BANGALORE WATER SUPPLY & SEWERAGE BOARD

SCHEDULE OF RATES FOR 2017-18

Issued by

Chief Engineer (K)

BWSSB, Bengaluru, Karnataka

Grams: "Water Sup" Bangalore Phone: 080-22131105

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Office of the Chief Engineer (K), Cauvery Bhavan, 5th Floor, K.G. Road, Banglaore - 560 009.

No. BWSSB/CE (K)/1844/2017-18 Date: 09-02-2018

MEMORANDUM

Sub : Implementation of Departmental Schedule of Rates for the Year 2017-18.

Ref : 1. Proceedings of the SR Committee meeting held on 08-02-2018 in the Board Hall

2. O.N. approved by Hon'ble Chairman on 09-02-2018

Preamble:-

During the SR Review Committee meeting held on 08-02-2018 in the Board Hall, the committee discussed to adopt Electronically Integrated Schedule of Rates as prepared in respect of water supply, sanitary and borewell items for the year 2017-18. Members raised several queries on the DSR prepared for improvements and for better understanding. CE(K) stated that all these are incorporated in the DSR, each item has been verified properly. All the members present, expressed their satisfaction over the DSR prepared and felt it can be implemented.

An IT tool has been developed with mechanism for regular updation methodology automatically. This IT application tool will be used for developing Schedule of Rates for each item rates with frame work assimilation using basic items like materials, labour, tools and plants and others with the standard procedures, practices and methodologies for arriving the composite rate, when the back-end data are revised for the materials and the labour.

The developed DSR IT tool has the following components:

1. Volume 1 - Electronically Integrated Final SR 2017-18
2. Volume 2 - Rates Analysis for SR
3. Volume 3 - Comparison of SR 2017-18 with BWSSB SR 2016-17 (with GST Rates)
4. Volume 4 - User Manual of the IT tool.

The DSR is now completed and revision will be smooth and simple.

Orders thereon:-

It is decided that the prepared DSR for 2017-18 be implemented as prepared with the changes suggested to be followed henceforth.

To follow the PWD rates for buildings, roads, bridges, culverts and electrical items as and when PWD revises its rates. It is decided that the SR 2017-18 shall be effective from 12th February 2018 by the O.N. approved by the Hon'ble Chairman.

Any data rates required to be approved for specialized items for preparation of estimates pertaining to the major works shall be approved by the concerned zonal Additional Chief Engineers.

CE (K)
Chairman of SR Review Committee

Copy submitted to Hon'ble Chairman for kind information

Copy submitted to EIC for the kind information

Copy to CE (WWM), (CE(P) & CE(M) for information.

Copy to all ACE's & EE's for information.

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LIST OF ABBREVIATION

Sl. No.	Group	ABBREVITATION - FULL FORM
1	C&S	CEMENT & STEEL
2	STN	STONE & BRICK
3	WOD	WOOD & GLASS
4	ALM	ALUMINIUM
5	PNT	PAINTING
6	MIS	MISCELLANEOUS
7	BHT	BOUGHTOUT
8	EQP	EQUIPMENTS
9	STL	STEEL
10	LSA	LUMPSUM
11	FTN	FITTINGS
12	AGR	AGGREGATES
13	BRK	BRICKS
14	BRS	BRASS FITTINGS
15	D&M	DIRECT MATERIAL SUPPLY
16	D&R	DIRECT RATES
17	SAF	SANITARY FIXTURES
18	SAP	SANITARY PIPES
19	SAM	SANITARY MISCELLANEOUS
20	WAF	WATER SUPPLY FIXTURES
21	WAP	WATER SUPPLY PIPES
22	WAM	WATER SUPPLY MISCELLANEOUS
23	L&C	LABOUR CHARGES
24	D&H	DWC HDPE PIPES
25	LAB	LABOUR RATES

BASIC RATES
MATERIAL

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
C&S	1	Cement - Portland	M.T	7155
MIS	5	MAT/LAB RATIOS CONVERTED FOR ONE UNIT	L.S	2
AGR	13	Brick aggregate (single size) 20 mm	CUM	585
AGR	19	Stone aggregate (single size) 40 mm	CUM	618
AGR	20	Stone aggregate (single size) 25 mm	CUM	881
AGR	21	Stone aggregate (single size) 20 mm	CUM	1140
AGR	22	Stone aggregate (single size) 12.5 mm	CUM	1140
AGR	23	Stone aggregate (single size) 10 mm	CUM	1394
AGR	27	Stone chippings/screenings 12.5/13.2 mm	CUM	1140
ALM	36	Aluminium strip 25 mm	KGS	136
AGR	105	Bajiri	CUM	173
MIS	114	Coal tar	LTR	30
MIS	115	Bitumen - paving VG-10	M.T	35000
MIS	119	Blasting powder	KGS	39
MIS	120	Blasting fuse (fuse wire)	NOS	17
BRK	140	Bricks (FPS) class design. 75	THS	5350
BRK	141	Bricks (FPS) class design. 50	THS	5350
BRS	348	CP Brs Screws 40 mm	NOS	4
BRS	350	CP Brs Screws 25 mm	NOS	2
FTN	448	O M.S Single acting spring hinges 100 mm	NOS	128
MIS	534	Fuel wood	QNT	554
STL	537	Galv. Steel Bolts & nuts 6 mm dia. -25 mm	NOS	5
STL	541	Galv. Steel Bolts & nuts 10 mm dia. -7 cm	NOS	20
STL	544	Galv. Steel corrugated sheets	QNT	5500
STL	545	Galvanised Steel plain sheets	QNT	4300
AGR	637	Moorum (good earth)	CUM	143
MIS	644	Diesel	LTR	54
MIS	645	Kerosene	LTR	45
PNT	652	Paint - Aluminium	LTR	205
PNT	653	Paint - Anti-corrosive bituminous (black)	LTR	140
PNT	667	Paint-Synthetic enamel black / chocolate	LTR	250
PNT	668	Paint-Synthetic enamel all shades	LTR	250
PNT	669	Paint-Water proofing cement	KGS	80

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
PNT	670	Paint-White lead (ready mixed)	LTR	110
PNT	676	Pigment-Red/Chocolate/Orange/buf/yellow	KGS	180
MIS	747	Copper - flats.	KGS	311
PNT	756	Pirmer - Distemper	LTR	66
PNT	758	Pirmer - Red oxide zinc chromate	LTR	209
MIS	775	Royalty for good earth	CUM	34
AGR	782	Sand - Coarse	CUM	662
AGR	783	Sand - Fine	CUM	787
MIS	788	Shellac jointing solution	KGS	225
SAM	790	Spunyarn	KGS	40
STL	806	M.S. clamps (20x6 mm) 15 cm L	NOS	10
STL	807	M.S. sheets for tanks	QNT	4700
STL	809	Steel Flats upto 10 mm in thick.	QNT	4201
STL	819	M.S. plates of different thick	QNT	4201
STL	820	M.S. round bar 12 mm dia and below	QNT	3500
STL	821	M.S. round bar above 12 mm dia.	QNT	3500
C&S	822	M.S. round bars for reinforcement	M.T	38844
STL	823	M.S. square bars	QNT	4500
C&S	824	Twisted steel / deformed bars	M.T	43400
STL	826	Structural tees-angle-chanel-RS joist	QNT	3800
STN	836	Through and bond stone 20x20x45CM	NOS	22
STN	855	Stone dust	CUM	800
STN	856	Stone for masonry work	CUM	675
MIS	883	Sundries - LS provision	L.S	2.06
WOD	890	Ballies - Safeda 125 mm dia	MTR	55
WOD	904	Country Wood 2nd class in scantlg	CUM	59000
WOD	915	Teak Wood 2nd class in planks	CUM	140000
MIS	942	Water proof materials -impermo	KGS	60
STL	952	Welding - by electric plant	CMS	3
FTN	975	Bolts & Nuts 16 mm dia 60 mm L	NOS	11
FTN	976	Bolts & Nuts 20 mm dia 65 mm L	NOS	15
FTN	977	Bolts & Nuts 20 mm dia 70 mm L	NOS	17
FTN	978	Bolts & Nuts 20 mm dia 75 mm L	NOS	17
FTN	979	Bolts & Nuts 20 mm dia 80 mm L	NOS	18
FTN	980	Bolts & Nuts 24 mm dia 85 mm L	NOS	28

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
FTN	981	Bolts & Nuts 24 mm dia 90 mm L	NOS	31
FTN	982	Bolts & Nuts 27 mm dia 100 mm L	NOS	48
SAF	987	Brackets-CI - flushing cistern	PAIR	72
SAF	988	Brackets-CI - wash basin / sinks	PAIR	72
SAP	1010	M.S Clamps-Holder bat 32 mm	NOS	20
SAP	1012	Holder bat clamp MS 100 mm SCI pipe	NOS	25
SAP	1013	Holder bat clamp MS 75 mm SCI pipe	NOS	20
SAP	1015	Clamps & M.S stay incl. b&n for 50 mm	NOS	31
WAF	1023	Stop cock brass 15 mm dia	NOS	100
WAF	1031	Coupling (mosquito proof)	NOS	34
SAM	1033	C.I Cover & frame 300x300 mm inside	NOS	333
SAM	1035	LD rectang. cover 455x610 mm with frame	NOS	1662
SAM	1036	LD rectang. 455x610 mm without frame	NOS	1108
WAM	1042	Ferrule Brass CI mouth 20 mm dia.	NOS	95
SAM	1044	Foot rests Stoneware 250x130x30 mm	PAIR	75
SAM	1045	Foot rests Marble 250x125x25 mm	PAIR	150
SAM	1046	Grating - CI 100x100 mm	NOS	17
SAM	1047	Grating - CI 125x125 mm	NOS	23
SAM	1048	Grating - CI 150x150 mm	NOS	28
SAM	1049	Grating - CI 180x180 mm	NOS	34
WAP	1220	GI Light-Duty pipes 15 mm dia.	MTR	28
WAP	1221	GI Light-Duty pipes 20 mm dia.	MTR	48
WAP	1222	GI Light-Duty pipes 25 mm dia.	MTR	121
WAP	1223	GI Light-Duty pipes 32 mm dia.	MTR	156
WAP	1224	GI Light-Duty pipes 40 mm dia.	MTR	198
WAP	1225	GI Light-Duty pipes 50 mm dia.	MTR	250
WAP	1226	GI Light-Duty pipes 65 mm dia.	MTR	351
WAP	1227	GI Light-Duty pipes 80 mm dia.	MTR	414
WAP	1290	GI unions 15 mm nom. bore	NOS	32
WAP	1291	GI unions 20 mm nom. bore	NOS	50
WAP	1292	GI unions 25 mm nom. bore	NOS	59
WAP	1293	GI unions 32 mm nom. bore	NOS	75
WAP	1294	GI unions 40 mm nom. bore	NOS	108
WAP	1295	GI unions 50 mm nom. bore	NOS	160
WAP	1296	GI unions 65 mm nom. bore	NOS	324

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	1297	GI unions 80 mm nom. bore	NOS	400
SAP	1452	SW pipe G-A 60cm L 100 mm dia	NOS	60
SAP	1453	SW pipe G-A 60cm L 150 mm dia	NOS	100
SAP	1454	SW pipe G-A 60cm L 200 mm dia	NOS	140
SAP	1455	SW pipe G-A 60cm L 230 mm dia	NOS	150
SAP	1456	SW pipe G-A 60cm L 250 mm dia	NOS	160
SAP	1457	SW pipe G-A 60cm L 300 mm dia	NOS	175
SAP	1458	SW pipe G-A 60cm L 380 mm dia	NOS	300
SAF	1476	WC plastic seat & cover white+ accessories	NOS	366
WAF	1478	Glass shelf 600x120 mm with alum. angle	NOS	106
SAM	1482	Spun yarn	KGS	40
WAF	1490	Towel rails CP brass 600x20 mm	NOS	460
WAF	1492	Towel rails Anod. Alum. 600x20 mm	NOS	460
WAF	1494	Toilet paper holder - Vitreous China	NOS	111
SAF	1500	Trap SCI 100 mm with vent hole	NOS	349
SAM	1504	SW gully traps P type 100x100 mm	NOS	100
SAM	1505	SW gully traps P type 125x100 mm	NOS	122
SAM	1506	SW gully traps P type 150x100 mm	NOS	144
SAM	1507	SW gully traps P type 180x100 mm	NOS	250
WAP	1517	Valve- Ball polythene float 15 mm dia.	NOS	180
WAP	1519	Valve- Ball polythene float 25 mm dia.	NOS	400
WAP	1522	Valve GM full way CI wheel 25 mm dia.	NOS	145
WAP	1528	Valve Gun metal non-return H 25 mm dia	NOS	350
SAF	1560	Wash basin-CP brass waste 32 mm	NOS	88
SAF	1563	Water closet-VC Orissa 580 mm	NOS	950
STL	1568	Wire mesh Gauge 1.4 mm & 0.63 mm dia	SQM	232
MIS	1585	Rawl plug 50 mm - desg 10 No	NOS	12
PNT	1615	Primer - Zinc cromate yellow	LTR	200
SAF	1636	Hard board 6 mm for Mirror	SQM	135
AGR	1739	Pea size gravel	CUM	431
MIS	1823	Plasticizer / super plasticizer	LTR	207
STL	1824	Wall form panel 1250x500 mm	NOS	997
STL	1831	Corner angle 45x45x5 mm 1.5M long	NOS	277
STL	1832	Channel shoulder 100 mm 2.5M long	NOS	1053
STL	1833	Double clip - bridge clip	NOS	89

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
STL	1834	Single clip	NOS	69
STL	1835	M.S tube 40 mm dia	MTR	250
STL	1836	Wall form panel 1250x450 mm	NOS	997
STL	1837	Corner angle 45x45x5 mm 2.5M long	NOS	294
STL	1838	Column clamp 450x1070 mm	NOS	1119
STL	1839	Props 2 M (2 to 3.5M)	NOS	737
STL	1840	Binding wire	KGS	61
STL	1843	Adjustable span ESO+SI(2.35 to 3.4)	NOS	1717
STL	1844	Adjust. telescopic prop 3m (2-3.75M)	NOS	1108
STL	1845	Beam clamp 300-380 mm (450-1070 mm) set	NOS	410
STL	1846	Prop 4M	NOS	1053
STL	1847	Double coupler	NOS	54
SAF	1859	Flush cistern PVC LL 10 ltr white	NOS	750
SAF	1860	Flush cistern PVC auto 5.0 ltr	NOS	500
SAF	1861	Flush cistern PVC auto 7.5 ltr	NOS	700
SAF	1862	Flush cistern PVC auto 10 ltr	NOS	700
WAF	1864	Pillar cock CP brass elbow lever 15 mm	NOS	220
SAF	1876	Urinal Spreader for 1 GI pipe, CP spreader	NOS	516
SAF	1877	Urinal Spreader for 2 GI pipe, CP spreader	NOS	887
SAF	1878	Urinal Spreader for 3 GI pipe, CP spreader	NOS	1219
SAF	1879	Urinal Spreader for 4 GI pipe, CP spreader	NOS	1662
LSA	2007	Sundries	L.S	3
LSA	2013	Hire & run charge of mech. mixer	L.S	3
LSA	2014	Scaffolding & Sundries	L.S	3
LSA	2015	Assembly nuts & bolts	L.S	3
LSA	2016	Shuttering oil	L.S	3
LSA	2017	PRC - CM, hoist, fix & finish	L.S	3
LSA	2020	Labour for mixing chemical	L.S	3
LSA	2022	Lifting tools & materials	L.S	3
LSA	2023	Coir /Yarn /Plastic Wire for tieing	L.S	3
LSA	2024	Cover block for reinforcement steel	L.S	3
LSA	2025	Surface cleaning for plastering	L.S	3
LSA	2026	Surface cleaning for painting	L.S	3
LSA	2027	Disposal / spreading of earth	L.S	3
LSA	2029	Extra for using C.M.	L.S	3

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
LSA	2030	For using Batching plant items	L.S	3
LSA	2036	Cement mortar & hemp commission	L.S	3
LSA	2037	For making grooves in walls /floors	L.S	3
LSA	2039	For using Cem Conc. 1:6:12	L.S	3
LSA	2042	For centering & shuttering works	L.S	3
LSA	2043	For aligning & fixing in position	L.S	3
LSA	2055	HC of hand driller, bits & scafold	L.S	3
LSA	2065	For gas / elec Welding charges	L.S	3
LSA	2066	Lab for fixing Rawl plugs	L.S	3
LSA	2071	Lab for fixing locks & handles.	L.S	3
LSA	2081	Pointing with White cement mortar	L.S	3
LSA	2086	Usage of Brushes for painting	L.S	3
LSA	2087	Usage of brushes & sand paper	L.S	3
LSA	2090	Usage of brushes, tools & plants	L.S	3
LSA	2106	Extra for delaying works	L.S	3
LSA	2110	Usage of brushes, putty, sand paper	L.S	3
LSA	2111	Carriage/ transport of machineries	L.S	3
LSA	2113	Tarpen, sand paper, cotton for paintg	L.S	3
LSA	2117	Terpen, brush, stencil etc. for paintg	L.S	3
LSA	2120	Lab for removal of rubbish / debries	L.S	3
LSA	2123	Wooden plug or 6 mm bar nibs	L.S	3
LSA	2128	Painting with White zinc.	L.S	3
LSA	2129	Painting with Red Enamel paint	L.S	3
LSA	2134	Barricading to divert traffic	L.S	3
LSA	2136	Overflow specls for overflow pipes	L.S	3
LSA	2137	Red & white lead & gasket	L.S	3
LSA	2138	Usage of Cement sand & grit	L.S	3
LSA	2139	Painting of fittings / brackets	L.S	3
LSA	2140	Usage of plugs, screws etc.	L.S	3
LSA	2143	Usage of White lead, hemp oil etc.	L.S	3
LSA	2144	Water tank lift/place to terrace	L.S	3
EQP	2263	HC Coal Tar Boiler 900-1400 Ltrs	DAY	953
EQP	2264	HC Concrete Mixer 0.14 Cmt	DAY	1721
EQP	2267	HC Coaltar Sprayer	DAY	298
EQP	2270	HC Water Pump Set (3500 Ltr/Hr)	DAY	775

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
EQP	2271	HC Vibrator (Needle Type 40 mm)	DAY	431
EQP	2276	HC Tipper - 5 Cum	DAY	2146
EQP	2277	HC Spinning M/C For Ms Pipe Lining	DAY	807
EQP	2281	HC Vibrator-Surface	DAY	538
LSA	2320	Provision for Carriage charges	L.S	3
LSA	2356	Usage of Soft water	L.S	3
LSA	2361	Carriage and Fixing Charges	L.S	3
SAF	2365	Urinal flat back front liped 430x260x350	NOS	1005
SAF	2367	Vitreous China squatting plate urinal	NOS	1167
MIS	2386	Cleaning of Septic Tank-50 users	NOS	2000
MIS	2387	Cleaning of Septic Tank-100 users	NOS	2500
MIS	2388	Cleaning of Septic Tank > 100 users	NOS	3000
MIS	2389	Cleaning of Sewer Line up to 150 mm dia	RMT	30
MIS	2390	Cleaning of Sewer Line above 150 mm dia	RMT	50
MIS	2391	Cleaning Sewer Line with Bamboo-150 dia	RMT	25
MIS	2392	Bleaching Powder to clean water tank	KGS	20
STN	2410	Cudapha stone dressed 70-75 mm	SQM	350
WAP	2543	Ductile Iron Pipe Class K-9 100 mm dia.	RMT	1174
WAP	2544	Ductile Iron Pipe Class K-9 150 mm dia.	RMT	1696
WAP	2545	Ductile Iron Pipe Class K-9 200 mm dia.	RMT	2245
WAP	2546	Ductile Iron Pipe Class K-9 250 mm dia.	RMT	3011
WAP	2547	Ductile Iron Pipe Class K-9 300 mm dia.	RMT	3805
WAP	2548	Ductile Iron Pipe Class K-9 350 mm dia.	RMT	4787
WAP	2549	Ductile Iron Pipe Class K-9 400 mm dia.	RMT	5735
WAP	2550	Ductile Iron Pipe Class K-9 450 mm dia.	RMT	6837
WAP	2551	Ductile Iron Pipe Class K-9 500 mm dia.	RMT	7945
WAP	2552	Ductile Iron Pipe Class K-9 600 mm dia.	RMT	10485
WAP	2553	Ductile Iron Pipe Class K-9 700 mm dia.	RMT	12021
WAP	2555	Ductile Iron Pipe Class K-9 800 mm dia.	RMT	14922
WAP	2556	Ductile Iron Pipe Class K-9 900 mm dia.	RMT	18106
WAP	2558	Rubber Gasket SBR Quality 100 mm dia.	NOS	34
WAP	2559	Rubber Gasket SBR Quality 125 mm dia.	NOS	42
WAP	2560	Rubber Gasket SBR Quality 150 mm dia.	NOS	42
WAP	2561	Rubber Gasket SBR Quality 200 mm dia.	NOS	74
WAP	2562	Rubber Gasket SBR Quality 250 mm dia.	NOS	87

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	2563	Rubber Gasket SBR Quality 300 mm dia.	NOS	128
WAP	2564	Rubber Gasket SBR Quality 350 mm dia.	NOS	147
WAP	2565	Rubber Gasket SBR Quality 400 mm dia.	NOS	266
WAP	2566	Rubber Gasket SBR Quality 450 mm dia.	NOS	310
WAP	2567	Rubber Gasket SBR Quality 500 mm dia.	NOS	338
WAP	2568	Rubber Gasket SBR Quality 600 mm dia.	NOS	421
WAP	2569	Rubber Gasket SBR Quality 700 mm dia.	NOS	637
WAP	2570	Rubber Gasket SBR Quality 750 mm dia.	NOS	764
WAP	2571	Rubber Gasket SBR Quality 800 mm dia.	NOS	842
WAP	2572	Rubber Gasket SBR Quality 900 mm dia.	NOS	1108
WAP	2573	Rubber Gasket SBR Quality 1000 mm dia.	NOS	1330
WAP	2589	S&S C Spun CI pipe class LA 100 mm dia.	RMT	997
WAP	2591	S&S C Spun CI pipe class LA 150 mm dia.	RMT	1496
WAP	2592	S&S C Spun CI pipe class LA 200 mm dia.	RMT	2548
WAP	2593	S&S C Spun CI pipe class LA 250 mm dia.	RMT	3324
WAP	2594	S&S C Spun CI pipe class LA 300 mm dia.	RMT	4487
WAP	2595	S&S C Spun CI pipe class LA 350 mm dia.	RMT	5373
WAP	2596	S&S C Spun CI pipe class LA 400 mm dia.	RMT	7090
WAP	2597	S&S C Spun CI pipe class LA 450 mm dia.	RMT	8585
WAP	2598	S&S C Spun CI pipe class LA 500 mm dia.	RMT	9971
WAP	2599	S&S C Spun CI pipe class LA 600 mm dia.	RMT	13952
WAP	2614	Ductile Iron Pipe Class K-7 100 mm dia.	RMT	1016
WAP	2615	Ductile Iron Pipe Class K-7 150 mm dia.	RMT	1473
WAP	2616	Ductile Iron Pipe Class K-7 200 mm dia.	RMT	1899
WAP	2617	Ductile Iron Pipe Class K-7 250 mm dia.	RMT	2498
WAP	2618	Ductile Iron Pipe Class K-7 300 mm dia.	RMT	3155
WAP	2619	Ductile Iron Pipe Class K-7 350 mm dia.	RMT	3937
WAP	2620	Ductile Iron Pipe Class K-7 400 mm dia.	RMT	4709
WAP	2621	Ductile Iron Pipe Class K-7 450 mm dia.	RMT	5545
WAP	2622	Ductile Iron Pipe Class K-7 500 mm dia.	RMT	6528
WAP	2623	Ductile Iron Pipe Class K-7 600 mm dia.	RMT	8619
WAP	2624	Ductile Iron Pipe Class K-7 700 mm dia.	RMT	10635
WAP	2625	Ductile Iron Pipe Class K-7 800 mm dia.	RMT	13704
WAP	2626	Ductile Iron Pipe Class K-7 900 mm dia.	RMT	16641
PNT	2802	Primer for cement paint “Cemprover”	LTR	67

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
LSA	2828	Bailing out water	L.S	3
LSA	2829	Water for compaction	L.S	3
LSA	2833	Hydraulic testing for water pipes	L.S	3
LSA	2834	Commissioning water pipes	L.S	3
WAP	2884	GI Light-Duty pipes 100 mm dia	MTR	600
WAP	2885	GI Medium Duty pipes 15 mm dia.	MTR	74
WAP	2886	GI Medium Duty pipes 20 mm dia.	MTR	96
WAP	2887	GI Medium Duty pipes 25 mm dia.	MTR	148
WAP	2888	GI Medium Duty pipes 32 mm dia.	MTR	191
WAP	2889	GI Medium Duty pipes 40 mm dia.	MTR	219
WAP	2890	GI Medium Duty pipes 50 mm dia.	MTR	309
WAP	2891	GI Medium Duty pipes 65 mm dia.	MTR	395
WAP	2892	GI Medium Duty pipes 80 mm dia.	MTR	514
WAP	2893	GI Medium Duty pipes 100 mm dia	RMT	753
WAP	2894	GI Heavy-Duty pipes 15 mm dia.	MTR	89
WAP	2895	GI Heavy-Duty pipes 20 mm dia.	MTR	115
WAP	2896	GI Heavy-Duty pipes 25 mm dia.	MTR	180
WAP	2897	GI Heavy-Duty pipes 32 mm dia.	MTR	233
WAP	2898	GI Heavy-Duty pipes 40 mm dia.	MTR	268
WAP	2899	GI Heavy-Duty pipes 50 mm dia.	MTR	381
WAP	2900	GI Heavy-Duty pipes 65 mm dia.	MTR	490
WAP	2901	GI Heavy-Duty pipes 80 mm dia.	MTR	611
WAP	2903	GI Heavy Duty pipes 100 mm dia	MTR	894
WAP	2934	CI Pipes class -B-80 mm dia	MTR	430
WAP	2935	CI Pipes class -B-100 mm dia	MTR	460
WAP	2936	CI Pipes class -B-150 mm dia	MTR	670
WAP	2937	CI Pipes class -B-200 mm dia	MTR	971
WAP	2938	CI Pipes class -B-250 mm dia	MTR	1313
WAP	2939	CI Pipes class -B-300 mm dia	MTR	1702
WAP	2940	CI Pipes class -B-350 mm dia	MTR	2131
WAP	2941	CI Pipes class -B-400 mm dia	MTR	2602
WAP	2942	CI Pipes class -B-450 mm dia	MTR	3157
WAP	2943	CI Pipes class -B-500 mm dia	MTR	3750
WAP	2944	CI Pipes class -B-600 mm dia	MTR	5013
WAP	2945	CI Pipes class -B-700 mm dia	MTR	6709

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	2946	CI Pipes class -B-750 mm dia	MTR	7551
WAP	2947	CI Pipes class -B-900 mm dia	MTR	10273
EQP	3046	HC Ganter with tools & labour	DAY	269
MIS	3047	Water for Concrete & Mortar making	100L	6
MIS	3048	Water for curing works	LTR	1
EQP	3051	HC Welding plant Electrical	HOUR	54
MIS	3053	Electricity	HOUR	25
EQP	3054	HC Jcb Excavator only	DAY	7204
LSA	3067	Risk factor	L.S	3
WAM	3069	Rubber insertion 3 mm thick for 80 mm dia. pipes	NOS	17
WAM	3070	Rubber insertion 3 mm thick for 100 mm dia. pipes	NOS	20
WAM	3071	Rubber insertion 3 mm thick for 125 mm dia. pipes	NOS	23
WAM	3073	Rubber insertion 3 mm thick for 200 mm dia. pipes	NOS	28
WAM	3074	Rubber insertion 3 mm thick for 250 mm dia. pipes	NOS	44
WAM	3075	Rubber insertion 3 mm thick for 300 mm dia. pipes	NOS	50
WAM	3076	Rubber insertion 3 mm thick for 350 mm dia. pipes	NOS	56
WAM	3077	Rubber insertion 3 mm thick for 400 mm dia. pipes	NOS	81
WAM	3078	Rubber insertion 3 mm thick for 450 mm dia. pipes	NOS	102
WAM	3079	Rubber insertion 3 mm thick for 500 mm dia. pipes	NOS	122
WAM	3080	Rubber insertion 3 mm thick for 600 mm dia. pipes	NOS	139
LSA	3109	soap water solution	L.S	3
LSA	3110	Usage of soft soap	L.S	3
EQP	3114	HC Hydraw**	DAY	753
WAM	3115	Rubber insertion 3 mm thick for 700 mm dia. pipes	NOS	155
WAM	3116	Rubber insertion 3 mm thick for 800 mm dia. pipes	NOS	170
WAP	3316	UPVC pipe IS 16098 SN 4 - 75 mm dia	MTR	150
STL	3375	Welding rod 10CWG 1st run	NOS	4
STL	3376	Welding rod 8CWG 2nd run	NOS	6
STL	3377	Welding rod 8CWG 3rd run	NOS	6
STL	3378	Welding rod 10CWG 4th run inside	NOS	6
EQP	3379	HC Gas cutter	DAY	538
MIS	3380	Oxygen cylinder for welding	NOS	250
MIS	3381	Acetylene cylinder for welding	NOS	300
MIS	3382	Grinding wheel for welding	NOS	250
EQP	3384	HC Diesel welding generator	DAY	2581

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
EQP	3385	HC Gas cutter,torches,hose pipes.	DAY	108
EQP	3386	HC Dewatering pumpset.	DAY	377
WAP	3388	UPVC pipe IS 16098 SN 4 - 110 mm dia	MTR	200
WAP	3389	UPVC pipe IS 16098 SN 4 - 160 mm dia	MTR	500
WAP	3408	HDPE pipe grade PE80- PN 6.0, 90 mm	MTR	224
WAP	3409	HDPE pipe grade PE80- PN 6.0, 110 mm	MTR	337
WAP	3410	HDPE pipe grade PE80- PN 6.0, 125 mm	MTR	413
WAP	3411	HDPE pipe grade PE80- PN6.0, 140 mm	MTR	516
WAP	3412	HDPE pipe grade PE80- PN 6.0, 160 mm	MTR	672
WAP	3413	HDPE pipe grade PE80- PN 6.0, 180 mm	MTR	846
WAP	3414	HDPE pipe grade PE80- PN 6.0, 200 mm	MTR	1048
WAP	3415	HDPE pipe grade PE80-PN 6.0, 225 mm	MTR	1319
WAP	3416	HDPE pipe grade PE80-PN 6.0, 250 mm	MTR	1629
WAP	3417	HDPE pipe grade PE80-PN6.0, 280 mm	MTR	2036
WAP	3418	HDPE pipe grade PE80-PN 6.0, 315 mm	MTR	2576
WAP	3419	HDPE pipe grade PE80-PN 6.0, 355 mm	MTR	3265
WAP	3420	HDPE pipe grade PE80-PN 6.0, 400 mm	MTR	4242
WAP	3421	HDPE pipe grade PE80-PN 6.0, 450 mm	MTR	5356
WAP	3422	HDPE pipe grade PE80-PN 6.0, 500 mm	MTR	6622
WAP	3423	HDPE pipe grade PE80-PN 6.0,560 mm	MTR	8276
WAP	3424	HDPE pipe grade PE80-PN 6.0, 630 mm	MTR	10482
WAP	3425	HDPE pipe grade PE80-PN 6.0, 710 mm	MTR	13621
WAP	3426	HDPE pipe grade PE80-PN 8.0, 90 mm	MTR	286
WAP	3427	HDPE pipe grade PE80-PN 8.0, 110 mm	MTR	427
WAP	3428	HDPE pipe grade PE80-PN 8.0, 125 mm	MTR	527
WAP	3429	HDPE pipe grade PE80-PN 8.0, 140 mm	MTR	655
WAP	3430	HDPE pipe grade PE80-PN 8.0, 160 mm	MTR	757
WAP	3431	HDPE pipe grade PE80-PN 8.0, 180 mm	MTR	1084
WAP	3432	HDPE pipe grade PE80-PN 8.0, 200 mm	MTR	1287
WAP	3433	HDPE pipe grade PE80-PN 8.0, 225 mm	MTR	1685
WAP	3434	HDPE pipe grade PE80-PN8.0, 250 mm	MTR	2085
WAP	3435	HDPE pipe grade PE80-PN8.0, 280 mm	MTR	2609
WAP	3436	HDPE pipe grade PE80-PN8.0, 315 mm	MTR	3302
WAP	3437	HDPE pipe grade PE80-PN8.0, 355 mm	MTR	5286
WAP	3438	HDPE pipe grade PE80-PN8.0, 400 mm	MTR	5427

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	3439	HDPE pipe grade PE80-PN 8.0, 450 mm	MTR	6869
WAP	3440	HDPE pipe grade PE80-PN 8.0, 500 mm	MTR	8468
WAP	3441	HDPE pipe grade PE80-PN 8.0, 560 mm	MTR	10612
WAP	3442	HDPE pipe grade PE80-PN 8.0, 630 mm	MTR	12773
WAP	3443	HDPE pipe grade PE80-PN 8.0, 710 mm	MTR	17446
WAP	3444	HDPE pipe grade PE80-PN 10.0, 90 mm	MTR	344
WAP	3462	HDPE pipe grade PE80-PN 10.0, 110 mm	MTR	507
WAP	3463	HDPE pipe grade PE80-PN 10.0, 125 mm	MTR	631
WAP	3464	HDPE pipe grade PE80-PN 10.0, 140 mm	MTR	787
WAP	3465	HDPE pipe grade PE80-PN 10.0, 160 mm	MTR	1028
WAP	3466	HDPE pipe grade PE80-PN 10.0, 180 mm	MTR	1300
WAP	3467	HDPE pipe grade PE80-PN 10.0, 200 mm	MTR	1602
WAP	3468	HDPE pipe grade PE80-PN 10.0, 225 mm	MTR	2028
WAP	3469	HDPE pipe grade PE80-PN 10.0, 250 mm	MTR	2503
WAP	3470	HDPE pipe grade PE80-PN 10.0, 280 mm	MTR	3135
WAP	3471	HDPE pipe grade PE80-PN 10.0, 315 mm	MTR	3966
WAP	3472	HDPE pipe grade PE80-PN 10.0, 355 mm	MTR	5032
WAP	3473	HDPE pipe grade PE80-PN 10.0, 400 mm	MTR	6516
WAP	3474	HDPE pipe grade PE80-PN 10.0, 450 mm	MTR	8255
WAP	3475	HDPE pipe grade PE80-PN 10.0, 500 mm	MTR	10180
WAP	3476	HDPE pipe grade PE80-PN 10.0, 560 mm	MTR	12773
WAP	3477	HDPE pipe grade PE80-PN 10.0, 630 mm	MTR	16138
WAP	3478	HDPE pipe grade PE80-PN 12.5, 90 mm	MTR	406
WAP	3479	HDPE pipe grade PE80-PN 12.5, 110 mm	MTR	610
WAP	3480	HDPE pipe grade PE80-PN 12.5, 125 mm	MTR	751
WAP	3481	HDPE pipe grade PE80-PN 12.5, 140 mm	MTR	938
WAP	3482	HDPE pipe grade PE80-PN 12.5, 160 mm	MTR	1223
WAP	3483	HDPE pipe grade PE80-PN 12.5, 180 mm	MTR	1566
WAP	3484	HDPE pipe grade PE80-PN 12.5, 200 mm	MTR	1913
WAP	3485	HDPE pipe grade PE80-PN 12.5, 225 mm	MTR	2447.5
WAP	3486	HDPE pipe grade PE80-PN 12.5, 250 mm	MTR	2977
WAP	3487	HDPE pipe grade PE80-PN 12.5, 280 mm	MTR	3744
WAP	3488	HDPE pipe grade PE80-PN 12.5, 315 mm	MTR	4720
WAP	3489	HDPE pipe grade PE80-PN 12.5, 355 mm	MTR	6001
WAP	3490	HDPE pipe grade PE80-PN 12.5, 400 mm	MTR	7770

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	3491	HDPE pipe grade PE80-PN 12.5, 450 mm	MTR	8900
WAP	3492	HDPE pipe grade PE80-PN 12.5, 500 mm	MTR	10900
WAP	3493	HDPE pipe grade PE80-PN 16.0, 90 mm	MTR	490
WAP	3494	HDPE pipe grade PE80-PN 16.0, 110 mm	MTR	730
WAP	3495	HDPE pipe grade PE80-PN 16.0, 125 mm	MTR	890
WAP	3496	HDPE pipe grade PE80-PN 16.0, 140 mm	MTR	1128
WAP	3497	HDPE pipe grade PE80-PN 16.0, 160 mm	MTR	1470
WAP	3498	HDPE pipe grade PE80-PN 16.0, 180 mm	MTR	1858
WAP	3499	HDPE pipe grade PE80-PN 16.0, 200 mm	MTR	2289
WAP	3500	HDPE pipe grade PE80-PN 16.0, 225 mm	MTR	2903
WAP	3501	HDPE pipe grade PE80-PN 16.0, 250 mm	MTR	3577
WAP	3502	HDPE pipe grade PE80-PN 16.0, 280 mm	MTR	3407
WAP	3503	HDPE pipe grade PE80-PN 16.0, 315 mm	MTR	5677
WAP	3504	HDPE pipe grade PE80-PN 16.0, 355 mm	MTR	7202
WAP	3505	HDPE pipe grade PE80-PN 16.0, 400 mm	MTR	9318
WAP	3506	HDPE pipe grade PE100-PN 6.0, 90 mm	MTR	191
WAP	3507	HDPE pipe grade PE100-PN 6.0, 110 mm	MTR	282
WAP	3508	HDPE pipe grade PE100-PN 6.0, 125 mm	MTR	342
WAP	3509	HDPE pipe grade PE100-PN 6.0, 140 mm	MTR	428.5
WAP	3510	HDPE pipe grade PE100-PN 6.0, 160 mm	MTR	558
WAP	3511	HDPE pipe grade PE100-PN 6.0, 180 mm	MTR	705
WAP	3512	HDPE pipe grade PE100-PN 6.0, 200 mm	MTR	869
WAP	3513	HDPE pipe grade PE100-PN 6.0, 225 mm	MTR	1102
WAP	3514	HDPE pipe grade PE100-PN 6.0, 250 mm	MTR	1353
WAP	3515	HDPE pipe grade PE100-PN 6.0, 280 mm	MTR	1698
WAP	3516	HDPE pipe grade PE100-PN 6.0, 315 mm	MTR	2149
WAP	3517	HDPE pipe grade PE100-PN 6.0, 355 mm	MTR	2724
WAP	3518	HDPE pipe grade PE100-PN 6.0, 400 mm	MTR	3520
WAP	3519	HDPE pipe grade PE100-PN 6.0, 450 mm	MTR	4460
WAP	3520	HDPE pipe grade PE100-PN 6.0, 500 mm	MTR	5506
WAP	3521	HDPE pipe grade PE100-PN 6.0, 560 mm	MTR	7023
WAP	3522	HDPE pipe grade PE100-PN 6.0, 630 mm	MTR	8890.5
WAP	3523	HDPE pipe grade PE100-PN 6.0, 710 mm	MTR	11266
WAP	3524	HDPE pipe grade PE100-PN 8.0, 90 mm	MTR	243
WAP	3525	HDPE pipe grade PE100-PN 8.0, 110 mm	MTR	361

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	3526	HDPE pipe grade PE100-PN8.0, 125 mm	MTR	440
WAP	3527	HDPE pipe grade PE100-PN8.0, 140 mm	MTR	551
WAP	3528	HDPE pipe grade PE100-PN8.0, 160 mm	MTR	718
WAP	3529	HDPE pipe grade PE100-PN8.0, 180 mm	MTR	907
WAP	3530	HDPE pipe grade PE100-PN8.0, 200 mm	MTR	1118
WAP	3531	HDPE pipe grade PE100-PN8.0, 225 mm	MTR	1416
WAP	3532	HDPE pipe grade PE100-PN8.0, 250 mm	MTR	1745
WAP	3533	HDPE pipe grade PE100-PN8.0, 280 mm	MTR	2187
WAP	3534	HDPE pipe grade PE100-PN8.0, 315 mm	MTR	2766
WAP	3535	HDPE pipe grade PE8100-PN8.0, 355 mm	MTR	3501
WAP	3536	HDPE pipe grade PE100-PN8.0, 400 mm	MTR	4537
WAP	3537	HDPE pipe grade PE100-PN8.0, 450 mm	MTR	5747
WAP	3538	HDPE pipe grade PE100-PN8.0, 500 mm	MTR	7088
WAP	3539	HDPE pipe grade PE100-PN8.0, 560 mm	MTR	9067
WAP	3540	HDPE pipe grade PE100-PN8.0, 630 mm	MTR	11452
WAP	3541	HDPE pipe grade PE100-PN8.0, 710 mm	MTR	14535
WAP	3542	HDPE pipe grade PE100-PN10.0, 90 mm	MTR	293
WAP	3543	HDPE pipe grade PE100-PN10.0, 110 mm	MTR	432
WAP	3544	HDPE pipe grade PE100-PN10.0, 125 mm	MTR	531
WAP	3545	HDPE pipe grade PE100-PN10.0, 140 mm	MTR	664
WAP	3546	HDPE pipe grade PE100-PN10.0, 160 mm	MTR	868
WAP	3547	HDPE pipe grade PE100-PN10.0, 180 mm	MTR	1100
WAP	3548	HDPE pipe grade PE100-PN10.0, 200 mm	MTR	1356
WAP	3549	HDPE pipe grade PE100-PN10.0, 225 mm	MTR	1711
WAP	3550	HDPE pipe grade PE100-PN10.0, 250 mm	MTR	2108
WAP	3551	HDPE pipe grade PE100-PN10.0, 280 mm	MTR	2639
WAP	3552	HDPE pipe grade PE100-PN10.0, 315 mm	MTR	3345
WAP	3553	HDPE pipe grade PE100-PN10.0, 355 mm	MTR	4254
WAP	3554	HDPE pipe grade PE100-PN10.0, 400 mm	MTR	5511
WAP	3555	HDPE pipe grade PE100-PN10.0, 450 mm	MTR	6952
WAP	3556	HDPE pipe grade PE100-PN10.0, 500 mm	MTR	8587
WAP	3557	HDPE pipe grade PE100-PN10.0, 560 mm	MTR	10962
WAP	3558	HDPE pipe grade PE100-PN10.0, 630 mm	MTR	13887
WAP	3559	HDPE pipe grade PE100-PN12.5, 90 mm	MTR	349
WAP	3560	HDPE pipe grade PE100-PN12.5, 110 mm	MTR	518

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	3561	HDPE pipe grade PE100-PN12.5, 125 mm	MTR	637
WAP	3562	HDPE pipe grade PE100-PN12.5, 140 mm	MTR	801
WAP	3563	HDPE pipe grade PE100-PN12.5, 160 mm	MTR	1044
WAP	3564	HDPE pipe grade PE100-PN12.5, 180 mm	MTR	1320
WAP	3565	HDPE pipe grade PE100-PN12.5, 200 mm	MTR	1627
WAP	3566	HDPE pipe grade PE100-PN12.5, 225 mm	MTR	2061
WAP	3567	HDPE pipe grade PE100-PN12.5, 250 mm	MTR	2535
WAP	3568	HDPE pipe grade PE100-PN12.5, 280 mm	MTR	3179
WAP	3569	HDPE pipe grade PE100-PN12.5, 315 mm	MTR	4024
WAP	3570	HDPE pipe grade PE100-PN12.5, 355 mm	MTR	5109
WAP	3571	HDPE pipe grade PE100-PN12.5, 400 mm	MTR	6624
WAP	3572	HDPE pipe grade PE100-PN12.5, 450 mm	MTR	7600
WAP	3573	HDPE pipe grade PE100-PN12.5, 500 mm	MTR	9400
WAP	3574	HDPE pipe grade PE100-PN16.0, 90 mm	MTR	432
WAP	3575	HDPE pipe grade PE100-PN16.0, 110 mm	MTR	642
WAP	3576	HDPE pipe grade PE100-PN16.0, 125 mm	MTR	774
WAP	3577	HDPE pipe grade PE100-PN16.0, 140 mm	MTR	969
WAP	3578	HDPE pipe grade PE100-PN16.0, 160 mm	MTR	1268
WAP	3579	HDPE pipe grade PE100-PN16.0, 180 mm	MTR	1599
WAP	3580	HDPE pipe grade PE100-PN16.0, 200 mm	MTR	1956
WAP	3581	HDPE pipe grade PE100-PN16.0, 225 mm	MTR	2498
WAP	3582	HDPE pipe grade PE100-PN16.0, 250 mm	MTR	3081
WAP	3583	HDPE pipe grade PE100-PN16.0, 280 mm	MTR	3862
WAP	3584	HDPE pipe grade PE100-PN16.0, 315 mm	MTR	4879
WAP	3585	HDPE pipe grade PE100-PN16.0, 355 mm	MTR	6192
WAP	3587	HDPE pipe grade PE100-PN10.0, 710 mm	MTR	17638
WAP	3590	HDPE pipe grade PE100-PN16.0, 450 mm	MTR	10171
WAP	3591	HDPE pipe grade PE100-PN16.0, 500 mm	MTR	12542
WAP	3592	MDPE pipe grade PE80 6kg/cm2, 4.3 mm thick	MTR	107
WAP	3593	MDPE pipe grade PE80 8kg/cm2, 5.4 mm thick	MTR	133
WAP	3594	MDPE pipe grade PE80 10kg/cm2, 6.7 mm thick	MTR	160
WAP	3595	MDPE pipe grade PE80 6kg/cm2, 5.3 mm thick	MTR	160
WAP	3596	MDPE pipe grade PE80 8kg/cm2, 6.6 mm thick	MTR	195
STL	3598	Weld mesh 50x50-13gauge	SQM	230
EQP	3603	HC Holding Machine	DAY	377

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
EQP	3604	HC Heating Tool	DAY	162
EQP	3605	HC Tool & Equipm. for Hmhdpe Film Coating	DAY	753
C&S	3618	T.M.T. Reinforcement Bars	M.T	43400
SAM	3625	SFRC cover + frame - 500 x 700 mm	NOS	1200
STN	3635	Granite stone slab fine dressed 40 mm thick	SQM	1000
BRK	3641	Wire cut bricks - modular - CD 75	THS	6292
EQP	3652	HC Hydraulic Excavator 1 Cum	DAY	7742
EQP	3653	HC Loader	DAY	7147
WOD	3658	Water proof Plywood 12 mm thick	SQM	739
WAM	3664	S&S CI pipe specials (lead joint) upto 300 mm	KGS	40
WAM	3665	S&S CI pipe specials (lead joint) above 300 mm	KGS	45
WAM	3666	S&S CI pipe specials (mech joint) upto 300 mm	KGS	55
WAM	3667	S&S CI pipe specials (mech joint) above 300 mm	KGS	60
WAP	3707	PVC pipe - OD 25 mm and 10 Kg/sqcm	RMT	26
WAP	3708	PVC pipe - OD 32 mm and 10 Kg/sqcm	RMT	42
WAP	3709	PVC pipe - OD 50 mm and 6 Kg/sqcm	RMT	66
WAP	3710	PVC pipe - OD 63 mm and 6 Kg/sqcm	RMT	71
WAP	3711	PVC pipe - OD 75 mm and 6 Kg/sqcm	RMT	101
WAP	3712	PVC pipe - OD 90 mm and 6 Kg/sqcm	RMT	145
WAP	3713	PVC pipe - OD 110 mm and 6 Kg/sqcm	RMT	211
WAP	3714	PVC pipe - OD 140 mm and 6 Kg/sqcm	RMT	346
WAP	3715	PVC pipe - OD 160 mm and 6 Kg/sqcm	RMT	441
WAP	3716	PVC pipe - OD 200 mm and 6 Kg/sqcm	RMT	687
WAP	3717	PVC pipe - OD 250 mm and 6 Kg/sqcm	RMT	1106
WAP	3718	PVC pipe - OD 315 mm and 6 Kg/sqcm	RMT	2567
WAP	3752	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 375 mm ID	RMT	2180
WAP	3753	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 400 mm ID	RMT	2305
WAP	3754	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 450 mm ID	RMT	2381
WAP	3755	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 500 mm ID	RMT	2860
WAP	3756	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 600 mm ID	RMT	3080
WAP	3757	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 700 mm ID	RMT	3780
WAP	3758	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 750 mm ID	RMT	3750
WAP	3759	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 800 mm ID	RMT	4150
WAP	3760	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 900 mm ID	RMT	4720
WAP	3761	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 1000 mm ID	RMT	5670

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	3762	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 1100 mm ID	RMT	6230
WAP	3763	Pre-Stresd Conc. PSC pipes 12 kg/sqcm. 1200 mm ID	RMT	6910
WAP	3764	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 375 mm ID	RMT	2173
WAP	3765	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 400 mm ID	RMT	2303
WAP	3766	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 450 mm ID	RMT	2430
WAP	3767	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 500 mm ID	RMT	2740
WAP	3768	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 600 mm ID	RMT	3160
WAP	3769	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 700 mm ID	RMT	3910
WAP	3770	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 750 mm ID	RMT	3940
WAP	3771	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 800 mm ID	RMT	4370
WAP	3772	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 900 mm ID	RMT	4820
WAP	3773	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 1000 mm ID	RMT	5920
WAP	3774	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 1100 mm ID	RMT	6670
WAP	3775	Pre-Stresd Conc. PSC pipes 18 kg/sqcm. 1200 mm ID	RMT	7460
WAP	3779	Rubber Gasket SBR Quality 1100 mm dia.	NOS	1500
WAP	3780	Rubber Gasket SBR Quality 1200 mm dia.	NOS	1660
WAF	3787	Stop cock N.P (Nickel Plated) 15 mm dia	NOS	180
WAF	3788	Stop cock N.P (Nickel Plated) 20 mm dia	NOS	200
WAF	3789	Bib cock N.P (Nickel Plated) 15 mm dia	NOS	110
WAF	3790	Bib cock N.P (Nickel Plated) 20 mm dia	NOS	120
WAF	3791	Union N.P (Nickel Plated) 15 mm dia	NOS	55
WAF	3792	Union N.P (Nickel Plated) 20 mm dia	NOS	70
WAF	3793	Bath Tub cock N.P (Nickel Plated) 20 mm dia	NOS	250
WAF	3794	Waste Union N.P (Nickel Plated) 32 mm dia	NOS	100
WAF	3795	Waste Union N.P (Nickel Plated) 40 mm dia	NOS	150
SAP	3803	RCC pipe NP3 300 mm dia & 2.5 M long	MTR	1313
SAP	3804	RCC pipe NP3 450 mm dia & 2.5 M long	MTR	1609
SAP	3805	RCC pipe NP3 600 mm dia & 2.5 M long	MTR	2400
SAP	3806	RCC pipe NP3 700 mm dia & 2.5 M long	MTR	2902
SAP	3807	RCC pipe NP3 900 mm dia & 2.5 M long	MTR	4395
SAP	3808	RCC pipe NP3 1200 mm dia & 2.5 M long	MTR	6905
SAP	3815	RCC pipe NP3 400 mm dia & 2.5 M long	MTR	1477
SAP	3816	RCC pipe NP3 500 mm dia & 2.5 M long	MTR	1829
SAP	3817	RCC pipe NP3 800 mm dia & 2.5 M long	MTR	3606
SAP	3818	RCC pipe NP3 1000 mm dia & 2.5 M long	MTR	5042

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
C&S	3838	Cement - Portland	BAG	358
WAF	3868	Washers for water taps	NOS	5
LSA	3872	Transportation charges	L.S	2.06
WAM	3873	Rapadite solution for leak fixing	LTR	100
LSA	3874	HC for tools & plants	L.S	3
PNT	3875	Paint - Bitumastic	LTR	150
STN	3876	Demarcation stone 25x25x60 cm	NOS	27
EQP	3877	HC LORRY 5T CAPACITY	DAY	2146
WAF	3878	SS saddle strap fittings for 15 mm	NOS	617
WAF	3879	SS saddle strap fittings for 20 mm	NOS	687
WAF	3880	SS saddle strap fittings for 25 mm	NOS	801
WAF	3881	Labour for fixing saddle strap 15 mm	NOS	92
WAF	3882	Labour for fixing saddle strap 20 mm	NOS	104
WAF	3883	Labour for fixing saddle strap 25 mm	NOS	127
WAF	3884	CI sluice vale 100 mm+TP set + accessory	NOS	5600
WAF	3885	CI sluice vale 150 mm+TP set + accessory	NOS	8100
WAF	3886	CI sluice vale 200 mm+TP set + accessory	NOS	13000
WAF	3887	CI sluice vale 250 mm+TP set + accessory	NOS	22500
WAF	3888	CI sluice vale 300 mm+TP set + accessory	NOS	27500
WAF	3889	CI sluice vale 400 mm+TP set + accessory	NOS	59000
WAF	3890	CI sluice vale 450 mm+TP set + accessory	NOS	69000
WAF	3891	CI sluice vale 600 mm+TP set + accessory	NOS	124000
WAF	3907	DI Sluice Valve+TP+B&N+R insert PN 1.6, 100 mm	NOS	9000
WAF	3908	DI Sluice Valve+TP+B&N+R insert PN 1.6, 150 mm	NOS	13000
WAF	3909	DI Sluice Valve+TP+B&N+R insert PN 1.6, 200 mm	NOS	22500
WAF	3910	DI Sluice Valve+TP+B&N+R insert PN 1.6, 250 mm	NOS	55600
WAF	3911	DI Sluice Valve+TP+B&N+R insert PN 1.6, 300 mm	NOS	72000
WAF	3912	DI Sluice Valve+TP+B&N+R insert PN 1.6, 400 mm	NOS	154000
WAF	3913	DI Sluice Valve+TP+B&N+R insert PN 1.6, 450 mm	NOS	262000
WAF	3914	Lab for fixing DI sluice vale & access. - 100 mm	NOS	240
WAF	3915	Lab for fixing DI sluice vale & access. - 150 mm	NOS	270
WAF	3916	Lab for fixing DI sluice vale & access.- 200 mm	NOS	430
WAF	3917	Lab for fixing DI sluice vale & access.- 250 mm	NOS	485
WAF	3918	Lab for fixing DI sluice vale & access. - 300 mm	NOS	1025
WAF	3919	Lab for fixing DI sluice vale & access. - 400 mm	NOS	1250

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAF	3920	Lab for fixing DI sluice vale & access.- 450 mm	NOS	3085
WAF	3923	Butterfly Valve+TP+B&N - PN 1.0, 200 mm	NOS	5000
WAF	3924	Butterfly Valve+TP+B&N - PN 1.0, 250 mm	NOS	7500
WAF	3925	Butterfly Valve+TP+B&N - PN 1.0, 300 mm	NOS	9500
WAF	3926	Butterfly Valve+TP+B&N - PN 1.0, 400 mm	NOS	20500
WAF	3927	Butterfly Valve+TP+B&N - PN 1.0, 450 mm	NOS	24000
WAF	3928	Butterfly Valve+TP+B&N - PN 1.0, 500 mm	NOS	31000
WAF	3929	Butterfly Valve+TP+B&N - PN 1.0, 600 mm	NOS	60000
WAF	3932	Butterfly Valve+TP+B&N - PN 1.6, 200 mm	NOS	7500
WAF	3933	Butterfly Valve+TP+B&N - PN 1.6, 250 mm	NOS	8000
WAF	3934	Butterfly Valve+TP+B&N - PN 1.6, 300 mm	NOS	9500
WAF	3935	Butterfly Valve+TP+B&N - PN 1.6, 400 mm	NOS	23500
WAF	3936	Butterfly Valve+TP+B&N - PN 1.6, 450 mm	NOS	30000
WAF	3937	Butterfly Valve+TP+B&N - PN 1.6, 500 mm	NOS	37000
WAF	3938	Butterfly Valve+TP+B&N - PN 1.6, 600 mm	NOS	54000
WAF	3950	Lab - fix 1 flange Butterfly vale & access -200 mm	NOS	1460
WAF	3951	Lab - fix 1 flange Butterfly vale & access -250 mm	NOS	2068
WAF	3952	Lab - fix 1 flange Butterfly vale & access -300 mm	NOS	2756
WAF	3953	Lab - fix 1 flange Butterfly vale & access -400 mm	NOS	5917
WAF	3954	Lab - fix 1 flange Butterfly vale & access -450 mm	NOS	7317
WAF	3955	Lab - fix 1 flange Butterfly vale & access -500 mm	NOS	9434
WAF	3956	Lab - fix 1 flange Butterfly vale & access -600 mm	NOS	13880
WAF	3957	Lab for fixing DI sluice vale & access.- 600 mm	NOS	4100
WAM	3958	Leak repair MJ clamp+ access for CI/DI 100 mm	NOS	1700
WAM	3959	Leak repair MJ clamp+ access for CI/DI 150 mm	NOS	2900
WAM	3960	Leak repair MJ clamp+ access for CI/DI 200 mm	NOS	3300
WAM	3961	Leak repair MJ clamp+ access for CI/DI 250 mm	NOS	4500
WAM	3962	Leak repair MJ clamp+ access for CI/DI 300 mm	NOS	5500
WAM	3963	Leak repair MJ clamp+ access for CI/DI 400 mm	NOS	8000
WAM	3964	Leak repair MJ clamp+ access for CI/DI 450 mm	NOS	10500
WAM	3965	Lab., Eqp., T&P., for leak works in CI/DI 100 mm	NOS	750
WAM	3966	Lab.,Eqp., T&P., for leak works in CI/DI 150 mm	NOS	850
WAM	3967	Lab., Eqp., T&P., for leak works in CI/DI 200 mm	NOS	900
WAM	3968	Lab., Eqp., T&P., for leak works in CI/DI 250 mm	NOS	1000
WAM	3969	Lab., Eqp., T&P., for leak works in CI/DI 300 mm	NOS	1300

