

AFRICAN DEVELOPMENT BANK  
GOVERNMENT OF MAURITIUS

CONTRACT  
FOR  
CONSTRUCTION  
OF  
BEAU BASSIN - PORT LOUIS LINK ROAD  
APPENDIX TO CONFIDENTIAL VOLUME  
UNIT PRICE ANALYSES OF WORK ITEMS

SEPTEMBER 1980

Japan International Cooperation Agency

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Note on Sheets for Unit Price Analysis  
of Work Item

The sheets for Unit Price Analysis of Work Item are prepared to meet the requirements stipulated in "Section 4.3.6 Cost Estimate" of Scope of Work agreed between the Ministry of Works of the Government of Mauritius and the Japan International Cooperation Agency.

As required in the section, the sheets are aimed to analyze the structure of both the Cost Element and Cost Component of each work item.

The Cost Element defined hereof are followings.

- (1) Equipment Cost Element
- (2) Labour Cost Element
- (3) Materials Cost Element
- (4) Overhead Cost Element, and
- (5) Profit Element

These five elements are shown in the first column, from which the fuel oil consumption cost is extracted and shown separately in order to adjust the unit price of work item in consideration of the abrupt variation of fuel oils.

The Cost Component defined hereof consists of following three costs.

- (1) Local Currency Cost Component
- (2) Foreign Exchange Cost Component, and
- (3) Taxes Component

The Taxes Component shall be comprized in the Local Currency Cost Component, but is separately shown in the sheets in amount or in rate against the unit price of each work item. It consists of three factors, that is, Import Duties, Corporate Tax and Personal Income Tax, which have been analized in an assumption established in the Confidential Report.

All the price levels put in the sheets relating to equipment, labour and materials are based on the result of site investigation in Mauritius in September of 1979 (Base Date).

In the series of sheets, the cost of Overhead and Profit are assumed to be 20% and 5% respectively in the rate for the sum of Equipment, Labour and Material Cost. The assumption is supported by the interviews with local contractors at the above-mentioned base date.

The ratio of Cost Component for each equipment labour and materials cost put in each sheet are derived from the detailed analysis described in the Confidential Report.

The unit prices analized in the sheets are verified in accuracy comparing with those of previously tendered projects or similar nature of works in Mauritius such as Northern Entrance Road, Relief Road to the North or Motorway through Port Louis.

So as to estimate the construction cost of the project, these analyses will be employed, but there may be some modifications or additions thereto, and also it is noted that the rates or materials or workmanships are not necessarily reflected by the detailed requirements of the Drawings.

Table: Unit Price Analysis of Work Item

Item No.	Allow for the Supervision Cost for the Engineer (Prime Cost Basis)										Total Cost			Rs. per %				
	Particular	Description	Unit Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Local Component	Foreign Component		Taxes Component			
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)							
						(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)							
A02.14																		
1.	Remuneration																	
	Expatriate Staff																	
	Resident Engineer		Man month	38	43,000													
	Highway Engineer		"	24	38,000													
	Bridge Engineer		"	21	38,000													
	Soils and Materials Specialist		"	26	38,000													
	S-total				4,332,000	20%	866,000	80%	3,466,000	(Exempted)								
	Local Staff																	
	Assistant Highway Engineer		Man month	30	4,000													
	Assistant Bridge Engineer		"	30	4,000													
	Assistant Sales and Materials Specialist		"	30	4,000													
	Inspector		"	90	3,000													
	Draughtsman		"	60	2,500													
	S-total				780,000	100%	780,000				20%	150,000						160,000
	Total				5,112,000	(32%)	1,646,000	(68%)	3,466,000	(3%)	160,000							160,000
	Remarks:																	





Table: Unit Price Analysis of Work Item

Item No.	Clearance and Grubbing										Total Cost					
											Local Component	Foreign Component	Taxes Component	Rs. 22,100 per 1.0 ha	40 %	60 %
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp. Unit cost (Rs)	Local Comp. (Rs)	Foreign Comp. Unit cost (Rs)	Foreign Comp. (Rs)	Unit cost (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)			
1	Equipment Cost															
	B.dozer	24t	40	235	9,400	60	2,400	175	7,000	35	1,400	28.7	5.7			
	D.shovel	1.6m3	30	135	4,050	35	1,050	100	3,000	20	600	16.4	3.2			
	D.truck	11t	30	50	1,500	20	600	30	900	14	420	9.8	3.9			
	s-total				14,950		4,050		10,900		2,420	1,930	450			
2	Labour Cost															
	Class 3 Operator B.dozer	24t	40	5.5	220	5.5	220			0.1	4		0.1			
	" 3 Operator D.shovel	1.6m3	30	5.5	165	5.5	165			0.1	3		0.1			
	" 3 Driver Dump truck	11t	30	5.5	165	5.5	165			0.1	3		0.1			
	" 2 Foreman		5	7.0	35	7.0	35			0.2	0		0.2			
	" 7 Unskilled labourer		200	3.0	600	3.0	600									
	s-total				1,185		1,185		10				10			
3	Material Cost															
	Miscellaneous		sum		1,500	35%	525	65%	975	28%	420	92%	390			
	total				17,635	(33%)	5,760	(67%)	11,875	(16%)	2,850	2,320	480			
4	Overhead		sum		3,565	60%	2,140	40%	1,425	20%	710	500	30%			
5	Profit		"		900	100%	900			50%	450	100%	450			
	g-total				22,100	(40%)	8,800	(60%)	13,300	(18%)	4,010	2,820	930			
Remarks:	Assumed; 3,000 m3 per 1.0 ha, pushing distance by B.dozer D=40 m W.S.=75 m3/h															



