DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part) Panchayaths in Idukki District-Package IV A- Supplying and Laying Distribution and providing FHTC in Santhanpara GP-Pipeline Work

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Supplying, Laying	g and com	missioning o	f Distributio	n- Cost of m	aterials	
1.001	100.98.119						
	Supply of DI K9 F	Pipe Confo	rming to IS 8	8329/2000, 3	00mm Dia.		
	300 mm DI I	K9					
	Pooppara	1	481.000				481.000
	Puthady	1	629.000				629.000
	Jamespadi	1	474.000	1			474.000
	Spare pipe	1	30.000	5%.D			30.000
	Deduction for MS pipe	-1	20.000	994 ⁹⁹	_		-20.000
	Total			J [1594.000
				Tota	al Quantity i	in metre	1594.000
1.002	100.98.118		e-PLATFOR	M FOR THE M NORKS	ANAGEMENT		
	Supply of DI K9 P	Pipe Confo	rming to IS 8	8329/2000, 2	50mm Dia.		
	250 mm DI I	<u> </u>		r			
	Poopara	1	1477.000				1477.000
	Puthady	1	2712.000				2712.000
	Thodimala	1	10.000				10.000
	Jamespadi	1	2401.000				2401.000
	Spare	1	132.000				132.000
	Deduction for MS pipe	-1	35.000				-35.000
	Total						6697.000
				Tota	al Quantity i	in metre	6697.000
1.003	100.98.117						
	Supply of DI K9 P	Pipe Confo	orming to IS 8	8329/2000, 2	00mm Dia.		
	200 mm DI K	.9					
	Magnapeak	1	20.000				20.000
	Jamespadi	1	2415.000				2415.000
	Spare	1	48.000				48.000
	Deduction for MS pipe	-1	15.000				-15.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						2468.000
				Tot	al Quantity i	in metre	2468.000
1.004	100.98.116						
	Supply of DI K9 P	ipe Confo	orming to IS	8329/2000,	150mm Dia.		
	150 mm DI K	.9			1		
	Pooppara	1	1609.000				1609.000
	Puthady	1	1395.000				1395.000
	Thodimala	1	1272.000				1272.000
	jamespadi	1	1736.000				1736.000
	Spare	1	120.000				120.000
	Deduction for MS pipe	-1	35.000				-35.000
	Total						6097.000
			S.	Tot	al Quantity	in metre	6097.000
1.005	100.98.115		16 De	24HA			
	Supply of DI K9 P	ipe Confo	orming to IS	8329/2000,	100mm Dia.		
	100MM DI K9			3-16			
	Puthadi	1	985.000				985.000
	Spare	1	20.000	M FOR THE N	ANAGEMENT		20.000
	Deduction for MS	-1	10.000				-10.000
	Total						995.000
				Tot	al Quantity i	in metre	995.000
1.006	100.98.134						
	Supply of HDPE F	Pipe PE 10	0 (IS 4984/1	995), 8kg, 9	0mm Outer I	Dia.	
	90 mm HDPE 81	ĸg					
	Magna Peak	1	652.000				652.000
	Pooppara	1	15519.00 0				15519.00 0
	Puthady	1	7105.000				7105.000
	Thodimala	1	4517.000				4517.000
	jamespadi	1	13868.00 0				13868.00
	Total	I I			,1		41661.00
				Tot	al Quantity i	in metre	41661.00
							0
1.007	OD102884/2022-2	2023					

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	90mm HDPE Sp	ecials (8k	g)				
		1	41661.00 0				41661.00 0
	Total						41661.00 0
				Tot	al Quantity	in metre	41661.00 0
1.008	100.98.154						
	Supply of HDPE F	Pipe PE 10	0 (IS 4984/1	995), 10kg,	90mm Outer	Dia.	
	90mm HDPE (10)kg)					
	Pooppara	1	15763.00 0				15763.00 0
	Puthady	1	4612.000				4612.000
	Thodimala	1	1663.000	- D			1663.000
	Jamespadi	1	8486.000				8486.000
	Total		ALC: N	A DE			30524.00 0
			P	Tot	al Quantity	in metre	30524.00 0
1.009	OD102885/2022-2	2023	C-PLATEORI	A EOR THE M	ANAGEMENT		
	Specials for 90 mr	n HDPE p	oipe(10kg)	NORKS			
	90mm HDPE Spe	cials (8kg	;)			r	
		1	30524.00				30524.00
	Total						30524.00 0
				Tot	al Quantity	in metre	30524.00 0
1.010	100.98.194					Į	
	Supply of HDPE F	Pipe PE 10	0 (IS 4984/1	995), 16kg,	90mm Outer	Dia.	
	90mm HDPE (
	Magnapeak	1	15519.00 0				15519.00 0
	Pooppara	1	16464.00 0				16464.00 0
	Puthady	1	18434.00 0				18434.00 0
	Thodimala	1	16995.00 0				16995.00 0
	jamespadi	1	11047.00 0				11047.00 0

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Riderline	1	3000.000	1.000	1.000	$\begin{array}{c} 1.0000\\00\end{array}$	3000.000		
	Total						81459.00 0		
				Tota	al Quantity	in metre	81459.00 0		
1.011	OD102886/2022-2								
	Specials for 90mm	HDPE P	ipe (16kg)						
	90mm HDPE Spo	ecials (16	kg)						
	1 81459.00 0								
	Total								
			J	Tota	al Quantity	in metre	81459.00 0		
1.012	100.98.436		a Ki	5AD					
	Supply of CI Air V Size 80mm.	/alve, Co	nforming to I	S 14848 - 20	000, Kinetic	Air Valve	Type DK,		
	80 mm CI air val	ve							
		10					10.000		
	Total		e-PLATFOR OF PUBLIC		ANAGEMENT		10.000		
				r	Fotal Quant	tity in no	10.000		
1.013	100.98.444								
	Supply of CI Air V Type S2, Size 50m		nforming to I	S 14848 - 20	000, Single C	Drifice, La	rge Orifice		
	50 mm CI air valv	/e							
	Air valve	10					10.000		
	Total						10.000		
				r ·	Fotal Quant	tity in no	10.000		
1.014	100.98.445								
	Supply of CI Air V Size 40mm.	/alve, Co	nforming to I	S 14848 - 20	000, Double	Orifice Ty	vpe DS2,		
	40 mm CI air valv	/e							
	40 mm CI air valve	20					20.000		
	Total						20.000		
				r	Fotal Quant	tity in no	20.000		
1.015	100.98.440								
	Supply of CI Air V Type S1, Size 25m		nforming to I	S 14848 - 20	000, Single C	Drifice, Sn	nall Orifice		

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	25 mm CI air val	ve					
		298					298.000
	Total						298.000
				I	Total Quant	ity in no	298.000
1.016	100.98.463						
	Supply of CI Doub Valve with Cap PM			ve Conform	ing to IS 148	46 - 2000,	Sluice
	Sluice Valve 300	mm					
	For FCV	4					4.000
	Total						4.000
				I	Total Quant	ity in no	4.000
1.017	100.98.474						
	Supply of CI Doub Valve with Cap PM	ole Flange N 1.0, Siz	ed Sluice Val e 250mm.	ve Conformi	ing to IS 148	46 - 2000,	Sluice
	250 mm sluice v	alve	14 BA	QATA			
	For FCV	1	Sec.	ages -			1.000
	Total					_	1.000
				< 1L	Total Quant	ity in no	1.000
1.018	100.98.473		e-PLATFOR	M FOR THE N	ANAGEMENT		
	Supply of CI Doub Valve with Cap PM	ole Flange N 1.0, Siz	ed Sluice Val e 200mm.	ve Conformi	ing to IS 148	46 - 2000,	Sluice
	200 mm Sluice v	alve					
	200 mm Sluice valve	2					2.000
	Scour	2					2.000
	Total						4.000
				I	Total Quant	ity in no	4.000
1.019	100.98.472						
	Supply of CI Doub Valve with Cap PM			ve Conform	ing to IS 148	46 - 2000,	Sluice
	150 mm sluice v	alve			1	F	
		3					3.000
	Total						3.000
				I	Total Quant	ity in no	3.000
1.020	100.98.458						
	Supply of CI Dout Valve with Cap PM			ve Conform	ing to IS 148	46 - 2000,	Sluice
	100 mm Sluice val						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity					
		1					1.000					
	Total				·		1.000					
				Т	'otal Quant	ity in no	1.000					
1.021	100.98.469											
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000 Valve with Cap PN 1.0, Size 80mm.											
	80 mm sluice valv	ve										
	300mm DI pipe	20					20.000					
	250mm DI pipe	40					40.000					
	200mm DI pipe	30					30.000					
	150mm DI pipe	33					33.000					
	Total						123.000					
				T	otal Quant	ity in no	123.000					
2	Supplying, Laying	g and com	missioning o	f Distribution	n- Working	charges						
2.001	100.1.1		14103	20133								
	exceeding 20cm in watering, etc., and 50m, in all kinds o	disposing f soil.	of surplus ex ches- All kin	xcavated soil	as directed,	within a l	ead of					
	Excav	ating trend	ches- All Kill			0.7500						
	300 mm DI K9	1	1564.000	1.000	1.250	$\begin{array}{c} 0.7500\\00\end{array}$	1466.250					
	250 mm DI K9	1	6565.000	0.900	1.200	$\begin{array}{c} 0.7500\\00\end{array}$	5317.650					
	200 mm DI K9	1	2420.000	0.800	1.150	$\begin{array}{c} 0.7500\\00\end{array}$	1669.800					
	150 mm DI K9	1	5977.000	0.600	1.000	$\begin{array}{c} 0.7500\\00\end{array}$	2689.650					
	100 mm DI K9	1	975.000	0.600	1.000	$\begin{array}{c} 0.7500\\00\end{array}$	438.750					
	90mm HDPE pipe+ Riderline	1	153644.0 00	0.500	1.000	$\begin{array}{c} 0.7500\\00\end{array}$	57616.50 0					
	Deduction for tar cutting	-1	4800.000	0.600	0.200	$\begin{array}{c} 0.7500\\00\end{array}$	-432.000					
	Deduction for concrete cutting	-1	2000.000	0.600	0.150	$\begin{array}{c} 0.7500\\00\end{array}$	-135.000					
	Total						68631.60 0					
							68631.60					

