

SABARMATI RIVER FRONT DEVELOPMENT



**Sabarmati River Front Development
Corporation Limited**

2nd floor, "Riverfront House", Behind H.K.Arts
College, Between Gandhi & Nehru Bridge,
Pujya Pramukh Swami Maharaj
Marg(Riverfront-West), Ahmedabad - 380 009

BID DOCUMENT

**PAINTING MS FABRICATION
ELEMENTS OF SEATERS,
RAILING, GATES ETC WITH OIL/
PU PAINT AND CONCRETE
/PLASTERED SURFACE WITH
APEX /PLASTIC EMULSION
PAINTS AS PER REQUIREMENT
OF SRFDCL FOR SABARMATI
RIVERFRONT PROJECT AREA**

Contract Package: SRFDCL/ Colour work

VOLUME- 02

IV) Technical Specification



SECTION IV

TECHNICAL SPECIFICATONS



**TECHNICAL SPECIFICATION
FOR
CIVIL WORKS**



ITEM NO. 1: Providing and applying two coat of oil paint of Asian Paints/Nerolac/Berger/Nippon/Indigo company on existing curb of previously painted of central verge and foot path as directed

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ITEM NO. 2: Providing and applying one coat of oil paint of Asian Paints/Nerolac/Berger/Nippon/Indigo company on existing curb of previously painted of central verge and foot path as directed

1.0 Materials :

- A. Synthetic Enamel paint shall conform to IS : 2933. It shall be from Nerolac, Berger, Asian Paints or equivalent. It shall offer variety of finishes like Glossy, Semi-glossy, Pearl lustre and Matt finish.
- B. It shall be applied either by brush, roll or spray. It shall have a covering capacity of as specified by the manufacture, depending on the surface to be painted. It shall be used both on metal and wood surfaces.
- C. It shall have a viscosity of application of 30 to 40 seconds, if brush or rollers are used and 20 to 25 seconds, if spraying is done. The drying time shall however vary with the ambient temperature and humidity.

2.0 Workmanship :

2.1 General:

- 2.1.1** The materials required for work of painting work shall be obtained directly from approved manufacturers or approved dealer and brought to the site in maker's drums, cage etc. with seal unbroken.
- 2.1.2** All materials not in actual use shall be kept properly protected, lids of containers shall be kept closed and surface of paint in open or partially open containers covered with a thin layer of turpentine to prevent formation of skin. The materials which have become stale or flat due to improper and long storage shall not be used. The paint shall be stirred thoroughly in its container before pouring into small containers. While applying also the paint shall be continuously stirred in smaller container. No left over paint shall be put back into stock tins. When not in use, the containers shall be kept properly closed.
- 2.1.3** If for any seasons, thinning is necessary, the brand of thinner recommended by the manufacturer shall be used.
- 2.1.4** The surface to be painted shall be thoroughly cleaned and dusted. All rust, dirt and grease shall be thoroughly removed before painting is started. No painting on exterior or other exposed parts of the work shall be carried out in wet, damp or otherwise unfavourable weather and all the surfaces shall be thoroughly dry before painting work is started.

2.2 Application:

- A. Brushing operations are to be adjusted to the spreading capacity advised by the manufacture of particular paint. The paint shall be applied evenly and smoothly by means of crossing and laying off. The crossing and laying off consists of covering the area over with paint, brushing the surface hard for the first time over and then brushing alternately in opposite directions two or three times and then finally brushing lightly in



direction at right angles to the same. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off will constitute one coat.

- B. Each coat shall be allowed to dry completely and lightly rubbed with very fine grade of sand paper and loose particles brushed off before next coat is applied. Each coat shall vary slightly in shade and shall be got approved from Engineer-in-charge before next coat is started.
- C. Each coat except the last coat shall be lightly rubbed down with sand-paper of fine pumice stone and cleaned of dust before the next coat is applied. No hair marks from the brush or clogging of paint puddles in the corners of panels angles of mouldings etc. shall be left on the work.
- D. Special care shall be taken while painting over bolts, nuts, rivets, overlaps etc. Approved best quality brushes shall be used.
- E. The relevant specifications mentioned above shall be followed for mode of measurements and payment. The rate is Inclusive priming coat.

The rate shall be for a unit of one sq. metre.

ITEM No. 3: Providing & applying External Apex ultima grade Paint of make, Asian Paints/Nerolac/Berger/Nippon/Indigo in required colour & shed of two coats (first coat with external primer & balance coat of paint as per manufacturer's specification) with brush on exterior surface of RCC to give even shades including thoroughly brushing the surfaces free from mortar dropping and other foreign matter and sand papered smooth etc complete as per the manufacture's specification & to the satisfaction of Engineer in charge. The rate shall also include the cost of filler for cracks on the surfaces. Actual surface area shall be measured and considered without multiplying any coefficient for payment.

