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| No. | Description of Item | No. | L. | В | D | Qty | Unit | Total Qty |
|-----|--|-----|--|------|-------|--|---|--|
| | Reinforcement: Providing and | | | | | | | |
| | Fixing in position steel bar | | | | | 1 | 1 | |
| | reinforcement of Anchor block etc.as | | | | | | | |
| | per detailed design drawing and | | | | | | | |
| - 1 | | | | | . | | | |
| 2 | shedules including cutting bending | | | | | | | |
| | hooking the bars binding with wires | | | | 1 | | 1 | |
| ļ | or tack welding and supporting as | | | | | | | |
| | required etc. completet (including | | | | | | | |
| | cost of binding wire). | | | | | | | |
| | | | | | | | | |
| | Assuming Steel for above item 40 kg | | | | | | | |
| | per cum | | | | | | | |
| | <u> </u> | | 838.81 | 0.04 | | 33.55 | | |
| | Quantity of steel for Thrust block | | | otal | l | | | |
| | | | 1 | Ulai | | 33.55 | | |
| | | | | | Total | 33.55 | MT | 33.5 |
| | Providing fusion bonded epoxy | | - | | | | | |
| | coating to reinforcement bars as per | | | | 1 | | | |
| | IS-13620-993 specification for a | | | | | | | |
| | thickness of 175mm(+or - 50) | | | | 1 1 | | | |
| | microns including extra cost on | | | | | | | |
| | | | | | 1 | | | |
| | account of careful handling,extra | | | | | | | |
| | cost on account of using PVC coated | | | | | | | |
| | binding wire instead of GI wire, extra | | | | | | | |
| 2 | cost on account of touch-up material | | | | | | MT | 33.55 |
| 3 | supplied by coating agency and | | | | 1 | | IVII | 33.55 |
| | repair work extra cost on account of | | | | | | | |
| | transportation to & fro from steel yard | | | | | | İ | |
| | | | | | | | 1 | |
| | at kalamboli to plant at Daman and | | | | | | | |
| | Plant at Daman to work site by | | | | | | 1 | |
| | trailer, loading, unloading, including | | | | | | | |
| | all taxes (Central & Local), etc. | | 1 | | - | | | |
| | complete, as directed by the | | | | | | | |
| | Engineer in charge | | | | | | | |
| | | | | 1 | 1 | | | |
| | H.D.P.E Pipes PE-100 PN 8 | | | + | 1 | | | |
| | Providing and Supplying in standard | - | + | + | 1 | | 1 | |
| | | | | | | | | |
| | lengths polyethelene pipes, | | | | | | | |
| | confirming to IS 4984 / 14151 / | | | 1 | | | | |
| | 12786 / 13488 with necessary | | | | | | | |
| | jointing material like mechanical | | 1 | | | | | |
| | connector i.e. thread / insert joint / | | | | | | | |
| | quick telease couplar joint or flanged | | | | | | | |
| | joint including all local and central | | | | 1 | | | |
| | taxes, transportation and frigt | | | | | | | |
| 4 | | | | | | | | |
| | charges inspection charges, loading | | | | | | | |
| 1 | unloading charges, conveyance to | | | | | | | 1 |
| | | | | | | | | |
| | departmental stores b/ site & | | | | | | 1 | |
| | departmental stores b/ site & stacking the same in closed shade | | | | | | | |
| | stacking the same in closed shade | | | | | : | | |
| | stacking the same in closed shade duly protecting from sunrays & rays | | | | | | | |
| | stacking the same in closed shade | | | | | | | |
| | stacking the same in closed shade duly protecting from sunrays & rays | | | | | | | |
| | stacking the same in closed shade duly protecting from sunrays & rays | | | | | | | |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | | | | | | | |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm | | | | | | | |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm | | 6723.00 | | | 6723.00 | | |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm | | 6723.00 576.00 | | | 6723.00 576.00 | Rm | t 576. |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm | | | | | | Rm | t 576. |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 | | 576.00 | | | 576.00 | Rm Rm | t 576. |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 | | 576.00 0.00 5367.00 | | | 576.00 0.00 5367.00 | Rm Rm Rm | t 576 t 0 t 5367 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 | | 576.00 0.00 5367.00 5352.00 | | | 576.00 0.00 5367.00 5352.00 | Rm Rm Rm Rm Rm Rm | t 576 t 0 t 5367 t 5352 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 | | 576.00 0.00 5367.00 5352.00 3066.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 | Rm Rm Rm Rm Rm Rm Rm Rm Rm | t 576 t 0 t 5367 t 5352 t 3066 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 | 0 Rm | t 576 t 0 t 5367 t 5352 t 3066 tt 1085 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 400 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 | 0 Rm | t 576 t 0 t 5367 t 5352 t 3066 t 1085 tt 145 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 400 450 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 0.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 | 0 Rm | t 576 t 0 t 5367 t 5352 t 3066 t 1085 t 145 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 400 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 | 0 Rm | t 576 t 0 t 5367 t 5352 t 3066 t 1085 t 145 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 400 450 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 0.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 | Rm | t 576 t 0 t 5367 t 5352 t 3066 t 1085 t 145 t 0 |
| | stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Diameter in mm 110 160 180 200 250 315 355 400 450 500 | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 0.00 0.00 | | | 576.00 0.00 5367.00 5352.00 3066.00 1085.00 145.00 0.00 | Rm | t 576 t 0 t 5367 t 5352 t 3066 t 1085 t 145 t 0 |

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| lo. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|-----|--|-----|---------|---|------|--------------------|-----------|-----------|
| 5 | Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine , Electro mirror /heater but fusion welding machine with hydraulic jack, | | | | | | | |
| | top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | | | | | | |
| | | | | | | | | |
| | HDPE Pipes outer Diameter in mm | | | | | - | | |
| | 110 | | | | | 6723.00 | Rmt | 6723.00 |
| | 160 | | | | | 576.00 | Rmt | 576.0 |
| | 180 | | | | | 0.00 | Rmt | 0.0 |
| | 200 | | | | | 5367.00 | Rmt | 5367.0 |
| | 250 | | | | | 5352.00 | Rmt | 5352.0 |
| | 315 | | | | | 3066.00 | Rmt | 3066.0 |
| | 355 | | | | | 1085.00 | Rmt | 1085.0 |
| | 400 | | 1 | | | 145.00 | Rmt | 145.0 |
| | 450 | | | | | 0.00 | Rmt | 0.0 |
| | 500 | | | | | 0.00 | Rmt | 0.0 |
| | 560 | İ | | | | 0.00 | Rmt | 0.0 |
| | 630 | | | | | 0.00 | Rmt | 0.0 |
| | 710 | | | | | 0.00 | Rmt | 0.0 |
| | | | | | | | | |
| 6 | Deawtering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in-charge (including cost of machinery, labour, fuel), etc complete | | L | В | D | Qty | | |
| | 110 | | 6723.00 | | 2.16 | 3361.50 | | |
| | 160 | | 576.00 | | 2.16 | 288.00 | - | - |
| | 180 | | 0.00 | | 2.16 | 0.00 | | |
| | 200 | | 5367.00 | | 2.16 | 2683.50 | - | |
| | 250 | | 5352.00 | | 2.16 | 2676.00 1533.00 | | |
| | 315 | - | 3066.00 | + | 2.16 | 542.50 | | + |
| | 355 | 1 | 1085.00 | - | 2.16 | 72.50 | | - |
| | 400 | | 145.00 | - | 2.16 | | - | 1 |
| | 450 | | 0.00 | | 2.16 | 0.00 | - | - |
| | 500 | | 0.00 | | 2.16 | 0.00 | | |
| | 560 | - | 0.00 | - | 3.16 | 0.00 | 1 | |
| | 630 | - | 0.00 | | 4.16 | 0.00 | | - |
| | 710 | | 0.00 | - | 5.16 | 0.00 11157.00 | BHP/HR | 11157.00 |
| | | | | | | 11.07.00 | D.11 /111 | |
| 7 | HDPE fittings | | | | | | | |

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| No. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|----------|--|--|-----------|-------------|-------|---------------|------|-----------|
| | Providing and supply of Electro | | | | | - | | |
| | Fusion Fittings in accordance with | | | | | | | |
| | BS EN 12201: Part-3 suitable for | | | | | | | |
| | drinking water with in black/blue | | : | | | | | |
| | colour manufactured from | | | | 1 | | | |
| | compounded PE80/PE100 virgin | | E. | | | | | |
| | polymer and compatible with | | | | | | | |
| | PE80/PE100 pipes, in pressure | | | | | | | |
| | FITTINGS for HDPE Pipes (5%) | | Amount Pr | ovison I | at 5% | of Item No. 4 | 1 | |
| ····· | | | | | | | | |
| 8 | PIPE APPURTENANCES SUPPLY Providing Double flange sluice valve | | | - | | | | |
| | | | | | | | | |
| | confirming for IS 2906/14846/ | | | | | | | |
| | including worn gear arrangements as | | | | | | | |
| | per test pressure stainless steel | | | | | | | |
| | spindle, caps including all taxes | | | | | | | |
| | transportation etc. complete | | | | | | | |
| | sluice valve & Scour Valve (PN-1 | | | | | | 1 | |
| | Without bypass) | | | | | | | |
| а | 80 mm for Scouring purpose | 4 | | | | 4.00 | Nos. | 4.00 |
| | 100 mm for control purpose | 7 | | | | 7.00 | Nos | 7.00 |
| | 100 mm for Scouring purpose | 1 | | | _ | 1.00 | Nos. | 1.00 |
| | 150 mm for control purpose | 1 | | | | 1.00 | Nos | 1.00 |
| | 150 mm for Scouring purpose | 6 | | | | 6.00 | Nos. | 6.00 |
| | 200 mm for control purpose | 6 | | | | 6.00 | Nos | 6.00 |
| g | 200 mm for Scouring purpose | 3 | | | | 3.00 | Nos. | 3.00 |
| h | 250 mm for control purpose | 6 | | | 1 | 6.00 | Nos | 6.00 |
| i | 250 mm for Scouring purpose | 1 | | | | 1.00 | Nos. | 1.00 |
| j | 300 mm for control purpose | 4 | | | | 4.00 | Nos | 4.00 |
| k | 300 mm for Scouring purpose | 0 | | | | 0.00 | Nos. | 0.00 |
| 1 | 350 mm for Scouring purpose | 0 | | | | 0.00 | Nos. | 0.00 |
| | 400 mm for Scouring purpose | 0 | | | | 0.00 | Nos. | 0.00 |
| n | 450 mm for Scouring purpose | 0 | | | | 0.00 | Nos. | 0.00 |
| | Butterfly valve (Dia in mm) | | | | | | | |
| | 350 | 3 | | | | 3.00 | Nos | 3.00 |
| | 400 | 0 | | | | 0.00 | Nos | 0.00 |
| | 450 | 0 | | | | 0.00 | Nos | 0.00 |
| | 500 | 0 | | | - | 0.00 | Nos | 0.00 |
| 10 | Air valve (Dia in mm) | | | | | | | |
| | Flanged/Screwed Type-PN-1(Diameter in mm) | | | | | | | |
| | 40 | 7 | | | + | 7.00 | Nos | 7.00 |
| | Air valve (Dia in mm) | | | + | + | 1.00 | 1103 | 7.00 |
| <u> </u> | Air Valve Double Ball Flanged-Type- | | | + | + | | + | |
| | PN-1(Diameter in mm) | | | | | | | |
| | 50 | 1 | | | | 1.00 | Nos | 1.00 |
| | 65 | 0 | | | | 0.00 | Nos | 0.00 |
| | 80 | 12 | | | | 12.00 | Nos | 12.00 |
| 12 | Air valve (Dia in mm) | | | | | | | |

| Vo. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|-----|---|------|---|---|--|-------|------------|-----------|
| | Description and examining Air Values | | | | | | | |
| | Providing and supplying Air Valves as per IS-14845-2000 and MJP's | | | | | | | i |
| | standard specifications double orifice | | | | | | | |
| | type combined with isolating sluice | | | | | | | |
| | valve, mounted in horzontal position | | | | 1 1 | | | |
| | and operated by wheel gearing, | | | | | | | |
| | small orifice elastic ball resting on a | | | | | | | |
| | gun metal orifice nipple, large orifice | | | | | | | |
| | vulcanite ball seating on moulded | | | | | | | ' |
| | seat ring, inlet face and drilled, | | | | | | | |
| | including all taxes (Central and | | | | | | | |
| | local), insurance, third party | | | 1 | | | | |
| | inspection charges, loading, | | | | | | | |
| | unloading, transporta-tion upto | | | | | ļ | i | |
| | departmental storer / site, etc. | | | | | | | |
| | complete. | | | | | | | |
| а | 100 | 4 | | | | 4.00 | Nos | 4.00 |
| | 150 | 3 | | | | 3.00 | Nos | 3.00 |
| _ | 200 | 0 | | | 1 | 0.00 | Nos | 0.00 |
| | | | | | | | | |
| | PIPE APPURTENANCES FIXING | | | | | 21 | | |
| | Lowering laying and jointing in | | | | | | | |
| | position D.I. D/F Reflux | | | | | | | |
| | valves,Butterfly velves and sluice | | | | | | | |
| 13 | valves including cost of all labour, | | | | | | | |
| 13 | jointing material, including nut bolts | | | 1 | | | | |
| | and giving satisfactory hydraulic | | | | | | | |
| | testing, etc. complete. (Rate for all | | | | | | | |
| | class of valve) | | | | 1 | | | |
| | Sluice Valve & Scour Valve(Dia in | | | | | | | |
| | mm) | 1.00 | | _ | - | 4.00 | NI== | 4.00 |
| | 80 mm for Scouring purpose | 4.00 | ļ | | + | 7.00 | NOs NO. | 7.00 |
| | 100 mm for control purpose | 7 | | + | + | 1.00 | Nos | - |
| | 100 mm for Scouring purpose | 1.00 | | | + | 1.00 | NO. | 1.00 |
| | 150 mm for control purpose | 6.00 | | | | 6.00 | Nos | |
| | f 200 mm for Scouring purpose | 6 | | | 1 | 6.00 | NO. | 6.00 |
| | 200 mm for Scouring purpose | 3.00 | | | + | 3.00 | Nos | |
| | 1 250 mm for control purpose | 6 | | | | 6.00 | NO. | 6.00 |
| | i 250 mm for Scouring purpose | 1.00 | | _ | | 1.00 | Nos | |
| | i 300 mm for control purpose | 4 | - | + | - | 4.00 | NO. | 4.00 |
| | k 300 mm for Scouring purpose | 0.00 | | | | 0.00 | Nos | |
| | 1 350 mm for Scouring purpose | 0.00 | 1 | | | 0.00 | Nos | |
| | n 400 mm for Scouring purpose | 0.00 | | | | 0.00 | Nos | |
| | n 450 mm for Scouring purpose | 0.00 | | | 1 | 0.00 | Nos | |
| | | | | | 1 | | | |
| 1 | 4 Butterfly valve (Dia in mm) | | | | | | | |
| | a 350 | 3 | | | | 3.00 | NO. | 3.00 |
| | b 400 | 0 | | | | 0.00 | NO. | 0.0 |
| | c 450 | 0 | | | | 0.00 | NO. | 0.0 |
| | d 500 | 0 | | | | 0.00 | NO. | 0.0 |
| | | | | | | 1 | | |
| 15 | | | | | | | | |
| | a 40 | 7 | | | | 7.00 | NO. | 7.0 |
| | b 50 | 1 | | _ | - | 1,00 | NO. | 1,0 |
| | c 65 | 0 | 1 | | | 0.00 | NO. | 0.0 |
| | d 80 | 12 | | - | | 12.00 | NO. | 12.0 |
| | e 100 | 4 | - | | - | 4.00 | NO. | 4.0 |
| | f 150 | 3 | | | | 3.00 | NO. | 3.0 |
| | g 200 | 0 | | - | | 0.00 | NO. | 0.0 |
| 16 | Utility Shifting | | | | | | | |

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| No. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|-----|---|-----|---|---|---|-----|------|-----------|
| 17 | Supplying, transporting, the S.P. fire hydrants including duck foot bend, S.V. and S.V. road box, painting the hydrant, fixing the saddle piece, supplying, and laying required length of C.I. pipeline and jointing the same spun yarn, molten lead including caulking, fixing the S.V. road box in one brick masonry chamber in 1:5 C.M. with 12 mm thick 1:3 cement plaster both inside and outside on 1:3:6 C.C. 150 mm thick etc. complete as specified and directed. [As per I.S. 900/1965 Revised] | 2 | | | | | Nos | 2 |
| 18 | Drip irrigation | 0 | ! | | | | km | 0 |
| 19 | Sprinkler irrigation | 0 | | | | | Sqrm | 0 |

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| | | | NAVI MUMBAI MU | NICIP | AL CORPOR | ΑΤΙΩ | J | | |
|----------------|---|-----------------|---|--|--|--------------|---|-----------------|--|
| | | | | | | AIIOI | 1 | | |
| | | | RECYCLE | WAIL | ER SYSTEM | | | | |
| | | | Rat | e ana | lvsis | | | | |
| R.A. No. 1 | Filling in E | xcavated s | urface with contractor's murum in | | | tering com | naction etc | complete | |
| | | | 17, Item No 19, Pg-43 | 10 10 20 0 | MJP 16-17, Item | itering con | = | | Cum |
| | | 9 10101 10 | ., | | No 19, Pg-43 | | | 723.00 | |
| | Add 5 % fo | or Corpora | tion Area | | | | = | 36.15 | |
| 1 | | | | | | | | | |
| i | Add lead cl | narges for | | | | | | | |
| | | | Murum | 1.00 | 0,00 | | = | 0.00 | |
| l | | | | | | | | 759.15 | |
| | | | | | | | | | |
| | | | | | | Total | = | 759.15 | |
| | | | | | | Say | = | 759 15 | Cum |
| | | | | | | | | | |
| .A. No. 2 | Providing | dry trap ru | bble stone solling in 15 cm to 20cr | n layers in | cluding hand packing | and comp | acting, roya | alty charges et | С |
| | complete. | | | | | | , | | |
| | Soling Ra | te as per N | 1JP 16-17, Page No. 43 Item No 20 | | MJP 16-17, Page No. 43 Item No 20 | | = | 1014.00 | Cum |
| | Add 5 % f | or Corpora | tion Area | | | | = | 50.7 | |
| | , 100 0 70 1 | or Corpora | 101.71100 | | | | 1 | 1 | |
| | Add lead c | harges for | | | | 1 | | + | |
| | | 9-5 101 | Hand Broken Metal | 1.000 | 0.00 | | = | 0.00 | |
| | | | Sand | 0.150 | 1679.50 | | = | 251.92 | |
| | | | | 200 | .0,0.00 | 1 | - | 1316.62 | |
| | | | | | | <u> </u> | | 1.0.10,02 | |
| | | | | | | Total | = | 1316.624348 | - |
| | | | | | | Say | = | 1316.62 | Cum |
| | | | | - | | July | | 1010.02 | Journ |
| .A. No.3 | Providing | and lavir | ng in situ, fallowing grade of C. | C of tran | /aranite/aneiss meta | I for found | lation and | hedding incl | udina |
| ., ., ., ., ., | | | ork,compacting and curing,finis | | | i ioi iodiic | action and | bedding men | uumg |
| | | | , | I | <u> </u> | | T_ | | Cum |
| | PCC Rate | as per ivi. | JP 16-17, Item No1, Pg-47 | İ | MJP 16-17, Item | | = | 4457.00 | Cum |
| | Add 5 % | or Corpora | ation Area | | No1, Pg-47 | 1 | = | 222.85 | - |
| | Auu 5 76 1 | ог согрога Т | Illon Area | ļ | | - | - | 222.03 | - |
| | Add lead o | harges for | | | | | - | + | |
| | 71001000 | Targes for | Sand | 0.45 | 1679.50 | 1 | = | 755.77 | |
| | — | | crushed metal (40 mm) | 0.52 | 0.00 | | = | 0.00 | |
| | | | crushed metal (20 mm, 10 mm) | 0.33 | 0.00 | | = | 0.00 | - |
| | | 1 | Crashed Metal (20 Min, 10 Min) | 10.00 | 10.00 | 1 | 1 | 5435.62 | |
| | - | | | | <u> </u> | Total | = | 5435.623043 | |
| | | | | | 1 | Say | - | 5435.62 | Cum |
| | + | - | | | | Joay | | 3433.02 | Cuin |
| A No.4 | Providin | and filling | Ig in the foundation trenches w | ith sand (| of approved quality i | ncluding | vatering c | ompaction E | tc |
| | | | as per MJP 16-17 Item No 21, P | | MJP 16-17 Item | T T | = | T T | Cum |
| | Sand Bed | iding Rate | as per MJP 16-17 Item No 21, P | g-43 | No 21, Pg-43 | 1 | - | 973.00 | Cum |
| | Add 5 % | for Corpora | ation Area | 1 | 1NU 21, FY-43 | | = | 48.65 | |
| | 7,000 70 | .5. 561p01 | 1,1,1,00 | | | 1 | + | 1,5.55 | + |
| | Add lead | harges for | | - | + | 1 | + | + | + |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | , 950 101 | Sand | 1.00 | 1679.50 | 1 | = | 1679.50 | 1 |
| | | 1 | | 155 | 1.5.5.50 | 1 | 1 | 2701.15 | + |
| | | | | | | Total | = | 2701.13 | + |
| | | 1 | 1 | + | + | Say | = | 2701.143032 | Cum |
| | | 1 | 1 | + | + | , | + | 2, 51.15 | Juill |
| A No s | Providing | Land laving | insitu Cement concrete of trap | Jaranita/ s | uartzite / anaiss mot | al for PCC | work in fo | undation like = | off. |
| | | | ation and footing of RCC columns | | | | | | |
| | | | e (By wigh batching and mix design | | | | | | |
| | | | ee etc cement is permitted) (exclu | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | , |
| | | | | | | | | | |
| | RCC work | MJP 16-17 | 7, Item No 2 c Pg-48 | | MJP 16-17, Item | | = | 5999.00 | Cum |
| | | | | | No 2 c, Pg-48 | | | | |
| | | | ation Area | | | | = | 299.95 | |
| | Add lead | charges for | | | | | | | |
| | | | Sand | 0.425 | 1679.50 | | D. | 713.79 | |
| | | | crushed metal (20 mm) | 0.57 | 0 00 | | == | 0.00 | |
| | | | crushed metal (10 mm) | 0.28 | 0.00 | | | 0.00 | |
| | | | | | | | | 7012.74 | |
| | | | | | | Total | = | 7012.735652 | |
| | | | | | | Say | = | 7012.74 | Cum |
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NMMC

Lead Chart

| | | NAV | MUMBAI M | NAVI MUMBAI MUNICIPAL CORPORATION | ORATION | | | |
|---------|---------------|-----------------------|----------------|-----------------------------------|--------------|-----------------------------|--|----------|
| | | | Recyc | Recycle Water System | | | | |
| | | | | LEAD CHART | | | | |
| Sr. No. | Material | Source | Lead in Kms | Lead Charges 2016-17 | Initial Lead | Initial Lead Charges 16- | Initial Lead Net Lead Charges 16- Charges 16- | Unit |
| | | | | | | | | |
| - | Sand | Ambet | 160.00 | 1830.07 | 5 | 150.57 | 1679.50 | Cum |
| 2 | Crushed Metal | Local Stone Quarry | 5 | 150.57 | 5 | 150.57 | 0.00 | Cum |
| | | | | | | | | |
| ю | Soling Stone | Local Stone Quarry | c) | 184.21 | 5 | 184.21 | 0.00 | Cum |
| | | | | | | | | |
| 4 | Murum / Earth | Local Stone Quarry | 5 | 180.38 | 5 | 180.38 | 0.00 | Cum |
| | | | | | | | | |
| 2 | Brick | | 5 | 247.37 | 2 | 247.37 | 0.00 | 1000 no. |



| | Navi Mumbai 1 | Municipa | d Corpor | ation | | | |
|-------------|--|------------|--------------------|----------|-----------|--------|--------------------|
| | | d Water | | | | | |
| | Measi | urement | Sheet | | | | |
| | Part-1 -Pipeline Trench Works For I | Distributi | ion System | of Kop | arkhairan | e MIDC | |
| Item No. | Description of Item | | Me | asuremen | ts | Unit | Qty |
| | | No. | L | В | D | | |
| | PART-I | CIVIL V | VORKS | | | | |
| 1 | Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking | | | | | : | |
| | and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | | | | | | |
| | Lift 0 to 1.5 m | | | | | | |
| | Dia in mm | | | | | | |
| | Excavtion for pipe laying | - 1 2 | (700.00 | 0.11 | 0.51 | · | |
| | 110 | 1.0 | 6723.00 | 0.41 | 0.86 | | 2370.53 |
| | 160 | 1.0 | 576.00 | 0.46 | 0.91 | | 241.11 |
| | 200 | 1.0 | 0.00 | 0.48 | 0.93 | | 0.00 |
| | 250 | 1.0 | 5367.00 | 0.50 | 0.95 | | 2549.33 |
| | 315 | 1.0 | 5352.00 3066.00 | 0.53 | 1.00 | | 2943.60 2008.15 |
| | 355 | 1.0 | 1085.00 | 0.66 | 1.11 | | 785.30 |
| | 400 | 1.0 | 145.00 | 0.90 | 1.15 | | 150.08 |
| | 450 | 1.0 | 0.00 | 0.95 | 1.20 | | 0.00 |
| | 500 | 1.0 | 0.00 | 1.00 | 1.25 | | 0.00 |
| | 560 | 1.0 | 0.00 | 1.06 | 1.31 | | 0.00 |
| | 630 | 1.0 | 0.00 | 1.13 | 1.38 | | 0.00 |
| | 710 | 1.0 | 0.00 | 1.21 | 1.46 | | 0.00 |
| | | | | | | | |
| | | TOTAL | 22314,00 | | | | |
| | Chambers | | | | | | |
| | 90*45 cm | 1.00 | 1.50 | 1.05 | 1.60 | | 2.52 |
| | 90*60 cm | 45.00 | 1.50 | 1.20 | 1.60 | | 129.60 |
| | 90*90 cm | 58.00 | 1.50 | 1.50 | 1.60 | | 208.80 |
| | Annual Conference in the Confe | 1.00 | 15707.60 | | Total | Cum | 15707.62 |
| | Assuming 50 % of Qty for above item | 1.00 | 15707.62 | | 0.50 | | 7853.81 |
| | PCC For Valve Chamber | | | | Thial | | |
| | 90*45 cm | 1.00 | 1.50 | 1.05 | 0.15 | | 0.24 |
| | 90*43 cm | 45.00 | 1.50 | 1.20 | 0.15 | | 12.15 |
| | 90*90 cm | 58.00 | 1.50 | 1.50 | 0.15 | | 19.58 |
| | | 20.00 | | , | Total | Cum | 31.96 |
| 2 | Excavation for foundation/ pipe trenches by all means in hard murum, including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation | | | | | | |
| | and excluding backfilling, etc complete. | | | | | | |
| | Assuming 40% of qty for above item | 1.00 | 15707.62 | | 0.40 | Cum | 6283.05 |

| 3 blance of the state of the st | excavation for foundation/ pipe trenches in hard book and concrete road by chiselling wedging line rill by mechanical means or by all means other than lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. **Rubble Soling:*Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete **For Dia. in mm** 10 160 180 200 250 315 355 400 450 | 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 1605.60 | 0.41 0.46 0.48 0.50 | 0.10 0.25 0.25 0.25 | Cu.m | 1570.76 206.73 |
|--|---|--|---|------------------------------|------------------------------|----------|-------------------|
| 3 blance of the state of the st | ock and concrete road by chiselling wedging line rill by mechanical means or by all means other than lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Assuming 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 10 10 10 110 110 110 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m_ | 206.73 |
| 3 blance of the state of the st | ock and concrete road by chiselling wedging line rill by mechanical means or by all means other than lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Assuming 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 10 10 10 110 110 110 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 3 blance of the state of the st | ock and concrete road by chiselling wedging line rill by mechanical means or by all means other than lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Assuming 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 10 10 10 110 110 110 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 3 dr bla rei 50 as fo As for As for | rill by mechanical means or by all means other than lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Assuming 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 100 160 180 200 250 315 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 3 blarer reison as for | lasting including triming and levelling the bed emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Australia 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 160 180 200 250 315 355 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 3 rei 50 as fo As As As As As As As As As As As As As | emoving the excavated material upto a distance of 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Australia 10% of qty for above item Rubble Soling: Providing dry trap granite guartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 100 250 315 355 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 50 as fo As R 4 | 0 meters and lifts as below, stacking and spreding is directed normal dewatering, preparing the bed for bundation and excluding backfilling, etc complete. Australia 10% of qty for above item Aubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 100 250 315 355 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| fo As R qu cr cc Fi 1 1: 22 2 3 3 4 4 5 5 6 7 7 6 9 9 9 9 9 1 II | Summing 10% of qty for above item Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 10 10 10 10 10 10 10 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| As R qu cr cc Fi 1 1 1 1 2 2 2 3 3 3 4 4 5 5 6 7 0 9 9 9 9 9 1 I | Rubble Soling: Providing dry trap granite quartizite quests, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 100 200 250 315 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| R qu cr ccc F F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Rubble Soling: Providing dry trap granite quartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 60 80 200 250 815 355 | 1.00 1.00 1.00 1.00 1.00 1.00 | 2016.90 172.80 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 0.25 | Cu.m | 206.73 |
| 4 querce cc FF 11 11 11 12 22 2 2 3 3 3 4 4 5 5 5 6 6 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | puartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 100 200 250 315 355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| 4 querce cc FF 11 11 11 12 22 2 2 3 3 3 4 4 5 5 5 6 6 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | puartizite queiss, rubble stone soling in 15 cm to 20 m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 100 200 250 315 355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| 4 cr ccc FF 11 11 12 2 2 3 3 3 4 4 4 5 5 5 6 6 7 7 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | m thick layer including hand packing and compacting royalty charges etc.complete For Dia. in mm 10 10 180 200 250 315 3355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| cc F 1 1 1 1 1 1 1 1 1 | compacting royalty charges etc.complete For Dia. in mm 10 160 180 200 250 315 355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | For Dia. in mm 110 160 180 200 250 315 3400 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 10 60 180 200 250 315 3355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.46 0.48 | 0.25 0.25 | | |
| 11. 22. 23. 33. 34. 44. 45. 55. 66. 77. CC. 99. 99. 99. 99. 99. 99. 99. 99. 99 | 80 200 250 315 355 | 1.00 1.00 1.00 1.00 | 0.00 1610.10 | 0.48 | 0.25 | | 4000 |
| 22 33 33 44 44 55 56 77 CC 99 | 2000 2250 315 3355 | 1.00 1.00 1.00 | 1610.10 | | | | 19.87 |
| 2 3 3 3 4 4 4 5 5 6 7 7 0 9 9 | 250 315 355 400 | 1.00 | | 0.50 | | | 0.00 |
| 3 3 3 4 4 4 5 5 5 5 6 6 7 7 C 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 315 355 400 | 1.00 | 1605 60 | | 0.25 | | 201.26 |
| 3 4 4 4 5 5 5 5 6 6 7 7 C 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 355 400 | | | 0.55 | 0.25 | | 220.77 |
| 4 4 5 5 6 7 7 C 9 9 | 400 | 1.00 [| 919.80 | 0.62 | 0.25 | | 141.42 |
| 4 5 5 6 7 7 C 9 9 | | | 325.50 | 0.66 | 0.25 | | 53.30 |
| 5 5 6 7 C 9 9 | 150 | 1.00 | 43.50 | 0.90 | 0.25 | | 9.79 |
| 5 6 7 C 9 9 | | 1.00 | 0.00 | 0.95 | 0.25 | | 0.00 |
| 66 77 CC 99 99 99 99 11 11 | 500 | 1.00 | 0.00 | 1.00 | 0.25 | | 0.00 |
| 7 C 9 9 9 | 560 630 | 1.00 | 0.00 | 1.13 | 0.25 | | 0.00 |
| 9 9 9 1 | 710 | 1.00 | 0.00 | 1.21 | 0.25 | | 0.00 |
| 9 9 9 1 | | | | | | | |
| 9 9 1 | Chambers | 1.00 | 1.50 | 1.05 | 0.25 | | 0.39 |
| 9 1 | 90*45 cm 90*60 cm | 45.00 | 1.50 | 1.20 | 0.25 | | 20.25 |
| ı | 90*90 cm | 58.00 | 1.50 | 1.50 | 0.25 | <u> </u> | 32.63 |
| I | Total quantity | 36.00 | 1.50 | 1.50 | 0.20 | Cum | 906.41 |
| | Total quantity | | | | | | , , , , |
| | Bedding | | | | | | |
| | Providing and filling sand boxing in pipeline or for | | | | | | |
| | foundation with sand of approved quality including | | | | | | |
| | watering and compaction intial lead upto 5 km etc. | | | | | | |
| | complete | | | | | | |
| | Dia. in mm | | | | | - | - |
| | Sand Bedding for pipe laying 110 | 1.00 | 6723.00 | 0.41 | 0.15 | | 413.40 |
| | 160 | 1.00 | 576.00 | 0.46 | 0.15 | 1 | 39.74 |
| | 180 | 1.00 | 0.00 | 0.48 | 0.15 | | 0.00 |
| | 200 | 1.00 | 5367.00 | 0.50 | 0.15 | | 402.5 |
| | 250 | 1.00 | 5352.00_ | 0.55 | 0.15 | | 441.5 |
| | 315 | 1.00 | 3066.00 | 0.62 | 0.15 | | 282.84 |
| | 355 | 1.00 | 1085.00 | 0.66 | 0.15 | | 106.6 |
| | 400 | 1.00 | 145.00 | 0.90 | 0.15 | | 19.58 |
| | 450 | 1.00 | 0.00 | 0.95 | 0.15 | | 0.00 |
| | 500 | 1.00 | 0.00 | 1.00 | 0.15 | | 0.00 |
| | 560 | 1.00 | 0.00 | 1.06 | 0.15 | - | 0.00 |
| | | 1.00 | 0.00 | 1.13 | 0.15_ | - | 0.00 |
| | 630 | 1.00 | 0.00 | 1.21 | 0.15 | | 1706.2 |

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| em o. | Description of Item | | Me | asuremen | ts | Unit | Qty |
|----------|--|------|----------------|----------|-------|------|------------------|
| | | No. | L | В | D | | |
| 6 | PCC for pipe laying | | | | | | |
| | 110 | 6723 | 2016.90 | 0.00 | 0.15 | | 0.00 |
| | 160 | 576 | 172.80 | 1.60 | 0.15 | | 41.47 |
| | 180 | 0 | 0.00 | 1.60 | 0.15 | | 0.00 |
| | 200 | 5367 | 1610.10 | 1.60 | 0.15 | | 386.42 |
| | 250 | 5352 | 1605.60 | 1.60 | 0.15 | | 385.34 |
| | 315 | 3066 | 919.80 | 1.61 | 0.15 | | 221.44 |
| | 355 | 1085 | 325.50 | 1.61 | 0.15 | | 78.36 |
| | 400 | 145 | 43.50 | 1.68 | 0.15 | | 10.96 |
| | 450 | 0 | 0.00 | 1.68 | 0.15 | | 0.00 |
| | 500 | 0 | 0.00 | 1.74 | 0.15 | | 0.00 |
| | 560 | 0 | 0.00 | 1.78 | 0.15 | | 0.00 |
| | 630 | 0 | 0.00 | 1.88 | 0.15 | | 0.00 |
| | 710 | 0 | 0.00 | 0.00 | 0.15 | | 0.00 |
| | | | | | | | |
| | | | Total | PCC qua | ntity | Cum | 1177.2 |
| | | | | , | | | |
| 7 | Disposal of Earth: Disposal of excavated material including loading and unloading, lead upto 10 km etc. Complete | | | | | | _ |
| | volume of pipe | | | | | | |
| | 110 | 1.00 | 6723.00 | 0.79 | 0.01 | | 63.86 |
| | 160 | 1.00 | 576.00 | 0.79 | 0.03 | | 11.58 |
| | 180 | 1.00 | 0.00 | 0.79 | 0.03 | | 0.00 |
| | 200 | 1.00 | 5367.00 | 0.79 | 0.04 | | 168.52 |
| | 250 | 1.00 | 5352.00 | 0.79 | 0.06 | | 262.58 |
| | 315 | 1.00 | 3066.00 | 0.79 | 0.10 | | 238.82 |
| | 355 | 1.00 | 1085.00 | 0.79 | 0.13 | | 107.34 |
| | 400 | 1.00 | 145.00 | 0.79 | 0.16 | | 18.21 |
| | 450 | 1.00 | 0.00 | 0.79 | 0.20 | | 0.00 |
| | 500 | 1.00 | 0.00 | 0.79 | 0.25 | | 0.00 |
| | 560 | 1.00 | 0.00 | 0.79 | 0.31 | | 0.00 |
| | 630 | 1.00 | 0.00 | 0.79 | 0.40 | | 0.00 |
| | 710 | 1.00 | 0.00 | 0.79 | 0.50 | | 0.00 |
| | | | | | | - | |
| | Road reinstatement | 1.00 | 6723.00 | 1.40 | 0.20 | | 1882.4 |
| | | | | | | 1 | |
| | 160 | 1.00 | 576.00 0.00 | 1.40 | 0.20 | | 0.00 |
| | 200 | | 5367.00 | | 1 | | |
| | 250 | 1.00 | 5352.00 | 1.40 | 0.20 | + | 1502.7 1498.5 |
| | 315 | 1.00 | 3066.00 | 1.40 | 0.20 | | 858.4 |
| | 355 | 1.00 | 1085.00 | 1.40 | 0.20 | | 303.8 |
| | 400 | 1.00 | 145.00 | 1.40 | 0.20 | | 40.60 |
| | 450 | 1.00 | 0.00 | 1.40 | 0.20 | | 0.00 |
| | 500 | 1.00 | 0.00 | 1.40 | 0.20 | | 0.00 |
| | 560 | 1.00 | 0.00 | 1.40 | 0.20 | 1 | 0.00 |
| | 630 | 1.00 | 0.00 | 1.40 | 0.20 | 1 | 0.00 |
| | 710 | 1.00 | 0.00 | 1.40 | 0.20 | 1 | 0.00 |
| | 1710 | 1.00 | 0.00 | 1.70 | 0.20 | Cum | 7118.8 |
| 1 | Deawtering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | | | | | | 71101 |

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| em o. | Description of Item | | Me | easurement | ts | Unit | Qty |
|----------|--|-------|-------|------------|-------|---------|----------|
| 0. | | No. | L | В | D | | |
| 1 | Lum sum | 1.00 | | | | BHP/Hr. | 36000.00 |
| | | | | | | | |
| | RCC.Thrust Block: Providing and laying insitu Cement Concrete of trap/granaite/quartzite/gneiss metal for RCC work in foundation like raft,grillage,strip foundation and footing of RCC columns and steel,stanchions | | | | | | |
| | including normal dewatering ,plywood form work, bully/ steel prop-ups, compaction, finishing and curing etc. complete(by weigh batching and mix design for M-250 and M-300 only. use L&T, A.C.C. Ambuja, Birla Gold, ManikGad, Rajashree, etc. cement is permitted (Excluding M.S. of Tor reinforcement) M-250 for Anchor Block | ļ | | | | | |
| | 1 x 0.6 x 0.6 m block | 45.00 | 1.00 | 0.60 | 0.60 | | 13.02 |
| | | | | | | Cum | 13.02 |
| | | | | | | | |
| 10 | Reinforcement: Providing and Fixing in position steel bar reinforcement of Anchor block etc.as per detailed design drawing and shedules including cutting bending hooking the bars binding with wires or tack welding and supporting as required etc. completet (including cost of binding wire). | | | | | | |
| | Assuming Steel for above item 40 kg per cum | | | | | | |
| | Quantity of steel for Thrust block | Ì | 13.02 | 0.4 | | | 5.21 |
| | | | | | Total | MT | 5.21 |
| | | | | | | | - |
| 11 | CHAMBERS | | | | | | |
| | Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in C.M. 1:5 Proportion precast RCC frame and cover, etc complete as directed by Engineer-in-charge | | | | | | |
| | Inspection Chambers | | | | | | |
| | Valve Chambers with Precast R.C.C covers | | | | | | |
| | 90*45 cm | 1.00 | | | | No. | 1.00 |
| | 90*60 cm | 45.00 | | | | No. | 45.00 |
| | 90*90 cm | 58.00 | | | | No. | 58,00 |
| 12 | Refilling the trenches with available excaveted stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging etc. complete | | | | | | |
| 12 | hard material in 15 cm layers with all leads and lifts | | | | | | |

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| em o. | Description of Item | | Me | asurement | S | Unit | Qty |
|----------|--|-----|---------|-----------|---|-------|----------|
| | | No. | L | В | D | | |
| | Total Excavation | 1 | | | | | 15707.62 |
| | Deductions | | | | · | | |
| | PCC Bedding | | | | | | 1177.28 |
| | Rubble Soling | | | | | | 906.41 |
| | Sand bedding | | | | | | 1706.29 |
| | Pipe Volume | | | | | | |
| | 110 | | 6723.00 | | | | 63.86 |
| | 160 | | 576.00 | | | | 11.58 |
| | 180 | | 0.00 | | | | 0.00 |
| | 200 | | 5367.00 | | | | 168.52 |
| | 250 | | 5352.00 | | | | 262.58 |
| | 315 | | 3066.00 | | | | 238.82 |
| | 355 | | 1085.00 | | | | 107.34 |
| | 400 | | 145.00 | | | | 18.21 |
| | 450 | | 0.00 | | | | 0,00 |
| | 500 | | 0.00 | | | | 0.00 |
| | 560 | | 0.00 | | | | 0.00 |
| | 630 | | 0.00 | | | | 0.00 |
| | 710 | | 0.00 | | | | 0.00 |
| | | | | | | | |
| | Total quantity of Pipe volume | | | Total | | Cum | 870.9 |
| | Total Quantity to be deducted | | | | | | 4660. |
| | Net quantity of filling | | | | | | 11046. |
| 13 | with bitumen of S-65 grade and 25mm thick aspalt concrete with S-35 grade of bitumen including compaction by vibratory roller of all layers and providing and applying tack coat of 50 kg/100 m2 on black top surface and bitumen contained of 250 kg/100 m2 for BBM surface and disposal of surplus clay/soil etc. complete. pipeline trenches of various | | | | | | |
| | diameter of pipes etc complete. | | | | | | |
| | 110 | 1.0 | 6723.00 | 1.00 | | | 6723. |
| | 160 | 1.0 | 576.00 | 1.00 | | | 576. |
| | 180 | 1.0 | 0.00 | 1.00 | | | 0. |
| | 200 | 1.0 | 5367.00 | 1.00 | | | 5367. |
| | 250 | 1.0 | 5352.00 | 1.00 | | | 5352 |
| | 315 | 1.0 | 3066.00 | 1.00 | | _ | 3066. |
| | 355 | 1.0 | 1085.00 | 1.00 | | | 1085 |
| | 400 | 1.0 | 145.00 | 1.00 | | | 145 |
| | 450 | 1.0 | 0.00 | 1.00 | | | 0 |
| | 500 | 1.0 | 0.00 | 1.00 | | | 0 |
| | 560 | 1.0 | 0.00 | 1.00 | | | 0 |
| | 630 | 1.0 | 0.00 | 1.00 | | | 0 |
| | | | -1 | | | | |
| | 710 | 1.0 | 0.00 | 1.00 | | Sq.m. | 22314.0 |

Navi Mumbai Municipal Corporation

Recycled Water System

ABSTRACT

Part-1 -Pipeline Trench Works For Distribution System of Koparkhairane MIDC

| m No. | Ref | Qty | Description of Item | Unit | Rate (Rs.) | AW 10% | Final rate (Rs.) | Amount (Rs) |
|-------|--|----------|---|-------------|---------------|--------|---------------------|-------------|
| 1 | MJP 16-17 It. No. | | Excavation Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as | | | | | |
| | 1 Pg. no. 39 | | directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | | | | | |
| | | 5497.67 | Lift 0 to 1.5 M | Cum | 142.00 | 5% | 149.10 | 819702.38 |
| 2 | MJP 16-17 lt. No. 2 Pg. no. 39 | 2356.14 | Lift 1.5 to 3 M Excavation for foundation/ pipe trenches by all means in hard murun, including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | Cum | 156.00 | 5% | 163.80 | 385936.33 |
| | | 2513.22 | Lift 0 to 1.5 M | Cum | 166.00 | 5% | 174.30 | 438054.23 |
| | | 3769.83 | Lift 1.5 to 3 M | Cum | 180.00 | 5% | 189.00 | 712497.84 |
| 3 | MJP 16-17 It. No. 5 Pg. no. 39 | | Excavation for foundation/ pipe trenches by all means in soft rock and old cement & lime masonry foundation asphalt road removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | Cum | | | | |
| | | 314.15 | Lift 0 to 1.5 M | Cum | 473.00 | 5% | 496.65 | 156023.83 |
| | | 1256.61 | Lift 1.5 to 3 M | Cum | 494.00 | 5% | 518.70 | 651803.58 |
| 4 | MJP 16-17 lt. No. 20 Pg. no. 43 | 906.41 | Rubble Soling: Providing Dry Trap Granite quartizite queiss, rubble stone soling in 15 cm to 20 cm thick layer including hand packing and compacting royalty charges etc.complete | Cum | 1014.00 | 5% | 1064.70 | 965057.79 |
| 5 | MJP 16-17 It. No. 21Pg. no. 43 | 1706.29 | Bedding Providing and filling sand boxing in pipeline or for foundation with sand of approved quality including watering and compaction intial lead upto 5 km etc. complete | Cum | 973.00 | 5% | 1021.65 | 1743229.39 |
| 6 | MJP 16-17 It. No. 47 Pg. no. 1 b | 1177.28 | PCC Providing & laying in situ following grades of cement concrete of trap / granite metal for foundation & bedding including dewatering formwork curing compacting finishing etc. complete M-150 | Cum | 4457.00 | 5% | 5358.18 | 6308059.68 |
| 7 | MJP 16-17 Statement VI | 7118.83 | Disposal of Earth: Disposal of excavated material including loading and unloading, lead upto 10 km etc. Complete | Cum | 411.16 | 5% | 431.72 | 3073325.49 |
| 8 | MJP 16-17 lt. No. 16 Pg. no. 42 | 36000.00 | Dewatering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | BHP/ Hr. | 62.00 | 5% | 65.10 | 2343600.00 |
| 9 | MJP 16-17 lt. No. 10 Pg. no. 54 | 13.02 | RCC Thrust Block: Providing and laying insitu Cement Concrete of trap/granaite/quartzite/gneiss metal for RCC work in foundation like raft,grillage,strip foundation and footing of RCC columns and steel,stanchions including normal dewatering ,plywood form work, bully/steel prop-ups, compaction, finishing and curing etc. complete(by weigh batching and mix design for M-300 only. use L&T, A.C.C. Ambuja, Birla Gold, ManikGad, Rajashree, etc. cement is permitted (Excluding M.S. of Tor reinforcement) M-250 for Anchor Block. | Cum | 5999.00 | 51/4 | 6939.59 | 90358.72 |
| 10 | MJP 16-17 lt. No. 8 Pg. no. 51 | 5.2 | Reinforcement: Providing and Fixing in position steel bar reinforcement of Anchor block etc.as per detailed design drawing and shedules including cutting bending hooking the bars binding with wires or tack welding and supporting as required etc. completet (including cost of binding wire) | MT | 51749.00 | 5% | 54336.45 | 283000.53 |
| 1.1 | MJP 16-17 Sect I, 1 Item No 1, pg. no. 343 | | Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonr in C.M. 1:5 Proportion precast RCC frame and cover, etc complete as directed by Engineer-in-charge | у | | | | |

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| ltem No. | Ref | Qty | Description of Item | Unit | Rate (Rs.) | AW 10% | Final rate (Rs.) | Amount (Rs) |
|----------|---------------------------------|-----------|---|------|---------------|--------|---------------------|--------------|
| (a) | | I . | As above of 95*45 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 7,719.00 | 5% | 8104.95 | 8104.95 |
| (b) | | 45 | As above of 90*60 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 8,400.00 | 5% | 8820.00 | 396900.00 |
| (c) | | 58 | As above of 90*90 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 10,066.00 | 5% | 10569.30 | 613019.40 |
| 12 | | | FILLING IN TRENCHES | | | | | |
| 12 | MJP 16-17 It. No. 17 Pg. no. 43 | 11,046.74 | Refilling the trenches with available exeaveted stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging etc. complete | RMT | 64.00 | 5% | 67.20 | 742340.94 |
| | | | | | | | | |
| 13 | RA | 22,314.00 | Reinstatment of road by excavating the potholes in rectangular shape and filling of potholes by one layers of soling 230 mm thick, one layer of 80 mm trap metal of 200mm thick, one layer of 40 mm trap metal of 200mm thick including suppling and spreding of stonedust, watering compaction and 75mm thick bituminous bound macadam with cold emulsion and bituminous macadam of 50 mm thick with bitumen of S-65 grade and 25mm thick aspalt concrete with S-35 grade of bitumen including compaction by vibratory roller of all layers and providing and applying tack coat of 50 kg/100 m2 on black top surface and bitumen contained of 250 kg/100 m2 for BBM surface and disposal of surplus clay/soil etc. complete. pipeline trenches of various diameter of pipes etc complete. | Sqm | 1959.00 | | | 43,713,126.0 |
| | | DADTI | Na Control D | - | | | | (2.444.44 |
| | 1 | PART-I | Net Cost (in Rs) | | | 1 | | 63,444,14 |

