

SMMARY SHEET

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Amba (Km 0+000) - Madanpur (Km 32+471) Length : 32.471 Km

Sl. No	Bill. No.	Description	Amount (INR)	
			In Figure	In Words
A	Civil Construction Cost			
1	Bill No -01	SITE CLEARANCE AND DISMANTLING		
2	Bill No -02	EARTH WORK		
3	Bill No -03	SUB-BASES, BASES		
4	Bill No -04	BASES AND SURFACE COURSES		
5	Bill No -05	CEMENT CONCRETE PAVEMENTS		
6	Bill No -06	CROSS DRAINAGE WORKS (Box Culverts, Slab Culverts & Pipe Culverts)		
7	Bill No -07	BRIDGES (Rehabilitation, major & minor)		
8	Bill No -08	TRAFFIC SIGNS, MARKINGS AND OTHER ROAD APPURTENANCES		
9	Bill No -09	DRAINAGE AND PROTECTION WORKS		
10	Bill No -10	MISCELLANEOUS		
11	Bill No -11	DAY WORK		
TOTAL AMOUNT BILL NO -1 TO BILL NO -11 CIVIL Cost (A)				
12		Laboure Cess @ 1% on (A)		
GRAND TOTAL				

Not to be used as a Bid Document, Only for Reference

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101								
Length = 32.471 km (From 0+000 to 32+471)								
Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
BILL No-1:SITE CLEARANCE AND DISMANTLING								
1.01	201	Clearing and Grubbing Road Land . Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned all leads & Lift including removal and disposal of top organic soil not exceeding 150 mm in thickness. By Mechanical Means using Motor Grader	Hct.	35.00				
1.02	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and leads. By Mechanical Means						
a)		In cement mortar	Cum	57.00				
b)		Cement Concrete Grade M-15 & M-20	Cum	310.00				
c)		Dismantling stone pitching/ dry stone spalls.	Cum	24.00				
d)		Ordinary KM Stone	No.	29.00				
e)		Dismantling of Bituminous courses	cum	3788.47				
f)		Scarification of Bituminous courses	sqm	891.18				
f)		Dismantling of Cement Concrete Pavement	Cum	2680.00				
		Removing all type of Hume Pipes and stacking with all lifts and lead including Earthwork abd Dismantling of Masonary Works.						
g)		i) Upto 600mm dia	Lm	340.00				
h)		ii) 600mm to 900 mm	Lm	15.00				
i)		iii) Above 900 mm dia	Lm	10.00				
1.03	201	Cutting of trees, making into logs including removal of stumps and roots, backfilling with suitable material to required compaction, cutting of trunks, branches and handling, stacking and disposal of cleared material along with carriage of wooden logs to forest stock yard / depot with all lifts & leads.						
a)		Girth from 300 mm to 600 mm	No.	87.00				
b)		Girth from 600 mm to 900 mm	No.	121.00				

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					In Fig.	In Words	In Fig.	In Words
BILL No-1:SITE CLEARANCE AND DISMANTLING								
c)		Girth from 900 mm to 1800 mm	No.	355.00				
d)		Girth above 1800 mm	No.	138.00				
1.04		Translocation of Trees of different girths including minimum pruning of the branches, uprooting of trees, transportation, applying required hormone/chemicals on roots, plantation and taking care of trees minimum upto one year, removal of serviceable branches stumps, carriage of serviceable materials and unserviceable materials to forest stock yard / depot with all leads and lift and backfilling with suitable material to required compaction in the depression/ pit including cost of all types of machinaries and labour all complete job as per direction of Engineer In- Charge. (Translocation of trees as per guide line of forest Department/ MOEF specification)						
a)		Girth Below 300 mm	No.	61.00				
b)		Girth from 300 mm to 600 mm	No.	85.00				
c)		Girth from 600 mm to 900 mm	No.	249.00				
d)		Girth from 900 mm to 1800 mm	No.	97.00				
1.05		Credit towards salvage value of dismantled materials from rigid pavements and structures as per Technical Specification.						
a)		PCC	Cum	106.00				
b)		RCC	Cum	77.00				
c)		Hume Pipe	Lm.	183.00				
d)		Kilometer Stone	No.	15.00				
1.06		Credit towards salvage value of dismantling of Flexible pavements per Technical Specification Clause 202.						
a)		Bituminous Course	Cum	1894.00				
Total Amount of BILL NO.1								

