

**APPENDIX B BREAKDOWN OF CONSTRUCTION
COST OF LOT II WORK**

Item No. : A/01 (in Bill of Quantities)

Work : Cost for Insurance of Works L.S.

Unit Price : Foreign Component US\$ 437,000 Local Component —

Specification Clause No. G6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
In general, cost for Insurance of Works is estimated at about 1% of the contract price, that is total of the direct construction cost, as follows:						
Total of direct cost US\$ equivalent:	x1,000			US\$31,000		Rs.174,000
		US\$44,600,000				
Insurance of Works:		43,700,000 x 0.01 = 437,000				

Item No. : A/02 (in Bill of Quantities)

Work : Cost for Third Party Insurance L.S.

Unit Price : Foreign Component — Local Component Rs. 5,987,000

Specification Clause No. G6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
In general, cost for Third Party Insurance is estimated at about 1% of the contract price, that is total of the direct construction cost, as follows:						
Total of direct cost Rs. equivalent:	x1,000			US\$31,000		Rs.174,000
Third Party Insurance:			5,987,000 x 0.01 = 5,987,000			

Item No. : A/03
(in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of
Temporary Water Supply Facility L.S.

Unit Price : Foreign Component US\$ 18,000 Local Component Rs. 110,000

Specification Clause No. G5.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Temporary water supply for drinking water, 10% of Lot I	%	20.00000	28,300.00	2,830	185,400	18,540
2. Temporary water supply for construction use, 10% of Lot I	%	20.00000	34,884.00	3,488	206,940	20,694
3. Removal of temporary water supply for construction use, 30% of Lot I	%	30.00000	34,844.00	10,453	206,940	92,082
Sub-total				16,772		101,316
4. Miscellaneous				1,233		8,684
Grand total				<u>18,005</u>		<u>110,000</u>

Item No. : A/04
(in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of
Temporary Electric Power Supply L.S.

Unit Price : Foreign Component US\$ 15,000 Local Component Rs. 57,000

Specification Clause No. G5.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Temporary electric power supply system, 10% of Lot I	%	10	35,000	3,500	135,000	13,500
2. Removal of temporary electric power supply system, 30% of Lot I	%	30	35,000	10,500	135,000	40,500
Sub-total				14,000		54,000
3. Miscellaneous				1,000		3,000
Grand total				<u>15,000</u>		<u>57,000</u>

Item No. : A/05
(in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of
Temporary Telecommunication System L.S.

Unit Price : Foreign Component Local Component
 US\$ 12,000 Rs. 10,000

Specification Clause No. G5.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Extension of telecommunication system, 5% of Lot I	%	5	45,300	2,265	34,800	1,740
2. Removal of temporary telecommunication system, 20% of Lot I	%	20	45,300	9,060	34,800	6,960
Sub-total				11,325		8,700
3. Miscellaneous, 5%				675		1,300
Grand total				<u>12,000</u>		<u>10,000</u>

Item No. : A/06 (in Bill of Quantities)

Work : Waste Water Treatment and Swerage System L.S.

Unit Price : Foreign Component
US\$ 300,000

Local Component
Rs. 2,000,000

Specification Clause No. G5.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Operation and maintenance of waste water treatment and swerage system	L.S.			254,000	1,800,000	
2. Removal of waste water treatment	L.S.			45,000	170,000	
3. Removal of swerage system	L.S.			1,000	30,000	
Grand total				<u>300,000</u>	<u>2,000,000</u>	

Item No. : A/07
(in Bill of Quantities)

Work : Boreholes and Exploratory Excavations P.S.

Unit Price : Foreign Component
US\$ 38,000

Local Component
Rs. 150,000

Specification Clause No. G6.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Test boring	m	300	101.60	30,480	381.70	114,510
2. Miscellaneous works	L.S.			7,520		35,490
Grand total				<u>38,000</u>		<u>150,000</u>

Item No. : A/08 (in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of Soil Testing Equipment L.S.

Unit Price : Foreign Component US\$ 123,000 Local Component Rs. 430,000

Specification Clause No. G5.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Sample splitter Width of split, 25 mm Size, 540 x 375 x 460 mm	set	1	60	60	210	210
2. Hand scoops Round, 315 mm Square, 395 mm	ea.	2	5	10	20	40
3. Triple beam balance Capacity, 201 g Sensitivity, 0.02 g	set	1	1,230	1,230	4,200	4,200
4. Table platform scale Capacity, 20 kg Sensitivity, 2 g	set	1	1,230	1,230	4,200	4,200
5. Platform scale Capacity, 50 kg Sensitivity, 20 g	set	1	1,230	1,230	4,200	4,200
6. Table balance Capacity, 500 g Sensitivity, 0.5 g	set	1	1,230	1,230	4,200	4,200
7. Sample pan Size, less than 270 mm	pc.	10	10	100	40	400
8. Sample pan 450 x 350 x 40 mm	pc.	10	10	100	40	400
9. Desiccators Diameter of inner plate, 360 mm	pc.	2	60	120	220	440
10. Pyenometer Capacity, 100 cc	pc.	30	6	180	22	660
11. Volumetric flasks Capacity, 500 cc	pc.	10	6	60	20	200
12. Evaporating dishes Diameter, 60 mm	pc.	30	6	180	22	660
13. Evaporating dishes Diameter, 90 mm	pc.	30	6	180	22	660
14. Electric ovens Inside dimensions, 450 x 400 x 400 mm 1,000 x 800 x 550 mm AC 220/380 V	L.S.			6,200		22,000
Sub-total				12,110		42,470

Item No. : A/08 Continued

(in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of
Soil Testing Equipment L.S.

Unit Price : Foreign Component

Local Component

Specification Clause No.

Particulars	Unit	Quantity	Foreign Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
15. Enameled ironware beaker Capacity, 0.5 lit.	pc.	5	6	30	20	100
16. Enameled ironware beaker Capacity, 1.0 lit.	pc.	3	6	18	20	60
17. Hydrometer Diameter, 300 mm Length, 280 mm	pc.	2	6	12	20	40
18. Hydrometer jar Capacity, 1,000 cc	pc.	10	30	300	100	1,000
19. Soil analysis sieves set Diameter, 200 mm	set	2	370	740	1,300	2,600
20. Standard sieves set JIS nominal size Diameter, 200 mm	set	2	60	120	210	420
21. Liquid limit set with accessories	set	2	200	400	700	1,400
22. Plastic limit set with accessories	set	2	3	6	10	20
23. Compaction testing apparatus with accessories	set	1	3,200	3,200	11,000	11,000
24. Automatic mechanical compactor with accessories and spare parts	set	1	6,200	6,200	21,000	21,000
25. Fallin head permeameter with accessories	set	5	500	2,500	170	850
26. Constant head permeameter with accessories	set	2	700	1,400	2,100	4,200
27. Denver type consolidation permeameter with accessories	set	3	2,100	6,300	7,000	21,000
28. Power auger, 7HP 4 cycle gasoline engine with accessories	set	1	3,000	3,000	10,000	10,000
29. Vibrating compaction equipment Size, 762 x 762 mm Frequency, 3,000/min.	set	1	3,000	3,000	10,000	10,000
30. Infrared moisture meter with accessories	set	1	1,230	1,230	4,200	4,200
31. Sand density apparatus with accessories	set	3	250	750	800	2,400
Sub-total				29,206		90,290

Item No. : A/08 Continued
 (in Bill of Quantities)

Work : Supply, Installation, Operation and Subsequent Removal of
 Soil Testing Equipment L.S.

Unit Price : Foreign Component _____ Local Component _____

Specification Clause No. _____

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
32. Mechanical analysis stirrer with accessories	set	1	300	300	1,000	1,000
33. Unconfined apparatus, hand operated with accessories	set	1	6,200	6,200	21,000	21,000
34. Flow scale, 300 mm	pc.	1	920	920	3,200	3,200
35. Thermometers, Gradation, 0°C - 100°C	pc.	1	400	400	300	300
36. Large direct shear machine with accessories	L.S.	-		62,000		211,000
37. Automatic distillation apparatus with accessories	set	1	2,500	2,500	8,500	8,500
38. Flow cone for grouting material	set	1	2,500	2,500	8,500	8,500
Sub-total				74,820		253,500
39. Miscellaneous				6,864		43,740
Grand total				<u>123,000</u>		<u>430,000</u>

Item No. : A/09 (in Bill of Quantities)

Work : Operatation and Maintenance of Medical Facilities

Unit Price : Foreign Component
US\$/month 2,000

Local Component
Rs/month 40,000

Specification Clause No. G5.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Doctor	Month	1.00000	-	-	10,500.00	10,500.00
Nurse	Month	2.00000	-	-	7,500.00	15,000.00
Driver	Month	1.00000	-	-	7,200.00	7,200.00
Sub-total						<u>32,700.00</u>
2. Equipment						
Ambulance	Month	1.00000	180.00	180.00	690.00	690.00
Medical equipment, etc.	Month	1.00000	820.00	820.00	780.00	780.00
Sub-total				<u>1,000.00</u>		<u>1,470.00</u>
3. Materials						
Gasoline/Lubricant	lit.	84.00000	-	-	12.50	1,050.00
Medical goods, etc.	Month	1.00000	1.00000	1000.00	4,780.00	4,780.00
Sub-total				<u>1000.00</u>		<u>5,830.00</u>
Grand total				<u>2,000.00</u>		<u>40,000.00</u>

Item No. : B1/01
(in Bill of Quantities)

Work : Maintenance and Closure of the Diversion Tunnel Gate L.S.

Unit Price : Foreign Component US\$135.00
Local Component Rs.400.000

Specification Clause No. T1.4.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	25	171.23	4,280.75	570.00	14,250.00
Foreman	m.d.	50		-	350.00	17,500.00
Skilled labour	m.d.	125		-	240.00	30,000.00
Common labour	m.d.	500		-	170.00	85,000.00
Sub-total				<u>4,280.75</u>		<u>146,750.00</u>
2. Equipment						
Submersible pump, 100mm dia.	hr.	3,000	3.10	9,300.00	10.30	30,900.00
Generator, 10 kVA	hr.	3,000	9.30	27,900.00	31.90	95,700.00
Sub-total				<u>37,200.00</u>		<u>126,600.00</u>
3. Materials						
Diesel oil	lit.	5,700	0.52	2,964.00	0.36	2,052.00
Lubricant	lit.	1,140	2.41	2,747.40	1.65	1,881.00
Sand bag	bags	50,000	0.95	47,500.00	0.70	35,000.00
Sub-total				<u>53,211.40</u>		<u>38,933.00</u>
Total of (1+2+3)				94,692.15		312,283.00
4. Closure of gate	Ls.			15,000.00		22,717.00
Total of (1+2+3+4)				109,692.15		335,000.00
Overhead and profit				25,307.85		65,000.00
Grand total				<u>135,000.00</u>		<u>400,000.00</u>

Item No. : B2/01, C1/02 and D1/02

(in Bill of Quantities)

Work : Open-cut Excavation, Common

Unit Price : Foreign Component
US\$/m3 2.5

Local Component
Rs./m3 12.0

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00097	-	-	350.00	0.34
Operator	m.d.	0.00486	-	-	300.00	1.46
Ass. operator	m.d.	0.00486	-	-	220.00	1.07
Driver	m.d.	0.00580	-	-	270.00	1.57
Common labour	m.d.	0.00486	-	-	170.00	0.83
Sub-total						<u>5.26</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00355	43.50	0.15	149.00	0.53
Backhoe, 1.2m3	hr.	0.00222	41.90	0.09	143.90	0.32
Tractor shovel, 2.2m3	hr.	0.00356	30.80	0.11	105.80	0.38
Dump truck, 15 ton	hr.	0.04703	15.50	0.73	52.40	2.46
Sub-total				<u>1.09</u>		<u>3.69</u>
3. Materials						
Diesel oil	lit.	0.85265	0.52	0.44	0.36	0.31
Lubricant	lit.	0.17053	2.41	0.41	1.65	0.28
Sub-total				<u>0.85</u>		<u>0.59</u>
Total of (1+2+3)				1.94		9.54
4. Miscellaneous, 5%				0.10		0.48
Total of (1+2+3+4)				2.04		10.02
Overhead and profit, 20%				0.41		2.01
Grand total				<u>2.45</u>		<u>12.03</u>

Item No. : B2/02, C1/04, D1/03 and E1/01
(in Bill of Quantities)

Work : Open-cut Excavaton, Weathered Rock

Unit Price : Foreign Component
US\$/m3 3.5 Local Component
Rs./m3 15.7

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00106	-	-	350.00	0.37
Operator	m.d.	0.00530	-	-	300.00	1.59
Ass. operator	m.d.	0.00530	-	-	220.00	1.17
Driver	m.d.	0.00808	-	-	270.00	2.18
Common labour	m.d.	0.00530	-	-	170.00	0.90
Sub-total						<u>6.21</u>
2. Equipment						
Bulldozer, w/ripper, 32 ton	hr.	0.00437	60.50	0.26	207.50	0.91
Backhoe, 1.2 m3	hr.	0.01257	41.90	0.53	143.90	1.81
Tractor shovel, 3.2 m3	hr.	0.00437	46.00	0.20	157.20	0.69
Dump truck, 15 ton	hr.	0.03880	15.50	0.60	52.40	2.03
Sub-total				<u>1.59</u>		<u>5.44</u>
3. Materials						
Diesel oil	lit.	1.15597	0.52	0.60	0.36	0.45
Lubricant	lit.	0.23119	2.41	0.56	1.65	0.41
Sub-total				<u>1.16</u>		<u>0.86</u>
Total of (1+2+3)				2.75		12.51
4. Miscellaneous, 5%				0.14		0.62
Total of (1+2+3+4)				2.89		13.13
Overhead and profit, 20%				0.58		2.61
Grand total				<u>3.47</u>		<u>15.74</u>

Item No. : B2/03, C1/05, C1/21, D1/04, and E1/02

(in Bill of Quantities)

Work : Open-cut Excavation, Rock

Unit Price : Foreign Component
US\$/m³ 7.2

Local Component
Rs./m³ 37.2

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00040	171.23	0.07	570.00	0.23
Foreman	m.d.	0.00372	-	-	350.00	1.30
Operation	m.d.	0.01048	-	-	300.00	3.14
Ass. operator	m.d.	0.01048	-	-	220.00	2.31
Driller	m.d.	0.00524	-	-	220.00	1.15
Driver	m.d.	0.01228	-	-	270.00	3.32
Skilled labour	m.d.	0.00934	-	-	240.00	2.24
Common labour	m.d.	0.01869	-	-	170.00	3.18
Sub-total				<u>0.07</u>		<u>16.87</u>
2. Equipment						
Bulldozer, 32 ton	hr.	0.00373	58.10	0.22	199.40	0.74
Bulldozer, 21 ton	hr.	0.00577	43.50	0.25	149.00	0.86
Backhoe, 1.2 m3	hr.	0.00282	41.90	0.12	143.90	0.41
Tractor shovel, 3.2 m3	hr.	0.00421	46.00	0.19	157.20	0.66
Dump truck, 20 ton	hr.	0.00936	25.80	0.24	88.40	0.83
Crawler drill	hr.	0.03132	20.80	0.65	70.90	2.22
Leg hammer	hr.	0.08100	5.80	0.47	19.50	1.58
Pick hamme	hr.	0.13500	0.80	0.11	3.10	0.42
Air compressor, 10.6 m3/min.	hr.	0.01722	54.50	0.94	187.00	3.22
Sub-total				<u>3.19</u>		<u>10.94</u>
3. Materials						
Diesel oil	lit	0.71249	0.52	0.37	0.36	0.26
Lubricant	lit	0.14250	2.41	0.34	1.65	0.24
Dynamite	kg	0.06065	8.41	0.51	5.76	0.35
An-Fo powder	kg	0.10379	3.81	0.40	2.61	0.27
Detonator	pc.	0.09566	1.68	0.16	1.15	0.11
Bit	pc.	0.00262	49.63	0.13	37.96	0.10
Rod	pc.	0.00148	322.55	0.48	246.75	0.37
Shank rod	pc.	0.00012	238.55	0.03	182.48	0.02
Sleeve	pc.	0.00012	79.61	0.01	60.90	0.01
Sub-total				<u>2.43</u>	<u>539.62</u>	<u>1.72</u>
Total of (1+2+3)				5.68		29.52
4. Miscellaneous, 5%				0.28		1.48
Total of (1+2+3+4)				5.96		31.00
Overhead and profit, 20%				1.19		6.20
Grand total				<u>7.15</u>		<u>37.20</u>

Item No. : B2/04 and C1/03 (in Bill of Quantities)

Work : Excavation Sand and Gravel, for Foundation of Main Dam

Unit Price : Foreign Component US\$/m3 2.1 Local Component Rs./m3 9.9

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00040	-	-	350.00	0.14
Operator	m.d.	0.00370	-	-	300.00	1.11
Ass. operator	m.d.	0.00370	-	-	220.00	0.81
Driver	m.d.	0.00550	-	-	270.00	1.49
Common labour	m.d.	0.00280	-	-	170.00	0.48
Sub-total						<u>4.03</u>
2. Equipment						
Bulldozer, 32 ton	hr.	0.00510	58.10	0.30	199.40	1.02
Bulldozer, 21 ton	hr.	0.00443	43.50	0.19	149.00	0.66
Wheel loader, 2.1 m3	hr.	0.00518	23.30	0.12	80.20	0.42
Backhoe, 1.2 m3	hr.	0.00180	41.90	0.08	143.90	0.26
Dump truck, 11 ton	hr.	0.02483	11.30	0.28	39.10	0.97
Sub-total				<u>0.97</u>	<u>611.60</u>	<u>3.32</u>
3. Materials						
Diesel oil	lit.	0.71363	0.52	0.37	0.36	0.26
Lubricant	lit.	0.14273	2.41	0.34	1.65	0.24
Sub-total				<u>0.72</u>		<u>0.49</u>
Total of (1+2+3)				1.68		7.84
4. Miscellaneous, 5%				0.08		0.39
Total of (1+2+3+4)				1.76		8.23
Overhead and profit, 20%				0.35		1.65
Grand total				<u>2.11</u>		<u>9.88</u>

Item No. : B2/05 and C1/08

(in Bill of Quantities)

Work : Core in Embankment, Zone 1 (Core)

Unit Price : Foreign Component
US\$/m³ 3.0

Local Component
Rs./m³ 18.1

Specification Clause No. T2.6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00140	171.23	0.24	570.00	0.80
Foreman	m.d.	0.00140		-	350.00	0.49
Operator	m.d.	0.00772		-	300.00	2.32
Ass. operator	m.d.	0.00772		-	220.00	1.70
Driver	m.d.	0.00787		-	240.00	1.89
Skilled labour	m.d.	0.00386		-	240.00	0.93
Common labour	m.d.	0.00772		-	170.00	1.31
Sub-total				0.24		9.43
2. Equipment						
Bulldozer, 21 ton	hr.	0.00520	43.50	0.23	149.00	0.77
Tractor shovel, 2.2 m ³	hr.	0.01560	30.80	0.48	105.80	1.65
Dump truck, 15 ton	hr.	0.02600	15.50	0.40	52.40	1.36
Tamping roller, 20.7 ton	hr.	0.00520	13.50	0.07	46.30	0.24
Tire roller, 20 ton	hr.	0.00361	12.80	0.05	44.20	0.16
Tamper, 100 kg	hr.	0.00832	5.00	0.04	16.40	0.14
Sub-total				1.27		4.32
3. Materials						
Diesel oil	lit.	0.87671	0.52	0.46	0.36	0.32
Gasoline	lit.	0.00666	0.91	0.01	0.62	0.00
Lubricant	lit.	0.17667	2.41	0.43	1.65	0.29
Sub-total				0.89		0.61
Total of (1+2+3)				2.40		14.37
4. Miscellaneous, 5%				0.12		0.72
Total of (1+2+3+4)				2.52		15.09
Overhead and profit, 20%				0.51		3.02
Grand total				3.03		18.11

Item No. : B2/06 and C1/10
(in Bill of Quantities)

Work : Coase Filter in Dam Embankment

Unit Price : Foreign Component Local Component
US\$/m3 13.6 Rs./m3 118.0

Specification Clause No. T2.6.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17	570.00	0.57
Foreman	m.d.	0.00100		-	350.00	0.35
Operator	m.d.	0.00827		-	300.00	2.48
Ass. operator	m.d.	0.00827		-	220.00	1.82
Driver	m.d.	0.00843		-	240.00	2.02
Skilled labour	m.d.	0.00413		-	240.00	0.99
Common labour	m.d.	0.00827		-	170.00	1.41
Sub-total				<u>0.17</u>		<u>9.64</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00450	43.50	0.20	149.00	0.67
Tractor shovel, 2.2 m3	hr.	0.01350	30.80	0.42	105.80	1.43
Dump truck, 11 ton	hr.	0.02250	11.30	0.25	39.10	0.88
Vibrating roller, 10 ton	hr.	0.00450	35.30	0.16	121.30	0.55
Vibrating roller 4 ton	hr.	0.00338	12.30	0.04	42.20	0.14
Sub-total				<u>1.07</u>		<u>3.67</u>
3. Materials						
Diesel oil	lit.	0.81902	0.52	0.43	0.36	0.29
Lubricant	lit.	0.16380	2.41	0.39	1.65	0.27
Rabble stone	lit.	1.05000	8.32	8.74	76.00	79.80
Sub-total				<u>9.56</u>		<u>80.37</u>
Total of (1+2+3)				10.79		93.67
4. Miscellaneous, 5%				0.54		4.68
Total of (1+2+3+4)				11.33		98.35
Overhead and profit, 20%				2.27		19.67
Grand total				<u>13.60</u>		<u>118.02</u>