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| | | | NAVI MUMBAI MU | | | MIL | /14 | | |
|------------|-----------------------|--------------------------|---|-------------------------|--|--|--------------|----------------|-------------|
| | | | | | ER SYSTEM | | | | |
| | | | Rat | e ana | lysis | | | | |
| | | | surface with contractor's murum in | n 15 to 20 | | atering co | | tc complete | |
| | Earth fillin | g MJP 16- | 17, Item No 19, Pg-43 | | MJP 16-17, Item No 19, Pg-43 | | = | 723.00 | Cum |
| [| Add 5 % f | or Corpora | ation Area | | | | = | 36 15 | |
| | | | | | | | | | |
| - | Add lead c | narges for | Murum | 1.00 | 0 00 | | = | 0.00 | |
| ŀ | | | TOTAL GITT | 1.00 | 0 00 | | - | 759 15 | |
| | | | | | | · | - | | |
| Ì | | | | | | Total | = | 759.15 | |
| | | | | | | Say | = | 759 15 | Cum |
| | | | | L | | L | | | |
| R.A. No. 2 | complete. | dry trap ru | bble stone solling in 15 cm to 20c | m layers | including hand packin | ig and con | npacting, ro | yalty charges | etc |
| | | ate as per | MJP 16-17, Page No. 43 Item No 20 | | MJP 16-17, Page No. 43 Item No 20 | TO THE PARTY OF TH | = | 1014.00 | Cum |
| | Add 5 % 1 | or Corpora | ation Area | ! ! | | | = | 50.7 | |
| | 0 /0 | S. Sorpora | | | | | 1 | 2.5 | |
| | Add lead c | harges for | | | | | | | |
| | | | Hand Broken Metal | 1,000 | 0.00 | | = = | 0.00 | |
| | | | Sand | 0.000 | 1507.40 | 1 | = | 0.00 | |
| | | | | | - | - | 1 | 1064 70 | |
| | | | | - | | Total | = | 1064.70 | |
| | | | | | | Say | = | 1064 70 | Cum |
| | | | | | | 1, | 1 | | |
| R.A. No.3 | Providin | g and layi | ng in situ, fallowing grade of C | .C. of tra | p/granite/gneiss me | etal for fo | undation a | ind bedding i | ncluding |
| | | | ork,compacting and curing,fin | | | | | | |
| | PCC Rat | e as per M | JP 16-17, Item No1, Pg-47 | | MJP 16-17, Item No1, Pg-47 | | = | 4457.00 | Cum |
| | Add 5 % | for Corpor | ation Area | | 1101,1 9-47 | 1 | = | 222 85 | |
| | | | | | | | | | |
| | Add lead of | harges for | | | | | | | |
| | | | Sand | 0.45 | 1507.40 | - | = | 678 33 | |
| | | | crushed metal (40 mm) | 0 52 | 0.00 | - | = | 0.00 | |
| | | | crushed metal (20 mm,10 mm) | 0 33 | 0.00 | | 1- | 5358 18 | |
| | | | | 1 | | Total | = | 5358.18 | |
| Ì | | | | 1 | | Say | = | 5358 18 | Cum |
| | | | | | | 1 | | | 1 |
| R.A. No.4 | Providin | g and filli | ng in the foundation trenches | with sand | d of approved qualit | y includi | ng waterin | g compaction | ı. Etc |
| i | Sand Be | dding Rate | as per MJP 16-17 Item No 21, | Pg-43 | MJP 16-17 Item | | = | 973.00 | Cum |
| | | | | 1 | No 21, Pg-43 | | | 1 | |
| | Add 5 % | tor Corpor | ration Area | 1 | | | = | 48.65 | |
| | Add lead | harges for | | + | | | - | | |
| | 1000 | 350 101 | Sand | 1.00 | 1507,40 | 1 | = | 1507.40 | |
| | | | | | | 1 | | 2529.05 | 1 |
| | | | | | | Total | = | 2529.048261 | |
| | | | | | | Say | = | 2529 05 | Cum |
| D 4 11 - | | | | | | | | | |
| K.A. No.5 | grillage, & curing | strip found etc, comp | g insitu Cement concrete of tra ation and footing of RCC column lete (By wigh batching and mix d ee etc cement is permitted) (excl | ns and ste esign for | el stanchions includia M-250 and M-300 on | ng dewate ly.) Use o | ering, formv | vork, compacti | on finishii |
| | RCC worl | (MJP 16-1 | 7, Item No 2 c. Pg-48 | | MJP 16-17, Item No 2 c, Pg-48 | | = | 5999.00 | Cum |
| | Add 5 % | for Corpo | ration Area | | 10 2 0, 1 9 70 | | = | 299,95 | |
| | | charges for | | | | | | | |
| | | | Sand | 0.425 | 1507.40 | | = | 640 64 | |
| | | | crushed metal (20 mm) | 0.57 | 0 00 | | = | 0.00 | - |
| | | - | crushed metal (10 mm) | 0.28 | 0.00 | | | 0.00 | - |
| | | | | | | Total | = | 6939.594261 | - |
| | | - | | + | | Say | = | 6939.59 | Cum |
| 1 | | | + | + | 1 | + - | + | + | + |

8 Of 9

| | | NAVI | MUMBAI M | NAVI MUMBAI MUNICIPAL CORPORATION | ORATION | | | |
|---------|---------------|-----------------------|----------------|-----------------------------------|--------------|--|-------------------------------|----------|
| | | | Recyc | Recycle Water System | | | | |
| | | | | LEAD CHART | | | | |
| Sr. No. | Material | Source | Lead in Kms | Lead Charges 2016-17 | Initial Lead | Initial Lead Net Lead Charges 16- Charges 16- | Net Lead Charges 16- 17 | Unit |
| | Sand | Ambet | 160.00 | 1830.07 | 5 | 150.57 | 1679.50 | Cum |
| 2 | Crushed Metal | Local Stone Quarry | 2 | 150.57 | r. | 150.57 | 0.00 | Cum |
| m | Soling Stone | Local Stone Quarry | 5 | 184.21 | ro | 184.21 | 0.00 | Cum |
| | | | | | | | | |
| 4 | Murum / Earth | Local Stone Quarry | ಬ | 180.38 | IJ | 180.38 | 0.00 | Cum |
| | | | | | : | | | |
| 2 | Brick | | 5 | 247.37 | 5 | 247.37 | 0.00 | 1000 no. |

Lead Chart



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| | | | Navi Mumbai Municipal Corp Recycled Water Syster | | | | |
|-------------|---------|--------------------------------------|---|-------------|------------|---------------------|----------------------|
| | | - | Name of Work :- Distribution System of | | OC area. | | |
| | | | ABSTRACT | | | | |
| Item No. | Qty | DSR Ref. | Description of Item | Unit | Basic Rate | Final Rate (Rs.) | Total Amount (Rs) |
| | | | Add 5% area wightage for corpora | ation area. | | | 1 |
| 1 | 1268.15 | MJP 16-17, Item No 2, Pg-48+RA | RCC Thrust Block: Providing and laying insitu Cement Concrete of trap/granaite/quartzite/gneiss metal for RCC work in foundation like raft,grillage,strip foundation and footing of RCC columns and steel,stanchions including normal dewatering ,plywood form work, bully/ steel prop-ups, compaction, finishing and curing etc. complete(by weigh batching and mix design for M-250 and M-300 only. use L&T, A.C.C. Ambuja, Birla Gold, ManikGad, Rajashree, etc. cement is permitted (Excluding M.S. of Tor reinforcement) M-250 for Anchor Block. | Cum | 0.00 | 7012.74 | 8893213.80 |
| | | | | | | | |
| 2 | 50.73 | MJP 16-17, Ilem No 8, Pg-52 | Providing and fixing in position steel bar reinforcement of various daimeters for RCC piles caps ,footing foundations, slabs, beams, colums,canopies,staircases,newls ,chajjas lintels,pardies,copings ,fins arches ,etc. as per detailed designs,drawings and schedules including cutting bending ,hooking the bars, binding with wires or tack welding and supporting as required etc.complete. (including cost of binding wire) as directed by the Engineer in charge. | MT | 51749.00 | 54336.45 | 2756274.82 |
| 3 | | MJP16-17, Item No 9) b), Pg-53 | Providing fusion bonded epoxy coating to reinforcement bars as per IS-13620-993 specification for a thickness of 175mm(+or-50) microns including extra cost on account of careful handling, extra cost on account of using PVC coated binding wire instead of GI wire, extra cost on account of touch-up material supplied by coating agency and repair work extra cost on account of transportation to & fro from steel yard at kalamboli to plant at Daman and Plant at Daman to work site by trailer, loading, unloading, including all taxes (Central & Local), etc. complete. as directed by the Engineer in charge. | | | | |
| | 50.73 | | 1) For 8mm to 20mm dia | MT | 15772.00 | 16560.60 | 840054.23 |
| 4 | | | H.D.P.E Pipes PE-100 PN 8 | | | | |
| | | MJP16-17, Item No X 1) b), Pg-176 | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | | | | |

| m D. | Qty | DSR Ref. | Description of Item | Unit | Basic Rate | Final Rate (Rs.) | Total Amount (Rs) |
|-----------|----------|--------------------------------|---|-------------|------------|---------------------|----------------------|
| | | | HDPE Pipes outer Diameter in mm | | | | |
| | 6410.00 | | 110 | RMT | 295.00 | 295.00 | 1890950.00 |
| | 1394.00 | ĺ | 160 | RMT | 666.00 | 666.00 | 928404.00 |
| | 0.00 | | 180 | RMT | 840.00 | 840.00 | 0.00 |
| - | 3313.00 | | 200 | RMT | 988.00 | 988.00 | 3273244.00 |
| | | | | | | | |
| | 5879.00 | | 250 | RMT | 1565.00 | 1565.00 | 9200635.00 |
| | 7200.00 | | 315 | RMT | 2483.00 | 2483.00 | 17877600.00 |
| | 5318.00 | | 355 | RMT | 3142.00 | 3142.00 | 16709156.00 |
| | 774.00 | | 400 | RMT | 4127.00 | 4127.00 | 3194298.00 |
| | 564.00 | | 450 | RMT | 5518.00 | 5518.00 | 3112152.00 |
| | | | | RMT | 6807.00 | 6807.00 | 183789.00 |
| | 27.00 | | 500 | | | | |
| | 0.00 | | 560 | RMT | 8543.00 | 8543.00 | 0.00 |
| | 0.00 | | 630 | RMT | 10756.00 | 10756.00 | 0.00 |
| | 0.00 | | 710 | RMT | 13629.00 | 13629.00 | 0.00 |
| | | | | | | | |
| 5 | | MJP16-17, Item No | Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | | | |
| | | | UDDE Dinas outer Diemeter in ann | | | | |
| | 0.110.00 | | HDPE Pipes outer Diameter in mm | DAAT | F7.00 | 50.05 | 202022 50 |
| | 6410.00 | | 110 | RMT | 57.00 | 59.85 | 383638.50 |
| | 1394.00 | | 160 | RMT | 93.00 | 97.65 | 136124.10 |
| | 0.00 | | 180 | RMT | 93.00 | 97.65 | 0.00 |
| | 3313.00 | 1 | 200 | RMT | 103.00 | 108.15 | 358300.95 |
| | 5879.00 | | 250 | RMT | 137.00 | 143.85 | 845694.15 |
| | | | | | | | |
| | 7200.00 | | 315 | RMT | 186.00 | 195.30 | 1406160.00 |
| | 5318.00 | | 355 | RMT | 203.00 | 213.15 | 1133531.70 |
| | 774.00 | | 400 | RMT | 206.00 | 216.30 | 167416.20 |
| | 564.00 | | 450 | RMT | 232.00 | 243.60 | 137390.40 |
| | | | | | | | |
| | 27.00 | | 500 | RMT | 299.00 | 313.95 | 8476.65 |
| | 0.00 | | 560 | RMT | 336.00 | 352.80 | 0.00 |
| | 0.00 | | 630 | RMT | 377.00 | 395.85 | 0.00 |
| | 0.00 | | 710 | RMT | 377.00 | 395.85 | 0.00 |
| | 0.00 | | 7.10 | 1 (1411) | 077.00 | 000.00 | 0.00 |
| 6 | 15439.5 | MJP16-17, Item No 16, Pg-42 | Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by engineer-in-charge (including cost of machinery,labour, fuel) etc. complete. as directed by the Engineer in charge. | BHP/ Hr. | 62.00 | 65.10 | 1005111.45 |
| 7 | | | HDPE fittings | | | | |
| | | | Providing and supply of Electro Fusion Fittings in accordance with BS EN 12201: Part-3 suitable for drinking water with in black/blue colour manufactured from compounded PE80/PE100 virgin polymer | | | | |
| | | | and compatible with PE80/PE100 pipes, in pressure rating SDR11 with min PN12.5 rated for water application and shall be inclusive of all cost such as testing, all taxes related to central, state, and municipal inspection charges, transportation upto site, transite insurance, loading, unloading, stacking etc. complete. | | | | |

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| tem No. | Qty | DSR Ref. | Description of Item | Unit | Basic Rate | Final Rate (Rs.) | Total Amount (Rs) |
|------------|------|--|---|--------------|--------------------|---------------------|----------------------|
| 8.0 | | | PIPE APPURTANANCES SUPPLYING | | | | |
| | | | Providing Double flange sluice valve | | | | |
| 1 | | | confirming for IS 2906/14846/ including worn | | | | |
| | | M ID16-17 Itam No. | - | | | | |
| | | 2 AIII.PQ-211 | gear arrangements as per test pressure | | | | |
| | | | stainless steel spindle, caps including all | | | | |
| | | | taxes transportation etc. complete | | | | |
| İ | | | sluice valve & Scour Valve (PN-1 Without | | | | |
| | | | bypass) | | | | |
| a | 4.00 | | 80 mm for Scouring purpose | No. | 4,834.00 | 4834.00 | 19336.00 |
| b | 7.00 | | 100 mm for control purpose | No. | 6438.00 6438.00 | 6438.00 6438.00 | 45066.00 |
| c | 2.00 | | 100 mm for Scouring purpose 150 mm for control purpose | No. | 9655.00 | 9655.00 | 6438.00 19310.00 |
| e | 5.00 | | 150 mm for Scouring purpose | No. | 9655.00 | 9655.00 | 48275.00 |
| f | 4.00 | | 200 mm for control purpose | No. | 17501.00 | 17501.00 | 70004.00 |
| g | 7.00 | | 200 mm for Scouring purpose | No. | 17,501.00 | 17501.00 | 122507.00 |
| h | 6.00 | | 250 mm for control purpose | No. | 27059.00 | 27059.00 | 162354.00 |
| i | 1.00 | | 250 mm for Scouring purpose | No. | 27,059.00 | 27059.00 | 27059.00 |
| il | 8.00 | | 300 mm for control purpose | No. | 34353.00 | 34353.00 | 274824.00 |
| k | 1.00 | | 300 mm for Scouring purpose | No. | 34,353.00 | 34353.00 | 34353.00 |
| - 1 | 1.00 | | 350 mm for Scouring purpose | No. | 50,535.00 | 50535.00 | 50535.00 |
| m | 0.00 | Ì | 400 mm for Scouring purpose | No. | 66,533.00 | 66533.00 | 0.00 |
| n | 0.00 | | 450 mm for Scouring purpose | No. | 71,530.00 | 71530.00 | 0.00 |
| 9.0 | | MJP16-17, Item No. 3 XIII , Pg-215 | having body, disc and end cover in graded cast iron to IS-210 Gr.CF 200 generally confirming in to IS-13095-1991, Synthetic rubber faced ring secured on disc by retaining ring with stainless steel screw stub shaft of stainless steel riding in teflon bearing excluding C.C. foundation /structural steel support. | | | | = |
| | | | i) Butterfly Valves PN - 1 (WithBypass) (Diar | neter in mm) | | | |
| f | 9.00 | | 350 | No. | 44727.00 | 44727.00 | 402543.00 |
| g | 0.00 | | 400 | No. | 55490.00 | 55490.00 | 0.00 |
| h | 0.00 | | 450 | No. | 64770.00 | 64770.00 | 0.00 |
| i | 0.00 | | 500 | No. | 69967.00 | 69967.00 | 0.00 |
| 10.0 | | MJP16-17, Sec XIII, Item No-5 a Pg-218 | Air Valves Providing and supplying Air Valves as per IS 14845-2000 and MJP's standard specifications of approved make and quality of following diameters including all taxes (central and local), railway freight, inspection charges, unloading from railway wagons,loading into trucks, transportation upto departmental stores / site, unloading and stacking etc. complete. | | | | |
| | | | | | 1 | 1 | |
| а | 7.00 | | Air Valve Single Ball Flanged/Screwed Type-PN-1(Diameter in mm) | No. | 1193.00 | 1193.00 | 8351.00 |

| Air Valve | Item No. | Qty | DSR Ref. | Description of Item | Unit | Basic Rate | Final Rate (Rs.) | Total Amount (Rs) |
|--|-------------|------|---|---|------|--------------------|---------------------|----------------------|
| Diameter in mm) | 11.0 | | MJP16-17, Item No- 6 a,Sec XIII , Pg- 219 | Providing and supplying Air Valves as per IS-10845 and MJP's standard specifications double orifice type combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including all taxes (Central and local), insurance, third party inspection charges, loading, unloding, transporta-toin upto | | | | |
| 2.00 | | | | | | | | |
| Dec 0.00 | | 2.00 | | | No | 5510.00 | 5510.00 | 11020.00 |
| Table Tabl | | | | | | | | + |
| 12.0 | | | | | | | | |
| 12.0 | | | | | | | | |
| Air Valve Double Ball Flanged-Type-PN-1(Diameter in mm) | 12.0 | | 7 a, Sec XIII, Pg- | specifications double orifice type combined with isolating sluice valve, mounted in horzontal position and operated by wheel gearing, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including all taxes (Central and local), insurance, third party inspection charges, loading, unloading, transporta-tion upto departmental storer / | | | | |
| Diameter in mm) | | | | | | | | |
| Description | | | | | | | | |
| C 0.00 200 No. 28461.00 28461.00 0.00 | а | 8.00 | | 100 | No. | | | |
| PIPE APPURTÁNANCES LAYING Lowering laying and jointing in position D.I. D/F Reflux valves, Butterfly velves and sluice valves including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete. (Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 4,XIII , Pg-217 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 4,XIII , Pg-217 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 4,XIII , Pg-217 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 4,XIII , Pg-217 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 5,884.20 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 5,884.20 Source Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) 5,884.20 Source Rate for all class of valve) Sluice Valve & Scouring purpose No. 1831.00 1922.55 13457.85 Source Rate for all class of valve) Sluice Valve & Scouring purpose No. 1831.00 1922.55 13457.85 Source Rate for all class of valve) Span for Scouring purpose No. 2878.00 3021.90 6043.80 Source Span for Scouring purpose No. 2878.00 3021.90 15109.50 Source Span for Scouring purpose No. 2994.00 3143.70 12574.80 Span for Scouring purpose No. 2994.00 3143.70 12574.80 Span for Scouring purpose No. 3901.00 4096.05 24576.30 Span for Scouring purpose No. 3901.00 4096.05 24576.30 Span for Scouring purpose No. 4047.00 4249.35 33994.80 Span for Scouring purpose No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 3394.80 No. 4047.00 4249.35 326.35 5236.35 | | | | | | | | |
| Lowering laying and jointing in position D.I. D/F Reflux valves, Butterfly velves and sluice valves including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete. (Rate for all class of valve) Sluice Valve & Scour Valve (Dia in mm) | С | 0.00 | | 200 | No. | 28461.00 | 28461.00 | 0.00 |
| a 4.00 80 mm for Scouring purpose No. 1401.00 1471.05 5884.20 b 7.00 100 mm for control purpose No. 1831.00 1922.55 13457.85 c 1.00 100 mm for Scouring purpose No. 1831.00 1922.55 1922.55 d 2.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 f 4.00 200 mm for Scouring purpose No. 2878.00 3021.90 15109.50 f 4.00 200 mm for Scouring purpose No. 2994.00 3143.70 12574.80 g 7.00 250 mm for Scouring purpose No. 3901.00 4096.05 24576.30 i | 13 | | | Lowering laying and jointing in position D.I. D/F Reflux valves, Butterfly velves and sluice valves including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete. (| | | | |
| a 4.00 80 mm for Scouring purpose No. 1401.00 1471.05 5884.20 b 7.00 100 mm for control purpose No. 1831.00 1922.55 13457.85 c 1.00 100 mm for Scouring purpose No. 1831.00 1922.55 1922.55 d 2.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 6043.80 f 4.00 200 mm for Scouring purpose No. 2878.00 3021.90 15109.50 f 4.00 200 mm for Scouring purpose No. 2994.00 3143.70 12574.80 g 7.00 250 mm for Scouring purpose No. 3901.00 4096.05 24576.30 i | | | | Sluice Valve & Scour Valve (Dia in mm) | | | | |
| c 1.00 100 mm for Scouring purpose No. 1831.00 1922.55 1922.55 d 2.00 150 mm for control purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 15109.50 f 4.00 200 mm for Scouring purpose No. 2994.00 3143.70 12574.80 g 7.00 200 mm for Scouring purpose No. 2994.00 3143.70 22005.90 h 6.00 250 mm for Scouring purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for Scouring purpose No. 4047.00 4249.35 33994.80 k 1.00 350 mm for Scouring purpose No. 4047.00 4249.35 4249.35 m 0.00 400 mm for Scouring purpose No. 4077.00 6317.85 0.00 n | a | | | 80 mm for Scouring purpose | | | | |
| d 2.00 150 mm for control purpose No. 2878.00 3021.90 6043.80 e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 15109.50 f 4.00 200 mm for Scouring purpose No. 2994.00 3143.70 12574.80 g 7.00 200 mm for Scouring purpose No. 2994.00 3143.70 22005.90 h 6.00 250 mm for Scouring purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for Scouring purpose No. 4047.00 4249.35 33994.80 k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 | | | | | | | | |
| e 5.00 150 mm for Scouring purpose No. 2878.00 3021.90 15109.50 f 4.00 200 mm for control purpose No. 2994.00 3143.70 12574.80 g 7.00 200 mm for Scouring purpose No. 2994.00 3143.70 22005.90 h 6.00 250 mm for control purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for Scouring purpose No. 4047.00 4249.35 33994.80 k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | | | | | | | | |
| f 4.00 200 mm for control purpose No. 2994.00 3143.70 12574.80 g 7.00 200 mm for Scouring purpose No. 2994.00 3143.70 22005.90 h 6.00 250 mm for control purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for Scouring purpose No. 4047.00 4249.35 33994.80 k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | | | | | | | | |
| g 7.00 200 mm for Scouring purpose No. 2994.00 3143.70 22005.90 h 6.00 250 mm for control purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for Scouring purpose No. 4047.00 4249.35 33994.80 k 1.00 350 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | | | | | | | | |
| h 6.00 250 mm for control purpose No. 3901.00 4096.05 24576.30 i 1.00 250 mm for Scouring purpose No. 3901.00 4096.05 4096.05 j 8.00 300 mm for control purpose No. 4047.00 4249.35 33994.80 k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 400 mm for Scouring purpose No. 6017.00 6317.85 0.00 n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) a 9.00 350 No. 4987.00 5236.35 47127.15 | | | | | | | | |
| j 8.00 300 mm for control purpose No. 4047.00 4249.35 33994.80 k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 400 mm for Scouring purpose No. 6017.00 6317.85 0.00 n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | | 6.00 | | 250 mm for control purpose | No. | 3901.00 | 4096.05 | |
| k 1.00 300 mm for Scouring purpose No. 4047.00 4249.35 4249.35 I 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 400 mm for Scouring purpose No. 6017.00 6317.85 0.00 n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) a 9.00 350 No. 4987.00 5236.35 47127.15 | | 1.00 | | | - | | | |
| 1 1.00 350 mm for Scouring purpose No. 4987.00 5236.35 5236.35 m 0.00 400 mm for Scouring purpose No. 6017.00 6317.85 0.00 n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) a 9.00 350 No. 4987.00 5236.35 47127.15 | i_ | | | | | | | |
| m 0.00 400 mm for Scouring purpose No. 6017.00 6317.85 0.00 n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | k | | | | | | | |
| n 0.00 450 mm for Scouring purpose No. 7159.00 7516.95 0.00 14.0 Butterfly Valve(diameter in mm) No. 4987.00 5236.35 47127.15 | - | | | 400 mm for Scouring purpose | | | | |
| 14.0 Butterfly Valve(diameter in mm) a 9.00 350 No. 4987.00 5236.35 47127.15 | - | | | | | | | |
| a 9.00 No. 4987.00 5236.35 47127.15 | 11 | 0.00 | | 100 mm for occurring purpose | 110. | 7.33.00 | 10.00.00 | 0.50 |
| 0 0.00 | 14.0 | | | Butterfly Valve(diameter in mm) | | | | |
| b 0.00 | | 9.00 | | 350 400 | No. | 4987.00 6017.00 | 5236.35 6317.85 | 47127.15 0.00 |

)

| Item No. | Qty | DSR Ref. | Description of Item | Unit | Basic Rate | Final Rate (Rs.) | Total Amount (Rs) |
|-------------|-------|---|---|--------------|------------|---------------------|-------------------|
| С | 0.00 | | 450 | No. | 7159.00 | 7516.95 | 0.00 |
| d | 0.00 | | 500 | No. | 7413.00 | 7783.65 | 0.00 |
| 15 | | | Lowering, laying and fixing in proper alignment and position all types of C.I. air valves as directed by Engineer-in-charge including cost of conveyance from stores to site of work, cost of all material and giving satisfactory hydraulic testing, etc. complete. (for all class of valves) | | | | |
| | | MJP16-17, Item No- 10 a,SecXIII , Pg- 223 | Air Valves Single ball - PN - 1 (Diameter in mm) | | | | |
| а | 7.00 | | 40 | No. | 208.00 | 218.40 | 1528.80 |
| | | MJP16-17, Item No- 10 b,SecXIII , Pg- 223 | Air Valves Double ball - PN - 1 (Diameter in mm) | | | | |
| b | 2.00 | | 50 | No. | 268.00 | 281.40 | 562.80 |
| С | 0.00 | | 65 | No. | 309.00 | 324.45 | 0.00 |
| d | 10.00 | | 80 | No. | 369.00 | 387.45 | 3874.50 |
| е | 8.00 | | 100 | No. | 390.00 | 409.50 | 3276.00 |
| f | 9.00 | | 150 | No. | 587.00 | 616.35 | 5547.15 |
| 9 | 0.00 | | 200 | No. | 646.00 | 678.30 | 0.00 |
| 16 | | As Per RA | Utility Shifting | | | | 5,275,081.98 |
| 17.00 | 2.00 | MJP16-17, Item No 16,XVII, Pg-287 | Supplying, transporting, the S.P. fire hydrants including duck foot bend, S.V. and S.V. road box, painting the hydrant, fixing the saddle piece, supplying, and laying required length of C.I. pipeline and jointing the same spun yarn, molten lead including caulking, fixing the S.V. road box in one brick masonry chamber in 1:5 C.M. with 12 mm thick 1:3 cement plaster both inside and outside on 1:3:6 C.C. 150 mm thick etc. complete as specified and directed. [As per I.S. 900/1965 Revised] | NO | 11461 | 12034.05 | 24068.10 |
| 18.00 | 0.00 | Quotion | Drip irrigation | km | 945417.40 | 945417.40 | 0.00 |
| 19.00 | 0.00 | Quotion | Sprinkler irrigation | Sqrm | 82.57 | 82.57 | 0.00 |
| | | | | · | N | let Cost (in Rs | 84372363 |
| | | 1 | Add 1% cess on Labour | welfare (For | | | 754791 |
| | | <u> </u> | Add 1% cess on Labour at | | | | 143274 |
| | 1 | + | Total | | | | 85270429 |

NAVI MUMBAI MUNICIPAL CORPORATION

RECYCLE WATER SYSTEM

MEASUREMENT SHEET

| ο. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|----|--|-------|-------------|------|------|--------|------|-----------|
| - | Pipe Diameter | | | | | | | |
| | 110 | 1.0 | 6410 | | | | | |
| | 160 | 1.0 | 1394 | | | | | |
| | 180 | 1.0 | 0 | | | | | |
| | 200 | 1.0 | 3313 | | | | | |
| | 250 | 1.0 | 5879 | | | | | |
| | 315 | 1.0 | 7200 | | | | | |
| | 355 | 1.0 | 5318 | | | | | |
| | 400 | 1.0 | 774 | | | | | |
| | 450 | 1.0 | 564 | | | | | |
| | 500 | 1.0 | 27 | | | | | |
| | 560 | 1.0 | 0 | | | | | |
| | 630 | 1.0 | 0 | | | | | |
| | 710 | 1.0 | 0 | | | | | |
| | | | | | | | | |
| | | Total | 30879.00 | | | | | |
| | | | | | | | | |
| 1 | Providing and laying insitu Cement Concrete of trap/granaite/quartzite/gneiss metal for RCC work in foundation like raft,grillage,strip foundation and footing of RCC columns and steel,stanchions including normal dewatering plywood form work, bully/ steel prop-ups, compaction, finishing and curing etc. complete(by weigh batching and mix design for M-250 and M-300 only. use L&T, A.C.C. Ambuja, Birla Gold, ManikGad, Rajashree, etc. cement is permitted (Excluding M.S. of Tor reinforcement) M-250 for Anchor Block | | | | | | | |
| | 1 x 0.6 x 0.6 m block | 62.00 | 1.00 | 0.60 | 0.60 | 22.32 | | |
| | R C C for pipe support | 0440 | ļ | 1 22 | 1 | 205.25 | | |
| | 110 | 6410 | |).32 | | 205.25 | | |
| | 160 | 1394 | |).32 | | 44.64 | | |
| | 180 | 0 | + |).34 | | 0.00 | | |
| | 200 | 3313 | |).34 | | 112.64 | - | |
| | 250 | 5879 | |).41 | | 241.04 | | |
| | 315 | 7200 | + | 0.41 | | 295.20 | | _ |
| | 355 | 5318 | |).49 | | 260.58 | | |
| | 400 | 774 | | 0.56 | | 43.34 | - | |
| | 450 | 564 | | 0.73 | | 41.17 | | |
| | 500 | 27 | | 0.73 | | 1.97 | - | |
| | 560 | 0 | | 0.73 | | 0.00 | _ | |
| | 710 | 0 | | 0.73 | | 0.00 | - | |
| | 17311 | 0 | 1 (| 0.85 | | 0.00 | 1 | 1 |

0

0

NMMC

 Θ

| No. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty | |
|--|--|-----|--------------------|--------------|-------|--------------------|------|-------------|-----|
| | Reinforcement: Providing and Fixing in | | | | | | | - | |
| 1 | position steel bar reinforcement of Anchor | | | | | | | | |
| | block etc.as per detailed design drawing and | | | | | | | | |
| | shedules including cutting bending hooking | | | | | | | | |
| | the bars binding with wires or tack welding | | | | | | | | |
| | and supporting as required etc. completet | | | | | | | | |
| | (including cost of binding wire). | | | | | | | | |
| | , | | | | | | | | |
| | | | | | | | | | |
| | Assuming Steel for above item 40 kg per cum Quantity of steel for Thrust block | | 1268.15 | 0.04 | - | 50.73 | | | |
| | Quantity of steel for Thrust block | | | 0.04 otal | | 50.73 | | | |
| | | | | | Total | 50.73 | MT | 50 | 0.7 |
| | Draviding fusion handed energy continue to | | | | | | | | |
| | Providing fusion bonded epoxy coating to | | | | | | | | |
| | reinforcement bars as per IS-13620-993 | | | | | | | | |
| | specification for a thickness of 175mm(+or - | | | | | | | | |
| | 50) microns including extra cost on account | | | | | | | | |
| | of careful handling,extra cost on account of | | | ŀ | | | | | |
| | using PVC coated binding wire instead of GI | | | | | | | | |
| _ | wire, extra cost on account of touch-up | | | | | | | | |
| 3 | material supplied by coating agency and | | | | | | MT | 50.73 | |
| | repair work extra cost on account of | | | | | | | | |
| | transportation to & fro from steel yard at | | | | | | , | | |
| | kalamboli to plant at Daman and Plant at | | | | | | | | |
| | Daman to work site by trailer, loading, | | | | | | | | |
| | unloading, including all taxes (Central & | | | | | | | | |
| | Local), etc. complete, as directed by the | | | | | | | | |
| 2 the state of the | Engineer in charge | | | l . | | | | | |
| | | | | | - | | | | |
| | H.D.P.E Pipes PE-100 PN 8 | | | Ì | | | | | _ |
| | Providing and Supplying in standard lengths | | | | | | | | |
| | polyethelene pipes, confirming to IS 4984 / | | | | | | | | |
| | 14151 / 12786 / 13488 with necessary | | | | | | | | |
| | jointing material like mechanical connector | | | | | | | | |
| | i.e. thread / insert joint / quick telease couplar | | | | | | | | |
| | joint or flanged joint including all local and | | | 1 | | | | | |
| | central taxes, transportation and frigt charges | | | İ | | 1 | | | |
| 4 | | | | | | | | | |
| | inspection charges, loading unloading | | | | | | | | |
| | charges, conveyance to departmental stores | | | | | | | 1 | |
| | b/ site & stacking the same in closed shade | | | | | | | | |
| | duly protecting from sunrays & rays etc. | | | | | | | | |
| | complete. | | | | | | | | |
| | Diameter in mm | | | | - | | | | |
| | 110 | | 6410.00 | 1 | + | 6410.00 | Rmi | 641 | 10. |
| | 160 | | 1394.00 | | | 1394.00 | Rmi | 139 | |
| | 180 | | 0.00 | | - | 0.00 | | | 0. |
| | 200 | | 3313.00 5879.00 | - | | 3313.00 5879.00 | | | |
| | 315 | | 7200.00 | | + | 7200.00 | | | |
| | 355 | 1 | 5318.00 | - | - | 5318.00 | | | |
| | 400 | | 774.00 | | | 774.00 | + | + | |
| | 450 | | 564.00 | | | 564.00 | | | |
| | 500 | | 27.00 | | | 27.00 | + | + | 27. |
| | 560 | | 0.00 | | | 0.00 | | | 0 |
| | | | 1 | | _ | 0.00 |) Rm | · I | |
| | 710 | | 0.00 | | | 0.00 | | | 0 |

| 160 1394.00 Rmt 1394.0 180 0.00 Rmt 0.0 200 3313.00 Rmt 3313.0 250 5879.00 Rmt 5879.0 315 7200.00 Rmt 7200.0 355 5318.00 Rmt 5318.0 400 774.00 Rmt 774.0 450 564.00 Rmt 564.0 500 27.00 Rmt 27.0 560 0.00 Rmt 0.0 630 0.00 Rmt 0.0 | No. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|--|----------|--|-----|--------------|---|------|---------|--------|-----------|
| Specials by compression fitting / electrofusion and but fusion joining procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrosiston machine . | | | | | | | | | |
| and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine . Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. HDPE Pipes outer Diameter in mm 110 6410.00 Rmt 9340.00 Rmt 1394.00 Rmt 0.00 Rmt | 1 | | | | | | | | |
| hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine received with all materials for jointion procedures like Elctrofusion machine procedures like Elctrofusion machine received with hydraulic joseb, top loading clampetc, pump, and accessories for hydraulic testing and all babours as directed by engineer in charge as per IS-7634 Part-II. HDPE Pipes outer Diameter in mm | | | | | | | | | |
| Complete with all materials for jointion procedures like Elictrofusion machine Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clamplets, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Complete | | | | | | - | | | |
| Section Company Comp | | | | | | | | 1 | |
| Selectro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | | | | | | | | |
| machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | 5 | | | | 1 | | | | |
| Clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | ٦ | | | | 1 | | | | |
| hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. HDPE Pipes outer Diameter in mm | | | | | | | | | |
| By engineer in charge as per IS-7634 Part-II. | | | | | | | | | |
| HDPE Pipes outer Diameter in mm | | | | | | | | | |
| 110 | | by engineer in charge as per IS-7634 Part-II. | | | | | | | |
| 110 | | | | | | | | | |
| 110 | | HDPE Pipes outer Diameter in mm | | | | | | | |
| 180 | | 110 | | | | | 6410.00 | Rmt | 6410.00 |
| 200 3313.00 Rmt 3313.00 250 8879.00 Rmt 5879.00 S879.00 Rmt 720.00 S879.00 Rmt 720.00 S879.00 Rmt 720.00 S879.00 S879.00 Rmt 5318.00 Rmt 5318.00 S879.00 S879.00 Rmt 5318.00 Rmt 5318.00 S879.00 S879.00 Rmt 5318.00 S879.00 Rmt 5318.00 Rmt 5318.00 S879.00 Rmt 5318.00 S879.00 Rmt 5318.00 S879.00 Rmt 5319.00 Rmt | | 160 | | | | | 1394.00 | Rmt | 1394.00 |
| 250 5879.00 Rmt 5879.00 Smt 7200.00 Rmt 7200.00 Rmt 7200.00 Rmt 7200.00 Rmt 7200.00 Rmt 7200.00 Rmt 5318.00 S000 27.00 Rmt | | | | | | | 0.00 | Rmt | 0.00 |
| 315 7200.00 Rmt 7200.00 Rmt 5318.00 S318.00 Rmt 5318.00 Rmt 5318.00 Rmt 5318.00 Rmt 5318.00 Rmt 5318.00 Rmt 554.00 Rmt 564.00 Rmt 564.00 S64.00 Rmt 564.00 Rmt 564.00 Rmt 566.00 Rmt 5 | | | | | | | 3313.00 | Rmt | 3313.00 |
| 355 S318.00 Rmt S318.0 | | | | | | | 5879.00 | Rmt | 5879.00 |
| 400 | | | | | | | 7200.00 | Rmt | 7200.00 |
| 450 564.00 Rmt 564.00 Solution S | | 355 | | | | | 5318.00 | Rmt | 5318.00 |
| S00 S60 S00 Smt Smt | | | | | | | 774.00 | Rmt | 774.00 |
| Second S | | | | ļ | | | 564.00 | Rmt | 564.00 |
| 630 0.00 Rmt 0.00 R | | | | | | | 27.00 | | 27.00 |
| Deawtering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete L B D Qty Device DQty | | | | | | | 0.00 | Rmt | 0.00 |
| Deawtering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | | | | | | | 0.00 | Rmt | 0.00 |
| trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete 110 6410.00 2.16 3205.00 160 1394.00 2.16 697.00 180 0.00 2.16 0.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | 710 | | | | | 0.00 | Rmt | 0.00 |
| trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete 110 6410.00 2.16 3205.00 160 1394.00 2.16 697.00 180 0.00 2.16 0.00 2.16 1656.50 200 3313.00 2.16 1656.50 200 250 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 3355 5318.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 2659.00 2.16 282.00 2 | | Deawtering: Dewatering the excavated | | | | | | | <u> </u> |
| 6 using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete L B D Qty 110 6410.00 2.16 3205.00 3205.00 160 1394.00 2.16 697.00 180 0.00 2.16 697.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | trenches and pools of water in the building | | | | | | | |
| disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete 110 6410.00 1394.00 2.16 697.00 180 0.00 2.16 0.00 2.16 0.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 2659.00 3518.00 2.16 2659.00 400 774.00 2.16 387.00 2.16 38 | | trenches / pipeline trenches, well works by | | | | | | | |
| disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | 6 | | | | B | D | Oty | | |
| cost of machinery, labour, fuel), etc complete 6410.00 2.16 3205.00 110 6410.00 2.16 697.00 180 0.00 2.16 0.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | O | disposing off water to safe distance as | | - | | | Qty | | |
| 110 6410.00 2.16 3205.00 160 1394.00 2.16 697.00 180 0.00 2.16 0.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | | | | | |
| 160 1394.00 2.16 697.00 180 0.00 2.16 0.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | cost of machinery, labour, fuel), etc complete | | | | | | 1 | |
| 180 0.00 2.16 0.00 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | | | | | |
| 200 3313.00 2.16 1656.50 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | | | | | |
| 250 5879.00 2.16 2939.50 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | | | | | |
| 315 7200.00 2.16 3600.00 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | - | | | | |
| 355 5318.00 2.16 2659.00 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | -4 | | | | | | | |
| 400 774.00 2.16 387.00 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | + | - | | | | |
| 450 564.00 2.16 282.00 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | | | - | | | | |
| 500 27.00 2.16 13.50 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | 1 | | - | | | | |
| 560 0.00 3.16 0.00 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | + | | | - | | | | |
| 630 0.00 4.16 0.00 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | | | 1 | | - | | | | |
| 710 0.00 5.16 0.00 15439.50 BHP/HR 15439.50 | <u> </u> | | | | - | | | 1 | |
| 15439.50 BHP/HR 15439.50 | | | | | | | | | |
| 7 UDDE Strings | | 710 | | 0.00 | | 5.10 | | BHP/HR | 15439.50 |
| / I Will tittings | 7 | LIDDE SW | | | - | | | | |

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| No. | Description of Item | No. | | В | D | Qty | Unit | Total Qty |
|-------------|--|-----|--------------|--------|-------|---------------|------|-----------|
| | | | | | | | | |
| | Providing and supply of Electro Fusion | | | | | | | |
| | Fittings in accordance with BS EN 12201: | | | | | | | |
| | Part-3 suitable for drinking water with in | | | | | | | |
| | black/blue colour manufactured from | | | | | | | |
| | compounded PE80/PE100 virgin polymer | | | | | | | |
| | and compatible with PE80/PE100 pipes, in | | | | | | | |
| | pressure rating SDR11 with min PN12.5 | | | | | | | |
| | rated for water application and shall be | | | | | | | |
| | inclusive of all cost such as testing, all taxes | | | | | | | |
| | related to central, state, and municipal | | | | | | | |
| | inspection charges, transportation upto site, | | | | | | | |
| | transite insurance, loading, unloading, | | | | | | | |
| | stacking etc. complete. | | | | | | | |
| | FITTINGS for HDPE Pipes (5%) | | Amount Pr | ovisor | at 5% | of Item No. 4 | 1 | |
| | | | 1 | 1 | 1 | | | |
| 8 | PIPE APPURTENANCES SUPPLY | | | | | | 1 | |
| | Providing Double flange sluice valve | | 1 | | | | | |
| | confirming for IS 2906/14846/ including worn | | | | | | | |
| | | | | | | | | |
| | gear arrangements as per test pressure | | | | | | | |
| | stainless steel spindle, caps including all | | | | | | | |
| | taxes transportation etc. complete | | | | ļ | | | |
| | sluice valve & Scour Valve (PN-1 Without | | | | | | | |
| | bypass) | | | - | - | | | |
| | 80 mm for Scouring purpose | 4 | | 1 | | 4.00 | Nos. | 4.00 |
| | 100 mm for control purpose | 7 | | | ļ | 7.00 | Nos | 7.00 |
| | 100 mm for Scouring purpose | 1 | | - | 1 | 1.00 | Nos. | 1.00 |
| | 150 mm for control purpose | 2 | | - | ļ | 2.00 | Nos | 2.00 |
| е | 150 mm for Scouring purpose | 5 | | 1 | | 5.00 | Nos. | 5.00 |
| | 200 mm for control purpose | 4 | ļ | 1 | | 4.00 | Nos | 4.00 |
| | 200 mm for Scouring purpose | 7 | | - | ļ | 7.00 | Nos. | 7.00 |
| r | 250 mm for control purpose | 6 | | - | ļ | 6.00 | Nos | 6.00 |
| | 250 mm for Scouring purpose | 1 | | - | - | 1.00 | Nos. | 1.00 |
| <u></u> | 300 mm for control purpose | 8 | | | - | 8.00 | Nos | 8.00 |
| K | 300 mm for Scouring purpose | 1 | | - | 1 | 1.00 | Nos. | 1.00 |
| | 350 mm for Scouring purpose | 1 | | - | - | 1.00 | Nos. | 1.00 |
| | 400 mm for Scouring purpose | 0 | | - | - | 0.00 | Nos. | 0.00 |
| r | 450 mm for Scouring purpose | 0 | | - | | 0.00 | Nos. | 0.00 |
| | Dutterfly value (Die in man) | | | | - | - | 1 | - |
| | Butterfly valve (Dia in mm) | 9 | | + | + | 9.00 | Nos | 9.00 |
| | 400 | 0 | | - | + | 0.00 | Nos | 0.00 |
| | 450 | 0 | + | + | + | 0.00 | Nos | 0.00 |
| | i 500 | 0 | | + | + | 0.00 | Nos | 0.00 |
| | 1300 | | | | + | 0.00 | 1105 | 0.00 |
| 10 | Air valve (Dia in mm) | | 1 | + | | | | |
| | Air Valve Single Ball Flanged/Screwed Type- | | | \top | | | | |
| | PN-1(Diameter in mm) | | | | | | | |
| 1 | 40 | 7 | | | | 7.00 | Nos | 7.00 |
| | Air valve (Dia in mm) | | | | | | | |
| | Air Valve Double Ball Flanged-Type-PN-1(| | | | | | | |
| | Diameter in mm) | | | | | | | |
| | 50 | 2 | | | | 2.00 | Nos | 2.00 |
| 1 | 65 | 0 | | | | 0.00 | Nos | 0.00 |
| | 80 | 10 | | | | 10.00 | Nos | 10.00 |
| | Air valve (Dia in mm) | T | | | | | | |

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| lo. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|---------------|--|-----|---|---|-------------|-------|------|-----------|
| _ | Providing and supplying Air Valves as per IS- | | | | | | | |
| | 14845-2000 and MJP's standard | | | | | | | |
| - | specifications double orifice type combined | | | | | | | |
| | with isolating sluice valve, mounted in | | | | | | | |
| | horzontal position and operated by wheel | | | | | | | |
| | gearing, small orifice elastic ball resting on a | | | | | | | |
| | gun metal orifice nipple, large orifice | | | | l | | | |
| | vulcanite ball seating on moulded seat ring, | | | 1 | | | | |
| | inlet face and drilled, including all taxes | | | | | | | |
| | (Central and local), insurance, third party | | | | | | | |
| | inspection charges, loading, unloading, | | | | | | | |
| | transporta-tion upto departmental storer / | | | | | | | |
| | site, etc. complete. | | | | | | | |
| | | | | | | | | |
| a | 100 | 8 | | | | 8.00 | Nos | 8.00 |
| b | 150 | 9 | | | | 9.00 | Nos | 9.00 |
| | 200 | 0 | | | | 0.00 | Nos | 0.00 |
| | | | | | | | | |
| | PIPE APPURTENANCES FIXING | | | | | | | |
| | Lowering laying and jointing in position D.I. | | | | | | | |
| | D/F Reflux valves,Butterfly velves and sluice | | | | | | | |
| | valves including cost of all labour, jointing | | | | | | | |
| 13 | material, including nut bolts and giving | | | | | | | |
| | satisfactory hydraulic testing, etc. complete. (| | | | | | | 1 |
| | Rate for all class of valve) | | | | | | | |
| | | | | | | | | |
| | Sluice Valve & Scour Valve (Dia in mm) | | | | | 4.00 | A.1 | 1.00 |
| | 80 mm for Scouring purpose | 4 | | - | 1 | 4.00 | Nos | 4.00 |
| | 100 mm for control purpose | 7 | - | - | - | 7.00 | Nos | |
| | 100 mm for Scouring purpose | 1 | | | - | 1.00 | Nos | 1.00 |
| | 150 mm for control purpose | 2 | - | - | - | 2.00 | Nos | |
| | 150 mm for Scouring purpose | 5 | | + | - | 5.00 | Nos | - |
| | 200 mm for control purpose | 4 | - | - | - | 4.00 | Nos | + |
| | 200 mm for Scouring purpose | 7 | | | | 7.00 | Nos | |
| h | 250 mm for control purpose | 6 | | _ | ļ. <u>.</u> | 6.00 | Nos | |
| j | 250 mm for Scouring purpose | 1 | | | - | 1.00 | Nos | + |
| | 300 mm for control purpose | 8 | | | - | 8.00 | Nos | |
| k | 300 mm for Scouring purpose | 1 | | | - | 1.00 | Nos | |
| | 350 mm for Scouring purpose | 1 | | 1 | 1 | 1.00 | Nos | +- |
| | 400 mm for Scouring purpose | 0 | | | - | 0.00 | Nos | + |
| n | 450 mm for Scouring purpose | 0 | | | | 0.00 | Nos | . 0.00 |
| 4.4 | Ruttorfly valve (Die in mm) | - | 1 | | | | | |
| | Butterfly valve (Dia in mm) | 9 | 1 | - | | 9.00 | NO. | 9.0 |
| | 400 | 0 | - | | + | 0.00 | NO. | 0.0 |
| | 450 | 0 | | _ | - | 0.00 | NO. | 0.0 |
| | 1500 | 0 | | _ | - | 0.00 | NO. | 0.0 |
| | | | | | + | 0.00 | 110. | 0.0 |
| 15 | Air Valve (Dia in mm) | | | | | | | |
| | 40 | 7 | | | | 7.00 | NO. | 7.0 |
| t | 50 | 2 | | | | 2.00 | NO. | 2.0 |
| | 65 | 0 | | | | 0.00 | NO. | 0.0 |
| | 1 80 | 10 | | | | 10.00 | NO. | 10.0 |
| | 100 | 8 | | | | 8.00 | NO. | 8.0 |
| | f 150 | 9 | | | | 9.00 | NO. | 9.0 |
| | 200 | 0 | | | | 0.00 | NO. | 0.0 |
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| No. | Description of Item | No. | L | В | D | Qty | Unit | Total Qty |
|-----|---|-----|---|---|---|-----|------|-----------|
| 17 | Supplying, transporting, the S.P. fire hydrants including duck foot bend, S.V. and S.V. road box, painting the hydrant, fixing the saddle piece, supplying, and laying required length of C.I. pipeline and jointing the same spun yarn, molten lead including caulking, fixing the S.V. road box in one brick masonry chamber in 1:5 C.M. with 12 mm thick 1:3 cement plaster both inside and outside on 1:3:6 C.C. 150 mm thick etc. complete as specified and directed. [As per I.S. 900/1965 Revised] | 2 | | | | | Nos | 2 |
| 18 | Drip irrigation | 0 | | | | | km | 0 |
| | Drip irrigation Sprinkler irrigation | 0 | - | | | | Sgrm | 0 |