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					In Fig.	In Words	In Fig.	In Words
BILL NO-2: EARTH WORK								
2.01	301	Excavation in Soil using Hydraulic Excavator and Tipplers with Disposal Excavation for roadwork in soil with hydraulic excavator including cutting and loading in tipplers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead.						
		All type of soil	Cum	8590.21				
2.02	305.3.4 Case-II	Compacting original ground supporting embankment Loosening, leveling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as given in Table 300-2 for embankment construction.	Cum	19698.57				
2.03	305	Construction of Embankment with Material obtained from Borrowpits Construction of embankment with approved material 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.	Cum	134345.35				
2.04	305	Construction of Embankment with Material Deposited from Roadway Cutting Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2.	Cum	4004.13				
2.05	305 & 408	Construction of Subgrade and Earthen Shoulders Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	Cum	246012.33				
2.06	307	Turfing with Sods Furnishing and laying of the live sods of perennial turf forming grass on embankment slope, verges or other locations shown on the drawing or as directed by the engineer including preparation of ground, fetching of rods and watering	Sqm	12633.00				
Total Amount of BILL NO.2								

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Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
BILL No-3: GRANULAR SUB-BASE AND BASE COURSES.								
3.01	401	Granular Sub-Base with Graded Material (Table:- 400-1) by Plan Mix Method Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401. for grading-V Material	Cum	60,378.00				
3.02	406	Wet Mix Macadam (Plant Mix Method) Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. For Grading-I Material	Cum	55,352.00				
Total Amount of BILL NO.3								

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						In Fig.	In Words	In Fig.	In Words
BILL No-4: BITUMINOUS COURSES									
4.01	502	Prime Coat over WMM/WBM Providing and applying primer coat with SS1 grade bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 to 1.00 kg/sqm using mechanical means.	Sqm	2,18,229.00					
4.02	503	a) Tack Coat on Granular surfaces treated with primer Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared Granular surface cleaned with mechanical broom.	Sqm	2,11,872.00					
	503	b) Tack Coat on Bituminous surfaces Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 to 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom.	Sqm	2,11,872.00					
4.03	505	Dense Graded Bituminous Macadam Grading 2 Providing and laying dense graded bituminous macadam with higher capacity batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects.	Cum	19,068.00					
4.04	507	Bituminous Concrete Grading 2 Providing and laying bituminous concrete with higher capacity batch type hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects	Cum	6,356.00					
Total Amount of BILL NO.4									

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					In Fig.	In Words	In Fig.	In Words
BILL No-5: CEMENT CONCRETE PAVEMENT								
5.01	601	<p>Dry Lean Cement Concrete Sub- base Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing.</p>	Cum	7,365.00				
5.02	602	<p>Cement Concrete Pavement Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing</p>	Cum	14,731.00				
5.03	IRC:15-2017	<p>Transition Section between Rigid and Flexible Pavement Due to change in the properties of materials and type of construction, a gradual changeover from rigid pavement to flexible pavement is desirable to avoid any damage at the butting joint. After provision of an expansion joint in the cement concrete slab, the thickness of slab should be tapered to 10 cm over a length of 4 m towards the flexible pavement. The deficiency of thickness caused due to tapering of the slab should be made up by the asphaltic layers.</p>	No.	39.00				
Total Amount of BILL NO. 5								

