

**SANITARY AND PLUMBING WORKS FOR EXHIBITION BLOCK OF PROPOSED
STATE LEVEL ENERGY PARK AT SIDDU-KANU UDYAN, RANCHI, JHARKHAND, INDIA**

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
		Sanitary Installations				
	1	Supplying, fitting and fixing 40mm high vitreous white glazed earthen I.W.C. with 'P' trap of parry Hindustan or any other approved I.S.S. make including supplying and fixing 15 liters C.I. Mosquito proof low down flushing cistern of approved make with With "P" trap 12.5 liters low level PVC Cistern	Each	6		
	2	Supplying, fitting and fixing flat back or angular, lipped front vitreous white glazed earthen urinal of Hindustan" parry" or any other approved I.S.S. make with 5 liters capacity C.I. automatic flushing cistern of reliance for any other I.S.S. approved Flat back or standing corner (600 mm x 350 mm)	Each	5		
	2(a)	JAQUAR make Model 51077 Sensor concealed type flushing valve for urinal complete with installation box and control cock.	Each	5		
	3	Supplying, fitting and fixing vitreous white glazed earthen Indian squatting type 600x350 mm urinal plate of Parry, Hindustan or any other ISS approved make with internal flushing rim, 100 mm white glazed earthen ware channel about 1 m. long 5 litre capacity C.I. automatic flushing cistern of Reliance or any other approved make with fittings R.S. or C.I. brackets 15 mm and 45 mm long PVC/Alkaline pipe standard G.I. flush pipe for back and front with spreaderfittings and brass couplings	Each	4		
	4	Supplying, fitting and fixing vitreous white glazed earthen ware wash hand basin of parry or Hindustan or any other approved I.S.S. make supported on painted C.I. or R.S. bracket 32mm C.I. brass waste, 15mm dia C.I. body brass spindle stop cock of a	Each	6		
	5	Supplying fitting and fixing H.C.I. Pipes with ear of approved make conforming to I.S.I. 1729 including supplying nails and bobbins short pieces, cutting loose collars, lead and yarn for making lead caulked joints, cutting pipes to size including earth work 100 mm dia.	M	15		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	6	Supplying fitting and fixing H.C.I. fittings of approved make conforming to I.S.S. 1729 including supplying nails and bobbins lead and yarn from making lead caulked joints including earth work or providing scaffolding as the case may be all complete as per design.				
	(A)	H.C.I. Single junction with door but without ear except socket				
	a)	100 mm dia. (weight 10.5 kg approx)	Each	4		
	b)	80 mm dia. (Weight 7 kg)	Each	R.O.		
	(B)	H.C.I. wheel rest band 100 mm dia. (weight 5.5 kg)	Each	4		
	(C)	100 mm dia. H.C.I "P" trap with anti-syphonage horn (weight 8.5 kg)	Each	3		
	(D)	H.C.I. double junction with door and ear 100 mm dia. (weight 15.5 kg)	Each	3		
	(E)	H.C.I. double inverted junction(100 mm x 50 mm x 50 mm size)	Each	3		
	(F)	H.C.I. offset with ear 100 mm dia. (weight 6 kg approx.)	Each	4		
	(G)	H.C.I. Bend with door and ear 100 mm dia. (weight 6.5 kg)	Each	3		
	(H)	H.C.I. Plane bend with ear 100 mm dia. (weight 5.5 kg approx.)	Each	4		
	(I)	Floor trap with grating 100 mm dia.	Each	8		
	7	Supplying all tools and labours and cutting chajja, cornice for laying H.C.I. pipes and making good the same as per specification and direction of E/I.	Each	1		
	8	Cutting drain width wise above G.L. for laying H.C.I. Pipe and restoring brick work in cement mortar (1:4) 12 mm cement plaster in (1:) with neat cement punning as per specification and direction of E/I	Each	1		
	9	Making holes in walls for laying H.C.I. Pipes and restoring the same after pipe laying as per specification and direction of E/I.				