Table: Unit Price Analysis of Work Item

Item No.	Removal of Structures and Obstruction Existing metal bridge structures										Total Cost			Rs.1,040 per ton	
	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.	Unit cost (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
Unit cost (Rs)							(Rs)	Unit cost (Rs)	(Rs)						
1	Equipment Cost		(67%)												
		Wheel crane	h	8	350	2,800	90	720	2,080	53	424	43.5	8.5	1.0	
		Generator	"	5	22	110	6.6	33	77	3.7	19	3.2	0.4	0.1	
		Welding appliance	"	5	5.5	28	2.2	11	17	0.7	4	0.6	0.1		
		Truck	"	8	145	1,160	60	480	680	44	352	40.5	2.6	0.9	
		Miscellaneous	sum	20%		802	25%	200	602	15%	120	82%	16%	2%	
		s-total				4,900		1,444	3,456		919	790	111	18	
2	Labour Cost		(6%)												
	Class 1	Chief Foreman	h	1	10.5	10.5		10.5		0.7	0.7			0.7	
	"	2 Foreman	"	8	7	56		56		0.2	1.6			1.6	
	"	3 Operator	"	24	5.5	132		132		0.1	2.4			2.4	
	"	Unskilled labourer	"	80	3	240		240							
		s-total				439		439			5			5	
3	Material		(7%)												
		Miscellaneous	sum			501	35%	176	325	28%	140	92%	8%	10	
		total				5,840		2,059	3,781		1,064	920	121	23	
Remarks:															





Table: Unit Price Analysis of Work Item

Item No.	Roadway Excavation, Common Excavation (D ≤ 100 m)											Total Cost			
	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Unit cost (Rs)	Taxes Comp. (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
							Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)					
							Rs.24.2 per m3								
Local Component														37 %	
Foreign Component														63 %	
Taxes Component														17 %	
1	Equipment Cost														
	Excavation and Collection		DL=50 m)												
	B.dozer	34t	h	9	330	2,970	80	720	2,250	250	450	41	8	1	9
	"	24t	"	9	235	2,115	60	540	1,575	175	315	28.7	5.7	0.6	0.6
	"	17t	"	9	155	1,395	40	360	1,035	115	207	18.9	3.7	0.4	0.4
	In-field transportation		D2=50 m)												
	B.dozer	34t	h	6	330	1,980	80	480	1,500	250	300	41	8	1	6
	"	24t	"	6	235	1,410	60	360	1,050	175	210	28.7	5.7	0.6	0.6
	"	17t	"	6	155	930	40	240	690	115	138	18.9	3.7	0.4	0.4
	Spreading and Compaction		D3=30 m)												
	B.dozer	34t	h	5	330	1,650	80	400	1,250	250	250	41	8	1	5
	"	24t	"	5	235	1,175	60	300	875	175	175	28.7	5.7	0.6	0.6
	"	17t	"	5	155	775	40	200	575	115	115	18.9	3.7	0.4	0.4
	Compaction														
	Tire roller	28t	h	8	75	600	20	160	440	55	88	9	1.8	0.2	0.2
	"	20t	"	8	70	560	20	160	400	50	88	9	1.8	0.2	0.2
	Vibrating roller	2.6t	"	8	15	120	4	32	88	11	16	1.6	0.3	0.1	0.1
	Water lorry	11t	"	5	145	725	60	300	425	85	220	40.5	2.6	0.9	0.9
												203	13	4	4

Remarks: Assumed: Common excavation includes 50/ of soft rocks by ripper work.  
Excavation and collecting distance, D1=50 m  
Transportation (by B.dozer) distance, D2=50 m



Item No.	Total Cost											Rs.	per		
	Local Component													%	
	Foreign Component														%
	Taxes Component														
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)				
4	Overhead	sum		100%	3,871	60%	2,323	40%	1,548	20%	774	70%		30%	232
5	Profit	"			970	100%	970			50%	485		100%		
	g-total			(100%)	24,235	(37%)	8,975	(63%)	15,260	(17%)	4,230	(71%)	(22%)	485	(7%)
	per 1.0 m3				24.2		9		15.2		4.2	3	0.9	0.3	
	F.O.L Consumption			(Rs/h)											
	B.dozer	34t h	20	90	1,800										
	"	24t "	20	60	1,200										
	"	17t "	20	45	900										
	Tire roller	28t "	8	27	216										
	"	20t "	8	19	152										
	Vibrating roller	2.6t "	8	3	24										
	Water lorry	11t "	5	73	365										
	total				4,657										
	per 1.0 m3				4.7										
Remarks:															



