

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount			
						Local		Foreign		Local		Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
34	13.2	1300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	1843.38	143.00	3.00	263,603	5,530				
35	13.8	2200 & 2706	Providing weepholes on brick/plain/reinforced abutment, wing wall/return wall; 100mm dia AC pipe, extending through full width of the structure and slope of 1V:20H towards drawing face. Complete as per drawing & technical specification	each	1640.00	325.00	7.00	533,000	11,480				
36	13.10	710.1.4 of IRC:78 & 2200	Providing and laying filter media with granular materials/crushed stone aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH Specification to a thickness not less than 600 mm with smaller size towards the soil and bigger size	m ³	220.50	2,985.00	60.00	658,193	13,230				
			Sub Total					11,744,699	239,799				
			Total					35,033,569	791,080				




 Chief Executive Officer
 Gurwahati Metropolitan Dev. Authority

Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
CONSTRUCTION OF ROAD SIDE STONE MASONRY OPEN DRAIN									
Name of Road: Approach Road At Amiyaganagar									
Length of Road = 1222.933 m									
1	12.1	304	Foundation: Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material.						
	I		Ordinary Soil						
	A		Manual Means						
	a		Without Dewatering						
	i		upto 3 m height	m ³	2,390.8	124.00	3.00	296,463	7,172
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification	m ³	528.31	844.00	17.00	445,894	8,981
3	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	1693.76	1,428.00	29.00	2,418,689	49,119
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	96.00	4,283.00	86.00	411,168	8,256



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road**

Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.		
			Sub structure								
5	13.5	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	73.38	5,840.00	117.00	428,539	8,585		
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	1248.31	2,596.00	52.00	3,240,613	64,912		
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	2384.72	143.00	3.00	341,015	7,154		
8	13.9	710.1.4 of IRC:78 & 2200	Back Filling behind abutment, wing wall and return wall complete as per drawing & technical specification								
			A. Ganular Material	m ³	91.72	649.00	13.00	59,526	1,192		
			Sub total					7,641,907	155,373		




Chief Executive Officer
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Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
ROAD WORKS									
Name of Road: Approach Road At Amiyanagar									
Length of Road = 1222.933 m									
SITE CLEARANCE									
9	2.1	201	Cutting of Trees, including Cutting of Trunks, Branches and Removal						
			Cutting of Trees, Including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/pit						
			(1) Girth from 300 mm to 600 mm:	each	40.00	1,039.00	21.00	41,560	840
10	2.3	201	Clearing and Grubbing Road Land: Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs sapling and trees of girth upto 300mm removal of stumps, disposal of unserviceable materials and slaking of serviceable material to be used or auctioned upto a lead of 1000m including removal and disposal of top organic and not exceeding 150 mm in thickness.						
			I) By Manual Means						
			A) In area of non thorny jungle	Hect	0.49	38,929.00	779.00	19,075	382
11	2.4	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining wall, and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scarping wherever necessary, sorting the dismantled material, disposal of unserviceable material with all lifts and leads of 1000 metres						
			I) Lime / Cement Concrete						
			A) By Manual means						
			a) Lime Concrete, cement concrete M10 grade and below	m ³	0.50	649.00	13.00	325	7
			III) Dismantling Stone Masonry						
			b) Rubble Masonry in cement mortar	m ³	15.00	390.00	8.00	5,850	120



Chief Executive Officer
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Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone

Amiya Nagar - Access Road

Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
			EARTHWORK, EROSION CONTROL AND DRAINAGE								
12	3.3	301	Excavation in Soil with Dozer with lead upto 100 m Excavation for roadway in Soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead of 50 m), including trimming bottom of side slopes in accordance with requirements of lines, grades and cross sections	m ³	32698.94	59.00	2.00	1,929,237	55,398		
13	3.11	301	Removal of Unserviceable Soil with Disposal upto 1000 metres Removal of Unserviceable Soil with Disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305)	m ³	27545.88	33.00	1.00	909,014	27,546		
14	3.17		Embankment Construction with Materials obtained from Roadway Cutting Construction of embankment with approved materials deposited at site from roadway cutting and excavation of drains and foundations of other structures graded and compacted to meet requirement of table 300-2	m ³	5153.06	91.00	2.00	468,928	10,306		




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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities**

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
15			<p>SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS</p> <p>Sub-Base</p> <p>Construction of sub-base coarse 150 mm compacted thickness by stone dust in single layer of 180 mm loose thickness including collection and supply stone dust coming out as by product during crusher running consisting of hard quarry chipping, machine broken and of size 10mm down as per IRC grading free from dust, dirt and other organic and deleterious constituents including payments of Forest Royalty and Sales Tax, including preparation of sub-base to specified profile and grade after removal of all vegetation and extraneous material if any, dressing, cambering lightly sprinkling with water and rolling with adequate passes of 8-10T roller till the stone dust sub-grade is properly compacted. Spreading the granular materials between prepared shoulders in layers not exceeding 150mm(loose thickness, dressing, watering to bring the moisture content to \pm 2% of OMC for the entire depth of the layer and compacting the same with hpower roller 8-10T capacity, adding or removing materials if necessary to keep the longitudinal and cross profile of the surface within permissible tolerance, checking the same with templates and straight edges, continue rolling and correcting surface irregularities as the appear within permissible tolerance checking the same with template and straight edges continue rolling and correcting surface irregularities as they appera controlling moisture content of maintaining the same above the OMC and compacting to 95% proctor density (collection of stone dust to be made from barpathar stone quarry) and measurement will be taken on the finished compacted work in position</p>	m ³	733.76	1,558.00	32.00	1,143,198	23,480



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Guwahati Metropolitan Dev. Authority

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Amiya Nagar - Access Road
Bill of Quantities**

