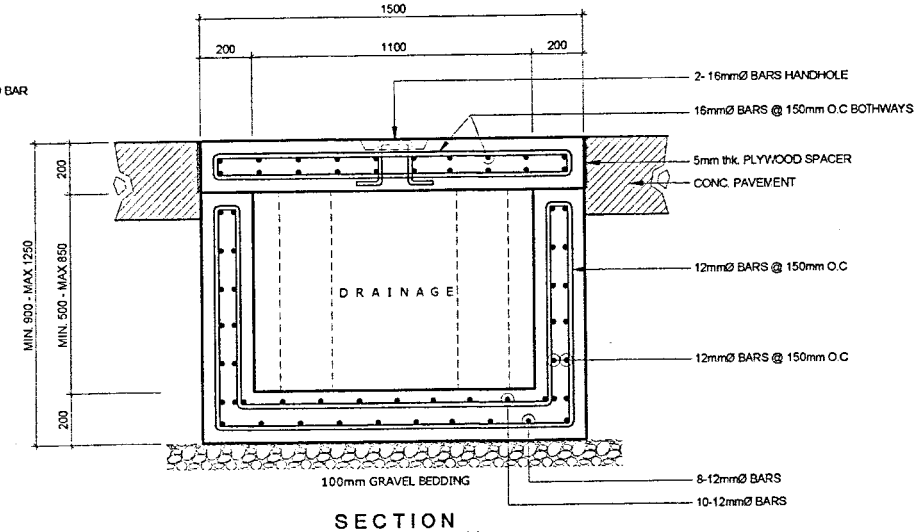
DETAIL OF DRAINAGE



DRAINAGE
COVER DETAIL



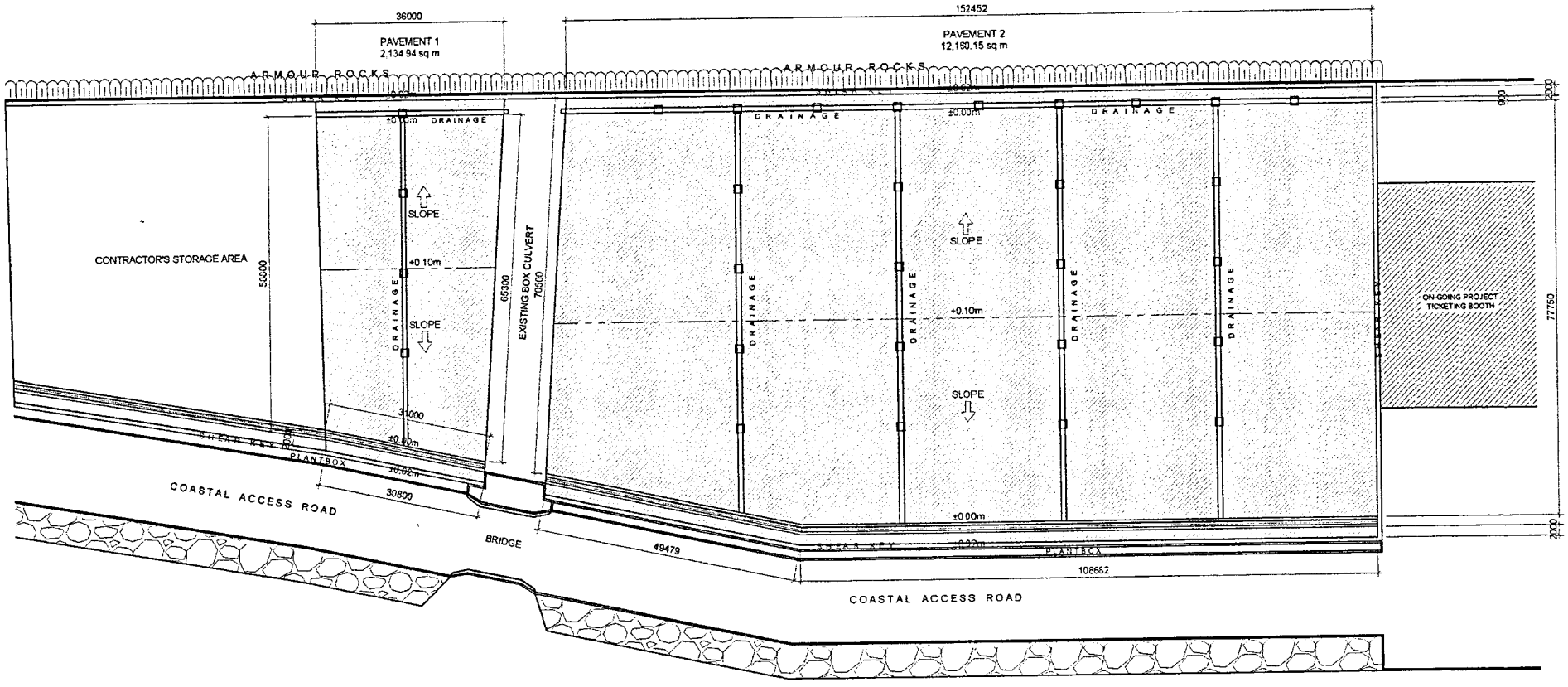
PLAN



SECTION

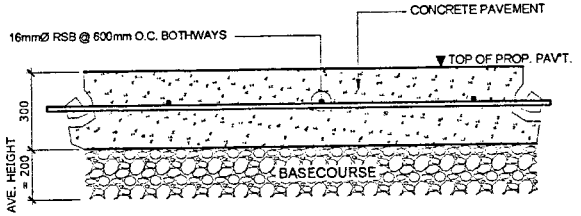
DETAIL OF MANHOLE

PHILIPPINE PORTS AUTHORITY PMO- MINDORO	PROJECT TITLE: REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA PORT OF CALAPAN, ORIENTAL MINDORO				SHEET CONTENTS:	SCALE: AS SHOWN
	PREPARED BY: CONRADO E CASAPAO JR Supervising Engineer A	SUBMITTED BY: RONALD O MATIBAG Principal Engineer A	CHECKED / REVIEWED BY: MARGARITO P BIMAILIG Manager Engineering Services Division	RECOMMENDING APPROVAL BY: JOSELITO O SINOCRUZ PhD Port Manager	APPROVED BY: JAMES J GANTALAO Assistant General Manager for Engineering	AS SHOWN	SHEET NO. 4 of 5 DATE : 13 JULY, 2026



PAVEMENT PLAN

SCALE 1:800 M.



CONSTRUCTION JOINT - 3.5M x 4M w/ ASPHALT FILLER

SECTION DETAIL OF PAVEMENT

SCALE 1:20M

PHILIPPINE PORTS AUTHORITY
PMO- MINDORO

PROJECT TITLE: REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA
PORT OF CALAPAN, ORIENTAL MINDORO

PREPARED BY:	SUBMITTED BY:	CHECKED / REVIEWED BY:	RECOMMENDING APPROVAL BY:	APPROVED BY:
CONRADO E CASAPAO JR Supervising Engineer A	RONALD O MATIBAG Principal Engineer A	MARGARITO P DIMAILIG Manager Engineering Services Division	JOSELITO D SINOCRUZ PhD Port Manager	JAMES J CANTALAO Assistant General Manager for Engineering

SHEET CONTENTS:	SCALE:
AS SHOWN	AS SHOWN
	SHEET NO. 5 of 5
	DATE : 13 JULY, 2026

SECTION VIII

BILL OF QUANTITIES and ATTACHMENTS

BID SUMMARY

REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA

Port of Calapan, Oriental Mindoro

NO.	DESCRIPTION OF WORK	AMOUNT (Pesos)
BILL NO. 1	General Expenses	
BILL NO. 2	Removal and Demolition Works	
BILL NO. 3	Earthworks	
BILL NO. 4	Drainage System	
BILL NO. 5	Portland Cement Concrete Pavement	
	BID PRICE	

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

BILL OF QUANTITIES
REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA
Port of Calapan, Oriental Mindoro