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Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
Bill No. 6A RCC BOX CULVERTS New Construction/Reconstruction								
6.01	3042903	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means	Cum	15,901.00				
6.02	305 IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	3,546.00				
6.03	710.1.4.of IRC:78 and 2504.2	Providing and laying of Filter media with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification.	Cum	2,671.00				
6.04	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
		PCC Grade M15 using batching plant & Concrete pump	Cum	1,314.00				
6.05	1500, 1700 & 2100	Plain/Reinforced Cement Concrete for wall & slab etc. complete as per Drawing and Technical Specifications.						
		RCC Grade M25 using batching plant transit mixer & Concrete pump	Cum	375.00				
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	1,461.00				
6.06	1500, 1600,1700 & 2300	Plain/Reinforced Cement Concrete for wall & slab etc. complete as per Drawing and Technical Specifications.						
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	592.00				
6.07	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Foundation complete as per Drawing and Technical Specifications.	T	187.00				

Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
6.08	516 & 2702	Providing 65 mm thick wearing course (Type-2) consisting of 40 mm thick bituminous concrete overlaid with 25mm thick mastic asphalt in deck slab after applying Tack coat with paving grade bitumen meeting the requirements given in MORTH Specification Table 500-39, Table 500-40, Table 500-41, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 816 of Technical Specification.) in deck slab after applying prime coat complete as per drawings and technical specifications section 500 and 2700 or as directed by Engineer.	Sqm	1,607.00				
6.09	2706 & 2200	Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications	Nr.	1,372.00				

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					In Fig.	In Words	In Fig.	In Words
6.10	2503	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40 kg each complete as per drawing and Technical specification.	Cum	3,960.00				
6.11	2505	Providing and laying Flooring complete as per drawing and Technical specifications laid over cement concert bedding. Rubble stone laid in cement mortar 1:3	Cum	1,400.00				
6.12	IRC 7	Painting of culvert no. and span arrangement as per Technical Specifications IRC 7.	No	57.00				
6.13	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications. Stone/Boulder	cum	1,056.00				
6.14	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	cum	528.00				
6.15	2703, 1500, 1600 & 1700	Construction of precast RCC railing of M30 Grade, aggregate size not exceeding 12 mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved drawings and technical specifications.	Lm	1,173.00				
6.16	2605	Filler Joint Providing & fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical Specification.	m	1,368.00				
6.17		Tar paper bearing	Sqm	410.40				
6.18	2507	Curtain wall complete as per drawing and Technical specification Cement concrete Grade M15	Cum	1,974.00				
Bill No. 6B: PIPE CULVERTS Reconstruction								
6.01	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means						
6.01a		(Depth upto 3 m)	Cum	701.00				
6.02	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
6.02 a		PCC Grade M15 using batching plant & Concrete pump	Cum	46.00				
6.02 b		PCC Grade M15 using batching plant & Concrete pump	Cum	326.00				

Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
6.03	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
6.03 a		PCC Grade M20 using batching plant transit mixer & manual placing	Cum	598.00				
6.04	2900	Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on cement cradle bedding of PCC M15 in single row including fixing collar with cement mortar 1:2 but excluding						
6.04 a		1200mm dia. (internal)	Rm	62.00				
6.04 b		900mm dia. (internal)	Rm	240.00				
6.05	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	cum	71.00				
6.06	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications. Stone/Boulder	cum	142.00				
6.07	2503	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40 kg each complete as per drawing and Technical specification.	cum	100.00				
6.08	IRC 7	Painting of culvert no. and span arrangement as per Technical Specifications IRC 7.	Nos	50.00				
6.09	710.1.4.of IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	116.00				
6.10	803	Painting Two Coats on New Concrete Surfaces Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces	Sqm	445.00				
6.11	1500, 1700 & 2100	Plain/Reinforced Cement Concrete for wall & slab etc. complete as per Drawing and Technical Specifications. RCC Grade M20 using batching plant transit mixer & Concrete pump	Cum	64.00				
6.12	1500, 1700 & 2101	RCC Grade M25 using batching plant transit mixer & Concrete pump	Cum	106.00				
6.13	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Foundation complete as per Drawing and Technical Specifications.	MT	4.00				