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local		Foreign	
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
16	4.9	404	Water Bound Macadam Providing, Laying, Spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill up the interspaces of coarses aggregate, watering and compacting to the required density (with an initial lead of 5 km) (A) By Manual means.						
			I) Grading-II (b) Using Screening Type-A (13.2 mm Agg.)	m ³	489.17	2,336.00	47.00	1,142,701	22,991
			II) Grading-III (a) Using Screening Crushable type such as Moorum or Gravel	m ³	366.88	2,142.00	43.00	785,857	15,776




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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
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Sr No.	Item no.	Reference of MoSRT & H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
			BASES & SURFACE COURSES (BITUMINOUS)						
			Prime Coat						
			Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the deptt.)						
17	5.1A	502	1)With bitumen emulsion-CSS-1h	m ²	4891.73	26.00	1.00	127,185	4,892
			Tack Coat						
			i) Providing and applying Tack Coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20kg per sqm. on the prepared bituminous surface cleaned with mechanical broom as per Technical Specification: Clause 503(including cost of testing of materials at site and at laboratory as directed by the deptt.)						
18	5.2	503	1)With bitumen emulsion-CSS-1h a) Normal bituminous surface	m ²	4891.73	13.00	1.00	63,592	4,892




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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities**

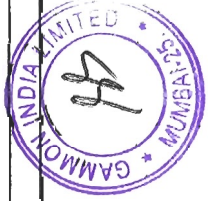
Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local		Foreign	
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
19	5.10 A	511	Open Graded Premix Surfacing Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen (60/70 grade) or bitumen emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 T static roller capacity to required level and grades (Including carriage upto initial lead of 5 km from quarry and carriage of mixed materials upto 10.0 km initial lead from mixing plant)(including cost of testing of materials at site and at laboratory as directed by the deptt.)						
			a) Without anti-stripping agent 1) Case 1: Mechanical Method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour	m ²	4891.73	176.00	4.00	860,944	19,567
20	5.12	513	Seal Coat Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A & B seal coats(including cost of testing of materials at site and at laboratory as directed by the deptt.)						
			a) Without anti-stripping agent 1) Case 1: Type A providing and laying liquid seal coat comprising of a layer of bituminous binder (paving bitumen 60/70 grade) followed by a cover of crushed stone chipping of specified grade (including carriage upto initial lead of 5 km from quarry)	m ²	4891.73	91.00	2.00	445,147	9,783
			Sub total					7,942,615	205,979



Chief Executive Officer
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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities**

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount		
						Local	Foreign	Local	Foreign	
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	
CROSS DRAINAGE WORKS (DOUBLE CELL BOX CULVERT 3m x 3m)										
Name of Road: Approach Road At Amiyangar										
Length of Road = 1222.933 m										
Foundation										
21	12.1	304	Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material.							
						I. in Ordinary Soil				
						A. Manual Means				
						(i) Upto 3 m depth	22.70	124.00	3.00	2,814
										68
22	12.8A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification							
						N, Without Plasticiser				
						A.P.C.C. grade M15	2.78	5,840.00	117.00	16,235
						C. R.C.C. Grade M20				
						CASE I Using Concrete Mixer	3.60	6,359.00	128.00	22,892
										461
23	12.4	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications							
						c With other make ISI marked TMT rebars	0.36	54,500.00	1,090.00	19,620
										392
Substructure										



Chief Executive Officer
Guwahati Metropolitan Development Authority

Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
24	13.5A	1500, 1700 & 220	Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N, Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer	m ³	16.11	5,840.00	17.00	94,082	1,885
25	13.6B	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	1.61	54,500.00	1,090.00	87,745	1,755
26	13.10	710, 1.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	14.40	2,985.00	60.00	42,984	864
27	14.1	1500, 1600 & 1700	Superstructure Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification including providing plasticiser (Masterplast PL - 1/SPL .. 2 or equivalent), air entraining and water reducing plasticiser (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 and steel shuttering framework N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m	m ³	8.44	6,748.00	135.00	56,953	1,139



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone

Amiya Nagar - Access Road

Bill of Quantities

Sr No.	Item no.	Reference of MOSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.		
28	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications	Tonne	0.84	54,500.00	1,090.00	45,998	920		
29	14.9	2705	Drainage spout complete as per drawing & Technical specification	m ³	16	2,596.00	52.00	41,536	832		
			Sub Total					430,860	8,642		
CROSS DRAINAGE WORKS (BOX CULVERT 1.5m x 1.5m)											
Name of Road: Approach Road At Amiyaganar											
Length of Road = 1222.933 m											
30	12.1	3.4	Foundation Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material I. in Ordinary Soil A. Manual Means (i) Upto 3 m depth	m ³	77.19	124.00	3.00	9,572	232		
31	12.8 A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification N, Without Plasticiser A. P.C.C. grade M15 C. R.C.C. Grade M20 CASE I Using Concrete Mixer	m ³	6.60	5,840.00	117.00	38,544	772		
				m ³	27.00	6,359.00	128.00	171,693	3,456		

Chief Executive Officer
Guwahati Metropolitan Dev. Authority



**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road**

Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local		Foreign	
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
32	12.40	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	2.70	54,500.00	1,090.00	147,150	2,943
			Substructure						
33	13.5 A	1500, 1700 & 2200	Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N, Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer						
34	13.6 (B)	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	3.89	54,500.00	1,090.00	211,733	4,235
35	13.10	710.1.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	54.00	2,985.00	60.00	161,190	3,240



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Amiya Nagar - Access Road
Bill of Quantities**