BILL 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 cleaning	l.s.	1.00		
1.02	Provide Construction Safety and Health Program in execution of the project	mo.	8.00		
1.03	Temporary Site Office and Staffhouse	lot	1.00		
BILL NO.	**2 Removal and Demolition Works**				
2.01	Removal/Dismantling and Turnover of Paving blocks including Demolition and Disposal of CTB as shown in the plan	sq.m.	14,296.00		
BILL NO.	**3 Earthworks**				
3.01	Drainage Excavation and Subgrade Leveling	cu.m.	83.00		
3.02	Supply, Spread and Compact Gravel Base Course Materials for Marshalling Area Pavement and Gravel Bedding for Drainage	cu.m.	1,430.00		
BILL NO.	**4 Drainage System**				
4.01	Supply and Installation of Reinforcing Steel Bars	kg	70,546.00		
4.02	Supply, Install, and Removal of Formworks	sq.m.	3,142.00		
4.03	Supply and Place 3500 psi Concrete	cu.m.	378.00		
BILL NO.	**5 Portland Cement Concrete Pavement**				
5.01	Supply and Installation of Reinforcing Steel Bars	kg	83,326.00		
5.02	Supply and Place 3500 PSI Portland Cement Concrete Pavement including Asphalt Joint Sealer	sq.m.	14,296.00		
	GRAND TOTAL				

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

SECTION VIII – BILL OF QUANTITIES

TABLE OF CONTENTS

		PAGE
1.	1a Bid Summary	1-1
	1b Bill of Quantities	1
2.	Annex 1 (Basis of Payments)	2
3.	Annex 2 (Facilities to be Provided)	5
4.	Annex 3 (Minimum Equipment Requirements)	6
5.	Annex 4 (Construction Safety and Health Requirements)	7
6.	Annex 5 (Minimum Testing Requirements)	8

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 cleaning

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 cleaning.

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, equipment, 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).

Item 1.03 Temporary Site Office and Staffhouse

The quantity to be paid for shall be the actual rental of site office and residence for the engineer and staff and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary for the provision of temporary site office and residence for the engineer and staff as well as other expenses such as provision for electric power, telephone bill, potable water supply, janitorial and security services.

BILL NO. 2

REMOVAL AND DEMOLITION WORKS

Item 2.01 Removal / Dismantling and Turnover of Paving Blocks including Demolition and Disposal of CTB as shown in the plan

The quantity to be paid for shall be the actual area in square meter of existing paving blocks to be removed/ dismantled and turned over to the authority, including disposal of unsuitable items 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.

BILL NO. 3

EARTHWORKS

Item 3.01 Drainage Excavation and Subgrade Leveling

The quantity to be paid for shall be the actual volume in cubic meter of drainage to be excavated and subgrade leveling, including disposal of unsuitable items 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 3.02 Supply, Spread and Compact Gravel Base Course Materials for Marshalling Area Pavement and Gravel Bedding for Drainage

The quantity to be paid for shall be the actual volume in cubic meter of Gravel base course materials for Marshalling area pavement and gravel bedding for drainage to be supplied, spread, and compacted in accordance with the plans and specifications and accepted by the Engineer. This includes the supply, spread and compaction of gravel base course materials for Marshalling Area Pavement and gavel bedding for drainage. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

BILL NO. 4

DRAINAGE SYSTEM

Item 4.01 Supply and Installation of Reinforcing Steel Bars

The quantity to be paid for shall be the actual weight in kilogram of steel reinforcements to be supplied and installed for concreting works of drainage system 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 4.02 Supply, Install, and Removal of Formworks

The quantity to be paid for shall be the actual area in square meters of formworks to be supplied and installed for drainage system, including removal of formworks after concreting 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, scaffolding, shoring, stripping, cleaning, and incidentals necessary to complete the work.

Item 4.03 Supply and Place 3500 psi Concrete

The quantity to be paid for shall be the actual volume in cubic meter of 3,500 psi concrete to be supplied and set-in-place for drainage system 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.