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAM	3970	Lab., Eqp., T&P., for leak works in CI/DI 400 mm	NOS	1400
WAM	3971	Lab., Eqp., T&P., for leak works in CI/DI 450 mm	NOS	1400
WAF	3972	DI MJ specials - branch 100 x 100 mm	NOS	1500
WAF	3973	DI MJ specials - branch 150 x 150 mm	NOS	2500
WAF	3974	DI MJ specials - branch 150 x 100 mm	NOS	2100
WAF	3975	DI MJ specials - bend 100 mm x 90 degree	NOS	1000
WAF	3976	DI MJ specials - bend 100 mm x 45 degree	NOS	1000
WAF	3977	DI MJ specials - bend 150 mm x 90 degree	NOS	2100
WAF	3978	DI MJ specials - collar 100 mm dia.	NOS	2054
WAF	3979	DI MJ specials - collar 150 mm dia.	NOS	3865
WAM	3981	Fabricated MS MJ end caps for CI/DI pipe 100 mm	SET	1100
WAM	3982	Fabricated MS MJ end caps for CI/DI pipe 150 mm	SET	1500
WAM	3983	Fabricated MS MJ end caps for CI/DI pipe 200 mm	SET	2200
WAM	3984	Fabricated MS MJ end caps for CI/DI pipe 250 mm	SET	3100
WAM	3985	Fabricated MS MJ end caps for CI/DI pipe 300 mm	SET	3200
WAM	3986	MS Pipe special 8 mm+paint+CM line <500 mm	KGS	100
WAM	3987	MS Pipe special 8 mm+paint+CM line >500 mm	KGS	90
WAM	3988	Fabricated MS MJ end caps for CI/DI pipe 400 mm	SET	5000
WAM	3989	Fabricated MS MJ end caps for CI/DI pipe 450 mm	SET	5500
WAM	3990	Fabricated MS MJ end caps for CI/DI pipe 600 mm	SET	7500
WAM	3992	Fabricated MS MJ end caps for CI/DI pipe 700 mm	SET	9000
WAF	3993	MS Flange 100 mm dia &10 mm thick	NOS	470
WAF	3994	MS Flange 150 mm dia &16 mm thick	NOS	1110
WAF	3995	MS Flange 200 mm dia &20 mm thick	NOS	1856
WAF	3996	MS Flange 250 mm dia &20 mm thick	NOS	2450
WAF	3997	MS Flange 300 mm dia &20 mm thick	NOS	2853
WAF	3998	MS Flange 400 mm dia &25 mm thick	NOS	4560
WAF	3999	MS Flange 600 mm dia &25 mm thick	NOS	6516
WAF	4000	MS Flange 700 mm dia &30 mm thick	NOS	9120
WAF	4001	MS Flange 450 mm dia &25 mm thick	NOS	5283
STL	4004	M.S tube 25 mm dia	MTR	200
WAM	4005	Enamelled Gauge plate 0.23M wide	RMT	500
WAF	4006	CI Puddle Flange 80 mm dia.	NOS	2300
WAF	4007	CI Puddle Flange 100 mm dia.	NOS	2860
WAF	4008	CI Puddle Flange 150 mm dia.	NOS	4700

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAF	4009	CI Puddle Flange 200 mm dia.	NOS	6820
WAF	4010	CI Puddle Flange 250 mm dia.	NOS	9160
WAF	4011	CI Puddle Flange 300 mm dia.	NOS	11750
WAF	4012	CI Puddle Flange 350 mm dia.	NOS	15850
WAF	4013	CI Puddle Flange 400 mm dia.	NOS	19385
WAF	4014	CI Puddle Flange 500 mm dia.	NOS	27120
WAF	4015	CI Puddle Flange 600 mm dia.	NOS	36450
WAF	4016	CI Puddle Flange 450 mm dia.	NOS	23130
WAP	4017	CI double flanged pipes 80 mm dia.	RMT	1800
WAP	4018	CI double flanged pipes 100 mm dia.	RMT	2260
WAP	4019	CI double flanged pipes 150 mm dia.	RMT	3600
WAP	4020	CI double flanged pipes 200 mm dia.	RMT	5100
WAP	4021	CI double flanged pipes 250 mm dia.	RMT	6900
WAP	4022	CI double flanged pipes 300 mm dia.	RMT	8800
WAP	4023	CI double flanged pipes 350 mm dia.	RMT	11900
WAP	4024	CI double flanged pipes 400 mm dia.	RMT	14400
WAP	4025	CI double flanged pipes 450 mm dia.	RMT	17400
WAP	4026	CI double flanged pipes 500 mm dia.	RMT	20400
WAP	4027	CI double flanged pipes 600 mm dia.	RMT	27300
MIS	4033	Repetition cost PRC casting yard /week	SQM	20
MIS	4034	Repetition cost PRC steel form works /week	SQM	20
EQP	4035	HC DIESEL TRUCK - 9 T CAPACITY	DAY	2382
EQP	4037	H&RC BOREWELL RIG <400 mm DIA.	DAY	8933
EQP	4039	H&RC WATER TANKER 5000 LTR	DAY	1310
WAF	4041	Butterfly 2 flange Valve+TP+B&N PN 1.0,700 mm	NOS	118000
WAF	4043	Butterfly 2 flange Valve+TP+B&N PN 1.0,800 mm	NOS	170000
WAF	4044	Butterfly 2 flange Valve+TP+B&N PN 1.0,900 mm	NOS	201000
WAF	4045	Butterfly 2 flange Valve+TP+B&N PN 1.0,1000 mm	NOS	261500
WAF	4047	Butterfly 2 flange Valve+TP+B&N PN 1.0,1200 mm	NOS	455000
WAF	4050	Butterfly 2 flange Valve+TP+B&N PN 16,700 mm	NOS	132000
WAF	4052	Butterfly 2 flange Valve+TP+B&N PN 16,800 mm	NOS	192000
WAF	4053	Butterfly 2 flange Valve+TP+B&N PN 16,900 mm	NOS	251000
WAF	4054	Butterfly 2 flange Valve+TP+B&N PN 16,1000 mm	NOS	331000
WAF	4056	Butterfly 2 flange Valve+TP+B&N PN 16,1200 mm	NOS	536000
WAF	4059	Air Valve PN 1.6 + accessories -100 mm	NOS	14800

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAF	4060	Air Valve PN 1.6 + accessories -150 mm	NOS	20500
WAF	4061	Air Valve PN 1.6 + accessories -200 mm	NOS	23500
SAP	4063	S.W pipe collars - 150 mm dia.	NOS	65
SAP	4064	S.W pipe collars -230 mm dia.	NOS	90
SAP	4065	CI soil pipe - 75 mm dia.	RMT	300
SAP	4066	CI soil pipe - 100 mm dia.	RMT	400
SAP	4067	CI soil pipe specials - 75 mm dia.	NOS	300
SAP	4068	CI soil pipe specials - 100 mm dia.	NOS	350
WAF	4071	Steel Water tank +cover - 1800 Ltr	NOS	6000
SAF	4072	SFRC MH Circ. 560 Frame+Cover	NOS	550
SAF	4073	SFRC MH Circ. 560 Cover	NOS	350
C&S	4074	Sulphate Resist Cement (SRC)	BAG	289
LSA	4083	Shoring & Strutting for MH works	L.S	3
SAM	4088	HDPE Manhole 1.2 M dia 1m depth	NOS	10000
SAM	4089	PE MH 1.2m dia.,10 mm thick, & 1.0M D	NOS	27850
SAM	4090	FRP M.H 1.2m Dia., 7-12 mm thick & 2.0M High	NOS	30000
SAM	4091	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 1.0 m D	NOS	20000
MIS	4095	Casurina Poles - 8-10 mm dia.	RMT	10
MIS	4096	Coir Rope	KGS	10
SAM	4098	EYE plate for soil pipes 100 mm dia.	NOS	100
SAP	4099	RCC pipe NP3 250 mm dia & 2.5 M long	MTR	1100
SAP	4100	RCC pipe NP3 350 mm dia & 2.5 M long	MTR	1405
SAP	4102	RCC pipe NP3 1100 mm dia & 2.5 M long	MTR	5900
SAP	4105	RCC pipe NP3 1400 mm dia & 2.5 M long	MTR	10100
SAP	4106	RCC pipe NP3 1600 mm dia & 2.5 M long	MTR	14000
SAP	4107	RCC pipe NP3 2000 mm dia & 2.5 M long	MTR	19500
SAP	4108	RCC pipe NP3 1800 mm dia & 2.5 M long	MTR	16500
SAP	4109	RCC pipe NP3 2200 mm dia & 2.5 M long	MTR	20100
SAP	4110	RCC pipe NP3 2400 mm dia & 2.5 M long	MTR	25000
WAP	4125	Rubber Gasket SBR Quality 1400 mm dia.	NOS	2000
WAP	4126	Rubber Gasket SBR Quality 1800 mm dia.	NOS	3250
WAP	4127	Rubber Gasket SBR Quality 2000 mm dia.	NOS	4100
WAP	4128	Rubber Gasket SBR Quality 2200 mm dia.	NOS	5000
WAP	4134	Rubber Gasket SBR Quality 2400 mm dia.	NOS	6500
SAF	4135	High level flush cistern 14 ltrs.+ GI pipe	NOS	900

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
SAM	4137	Foot rests Vitreous china 250x130x30 mm	PAIR	100
SAF	4138	GI flush pipe 3.18 mm dia. telescopic	NOS	100
SAF	4139	GI flush pipe & bend 3.18 mm dia. LL cistern	NOS	75
SAF	4140	Chain pull system for high level cistern	NOS	50
SAF	4141	Mirror belgium 600 x 450+wood frame	NOS	400
WAF	4142	Towel rails CP brass 450 x20 mm	NOS	350
WAF	4144	Nickel Plated showers 15 mm dia.	NOS	150
WAF	4145	Nickel Plated showers 20 mm dia.	NOS	175
WAF	4146	Bib cock for C & H water 15 mm dia.	NOS	750
SAF	4147	AC Cowl - 100 mm dia.	NOS	75
SAF	4148	Zinc Cowl - 100 mm dia.	NOS	50
SAM	4149	Grating Nickel Plated 150 mm	NOS	25
SAM	4150	Liquid soap dispenser +holder	NOS	150
SAM	4151	Rubber plug & chain for W. basin 32 mm	NOS	45
SAM	4152	Cornice tiles & bends	NOS	10
WAM	4153	Fabricated MS MJ end caps for CI/DI pipe 900 mm	SET	13000
WAF	4154	MS Flange 100 mm dia & 8 mm thick	NOS	377
WAF	4155	MS Flange 150 mm dia &12 mm thick	NOS	832
WAF	4156	MS Flange 200 mm dia &16 mm thick	NOS	1485
WAF	4157	MS Flange 250 mm dia &16 mm thick	NOS	1960
WAF	4158	MS Flange 300 mm dia &16 mm thick	NOS	2283
WAF	4159	MS Flange 400 mm dia &20 mm thick	NOS	3648
WAF	4160	MS Flange 450 mm dia &20 mm thick	NOS	4225
WAF	4161	MS Flange 600 mm dia &20 mm thick	NOS	5215
WAF	4162	MS Flange 700 mm dia &25 mm thick	NOS	7600
WAF	4163	MS Flange 900 mm dia &30 mm thick	NOS	12510
WAF	4164	MS Flange 900 mm dia &25 mm thick	NOS	10947
WAP	4176	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 300 mm dia.	RMT	2445
WAP	4177	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 350 mm dia.	RMT	2950
WAP	4178	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 400 mm dia.	RMT	3120
WAP	4179	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 450 mm dia.	RMT	3450
WAP	4180	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 -500 mm dia.	RMT	3830
WAP	4181	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 600 mm dia.	RMT	5010
WAP	4182	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 700 mm dia.	RMT	5810
WAP	4183	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 800 mm dia.	RMT	6240

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	4184	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 900 mm dia.	RMT	8570
WAP	4185	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 1000 mm dia.	RMT	10350
WAP	4186	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 1100 mm dia.	RMT	14920
WAP	4187	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 1200 mm dia.	RMT	16610
WAP	4188	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 1300 mm dia.	RMT	19420
WAP	4189	Bar Wraped Steel Cylind. Pipe 6 kg/cm2 - 1400 mm dia.	RMT	21240
WAP	4190	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 300 mm dia.	RMT	2505
WAP	4191	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 350 mm dia.	RMT	2950
WAP	4192	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 400 mm dia.	RMT	3120
WAP	4193	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 450 mm dia.	RMT	3500
WAP	4194	Bar Wraped Steel Cylind. Pipe 12kg/cm2 -500 mm dia.	RMT	3830
WAP	4195	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 600 mm dia.	RMT	5010
WAP	4196	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 700 mm dia.	RMT	5810
WAP	4197	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 800 mm dia.	RMT	7360
WAP	4198	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 900 mm dia.	RMT	8990
WAP	4199	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1000 mm dia.	RMT	11400
WAP	4200	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1100 mm dia.	RMT	14920
WAP	4201	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1200 mm dia.	RMT	17110
WAP	4202	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1300 mm dia.	RMT	19520
WAP	4203	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1400 mm dia.	RMT	21240
WAP	4204	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 300 mm dia.	RMT	2545
WAP	4205	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 350 mm dia.	RMT	2925
WAP	4206	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 400 mm dia.	RMT	3150
WAP	4207	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 450 mm dia.	RMT	3780
WAP	4208	Bar Wraped Steel Cylind. Pipe 18kg/cm2 -500 mm dia.	RMT	4450
WAP	4209	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 600 mm dia.	RMT	5840
WAP	4210	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 700 mm dia.	RMT	7820
WAP	4211	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 800 mm dia.	RMT	8920
WAP	4212	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 900 mm dia.	RMT	11450
WAP	4213	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1000 mm dia.	RMT	13950
WAP	4214	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1100 mm dia.	RMT	16910
WAP	4215	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1200 mm dia.	RMT	19820
WAP	4216	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1300 mm dia.	RMT	23500
WAP	4217	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1400 mm dia.	RMT	27090
WAP	4218	Bar Wraped Steel Cylind. Pipe 6kg/cm2 - 1500 mm dia.	RMT	22360

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	4219	Bar Wraped Steel Cylind. Pipe 6kg/cm2 - 1600 mm dia.	RMT	24250
WAP	4220	Bar Wraped Steel Cylind. Pipe 6kg/cm2 - 1700 mm dia.	RMT	25470
WAP	4221	Bar Wraped Steel Cylind. Pipe 6kg/cm2 - 1800 mm dia.	RMT	26820
WAP	4222	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1500 mm dia.	RMT	22770
WAP	4223	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1600 mm dia.	RMT	25010
WAP	4224	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1700 mm dia.	RMT	27050
WAP	4225	Bar Wraped Steel Cylind. Pipe 12kg/cm2 - 1800 mm dia.	RMT	30090
WAP	4232	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1500 mm dia.	RMT	29740
WAP	4233	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1600 mm dia.	RMT	33730
WAP	4234	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1700 mm dia.	RMT	37530
WAP	4235	Bar Wraped Steel Cylind. Pipe 18kg/cm2 - 1800 mm dia.	RMT	41510
WAM	4236	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 300 mm	RMT	320
WAM	4237	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 350 mm	RMT	378
WAM	4238	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 400 mm	RMT	500
WAM	4239	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 450 mm	RMT	500
WAM	4240	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 500 mm	RMT	625
WAM	4241	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 600 mm	RMT	770
WAM	4242	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 700 mm	RMT	898
WAM	4243	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 800 mm	RMT	1020
WAM	4244	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 900 mm	RMT	1200
WAM	4245	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1000 mm	RMT	1325
WAM	4246	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1100 mm	RMT	1560
WAM	4247	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1200 mm	RMT	1743
WAM	4248	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1300 mm	RMT	2050
WAM	4249	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1400 mm	RMT	2300
WAM	4250	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1500 mm	RMT	2600
WAM	4251	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1600 mm	RMT	2950
WAM	4252	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1700 mm	RMT	3350
WAM	4253	Conv., lay, joint, test - stl pipe 6/12/18 kg/cm2, 1800 mm	RMT	3850
WAF	4254	Lab - fix 2 flange Butterfly vale & access -700 mm	NOS	34880
WAF	4256	Lab - fix 2 flange Butterfly vale & access -800 mm	NOS	50200
WAF	4257	Lab - fix 2 flange Butterfly vale & access -900 mm	NOS	59500
WAF	4258	Lab - fix 2 flange Butterfly vale & access -1000 mm	NOS	77720
WAF	4260	Lab - fix 2 flange Butterfly vale & access -1200 mm	NOS	135230
WAF	4261	Lab Fix Air Valve PN 1.6 & accessories -100 mm	NOS	305

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAF	4262	Lab Fix Air Valve PN 1.6 & accessories -150 mm	NOS	305
WAF	4263	Lab Fix Air Valve PN 1.6 & accessories -200 mm	NOS	305
WAP	4268	UPVC pipe IS 16098 SN 4 - 125 mm dia	MTR	300
WAP	4269	UPVC pipe IS 16098 SN 4 - 200 mm dia	MTR	750
WAP	4270	UPVC pipe IS 16098 SN 4 - 250 mm dia	MTR	1200
WAP	4271	UPVC pipe IS 16098 SN 4 - 315 mm dia	MTR	1900
WAP	4272	UPVC pipe IS 16098 SN 8 - 110 mm dia	MTR	270
WAP	4273	UPVC pipe IS 16098 SN 8 - 125 mm dia	MTR	350
WAP	4274	UPVC pipe IS 16098 SN 8 - 160 mm dia	MTR	575
WAP	4275	UPVC pipe IS 16098 SN 8 - 200 mm dia	MTR	900
WAP	4276	UPVC pipe IS 16098 SN 8 - 250 mm dia	MTR	1400
WAP	4277	UPVC pipe IS 16098 SN 8 - 315 mm dia	MTR	2250
WAP	4283	DWC (Doub. Wall Corrug) pipe SN 8, 100 mm dia	MTR	270
WAP	4284	DWC (Doub. Wall Corrug) pipe SN 8, 135 mm dia	MTR	370
WAP	4285	DWC (Doub. Wall Corrug) pipe SN 8, 150 mm dia	MTR	475
WAP	4286	DWC (Doub. Wall Corrug) pipe SN 8, 170 mm dia	MTR	552
WAP	4287	DWC (Doub. Wall Corrug) pipe SN 8, 200 mm dia	MTR	645
WAP	4295	DWC (Doub. Wall Corrug) pipe SN 8, 250 mm dia	MTR	990
WAP	4296	DWC (Doub. Wall Corrug) pipe SN 8, 300 mm dia	MTR	1101
WAP	4297	DWC (Doub. Wall Corrug) pipe SN 8, 400 mm dia	MTR	1252
WAP	4298	DWC (Doub. Wall Corrug) pipe SN 8, 500 mm dia	MTR	3849
WAP	4299	DWC (Doub. Wall Corrug) pipe SN 8, 600 mm dia	MTR	5881
WAP	4300	DWC (Doub. Wall Corrug) pipe SN 8, 800 mm dia	MTR	9848
WAP	4301	DWC (Doub. Wall Corrug) pipe SN 8, 1000 mm dia	MTR	15720
SAM	4302	HDPE Manhole 1.2 M dia 2m depth	NOS	18500
SAM	4303	HDPE Manhole 1.2M dia 3m depth	NOS	34000
SAM	4304	HDPE Manhole 1.2 M dia 4m depth	NOS	56000
SAM	4305	HDPE Manhole 1.2 M dia 5m depth	NOS	66500
SAM	4306	HDPE Manhole 1.2 M dia 6m depth	NOS	74500
LSA	4342	Lab for reinf. steel works	L.S	2.06
SAM	4351	PE MH 1.2m dia.,10 mm thick & 2.0M D	NOS	43350
SAM	4352	PE MH 1.2m dia.,10 mm thick & 3.0M D	NOS	56350
SAM	4353	PE MH 1.2m dia.,10 mm thick & 4.0M D	NOS	69350
SAM	4354	PE MH 1.2m dia.,10 mm thick & 5.0M D	NOS	78050
SAM	4355	PE MH 1.2m dia.,10 mm thick & 6.0M D	NOS	87350

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
WAP	4356	UPVC foam core pipe SN4 self fit IS 16098 160 mm dia.	RMT	434
WAP	4357	UPVC foam core pipe SN4 self fit IS 16098 200 mm dia.	RMT	667
WAP	4358	UPVC foam core pipe SN4 self fit IS 16098 250 mm dia.	RMT	1056
WAP	4359	UPVC foam core pipe SN4 self fit IS 16098 315 mm dia.	RMT	1676
WAP	4361	UPVC foam core pipe SN8 self fit IS 16098 160 mm dia.	RMT	508
WAP	4362	UPVC foam core pipe SN8 self fit IS 16098 200 mm dia.	RMT	796
WAP	4363	UPVC foam core pipe SN8 self fit IS 16098 250 mm dia.	RMT	1220
WAP	4364	UPVC foam core pipe SN8 self fit IS 16098 315 mm dia.	RMT	1978
WAP	4367	UPVC foam core pipe SN4 ring fit IS 16098 160 mm dia.	RMT	426
WAP	4368	UPVC foam core pipe SN8 ring fit IS 16098 160 mm dia.	RMT	500
STL	4401	MS Sheet 2.5 -25 mm for MS pipes	M.T	46905
STL	4402	MS Sheet 2.5 -25 mm Cutting charges for MS pipe	M.T	700
STL	4403	MS Sheet 2.5-25 mm fabrication charge for MS pipe	M.T	8000
WAP	4525	OPVC pipes of Class 500- PN-16 110 mm dia.	RMT	840
WAP	4526	OPVC pipes of Class 500- PN-16 160 mm dia.	RMT	1190
WAP	4527	OPVC pipes of Class 500- PN-16 200 mm dia.	RMT	1610
WAP	4528	OPVC pipes of Class 500- PN-16 250 mm dia.	RMT	2237
WAP	4529	OPVC pipes of Class 500- PN-16 315 mm dia.	RMT	2996
WAP	4532	OPVC pipes of Class 500- PN-16 400 mm dia.	RMT	4354
WAP	4533	OPVC pipes of Class 500- PN-25 110 mm dia.	RMT	873
WAP	4534	OPVC pipes of Class 500- PN-25 160 mm dia.	RMT	1312
WAP	4535	OPVC pipes of Class 500- PN-25 200 mm dia.	RMT	1795
WAP	4536	OPVC pipes of Class 500- PN-25 250 mm dia.	RMT	2432
WAP	4537	OPVC pipes of Class 500- PN-25 315 mm dia.	RMT	3197
WAP	4538	OPVC pipes of Class 500- PN-25 400 mm dia.	RMT	4812
SAM	4540	Installation charges for PE, FRP, GRP Man holes	NOS	3000
SAM	4541	FRP M.H 1.2m Dia., 7-12 mm thick & 1.0M High	NOS	20000
SAM	4542	FRP M.H 1.2m Dia., 7-12 mm thick & 3.0M High	NOS	42000
SAM	4543	FRP M.H 1.2m Dia., 7-12 mm thick & 4.0M High	NOS	55000
SAM	4544	FRP M.H 1.2m Dia., 7-12 mm thick & 5.0M High	NOS	70000
SAM	4545	FRP M.H 1.2m Dia., 7-12 mm thick & 6.0M High	NOS	90000
SAM	4546	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 2.0m D	NOS	30000
SAM	4547	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 3.0m D	NOS	42000
SAM	4548	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 4.0m D	NOS	55000
SAM	4549	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 5.0m D	NOS	70000

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
SAM	4550	GRP MONO MH 1.2M dia., 7-10 mm thick, cover, 6.0m D	NOS	90000
WAF	4551	Extension spindle + fittings for gate valve	RMT	4815
WAF	4552	Surface box & synthetic lid for gate valve	NOS	2995
SAM	4553	Radar Survey along road for 6M wide	RMT	35
SAM	4554	Radar Survey at road cross upto 30m wide	RMT	32000
SAM	4555	Radar Survey at road cross & dividers upto 50m wide	RMT	64000
SAM	4556	Radar Survey at road cross & dividers 60m wide	RMT	82000
SAM	4557	Radar Survey at road cross for every 1 M above 60m wide	RMT	2100
SAM	4558	Seismic Refraction Survey for pipes	RMT	400
MIS	4599	Rig Borewell	NOS	1835
MIS	4600	Hand Pump	NOS	1530
MIS	4601	Cleaning of Borewell	NOS	9687
MIS	4602	Redrilling of filled-up bored	MTR	204
MIS	4603	Logging/Scanning	EACH	1223
MIS	4604	Hydrofacturing	NOS	10196
MIS	4605	Yield Test	NOS	6629
MIS	4606	Erection of Hand Pump	NOS	368
MIS	4607	Repair of Hand Pump	NOS	51
MIS	4608	Remove of Hand Pump	NOS	100
PNT	4612	Paint - Bitumastic	LTR	50
WAF	4613	Butterfly Valve+TP+B&N - PN 1.0, 100 mm	NOS	1000
WAF	4614	Butterfly Valve+TP+B&N - PN 1.0, 150 mm	NOS	1500
WAF	4615	Butterfly Valve+TP+B&N - PN 1.6, 100 mm	NOS	1500
WAF	4616	Butterfly Valve+TP+B&N - PN 1.6, 150 mm	NOS	2500
WAF	4617	Butterfly 2 flange Valve+TP+B&N PN 1.0,750 mm	NOS	164000
WAF	4618	Butterfly 2 flange Valve+TP+B&N PN 1.0,1100 mm	NOS	417000
WAF	4619	Butterfly 2 flange Valve+TP+B&N PN 16,750 mm	NOS	184000
WAF	4620	Butterfly 2 flange Valve+TP+B&N PN 16,1100 mm	NOS	500000
D&M	4621	100 mm Diameter 11.25º Bends	NOS	898
D&M	4622	100 mm Diameter 22.50º Bends	NOS	944
D&M	4623	100 mm Diameter 45º Bends	NOS	1093
D&M	4624	100 mm Diameter 90º Bends	NOS	1098
D&M	4625	150 mm Diameter 11.25º Bends	NOS	1396
D&M	4627	150 mm Diameter 45º Bends	NOS	1596
D&M	4628	150 mm Diameter 90º Bends	NOS	2099

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&M	4629	200 mm Diameter 11.25º Bends	NOS	2204
D&M	4630	200 mm Diameter 22.50º Bends	NOS	2413
D&M	4631	200 mm Diameter 45º Bends	NOS	2729
D&M	4632	200 mm Diameter 90º Bends	NOS	3358
D&M	4633	250 mm Diameter 11.25º Bends	NOS	3020
D&M	4634	250 mm Diameter 22.50º Bends	NOS	3236
D&M	4635	250 mm Diameter 45º Bends	NOS	3775
D&M	4636	250 mm Diameter 90º Bends	NOS	4854
D&M	4637	300 mm Diameter 11.25º Bends	NOS	4099
D&M	4638	300 mm Diameter 22.50º Bends	NOS	4530
D&M	4639	300 mm Diameter 45º Bends	NOS	5285
D&M	4640	300 mm Diameter 90º Bends	NOS	7011
D&M	4641	350 mm Diameter 11.25º Bends	NOS	5937
D&M	4642	350 mm Diameter 45º Bends	NOS	8084
D&M	4643	350 mm Diameter 22.50º Bends	NOS	6695
D&M	4644	350 mm Diameter 90º Bends	NOS	10863
D&M	4645	400 mm Diameter 11.25º Bends	NOS	7327
D&M	4646	400 mm Diameter 22.50º Bends	NOS	8337
D&M	4647	400 mm Diameter 45º Bends	NOS	10105
D&M	4648	400 mm Diameter 90º Bends	NOS	14020
D&M	4649	450 mm Diameter 11.25º Bends	NOS	9095
D&M	4650	450 mm Diameter 22.50º Bends	NOS	10737
D&M	4651	450 mm Diameter 45º Bends	NOS	13389
D&M	4652	450 mm Diameter 90º Bends	NOS	18441
D&M	4653	500 mm Diameter 11.25º Bends	NOS	117100
D&M	4654	500 mm Diameter 22.50º Bends	NOS	13811
D&M	4655	500 mm Diameter 45º Bends	NOS	17162
D&M	4656	500 mm Diameter 90º Bends	NOS	24268
D&M	4657	600 mm Diameter 11.25º Bends	NOS	17967
D&M	4658	600 mm Diameter 22.50º Bends	NOS	21185
D&M	4659	600 mm Diameter 45º Bends	NOS	26575
D&M	4660	600 mm Diameter 90º Bends	NOS	37677
D&M	4661	All Socketed D.I. Equal Tees 100 x 100 x 100	NOS	1575
D&M	4662	All Socketed D.I. Equal Tees 150 x 150 x 150	NOS	2493
D&M	4663	All Socketed D.I. Equal Tees 200 x 200 x 200	NOS	4198

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&M	4664	All Socketed D.I. Equal Tees 250 x 250 x 250	NOS	5932
D&M	4665	All Socketed D.I. Equal Tees 300 x 300 x 300	NOS	8305
D&M	4668	All Socketed D.I. Equal Tees 450 x 450 x 450	NOS	20841
D&M	4669	All Socketed D.I. Equal Tees 500 x 500 x 500	NOS	27218
D&M	4670	All Socketed D.I. Equal Tees 600 x 600 x 600	NOS	40224
D&M	4671	Double Socketed with flanged Branch D.I. Un-Equal Tees 150 x 150 x 100	NOS	2373
D&M	4672	Double Socketed with flanged Branch D.I. Un-Equal Tees 200 x 200 x 100	NOS	3343
D&M	4673	Double Socketed with flanged Branch D.I. Un-Equal Tees 250 x 250 x 100	NOS	4364
D&M	4674	Double Socketed with flanged Branch D.I. Un-Equal Tees 300 x 300 x 100	NOS	5685
D&M	4675	Double Socketed with flanged Branch D.I. Un-Equal Tees 400 x 400 x 100	NOS	9383
D&M	4676	Double Socketed with flanged Branch D.I. Un-Equal Tees 350 x 350 x 100	NOS	8220
D&M	4677	Double Socketed with flanged Branch D.I. Un-Equal Tees 450 x 450 x 100	NOS	12056
D&M	4678	Double Socketed with flanged Branch D.I. Un-Equal Tees 500 x 500 x 100	NOS	15111
D&M	4679	Double Socketed with flanged Branch D.I. Un-Equal Tees 600 x 600 x 150	NOS	18574
D&M	4680	All Socketed D.I. Un-Equal Tees 100 x 80	NOS	1470
D&M	4681	All Socketed D.I. Un-Equal Tees 150 x 80	NOS	1993
D&M	4682	All Socketed D.I. Un-Equal Tees 150 x 100	NOS	2094
D&M	4683	All Socketed D.I. Un-Equal Tees 200 x 80	NOS	2939
D&M	4684	All Socketed D.I. Un-Equal Tees 200 x 100	NOS	3149
D&M	4685	All Socketed D.I. Un-Equal Tees 250 x 80	NOS	3775
D&M	4686	All Socketed D.I. Un-Equal Tees 250 x 100	NOS	3991
D&M	4687	All Socketed D.I. Un-Equal Tees 250 x 150	NOS	4530
D&M	4688	All Socketed D.I. Un-Equal Tees 250 x 200	NOS	5932
D&M	4689	All Socketed D.I. Un-Equal Tees 300 x 100	NOS	5393
D&M	4690	All Socketed D.I. Un-Equal Tees 300 x 150	NOS	5932
D&M	4691	All Socketed D.I. Un-Equal Tees 300 x 200	NOS	6687
D&M	4692	All Socketed D.I. Un-Equal Tees 300 x 250	NOS	7441
D&M	4693	All Socketed D.I. Un-Equal Tees 350 x 100	NOS	7327
D&M	4694	All Socketed D.I. Un-Equal Tees 350 x 150	NOS	8337
D&M	4695	All Socketed D.I. Un-Equal Tees 350 x 200	NOS	9347
D&M	4696	All Socketed D.I. Un-Equal Tees 350 x 250	NOS	10282
D&M	4697	All Socketed D.I. Un-Equal Tees 350 x 300	NOS	11494
D&M	4698	All Socketed D.I. Un-Equal Tees 400 x 80	NOS	8463
D&M	4699	All Socketed D.I. Un-Equal Tees 400 x 100	NOS	8842
D&M	4700	All Socketed D.I. Un-Equal Tees 400 x 150	NOS	9853

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&M	4701	All Socketed D.I. Un-Equal Tees 400 x 200	NOS	10989
D&M	4702	All Socketed D.I. Un-Equal Tees 400 x 250	NOS	12189
D&M	4703	All Socketed D.I. Un-Equal Tees 400 x 300	NOS	13389
D&M	4704	All Socketed D.I. Un-Equal Tees 400 x 350	NOS	14588
D&M	4705	All Socketed D.I. Un-Equal Tees 450 x 100	NOS	10989
D&M	4706	All Socketed D.I. Un-Equal Tees 450 x 150	NOS	12197
D&M	4707	All Socketed D.I. Un-Equal Tees 450 x 200	NOS	13539
D&M	4708	All Socketed D.I. Un-Equal Tees 450 x 250	NOS	14652
D&M	4709	All Socketed D.I. Un-Equal Tees 450 x 300	NOS	16116
D&M	4710	All Socketed D.I. Un-Equal Tees 450 x 350	NOS	17567
D&M	4711	All Socketed D.I. Un-Equal Tees 450 x 400	NOS	18621
D&M	4712	All Socketed D.I. Un-Equal Tees 500 x 100	NOS	13676
D&M	4713	All Socketed D.I. Un-Equal Tees 500 x 150	NOS	15084
D&M	4714	All Socketed D.I. Un-Equal Tees 500 x 200	NOS	16492
D&M	4715	All Socketed D.I. Un-Equal Tees 500 x 250	NOS	18140
D&M	4716	All Socketed D.I. Un-Equal Tees 500 x 300	NOS	19954
D&M	4717	All Socketed D.I. Un-Equal Tees 500 x 350	NOS	19954
D&M	4718	All Socketed D.I. Un-Equal Tees 500 x 400	NOS	23062
D&M	4720	All Socketed D.I. Un-Equal Tees 600 x 100	NOS	18355
D&M	4721	All Socketed D.I. Un-Equal Tees 600 x 150	NOS	20394
D&M	4722	All Socketed D.I. Un-Equal Tees 600 x 200	NOS	22660
D&M	4723	All Socketed D.I. Un-Equal Tees 600 x 250	NOS	24925
D&M	4724	All Socketed D.I. Un-Equal Tees 600 x 300	NOS	27668
D&M	4725	All Socketed D.I. Un-Equal Tees 600 x 350	NOS	30433
D&M	4726	All Socketed D.I. Un-Equal Tees 600 x 400	NOS	30302
D&M	4727	All Socketed D.I. Un-Equal Tees 600 x 450	NOS	32120
D&M	4728	All Socketed D.I. Un-Equal Tees 600 x 500	NOS	35332
D&M	4729	All Socketed D.I. Un-Equal Tees 200 x 150	NOS	3568
D&M	4730	All Socketed D.I. Reducers / Tapers 100 x 80	NOS	839
D&M	4731	All Socketed D.I. Reducers / Tapers 150 x 80	NOS	1365
D&M	4732	All Socketed D.I. Reducers / Tapers 150 x 100	NOS	1365
D&M	4733	All Socketed D.I. Reducers / Tapers 200 x 100	NOS	2099
D&M	4734	All Socketed D.I. Reducers / Tapers 200 x 150	NOS	2099
D&M	4735	All Socketed D.I. Reducers / Tapers 250 x 100	NOS	2913
D&M	4736	All Socketed D.I. Reducers / Tapers 250 x 150	NOS	3020

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&M	4737	All Socketed D.I. Reducers / Tapers 250 x 200	NOS	2913
D&M	4738	All Socketed D.I. Reducers / Tapers 300 x 100	NOS	3688
D&M	4739	All Socketed D.I. Reducers / Tapers 300 x 150	NOS	4099
D&M	4740	All Socketed D.I. Reducers / Tapers 300 x 200	NOS	4099
D&M	4741	All Socketed D.I. Reducers / Tapers 300 x 250	NOS	3775
D&M	4742	All Socketed D.I. Reducers / Tapers 350 x 150	NOS	6315
D&M	4743	All Socketed D.I. Reducers / Tapers 350 x 200	NOS	6315
D&M	4744	All Socketed D.I. Reducers / Tapers 350 x 250	NOS	6089
D&M	4745	All Socketed D.I. Reducers / Tapers 350 x 300	NOS	5685
D&M	4746	All Socketed D.I. Reducers / Tapers 400 x 150	NOS	7048
D&M	4747	All Socketed D.I. Reducers / Tapers 400 x 200	NOS	7831
D&M	4748	All Socketed D.I. Reducers / Tapers 400 x 250	NOS	7831
D&M	4749	All Socketed D.I. Reducers / Tapers 400 x 300	NOS	7579
D&M	4750	All Socketed D.I. Reducers / Tapers 400 x 350	NOS	6948
D&M	4751	All Socketed D.I. Reducers / Tapers 450 x 250	NOS	8753
D&M	4752	All Socketed D.I. Reducers / Tapers 450 x 300	NOS	9312
D&M	4753	All Socketed D.I. Reducers / Tapers 450 x 350	NOS	9312
D&M	4754	All Socketed D.I. Reducers / Tapers 450 x 400	NOS	8715
D&M	4755	All Socketed D.I. Reducers / Tapers 500 x 100	NOS	8762
D&M	4757	All Socketed D.I. Reducers / Tapers 500 x 150	NOS	9322
D&M	4758	All Socketed D.I. Reducers / Tapers 500 x 200	NOS	9916
D&M	4759	All Socketed D.I. Reducers / Tapers 500 x 250	NOS	10550
D&M	4760	All Socketed D.I. Reducers / Tapers 500 x 300	NOS	11222
D&M	4761	All Socketed D.I. Reducers / Tapers 500 x 350	NOS	12470
D&M	4762	All Socketed D.I. Reducers / Tapers 500 x 400	NOS	11665
D&M	4763	All Socketed D.I. Reducers / Tapers 500 x 450	NOS	12714
D&M	4764	All Socketed D.I. Reducers / Tapers 600 x 150	NOS	10820
D&M	4765	All Socketed D.I. Reducers / Tapers 600 x 200	NOS	11511
D&M	4766	All Socketed D.I. Reducers / Tapers 600 x 250	NOS	12245
D&M	4767	All Socketed D.I. Reducers / Tapers 600 x 300	NOS	13028
D&M	4768	All Socketed D.I. Reducers / Tapers 600 x 350	NOS	13859
D&M	4769	All Socketed D.I. Reducers / Tapers 600 x 400	NOS	18102
D&M	4770	All Socketed D.I. Reducers / Tapers 600 x 450	NOS	19187
D&M	4771	All Socketed D.I. Reducers / Tapers 600 x 500	NOS	16959
D&M	4772	All D.I. Flanged Socketed 100 mm	NOS	923

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&M	4773	All D.I. Flanged Socketed 150 mm	NOS	1510
D&M	4774	All D.I. Flanged Socketed 200 mm	NOS	1510
D&M	4775	All D.I. Flanged Socketed 250 mm	NOS	2955
D&M	4776	All D.I. Flanged Socketed 300 mm	NOS	3979
D&M	4777	All D.I. Flanged Socketed 350 mm	NOS	5918
D&M	4778	All D.I. Flanged Socketed 400 mm	NOS	7219
D&M	4780	All D.I. Flanged Socketed 500 mm	NOS	10507
D&M	4781	All D.I. Flanged Socketed 600 mm	NOS	14897
D&M	4782	All D.I. Flanged Spigot 100 mm	NOS	1079
D&M	4783	All D.I. Flanged Spigot 150 mm	NOS	1640
D&M	4784	All D.I. Flanged Spigot 200 mm	NOS	2480
D&M	4785	All D.I. Flanged Spigot 250 mm	NOS	3637
D&M	4786	All D.I. Flanged Spigot 300 mm	NOS	4888
D&M	4787	All D.I. Flanged Spigot 350 mm	NOS	7672
D&M	4788	All D.I. Flanged Spigot 400 mm	NOS	9726
D&M	4789	All D.I. Flanged Spigot 450 mm	NOS	11550
D&M	4790	All D.I. Flanged Spigot 500 mm	NOS	16139
D&M	4791	All D.I. Flanged Spigot 600 mm	NOS	23328
D&M	4792	M.S End Plates 100 mm	NOS	668
D&M	4793	M.S End Plates 150 mm	NOS	1203
D&M	4794	M.S End Plates 200 mm	NOS	2006
D&M	4795	M.S End Plates 250 mm	NOS	2941
D&M	4796	M.S End Plates 300 mm	NOS	4484
D&M	4798	MJ Collar 100 mm	NOS	2127
D&M	4799	MJ Collar 150 mm	NOS	3836
D&M	4800	MJ Collar 200 mm	NOS	4477
D&M	4801	MJ Collar 250 mm	NOS	6996
D&M	4802	MJ Collar 300 mm	NOS	8264
D&M	4803	MJ Collar 350 mm	NOS	13583
D&M	4804	MJ Collar 400 mm	NOS	16141
D&M	4805	MJ Collar 450 mm	NOS	18672
D&M	4806	MJ Collar 500 mm	NOS	23336
D&M	4807	MJ Collar 600 mm	NOS	29409
BHT	4808	Second Class Kail wood in Planks for 10 cum	Cum	260
BHT	4809	Second Class Kail wood in Scantling for 10 cum	Cum	260

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
BHT	4810	Safeda Ballies 125 mm diameter	MTR	35
BHT	4811	Carriage of Timber	CUM	118
C&S	4812	Ground Granulated Blast Furnance Slag (GGBS)	M.T	3100
BHT	4813	Separation Membrane of Impermeable plastic sheeting 125 micron thick	SQM	40
BHT	4814	Pre-moulded joint filler, 25 mm thick for expansion joint	SQM	70
BHT	4816	Joint Sealant	KGS	180
BHT	4817	Jute rope	MTR	6
BHT	4818	Super Plasticizer admixture IS marked as per 9 - 103 - 1999	KGS	75
BHT	4819	HOM of screed vibrator	HOUR	50
EQP	4820	HC Plate vibrator having 3 Ton compaction force	DAY	300
EQP	4821	HC Concrete Joint Cutting Machine	HOUR	1565
EQP	4822	HC Air Compressor	DAY	2304
WAF	4823	DI Sluice Valve+TP+B&N+R insert PN 1.6, 600 mm	NOS	342000
D&R	4824	Cutting Asphalt Concrete Road Surface	CUM	788
D&R	4825	Road Reinstatement of Asphalt & Concrete Roads	SQM	1035
WAF	4826	Butterfly Valve+TP+B&N - PN 1.0, 350 mm	NOS	14500
WAF	4827	Lab - fix 1 flange Butterfly vale & access - 350 mm	NOS	4150
WAF	4828	Butterfly Valve+TP+B&N - PN 1.6, 350 mm	NOS	16500
D&R	4829	Sodium Hypochlorite Solution	NOS	88100
D&R	4830	IODIZED SALT	L.S	66550
D&R	4831	Crystalline Slurry of Hydrophilic	SQM	412
D&R	4832	Crystalline Mortor 4:5	SQM	460
D&R	4833	ELASTOMERIC COATING with zero VOC	SQM	1150
D&R	4834	25 mm Normal gauge polythene bore pipes	RMT	51
D&R	4835	32 mm Normal gauge polythene bore pipes	RMT	68
D&R	4836	40 mm Normal gauge polythene bore pipes	RMT	83
D&R	4837	50 mm Normal gauge polythene bore pipes	RMT	132
D&R	4839	Solid Joints of 100 mm dia	NOS	138
D&R	4840	Solid Joints of 75 mm dia	NOS	41
D&R	4841	Solid Joints of 50 mm dia	NOS	36
D&R	4842	Solid Joints of 100 mm dia with wiped solder pipe	NOS	130
D&R	4843	Solid Joints of 75 mm dia with wiped solder pipe	NOS	54
D&R	4844	Solid Joints of 50 mm dia with wiped solder pipe	NOS	29
D&R	4845	Ground Sink	NOS	172
D&R	4846	Lead Socket 100 mm & 75 mm	NOS	290

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&R	4847	For Pipe 150 to 200 mm	RMT	3775
EQP	4864	H&RC WATER TANKER @3000 / CUM	CUM	3000
BHT	4866	Hire Charges for compressor machine with gen set	HOUR	1600
BHT	4867	Hire charges for hydraulic jacking	HOUR	1600
BHT	4868	Crane charges for jacking	HOUR	1400
MIS	4909	GI Frame of Size 900 x 450 mm	NOS	350
MIS	4910	GI Frame of Size 450 x 450 mm	NOS	275
MIS	4911	GI Frame of Size 300 x 220 mm	NOS	250
MIS	4912	GI Frame of Size 220 x 150 mm	NOS	200
D&R	4948	Elbow action NP tap of 15 mm	SQM	320
D&R	4949	150 mm pipe ventilating shaft	NOS	22500
D&R	4950	25 mm dia. Thermoplastic sewer hose	RMT	1394
D&R	4951	19 mm dia. Thermoplastic sewer hose	RMT	1150
D&R	4952	SW junction pipes of 150 x 100 mm dia.	NOS	400
D&R	4953	SW junction pipes of 200 x 100 mm dia.	NOS	540
D&R	4954	SW junction pipes of 225 x 100 mm dia.	NOS	740
STL	4957	MS Sheet 10-25 mm fabrication charge for MS pipe	M.T	4250
WAP	4958	Ductile Iron Pipe Class K-7 1000 mm dia.	RMT	20726
WAP	4961	Ductile Iron Pipe Class K-9 1000 mm dia.	RMT	21603
WAP	4962	Ductile Iron Pipe Class K-9 1100 mm dia.	RMT	26594
WAM	4963	Rubber insertion 3 mm thick for 900 mm dia. pipes	NOS	195
WAM	4964	Rubber insertion 3 mm thick for 1000 mm dia. pipes	NOS	215
BHT	4966	Hire Charges for Drilling 200 mm dia	RMT	2500
BHT	4967	Hire Charges for Drilling 300 mm dia	RMT	3500
BHT	4968	Hire Charges for Drilling 400 mm dia	RMT	4500
BHT	4969	Hire Charges for Drilling 600 mm dia	RMT	5500
EQP	4970	HC Electric Generator 250KVA	DAY	6000
EQP	4971	HC Positioning of the rig for drilling bore of 140-149 dia horizontally	EACH	1980
EQP	4972	HC Diamond ROPE of 50 RMT length	NOS	110000
MIS	4973	MS Rods (Four Nos)	KGS	52
D&H	4975	100 ID Coupler - DWC HDPE 100 mm dia Pipes	NOS	75
D&H	4976	135 ID Coupler - DWC HDPE 135 mm dia Pipes	NOS	125
D&H	4977	150 ID Coupler - DWC HDPE 150 mm dia Pipes	NOS	145
D&H	4978	170 ID Coupler - DWC HDPE 170 mm dia Pipes	NOS	165
D&H	4979	200 ID Coupler - DWC HDPE 200 mm dia Pipes	NOS	322

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&H	4980	250 ID Coupler - DWC HDPE 250 mm dia Pipes	NOS	455
D&H	4981	300 ID Coupler - DWC HDPE 300 mm dia Pipes	NOS	530
D&H	4982	400 ID Coupler - DWC HDPE 400 mm dia Pipes	NOS	655
D&H	4983	500 ID Coupler - DWC HDPE 500 mm dia Pipes	NOS	780
D&H	4984	600 ID Coupler - DWC HDPE 600 mm dia Pipes	NOS	904
D&H	4985	800 ID Coupler - DWC HDPE 800 mm dia Pipes	NOS	1359
D&H	4986	1000 ID Coupler - DWC HDPE 1000 mm dia Pipes	NOS	1814
D&H	4987	100 ID TEE - DWC HDPE 100 mm dia Pipes	NOS	365
D&H	4988	135 ID TEE - DWC HDPE 135 mm dia Pipes	NOS	533
D&H	4989	150 ID TEE - DWC HDPE 150 mm dia Pipes	NOS	632
D&H	4990	170 ID TEE - DWC HDPE 170 mm dia Pipes	NOS	819
D&H	4991	200 ID TEE - DWC HDPE 200 mm dia Pipes	NOS	1412
D&H	4992	250 ID TEE - DWC HDPE 250 mm dia Pipes	NOS	1898
D&H	4993	300 ID TEE - DWC HDPE 300 mm dia Pipes	NOS	2264
D&H	4994	100 ID BEND - DWC HDPE 100 mm dia Pipes	NOS	455
D&H	4995	135 ID BEND - DWC HDPE 135 mm dia Pipes	NOS	738
D&H	4996	150 ID BEND - DWC HDPE 150 mm dia Pipes	NOS	1010
D&H	4997	170 ID BEND - DWC HDPE 170 mm dia Pipes	NOS	1495
D&H	4998	200 ID BEND - DWC HDPE 200 mm dia Pipes	NOS	2551
D&H	4999	250 ID BEND - DWC HDPE 250 mm dia Pipes	NOS	3435
D&H	5000	300 ID BEND - DWC HDPE 300 mm dia Pipes	NOS	3889
D&R	5001	GPRS + GSM based EMI flow meters on the Bulk waters - 100 mm dia	NOS	154857
D&R	5002	GPRS + GSM based EMI flow meters on the Bulk waters - 150 mm dia	NOS	182709
D&R	5003	GPRS + GSM based EMI flow meters on the Bulk waters - 200 mm dia	NOS	191622
D&R	5004	GPRS + GSM based EMI flow meters on the Bulk waters - 250 mm dia	NOS	307486
D&R	5005	GPRS + GSM based EMI flow meters on the Bulk waters - 300 mm dia	NOS	333110
D&R	5006	MS saddle (16 mm x 160 mm x 360 mm) for 4 sensors	NOS	12000
D&R	5007	MS saddle (16 mm x 160 mm x 360 mm) for 8 sensors	NOS	20000
D&R	5008	Dismantle, transport, re-instal and commission the bulk flow meters	L.S.	35000
D&R	5009	Multi-core sensor cable from the sensor probes to the transmitter panel	RMT	300
D&R	5010	Insulated cable on messenger wire using 2 single core wire	RMT	100

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&R	5011	LG UT cable having Aluminium conductor PVC	RMT	75
D&R	5012	Power supply from BESCOM and payment of 2 mmD	L.S	7500
D&R	5013	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 450 mm	NOS	369875
D&R	5014	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 600 mm	NOS	414438
D&R	5015	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 700 mm	NOS	445632
D&R	5016	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 800 mm	NOS	494652
D&R	5017	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 900 mm	NOS	494652
D&R	5018	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 1000/1100 mm	NOS	503565
D&R	5019	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 1200 mm	NOS	521390
D&R	5020	GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters - 1800 mm	NOS	601604
D&R	5021	Sensor cable from flow sensor to transmitter panel.	RMT	300
D&R	5022	Repair or replacement of existing panel for painting, welding,etc	NOS	6000
D&R	5023	Repairing the totalizer unit	NOS	5000
D&R	5024	Re-placement of (if required) GSM modem by GPRS.	NOS	15000
D&R	5025	Calibration of flow meter sensors and testing	SET	10000
D&R	5026	Shifting of transmitter panel with all points accessories	SET	10000
D&H	5027	100 mm D-rex brand DWC HDPE pipes	RMT	125
D&H	5028	135 mm D-rex brand DWC HDPE pipes	RMT	174
D&H	5029	150 mm D-rex brand DWC HDPE pipes	RMT	218
D&H	5030	170 mm D-rex brand DWC HDPE pipes	RMT	288
D&H	5031	200 mm D-rex brand DWC HDPE pipes	RMT	450
D&H	5032	250 mm D-rex brand DWC HDPE pipes	RMT	620
D&H	5033	300 mm D-rex brand DWC HDPE pipes	RMT	947
D&H	5034	400 mm D-rex brand DWC HDPE pipes	RMT	1454
D&H	5035	500 mm D-rex brand DWC HDPE pipes	RMT	2196
D&H	5036	600 mm D-rex brand DWC HDPE pipes	RMT	3012
D&H	5037	800 mm D-rex brand DWC HDPE pipes	RMT	4791
D&H	5038	1000 mm D-rex brand DWC HDPE pipes	RMT	7664
D&R	5039	Screw cap to lead bends with wiped solder joints.	NOS	80

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&R	5040	30 mm dia. lead pipe with wiped solder joints for waste connections	NOS	232
D&R	5041	38 mm dia. lead pipe with wiped solder joints for waste connections	NOS	255
D&R	5042	50 mm dia. lead pipe with wiped solder joints for waste connections	NOS	414
D&R	5043	30 mm dia. lead pipe for extension of telescopic flush pipe	NOS	140
BHT	5044	GRP double wall monolithic MH, for 1.2 m dia. & 1.0 m depth + SFRC F&C	NOS	50000
BHT	5045	GRP double wall monolithic MH, for 1.2 m dia. & 2.0 m depth + SFRC F&C	NOS	63000
BHT	5046	GRP double wall monolithic MH, for 1.2 m dia. & 3.0 m depth + SFRC F&C	NOS	67000
BHT	5047	GRP double wall monolithic MH, for 1.2 m dia. & above 3.0 m depth + SFRC F&C	NOS	77000
D&R	5048	Sewer pipes upto 300 mm dia.	RMT	18
D&R	5049	Sewer pipes above 300 mm dia.	RMT	25
D&R	5050	Soldering and fixing the copper ball valve set.	EACH	36
D&R	5051	10.16 cms clear white vitreous china clay traps	EACH	225
D&R	5052	Nahani traps 15.24º7.62 cms & constructing cistern in cement concrete	EACH	155
D&R	5053	Constructing cistern with burnt brick in C.M(1.4) & C.M(1.3) plastered on a bed of 7.62 cms	EACH	64
D&R	5054	8.0 cms, G.I pipe from office to workspot & fixing in granite jelly	EACH	74
D&R	5055	Conveying C.I / DI pipes & specials & other materials of water supply & sanitary work	K.M	35
WAP	5063	Ductile Iron Pipe Class K-7 1100 mm dia., inclusive of IGST 18%	RMT	24726
BHT	5064	Crane charges for Lifting Pumps	HOUR	1400
L&C	5065	Labour charges for removing the pump with all tools & materials etc complete	JOB	100
L&C	5066	Labour charges for reconditioning of bronze or SS impeller with all materials etc complete	JOB	100
L&C	5067	Labour charges for repairing of Carbon steel / SS shaft EN-8 with all materials etc complete	JOB	100
L&C	5068	Replacement of new mecha Nickel water seal with material etc complete	JOB	100
L&C	5069	Replacement of gland packing with all materials etc complete	JOB	100
L&C	5070	Labour charges for refixing, alligning with reference to pump and commissioning with all tools and materials etc complete	JOB	100
L&C	5071	Supply of new Ball bearing (make SKF / FAG/NBC or equivalent with ISI /ISO specification) after removing the old bearing	JOB	100

