

SAB MATI RIVERFRONT DEVELOPMENT



**Sabarmati River Front Development
Corporation Limited**

2nd Floor, Riverfront
House, B/h H. K.
Arts College,
Between Gandhi Bridge and Nehru
Bridge, Pujya Pramukh Swami Marg
(River Front Road – West)
Ahmedabad - 380 009

BID DOCUMENT

**Construction of Roof
structure covering
promenades near Vallabh
Sadan for SRFD Project
with Bamboo tree and
tensile roofing etc.**

Contract Package: SRFDCL

VOLUME- 03

V) Bill of Quantities



SECTION VI BILL OF UANTITIES



MEASUREMENT PREAMBLE

1. All quantities in the Bill of Quantities are estimated quantities. For all payment purposes measurements, as prescribed in the contract document shall be taken and quantities shall be computed from such measurements.
2. The inclusions and exclusions from quoted rates are specified in the details of each item of work in the specifications and the Bill of Quantities. In case there is no specific mention of a particular detail, the mode of measurements as prescribed in MORTH/CPWD specifications or other standard specification for such an item shall be followed.
3. In the event of contradiction between the MORTH/CPWD specifications or other standard specification referred to above and this Contract document, the provisions of this Contract document shall prevail.

**SECTION VI
BILL OF QUANTITIES**

Construction of Roof structure covering promenades near Vallabh Sadan for SRFD Project with Bamboo tree and tensile roofing etc.

SUMMARY SHEET						
Section						Amount (Rs.)
Sub Section : ZEN CANOPY (BAMBOO STRUCTURE) WORK						99,22,886=85
Grand Total						99,22,886=85
t. No.	Item Code	Item	Per	Quantity estimated but may be more or less	Rate	Amount in Rs*
1. ZEN CANOPY (BAMBOO STRUCTURE)						
1	04001C	Excavation for foundation up to 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff up to 50 Meter lead.(C) Hard Murrum	cum	50.00	253.38	12,669.00
2	05023AA	Providing and laying controlled cement concrete M.150 for curing complete excluding cost of formwork and reinforcement for reinforced concrete work in (A) Foundations, footings, Base of columns and Mass concrete	cum	10.00	3,871.39	38,713.90
3	05034A2	Providing and laying controlled cement concrete M.250 exposed work with curing etc. complete including the cost of formwork but excluding the cost of reinforcement for R.C.C. architectural work	cum	50.00	9,453.03	4,72,651.50
4	05014C	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete up to floor two level	Kg.	7500.00	75.46	5,65,950.00
5	20005	Dismantling tiled of stone floors laid in mortar including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift	Sq.m.	50.00	47.25	2,362.50
6	20002	Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. (i) R.C.C. work	cum	10.00	1,047.38	10,473.80
7	20001B	Demolition and disposal of unserviceable materials with all lead and lift.(i) Plain Cement concrete	cum	5.00	603.23	3,016.15
8	M.R.	Providing and constructing of Bamboo structure using Dendocalamus Stoksii 45-55 mm diameter as per drawing incl. transportation, loading, unloading, carting, Assembling jointing (using MS 250 Grade Joinery with 60-80 Micron powder coating and SS 304 Grade nuts and bolts and clamps as per fixing detail as shown in drawing) Joining, bending and fixing, placing, erecting in desired shape and size including making of mesh with bamboo spilts (Bambusa Balcoa) of size 30mm wide 150mmx150mm incl. required supports and tools, plants, scaffolding, equipments, formwork , labour, polishing with water based PU as per details provided. The Item includes provision of structural stability certificate for Detailed engineering. Mode of measurement will be actual area of curvature as per site (in sq. mt.)	Sq.m.	810.00	4,605.00	37,30,050.00