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| | | - | NAVI MUMBAI M | UNICI | PAL CORPO | RATIO | NC | | |
|------------|----------------------|----------------------------|--|-------------------------|--|------------|--------------|------------------------|----------|
| | - | | RECYCLI | E WA | TER SYSTEM | /l | | | |
| | | | Ra | ate an | alysis | | | | |
| R.A. No. 1 | Filling in Ex | cavated su | urface with contractor's murum in | | | tering con | npaction etc | complete | |
| | Earth filling | MJP 16-1 | 7, Item No 19, Pg-43 | | MJP 16-17, Item No 19, Pg-43 | | = | 723.00 | Cum |
| | Add 5 % fo | r Corporati | ion Area | | | | = | 36.15 | |
| | Add lead ch | arges for | | | | | | | |
| | | | Murum | 1.00 | 0.00 | | = | 0.00 | |
| | | | | | | | | 759.15 | |
| | | | | | | | | | |
| | | | | | | Total | = | 759.15 | |
| | | | | | | Say | = | 759.15 | Cum |
| D A No 2 | Drovidina (| instron ruh | oble stone solling in 15 cm to 20cm | n lavore in | aluding band packing | and some | antina rau | lti characa eta com | ntata |
| R.A. NO. 2 | rioviding (| ary trap rut | oble stone soming in 15 cm to 20cm | ii iayeis iii | cluding hand packing | and comp | acting, roya | any charges etc com | piete. |
| | Soling Rat | e as per M | JP 16-17, Page No. 43 Item No 20 | | MJP 16-17, Page No. 43 Item No 20 | | = | 1014.00 | Cum |
| | Add 5 % fo | or Corporat | tion Area | | | | = | 50,7 | |
|] [| | | 11 | | | | | | |
| | Add lead ch | narges for | | | | | | | |
| | | | Hand Broken Metal | 1.000 | 0.00 | | = | 0.00 | |
| | | | Sand | 0.150 | 1679.50 | 1 | = | 251.92 | |
| | | | | | | | - | 1316.62 | <u> </u> |
| | | | | | | Total | = | 1316.624348 | |
| | | | | | | Say | = | 1316.62 | Cum |
| | | | | | | , | | | |
| R.A. No.3 | | | g in situ, fallowing grade of C.0 | | | for foun | dation and | bedding including | |
| | | | rk,compacting and curing,finis | hing,etc.o | | | | | |
| | | <u> </u> | P 16-17, Item No1, Pg-47 | | MJP 16-17, Item No1, Pg-47 | | = | 4457.00 | Cum |
| | Add 5 % f | or Corpora | tion Area | | | ļ | = | 222.85 | |
| | Add lead c | horaco for | | | | - | - | | |
| | Add lead C | harges ioi | Sand | 0.45 | 1679.50 | | = | 755.77 | - |
| | | | crushed metal (40 mm) | 0.52 | 0.00 | 1 | = | 0.00 | |
| | | | crushed metal (20 mm, 10 mm) | 0.33 | 0.00 | | = | 0.00 | |
| | | | | | | ĺ | | 5435.62 | |
| | | | | | | Total | = | 5435.623043 | |
| | | | | | | Say | = | 5435.62 | Cum |
| | | | | <u> </u> | | 1 | | <u> </u> | L |
| K.A. No.4 | | | g in the foundation trenches w | | | ncluding | | ompaction. Etc co | _ |
| | Sand Bed | ding Rate | as per MJP 16-17 Item No 21, P | g-43 | MJP 16-17 Item | | = | 973.00 | Cum |
| | Add 5 % f | or Corpora | ation Area | Ι | No 21, Pg-43 | - | = | 48.65 | - |
| | 7100 0 70 1 | 1 | | | | 1 | | 10.00 | |
| | Add lead c | harges for | | 1 | | | | | |
| | | | Sand | 1.00 | 1679.50 | | = | 1679.50 | |
| | | | | | | | | 2701.15 | |
| | | | | - | | Total | = | 2701.145652 | |
| | | | | | | Say | = | 2701.15 | Cum |
| R.A. No.5 | foundation complete. | n and footii (By wigh b | I insitu Cement concrete of trap insitu Cement concrete of trap g of RCC columns and steel state at the state of the state | nchions ir 0 and M-3 | ncluding dewatering, for the contract of the c | ormwork, | compaction | finishing & curing e | etc, |
| | RCC work | MJP 16-17 | , Item No 2 c, Pg-48 | | MJP 16-17, Item No 2 c, Pg-48 | | = | 5999.00 | Cum |
| | Add 5 % | for Corpora | ation Area | <u> </u> | | | = | 299.95 | |
| | Add lead o | harges for | | | | | | | |
| | | | Sand | 0.425 | 1679.50 | | 2 | 713.79 | |
| | | | crushed metal (20 mm) | 0.57 | 0.00 | | = | 0.00 | |
| | - | | crushed metal (10 mm) | 0.28 | 0.00 | | | 0.00 | |
| | - | - | | | | Total | = - | 7012.74 7012.735652 | - |
| | | - | | | | Say | = | 7012.74 | Cum |
| | - | 1 | | - | | | | | |

Lead Chart

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NMMC

| | | NAVI | MUMBAI M | NAVI MUMBAI MUNICIPAL CORPORATION | ORATION | | | |
|---------|---------------|-----------------------|----------------|-----------------------------------|--------------|-----------------------------------|-------------------------------|----------|
| | | | RECYCL | RECYCLE WATER SYSTEM | N | | | |
| | | | LE | LEAD CHART | | | | |
| Sr. No. | Material | Source | Lead in Kms | Lead Charges 2015-16 | Initial Lead | Initial Lead Charges 15- 16 | Net Lead Charges 15- 16 | Unit |
| | | | | | | | | |
| - | Sand | Ambet | 160.00 | 1830.07 | 5 | 150.57 | 1679.50 | Cum |
| | | | | | | | | |
| 2 | Crushed Metal | Local Stone Quarry | 2 | 150.57 | 5 | 150.57 | 0.00 | Cum |
| | | | | | | | | |
| ന | Soling Stone | Local Stone Quarry | 5 | 184.21 | Ŋ | 184.21 | 0.00 | Cum |
| | | | | | | | | |
| 4 | Murum / Earth | Local Stone Quarry | S | 180.38 | 5 | 180.38 | 0.00 | Cum |
| | | | | | | | | |
| 5 | Brick | | 5 | 247.37 | 5 | 247.37 | 0.00 | 1000 no. |
| | | | | | | | | |



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| Recycled Water System Measurement Sheet Part-1 -Pipeline Trench Works For Distribution System of Vashi MIDC Item No. Description of Item No. D | nit Qty |
|--|-------------|
| Part-1 -Pipeline Trench Works For Distribution System of Vashi MIDC Item No. Description of Item Measurements Un No. L B D PART-I CIVIL WORKS Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | nit Qty |
| Item No. Description of Item No. L B D PART-I CIVIL WORKS Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | nit Qty |
| No. L B D PART-I CIVIL WORKS Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | nit Qty |
| PART-I CIVIL WORKS Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | |
| Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | |
| soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, | |
| | |
| preparing the bed for foundation and excluding backfilling, etc complete. | |
| Lift 0 to 1.5 m | |
| Dia in mm | |
| Excavtion for pipe laying | |
| 110 1.0 6410.00 0.41 0.86 | 2260.17 |
| 160 1.0 1394.00 0.46 0.91 | -583.53 |
| 180 1.0 0.00 0.48 0.93 | 0.00 |
| 200 1.0 3313.00 0.50 0.95 | 1573.68 |
| 250 1.0 5879.00 0.55 1.00 | 3233.45 |
| 315 1.0 7200.00 0.62 1.07 | 4715.82 |
| 355 1.0 5318.00 0.66 1.11 | 3849.04 |
| 400 1.0 774.00 0.90 1.15 | 801.09 |
| 450 1.0 564.00 0.95 1.20 | 642.96 |
| 500 1.0 27.00 1.00 1.25 | 33.75 |
| 560 1.0 0.00 1.06 1.31 | 0.00 |
| 630 1.0 0.00 1.13 1.38 | 0.00 |
| 710 1.0 0.00 1.21 1.46 | 0.00 |
| TOTAL 30879.00 | |
| Chambers | |
| 90*45 cm 1.00 1.50 1.05 1.60 | 2.52 |
| 90*60 cm 45.00 1.50 1.20 1.60 | 129.60 |
| 90*90 cm 58.00 1.50 1.50 1.60 | 208.80 |
| | um 24112.6 |
| Assuming 50 % of Qty for above item 1.00 24112.63 0.50 | 12056.3 |
| PCC For Valve Chamber Thickness | |
| | 0.24 |
| 90*45 cm 1.00 1.50 1.05 0.15 90*60 cm 45.00 1.50 1.20 0.15 | 12.15 |
| 90*90 cm 58.00 1.50 1.50 0.15 | 19.58 |
| | Cum 31.96 |
| Excavation for foundation/ pipe trenches by all means in hard murum, including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | 31170 |
| | Cum 9645.05 |

0

0

| tem No. | Description of Item | | Mea | surement | Unit | Qty | |
|------------|--|-------|--------------------|----------|------|------|------------------|
| 0. | | No. | L | В | D | | |
| | | 7.00 | | | | | |
| | | | | | | | |
| | Excavation for foundation/ pipe trenches in hard rock and concrete road by chiselling wedging line | | ļ | | | | |
| | drill by mechanical means or by all means other than | | | | | | |
| | blasting including triming and levelling the bed | | | | | | |
| 3 | removing the excavated material upto a distance of | | | | | | |
| | 50 meters and lifts as below, stacking and spreding | | | | | | |
| | as directed normal dewatering, preparing the bed for | ļ | | 1 | | | |
| | foundation and excluding backfilling, etc complete. | | | | | | |
| | Assuming 10% of qty for above item | 1.00 | 24112.63 | | 0.10 | Cu.m | 2411.26 |
| | | | | | | | |
| | Rubble Soling :Providing dry trap granite | | | | | | |
| 4 | quartizite queiss, rubble stone soling in 15 cm to 20 | | | | | | |
| 7 | cm thick layer including hand packing and | | | | | | |
| | compacting royalty charges etc.complete | | | | | | |
| | For Dia. in mm | | | | | | |
| | 110 | 1.00 | 1923.00 | 0.41 | 0.25 | | 197.11 |
| | 160 | 1.00 | 418.20 | 0.46 | 0.25 | | 48.09 |
| | 180 | 1.00 | 0.00 | 0.48 | 0.25 | | 0.00 |
| | 200 | 1.00 | 993.90 | 0.50 | 0.25 | | 124.24 |
| | 250 | 1.00 | 1763.70 2160.00 | 0.55 | 0.25 | 1 | 242.51 332.10 |
| | 315 355 | 1.00 | | 0.62 | 0.25 | | 261.25 |
| | 400 | 1.00 | 1595.40 232.20 | 0.90 | 0.25 | | 52.25 |
| | 450 | 1.00 | 169.20 | 0.95 | 0.25 | | 40.19 |
| | 500 | 1.00 | 8.10 | 1.00 | 0.25 | | 2.03 |
| | 560 | 1.00 | 0.00 | 1.06 | 0.25 | | 0.00 |
| | 630 | 1.00 | 0.00 | 1.13 | 0.25 | | 0.00 |
| | 710 | 1.00 | 0.00 | 1.21 | 0.25 | | 0.00 |
| | Chambers | | | | | | |
| | 90*45 cm | 1.00_ | 1.50 | 1.05 | 0.25 | | 0.39 |
| | 90*60 cm | 45.00 | 1.50 | 1.20 | 0.25 | | 20.25 |
| | 90*90 cm | 58.00 | 1.50 | 1.50 | 0.25 | | 32.63 |
| | Total quantity | | | | | Cum | 1353.02 |
| | p. 11: | | i | | | - | <u> </u> |
| | Bedding Providing and filling sand boxing in pipeline or for | | | | | | |
| 5 | foundation with sand of approved quality including | | | | | | |
| 5 | watering and compaction intial lead upto 5 km etc. | | | - | | | |
| | complete | | | | | | |
| | Dia. in mm | | | | | | |
| | Sand Bedding for pipe laying | | | | | ı | |
| | 110 | 1.00 | 6410.00 | 0.41 | 0.15 | | 394.22 |
| | 160 | 1.00 | 1394.00 | 0.46 | 0.15 | | 96.19 |
| | 180 | 1.00 | 0.00 | 0.48 | 0.15 | | 0.00 |
| | 200 | 1.00 | 3313.00 | 0.50 | 0.15 | - | 248.48 |
| | 250 | 1.00 | 5879.00 | 0.55 | 0.15 | | 485.02 |
| | 315 | 1.00 | 7200.00 | 0.62 | 0.15 | - | 664.20 |
| | 355 | 1.00 | 5318.00 | 0.66 | 0.15 | - | 522.49 |
| | 400 | 1.00 | 774.00 | 0.90 | 0.15 | - | 104.49 |
| | 450 500 | 1.00 | 564.00 | 0.95 | 0.15 | + | 80.37 |
| | 560 | 1.00 | 27.00 0.00 | 1.00 | 0.15 | | 0.00 |
| | 630 | 1.00 | 0.00 | 1.13 | 0.15 | | 0.00 |
| | 710 | 1.00 | 0.00 | 1.13 | 0.15 | | 0.00 |
| | /10 | 1.00 | 0.00 | 1.41 | V.13 | + | 2599.5 |

| em o. | Description of Item | | Mea | asuremen | s | Unit | Qty |
|----------|--|------|--------------------|----------|-------|------|------------------|
| | | No. | L | В | D | | |
| 6 | PCC for pipe laying | | | | | | |
| | 110 | 6410 | 1923.00 | 0.00 | 0.15 | | 0.00 |
| | 160 | 1394 | 418.20 | 1.60 | 0.15 | | 100.37 |
| | 180 | 0 | 0.00 | 1.60 | 0.15 | | 0.00 |
| | 200 | 3313 | 993.90 | 1.60 | 0.15 | | 238.54 |
| | 250 | 5879 | 1763.70 | 1.60 | 0.15 | | 423.29 |
| | 315 | 7200 | 2160.00 | 1.61 | 0.15 | | 520.02 |
| | 355 | 5318 | 1595.40 | 1.61 | 0.15 | | 384.09 |
| | 400 | 774 | 232.20 | 1.68 | 0.15 | | 58.51 |
| | 450 | 564 | 169.20 | 1.68 | 0.15 | | 42.64 |
| | 500 | 27 | 8.10 | 1.74 | 0.15 | | 2.11 |
| | 560 | 0 | 0.00 | 1.78 | 0.15 | | 0.00 |
| | 630 | 0 | 0.00 | 1.88 | 0.15 | | 0.00 |
| | 710 | 0 | 0.00 | 0.00 | 0.15 | | 0.00 |
| | | | Total | PCC quai | ntity | Cum | 1822.83 |
| | | | | | | | 1022101 |
| 7 | Disposal of Earth: Disposal of excavated material including loading and unloading, lead upto 10 km etc. Complete | | | | | | |
| | volume of pipe | | | | | | |
| | 110 | 1.00 | 6410.00 | 0.79 | 0.01 | | 60.89 |
| | 160 | 1.00 | 1394.00 | 0.79 | 0.03 | | 28.01 |
| | 180 | 1.00 | 0.00 | 0.79 | 0.03 | | 0.00 |
| | 200 | 1.00 | 3313.00 | 0.79 | 0.04 | | 104.03 |
| | 250 | 1.00 | 5879.00 | 0.79 | 0.06 | | 288.44 |
| | 315 | 1.00 | 7200.00 | 0.79 | 0.10 | | 560.82 |
| | 355 | 1.00 | 5318.00 | 0.79 | 0.13 | | 526.11 |
| | 400 | 1.00 | 774.00 | 0.79 | 0.16 | | 97.21 |
| | 450 | 1.00 | 564.00 | 0.79 | 0.20 | - | 89.65 |
| | 500 | 1.00 | 27.00 | 0.79 | 0.25 | | 5.30 |
| | 560 | 1.00 | 0.00 | 0.79 | 0.31 | | 0.00 |
| | 630 | 1.00 | 0.00 | 0.79 | 0.40 | - | 0.00 |
| | 710 | 1.00 | 0.00 | 0.79 | 0.50 | | 0.00 |
| | Road reinstatement | * 00 | (410.00 | 1 40 | 0.00 | | 15010 |
| | 110 | 1.00 | 6410.00 | 1.40 | 0.20 | - | 1794.8 |
| | 160 | 1.00 | 1394.00 | | 0.20 | 1 | 390.3 |
| | 200 | 1.00 | 0.00 | 1.40 | 0.20 | 1 | 0.00 |
| | 250 | 1.00 | 3313.00 5879.00 | 1.40 | 0.20 | + | 927.6 |
| | 315 | 1.00 | 7200.00 | 1.40 | 0.20 | 1 | 1646.1 2016.0 |
| | 355 | 1.00 | 5318.00 | 1.40 | 0.20 | | 1489.0 |
| | 400 | 1.00 | 774.00 | 1.40 | 0.20 | | 216.7 |
| | 450 | 1.00 | 564.00 | 1.40 | 0.20 | 1. | 157.9 |
| | 500 | 1.00 | 27.00 | 1.40 | 0.20 | | 7.56 |
| | 560 | 1.00 | 0.00 | 1.40 | 0.20 | 1 | 0.00 |
| | 630 | 1.00 | 0.00 | 1.40 | 0.20 | | 0.00 |
| | 710 | 1.00 | 0.00 | 1.40 | 0.20 | | 0.00 |
| | | | | | | Cum | 10406. |
| | Deawtering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | | | | | | |

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| em o. | Description of Item | | Me | easurement | ts | Unit | Qty |
|----------|--|-------|----------|------------|-------|--------------|----------|
| | | No. | Ľ | В | D | | |
| | Lum sum | 1.00 | | | | ВНР/Нг. | 36000.00 |
| | | | | | | | |
| | RCC.Thrust Block: | | | | | | |
| | Providing and laying insitu Cement Concrete of | | | | | | |
| | trap/granaite/quartzite/gneiss metal for RCC work in | | | | | | |
| | foundation like raft,grillage,strip foundation and | | | | | | |
| | footing of RCC columns and steel,stanchions | | | | | | |
| 9 | bully/ steel prop-ups, compaction, finishing and | | | | | | |
| | curing etc. complete(by weigh batching and mix | | | | | | |
| | design for M-250 and M-300 only. use L&T, A.C.C. | | | | | | |
| | Ambuja, Birla Gold, ManikGad, Rajashree, etc. | | | | | | |
| | cement is permitted (Excluding M.S. of Tor | | | | | | |
| | reinforcement) M-250 for Anchor Block | | | | | | |
| | 1 x 0.6 x 0.6 m block | 62.00 | 1.00 | 0.60 | 0.60 | | 17.94 |
| | | | | 1 1 | | Cum | 17.94 |
| | | | | | | | |
| | Reinforcement: Providing and Fixing in position | | | 1 | | | |
| | steel bar reinforcement of Anchor block etc.as per | | | | | | |
| 10 | detailed design drawing and shedules including | | | | | | |
| | cutting bending hooking the bars binding with wires | | | | | | |
| | or tack welding and supporting as required etc. completet (including cost of binding wire). | | | | | | |
| | complete (including cost of binding wife). | | | | | | 1 |
| | Assuming Steel for above item 40 kg per cum | | | | | | |
| | Quantity of steel for Thrust block | | 17.94 | 0.4 | | | 7.18 |
| | | | | | Total | MT | 7.18 |
| | | | | | | - | |
| 1 | 1 CHAMBERS | | | | | | - |
| | Providing and constructing B.B. masonry valve | | | | | | |
| | chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in | | | | | | |
| | C.M. 1:5 Proportion precast RCC frame and cover, | | | | 1 | | |
| | etc complete as directed by Engineer-in-charge | | | | | | |
| | Inspection Chambers | | | | | | |
| | Valve Chambers with Precast R.C.C covers | | | | | | |
| | 90*45 cm | 1.00 | | | | No. | 1.00 |
| | 90*60 cm | 45.00 | | | | No. | 45.00 |
| | 90*90 cm | 58.00 | | | | No. | 58.00 |
| | Refilling the trenches with available excaveted | | <u> </u> | | | | |
| | 2 stuff with soft material first over pipeline and then | | | | | | |
| 1 | hard material in 15 cm layers with all leads and lifts | | | | | | |
| | including consolidation, surcharging etc. complete | | | | | | |
| | Filling in trenches with approved excavated material | | | İ | | | i i |

| tem 80. | Description of Item | | Me | asurement | \$ | Unit | Qty |
|------------|--|-----|---------|-----------|----|----------|----------|
| | | No. | L | В | D | | |
| | Total Excavation | 1 | | | | | 24112.63 |
| | Deductions | | | | | | |
| | PCC Bedding | | | Ì | | | 1822.83 |
| | Rubble Soling | | | | | | 1353.02 |
| | Sand bedding | | | | | | 2599.50 |
| | Pipe Volume | | | | | | |
| | 110 | | 6410.00 | | | | 60.89 |
| | 160 | | 1394.00 | | | | 28.01 |
| | 180 | | 0.00 | | | | 0.00 |
| | 200 | | 3313.00 | | | | 104.03 |
| | 250 | | 5879.00 | | | | 288,44 |
| | 315 | | 7200.00 | | | | 560.82 |
| | 355 | | 5318.00 | | | | 526.11 |
| | 400 | | 774.00 | | | | 97.21 |
| | 450 | | 564.00 | | | | 89.65 |
| | 500 | | 27.00 | | | | 5.30 |
| | 560 | | 0.00 | | | | 0.00 |
| | 630 | | 0.00 | | | 1 | 0.00 |
| | 710 | | 0.00 | | | | 0.00 |
| | 710 | | 0.00 | | | | 0.00 |
| | Total quantity of Pipe volume | | | Total | | Cum | 1760.4 |
| | Total Quantity to be deducted | | | 10141 | | Cuili | 7535.8 |
| | Net quantity of filling | | | | | | 16576.8 |
| | Tree quantity of filling | | | | | \dashv | 10570.0 |
| 1: | with bitumen of S-65 grade and 25mm thick aspalt concrete with S-35 grade of bitumen including compaction by vibratory roller of all layers and providing and applying tack coat of 50 kg/100 m2 on black top surface and bitumen contained of 250 kg/100 m2 for BBM surface and disposal of surplus clay/soil etc. complete. pipeline trenches of various | | | | | | |
| | diameter of pipes etc complete. | | | | | | |
| | 110 | 1.0 | 6410.00 | 1.00 | | | 6410.0 |
| | 160 | 1.0 | 1394.00 | 1.00 | | | 1394.0 |
| | 180 | 1.0 | 0.00 | 1.00 | | | 0.0 |
| | 200 | 1.0 | 3313.00 | 1.00 | | | 3313.0 |
| | 250 | 1.0 | 5879.00 | 1.00 | | | 5879. |
| | 315 | 1.0 | 7200.00 | 1.00 | | | 7200.0 |
| | 355 | 1.0 | 5318.00 | 1.00 | | | 5318.0 |
| | 400 | 1.0 | 774.00 | 1.00 | | | 774.0 |
| | 450 | 1.0 | 564.00 | 1.00 | | | 564. |
| | 500 | 1.0 | 27.00 | 1.00 | | | 27. |
| | 560 | 1.0 | 0.00 | 1.00 | | | 0. |
| | 630 | 1.0 | 0.00 | 1.00 | | | 0. |
| | 710 | 1.0 | 0.00 | 1.00 | | | 0.0 |
| | | | 1 | 1.00 | | Sg.m. | 30879.00 |
| | | | | 1 | | | 1 |

Navi Mumbai Municipal Corporation

Recycled Water System

ABSTRACT

Part-1 -Pipeline Trench Works For Distribution System of Vashi MIDC

| em No. | Ref | Qty | Description of Item | Unit | Rate (Rs.) | AW 10% | Final rate (Rs.) | Amount (Rs) |
|--------|-------------------------------------|----------|---|-------------|------------------|--------|---------------------|----------------------|
| 1 | MJP 16-17 lt. No. 1 Pg. no. 39 | | Excavation Excavation for foundation/ pipe trenches in earth soil of all types sand graval and soft murum including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and | | | | | |
| | | | excluding backfilling, etc complete. | C | 1.42.00 | 50/ | 140.10 | 1 760 710 |
| | | | Lift 0 to 1.5 M | Cum | 142.00 156.00 | 5% | 149.10 | 1,258,318 592,447 |
| 2 | MJP 16-17 lt. No. 2 Pg. no. 39 | | Exercation for foundation/pipe trenches by all means in hard murum, including removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | | 150.00 | 3711 | 103.60 | 372,447 |
| | | 3858.02 | Lift 0 to 1.5 M | Cum | 166.00 | 5% | 174.30 | 672,453 |
| | | 5787.03 | Lift 1.5 to 3 M | Cum | 180.00 | 5% | 189.00 | 1,093,749 |
| 3 | MJP 16-17 lt. No. 5 Pg. no. 39 | | Excavation for foundation/ pipe trenches by all meaans in soft rock and old cement & lime masonry foundation asphalt road removing the excavated material upto a distance of 50 meters and lifts as below, stacking and spreding as directed normal dewatering, preparing the bed for foundation and excluding backfilling, etc complete. | Cum | | | | |
| | | 482.25 | Lift 0 to 1.5 M | Cum | 473.00 | 5% | 496.65 | 239,511 |
| | i i | 1929.01 | Lift 1.5 to 3 M | Cum | 494.00 | 5% | 518.70 | 1,000,578 |
| 4 | MJP 16-17 It. No. 20 Pg. no. 43 | 1353.02 | Rubble Soling: Providing Dry Trap Granite quartizite queess, rubble stone soling in 15 cm to 20 cm thick layer including hand packing and compacting royalty charges etc.complete | Cum | 1014.00 | 5% | 1064.70 | 1,440,557 |
| 5 | MJP 16-17 It. No. 21Pg. no. 43 | 2599.50 | Bedding Providing and filling sand boxing in pipeline or for foundation with sand of approved quality including watering and compaction initial lead upto 5 km etc. complete | Cum | 973.00 | 5% | 1021.65 | 2,655,776 |
| 6 | MJP 16-17 It. No. 47 Pg. no. 1 b | 1822.83 | PCC Providing & laying in situ folowing grades of cement concrete of trap // granite metal for foundation & bedding including dewatering formwork curing compacting finishing etc. complete M-150 | Cum | 4457.00 | 5% | 5435.62 | 9,908,239 |
| 7 | MJP 16-17 Statement VI | 10406.58 | Disposal of Earth: Disposal of excavated material including loading and unloading, lead upto 10 km etc. Complete | Cum | 411.16 | 5% | 431.72 | 4,492,708 |
| 8 | MJP 16-17 It. No. 16 Pg. no. 42 | 36000.00 | Dewatering: Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in -charge (including cost of machinery, labour, fuel), etc complete | BHP/ Hr. | 62.00 | 5% | 65.10 | 2,343,600 |
| 9 | MJP 16-17 It. No. 10 Pg. no. 54 | 17.94 | RCC Thrust Block: Providing and laying insitu Cement Concrete of trap/granaite/quartzite/gneiss metal for RCC work in foundation like raft,grillage,strip foundation and footing of RCC columns and steel.stanchions including normal dewatering plywood form work, bully/ steel prop-ups, compaction, finishing and curing etc. complete(by weigh batching and mix design for M-300 only. use L&T, A.C.C. Ambuja, Birla Gold, ManikGad, Rajashree, etc. cement is permitted (Excluding M.S. of Tor reinforcement) M-250 for Anchor Block. | Cum | 5999.00 | 5% | 7012.74 | 125,800 |
| 10 | MJP 16-17 lt. No. 8 Pg. no. 51 | 7.18 | Reinforcement: Providing and Fixing in position steel bar reinforcement of Anchor block etc.as per detailed design drawing and shedules including cutting bending hooking the bars binding with wires or tack welding and supporting as required etc. completet (including cost of binding wire) | MT | 51749.00 | 5%u | 54336,45 | 389,91 |

| Item No. | Ref | Qty | Description of Item | Unit | Rate (Rs.) | AW 10% | Final rate (Rs.) | Amount (Rs) |
|----------|--|-----------|---|------|---------------|----------|---------------------|----------------|
| 11 | MJP 16-17 Sect I, Item No 1, pg. no. 343 | | Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in C.M. 1:5 Proportion precast RCC frame and cover, etc complete as directed by Engineer-in-charge | | | | | |
| (a) | | | As above of 95*45 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 7,719.00 | 5% | 8104.95 | 8,105 |
| (b) | | | As above of 90*60 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 8,400.00 | 5% | 8820.00 | 396,900 |
| (c) | | 58 | As above of 90*90 cm internal size and depth upto 1.2 m with precast R.C.C slab cover | No. | 10,066.00 | 5% | 10569.30 | 613,019 |
| 12 | | | FILLING IN TRENCHES | | | | | |
| | MJP 16-17 lt. No. 17 Pg. no. 43 | 16,576.82 | Refilling the trenches with available excaveted stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging etc. complete | RMT | 64.00 | 5% | 67.20 | 1,113,963 |
| 13 | RA | 30,879.00 | Reinstatment of road by excavating the potholes in rectangular shape and filling of potholes by one layers of soling 230 mm thick, one layer of 80 mm trap metal of 200mm thick, one layer of 40 mm trap metal of 200mm thick including suppling and spreding of stonedust, watering compaction and 75mm thick bituminous bound macadam with cold emulsion and bitumious macadam of 50 mm thick with bitumen of S-65 grade and 25mm thick aspalt concrete with S-35 grade of bitumen including compaction by vibratory roller of all layers and providing and applying tack coat of 50 kg /100 m2 on black top surface and bitumen contained of 250 kg/100 m2 for BBM surface and disposal of surplus clay/soil etc. complete. pipeline trenches of various diameter of pipes etc complete. | Sqm | 1231.70 | | | 38,033,664 |
| | | | Rate analysis | | | <u> </u> | | |
| | | PART-I | Net Cost (in Rs) | | | | | 66,379,307 |

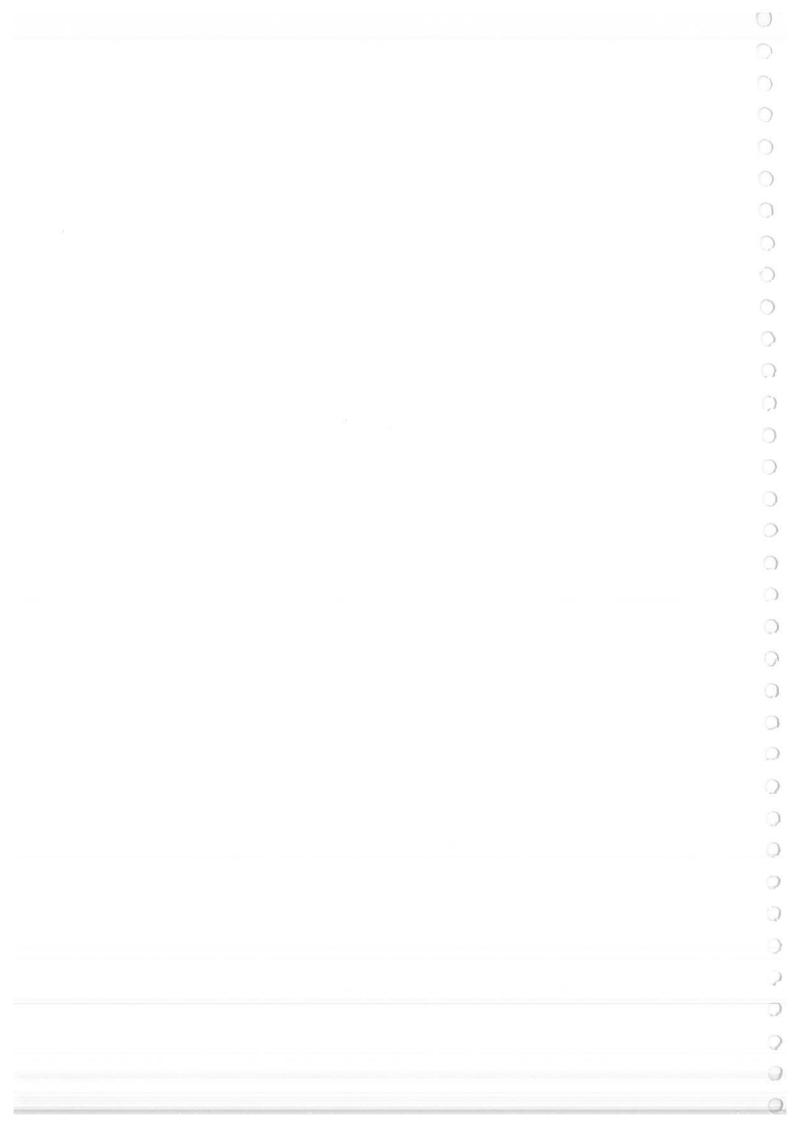
| | | | NAVI MUMBAI MU | NICIE | AL CORPOR | RATIC |)N | | |
|-----------|--------------------------|--------------------------|---------------------------------------|------------|-----------------------|------------|--------------|------------------------|--------|
| | | | | | | () () () | 711 | | |
| | | | | | ER SYSTEM | | | | |
| | | | Rat | e ana | lysis | | | | |
| . No. 1 I | Filling in Ex | ccavated s | urface with contractor's murum in | n 15 to 20 | | atering c | ompaction e | | |
| [1 | Earth filling | MJP 16- | 17, Item No 19, Pg-43 | | MJP 16-17, Item | | = | 723.00 | Cum |
| - | V 11 E 0/ 6- | | A: A | | No 19, Pg-43 | | = | 36 15 | |
| Ľ | Add 5 % fo | or Corpora | tion Area | | | | - | 50 10 | |
| <u> </u> | Add lead ch | arges for | | | | | 1 | | |
| F | | | Murum | 1.00 | 0 00 | | = | 0.00 | |
| l l | | | | | | | | 759 15 | |
| | | | | | | | | | |
| | | | | | | Total | = | 759.15 | |
| | | | | | | Say | = | 759 15 | Cum |
| | | | | <u></u> _ | 1 | <u> </u> | | <u> </u> | |
| | Providing (complete. | dry trap ru | bble stone solling in 15 cm to 20c | m layers | including hand packin | g and cor | npacting, ro | yalty charges | etc |
| - | | nte ac per | MJP 16-17, Page No. 43 Item | Γ | MJP 16-17, Page | 1 | = | 1014.00 | Cum |
| | Solling Re | ate as per | No 20 | | No. 43 Item No 20 | | | | |
| ŀ | Add 5 % f | or Cornors | ation Area | | | | = | 50 7 | |
| 1 | 5 /6 10 | Ourpois | | | | | 1 | | |
| ŀ | Add lead ch | narges for | | | | | | | |
| Ì | ļ | | Hand Broken Metal | 1 000 | 0.00 — — | | = | 0 00 | |
| | | | Sand | 0.000 | 1679.50 | | = | 0.00 | |
| | | | | | | | | 1064.70 | |
| | | | | | | Tetal | | 4004.70 | |
| ļ | | | | | | Total | = | 1064.70 | Cum |
| | | | | - | | Say | - | 1004.70 | Cum |
| A No 3 | Droviding | ond lovi | l ng in situ, fallowing grade of C | C of tr | an/aranita/anaise me | tal for fo | undation : | nd bodding i | neludi |
| 1. 140.5 | | | ork,compacting and curing,fin | | | tai ioi ic | Juliuation a | ina beating i | nonuan |
| | | | JP 16-17, Item No1, Pg-47 | iaming,c | MJP 16-17, Item | T | = | | Cum |
| | PCC Rate | as per ivi | JP 16-17, Item No1, Pg-47 | | No1, Pg-47 | | | 4457.00 | 00111 |
| | Add 5 % f | or Corpor | ation Area | | 11011111 | 1 | = | 222.85 | |
| | | | I | | | | | | |
| | Add lead c | harges for | | | | | | | |
| | | | Sand | 0.45 | 1679 50 | | = | 755 77 | |
| | | | crushed metal (40 mm) | 0 52 | 0 00 | 1 | = | 0.00 | |
| | | | crushed metal (20 mm,10 mm) | 0 33 | 0.00 | | = | 0 00 | |
| | | | | | | Total | | 5435.62 | |
| | | | | - | | Say | = | 5435.62 | Cum |
| | | | - | | | loay | | 10 100.02 | |
| Ā. No.4 | Providin | r and filli | ng in the foundation trenches | with san | d of approved qualit | v includi | ing waterin | g compaction | ı. Etc |
| | | | as per MJP 16-17 Item No 21, | | MJP 16-17 Item | | = | | Cum |
| | Joana Bee | ading reace | . 45 pc; (Mot 15 11 11cm 116 21, | 1 9 10 | No 21, Pg-43 | | | 973.00 | |
| | Add 5 % | for Corpor | ation Area | | | | = | 48 65 | |
| | | | | | | | | | |
| | Add lead o | harges for | | | 1070 | | | 1070.55 | |
| | | | Sand | 1.00 | 1679 50 | - | = | 1679.50 | |
| | | | | - | | Tetel | - | 2701.15 | 1 |
| | | | | 1 | | Total | = | 2701.145652 2701.15 | Cum |
| | - | | | | | Joay | | 2701.13 | Culli |
| Δ No E | Dec. 3.5 | | g insitu Cement concrete of tra | 1 | l aundaita / anning | otal ta-D | CC morti !- | foundation III | 0 5064 |
| | | | ation and footing of RCC column | | | | | | |
| | | | lete (By wigh batching and mix d | | | | | | |
| | | | ee etc cement is permitted) (exc | | | | | | |
| | | | | - | | | | | 10 |
| | RCC work | MJP 16-1 | 7, Item No 2 c, Pg-48 | | MJP 16-17, Item | | = | 5999.00 | Cum |
| | A 1155: | f C | | - | No 2 c, Pg-48 | - | = | 299 95 | - |
| | | for Corpo charges for | ration Area | + | | | | Z33 33 | |
| | Aud lead | Linaryes for | Sand | 0.425 | 1679.50 | - | | 713 79 | + |
| | | - | crushed metal (20 mm) | 0.57 | 0 00 | 1 | = | 0 00 | + |
| | | 1 | crushed metal (10 mm) | 0.28 | 0.00 | + | | 0.00 | + |
| | | | (100) | - | | | | 7012.74 | + |
| | | | | | | Total | = | 7012.735652 | |
| | | 1 | | | | Say | = | 7012.74 | Cum |
| | | | | | 1 | | | 1 | + |

8 Of 9

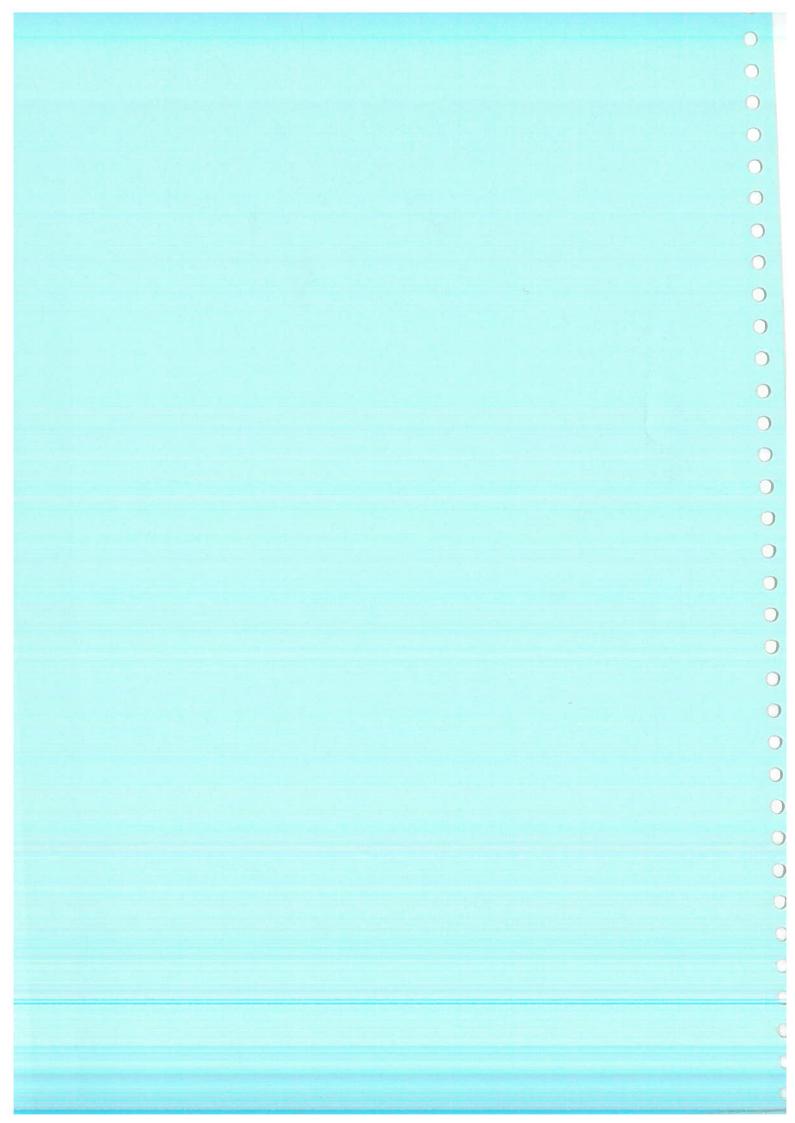
| | | NAVI | MUMBAI M | NAVI MUMBAI MUNICIPAL CORPORATION | ORATION | | | |
|---------|---------------|-----------------------|----------------|-----------------------------------|--------------|------------------------------|--|----------|
| | | | Kecyc | Recycle water system LEAD CHART | | | | |
| Sr. No. | Material | Source | Lead in Kms | Lead Charges 2016-17 | Initial Lead | Initial Lead Charges 16-0 | Initial Lead Net Lead Charges 16- Charges 16- | Unit |
| - | Sand | Ambet | 160.00 | 1830.07 | 5 | 150.57 | 1679.50 | Cum |
| 2 | Crushed Metal | Local Stone Quarry | Ŋ | 150.57 | Ŋ | 150.57 | 0.00 | Cum |
| က | Soling Stone | Local Stone Quarry | ſΩ | 184.21 | Ŋ | 184.21 | 0.00 | Cum |
| 4 | Murum / Earth | Local Stone Quarry | Ŋ | 180.38 | ro | 180.38 | 0.00 | Cum |
| 2 | Brick | | 7.2 | 247.37 | 5 | 247.37 | 0.00 | 1000 no. |

Lead Chart

NMMC



COST ESTIMATE OF SHIFTING UTILITIES



O C O O NWWC

Abstract

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| | RECYCLE WATER SYSTEM | NAV | NAVI MUMBAI MUNICIPAL CORPORATION | ORATION |
|---|---|-------|-----------------------------------|------------------|
| SHIFTING UTILITIES | | | COST SUMMARY | |
| SHIFTING UTILITIES COST SUMMARY | COST SUMMARY | Sr.No | Area | Total cost in Rs |
| SHIFTING UTILITIES COST SUMMARY Area | COST SUMMARY Area | _ | Airoli MIDC | 5,134,303 |
| SHIFTING UTILITIES COST SUMMARY Area Airoli MIDC | COST SUMMARY Area Airoli MIDC | 2 | Koperkhairane MIDC | 4,600,830 |
| COST SUMMARY Area Airoli MIDC Koperkhairane MIDC | COST SUMMARY Area Airoli MIDC Koperkhairane MIDC | 3 | Vashi MIDC | 5,275,082 |
| COST SUMMARY Area Airoli MIDC Koperkhairane MIDC Vashi MIDC | Area Airoli MIDC Koperkhairane MIDC Vashi MIDC | | Total Cost | 15,010,216 |

| | NAVI MUMBAI MU | JNIC | IPAL COR | PORATIO | ON | | |
|---------|---|---------|---------------|------------|-----------|-----------|---------------------------------------|
| | RECYCLE | | | | | | |
| | Measurement Sheet of S | Shiftii | ng of Utiliti | es- Airoli | MIDC | 1 | · · · · · · · · · · · · · · · · · · · |
| tem No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
| | Utility Shifting | | | | | | |
| 1 | G.I. Pipe: Shifting, Providing & laying of ISI mark G.I. Pipe of following class and Dia.including all local and central taxes, octroi, inspection charges, transportation to stores, etc complete as per IS - 1239/2004 | | | | | | |
| | MEDIUM | | | | | | |
| | 25 mm | | 150.00 | | | 150.00 | RMT |
| | 40 mm | | 150.00 | | | 150.00 | RMT |
| | 50 mm | | 150.00 | | | 150.00 | RMT |
| 2 | C.1. S/S pipes of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | | | |
| | Class LA | | | | | | |
| | 80 mm | | 150.00 | | | 150.00 | RMT |
| | 100 mm | | 120.00 | | | 120.00 | RMT |
| | 150 mm | | 80.00 | | | 80.00 | RMT |
| | 200 mm | | 80.00 | | - | 80.00 | RMT |
| 3 | C.I. Specials: Shifting, Providing & laying ISI mark C.I./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete.(IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | | | |
| | 80 to 300 mm | - | | | | 80.00 | Kg |
| | 350 mm and above | | | | | 80.00 | Kg |
| | | | | | | | |
| | Dismantling brick masonary in lime or cement morter and stacking the materials as directed with all leads, lifts complete. Spec. No.: As | | | | | 30.00 | cum |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|---|------|------------|-----------|-----------|-----------|------|
| | Supplying and erecting XLPE/PVC insulated, armoured cable 1100 V grade with ISI mark three core, solid / standard aluminium conductor with 6 mm thick 25 mm width M.S. Spacer with G.I. Earth wire 6 sq.mm. complete erected on wall /on pole with x+C289 mm M.S. clamps or in provided trench in an approved manner. | | | | | | |
| 5 | 3 core 35 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 50 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 70 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 95 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 120 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 150 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 185 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 240 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 300 sq.mm. | | 150.00 | | | 150.00 | RMT |
| 6 | Providing cable jointing kit with cable jointing compound for straight through joint for 11 KV XLPE screened 3 core cable. 25 - 50 sq.mm. | 6.00 | | | | 6.00 | No. |
| 0 | 75 - 120 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 150 - 185 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 240 - 300 sq.mm. | 6.00 | | | | 6.00 | No. |
| | Providing cable jointing kit with cable jointing compound for straight through joint for 22 KV XLPE screened 3 core cable. | | | | | | |
| ~ | 25 - 50 sq.mm. | 5.00 | | | | 5.00 | No. |
| / | 70 - 95 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 120- 150 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 185- 240 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 300- 400 sq.mm. | 5.00 | | | | 5.00 | No. |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|--|-------|------------|-----------|-----------|-----------|------|
| 8 | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick AI/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.I.fixtures,fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | | | | 25.00 | Nos |
| | | | | | | | |
| 9 | Telephone cables Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | | 500.00 | | | 500.00 | m |
| 10 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WGTW | | 500.00 | | | 500.00 | m |
| 11 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | | 500.00 | | | 500.00 | m |
| | Optical Fibre | | | | | | |
| 12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength, on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | | 200.00 | | | 200.00 | m |
| 13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | | 200.00 | | | 200.00 | m |