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity					
2.002	100.1.5											
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming watering, etc., and disposing of surplus excavated soil as directed, within a lead of 5 m, in Ordinary Rock.											
	Excavating	trenches-	Ordinary roc	k								
	300 mm DI K9	1	1564.000	1.000	1.250	$\begin{array}{r} 0.1500 \\ 00 \end{array}$	293.250					
	250 mm DI K9	1	6565.000	0.900	1.200	$\begin{array}{r} 0.1500 \\ 00 \end{array}$	1063.530					
	200 mm DI K9	1	2420.000	0.800	1.150	$\begin{array}{r} 0.1500 \\ 00 \end{array}$	333.960					
	150 mm DI K9	1	5977.000	0.600	1.000	$\begin{array}{r} 0.1500\\00\end{array}$	537.930					
	100 mm DI K9	1	975.000	0.600	1.000	$\begin{array}{c} 0.1500\\00\end{array}$	87.750					
	90mm HDPE pipe+ Riderline	1	153644.0 00	0.500	1.000	$\begin{array}{c} 0.1500\\00\end{array}$	11523.30 0					
							12020 52					
	Total			<u>< 11</u>			13839.72 0					
	Total		C-PLATFOR OF PUBLIC		otal Quantit	y in cum	13839.72 0 13839.72 0					
2.003	Total 100.2.3		E-PLATFOR OF PUBLIC	WORKS TO	otal Quantit	y in cum	0					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium F	ing of side cavated so 1 depth, in disposing Rock Requ	es, ramming o il, and then ro cluding cons g of surplus e hiring Blastin	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi	es, etc inclu lepth up to 1. soil as requir ch deposited	iding exca .5m, inclu red, in lay layer by r	0 13839.72 0 wation for ding ers not amming,					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and	ing of side cavated so 1 depth, in disposing Rock Requ	es, ramming o il, and then ro cluding cons g of surplus e hiring Blastin	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi	es, etc inclu lepth up to 1. soil as requir ch deposited	iding exca .5m, inclu ed, in lay- layer by r within a 0.0500	0 13839.72 0 wation for ding ers not amming,					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium F Excavating trench	ing of side cavated so n depth, in disposing Rock Request es-Mediun	es, ramming of il, and then ro cluding cons g of surplus e <u>tiring Blastin</u> n Rock	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi g.	es, etc inclu lepth up to 1. soil as requir ch deposited l as directed,	iding exca .5m, inclu ed, in lay layer by r within a	0 13839.72 0 wation for ding ers not amming, lead of					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium F Excavating trench 300 mm DI K9	ing of side cavated so n depth, in disposing <u>Rock Requ</u> es-Mediun 1	es, ramming o il, and then ro cluding cons g of surplus e <u>hiring Blastin</u> n Rock 1564.000	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi g. 1.000	es, etc inclu lepth up to 1. soil as requir th deposited 1 as directed, 1.250	iding exca 5m, inclu ed, in lay layer by r within a 0.0500 00 0.0500	0 13839.72 0 wation for ding ers not amming, lead of 97.750					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium F Excavating trench 300 mm DI K9 250 mm DI K9	ing of side cavated so n depth, in disposing Rock Requ es-Mediun 1	es, ramming of il, and then re- cluding cons g of surplus e <u>hiring Blastin</u> n Rock 1564.000 6565.000	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi g. 1.000 0.900	es, etc inclu lepth up to 1. soil as requir ch deposited 1 as directed, 1.250 1.200	ading exca 5m, inclu red, in lay- layer by r within a 0.0500 00 0.0500 00 0.0500	0 13839.72 0 wation for ding ers not amming, lead of 97.750 354.510					
2.003	100.2.3 Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium F Excavating trench 300 mm DI K9 250 mm DI K9 200 mm DI K9	ing of side eavated so n depth, in disposing Rock Requ 1 1 1	es, ramming of il, and then re- cluding cons g of surplus e <u>uiring Blastin</u> <u>n Rock</u> 1564.000 6565.000 2420.000	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi g. 1.000 0.900 0.800	es, etc inclu lepth up to 1. soil as requir ch deposited l as directed, 1.250 1.200 1.150	ding exca .5m, inclu ed, in lay- layer by r within a 0.0500 00 0.0500 00 0.0500 00 0.0500	0 13839.72 0 wation for ding ers not amming, lead of 97.750 354.510 111.320					
2.003	100.2.3Excavating trench sockets, and dress getting out the exc exceeding 20cm in watering, etc., and 50m, in Medium FExcavating trench300 mm DI K9250 mm DI K9200 mm DI K9150 mm DI K9	ing of side cavated so n depth, in disposing Rock Request es-Medium 1 1 1	es, ramming of il, and then re- cluding cons g of surplus e <u>hiring Blastin</u> <u>n Rock</u> 1564.000 6565.000 2420.000 5977.000	r pipes, cable of bottoms, d eturning the olidating eac xcavated soi g. 1.000 0.900 0.800 0.600	es, etc inclu lepth up to 1. soil as requir ch deposited 1 as directed, 1.250 1.200 1.150 1.000	ding exca 5m, inclu ed, in lay layer by r within a 0.0500 00 0.0500 00 0.0500 00 0.0500 00 0.0500	0 13839.72 0 wation for ding ers not amming, lead of 97.750 354.510 111.320 179.310					

