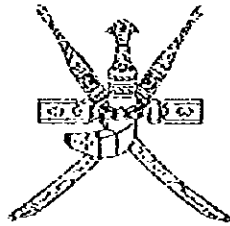


SULTANATE OF OMAN
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF ROADS



**CONSTRUCTION OF
FLYOVER
AT
SAHAM ROUNDABOUT
BATINAH HIGHWAY**

TENDER DOCUMENTS

BILL OF QUANTITIES

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**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 1 - PRELIMINARIES**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SECTION 100 PRELIMINARIES						
	101 Bonds and Insurance						
101.1	Performance Bond (Clause 10 of Standard Conditions of Contract)	lump sum					
101.2	Insurance of the Works (Clause 21 of Standard Conditions of Contract)	lump sum					
101.3	Damage to Persons and Property (Clause 22 of Standard Condition of Contract)	lump sum					
101.4	Third Party Insurance (Clause 23 of Standard Conditions of Contract)	lump sum					
101.5	Accident or injury to Workmen (Clause 24 of Standard Condition of Contract)	lump sum					
			1-1		Carried to summary		44250,000



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CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	104 Facilities for the Engineer						
104.1	Provision of Engineer's office (Type A, 1 unit x 24)	month	20	250.000		5000.000	
104.2	Maintenance of Engineer's office (Type A, 1 unit x 24)	month	20	150.000		3000.000	
104.3	Provision of surveying instruments	month	18	300.000		5400.000	
104.4	Maintenance of surveying instruments	month	18	150.000		2700.000	
104.5	Provision of Engineer's accommodation						
	(i) Resident Engineer's accommodation (Type B, 1 unit x 24)	month	N/A	250.000			
	(ii) Engineer's accommodation (Type C, 5 units x 24)	month	N/A	400.000			
	(iii) Engineer's accommodation (Type B, 1 unit x 24)	month	N/A	250.000			
	(iv) Dining/Kitchen (Type D, 1 unit x 24)	month	N/A	250.000			
		1-2		Carried to summary		16100.000	

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 1 - PRELIMINARIES**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
104.6	Maintenance of Engineer's accommodation						
	(i) Resident Engineer's accommodation (Type B, 1 unit x 24)	month	N/A	150,000			
	(ii) Engineer's accommodation (Type C, 5 unit x 24)	month	N/A	250,000			
	(iii) Engineer's accommodation (Type B, 1 unit x 24)	month	N/A	150,000			
	(iv) Dining/Kitchen (Type D, 1 unit x 24)	month	N/A	250,000			
104.7	Provision of laboratory	month	20	400,000		8000,000	
104.8	Maintenance of laboratory	month	18	150,000		2700,000	
104.10	In situ soil bearing capacity tests	n.r.	20	20,000		400,000	
104.11	Sub-soil investigation by specialist Contractor	prov. sum		8,000,000		8000,000	
				1-3	Carried to summary		19100,000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	105 Assistance for Engineer						
105.1	Laborers to assist the Engineer (no x months)	man month	N/A				
	106 Contractor's Compound						
106.1	Mobilization and demobilization of Contractor's facility	lump sum				100000.000	
106.2	Maintenance of Contractor's facility	month	18		5,000.000	90000.000	
	107 Maintenance and Protection of Traffic						
107.1	Maintenance and protection of traffic	lump sum				100000.000	
107.2	Extra over item 107.1 for supply and compaction of subbase on diversions where ordered by the Engineer (10 cm. thick)	cu. m.					
107.3	Extra over item 107.1 for supply and compaction of bituminous basecourse on diversions where ordered by the Engineer (3 cm. thick)	cu. m.					
				1-4	Carried to summary	290000.000	

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	108 Progress Photographs						
108.1	Provision of negatives and 5 sets of photographs (14 photos max.) (Mountable-Size 100 x 150 mm.)	month	20		30.000		600.000
	109 Sign Boards						
109.1	Provision, erection, moving and maintenance of signboard (Wooden Type)	n.r.	2		300.000		600.000
	110 Commemoration Plaque and Opening Ceremony						
110.1	Supply and erection of commemoration plaque (Optional)	n.r.	1		Option		
110.2	Opening ceremony (Optional)	lump sum					
			1-5	Carried to summary			1200.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
115.1	115 Compliance with the Tender Documents Allow for all costs and expense for complying with all the conditions and requirements stipulated in the Tender Documents, including all Clause of the Standard Conditions of Contract, which the Tenderer considers have financial implications on his tender and which are not covered separately in the various pay items of the Bill of Quantities						
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
	Clause No	lump sum					
				1-6		Carried to summary	