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
36	14.1	1500,1600 & 1700	Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification including providing plasticiser (Masterplast PL - 1/SPL - 2 or equivalent), air entraining and water reducing plasticiser (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 and steel shuttering framework N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m.	m ³	10.00	6,748.00	135.00	67,480	1,350
37	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	1.00	54,500.00	1,090.00	54,500	1,090
38	14.9	2705	Drainage spout complete as per drawing & Technical specification	m ³	32.00	2,596.00	52.00	83,072	1,664
						Sub Total		1,171,817	23,527
CONSTRUCTION OF ROAD SIDE STONE MASONRY BREAST WALL									
Name of Road: Approach Road At Amiyanager									
Length of Road = 1222.933 m									
39	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material Ordinary Soil Manual Means Without Dewatering upto a height of 3m	m ³	5,299.83	124.00	3.00	657,179	15,899



Chief Executive Officer
Gwahati Metropolitan Dev. Authority

Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone

Amiya Nagar - Access Road

Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Applicable taxes and duties etc.
40	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	1,000.35	1,428.00	29.00	1,428,500	29,010			
41	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	150.05	4,283.00	86.00	642,664	12,904			
			Sub-Structure									
42	13.1	1300 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	2,589.20	2,596.00	52.00	6,721,563	134,638			
43	13.2	1300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	1,692.90	1,428.00	29.00	2,417,461	49,094			
44	13.8	2200 & 2706	Providing weepholes on brick/plain/reinforced abutment, wing wall/return wall 100mm dia AC pipe, extending through full width of the structure and slope of 1V:20H towards drawing face. Complete as per drawing & technical specification.	each	1,504.00	325.00	7.00	488,800	10,528			
45	13.10	710.1.4 of IRC:78 & 2200	Providing and laying filter media with granular materials/crushed stone aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH Specification to a thickness not less than 600 mm with smaller size towards the soil and bigger size	m ³	202.50	2,985.00	60.00	604,463	12,150			
			Sub Total					12,960,630	264,224			



Chief Executive Officer
Guwahati Metropolitan Water Supply Corporation Limited

Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone

Amiya Nagar - Access Road

Bill of Quantities

Sr No.	Item no.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
CONSTRUCTION OF ROAD SIDE STONE MASONRY TOE WALL (1.5m HEIGHT)									
Name of Road: Approach Road At Amiyanager									
Length of Road = 1222.933 m									
46	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
	V		Ordinary Soil						
	A		Manual Means						
	ii		With dewatering	m ³	2,017.37	124.00	3.00	250,154	6,052
47	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	627.00	1,428.00	29.00	895,356	18,183
48	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	62.70	4,283.00	86.00	268,544	5,392
49	13.1	1300 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification a. Random Rubble Masonry	m ³	925.77	2,596.00	52.00	2,403,299	48,140
50	13.2	1300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	577.50	143.00	3.00	82,583	1,733
						Sub Total		3,899,935	79,500
						Total		34,047,765	737,245

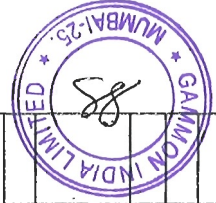
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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
CONSTRUCTION OF ROAD SIDE STONE MASONRY OPEN DRAIN											
Name of Road: Approach Road At Geeta Mandir (Main Reservoir)											
Length of Road = 253.463 m											
1	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material								
			Ordinary Soil								
			Manual Means								
			Without Dewatering								
			upto 3 m height		811.09	124.00	3.00	100.575	2.433		
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification:	m ³	145.76	844.00	17.00	123.022	2,478		
3	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	485.87	1,428.00	29.00	693,819	14,090		
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	29.78	4,283.00	86.00	127,543	2,561		

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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
			Sub-Structure						
5	13.5	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	18.81	5,840.00	117.00	109,837	2,201
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	550.13	2,596.00	52.00	1,428,131	28,607
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	783.66	143.00	3.00	112,063	2,351
8	13.9	710.1.4 of IRC:78 &	Back Filling behind abutment, wing wall and return wall complete as per drawing & technical specification A. Ganular Material	m ³	23.51	649.00	13.00	15,258	306
ROAD WORK						SUB TOTAL		2,710,248	55,026
Name of Road: Approach Road At Geeta Mandir (Main Reservoir)									
Length of Road = 253.463 m									
SITE CLEARANCE									
9	2.1	201	Cutting of Trees, including Cutting of Trunks, Branches and Removal Cutting of Trees, Including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/pit (1) Girth from 300 mm to 600 mm	each	40	1,039.00	21.00	41,560	840



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Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
10	2.3	201	Clearing and Grubbing Road Land: Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs sapling and trees of girth upto 300mm removal of stumps, disposal of unserviceable materials and slaking of serviceable material to be used or auctioned upto a lead of 1000m: including removal and disposal of top organic and not exceeding 150 mm in thickness. I) By Manual Means A) In area of non thorny jungle	Hect	0.10	38,929.00	779.00	3,893	78
11	2.4	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining wall, and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scyfyng wherever necessary, sorting the dismantled material, disposal of unserviceable material with all lifts and leads of 1000 metres I) Lime / Cement Concrete A) By Manual means a) Lime Concrete, cement concrete M10 grade and below III) Dismantling Stone Masonry b) Rubble Masonry in cement mortar	m ³	0.50	649.00	13.00	325	7
12	3.3	301	EARTHWORK, EROSION CONTROL AND DRAINAGE Excavation in Soil with Dozer with lead upto 100 m Excavation for roadway in Soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead of 50 m), including trimming bottom of side slopes in accordance with requirements of lines, grades and cross sections	m ³	15.00	390.00	8.00	5,850	120
						10.675.09	2.00	629,830	21,350