	Specification	No	Length	Width	Depth	Cf	Quantity				
				Το	tal Quantity	y in cum	4613.240				
2.004	100.4.1					-					
	Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift up to 1.50m (depth from 0.0m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures (200 Nos. of earth filled cement bags for 10m3 of blasting)										
	Excavation in Hard Rock										
	300 mm DI K9	1	1564.000	1.000	1.250	$\begin{array}{c} 0.0500\\00\end{array}$	97.750				
	250 mm DI K9	1	6565.000	0.900	1.200	$\begin{array}{c} 0.0500\\00\end{array}$	354.510				
	200 mm DI K9	1	2420.000	0.800	1.150	$\begin{array}{c} 0.0500\\00\end{array}$	111.320				
	150 mm DI K9	1	5977.000	0.600	1.000	$\begin{array}{c} 0.0500\\00\end{array}$	179.310				
	100 mm DI K9	1	975.000	0.600	1.000	$0.0500 \\ 00$	29.250				
	90mm HDPE pipe+ Riderline	1	153644.0 00	0.500	1.000	$\begin{array}{c} 0.0500\\00\end{array}$	3841.100				
	Total						4613.240				
			e-PLATFOR	M FOR THETO	tal Quantity	y in cum	4613.240				
2.005	100.8.1		an faat is die faat faat faan faan	n a had in full fund							
	Fencing one side c in vertical casuarir						aution tape				
	in vertical casuarina pole (girth 15cm to 24cm) fixed at 2m intervals.										
	Fencing one si	de for trei	nches								
	Fencing one si Fencing for DI & HDPE pipe	de for trei 1	nches 150000.0 00				150000.0 00				
	Fencing for DI &	de for trei 1	150000.0								
	Fencing for DI & HDPE pipe	de for trei 1	150000.0	Tota	al Quantity i		00 150000.0 00 150000.0				
2 006	Fencing for DI & HDPE pipe Total	de for trei 1	150000.0	Tota	al Quantity i		00 150000.0 00				
2.006	Fencing for DI & HDPE pipe	1 ving S&an 8329 excl	150000.0 00	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes				
2.006	Fencing for DI & HDPE pipe Total 100.14.5 Conveying and lay conforming to IS:	/ing S&an 8329 excl ies.	150000.0 00	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes				
2.006	Fencing for DI & HDPE pipe Total 100.14.5 Conveying and lay conforming to IS: Iron Class K-9 Pip	/ing S&an 8329 excl ies.	150000.0 00	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes				
2.006	Fencing for DI & HDPE pipe Total 100.14.5 Conveying and lay conforming to IS: Iron Class K-9 Pip Conveying and la	/ing S&an 8329 excl ies.	150000.0 00 np;S Centrifu uding cost of mm DI	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes ter Ductile				
2.006	Fencing for DI & HDPE pipe Total 100.14.5 Conveying and lay conforming to IS: Iron Class K-9 Pip Conveying and la Pooppara	/ing S&an 8329 excl ies.	150000.0 00 np;S Centrifu uding cost of <u>mm DI</u> 481.000	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes ter Ductile 481.000				
2.006	Fencing for DI & HDPE pipe Total 100.14.5 Conveying and lay conforming to IS: Iron Class K-9 Pip Conveying and la Pooppara Puthady	/ing S&an 8329 excl ies.	150000.0 00 np;S Centrifu uding cost of <u>mm DI</u> 481.000 629.000	gally Cast (S	Spun) / Ducti	i n metre le Iron Pi	00 150000.0 00 150000.0 00 pes ter Ductile 481.000 629.000				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
2.007	18.70.5										
	Providing push - o Pipes including tes pipe										
	push on joints for	300mm E	DI			r					
		300					300.000				
	Total						300.000				
				То	tal Quantity	in joint	300.000				
2.008	18.30.7										
	Providing flanged testing of joints:30			d C.I./ D.I pi	ipes and spec	cials, inclu	lding				
	Providing flanged	joints for	· 300mm DI p	oipes							
		2					2.000				
	Total		A	1			2.000				
			a si si	5/00 -	Fotal Quant	ity in no	2.000				
2.009	OD130856/2022-2	2023	Contraction of the second								
	Labour for cutting	DI Pipe v	vith steel saw	<mark>300 mm dia</mark>	ameter DI Pip	pe					
	Cutting 300mm D	I Pipe		Z []							
		12					12.000				
	Total		OF PUBLIC V	NORKS			12.000				
				Total Q	uantity in E	ach Cut	12.000				
2.010	100.35.5										
	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA										
	Testing 300mm D	I pipe									
		1	1584.000				1584.000				
	Total						1584.000				
				Tota	al Quantity i	in metre	1584.000				
2.011	100.14.4										
	Conveying and lay to IS: 8329 exclud K-9 Pipes.										
	Conveying and	laying 250) mm DI		<u>.</u>						
	Poopara	1	1477.000				1477.000				
	Puthady	1	2712.000				2712.000				
	Thodimala	1	10.000				10.000				
	Jamespadi	1	2401.000				2401.000				
	Total						6600.000				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
				Tot	al Quantity	in metre	6600.000
2.012	18.70.4						
	Providing push - o Pipes including tes pipes						
	Providing push-	on -joints					
		1220					1220.000
	Total						1220.000
		y in joint	1220.000				
2.013	18.30.6						
	Providing flanged testing of joints:25			ed C.I./ D.I p	ipes and spec	cials, inclu	uding
	Providing flang	ed joints	to 250mm D	I pipes	[
		4	A	2			4.000
	Total		ajs.	QX-D			4.000
			1000	No la compañía de la	Total Quant	tity in no	4.000
2.014	OD130864/2022-2	2023					
	Labour for Cutting	g D I pipe	with steel sa	<mark>.w.2</mark> 50 mm d	iameter DI P	Pipe	
	Cutting of 250 mm	n DI	C-PLATFOR	M FOR THE N	ANAGEMENT		
	Cutting of 250 mm DI	28	OF PUBLIC	WORKS			28.000
	Total						28.000
				Total Q	Quantity in H	Each Cut	28.000
2.015	100.35.4						
	Testing 250mm D 250 mm dia Observed Data der	11	1		1	test press	ure .
	Testing 250 mm						
		1	6600.000				6600.000
	Total						6600.000
				Tot	al Quantity	in metre	6600.000
2.016	100.14.3						
	Conveying and lay to IS: 8329 exclud K-9 Pipes.						
	Conveying and 1	aying 200) mm DI				
	Magnapeak	1	20.000				20.000
	Jamespadi	1	2415.000				2415.000
	Total						2435.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
				Tot	al Quantity	in metre	2435.000
2.017	18.70.3						
	Providing push - o Pipes including tes pipes						
	Providing push-	on -joints					
		455					455.000
	Total						455.000
				To	tal Quantity	y in joint	455.000
2.018	18.30.5						
	Providing flanged testing of joints:20	0 mm dia	meter pipe		ipes and spe	cials, inclu	uding
	Providing flange	ed joints t	o 200mm DI	pipes			
		2	13.	<u>N</u>			2.000
	Total		<u>una</u>	QAN			2.000
			1000	1915	Total Quan	tity in no	2.000
2.019	OD130870/2022-2	2023			_		
	Labour for cutting	D.I. pipe	with steel sa	<mark>w.2</mark> 00 mm d	iameter D.I.	pipe	
	Cutting of 200 mm	n DI	-PLATFOR	M FOR THE N	ANAGEMENT		
	Cutting of 200 mm DI Pipe	16	OF PUBLIC	WORKS			16.000
	Total						16.000
				Total Q	Quantity in I	Each Cut	16.000
2.020	100.35.3						
	Testing 200mm D 200 mm dia Observed Data der				-	test press	ure
	Testing 200 mm						
		1	2435.000				2435.000
	Total						2435.000
				Tot	al Quantity	in metre	2435.000
2.021	100.14.2						
	Conveying and lay to IS: 8329 exclud K-9 Pipes.						
	Conveying and l	aying 150) mm DI				
	Pooppara	1	1609.000				1609.000
	Puthady	1	1395.000				1395.000
	Thodimala	1	1272.000				1272.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	jamespadi	1	1736.000				1736.000
	Total						6012.000
				Tot	al Quantity	in metre	6012.000
2.022	18.70.2						
	Providing push - o Pipes including tes pipes	n-joints to sting of jo	o Centrifugal ints and inclu	ly (Spun) Ca uding the cos	ast Iron Pipes ast of rubber g	or Ductil gasket:150	e Iron mm dia
	Providing push-	on -joints					
		1108					1108.000
	Total						1108.000
				To	tal Quantity	y in joint	1108.000
2.023	18.30.4						
	Providing flanged testing of joints:15			ed C.I./ D.I p	ipes and spec	cials, inclu	ıding
	Providing flange	d joints to	o 150mm DI	pipes			
		4	Ser and a second se				4.000
	Total						4.000
					Total Quant	tity in no	4.000
2.024	OD130936/2022-2	2023		MEOR THE M	ANAGEMENT		
	Labour for Cutting	, DI Pipe	with steel sav	w 150 mm di	ameter DI P	ipe	
	Cutting 150 mm D	I Pipe					
	Cutting 150 mm DI Pipe	24					24.000
	Total						24.000
				Total Q	Quantity in F	Each Cut	24.000
2.025	100.35.2						
	Testing 150mm D 150 mm dia Observed Data der		•		•	test press	ure
	Testing 150 mm	DI					
		1	6012.000				6012.000
	Total						6012.000
				Tot	al Quantity	in metre	6012.000
2.026	100.14.1						
	Conveying and lay conforming to IS: Iron Class K-9 Pip	8329 excl					
	Laying 100 mm D	OI Pipes					
	Puthadi	1	985.000				985.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Total						985.000			
				Tot	al Quantity	in metre	985.000			
2.027	18.70.1									
	Providing push - o Pipes including tes pipes									
	Push on Joint									
		185					185.000			
	Total		185.000							
	Total Quantity in joint									
2.028	18.30.2									
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:100 mm diameter pipe									
	flanged joint		1	<u> </u>	1					
		2	A S	QAD -			2.000			
	Total		100	NE CARE			2.000			
		s - 2			Total Quant	tity in no	2.000			
2.029	OD135945/2022-2	2023		< 1 1	_					
	Labour for Cutting	DI Pipe			iameter D I F	Pipe				
	Cutting 100 mm D		OF PUBLIC	WORKS						
		10					10.000			
	Total						10.000			
				Total Q	Quantity in H	Each Cut	10.000			
2.030	100.35.1									
	Testing 100mm D 100 mm dia	I/CI pipel	ine with pota	ble water to	the required	test press	ure			
	•	1	005 000				005 000			
	Totol	1	985.000				985.000			
	Total			Π-4	-1 0	•	985.000			
2.021	100 10 1			10t	al Quantity	in metre	985.000			
2.031	100.10.1	(10 40	04) 1 1		1.	• • • • • • •	• • • • • • • •			
	Laying HDPE pipe and aligning the pi electrofusion mach working pressure a into the trenches a before back filling appliances etc., co Diameter pipes. laying HDPE pip	pes, elect not after t ready ma and level mplete bu	ro-fusion we ing the pipeli esting, aligni de, testing th ling the trend	lding using a ine thus fabring the pipeline ing the pipeline line to suit ches includir	automatic or icated to suit ine, lowering able pressure ig all labour	semi-auto the hydra the pipe i with pota charge, hi	matic ulic in position able water re for			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	90mm HDPE pipe	1	153644.0 00				153644.0 00			
	Total						153644.0 00			
	Total Quantity in metre									
2.032	18.67.1 1									
	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia									
	Providing and laying S & amp; S CI standard specials									
	300 mm DI K9	5				$\begin{array}{c} 0.4800\\00\end{array}$	2.400			
	250 mm DI K9	15				0.3600 00	5.400			
	200 mm DI K9	8	A	1		$\begin{array}{c} 0.2700\\00\end{array}$	2.160			
	150 mm DI K9	15		2013		$\begin{array}{c} 0.2000\\00\end{array}$	3.000			
	100 mm DI K9	3		3 ($\begin{array}{c} 0.1300\\00\end{array}$	0.390			
	Total									
			OF PUBLIC V	Total	Quantity in	n quintal	13.350			
	18.68.1 Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :Upt 600 mm dia									
2.033	IS : 9523 :Upt 600		cials of class	s K - 12 suita	ble for push	- on joint	ing as per			
2.033	Providing and laying		cials of class	s K - 12 suita	ble for push		ing as per			
2.033	Providing and layin IS : 9523 :Upt 600		cials of class	s K - 12 suita	ble for push	0.6800				
2.033	Providing and layi IS : 9523 :Upt 600 DI Specials	mm dia	cials of class	s K - 12 suita	ble for push	0.6800	2.720			
2.033	Providing and layin IS : 9523 :Upt 600 DI Specials 300 x 90 Bend	mm dia		s K - 12 suita	ble for push	0.6800 00 0.5000	2.720 4.000			
2.033	Providing and layin IS : 9523 :Upt 600 DI Specials 300 x 90 Bend 300 x 45 Bend	mm dia		5 K - 12 suita	ble for push	0.6800 00 0.5000 00 0.4400	2.720 4.000 4.400			
2.033	Providing and layin IS : 9523 :Upt 600 DI Specials 300 x 90 Bend 300 x 45 Bend 300 x 22.5 Bend	4 8 10		s K - 12 suita	ble for push	0.6800 00 0.5000 00 0.4400 00 0.4000	ing as per 2.720 4.000 4.400 6.000 1.920			
2.033	Providing and layin IS : 9523 :Upt 600 DI Specials 300 x 90 Bend 300 x 45 Bend 300 x 22.5 Bend 300 x 11.25 Bend	4 8 10 15		5 K - 12 suita	able for push	0.6800 00 0.5000 00 0.4400 00 0.4000 00 0.4800	2.720 4.000 4.400 6.000 1.920			
2.033	Providing and layin IS : 9523 :Upt 600 DI Specials 300 x 90 Bend 300 x 45 Bend 300 x 22.5 Bend 300 x 11.25 Bend 250 x 90 Bend	mm dia 4 8 10 15 4		5 K - 12 suita	ble for push	0.6800 00 0.5000 00 0.4400 00 0.4000 00 0.4800 00 0.3600	2.720 4.000 4.400 6.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	200 x 90 Bend	4				0.3200 00	1.280
	200 x 45 Bend	8				$\begin{array}{c} 0.2600\\00\end{array}$	2.080
	200 x 22.5 Bend	14				0.2300 00	3.220
	200 x 11.25 Bend	20				0.2100 00	4.200
	150 x 90 Bend	4				$\begin{array}{c} 0.2000\\00\end{array}$	0.800
	150 x 45 Bend	8				$\begin{array}{c} 0.1600\\00\end{array}$	1.280
	150 x 22.5 Bend	20				$\begin{array}{c} 0.1500\\00\end{array}$	3.000
	150 x 11.25 Bend	38		w).		$\begin{array}{c} 0.1400\\00\end{array}$	5.320
	100x 90 bend	4	Æ	5 AN		$\begin{array}{c} 0.1100\\00\end{array}$	0.440
	100x 45bend	8				0.1000 00	0.800
	100x 22.5 bend	15	P	くれ		0.9000 00	13.500
	100x 11.25 bend	20	e-PLATFOR OF PUBLIC	M FOR THE M WORKS	ANAGEMENT	$\begin{array}{c} 0.9000\\00\end{array}$	18.000
	300 x 250 Tee	4				$\begin{array}{c} 0.7400\\00\end{array}$	2.960
	300 x 200 Tee	6				$\begin{array}{c} 0.6400\\00\end{array}$	3.840
	300 x 150 Tee	9				$\begin{array}{c} 0.5800\\00\end{array}$	5.220
	300 x 80 Tee	3				$\begin{array}{c} 0.5000\\00\end{array}$	1.500
	250 x 200 Tee	4				$\begin{array}{c} 0.5000\\00\end{array}$	2.000
	250 x 150 Tee	5				$\begin{array}{c} 0.4500\\00\end{array}$	2.250
	250 x 80 Tee	7				$\begin{array}{c} 0.3700\\00\end{array}$	2.590
	200 x 150 Tee	8				0.3600 00	2.880
	200 x 80 Tee	9				0.2900	2.610
	300 x 100 Tee	2				$\begin{array}{c} 0.5100\\00\end{array}$	1.020