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					In Fig.	In Words	In Fig.	In Words
Bill No. 6C: PIPE CULVERTS Widening								
6.01	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means						
6.01a		(Depth upto 3 m)	Cum	1,241.00				
6.02	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
6.02 a		PCC Grade M15 using batching plant & Concrete pump	Cum	94.00				
6.02 b		PCC Grade M15 using batching plant & Concrete pump	Cum	301.00				
6.03	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
6.03 a		PCC Grade M20 using batching plant transit mixer & manual placing	Cum	1,273.00				
6.04	2900	Laying Reinforced Cement Concrete Pipe NP4 / Prestressed Concrete Pipe on First Class Bedding in Double Row . Laying Reinforced cement concrete pipe NP4 / prestressed concrete pipe for culverts on first class bedding of granular material in double row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets .						
6.04 a		600mm dia. (internal)	Rm	180.00				
6.05 b		1000mm dia. (internal)	Rm	165.00				
6.04 c		900mm dia. (internal)	Rm	165.00				
6.05	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	cum	112.00				
6.06	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications. Stone/Boulder	cum	224.00				
6.07	2503	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40 kg each complete as per drawing and Technical specification.	cum	283.00				
6.08	IRC 7	Painting of culvert no. and span arrangement as per Technical Specifications IRC 7.	Nos	108.00				

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6.09	710.1.4.of IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	96.00				
6.10	1500, 1700 & 2100	Plain/Reinforced Cement Concrete for wall & slab etc. complete as per Drawing and Technical Specifications. RCC Grade M20 using batching plant transit mixer & Concrete pump	Cum	175.00				
6.11	1500, 1700 & 2101	RCC Grade M25 using batching plant transit mixer & Concrete pump	Cum	131.00				
6.12	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Foundation complete as per Drawing and Technical Specifications.	MT	5.00				
Bill No. 6D: SLAB CULVERTS Widening								
6.01	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means (Depth upto 3 m)	Cum	2,513.00				
6.02	710.1.4.of IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	1,299.00				
6.03	710.1.4.of IRC:78 and 2504.2	Providing and laying of Filter media with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification.	Cum	515.00				
6.04	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
		PCC Grade M15 using batching plant & Concrete pump	Cum	286.00				
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	326.00				
6.05	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	312.00				
6.06	1500, 1700 & 2100	Plain/Reinforced Cement Concrete for wall & slab etc. complete as per Drawing and Technical Specifications.						
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	183.00				
6.07	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Foundation complete as per Drawing and Technical Specifications.	T	66.00				

Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
6.08	500 & 2700	Providing 65 mm thick wearing course (Type-2) consisting of 40 mm thick bituminous concrete overlaid with 25mm thick mastic asphalt in deck slab after applying Tack coat with paving grade bitumen meeting the requirements given in MORTH Specification Table 500-39, Table 500-40, Table 500-41, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 816 of Technical Specification.) in deck slab after applying prime coat complete as per drawings and technical specifications section 500 and 2700 or as directed by Engineer.	Sqm	396.00				
6.09	2706 & 2200	Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications	Nr.	585.00				
6.10	2503	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40 kg each complete as per drawing and Technical specification.	Cum	486.00				
6.11	2505	Providing and laying Flooring complete as per drawing and Technical specifications laid over cement concrete bedding. Rubble stone laid in cement mortar 1:3		259.00				
6.12	IRC 7	Painting of culvert no. and span arrangement as per Technical Specifications IRC 7.	No	15.00				
6.13	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications. Stone/Boulder	cum	998.00				
6.14	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	cum	499.00				
6.15	2703, 1500, 1600 & 1700	Construction of precast RCC railing of M30 Grade, aggregate size not exceeding 12 mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved drawings and technical specifications.	Lm	144.00				
6.16	2507	Curtain wall complete as per drawing and Technical specification Cement concrete Grade M15	Cum	242.00				
6.17	2805.00	Epoxy bonding of new concrete to old concrete as per drawing and technical specifications.	Sqm	58.00				

Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
6.18	2804	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per Technical Specification	Sqm	90.00				
TOTAL AMOUNT OF BILL NO.6A to 6D								

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Length = 32.471 km (From 0+000 to 32+471)