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 2 - EARTHWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	200 EARTHWORKS						
	201 Clearing and Grubbing						
201.1	Removal and delivery of trees of 300mm trunk diameter or greater	n.r.	58	15.000		870.000	
	202 Removal of Structures and Obstructions						
202.1	Removal of existing building (Shop, etc)	n.r.	3	200.000		600.000	
202.2	Removal of misc. reinforced concrete structures	cu. m.	28	5.000		140.000	
202.3	Removal of pipe culvert (D=0.6,0.75,0.9)	lin.m.	191	2.000		382.000	
202.4	Removal of asphaltic concrete pavement (100 mm thick)	cu. m.	4562	2.000		9124.000	
202.5	Removal of damaged steel safety barrier (Girdrail)	lin.m.	3278	1.800		5900.400	
		2-1		Carried to summary		17016.400	

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
202.6	Remove carefully and relocate sign boards and road signs (size)	n.r.	74	3.500		259.000
202.7	Removal of damaged Irish crossing marker posts	n.r.	N/A	2.500		
202.8	Removal of damaged drainage protection works (gabions, conc. tiles, mortared riprap, dry rip rap)	cu. m.	N/A	3.500		
202.9	Removal of existing fences (wire mesh, chicken wire)	lin.m.	N/A	1.500		
202.10	Removal of existing fences (block or masonry wall)	lin.m.	N/A	2.000		
202.11	Removal of existing box culvert (2 x 1 m)	lin.m.	N/A	5.000		
202.12	Removal of existing interlocking tiles	sq. m	1822	1.200		2186.400
202.13	Removal of existing crush stone	lin.m.	N/A	1.000		
202.14	Removal of existing plain concrete	cu. m.	640	2.000		1280.000
202.15	Removal of Curb Stone	m	4221	1.500		6331.500
				Carried to summary		10056.900

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 2 - EARTHWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	203 Earthworks Excavation						
203.1	Suitable excavation to embankment	cu. m.	33300	0.600		20100.000	
203.2	Suitable excavation to waste	cu. m.	7886	0.300		2365.800	
203.3	Unsuitable excavation to waste	cu. m.	N/A	0.400			
203.4	Borrow excavation to embankment	cu. m.	62798	1.500		94197.000	
203.5	Extra over item 203.1, 2, 3 for excavation under water	cu. m.	N/A	3.000			
	206 Excavation and Backfilling for Structures						
206.1	Structure excavation in soils to a depth of 2m	cu. m.	424	1.000		424.000	
206.2	Structure excavation in soils to a depth more than 2m	cu. m.	N/A	1.700			
2-3				Carried to summary		117086.800	

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
206.3	Structural excavation in rock to a depth of 2m	cu. m.	N/A	1.100		
206.4	Structural excavation in rock to a depth more than 2m	cu. m.	N/A	2.600		
206.5	Extra over 206.1,2,3,4 for excavation under water	cu. m.	N/A	2.900		
				Carried to summary		0.000

2-4

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 2-1					17016.400
	Page 2-2					10056.900
	Page 2-3					117086.800
	Page 2-4					0.000
				To Grand Summary		144160.100

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	300 GRANULAR AND STABILIZED SUBBASE, BASECOURSE AND STABILIZED SUBGRADE						
	302 Granular Subbase						
302.1	Granular subbase (class B) (150 mm thick)	cu. m.	5318	2.000		10636.000	
	303 Aggregate Basecourse						
303.1	Aggregate basecourse (class B) (300 mm thick)	cu. m.	N/A	3.600			
303.2	Aggregate basecourse (class B) (250 mm thick)	cu. m.	5194	3.500		18179.000	
303.3	Aggregate basecourse (class B) (200 mm thick)	cu. m.	5775	3.300		19057.500	
303.4	Aggregate basecourse (class B) (150 mm thick)	cu. m.	1317	3.000		3951.000	
		3-1		Carried to summary			51823.500