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
L&C	5076	Labour charges for removing and refixing of bearing using Hydraulic puller	JOB	100
L&C	5077	Reconditioning of stuffing box with all materials etc complete	JOB	100
L&C	5078	Reconditioning of bearing housing with all materials etc complete	JOB	100
L&C	5079	Reconditioning of sleeve (Leaded Bronze / Gun metal / SS) with all materials etc complete	JOB	100
L&C	5080	Replacement of bush / type coupling with all materials etc complete	JOB	100
L&C	5081	Reconditioning of bronze or SS impeller with all materials etc complete	JOB	100
L&C	5082	Repairing of Carbon steel / SS shaft EN-8 with all materials etc complete	JOB	100
L&C	5084	Reconditioning of GM neck ring with all materials etc complete	JOB	100
L&C	5096	Labour charges for removing the motor with all tools and materials etc complete	JOB	100
L&C	5097	Supply of suitable super enameled copper wires with F class insulation etc. Complete	JOB	100
L&C	5098	Labour charges for rewinding after removing the existing burnt out copper coils etc complete	JOB	100
L&C	5099	Repairing of rotor with all materials etc complete	JOB	100
L&C	5100	Supply of New Ball bearing (make SKF/FAG/NBC or equivalent with ISI / ISO specification) after removing the Old Bearing.	JOB	100
L&C	5101	Repairing of end shield and moto shaft with all material etc complete	JOB	100
L&C	5102	Labour charges for refixing, aligning with reference to pump & commissioning with all tools & materials etc. complete	JOB	100
L&C	5107	Labour charges for removing and refixing of bearings (Ball /Roller) using Hydralic puller	JOB	100
L&C	5108	Supply of new roller/ thrust bearing (make SKF / FAG/NBC or equivalent with ISI /ISO specification) after removing the old bearing	JOB	100
L&C	5110	Heating of rewounded and insulated motor in the oven to get required insulation resistance before assembly	JOB	100
D&R	5122	Cut & Repair XLPE cable	JOB	11100
D&R	5123	Servicing breakers of motors	JOB	71250
D&R	5124	Service Motors upto 1250KW, 6.6KV	JOB	64500
D&R	5125	For Pipe 250 mm	RMT	5900
D&R	5126	For Pipe 300 mm	RMT	9050
D&R	5127	For Pipe 350 to 500 mm	RMT	14100
D&R	5128	For Pipe 600 to 750 mm	RMT	28300

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
D&R	5129	For Pipe 800 to 900 mm	RMT	43620
D&R	5130	For Pipe 1000 to 1100 mm	RMT	64950
D&R	5131	For Pipe 1200 to 1400 mm	RMT	100050
D&R	5132	For Pipe 1500 to 1800 mm	RMT	149250
D&R	5133	Painting of transformers	JOB	26800
D&R	5134	Supply & replace insulator	JOB	15720
D&R	5135	Rewind LV side transf. <100KVA	JOB	67000
D&R	5136	Repair reactor of Isolator	JOB	65050
D&R	5137	Repair capacitor bank breakers	JOB	31985
D&R	5138	Repair OLTC of transf.	JOB	44560
D&R	5139	Repair LT breaker <400 amps	JOB	64350
D&R	5140	Repair filter house breakers <800amps	JOB	64350
D&R	5141	Isolator & capacitor panel fuses	JOB	32468
D&R	5142	Repair diverter switch	JOB	71275
D&R	5143	Base Rate for Repair Submerg Pump Base Rate	NOS	10
D&R	5144	Servicing transf. <400KVA	JOB	65954
D&R	5145	Supply & braze motor cable	JOB	31988
D&R	5146	S&F 40 amps panel board	JOB	31988
D&R	5147	S&F 85W LED fittings	NOS	17603
D&R	5148	S&F KV indicator for RTCC	NOS	16489
D&R	5149	S&F TP indicator for RTCC	NOS	19127
D&R	5150	Indoor Distr Panel	NOS	64965
D&R	5151	Servicing LOCB breakers	JOB	17380
D&R	5152	Rewind HV side transf. <100KVA	JOB	71302
D&R	5153	Repair soft starter panel	JOB	65473

BASIC RATES
LABOUR

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
LAB	1	BANDHANI (bisti)	DAY	311
LAB	2	BHISTI (Light Mazdoor)	DAY	311
LAB	3	BLACKSMITH 1ST	DAY	312
LAB	4	BLACKSMITH 2ND	DAY	312
LAB	7	CARPENTER 2ND	DAY	331
LAB	9	BELDAR (Heavy Mazdoor)	DAY	311
LAB	10	LIGHT MAZDOOR	DAY	311
LAB	11	FITTER 1ST	DAY	314
LAB	12	FITTER 2ND	DAY	314
LAB	13	MAZDOOR	DAY	309
LAB	15	SPINNING M/C OPERATOR (w. driller)	DAY	317
LAB	16	MASON 1ST FOR PLASTER OF PARIS WORK	DAY	331
LAB	17	MASON 1ST FOR BRICK WORK	DAY	331
LAB	18	MASON 2ND FOR BRICK WORK	DAY	331
LAB	19	MASON 2ND FOR PLANE STONE WORK	DAY	331
LAB	21	DRIVER - ROAD ROLLER/CONC. MIXER/TRUCK	DAY	323
LAB	22	MATE	DAY	311
LAB	24	MISTRY	DAY	311
LAB	25	PAINTER (class-1)	DAY	311
LAB	26	ROCK EXCAVATOR (stone breaker)	DAY	317
LAB	27	ROCK BREAKER (Hammer Man)	DAY	313
LAB	28	ROCK HOLE DRILLER (j.ham driller)	DAY	317
LAB	29	STONE CHISELLER - I	DAY	280
LAB	31	SKILLED LABOUR (Heavy Mazdoor)	DAY	311
LAB	32	SPRAYMAN	DAY	309

GROUP	MAT CODE	DESCRIPTIONS	UNIT	RATE
LAB	34	WHITE WASHER	DAY	311
LAB	35	PIPE FITTER	DAY	316
LAB	36	FITTER	DAY	316
LAB	37	ASST. FITTER	DAY	316
LAB	38	HELPER	DAY	311
LAB	42	MASON (AVERAGE)	DAY	331
LAB	46	LIGHT MAZDOOR TO LIFT MAT. UPTO FLR. 5	DAY	311
LAB	47	LIGHT MAZDOOR TO LIFT MAT. EACH 4 FLRS > FLR-5	DAY	311
LAB	48	WELDER (class-1)	DAY	329
LAB	50	LIGHT MAZDOOR - REINF LIFT UPTO 6 M HEIGHT	DAY	311
LAB	51	LIGHT MAZDOOR - REINF LIFT > 6 M FOR 3 M HEIGHT	DAY	310.43
LAB	52	Hydraulic jack operator	DAY	315.47
LAB	53	Drilling equipment operator	DAY	315.47

CHAPTER - 1

WATER SUPPLY (MATERIAL PORTION)

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	A010	Supplying Ductile Iron Push on special & confirming to IS 9523:2000 (Note : The Rates are inclusive of all taxes, duties & transportation charges)		
1.1	A010A	100 mm diameter 11.25º Bend	NOS	897
1.2	A010B	100 mm diameter 22.50º Bends	NOS	944
1.3	A010C	100 mm diameter 45º Bends	NOS	1093
1.4	A010D	100 mm diameter 90º Bends	NOS	1097
1.5	A010E	150 mm diameter 11.25º Bends	NOS	1396
1.6	A010F	150 mm diameter 22.50º Bends	NOS	1396
1.7	A010G	150 mm diameter 45º Bends	NOS	1596
1.8	A010H	150 mm diameter 90º Bends	NOS	2099
1.9	A010I	200 mm diameter 11.25º Bends	NOS	2203
1.10	A010J	200 mm diameter 22.50º Bends	NOS	2413
1.11	A010K	200 mm diameter 45º Bends	NOS	2728
1.12	A010L	200 mm diameter 90º Bends	NOS	3358
1.13	A010M	250 mm diameter 11.25º Bends	NOS	3020
1.14	A010N	250 mm diameter 22.50º Bends	NOS	3236
1.15	A010O	250 mm diameter 45º Bends	NOS	3775
1.16	A010P	250 mm diameter 90º Bends	NOS	4853
1.17	A010Q	300 mm diameter 11.25º Bends	NOS	4098
1.18	A010R	300 mm diameter 22.50º Bends	NOS	4530
1.19	A010S	300 mm diameter 45º Bends	NOS	5284
1.20	A010T	300 mm diameter 90º Bends	NOS	7010
1.21	A010U	350 mm diameter 11.25º Bends	NOS	5937
1.22	A010V	350 mm diameter 22.50º Bends	NOS	6694
1.23	A010W	350 mm diameter 45º Bends	NOS	8083
1.24	A010X	350 mm diameter 90º Bends	NOS	10862
1.25	A010Y	400 mm diameter 11.25º Bends	NOS	7327
1.26	A010Z	400 mm diameter 22.50º Bends	NOS	8336

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.	A011	Supplying Ductile Iron Push on special confirming to IS 9523:2000 Note : The Rates are inclusive of all taxes, duties & transportation charges		
2.1	A011A	400 mm diameter 45º Bends	NOS	10105
2.2	A011B	400 mm diameter 90º Bends	NOS	14020
2.3	A011C	450 mm diameter 11.25º Bends	NOS	9095
2.4	A011D	450 mm diameter 22.50º Bends	NOS	10737
2.5	A011E	450 mm diameter 45º Bends	NOS	13389
2.6	A011F	450 mm diameter 90º Bends	NOS	18441
2.7	A011G	500 mm diameter 11.25º Bends	NOS	11799
2.8	A011H	500 mm diameter 22.50º Bends	NOS	13810
2.9	A011I	500 mm diameter 45º Bends	NOS	17161
2.10	A011J	500 mm diameter 90º Bends	NOS	24268
2.11	A011K	600 mm diameter 11.25º Bends	NOS	17966
2.12	A011L	600 mm diameter 22.50º Bends	NOS	21184
2.13	A011M	600 mm diameter 45º Bends	NOS	26575
2.14	A011N	600 mm diameter 90º Bends	NOS	37676
3.	A014	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All Socketed D.I. Equal Tees** Note : The Rates are inclusive of all taxes, duties & transportation charges		
3.1	A014A	100 mm x 100 mm x 100 mm	NOS	1574
3.2	A014B	150 mm x 150 mm x 150 mm	NOS	2492
3.3	A014C	200 mm x 200 mm x 200 mm	NOS	4197
3.4	A014D	250 mm x 250 mm x 250 mm	NOS	5932
3.5	A014E	300 mm x 300 mm x 300 mm	NOS	8304
3.6	A014F	450 mm x 450 mm x 450 mm	NOS	20841
3.7	A014G	500 mm x 500 mm x 500 mm	NOS	27218
3.8	A014H	600 mm x 600 mm x 600 mm	NOS	40223
4.	A015	Supplying Ductile Iron Push on special confirming to IS 9523:2000- **Double Socketed with flanged Branch D.I. Un-Equal Tees** Note : The Rates are inclusive of all taxes, duties & transportation charges		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.1	A015A	150 mm x 150 mm x 100 mm	NOS	2372
4.2	A015B	200 mm x 200 mm x 100 mm	NOS	3342
4.3	A015C	250 mm x 250 mm x 100 mm	NOS	4363
4.4	A015D	300 mm x 300 mm x 100 mm	NOS	5685
4.5	A015E	350 mm x 350 mm x 100 mm	NOS	8219
4.6	A015F	400 mm x 400 mm x 100 mm	NOS	9383
4.7	A015G	450 mm x 450 mm x 100 mm	NOS	12055
4.8	A015H	500 mm x 500 mm x 100 mm	NOS	15111
4.9	A015I	600 mm x 600 mm x 150 mm	NOS	18573
5.	A016	Supplying Ductile Iron Push on specials confirming to IS 9523:2000 - **All Socketed D.I. Un-Equal Tees** Note : The Rates are inclusive of all taxes, duties & transportation charges		
5.1	A016A	100 mm x 80 mm	NOS	1469
5.2	A016B	150 mm x 80 mm	NOS	1993
5.3	A016C	150 mm x 100 mm	NOS	2093
5.4	A016D	200 mm x 80 mm	NOS	2939
5.5	A016E	200 mm x 100 mm	NOS	3148
5.6	A016F	200 mm x 150 mm	NOS	3567
5.7	A016G	250 mm x 80 mm	NOS	3775
5.8	A016H	250 mm x 100 mm	NOS	3991
5.9	A016I	250 mm x 150 mm	NOS	4530
5.10	A016J	250 mm x 200 mm	NOS	5932
5.11	A016K	300 mm x 100 mm	NOS	5393
5.12	A016L	300 mm x 150 mm	NOS	5932
5.13	A016M	300 mm x 200 mm	NOS	6687
5.14	A016N	300 mm x 250 mm	NOS	7441
5.15	A016O	350 mm x 100 mm	NOS	7327
5.16	A016P	350 mm x 150 mm	NOS	8336
5.17	A016Q	350 mm x 200 mm	NOS	9347
5.18	A016R	350 mm x 250 mm	NOS	10281
5.19	A016S	350 mm x 300 mm	NOS	11494

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.20	A016T	400 mm x 80 mm	NOS	8463
5.21	A016U	400 mm x 100 mm	NOS	8841
5.22	A016V	400 mm x 150 mm	NOS	9853
5.23	A016W	400 mm x 200 mm	NOS	10989
5.24	A016X	400 mm x 250 mm	NOS	12188
5.25	A016Y	400 mm x 300 mm	NOS	13389
5.26	A016Z	400 mm x 350 mm	NOS	14588
6.	A017	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All Socketed D.I. Un-Equal Tees** Note : The Rates are inclusive of all taxes, duties & transportation charges		
6.1	A017A	450 mm x 100 mm	NOS	10989
6.2	A017B	450 mm x 150 mm	NOS	12197
6.3	A017C	450 mm x 200 mm	NOS	13539
6.4	A017D	450 mm x 250 mm	NOS	14651
6.5	A017E	450 mm x 300 mm	NOS	16116
6.6	A017F	450 mm x 350 mm	NOS	17566
6.7	A017G	450 mm x 400 mm	NOS	18620
6.8	A017I	500 mm x 100 mm	NOS	13675
6.9	A017J	500 mm x 150 mm	NOS	15083
6.10	A017K	500 mm x 200 mm	NOS	16491
6.11	A017L	500 mm x 250 mm	NOS	18140
6.12	A017M	500 mm x 300 mm	NOS	19954
6.13	A017N	500 mm x 350 mm	NOS	19954
6.14	A017O	500 mm x 400 mm	NOS	23062
6.15	A017P	500 mm x 450 mm	NOS	13675
6.16	A017Q	600 mm x 100 mm	NOS	18354
6.17	A017R	600 mm x 150 mm	NOS	20393
6.18	A017S	600 mm x 200 mm	NOS	22660
6.19	A017T	600 mm x 250 mm	NOS	24925
6.20	A017U	600 mm x 300 mm	NOS	27667
6.21	A017V	600 mm x 350 mm	NOS	30433

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
6.22	A017W	600 mm x 400 mm	NOS	30302
6.23	A017X	600 mm x 450 mm	NOS	32119
6.24	A017Y	600 mm x 500 mm	NOS	35331
7.	A020	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All Socketed D.I. Reducers / Tapers** Note : The Rates are inclusive of all taxes, duties & transportation charges		
7.1	A020A	100 x 80 mm	NOS	839
7.2	A020B	150 x 80 mm	NOS	1365
7.3	A020C	150 x 100 mm	NOS	1365
7.4	A020D	200 x 100 mm	NOS	2099
7.5	A020E	200 x 150 mm	NOS	2099
7.6	A020F	250 x 100 mm	NOS	2912
7.7	A020G	250 x 150 mm	NOS	3020
7.8	A020H	250 x 200 mm	NOS	2912
7.9	A020I	300 x 100 mm	NOS	3688
7.10	A020J	300 x 150 mm	NOS	4098
7.11	A020K	300 x 200 mm	NOS	4098
7.12	A020L	300 x 250 mm	NOS	3775
7.13	A020M	350 x 150 mm	NOS	6315
7.14	A020N	350 x 200 mm	NOS	6315
7.15	A020O	350 x 250 mm	NOS	6088
7.16	A020P	350 x 300 mm	NOS	5685
7.17	A020Q	400 x 150 mm	NOS	7047
7.18	A020R	400 x 200 mm	NOS	7830
7.19	A020S	400 x 250 mm	NOS	7830
7.20	A020T	400 x 300 mm	NOS	7578
7.21	A020U	400 x 350 mm	NOS	6947
7.22	A020V	450 x 250 mm	NOS	8752
7.23	A020W	450 x 300 mm	NOS	9312
7.24	A020X	450 x 350 mm	NOS	9312
7.25	A020Y	450 x 400 mm	NOS	8715
7.26	A020Z	500 x 100 mm	NOS	8762

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
8.	A021	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All Socketed D.I. Reducers / Tapers** Note : The Rates are inclusive of all taxes, duties & transportation charges		
8.1	A021A	500 x 150 mm	NOS	9321
8.2	A021B	500 x 200 mm	NOS	9916
8.3	A021C	500 x 250 mm	NOS	10549
8.4	A021D	500 x 300 mm	NOS	11222
8.5	A021E	500 x 350 mm	NOS	12469
8.6	A021F	500 x 400 mm	NOS	11665
8.7	A021G	500 x 450 mm	NOS	12714
8.8	A021H	600 x 150 mm	NOS	10820
8.9	A021I	600 x 200 mm	NOS	11511
8.10	A021J	600 x 250 mm	NOS	12245
8.11	A021K	600 x 300 mm	NOS	13027
8.12	A021L	600 x 350 mm	NOS	13859
8.13	A021M	600 x 400 mm	NOS	18101
8.14	A021N	600 x 450 mm	NOS	19186
8.15	A021O	600 x 500 mm	NOS	16958
9.	A025	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All D.I. Flanged Socketed** Note : The Rates are inclusive of all taxes, duties & transportation charges		
9.1	A025A	100.00 mm	NOS	923
9.2	A025B	150.00 mm	NOS	1510
9.3	A025C	200.00 mm	NOS	1510
9.4	A025D	250.00 mm	NOS	2955
9.5	A025E	300.00 mm	NOS	3978
9.6	A025F	350.00 mm	NOS	5918
9.7	A025G	400.00 mm	NOS	7218
9.8	A025H	500.00 mm	NOS	10507
9.9	A025I	600.00 mm	NOS	14897
9.10	A025J	**All D.I. Flanged Spigot** 100.00 mm	NOS	1079

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
9.11	A025K	150.00 mm	NOS	1639
9.12	A025L	200.00 mm	NOS	2480
9.13	A025M	250.00 mm	NOS	3637
9.14	A025N	300.00 mm	NOS	4887
9.15	A025O	350.00 mm	NOS	7672
9.16	A025P	400.00 mm	NOS	9725
9.17	A025Q	450.00 mm	NOS	11549
9.18	A025R	500.00 mm	NOS	16138
9.19	A025S	600.00 mm	NOS	23327
9.20	A025T	**MS End Plates** 100.00 mm	NOS	667
9.21	A025U	150.00 mm	NOS	1202
9.22	A025V	200.00 mm	NOS	2005
9.23	A025W	250.00 mm	NOS	2940
9.24	A025X	300.00 mm	NOS	4483
10.	A026	Supplying Ductile Iron Push on special confirming to IS 9523:2000 - **All D.I. Flanged Socketed, D.I. Flanged MJ COLLAR**		
10.1	A026A	MJ COLLAR 100.00 mm	NOS	2127
10.2	A026B	MJ COLLAR 150.00 mm	NOS	3836
10.3	A026C	MJ COLLAR 200.00 mm	NOS	4477
10.4	A026D	MJ COLLAR 250.00 mm	NOS	6995
10.5	A026E	MJ COLLAR 300.00 mm	NOS	8264
10.6	A026F	MJ COLLAR 350.00 mm	NOS	13582
10.7	A026G	MJ COLLAR 400.00 mm	NOS	16140
10.8	A026H	MJ COLLAR 450.00 mm	NOS	18671
10.9	A026I	MJ COLLAR 500.00 mm	NOS	23336
10.10	A026J	MJ COLLAR 600.00 mm	NOS	29409

CHAPTER - 2

PIPELINE WORKS FOR WATER SUPPLY & UGD WORKS EXCAVATION

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	A050	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN ALL KINDS OF SOIL MIXED WITH BOULDERS of 30 cms size, etc. for:		
1.1.	A050A	Pipes of all dia. for depth upto 2.0 M in all types of soils Note : If any shoring and strutting, will be paid separately	CUM	167
1.2.	A050B	Pipes of all dia. for depth 2.0 to 4.0 M in all types of soils Note : If any shoring and strutting, will be paid separately	CUM	225
1.3.	A050C	Pipes of all dia. for depth 4.0 to 6.0 M in all types of soils Note : If any shoring and strutting, will be paid separately	CUM	293
1.4.	A050D	Pipes of all dia. for depth 6.0 to 8.0 M in all types of soils Note : If any shoring and strutting, will be paid separately	CUM	358
1.5.	A050E	Pipes of all dia. for depth 8.0 to 10.0 M in all types of soils Note : If any shoring and strutting, will be paid separately	CUM	420
1.6.	A050F	All types of soils for depth beyond 10 M for every 2 M and part thereof. Note : If any shoring and strutting, will be paid separately	CUM	242
2.	A055	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN DISINTEGRATED ROCK, SOFT ROCK, SOFT SHALE AND MEDIUM HARD ROCK COMPRISING OF LIME STONE, SAND STONE, HARD SHALE, SCHIEST, FISSURED ROCK without resorting to blast etc. for:		
2.1.	A055A	Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately	CUM	404
2.2.	A055B	Pipes of all dia. for depth 2.0 to 4.0 M Note : If any shoring and strutting, will be paid separately	CUM	460
2.3.	A055C	Pipes of all dia. for depth 4.0 to 6.0 M Note : If any shoring and strutting, will be paid separately	CUM	520
2.4	A055D	Pipes of all dia. for depth 6.0 to 8.0 M Note : If any shoring and strutting, will be paid separately	CUM	581
2.5.	A055E	Pipes of all dia. for depth 8.0 to 10.0 M Note : If any shoring and strutting, will be paid separately	CUM	641
2.6.	A055F	Pipes of all dia. for depth beyond 10M for every 2.0 mtrs. Note : If any shoring and strutting, will be paid separately	CUM	323

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	A060	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN HARD LATERITE ROCK OR HARD LATERITE ROCK CONTAINING IRON ORE UPTO 20% BY CHISETELING AND TRIMMING TO PROPER SLOPE etc. for::		
3.1.	A060A	Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	914
3.2.	A060B	Pipes of all dia. for depth 2.0 to 4.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1031
3.3.	A060C	Pipes of all dia. for depth 4.0 to 6.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1152
3.4.	A060D	Pipes of all dia. for depth 6.0 to 8.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1274
3.5.	A060E	Pipes of all dia. for depth 8.0 to 10.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1395
3.6.	A060F	Pipes of all dia for depth beyond 10M for every 2.0 mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	242
4.	A065	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN HARD LATERITE ROCK CONTAINING IRON ORE ABOVE 20% BY CHISETELING AND TRIMMING TO PROPER SLOPE etc. for::		
4.1.	A065A	Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	1082
4.2.	A065B	Pipes of all dia. for depth 2.0 to 4.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1219
4.3.	A065C	Pipes of all dia. for depth 4.0 to 6.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1360
4.4.	A065D	Pipes of all dia. for depth 6.0 to 8.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1502
4.5.	A065E	Pipes of all dia. for depth 8.0 to 10.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1643
4.6.	A065F	Pipes of all dia for depth beyond 10M for every 2.0 mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	283
5.	A068	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN HARD ROCK BY CHISTELLING TO PROPER SLOPE etc. for:		
5.1.	A068A	Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	1487

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.2.	A068B	Pipes of all dia. for depth 2.0 to 4.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	1602
5.3.	A068C	Pipes of all dia. for depth 4.0 to 6.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	1723
5.4.	A068D	Pipes of all dia. for depth 6.0 to 8.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	1844
5.5.	A068E	Pipes of all dia. for depth 8.0 to 10.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	1966
5.6.	A068F	Pipes of all dia for depth beyond 10M for every 2.0 mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	242
6.	A070	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN HARD ROCK BY BLASTING TO PROPER SLOPE etc. for::		
6.1.	A070A	Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	839
6.2.	A070B	Pipes of all dia. for depth 2.0 to 4.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	998
6.3.	A070C	Pipes of all dia. for depth 4.0 to 6.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1160
6.4.	A070D	Pipes of all dia. for depth 6.0 to 8.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1321
6.5.	A070E	Pipes of all dia. for depth 8.0 to 10.0 mtr Note : If any shoring and strutting, will be paid separately.	CUM	1483
6.6.	A070F	Pipes of all dia for depth beyond 10M for every 2.0 mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	323
7.	A075	Earth work in excavation for foundations of structures by mechanical means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting, bracing, removal of stumps and other deleterious matter, dressing of sides and leveling of bottom of trenches to the extent required, utilising the available excavated earth locally for the work etc. complete for:		
7.1.	A075A	In all types of soils including hard soil for depth upto 3.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	183
7.2.	A075B	In ordinary rock not requiring blasting for depth upto 3.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	209
7.3.	A075C	In hard rock requiring blasting for depth upto 3.0 Mtrs. Note : If any shoring and strutting, will be paid separately.	CUM	786

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
8.	A080	Earth work in EXCAVATION FOR PIPELINE TRENCHES upto 600 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN ORDINARY SOILS / ALL SOILS / HARD SOILS etc. for:		
8.1.	A080A	Depth upto 2.0 M in all types of soil Note : If any shoring and strutting, will be paid separately.	CUM	187
8.2	A080B	Depth 2.0 to 4.0 M in all types soils. Note : If any shoring and strutting, will be paid separately.	CUM	269
9.	A082	Earth work in EXCAVATION FOR PIPELINE TRENCHES upto 600 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN ORDINARY ROCKS (NOT REQUIRING BLASTING) etc. for:		
9.1	A082A	Depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	238
9.2	A082B	Depth 2.0 to 4.00 M Note : If any shoring and strutting, will be paid separately.	CUM	303
10.	A084	Earth work in EXCAVATION FOR PIPELINE TRENCHES upto 600 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN HARD ROCKS (REQUIRING BLASTING) etc. for:		
10.1	A084A	Depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	861
10.2	A084B	Depth 2.0 to 4.0 M Note : If any shoring and strutting, will be paid separately.	CUM	1044

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
11.	A086	Earth work in EXCAVATION FOR PIPELINE TRENCHES 600 mm to 1500 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN ORDINARY SOILS / ALL SOILS / HARD SOILS etc. for:		
11.1.	A086A	Depth upto 2.0 M in all types of soil Note : If any shoring and strutting, will be paid separately.	CUM	187
11.2.	A086B	Depth upto 2.0 M in all types of soil Note : If any shoring and strutting, will be paid separately.	CUM	269
12.	A088	Earth work in EXCAVATION FOR PIPELINE TRENCHES 600 mm to 1500 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN ORDINARY ROCKS (not requiring blasting) etc. for:		
12.1.	A088A	Depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	213
12.2.	A088B	Depth 2.0 to 4.0 M Note : If any shoring and strutting, will be paid separately.	CUM	303
13.	A090	Earth work in EXCAVATION FOR PIPELINE TRENCHES 600 mm to 1500 mm trench width by mechanical / manual means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, using sight rails & boning rods at every 100 M wherever necessary as directed, removal of stumps and other deleterious matters, dressing of sides & leveling the bottom of trench to the extent required, utilizing the available excavated earth locally for the work etc. complete IN HARD ROCK REQUIRING BLASTING etc. for:		
13.1.	A090A	Depth upto 2.0 M Note : If any shoring and strutting, will be paid separately.	CUM	861
13.2.	A090B	Depth 2.0 to 4.0 M Note : If any shoring and strutting, will be paid separately.	CUM	1044

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
14.	A095	REFILLING OF EARTH around pipelines, in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering all lead and lift including cost of all labour including consolidation by mechanical means approved by the Engineer in charge, when earth is at suitable moisture content with desired field density upto 95% maximum dry density (modified heavy proctor test) for restoration of roads without settlement including HOM of machineries, complete. (The contractor shall take care while consolidating the earth, so that, pipes laid are not damaged due to mechanical compaction and shall restore the damaged pipes at his own cost, in case of damage) etc. with:		
14.1.	A095A	Approved earth available nearby, lead upto 100 M and lift upto 1.5 M. Note: In exceptional cases, earth may be obtained from borrow pit with extra lead, duly obtaining approval from the Chief Engineer	CUM	103
14.2.	A095B	Approved earth obtained from borrow pits with all lifts and leads, transporting to site within 1 km	CUM	160
15.	A100	Extra charges for excavation in all classifications in watery situations or foul conditions may be paid duly obtaining approval from the Chief Engineer as under towards DEWATERING with recuperation upto two meter depth and thereof for:		
15.1.	A100A	Excavated depth upto 2m	CUM	61
15.2.	A100B	Excavated depth 2 TO 4 M	CUM	91
15.3.	A100C	Excavated depth 4 TO 6 M	CUM	122
15.4.	A100D	Excavated depth 6 TO 8 M	CUM	152
15.5.	A100E	Excavated depth 8 TO 10 M	CUM	213
16.	A105	Cutting road surfaces for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the classifications for:		
16.1.	A105A	Macadam Road	CUM	859
16.2.	A105B	Asphalt Road	CUM	894
16.3.	A105C	Cement Concrete Road	CUM	1033
17.	A107	Provide bedding for the pipeline trenches in black cotton and rock reaches including watering and consolidation by punners etc. complete with all lead and lift with:		
17.1.	A107A	River Sand	CUM	830
17.2.	A107B	Murrum.	CUM	247
17.3.	A107C	Gravel	CUM	570
18.	A108A	Provide bedding using approved stone dust / quarry dust of size not exceeding 5.6 mm for the pipe lines trenches including watering and consolidation to 95% proctor density etc. complete with all lead and lifts as per specifications and as directed by the Engineer in charge etc and after obtaining the approval of the Chief Engineer.	CUM	952

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
19.	A110	Carting of excavated earth of all types upto a distance mentioned below and re-carting back the earth to the same site by vehicle including loading, unloading charges for to & fro, with all lifts, labour, HOM of machinery etc. complete, after obtaining the approval of the Chief Engineer, for:		
19.1.	A110A	Distance upto 1 KM mtrs	CUM	239
19.2.	A110B	Distance 1 to 2 KM	CUM	263
19.3.	A110C	Distance 2 to 3 KM	CUM	287
19.4.	A110D	Distance 3 to 4 KM	CUM	311
19.5.	A110E	Distance 4 to 5 KM	CUM	335
19.6.	A110F	Distance above 5 KM for every 1 KM	CUM	19
20.	A115	Disposal off the excess excavated earth of all types by vehicle including loading, unloading with all lead and lifts, labour, HOM of machineries etc. for:		
20.1.	A115A	Distance upto 1 KM	CUM	121
20.2.	A115B	Distance of 1 to 2 KM	CUM	133
20.3.	A115C	Distance of 2 to 3 KM	CUM	145
20.4.	A115D	Distance of 3 to 4 KM	CUM	157
20.5.	A115E	Distance of 4 to 5 KM	CUM	193
20.6.	A115F	Distance above 5 KM for every 1 KM	CUM	10
21.	A120A	Providing Strutting & Shoring, etc. complete as per Engineers instructions. (Measurements to taken of the face area timbered).	SQM	53
22.	A120B	Close timbering in case of shafts, wells, cesspits, manhole and the like including strutting, shoring and packing cavities (wherever required) etc. complete as per Engineers instructions. (Measurements to taken of the face area timbered).	SQM	108
23.	A120C	Providing Bedding or Backfilling using approved stone dust / quarry dust of size not exceeding 5.6 mm for the pipe line trenches including watering and consolidation to 95% proctor density etc., complete with all lead and lifts as per specification and as directed by the engineer incharge, after obtaining the approval of the Chief Engineer by diamond rope cutting method.	CUM	1124
24.	A120D	Excavation of Hard Rock by diamond rope cutting method. Using machinery like generator (electric), Hitachi (Hydraulic excavator), breaker, compressor and diamond rope with MS Rods etc, complete as per specifications and directions of the Engineer In Charge.	CUM	5256

Note:

1. The measurement of earth work for pipe trenches shall be confined only to the excavation done below the classification of the road crest
2. Payment for excavation of pipe trenches will be restricted to the dimensions shown either in the drawing or estimate irrespective of whether the excavation is done in earth or rock. In case of variation in dimensions, the dimensions given at the time of markout will be final. (The dimensions shall strictly confirm to I.S. No. 3114 of 1965).
3. Excavation for water supply pipe line trenches will be governed by the following condition. In case of S & S, tyton or other types of pipes wherever required for lead joints, mechanical joints with rubber gasket or any other type of moulded joints etc., extra payment will be made for caulking pits or collar pits at the same rate for excavation of pipe trenches. The condition is also applicable for pipelines laid for U.G.D. works.
4. In case of excavation for trenches in hard rock by blasting, and hard laterite rock containing iron ore, the quality of rock removed will have to be stacked and shall be checked with the actual section measurements and the lesser of the two will be paid for, duly deducting 40% for voids in the stack measurements. The Executive Engineer should certify the classification of hard laterite rock containing iron ore along with test reports from reputed institutions
5. Shoring and strutting will be provided upto a depth of 2 meters beyond which depending upon the nature of the soil, steps will be provided at every lift of 2.0 Mtr. including shoring and strutting the steps width shall vary from 0.3 meters to 0.45 meters depending upon the nature of the strata on either side of trench
6. The minimum width of trench shall be as per the I.S.S.
7. In special circumstances where earth work excavation has to be done in hard rock by chistelling in residential area where blasting is prohibited, the sectional measurement given for chistelling shall be cent percent check measured by the E.E. Random checking shall be done by the C.E. during the course of inspection of the works. If the cost of this items or component in any tendered work, exceeds Rs. 2 lakhs, the E.E. shall however to make an advance report to C.E. Wherever such item is to be taken up for execution
8. When the overnight recuperation exceeds one Meter depth, a rate analysis may be worked out based on actual observation and got approved by C.E.
9. Where earth work excavation has to be done in hard lateriate rock containing above 20% Iron ore, by chistelling, the sectional measurements shall be sent percent check measured by the concerned Executive Engineer. If the cost of this item or component in any tendered work, exceeds or is likely to exceed Rs. 2.00 lakhs, random checking shall be done by the chief Engineer in respect of this item, during the inspection of works. The Executive Engineer shall have to make an advance report to Chief Engineer, when such chistelling work is to be done or taken up for execution, with necessary soil test report from reputed institutions.
10. Where earth work excavation has to be done in hard rock by controlled blasting, the sectional measurements for controlled blasting shall be cent percent check measured by the concerned Executive Engineer. If the cost of this item or component in any tendered work, exceeds or is likely to exceed Rs. 2.00 Lakhs, random checking shall be done by the Chief Engineer in respect of this item, during the inspection of works. The Executive Engineer shall have to make an advance report to Chief Engineer, when such controlled blasting work is to be done or is taken up for execution.
11. For trail pit excavation 50% extra over normal rates is applicable.
12. The Executive Engineer shall certify wherever, whenever specific changes in the above methods of excavation is required with specific inspection report while preparing the estimates or during implementation with the prior approval of Chief Engineer. If the financial implications exceed 2 lakhs prior approval is essential.

CHAPTER - 3

WATER SUPPLY WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1	B005	Laying and jointing GI pipes including earth work in asphalted paved macadamised or gravel roads upto 1.0 M deep including fixing collars, elbows, tees, bends gland cocks and either fittings and threads white lead paint wherever necessary and including all conveyance of materials etc. for:		
1.1	B005A	Pipes of 15 mm to 25 mm dia.	RMT	29
1.2 .	B005B	Pipes of 32 mm to 80 mm dia.	RMT	50
2.	B008	Removing GI pipes with earth work excavation and filling in all soils including cutting tar road, gravel road, metal road and cleaning, washing at spot or conveying from work spot to office store including removing all fittings such as collers, elbows, tees, bends, gland cock etc. with cuts and threads for:		
2.1.	B008A	Pipes of dia 15 mm to 25 mm	RMT	16
2.2.	B008B	Pipes of dia 32 mm to 80 mm	RMT	18
3.	B010	Providing extra cuts and threads for GI pipes for pumps fittings etc. where the lengths of the line laid is less than 15.00 mtrs with steel saw for :		
3.1.	B010A	Pipes of dia 15 mm to 25 mm	NOS	12
3.2.	B010B	Pipes of dia 32 mm to 80 mm	NOS	21
4.	B012A	Dismantling the GI fountain and fittings and refixing after cleaning pipe fittings etc. with Cement Concrete 1:2:4 as per specifications.	NOS	59
5.	B012B	Dismantling the Cast Iron fountain and fittings and returning the materials to the stores.	NOS	61
6.	B012C	Removing gland cock with fittings and refixing the same for sizes 15 mm to 65 mm..	NOS	13
7.	B012D	Dismantling the Cast Iron fountain and fittings and returning the materials to the stores.	NOS	61
8.	B012E	Painting CI fountain stand and fittings with two coats of approved paint.	NOS	59
9.	B015	Providing and fixing specified fittings and fixtures including necessary tools, preparation, conveyance, loading and unloading etc. for:		
10.	B015A	Brass stop cocks of 15 mm size	NOS	189
11.	B015B	15 mm dia NP Stop cocks.	NOS	279
11.1.	B015C	20 mm dia NP stop cock with accessories	NOS	324
12.	B015D	NP Bib-cocks of 15 mm dia. with accessories	NOS	198
12.1.	B015E	NP Bib-cocks of 20 mm dia. with accessories.	NOS	209
13.	B015F	NP Union-15 mm size with accessories	NOS	96
13.1	B015G	NP Union-20 mm dia with accessories	NOS	116

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
14.	B015H	Bath tub NP cocks 20 mm size with accessories	NOS	468
15.	B015I	NP Waste Union-32 mm size with accessories	NOS	196
15.1.	B015J	NP waste union-40 mm size with accessories	NOS	257
16.	B015K	New washers for all types of taps	NOS	26
17.	B017	Labour charges for laying and jointing CI pipes with earth work including fixing collars, elbows, tees, bends, gland cocks and other fittings with cuts and threads, white lead paints wherever necessary, conveying the materials from office to workspot and returning the surplus materials from workspot to stores (All GI pipes and specials will be supplied by the Board free of cost) etc. for:		
17.1.	B017A	15 mm dia. CI pipes & specials.	RMT	6
17.2.	B017B	20 mm dia. CI pipes & specials.	RMT	7
17.3.	B017C	25 mm dia. CI pipes & specials.	RMT	11
17.4.	B017D	40 mm dia. CI pipes & specials.	RMT	13
17.5.	B017E	50 mm dia. CI pipes & specials.	RMT	18
17.6.	B017F	65 mm dia. CI pipes & specials.	RMT	18
17.7.	B017G	80 mm dia. CI pipes & specials.	RMT	18
17.8.	B017H	100 mm dia. CI pipes & specials.	RMT	30
18.	B018	Remove GI pipes without earth work excavation and filling in all soils but including cutting in tar roads, gravel roads, metal roads and clearing, washing at spot or conveying from workspot to office store including removal of fittings such as collars, elbows, tees, bends gland cocks, cuts and threads etc. for:		
18.1.	B018A	GI pipes of 15 mm dia.	RMT	9
18.2.	B018B	GI pipes of 20 mm dia.	RMT	9
18.3.	B018C	GI pipes of 25 mm dia.	RMT	10
18.4.	B018D	GI pipes of 40 mm dia.	RMT	13
18.5.	B018E	GI pipes of 50 mm dia.	RMT	12
18.6.	B018F	GI pipes of 65 mm dia.	RMT	15
18.7.	B018G	GI pipes of 80 mm dia.	RMT	17
19.	B020	Conveying, lowering and laying of Cast Iron pipes (All classes) carefully from sectional stores to site, rolling and lowering into trenches, laying true to line level and perfect linking at joints including loading and unloading at both destinations with an initial lead of 5 K.M etc. for :		
19.1.	B020A	All class of CI pipes of 80 mm dia	RMT	20
19.2.	B020B	All class of CI pipes of 100 mm dia	RMT	24
19.3.	B020C	All class of CI pipes of 150 mm dia	RMT	28
19.4.	B020D	All class of CI pipes of 200 mm dia	RMT	33
19.5.	B020E	All class of CI pipes of 225 mm dia	RMT	37

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
19.6.	B020F	All class of CI pipes of 250 mm dia	RMT	37
19.7.	B020G	All class of CI pipes of 300 mm dia	RMT	43
19.8	B020I	All class of CI pipes of 350 mm dia	RMT	49
19.9.	B020J	All class of CI pipes of 400 mm dia	RMT	57
19.10.	B020K	All class of CI pipes of 450 mm dia	RMT	68
19.11.	B020L	All class of CI pipes of 500 mm dia	RMT	80
19.12.	B020M	All class of CI pipes of 600 mm dia	RMT	92
19.14.	B020N	All class of CI pipes of 700 mm dia	RMT	167
19.15.	B020O	All class of CI pipes of 750 mm dia	RMT	205
19.16.	B020P	All class of CI pipes of 800 mm dia	RMT	256
19.17.	B020Q	All class of CI pipes of 900 mm dia	RMT	276
19.18.	B020R	All class of CI pipes of 1200 mm dia	RMT	415
20.	B022	Conveying carefully PSC (Prestressed Concrete) pipes from sectional stores to workspot through transporting vehicles like lorry etc., including loading unloading at both destinations, stacking at site rolling, lowering into trenches, laying, aligning true to line jointing the ends with rubber rings and giving satisfactory hydraulic test as per relevant IS Code etc. complete with an initial lead of 15 KM. PSC pipes and rubber rings will be supplied free of cost by the Board (at stores) for::		
20.1.	B022A	375 mm inner dia pipes	RMT	121
20.2.	B022B	400 mm inner dia pipes	RMT	138
20.3.	B022C	450 mm inner dia pipes	RMT	187
20.4.	B022D	500 mm inner dia pipes	RMT	220
20.5.	B022E	600 mm inner dia pipes	RMT	282
20.6.	B022F	700 mm inner dia pipes	RMT	387
20.7.	B022G	750 mm inner dia pipes	RMT	450
20.8.	B022H	800 mm inner dia pipes	RMT	497
20.9.	B022J	1000 mm inner dia pipes	RMT	836
21.	B024	Lowering by rolling into trench PSC (Prestressed Concrete) pipes, aligning to line, jointing the ends with rubber rings and giving satisfactory hydraulic test as per relevant IS Code etc. complete with an initial lead of 100 Mtrs. PSC pipes will be supplied at the workspot by the Board and rubber rings will be supplied free of cost by the Board (at stores) etc, for::		
21.1.	B024A	450 mm inner dia pipes	RMT	90
21.2.	B024B	600 mm inner dia pipes	RMT	105
21.3.	B024C	700 mm inner dia pipes	RMT	121

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
22.	B026	Conveying carefully Hume Steel specials like bend branches, Tapers, Flanges etc., from sectional Store to work site through transporting vehicle lorry etc., including loading, unloading at both destinations, laying, jointing the ends with PSC pipes etc. with an initial lead of 15 Kms (Hume Steel specials with be supplied free of cost by Board at C.J.F Stores) etc. for:		
22.1.	B026A	450 mm inner dia pipes	NOS	352
22.2.	B026B	600 mm inner dia pipes	NOS	573
22.3.	B026C	700 mm inner dia pipes	NOS	837
22.4.	B026D	750 mm inner dia pipes	NOS	907
23.	B028	Attending to leaky joints on PSC (Prestressed Concrete) pipes after removing the damaged rubber gaskets or cement mortar, joints materials etc., and preparing the surface for fresh jointing with cement mortar 1:1 1/2 ratio mixed with rapadite solution at one litre per bag of cement over well caulked spun yarn including the cost of cement, rapadite solution, spun yarn, charges for de-watering, earth work excavation in all types of soils upto 2.5M depth but excluding road cuttings etc. for:		
23.1.	B028A	400 mm dia PSC pipes	NOS	949
23.2.	B028B	600 mm dia PSC pipes	NOS	1137
23.3.	B028C	700 mm dia PSC pipes	NOS	1137
24.	B030	Cutting charges only for cutting CI pipes already laid in the ground with necessary approved tools for:		
24.1	B030A	50 mm dia pipes	NOS	10
24.2	B030B	65 mm dia pipes	NOS	10
24.3	B030C	80 mm dia pipes	NOS	14
24.4	B030D	100 mm dia pipes	NOS	14
24.5	B030E	125 mm dia pipes	NOS	17
24.6	B030F	150 mm dia pipes	NOS	17
24.7	B030G	175 mm dia pipes	NOS	24
24.8	B030H	200 mm dia pipes	NOS	29
24.9	B030I	225 mm dia pipes	NOS	29
24.10	B030K	250 mm dia pipes	NOS	52
24.11	B030L	300 mm dia pipes	NOS	67
24.12	B030M	375 mm dia pipes	NOS	78
24.13	B030N	400 mm dia pipes	NOS	95
24.14	B030O	450 mm dia pipes	NOS	109
24.15	B030P	600 mm dia pipes	NOS	126
24.16	B030Q	700 mm dia pipes	NOS	144
24.17	B030R	750 mm dia pipes	NOS	150

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
24.18	B030S	900 mm dia pipes	NOS	201
24.19	B030T	1200 mm dia pipes	NOS	382
25.	B032	Cutting of CI pipes neatly on the surface with necessary approved tools for:		
25.1	B032A	50 mm dia pipes	NOS	5
25.2	B032B	65 mm dia pipes	NOS	5
25.3	B032C	80 mm dia pipes	NOS	7
25.4	B032D	100 mm dia pipes	NOS	12
25.5	B032E	125 mm dia pipes	NOS	14
25.6	B032F	150 mm dia pipes	NOS	17
25.7	B032G	175 mm dia pipes	NOS	17
25.8	B032H	200 mm dia pipes	NOS	19
25.9	B032I	225 mm dia pipes	NOS	28
25.10	B032J	250 mm dia pipes	NOS	35
25.11	B032K	300 mm dia pipes	NOS	43
25.12	B032L	375 mm dia pipes	NOS	48
25.13	B032M	400 mm dia pipes	NOS	51
25.14	B032N	450 mm dia pipes	NOS	56
25.15	B032O	600 mm dia pipes	NOS	95
25.16	B032P	700 mm dia pipes	NOS	117
25.17	B032Q	750 mm dia pipes	NOS	128
25.18	B032R	900 mm dia pipes	NOS	149
25.19	B032S	1200 mm dia pipes	NOS	167
26.	B034	Making cement mortar (1:1) and hemp yarn joint for CI pipes including cost of all materials like cement, sand, hemp yarn, water proofing materials, curing for 10 days and giving satisfactory hydraulic test pressure of 60 meters head of water of etc. complete for :		
26.1	B034A	80 mm dia. pipes	NOS	51
26.2	B034B	100 mm dia. pipes	NOS	64
26.3	B034C	150 mm dia. pipes	NOS	79
26.4	B034D	200 mm dia. pipes	NOS	113
26.5	B034E	225 mm dia. pipes	NOS	125
26.6	B034F	250 mm dia. pipes	NOS	129
26.7	B034G	300 mm dia. pipes	NOS	169
26.8	B034H	350 mm dia. pipes	NOS	202
26.9	B034I	375 mm dia. pipes	NOS	218

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
26.10	B034J	400 mm dia. pipes	NOS	250
26.11	B034K	450 mm dia. pipes	NOS	325
26.12	B034L	525 mm dia. pipes	NOS	393
26.13	B034M	600 mm dia. pipes	NOS	459
27.	B036	Jointing of CI pipes with rubber gaskets including cleaning the socket and spigot ends with kerosene oil and applying grease to the spigot and socket end after insertion of rubber gasket, jacking and fixing in perfect condition including giving satisfactory hydraulic test for the pipe line. (CI pipes and rubber gaskets to be supplied by the Board free of cost) etc. for:		
27.1	B036A	80 mm dia. pipes	NOS	11
27.2	B036B	100 mm dia. pipes	NOS	13
27.3	B036C	150 mm dia. pipes	NOS	18
27.4	B036D	200 mm dia. pipes	NOS	29
27.5	B036E	250 mm dia. pipes	NOS	40
27.6	B036F	300 mm dia. pipes	NOS	55
27.7	B036G	400 mm dia. pipes	NOS	93
27.8	B036H	450 mm dia. pipes	NOS	118
27.9	B036I	500 mm dia. pipes	NOS	160
27.10	B036J	600 mm dia. pipes	NOS	220
27.11	B036K	700 mm dia. pipes	NOS	275
27.12	B036L	750 mm dia. pipes	NOS	329
28.	B040	Removing the CI valves and its tail piece from the pipe line, cleaning, washing, painting and returning the same to the stores etc. for:		
28.1	B040A	50 mm dia. pipe line	NOS	19
28.2	B040B	75 mm dia. pipe line	NOS	22
28.3	B040C	100 mm dia. pipe line	NOS	24
28.4	B040D	125 mm dia. pipe line	NOS	29
28.5	B040E	150 mm dia. pipe line	NOS	33
28.6	B040F	175 mm dia. pipe line	NOS	38
28.7	B040G	200 mm dia. pipe line	NOS	44
28.8	B040H	225 mm dia. pipe line	NOS	50
28.9	B040I	250 mm dia. pipe line	NOS	56
28.10	B040J	300 mm dia. pipe line	NOS	65
28.11	B040K	375 mm dia. pipe line	NOS	80
28.12	B040L	400 mm dia. pipe line	NOS	96
28.13	B040M	450 mm dia. pipe line	NOS	128

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
28.14	B040N	600 mm dia. pipe line	NOS	199
28.15	B040O	700 mm dia. pipe line	NOS	216
28.16	B040P	750 mm dia. pipe line	NOS	229
28.17	B040Q	900 mm dia. pipe line	NOS	327
29.	B042	Making main bore in CI pipes with approved tools and procedures etc. for:		
29.1	B042A	15 mm dia. bore	NOS	29
29.2	B042B	20 mm dia. bore	NOS	32
29.3	B042C	25 mm dia. bore	NOS	56
29.4	B042D	40 mm dia. bore	NOS	97
29.5	B042E	50 mm dia. bore	NOS	109
29.6	B042F	65 mm dia. bore	NOS	136
30.	B044	Removing and cleaning the CI / DI pipes and specials including jointing materials, washing (excluding valves) etc. for:		
30.1	B044A	80 mm dia. pipes & specials	RMT	19
30.2	B044B	100 mm dia. pipes & specials	RMT	23
30.3	B044C	150 mm dia. pipes & specials	RMT	30
30.4	B044D	200 mm dia. pipes & specials	RMT	34
30.5	B044E	250 mm dia. pipes & specials	RMT	37
30.6	B044F	300 mm dia. pipes & specials	RMT	43
30.7	B044G	375 mm dia. pipes & specials	RMT	53
30.8	B044H	400 mm dia. pipes & specials	RMT	61
30.9	B044I	450 mm dia. pipes & specials	RMT	66
30.10	B044J	600 mm dia. pipes & specials	RMT	75
30.11	B044K	700 mm dia. pipes & specials	RMT	82
30.12	B044L	750 mm dia. pipes & specials	RMT	89
30.13	B044M	900 mm dia. pipes & specials	RMT	110
31.	B046	Painting the CI pipes and specials with two coats of bitumastic paint both inside and outside etc. for:		
31.1	B046A	75 mm dia. pipes	RMT	15
31.2	B046B	100 mm dia. pipes	RMT	20
31.3	B046C	150 mm dia. pipes	RMT	34
31.4	B046D	200 mm dia. pipes	RMT	43
31.5	B046E	250 mm dia. pipes	RMT	55
31.6	B046F	300 mm dia. pipes	RMT	67
31.7	B046G	375 mm dia. pipes	RMT	86
31.8	B046H	400 mm dia. pipes	RMT	92

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
31.9	B046I	450 mm dia. pipes	RMT	104
31.10	B046J	600 mm dia. pipes	RMT	150
31.11	B046K	700 mm dia. pipes	RMT	183
31.12	B046L	750 mm dia. pipes	RMT	199
31.13	B046M	900 mm dia. pipes	RMT	251
32.	B048A	Making drain bore and re-doing as per specifications in corner drain across corners.	NOS	39
33.	B050A	Construction of gland cock box cistern with burnt brick in CM 1:6 and plastering with CM 1:3 inside and outside, including conveying and fixing 15 cms size road box, size of cistern to be 25 cms internal. (Road box will be supplied departmentally free of cost).	NOS	629
34.	B050B	Removing gland cock with fittings, rectify the fault by repairing and refix in the same setup.	NOS	38
35.	B050C	Fixing gland cocks of all sizes (15 mm to 65 mm) on existing setup	NOS	18
36.	B052A	Conveying from the Board's store to workspot Road Box (10 cms to 46 cms) and fixing granite jelly cement concrete 1:3:6, including plastering with CM 1:3 etc. complete all as per specifications and as directed by the Engineer in charge.	NOS	105
37.	B052B	Removing the RCC road box and conveying it to department stores	NOS	86
38.	B052C	Removing CI road box and refixing as per specifications	NOS	58
39.	B054A	Conveying from the Board's store to workspot RCC Valve box and barrel type Road Box 15 cms and fixing with earth work in all soils, fix the road box and valve box in granite jelly CC 1:3:6 and plaster all over with CM 1:3 etc. complete all as per specifications and as directed by the Engineer in charge. (RCC valve box and 15 cms Road Box to be supplied by the Board).	NOS	180
39.1	B056A	Conveying from the Board's store to workspot RCC or CI Manhole frame and cover of 53 cms. dia., cutting the opening to required size and fixing the frame and necessary bolts and nuts in granite jelly CC 1:2:4 and plaster all exposed areas with CM 1:3 all as per specifications and as directed by the Engineer in charge. (RCC / CI manhole frame, cover and fittings to be supplied by the Board.)	NOS	179
39.2	B058A	Supply and fixing pipeline demarcation stones of size 25cms x 25cms and 60cms deep, one line dressed for 25cms from top, with letters upto 3 nos carved and painted on top etc. complete	NOS	148
40.	B060A	Conveying and fixing pipeline demarcation stones of size 25cms x 25cms and 60cms deep as directed by the Engineer in charge etc. complete	NOS	94
41.	B062A	Removing and restoring house connections (Labour Charges only)	NOS	189
42.	B063A	Labour charges for conveying and fixing CI valve box for meter, including fixing in CC 1:3:6, 23cms thick, with necessary bolts and nuts etc. complete	NOS	98

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
43.	B063B	Removing the RCC valve box and 15 cms size road box and conveying it to departmental store.	NOS	96
44.	B063C	Removing the RCC valve box and refix the same as specifications	NOS	82
45.	B064	Conveying CI / DI pipes and specials through transporting vehicles like lorry, trucks etc. as detailed for:		
46.	B064A	Conveyance including loading and unloading per quintal for distance upto 5.00 KM	K.M	71
47.	B064B	Conveyance excluding loading and unloading per quintal for distance 5.00 to 10.00 KM	K.M	12
48.	B064C	Conveyance excluding loading and unloading per quintal for distance beyond 10.00 KM	K.M	7
48.1	B066	Fixing CI / DI specials of mechanical jointing of different sizes after setting into the pipe line system, including cleaning, introducing rubber gasket to proper alignment and lightening with bolts and nuts. The cost includes transportation of materials, tools and plants etc. The CI / DI mechanical specials with bolts, nuts, washers and rubber gaskets etc. will be supplied free of cost by the Board.		
48.2	B066A	For CI / DI mechanical specials of 100 to 200 mm dia.	NOS	35
48.3	B066B	For CI / DI mechanical specials of 250 to 400 mm dia.	NOS	67
48.4	B066C	For CI / DI mechanical specials of 450 to 700 mm dia.	NOS	104
49.	B066D	For CI / DI mechanical specials of 750 to 1000 mm dia.	NOS	170
50.	B068A	Labour charges for conveying and fixing standard size fire hydrants as per specifications including fixing duck foot bend any hydrant post.	NOS	94
51.	B068B	Removing and refixing fire hydrants after cleaning and repainting.	NOS	141
52.	B068C	Supplying and fixing post rest slab two line dressing and edges rounded.	NOS	207
53.	B070	Providing house connection with excavation in all types of soils without damaging the other utilities and supplying and laying 25 mm OD MDPE pipe (PE80) manufactured in accordance with ISO 4427 - 1996 with minimum required strength of 8 Mpa, hydraulic design stress of 6.3 Mpa and with minimum wall thickness of 2.3 mm by making the bore of 15 mm dia. size on the Board's supply mains of 100 mm dia. using drilling bits or machines only and laying the pipe line at a depth not less than 0.45 mtrs. from the road surface, including providing 40 mm dia. "A" class GI pipe as casing over the MDPE pipe from the bore point and upto the entrance of the premises and removing the stone slab covering of the drain and dismantling the size stone masonry wherever necessary and making bore in the wall of the premises. On entering the premises, connection should be continued with 20 mm GI pipe by making "U" shape for the meter point below the ground level by making pit with sufficient space for the easy installation and removal of the water meter and providing vertical stand pipes on both sides of the mater. The connection should be secured firmly on the Board's main pipe with SS / Brass		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
		ferrule of size 1/2" x 3/4" and fixing the union joint and gate valve / stop cock before the meter point and a reflex valve / non-return valve should be fixed on the connection after the meter point. (All these fixtures should be of standard quality conforming to IS). The compression fittings for MDPE pipes conforming to ISO 14236 and its latest versions. The excavated trench should be refilled with soft selected earth and the dismantled masonry of the drain should be re-constructed with available size stones in CM 1:8 and providing coping in CC 1:3:6 wherever required and the stone slab covering should be refixed in position with pointing in CM 1:3 and also the bored wall of the premises should be re-done to the original position and the rates are inclusive of the cost of all the materials, cement, sand water etc., required for these works. The road suface should be compacted well and brought to the original condition and the excess earth or debris should be disposed off to a distance with an initial lead of 10 Kms. etc. complete for:		
53.1	B070A	For minimum length of 2.0 mtrs.	NOS	3560
53.2	B070B	For connection pipe length beyond 2.0 mtrs for every 1 mtr. or part thereof	RMT	798
54.	B072	Providing and fixing of non-corrosive Engineering Plastic moulded composite strap saddle with Stainless steel 304 threaded metal inserted for trapping outlet suiting for different sizes of clear bore conforming to IS 554 wide strap with electrometic insulation for proper grip around the DI pipe with SS 304 bolts and nuts. Saddle to have rubber SBR grade 30 'O' ring around the tapping hole. All metal parts shall be made of SS 304 and saddle seal shall be of virgin rubber SBR grade 30/NBR (NSF 61 approved). Fasteners shall be of stainless steel 202 NC rolled threaded. M12 with tightening torque 14-15 Kg-m. For 100 mm dia. pipes:		
54.1	B072A	For 15 mm connections	NOS	796
54.2	B072B	For 20 mm connections	NOS	888
54.3	B072C	For 25 mm connections	NOS	1041
55.	B074	Supplying and fixing of CI SLUICE VALVE of Board approved make conforming to relevant ISS with latest amendments as detailed below for following diameters and types with T.P set and conveying to work site, loading and unloading, stacking etc. with all lead and lift including aligning etc. complete. The rate is inclusive of cost of valve, T.P set, bolts and nuts and rubber insertions, excluding the cost of earth work. CI sluice valve body and seat ring bronze PN 1.0 conforming to IS - 14846 - 2000.		
55.1	B074A	For 100 mm CI sluice valve and accessories	NOS	6552
55.2	B074B	For 150 mm CI sluice valve and accessories	NOS	9391
55.3	B074C	For 200 mm CI sluice valve and accessories	NOS	15068
55.4	B074D	For 250 mm CI sluice valve and accessories	NOS	25789
55.5	B074E	For 300 mm CI sluice valve and accessories	NOS	32005