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
Bill No. 7A: REPAIR AND REHABILITATION OF EXISTING MAJOR BRIDGES								
7.01	2703	Repair of RCC Railing (Carrying out repair of RCC M30 railing to bring it to the original shape.)	LM	68.00				
7.02	800	Painting on RCC railing surface (Providing and applying 2 coats of water based cement paint to unplastered concrete surface after cleaning the surface of dirt, dust, oil, grease, efflorescence and applying paint @ of 1 litre for 2 Sq.m.)	M	374.00				
7.03	2605	Providing and fixing filler type expansion joint complete as per approved drawing and Technical Specifications clause 2607.	M	83.00				
7.04		General cleaning of drainage spouts complete including sealing with approved water proofing material area around the spout with al lifts and leads complete as per drawing and as per MoRT&H Technical Specifications 2705	Nos	65.00				
7.05	2811	Removal of existing asphaltic wearing coat comprising of 50 mm thick asphaltic concrete laid over 12 mm thick mastic asphalt including disposal with all lift and lead upto 1000m.	Sqm	1,285.00				
7.06	516 & 2702	Providing 65 mm thick wearing course (Type-2) consisting of 40 mm thick bituminous concrete overlaid with 25mm thick mastic asphalt in deck slab after applying Tack coat with paving grade bitumen meeting the requirements given in MORTH Specification Table 500-39, Table 500-40, Table 500-41, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 816 of Technical Specification.) in deck slab after applying prime coat complete as per drawings and technical specifications section 500 and 2700 or as directed by Engineer.	Sqm	1,285.00				
7.07	2804	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per Technical Specification	Sqm	50.00				
7.08	2803	Sealing of crack / porous concrete with Epoxy Grout by injection through nipples complete as per clause 2803.1.	Kg	5.00				
Bill No. 7B: MAJOR BRIDGES								
7.01	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means. Depth 3 m to 6 m	Cum	5,194.00				
7.02	710.1.4.of IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	557.00				
7.03	710.1.4.of IRC:78 and 2504.2	Providing and laying of Filter media with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification.	Cum	449.00				
7.04	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. PCC Grade M15 using batching plant & Concrete pump	Cum	24.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
7.05	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
		RCC Grade M35 using batching plant transit mixer & Concrete pump	Cum	484.00				
7.06	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. Height 5m to 10m						
		RCC Grade M35 using batching plant transit mixer & Concrete pump	Cum	1,663.00				
7.07	1500 & 1600 1700	Furnishing and Placing Reinforced/ Prestressed cement concrete in super-structure as per drawing and Technical Specification						
		M-45 For I-beam & slab including launching of precast girders by launching truss upto 40 m span Height above 10m	Cum	1,795.00				
7.08		Providing & fixing in position thermomechanically treated (TMT) HYSD reinforcement bars in foundations, substructures, superstructure etc. complete as per drawings and Technical Specifications Section 1600 or as directed by Engineer.						
	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Foundation complete as per Drawing and Technical Specifications.	Tonne	62.00				
	Section 1600 & 2200	Supplying, fitting and placing HYSD bar reinforcement in sub-structure complete as per drawing and Technical Specifications	Tonne	260.00				
	1600	Supplying, fitting and placing HYSD bar reinforcement in super-structure complete as per drawing and technical specifications	Tonne	323.00				
7.09	516 & 2702	Providing 65 mm thick wearing course (Type-2) consisting of 40 mm thick bituminous concrete overlaid with 25mm thick mastic asphalt in deck slab after applying Tack coat with paving grade bitumen meeting the requirements given in MORTH Specification Table 500-39, Table 500-40, Table 500-41, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 816 of Technical Specification.) in deck slab after applying prime coat complete as per drawings and technical specifications section 500 and 2700 or as directed by Engineer.	Sqm	2,057.00				
7.10	2705	Drainage Spouts complete as per drawing and Technical specification	No.	10.00				
7.11	2000 & 2200	Supplying and fixing of bearings complete as per drawings and Technical Specifications Section 2000.						
		Free bearings =	No.	6.00				
		Guided bearings =	No.	3.00				
		Fixed bearings =	No.	6.00				