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY Page 3-1						51823.500
		3-2			Carried to summary		51823.500

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 4 - BITUMINOUS PAVEMENT**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	400 BITUMINOUS PAVEMENT					
	401 Bituminous Prime Coat and Tack Coat					
401.1	Bituminous prime coat (MC 70)	kg	46746	0.250		11686.500
401.2	Bituminous tack coat (RC 250)	kg	9930	0.300		2979.000
	402 Bituminous Basecourse					
402.1	Bituminous basecourse (class B) 50 mm.thick	cu. m.	2630	22.000		57860.000
402.2	Bituminous basecourse (class B) 100 mm.thick	cu.m.	4965	28.000		139020.000
402.4	Increase or decrease in bituminous content from nominal rate	kg	rate only	0.050		
		4-1	Carried to summary			211545.500

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	405 Bituminous Wearing Course					
405.1	Bituminous wearing course (class B) (50 mm thick)	cu. m.	3260	28.000		91280.000
405.2	Increase or decrease in bitumen content from nominal rate	kg	rate only	0.050		
				4-2	Carried to summary	91280.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 4-1					211545.500	
	Page 4-2					91280.000	
		4-3			Carried to summary		302825.500

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	500 CONCRETE AND CONCRETE STRUCTURE						
	504 Concrete for Structure						
504.1	Concrete Class 16/20 (OPC cement) Blinding, Gravity Wall	cu. m.	4143		30.000		124290.000
504.2	Concrete Class A 24/20 for retaining wall, abutment and piers (OPC)	cu.m	10570		35.000		369930.000
504.3	Concrete Class 32/20 for bridge deck, cross beam and joint	cu.m	353		50.000		17650.000
504.4	Cast-in-Situ Concrete Class 24/20 for bridge deck for cantilever	cu.m	1003		38.000		38114.000
						Carried to summary	550004.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
506.1	506 Prestressed Concrete for Bridge <u>Precast pre-stressed bridge beam reinforced concrete class AA40 including all reinforcement, tendons, tension cable strands, approved anchorage points "Freyssinet" system or equal and approved sheaths, de-watering pipes strutting in accordance with manufacturers recommendations, all complete and as detailed on tender drawings</u>					
	a) PS Box girders (Internal) 26 m long	n.r.	198	2,400.000		475200.000
	b) PS Box girders (External) 26 m long	n.r.	44	2,700.000		118800.000
				5-2	Carried to summary	594000.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
509.1	High yield steel bar reinforcement of any diameter	tone	907	285.000		258495.000
509.2	Mild steel bar reinforcement of any diameter	tone	N/A	300.000		
509.3	Mesh reinforcement of any size	tone	N/A	400.000		
				5-3		Carried to summary
						258495.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 5-1					550004.000	
	Page 5-2					594000.000	
	Page 5-3					258495.000	
				5-4	Carried to summary		1402499.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
600	STRUCTURAL STEEL AND OTHER METALWORK						
603	Bridge Parapets						
603.1	Bridge Handrails (Aluminium) (H=500 mm)	lin.m.	2163		45,000		97335,000
		6-1			Carried to summary		97335,000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 6-1					97335.000
				6-2	Carried to summary	97335.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
800 DRAINAGE AND SERVICE DUCTS						
801 Pipe Culverts						
801.1	Reinforced concrete pipe culvert (600 mm. dia.)	lin.m	254	35.000		8890.000
801.2	Reinforced concrete pipe culvert (750 mm. dia.)	lin.m	N/A	45.000		
802 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)						
802.1	Concrete (Class 24/20), Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls, Wingwalls and Aprons (SRP Cement), all complete and as detailed on drawing					
802.1.1	Box culvert 2 x 1 m 1 cell	lin.m	N/A	60.000		
802.1.2	Box culvert 2 x 1 m 2 cell	lin.m	N/A	110.000		
				8-1	Carried to summary	8890.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
804.1	804 Catch Basins, Catch Pits, Manholes, Curb Inlets, Ditch Inlets and Outlets Reinforced concrete catch pit comprising excavation, backfilling, disposal, 100 mm thick plain in-situ sulphate resisting concrete class (12/20) blinding concrete class (24/20) for structure, all complete and as detailed on drawing	n.r.	6	180.000		1080.000	
804.2	Reinforced concrete gullies comprising excavation, backfilling, disposal, 150 mm bed and walls of reinforces sulphate resisting concrete class (24/20) all complete and as detailed on drawings Gullies 300 x 300 mm	lin.m	1206	25.000		30150.000	
				8-2	Carried to summary		31230.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	805 Water proofing for structure					
805.1	Waterproofing membrane	sq.m.	N/A	1.800		
805.2	Mastic asphalt waterproofing	sq.m.	N/A	8.000		
805.3	Bituminous paint	sq.m.	3000	0.350		1050.000
	807 Service Ducts					
807.1	Service duct (A.C. 150 mm dia. -1 way with concrete surround), including duct markers	lin.m.	N/A	2.200		
807.1.1	Service duct (A.C. 150 mm dia. -2 way with concrete surround), including duct markers	lin.m.	276	4.000		1104.000
807.2	Extra over for excavation in rock for service ducts	cu.m.	N/A			
				8-3		Carried to summary
						2154.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 8-1					8890.000
	Page 8-2					31230.000
	Page 8-3					2154.000
				8-4	Carried to summary	42274.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 9 - SLOPE PROTECTION AND STABILISATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
900 SLOPE PROTECTION AND STABILISATION							
901	Riprap						
901.2	Mortared stone riprap (Class A), in Irish Crossing	cu.m.	N/A	13,000			
901.2.1	Mortared stone riprap (Class A), other than Irish Crossing	cu.m.	263	16,000		4,208,000	
				9-1	Carried to summary		4,208,000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 9 - SLOPE PROTECTION AND STABILISATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	R.O. Bz
	SUMMARY					
	Page 9-1					4208.000
				9-2	Carried to summary	4208.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 10 - PILING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1000 PILING						
1001.1	1001 Piling Reverse Piling Method or equivalent Diameter = 600 mm including setting up of piles, driving and testing, all complete and as detailed on tender drawings	lin.m	8258		30.000		247740.000
			10-1	Carried to summary			247740.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 10 - PILING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 10-1						247740.000
				10-2	Carried to summary		247740.000

