

NAME OF WORK: *Construction of Toilet Block at Court Building At-Harij, Ta-Harij, Dist- Patan.*

SPECIFICATION

Item No.16

Providing and fixing standard extruded of aluminium section of size 63mm x 38.10mm x 1.2mm @ Wt. 0.643 Kg/mt with colour anodized aluminium frame for ventilation with 5 mm thick frosted glass as details etc complete for Ventilation

1 Material

1.1 Aluminum Standard section

Aluminum alloy used in the manufacture of extruded Door section shall confirm to IS designation HEA-WP of IS 733-1975 and also Designation WVG – WP of IS 1285 – 1975 section shall be as specified in the drawing in the drawing and design.

All sections shall be Free from any scratches or holes or any damages on surface. All section shall have finished luster on all sides.

1.1.1 Size of the Ventilator frame shall be 63.0mm x 38.10mm x 1.2mm average thickness having minimum weight of 0.643 kg/mt.

1.1.2 One pair of Louvers as shutter shall be fixed to the ventilator frame of good and approved quality. The louvers are got first approved and after that it shall be provided to the ventilator.

1.2 Glass

The glass shall be of approved make having thickness of 5 mm thick Bajari figured adjustable Glass louvers. The glass shall be of clear & free from scratches and cracks. The glass shall be provided on Top and Bottom as per description.

1.3 Anodised coloured aluminum section.

The aluminum section shall be of anodised colour of good make & company having no scratch on surface or any deterioration.

The whole work shall be done as per the item description & as per instruction of Engineer in charge with pre approval of material used for the door, frame, shutter, fixture, fastening, Roller, lock etc. The fixing of ventilator shall be as per instruction of engineer in charge.

2.0 Workmanship :-

The work of aluminum ventilator shall be done with extreme finishing. The glass shall be fitted in louvers as directed by Engineer in charge. All the fixture and fastening shall be fitted at right place and as directed by Engineer in charge. All the fixture & fastening shall be of anodized aluminum with coach bolts including Teakwood for hold fastening.

3.0 Mode of measurement :-

3.1 The unit rate of aluminum ventilator shall include the cost of all materials, cost of anodizing, cost of all necessary fixtures and fastenings, labour charges for fixing frames, doors and fixing the ventilator in wall at the place shown in drawing and as instructed by Engineer in charge, all tools and plant required for assembling and fixing in position, finishing as per direction of the Engineer in charge, and all other incidental expenses for preparing ventilator frame and louvers of specified size to complete the door structure or its components as shown on the drawings and according to these specifications. They shall also include the cost of making, fixing and making walls good by plaster patch colour etc as required.

3.2

The ventilator shall be measured for its clear width and height, limiting dimension to those specified on plan or as directed.

3.3

The rate shall be for a unit of one square meter.

Item No.30

Providing erecting and fixing double coated Syntex PVC. (ISI) water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.

Tank shall be of approved brand & manufacture HDPE PVC water tank double coated of in one piece moulded construction of required capacity as mentioned in the description of item or as per instruction of Engineer-in-charge & shall be conforming to relevant latest IS specifications. It shall be with top cover. Tank shall be got approved by the Engineer in charge before erecting the same at the place where directed or as per the drawing supplied by the department.

All necessary G. I. Connections like inlets, outlets, overflow, Wash out shall be executed as directed by Engineer-in-charge.

Erection of tank shall be done in safe & standard civil engineering practice.

The rate of above item including all cost of materials, labours & other arrangements made to complete work satisfactory. The quality of water will be worked out by measuring inside clear dimension & height will be measured from bottom of outlet pipe to bottom of overflow pipe without free board.

The rate shall be paid for a unit of **One Litre**.

Item No.31

Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.

1.0 Material

WATER

1.1 Water shall not be salty brackish and shall be clean reasonably clear and free objectionable quantities of silt and traces of oil injurious alkalis salts organic matter and other deleterious material which will either weaken the mortar of concrete or cause efflorescence or attack the steel in R C C container for transport storage and huddling of water shall be clean, Water shall conform to the standard specified in I S 455 -1978

1.2 If required by the Engineer in charge it shall be tested by comparison with distilled water compression shall be made by means of standard cement tests for soundness time of setting and mortar strength as specified in I S 269-1976 Any indication of unsoundness change in time of setting by 30 minutes or more or decrease of more than 10 percent strength of mortar prepared with distilled water sample when compared with the result obtained with mortar prepared with distilled water shall be sufficient cause for rejection of water under test.

C.C.1:2:4 as per Bldg specification booklet it.no.14.71 (B) P.No.101.

1.3 Water for curing mortar concrete or masonry should not be too acidic or too alkaline

1.4 It shall be free of elements which significantly affect the hydration reaction or otherwise interfere with the hardening of mortar or concrete during curing or those which produce objectionable stains or other unsightly deposits on concrete or mortar surfaces

1.5 Hard and bitter water shall not be used for curing

1.6 Potable water will generally found suitable for curing mortar or concrete

2.0 CEMENT

2.1 Cement shall be ordinary Portland slag cement as per IS 1624 -1974 or Portlands slag cement as per IS 455-1976

2.2 Cement shall be stored above the ground level in perfectly dry and water tight sheds. Wherever bulk storage containers are used, their capacity should be sufficient to cater to the requirements at site and should be cleaned at least once every 3 to 4 months. The aggregate shall be stored in such a way as to prevent admixture of foreign materials. Different size of fine or coarse aggregate shall be stored in separate stock-piles sufficiently away from the each other to prevent intermixing the materials.