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Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
13	3.11	301	Removal of Unserviceable Soil with Disposal upto 1000 metres Removal of Unserviceable Soil: with Disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305)	m ³	10,586.80	33.00	1.00	349,364	10,587
14	3.17		Embankment Construction with Materials obtained from Roadway Cutting Construction of embankment with approved materials deposited at site from roadway cutting and excavation of drains and foundations of other structures graded and compacted to meet requirement of table 300-2	m ³	88.29	91.00	2.00	8,034	177
SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS									
15		Analyzed Item Annexure II	Sub-Base Construction of sub-base coarse 150mm compacted thickness by stone dust in single layer of 180 mm loose thickness including collection and supply stone dust coming out as by product during crusher running consisting of hard quarry chipping, machine broken and of size 10mm down as per IRC grading free from dust, dirt and other organic and deleterious constituents including payments of Forest Royalty and Sales Tax, including preparation of sub-base to specified profile and grade after removal of all vegetation and extraneous material if any, dressing, cambering lightly; sprinkling with water and rolling with adequate passes of 8-10T roller till the stone dust sub-grade is properly compacted. Spreading the granular materials between prepared shoulders in layers not exceeding 150mm(loose thickness, dressing, watering to bring the moisture content to \pm 2% of OMC for the entire depth of the layer and compacting the same with power roller 8-10T capacity, adding or removing materials if necessary to keep the longitudinal and cross profile of the surface within permissible tolerance, checking the same with templates and straight edges, continue rolling and correcting surface irregularities as the appear within permissible tolerance, checking the same with template and straight edges continue rolling and correcting surface irregularities as they appear controlling moisture content of maintaining the same above the OMC and compacting to 95% proctor density (collection of stone dust to be made from barpathar stone quarry) and measurement will be taken on the finished compacted work in position.	m ³	155.00	1,558.00	32.00	241,490	4,960



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local	Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	
16	4.9	404	Water Bound Macadam Providing, Laying, Spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill up the interspaces of coarses aggregate, watering and compacting to the required density (with an initial lead of 5 km)									
			(A) By Manual means.									
			I) Grading-II									
			(b) Using Screening Type-A (13.2 mm Agg.)	m ²	101.39	2,336.00	47.00	236,836	4,765			
			II) Grading-III									
			(a) Using Screening Crushable type such as Moorum or Gravel	m ²	76.04	2,142.00	43.00	162,875	3,270			
			BASES & SURFACE COURSES (BITUMINOUS)									
17	5.1A	502	Prime Coat Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the deptt.)	m ²	1,013.85	26.00	1.00	26,360	1,014			
			I)With bitumen emulsion-CSS-1h									



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
18	5.2	503	Tack Coat i) Providing and applying Tack Coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20kg per sqm. on the prepared bituminous surface cleaned with mechanical broom as per Technical Specification Clause 503(including cost of testing of materials at site and at laboratory as directed by the								
			I)With bitumen emulsion-CSS-1h a) Normal bituminous surface	m ²	1,013.85	13.00	1.00	13,180	1,014		



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	
19	5.10 A	511	Open Graded Premix Surfacing Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen (60/70 grade) or bitumen emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 T static roller capacity to required level and grades (Including carriage upto initial lead of 5 km from quarry and carriage of mixed materials upto 10.0 km initial lead from mixing plant)(including cost of testing of materials at site and at laboratory as directed by the deptt.)									
			a) Without anti-stripping agent 1) Case i: Mechanical Method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour	m ²	1,013.85	176.00	4.00	178.438	4.055			
20	5.12	513	Seal Coat Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A & B seal coats(including cost of testing of materials at site and at laboratory as directed by the deptt.)									
			a) Without anti-stripping agent 1) Case i: Type A providing and laying liquid seal coat comprising of a layer of bituminous binder (paving bitumen 60/70 grade) followed by a cover of crushed stone chipping of specified grade (including carriage upto initial lead of 5 km from quarry)	m ²	1,013.85	91.00	2.00	92.260	2.028			
			Sub Total					1,990,296	54,264			




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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

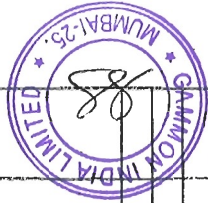
Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
CROSS DRAINAGE WORKS (BOX CULVERT)									
Name of Road: Approach Road At Geeta Mandir (Main Reservoir)									
Length of Road = 253.463 m									
21	12.1	304	Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material I. in Ordinary Soil; A. Manual Means (i) Upto 3 m depth:	m ³	102.97	124.00	3.00	12,768	309
22	12.8 A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification N. Without Plasticiser A P.C.C. grade M15 C. R.C.C. Grade M20 CASE I Using Concrete Mixer	m ³	3.24	5,840.00	117.00	18,922	379
23	12.40	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	0.73	54,500.00	1,090.00	39,785	796
Substructure									
24	13.5 A	1500, 1700 & 2200	Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N. Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer	m ³	20.04	5,840.00	117.00	117,034	2,345



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	
25	13.6 (B)	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	2.00	54,500.00	1,090.00			109,000	2,180	
26	13.10	710.i.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	28.80	2,985.00	60.00			85,968	1,728	
27	14.1	1500,1600 & 1700	Superstructure Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification including providing plasticier (Masterplast PL - 1/SPL - 2 or equivalent), air entraining and water reducing plasticier (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 and steel shuttering framework N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m									
28	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	0.75	54,500.00	1,090.00			40,875	818	
29	14.9	2705	Drainage spout complete as per drawing & Technical specification	m ³	24.00	2,596.00	52.00			62,304	1,248	
			Sub Total							583,623	11,747	



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT & H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
CONSTRUCTION OF ROAD SIDE STONE MASONRY BREAST WALL											
Name of Road: Approach Road At Geeta Mandir (Main Reservoir)											
Length of Road = 253.463 m											
30	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material								
	i		Ordinary Soil								
	A		Manual Means								
	a		Without Dewatering								
	i		upto a height of 3m	m ³	1,884.38	124.00	3.00	233,663	5,653		
31	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	355.68	1,428.00	29.00	507,911	10,315		
32	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushec stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	53.35	4,283.00	86.00	228,498	4,588		
			Sub-Structure								
33	13.1	1300 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	920.60	2,596.00	52.00	2,389,878	47,871		



