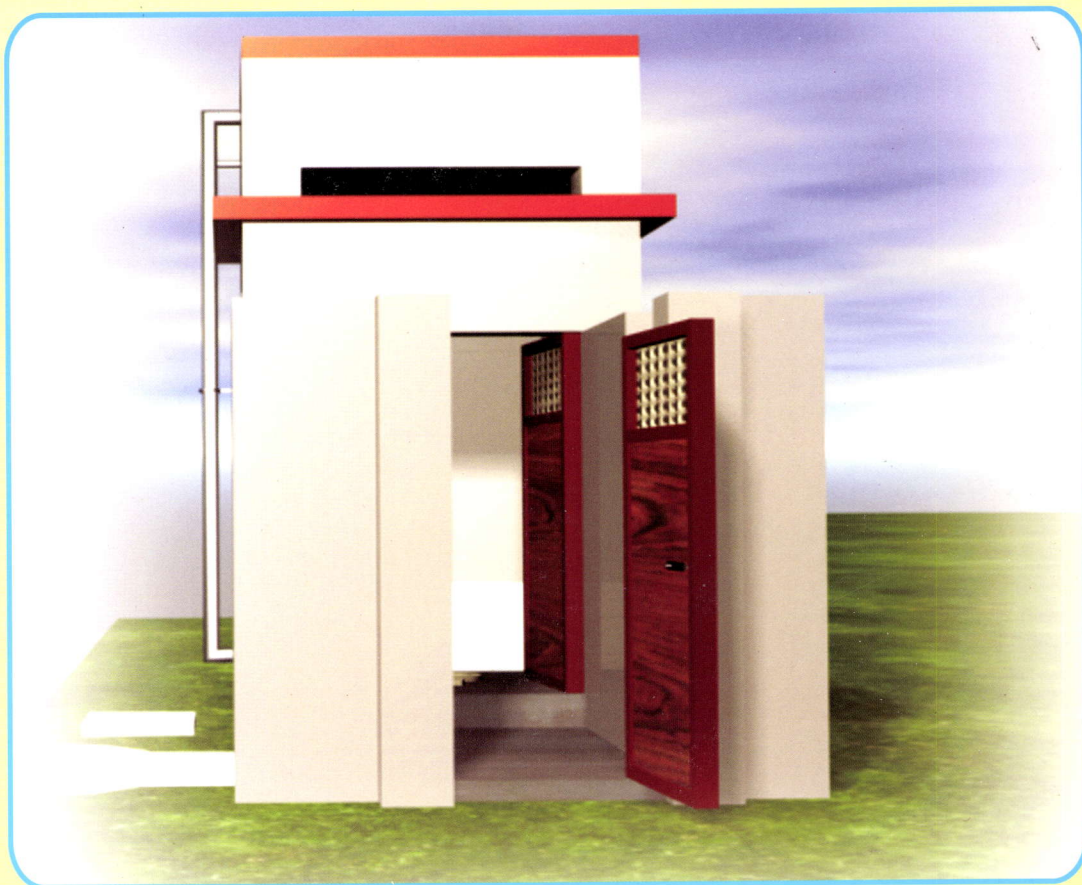


**LAYOUT, DESIGN & ESTIMATE FOR
TOILET CONSTRUCTION IN SCHOOLS**

WORKING GUIDELINES



SCHOOL SANITATION AND HYGIENE EDUCATION PROGRAMME

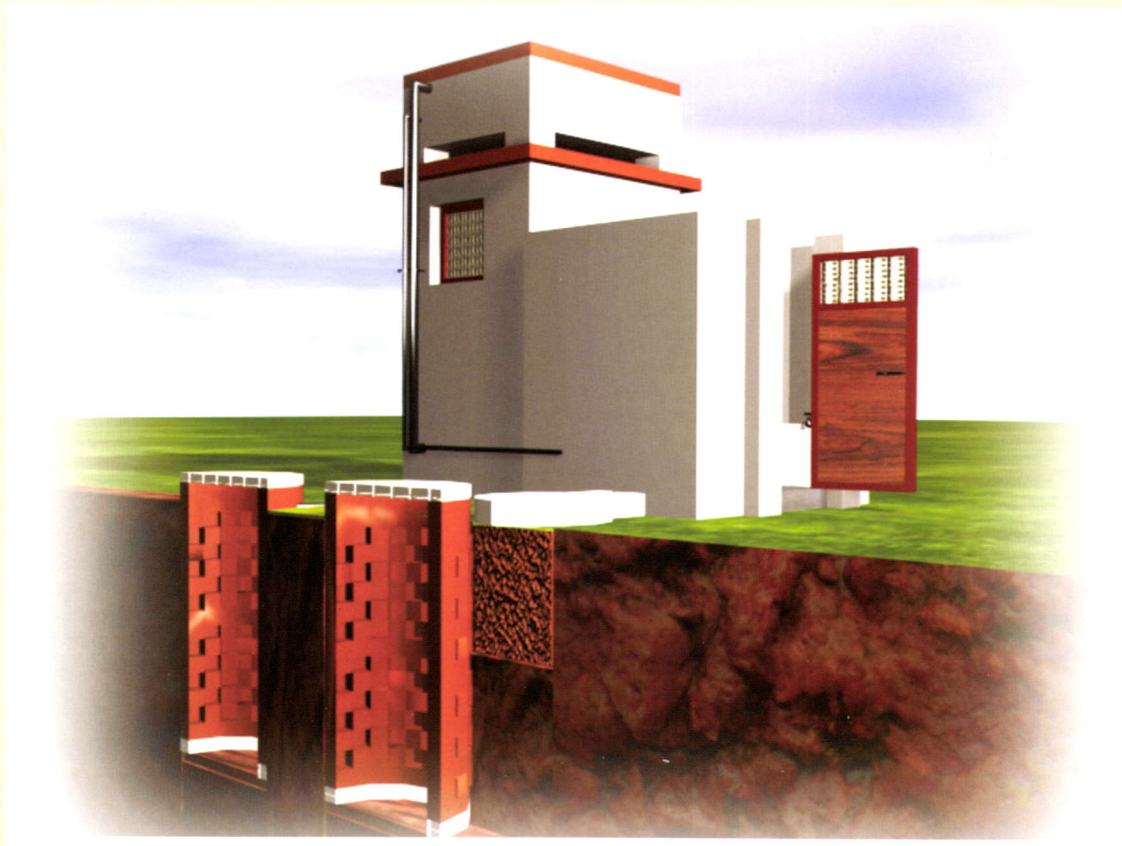


**Jharkhand Education
Project Council**



**Drinking Water Sanitation Deptt.
Govt. of Jharkhand**



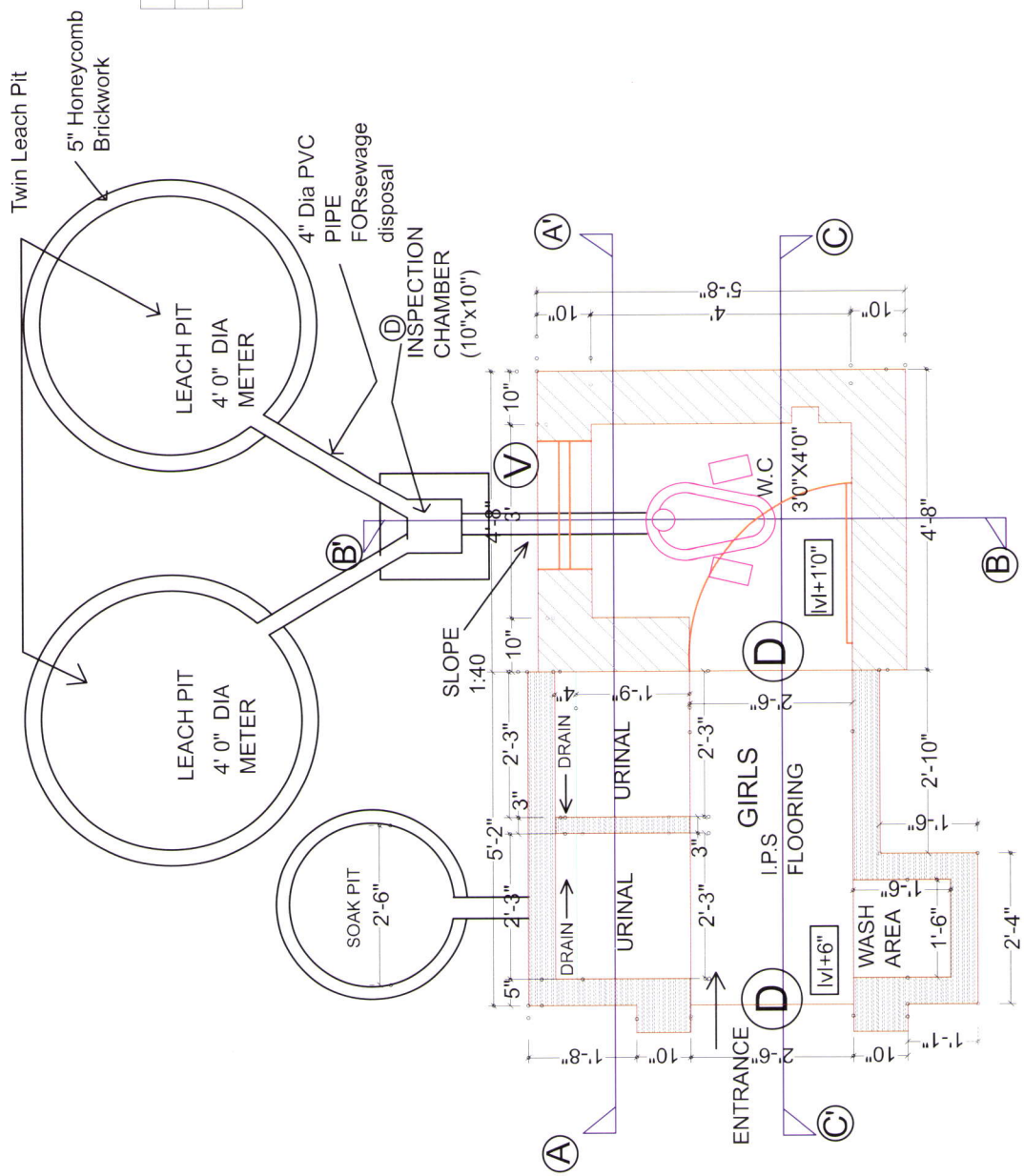


VIEW FROM THE REAR SIDE



VIEW OF GIRL'S URINALS

शुद्ध जल की है पहचान, स्वस्थ शरीर और स्वस्थ ज्ञान

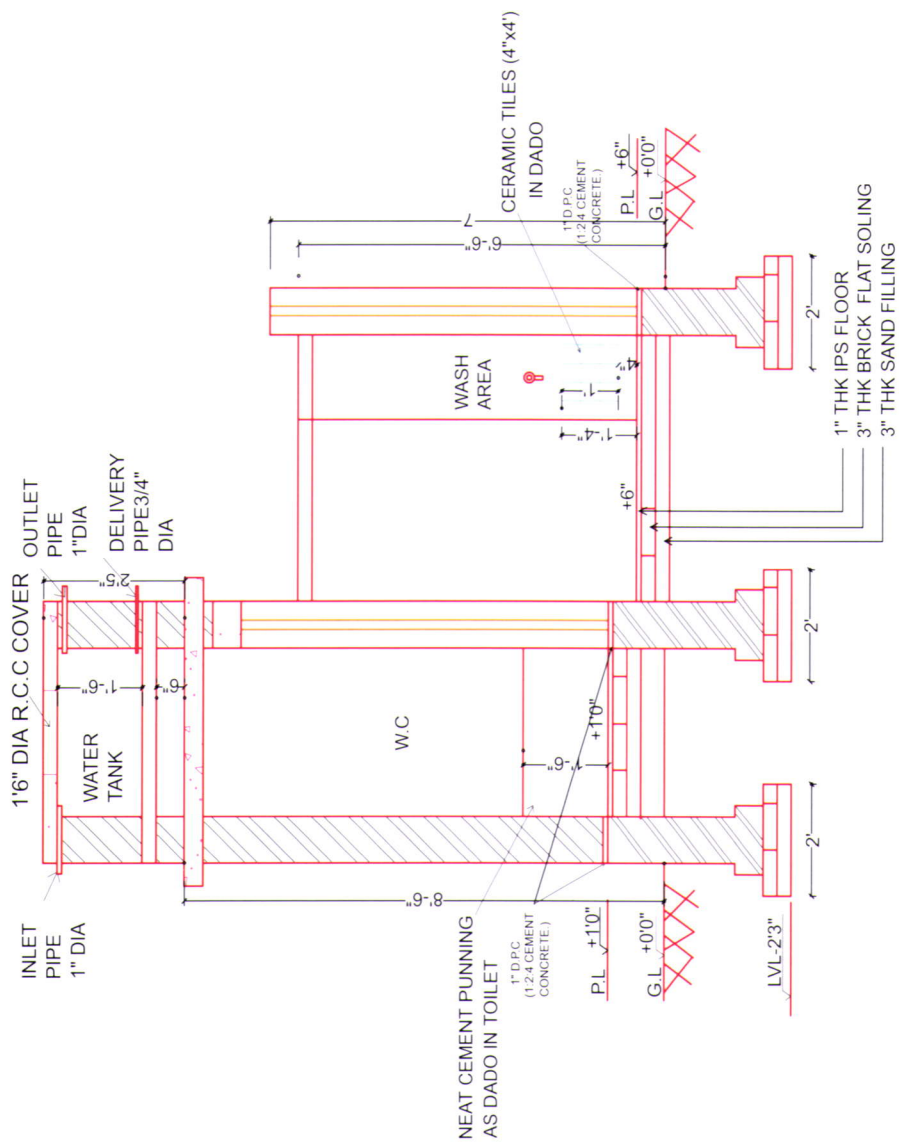


SCHEDULE OF OPENINGS

SL.NO.	ITEM	WIDTH	HEIGHT
1	D	2'6"	6'6"
2	V	2'0"	2'0"

PLAN OF TOILET COMPLEX

शौचालय को अपनाना है, घर-घर से रोग भगाना है



SECTION ON C-C'

शौचालय को अपनाना है, घर-घर से रोग भगाना है

ABSTRACT OF COST

CONSTRUCTION OF ONE TOILET & TWO URINALS FOR GIRLS