BILL NO. 5

PORTLAND CEMENT CONCRETE PAVEMENT

Item 5.01 Supply and Installation of Reinforcing Steel Bars

The quantity to be paid for shall be the actual weight in kilogram of steel reinforcements to be supplied and installed for concreting works of Portland Cement Concrete Pavement 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 5.02 Supply and Place 3500 psi Portland Cement Concrete Pavement including Asphalt Joint Sealer

The quantity to be paid for shall be the actual area in square meter of Portland Cement Concrete Pavement to be supplied and set-in-place 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.

FACILITIES TO BE PROVIDED FOR THE ENGINEER & HIS STAFF

RENTAL OF SITE OFFICE AND RESIDENCE FOR THE ENGINEER & STAFF

The Contractor shall provide a temporary site office and residence (rental) with an area of at least 48 square meters for use of the Engineer and his staff for the whole duration of the project.

MINIMUM MAJOR EQUIPMENT REQUIREMENTS

1	unit/s	Forklift (2.72 MT., 60hp), Owned/Leased
2	unit/s	Dump Truck (10 tons net capacity) minimum, Owned/Leased
1	unit/s	Backhoe (0. 83cu.m, 135.4 hp), minimum, Owned/Leased
1	unit/s	Hydraulic Breaker Attachment, Owned/Leased
2	unit/s	Plate Compactor (5hp), minimum, Owned
1	unit/s	Walk Behind Roller, Owned
1	unit/s	Vibratory Road Roller (10T), minimum, Owned/Leased
1	unit/s	Water Truck with pump (1000 gals), minimum, Owned/Leased
2	unit/s	Bar Cutter (electric, 25mm dia.), minimum, Owned
2	unit/s	Bar Bender (electric, 25mm dia.), minimum, Owned
3	unit/s	Concrete Vibrator, Owned
1	unit/s	Transit Mixer (10 tons net capacity), minimum, Owned/Leased
3	unit/s	Concrete Cutter, Owned
1	unit/s	Payloader (1. 5cu.m, 110 hp), minimum, Owned/Leased
1	unit/s	Road Grader (125 hp), minimum 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 Engineer / Officer
1	no.	Nurse / Health Officer

EQUIPMENT / MATERIALS

Personnel Protective Equipment

36	pc.	Hard Hats
36	pc.	Gloves (rubberized)
36	pc.	Safety Glasses/Goggles (clear)
72	pc.	Long sleeve T-shirt
36	pair	Safety Shoes

Safety Devices

1	lot	Barricades
1	lot	Warning signs
2	unit/s	Fire extinguisher (10kg)

Medical and First Aid System - Eight (8) mos.

NOTE:

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

PPA MEMORANDUM CIRCULAR
No 02
Series of 2016
Attachment

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, Elutnation (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)
B 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 Fixing 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 Quality Test for Chemical Composition and Mechanical Properties	All Units 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 Coase 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 Mill Certificate	One per batch 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 Laboratory California Bearing Ratio (CBR) Field Density Test	For every 1,500 cubic meter or fraction thereof For every 2,500 cubic meter or fraction thereof 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 Quality Test for Grading, Plasticity, Abrasion and Laboratory Compaction Test Laboratory California Bearing Ratio (CBR) Field Density Test	For every 300 cubic meter or fraction thereof For every 1,500 cubic meter or fraction thereof Same frequency as Selected Fill 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	6 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) 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 Magnetic Thickness Measurement	1 set (3 specimen) for every 100,000 sq mm or fraction thereof

PPA MEMORANDUM CIRCULAR
No 02
Series of 2016
Attachment

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 Plasticity Test (LL,PL,PI) 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 Grading Test Plasticity Test (LL,PL,PI) 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 Testing and Commissioning	One per shipment
Electrical Devices	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per shipment
Fire Alarm System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Wiring Devices	Inspection and Evaluation Report from the Engineer 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 Testing and Commissioning	One per shipment
Telephone System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
CCTV System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
CATV System	Inspection and Evaluation Report from the Engineer 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 Testing and Commissioning	One per item
Conduit Pipes	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Lighting Fixtures	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
PLUMBING WORKS		
Pipes	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item