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (I) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount			
						Local		Foreign		Local		Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
34	13.2	300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	601.92	143.00	3.00	86.075	1,806				
35	13.8	2200 & 2706	Providing weepholes on brick/plain/reinforced abutment, wing wall/return wall 100mm dia AC pipe, extending through full width of the structure and slope of 1V:20H towards drawing face. Complete as per drawing & technical specification	each	540.00	325.00	7.00	175,500	3,780				
36	13.10	710.1.4 of IRC:78 & 2200	Providing and laying filter media with granular materials/crushed stone aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH Specification to a thickness not less than 600 mm with smaller size towards the soil and bigger size	m ³	72.00	2,985.00	60.00	214,920	4,320				
			Sub Total					3,836,444	78,333				
			Total					9,120,611	199,370				



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount			
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign	
CONSTRUCTION OF ROAD SIDE STONE MASONRY OPEN DRAIN												
Name of Road: Approach Road At Geetanagar (Sub Reservoir)												
Length of Road = 698.339 m												
1	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material									
	I		Ordinary Soil									
	A		Manual Means									
	a		Without Dewatering									
	i		upto 3 m height	m ³	2339.51	124.00	3.00		290,099	7,019		
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification	m ³	516.96	844.00	17.00		436,314	8,788		
3	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	1657.40	1,428.00	29.00		2,366,767	48,065		
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	93.94	4,283.00	86.00		402,345	8,079		
			Sub-Structure									



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT & H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Foreign
5	13.5	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel shuttering N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	71.80	5,840.00	117.00			419,312	8,401	
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	1221.51	2,596.00	52.00			3,171,040	63,519	
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	2333.52	143.00	3.00			333,693	7,001	
8	13.9	710.1.4 of IRC:78 &	Back Filling behind abutment, wing wall and return wall complete as per drawing & technical specification A. Granular Material	m ³	89.75	649.00	13.00			58,248	1,167	
			SUB TOTAL							7477819	152037	
Road works												
Name of Road: Approach Road At Geetanagar (Sub Reservoir)												
Length of Road = 698.339 m												
9	2.1	201	SITE CLEARANCE Cutting of Trees, including Cutting of Trunks, Branches and Removal Cutting of Trees, including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/pit (I) Girth from 300 mm to 600 mm	each	80	1,039.00	21.00			83,120	1,680	



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount		
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign
10	2.3	201	Clearing and Grubbing Road Land: Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs sapling and trees of girth upto 300mm removal of stumps, disposal of unserviceable materials and staking of serviceable material to be used or auctioned upto a lead of 1000m including removal and disposal of top organic and not exceeding 150 mm in thickness. I) By Manual Means A) In area of non thorny jungle	Hect	0.28	38,929.00	779.00		10,900	218	
11	2.4	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining wall, and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scyrfing wherever necessary, sorting the dismantled material, disposal of unserviceable material with all lifts and leads of 1000 metres I) Lime / Cement Concrete A) By Manual means a) Lime Concrete, cement concrete M10 grade and below III) Dismantling Stone Masonry b) Rubble Masonry in cement mortar								
12	3.3	301	EARTHWORK, EROSION CONTROL AND DRAINAGE Excavation in Soil with Dozer with lead upto 100 m Excavation for roadway in Soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead of 50 m), including trimming bottom of side slopes in accordance with requirements of line grades and cross sections	m ³	17510.54	59.00	2.00		1,033,122	35,021	



Chief Executive Officer
Guwahati Metropolitan Water Supply Corporation

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

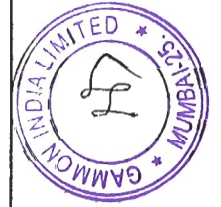
Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount			
						Local		Foreign		Local		Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties		
13	3.11	301	Removal of Unserviceable Soil with Disposal upto 1000 metres Removal of Unserviceable Soil with Disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305)	m ³	14008.43	33.00	1.00			462,278	14,008		
14	3.16	305	Embankment Construction with Materials obtained from Borrow Pits Construction of embankment with materials obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2 (including compensation of earth) (Including cost of testing of materials at site and laboratory as directed by the deptt.) (b) from Govt. Land										
										440,775	9,687		
15	3.17		Embankment Construction with Materials obtained from Roadway Construction of embankment with approved materials deposited at site from roadway cutting and excavation of drains and foundations of other structures graded and compacted to meet requirement of table 300-2	m ³	3502.11	91.00	2.00			318,692	7,004		




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount			
						Local		Foreign	Local		Foreign	
						Basic Rate	Applicable taxes and duties		Basic Rate	Applicable taxes and duties		
			SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS									
16		Analyzed Item Annexure II	Construction of sub-base coarse 150mm compacted thickness by stone dust in single layer of 180 mm loose thickness including collection and supply stone dust coming out as by product during crusher running consisting of hard quarry chipping, machine broken and of size 10mm down as per IRC grading free from dust, dirt and other organic and deleterious constituents including payments of Forest Royalty and Sales Tax, including preparation of sub-base to specified profile and grade after removal of all vegetation and extraneous material if any, dressing, cambering lightly sprinkling with water and rolling with adequate passes of 8-10T roller till the stone dust sub-grade is properly compacted. Spreading the granular materials between prepared shoulders in layers not exceeding 150mm(loose thickness, dressing, watering to bring the moisture content to $\pm 2\%$ of OMC for the entire depth of the layer and compacting the same with hpower roller 8-10T capacity, adding or removing materials if necessary to keep the longitudinal and cross profile of the surface within permissible tolerance, checking the same with templates and straight edges, continue rolling and correcting surface irregularities as the appear within permissible tolerance checking the same with template and straight edges continue rolling and correcting surface irregularities as they appera controlling moisture content of maintaining the same above the OMC and compacting to 95% proctor density (collection of stone dust to be made from barpathar stone quarry) and measurement will be taken on the finished compacted work in position.	m ³	419.00	1,558.00	32.00	652,802	13,408			