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
55.6	B074F	For 400 mm CI sluice valve and accessories	NOS	67601
55.7	B074G	For 450 mm CI sluice valve and accessories	NOS	80879
55.8	B074H	For 600 mm CI sluice valve and accessories	NOS	143728
56.	B076	Supplying and fixing DI Resilient seated soft sealing SLUICE VALVE of various dia. with body, bonnet of ductile iron (DI) conforming to IS-1865 and of grade GGG50, shaft of stainless steel, wedge fully rubber lined with EDPM seals of NBR and the valves should be vacuum tight and 100% lead proof with face dimensions as per BS 5163-89 / IS 14846-2000 / DN 3202 F4/F5. The stem sealing should be with toroldal sealing rings (minimum 2 "O" rings). Body and bonut should be coated with Electrostatically applied Epoxy Power Coating with minimum coating thickness of 250 micron both inside and out side. The rate is inclusive of cost of valve, T.P set, bolts & nuts and rubber insertions etc. but excluding earth work.		
56.1	B076M	For Sluice Valve of PN - 1.6 and 100 mm	NOS	10367
56.2	B076N	For Sluice Valve of PN - 1.6 and 150 mm	NOS	14889
56.3	B076O	For Sluice Valve of PN - 1.6 and 200 mm	NOS	25727
56.4	B076P	For Sluice Valve of PN - 1.6 and 250 mm	NOS	62927
56.5	B076Q	For Sluice Valve of PN - 1.6 and 300 mm	NOS	81934
56.6	B076R	For Sluice Valve of PN - 1.6 and 400 mm	NOS	174191
56.7	B076S	For Sluice Valve of PN - 1.6 and 450 mm	NOS	297425
56.8	B076T	For Sluice Valve of PN - 1.6 and 600 mm	NOS	388324
57.	B078	Supplying and fixing Wafer type single flange Butterfly valve of Board approved make and conforming to relevant ISS with latest amendments as detailed below of the following diameter and types with TP set and conveying to work site, loading and unloading, stacking etc. with all lead and lift. The rate is inclusive of the cost of valve, TP set, bolts and nuts and excluding earth work.		
57.1	B078A	For Valve of PN - 1.0 and 100 mm	NOS	2760
57.2	B078B	For Valve of PN - 1.0 and 150 mm	NOS	3321
57.3	B078C	For Valve of PN - 1.0 and 200 mm	NOS	7248
57.4	B078D	For Valve of PN - 1.0 and 250 mm	NOS	10735
57.5	B078E	For Valve of PN - 1.0 and 300 mm	NOS	13751
57.6	B078F	For Valve of PN - 1.0 and 350 mm	NOS	20925
57.7	B078G	For Valve of PN - 1.0 and 400 mm	NOS	29640
57.8	B078H	For Valve of PN - 1.0 and 450 mm	NOS	35138
57.9	B078I	For Valve of PN - 1.0 and 500 mm	NOS	45367
57.10	B078J	For Valve of PN - 1.0 and 600 mm	NOS	68938

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
57.	B079	Supplying and fixing Wafer type single flange Butterfly valve of Board approved make and conforming to relevant ISS with latest amendments as detailed below of the following diameter and types with TP set and conveying to work site, loading and unloading, stacking etc. with all lead and lift. The rate is inclusive of the cost of valve, TP set, bolts and nuts and excluding earth work.		
58.1	B079M	For Valve of PN - 1.6 and 100 mm	NOS	3321
58.2	B079N	For Valve of PN - 1.6 and 150 mm	NOS	4443
58.3	B079O	For Valve of PN - 1.6 and 200 mm	NOS	10053
58.4	B079P	For Valve of PN - 1.6 and 250 mm	NOS	11296
58.5	B079Q	For Valve of PN - 1.6 and 300 mm	NOS	13751
58.6	B079R	For Valve of PN - 1.6 and 350 mm	NOS	23169
58.6	B079S	For Valve of PN - 1.6 and 400 mm	NOS	33006
58.7	B079T	For Valve of PN - 1.6 and 450 mm	NOS	41870
58.8	B079U	For Valve of PN - 1.6 and 500 mm	NOS	52099
58.9	B079V	S&F 1F B.fly valve PN 1.6 + acces -600 mm	NOS	76161
59.	B080	Supplying and fixing of Double Flanged short body BUTTERFLY VALVES of various dia. as per IS BIS 5155/ EN 593 with integral DI seat face with approved soft sealing of PN 10 rated with body and disc of ductile iron (DI) of grade GGG -50, seal retaining ring of AISR 420, shaft of stainless steel, bronze shaft bearings, periferal disk, seal end 'O' rings of EPDM, double eccentric disk. Body and disk should be coated with electrostatically applied epoxy powder coating with a coating thickness of 250 micron both inside and out side.		
59.1	B080A	For Valve of PN - 1.0 and 700 mm	NOS	171531
59.2	B080B	For Valve of PN - 1.0 and 750 mm	NOS	223143
59.3	B080C	For Valve of PN - 1.0 and 800 mm	NOS	247064
59.4	B080D	For Valve of PN - 1.0 and 900 mm	NOS	292281
59.5	B080E	For Valve of PN - 1.0 and 1000 mm	NOS	380605
59.6	B080F	For Valve of PN - 1.0 and 1100 mm	NOS	555076
59.7	B080G	For Valve of PN - 1.0 and 1200 mm	NOS	662238
60.	B081	Supplying and fixing of Double Flanged short body BUTTERFLY VALVES of various dia. as per IS BIS 5155/ EN 593 with integral DI seat face with approved soft sealing of PN 16 rated with body and disc of ductile iron (DI) of grade GGG -50, seal retaining ring of AISR 420, shaft of stainless steel, bronze shaft bearings, periferal disk, seal end 'O' rings of EPDM, double eccentric disk. Body and disk should be coated with electrostatically applied epoxy powder coating with a coating thickness of 250 micron both inside and out side.		
60.1	B081A	For Valve of PN - 1.6 and 700 mm	NOS	187239
60.2	B081B	For Valve of PN - 1.6 and 750 mm	NOS	245583

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
60.3	B081C	For Valve of PN - 1.6 and 800 mm	NOS	271748
60.4	B081D	For Valve of PN - 1.6 and 900 mm	NOS	348381
60.5	B081E	For Valve of PN - 1.6 and 1000 mm	NOS	458584
60.6	B081F	For Valve of PN - 1.6 and 1100 mm	NOS	648202
60.7	B081G	For Valve of PN - 1.6 and 1200 mm	NOS	753120
61.	B082	Fixing sluice valves (labour charges only) of Board approved make conforming to relevant ISS with latest amendments as detailed below for the following diameter and types with two Nos of MJ collars, two flanged spigots, conveying to work site, loading, unloading, stacking etc. with all lead and lifts, aligning, fixing and testing etc. complete. The rate is excluding the cost of earth work,. The accessories like MJ collars, TP sets, Bolts and nuts and rubber insertions to be supplied by the department.		
61.1	B082A	For sluice valve with accessories - 100 mm dia.	NOS	269
61.2	B082B	For sluice valve with accessories - 150 mm dia.	NOS	303
61.3	B082C	For sluice valve with accessories - 200 mm dia.	NOS	482
61.4	B082D	For sluice valve with accessories - 250 mm dia.	NOS	544
61.5	B082E	For sluice valve with accessories - 300 mm dia.	NOS	1150
61.6	B082F	For sluice valve with accessories - 400 mm dia.	NOS	1403
61.7	B082G	For sluice valve with accessories - 450 mm dia.	NOS	3461
61.8	B082H	For sluice valve with accessories - 600 mm dia.	NOS	4600
62.	B083	Supplying and fixing kinetic AIR VALVE for automatic discharge of accumulate air during working condition, conforming to IS 14845 / EN 1074-4. Body and bonnet of DI conforming to IS-1865 of grade GGG-50, seals are made of approved EPDM, SS 304 float, guide and internals. Flange drilling according to IS-1538 etc. complete. Body and bonnet shall be coated with electrostatically applied epoxy powder coating with a coating thickness of 250 micron both inside and outside.		
62.1	B083A	For Air Valves of 100 mm dia.	NOS	16959
62.2	B083B	For Air Valves of 150 mm dia.	NOS	23362
62.3	B083C	For Air Valves of 200 mm dia.	NOS	26732
63.	B084	Labour Charges only for fixing double / isolated AIR VALVES (CI tamper proof of PN 1.6) of Board approved make conforming to ISS 14845 - 2000 and as detailed below with required stub and flange, conveying to work site, loading, unloading, stacking, with all lead and lifts, alignment, fixing and testing etc. complete. The rate is excluding the cost of earth work. The Air Valve, stub, flanges, TP sets, Bolts and nuts, rubber insertions etc. to be supplied by the Department.		
63.1	B084A	For Air Valves of 100 mm dia.	NOS	342
63.2	B084B	For Air Valves of 150 mm dia.	NOS	342
63.3	B084C	For Air Valves of 200 mm dia.	NOS	342

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
64	B088	Supplying and fixing DI MJ specials such as branches and bends suitable for DI K7 and K9 pipes and CI LA class pipes, as per IS 13382 with latest amendments with complete accessories and fixing at site excluding earth work but including loading, unloading, freight charges etc. complete for:		
64.1	B088A	DI MJ specials - Branch 100 x 100 mm	NOS	1802
64.2	B088B	DI MJ specials - Branch 150 x 150 mm	NOS	2924
64.3	B088C	DI MJ specials - Branch 150 x 100 mm	NOS	2475
64.4	B088D	DI MJ specials - Bend 100 x 90 degree mm	NOS	1241
64.5	B088E	DI MJ specials - Bend 100 x 45 degree mm	NOS	1241
64.6	B088F	DI MJ specials - Bend 150 x 90 degree mm	NOS	2475
64.7	B088G	DI MJ specials - collar 100 mm dia.	NOS	2424
64.8	B088H	DI MJ specials - collar 150 mm dia.	NOS	4456
65.	B090	Providing, fabricating, supplying and fixing at site various diameter MS MJ ends with dummy plates (END CAPS) to suit CI / DI spigots end as per the sketch. The cost is inclusive of all materials, i.e, rubber 'O' rings, flanges, bolts and nuts, dummy plates, consumables, hire charges, tools and welding equipments, lead and lifts, etc. complete as per the instructions of Engineer in charge.		
65.1	B090A	For CI / DI pipes of 100 mm dia.	NOS	1280
65.2	B090B	For CI / DI pipes of 150 mm dia.	NOS	1729
65.3	B090C	For CI / DI pipes of 200 mm dia.	NOS	2515
65.4	B090D	For CI / DI pipes of 250 mm dia.	NOS	3548
65.5	B090E	For CI / DI pipes of 300 mm dia.	NOS	3660
65.6	B090F	For CI / DI pipes of 400 mm dia.	NOS	5679
65.7	B090G	For CI / DI pipes of 450 mm dia.	NOS	6240
65.8	B090H	For CI / DI pipes of 600 mm dia.	NOS	8484
65.9	B090I	For CI / DI pipes of 700 mm dia.	NOS	10167
65.10	B090J	For CI / DI pipes of 900 mm dia.	NOS	14678
66.	B095A	Providing and fixing Fixed Extension spindle rods PN 10/16 for 50 - 400 mm dia. gate valves. The spindle rod will consist of epoxy coated square bar, DI bottom adapter, DI spindle cap, (epoxy coated / galvanized), PVC protection tube, HDPE top and bottom cover, HDPE bottom connector, zinc coated bolts and electro galvanized split pin. The work will include necessary excavation, safety factors for the works involved, back filling etc. as per the directions of the Engineer-in-charge etc.	RMT	5649
67	B097A	Supplying and fixing surface box of required dia. and size with synthetic lid for valves or spindle rods. The surface box should be usable for 50 to 400 mm dia. valves, PN 10 / 16 and will consist of lid, housing, locking clip, notched bolt, cross bar, washer and torque nut.	RMT	3607

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
68.	B100A	Cutting Asphalt Concrete road surface for leakage pits with earth work excavation in all classifications of soil including all lead and lifts bailing out water with pumps including barricading, danger lighting etc., as per requirement and disposing of the excavated stuff as directed. After attending the leak, refilling the trench for 30 cm depth quarry dust above and around pipelines and balance with available earth in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming including watering and consolidation by mechanical means approved by Engineer Incharge. (Work to be carried out as per leak repair manual and the rate includes hire charges of dewatering Pump, tractor, Jeep with all kinds of Labour in a Complete manner).	CUM	884
69.	B110A	Road Reinstatement of Asphalt and concrete roads after leak attending with earth work excavation of compacted oil depositing on bank with alllead and lifts including danger lighting and barricading. Providing, laying, spreading and compacting graded stones aggregate as per wet mix macadam specifications. Applying tack coat on granular base such as WBM and WMM surface hot bitumen primer at 4 kg per 10 sqm, heating bitumen in layer to be laid with boiler fitted with spray set of 300 mm thickness. Above laid with bituminous concrete or M20 concrete premixed with bituminous binder at 5.4 to 5.6% of mix and filler, to achieve the desired compaction to give minimum of 45 mm thickness compacted. The work shall be carried as per leak repair manual and includes all kinds of materials disposing off the excess excavated earth with all lead and lifts by vehicle including loading, unloading, labour, HOM of machinery etc. in a complete manner.	SQM	1161
70.	B115A	Conveying the 8.0 cms, G.I pipe from office to workspot and fixing in granite jelly CC 1:3:6 making two bores to take in fountain pipes fitting the C.I pipe with granite jelly cement of C.I pipe with granite jelly cement concrete 1:3:6 and painting outside 2 coats fo approved paint etc.	EACH	83
71.	B115B	Conveying C.I /DI pipes and specials and other materials of water supply and sanitary work carefully from store to workspot including loading and unloading and vice versa by bullock carts per quintal 0 to 10 km.	K.M	39

CHAPTER - 4

ATTENDING LEAKS ON WATER SUPPLY LINES

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1	C010	Supplying CI/DI pipes socket leak repair MJ clamps for attending to leak joints in socket / spigot joints of CI / DI pipes with necessary earth work excavation including using of pneumatic breakers and JCB excavator wherever required and providing DI MJ leak repair clamp, including cost of all materials required for jointing comprising of DI MJ clamps and its accessories such as rubber gaskets made of SBR / EPDM on the socket face, making the socket / spigot joint water tight at the operating pressure, backfilling with available earth and consolidation and bailing out water wherever necessary etc. complete inclusive of all taxes, duties, etc., and in all types of road surfaces like Concrete, Asphalt roads etc, for:		
1.1	C010A	CI / DI pipes of 100 mm dia.	NOS	2749
1.2	C010B	CI / DI pipes of 150 mm dia.	NOS	4208
1.3	C010C	CI / DI pipes of 200 mm dia.	NOS	4712
1.4	C010D	CI / DI pipes of 250 mm dia.	NOS	6171
1.5	C010E	CI / DI pipes of 300 mm dia.	NOS	7630
1.6	C010F	CI / DI pipes of 400 mm dia.	NOS	10547
1.7	C010G	CI / DI pipes of 450 mm dia.	NOS	13352
2.	C020	Attending to leaking socket / spigots joints in CI / DI pipes in all types of road surfaces including concrete and asphalt roads, with necessary earth work excavation including using of pneumatic breakers and JCB excavator wherever required for jointing DI MJ clamp and its accessories such as rubber gaskets made of SBR / EPDM on the socket face, making the socket / spigot joint water tight at the operating pressure, backfilling with available earth and consolidation and bailing out water wherever necessary etc. complete inclusive of all taxes, duties, etc., The FDI MJ clamps, including other materials required for attending leaks to be supplied by the Board.		
2.1	C020A	For CI / DI pipes of 100 mm dia.	NOS	842
2.2	C020B	For CI / DI pipes of 150 mm dia.	NOS	954
2.3	C020C	For CI / DI pipes of 200 mm dia.	NOS	1010
2.4	C020D	For CI / DI pipes of 250 mm dia.	NOS	1122
2.5	C020E	For CI / DI pipes of 300 mm dia.	NOS	1459
2.6	C020F	For CI / DI pipes of 400 mm dia.	NOS	1571
2.7	C020G	For CI / DI pipes of 450 mm dia.	NOS	1571

CHAPTER - 5

BAR WRAPPED STEEL CYLINDER PIPES

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	D010	Providing and supplying confirming to BIS 15155:2002 (Bar wrapped steel cylinder pipes suitable for overlapping steel welded joint or butt welded steel joints) of following class and diameter including cost of all material and labour required, cost of all taxes (Central and State Govt.), inspection charges, transportation to stores / site, transit insurance, loading and unloading and stacking etc. complete (i). Factory test Pressure: (a) Site test pressure +0.1 N/mm2, for working pressure upto 1 N/mm2 (b) Site test pressure +0.2 N/mm2, for working pressure upto 1 N/mm2 (ii). Site test pressure - 1.5 times working pressure pertaining to the section for 1.1 times static pressure, whichever is more (Such a pressure is to be controlled within 25% of pump head in case of pumping main) (iii). Working Pressure - The maximum sustained internal pressure excluding surge to which each portion of pipe line may be subjected when installed. All test pressure shall be replaced by Factory test pressure. Note : 1. Class mentioned below represents the working pressure of pipe. Note: 2. For external coating at site to the joints, necessary polythene wrapping for pouring cement slurry shall also be given free with each pipe. For pipes with Factory Test Pressure of 6 kg/Sqm.		
1.1	D010A	300 mm dia pipe with Factory Test pressure 6 kg/cm2	RMT	3102
1.2	D010B	350 mm	RMT	3734
1.3	D010C	400 mm	RMT	4062
1.4	D010D	450 mm	RMT	4432
1.5	D010E	500 mm	RMT	4999
1.6	D010F	600 mm	RMT	6485
1.7	D010G	700 mm	RMT	7526
1.8	D010H	800 mm	RMT	8146
1.9	D010I	900 mm	RMT	10962
1.10	D010J	1000 mm	RMT	13099
1.11	D010K	1100 mm	RMT	18491
1.12	D010L	1200 mm	RMT	20592
1.13	D010M	1300 mm	RMT	24089
1.14	D010N	1400 mm	RMT	26412
1.15	D010O	1500 mm	RMT	28005
1.16	D010P	1600 mm	RMT	30518
1.17	D010Q	1700 mm	RMT	32336
1.18	D010R	1800 mm	RMT	34412

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.	D020	Providing and supplying confirming to BIS 15155:2002 (Bar wrapped steel cylinder pipes suitable for overlapping steel welded joint or butt welded steel joints) of following class and diameter including cost of all material and labour required, cost of all taxes (Central and State Govt.), inspection charges, transportation to stores / site, transit insurance, loading and unloading and stacking etc. complete (i). Factory test Pressure: (a) Site test pressure +0.1 N/mm2, for working pressure upto 1 N/mm2 (b) Site test pressure +0.2 N/mm2, for working pressure upto 1 N/mm2 (ii). Site test pressure - 1.5 times working pressure pertaining to the section for 1.1 times static pressure, whichever is more (Such a pressure is to be controlled within 25% of pump head in case of pumping main) (iii). Working Pressure - The maximum sustained internal pressure excluding surge to which each portion of pipe line may be subjected when installed. All test pressure shall be replaced by Factory test pressure. Note : 1. Class mentioned below represents the working pressure of pipe. Note: 2. For external coating at site to the joints, necessary polythene wrapping for pouring cement slurry shall also be given free with each pipe. For pipes with Factory Test Pressure of 12kg/sqm.		
2.1	D020A	300 mm dia pipe with Factory Test pressure 12 kg/cm2	RMT	3170
2.2	D020B	350 mm	RMT	3734
2.3	D020C	400 mm	RMT	4062
2.4	D020D	450 mm	RMT	4488
2.5	D020E	500 mm	RMT	4999
2.6	D020F	600 mm	RMT	6485
2.7	D020G	700 mm	RMT	7526
2.8	D020H	800 mm	RMT	9402
2.9	D020I	900 mm	RMT	11433
2.10	D020J	1000 mm	RMT	14277
2.11	D020K	1100 mm	RMT	18491
2.12	D020L	1200 mm	RMT	21153
2.13	D020M	1300 mm	RMT	24202
2.14	D020N	1400 mm	RMT	26412
2.15	D020O	1500 mm	RMT	28465
2.16	D020P	1600 mm	RMT	31371
2.17	D020Q	1700 mm	RMT	34109
2.18	D020R	1800 mm	RMT	38081

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	D030	Providing and supplying confirming to BIS 15155:2002 (Bar wrapped steel cylinder pipes suitable for overlapping steel welded joint or butt welded steel joints) of following class and diameter including cost of all material and labour required, cost of all taxes (Central and State Govt.), inspection charges, transportation to stores / site, transit insurance, loading and unloading and stacking etc. complete (i). Factory test Pressure: (a) Site test pressure +0.1 N/mm2, for working pressure upto 1 N/mm2 (b) Site test pressure +0.2 N/mm2, for working pressure upto 1 N/mm2 (ii). Site test pressure - 1.5 times working pressure pertaining to the section for 1.1 times static pressure, whichever is more (Such a pressure is to be controlled within 25% of pump head in case of pumping main) (iii). Working Pressure - The maximum sustained internal pressure excluding surge to which each portion of pipe line may be subjected when installed. All test pressure shall be replaced by Factory test pressure. Note : 1. Class mentioned below represents the working pressure of pipe. Note: 2. For external coating at site to the joints, necessary polythene wrapping for pouring cement slurry shall also be given free with each pipe. For pipes with Factory Test Pressure of 18kg/sqm.		
3.1	D030A	300 mm dia pipe with Factory Test pressure 18 kg/cm2.	RMT	3215
3.2	D030B	350 mm	RMT	3706
3.3	D030C	400 mm	RMT	4095
3.4	D030D	450 mm	RMT	4802
3.5	D030E	500 mm	RMT	5694
3.6	D030F	600 mm	RMT	7416
3.7	D030G	700 mm	RMT	9782
3.8	D030H	800 mm	RMT	11153
3.9	D030I	900 mm	RMT	14193
3.10	D030J	1000 mm	RMT	17139
3.11	D030K	1100 mm	RMT	20723
3.12	D030L	1200 mm	RMT	24194
3.13	D030M	1300 mm	RMT	28667
3.14	D030N	1400 mm	RMT	32976
3.15	D030O	1500 mm	RMT	36285
3.16	D030P	1600 mm	RMT	41155
3.17	D030Q	1700 mm	RMT	45867
3.18	D030R	1800 mm	RMT	50894

CHAPTER - 6

SUPPLYING AND LAYING OF DUCTILE IRON (DI) PIPE

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	E010	Providing and laying Ductile iron pipes of class-K7 conforming to IS 8329:2000 with latest amendments, conveying to work site, rolling and lowering into trenches, laying true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations, cutting of pipes wherever necessary, jointing with DI specials (excluding cost of specials) and rubber gaskets, cleaning the socket and spigot end with soap solution, applying soft soap to the socket and spigot ends before insertion of rubber gaskets, jacking and fixing in perfect conditions etc. The cost to include soap solution, soft soap, waste etc., and giving necessary hydraulic test to the required pressure as per ISS with all lead and lifts and cost of all jointing materials. (The contractor will make his own arrangements for water for testing. Earth work excavation in trenches and jointing of pipes to be measured and paid for separately) Note: In sewerage projects for internal cement mortal lining (CML) of DI pipes, if High Alumina Cement (HAC) as recommended in Annexure B clause 16.3 of IS8329:2000 is considered in place of Slag or Sulphate Resistance Cement (SRC), the cost of pipes may be increased by 5-6% from the prices listed above.		
1.1	E010A	100 mm dia pipe	RMT	1182
1.2	E010B	150 mm dia pipe	RMT	1705
1.3	E010C	200 mm dia pipe	RMT	2201
1.4	E010D	250 mm dia pipe	RMT	2885
1.5	E010E	300 mm dia pipe	RMT	3643
1.6	E010F	350 mm dia pipe	RMT	4536
1.7	E010G	400 mm dia pipe	RMT	5441
1.8	E010H	450 mm dia pipe	RMT	6405
1.9	E010I	500 mm dia pipe	RMT	7529
1.10	E010J	600 mm dia pipe	RMT	9921
1.11	E010K	700 mm dia pipe	RMT	12319
1.12	E010L	800 mm dia pipe	RMT	15906
1.13	E010M	900 mm dia pipe	RMT	19296
1.14	E010N	1000 mm dia pipe	RMT	23974
1.15	E010O	1100 mm dia pipe	RMT	28515

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.	E020	Providing and laying Ductile iron pipes of class-K9 conforming to IS 8329:2000 with latest amendments, conveying to work site, rolling and lowering into trenches, laying true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations, cutting of pipes wherever necessary, jointing with DI specials (excluding cost of specials) and rubber gaskets, cleaning the socket and spigot end with soap solution, applying soft soap to the socket and spigot ends before insertion of rubber gaskets, jacking and fixing in perfect conditions etc. The cost to include soap solution, soft soap, waste etc. and giving necessary hydraulic test to the required pressure as per ISS with all lead and lifts and cost of all jointing materials. (The contractor will make his own arrangements for water for testing. Earth work excavation in trenches and jointing of pipes to be measured and paid for separately) Note: In sewerage projects for internal cement mortal lining (CML) of DI pipes, if High Alumina Cement (HAC) as recommended in Annexure B clause 16.3 of IS8329:2000 is considered in place of Slag or Sulphate Resistance Cement (SRC), the cost of pipes may be increased by 5-6% from the prices listed above.		
2.1	E020A	100 mm dia pipe	RMT	1359
2.2	E020B	150 mm dia pipe .	RMT	1955
2.3	E020C	200 mm dia pipe	RMT	2589
2.4	E020D	250 mm dia pipe	RMT	3461
2.5	E020E	300 mm dia pipe	RMT	4372
2.6	E020F	350 mm dia pipe	RMT	5489
2.7	E020G	400 mm dia pipe	RMT	6592
2.8	E020H	450 mm dia pipe	RMT	7855
2.9	E020I	500 mm dia pipe	RMT	9119
2.10	E020J	600 mm dia pipe	RMT	12015
2.11	E020K	700 mm dia pipe	RMT	13874
2.12	E020L	800 mm dia pipe	RMT	17273
2.13	E020M	900 mm dia pipe	RMT	20940
2.14	E020N	1000 mm dia pipe	RMT	24958
2.15	E020O	1100 mm dia pipe	RMT	32184

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	E030	Providing TYTON (Push-on) joints to cast iron pipes or Ductile iron pipes, with rubber gaskets including cleaning the socket & spigot ends with soap solution and applying soft soap to the spigot & socket ends before insertion of rubber gaskets, jacking and fixing in perfect conditions including the cost of soap solution, soft soap, waste etc and giving necessary hydraulic test to the pressure as per ISS. etc. for : (contractor will make his own arrangements for procuring water for testing)		
3.1	E030A	For pipes of 100 mm dia.	RMT	92
3.2	E030B	For pipes of 150 mm dia.	RMT	122
3.3	E030C	For pipes of 200 mm dia.	RMT	184
3.4	E030D	For pipes of 250 mm dia.	RMT	226
3.5	E030E	For pipes of 300 mm dia.	RMT	299
3.6	E030F	For pipes of 350 mm dia.	RMT	347
3.7	E030G	For pipes of 400 mm dia.	RMT	506
3.8	E030H	For pipes of 450 mm dia.	RMT	578
3.9	E030I	For pipes of 500 mm dia.	RMT	621
3.10	E030J	For pipes of 600 mm dia.	RMT	795
3.11	E030K	For pipes of 700 mm dia.	RMT	1096
3.12	E030L	For pipes of 800 mm dia.	RMT	1374
3.13	E030M	For pipes of 900 mm dia.	RMT	1741
3.14	E030N	For pipes of 1000 mm dia.	RMT	1847
3.15	E030O	For pipes of 1100 mm dia.	RMT	1967
4.	E040	Providing Mechanical joints to cast iron pipes or Ductile iron pipes including cost of rubber gaskets and testing of joints. Mechanical joints items will be supplied by the department. (contractor will make his own arrangements for procuring water for testing) for:		
4.1	E040A	100 mm dia pipes.	RMT	157
4.2	E040B	150 mm dia pipes.	RMT	204
4.3	E040C	200 mm dia pipes.	RMT	349
4.4	E040D	250 mm dia pipes.	RMT	401
4.5	E040E	300 mm dia pipes.	RMT	559
4.6	E040F	350 mm dia pipes.	RMT	668
4.7	E040G	400 mm dia pipes.	RMT	1314
4.8	E040H	450 mm dia pipes.	RMT	1465

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.9	E040I	500 mm dia pipes.	RMT	1576
4.10	E040K	700 mm dia pipes.	RMT	3207
4.11	E040L	800 mm dia pipes.	RMT	3718
4.12	E040M	900 mm dia pipes.	RMT	4967
4.13	E040N	1000 mm dia pipes.	RMT	5997
4.14	E040O	1100 mm dia pipes.	RMT	7043
5.	E050	DI pipes of all classes conveying to worksite, rolling and lowering into trenches, laying true to line, level and perfect linking at joints and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of DI pipes and specials (excluding cost of specials) with rubber gaskets including cleaning the sockets and spigot ends with soap solutions and applying soft soap to the spigot and socket end before insertion of rubber gaskets, jacking and fixing in perfect conditions including the cost of soap solution, soft soap, waste etc. and giving necessary hydraulic test to the required pressure as per ISS etc. with all leads and lifts including cost of all jointing materials (Earth work excavation in trenches to be measured and paid for separately) (Contractor will make his own arrangements for procuring water for testing) etc. for:		
5.1	E050A	100 mm dia pipe	RMT	42
5.2	E050B	150 mm dia pipe	RMT	52
5.3	E050C	200 mm dia pipe	RMT	70
5.4	E050D	250 mm dia pipe	RMT	83
5.5	E050E	300 mm dia pipe	RMT	103
5.6	E050F	350 mm dia pipe	RMT	118
5.7	E050G	400 mm dia pipe	RMT	158
5.8	E050H	450 mm dia pipe	RMT	184
5.9	E050I	500 mm dia pipe	RMT	204
5.10	E050J	600 mm dia pipe	RMT	251
5.11	E050K	700 mm dia pipe	RMT	387
5.12	E050L	800 mm dia pipe	RMT	530
5.13	E050M	900 mm dia pipe	RMT	625
5.14	E050N	1000 mm dia pipe	RMT	720
5.15	E050O	1100 mm dia pipe	RMT	772

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
6.	E060	Providing flanged joints to double flanged Cast Iron / Ductile Iron pipes and specials including testing of joints etc. for : (Contractor will make his own arrangements for procuring water for testing)		
6.1	E060A	Pipes and specials of dia 80 mm.	NOS	111
6.2	E060B	Pipes and specials of dia 100 mm.	NOS	178
6.3	E060C	Pipes and specials of dia 150 mm.	NOS	222
6.4	E060D	Pipes and specials of dia 200 mm.	NOS	247
6.5	E060E	Pipes and specials of dia 250 mm.	NOS	355
6.6	E060F	Pipes and specials of dia 300 mm.	NOS	362
6.7	E060G	Pipes and specials of dia 350 mm.	NOS	481
6.8	E060H	Pipes and specials of dia 400 mm.	NOS	690
6.9	E060I	Pipes and specials of dia 450 mm.	NOS	855
6.10	E060J	Pipes and specials of dia 500 mm.	NOS	957
6.11	E060K	Pipes and specials of dia 600 mm.	NOS	1370
6.12	E060L	Pipes and specials of dia 700 mm.	NOS	1412
6.13	E060M	CI pipes and specials- pipe dia 800 mm.	NOS	1717
6.14	E060N	CI pipes and specials- pipe dia 900 mm.	NOS	2051
6.15	E060O	CI pipes and specials- pipe dia 1000 mm.	NOS	2376
6.16	E060P	CI pipes and specials- pipe dia 1100 mm.	NOS	2571
7.	E070	Providing RUBBER JOINTING for CI / DI / PSC pipes with rubber gaskets including cleaning the socket and spigot ends with soap solution and applying soft soap to the spigot and socket ends before insertion of rubber gaskets, jacking and fixing in perfect conditions including cost of soap solution, soft soap, waste etc with all lead and lift including cost of jointing materials etc. for:		
7.1	E070A	100 mm dia CI / DI PIPES	NOS	106
7.2	E070B	150 mm dia CI PIPES	NOS	128
7.3	E070C	200 mm dia CI PIPES	NOS	173
7.4	E070D	250 mm dia CI PIPES	NOS	205
7.5	E070E	300 mm dia CI PIPES	NOS	265
7.6	E070F	350 mm dia CI PIPES	NOS	300
7.7	E070G	400 mm dia CI PIPES	NOS	448
7.8	E070H	450 mm dia CI PIPES	NOS	510
7.9	E070I	500 mm dia CI PIPES	NOS	555

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
7.10	E070J	600 mm dia CI PIPES	NOS	664
7.11	E070K	700 mm dia CI PIPES	NOS	835
7.12	E070L	750 mm dia CI PIPES	NOS	1102
7.13	E070M	900 mm dia CI PIPES	NOS	1519
7.14	E070N	1000 mm dia CI PIPES	NOS	1794
7.15	E070O	1100 mm dia CI PIPES	NOS	2023

CHAPTER - 7

M.S. PIPES & SPECIALS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	F010	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
1.1	F010A	Pipe of 219 mm dia -4.8 mm thick	RMT	2693
1.2	F010B	Pipe of 219 mm dia 5.4 mm thick	RMT	2904
1.3	F010C	Pipe of 219 mm dia 5.6 mm thick	RMT	2976
1.4	F010D	Pipe of 219 mm dia 6.0 mm thick	RMT	3118
1.5	F010E	Pipe of 219 mm dia 6.4 mm thick	RMT	3259
1.6	F010F	Pipe of 219 mm dia 7.0 mm thick	RMT	3473
1.7	F010G	Pipe of 219 mm dia 7.9 mm thick	RMT	3791
1.8	F010H	Pipe of 219 mm dia 8.2 mm thick	RMT	3897
1.9	F010I	Pipe of 219 mm dia 8.7 mm thick	RMT	4074
1.10	F010J	Pipe of 219 mm dia 9.5 mm thick	RMT	4357
2.	F020	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
2.1	F020A	Pipe of 273.1 mm dia -4.8 mm thick	RMT	3339

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.2	F020B	Pipe of 273.1 mm dia -5.6 mm thick	RMT	3701
2.3	F020C	Pipe of 273.1 mm dia -6 mm thick	RMT	3878
2.4	F020D	Pipe of 273.1 mm dia -6.4 mm thick	RMT	4043
2.5	F020E	Pipe of 273.1 mm dia -7.2 mm thick	RMT	4413
2.6	F020F	Pipe of 273.1 mm dia -7.8 mm thick	RMT	4681
2.7	F020G	Pipe of 273.1 mm dia -8.7 mm thick	RMT	5083
2.8	F020H	Pipe of 273.1 mm dia -9.3 mm thick	RMT	5356
3.	F030	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
3.1	F030A	Pipe of 323.9 mm dia -5.6 mm thick	RMT	4363
3.2	F030B	Pipe of 323.9 mm dia -6.0 mm thick	RMT	4575
3.3	F030C	Pipe of 323.9 mm dia -6.4 mm thick	RMT	4789
3.4	F030D	Pipe of 323.9 mm dia -7.1 mm thick	RMT	5158
3.5	F030E	Pipe of 323.9 mm dia -7.9 mm thick	RMT	5586
3.6	F030F	Pipe of 323.9 mm dia -8.4 mm thick	RMT	5851
3.7	F030G	Pipe of 323.9 mm dia -8.7 mm thick	RMT	6008
3.8	F030H	Pipe of 323.9 mm dia -9.5 mm thick	RMT	6435

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	F040	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
4.1	F040A	Pipe of 355.6 mm dia -5.6 mm thick	RMT	4773
4.2	F040B	Pipe of 355.6 mm dia -6.0 mm thick	RMT	4945
4.3	F040C	Pipe of 355.6 mm dia -6.4 mm thick	RMT	5179
4.4	F040D	Pipe of 355.6 mm dia -7.1 mm thick	RMT	5586
4.5	F040E	Pipe of 355.6 mm dia -7.9 mm thick	RMT	6116
4.6	F040F	Pipe of 355.6 mm dia -8.7 mm thick	RMT	6580
4.7	F040G	Pipe of 355.6 mm dia -9.5 mm thick	RMT	7049
5.	F050	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
5.1	F050A	Pipe of 406 mm dia -5.6 mm thick	RMT	5454
5.2	F050B	Pipe of 406 mm dia -6 mm thick	RMT	5719
5.3	F050C	Pipe of 406 mm dia -6.4 mm thick	RMT	5985
5.4	F050D	Pipe of 406 mm dia -7.1 mm thick	RMT	6449
5.5	F050E	Pipe of 406 mm dia -7.9 mm thick	RMT	6985
5.6	F050F	Pipe of 406 mm dia -8.7 mm thick	RMT	7501

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.7	F050G	Pipe of 406 mm dia -9.5 mm thick	RMT	8074
5.8	F050H	Pipe of 406 mm dia -10 mm thick	RMT	8386
6.	F060	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
6.1	F060A	Pipe of 457 mm dia-5.6 mm thick	RMT	6129
6.2	F060B	Pipe of 457 mm dia-6.4 mm thick	RMT	6728
6.3	F060C	Pipe of 457 mm dia-7.1 mm thick	RMT	7243
6.4	F060D	Pipe of 457 mm dia-7.9 mm thick	RMT	7868
6.5	F060E	Pipe of 457 mm dia-8.7 mm thick	RMT	8441
6.6	F060F	Pipe of 457 mm dia-9.5 mm thick	RMT	9067
6.7	F060G	Pipe of 457 mm dia-10 mm thick	RMT	9431
7.	F070	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
7.1	F070A	Pipe of 508 mm dia-5.6 mm thick	RMT	6976
7.2	F070B	Pipe of 508 mm dia-6.4 mm thick	RMT	7653
7.3	F070C	Pipe of 508 mm dia-7.1 mm thick	RMT	8278
7.4	F070D	Pipe of 508 mm dia-7.9 mm thick	RMT	8956

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
7.5	F070E	Pipe of 508 mm dia-8.7 mm thick	RMT	9633
7.6	F070F	Pipe of 508 mm dia-9.5 mm thick	RMT	10360
7.7	F070G	Pipe of 508 mm dia-10 mm thick	RMT	10778
8.	F080	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
8.1	F080A	Pipe of 559 mm dia-5.6 mm thick	RMT	7650
8.2	F080B	Pipe of 559 mm dia-6.4 mm thick	RMT	8379
8.3	F080C	Pipe of 559 mm dia-7.1 mm thick	RMT	9056
8.4	F080D	Pipe of 559 mm dia-7.9 mm thick	RMT	9838
8.5	F080E	Pipe of 559 mm dia-8.7 mm thick	RMT	10567
8.6	F080F	Pipe of 559 mm dia-9.5 mm thick	RMT	11348
8.7	F080G	Pipe of 559 mm dia-10 mm thick	RMT	11810
9.	F090	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
9.1	F090A	Pipe of 610 mm dia-5.6 mm thick	RMT	8331
9.2	F090B	Pipe of 610 mm dia-6.4 mm thick	RMT	9165
9.3	F090C	Pipe of 610 mm dia-7.1 mm thick	RMT	9842

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
9.4	F090D	Pipe of 610 mm dia-7.9 mm thick	RMT	10678
9.5	F090E	Pipe of 610 mm dia-8.7 mm thick	RMT	11507
9.6	F090F	Pipe of 610 mm dia-9.5 mm thick	RMT	12410
9.7	F090G	Pipe of 610 mm dia-10 mm thick	RMT	12861
9.8	F090H	Pipe of 610 mm dia-12 mm thick	RMT	14924
10.	F100	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
10.1	F100A	Pipe of 660 mm dia-6.4 mm thick	RMT	10003
10.2	F100B	Pipe of 660 mm dia-7.1 mm thick	RMT	10786
10.3	F100C	Pipe of 660 mm dia-7.9 mm thick	RMT	11672
10.4	F100D	Pipe of 660 mm dia-8.7 mm thick	RMT	12557
10.5	F100E	Pipe of 660 mm dia-9.5 mm thick	RMT	13440
10.6	F100F	Pipe of 660 mm dia-10 mm thick	RMT	14008
11.	F110	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
11.1	F110A	Pipe of 711 mm dia-6.4 mm thick	RMT	10739
11.2	F110B	Pipe of 711 mm dia-7.1 mm thick	RMT	11573

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
11.3	F110C	Pipe of 711 mm dia-7.9 mm thick	RMT	12515
11.4	F110D	Pipe of 711 mm dia-8.7 mm thick	RMT	13453
11.5	F110E	Pipe of 711 mm dia-9.5 mm thick	RMT	14401
11.6	F110F	Pipe of 711 mm dia-10.0 mm thick	RMT	15045
11.7	F110G	Pipe of 711 mm dia-12 mm thick	RMT	17462
12.	F120	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
12.1	F120A	Pipe of 762 mm dia-7.1 mm thick	RMT	12367
12.2	F120B	Pipe of 762 mm dia-7.9 mm thick	RMT	13404
12.3	F120C	Pipe of 762 mm dia-8.7 mm thick	RMT	14446
12.4	F120D	Pipe of 762 mm dia-9.5 mm thick	RMT	15494
12.5	F120E	Pipe of 762 mm dia-10 mm thick	RMT	16117
13.	F130	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
13.1	F130A	Pipe of 813 mm dia-7.1 mm thick	RMT	13226
13.2	F130B	Pipe of 813 mm dia-7.9 mm thick	RMT	14288
13.3	F130C	Pipe of 813 mm dia-8.7 mm thick	RMT	15416

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
13.4	F130D	Pipe of 813 mm dia-9.5 mm thick	RMT	16478
13.5	F130E	Pipe of 813 mm dia-10 mm thick	RMT	17166
13.6	F130F	Pipe of 813 mm dia-12 mm thick	RMT	19858
14.	F140	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
14.1	F140A	Pipe of 864 mm dia-7.9 mm thick	RMT	15167
14.2	F140B	Pipe of 864 mm dia-8.7 mm thick	RMT	16162
14.3	F140C	Pipe of 864 mm dia-9.5 mm thick	RMT	17489
14.4	F140D	Pipe of 864 mm dia-10 mm thick	RMT	18216
15.	F150	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
15.1	F150A	Pipe of 914 mm dia-7.9 mm thick	RMT	16062
15.2	F150B	Pipe of 914 mm dia-8.7 mm thick	RMT	17253
15.3	F150C	Pipe of 914 mm dia-9.5 mm thick	RMT	18517
15.4	F150D	Pipe of 914 mm dia-10 mm thick	RMT	19313

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
16.	F160	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
16.1	F160A	Pipe of 965 mm dia - 8.7 mm thick	RMT	18201
16.2	F160B	Pipe of 965 mm dia - 9.5 mm thick	RMT	19459
16.3	F160C	Pipe of 965 mm dia - 10 mm thick	RMT	20261
17.	F170	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
17.1	F170A	Pipe of 1016 mm dia-8.7 mm thick	RMT	19160
17.2	F170B	Pipe of 1016 mm dia-9.5 mm thick	RMT	20557
17.3	F170C	Pipe of 1016 mm dia-10 mm thick	RMT	21416
17.4	F170D	Pipe of 1016 mm dia-12 mm thick	RMT	24803

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
18.	F180	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
18.1	F180A	Pipe of 1067 mm dia-8.7 mm thick	RMT	20144
18.2	F180B	Pipe of 1067 mm dia-9.5 mm thick	RMT	21540
18.3	F180C	Pipe of 1067 mm dia-10 mm thick	RMT	22400
19.	F190	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
19.1	F190A	Pipe of 1118 mm dia-8.7 mm thick	RMT	21109
19.2	F190B	Pipe of 1118 mm dia-9.5 mm thick	RMT	22638
19.3	F190C	Pipe of 1118 mm dia-10 mm thick	RMT	23567

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
20.	F200	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
20.1	F200A	Pipe of 1168 mm dia-9.5 mm thick	RMT	23626
20.2	F200B	Pipe of 1168 mm dia-10 mm thick	RMT	24624
21.	F210	Manufacturing, providing, transporting, rolling, lowering, laying, jointing and commissioning of ERW (Electric Resistance Welded) SAW (Submerged Arc Welded) MS pipes (Fe-410 grade) conforming to IS 3589-2001 with latest amendments, including perfect linking and welding of joints to correct position, cost of the pipes, conveyance, lead, lift charges, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside with CM 1:1.5 lining of minimum 10 mm thick for pipes upto 610 mm OD and with minimum 12 mm thick beyond 610 mm OD and out side with minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following diameters and specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing)		
21.1	F210A	Pipe of 1219 mm dia-10 mm thick	RMT	24225

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
22.	F220	Manufacturing, providing, transporting, rolling, lowering, laying, jointing & testing and commissioning of MS specials of minimum 8 mm thick such as bends, tail pieces, reduces etc. conforming to IS-7322:1985 with latest amendments and including perfect linking and welding of joints to correct position including cost and conveyance of materials with all lead and lifts, cost all labour and giving satisfactory hydraulic test as per IS:3589:2001 with latest amendments for test pressure and working pressure both at factory and site etc. complete as per detailed specifications with inside lining two coat of food grade epoxy painting of approved make with each coat of 250 micron thick (after dry) over one coat of food grade epoxy primer of approved make with minimum of 50 micron thick (after dry) and outside 25 mm thick coating in CM 1:3 by providing 50x50 mm weld mesh including loading and unloading of the pipes for the following category to suit PSC / MS / CI / AC / DI / PVC pipes. The rates are inclusive of all taxes and duties. The weight of MS shell only by considered before lining and coating for arriving at the rate. The thickness of plate will be specified by the engineer. (Contractor will make hiw own arrangements for procuring water for testing) for:		
22.1	F220A	MS / PSC / CI / DI / PVC / AC pipe bends, tail pieces, reducers etc. for upto 500 mm dia pipes	KGS	130
22.2	F220B	MS / PSC / CI / DI / PVC / AC pipe bends, tail pieces, reducers etc. for above 500 mm dia pipes	KGS	119
23.	F230	Providing, fabricating, supplying and fixing at site various diameter MS SPECIALS of mechanised ends as per sketch to suite PSC pipe sockets and spigots joints. The cost is inclusive of all materials including rubber 'O' rings, labour, consumables, hire charges for tools, tackles, welding equipments, lead and lifts, etc. complete as per the instructions of Engineer in charge.		
23.1	F230A	For CI / DI pipes of 450 mm dia.	NOS	11203
23.2	F230B	For CI / DI pipes of 600 mm dia.	NOS	17342
23.3	F230C	For CI / DI pipes of 700 mm dia.	NOS	20487
24.	F240	Providing, fabricating, supplying and fixing at site various diameter MS MJ ends to suit CI / DI pipe as per the sketch. The cost is inclusive of all materials, i.e, rubber 'O' rings, flanges, bolts and nuts, consumables, hire charges, tools and tackles, welding equipments, lead and lifts, etc. complete as per the instructions of Engineer in charge.		
24.1	F240A	For CI / DI pipes of 100 mm dia.	NOS	2786
24.2	F240B	For CI / DI pipes of 150 mm dia.	NOS	3245
24.3	F240C	For CI / DI pipes of 200 mm dia.	NOS	4800
24.4	F240D	For CI / DI pipes of 250 mm dia.	NOS	6318
24.5	F240E	For CI / DI pipes of 300 mm dia.	NOS	6740
24.6	F240F	For CI / DI pipes of 400 mm dia.	NOS	9274
24.7	F240G	For CI / DI pipes of 450 mm dia.	NOS	10243

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
24.8	F240H	For CI / DI pipes of 600 mm dia.	NOS	13342
24.10	F240I	For CI / DI pipes of 700 mm dia.	NOS	16026
25.	F250	Providing, fabricating, supplying and fixing at site various diameters of MS Flanges as per IS standards to fix sluice valves as per sketch. The rate to include cost of all materials, labour, consumables, hire charges for tools and tackles, welding equipments etc. complete as per instructions of the Engineer in charge for:		
25.1	F250A	Flanges of 100 mm dia and 10 mm thick.	NOS	668
25.2	F250B	Flanges of 100 mm dia and 8 mm thick.	NOS	549
25.3	F250C	Flanges of 150 mm dia and 16 mm thick.	NOS	1562
25.4	F250D	Flanges of 150 mm dia and 12 mm thick.	NOS	1182
25.5	F250E	Flanges of 200 mm dia and 20 mm thick.	NOS	2615
25.6	F250F	Flanges of 200 mm dia and 16 mm thick.	NOS	2145
25.7	F250G	Flanges of 250 mm dia and 20 mm thick.	NOS	3477
25.8	F250H	Flanges of 250 mm dia and 16 mm thick.	NOS	2838
25.9	F250I	Flanges of 300 mm dia and 20 mm thick.	NOS	4055
25.10	F250J	Flanges of 300 mm dia and 16 mm thick.	NOS	3308
25.11	F250K	Flanges of 400 mm dia and 25 mm thick.	NOS	6404
25.12	F250L	Flanges of 400 mm dia and 20 mm thick.	NOS	5197
25.13	F250M	Flanges of 450 mm dia and 25 mm thick.	NOS	7420
25.14	F250N	Flanges of 450 mm dia and 20 mm thick.	NOS	6094
25.15	F250O	Flanges of 600 mm dia and 25 mm thick.	NOS	9161
25.16	F250P	Flanges of 600 mm dia and 20 mm thick.	NOS	7438
25.17	F250Q	Flanges of 700 mm dia and 30 mm thick.	NOS	12790
25.18	F250R	Flanges of 700 mm dia and 25 mm thick.	NOS	10723
25.19	F250S	Flanges of 900 mm dia and 32 mm thick.	NOS	16651
25.20	F250T	Flanges of 900 mm dia and 28 mm thick.	NOS	14897
26.	F300	Providing Inner lining by spinning to M.S pipes including cleaning the inside surface, removing rust, millscales etc., with CM 1:2 lining of minimum 8 mm thick upto 610 mm outer dia and minimum 10 mm thick beyond 610 mm OD and conforming to IS-11906 / 1986 etc. for:		
26.1	F300A	Inside of 219 mm dia pipes for 8 mm thick	RMT	195
26.2	F300B	Inside of 273.1 mm dia pipes for 8 mm thick	RMT	212
26.3	F300C	Inside of 323.9 mm dia pipes for 8 mm thick	RMT	253
26.4	F300D	Inside of 355.6 mm dia pipes for 8 mm thick	RMT	278
26.5	F300E	Inside of 406 mm dia pipes for 8 mm thick	RMT	319
26.6	F300F	Inside of 457 mm dia pipes for 8 mm thick	RMT	361
26.7	F300G	Inside of 508 mm dia pipes for 8 mm thick	RMT	403

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
26.8	F300H	Inside of 559 mm dia pipes for 8 mm thick	RMT	444
26.9	F300I	IInside of 610 mm dia pipes for 8 mm thick	RMT	486
26.10	F300J	Inside of 660 mm dia pipes for 10 mm thick	RMT	580
26.11	F300K	Inside of 711 mm dia pipes for 10 mm thick	RMT	625
26.12	F300L	Inside of 762 mm dia pipes for 10 mm thick	RMT	671
26.13	F300M	Inside of 813 mm dia pipes for 10 mm thick	RMT	716
26.14	F300N	Inside of 864 mm dia pipes for 10 mm thick	RMT	762
26.15	F300O	Inside of 914 mm dia pipes for 10 mm thick	RMT	807
26.16	F300P	Inside of 965 mm dia pipes for 10 mm thick	RMT	854
26.17	F300Q	Inside of 1016 mm dia pipes for 10 mm thick	RMT	898
26.18	F300R	Inside of 1067 mm dia pipes for 10 mm thick	RMT	945
26.19	F300S	Inside of 1118 mm dia pipes for 10 mm thick	RMT	992
26.20	F300T	Inside of 1168 mm dia pipes for 10 mm thick	RMT	1036
26.21	F300U	Inside of 1219 mm dia pipes for 10 mm thick	RMT	1082
27.	F310	Providing Outer lining to M.S pipes by spinning including cleaning the outer surface, removing rust, millscales etc., with CM 1:3 for minimum 25 mm thick over 50x50 weldmesh of 13 gauge lining and conforming to IS-11906/1986 etc. for:		
27.1	F310A	Outside of 219 mm dia pipes for 25 mm thick over welmesh	RMT	483
27.2	F310B	Outside of 273.1 mm dia pipes for 25 mm thick over welmesh	RMT	594
27.3	F310C	Outside of 323.9 mm dia pipes for 25 mm thick over welmesh	RMT	697
27.4	F310D	Outside of 355.6 mm dia pipes for 25 mm thick over welmesh.	RMT	773
27.5	F310E	Outside of 406 mm dia pipes for 25 mm thick over welmesh	RMT	883
27.6	F310F	Outside of 457 mm dia pipes for 25 mm thick over welmesh	RMT	990
27.7	F310G	Outside of 508 mm dia pipes for 25 mm thick over welmesh	RMT	1102
27.8	F310H	Outside of 559 mm dia pipes for 25 mm thick over welmesh	RMT	1212
27.9	F310I	Outside of 610 mm dia pipes for 25 mm thick over welmesh	RMT	1322
27.10	F310J	Outside of 660 mm dia pipes for 25 mm thick over welmesh	RMT	1429
27.11	F310K	Outside of 711 mm dia pipes for 25 mm thick over welmesh	RMT	1539
27.12	F310L	Outside of 762 mm dia pipes for 25 mm thick over welmesh	RMT	1650
27.13	F310M	Outside of 813 mm dia pipes for 25 mm thick over welmesh	RMT	1760
27.14	F310N	Outside of 864 mm dia pipes for 25 mm thick over welmesh.	RMT	1870
27.15	F310O	Outside of 914 mm dia pipes for 25 mm thick over welmesh	RMT	1981
27.16	F310P	Outside of 965 mm dia pipes for 25 mm thick over welmesh	RMT	2091
27.17	F310Q	Outside of 1016 mm dia pipes for 25 mm thick over welmesh	RMT	2202
27.18	F310R	Outside of 1067 mm dia pipes for 25 mm thick over welmesh	RMT	2312
27.19	F310S	Outside of 1118 mm dia pipes for 25 mm thick over welmesh	RMT	2423

