

**ESTIMATE FOR SURFACE IMPROVEMENT OF FULBARI BYE PASS ROAD FROM SH-12A
TO MAHANANDA BARRAGE, SILIGURI**

Sl. No	Description of Item	Unit	Qty	Rate	Amount
1	Supplying, spreading, consolidating, River Bed materials to a depth of 100mm and above with power roller to proper gradient and camber including watering as necessary, lighting, gurdung, barricading and making earthen bundh where necessary to protect the edges and curing with water 2 to 3 days mending cracks and drepressions by rolling where necessary complete as per specifications. All incidental charges of roller , inclusive of the cost of fuels and lubricants are included. (Payment will be made on the basis of finished compacted volume of river bed materials)	CUM	140	846.00	118440.00
2	Spreading and consolidating stone metals of specific sizes in hard crust to requisite thickness (measured after compaction) in layers including screening the aggregates as necessary , hand packing after spreading in uniform thickness, rolling , with power roller in stages to proper grade and camber, spreading and sweeping requisite type and quantity of screening materials to fill up the interstices of coarse aggregates , applying binding materials as directed , watering etc . and lighting , gurdung , barricading and making necessary earthen bundh of one metre width on each side where necessary to protect edges and preparing the bed by necessary cutting , filling and rolling all complete including the cost of all materials and hire and labour charges of all men and machinaries and as per specification and direction of Engineer - in - charge including cost of stone materials and screening (b) Coarse aggregates of size range 63 to 45 mm for 75 mm compacted thickness using 0.10 m3 of aggregates and 0.021 m3 of type B (11.2mm crusher broken chips) stone screening	SQM	1928	154.95	298667.00
3	Spreading and consolidating shingles of specific sizes in hard crust to requisite thickness (measured after compaction) in layers including screening the aggregates as necessary , hand packing after spreading in uniform thickness, rolling , with power roller in stages to proper grade and camber, spreading and sweeping requisite type and quantity of screening materials to fill up the interstices of coarse aggregates , applying binding materials as directed , watering etc . and lighting , gurdung , barricading and making necessary earthen bundh of one metre width on each side where necessary to protect edges and preparing the bed by necessary cutting , filling and rolling all complete including the cost of all materials and hire and labour charges of all men and machinaries and as per specification and direction of Engineer - in - charge including cost of stone materials and screening (i) Broken shingles (size 63 to 37.5 mm) for 75 mm compacted thickness using 0.093 m3 of shingles and 0.020 m3 of type A (13.2mm chips) screening materials.	SQM	1928	79.71	153642.00

4	Bituminous Macadam (as base/binder course) by Including thorough cleaning of the surface, applying tack coat, cleaning and preheating the stone chips, precoating the same with requisite quantity of hot matrix @ 54 kg per m3 of stone materials in MOBILE HOT MIX PLANT of 3-5 ton per hour capacity and laying the premixed material at specified laying temperature over the surface (kept ready by thorough cleaning and sweeping) including hand packing and pinning, tampering and finishing the mix to specified grade, line and cross section thorough rolling with suitable power roller for breakdown intermidate and finished rolling to achieve the desire density as per relevant code, including cost and carriage of MINI HOT MIX Plant and other machines, cost of fuels and lubricants and wages of operational staff (to be recovered as per hire charges for Central Machineries & Wages etc.) all complete. ii)50 mm nominal thickness using stone aggregates @ 7.1 m3/100 sqm. B) With tack coat over WBM surface @ 3kg/10 sqm using of type B (11.2mm crusher broken chips) stone screening	SQM	18200	288.58	5252156.00				
	N.B. variety crusher broken stone chips 26.5 mm size-25%, 13.2 mm size 40%,5.6 mm size-30% and Stone dust-5%.								
5	Bituminous Macadam (as Profile corrective course) by Including thorough cleaning of the surface, applying tack coat, cleaning and preheating the stone chips, precoating the same with requisite quantity of hot matrix @ 54 kg per m3 of stone materials in MOBILE HOT MIX PLANT of 3-5 ton per hour capacity and laying the premixed material at specified laying temperature over the surface (kept ready by thorough cleaning and sweeping) including hand packing and pinning, tampering and finishing the mix to specified grade, line and cross section thorough rolling with suitable power roller for breakdown intermidate and finished rolling to achieve the desire density as per relevant code, including cost and carriage of MINI HOT MIX Plant and other machines, cost of fuels and lubricants and wages of operational staff (to be recovered as per hire charges for Central Machineries & Wages etc.) all complete. ii)50 mm nominal thickness using stone aggregates @ 1.4152 m3/m3. B) With tack coat over WBM surface @ 3kg/10 sqm using Cationic Bitumen Emulsion (R.S. or M.S.) by manual	cum	128.3	5204.68	667578.28				