EST No. :WRD/KWA-CE(CR)/EST/6970/2022_26_5_4 (Edit Id : 10)
(Dsor year : 2018,Cost Index (Place : Idukki,Value : 141.53),GST : 18%

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	250 x 100 Tee	5				$\begin{array}{c} 0.4000\\00\end{array}$	2.000
	200 x 100 Tee	3				0.3100 00	0.930
	150 x 100 Tee	2				0.2200	0.440
	300 TP	12				0.4300 00	5.160
	250 TP	6				0.3200 00	1.920
	200 TP	4				0.2300 00	0.920
	150 TP	1				0.1600 00	0.160
	100 TP	2		101		0.1000 00	0.200
	80 TP	123	Æß	O A A		$\begin{array}{c} 0.0800\\00\end{array}$	9.840
	Total		100	Ser and a second se			140.940
				Tota	l Quantity ii	n quintal	140.940
2.034	100.32.4						
	Conveying and fix nuts, rubber insert required, will be p 80 mm CI air val	ions etc., c aid separa	complete, bu	it excluding t	he cost of air	valve (ta	ith bolts, il pieces, if
		10					10.000
	Total	10					10.000
					Total Quant	tty in no	10.000
2.025	100.22.2				Total Quant		10.000
2.055	100.32.3 Conveying and fix nuts, rubber insert required, will be p	ions etc., c	complete, bu	t excluding t	he cost of air	valve (ta	
	50 mm CI air val	ve					
		10					10.000
	Total						10.000
				1	Total Quant	tity in no	10.000
2.036	100.32.2						
	Conveying and fix nuts, rubber insert required, will be p	ions etc., c	complete, bu	it excluding t	he cost of air	valve (ta	
	40 mm CI air valv	ve			[,	
		20					20.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Total						20.000			
				,	Total Quant	tity in no	20.000			
2.037	100.32.1									
	Conveying and fix nuts, rubber inserti required, will be p	ions etc.,	complete, bu	t excluding t	he cost of air	r valve (ta				
	25 mm CI air valv	/e				1				
		298					298.000			
	Total						298.000			
		Total Quantity in no 298.000								
2.038	100.31.1.7									
	Conveying and fix insertions etc., con will be paid separa	nplete, bu utely): 300	t excluding t mm diamete	the cost of the co	e valve (tail)					
	Conveying and) mm C.I. slu	uice valves (v	with cap)		4 0 0 0			
		4	1416				4.000			
	Total	_				• . •	4.000			
	100.31.1.6				Total Quant	tity in no	4.000			
	Conveying and fix insertions etc., con will be paid separa 250 mm sluice v	nplete, bu (tely): 250	t excluding t	he cost of the			required,			
	Tatal	1					1.000			
	Total			,	T-4-1 0	•4 •	1.000			
2.040	100 21 1 5				Total Quant	ity in no	1.000			
2.040	Conveying and fix insertions etc., con	100.31.1.5 Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 200mm diameter, Class I.								
		4					4.000			
	Total						4.000			
				,	Total Quant	titv in no	4.000			
2.041	100.31.1.4					v 3				
	Conveying and fix insertions etc., con will be paid separa	nplete, bu	t excluding t	he cost of the						
	150 mm sluice va	alve								
		3					3.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Total						3.000		
					Total Quant	tity in no	3.000		
2.042	100.31.1.2								
	Conveying and fix insertions etc., cor will be paid separa	nplete, bu	t excluding t	he cost of the	/ providing b e valve (tail p	olts, nuts, pieces, if 1	rubber required,		
	100 mm Sluice va	lve							
	Total								
					Total Quant	tity in no	1.000		
2.043	100.31.1.1								
	Conveying and fix insertions etc., cor will be paid separa 80 mm sluice valv	nplete, bu ately): 80r	t excluding t	he cost of the					
		123	1610	2414			123.000		
	Total						123.000		
				J	Total Quant	tity in no	123.000		
2.044	18.12.8								
	Providing and fixi refilling etc. Exter	nal work8			tings includir	ng trenchi	ng and		
	providing and fixing	ng					4454.000		
	Magna peak	1	4454.000				4454.000		
	Puthadi	1	6243.000				6243.000 10503.00		
	Thodimala	1	10503.00 0				10303.00		
	Total						21200.00 0		
				Tot	al Quantity	in metre	21200.00 0		
2.045	2.6.1								
	Earth work in exca over areas (exceed including disposal earth to be levelled	ling 30 cm of excava	n in depth, 1. ated earth, lea	5 m in width ad up to 50 n	as well as 10 as 10 as 10	0 sqm on	plan)		
	Earth work								
	valve Chamber Size 1x1x1	70	1.600	1.600	1.500		268.800		
	Total						268.800		
				Т	otal Quantity	y in cum	268.800		