PPA MEMORANDUM CIRCULAR
No 02
Series of 2016
Attachment

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

BID RELATED FORMS

SECTION IX – BID RELATED FORMS

TABLE OF CONTENTS

		PAGE
1.	Bid Form	1
2.	Contract Form	3
3.	Omnibus Sworn Statement for Sole Proprietorship	6
4.	Omnibus Sworn Statement for Partnership, Corporation, Cooperative, or Joint Venture	9
5.	Bid Securing Declaration Form	12
6.	Statement of all On-going Government and Private Contracts, including contracts awarded but not yet started	15
7.	Statement of the Bidder's Single Largest Completed Contracts (SLCC) Similar to the Contract to be Bid	16
8.	Experience Record on Similarly Completed Projects	17
9.	Financial Data	18
10.	List of Contractor's Personnel	19
11.	List of Contractor's Equipment Units	20
12.	Construction Methodology	21
13.	Manpower Schedule	22
14.	Equipment Utilization Schedule	23
15.	Cash Flow by Quarter and Payment Schedule	24

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 Bid Bulletin Numbers _____, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

a. I/We have no reservation to the PBD, including the Supplemental Bid Bulletins, for the Procurement Project: **Repair of Pavement at Port Operational Area, Port of Calapan, Oriental Mindoro;**

b. I/We offer to execute the Works for this Contract in accordance with the PBD;

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

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

e. The total bid price in words and figures, after applying the applicable discount, 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 in the Detailed Estimates.

f. This Bid shall remain valid within a period stated in the PBD, and it shall be binding upon me/us at any time before the expiration of that period;

g. If our bid is accepted, I/we commit to enter to a contract and provide a performance security in the form, amounts, and within the times prescribed in the PBD, and hereby acknowledge the consequences under the IRR of RA No. 12009 on forfeiture of Bid Security or enforcement of Bid Securing Declaration and on Blacklisting;

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon the Bidder.

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

I/We certify/confirm that we comply with the eligibility requirements pursuant to the PBD.

The undersigned is authorized to submit the bid on behalf of **[Name of the Bidder]** as

evidenced by the attached *[State the Written Authority]*.

I/We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Signature over Printed Name]
[Position/Designation]

[Date]

Contract Form

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

CONTRACT FOR [INSERT PROJECT TITLE]

THIS CONTRACT executed on the _____ day of _____ 20_____ between:

Philippine Ports Authority, a government agency of the Republic of the Philippines, hereinafter called "the Entity";

-and-

[Name of Contractor], Filipino of legal age or a company duly organized and existing under the laws of **[city and country]**, with principal office at **[name and address of Contractor]**, hereinafter called "the Contractor".

WHEREAS, the Entity invited Bids for certain goods and ancillary services, particularly *[Brief description of Project]*;

WHEREAS, the Contractor submitted a responsive bid and was awarded the contract for the procurement in the total amount of **[contract price in words and figures in specified currency]**, hereinafter referred to as the "Contract Price."

NOW, THEREFORE, for and in consideration of the foregoing premises, the parties hereby agree as follows:

1) Unless otherwise stated, terms and expressions used in this Contract shall have the same meanings as those assigned to them in the Conditions of Contract, which form an integral part of this Contract.

2) The following documents as required by the Implementing Rules and Regulations of Republic Act No. 12009 shall be deemed to form and be read and construed as integral part of this Contract, *viz.*:

   a) Philippine Bidding Documents (PBD);

      i. Drawings/Plans;
      ii. Scope of Work;
      iii. Invitation to Bid;
      iv. Instructions to Bidders;
      v. Bid Data Sheet;
      vi. 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;
      vii. Bill of Quantities;
      viii. General and Special Conditions of Contract;
      ix. Supplemental Bid Bulletins, if any; and
      x. Other contract documents that may be required by existing laws and/or the Entity.

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

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 PBD, such as but not limited to the Notice to Proceed and Warranty Security.

3) In consideration of the Contract Price of **[total contract price in words and figures]**, or such other sums as may be determined in accordance with the terms of the Contract, the Supplier agrees to deliver and perform the items and related services for the **[Project Title]** described herein in accordance with the terms and conditions specified in the Contract and its annexed documents.

4) The **Philippine Ports Authority** agrees to pay the above-mentioned sum to the Supplier in accordance with the schedule and manner provided in the Bidding Documents and its annexes.