Item No.	Roadway Excavation, Common Excavation (D > 100 m)										Total Cost		Rs.29.5 per m <sup>3</sup>		
											Local Component	Foreign Component	39 %	61 %	
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)				
1	Equipment Cost														
	Excavation and Collection	(D1=50 m)													
	B.dozer	34t	h	330	2,970	80	720	250	2,250	50	450	41	8	1	
	"	24t	"	235	2,115	60	540	175	1,575	35	315	28.7	5.7	0.6	9
	"	17t	"	155	1,395	40	360	115	1,035	23	207	258	51	6	
	Loading and Transportation	(D2=1000m)													
	D.shovel	1.8m <sup>3</sup>	h	170	2,890	40	680	130	2,210	25	425	20.5	4	0.5	
	D.truck	20t	"	165	5,445	65	2,145	100	3,300	46	1,518	32.2	12.9	0.9	8
	Spreading and Compaction	(D3=30m)										1,063	426	29	
	B.dozer	34t	h	330	1,650	80	400	250	1,250	50	250	41	8	1	
	"	24t	"	235	1,175	60	300	175	875	35	175	28.7	5.7	0.6	5
	"	17t	"	155	775	40	200	115	575	23	115	144	29	2	
	Compaction														
	Tire roller	28t	h	75	600	20	160	55	440	11	88	9	1.8	0.2	
	"	20t	"	70	560	20	160	50	400	11	88	72	1.4	0.2	2
	Vibrating roller	2.6t	"	15	120	4	32	11	88	2	16	72	1.4	0.2	2
	Water lorry	11t	"	145	725	60	300	85	425	4	220	1.6	0.3	0.1	
												13	2.6	0.9	1
												20.3	13	4	4
Remarks:															

Item No.	Total Cost											Rs.	per		
	Local Component													%	
	Foreign Component														%
	Taxes Component														
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)				
	Miscellaneous	sum			1,645	25%	411	75%	1,234	15%	247	82%	16%	2%	
	s-total			(100%)	22,065	(29%)	6,408	(71%)	15,657	(19%)	4,114	(78%)	(20%)	4	
2	Labour Cost											3,216	821	77	
	Class 3	Operator			77	5.5	77			0.1	1.4			0.1	
	" 3	"	14	5.5	77	5.5	77			0.1	1.4			0.1	
	" 3	"	14	5.5	77	5.5	77			0.1	1.4			0.1	
	" 3	Operator			93.5	5.5	93.5			0.1	1.7			0.1	
	" 3	D. shovel	1.8m3											0.1	
	" 3	Driver			181.5	5.5	181.5			0.1	3.3			0.1	
	" 3	D. truck	20t											0.1	
	" 3	Operator			44	5.5	44			0.1	0.8			0.1	
	" 3	Tire roller	28t											0.1	
	" 3	"	20t							0.1	0.8			0.1	
	" 3	Vibrating roller	2.6t							0.1	0.8			0.1	
	" 3	Water lorry	11t							0.1	0.5			0.1	
	" 1	Chief foreman			21	10.5	21			0.7	1.4			0.7	
	" 2	Foreman			63	7.0	63			0.2	1.8			0.8	
	" 7	Unskilled labourer			270	3.0	270							1.8	
	s-total			(100%)	1,019.5	(100%)	1,019.5			(2%)	15.3		(100%)	15.3	
3	Material Cost														
Remarks:															





Item No.	Roadway Excavation, Rock Excavation (D ≤ 100 m)													Total Cost		Rs. 191 perm3		
														Local Component	Foreign Component	Local Component	Foreign Component	47 %
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp. Unit cost (Rs)	Local Comp. (Rs)	Foreign Comp. Unit cost (Rs)	Foreign Comp. (Rs)	Unit cost (Rs)	Taxes Comp. (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	Taxes	36 %		
1	Equipment Cost	(16%)																
	Drilling, blasting and collection	(Collection distance = 50m)																
	Braker 20kg	h	500	8	4,000	2	1,000	6	3,000	1.2	600	1	0.2					
	Portable air compressor 7.5 m <sup>3</sup> /min	"	56	40	2,240	10	560	30	1,680	5	280	4.1	100	0.1				
	B.dozer 34t	"	8	330	2,640	80	640	250	2,000	50	400	230	45	5				
	" 24t	"	8	235	1,880	60	480	175	1,400	35	280	328	64	8				
	" 17t	"	8	155	1,240	40	320	115	920	23	184	28.7	5.7	0.6				
	In-field transportation	(Transportation distance = 50m)																
	B.dozer 34t	h	6	330	1,980	80	480	250	1,500	50	300	41	8	1				
	" 24t	"	6	235	1,410	60	360	175	1,050	35	210	246	48	6				
	" 17t	"	6	155	930	40	240	115	690	23	138	172	34	4				
	Spreading and compaction																	
	B.dozer 34t	h	5	330	1,650	80	400	250	1,250	50	250	41	8	1				
	" 24t	"	5	235	1,175	60	300	175	875	35	175	205	40	5				
	" 17t	"	5	155	775	40	200	115	575	23	115	28.7	5.7	0.6				
	Compaction																	
	Tire roller 28t	h	8	75	600	20	160	55	440	11	88	9	1.8	0.2				
	" 20t	"	8	70	560	20	160	50	400	11	88	9	1.4	0.2				