Item No. : B2/07 and C1/11

(in Bill of Quantities)

Work : Rock in Dam Embankment

Unit Price : Foreign Component
US\$/m3 6.2

Local Component
Rs./m3 35.2

Specification Clause No. T2.6.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00040	171.23	0.07	570.00	0.23
Foreman	m.d.	0.00400		-	350.00	1.40
Operator	m.d.	0.01000		-	300.00	3.00
Ass. operator	m.d.	0.01000		-	220.00	2.20
Driller	m.d.	0.00563		-	220.00	1.24
Driver	m.d.	0.01319		-	270.00	3.56
Skilled labour	m.d.	0.01003		-	240.00	2.41
Common labour	m.d.	0.02007		-	170.00	3.41
Sub-total				<u>0.07</u>		<u>17.45</u>
2. Equipment						
Bulldozer w/pipper, 32 ton	hr.	0.00401	60.50	0.24	207.50	0.83
Tractor shovel, 3.2 m3	hr.	0.00452	46.00	0.21	157.20	0.71
Dump truck, 20 ton	hr.	0.01005	25.80	0.26	88.40	0.89
Vibrating roller, 10 ton	hr.	0.00817	35.30	0.29	121.30	0.99
Crawle drill	hr.	0.01761	20.80	0.37	70.90	1.25
Leg hammer	hr.	0.04555	5.80	0.26	19.50	0.89
Air compressor, 10.6 m3/min.	hr.	0.01761	54.50	0.96	187.00	3.29
Sub-total				<u>2.59</u>		<u>8.85</u>
3. Materials						
Diesel oil	lit.	0.86192	0.52	0.45	0.36	0.31
Lubricant	lit.	0.17238	2.41	0.42	1.65	0.28
Dynamite	kg	0.04951	8.41	0.42	5.76	0.29
An-Fo powder	kg	0.08473	3.81	0.32	2.61	0.22
Detonator	pc.	0.07809	1.68	0.13	1.15	0.09
bit	pc.	0.00214	49.63	0.11	37.96	0.08
Rod	pc.	0.00121	322.55	0.39	246.75	0.30
Shank rod	pc.	0.00010	238.55	0.02	182.48	0.02
Sleev	pc.	0.00010	79.61	0.01	60.90	0.01
Sub-total				<u>2.26</u>		<u>1.59</u>
Total of (1+2+3)				4.92		27.89
4. Miscellaneous, 5%				0.25		1.40
Total of (1+2+3+4)				5.17		29.29
Overhead and profit, 20%				1.04		5.86
Grand total				<u>6.21</u>		<u>35.15</u>

Item No. : B2/11
 (in Bill of Quantities)

Work : Primary Cofferdam, Upstream L.S.

Unit Price : Foreign Component US\$50,000 Local Component Rs. 311,000

Specification Clause No. T1.3.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Embankment, random material	m3	4,350.0	3.00	13,050	21.70	94,395
2. Embankment, core material	m3	2,000.0	3.00	6,000	18.10	36,200
3. Rock riprap	m3	3,000.0	5.70	17,100	38.20	114,600
4. Gabion mat	1* no.	100.0	46.00	4,600	228.10	22,810
5. Removal of coffer dam	2* m3	3,000.0	2.20	6,600	9.40	28,200
Sub-total				47,350		296,205
6. Miscellaneous				2,650		14,795
Grand total				<u>50,000</u>		<u>311,000</u>

1* : unit price ref. page B - 21
 2* : unit price ref. page B - 22

Item No. : B2/11 Continued

(in Bill of Quantities)

Work : Gabion Mat

Unit Price : Foreign Component
USS/no. 46.0

Local Component
Rs./m3 228.1

Specification Clause No.

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.03981		-	350.00	13.93
Common labour	m.d.	0.39814		-	170.00	67.68
Sub-total						<u>81.61</u>
2. Equipment						
Dump truck, 11 ton	hr.	0.08296	8.60	0.71	29.80	2.47
Sub-total				<u>0.71</u>		<u>2.47</u>
3. Materials						
Diesel oil	lit.	0.73005	0.52	0.38	0.36	0.26
Lubricant	lit.	0.14601	2.41	0.35	1.65	0.24
Rubble stone	m3	1.00000	8.32	8.32	76.00	76.00
Gabion mattress	m	2.00000	13.39	26.78	10.24	20.48
Sub-total				<u>35.83</u>		<u>96.98</u>
Total of (1+2+3)				36.54		181.06
4. Miscellaneous, 5%				1.83		9.05
Total of (1+2+3+4)				38.37		190.11
Overhead and profit, 20%				7.67		38.02
Grand total				<u>46.04</u>		<u>228.13</u>

Item No. : B2/11 Continued
(in Bill of Quantities)

Work : Removal of Primary Cofferdam

Unit Price : Foreign Component Local Component
USS/m3 2.2 Rs./m3 9.4

Specification Clause No.

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00017	171.23	0.03	570.00	0.10
Foreman	m.d.	0.00171		-	350.00	0.60
Operator	m.d.	0.00342		-	300.00	1.03
Driver	m.d.	0.00495		-	240.00	1.19
Common labour	m.d.	0.00441		-	170.00	0.75
Sub-total				<u>0.03</u>		<u>3.66</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00774	43.50	0.34	149.00	1.15
Wheel loader, 2.1 m3	hr.	0.00729	23.30	0.17	80.20	0.58
Backhoe, 0.6 m3	hr.	0.00549	20.90	0.11	70.90	0.39
Dump truck, 11 ton	hr.	0.02979	11.30	0.34	39.10	1.16
Sub-total				<u>0.96</u>		<u>3.29</u>
3. Materials						
Diesel oil	lit.	0.76086	0.52	0.40	0.36	0.27
Lubricant	lit.	0.15217	2.41	0.37	1.65	0.25
Sub-total				<u>0.76</u>		<u>0.52</u>
Total of (1+2+3)				1.75		7.48
4. Miscellaneous, 5%				0.09		0.37
Total of (1+2+3+4)				1.84		7.85
Overhead and profit, 20%				0.38		1.57
Grand total				<u>2.22</u>		<u>9.42</u>

Item No. : B2/12
(in Bill of Quantities)

Work : Downstream cofferdam L.S.

Unit Price : Foreign Component Local Component
US\$75,000 Rs. 416,000

Specification Clause No.

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Embankment, random material	m3	3,800.0	3.00	11,400	21.70	82,460
2. Embankment, core material	m3	2,000.0	3.00	6,000	18.10	36,200
3. Rock riprap	m3	3,000.0	5.70	17,100	38.20	114,600
4. Gabion mat	no.	350.0	46.00	16,100	228.10	79,835
5. Removal of dam	m3	8,800.0	2.30	20,240	9.40	82,720
Sub-total				70,840		395,815
6. Miscellaneous, 5%				4,160		20,185
Grand total				<u>75,000</u>		<u>416,000</u>

Item No. : C1/01 and D1/01
(in Bill of Quantities)

Work : Clearing and Stripping

Unit Price : Foreign Component US\$/m2 0.4 Local Component Rs./m2 3.0

Specification Clause No. T2.2.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00034	-	-	350.00	0.12
Operator	m.d.	0.00172	-	-	300.00	0.52
Driver	m.d.	0.00172	-	-	270.00	0.46
Common labour	m.d.	0.00269	-	-	170.00	0.46
Sub-total						<u>1.56</u>
2. Equipment						
Bulldozer, 15 ton	hr.	0.00253	27.10	0.07	92.50	0.23
Bulldozer, 11 ton	hr.	0.00190	21.80	0.04	72.00	0.14
Tractor shovel, 1.2 m3	hr.	0.00353	18.50	0.07	63.70	0.22
Dump truck, 11 ton	hr.	0.00100	11.30	0.01	39.10	0.04
Chain saw, 50 cm	hr.	0.00632	4.10	0.03	13.40	0.08
Sub-total				<u>0.21</u>		<u>0.72</u>
3. Materials						
Diesel oil	lit.	0.12467	0.52	0.06	0.36	0.04
Gasoline	lit.	0.00442	0.91	0.00	0.62	0.00
Lubricant	lit.	0.02582	2.41	0.06	1.65	0.04
Sub-total				<u>0.13</u>		<u>0.09</u>
Total of (1+2+3)				0.34		2.37
4. Miscellaneous, 5%				0.02		0.12
Total of (1+2+3+4)				0.36		2.49
Overhead and profit, 20%				0.07		0.49
Grand total				<u>0.43</u>		<u>2.98</u>

Item No. : C1/06

(in Bill of Quantities)

Work : Underground Excavation for Inspection and Grouting Tunnel

Unit Price : Foreign Component
US\$/m3 50.6Local Component
Rs./m3 263.5

Specification Clause No. T2.5.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00680	171.23	1.16	570.00	3.88
Foreman	m.d.	0.03380		-	525.00	17.75
Operator	m.d.	0.06020		-	450.00	27.09
Ass. operator	m.d.	0.06020		-	330.00	19.87
Driver	m.d.	0.00750		-	405.00	3.04
Driller	m.d.	0.07150		-	330.00	23.60
Skilled labour	m.d.	0.03000		-	360.00	10.80
Common labour	m.d.	0.05640		-	255.00	14.38
Sub-total				<u>1.16</u>		<u>120.39</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00700	43.50	0.30	149.00	1.04
Wheel loader, 2.1 m3	hr.	0.01600	23.30	0.37	80.20	1.28
Dump truck, 11 ton	hr.	0.05000	11.30	0.57	39.10	1.96
Air compressor, 27 m3/min.	hr.	0.10000	5.30	0.53	18.50	1.85
Drill jambo, 2-booms	hr.	0.40000	41.00	16.40	139.70	55.88
Leg hammer	hr.	0.10000	5.80	0.58	19.50	1.95
Pick hammer	hr.	0.25000	0.80	0.20	3.10	0.78
Rocker shovel, 0.35 m3	hr.	0.08330	26.20	2.18	89.40	7.45
Battery locomotive	hr.	0.03660	18.30	0.67	61.70	2.26
Muck car, 2.0 m3	hr.	0.10980	7.20	0.79	24.70	2.71
Sub-total				<u>22.60</u>		<u>77.15</u>
3. Materials						
Diesel oil	lit.	1.01970	0.52	0.53	0.36	0.37
Lubricant	lit.	0.20394	2.41	0.49	1.65	0.34
Dynamite	kg	0.37990	12.39	4.71	8.49	3.23
Detonator	pc.	2.39500	3.01	7.21	2.06	4.93
Bit	pc.	0.01500	49.63	0.74	37.96	0.57
Rod	pc.	0.00600	322.55	1.94	246.75	1.48
Insert bit	pc.	0.00600	130.15	0.78	99.57	0.60
Sub-total				<u>16.40</u>		<u>11.51</u>
Total of (1+2+3)				40.16		209.05
4. Miscellaneous, 5%				2.01		10.47
Total of (1+2+3+4)				42.17		219.52
Overhead and profit, 20%				8.43		43.97
Grand total				<u>50.60</u>		<u>263.49</u>

Item No. : C1/07 (in Bill of Quantities)

Work : Trench Excavation, All Classes

Unit Price : Foreign Component US\$/m3 11.0 Local Component Rs./m3 53.2

Specification Clause No. T2.4.7

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00144	171.23	0.25	570.00	0.82
Foreman	m.d.	0.01275		-	350.00	4.46
Operator	m.d.	0.01384		-	300.00	4.15
Ass. operator	m.d.	0.01384		-	220.00	3.04
Driller	m.d.	0.02412		-	220.00	5.31
Driver	m.d.	0.00208		-	270.00	0.56
Skilled labour	m.d.	0.01301		-	240.00	3.12
Common labour	m.d.	0.03903		-	170.00	6.64
Sub-total				<u>0.25</u>		<u>28.11</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00518	43.50	0.23	149.00	0.77
Backhoe, 1.2 m3	hr.	0.02880	41.90	1.21	143.90	4.14
Dump truck, 11 ton	hr.	0.03600	11.30	0.41	39.10	1.41
Leg hammer	hr.	0.10080	5.80	0.58	19.50	1.97
Pick hamme	hr.	0.32400	0.80	0.26	3.10	1.00
Air compressor, 27 m3/min.	hr.	0.05040	5.30	0.27	18.50	0.93
Sub-total				<u>2.95</u>		<u>10.23</u>
3. Materials						
Diesel oil	lit.	1.32775	0.52	0.69	0.36	0.48
Lubricant	lit.	0.26555	2.41	0.64	1.65	0.44
Dynamite	kg	0.21600	8.41	1.82	5.76	1.24
Detonator	pc.	0.35200	1.68	0.59	1.15	0.40
Bit	pc.	0.00800	49.63	0.40	37.96	0.30
Rod	pc.	0.00400	322.55	1.29	246.75	0.99
Shank rod	pc.	0.00032	238.55	0.08	182.48	0.06
Sleeve	pc.	0.00032	79.61	0.03	60.90	0.02
Sub-total				<u>5.53</u>		<u>3.93</u>
Total of (1+2+3)				8.73		42.27
4. Miscellaneous, 5%				0.44		2.11
Total of (1+2+3+4)				9.17		44.38
Overhead and profit, 20%				1.84		8.87
Grand total				<u>11.01</u>		<u>53.25</u>

Item No. : C1/09
(in Bill of Quantities)

Work : Fine Filter in Dam Embankment

Unit Price : Foreign Component
US\$/m3 12.6

Local Component
Rs./m3 108.5

Specification Clause No. T.2.6.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17	570.00	0.57
Foreman	m.d.	0.00100		-	350.00	0.35
Operator	m.d.	0.00827		-	300.00	2.48
Ass. operator	m.d.	0.00827		-	220.00	1.82
Driver	m.d.	0.00843		-	240.00	2.02
Skilled labour	m.d.	0.00413		-	240.00	0.99
Common labour	m.d.	0.00827		-	170.00	1.41
Sub-total				0.17		9.64
2. Equipment						
Bulldozer, 21 ton	hr.	0.00450	43.50	0.20	149.00	0.67
Tractor shovel, 2.2 m3	hr.	0.01350	30.80	0.42	105.80	1.43
Dump truck, 11 ton	hr.	0.02250	11.30	0.25	39.10	0.88
Vibrating roller, 10 ton	hr.	0.00450	35.30	0.16	121.30	0.55
Vibrating roller, 4 ton	hr.	0.00338	12.30	0.04	42.20	0.14
Sub-total				1.07		3.67
3. Materials						
Diesel oil	lit.	0.81902	0.52	0.43	0.36	0.29
Lubricant	lit.	0.16380	2.41	0.39	1.65	0.27
Coarse aggregate	m3	1.05000	7.53	7.91	68.80	72.24
Sub-total				8.73		72.81
Total of (1+2+3)				9.96		86.11
4. Miscellaneous, 5%				0.50		4.31
Total of (1+2+3+4)				10.46		90.42
Overhead and profit, 20%				2.09		18.08
Grand total				12.55		108.50

Item No. : B2/08, C1/12 and D1/13
(in Bill of Quantities)

Work : Riprap in Dam Embankment

Unit Price : Foreign Component USS/m3 5.7 Local Component Rs./m3 38.2

Specification Clause No. T2.6.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00050	171.23	0.09	570.00	0.29
Foreman	m.d.	0.00500		-	350.00	1.75
Operator	m.d.	0.00800		-	300.00	2.40
Ass. operator	m.d.	0.00800		-	220.00	1.76
Driller	m.d.	0.00563		-	220.00	1.24
Driver	m.d.	0.01319		-	270.00	3.56
Skilled labour	m.d.	0.02006		-	240.00	4.81
Common labour	m.d.	0.03011		-	170.00	5.12
Sub-total				<u>0.09</u>		<u>20.93</u>
2. Equipment						
Bulldozer w/pipper, 32 ton	hr.	0.00401	60.50	0.24	207.50	0.83
Tructor shovel, 3.2 m3	hr.	0.00452	46.00	0.21	157.20	0.71
Dump truck, 20 ton	hr.	0.01005	25.80	0.26	88.40	0.89
Crawler drill	hr.	0.01761	20.80	0.37	70.90	1.25
Leg hammer	hr.	0.04555	5.80	0.26	19.50	0.89
Air compressor, 10.6 m3/min.	hr.	0.01761	54.50	0.96	187.00	3.29
Sub-total				<u>2.30</u>		<u>7.86</u>
3. Materials						
Diesal oil	lit.	0.70751	0.52	0.37	0.36	0.25
Lubricant	lit.	0.14150	2.41	0.34	1.65	0.23
Dynamite	kg	0.04951	8.41	0.42	5.76	0.29
An-Fo powder	kg	0.08473	3.81	0.32	2.61	0.22
Detonator	pc.	0.07809	1.68	0.13	1.15	0.09
Bit	pc.	0.00214	49.63	0.11	37.96	0.08
Rod	pc.	0.00121	322.55	0.39	246.75	0.30
Shank rod	pc.	0.00010	238.55	0.02	182.48	0.02
Sleeve	pc.	0.00010	79.61	0.01	60.90	0.01
Sub-total				<u>2.11</u>		<u>1.49</u>
Total of (1+2+3)				4.49		30.28
4. Miscellancous, 5%				0.23		1.51
Total of (1+2+3+4)				4.72		31.79
Overhead and profit, 20%				0.95		6.36
Grand total				<u>5.67</u>		<u>38.15</u>

Item No. : B2/09, C1/13, D4/01 and D6/04

(in Bill of Quantities)

Work : Surface Course for Main Dam Crest and cofferdam (t=30mm)
(Penetration Macadam)

Unit Price : Foreign Component
USS/m2 1.1

Local Component
Rs./m2 14.3

Specification Clause No. T5.2.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00041	171.23	0.07	570.00	0.23
Foreman	m.d.	0.00046		-	350.00	0.16
Operator	m.d.	0.00232		-	300.00	0.70
Ass. operator	m.d.	0.00232		-	220.00	0.51
Driver	m.d.	0.00232		-	240.00	0.56
Skilled labour	m.d.	0.00232		-	240.00	0.56
Common labour	m.d.	0.02948		-	170.00	5.01
Sub-total				0.07		7.73
2. Equipment						
Wheel loader, 0.6 m3	hr.	0.00300	8.10	0.02	27.80	0.08
Dump truck, 6 ton	hr.	0.00300	8.60	0.03	29.80	0.09
Macadam roller, 12 ton	hr.	0.00521	11.60	0.06	40.10	0.21
Tire roller, 20 ton	hr.	0.00694	12.80	0.09	44.20	0.31
Asphalt sprayer, 200 lit.	hr.	0.00057	5.60	0.00	18.50	0.01
Sub-total				0.20		0.70
3. Materials						
Diesel oil	lit.	0.12720	0.52	0.07	0.36	0.05
Lubricant	lit.	0.02544	2.41	0.06	1.65	0.04
Crushed stone	m3	0.03930	7.53	0.30	68.80	2.70
Asphalt, emulsion	lit.	0.40000	0.35	0.14	0.24	0.10
Sub-total				0.56		2.89
Total of (1+2+3)				0.84		11.31
4. Miscellaneous, 5%				0.04		0.57
Total of (1+2+3+4)				0.88		11.88
Overhead and profit, 20%				0.18		2.38
Grand total				1.06		14.26

Item No. : C1/14, C7/05 and D4/02
(in Bill of Quantities)

Work : Compacted Sand and Gravel Fill as Base Course for Main Dam
Crest (t=170mm)

Unit Price : Foreign Component Local Component
US\$/m3 18.7 Rs./m3 145.6

Specification Clause No. T5.2.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00082		-	350.00	0.29
Operator	m.d.	0.00464		-	300.00	1.39
Ass. operator	m.d.	0.00464		-	220.00	1.02
Driver	m.d.	0.00464		-	240.00	1.11
Common labour	m.d.	0.05900		-	170.00	10.03
Sub-total						<u>13.84</u>
2. Equipment						
Bulldozer, 11 ton	hr.	0.02104	21.80	0.46	75.00	1.58
Wheel loader, 0.6 m3	hr.	0.05876	8.10	0.48	27.80	1.63
Dump truck, 6 ton	hr.	0.07924	8.60	0.68	29.80	2.36
Motor grader, 3.1 m	hr.	0.01404	18.20	0.26	61.70	0.87
Vibrating roller, 10 ton	hr.	0.03120	35.30	1.10	121.30	3.78
Sub-total				<u>2.97</u>		<u>10.22</u>
3. Materials						
Diesel oil	lit.	1.99591	0.52	1.04	0.36	0.72
Lubricant	lit.	0.39918	2.41	0.96	1.65	0.66
Crushed stone	m3	1.31000	7.53	9.86	68.80	90.13
Sub-total				<u>11.86</u>		<u>91.51</u>
Total of (1+2+3)				14.84		115.57
4. Miscellaneous, 5%				0.74		5.78
Total of (1+2+3+4)				15.58		121.35
Overhead and profit, 20%				3.12		24.27
Grand total				<u>18.70</u>		<u>145.62</u>