5) Any dispute, difference, or claim arising out of or relating to this Contract, including its existence, validity, interpretation, breach, or termination thereof, may be submitted to arbitration or other form of alternative dispute resolution in accordance with the applicable law, such as Republic Act (RA) No. 9285 (Alternative Dispute Resolution Act of 2004) or Executive Order No 1008, series 1985 (Construction Industry Arbitration Law).

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed in accordance with the laws of the Republic of the Philippines on the day and year first above written

For the Procuring Entity Head of the Procuring Entity or Duly Authorized Representative	*For the Bidder* Duly authorized to sign the Contract for and behalf of *[Bidders Name]*:
[Signature over Printed Name][Position/Designation] *[Date]*	*[Signature over Printed Name]* *[Position/Designation]* *[Date]*
[Name and Signature] *Witness – Procuring Entity*	*[Name and Signature]* *Witness- Supplier*

ACKNOWLEDGMENT

BEFORE ME, A Notary Public for and in the _____, City/Province of _____, this _____ day of _____, 20_____, personally appeared the above-named persons who have satisfactorily proven to me their identity, through their identifying documents written below their names and signatures, that they are the same persons who executed and voluntarily signed the foregoing instrument consisting of ____ pages, including this page where this Acknowledgement is written, which they acknowledged before me as their free and voluntary act and deed.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

Omnibus Sworn Statement for Sole Proprietorship

[Note: The duly accomplished form shall be submitted with the Bid]

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

OMNIBUS SWORN STATEMENT

I, _____, of legal age, [Civil Status], [Nationality], and with residence 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 **Repair of Pavement at Port Operational Area, Port of Calapan, Oriental, Mindoro** of the **Philippine Ports Authority**, [insert "as supported by the attached duly notarized Special Power of Attorney" for authorized representative];

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;

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 **[Name of Bidder]** and its spouse are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

7. It is understood that failure to faithfully disclose its relationship with the HoPE, members of the BAC, the TWG, and the BAC Secretariat, the head of the PMO or the end-user unit or implementing unit, and the project consultants of the Procuring Entity, or of the procurement agent by consanguinity or affinity up to the third civil degree, as well as its submission of beneficial ownership information containing false entries shall be subject to blacklisting under Section 100 of the IRR of RA No. 12009, without prejudice to criminal and civil liabilities under applicable laws, including their accessory penalties, if any.

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

9. **[Name of Bidder]** is aware of and has undertaken the following responsibilities as a Bidder:

a. Carefully examine all of the Bidding Documents;
b. Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
c. Made an estimate of the facilities available and needed for the contract to be bid, if any; and
d. Inquire or secure Supplemental Bid Bulletin(s) issued for the [Project Title].

10. *[***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.

11. In case advance payment was made or given to **[Name of Bidder]**, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability under existing laws.

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

Duly authorized to sign the Bid for and behalf of:

_____
[Bidder's Name]

[Affiant's Signature over Printed Name]
[Position/Designation]
[Date]

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

Doc. No. _____
Page No. _____
Book No. _____
Series of _____.

Omnibus Sworn Statement for Partnership, Corporation, Cooperative, or Joint Venture

[Note: The duly accomplished form shall be submitted with the Bid]

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

OMNIBUS SWORN STATEMENT

I, _____, of legal age, [Civil Status], [Nationality], and with residence 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 **Repair of Pavement at Port Operational Area, Port of Calapan, Oriental Mindoro** of the **Philippine Ports Authority**, as supported by the attached duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, 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;

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. Select one, delete the others:

    - *If partnership*: The partnership itself and the partners of [Name of Bidder] are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

    - *If cooperative:* The cooperative itself and members of the board of directors, general manager, or chief executive officer of [Name of Bidder] are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

    - *If corporation, or joint venture:* The corporation or joint venture itself, and officers,

directors, and controlling stockholders of [Name of Bidder] are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

7. It is understood that failure to faithfully disclose its relationship with the HoPE, members of the BAC, the TWG, and the BAC Secretariat, the head of the PMO or the end-user unit or implementing unit, and the project consultants of the Procuring Entity, or of the procurement agent by consanguinity or affinity up to the third civil degree, as well as its submission of beneficial ownership information containing false entries shall be subject to blacklisting under Section 100 of the IRR of RA No. 12009, without prejudice to criminal and civil liabilities under applicable laws, including their accessory penalties, if any.

