

SCHEDULE D

**REHABILITATION / REPLACEMENT OF SMALL DIAMETER
PIPE NETWORK IN CB1 AREA**

Rehabilitation of Small Diameter Pipes

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>Note - 01 Rate to include for checking existing flange details and pipes diameters before ordering new materials.</p> <p>Note - 02 Rate to include for removal and handing over to NWS&DB of all defective fittings and materials.</p> <p>Cleaning and lining by cement mortar of CI distribution main in any surface. nominal diameter of 6" (as per section 6.4 of specifications) Rate to include making test pits, excavation of access hole, cutting the spool, spool is removed carefully, put back spool piece, jointing, backfilling and compacting etc. complete as directed.</p> <p>Refurnish in-situ, or remove, refurbish and replace, bends of any radius, to facilitate lining, with nominal diameter of following items. Rate to include for excavation , Backfilling and compacting as directed.</p> <p>11 1/4 deg. Bend</p>	m	7481.00						
DM 1 - 1	6" dia. C.I.	Nr.	12						
	<p>22 1/2 deg. Bend</p>								
DM 1 - 2	6" dia. C.I.	Nr.	5						
	<p>90 deg. Bend</p>								
DM 1 - 3	6" dia. C.I.	Nr.	5						
	Total of Page D - 1 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 4	Install new coupling suit to C.I. Pipes (Supply will be paid separately) in the main of nominal dia. of following items (Provisional) Connecting to existing 6" dia. CI Pipes	Nr	44						
DM 1 - 5	Tapers 6" - 5" CI Taper	Nr.	1						
DM 1 - 6	Remove unforeseen blockages to facilitate reconditioning (Eg. Long ferrule, foreign obstruction, repair piece, pulled joint, buried fittings collar etc.) and piece up straight on main of nominal dia - 10" (Provisional)	Nr.	75						
DM 1 - 7	Remove derelict equipment (Eg. Valves, tees etc.) and piece up straight on main of nominal diameter (provisional) - 6" .	Nr.	41						
DM 1 - 8	Furnish, install and remove temporary by pass main for nominal diameter. 6" of existing main	m	7481						
DM 1 - 9	Sample cuts (as per the Specifications) 6" dia. Main	Nr.	29						
DM 1 - 10	Furnish, install, maintain and remove decking over street opening (Provisional)	Nr.	70						
DM 1 - 11	Removal and replacement of 3" dia. Fire Hydrants including extension piece re-construction of Hydrant chamber etc.	Nr.	10						
DM 1 - 12	Removal and replacement of 3" dia. Fire Hydrant and valve including extension piece re-construction of Hydrant chamber.	Nr.	5						
	Total of Page D - 2 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 13	cleaning and disinfection of 6"mm dia main Replace existing fittings, specials with Laying and jointing or fixing in open trench PVC/CI/DI specials, fitting and other materials on mains and at junctions. Rate to include for Excavation, Back filling, compacting, providing concrete grade 10 buttress blocks where necessary as shown on type drawing No.STD/C-08 and cutting , remove derelict equipment (Eg. Valves, tees etc.) and piece up straight on main and junctions of nominal diameter, protecting open end of pipe, removing artificial obstructions at mains and junctions. disposal or depositing remove or waste materials as directed. PVC tyton tees with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983).	m	7481						
DM 1 - 14	225x225mm PVC Titon Tee	Nr	1						
DM 1 - 15	160x90mm PVC Titon Tee	Nr	20						
DM 1 - 16	160x110mm PVC Titon Tee	Nr	23						
DM 1 - 17	160x160mm PVC Titon Tee	Nr	12						
DM 1 - 18	110x90mm PVC Titon Tee	Nr	4						
	<u>DI Tees as Specified</u>								
DM 1 - 19	200x150mm dia. DI FL Tee	Nr	1						
	Total of Page D - 3 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 20	250x100mm dia. DI FL Tee	Nr	1						
DM 1 - 21	250x150mm dia. DI FL Tee	Nr	3						
	PVC tyton reducer as specified with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983).								
DM 1 - 22	160-140mm dia. PVC Reducer	Nr	1						
DM 1 - 23	160-110mm dia. PVC Reducer	Nr	3						
DM 1 - 24	110-90mm dia. PVC Reducer	Nr	1						
	PVC tyton Bends with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983).								
	22 1/2 deg. Bend								
DM 1 - 25	90 mm dia.	Nr	16						
DM 1 - 26	110mm dia.	Nr	74						
DM 1 - 27	140 mm dia.	Nr	2						
DM 1 - 28	160 mm dia.	Nr	172						
	45 deg. Bend								
DM 1 - 29	90 mm dia.	Nr	1						
	Total of Page D - 4 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 30	110 mm dia.	Nr	3						
DM 1 - 31	160 mm dia.	Nr	9						
DM 1 - 32	225 mm dia.	Nr	2						
	90 deg. Bend								
DM 1 - 33	110 mm dia.	Nr	1						
	Other Materials								
	DI Change Piece as specified								
DM 1 - 34	200mm - 7" DI FL Change piece	Nr	2						
DM 1 - 35	250mm - 9" DI FL Change piece	Nr	2						
	DI Pipes as Specified								
DM 1 - 36	200mm dia. DI FL/PE Pipe 1500mm long	Nr	1						
DM 1 - 37	250mm dia. DI FL/PE Pipe 1500mm long	Nr	4						
	PVC tyton Pipes with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983).								
DM 1 - 38	63 mm Dia. Pipes	m	55.00						
DM 1 - 39	90 mm Dia. Pipes	m	55.00						
	Total of Page D - 5 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 40	110 mm Dia. Pipes	m	46.00						
DM 1 - 41	140 mm Dia. Pipes	m	6.00						
DM 1 - 42	160 mm Dia. Pipes	m	124.00						
DM 1 - 43	225 mm Dia. Pipes	m	6.00						
	Connecting to existing mains as specified and as directed								
DM 1 - 44	Connecting to existing 5" dia. CI Pipes	Joint	1						
DM 1 - 45	Connecting to existing 6" dia. CI Pipes	Joint	32						
	D.I. Or C.I. flanged sluice valves complete as shown on Typical drawing, as specified and as directed								
DM 1 - 46	150mm dia CI/DI FL Sluice valve	Nr.	12						
DM 1 - 47	125mm dia CI/DI FL Sluice valve	Nr.	4						
DM 1 - 48	100mm dia CI/DI FL Sluice valve	Nr.	21						
DM 1 - 49	80mm dia CI/DI FL Sluice valve	Nr.	7						
	Viking Johnson flange adopter or similar to suit following diameters. Rate to include for gasket, ceiling ring, set of nuts, bolts and washers etc.								
DM 1 - 50	To suit 250mm dia DI pipe	Nr	1						
	Total of Page D - 6 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 51	To suit 3" dia CI pipe	Nr	9						
DM 1 - 52	To suit 4" dia CI pipe	Nr	22						
DM 1 - 53	To suit 5" dia CI pipe	Nr	1						
DM 1 - 54	To suit 6" dia CI pipe	Nr	2						
DM 1 - 55	To suit 7" dia CI pipe	Nr	2						
DM 1 - 56	To suit 9" dia CI pipe	Nr	2						
DM 1 - 57	To suit 10" dia CI pipe	Nr	1						
DM 1 - 58	To suit 225mm dia PVC pipe	Nr	1						
DM 1 - 59	To suit 160mm dia PVC pipe	Nr	25						
DM 1 - 60	To suit 140mm dia PVC pipe	Nr	1						
DM 1 - 61	To suit 110mm dia PVC pipe	Nr	22						
DM 1 - 62	To suit 90mm dia PVC pipe	Nr	8						
DM 1 - 63	To suit 250mm dia.DI Pipes	Nr	1						
DM 1 - 64	To suit 200mm dia.DI Pipes	Nr	1						
	Total of Page D - 7 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1 - 65	Viking Johnson stepped coupling or similar to suit following diameters. Rate to include for ceiling ring, set of nuts, bolts and washers etc. To suit 150mm dia. Steel to 160mm dia. PVC Pipes	Nr.	1						
DM 1 - 66	To suit 250mm dia. DI to 10" dia. CI Pipes	Nr.	3						
DM 1 - 67	To suit 160mm dia. PVC to 6" dia. CI Pipes	Nr.	79						
DM 1 - 68	To suit 110mm dia. PVC to 4" dia. CI Pipes	Nr.	6						
	Surface Box								
DM 1 - 69	Surface Box (Clear opening 150x150mm) with Protection tube, Precast conc. trust blocks, slabs etc. & complet as shown in detail on drawing and as directed	Nr.	41						
	Valve Chamber								
DM 1 - 70	Allow or valves of distribution mains. Complete as shown in detail on drawing No. STD/C-02 and as directed for special places or special purposes	Nr.	41						
	Total of Page D - 8 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-1 : SCRAPING AND RELINING OF PIPE NETWORK IN CB1 AREA

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	House Connections								
	Rate to include for excavation, shoring, dewatering, making good of any damage to the existing structures, road or embankment, fixing pipes, fittings, valves & water meters etc. and any other items necessary to complete the house connection.								
DM 1 - 71	20mm	Nr	796						
DM 1 - 72	15mm	Nr	7164						
Total of Page D - 9 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-1 SUM