Item No. : C1/15, C7/06 and D4/03
(in Bill of Quantities)

Work : Compacted Gravel and Cobble Fill as Subbase Course for
Main Dam Crest (t=300mm)

Unit Price : Foreign Component Local Component
US\$/m³ 17.8 Rs./m³ 150.3

Specification Clause No. T5.2.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00046	-	-	350.00	0.16
Operator	m.d.	0.00260	-	-	300.00	0.78
Ass. operator	m.d.	0.00260	-	-	220.00	0.57
Driver	m.d.	0.00260	-	-	240.00	0.62
Common labour	m.d.	0.03304	-	-	170.00	5.62
Sub-total						<u>7.75</u>
2. Equipment						
Bulldozer, 11 ton	hr.	0.01178	21.80	0.26	75.00	0.88
Wheel loader, 0.6 m ³	hr.	0.03291	8.10	0.27	27.80	0.91
Dump truck, 6 ton	hr.	0.04437	8.60	0.38	29.80	1.32
Vibrating roller, 10 ton	hr.	0.01747	35.30	0.62	121.30	2.12
Sub-total				<u>1.52</u>		<u>5.24</u>
3. Materials						
Diesel oil	lit.	1.05316	0.52	0.55	0.36	0.38
Lubricant	lit.	0.21063	2.41	0.51	1.65	0.35
Sand and gravel	m ³	1.31000	8.83	11.57	80.60	105.59
Sub-total				<u>12.62</u>		<u>106.31</u>
Total of (1+2+3)				14.14		119.31
4. Miscellaneous, 5%				0.71		5.97
Total of (1+2+3+4)				14.85		125.28
Overhead and profit, 20%				2.97		25.05
Grand total				<u>17.82</u>		<u>150.33</u>

Item No. : C1/16
(in Bill of Quantities)

Work : Placing Selected Material for Shoulder Protection at
Main Dam Crest

Unit Price : Foreign Component Local Component
US\$/m³ 5.3 Rs./m³ 35.2

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00050	171.23	0.09	570.00	0.29
Foreman	m.d.	0.00500	-	-	350.00	1.75
Operator	m.d.	0.00640	-	-	300.00	1.92
Ass. operator	m.d.	0.00640	-	-	220.00	1.41
Driller	m.d.	0.00563	-	-	220.00	1.24
Driver	m.d.	0.01055	-	-	270.00	2.85
Skilled labour	m.d.	0.02006	-	-	240.00	4.81
Common labour	m.d.	0.03011	-	-	170.00	5.12
Sub-total				0.09		19.38
2. Equipment						
Bulldozer, 32 ton	hr.	0.00401	58.10	0.23	199.40	0.80
Tractor shovel, 2.2 m ³	hr.	0.00452	30.80	0.14	105.80	0.48
Dump truck, 11 ton	hr.	0.01005	11.30	0.11	39.10	0.39
Crawler drill	hr.	0.01761	20.80	0.37	70.90	1.25
Leg hammer	hr.	0.04555	5.80	0.26	19.50	0.89
Air compressor, 10.6 m ³ /min.	hr.	0.01761	54.50	0.96	187.00	3.29
Sub-total				2.08		7.10
3. Materials						
Diesel oil	lit.	0.63717	0.52	0.33	0.36	0.23
Lubricant	lit.	0.12743	2.41	0.31	1.65	0.21
Dynamite	kg	0.04951	8.41	0.42	5.76	0.29
An-Fo powder	kg	0.08473	3.81	0.32	2.61	0.22
Detonator	pc.	0.07809	1.68	0.13	1.15	0.09
Bit	pc.	0.00214	49.63	0.11	37.96	0.08
Rod	pc.	0.00121	322.55	0.39	246.75	0.30
Shank rod	pc.	0.00010	238.55	0.02	182.48	0.02
Sleeve	pc.	0.00010	79.61	0.01	60.90	0.01
Sub-total				2.04		1.44
Total of (1+2+3)				4.20		27.92
4. Miscellaneous, 5%				0.21		1.40
Total of (1+2+3+4)				4.41		29.32
Overhead and profit, 20%				0.88		5.87
Grand total				5.29		35.19

Item No. : C1/17 and D1/12

(in Bill of Quantities)

Work : Sod Facing on Cutting Slope

Unit Price : Foreign Component
US\$/m² 0.3

Local Component
Rs./m² 20.5

Specification Clause No. T2.10.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00500		-	350.00	1.75
Driver	m.d.	0.00333		-	240.00	0.80
Common labour	m.d.	0.07500		-	170.00	12.75
Sub-total						<u>15.30</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.02000	5.90	0.12	20.60	0.41
Sub-total				<u>0.12</u>		<u>0.41</u>
3. Materials						
Diesel oil	lit.	0.13000	0.52	0.07	0.36	0.05
Lubricant	lit.	0.02600	2.41	0.06	1.65	0.04
Grass	m ²	1.10000		-	0.44	0.48
Bamboo	pc.	0.10000		-	0.07	0.01
Sub-total				<u>0.13</u>		<u>0.58</u>
Total of (1+2+3)				0.25		16.29
4. Miscellaneous, 5%				0.01		0.81
Total of (1+2+3+4)				0.26		17.10
Overhead and profit, 20%				0.05		3.42
Grand total				<u>0.31</u>		<u>20.52</u>

Item No. : C1/18
(in Bill of Quantities)

Work : Backfill with Selected Materials

Unit Price : Foreign Component Local Component
US\$/m3 2.9 Rs./m3 21.7

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foreign Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00206		-	350.00	0.72
Operator	m.d.	0.01032		-	300.00	3.10
Ass. operator	m.d.	0.01032		-	220.00	2.27
Driver	m.d.	0.01052		-	270.00	2.84
Skilled labour	m.d.	0.00516		-	240.00	1.24
Common labour	m.d.	0.01032		-	170.00	1.75
Sub-total						<u>11.92</u>
2. Equipment						
Tractor shovel, 1.2 m3	hr.	0.03100	18.50	0.57	63.70	1.97
Dump truck, 8 ton	hr.	0.06300	9.20	0.58	31.90	2.01
Vibrating roller, 4 ton	hr.	0.01000	12.30	0.12	42.20	0.42
Tamper, 90 kg	hr.	0.01300	5.00	0.07	16.40	0.21
Sub-total				<u>1.34</u>		<u>4.62</u>
3. Materials						
Diesel oil	lit.	0.97630	0.52	0.51	0.36	0.35
Gasoline	lit.	0.01040	0.91	0.01	0.62	0.01
Lubricant	lit.	0.19734	2.41	0.48	1.65	0.33
Sub-total				<u>0.99</u>		<u>0.68</u>
Total of (1+2+3)				2.33		17.22
4. Miscellaneous, 5%				0.12		0.86
Total of (1+2+3+4)				2.45		18.08
Overhead and profit, 20%				0.49		3.62
Grand total				<u>2.94</u>		<u>21.70</u>

Item No. : C1/19

(in Bill of Quantities)

Work : Backfill with Random Material for Drain Ditch and Pit of Inspection
tunnelUnit Price : Foreign Component
US\$/m3 3.0Local Component
Rs./m3 18.0

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00175		-	350.00	0.61
Operator	m.d.	0.00877		-	300.00	2.63
Ass. operator	m.d.	0.00877		-	220.00	1.93
Driver	m.d.	0.00894		-	270.00	2.41
Skilled labour	m.d.	0.00439		-	240.00	1.05
Common labour	m.d.	0.00877		-	170.00	1.49
Sub-total						<u>10.12</u>
2. Equipment						
Tractor shovel, 1.2 m3	hr.	0.02635	18.50	0.49	63.70	1.68
Dump truck, 8 ton	hr.	0.05355	9.20	0.49	31.90	1.71
Tamper, 90 kg	hr.	0.01105	5.00	0.06	16.40	0.18
Sub-total				<u>1.04</u>		<u>3.57</u>
3. Materials						
Diesel oil	lit.	0.82986	0.52	0.43	0.36	0.30
Gasoline	lit.	0.00884	0.91	0.01	0.62	0.01
Lubricant	lit.	0.16774	2.41	0.40	1.65	0.28
Sub-total				<u>0.84</u>		<u>0.59</u>
Total of (1+2+3)				1.88		14.28
4. Miscellaneous, 5%				0.09		0.71
Total of (1+2+3+4)				1.97		14.99
Overhead and profit, 20%				1.03		3.00
Grand total				<u>3.00</u>		<u>17.99</u>

Item No. : C1/20 (in Bill of Quantities)

Work : Gravel Bedding

Unit Price : Foreign Component
US\$/m³ 12.1

Local Component
Rs./m³ 168.4

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Common labour	m.d.	0.30000		-	170.00	51.00
Sub-total						<u>51.00</u>
2. Equipment						
Tamper, 90 kg	hr.	0.12300	5.00	0.62	16.40	2.02
Sub-total				<u>0.62</u>		<u>2.02</u>
3. Materials						
Gasoline	lit.	0.09840	0.91	0.09	0.62	0.06
Lubricant	lit.	0.01968	2.41	0.05	1.65	0.03
Gravel	m ³	1.17000	7.53	8.81	68.80	80.50
Sub-total				<u>8.95</u>		<u>80.59</u>
Total of (1+2+3)				9.56		133.61
4. Miscellaneous, 5%				0.48		6.68
Total of (1+2+3+4)				10.04		140.29
Overhead and profit, 20%				2.01		28.06
Grand total				<u>12.05</u>		<u>168.35</u>

Item No. : C2/01 Drilling Curtain Grout Holes
without Core Sampling (in Bill of Quantities)

Work : (a) Vertical Hole
(i) Section from 0 to 30 m in length

Unit Price : Foreign Component
US\$/m 51.7

Local Component
Rs./m 280.5

Specification Clause No. T3.12.1

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00466	171.23	0.80	570.00	2.66
Foreman	m.d.	0.04659		-	525.00	24.46
Mechanic	m.d.	0.00466		-	450.00	2.10
Electrician	m.d.	0.00466		-	450.00	2.10
Driller	m.d.	0.09317		-	330.00	30.75
Skilled labour	m.d.	0.09317		-	360.00	33.54
Common labour	m.d.	0.18633		-	255.00	47.51
Sub-total				0.80		143.11
2. Equipment						
Boring machine, 3.7 kW	hr.	1.00000	18.20	18.20	62.70	62.70
Sub-total				18.20		62.70
3. Materials						
Diamond bit	pc.	0.05000	396.98	19.85	303.69	15.18
Rod	pc.	0.05910	36.50	2.16	27.92	1.65
Sub-total				22.01		16.83
Total of (1+2+3)				41.00		222.65
4. Miscellaneous, 5%				2.05		11.13
Total of (1+2+3+4)				43.05		233.78
Overhead and profit, 20%				8.61		46.76
Grand total				51.66		280.54

Item No. : C2/01 Drilling Curtain Grout Holes
without Core Sampling (in Bill of Quantities)

Work : (a) Vertical Hole
(ii) Section from 30 to 70 m in length

Unit Price : Foreign Component Local Component
US\$/m 79.1 Rs./m 353.1

Specification Clause No. T3.12.1

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00713	171.23	1.22	570.00	4.06
Foreman	m.d.	0.05125		-	525.00	26.91
Mechanic	m.d.	0.00513		-	450.00	2.31
Electrician	m.d.	0.00513		-	450.00	2.31
Driller	m.d.	0.10249		-	330.00	33.82
Skilled labour	m.d.	0.10249		-	360.00	36.90
Common labour	m.d.	0.20496		-	255.00	52.26
Sub-total				<u>1.22</u>		<u>158.57</u>
2. Equipment						
Boring machine, 3.7 kW	hr.	1.53000	18.20	27.85	62.70	95.93
Sub-total				<u>27.85</u>		<u>95.93</u>
3. Materials						
Diamond bit	pc.	0.07650	396.98	30.37	303.69	23.23
Rod	pc.	0.09042	36.50	3.30	27.92	2.52
Sub-total				<u>33.67</u>		<u>25.76</u>
Total of (1+2+3)				62.74		280.26
4. Miscellaneous, 5%				3.14		14.01
Total of (1+2+3+4)				65.88		294.27
Overhead and profit, 20%				13.18		58.85
Grand total				<u>79.06</u>		<u>353.12</u>

Item No. : C2/01 Drilling Curtain Grout Holes
without Core Sampling (in Bill of Quantities)

Work : (b) Inclined Hole
(i) Section from 0 to 30 m in length

Unit Price : Foreign Component Local Component
US\$/m 75.4 Rs./m 381.3

Specification Clause No. T3.12.1

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00680	171.23	1.16	570.00	3.88
Foreman	m.d.	0.06057	-	-	525.00	31.80
Mechanic	m.d.	0.00606	-	-	450.00	2.73
Electrician	m.d.	0.00606	-	-	450.00	2.73
Driller	m.d.	0.12112	-	-	330.00	39.97
Skilled labour	m.d.	0.12112	-	-	360.00	43.60
Common labour	m.d.	0.24223	-	-	255.00	61.77
Sub-total				1.16		186.47
2. Equipment						
Boring machine, 3.7 kW	hr.	1.46000	18.20	26.57	62.70	91.54
Sub-total				26.57		91.54
3. Materials						
Diamond bit	pc.	0.07300	396.98	28.98	303.69	22.17
Rod	pc.	0.08629	36.50	3.15	27.92	2.41
Sub-total				32.13		24.58
Total of (1+2+3)				59.87		302.59
4. Miscellaneous, 5%				2.99		15.13
Total of (1+2+3+4)				62.86		317.72
Overhead and profit, 20%				12.57		63.55
Grand total				75.43		381.27

Item No. : C2/01 Drilling Curtain Grout Holes
without Core Sampling (in Bill of Quantities)

Work : (b) Inclined Hole
(ii) Section from 30 to 70 m in length

Unit Price : Foreign Component Local Component
US\$/m 94.3 Rs./m 454.3

Specification Clause No. T3.12.1

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00986	171.23	1.69	570.00	5.62
Foreman	m.d.	0.06966		-	525.00	36.57
Mechanic	m.d.	0.00697		-	450.00	3.14
Electrician	m.d.	0.00697		-	450.00	3.14
Driller	m.d.	0.13929		-	330.00	45.97
Skilled labour	m.d.	0.13929		-	360.00	50.14
Common labour	m.d.	0.27856		-	255.00	71.03
Sub-total				<u>1.69</u>		<u>215.61</u>
2. Equipment						
Boring machine, 3.7 kW	hr.	1.82500	18.20	33.22	62.70	114.43
Sub-total				<u>33.22</u>		<u>114.43</u>
3. Materials						
Diamond bit	pc.	0.08915	396.98	35.39	303.69	27.07
Rod	pc.	0.12512	36.50	4.57	27.92	3.49
Sub-total				<u>39.96</u>		<u>30.57</u>
Total of (1+2+3)				74.86		360.60
4. Miscellaneous, 5%				3.74		18.01
Total of (1+2+3+4)				78.60		378.61
Overhead and profit, 20%				15.70		75.66
Grand total				<u>94.30</u>		<u>454.27</u>

Item No. : C2/02 (in Bill of Quantities)

Work : Drilling Consolidation and Blanket Grout Holes
without Core Sampling

Unit Price : Foreign Component Local Component
US\$/m 14.1 Rs./m 130.2

Specification Clause No. T3.12.1

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00466	171.23	0.80	570.00	2.66
Foreman	m.d.	0.04659		-	350.00	16.31
Mechanic	m.d.	0.00466		-	300.00	1.40
Electrician	m.d.	0.00466		-	300.00	1.40
Driller	m.d.	0.06667		-	220.00	14.67
Skilled labour	m.d.	0.06667		-	240.00	16.00
Common labour	m.d.	0.22588		-	170.00	38.40
Sub-total				0.80		90.83
2. Equipment						
Crawler drill, 180 kg	hr.	0.06667	20.80	1.39	70.90	4.73
Air compressor, 27.0 m3/min.	hr.	0.06667	5.30	0.35	18.50	1.23
Sub-total				1.74		5.96
3. Materials						
Bit	pc.	0.04040	49.63	2.01	37.96	1.53
Rod	pc.	0.02020	322.55	6.52	246.75	4.98
Sub-total				8.52		6.52
Total of (1+2+3)				11.06		103.30
4. Miscellaneous, 5%				0.58		5.17
Total of (1+2+3+4)				11.64		108.47
Overhead and profit, 20%				2.43		21.70
Grand total				14.07		130.17

Item No. : C2/03 Core Drilling
(in Bill of Quantities)

Work : (a) Vertical Hole
(i) Section from 0 to 30 m in length

Unit Price : Foreign Component
USS/m 101.6
Local Component
Rs./m 381.7

Specification Clause No. T3.12.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01364	171.23	2.34	570.00	7.77
Foreman	m.d.	0.06091		-	525.00	31.98
Mechanic	m.d.	0.00910		-	450.00	4.10
Electrician	m.d.	0.00910		-	450.00	4.10
Driller	m.d.	0.10182		-	330.00	33.60
Skilled labour	m.d.	0.10182		-	360.00	36.66
Common labour	m.d.	0.18327		-	255.00	46.73
Sub-total				<u>2.34</u>		<u>164.93</u>
2. Equipment						
Boring machine, 3.7 kW	hr.	1.60000	18.20	29.12	62.70	100.32
Sub-total				<u>29.12</u>		<u>100.32</u>
3. Materials						
Diamond bit	pc.	0.09456	396.98	37.54	303.69	28.72
Rod	pc.	0.10047	36.50	3.67	27.92	2.81
Core barrel	pc.	0.01061	174.38	1.85	133.41	1.42
Lifter	pc.	0.14454	42.39	6.13	32.43	4.69
Sub-total				<u>49.18</u>		<u>37.62</u>
Total of (1+2+3)				80.64		302.88
4. Miscellaneous, 5%				4.03		15.15
Total of (1+2+3+4)				84.67		318.03
Overhead and profit, 20%				16.94		63.61
Grand total				<u>101.61</u>		<u>381.64</u>

Item No. : C2/03 Core Drilling
(in Bill of Quantities)

Work : (a) Vertical Hole
(ii) Section more than 30 m in length

Unit Price : Foreign Component Local Component
US\$/m 116.9 Rs./m 438.9

Specification Clause No. T3.12.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01569	171.23	2.69	570.00	8.94
Foreman	m.d.	0.07005		-	525.00	36.78
Mechanic	m.d.	0.01047		-	450.00	4.71
Electrician	m.d.	0.01047		-	450.00	4.71
Driller	m.d.	0.11709		-	330.00	38.64
Skilled labour	m.d.	0.11709		-	360.00	42.15
Common labour	m.d.	0.21076		-	255.00	53.74
Sub-total				2.69		189.68
2. Equipment						
Boring machine, 3.7 kW	hr.	1.84000	18.20	33.49	62.70	115.37
Sub-total				33.49		115.37
3. Materials						
Diamond bit	pc.	0.10874	396.98	43.17	303.69	33.02
Rod	pc.	0.11554	36.50	4.22	27.92	3.23
Core barrel	pc.	0.01220	174.38	2.13	133.41	1.63
Lifter	pc.	0.16622	42.39	7.05	32.43	5.39
Sub-total				56.56		43.27
Total of (1+2+3)				92.73		348.31
4. Miscellaneous, 5%				4.64		17.42
Total of (1+2+3+4)				97.37		365.73
Overhead and profit, 20%				19.48		73.15
Grand total				116.85		438.88

Item No. : C2/03 Core Drilling
(in Bill of Quantities)

Work : (b) Inclined Hole
(i) Section from 0 to 30 m in length

Unit Price : Foreign Component
US\$/m 112.3
Local Component
Rs./m 420.2

Specification Clause No. T3.12.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01500	171.23	2.57	570.00	8.55
Foreman	m.d.	0.06700		-	525.00	35.18
Mechanic	m.d.	0.01001		-	450.00	4.50
Electrician	m.d.	0.01001		-	450.00	4.50
Driller	m.d.	0.11200		-	330.00	36.96
Skilled labour	m.d.	0.11200		-	360.00	40.32
Common labour	m.d.	0.20160		-	255.00	51.41
Sub-total				2.57		181.42
2. Equipment						
Boring machine, 3.7 kW	hr.	1.76000	18.20	32.03	62.70	110.35
Sub-total				32.03		110.35
3. Materials						
Diamond bit	pc.	0.10501	396.98	41.69	303.69	31.89
Rod	pc.	0.11052	36.50	4.03	27.92	3.09
Core barrel	pc.	0.01167	174.38	2.04	133.41	1.56
Lifter	pc.	0.15890	42.39	6.74	32.43	5.15
Sub-total				54.49		41.69
Total of (1+2+3)				89.09		333.46
4. Miscellaneous, 5%				4.46		16.67
Total of (1+2+3+4)				93.55		350.13
Overhead and profit, 20%				18.71		70.03
Grand total				112.26		420.16