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
27.20	F310T	Outside of 1168 mm dia pipes for 25 mm thick over welmesh	RMT	2526
27.21	F310U	Outside of 1219 mm dia pipes for 25 mm thick over welmesh	RMT	2643
28.	F320	Providing Gas Welding to M.S pipes and specials after cleaning the surface including removing rust, millscales etc., by using standard welding rod conforming to IS 6419 etc. complete for:		
28.1	F320A	M.S pipe 219 mm dia	RMT	194
28.2	F320B	M.S pipe 273.1 mm dia	RMT	243
28.3	F320C	M.S pipe 323.9 mm dia welding.	RMT	287
28.4	F320D	M.S pipe 355.6 mm dia welding.	RMT	313
28.5	F320E	M.S pipe 406 mm dia welding.	RMT	362
28.6	F320F	M.S pipe 457 mm dia welding.	RMT	401
28.7	F320G	M.S pipe 508 mm dia welding.	RMT	445
28.8	F320H	M.S pipe 559 mm dia welding.	RMT	490
28.9	F320I	M.S pipe 610 mm dia welding.	RMT	536
28.10	F320J	M.S pipe 660 mm dia welding.	RMT	580
28.11	F320K	M.S pipe 711 mm dia welding.	RMT	625
28.12	F320L	M.S pipe 762 mm dia welding.	RMT	669
28.13	F320M	M.S pipe 813 mm dia welding.	RMT	713
28.14	F320N	M.S pipe 864 mm dia welding.	RMT	760
28.15	F320O	M.S pipe 914 mm dia welding.	RMT	802
28.16	F320P	M.S pipe 965 mm dia welding.	RMT	848
28.17	F320Q	M.S pipe 1016 mm dia welding.	RMT	892
28.18	F320R	M.S pipe 1067 mm dia welding.	RMT	937
28.19	F320S	M.S pipe 1118 mm dia welding.	RMT	983
28.20	F320T	M.S pipe 1168 mm dia welding.	RMT	1026
28.21	F320U	M.S pipe 1219 mm dia welding.	RMT	1072
29.	F330	Providing coal taring two coats to the outer surface of M.S pipes as per AWWA specifications including the cost of coal tar etc. complete for:		
29.1	F330A	M.S pipes of 219 mm dia..	RMT	38
29.2	F330B	M.S pipes of 273 mm dia..	RMT	47
29.3	F330C	M.S pipes of 324 mm dia..	RMT	56
29.4	F330D	M.S pipes of 355 mm dia..	RMT	61
29.5	F330G	M.S pipes of 406 mm dia.	RMT	70
29.6	F330H	M.S pipes of 457 mm dia.	RMT	79
29.7	F330I	M.S pipes of 508 mm dia.	RMT	88
29.8	F330J	M.S pipes of 559 mm dia.	RMT	97
29.9	F330K	M.S pipes of 610 mm dia.	RMT	106

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
29.10	F330L	M.S pipes of 660 mm dia.	RMT	114
29.11	F330M	M.S pipes of 711 mm dia.	RMT	123
29.12	F330N	M.S pipes of 762 mm dia.	RMT	132
29.13	F330O	M.S pipes of 813 mm dia.	RMT	140
29.14	F330P	M.S pipes of 864 mm dia.	RMT	150
29.15	F330Q	M.S pipes of 914 mm dia.	RMT	158
29.16	F330R	M.S pipes of 965 mm dia.	RMT	167
29.17	F330S	COAL TAR Lining to M.S pipes 1016 mm dia.	RMT	176
29.18	F330T	COAL TAR Lining to M.S pipes 1067 mm dia.	RMT	185
29.19	F330U	COAL TAR Lining to M.S pipes 1118 mm dia.	RMT	194
29.20	F330V	COAL TAR Lining to M.S pipes 1168 mm dia.	RMT	202
29.21	F330W	COAL TAR Lining to M.S pipes 1219 mm dia.	RMT	211

CHAPTER - 8

PROVIDING AND PREPARING SODIUM HYPROCHLORIDE SOLUTION

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	G010A	Providing & preparing sodium hypochlorite solution for 500 ltrs capacity tank. The hypochlorite generator tank should consist of non-metallic tank of 500 lts capacity. Preferably sintex / supreme/ voltas or equivalent fitted with a drain cock at the bottom for cleaning and periodic maintenance and outlet valve to let out the prepared sodium hypochlorite at bottom an orifice to fill the water at the top edge with lid and funnel. (water will be supplied by BWSSB). Iodized salt should be provided by the firm for one year for the preparation of hypochlorite. The elements to generate hypochlorite are to be made of imported electrode material "intri" mounted in PVC housing with wire leads for energizing in a water proof sealing. The electrode assembly should be mounted inside the hypochlorite generator tank. The hypochlorite generation tank should be mounted on a MS fabricated stand. The power panel should consist of on-off button, fuse, MCB, line charger indicator, process complete indicator, and timer unit housed in a cabinet with panel lock facility. The firm should provide dosing pump for suitable dosage operated by 230V 50 Hz AC mains provided by BWSSB. The residual chlorine at a radius of 2 Km should be maintained at 0.02 ppm at end.	NOS	98848
1.1	G020A	Supply & preparing of Iodized salt for one 500 ml tank along with operation of plant with operator, consumables, maintenance and supply of spares for effective and successful operation of the plants for second year ie., after one year of commissioning	L.S	74669

CHAPTER - 9

RCC OVERHEAD RESERVOIRS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	H010	Providing and laying Plain Cement Concrete of specified grade for foundations (screed layer) with 40 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate including cost and conveyance of all materials, lead and lifts, plywood / steel form works, machine mixing, laying, tamping curing etc. complete:		
1.1	H010A	PCC 1:2:4 using 40 mm aggregate	CUM	4711
1.2	H010B	PCC 1:4:8 using 40 mm aggregate	CUM	3469
1.3	H010C	PCC 1:3:6 using 40 mm aggregate	CUM	3870
2.	H020	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for independent footings, rafts, combined footings etc. below ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed and laid in 15cms thick layers, including machine mixing, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, smooth finishing the exposed faces wherever necessary, plywood / steel form works, centering, etc. with:		
2.1	H020A	RCC 1:1.5:3 with 20 mm aggregate for footings, rafts and combined footing etc.	CUM	5962
2.2	H020B	RCC 1:1.5:3 with 20 mm aggregate for footings, rafts and combined footing etc. with smooth finishing the exposed faces in CM 1:4, 12 mm thick etc. complete	CUM	6879
3.	H030	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for COLUMNS, BRACES, RING BEAMS etc. above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick etc. for:		
3.1	H030A	RCC 1:1.5:3 with 20 mm aggregate for level upto 6 M height.	CUM	9322
3.2	H030B	RCC 1:1.5:3 with 20 mm aggregate for level 6M to 9M height.	CUM	10352
3.3	H030C	RCC 1:1.5:3 with 20 mm aggregate for level 9M to 12M height.	CUM	11208
3.4	H030D	RCC 1:1.5:3 with 20 mm aggregate for level 12M to 15M height.	CUM	11890

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	H040	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for SHAFTS above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick etc. for:		
4.1	H040A	RCC 1:1.5:3 with 20 mm aggregate for below ground level.	CUM	9092
4.2	H040B	RCC 1:1.5:3 with 20 mm aggregate for level upto 6 M height.	CUM	9783
4.3	H040C	RCC 1:1.5:3 with 20 mm aggregate for level upto 6 to 9M height.	CUM	10475
4.4	H040D	RCC 1:1.5:3 with 20 mm aggregate for level upto 9 to 12M height.	CUM	11167
4.5	H040E	RCC 1:1.5:3 with 20 mm aggregate for level upto 12 to 15M height.	CUM	12129
5.	H050	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for SHELL PORTION, BOTTOM DOOM, BOTTOM SLAB AND RIBS over the staging above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick and CM 1:3, 20 mm thick for inside with an admixture of water proofing compound of approved quality for requisite proportion etc. testing as per directions, (Contractor will make his own arrangements for procuring water for testing) etc. for:		
4.1	H050A	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 M height.	CUM	18426
4.2	H050B	RCC 1:1.5:3 with 20 mm aggregate for level and 6 to 9 M height.	CUM	18934
4.3	H050C	RCC 1:1.5:3 with 20 mm aggregate for level and 9 to12 M height.	CUM	19964
4.4	H050D	RCC 1:1.5:3 with 20 mm aggregate for level and 12 to 15 M height.	CUM	20994
6.	H060	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for SIDE WALLS OF WATER TANK over the staging above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick and CM 1:3, 20 mm thick for inside with an admixture of water proofing compound of approved quality for requisite proportion etc. testing as per directions, (Contractor will make his own arrangements for procuring water for testing) etc. for:		
6.1	H060A	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 M height.	CUM	11483
6.2	H060B	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 - 9 M height.	CUM	12260

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
6.3	H060C	RCC 1:1.5:3 with 20 mm aggregate for level and upto 9-12 M height.	CUM	13036
6.4	H060D	RCC 1:1.5:3 with 20 mm aggregate for level and upto 12-15 M height.	CUM	13812
7.	H070	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for TOP OF DOOM over the staging above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick for both sides etc. for:		
7.1	H070A	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 M height.	CUM	17741
7.2	H070B	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6-9 M height.	CUM	18771
7.3	H070C	RCC 1:1.5:3 with 20 mm aggregate for level and 9 - 12 M height.	CUM	19801
7.4	H070D	RCC 1:1.5:3 with 20 mm aggregate for level and 12 -15 M height.	CUM	20831
8.	H080	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for TOP SLAB FOR OHT over the staging above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick for both sides etc. for:		
8.1	H080A	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 M height.	CUM	11406
8.2	H080B	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6-9 M height.	CUM	12436
8.3	H080C	RCC 1:1.5:3 with 20 mm aggregate for level and 9 - 12 M height.	CUM	13466
8.4	H080D	RCC 1:1.5:3 with 20 mm aggregate for level and 12 -15 M height.	CUM	14497
9.	H090	Providing and laying vibrated CC of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA for RCC works (excluding the cost of reinforcement) for SPIRAL STAIRCASE OF OHT over the staging above ground level, with 20 mm and down size of approved gradation hard broken granite, trap basalt or with any other approved hard aggregate, machine mixed, cost and conveyance of all materials, lead and lifts, consolidation, vibration, curing, plywood / steel form works, centering, scaffolding etc, finishing exposed faces in CM 1:3, 12 mm thick for both sides etc. for:		
9.1	H090A	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6 M height.	CUM	17209
9.2	H090B	RCC 1:1.5:3 with 20 mm aggregate for level and upto 6-9 M height.	CUM	18239
9.3	H090C	RCC 1:1.5:3 with 20 mm aggregate for level and upto 9-12 M height.	CUM	19269
9.4	H090D	RCC 1:1.5:3 with 20 mm aggregate for level and upto 12-15 M height.	CUM	20300

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
10.	H095	All works Upto Plinth - Providing and laying in position Ready mixed M5 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - In - Charge. Note 1 (a) : Part of OPC 43 GRADE, OPC 53 GRADE AND BLENDED PORTLAND POZZOLONA (conforming to IS8112) can be substituted with Ground Granulated Blast furnace slag (GGBS) to a minimum of 30%. The physical and chemical properties of GGBS shall conform to IS: 12089-1987 (Reaffirmed 2008). Uniform blending with OPC 43 grade cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456-2000. Note 1 (b) : Quantity of cementitious material considered in this item is @ 330 kg/cum (230 kg OPC 43 GRADE CEMENT + 100 kg GGBS. Excess / less OPC 43 grade cement used beyond 230 KG as per design mix is payable / recoverable separately @ rate of Rs 7.154 / Kg of Ordinary Portland Cement, Excess / less GGBS used beyond 100 KG as per design mix is payable / recoverable separately @ rate of Rs 3.1 / Kg of GGBS.		
10.1	H095A	P & Laying GGBS Ready mixed M5 grade concrete - All works Upto Plinth Level	CUM	4967
10.2	H095B	P & Laying GGBS Ready mixed M7.5 grade concrete - All works Upto Plinth Level	CUM	4875
10.3	H095C	P & Laying GGBS Ready mixed M10 grade concrete - All works Upto Plinth Level	CUM	5706
10.4	H095D	P & Laying GGBS Ready mixed M15 grade concrete - All works Upto Plinth Level	CUM	6281
10.5	H095F	P & Laying GGBS Ready mixed M20 grade concrete - All works Upto Plinth Level	CUM	6577
10.6	H095G	P & Laying GGBS Ready mixed M25 grade concrete - All works Upto Plinth Level	CUM	6742
10.7	H095H	P & Laying GGBS Ready mixed M30 grade concrete - All works Upto Plinth Level	CUM	6851
10.8	H095I	P & Laying GGBS Ready mixed M15 grade concrete - for 6 meter height	CUM	6718
10.9	H095J	P & Laying GGBS Ready mixed M20 grade concrete - for 6 meter height	CUM	7014
10.10	H095K	P & Laying GGBS Ready mixed M25 grade concrete - for 6 meter height	CUM	7178

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
10.11	H095L	P & Laying GGBS Ready mixed M30 grade concrete - for 6 meter height	CUM	7287
10.12	H095M	P & Laying GGBS Ready mixed M20 grade concrete - for 6-9 meter height	CUM	7362
10.13	H095N	P & Laying GGBS Ready mixed M25 grade concrete - for 6-9 meter height	CUM	7527
10.14	H095O	P & Laying GGBS Ready mixed M30 grade concrete - for 6-9 meter height	CUM	7636
10.15	H095P	P & Laying GGBS Ready mixed M20 grade concrete - for 9-12 meter height	CUM	7711
10.16	H095Q	P & Laying GGBS Ready mixed M20 grade concrete - for 9-12 meter height	CUM	7984
10.17	H095R	P & Laying GGBS Ready mixed M20 grade concrete - for 9-12 meter height	CUM	7984
10.18	H095S	P & Laying GGBS Ready mixed M20 grade concrete - for 12-15 meter height	CUM	8059
10.19	H095T	P & Laying GGBS Ready mixed M25 grade concrete - for 12-15 meter height	CUM	8223
10.20	H095U	P & Laying GGBS Ready mixed M30 grade concrete - for 12-15 meter height	CUM	8332
11	H097	Cement Concrete Pavement. Construction of Un-Reinforced Plain Cement Concrete Pavement, thickness as per design, over a prepared sub base with 43 grade cement or any other typa as per clause 1051.2.2 design mix, with 25 mm and down size graded granite metal coarse and fine aggregates, with superplastisiser @31. Its confirming to IS 9103 - 1999 Reaffirmed - 2008, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approval fixed side form work (Steel Channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including leveling the form work as per drawing. Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation, membrane, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. M30 (At 270 kg, per cum coarse aggregate @ 0.69 cum and fine aggregate @ 0.46 cum) replacing 25% (90 Kg) of cement content with Ground Granulated Blast Furnance Slag in mix design.		
11.1	H097A	P & Laying GGBS M20 Cement Concrete for Pavement	CUM	4222
11.2	H097B	P & Laying GGBS M25 Cement Concrete for Pavement	CUM	4387
11.3	H097C	P & Laying GGBS M30 Cement Concrete for Pavement	CUM	4571

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
12	H100	Labour charges for fabricating mild steel or torsteel bars of all sizes for reinforcement for RCC works including conveying steel to work spot with all lead including cleaning, straightening, bending, fabricating, placing in position and tieing as per design including cost of binding wire, hoisting etc. with all lifts etc. complete (excluding the cost of steel) for:		
12.1	H100A	Staging upto 6 M height	M.T	7153
12.2	H100B	Staging 6 to 9 M height	M.T	7524
12.3	H100C	Staging 9 to 12M height	M.T	7872
12.4	H100D	Staging 12 to 15M height	M.T	7872
13.	H110	Providing and fixing MS ladder between landings, 45 cms wide using angle iron of specified sizes, 20 mm MS bars at 25 cms. centre to centre, with necessary supports of same angle iron etc. as directed, including hand railing on both sides with 25 mm dia. GI pipes with angle iron props at 2 mtrs. intervals and 0.5M heigh, including fixing in ground with CC 1:2:4 and two coats of anticorrosive bituminous paint etc. with all lead and lifts etc. complete with:		
13.1	H110A	MS angle of 65 x 65 x 8 mm	RMT	1615
13.2	H110B	MS angle of 65 x 65 x 10 mm	RMT	1743
14.	H120	Providing and fixing RCC final and ventilators as per approved design and specifications with form works and protected with wire mesh. The plinth to be of RCC circular pillars and canopy with an ornamental finish at top. The first 22.5 cms height to be covered with RCC paneling as per detailed drawings etc. with all lead and lifts and excluding reinforcement steel.		
14.1	H120A	For over head tanks upto 2.5 lakhs capacity.	NOS	5589
14.2	H120B	For over head tanks 2.5 to 5.0 lakhs capacity.	NOS	7939
14.3	H120C	For over head tanks 5 to 10 lakhs capacity.	NOS	9567
15.	H140A	Providing and fixing MS inspection door of size 60 cms x 60 cms, including MS frame made of 50x50x6 mm angle, shutters made of 3 mm thick MS sheets, with hinges, locking arrangements at top etc. including painting with anticorrosive approved paint etc. complete including all lead and lifts etc.	NOS	1730
16.	H150	Providing and fixing gauge with iron sheet or enameled Gauge plate of 3 mm to 4 mm thick, 0.23 M width with copper floats indicators and flexible nylone wires, painting figures with approved enamel paint etc. with all lead and lifts, complete for:		
16.1	H150A	M.S Gauge sheet for 1.5 Mtrs depth	NOS	3282
16.2	H150B	MS Gauge sheet for 2.0 Mtrs depth	NOS	4224
16.3	H150C	MS Gauge sheet for 2.5 Mtrs depth	NOS	5166
16.4	H150D	Extra for MS Gauge sheet for every 0.5 M beyond 2.5 Mtrs depth	NOS	962
16.5	H150F	Enamelled Gauge plate for 1.5 Mtrs depth	NOS	2853
16.6	H150G	Enamelled Gauge plate for 2.0 Mtrs depth	NOS	3441

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
16.7	H150H	Enameled Gauge plate for 2.5 Mtrs depth	NOS	4029
16.8	H150I	Extra for enameled Gauge plate for every 0.5 M beyond 2.5 Mtrs depth	NOS	715
17.	H160	Supplying and fixing CI puddle flanges in position for RCC walls including hoisting and conveying them to work spot with all lead and lifts etc. complete (CI puddle flanges pipe rates are based on foundry grade pig iron (S1 2% - 2.5%) of Rs.32,050/- per MT. The rate of puddle flanges are inclusive of 4% VAT.		
17.1	H160A	For CI puddle flanges of 80 mm dia.	NOS	2894
17.2	H160B	For CI puddle flanges of 100 mm dia.	NOS	3522
17.3	H160C	For CI puddle flanges of 150 mm dia.	NOS	5587
17.4	H160D	For CI puddle flanges of 200 mm dia.	NOS	8036
17.5	H160E	For CI puddle flanges of 250 mm dia.	NOS	10697
17.6	H160F	For CI puddle flanges of 300 mm dia.	NOS	13645
17.7	H160G	For CI puddle flanges of 350 mm dia.	NOS	18284
17.8	H160H	For CI puddle flanges of 400 mm dia.	NOS	22289
17.9	H160I	For CI puddle flanges of 450 mm dia.	NOS	26569
17.10	H160J	For CI puddle flanges of 500 mm dia.	NOS	31123
17.11	H160K	For CI puddle flanges of 600 mm dia.	NOS	41669
18.	H170	Supplying, Laying and Jointing Cast Iron (CI) double flanged pipes true to line / hoisting of CI flanged pipe in position and aligning to correct plumb, including cost of jointing materials, conveying to work spot with all lead and lifts etc. complete. CI double flanged pipes are based on foundry grade pig iron (S1 2% - 2.5%) of Rs.32,050/- per MT. The rate of puddle flanges are inclusive of 4% VAT.		
18.1	H170A	For double flanged CI pipes of 80 mm dia.	RMT	2413
18.2	H170B	For double flanged CI pipes of 100 mm dia.	RMT	3238
18.3	H170C	For double flanged CI pipes of 150 mm dia.	RMT	5047
18.4	H170D	For double flanged CI pipes of 200 mm dia.	RMT	7125
18.5	H170E	For double flanged CI pipes of 250 mm dia.	RMT	9896
18.6	H170F	For double flanged CI pipes of 300 mm dia.	RMT	12641
18.7	H170G	For double flanged CI pipes of 350 mm dia.	RMT	16718
18.8	H170H	For double flanged CI pipes of 400 mm dia.	RMT	20168
18.9	H170I	For double flanged CI pipes of 450 mm dia.	RMT	24169
18.10	H170J	For double flanged CI pipes of 500 mm dia.	RMT	28168
18.11	H170K	For double flanged CI pipes of 600 mm dia.	RMT	36536

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
19.	H180	Supplying and fixing lightening arrestor with Aluminium strip 25 mm x 3 mm size including finial and grounding, Aluminium strip to be embedded in one of the columns in and independent GI conduit of 40 mm dia. pipe suitably jointed by collars with all specials with all lead and lifts etc. complete for:		
19.1	H180A	For Over Head Tanks upto 6 M staging	NOS	4610
19.2	H180B	For Over Head Tanks upto 9 M staging	NOS	6124
19.3	H180C	For Over Head Tanks upto 12M staging	NOS	6973
19.4	H180D	For Over Head Tanks upto 15M staging	NOS	8942
20.	H190	Providing plastering in CM 1:3 proportion after removing old plaster of existing RCC over head tanks, including smooth finishing, minimum 2% of approved quality water proofing compound, curing, scaffolding and giving satisfactory water proof testing as per direction etc. complete with all lead lifts etc. for side walls, shell portions, bottom doom, bottom slab and ribs etc. for:		
20.1	H190A	12 mm thick for exposed surfaces upto 6.0 Mtr. staging.	SQM	244
20.2	H190B	Over head tanks 6.0 to 9.0 Mtr. staging.	SQM	279
20.3	H190C	12 mm thick for exposed surfaces 9.0 to 12.0 Mtr. staging.	SQM	313
20.4	H190D	12 mm thick for exposed surfaces 12.0 to 15.0 Mtr. staging.	SQM	348
20.5	H190F	20 mm thick for exposed surfaces upto 6.0 Mtr. staging.	SQM	281
20.6	H190G	20 mm thick for exposed surfaces 6.0 to 9.0 Mtr. staging.	SQM	316
20.7	H190H	20 mm thick for exposed surfaces 9.0 to 12.0 Mtr. staging.	SQM	351
20.8	H190I	20 mm thick for exposed surfaces 12.0 to 15.0 Mtr. staging.	SQM	348
21.	H200	Providing plastering in CM 1:3 proportion for RCC over head tanks, including smooth finishing, minimum 2% of approved quality water proofing compound, curing, scaffolding and giving satisfactory water proof testing as per direction etc. complete with all lead lifts etc. for side walls, shell portions, bottom doom, bottom slab and ribs etc. for:		
21.1	H200A	12 mm thick for exposed surfaces upto 6.0 Mtr. staging.	SQM	221
21.2	H200B	Over head tanks 6.0 to 9.0 Mtr. staging.	SQM	255
21.3	H200C	12 mm thick for exposed surfaces 9.0 to 12.0 Mtr. staging.	SQM	290
21.4	H200D	12 mm thick for exposed surfaces 12.0 to 15.0 Mtr. staging.	SQM	325
21.5	H200F	20 mm thick for exposed surfaces upto 6.0 Mtr. staging.	SQM	258
21.6	H200G	20 mm thick for exposed surfaces 6.0 to 9.0 Mtr. staging.	SQM	293
21.7	H200H	20 mm thick for exposed surfaces 9.0 to 12.0 Mtr. staging.	SQM	328
21.8	H200I	20 mm thick for exposed surfaces 12.0 to 15.0 Mtr. staging.	SQM	325
22	H210	Providing two coats of water proof cement painting with approved colour and shade over one coat of primer including scrapping the surface with wire brushes etc. before removal of scaffolding for new RCC over head tanks and cleaning of paint stains wherever necessary with all lead and lifts etc. complete for:		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
22.2	H210A	Tanks upto 6 Mtrs. staging.	SQM	117
22.3	H210B	Tanks staging above 6 Mtrs. and upto 9 Mtrs.	SQM	135
22.4	H210C	Tanks staging above 9 Mtrs. and upto 12 Mtrs.	SQM	154
22.5	H210D	Tanks staging above 12 Mtrs. and upto 15 Mtrs.	SQM	172
23.	H220	Providing two coats of water proof cement painting with approved colour and shade over one coat of primer including necessary scaffolding and scrapping of old paint and stain with wire brushes and cleaning of paint stains etc. wherever necessary for old RCC over head tanks with all lead and lifts etc. complete for:		
23.1	H220A	Tanks upto 6 Mtrs. staging.	SQM	128
23.2	H220B	Tanks staging above 6 Mtrs. and upto 9 Mtrs.	SQM	159
23.3	H220C	Tanks staging above 9 Mtrs. and upto 12 Mtrs.	SQM	177
23.4	H220D	Tanks staging above 12 Mtrs. and upto 15 Mtrs.	SQM	196
24.	H230A	Supplying and fixing 40 mm dia. GI pipe medium duty pipes hand railing 3 rows fixed to RCC 1:2:4 vibrated post of 150x150 mm at bottom and 100x150 mm at top, placed at 2 Mtrs. intervals for a height of 750 mm including curing, painting GI pipes with two coats of anticorrosive steel paint over a primer coat etc. with all lead lift etc. (The rate per meter is for 3 rows of GI pipes and RCC post)	RMT	1164

CHAPTER - 10

GROUND LEVEL SERVICE RESERVOIR

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	I010	Earth work EXCAVATION FOR FOUNDATION TRENCHES OR DRAINS by mechanical means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, removal of stumps and other deleterious matters, dressing of sides & ramming of bottoms to the extent required, utilizing the available excavated earth locally for the work etc. complete for:		
1.1	I010A	All types of soils upto 2.0 M depth Note : If any shoring and strutting, will be paid separately	CUM	183
1.2	I010B	All types of soils, depth 2.0 to 4.0 M Note : If any shoring and strutting, will be paid separately	CUM	271
1.3	I010C	All types of soils, depth 4.0 to 6.0 M Note : If any shoring and strutting, will be paid separately	CUM	348
1.4	I010D	All types of soils, depth 6.0 to 8.0 M Note : If any shoring and strutting, will be paid separately	CUM	424
1.5	I010E	All types of soils, depth 8 to 10 M Note : If any shoring and strutting, will be paid separately	CUM	501
2.	I020	Earth work EXCAVATION FOR FOUNDATION TRENCHES OR DRAINS by mechanical means as per drawing and technical specifications, including setting out, shoring, strutting, barricading, danger lighting bracing, removal of stumps and other deleterious matters, dressing of sides & ramming of bottoms to the extent required, utilizing the available excavated earth locally for the work etc. complete for:		
2.1	I020A	Ordinary Rock not requiring blasting upto 2.0 M depth	CUM	211
2.2	I020B	Ordinary Rock not requiring blasting, depth 2.0 to 4.0 M depth	CUM	304
2.3	I020C	Ordinary Rock not requiring blasting, depth 4.0 to 6.0 M depth	CUM	408
2.4	I020D	Ordinary Rock not requiring blasting, depth 6.0 to 8.0 M depth	CUM	500
2.5	I020E	Ordinary Rock not requiring blasting, depth 8.0 to 10.0 M depth	CUM	592
3.	I030A	Providing and laying PCC 1:3:6 proportion for foundations (Screed Layers) of ground level reservoir with 40 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including cost and conveyance of all materials with all lead and lifts including plywood / steel form work, machine mixing, laying, tamping, curing etc. complete.	CUM	3870

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	I040A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of raft, footings etc. for ground level reservoir with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, machine mixing, laying in layers of 15 cm., compacted, curing, smooth finishing etc. complete (excluding the cost of reinforcement).	CUM	6026
5.	I050A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of main and secondary beams below and above floor level, with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, centering, scaffolding, machine mixing, compacting, curing, plastering exposed faces with CM 1:4 12 mm thick etc. complete (excluding the cost of reinforcement).	CUM	8791
6.	I060A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of flat or sloping floor slabs resting on ground, with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, compacting, curing, plastering exposed faces with CM 1:3, 20 mm thick, with admixture of water proofing compound of approved quality in requisite proportion, making construction joints wherever necessary, giving satisfactory water proof test etc. complete (excluding the cost of reinforcement). The contractor will make his own arrangements for procuring water for testing.	CUM	8175
7.	I070A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of vertical side walls, walls of effluent channel baffles etc. with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work for form finishing, compacting, curing, plastering exposed faces with CM 1:3, 20 mm thick, with admixture of water proofing compound of approved quality in requisite proportion, making construction joints wherever necessary, giving satisfactory water proof test etc. complete (excluding the cost of reinforcement). The contractor will make his own arrangements for procuring water for testing.	CUM	12780
8.	I080A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of columns below and above floor level, with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, centering, scaffolding, machine mixing, compacting, curing, plastering exposed faces with CM 1:3 12 mm thick etc. complete (excluding the cost of reinforcement).	CUM	10831

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
9.	I090A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of cover slab (flat slab), with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, centering, scaffolding, compacting, curing, plastering exposed faces with CM 1:3, 12 mm thick for inside surfaces etc. complete (excluding the cost of reinforcement).	CUM	10178
10.	I100A	Providing and laying cement concrete 1:1.5:3 proportion for RCC works of dooms, with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including machine mixing, cost and conveyance of all materials with all lead and lifts including plywood / steel form work, centering, scaffolding, compacting, curing, plastering exposed faces with CM 1:3, 12 mm thick for inside and out side surfaces etc. complete (excluding the cost of reinforcement).	CUM	16008
11.	I110A	Providing and constructing granite, trap, basalt or any other approved hard stone uncoursed rubble masonry in CM 1:4, in courses not less than 20 cms. high, including necessary scaffolding, curing etc., complete with all lead and lifts for all materials but excluding pointing.	CUM	3650
12.	I110B	Providing and constructing granite, trap, basalt or any other approved hard granite stone COURSED RUBBLE MASONRY, second sort / size, in CM 1:4, excluding pointing, in courses not less than 20 cms. high with bond stones 2 Mtrs. apart in each course and all exposed quions 2 line dressed 5 cms. wide on each face including scaffolding, curing, all lead and lifts for materials, necessary hydraulic test for water tightness etc. complete. (The contractor will make his own arrangements for procuring water for testing).	CUM	3931
13.	I110C	Providing grooved pointing to stone masonry works, in cement mortar 1:3 in fine sand, including scaffolding, racking out joints 25 mm deep, smooth finishing, curing etc. complete with all lead and lift for all materials etc.	SQM	197
14.	I110D	Providing tuck pointing to stone masonry works, in cement mortar 1:3 in fine sand, including scaffolding, racking out joints 25 mm deep, smooth finishing, curing etc. complete with all lead and lift for all materials etc.	SQM	218
15.	I120	Providing plastering in cement mortar 1:3 proportion with minimum 2% of approved quality water proof compound, including scaffolding, racking out joints 25 mm deep, smooth finishing, curing etc. with all lead and lifts for all materials etc. complete for:		
15.1	I120A	20 mm thick plastering	SQM	276
15.2	I120B	25 mm thick plastering	SQM	302
15.3	I120C	30 mm thick plastering	SQM	334

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
16.	I130A	Labour charges for fabricating Mild Steel or Tor Steel bars of all sizes for reinforcement for RCC works, including conveying steel to work spot with all lead, cleaning, straightening, cutting, bending, fabricating, placing in position, tieing as per design, cover blocks, binding wire, hoisting to different levels etc. complete but excluding the cost of MS or TS bars.	M.T	11987
17.	I140A	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to RCC structures like floor and walls of reservoirs, sewe, effluent and water treatment plants, over head tanks, etc. prepared by mixing in the ratio of 5:2 (5 parts integral crystalline slurry 2 parts water) for horizontal and vertical surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI - 212-3R-2010 ie. by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 Bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self healing of cracks upto a width of 0.50 mm. The work shall be carried out all complete as per specification and the direction of the Engineer in charge. The product performance shall carry guarantee for 10 years against any leakage. For horizontal and vertical surfaces in two coats @ 0.70 kg per sqm per coat	SQM	462
18.	I150A	Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts integral crystalline mortar : 1 parts water) for treatment of faulty construction joints, cracks, tie rod holes, spalled and honey combed surface, coves at junction joints of RCC structures like floor and walls of reservoirs, sewage, effluent and water treatment plants, over head tanks, etc. The crystalline mortar shall conform to EN 1504-3 having compressive strength class R4 > 45 MPa and adhesive bond strength class R3 > 1.5 MPa. The work shall be carried out all complete as per specification and the direction of the Engineer in charge. The product performance shall carry guarantee for 10 years against any leakage. For sealing cracks and faulty construction joints, and making coves at junction joints by preparing the surface, making U shaped groove size 25 mm x 25 mm and then priming the surface with integral crystalline slurry @ 0.05 kg per running meter and while the surface is tacky, then filling the groove up to top edge with crystalline mortar @ 1.50 kg per running meter. Once crystalline mortar is touch dry then finally applying two coats of integral crystalline slurry @ 0.05 kg per running meter per coat on treated surface.	SQM	516

CHAPTER - 11

RCC INTERLOCK SLABS FOR COMPOUND WALL

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	J010A	Providing and laying in position reinforced cement concrete of design mix M20, with OP cement @ 320 kgs/cum, 20 mm and down size graded granite metal coarse aggregate @ 0.69 per/cum, fine aggregate @ 0.46 per/cum, super plasticizer conforming to IS 9103-1999 reaffirmed 2008 @ 3 ltr / cum, machine mixed, laid into fabricated steel form work, vibrated / compacted and cured for RCC precast columns of size 200 x 200 x 3000 mm. The precast columns to have grooves of size 50 mm x 90 mm on opposite vertical faces suitable to insert 70 mm thick precast slab panels. The precast columns to have 8 nos of 16 mm dia. vertical bars and 8 mm dia. ties at 200 mm centre to centre. The rate includes cost of reinforcement steel, repetitive cost of fabricated steel form work and fixing in position at site as directed by Engineer in charge, cost of all materials, labour, HOM of machinery, casting yard, curing etc. complete as per specifications. The rate excludes the cost of RCC footings and other related works.	NOS	3037
2.	J020A	Providing and erecting in position, 2400 x 600 x 60 mm size precast slab panels of M25 grade design mix reinforced cement concrete with OP cement @ 320 kgs/cum, 20 mm and down size graded granite metal coarse aggregate, super plasticizer conforming to IS 9103-1999 reaffirmed 2008 @ 3 ltr / cum, machine mixed, laid into fabricated steel form work, vibrated / compacted and cured for RCC precast slabs with groove finish, one BWSSB logo and other side plain finish. The precast slabs to have reinforcements 1no. of 10 mm dia. loop and round the panel, 5 Nos of 8 mm dia. horizontals and 15 Nos of 8 mm dia. verticals equally spaced. The thickness of panel shall be 60 mm thick at the middle and 70 mm thick at the edges for a width of 250 mm. The gaps between the panels shall be packed with CM 1:4 and final surface between the panel and RCC post shall be finished using silicon sealant of approved make etc. The cost includes the cost of all materials, labour, HOM of machinery, casting yard, curing etc. complete as per specifications. The rate excludes the cost of RCC footings and other related works.	NOS	1628

CHAPTER - 12

HDPE PIPE WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	K010	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		
1.1	K010A	HDPE Grade PE80-PN6.0, 90 mm dia	RMT	324
1.2	K010B	HDPE Grade PE80-PN6.0, 110 mm dia	RMT	463
1.3	K010C	HDPE Grade PE80-PN6.0, 125 mm dia	RMT	560
1.4	K010D	HDPE Grade PE80-PN6.0, 140 mm dia	RMT	690
1.5	K010E	HDPE Grade PE80-PN6.0, 160 mm dia	RMT	878
1.6	K010F	HDPE Grade PE80-PN6.0, 180 mm dia	RMT	1085
1.7	K010G	HDPE Grade PE80-PN6.0, 200 mm dia	RMT	1338
1.8	K010H	HDPE Grade PE80-PN6.0, 225 mm dia	RMT	1656
1.9	K010I	HDPE Grade PE80-PN6.0, 250 mm dia	RMT	2019
1.10	K010J	HDPE Grade PE80-PN6.0, 280 mm dia	RMT	2500
1.11	K010K	P, L & J HDPE- PE80-PN6.0, 315 mm dia	RMT	3123
1.12	K010L	HDPE Grade PE80-PN6.0, 355 mm dia	RMT	3910
1.13	K010M	HDPE Grade PE80-PN6.0, 400 mm dia	RMT	5034
1.14	K010N	HDPE Grade PE80-PN6.0, 450 mm dia	RMT	6302
1.15	K010O	HDPE Grade PE80-PN6.0, 500 mm dia	RMT	7738
1.16	K010P	HDPE Grade PE80-PN6.0, 560 mm dia	RMT	9624
1.17	K010Q	HDPE Grade PE80-PN6.0, 630 mm dia	RMT	12121
1.18	K010R	HDPE Grade PE80-PN6.0, 710 mm dia	RMT	15663

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.	K020	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : :		
2.1	K020A	HDPE Grade PE80-PN8.0, 90 mm dia	RMT	393
2.2	K020B	HDPE Grade PE80-PN8.0, 110 mm dia	RMT	564
2.3	K020C	HDPE Grade PE80-PN8.0, 125 mm dia	RMT	689
2.4	K020D	HDPE Grade PE80-PN8.0, 140 mm dia	RMT	847
2.5	K020E	HDPE Grade PE80-PN8.0, 160 mm dia	RMT	974
2.6	K020F	HDPE Grade PE80-PN8.0, 180 mm dia	RMT	1343
2.7	K020G	HDPE Grade PE80-PN8.0, 200 mm dia	RMT	1585
2.8	K020H	HDPE Grade PE80-PN8.0, 225 mm dia	RMT	2068
2.9	K020I	HDPE Grade PE80-PN8.0, 250 mm dia	RMT	2531
2.10	K020J	HDPE Grade PE80-PN8.0, 280 mm dia	RMT	3144
2.11	K020K	HDPE Grade PE80-PN8.0, 315 mm dia	RMT	3938
2.12	K020L	HDPE Grade PE80-PN8.0, 355 mm dia	RMT	6178
2.13	K020M	HDPE Grade PE80-PN8.0, 400 mm dia	RMT	6364
2.14	K020N	HDPE Grade PE80-PN8.0, 450 mm dia	RMT	7999
2.15	K020O	HDPE Grade PE80-PN8.0, 500 mm dia	RMT	9810
2.16	K020P	HDPE Grade PE80-PN8.0, 560 mm dia	RMT	12245
2.17	K020Q	HDPE Grade PE80-PN8.0, 630 mm dia	RMT	14691
2.18	K020R	HDPE Grade PE80-PN8.0, 710 mm dia	RMT	19955
3.	K030	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for ::		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.1	K030A	HDPE Grade PE80-PN10.0, 90 mm dia	RMT	459
3.2	K030B	HDPE Grade PE80-PN10.0, 110 mm dia	RMT	654
3.3	K030C	HDPE Grade PE80-PN10.0, 125 mm dia	RMT	806
3.4	K030D	HDPE Grade PE80-PN10.0, 140 mm dia	RMT	995
3.5	K030E	HDPE Grade PE80-PN10.0, 160 mm dia	RMT	1278
3.6	K030F	HDPE Grade PE80-PN10.0, 180 mm dia	RMT	1596
3.7	K030G	HDPE Grade PE80-PN10.0, 200 mm dia	RMT	1938
3.8	K030H	HDPE Grade PE80-PN10.0, 225 mm dia	RMT	2452
3.9	K030I	HDPE Grade PE80-PN10.0, 250 mm dia	RMT	2996
3.10	K030J	HDPE Grade PE80-PN10.0, 280 mm dia	RMT	3734
3.11	K030K	HDPE Grade PE80-PN10.0, 315 mm dia	RMT	4683
3.12	K030L	HDPE Grade PE80-PN10.0, 355 mm dia	RMT	5893
3.13	K030M	HDPE Grade PE80-PN10.0, 400 mm dia	RMT	7586
3.14	K030N	HDPE Grade PE80-PN10.0, 450 mm dia	RMT	9555
3.15	K030O	HDPE Grade PE80-PN10.0, 500 mm dia	RMT	11731
3.16	K030P	HDPE Grade PE80-PN10.0, 560 mm dia	RMT	14670
3.17	K030Q	HDPE Grade PE80-PN10.0, 630 mm dia	RMT	18467
4.	K040	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		
4.1	K040A	HDPE Grade PE80-PN12.5, 90 mm dia	RMT	528
4.2	K040B	HDPE Grade PE80-PN12.5, 110 mm dia	RMT	770
4.3	K040C	HDPE Grade PE80-PN12.5, 125 mm dia	RMT	940
4.4	K040D	HDPE Grade PE80-PN12.5, 140 mm dia	RMT	1164
4.5	K040E	HDPE Grade PE80-PN12.5, 160 mm dia	RMT	1497
4.6	K040F	HDPE Grade PE80-PN12.5, 180 mm dia	RMT	1894
4.7	K040G	HDPE Grade PE80-PN12.5, 200 mm dia	RMT	2287
4.8	K040H	HDPE Grade PE80-PN12.5, 225 mm dia	RMT	2923
4.9	K040I	HDPE Grade PE80-PN12.5, 250 mm dia	RMT	3532
4.10	K040J	HDPE Grade PE80-PN12.5, 280 mm dia	RMT	4417

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.11	K040K	HDPE Grade PE80-PN12.5, 315 mm dia	RMT	5529
4.12	K040L	HDPE Grade PE80-PN12.5, 355 mm dia	RMT	6980
4.13	K040M	HDPE Grade PE80-PN12.5, 400 mm dia	RMT	8993
4.14	K040N	HDPE Grade PE80-PN12.5, 450 mm dia	RMT	10278
4.15	K040O	HDPE Grade PE80-PN12.5, 500 mm dia	RMT	12538
5.	K050	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		
5.1	K050A	HDPE Grade PE80-PN16.0, 90 mm dia	RMT	622
5.2	K050B	HDPE Grade PE80-PN16.0, 110 mm dia	RMT	904
5.3	K050C	HDPE Grade PE80-PN16.0, 125 mm dia	RMT	1096
5.4	K050D	HDPE Grade PE80-PN16.0, 140 mm dia	RMT	1377
5.5	K050E	HDPE Grade PE80-PN16.0, 160 mm dia	RMT	1774
5.6	K050F	HDPE Grade PE80-PN16.0, 180 mm dia	RMT	2222
5.7	K050G	HDPE Grade PE80-PN16.0, 200 mm dia	RMT	2709
5.8	K050H	HDPE Grade PE80-PN16.0, 225 mm dia	RMT	3434
5.9	K050I	HDPE Grade PE80-PN16.0, 250 mm dia	RMT	4205
5.10	K050J	HDPE Grade PE80-PN16.0, 280 mm dia	RMT	4039
5.11	K050K	HDPE Grade PE80-PN16.0, 315 mm dia	RMT	6603
5.12	K050L	HDPE Grade PE80-PN16.0, 355 mm dia	RMT	8328
5.13	K050M	HDPE Grade PE80-PN16.0, 400 mm dia	RMT	10729
6.	K060	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
6.1	K060A	HDPE Grade PE100-PN6.0, 90 mm dia	RMT	287
6.2	K060B	HDPE Grade PE100-PN6.0, 110 mm dia	RMT	402
6.3	K060C	HDPE Grade PE100-PN6.0, 125 mm dia	RMT	482
6.4	K060D	HDPE Grade PE100-PN6.0, 140 mm dia	RMT	593
6.5	K060E	HDPE Grade PE100-PN6.0, 160 mm dia	RMT	751
6.6	K060F	HDPE Grade PE100-PN6.0, 180 mm dia	RMT	928
6.7	K060G	HDPE Grade PE100-PN6.0, 200 mm dia	RMT	1138
6.8	K060H	HDPE Grade PE100-PN6.0, 225 mm dia	RMT	1413
6.9	K060I	HDPE Grade PE100-PN6.0, 250 mm dia	RMT	1709
6.10	K060J	HDPE Grade PE100-PN6.0, 280 mm dia	RMT	2121
6.11	K060K	P, L&J HDPE- PE100-PN6.0, 315 mm dia	RMT	2644
6.12	K060L	HDPE Grade PE100-PN6.0, 355 mm dia	RMT	3303
6.13	K060M	HDPE Grade PE100-PN6.0, 400 mm dia	RMT	4224
6.14	K060N	HDPE Grade PE100-PN6.0, 450 mm dia	RMT	5297
6.15	K060O	HDPE Grade PE100-PN6.0, 500 mm dia	RMT	6486
6.16	K060P	HDPE Grade PE100-PN6.0, 560 mm dia	RMT	8218
6.17	K060Q	HDPE Grade PE100-PN6.0, 630 mm dia	RMT	10335
6.18	K060R	HDPE Grade PE100-PN6.0, 710 mm dia	RMT	13021
7.	K070	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for : :		
7.1	K070A	HDPE Grade PE100-PN8.0, 90 mm dia	RMT	345
7.2	K070B	HDPE Grade PE100-PN8.0, 110 mm dia	RMT	490
7.3	K070C	HDPE Grade PE100-PN8.0, 125 mm dia	RMT	591
7.4	K070D	HDPE Grade PE100-PN8.0, 140 mm dia	RMT	730
7.5	K070E	HDPE Grade PE100-PN8.0, 160 mm dia	RMT	930
7.6	K070F	HDPE Grade PE100-PN8.0, 180 mm dia	RMT	1144
7.7	K070G	HDPE Grade PE100-PN8.0, 200 mm dia	RMT	1395
7.8	K070H	HDPE Grade PE100-PN8.0, 225 mm dia	RMT	1766
7.9	K070I	HDPE Grade PE100-PN8.0, 250 mm dia	RMT	2149

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
7.10	K070J	HDPE Grade PE100-PN8.0, 280 mm dia	RMT	2670
7.11	K070K	HDPE Grade PE100-PN8.0, 315 mm dia	RMT	3337
7.12	K070L	HDPE Grade PE100-PN8.0, 355 mm dia	RMT	4175
7.13	K070M	HDPE Grade PE100-PN8.0, 400 mm dia	RMT	5365
7.14	K070N	HDPE Grade PE100-PN8.0, 450 mm dia	RMT	6741
7.15	K070O	HDPE Grade PE100-PN8.0, 500 mm dia	RMT	8261
7.16	K070P	HDPE Grade PE100-PN8.0, 560 mm dia	RMT	10512
7.17	K070Q	HDPE Grade PE100-PN8.0, 630 mm dia	RMT	13209
7.18	K070R	HDPE Grade PE100-PN8.0, 710 mm dia	RMT	16688
8	K080	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for ::		
8.1	K080A	HDPE Grade PE100-PN10.0, 90 mm dia	RMT	401
8.2	K080B	HDPE Grade PE100-PN10.0, 110 mm dia	RMT	570
8.3	K080C	HDPE Grade PE100-PN10.0, 125 mm dia	RMT	694
8.4	K080D	HDPE Grade PE100-PN10.0, 140 mm dia	RMT	857
8.5	K080E	HDPE Grade PE100-PN10.0, 160 mm dia	RMT	1098
8.6	K080F	HDPE Grade PE100-PN10.0, 180 mm dia	RMT	1371
8.7	K080G	HDPE Grade PE100-PN10.0, 200 mm dia	RMT	1662
8.8	K080H	HDPE Grade PE100-PN10.0, 225 mm dia	RMT	2097
8.9	K080I	HDPE Grade PE100-PN10.0, 250 mm dia	RMT	2557
8.10	K080J	HDPE Grade PE100-PN10.0, 280 mm dia	RMT	3177
8.11	K080K	HDPE Grade PE100-PN10.0, 315 mm dia	RMT	3986
8.12	K080L	HDPE Grade PE100-PN10.0, 355 mm dia	RMT	5020
8.13	K080M	HDPE Grade PE100-PN10.0, 400 mm dia	RMT	6458
8.14	K080N	HDPE Grade PE100-PN10.0, 450 mm dia	RMT	8093
8.15	K080O	HDPE Grade PE100-PN10.0, 500 mm dia	RMT	9943
8.16	K080P	HDPE Grade PE100-PN10.0, 560 mm dia	RMT	12638
8.17	K080Q	HDPE Grade PE100-PN10.0, 630 mm dia	RMT	15941
8.18	K080R	HDPE Grade PE100-PN10.0, 710 mm dia	RMT	20160

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
9.	K090	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		
9.1	K090A	HDPE Grade PE100-PN12.50, 90 mm dia	RMT	464
9.2	K090B	HDPE Grade PE100-PN12.5, 110 mm dia	RMT	666
9.3	K090C	HDPE Grade PE100-PN12.5, 125 mm dia	RMT	813
9.4	K090D	HDPE Grade PE100-PN12.5, 140 mm dia	RMT	1011
9.5	K090E	HDPE Grade PE100-PN12.5, 160 mm dia	RMT	1296
9.6	K090F	HDPE Grade PE100-PN12.5, 180 mm dia	RMT	1618
9.7	K090G	HDPE Grade PE100-PN12.5, 200 mm dia	RMT	1966
9.8	K090H	HDPE Grade PE100-PN 12.5, 225 mm dia	RMT	2489
9.9	K090I	HDPE Grade PE100-PN 12.5, 250 mm dia	RMT	3036
9.10	K090J	HDPE Grade PE100-PN 12.5, 280 mm dia	RMT	3783
9.11	K090K	HDPE Grade PE100-PN 12.5, 315 mm dia	RMT	4748
9.12	K090L	HDPE Grade PE100-PN 12.5, 355 mm dia	RMT	5979
9.13	K090M	HDPE Grade PE100-PN 12.5, 400 mm dia	RMT	7707
9.14	K090N	HDPE Grade PE100-PN 12.5, 450 mm dia	RMT	8820
9.15	K090O	HDPE Grade PE100-PN 12.5, 500 mm dia	RMT	10855
10.	K100	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-1995 with latest amendments and conveying to work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for :		
10.1	K100A	HDPE Grade PE100-PN16.0, 90 mm dia	RMT	557
10.2	K100B	HDPE Grade PE100-PN16.0, 110 mm dia	RMT	806
10.3	K100C	HDPE Grade PE100-PN16.0, 125 mm dia	RMT	966

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
10.4	K100D	HDPE Grade PE100-PN16.0, 140 mm dia	RMT	1199
10.5	K100E	HDPE Grade PE100-PN16.0, 160 mm dia	RMT	1547
10.6	K100F	HDPE Grade PE100-PN16.0, 180 mm dia	RMT	1931
10.7	K100G	HDPE Grade PE100-PN16.0, 200 mm dia	RMT	2335
10.8	K100H	HDPE Grade PE100-PN16.0, 225 mm dia	RMT	2980
10.9	K100I	HDPE Grade PE100-PN 16.0, 250 mm dia	RMT	3648
10.10	K100J	HDPE Grade PE100-PN 16.0, 280 mm dia	RMT	4549
10.11	K100K	HDPE Grade PE100-PN 16.0, 315 mm dia	RMT	5707
10.12	K100L	HDPE Grade PE100-PN 16.0, 355 mm dia	RMT	7194
10.13	K100M	HDPE Grade PE100-PN 16.0, 450 mm dia	RMT	11704
10.14	K100N	HDPE Grade PE100-PN 16.0, 500 mm dia	RMT	14381
11.	K110	Providing fusion welding Jointing for HDPE Pipes Grade PE-80 / PE-100 conforming to IS 4984-1995, of specified dia. etc. for:		
11.1	K110A	HDPE Grade PE80 Pipes 90 mm dia	RMT	41
11.2	K110B	HDPE Grade PE80 Pipes 110 mm dia	RMT	48
11.3	K110C	HDPE Grade PE80 Pipes 125 mm dia	RMT	56
11.4	K110D	HDPE Grade PE80 Pipes 140 mm dia	RMT	70
11.5	K110E	HDPE Grade PE80 Pipes 160 mm dia	RMT	78
11.6	K110F	HDPE Grade PE80 Pipes 180 mm dia	RMT	85
11.7	K110G	HDPE Grade PE80 Pipes 200 mm dia	RMT	99
11.8	K110H	HDPE Grade PE80 Pipes 225 mm dia	RMT	114
11.9	K110I	HDPE Grade PE80 Pipes 250 mm dia	RMT	129
11.10	K110J	HDPE Grade PE80 Pipes 280 mm dia	RMT	144
11.11	K110K	HDPE Grade PE80 Pipes 315 mm dia	RMT	159
11.12	K110L	HDPE Grade PE80 Pipes 355 mm dia	RMT	181
11.13	K110M	HDPE Grade PE80 Pipes 400 mm dia	RMT	203
11.14	K110N	HDPE Grade PE80 Pipes 450 mm dia	RMT	231
11.15	K110O	HDPE Grade PE80 Pipes 500 mm dia	RMT	254
11.16	K110P	HDPE Grade PE80 Pipes 560 mm dia	RMT	285
11.17	K110Q	HDPE Grade PE80 Pipes 630 mm dia	RMT	327
11.18	K110R	HDPE Grade PE80 Pipes 710 mm dia	RMT	366
12.	K120	Providing, laying and testing MDPE (black) PE-80 pipes conforming to relevant IS specifications with latest amendments etc. for:		
12.1	K120A	MDPE Pipe 6kg/cm2,4.3 mm thick	RMT	120
12.2	K120B	MDPE Pipe 8kg/cm2, 5.4 mm thick	RMT	149
12.3	K120C	MDPE Pipe 10kg/cm2, 6.7 mm thick	RMT	179

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
12.4	K120D	MDPE Pipe 6kg/cm2, 5.3 mm thick	RMT	179
12.5	K120E	MDPE Pipe 8kg/cm2, 6.6 mm thick	RMT	218
13.	K130	Supplying and installation of Class SN8 Double Wall Corrugated HDPE pipe outer wall corrugated and inner wall smooth piping system in accordance with IS 16098 part 2 and conveying to work site and lowering into trenches, laying true to line and level and perfect linking at joints with the help of two "O" rings and a coupler of suitable size, including loading and unloading at both destination and cutting of pipes where ever necessary including jointing with all labor, all lead and lift including encasing the pipe around to a depth of not less than 15 cm with screened soft soil available from the excavated soil. The testing commissioning including necessary hydraulic test to the required pressure as per ISS shall be done the contractor shall have to make his own arrangement for procuring water for testing		
13.1	K130A	SN8 Double Wall Corrugated HDPE pipe sizes of 100 mm dia	MTR	179
13.2	K130B	SN8 Double Wall Corrugated HDPE pipe sizes of 135 mm dia	MTR	238
13.3	K130C	SN8 Double Wall Corrugated HDPE pipe sizes of 150 mm dia	MTR	290
13.4	K130D	SN8 Double Wall Corrugated HDPE pipe sizes of 170 mm dia	MTR	379
13.5	K130E	SN8 Double Wall Corrugated HDPE pipe sizes of 200 mm dia	MTR	576
13.6	K130F	SN8 Double Wall Corrugated HDPE pipe sizes of 250 mm dia	MTR	774
13.7	K130G	SN8 Double Wall Corrugated HDPE pipe sizes of 300 mm dia	MTR	1162
13.8	K130H	SN8 Double Wall Corrugated HDPE pipe sizes of 400 mm dia	MTR	1758
13.9	K130I	SN8 Double Wall Corrugated HDPE pipe sizes of 500 mm dia	MTR	2597
13.10	K130J	SN8 Double Wall Corrugated HDPE pipe sizes of 600 mm dia	MTR	3528
13.11	K130K	SN8 Double Wall Corrugated HDPE pipe sizes of 800 mm dia	MTR	5548
13.12	K130L	SN8 Double Wall Corrugated HDPE pipe sizes of 1000 mm dia	MTR	8784
14.	K140	Supplying and installation of Class SN8 Double Wall Corrugated HDPE pipe outer wall corrugated and inner wall smooth piping system in accordance with IS 16098 part 2 and conveying to work site and lowering into trenches, laying true to line and level and perfect linking at joints with the help of two "O" rings and a coupler of suitable size, including loading and unloading at both destination and cutting of pipes where ever necessary including jointing with all labor, all lead and lift including encasing the pipe around to a depth of not less than 15 cm with screened soft soil available from the excavated soil. The testing commissioning including necessary hydraulic test to the required pressure as per ISS shall be done the contractor shall have to make his own arrangement for procuring water for testing		
14.1	K140A	100 ID COUPLER - fitting for 100 mm dia pipes	NOS	123
14.2	K140B	135 ID COUPLER - fitting for 135 mm dia pipes	NOS	182
14.3	K140C	150 ID COUPLER - fitting for 150 mm dia pipes	NOS	209