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
2.046	4.1.3										
	Providing and layi of centering and sh (zone-III) : 4 grade	nuttering -	All work up	to plinth lev	el:1:2:4 (cen	de excludi nent : 2 co	ng the cost parse sand				
	Base CC										
	valve Chamber Size 1x1x1	70	1.600	1.600	0.100		17.920				
	Total						17.920				
				To	tal Quantity	y in cum	17.920				
2.047	5.1.3										
	Providing and layi excluding the cost to plinth level:1:2: nominal size) RCC	of centeri	ng, shuttering	g, finishing a	and reinforce	ement - Al	l work up				
	Anchor Block 80x80x80	100	0.800	0.800	0.800		51.200				
	Anchor Block 40x40x40	150	0.400	0.400	0.400		9.600				
	Deduct pipe volume	-100	3.14*.125 *.125	ΚIL	0.800		-3.925				
					ANAGEMENT						
	Total		OF PUBLIC \	NORKS			56.875				
	Total		OF PUBLIC 1		tal Quantity	y in cum					
2.048			OFPUBLIC		tal Quantity	y in cum					
2.048		of centeri	tion specified	To I grade of rei g, finishing a	inforced cem	nent concr ement - Al	56.875 rete, 1 work up				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1:	of centeri	tion specified	To I grade of rei g, finishing a	inforced cem	nent concr ement - Al	56.875 rete, 1 work up				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size	of centeri	tion specified	To I grade of rei g, finishing a	inforced cem	nent concr ement - Al	56.875 rete, 1 work up				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC	of centeri 5:3 (1 cen	tion specified ng, shuttering nent 1.5 coars	To I grade of rei g, finishing a se sand :3 gr	inforced cem and reinforce aded stone a	nent concr ement - Al	56.875 rete, 1 work up 20 mm 23.625				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall	of centeri 5:3 (1 cen 70	tion specified ng, shuttering nent 1.5 coars 1.500	To d grade of rei g, finishing a se sand :3 gr 1.500	inforced cem ind reinforce aded stone a 0.150	nent concr ement - Al	56.875 ete, 1 work up 20 mm				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1	of centeri 5:3 (1 cen 70 70	tion specified ng, shuttering nent 1.5 coars 1.500 5.000	To d grade of rei g, finishing a se sand :3 gr 1.500 0.250	inforced cem ind reinforce aded stone a 0.150 1.000	nent concr ement - Al	56.875 ete, 1 work up 20 mm 23.625 87.500 39.375				
2.048	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1 slab 1X1X1	of centeri 5:3 (1 cen 70 70	tion specified ng, shuttering nent 1.5 coars 1.500 5.000	To I grade of rei g, finishing a se sand :3 gr 1.500 0.250 1.500	inforced cem ind reinforce aded stone a 0.150 1.000	nent concr ement - Al ggregate 2	56.875 rete, 1 work up 20 mm 23.625 87.500 39.375 150.500				
	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1 slab 1X1X1	of centeri 5:3 (1 cen 70 70	tion specified ng, shuttering nent 1.5 coars 1.500 5.000	To I grade of rei g, finishing a se sand :3 gr 1.500 0.250 1.500	inforced cem and reinforce aded stone a 0.150 1.000 0.250	nent concr ement - Al ggregate 2	56.875 rete, 1 work up 20 mm 23.625 87.500				
	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1 slab 1X1X1 Total	of centeri 5:3 (1 cen 70 70 210 ttering inc	tion specified ng, shutterin nent 1.5 coars 1.500 5.000 0.500	To d grade of rei g, finishing a se sand :3 gr 1.500 0.250 1.500 To ng, etc. and i	inforced cem ind reinforce aded stone a 0.150 1.000 0.250 tal Quantity removal of fo	nent concr ement - Al ggregate 2 y in cum	56.875 rete, 1 work up 20 mm 23.625 87.500 39.375 150.500 150.500 Valls (any				
	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1 slab 1X1X1 Total 5.9.2 Centering and shut	of centeri 5:3 (1 cen 70 70 210 ttering inc	tion specified ng, shuttering nent 1.5 coars 1.500 5.000 0.500	To d grade of rei g, finishing a se sand :3 gr 1.500 0.250 1.500 To ng, etc. and i	inforced cem ind reinforce aded stone a 0.150 1.000 0.250 tal Quantity removal of fo	nent concr ement - Al ggregate 2 y in cum	56.875 rete, 1 work up 20 mm 23.625 87.500 39.375 150.500 150.500 Valls (any				
	5.1.2 Providing and layi excluding the cost to plinth level:1:1: nominal size RCC Base slab 1X1X1 Long wall 1X1X1 slab 1X1X1 Total 5.9.2 Centering and shut thickness) includir	of centeri 5:3 (1 cen 70 70 210 ttering inc	tion specified ng, shuttering nent 1.5 coars 1.500 5.000 0.500	To d grade of rei g, finishing a se sand :3 gr 1.500 0.250 1.500 To ng, etc. and i	inforced cem ind reinforce aded stone a 0.150 1.000 0.250 tal Quantity removal of fo	nent concr ement - Al ggregate 2 y in cum	56.875 rete, 1 work up 20 mm 23.625 87.500 39.375 150.500 150.500 Valls (any				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Anchor block	100	3.200		0.800		256.000		
	Anchor block	150	1.600		0.400		96.000		
	Total						1115.000		
				То	otal Quantit	y in sqm	1115.000		
2.050	5.9.3								
	Centering and shu floors, roofs, landi					orm for:S	uspended		
	Centering and shuttering								
	Cover slab side wall 1x1x1	210	4.000		0.250		210.000		
	Total						210.000		
				То	otal Quantity	y in sqm	210.000		
2.051	5.22.6								
	Steel reinforcemer in position and bin bars of grade Fe-5 Reinforce	ding all co 00D or mo	omplete upto	iding straigh plinth level	tening, cuttir Thermo - Me	ng, bendin echanicall	g, placing y Treated		
	For valve			7-10		80.000	13473.60		
	chamber	168.42		< 10	_ E	80.000 000	13473.00		
	For anchor block	56.875	e-PLATFOR	M FOR THE N WORKS	ANAGEMENT	$\begin{array}{c} 20.000\\000\end{array}$	1137.500		
	Total						14611.10 0		
	Total Quantity in kilogram								
2.052	100.37.5.1								
	In situ fabrication including cost and of painting the stee even shade over an	conveyan el work wi	ce charges of th two or mo	f M.S. plate, ore coat delu	all fabrication xe multi surf	on charges	s, charges		
		1	10.000				10.000		
	Total	· · · · · ·					10.000		
				Tota	al Quantity	in metre	10.000		
2.053	100.37.5.2								
	100.37.5.2 Fabricating M.S. flanges of diameter 100mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.								