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| | | RECYCLE WATER S | SYSTEM | | | |
|----------|--|--|-----------|------|------------|-------------|
| | | Shifting of Utilities- Ai | roli MIDC | 1 | | |
| Item No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
| | | Utility Shifting | | | | 24.4.4 |
| 1 | | G.I. Pipe: Shifting, Providing & laying of ISI mark G.I. Pipe of following class and Dia.including all local and central taxes, octroi, inspection charges, transportation to stores, etc complete as per IS - 1239/2004 | | | | |
| | , | MEDIUM | | | | |
| | | 25 mm | 150.00 | RMT | 147.00 | 22,050 |
| | | 40 mm | 150.00 | RMT | 214.20 | 32,130 |
| | | 50 mm | 150.00 | RMT | 305.55 | 45,833 |
| 2 | MJP DSR 2016- 17 /P-69 / 1- 1 (a) | C.I. Pipe: Shifting, Providing & laying ISI mark C.I. S/S pipes of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | Class LA | | | | · |
| | | 80 mm | 150.00 | RMT | 832.65 | 124,898 |
| | | 100 mm | 120.00 | RMT | 1042.65 | 125,118 |
| | | 150 mm | 80.00 | RMT | 1692.60 | 135,408 |
| | | 200 mm | 80.00 | RMT | 2433.90 | 194,712 |
| 3 | MJP DSR 2015- 16 /P-80 / I- 10(a) | C.I. Specials: Shifting, Providing & laying ISI mark C.I./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | 80 to 300 mm | 80.00 | Kg | 112.13 | 8,970 |
| | | 350 mm and above | 80.00 | Kg | 136.16 | 10,893 |
| 4 | PWD DSR,2017- 18 Bd-W ITEM- 46.06 PG-284 | Dismantling brick masonary in lime or cement morter and stacking the materials as directed with all leads, lifts complete. Spec. No.: As directed by Engineer in charge | 30.00 | cum | 135.45 | 4,064 |

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| Item No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|----------|-----------------------------|---|-----------|------|------------|-------------|
| | MJP E/M DSR | Supplying and erecting XLPE/PVC insulated, armoured cable 1100 V grade with ISI mark three core, solid / standard aluminium conductor with 6 mm thick 25 mm width M.S. Spacer with G.I. Earth wire 6 sq.mm. complete creeted on wall /on pole with x+C289 mm M.S. clamps or in provided trench in an approved manner. | | | | |
| 5 | 2015-16 /P-68 / I- | 3 core 35 sq.mm. | 150.00 | RMT | 266.70 | 40,005 |
| | CB 4 | 3 core 50 sq.mm. | 150.00 | RMT | 363.30 | 54,495 |
| | | 3 core 70 sq.mm. | 150.00 | RMT | 491.40 | 73,710 |
| | | 3 core 95 sq.mm. | 150.00 | RMT | 617.40 | 92,610 |
| | | 3 core 120 sq.mm. | 150.00 | RMT | 761.25 | 114,188 |
| | | 3 core 150 sq.mm. | 150.00 | RMT | 900.90 | 135,135 |
| | | 3 core 185 sq.mm. | 150.00 | RMT | 1051.05 | 157,658 |
| | | 3 core 240 sq.mm. | 150.00 | RMT | 1393.35 | 209.003 |
| | | 3 core 300 sq.mm. | 150.00 | RMT | 1630.65 | 244,598 |
| | MJP E/M DSR | Providing cable jointing kit with cable jointing compound for straight through joint for 11 KV XLPE screened 3 core cable. | | | | |
| 6 | 2015-16 /P-79 / I- CB 27 | 25 - 50 sq.mm. | 6.00 | No. | 19157.25 | 114,944 |
| | CB 27 | 75 - 120 sq.mm. | 6.00 | No. | 21172.20 | 127,033 |
| | | 150 - 185 sq.mm. | 6.00 | No. | 26303.55 | 157,821 |
| | | 240 - 300 sq.mm. | 6.00 | No. | 28554.75 | 171,329 |
| | MJP E/M DSR | Providing cable jointing kit with cable jointing compound for straight through joint for 22 KV XLPE screened 3 core cable. | | | | |
| 7 | 2015-16 /P-79/ I- | 25 - 50 sq.mm. | 5.00 | No. | 31986.15 | 159,931 |
| | CB 30 | 70 - 95 sq.mm. | 5.00 | No. | 36970.50 | 184,853 |
| | | 120- 150 sq.mm. | 5.00 | No. | 38887.80 | 194,439 |
| | | - | | 3.1 | | |
| | | 185- 240 sq.mm. | 5.00 | No. | 48638.10 | 243,191 |

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| tem No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|---------|---|--|-----------|------|-----------------|----------------|
| 8 | PWD DSR 2017- 18/ P-299 / item no -6.47 | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick AI/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.I.fixtures,fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | Nos | 3316.95 | 82,924 |
| | | Telephone cables | | | | |
| 9 | PWD E/M DSR 2015-16/ item no - 1-10-15 | Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | m | 170.10 | 85,05 |
| 10 | PWD E/M DSR 2015-16/ item no - 1-10-16 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | m | 362.25 | 181,12 |
| 11 | PWD E/M DSR 2015-16/ item no - 1-10-17 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | m | 630.00 | 315,00 |
| | | Optical Fibre | | | | |
| 12 | PWD E/M DSR 2015-16/ item no 1-12-12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength, on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 1895.25 | 379,0 |
| 13 | PWD E/M DSR 2015-16/ item no 1-12-13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 3241.35 | 648,2 |
| | | | | | Total Cost(Rs.) | 5,134,3 |

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| | NAVI MUMBAI M RECYCLI | | TER SYSTI | | - 1 | | |
|--------|--|----|------------|-----------|-----------|-----------|------|
| | Measurement Sheet of Shift | | | | ane MIDO | 3 | |
| em No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
| | Utility Shifting | | | | | | |
| 1 | G.I. Pipe: Shifting,Providing & laying of 1S1 mark G.I. Pipe of following class and Dia.including all local and central taxes,octroi,inspection charges,transportation to stores,etc complete as per IS - 1239/2004 | | | | | | |
| | MEDIUM | | | | | | |
| | 25 mm | | 80.00 | | | 80.00 | RMT |
| | 40 mm | ** | 80.00 | | 1 | 80.00 | RMT |
| | 50 mm | | 80.00 | | | 80.00 | RMT |
| | | | | | | | |
| 2 | C.I. Pipe: Shifting, Providing & laying ISI mark C.I. S/S pipes of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | | | |
| | Class LA | | | | | | |
| | 80 mm | | 150.00 | | | 150.00 | RMT |
| | 100 mm | | 120.00 | | | 120.00 | RMT |
| | 150 mm | | 80.00 | | | 80.00 | RMT |
| | 200 mm | | 75.00 | | | 75.00 | RMT |
| 3 | C.I. Specials: Shifting, Providing & laying ISI mark C.I./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | | | |
| | 80 to 300 mm | | ļ | | | 60.00 | Kg |
| | 350 mm and above | | | | | 60.00 | Kg |
| | | 1 | | | | | |
| | | | | 1 | | | |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|---|------|------------|-----------|-----------|-----------|------|
| | Supplying and erecting XLPE/PVC insulated, armoured cable 1100 V grade with ISI mark three core, solid / standard aluminium conductor with 6 mm thick 25 mm width M.S. Spacer with G.I. Earth wire 6 sq.mm. complete erected on wall /on pole with x+C289 mm M.S. clamps or in provided trench in an approved manner. | | į | | | | |
| 5 | 3 core 35 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 50 sq.mm. | | 150.00 | | | 150.00 | RMT |
| 1 | 3 core 70 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 95 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 120 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 150 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 185 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 240 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 300 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | | | | | | | |
| | Providing cable jointing kit with cable jointing compound for straight through joint for 11 KV XLPE screened 3 core cable. | | | | | | |
| 6 | 25 - 50 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 75 - 120 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 150 - 185 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 240 - 300 sq.mm. | 6.00 | | | | 6.00 | No. |
| | Providing cable jointing kit with cable jointing compound for straight through joint for 22 KV XLPE screened 3 core cable. | | | | | | |
| - | 25 - 50 sq.mm. | 5.00 | | | | 5.00 | No. |
| 7 | 70 - 95 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 120- 150 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 185- 240 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 300- 400 sq.mm. | 5.00 | | | | 5.00 | No. |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|--|-------|------------|-----------|-----------|-----------|------|
| | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick AI/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.I.fixtures,fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | | | | 25.00 | Nos |
| | Telephone cables | | | | | | |
| 9 | Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | | 500.00 | | | 500.00 | m |
| 10 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WGTW | | 500.00 | | | 500.00 | m |
| 11 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | | 500.00 | | | 500.00 | m |
| | Optical Fibre | | | | | | |
| 12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) | | 200.00 | | | 200.00 | m |
| 13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | | 200.00 | | | 200.00 | m |

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| | | NAVI MUMBAI MUNICIPAL | | ATION | | |
|----------|---|--|-----------|-------|------------|---------|
| | | RECYCLE WATER S Shifting of Utilities- Koperk | | TDC | | |
| Item No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount |
| | | Utility Shifting | | | | (Rs) |
| 1 | MJP DSR 2016- 17 /P-93 / IV- 1 (b | G.I. Pipe: Shifting, Providing & laying of ISI mark G.I. Pipe of following class and Dia.including all local and central taxes, octroi, inspection charges, transportation to stores, etc complete as per IS - 1239/2004 | | | | |
| | , | MEDIUM | | | | |
| | | 25 mm | 80.00 | RMT | 147.00 | 11,760 |
| | | 40 mm | 80.00 | RMT | 214.20 | 17,136 |
| | | 50 mm | 80.00 | RMT | 305.55 | 24,444 |
| | | | | | | |
| 2 | MJP DSR 2016- 17 /P-69 / I- 1 (a) | C.I. Pipe: Shifting, Providing & laying 1SI mark C.I. S/S pipes of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (1S - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | Class LA | | | | |
| | | 80 mm | 150.00 | RMT | 832.65 | 124,898 |
| | | 100 mm | 120.00 | RMT | 1042.65 | 125,118 |
| | | 150 mm | 80.00 | RMT | 1692.60 | 135,408 |
| | | 200 mm | 75.00 | RMT | 2433.90 | 182,543 |
| 3 | MJP DSR 2015- 16 /P-80 / 1- 10(a) | C.I. Specials: Shifting, Providing & laying ISI mark C.I./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | 80 to 300 mm | 60.00 | Kg | 112.13 | 6,728 |
| | | 350 mm and above | 60.00 | Kg Kg | 136.16 | 8,170 |
| | | | | | | -7*** |
| 4 | PWD DSR,2015- 16 Bd-W ITEM-9 PG-142 | THORICI and stacking the materials as uncerted | 25.00 | cum | 135.45 | 3,380 |

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| tem No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|---------|----------------------------|--|-----------|------|------------|-------------|
| | | Supplying and erecting XLPE/PVC insulated, armoured cable 1100 V grade with ISI mark three core, solid / standard aluminium conductor with 6 mm thick 25 mm width M.S. Spacer with G.I. Earth wire 6 sq.mm. complete | | | | |
| | | erected on wall /on pole with x+C289 mm M.S. clamps or in provided trench in an approved | | | | |
| _ | MJP E/M DSR | manner. | | | | |
| 5 | 2015-16 /P-68 / I- | 3 core 35 sq.mm. | 100.00 | RMT | 266.70 | 26,670 |
| | CB 4 | 3 core 50 sq.mm. | 100.00 | RMT | 363.30 | 36,330 |
| | | 3 core 70 sq.mm. | 100.00 | RMT | 491.40 | 49,140 |
| | | 3 core 95 sq.mm. | 100.00 | RMT | 617.40 | 61,740 |
| | | 3 core 120 sq.mm. | 100.00 | RMT | 761.25 | 76,125 |
| | | 3 core 150 sq.mm. | 100.00 | RMT | 900.90 | 90,090 |
| | | 3 core 185 sq.mm. | 100.00 | RMT | 1051.05 | 105,105 |
| | | 3 core 240 sq.mm. | 100.00 | RMT | 1393.35 | 139,335 |
| | | 3 core 300 sq.mm. | 100.00 | RMT | 1630.65 | 163,065 |
| | MJP E/M DSR | Providing cable jointing kit with cable jointing compound for straight through joint for 11 KV XLPE screened 3 core cable. | | | | |
| 6 | 2015-16 /P-79 / I- | 25 - 50 sq.mm. | 5.00 | No. | 19157.25 | 95,780 |
| | CB 27 | 75 - 120 sq.mm. | 5.00 | No. | 21172.20 | 105,86 |
| | | 150 - 185 sq.mm. | 5.00 | No. | 26303.55 | 131,51 |
| | | 240 - 300 sq.mm. | 5.00 | No. | 28554.75 | 142,77 |
| | MIDEALESS | Providing cable jointing kit with cable jointing compound for straight through joint for 22 KV XLPE screened 3 core cable. | | | | |
| 7 | MJP E/M DSR | 25 - 50 sq.mm. | 5.00 | No. | 31986.15 | 159,93 |
| 7 | 2015-16 /P-79/ I- CB 30 | 70 - 95 sq.mm. | 5.00 | No. | 36970.50 | 184,85 |
| | CB 30 | 120- 150 sq.mm. | 5.00 | No. | 38887.80 | 194,43 |
| | | 185- 240 sq.mm. | 5.00 | No. | 48638.10 | 243,19 |
| | | 300- 400 sq.mm. | 5.00 | No. | 52774.05 | 263,87 |

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| Item No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|----------|--|--|-----------|------|-----------------|-------------|
| 8 | PWD DSR 2015- 16/ P-171 / item no -52 | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick AI/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.1.fixtures,fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | Nos | 3316.95 | 82,924 |
| | | Telephone cables | | | | |
| 9 | PWD E/M DSR 2015-16/ item no - 1-10-15 | Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | 111 | 170.10 | 85,05 |
| 10 | PWD E/M DSR 2015-16/ item no - 1-10-16 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | 500.00 | m | 362.25 | 181,12 |
| 11 | PWD E/M DSR 2015-16/ item no - 1-10-17 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | 500.00 | m | 630.00 | 315,00 |
| | | Optical Fibre | | | | |
| 12 | PWD E/M DSR 2015-16/ item no - 1-12-12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength, on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 1895.25 | 379,05 |
| 13 | PWD E/M DSR 2015-16/ item no - 1-12-13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 3241.35 | 648,27 |
| | | | | | Total Cost(Rs.) | 4,600,83 |

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| | NAVI MUMBAI MI | | | | ON | | |
|---------|--|---------|------------|-------------|--|-----------|-------|
| | RECYCLE Measurement Sheet of S | | | | MIDC | | |
| | | 3111111 | T | es- vasin i | VIIDC | | |
| tem No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
| | Utility Shifting | | | | | | |
| 1 | G.I. Pipe: Shifting,Providing & laying of ISI mark G.I. Pipe of following class and Dia.including all local and central taxes,octroi,inspection charges,transportation to stores,etc complete as per IS - 1239/2004 | | | | | | |
| | MEDIUM | | | | | | |
| | 25 mm | | 200.00 | | | 200.00 | RMT |
| | 40 mm | | 200.00 | | | 200.00 | RMT |
| | 50 mm | | 200.00 | | | 200.00 | RMT |
| | | | | | | | |
| 2 | C.1. S/S pipes of following class and diameter including all taxes (central and Local) insurance,railway frieght,unloading from railway wagon,loading into trucks,transport to departmental stores / site,unloading stacking etc complete.(IS - 1536/2001) (suitable for tyton / pig lead joints) | 1.11 | | | | | |
| | Class LA | | | | | | |
| | 80 mm | | 200.00 | | | 200.00 | RMT |
| | 100 mm | | 150.00 | | | 150.00 | RMT |
| | 150 mm | | 100.00 | | | 100.00 | RMT |
| | 200 mm | | 80.00 | ļ | | 80.00 | RMT |
| 3 | C.I. Specials: Shifting, Providing & laying ISI mark C.1./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | | | |
| | 80 to 300 mm | | | | i | 80.00 | Kg |
| | 350 mm and above | | | <u> </u> | | 80.00 | Kg |
| | 550 mm and above | | | - | 1 | 00.00 | INE . |
| 4 | Dismantling brick masonary in lime or cement morter and stacking the materials as directed with all leads, lifts complete. Spec. No.: As directed by Engineer in charge | | | | | 35.00 | cum |
| | | 1 | | | 1 | | |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|--|------|------------|-----------|-----------|-----------|------|
| | Supplying and erecting XLPE/PVC | | | | | | |
| | insulated, armoured cable 1100 V grade with ISI | 1 | | | | | |
| | mark three core,solid / standard aluminium | | | | | | |
| | conductor with 6 mm thick 25 mm width M.S. | | | | | | |
| | Spacer with G.I. Earth wire 6 sq.mm. complete | | | | | | |
| | erected on wall /on pole with x+C289 mm M.S. | | | | | | |
| | clamps or in provided trench in an approved | | | | | | |
| | manner. | | | | | | |
| 5 | 3 core 35 sq.mm. | | 150.00 | | | 150.00 | D14T |
| | 3 core 50 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | | | 150.00 | | | 150.00 | RMT |
| | 3 core 70 sq.mm. 3 core 95 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 120 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 150 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 185 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 240 sq.mm. | | 150.00 | | | 150.00 | RMT |
| | 3 core 300 sq.mm. | | 150.00 | 1 | | 150.00 | RMT |
| | 3 core 300 sq.mm. | 1 | 150.00 | | | 150.00 | RMT |
| | Providing cable jointing kit with cable jointing | | | | | | |
| | compound for straight through joint for 11 KV | | 1 | | | | |
| | XLPE screened 3 core cable. | | | | | | |
| 6 | 25 - 50 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 75 - 120 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 150 - 185 sq.mm. | 6.00 | | | | 6.00 | No. |
| | 240 - 300 sq.mm. | 6.00 | | | | 6.00 | No. |
| | Providing cable jointing kit with cable jointing | | | | | | |
| | compound for straight through joint for 22 KV | | | | | | |
| | XLPE screened 3 core cable. | | | | | | |
| 7 | 25 - 50 sq.mm. | 5.00 | | | | 5.00 | No. |
| / | 70 - 95 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 120- 150 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 185- 240 sq.mm. | 5.00 | | | | 5.00 | No. |
| | 300- 400 sq.mm. | 5.00 | | | | 5.00 | No. |

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| Item No. | Description of Item | No | Length (m) | Width (m) | Depth (m) | Qty Total | Unit |
|----------|--|-------|------------|-----------|-----------|-----------|------|
| 8 | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick Al/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.I.fixtures,fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | | | | 25.00 | Nos |
| | Telephone cables | | | = | | | |
| 9 | Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | | 500.00 | | | 500.00 | m |
| 10 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | | 500.00 | | | 500.00 | 111 |
| 11 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WG TW | | 500.00 | | | 500.00 | m |
| | Optical Fibre | | | | | | |
| 12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) suitable for L GBPS with ethernet distance 850. | | 200.00 | | | 200.00 | m |
| 13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | | 200.00 | | | 200.00 | m |

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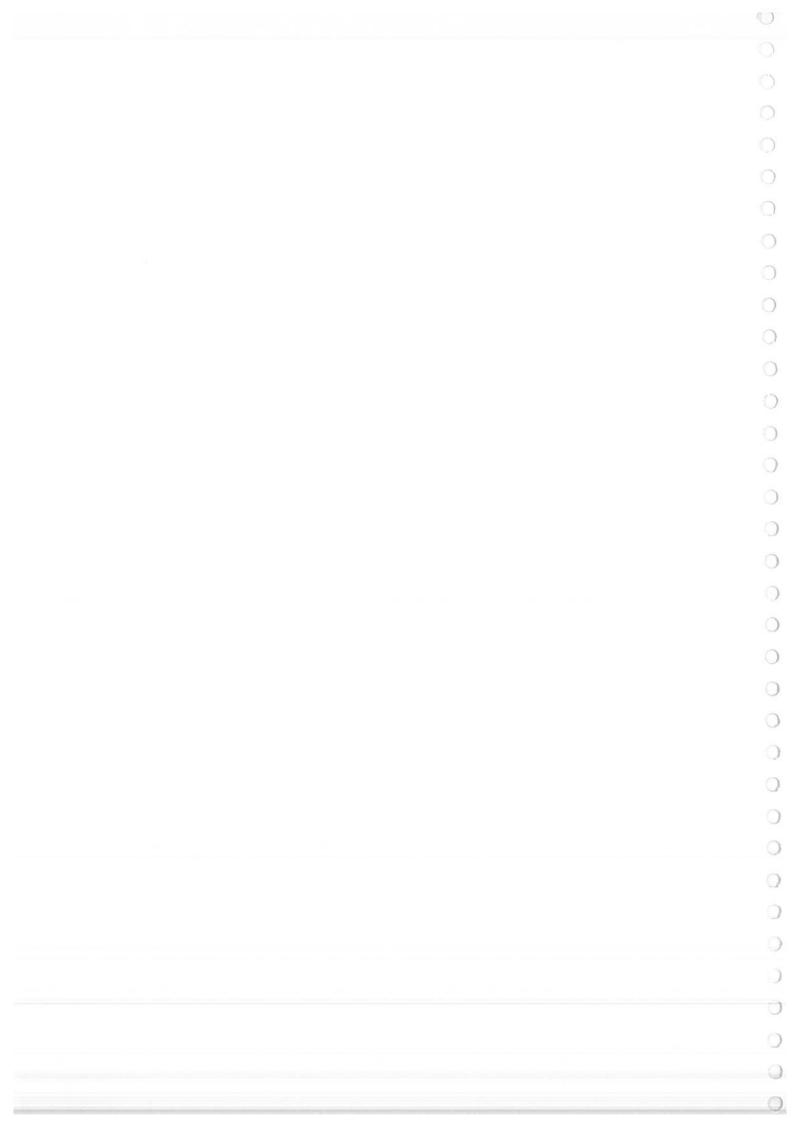
| | | NAVI MUMBAI MUNICIPAL RECYCLE WATER S | | ATION | | |
|----------|---|--|-----------|-------|------------|----------------|
| | | Shifting of Utilities- Va | | ···· | | |
| Item No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
| 1 | | Utility Shifting | | | | 15.57 |
| 1 | | G.I. Pipe: Shifting, Providing & laying of ISI mark G.I. Pipe of following class and Dia.including all local and central taxes, octroi, inspection charges, transportation to stores, etc complete as per IS - 1239/2004 | | | | |
| | , | MEDIUM | | | | |
| | | 25 mm | 200.00 | RMT | 147.00 | 29,400 |
| | | 40 mm | 200.00 | RMT | 214.20 | 42,840 |
| | | 50 mm | 200.00 | RMT | 305.55 | 61,110 |
| 2 | MJP DSR 2015- 16 /P-69 / I- 1 (a) | C.I. S/S pipes of following class and diameter including all taxes (central and Local) insurance,railway frieght,unloading from railway wagon,loading into trucks,transport to departmental stores / site,unloading stacking etc complete.(IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | Class LA | | | | |
| | | 80 mm | 200.00 | RMT | 832.65 | 166,530 |
| | | 100 mm | 150.00 | RMT | 1042.65 | 156,398 |
| | | 150 mm | 100.00 | RMT | 1692.60 | 169,260 |
| | | 200 mm | 80.00 | RMT | 2433.90 | 194,712 |
| 3 | MJP DSR 2015- 16 /P-80 / I- 10(a) | C.I. Specials: Shifting, Providing & laying ISI mark C.I./DI S/S specials of following class and diameter including all taxes (central and Local) insurance, railway frieght, unloading from railway wagon, loading into trucks, transport to departmental stores / site, unloading stacking etc complete. (IS - 1536/2001) (suitable for tyton / pig lead joints) | | | | |
| | | 80 to 300 mm | 80.00 | Kg | 112.13 | 8,970 |
| | | 350 mm and above | 80.00 | Kg | 136.16 | 10,893 |
| 4 | PWD DSR,2015- 16 Bd-W ITEM-9 PG-142 | Dismantling brick masonary in lime or cement morter and stacking the materials as directed with all leads, lifts complete. Spec. No.: As directed by Engineer in charge | 35.00 | cum | 135.45 | 4,741 |

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| tem No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|------------------------------------|--------------------|--|-----------|------|------------|----------------|
| | | Supplying and erecting XLPE/PVC insulated, armoured cable 1100 V grade with ISI mark three core, solid / standard aluminium conductor with 6 mm thick 25 mm width M.S. Spacer with G.I. Earth wire 6 sq.mm. complete | | | | |
| | | erected on wall /on pole with x+C289 mm M.S. clamps or in provided trench in an approved manner. | | | | |
| | MJP E/M DSR | | | | | |
| 5 | 2015-16 /P-68 / I- | 3 core 35 sq.mm. | 150.00 | RMT | 266.70 | 40,005 |
| | CB 4 | 3 core 50 sq.mm. | 150.00 | RMT | 363.30 | 54,495 |
| | | 3 core 70 sq.mm. | 150.00 | RMT | 491.40 | 73,710 |
| | | 3 core 95 sq.mm. | 150.00 | RMT | 617.40 | 92,610 |
| | | 3 core 120 sq.mm. | 150.00 | RMT | 761.25 | 114,188 |
| | | 3 core 150 sq.mm. | 150.00 | RMT | 900.90 | 135,135 |
| | | 3 core 185 sq.mm. | 150.00 | RMT | 1051.05 | 157,658 |
| | | 3 core 240 sq.mm. | 150.00 | RMT | 1393.35 | 209,003 |
| | | 3 core 300 sq.mm. | 150.00 | RMT | 1630.65 | 244,598 |
| | MJP E/M DSR | Providing cable jointing kit with cable jointing compound for straight through joint for 11 KV XLPE screened 3 core cable. | | | | |
| 6 | 2015-16 /P-79 / I- | 25 - 50 sq.mm. | 6.00 | No. | 19157.25 | 114,944 |
| | CB 27 | 75 - 120 sq.mm. | 6.00 | No. | 21172.20 | 127,033 |
| | | 150 - 185 sq.mm. | 6.00 | No. | 26303.55 | 157,821 |
| | | 240 - 300 sq.mm. | 6.00 | No. | 28554.75 | 171,329 |
| refillment kennen - un skinke (**) | | Providing cable jointing kit with cable jointing compound for straight through joint for 22 KV XLPE screened 3 core cable. | | | | |
| _ | MJP E/M DSR | 25 - 50 sq.mm. | 5.00 | No. | 31986.15 | 159,931 |
| 7 | | 70 - 95 sq.mm. | 5.00 | No. | 36970.50 | 184,853 |
| | CB 30 | 120- 150 sq.mm. | 5.00 | No. | 38887.80 | 194,439 |
| | 1 | 185- 240 sq.mm. | 5.00 | No. | 48638.10 | 243,191 |
| | | 1105- 240 Sq.IIIII. | 3.00 | 140. | 70000.10 | 243,171 |

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| em No. | Reference | Description of Item | Qty Total | Unit | Rate (Rs.) | Amount (Rs) |
|--------|--|---|-----------|------|-----------------|-------------|
| 8 | | Providing and fixing Retro Reflectorised 600 mm Cautionary warning sign board made out of reflective sheeting of high intensity prismatic grade confirming to IRC_67:2012 & type IV standards of ASTM D4956-09 specifications fixed over 2 mm thick AI/4 mm thick ACP SHEET back support frame of 25 X 25 X 3 mm M S angle as approved. supported on a M.S. angle iron post of size 75 x 75 x 6 MM, 3.5 M height long duly painted with synthetic enamel paint alternate black and white band of 25 cm of including G.I.fixtures, fixing the board in 1:4:8 concrete block of size 45 x 45 x 60 cm including tranportation etc.complete. 7 years Warrenty for Retro Reflective Sheet.mandatory boards of 60 cm Diameter | 25.00 | Nos | 3316.95 | 82,924 |
| | | Telephone cables | | - | | |
| 9 | PWD E/M DSR 2015-16/ item no - 1-10-15 | Supplying & Erecting Jelly field armoured telephone cable 20 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | m | 170.10 | 85,05 |
| 10 | PWD E/M DSR 2015-16/ item no - 1-10-16 | Supplying & Erecting Jelly field armoured telephone cable 50 pair with 0.5 mm dia laid in provided trench as per specification number WG-TW | 500.00 | m | 362.25 | 181,12 |
| 11 | PWD E/M DSR 2015-16/ item no - 1-10-17 | Supplying & Erecting Jelly field armoured telephone cable 100 pair with 0.5 mm dia laid in provided trench as per specification number WGTW | 500.00 | m | 630.00 | 315,00 |
| | | Optical Fibre | | | | |
| 12 | PWD E/M DSR 2015-16/ item no - 1-12-12 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 12 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength,on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 1895.25 | 379,05 |
| 13 | PWD E/M DSR 2015-16/ item no - 1-12-13 | Supplying & Erecting LSZH armoured multimode optical fiber cable with 24 fibres, with core dia of 50/125 micrometre (OM4) suitable for 1 GBPS with ethernet distance 850 nm of wavelength, on wall/ceiling or laid in provided pipe/trench as per specification No. WG-COC/OFC | 200.00 | m | 3241.35 | 648,27 |
| | | | | | Total Cost(Rs.) | 5,275,08 |



| 5,36,312 | Total Cost | |
|------------------|-----------------------|-------|
| 1,86,259 | Airoli MIDC | 4 |
| 1,60,294 | Koperkhairane MIDC | ω |
| 1,89,759 | Vashi MIDC | 2 |
| Total cost in Rs | Area | Sr.No |
| | COST SUMMARY | |
| | NAME OF WORK:- Survey | |
| A | RECYCLE WATER SYSTEM | |

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| | ω | 2 | _ | | S.NO | | | | |
|--------|--|---|---|---|-------------------|----------|----------------------------|----------------------|-----------------------------------|
| | MJP DSR 2016-17 sec H Page No. 56 Item No.5 c | Thane PWD DSR-2017- 2018 ,item no- 1.02,page no-1 | Thane PWD DSR-2015- 2016 ,item no-5,page no-233 | | Reference | | | | |
| | RMT | 2 | M | | Unit | | | | |
| | Taking trial bore by callyx machine with TCT/NX bits to gader undisturbed strata samples for investigation in all types of strata soft soil. murum, hard murum with boulders, soft rock, hard rock & quartzite etc. The item includes all hire & running cost of callyx Machine conveying all materials to site of work excluding callyx machine and back sampling all over burden strata in glass jar and core samples serially numbered at site in a wooden core box, samples to be taken at 1.0 M interval and conveying to the place as directed by engineer- in - charge, The diameter of bore in overburden shall also include MS casing pipe of 2.5 mm thick plate in overburden only and shall be 1.0 m above GL with cap over it in weather rock. | Taking trial pit $1.0 \times 1.0 \times 1.5$ mtr.at 200 metre interval and minimum 3 numbers for small stream in earth soil of all types, sand, gravel, soft murum ,hard murum and boulders etc. complete. Spec As directed by Engineer-In-Charge | Detailed/final location survey of road alignment with chain and compass, levels, theodolite and other essential instrument including staking of final centre line, locating curves, establishing Bench Marks and taking longitudinal section, cross section, fly levelling etc.complete (in plain area.) Spec As directed by Engineer-In-Charge | Add 5 % Area weigthage for Corporation Area | Items | ABSTRACT | WORKING SURVEY - AIROLI MI | RECYCLE WATER SYSTEM | NAVI MUMBAI MUNICIPAL CORPORATION |
| | 30 | 60 | 29.86 | rporation | Quantity | | OLI MIDC | STEM | ORPORA" |
| | 2646 | 245 | 2790 | Area | Basic Rate in Rs. | | | - Control of | FION |
| | 5% | 5% | 5% | | Area Weightage | | | | |
| Total | 2778.30 | 257.25 | 2929.50 | | Final Rate in Rs. | | | | |
| 180239 | 83349 | 15435 | 87475 | | Amount in Rs. | | | | |

| | ω | 2 | _ | | S.NO | | | | |
|--------|--|---|---|------------------|-------------------|----------|--------------------------|----------------------|------------------------------|
| | MJP DSR 2016- 17 sec H Page No. 56 Item No.5 c | Thane PWD DSR-2017-2018 ,item no- 1.02,page no-1 | Thane PWD DSR-2017-2018 ,item no-5,page | | Reference | | | | |
| | RMT | Z | X | | Unit | | | | |
| | Taking trial bore by callyx machine with TCT/NX bits to gader undisturbed strata samples for investigation in all types of strata soft soil, murum, hard murum with boulders, soft rock, hard rock & quartzite etc. The item includes all hire & running cost of callyx Machine conveying all materials to site of work excluding callyx machine and back sampling all over burden strata in glass jar and core samples serially numbered at site in a wooden core box, samples to be taken at 1.0 M interval and conveying to the place as directed by engineer- in - charge, The diameter of bore in overburden shall also include MS casing pipe of 2.5 mm thick plate in overburden only and shall be 1.0 m above GL with cap over it in weather rock. | Taking trial pit 1.0 x 1.0 x 1.5 mtr.at 200 metre interval and minimum 3 numbers for small stream in earth soil of all types, sand, gravel, soft murum ,hard murum and boulders etc. complete. Spec As directed by Engineer-In-Charge | Detailed/final location survey of road alignment with chain and compass, levels, theodolite and other essential instrument including staking of final centre line, locating curves, establishing Bench Marks and taking longitudinal section, cross section, fly levelling etc.complete (in plain area.) Spec As directed by Engineer-In-Charge | 13 | Items | ABSTRACT | WORKING SURVEY - KK MIDC | RECYCLE WATER SYSTEM | NAVI MIJMRAI MIJNICIPAL CORP |
| : | 30 | 45 | 22.314 | Corporation Area | Quantity | | KK MIDC | YSTEM | CORPOR |
| | 2646 | 245 | 2790 | n Area | Basic Rate in Rs. | | | | ORATION |
| | 5% | 5% | 5% | | Area Weightage | | | | |
| Total | 2778.30 | 257.25 | 2929.50 | | Final Rate in Rs. | | | | |
| 160294 | 83349 | 11576 | 65369 | | Amount in Rs. | | | | |

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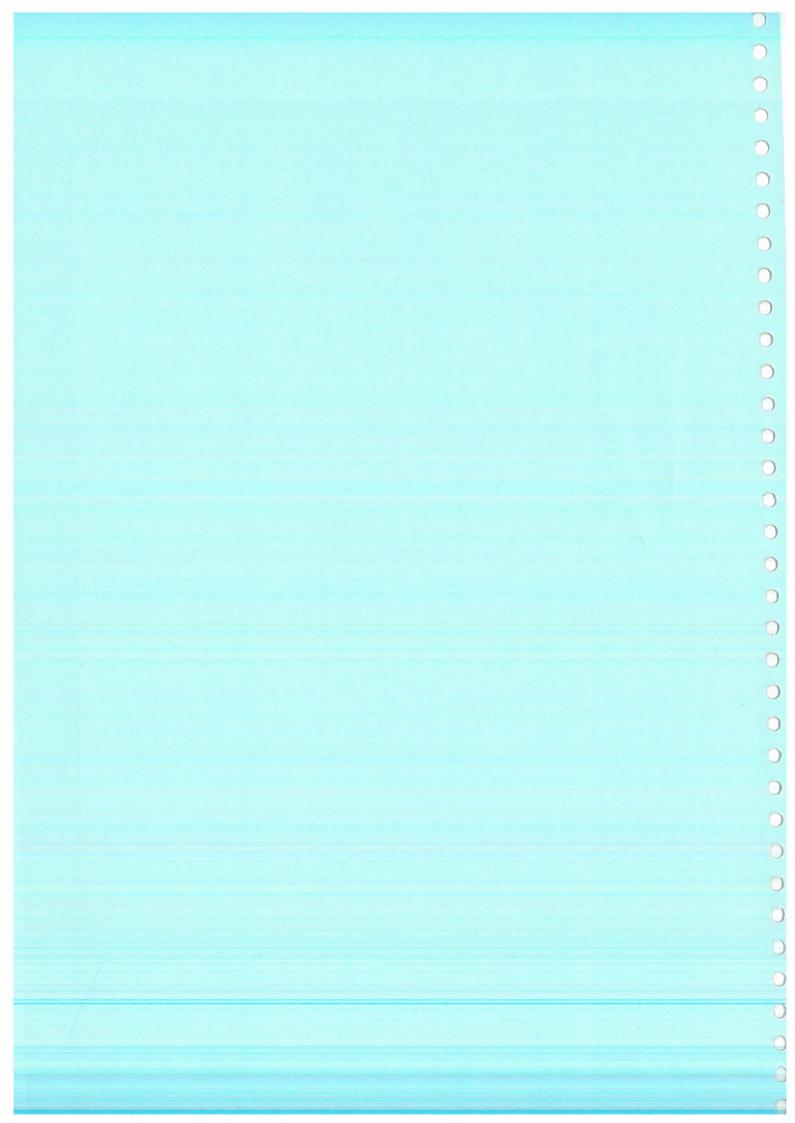
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|--------|--|--|---|--|-------------------|----------|-----------------------------|----------------------|--------------------------------|
| | MJP DSR 2016-17 sec H Page No. 56 Item No.5 c | Thane PWD DSR- 2017-2018 .item no- 1.02.page no-1 | Thane PWD DSR- 2017-2018 .item no- 5.page no-233 | | Reference | | | | |
| | RMT | N _o | KM | | Unit | | | | |
| | Taking trial bore by callyx machine with TCT/NX bits to gader undisturbed strata samples for investigation in all types of strata soft soil, murum, hard murum with boulders soft rock hard rock & quartzite etc. The item includes all hire & running cost of callyx Machine conveying all materials to site of work excluding callyx machine and back sampling all over burden strata in glass jar and core samples serially numbered at site in a wooden core box. samples to be taken at 1.0 M interval and conveying to the place as directed by engineer- in - charge. The diameter of bore in overburden shall also include MS casing pipe of 2.5 mm thick plate in overburden only and shall be 1.0 m above GL with cap over it in weather rock. | Taking trial pit 1.0 x 1.0 x 1.5 mtr.at 200 metre interval and minimum 3 numbers for small stream in earth soil of all types, sand, gravel, soft murum, hard murum and boulders etc. complete. Spec As directed by Engineer-In-Charge | Detailed/final location survey of road alignment with chain and compass. levels, theodolite and other essential instrument including staking of final centre line, locating curves, establishing Bench Marks and taking longitudinal section, cross section. fly levelling etc.complete (in plain area.) Spec As directed by Engineer-In-Charge | Add 5% Area weigthage for Corporation Area | Items | ABSTRACT | WORKING SURVEY - VASHI MIDC | RECYCLE WATER SYSTEM | ZAVIMENI MUNICIPAL CORPORALION |
| | 30 | 62 | 30.879 | rporation / | Quantity | | SHI MIDC | STEM | OKPOKAI |
| | 2646 | 245 | 2790 | Area | Basic Rate in Rs. | | | | ION |
| | 5% | 5% | 5% | | Arca Weightage | | | | |
| Total | 2778.30 | 257.25 | 2929.50 | | Final Rate in Rs. | | | | |
| 189/59 | 83349 | 15950 | 90460 | | Amount in Rs. | | | | |

COST ESTIMATE OF PROPERTY CONNECTION



| | | | tion | | | |
|---|--|--|--|---|--|--|
| Reference | Description | | | Quantity | Rate as MJP 2016-2017 | Total Cost in |
| | Pipe length require for under table top(assuming 1 m interval) | 5 m roa | d Width | | | |
| | HDPE PIPE- 8 kg/.cm | | | | | |
| MJP DSR-2016- 2017 ,Page no. 176, Sec X,Item no. 1 b (vii) | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | 62 | 15 | 930 | 666 | 619380 |
| 2017 ,Page no. | complete with all materials for jointion procedures like | | | 930 | 93 | 86490 |
| | Length of Secondary Pipe Network for property co length i.e 30 % of 30879 = 9263.7 | nnectio | n(diam | eter 110 mm a | and length as 30 % to | tal network |
| 2017 ,Page no. | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | | | 9263.7 | 295 | 2732791.5 |
| 2017 ,Page no. | complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top | | | 9263.7 | 57 | 528030.9 |
| | MJP DSR-2016-2017 ,Page no. 176, Sec X,Item no. 1 b (vii) MJP DSR-2016-2017 ,Page no. 182, Sec X,Item no. 2 (xii) MJP DSR-2016-2017 ,Page no. 176, Sec X,Item no. 1 b (iv) | Reference Description Pipe length require for under table top(assuming 1 m interval) HDPE PIPE-8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure complete with all materials for jointion procedures like Eltcrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property colength i.e. 30 % of 30879 = 9263.7 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. MJP DSR-2016- 2017, Page no. 120, Sec X, Item no. 1 b (iv) Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine , Electro mirror /heater but fusion welding machine with hydra | Reference Description Pipe length require for under table top(assuming 15 m roam interval) HDPE PIPE- 8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting felectrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property connection length i.e. 30 % of 30879 = 9263.7 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick lease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges including hydraulic testion as per relevent IS Code complete with all materials for jointion procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Edvication and frigt charges, not all abours as directed by engineer in loading clampete, pump, and accessories for hydraulic testing and all labours as directed by engineer in | Pipe length require for under table top(assuming 15 m road Width m interval) HDPE PIPE- 8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 /14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine , Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampete, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property connection(diamilength.e. 30 % of 30879 = 9263.7 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick elease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting decerofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine , Electro mirror / heater but fusion welding machine with hydraulic | Reference Description Quantity in m Pipe length require for under table top(assuming 15 m road Width and pipe dia m interval) HDPE PIPE = 8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick lease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from surrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion and so per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine . Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampete, pump and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property connection (diameter 110 mm at length i.e. 30 % of 30879 = 9263.7 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 1348 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick letease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. MJP DSR-2016-2017, Page no. 182, Sec X, Item proper position including all specials by compression fitting /electrofusion and but fusion jointing procedures like Electrofusion and but fusion jointing procedures like Electrofusion machine; Electro mirror /heater but usus in welding machine; | Reference Description Description Quantity in m 2016-2017 Pipe length require for under table top(assuming 15 m road Width and pipe diameter 160 mm and c m interval) HDPE PIPE-8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13486 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick elease coupler joint or flanged joint including all local and central taxes, transportation and frig charges conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from surveys & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression filting electrofusion and but fusion jointing procedure including hydraulic testions a per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine. Electro mirror / mater but usion welding machine with hydraulic jack, top loading clampete, pump, and accessories for hydraulic testions are classes. Providing and all labours as directed by engineer in charge as per 15/7584 Part. Length of Secondary Pipe Network for property connection(diameter 110 mm and length as 30 % to length ic 30 % of 30879 = 9263.7 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 1786 / 13486 with necessary jointing material like machine. Electrosion in machine, electrosic point in flanged joint including all local and central taxes, transportation and frigit charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from surveys & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression titing / electrosicsion and tring charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from surveys & rays et |

| Pipe length require for under table top(assuming 15 m road Width and pipe diameter 160 mm and crossing at 500 m interval) Pipe length require for under table top(assuming 15 m road Width and pipe diameter 160 mm and crossing at 500 m interval) Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 1348 with necessary jointing material like mechanical connector i.e. thread / insert point / quick lease couplar joint of fanaged joint including all local and central taxes, transportation and frigt charges, conveyance to departmental stores by a fise & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting felectrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code 2017, Page no complete with all materials for jointion procedures like leading and including producing machine with hydraulic jeck. Joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with producing including hydraulic leading and in School procedure in Joint lastic lasting and supplying in standard length polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick lease couplar joint or flanged joint including all local and control in the interval well as the procedure in lastic lasting and in control to the proper position including all specials by compression fitting / jecterousin and but fish procedure in lastic lasting and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting / jecterousin and but fish proced | Estimate of Cross connection Koperkhairane MIDC S.No Reference Description Quantity in m Pipe length require for under table top(assuming 15 m road Width and pipe disinterval) HDPE PIPE- 8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 2016-2017 ameter 160 mm and cro | ssing at 500 m |
|--|---|------------------------------------|----------------------|
| Reference Description Description Rate as MJP Z016-2017 Rate as MJP Z016-2017 Rate as MJP Z016-2017 Pipe length require for under table top(assuming 15 m road Width and pipe diameter 150 mm and crossing at 500 m in m z016-2017 Providing and Supplying in standard lengths polythelinene pipes, confirming to IS-4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quck elease couplar joint or flanged joint including all local and central laws, transportation and rigic thanges in surveys & rays etc. complete. Lowering, laying and jointing HD.P.E / MD.P.E in groper position including all specials by compression mineral laws, transportation and rigic thanges in concerned to departmental stores by a law is a stacking the same in closed shade duly protecting from surveys & rays etc. complete. Lowering, laying and jointing HD.P.E / MD.P.E in groper position including all specials by compression material laws, and the proper position including all specials by compression material laws and lambours as directed by engineer in cluding physicalic testion and science of protection in the proper position including in specials by compression material laws and lambours as directed by engineer in charge as per IS-7834 Part-II. Length of Secondary Pipe Network for property connection (diameter 110 mm and length as 30 % total network length in the same in closed shade culty protecting from surveys and lambours as directed by engineer in charge. Language in including all local and central taxes, transportation and frigit charges in compression charges, lacating plinical florating all local and central taxes. transportation and frigit charges in closed shade unity protecting from surveys as a procupation of the proper position including all specials by compression fitting felectrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code 2017, Page no complete with all materials for jointing procedure including all labours as di | S.No Reference Description Quantity in m Pipe length require for under table top(assuming 15 m road Width and pipe disinterval) HDPE PIPE-8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 2016-2017 ameter 160 mm and cro | Rs ssing at 500 m |
| Pipe length require for under table top(assuming 15 m road Width and pipe diameter 160 mm and crossing at 500 m interval) Pipe length require for under table top(assuming 15 m road Width and pipe diameter 160 mm and crossing at 500 m interval) Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 1348 with necessary jointing material like mechanical connector i.e. thread / insert point / quick lease couplar joint of fanaged joint including all local and central taxes, transportation and frigt charges, conveyance to departmental stores by a fise & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting felectrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code 2017, Page no complete with all materials for jointion procedures like leading and including producing machine with hydraulic jeck. Joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with hydraulic jeck joint lastion wellong machine with producing including hydraulic leading and in School procedure in Joint lastic lasting and supplying in standard length polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick lease couplar joint or flanged joint including all local and control in the interval well as the procedure in lastic lasting and in control to the proper position including all specials by compression fitting / jecterousin and but fish procedure in lastic lasting and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting / jecterousin and but fish proced | Pipe length require for under table top(assuming 15 m road Width and pipe disinterval) HDPE PIPE-8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 2016-2017 ameter 160 mm and cro | Rs ssing at 500 m |
| Interval HPPE PIPE 3 kg/cm | Interval HDPE PIPE-8 kg/.cm Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | | |
| Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 17388 with necessary joining material like mechanical connector i.e. thread / insert joini / quick leading and local and central taxes, transportation and frigit charges and central taxes, transportation and frigit charges conveyance to departmental stores bf site & stacking the same in closed shade duty protecting from surrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting / electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code considered with all materials for jointion procedures like Elctrofusion machine, Electromore in the proper position including and libours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property connection diameter 110 mm and length as 30 % total network length as 30 % of 22514 = 6584.2 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing meterial like mechanical connector i.e. thread / insert joint / quick leading and central laxes, transportation and frigit charges conveyance to departmental stores by site & stacking the same in closed shade duly protecting from surrays & rays etc. complete. Lowering, laying and jointing H.D.P.E./ M.D.P.E. in proper position including all local and central laxes, transportation and frigit charges conveyance to departmental stores by site & stacking the same in closed shade duly protecting from surrays & rays etc. complete. Lowering, laying and jointing H.D.P.E./ M.D.P.E. in proper position including all local and central laxes, transportation and frigit charges conveyance to departmental stores by site & stacking the same in closed shade duly protecting from surrays & rays etc. complete with all materials for jointing procedure like Electrofusion machine, Electro mirror /heater but used | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 666 | 449550 |
| polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing meterial like mechanical connector i.e. thread / insert joint / quick letolate. Secouplar joint or flanged joint including all local and central taxes, transportation and frigt charges on 10 (wi). Lovering, laying and jointing H.D.P.E./M.D.P.E in proper position including all specials by compression fitting reflectrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code control of the proper position including all specials for jointing procedures like to 30 % of 22314 = 6694.2 Length of Secondary Pipe Network for property connection (diameter 110 mm and length as 30 % total network length is 30 % of 22314 = 6694.2 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like some conveyance to departmental stores by late & stacking in proper position including all local material stores by late & stacking in proper position including all local material like some position and frigt charges in the proper position including all local material like some position and frigt charges in the proper position including all local material like some position and frigt charges in continuous proper position including all local material like some position and frigt charges in continuous proper position including all local material stores by late & stacking the same in closed shade duly protecting from surrays & rays etc. complete. MJP DSR-2015. MJP DSR-2016. Lovering, Jaying and jointing H.D.P.E./M.D.P.E.in proper position including all local material stores by late & stacking the same in closed shade duly protecting from surrays & rays etc. complete with all materials for joint in procedure like lease coupler joint or flanged joint including all local materials or surrays & rays etc. complete with materials for joint in procedure like lease and surrays as a stacked by engineer in charge surrays and all labours | polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 666 | 449550 |
| proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code 2017. Page no. 182, Sec X, Item Inc. 2 (xii) loading dampete, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. Length of Secondary Pipe Network for property connection(diameter 110 mm and length as 30 % total network length i.e 30 % of 22314 = 6694.2 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / guick telease couplar joint or flanged joint including all local and central taxes, transportation and frigit charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression flating / leterofusion and but fusion jointing procedure for laze, seed that all materials for jointion procedures like lectiorusion machine, Electro mirror / heater but fusion welding machine with hydraulic testion as per relevent IS Code complete with all materials for jointion procedure like lectiorusion machine, Electro mirror / heater but fusion welding machine with hydraulic lestion as per relevent IS Code complete with all materials for jointion procedure like lectiorusion machine, Electro mirror / heater but fusion welding machine with hydraulic lestion as per relevent IS Code complete with all materials for jointion procedure like lectiorusion machine, Electro mirror / heater but fusion welding machine with hydraulic lestion as per relevent IS Code complete with all materials for jointing procedure like lectiorusion machine, Electro mirror / heater but fusion welding clampeto, pump, and accessories for hydraulic lestion as a directed by en | sunrays & rays etc. complete. | | |
| i.e. 30 % of 22314 = 6694.2 Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine. Electromiror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump, and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in | 93 | 62775 |
| polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | and length as 30 % tota | l network lengt |
| proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from | 2 295 | 1974789 |
| proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Electrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | | |
| Total Cont. 20000 | proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in | 2 57 | 381569.4 |
| | | Total Cost | 286868 |

