

| Sr. No. | Description  | Unit          | Rate (Rs.)         |                      | Ref. Tech. Specs. |
|---------|--|---------------|--------------------|----------------------|-------------------|
|         |  |               | Labour             | Composite            |                   |
| 25-1    | Providing and laying cement concrete pipes moulded with cement concrete 1:1.5:3 with spigot socket or collar joint as specified in trenches to correct alignment and grade, jointing with jointing materials including cutting pipes where necessary, finishing and testing. |               |                    |                      | 25.3.3            |
|         | a) Plain cement concrete pipe conforming to ASTM C-14 class-II or equivalent.  |               |                    |                      |                   |
|         | i) 4" (100 mm) inner dia.  | R.M.<br>R.ft. | 112.50<br>34.30    | 209.95<br>64.00      |                   |
|         | ii) 6" (150 mm) inner dia.   | R.M.<br>R.ft. | 112.50<br>34.30    | 229.45<br>69.95      |                   |
|         | iii) 9" (225 mm) inner dia.  | R.M.<br>R.ft. | 157.50<br>48.00    | 397.90<br>121.30     |                   |
|         | b) R.C.C pipe with bell & spigot or tongued & grooved joint conforming to ASTM C-76 class II wall B or BS 3911 Part I class M including cost of reinforcement.   |               |                    |                      | 25.3.3            |
|         | i) 9" (225 mm) inner dia.  | R.M.<br>R.ft. | 136.96<br>41.75    | 904.05<br>275.55     |                   |
|         | ii) 12" (300 mm) inner dia.  | R.M.<br>R.ft. | 337.50<br>102.85   | 1,226.70<br>373.90   |                   |
|         | iii) 15" (375 mm) inner dia.   | R.M.<br>R.ft. | 337.50<br>102.85   | 1,465.45<br>446.65   |                   |
|         | iv) 18" (450 mm) inner dia.  | R.M.<br>R.ft. | 393.75<br>120.00   | 1,760.45<br>536.60   |                   |
|         | v) 21" (525 mm) inner dia.   | R.M.<br>R.ft. | 506.25<br>154.30   | 2,214.15<br>674.90   |                   |
|         | vi) 24" (600 mm) inner dia.  | R.M.<br>R.ft. | 562.50<br>171.45   | 2,679.60<br>816.75   |                   |
|         | vii) 27" (675 mm) inner dia.   | R.M.<br>R.ft. | 787.50<br>240.05   | 3,416.20<br>1,041.25 |                   |
|         | viii) 30" (750 mm) inner dia.  | R.M.<br>R.ft. | 900.00<br>274.30   | 3,897.90<br>1,188.10 |                   |
|         | ix) 33" (825 mm) inner dia.  | R.M.<br>R.ft. | 1,035.00<br>315.45 | 4,721.10<br>1,439.00 |                   |
|         | x) 36" (900 mm) inner dia.   | R.M.<br>R.ft. | 1,350.00<br>411.50 | 6,264.00<br>1,909.30 |                   |
|         | xi) 42" (1050 mm) inner dia.   | R.M.<br>R.ft. | 1,800.00<br>548.65 | 8,419.45<br>2,566.30 |                   |

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|         |   |               | Labour                | Composite             |                   |
| xii     | 48" (1200 mm) inner dia.  | R.M.<br>R.ft. | 2,925.00<br>891.55    | 10,727.40<br>3,269.75 |                   |
| xii     | 54" (1350 mm) inner dia.  | R.M.<br>R.ft. | 4,050.00<br>1,234.45  | 16,331.45<br>4,977.90 |                   |
| xi      | 60" (1500 mm) inner dia.  | R.M.<br>R.ft. | 5,447.25<br>1,660.35  | 19,093.05<br>5,819.65 |                   |
| xv      | 66" (1650 mm) inner dia.  | R.M.<br>R.ft. | 8,100.00<br>2,468.90  | 19,807.75<br>6,037.50 |                   |
| xv      | 72" (1800 mm) inner dia.  | R.M.<br>R.ft. | 10,800.00<br>3,291.90 | 21,475.00<br>6,545.65 |                   |
| 25-2    | Providing and fixing gulley trap with 4" (100mm) outlet, complete with 4" (100mm) thick 1:2:4 cement concrete using 3/4" (19mm) crushed aggregate for bed and kerb, 1/2" (13mm) thick cement plaster 1:3, 12"x12"x18" deep inside dimension chamber with C.I. grating 6"x6" cover and frame 12"x12".  |               |                       |                       | 25.3.3.7          |
|         | a) Cement concrete gulley trap 6" x 6" x 4" (150 x 150 x 100 mm) with C.I. cover and frame weighing not less than 10 kg.  | Each          | 2,963.45              | 5,468.80              |                   |
|         | b) C.I. Gulley trap 6" x 6" x 4" weighing not less than 10 kg   | Each          | 2,963.45              | 5,693.80              |                   |
|         | c) Cement concrete gulley trap 6" x 6" x 4" with 2" (50 mm) thick RCC cover and C.I. frame weighing not less than 4 kg.   | Each          | 2,963.45              | 5,154.00              |                   |