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
		4					4.000			
	Total						4.000			
				,	Total Quant	ity in no	4.000			
2.054	100.37.5.3									
	Cutting 100mm (I. including cost of g fabricated with 8m	as, all lab	our and hire							
						r				
		6					6.000			
	Total									
					Total Quant	ity in no	6.000			
2.055	100.37.5.4									
	Welding 100mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
			16.1P3	2491A)						
		6		and the second sec			6.000			
	Total			3			6.000			
					Total Quant	ity in no	6.000			
	C-PLATFORM FOR THE MANAGEMENT									
2.056	100.37.5.5				MUNIMUMERY/IEIN/I					
2.056	100.37.5.5 Grinding cut and v including all labou 8mm thick M.S. pl	ir and hire	s of 100mm ((I.D.) M.S. p	ipes during f					
2.056	Grinding cut and v including all labou	ir and hire	s of 100mm ((I.D.) M.S. p	ipes during f					
2.056	Grinding cut and v including all labou	ir and hire	s of 100mm ((I.D.) M.S. p	ipes during f					
2.056	Grinding cut and v including all labou	r and hire lates.	s of 100mm ((I.D.) M.S. p	ipes during f		cated with			
2.056	Grinding cut and v including all labou 8mm thick M.S. pl	r and hire lates.	s of 100mm (I.D.) M.S. p ools etc., cor	ipes during f		cated with 12.000			
	Grinding cut and v including all labou 8mm thick M.S. pl	r and hire lates.	s of 100mm (I.D.) M.S. p ools etc., cor	ipes during f nplete: For p		cated with <u> 12.000</u> 12.000			
	Grinding cut and v including all labou 8mm thick M.S. pl Total	of M.S. pr conveyar el work w	ipes of size 1 ice charges of the	50mm (I.D.) f M.S. plate, pre coat delu	ipes during f nplete: For p Total Quant using 8mm all fabricatio xe multi surf	ipes fabric ity in no thick M.S on charges	cated with 12.000 12.000 12.000 12.000 . plate s, charges			
	Grinding cut and v including all labou 8mm thick M.S. pl Total 100.37.6.1 In situ fabrication including cost and of painting the stee	of M.S. provide the second sec	ipes of size 1 acc charges of the size of	50mm (I.D.) f M.S. plate, pre coat delu etc., comple	ipes during f nplete: For p Total Quant using 8mm all fabricatio xe multi surf	ipes fabric ity in no thick M.S on charges	cated with 12.000 12.000 12.000 12.000 . plate s, charges			
	Grinding cut and v including all labou 8mm thick M.S. pl Total 100.37.6.1 In situ fabrication including cost and of painting the stee even shade over an	of M.S. provide the second sec	ipes of size 1 acc charges of the size of	50mm (I.D.) f M.S. plate, pre coat delu etc., comple	ipes during f nplete: For p Total Quant using 8mm all fabricatio xe multi surf	ipes fabric ity in no thick M.S on charges	cated with 12.000 12.000 12.000 12.000 . plate s, charges			
	Grinding cut and v including all labou 8mm thick M.S. pl Total 100.37.6.1 In situ fabrication including cost and of painting the stee even shade over an	of M.S. provide the second sec	ipes of size 1 nce charges of the charges of size 1 ipes of size 1 nce charges of the charges of the charges of size 1 ipes of size 1	50mm (I.D.) f M.S. plate, pre coat delu etc., comple	ipes during f nplete: For p Total Quant using 8mm all fabricatio xe multi surf	ipes fabric ity in no thick M.S on charges	cated with 12.000 12.000 12.000 12.000 . plate s, charges to give an			
	Grinding cut and v including all labou 8mm thick M.S. pl Total 100.37.6.1 In situ fabrication including cost and of painting the stee even shade over ar insitu fabrication	of M.S. provide the second sec	ipes of size 1 nce charges of the charges of size 1 ipes of size 1 nce charges of the charges of the charges of size 1 ipes of size 1	50mm (I.D.) f M.S. plate, pre coat delu etc., comple	ipes during f nplete: For p Total Quant using 8mm all fabricatio xe multi surf	ipes fabrie ity in no thick M.S on charges ace paint	cated with 12.000 12.000 12.000 12.000 . plate s, charges to give an 35.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Fabricating M.S. flanges of diameter 150mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	M.S flanges of di	ia 150mm			1					
		8					8.000			
	Total						8.000			
					Total Quant	tity in no	8.000			
2.059	100.37.6.3									
	Cutting 150mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	Cutting of 150mn				1					
		16	-13.	MAN NO			16.000			
	Total		a fil	QAN			16.000			
			1182	No Charles	Total Quant	tity in no	16.000			
2.060	100.37.6.4	1								
	Welding 150mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	Welding of 150m	m			1					
		16					16.000			
	Total						16.000			
				I	Total Quant	tity in no	16.000			
2.061	100.37.6.5									
	Grinding cut and weld edges of 150mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	Grinding 150mm				-					
		32					32.000			
	Total						32.000			
				I	Total Quant	tity in no	32.000			
2.062	100.37.7.1									
	In situ fabrication including cost and of painting the stee even shade over a	conveyar el work w	ice charges of the two or me	of M.S. plate ore coat delu	, all fabrication ixe multi surf	on charge	s, charges			
	Insitu fabrication	<u>n of M.S</u> F	Pipes of size	200mm						
		1	15.000				15.000			
	Total						15.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
				Tot	al Quantity	in metre	15.000			
2.063	100.37.7.2									
	Fabricating M.S. fl cost and conveyan- the steel work with over an under-coat plates.	ce charge two or n	s of M.S. pla nore coat del	tte, all fabrica uxe multi sur	ation charges	s, charges give an e	of painting even shade			
	Fabricating M.S F	langes of	200mm							
		4					4.000			
	Total						4.000			
		tity in no	4.000							
2.064	100.37.7.3									
	Cutting 200mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	Cutting of 200mm	1	11 A	QAN	[
		8		19012			8.000			
	Total				_		8.000			
					Total Quant	tity in no	8.000			
2.065	100.37.7.4		e-PLATFOR	M FOR THE M	ANAGEMENT					
	Welding 200mm () welding machine i tools etc., complete	ncluding	cost of gas a	nd welding r	ods, all labou	ir and hire	gas/electric e charges of			
	Welding of 200m	m			1					
		8					8.000			
	Total						8.000			
				,	Total Quant	tity in no	8.000			
2.066	100.37.7.5									
	Grinding cut and w including all labou 8mm thick M.S. pl	r and hire								
	Grinding 200mm									
		16					16.000			
	Total						16.000			
				,	Total Quant	tity in no	16.000			
2.067	100.37.8.1									
	In situ fabrication of including cost and of painting the stee even shade over an	conveyar el work w	nce charges of the two or me	of M.S. plate, ore coat delu	, all fabrication xe multi surf	on charge	s, charges			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	Insitu fabricatio	n of M.S	Pipes of size	250mm							
		1	35.000				35.000				
	Total						35.000				
				Tot	al Quantity	in metre	35.000				
2.068	100.37.8.2										
	Fabricating M.S. f cost and conveyan the steel work with over an under-coar plates.	ce charge n two or n	s of M.S. pla nore coat del	tte, all fabrication in the second structure in the se	ation charges	s, charges give an e	of painting ven shade				
	Fabricating M.S Flanges of 250mm 8 8.000										
		8.000									
	Total		8.000								
	Total Quantity in no										
2.069	100.37.8.3		- ašš	SAL -							
	Cutting 250mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.										
	Cutting of 250mn										
		8		M FOR THE N	ANAGEMENT		8.000				
	Total		OF POBLIC				8.000				
• • • • •					Total Quant	ity in no	8.000				
2.070	100.37.8.4 Welding 250mm (welding machine i tools etc., complet	ncluding	cost of gas a	nd welding r	ods, all labou	ir and hire	gas/electric e charges of				
	Welding of 250m				I						
		8					8.000				
	Total						8.000				
				,	Total Quant	ity in no	8.000				
2.071	100.37.8.5					-					
	Grinding cut and weld edges of 250mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.										
	Grinding 250mm										
		16					16.000				
	Total						16.000				
				,	Total Quant	tity in no	16.000				
2.072	100.37.9.1										

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	In situ fabrication including cost and of painting the stee even shade over an	conveyar el work w	ice charges of the two or mo	of M.S. plate, ore coat delu	, all fabrication xe multi surf	on charge	s, charges			
	Insitu fabricatio	n of M.S	Pipes of size	300mm	1					
		1	20.000				20.000			
	Total						20.000			
				Tot	al Quantity	in metre	20.000			
2.073	100.37.9.2									
	Fabricating M.S. flanges of diameter 300mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.									
	Fabricating M.S	Flanges of	f 300mm	10	[
		4	ass	520 -			4.000			
	Total									
	Total Quantity in no									
2.074	100.37.9.3									
	Cutting 300mm (I. including cost of g fabricated with 8m	as, all lab	our and hire							
	Cutting of 300mm									
		8					8.000			
	Total						8.000			
					Total Quant	tity in no	8.000			
2.075										
	Welding 300mm (welding machine i tools etc., complet	ncluding e: For pip	cost of gas a	nd welding r	ods, all labou	ir and hire	gas/electric e charges of			
	Welding of 300mr	8					8.000			
	Total	0					8.000 8.000			
					Total Quant	ity in no				
2.076	100 27 0 5				Total Quant	11 II I	8.000			
2.070	100.37.9.5 Grinding cut and v including all labou 8mm thick M.S. p	ir and hire	s of 300mm charges of t	(I.D.) M.S. p ools etc., cor	ipes during f nplete: For p	abricatior bipes fabri	n work cated with			
	Grinding 300mm									
		16					16.000			
	Total						16.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity					
				,	Total Quant	tity in no	16.000					
2.077	100.59.1											
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.											
	Cutting the bituminous / concrete roads											
	2 3400.000											
	Total											
				Tot	al Quantity	in metre	6800.000					
2.078	15.59											
	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.											
	Dismantling of flexible pavement											
		1	4800.000		0.200		960.000					
	Total 960.000											
			e-PLATFOR	M FOR THET	otal Quantit	y in cum	960.000					
2.079	15.2.2											
	Demolishing ceme material within 50 concrete 1:4:8 lean	metres le er mix (i	ad as per dire	ection of Eng	gineer - in-C	cluding d harge.Nor	isposal of ninal					
	Demolishing cem	ent concr										
		1	2000.000	0.600	0.150		180.000					
	Total						180.000					
				To	otal Quantit	y in cum	180.000					
2.080	16.83											
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.											
	interlock removal											
		1	1000.000	0.900			900.000					
	Total						900.000					
				T	otal Quantit	y in sqm	900.000					
2.081	16.84											

