

DOC. NO. 4
SPECIFICATIONS

PHILIPPINE BIDDING DOCUMENTS

CONSTRUCTION OF CHED'S EMERGENCY SITE EXIT (REBID)

Location: C.P. Garcia Avenue, U.P. Diliman Campus, Diliman, Quezon City

Government of the Republic of the Philippines

PBD-Infra-2016-06



TECHNICAL SPECIFICATIONS

PROJECT: CONSTRUCTION OF CHED'S EMERGENCY SITE EXIT (REBID)

SUMMARY OF MATERIALS AND FINISHES

GENERAL NOTES:

1. Bidders are limited to the brand, make, source, manufacturer, installer or specialty contractor specified therein.
2. When an "or equal" is placed immediately after the specified material, the bidder is allowed to make substitutions. The Owner, however, reserves the right to accept or reject proposed substitution.
3. Samples of all materials and finishes and latest catalogue of electrical fixtures, panel boards, fittings, receptacles, switches, accessories, and finishing hardware's specified herein shall be submitted to the owner for verification and approval before purchase and installation.
4. Materials deemed necessary to complete the works but not specifically mentioned in the Specification or in the Contract Documents shall be supplied and installed by the Contractor. Such materials shall be the highest quality available and installed or applied in a workmanlike manner in the prescribed or appropriate locations.

Description	Specifications
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A. SITEWORK

1. Temporary Facilities

- | | |
|-------------|---|
| Fence | <ul style="list-style-type: none"> - Two (2) meters high protective and security wall around the construction area. - Painted G.I. sheet, Gauge 26 on metal frame |
| Field House | <ul style="list-style-type: none"> - Office Space for the Project Manager/Project Engineer and staff |
| Bunkhouse | <ul style="list-style-type: none"> - Adequate, clean and sanitary facilities |

2. Earthworks

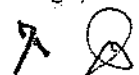
- | | |
|---|--|
| Granular Fill
1-part escombro
2-parts lastillas | <ul style="list-style-type: none"> - For all filling materials compact in layers 95% minimum compaction |
| Aggregate Base Coarse/
Gravel Bed | <ul style="list-style-type: none"> - 50 mm thick, thoroughly tampered for Slab on Pavement and Foundation Footings |
| Backfill | <ul style="list-style-type: none"> - Materials from excavation shall free from waste material, biodegradable matter, and clay soils - Two (2) inches particle size |
| Polyethylene sheet | <ul style="list-style-type: none"> - eight (8) mils |

B. SITE DRAINAGE/TRENCH DRAIN

- | | |
|---------------------------|--|
| Junction Boxes for Storm | <ul style="list-style-type: none"> - Concrete hollow blocks with pre-cast & Sanitary Drainage concrete cover. |
| Open Canal w/ steel cover | <ul style="list-style-type: none"> - 4" CHB, 400 psj minimum w/ steel grating cover see plan for detail. |

C. FOUNDATION SYSTEM

- | | |
|------------------|---|
| 1. Cast-in-Place | <ul style="list-style-type: none"> - 28 days compressive strength, four (4) inches maximum slump |
|------------------|---|



- | | |
|------------------------------|---|
| Columns | - Class A, 3500 psi |
| Wall/Column Footings | - Class A, 3500 psi |
| 2. Cement | - Portland, "Republic" or equal
(Use only one brand of cement all throughout) |
| 3. Aggregates | |
| Sand | - Clean, washed |
| Gravel | - Well-graded, ¾ inch max, aggregate size |
| Water | - clean, potable |
| 4. Steel Bars | - Deformed, structural grade (Fs = 33,000 psi), 16 mm Ø and below;
- Deformed, intermediate grade (Fs = 60,000 psi), 20 mm Ø and above |
| 5. Construction Joint Sealer | - sodium bentonite base concrete joint water stop for construction joints |

D. PAVEMENT SYSTEM /STAIR SYSTEM / RAMPSYSTEM

- | | |
|----------------------------|--|
| 1. Reinforced Concrete | - 28 days compressive strength |
| Slab-on-fill | - Class B, 3500 psi |
| Suspended Slab | - Class A, 3500 psi |
| Reinforced Concrete Stairs | - Class A, 3500 psi |
| 2. Aggregates | |
| Sand | - Clean, Washed |
| Gravel | - Well-graded, one (1) inch maximum aggregate size for slab on grade, three fourth (3/4) inch for suspended slab |
| Cement | - Portland, "Republic" or equal
(Use only one brand of cement all throughout) |
| Water | - Clean, potable |
| 3. Steel Bar | - Deformed, structural grade ((Fs = 33,000 psi), 16 mm Ø and below |

- Deformed, intermediate grade (Fs = 60,000 psi), 20 mm Ø and above

3. Stair railings and handrails

Star 1 (Main Stairs)

- 50 mm (2") Ø stainless steel top railing on epoxy painted 50 mm (2") Ø & 38mm (1 ½") Ø G.I. pipe railings, balusters & supports

Ramp

- 50 mm (2") Ø stainless steel pipe railings, balusters & supports (BP 344)

E. WALL SYSTEM

1. Unit Masonry

CHB Stair Retaining Wall

- Concrete Hollow Blocks (CHB) six (6") inches non-load bearing 500 psi minimum strength finished with plaster;

Acrytex, semi-gloss paint finish.

- Latex, semi-gloss paint finish

2. Mortar

Columns, Beams, Stairs and Slabs

- Integral finish, no mortar allowed

F. FLOOR FINISHES

1. Road Pavement

Non-skid concrete tiles

- 200x200x25mm Concrete tiles for ramp pavement (Waffle type design), 3000 psi strength

2. Stair landing and steps

Gravel washout with boarder

- See Structural plan (Sheet S-1) for detail



G. FLOOR FINISHES

1. Road Pavement

- Non-skid concrete tiles
- 200x200x25mm Concrete tiles for ramp pavement (Waffle type design), 3000 psi strength

2. Stair landing and steps

- Gravel washout with boarder
- See Structural plan (Sheet S-1) for detail

H. GATE SYSTEM

1. Ramp Gate/Stair Gate

- Angle bars
- 75mm x 75mm x (1/4") thick
- Turn buckle
- 16mmØ turn buckle
- Tubular Steel
- 100 x 50 tubular steel
- Pillow Block
- 1.5" Ø Pillow Block

I. ROAD SIGNAGES

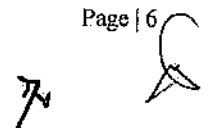
- 1. Warning/Regulatory Sign** - 3mm thk Aluminum Sheet 60cm Square
- 2. Warning/Regulatory Sign** - 3mm thk Aluminum Sheet 30x60cm Rectangular
- 3. Road stud cat eye** - Aluminum road stud cat eye reflective pavement marker

J. PAINTING WORKS

- 1. Reflectorized Paint** - Reflectorized traffic paint (white, yellow and Black)

K. ELECTRICAL SYSTEM

- Wires and Cables
- Phelp's dodge, Durex, Columbia or approved equal
- Lighting Fixtures
- Led Street Light (100 watts lamp post) submit sample for approval.
 - Outdoor Basketball Court led light water proof (Fire fly 500W).



L. BASKETBALL BACKBOARD & ACCESSORIES

Back Board with Ring

- 4"x6"x3/4" with 2x2 angular Steel back board frame with black painted finish fiber glass basketball board, Refurbish Backboard support, Heavy duty spring ring and net and 1 1/2" orange lining with CHED logo.

