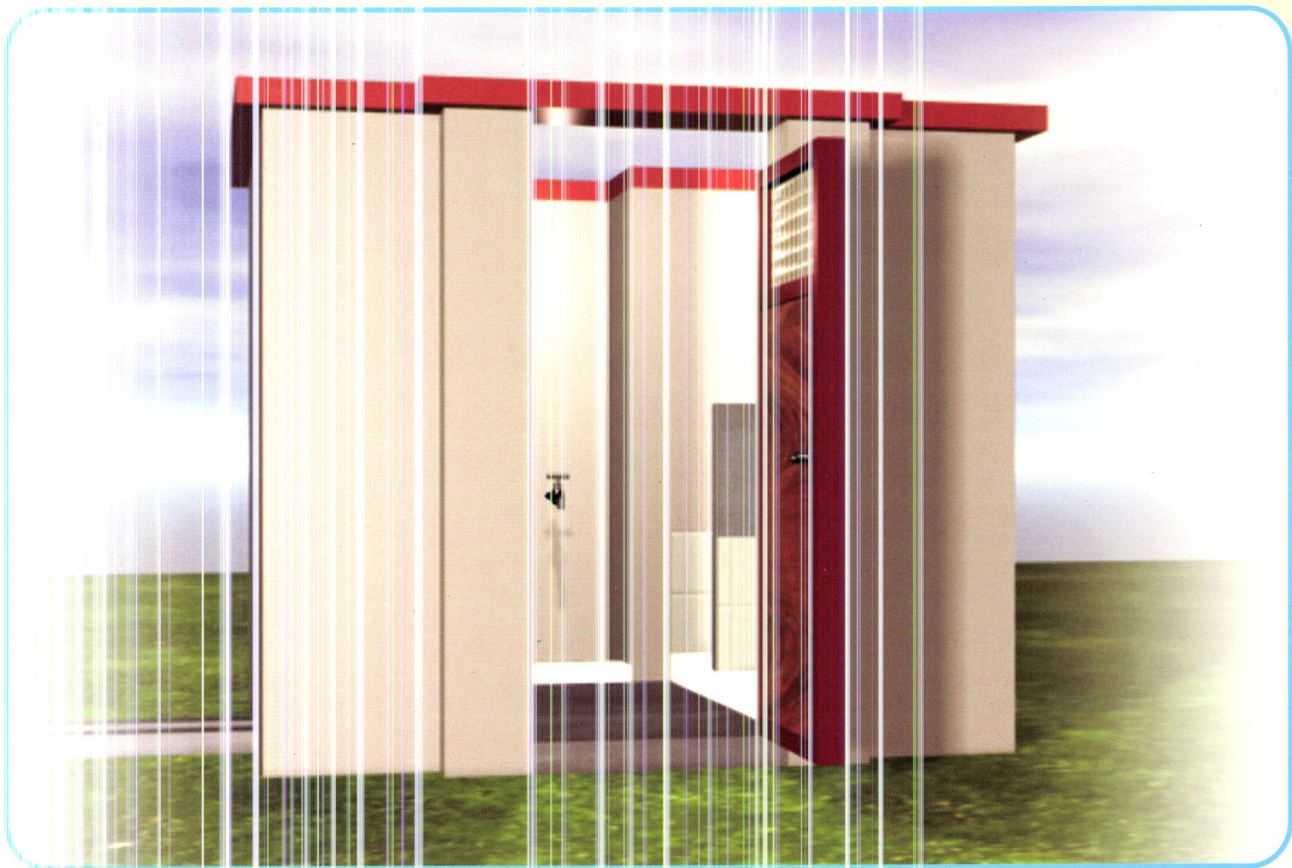


# LAYOUT, DESIGN & ESTIMATE FOR TOILET CONSTRUCTION IN SCHOOLS

## WORKING GUIDELINES



SCHOOL SANITATION AND HYGIENE EDUCATION PROGRAMME

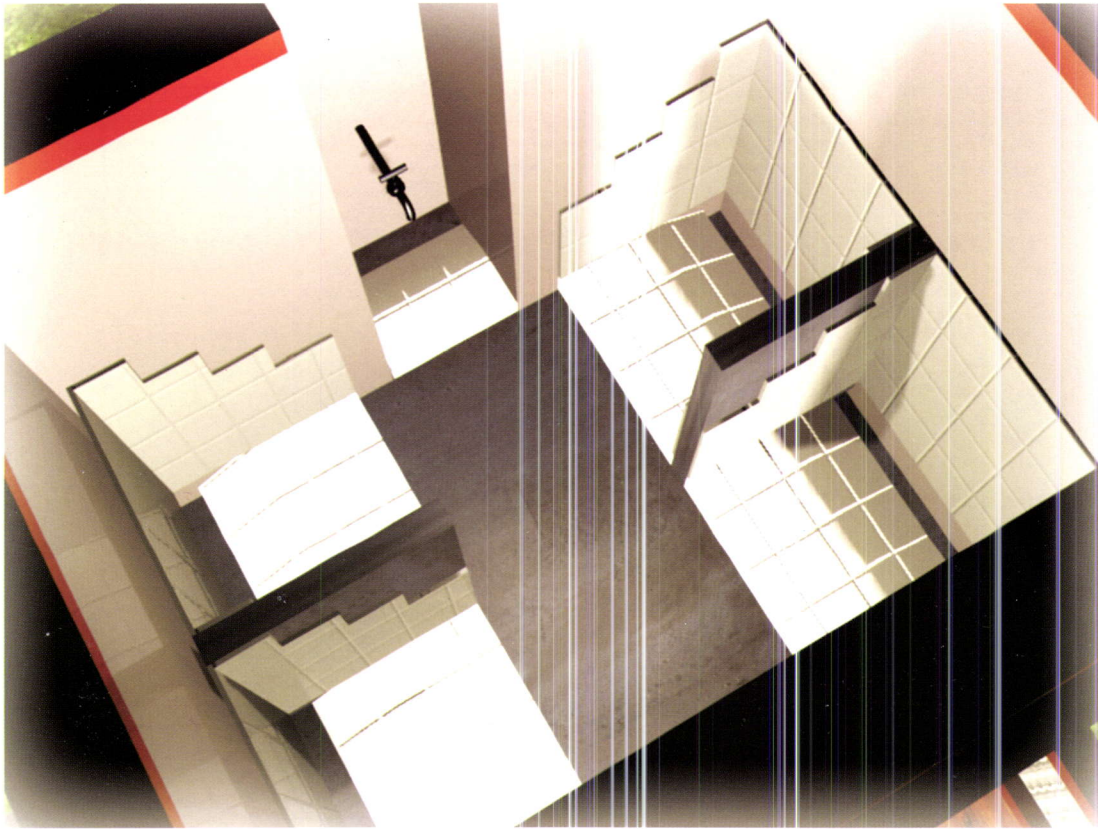


Jharkhand Education  
Project Council

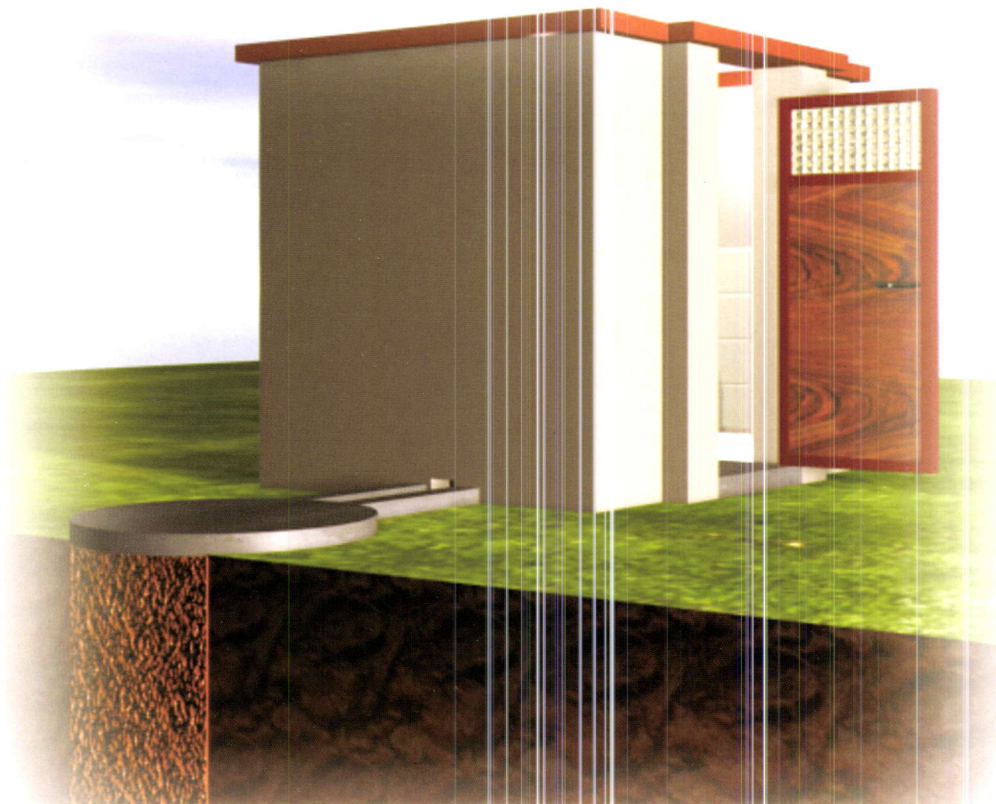


Drinking Water Sanitation Deptt.  
Govt. of Jharkhand





**VIEW FROM THE INTERIOR SIDE**

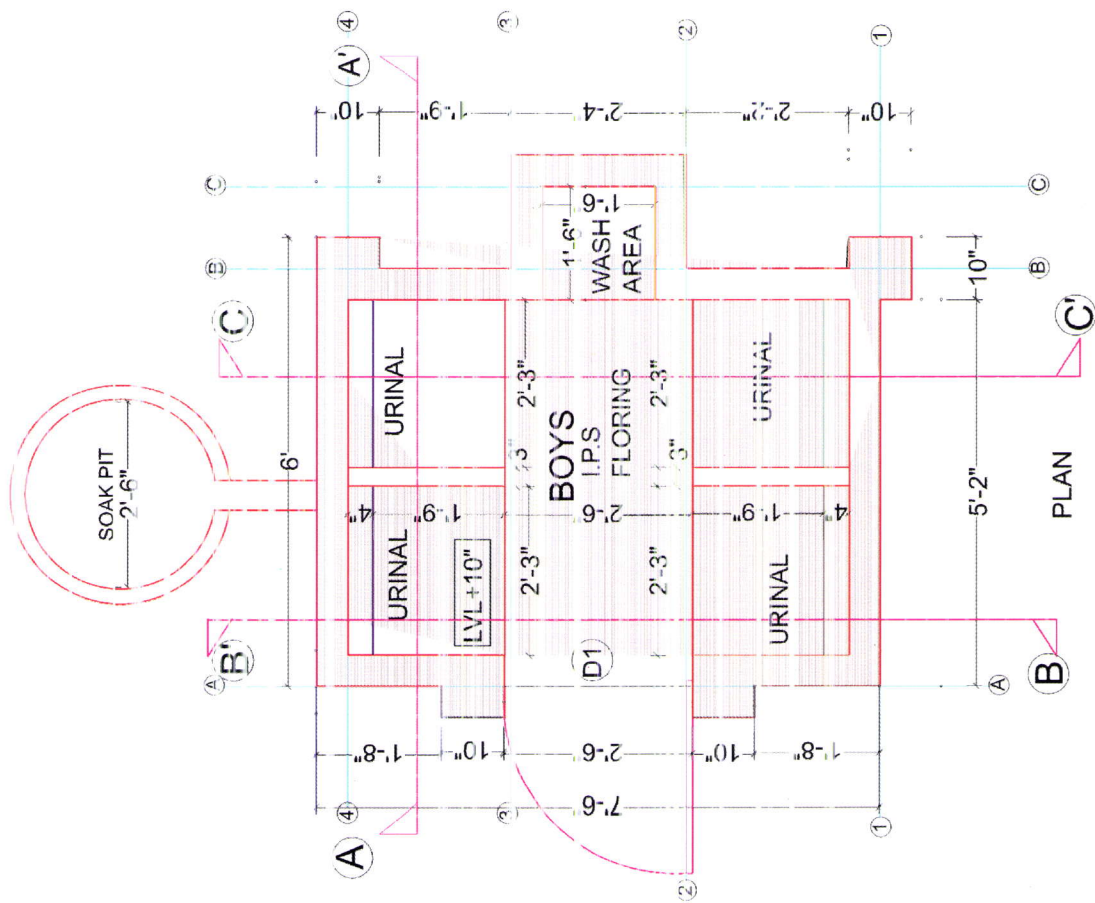


**VIEW FROM THE REAR SIDE**

शुद्ध जल की है पहचान, स्वस्थ शरीर और स्वस्थ ज्ञान

SCHEDULE OF OPENINGS

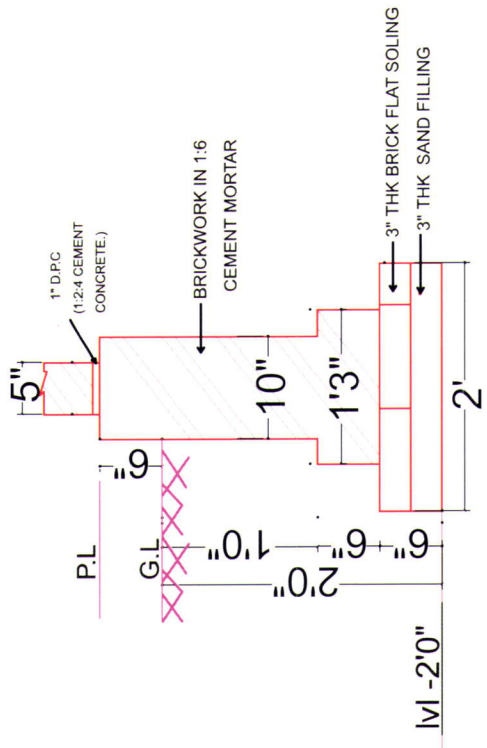
SL.NO.	ITEM	WIDTH	HEIGHT
1	D1	2'6"	6'0"



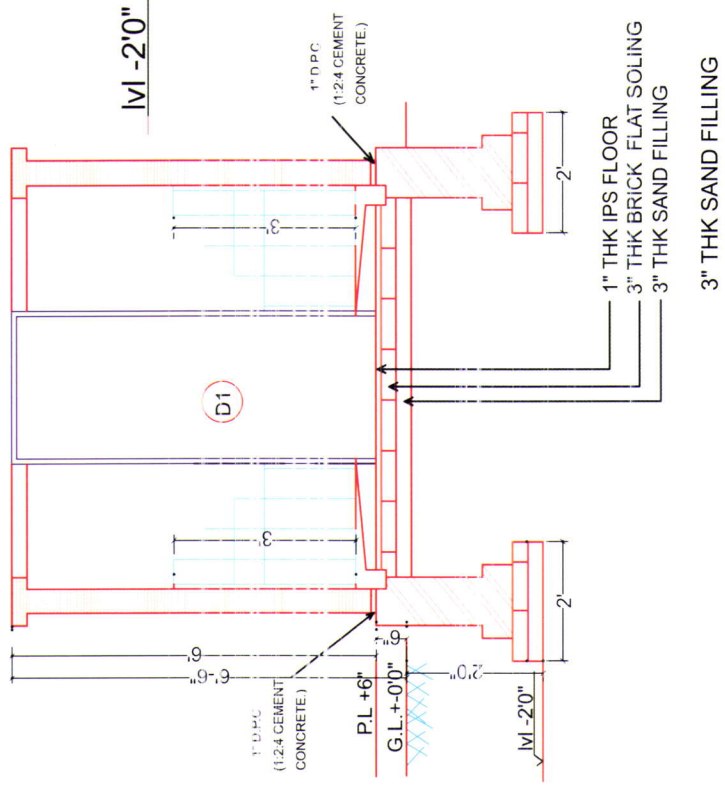