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	Laying old cement concrete interlocking paver blocks of any design/ shap required line, level, curvature, colour and pattern over and including 50 m compacted bed of coarse sand, filling the joints with fine sand etc. all com the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied department free of cost.)										
	Laying paver bloc	cks									
		1	1000.000	0.900		0.8000 00	720.000				
	Total						720.000				
				Тс	otal Quantit	y in sqm	720.000				
2.082	16.68										
	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved size, design & amp; shape, laid in required colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.										
	Laying new paver block										
	1 1000.000 0.900 0.2000 180.000										
	Total			J 11			180.000				
				Te	otal Quantit	y in sqm	180.000				
3	Providing FHTCs		OF PUBLIC	WORKS	ANAGEMENT						
3.001	100.60.13.4.2										
3.001	100.60.13.4.2 Providing 15mm (AC / GI mains up Pipe, PE80, PN16, Compression / GM way wheel valve, I etc. and connecting and refilling in all of average cross se fixing water meter complete including charges, including weather resistant F excluding charges the direction of the	to 125 mr , Conform I / Brass s bend, MT g with the kinds of s ection 0.3 c, lighting, g cost of r the cost of PP / PE mo for cuttin	n dia., up to sing to IS 498 pecials viz. It A, FTA, cou mains, testing oil up to a do m x 0.75m for watching, prinaterials, hire of tested Class eter box of m g the concret	a length of 5 34: 2016 or la orass ferrule, plers, GI / M ng the joints of epth of 1.50n or laying com- roviding caute for tools, co s B Multijet ninimum size te / tarred / bi	m using 20m ater edition a brass hexag S Service Sa etc. complete n for main lin nection pipe ion boards, t ost of consur water meter 300mm x 20	im (1/2 ir nd PP PN onal nippl iddle of su e includin ne tracing and servia traffic con nables and with ISI r 00mm x 1	hch) PE 16 le, GM full hitable size g trenching and trench ce pipe, htrol etc. d labour nark and 50mm, but				
3.001	Providing 15mm (AC / GI mains up Pipe, PE80, PN16, Compression / GN way wheel valve, I etc. and connecting and refilling in all of average cross see fixing water meter complete including charges, including weather resistant F excluding charges	to 125 mr , Conform I / Brass s bend, MT g with the kinds of s ection 0.35 , lighting, g cost of r the cost of PP / PE mo for cuttin e departmo	n dia., up to specials viz. I A, FTA, cou mains, testin coil up to a do m x 0.75m for watching, pr naterials, hirr of tested Class eter box of m g the concret ental officers	a length of 5 34: 2016 or la orass ferrule, plers, GI / M ng the joints of epth of 1.50n or laying controviding caut e for tools, co is B Multijet inimum size te / tarred / bi	m using 20m ater edition a brass hexag S Service Sa etc. complete n for main lin nection pipe ion boards, t ost of consur water meter 300mm x 20	im (1/2 ir nd PP PN onal nippl iddle of su e includin ne tracing and servia traffic con nables and with ISI r 00mm x 1	hch) PE 16 le, GM full hitable size g trenching and trench ce pipe, htrol etc. d labour nark and 50mm, but				
3.001	Providing 15mm (AC / GI mains up Pipe, PE80, PN16, Compression / GN way wheel valve, I etc. and connecting and refilling in all of average cross see fixing water meter complete including charges, including weather resistant F excluding charges the direction of the Providing 15mm 80 mm GI	to 125 mr , Conform I / Brass s bend, MT g with the kinds of s ection 0.35 , lighting, g cost of r the cost of PP / PE mo for cuttin e departmo	n dia., up to specials viz. I A, FTA, cou mains, testin coil up to a do m x 0.75m for watching, pr naterials, hirr of tested Class eter box of m g the concret ental officers	a length of 5 34: 2016 or la orass ferrule, plers, GI / M ng the joints of epth of 1.50n or laying controviding caut e for tools, co is B Multijet inimum size te / tarred / bi	m using 20m ater edition a brass hexag S Service Sa etc. complete n for main lin nection pipe ion boards, t ost of consur water meter 300mm x 20	im (1/2 ir nd PP PN onal nippl iddle of su e includin ne tracing and servia traffic con nables and with ISI r 00mm x 1	hch) PE 16 16 16 16 16 16 16 17 17 17 17 17 17 17 17 17 17				
3.001	Providing 15mm (AC / GI mains up Pipe, PE80, PN16, Compression / GM way wheel valve, I etc. and connecting and refilling in all of average cross se fixing water meter complete including charges, including weather resistant F excluding charges the direction of the Providing 15mm	to 125 mr , Conform I / Brass s bend, MT g with the kinds of s ection 0.3 ; lighting, g cost of r the cost of P / PE me for cuttin e departme (1/2 inch)	n dia., up to specials viz. I A, FTA, cou mains, testin coil up to a do m x 0.75m for watching, pr naterials, hirr of tested Class eter box of m g the concret ental officers	a length of 5 34: 2016 or la orass ferrule, plers, GI / M ng the joints of epth of 1.50n or laying controviding caut e for tools, co is B Multijet inimum size te / tarred / bi	m using 20m ater edition a brass hexag S Service Sa etc. complete n for main lin nection pipe ion boards, t ost of consur water meter 300mm x 20	im (1/2 ir nd PP PN onal nippl iddle of su e includin ne tracing and servia traffic con nables and with ISI r 00mm x 1	hch) PE 16 16 16 16 16 16 17 17 17 16 16 17 17 16 17 17 17 17 17 17 17 17 17 17				
3.001	Providing 15mm (AC / GI mains up Pipe, PE80, PN16, Compression / GN way wheel valve, I etc. and connecting and refilling in all of average cross see fixing water meter complete including charges, including weather resistant F excluding charges the direction of the Providing 15mm 80 mm GI	to 125 mr , Conform I / Brass s bend, MT g with the kinds of s ection 0.3 ; lighting, g cost of r the cost of P / PE me for cuttin e departme (1/2 inch)	n dia., up to specials viz. I A, FTA, cou mains, testin coil up to a do m x 0.75m for watching, pr naterials, hirr of tested Class eter box of m g the concret ental officers	a length of 5 34: 2016 or la orass ferrule, plers, GI / M ng the joints of epth of 1.50n or laying com- roviding caute e for tools, co is B Multijet inimum size is / tarred / bi	m using 20m ater edition a brass hexag S Service Sa etc. complete n for main lin nection pipe ion boards, t ost of consur water meter 300mm x 20	im (1/2 ir nd PP PN onal nippl iddle of su e includin ne tracing and servi- traffic con nables and with ISI r 00mm x 1 ads etc, an	hch) PE 16 16 16 16 16 16 16 17 17 17 17 17 17 17 17 17 17				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing AC / GI mains up to 125 mm dia., up to a length of 5 m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, GI / MS Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.										
	Providing 20mm (3/4 inch) house connection										
	80 mm GI	515					515.000				
	Total										
	Total Quantity in no										
3.003	100.60.13.1.2										
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.										
	Providing 15mm (1/2 inch) house connection										
	90 mm HDPE 1150 1150.000										
	Total										
	Total Quantity in no										
3.004	100.60.13.3.2										

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter and weather with ISI mark resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.										
	Providing 20mm (3/4 inch) house connection										
	90 mm HDPE 1204										
	Total										
	Total Quantity in no										
3.005	100.60.13.7.2		1999								
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains up to 125 mm dia., up to a length of 5 m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including to fested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers										
	15 mm Connection										
	100 mm DI Pipe	150					150.000				
	Total										
				,	Total Quant	tity in no	150.000				
3.006											

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity					
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains up to 125 mm dia., up to a length of 5 m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including to fested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers											
	20mm connection											
		165					165.000					
	Total											
			(TS)	a ka	Total Quant	tity in no	165.000					
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.											
	Providing 15mm (1/2 inch)	house conne	ction	1							
	150 mm DI	51					51.000					
	200 mm DI	21					21.000					
	Total						72.000					
	Total Quantity in no											
3.008	100.60.14.9.2											

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.										
	Providing 20mm (3/4 inch) house connection										
	150 mm DI	77					77.000				
	200 mm DI	31		MA.			31.000				
	Total										
	Total Quantity in no										
3.009	100.60.21.1.1										
	Providing 15mm (water connection, 4984: 2016 or late materials, consum directions of the d	using 20n r edition a ables, hire	nm (1/2 incl and PP PN 10 e for tools an	n) PE Pipe, I 6 Compressio	PE80, PN16, on specials in	Conformi cluding c	ng to IS ost of				
	Providing 15mm	(1/2 inch) GM Air V	alve							
		1807					1807.000				
	Total						1807.000				
					Total Quant	ity in no	1807.000				
3.010	100.60.21.2.1										
	Providing 20mm (3/4 inch) GM Air Valve in the water meter assembly for 20mm water connection, using 25mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.										
	Providing 20mm	(3/4 inch) GM Air V	alve							
		1992					1992.000				
	Total						1992.000				
					Total Quant	ity in no	1992.000				
3.011	100.60.23.3.1										

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Providing 15mm F connection, using specials and PP PN hire charges for to departmental offic	20mm (1 N 16 Com ols and la	/2 inch) Ind pression spe	ian Standard cials includir	uPVC Class ng cost of ma	6 pipes, u terials, co	iPVC onsumables,			
	Providing 15mm	PVC Tap	in the water	meter assem	bly					
		1807					1807.000			
	Total						1807.000			
					Total Quant	tity in no	1807.000			
3.012	100.60.23.4.1									
	Providing 15mm PVC Tap in the water meter assembly for 20mm (3/4 inch) water connection, using 25mm (3/4 inch) Indian Standard Class 6 uPVC pipes, uPVC specials and PP PN 16 Compression specials including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers. Providing 15mm PVC Tap in the water meter assembly									
		1992	14-13	2411			1992.000			
	Total	1992.000								
		tity in no	1992.000							
3.013	100.60.15.1.2									
	Providing addition PE80, PN16, Conf testing the joints e average cross sect lighting, watching consumables and I concrete / tarred / the directions of th	forming to tc., by tre ion 0.3m : , providin abour cha bituminou	DIS 4984: 20 nching and r x 0.75m for l g caution bo urges etc. con us roads, and	116 or later ed efilling in all aying of con ards, traffic c nplete, but ex excluding co	dition and PM kinds of soil nection pipe control etc., h xcluding the	V16 special with tren and servio nire for too cost of cu	als and ich of ce pipe, ols, cost of tting of			
	Providing addition	nal length	of house con	nnection	1					
		1807	24.000				43368.00 0			
	Total						43368.00 0			
				Tot	al Quantity	in metre	43368.00 0			
3.014	100.60.15.2.1									
	100.60.15.2.1 Providing additional length of house connection pipe using 25 mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN 16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.									