|         | d) C.I. gulley trap 6" x 6" x 4" with 2" (50 mm) thick RCC cover and C.I. frame weighing not less than 4 kg.  | Each          | 2,963.45              | 5,379.00              |                   |
| 25-3    | Constructing gulley grating chamber size 36" x 30" (inner dimensions) and 30" deep with glazed earthen ware trap and C.I. grating 36" x 30" fixed in 6" thick RCC 1:2:4 slab with (5 lbs. per Cu.ft or 80.09 kg/cu.m steel) with 9" (225mm) burnt brick masonry walls set in 1:6 cement sand mortar, 6" (150 mm) thick 1:3:6 cement concrete in foundation, 1" (25 mm) thick 1:2:4 cement concrete flooring and 1/2" (13mm) thick 1:3 cement plaster to all inside wall surfaces including curing but excluding the cost of excavation, back filling and disposal of excavated stuff.   | Each          | 3,193.05              | 23,551.20             | 25.3.3.7          |
| 25-4    | a) Providing manhole type 'A' size 24" x 18" (inside dimensions) as per approved design and specifications complete for 4" to 12" dia pipes upto 4 ft. (1.2 m) depth with 16" dia. C.I. cover and frame (Wt. = 63.5 Kg.) fixed in 4" thick RCC 1:2:4 slab (with 5 lbs per Cu.ft. or 80 kg/Cu.m of steel), burnt brick masonry walls 9" (225 mm) thick set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete in foundation, 4" av. thickness 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement sand plaster in 1:3 to all inside wall surfaces, channels and benching including making requisite number of main and branch channels but excluding the cost of excavation, back filling and disposal of excavated stuff. | Each          | 1,724.85              | 20,876.90             | 25.4              |

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|         |  |             | Labour          | Composite        |                   |
|         | b) Extra for depth beyond 24" (600 m) and upto 48" (1.2 m) for 'A' type manholes   | Cm.<br>Inch | 43.25<br>109.85 | 183.15<br>465.20 |                   |
| 25-5    | a) Providing manhole type 'B' size 36" x 30" (inside dimensions) x 48" deep as per approved design and specifications complete for 4" to 12" dia. pipe 4ft to 7'-6" depth with 18" dia (inside) C.I. cover and frame (Wt. = 88.9 kg) fixed in 6" thick RCC 1:2:4 slab with 5 lbs. per Cu.ft steel and brick masonry walls set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete foundation, 4" av. thick 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement plaster in 1:3 cement sand mortar, to all inner wall surfaces, channels and benching including providing and making requisite number of main and branch channels but excluding the cost of excavation, back filling, disposal of excavated stuff.      | Each        | 3,300.60        | 33,481.65        | 25.4              |
|         | b) Extra for depth beyond 4' (1.2 m) and upto 7'-6" (2.2 m) for 'B' type manholes including cost of cast iron foot rest at every 12" (300mm) of depth  | Cm.<br>Inch | 21.30<br>54.10  | 215.05<br>546.25 |                   |
|         | c) Extra for using C.I. cover and frame 20" (500 mm) dia. inside and weighing 177.8 kg for main roads.   | Each        | -               | 10,556.90        |                   |
| 25-6    | a) Providing manhole type 'C' size 36" x 30" (inside dimensions) x 7.5 ft deep as per approved design and specifications complete for 4" to 12" dia. pipe 7'-6" to 12 ft depth with 18" dia (inside) C.I. cover and frame (Wt. = 88.9 kg) fixed in 6" thick RCC 1:2:4 slab with 5 lbs per Cu.ft steel and brick masonry walls set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete foundation, 4" av. thick 1:2:4 cement concrete in benching and 1/2" (13 mm) thick cement plaster in 1:3 cement sand mortar, to all inner wall surfaces, channels and benching including providing and making requisite number of main and branch channels but excluding the cost of excavation, back filling, disposal of excavated stuff. | Each        | 6,825.90        | 64,652.70        | 25.4              |
|         | b) Extra for depth beyond 7'-6" upto 12 ft (2.2 m to 3.66 m) for 'C' type manholes including cost of cast iron foot rest at every 12" (300mm) of depth   | Cm.<br>Inch | 21.30<br>54.10  | 215.05<br>546.25 |                   |
|         | c) Extra for using C.I. cover and frame 20" (500 mm) dia. inside and weighing 177.8 kg for main roads.   | Each        | -               | 10,556.90        |                   |