Remarks: Assumed: production rate = 150 m<sup>3</sup>/day

Item No.	Total Cost											Rs.	per %	
	Local Component													
	Foreign Component													
	Taxes Component													
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)			
	Vibrating roller	2.6t	h	8	120	4	32	11	88	2	16	1.6	0.3	0.1
	Water lorry	1lt	"	5	145	60	300	85	425	44	220	40.5	2.6	0.9
	Miscellaneous		sum	40%	8,770	25%	2,193	75%	6,577	15%	1,316	82%	16%	2%
	s-total				30,695		5,632		25,063		4,660	1,079	730	77
2	Labour Cost		(3%)											
	Class 3 Operator		h	642	5.5		3,531			0.1	64			64
	" 1 Chief foreman		"	5	10.5		53			0.7	4			4
	" 2 Foreman		"	56	7		392			0.2	11			11
	" 7 Unskilled labourer		"	560	3		1,680							
	s-total						5,656				79			79
3	Material Cost		(61%)											
	Dynamite		t	0.3	50,440	55%	8,323	45%	6,809	55%	8,323	96%	4%	
	Electric detonator		nr	5,555	10		30,550	"	25,000	"	30,550	96%	4%	
	Drilling rod		"	28	500	25%	3,500	75%	10,500	12%	1,680	81%	19%	
	Drilling bit		"	55	230	"	3,160	"	9,490	"	1,520	81%	19%	
	Miscellaneous		sum	30%	19,168	35%	6,709	65%	12,459	28%	5,367	92%	8%	
	Remarks:													



Item No.	Roadway Excavation, Rock Excavation (D > 100 m)										Total Cost		Rs-213 per m3		
	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Unit cost (Rs)	Taxes Comp. (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
Unit cost (Rs)							(Rs)	Unit cost (Rs)	(Rs)						
Sub. C01.02-2														48 %	
														52 %	
														33 %	
1	Equipment Cost														
	Drilling, blasting and collection	Collection (Collection distance D1=50m), referred to C01.02													
					12,000		3,000		9,000			1,744	1,439	285	20
	Loading and transportation,	referred to C01.01-2													
					8,335		2,825		5,510			1,943	1,412	494	37
	Spreading and compaction,	referred to C01.02-1													
					3,600		900		2,700			540	444	88	8
	Compaction,	referred to C01.02-1													
					2,005		652		1,353			412	360	43	9
	Miscellaneous				10,360	25%	2,590	75%	7,770	15%	1,554	82%	1,274	16%	2%
	s-total				36,300		9,967		26,333		6,193	4,929	1,159		105
2	Labour Cost														
	Class 3 Operator	h	674	5.5		3,707	3,707			0.1	67				67
	" 1 Chief foreman	"	5	10.5	53	53	53			0.7	4				4
	" 2 Foreman	"	56	7	392	392	392			0.2	11				11
	" 7 Unskilled labourer	"	560	3	1,680	1,680	1,680								
	s-total				5,832	5,832	5,832				82				82
Remarks:															















Item No.	Structure Excavation, Common Excavation in Piers and Abutments of Bridge Works										Total Cost				
	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.	Unit cost (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
Unit cost (Rs)							(Rs)	Unit cost (Rs)	(Rs)						
	Equipment Cost		(65%)												
	Preparatory														
	B.dozer	17t	h	2	155	310	40	80	115	230	46	18.9	3.7	0.4	
	Back hoe	0.5m3	"	3	120	360	30	90	90	270	54	14.8	2.9	0.3	
	Truck	11t	"	2	145	290	60	120	85	170	88	40.5	2.6	0.9	
	Excavation											81	5	2	
	Back hoe, 0.5 m3		h	6	120	720	30	180	90	540	108	14.8	2.9	0.3	
	Water pump	1 m3/min	"	6	2	12	0.6	4	1.4	8	2	0.3	0.1		
	Generator	15 KVA	"	6	22	132	6.6	40	15.4	92	22	3.2	0.4	0.1	
	Conveyor	7.5 m	"	2x3 6	5	30	2	12	3	18	6	0.9	0.1		
	Loading and transportation														
	D.shovel	1.6m3	h	3	135	405	35	105	100	300	60	16.4	3.2	0.4	
	D.truck	20t	"	6	165	990	65	390	100	600	276	32.2	12.9	0.9	
	Stock piling											193	77	6	
	B.dozer	17t	h	2	155	310	40	80	115	230	46	18.9	3.7	0.4	
	Miscellaneous		sum	40%		1,421	25%	355	75%	1,066	213	82%	16%	2%	
	s-total					4,980	(29%)	1,456	(71%)	3,524	(18%)	(80%)	(18%)	(2%)	
												733	169	19	