Chief Executive Officer
Guwahati Water Supply Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

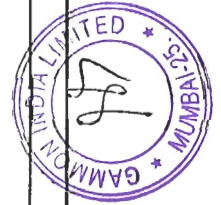
Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount			
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign	
17	4.9	404	Water Bound Macadam Providing, Laying, Spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill up the interstices of coarses aggregate, watering and compacting to the required density (with an initial lead of 5 km)									
			(A) By Manual means.									
			I) Grading-II									
			(b) Using Screening Type-A (13.2 mm Agg.)	m ³	279.34	2,336.00	47.00		652,538	13,129		
			II) Grading-III									
			(a) Using Screening Crushable type such as Moomum or Gravel	m ³	209.50	2,142.00	43.00		448,749	9,009		
			BASES & SURFACE COURSES (BITUMINOUS)									
18	5.1A	502	Prime Coat Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the deptt.)	m ²	2793.36	26.00	1.00		72,627	2,793		
			I)With bitumen emulsion-CSS-1h									
19	5.2	503	Tack Coat i) Providing and applying Tack Coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20kg per sqm. on the prepared bituminous surface cleaned with mechanical broom as per Technical Specification Clause 503(including cost of testing of materials at site and at laboratory as directed by the deptt.)	m ²	2793.36	13.00	1.00		36,314	2,793		
			I)With bitumen emulsion-CSS-1h									
			a) Normal bituminous surface									

Chief Executive Officer
Guwahati Metropolitan Dev. Authority



**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount		
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign
						Basic Rate	Applicable taxes and duties	Foreign	Basic Rate	Applicable taxes and duties	Foreign
20	5.10 A	511	Open Graded Premix Surfacing Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen (60/70 grade) or bitumen emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 T static roller capacity to required level and grades (including carriage upto initial lead of 5 km from quarry and carriage of mixed materials upto 10.0 km initial lead from mixing plant)(including cost of testing of materials at site and at laboratory as directed by the deptt.)								
			a) Without anti-stripping agent I) Case i: Mechanical Method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour		2793.36	176.00	4.00		491,631	11,173	
21	5.12	513	Seal Coat Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A & B seal coats(including cost of testing of materials at site and at laboratory as directed by the deptt.)								
			a) Without anti-stripping agent I) Case I: Type A providing and laying liquid seal coat comprising of a layer of bituminous binder (paving bitumen 60/70 grade) followed by a cover of crushed stone chipping of specified grade (including carriage upto initial lead of 5 km from quarry)		2793.36	91.00	2.00		254,196	5,587	
Sub Total									4,963,919	125,638	



Chief Executive Officer
Guwahati Metropolitan Municipality

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount			
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign	
CROSS DRAINAGE WORKS (BOX CULVERT)												
Name of Road: Approach Road At Geetanagar (Sub Reservoir)												
Length of Road = 698.339 m												
			Foundation									
22	12.1	304	Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material I. in Ordinary Soil A. Manuai Means (i) Upto 3 m depth	m ³	171.62	124.00	3.00		21,281	515		
23	12.8 A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification N, Without Plasticiser A. P.C.C. grade M15 C. R.C.C. Grade M20 CASE I Using Concrete Mixer	m ³	5.4	5,840.00	117.00		31,536	632		
				m ³	12.15	6,359.00	128.00		77,262	1,555		
24	12.40	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	1.215	54,500.00	1,090.00		66,218	1,324		
Sub Structure												
25	13.5 A	1500, 1700 & 2200	Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N, Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer	m ³	33.4	5,840.00	117.00		195,056	3,908		



**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Applicable taxes and duties
26	13.6 (B)	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	3.34	54,500.00	1,090.00	182,030	3,641			
27	13.10	710.1.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	48	2,985.00	60.00	143,280	2,880			
28	14.1	1500,1600 & 1700	Super Structure Furnishing and Placing Reinforced/Prestressed concrete in super-structure as per drawing and Technical Specification including providing plasticier (Masterplast PL - 1/SPL - 2 or equivalent), air entraining and water reducing plasticier (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m									
29	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	1.25	54,500.00	1,090.00	68,125	1,363			
30	14.9	2705	Drainage spout complete as per drawing & Technical specification SUB TOTAL	m ³	40	2,596.00	52.00	103,840	2,080			
								972,977	19,585			



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount			
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign	
CONSTRUCTION OF ROAD SIDE STONE MASONRY BREAST WALL												
Name of Road: Approach Road At Geetanagar (Sub Reservoir)												
Length of Road = 698.33 Foundation												
31	12.1	304	Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material									
	I		Ordinary Soil									
	A		Manual Means									
	a		Without Dewatering									
	i		upto a height of 3m	m ³	4710.96	124.00	3.00		584,159	14,133		
32	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete.									
			(c).Stone soling 150mm thick	m ²	889.2	1,428.00	29.00		1,269,778	25,787		
33	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	133.38	4,283.00	86.00		571,267	11,471		
			Sub-Structure									
34	13.1	1300 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification: A. Random Rubble Masonry	m ³	2301.51	2,596.00	52.00		5,974,720	119,679		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Geeta Nagar (II) - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate			Amount		
						Local	Applicable taxes and duties	Foreign	Local	Applicable taxes and duties	Foreign
35	13.2	1300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	1504.8	143.00	3.00		215,186	4,514	
36	13.8	2200 & 2706	Providing weepholes on brick/plain/reinforced abutment, wing wall/return wall 100mm dia AC pipe, extending through full width of the structure and slope of 1V:20H towards drawing face. Complete as per drawing &	each	1340	325.00	7.00		435,500	9,380	
37	13.10	710.1.4 of IRC:78 & 2200	Providing and laying filter media with granular materials/crushed stone aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH Specification to a thickness not less than 600 mm with smaller size towards the soil and bigger size towa	m ³	180	2,985.00	60.00		537,300	10,800	
Sub Total									9,587,910	195,763	
Total									23,002,625	493,023	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
Structures/Drains									
Name of Road: Approach Road At Lichubagan									
Length of Road = 622.127 m									
1	12.1	304	Foundation Excavation for structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
	I		Marshy Soil						
	A		Manual Means						
	a		Without Dewatering						
	i		upto 3 m height	m ³	1959.16	124.00	3.00	242,936	5,877
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification	m ³	432.92	844.00	17.00	365,384	7,360
3	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	1387.95	1,428.00	29.00	1,981,993	40,251
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	78.67	4,283.00	86.00	336,944	6,766