1.1 Materials:

Water shall conform to as per general specifications for other concreting.
Acrylic paint shall conform to its supplier's specification

1.2 Workmanship:

1.2.1 General

The materials required for work of painting work shall be obtained directly from approved manufacturers or approved dealer and brought to the site in maker's drums, cage etc. with seal unbroken.

All materials not in actual use shall be kept properly protected, lid of containers shall be kept closed and surface of paint in open or partially open containers covered with a thin layer of water to prevent formation of skin. The materials, which have become stale or flat due to improper and long storage shall not be used. The paint shall be stirred thoroughly in its container before pouring into



small containers. While applying also, the paint shall be continuously stirred in smaller container. No left over paint shall be put back into stock tins when not in use. The paint shall be stirred thoroughly in its container before pouring into small containers.

If for any reasons, thinning is necessary, water shall be added as per supplier's instructions

The surface to be painted shall be thoroughly cleaned and dusted. All rust, dirt and grease shall be thoroughly removed before painting is started. No painting on exterior or other exposed parts of the work shall be carried out in wet, damp or otherwise unfavourable weather and all the surfaces shall be thoroughly dry before painting work is started.

1.2.2 Scaffolding:

Wherever scaffolding is necessary, it shall be erected in such a way that as far as possible no part of scaffolding shall rest against the surface to be white or colour washed. A properly secured, strong and well tied suspended platform (Zoola) may be used for white washing. Where ladders are used, pieces of old gunny bags shall be tied at top and bottom to prevent scratches to the floors and walls. For white washing of ceilings, proper stage scaffolding shall be erected where necessary. Also, while painting the ceiling, the floor area shall be covered properly with plastic so that the flooring is not spoiled.

1.2.3 Preparation of surface:

All unnecessary nails, hooks etc. shall be removed. Pitting in plaster shall be made good with plaster again and papered with a fine grade sand paper and made smooth. The surface affected by moulds, moss, fungi, algae lichens, efflorescence etc. shall be treated in accordance with IS : 2395 (Part-1)-1966.

1.2.4 Preparation of Mix:

This shall be done as per the manufacturer's instructions. The thinning of emulsion is to be done with water and not with turpentine. The quantity of thinner to be added to shall be as per manufacturer's instructions.

1.2.5 Application:

Before pouring into small containers for use of applying, the paint shall be stirred thoroughly in its container. Also, the paint shall be continuously stirred in the smaller container, so that its consistency is kept uniform.

The paint shall be laid on evenly and smoothly by means of crossing and laying off. The crossing and laying off consists of covering the area over with paint, brushing the surface hard for the first time over and then brushing alternately in opposite directions two or three times and then finally brushing lightly in direction at right angles to the same. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off will constitute one coat. No hair marks from the brush or clogging of paint puddles in the corners of panels, angles of mouldings etc. shall be left on the work.



On the newly plastered surface, the first coat shall be applied with 100% dilution and second and third coat shall be applied with 40 % dilution or as per the supplier's instructions. The second or subsequent coat shall not be started until the preceding coat has become sufficiently hard to resist marking of the brush being used.

1.2.6 Precautions:

- (a) Old brushes if they are to be used with paints, shall be completely dried of turpentine or oil paint by washing in warm soap water. Brushes shall be quickly washed in water immediately after use and shall be kept immersed in water during break periods to prevent the paint from hardening on the brush.
- (b) In the preparation of walls for plastic emulsion painting, no oil base putties shall be used in filling cracks, holes etc.
- (c) Splashes on floors etc. shall be cleaned out without delay, as they will be difficult to remove after hardening.
- (d) Washing of surfaces treated with emulsion paint shall not be done within 3 to 4 weeks of application.

1.2.7 Protective measure:

The surface of doors, windows, ventilators, floors, of furniture etc. and such other parts of the building not to be white/colour washed shall be protected from being splashed upon. Such surfaces shall be cleaned of white/colour wash splashed, if any, immediately after completing the painting, at no extra cost.

1.3 Mode of Measurements and Payment:

- 1.3.1 The relevant specifications of item of External acrylic paint shall be followed.
- 1.3.2 The rate shall be for a unit of one m².

ITEM No. 4: PU Painting for the Railing, Handrail, flag fixing sleeve pole, garbage box, Street furniture and other structural steel elements. The rate shall include preparation of rust free surface manually or mechanically, metal putty to make the surface even and smooth if required, 1 coat of Metal PU Paint of having DFT 40 to 50 micron of approved shade of Asian Paints/MRF/Jotun paint as per manufacture's specification over all the surfaces of the steel sections or as specified in the drawing.

Painting: Painting shall be done with Single coat of PU Paint with spray only. General specifications of oil paint for cleaning, preparations for Surface and mode of Measurement is applied.