	a)	125 mm dia.	Each	2		
	b)	250 mm dia.	Each	2		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	10	Supplying materials and labour for painting the exposed H.C.I. Pipes and fittings with 2 coats of approved paint over a coat of red oxide primer etc. all complete as per specification and direction of E/I. a) 80 mm dia. b) 100 mm dia.	M M	2 3		
	11.00	Supplying, fitting and fixing 40 mm high vitreous white glazed earthen E.W.C. with 'P' trap C.I. cistern)(of parry/Hindustan or any other approved I. S. S. make including supplying and fixing 15 liters C. I. Mosquito proof low down flushing cistern of approved make.	Each	6		
	12	Supplying, fitting and fixing vitreous white glazed earthen ware wash hand basin of Parry or Hindustan or any other I.S.S approved make supported on painted C.I. or R. S. brackets 32 mm C. I. brass waste, 15 mm dia.C. I. body brass spindle stop cock of approved quality.	Each	6		
		Sewerage and Drainage				
	13	Earth work in excavation for laying of different types and sizes of R.C.C. spun pipes with disposal of excavated earth within initial lead and lift as per specification and direction of E/I. a) For classification of soil item - B	Cum	47.5		
	14	Earthwork in back filling the trench after laying different types and sizes of R.C.C. spun pipes with earth removed during excavation within initial lead and lift as per specification and direction of E/I.	Cum	47.5		
	15	Extra for earthwork in all kinds of soil for each additional lift of 1m, or part thereof over the initial lift of 1.5m as per specification and direction of E/I.	Cum	10		
	16	Close timbering in trenches including strutting, shoring and packing cavities (whenever required) depth not exceeding 1.5m complete as per specification and direction of E/I.	Sqm	90		
	17	Close timbering in trenches including strutting, shoring and packing cavities (whenever required) for each additional depth of 1.5m complete as per specification and direction of E/I (measurement to be taken of the face area timbered)	Sqm	15		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	18	Labour for laying, fitting and fixing NP2 R.C.C. spun pipe with collars in lines, level and grade and providing approved jointing materials and joints properly filled to make them leak proof including providing sight rails, boning rod, night guard, red light and barrier etc.				
	a)	225 mm dia. R.C.C. spun pipe upto 3 m depth of invert below G.I.	M	63.5		
	b)	300 mm dia. R.C.C. spun pipe upto 3 m depth of invert below G. L.	M	6.0		
	19	Supplying labours, tools and tackles for testing of laid R.C.C. Spun pipes upto specified lead of water, all complete as per specification and direction of E/I.(water to be supplied free of cost departmentally)				
	a)	225 mm dia.	M	25		
	b)	300 mm dia.	M	12.5		
	20	Supply of NP2 R. C. C. Hume pipe with collar as per I. S. S. 458 -1971				
	a)	250 mm dia.	M	63.5		
	b)	300 mm dia.	M	6.0		
	21	Providing and constructing a brick masonry storm water inlet chamber with bricks of CD 75 in cement mortar 1:5 (1 cement: 5 fine sand) inside surface finished with plaster and final coat of neat cement with medium duty C.I. / M.S. cover from top.				
	a)	Catch basin of size 450x450x450mm	Each	8		
	b)	Catch basin of size 600x600x600mm	Each	2		
	c)	Catch basin of size 750x750x900mm	Each	2		
	d)	Extra depth beyond 450 mm for item 2.9(a)	M	1		
	e)	Extra depth beyond 600 mm for item 2.9(a)	M	1		
	f)	Extra depth beyond 750 mm for item 2.9(a)	M	1		
		Water Supply				
	22	Earth work in excavation (As per I.S. 3114/1965 for laying of different types and sizes of pipes so as to give one meter average cover over the socket of pipe with disposal of excavated earth within initial lead and lift as per specification and direction				
	a)	for classification of soil item -A	Cum	R.O.		
	b)	for classification of soil item - B	Cum	250		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	23	Earth work in back filling the trenches after laying different types and size of pipes with earth removed during excavation within initial lead and lift as per specification and direction of engineer in charge (For classification of soil items A & B.)	Cum	56		
	24	Extra for earth work in all kinds of soil for each additional lift of 1m or part thereof over the initial lift of 1.5 m as per specification and direction of E/I.	Cum	R.O.		