**CONSTRUCTION OF FLYOVER AT
SAHAM**

**BILL OF QUANTITIES
BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1100 BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEALS AND FILLERS						
	1101 Bridge Bearings						
1101.1	Synthetic Rubber Shoe 460 x 360 x 80 mm including anchor bar, cap, filler reinforcing bar, spiral bar and shrinkage mortar	n.r.	484		40.000		19360.000
	1102 Bridge Expansion Joints						
1102.1	Bridge expansion joint Movement Range W=50 mm	m	44		150.000		6600.000
1102.1.1	Bridge expansion joint Movement Range W=100 mm	m	222		280.000		62160.000
			11-1	To Grand Summary			88120.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					88120.000
	Page 11-1					
				11-2	To Grand Summary	88120.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES
BILL 12 - SIDEWALKS, PAVED AREAS AND CURBS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1200 SIDE WALKS, PAVED AREAS AND CURBS						
	1201 Sidewalks						
1201.1	Interlocking Block Pavement including granular Basecourse t = 150 mm	sq. m	5318		4.000		21272.000
	1202 Curbs						
1202.1.1	Curb 100 x 200 (Mountable)	lin.m.	2232		3.500		7812.000
1202.1.2	Curb 150 x 350 (Mountable)	lin.m	80		5.000		400.000
1202.1.3	Curb 150 x 350 (None mountable)	lin.m.	4812		4.000		19248.000
	All curbs are hydraulically pressed sulphate resisting concrete class A (45/20) bedded, jointed and pointed in 10 mm thick sand cement grout including all necessary excavation, backfill, dispose, formwork and all necessary works for complete						
				12-1	Carried to summary		48732.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 12 - SIDEWALKS, PAVED AREAS AND CURBS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					48732.000
	Page 12.1					
			12-2	Carried to summary		48732.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES
BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1300 SAFETY BARRIERS, DELINEATORS AND FENCE						
	1301 Corrugated Steel Beam Safety Barrier						
1301.1.1	Safety barrier beam (Type-A) including posts and end anchor	lin.m.	2387		12.000		28644.000
1301.1.2	Safety barrier beam (Type-C) including posts and end anchor	lin.m	1340		13.000		17420.000
	1302 Reflectorised Markers for Safety Barriers						
1303.1	Reflectorised markers attached to guardrail	n.r.	245		8.000		1960.000
1303.2	Reflectorised markers attached to concrete	n.r.					
		13-1			Carried to summary		48024.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					48024.000
	Page 13-1					
		13-2		Carried to summary		48024.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1400 HIGHWAY SIGNS AND ROAD MARKING						
	1401 Highway Signs						
1401.1	Highway sign, triangular, size (900 mm)	n.r.	14		40.000		560.000
1401.2	Highway sign, circular, diameter (900 mm)	n.r.	23		50.000		1150.000
1401.3	Highway sign, rectangular, (600 x 2400, 750 x 1400 mm)	n.r.	12		200.000		2400.000
1401.4	Highway sign, square	n.r.	14		50.000		700.000
1401.6.1	Overhead signpost and support assembling cantilever	n.r.	4		2,000.000		8000.000
1401.6.2	Overhead signpost and support assembling gantry	n.r.	2		10,000.000		20000.000
		14-1			Carried to summary		32810.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
1402.1	1402 Road Markings Traffic lines (Mechanically sprayed)	sq. m	2211	1.500		3316.500	
1402.2	Special markings (Hand sprayed)	sq. m	628	5.000		3140.000	
1402.3	Curb painting (Black and yellow)	sq. m	1684	1.600		2694.400	
1402.4	Reflecting road studs type red	n.r.	1007	4.410		4440.870	
				14-2	Carried to summary		18591.770