5	Laying 20 mm thick premix carpet (open graded using 1.80m3 of 13.2 mm size and 0.90m3 of 11.2mm size stone aggregates per 100 m2 of surface including thorough cleaning of the surface , applying tack coat , screening , cleaning and preheating stone chips and fully precoating the same with hot matrix @ 54 kg per m3 of aggregates laying the premixed chips uniformly over the surface , hand packing , thorough rolling by power roller including the cost and carriage of stonechips and matrix , heating the matrix and all other cost and charges in this connection including hire charges and cost of fuel and lubricants of machinaries and equipments for construction and quality control as per I.R.C specification complete . I) By Mobile Hot Mix Plant (Light Duty) of capacity 3-5 Tones / Hour . (b) Tack coat using Cationic Bitumen Emulsion (R.S or M.S) conforming to I.S 8887-- 1978 , over black top surface @ 3 kg / 10 m2 , By Manual Means (C) With North Bengal Variety Stone Chips (Crusher Broken)								
		SQM	16695	128.95	2152821.00				
6	Laying premixed seal coat (Type- B) using 0.6m3 of grit or sand (passing 2.36mm sieve and retained on 180 micron) per 100 m2 including through cleaning surface preheating the grit / sand by Mobile Hot MiX Plant of capacity 3-5 Tones / Hour and mixing the preheated grit / sand , with hot matrix @ 113.5 kg per m3 of grit / sand , laying the mixture uniformly over the surface and rolling with power roller including the cost and carriage of grit / sand , and matrix , heating matrix , and grit / sand and all other cost and charges in this connection including hire charges and cost of fuel and lubricants of machinaries and equipment for construction and quality control (i) On freshly laid surface without tack coat .	SQM	16695	42.60	711207.00				
7	Providing and laying cement concrete (1:2:4) with or without reinforcement in any part of well, pier, abutment, wing wall, drop wall, with approved bazree of approved type 45mm to 22.4mm size with screening and cleaning of aggregate and sand as necessary, curing in water all complete	cum	300	3103.64	931092.00				
8	Providing form work and staging including hire and labour charges for the same as required for foundation concrete works of depth not exceeding 500 mm and for concrete works in vertical faces of parapet curb, road curb, cable tray, cable tray cover so as to give fair concrete finish including stripping off and removing after completion of work as per specification	SQM	1500	84.00	126000.00				
9	Dressing and chilchalling Road flanks including cutting and filling with earth upto 150 mm average thickness finished with outward cross grade of 1 in 30	SQM	7800	5.00	39000.00				

10	Surface dressing including through cleaning of the surface , screening and cleaning of stone chips, applying uniformly requisite quantity of hot matrix spreading uniformly dry stone , rolling with power roller with necessary hand packing or spreading of chips to obtain closed surface including cost and carriage of stone chips and matrix , and all other cost and charges in this connection . (A) 1st. coat on W.B.M surface using bitumen 18 Kg / 10 m2 and North Bengal Variety of Crusher broken stone chips 11.20 mm size @ 0.15 m3 per 10 m2	SQM	1928	105.13	202638.08
11	Laying a Single layer, 25 mm thick Mastic Asphalt Wearing course in road pavement / bridge decks using approved course aggregates , fine arrgeragtes , filler aggregates , bitumen , including cost and carriage of all ingradientes , cost of heating aggregates and binder , mixing in specified proportions conforming to approved job mix formula , laying the mix, compacting, sealing the construction joints and surface finishing conforming to specifications , construction procudure and quality control vide section - 515 of specifications of road and bridge works (4th. rivision) published by IRC, including the hire charges of all tools , plants and machinaries ,pay of operators , cost of fuel and lubricants and alll other incidental charges and quality control complete.	SQM	1500	611.55	917325.00
TOTAL					11570567.00

Rs. One crore fifteen lac seventy thousand five hundred and sixty seven only

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0	85	0
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7.5	1	0	
7.5	2	0	
7.5	1	0	
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