	25	Supply of G. I. pipes as per relevant IS Specification				
	a)	15 mm dia.	M	2		
	b)	20 mm dia.	M	2		
	c)	25 mm dia.	M	23		
	d)	32 mm dia	M	21		
	e)	40 mm dia.	M	31		
	f)	50 mm dia.	M	21		
	g)	65 mm dia.	M	R.O.		
	26	Laying of G.I. Pipes of approved make in trenches with red lead and yarn with socket and screw joints and cutting pipes to sizes and threading ends where necessary etc. all complete as per specification and direction of E/I. (pipes to be supplied departme				
	a)	15 mm dia.	M	2		
	b)	20 mm dia.	M	2		
	c)	25 mm dia.	M	23		
	d)	32 mm dia	M	21		
	e)	40 mm dia.	M	31		
	f)	50 mm dia.	M	21		
	g)	65 mm dia.	M	R.O.		
	27	Supplying labour and tools for fixing G.I. pipes with red lead and yarn of following nominal bore with screwed and socketed joints on wall, ceiling and floor including supplying and fitting of wall hooks or pipe clamps, wooden plugs, cutting pipes to size				
	a)	15 mm dia.	M	2		
	b)	20 mm dia.	M	2		
	c)	25 mm dia.	M	23		
	d)	32 mm dia	M	21		
	e)	40 mm dia.	M	31		
	f)	50 mm dia.	M	21		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	28	Providing and fixing male ended 15 mm dia brass bib cock of approved quality (Wt. Not less than 350 gms) with extra socket all complete as per specification and direction of E/I.	Each	4		
	29	Providing and fixing brass stop cock of approved quality all complete as per specification and direction of E/I.				
	(A)	Brass Stop Cock				
	a)	15 mm dia.	Each	2		
	b)	15 mm dia.	Each	2		
	c)	25 mm dia.	Each	1		
	d)	32 mm dia.	Each	1		
	e)	40 mm dia.	Each	R.O		
	f)	50 mm dia.	Each	R.O.		
	30	Providing and fixing G.M. Non-return valve horizontal type of approved quality as per specification and direction of E/I.				
	a)	32 mm dia. (weight not less than 600 gms.)	Each	1		
	b)	40 mm dia. (weight not less than 700 gms.)	Each	2		
	31	Providing and fixing 15 mm size C. p. brass pillar cock (weight not less than 350 gms.) of approved quality as per specification and direction of E/I.				
	a)	C. I. body brass spindle	Each	5		
	32	Providing and fixing Gun metal full way valve of approved quality, all complete as per specification and direction of E/I.				