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|         |  |          | Labour          | Composite          |                   |
| 25-7 a) | Providing manhole type 'D' size 4'-6" x 3' at bottom and 3' x 2' at top (inside dimensions at both level) x 13.5 ft deep as per approved design and specifications complete for 6" to 15" dia. pipe deeper than 12' upto 20 ft depth with 20" dia (inside) C.I. cover and frame (Wt. = 101.6 kg) fixed in 6" thick RCC 1:2:4 slab and 7" thick RCC slab and lintel for supporting 9" thick brick masonry upto 7'-6" depth from top and 18" thick masonry 6' including lintel (height from bottom) set in 1:3 cement sand mortar, 9" thick 1:3:6 cement concrete in foundation, 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement plaster in 1:3 cement sand mortar, to all inner wall surfaces, channels and benching including providing and fixing C.I. foot rest at every 12" of depth and making requisite number of main and branch channels but excluding the cost of excavation, back filling, disposal of excavated stuff. The reinforcement for RCC shall be used at 5 lbs. per Cu.ft of concrete. | Each     | 19,279.55       | 171,438.05         | 25.4              |
| b)      | Extra for 18" thick masonry beyond 13'-6" upto 20 ft (4.1 m to 6.1 m) for 'D' type manholes including cost of extra foot rest at every 12" (300 mm) of depth   | Cm. Inch | 61.25<br>155.60 | 557.40<br>1,415.80 |                   |
| c)      | Deduct for lesser depth than 13'-6" (4.1 m) for 'D' type manholes effecting 9" thick masonry, plastering and C.I. foot rest.   | Cm. Inch | 21.30<br>54.10  | 182.20<br>462.80   |                   |
| d)      | Extra for using C.I. cover and frame 20" (500 mm) dia. inside and weighing 177.8 kg for main roads.  | Each     | -               | 9,025.00           |                   |
| 25-8 a) | Providing manhole type 'E' size 4'-6"x4' at bottom and 3'x2' at top (inside dimensions at both level) x 14.5 ft deep as per approved design and specifications complete for 18" to 24" dia. pipe deeper than 12' upto 20 ft depth with 20" dia (inside) C.I. cover and frame (Wt.=101.6 kg) fixed in 6" thick RCC 1:2:4 slab and 9" thick RCC slab and lintel for supporting 9" thick brick masonry upto 7'-6" depth from top and 18" thick masonry 7' including lintel (height from bottom) set in 1:3 cement sand mortar, 9" thick 1:3:6 cement concrete in foundation, 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement plaster in 1:3 cement sand mortar, to all inner wall surfaces, channels and benching including providing and fixing C.I. foot rest at every 12" of depth and making requisite number of main and branch channels but excluding the cost of excavation, back filling, disposal of excavated stuff. The reinforcement for RCC shall be used at 5 lbs. per Cu.ft of concrete.      | Each     | 22,576.70       | 200,256.90         | 25.4              |
| b)      | Extra for 18" thick masonry required for extra depth beyond 14'- 6" upto 20 ft (4.42m to 6.1m) for 'E' type manholes including cost of extra foot rest at every 12" (300mm) of depth   | Cm. Inch | 67.35<br>171.05 | 664.65<br>1,688.20 |                   |

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|         |   |                  | Labour          | Composite        |                   |
|         | c) Deduct for lesser depth than 14'-6" (4.42 m) for 'E' type manholes effecting 9" thick masonry, plastering and C.I. foot rest.  | Cm.<br>Inch      | 21.30<br>54.10  | 182.20<br>462.80 |                   |
|         | d) Extra for using C.I. cover and frame 20" (500 mm) dia. inside and weighing 177.8 kg for main roads.  | Each             | -               | 9,025.00         |                   |
| 25-9    | Mixing and finishing 1:2:4 concrete benching for floor work in manhole chamber with 1/8" (3 mm) thick cement finish.  | Sq.m..<br>Sq.ft. | 285.00<br>26.50 | 376.35<br>35.00  | 5                 |
| 25-10   | Restoration of brick pavement laid dry on edge and joint filled with sand laid over service line with 2" (50 mm) sand cushion underneath.   | Sq.m..<br>Sq.ft. | 124.30<br>11.55 | 792.15<br>73.60  | 4,11              |
| 25-11   | Restoration of flat brick pavement laid dry and joint filled with sand laid on service line with 2" (50 mm) sand cushion underneath.  | Sq.m..<br>Sq.ft. | 100.55<br>9.35  | 739.35<br>68.70  | 4,11              |