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity						
	Providing addition	Providing additional length of house connection											
		1992	48.000				95616.00 0						
	Total						95616.00 0						
				Tota	al Quantity	in metre	95616.00 0						
3.015	15.2.1												
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)												
	Demolishing cem	ent concre	ete										
	1050 3.000 0.300 0.150												
	Total			100 ⁷ 0			141.750						
			-0-	Τα	otal Quantit	y in cum	141.750						
3.016	100.59.1		lá th	241-11									
	200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.												
	Cutting the bitum 200mm	inous / co	ncrete roads	with cutting	machine for	a minimu	m depth of						
		500	6.000				3000.000						
	Total						3000.000						
				Tota	al Quantity	in metre	3000.000						
3.017	15.59												
	Dismantling of fle disposal of disman Engineer-in-charg	tled mate											
	Dismantling of fle	xible pave	ement										
		500	6.000	0.600	0.200		360.000						
	Total						360.000						
				To	otal Quantit	y in cum	360.000						
4	Road restoration c	harges PV	VD/SH/NH										
4.001	3.6												
	Excavation for roa including cutting a accordance with re the embankment lo	nd loadin	g in tippers, ts of lines, g	trimming bot rades and cro	ttom and side	e slopes, i	n						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Excavation								
	Berm PWD	1	20000.00 0	0.500	0.200		2000.000		
	Berm SH/NH	1	12000.00 0	0.500	0.200		1200.000		
	CC pavement PWD /NH	1	2000.000	0.500	0.350		350.000		
	Tar cut PWD	1	4800.000	0.600	0.400		1152.000		
	Bitumen Cutting SH/NH	1	2000.000	0.600	0.400		480.000		
	Interlock	1	1000.000	0.900	0.200		180.000		
	Total						5362.000		
	Total 5362.00 Construction of granular sub-base by providing graded material, spreading in uniform layers with a motor grader on a prepared surface, mixing by mix in-place method wit rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method								
	GSB								
	Berm PWD	1	20000.00 0	0.500	0.200		2000.000		
	Berm SH/NH	1	12000.00 0	0.500	0.200		1200.000		
	CC pavement PWD /NH	1	2000.000	0.500	0.150		150.000		
	Tar cut PWD	1	4800.000	0.600	0.200		576.000		
	Bitumen Cutting SH/NH	1	2000.000	0.600	0.200		240.000		
	Interlock	1	1000.000	0.900	0.200		180.000		
	Total						4346.000		
				Το	tal Quantity	y in cum	4346.000		
4.003	4.12								
	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.								
	WMM	[]		т					
	TAR CUT PWD	1	4800.000	0.600	0.200		576.000		
	BITTUMEN CUTTING SH	1	2000.000	0.600	0.200		240.000		
	Total						816.000		

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
				To	otal Quantit	y in cum	816.000			
4.004	5.1.a									
	Providing and app of granular Base in 0.70 - 1.0 kg/sqm	icluding c	learing of ro	ad surface ar	ulsion (SS) nd spraying p	on prepare primer at t	ed surface he rate of			
	Primer coat									
	TAR CUT PWD	1	4800.000	1.000			4800.000			
	BITUMEN CUTTING SH	1	2000.000	1.500			3000.000			
	Total									
				То	otal Quantit	y in sqm	7800.000			
4.005	5.2.b									
	Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.25 - 0.30 kg per sqm on the prepared Granular Surface cleaned with mechanical broom.									
	Tack coat		16-10-	241-3						
	tack coat	1	4800.000	1.000			4800.000			
	BM&BC	1	2000.000	1.500			3000.000			
	Total						7800.000			
		_	e-PLATFOR	M FOR THET	otal Quantit	y in sqm	7800.000			
4.006	5.3.2.a									
	Providing and layi an average output premixed with a bi previously prepare alignment and roll For Grading II - (1	of 75 toni ituminous d surface ed as per	tes per hour to binder (VG with paver fi clauses 501.6	using crushed 30), transpor inisher to the	d aggregates ted to the sit required gra	of specifi e, laid ov ade, level,	ed grading er a and			
	BM									
	BM	1	2000.000	1.500	0.050		150.000			
	Total						150.000			
				Тс	otal Quantit	y in cum	150.000			
4.007	5.2.a									
	Providing and applying tack coat with bitumen emulsion(RS) using emulsion pressure distributor at the rate of 0.20 - 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom.									
	Tack coat									
	For BM and BC	1	2000.000	1.500			3000.000			
	Total						3000.000			
				То	otal Quantit	y in sqm	3000.000			
4.008	5.6.2.a									

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with a bituminous binder(NRMB) @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level, and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects For Grading - II (13.2 mm Nominal Size)								
	BC								
	BC	1	2000.000	1.500	0.030		90.000		
	Total						90.000		
				Тс	otal Quantit	y in cum	90.000		
4.009	5.7.1								
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen (VG - 30) to the required line, grade, and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to the required level and grade.								
	Close graded premix								
	TAR CUT PWD	1	4800.000	1.000			4800.000		
	Total		C-PLATFOR	M FOR THE M	ANAGEMENT		4800.000		
	Total Quantity in sqm								
4.010	5.8.a								
	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder (VG 30) laid on the prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. Grading I - 19 mm nominal chipping size								
	Seal coat								
	TAR CUT PWD	1	4800.000	1.000			4800.000 4800.000		
	Total								
				Te	otal Quantit	y in sqm	4800.000		
4.011	12.4								
	Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.								
	CC 40mm								
	CC Pavement PWD/NH/SH	1	2000.000	0.500	0.100		100.000		
	Total						100.000		
				To	otal Quantit	y in cum	100.000		
4.012	12.8.B.1								

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20 								
	PCC/RCC								
	CC Pavement PWD/NH/SH	1	2000.000	0.500	0.050		50.000		
	Total						50.000		
				Τα	otal Quantit	y in cum	50.000		
5	Road restoration c	harges LS	GD						
5.001	3.5.3								
	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3								
	Excavation		a St						
	For tar Road	1	3000.000	0.600	0.400		720.000		
	For Concrete Road	1	3000.000	0.500	0.350		525.000		
	Total						1245.000		
		_	e-PLATFOR	M FOR THE	otal Quantit	y in cum	1245.000		
5.002	4.1.A.1		of Poblic						
	Granular Sub-base with Well Graded Material (Table 400.1) (A) By Mix in Place Method Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (i) For Grading I Material								
	GSB								
	For tar Road	1	3000.000	0.600	0.200		360.000		
	For Concrete Road	1	3000.000	0.500	0.200		300.000		
	Total								
	Total Quantity in cum 660.00								
5.003	4.9								
	Wet Mix Macadam Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub- base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & amp; 400.12 and Technical Specification Clause 406. By Mechanical Means with 1 km lead								

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	WMM									
	For tar Road	1	3000.000	0.600	0.200		360.000			
	Total									
	Total Quantity in cum									
5.004	5.1.1a									
	Prime Coat :- Low porosity Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502									
	prime coat									
	For tar Road	1	3000.000	1.000			3000.000			
	Total 3									
				To	otal Quantit	y in sqm	3000.000			
5.005	5.2.3a									
	Tack Coat Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & amp; cleaned with Hydraulic broom as per Technical Specification Clause 503.									
	ТАСК СОАТ									
	Tar Road 1 3000.000 1.000									
	Total									
	Total Quantity in sqm									
5.006	5.9.1.2a									
	20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder - Bitumen S-65 Providing, laying and rolling of open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a three wheel 80-100 kN static roller capacity, finished to required level and grades to be followed by seal coat of either Type A or Type B or Type C as per Technical Specification Clause 508. Case - I By Manual Means (II) Bitumen (S-65)									
	OGPC					r				
	For tar Road	1	3000.000	1.000			3000.000			
	Total						3000.000			
	Total Quantity in sqm						3000.000			
5.007	5.12.A.3.2a									
	Seal Coat - Manual Means - Type C - Bitumen S-65 Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A, Type B and Type C as per Technical Specification Clause 510 A. By Manual Means :- Case - III : Type C (II) Bitumen (S-65)									

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Seal coat							
	For tar Road	1	3000.000	1.000			3000.000	
	Total Total Quantity in sqm							
5.008	11.4.3.1							
	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & amp; 1203 III. P.C.C. grade M 20 (i) Nominal mix (1:2:4) cement concrete							
	For concrete road	1	3000.000	0.500	0.150		225.000	
	Total							
	Total Quantity in cum						225.000	