    - *In case of corporations:* **[Name of Bidder]** declares its beneficial ownership information consistent with its updated General Information Sheet or Beneficial Ownership Declaration Form or any other document duly submitted to the SEC and has maintained a valid and updated file therein in compliance with Sections 20.2.9.1, 81, and 82 of the IRR of Republic Act (RA) No. 12009.

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

9. **[Name of Bidder]** is aware of and has undertaken the following responsibilities as a Bidder:

    a. Carefully examine all of the Bidding Documents;
    b. Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
    c. Made an estimate of the facilities available and needed for the contract to be bid, if any; and
    d. Inquire or secure Supplemental Bid Bulletin(s) issued for the [Project Title].

10. **[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.

11. In case advance payment was made or given to **[Name of Bidder]**, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability under existing laws.

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

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Affiant's Signature over Printed Name]
[Position/Designation]
[Date]

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

Doc. No. _____
Page No. _____
Book No. _____
Series of _____.

Bid Securing Declaration Form

[The duly accomplished form shall be submitted with the Bid if bidder opts to provide this type 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 shall enter into contract with the Procuring Entity and furnish the required performance security within ten (10) calendar days as indicated in the Bidding Documents, from receipt of the Notice of Award;

   b. I/we will be automatically disqualified from bidding for any procurement contract with any Procuring Entity upon receipt of your Blacklisting Order; and

   c. I/We will pay the applicable fine 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 52.2 (a), 63.2, 69.1 and 100, except 100.3 (c), of the IRR of RA No. 12009; without prejudice to other legal action the government may undertake;

	Applicable Fine
a) in the case of a single bidder	i) two percent (2%) of the Approved Budget for the Contract (ABC); or ii) the difference between the evaluated bid price and the ABC whichever is higher
b) in the case of multiple bidders	i) two percent (2%) of the ABC; or ii) the difference between the evaluated bid prices with the bidder with Lowest Calculated/Highest Rated Bid and the bidder with the next Lowest Calculated/Highest Rated Bid,

	and so on whichever is higher
c) in case of violations committed prior to the opening of the financial envelope	i) a fixed amount of two percent of the ABC,

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]*.

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Signature over Printed Name]
[Position/Designation]
[Date]

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year]*.

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

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 i. On-going ii. Awarded but not yet started B) Private Contracts i. On-going 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 completed an SLCC that is similar to the procurement project to be bid, and whose value must be equivalent to at least fifty percent (50%) of the ABC, adjusted to current prices using the Philippine Statistics Authority (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 other than the Contractor 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 2026

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

Work Description	Unit of Measure	Quantity	**SLCC** similar to the contract to be bid 1]	Other completed contracts similar to the contract to be bid 1]			Unit of Measure 1]	Quantity 1]
			Name of the contract	Name of the contract	Name of the contract	Name of the contract		
Similar Category of Work: 1. Construction of Portland Cement Concrete Pavement	sq.m.	7,148.00						
Other Qualifying Experience Requirement: 1. Reinforced Concrete works	cu.m.	189.00						

NOTE:
1] 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 project owner other than the Contractor 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 2026

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 procurement project 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) Complete Qualification and Experience Data Certificate of Commitment	Annex "_"
Project Engineer					PRC License (CE Preferred) Complete Qualification and Experience Data Certificate of Commitment	Annex "_"
Materials Engineer I					PRC License (CE Preferred) Submit Valid and Renewed DPWH Certificate of Accreditation Submit Accreditation Identification Card as Materials Engineer Complete Qualification and Experience Data Certificate of Commitment	Annex "_"
Construction Safety and Health Officer					Certificate in Construction Occupational Safety and Health (COSH) training or related course issued by DOLE Accredited Trainings Complete Qualification and Experience Data Certificate of Commitment	Annex "_"
Foreman					Complete Qualification and Experience Data Certificate of Commitment	Annex "_"
Other Position(s)					Complete Qualification and Experience Data 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
Project Architect - Three (3) years
Foreman - Five (5) years
Materials Engineer – One (1) year
Materials Engineer I – for projects costing up to 100M
Materials Engineer II – for projects costing more than 100M
Construction Safety and Health Officer – One (1) year