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
14.4	K140D	170 ID COUPLER - fitting for 170 mm dia pipes	NOS	234
14.5	K140E	200 ID COUPLER - fitting for 200 mm dia pipes	NOS	422
14.6	K140F	250 ID COUPLER - fitting for 250 mm dia pipes	NOS	582
14.7	K140G	300 ID COUPLER - fitting for 300 mm dia pipes	NOS	673
14.8	K140H	400 ID COUPLER - fitting for 400 mm dia pipes	NOS	820
14.9	K140I	500 ID COUPLER - fitting for 500 mm dia pipes	NOS	966
14.10	K140J	600 ID COUPLER - fitting for 600 mm dia pipes	NOS	1127
14.11	K140K	800 ID COUPLER - fitting for 800 mm dia pipes	NOS	1651
14.12	K140L	1000 ID COUPLER - fitting for 1000 mm dia pipes	NOS	2169
14.13	K140M	100 ID TEE - fitting for 100 mm dia pipes	NOS	448
14.14	K140N	135 ID TEE - fitting for 135 mm dia pipes	NOS	640
14.15	K140O	150 ID TEE - fitting for 150 mm dia pipes	NOS	755
14.16	K140P	170 ID TEE - fitting for 170 mm dia pipes	NOS	971
14.17	K140Q	200 ID TEE - fitting for 200 mm dia pipes	NOS	1643
14.18	K140R	250 ID TEE - fitting for 250 mm dia pipes	NOS	2201
14.19	K140S	300 ID TEE - fitting for 300 mm dia pipes	NOS	2618
14.20	K140T	100 ID BEND - fitting for 100 mm dia pipes	NOS	549
14.21	K140U	135 ID BEND - fitting for 135 mm dia pipes	NOS	870
14.22	K140V	150 ID BEND - fitting for 150 mm dia pipes	NOS	1179
14.23	K140W	170 ID BEND - fitting for 170 mm dia pipes	NOS	1730
14.24	K140X	200 ID BEND - fitting for 200 mm dia pipes	NOS	2926
14.25	K140Y	250 ID BEND - fitting for 250 mm dia pipes	NOS	3925
14.26	K140Z	300 ID BEND - fitting for 300 mm dia pipes	NOS	4441

CHAPTER - 13

PRE-STRESSED CONCRETE PIPE WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	L010	Manufacturing of the prestressed concrete pipes as per ISS 784-2001 and ISS 1343-1980 using all the required materials such as cement, seived sand, trap or basalt jelly with all lead and lift including cost and conveyance of all materials for manufacture of pipes and supply, carefully rolling, lowering into trenches, laying true to line and correct position, linking, perfect jointing using rubber ring etc. suitable for confined joints including testing and commissioning with all lead and lifts for conveyance of pipes etc. complete, giving satisfactory hydraulic test on line to required pressure as per relevant ISS, including bailing out of water wherever necessary etc. complete as per IS:784. Pipes are to be as per the design. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing) etc. for:		
1.1	L010A	PSC pipes for test pressure of 12 kg/cm2 and 375 mm inner dia pipes	RMT	2523
1.2	L010B	PSC pipes for test pressure of 12 kg/cm2 and 400 mm inner dia pipes	RMT	2678
1.3	L010C	PSC pipes for test pressure of 12 kg/cm2 and 450 mm inner dia pipes	RMT	2784
1.4	L010D	PSC pipes for test pressure of 12 kg/cm2 and 500 mm inner dia pipes	RMT	3347
1.5	L010E	PSC pipes for test pressure of 12 kg/cm2 and 600 mm inner dia pipes	RMT	3620
1.6	L010F	PSC pipes for test pressure of 12 kg/cm2 and 700 mm inner dia pipes	RMT	4484
1.7	L010G	PSC pipes for test pressure of 12 kg/cm2 and 750 mm inner dia pipes	RMT	4733
1.8	L010H	PSC pipes for test pressure of 12 kg/cm2 and 800 mm inner dia pipes	RMT	4997
1.9	L010I	PSC pipes for test pressure of 12 kg/cm2 and 900 mm inner dia pipes	RMT	5672
1.10	L010J	PSC pipes for test pressure of 12 kg/cm2 and 1000 mm inner dia pipes	RMT	6817
1.11	L010K	PSC pipes for test pressure of 12 kg/cm2 and 1100 mm inner dia pipes	RMT	7482
1.12	L010L	PSC pipes for test pressure of 12 kg/cm2 and 1200 mm inner dia pipes	RMT	8287
2.	L020	Manufacturing of the prestressed concrete pipes as per ISS 784-2001 and ISS 1343-1980 using all the required materials such as cement, seived sand, trap or basalt jelly with all lead and lift including cost and conveyance of all materials for manufacture of pipes and supply, carefully rolling, lowering into trenches, laying true to line and correct position, linking, perfect jointing using rubber ring etc. suitable for confined joints including testing and commissioning with all lead and lifts for conveyance of pipes etc. complete, giving satisfactory hydraulic test on line to required pressure as per relevant ISS, including bailing out of water wherever necessary etc. complete as per IS:784. Pipes are to be as per the design. The rates are inclusive of all taxes and duties. (Contractor will make his own arrangements for procuring water for testing) etc. for:		
2.1	L020A	PSC pipes for test pressure of 18 kg/cm2 and 375 mm inner dia pipes	RMT	2515
2.2	L020B	PSC pipes for test pressure of 18 kg/cm2 and 400 mm inner dia pipes	RMT	2676

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.3	L020C	PSC pipes for test pressure of 18 kg/cm2 and 450 mm inner dia pipes	RMT	2839
2.4	L020D	PSC pipes for test pressure of 18 kg/cm2 and 500 mm inner dia pipes	RMT	3212
2.5	L020E	PSC pipes for test pressure of 18 kg/cm2 and 600 mm inner dia pipes	RMT	3710
2.6	L020F	PSC pipes for test pressure of 18 kg/cm2 and 700 mm inner dia pipes	RMT	4630
2.7	L020G	PSC pipes for test pressure of 18 kg/cm2 and 750 mm inner dia pipes	RMT	4947
2.8	L020H	PSC pipes for test pressure of 18 kg/cm2 and 800 mm inner dia pipes	RMT	5244
2.9	L020I	PSC pipes for test pressure of 18 kg/cm2 and 900 mm inner dia pipes	RMT	5785
2.10	L020J	PSC pipes for test pressure of 18 kg/cm2 and 1000 mm inner dia pipes	RMT	7098
2.11	L020K	PSC pipes for test pressure of 18 kg/cm2 and 1100 mm inner dia pipes	RMT	7976
2.12	L020L	PSC pipes for test pressure of 18 kg/cm2 and 1200 mm inner dia pipes	RMT	8905
3.	L030	Carefully conveying, rolling with all lead and lifts PSC pipes of all classes lowering into trenches, laying true to line and correct position, linking, perfect jointing using rubber rings etc. suitable for all types of joints, including testing and commissioning etc. complete and giving satisfactory hydralic test on the line to the required pressure as per relevant ISS including bailing out water wherever necessary etc. complete. Rubber rings will be issued free of cost at divisional or sub-divisional stores. .The contractor will make his own arrangements for procuring water for testing pressure).		
3.1	L030A	For 375 mm dia (inner) of PSC pipes	RMT	77
3.2	L030B	For 400 mm dia (inner) of PSC pipes	RMT	92
3.3	L030C	For 450 mm dia (inner) of PSC pipes	RMT	112
3.4	L030D	For 500 mm dia (inner) of PSC pipes	RMT	138
3.5	L030E	For 600 mm dia (inner) of PSC pipes	RMT	164
3.6	L030F	For 700 mm dia (inner) of PSC pipes	RMT	243
3.7	L030G	For 750 mm dia (inner) of PSC pipes	RMT	289
3.8	L030H	For 800 mm dia (inner) of PSC pipes	RMT	341
3.9	L030I	For 900 mm dia (inner) of PSC pipes	RMT	377
3.10	L030J	For 1000 mm dia (inner) of PSC pipes	RMT	456
3.11	L030K	For 1100 mm dia (inner) of PSC pipes	RMT	492
3.12	L030L	For 1200 mm dia (inner) of PSC pipes	RMT	534

CHAPTER - 14

PVC PIPE WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	M010	Supplying PVC ring tight pipes conforming to IS 4985:2000 with latest amendments and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading unloading at both destinations and cuts of pipes wherever necessary including jointing of PVC pipes and specials (excluding cost of specials) with jointing of approved type, with all labour with all lead & lift including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) etc. for:		
1.1	M010A	PVC pipes 25 mm outer dia., 10 kg/sqcm & class 5	RMT	45
1.2	M010B	PVC pipes 32 mm outer dia., 10 kg/sqcm & class 5	RMT	70
1.3	M010C	PVC pipes 50 mm outer dia., 6 kg/sqcm & class 5	RMT	107
1.4	M010D	PVC pipes 63 mm outer dia., 6 kg/sqcm & class 3	RMT	122
1.5	M010E	PVC pipes 75 mm outer dia., 6 kg/sqcm & class 3	RMT	169
1.6	M010F	PVC pipes 90 mm outer dia., 6 kg/sqcm & class 3	RMT	222
1.7	M010G	PVC pipes 110 mm outer dia., 6 kg/sqcm & class 3	RMT	304
1.8	M010H	PVC pipes 140 mm outer dia., 6 kg/sqcm & class 3	RMT	467
1.9	M010I	PVC pipes 160 mm outer dia., 6 kg/sqcm & class 3	RMT	582
1.10	M010J	PVC pipes 200 mm outer dia., 6 kg/sqcm & class 3	RMT	867
1.11	M010K	PVC pipes 250 mm outer dia., 6 kg/sqcm & class 3	RMT	1353
1.12	M010L	PVC pipes 315 mm outer dia., 6 kg/sqcm & class 3	RMT	3018
2.	M020	Supplying UNPLASTICISED PVC pipes conforming to IS 16098:2013 with latest amendments ended with integral sockets with ISI mark and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type, with all labour, lead & lifts, including encasing the pipes alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (contractor will make his own arrangements for procuring water for testing) etc. for:		
2.1	M020A	Pipes of SN 4, 75 mm dia.	RMT	214
2.2	M020B	Pipes of SN4, 110 mm dia.	RMT	284

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.3	M020C	For pipes SN4, 125 mm dia.	RMT	400
2.4	M020D	Pipes of SN4, 160 mm dia.	RMT	628
2.5	M020E	Pipes of SN4, 200 mm dia.	RMT	912
2.6	M020F	Pipes of SN4, 250 mm dia.	RMT	1421
2.7	M020G	Pipes of SN4, 315 mm dia.	RMT	2215
2.8	M020J	Pipes of SN 8, 110 mm dia.	RMT	362
2.9	M020K	Pipes of SN 8, 125 mm dia.	RMT	452
2.10	M020L	Pipes of SN 8, 160 mm dia.	RMT	713
2.11	M020M	Pipes of SN 8, 200 mm dia.	RMT	1080
2.12	M020N	Pipes of SN 8, 250 mm dia.	RMT	1645
2.13	M020O	Pipes of SN 8, 315 mm dia.	RMT	2608
3.	M030	Supplying DOUBLE WALL CORRUGATED (External annul corrugated & smooth internal wall) (DWC) of class SN 8, piping system in accordance with IS 16098 (Part-2) and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing with all labour, lead & lifts, including encasing the pipes alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (contractor will make his own arrangements for procuring water for testing) etc. for:		
3.1	M030A	Pipes of SN 8, 100 mm dia.	RMT	357
3.2	M030B	Pipes of SN 8, 135 mm dia.	RMT	475
3.3	M030C	Pipes of SN 8, 150 mm dia.	RMT	600
3.4	M030D	Pipes of SN 8, 170 mm dia.	RMT	690
3.5	M030E	Pipes of SN 8, 200 mm dia.	RMT	800
3.6	M030F	Pipes of SN 8, 250 mm dia.	RMT	1110
3.7	M030G	Pipes of SN 8, 300 mm dia.	RMT	1319
3.8	M030H	Pipes of SN 8, 400 mm dia.	RMT	1585
3.9	M030I	Pipes of SN 8, 500 mm dia.	RMT	4576
3.10	M030J	Pipes of SN 8, 600 mm dia.	RMT	6913
3.11	M030K	Pipes of SN 8, 800 mm dia.	RMT	11454
3.12	M030L	Pipes of SN 8, 1000 mm dia.	RMT	18133

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	M040	Supplying UPVC FOAM CORE pipes conforming to IS 16098 P-1 2013 with latest amendments ended with integral sockets with ISI mark and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type, with all labour, lead & lifts, including encasing the pipes alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (contractor will make his own arrangements for procuring water for testing) etc. for:		
4.1	M040A	Pipes of SN4 Ring Fit - 160 mm dia.	RMT	545
4.2	M040B	Pipes of SN8 Ring Fit, 160 mm dia.	RMT	628
4.3	M040C	Pipes of SN4 Self Fit - 160 mm dia.	RMT	554
4.4	M040D	Pipes of SN4 Self Fit - 200 mm dia.	RMT	818
4.5	M040E	Pipes of SN4 Self Fit - 250 mm dia.	RMT	1259
4.6	M040F	Pipes of SN4 Self Fit - 315 mm dia.	RMT	1964
4.7	M040G	Pipes of SN8 Self Fit - 160 mm dia.	RMT	637
4.8	M040H	Pipes of SN8 Self Fit - 200 mm dia.	RMT	963
4.9	M040I	Pipes of SN8 Self Fit - 250 mm dia.	RMT	1443
4.10	M040J	Pipes of SN8 Self Fit - 315 mm dia.	RMT	2303
5.	M050	Providing, laying, supplying jointing materials, jointing and testing but excluding excavation and back filling etc. for Oriented Poly vinyl chloride Pipes or O-PVC Pipes of highest Orientation Class 500 with homogeneous SPIGOT including supply of Elastomeric sealing ring manufactured as per ISO 16422-2014 and the elastomeric sealing ring gasket conforming to EN 681-1. The manufacturing, testing at factory, supplying, transportation, handling, stacking, installation, jointing and testing at sites shall comply with all applicable standards (ISO 16422-2014) .		
5.1	M050A	Pipes of 110 mm dia., PN - 16 & elastromeric fittings	RMT	1002
5.2	M050B	Pipes of 160 mm dia., PN - 16 & elastromeric fittings	RMT	1403
5.3	M050C	Pipes of 200 mm dia., PN - 16 & elastromeric fittings	RMT	1876
5.4	M050D	Pipes of 250 mm dia., PN - 16 & elastromeric fittings	RMT	2584
5.5	M050E	Pipes of 315 mm dia., PN - 16 & elastromeric fittings	RMT	3445
5.6	M050E	Pipes of 400 mm dia., PN - 16 & elastromeric fittings	RMT	4982
5.7	M050G	Pipes of 110 mm dia., PN - 25 & elastromeric fittings	RMT	1039
5.8	M050H	Pipes of 160 mm dia., PN - 25 & elastromeric fittings	RMT	1532
5.9	M050I	Pipes of 200 mm dia., PN - 25 & elastromeric fittings	RMT	2073
5.10	M050J	Pipes of 250 mm dia., PN - 25 & elastromeric fittings	RMT	2788

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.11	M050K	Pipes of 315 mm dia., PN - 25 & elastromeric fittings	RMT	3647
5.12	M050L	Pipes of 400 mm dia., PN - 25 & elastromeric fittings	RMT	5459

CHAPTER - 15

CI / GI PIPES WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	N005	Providing, Laying and Fixing GI pipes conforming to IS 1239:1990 with latest amendments complete with GI fittings (excluding the cost of fittings) with cuts and threads wherever necessary, including testing for water tightness, with all lead and commissioning. Earth work excavation in trenches for pipes to be measured and paid for separately (contractor will make his own arrangements for procuring water for testing) for:		
1.1	N005A	Light Duty GI pipe of 15 mm dia	RMT	75
1.2	N005B	Light Duty GI pipe of 20 mm dia	RMT	98
1.3	N005C	Light Duty GI pipe of 25 mm dia	RMT	183
1.4	N005D	Light Duty GI pipe of 32 mm dia	RMT	223
1.5	N005E	Light Duty GI pipe of 40 mm dia	RMT	281
1.6	N005F	Light Duty GI pipe of 50 mm dia	RMT	349
1.7	N005G	Light Duty GI pipe of 65 mm dia	RMT	476
1.8	N005H	Light Duty GI pipe of 80 mm dia	RMT	558
1.9	N005I	Light Duty GI pipe of 100 mm dia	RMT	782
2.	N010	Providing, Laying and Fixing GI pipes conforming to IS 1239:1990 with latest amendments complete with GI fittings (excluding the cost of fittings) with cuts and threads wherever necessary, including testing for water tightness, with all lead and commissioning. Earth work excavation in trenches for pipes to be measured and paid for separately (contractor will make his own arrangements for procuring water for testing) for:		
2.1	N010A	Medium Duty GI pipe of 15 mm dia	RMT	127
2.2	N010B	Medium Duty GI pipe of 20 mm dia	RMT	152
2.3	N010C	Medium Duty GI pipe of 25 mm dia	RMT	214
2.4	N010D	Medium Duty GI pipe of 32 mm dia	RMT	262
2.5	N010E	Medium Duty GI pipe of 40 mm dia	RMT	305
2.6	N010F	Medium Duty GI pipe of 50 mm dia	RMT	415
2.7	N010G	Medium Duty GI pipe of 65 mm dia	RMT	526
2.8	N010H	Medium Duty GI pipe of 80 mm dia	RMT	670
2.9	N010I	Medium Duty GI pipe of 100 mm dia	RMT	954

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	N020	Providing, Laying and Fixing GI pipes conforming to IS 1239:1990 with latest amendments complete with GI fittings (excluding the cost of fittings) with cuts and threads wherever necessary, including testing for water tightness, with all lead and commissioning. Earth work excavation in trenches for pipes to be measured and paid for separately (contractor will make his own arrangements for procuring water for testing) for:		
3.1	N020A	Heavy Duty GI pipe of 15 mm dia	RMT	144
3.2	N020B	Heavy Duty GI pipe of 20 mm dia	RMT	173
3.3	N020C	Heavy Duty GI pipe of 25 mm dia	RMT	250
3.4	N020D	Heavy Duty GI pipe of 32 mm dia	RMT	309
3.5	N020E	Laying of GI pipe Heavy-duty 40 mm dia	RMT	360
3.6	N020F	Heavy Duty GI pipe of 50 mm dia	RMT	496
3.7	N020G	Heavy Duty GI pipe of 65 mm dia	RMT	632
3.8	N020H	Heavy Duty GI pipe of 80 mm dia	RMT	779
3.9	N020I	Heavy Duty GI pipe of 100 mm dia	RMT	1112
4.	N030	Providing and fixing GI union in existing GI pipe line, cutting and threading the pipe and making long screws including excavation, refilling the earth or cutting of wall and making good the same complete wherever required etc. for:		
4.1	N030A	15 mm nominal bore	NOS	268
4.2	N030B	20.88.2: 20 mm nominal bore	NOS	289
4.3	N030C	20.88.3: 25 mm nominal bore	NOS	299
4.4	N030D	20.88.4: 32 mm nominal bore	NOS	317
4.5	N030E	20.88.5: 40 mm nominal bore	NOS	354
4.6	N030F	20.88.6: 50 mm nominal bore	NOS	496
4.7	N030G	20.88.7: 65 mm nominal bore	NOS	680
4.8	N030H	20.88.8: 80 mm nominal bore	NOS	765
5.	N040	Providing and Laying in trenches S&S centrifugally cast (spun) iron socket and spigot pipes of Class LA and conforming to IS 1536 with latest amendments. (Earth work in trenches and jointing of pipes to be measured and paid for separately) for:		
5.1	N040A	80 mm dia pipe	RMT	1138
5.2	N040B	100 mm dia pipe	RMT	1142
5.3	N040C	150 mm dia pipe	RMT	1706
5.4	N040D	200 mm dia pipe	RMT	2892
5.5	N040E	250 mm dia pipe	RMT	3766
5.6	N040F	300 mm dia pipe	RMT	5077
5.7	N040G	350 mm dia pipe	RMT	6078

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.8	N040H	400 mm dia pipe	RMT	8012
5.9	N040I	450 mm dia pipe	RMT	9701
5.10	N040J	500 mm dia pipe	RMT	11267
5.11	N040K	600 mm dia pipe	RMT	15746
6.	N050	Laying in trenches S&S centrifugally cast (spun) iron socket and spigot pipes all classes and conforming to IS 1536 with latest amendments including conveying from sectional stores to site, rolling and lowering to trenches, laying true to line level and perfect linking at joints, loading & unloading at both destination and with an initial lead of 5.0 K.M. (Earth work in trenches and jointing of pipes to be measured and paid for separately) for :		
6.1	N050A	80 mm dia pipe	RMT	20
6.2	N050B	Laying of CI 100 mm dia pipe	RMT	24
6.3	N050C	Laying of CI 150 mm dia pipe	RMT	28
6.4	N050D	Laying of CI 200 mm dia pipe	RMT	33
6.5	N050E	Laying of CI 250 mm dia pipe	RMT	37
6.6	N050F	Laying of CI 300 mm dia pipe	RMT	43
6.7	N050G	Laying of CI 350 mm dia pipe	RMT	49
6.8	N050H	Laying of CI 400 mm dia pipe	RMT	57
6.9	N050I	Laying of CI 450 mm dia pipe	RMT	68
6.10	N050J	Laying of CI 500 mm dia pipe	RMT	80
6.11	N050K	Laying of CI 600 mm dia pipe	RMT	92
6.12	N050L	Laying of CI 700 mm dia pipe	RMT	167
6.13	N050M	Laying of CI 750 mm dia pipe	RMT	205
6.14	N050N	Laying of CI 900 mm dia pipe	RMT	276
7.	N060	Providing and Laying in trenches CAST IRON pipes of Class B excluding the earth work in trenches and jointing of pipes which are to be measured and paid for separately for:		
7.1	N060A	80 mm dia pipe	RMT	501
7.2	N060B	100 mm dia pipe	RMT	535
7.3	N060C	150 mm dia pipe	RMT	771
7.4	N060D	200 mm dia pipe	RMT	1109
7.5	N060E	250 mm dia pipe	RMT	1492
7.6	N060F	300 mm dia pipe	RMT	1929
7.7	N060G	350 mm dia pipe	RMT	2410
7.8	N060H	400 mm dia pipe	RMT	2939
7.9	N060I	450 mm dia pipe	RMT	3562
7.10	N060J	500 mm dia pipe	RMT	4226

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
7.11	N060K	600 mm dia pipe	RMT	5644
7.12	N060L	700 mm dia pipe	RMT	7546
7.13	N060M	750 mm dia pipe	RMT	8491
7.14	N060N	900 mm dia pipe	RMT	11545
8.	N070	Providing lead caulked joints to spun iron or CI pipes and specials with spun yarn and lead, including caulking and giving satisfactory hydraulic test corresponding to the required pressure etc. and excluding the cost of pig lead for:		
8.1	N070A	Spun / CI / DI pipes 80 mm	NOS	177
8.2	N070B	Spun / CI / DI pipes 100 mm	NOS	181
8.3	N070C	Spun / CI / DI pipes 150 mm	NOS	270
8.4	N070D	Spun / CI / DI pipes 200 mm	NOS	359
8.5	N070E	Spun / CI / DI pipes 250 mm	NOS	465
8.6	N070F	Spun / CI / DI pipes 300 mm	NOS	552
8.7	N070G	Spun / CI / DI pipes 350 mm	NOS	659
8.8	N070H	Spun / CI / DI pipes 400 mm	NOS	788
8.9	N070I	Spun / CI / DI pipes 450 mm	NOS	907
8.10	N070J	Spun / CI / DI pipes 500 mm	NOS	987
8.11	N070K	Spun / CI / DI pipes 600 mm	NOS	1270
8.12	N070L	Spun / CI / DI pipes 700 mm	NOS	1475
8.13	N070M	Spun / CI / DI pipes 750 mm	NOS	1787
8.14	N070N	Spun / CI / DI pipes 900 mm	NOS	2229
9.	N080A	Providing and laying S&S CI standard specials such as tees, bends, collars tappers and caps etc suitable for flanged jointing as per IS codes for pipes upto 300 mm dia.	KGS	177
10.	N080B	Providing and laying S&S CI standard specials such as tees, bends, collars tappers and caps etc. suitable for flanged jointing as per IS codes for pipes above 300 mm dia.	KGS	183
11.	N080C	Providing and laying S&S CI standard specials such as tees, bends, collars tappers and caps etc. suitable for mechanical jointing as per IS codes for pipes upto 300 mm dia.	KGS	194
12.	N080D	Providing and laying S&S CI standard specials such as tees, bends, collars tappers and caps etc. suitable for mechanical jointing as per IS codes for pipes above 300 mm dia.	KGS	200

CHAPTER - 16

BORE WELLS AND HAND PUMPS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	O010	Sinking borewell of 165 mm dia. clear, using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF and above, in all strata of earth, including over burden upto 20M, fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicles, crew charges, cost of consumables, cost of yield test at the final depth with a minimum working of compressor for one hour etc. complete. The cost excludes the cost of casing pipes, collars and caps etc.) for:		
1.1	O010A	Borewell depth of 0 to 50 Mtrs per RMT	RMT	248
1.2	O010B	Borewell depth of 50 to 100 Mtrs per RMT	RMT	310
1.3	O010C	Borewell depth of 100 to 150 Mtrs per RMT	RMT	361
1.4	O010D	Borewell depth of 150 to 200 Mtrs per RMT	RMT	412
1.5	O010E	Borewell depth of 200 to 250 Mtrs per RMT	RMT	443
1.6	O010F	Borewell depth of 250 to 300 Mtrs per RMT	RMT	464
1.7	O010G	Borewell depth above 300 Mtrs per RMT	RMT	474
2.	O020	Sinking borewell of 150 mm dia. clear, using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF and above, in all strata of earth, including over burden upto 20M, fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicles, crew charges, cost of consumables, cost of yield test at the final depth with a minimum working of compressor for one hour etc. complete. The cost excludes the cost of casing pipes, collars and caps etc.) for:		
2.1	O020A	Borewell depth of 0 to 50 Mtrs per RMT	RMT	232
2.2	O020B	Borewell depth of 50 to 100 Mtrs per RMT	RMT	298
2.3	O020C	Borewell depth of 100 to 150 Mtrs per RMT	RMT	351
2.4	O020D	Borewell depth of 150 to 200 Mtrs per RMT	RMT	386
2.5	O020E	Borewell depth of 200 to 250 Mtrs per RMT	RMT	413
2.6	O020F	Borewell depth of 250 to 300 Mtrs per RMT	RMT	417
2.7	O020G	Borewell depth above 300 Mtrs per RMT	RMT	449
3.	O030A	Positioning of the rig for retrieval of failed borewells, raising mast and aligning the hammer and drill rods mounted on the rotary head of the rig concentric with borewell of 140-149 mm dia. to be retrived (wherever further geo-physical investigation has revealed that the existing aquifer / aquifers have not been tapped to the full depth) including selection of the suitable bit for deepening etc. The cost is for the work of each bore well.	NOS	2059

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	O040A	Geophysical investigation at site for sinking borewells for supplying drinking water to the habitation either through the Hand Pump MWS or P.W.S.S, by vertical electrical sounding by adopting Venner or Schlumbergers's method, including reconnaissance survey of geological formation. Geophysical investigation of existing ground water in the vicinity, its quality, quantity and acceptability of the users, indicating the location of the site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instruments and accessories to work site, engaging technical personal and labour required etc. NOTE: 1) Additional rate on item 1&2 is allowed for drilling in over burden and fixing Casing pipes beyond 20 M (for fixing Casing pipes only) a) Above 20 M and upto 30 M - 15%, b) Above 30 M - 30% (Measurement of overburden is restricted to the depth of casing pipe fixed excluding initial depth of 20M and projection above ground level). 2) A sum of Rs. 100/- is to be deducted for Dry Borewell towards yield test.	NOS	1717
5.	O050A	Cleaning of borewells including yield testing of borewell either using slow or fast rigs for not more than 2 hours at the final depth with a minimum working of 2 hours continuously with air compressor or suitable pump as per specification, including the cost of transportation charges, crew charges, cost of consumables etc. complete	NOS	10869
6.	O060A	Re-drilling of filled-up borewell, including yield test at final depth.	RMT	229
7.	O070A	Logging / scanning of borewell at any depth continuously with the help of Logger unit including the cost of transportation charges, crew charges, stationery charges and cost of consumables etc.	NOS	1372
8.	O080A	Hydrofracturing of 146 to 152 mm dia. borewell by using hydrofracturing unit using single packer with minimum of two fractures including transportation of unit, supporting vehicles, crew charges, cost of consumables and yield testing of borewell one hour at once before fracturing and the other after fracturing. The work to be within a radius of 50 kms from taluk head quarters and including supplying necessary water for fracturing etc. complete.	NOS	11440
9.	O090A	Yield testing of borewells at final depth with a minimum of 10 hours continuously with the help of pump testing unit including the cost of transportation charges, crew charges and cost of consumables.	SQM	7437
10.	O100A	Providing and construction of platform in CC 1:2:4 proportion using hard granite or basalt or trap jelly of 20 mm and down size for India Mark-II hand pump as per approved drawing enclosed to the S.R (UNICEF standard), including machine mixing, laying, tamping, curing and smooth finishing of exposed faces in CM 1:3 with necessary moulds, including earth work excavation with all leads of materials etc. complete	NOS	3293

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
11.	O110A	Providing and construction of platform in M15 Cement Concrete using hard granite or basalt or trap jelly of 20 mm and down size for India Mark-III (VLOM) hand pump as per approved drawing enclosed to the S.R according to IS 13056 - 1991 (UNICEF standard), including machine mixing, laying, tamping, curing and smooth finishing of exposed faces in CM 1:3 with necessary moulds, including earth work excavation with all leads of materials etc. complete	NOS	4754
12.	O120A	Erecting and commissioning of new hand pump including fixing of GI pipes, fixing of hand pump to the borewell and giving satisfactory test etc. complete.	NOS	413
13.	O120B	Erecting and commissioning of new hand pump India Mark III (VLOM), including fixing of GI pipes, fixing of hand pump to the borewell and giving satisfactory test etc. complete.	NOS	516
14.	O130A	Repair Top Head Assembly of Hand Pumps by removing the top head assembly, replacing the wornout parts such as handle, axle, chain bearings. Reassembling after greasing in position and giving satisfactory test. etc. complete excluding the cost of parts required for replacement.	NOS	236
15.	O130B	Dismantling India Mark III hand pump from position, releasing plunger rods, valves, piston. Overhauling the components, replace the wornout parts and re-erecting in position etc. with cutting, threading wherever necessary, adjusting the rod and giving satisfactory test etc. The replaced materials to be returned to the departmental store. The cost exclude the cost of parts required for replacement)	NOS	237
16.	O130C	Dismantling India Mark III hand pump from position, releasing GI pipes, rods, pump, cylinder and strainer. Overhauling the components, replace the wornout parts and re-erecting in position etc. with cutting, threading wherever necessary, adjusting the rod and giving satisfactory test etc. The replaced materials to be returned to the departmental store. The cost exclude the cost of parts required for replacement)	NOS	438
17.	O130D	Providing and greasing the chain of hand pump (both India Mark-II and India Mark-III) by removing the top head cover, cleaning wanter tank and head assembly, removing all dirt inside and outside the hand pump body and refixing the top head cover by fixing the bolts and nuts including replacing the bolts and nuts with new ones wherever necessary etc. complete (excluding the cost of spares).	NOS	59
18.	O130E	Labour charges for repairing of existing hand pump (both India Mark II and India Makr III) above the ground level including replacing of worn out parts such as top head, inspection cover, handle, handle axis, handle bearing, chain with coupling water tank and extension or raiser pipe with plunger rod as may be required including re-assembling the pump in position and giving satisfactory water discharge test and returning of released materials to the stores etc. complete excluding the cost of spares.	NOS	161

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
19.	O130F	Labour charges for repairing of existing hand pump (both India Mark II and India Makr III) below the ground level after dismantling the hand pump head assembly, water tank riser assembly, plunger rods, pump cylinder, replacing of worn out parts in the pumpset cylinder, including overhauling of cylinder, cutting the GI pipes and rods and threading the same, re-assembling the pump including greasing and giving satisfactory water discharge test and returning of released materials to the stores etc. complete excluding the cost of spares.	NOS	437
20.	O130G	Scraping of old paints, stains etc. and provide painting with anti-corrosive pint over a cost primer etc. with approved brand of paint and primer etc. including the cost of all materials, labour, transportation and numbering etc. as directed by the departmental officials.	NOS	181
21.	O140A	Dismantling of hand pump from position, releasing of GI pipes, plunger rods, pump cylinder and strainer and returning the released items to departmental stores.	NOS	173
22.	O140B	Dismantling the existing platform of hand pumps of all types and remove the debris as directed.	NOS	115
23.	O140C	Fishing out power pump from the borewell including the cost of labour, materials, with all lead and lifts etc. complete.	NOS	4805
24.	O150A	Labour charges for Lifting of non functioning submersible pump set along with cable and GI pipes (Each length = 6m) i) 50 mm	NOS	113
25.	O150B	Labour charges for Lifting of non functioning submersible pump set along with cable and GI pipes (Each length = 6m) ii) 32 mm	NOS	92
26.	O150C	Lifting of struck up submersible pump set upto 300 ft	NOS	4812
27.	O150D	Lifting of struck up submersible pump set above 300 ft	NOS	9358
28.	O150E	Labour charges for Erection of new / repaired submersible pump set along with GI pipes (32mm / 50mm), cable (New submersible pump set if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (Each length = 6 m)	NOS	92
29.	O150F	Labour charges for lowering additional GI pipes of dia 32 / 50 mm dia including transportation charges (New GI pipe required will be supplied by the department free of cost & released GI pipes should be handed over to the department (Labour charges only) Upto 3 lengths	NOS	1012
30.	O150G	Labour charges for lowering additional GI pipes of dia 32 / 50 mm dia including transportation charges (New GI pipe required will be supplied by the department free of cost & released GI pipes should be handed over to the department (Labour charges only) above 3 lengths	NOS	337
31.	O150H	Repair of existing energized Borewell outdoor MS panel board by welding the damaged broken panel board doors body sheet, angle iron, frame door hinges, cement concrete to panel board legs, embossing (letters & RR No.) etc., complete	NOS	1041

CHAPTER - 17

REPAIRS TO SUBMERSIBLE PUMPSETS AND REPLACEMENT OF PARTS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	P010	Rewinding of submersible pumpset with finolex winding wires of appropriate Gauge, as per specifications and / or directions of the departmental officials, including all materials, labour, equipment and testing. for all types of submersible pumpsets etc. for		
1.1	P010A	For all types of submersible pumpsets upto 3.0 H.P.	NOS	2884
1.2	P010B	For all types of submersible pumpsets above 3 HP and upto 5.0 H.P.	NOS	3123
1.3	P010C	For all types of submersible pumpsets above 5.0 HP and upto 5.5H.P.	NOS	3316
1.4	P010D	For all types of submersible pumpsets above 5.5 HP and upto 6.0H.P.	NOS	3507
1.5	P010E	For all types of submersible pumpsets above 6.0 HP and upto 6.5H.P.	NOS	3703
1.6	P010F	For all types of submersible pumpsets above 6.5 HP and upto 7.0H.P.	NOS	3893
1.7	P010G	For all types of submersible pumpsets above 7.0 HP and upto 7.5H.P.	NOS	4085
1.8	P010H	For all types of submersible pumpsets above 7.5 HP and upto 8.0H.P.	NOS	4277
1.9	P010I	For all types of submersible pumpsets above 8.0 HP and upto 8.5H.P.	NOS	4470
1.10	P010J	For all types of submersible pumpsets above 8.5 HP and upto 9.0H.P.	NOS	4663
1.11	P010K	For all types of submersible pumpsets above 9.0 HP and upto 9.5H.P.	NOS	4855
1.12	P010L	For all types of submersible pumpsets above 9.5 HP and upto 10.0H.P.	NOS	5048
1.13	P010M	For all types of submersible pumpsets above 10 HP and upto 11 H.P.	NOS	5488
1.14	P010N	For all types of submersible pumpsets above 11 HP and upto 12 H.P.	NOS	5928
1.15	P010O	For all types of submersible pumpsets above 12 HP and upto 13 H.P.	NOS	6367
1.16	P010P	For all types of submersible pumpsets above 13 HP and upto 14 H.P.	NOS	6808
1.17	P010Q	For all types of submersible pumpsets above 14 HP and upto 15 H.P.	NOS	7248
1.18	P010R	For all types of submersible pumpsets above 15 HP and upto 16 HP	NOS	7687
1.19	P010S	For all types of submersible pumpsets above 16 HP and upto 17 HP	NOS	8127
1.20	P010T	For all types of submersible pumpsets above 17 HP and upto 18 HP	NOS	8567
1.21	P010U	For all types of submersible pumpsets above 18HP and upto 19 HP	NOS	9007
1.22	P010V	For all types of submersible pumpsets above 19 HP and upto 20 HP	NOS	9447
2.	P020	Replace the components of submersible pump sets, requiring replacements decided by the departmental officials, with respective make of damaged ones, including all materials, labour, equipments and testing etc. for:		
2.1	P020A	The bowls of same type and make	NOS	338
2.2	P020B	The Intermediate piece (IP) with IP leaded bronze brush.	NOS	781
2.3	P020C	The Oil Seal.	NOS	132
2.4	P020D	The Oil Seal. and steel brush	NOS	145
2.5	P020E	The Guide Vane	NOS	212
2.6	P020F	The Impeller (Shell moulded with Aluminium and bronze.)	NOS	288
2.7	P020G	The discharge outlet (DO) bearing DO steel brush DO bearing.	NOS	571
2.8	P020H	The steel bearing brush (DO steel brush)	NOS	192
2.9	P020I	The allen screw	NOS	84

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
2.10	P020J	The pump shaft made out of stainless steel centreless ground with key way (upto 8 stages). Extra for each stage @ Rs.40/-.	NOS	721
2.11	P020K	The pump key (stainless steel)	NOS	132
2.12	P020L	The pump coupling (stainless steel)	NOS	373
2.13	P020M	The Non Return Valve (NRV) assembly complete with rubber 'O' ring.	NOS	625
2.14	P020N	The cable guard	NOS	181
2.15	P020O	The strainer	NOS	212
2.16	P020P	The brass filter	NOS	132
2.17	P020Q	The Labour Charges for overhauling of the pump set.	NOS	600
3.	P030	Replace the components of motor parts of submersible pump sets, items requiring replacements decided by the departmental officials, with respective make of damaged ones, including all materials, labour, equipments and testing etc and wtih guarantee for one year for:		
3.1	P030A	The STATOR of motor upto 3 H.P with one year warranty	NOS	5801
3.2	P030B	The STATOR of motor 3 to 4 H.P with one year warranty	NOS	6126
3.3	P030C	The STATOR of motor 4 to 5 H.P with one year warranty	NOS	6485
3.4	P030D	The ROTOR of motor upto 3.0 H.P with one year warranty	NOS	3724
3.5	P030E	The ROTOR of motor 3 to 4 H.P with one year warranty	NOS	4323
3.6	P030F	The ROTOR motor 4 to 5 H.P with one year warranty	NOS	4804
3.7	P030G	The upper flange	NOS	361
3.8	P030H	The lower flange	NOS	445
3.9	P030I	The lower housing	NOS	589
3.10	P030J	The Lock Ring	NOS	96
3.11	P030K	The Carbon Housing	NOS	445
3.12	P030L	The Carbon Housing (Thrust bearing block assembly complete with segment bearing pad.	NOS	601
3.13	P030M	The Carbon Housing (Top carbond / ferrodo padding)	NOS	1922
3.14	P030N	The Stud and Nuts	NOS	96
3.15	P030O	The Gun Metal bearing, centrifugally cast Aluminium Bronze bearing brush	NOS	445
3.16	P030P	The Circlips	NOS	55
3.17	P030Q	The Motor base with pin	NOS	445
3.18	P030R	The Transportation of pumping machineries	NOS	600
3.19	P030S	The Re-errection charges of pumping machineries including overhauling and painting	NOS	1202
3.20	P030T	The lifting of submersible pumpset from well.	NOS	842
3.21	P030U	The Labour charges only for overhauling	NOS	600

Note:

1. For rewinding of motor finolex winding wires of appropriated gauge should be used.
2. In case replacement of spares. Spares of respective make should only be used.
3. The above rates are inclusive after absorbing all released materials

CHAPTER - 18

BULK FLOW METERS

1. ELECTROMAGNETIC INDUCTION FLOW METERS:

1. Applications: Raw or potable water with chlorine content.
2. Conductivity : Maximum 500 MS / CM
3. Accuracy: + / - 5% flow reading.
4. Velocity Range : 0.3 m / sec. to 10 m / sec.
5. Power Supply : For the entire diameter pipes (100 mm to 300 mm) 230 Volts AC power supply with surge arrestor, inbuilt re-chargeable battery to provide backup for minimum 6 hours in the absence of grid supply.
6. Galvanic Isolation: All circuits of output and power supply to Galvanizically Isolated.
7. Tube Lighting Materials: PTFE Liner.
8. Electrode Material: SS 316 L.
9. Flow meter housing : Fully welded and corrosive resistant painted carbon / sheet steel (Housing single unit.)
10. Electrodes: 2 Measuring electrodes.
11. Display Unit: 2 or 3 line LCD display 16 characters per line with backlight to see the reading during night time. All diagonostics should be visible on the LCD screen. 1st Line - Flow rate in M3 /hr. 2nd Line - Totalizer in M3. 3rd Line - Electrode deposition / tamper status display.
12. Flange Material: CS flange
13. Type of Flange: ANSI / DIN type flange
14. Sensor Protection: IP 68
15. Transmitter Protection: IP 67.
16. Flow meter ambient Temperature: Upto 60 degree C.
17. Exact full model code and data sheet of the flow meter to be provided for each line size.
18. Data Logger: Internal / external with flow meter and data to be transmitted to server automatically for every 1 hour. Flow meter shall send 24 data message per day to remote server. Locally for every 5 minutes of interval in data logger. Per day 288 readings will be logged, per month 8640. Data of previous one year should be logged in to either internet / external data logger.

2. FLOW SENSORS:

1. Mounting: In field on pipe line (flow through flow sensor.)
2. Line Size: 100 mm to 300 mm.
3. Material Flow Tube: SS 316 / SS 304.
4. Grounding: Grounding / Earthing is required to protect flow meter from spurious signals. Earthing rings shall be provided at both flange ends. This will provide high degree of protection as compared to earthing electrode.
5. Electrodes: SS 316L.
6. Weather Protection for Flow Tube: IP 68.
7. Employ Pipe Detection (EPD): Integral part of design.
8. The sensors should be as per ISO standard lengths (ISO 13359) as applicable, so that interchangeability can be carried out. The sensors shall also have built in grounding and employ pipe detection facility.

3. FLOW TRANSMITTER / COMPUTATION:

1. Mounting: Transmitter panel mounted outside the meter chamber in proper location.
2. Type: Microprocessor based - 4 wire.

3. Protection : IP 67
4. Power Supply : For the entire diameter pipes (100 mm to 300 mm) 230 Volts, AC power supply with surge arrestor. Inbuilt chargeable battery to provide backup for minimum 6 hours backup in the absence of Gridy supply.
5. Out put: 4 - 20 M Amps, digital and pulse outputs, Status Out puts, GPRS (Should support GSM also.) Data logger out put : Through RS 485 / Ethernet.
6. Unit of Display: M3 Cubic Meter) / hour, MLD, ML (Programmable.)
7. Enclosure Material: Aluminium alloy with polyurethane quoting.
8. Flow Meter Standards: Testing and calliratin - IS / ISO 17025. Meter Standard - ISO 4068.
9. Calibration and Testing: All the flow meters to be calibrated at manufacturer work place. Calibration/ Test certificates to be provided as per IS / ISO 17025, periodical calibration facility to be provided if required.

4. PEDESTAL PANEL FOR TRANSMITTER UNIT:

1. The electronic display unit shall be installed on a removable back board. It should be an anti-corrosive material. Enclosure should be designed for IP 54, separate compartments for energy meter & converter and flow meter display unit and modem. Generated heat inside the flow meter should be dissipated and should not cause any harmful effects inside enclosure, wall or post mounting cabinet enclosure. The enclosure shall be constructed from galvanized stell which is at least 3 mm thick. The enclosure shall have a hinged access door, which shall have a facility for padlocking in the closed position. Batteries shall be easily accessible for periodic changing. For floor mounting enclosures, the enclosure shall be mounted on a concrete plinth, the surface of which shall be at least 120 cm. above the surrounding finished ground level. A cable duct shall pass through the plinth to enable the cable from the flow sensor to enter the enclosure. A table showing details of the Employer's name and the water meter's unique reference number shall be fixed to the external face of the access door. Contractors or equipment manufacturer's details shall not be fixed to the external face of the access door.
2. Transparent toughened glass of size 10 cm x 5 cm to be provided to see reading of BESCOM energy meter and flow meter separately. Panel should be provided with lock, master key, fan and filter for cooling / heat dissipation.
3. The enclosure shall be well ventilated, dust proof and vermin proof, and be suitable for robust use in a tropical climate. It shall also be suitable for:

a) the housing of the integral data logger and the temporary housing of a battery powered data logger which could periodically be used in conjunction with the water meter.

b) the permanent housing of any lightning protection system, the permanent housing of GPRS transmitter and battery pack, and any other items necessary to facilitate communication with the central server.

NOTES FOR BULK FLOW METERS:

1. The data rates are valid for only one year period and subject to variations in the market value.
2. The bulk meter totalizer/register shall be started immediately on installation of water meter.
3. Concerned officer shall strictly check testing and calibration certificate to ensure quality.
4. Necessary agreement shall be made by concerned officer for warranty and other conditions.
5. The bulk meter readings shall be synchronized to remote server at Cauvery Bhavan immediately.
6. Civil, mechanical and electrical charges extra to be estimated.

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	R010	Supply, Installation, Commissioning and Testing of GPRS + GSM based EMI flow meters on the Bulk water connections ranging from 100 mm to 300 mm. The electromagnetic meters should comprise of the specifications given in the notes of this chapter.III) Providing Electromagnetic Induction AMR water meters for 100 mm to 300 mm diameter. Supply, Installation, Commissioning and Testing of GPRS + GSM based EMI flow meters on the Bulk waters connections ranging from 100 mm to 300 mm. The electromagnetic meters should comprise of following specification. Specification: 1. Specification of electromagnetic induction Flow meters Application : Raw or Potable Water with chlorine content Conductivity : Maximum 500 MS/CM Accuracy : +/- 0.5% flow reading. Velocity Range : 0 .3 m / sec to 10 m/ sec Power Supply : For the entire diameter pipes (100 mm to 300 mm) 230 Volts AC power supply with surge arrester. Inbuilt rechargeable battery to provide backup for minimum 6 hrs battery backup in the absence of Grid Supply.		
		Galvanic Isolation : All circuits of output and power supply to Galvanizically Isolated. Tube Lining Material : PTFE liner. Electrode material : SS 316L Flow meter Housing : Fully Welded and corrosive resistant Painted Carbon / Sheet Steel. (Housing Single unit) Electrodes : 2 measuring electrodes/4 measuring electrodes Display Unit : 2 or 3 Line LCD display 16 characters per line with backlight to see the reading during night time. All diagnostics should be visible on the LCD screen 1st line : Flow Rate in M3 / hr 2nd line : Totaliser M3 3rd Line : Electrode deposition / tamper status display Flange material : CS Flange Type of Flange : ANSI/ DIN type Flange Sensor protection : IP 68 Transmitter Protection Flow meter Ambient Temperature : up to 60º C Exact full model code and datasheet of the flow meter to be provided for each line size. Data Logger: Internal / External with flow meter and data to be transmitted to server automatically for every 1 hour. Flow meter shall send 24 data message per day to remote server. Locally for every 5 minutes of interval in data logger. Per day 288 readings will be logged, per month 8640. Data of previous 1 year should be logged in to either internal / external data logger 2. Specification for Flow Sensors : Mounting: In field on pipeline (flow through flow Sensor). Line Sizes : 100 mm to 300 mm. Material of Flow Tube : SS316 / SS304 Grounding : Grounding / Earthing is required to protect flow meter from spurious signal. Earthing rings shall be provided at both flange ends.		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
		This will provide high degree of protection as compared to earthing electrode Electrodes : SS316L Weather Protection for Flow Tube: IP68 Empty Pipe Detection (EPD) : Integral part of design with electrode. The sensors should be as per ISO Standard lengths (ISO 13359) as applicable, so that interchangeability can be carried out. The sensors shall also have built in grounding and empty pipe detection facility 3. Specification for Flow Transmitter/Computation: Mounting : Transmitter panel mounted outside the meter Chamber in proper location. Type : Microprocessor based: 4 wire Protection : IP67 Power supply : For the entire diameter pipes (100 mm to 300 mm) 230 Volts, AC power supply with surge arrester. Inbuilt rechargeable battery to provide backup for minimum 6 hrs battery backup in the absence of Grid supply. Output : 4-20 m Amps, digital and pulse outputs, Status Outputs, GPRS (Should Support GSM also).		
1.1		Data Logger Output : Through RS 485/ Ethernet. Unit of Display: M3 (Cubic Meter) / hr, MLD, ML (Programmable). Enclosure Material: Aluminum alloy with polyurethane quoting. Flow meter Standards: Testing & Calliratin : IS / ISO 1702., ISO 9140 Meter Standard: ISO 4064 Calibration and Testing: All the flow meters to be calibrated at manufacturer work place. Calibration / Test certificates to be provided as per IS / ISO 17025, periodical calibration facility to be provided if required. Specification for Pedestal Panel for Transmitter Unit : 1) The electronic display unit shall be installed on a removable backboard. It should be an anti corrosive material. Enclosure should be designed for IP54, separate compartment for energy meter & converter and flow meter display unit & modem. Generated heat inside the flow meter should be dissipated and should not cause any harmful effects inside enclosure, wall or post mounting cabinet enclosure. The enclosure shall be constructed from galvanized steel which is at least 3 mm thick. The enclosure shall have a hinged access door, which shall have a facility for padlocking in the closed position. Batteries shall be easily accessible for periodic changing. For floor mounting enclosures, the enclosure shall be mounted on a concrete plinth, the surface of which shall be at least 120 cm above the surrounding finished ground level. A cable duct shall pass through the ; linth to enable the cable from the flow sensor to enter the enclosure. A label showing details of the Employer's name and the water meter's unique reference number shall be fixed to the external face of the access door. Contractors or equipment manufacturer's details shall not be fixed to the external face of the access door. 2) Transparent toughened glassed of size 10 cm x 5 cm to be provided to see reading of BESCOM energy meter and flow meter separately. Panel should be provided with lock, master key, fan & filter for cooling / heat dissipation.		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
		3) The enclosure shall be well-ventilated, dust-proof and vermin-proof, and be suitable for robust use in a tropical climate. It shall also be suitable for : a) the housing of the integral data logger and the temporary housing of a battery powered data logger which could periodically be used in conjunction with the water meter. b) the permanent housing of any lightning protection system the permanent housing of GPRS transmitter and battery pack, and any other items necessary to facilitate communication with the central server. c) The permanent housing of BESCOM energy meter. The bulk meter totalizer / register shall be started immediately on installation of water meter. Concerned officer shall strictly check testing and calibration certificate to ensure quality. Necessary agreement shall be made by concerned officer for warranty and other conditions. The bulk meter reading shall be synchronized to remote server at Cauvery Bhavan immediately. Civil, Mechanical and Electrical charges extra to be estimated. 1.The bulk meter totalizer / register shall be started immediately on installation of water meter. 2. Concerned officer shall strictly check testing and calibration certificate to ensure quality. 3. Necessary agreement shall be made by concerned officer for warranty and other conditions. 4.The bulk meter reading shall be synchronized to remote server at Cauvery Bhavan immediately. 5.Civil, Mechanical and Electrical charges extra to be estimated.		
1.1	R010A	For Bulk Flow Meters, sensors, transmitter, panels etc. for 100 mm dia.	NOS	173750
1.2	R010B	For Bulk Flow Meters, sensors, transmitter, panels etc. for 150 mm dia.	NOS	205000
1.3	R010C	For Bulk Flow Meters, sensors, transmitter, panels etc. for 200 mm dia.	NOS	215000
1.4	R010D	For Bulk Flow Meters, sensors, transmitter, panels etc. for 250 mm dia.	NOS	344999
1.5	R010E	For Bulk Flow Meters, sensors, transmitter, panels etc. for 300 mm dia.	NOS	373749
2.	R020A	Fabrication, supply and fixing of MS saddle (16 mm x 160 mm x 360 mm) to the existing DI pipe, the MS Saddle shall be fabricated out of 16 mm thick MS plate with 8 nos of threaded plug of length 6” for fixing of sensors and necessary GI bolts and nuts. The clamps shall have 2 halves. (applicable only if the pipe is DI) for 4 sensors.	SET	13464
3.	R020B	Fabrication, supply and fixing of MS saddle (16 mm x 160 mm x 360 mm) to the existing DI pipe, the MS Saddle shall be fabricated out of 16 mm thick MS plate with 8 nos of threaded plug of length 6” for fixing of sensors and necessary GI bolts and nuts. The clamps shall have 2 halves. (applicable only if the pipe is DI) for 8 sensors.	SET	22440

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	R030A	Dismantle, transport, re-instal and commission the bulk flow meters with the following works: (1). Removing of sensor probes from the existing pipe lines (2). Dismantling of the sensor cables from the sensor probes on feeder main / branch lines. (3). Removing of the pedestal panel along with all its accessories like totalizer unit, batteries, GSM modem and display unit from the existing location and stacking the same into baggage. (4). Transportation of the pedestal panel along with all its accessories to the new location identified by the concerned engineer. (5). Erection of the sensor probes to the new line identified by the concerned engineer. The hot tapping method should be used while installing the sensor probes and supply, fixing of ball vale to the pipe. (6). Transmission of the data from the flow meter to the central server and integrating it to the software applications.	L.S	39270
5.	R040A	Supply and Laying of multi-core sensor cable from the sensor probes to the transmitter panel.	RMT	337
6.	R050A	Supply and laying insulated cable on messenger wire using 2 single core wire for a single phase and stringing PVC insulated and PVC sheathed 650 / 1100 V class Aluminium conductor of sizes supported by 3.15 mm GI messanger wire with two break insulators, one at each end of the span with suspenders at intervals 0.75m. Each suspender shall be procelain reel insulator of suitable core through which insulated wire passes and this reel insulator shall be fixed to the messenger wire using 2 mm wire suitable bent and twisted. Separate reel insulator shall be provided for each wire, the messanger wire shall be ded-ended on the clamp provided to the departmental pole. The work shall also include, supply and fixing short pole, guy set, MS eye bolt and pole support clamp etc. for SINGLE PHASE USING 2 WIRE 10 SQMM.	RMT	112
7.	R060A	Supply and laying of LG UT cable having Aluminium conductor PVC insulated, sheathed, galvanized steel wire / steel tap armored cable with PVC over sheathing.	RMT	84
8.	R070A	Arranging the power supply from BESCOM and payment of 2 MMD charges towards BESCOM for power sanction.	L.S	8415

CHAPTER - 19

MULTI-TRACK BULK FLOW METERS

SPECIFICATIONS FOR MULTI TRACK ULTRASONIC BULK FLOW METERS

1. MULTI TRACK ULTRASONIC BULK FLOW METERS:

1. Applications: Raw or potable water with chlorine content.
2. Accuracy: + / - 5% flow reading.
3. Velocity Range: 0.3 m / sec. to 10 m / sec.
4. Power Supply : For the entire diameter pipes (450 mm to 1800 mm) 230 Volts AC power supply with surge arrestor, inbuilt re-chargeable battery to provide backup for minimum 6 hours.
5. Power Consumption: Less than 15W. alvanic Isolation:
6. Battery Life: 5 years.
7. Display Unit: 2 or 3 line LCD display 16 characters per line with backlight to see the reading during night time. All diagonostics should be visible on the LCD screen. 1st Line - Flow rate in M3 /hr. 2nd Line - Totalizer in M3.
8. Sensor Protection: IP 68
9. Transmitter Protection: IP 67.
10. Flow meter ambient Temperature: Upto 60 degree C.
11. Data Logger: Internal / external with flow meter and data to be transmitted to server automatically for every 1 hour. Flow meter shall send 24 data message per day to remote server. Locally for every 5 minutes of interval in data logger. Per day 288 readings will be logged, per month 8640. Data of previous one year should be logged in to either internet / external data logger.

2. FLOW SENSORS:

1. Mounting: In field on pipe line flow through flow sensor.
2. Line Size: 450 mm to 1800 mm.
3. Sensor Material: SS 316 L / SS 316.
4. The sensors should be as per ISO standard lengths (ISO 13359) as applicable, so that interchangeability can be carried out. The sensors shall also have built in grounding and employ pipe detection facility.
5. Weather Protection: IP 68.

3. FLOW TRANSMITTER / COMPUTATION:

1. Mounting: Transmitter panel mounted outside the meter chamber in proper location.
2. Type: Microprocessor based - 4 wire.
3. Protection : IP 67
4. Power Supply : For the entire diameter pipes (450 mm to 1800) 230 Volts AC power supply with surge arrestor. Inbuilt rechargeable battery to provide backup for minimum 6 hours backup in the absence of Gridy supply.
5. Out put: 4 - 20 M Amps, digital and pulse outputs, Status Out puts, GPRS (Should support GSM also) Data logger out put : Through RS 485 / Ethernet.
6. Unit of Display: M3 (Cubic Meter) / hour, MLD, ML (Programmable.)
7. Enclosure Material: Aluminium alloy with polyurethane quoting.
8. Flow Meter Standards: Testing and calliratin - IS / ISO 17025. Meter Standard - ISO 4064.
9. Calibration and Testing: All the flow meters to be calibrated at manufacturer work place. Calibration/ Test certificates to be provided as per IS / ISO 17025, periodical calibration facility to be provided if required. Sampling size as per IS 2500 of the supplied quantity in each diameter shall be tested and calibrated at FCRI as per IS and ISO 17025.