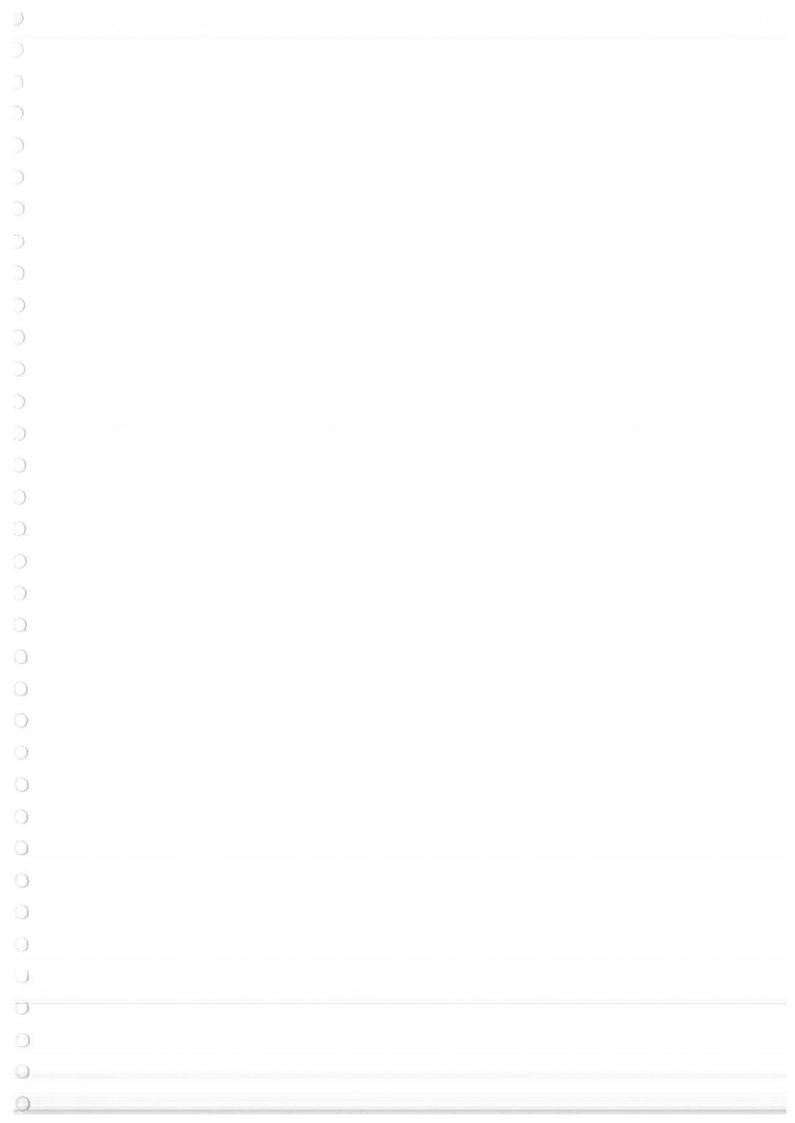
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| | | NAVI MUMBAI MUNICIPA RECYCLE WATER | | | | | |
|------|---|--|---------|----------|----------------------|---------------------------------|----------------------|
| | | Estimate of Cross | | ction | | | |
| S.No | Reference | Airoli MID Description | C | | Quantity | Rate as MJP | Total Cost in |
| 1 | | Pipe length require for under table top(assuming 15 m interval) | 5 m roa | d Width | in m and pipe dia | 2016-2017 meter 160 mm and c | Rs rossing at 500 |
| | | HDPE PIPE- 8 kg/.cm | | | <u> </u> | | |
| | MJP DSR- 2016-2017 ,Page no. 176, Sec X,Item no. 1 b (vii) | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | 60 | 15 | 900 | 666 | 599400 |
| | MJP DSR- 2016-2017 ,Page no. 182, Sec X,Item no. 2 (xii) | Lowering, laying and jointing H.D.P.E / M.D.P.E in proper position including all specials by compression fitting /electrofusion and but fusion jointing procedure including hydraulic testion as per relevent IS Code complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but fusion welding machine with hydraulic jack, top loading clampetc, pump,and accessories for hydraulic testing and all labours as directed by engineer in charge as per IS-7634 Part-II. | | | 900 | 93 | 83700 |
| 2 | | Length of Secondary Pipe Network for property corlength i.e 30 % of 29860 = 8958 | nectio | n(diame | eter 110 mm a | nd length as 30 % to | tal network |
| 1 | MJP DSR- 2016-2017 ,Page no. 176, Sec X,Item no. 1 b (iv) | Providing and Supplying in standard lengths polyethelene pipes, confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i.e. thread / insert joint / quick telease couplar joint or flanged joint including all local and central taxes, transportation and frigt charges inspection charges, loading unloading charges, conveyance to departmental stores b/ site & stacking the same in closed shade duly protecting from sunrays & rays etc. complete. | | | 8958 | 295 | 2642610 |
| | | | | | | | |
| 2 | MJP DSR- 2016-2017 ,Page no. 182, Sec X,Item no. 2 (ix) | complete with all materials for jointion procedures like Elctrofusion machine, Electro mirror /heater but | | | 8958 | 57 | 510606 |
| | | | | | | | |

| 10,671,692 | Total |
|------------|-----------------------------------|
| 3,966,692 | vashi-MIDC |
| 2,868,683 | Kopherkharine-MIDC |
| 3,836,316 | Airoli -MIDC |
| Total cost | Zone name |
| ction | Abstract of Cross Connection |
| TEM | RECYCLE WATER SYSTEM |
| RPORATION | NAVI MUMBAI MUNICIPAL CORPORATION |
| | |

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| Navi Mumbai Municipal Corporation Recycled Water System | | | | | | | | |
|--|-----------------------------------|----------|------|--|--|--|--|--|
| Property Connection- Measurement 40mm Dia. | | | | | | | | |
| Sr.No. | Description of Item | Quantity | Unit | | | | | |
| | No. of Connections-40mm dia | | | | | | | |
| · | Residential | 1.00 | | | | | | |
| | Commercial | 0.00 | | | | | | |
| | | 0.00 | | | | | | |
| | Industrial | 1.00 | No. | | | | | |
| 1 | Ultra Violet stabilised PVC Pipe | | | | | | | |
| | 40mm | 10 | m | | | | | |
| 2 | Road Box | 1.00 | No. | | | | | |
| 3 | Gate Valve | | | | | | | |
| | 40mm | 1.00 | | | | | | |
| 4 | AMR Water Meter | | | | | | | |
| | 40mm | 1.00 | No. | | | | | |
| 5 | Supplying of Non return valve | | | | | | | |
| | 40mm | 1.00 | No. | | | | | |
| 6 | Lowering of Non return valve | 1.00 | No. | | | | | |
| 7 | Strainers(Filter or dirt box) | | | | | | | |
| | 40mm | 1.00 | No. | | | | | |
| 8 | Connections | | | | | | | |
| | Saddle Connection for DI pipes | 0 | No. | | | | | |
| | Compression Saddle for HDPE pipes | 1 | No. | | | | | |

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| | | Property Connection-40r | nm Dia. | | | |
|-----------|--|--|-------------|-------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 7 | Elec/Mech MJP DSR 2016-17 Page No.105 Item No. B.c- 1 | Providing and fixing C.I strainers for water meters including cost of all material and labour. Of T (basket) type with flanged ends & with stainless steel or Brass mesh with opening of 2.5mm to 3mm & suitable for operating pressure of 16 kg/cm2 & test pressure of 24 kg/cm2. | 1.00 | No. | 3856.65 | 2954 45 |
| | | 30 mm dia | 1.00 | INO. | 3830.03 | 3856.65 |
| | | Connections | | | | |
| 8 | FMR | Saddle Connection (Saddle belt) for DI pipes | 0 | No. | 1000.00 | 0.00 |
| | | Compression Saddle for HDPE pipes | 1.00 | No. | 300.00 | 300.00 |
| | | Cost | | .1 | | 33050 |
| | | Add 1% cess on Labour wel | fare (For | MJP i | tems) | 278 |
| | | Add 1% cess on Labour ame | nities (For | MJP | items) | 99 |
| | | Total Cos | st | | | 33426 |

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| | | Property Connection-40m | ım Dia. | | | |
|-----------|--|--|---------|------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 4 | Elec/Mech MJP DSR 2016-17 Page No.102, section 19 - WM-1A Item No. C-4 | Providing, installing and giving satisfactory field testing of domestic multijet mechanical AMR water meters horizontal inferencial with magnetic drive and dry dial suitable for ambient 50 C temperature duly sealed against tampering with coupling at both ends conforming to ISO 4064 with GSM/radio frequency (RF) for communication to server via transreceiver along with hand held device and PC software etc complete with EEC /OIML MID certification for Abroad meter and FCRI for india including 36 months guarantee etc complete; | 1.00 | No. | 16866.15 | 16866.15 |
| | | 40 mm | | | | |
| | | Non-Return Valve | | | | |
| 5 | MJP DSR 2016-17, P 207 Item no 1)a)i) | Providing and supplying ISI mark CI D/F reflux valves (non-return valves) of following dia including all taxes (Central & local), railway reight,inspection charges,unloading from railway wagon, loading into truck, transportation upto departmental stores/ site, unloading, stacking etc. complete. 50 mm | 1.00 | No. | 3126.00 | 3126.00 |
| | | Lowering loving and jointing in | | | | |
| 6 | MJP DSR 2016-17, P 217 Item no 4)i) | Lowering, laying and jointing in position following C.I. D/F Reflux valves, Butterfly valves and Sluice valves including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc.complete. (Rate for all class of valves.) 50mm | 1.00 | No. | 782.25 | 782.25 |

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| | | Navi Mumbai Municipal Co Recycled Water Syst | | | | |
|-----------|--|--|-------|------|---------------|--------------|
| | | Property Connection-40n | | • | | |
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 1 | PWD 17-18 Bd-V | Providing and fixing in position UV stabilized PVC plumbing pipes of required standard thickness conforming to IS 4985, Including necessary fittings confirming to IS 7834, such as PVC bends, tees, reducers, clamps, plugs etc. necessary excavation trench, refilling, necessary drilling holes in walls/slabs and making the good surface etc. complete.(For 10 Kg/ sq.cm pressure)(Including defect liability period and bond for 3 years.) | | | | |
| | | 40 mm dia | 10.00 | m | 396.90 | 3969.00 |
| 2 | MJP DSR 2016-17, P 346 Item no 5 b | Road Box Providing and fixing C.I. Road box including loading,unloading and carting to site of work including all necessary excavation in all types of strata and fixing in murum packing etc. complete 225mm x 300mm (40 kg) | 1.00 | No. | 3166.80 | 3166.80 |
| | | Gate valve | | | | |
| 3 | Elec/Mech PWD DSR 2016-17 chapter 13 GV -13-7-26 | Suppy & installing gun metal gate valve of size 50 mm dia as per specification no FF-VL/GV | | | | |
| | | 50 mm | 1.00 | No. | 982.80 | 982.80 |
| | | AMR Water Meter | | | | |

| | Recycled Water | ll Corporation System | | | | | |
|--|-----------------------------------|-----------------------|------|--|--|--|--|
| Property Connection- Measurement 25mm Dia. | | | | | | | |
| Sr.No. | Description of Item | Quantity | Unit | | | | |
| | | | | | | | |
| | No. of Connections-25mm dia | 1.00 | | | | | |
| | Residential | 1.00 | | | | | |
| | Commercial | 0.00 | | | | | |
| | Industrial | 0.00 | | | | | |
| | | 1.00 | No. | | | | |
| 1 | Ultra Violet stabilised PVC Pipe | | | | | | |
| | 25 mm | 10 | m | | | | |
| | | | | | | | |
| 2 | Road Box | 1.00 | No. | | | | |
| 3 | Gate Valve | | | | | | |
| <u> </u> | 25 mm | 1.00 | | | | | |
| 4 | AMR Water Meter | | | | | | |
| | 25 mm | 1.00 | No. | | | | |
| 5 | Supplying of Non return valve | | | | | | |
| | 25 mm | 1.00 | No. | | | | |
| 6 | Lowering of Non return valve | 1.00 | No. | | | | |
| 7 | Strainers(Filter or dirt box) | | | | | | |
| | 25 mm | 1.00 | No. | | | | |
| 8 | Connections | | | | | | |
| | Saddle Connection for DI pipes | 0 | No. | | | | |
| | Compression Saddle for HDPE pipes | 1 | No. | | | | |

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| | | Property Connection=25r | nm Dia. | | | |
|-----------|--|--|-------------|--------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 7 | Elec/Mech MJP DSR 2016-17 Page No.105 Item No. B.c- 1 | Providing and fixing C.I strainers for water meters including cost of all material and labour. Of T (basket) type with flanged ends & with stainless steel or Brass mesh with opening of 2.5mm to 3mm & suitable for operating pressure of 16 kg/cm2 & test pressure of 24 kg/cm2. | | | | |
| | | 50 mm dia | 1.00 | No. | 3856.65 | 3856.65 |
| | | Connections | | | | |
| 8 | FMR | Saddle Connection (Saddle belt) for DI pipes | 0 | No. | 1000.00 | 0.00 |
| | | Compression Saddle for HDPE pipes | 1.00 | No. | 300.00 | 300.00 |
| | | Cost | | | | 33095 |
| | | Add 1% cess on Labour wel | fare (For I | MJP it | tems) | 288 |
| | | Add 1% cess on Labour ame | nities (For | MJP | items) | 103 |
| | | Total Cos | st | | | 33485 |

| | | Property Connection=25n | im Dia. | | | |
|-----------|--|--|---------|------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| | | AMR Water Meter | | | | |
| 4 | Elec/Mech MJP DSR 2016-17 Page No.102, section 19 - WM-1A Item No. C-4 | Providing, installing and giving satisfactory field testing of domestic multijet mechanical AMR water meters horizontal inferencial with magnetic drive and dry dial suitable for ambient 50 C temperature duly sealed against tampering with coupling at both ends conforming to ISO 4064 with GSM/radio frequency (RF) for communication to server via transreceiver along with hand held device and PC software etc complete with EEC /OIML MID certification for Abroad meter and FCR1 for india including 36 months guarantee etc complete; | 1.00 | No. | 12370.05 | 12370.05 |
| | | 25 mm | | | | |
| | | | | | | |
| | | Non-Return Valve | | | | |
| 5 | MJP DSR 2016-17, P 207 Item no 1)a)i) | Providing and supplying ISI mark CI D/F reflux valves (non-return valves) of following dia including all taxes (Central & local), railway reight,inspection charges,unloading from railway wagon, loading into truck, transportation upto departmental stores/ site, unloading, stacking etc. complete. 50 mm | 1.00 | No. | 3126.00 | 3126.0 |
| 6 | MJP DSR 2016-17, P 217 Item no 4)i) | Lowering, laying and jointing in position following C.I. D/F Reflux valves, Butterfly valves and Sluice valves including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc.complete. (Rate for all class of valves.) 50mm | 1.00 | No. | 7822.50 | 7822.5 |

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| | | Navi Mumbai Municipal Co | | | | |
|-----------|--|--|-------|------|---------------|--------------|
| | | Recycled Water Syst Property Connection=25r | | | | |
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 1 | PWD 17-18 Bd-V Page No.252 Item No 42.63 | Providing and fixing in position UV stabilized PVC plumbing pipes of required standard thickness conforming to IS 4985, Including necessary fittings confirming to IS 7834, such as PVC bends, tees, reducers, clamps, plugs etc. necessary excavation trench, refilling, necessary drilling holes in walls/slabs and making the good surface etc. complete.(For 10 Kg/ sq.cm pressure)(Including defect liability period and bond for 3 years.) | | | | 1 |
| | | 25 mm dia | 10.00 | m | 259.35 | 2593.50 |
| 2 | MJP DSR 2016-17, P 346 Item no 5 a | Road Box Providing and fixing C.I. Road box including loading,unloading and carting to site of work including all necessary excavation in all types of strata and fixing in murum packing etc. complete 100mm x 225mm (20 kg) | 1.00 | No. | 1612.80 | 1612.80 |
| 3 | Elec/Mech PWD DSR 2016-17 chapter 13 GV -13-7-25 | Gate valve Suppy & installing gun metal gate valve of size 25 mm dia as per specification no FF-VL/GV | | | | |
| | | 25 mm | 1.00 | No. | 1413.30 | 1413.30 |
| | 1 | | | | | <u> </u> |

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| | Recycled Water | System | | | | | | |
|--|-------------------------------------|----------|------|--|--|--|--|--|
| Property Connection- Measurement-50 mm dia | | | | | | | | |
| Sr.No. | Description of Item | Quantity | Unit | | | | | |
| | No. of Connections- 50mm dia | | | | | | | |
| | Residential | 1.00 | | | | | | |
| | Commercial | 0.00 | | | | | | |
| | Industrial | 0.00 | | | | | | |
| | industrial | 1.00 | No. | | | | | |
| 1 | Ultra Violet stabilised PVC Pipe | | | | | | | |
| | 50 mm | 10 | m | | | | | |
| 2 | Road Box | 1.00 | No. | | | | | |
| 3 | Gate Valve | | | | | | | |
| | 50 mm | 1.00 | No. | | | | | |
| 4 | AMR Water Meter | | | | | | | |
| | 50 mm | 1.00 | No. | | | | | |
| 5 | Supplying of Non return valve | | | | | | | |
| | 50 mm | 1.00 | No. | | | | | |
| 6 | Lowering of Non return valve | 1.00 | No. | | | | | |
| 7 | Strainers(Filter or dirt box) | | | | | | | |
| | 50 mm | 1.00 | No. | | | | | |
| 8 | Connections | | | | | | | |
| | Saddle Connection for DI pipes | 0 | No. | | | | | |
| | Compression Saddle for HDPE pipes | 1 | No. | | | | | |

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| | | Property Connection-50 | mm dia | | | |
|-----------|--|--|-------------|--------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 7 | Elec/Mech MJP DSR 2016-17 Page No.105 Item No. B.c- I | Providing and fixing C.1 strainers for water meters including cost of all material and labour. Of T (basket) type with flanged ends & with stainless steel or Brass mesh with opening of 2.5mm to 3mm & suitable for operating pressure of 16 kg/cm2 & test pressure of 24 kg/cm2. | 1.00 | No. | 3856.65 | 3856.65 |
| | | Connections | | | | : |
| 8 | FMR | Saddle Connection (Saddle belt) for DI pipes | 0 | No. | 1000.00 | 0.00 |
| | | Compression Saddle for HDPE pipes | 1.00 | No. | 300.00 | 300.00 |
| | | Cost | | 1 | 1 | 44639 |
| | | Add 1% cess on Labour wel | fare (For | MJP it | tems) | 374 |
| | | Add 1% cess on Labour amer | nities (For | MJP | items) | 137 |
| | | Total Cos | st | | | 45150 |

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| | | Property Connection-50 | nm dia | | | |
|-----------|--|--|--------|------|---------------|--------------|
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 4 | Elec/Mech MJP DSR 2016-17 Page No.107, section 19 - WM-2B Item No. B-1 | 68 protection class with complete immersion of water .the meter shall have battery life of min .10 years should be able to detect the reverse flow volume and tampering .The accuracy of the meter shall be +/- 1 % of measured value including 36 months guarantee etccomplete.(with Simcard and its charges valid for 36 months) | 1.00 | No. | 26491.50 | 26491.50 |
| | | 50 mm | | | | |
| | | Non-Return Valve | | | | |
| 5 | MJP DSR 2016-17, P 207 Item no 1)a)i) | Providing and supplying ISI mark CI D/F reflux valves (non-return valves) of following dia including all taxes (Central & local), railway reight,inspection charges,unloading from railway wagon, loading into truck, transportation upto departmental stores/ site, unloading, stacking etc. complete. 50 mm | 1.00 | No. | 3126.00 | 3126.0 |
| | | | | | | |
| 6 | MJP DSR 2016-17, P 217 Item no 4)i) | Lowering, laying and jointing in position following C.I. D/F Reflux valves, Butterfly valves and Sluice valves including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc.complete. (Rate for all class of valves.) | 1.00 | No. | 782.25 | 782.2 |

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| | | Navi Mumbai Municipal Co | rporation | | | |
|-----------|--|--|-----------|------|---------------|--------------|
| | | Recycled Water Syst | | | | |
| | | Property Connection-50 | mm dia | , | | |
| It No. | DSR | Description of Item | Qty | Unit | Rate (Rs.) | Amount (Rs.) |
| 1 | | Providing and fixing in position UV stabilized PVC plumbing pipes of required standard thickness conforming to IS 4985, Including necessary fittings confirming to IS 7834, such as PVC bends, tees, reducers, clamps, plugs etc. necessary excavation trench, refilling, necessary drilling holes in walls/slabs and making the good surface etc. complete.(For 10 Kg/ sq.cm pressure)(Including defect liability period and bond for 3 years.) | | | × | |
| | | 50 mm dia | 10.00 | m | 593.25 | 5932.5 |
| 2 | MJP DSR 2016-17, P 346 Item no 5 b | Road Box Providing and fixing C.I. Road box including loading,unloading and carting to site of work including all necessary excavation in all types of strata and fixing in murum packing etc. complete 225mm x 300mm (40 kg) | 1.00 | No. | 3166.80 | 3166.80 |
| 3 | Elec/Mech PWD DSR 2016-17 chapter 13 GV -13-7-26 | Gate valve Suppy & installing gun metal gate valve of size 50 mm dia as per specification no FF-VL/GV | | | | |
| | | 50 mm | 1.00 | No. | 982.80 | 982.8 |

| | | | | Total Cost of | property connection | (;d | 10,764,903.09 | 0 101 010 40 | 9.797.270.49 | 10 895 279 49 | 017 117 70 | 31,457,453 |
|-----------------------------------|-----------------------|---------------------------------|-----------------------------|---------------------------------------|---------------------|------------|---|-----------------|---------------------|---------------|------------|------------|
| | | | | Cross Connection | Pine Cast | 300 04: | 3836316 | | 2868683 | 3966692 | | Total Cost |
| D | | | | Cost of 25mm | property | connection | 5022799 | | 5022799 | E022789 | 3356133 | |
| Navi Mumbai Municipal Corporation | Recycled Water System | Abstract of Property Connection | COUNTY COUNTY OF THE COUNTY | Cost of 40 mm | property | connection | 1002789 | 201300 | 1002789 | 40007000 | 10077001 | |
| Navi Mumbai M | Recycled | Abstract of Pr | TO TO THE OWN | Cost of 50 mm | property | connection | 90000 | 000000 | 902998 | 00000 | 307330 | |
| | | | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | No or property | connection | 000 | 7007 | 200 | | 700 | |
| | | | | | Zone name | | (C P C C C C C C C C | Alroit -IVIII-X | Monthorthoring MIDC | | vashi-MIDC | |
| | | | | | S.no | | 6 | 0 | c | מ | 9 | |

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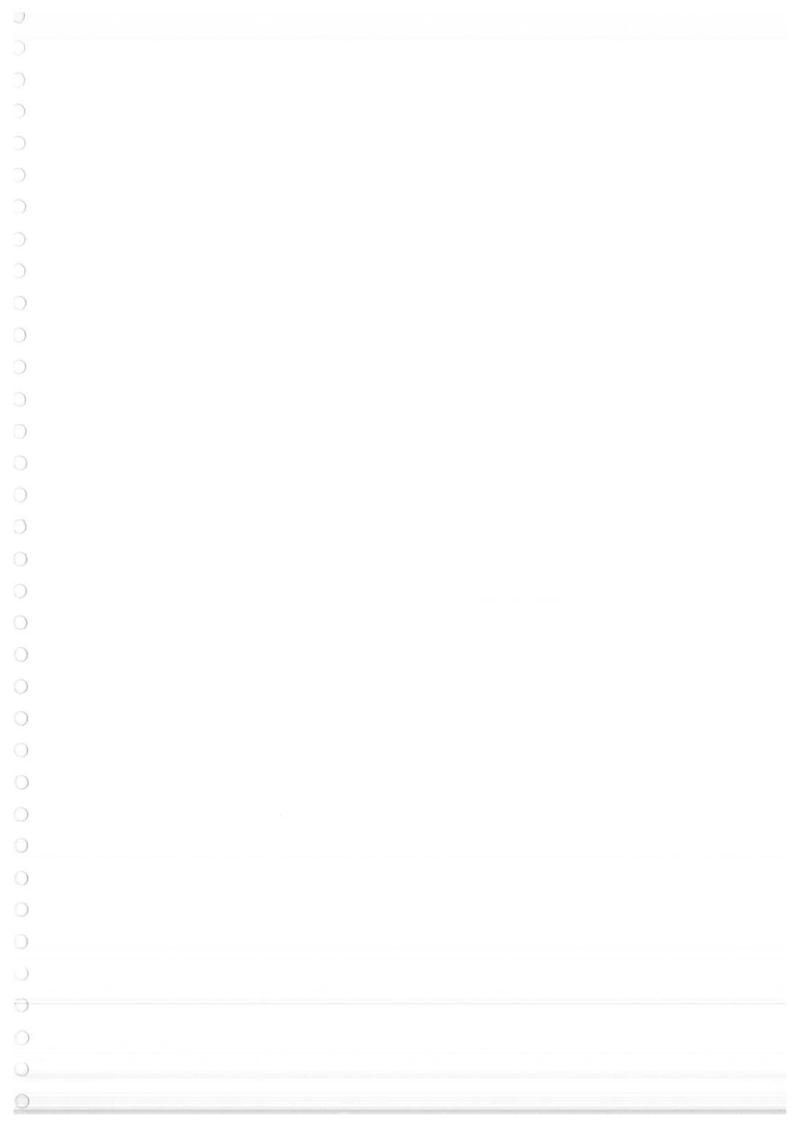
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| | Navi Mumbai Municipa | | | | ~ | | |
|---------|---|------|------|----------|------|------|------|
| | PAVER BLOCK ROAD REST | | | VORK | 5 | | |
| r. No. | MEASUREMENT | | | | | T | |
| r. 180. | Providing, laying, spreading and compacting stone aggregate of specified sizes to water bound macadam specifications, including spreading in uniform thickness, hand packing rolling with 3 wheeled steel/vibratory roller 8-10 tonnes in stages to proper gade and camber, applying and brooming reuisite type of screening, blinding materials to fill up the interstics of coarse aggregates, watering and compacting to the required | Unit | No. | <u>L</u> | В | Н | Otγ. |
| | density making necessary earthen bund to protect edges, lighting, guarding, barricading and maintenance of diversion etc. complete. By manual means - Grading 1 90 mm to 45 mm | | | | | | |
| | Main Road (Average width of excavation as 3.5m) | Cum | | 1.00 | 1.00 | 0.30 | 0.30 |
| | | | | | 1 | | 0.30 |
| 2 | Taking our existing CC interlocking paver blocks from footpath / central verge, including removal of rubbish etc. disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge. | | | | | | |
| | Main Road | Sqm | Area | 1.00 | ļ | | 1.00 |
| | | | | | | | 0.00 |
| 3 | Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per direction of Engineer-incharge. (Old CC paver blocks shall be supplied by the department free of cost). | | | | | | - |
| | Main Road | Sgm | Area | 0.80 | | | 0.80 |
| | | | | | - | | 0.80 |
| | 1 | | | | | | |
| 4 | Providing and fixing in the carriageway interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement and of approved colour as per technical specification, 100mm thick having average crushing strength of 35 N/mm ² placed on average thickness of 40mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. (for carraigeway only). | | | | | | |
| | Main Road | Sqm | Area | 0.2 | | | 0.20 |
| | | | | | | | 0.20 |

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| Sr. No. Reference Description Of Item Unit Quantity Rate (5% Amount (Rs.)) Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type 17-18. Page of no. 18 - Item no. 3.16 Taking our existing CC interlocking paver blocks from footpath / central verge, including removal of rubbish etc. disposal of unserviceable material to the dumping ground. for which payment shall be made separately and stacking No. 16.83/pg.269 of serviceable material within 50 metre lead as per direction of Engineer-in-charge. CPWD DSR No. 16.84/pg.269 CPWD DSR No. 16.84/pg.269 CPWD DSR No. 16.84/pg.269 Providing and fixing in the carriageway 100 mm thick interlocking oncrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average erushing strength of 50 N/mm²2 and as per technical specification, placed on average compacted | | | PAVER BLOCK ROAD RESTORA | | WORKS | | |
|--|---|---|---|------|----------|---------|--------------|
| Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/binding Materials to fill up the interstices of no. 18 - 16 cm carse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and VSat attachment. to the required density. By Manual Means Grading I (Using Screening Type B (11.2 mm) Aggregate) Taking our existing CC interlocking paver blocks from footpath / central verge, including removal of rubbish etc. disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge. Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature. colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost). Providing and fixing in the carriageway 100 mm thick interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average crushing strength of 50 N/mm² and as per technical specification, placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. MCGM Road department Vol. 1. | | Reference | ABSTRACT SHEET Description Of Item | | Quantity | , | Amount (Rs.) |
| CPWD DSR 2014/Item No. 16.83/pg.269 of serviceable material within 50 metre lead as per direction of Engineer-in-charge. Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost). Providing and fixing in the carriageway 100 mm thick interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average crushing strength of 50 N/mm^2 and as per technical specification, placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. MCGM Road department Vol. 1, | | PWD DSR 17-18, Page no. 18 - Item | aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and VSat attachment. to the required density. By Manual Means Grading | Cum | 0.30 | | 399 |
| any design/shape laid in required line, level, curvature, colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per direction of Engineer-incharge. (Old CC paver blocks shall be supplied by the department free of cost). Providing and fixing in the carriageway 100 mm thick interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average crushing strength of 50 N/mm^2 and as per technical specification, placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. MCGM Road department Vol. 1, | 2 | 2014/Item No. | footpath / central verge, including removal of rubbish etc. disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per | Sqm | 0.00 | 50.72 | - |
| interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average crushing strength of 50 N/mm^2 and as per technical specification, placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. MCGM Road department Vol. 1, | 3 | 2014/Item No. | any design/shape laid in required line, level, curvature, colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per direction of Engineer-incharge. (Old CC paver blocks shall be supplied by the | Sqin | 0.80 | 205.49 | 164 |
| | 4 | 1 | interlocking concrete pavers unishape (monolithic single layer precast concrete blocks) of gray cement colored having average crushing strength of 50 N/mm^2 and as per technical specification, placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with properly compacted with mechanical compactor with required level grade and camber etc. complete as directed. MCGM Road department Vol. 1, | Som | 0.20 | 1137.00 | 22' |
| | | | | | | | |



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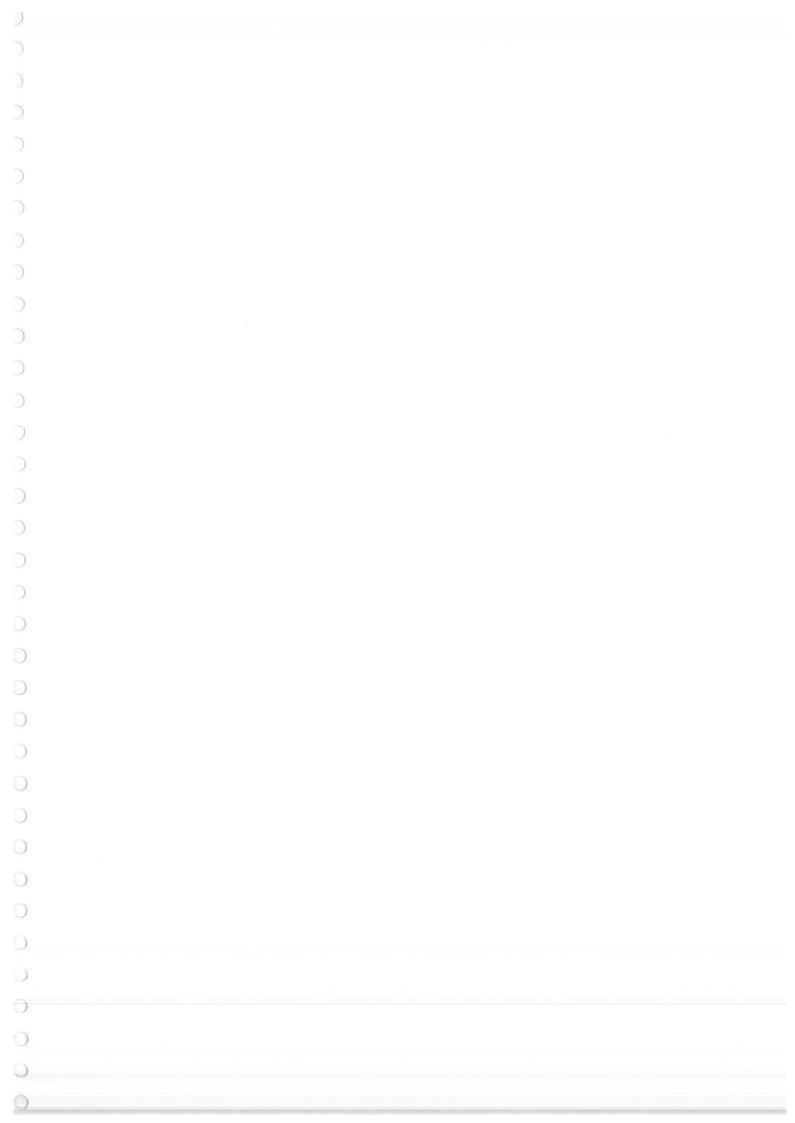
| | | TYPE ESTIMATE :- | B.T | ROAD | RESTR | OATIO | ON | | | |
|------------|---|--|-----|--------|-------|-------|----------|-------|------------------------------|--------|
| Sr. No. | Reference | Item Description | No. | Length | Width | Depth | Quantity | Unit | Rate (5% Increase) Rs. | Amount |
| 1 | PWD DSR 17-18, Page no. 18 - Item no. 3.16 | Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and VSat attachment, to the required density. By Manual Means Grading I (Using Screening Type B (11.2 mm) Aggregate) | | | | | | | | |
| 2 | PWD DSR 17-18, Page no. 23 - Item no. 3.39 | Providing, laying and compacting of builtupspray grout layer 75 mm thick over prepared base consisting of two layers composite construction of compacted crushed coarse aggregates with application of bituminous binder of VG30 Grade @ 1.520 Kg/ Sqm after each layer, (i.e. 1.520x2=3.04 say 3.00 Kg/Sqm) and with key aggregates placed on top of the second layer and compacting with static roller 8 to 10 MT. Excluding cost of tack coat and scarifying etc. Complete. | 1 | 1 | 1 | 0.3 | 0.3 | Sq. M | 252 | 252.00 |
| 3 | PWD DSR 17-18, Page no. 21 - Item no. 3.31 | Providing and applying tack coat on the prepared surface heating by fames in Boiler and spraying bitumen with sprayer on Dry / Hungry B.T. surface 3 kg/10 sqm. VG30 bulk bitumen | 1 | 1 | ì | | 1 | Sq. M | 15.75 | 15.73 |
| 4 | PWD DSR 17-18, Page no. 23 - Item no. 3.42 | Providing and laying bituminous macadam using crushed aggregate of Grading 1, premixed with bituminous binder, transported at site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired density for 80/100 mm compacted thickness with drum mix type hot mix plant with SCADA having complying essential features of Hot mix plant as per IRC27 2009 specified conditions and attachments such as electronic load sensor based belt conveyers, automatic synchronization of bitumen and aggregate fedder, built in dust controller system and PLC for Drum Mix plant "Sensor paver, and Vibratory roller excluding prime/Tack coat etc. complete Bitumen VG30 grade 3.30% | 1 | 1 | 1 | 0.075 | 0.075 | Cu. M | 5323.5 | 399.20 |
| 5 | PWD DSR 17-18, Page no. 28 - Item no. 4.09 | 16: 11: 11: 1 | ĵ | 1 | 1 | | 1 | Sq. M | 165.9 | 165.9 |

| | Navi Mumbai Municipal Corp CONCRETE ROAD RESTORATI | | | | | | |
|---------|---|-------|------|------|---|------|------|
| | MEASUREMENT SHE | | OKKS |) | | | |
| Sr. No. | Description Of Item | Unit | No. | L | В | Н | Qty. |
| 1 | Providing, laying, spreading and compacting stone aggregate of specified sizes to water bound macadam specifications, including spreading in uniform thickness, hand packing rolling with 3 wheeled steel/vibratory roller 8-10 tonnes in stages to proper gade and camber, applying and brooming reuisite type of screening, blinding materials to fil up the interstics of coarse aggregates, watering and compacting to the required density making necessary earthen bund to protect edges, lighting, guarding, barricading and maintenance of diversion etc. complete. By manual means - Grading 1 90 mm to 45 mm | | | | | | |
| | Main Road | Cum | Area | 1.00 | | 0.10 | 0.10 |
| | | | | | | | 0.10 |
| | | | | | | | |
| 2 | Providing and laying in situ Dry lean cement concrete sub-base of trap metal of specified gradation using mixing as per approved design mix, compacting with vibratory roller of minimum 80-100KN static weight to give desired compacted density, providing construction joints, and curing with liquid curing compound and sprikling water, and covering with moist hessain or ponding of water for 7days including all materials, labour, machinery with all leads and lifts, bailing out water manually, and formwork etc complete. Spec-NoMoRT&H-601. | | | | | | i |
| | Main Road | Cum | Area | 1.00 | | 0.10 | 0.10 |
| | | | | | | | 0.10 |
| | | | | | | | |
| 3 | Providing and laying Pavement Quality Concrete of M-40 grade (cast in situ) of trap metal including providing 125 micron thick impermeable plastic sheet membrane over the surface to be covered, coarse and fine aggregates of specified gradation using minimum cement content of 350 kg/cum., approved admixtures, mixing as per the design mix to the specified workability, providing necessary side forms, rails and guidewires, transporting the mix with transit mixers and laying and spreading within fixed form by mechanical auger and compacting with plate vibrator and minimum ten needle vibrators, curing with approved resin based aluminised reflective curing compound and covering with moist hessian or ponding and sprinkling of water for a minimum period of 14 days, fixing dowels, tie-bars, cutting joints, joint-fillers, sealants and all types of joints and finishing to the desired surface texture including all material, labour, machinery with all leads and lifts etc complete. | | | | | | |
| | Main Roac | Sam | Area | 1.00 | | 0.20 | 0.20 |
| | Wall Road | 29111 | 1 | 1.00 | - | 0.20 | 0.20 |

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O

| Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type 18. Page no. 18. Plem no. 3.16 Compactor with compaction analyzer and VSat attachment. to the required density. By Manual Means Grading 1 (Using Screening Type B (11.2 mm) Aggregate) Construction of dry lean cement concrete Subbase over a prepared subgrade with coarse and fine aggregate conforming to 15: 383, the size of coarse aggregate not exceeding 25 mm, cement content not to be less than 150 kg/z um, optimum moisture content not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineerincharge, compacting with wibratory roller, finishing, curing and including preparation of subgrade surface if required etc.complete Providing and laying insitu M40 Grade unreinforced plain cement concrete pavement with max 20% fly Ash (Flyash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, using fine & coarse aggregates combining to IS 383, using fine & coarse aggregates combining to IS 383, using fine & coarse aggregates combining to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and fine aggregate on forming to IS 383, using fine & coarse and | | | Navi Mumbai Municipal Corporati CONCRETE ROAD RESTORATION WO | | | | |
|--|------------|--|---|------|----------|---------|----------|
| of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and VSat attachment, to the required density. By Manual Means Grading I (Using Screening Type B (11.2 mm) Aggregate) Construction of dry lean cement concrete Subbase over a prepared subgrade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, cement content to be destrained during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, construct | Sr. No. | Reference | ABSTRACT SHEET Description Of Item | Unit | Quantity | , , | |
| over a prepared subgrade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, cement content not to be less than 150 kg/ PWD DSR 17- 18, Page no. 34 - Item no. 5.13 Transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineerincharge, compacting with vibratory roller, finishing, curing and including preparation of subgrade surface if required etc.complete Providing and laying insitu M40 Grade unreinforced plain cement concrete pavement with max 20% fly Ash (Flyash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, using fine & coarse aggregates combined gradation as per Table 6003 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver, compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineerincharge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6 m X 0.6 m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75 mm and maintaining the same throughout curing period by any other method approved by Engineerincharge (initial lead of 5.00 Km for raw materials up to plant site) | 1 | PWD DSR 17- 18, Page no. 18 - Item no. | of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Intelligent Compactor with compaction analyzer and VSat attachment. to the required density. By Manual Means Grading | Cum | 0.10 | 1329.30 | 133.00 |
| cement concrete pavement with max 20% fly Ash (Flyash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, using fine & coarse aggregates combined gradation as per Table 6003 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver, compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineerincharge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineerincharge (initial lead of 5.00 Km for raw materials up to plant site) | 2 | 18, Page no. 34 - Item no. | over a prepared subgrade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineerincharge, compacting with vibratory roller, finishing, curing and including preparation of subgrade surface if | Cum | 0.10 | 3570.00 | 357.00 |
| | 3 | 18, Page no. 32 - Item no. | cement concrete pavement with max 20% fly Ash (Flyash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, using fine & coarse aggregates combined gradation as per Table 6003 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver, compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineerincharge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineerincharge (initial lead of 5.00 Km for raw materials up to plant site) | Cum | 0.20 | 6405.00 | 1,281.00 |



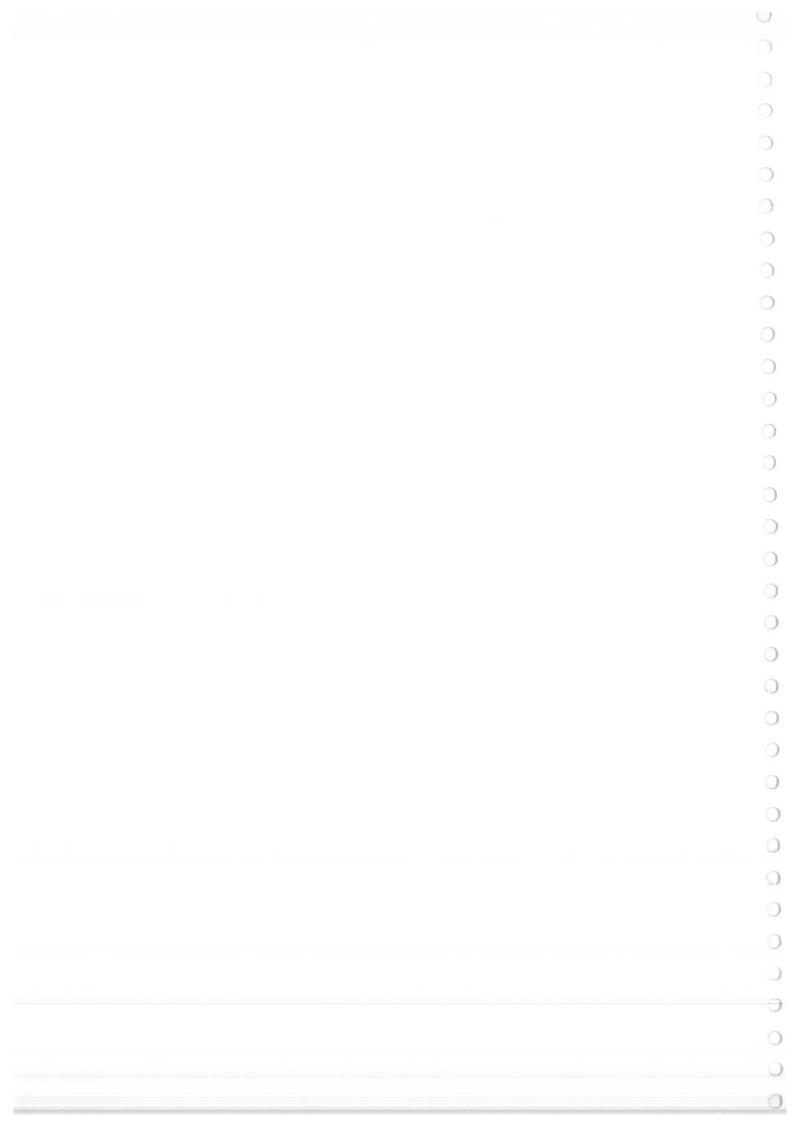
| | Navi Mun | Navi Mumbai Municipal Corporation | Corporation | |
|------------------|------------------|-----------------------------------|---|----------------|
| | Re | Recycled Water System | stem | |
| | | Road Restoration | u | |
| Road Type | Per Sqm. | Vashi MIDC | Vashi MIDC Koperkhairane MIDC Airoli MIDC | Airoli MIDC |
| Concrete Road | 1771.0 | 10937341.8 | 7903618.8 | 10576412 |
| Paver Block Road | 790.6 | 11229638.71 | 8114840.446 | 10859063.18 |
| Bituminous Road | 1231.7 | 50965213.61 | 36828840.84 | 49283373.11 |
| Cost | Cost (Rs.) | 73132194.12 | 52847300.09 | 70718848.29 |
| Total Co | Total Cost (Rs.) | | | 196,698,342.49 |

| 452 300 00 | | | Total | |
|---------------|--------|--------------|--|----------|
| | m | | | |
| 250000 | lumpsu | | Environment awareness & Training costs | |
| 40000 | | 4000.00 | Soil analysis | 10.00 |
| 1750 | | 175.00 | Treated water quality analysis | 10.00 |
| 2800 | | 280.00 | Sewage water quality analysis | 10.00 |
| 1750 | | 175.00 | Water Quality analysis | 10.00 |
| 100000 | no. | 500.00 | Tree Plantation including in pumping station area & STP area | 200.00 |
| 16000 | day | 2000.00 | Environmental Monitoring for noise quality location at 8 | 8.00 |
| 40000 | day | 10000.00 | Environmental Monitoring for air quality location at 4 | 4.00 |
| Un | 4 | w | 2 | 1 |
| Amount in Rs. | Per | Rate in Rs. | Y Items | Quantity |
| | | | ABSTRACT | |
| | | agement plan | Cost of implementing Environment management plan | |
| | | | Recycle Water System | |
| | | ation | Navi Mumbai Municipal Corporation | |

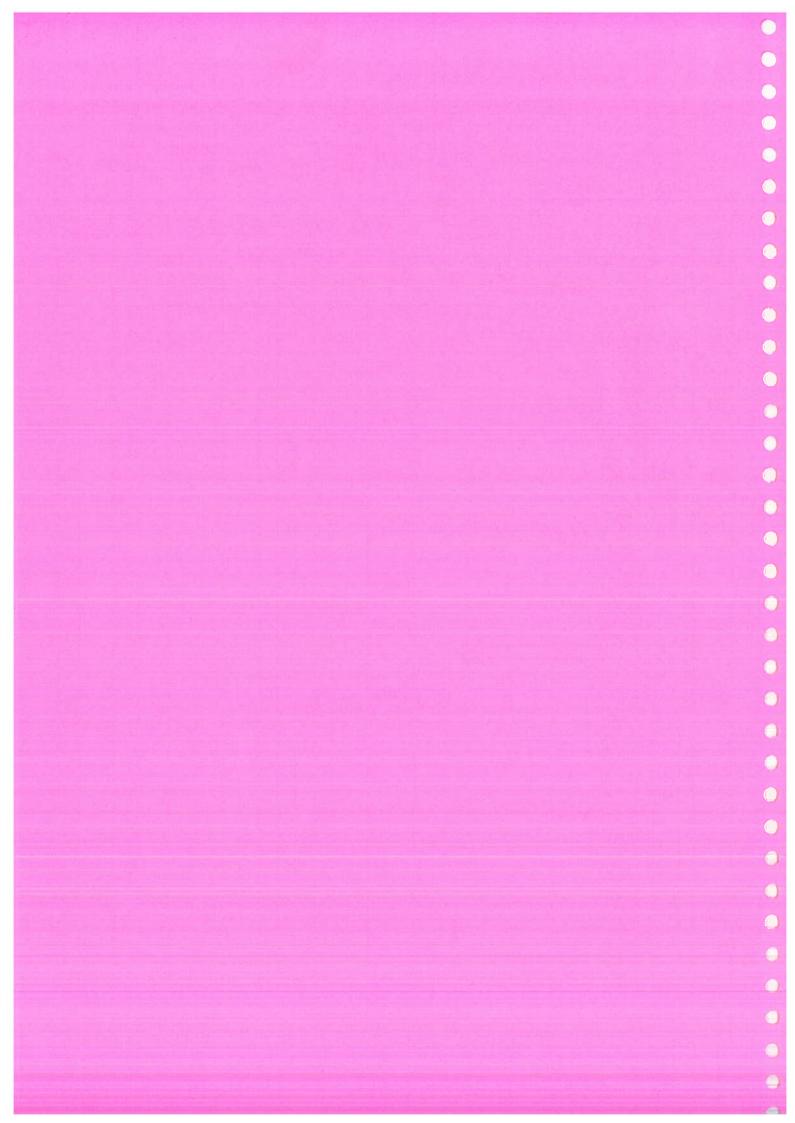
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CLIENT: M/S. TANDON URBAN SOLUTION PVT. LTD. (TUSPL) PROJECT: Geotechnical Investigation for Reuse of Recycled water in NMMC Area. Vashi SHEET NO. : 1 OF 2 BORE HOLE NO. : BH-1 20/01/2017 TO 23/01/2017 DATE LOCATION ROTARY DRILLING METHOD CO-ORDINATES : 100mm 6.00m & NX mm Ø UPTO BGL. CASING GROUND R. L. GROUND W. T. : 6m Below GL. BLOWS/15cm SAMPLE DEPTH DIA. OF OTHER RQD CR LOG. STRATA DESCRIPTION DEPTH (m) 0.00 % **TESTS** 15 15 15 15 N % TYPE DS1 Filling materials 0.75 1.00 1.50/ SPT1 | 02 | 02 | 02 | 03 04 Soft, grey, marine CLAY 2.00 2.10 3.00/ 100 3.00 mm 07 SPT2 03 03 04 05 3.60 Stiff, greyish, marine silty CLAY 4.00 4.50/ 15 SPT3 05 07 08 12 5.00 5.10 Medium dense, greyish, silty SAND with gravels 10 6.00/ 6.00 R SPT4 53 6.10 12 32 7.00 NX Highly weathered, greyish, 7.50 BASALT $\nabla \nabla \nabla$ V V V 8.00 40 40 9.00 9.00 68 85 Slightly weathered, greyish, BASALT 10.00 UDS = UNDISTURBED SOIL SAMPLE SPT N =STANDARD PENETRATION TEST VALUE RQD = ROCK QUALITY DESIGNATION DS = DISTURBED SOIL SAMPLE CR = CORE RECOVERY REMARKS: CONTINUED ON NEXT PAGE.