SCRAPING & LINING OF PIPE NETWORK IN CB1 AREA

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 1	Page D - 1 of Bill DM 1			
	Page D - 2 of Bill DM 1			
	Page D - 3 of Bill DM 1			
	Page D - 4 of Bill DM 1			
	Page D - 5 of Bill DM 1			
	Page D - 6 of Bill DM 1			
	Page D - 7 of Bill DM 1			
	Page D - 8 of Bill DM 1			
	Page D - 9 of Bill DM 1			
RS/DM-1	Total of RS/DM-1 Summary to RS/DM-D1 Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>All pipes shall be Class - K9 Flange pipes and all fittings except Tees shall be Class - K12 All Tees shall be Class - K14 All Flanges shall be of PN 16</p> <p>Supply and Delivery at site all DI pipes and fittings including rubber rings, lubricant, gaskets, bolts & nuts, Denso primer, paste, protection tape and all other associated material required for complete installation</p> <p>All pipes and fittings shall be with rubber ring joints unless specified All PVC pipes shall be - Type 600 All PVC fittings shall be - Type 1000 All flanges shall be PN-16</p> <p>Supply and Delivery at site all PVC pipes and fittings including rubber rings, jointing materials and all other associated materials required for complete installation</p> <p>PVC tyton Tees</p> <p>PVC tyton tees with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983).</p>								
DM 2 - 1	225x225mm PVC Titon Tee	Nr	1						
DM 2 - 2	160x90mm PVC Titon Tee	Nr	20						
DM 2 - 3	160x110mm PVC Titon Tee	Nr	23						
	Total of Page D - 11 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 . SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts	Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts
DM 2 - 4	160x160mm PVC Titon Tee	Nr	12						
DM 2 - 5	110x90mm PVC Titon Tee	Nr	4						
	DI Tees as Specified								
DM 2 - 6	200x150mm dia DI FL Tee	Nr	1						
DM 2 - 7	250x100mm dia DI FL Tee	Nr	1						
DM 2 - 8	250x150mm dia DI FL Tee	Nr	3						
	PVC tyton reducer as specified with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147 1983)								
DM 2 - 9	160-140mm dia PVC Reducer	Nr	1						
DM 2 - 10	160-110mm dia PVC Reducer	Nr	3						
DM 2 - 11	110-90mm dia PVC Reducer	Nr	1						
	PVC tyton Bends with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147 1983)								
	22 1/2 deg Bend								
DM 2 - 12	90 mm dia	Nr	16						
DM 2 - 13	110mm dia	Nr	74						
	Total of Page D - 12 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 2 - 14	140 mm dia.	Nr	2						
DM 2 - 15	160 mm dia.	Nr	172						
	45 deg. Bend								
DM 2 - 16	90 mm dia.	Nr	1						
DM 2 - 17	110 mm dia.	Nr	3						
DM 2 - 18	160 mm dia.	Nr	9						
DM 2 - 19	225 mm dia.	Nr	2						
	90 deg. Bend								
DM 2 - 20	110 mm dia.	Nr	1						
	Other Materials								
	DI Change Piece as specified								
DM 2 - 21	200mm - 7" DI FL Change piece	Nr	2						
DM 2 - 22	250mm - 9" DI FL Change piece	Nr	2						
	DI Pipes as Specified								
DM 2 - 23	200mm dia. DI FL/PE Pipe 1500mm long	Nr	1						
DM 2 - 24	250mm dia. DI FL/PE Pipe 1500mm long	Nr	4						
	Total of Page D - 13 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 2 - 25	PVC tyton Pipes with PVC socket and spigot tyton pipes with tyton rubber ring joints as specified (PVC pipes Sri Lanka standard 147:1983). 63 mm Dia. Pipes	m	55.00						
DM 2 - 26	90 mm Dia. Pipes	m	55.00						
DM 2 - 27	110 mm Dia. Pipes	m	46.00						
DM 2 - 28	140 mm Dia. Pipes	m	6.00						
DM 2 - 29	160 mm Dia. Pipes	m	124.00						
DM 2 - 30	225 mm Dia. Pipes	m	6.00						
	D.I. Or C.I. flanged sluice valves as shown on type drawing, as specified and as directed								
DM 2 - 31	150mm dia CI/DI FL Sluice valve	Nr.	12						
DM 2 - 32	125mm dia CI/DI FL Sluice valve	Nr.	4						
DM 2 - 33	100mm dia CI/DI FL Sluice valve	Nr.	21						
	Total of Page D - 14 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Viking Johnson flange adopter or similar to suit following diameters. Rate to include for gasket, ceiling ring, set of nuts, bolts and washers etc.								
DM 2 - 34	To suit 250mm dia DI pipe	Nr	1						
DM 2 - 35	To suit 3" dia CI pipe	Nr	9						
DM 2 - 36	To suit 4" dia CI pipe	Nr	22						
DM 2 - 37	To suit 5" dia CI pipe	Nr	1						
DM 2 - 38	To suit 6" dia CI pipe	Nr	2						
DM 2 - 39	To suit 7" dia CI pipe	Nr	2						
DM 2 - 40	To suit 9" dia CI pipe	Nr	2						
DM 2 - 41	To suit 10" dia CI pipe	Nr	1						
DM 2 - 42	To suit 225mm dia PVC pipe	Nr	1						
DM 2 - 43	To suit 160mm dia PVC pipe	Nr	25						
DM 2 - 44	To suit 140mm dia PVC pipe	Nr	1						
DM 2 - 45	To suit 110mm dia PVC pipe	Nr	22						
	Total of Page D - 15 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 2 - 46	To suit 90mm dia PVC pipe	Nr	8						
DM 2 - 47	To suit 250mm dia. DI Pipes	Nr	1						
DM 2 - 48	To suit 200mm dia. DI Pipes	Nr	1						
	Viking Johnson stepped coupling or similar to suit following diameters. Rate to include for ceiling ring, set of nuts, bolts and washers etc.								
DM 2 - 49	To suit 150mm dia. Steel to 160mm dia. PVC Pipes	Nr.	1						
DM 2 - 50	To suit 250mm dia. DI to 10" dia. CI Pipes	Nr.	3						
DM 2 - 51	To suit 160mm dia. PVC to 6" dia. CI Pipes	Nr.	79						
DM 2 - 52	To suit 110mm dia. PVC to 4" dia. CI Pipes	Nr.	6						
	Surface Box								
DM 2 - 53	150 x 150 mm lockable heavy duty surface box	Nr.	41						
	For Fire Hydrants								
	Gate Valves (Resilient Seated)								
DM 2 - 54	80 mm dia	Nr	15						
	Total of Page B - 16 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Screw Down Type Fire Hydrant with Flange								
DM 2 - 55	80 mm dia	Nr	15						
DM 2 - 56	600 mm dia fire hydrant manhole cover	Nr	15						
	<u>For House Connections</u>								
DM 2 - 57	15mm MDPE pipes	m	4335						
DM 2 - 58	20mm MDPE pipes	m	480						
	<u>Saddles (Brass or MDPE)</u>								
DM 2 - 59	6" x 15mm	Nr	867						
DM 2 - 60	6" x 20mm	Nr	96						
	<u>Brass Ferrules</u>								
DM 2 - 61	20mm	Nr	96						
DM 2 - 62	15mm	Nr	867						
	<u>Replacement of Water Meters</u>								
DM 2 - 63	20mm	Nr	24						
DM 2 - 64	15mm	Nr	217						
	Total of Page B - 17 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-2 : SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

REHABILITATION OF SMALL DIAMETER PIPE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Gate Valves								
DM 2 - 65	20 mm	Nr	96						
DM 2 - 66	15 mm	Nr	867						
Total of Page D - 18 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-2 SUM

SUPPLY PIPES, SPECIALS AND VALVES FOR REHABILITATION OF PIPE NETWORK

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 2	Page D - 11 of Bill DM 2 Page D - 12 of Bill DM 2 Page D - 13 of Bill DM 2 Page D - 14 of Bill DM 2 Page D - 15 of Bill DM 2 Page D - 16 of Bill DM 2 Page D - 17 of Bill DM 2 Page D - 18 of Bill DM 2			
RS/DM-2	Total of RS/DM-2 Summary to RS/DM-D1 Grand Summary			

Replacement of Existing Mains, Service Connections and Valves

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : RS/DM 3 : SUPPLY AND DELIVERY OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>All pipes shall be Class - K9 Flange pipes and all fittings except Tees shall be Class - K12 All Tees shall be Class - K14 All Flanges shall be of PN 16</p> <p>Supply and Delivery at site all DI pipes and fittings including rubber rings, lubricant, gaskets, bolts & nuts, Denso primer, paste, protection tape and all other associated material required for complete installation</p> <p>Distribution Main (D)</p> <p>All Flanged Tees</p>								
DM 3 - 1	200 x 100 mm dia	Nr	5						
DM 3 - 2	200 x 150 mm dia	Nr	5						
DM 3 - 3	250 x 80 mm dia	Nr	1						
DM 3 - 4	250 x 100 mm dia	Nr	6						
DM 3 - 5	250 x 150 mm dia	Nr	5						
DM 3 - 6	250 x 200 mm dia	Nr	1						
DM 3 - 7	300 x 200 mm dia	Nr	1						
DM 3 - 8	300 x 150 mm dia	Nr	10						
	Total of Page D - 20 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : RS/DM 3 : SUPPLY AND DELIVERY OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 3 - 9	300 x 100 mm dia	Nr	5						
DM 3 - 10	300 x 80 mm dia	Nr	1						
DM 3 - 11	450 x 150 mm dia	Nr	4						
DM 3 - 12	600 x 150 mm dia	Nr	6						
DM 3 - 13	600 x 100 mm dia	Nr	2						
	All Flanged "Y" Branch								
DM 3 - 14	350 x 150 mm dia	Nr	1						
	All Flanged Crosses								
DM 3 - 15	250 x 250 mm dia	Nr	1						
DM 3 - 16	300 x 300 mm dia	Nr	1						
	Double Socket Bends								
	250 mm dia								
DM 3 - 17	22 1/2°	Nr	4						
	300 mm dia								
DM 3 - 18	90°	Nr	1						
	Total of Page D - 21 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : RS/DM 3 : SUPPLY AND DELIVERY OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Double Flanged Tapers (Concentric)								
DM 3 - 19	250 - 150 mm dia	Nr	3						
DM 3 - 20	250 - 200 mm dia	Nr	1						
DM 3 - 21	300 - 150 mm dia	Nr	3						
	Double Flange Change Piece								
DM 3 - 22	200 mm - 7" DI	Nr	16						
DM 3 - 23	250 mm - 9" DI	Nr	25						
DM 3 - 24	600 mm - 21" DI	Nr	10						
	Plain Ended Spigot Piece								
DM 3 - 25	250 mm dia 1500 mm long	Nr	4						
DM 3 - 26	300 mm dia 1000 mm long	Nr	2						
DM 3 - 27	300 mm dia 1500 mm long	Nr	1						
	Double Flange Pipe								
DM 3 - 28	250 mm dia 500 mm long	Nr	3						
	Total of Page D - 22 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : RS/DM 3 : SUPPLY AND DELIVERY OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Stepped Couplings								
DM 3 - 29	600 mm dia DI to 24" dia CI	Nr	2						
DM 3 - 30	450 mm dia DI to 18" dia CI	Nr	6						
DM 3 - 31	300 mm dia DI to 12" dia CI	Nr	29						
DM 3 - 32	250 mm dia DI to 10" dia CI	Nr	9						
DM 3 - 33	200 mm dia DI to 8" dia CI	Nr	3						
	Flange Adaptors								
DM 3 - 34	100 mm dia DI	Nr	2						
DM 3 - 35	200 mm dia DI	Nr	6						
DM 3 - 36	250 mm dia DI	Nr	25						
DM 3 - 37	300 mm dia DI	Nr	7						
DM 3 - 38	600 mm dia DI	Nr	9						
DM 3 - 39	3" dia CI	Nr	2						
DM 3 - 40	6" dia CI	Nr	2						
DM 3 - 41	7" dia CI	Nr	15						
	Total of Page D - 23 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : RS/DM 3 : SUPPLY AND DELIVERY OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 3 - 42	9" dia CI	Nr	25						
DM 3 - 43	10" dia CI	Nr	1						
DM 3 - 44	18" dia CI	Nr	1						
DM 3 - 45	21" dia CI	Nr	10						
	Flange & Plain Ended Pipes								
DM 3 - 46	200 mm dia 1500 mm long	Nr	14						
DM 3 - 47	250 mm dia 1000 mm long	Nr	4						
DM 3 - 48	250 mm dia 1500 mm long	Nr	26						
DM 3 - 49	300 mm dia 1000 mm long	Nr	4						
DM 3 - 50	300 mm dia 1500 mm long	Nr	17						
DM 3 - 51	300 mm dia 2000 mm long	Nr	11						
DM 3 - 52	300 mm dia 3000 mm long	Nr	2						
DM 3 - 53	450 mm dia 1500 mm long	Nr	6						
DM 3 - 54	600 mm dia 1500 mm long	Nr	13						
DM 3 - 55	600 mm dia 6000 mm long	Nr	1						
	Total of Page D - 24 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-3 SUM