Item No. : C2/03 Core Drilling
(in Bill of Quantities)

Work : (b) Inclined Hole
(ii) Section more than 30 m in length

Unit Price : Foreign Component Local Component
US\$/m 123.6 Rs./m 462.5

Specification Clause No. T3.12.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01650	171.23	2.83	570.00	9.41
Foreman	m.d.	0.07370		-	525.00	38.69
Mechanic	m.d.	0.01101		-	450.00	4.95
Electrician	m.d.	0.01101		-	450.00	4.95
Driller	m.d.	0.12320		-	330.00	40.66
Skilled labour	m.d.	0.12320		-	360.00	44.35
Common labour	m.d.	0.22176		-	255.00	56.55
Sub-total				2.83		199.56
2. Equipment						
Boring machine, 3.7 kW	hr.	1.94000	18.20	35.31	62.70	121.64
Sub-total				35.31		121.64
3. Materials						
Diamond bit	pc.	0.11551	396.98	45.86	303.69	35.08
Rod	pc.	0.12157	36.50	4.44	27.92	3.39
Core barrel	pc.	0.01284	174.38	2.24	133.41	1.71
Lifter	pc.	0.17479	42.39	7.41	32.43	5.67
Sub-total				59.94		45.85
Total of (1+2+3)				98.07		367.06
4. Miscellaneous, 5%				4.90		18.35
Total of (1+2+3+4)				102.97		385.41
Overhead and profit, 20%				20.60		77.08
Grand total				123.57		462.49

Item No. : C2/04 Water Pressure Test
in Borehole (in Bill of Quantities)

Work : (a) Under a Single Pressure

Unit Price : Foreign Component
US\$/time 21.8

Local Component
Rs./time 125.0

Specification Clause No. T3.12.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00278	171.23	0.48	570.00	1.58
Foreman	m.d.	0.01778		-	525.00	9.33
Mechanic	m.d.	0.00556		-	450.00	2.50
Electrician	m.d.	0.00278		-	450.00	1.25
Skilled labour	m.d.	0.04333		-	360.00	15.60
Common labour	m.d.	0.05000		-	255.00	12.75
Sub-total				<u>0.48</u>		<u>43.02</u>
2. Equipment						
Grout mixer	hr.	0.24750	9.80	2.43	33.90	8.39
Grout pump	hr.	0.24750	23.60	5.84	81.20	20.10
Flow meter	hr.	0.24750	32.00	7.92	110.00	27.23
Sub-total				<u>16.19</u>		<u>55.71</u>
3. Materials						
Pressure meter	no.	0.01183	35.73	0.42	27.33	0.32
Return valve	pc.	0.00283	77.35	0.22	59.17	0.17
Sub-total				<u>0.64</u>		<u>0.49</u>
Total of (1+2+3)				17.30		99.22
4. Miscellaneous, 5%				0.87		4.96
Total of (1+2+3+4)				18.17		104.18
Overhead and profit, 20%				3.64		20.84
Grand total				<u>21.81</u>		<u>125.02</u>

Item No. : C2/04 Water Pressure Test
in Borehole (in Bill of Quantities)

Work : (b) Under Varied Pressure

Unit Price : Foreign Component
US\$/time 27.3

Local Component
Rs./time 156.3

Specification Clause No. T3.12.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00348	171.23	0.60	570.00	1.98
Foreman	m.d.	0.02223		-	525.00	11.67
Mechanic	m.d.	0.00695		-	450.00	3.13
Electrician	m.d.	0.00348		-	450.00	1.57
Skilled labour	m.d.	0.05416		-	360.00	19.50
Common labour	m.d.	0.06250		-	255.00	15.94
Sub-total				<u>0.60</u>		<u>53.78</u>
2. Equipment						
Grout mixer	hr.	0.30938	9.80	3.03	33.90	10.49
Grout pump	hr.	0.30938	23.60	7.30	81.20	25.12
Flow meter	hr.	0.30938	32.00	9.90	110.00	34.03
Sub-total				<u>20.23</u>		<u>69.64</u>
3. Materials						
Pressure meter	no.	0.01479	35.73	0.53	27.33	0.40
Return valve	pc.	0.00354	77.35	0.27	59.17	0.21
Sub-total				<u>0.80</u>		<u>0.61</u>
Total of (1+2+3)				21.63		124.04
4. Miscellaneous, 5%				1.08		6.20
Total of (1+2+3+4)				22.71		130.24
Overhead and profit, 20%				4.54		26.05
Grand total				<u>27.25</u>		<u>156.29</u>

Item No. : C2/05 Packer Setting
(in Bill of Quantities)

Work : (a) Depth not more than 9 m

Unit Price : Foreign Component
US\$/time 15.6

Local Component
Rs./time 154.3

Specification Clause No. T3.12.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00417	171.23	0.71	570.00	2.38
Foreman	m.d.	0.04167		-	525.00	21.88
Mechanic	m.d.	0.00834		-	450.00	3.75
Electrician	m.d.	0.00417		-	450.00	1.88
Skilled labour	m.d.	0.12500		-	360.00	45.00
Common labour	m.d.	0.15000		-	255.00	38.25
Sub-total				<u>0.71</u>		<u>113.13</u>
2. Equipment						
Air compressor, 27.0 m3/min.	hr.	0.02576	5.30	0.14	18.50	0.48
Sub-total				<u>0.14</u>		<u>0.48</u>
3. Materials						
Injection hose	m	0.09371	62.68	5.87	47.98	4.50
Injection pipe	pc.	0.04717	95.02	4.48	72.69	3.43
Packer rubber	pc.	0.03667	31.82	1.17	24.34	0.89
Sub-total				<u>11.52</u>		<u>8.82</u>
Total of (1+2+3)				12.37		122.43
4. Miscellaneous, 5%				0.62		6.12
Total of (1+2+3+4)				12.99		128.55
Overhead and profit, 20%				2.60		25.71
Grand total				<u>15.59</u>		<u>154.26</u>

Item No. : C2/05 Packer Setting
(in Bill of Quantities)

Work : (b) Depth from 10 m to 29 m

Unit Price : Foreign Component
US\$/time 23.4

Local Component
Rs./time 231.5

Specification Clause No. T3.12.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00626	171.23	1.07	570.00	3.57
Foreman	m.d.	0.06260		-	525.00	32.87
Mechanic	m.d.	0.01251		-	450.00	5.63
Electrician	m.d.	0.00626		-	450.00	2.82
Skilled labour	m.d.	0.18750		-	360.00	67.50
Common labour	m.d.	0.22500		-	255.00	57.38
Sub-total				<u>1.07</u>		<u>169.75</u>
2. Equipment						
Air compressor, 27.0 m3/min.	hr.	0.03864	5.30	0.20	18.50	0.71
Sub-total				<u>0.20</u>		<u>0.71</u>
3. Materials						
Injection hose	m	0.14057	62.68	8.81	47.98	6.74
Injection pipe	pc.	0.07076	95.02	6.72	72.69	5.14
Packer rubber	pc.	0.05501	31.82	1.75	24.34	1.34
Sub-total				<u>17.28</u>		<u>13.23</u>
Total of (1+2+3)				18.56		183.70
4. Miscellaneous, 5%				0.93		9.20
Total of (1+2+3+4)				19.49		192.90
Overhead and profit, 20%				3.90		38.58
Grand total				<u>23.39</u>		<u>231.48</u>

Item No. : C2/05 Packer Setting
(in Bill of Quantities)

Work : (c) Depth more than 30 m

Unit Price : Foreign Component
US\$/time 31.2

Local Component
Rs./time 308.5

Specification Clause No. T3.12.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00834	171.23	1.43	570.00	4.75
Foreman	m.d.	0.08334		-	525.00	43.75
Mechanic	m.d.	0.01668		-	450.00	7.51
Electrician	m.d.	0.00834		-	450.00	3.75
Skilled labour	m.d.	0.25000		-	360.00	90.00
Common labour	m.d.	0.30000		-	255.00	76.50
Sub-total				<u>1.43</u>		<u>226.27</u>
2. Equipment						
Air compressor, 27.0 m ³ /min.	hr.	0.05152	5.30	0.27	18.50	0.95
Sub-total				<u>0.27</u>		<u>0.95</u>
3. Materials						
Injection hose	m	0.18742	62.68	11.75	47.98	8.99
Injection pipe	pc.	0.09434	95.02	8.96	72.69	6.86
Packer rubber	pc.	0.07334	31.82	2.33	24.34	1.79
Sub-total				<u>23.05</u>		<u>17.64</u>
Total of (1+2+3)				24.75		244.85
4. Miscellaneous, 5%				1.24		12.24
Total of (1+2+3+4)				25.99		257.09
Overhead and profit, 20%				5.20		51.42
Grand total				<u>31.19</u>		<u>308.51</u>

Item No. : C2/06 Grouting
(in Bill of Quantities)

Work : Grouting

Unit Price : Foreign Component
US\$/ton 121.6

Local Component
Rs./ton 1,605.5

Specification Clause No. T3.12.5

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01563	171.23	2.68	570.00	8.91
Foreman	m.d.	0.15625		-	525.00	82.03
Mechanic	m.d.	0.03125		-	450.00	14.06
Electrician	m.d.	0.01563		-	450.00	7.03
Skilled labour	m.d.	1.09375		-	360.00	393.75
Common labour	m.d.	1.75000		-	255.00	446.25
Sub-total				2.68		952.04
2. Equipment						
Grout plant	hr.	1.57143	26.30	41.33	89.90	141.27
Grout mixer	hr.	1.57143	9.80	15.40	33.90	53.27
Grout pump	hr.	1.57143	23.60	37.09	81.20	127.60
Sub-total				93.81		322.14
Total of (1+2)				96.49		1,274.18
3. Miscellaneous, 5%				4.83		63.71
Total of (1+2+3)				101.32		1,337.89
Overhead and profit, 20%				20.27		267.58
Grand total				121.59		1,605.47

Item No. : C2/07 Material
(in Bill of Quantities)

Work : (a) Cement

Unit Price : Foreign Component
US\$/ton 191.6

Local Component
Rs./ton 131.0

Specification Clause No. T3.12.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Materials						
Cement	ton	1.03000	111.68	115.03	76.50	78.80
Admixture	kg	20.00000	1.85	37.00	1.26	25.20
Sub-total				<u>152.03</u>		<u>104.00</u>
2. Miscellaneous, 5%				7.60		5.20
Total of (1+2)				159.63		109.20
Overhead and profit, 20%				31.93		21.84
Grand total				<u>191.56</u>		<u>131.04</u>

Item No. : C2/07 Material
(in Bill of Quantities)

Work : (b) Sand

Unit Price : Foreign Component Local Component
US\$/ton 8.9 Rs./ton 81.5

Specification Clause No. T3.12.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Materials						
Sand	m3	0.70000	10.12	7.08	92.40	64.68
Sub-total				<u>7.08</u>		<u>64.68</u>
2. Miscellaneous, 5%				0.35		3.23
Total of (1+2)				7.43		67.91
Overhead and profit, 20%				1.49		13.58
Grand total				<u>8.92</u>		<u>81.49</u>

Item No. : C2/07 Material
(in Bill of Quantities)

Work : (c) Bentonito

Unit Price : Foreign Component Local Component
US\$/ton 298.3 Rs./ton 215.0

Specification Clause No. T3.12.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Materials						
Bentonito	ton	1.03000	229.85	236.75	165.70	170.67
Sub-total				<u>236.75</u>		<u>170.67</u>
2. Miscellaneous, 5%				11.84		8.53
Total of (1+2)				248.59		179.20
Overhead and profit, 20%				49.72		35.84
Grand total				<u>298.31</u>		<u>215.04</u>

Item No. : C2/08 and F2/01
(in Bill of Quantities)

Work : Backfill Grouting

Unit Price : Foreign Component Local Component
US\$/m3 57.7 Rs./m3 400.1

Specification Clause No. T3.12.8

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00200	171.23	0.34	570.00	1.14
Foreman	m.d.	0.02000		-	525.00	10.50
Mechanic	m.d.	0.02000		-	450.00	9.00
Electrician	m.d.	0.02000		-	450.00	9.00
Skilled labour	m.d.	0.08000		-	360.00	28.80
Common labour	m.d.	0.40000		-	255.00	102.00
Sub-total				0.34		160.44
2. Equipment						
Grout mixer, 200 lit. x 2	hr.	0.20000	9.80	1.96	33.90	6.78
Group pump, 200 lit.	hr.	0.20000	23.60	4.72	81.20	16.24
Sub-total				6.68		23.02
3. Materials						
Cement	ton	0.20000	111.68	22.34	76.50	15.30
Admixture	kg	2.00000	1.85	3.70	1.26	2.52
Sand	m3	0.76500	16.64	12.73	152.00	116.28
Sub-total				38.77		134.10
Total of (1+2+3)				45.79		317.56
4. Miscellaneous, 5%				2.29		15.88
Total of (1+2+3+4)				48.08		333.44
Overhead and profit, 20%				9.62		66.69
Grand total				57.70		400.13

Item No. : C3/01 and E2/01

(in Bill of Quantities)

Work : Concrete, Class A, in Blockout

Unit Price : Foreign Component
US\$/m³ 63.1Local Component
Rs./m³ 294.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00339	171.23	0.58	570.00	1.93
Foreman	m.d.	0.03560		-	350.00	12.46
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Rigger	m.d.	0.08070		-	240.00	19.37
Carpenter	m.d.	0.03560		-	220.00	7.83
Skilled labour	m.d.	0.17760		-	240.00	42.62
Common labour	m.d.	0.23690		-	170.00	40.27
Sub-total				<u>0.58</u>		<u>140.74</u>
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m ³	hr.	0.04620	10.70	0.49	37.00	1.71
Concrete pump car	hr.	0.01450	23.00	0.33	79.20	1.15
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				<u>2.75</u>		<u>9.04</u>
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.34500	111.68	38.53	76.50	26.39
Admixture	kg	0.86300	1.85	1.60	1.26	1.09
Fine aggregate	m ³	0.37693	10.12	3.81	92.40	34.83
Coarse aggregate	m ³	0.30918	7.53	2.33	68.80	21.27
Sub-total				<u>46.78</u>		<u>83.93</u>
Total of (1+2+3)				50.11		233.71
4. Miscellaneous, 5%				2.50		11.69
Total of (1+2+3+4)				52.61		245.40
Overhead and profit, 20%				10.52		49.08
Grand total				<u>63.13</u>		<u>294.48</u>

Item No. : C3/02, D2/01 and D2/02

(in Bill of Quantities)

Work : Concrete, Class B, for Drain Ditch and facing

Unit Price : Foreign Component
USS/m3 57.4

Local Component
Rs./m3 279.4

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00339	171.23	0.58	570.00	1.93
Foreman	m.d.	0.03560		-	350.00	12.46
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Rigger	m.d.	0.04035		-	240.00	9.68
Carpenter	m.d.	0.03560		-	220.00	7.83
Skilled labour	m.d.	0.17760		-	240.00	42.62
Common labour	m.d.	0.23690		-	170.00	40.27
Sub-total				<u>0.58</u>		<u>131.06</u>
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				<u>2.42</u>		<u>7.89</u>
3. Materials						
Diesel oil	lit.	0.39732	0.52	0.21	0.36	0.14
Lubricant	lit.	0.07946	2.41	0.19	1.65	0.13
Cement	ton	0.30800	111.68	34.40	76.50	23.56
Admixture	kg	0.77000	1.85	1.42	1.26	0.97
Fine aggregate	m3	0.39527	10.12	4.00	92.40	36.52
Coarse aggregate	m3	0.31193	7.53	2.35	68.80	21.46
Sub-total				<u>42.57</u>		<u>82.79</u>
Total of (1+2+3)				45.57		221.74
4. Miscellaneous, 5%				2.28		11.09
Total of (1+2+3+4)				47.85		232.83
Overhead and profit, 20%				9.57		46.56
Grand total				<u>57.42</u>		<u>279.39</u>

Item No. : C3/03 (in Bill of Quantities)

Work : Concrete, Class C, in Inspection Gallery

Unit Price : Foreign Component Local Component
 USS/m3 60.1 Rs./m3 269.4

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00339	171.23	0.58	570.00	1.93
Foreman	m.d.	0.03560	-	-	350.00	12.46
Mechanic	m.d.	0.02560	-	-	300.00	7.68
Electrician	m.d.	0.02050	-	-	300.00	6.15
Operator	m.d.	0.00110	-	-	300.00	0.33
Ass. operator	m.d.	0.00110	-	-	220.00	0.24
Driver	m.d.	0.00770	-	-	240.00	1.85
Rigger	m.d.	0.06456	-	-	240.00	15.49
Carpenter	m.d.	0.03560	-	-	220.00	7.83
Skilled labour	m.d.	0.14208	-	-	240.00	34.10
Common labour	m.d.	0.18952	-	-	170.00	32.22
Sub-total				0.58		120.29
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Concrete pump car	hr.	0.01450	23.00	0.33	79.20	1.15
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				2.75		9.04
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.32200	111.68	35.96	76.50	24.63
Admixture	kg	0.80500	1.85	1.49	1.26	1.01
Fine aggregate	m3	0.32670	10.12	3.31	92.40	30.19
Coarse aggregate	m3	0.41132	7.53	3.10	68.80	28.30
Sub-total				44.36		84.48
Total of (1+2+3)				47.69		213.81
4. Miscellaneous, 5%				2.38		10.69
Total of (1+2+3+4)				50.07		224.50
Overhead and profit, 20%				10.01		44.90
Grand total				60.08		269.40

Item No. : C3/04 and F3/01

(in Bill of Quantities)

Work : Concrete, Class C, in Tunnel Lining

Unit Price : Foreign Component
USS/m3 60.3Local Component
Rs./m3 350.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00424	171.23	0.73	570.00	2.42
Foreman	m.d.	0.04450		-	525.00	23.36
Mechanic	m.d.	0.02560		-	450.00	11.52
Electrician	m.d.	0.02050		-	450.00	9.23
Operator	m.d.	0.00110		-	450.00	0.50
Ass. operator	m.d.	0.00110		-	330.00	0.36
Driver	m.d.	0.00770		-	360.00	2.77
Rigger	m.d.	0.06456		-	360.00	23.24
Carpenter	m.d.	0.03560		-	330.00	11.75
Skilled labour	m.d.	0.14208		-	360.00	51.15
Common labour	m.d.	0.18952		-	255.00	48.33
Sub-total				0.73		184.62
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Concrete pump car	hr.	0.01450	23.00	0.33	79.20	1.15
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				2.75		9.04
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.32200	111.68	35.96	76.50	24.63
Admixture	kg	0.80500	1.85	1.49	1.26	1.01
Fine aggregate	m3	0.32670	10.12	3.31	92.40	30.19
Coarse aggregate	m3	0.41132	7.53	3.10	68.80	28.30
Sub-total				44.36		84.48
Total of (1+2+3)				47.84		278.15
4. Miscellaneous, 5%				2.39		13.91
Total of (1+2+3+4)				50.23		292.06
Overhead and profit, 20%				10.04		58.41
Grand total				60.27		350.47

Item No. : C3/07
(in Bill of Quantities)

Work : Concrete, Class E, Plug Concrete for Core Foundation

Unit Price : Foreign Component Local Component
 US\$/m3 45.9 Rs./m3 224.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		-	350.00	9.97
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Carpenter	m.d.	0.02848		-	220.00	6.27
Skilled labour	m.d.	0.11366		-	240.00	27.28
Common labour	m.d.	0.15162		-	170.00	25.78
Sub-total				0.46		87.08
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	3.90	0.90	10.30	2.38
Sub-total				2.79		8.61
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.22000	111.68	24.57	76.50	16.83
Admixture	kg	0.55000	1.85	1.02	1.26	0.69
Fine aggregate	m3	0.31423	10.12	3.18	92.40	29.03
Coarse aggregate	m3	0.51661	7.53	3.89	68.80	35.54
Sub-total				33.16		82.45
Total of (1+2+3)				36.42		178.14
4. Miscellaneous, 5%				1.82		8.91
Total of (1+2+3+4)				38.24		187.05
Overhead and profit, 20%				7.64		37.41
Grand total				<u>45.88</u>		<u>224.46</u>

Item No. : C3/08
(in Bill of Quantities)