4. PEDESTAL PANEL FOR TRANSMITTER UNIT:

The electronic display unit shall be installed on a removable back board. It should be an anti-corrosive material. Enclosure should be designed for IP 54, separate compartments for energy meter & converter and flow meter display unit and modem. Generated heat inside the flow meter should be dissipated and should not cause any harmful effects inside enclosure, wall or post mounting cabinet enclosure. The enclosure shall be constructed from galvanized steel which is at least 3 mm thick. The enclosure shall have a hinged access door, which shall have a facility for padlocking in the closed position. Batteries shall be easily accessible for periodic changing. For floor mounting enclosures, the enclosure shall be mounted on a concrete plinth, the surface of which shall be at least 120 cm. above the surrounding finished ground level. A cable duct shall pass through the plinth to enable the cable from the flow sensor to enter the enclosure. A table showing details of the Employer's name and the water meter's unique reference number shall be fixed to the external face of the access door. Contractors or equipment manufacturer's details shall not be fixed to the external face of the access door.

a. Transparent toughened glass of size 10 cm x 5 cm to be provided to see reading of BESCOM energy meter and flow meter separately. Panel should be provided with lock, master key, fan and filter for cooling / heat dissipation. The enclosure shall be well ventilated, dust proof and vermin proof, and be suitable for robust use in a tropical climate. It shall also be suitable for:

i) the housing of the integral data logger and the temporary housing of a battery powered data logger which could periodically be used in conjunction with the water meter.

ii) the permanent housing of any lightning protection system, the permanent housing of GPRS transmitter and battery pack, and any other items necessary to facilitate communication with the central server.

iii) The permanent housing of BESCOM energy meter.

NOTES FOR MULTI TRACK ULTRASONIC BULK FLOW METERS:

1. The data rates are valid for only one year period and subject to variations in the market rate.
2. The bulk meter totalizer/register shall be started immediately on installation of water meter.
3. Concerned officer shall strictlly check testing and calibration certificate to ensure quality.
4. Necessary agreement shall be made by concerned officer for warranty and other conditions.
5. The bulk meter readings shall be synchronized to remote server at Cauvery Bhavan within 3 days.
6. Civil, mechanical and electrical charges extra to be estimated.

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	S010	Supply, Installation, Commissioning and Testing (for receipt of readings to the Central Server at Cauvery Bhavan) of GPRS + GSM based Multi Track Ultrasonic Bulk Flow Meters to the inlet, outlet, feeder mains and distribution branches ranging from 450 mm to 1800 mm. The flow meter shall be installed using hot tapping method and existing water supply lines. The data shall by synchronized to existing software. The Ultrasonic Bulk Meters shall comply with the specifications given in the starting of this chapter.		
1.1	S010A	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 400 / 450 mm dia.	NOS	415000
1.2	S010B	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 600 mm dia.	NOS	464999
1.3	S010C	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 700 mm dia.	NOS	499999
1.4	S010D	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 800 mm dia.	NOS	555000
1.5	S010E	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 900 mm dia.	NOS	555000
1.6	S010F	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 1000 / 1100 mm dia.	NOS	565000
1.7	S010G	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 1200 mm dia.	NOS	585000
1.8	S010H	For Multi Track Ultrasonic Bulk Flow Meters, sensors, transmitter, panels etc. for 1800 mm dia.	NOS	675000
2.	S020	Testing, calibration of existing Ultrasonic Bulk Flow Meters with portable flow meter, repair / rectification of existing Ultrasonic Bulk Flow Meters etc. with any or all of the following works:		
2.1	S020A	Supply and laying of sensor cable from flow sensor to transmitter panel.	RMT	337
2.2	S020B	Repair or replacement of existing panel for painting, welding, replacement of rubber gaskets, complete re-wiring, cleaning the panel with dust cleaner and providing panel lock.	NOS	6732
2.3	S020C	Repairing the totalizer unit	NOS	5610
2.4	S020D	Re-placement of (if required) GSM modem by GPRS.	NOS	16830
2.5	S020E	Calibration of flow meter sensors and testing for results with portable flow meter and realignment of sensors.	SET	11220
2.6	S020F	Shifting of transmitter panel with all points accessories from one location to other location as per direction of Engineer in charge.	SET	11220

CHAPTER - 20

SANITARY WORK

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	T010	Earth work excavation for trenches, in ordinary soil, of required width for pipes, cables, sockets for depth upto 1 Meter, including removing the excavated soil and then refilling the excavated stuff in layers of 20 cms. ramming well and disposing off the extra stuff as directed with lead of 50 meters etc. for:		
1.1	T010A	Pipes of dia not exceeding 75 mm and depth upto 1.0 M in ordinary soils Note : If any shoring and strutting, will be paid separately.	RMT	88
1.2	T010B	Pipes of dia exceeding 75 mm and not exceeding 300 mm and depth upto 1.0 M in ordinary soils Note : If any shoring and strutting, will be paid separately.	RMT	149
2.	T020	Earth work excavation for trenches, in hard soil, of required width for pipes, cables, sockets for depth upto 1 Meter, including removing the excavated soil and then refilling the excavated stuff in layers of 20 cms. ramming well and disposing off the extra stuff as directed with lead of 50 meters etc. or:		
2.1	T020A	Pipes of dia not exceeding 75 mm and depth upto 1.0 M in hard soils Note : If any shoring and strutting, will be paid separately.	RMT	134
2.2	T020B	Pipes of dia not exceeding 75-300 mm and depth upto 1.0 M in hard soils Note : If any shoring and strutting, will be paid separately.	RMT	176
3.	T030	Supplying, lowering, laying, jointing, testing and commissioning of Glazed Stone Ware Pipes of following dia, conforming to IS 651:1992, IS 4127 with latest amendments, including conveying to work site, caulking with hemp dipped in tar and jointing with CM 1:1.5 using OPC, perfect linking and curing for 10 days and testing with water etc. with all lead, lifts and as per Technical Specifications. The cost to include the cost of all jointing materials, necessary survey works for laying of sewer lines etc. complete. The contractor will make own arrangements for procuring water for testing.		
3.1	T030A	100 mm dia. pipes (This is for house service connection only)	RMT	209
3.2	T030B	150 mm dia. pipes	RMT	332
3.3	T030C	200 mm dia. pipes	RMT	413
3.4	T030D	230 mm dia. pipes	RMT	467
3.5	T030E	250 mm dia. pipes	RMT	488
3.6	T030F	300 mm dia. pipes	RMT	559
3.7	T030G	380 mm dia. pipes	RMT	846

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.	T040	Supplying lowering laying, jointing, testing and commissioning of following diameters glazed stone ware pipes, conforming to IS 651:1992, (with 5th revision) in all respects jointing with EPDM rubber rings (seals according to EN 681 & ASPM 425) The rubber seals joints pipe will have groves in interior of socket and exterior of the spigot. The rubber gasket shall be prefixed at the factory by the manufacturer rigidly with approved glue to have leak proof joint including conveying of pipe to work site and rolling and lowering into trenches, laying true to line, level and perfect linking at joints testing and commissioning including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of GSW pipes and specials, with rubber gaskets conforming to EN 681 and ASTM C-425 including cleaning the socket and spygot with soap solution and applying talcum powder for detecting crack, then applying glue and before inserting of rubber gaskets, jacking and fixing in perfect condition including the cost of soap solution, talcum powder and glue etc. and giving necessary hydraulic test to the required pressure of water head with all lead and lifts including costing of jointing materials and all necessary survey works for laying of sewers etc., and disposal of debris as directed etc., complete. (Contractor will make his own arrangements for procuring for testing) with Rubber ring gasket joints		
4.1	T040A	100 mm dia. pipes (This is for house service connection only)	RMT	241
4.2	T040B	150 mm dia. pipes	RMT	364
4.3	T040C	200 mm dia. pipes	RMT	443
4.4	T040D	230 mm dia. pipes	RMT	501
4.5	T040E	250 mm dia. pipes	RMT	522
4.6	T040F	300 mm dia. pipes	RMT	584
5.	T050	Supplying S&S RCC SPUN / VIBRATED CAST PIPES (REINFORCED) pipes NP-3 Class conforming to IS:458-1988 with latest amendments using ordinary portland cement, for sanitary works and conveying to work site, rolling and lowering into trenches, laying true to line and level including loading and unloading at both destinations and jointing of pipes and specials including cost of specials, perfect linking of joints with jack to correct position including cost of jointing materials, i.e, rubber rings conforming to IS: 5382 for S&S RCC pipes, with all leads and lifts as directed and giving necessary hydraulic test as per ISS to the required pressure and commissioning etc. complete. (Contractor will make his own arrangements for procuring water for testing). Before the execution of the work, the contractor shall carry out the survey and will be paid extra for the same as per seperate item.:		
5.1	T050A	RCC NP3 Class pipe of 250 mm dia.	RMT	1391
5.2	T050B	RCC NP3 Class pipe of 300 mm dia.	RMT	1659
5.3	T050C	RCC NP3 Class pipe of 350 mm dia.	RMT	1794
5.4	T050D	RCC NP3 Class pipe of 400 mm dia.	RMT	1953

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.5	T050E	RCC NP3 Class pipe of 450 mm dia.	RMT	2138
5.6	T050F	RCC NP3 Class pipe of 500 mm dia.	RMT	2415
5.7	T050G	RCC NP3 Class pipe of 600 mm dia.	RMT	3110
5.8	T050H	RCC NP3 Class pipe of 700 mm dia.	RMT	3840
5.9	T050I	RCC NP3 Class pipe of 800 mm dia.	RMT	4858
5.10	T050J	RCC NP3 Class pipe of 900 mm dia.	RMT	5922
5.11	T050K	RCC NP3 Class pipe of 1000 mm dia.	RMT	6854
5.12	T050L	RCC NP3 Class pipe of 1100 mm dia.	RMT	8019
5.13	T050M	RCC NP3 Class pipe of 1200 mm dia.	RMT	9206
5.14	T050N	RCC NP3 Class pipe of 1400 mm dia.	RMT	13430
5.15	T050O	RCC NP3 Class pipe of 1600 mm dia.	RMT	18181
5.16	T050P	RCC NP3 Class pipe of 1800 mm dia.	RMT	21804
5.17	T050Q	RCC NP3 Class pipe of 2000 mm dia.	RMT	25826
5.18	T050R	RCC NP3 Class pipe of 2200 mm dia.	RMT	27339
5.19	T050S	RCC NP3 Class pipe of 2400 mm dia.	RMT	33981
6.	T060A	Supplying of and application of Polymer based protective ELASTOMERIC COATING with zero VOC for complete inside surface of RCC sewers, with minimum dry film of thickness 1 mm, acid resistant, abrasive resistant, adhesive to concrete surfaces, durable and pinhole / break free with smooth surface etc. complete as per relevant applicable technical specification clauses. The cost to include all labour, HOM of equipments, lead, lifts, taxes etc., complete. The spray coating shall be applied by approved and controlled mechanical spray method. The spraying for RCC sewers to be before delivery at site or applied at site and include surface preparation and testing, as approved by BWSSB. The rate to include cost of all materials, tools and plants, testing, inspection etc. complete.	SQM	1290
7.	T070	Labour charges for laying and jointing glazed stone ware pipes of 0.6m length and of specified dia., of tested quality conforming to IS 651 of 1965 including caulking with hemp yarn, jointing with CM 1:2 and testing with water etc. complete for: (Rate to include cost of jointing materials and transportation of pipes from store work site but excluding the cost of earth work)		
7.1	T070A	Glazed Stone Ware pipe of 150 mm dia and 600 mm long	RMT	70
7.2	T070B	Glazed Stone Ware pipe of 200 mm dia and 600 mm long	RMT	95
7.3	T070C	Glazed Stone Ware pipe of 230 mm dia and 600 mm long	RMT	108
7.4	T070D	Glazed Stone Ware pipe of 300 mm dia and 600 mm long	RMT	157
7.5	T070E	Glazed Stone Ware pipe of 380 mm dia and 600 mm long	RMT	190
8	T080A	Providing and fixing 100 mm dia. CI soil pipe with necessary specials like Tees and jointing with CM 1:2 and fixing on teak wood plugs with necessary scaffolding etc.	RMT	656

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
9	T080B	Providing and fixing 75 mm dia. CI soil pipe with necessary specials like Tees and jointing with CM 1:2 and fixing on teak wood plugs with necessary scaffolding etc.	RMT	527
10	T080C	Labour charges for fixing and jointing 60 mm to 100 mm dia. CI soil pipe Tees and jointing with CM 1:2 and fixing on teak wood plugs with necessary scaffolding etc.	RMT	95
11	T080D	Labour charges for fixing CI specials like bend etc. in CM 1:2 etc. for 75 mm soil pipes	NOS	56
12	T080E	Labour charges for fixing CI specials like bend etc. in CM 1:2 etc. for 100 mm soil pipes	NOS	28
13	T080F	Making bores in stone masonry walls upto 0.45M wide for soil / water pipe works and re-doing it with CM 1:4	NOS	69
14	T080G	Making bores in stone masonry walls 0.6 to 0.9 M wide for soil / water pipe works and re-doing it with CM 1:4	NOS	122
15	T080H	Making bores in stone masonry walls 0.9 to 1.2 M wide for soil / water pipe works and re-doing it with CM 1:4	NOS	154
16	T080I	Making bores in brick masonry walls upto 0.45M wide for soil / water pipe works and re-doing it with CM 1:4	NOS	100
17	T080J	Making bores in terrace slab or chajja upto 0.45M wide for soil / water pipe works and re-doing it with CC 1:2:4 and CM 1:4	NOS	200
18	T080K	Making bores in manholes upto 0.45M wide for soil / water pipe works and re-doing it with CC 1:2:4 and CM 1:4	NOS	200
19	T080L	Encasing the CI soil pipes of 75 mm and 100 mm dia. with burnt brick in CM 1:3 and plastering and finishing neat etc. complete with necessary scaffolding at all levels etc.	RMT	528
20	T080M	Labour charges for cutting CI soil pipe lines 75 mm and 100 mm dia and inserting relevant soil junctions.	NOS	196
21	T080N	Drilling holes in 100 mm and 75 mm dia. soil pipes, cleaning the door bends, provide and fix new eye plates with necessary bolts and nuts.	NOS	166
22	T080O	Painting CI soil pipe 100 mm and 75 mm dia. with two coats of green or any approved paint.	RMT	31
23	T090	Providing and fixing normal gauge polythene pipes of approved quality with special flange compression type fittings of approved make including trench excavation and refilling etc. for EXTERNAL WORKS with:		
23.1	T090A	25 mm nominal bore pipes	RMT	57
23.2	T090B	32 mm nominal bore pipes	RMT	76
23.3	T090C	40 mm nominal bore pipes	RMT	93
23.4	T090D	50 mm nominal bore pipes	RMT	148
24	T100A	Fixing white vitreous China Clay English closet in CM 1:3, "P" or "S" trap with 13.71 Ltrs. GI flushing cistern 32 mm GI telescope flush pipe double flapped plastic sent chain pull etc. complete including white enamel painting to all iron plates etc. excluding the cost of closet.	NOS	2235

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
25	T100B	Fixing white vitreous China Clay Indian Closet in cement concrete 1:2:4 with "S" or "P" trap, 58.42 or 45.72 cms overall length, pair of white glazed foot rests etc. and without flushing cistern arrangement. The cost is excluding the cost of closet.	NOS	451
26	T100C	Fixing white vitreous China Clay Indian Closet in cement concrete 1:2:4 with "S" or "P" trap, 58.42 or 45.72 cms overall length, pair of white glazed foot rests etc. and with flushing cistern of 13.64 ltrs, 32 mm dia. GI telescope flush pipe, including white enamel painting all iron parts etc. The cost is excluding the cost of closet and cost of flushing cistern.	NOS	1562
27	T100D	Fixing white vitreous China Clay English water closet with "P" or "S" trap with Low Down cistern of syphonic type, 32 mm dia. flush pipe, double flapped plastic seat, including cutting and fixing the flush pipe to suit, two coats of enamel painting to all iron fixtures etc. excluding the cost of closet and low down cistern.	NOS	1901
28	T100E	Providing and fixing vitreous China clay foot rest in CM 1:3	PAIR	146
29	T100F	Providing and fixing stoneware foot rest in CM 1:3	PAIR	114
30	T100G	Providing and fixing Marble foot rest in 1:3	PAIR	206
31	T100H	Providing and fixing new plastic seat cover, double flapped for EWC with all fittings.	NOS	464
32	T100I	Providing and fixing 31.8 mm dia. GI telescopic flush pipe for high level cistern for water closets.	NOS	201
33	T100J	Providing and fixing 31.8 mm dia. GI flush pipe and bend for low level cisterns of water closets.	NOS	109
34	T100K	Providing and fixing 31.8 mm dia. GI flush and bend pipes at flush tank level	NOS	109
35	T100L	Providing and fixing Chain pulls for High Level flushing cistern.	NOS	145
36	T100M	Fixing 13 ltrs or 5 ltr capacity CI flushing cistern on GI brackets fixed on T.W plugs.	NOS	267
37	T110A	Fixing white vitreous china flat back lipped front urinal basin of 430x260x350 mm with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass union and GI clams etc. complete and including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. for One urinal basin with 5 litre PVC automatic flushing cistern (excluding the cost of urinals)	NOS	1252
38	T110B	Fixing white vitreous china flat back lipped front urinal basin of 430x260x350 mm with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass union and GI clams etc. complete and including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. for Range of two urinal basins with 5 litre white PVC automatic flushing cistern (excluding the cost of urinals)	NOS	1892

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
39	T110C	Fixing white vitreous china flat back lipped front urinal basin of 430x260x350 mm with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass union and GI clams etc. complete and including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. for Range of three urinal basins with 10 litre white PVC automatic flushing cistern (Excluding the cost of urinals)	NOS	2649
40	T110D	Fixing white vitreous china flat back lipped front urinal basin of 430x260x350 mm with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass union and GI clams etc. complete and including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. for Range of four urinal basins with 10 litre white PVC automatic flushing cistern	NOS	3784
41	T110F	Fixing one piece construction WHITE VITREOUS CHINA SQUATTING PLATE with an integral longitudinal flushing pipe, white PVC automatic flush- ing cistern with fittings, standard size G.I flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P brass coupling complete including painting of fittings and cutting and making good the walls and floors etc. wherever required, type for Single squatting plate, with 5.0 litre PVC automatic flushing cistern. Excluding the cost of squatting plate.	NOS	1552
42	T120A	Providing and fixing stone ware gully trap of 100 mm dia. in cement concrete 1:2:4 and plastering exposed areas in CM 1:3	NOS	278
43	T120B	Providing and fixing stone ware gully trap of 150 mm dia. in cement concrete 1:2:4 and plastering exposed areas in CM 1:3	NOS	328
44	T120D	Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with CC 1:5:10 bed, brick works in CM 1:4, inside and out side plaster 12 mm thick in CM 1:3, water tight CI cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg as per standard design and grouting the frame with CC 1:2:4 etc. for size and type Size of 100 x 100 mm Square mouth SW gully trap	NOS	1497
45	T120E	Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with CC 1:5:10 bed, brick works in CM 1:4, inside and out side plaster 12 mm thick in CM 1:3, water tight CI cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg as per standard design and grouting the frame with CC 1:2:4 etc. for size and type : Size of 125 x 100 mm Square mouth SW gully trap	NOS	1528

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
46	T120F	Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with CC 1:5:10 bed, brick works in CM 1:4, inside and out side plaster 12 mm thick in CM 1:3, water tight CI cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg as per standard design and grouting the frame with CC 1:2:4 etc. for size and type : Size of 150 x 100 mm Square mouth SW gully trap.	NOS	1531
47	T120G	Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with CC 1:5:10 bed, brick works in CM 1:4, inside and out side plaster 12 mm thick in CM 1:3, water tight CI cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg as per standard design and grouting the frame with CC 1:2:4 etc. for size and type: Size of 180 x 100 mm Square mouth SW gully trap.	NOS	1654
48	T130A	Constructing brick masonry chamber of internal dimension 600x450 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover.	NOS	2934
49	T130B	Constructing brick masonry chamber of internal dimension 600x600 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover.	NOS	3344
50	T130C	Constructing brick masonry chamber of internal dimension 450x450 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover.	NOS	2598
51	T130D	Constructing brick masonry chamber of internal dimension 450x300 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover.	NOS	2171
52	T130E	Constructing brick masonry chamber of internal dimension 300x230 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover..	NOS	1694

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
53	T130F	Constructing brick masonry chamber of internal dimension 230x150 mm and depth of 600 mm (inner dimensions) with modular bricks of CD 75 in cement mortar 1:6, bed concrete 150 mm thick with 1:3:6, plastering 12 mm thick with cement mortar 1:4, CC 1:2:4 coping 75 mm thick for fixing CI cover & frame etc. excluding the cost of CI frame and cover..	NOS	1365
54	T140A	Fixing Vitreous China Clay Hand Wash basin (excluding the cost of basin) with NP waste fittings, chain, CI brackets, painting the brackets etc. Excluding the cost of wash basin.	NOS	713
55	T140B	Fixing pedestal type hand wash basin with stand combination including NP waste fittings etc. as per specification etc. excluding the cost of wash basin and pedestal.	NOS	584
56	T140C	Fixing Vitreous China Wash basin hospital type with elbow action with spray pipe, NP fittings etc. as per design, with CI brackets, painting brackets, etc. excluding the cost of wash basin.	NOS	960
57	T140D	Fixing Vitreous China Wash basin hospital type with foot or knee action combination with spray pipe as per design, with CI brackets, painting brackets, etc. excluding the cost of wash basin.	NOS	713
58	T150A	Fixing white vitreous china clay or mosaic bath tubs (exclude cost of bath tub) with hot and cold water fittings and over flow arrangements etc. complete with necessary preparation works etc. as per detailed specifications and drawings and spray painting if necessary.	NOS	1593
59	T160A	Providing & fixing glass mirror (belgium) beveled edges, rectangular shape, with white wood frame 600 x 450 mm and fixing teak wood plugs in the wall.	NOS	776
60	T160C	Providing and fixing nickel plated showers of 15 mm dia. and standard length.	NOS	241
60.1	T160B	Providing and fixing nickel plated showers of 20 mm dia. and standard length.	NOS	269
61	T160D	Providing and fixing towel rail, nickel plated, 600 mm long,20 mm dia., NP brackets fixed on T.W plugs etc.	NOS	702
61.1	T160E	Providing and fixing towel rail, nickel plated, 450 mm long,20 mm dia., NP brackets fixed on T.W plugs etc.	NOS	186
62.	T160F	Providing and fixing towel rail made of anodised Aluminium, 600 mm long,20 mm dia., anodiese Aluminium brackets fixed on T.W plugs etc.	NOS	702
62.1	T160G	Providing and fixing towel rail made of anodised Aluminium, 450 mm long,20 mm dia., Anod. alum. brackets fixed on T.W plugs etc.	NOS	186
63.	T160H	Providing and fixing Toilet paper holder Vitreous China Clay with wooden plug and brass screws and with a roll of paper etc. as per specifications.	NOS	288
64.	T160J	Fixing white vitreous china clay glazed sink with wrought iron plug on CI cantilevered brackets in the wall, including two coats of enamel painting etc. complete, excluding the cost of glazed sink.	NOS	511

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
65.	T160K	Providing & fixing 600x 150x 5 mm GLASS SHELF with edges rounded off supported on N.P. brass brackets and guard rail fixed with 40 mm long screws, rawl plugs etc. complete .	NOS	233
65.1	T160L	Providing & fixing 600x 120x 5 mm GLASS SHELF with edges rounded off supported on anodised Aluminium angle frame with CP brass brackets and guard rail fixed with 40 mm long screws, rawl plugs etc. complete .	NOS	341
66.	T160M	Providing and fixing 100 mm dia. AC Cowl as directed.	NOS	111
67.	T160N	Providing and fixing 100 mm dia. Zinc Cowl as directed.	NOS	78
68.	T160O	Providing and fixing 30 mm dia. lead pipe with wiped solder joints for waste connections	NOS	260
68.1	T160P	Providing and fixing 38 mm dia. lead pipe with wiped solder joints for waste connections	NOS	286
68.2	T160Q	Providing and fixing 50 mm dia. lead pipe with wiped solder joints for waste connections	NOS	465
69.	T160R	Providing and fixing 30 mm dia. lead pipe for extension of telescopic flush pipe including wiped solder joints and bending etc. complete with two coats of enamel painting.	NOS	157
70	T160S	Providing and fixing chain pulls for high level flushing cistern	NOS	81
71	T160T	Providing and fixing NP gratings of 150 mm dia.	NOS	63
71.1	T160U	Providing and fixing CI gratings of 150 mm dia.	NOS	66
71.2	T160V	Providing and fixing liquid soap glass dispenser and holder as per design	NOS	206
72.	T160W	20.10.3.1: 15 mm dia (Min Wt 283 gm & float 114 mm dia)	NOS	221
73	T170A	Providing and fixing CI brackets in walls for fixing wash basins	PAIR	159
73.1	T170B	Providing and fixing CI brackets in walls for fixing flushing tanks	PAIR	159
73.2	T170C	Providing and fixing CI brackets in walls for fixing sink	PAIR	159
74	T170D	Providing and fixing rubber plug and chain for hand wash basins	NOS	85
75	T170E	Providing and fixing M.S foot rests with CC 1:3:6 and 20 x 20 mm square bar for Manholes	NOS	244
75.1	T170F	Providing and fixing M.S foot rests with CC 1:3:6 and with 20 mm dia. round bar for manholes	NOS	193
76.	T180A	Providing and fixing automatic flushing tank of capacity 4.5 ltrs. including the cost of syphon and flush pipe and other accessories necessary to drawn of etc. complete.	NOS	973

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
77.	T180B	Constructing flushing tank 900 ltrs. capacity of size 1.8 x 0.9 x 0.65 mtrs. inside, on a bed of 2.4M x 1.4M in CC 1:2:4 and 15 cms thick, walls of 22.5 cm thick in burnt brick work, plastering both inside and outside in CM 1:3, covering with one line dressed B.S slab of 15 mm thick and 1.9 x 1.25 cms size with a vent for manhole fixed in CM 1.4, including providing C.I manhole and frame (0.38 quintal) and fixing it in CC 1:2:4, providing necessary pipe, syphon discharge connection as per specification and design. The work include necessary earth work excavations in all soils etc. complete.	NOS	9665
78.	T190A	Providing and fixing 1800 ltrs. capacity welded steel tank made of thick gauge MS plate, with top cover and locking arrangements and necessary painting etc. complete including hoisting with necessary scaffolding etc. upto a height of 12.20 Mtrs.	NOS	7252
79.	T190B	Providing and fixing 900 x 450 mm GI frame and top cover of 75 kg. in CC 1:2:4 bed of 75 mm thick. etc. complete	NOS	1034
79.1	T190C	Providing and fixing 450 x 450 mm GI frame and top cover of 38 kg. in CC 1:2:4 bed of 75 mm thick. etc. complete	NOS	942
79.2	T190D	Providing and fixing 300 x 220 mm GI frame and top cover of 25 kg CC 1:2:4 bed of 75 mm thick. etc. complete	NOS	886
79.3	T190E	Providing and fixing 220 x 150 mm GI frame and top cover of 17 kg. in CC 1:2:4 bed of 75 mm thick. etc. complete	NOS	682
80	T190F	Conveying MS tank of 1800 ltr capacity from departmental store and fixing at 12.2 Mtr high with necessary scaffoldings.	NOS	578
80.1	T190G	Conveying MS tank of 900 ltr capacity from departmental store and fixing at 12.2 Mtr high with necessary scaffoldings.	NOS	497
81.	T200A	Provide soakage drains with 100 mm dia. S.W pipe with loose joints and covering with 50 mm thick granite jelly alround.	RMT	208
82.	T200B	Cutting 100 mm S.W pipe line and making 150 mm S.W collar joints as per specifications, including necessary earth work and making good etc. complete.	NOS	244
83.	T200C	Cutting 150 mm S.W pipe line and making 230 mm S.W collar joints as per specifications, including necessary earth work and making good etc. complete.	NOS	279
84.	T210A	Providing and fixing screw cap to lead bends with wiped solder joiints.	NOS	90
84.1	T210B	Providing wiped solder joints of 100 mm dia. lead pipe	NOS	155
84.2	T210C	Providing wiped solder joints of 75 mm dia. lead pipe	NOS	46
84.3	T210D	Providing wiped solder joints of 50 mm dia. lead pipe	NOS	40
85	T210E	Benching lead pipe 100 mm dia. with wiped solder joint.	NOS	146
85.1	T210F	Benching lead pipe 75 mm dia. with wiped solder joint.	NOS	61
85.2	T210G	Benching lead pipe 50 mm dia. with wiped solder joint.	NOS	33
86	T220A	Making lead socket in 100 mm and 75 mm lead pipe with brass tumbler.	NOS	325

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
87.	T220B	Fixing cornice tiles and bends wherever necessary in CM 1:3 and white CM pointing.	NOS	22
88.	T220C	Constructing ground sink 1.22 x 1.22 x 0.75 M size with 75 mm thick cement concrete 1:2:4 and plastering with CM 1:3, 12 mm thick and finishing with redoxide etc. complete.	NOS	193
89.	T220E	Fixing 15 mm to 20 mm lead pipes	NOS	40
89.1	T220F	Fixing 32 mm to 50 mm lead pipes	NOS	65
90	T220G	Fixing stop cocks or bib cocks of 50 mm to 20 mm sizes, including necessary tools, preparation, conveyance, loading and unloading etc.	NOS	61
91.	T220H	Drilling holes of desired sizes in 25 mm and 20 mm dia. CI pipes for the formation of spray fountain.	NOS	94
92.	T220I	Cutting concrete flooring for laying pipes and re-doing with cement concrete 1:2:4 and finish similar colour finishing item after laying pipes.	RMT	63
93.	T220J	Cutting the concrete for benching of the manholes or inspection chamber and making drain with cement concrete 1:2:4 and CM 1:3 plaster etc. as per design.	NOS	125
94.	T220K	Cutting and grooving in lintels and basement slabs for fixing pipes and re-doing with CM 1:3 and stone STUCCO FINISH after fixing the pipes.	RMT	125
95.	T220L	Removing manhole cover and frame and refixing the same in CC 1:2:4 band alround and finishing	NOS	164
96.	T220M	Conveying the new CI or RCC manhole frame and cover of 2 CMTS from divisional stores to the workspot within the corporation limits and fixing the same in cement concrete and removing the old frame and cover and conveying back the old ones to stores.	SET	209
97.	T220N	Soldering and fixing the copper ball valve set.	EACH	40
98.	T220O	Providing 10.16 cms clear white vitreous china clay traps including, fixing in cement concrete (1:2:3) and constructing cistern 15.24 cms with up grating	EACH	252
99.	T220P	Providing Nahani traps 15.24º7.62 cms and constructing cistern in cement concrete (1:2:3)including fixing trap etc.,	EACH	174
100	T220Q	Constructing cistern with burnt brick in C.M(1.4) and C.M(1.3) plastered on a bed of 7.62 cms. thick (1:3:6) cement concrete and providing and fixing 15.24 cms C.I grating (size of cistern 30.48º30.48 cms inside measurements.)	EACH	72

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
101.	T300	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:		
101.1	T300A	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.0 M depth & SFRC cover & frame	NOS	18382
101.2	T300B	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.1 M depth & SFRC cover & frame	NOS	19603
101.3	T300C	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.2 M depth & SFRC cover & frame	NOS	20697
101.4	T300D	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.3 M depth & SFRC cover & frame	NOS	22136
101.5	T300E	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.4M depth & SFRC cover & frame	NOS	23104
101.6	T300F	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.5M depth & SFRC cover & frame	NOS	24253
101.7	T300G	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.6M depth & SFRC cover & frame	NOS	25734
101.8	T300H	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.7M depth & SFRC cover & frame	NOS	26479
101.9	T300I	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.8M depth & SFRC cover & frame	NOS	27736
101.10	T300J	Constructing Brick Masonry Circular Manholes 1.2 m internal dia., 1.9M depth & SFRC cover & frame	NOS	29465
101.11	T300M	Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 2.0 M depth include SFRC F&C	NOS	30795
101.12	T300N	Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 3.0 M depth include SFRC F&C	NOS	44961

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
102.	T300O	Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 4.0 M depth include SFRC F&C	NOS	59372
103.	T300P	Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 5.0 M depth include SFRC F&C	NOS	79458
104.	T310	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for: .		
104.1	T310A	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 1.0 M depth include SFRC F&C	NOS	22266
104.2	T310B	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 2.0 M depth include SFRC F&C	NOS	36923
104.3	T310C	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 3.0 M depth include SFRC F&C	NOS	53135
104.4	T310D	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 4.0 M depth include SFRC F&C	NOS	69726
104.5	T310E	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 5.0 M depth include SFRC F&C	NOS	91109
104.6	T310F	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 6.0 M depth include SFRC F&C	NOS	113166
104.7	T310G	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 7.0 M depth include SFRC F&C	NOS	140047
104.8	T310H	Constructing Brick Masonry Circular Manholes 1.5 m internal dia. & 8.0 M depth include SFRC F&C	NOS	167951

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
105.	T320	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:		
105.1	T320A	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 3.0 M depth include SFRC F&C	NOS	62383
105.2	T320B	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 4.0 M depth include SFRC F&C	NOS	81629
105.3	T320C	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 5.0 M depth include SFRC F&C	NOS	102299
105.4	T320D	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 6.0 M depth include SFRC F&C	NOS	127886
105.5	T320E	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 7.0 M depth include SFRC F&C	NOS	159916
105.6	T320F	Constructing Brick Masonry Circular Manholes 1.8 m internal dia. & 8.0 M depth include SFRC F&C	NOS	187733

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
106.	T330	Construction of RCC manhole chambers of 1:1.5:3 proportion or approved type pre-cast RCC manhole chambers, constructed using form vibrators of standard type, with barricading, danger lighting and using of sight rails and boning rods wherever necessary, shoring and strutting wherever required using Ordinary Port Land Cement, using 1:1.5:3 proportion RCC with 20 mm and down graded jelly, well graded sand and steel of approved quality, 200 mm thick top concrete slab, having wall thickness and raft thickness as in approved drawings and with an offset in raft alround the chamber as in approved drawing, benching concrete with 1:6 slope towards the central drain finished smooth, including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy duty) conforming to IS:12592 with latest amendments, on a bed of CC 1:2:4 supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia. Grade Fe-415 steel bar (as per IS 1786) staggered at 300 mm apart as detailed in Technical specifications, including sand bedding wherever required, disposal of surplus earth, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc., complete including cost of reinforcement steel and fabrication charges and also cost and conveyance of all materials, labour with all lead and lifts. The Pre-cast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction of the Engineer.		
106.1	T330A	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.0 M depth & SFRC cover & frame	NOS	30960
106.2	T330D	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.3 M depth & SFRC cover & frame	NOS	36364
106.3	T330G	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.6 M depth & SFRC cover & frame	NOS	41306
106.4	T330J	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.9M depth & SFRC cover & frame	NOS	46074
106.5	T330K	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 2.0M depth & SFRC cover & frame	NOS	47373
106.6	T330L	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 3.0M depth & SFRC cover & frame	NOS	63888

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
107.	T340	Construction of PRE-CAST RCC MANHOLE CHAMBERS of 1:1.5:3 proportion with ordinary port land cement, 20 mm and down size graded jelly, well graded sand, steel of approved quality and size, constructed using form vibrators of standard type. The top cover to be 200 mm thick concrete slab, wall thickness, raft thickness, offset in raft alround the chamber etc. as per the approved drawing. Benching concrete with 1:6 slope towards the central drain, finished smooth, fixing and grouting pipes. Supply and fixing SFRC manhole cover and frame (heavy duty) conforming to IS:12592 with latest amendments, on CC 1:2:4 bed, including necessary conveyance. Supply and fixing footsteps (as per IS 10910) with 12 mm dia. steel bar (Fe-415), encapsuled in 3 mm thick plastic, fixed with CC block to the walls staggered at 300 mm etc. as detailed in Technical Specifications. The whole works includes sand bedding wherever necessary, disposal of surplus earth, barricading, danger lighting, sight rails, boning rods, shoring, strutting, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc. The cost to include the cost of reinforcement steel, its fabrication charges, cost and conveyances of all materials, labour, all leads and lifts. The Pre-cast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction of the Engineer.		
107.1	T340A	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 1.0 M depth & SFRC cover & frame	NOS	40167
107.2	T340B	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 2.0 M depth & SFRC cover & frame	NOS	60074
107.3	T340C	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 3.0 M depth & SFRC cover & frame	NOS	79378
107.4	T340D	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 4.0 M depth & SFRC cover & frame	NOS	99105
107.5	T340E	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 5.0 M depth & SFRC cover & frame	NOS	119502
107.6	T340F	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 6.0 M depth & SFRC cover & frame	NOS	140508
107.7	T340G	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 7.0 M depth & SFRC cover & frame	NOS	161768
107.8	T340H	Constructing Pre-cast RCC Manholes 1.5 m internal dia., 8.0 M depth & SFRC cover & frame	NOS	182655

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
108.	T350	Construction of PRE-CAST RCC MANHOLE CHAMBERS of 1:1.5:3 proportion with ordinary port land cement, 20 mm and down size graded jelly, well graded sand, steel of approved quality and size, constructed using form vibrators of standard type. The top cover to be 200 mm thick concrete slab, wall thickness, raft thickness, offset in raft alround the chamber etc. as per the approved drawing. Benching concrete with 1:6 slope towards the central drain, finished smooth, fixing and grouting pipes. Supply and fixing SFRC manhole cover and frame (heavy duty) conforming to IS:12592 with latest amendments, on CC 1:2:4 bed, including necessary conveyance. Supply and fixing footsteps (as per IS 10910) with 12 mm dia. steel bar (Fe-415), encapsuled in 3 mm thick plastic, fixed with CC block to the walls staggered at 300 mm etc. as detailed in Technical Specifications. The whole works includes sand bedding wherever necessary, disposal of surplus earth, barricading, danger lighting, sight rails, boning rods, shoring, strutting, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc. The cost to include the cost of reinforcement steel, its fabrication charges, cost and conveyances of all materials, labour, all leads and lifts. The Pre-cast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction of the Engineer.		
108.1	T350A	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 1.0 M depth & SFRC cover & frame	NOS	58475
108.2	T350B	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 2.0 M depth & SFRC cover & frame	NOS	86074
108.3	T350C	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 3.0 M depth & SFRC cover & frame	NOS	112667
108.4	T350D	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 4.0 M depth & SFRC cover & frame	NOS	141009
108.5	T350E	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 5.0 M depth & SFRC cover & frame	NOS	169558
108.6	T350F	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 6.0 M depth & SFRC cover & frame	NOS	198365
108.7	T350G	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 7.0 M depth & SFRC cover & frame	NOS	227398
108.8	T350H	Constructing Pre-cast RCC Manholes 1.8 m internal dia., 8.0 M depth & SFRC cover & frame	NOS	256726

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
109.	T360	Construction of PRE-CAST RCC MANHOLE CHAMBERS of 1:1.5:3 proportion with ordinary port land cement, 20 mm and down size graded jelly, well graded sand, steel of approved quality and size, constructed using form vibrators of standard type. The top cover to be 200 mm thick concrete slab, wall thickness, raft thickness, offset in raft alround the chamber etc. as per the approved drawing. Benching concrete with 1:6 slope towards the central drain, finished smooth, fixing and grouting pipes. Supply and fixing SFRC manhole cover and frame (heavy duty) conforming to IS:12592 with latest amendments, on CC 1:2:4 bed, including necessary conveyance. Supply and fixing footsteps (as per IS 10910) with 12 mm dia. steel bar (Fe-415), encapsuled in 3 mm thick plastic, fixed with CC block to the walls staggered at 300 mm etc. as detailed in Technical Specifications. The whole works includes sand bedding wherever necessary, disposal of surplus earth, barricading, danger lighting, sight rails, boning rods, shoring, strutting, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc. The cost to include the cost of reinforcement steel, its fabrication charges, cost and conveyances of all materials, labour, all leads and lifts. The Pre-cast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction of the Engineer.		
109.1	T360C	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 3.0 M depth & SFRC cover & frame	NOS	163243
109.2	T360D	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 4.0 M depth & SFRC cover & frame	NOS	202165
109.3	T360E	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 5.0 M depth & SFRC cover & frame	NOS	242118
109.4	T360F	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 6.0 M depth & SFRC cover & frame	NOS	282795
109.5	T360G	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 7.0 M depth & SFRC cover & frame	NOS	323505
109.6	T360H	Constructing Pre-cast RCC Manholes 2.4 m internal dia., 8.0 M depth & SFRC cover & frame	NOS	365290

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
110.	T370	Construction of PRE-CAST RCC MANHOLE CHAMBERS of 1:1.5:3 proportion with ordinary port land cement, 20 mm and down size graded jelly, well graded sand, steel of approved quality and size, constructed using form vibrators of standard type. The top cover to be 200 mm thick concrete slab, wall thickness, raft thickness, offset in raft alround the chamber etc. as per the approved drawing. Benching concrete with 1:6 slope towards the central drain, finished smooth, fixing and grouting pipes. Supply and fixing SFRC manhole cover and frame (heavy duty) conforming to IS:12592 with latest amendments, on CC 1:2:4 bed, including necessary conveyance. Supply and fixing footsteps (as per IS 10910) with 12 mm dia. steel bar (Fe-415), encapsuled in 3 mm thick plastic, fixed with CC block to the walls staggered at 300 mm etc. as detailed in Technical Specifications. The whole works includes sand bedding wherever necessary, disposal of surplus earth, barricading, danger lighting, sight rails, boning rods, shoring, strutting, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc. The cost to include the cost of reinforcement steel, its fabrication charges, cost and conveyances of all materials, labour, all leads and lifts. The Pre-cast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction of the Engineer.		
110.1	T370A	Constructing Pre-cast RCC Manholes 3.0 m internal dia., 4.0 M depth & SFRC cover & frame	NOS	283463
110.2	T370B	Constructing Pre-cast RCC Manholes 3.0 m internal dia., 5.0 M depth & SFRC cover & frame	NOS	289464
110.3	T370C	Constructing Pre-cast RCC Manholes 3.0 m internal dia., 6.0 M depth & SFRC cover & frame	NOS	395909
110.4	T370D	Constructing Pre-cast RCC Manholes 3.0 m internal dia., 7.0 M depth & SFRC cover & frame	NOS	453415
110.5	T370E	Constructing Pre-cast RCC Manholes 3.0 m internal dia., 8.0 M depth & SFRC cover & frame	NOS	511705
111.	T380A	Supply and fixing of SFRC manhole rings and cover (Heavy Duty) made as per IS to suit existing damaged manholes after removing the debries from inside and outside the existing manhole etc. with all lead and lifts.	NOS	1132
112.	T380B	Supply and fixing of SFRC manhole cover (Heavy Duty) made as per IS to suit existing damaged manholes cover after removing the debries from inside and outside the existing manhole etc. with all lead and lifts.	NOS	613

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
113.	T390	Providing, supplying and fixing of polyethylene including HDPE manhole with corrugated ribs of 1200 mm internal diameter consisting of manhole base, shaft eccentric cone with ladder and SFRC frame and cover at the top as per loading conditions with reinforced precast concrete (M-25) slab with 600 mm opening in center as per drawing. The manhole should be prefabricated with minimum density of 920 kg/cum material and shall meet relevant Indian and European Norms and specifications. The manhole shall be made of single wall of 10 mm or greater thickness, for more than 2.0 mtr depth with increase of 2 mm thick for every meter there after Construction made of 100% virgin PE material without recycling or foam content. The manhole shall have inlet and outlet as per site requirement with inbuilt P E steps, including pre-fabricated benching and channeling. The work shall include excavation in all kinds of soils, dewatering, shoring, strutting removing the hedges, fence and walls, diverting water course, disposing off excess materials away from the site work etc., complete wherever necessary as per the directions of the engineer. The base of manhole should be installed with bedding of sand or quarry dust of 40 mm depth and on M-10 concrete (1:3:6) of 200 mm depth to correct level. It should be properly, aligned and apply lubricant, make connection with pipe and accessories by pushing the base to the spigot. Shaft can be increased or cut as per the site requirements. The rubber ring sealing for the base/ shaft connection must be placed between the top two ribs of the base. Apply lubricant evenly on the rubber seal around the base uniformly for full insertion. Cone should be in right or central position and install the cone by pushing it evenly on shaft. Back filling the surroundings with suitable granular material and ensure proper compaction. Then the reinforced concrete slab to be installed at top with GRP cover and lid. In order to safeguard against uplift pressure manhole should have solid horizontal reinforcement ribs of appropriate thickness and width. These ribs should be strategically placed at regular intervals all along the outside of the shaft of the manhole. During installation, special care must be taken to ensure proper compaction of the excavated earth with proctor density of 95%, below and around the manhole, suitably anchored over concrete to take traffic load without settlement		
113.1	T390A	HDPE manholes of 1200 mm dia and upto 1.0 m height	NOS	21850
113.2	T390B	HDPE manholes of 1200 mm dia and 1.0 m to 2.0 m height	NOS	32545
113.3	T390C	HDPE manholes of 1200 mm dia and 2.0 m to 3.0 m height	NOS	51834
113.4	T390D	HDPE manholes of 1200 mm dia and 3.0 m to 4.0 m height	NOS	78954
113.5	T390E	HDPE manholes of 1200 mm dia and 4.0 m to 5.0 m height	NOS	94209
113.6	T390F	HDPE manholes of 1200 mm dia and 5.0 m to 6.0 m height	NOS	107620

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
114.	T400	Providing, supplying and fixing of polyethylene manhole with corrugated ribs of 1200/1250 mm internal diameter consisting of manhole base, shaft eccentric cone with ladder and SFRC frame and cover at the top as per loading condition with reinforced precast concrete slab with 600 mm opening in center at the top with concrete grade M-20 as per drawing. The manhole should be prefabricated with minimum density of 920 kg/cum material shall be meet relevant EUROPEAN NORMS specification. The manhole shall be made of single wall of 10 mm or greater thickness and construction made of 100% virgin PE material without recycling or foam content. The item shall also include supplying, transporting, loading, unloading at the site. The manhole shall have inlet and outlet as per site requirement with inbuilt P.E steps. The work shall include excavation of soils in all kinds of nature soil, dewatering, shoring, strutting removing the hedges, fence and walls, diverting water course, disposing off excess materials away from the site work etc. complete wherever necessary as per specifications identified and approved by engineer. Excavation has to be done for foundation/pipe trench in earth, soils of all type, sand granule and soft murmur including removing the excavated material upon a distance of required length. The base of manhole should be installed with bedding of M- 10 concrete (1:3:6) of 200 mm depth. Further place the manhole base in position adjust the base to the correct level. It should be properly, aligned and apply lubricant make connection with pipe and accessories by pushing the base to the spigot. Shaft can be increased or cut as per the site requirement. The rubber ring sealing for the base/shaft connection must be placed between the top two ribs of the base. Apply lubricant evenly on the rubber seal around the base uniformly for full insertion. Cone should be in right position and install the cone by pushing it evenly on shaft. Back filling the surroundings with suitable granular material for every 30 cm and ensure proper compaction. Then the reinforced concrete slab to be installed at top with GRP cover and lid.		
114.1	T400A	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for upto 1.0 m height	NOS	43627
114.2	T400B	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for 1 to 2 m height	NOS	61769
114.3	T400C	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for 2 to 3m height	NOS	77216
114.4	T400D	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for 3 to 4m height	NOS	92678
114.5	T400E	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for 4 to 5m height	NOS	103176
114.6	T400F	With chamber base, cone, shaft, SFRC cover, PCC ring, excavation and filling etc. for 5 to 6m height	NOS	114712

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
115.	T410	Supplying MANHOLES OF HEAVY DUTY made from selected grades of GLASS Fiber conforming to E class and as per ASTM standard D-3753 and made from polyester unsaturated isothalic resin along with suitable extenders (fillers) such as silica sand of the quality having resistance to hydrogen sulphide gas in the size of 6 feet having 600 mm top opening by the process of finite chop whoop method and in thickness of 7 mm to 12 mm having weight of around 100 kg to 700 kg in clour of pale white suitable for underground installation up to a depth of 12.8 M in the area of high water table also. Manholes having bearing capacity of axle load of 20 ton having ladder inbuilt for height over 5 feet including all taxes, duties, carriage etc. as per the direction of the Engineer in charge depending on the site condition. Providing and supplying at store or site of work including freight, loading, unloading, stacking, installation charges etc. complete. The Rate of the manhole is inclusive of the cost of manhole frame and cover. INSTALLATION WORK: The installation charge is Rs.3000/- per manhole and this include cutting of manhole pipe on both sides and applying special resin and glass fiber to get leak proof joint. THE TOTAL WORK INCLUDES: (1). Necessary erection work including loading and unloading from truck, (2). Lowering the manhole to the pit, (3). Necessary excavation, benching, grouting, back filling (4). 150 mm thick PCC at base of pit, PCC ring upto full height of manhole, (5). Brick masonry, 200 mm thick RCC slab of M-20 required upto plinth level.		
115.1	T410A	FRP Manholes include frame & cover etc. for 1.25 m dia and 1.0 m height	NOS	34317
115.2	T410B	FRP Manholes include frame & cover etc. for 1.25 m dia and 2.0 m height	NOS	45892
115.3	T410C	FRP Manholes include frame & cover etc. for 1.25 m dia and 3.0 m height	NOS	60544
115.4	T410D	FRP Manholes include frame & cover etc. for 1.25 m dia and 4.0 m height	NOS	75960
115.5	T410E	FRP Manholes include frame & cover etc. for 1.25 m dia and 5.0 m height	NOS	93619
115.6	T410F	FRP Manholes include frame & cover etc. for 1.25 m dia and 6.0 m height	NOS	116888

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
116.	T420	Providing / supplying, erecting, installing in a complete manner at site, over a bed of CC 1:3:6 of thickness 15 cms, 1200 mm dia. GRP manholes of entire monolithic including dish, wall, bottom single wall type prefabricated made of GRP materials shall meet relevant BIS / ASTM standards and specifications. Manhole shall be of single wall of 7 / 10 mm or greater thickness and construction made of 100% virgin GRP materials without re-cycling or foarm content. The pipes to be connected with elastomer seal for a flexible connection of pipes. Manholes shall have corrosion-resistant steps, vertical step distances 25 cms. centre to centre. In order to safeguard against uplift pressure, manholes should have solid horizontal reinforcement ribs of appropriate thickness and width. These ribs should be strategically placed all along the outside of the shaft of the manhole. Manholes shall have dummy flanged openings of minimum 6 numbers at different angles for House Service Connections (HSC). In order to protect the manhole in traffic areas, a reinforced concrete load distribution ring should be placed around the neck of the manhole on which SFRC cover and frame should be placed and fixed on a bed of CC 1:2:4 and finished smoothly. During installation, special care must be taken to ensure proper compaction of the excavated earth with proctor density of 95% below and around the manhole. The manhole shall have straight channel of dia. 200 mm and above as per requirements and site conditions with four extra inlets of various dia at 45 degree and 90 degree with right / left bends. Work includes excavation in all kinds of native soil, with de-wateriing, backfilling etc., complete as per instructions of the Engineer in charge. The rates shall include transportation, leads, lifts, loading, unloading of all materials including SFRC rings and covers. The rate is inclusive of the cost of manhole frame and cover.		
116.1	T420A	For GRP monolithic manholes of 1.2M dia, upto 1.0 m depth include SFRC ring & cover	NOS	34202
116.2	T420B	For GRP monolithic manholes of 1.2M dia, 1 - 2 m depth include SFRC ring & cover	NOS	46251
116.3	T420C	For GRP monolithic manholes of 1.2M dia, 2 - 3m depth include SFRC ring & cover	NOS	60544
116.4	T420D	For GRP monolithic manholes of 1.2M dia, 3 - 4m depth include SFRC ring & cover	NOS	75960
116.5	T420E	For GRP monolithic manholes of 1.2M dia, 4 - 5m depth include SFRC ring & cover	NOS	93619
116.6	T420F	For GRP monolithic manholes of 1.2M dia, 5 - 6m depth include SFRC ring & cover	NOS	116888

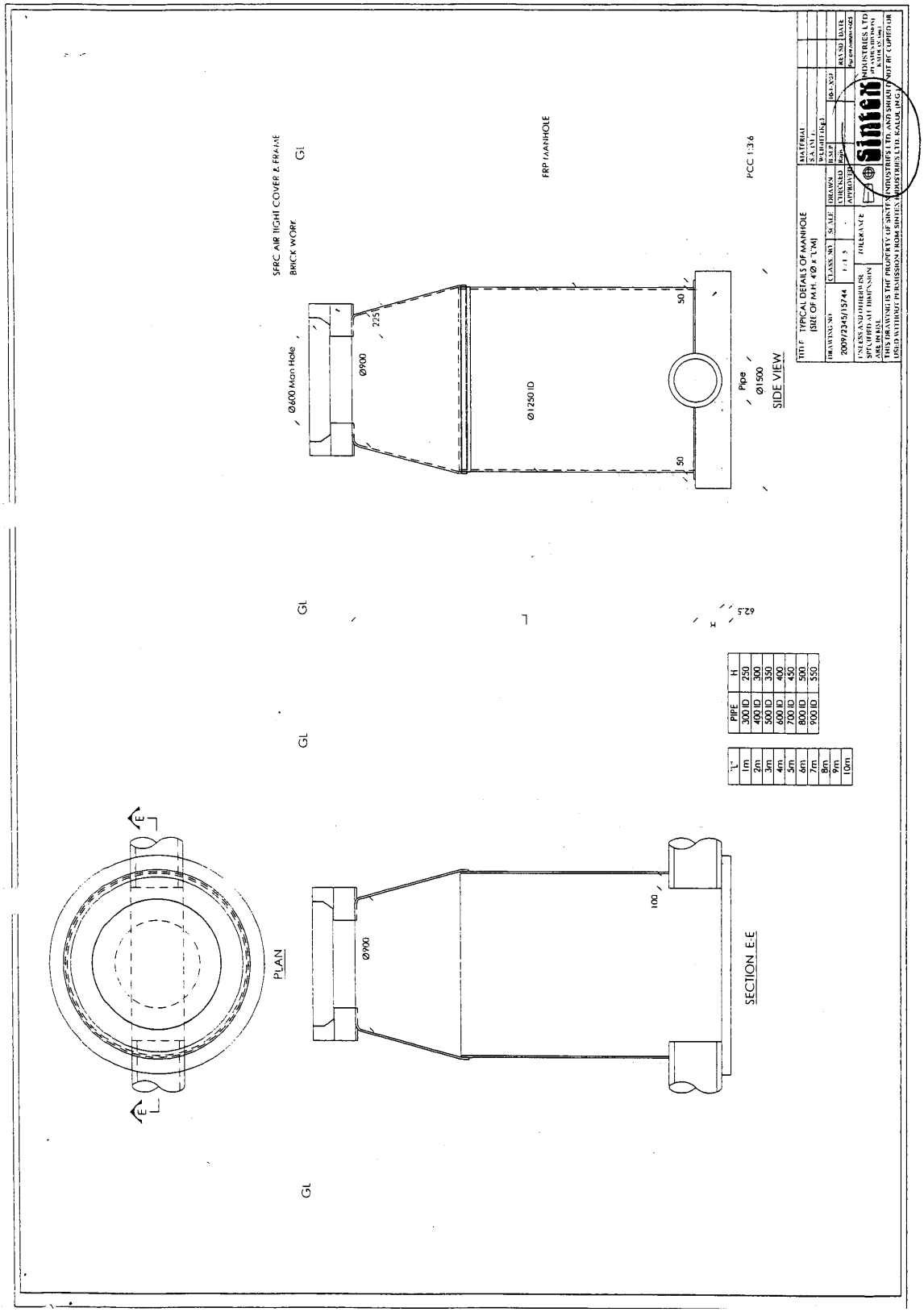
Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
117.	T430	Providing, erecting and installing 1.2mtr dia at bottom, 0.6mtr at the top, coNickel in shape with GRP vinylister double wall entire Monolithic manhole including dish wall, bottom and prefabricated type made of GRP material shall meet relevant BIS/ASTM standards and specification. Manhole shall be of double wall with each wall thickness of 6 mm or greater and construction shall be made of 100% virgin GRP material without recycling or foam content. The clear gap of 100 mm between the two walls shall be filled with CC 1:3:6 using 20 mm and down size jelly. The GRP manhole shall be fitted to 150 mm thick bed concrete of CC 1:4:8 with m25x100 mm dia anchor bolts of minimum 4 nos at the bottom. Manhole shall have corrosion resistant steps, vertical steps with distance 25c.m. C/C. In order to safeguard against uplift pressure, manholes should have solid horizontal reinforcement ribs of appropriate thickness and width. These ribs should be strategically placed at 600 mm C/C all along the outside of the shaft of the manhole. Manholes shall have dummy flanged openings of minimum 6 nos at different angles to provide house service connection (HSC). The manhole rings and covers shall be of GRP (Heavy duty) material. The lid assembly shall have arrangements to lift with hinges fixed with duly grouted bolts. The neck portion of the manhole shall be embedded in CC 1:3:6 of 450 mm thick. During installation special care must be taken to ensure proper compaction of the excavation earth with proctor density of 95% below and around the manhole. Work includes excavation in all kinds of native soil with dewatering, refilling etc., complete as per instructions of engineer in-charge. The rates shall include transportation, lead, lifts, loading, unloading of all the materials including SFRC rings and covers. The rates for various depths of manholes are as below :		
117.1	T430A	For GRP double wall monolithic MH as per spec, for 1.2 m dia. and 1.0 m depth + SFRC F&C	NOS	60043
117.2	T430B	For GRP double wall monolithic MH as per spec, for 1.2 m dia. and 2.0 m depth + SFRC F&C	NOS	75398
117.3	T430C	For GRP double wall monolithic MH as per spec, for 1.2 m dia. and 3.0 m depth + SFRC F&C	NOS	80654
117.4	T430D	For GRP double wall monolithic MH as per spec, for 1.2 m dia. and above 3.0 m depth + SFRC F&C	NOS	92642
118.	T440	Dismantling the damaged or collapsed manholes of 1.2M dia., coNickel in shape, and reconstructing the same for the same dimensions, with machine made wire cut brick in CM 1:4 with ordinary portland cement etc. as per design and specifications. The existing ring, cover and CC beeding to be used.		
118.1	T440A	For manholes of 1.2M dia and 1.0 M depth	NOS	12694
118.2	T440B	For manholes of 1.2M dia and 2.0 M depth	NOS	21051
118.3	T440C	For manholes of 1.2M dia and 3.0 M depth	NOS	32924