SUPPLY AND DELIVERY OF DI PIPES AND FITTINGS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 3	Page D - 20 of Bill DM 3 Page D - 21 of Bill DM 3 Page D - 22 of Bill DM 3 Page D - 23 of Bill DM 3 Page D - 24 of Bill DM 3			
RS/DM-3	Total of RS/DM-3 Summary to RS/DM-D2 Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>All pipes and fittings shall be with rubber ring joints unless specified</p> <p>All PVC pipes shall be - Type 600</p> <p>All PVC fittings shall be - Type 1000</p> <p>All flanges shall be PN-16</p> <p>Supply and Delivery at site all PVC pipes and fittings including rubber rings, jointing materials and all other associated materials required for complete installation</p> <p><u>For Distribution Main (PVC)</u></p> <p>PVC Pipes</p>								
DM 4 - 1	110 mm dia	m	22,114						
DM 4 - 2	160 mm dia	m	10,082						
DM 4 - 3	225 mm dia	m	420						
	<p>PVC Double Socket Bends</p> <p>110 mm dia</p>								
DM 4 - 4	11 1/4°	Nr	36						
DM 4 - 5	22 1/2°	Nr	40						
DM 4 - 6	45°	Nr	12						
DM 4 - 7	90°	Nr	5						
	Total of Page D - 26 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	160 mm dia								
DM 4 - 8	11 1/4°	Nr	8						
DM 4 - 9	22 1/2°	Nr	5						
DM 4 - 10	45°	Nr	2						
	<u>For Junctions in Distribution Main</u>								
	PVC All Socketted Tees								
DM 4 - 11	90 x 90 mm dia	Nr	9						
DM 4 - 12	110 x 63 mm dia	Nr	1						
DM 4 - 13	110 x 90 mm dia	Nr	139						
DM 4 - 14	110 x 110 mm dia	Nr	137						
DM 4 - 15	140 x 110 mm dia	Nr	4						
DM 4 - 16	160 x 63 mm dia	Nr	1						
DM 4 - 17	160 x 90 mm dia	Nr	81						
DM 4 - 18	160 x 110 mm dia	Nr	78						
DM 4 - 19	160 x 140 mm dia	Nr	5						
	<i>Total of Page D - 27 Carried to Bill Summary</i>								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 4 - 20	160 x 160 mm dia	Nr	101						
DM 4 - 21	225 x 90 mm dia	Nr	4						
DM 4 - 22	225 x 110 mm dia	Nr	10						
DM 4 - 23	225 x 160 mm dia	Nr	2						
DM 4 - 24	225 x 225 mm dia	Nr	7						
	PVC Reducers - Tapers								
DM 4 - 25	63 - 50 mm dia	Nr	1						
DM 4 - 26	110 - 90 mm dia	Nr	29						
DM 4 - 27	140 - 110 mm dia	Nr	4						
DM 4 - 28	160 - 110 mm dia	Nr	58						
DM 4 - 29	160 - 140 mm dia	Nr	26						
DM 4 - 30	225 - 160 mm dia	Nr	6						
	PVC Double Socket Bends								
	225 mm dia								
DM 4 - 31	22 1/2°	Nr	6						
	Total of Page D - 28 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	160 mm dia								
DM 4 - 32	11 1/4°	Nr	5						
DM 4 - 33	22 1/2°	Nr	221						
DM 4 - 34	45°	Nr	32						
DM 4 - 35	90°	Nr	17						
	140 mm dia								
DM 4 - 36	22 1/2°	Nr	44						
	110 mm dia								
DM 4 - 37	22 1/2°	Nr	408						
DM 4 - 38	45°	Nr	56						
DM 4 - 39	90°	Nr	38						
	90 mm dia								
DM 4 - 40	22 1/2°	Nr	90						
	PVC Socket & Spigot Pipes								
DM 4 - 41	63 mm dia	m	2						
	Total of Page D - 29 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 4 - 42	90 mm dia	m	642						
DM 4 - 43	110 mm dia	m	125						
DM 4 - 44	140 mm dia	m	37						
DM 4 - 45	160 mm dia	m	181						
DM 4 - 46	225 mm dia	m	44						
	Stepped Coupling								
DM 4 - 47	225 mm dia PVC to 8" dia CI	Nr	22						
DM 4 - 48	160 mm dia PVC to 6" dia CI	Nr	64						
DM 4 - 49	140 mm dia PVC to 5" dia CI	Nr	36						
DM 4 - 50	110 mm dia PVC to 4" dia CI	Nr	103						
DM 4 - 51	90 mm dia PVC to 3" dia CI	Nr	55						
DM 4 - 52	63 mm dia PVC to 2" dia CI	Nr	1						
	Flanged Adaptors								
DM 4 - 53	50 mm dia PVC	Nr	4						
DM 4 - 54	90 mm dia PVC	Nr	46						
	Total of Page D - 30 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 4 - 55	110 mm dia PVC	Nr	578						
DM 4 - 56	160 mm dia PVC	Nr	287						
DM 4 - 57	225 mm dia PVC	Nr	32						
	For Air Valves in Distribution Main								
	PVC Branch Saddle complete with Rubber Seal, Gun Metal Threaded Insert								
DM 4 - 58	110 x 32 mm dia	Nr	5						
DM 4 - 59	160 x 32 mm dia	Nr	5						
	PVC pipes for Bypass lines								
DM 4 - 60	160mm	m	420						
DM 4 - 61	110mm	m	32,539						
	<u>For House Connections</u>								
DM 4 - 62	15mm MDPE pipes	m	35820						
DM 4 - 63	20mm MDPE pipes	m	3980						
	Saddles (Brass or MDPE)								
DM 4 - 64	225 x 20mm	Nr	18						
	Total of Page D - 31 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-4 : SUPPLY AND DELIVERY OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 4 - 65	225 x 15mm	Nr	168						
DM 4 - 66	150 x 20mm	Nr	219						
DM 4 - 67	150 x 15mm	Nr	1969						
DM 4 - 68	100 x 20mm	Nr	577						
DM 4 - 69	100 x 15mm	Nr	5195						
	Brass Ferrules								
DM 4 - 70	20mm	Nr	796						
DM 4 - 71	15mm	Nr	7164						
	Replacement of Water Meters								
DM 4 - 72	20mm	Nr	200						
DM 4 - 73	15mm	Nr	1790						
	Total of Page D - 32 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-4 SUM

SUPPLY AND DELIVERY OF PVC PIPES AND FITTINGS

ITEM No	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts
DM 4	Page D - 26 of Bill DM 4			
	Page D - 27 of Bill DM 4			
	Page D - 28 of Bill DM 4			
	Page D - 29 of Bill DM 4			
	Page D - 30 of Bill DM 4			
	Page D - 31 of Bill DM 4			
	Page D - 32 of Bill DM 4			
RS/DM-4	Total of RS/DM-4 Summary to RS/DM-D2 Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-5 : SUPPLY AND DELIVERY OF VALVES, FIRE HYDRANTS AND SPECIALS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>All Flanges shall be PN-16 All Valves shall be with non-rising spindles</p> <p>Supply and Delivery at site all valves, fire hydrants, materials for waste meter chambers etc. as specified and as shown on Drawings including jointing material, Denso primer, paste & protection tape and all other associated materials required for complete installation.</p> <p><u>Section Valves in Distribution Main</u> Gate Valves (Resilient Seated)</p>								
DM 5 - 1	50 mm dia	Nr	1						
DM 5 - 2	100 mm dia	Nr	112						
DM 5 - 3	150 mm dia	Nr	4						
DM 5 - 4	250 mm dia	Nr	16						
DM 5 - 5	300 mm dia	Nr	2						
DM 5 - 6	600 mm dia heavy duty hinged type manhole covers	Nr	25						
DM 5 - 7	150 x 150 mm lockable heavy duty surface box	Nr	446						
	Total of Page D - 34 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-5 : SUPPLY AND DELIVERY OF VALVES, FIRE HYDRANTS AND SPECIALS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>For Air Valve in Distribution Main</u>								
DM 5 - 8	Single Orifice Air Valve with Isolating Cock 25 mm body size (25 mm ferrule)	Nr	10						
DM 5 - 9	Double Orifice Air Valve 80 mm dia	Nr	1						
DM 5 - 10	Gate Valves (Resilient Seated) 80 mm dia	Nr	1						
DM 5 - 11	Stainless steel pipe 32 mm dia with threaded end length approx. 600 mm	Nr	10						
DM 5 - 12	600 mm dia ventilated heavy duty hinged type manhole covers	Nr	11						
	<u>For Washouts in Distribution Main</u>								
DM 5 - 13	Gate Valves (Resilient Seated) 80 mm dia	Nr	1						
DM 5 - 14	Flanged Adaptors 90 mm dia PVC	Nr	1						
DM 5 - 15	600 mm dia heavy duty hinged type manhole covers	Nr	1						
DM 5 - 16	150 x 150 mm lockable heavy duty surface box	Nr	1						
	Total of Page D - 35 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-5 : SUPPLY AND DELIVERY OF VALVES, FIRE HYDRANTS AND SPECIALS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	For Fire Hydrants								
	Gate Valves (Resilient Seated)								
DM 5 - 17	80 mm dia	Nr	81						
	Screw Down Type Fire Hydrant with Flange								
DM 5 - 18	80 mm dia	Nr	204						
DM 5 - 19	600 mm dia fire hydrant manhole cover	Nr	204						
	For House Connection								
DM 5 - 20	20 mm gate valve	Nr	796						
DM 5 - 21	15 mm gate valve	Nr	7164						
	Total of Page D - 36 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-5 SUM