| 25-12   | Providing and fixing step iron or foot rest in manhole chambers including setting to correct lines and levels.  |                  |                 |                  | 25.4.2            |
|         | a) Angle iron 1.25" x 1.25" x 3/16" (32 mm x 32 mm x 5 mm)  | Each             | 87.50           | 484.20           |                   |
|         | b) C.I. foot rest   | Each             | 87.50           | 346.25           |                   |
| 25-13   | Fixing manhole frame and cover in R.C.C. slab including carriage and cost of fixing material.   | Each             | 152.26          | 452.88           | 25.4.2            |
| 25-14   | Providing and fixing 22" dia. manhole cover in 3" (75 mm) thick RCC 1:2:4, with steel at 5 lbs per cu.ft of concrete with tee shaped C.I. frame of 20" clear inner dia. frame weighing 37.5 kg. including cost of fixing material.            | Each             | 593.75          | 2,919.90         | 25.4.2            |
| 25-15   | Providing and fixing 22 " dia. manhole cover in 6" (150 mm) thick RCC 1:2:4 slab with 5 lbs per Cu.ft steel with tee shaped C.I. frame of 20" (500mm) clear inner dia. frame weighing 37.50 kg. including cost of fixing material.            | Each             | 890.65          | 4,163.61         | 25.4.2            |
| 25-16   | Providing and fixing 22 " (550 mm) dia. manhole cover in 6" (150mm) thick RCC 1:2:4 slab with 5 lbs per Cu.ft steel with 3" x 3" x 3/8" angle iron frame of 20" (500mm) clear inner dia. weighing 15.5 kg. including cost of fixing material. | Each             | 1,039.05        | 4,471.95         | 25.4.2            |
| 25-17   | Desilting of disposal work collecting tank, including removal of sludge upto 300ft (90m)  | Cu.m.<br>Cu.ft.  | 225.00<br>6.35  | 265.63<br>7.50   | 3                 |

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|         |   |                      | Labour                | Composite             |                   |
| 25-18   | Providing and fixing C.I. ventilating shaft with all specials required such as sockets, flanges, radial tees including cost of painting two coats of white zinc paint with pigment of approved shade, excavation. Concrete work shall be paid for separately. |                      |                       |                       | 25.5              |
| a)      | 6" (150 mm) inner dia.  |                      |                       |                       |                   |
| i)      | 18 ft. (5.5 m.) long  | Kg.<br>Lb.           | 81.00<br>36.75        | 2,402.00<br>1,089.55  |                   |
| ii)     | 24 ft. (7.3 m.) long  | Kg.<br>Lb.           | 93.00<br>42.20        | 2,422.65<br>1,098.90  |                   |
| iii)    | 30 ft. (9.15 m.) long   | Kg.<br>Lb.           | 116.00<br>52.60       | 2,441.87<br>1,107.65  |                   |
| iv)     | 36 ft. (11 m.) long   | Kg.<br>Lb.           | 140.00<br>63.50       | 2,472.30<br>1,121.45  |                   |
| b)      | 9" 225 mm inner dia.  |                      |                       |                       |                   |
| i)      | 18 ft. (5.5 m.) long  | Kg.<br>Lb.           | 93.00<br>42.20        | 1,692.90<br>767.90    |                   |
| ii)     | 24 ft. (7.3 m.) long  | Kg.<br>Lb.           | 116.00<br>52.60       | 1,804.03<br>818.30    |                   |
| iii)    | 30 ft. (9.15 m.) long   | Kg.<br>Lb.           | 140.00<br>63.50       | 2,066.94<br>937.55    |                   |
| iv)     | 36 ft. (11 m.) long   | Kg.<br>Lb.           | 181.20<br>82.20       | 2,127.65<br>965.10    |                   |
| c)      | 12" (300 mm) inner dia.   |                      |                       |                       |                   |
| i)      | 18 ft. (5.5 m.) long  | Kg.<br>Lb.           | 116.00<br>52.60       | 1,981.28<br>898.70    |                   |
| ii)     | 24 ft. (7.3 m.) long  | Kg.<br>Lb.           | 140.00<br>63.50       | 1,874.94<br>850.45    |                   |
| iii)    | 30 ft. (9.15 m.) long   | Kg.<br>Lb.           | 181.20<br>82.20       | 2,223.06<br>1,008.35  |                   |
| 25-19   | Clearing of silt in 10 ft (3m.) dia wells and removal of slush outside the compound.  |                      |                       |                       | 3                 |
| a)      | Upto 10 ft (3 m.) depth of slush  | Per well<br>Per well | 8,613.97<br>1,969.16  | 8,613.97<br>2,625.55  |                   |
| b)      | Beyond 10 ft (3 m.) depth of slush  | Per well<br>Per well | 16,875.00<br>3,857.66 | 16,875.00<br>5,143.55 |                   |