Work : Concrete, Class F, for Levelling Concrete

Unit Price : Foreign Component Local Component
US\$/m³ 45.0 Rs./m³ 215.1

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		-	350.00	9.97
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Carpenter	m.d.	0.02848		-	220.00	6.27
Skilled labour	m.d.	0.11366		-	240.00	27.28
Common labour	m.d.	0.15162		-	170.00	25.78
Sub-total				0.46		87.08
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m ³	hr.	0.04620	10.70	0.49	37.00	1.71
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Sub-total				1.89		6.23
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.22700	111.68	25.35	76.50	17.37
Admixture	kg	0.56800	1.85	1.05	1.26	0.72
Fine aggregate	m ³	0.35273	10.12	3.57	92.40	32.59
Coarse aggregate	m ³	0.38382	7.53	2.89	68.80	26.41
Sub-total				33.37		77.43
Total of (1+2+3)				35.72		170.74
4. Miscellaneous, 5%				1.78		8.54
Total of (1+2+3+4)				37.50		179.28
Overhead and profit, 20%				7.49		35.86
Grand total				44.99		215.14

Item No. : C3/09, D2/09, D6/03 and E2/04

(in Bill of Quantities)

Work : Form F1

Unit Price : Foreign Component
US\$/m² 11.2

Local Component
Rs./m² 230.7

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.01776	-	-	350.00	6.22
Driver	m.d.	0.00666	-	-	240.00	1.60
Carpenter	m.d.	0.08584	-	-	220.00	18.88
Skilled labour	m.d.	0.02000	-	-	240.00	4.80
Common labour	m.d.	0.14934	-	-	170.00	25.39
Sub-total						<u>56.89</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.10500	5.90	0.62	20.60	2.16
Sub-total				<u>0.62</u>		<u>2.16</u>
3. Materials						
Diesel oil	lit.	0.68250	0.52	0.35	0.36	0.25
Lubricant	lit.	0.13650	2.41	0.33	1.65	0.23
Timber, plank	m ³	0.00800	238.69	1.91	13,080.00	104.64
Timber, square	m ³	0.00130	211.68	0.28	11,600.00	15.08
Plywood	m ³	0.27500	10.34	2.84	7.09	1.95
Separator	pc.	2.22000	0.42	0.93	0.32	0.71
Cone	pc.	4.40000	0.29	1.28	0.22	0.97
Form oil	lit.	0.10000	2.21	0.22	1.52	0.15
Nail	kg	0.10000	0.93	0.09	0.64	0.06
Sub-total				<u>8.23</u>		<u>124.04</u>
Total of (1+2+3)				8.85		183.09
4. Miscellaneous, 5%				0.44		9.15
Total of (1+2+3+4)				9.29		192.24
Overhead and profit, 20%				1.86		38.45
Grand total				<u>11.15</u>		<u>230.69</u>

Item No. : C3/10, D2/10 and E2/05

(in Bill of Quantities)

Work : Form F2

Unit Price : Foreign Component
US\$/m² 15.2

Local Component
Rs./m² 157.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00200	171.23	0.34	570.00	1.14
Foreman	m.d.	0.03552		-	350.00	12.43
Driver	m.d.	0.01332		-	240.00	3.20
Carpenter	m.d.	0.17168		-	220.00	37.77
Skilled labour	m.d.	0.04000		-	240.00	9.60
Common labour	m.d.	0.29868		-	170.00	50.78
Sub-total				0.34		114.91
2. Equipment						
Ordinary truck, 6 ton	hr.	0.10500	5.90	0.62	20.60	2.16
Sub-total				0.62		2.16
3. Materials						
Diesel oil	lit.	0.68250	0.52	0.35	0.36	0.25
Lubricant	lit.	0.13650	2.41	0.33	1.65	0.23
Steel batter	kg	4.50000	0.39	1.76	0.30	1.35
U-clip	pc.	1.00000	0.50	0.50	0.38	0.38
Hook bolt	pc.	0.33800	1.57	0.53	1.20	0.41
Separator	pc.	1.05000	0.42	0.44	0.32	0.34
Cone	pc.	2.10000	0.29	0.61	0.22	0.46
Pipe support	pc.	0.40000	0.45	0.18	0.34	0.14
Metal form, 300 mm	pc.	0.09000	22.92	2.06	15.70	1.41
Metal form, 200 mm	pc.	0.17000	22.20	3.77	15.21	2.59
Metal form, 100 mm	pc.	0.02000	15.58	0.31	10.67	0.21
Form oil	lit.	0.10000	2.21	0.22	1.52	0.15
Sub-total				11.07		7.90
Total of (1+2+3)				12.03		124.98
4. Miscellaneous, 5%				0.60		6.25
Total of (1+2+3+4)				12.63		131.23
Overhead and profit, 20%				2.52		26.25
Grand total				15.15		157.48

Item No. : B2/10, C3/11, D2/12, D6/03 and E2/06
(in Bill of Quantities)

Work : Reinforcing Bar (Open Structures)

Unit Price : Foreign Component Local Component
 USS/ton 816.0 Rs./ton 4,419.9

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.18000		-	350.00	63.00
Driver	m.d.	0.12501		-	240.00	30.00
Steel worker	m.d.	10.00000		-	220.00	2,200.00
Common labour	m.d.	4.50000		-	170.00	765.00
Sub-total						<u>3,058.00</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.33300	7.00	2.33	23.60	7.86
Sub-total				<u>2.33</u>		<u>7.86</u>
3. Materials						
Diesel oil	lit.	2.16450	0.52	1.13	0.36	0.78
Lubricant	lit.	0.43290	2.41	1.04	1.65	0.71
Deformed steel bar	ton	1.00000	584.62	584.62	400.46	400.46
Wire, 0.8 mm	%	10.00000		58.46		40.05
Sub-total				<u>645.25</u>		<u>442.00</u>
Total of (1+2+3)				647.58		3,507.86
4. Miscellaneous, 5%				32.38		175.39
Total of (1+2+3+4)				679.96		3,683.25
Overhead and profit, 20%				135.99		736.65
Grand total				<u>815.95</u>		<u>4,419.90</u>

Item No. : C3/12 and D2/14
(in Bill of Quantities)

Work : Shotcrete on Cutting Slope

Unit Price : Foreign Component
US\$/m² 25.4

Local Component
Rs./m² 78.2

Specification Clause No. T4.2.7

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17	570.00	0.57
Foreman	m.d.	0.00960		-	350.00	3.36
Driver	m.d.	0.00280		-	240.00	0.67
Skilled labour	m.d.	0.05760		-	240.00	13.82
Common labour	m.d.	0.05000		-	170.00	8.50
Sub-total				0.17		26.93
2. Equipment						
Dump truck, 6 ton	hr.	0.00180	8.60	0.02	29.80	0.05
Ordinary truck, 6 ton	hr.	0.01500	5.90	0.09	20.60	0.31
Air compressor, 10.6 m ³ /min.	hr.	0.07262	54.50	3.96	187.00	13.58
Concrete spray, 6 m ³ /hr.	hr.	0.07300	9.20	0.67	30.80	2.25
Sub-total				4.73		16.19
3. Materials						
Diesel oil	lit.	0.25590	0.52	0.13	0.36	0.09
Lubricant	lit.	0.05118	2.41	0.12	1.65	0.08
Cement	ton	0.10000	111.68	11.17	76.50	7.65
Admixture	kg	0.07420	1.85	0.14	1.26	0.09
Wire mesh	m ²	1.00000	2.66	2.66	1.82	1.82
Sand	m ³	0.10000	10.12	1.01	92.40	9.24
Sub-total				15.23		18.98
Total of (1+2+3)				20.14		62.10
4. Miscellaneous, 5%				1.01		3.10
Total of (1+2+3+4)				21.15		65.20
Overhead and profit, 20%				4.23		13.04
Grand total				25.38		78.24

Item No. : C3/13, D2/08 and E2/08
(in Bill of Quantities)

Work : P.V.C. Waterstop, Type A

Unit Price : Foreign Component Local Component
US\$/m 13.8 Rs./m 70.3

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.04000		-	350.00	14.00
Common labour	m.d.	0.20000		-	170.00	34.00
Sub-total						<u>48.00</u>
2. Materials						
Waterstop, b=300mm	hr.	1.00000	10.93	10.93	7.81	7.81
Sub-total				<u>10.93</u>		<u>7.81</u>
Total of (1+2)				10.93		55.81
3. Miscellaneous, 5%				0.55		2.79
Total of (1+2+3)				11.48		58.60
Overhead and profit, 20%				2.30		11.72
Grand total				<u>13.78</u>		<u>70.32</u>

Item No. : C5/02
 (in Bill of Quantities)

Work : Concrete Pipe, 600 mm Dia.

Unit Price : Foreign Component Local Component
 US\$/m 67.8 Rs./m 729.7

Specification Clause No. T2.9.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.27000		-	350.00	94.50
Rigger	m.d.	0.27000		-	240.00	64.80
Driver	m.d.	0.01688		-	240.00	4.05
Common labour	m.d.	0.60075		-	170.00	102.13
Sub-total						<u>265.48</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.04496	7.00	0.31	23.60	1.06
Sub-total				<u>0.31</u>		<u>1.06</u>
3. Materials						
Diesel oil	lit.	0.29224	0.52	0.15	0.36	0.11
Lubricant	lit.	0.05844	2.41	0.14	1.65	0.10
Concrete pipe, 600 mm dia.	m	1.00000	53.20	53.20	312.36	312.36
Sub-total				<u>53.49</u>		<u>312.56</u>
Total of (1+2+3)				53.81		579.10
4. Miscellaneous, 5%				2.69		28.96
Total of (1+2+3+4)				56.50		608.06
Overhead and profit, 20%				11.30		121.61
Grand total				<u>67.80</u>		<u>729.67</u>

Item No. : C5/02 and D2/15
 (in Bill of Quantities)

Work : P.V.C. Pipe, 75 mm Dia.

Unit Price : Foreign Component
 USS/m 9.2

Local Component
 Rs./m 18.8

Specification Clause No. T2.9.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Common labour	m.d.	0.02000		-	170.00	3.40
Sub-total						<u>3.40</u>
2. Materials						
PVC pipe, 75 mm dia.	m	1.00000	6.56	6.56	4.66	4.66
Filter material	m3	0.10000	7.53	0.75	68.80	6.88
Sub-total				<u>7.31</u>		<u>11.54</u>
Total of (1+2)				7.31		14.94
3. Miscellaneous, 5%				0.37		0.75
Total of (1+2+3)				7.68		15.69
Overhead and profit, 20%				1.54		3.14
Grand total				<u>9.22</u>		<u>18.83</u>

Item No. : C6/01
 (in Bill of Quantities)

Work : Non-embedded Metalwork

Unit Price : Foreign Component Local Component
 US\$/m2 28.2 Rs./m2 22.2

Specification Clause No. T9.6.8

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00003	171.23	0.01	570.00	0.02
Foreman	m.d.	0.00030		-	350.00	0.11
Driver	m.d.	0.00030		-	240.00	0.07
Steel worker	m.d.	0.00085		-	220.00	0.19
Common labour	m.d.	0.00020		-	170.00	0.03
Sub-total				<u>0.01</u>		<u>0.42</u>
2. Materials						
Steel	m2	1.00000	22.40	22.40	17.20	17.20
Sub-total				<u>22.40</u>		<u>17.20</u>
Total of (1+2+3)				22.41		17.62
3. Miscellaneous, 5%				1.12		0.88
Total of (1+2+3+4)				23.53		18.50
Overhead and profit, 20%				4.71		3.70
Grand total				<u>28.24</u>		<u>22.20</u>

Item No. : C6/02
(in Bill of Quantities)

Work : Steel Handrail, Type C, of Inspection Gallery (38 mm dia.)

Unit Price : Foreign Component Local Component
 US\$/m 2.1 Rs./m 5.1

Specification Clause No. T9.6.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00044	-	-	350.00	0.15
Driver	m.d.	0.00048	-	-	240.00	0.12
Concrete worker	m.d.	0.00798	-	-	200.00	1.60
Steel worke	m.d.	0.00148	-	-	220.00	0.33
Common labour	m.d.	0.00342	-	-	170.00	0.58
Sub-total						<u>2.77</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.00285	5.90	0.02	20.60	0.06
Sub-total				<u>0.02</u>		<u>0.06</u>
3. Materials						
Diesel oil	lit.	0.01853	0.52	0.01	0.36	0.01
Lubricant	lit.	0.00371	2.41	0.01	1.65	0.01
Steel pipe, 38 mm dia.	m	1.00000	1.64	1.64	1.23	1.23
Sub-total				<u>1.66</u>		<u>1.24</u>
Total of (1+2+3)				1.68		4.07
4. Miscellaneous, 5%				0.08		0.20
Total of (1+2+3+4)				1.76		4.27
Overhead and profit, 20%				0.35		0.86
Grand total				<u>2.11</u>		<u>5.13</u>

Item No. : C6/03 and F1/03

(in Bill of Quantities)

Work : Permanent Steel Support, H-150x150, for Inspection Tunnel

Unit Price : Foreign Component
US\$/ton 814.5

Local Component
Rs./ton 10,343.1

Specification Clause No. T2.5.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.18000	171.23	30.82	570.00	102.60
Foreman	m.d.	2.07000		-	525.00	1,086.75
Operator	m.d.	0.36000		-	450.00	162.00
Ass. operator	m.d.	0.36000		-	330.00	118.80
Driver	m.d.	0.72000			360.00	259.20
Rigger	m.d.	5.40000			360.00	1,944.00
Skilled labour	m.d.	2.70000			360.00	972.00
Common labour	m.d.	10.80000			255.00	2,754.00
Sub-total				<u>30.82</u>		<u>7,399.35</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.05000	7.00	0.35	23.60	1.18
Steel bender	hr.	0.02500	3.10	0.08	10.40	0.26
Sub-total				<u>0.43</u>		<u>1.44</u>
3. Materials						
Diesel oil	lit.	0.32500	0.52	0.17	0.36	0.12
Lubricant	lit.	0.06500	2.41	0.16	1.65	0.11
H-steel, 150x150	ton	1.03000	588.30	605.95	423.00	435.69
Joint plate	kg	0.14900	0.56	0.08	0.43	0.06
Base plate	kg	0.19900	0.56	0.11	0.43	0.09
Bolt	pc.	0.03400	0.24	0.01	0.18	0.01
Tie rod	pc.	0.32800	3.82	1.25	2.92	0.96
Steel pipe	pc.	0.16200	4.08	0.66	3.12	0.51
Timber, plate	m3	0.02040	243.21	4.96	13,328.00	271.89
Timber, square	m3	0.00850	211.68	1.80	11,600.00	98.60
Sub-total				<u>615.15</u>		<u>808.02</u>
Total of (1+2+3)				646.40		8,208.81
4. Miscellaneous, 5%				32.32		410.44
Total of (1+2+3+4)				678.72		8,619.25
Overhead and profit, 20%				135.74		1,723.85
Grand total				<u>814.46</u>		<u>10,343.10</u>

Item No. : C6/04
 (in Bill of Quantities)

Work : Grating for Sump Pit in Inspection Gallery

Unit Price : Foreign Component US\$/kg 0.8 Local Component Rs./kg 28.8

Specification Clause No. T9.6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.01559		-	350.00	5.46
Driver	m.d.	0.00019		-	240.00	0.05
Steel worker	m.d.	0.03742		-	220.00	8.23
Concrete worker	m.d.	0.02216		-	220.00	4.88
Common labour	m.d.	0.02216		-	170.00	3.77
Sub-total						<u>22.38</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.00138	5.90	0.01	20.60	0.03
Sub-total				<u>0.01</u>		<u>0.03</u>
3. Materials						
Diesel oil	lit.	0.00897	0.52	0.00	0.36	0.00
Lubricant	lit.	0.00179	2.41	0.00	1.65	0.00
Structural steel	kg	1.03000	0.62	0.64	0.42	0.43
Sub-total				<u>0.65</u>		<u>0.44</u>
Total of (1+2+3)				0.66		22.84
4. Miscellaneous, 5%				0.03		1.14
Total of (1+2+3+4)				0.69		23.98
Overhead and profit, 20%				0.14		4.80
Grand total				<u>0.83</u>		<u>28.78</u>

Item No. : C6/07 and E2/11
(in Bill of Quantities)

Work : Dowel Bars in Inspection Gallery

Unit Price : Foreign Component Local Component
 US\$/ton 939.5 Rs./ton 2,864.2

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.17760	171.23	30.41	570.00	101.23
Foreman	m.d.	1.77600		-	350.00	621.60
Driver	m.d.	0.49728		-	240.00	119.35
Skilled labour	m.d.	1.11000		-	240.00	266.40
Common labour	m.d.	3.33000		-	170.00	566.10
Sub-total				<u>30.41</u>		<u>1,674.68</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	1.90210	5.90	11.22	20.60	39.18
Sub-total				<u>11.22</u>		<u>39.18</u>
3. Materials						
Diesel oil	lit.	12.36362	0.52	6.43	0.36	4.45
Lubricant	lit.	2.47272	2.41	5.96	1.65	4.08
Dowel bar	ton	1.00000	447.40	447.40	360.50	360.50
P.V.C. pipe, 25 mm dia.	m	222.00000	1.10	244.20	0.80	177.60
Sub-total				<u>703.99</u>		<u>546.63</u>
Total of (1+2+3)				745.62		2,260.49
4. Miscellaneous, 5%				37.28		113.02
Total of (1+2+3+4)				782.90		2,373.51
Overhead and profit, 20%				156.58		474.70
Grand total				<u>939.48</u>		<u>2,848.21</u>

Item No. : C7/01 (in Bill of Quantities)

Work : Construction of Concrete Guard Blocks on Crest of Dam including Gravel Bedding

Unit Price : Foreign Component US\$/no. 42.8 Local Component Rs./no. 483.0

Specification Clause No. T5.2.7

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Excavation, weathered rock	m3	0.32000	4.10	1.31	18.00	5.76
2. Base course	m3	0.10000	19.40	1.94	150.30	15.03
3. Gravel bedding	m3	0.01000	12.30	0.12	169.10	1.69
4. Concrete, class E	m3	0.17000	45.90	7.80	224.50	38.17
5. Form F1	m2	1.48000	11.40	16.87	231.60	342.77
6. Reinforcement bar	kg	18.00000	0.82	14.76	4.42	79.56
Grand total				<u>42.81</u>		<u>482.97</u>

Item No. : C7/02 (in Bill of Quantities)

Work : Bituminus Coating for Contraction Joint for Inspection Tunnel,
Grout Tunnels No.1 and No.2

Unit Price : Foreign Component
US\$/m² 5.0

Local Component
Rs./m² 71.5

Specification Clause No. T6.1.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00200		-	525.00	1.05
Skilled labour	m.d.	0.10000		-	360.00	36.00
Common labour	m.d.	0.06600		-	255.00	16.83
Sub-total						<u>53.88</u>
2. Materials						
Asphalt	no.	1.00000	4.00	4.00	2.88	2.88
Sub-total				<u>4.00</u>		<u>2.88</u>
Total of (1+2)				4.00		56.76
3. Miscellaneous, 5%				0.20		2.84
Total of (1+2+3)				4.20		59.60
Overhead and profit, 20%				0.84		11.92
Grand total				<u>5.04</u>		<u>71.52</u>

Item No. : C7/04 and D1/14

(in Bill of Quantities)

Work : Gravel Metalling
t = 100 mm

Unit Price : Foreign Component
US\$/m3 46.5

Local Component
Rs./m3 436.9

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.04140		-	350.00	14.49
Operator	m.d.	0.20810		-	300.00	62.43
Ass. operator	m.d.	0.20810		-	220.00	45.78
Driver	m.d.	0.12420		-	240.00	29.81
Skilled labour	m.d.	0.08250		-	240.00	19.80
Common labour	m.d.	0.20810		-	170.00	35.38
Sub-total						<u>207.69</u>
2. Equipment						
Bulldozer, 11 ton	hr.	0.03850	21.80	0.84	75.00	2.89
Tractor shovel, 0.8 m3	hr.	0.40700	14.30	5.82	49.40	20.11
Dump truck, 6 ton	hr.	0.74530	8.60	6.41	29.80	22.21
Vibrating roller, 10 ton	hr.	0.14300	35.30	5.05	121.30	17.35
Sub-total				<u>18.12</u>		<u>62.55</u>
3. Materials						
Diesel oil	lit.	11.20850	0.52	5.83	0.36	4.04
Lubricant	lit.	2.24170	2.41	5.40	1.65	3.70
Gravel	m3	1.00000	7.53	7.53	68.80	68.80
Sub-total				<u>18.76</u>		<u>76.53</u>
Total of (1+2+3)				36.88		346.77
4. Miscellaneous, 5%				1.84		17.34
Total of (1+2+3+4)				38.72		364.11
Overhead and profit, 20%				7.74		72.83
Grand total				<u>46.46</u>		<u>436.94</u>

Item No. : C7/07 (in Bill of Quantities)

Work : Construction of Lighting Pole Base

Unit Price : Foreign Component US\$/no. 100.0 Local Component Rs./no. 1,100.0

Specification Clause No. T5.2.7

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Excavation, weathered rock	m3	0.70400	3.50	2.46	15.70	11.05
2. Base course	m3	0.22000	19.00	4.18	145.60	32.03
3. Gravel bedding	m3	0.02200	12.00	0.26	170.00	3.74
4. Concrete, class E	m3	0.37400	46.00	17.20	225.00	84.15
5. Form F1	m2	3.25600	12.00	39.07	230.00	748.88
6. Reinforcement Bar	kg	39.60000	0.82	32.47	4.42	175.03
7. Miscellaneous	L.S	-		4.36		45.12
8. Grand total				<u>100.00</u>		<u>1,100.00</u>