SUPPLY AND DELIVERY OF VALVES, FIRE HYDRANTS AND SPECIALS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 5	Page D - 34 of Bill DM 5 Page D - 35 of Bill DM 5 Page D - 36 of Bill DM 5			
RS/DM-5	<i>Total of RS/DM-5 Summary to RS/DM-D2 Grand Summary</i>			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p><u>Laying & Jointing in Open Trench DI Pipes Specials & Fittings as Specified.</u></p> <p>Rate to include for making of trial holes, breaking out asphalt road using suitable cutter and pneumatic tools where necessary, excavation, cutting pipes, cutting & removing derelict pipes & accessories, shoring & dewatering, bedding Type A unless otherwise specified, backfilling or filling with selected material (where necessary), compaction & disposal of excess & unsuitable material as directed by the Engineer and reinstatement of surface etc. as required.</p> <p><u>Distribution Main (DI)</u></p> <p>All Flanged Tees</p>								
DM 6 - 1	200 x 100 mm dia	Nr	5						
DM 6 - 2	200 x 150 mm dia	Nr	5						
DM 6 - 3	250 x 80 mm dia	Nr	1						
DM 6 - 4	250 x 100 mm dia	Nr	6						
DM 6 - 5	250 x 150 mm dia	Nr	5						
DM 6 - 6	250 x 200 mm dia	Nr	1						
DM 6 - 7	300 x 200 mm dia	Nr	1						
	Total of Page D - 38 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 6 - 8	300 x 150 mm dia	Nr	10						
DM 6 - 9	300 x 100 mm dia	Nr	5						
DM 6 - 10	300 x 80 mm dia	Nr	1						
DM 6 - 11	450 x 150 mm dia	Nr	4						
DM 6 - 12	600 x 150 mm dia	Nr	6						
DM 6 - 13	600 x 100 mm dia	Nr	2						
	All Flanged "Y" Branch								
DM 6 - 14	350 x 150 mm dia	Nr	1						
	All Flanged Crosses								
DM 6 - 15	250 x 250 mm dia	Nr	1						
DM 6 - 16	300 x 300 mm dia	Nr	1						
	Double Socket Bends								
	250 mm dia								
DM 6 - 17	22 1/2°	Nr	4						
	300 mm dia								
DM 6 - 18	90°	Nr	1						
	Total of Page D - 39 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Double Flanged Tapers (Concentric)								
DM 6 - 19	250 - 150 mm dia	Nr	3						
DM 6 - 20	250 - 200 mm dia	Nr	1						
DM 6 - 21	300 - 150 mm dia	Nr	3						
	Double Flange Change Piece								
DM 6 - 22	200 mm - 7" DI	Nr	16						
DM 6 - 23	250 mm - 9" DI	Nr	25						
DM 6 - 24	600 mm - 21" DI	Nr	10						
	Plain Ended Spigot Piece								
DM 6 - 25	250 mm dia 1500 mm long	Nr	4						
DM 6 - 26	300 mm dia 1000 mm long	Nr	2						
DM 6 - 27	300 mm dia 1500 mm long	Nr	1						
	Double Flange Pipe								
DM 6 - 28	250 mm dia 500 mm long	Nr	3						
	Stepped Couplings								
DM 6 - 29	600 mm dia DI to 24" dia CI	Nr	2						
	Total of Page D - 40 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 6 - 30	450 mm dia DI to 18" dia CI	Nr	6						
DM 6 - 31	300 mm dia DI to 12" dia CI	Nr	29						
DM 6 - 32	250 mm dia DI to 10" dia CI	Nr	9						
DM 6 - 33	200 mm dia DI to 8" dia CI	Nr	3						
	Flange & Plain Ended Pipes								
DM 6 - 34	200 mm dia 1500 mm long	Nr	14						
DM 6 - 35	250 mm dia 1000 mm long	Nr	4						
DM 6 - 36	250 mm dia 1500 mm long	Nr	26						
DM 6 - 37	250 mm dia 3000 mm long	Nr	1						
DM 6 - 38	300 mm dia 1000 mm long	Nr	4						
DM 6 - 39	300 mm dia 1500 mm long	Nr	17						
DM 6 - 40	300 mm dia 2000 mm long	Nr	11						
DM 6 - 41	300 mm dia 3000 mm long	Nr	2						
DM 6 - 42	450 mm dia 1500 mm long	Nr	6						
DM 6 - 43	600 mm dia 1500 mm long	Nr	13						
	Total of Page D - 41 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 6 - 44	600 mm dia 6000 mm long Flange Adaptors	Nr	1						
DM 6 - 45	100 mm dia DI	Nr	2						
DM 6 - 46	200 mm dia DI	Nr	6						
DM 6 - 47	250 mm dia DI	Nr	25						
DM 6 - 48	300 mm dia DI	Nr	7						
DM 6 - 49	600 mm dia DI	Nr	9						
DM 6 - 50	3" dia CI	Nr	2						
DM 6 - 51	6" dia CI	Nr	2						
DM 6 - 52	7" dia CI	Nr	15						
DM 6 - 53	9" dia CI	Nr	25						
DM 6 - 54	10" dia CI	Nr	1						
DM 6 - 55	18" dia CI	Nr	1						
DM 6 - 56	21" dia CI	Nr	10						
Total of Page D - 42 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-6 : LAYING AND INSTALLATION OF DI PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 6 - 57	<p><u>Miscellaneous</u></p> <p>Extra concrete of Grade 20 for submerged thrust blocks or anchor blocks above and over that of dry type where required and as specified by the Engineer (Provisional Quantity)</p> <p>Rate to include for additional excavation, additional shoring, coffer damming, dewatering, making good of any damage to the existing structures, road or embankment and any other items necessary to complete the concrete thrust block.</p>	m ³	5						
	Total of Page D - 43 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-6 SUM