Remarks: Hourly working rate of Back hoe 0.5 m3 = 18 m3/h, ditto of D.truck 20 t = 15 m3/h/unit (D=1 km)

Item No.	Total Cost										Rs.	per %			
	Local Component												Rs.	%	
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)			Cor. (Rs)
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)				
2	Labour Cost	(8%)													
	Class 3 Operator	h	42	5.5	231		231			0.1	4			4	
	" 1 Chief foreman	"	0.5	10.5	5		5			0.7					
	" 2 Foreman	"	6	7	42		42			0.2	1			1	
	" 7 Unskilled Labourer	"	20x6 120	3	360		360								
	s-total				638		638				5			5	
3	Material Cost	(7%)													
	Miscellaneous	sum			500	35%	175	65%	325	28%	140	92%	129	8%	11
	total				6,118		2,269		3,849		1,066		862	180	24
4	Overhead	sum	20%		1,222	60%	733	40%	489	20%	244	70%	171		30%
5	Profit	"	5%		310		310			50%	155			155	73
	g-total				7,650		3,312		4,338		1,465		1,033	335	97
	per 1.0 m3				77	(43%)	33	(57%)	44	(19%)	15	(73%)	11	(20%)	(7%)
														3	1
Remarks:															





Item No.	Structure Excavation, Rock Excavation in Piers and Abutments of Bridge Works											Total Cost			Rs. 210 per m3						
	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Unit cost (Rs)	Taxes Comp.	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	Local Component	Foreign Component	Taxes Component	49 %	51 %	31 %
Unit cost (Rs)							(Rs)	Unit cost (Rs)	(Rs)												
1	Equipment Cost	(27%)																			
	Referred to C02.01				4,980		1,456		3,524								733			169	19
	Drilling and blasting, referred to C01.02-1																				
	Braker 20 kg	h	50	8	400		100	6	300	1.2	60	1	0.2								
	Portable air compressor 7.5m3/min	"	6	40	240		60	30	180	5	30	4.1	0.8	0.1							
	s-total				5,620		1,616		4,004						1,011	808	184				19
2	Labour Cost	(5%)																			
	Referred to C02.01				638		638								5						
	Class 3 Operator	h	56	5.5	308		308	5.5	308	0.1	6				6						6
	s-total				946		946								11						11
3	Material Cost	(48%)																			
	Referred to C02.01				500		175		325						140	129				11	
	Referred to C01.02-1																				
	Dynamite	t	0.03	50,440	1,513		832		681						832	799					33
	Electric detonator	nr	556	10	5,560		3,060		2,500						3,055	2,930					125
	Drilling rod	"	3	500	1,500		375	75%	1,125	12%	180	81%	19%		145						35
Remarks:																					



Item No.	Supply and complete in place of Selected Backhill Materials											Total Cost		Rs. 79 perm3				
												Local Component		43 %				
											Foreign Component		57 %					
											Taxes Component		22 %					
Particular	Description	Unit Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Taxes							
					Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)					
1	Equipment Cost	(5%)																
	Back hoe, 0.5 m3	h	2	120	240	30	60	90	180	18	36	14.8	2.9	0.3				
	Vibrating roller 0.9t	"	2	10	20	3	6	7	14	2	4	30	0.3	0.1				
	Water lorry 1lt	"	0.5	145	73	60	30	85	43	44	22	40.5	2.6	0.9				
	Miscellaneous	sum	10%		37	25%	9	75%	28	15%	6	82%	16%	2%				
	s-total				370		105		265		68	58	8	2				
2	Labour Cost	(2%)																
	Class 2 Foreman	h	5	7	35		35			0.2	1							
	" 3 Unskilled labourer	"	25	3	75		75											
	" 3 Operator equipment	"	4.5	5.5	24.8		24.8			0.1	0.5							
	s-total				135		135				1.5			1.5				
3	Material Cost	(73%)																
	Aggregate	m3	105	54	5,670	19	1,995	35	3,675	12	1,260	9.5	2.3	0.2				
	Miscellaneous	sum	2%		113	35%	40	65%	73	28%	32	92%	8%	20				
	s-total				5,783		2,035		3,748		1,292	1,027	245	20				
Remarks:																		