ITEM No. 5: Providing and applying Easy clean, Washable interior 100% Acrylic paint (Premium Plastic Paint) of approved make (first one coat with brush and final one coats with roller) like premium emulsion of Asian Paints/Nerolac/Berger/Nippon/Indigo make, in required color & shade dry interior plastered surface at all heights, all floors, all levels complete to



give an even shade, including preparing the surface even and sand papered smooth etc. complete as per the manufacture's specification & to the satisfaction of Engineer in charge. The rate shall also include the cost of filler for cracks on the surfaces. Actual surface area shall be measured and considered without multiplying any coefficient for payment.

1.0 Materials: Water shall conform to M-1 and acrylic paint shall conform to its supplier's specification

2.0 Workmanship:

2.1 General

2.1.1 The materials required for work of painting work shall be obtained directly from approved manufacturers or approved dealer and brought to the site in maker's drums, cage etc. with seal unbroken.

2.1.2 All materials not in actual use shall be kept properly protected, lid of containers shall be kept closed and surface of paint in open or partially open containers covered with a thin layer of water to prevent formation of skin. The materials, which have become stale or flat due to improper and long storage shall not be used. The paint shall be stirred thoroughly in its container before pouring into small containers. While applying also, the paint shall be continuously stirred in smaller container. No left over paint shall be put back into stock tins when not in use. The paint shall be stirred thoroughly in its container before pouring into small containers.

2.1.3 If for any reasons, thinning is necessary, water shall be added as per supplier's instructions

2.1.4 The surface to be painted shall be thoroughly cleaned and dusted. All rust, dirt and grease shall be thoroughly removed before painting is started. No painting on exterior or other exposed parts of the work shall be carried out in wet, damp or otherwise unfavourable weather and all the surfaces shall be thoroughly dry before painting work is started.

2.2 Scaffolding: Wherever scaffolding is necessary, it shall be erected in such a way that as far as possible no part of scaffolding shall rest against the surface to be white or colour washed. A properly secured, strong and well tied suspended platform (Zoola) may be used for white washing. Where ladders are used, pieces of old gunny bags shall be tied at top and bottom to prevent scratches to the floors and walls. For white washing of ceilings, proper stage scaffolding shall be erected where necessary. Also, while painting the ceiling, the floor area shall be covered properly with plastic so that the flooring is not spoiled.



2.2.1 **Preparation of surface:**

All unnecessary nails, hooks etc. shall be removed. Pitting in plaster shall be made good with plaster again and papered with a fine grade sand paper and made smooth. The surface affected by moulds, moss, fungi, algae lichens, efflorescence etc. shall be treated in accordance with IS : 2395 (Part-1)-1966.

2.3 **Preparation of Mix:** This shall be done as per the manufacturer's instructions. The thinning of emulsion is to be done with water and not with turpentine. The quantity of thinner to be added to shall be as per manufacturer's instructions.

2.4 **Application:**

2.4.1 Before pouring into small containers for use of applying, the paint shall be stirred thoroughly in its container. Also, the paint shall be continuously stirred in the smaller container, so that its consistency is kept uniform.

2.4.2 The paint shall be laid on evenly and smoothly by means of crossing and laying off. The crossing and laying off consists of covering the area over with paint, brushing the surface hard for the first time over and then brushing alternately in opposite directions two or three times and then finally brushing lightly in direction at right angles to the same. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off will constitute one coat. No hair marks from the brush or clogging of paint puddles in the corners of panels, angles of moldings etc. shall be left on the work.

2.4.3 On the newly plastered surface, the first coat shall be applied with 100% dilution and second and third coat shall be applied with 40 % dilution or as per the supplier's instructions. The second or subsequent coat shall not be started until the preceding coat has become sufficiently hard to resist marking of the brush being used.

2.5 **Precautions:**

(a) Old brushes if they are to be used with paints, shall be completely dried of turpentine or oil paint by washing in warm soap water. Brushes shall be quickly washed in water immediately after use and shall be kept immersed in water during break periods to prevent the paint from hardening on the brush.

(b) In the preparation of walls for plastic emulsion painting, no oil base putties shall be used in filling cracks, holes etc.

(c) Splashes on floors etc. shall be cleaned out without delay, as they will be difficult to remove after hardening.

(d) Washing of surfaces treated with emulsion paint shall not be done within 3 to 4 weeks of application.

2.6 **Protective measure:**



The surface of doors, windows, ventilators, floors, of furniture etc. and such other parts of the building not to be white/colour washed shall be protected from being splashed upon. Such surfaces shall be cleaned of white/colour wash splashed, if any, immediately after completing the painting, at no extra cost.

3.0 Mode of Measurements and Payment:

3.1 The rate shall be for a unit of one m².