INSTALLATION OF VALVES, FIRE HYDRANTS AND SPECIALS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 6	Page D - 38 of Bill DM 6			
	Page D - 39 of Bill DM 6			
	Page D - 40 of Bill DM 6			
	Page D - 41 of Bill DM 6			
	Page D - 42 of Bill DM 6			
	Page D - 43 of Bill DM 6			
RS/DM-6	Total of RS/DM-6 Summary to RS/DM-D2 Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>Laying & Jointing in Open Trench PVC Pipes Specials & Fittings as Specified.</p> <p>Rate to include for making of trial hole, breaking out asphalt road using suitable cutter and pneumatic tools where necessary, excavation, cutting pipes, cutting & removing derelict pipes & accessories, shoring & dewatering, bedding Type A unless otherwise specified, backfilling or filling with selected material (where necessary), compaction & disposal of excess & unsuitable material as directed by the Engineer and reinstatement of surface etc. and installation of warning tapes as required.</p> <p>Distribution Main (PVC)</p>								
DM 7 - 1	110 mm dia pipe	m	22,114						
DM 7 - 2	160 mm dia pipe	m	10,082						
DM 7 - 3	225 mm dia pipe	m	420						
	<p>Extra over for Socketed Bends</p> <p>Rate to include for providing supports, thrust blocks, anchor blocks etc.</p> <p>Rate to include for additional excavation, shoring, dewatering, construction of concrete thrust block and all necessary items of work required for complete installation of bends.</p>								
	Total of Page D - 45 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	PVC Double Socket Bends								
	110 mm dia								
DM 7 - 4	11 1/4°	Nr	36						
DM 7 - 5	22 1/2°	Nr	40						
DM 7 - 6	45°	Nr	12						
DM 7 - 7	90°	Nr	5						
	160 mm dia								
DM 7 - 8	11 1/4°	Nr	8						
DM 7 - 9	22 1/2°	Nr	5						
DM 7 - 10	45°	Nr	2						
	<u>Extra Over items for Junctions in Distribution Main</u>								
	Complete as depicted in Drawings								
	Rate to include for additional excavation, shoring, dewatering, construction of concrete thrust blocks and all necessary items of work required for complete installation of junctions, and protection of joints where necessary.								
	PVC All Socketted Tees								
DM 7 - 11	90 x 90 mm dia	Nr	9						
	Total of Page D - 46 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 7 - 12	110 x 63 mm dia	Nr	1						
DM 7 - 13	110 x 90 mm dia	Nr	139						
DM 7 - 14	110 x 110 mm dia	Nr	137						
DM 7 - 15	140 x 110 mm dia	Nr	4						
DM 7 - 16	160 x 63 mm dia	Nr	1						
DM 7 - 17	160 x 90 mm dia	Nr	81						
DM 7 - 18	160 x 110 mm dia	Nr	78						
DM 7 - 19	160 x 140 mm dia	Nr	5						
DM 7 - 20	160 x 160 mm dia	Nr	101						
DM 7 - 21	225 x 90 mm dia	Nr	4						
DM 7 - 22	225 x 110 mm dia	Nr	10						
DM 7 - 23	225 x 160 mm dia	Nr	2						
DM 7 - 24	225 x 225 mm dia	Nr	7						
	PVC Reducers - Tapers								
DM 7 - 25	63 - 50 mm dia	Nr	1						
	Total of Page D - 47 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 7 - 26	110 - 90 mm dia	Nr	29						
DM 7 - 27	140 - 110 mm dia	Nr	4						
DM 7 - 28	160 - 110 mm dia	Nr	58						
DM 7 - 29	160 - 140 mm dia	Nr	26						
DM 7 - 30	225 - 160 mm dia	Nr	6						
	PVC Double Socket Bends								
	225 mm dia								
DM 7 - 31	22 1/2°	Nr	6						
	160 mm dia								
DM 7 - 32	11 1/4°	Nr	5						
DM 7 - 33	22 1/2°	Nr	221						
DM 7 - 34	45°	Nr	32						
DM 7 - 35	90°	Nr	17						
	140 mm dia								
DM 7 - 36	22 1/2°	Nr	44						
	Total of Page D - 48 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	110 mm dia								
DM 7 - 37	22 1/2°	Nr	408						
DM 7 - 38	45°	Nr	56						
DM 7 - 39	90°	Nr	38						
	90 mm dia								
DM 7 - 40	22 1/2°	Nr	90						
	PVC Socket & Spigot Pipes								
DM 7 - 41	63 mm dia	m	2						
DM 7 - 42	90 mm dia	m	642						
DM 7 - 43	110 mm dia	m	125						
DM 7 - 44	140 mm dia	m	37						
DM 7 - 45	160 mm dia	m	181						
DM 7 - 46	225 mm dia	m	44						
	Stepped Coupling								
DM 7 - 47	225 mm dia PVC to 8" dia CI	Nr	22						
	Total of Page D - 49 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 7 - 48	160 mm dia PVC to 6" dia CI	Nr	64						
DM 7 - 49	140 mm dia PVC to 5" dia CI	Nr	36						
DM 7 - 50	110 mm dia PVC to 4" dia CI	Nr	103						
DM 7 - 51	90 mm dia PVC to 3" dia CI	Nr	55						
DM 7 - 52	63 mm dia PVC to 2" dia CI	Nr	1						
	Extra over Items for Connecting to Existing Mains								
	Rate to include for additional excavation, additional shoring, dewatering and all necessary items of work required for complete connection and protection of joints.								
DM 7 - 53	Connecting to existing 1.5" dia CI pipes	Nr	1						
DM 7 - 54	Connecting to existing 2" dia CI pipes	Nr	1						
DM 7 - 55	Connecting to existing 3" dia CI pipes	Nr	47						
DM 7 - 56	Connecting to existing 4" dia CI pipes	Nr	101						
DM 7 - 57	Connecting to existing 5" dia CI pipes	Nr	38						
DM 7 - 58	Connecting to existing 6" dia CI pipes	Nr	72						
DM 7 - 59	Connecting to existing 7" dia CI pipes	Nr	16						
	Total of Page D - 50 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 7 - 60	Connecting to existing 8" dia CI pipes Extra over Items for Culvert Crossings in Distribution Main Complete as depicted in Standard Drawings Rate to include for additional excavation, additional shoring, coffer damming, diversion of waterway, forming of embankment, rubble pitching, trench cutoff walls, breaking into existing structures, supply and installation of GI pipe encasement where necessary, installation of DI pipes and fittings where necessary, making good of any damage to the existing structures, road or embankment and any other items necessary to complete the culvert crossing.	Nr	23						
DM 7 - 61	For 110 mm dia PVC, with 150 mm dia GI encasement -crossing Type 'A'	Nr	1						
DM 7 - 62	For 110 mm dia PVC, with 150 mm dia GI encasement -crossing Type 'B'	Nr	1						
DM 7 - 63	For 110 mm dia PVC, with 150 mm dia GI encasement -crossing Type 'C'	Nr	1						
DM 7 - 64	For 160 mm dia PVC, 150 mm DI Type 'A'	Nr	1						
DM 7 - 65	For 160 mm dia PVC, 150 mm DI Type 'B'	Nr	1						
DM 7 - 66	For 160 mm dia PVC, 150 mm DI Type 'C'	Nr	1						
	Total of Page D - 51 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Extra over items for Air Valve associated fittings in Distribution Main</u> Rate to include for providing supports, thrust blocks, anchor blocks etc. and protection of joints.								
	<u>PVC Branch Saddle</u>								
DM 7 - 67	110 x 32 mm dia	Nr	5						
DM 7 - 68	160 x 32 mm dia	Nr	5						
	<u>Field Hydrostatic Pressure and Leakage Test. Disinfection and Cleaning of Pipeline as Specified.</u>								
DM 7 - 69	110 mm dia	m	22,114						
DM 7 - 70	160 mm dia	m	10,082						
DM 7 - 71	225 mm dia	m	420						
	<u>Miscellaneous</u>								
DM 7 - 72	Extra concrete of Grade 20 for submerged thrust blocks or anchor blocks above and over that of dry type where required and as specified by the Engineer (Provisional Quantity) Rate to include for additional excavation, additional shoring, coffer damming, dewatering, making good of any damage to the existing structures, road or embankment and any other items necessary to complete the concrete thrust block.	m ³	20						
	Total of Page D - 52 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-7 : LAYING AND INSTALLATION OF PVC PIPES & FITTINGS

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	House Connections								
	Rate to include for excavation, shoring, dewatering, making good of any damage to the existing structures, road or embankment, fixing pipes, fittings, valves & water meters etc. and any other items necessary to complete the house connection.								
DM 7 - 73	20mm	Nr	796						
DM 7 - 74	15mm	Nr	7164						
Total of Page D - 53 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-7 SUM

LAYING AND INSTALLATION OF PVC PIPES AND FITTINGS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 7	Page D - 45 of Bill DM 7			
	Page D - 46 of Bill DM 7			
	Page D - 47 of Bill DM 7			
	Page D - 48 of Bill DM 7			
	Page D - 49 of Bill DM 7			
	Page D - 50 of Bill DM 7			
	Page D - 51 of Bill DM 7			
	Page D - 52 of Bill DM 7			
	Page D - 53 of Bill DM 7			
RS/DM-7	Total of RS/DM-7 Summary to RS/DM-D2 Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-8 : INSTALLATION OF VALVES, FIREHYDRANTS, WASTE METERS ETC.

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p><u>Installation of Gate Valves, Butterfly valves, Air Valves & Washouts in Distribution Main.</u></p> <p>Rate to include for making of trial hole, excavation, breaking out asphalt road using suitable cutter and pneumatic tools where necessary, shoring & dewatering (where necessary), installation of all isolating valves, isolating cocks, joint protections, construction of chambers, overflow chambers, head walls, drainage, support blocks and supply & installation of PVC leadaway pipes from the valve, PVC protection pipes (Type 1000) and installation of surface boxes, manhole covers, backfilling or filling with selected material and disposal of surplus and unsuitable material as directed by the Engineer and reinstatement of surface as required and complete the installation as depicted in the drawing.</p> <p><u>Distribution Mains</u></p> <p>Installation of Gate Valve Arrangements Complete as depicted in Drawings.</p> <p>Gate Valves complete with surface box.</p> <p>Gate Valves (Resilient Seated)</p>								
DM 8 - 1	50 mm dia	Nr	1						
DM 8 - 2	80 mm dia	Nr	23						
DM 8 - 3	100 mm dia	Nr	280						
DM 8 - 4	150 mm dia	Nr	118						
	Total of Page D - 55 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-8 : INSTALLATION OF VALVES, FIREHYDRANTS, WASTE METERS ETC.

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 8 - 5	200 mm dia	Nr	15						
DM 8 - 6	250 mm dia	Nr	7						
DM 8 - 7	300 mm dia	Nr	2						
	<u>For Air Valves in Distribution Main</u>								
DM 8 - 8	Allow for demolishing of existing air valve chamber	Nr	11						
	Installation of Air Valve Arrangements Complete as depicted in Drawings.								
	Complete with isolating cocks, Gate valves, chambers and covers.								
DM 8 - 9	25 mm dia single orifice air valve with Type 'A' chamber	Nr	10						
DM 8 - 10	80 mm dia double orifice air valve with Type 'B' chamber	Nr	1						
	<u>For Washouts in Distribution Main (DI)</u>								
DM 8 - 11	Allow for demolishing of existing washout chamber	Nr	1						
	Installation of Washout Arrangements Complete as depicted in Drawings.								
	Complete with Gate valve and chamber etc.								
DM 8 - 12	Washout Type 'A' 80 mm dia Gate Valve	Nr	1						
	Total of Page D - 56 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. RS/DM-8 : INSTALLATION OF VALVES, FIREHYDRANTS, WASTE METERS ETC.

REPLACEMENT OF EXISTING MAINS, SERVICE CONNECTIONS AND VALVES

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>For Fire Hydrants in Distribution Main</u>								
DM 8 - 13	Allow for demolishing of existing fire hydrant chamber	Nr	204						
	Installation of Fire Hydrant Arrangements Complete as depicted in Drawing								
	Complete with Gate valve and chamber etc.								
DM 8 - 14	80 mm dia fire hydrant	Nr	204						
	Supply and erection of concrete marker posts as depicted in Drg.No.STD/C-05.								
DM 8 - 15	For Gate Valves	Nr	446						
DM 8 - 16	For Air Valves	Nr	11						
DM 8 - 17	For Washouts	Nr	11						
DM 8 - 18	For Fire Hydrants	Nr	204						
	<u>House Connection</u>								
	Rate to include installation of all necessary pipes, fittings and accessories complete as depicted in drawing.								
DM 8 - 19	At 225 mm dia PVC main	Nr	265						
DM 8 - 20	At 160 mm dia PVC main	Nr	325						
DM 8 - 21	At 110 mm dia PVC main	Nr	475						
	Total of Page D - 57 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : RS/DM-8 SUM

INSTALLATION OF VALVES, FIRE HYDRANTS AND SPECIALS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
DM 8	Page D - 55 of Bill DM 8			
	Page D - 56 of Bill DM 8			
	Page D - 57 of Bill DM 8			
RS/DM-8	Total of RS/DM-8 Summary to RS/DM-D2 Grand Summary			

SCHEDULE E

SUPPLY OF EQUIPMENT AND MATERIALS FOR REDUCTION OF NON-REVENUE WATER

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : SUP/EM-1 : SUPPLY OF WATER METERS AND LEAK DETECTION EQUIPMENT

SUPPLY OF EQUIPMENT AND MATERIALS FOR REDUCTION OF NON-REVENUE WATER

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. RS./Cts.	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. RS./Cts.
EM 1.1	Supply of volumetric type domestic water meters (15 mm dia) as per specifications	Nr	38,000	392.70	2,618	680.70	14,922,600.00	99,484,000	25,866,600.00
EM 1.2	Supply of Helium Gas tracing leakage detection equipment type HELI. TEC - 105 manufactured by Nisshou Kougyou Inc. Kumakawa, Fussa-City, Tokyo Japan or equivalent.	Set	1	330,225.00	3,028,198	572,390.00	330,225.00	3,028,198	572,390.00
Total of Page E - 1 Carried to Bill Summary							15,252,825.00	102,512,198	26,438,990.00

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : SUP/EM-1 SUM

SUPPLY OF WATER METERS AND LEAK DETECTION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
EM 1	Page E - 1 of Bill EM 1			
SUP/EM	Total of SUP/EM-1 Summary to SUP/EM Grand Summary			

SECTION 6
Sample Form of Agreement

SECTION 6

FORM OF AGREEMENT

AGREEMENT

This Agreement made this _____ day of _____ (state month and year) between _____ of _____ (hereinafter called "the Employer") of the one part and _____ of _____ (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that certain Works should be executed by the Contractor, viz. _____ and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Letter of Acceptance;
 - (b) The said Bid;
 - (c) The Conditions of Particular Application (Part II);
 - (d) The General Conditions (Part I);
 - (e) The Specifications;
 - (f) The Drawings;
 - (g) The Priced Bill of Quantities; and
 - (h) The Schedules of Supplementary Information
1. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
2. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written.