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 14-1					32810.000
	Page 14-2					13591.770
				14-3	To Grand Summary	46401.770

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	1500 ELECTRICAL INSTALLATION					
	1502 Medium Voltage Switching Stations	prov sum				50000.000
1502.1	Medium Voltage Switching Stations	n.r.				
	1503 Package Sub-stations					
1503.1	Package sub-station	n.r.				
	1504 Package Medium Voltage Switching Stations					
1504.1	Packing medium voltage switching station	n.r.				
				15-1	Carried to summary	50000.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES
BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1505 33kV and 11kV Pole Mounted Transformer Stations						
1505.1	33kV pole mounted transformer station	n.r.					
1505.2	11kV pole mounted transformer station	n.r.					
	1506 Feeder Pillars						
1506.1	Feeder pillar	n.r.					
	1507 Cables						
1507.1	Cable (type) (size)	lin.m.					
				15-2	Carried to summary		

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	1508 Road Lighting Masts and Column					
1508.1	High mast assembly (type) (height)	n.r.				
1508.2	Lighting columns (type) (number of arms) (Height)	n.r.				
	1509 Traffic Sign Illumination					
1509.1	Overhead sign lighting (gantry or cantilever ref no)	n.r.				
1509.2	Roadside sign lighting (sign ref no)	n.r.				
	1510 Recessed Lighting					
1510.1	Recessed lighting (type)	n.r.				
15-3				Carried to summary		

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	1511 Traffic Signals					
1511.1	Traffic signal installation (location)	lump sum				
	1512 Earthing					
1512.1	Twin rod earthing installation (location)	n.r.				
1512.2	Single rod earthing installation (location)	n.r.				
				15-4	Carried to summary	

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 15-1					
	Page 15-2					
	Page 15-3					
	Page 15-4					
	Provisional Sum	Prov Sum				50000.000
			15-5	To Grand Summary		50000.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 17 - UTILITIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1700 UTILITIES						
	1701 Utilities						
1701.1	Remove carefully and relocate low voltage electric poles, telephone poles, including removal of lines, excavation, backfilling and other related works as directed by the Engineer	prov sum					50000.000
1701.1.1	Protect of existing utilities crossing the roadway as shown in Drawing, or as directed by the Engineer	lin.m.					
		17-1		Carried to summary			50000.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 17 - UTILITIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 17-1	Prov Sum					50000.000
			17-2	To Grand Summary			50000.000