Item No. : D1/05

(in Bill of Quantities)

Work : Trench Excavation, All Classes, for Underdrain
Beneath SlabUnit Price : Foreign Component
US\$/m3 13.4Local Component
Rs./m3 64.0

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00166	171.23	0.28	570.00	0.95
Foreman	m.d.	0.01466		-	350.00	5.13
Operator	m.d.	0.01384		-	300.00	4.15
Ass. operator	m.d.	0.01384		-	220.00	3.04
Driller	m.d.	0.02774		-	220.00	6.10
Driver	m.d.	0.00208		-	240.00	0.50
Skilled labour	m.d.	0.01496		-	240.00	3.59
Common labour	m.d.	0.04520		-	170.00	7.68
Sub-total				<u>0.28</u>		<u>31.15</u>
2. Equipment						
Bulldozer, 15 ton	hr.	0.00466	27.10	0.13	92.50	0.43
Crawle crane, 22.5 ton	hr.	0.02592	32.30	0.84	111.00	2.88
Dump truck, 8 ton	hr.	0.03600	9.20	0.33	31.90	1.15
Leg hammer	hr.	0.10080	5.80	0.58	19.50	1.97
Pick hamme	hr.	0.32400	0.80	0.26	3.10	1.00
Air compressor, 10.6 m3/min.	hr.	0.04284	54.50	2.33	187.00	8.01
Sub-total				<u>4.47</u>		<u>15.44</u>
3. Materials						
Diesel oil	lit.	1.24056	0.52	0.65	0.36	0.45
Lubricant	lit.	0.24811	2.41	0.60	1.65	0.41
Dynamite	kg	0.23760	8.41	2.00	5.76	1.37
Detonator	pc.	0.38720	1.68	0.65	1.15	0.45
Bit	pc.	0.00880	49.63	0.44	37.96	0.33
Rod	pc.	0.00440	322.55	1.42	246.75	1.09
Shank rod	pc.	0.00036	238.55	0.09	182.48	0.07
Sleeve	pc.	0.00036	76.61	0.03	60.90	0.02
Sub-total				<u>5.86</u>		<u>4.18</u>
Total of (1+2+3)				10.62		50.77
4. Miscellaneous, 5%				0.53		2.54
Total of (1+2+3+4)				11.15		53.31
Overhead and profit, 20%				2.23		10.66
Grand total				<u>13.38</u>		<u>63.97</u>

Item No. : D1/06

(in Bill of Quantities)

Work : Free Draining Backfill with Selected Gravel, for
Underdrain Beneath SlabUnit Price : Foreign Component
US\$/m³ 12.4Local Component
Rs./m³ 121.6

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.01320	-	-	350.00	4.62
Operator	m.d.	0.01246	-	-	300.00	3.74
Ass. operator	m.d.	0.01246	-	-	220.00	2.74
Driver	m.d.	0.00208	-	-	240.00	0.50
Skilled labour	m.d.	0.01346	-	-	240.00	3.23
Common labour	m.d.	0.04068	-	-	170.00	6.92
Sub-total						<u>21.74</u>
2. Equipment						
Tractor shovel, 1.2 m ³	hr.	0.02280	18.50	0.42	63.70	1.45
Drum truck, 8 ton	hr.	0.03600	9.20	0.33	31.90	1.15
Crawler crane, 22.5 ton	hr.	0.02592	32.30	0.84	111.00	2.88
Sub-total				<u>1.59</u>		<u>5.48</u>
3. Materials						
Diesel oil	lit.	0.71158	0.52	0.37	0.36	0.26
Lubricant	lit.	0.14232	2.41	0.34	1.65	0.23
Gravel	m ³	1.00000	7.53	7.53	68.80	68.80
Sub-total				<u>8.24</u>		<u>69.29</u>
Total of (1+2+3)				9.83		96.51
4. Miscellaneous, 5%				0.49		4.83
Total of (1+2+3+4)				10.32		101.34
Overhead and profit, 20%				2.06		20.27
Grand total				<u>12.38</u>		<u>121.61</u>

Item No. : D1/07

(in Bill of Quantities)

Work : Free Draining Backfilling behind Wall

Unit Price : Foreign Component
US\$/m³ 3.9Local Component
Rs./m³ 22.2

Specification Clause No. T2.7.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00192	-	-	350.00	0.67
Operator	m.d.	0.00959	-	-	300.00	2.88
Ass. operator	m.d.	0.00959	-	-	220.00	2.11
Driver	m.d.	0.01193	-	-	240.00	2.86
Skilled labour	m.d.	0.00320	-	-	240.00	0.77
Common labour	m.d.	0.00959	-	-	170.00	1.63
Sub-total						<u>10.92</u>
2. Equipment						
Bolldozer, 11 ton	hr.	0.00420	21.80	0.09	75.00	0.32
Tractor shovel, 1.2 m ³	hr.	0.02280	18.50	0.42	63.70	1.45
Dump truck, 11 ton	hr.	0.08580	11.30	0.97	39.10	3.35
Vibrating roller, 4 ton	hr.	0.01020	12.30	0.13	42.20	0.43
Tamper, 90 kg	hr.	0.00720	5.00	0.04	16.40	0.12
Sub-total				<u>1.64</u>		<u>5.67</u>
3. Materials						
Diesel oil	lit.	1.41534	0.52	0.74	0.36	0.51
Gasoline	lit.	0.00576	0.91	0.01	0.62	0.00
Lubricant	lit.	0.28422	2.41	0.68	1.65	0.47
Sub-total				<u>1.43</u>		<u>0.98</u>
Total of (1+2+3)				3.07		17.57
4. Miscellaneous, 5%				0.15		0.89
Total of (1+2+3+4)				3.22		18.46
Overhead and profit, 20%				0.65		3.73
Grand total				<u>3.87</u>		<u>22.19</u>

Item No. : D1/08

(in Bill of Quantities)

Work : Anchor Bar, 25 mm Dia.

Unit Price : Foreign Component
US\$/m 12.0Local Component
Rs./m 49.2

Specification Clause No. T2.10.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00080	171.23	0.14	570.00	0.46
Foreman	m.d.	0.00800		-	350.00	2.80
Driver	m.d.	0.00112		-	240.00	0.27
Driller	m.d.	0.01300		-	220.00	2.86
Skilled labour	m.d.	0.02400		-	240.00	5.76
Common labour	m.d.	0.03600		-	170.00	6.12
Sub-total				<u>0.14</u>		<u>18.26</u>
2. Equipment						
Ordinary Truck with crane, 6 ton	hr.	0.00504	7.00	0.04	23.60	0.12
Leg hammer	hr.	0.07600	5.80	0.44	19.50	1.48
Air compressor, 10.6 m3/min.	hr.	0.07600	54.50	4.14	187.00	14.21
Grout mixer	hr.	0.01900	9.80	0.19	33.90	0.64
Grout pump	hr.	0.01900	23.60	0.45	81.20	1.54
Sub-total				<u>5.25</u>		<u>18.00</u>
3. Materials						
Diesel oil	lit.	1.19556	0.52	0.62	0.36	0.43
Lubricant	lit.	0.23911	2.41	0.58	1.65	0.39
Cement	kg	3.00000	0.11	0.33	0.08	0.24
Admixture	kg	0.02200	1.85	0.04	1.26	0.03
Anchor bar, 25 mm dia.	m	1.00000	2.00	2.00	1.23	1.23
Bit	pc.	0.00200	49.63	0.10	37.96	0.08
Rod	pc.	0.00100	322.55	0.32	246.75	0.25
Insert bit	pc.	0.00100	130.15	0.13	99.57	0.10
Sub-total				<u>4.12</u>		<u>2.74</u>
Total of (1+2+3)				9.51		39.01
4. Miscellaneous, 5%				0.48		1.95
Total of (1+2+3+4)				9.99		40.96
Overhead and profit, 20%				2.00		8.19
Grand total				<u>11.99</u>		<u>49.15</u>

Item No. : D1/09

(in Bill of Quantities)

Work : 29 mm Dia. Anchor Bar

Unit Price : Foreign Component
USS/m 12.7Local Component
Rs./m 49.9

Specification Clause No. T2.10.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00080	171.23	0.14	570.00	0.46
Foreman	m.d.	0.00800		-	350.00	2.80
Driver	m.d.	0.00112		-	240.00	0.27
Driller	m.d.	0.01300		-	220.00	2.86
Skilled labour	m.d.	0.02400		-	240.00	5.76
Common labour	m.d.	0.03600		-	170.00	6.12
Sub-total				<u>0.14</u>		<u>18.26</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.00639	7.00	0.04	23.60	0.15
Leg hammer	hr.	0.07600	5.80	0.44	19.50	1.48
Air compressor, 10.6 m ³ /min.	hr.	0.07600	54.50	4.14	187.00	14.21
Grout mixer	hr.	0.01900	9.80	0.19	33.90	0.64
Grout pump	hr.	0.01900	23.60	0.45	81.20	1.54
Sub-total				<u>5.26</u>		<u>18.03</u>
3. Materials						
Diesel oil	lit.	1.20434	0.52	0.63	0.36	0.43
Lubricant	lit.	0.24087	2.41	0.58	1.65	0.40
Cement	kg	3.00000	0.11	0.33	0.08	0.24
Admixture	kg	0.02200	1.85	0.04	1.26	0.03
Anchor bar, 29 mm dia.	m	1.00000	2.57	2.57	1.78	1.78
Bit	pc.	0.00200	49.63	0.10	37.96	0.08
Rod	pc.	0.00100	322.55	0.32	246.75	0.25
Insert bit	pc.	0.00100	130.15	0.13	99.57	0.10
Sub-total				<u>4.70</u>		<u>3.30</u>
Total of (1+2+3)				10.10		39.60
4. Miscellaneous, 5%				0.51		1.98
Total of (1+2+3+4)				10.61		41.58
Overhead and profit, 20%				2.12		8.32
Grand total				<u>12.73</u>		<u>49.90</u>

Item No. : D1/10
(in Bill of Quantities)

Work : 32 mm Dia. Anchor Bar

Unit Price : Foreign Component US\$/m 13.6 Local Component Rs./m 50.8

Specification Clause No. T2.10.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00080	171.23	0.14	570.00	0.46
Foreman	m.d.	0.00800	-	-	350.00	2.80
Driver	m.d.	0.00112	-	-	240.00	0.27
Driller	m.d.	0.01300	-	-	220.00	2.86
Skilled labour	m.d.	0.02400	-	-	240.00	5.76
Common labour	m.d.	0.03600	-	-	170.00	6.12
Sub-total				0.14		18.26
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.00792	7.00	0.06	23.60	0.19
Leg hammer	hr.	0.07600	5.80	0.44	19.50	1.48
Air compressor, 10.6 m3/min.	hr.	0.07600	54.50	4.14	187.00	14.21
Grout mixer	hr.	0.02090	9.80	0.20	33.90	0.71
Grout pump	hr.	0.02090	23.60	0.49	81.20	1.70
Sub-total				5.34		18.29
3. Materials						
Diesel oil	lit.	1.21428	0.52	0.63	0.36	0.44
Lubricant	lit.	0.24286	2.41	0.59	1.65	0.40
Cement	kg	3.30000	0.11	0.36	0.08	0.26
Admixture	kg	0.02420	1.85	0.04	1.26	0.03
Anchor bar, 32 mm dia.	m	1.00000	3.17	3.17	2.19	2.19
Bit	pc.	0.00220	49.63	0.11	37.96	0.08
Rod	pc.	0.00110	322.55	0.35	246.75	0.27
Insert bit	pc.	0.00110	130.15	0.14	99.57	0.11
Sub-total				5.40		3.79
Total of (1+2+3)				10.87		40.34
4. Miscellaneous, 5%				0.53		2.01
Total of (1+2+3+4)				11.40		42.35
Overhead and profit, 20%				2.21		8.42
Grand total				13.61		50.77

Item No. : D1/11
(in Bill of Quantities)

Work : Stone Pitching

Unit Price : Foreign Component
USS/m2 15.3

Local Component
Rs./m2 326.1

Specification Clause No. T2.9.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.04000		-	350.00	14.00
Driver	m.d.	0.01620		-	270.00	4.37
Mason	m.d.	0.16600		-	240.00	39.84
Skilled labour	m.d.	0.30600		-	240.00	73.44
Common labour	m.d.	0.36520		-	170.00	62.08
Sub-total						<u>193.74</u>
2. Equipment						
Dump truck, 11 ton	hr.	0.09750	11.30	1.10	39.10	3.81
Sub-total				<u>1.10</u>		<u>3.81</u>
3. Materials						
Diesel oil	lit.	1.21024	0.52	0.63	0.36	0.44
Lubricant	lit.	0.24205	2.41	0.58	1.65	0.40
Rubble stone	m2	1.00000	2.91	2.91	26.60	26.60
Concrete, Class E	m2	1.00000	6.94	6.94	33.78	33.78
Sub-total				<u>11.06</u>		<u>61.22</u>
Total of (1+2+3)				12.16		258.77
4. Miscellaneous, 5%				0.61		12.94
Total of (1+2+3+4)				12.77		271.71
Overhead and profit, 20%				2.55		54.34
Grand total				<u>15.32</u>		<u>326.05</u>

Item No. : D2/03 and D2/07

(in Bill of Quantities)

Work : Concrete, Class C

Unit Price : Foreign Component
USS/m3 68.9Local Component
Rs./m3 276.7

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		-	350.00	9.97
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Rigger	m.d.	0.06456		-	240.00	15.49
Carpenter	m.d.	0.03560		-	220.00	7.83
Skilled labour	m.d.	0.11366		-	240.00	27.28
Common labour	m.d.	0.15162		-	170.00	25.78
Sub-total				<u>0.46</u>		<u>104.14</u>
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Crawler crane, 22.5 ton	hr.	0.12100	32.30	3.91	111.00	13.43
Concrete bucket, 1.0 m3	hr.	0.24200	10.20	2.47	35.00	8.47
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	3.90	0.90	10.30	2.38
Sub-total				<u>9.17</u>		<u>30.51</u>
3. Materials						
Diesel oil	lit.	1.15962	0.52	0.60	0.36	0.42
Lubricant	lit.	0.23192	2.41	0.56	1.65	0.38
Cement	ton	0.32200	111.68	35.96	76.50	24.63
Admixture	kg	0.80500	1.85	1.49	1.26	1.01
Fine aggregate	m3	0.32670	10.12	3.31	92.40	30.19
Coarse aggregate	m3	0.41132	7.53	3.10	68.80	28.30
Sub-total				<u>45.02</u>		<u>84.93</u>
Total of (1+2+3)				54.65		219.59
4. Miscellaneous, 5%				2.73		10.98
Total of (1+2+3+4)				57.38		230.57
Overhead and profit, 20%				11.47		46.11
Grand total				<u>68.85</u>		<u>276.68</u>

Item No. : D2/04 and E2/02

(in Bill of Quantities)

Work : Concrete, Class C

Unit Price : Foreign Component
USS/m3 64.2Local Component
Rs./m3 262.6

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		-	350.00	9.97
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Rigger	m.d.	0.06456		-	240.00	15.49
Carpenter	m.d.	0.03560		-	220.00	7.83
Skilled labour	m.d.	0.11366		-	240.00	27.28
Common labour	m.d.	0.15162		-	170.00	25.78
Sub-total				0.46		104.14
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m3	hr.	0.04620	10.70	0.49	37.00	1.71
Crawler crane, 22.5 ton	hr.	0.06050	32.30	1.95	111.00	6.72
Concrete bucket, 1.0 m3	hr.	0.12100	10.20	1.23	35.00	4.24
Concrete pump car	hr.	0.00870	23.00	0.20	79.20	0.69
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				5.81		19.53
3. Materials						
Diesel oil	lit.	0.84372	0.52	0.44	0.36	0.30
Lubricant	lit.	0.16874	2.41	0.41	1.65	0.28
Cement	ton	0.32200	111.68	35.96	76.50	24.63
Admixture	kg	0.80500	1.85	1.49	1.26	1.01
Fine aggregate	m3	0.32670	10.12	3.31	92.40	30.19
Coarse aggregate	m3	0.41132	7.54	3.10	68.80	28.30
Sub-total				44.70		84.72
Total of (1+2+3)				50.98		208.39
4. Miscellaneous, 5%				2.55		10.42
Total of (1+2+3+4)				53.53		218.81
Overhead and profit, 20%				10.70		43.76
Grand total				64.23		262.57

Item No. : D2/05 and D2/06

(in Bill of Quantities)

Work : Concrete, Class C

Unit Price : Foreign Component
US\$/m³ 60.4

Local Component
Rs./m³ 250.0

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		-	350.00	9.97
Mechanic	m.d.	0.02560		-	300.00	7.68
Electrician	m.d.	0.02050		-	300.00	6.15
Operator	m.d.	0.00110		-	300.00	0.33
Ass. operator	m.d.	0.00110		-	220.00	0.24
Driver	m.d.	0.00770		-	240.00	1.85
Rigger	m.d.	0.06456		-	240.00	15.49
Carpenter	m.d.	0.03560		-	220.00	7.83
Skilled labour	m.d.	0.11366		-	240.00	27.28
Common labour	m.d.	0.15162		-	170.00	25.78
Sub-total				0.46		104.14
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2 m ³	hr.	0.04620	10.70	0.49	37.00	1.71
Concrete pump car	hr.	0.01450	23.00	0.33	79.20	1.15
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	3.90	0.90	10.30	2.38
Sub-total				3.12		9.76
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.32200	111.68	35.96	76.50	24.63
Admixture	kg	0.80500	1.85	1.49	1.26	1.01
Fine aggregate	m ³	0.32670	10.12	3.31	92.40	30.19
Coarse aggregate	m ³	0.41132	7.53	3.10	68.80	28.30
Sub-total				44.36		84.48
Total of (1+2+3)				47.95		198.38
4. Miscellaneous, 5%				2.40		9.92
Total of (1+2+3+4)				50.35		208.30
Overhead and profit, 20%				10.07		41.66
Grand total				60.42		249.96

Item No. : D2/11
(in Bill of Quantities)

Work : Form F4

Unit Price : Foreign Component
US\$/m² 12.6
Local Component
Rs./m² 367.0

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00666	171.23	1.14	570.00	3.80
Foreman	m.d.	0.04262		-	350.00	14.92
Driver	m.d.	0.01598		-	240.00	3.84
Rigger	m.d.	0.10301		-	240.00	24.72
Carpenter	m.d.	0.20602		-	220.00	45.32
Skilled labour	m.d.	0.04800		-	240.00	11.52
Common labour	m.d.	0.35842		-	170.00	60.93
Sub-total				1.14		165.05
2. Equipment						
Ordinary truck, 6 ton	hr.	0.10500	5.90	0.62	20.60	2.16
Sub-total				0.62		2.16
3. Materials						
Diesel oil	lit.	0.68250	0.52	0.35	0.36	0.25
Lubricant	lit.	0.13650	2.41	0.33	1.65	0.23
Timber, plank	m ³	0.00800	238.69	1.91	13,080.00	104.64
Timber, square	m ³	0.00130	211.68	0.28	11,600.00	15.08
Plywood	m ²	0.27500	10.34	2.84	7.09	1.95
Separator	pc.	2.22000	0.42	0.93	0.32	0.71
Cone	pc.	4.40000	0.29	1.28	0.22	0.97
Form oil	lit.	0.10000	2.21	0.22	1.52	0.15
Nail	kg	0.10000	0.93	0.09	0.64	0.06
Sub-total				8.23		124.04
Total of (1+2+3)				9.99		291.24
4. Miscellaneous, 5%				0.50		14.56
Total of (1+2+3+4)				10.49		305.80
Overhead and profit, 20%				2.10		61.16
Grand total				12.59		366.96

Item No. : D2/13 and E2/08
(in Bill of Quantities)

Work : Bituminous Joint Filler in Contraction Joints

Unit Price : Foreign Component US\$/m2 25.7
Local Component Rs./m2 132.6

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00200	171.23	0.34	570.00	1.14
Foreman	m.d.	0.02000		-	350.00	7.00
Driver	m.d.	0.03300		-	240.00	7.92
Carpenter	m.d.	0.16500		-	220.00	36.30
Skilled labour	m.d.	0.10000		-	240.00	24.00
Common labour	m.d.	0.06600		-	170.00	11.22
Sub-total				0.34		87.58
2. Equipment						
Ordinary truck, 6 ton	hr.	0.20000	5.90	1.18	20.60	4.12
Sub-total				1.18		4.12
3. Materials						
Diesel oil	lit.	1.30000	0.52	0.68	0.36	0.47
Lubricant	lit.	0.26000	2.41	0.63	1.65	0.43
Joint filler	m2	1.10000	15.96	17.56	11.51	12.66
Sub-total				18.86		13.56
Total of (1+2+3)				20.38		105.26
4. Miscellaneous, 5%				1.02		5.26
Total of (1+2+3+4)				21.40		110.52
Overhead and profit, 20%				4.28		22.10
Grand total				25.68		132.62

Item No. : D3/01
(in Bill of Quantities)

Work : P.V.C. Perforated Drain Pipe, 250 mm Dia.