SIGNED by: _____

SIGNED by:

for and on behalf of the Employer in the presence of

for and on behalf of the Contractor in the presence of

Witness: _____

Witness:

Name: _____

Name:

Address: _____

Address:

Date: _____

Date:

SECTION 7
Sample Form of Securities

SECTION 7

SAMPLE FORM OF SECURITIES

The Performance Security and the Advance Payment Security forms should not be completed by the bidders at the time of bid preparation. Only the successful Bidder will be required to provide these securities in accordance with the forms indicated herein or in another form acceptable to the Employer.

When Advance Payment Security is not required, the form should be omitted.

FORM OF PERFORMANCE SECURITY

(BANK GUARANTEE)

To: The Chairman
National Water Supply & Drainage Board
Galle Road, Ratmalana
Sri Lanka.

THIS AGREEMENT is made on the _____ day of _____ (state month and year) between _____ [*name of bank*] of _____ [*address of bank*] (hereinafter called "the Guarantor") of the one part and _____ [*name of Employer*] of _____ [*address of Employer*] (hereinafter called "the Employer") of the other part.

WHEREAS

(1) this agreement is supplemental to a contract (hereinafter called "the Contract") made between _____ [*name of Contractor*] of _____ [*address of Contractor*] (hereinafter called "the Contractor") of the one part and the Employer of the other part whereby the Contractor agreed and undertook to execute the Works of [*name of Contractor and brief description of the Works*] for the sum of [*amount in Contract currency*] being the Contract Price; and

(2) the Guarantor has agreed to guarantee the due performance of the Contract in the manner hereinafter appearing.

NOW, THEREFORE, the Guarantor hereby agrees with the Employer as follows:

(a) If the Contractor (unless relieved from the performance by any clause of the Contract or by statute or by the decision of a tribunal of competent jurisdiction) shall in any respect fail to execute the Contract or commit any breach of his obligations thereunder then the Guarantor will indemnify and pay the Employer the aggregate sum of _____ [*amount of Guarantee*]¹ _____ [*in words*], such sum being payable in the types and amounts of currencies in which the Contract Price is payable, provided that the Employer or his authorized representative has notified the Guarantor to that effect and has made a claim against the Guarantor before the issue of the Defects Liability Certificate.

¹ An amount is to be inserted by the Guarantor, representing the percentage of the Contract price specified in the Contract, and denominated either in currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer.

(b) The Guarantor shall not be discharged or released from his guarantee by an arrangement between the Contractor and the Employer, with or without the consent of the Guarantor, or by any alteration in the obligations undertaken by the Contractor, or by any forbearance on the part of the Contractor, whether as to payment, time, performance, or other wise, and any notice to the Guarantor of any such arrangement, alteration, or forbearance is hereby expressly waived.

This Guarantee shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate.

Given under our hand on the date first mentioned above.

SIGNED BY _____
for and on behalf of the
Guarantor in the presence of

SIGNED BY _____
for and on behalf of the
Employer in the presence of

(Witness)

(Witness)

FORM OF ADVANCE PAYMENT SECURITY

(BANK GUARANTEE)

To The Chairman
National Water Supply & Drainage Board
Galle Road, Ratmalana
Sri Lanka.

THE PROJECT FOR REDUCTION OF NON-REVENUE WATER - CONTRACT FOR CIVIL WORKS

Gentlemen:

In accordance with the provisions of the Conditions of Particular Application, Sub-Clause 60.7 ("Advance Payment") of the above-mentioned Contract, _____ [*name and Address of Contractor*] (hereinafter called "the Contractor") shall deposit with _____ [*name of Employer*] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ [*amount of Guarantee*] _____ [*in words*].

We, the _____ [*bank or financial institution*], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ [*name of Employer*] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding _____ [*amount of Guarantee*]² _____ [*in words*].

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between _____ [*name of Employer*] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

² An amount is to be inserted by the bank or financial institution representing the amount of the Advance Payment, and denominated either in the currency(ies) of the Advance Payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ [*name of Employer*] receives full repayment of the same amount from the Contractor.

Yours truly, _____

SIGNATURE AND SEAL: _____

Name of Bank/Financial Institution: _____

Address: _____

Date: _____

SECTION 8
Schedules of Supplementary Information

SECTION 8

SCHEDULES OF SUPPLEMENTARY INFORMATION

The Schedules are intended to provide the Employer with essential supplementary information in an organized format. Examples of more commonly used Schedules are given herein. Others may be devised and added in accordance with the requirements of the Instructions to Bidders.

All the Schedules are essential for bid evaluation and some in Contract execution; they should all be incorporated in the Contract, and appropriate changes introduced with the approval of the Employer / Engineer.

**SCHEDULE I
MAJOR ITEMS OF CONSTRUCTIONAL PLANT**

Description (Type, Model, Make)	No. of Each	Year of Manufacture	New or Used	Owned or Leased	Est. CIF Value	Power Rating	Capacity
1. Excavator (back hoe) with breaker, bucket capacity not less than 1.2 cu.m.							
2. Excavator (back hoe) with bucket capacity not less than 1.0 cu.m.							
3. Wheel Loader 75 HP							
4. Dump Trucks							
5. 10-tonne Lorry							
6. 5-tonne Lorry							
7. Bowsers							
8. Compressors with breaking attachments capacity 125 - 175 cu.ft.							
9. Tower Crane, Rail Crawler/Truck mounted, minimum 30 m height at 20 m radius with minimum 1.5 tonnes							
10. Concrete batching Plant							
11. Generator Set, 30 - 50 KVA							
12. Pipe Scraper and Cement Mortar Lining Equipment suitable for scraping and cement mortar lining of cast iron pipes 250 through 450 mm in diameter							
13. Post-tensioning Equipment							

SCHEDULE II

KEY PERSONNEL

Position	Name of (i) Nominee (ii) Alternate	Summary of Qualifications Experience and Occupation
1. Project Manager	(i) (ii)	
2. Site Engineer	(i) (ii)	
3. Mechanical Engineer	(i) (ii)	
4. Electrical Engineer	(i) (ii)	
5. Post-tensioning Expert	(i) (ii)	
6. Pipe Scraping and Lining Expert	(i) (ii)	

Note: The bidder shall list in this Schedule the key personnel (including first nominee and the second choice alternate) to direct and execute the Work, together with their qualifications, experience, positions held and their nationalities.

SCHEDULE III
SUB-CONTRACTORS

Element of Work	Approximate Value	Name and Address of Sub-contractor	Statement of Similar Works Previously Executed
1. Construction of Circular post-tensioned ground clean water reservoir 17,000 cu.m. or larger in capacity			
2. Scraping and cement mortar lining of cast iron distribution pipes (250 m – 450 m in diameter)			
3.			
4.			

Note: The bidder shall enter in this Schedule a list of the sections and appropriate value of the work for which he proposes to use sub-contractors, together with the names and addresses of the proposed sub-contractors. The bidder shall also enter a statement of similar works previously executed by the proposed sub-contractors, including description, location and value of work, year completed, and name and address of the employer /engineer. Notwithstanding such information the bidder, if awarded the Contract, shall remain entirely and solely responsible for the satisfactory completion of the Works.

SCHEDULE IV

MECHANICAL AND ELECTRICAL EQUIPMENT

8.1 POWER OF ATTORNEY

The Bidder shall attach herewith the Power of Attorney from the Manufacturer for the equipment specified hereinafter to the Bidder and Warranty hereof.

A. MECHANICAL EQUIPMENT

- Ductile Iron Pipe and Fittings
- Gate Valves
- Butterfly Valves
- Toothed Vane Butterfly Control Valve
- Air Valves
- Check Valves
- Sluice Gate
- Major Pumps with motors
- Surge Tanks
- Compressor
- Crane
- Maligakanda and Ellie House Chlorination Equipment and Facilities

B. ELECTRICAL EQUIPMENT

- Low Voltage motor control panel
- Instrumentation panel including instruments to be mounted
- Battery & Battery charger panel

8.2 MANUFACTURER'S INFORMATION

The Bidder shall indicate, opposite each item listed below, the name of manufacturer, type or model No. and other information of the material or equipment proposed to be furnished under the Bid. Awarding of a contract under this Bid will not imply approval of equipment and the manufacturers listed. No substitution will be permitted after award of the contract unless equipment or material of the listed manufacturer or supplier cannot meet the specifications.