9	M.R.	Providing and Fixing roofing sheet of solid Poly carbonate 3 mm Thick UV stabilized as per IS: 14443-1997 with light transmission more than 85% on all outer layer above 2500 mm Height from Ground level including cutting, bending in required shape and size including wastage and 50mm overlap if any and fixing on bamboo grid structure of 150mm x 150mm with all necessary materials, labour and SS nut, hooks and washers etc. complete Mode of measurement will be actual area of curvature as per site (in sq. mt.)	Sq.m.	760.00	1,200.00	9,12,000.00
10	Retaining wall Tender Rate	Structural steel work in riveted, bolted or welded in built up sections and framed work including supplying, fabricating, cutting, assembling, hoisting and fixing in position at all heights of all shapes and size with all leads and lifts for the work of Railing, Handrail, ate, grill, platform, trench cover, flag fixing sleeve pole, garbage box, signage pole, Street furniture and similar works etc. made of Rolled steel sections (equal and unequal angles, square or round bars, flats, tees, beams, channels, plates, chaquered plate, bars), RHS, SHS, tubular hollow section, threaded bolt, foundation bolt, J bolt, etc (of YST 210 grade as per latest IS 4923, IS 1161, IS 806) including cutting, bending, profiling, CNC cutting, bolting, welding, grinding, finishing edges, and filling the welded spots with metal putty etc as per detailed drawing and design. The rate shall include sand blasting, degreasing (wet cleaning) & preparation of rust free surface manually or mechanically, metal putty to make the surface even and smooth, 1 coat of epoxy primer of 50 to 60 micron DFT (dry film thickness) and 2 top coats of Metal PU Paint of having DFT 40 to 50 micron of approved make and shade and as per manufacture's specification over all the surfaces of the steel sections or as specified in the drawing. Rate shall be inclusive of 5 years guarantee against corrosion. Contractor shall prepare shop drawing with all connection details and get approval of the architect and Engineer in charge. The fabrication work shall start after approval of finished sample as per drawing by Architect.	kg	10000.00	122.00	12,20,000.00
11	MR	Additional rate over Item No. 9 for Machine bending for Exact radius and curvature	kg	6000.00	25.00	1,50,000.00
12	Retaining wall Tender Rate	Hot deep galvanizing work confirming to IS 4579/ 2629/ 2633 with zinc of 85 micron thickness on Railing, Handrail, gate, grill, platform, trench cover, flag fixing sleeve pole, garbage box, signage pole, Street furniture and similar works etc. made of Rolled steel sections (equal and unequal angles, square or round bars, flats, tees, beams, channels, plates, chaquered plate, bars), RHS, SHS, tubular hollow section, threaded bolt, foundation bolt, J bolt, etc as per the drawing and as instructed by engineer in charge. The rate shall include preparing the surface by shot blasting/ acid washing prior to hot deep galvanizing, labor, tools, machinery etc complete (Sample to be approved).	kg	10000.00	53.00	5,30,000.00
2. AQUA ARCH (TENSILE Fabric Roofing)						

13	M.R.	<p>Design, Supply, fabrication & erection of outdoor tensile fabric roofing system using exterior grade tensile fabric made out of pre-stressed composite material of high tenacity polyester yarn with high density embossed glossy acrylic coating & waterproof finish of approved brand, shade, texture / design, quality and laid by keeping the yarns absolutely straight by two way tensioning as per manufacturer's specifications and comprising of : (i) Approved tensile fabric : having performance characteristics including dimensional stability, excellent UV resistance, heat and weather protection, color retention and strength for long-term aesthetics and durability. The fabric shall conform to the following specifications : Base Fabric : 100% PES / 1100 dtex, Fabric weight : 900 g/m2 (+/- 5%), Breaking Strength (Warp/Weft) : 4000 N / 5cm, Tearing Strength (Warp) : 600 N, Tearing Strength (Weft) : 500 N, Adhesion : 120 N / 5cm, Light fastness : 7 to 8, Light Transmission : 6.5%, Reflection : 89% The fabric shall be fixed to the steel profile using aluminum extrusions or flat bars. The fabric shall be pretension to the required value to achieve the required shape as per architectural intent. The item shall include for welding of seams, preparing corner stiffeners etc. including providing through treads for rigidity purpose. (ii) G. I. tensile cable with Stainless Steel turn buckle, G.I. rings, G. I. clasp hooks, locking devices, accessories etc. The G. I. cable may be passed through the seam of the fabric or clasped to the fabric. (iii) All Stainless Steel components shall be of non magnetic type, grade 316 conforming to American Iron & Steel institute and the surface shall be satin finish. The whole assembly shall be fabricated and fixed taut to the main structural steel frame work (The main structural steel frame work & painting over steel shall be measured and paid separately under relevant item)</p> <p>by means of MS brackets & G.I. hooks, Hilti anchors at appropriate angle as per approved shop drawings including all necessary materials, fabrication / assembly, machining, installation in required position, tensioning the system, buffing, polishing, welding, scaffolding, staging etc. all as per manufacturer's guidelines, approved shop drawings and as directed by the Engineer. Note : The rate quoted shall deemed to include for necessary samples / mock-up for the approval of the Engineer. The contractor shall submit fabrication shop drawings for work involved based on indicative drawings for approval by the Engineer. The fabrication work shall start only after approval of the fabrication shop drawings. Any change required in the fabrication drawings shall be carried out at no extra cost. The contractor shall guarantee the proper performance of the entire installed system for a period of ten years from the date of final completion of the work. Measurement: The item shall be measured in Sqm. corrected to two decimal for the finished work in net area in girthed profile as per approved shop drawings of the tensile fabric after installation. Allowance for sag etc. shall be taken care by the contractor in his quoted price. The rate shall include for the entire installation as specified.</p>	sqm	750.00	2,900.00	21,75,000.00
14		Verification of Engineering Details, structural analysis and structural design of bamboo and Tensile structure through design consultant	L.S.			1,00,000.00
		Total Amount in Rs. (per structure)				9922886.85