	a)	15 mm dia and weight not less than 300 gms	Each	1		
	b)	20 mm dia and weight not less than 400 gms	Each	1		
	c)	25 mm dia and weight not less than 500 gms	Each	4		
	d)	32 mm dia and weight not less than 700 gms	Each	2		
	e)	40 mm dia and weight not less than 1kg	Each	2		
	f)	50 mm dia and weight not less than 1.5kg	Each	2		
	33	Supplying and fixing G.I. Fittings of approved make all complete as per specification and direction of E/I.				
		Elbows				
	a)	15 mm dia	Each	10		
	b)	20 mm dia	Each	10		
	c)	25 mm dia	Each	20		
	d)	32 mm dia	Each	10		
	e)	40 mm dia	Each	10		
	d)	50 mm dia	Each	10		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
		Tee Plane				
	a)	15 mm dia	Each	4		
	b)	20 mm dia	Each	4		
	c)	25 mm dia	Each	8		
	d)	32 mm dia	Each	4		
	e)	40 mm dia	Each	4		
	f)	50 mm dia	Each	4		
		Reducing Socket				
	a)	15 mm dia	Each	1		
	b)	20 mm dia	Each	1		
	c)	25 mm dia	Each	2		
	d)	32 mm dia	Each	1		
	e)	40 mm dia	Each	1		
	f)	50 mm dia	Each	1		
		Nipple				
	a)	15 mm dia	Each	4		
	b)	20 mm dia	Each	4		
	c)	25 mm dia	Each	8		
	d)	32 mm dia	Each	4		
	e)	40 mm dia	Each	4		
	f)	50 mm dia	Each	4		
		Plugs				
	a)	15 mm dia	Each	4		
	b)	20 mm dia	Each	4		
	c)	25 mm dia	Each	3		
	d)	32 mm dia	Each	2		
	e)	40 mm dia	Each	2		
	f)	50 mm dia	Each	2		
		Reducing Tee Plain (Taking larger dimension)				
	a)	15 mm dia	Each	1		
	b)	20 mm dia	Each	1		
	c)	25 mm dia	Each	2		
	d)	32 mm dia	Each	1		
	e)	40 mm dia	Each	1		
	f)	50 mm dia	Each	1		
		Union Socket				
	a)	15 mm dia	Each	4		
	b)	20 mm dia	Each	4		
	c)	25 mm dia	Each	8		
	d)	32 mm dia	Each	4		
	e)	40 mm dia	Each	4		
	f)	50 mm dia	Each	4		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
		Socket Plain				
	a)	15 mm dia	Each	4		
	b)	20 mm dia	Each	4		
	c)	25 mm dia	Each	8		
	d)	32 mm dia	Each	4		
	e)	40 mm dia	Each	4		
	f)	50 mm dia	Each	4		
		Jam Nuts				
	a)	15 mm dia	Each	2		
	b)	20 mm dia	Each	2		
	c)	25 mm dia	Each	1		
	d)	32 mm dia	Each	1		
	e)	40 mm dia	Each	1		
	f)	50 mm dia	Each	1		
	34	Cutting drain width wise above G.L. for laying G.I. Pipes and restoring with brick in cement mortar (1:4) 12 mm cement plaster in (1:4) with neat cement punning as per specification and direction of E/I.	Each	1		
	35	Making holes in walls for laying G.I. Pipe and restoring the same after pipe laying as per specification and direction of E/I.				
	a)	125mm thick wall	Each	2		
	b)	250mm thick wall	Each	2		
	36	Cutting floor for laying G.I. Pipes and restoring the same as per specification and direction of E/I.	M	3		
	37	Supplying, fitting and fixing the following items complete with all materials as per specification and direction of E/I.				
	a)	Glass shelf with C.P. brass rail of size 600mmX125mm	Each	2		
	b)	Mirrors of 4mm thick plate glass beveled edge mirror including C.P. brass revolving fittings 3mm ply wood board and C.P. hinges to fix with mirror. 600mmX450mm	Each	4		
	c)	C.P brass towel rail 20mmX600mm with bracket container.	Each	2		
	d)	C.P. brass soap dish container medium quality with screw and hinges etc.	Each	2		
	e)	P.V.C. liquid soap container	Each	2		
	38	Supplying, fitting and fixing angle iron or R.S. joist with P.C.C. (1:3:6) including cutting the joist to required size complete job as per specification and direction of E/I.	M	10		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	39	Supplying materials labour for painting exposed new G.I. Pipe and fitting, with one coat of approved aluminium paint over priming coat of red oxide all complete as per specification and direction of E/I.				
	a)	15mm dia G.I pipe	Each	5		
	b)	20mm dia G.I. Pipe	Each	5		
	c)	25mm dia G.I. pipe	Each	20		
	d)	32mm dia G.I. Pipe	Each	10		
	e)	40mm dia G.I. Pipe	Each	5		
	f)	50mm dia G.I. Pipe	Each	5		
External Sewerage and storm Water drainage system						
	40	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mix of CM 1:1 (1 cement: 1 fine sand) including testing.				
	a)	100 mm dia	M	RO		
	b)	150 mm dia	M	6.5		
	c)	200 mm dia	M	R.O.		