A. MECHANICAL WORKS

1. Gothatuwa - Kolonawa Pump House

1) Butterfly Valves (BV-TR-S1 to 4 and BV-TR-1)

Manufacturer :
 Type or model No. :
 Face to face dimension : mm

2) Check Valves (CV-TR1 to 3)

Manufacturer :
 Type or model No. :
 Face to face dimension : mm

3) Butterfly Valves with Motorized Operator (Integral Type)(MOBV-TR-1 to 3)

Manufacturer :
 Type or model No. :
 Face to face dimension : mm
 Motorized Operator :
 Type or model No. :
 Output : kW
 Opening and closing Time : second

4) Air Valves (AV-TR1)

Manufacturer :
 Type or model No. :
 Face to face dimension :

5) Sluice Gate (GV-TR-D)

Manufacturer :
 Type or model No. :

6) Transmission Pumps (P-TR 1 to 3)

	<u>Normal Impeller</u>	<u>Trimmed Impeller</u>
Rated Capacity	: 14 m ³ /min	12 m ³ /min
Rated Head	: 50 m	42 m
Number Required	: 3	3
Manufacturer	:	
Model & Size	:	
Speed	: rpm	rpm
Pump Efficiency		
at Rated point	: %	%
Shut-off Head	: m	m
Run-out Head	: m	m

Run-out Capacity	:	m ³ /min	m ³ /min
NPSH Required at Rated Point	:	m	m
NPSH Required at Run-out Head	:	m	m
Total Flywheel Effect of Rotating Parts	:	kg-m ²	kg-m ²
Pump	:	kg-m ²	kg-m ²
Motor	:	kg-m ²	kg-m ²

7) Motors for the Pumps (PM - TR 1 to 3)

Number Required	:	3
Manufacturer	:	
Type or Model No	:	Squirrel Cage
Rated Output	:	kW
Break-Away Torque	:	N-m
Full Load Running Torque	:	N-m
Break-Down Torque	:	N-m
Efficiency		
a. Full Load:		%
b. 3/4 Load	:	%
c. 1/2 Load	:	%

8) Surge Tanks for Transmission Pumps (PM - TR 1 to 3)

Number Required	:	2
Manufacturer	:	

9) Compressor for Surge Tanks

Number Required	:	1
Manufacturer	:	
Model and Size	:	
Rated Output	:	

10) Crane (C - HO - TR)

Number Required	:	1
Manufacturer	:	
Type or Model No	:	

2. Gothatuwa Pump House

1) *Butterfly Valves (BV-GT-S1 to S3, BV-GT-D, BV-GT-BP1, BV-GT-R1 & R2, and BV-GT-1 to 3)*

Manufacturer	:	
Type or model No.	:	
Face to face dimension	:	mm

2) **Check Valves (CV-GT 1 and 2)**

Manufacturer	:	
Type of model No.	:	
Face to face dimension	:	mm

3) **Butterfly Valve with Motorized Operator (Integral Type)(MOBV-GT 1 & 2)**

Manufacturer	:	
Type of model No.	:	
Face to face dimension	:	mm
Motorized Operator	:	
Type or model No.	:	
Output	:	kW
Opening and Closing Time	:	Sec

4) **Toothed Vane Butterfly Control Valve with Motorized Operator (Integral Type) (MOCV – GT1)**

Manufacturer	:	
Type of model No.	:	
Face to face dimension	:	mm
Motorized Operator	:	
Type or model No	:	
Output	:	kW
Opening and Closing Time	:	Sec

5) *Gate Valves (GV-GT-1 & 2)*

Manufacturer	:	
Type or model No.	:	

6) *Air Valves (AV-GT-1 and AV-GT-2)*

Manufacturer	:	
Type or model No.	:	
Face to face dimension	:	mm

7) **Pump (P-GT 1 and 2)**

Rated Capacity	:	18	m ³ /min
Rated Head	:	30	m
Number Required	:	2	
Manufacturer	:		

Model & Size	:	
Speed	:	rpm
Pump Efficiency	:	
at Rated point	:	%
Shut-off Head	:	m
Run-out Head	:	m
NPSH Required at	:	
Rated point	:	m
NPSH Required at	:	
Run-out Head	:	m
Rated Output	:	kW

8) Motors for the Pumps (PM – GT 1 and 2)

Number Required	:		2
Manufacturer	:		
Type or Model No.	:	Squirrel Cage	
Break-Away Torque	:		N-m
Full Load Running Torque	:		N-m
Break-Down Torque	:		N-m

9) Crane (C-HO-GT)

Manufacturer	:	
Type or Model No.	:	

3. Gothatuwa New Water Tower

1) Butterfly Valves (BV-FV1, BV-GV1, BV-IV1 and HV1)

Manufacturer	:	
Type or model No.	:	
Face to face dimension	:	mm

2) Gate Valve (GV-1)

Manufacturer	:	
Type or model No.	:	

3) Check Valves (CV-WT-1)

Manufacturer	:	
Type of model No.	:	
Face to face dimension	:	mm

4. Valve House for Maligakanda Reservoir

1) Gate Valves (GV-MK-1 to 4)

Manufacturer :
Type or model No. :

2) Butterfly Valves (BV-MK-1 to 11)

Manufacturer :
Type or model No. :
Face to face dimension : mm

3) Air Valves (AV-MK-1)

Manufacturer :
Type or model No. :
Face to face dimension : mm

5. Valve House for Ellie House Reservoir

1) Butterfly Valves (BV-EH-11 and 14, BV-EH-01 to 03, BV-EH-W1 to W3, BV-EH-BP1 & BP2, BV-EH-D1 to D7 and BV-EH-S1)

Manufacturer :
Type or model No. :
Face to face dimension : mm

2) Sluice Gates (SG-EH-01 to 03 and SG-EH-1 to 4)

Manufacturer :
Type or model No. :

3) Air Valves (AV-EH-1)

Manufacturer :
Type or model No. :
Face to face dimension : mm

6. Chlorination Equipment and Facility for Maligakanda Reservoir and Ellie House Reservoir

1) **Chlorinator (CM-C & CE-C)**
 Manufacturer :
 Type or Model No. :
 Capacity : kg /d kg/d

2) **Weigh Scale (WM-S & WE-S)**
 Manufacturer :
 Weighing Capacity : kg kg

3) **Residual Chlorine Analyzer**
 Manufacturer :
 Type or Model No. :

4) **Chlorine Gas Detector with red lamp and audible alarm**
 Manufacturer :
 Type or Model No. :

5) **Chlorination Booster Pump**
 Manufacturer :
 Type or Model No. :
 Capacity : l/min l/min
 Head : m m
 Motor Output : kW kW

4. Other Equipment

1) **Submersible Sump Pumps (P-SU-TR 1 & 2 and P-SU-GT 1 & 2)**

Manufacturer :
 Type or Model No. :
 Capacity : l/min l/min
 Head : m m
 Motor output : kW kW

2) **Ventilation Fans for Supply and Exhaust at Gothatuwa-Kolonnawa Pump House, Gothatuwa Pump House and at Valve House at Ellie House Reservoir**

Manufacturer :
 Type or Model No. :
 Capacity : m³/min x mm water column
 Motor output (minimum) : kW
 Dimension : mm X mm X mm

B. ELECTRICAL WORKS

1. LOW VOLTAGE PANEL (Incoming power)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Protection on the enclosure	:			
Short-time withstand current	:		kA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm
Radiation for a panel	:		J/h	

2. LOW VOLTAGE PANEL (Ancillary Equipment)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Protection on the enclosure	:			
Short-time withstand current	:		kA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm
Radiation for a panel	:		J/h	

3. LOW VOLTAGE PANEL (Fan Switch Panel)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Protection on the enclosure	:			
Short-time withstand current	:		kA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm
Radiation for a panel	:		J/h	

4. LOCAL CONTROL PANEL (ANN Board)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Weight	:			
Dimension	:	mm X	kg X	mm

5. LOCAL CONTROL PANEL (Sump Pump Switch Board)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Weight	:			
Dimension	:	mm X	kg X	mm

6. LOCAL CONTROL PANEL (Chlorination System Switch Box)

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Weight	:			

Dimension	:	mm X	kg X	mm
<u>7. LOW VOLTAGE MOTOR STARTER</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Magnetic Contactor	:			
- Rated Current	:		A	
- Interrupting Capacity	:		kA	
- Switching Frequency (Guaranteed)	:			
Starting Transformer (Auto Tr)	:			
- Type and Form	:			
- Rated Duty (Capacity)	:		A	minutes
- Taps provided	:			
- Dimension	:	mm X	mm X	mm
<u>8. PROGRAMME SEQUENCE CONTROLLER</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Memory capacity	:			
No. of Inputs / Outputs	:			
No. of Sequence Counters	:			
Operation Speed	:			
Self-checking System	:			
Permissible Momentary	:			
Interruption Time	:			
Weight	:		kg	
Dimension	:	mm X	mm X	mm
<u>9. LOW VOLTAGE POTENTIAL TRANSFORMER</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Accuracy Class	:			
Rated burden	:		VA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm
<u>10. LOW VOLTAGE POTENTIAL TRANSFORMER</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Accuracy Class	:			
Rated burden	:		VA	
Overcurrent Strength for 1 sec	:		kA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm
<u>11. LOW VOLTAGE ZERO PHASE SEQUENCE CURRENT TRANSFORMER</u>				
Manufacture	:			
Type and Form	:			

Model No.	:			
Standard applied	:			
Accuracy Class	:			
Rated burden	:		VA	
Overcurrent Strength for 1 sec	:		kA	
Weight	:		kg	
Dimension	:	mm X	mm X	mm

12. INSTRUMENTATION PANEL

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Protection applied	:			
Weight	:		kg	
Dimension	:	mm X	mm X	mm
Radiation for panel	:		J/h	

13. FLOW MEASURING DEVICES

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Accuracy Class	:			
Material of Body	:			
Material of Lining	:			
Material of Electrode	:			
Protective degree	:			
Weight	:		kg	
Dimension	:	mm X	mm X	mm

14. IMMERSION TYPE MEASURING DEVICES

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Accuracy	:			
Material of detector	:			
Weight	:		kg	

15. ELECTRODE TYPE LEVEL MEASURING DEVICES

Manufacture	:			
Type and Form	:			
Materials of Rods	:			

16. PRESSURE TRANSMITTER

Manufacture	:			
Type and Form	:			
Model No.	:			
Standard applied	:			
Accuracy	:			
Material of Housing	:			
Material of Diaphragm	:			

17. AUTOMATIC BALANCE TYPE PROCESS INDICATOR

Manufacture	:			
Type and Form	:			

Model No.	:			
Indication Mode	:			
Accuracy	:			
<u>18. RECORDER (R)</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Chart Storage System	:			
Weight	:		kg	
Dimension	:	mm X	mm X	mm
<u>19. TOTALIZER (Q)</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
Display Mode	:			
<u>20. ONE LOOP CONTROLLER</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
No. of Usable Wafers	:			
No. of Executable Waters	:			
No. of Analog Input Signals	:			
No. of Digital Input Signals	:			
No. of Analog Output Signals	:			
No. of Digital Output Signals	:			
Indication Mode	:			
<u>21. ALARM UNIT (A)</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
No. of alarm Points	:			
Accuracy	:			
<u>22. DATA COLLECTION EQUIPMENT</u>				
Manufacture	:			
Type and Form	:			
Memory Capacity for hard disk	:			
Storable term (capacity) for collected data in Floppy disk (10min. interval data collection):	:			days
<u>23. BATTERY CHARGER PANEL</u>				
Manufacture	:			
Type and Form	:			
Model No.	:			
AC Input	:			
- Frequency	:		Hz	
- Phase and voltage	:			V
- Voltage fluctuation	:			V
DC output	:			
- Voltage adjustment range	:	Manual		V
	:	Floating		V
- Current	:			A
Dimension	:	mm X	mm X	mm