CLIENT: M/S. TANDON URBAN SOLUTION PVT. LTD. (TUSPL)

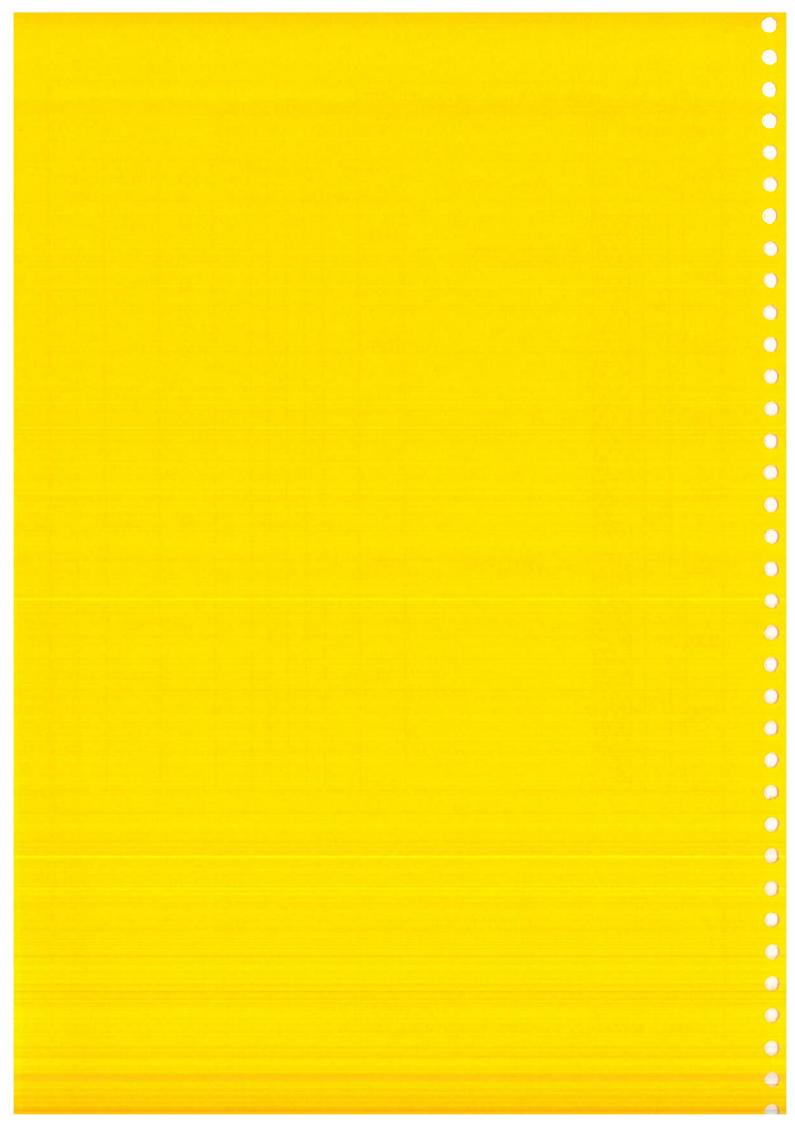
PROJECT: Geotechnical Investigation for Reuse of Recycled water in NMMC Area. Vashi

BORE HOLE NO. : BH-1 SHEET NO. : 2 OF 2

| DEPTH | DIA. OF | LOG. | STRATA DESCRIPTION | SAM | PLE | BLC | SWC | 5/13 | 5cm | SPT | CR | RQD | OTHER |
|-------|-----------|--|--|--------------|------|-----|-----|------|-----|-----|----|-----|-------|
| (m.) | BORE HOLE | 200. | STRATA DESCRIPTION | DEPTH (m) | TYPE | 15 | 15 | 15 | 15 | N | % | % | TESTS |
| - | | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Clink thurse with a seed | 10.50 | | | | | | | 85 | 67 | |
| 11.00 | | | Slightly weathered, greyish, BASALT | | | | | | | | 88 | 73 | _ |
| - | NX | 2 | | | | | | | | | | | |
| 12.00 | | 2 | | 12.00 | | | | | | | | | - |
| 13.00 | | 2 | | | | | | | | | 90 | 80 | - |
| | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 13.50 | | | | | | | | | |
| 14.00 | | | | | | | | | | | | | |
| 3 | | 2 | | | | | | | - | | 93 | 78 | |
| 15.00 | | 2 | Fresh, greyish, BASALT | 15.00 | | | | | t | | | | - |
| 16.00 | | | | | | | | | | | 97 | 82 | - |
| | - | 2 | o o | 16.50 | | | - | - | | | | | |
| 17.00 | | | v | | | | | | | | 90 | 90 | - |
| 18.00 | - | | V | 18.00 | | | | | | | | | |

\$PT N =STANDARD PENETRATION TEST VALUE RQD = ROCK QUALITY DESIGNATION UDS = UNDISTURBED SOIL SAMPLE CR = CORE RECOVERY DS = DISTURBED SOIL SAMPLE

REMARKS: BORE HOLE IS TERMINATED AT DEPTH 18.00 m. BELOW G. L.



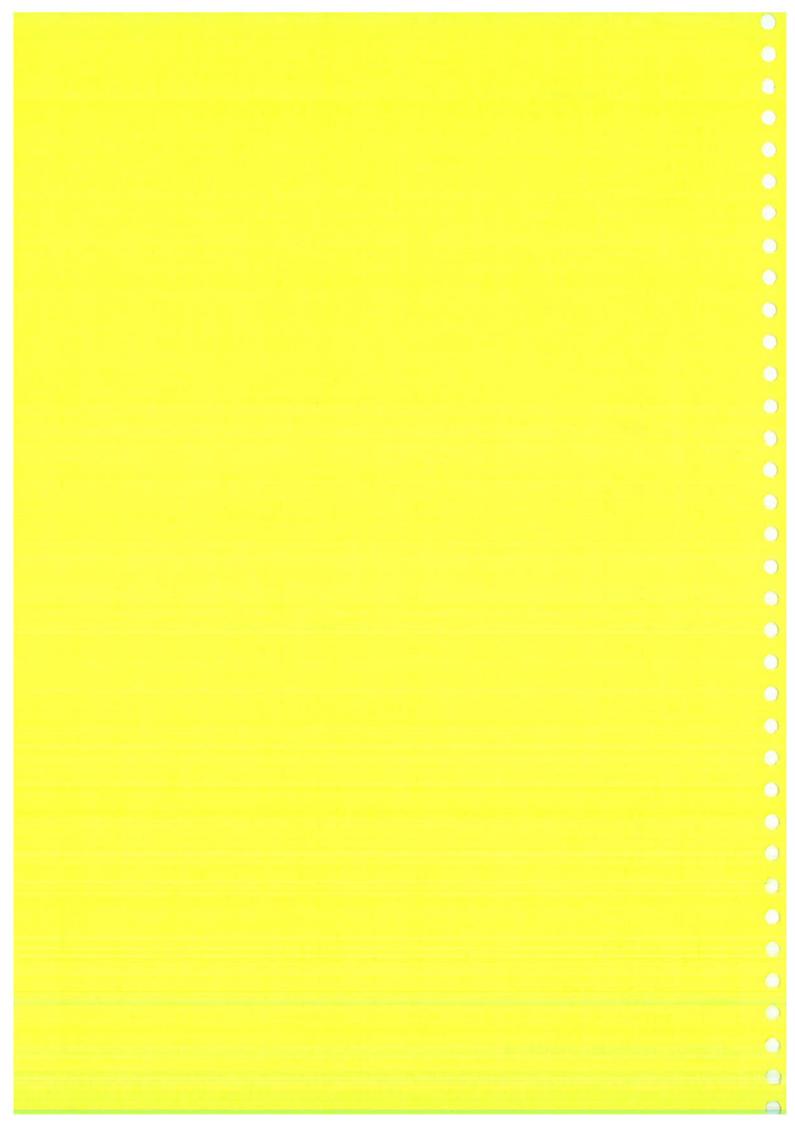
CLIENT: M/S. TANDON URBAN SOLUTION PVT. LTD. (TUSPL) PROJECT: Geotechnical Investigation for Reuse of Recycled water in NMMC Area. Vashi BORE HOLE NO. : BH-2 SHEET NO. : 1 OF 2 : 24/01/2017 TO 27/01/2017 LOCATION DATE CO-ORDINATES : -METHOD ROTARY DRILLING GROUND R. L. CASING : 100mm 6.00m & NX mm Ø UPTO BGL.

| DEPTH | DIA. OF BORE HOLE | LOG. | STRATA DESCRIPTION | SAMI | PLE | BLO | WS. | /150 | cm | SPT | CR | RQD | OTHER |
|-------|----------------------|---|---|----------------------|------|-----|------------|------|----|-----|----|-----|-------|
| (m.) | BOKE HOLE | | STRATA DESCRIPTION | DEPTH (m) 0.00 | TYPE | 15 | 15 | 15 | 15 | Ν | % | % | TESTS |
| - | | 4 | Filling materials | 0.00 | DS1 | | | | | | | | _ |
| 1.00 | | | | 1.00 | | | | | | | | | _ |
| _ | | | | 1.50/ | | | | | | | | | - |
| 2.00 | | | Soft, grey, marine CLAY | 2.10 | SPT1 | 02 | 02 | 03 | 03 | 05 | | | _ |
| - | | | | | | | | | | | | | - |
| 3.00 | 100 | 4 | | 3.00/ | | | Sec. Cont. | | | | | | _ |
| = | mm | | | 3.60 | SPT2 | 03 | 04 | 04 | 06 | 08 | | | - |
| 4.00 | | | Stiff, greyish, marine silty CLAY | | | | | | | | | | - |
| - | | | | 4.50/ | | | | | | | | | - |
| 5.00 | | | | 5.10 | SPT3 | 06 | 08 | 80 | 14 | 16 | | | - |
| - | | | Medium dense, greyish, silty SAND with gravels | | | | | | | | | | - |
| 6.00 | | | | 6.00/ | | 05 | - | | | | | | _ |
| | | 7 | | 6.05 | SPT4 | 52 | - | | | R | | | - |
| 7.00 | | | 1 | | | | | | | | 28 | 14 | - |
| | NX | \(\times \) \(| Highly weathered, greyish, | 7.50 | | | | | | | | | |
| 8.00 | | | | | | | | | | | | | - |
| | | 7 7 7 7 7 7 | | | | | | | | | 32 | NIL | |
| 9.00 | | ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼ | | 9.00 | | | | | | | | | - |
| | | 7 | Slightly weathered, greyish, BASALT | | | | | | | | 76 | 72 | |
| 10.00 | | 000 | 7 | | | - | | 0 | | | | | |

SPT N =STANDARD PENETRATION TEST VALUE RQD = ROCK QUALITY DESIGNATION UDS = UNDISTURBED SOIL SAMPLE CR = CORE RECOVERY DS = DISTURBED SOIL SAMPLE

REMARKS: CONTINUED ON NEXT PAGE.

GROUND W. T. : 6m Below GL.



CLIENT: M/S. TANDON URBAN SOLUTION PVT. LTD. (TUSPL)

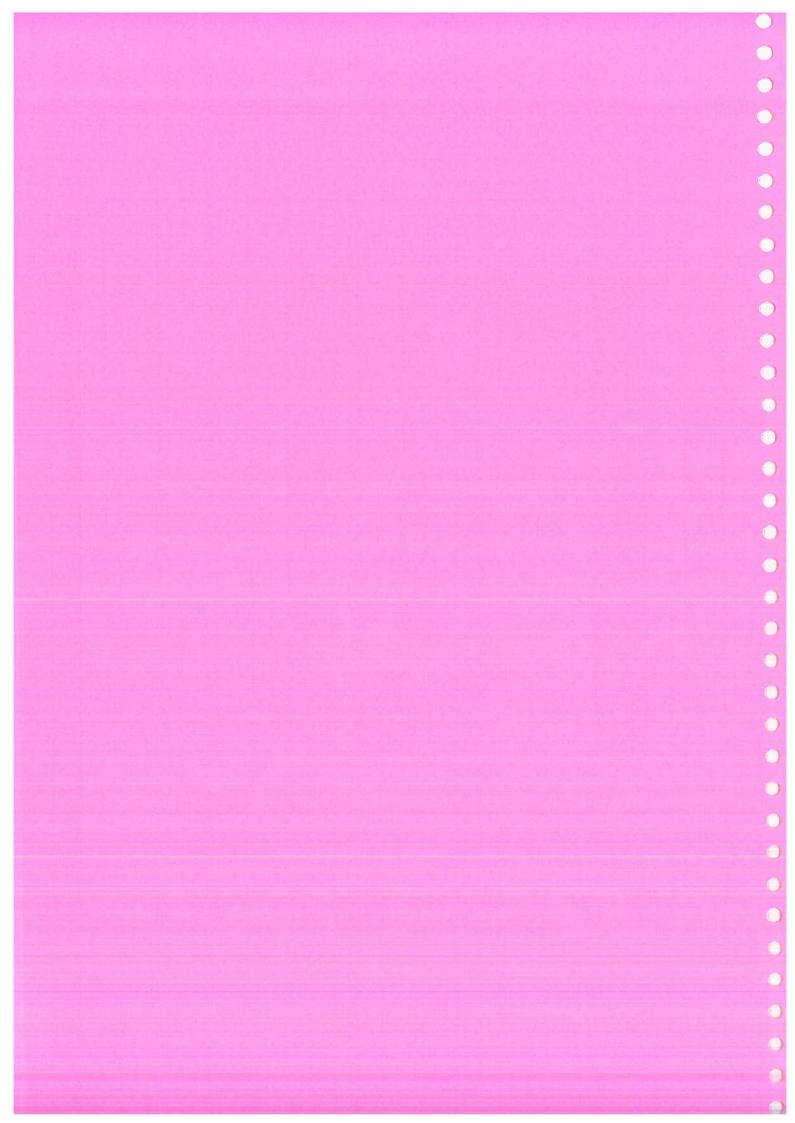
PROJECT: Geotechnical Investigation for Reuse of Recycled water in NMMC Area. Vashi

BORE HOLE NO. : BH-2 SHEET NO. : 2 OF 2

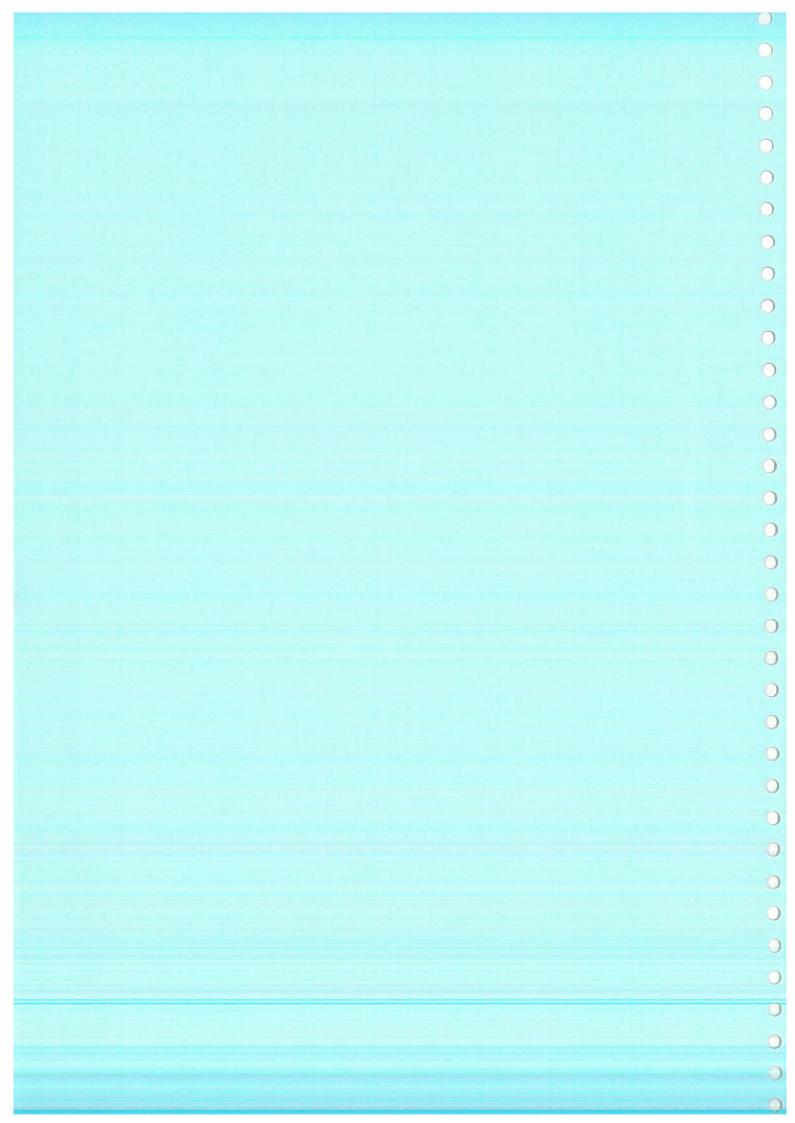
| DEPTH (m.) | DIA. OF BORE HOL | LOG. | STRATA DESCRIPTION | SAM | PLE | BLC | | - | | SPT | CR % | RQD % | OTHER |
|---------------|---------------------|--|--|-----------|------|-----|----|----|----|-----|---------|----------|---------|
| | | | | DEPTH (m) | ITPE | 15 | 15 | 15 | 15 | N | 76 | 72 | TESTS - |
| 11.00 | NX | 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | Slightly weathered, greyish, BASALT | 12.00 | | | | | | | 78 | 56 | |
| 13.00 | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 13.50 | | | | | | | 80 | 78 | - |
| 14.00 | | 2 | | 15.00 | | | | | | | 92 | 80 | |
| 16.00 | | \times \t | V V V | 16.50 | | | | | | | 98 | 87 | - |
| 17.00 | | \times \t | | 17.50 | | | | | | | 95 | 95 | _ |
| 18.00 | | | | | | | | | | | | | |

SPT N =STANDARD PENETRATION TEST VALUE RQD = ROCK QUALITY DESIGNATION UDS = UNDISTURBED SOIL SAMPLE CR = CORE RECOVERY DS = DISTURBED SOIL SAMPLE

REMARKS: BORE HOLE IS TERMINATED AT DEPTH 17.50 m. BELOW G. L.



COST ESTIMATE ELECTRO-MECHANICAL WORK



NAVI MUMBAI MUNICIPAL CORPORATION **RECYCLE WATER SYSTEM** Summary sheet for KK MIDC & VASHI MIDC **Description** Amount Sr No. Mechanical 1,75,50,506.00 2 Electrical 2,11,27,176.00 3 HT Power 98,53,149.44 **DG** Power 69,12,528.00 4 5,54,43,359.44 Total

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0

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| NAVI MUMBAI | MUNICIPAL CORPO | RATION |
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| | NAVI MUMBAI MUNICIPAL CORPORATION RECYCLE WATER SYSTEM | OIN | |
|--|--|---------------|--|
| ANNEXUE | REI : Bill of Material | | |
| 11111101 | TO A TANKETONE | | O/G 1000 KVA ONAN,OCTC |
| Description | Make | INCOMER | Trafo Feeder |
| Description | Wake | Feeder | Train record |
| Rating | | 630A | 1850A |
| Qty | | 1 | 2 |
| Description | | | |
| 2kV Indoor cubical 630A,25kA,/1Sec , | Symatic | | |
| with AL Bus bar | | 1 | 1 |
| /acuum Circuit Breaker | | | |
| 2kV,630A VCB | Siemens | 1 | 1 |
| Current Transformer-18.4KA/1Sec | | | |
| 100/5-5A CL-1/15VA,5P10/15VA | Pragati/ECS | 3 | |
| 50/5-5A CL-1/15VA,5P10/15VA | Pragati/ECS | | 3 |
| otential Transformer | | | |
| 22kV/sgrt3/110V/sgrt3 Core 1: CL1/100VA | Pragati/ECS | 3 | |
| Vieters - Digital | | | |
| Analouge Voltmeter+ASS | AE/MECO | 1 | |
| Analouge Ammeter+VSS | AE/MECO | 1 | 1 |
| Load Manager with RS 485 Port | Conzerv | 1 | 1 |
| Switches/Indications | | <u>+</u> | |
| F-N-C Switch | Switron/ Keycee | 1 | 1 |
| -R Switch | Switron/ Kaycee | 1 | 1 |
| EM Trip Push Buttons | Tecknic/L&T | 1 | 1 |
| AC/DC Control Switch | Switron/ Kaycee | | |
| Control MCB /Fuse 1set | SIEMENS /Legrand | 1 | 1 |
| · · · · · · · · · · · · · · · · · · · | | 1 | 1 |
| Space heater with Thermostat with toggle switch | | 1 | 1 |
| Panel illuminaton Lamp With Door Limit Switch | Reputed | 1 | 1 |
| Contactors 1Set | SIEMENS | 1 | 1 |
| Indicating Lamp 1 Set | Tecknic/L&T | 1 | 1 |
| Annunciater 6W with Hooter | Alan | 1 | 1 |
| Power Pack with Battery Back-up 230VAC/24 VDC | Alan | 1 | 1 |
| Relays | | | |
| IDMT O/C & E/F Relay (50,50N,51,51N) | Siemens | 1 | 1 |
| Master Trip Relay | Alstom | 1 | 1 |
| Trip Ckt-Supervision Relay | Alstom | 1 | 1 |
| Aux. Trafo Fault Relay | Alstom | | 3 |
| ANNEYI | REII: Price Schedule. | | |
| Sr. | | Otri (In Nog) | Ex-works Price |
| | Description | Qty (In Nos.) | Ex-works Price |
| No. | Complete 22 by C20 A 25 WA /1 con | | |
| | Supply,22kV, 630A, 25KA/1sec. | | |
| А | Switchboard with Alu. Busbar consist of following feeder | 1Set | |
| 1 | Incomer Feeder & O/G 1000 KVA ONAN,OCTC | 1 EACH | 16,40,410 |
| | Trafo Feeder | | |
| | TOTAL | 2 | 32,80,820 |
| | ED @ 10.3 % | | 3,37,924 |
| | VAT @ 12.5 % | | 4,10,103 |
| | FINAL TOTAL | | 40,28,847 |
| В | Optional Charges | | |
| | | | Rs.12,500/- per day pe person plus Extra for To |
| | | | & fro 3AC Rail |
| С | Charges towards deputing person for | Per diem | ,Lodging , Boarding & local |

supervision of Erection & commissioing'

travel.

| Range Outpu Power Displa ACCU The r | Range- 0-5 mtrs Output-4-20 Ma Power supply-24VDC ext. | H | 0 | 50000 | 20000 | |
|--|---|----------|--------|--------|---------|--|
| ACCU The T Shoul | Disnlav-Large LCD | | | | | MJP E/M 2015-16 PG No-136, Item no- SA- |
| The The Shoul | ACCURACY: +/- 0.25% of full scale or better | | | | | 2.4 |
| The in The in The in The in The in The in Industry Shoul Shoul Shoul Shoul Shoul Shoul Shoul Shoul Must of con Shoul Sho | The major prerequisites of efficient colline analysers are: Should be capable of operating unattended over prolonged period of time. Should be capable of operating unattended over prolonged period of time. Should produce analytically valid results with precision and repeatability The instrument/analyser should be robust and rugged, for optimal operation under extreme environmental conditions, while maintaining its calibrated status. The analyser should have onboard library of calibration spectras for different industrial matrices with provision of accumulating further calibration matrices Should have data validation facility with features to transmit raw and validated data to central server. Should have provision for Multi-server data transmission from each station without intermediate PC or plant server. Should have provision to send system alarm to central server in case any changes made in configuration or calibration. Should have provision to record all operation information in log file. For each parameter there should be provision for independent analysis, validation, calibration & data transmission. Must have provision of a system memory (non-volatile) to record data for at-least one year of continuous operation Should have provision of Plant level data viewing and retrieval with selection of Ethernet, wireless, Mod-Bus & USB. In case of TOC analyser, the empirical relationship between TOC to COD or BOD must be authenticated for all industrial applications and the correlation calculation (for factor) | Н | 0 Z | 768000 | 768000 | MARKET RATE |
| provided | led. | - | Total | | 2104800 | |

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| | NAVI MUMBAI MUNICIPAL CORPORATION | NC | | | | |
|---------|---|-----|----------------|--------|--------|---|
| | RECYCLE WATER SYSTEM | | | | | |
| | Sub Part D - Pump Automation | | | | | |
| Sr. No. | Description | Qty | MON | Rates | Amount | Reference |
| - | Supply,Installation,Testing,Termination & Interfacing Software Design to PLC and | H | No | 250000 | 250000 | MJP DSR 2015-16 SA- 6-1 |
| T C | Drawsamming of Scalar solutions: | н | o N | 150000 | 150000 | MJP DSR 2015-16 SA- 6-2 |
| 2 6 | Finds and the state of the station of the station of the station. | Н | S | 75000 | 75000 | MJP DSR 2015-16 SA- 6-3 |
| 0 4 | | П | S S | 65000 | 65000 | |
| t in | | П | N _O | 90000 | 00006 | |
| 9 | Providing, installing, testing and commissioning of laptop with programming software (web | H | N _o | 54000 | 54000 | MJP DSR 2015-16 SA- 6-6 |
| 2 | Energy monitoring system interfacing to PLC panel | Н | No | 25000 | 25000 | MJP DSR 2015-16 SA- 5-7 |
| 0 | Illtraconic laval transmater 10-12 mtr | 2 | S | 75000 | 375000 | MJP DSR 2015-16 SA- 1-1 |
| 0 | Drace ira transmitter | Н | S N | 35000 | 35000 | MJP DSR 2015-16 SA- 1-2 |
| 0 0 | Supply, Installation, Testing, Termination & Interfacing 2C x 1sq.mm twisted shielded conner armoured conductor as per 1S 694 on wall in GI tray. | 100 | Mtr | 128 | 12800 | |
| 1 1 | Power cables: Supply, Installation, Testing, Termination & Interfacing of CAT 6 as per ISO/IEC-11801 std cable for networking on wall in GI trav. | 200 | Mtr | 80 | 16000 | |
| 12 | | 200 | Mtr | 170 | 34000 | MJP DSR 2015-16 SA- 2-9-1 |
| 13 | Designing, Supplying, Installating, commissioning & Testing of CCTV IR water proof camera suitable for upto 100 ft with IR Dome camera, control key board, DVR, Hard disc, cables, UPT transpeceivers etc. | П | No | 30000 | 30000 | MJP DSR 2015-16 SA- 4-4-4 |
| 14 | Supply, installation, commissioning & testing of Energy monitoring system interfacing to PLC panel & shall be developed in line with the dept & in t5he prescribed format and shall be configured with main SCADA for report generation of various parameters. Supply voltage: 24V dc Outbut: 4-20mA. | П | no | 25000 | 25000 | 25000 MJP E/M 2015-16 PG No-137, Item no- SA- 2.6 |
| 15 | Design , Supply, installing testing PLC based control monitoring and communication panel as per IEC 61131 at Pure water pump, pressure transmitter, level transmitter, ph transmitter, turbudity transmitter for all pumps installed. | ਜ | no | 20000 | 20000 | MJP E/M 2015-16 PG No-137, Item no- SA- 2.7 |

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RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (KK STP to KK MIDC ESR) &(KK STP TO VASHI MIDC ESR)

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| | P | ART : Pro | ocess An | alyzer | | |
|-------|--|-----------|----------|--------------|--------------|---|
| SI.No | Item Description | Unit | Qty | Rate(in Rs) | Total Price | Reference |
| | Analysers will be installed at each STP | | | | | |
| 1 | PH analyzer Design, supply, installation testing of Ph analyzer as per IUPAC(INTERNATIONAL UNION FOR PURE & APPLIED CHEMISTRY) at A.F. and Interfacing with PLC panel.Range: 0-14, Ph ACCURACY: Better than 0.5% of full scale, Supply voltage: 24V dc, Output: 4-20 mA as PER IEC 61000-6-2 & 61000-6-3 | No | 3.00 | 1,55,328.00 | 4,65,984.00 | Market rates |
| 2 | TOTAL RESIDUAL CHLORINE ANALYZER Design, supply,installation,testing of Residual chlorine analyzer/meter must have automatic sensor cleaning facility at pure water sump and interfacing with PLC panel. Overall range:0.5 mg/l Measuring range:0.03 to 2 mg/l Accuracy: 2% of full scale supply voltage: 230 V ac Output: 4-20 mA | No | 3.00 | 2,50,000.00 | 7,50,000.00 | MJP E/M 2015- 16 PG No-142, Item no- SA-5.5 |
| 3 | TURBIDITY meter Design, supply, installation testing of turbudity meter as per ISO 7027 scattering light method at A.F. and Interfacing with PLC PANEL. Turbudity meter shall comprise of 3 components i.e. sensors, signals distributor and transmitter with indicator. Transmitter converts the signal to 4-20mA and gives 2 outputs one to SCADA and other to indicator. Over all range: 0-1000 NTU, mEASURING rANGE: 0.02 to 500 NTU, aCCURACY: +/- 2.02 NTU, supply Voltage: 230 Vac, Output: 4- 20mA | No | 1.00 | 3,70,000.00 | 3,70,000.00 | MJP E/M 2015 16 PG No-135, Item no- SA-2.3 |
| 4 | Multifunction meter Designing, supplying, installing, commissioning & testing of multifunction meter interfacing to PLC Panel with RS 485 output, as per IEC 62053 and in the prescribed format and shall be configured with main SCADA for report generation for following parameters and as per detailed specification attached. 1) Line/phase Voltage 2) Line/phase Current 3) Power factor 4) Kwh 5) Frequency | No | 2.00 | 33000 | 66,000.00 | MJP E/M 2015 16 PG No-136 Item no- SA-2. |
| 5 | BOD, COD ,TSS, TOC ANALYZER | No | 2.00 | 19,41,600.00 | 38,83,200.00 | Market rates |
| | | , .,, | 1 2.00 | Total | 55,35,184.00 | |

| | NAVI MUMBAI MUNI RECYCLE WA | | | V | |
|-------------|---|--------------------------|----------|----------|--|
| | Item Code | e No. 550 | 2 | | |
| | Data supply & laying of 3 Km 22 KV, | | | | |
| Sr.No. | Particulars | Unit | Qty. | RT/U Rs. | Amount |
| 1 | XLPE Cable 22 KV, 3 C / 300 sq.mm sq. Ref. MJP DSR 15-16 pg 74 ,CB 12-9 | Rmt | 1000.00 | 3171.00 | 3171000.00 |
| 2 | R.C.C. Pipe 200 mm 2 M Ref. MJP CIVIL DSR 15-16 pg 138,class P-3 (collar joint) | No | 90.00 | 483.00 | 43470.00 |
| 3 | RCC half round pipe (100 mm) Ref. MJP CIVIL DSR 15-16 pg 137,class P-1 collar joint (half of actual rate) | No. | 940.00 | 154.00 | 144760.00 |
| 4 | 22 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm Ref.MJP DSR 15-16 pg 79 ,CB 30-5 | No. | 4.00 | 50261.00 | 201044.00 |
| 5 | 22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm Ref. MJP DSR 15-16 pg 79 ,CB 29-4 | No. | 2.00 | 22922.00 | 45844.00 |
| 6 | Sand | Cmt | 250.00 | 191.40 | 47850.00 |
| | Cost of material | | | | 3653968.00 |
| 1 2 3 | Erection on material Transportation on material Insurance on material | 10.00% 5.00% 1.00% | | | 365396.80 182698.40 36539.68 |
| 4 | Service Tax @ (10.3% On 1+2+3) | 1.65% | | | 60217.39 |
| 5 6 | Contingencies on material T & P on material | 3.00% 1.50% | | | 109619.04 54809.52 |
| 7 | Contractor supervision on charges on material | 10.00% | , | | 365396.80 |
| 8 | Sub-Total -I Contractor profit on Total Project Cost | 5.00% | , 0 | | 4828645.63 241432.28 |
| 9 | i.e. on Sub-Total-I Sub-Total -II Price Escalation on Material Cost Sub-Total -III | 5.00% | 6 | | 5070077.91 182698.40 5252776.31 |
| 10 | H.O.supervision charges @ 1.5% (i.e. 15% of 10% on errection of material) | 1.50% | 6 | | 54809.52 |
| 11 | Sub-Total -IV Interest during Construction Period | 2.50% | 6 | | 5307585.83 132689.65 |
| , 1 | (on total project cost) i.e. on Sub-Total-IV Total Cost of Esti | | | | 5440275.48 |

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NAVI MUMBAI MUNICIPAL CORPORATION RECYCLE WATER SYSTEM

Item Code No. 1222 (MSEDCL COST DATA 2010-2011)

| Sr.No | Particulars | Unit | Qty | Rate | Amount | Reference |
|-------|---|------|-----|------------|------------|------------------------------|
| | | | | | | |
| 1 | 22 KV Ring main unit with Vaccum /SF6 /Air break switch & two isolators for the same. | No. | 1 | 1166093.00 | 1166093.00 | PWD DSR 15-16 item 5-9-9 |
| 2 | XLPE Cable 22 KV, 3 C / 185 mm sq. | Rmt | 30 | 2410.00 | 72300.00 | MJP DSR 15-16 pg 74 ,CB 12-7 |
| 3 | 22 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm | No. | 4 | 10452.00 | 41808.00 | MJP DSR 15-16 pg 79 ,CB28-2 |
| 4 | Earthing with GI pipe 40mm dia. | L.S. | 20 | 1536.00 | 30720.00 | PWD DSR 15-16 item 9-1-4 |
| 5 | Earthing with GI plate | L.S. | 20 | 5234.00 | 104680.00 | PWD DSR 15-16 item 9-1-3 |
| 6 | Sundries | L.S. | 2 | 770.00 | 1540.00 | |
| | Cost of Material | | | | 1417141.00 | 10 |

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RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (KK STP TO KK MIDC ESR) & (KK STP TO VASHI MIDC)

PWD CSR 15-16- EM

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| | Subjec | :t :- D | etaile | d estimate f | or electrific | cation. | | | 1 110 00 | K 12-10- EIVI |
|------------|---|---------|--------|----------------|--------------------------------|-------------------|----------------------------|------------------------|----------|---------------|
| Sr. No. | Description | Qty | Unit | Supply Rate | Labour/E rection charges | erection + 14% | Total of supply & erection | 5% on total rate | Net Rate | Amount |
| 1 | Point wiring Casing N capping type | | i | | | | | | | |
| | Point wiring in PVC trucking (Casing N capping) with 1.0 sq.mm FRLS grade copper wire with flush type switch and required accessories as per specification. | 15 | Nos. | 224.00 | 86.00 | 12.04 | 322.04 | 16.10 | 338.14 | 5072.13 |
| | CSR 1-9-17. | | | | | | | | | |
| 2 | Point wiring for plug on board of light or fan as per specification. | 6 | Nos. | 72.00 | 16.00 | 2.24 | 90.24 | 4.51 | 94.75 | 568.51 |
| | CSR 1-9-13. | | | | | | | | | |
| 3 | Supplying erecting & marking miniature circuit breaker confirming to IS: 8828 of 1996) single pole 6 Amp to 32 Amp C series (motor/power) with required wiring connections and lugs etc provided distribution board. | | | | | | | | | |
| | CSR 5-3-2. | 4 | Nos. | 150.00 | 23.00 | 3.22 | 176.22 | 8.81 | 185.03 | 740.12 |
| 4 | Light fitting Supplying & erecting 2 x 40 watt T- 8 white stove enamelled powder coated box type fluorescent tube light box type complete with heavy duty copper wounde ballast & lamp holders duly wired ready to use for 230 Volts, 50 Hz. Single phase AC supply to as per quality requirements & erected on varnished wooden blocks with flexible wire twin core 24/0,2mm.Cromption / Bajaj / Philips / Shakti) | 15 | Nos. | 2,240.00 | 39.00 | 5,46 | 2,284.46 | 114.22 | 2,398.68 | 35,980.25 |
| | CSR 2-4-18. | 13 | INUS. | 2,240.00 | 39.00 | 0.40 | 2,204.40 | 114.22 | 2,330.00 | 30,300.20 |
| | OUIVA-T 10. | 1 | | | | | | | Total Rs | 42361.00 |
| _ | | 1 | 1 | 1 | † | | | | | |

RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (KK STP TO KK MIDC ESR) & (KK STP TO VASHI MIDC) PWD DSR 15-16 **Detailed Estimate for Outdoor Electrification** Total of Sr Supply Erection erection 5% on Description Qty Unit supply & **Net Rate** Amount Rate + 14% charges total rate erection 1 Point wiring Casing N capping type Point wiring in PVC trucking (Casing N capping) with 1.0 sq.mm FR grade copper wire with flush type switch and required accessories as per specification Nos. 218.00 86.00 12.04 316.04 15.80 331.84 3982.10 CSR 1-9-16. Point wiring for plug on board of light or fan as per specification. 72.00 90.24 Nos. 16.00 2.24 4.51 94.75 189.50 CSR 1-9-13. 3 Supplying erecting & marking miniature circuit breaker confirming to IS: 8828 of 1996) single pole 6 Amp to 32 Amp C series (motor/power) with required wiring connections and lugs etc provided distribution board. CSR 5-3-2. Nos. 150 23 3.22 176.22 8.81 185.03 740.12 4 Supplying & erecting double pole metal/ iron clad switch with fuse and neutral link 250 V 16 A on iron frame/board as per specification. 532.14 CSR 5-1-2. Nos. 474 51 7.14 558.75 558.75 26.61 5 Light fitting Supplying & erecting 2 x 28 watt T- 5 energy efficient fluorescent tube light (EETLF) fittings with recess/ surface mounting mirror optic type with electronic balast having pf>0.9 fixed in false ceiling or on wall as per specification no. (similar Cromption / Bajaj / Philips) 2360 Nos. 39 5.46 2,404.46 120.22 2,524.68 15,148.10 CSR 2-4-22. Supply & erection LED flood lights / street lights / highbay fitting IP 65 with 120 W PF>0.95 of approved make and duly connection complete as per specification no FG-ODG/IL Nos. 19366 20,540.18 1,23,241.10 6 172 24.08 19.562.08 978.10 CSR 2-9-16. Supplying & erecting PVC armored cable 3 core 4 sq.mm. Copper conductor continues 5.48 sq.mm. 12 SWG GI earth wire complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/pipe as per specification. CSR 7-2-6. 200 Rmt. 230 12 1.68 243.68 255.86 51,172.80 LIGHTING POLES -9 Mtr - Pathway lighting Poles Providing & erecting 9 m high galvanised CONICAL pole with foundation bolts having bottom dia. from 165 to 200 mm, top dia. from 65 to 75 mm on provided foundation as per specification No. OH-PL/CPL PWD DSR 15-16 Item 8-3-26 234.92 20,347.92 1,017.40 21,365.32 Rmt. 18435 1678 85,461.26 9 1000 mm STREET LIGHT BRACKET Providing and erecting Galvanized 1000mm single arm sward type bracket with FRP dome and ball as per specification No. OH-PL/PBKT PWD DSR 15-16 Item 8-3-30 4 Rmt. 1960 185 25.90 2,170.90 108.55 2,279.45 9,117.78 10 Supplying, erecting & marking SPMCB 0.5A to

Rmt.

221

23

3.22

247.22

12.36

259.58

Total Rs

1,038.32

290649.85

5A in provided distribution board as per specification No. SW-SWR/MCB PWD DSR 15-16 Item 5-3-1

RECYCLE WATER SYSTEM

63641.00

| | | Subject :- Detailed estimate | | |
|----------|------|------------------------------|----------|---------|
| Quantity | Unit | Description | Rate | Amount |
| 1 | Set | Fix spanner set | 630.00 | 630.0 |
| 1 | Set | Ring spanner set | 1098.00 | 1098.0 |
| 1 | Each | Hammer | 284.00 | 284.0 |
| 1 | Each | Cutting plier | 208.00 | 208.0 |
| 1 | Each | Adjustable wrench - 250 mm | 270.00 | 270.0 |
| 2 | Each | Pipe wrench - 450 mm | 531.00 | 1062.0 |
| 2 | Each | Pipe wrench - 600 mm | 953.00 | 1906.0 |
| 1 | Each | Screw driver - 6x300 | 90.00 | 90.0 |
| 1 | Each | Screw driver - 8 x200 | 79.00 | 79.0 |
| 1 | Each | Screw driver - 5 x200 | 56.00 | 56.0 |
| 1 | Each | Screw driver - 5 x300 | 58.00 | 58.0 |
| 2 | Each | Line tester | 56.00 | 112.0 |
| 2 | Each | Hacksaw frame | 64.00 | 128.0 |
| 1 | Each | Tool box | 1012.00 | 1012.0 |
| 1 | Each | Chiesel - 19 x14 | 139.00 | 139.0 |
| 2 | Each | Chain pipe wrench - 100 mm | 3764.00 | 7528.0 |
| 0 | Each | Chain pipe wrench - 150 mm | 5525.00 | 0.0 |
| 1 | Each | 25 mm dia Crow bar | 190.00 | 190.0 |
| 1 | Each | 12 mm wire rope | 253.00 | 253.0 |
| 1 | Each | 50 mm dia g.i. pipe | 228.00 | 228.0 |
| 1 | Each | Center punch | 58.00 | 58.0 |
| 1 | Each | Tringular file | 317.00 | 317.0 |
| 1 | Each | Half round file | 317.00 | 317.0 |
| 0 | Each | Bearing puller - 200 mm | 334.00 | 0.0 |
| 0 | Each | Bearing puller - 250 mm | 437.00 | 0.0 |
| 1 | Each | Bearing puller - 300 mm | 531.00 | 531.0 |
| 1 | Each | Hydraulic Crimping tool | 31365.00 | 31365.0 |
| 0 | Each | Hand operated crimping tool | 8855.00 | 0.0 |
| 1 | Each | Insulation tester | 4072.00 | 4072.0 |
| 1 | Each | Earth tester | 6263.00 | 6263. |
| 1 | Each | Tong tester | 3075.00 | 3075. |
| <u>-</u> | Each | Steel level 300 mm | 380.00 | 380. |
| 1 | Each | Steel rule | 253.00 | 253. |
| 1 | Set | Allen Head wrench | 307.00 | 307.0 |
| 1 | Set | Tubulor Box spanner set | 760.00 | 760. |
| 1 | Each | Diagonal cutting plier | 182.00 | 182. |
| 1 | Each | Long nose plier | 175.00 | 175. |
| 1 | Each | Water Pump plier. | 255.00 | 255.0 |

Total

| Sr. No | Description of Material | Qty | Unit | supply rate | Labour / erectio n rate | add 14% on !abor rate | Total Rate | add 5% on total rate | Net Rate | Amount |
|-----------|--|------|-------|----------------|----------------------------------|--------------------------------|------------|----------------------|----------|-------------------|
| | Ammeter CT operated Providing and erecting Analog type moving iron Ammeter for AC current CT operated of suitable size in scale between 0-1000A ,500v, accuracy class 1.5, flush type on provided box/panel and connected with necessary PVC wire leads and lugs (PWD DSR 15-16 Item- 6-3-8) | 12 | No. | 1624 | 143 | 20.02 | 1,787.02 | 89.35 | 1,876.37 | 22,516.45 |
| | (FVVD DSK 15-10 Rein- 0-3-0) | | | | | | | | | |
| 16 | Selector Switches for Voltmeter & ammeter Providing and erecting selector switches suitable for ammeter/ voltmeter for 3 phase AC supply 500v ,50 Hz on provided box/panel and duly connecting with necessary PVC wire leads and lugs. (PWD DSR 15-16 Item- 6-5-1) | 24 | No. | 252 | 34 | 4.76 | 290.76 | 14.54 | 305.30 | 7,327.15 |
| | , | | | | | | | | | |
| 17 | C.T coil Providing and erecting LT current transformer with bar primary 50/5 to 1000/5 ratio with 15VA burden erected in provided CRCA box duly secured with insulating material connected to meter with test certificates | 36 | No | 654 | 34 | 4.76 | 692.76 | 34.64 | 727.40 | 26,186.33 |
| | (PWD DSR 15-16 Item- 6-5-2) | | | | | | | | | |
| 18 | Pilot Lamp Set LED type Supplying and erecting LED type indicating pilot lamp with LED colours Red/yellow/green 230/250v on provided box with necessary materials, wiring _connections etc. (PWD DSR 15-16 Item- 6-5-6) | 12 | Nos | 713 | 34 | 4.76 | 751.76 | 37.59 | 789.35 | 9,472.18 |
| 19 | self locking arrangment Supplying and erecting self locking arrangement with duplicate keys,made of brass duly erected,flush with surface of panel/cupboard | 12 | Nos | 167 | 28 | 3.92 | 198.92 | 9.95 | 209 | 2,506.39 |
| | (PWD DSR 15-16 Item- 6-1-20) | | | | | | | | | |
| 20 | Internal Wiring of Panel Board (Mech DSR 15-16 Pg- 56 Item- Note 5) | 1970 | HP | 49 | 0 | 0 | 49.00 | 2.45 | 51 | 1,01,356.50 |
| 21 | Rubber matting | 120 | Sq mt | 913 | 0 | | 913 | 45.65 | 958.65 | 115038 2297271 |
| | | | | | | | | | Total | 22,97,270.78 |