**PLAN OF TOILET COMPLEX**

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

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



TYPICAL FOUNDATION DETAIL



SECTION ON B-B'

SECTION THROUGH A A'

## ABSTRACT OF COST

### CONSTRUCTION OF 4 URINALS FOR BOYS

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	3.54	cum	28.90	102.31
2	5.1.10	Providing sand filling in foundation & plinth including ramming & watering in layers not exceeding 150 mm th	0.49	cum	88.10	43.17
3	5.3.1	Providing 75 B one brick on edge soling joints filled with local sand	6.42	sqm	69.05	443.30
4	5.2.6	Providing 75 B brick work in cm. 1:6 in foundation & plinth	1.27	cum	1154.75	1466.53
5	5.3.16	Providing 25mm. thick D.P.C	1.17	sqm	65.95	77.16
6	5.2.23	Providing designation 125 mm th brick work in cm. 1:4 in s/s	15.00	sqm	165.90	2488.50
7	5.3.9	Providing RCC M150 in with mix of 1:2:4 in roof slab	0.35	cum	2659.15	930.70
8	5.6.23.1	Providing & laying 6 mm precast white glazed tiles in walls over 12mm th cm. 1:3 with A grade 15x15 cm tiles	8.57	sqm	500.80	4291.86
9	5.6.7	Providing 25mm th first class patent stone flooring 1:2:4 in two layers, bottom layer 19 mm th 1:2:4 and top layer 6mm th 1:2	1.41	sqm	87.90	123.94
10	5.7.3	Providing 12mm cement plaster 1:6 with all leads & scaffolding	34.19	sqm	41.10	1405.21
11	5.7.11+5.7.3	Providing 12 mm th C.P 1:6 with 1.5 mm. cement punning	3.20	sqm	57.35	183.52
12	Non Schedule	Providing C.Ft. sheet door with 35x35x5 angle frame with shutter frame 25x25x5 fixed with plain aluminium sheet all complete	1.39	sqm	565.00	785.35
13	5.8.45	Providing 2 coats of enamel paint over steel surface	3.14	sqm	25.60	80.38
14	5.5.4	Providing or steel reinforcement of 8mm dia rods	0.03	m.t.	21976.75	659.30
15	5.8.6	Providing 2 coats of colour wash over a coat of white wash over new surface	34.19	sqm	7.60	259.84
16	Non Schedule	Providing sanitary connection and water supply connection				317.35
		<b>TOTAL (A)</b>				<b>13658.42</b>
17	DEDUCTION	(a)9.09% contractor's profit of (A)				(-)1143.38
18	ADD	Carriage @5% of 13658.00				682.90
		<b>TOTAL</b>				<b>13197.94</b>
		<b>SAY</b>				<b>Rs 13200.00</b>