		Transverse Guided bearings =	No.	3.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
7.12	2607	Providing and laying of a strip seal expansion joint catering to maximum horizontal movement upto 70 mm, complete as per approved drawings and standard specifications to be installed by the manufacturer/supplier or their authorised representative ensuring compliance to the manufacturer's instructions for installation.						
		Strip Seal Expansion Joint	Lm.	120.00				
7.13	811	Reinforced Cement Concrete Crash Barrier Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-20 grade concrete with HYSYD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified	Lm	374.00				
7.14	1500,1600,1700 & 2704	Reinforced cement concrete approach slab including reinforcement and formwork complete as per drawing and Technical specification						
		Cement concrete M30 Grade	Cum	23.00				
7.15	2700	PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification	Cum	11.00				
7.16	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	Cum	54.00				
7.17	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications	Cum	107.00				
7.18	2706 & 2200	Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications	Nr	749.00				
7.19	IRC 7	Painting of Bridge no. and span arrangement as per IRC 7, drawings and direction of the Engineer.	No.	2.00				
Bill No. 7C: MINOR BRIDGES								
7.01	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means. Depth 3 m to 6 m	Cum	5,057.00				
7.02	710.1.4.of IRC:78 & 2200	Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification Granular material	Cum	3,150.00				
7.03	710.1.4.of IRC:78 and 2504.2	Providing and laying of Filter media with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification.	Cum	819.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
7.04	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
		PCC Grade M15 using batching plant & Concrete pump	Cum	176.00				
7.05	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications.						
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	887.00				
7.06	1500, 1700 & 2200	Plain/Reinforced cement concrete in sub-structure complete as per drawing and Technical Specifications Height 5m to 10m						
		RCC Grade M30 using batching plant transit mixer & Concrete pump	Cum	1,289.00				
7.07	1500 & 1600 1700	Furnishing and Placing Reinforced/ Prestressed cement concrete in super-structure as per drawing and Technical Specification. RCC Grade M 30 For T-beam & slab, 25-35 per cent of (a+b+c)						
		Height 5m to 10m	Cum	796.00				
7.08	1600	Supplying, fitting and placing HYSD bar reinforcement in super-structure complete as per drawing and technical specifications	Tonne	266.00				
7.09		Providing Tar Paper bearing as per Technical Specification	Sqm	39.00				
7.10	500 & 2700	Providing 65 mm thick wearing course (Type-2) consisting of 40 mm thick bituminous concrete overlaid with 25mm thick mastic asphalt in deck slab after applying Tack coat with paving grade bitumen meeting the requirements given in MORTH Specification Table 500-39, Table 500-40, Table 500-41, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen pre-coated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 816 of Technical Specification) in deck slab after applying prime coat complete as per drawings and technical specifications section 500 and 2700 or as directed by Engineer.	Sqm	1,285.00				
7.11	2705	Drainage Spouts complete as per drawing and Technical specification	No.	17.00				
7.12	2605	Filler Joint						
		Providing & fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical Specification.	Lm.	351.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
7.13	800	Reinforced Cement Concrete Crash Barrier Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-20 grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified	Lm	247.00				
7.14	1500,1600,1700 & 2704	Reinforced cement concrete approach slab including reinforcement and formwork complete as per drawing and Technical specification						
		Cement concrete M30 Grade	Cum	127.00				
7.15	2700	PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification	Cum	55.00				
7.16	2504	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification	Cum	382.00				
7.17	2504	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications	Cum	764.00				
7.18	2706 & 2200	Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications	Nr	622.00				
7.19	IRC 7	Painting of Bridge no. and span arrangement as per IRC 7, drawings and direction of the Engineer.	No.	6.00				
Total Amount of BILL NO.7A -7C								