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount		
				R.O.	Bz	R.O.	Bz	
A. WAGES								
These include proper wages, all used allowance, medical expense and all other charges provided for by local laws								
A.1	Supervisor	hour	100		4.000		400.000	
A.2	Site Surveyor	hour	1000		3.500		3500.000	
A.3	Foreman	hour	480		3.200		1536.000	
A.4	1st Class Operator	hour	480		1.100		528.000	
A.5	2nd Class Operator	hour	100		0.950		95.000	
A.6	Mechanic	hour	190		1.000		190.000	
A.7	Driver	hour	480		1.000		480.000	
A.8	Skilled Labour	hour	1000		0.650		650.000	
A.9	Semi Skilled Labour	hour	1000		0.600		600.000	
						19-1	Carried to Summary	7979.000

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
A.10	Ordinary Labour	hour	1000	0.550		550.000	
A.11	Mason	hour	200	0.650		130.000	
A.12	Painter	hour	100	0.750		75.000	
A.13	Carpenter	hour	200	0.650		130.000	
A.14	Steel Fitter	hour	100	0.650		65.000	
A.15	Electrician	hour	20	0.850		17.000	
			19-2	Carried to Summary		967.000	

CONSTRUCTION OF FLYOVER AT

SAHAM

**BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B. OPERATING EQUIPMENT ON SITE							
These rate include : fuel and lubricants cost, charges for depreciation interest, repairs, maintenance, spare parts, tyres, insurance, etc. Payment will not be made for mechanics or maintenance time which shall be include in and spread over the rates.							
B.1	Motorgrader from 100 hp up to 120 hp	hour	5	9.500		47.500	
B.2	Motorgrader from 120 hp up to 150 hp	hour	11	11.500		126.500	
B.3	Tractor from 60 to 100 hp	hour	5	4.000		20.000	
B.4	Bulldozer with ripper from 100 hp to 150 hp	hour	5	7.000		35.000	
B.5	Bulldozer with ripper from 150 hp to 200 hp	hour	7	8.000		56.000	
B.6	Bulldozer with ripper from 200 hp to 250 hp	hour	6	18.000		108.000	
B.7	Bulldozer with ripper from 250 hp to 300 hp	hour	4	19.500		78.000	
B.8	Wheel tractor up to 50 hp	hour	10	4.000		40.000	
				19-3	Carried to Summary		511.000

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.9	Wheel tractor over 50 hp	hour	10	7.000		70.000	
B.10	Motor scraper capacity up to 18 cu.m.	hour	10	19.000		190.000	
B.11	Motor scraper capacity from 18 to 24 cu.m.	hour	10	19.000		190.000	
B.12	Sheeps foot roller, from 5 tonnes to 10 tonnes	hour	10	5.000		50.000	
B.13	Grid roller	hour	4	7.000		28.000	
B.14	Vibratory compactor with prime mover up to 5 tonnes	hour	4	5.000		20.000	
B.15	Vibratory compactor with prime mover from 5 to 10 tonnes	hour	4	7.000		28.000	
B.16	Pneumatic compactor with prime mover from 30 to 50 tonnes	hour	4	7.000		28.000	
B.17	Pneumatic self-propelled rollers from 15 to 20 tonnes	hour	8	4.500		36.000	
B.18	Tandem roller up to 8 tonnes	hour	24	4.500		108.000	
B.19	Tandem roller from 8 to 12 tonnes	hour	8	5.000		40.000	
			19-4	Carried to Summary		788.000	

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.20	Triaxle roller from 10 to 15 tonnes	hour	24	5.000		120.000	
B.21	Light frog-rammer 0.1 tonne	hour	20	0.500		10.000	
B.22	Heavy frog-rammer 0.5 tonne	hour	20	0.700		14.000	
B.23	Wheel loader 1.2 to 1.6 cu.m.	hour	20	9.500		190.000	
B.24	Wheel loader 1.6 to 2.0 cu.m.	hour	20	10.000		200.000	
B.25	Wheel loader 2.0 to 2.5 cu.m.	hour	20	11.000		220.000	
B.26	Excavator up to 0.8 cu.m.	hour	15	5.500		82.500	
B.27	Excavator from 0.8 to 1.2 cu.m.	hour	15	7.500		112.500	
B.28	Bituminous mixing plant with batching apparatus up to 80 t/h.	hour	5	18.000		90.000	
B.29	Bituminous mixing plant with batching apparatus from 80 to 150 t/h.	hour	5	23.000		115.000	
B.30	Finisher up to 80 t/h.	hour	10	9.000		90.000	
			19-5	Carried to Summary		1244.000	