Item No.	Total Cost											Rs.		per	
	Local Component													%	
	Foreign Component													%	
	Taxes Component													%	
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)				
	total				6,288		2,275	4,013		1,362	1,085	253		24	
4	Overhead (16%)	sum	20%		1,258	60%	755	503	40%	252	70%	176		30%	
5	Profit (4%)	"	5%		314		314			157		157		76	
	g-total				7,860		3,344	4,516		1,771	1,261	410		100	
	per 1.0 m3				79	(43%)	34	45	(57%)	17	(76%)	(24%)		1	
	F.O.L Consumption														
	Back hoe 0.5m3	h	2	25	50										
	Vibrating roller 0.9t	"	2	2	4										
	Water lorry 1lt	"	0.5	73	37										
	total				91										
	per 1.0 m3				(Rs) 1.0		(1.0% of total cost)								
Remarks:															





Item No.	Concrete complete in place, supply of materials, labour, tools and equipment to mix and place in situ, Structural Concrete Grade 40										Total Cost			
											Local Component	Foreign Component	Taxes Component	Rs. 827 per m3
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes				
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	Cor. (Rs)	Inc. (Rs)		
1	Equipment Cost	(l%)												
	Concrete pump truck 60m3/h	h	2.5	160	400	40	100	120	300	24	60	19.7	3.8	0.5
	Concrete vibrator 0.2 KW	"	8	0.5	4	0.1	1	0.4	3	0.1	1	0.1	9.5	0.5
	Truck mixer	(included in delivery cost of material)												
	Truck 6t	h	2	75	150	30	60	45	90	23	46	21.2	1.4	0.4
	Wheel crane 5t	"	2	75	150	20	40	55	110	11	22	9	1.8	0.2
	Miscellaneous	sum	10%		76	25%	19	75%	57	15%	11	82%	16%	2%
	s-total				780		220		560		140	120	19	1
2	Labour Cost	(l%)												
	Class 3 Operator C.pump	h	2.5	5.5	14	5.5	14			0.1	0.3			0.1
	" 3 Driver truck	"	2	5.5	11	5.5	11			0.1	0.2			0.1
	" 3 Wheel crane	"	2	5.5	11	5.5	11			0.1	0.2			0.1
	" 1 Chief foreman	"	1	10.5	11	10.5	11			0.7	0.7			0.7
	" 2 Foreman	"	3	7	21	7	21			0.3	1.0			0.3
	" 3 Carpenter	"	3	5.5	17	5.5	17			0.1	0.3			0.1
	" 4 Barbender	"	3	5.5	17	5.5	17			0.1	0.3			0.1
	" 5 Skilled labourer	"	40	4	160	4	160							0.3
	s-total				262		262				3			3
Remarks:														



Item No.	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.				Foreign Comp.		Taxes			Rs. per %	
							Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)		
																	41%
							35%	1,085	65%	2,015	28%	868	92%	8%	370		
3	Material Cost		(78%)														
		Ready mixed concrete grade	m3	100	620	62,000	41%	25,420	59%	36,580	15%	9,300	63%	33%	4%		
		Miscellaneous	sum	5%		3,100	35%	1,085	65%	2,015	28%	868	92%	8%			
		s-total				65,100		26,505		38,595		10,168	6,660	3,138	370		
		total			(100%)	66,142	(41%)	26,987	(59%)	39,155	(16%)	10,310	(66%)	(31%)	(3%)		
4	Overhead		sum	20%		13,228	60%	7,937	40%	5,291	20%	2,646	70%		30%		
5	Profit		sum	5%		3,307	100%	3,307			50%	1,654	1,852	100%	794		
		g-total			(100%)	82,677	(46%)	38,231	(54%)	44,446	(18%)	14,610	(59%)	(33%)	(8%)		
		per 1 m3				827		382		445		146	86	48	12		
	F.O.L Consumption				(Rs/h)												
		Concrete pump truck	h	2.5	55	137.5											
		Truck	6t	2	36	72											
		Wheel crane	5t	2	35	70											
		total				279.5											
		per 1.0 m3				2.8	(0.3% of total cost)										
	Remarks:																

Item No.	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes						
							Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)			
Concrete complete in place, supply of materials, labour, tools and equipment to mix and place in situ, Structural Concrete, Grade 30													Total Cost	Rs.768	per m3		
D01.02													Local Component	46	%		
													Foreign Component	54	%		
													Taxes Component	18	%		
1	Equipment Cost		(1%)														
		Concrete pump truck 60m3/h	h	2.5	160	400	40	100	120	300	24	60	19.7	3.8	0.5		
		Concrete vibrator 0.2KW	"	8	0.5	4	0.1	1	0.4	3	0.1	1	0.1				
		Truck mixer															
		(included in delivery cost of material)															
		Truck 6t	"	2	75	150	30	60	45	90	23	46	21.2	1.4	0.4		
		Wheel crane 5t	"	2	75	150	20	40	55	110	11	22	9	1.8	0.2		
		Miscellaneous	sum	10%		76	25%	19	75%	57	15%	11	82%	16%	2%		
		s-total				780		220		560		140	120	19	1		
2	Labour Cost		(1%)														
	Class 3	Operator c.pump 60m3/h	h	2.5	5.5	14	5.5	14			0.1	0.3			0.1		
	"	3 Driver truck 6t	"	2	5.5	11	5.5	11			0.1	0.2			0.1		
	"	3 Wheel crane 5t	"	2	5.5	11	5.5	11			0.1	0.2			0.1		
	"	1 Chief foreman	"	1	10.5	11	10.5	11			0.7	0.7			0.7		
	"	2 Foreman	"	3	7	21	7	21			0.1	0.3			0.1		
	"	3 Carpenter	"	3	5.5	17	5.5	17			0.1	0.3			0.1		
	"	4 Barbender	"	3	5.5	17	5.5	17			0.1	0.3			0.1		
	"	5 Skilled labourer	"	40	4	160	4	160			0.1	0.3			0.1		
		s-total				262		262				2			2		
Remarks:																	