S.N	SOR NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE(Rs)	AMOUNT(Rs)
1	5.1.1	Earth work in excavation in foundation trenches in ordinary soil including levelling, ramming the foundation trenches	9.86	cum	28.90	284.95
2	5.1.10	Providing sand filling in foundation & plinth including ramming & watering in layers not exceeding 150 mm thk	0.79	cum	88.10	69.60
3	5.6.1	Providing 75 B one brick flat soling joints filled with local sand	10.35	sqm	69.05	714.67
4	5.2.6	Providing 75 B brick work in C.M 1:6 in foundation & plinth	2.66	cum	1154.75	3071.64
5	5.3.16	Providing 25 mm thick D.P.C with cement concrete M-150 with mix of 1:2:4 including shuttering	1.79	sqm	65.95	118.05
6	5.2.23	Providing designation 125mm. thick reinforced 75A brickwork in C.M 1:4 in superstructure including cost of scaffolding	10.00	sqm	165.90	1659.00
7	5.2.11	Providing designation 75A brickwork in C.M 1:6 in superstructure including cost of scaffolding	3.26	cum	1237.05	4032.78
8	5.3.9	Providing RCC M150 with mix of 1:2:4 in roof slab	1.61	cum	2659.15	4281.23
9	5.6.23.1	Providing & laying 6 mm precast white glazed tiles in walls over 12mm th C.M 1:3 with A grade 15x15 cm tiles	3.94	sqm	500.80	1973.15
10	5.6.7	Providing 25mm th first class patent stone flooring in 1:2:4 in two layers, bottom layer 19 mm thick 1:2:4 and top layer 6mm thk in C.M 1:2	2.62	sqm	87.90	230.30
11	5.7.3	Providing 12mm cement plaster in C.M 1:6 with all leads & scaffolding	50.80	sqm	41.10	2087.88
12	5.7.11+ 5.7.3	Providing 12 mm th cement plaster in C.M 1:6 with 1.5 mm. cement punning	7.69	sqm	57.35	441.02
13	Non Schedule	Providing steel frame Jali	0.37	sqm	800.00	296.00
14	Non Schedule	Providing C.R. sheet door with 35x35x5 mm angle frame with shutter frame 25x25x5 mm fixed with plain aluminium sheet all complete	3.25	sqm	565.00	1836.25
15	5.8.45	Providing 2 coats of enamel paint over steel surface	7.32	sqm	25.60	187.39
16	5.5.4	Providing for steel reinforcement of 8 mm dia rods	0.12	m.t.	21976.75	2637.21
17	5.8.6	Providing 2 coats of colour wash over a coat of white wash over new surface	50.80	sqm	7.60	386.08
18	Non Schedule	Providing WC Pan, Sanitary and water supply connection				797.50
		TOTAL : (A)				25104.70
19	DEDUCTION	(a) 9.09% contractor's profit of (A)				(-) 1746.87
20	ADD	Carriage @5% of 25104.70				1255.24
		TOTAL :				24613.00
					SAY	Rs 24615.00