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Length = 32.471 km (From 0+000 to 32+471)

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
Bill No. 8: TRAFFIC SIGNS MARKING AND OTHER APPURTENANCES								
8.01	803, IRC 35	<p>Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface</p> <p>Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.</p>	Sqm	14889.00				
8.02	801	<p>Retro-Reflectorised Traffic Signs</p> <p>Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of high intensity grade sheeting vide clause 801.3, 2mm thick aluminium sheeting, 3mm/4mm thick Aluminum composite material sheet depending on the size of the sign fixed over back support frame of min 25x25x3mm Angle mounted on a mild steel circular pipe 65 NB ,3.2 mm thickness firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing.</p>						
		80 cm x 60 cm rectangular	No	52.00				
		60 cm x 75 cm rectangular	No.	746.00				
		60 cm circular	No.	64.00				
		90 cm high octagon	No.	71.00				
		90 cm equilateral triangle	No.	218.00				
		School (900 triangle)	No.	10.00				
		Object Hazard Marker (90 cmx 30 cm rectangular)	No.	328.00				
Intersection (900 triangle)	No.	120.00						

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
Bill No. 8: TRAFFIC SIGNS MARKING AND OTHER APPURTENANCES								
8.03	803 & 804	Providing and fixing raised pavement marker (Road studs) made of polycarbonate body of approved quality, bidirectional micro-prismatic polycarbonate lense welded electronically to the body, installed in asphaltic or concrete surface by drilling hole 30mm upto a depth of 60mm and bedded in suitable bituminous grout or epoxy mortar all as per Technical Specification all complete as directed by the Engineer	No.	1760.00				
8.04	802	Overhead Signs Providing and erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective sheeting of encapsulated lense type with vertical and lateral clearance given in clause 802.2 and 802.3 and installed as per clause 802.7 over a designed support system of aluminium alloy or galvanised steel trestles and trusses of sections and type as per structural design requirements and approved plans & as per IRC :67						
	A	Aluminium Alloy Plate for Over Head Sign	Sqm (2nos.)	384.00				
	B	Truss and Vertical Support	No. (2nos.)	8.00				
8.05	804	Kilometre Stone Reinforced cement concrete M15grade kilometre stone of standard design as per IRC:8, fixing in position including painting and printing etc						
a)		Hectometer stone (precast)	No.	260.00				
b)		Ordinary kilometer stone (precast)	No.	33.00				
c)		Boundary Pillars	No.	325.00				
8.06	811 B	"THRIE" : Metal Beam Crash Barrier Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 811	Rm	4597.00				
TOTAL AMOUNT OF BILL NO.8								

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Length = 32.471 km (From 0+000 to 32+471)

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
BILL No -9; DRAINAGE AND PROTECTION WORKS								
9.01	309	Surface Drains in Soil Construction of unlined surface drains of average cross sectional area 0.66 sqm in soil to specified lines, grades, levels and dimensions to the requirement of clause 301 and 309. Excavated material to be used in embankment within a lead of 1000 metres	M	5280.00				
9.02	304	RCC Covered Drain in Built-up area Excavation for Structures Earth work in excavation of foundation of drain 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. Mechanical Means (Depth upto 3 m)	Cum	23055.00				
9.03	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation for drain complete as per Drawing and Technical Specifications. PCC Grade M15 using batching plant & Concrete pump	Cum	1921.00				
9.04	1500, 1700 & 2100	Plain/Reinforced Cement Concrete for drain complete as per Drawing and Technical Specifications. PCC Grade M20 using batching plant transit mixer & manual placing (Bottom slab, wall & cover slab)	Cum	3313.00				
9.05	1600	Supplying, Fitting and Placing un-coated HYSD bar Reinforcement in Bottom slab, wall & cover slab complete as per Drawing and Technical Specifications.	Tonne	199.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
BILL No -9; DRAINAGE AND PROTECTION WORKS								
9.06	IRC SP 42	MS Gratings @ every 20m interval complete as per drawing and Technical Specifications	Nos	663.00				
9.07	2504.4	Providing Toe protection wall for toe protection in Cement Concrete as per drawing and Technical specifications.						
i)	304	Excavation for Structures Earth work in excavation of foundation of 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. Mechanical Means (Depth upto 3 m)	Cum.	15797.00				
ii)	1500, 1700 & 2100	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. PCC Grade M15 using batching plant & Concrete pump	Cum.	1232.00				
iii)	1400 & 2200	Stone masonry work in cement mortar 1:3 for substructure complete as per drawing and Technical Specifications Random Rubble Masonry (RRM)	Cum.	15709.00				
iv)	2706 & 2200	Providing weep holes in Brick masonry/Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing face. Complete as per drawing and Technical Specifications.	no.	6240.00				
TOTAL AMOUNT OF BILL NO. 9								