Item No.	Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Taxes		Total Cost				
							Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	Rs.	per		
							(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)			%	%
							(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
3	Material Cost		(78%)																
		Ready mixed concrete grade	m3	100	575	57,500	41%	23,600	59%	33,900	15%	8,630	63%	33%	4%				
		Miscellaneous	sum	5%		2,875	35%	1,006	65%	1,869	28%	805	92%	8%					
		s-total				60,375		24,606		35,769		9,435	740	6,177	2,913	345			
		total			(100%)	61,417	(41%)	25,088	(59%)	36,329	(16%)	9,577	(66%)	(31%)	(3%)				
4	Overhead		sum	20%		12,283	60%	7,370	40%	4,913	20%	2,457	70%						
5	Profit		sum	5%		3,070	100%	3,070			50%	1,535	1,720	100%					
		g-total			(100%)	76,770	(46%)	35,528	(54%)	41,242	(18%)	13,569	(59%)	(33%)	(8%)				
		per 1 m3				768		355		413		136	80	45	11				
	F.O.L Consumption				(Rs/h)														
		Concrete pump truck 60m3/h	h	2.5	55	137.5													
		Truck, 6t	"	2	36	72													
		Wheel crane 5t	"	2	35	70													
		total				279.5													
		per 1.0 m3				2.8													
	Remarks:																		

Item No.	Concrete complete in place, supply of materials, labour, tools and equipment to mix and place in situ, Structural Concrete, Grade 25										Total Cost						
											Local Component	Foreign Component	Rs.735 perm3				
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes							
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	Cor. (Rs)	Inc. (Rs)					
1	Equipment Cost	(1%)															
	Concrete pump truck 60m3/h	h	2.5	160	400	40	100	120	300	24	60	19.7	3.8	0.5			
	Concrete 0.2 KW vibrator	"	8	0.5	4	0.1	1	0.4	1	0.1	1	0.1		0.5			
	Truck mixer				(included in delivery cost of material)												
	Truck 6t	"	2	75	150	30	60	45	90	23	46	21.2	1.4	0.4			
	Wheel crane 5t	"	2	75	150	20	40	55	110	11	22	9	1.8	0.2			
	Miscellaneous	sum	10%		76	25%	19	75%	57	15%	11	82%	16%	2%			
	s-total				780		220		560		140	120	19	1			
2	Labour Cost	(1%)															
	Class 3 Operator C.pump 60m3/h	h	2.5	5.5	14	5.5	14			0.1	0.3			0.1			
	" 3 Driver truck 6t	"	2	5.5	11	5.5	11			0.1	0.2			0.1			
	" 3 Wheel crane 5t	"	2	5.5	11	5.5	11			0.1	0.2			0.1			
	" 1 Chief foreman	"	1	10.5	11	10.5	11			0.7	0.7			0.7			
	" 2 Foreman	"	3	7	21	7	21			0.1	0.3			0.1			
	" 3 Carpenter	"	3	5.5	17	5.5	17			0.1	0.3			0.1			
	" 4 Barbender	"	3	5.5	17	5.5	17			0.1	0.3			0.1			
	" 5 Skilled labourer	"	40	4	160	4	160							0.1			
	s-total				262		262				2						2
Remarks:																	

Item No.	Total Cost											Rs.	per		
	Local Component													%	
	Foreign Component														%
	Taxes Component														
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)	
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)				
3	Material Cost														
	Ready mixed concrete grade	m3	100	550	55,000	41%	22,550	59%	32,450	15%	8,250	63%	33%	4%	
	Miscellaneous	sum	5%		2,750	35%	963	65%	1,787	28%	770	92%	8%		
	s-total				57,750		23,513		34,237		9,020	5,906	2,784		330
	total				58,792	(41%)	23,995	(59%)	34,797	(16%)	9,162	(66%)	(31%)		
4	Overhead	sum	20%		11,758	60%	7,055	40%	4,703	20%	2,352	70%		30%	
5	Profit	sum	5%		2,940	100%	2,940			50%	1,470	100%			
	g-total				73,490	(46%)	33,990	(54%)	39,500	(18%)	12,984	(59%)	(33%)	(8%)	
	per 1 m3				735		340		395		130	76	44		10
	F.O.L Consumption														
	Concrete pump truck 60m3/h	h	2.5	55	137.5										
	Truck 6t	"	2	36	72										
	wheel crane 5t	"	2	35	70										
	total				279.5										
	per 1.0 m3				2.8										
Remarks:															