Unit Price : Foreign Component Local Component
US\$/m 30.9 Rs./m 148.8

Specification Clause No. T2.9.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.07500		-	350.00	26.25
Driver	m.d.	0.01313		-	240.00	3.15
Skilled labour	m.d.	0.19469		-	220.00	42.83
Common labour	m.d.	0.15750		-	170.00	26.78
Sub-total						<u>99.01</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.03729	5.90	0.22	20.60	0.77
Sub-total				<u>0.22</u>		<u>0.77</u>
3. Materials						
Diesel oil	lit.	0.24239	0.52	0.13	0.36	0.09
Lubricant	lit.	0.04848	2.41	0.12	1.65	0.08
Perforated P.V.C. pipe, 250 mm dia.	m	1.00000	24.03	24.03	17.40	17.40
Sub-total				<u>24.27</u>		<u>17.57</u>
Total of (1+2+3)				24.49		117.34
4. Miscellaneous, 5%				1.23		6.05
Total of (1+2+3+4)				25.72		123.39
Overhead and profit, 20%				5.15		25.40
Grand total				<u>30.87</u>		<u>148.79</u>

Item No. : D3/03
(in Bill of Quantities)

Work : Steel Drain Pipe, 250 mm Dia.

Unit Price : Foreign Component
US\$/m 35.2

Local Component
Rs./m 345.2

Specification Clause No. T2.9.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.24000		-	350.00	84.00
Rigger	m.d.	0.24000		-	240.00	57.60
Driver	m.d.	0.02101		-	240.00	5.04
Common labour	m.d.	0.62302		-	170.00	105.91
Sub-total						<u>252.56</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.06992	7.00	0.49	23.60	1.65
Sub-total				<u>0.49</u>		<u>1.65</u>
3. Materials						
Diesel oil	lit.	0.45448	0.52	0.24	0.36	0.16
Lubricant	lit.	0.09090	2.41	0.22	1.65	0.15
Steel pipe, 250 mm dia.	m	1.00000	26.95	26.95	19.46	19.46
Sub-total				<u>27.41</u>		<u>19.77</u>
Total of (1+2+3)				27.89		273.98
4. Miscellaneous, 5%				1.40		13.70
Total of (1+2+3+4)				29.29		287.68
Overhead and profit, 20%				5.86		57.53
Grand total				<u>35.15</u>		<u>345.21</u>

Item No. : D3/04

(in Bill of Quantities)

Work : Geo-textile made Drain

Unit Price : Foreign Component
US\$/m 32.2Local Component
Rs./m 134.6

Specification Clause No. T2.7.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00300	171.23	0.51	570.00	1.71
Foreman	m.d.	0.00300		-	350.00	1.05
Driver	m.d.	0.06000		-	240.00	14.40
Rigger	m.d.	0.08000		-	240.00	19.20
Skilled labour	m.d.	0.08000		-	240.00	19.20
Common labour	m.d.	0.15000		-	170.00	25.50
Sub-total				0.51		81.06
2. Equipment						
Ordinary truck, 6 ton	hr.	0.48000	5.90	2.83	20.60	9.89
Sub-total				2.83		9.89
3. Materials						
Diesel oil	lit.	3.12000	0.52	1.62	0.36	1.12
Lubricant	lit.	0.62400	2.41	1.50	1.65	1.03
Geo-textile drain	m	1.03000	18.50	19.06	13.30	13.70
Sub-total				22.18		15.85
Total of (1+2+3)				25.53		106.80
4. Miscellaneous, 5%				1.28		5.34
Total of (1+2+3+4)				26.81		112.14
Overhead and profit, 20%				5.36		22.43
Grand total				32.17		134.57

Item No. : D6
(in Bill of Quantities)

Work : /01 Fabrication, Transportation and painting – Steel Grider

Unit Price : Foreign Component
US\$/kg 2.7
Local Component
Rs./kg 1.0

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Materials Structural steel	kg	1.03000	0.62	0.64	0.42	0.43
2. Manufacturing, 200% of materials	L.S.			1.07		0.27
3. Inspection, packing, transportation and installation, 50% of manufacturing	L.S.			0.54		0.14
Total of (1+2+3)				2.25		0.84
Overhead and profit, 20%				0.45		0.17
Grand total				<u>2.70</u>		<u>1.01</u>

Item No. : D6
 (in Bill of Quantities)

Work : /01 Fabrication, Transportation and painting – Painting (Shop)

Unit Price : Foreign Component
 USS/m2 34.8
 Local Component
 Rs./m2 0

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17		-
Painter, foreign	m.d.	0.20000	130.00	26.00		-
Sub-total				<u>26.17</u>		
2. Materials						
Iron burnish paper	sheet	0.05000	0.30	0.02		-
Steel paint	kg	0.40000	3.50	1.40		-
Sub-total				<u>1.42</u>		
Total of (1+2)				27.59		
3. Miscellaneous, 5%				1.38		
Total of (1+2+3)				28.97		
Overhead and profit, 20%				5.79		
Grand total				<u>34.76</u>		<u>0.00</u>

Item No. : D6

(in Bill of Quantities)

Work : /01 Fabrication, Transportation and Painting – Painting (Splice)

Unit Price : Foreign Component
US\$/m2 2.0

Local Component
Rs./m2 61.8

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17	570.00	0.57
Foreman	m.d.	0.01000		–	350.00	3.50
Painter	m.d.	0.20000		–	220.00	44.00
Sub-total				<u>0.17123</u>	<u>1140</u>	<u>48.07</u>
2. Materials						
Iron burnish paper	sheet	0.05000	0.30	0.02	0.20	0.01
Steel paint	kg	0.40000	3.50	1.40	2.40	0.96
sub-total				<u>1.42</u>		<u>0.97</u>
Total of (1+2)				1.59		49.04
3. Miscellaneous, 5%				0.08		2.45
Total of (1+2+3)				1.67		51.49
Overhead and profit, 20%				0.33		10.30
Grand total				<u>2.00</u>		<u>61.79</u>

Item No. : D6
(in Bill of Quantities)

Work : /01 Fabrication, Transportation and Painting – Painting (Field)

Unit Price : Foreign Component
US\$/m2 2.2

Local Component
Rs./m2 68.6

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00200	171.23	0.34	570.00	1.14
Foreman	m.d.	0.01000		-	350.00	3.50
Chief Painter	m.d.	0.02000		-	240.00	4.80
Painter	m.d.	0.20000		-	220.00	44.00
Sub-total				<u>0.34</u>		<u>53.44</u>
2. Materials						
Iron burnish paper	sheet	0.05000	0.30	0.02	0.20	0.01
Steel paint	kg	0.40000	3.50	1.40	2.40	0.96
sub-total				<u>1.42</u>		<u>0.97</u>
Total of (1+2)				1.76		54.41
3. Miscellaneous, 5%				0.09		2.72
Total of (1+2+3)				1.85		57.13
Overhead and profit, 20%				0.37		11.43
Grand total				<u>2.22</u>		<u>68.56</u>

Item No. : D6
 (in Bill of Quantities)

Work : /02 Incidental Facilities – Bearing Shoe, 50 ton (Fix)

Unit Price : Foreign Component
 US\$/ea. 598.6
 Local Component
 Rs./ea. 968.3

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.06840	171.23	11.71	570.00	38.99
Foreman	m.d.	0.06840		–	350.00	23.94
Driver	m.d.	0.01200		–	240.00	2.88
Rigger	m.d.	0.68400		–	240.00	164.16
Common labour	m.d.	1.20000		–	170.00	204.00
Sub-total				<u>11.71</u>		<u>433.97</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.03000	5.90	0.18	20.60	0.62
Sub-total				<u>0.18</u>		<u>0.62</u>
3. Materials						
Diesel oil	lit.	0.19500	0.52	0.10	0.36	0.07
Lubricant	lit.	0.03900	2.41	0.09	1.65	0.06
Bearing shoe	ea.	1.00000	463.03	463.03	333.80	333.80
Sub-total				<u>463.23</u>		<u>333.93</u>
Total of (1+2+3)				475.11		768.52
4. Miscellaneous, 5%				23.76		38.43
Total of (1+2+3+4)				498.87		806.95
Overhead and profit, 20%				99.77		161.39
Grand total				<u>598.64</u>		<u>968.34</u>

Item No. : D6

(in Bill of Quantities)

Work : /02 Incidental Facilities – Bearing Shoe, 50 ton (Mov.)

Unit Price : Foreign Component
US\$/ea. 622.9

Local Component
Rs./ea. 985.9

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.06840	171.23	11.71	570.00	38.99
Foreman	m.d.	0.06840		–	350.00	23.94
Driver	m.d.	0.01200		–	240.00	2.88
Rigger	m.d.	0.68400		–	240.00	164.16
Common labour	m.d.	1.20000		–	170.00	204.00
Sub-total				<u>11.71</u>		<u>433.97</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.03000	5.90	0.18	20.60	0.62
Sub-total				<u>0.18</u>		<u>0.62</u>
3. Materials						
Diesel oil	lit.	0.19500	0.52	0.10	0.36	0.07
Lubricant	lit.	0.03900	2.41	0.09	1.65	0.06
Bearing shoe	ea.	1.00000	482.32	482.32	347.71	347.71
Sub-total				<u>482.52</u>		<u>347.84</u>
Total of (1+2+3)				494.40		782.43
4. Miscellaneous, 5%				24.72		39.12
Total of (1+2+3+4)				519.12		821.55
Overhead and profit, 20%				103.82		164.31
Grand total				<u>622.94</u>		<u>985.86</u>

Item No. : D6
 (in Bill of Quantities)

Work : /02 Incidental Facilities – Contraction Joint

Unit Price : Foreign Component Local Component
 US\$/kg 1.1 Rs./kg 19.5

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00100	171.23	0.17	570.00	0.57
Foreman	m.d.	0.00100		—	350.00	0.35
Driver	m.d.	0.00100		—	240.00	0.24
Concrete worker	m.d.	0.02000		—	200.00	4.00
Steel worker	m.d.	0.03732		—	220.00	8.21
Common labour	m.d.	0.00861		—	170.00	1.46
Sub-total				<u>0.17</u>		<u>14.83</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.00653	5.90	0.04	20.60	0.13
Sub-total				<u>0.04</u>		<u>0.13</u>
3. Materials						
Diesel oil	lit.	0.04245	0.52	0.02	0.36	0.02
Lubricant	lit.	0.00849	2.41	0.02	1.65	0.01
Steel	kg	1.00000	0.62	0.62	0.47	0.47
Sub-total				<u>0.66</u>		<u>0.50</u>
Total of (1+2+3)				0.87		15.47
4. Miscellaneous, 5%				0.04		0.77
Total of (1+2+3+4)				0.91		16.24
Overhead and profit, 20%				0.18		3.25
Grand total				<u>1.09</u>		<u>19.49</u>

Item No. : D6
 (in Bill of Quantities)

Work : /02 Incidental Facilities –Drainage Hole including Pipe

Unit Price : Foreign Component US\$/ea. 4.9
 Local Component Rs./ea. 55.9

Specification Clause No. T11.11.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.03750		–	350.00	13.13
Driver	m.d.	0.00657		–	240.00	1.58
Common labour	m.d.	0.15577		–	170.00	26.48
Sub-total						<u>41.18</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.01865	5.90	0.11	20.60	0.38
Sub-total				<u>0.11</u>		<u>0.38</u>
3. Materials						
Diesel oil	lit.	0.12120	0.52	0.06	0.36	0.04
Lubricant	lit.	0.02424	2.41	0.06	1.65	0.04
Steel pipe, 100mm dia.	m	0.50000	7.38	3.69	5.34	2.67
Sub-total				<u>3.81</u>		<u>2.75</u>
Total of (1+2+3)				3.92		44.32
4. Miscellaneous, 5%				0.20		2.22
Total of (1+2+3+4)				4.12		46.54
Overhead and profit, 20%				0.82		9.31
Grand total				<u>4.94</u>		<u>55.85</u>

Item No. : D6
 (in Bill of Quantities)

Work : /02 Joint Filler

Unit Price : Foreign Component
 USS/m 19.1

Local Component
 Rs./m 75.2

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00180	171.23	0.31	570.00	1.03
Foreman	m.d.	0.01800		-	350.00	6.30
Driver	m.d.	0.02970		-	240.00	7.13
Skilled labour	m.d.	0.09000		-	240.00	21.60
Common labour	m.d.	0.05940		-	170.00	10.10
Sub-total				<u>0.31</u>		<u>46.15</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.18000	5.90	1.06	20.60	3.71
Sub-total				<u>1.06</u>		<u>3.71</u>
3. Materials						
Diesel oil	lit.	1.17000	0.52	0.61	0.36	0.42
Lubricant	lit.	0.23400	2.41	0.56	1.65	0.39
Joint filler	m	1.00000	12.64	12.64	9.04	9.04
Sub-total				<u>13.81</u>		<u>9.85</u>
Total of (1+2+3)				15.18		59.71
4. Miscellaneous, 5%				0.76		2.99
Total of (1+2+3+4)				15.94		62.70
Overhead and profit, 20%				3.19		12.54
Grand total				<u>19.13</u>		<u>75.24</u>

Item No. : E2/03
(in Bill of Quantities)

Work : /03 Concrete Work for Slab – Concrete Class D for Handrail Pole

Unit Price : Foreign Component
US\$/m3 51.0
Local Component
Rs./m3 226.8

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.55
Foreman	m.d.	0.02848		–	350.00	9.97
Mechanic	m.d.	0.02560		–	300.00	7.68
Electrician	m.d.	0.02050		–	300.00	6.15
Operator	m.d.	0.00110		–	300.00	0.33
Ass. operator	m.d.	0.00110		–	220.00	0.24
Driver	m.d.	0.00770		–	240.00	1.85
Rigger	m.d.	0.00456		–	240.00	1.09
Carpenter	m.d.	0.03560		–	220.00	7.83
Skilled labour	m.d.	0.11366		–	240.00	27.28
Common labour	m.d.	0.15162		–	170.00	25.78
Sub-total				0.46		89.74
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2m3	hr.	0.04620	10.70	0.49	37.00	1.71
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				2.42		7.89
3. Materials						
Diesel oil	lit.	0.39732	0.52	0.21	0.36	0.14
Lubricant	lit.	0.07946	2.41	0.19	1.65	0.13
Cement	ton	0.26200	111.68	29.26	76.50	20.04
Admixture	kg	0.66500	1.85	1.23	1.26	0.84
Fine aggregate	m3	0.35493	10.12	3.59	92.40	32.80
Coarse aggregate	m3	0.41250	7.53	3.11	68.80	28.38
Sub-total				37.59		82.33
Total of (1+2+3)				40.47		179.97
4. Miscellaneous, 5%				2.02		9.00
Total of (1+2+3+4)				42.49		188.97
Overhead and profit, 20%				8.49		37.79
Grand total				50.98		226.76

Item No. : D6

(in Bill of Quantities)

Work : /03 Concrete Work for Slab – Concrete Class G for Slab

Unit Price : Foreign Component
US\$/m3 58.1Local Component
Rs./m3 229.1

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00271	171.23	0.46	570.00	1.54
Foreman	m.d.	0.02848		–	350.00	9.97
Mechanic	m.d.	0.02560		–	300.00	7.68
Electrician	m.d.	0.02050		–	300.00	6.15
Operator	m.d.	0.00110		–	300.00	0.33
Ass. operator	m.d.	0.00110		–	220.00	0.24
Driver	m.d.	0.00770		–	240.00	1.85
Rigger	m.d.	0.00456		–	240.00	1.09
Carpenter	m.d.	0.03560		–	220.00	7.83
Skilled labour	m.d.	0.11366		–	240.00	27.28
Common labour	m.d.	0.15162		–	170.00	25.78
Sub-total				0.46		89.74
2. Equipment						
Concrete batcher plant	hr.	0.00560	16.90	0.09	57.50	0.32
Agitator truck, 3.2m3	hr.	0.04620	10.70	0.49	37.00	1.71
Concrete pump car	hr.	0.01450	23.00	0.33	79.20	1.15
Curing and others	hr.	1.00000	1.30	1.30	4.20	4.20
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				2.75		9.04
3. Materials						
Diesel oil	lit.	0.50607	0.52	0.26	0.36	0.18
Lubricant	lit.	0.10121	2.41	0.24	1.65	0.17
Cement	ton	0.31000	111.68	34.62	76.50	23.72
Admixture	kg	0.77000	1.85	1.42	1.26	0.97
Fine aggregate	m3	0.39527	10.12	4.00	92.40	36.52
Coarse aggregate	m3	0.31193	7.53	2.35	68.80	21.46
Sub-total				42.90		83.02
Total of (1+2+3)				46.12		181.80
4. Miscellaneous, 5%				2.30		9.09
Total of (1+2+3+4)				48.42		190.89
Overhead and profit, 20%				9.68		38.18
Grand total				58.10		229.07

Item No. : D6

(in Bill of Quantities)

Work : /03 Concrete Work for Slab-Form F3

Unit Price : Foreign Component
US\$/m2 18.2Local Component
Rs./m2 189

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00240	171.23	0.41	570.00	1.37
Foreman	m.d.	0.04262		-	350.00	14.92
Driver	m.d.	0.01598		-	240.00	3.84
Carpenter	m.d.	0.20602		-	220.00	45.32
Skilled labour	m.d.	0.04800		-	240.00	11.52
Common labour	m.d.	0.35842		-	170.00	60.93
Sub-total				<u>0.41</u>		<u>137.90</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.12600	5.90	0.74	20.60	2.60
Sub-total				<u>0.74</u>		<u>2.60</u>
3. Materials						
Diesel oil	lit.	0.81900	0.52	0.43	0.36	0.29
Lubricant	lit.	0.16380	2.41	0.39	1.65	0.27
Steel batter	kg	5.40000	0.39	2.11	0.30	1.62
U-clip	pc.	1.20000	0.50	0.60	0.38	0.46
Hook bolt	pc.	0.40560	1.57	0.64	1.20	0.49
Separator	pc.	1.26000	0.42	0.53	0.32	0.40
Cone	pc.	2.52000	0.29	0.73	0.22	0.55
Pipe support	pc.	0.48000	0.45	0.22	0.34	0.16
Metal form, 300 mm	pc.	0.10800	22.92	2.48	15.70	1.70
Metal form, 200 mm	pc.	0.20400	22.20	4.53	15.21	3.10
Metal form, 100 mm	pc.	0.02400	15.58	0.37	10.67	0.26
Form oil	lit.	0.12000	2.21	0.27	1.52	0.18
Sub-total				<u>13.28</u>		<u>9.49</u>
Total of (1+2+3)				14.44		149.98
4. Miscellaneous, 5%				0.72		7.50
Total of (1+2+3+4)				15.16		157.48
Overhead and profit, 20%				3.03		31.50
Grand total				<u>18.19</u>		<u>188.98</u>

Item No. : E3/02
 (in Bill of Quantities)

Work : Steel Air Vent Pipe, 200 mm Dia.