Weight	:	kg
Radiation for panel	:	J / h

24. BATTERIES

Manufacture	:		
Type and Form	:		
Model No.	:		
Dimension of each cell	:		
Volume of electrode	:	Litres	
Efficiency for charging	:	%	
Expected life	:	Years	
Total Weight	:	kg	
Dimensions of overall construction	:	mm X	mm

25. DIESEL ENGINE GENERATOR

(i) Diesel Engine	:		
Manufacture	:		
Normal speed of the engine	:	rpm	
Rated output of the engine	:	HP	
Lubricating oil consumption at 100%	:		
At Generator terminal	:	Litre / kwh	
Fuel consumption at 100% load at	:		
Generator terminal	:	Litre / kwh	
Applicable fuel specification	:		
Applicable lubrication oil specification:	:		
Capacity of fuel service tank	:	Litres	
Total weight of the engine	:	Ton	
Dimensions	:	mm X	mm
Noise	:	dB	
(ii) Generator	:		
Manufacturer	:		
Normal speed	:	rpm	
Rated frequency	:	Hz	
Rated power factor	:		
Rated field current at normal condition:	:	A	
Inherent voltage regulation	:		
At 1.0 p.f. (75°C)	:	%	
Inherent voltage regulation	:		
At 1.8 p.f. (75°C)	:	%	
Total weight	:	Ton	
Dimensions	:	mm X	mm
Insulation class	:		

8.3 MANUFACTURER'S DESCRIPTIVE MATERIALS AND DATA

The Bidder shall attach herewith any relevant manufacturer's descriptive materials and data including specification sheets, outline and sectional drawings with parts and materials list, catalogue, brochures and others for all equipment specified in Section 8.1 and 8.2 above.

8.4 GUARANTEED EQUIPMENT PERFORMANCE DATA QUESTIONNAIRE

Bidders are required to complete the following Table regarding the characteristics and performance of the equipment proposed to be furnished.

A. Transmission Pump (P-TR-1 to 3)

A-1 Pump with normal impeller

Rated Capacity	m ³ /min :	14		
Rated Head	m :	50		
Number Required	:	3		
1. Manufacturer	:			
2. Model & Size	:			
3. Speed	rpm :			
4. NPSH at Rated Capacity	m :			
5. Shaft Power at Rated Capacity	kW :			
6. Run Out Head	m :			
7. Run Out Capacity	m ³ /min :			
8. NPSH at Run Out Capacity	m :			
9. Shaft Power at Run Out Capacity	kW :			
10. Shut Off Head	m :			
11. Total Flywheel Effect	kg-m ² :			
12. Pump Discharge Capacity (Q)	m ³ /min :		14	
13. Total Head (H)	m :	57	50	42
14. Pump Efficiency (E)	% :			
15. Required Shaft Power (RSP)	kW :			
16. Electrical Energy Consumed Per 10,000 m ³ Water Sump Based on Pump Capacity and Total Head (Items: 12, 13, 14 and 15)	kWh :			
		C1	C2	C3
17. Weighted Average Electrical Energy Consumer per 10,000 m ³ Water Pumped	kWh :			
			C Average	
RSP	=	0.163 x Q x H/E		
C Average	=	0.25C1 + 0.5C2 + 0.25C3		

Signature of Bidder :

A-2 Pump with Supplementary Trimmed Impeller

Rated Capacity m³/min : 12

Rated Head	m	:	42			
1. NPSH at Rated Capacity	m	:				
2. Shaft Power at Rated Capacity	kW	:				
3. Run Out Head	m	:				
4. Run Out Capacity	m ³ /min	:				
5. NPSH at Run Out Capacity	m	:				
6. Shaft Power at Run Out Capacity	kW	:				
7. Shut Off Head	m	:				
8. Pump Flywheel Effect	kg-m ²	:				
9. Pump Discharge Capacity (Q)	m ³ /min	:		11.85		
10. Total Head (H)	m	:	48	42		34
11. Pump Efficiency (E)	%	:				
12. Required Shaft Power (RSP)	kW	:				
13. Electrical Energy Consumed per 10,000 m ³ Water pump Based on pump capacity and Total head (Item : 9, 10, 11 and 12)	kWh	:				
				C'1	C'2	C'3
14. Weighted average Electrical Energy consumer per 10,000 m ³ water pumped	kWh	:				
					C' Average	
RSP	=		0.163 x Q x H/E			
C' Average	=		0.25C'1 + 0.5C'2 + 0.25C'3			

Signature of Bidder :

B. Pump (PT-GT 1 and 2)

B-1 Pump

Rated Capacity	m ³ /min :	18
Rated Head	m :	30
Number Required	:	2
1. Manufacturer	:	_____
2. Model & Size	:	_____
3. Speed	rpm :	_____
4. NPSH at Rated Capacity	m :	_____
5. Shaft Power at Rated Capacity	kW :	_____
6. Run Out Head	m :	_____
7. Run Out Capacity	m ³ /min :	_____
8. NPSH at Run Out Capacity	m :	_____
9. Shaft Power at Run Out Capacity	kW :	_____
10. Shut Off Head	m :	_____
11. Total Flywheel Effect	kg-m ² :	_____
12. Pump Discharge Capacity (Q)	m ³ /min :	<u>18</u>
13. Total Head (H)	m :	<u>36 30 24</u>
14. Pump Efficiency (E)	% :	_____
15. Required Shaft Power (RSP)	kW :	_____
16. Electrical Energy Consumed Per 10,000 m ³ Water Sump Based on Pump Capacity and Total Head (Items: 12, 13, 14 and 15)	kWh :	_____
		C1 C2 C3
17. Weighted Average Electrical Energy Consumer per 10,000 m ³ Water Pumped	kWh :	_____
		C Average
RSP	=	0.163 x Q x H/E
C Average	=	0.25C1 + 0.5C2 + 0.25C3

Signature of Bidder :

SCHEDULE IV – 1

POWER OF ATTORNEY

The Bidder shall attach herewith the Power of Attorney from the Manufacturer for the equipment specified hereinafter to the Bidder and Warranty hereof.

A. MECHANICAL EQUIPMENT

B. ELECTRICAL EQUIPMENT

SCHEDULE IV – 2

MANUFACTURER'S INFORMATION

The Bidder shall indicate, opposite each item listed below , the name of the manufacturer, type or model No. and other information of the material or equipment proposed to be furnished under the Bid. Awarding of a contract under this bid will not imply approval of equipment and the manufacturers listed. No substitution will be permitted after award of the contract unless equipment or material of the listed manufacturer or supplier cannot meet the specifications.

A. MECHANICAL WORKS

B. ELECTRICAL WORKS

SCHEDULE IV – 3

MANUFACTURER'S DESCRIPTIVE

MATERIAL AND DATA

The Bidder shall attach herewith any relevant manufacturer's descriptive materials and data including specification sheets, outline and sectional drawings with parts and materials list, catalogue, brochures and other for all equipment specified in SCHEDULE IV – 1 and IV – 2 .

FORM 1

GENERAL INFORMATION OF WATER METER MANUFACTURER

Company Name :

1. Head Office Address :

E Mail Address:

Telephone No:

Fax No.

2. Regional Office Address (if any) :

E Mail Address:

Telephone No :

Fax No.

3. Factory Address

(The factory at which offered meters are manufactured & assembled)

E Mail Address:

Telephone No :

Fax No.

1. Name & Address of the Inspection Agency who issued the Total Quality Assurance System certificate.

E Mail Address

Telephone No :

Fax No.

Date of issue of the TQM (Total Quality Management) certificate :

Period of Validity :

2. Name & Address of the Inspection Agency selected for inspection and testing of meters to be supplied under this contract.

E Mail Address

Telephone No :

Fax No.

6. **Local Office Address (if any) :**

E Mail Address:

Telephone No :

Fax No.

7. **Local Agents Office (if any) :**

E Mail Address

Telephone No:

Fax No.

8. **Company and Year Incorporated**

Main Lines of Business :

- | | |
|----|---------|
| 1. | Since : |
| 2. | Since : |
| 3. | Since : |
| 4. | Since : |
| 5. | Since : |
| 6. | Since : |
| 7. | Since : |

Attach copy of certificate of registration and ownership.

FORM II - DETAILS OF WATER METER MANUFACTURER'S CURRENT CONTRACTS

Bidder should provide information on the water meter manufacturer's current commitments on all contracts that have been awarded, or for which a letter of intent has been received, or contracts approaching completion but for which an unqualified, full completion certificate has yet to be issued.

Name & Address Of Client	No. of Meters Supply	With outstanding	Value in US Dollars
	Size	Quantity - Nos.	

FORM III - QUESTIONNAIRE FOR VOLUMETRIC TYPE WATER METERS

	Meter Designation> Size of end -----> Connection	N 1.5 G1 2B
01.	Make	
02.	Model	
03.	Place of Manufacturer/Country or origin Standards to which water meters are manufactured.	
04.	Meteorological Class.	
05.	Body Materials	
06.	Meter Thread size	
07.	Length of meter	
08.	Length of meter with connectors	
09.	Thread size of end connections.	
10.	Maximum working pressure	
11.	Permanent flow rate	
12.	Starting flow rate	
13.	Starting flow	
14.	Head loss at permanent flow rate	
15.	Head loss at maximum flow (overload flow rate)	
16.	Meter reset to zero at	
17.	Minimum indicated digit value.	
18.	Is it possible to install the offered meter in either vertical horizontal or inclined positions without loss of accuracy ?	
19.	Maximum possible working temperature without affecting the meter performance.	
20.	Is anti-tamper facility provided?	
21.	Is non return valve incorporated?	
22.	Is a strainer provided?	
23.	Are the markings & inscriptions as per specifications.	
24.	Units of registration.	
25.	Is certificate of compliance attached.	
26.	Is delivery period as per specifications.	
27.	Is the information as per Clause 9.2.10.2.1. provided. a. Name & address of Local Agent. Indicate facilities (After sales service availability of spares & Workshop facilities provided by the Local Agent)	

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