

BILL OF QUANTITY

Name of work:- Maintenance Contract for Roads at Kandla for two years

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
			In figures	In Words	In figures	In Words	
1	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).	2956.00	4.10	Rupees Four Paise Ten Only	M ²	One Squire Metre	12119.60
2	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.						
A	All kinds of soil	1774.00	143.82	Rupees One hundred Forty Three Paise Eighty Two Only	M ³	One Cubic Metre	255136.68
3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	1182.00	1512.84	Rupees One Thousand Five hundred Twelve Paise Eighty Four Only	M ³	One Cubic Metre	1788176.88
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :						
A	1:11/2:3(1 Cement : 11/2 coarse sand : 3 graded stone aggregate 20 mm nominal size)	1182.00	5448.56	Rupees Five Thousand Four hundred Forty Eight Paise Fifty Six Only	m3	One Cubic Metre	6440197.92
B	1:4:8(1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	887.00	4428.24	Rupees Four Thousand Four hundred Twenty Eight Paise Twenty Four Only	m3	One Cubic Metre	3927848.88

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
5	Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of course sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineer-in-Charge.						
a	80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern.	3650.00	707.84	Rupees Seven hundred Seven Paise Eighty Four Only	m2	One Squire Metre	2583616.00
6	Providing and fixing at or near ground level precast cement concrete in kerbs,edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including the cost of required centering, shuttering complete.						
a	1:1½:3 (1 Cement: 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	225.90	5691.46	Rupees Five Thousand Six hundred Ninety One Paise Forty Six Only	m3	One Cubic Metre	1285700.81
7	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	29562.00	10.15	Rupees Ten Paise Fifteen Only	M2	One Square Metre	300054.30
8	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.						

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
A	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	3614.00	1860.67	Rupees One Thousand Eight hundred Sixty Paise Sixty Seven Only	M³	One Cubic Metre	6724461.38
9	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	739.00	1570.04	Rupees One Thousand Five hundred Seventy Paise Four Only	M³	One Cubic Metre	1160259.56
10	Providing and applying tack coat using bitumen emulsion conforming to IS: 8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom.						
a	On bituminous surface @ 0.25kg/sqm						
	With medium setting bitumen emulsion	49073.00	7.60	Rupees Seven Paise Sixty Only	m2	One Squire Metre	372954.80
11	Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifcatlons and directions of Engineer in charge						
a	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	2511.00	3012.39	Rupees Three Thousand Twelve Paise Thirty Nine Only	MT	One metric tonne	7564112.13

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
12	Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.						
a	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 6.00 % (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	3343.000	2961.96	Rupees Two Thousand Nine hundred Sixty One Paise Ninety Six Only	MT	One metric tonne	9901832.58
13	20 mm cement plaster of mix :						
a	1:4 (1 cement: 4 coarse sand)	1204.80	294.98	Rupees Two hundred Ninety Four Paise Ninety Eight Only	m2	One Squire Metre	355391.90
14	Providing and applying 2.5 mm thick road marking strips (retro-reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	3514.00	436.66	Rupees Four hundred Thirty Six Paise Sixty Six Only	m2	One Squire Metre	1534423.24
15	Excavate & get out the deposited material like spilled cargo, mud etc. from the side of the road side curbing / divider of Major Road including cleaning and conveying the excavated stuff beyond road side berm including all tools, plants and labour etc. complete.	80320.00	13.98	Rupees Thirteen Paise Ninety Eight Only	1 Rmt	One Running metre	1123149.54

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
16	Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - I of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing, specification and direction of Engineer--in-charge.						
a	Mandatory/ Regulatory sign boards of 900 mm diameter with support length of 3750 mm	10.00	4022.17	Rupees Four Thousand Twenty Two Paise Seventeen Only	Each	One Number	40221.70
b	Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm	20.00	2946.44	Rupees Two Thousand Nine hundred Forty Six Paise Forty Four Only	Each	One Number	58928.80
17	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.						
a	On concrete work	1205.00	138.88	Rupees One hundred Thirty Eight Paise Eighty Eight Only	m2	One Squire Metre	167350.40

T.I.No.	Description of item	Quantity	Rate		Unit		Amount
18	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro-reflective surface shall be 35 (+/-5) degrees to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.	1500.00	122.85	Rupees One hundred Twenty Two Paise Eighty Five Only	Each	One Number	184275.00
						TOTAL	45780212.11
						say	45780212.00

I / We am/are willing to carry out this work at _____% above / below (percentage should be written in figure and words). The tendered rates mentioned above amount of my / our tender are put as under :-

Estimated amount put to tender Rs. _____
Deduct _____% below (-) Rs. _____
Net Rs. _____
In words (Rupees _____)
_____)

Estimated amount put to tender Rs. _____
Add _____% above (+) Rs. _____
Total Rs. _____
In words (Rupees _____)
_____)

Contractor

Superintending Engineer (Road)
Deendayal Port Authority