RUPEES THIRTEEN THOUSAND TWO HUNDRED ONLY

हाथों की करो सफाई, बीमारी से छुटकारा पाओ भाई

## 4 URINALS FOR BOYS

### LABOUR STATEMENT

S.NO	DESCRIPTION OF ITEM	UNIT	QUANTITY nos	MASON nos	UNSKILLED nos	PLUMBER
1	Earthwork in foundation	cum	3.54		1.75	Nil
2	Sand filling in fdn & plinth	cum	0.49	0.25	0.25	Nil
3	Brick flat soling	sqm	6.42	0.50	1.00	Nil
4	Brickwork in fdn in C.M 1:6	cum	1.27	1.50	2.25	Nil
5	DPC 1:2:4	sqm	1.17	0.50	0.50	Nil
6	Brickwork 125 mm thk in C.M 1:4	sqm	15.00	1.75	4.25	Nil
7	R.C.C 1:2:4 in slab	cum	0.35	0.25	0.25	Nil
8	Fixing Glazed tiles(0'6"x0'6")	sqm	8.57	8.00	8.00	Nil
9	IPS flooring 25mm thk in 1:2:4	sqm	1.41	0.25	0.50	Nil
10	Cement plaster 12mm thk in C.M 1:6	sqm	34.19	4.00	7.75	Nil
11	Providing plaster with punning	sqm	3.20	0.75	1.00	Nil
12	Providing steel door	nos	1.00	1.00	0.25	Nil
13	Providing enamel paint	sqm	3.14	0.25	0.50	Nil
14	Providing steel reinforcement	m.t	0.03	0.50	0.50	Nil
15	Providing colour wash	sqm	37.64	1.00	2.00	Nil
16	Plumbing work					1.00
	<b>TOTAL</b>			<b>19.75</b>	<b>31.25</b>	<b>1.00</b>
	<b>SAY</b>			<b>20 nos</b>	<b>32 nos</b>	<b>1 ncs</b>

### COST OF LABOUR

S.NO	DESCRIPTION	TOTAL NOS OF LABOUR REQUIRED	RATE - PER DAY PER PERSON	AMOUNT Rs.
1	Mason	20.00	117.00	2340.00
2	Unskilled Labour	32.00	64.60	2067.20
3	Plumber	1.00	117.00	117.00
	<b>TOTAL</b>			<b>4524.20</b>

### COST OF MATERIALS

S.NO	DESCRIPTION OF MATERIAL	QUANTITY	UNIT	RATE	AMOUNT
1	Cement	8 00	bags	135.00	1080.00
2	Sand	2 50	cum	65.00	162.50
3	Bricks	1565 00	each	1.40	2191.00
4	20 mmdown chips	0 10	cum	310.00	31.00
5	Steel	0 03	m.t.	18000.00	540.00
6	Glazed Tiles-size 6"x6"	425.00	each	5.75	2443.75
7	Lime & colour pigment	35.00	kgs	3.15	110.25
8	Enamel paint	1.00	lts	105.00	105.00
9	Steel door	1.00	each	918.13	918.13
10	15 mm dia PVC pipe	10'0"	rft	8.00	80.00
11	15 mm G.I.elbow	1	each	23.50	23.50
12	15 mm G.I.socket	1	each	21.80	21.80
13	15 mm G.I.Tee	1	each	25.70	25.70
14	15 mm C.I.push cock	1	each	49.35	49.35
15	Carriage	L.S			209.92
16	Misc				208.86
	<b>TOTAL</b>				<b>8675.80</b>

खाने से पहले और शौच के बाद हाथ साबुन से अवश्य धोयें

## **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 diarrhoea, 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.