Item No.	Concrete complete in place, supply of materials, labour, tools and equipment to mix and place in situ, Structural Concrete, Grade 15.										Total Cost			
											Local Component	Foreign Component	Taxes Component	Rs. 643 per m3
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)			
1	Equipment Cost	(1%)												
	Concrete pump truck 60m3/h	h	2.5	160	400	40	100	120	300	24	60	19.7	3.8	0.5
	Concrete vibrator 0.2 KW	"	8	0.5	4	0.1	1	0.4	3	0.1	1	0.1	2.5	0.5
	Truck mixer			(included in delivery cost of material)										
	Truck 6t	"	2	75	150	30	60	45	90	23	46	21.2	1.4	0.4
	Wheel crane 5t	"	2	75	150	20	40	55	110	11	22	9	1.8	0.2
	Miscellaneous	sum	10%		76	25%	19	75%	57	15%	11	82%	16%	2%
	s-total				780		220		560		140	120	19	1
2	Labour Cost	(1%)												
	Class 3 Operator	h	2.5	5.5	14	5.5	14			0.1	0.3			0.1
	" 3 C.Pump Driver truck	"	2	5.5	11	5.5	11			0.1	0.2			0.1
	" 3 Wheel crane 5t	"	2	5.5	11	5.5	11			0.1	0.2			0.1
	" 1 Chief foreman	"	1	10.5	11	10.5	11			0.7	0.7			0.7
	" 2 Foreman	"	3	7	21	7	21			0.1	0.3			0.1
	" 3 Carpenter	"	3	5.5	17	5.5	17			0.1	0.3			0.1
	" 4 Barbender	"	3	5.5	17	5.5	17			0.1	0.3			0.1
	" 5 Skilled labourer	"	40	4	160	4	160			0.1	0.3			0.1
	s-total				262		262				2			2
Remarks:														

Item No.	Total Cost										Rs.	per				
	Local Component												%			
	Foreign Component													%		
	Taxes Component														%	
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Imp. (Rs)	Cor. (Rs)	Inc. (Rs)		
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)					
3	Material Cost	(78%)														
	Ready mixed concrete grade	m3	100	480	48,000	41%	19,680	59%	28,320	15%	7,200	63%	4,536	33%	2,376	4%
	Miscellaneous	sum	5%		2,400	35%	840	65%	1,560	28%	672	92%	618	8%	54	
	s-total				50,400		20,520		29,880		7,872	5,154	2,430		288	
	total				51,442		21,002		30,440		8,014	5,274	2,449		291	
4	Overhead	sum	20%		10,288	60%	6,173	40%	4,115	20%	2,058	70%	1,441		30%	617
5	Profit	sum	5%		2,572	100%	2,572			50%	1,286			100%		
	g-total			(100%)	64,302	(46%)	29,747	(54%)	34,555	(18%)	11,358	(59%)	1,286	(33%)	786	(8%)
	per 1 m3				643		297		346		114	67	37		10	
	F.O.I Consumption			(Rs/h)												
	Concrete pump truck 60m3/h	h	2.5	55	137.5											
	Truck 6t	"	2	36	72											
	Wheel crane 5t	"	2	35	70											
	total				279.5											
	per 1 m3				2.8											
Remarks:																





Item No.	Total Cost													Rs.	per		
	Local Component															%	
	Foreign Component																%
	Taxes Component																
Particular	Description	Unit	Q'ty	Unit cost (Rs)	Total cost (Rs)	Local Comp.		Foreign Comp.		Taxes Comp.		Taxes					
						Unit cost (Rs)	(Rs)	Unit cost (Rs)	(Rs)	Unit cost	(Rs)	Imp. (Rs)	Cor. (Rs)	Inc. (Rs)			
	s-total				20,274		6,323		13,951		2,394	1,140	1,084	170			
	total				24,670		8,818	(64%)	15,852	(12%)	2,896	(54%) 1,558	(39%) 1,134	(7%) 204			
4	Overhead	sum	20%		4,934	60%	2,960	40%	1,974	20%	987	70% 690		30% 297			
5	Profit	sum	5%		1,236	100%	1,236			50%	618		100%				
	g-total				30,840	(42%)	13,014	(58%)	17,826	(15%)	4,501	(50%) 2,248	(39%) 1,752	(11%) 501			
	per 1.0 t				5,140		2,169		2,971		750	375	292	83			
	F.O.I Consumption			(Rs/h)													
	Truck	11t	h	6	73												
	Wheel crane	5t	"	6	35												
	total				648												
	per 1.0t				108	(2% of total cost)											
Remarks:																	