	41	Providing and laying cement concrete 1:5:10 (1 cement: 5 fine sand: 10 graded stone aggregate 40mm size in bed concrete and all round SW pipes as per standard design for:				
	a)	100 mm dia pipes	M	RO		
	b)	150 mm dia pipes	M	8.5		
	c)	200 mm dia pipes	M	4		
	42	Providing and fixing square mouth S.W. gully trap grade 'A' complete with C. I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300mm size (inside) the weight of cover to be not less than 4.50 Kg as per standard design. With F.	Each	2		
	43	Construction of brick masonry manhole with 75 class designation brick work 23 cm thick with bricks in cement mortar 1:3 (1 cement : 3 fine sand) with RCC top slab with 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20mm. Nominal size) 25 cm thick				
	a)	Inside dimension 90 x 80cm and 60cm deep including CI covers with frame (light duty) 455 x 610 mm. Internal dimensions, total weight of cover and frame to be not less than 38 kg. Weight of frame 15 Kg.	Each	2		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	44	Providing M. S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1 : 3 :6 (1 cement :3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design.				
	a)	20mm x 20 mm square bar	Each	8		
	45	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including joining with seal ring conforming to IS : 53823 leaving 10 mm gap for thermal expansion. Single socketed pipes, complete.				
	a)	110 mm dia	M	8		
	b)	160 mm dia	M	10		
Miscellaneous Items						
	46	Providing and fixing insect-proof coupling to vent pipes of under ground tank/overhead tank with threaded or flanged joints, including MS flanges, nuts bolts, 3mm thick rubber insertions complete				
	a)	40 mm dia	Each	2		
	b)	50 mm dia	Each	2		
	47	Providing and fixing GI / MS puddle flange to sumps /RCC tanks, complete as per drawing.				
	a)	32mm dia	Each	4		
	b)	40 mm dia	Each	4		
	48	Providing and fixing MS structural work fabricated from standard section e.g. MS rounds, angles channels, plates including cutting to size, drilling, welding fixing and welding to insert plates in RCC structural members as directed by Engineer-in-charge i	Kg	40		
	49	Providing laying and jointing C.I.(LA) pipe conforming to IS:1536 under the floors for sewerage complete with all fittings and cost of lead caulked joints and testing of the same in all respect.				
	a)	100mm dia	M	6		
	b)	150mm dia	M	7.5		
	50	Providing and fixing ultra violet water treatment equipment suitable for treating approx. 15 lits / Hr of water flow as per approved make.	Nos	1		

Schedule No.	SI No.	Description of Items	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	51	Constructing masonry chamber 90x90x100cms inside with 75 class designation brick work in cement mortar 1:5 (1 cement : 5 coarse sand) for butterfly valves / sluice valve of dia 150mm with C.I. Surface box 100 mm top diameter 160mm dia bottom diameter and	Each	1		
	52	Supplying all materials and constructing 75 class designation bricks masonry channel in cement mortar 1:4 (1 cement : 4 coarse sand) including necessary excavation and refilling, 100mm thick bed concrete 1:5:10 (1 cement 5 coarse sand: 10 graded stone agg a) Size 250 mm wide and average depth 300 mm	M	6		
	53	Providing and fixing with lifting arrangement cast 50mm thick and 300 mm wide perforated RCC slab in 1:2:4 (1 cement 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including reinforcement to cover the open surface of drain complete in all respects.	Mtrs	6.5		
	54	Supplying material and making septic tank of size3M X 1.5M X2M(effective) in brick masonry as per standard specifications and as per detailed design drawing provided by the consultant.	Each	1		
	55	Supplying material and making soak pits of 2M diameter and 2.5M deep as per the specifications mentioned in the detailed design drawing.	Each	1		

TOTAL