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
119.	T450	Dismantling the damaged or collapsed manholes of 1.5M dia., coNickel in shape, and reconstructing the same for the same dimensions, with machine made wire cut brick in CM 1:4 with ordinary portland cement etc. as per design and specifications. The existing ring, cover and CC beeding to be used.		
119.1	T450A	For manholes of 1.5M dia and 1.0 M depth	NOS	16231
119.2	T450B	For manholes of 1.5M dia and 2.0 M depth	NOS	29078
119.3	T450C	For manholes of 1.5M dia and 3.0 M depth	NOS	43098
119.4	T450D	For manholes of 1.5M dia and 4.0 M depth	NOS	57039
119.5	T450E	For manholes of 1.5M dia and 5.0 M depth	NOS	71320
119.6	T450F	For manholes of 1.5M dia and 6.0 M depth	NOS	84485
120.	T460	Dismantling the damaged or collapsed manholes of 1.8M dia., coNickel in shape, and reconstructing the same for the same dimensions, with machine made wire cut brick in CM 1:4 with ordinary portland cement etc. as per design and specifications. The existing ring, cover and CC beeding to be used.		
120.1	T460A	For manholes of 1.8M dia and 3.0 M depth	NOS	49635
120.2	T460B	For manholes of 1.8M dia and 4.0 M depth	NOS	65248
120.3	T460C	For manholes of 1.8M dia and 5.0 M depth	NOS	81273
120.4	T460D	For manholes of 1.8M dia and 6.0 M depth	NOS	95429
121.	T465	Providing and fixing DROP ARRANGEMENT with following dia. HDPE grade PE-100 pipes, conforming to PN 6 as per IS 4984-1995 with latest amendments, vertical drop pipe with MS fastenings at 300 mm C/C, with suitable expander / reducer HDPE 'T' joint at top with incoming sewer with one end of Tee inside the manhole closed with end cap and 45 degree bend at the bottom with HDPE specials and encasing the pipe outside the manhole with cement concrete 1:2:4 proportion, 150 / 200 mm thick alround the HDPE pipe, including vibrating, compacting, necessary centering and form work, curing, testing etc. including cost and conveyance of all materials, labour with all lead and lifts etc. complete as per specification, drawings and as directed by the Engineer in charge etc. for:		
121.1	T465A	For 150 to 200 mm dia. incoming sewer pipe.	RMT	4236
121.2	T465B	For 250 mm dia. incoming sewer pipe.	RMT	6620
121.3	T465C	For 300 mm dia. incoming sewer pipe.	RMT	10154
121.4	T465D	For 350 mm to 500 mm dia. incoming sewer pipe.	RMT	15820
121.5	T465E	For 600 mm to 750 mm dia. incoming sewer pipe.	RMT	31753
121.6	T465F	For 800 mm to 900 mm dia. incoming sewer pipe.	RMT	48942
121.7	T465G	For 1000 mm to 1100 mm dia. incoming sewer pipe.	RMT	72874
121.8	T465H	For 1200 mm to 1400 mm dia. incoming sewer pipe.	RMT	112256
121.9	T465I	For 1500 mm to 1800 mm dia. incoming sewer pipe.	RMT	167459

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
122.	T470	Providing and installing sheet piling for both sides of the trenches for following depths with mild steel sheets of not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3 inch single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depth as per the approved design drawings, including labour charges for installing and removing the sheet piling at various reaches of sewer line constructions, including loading, unloading, transporting to the suitable location etc. complete with all lead and lifts. (Measurement shall be taken for one side only even though it is provided for both sides).		
122.1	T470A	For depth upto 3.0 m	SQM	531
122.2	T470B	For depth 3.0 m to 6m	SQM	797
122.3	T470C	For depth beyond 6 M	SQM	1062
123.	T475	Conducting the level and strip of SURVEY of alignment of Main sewers of required diameter including all data required for generating GIS map of sewer network, preparation and submission of plan and LS with ground level at 30 M intervals and junction points along the centre line of the alignment etc. showing the right of way, any permanent features, culverts, branch sewer pipe etc. complete as per specifications and as directed by the Engineer in charge with all lead and lifts etc. complete for::		
123.1	T475A	Sewer pipes upto 300 mm dia.	RMT	20
123.2	T475B	Sewer pipes above 300 mm dia.	RMT	28
124.	T480	Cutting of trees of the following girths, including cutting of trunks, branches and removal of stumps stacking of serviceable materials, earth filling in depressions / pits etc. including labour charges, all lead and lifts etc. all as per specifications and instructions of the Engineer in charge. MOST specification 201.		
124.1	T480A	For trees of 300 mm to 600 mm girth	NOS	176
124.2	T480B	For trees of 600 mm to 1200 mm girth	NOS	525
124.3	T480C	For trees of 1200 mm to 2400 mm girth	NOS	2444
124.4	T480D	For trees of girth above 2400	NOS	5934
125.	T485	Supplying, lowering, laying, fixing, testing and commissioning of SW JUNCTION PIPES, conforming to IS: 651:1992 with latest amendments, of sizes, including conveying to work site and caulking with hemp dipped in tar cement and jointing with CM 1:1.5 with sulphate resistant cement conforming to IS - 12330 with latest revisions and amendments, perfect linking, curing and testing with water, with all lead and lifts, including cost of jointing materials etc. complete for : (Contractor will make own arrangements for procuring water for testing).		
125.1	T485A	SW junction pipes of 150 mm x 100 mm dia.	NOS	449
125.2	T485B	SW junction pipes of 200 mm x 100 mm dia.	NOS	606
125.3	T485C	SW junction pipes of 225 mm x 100 mm dia.	NOS	830

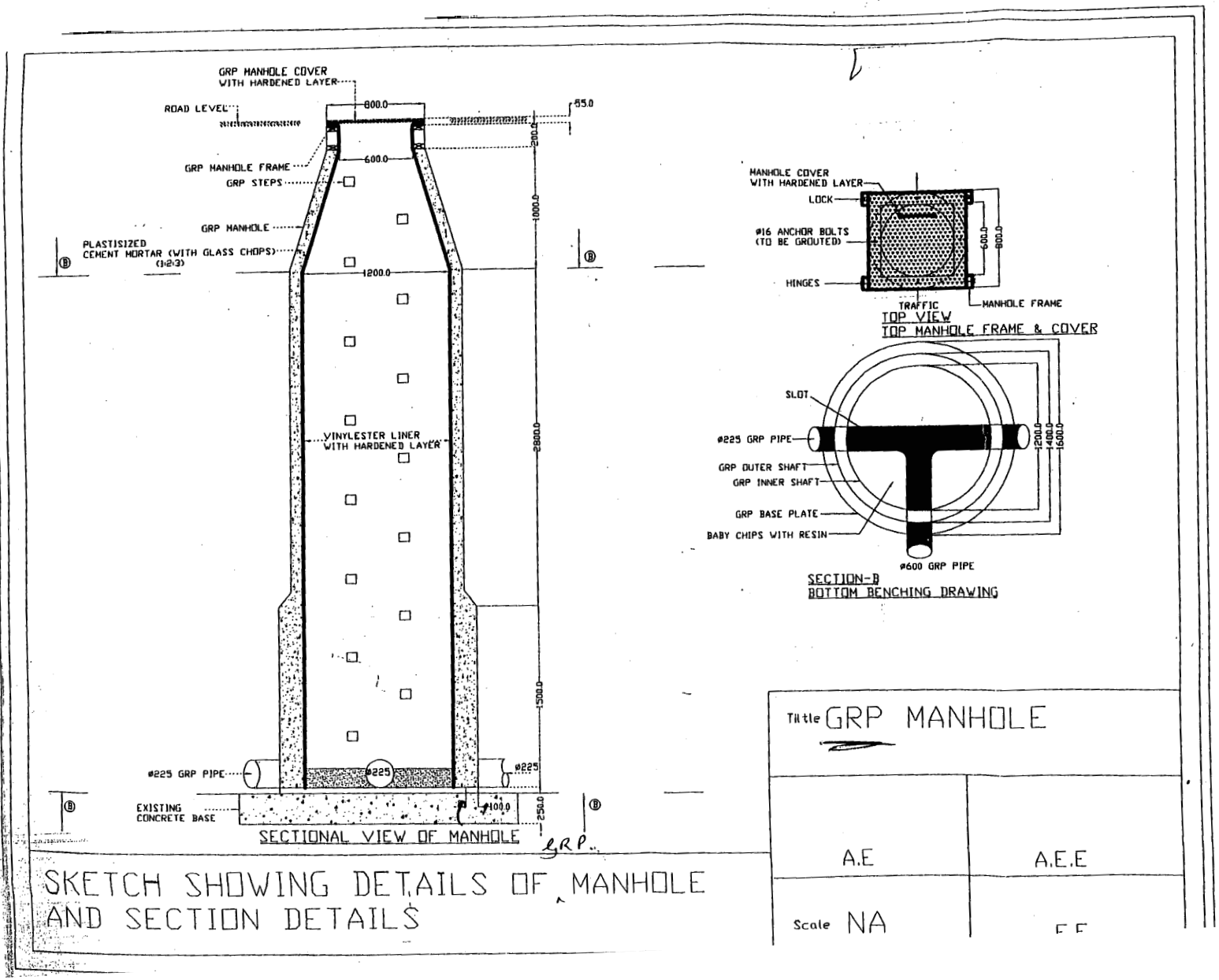
Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
126.	T490A	Supplying and fixing of 19 mm dia. or 3/4 inch dia. THERMOPLASTIC SEWER HOSE, constructed of polyester for internal inner core, two braids of synthetic fiber reinforcing materials covered by polyesterurethane, minimum bend radius range - 125 mm. Burst pressure shall not be less than 7500 PSI (525 bar), working pressure shall not be less than 3000 PSI (210 bar). Temperature limit 40 to 60 degree centigrade, with manufacturer's test certificate confirming the above parameters with one year guarantee from the date of supply of the hose to the jetting / jetting cum suction machine inclusive of all taxes. (For combined jetting / suction machine fitted in the vehicle bearing registration No.....)	RMT	1290
127.	T490B	Supplying and fixing of 25 mm dia. or 1 inch dia. THERMOPLASTIC SEWER HOSE, constructed of polyester for internal inner core, two braids of synthetic fiber reinforcing materials covered by polyesterurethane, minimum bend radius range - 160 mm. Burst pressure shall not be less than 7500 PSI (525 bar), working pressure shall not be less than 3000 PSI (210 bar). Temperature limit 40 to 60 degree centigrade, with manufacturer's test certificate confirming the above parameters with one year guarantee from the date of supply of the hose to the jetting / jetting cum suction machine inclusive of all taxes. (For combined jetting / suction machine fitted in the vehicle bearing registration No.....)	RMT	1564
128.	T500A	Providing, erecting and removing casurina pole three tier BARRICADING using poles of 7.5 to 10 cms dia. and 1.5M height above ground fixed vertically at intervals of 2.0 to 2.5 M centre to centre and horizontally at 0.5M above ground level, including fixing poles in ground for a maximum depth of 0.3M and tied with coir rope firmly including cost and conveyances of all materials, labour, lead and lifts charges etc. complete. (This item is applicable for pipe works of 600 mm dia and above pipes)	RMT	52
129.	T500B	Clearing and grubbing land including uprooting rank vegetable grass, bushes, shrubs, saplings and trees upto 300 mm girth by manual means, in areas of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials from road boundary etc. including cost of labour charges, all lead and lifts, etc. complete as directed by the Engineer in charge. MOST specification number 201.	SQM	17
130.	T500C	Providing and fixing 150 mm dia. Cast Iron pipe for ventilating shaft 5 M high with specials and cowl and with suitable grips in CC 1:2:4 pillar using 10 mm to 20 mm graded hard granite, with 15 cms. thick cement concrete 1:2:4 around upto 1.22 M above the GLR and with a foundation base of 90 x 90 x 90 cms. plastered with 12 mm thick CM 1:3 to all exposed faces and linking the shaft to the manholes by means of 150 mm dia. GSW pipes and specials, jointing with tar dipped hemp 1:1.5 CM caulking, curing. The cost include all lead and lifts for all materials, earth work excavations and refilling in all strata, disposal of surplus earth etc. complete.	NOS	25245

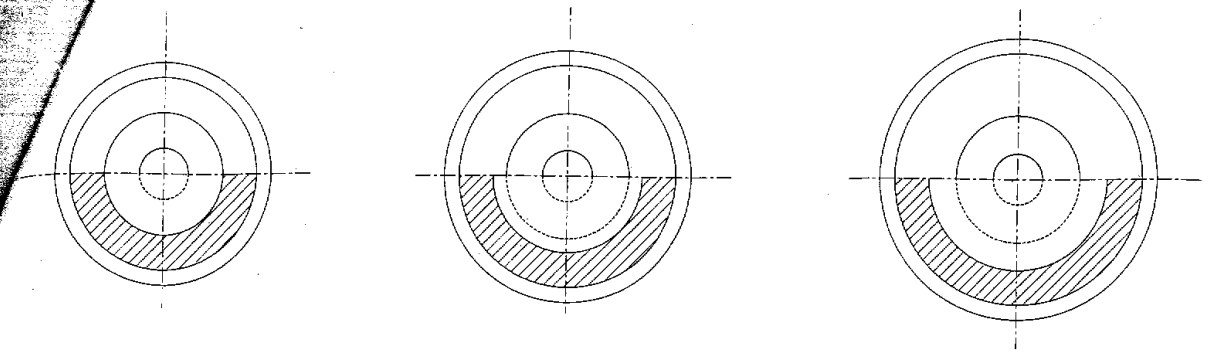
Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
131.	T500D	Making bore in manholes without damaging the existing manholes, fixing the pipe of any diameter in line and level with CC 1:2:4, plastering the outer and inner surface in CM 1:3 including curing etc. using Sulphate Resistant Cement. The cost includes the cost of materials, labour charges, lead and lifts etc. complete as per specifications and as directed by the Engineer.	NOS	200
132.	T500E	Installation of steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white strips, 150 mm wide at an angle of 45 degree 'A' frame painted with 2 coats of yellow paint, etc. complte. (Cost is derived assuming 7 day usage for one time use and 40 time usage for life time) (MORTH-8.43)	SQM	15
133.	T500F	Providing and fixing elbow action NP tap of 15 mm dia. for wash basins etc.	SQM	359



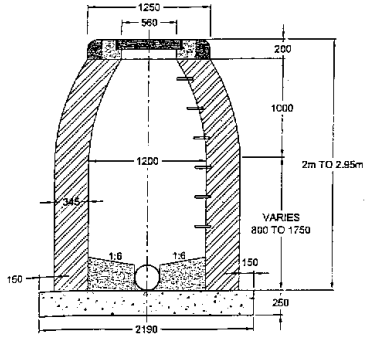
"L"
1m
2m
3m
4m
5m
6m
7m
8m
9m
10m

PIPE	H
300 ID	250
400 ID	300
500 ID	350
600 ID	400
700 ID	450
800 ID	500
900 ID	550

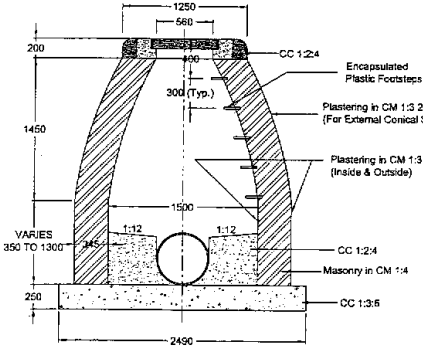

GRP MANHOLE COVER
WITH HARDENED LAYER
ROAD LEVEL
800.0
55.0
200.0
GRP MANHOLE FRAME
600.0
GRP STEPS
1000.0
GRP MANHOLE
PLASTISIZED
CEMENT MORTAR (WITH GLASS CHOPS)
(1:2:3)
1200.0
2800.0
VINYLESTER LINER
WITH HARDENED LAYER
1500.0
ø225 GRP PIPE
ø225
ø225
EXISTING
CONCRETE BASE
100.0
250.0
SECTIONAL VIEW OF MANHOLE
MANHOLE COVER
WITH HARDENED LAYER
LOCK
ø16 ANCHOR BOLTS
(TO BE GROUTED)
600.0
800.0
HINGES
TRAFFIC
MANHOLE FRAME
TOP VIEW
TOP MANHOLE FRAME & COVER
SLOT
ø225 GRP PIPE
1200.0
1400.0
1600.0
GRP OUTER SHAFT
GRP INNER SHAFT
GRP BASE PLATE
BABY CHIPS WITH RESIN
ø600 GRP PIPE
SECTION-B
BOTTOM BENCHING DRAWING
Title GRP MANHOLE
A.E
A.E.E
Scale NA
SKETCH SHOWING DETAILS OF MANHOLE
AND SECTION DETAILS



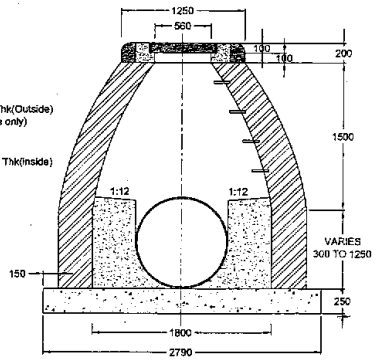
PLAN HALF AT TOP HALF AT BOTTOM



1.20 M DIA



1.50 M DIA



1.80 M DIA

MANHOLES 2m TO 2.95m DEEP

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. NO DIMENSION SHALL BE SCALED FROM THE DRAWING.
3. FOR DETAILED SPECIFICATION, REFER BILL OF QUANTITIES & TECHNICAL SPECIFICATIONS
4. FOR RCC DETAILS OF MANHOLE FRAME & COVER, REFER DRAWING No. DHV/BWSSB/UGD/DAS/7A/STD-4.12
5. TOP OF MANHOLE COVER SHALL BE FLUSH WITH FINISHED ROAD LEVEL
6. IF THE SEWER ROUTE IS PARALLEL TO NALLA/DRAIN/LAKE ABOVE THEN THE TOP OF MANHOLES SHOULD BE ATLEAST 0.2 mTHE HFL OF THE NALLA/DRAIN/LAKE AS DIRECTED BY THE ENGINEER.
7. THE WORKING DRAWINGS ARE BEING APPROVED SUBJECTED TO THE CONDITIONS THAT THE DRAWINGS WILL BE REVISED BASED ON FIELD CONDITION AS AND WHEN THE PROBLEMS ARAISE OR NOTICED DURING THE TIME OF EXECUTION OF THE WORK

Executive Engineer
(CMC-1)

Approved By

Additional
Chief Engineer (CMC)
B.W.S.S.B

Consultant

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Client

Bangalore Water Supply and Sewerage Board, Bangalore

Project

Greater Bangalore Sewerage and Road Restoration Components Under KMRP

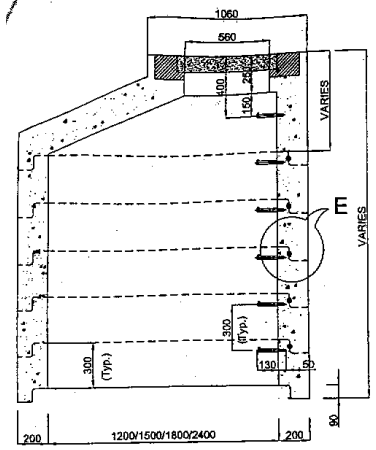
Rev	Date	Drawn	Description	Verf'd	App'd

Title

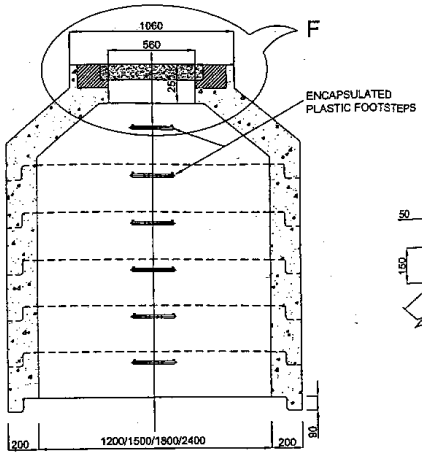
Standard Details of Brick Manholes

Drawing no.
DHV/BWSSB/UGD/DAS/7A/STD-4.3

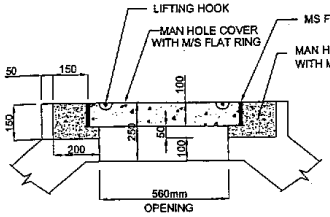
Drawn	PK	
Verified	SK	
Approved	BRN	
Scale	NTS	
Rev.	0	Status CON



SECTION AT A-A



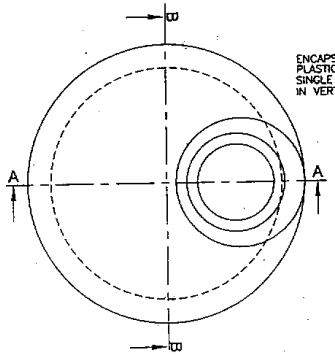
SECTION AT B-B



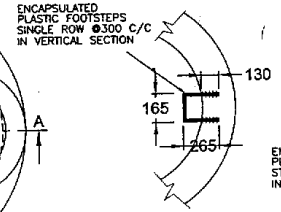
DETAILS- F
COVER & FRAME DETAILS

NOTES:-

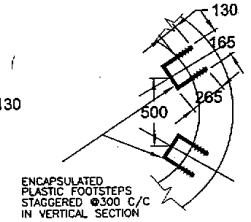
1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. NO DIMENSION SHALL BE SCALED FROM THE DRAWING.
3. GRADE OF CONCRETE MIX SHALL BE M20 CONFORMING TO I.S 456-2000 FOR MANHOLE.
4. ONLY SULPHATE RESISTING CEMENT CONFIRMING TO IS:12330:1988 SHALL BE USED FOR ALL CONCRETING WORKS.
5. All STEEL SHOULD BE OF FE500 GRADE
6. THIS DRAWING IS ONLY TYPICAL CONSTRUCTION DRAWING. AS PER CLAUSE 7.3.2.1 OF CONTRACT DUCUMENT. THE CONTRACTOR HAS TO TAKEN PRIOR APPROVAL TO THE DESIGN, DRAWING AND PROCESS OF MANUFACTURE OF THE PRECAST MANHOLE
7. THE WORKING DRAWINGS ARE BEING APPROVED SUBJECTED TO THE CONDITIONS THAT THE DRAWINGS WILL BE REVISED BASED ON FIELD CONDITION AS AND WHEN THE PROBLEMS ARAISE OR NOTICED DURING THE TIME OF EXECUTION OF THE WORK



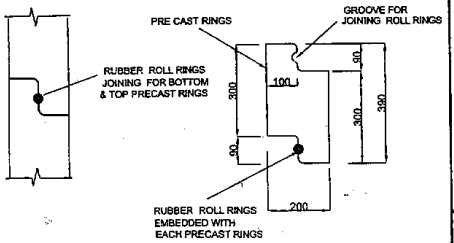
PLAN



FOOT STEP DETAILS
UP TO 2m DEEP MANHOLE



FOOT STEP DETAILS
ABOVE 2m DEEP MANHOLE



DETAILS- E
PRECAST RINGS JONING DETAILS

Approved By

Executive Engineer (DC-South)

Additional Chief Engineer(CMC) B.W.S.S.B

Consultant

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Client: Bangalore Water Supply and Sewerage Board, Bangalore

Project: Greater Bangalore Sewerage and Road Restoration Components Under KMRP

Rev	Date	Drawn	Description	Verf'd	App'd
1	7/7/10	PK	Manhole Inside Dimesion modified		

Title: Standard details of Precast RCC Manhole

Drawn	PK	
Verified	SK	
Approved	BRN	
Scale	NTS	

Drawing no.: DHV/BWSSB/UGD/BYT/26/STD-4.11

Rev.	Status
0	CON

CHAPTER - 21

SCHEDULE OF RATES FOR TRENCHLESS WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	U001A	Excavation for ramming / jacking pits and receiving pit. The work includes cutting of asphalted/ concrete surface, excavation in all types of soil and strata, dewatering, disposal of debris, refiling the trenches with consolidation, restoration of road surface to normal surface by concreting/asphalting etc., complete.		
1.1	U001A	Size up to 5 mts X 3 mts - depth up to 4 mts	NOS	163930
1.2	U001B	For additional 1 SQM - For 4 mts depth of size 5 Mts X 3 Mts.	SQM	5464
1.3	U001C	Size up to 5 mts X 3 mts - depth up to 5 mts	NOS	189734
1.4	U001D	For additional 1 SQM - For 5 mts depth of size 5 Mts X 3 Mts.	SQM	6324
1.5	U001E	size up to 5 mts X 3 mts - depth up to 6 mts	NOS	215537
1.6	U001F	For additional 1 SQM - For 6 mts depth of size 5 Mts X 3 Mts.	SQM	7185
1.7	U001G	size up to 5 mts X 5 mts - depth up to 5 mts	NOS	337258
1.8	U001H	For additional 1 SQM - For 5 mts depth of size 5 Mts X 5 Mts.	SQM	6745
1.9	U001I	size up to 5 mts X 5 mts - depth up to 6 mts	NOS	384596
1.10	U001J	For additional 1 SQM - For 6 mts depth of size 5 Mts X 5 Mts.	SQM	7692
1.11	U001K	size up to 5 mts X 5 mts - depth up to 7 mts	NOS	431933
1.12	U001L	For additional 1 SQM - For 7 mts depth of size 5 Mts X 5 Mts.	SQM	8639
1.13	U001M	size up to 5 mts X 5 mts - depth up to 8 mts	NOS	479271
1.14	U001N	For additional 1 SQM - For 8 mts depth of size 5 Mts X 5 Mts.	SQM	9585
2.	U005	Installation of product pipe by manual jacking method - Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of ERW (Electric Resistance Welded), SAW (Submerged Arc Welded) MS pipe (Fe-410 grade) conforming to IS 3589-2001 with latest amendments including perfect linking welding of joints to correct position including cost and conveyance of pipes and materials with all lea., lift, cost of labour, loading and unloading of pipes for the following diameters with specified thickness of plate as noted below including bailing out of water wherever necessary for laying of MS carrier pipe of suitable dia including inside and outside of casing pipe painted with two coats of Anti corrossive tankmastic paint. Installation of steel pipe by Ramming / Jacking method to cross Railway track / NH /BDA /BBMP/Other roads/Existing utilities / NALA crossings, filling the gap between casing pipe and carrier pipe with quarry grit using compressor with all necessary equipments, plants etc, complete. Suitable spacers 0f HDP/MS or other similar material should be provided in between carrier & casing pipe to prevent carrier pipe forming metallic contact with casing pipe. The rates are inclusive of all taxes and duties.		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
		Note : a. The cost of jacking is inclusive of cost M.S. casing pipe of specified thickness b. The cost of carrying pipe is separate and provision shall be made as per site requirement c. The cost of Jacking includes all leads lifts, cost of consumables, fuel charges, labour and Taxes and duties. d. The cost of jacking and receiving pits shall be proposed separately as per site requirement.		
2.1	U005A	Jacking of 600 mm dia & 10 mm thick M.S. Casing Pipe.	RMT	21801
2.2	U005B	Jacking of 900 mm dia & 10 mm thick M.S. Casing Pipe.	RMT	28833
2.3	U005C	Jacking of 1000 mm dia & 10 mm thick M.S. Casing Pipe.	RMT	31576
2.4	U005D	Jacking of 600 mm dia & 12 mm thick M.S. Casing Pipe.	RMT	23876
2.5	U005E	Jacking of 900 mm dia & 12 mm thick M.S. Casing Pipe.	RMT	31971
2.6	U005F	Jacking of 1000 mm dia & 12 mm thick M.S. Casing Pipe.	RMT	40309
2.7	U005G	Jacking of 1200 mm dia & 12 mm thick M.S. Casing Pipe.	RMT	47301
2.8	U005H	Jacking of 900 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	36283
2.9	U005I	Jacking of 1000 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	45197
2.10	U005J	Jacking of 1200 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	54863
2.11	U005K	Jacking of 1600 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	76849
2.12	U005L	Jacking of 1800 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	88367
2.13	U005M	Jacking of 2000 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	104875
2.14	U005N	Jacking of 2200 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	115636
2.15	U005O	Jacking of 2400 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	129327
2.16	U005P	Jacking of 2600 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	135840
2.17	U005Q	Jacking of 2800 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	142272
2.18	U005R	Jacking of 3000 mm dia & 16 mm thick M.S. Casing Pipe.	RMT	158861

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	U007	Installation of product pipe by manual jacking method - Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of ERW (Electric Resistance Welded), SAW (Submerged Arc Welded) MS pipe (Fe-410 grade) conforming to IS 3589-2001 with latest amendments including perfect linking welding of joints to correct position including cost and conveyance of pipes and materials with all lea., lift, cost of labour, loading and unloading of pipes for the following diameters with specified thickness of plate as noted below including bailing out of water wherever necessary for laying of MS carrier pipe of suitable dia including inside and outside of casing pipe painted with two coats of Anti corrosive tank mastic paint. Installation of steel pipe by Ramming / Jacking method to cross Railway track / NH /BDA /BBMP/Other roads/Existing utilities / NALA crossings, filling the gap between casing pipe and carrier pipe with quarry grit using compressor with all necessary equipments, plants etc, complete. Suitable spacers 0f HDP/MS or other similar material should be provided in between carrier & casing pipe to prevent carrier pipe forming metallic contact with casing pipe. The rates are inclusive of all taxes and duties. Note : a. The cost of jacking is inclusive of cost M.S. casing pipe of specified thickness b. The cost of carrying pipe is separate and provision shall be made as per site requirement c. The cost of Jacking includes all leads lifts, cost of consumables, fuel charges, labour and Taxes and duties. d. The cost of jacking and receiving pits shall be proposed separately as per site requirement.		
3.1	U007A	Jacking of 1200 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	61318
3.2	U007B	Jacking of 1600 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	85713
3.3	U007C	Jacking of 1800 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	99520
3.4	U007D	Jacking of 2000 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	117258
3.5	U007E	Jacking of 2200 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	129260
3.6	U007F	Jacking of 2400 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	144183
3.7	U007G	Jacking of 2600 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	151780
3.8	U007H	Jacking of 2800 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	159219
3.9	U007I	Jacking of 3000 mm dia & 20 mm thick M.S. Casing Pipe.	RMT	177467
4.	U030	Installation of steel product pipe by HDD method including preparing and setting up the plant and equipment, preparing new pipe work materials, installing new pipe work and commissioning system or making the system ready for commissioning by HDD operation including all related civil and mechanical works like excavation, shoring / strutting etc. drilling, stringing, ramming and pulling back the new work on the design bore path alignment, proper disposal of drilling fluid and restoration of site after completion etc. for horizontal directional drilling technique suiting Indian conditions in all types of soil including the cost of sleeve / casing pipe etc. in all respects for:		

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
4.1	U030A	For pipes of 100 mm dia and 6 mm thick.	RMT	4988
4.2	U030B	For pipes of 150 mm dia and 6 mm thick.	RMT	5046
4.3	U030C	For pipes of 200 mm dia and 6 mm thick.	RMT	7230
4.4	U030D	For pipes of 250 mm dia and 6 mm thick.	RMT	7288
4.5	U030E	For pipes of 300 mm dia and 6 mm thick.	RMT	9222
4.6	U030F	For pipes of 350 mm dia and 6 mm thick.	RMT	9279
4.7	U030G	For pipes of 400 mm dia and 6 mm thick.	RMT	13017
4.8	U030H	For pipes of 450 mm dia and 6 mm thick.	RMT	13132
5.	U050	Conducting ground penetrating RADAR SURVEY in a corridor of 4-6 meter width to detect burred utilities like pipes, cables etc. in such corridor. Marking of the detected utilities on the map of corridor with information of locations and depth to the top of various utilities detected. Work to be conducted using 500 Mhz and 300 Mhz antenna for the best possible resolution and penetration etc. for:		
5.1	U050A	Along the road for 6 meter wide corridor	RMT	39
5.2	U050B	Along the road crossings without dividers and upto 30 M width.	NOS	35904
5.3	U050C	Along the road crossings with dividers and upto 50 M width.	NOS	71808
5.4	U050D	Along the road crossings with dividers and upto 60 M width.	NOS	92004
5.5	U050E	Along the road crossings above 60M width for every 1 M and part thereof.	NOS	2356
6.	U060A	Conducting Seismic Refraction survey to determine stratigraphy along proposed route i.e, soil, seathered rock, rock interfaces. Detection of faults, fractures, shear zones etc. in the investigated area. Geophone spacing 5M, test to be conducted using 24 channel signal enhancement type seismograph 5M Geophone Spacing and for projects having a minimum length of 115.	MTR	449

CHAPTER - 22

MAINTENANCE WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	V010A	Painting with synthetic enamel on old pipes, one or more coats, on 75 mm dia. pipes.	RMT	10
2.	V010B	Painting with synthetic enamel on old pipes, one or more coats, on 100 mm dia. pipes.	RMT	14
3.	V010C	Providing & fixing 455x610 mm cast iron cover with frame weight to be not less 38kgs (weight of cover 23 kgs and weight of frame 15 kgs)and necessary locking arrangements with M.S flats 32x6 mm etc & painting with two or more coats with black Japan paint etc. complete as directed by the engineer-in-charge.	NOS	2196
4.	V010D	Cleaning of Water Storage Tank or Sump by following method: (1) Empty the Tank/ Sump and make it to near dry, (2) Apply bleaching powder uniformally (@ Tank capacity x 0.5 gms/litre) inside the Tank/ Sump and wait for one hour, (3) After one hour, clean/ rinse the Tank/ Sump with fresh water. Repeat the process (2) & (3) for two to three times, all complete, as directed by the Engineer-in-charge.	LTR	1
5.	V010E	Providing & replacing damaged Cast Iron covers of size 300x 300 mm (wt 4.5 kg, for Gully trap) or 455x 610 mm (wt 23 kg, for M/H Cover) or of required size, to fit-in exactly inside the frame etc. complete. (NOTE:- CI Covers are to be replaced with RCC Covers in general OR where CI Covers are usually stolen) .	KGS	58
6.	V010F	Providing & replacing damaged/ dilapidated Cast Iron Frame of sizes 300x 300 mm (inside)(wt 2.7 kg for Gully trap) or 455x 610 mm (inside)(wt 15.0 kg, for Manholes) or of required size, including removing the damaged frame & fixing new frame with CM 1:3 (1 cement: 3 coarse sand) neatly finished etc, all complete. .	KGS	67
7.	V010G	Cleaning Septic Tank of 50 users capacity as per details and instructions.	NOS	2244
8.	V010H	Cleaning Septic Tank of 100 users capacity as per details and instructions.	NOS	2805
9.	V010I	Cleaning Septic Tank of more than 100 users capacity as per details and instructions.	NOS	3366
10.	V010J	Cleaning of sewer line by Rodding Equipment for upto 150 mm dia.	RMT	34
11.	V010K	Cleaning of sewer line by Rodding Equipment for dia above 150 mm.	RMT	56
12.	V010L	Deduct for cleaning Sewer Line by using bamboo sticks &/or pull-through-rods instead of by the Rodding Equipment.	RMT	6
13.	V010M	Removing damaged/ unfunctional sanitary items like cistern, kitchen sink, wash basin, urinal basin including disconnecting all existing fittings etc for replacement with New Items and stacking the removed material properly as directed by the Engineer-in-Charge	NOS	176

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
14.	V010N	Removing gland cock with fitting, repairing and refixing (Size 15 mm to 65 mm)	NOS	52
15.	V010O	Removing CI Road box and refixing as per specification.	NOS	202
16.	V010P	Removing RCC valve Box and refixing as per specification.	NOS	354
17.	V010Q	Removing the RCC Valve Box and 15cms size road box and conveying it to stores.	NOS	501

CHAPTER - 23

ELECTRICAL WORKS

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
1.	W010A	Work of rewinding of HV side upto 100KVA power transformer as specified below: a. Switch off Power supply of transformer Isolator feeder and discharge with discharge rod. b. Disconnect the input and output cables form 100 Kva transformer. c. Drain old transformer oil from transformers, and flush the winding jet force with good BDV valve transformer oil. d. Manually lead up to crane reach and load to truck to shift factory. e. After rewinding the burnt out HV windings of transformer and replace the gaskets carbonized bolts and Nuts check the necessary tests. f. Fill the new transformer oil (BWSSB Supply) & replace the silica gel breather. g. Re install transformer after received form factory. h. Switch ON power supply and check the transformer, No load and on load.	JOB	80000
2.	W010B	Work of repair and rewinding of LV side upto 100 KVA power transformer as specified below: a. Drain out the contaminated transit oil completely from the reactor; flush the windings of the transformer with jet force of good BDV value transit oil. b. Removing the burnt out windings from all the three phases of the transformer provide new windings of LV side in all three phases. c. Clean the terminal connection with carbon tetra chloride solution. d. Fill the new transit oil (departmental supply) replace the bolts, nuts, washers and provide gasket etc., wherever necessary provide silica gel breather. e. Fix the transformer in the bet and charge the transformer and observe Performance “ON LOAD” and ensure for trueness of the transformer performance.	JOB	75174

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
3.	W010C	Work of servicing, leak arresting and oil filtration upto 400 KVA power transformers as specified below: a. Removing cable connection of transformer after isolating the supply dismantling the cable connection b. Replacing the existing leakage L.V side H.T Busing Gasket, oil seal, bots and nuts etc. of the power transformer. c. Replacing the existing non-functioned damaged Dehydrating Breather by a new breather with new silica gel for the above transformer d. Arresting oil leak from exclusive vent, neutral bushing of valves, flanges, is drying arresting the leakage for L.V and HV side of power transformer and refilling of the transformer oil including cost of labour and necessary repaired materials. e. Repaint the Transformer using light Grey epoxy paint of 2 coated as original. f. Filtering of oil in the transformer at the transformer center by hot process using stream line filter such that the dielectric strength of oil in the transformer conforms to ISI specification. g. Painting of entire structure of transformer yard including fencing using silver paint.	JOB	74000
4.	W010D	Work of repairs/servicing and overhauling of on load tap changer (OLTC) of upto 66KV/6.6KV 8MVA transformer as specified below: A). Removing the supply connection of diverter switch draining out the diluted oil of OLTC chamber, removing the diverter switch one by one carefully by using tripped and chain pulley block. Dismantling the moving and fixing contacts and cleaning with good quality cleaning agents to remove the carbon deposit, replacing the worn-out compression spring micros switch tap changing contacts, of worn gear assembly, replacing of worn out bearing oil seals, 'O' rings, gaskets, etc., in order to ensure fiction from operations of tap changing and oil leakage from diverter switch mechanism housing resistance by new one which will be supplied by departmentally, cleaning the diverter switch housing chamber to remove the carbon deposit lowering the serviced diverter switch inside the housing chamber and aligning the centre shaft by using lock nut, bolt and washers tighting of resistor conductors carefully without causing damaged to the nearby the contact refilling the good quality high BDV value insulation oil to the diverter switch housing chamber (oil will be supplied by the department adjusting the micro switch NO NC contacts and lifting liver for its proper function and covering the chamber by fixing the lid on the top and cleaning the oil gauge indicator with soap water, after drying refix the same testing the operation of tap changing system by giving upto 440 Volts supply from tap position 1 to 25 after satisfactory charging over of all 25 taps in forward and reverse direction.	JOB	49996

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
5.	W010E	Work of repairs/servicing and overhauling of on load tap changer (OLTC) of upto 66KV/6.6KV 8MVA transformer as specified below: Painting of transformer including platform CTS etc., with one cost of red oxide to the rusted portion of transformer, 2 coats of M/s grey enamel paint, RYB color paint to CT caps for identification etc., Rates should quote inclusive of cleaning of the transformer of all sizes.	JOB	30070
6.	W010F	Work of repairing of diverter switch and replacement of resistance upto 66KV/6.6KV 8MVA Transformer as specified below: Removing the supply connection of diverter switch draining out the diluted oil of OLTC chamber, removing the diverter switch one by one carefully by using tripped and chain pulley block. Dismantling the diverter switch unit, removing the worn-out resistance from the diverter switch Supply and fixing of new resistance of same capacity as original to the diverter switch without disturbing the other running equipment, cleaning the diverter switch housing chamber to remove the carbon deposit, lowering the repaired diverter switch inside the housing chamber and aligning the centre shaft by using link nut, bolt and washers tighting of resistor conductors carefully without causing damaged to the nearby the contact refilling the good quality high BDV value insulation oil to the diverter switch housing chamber (oil will be supplied by the department) adjusting he micro switch NO, NC contacts and lifting liver for its proper function and covering the chamber by fixing the lid on the top. Testing the operation of tap changing system by giving upto 440 Volts supply from tap position 1 to 25 after satisfactory charging over all 25 taps in forward and reverse direction.	JOB	79971
7.	W010G	Works of Supply fixing and wiring of tap position indicator to RTCC panel transformer as detailed:. Tap position indicator Aux supply: -110V or 230V AC +15% 50HZ, Resistance: - 1 Kilo ohms per step, Tele-transmitter: -3Wire connection 1 to 99 position, Display: -2Digit 7 segment LED, Accuracy -Tolerance +2%, Type of mounting: -Panel mounting 90x90x70 mm, Dimension: -96 mm x 96 mm x 70 mm, Accuracy: -Class 11	NOS	21460
8.	W010H	Works of Supply fixing and wiring of digital kilowatt meter to RTCC panel upto 5MVA transformer as detailed: Aux supply -606KV -110V OR 230V AC, Range - 0 to 9 KW, Burden - 4VA, Display -3.1/2 digital for nominal full seals, Voltage input -110V from P.T, Mountry -Panel type, Cut out size - 90x90 mm, Ambient Emp -0.50degree C, Model - DM 3257 ACC. CL:1.0, Accuracy -Class -1.0	NOS	18500
9.	W030A	Work of supply, erection and commissioning of indoor upto 250 Amps distribution panel as specified below: Supply, erection and commissioning of Indoor type upto 250 Amps MCCB distribution panel with outgoing copper bus bar, having, accessories like MCCB, incoming and outgoing entry bus bar, ammeter volt meter, ammeter selector switch, LED indication lamp, and with suitable M.S box with required stand unit set. Suitable for Indoor type complete as per latest IS standard specification.	NOS	72890

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
10.	W030B	Work of supply and fixing of 85W, LED high way fitting to top of panel board, soft starter and breaker as specified below: Supplying High pressure high way 85W LED fitting die cast aluminum canopy with aluminum housing to control gear, finished stove enamel gray glassy white canopy interior with a pair of anodized aluminum reflectors clear acrylic bowl, gasket lining for dip in seat resistance duly wired with single or multi LEDS.	NOS	19750
11.	W040A	Work of supply and fixing of isolator panel and capacitor panel fuses to motor. as specified below: A) Removing the damaged burnt out fuses upto 63Amps 7.2 /11 K.V isolator fuses form isolator panel for motor cleaning the fuse carriers with CTC and apply petroleum jelly for fuse contacts and rectify the faulty in the isolator panel. Supply and fixing new fuses upto 7.2/11 K.V isolator fuses to the fuse carrier and checking its working. B) Removing the damaged burnt out fuses upto 30Amps 7.2/11 K.V capacitor fuses form capacitor panel of motor cleaning the fuse carriers with CTC and apply petroleum jelly for fuse contacts and rectify the faulty in the isolator panel. Supply and fixing new fuses upto 7.2/11 K.V capacitor fuse to the fuse carrier and checking its working	NOS	16029
12.	W040B	Work of repairing and servicing of capacitor isolator panel of motors as specified below: A) Dismantling the closing and tripping mechanism, removing the broken, closing lever, cylinder, moving contact tips, and service the entire mechanism, supplying and fixing the new closing lever full set cylinder, moving contact tips, etc., check the electrical circuit, replacement of burnt out LED Indication lamps etc., finally the panel should be tested for its running satisfactorily. B) Draining out contaminated breakdown oil completely form reactors, flushing of windings in the reactors with jet force of good BDV. Value transformer oil, cleaning of windings and flushing of carbon deposition over the windings in all the three phase of reactors, removing the terminals and cleaning the terminal bushings with carbon tetrachloride solution, checking of resistance of the windings of the correct value in all the three phases, filling the new oil with break down voltage value. (transformer oil will be supplied by the department).	JOB	36429

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
13.	W040C	Work of replacement of faulty control components and modification and rewiring of soft starter panel upto 1250KW/6.6KV motor as specified below: a. Disconnecting the power cables and control cables. b. Removal of faulty control components and cable disconnections. c. Supply and fixing Auxiliary contractors, upto 110Volt DC coil Supply with 2 NO, 2NC. d. Supply and fixing of Electronic Timers, 24 Volt AC Range 0 to 30 seconds. e. Supply and fixing of MCBs, 2 pole, 10A. f. Supply and fixing of suitable color LED indication Bulbs and reset Push Buttons Red in color. g. Supply and fixing of temperature Scanner. Along with RTDs 3.5 Mtr each. h. The necessary tapping/drilling work has to be done for fixing the above components and rewiring to be done etc., i. Testing the soft starter with above supplied components. j. Commissioning the soft starter and handing over the system to department.	JOB	73460
14.	W040D	Work of supply and fixing of 40 amps star delta panel Boards upto 15Hp backwash pump motor as specified below: a. Supply and fixing of new upto 15 Hp star delta starter panel board for back wash motor with the following materials. b. Power connector upto 40 A. c. On delay, off delay automatic timer. d. Over current relay upto 20-60 amps e. Upto 10 amps MCB 3 Pole for control circuit. f. Contactor 2 No+ 2 Nc upto 25 amps g. Single phase preventer. h. On and off push button switch. i. LED indication lamps RYB motor on, off and trip. j. 0 to 600 volts meter upto 96/96 mm. k. Amps meter C.T Ratio upto 100/5A. l. Current Transformer for metering upto 100/5A. m. upto 30 mmx10 mm Electronic Grad Aluminum bus bar for RYB phases. n. Internal main wiring using upto 95 sq mm Copper wire. o. Volts and ammeter selector switch.	JOB	35890

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
15.	W040E	Work of overhauling and servicing and repairing of southern switch gear make breakers of motor as specified below: Lowering the breaker from the panel after isolating the supply, draw out the breaker truck from the panel, checking the fixed and moving contacts. Removing the burnt out parts from the breaker. Supply and fixing of new closing assembly, rose contact, copper poker, banana link, lifting assembly. Checking the mechanical parts such as moving cam, lifting bar assembly, tripping mechanism and closing mechanism of the breaker and servicing the entire breaker. Check the trip and closing coil of the breaker replace the same if required. Replace the oil (Supply by departmentally). The breaker has to be checked in test position after complete servicing for proper operation and satisfaction.	JOB	79943
16.	W040F	Work of repair and servicing of LOCB breakers of motor feeders and spare breakers as specified below: Mechanical PORTION: Removing the complete unit breaker mechanism from the breaker without damaging the arc chamber, wiring to be recorded before removing the breaker mechanism. Dismantling the tension spring latching unit etc., inspecting the alignment and rectify the fault in breakers for proper closing and opening cleaning all moving contact finger contact and fixed contact by C.T.C replace the oil by new oil (Oil will be supplied by the departments). ELECTRICAL PORTION: Checking of entire electrical operation of the breaker panel checking ON & OFF circuit, change over scheme replacement of closing coil, tripping coil, closing contactor wiring should be checked as per drawing, damaged wire should be replaced by new one, all the required spare will be supplied by departmentally. The work should be carried out without disturbing other running equipment.	JOB	19500
17.	W040G	Work of repair, overhauling & servicing of southern switch gear breakers of capacitor bank as specified below: Lowering the breaker from the panel after isolating the supply, draw out the breaker truck from the panel, checking the fixed and moving contacts and replace with new contacts wherever necessary. Repair the worn out rose contacts and poker tips. Checking the mechanical parts such as moving cam, lifting bar assembly, tripping mechanism and closing mechanism of the breaker and servicing. Check the trip and closing coil of the breaker. The breaker has to be checked in test position after complete servicing for proper operation and satisfaction	JOB	35887

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
18.	W040H	Working of repairing and overhauling of upto 800amps as specified below: Complete dismantling of breaker units of upto 800 amps breaker of filter house taking out the fixed and moving contacts of all the poles, cleaning and putting back with necessary lubrication and checking of complete electrical circuit for proper closing and tripping including necessary replacement of 'V' bar contact, finger contact, contact tips, arching contact, tripping and closing coil, back housing set, with female contacts, panel fixed contact set including hylem sheet with contacts, gasket and dash pit oil etc., Testing of tripping and closing mechanism in order to ensure easy of operation of the breaker and commissioning of the system as per the standard practice without interruption of power supply. (Required oil will supply department.)	JOB	72201
19.	W040I	Work of repairing and overhauling of upto 400 amps LT breaker bus coupler as specified below: Complete dismantling of breaker units of 400 amps, breaker of compressor room taking out the fixed and moving contacts of al limbs, cleaning and putting back with necessary lubrication and checking of complete electrical circuit for proper closing and tripping including necessary replacement of V bar contact finger contact, contact tips of arcing, contacts of tripping and closing coil, back housing set, gasket and dash pot oil etc.. Testing and tripping and closing mechanism in order to ensure easy operation of the breaker and commissioning of the system as per the standard practice without interruption of power supply. (Required oil will be supplied by the department)	JOB	72201
20.	W040J	Work of repair and rewinding of reactor provided to isolator of motor as specified below: A) Drain out the contaminated transit oil completely form the reactor; flush the windings of the reactor with jet force of good BDV value transit oil. B) Removing the burnt out from all the three phased of the reactor provide new windings in all three phases. C) Clean the terminal connection with carbon tetra chloride solution. D) Fill the new transit oil (departmental supply) replace the bolts, nuts, washers and provide gasket etc., wherever necessary provide silica jel breather. E) Fix the reactor in the isolator panel and charge the capacitor bank and observe performance "ON LOAD" and ensure for trueness of the reactor performance.	JOB	72986

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
21.	W040K	Work of overhauling and servicing upto 1250KW, 6.6KV, motor as specified below: a. Disconnect the HT/LT, Cable and record motor details take out the motor from bed b. Check alignment and record details c. Check IR values before removing motor. d. De-couple the motor from pump & taken out from removing anchor bolts e. Dismantling motor end shields f. Removing rotor from stator, checking IR values of stator cleaning stator with thinner, and petrol, g. Removing the moisture of stator by using heaters(oven) h. Revarnishing of stator & rotor baking in oven, applying becktol red on windings on both stator & rotor i. Greasing of bearings, j. Assembling of motor k. Checking IR values of motor and recording the same l. Alignment of motors with pump, and commissioning the motor on No-Load and load trial.	JOB	72369
22.	W040L	Cutting of the damaged portion of upto 3x150sq mm XLPE cable Supplying one number of indoor termination kit upto 3x150 sq mm HT XLPE cable and attending the termination work upto 3x150sq mm HT cable of Neutral side cable by using upto 150sq mm copper lugs, self adhesive HT tape, crimping tool, heat shrinkable termination kit and required bolts and nuts etc., and Commissioning the motor on load. The work including the cost of materials, labour charges, taxes and the rebate towards the cost of released materials etc.	JOB	12454
23.	W040M	Supply and brazing of motor end lead cable by using H.T Copper lugs, brazing materials, gas, soldering past, etc as original for all the three phases for motor.	JOB	35890
24.	W040N	Removing the burnt out supporting insulator from motor of main side Supply and fixing of new insulator to same place as original.	JOB	18520
25.	W040O	Removing the burnt out copper flats form all the 3 phases of neutral side motor. Supplying. copper flats copper flats to neutral side connection. Re connect the motor end cable & cable connection using bolts nuts and washers etc as original	JOB	17638
26.	W060	Removing & refixing the pump after repairing of existing horizontal mounting/ monoblock pump with following spares, etc. including aligning of pump with reference to motor & running the pump on load.		
26.1	W060A	Repairs of Booster Pumps Upto 5HP	JOB	3237
26.2	W060B	Repairs of Booster Pumps 5 HP to 10 HP	JOB	3918
26.3	W060C	Repairs of Booster Pumps 10 HP to 15 HP	JOB	5351
26.4	W060D	Repairs of Booster Pumps 15 HP to 20 HP	JOB	16749

Sl. No.	Code SOR 17-18	DESCRIPTIONS	UNIT	RATE
26.5	W060E	Repairs of Booster Pumps 20 HP to 30 HP	JOB	22146
26.6	W060F	Repairs of Booster Pumps 30 HP to 40 HP	JOB	27480
26.7	W060G	Repairs of Booster Pumps 40 HP to 50 HP	JOB	35350
26.8	W060H	Repairs of Booster Pumps 50 HP to 60 HP	JOB	40520
26.9	W060I	Repairs of Booster Pumps 60 HP to 75 HP	JOB	51286
26.10	W060J	Repairs of Booster Pumps 75 HP to 100 HP	JOB	66657
26.11	W060K	Repairs of Booster Pumps 100 HP to 150 HP	JOB	76039
26.12	W060L	Repairs of Booster Pumps 150 HP to 200 HP	JOB	91424
26.13	W060M	Repairs of Booster Pumps 200 HP to 250 HP	JOB	105597
26.14	W060N	Repairs of Booster Pumps 250 HP to 300 HP	JOB	119944
26.15	W060O	Repairs of Booster Pumps 300 HP to 350 HP	JOB	134658
26.16	W060P	Repairs of Booster Pumps 350 HP to 400 HP	JOB	146221
27.	W070	Removing and refixing the 230/415 v 50 hz I phase/III phase suitable capacity suitable speed horizontal foot mounted screen protected drip proof continuous rated monoblock/squrrel cage induction motor with F class insulation, class H super enamelled copper wire with as per standards including transportation charges etc.,		
27.1	W070A	Repairs of Booster Motors Upto 5HP	JOB	5267
27.2	W070B	Repairs of Booster Motors 5 HP to 10 HP	JOB	6679
27.3	W070C	Repairs of Booster Motors 10 HP to 15 HP	JOB	10328
27.4	W070D	Repairs of Booster Motors 15 HP to 20 HP	JOB	17916
27.5	W070E	Repairs of Booster Motors 20 HP to 30 HP	JOB	27399
27.6	W070F	Repairs of Booster Motors 30 HP to 40 HP	JOB	32890
27.7	W070G	Repairs of Booster Motors 40 HP to 50 HP	JOB	39283
27.8	W070H	Repairs of Booster Motors 50 HP to 60 HP	JOB	46938
27.9	W070I	Repairs of Booster Motors 60 HP to 75 HP	JOB	57744
27.10	W070J	Repairs of Booster Motors 75 HP to 100 HP	JOB	74797
27.11	W070K	Repairs of Booster Motors 100 HP to 150 HP	JOB	102233
27.12	W070L	Repairs of Booster Motors 150 HP to 200 HP	JOB	124753
27.13	W070M	Repairs of Booster Motors 200 HP to 250 HP	JOB	151496
27.14	W070N	Repairs of Booster Motors 250 HP to 300 HP	JOB	174810
27.15	W070O	Repairs of Booster Motors 300 HP to 350 HP	JOB	204631
27.16	W070P	Repairs of Booster Motors 350 HP to 400 HP	JOB	238616