RUPEES TWENTY FOUR THOUSAND SIX HUNDRED FIFTEEN ONLY

हाथों की करो सफाई, बीमारी से छुटकारा पाओ भाई

1 TOILET 2 URINALS FOR GIRLS

LABOUR STATEMENT

S.NO	DESCRIPTION OF ITEM	UNIT	QUANTITY nos	MASON nos	UNSKILLED nos	PLUMBER
1	Earthwork in foundation	cum	9.86		4.00	Nil
2	Sand filling in fdn & plinth	cum	0.79	0.25	0.50	Nil
3	Brick flat soling	sqm	10.35	1.00	1.50	Nil
4	Brickwork in fdn in C.M 1:6	cum	2.66	2.75	5.00	Nil
5	DPC 1:2:4	sqm	1.79	0.25	0.25	Nil
6	Brickwork 125 mm thk in C.M 1:4	sqm	10.00	1.25	2.75	Nil
7	Brickwork in s/s in C.M 1:6	cum	3.26	3.00	6.50	Nil
8	R.C.C 1:2:4 in slab	cum	1.61	1.00	7.00	Nil
9	Fixing Glazed tiles(0'6"x0'6")	sqm	3.94	4.00	4.00	Nil
10	IPS flooring 25mm thk in 1:2:4	sqm	2.62	0.50	1.00	Nil
11	Cement plaster 12mm thk in C.M 1:6	sqm	50.80	5.50	11.00	Nil
12	Providing plaster with punning	sqm	7.69	1.50	2.25	Nil
13	Providing steel frame jali	nos	1.00	0.25	0.25	Nil
14	Providing steel door	nos	2.00	1.00	1.00	Nil
15	Providing enamel paint	sqm	7.32	0.50	0.50	Nil
16	Providing steel reinforcement	m.t	0.12	3.00	0.50	Nil
17	Providing colour wash	sqm	50.80	0.50	1.50	Nil
18	Fixing WC pan & W/S connection					1.00
	TOTAL			26.25	49.5	1.00
	SAY			27	50	1

COST OF LABOUR

S.NO	DESCRIPTION	TOTAL NOS OF LABOUR REQUIRED	RATE - PER DAY PER PERSON	AMOUNT Rs.
1	Mason	27.00	117.00	3159.00
2	Unskilled Labour	50.00	64.60	3230.00
3	Plumber	1.00	117.00	117.00
	TOTAL			6506.00