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| Load Provided From Special Provided From Spe | CCB 600/630 Amp. For 300 HP and bording and erecting 3 pole MCCB | 3 | No. | 18064.8 | 920.4 | 128.856 | 34,628.26 | 1,731.41 | 36,359.67 | 1,09,079.01 |
|--|---|---|-----|---------|-------|---------|-------------|-----------|-----------|-------------|
| 8 MCCO Provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there provo of rating there are represented by the rating the rat | CCB 200 Amp. For 70 HP Load oviding and erecting 3 pole MCCB A 415v capacity with S.C. ing 25 kA (Ics=100% of Icu) ermal and magnetic setting with ovided leads on iron frame as perec. no. SW-SWR/MCCB. WD DSR 15-16 Item-5-5-2) CCB 600/630 Amp. For 300KW E Load oviding and erecting 3 pole MCCB A 415v capacity with S.C. | | No. | 18064.8 | 383.5 | 53.69 | 19 501 00 | | | |
| MCC Provo of ratir there provo spee (PW 9 MCC UF Provo of ratin there provo spee (PW 10 MC Sup foun ver: dist (PV 11 MC Sup foun ver: dist (PV 12 AC fee Sup ma 500 (Ics acc as | oviding and erecting 3 pole MCCB | | No. | 18064.8 | 383.5 | 53.69 | 19 501 00 | | | |
| MCGUF Proof of ratii there provided in the | Load oviding and erecting 3 pole MCCB A 415v capacity with S.C. | 1 | | | | | 10,501.88 | 925.10 | 19,427.09 | 58,281.27 |
| 10 MC Supfour versidist (PV Supfour versidist) (PV Supfour versidist | ermal and magnetic setting with ovided leads on iron frame as per ec. no. SW-SWR/MCCB. | , | No. | 33579 | 920.4 | 128.856 | 34,628.26 | 1,731.41 | 36,359.67 | 36,359.67 |
| Supfour veridist (PV 11 MC Supfour veridist (PV 12 AC fee Supma 500 (Ics accords) | WD DSR 15-16 Item- 5-5-5) | | | | | | | | | |
| 11 MC Supfou ver dist (PV 12 AC fee Supma 500 (Ics acc | CCB 40 Amp. For UV Power applying and erecting & marking ur pole isolators only switch raion of MCBs ofA in provided stribution board. | 1 | No. | 677 | 23 | 3.22 | 703.22 | 35.16 | 738.38 | 738.38 |
| Supfou ver disl (PV 12 AC fee Supman 500 (Ics acc as | WD DSR 15-16 Item- 5-3-24) | | | | | | | | | , |
| 12 AC fee Sup ma 500 (Ics acc | CCB 63 Amp. General feeder upplying and erecting & marking ur pole isolators only switch ersion of MCBs of —A in provided stribution board. | 3 | No. | 699 | 23 | 3.22 | 725.22 | 36.26 | 761.48 | 2,284.44 |
| AC fee Sup ma 500 (Ics acc as | PWD DSR 15-16 Item- 5-3-25) | | | | | | | | | |
| | CB 1250 Amp. 4 Pole, APFC eder 430KVAR upplying and erectiing ACB anually operated drawtype of 800A ov 3 pole having S.C. rating 50kA cs=lcu=lcw for 1 s) with std. ccessories on provided iron frame a per spec. No.SW-SWR/ACB. | | No. | 218234 | 4198 | 587.714 | 2,23,019.92 | 11,151.00 | 2,34,171 | 2,34,170.92 |
| Su FP box | CD from Durited well cont. | 2 | No. | 1369 | 23 | 3.22 | 1,395.22 | 69.76 | 1,464.98 | 2,929.96 |
| (PI | CB fuse Switch unit 63A for ighting etc. upplying and erecting & marking PMCBA in provided distribution bard as per spec No SW-WR/MCB | | | | | | | | | |
| 14 Vo | ighting etc. upplying and erecting & marking PMCBA in provided distribution pard as per spec No SW- | | | | 143 | 20 02 | 1,010 02 | | | |

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RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (KK STP to KK MIDC ESR) &(KK STP TO VASHI MIDC ESR)

| Description of Material Qty Unit Supply rate Labour | Net Rate | Amount 2,64,960.3 |
|--|------------------|-------------------|
| G.I. sheet 1.6 mm (16 gauge) to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling welding rivetting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6 x2.5 x 3 6 2.5 5 75 120 Sq. Mtr 1705 349 48.86 2102.86 105.143 (PWD DSR 15-16 Item-6-1-3) Iron Work Supplying and erecting iron work consisting of varios sections of MS including plates chequred plates, rods, bars MS pipes , etc. for panel board and any other purposes complete with bending, cutting, drilling, & welding comp[lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | | 0 2,64,960.3 |
| 6 x 2.5 x5 6 2.5 5 75 120 Sq. Mtr 1705 349 48.86 2102.86 105.143 (PWD DSR 15-16 Item- 6-1-3) 2 Iron Work Supplying and erecting iron work consisting of varios sections of MS including plates chequred plates, rods, bars MS pipes, etc. for panel board and any other purposes complete with bending, cutting, drilling, & welding comp[lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | | 2,64,960.3 |
| 120 Sq. Mtr 1705 349 48.86 2102.86 105.143 | | 2,64,960.5 |
| Compose the consisting of varios sections of MS including plates chequred plates, rods, bars MS pipes, etc. for panel board and any other purposes complete with bending, cutting, drilling, & welding comp[lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | | 2,64,960.3 |
| Iron Work Supplying and erecting iron work consisting of varios sections of MS including plates chequred plates, rods, bars MS pipes, etc. for panel board and any other purposes complete with bending, cutting, drilling, & welding comp[lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | 5.54 116.3 | |
| Supplying and erecting iron work consisting of varios sections of MS including plates chequred plates,rods,bars MS pipes ,etc. for panel board and any other purposes complete with bending,cutting,drilling, & welding comp[lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | 5.54 116.3 | |
| | | 36 11,636.1 |
| | | |
| Bus Bar 2400 Amp Al bus (800x3) Supplying and erecting busbar chamber triple pole with neutral with four aluminium bars, 500v A complete as per specifications no. CP-BB (PWD DSR 15-16 Item- 6-2-6) | 26.33 32,053.0 | 01 1,92,318.0 |
| (1) WE SERVICE TO ROTH OF 2 by | | |
| ACB 2000 Amp. Main incoming 4 pole Supplying and erectiing ACB manually operated drawout type ofA 500 v 3 pole having S.C. rating 50kA (Ics=Icu=Icw for 1 s)with std. accessories on provided iron frame as per spec. No.SW-SWR/ACB. (PWD DSR 15-16 Item- 5-8-7) | 3,62,461. | 11 3,62,461. |
| 5 | | |
| ACB 2000 Amp. Bus coupler 4 pole Supplying and erectiing ACB | 3,62,461. | 11 3,62,461. |
| [I MD DOI: 10-10 Refil- 0-0-1] | | |
| ACB 2000 Amp. DG incoming 4 pole Supplying and erectiing ACB manually operated drawout type of — 1 No. 335630 8395.9 1175.43 3,45,201.06 17,2 -A 500 v 3 pole having S.C. rating 50kA (Ics=Icu=Icw for 1 s)with std. accessories on provided iron frame as per spec. No.SW-SWR/ACB. (PWD DSR 15-16 Item- 5-8-7) | 260.05 3,62,461. | 3,62,461. |

| Sr. No. | Description | Qty | UOM | Rates | Amount | Reference |
|------------|---|-----|------|--------------|----------------|--|
| } | ADDITIONAL REQUIREMENTS FOR POWER SOURCE | | | | | |
| 16 | Item No. 16 :- MSEDCL CHARGES INSPECTION AND TESTING | | | | | Ref: Revision in schedule of charges -MSEDCL- |
| | HT SERVICE CONNECTION CHARGES FOR NEW CONNECTION ABOVE 500 KVA (Including rate of 1.30% of the normative charges) | 1 | Each | 253500 | 253500 | No.CE/Dist-III/SOC/24500 Annx. 2 date: 30- 08-2012 |
| | APPLICATION,REGISTRATION & PROCESSING | 1 | Each | 50000 | 50000 | |
| | HT TOD METER TESTING | 1 | Each | 5227 | 5227 | |
| _ | Power Transformer Inspection | 2 | Each | 10000 | 20000 | Defi Ammerical of MCCDCI Cohedula of all access |
| | Current Transformer Inspection (CT) | 3 | Each | 5000 | 15000 | Ref: Approval of MSEDCL Schedule of charges order Dated: september 8,2006 |
| | Voltage Transformer Inspection (PT) | 3 | Each | 5000 | 15000 | order Dated. September 0,2000 |
| | RELAY TESTING | 6 | Each | 1000 | 6000 | |
| | HT SWITCH GEAR | 3 | Each | 5000 | 15000 | |
| | LT CAPACITOR TESTING | 430 | KVAR | 10 | 4300 | |
| 17 | Item No. 17:- 22 KV HT cable for incomming supply | 1 | Each | 5440275.48 | 5440275.48 | As per RA enclosed, HT cable works |
| 18 | Protection | 1 | Each | 4028846.96 | 4028846.96 | As per RA enclosed, HT cable works |
| | Sub Total Part B (Rs) | | | | 98,53,149.44 | |
| 2 | Item No. 21 :- Diesel Generating Set Supplying Errecting diesel generating set 1000 KVA (250x4) capacity with AMF Panel as per Detailed specification with water cooled engine set incluiding inspection charges. | 1 | Each | 69,12,528.00 | 6912528 | PWD DSR 15-16 Item No.11-1-19 |
| | Sub Total Part C (Rs) | | | | 69,12,528.00 | |
| - | | | | | | |
| | Total Cost (Rs) | | | | 3,78,92,854.00 | |

| r. | Description | Qty | UOM | Rates | Amount | Reference |
|-----|---|------|-------|------------------|--|--|
| | tem No- 4 ;- H.T. sub station Providing, supplying and erecting 22 KV/ 0.433 Kv | | | | | As not 1 V 400 VV/A 9 CC Lighting 9 control cold |
| | H T Substation as per Detailed specification. | 1 | Each | 1417141 00 | 14,17,141 00 | As per 1 X 400 KVA & SS Ligthing & control cable - RA enclosed |
| 5 | tem No. 5 :-Cables | | | | | |
| + | 3.5 Core 300 Sq. MM Aluminium Armoured | 1200 | Rmt | 1883 | 2259600 | MJP E/M DSR 2015-16, Pg. 69 Item CB 5-10 |
| | Cable(150*8) | | | | | |
| | 3 core x 240 sqmm(50*2) | 100 | Rmt | 1327 | 132700 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-14 |
| | 3 core x 120 sqmm(50*4) | 200 | Rmt | 725 | 145000 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-11 |
| 1 | 3 core x 25 sqmm(50*2) | 100 | Rmt | 235 | 23500 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-6 |
| - | 3 Core 4 Sq. MM AL Armoured Cable | 100 | Rmt | 118 | 11800 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-2 |
| + | HT CABLE | | | | | |
| | 22 kv XLPE cable 3 core x 185 sqmm | 200 | Rmt | 2410 | 482000 | MJP E/M DSR 2015-16, Pg. 74 Item CB 12-7 |
| | ndoor termination kit 22 kv for 185 sq mm | 9 | Each | 12284 | 110556 | MJP E/M DSR 2015-16, Pg. 79 Item CB 28-3 |
| | Out door termination kit 22 kv for 185 sq mm | 1 | Each | 17783 | 17783 | MJP E/M DSR 2015-16, Pg. 79 Item CB 29-3 |
| 1 | Straight Through joint kit 22 kv for 185 sq mm | 1 | Each | 46322 | 46322 | MJP E/M DSR 2015-16, Pg. 79 Item CB 30-4 |
| - | | | Each | 40322 | 40322 | M3P E/M DSR 2015-16, Pg. 79 Item CB 30-4 |
| - 1 | Item No. 6 :- Cable Trench - Making the trench in hard murum/ tar road of | | | 1 | | |
| | suitable width and depth for laying provided L.T. | 200 | | 153 | 30600 | DWD DCD 2015 16 How as CW 16 1 2 |
| | Cable of 10 sq mm complete as per detailed | 200 | m | 155 | 30000 | PWD DSR 2015-16, Item no- CW-16-1-2, |
| | specifications. | | | | | |
| | Making the trench in hard murum/ tar road of | | | | | |
| | suitable width and depth for laying provided L.T. | | | | | |
| | Cable of 25 sq mm & above covered with half | 100 | m | 265 | 26500 | PWD DSR 2015-16, Item no- CW-16-1-3, |
| | round hume pipe complete as per detailed | | | | | |
| | specifications. | | | | | |
| | Item No. 7 :- Cable Tray - Providing, fabricating | | | | | |
| 7 | and fixing G.I. perforated cable tray for cables as | 200 | Mtr | 174 | 34800 | MJP E/M DSR 2015-16, Pg. 80 Item CB 34-2 |
| | per requirement and specifications - 200 x 20 mm | 200 | "" | (CAST) | 04000 | 1 1 2 1 1 2 1 2 1 3 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 |
| - | IA No Consider avail 9 are the 420 | | - | | | |
| | Item No. 8 :- Capacitor supply & erecting 430 kVAR((200x2)+30)440 V three phase 50 cycles | | | | | |
| ļ | thyrester switched Micro APFC passive filter | | | | | |
| | panel consisting ofmutipal steps of APP type | | l = | 4404007 | 4404007 | DUID DOD 45 40 H |
| 0 | capacitor units confirming to IS: 13585 (part -1) | 1 | Each | 1104327 | 1104327 | PWD DSR 15-16 item 6-7-6, 6-7-11 |
| | with harmonic filter reactors suitable for working | | | 1 | | |
| 1 | load as per specifications. | | | | | |
| - | Item no- 9 :-Gl Earthing - | - | | | | |
| | Supplying & erecting GI earth plate size 60x 60x6 | | | | | |
| | cms complete with all materials, testing & | | | | | |
| 9 | recording results as per specifications. As per IS | 6 | each | 4018 | 24108 | PWD DSR 15-16 Item No.9-1-1 |
| | 3043-1987 & as directed by engineering incharge. | | | | | |
| | , , , , | | | | | |
| | Item no- 10 :-Copper Earthing - Supplying & | | | | | |
| | erecting copper earth plate size 30 x 30 x 0.6 cms | | | | | |
| 10 | complete with all materials, testing & recording | 6 | Each | 7440 | 44640 | PWD DSR 15-16 Item No.9-1-2 |
| | results as per specifications . As per IS 3043- | | Lacii | 7440 | 77070 | 1 VVD D3N 13-10 Item No.3-1-2 |
| | 1987 & as directed by engineering incharge. | | | | | |
| | Item No. 11 :-Earthing Strip | | + + | | | |
| 11 | Providing erectimng GI earth strip | 300 | Kg | 158 | 47400 | PWD DSR 15-16 Item No.9-2-3 |
| | Providing, erecting CU earth strip | 150 | Kg | 865 | 129750 | PWD DSR 15-16 Item No.9-2-2 |
| | Item No. 12 :- Pipe type earthing | | | | | |
| 12 | Providing erecting pipe type earthing with double | | | | | |
| | erarthing to the all equipments as per Detailed | 6 | Each | 1536 | 9216 | PWD DSR 15-16 Item No.9-1-4 |
| | specifications. | - | + | | | |
| 12 | Item No. 13 :- Tools Providing Tools as per Detailed specification | 1 | Lot | 63641.00 | 63641 | As ass BA analysis |
| 13 | enclosed. | ' | Lot | 03041.00 | 03041 | As per RA enclosed |
| | Item No. 14 :- In door lighting (Electrification) | | | | | |
| | (-1000 model) | | | | | |
| 4.4 | The lighting shall comprise fleuorescent - 4 nos | | | | | |
| 14 | Bulkhead fitting - 3 nos D.B 2 nos | | 1 ! | 40004.00 | 40004 | As ass DA |
| | Suitable size conductors with fuses,switches | 1 | Job | 42361.00 | 42361 | As per RA enclosed |
| | including H.G.conduit etc. | | | | | |
| | Item No. 15 :- Area lighting(Outdoor | | | | | |
| | elctrification) | | | | | |
| | The area lighting shall comprise 120 w LED | | | | | |
| , . | Fittings with and mounted on Conical pole 9 m | | | | | |
| 15 | high including ballast, condensor, fuse | | | | | |
| | reflector,cable and control switch etc out of the | 1 | Job | 290649.85 | 290650 | As per RA enclosed |
| | two lams.one shall be in the substation yard and | 1 | | | | |
| | the second lamp shall be erected for area lighting | | | | | |
| | | 1 | Each | 21,04,800.00 | 2104800 | As not BA applaced Burne Automatic |
| 10 | Itom No. 16 :- Pump Automotics | | | . Z L U4 800 U() | Z 1U46UU | As per RA enclosed, Pump Automation |
| | Item No. 16 :- Pump Automation | 1 | | | | |
| | Item No. 16 :- Pump Automation Item No. 17 :- Process Analyzers Sub Total Part A (Rs) | 1 | Each | 55,35,184.00 | 55,35,184.00 2,11,27,176.0 0 | As per RA enclosed, Process Analyzers |

RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (KK STP TO KK MIDC ESR) & (KK STP TO VASHI MIDC)

MJP & PWD CSR 15-16 EM

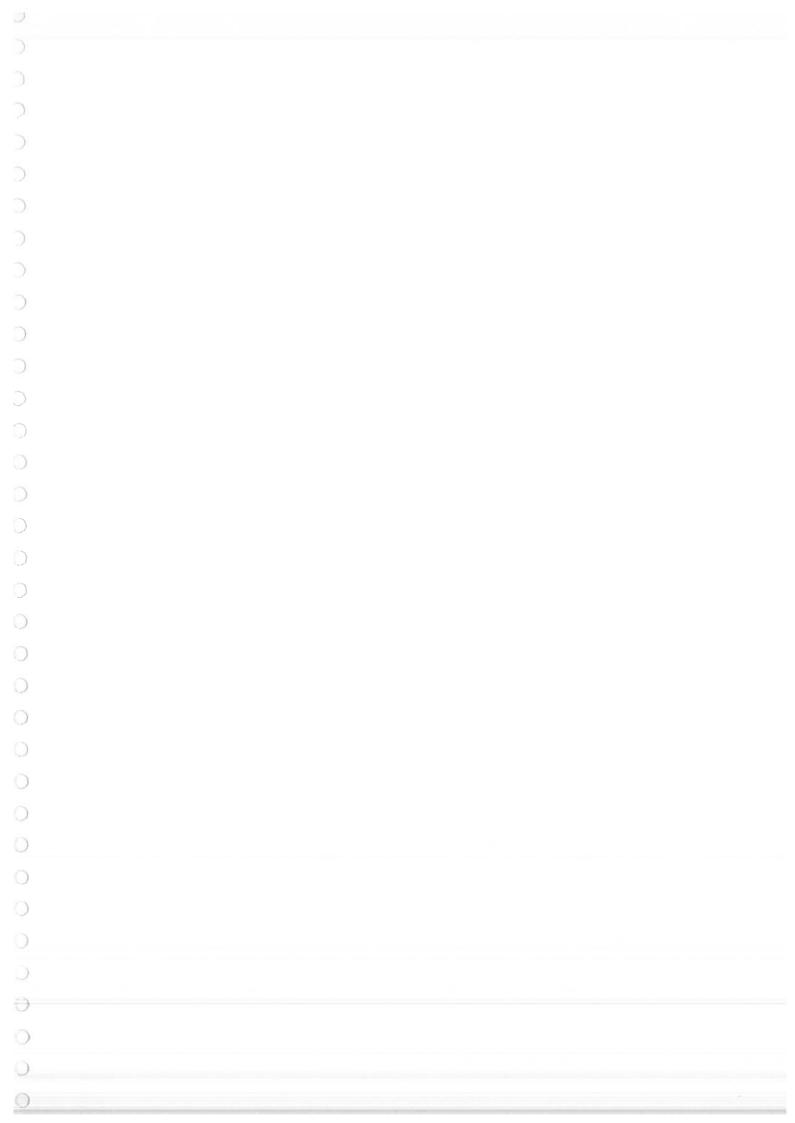
| | Electri | cai COS | | | | |
|---|---|---------|------|--------------|---------|------------------------------------|
| | Description | Qty | MOU | Rates | Amount | Reference |
| | Item No. 1 :- L.T. Control Panel Board Designing, Providing, Errecting, Testing & Commissioning with Satsfactory Test & Trial of Various Panel Boards as per Detailed specifications. | | | | | |
| | A) L.T.Main Control Panel Board Designing, Providing, Errecting, Main L.T. Control Panel Board comprises of MCCB/ACB for Incoming & MCCB for outgoing as per Detailed specification enclosed. | 1 | each | 22,97,270.78 | 2297271 | As per PANEL RA enclosed |
| | | | | | | |
| 1 | SOFT STARTER: Supplying ,erecting, commisioning electronic soft starter of three wire system to be operate on 380-440 v AC syst em consisting of-1) main contactor AC 3duty and 1.5 times full load current rating 2) suitable thyristor 3)Ammeter with selector switch and CT's 4) Motor protection relay with protection CT's for protection against-Single phasing, undervoltage, overvoltage ,phase reversal, overcurrent relay having IDMT Characterstics | | | | | |
| | for 300 HP Pump - (300)HP SOFT STARTER | 2 | No | 4,77,913.00 | 955826 | MJP E/M DSR 2015-16, pg 62 LG-6-21 |
| _ | ATS STARTERS | | | | | |
| | Providing erecting & giving test and trial fo fully automatic, auto transformer starter with Air Break Conctactor, assembled locally with conctactor of approved makes in 14 SWG sheet steel fabricated, floor mounted type cubica panel suitable for operation os 380-440 voltas 3 phase 50 Hz fitted with accessories as below. The incomming and Outgoing cable end boxes shall | | | | | |
| | on either side of main panel. The cable entries from auto transformer shall be totally enclosed in sheet metal. the starter shall have screened louvers on both sides.'1, Oil immersed copper wound auto transformer with 50% 65% & 80% tapping including first fill of oil. 2. All air break contactors of AC 3 duty of suitbale rating as mentioned. 3. Bimetalic overload relay. 4. Timer On & OFF delay. 5. Ammeter with CTS and Selector switch. 6. No volt release. 7. Master timer, 8. Motor ON OFF and TRIP indication lamp. 9. Motor protection relay with protection CTs. 10. | 2 | No | 1 42 125 00 | 286250 | MID F/M DCD 2015 16 pg C1 LC 5 2 |
| | for 70 HP Pump 80 HP ATS | | INO | 1,43,125,00 | 286250 | MJP E/M DSR 2015-16, pg 61 LG-5-3 |
| 2 | Item No. 2:-Transformer Suppling & erecting approved make of 1000 kVA 50 c/s oil immersed and naturally cooled indoor /outdoor type ,Online tap changer, copper wound transfoemer with delta conn. on HV side & star conn. on LV side with additional neutral brought out in load side , voltage rating 22 /0.433 V with tapping of +/- 2.5 % -5 % ,continuosly rated for full load with standered accessories complete with test certificate and as per IS 2026. and approved by engineering incharge. | 2 | each | 1640410 | 3280820 | MJP E/M DSR 2015-16, pg 39 TR 5-2 |
| | Item No- 3; - H T Metering Kiosk: Supplying ,erecting testing (By Licencee), commissioning cubical comprising 22 kV HT metering resin cast CTs, PTs, as per lincencees requiredment. DO fuse set, AB Switch 200- 400 A capacity duly interconnected with use of suitable insulators by maintening adequate clearences as per IS, complete housed in the encloser made up of MS structure ans fibre glass 3 mm thick with grearbox & handle brought out for operating GOD, suitable door openings, locking arrengement as per approved design by Engineering incharge. | 1 | Each | 172630 | 172630 | PWD DSR 15-16,6-4-3 |

| Sr. No | Reference | Description | Qty | Unit | Rate | Amount (Rs.) |
|-----------|--|--|-------|--------|-------------|-----------------|
| | Item no 1-A-XIV | 1) 600 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common Header)(Pump discharge)(ESR Outlet) | 4 | No | 179755 | 719020 |
| 9 | MJP DSR 2015- 16, P-217 | Lowering, laying & jointing in position following C.I.D/F Reflex valves, Butterfly valves & Sluice valves including cost of all labour jointing material, including nut bolts & giving satisfactory hydraulic testing etc. complete | | | | |
| | Item no 4-XIV | 1) 600 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common Header)(Pump discharge)(ESR Outlet) | 8 | No | 8487 | 67896 |
| 10 | MJP EM DSR 2015-16, P-16 | ACTUATOR Electric Valve actuator for non rising spindle type Sluice valve,PN1/PN1.6 rating. | | | | |
| | Item no VA 1-14 | 1) 600 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common Header)(Pump discharge)(ESR Outlet) | 4 | No | 131636 | 526544 |
| | | COMMON EQUIPMENT FOR (KK STP TO KK MIDC ESR) & (KK STP TO V Electromagnetic Flow Meter | 'ASHI | MIDC) | | |
| 11 | MJP DSR(E/M) 15 16,pg no.118, | Manufacturing, Supplying, & Commissioning Electromagnetic Flowmeter (EMF) for raw/ Pure water with Accuracy +/- 0.5% of measured value and protection as per given Specifications, including sensor, Transmitter Surge Arrestor cable duct seperate PVC of 25 mm Dia for 25 mtrs. Sensors Transmitter Surge Arrestor, Flowmeter including the pipe Cutting, levelling and Installation of flowmete with Pipeline with Neccessary tool tackles, Cranes etc as may be required at site and best on technical Specifications including comprehensive maitenance for two years after the Guarantee period is over. | | | | |
| | Item WM-3-4 Item WM-3-7 | 1) 250 mm ESR INLET & OUTLET 1) 600 mm ESR INLET & OUTLET | 2 | Nos | 188462 | 376924 |
| 12 | MJP DSR(E/M) 2015-16, P-121, I- WM-3-B-8 | SENSOR/TRANSMITTER CABLE: - 3 x 0.38 mm2 PVC cable with common, braided copper shield of 0.7 mm dia & indivisually sjielded cores with empty pipe detection 9 EPD: 4 x 0.38 mm2 PVC Cable with common, braided copper shield of 0.7 mm dia. & indivisually shielded cores. conductor resistance =420 p2/m permanent operating temp. 20+/-80°C</td <td>150</td> <td>Mtrs</td> <td>230</td> <td>976098 34500</td> | 150 | Mtrs | 230 | 976098 34500 |
| 13 | MJP DSR(E/M) 2015-16, P-122, I- WM-3-B-9 | COIL CABLE: - Providing, Laying and Jointing with test and trial of Coil cable 3 x 0.75 MM PVC cable commen, braided copper shield etc. as per detailed specification. | 150 | Mtrs | 210 | 31500 |
| 14 | MJP DSR(E/M) 2015-16, P-122, I- WM-3-B-11 | GI DUCT: - Providing .Laying GI duct of 100 MM With all the necessary fittings—joints, etc. for Housing the cables between sensor and transmitter. The cable shall be installed in suitable GI Duct to minimize the risk of damage during excavation. all the cable laid at minimum depth of 0.5 M below the ground. GI Duct shall be of 100 mm dia. | 150 | Mtrs | 332 | 49800 |
| 15 | MJP E/M 2015-16 PG No-22, Item no LF 4-1-2 | Providing, erecting and commissioning single girder Electrically Operated Rectangular Over head Travelling Crane with 6 m lift complete with wire rope hoist, classII duty, all three motions electrically operated by suitable rating motor IP 54, control panel and down pendant control block. 1) 5 tonne | I | No | 807824.00 | 807824 |
| 16 | PWD DSR 15-16, 2-13-19 | Supplying and erecting Exhaust fan heavy duty 230V A.C. 50cycles 450 mm. 1400 RPM complete erected in position as per specification no. FG-FN/EXF | 6 | No | 5097.00 | 30582 |
| 17 | PWD DSR 15-16, 6-1-4 | Supply & fixing of GSS sheet of 1.25 MM Thick | 30 | Sq mtr | 1840.5 | 55215 |
| 18 | MIDC DSR 2015- 16 Pg no. 185, Item No. WS/C/9i | Providing and erecting Cast Iron Sluice Gates manufactured & tested as per IS3042-1965.Gates to be provided with brass seats and spindle of MS bright bar of required height to enable to operate the gate from operating slab of intake structure including GM nut bolts SS304 hardware,necessary wedges to be provided to achieve leak tightness,including operational wheel headstock,foundation material,labour etc. complete including taxes & duties ,as per detailed specification & as directed by Engineer In charge Size:900 X 900 mm | 1 | No | 2,50,902.00 | 250902.00 |
| 19 | MJP E/M 2015-16 PG No-105, Item no- WM-C-7 | C.l. Strainer "T" (Basket) Type with flanged ends and with stainless steel or brass mesh with openings of 2.5. Mm to 3mm and suitable for operating pressure of 16 Kg./cm2 and testpressure of 24 Kg./cm2 | 2 | No | 54,963.00 | 109926.00 |
| 20 | MJP Kokan DSR 15-16,pg no.8, item no 24 | Fabricating pipes from steel plates supplied free of cost and stacking the same in the fabricators yard. The rate to include cutting the plate, rolling, tack welding, assembling in suitable lengths to form pipes welding on automatic welding machine and forming 'V' edge for both ends of pipe. | 2000 | KG | 42.00 | 84000.00 |
| 21 | MJP Kokan DSR 15-16, pg no.356, item no 6a | Providing and applying one coat of Zinc rich epoxy primer to the internal surface of pipeline at site. | 90 | Sqm. | 582.00 | 52380.00 |
| 22 | MJP DSR Electrmechanical 15-16,pg no.8,Iten No.PM11-4 | Providing, installing, testing & commissioning of 150 mm dia bourden type Pressure Gauges complete with siphon U tube, isolating cock, C-class heavy duty 15 mm GI Pipe & brought out on wall for observation at place directed by engineer. Range 0 to 15 kg/Cm² as per detailed specifications & as directed by Engineer. | 8 | No. | 1795.00 | 14360.00 |
| 23 | MJP Kokan DSR 15-16,pg no.186,item no 9b | Providing & supplying Kinetic Double Orifice type air valves PN1.6 rating combined with screw down isolating sluice valve etc complete Size:100mm | 8 | No. | 15155.00 | 121240.00 |
| - | | | - | | TOTAL: | 1,75,50,506.0 |

NAVI MUMBAI MUNICIPAL CORPORATION
RECYCLE WATER SYSTEM

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| | 111777 | REATED WATER SUPPLY SCHEME (KK STP TO KK MIDC ESR) & (k | | | | |
|---|-----------------------------|---|-----|------|--------------|--------------|
| 0 | Reference | Description | Qty | Unit | Rate | Amount (Rs.) |
| t | | MECHANICAL FOR(KK STP TO KK MIDC ESR) | | | | |
| | Pump Quotation | Providing, Installaing, Testing, Commissoning with test and trail of each VT Pump giving discharge 125 mtr cube/Hr. at Total Head 78.73 Meter including foundation base frame bolts etc. complete. Capacity - 3 MLD Total bowl head- 78.73 mtr. Pump HP - 70 Pump model-CNE 22 Number of stages- 2 Pump speed RPM – 1480 Bowl efficiency- 78% Total Suspention length including Bowl & strainer-7.5Mtr Type of Lubrication- Self water Material of constructions: Casting- Cast Steel Impletter- CF8M Neck Ring - CF8M | 2 | No | 20,78,933.90 | 4157867.80 |
| | | Shaft- SS410 Shaft sleeve - SS410 | | | | |
| | | Intermediate Bearing - Cutless Rubber Sluice Valve | | | | |
| 2 | MJP DSR 2015- 16, P-211, | Providing, double flanged Sluice valve Confirming to IS 2906/14846 Including Worm Gear Arrangements as per Test Pressure Staimless Steel Spindle, Caps Including all Taxes Transportation etc Complete. Sluice Valve - PN-1 (Without by Pass) | | | | |
| | Item no 2-A-VIII | 1) 250 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common | 4 | No | 25770 | 103080 |
| | 110 2-71- 4 111 | Header)(Pump discharge)(ESR Outlet) NRV | - | 110 | 25770 | 103000 |
| 3 | MJP DSR 2015- 16, P-211, | Providing & supplying ISI mark CI D/F Reflux valve(non return valve) PN 1 rating without bypass arrangement, as per IS 5312 Part I (1984), including all taxes, inspection charges, transportation etc. complete. Reflux valves as per IS 5312 part I (1984) Without by pass Arrangement PN-1. | | | | |
| | Item no 1-A-VIII | 1) 250 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common | 4 | No | 27175 | 108700 |
| | | Header)(Pump discharge)(ESR Outlet) Lowering, laving & jointing in position following C.I.D/F Reflex valves, Butterfly valves & Sluice | | - | | |
| 4 | MJP DSR 2015- 16, P-217 | valves including cost of all labour jointing material,including nut bolts & giving satisfactory hydraulic testing etc. complete | | | | |
| | Item no 4-VIII | 1) 250 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common Header)(Pump discharge)(ESR Outlet) | 8 | No | 8487 | 67896 |
| 5 | MJP EM DSR | ACTUATOR | - | | | |
| | 2015-16, P-16 | Electric Valve actuator for non rising spindle type Sluice valve,PN1/PN1.6 rating. 1) 250 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common | | | | |
| | Item no VA 1-14 | Header)(Pump discharge)(ESR Outlet) | 4 | No | 131636 | 526544 |
| 6 | Pump Quotation | Total Suspention length including Bowl & strainer-7.5Mtr Type of Lubrication- Self water Material of constructions: Casting- Cast Steel Impletter- CF8M Neck Ring - CF8M Shaft- SS410 Shaft sleeve - SS410 Intermediate Bearing - Cutless Rubber | 2 | No | 38,47,923.11 | 7695846.22 |
| 7 | MJP DSR 2015- 16, P-211, | Sluice Valve Providing,double flanged Sluice valve Confirming to IS 2906/14846 Including Worm Gear Arrangements as per Test Pressure Staimless Steel Spindle, Caps Including all Taxes Transportaion etc Complete. Sluice Valve - PN-1 (Without by Pass) | | | | |
| | Item no 2-A-XIV | (1) 600 mm NB(Non availability of size 560mm rate at DSR we cosider 600mm)(Common Header)(Pump discharge)(ESR Outlet) | 4 | No | 145465 | 581860 |
| 8 | MJP DSR 2015- 16, P-211, | NRV Providing & supplying ISI mark C1 D/F Reflux valve(non return valve) PN 1 rating without bypass | | | | |
| ~ | | | | | | |



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| | RECYCLE WATER SYSTEM | | | | | | | | | | | |
| Sui | mmary sheet for I | KK MIDC & VASHI MIDC | | | | | | | | | | |
| Sr No. | Description | Amount | | | | | | | | | | |
| 1 | Mechanical | 1,75,50,506.00 | | | | | | | | | | |
| 2 | Electrical | 2,11,27,176.00 | | | | | | | | | | |
| 3 | HT Power | 98,53,149.44 | | | | | | | | | | |
| 4 | DG Power | 69,12,528.00 | | | | | | | | | | |
| | Total | 5,54,43,359.44 | | | | | | | | | | |

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| NAVI | MUMBAI | MUNICIPAL | CORPORATION |
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| | RECYCLE WATER SYSTEM | | | | | | | | | | |
|---|---|---------------|---|--|--|--|--|--|--|--|--|
| ANNEX | URE I : Bill of Material | | | | | | | | | | |
| | | | O/G 1000 KVA ONAN,OCTC | | | | | | | | |
| Description | Make | INCOMER | Trafo Feeder | | | | | | | | |
| Description | Wake | Feeder | | | | | | | | | |
| Rating | | 630A | 1850A | | | | | | | | |
| Qty | | 1 | 2 | | | | | | | | |
| Description | | - | | | | | | | | | |
| 22kV Indoor cubical 630A,25kA,/1Sec , | Symatic | | | | | | | | | | |
| with AL Bus bar | , | 1 | 1 | | | | | | | | |
| Vacuum Circuit Breaker | | | 1 | | | | | | | | |
| 22kV,630A VCB | Siemens | 1 | 1 | | | | | | | | |
| Current Transformer-18.4KA/1Sec | | | <u> </u> | | | | | | | | |
| 100/5-5A CL-1/15VA,5P10/15VA | Pragati/ECS | 3 | | | | | | | | | |
| 50/5-5A CL-1/15VA,5P10/15VA | Pragati/ECS | | 3 | | | | | | | | |
| Potential Transformer | , ragati, ccs | | 3 | | | | | | | | |
| 22kV/sqrt3/110V/sqrt3 Core 1: CL1/100VA | Pragati/ECS | 3 | | | | | | | | | |
| Meters - Digital | , rabati cos | 3 | | | | | | | | | |
| Analouge Voltmeter+ASS | AE/MECO | 1 | | | | | | | | | |
| Analouge Ammeter+VSS | AE/MECO | 1 | 1 | | | | | | | | |
| Load Manager with RS 485 Port | Conzerv | 1 | 1 | | | | | | | | |
| Switches/Indications | Conzerv | 1 | 1 | | | | | | | | |
| T-N-C Switch | Switron/ Keycee | 1 | 1 | | | | | | | | |
| LR Switch | Switron/ Kaycee | 1 | 1 | | | | | | | | |
| EM Trip Push Buttons | Tecknic/L&T | 1 | 1 | | | | | | | | |
| AC/DC Control Switch | Switron/ Kaycee | 1 | 1 | | | | | | | | |
| Control MCB /Fuse 1set | SIEMENS /Legrand | | | | | | | | | | |
| Space heater with Thermostat with toggle switch | Reputed | 1 | 1 | | | | | | | | |
| 1Set | | | 1 | | | | | | | | |
| Panel illuminaton Lamp With Door Limit Switch | Reputed | 1 | 1 | | | | | | | | |
| Contactors 1Set | SIEMENS | 1 | 1 | | | | | | | | |
| Indicating Lamp 1 Set | Tecknic/L&T | 1 | 1 | | | | | | | | |
| Annunciater 6W with Hooter | Alan | 1 | 1 | | | | | | | | |
| Power Pack with Battery Back-up 230VAC/24 VDC | Alan | 1 | 1 | | | | | | | | |
| Relays | | | | | | | | | | | |
| IDMT O/C & E/F Relay (50,50N,51,51N) | Siemens | 1 | 1 | | | | | | | | |
| Master Trip Relay | Alstom | 1 | 1 | | | | | | | | |
| Trip Ckt-Supervision Relay | Alstom | 1 | 1 | | | | | | | | |
| Aux. Trafo Fault Relay | Alstom | | 3 | | | | | | | | |
| ANNEX | URE II : Price Schedule. | | | | | | | | | | |
| Sr. | Description | Qty (In Nos.) | Ex-works Price | | | | | | | | |
| No. | 1 · | | | | | | | | | | |
| A | Supply, 22kV, 630A, 25KA/1sec. Switchboard with Alu. Busbar consist of following feeder | 1Set | | | | | | | | | |
| 1 | Incomer Feeder & O/G 1000 KVA ONAN,OCTC Trafo Feeder | 1 EACH | 16,40,410 | | | | | | | | |
| | TOTAL | 2 | 32,80,820 | | | | | | | | |
| | ED @ 10.3 % | | 3,37,924 | | | | | | | | |
| | VAT @ 12.5 % | | 4,10,103 | | | | | | | | |
| | FINAL TOTAL | | 40,28,847 | | | | | | | | |
| В | Optional Charges | | | | | | | | | | |
| | | | Rs.12,500/- per day per person plus Extra for To | | | | | | | | |
| | | | & fro 3AC Rail | | | | | | | | |
| C | Charges towards deputing person for supervision of Erection & commissioning' | Per diem | ,Lodging , Boarding & local travel. | | | | | | | | |

RECYCLE WATER SYSTEM TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC and AIROLI STP MIDC ESR)

| 01.11 | | | ESS ANA | 1 | Takal Billia | Deference |
|-------|---|------|---------|-----------------------|------------------------------|--|
| SI.No | Item Description | Unit | Qty | Rate(in Rs) | Total Price | Reference |
| 1 | PH analyzer Design, supply, installed at each STP PH analyzer Design, supply, installation testing of Ph analyzer as per IUPAC(INTERNATIONAL UNION FOR PURE & APPLIED CHEMISTRY) at A.F. and Interfacing with PLC panel.Range: 0-14, Ph ACCURACY: Better than 0.5% of full scale, Supply voltage: 24V dc, Output: 4-20 mA as PER IEC 61000-6-2 & 61000-6-3 | No | 3.00 | 1,55,328.00 | 4,65,984.00 | Market rates |
| 2 | TOTAL RESIDUAL CHLORINE ANALYZER Design, supply,installation,testing of Residual chlorine analyzer/meter must have automatic sensor cleaning facility at pure water sump and interfacing with PLC panel. Overall range: 0-5 mg/l Measuring range:0.03 to 2 mg/l Accuracy: 2% of full scale supply voltage: 230 V ac Output: 4-20 mA | No | 3.00 | 2,50,000.00 | 7,50,000.00 | MJP E/M 2015-16 PG No-142, Item no- SA-5.5 |
| 3 | TURBIDITY meter Design, supply, installation testing of turbudity meter as per ISO 7027 scattering light method at A.F. and Interfacing with PLC PANEL. Turbudity meter shall comprise of 3 components i.e. sensors, signals distributor and transmitter with indicator. Transmitter converts the signal to 4-20mA and gives 2 outputs one to SCADA and other to indicator. Over all range: 0-1000 NTU, mEASURING rANGE: 0.02 to 500 NTU, aCCURACY: +/-2.02 NTU, supply Voltage:230 Vac, Output: 4-20mA | No | 1.00 | 3,70,000.00 | 3,70,000.00 | MJP E/M 2015-16 PG No-135, Item no- SA-2.3 |
| | Multifunction meter Designing, supplying, installing, commissioning & testing of multifunction meter interfacing to PLC Panel with RS 485 output, as per IEC 62053 and in the prescribed format and shall be configured with main SCADA for report generation for following parameters and as per detailed specification attached. 1) Line/phase Voltage 2) Line/phase Current 3) Power factor 4) Kwh | No | 2.00 | 33000 | 66,000.00 | MJP E/M 2015-1 PG No-136, Item no- SA-2.5 |
| | 4 5) Frequency | h1- | 3.00 | 10.41.000.00 | 20.02.200.00 | NAmelia to and an |
| 5_ | BOD, COD ,TSS, TOC ANALYZER | No | 2.00 | 19,41,600.00 TOTAL | 38,83,200.00 55,35,184.00 | + |

| | SCADA INTEGRATION WITH CPCB WEBSITE ON READY TIME BASIS | | | | | | |
|----|--|----------|-------|--------|--------------|----------------------|---|
| | The major prerequisites of efficient online analysers are: | | | | | | |
| | Should be capable of operating unattended over prolonged period of time. | | | | | | |
| | Should produce analytically valid results with precision and repeatability | | | | | | |
| | The instrument/analyser should be robust and rugged, for optimal operation under extreme environmental conditions, while maintaining its | | | | _ | | |
| | calibrated status. | | | | | | |
| | The analyser should have inbuilt features for automatic water matrix change adaption. | | | | | | |
| | The instrument / analyser should have onboard library of calibration spectras for different industrial matrices with provision of accumulating | | | | | | |
| | further calibration matrices | | | | | | |
| | Should have data validation facility with features to transmit raw and validated data to central server. | | | | - | | |
| | Should have Remote system access from central server provisioning log file access. | | | | | | |
| | Should have provision for Multi-server data transmission from each station without intermediate PC or plant server. | - | | 1 | 1 | 74 A D T D V D V T D | L |
| 17 | Should have provision to send system alarm to central server in case any changes made in configuration or calibration. | ⊣ | 2 | /68000 | 7,68000 | NARMI A | |
| | Should have provision to record all operation information in log file. | | | | | | |
| | For each parameter there should be provision for independent analysis, validation, calibration & data transmission. | | | | | | |
| | Must have provision of a system memory (non-volatile) to record data for at-least one year of continuous operation | | | | | | |
| | Should have provision of Plant level data viewing and retrieval with selection of Ethernet, wireless, Mod-Bus & USB. | | | | | | |
| | In case of TOC analyser, the empirical relationship between TOC to COD or BOD must be authenticated for all industrial applications and the | | | | | | |
| | correlation calculation (for factor) provided. | | | | | | |
| | The software will give alarm, in case of the concentration of parameter exceeds the prescribed norms by 10% continuously. | | | | | | |
| | The correlation/interpretation factor for estimating COD and BOD using UV-Visible Absorption Technique shall be regularly authenticated/ | | | | | | |
| | validated and details provided. | | | | | | |
| | Record of calibration and validation should be available on real time basis on central server from each location/parameter. | | | | | | |
| | Record of online diagnostic features including sensor status should be available in database for user friendly maintenance. | | | | | | |
| | Expandable program to calculate parameter load daily, weekly or monthly basis for future evaluation with flow rate signal input. | | | | | | |
| | | | Total | | 21,04,800.00 | | |

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| NAVI MINIBAL MINISTERIAL CONTRIBERS | | | 4 | Rates Amount Kererence | 2,50,000.00 250000 MJP DSR 2015-16 SA-6-1 | 150000 150000 MJP DSR 2015-16 SA- | 75000 75000 MJP DSR 2015-16 SA- | 65000 65000 MJP DSR 2015-16 SA- | 90000 90000 MJP DSR 2015-16 SA- | 54000 54000 MJP DSR 2015-16 SA- | 25000 25000 MJP DSR 2015-16 SA- | 75000 375000 MJP DSR 2015-16 SA- | 35000 35000 MJP DSR 2015-16 SA- | 128 12800 MJP DSR 2015-16 SA- | MJP DSR 2015-16 SA- | | 34000 34000 2-9-1 | 30000 30000 MJP DSR 2015-16 SA- | MJP E/M 2015-16 PG 25000 No-137, Item no- SA- 2.6 | 50000 50000 No-137, Item no- SA- 2.7 | 20000 | MJP E/M 2015-16 PG No-136, Item no- SA- 2.4 | 00000000 |
|--|-----------------------------------|----------------------|------------------------------|------------------------|---|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|-------------------------------|---------------------|--|-------------------|---|---|---|---|--|----------|
| NAVI MINIBAL INIUNICIPAL CORPORATION Sup Part D.: Pump Antendron Sup Part D.: Pump Antendron Supply, installation, Testing, Termination & Interfacing Software Design to PLC and commissioning of SCADA software. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, installation, Testing, Termination & Interfacing Secondary Computer station. Supply, Installation, Testing, Termination & Interfacing Secondary Computer station. Supply, Installation, Testing, Termination & Interfacing Secondary Computer station. Supply, Installation, Testing, Termination & Interfacing Secondary Seconda | | | 7.0 | Σ O O | N _O | N O N | S | N _O | NO NO | o Z | No | 8 | No | Mtr | 100 | INICI | Mtr | 2 | o N | S. | ° Z | | 0 |
| Supply, Installat Supply, Installat Supply, Installat Supply, Installat Supply, Installat Supply, Installat Providing, installat Supply, I | | | | Qţ. | - | | Н | н | | н | Н | 5 | | 100 | 0 | 202 | 200 | П | Н | - | Н | | 0 |
| | NAVI MUMBAI MUNICIPAL CORPORATION | RECYCLE WATER SYSTEM | Sub Part D - Pump Automation | Sr. No. | | | | | | | | | | Pressure transmitter | | 11 Power cables: Supply, Installation, Testing, Termination & Interfacing of CAT 6 as per ISO/IEC-11801 std cable for networking on wall in GI tray. | 12 | Designing, Supplying, Installating, commissioning & Testing of CCTV IR water proof camera suitable for upto 100 ft with IR Dome camera, control key | Supply, installation, commissioning & testing of Energy monitoring system interfacing to PLC panel & shall be developed in line with the dept & in 15he prescribed format and shall be configured with main SCADA for report generation of various parameters. Supply voltage: 24V dc, Output: 4- | as | Level transmitter Design, supply, installing, commisioning & testing of Ultrasonic level transmitter CE marked at each filter bed with following technical parameters interfacing with PLC panel. Medium-water 16 Range- 0-5 mtrs | Output-4-20 Ma Power supply-24VDC ext. Display-Large LCD ACCURACY : +/- 0.25% of full scale or better | |

| | NAVI MUMBAI MUNICI | PAL COR | PORATION | ON | |
|--------|---|------------|----------|----------|--|
| | RECYCLE WAT | ER SYST | EM | | |
| | Item Code N | | | | |
| | Cost Data supply & laying of 3 Km 22 KV, 3 | C, 300 Sqr | | | d Cable |
| Sr.No. | Particulars | Unit | Qty. | RT/U Rs. | Amount |
| 1 | XLPE Cable 22 KV, 3 C / 300 mm sq. Ref. MJP DSR 15-16 pg 73 ,CB 12-9 | Rmt | 1000.00 | 3171.00 | 3171000.00 |
| 2 | R.C.C. Pipe 200 mm 2 M Ref. MJP CIVIL DSR 15-16 pg 138,class P-3 (collar joint) | No | 90.00 | 483.00 | 43470.00 |
| 3 | RCC half round pipe (100 mm) Ref. MJP CIVIL DSR 15-16 pg 137,class P-1 collar joint (half of actual rate) | No. | 940.00 | 154.00 | 144760.00 |
| 4 | 22 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm Ref.MJP DSR 15-16 pg 79 ,CB 30-5 | No. | 4.00 | 50261.00 | 201044.00 |
| 5 | 22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm Ref. MJP DSR 15-16 pg 79 ,CB 29-4 | No. | 2.00 | 22922.00 | 45844.00 |
| 6 | Sand | Cmt | 250.00 | 191.40 | 47850.00 |
| | Cost of material | | | | 3653968.00 |
| 1 | Erection on material | 10.00% | | | 365396.80 |
| 2 | Transportation on material | 5.00% | | | 182698.40 |
| 3 | Insurance on material | 1.00% | | | 36539.68 |
| 4 | Service Tax @ (10.3% On 1+2+3) | 1.65% | 1 | | 60217.39 |
| 5 | Contingencies on material | 3.00% | ı | | 109619.04 |
| 6 | T & P on material | 1.50% | ı | | 54809.52 |
| 7 | Contractor supervision on charges on material | 10.00% | , | | 365396.80 |
| | Sub-Total -I | | | | 4828645.63 |
| 8 | Contractor profit on Total Project Cost i.e. on Sub-Total-I | 5.00% | , | | 241432.28 |
| 9 | Sub-Total -II Price Escalation on Material Cost Sub-Total -III | 5.00% | • | | 5070077.91 182698.40 5252776.31 |
| 10 | H.O.supervision charges @ 1.5% (i.e. 15% of 10% on errection of material) | 1.50% | | | 54809.52 |
| 11 | Sub-Total -IV Interest during Construction Period (on total project | 2.50% | | | 5 307585.83 132689.65 |
| | cost) i.e. on Sub-Total-IV Total Cost of Estimate | | | | 5440275.48 |

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RECYCLE WATER SYSTEM

Item Code No. 1222 (MSEDCL COST DATA 2010-2011)
Cost Data for 22/0.44 DTC new 2 X 1000 KVA, Indoor type DTC with RMU

Particulars Rate Amount r.No Unit 22 KV Ring main unit with Vaccum /SF6 /Air break switch 1 1166093.00 1 No. 1166093.00 PWD DSR 15-16 item 5-9-9 & two isolators for the same. XLPE Cable 22 KV, 3 C / 185 mm sq. Rmt 30 2410.00 72300.00 MJP DSR 15-16 pg 74 ,CB 12-7 22 kV heat shrinkable Indoor termination joint kit for 3 C No. 4 10452.00 41808.00 MJP DSR 15-16 pg 79 ,CB28-2 3 X 95 sqmm Earthing with GI pipe 40mm dia. L.S. 20 1536.00 30720.00 PWD DSR 15-16 item 9-1-4 4 5 L.S. 20 5234.00 104680.00 PWD DSR 15-16 item 9-1-3 Earthing with GI plate

2

770.00

1540.00

1417141.00

L.S.

