

**Additional Work of Laying Distribution system (LDS) & Road Restoration Work at Uluberia-I & Shyampur -I Block of Uluberia Surface Based W/S scheme for Shyampur- I & II , Uluberia I and Part of Bagnan I & II Block under Howrah Division, PHE Dte.**

SL. No	Description of Items	QTY	RATE	Unit	Amount (Rs.)
1	Supplying , fabricating and of M.S spirally welded pipe of different dia and different thickness of MS Plate with Internal and External Coating from clear water Pump House at Sankrail WTP and including hydraulic testing as per instruction and direction of EIC				
	a)1067 mm outer dia and wall thickness 11 mm	240.000	28894.00	m	₹ 69,34,560.00
	b) 813 mm outer dia and wall thickness 8.0 mm	278.000	18176.00	m	₹ 50,52,928.00
	c) 711 mm outer dia and wall thickness 7.1 mm	118.000	15129.00	m	₹ 17,85,222.00
	d) 610 mm outer dia and wall thickness 6.3 mm	97.000	12563.00	m	₹ 12,18,611.00
	e) 323.9mm outer dia and wall thickness 5.6 mm	220.000	7923.00	m	₹ 17,43,060.00
2	Derusting, scraping, brusing and cleaning (to the extent of exposing the original surface) the outer surface of manufactured M.S. pipes and specials, applying first coat of synthetic primer Type-B as per IS:15337:2003 of approved make over it and wrapping the same with coal tar based insulating tape 2mm thick as per IS:15337:2003 of approved make and applying second coat of synthetic primer Type-B (As specified above) over the first layer of 2mm thick coal tar based insulating tape (as specified above) in staggered pattern (including overlapping at ends) by torching etc. as per manufacturer's specification and as per direction of EIC. (each layer of a protective wrapping shall be tested with Holiday detector at Contractor's coat and the Contractor shall repair all holidays to satisfaction of EIC at no extra cost (Payment will be made on finished area of work)	2180.000	350.00	sqm	₹ 7,63,000.00
3	Derusting, brusing, cleaning, and smothering thoroughly the inner surface of spirally welded Mild steel pipes and specials by sand blasting to SA-1 Swedish specification and immediately after sand blasting applying protection coatings (resistant to corrosion and contamination of drinking water) of Drinking Aluminum Primer 2 coats, DEF (40-50) microns each coat and Drinking Back finish 2 coats, DET (24-30) microns each coat of Shalimar Paints Ltd. of equivalent by spray painting in the inner surface of the pipes as per manufacturer's specification, all complete with supply of requisite materials labour, consumable etc. including stacking of coated pipes properly as per specification, direction and satisfaction of the EIC.	2164.000	196.70	sqm	₹ 4,25,658.80
4	Carrying MS pipes and lowering placing in position and laying carefully inside the trenches in proper alignment and gradient etc. including earth work in excavation of adequate width as per specification having min. clear cover from top of pipe is 1.10mtr. below existing ground level in any kind of soil including mixed with boulder, road sub-grade and its flank, but excluding moorum and laterite and stone etc. without damaging the existing telephone/electric cable etc. (in case of damaged if any type of cable line during execution , necessary damaged charges as applicable by the respective authority will be borne by the agency in his own cost) preparing the bottom surface for continuous bedding of pipe line and laying pipes, fitting, fixing specials and valves with bailing out water if any including carriage of pipes, specials and valves from local deptt. store within 8KM and back filling the trenches with excavated earth in layers to original condition as per specification and direction of EIC. The surplus materials after execution of work are to be return to the deptt. store.				
	a)1067 mm outer dia and wall thickness 11 mm	240.000	828.00	m	₹ 1,98,720.00
	c) 813 mm outer dia and wall thickness 8.0 mm	278.000	591.00	m	₹ 1,64,298.00
	d) 711 mm outer dia and wall thickness 7.1 mm	118.000	501.00	m	₹ 59,118.00
	e) 610 mm outer dia and wall thickness 6.3 mm	97.000	416.00	m	₹ 40,352.00
	g) 323.9mm outer dia and wall thickness 5.6 mm	220.000	192.00	m	₹ 42,240.00

SL. No	Description of Items	QTY	RATE	Unit	Amount (Rs.)
5	Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubs, saplings and trees of girth upto 300 mm, removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specifications Clause 201 for Rural Roads of MORD.	1.0	11868.00	Hect	₹ 11,868.00
6	Excavation in Soil using Hydraulic Excavator CK 90 and Tippers with disposal upto 1000 metres. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, 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 upto 1000m as per Clause 301 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). (Mode of measurement: pre works and post works)	18405.00	37.30	cum	₹ 6,86,506.50
7	Sand filling in foundation trenches and at the back of abutments, wing-walls etc. with good local sand free from earth in layers not exceeding 15 cm. including inundating each layer by profuse water and poking and ramming layer by layer complete including supply of sand. Quality of sand is to be approved by the Engineer-in-charge.	4806.00	1007.37	cum	₹ 48,41,420.22
8	Construction of Sub Base using Local Materials, spreading in uniform layers with Motor grader on prepared surface, including screening the metal as necessary, mixing by mix in place method with Rotavator at OMC, and compacting with vibratory roller to achieve the desired density, lighting, guarding and barricading including cost and carriage of all materials and making necessary earthen bundh of one metre wide on each side to protect the edges complete as per Clause 401 of Specifications for Road & Bridge Works of MoRT&H (5th Revision).	4891	1980.56	cum	₹ 96,86,918.96
9	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening / binding materials to fill up the interstices of coarse aggregate, watering including lighting, guarding, barricading and making necessary earthen bundh of one metre width on each side and preparing the bed by necessary cutting or filling, including cost of all materials and hire and labour charges of all men and machinery and compacting to the required density, as per Clause 404 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). Grading-I Aggregate (63 mm to 45 mm) Using Stone Screening Type B (11.2 mm). By Manual Means	1506	3309.09	cum	₹ 49,83,489.54
10	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening / binding materials to fill up the interstices of coarse aggregate, watering including lighting, guarding, barricading and making necessary earthen bundh of one metre width on each side and preparing the bed by necessary cutting or filling, including cost of all materials and hire and labour charges of all men and machinery and compacting to the required density, as per Clause 404 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). WBM with Grading-II Aggregate (53 mm to 22.4 mm) Using Stone Screening Type B (11.2 mm) , 75 mm thk: (Manual means)	1506	3334.26	cum	₹ 50,21,395.56