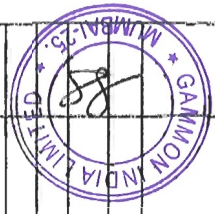


Chief Executive Officer
Guwahati

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Chief Executive Officer
Gurugram Metropolitan Dev. Authority

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
5	13.5	1500, 1700 & 2200	Sub structure Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	60.13	5,840.00	117.00	351,159	7,035
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	1022.92	2,596.00	52.00	2,655,500	53,192
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	1954.15	143.00	3.00	279,443	5,862
8	13.9	710.1.4 of IRC:78 & 2200	Back Filling behind abutment, wing wall and return wall: complete as per drawing & technical specification A. Ganular Material Sub Total	m ³	75.16	649.00	13.00	48,779	977
ROAD WORKS								6,262,138	127,320
3			Length of Road = 622.127 m						
SITE CLEARANCE									
9	2.1	201	Cutting of Trees, Including Cutting of Trunks, Branches and Removal Cutting of Trees, Including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/pit (I) Girth from 300 mm to 600 mm (II) Girth from 600 mm to 900 mm (III) Girth from 900 mm to 1800 mm	each	50	1,039.00	21.00	51,950	1,050
				each	20	1,039.00	21.00	20,780	420
				each	5	1,039.00	21.00	5,195	105



**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
10	2.3	201	Clearing and Grubbing Road Land: Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs sapling and trees of girth upto 300mm removal of stumps, disposal of unserviceable materials and slaking of serviceable material to be used or auctioned upto a lead of 1000m including removal and disposal of top organic and not exceeding 150 mm in thickness. I) By Manual Means A) In area of non thorny jungle	Hect	0.25	38,929.00	779.00	9,732	195		
11	2.4	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining wall, and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scarfing wherever necessary, sorting the dismantled material, disposal of unserviceable material with all lifts and leads of 1000 metres I) Lime / Cement Concrete A) By Manual means a) Lime Concrete, cement concrete M10 grade and below III) Dismantling Stone Masonry b) Rubble Masonry in cement mortar								
			EARTHWORK, EROSION CONTROL AND DRAINAGE								
12	3.3	301	Excavation in Soil with Dozer with lead upto 100 m Excavation for roadway in Soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead of 50 m), including trimming bottom of side slopes in accordance with requirements of lines, grades and cross sections	m ³	31124.49	59.00	2.00	1,836,345	62,249		



**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
13	3.11	301	Removal of Unserviceable Soil with Disposal upto 1000 metres Removal of Unserviceable Soil with Disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305)	m ³	29771.08	33.00	1.00	982,446	29,771
14	3.17		Embankment Construction with Materials obtained from Roadway Cutting Construction of embankment with approved materials deposited at site from roadway cutting and excavation of drains and foundations of other structures graded and compacted to meet requirement of table 300-2	m ³	1353.41	91.00	2.00	123,160	2,707
15			SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS Sub-Base Construction of sub-base coarse 150mm compacted thickness by stone dust in single layer of 180 mm loose thickness including collection and supply stone dust coming out as by product during crusher running consisting of hard quarry chipping, machine broken and of size 10mm down as per IRC grading free from dust, dirt and other organic and deleterious constituents including payments of Forest Royalty and Sales Tax, including preparation of sub-base to specified profile and grade after removal of all vegetation and extraneous material if any, dressing, cambering lightly sprinkling with water and roiling with adequate passes of 8-10T roller till the stone dust sub-grade is properly compacted. Spreading the granular materials between prepared shoulders in layers not exceeding 150mm(loose thickness, dressing, watering to bring the moisture content to ± 2% of OMC for the entire depth of the layer and compacting the same with hpower roller 8-10T capacity, adding or removing materials if necessary to keep the longitudinal and cross profile of the surface within permissible tolerance, checking the same with templates and straight edges, continue roiling and correcting surface irregularities as the appear within permissible tolerance checking the same with template and straight edges continue roiling and correcting surface irregularities as they appera controlling moisture content of maintaining the same above the OMC and compacting to 95% proctor density (collection of stone dust to be made from barpathar stone quarry) and measurement will be taken on the finished compacted work in position	m ³	373.28	1,558.00	32.00	581,570	11,945



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
16	4.9	404	Water Bound Macadam Providing, Laying, Spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density						
(A) By Manual means.									
I) Grading-II									
(b) Using Screening Type-A (13.2 mm Agg.)						248.85	47.00	581,314	11,696
II) Grading-III									
(a) Using Screening Crushable type such as Moorum or Gravel						186.64	43.00	399,783	8,026
17	5.1A	502	BASES & SURFACE COURSES (BITUMINOUS) Prime Coat Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the deptt.)						
I)With bitumen emulsion-CSS-1h						2488.51	1.00	64,701	2,489
18	5.2	503	Tack Coat i) Providing and applying Tack Coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20kg per sqm. on the prepared bituminous surface cleaned with mechanical broom as per Technical Specification Clause 503.(including cost of testing of materials at site and at laboratory as directed by the						
I)With bitumen emulsion-CSS-1h						2488.51	1.00	32,351	2,489
a) Normal bituminous surface									