3.0 SAND

3.1 Sand shall be natural sand, clean well graded, hard strong durable and gritty particular free from immure amounts of dust, clay, kankar modules, soft: or flaky particles shall alkali salts, organic matter, learn mica or other deleterious substance and shall be got approved from the Engineer-in-charge. The sand shall not contain more than 8 percent of slit as determined by field test. if necessary the sand.

Coarse Sand: The fineness modules of coarse sand shall not be less than 2.5 and shall not exceed 3.0. The sieve analysis of coarse sand be as under:

I. S. Sieve Designation %	by wt. passing
4.75 mm	100
2.36mm	90 to 100
1.18 mm	70 to 100
600MC	30 to 100
300mc	85 to 70
150mc	00 to 50

3.2 FINE SAND: The fineness module shall not exceed 1.0 the sieve analysis of fine sand be as under:

I. S. Sieve Designation %	by wt. passing
4.75 mm	100

2.3 6mm	100
1.18 mm	75 to 100
600 MC	40 to 85
300 MC	05 to 50
150 MC	00 to 10

3.3 Materials shall be stored as to prevent their deterioration of their quality and fitness for the work. Any material which has deteriorated or has been damaged or is otherwise considered defective by the Engineer-in-charge shall not be used in the work.

1.4. water proofing compound

Water proofing compound shall be of approved quality and make as approved by Engineer in charge

1.5. brick bats

Brick bat aggregates shall be broken form well burnt or slightly over burnt and dense bricks it shall be homogeneous in texture roughly cubical in shape clean and free from dirt or any other foreign material brick bats shall be of 40 to 50 mm nominal size unless otherwise specified in the item the under burnt or over burnt bricks bats shall not be used

1.6. china mosaic tile pieces

china mosaic tiles pieces shall be of 50 mm to 90 mm nominal size. tile pieces shall be made from hard and good quality of tiles.

1.7. WHITE CEMENT

White cement shall be of approved make it shall confirm definition of I S 8042 –E- 1978 the sample of white cement shall be approved by Engineer in charge

WORKMAN SHIP

A. First of all surface of the entire terrace shall be cleaned by thoroughly brooming and then by wire brushes All the loose material dust and debris shall be removed thoroughly for the entire surface of the terrace All joints and cracks shall be raked off and cut in v trench which shall be filled by neat cement slurry admixed with water proofing compound The joints with parapet shall be raked up to 30 cm height and shall be applied by neat cement slurry admixed with water proofing compound Neat cement slurry shall be prepared and a water proofing compound of approved make shall be mixed with the slurry in proportion specified by the manufacturer of the compound and shall be laid throughout the surface of the terrace by the use of brushes mala etc Cement slurry shall be prepared by adding adequate quantity of water so as to spread it uniformly on the surface.

B. cement concrete 1:5:10 (using 50% of cement mortar 1:5 1part of cement and 5part of coarse sand by volume admixed with water proofing compound of approved make in specified proportion) of specified thickness shall be laid (specification of cc1:5:10 shall be followed for the execution of this layer) all over the surface of the terrace in true level and required slope including rounding of junctions of walls and slab

C. After two days of proper curing applying a second coat of cement slurry on entire surface of the terrace

D. the entire surface shall be finished with 20 mm thick C M 1:4 and china mosaic tilling in true level and slope as directed by Engineer in charge & finally finishing the surface with trowel with white cement slurry (specification of white glaze tiles flooring shall be followed for the execution of this item.)

E. finishing the surface with 20 mm thick C M 1:4 and china mosaic tilling & finally finishing the surface with trowel with white cement slurry

F. After two days proper curing the terrace shall be flooded for 15 days.

7.0 MODE OF MEASUREMENT & PAYMENT :

7.1. The unit rate flooring shall include the cost of all materials, tools and plant required for mixing, laying of base layer in true level and slope as required applying & placing stones in position, compacting, finishing, curing mirror polishing, providing treatment of 30 cm high all over the length of parapets and corners and sill of door setc, and all other incidental expenses for producing flooring work to complete the structure or its components as shown on the drawings and according to these specifications. They shall also include the cost of making, fixing and removing of all scaffolding and forms required for the work. The rate of plastering shall include the cost of all labour, materials tools and plant scaffolding and all incidental expenses as described herein above.

7.2. The plaster work shall be measured for its **length** and **width**, limiting dimensions to those specified on plan or as directed. The rate shall be for a unit of one square meter.

Specification for this item shall conform to item no. 14.29 page no.84 of general technical specifications for building work except that the work shall be carried out for broken china mosaic flooring instead of for white glazed tiles flooring. Broken pieces of glaze or ceramic tiles shall be used for flooring. The broken pieces shall be of china of approved colour, size and manufacture and floor shall not be polished but cleaned with water mixed with mild oxalic acid. Water proofing material shall be used at the rate of 1 Kg./bag of cement to prevent leakage.

Contractor shall have to furnish guarantee bond of 5 (five) years against leakages.

15% amount of the Item shall be kept in deposit from running & final bill.

This 15% amount shall be released in three equal installments after completed of 3, 4 & 5 years from the date of completion of work.

The payment will be made on **square Meter** basis of the finished work

Signature Of Contractor ...

***Dy. Executive Engineer
R&B Sub Division
Haridwar***