SL. No	Description of Items	QTY	RATE	Unit	Amount (Rs.)
11	Providing and applying primer coat with cationic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 and requisite quantity on prepared surface of granular base including cleaning of road surface and spraying primer using Mechanical means including cost and carriage of bitumen emulsion and all other incidental costs of work complete as per clause 502 of specification for Road & Bridge works of MoRT&H (5th Revision)	20077	29.01	sqm	₹ 5,82,433.77
12	Providing and laying bituminous macadam with Hot Mix Plant using approved crushed aggregates (Pakur variety) of specified grading as per Table 500.7 premixed with bitumenous binder, transported to site laid over a previously prepared surface at specified laying temperature with paver finisher to the required grade, level and alignment and rolled with suitable power roller for break down, intermediate and finished rolling as per Specification to achieve the desired compaction including cost and carriage of stone materials and bitumen including hire charges of machinery and equipment, cost of fuel and lubricants and wages of operational staff, quality control complete as per clause 504 of Specifications for Rural Roads of MoRD (1st Revision). Using Drum Mix Type HMP of minimum capacity 60-90 TPH	1004	6444.91	cum	₹ 64,70,689.64
13	Providing & laying 25mm thick Semi-dense Bituminous Concrete (SDBC) as wearing coarse by Hot Mix Plant, using coarse aggregates, fine aggregates, filler materials and binder of required specification and grading as per approved job mix formula, over thoroughly cleaned surface coated with tack coat, including screening, cleaning of aggregates, mixing the components as per approved Job Mix Formula with hot binder, carrying the mixture by tipper truck or any other approved suitable arrangements, laying the mixture uniformly, maintaining the specified laying temperature, thorough rolling with power roller with necessary hand packing and pinning to give an uniform surface to achieve the desired density of at least 98% of that of Laboratory Marshall specimen, including the cost and carriage of aggregates, filler and binder, heating the binder, preheating the aggregates, and filler to the specified temperature, including the hire charges of Hot Mix Plant and other machineries, pay of operators, cost of fuel and lubricants and all other incidental charges complete. For Grading 2 (Using Drum mix Type HMP of minimum capacity 40-60 TPH.)	502	7015.59	Cum	₹ 35,21,826.18
14	Providing and applying tack coat with Cationic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 on the prepared surface cleaned with Hydraulic broom, moistening the surface including cost and carriage of emulsion, hire charges of machinery and labour, cost of fuel and lubricants all complete as per Clause 503 of Specifications for Road & Bridge Works of MoRT&H (5th Revision).(ii) On Granular surfaces treated with primer (Using Bitumen emulsion at the rate of 0.25 to 0.30 kg per sqm.) to IS: 8887-1978 on the prepared surface cleaned with Hydraulic broom, moistening the surface including cost and carriage of emulsion, hire charges of machinery and labour, cost of fuel and lubricants all complete as per Clause 503 of Specifications for Road & Bridge Works of MoRT&H (5th Revision).(ii) On Granular surfaces treated with primer (Using Bitumen emulsion at the rate of 0.25 to 0.30 kg per sqm.)	20077	10.20	Sqm	₹ 2,04,785.40

SL. No	Description of Items	QTY	RATE	Unit	Amount (Rs.)
15	Providing and laying Premixed Seal Coat (Type B) with approved quality sand/grit @ 0.6 m3/ 100 m2 and bitumen binder on thoroughly cleaned black top surface coated with tack coat, including heating and mixing cleaned sand/grit (100 % passing through 2.36 mm sieve and retained on 180 micron sieve) uniformly with bitumen binder, laying and spreading the mix at an uniform rate using suitable means, brushing the surface, if necessary, to ensure uniformity, followed by rolling with power roller including the cost and carriage of binder and aggregates, cost of heating the binder and aggregates and all other incidental charges, cost of fuel and lubricants, including hire charges of machineries, tools & plants required for construction and quality control complete as per Clause 511 of Specifications for Road & Bridge Works of MoRT&H.A. For Grading 1 (13 mm nominal size, 35-40 mm thick.)(iii) Using Drum mix Type HMP of minimum capacity 40-60 TPH.	20077	34.48	Sqm	₹ 6,92,254.96
16	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	4087.00	357	Sqm	₹ 14,59,059.00
17	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, (a) Pakur variety	613.00	5609.1	Cum	₹ 34,38,378.30
Sub Total =					₹ 6,00,28,793.83
Add GST 18% =					₹ 1,08,05,182.89
Sub Total =					₹ 7,08,33,976.72
Add Cess 1% =					₹ 7,08,339.77
Total =					₹ 7,15,42,316.49
Say Rs =					₹ 7,15,42,316.00



**Superintending Engineer**  
**South-24-Pgns. W/S Circle**  
**P.H. Engineering Dte.**