COST OF MATERIALS

S.NO	DESCRIPTION OF MATERIAL	QUANTITY	UNIT	RATE	AMOUNT
1	Cement	25	bags	135.00	3375.00
2	Sand	5	cum	65.00	325.00
3	Bricks	3345	each	1.40	4683.00
4	20 mmdown chips	2	cum	310.00	496.00
5	Steel	0.12	m.t.	18000.00	2160.00
6	Glazed Tiles-size 6"x6"	200	each	5.75	1150.00
7	Lime & colour pigment	30	kgs	3.15	94.50
8	Enamel paint	1	lts	105.00	105.00
9	Steel door	2	each	918.13	1836.26
10	Steel frame jali	1	each	296.00	296.00
11	W.C.Pan	1	each	160.00	160.00
12	P-trap	1	each	95.00	95.00
13	15 mm dia PVC pipe	6'0"	rft	8.00	48.00
14	20 mm dia PVC pipe	10'0"	rft	11.00	110.00
15	15 mm G.I.elbow	2	each	23.50	47.00
16	15 mm G.I.socket	2	each	21.80	43.60
17	20 mm G.I.socket	1	each	26.05	26.05
18	20 mm G.I.Tee	1	each	32.65	32.65
19	15 mm G.I.Tee	2	each	25.70	51.40
20	20x100 mm Nipple	1	each	33.00	33.00
21	20x15mm R-Tee	1	each	27.15	27.15
22	20x75mm Nipple	1	each	24.95	24.95
23	15 mm C.I.push cock	2	each	49.35	98.70
24	Carriage	L.S			1255.24
25	Misc				1535.50
	TOTAL				18109.00

BENEFITS OF SCHOOL TOILETS

- Provide privacy and comfort to school children specially girl children and female teachers.
- Support retention of girl children in higher classes of primary and upper primary schools.
- Act as a "demonstration model / learning tool" for school children and community.
- Inculcate behavioral changes in the school children by using toilets and urinals.
- Protects the health of children (prevents diarrhea, reduces diseases including malaria/ prevents flies from getting to excreta).
- Dissemination of benefits of latrines to families and community at large.
- Create a healthy environment and maintain environmental cleanliness in the schools.
- Decomposed excreta can be used as manure for plants.

CRITERIA FOR SELECTION OF SITE FOR SCHOOL TOILET

- Toilet should be located at optimum distance from the classrooms.
- Toilet should offer adequate privacy to the users.
- Toilet should be at least 10 m away from the source of drinking water.
- Toilet should not be located in low lying areas of the school.
- Toilet should be oriented in school premises in such a way so that it receives adequate sunlight and at the same time keeps away the dust from wind.

HOW TO MAINTAIN SCHOOL TOILETS....

- Wet the pan before use and flush the pan after use.
- Clean the toilet once a day by using cleaning agent and water.
- Damaged toilet should be repaired immediately.
- Do not flush waste material like paper or cloth in the toilet.
- Students should be involved in turns to maintain the toilets.
- Systems should be established in schools to clean the water tank and fill it with water regularly.

HANDS SHOULD BE WASHED

- Before handling food.
- Before eating.
- After using the toilet.
- After handling pets, pet cages, pet feeding utensils or other pet objects.
- After contact with body fluids such as nasal secretions, saliva, vomit etc.
- After hands have come in contact with a potentially contaminated reservoir site such as a drain etc.
- Whenever hands are visibly dirty.
- Before applying medication to another person.

One of the most common routes for transmission of infections is through hands. It is vital to raise and maintain awareness of the fact that any item, surface or object (including human skin) touched by the hands after contact with the contaminated source will be contaminated with micro organisms from that source.

The major contamination sources may include raw food, pets etc. Contamination picked up from such sources can be removed by thorough hand washing with soap and running water.

MESSAGE

School Sanitation & Hygiene Education is a prerequisite to develop and sustain a healthy physical and learning environment in school. This is also an entry point to reach to the community at large with the demonstration of good hygiene practices.

Improved WatSan facility in schools not only builds a healthy physical, environment, but also ensures a steady increase in enrollment and retention particularly of girl children. Hence, the Jharkhand Education Project Council, the Drinking Water & Sanitation Department and the District Water & Sanitation Missions are applying themselves to ensure the access of drinking water and gender sensitive toilet option through SSA, TSC, Swajaldhara and allocation of GOJ funds for drinking water supply. This is a first step to develop a technical folder on composite WatSan facilities in schools to suit the special requirement of functionaries involved in construction and quality assurance. We believe that the combined effort of GOJ and UNICEF will make a headway in creating a healthy physical and learning environment in rural schools of the State.

Drinking Water & Sanitation Department
Govt. of Jharkhand

Jharkhand Education Project Council
Ranchi