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	
19	5.10 A	511	Open Graded Premix Surfacing Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen (60/70 grade) or bitumen emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 T static roller capacity to required level and grades (Including carriage upto initial lead of 5 km from quarry and carriage of mixed materials upto 10.0 km initial lead from mixing plant)(including cost of testing of materials at site and at laboratory as directed by the deptt.)									
			a) Without anti-stripping agent 1) Case i: Mechanical Method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour	m ²	2488.51	176.00	4.00	437.978	9.954			
20	5.12	513	Seal Coat Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A & B seal coats(including cost of testing of materials at site and at laboratory as directed by the deptt.)									
			a) Without anti-stripping agent 1) Case i: Type A providing and laying liquid seal coat comprising of a layer of bituminous binder (paving bitumen 60/70 grade) followed by a cover of crushed stone chipping of specified grade (including carriage upto initial lead of 5 km from quarry)	m ²	2488.51	91.00	2.00	226.454	4.977			
			Sub Total					5,359,933	148,198			



Chief Executive Officer
Guwahati Metropolitan Development Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
CROSS DRAINAGE WORKS (BOX CULVERT 4 NOS.)									
Name of Road: Approach Road At Lichubagan									
Length of Road = 622.127 m									
			Foundation						
21	12.1	304	Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material. I. in Ordinary Soil A. Manual Means (i) Upto 3 m depth	m ³	130.42	124.00	3.00	16,172	391
22	12.8 A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification N, Without Plasticiser A P.C.C. grade M15 C. R.C.C. Grade M20 CASE I Using Concrete Mixer	m ³	4.16	5,840.00	117.00	24,294	487
			Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	0.94	54,500.00	1,090.00	51,230	1,025
23	12.40	1600	Substructure Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N, Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer	m ³	26.72	5,840.00	117.00	156,045	3,126



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
25	13.6 (B)	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	2.67	54,500.00	1,090.00	145,515	2,910		
26	13.10	710.1.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	48.00	2,985.00	60.00	143,280	2,880		
27	14.1	1500,1600 & 1700	Superstructure Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification including providing plasticiser (Masterplast PL - 1/SPL - 2 or equivalent), air entraining and water reducing plasticiser (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 and steel shuttering framework N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m								
28	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	1.01	54,500.00	1,090.00	55,045	1,101		
29	14.9	2705	Drainage spout complete as per drawing & Technical specification	m ³	32.00	2,596.00	52.00	83,072	1,664		
			Sub Total					802,193	16,143		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
CONSTRUCTION OF ROAD SIDE STONE MASONRY BREAST WALL									
Name of Road: Approach Road At Lichubagan									
Length of Road = 622.127 m									
30	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
	I		Ordinary Soil						
	A		Manual Means						
	a		Without Dewatering						
	i		upto a height of 3m	m ³	6642.45	124.00	3.00	823,664	19,927
31	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	1253.77	1,428.00	29.00	1,790,384	36,359
32	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	188.07	4,283.00	86.00	805,504	16,174
			Sub-Structure						
33	13.1	1300 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubbie Masonry	m ³	3245.13	2,596.00	52.00	8,424,357	168,747



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Lichubagan - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount			
						Local		Foreign		Local		Foreign	
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
34	13.2	1300 & 2200	Pointing with cement mortar (1:3) on brickwork in sub-structure as per drawing & technical specification	m ²	2121.77	143.00	3.00	303,413	6,365				
35	13.8	2200 & 2706	Providing weepholes on brick/plain/reinforced abutment, wing wall/return wall 100mm dia AC pipe, extending through full width of the structure and slope of 1V:20H towards drawing face. Complete as per drawing & technical specification	each	1884.00	325.00	7.00	612,300	13,188				
36	13.10	710.1.4 of IRC:78 & 2200	Providing and laying filter media with granular materials/crushed stone aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH Specification to a thickness not less than 600 mm with smaller size towards the soil and bigger size	m ³	1195.00	2,985.00	60.00	3,567,075	71,700				
			Sub Total					#####	332,461				
			Total					#####	624,121				



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Narakasur - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
CONSTRUCTION OF ROAD SIDE STONE MASONRY OPEN DRAIN									
Name of Road: Approach Road At Narakasur Hill									
Length of Road = 1894.732 m									
1	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
	I		Ordinary Soil						
	A		Manual Means						
	a		Without Dewatering						
	i		upto 3 m height	m ³	6470.00	124.00	3.00	802,280	19,410
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification	m ³	1429.69	844.00	17.00	1,206,658	24,305
3	17.56		Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete. (c).Stone soling 150mm thick	m ²	4583.61	1,428.00	29.00	6,545,395	132,925
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	259.79	4,283.00	86.00	1,112,681	22,342
			Sub-Structure						



Chief Executive Officer
Guwahati Metro Corporation

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Narakasur - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
5	13.5	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	198.57	5,840.00	117.00	1,159,649	23,233
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	3378.14	2,596.00	52.00	8,769,651	175,663
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	6453.45	143.00	3.00	922,843	19,360
8	13.9	710.1.4 of IRC:78 &	Back Filling behind abutment, wing wall and return wall complete as per drawing & technical specification A. Granular Material	m ³	248.21	649.00	13.00	161,088	3,227
Sub Total								20,680,246	420,464
ROAD WORKS									
Name of Road: Approach Road At Narakasur Hill									
Length of Road = 1894.732 m									
SITE CLEARANCE									
9	2.1	201	Cutting of Trees, Including Cutting of Trunks, Branches and Removal Cutting of Trees, including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/mit (I) Girth from 300 mm to 600 mm	each	40	1,039.00	21.00	41,560	840



Chief Executive Officer
Guwahati Metropolitan Dev. Authority