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Length = 32.471 km (From 0+000 to 32+471)

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Fig.
Bill No. 10: MISCELLANEOUS								
10.01	IRC 98 Suggestive	Providing and laying of reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing headwalls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum 450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC:98- 1997 and approved drawings						
10.01 (a)		Single Row for one utility services	Rm	1,008.00				
10.02		Supply of project records in digital format (DVD/ Flash Drive) including colour photographs both in digital format as approved by Engineer and as per Technical Specification Clause 121.	No.	40.00				
10.03		Supply of additional prints of coloured photographs of approved size as per Technical Specification Clause 121.	No.	100.00				
10.04		Providing and maintaining vehicles for the employer including providing driver, POL, etc. complete as per Technical Specifications Clause 124 (Approx. 3500 km per month), AC Passenger Cars (Scorpio, Innova or equivalent).	Veh. Months	132.00				
10.05		Construction of Chabutara (platform) made of B/W and plastered.	No.	25.00				
10.06		Enhancement measures and construction as per type design for well upto required depth and availability of potable water including testing of water as per EMP and direction of Engineer and Technical Specification.						
		All type of well	Each	3.00				
10.07		Relocation / Enhancement of the Shrines / temples as per EMP and direction of Engineer. (Avg 12 sqm)	Each	15.00				

Item No.	Reference to MoRT&H/ Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Fig.
Bill No. 10: MISCELLANEOUS								
10.08		Monitoring of Environmental Parameters as per EMP and as directed by Engineer.						
		Air	Sample	40.00				
		Water	Sample	30.00				
		Noise	Sample	40.00				
10.09		Relocation /enhancement of hand pumps of approved make and quality complete with a platform complete with drainage accessiblity for mitigation as per EMP and direction of the Engineer.						
		All type of Hand Pump	Each	20.00				
10.10		Providing and maintaining of furnished base office accomodation including recurring expences for office maintenance such as office security (Guard & Gardening), stationary, telephone, fax, courier, reports, documentation, photocopy, printing, power, support, DG etc as per Technical Specification clause 122	Month	39.00				
10.11		Providing passenger shelters for busbays complete as per drawing and Technical Specifications Clause A-1.	Nos	8.00				
10.12		Providing rain water harvesting arrangement as shown in drawing with all materials etc., with all lifts and leads complete as directed by the engineer	Nos	22.00				
10.13		Construction of Boundary Wall (Height 1.5 m above plinth & 230 mm width)	meter	40.00				
TOTAL AMOUNT OF BILL NO. 10								

Improvement/Upgradation, Widening and Strengthening of Amba (NH-98)-Deo-Madanpur Road, SH-101

Length = 32.471 km (From 0+000 to 32+471)

Item No.	Reference to MoRT&H/Tech. Specification	DESCRIPTION	Unit	Quantity	Rate (INR)		Amount (INR)	
					In Fig.	In Words	In Fig.	In Words
Bill No. 11: DAY WORK								
11.01		Excavator, face shovel, or drag line including operator, fuel etc. upto and including 1 cum.	hr.	77.00				
11.02		Motor grader including operator, fuel etc.	hr.	62.00				
11.03		Crane- 5 tonne including operator, fuel etc.	hr.	54.00				
11.04		Diesel Road Roller or Vibratory Compactor upto 10 Tonne	hr.	70.00				
11.05		Trucks, or truck tipper, or Truck with mounted water tank or truck with crane for removal of accidental Vehicle (upto 10 tonne) including operator, fuel etc.	hr.	93.00				
11.06		Labour (Semiskilled) for 8 hrs.	Nos.	108.00				
TOTAL AMOUNT OF BILL NO.11								