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Ez	R.O.	Ez
B.31	Finisher from 80 t/h to 120 t/h.	hour	10	10.000		100.000	
B.32	Bitumen sprayer up to 6 tonnes	hour	10	5.000		50.000	
B.33	Tanker truck up to 6 cu.m.	hour	15	5.000		75.000	
B.34	Dump truck up to 10 tonnes	hour	17	5.500		93.500	
B.35	Dump truck from 10 to 15 tonnes	hour	20	6.000		120.000	
B.36	Screening plant from 80 to 100 t/h.	hour	5	16.000		80.000	
B.37	Crushing plant from 40 to 60 t/h.	hour	5	20.000		100.000	
B.38	Crushing plant with primary and secondary from 60 to 100 t/h.	hour	5	30.000		150.000	
B.39	Air compressor up to 6000 l/m.	hour	15	1.500		22.500	
B.40	Air compressor over 6000 l/m.	hour	15	2.000		30.000	
B.41	Mechanical broom	hour	7	4.000		28.000	
			19-6	Carried to Summary		849.000	

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.42	Power water pump	hour	118	0.700		82.600	
B.43	Steel cutting machine	hour	5	0.800		4.000	
B.44	Steel bending machine	hour	5	1.200		6.000	
B.45	Belt conveyer	hour	5	7.000		35.000	
B.46	Concrete mixer up to 0.5 cu. m.	hour	10	2.000		20.000	
B.47	Concrete mixer over 0.5 cu. m.	hour	12	4.000		48.000	
B.48	Automatic concrete batch plant without mixing drum	hour	5	7.500		37.500	
B.49	Transmixer up to 5 cu. m.	hour	10	6.500		65.000	
B.50	Concrete vibrators	hour	59	0.150		8.850	
B.51	Crane up to 5 tonnes.	hour	9	4.500		40.500	
B.52	Crane with broom and jib 5 to 10 tonnes	hour	7	8.000		56.000	
			19.7	Carried to Summary		403.450	

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.53	Crane with boom and jib over 10 tonnes	hour	7	11.000		77.000	
B.54	Generator 60 kw	hour	5	1.500		7.500	
B.55	Generator 75 kw	hour	5	1.800		9.000	
B.56	Drilling equipment	hour	5	0.200		1.000	
B.57	Generator 100 kw	hour	5	3.000		15.000	
B.58	Generator 150 kw	hour	5	4.000		20.000	
B.59	Generator 200 kw	hour	5	5.000		25.000	
B.60	Gravel strewer	hour	5	10.000		50.000	
		19-8		Carried to Summary		204.500	

CONSTRUCTION OF FLYOVER AT

SAHAM

BILL OF QUANTITIES

BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	C. MATERIALS						
	These rates include all the charges for the supply of the materials, loading, transport to site, unloading and stores as well as all the charges provided for in the General and Special Specifications and in the Contract.						
C.1	Aggregate for granular sub-base course in accordance with the General and Special Specifications, in place as specified.	cu.m.	50	1.000		50.000	
C.2	Aggregate for granular aggregate base course in accordance with the General and Special Specifications, in place as specified.	cu.m.	25	2.000		50.000	
C.3	Aggregate for bituminous base course in accordance with the General and Special Specifications, near the asphalt plant, in bulk	cu.m.	50	2.000		100.000	
C.4	Fine aggregate for concrete, in accordance with the General and Special Specifications, in place, in bulk	cu.m.	25	2.000		50.000	
C.5	Coarse aggregates for concrete, in accordance with the General and Special specifications, in place, in bulk	cu.m.	50	1.200		60.000	
		19-9		Carried to Summary			310.000

**CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
C.6	Stone for drainage, masonry and slope protection, in accordance with the General and Special Specifications in place	cu.m.	25		2.500		62.500
C.7	Asphalt cement, grade 60-70 on site	ton	1		44.000		44.000
C.8	Asphalt cement, grade 50-60 on site	ton	1		48.000		48.000
C.9	Emulsified asphalt, grade RS-1 on site	ton	1		70.000		70.000
C.10	Cutback asphalt, MC and RC type on site	ton	1		75.000		75.000
C.11	Portland cement on site	ton	1		25.000		25.000
C.12	Deformed billet steel bars, AASHTO M 31 grade 60 (High Yield) of any diameter	ton	1		135.000		135.000
C.13	Deformed billet steel bars AASHTO M 31 grade 40 (Mild) of any diameter	ton	1		135.000		135.000
C.14	Highway signs	sq.m.	3		32.000		96.000
C.15	Highway sign supports - 1 post	nr.	4		15.000		60.000
				19-10	Carried to Summary		750.500

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
C.16	Highway sign supports - 2 post	nr.	2	20.000		40.000	
C.17	Timber plank, on site	cu.m.	2	105.000		210.000	
C.18	Timber props, on site	cu.m.	2	105.000		210.000	
C.19	Wire mesh gabgions, on site	ton	0.5	320.000		160.000	
C.20	Explosive, on site	kg.	5	20.000		100.000	
C.21	Gas oil, on site	litre	100	0.080		8.000	
C.22	Gasoline, on site	litre	500	0.120		60.000	
C.23	Lubricant	kg.	5	0.300		1.500	
			19-11	Carried to Summary		789.500	

CONSTRUCTION OF FLYOVER AT
SAHAM
BILL OF QUANTITIES
BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 19-1					7979.000	
	Page 19-2					967.000	
	Page 19-3					511.000	
	Page 19-4					788.000	
	Page 19-5					1244.000	
	Page 19-6					849.000	
	Page 19-7					403.450	
	Page 19-8					204.500	
	Page 19-9					310.000	
	Page 19-10					750.500	
	Page 19-11					789.500	
				19-12	To Grand Summary		14795.950

BILL OF QUANTITIES**GRAND SUMMARY**

Bill No	Description	Amount
		R.O.
1	Preliminaries	370650.000
2	Earthworks	144160.100
3	Granular and stabilized subbase, basecourse and stabilized subgrade	51823.500
4	Bituminous Pavement	302825.500
5	Concrete and concrete structure	1402499.000
6	Structural steel and other metal work	97335.000
7	Paint	N/A
8	Drainage and service ducts	42274.000
9	Slope protection and stabilization	4208.000
10	Piling	247740.000
11	Bridge bearing, expansion joints, joint seals and fillers	88120.000
12	Sidewalks, paved areas and kerbs	48732.000
13	Safety barriers, delineators and fences	48024.000
14	Highway signs and road marking	46401.770
15	Electrical installations	50000.000
16	Landscape and irrigation	N/A
17	Utilities	50000.000
18	Plant and Equipment	300000.000
19	Dayworks	14795.950
	Sub-total	3309588.820
	Contingencies (10%)	330958.882
	TOTAL CONTRACT VALUE (R.O)	3640547.702

(IN WORDS, THE TOTAL TENDER VALUE IS RIAL OMANI)

NAME OF TENDERER

DATE

SIGNATURE OF TENDERER

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

2. The second part of the document focuses on the importance of communication and collaboration between different departments and stakeholders. It stresses that effective communication is crucial for ensuring that all parties are aware of their responsibilities and the overall goals of the organization. This section also discusses the importance of regular meetings and reports to keep everyone informed and engaged.

3. The third part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

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5. The fifth part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

6. The sixth part of the document focuses on the importance of communication and collaboration between different departments and stakeholders. It stresses that effective communication is crucial for ensuring that all parties are aware of their responsibilities and the overall goals of the organization. This section also discusses the importance of regular meetings and reports to keep everyone informed and engaged.

7. The seventh part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

8. The eighth part of the document focuses on the importance of communication and collaboration between different departments and stakeholders. It stresses that effective communication is crucial for ensuring that all parties are aware of their responsibilities and the overall goals of the organization. This section also discusses the importance of regular meetings and reports to keep everyone informed and engaged.

9. The ninth part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

10. The tenth part of the document focuses on the importance of communication and collaboration between different departments and stakeholders. It stresses that effective communication is crucial for ensuring that all parties are aware of their responsibilities and the overall goals of the organization. This section also discusses the importance of regular meetings and reports to keep everyone informed and engaged.