Name of Firm

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

Date

Revised: September 2026

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), Ton. (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/Lease 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, Cargo 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 purchase 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
c. For Water Truck, Dump 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 lease 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 8, Annex 3.

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

Revised: April 2025

CONSTRUCTION METHODOLOGY

Name of Project : _____

Project Description : _____

Location : _____

MINIMUM SCOPE OF CONSTRUCTION METHODOLOGY

A. REMOVAL AND DEMOLITION WORKS

1. Removal/Dismantling and Turnover of Paving blocks including Demolition and Disposal of CTB as shown in the plan

B. EARTHWORKS

1. Drainage Excavation and Subgrade Leveling

2. Supply, Spread and Compact Gravel Base Course Materials for Marshalling Area Pavement and Gravel Bedding for Drainage

C. DRAINAGE SYSTEM

1. Supply and Installation of Reinforcing Steel Bars
2. Supply, Install, and Removal of Formworks
3. Supply and Place 3500 psi Concrete

D. PORTLAND CEMENT CONCRETE PAVEMENT

1. Supply and Installation of Reinforcing Steel Bars
2. Supply and Place 3500 PSI Portland Cement Concrete Pavement including Asphalt Joint Sealer

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
Project Manager								
Project Engineer								
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

_____
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)
TOTAL		

NOTES

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

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

Revised: September 2021

H.O. - BIDS AND AWARDS COMMITTEE - EP
CHECKLIST OF BIDDING DOCUMENTS
REPAIR OF PAVEMENT AT PORT OPERATIONAL AREA
PORT OF CALAPAN, ORIENTAL MINDORO
ABC - Php 64,403,925.99

		REQUIREMENTS
I.		**TECHNICAL COMPONENT ENVELOPE (1 orig. and 6 copies)**
		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;
		(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;
		a. Major Categories of Work
		1.Construction of Portland Cement Concrete Pavement
		b. Experience Record on Similarly Completed Projects
		1. Similar Category of Work
		i. Construction of Portland Cement Concrete Pavement
		2. Other Qualifying Works
		i. Reinforced Concrete Works
		(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 to be assigned to the contract to be bid, with their complete qualification and experience data:
		Project Manager
		Project Engineer
		Materials Engineer I
		Construction Safety and Health Officer
		Foreman
		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:
		1 unit/s Forklift (2.72 MT., 60hp), Owned/Leased
		2 unit/s Dump Truck (10 tons net capacity) minimum, Owned/Leased
		1 unit/s Backhoe (0. 83cu.m, 135.4 hp), minimum, Owned/Leased
		1 unit/s Hydraulic Breaker Attachment, Owned/Leased
		2 unit/s Plate Compactor (5hp), minimum, Owned
		1 unit/s Walk Behind Roller, Owned
		1 unit/s Vibratory Road Roller (10T), minimum, Owned/Leased
		1 unit/s Water Truck with pump (1000 gals), minimum, Owned/Leased
		2 unit/s Bar Cutter (electric, 25mm dia.), minimum, Owned
		2 unit/s Bar Bender (electric, 25mm dia.), minimum, Owned
		3 unit/s Concrete Vibrator, Owned
		1 unit/s Transit Mixer (10 tons net capacity), minimum, Owned/Leased
		3 unit/s Concrete Cutter, Owned
		1 unit/s Payloader (1. 5cu.m, 110 hp), minimum, Owned/Leased
		1 unit/s Road Grader (125 hp), minimum Owned/Leased
		(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 Orginal 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 which R.A. No.4566 and its IRR in case the joint venture is already in existence; or 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. 12009
	(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 rate, and equipment rentals used in coming up with the bid; and
	(m) Cash Flow by Quarter.