

GENERAL SPECIFICATIONS

PROJECT TITLE: CONSTRUCTION OF RAMP AT ADMIN BUILDING, PHASE 1
LOCATION: SLSU – TOMAS OPPUS CAMPUS

A. GENERAL CONDITIONS

1. Under this section this paper shall be known as the standard specifications for and shall be the basis of interpretation of the plan for the CONSTRUCTION OF ADMIN RAMP, PHASE 1.
2. These specifications shall be part and parcel of the attached plans hereto and shall govern over the said plans in case of conflict.

B. CLEARING, GRADING AND FILLING

1. General Conditions

The contractor shall make all necessary excavation for the foundation to grade indicated in the drawings with put extra compensation. The ground floor shall be 0.20 meters above the grade line.

Excavation for footings shall be done strictly in accordance with the given sizes and depths as shown in the drawings.

C. PLANS AND SPECIFICATIONS

1. The plans and specifications shall be considered as binding in all items of work mentioned in one but mentioned or indicated in the other or vice-versa, shall Be considered as there are duly mentioned in both.
2. Where no numerical indications appear on the plans, all drawings shall be carefully followed according to the plans and specifications indicated, but where numerical notations are indicated, such numerical notations shall be followed.
3. The contractor or workmen without prior approval of the architect concerned and owner or his representative shall make no change in the drawings or specifications.

D. CONCRETE AND MASONRY

1. CONCRETE WORKS

All concrete works shall be done in accordance with Government Specifications for Concrete and or the latest edition of the ACI requirements for Reinforced Concrete.

The following proportions shall be used unless otherwise noted in the plan:

Class "A" (1:2:4) for suspended slab, column, beams, carport slab and driveway

Class "B" (1:2:5) for footings and foundations.

Class "C" (1:3:6) for all slab on fill.

All slab not less than 0.10 m in thickness. All slab reinforcement shall be 0.10 m in thickness. All slab reinforcement shall be 0.02 m. clear from the bottom and 0.015 m. clear from the top of the slab.

2. MASONRY WORKS:

For all exterior walls use 6" concrete hollow blocks locally manufactured All 6" hollow blocks shall be reinforced with 10 mm diameter vertical bars at every 0.60 m and 10mm diameter horizontal bars 0.60 m and 10mm diameter horizontal bars at every 0.60m. All 4" hollow blocks shall be reinforced with 10 mm diameter vertical bars at every 0.60 m and 10 mm. diameter horizontal bars at every 0.60 m.

All cells and joints for reinforcements shall be filled with mortar. All cells and joints under the ground shall be filled

Tie beam shall be provided all around exterior walls.

For mortar and plastering, the proportion 1:3 shall be used for cement and sand mixture.

3. MATERIALS

- Island cement shall conform to ASTM standards. Use only one brand for the whole structural and masonry works.
- Fine aggregates for concrete, mortar, grout, or plaster: stone screenings or other materials with similar characteristics: clean, hard, strong, durable, free from dusts, lumps soft or flaky particles, shale, alkali, loam or clay.
- Coarse Aggregates: Gravel; Well- drained, clean, hard particles of gravel or crushed rocks, 25mm (1") dia. Maximum for slab. Clean, washed sand from Porac Plaridel or approved equal.
- Steel reinforcements: As manufactured by National Steel Corporation or approved equal. Structural Grade Steel: with minimum $F_y = 227.37$ MPa. (3300 Psi), Intermediate Grade Steel: with minimum $F_y = 275.8$ MPa (4000 psi)
- Tie wires: Ga. 16 galvanized iron (G.I.) at joints or laps of placed reinforcements as indicated in the plans. Refer to structural plans and general construction notes to conform the above values. Use steel conforming to ASTM standards, deformed, for concrete and masonry requirements.
- Water: Fit for drinking, free from injurious amount of oil, acids, alkali, organic materials and other deleterious substances.

4. FORMWORKS

Construct all formwork complete with centering coarse molds conform to shape, form line grade, maintain rigid to prevent deformation under I load. Provide necessary camber.

Remove forms according to the following schedule:

Footings - 2 days

Column - 4 days

Beams & Girders --allow one day per ft. with minimum of 7 days.

5. PROPORTIONING, MIXING AND CURVING

The design was based on a 3,000 lbs. concrete. Design mix proportion to produce 3,000 lbs. strength after 28 days. Proportion volume of 2 cu. Ft. boxes.

Immediately after placing, protect concrete surface not covered by form from lots of surface moisture for at least 5 days. Protect from loss of water by covering with paper.

6. CONCRETE WALLS

- a. All walls to be reinforced according to the schedule of wall reinforcement unless otherwise indicated.
- b. Reinforced bars to be 0.03 meters clear from the face of the wall except in 0.10 meters wall where it will be at the center.
- c. Carry the vertical bars 0.60 meters above the floor level to provide the splicing within the necessary; elsewhere stop at 0.05 meter below the top of the slab or solid band.
- d. Horizontal and vertical bars, if necessary, shall be applied by lapping a distance equal to 40 diameters. Wire securely with #16 F.1 wire provided the splicing in the adjacent bars are staggered at least 1.50 meters on center.
- e. All walls spanning, openings and wall acting as beams to have vertical reinforcement bent U-form like stirrings and spaced according to the schedule of wall reinforcement, unless otherwise stated.
- f. In wall reinforcement, alternate intersection of vertical and horizontal bars shall be connected with #16 C.I. wire to the opposite intersection to give the required distance in accordance with the notes on concrete walls.

5. SLABS

- a. All slabs reinforcement to be 0.02 meters clear from the bottom and 0.15 meters clear from the top of the slab.
- b. Bend bars at 30 degrees angle.
- c. Use #3 dia. temperature bar.
- d. Spaced 12" o.c. both ways.

6. CEMENT FINISHES

- a. All concrete surfaces including those indicated as cement finish, other than floors and steps and surfaces where other applied finish is required shall be given a finish done and applied in the following manner:
 1. Immediately after removal of forms, all projecting wire and bolts and other devices used for tying forms shall be cut-off at least one-half cm. beneath the finish surface. All holes, voids, depressions, and other defects shall be thoroughly wetted and then painted up solid with

cement mortar putty of the same proportion as the mortar in the bodywork.

2. Where tiles bricks are specified in drawings, tiles shall be firmly laid on 1:2 cement mortar.

7. CONCRETE HOLLOW BLOCKS

Concrete hollow blocks are indicated in the drawings shall be jackbilt or equivalent. The normal thickness of the blocks shall be 6" and 4" required.

Concrete blocks shall be wetted thoroughly with water prior to laying. Blocks shall be laid in running hand with vertical faces truly vertical with clean out joints.

Partitions shall be reinforced with 3/8" dia. horizontal @ 24 o.c. and 1/2" dia. vertical @ 12 o.c. The cell containing the vertical reinforcement shall be filled with cement mortar of 1:3 mixture.

II. Painting

GENERAL

- Surface Examination – No painting shall be done under conditions, which will jeopardize the quality or appearance of painting or finishing.
- Preparation – All surfaces shall be in proper condition to receive the finish. All woodwork shall be sandpapered to smooth and finished dusted clean; all knotholes, pitch pockets, or sappy portions shall be shellacked or sealed with wood filler. Nail holes cracks or defects shall be carefully puttied after the first coat. Matching the color paint or stain, all imperfection in plaster shall be filled with patching. Compound and smoothed off to match adjoining surfaces.

NOTES:

All painting and finishes shall have at least two (2) coats of Boysen paints or stain.

No work shall be left without approval of the Campus Engineer.