Unit Price : Foreign Component Local Component
 USS/m 23.3 Rs./m 201.8

Specification Clause No. T9.6.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.15000		-	350.00	52.50
Rigger	m.d.	0.15000		-	240.00	36.00
Driver	m.d.	0.00657		-	240.00	1.58
Common labour	m.d.	0.33097		-	170.00	56.26
Sub-total						<u>146.34</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.02331	7.00	0.16	23.60	0.55
Sub-total				<u>0.16</u>		<u>0.55</u>
3. Materials						
Diesel oil	lit.	0.15152	0.52	0.08	0.36	0.05
Lubricant	lit.	0.03030	2.41	0.07	1.65	0.05
Steel pipe, 200 mm dia.	m	1.00000	18.17	18.17	13.15	13.15
Sub-total				<u>18.32</u>		<u>13.25</u>
Total of (1+2+3)				18.48		160.15
4. Miscellaneous, 5%				0.92		8.01
Total of (1+2+3+4)				19.41		168.15
Overhead and profit, 20%				3.88		33.63
Grand total				<u>23.29</u>		<u>201.78</u>

Item No. : E1/04
(in Bill of Quantities)

Work : Chipping of Existing Concrete

Unit Price : Foreign Component US\$/m² 0.7 Local Component Rs./m² 10.3

Specification Clause No. T2.11

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00040	171.23	0.07	570.00	0.23
Foreman	m.d.	0.00400		-	350.00	1.40
Skilled labour	m.d.	0.01500		-	240.00	3.60
Common labour	m.d.	0.00800		-	170.00	1.36
Sub-total				<u>0.07</u>		<u>6.59</u>
2. Equipment						
Concrete breaker, 40 kg	hr.	0.03572	3.10	0.11	10.30	0.37
Air compressor, 10.6 m ³ /min	hr.	0.00595	54.50	0.32	187.00	1.11
Sub-total				<u>0.44</u>		<u>1.48</u>
3. Materials						
Diesel oil	lit.	0.09104	0.52	0.05	0.36	0.03
Lubricant	lit.	0.01821	2.41	0.04	1.65	0.03
Sub-total				<u>0.09</u>		<u>0.06</u>
Total of (1+2+3)				0.59		8.13
4. Miscellaneous, 5%				0.03		0.41
Total of (1+2+3+4)				0.62		8.54
Overhead and profit, 20%				0.12		1.71
Grand total				<u>0.75</u>		<u>10.25</u>

Item No. : E3/01 and F4/01
(in Bill of Quantities)

Work : Embedded Metalwork

Unit Price : Foreign Component
US\$/m² 0.8

Local Component
Rs./m² 17.2

Specification Clause No. T9.6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00100		-	350.00	0.35
Driver	m.d.	0.00100		-	240.00	0.24
Concrete worker	m.d.	0.01827		-	200.00	3.65
Steel worker	m.d.	0.03393		-	220.00	7.46
Common labour	m.d.	0.00783		-	170.00	1.33
Sub-total						<u>13.04</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.00653	5.90	0.04	20.60	0.13
Sub-total				<u>0.04</u>		<u>0.13</u>
3. Materials						
Diesel oil	lit.	0.04245	0.52	0.02	0.36	0.02
Lubricant	lit.	0.00849	2.41	0.02	1.65	0.01
Steel	kg	1.00000	0.56	0.56	0.43	0.43
Sub-total				<u>0.60</u>		<u>0.46</u>
Total of (1+2+3)				0.64		13.63
4. Miscellaneous, 5%				0.03		0.68
Total of (1+2+3+4)				0.67		14.32
Overhead and profit, 20%				0.13		2.86
Grand total				<u>0.81</u>		<u>17.18</u>

Item No. : F1/01

(in Bill of Quantities)

Work : Excavation, Underground in Valve Chamber Access Shaft

Unit Price : Foreign Component
US\$/m3 50.2Local Component
Rs./m3 256.1

Specification Clause No. T2.4.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00748	171.23	1.28	570.00	4.26
Foreman	m.d.	0.03718		-	525.00	19.52
Operator	m.d.	0.06622		-	450.00	29.80
Ass. operator	m.d.	0.06622		-	330.00	21.85
Driver	m.d.	0.00825		-	405.00	3.34
Driller	m.d.	0.07865		-	330.00	25.95
Skilled labour	m.d.	0.00330		-	360.00	1.19
Common labour	m.d.	0.06204		-	255.00	15.82
Sub-total				<u>1.28</u>		<u>121.74</u>
2. Equipment						
Bulldozer, 21 ton	hr.	0.00700	43.50	0.30	149.00	1.04
Tractor shovel, 2.2 m3	hr.	0.01600	30.80	0.49	105.80	1.69
Dump truck, 11 ton	hr.	0.05000	11.30	0.57	39.10	1.96
Lift for shaft, 1.0 m3	hr.	0.50000	30.00	15.00	102.80	51.40
Air compressor, 27 m3/min.	hr.	0.10000	5.30	0.53	18.50	1.85
Leg hammer	hr.	0.50000	5.80	2.90	19.50	9.75
Pick hammer	hr.	0.25000	0.80	0.20	3.10	0.78
Sub-total				<u>19.99</u>		<u>68.47</u>
3. Materials						
Diesel oil	lit.	2.86980	0.52	1.49	0.36	1.03
Lubricant	lit.	0.57396	2.41	1.38	1.65	0.95
Dynamite	kg	0.38750	12.39	4.80	8.49	3.29
Detonator	pc.	2.44290	3.01	7.35	2.06	5.03
Bit	pc.	0.01530	49.63	0.76	37.96	0.58
Rod	pc.	0.00620	322.55	2.00	246.75	1.53
Insert bit	pc.	0.00620	130.15	0.81	99.57	0.62
Sub-total				<u>18.60</u>		<u>13.03</u>
Total of (1+2+3)				39.87		203.23
4. Miscellaneous, 5%				1.99		10.16
Total of (1+2+3+4)				41.86		213.40
Overhead and profit, 20%				8.37		42.68
Grand total				<u>50.23</u>		<u>256.08</u>

Item No. : F3/02
 (in Bill of Quantities)

Work : Concrete, Class D, for Plug Concrete around
 Steel Pipe

Unit Price : Foreign Component Local Component
 US\$/m3 54.5 Rs./m3 480.6

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00470	171.23	0.80	570.00	2.68
Foreman	m.d.	0.04700		-	525.00	24.68
Mechanic	m.d.	0.01200		-	450.00	5.40
Electrician	m.d.	0.01200		-	450.00	5.40
Operator	m.d.	0.00220		-	450.00	0.99
Ass. operator	m.d.	0.00220		-	330.00	0.73
Driver	m.d.	0.02500		-	360.00	9.00
Rigger	m.d.	0.06600		-	360.00	23.76
Carpenter	m.d.	0.05000		-	330.00	16.50
Skilled labour	m.d.	0.07400		-	360.00	26.64
Common labour	m.d.	0.66800		-	255.00	170.34
Sub-total				0.80		286.11
2. Equipment						
Concrete batcher plant	hr.	0.00600	16.90	0.10	57.50	0.35
Agitator truck, 3.2 m3	hr.	0.14700	10.70	1.57	37.00	5.44
Concrete pump car	hr.	0.05900	23.00	1.36	79.20	4.67
Concrete vibrator	hr.	0.23100	2.30	0.53	7.20	1.66
Sub-total				3.56		12.12
3. Materials						
Diesel oil	lit.	1.70670	0.52	0.89	0.36	0.61
Lubricant	lit.	0.34134	2.41	0.82	1.65	0.56
Cement	ton	0.26200	111.68	29.26	76.50	20.04
Admixture	kg	0.65500	1.85	1.21	1.26	0.83
Fine aggregate	m3	0.35493	10.12	3.59	92.40	32.80
Coarse aggregate	m3	0.41250	7.53	3.11	68.80	28.38
Sub-total				38.88		83.22
Total of (1+2+3)				43.25		381.45
4. Miscellaneous, 5%				2.16		19.07
Total of (1+2+3+4)				45.41		400.52
Overhead and profit, 20%				9.08		80.10
Grand total				54.49		480.63

Item No. : F3/03
(in Bill of Quantities)

Work : Form F1 (Tunnel)

Unit Price : Foreign Component
US\$/m2 11.2

Local Component
Rs./m2 266.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.01776	-	-	525.00	9.32
Driver	m.d.	0.00666	-	-	360.00	2.40
Carpenter	m.d.	0.08584	-	-	330.00	28.33
Skilled labour	m.d.	0.02000	-	-	360.00	7.20
Common labour	m.d.	0.14934	-	-	255.00	38.08
Sub-total						<u>85.33</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.10500	5.90	0.62	20.60	2.16
Sub-total				<u>0.62</u>		<u>2.16</u>
3. Materials						
Diesel oil	lit.	0.68250	0.52	0.35	0.36	0.25
Lubricant	lit.	0.13650	2.41	0.33	1.65	0.23
Timber, plank	m3	0.00800	238.69	1.91	13,080.00	104.64
Timber, square	m3	0.00130	211.68	0.28	11,600.00	15.08
Plywood	m3	0.27500	10.34	2.84	7.09	1.95
Separator	pc.	2.22000	0.42	0.93	0.32	0.71
Cone	pc.	4.40000	0.29	1.28	0.22	0.97
Form oil	lit.	0.10000	2.21	0.22	1.52	0.15
Nail	kg	0.10000	0.93	0.09	0.64	0.06
Sub-total				<u>8.23</u>		<u>124.04</u>
Total of (1+2+3)				8.85		211.53
4. Miscellaneous, 5%				0.44		10.58
Total of (1+2+3+4)				9.30		222.11
Overhead and profit, 20%				1.86		44.42
Grand total				<u>11.16</u>		<u>266.53</u>

Item No. : F3/04

(in Bill of Quantities)

Work : Form F2 (Tunnel)

Unit Price : Foreign Component
USS/m2 15.2Local Component
Rs./m2 229.2

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00200	171.23	0.34	570.00	1.14
Foreman	m.d.	0.03552	-	-	525.00	18.65
Driver	m.d.	0.01332	-	-	360.00	4.80
Carpenter	m.d.	0.17168	-	-	330.00	56.65
Skilled labour	m.d.	0.04000	-	-	360.00	14.40
Common labour	m.d.	0.29868	-	-	255.00	76.16
Sub-total				0.34		171.80
2. Equipment						
Ordinary truck, 6 ton	hr.	0.10500	5.90	0.62	20.60	2.16
Sub-total				0.62		2.16
3. Materials						
Diesel oil	lit.	0.68250	0.52	0.35	0.36	0.25
Lubricant	lit.	0.13650	2.41	0.33	1.65	0.23
Steel batter	kg	4.50000	0.39	1.76	0.30	1.35
U-clip	pc.	1.00000	0.50	0.50	0.38	0.38
Hook bolt	pc.	0.33800	1.57	0.53	1.20	0.41
Separator	pc.	1.05000	0.42	0.44	0.32	0.34
Cone	pc.	2.10000	0.29	0.61	0.22	0.46
Pipe support	pc.	0.40000	0.45	0.18	0.34	0.14
Metal form, 300 mm	pc.	0.09000	22.92	2.06	15.70	1.41
Metal form, 200 mm	pc.	0.17000	22.20	3.77	15.21	2.59
Metal form, 100 mm	pc.	0.02000	15.58	0.31	10.67	0.21
Form oil	lit.	0.10000	2.21	0.22	1.52	0.15
Sub-total				11.07		7.90
Total of (1+2+3)				12.03		181.87
4. Miscellaneous, 5%				0.60		9.09
Total of (1+2+3+4)				12.63		190.96
Overhead and profit, 20%				2.53		38.19
Grand total				15.16		229.15

Item No. : F3/05
(in Bill of Quantities)

Work : Reinforcement Bar (Tunnel)

Unit Price : Foreign Component
US\$/ton 816.0

Local Component
Rs./ton 6,346.5

Specification Clause No. T4.1.18

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.18000		-	525.00	94.50
Driver	m.d.	0.12501		-	360.00	45.00
Skilled labour	m.d.	10.00000		-	330.00	3,300.00
Common labour	m.d.	4.50000		-	255.00	1,147.50
Sub-total						<u>4,587.00</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.33300	7.00	2.33	23.60	7.86
Sub-total				<u>2.33</u>		<u>7.86</u>
3. Materials						
Diesel oil	lit.	2.16450	0.52	1.13	0.36	0.78
Lubricant	lit.	0.43290	2.41	1.04	1.65	0.71
Deformed steel bar	ton	1.00000	584.62	584.62	400.46	400.46
Wire, 0.8 mm	%	10.00000		58.46		40.05
Sub-total				<u>645.25</u>		<u>442.00</u>
Total of (1+2+3)				647.58		5,036.87
4. Miscellaneous, 5%				32.38		251.84
Total of (1+2+3+4)				679.96		5,288.71
Overhead and profit, 20%				135.99		1,057.74
Grand total				<u>815.95</u>		<u>6,346.45</u>

Item No. : F2/01
(in Bill of Quantities)

Work : Contact Grouting between hining and Plug Concrete L.S.

Unit Price : Foreign Component US\$8,000 Local Component Rs.115,000

Specification Clause No. T3.12.7

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Embedded metal	kg	1,000	6.80	6,800	102.30	102,300
2. Contact Grouting	ton	2	246.10	492	722.30	1,445
Sub-total				<u>7,292</u>		<u>103,745</u>
3. Miscellaneous	L.S.			708		11,255
Ground Total				<u>8,000</u>		<u>115,000</u>

Item No. : F3/06
 (in Bill of Quantities)

Work : Cooling System and cooling Operation for Plug Concrete including 40 mm Dia. Thermometer L.S.

Unit Price : Foreign Component Local Component
 US\$ 25,000 Rs. 171,000

Specification Clause No. T4.3.3

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Cooling pipe, 25 mm dia.	m	1,200	18.00	21,600	127.30	152,760
Thermometer pipe, 40 mm dia.	m	40	1.10	44	0.80	32
Drain pipe, 200 mm dia.	m	40	23.70	948	217.10	8,684
Thermometer with cable	ea.	3	420.20	1,261	301.70	905
Sub-total				<u>23,853</u>		<u>162,381</u>
Cooling operation	L.S.			1,147		8,619
Grand total				<u>25,000</u>		<u>171,000</u>

Item No. : F3/06 Continued

(in Bill of Quantities)

Work : Cooling Pipe, 25 mm Dia.

Unit Price : Foreign Component
US\$/m 18.0Local Component
Rs./m 127.3

Specification Clause No. T3.12.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.00220	171.23	0.38	570.00	1.25
Foreman	m.d.	0.02200		-	525.00	11.55
Mechanic	m.d.	0.05600		-	450.00	25.20
Driver	m.d.	0.00700		-	360.00	2.52
Skilled labour	m.d.	0.12500		-	360.00	45.00
Common labour	m.d.	0.01900		-	255.00	4.85
Sub-total				<u>0.38</u>		<u>90.37</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.04000	5.90	0.24	20.60	0.82
Sub-total				<u>0.24</u>		<u>0.82</u>
3. Materials						
Diesel oil	lit.	0.26000	0.52	0.14	0.36	0.09
Lubricant	lit.	0.05200	2.41	0.13	1.65	0.09
Cast iron pipe	m	0.06100	24.19	1.48	17.40	1.06
Valve	L.S.			10.47		7.54
Steel pipe, 25 mm dia.	m	1.03000	0.64	0.66	0.46	0.47
Expansion cupling	pc.	0.20000	3.96	0.79	2.88	0.58
Sub-total				<u>13.66</u>		<u>9.83</u>
Total of (1+2+3)				14.27		101.02
4. Miscellaneous, 5%				0.71		5.05
Total of (1+2+3+4)				14.98		106.07
Overhead and profit, 20%				3.00		21.21
Grand total				<u>17.98</u>		<u>127.29</u>

Item No. : F3/06 Continued

(in Bill of Quantities)

Work : Steel Pipe, 200 mm Dia.

Unit Price : Foreign Component
US\$/m 23.7

Local Component
Rs./m 217.1

Specification Clause No. T3.12.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.15000		-	350.00	52.50
Rigger	m.d.	0.15000		-	240.00	36.00
Driver	m.d.	0.01313		-	240.00	3.15
Common labour	m.d.	0.38938		-	170.00	66.19
Sub-total						<u>157.85</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.04661	7.00	0.33	23.60	1.10
Sub-total				<u>0.33</u>		<u>1.10</u>
3. Materials						
Diesel oil	lit.	0.30297	0.52	0.16	0.36	0.11
Lubricant	lit.	0.06059	2.41	0.15	1.65	0.10
Steel pipe, 200 mm dia.	m	1.00000	18.17	18.17	13.15	13.15
Sub-total				<u>18.47</u>		<u>13.36</u>
Total of (1+2+3)				18.80		172.30
4. Miscellaneous, 5%				0.94		8.62
Total of (1+2+3+4)				19.74		180.92
Overhead and profit, 20%				3.95		36.18
Grand total				<u>23.69</u>		<u>217.10</u>

Item No. : F4/02
 (in Bill of Quantities)

Work : Stairway and Handrail

Unit Price : Foreign Component
 US\$/kg 0.8
 Local Component
 Rs./kg 36.2

Specification Clause No. T9.6.2

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.01559		-	525.00	8.18
Driver	m.d.	0.00019		-	360.00	0.07
SSteel worker	m.d.	0.03118		-	330.00	10.29
Concrete worker	m.d.	0.01847		-	300.00	5.54
Common labour	m.d.	0.01847		-	225.00	4.16
Sub-total						<u>28.24</u>
2. Equipment						
Ordinary truck w/crane, 6 ton	hr	0.00200	7.00	0.01	23.60	0.05
Sub-total				<u>0.01</u>		<u>0.05</u>
3. Materials						
Diesel oil	lit.	0.01300	0.52	0.01	0.36	0.00
Lubricant	lit.	0.00260	2.41	0.01	1.65	0.00
Reinforcement bar	kg	1.00000	0.62	0.62	0.42	0.42
Sub-total				<u>0.63</u>		<u>0.43</u>
Total of (1+2+3)				0.65		28.72
4. Miscellaneous, 5%				0.03		1.44
Total of (1+2+3+4)				0.68		30.15
Overhead and profit, 20%				0.14		6.03
Grand total				<u>0.82</u>		<u>36.18</u>

Item No. : J/01

(in Bill of Quantities)

Work : Boulder Backfilling

Unit Price : Foreign Component
US\$/m3 10.9Local Component
Rs./m3 161.7

Specification Clause No. T3.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman	m.d.	0.00050		-	350.00	0.18
Driver	m.d.	0.00156		-	240.00	0.37
Common labour	m.d.	0.30000		-	170.00	51.00
Sub-total						<u>51.55</u>
2. Equipment						
Ordinary truck with crane, 6 ton	hr.	0.02662	7.00	0.19	23.60	0.63
Sub-total				<u>0.19</u>		<u>0.63</u>
3. Materials						
Diesel oil	lit.	0.17303	0.52	0.09	0.36	0.06
Lubricant	lit.	0.03461	2.41	0.08	1.65	0.06
Boulder	m3	1.00000	8.32	8.32	76.00	76.00
Sub-total				<u>8.49</u>		<u>76.12</u>
Total of (1+2+3)				8.68		128.30
4. Miscellaneous, 5%				0.43		6.41
Total of (1+2+3+4)				9.11		134.71
Overhead and profit, 20%				1.82		26.94
Grand total				<u>10.94</u>		<u>161.65</u>

Item No. : J/02
 (in Bill of Quantities)

Work : Providing Concrete Blocks

Unit Price : Foreign Component
 USS/m3 185.1

Local Component
 Rs./m3 2,519.3

Specification Clause No. T3.4

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.01350	171.23	2.31	570.00	7.70
Foreman	m.d.	0.13500		-	350.00	47.25
Operator	m.d.	0.06750		-	300.00	20.25
Ass. operator	m.d.	0.06750		-	220.00	14.85
Driver	m.d.	0.00844		-	240.00	2.03
Rigger	m.d.	0.06750		-	240.00	16.20
Skilled labour	m.d.	0.15000		-	240.00	36.00
Common labour	m.d.	0.30000		-	170.00	51.00
Sub-total				<u>2.31</u>		<u>195.27</u>
2. Equipment						
Ordinary truck, 6 ton	hr.	0.04496	5.90	0.27	20.60	0.93
Truck crane, 25 ton	hr.	0.06000	35.50	2.13	121.30	7.28
Sub-total				<u>2.40</u>		<u>8.20</u>
3. Materials						
Diesel oil	lit.	0.86224	0.52	0.45	0.36	0.31
Lubricant	lit.	0.17245	2.41	0.42	1.65	0.28
Concrete, Class E	m3	1.00000	45.90	45.90	224.50	224.50
Reinforcement bar	kg	30.00000	0.82	24.60	4.42	132.60
Form F1	m2	6.21000	11.40	70.79	231.60	1,438.24
Sub-total				<u>142.16</u>		<u>1,795.93</u>
Total of (1+2+3)				146.86		1,999.41
4. Miscellaneous, 5%				7.34		99.97
Total of (1+2+3+4)				154.21		2,099.38
Overhead and profit, 20%				30.84		419.88
Grand total				<u>185.05</u>		<u>2,519.25</u>

Item No. : J/03

(in Bill of Quantities)

Work : Cement Grouting

Unit Price : Foreign Component
USS/m 57.4Local Component
Rs./m 332.3

Specification Clause No. T3.6

Particulars	Unit	Quantity	Foregin Currency		Local Currency	
			Unit Price	Amount	Unit Price	Amount
1. Labour						
Foreman, foreign	m.d.	0.07500	171.23	12.84	570.00	42.75
Foreman	m.d.	0.03390		-	350.00	11.87
Mechanic	m.d.	0.03390		-	300.00	10.17
Electrician	m.d.	0.03390		-	300.00	10.17
Skilled labour	m.d.	0.13600		-	240.00	32.64
Common labour	m.d.	0.67800		-	170.00	115.26
Sub-total				12.84		222.86
2. Equipment						
Grout mixer, 200 lit. x 2	hr.	0.20000	9.80	1.96	33.90	6.78
Grout pump, 200 lit.	hr.	0.20000	23.60	4.72	81.20	16.24
Sub-total				6.68		23.02
3. Materials						
Cement	ton	0.20000	111.68	22.34	76.50	15.30
Admixture	kg	2.00000	1.85	3.70	1.26	2.52
Sub-total				26.04		17.82
Total of (1+2+3)				45.56		263.70
4. Miscellaneous, 5%				2.28		13.18
Total of (1+2+3+4)				47.84		276.88
Overhead and profit, 20%				9.57		55.38
Grand total				57.40		332.26



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