Cost of Material

6

Sundries

| NAVI MUMBAI MUNICIPAL CORPORATION |
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| RECYCLE WATER SYSTEM |

TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC ESR)(AIROLI MIDC)

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PWD CSR 15-16- EM

| | Subject :- Detail | ed es | timate | e for electri | fication. | | | | | |
|-----------|---|-------|--------|----------------|--------------------------------|-------------------|----------------------------|------------------------|----------|-----------|
| Sr. No | Description | Qty | Unit | Supply Rate | Labour/ Erection charges | erection + 14% | Total of supply & erection | 5% on total rate | Net Rate | Amount |
| 1 | Point wiring Casing N capping type | | | | | | | | | |
| | Point wiring in PVC trucking (Casing N capping) with 1.0 sq.mm FRLS grade copper wire with flush type switch and required accessories as per specification. CSR 1-9-17. | 15 | Nos. | 224.00 | 86.00 | 12.04 | 322.04 | 16.10 | 338.14 | 5072.13 |
| 2 | Point wiring for plug on board of light or fan as per specification. | 6 | Nos. | 72.00 | 16.00 | 2.24 | 90.24 | 4.51 | 94.75 | 568.51 |
| | CSR 1-9-13. | | | | | | | | | |
| 3 | Supplying erecting & marking miniature circuit breaker confirming to IS: 8828 of 1996) single pole 6 Amp to 32 Amp C series (motor/power) with required wiring connections and lugs etc provided distribution board. | | | | | | | | | |
| | CSR 5-3-2. | 4 | Nos. | 150.00 | 23.00 | 3.22 | 176.22 | 8.81 | 185.03 | 740.12 |
| 4 | Light fitting | | | | | | | | | |
| | Supplying & erecting 2 x 40 watt T- 8 white stove enamelled powder coated box type fluorescent tube light box type complete with heavy duty copper wounde ballast & lamp holders duly wired ready to use for 230 Volts, 50 Hz. Single phase AC supply to as per quality requirements & erected on varnished wooden blocks with flexible wire twin core 24/0,2mm.Cromption / Bajaj / Philips / Shakti) | 15 | Nos. | 2,240.00 | 39.00 | 5.46 | 2,284.46 | 114.22 | 2 200 60 | 25 000 35 |
| | CSR 2-4-18. | 12 | 1405. | 2,240.00 | 39.00 | 3.46 | 2,284.46 | 114.22 | 2,398.68 | 35,980.25 |
| | | | | | | | | | Total Rs | 42361.00 |

NAVI MUMBAI MUNICIPAL CORPORATION RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC ESR)(AIROLI MIDC)

PWD DSR 15-16

| | | Qty | Unit | Supply Rate | Erection charges | erection + 14% | Total of supply & erection | 5% on total rate | Net Rate | Amount |
|---------------|---|-----|-------|----------------|------------------|-------------------|----------------------------|---------------------|-----------|-------------|
| - | Point wiring Casing N capping type | | | | | | | | | |
| - 1 | Point wiring in PVC trucking (Casing N capping) with 1.0 | | | | | | | | | |
| - 1 | sq.mm FR grade copper wire with flush type switch and | | | | | | | | | |
| | required accessories as per specification | 12 | Nos. | 218.00 | 86.00 | 12.04 | 316.04 | 15.80 | 331.84 | 3982.10 |
| \rightarrow | CSR 1-9-16. | | | | | | | | | |
| 2 | Point wiring for plug on board of light or fan as per | | | | | | | | | |
| | specification. | 2 | Nos. | 72.00 | 16.00 | 2.24 | 90.24 | 4.51 | 94.75 | 189.50 |
| | CSR 1-9-13. | | | | | | | | | |
| 3 | Supplying erecting & marking miniature circuit breaker | | | | | | | | | |
| | confirming to IS: 8828 of 1996) single pole 6 Amp to 32 Amp | | | | - | | | | 1 | |
| - 1 | C series (motor/power) with required wiring connections | | | | | 1 | | | | |
| | and lugs etc provided distribution board. | | | | | | n 0 m | | | |
| | CSR 5-3-2. | 4 | Nos. | 150 | 23 | 3.22 | 176.22 | 8.81 | 185.03 | 740.12 |
| 4 | Supplying & erecting double pole metal/ iron clad switch | | | | | | | | | |
| - 1 | with fuse and neutral link 250 V 16 A on iron frame/board as | | | | | | | | | |
| | per specification. | | | | | | | | | |
| | CSR 5-1-2. | 1 | Nos. | 474 | 51 | 7.14 | 532.14 | 26.61 | 558.75 | 558.75 |
| 5 | Light fitting | | | | | | 1 | | | |
| _ | Supplying & erecting 2 x 28 watt T- 5 energy efficient | | | | | | | | | |
| | fluorescent tube light (EETLF) fittings with recess/ surface | | | | | | | | | |
| | mounting mirror optic type with electronic balast having | | | | | | | | | |
| | pf>0.9 fixed in false ceiling or on wall as per specification no. | | | | | | | | | |
| | | | | | | | | | | |
| | (similar Cromption / Bajaj / Philips) | 6 | Nos. | 2360 | 39 | 5.46 | 2,404.46 | 120.22 | 2,524.68 | 15,148.10 |
| | CSR 2-4-22. | | 1403. | 2300 | 33 | 3.40 | 2,404.40 | 120.22 | 2,324.00 | 15,140.10 |
| | C5R Z-4-ZZ. | | + | | - | + | - | | | |
| 6 | Supply & erection LED flood lights / street lights / highbay | | | | + | 1 | | | | |
| U | | | | | | | | | | |
| | fitting IP 65 with 120 W PF>0.95 of approved make and duly | | | | | | | | | |
| | connection complete as per specification no FG-ODG/IL | | Nos | 10266 | 177 | 24.08 | 19,562.08 | 978.10 | 20,540.18 | 1,23,241.10 |
| | CCD 2 0 4 C | 6 | Nos. | 19366 | 172 | 24.08 | 19,362.06 | 9/6.10 | 20,340.16 | 1,23,241.10 |
| | CSR 2-9-16. | - | - | + | | - | | + | | |
| 7 | Supplying & erecting PVC armored cable 3 core 4 sq.mm. | - | 1 | - | + | | | | | |
| / | 1 | | | | | | | | | |
| | Copper conductor continues 5.48 sq.mm. 12 SWG GI earth | | | | 1 | | | | | 1 |
| | wire complete erected with glands & lugs, on | | - | | | | | | 13 | |
| | wall/trusses/pole or laid in provided trench/pipe as per | 1 | | | | | 1 | | | 15 |
| | specification. | | - | 200 | 40 | 1.50 | 242.66 | 12.10 | 255.05 | F4 472 00 |
| | CSR 7-2-6. | 200 | Rmt. | 230 | 12 | 1.68 | 243.68 | 12.18 | 255.86 | 51,172.80 |
| _ | | - | + | - | | + | | - | | |
| 8 | LIGHTING POLES -9 Mtr - Pathway lighting Poles | - | + | | 1 | | 1 | | | |
| | Providing & erecting 9 m high galvanised CONICAL pole with | | | | | | | | 1 | |
| | foundation bolts having bottom dia. from 165 to 200 mm, | | | | | | | | | |
| | top dia. from 65 to 75 mm on provided foundation as per | | | | | | | | | |
| | specification No. OH-PL/CPL | | 1 | 1 | 1 | | | 1 | | |
| | PWD DSR 15-16 Item 8-3-26 | 4 | Rmt | 18435 | 1678 | 234.92 | 20,347.92 | 2 1,017.40 | 21,365.32 | 85,461.26 |
| | | 1 | | 1 | | 1 | | 1 | - | |
| 9 | 1000 mm STREET LIGHT BRACKET | 1 | 1 | | | - | - | 1 | | |
| | Providing and erecting Galvanized 1000mm single arm | | | | | | | | | |
| | sward type bracket with FRP dome and ball as pe | r | | | | | | | | |
| | specification No. OH-PL/PBKT | | | | | | | | | |
| | PWD DSR 15-16 Item 8-3-30 | 4 | Rmt | . 1960 | 185 | 25.90 | 2,170.9 | 108.55 | 2,279.45 | 9,117.7 |
| | | | | | | | | | | |
| 10 | Supplying, erecting & marking SPMCB 0.5A to 5A in provided | | | | | | | | | |
| | distribution board as per specification No. SW-SWR/MCB | | | | | | | | | |
| | | | | | | | | | | |
| | PWD DSR 15-16 Item 5-3-1 | 4 | Rmt | . 221 | 23 | 3.22 | 2 247.2 | 2 12.36 | 259.58 | 1,038.3 |
| | | | | | | | | | Total Rs | 290649.8 |

RECYCLE WATER SYSTEM

AIROLI SUMP to KK MIDC and AIROLI STP MIDC

Subject :- Detailed estimate for tools

| Quantity | Unit | Description | Rate | Amount |
|----------|------|-----------------------------|----------|---|
| | | | 500.00 | |
| 1 | Set | Fix spanner set | 630.00 | 630.00 |
| 1 | Set | Ring spanner set | 1098.00 | 1098.00 |
| 1 | Each | Hammer | 284.00 | 284.00 |
| 1 | Each | Cutting plier | 208.00 | 208.00 |
| 1 | Each | Adjustable wrench - 250 mm | 270.00 | 270.00 |
| 2 | Each | Pipe wrench - 450 mm | 531.00 | 1062.00 |
| 2 | Each | Pipe wrench - 600 mm | 953.00 | 1906.00 |
| 1 | Each | Screw driver - 6x300 | 90.00 | 90.00 |
| 1 | Each | Screw driver - 8 x200 | 79.00 | 79.00 |
| 1 | Each | Screw driver - 5 x200 | 56.00 | 56.00 |
| 1 | Each | Screw driver - 5 x300 | 58.00 | 58.00 |
| 2 | Each | Line tester | 56.00 | 112.00 |
| 2 | Each | Hacksaw frame | 64.00 | 128.00 |
| 1 | Each | Tool box | 1012.00 | 1012.00 |
| 1 | Each | Chiesel - 19 x14 | 139.00 | 139.00 |
| 2 | Each | Chain pipe wrench - 100 mm | 3764.00 | 7528.00 |
| 0 | Each | Chain pipe wrench - 150 mm | 5525.00 | 0.00 |
| 1 | Each | 25 mm dia Crow bar | 190.00 | 190.00 |
| 1 | Each | 12 mm wire rope | 253.00 | 253.00 |
| 1 | Each | 50 mm dia g.i. pipe | 228.00 | 228.00 |
| 1 | Each | Center punch | 58.00 | 58.00 |
| 1 | Each | Tringular file | 317.00 | 317.00 |
| 1 | Each | Half round file | 317.00 | 317.00 |
| 0 | Each | Bearing puller - 200 mm | 334.00 | 0.00 |
| 0 | Each | Bearing puller - 250 mm | 437.00 | 0.00 |
| 1 | Each | Bearing puller - 300 mm | 531.00 | 531.00 |
| 1 | Each | Hydraulic Crimping tool | 31365.00 | 31365.00 |
| 0 | Each | Hand operated crimping tool | 8855.00 | 0.00 |
| 1 | Each | Insulation tester | 4072.00 | 4072.00 |
| 1 | Each | Earth tester | 6263.00 | 6263.0 |
| 1 | Each | Tong tester | 3075.00 | 3075.0 |
| 1 | Each | Steel level 300 mm | 380.00 | 380.0 |
| 1 | Each | Steel rule | 253.00 | • |
| 1 | | Allen Head wrench | 307.00 | 253.0 |
| | Set | | | 307.0 |
| 1 | Set | Tubulor Box spanner set | 760.00 | 760.0 |
| 1 | Each | Diagonal cutting plier | 182.00 | 182.0 |
| 1 | Each | Long nose plier | 175.00 | 175.0 |
| 1 | Each | Water Pump plier. | 255.00 | 255.0 |
| | | | Total | 63641.0 |

| Sr. No | Description of Material | Qty | Unit | supply rate | Labour / erection rate | add 14% on labor rate | Total Rate | add 5% on total rate | Net Rate | Amount |
|-----------|--|------|-------|----------------|------------------------------|--------------------------------|------------|----------------------|----------|-------------------|
| 15 | Ammeter CT operated Providing and erecting Analog type moving iron Ammeter for AC current CT operated of suitable size in scale between 0-1000A ,500v, accuracy class 1.5, flush type on provided box/panel and connected with necessary PVC wire leads and lugs. | 12 | No. | 1624 | 143 | 20.02 | 1,787.02 | 89.35 | 1,876.37 | 22,516.45 |
| | (PWD DSR 15-16 Item- 6-3-8) | | | | ļ | | - | - | - | - |
| 16 | Selector Switches for Voltmeter & ammeter Providing and erecting selector switches suitable for ammeter/ voltmeter for 3 phase AC supply 500v ,50 Hz on provided box/panel and duly connecting with necessary PVC wire leads and lugs. (PWD DSR 15-16 Item-6-5-1) | 24 | No. | 252 | 34 | 4.76 | 290.76 | 14.54 | 305.30 | 7,327.15 |
| _ | | | | | | | | | | |
| 17 | C.T coil Providing and erecting LT current transformer with bar primary 50/5 to 1000/5 ratio with 15VA burden erected in provided CRCA box duly secured with insulating material connected to meter with test certificates. (PWD DSR 15-16 Item- 6-5-2) | 36 | No. | 654 | 34 | 4.76 | 692.76 | 34.64 | 727.40 | 26,186.33 |
| 18 | Pilot Lamp Set LED type Supplying and erecting LED type indicating pilot lamp with LED colours Red/yellow/green 230/250v on provided box with necessary materials,wiring ,connections etc. (PWD DSR 15-16 Item- 6-5-6) | 10 | Nos | 713 | 34 | 4.76 | 751.76 | 37.59 | 789.35 | 7,893.48 |
| 19 | self locking arrangment Supplying and erecting self locking arrangement with duplicate keys,made of brass duly erected,flush with surface of panel/cupboard. | 10 | Nos | 167 | 28 | 3.92 | 198.92 | 9.95 | 209 | 2,088.66 |
| | (PWD DSR 15-16 Item- 6-1-20) | | - | ļ | - | | | | 1 | |
| 20 | Internal Wiring of Panel Board (Mech DSR 13-14 LT 20 Pg- 54 Item-Note 5) | 2060 | HP | 49 | 0 | 0 | 49.00 | 2.45 | 51 | 1,05,987.00 |
| 2 | Rubber matting | 120 | Sq mt | r 913 | 0 | | 913 | 45.65 | 958.65 | 115038 2237475 |
| | | | | | | | | | Total | 22,37,474.61 |

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| Sr. No | Description of Material | Qty | Unit | supply rate | Labour / erection rate | add 14% on labor rate | Total Rate | add 5% on total rate | Net Rate | Amount |
|-----------|---|-----|------|----------------|------------------------------|--------------------------------|-------------|-------------------------|-----------|----------|
| 7 | MCCB 315/400 Amp. For 260 HP Pumps Providing and erecting 3 pole MCCB of A 415v capacity with S.C. rating 36 kA (Ics=100% of Icu) thermal and magnetic setting with provided leads on iron frame as per spec. no. SW-SWR/MCCB. (PWD DSR 15-16 Item- 5-5-4) | 3 | No. | 27365 | 536.9 | 75.166 | 27,977.07 | 1,398.85 | 29,375.92 | 88,127.7 |
| 8 | MCCB 315/400 Amp. For 140 HP Pumps Providing and erecting 3 pole MCCB ofA 415v capacity with S.C. rating 36 kA (Ics=100% of Icu) thermal and magnetic setting with provided leads on iron frame as per spec. no. SW-SWR/MCCB. (PWD DSR 15-16 Item- 5-5-4) | 3 | No. | 27365 | 536.9 | 75.166 | 27,977.07 | 1,398.85 | 29,375.92 | 88,127. |
| g | MCCB 600/630 Amp. For 300KW UF Load Providing and erecting 3 pole MCCB ofA 415v capacity with S.C. rating 36 kA (Ics=100% of Icu) thermal and magnetic setting with provided leads on iron frame as per spec. no. SW-SWR/MCCB. (PWD DSR 15-16 Item- 5-5-5) | 1 | No. | 33579 | 920.4 | 128.86 | 34,628.26 | 1,731.41 | 36,359.67 | 36,359. |
| 10 | MCCB 40 Amp. For UV power Supplying and erecting & marking four pole isolators only switch version of MCBs ofA in provided distribution board (PWD DSR 15-16 Item- 5-3-24) | 1 | No. | 677 | 23 | 3.22 | 703.22 | 35,16 | 738.38 | 738 |
| 1 | | 1 | No. | 150305 | 4197.96 | 587,71 | 1,55,090.89 | 7,754.54 | 1,62,845 | 1,62,845 |
| 1: | 2 MCCB 63 Amp. General feeder Supplying and erecting & marking four pole isolators only switch version of MCBs ofA in provided distribution board . (PWD DSR 15-16 Item- 5-3-25) | 3 | No. | 699 | 23 | 3.22 | 725.22 | 36.26 | 761.48 | 2,284 |
| 1 | 3 MCB fuse Switch unit 63A for Lighting etc. Supplying and erecting & marking FPMCB 40A to 63A in provided distribution board as per spec. No.SW-SWR/MCB (PWD DSR 15-16 Item- 5-3-17) | 2 | No. | 1369 | 23 | 3,22 | 1,395.22 | 69.76 | 1,464.98 | 2,929 |
| 1 | Voltmeter Providing and erecting Analog type moving iron voltmeter for AC voltage 0- 500v ,50 Hz accuracy class 1.5, flush type on provided box/panel and connected with necessary PVC wire leads and lugs. | 12 | No. | 847 | 143 | 20,02 | 1,010.02 | 50.50 | 1,060.52 | 12,726 |

RECYCLE WATER SYSTEM TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC and AIROLI STP MIDC ESR)

| | | | | L. I | . PANEL- | KA | | | | |
|---------|--|----------|----------------|----------------|------------------------------|--------------------------------|-------------|-------------------------|--------------|-------------|
| r. o | Description of Material | Qty | Unit | supply rate | Labour / erection rate | add 14% on labor rate | Total Rate | add 5% on total rate | Net Rate | Amount |
| 1 | Panel Fabrication G.I. sheet 1.6 mm (16 gauge) to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling welding, rivetting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. | | | | | | | | | |
| | 6 x2.5 x 3 | 6 | 2.5 | 3 | 45 | | | | | |
| | 6 x 2.5 x5 (PWD DSR 15-16 Item- 6-1-3) | 6 120 | 2.5 Sq. Mtr | 5 1705 | 75 349 | 48.86 | 2102.86 | 105.143 | 2,208.00 | 2,64,960.36 |
| | | | | | | | | | | |
| 2 | Iron Work Supplying and erecting iron work consisting of varios sections of MS including plates chequred plates,rods,bars MS pipes ,etc. for panel board and any other purposes complete with bending,cutting,drilling, & welding comp{lete erected at position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match switchgear or as per direction of authority. | 100 | Kg | 96 | 13 | 1.82 | 110.82 | 5.54 | 116.36 | 11,636.10 |
| | (PWD DSR 15-16,Item- 6-1-19) | | | | | | | | | |
| 3 | Bus Bar 2400 Amp Al bus (800x3) Supplying and erecting busbar chamber triple pole with neutral with four aluminium bars, 500v A complete as per specifications no. CP-BB (PWD DSR 15-16 Item- 6-2-6) | 6 | Mtr | 26238 | 3762 | 526.68 | 30,526.68 | 1,526.33 | 32,053.01 | 1,92,318.08 |
| 4 | ACB 2000 Amp. Main incoming 4 pole Supplying and erectiing ACB manually operated drawout type ofA 500 v 3 pole having S.C. rating 50kA (Ics=Icu=Icw for 1 s)with std. accessories on provided iron frame as per spec. No.SW-SWR/ACB. (PWD DSR 15-16 Item- 5-8-7) | 1 | No. | 335630 | 8395.92 | 1175.4 | 3,45,201.06 | 17,260.05 | 3,62,461.11 | 3,62,461.11 |
| _ | (FWD D3R 13-10 ReIII- 3-0-1) | | | | | - | | | | , |
| | ACB 2000 Amp. Bus coupler 4 pole Supplying and erectiing ACB manually operated drawout type ofA 500 v 3 pole having S.C. rating 50kA (Ics=Icu=Icw for 1 s)with std accessories on provided iron frame as per spec. No.SW-SWR/ACB (PWD DSR 15-16 Item- 5-8-7) | 1 | No. | 335630 | 8395.92 | 1175.4 | 3,45,201.06 | 17,260.05 | 3,62,461.11 | 3,62,461.1 |
| | ACB 2000 Amp.DG incoming 4 pole Supplying and erectiing ACB manually operated drawout type ofA 500 v 3 pole having S.C. rating 50kA (Ics=Icu=Icw for 1 s)with std accessories on provided iron frame as per spec. No.SW-SWR/ACB. (PWD DSR 15-16 Item- 5-8-7) | 1 | No | 335630 | 8395.92 | 1175.4 | 3,45,201.06 | 17,260.05 | 3,62,461,111 | 3,62,461.1 |

| Sr | Description | Qty | MOU | Rates | Amount | Reference |
|----|---|------------|-------|--------------|---------------------------|--|
| 9 | Item no- 9:-GI Earthing - Supplying & erecting GI earth plate size 60x 60x6 cms complete with all materials, testing & recording results as per specifications. As per IS 3043-1987 & as directed by engineering incharge. | 6 | each | 4018 | 24108.00 | PWD DSR 15-16 Item No.9-1-1 |
| 10 | Item no-10:-Copper Earthing - Supplying & erecting copper earth plate size 30 x 30 x 0.6 cms complete with all materials, testing & recording results as per specifications . As per IS 3043-1987 & as directed by engineering incharge. | 6 | Each | 7440 | 44640.00 | PWD DSR 15-16 Item No.9-1-2 |
| | Item No. 11 :-Earthing Strip | | | | | |
| 11 | Providing erectimng GI earth strip Providing, erecting CU earth strip | 300 150 | Kg Kg | 158 865 | 47400.00 129750.00 | PWD DSR 15-16 Item No.9-2-3 PWD DSR 15-16 Item No.9-2-2 |
| | Item No. 12 :- Pipe type earthing | 130 | Ng | 000 | 129730.00 | F VVD DSR 13-16 Reill No.3-2-2 |
| 12 | Providing erecting pipe type earthing with double erarthing to the all equipments as per Detailed specifications. | 4 | Each | 1536 | 6144.00 | PWD DSR 15-16 Item No.9-1-4 |
| 13 | Item No. 13 :- Tools Providing Tools as per Detailed specification enclosed. | 1 | Lot | 63641.00 | 63641.00 | As per RA enclosed |
| 14 | Item No. 14:- In door lighting (Electrification) The lighting shall comprise fleuorescent - 4 nos Bulkhead fitting - 3 nos D.B 2 nos Suitable size conductors with fuses, switches including H.G. conduit etc. | 1 | Job | 42361.00 | 42361.00 | As per RA enclosed |
| 15 | Item No. 15:- Area lighting(Outdoor elctrification) The area lighting shall comprise 120 w LED Fittings with and mounted on Conical pole 9 m high including ballast, condensor, fuse reflector, cable and control switch etc out of the two lams. one shall be in the substation yard and the second lamp shall be erected for area lighting. | 1 | Job | 290649.85 | 290649.85 | As per RA enclosed |
| | Item No. 16 :- Pump Automation | 1 | Each | 21,04,800.00 | 2104800.00 | As per RA enclosed, Pump Automation |
| 17 | Item No. 17 :- Process Analyzers Sub Total Part A (Rs) | 1 | Each | 55,35,184.00 | 5535184.00 21188320.46 | As per RA enclosed, Process Analyzers |
| _ | 000 101011 11101 | | | | 21100020.70 | |
| | ADDITIONAL REQUIREMENTS FOR POWER SOURCE | | | | | |
| 16 | Item No. 16:- MSEDCL CHARGES INSPECTION AND TESTING HT SERVICE CONNECTION CHARGES FOR NEW CONNECTION ABOVE 500 KVA (Including rate of 1.30% of the normative charges) | 1 | Each | 253500 | 253500 | Ref: Revision in schedule of charges -MSEDCL |
| | APPLICATION, REGISTRATION & PROCESSING | 1 | Each | 50000 | 50000 | |
| | HT TOD METER TESTING | 1 | Each | 5227 | 5227 | Ref: Approval of MSEDCL Schedule of charges |
| | Power Transformer Inspection | 2 | Each | 10000 | 20000 | |
| _ | Current Transformer Inspection (CT) Voltage Transformer Inspection (PT) | 3 | Each | 5000 5000 | 15000 15000 | |
| | RELAY TESTING | 6 | Each | 1000 | 6000 | |
| | HT SWITCH GEAR | 3 | Each | 5000 | 15000 | |
| | LT CAPACITOR TESTING | 440 | KVAR | 10 | 4400 | |
| 17 | Item No. 17 :- 22 KV HT cable for incomming supply | 1 | Each | 5440275.48 | 5440275.48 | As per RA enclosed, HT cable works |
| | Item No. 18 :- 22 KV HT PANEL for Tranformer Protection | 1 | Each | 40,28,847 | 4028846.96 | As per RA enclosed, HT cable works |
| _ | Sub Total Part B (Rs) | | - | | 9853249.44 | |
| 2 | Item No. 21:- Diesel Generating Set Supplying Errecting diesel generating set 1000 KVA (250x4) capacity with AMF Panel as per Detailed specification with water cooled engine set incluiding inspection charges. | 1 | Each | 69,12,528.00 | 6912528.00 | PWD DSR 15-16 Item No.11-1-19 |
| | Sub Total Part C (Rs) | | | | 6912528.00 | |
| Г | Total Cost (Rs) | | | | 3,79,54,097.90 | |

NAVI MUMBAI MUNICIPAL CORPORATION RECYCLE WATER SYSTEM

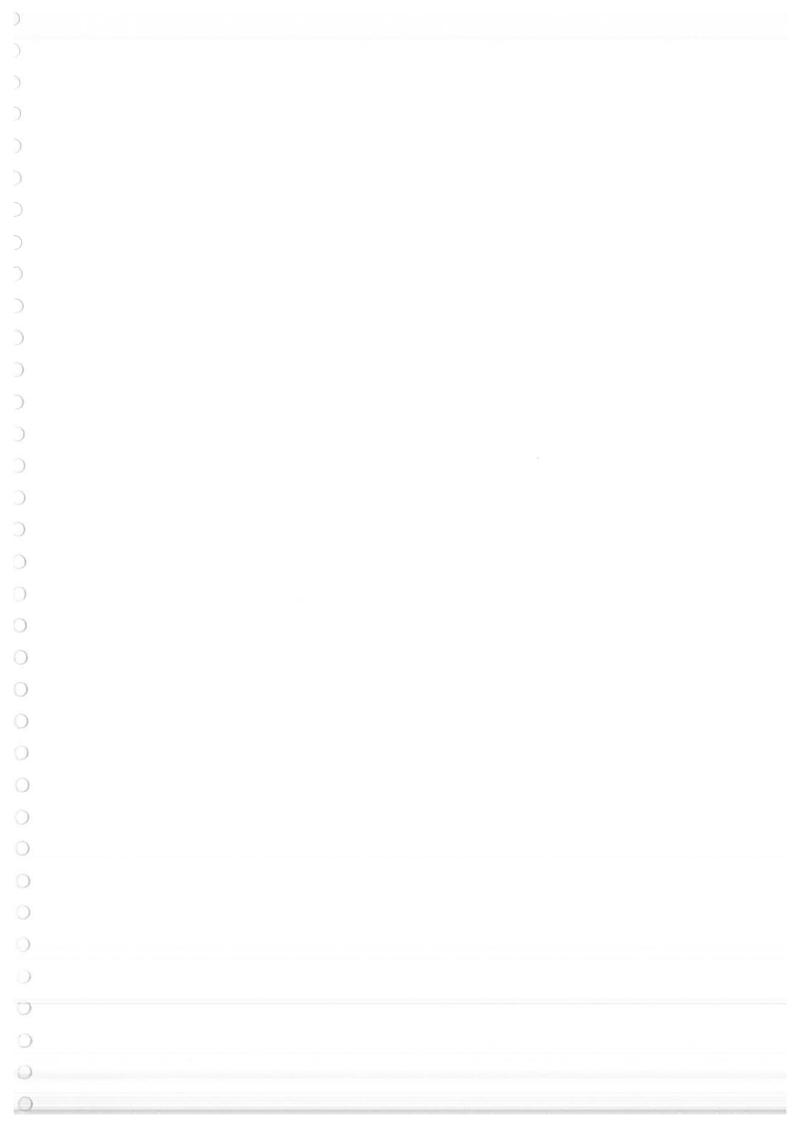
TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC and AIROLI STP MIDC ESR) MJP & PWD CSR 15-16 EM

| r I | Electrical Cost | _ 1 | | | | |
|-----|---|------|------|--------------|------------|--|
| ĺ | Description | Qty | MON | Rates | Amount | Reference |
| l | Item No. 1 :- L.T. Control Panel Board | | | | | |
| + | Designing, Providing , Errecting, Testing & Commissioning with | | | | | |
| - | Satsfactory Test & Trial of Various Panel Boards as per Detailed | | | | | |
| | specifications. | | | | | |
| | A) L.T.Main Control Panel Board Designing, Providing, Erecting, Main L. T. Cantrol Panel Board | | | | | |
| | comprises of MCCB/ACB for Incoming & MCCB for outgoing as per | 1 | each | 22,37,474.61 | 2237474.61 | As per PANEL RA enclosed |
| | Detailed specification enclosed. | | | | | |
| | | | | | | |
| | SOFT STARTER: Supplying erecting commissioning electronic soft starter of three wire | | | | | |
| | system to be operate on 380-440 v AC syst em consisting of- | | | | | |
| | main contactor AC 3duty and 1.5 times full load current rating | | | | | |
| | 2) suitable thyristor | | | | | |
| | 3)Ammeter with selector switch and CT's 4) Motor protection relay with protection CT's for protection against- | | | | | |
| | Single phasing, undervoltage, overvoltage ,phase reversal, over-current | | | | | |
| | relay having IDMT Characterstics | | | | | |
| | | | | | | |
| | for 260 HP Pump 270 HP (Airoli STP to KK MIDC) | | | | | |
| | | 2 | No | 4,09,487.00 | 818974.00 | MJP E/M DSR 2015-16, pg 62 LG-6-20 |
| _ | for 140 HP Pump 150 HP (Airoli STP-MIDC) | 2 | No | 2 76 052 00 | 552105.00 | MID E/M DSD 2015 16 021 C 0 15 |
| _ | | | 140 | 2,76,053.00 | 552106.00 | MJP E/M DSR 2015-16, pg 62 LG-6-15 |
| _ | Item No. 2 :- Transformer | | | - | | |
| | Suppling & erecting approved make of 1000 kVA 50 c/s oil immersed | | | | | |
| | and naturally cooled indoor /outdoor type ,Online tap changer, copper | | | | | |
| | wound transfoemer with delta conn. on HV side & star conn. on LV | | 1 | | | |
| 2 | side with additional neutral brought out in load side, voltage rating 22 /0.433 V with tapping of +/- 2.5 % -5 %, continuosly rated for full load | 0 | | 1610110 | 2000000000 | MID EIM DOD 2045 40 |
| | with standered accessories complete with test certificate and as per IS | 2 | each | 1640410 | 3280820.00 | MJP E/M DSR 2015-16, pg 39 TR 5-2 |
| | 2026. and approved by engineering incharge | | | | | |
| | | | | | | |
| _ | | | | | | |
| | Item No- 3;- H T Metering Kiosk: | | | | | |
| | Supplying ,erecting testing (By Licencee) , commissioning cubical comprising 22 kV HT metering resin cast CTs, PTs, as per lincencees | | | | | |
| | requiredment. DO fuse set, AB Switch 200- 400 A capacity duly | | | | | |
| | interconnected with use of suitable insulators by mainteninig adequate | | 1 | .= | .= | |
| 3 | clearences as per IS, complete housed in the encloser made up of MS structure ans fibre glass 3 mm thick with grearbox & handle brought | 1 | Each | 172630 | 172630.00 | PWD DSR 15-16, 6-4-3 |
| | out for operating GOD, suitable door openings, locking arrengement | | | | | |
| | as per approved design by Engineering incharge. | | | | | |
| | | | | | | |
| | Item No- 4 ;- H.T. sub station | - | | | | |
| 4 | Providing, supplying and erecting 22 KV/ 0,433 Kv H T Substation as | 1 | Each | 1417141.00 | 1417141.00 | As per 1 X 400 KVA & SS Ligthing & control cable - RA enclosed |
| _ | per Detailed specification. | | | | | Cable - IVA eliciosed |
| 5 | Item No. 5 :-Cables | | | | | |
| - | 3.5 Core 300 Sq. MM. Aluminium Armoured Cable(150*8) | 1200 | Rmt | 1883 | 2259600.00 | MJP E/M DSR 2015-16, Pg. 69 Item CB 5-10 |
| | 3 core x 185 sqmm(50*2) | 100 | Rmt | 1001 | 100100.00 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-13 |
| | 3 core x 70 sqmm(50*2) | 100 | Rmt | 468 | 46800.00 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-9 |
| _ | 3 core x 120 sqmm(50°4) | 200 | Rmt | 725 | 145000,00 | MJP E/M DSR 2015-16, Pg. 68 Item CB 4-11 |
| | 3 Core 4 Sq. MM AL Armoured Cable | 100 | Rmt | 118 | 11800.00 | MJP E/M DSR 2015-16, Pg. 71 Item CB 4-2 |
| _ | HT CABLE | | - | | | |
| | 22 kv XLPE cable 3 core x 185 sqmm | 200 | Rmt | 2410 | 482000.00 | MJP E/M DSR 2015-16, Pg. 74 Item CB 12-7 |
| | Indoor termination kit 22 kv for 185 sq mm | 9 | Each | 12284 | 110556.00 | MJP E/M DSR 2015-16, Pg. 79 Item CB 28-3 |
| | Out door termination kit 22 kv for 185 sq mm | 1 | Each | 17783 | 17783.00 | MJP E/M DSR 2015-16, Pg. 79 Item CB 29-3 |
| | Straight Through joint kit 22 kv for 185 sq mm | 1 | | | | |
| _ | | 1 | Each | 46322 | 46322.00 | MJP E/M DSR 2015-16, Pg. 79 Item CB 30-4 |
| | Item No. 6 :- Cable Trench - Making the trench in hard murum/ tar road of suitable width and depth | | | | | - |
| | for laying provided L.T. Cable of 10 sq mm complete as per detailed | 200 | m | 153 | 30600.00 | PWD DSR 2015-16, Item no- CW-16-1-2, |
| 6 | specifications. | | | | 1 | |
| | Making the trench in hard murum/ tar road of suitable width and depth | 1 | | | | |
| | for laying provided L.T. Cable of 25 sq mm & above covered with half | 100 | m | 265 | 26500.00 | PWD DSR 2015-16, Item no- CW-16-1-3, |
| | round hume pipe complete as per detailed specifications. | | | | | |
| | Item No. 7 :- Cable Tray - Providing, fabricating and fixing G.I. | | | | | |
| | perforated cable tray for cables as per requirement and specifications - | 200 | Mtr | 174 | 34800.00 | MJP E/M DSR 2015-16, Pg 80 Item CB 34-2 |
| | | | | | | |
| - | 200 x 20 mm | | | - | 1 | |
| - | Item No. 8 :- Capacitor supply & erecting 440((200°2)+40) kVAR 440 V | , | | | | |
| | Item No. 8 :- Capacitor supply & erecting 440((200*2)+40) kVAR 440 \u221b three phase 50 cycles thyrester switched Micro APFC passive filter | 7 | | | | |
| | Item No. 8 :- Capacitor supply & erecting 440((200*2)+40) kVAR 440 \(three phase 50 cycles thyrester switched Micro APFC passive filter panel consisting ofmutipal steps of APP type capacitor units | 1 | Each | 1108636 | 1108636.00 | PWD DSR 15-16 item 6-7-7 6-7-11 |
| | Item No. 8 - Capacitor supply & erecting 440((200*2)+40) kVAR 440 v three phase 50 cycles thyrester switched Micro APFC passive filter panel consisting ofmutipal steps of APP type capacitor units | | Each | 1108636 | 1108636.00 | PWD DSR 15-16 item 6-7-7, 6-7-11 |

| r. | Reference | Description | Qty | Unit | Rate | Amount (Rs.) |
|-------------|--|--|------|--------|-------------|---------------|
| | | COMMON EQUIPMENT FOR (AIROLI TO KK MIDC ESR) & (AIROLI MIDC) | | | | |
| 11 | | Electromagnetic Flow Meter Manufacturing, Supplying, & Commissioning Electromagnetic Flowmeter (EMF) for raw/ Pure water with Accuracy +/- 0.5% of measured value and protection as per given Specifications, including sensor, Transmitter Surge Arrestor cable duct seperate PVC of 25 mm Dia for 25 mtrs. Sensors Transmitter Surge Arrestor, Flowmeter including the pipe Cutting, levelling and Installation of flowmete with Pipeline with Neccessary tool tackles, Cranes etc as may be required at site and best on technical Specifications including comprehensive maitenance for two years after the Guarantee period is over. | | | | |
|) | Item WM-3-8 | 1) 450 mm ESR INLET & OUTLET | 2 | Nos | 363487 | 726974 |
| | Item WM-3-7 | 1) 400 mm ESR INLET & OUTLET | 2 | Nos | 339566 | 679132 |
| 12 | MJP DSR(E/M) 2015-16, P-121, I- WM-3-B-8 | SENSOR/TRANSMITTER CABLE: - 3 x 0.38 mm2 PVC cable with common, braided copper shield of 0.7 mm dia & indivisually sjielded cores with empty pipe detection 9 EPD: 4 x 0.38 mm2 PVC Cable with common, braided copper shield of 0.7 mm dia. & indivisually shielded cores. conductor resistance =420 p2/m permanent operating temp. 20+/-80°C</td <td>300</td> <td>Mtrs</td> <td>230</td> <td>69000</td> | 300 | Mtrs | 230 | 69000 |
| 3 | MJP DSR(E/M) 2015-16, P-122, I- WM-3-B-9 | COIL CABLE: - Providing, Laying and Jointing with test and trial of Coil cable 3×0.75 MM PVC cable commen, braided copper shield etc. as per detailed specification. | 300 | Mtrs | 210 | 63000 |
| 4 | MJP DSR(E/M) 2015-16, P-122, I- WM-3-B-11 | GI DUCT: - Providing .Laying Gl duct of 100 MM With all the necessary fittings—joints, etc. for Housing the cables between sensor and transmitter. The cable shall be installed in suitable Gl Duct to minimize the risk of damage during excavation. all the cable laid at minimum depth of 0.5 M below the ground. Gl Duct shall be of 100 mm dia. | 300 | Mtrs | 332 | 99600 |
| 15 | MJP E/M 2015-16 PG No-22, Item no- LF 4-1-2 | EOT:- Providing, erecting and commissioning single girder Electrically Operated Rectangular Over head Travelling Crane with 6 m lift complete with wire rope hoist, classII duty, all three motions electrically operated by suitable rating motor IP 54, control panel and down pendant control block. 1) 5 tonne | 1 | No | 807824.00 | 807824 |
| 16 | PWD DSR 15-16, 2-13-19 | Supplying and erecting Exhaust fan heavy duty 230V A.C. 50eycles 450 mm. 1400 RPM complete erected in position as per specification no. FG-FN/EXF | 6 | No | 5097.00 | 30582 |
| 17 | PWD DSR 15-16, 6-1-4 | Supply & fixing of GSS sheet of 1.25 MM Thick | 30 | Sq mtr | 1840.5 | 55215 |
|)8 | MIDC DSR 2015- | Providing and erecting Cast Iron Sluice Gates manufactured & tested as per IS3042-1965. Gates to be provided with brass seats and spindle of MS bright bar of required height to enable to operate the gate from operating slab of intake structure including GM nut bolts SS304 hardware, necessary wedges to be provided to achieve leak tightness, including operational wheel headstock, foundation material, labour etc. complete including taxes & duties, as per detailed specification & as directrd by Engineer In charge. Size: 900 X 900 mm | 2 | No | 2,50,902.00 | 501804.00 |
| 19 | MJP E/M 2015-16, PG No-105, Item no- WM-C-7 | C.I. Strainer "T" (Basket) Type with flanged ends and with stainless steel or brass mesh with openings of 2.5. Mm to 3mm and suitable for operating pressure of 16 Kg/cm2 and testpressure of 24 Kg/cm2 | 2 | No | 54,963.00 | 109926.00 |
|) 20 | MJP Kokan DSR 15-16,pg no.8, item no 24 | Fabricating pipes from steel plates supplied free of cost and stacking the same in the fabricators yard. The rate to include cutting the plate, rolling, tack welding, assembling in suitable lengths to form pipes welding on automatic welding machine and forming 'V' edge for both ends of pipe. | 2000 | KG | 42 00 | 84000.00 |
| 91 | MJP Kokan DSR 15-16, pg no.356, item no 6a | Providing and applying one coat of Zinc rich epoxy primer to the internal surface of pipeline at site. | 90 | Sqm. | 582.00 | 52380.00 |
| 22 | MJP DSR Electrmechanical 15-16,pg no.8,ltem No.PM11-4 | Providing, installing, testing & commissioning of 150 mm dia bourden type Pressure Gauges complete with siphon U tube, isolating cock, C-class heavy duty 15 mm GI Pipe & brought out on wall for observation at place directed by engineer. Range 0 to 15 kg/Cm ² , as per detailed specifications & as directed by Engineer. | | No. | 1795.00 | 14360.00 |
| 23 | MJP Kokan DSR 15-16,pg no.186,item no 9b | Providing & supplying Kinetic Double Orifice type air valves PN1.6 rating combined with screw down isolating sluice valve etc complete. Size:100mm | 8 | No. | 15155.00 | 121240.00 |
| | | | 1 | 1 | TOTAL: | 1,64,52,992.0 |

NAVI MUMBAI MUNICIPAL CORPORATION RECYCLE WATER SYSTEM

TREATED WATER SUPPLY SCHEME (AIROLI SUMP TO KK MIDC and AIROLI STP MIDC ESR) Reference Description Oty Unit Rate Amount (Rs.) No MECHANICAL Providing, Installaing, Testing, Commissoning with test and trail of each VT Pump giving discharge mtr3/Hr. at Total Head 78.34 Meter including foundation base frame bolts etc. complete. No. of 500 Stages Capacity - 12 MLD Total bowl head- 78.34 mtr. Pump HP- 260 Pump model-CNE 22 Number of stages- 2 Pump speed RPM - 1480 Bowl efficiency- 78% Total Suspention length 2 36.00.275.06 Pump Quotation including Bowl & strainer-7.5Mtr No 7200550 12 Type of Lubrication- Self water Material of constructions: Casting- Cast Steel Impletter- CF8M Neck Ring - CF8M Shaft- SS410 Shaft sleeve - SS410 Intermediate Bearing - Cutless Rubber MJP DSR 2015-Providing, double flanged Sluice valve Confirming to 1S 2906/14846 Including Worm Gear Arrangements as per Test 16, P-211, Pressure Staimless Steel Spindle, Caps Including all Taxes Transportaion etc Complete Sluice Valve - PN-1 (Without by Pass) ltem no 2-A-XII 1) 450 mm NB(Common Header)(Pump discharge)(ESR Outlet) No 68124 272496 Providing & supplying ISI mark C1 D/F Reflux valve(non return valve) PN 1 rating without bypass arrangement, as per IS MJP DSR 2015-5312 Part I (1984), including all taxes, inspection charges, transportation etc. complete. 16, P-211, Reflux valves as per IS 5312 part I (1984) Without by pass Arrangement PN-1. 1) 450 mm NB(Common Header)(Pump discharge)(ESR Outlet) Item no 1-A-XII 4 No 99069 396276 Lowering, laying & jointing in position following C.1.D/F Reflex valves, Butterfly valves & Sluice valves including cost of all MJP DSR 2015labour jointing material, including nut bolts & giving satisfactory hydraulic testing etc. complete 16, P-217 Item no 4-XII 1) 450 mm NB(Common Header)(Pump discharge)(ESR Outlet) 8 No 7722 61776 MJP EM DSR ACTUATOR 2015-16, P-16 Electric Valve actuator for non rising spindle type Sluice valve, PN1/PN1.6 rating Item no VA 1-12 1) 450 mm NB(Common Header)(Pump discharge)(ESR Outlet) 4 No 107768 431072 MECHANICAL FOR (AIROLI MIDC ESR) Providing, Installaing, Testing, Commissoning with test and trail of VT Pump giving discharge 345217.39 Ltr. Hr. at Total Head 67.67 Meter including foundation base frame bolts etc. complete. No. of Stages. Capacity - 7.94 MLD Total bowl head- 67.67 mtr. Pump model- 13M-3 Number of stages- 3 Bowl efficiency- 82% HP- kw Motor recomended(VHS)- 110 kw Pump Quotation Total Suspention length including Bowl & strainer- 7.5Mtr 2 No 1766600.00 3533200.00 Material of constructions Suction Bell/Inter Bowl/Discharge Case- Cast Steel Impletter- Bronze Bowl Bearings - Bronze Column pipe- MS Line shaft coupling- SS410 Pump Shaft- SS410 Line Shaft- EN8 Shaft sleeve - SS410 Sluice Valve MJP DSR 2015-Providing, double flanged Sluice valve Confirming to IS 2906/14846 Including Worm Gear Arrangements as per Test 16, P-212, Pressure Staimless Steel Spindle, Caps Including all Taxes Transportaion etc Complete. Sluice Valve - PN-1 (Without by Pass) 1) 400 mm NB(Common Header)(Pump discharge)(ESR Outlet) 4 No 63365 253460 Item no 2-b-xi Providing & supplying ISI mark CLD/F Reflux valve(non return valve) PN 1 rating without bypass arrangement, as per IS MJP DSR 2015-5312 Part I (1984), including all taxes, inspection charges, transportation etc. complete. 8 16, P-207, Reflux valves as per IS 5312 part I (1984) Without by pass Arrangement PN-1. 1) 400 mm NB(Common Header)(Pump discharge)(ESR Outlet) 396276 99069 Item no 1-A-XI No Lowering, laying & jointing in position following C.I.D/F Reflex valves, Butterfly valves & Sluice valves including cost of all MJP DSR 2015-9 labour jointing material, including nut bolts & giving satisfactory hydraulic testing etc. complete 16, P-217, Item no 4-XI 1) 400 mm NB(Common Header)(Pump discharge)(ESR Outlet) 8 No 7722 61776 MJP EM DSR ACTUATOR 10 2015-16, P-16 Electric Valve actuator for non rising spindle type Sluice valve, PN1/PN1.6 rating Item no VA 1-12 1) 400 mm NB(Common Header)(Pump discharge)(ESR Outlet) No 107768 431072



| NAVI | MUMBAI MUNIC | CIPAL CORPORATION | | | | | | | | |
|---------------------------------------|--------------|-------------------|--|--|--|--|--|--|--|--|
| RECYCLE WATER SYSTEM | | | | | | | | | | |
| Cost summary of Airoli MIDC & KK MIDC | | | | | | | | | | |
| Sr. No. | Description | Amount | | | | | | | | |
| 1 | Mechanical | 1,64,52,992.00 | | | | | | | | |
| 2 | Electrical | 2,11,88,320.46 | | | | | | | | |
| 3 | HT Power | 98,53,249.44 | | | | | | | | |
| 4 | DG Power | 69,12,528.00 | | | | | | | | |
| | Total | 5,44,07,089.90 | | | | | | | | |

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QUOTATIONS

