



बिहार सरकार

ग्रामीण कार्य विभाग

Rural Works Department, Govt. of Bihar

FDR (FLOOD DAMAGE REPORT)

Year : 2021-22

DISTRICT :-CHAPRA

BLOCK :- SADAR CHAPRA

Name of Road :- Restoration/ Motrable of road from NH19 se Dharampura.

TOTAL LENGTH OF ROAD :- 0.750 Km

EFFECTIVE OF LENGTH :- 0.267 km

TOTAL COST OF WORK :- 9.40089 Lacs

SUBMITTED BY :

EXECUTIVE ENGINEER

RWD WORK DIVISION, CHAPRA -1

Inspection Report for flood Damage Work

Date :-

1- Name of PIUs :- R.W.D., (W) Division, Chapra - 1

2- Name of Block/Road :- Sunday / Restoration / Motable of Road from M19 Se
Photomontage

A. FOR RAOD

1- Damage Location/Chainage :- 0.00 to 300 mtr

2- Damage Length :- 267 mtr

3- Nature of Damage :- Borech

4- Details of Restoration :- Brick Bats / Local Sand Filling

i- Material being used in Restoration

:- Brick Bats / Local Sand Filling

ii- Equipment/Tools being used in Restoration Works

:- Tractor, Roller, JCB etc

iii- Procedure taken up in Restoration Works

:- Motable

iv- Restored Length

:- 267 mtr

B. FOR BRIDGE

1- Damage Location/Chainage :-

2- Damage Length :-

3- Nature of Damage :-

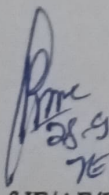
4- Details of Restoration :-

i- Material being used in Restoration :-

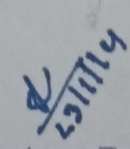
ii- Equipment/Tools being used in Restoration Works :-

iii- Procedure taken up in Restoration Works :-

iv- Restored Length :-


28/9/21
JE

Signature of JE/AE/EE


Executive Engineer
Rural Work's Department
(Name of Inspector) Phaura

प्रतिवेदन
FDR (2021-22)

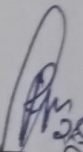
पथ का नाम	:- NH19 se Dharampura.
पथ की लंबाई	:- 0.267 कि०मी०
प्राक्कलित राशि	:- मो० 940083 लाख
प्रखंड/का०अ०प्र० का नाम	:- छपरा सदर
कार्य अंचल का नाम	:- ग्रामीण कार्य विभाग, कार्य अंचल, छपरा।
प्रमंडल का नाम	:- ग्रामीण कार्य विभाग, कार्य प्रमंडल, छपरा - 1

प्रस्तुत प्राक्कलन ग्रामीण कार्य विभाग, कार्य प्रमंडल, छपरा - 1 के अंतर्गत बाढ़ से क्षतिग्रस्त पथों के मोटेरेबुल कार्य का प्राक्कलन विभाग के निर्देशानुसार तैयार किया गया है।

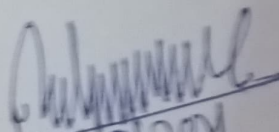
विदित है कि माह अगस्त एवं सितम्बर 2021 में बाढ़ एवं अतिवृष्टि के कारण निर्मित/निर्माणाधीन पथों में काफी क्षति हुई है। अतिवृष्टि एवं बाढ़ के कारण पथों में हुई कटाव से आवागमन प्रभावित हुआ था। वाहन का आवागमन आवश्यक है एवं लोगों की कठिनाईयों को देखते हुए उच्चाधिकारी के निर्देशानुसार पथों को तत्काल मोटेरेबुल करने का निर्देश दिया गया था। जिसमें पथ में Brick Bats भरकर मोटेरेबुल किया गया है, ताकि यातायात सुनिश्चित हो सकें।

उपरोक्त आलोक में क्षतिग्रस्त पथों में तत्काल Brick Bats से भरकर वाहन का आवागमन चालू किया गया है। इस प्रकार प्राक्कलन में Bricks Bats भरने के साथ आवश्यक मदों का प्रावधान किया गया है।

प्राक्कलन वर्तमान अनुसूचित दर पर तैयार कर आवश्यक कारवाई हेतु समर्पित किया जाता है।


28.9.21
कनीय अभियंता


28.9.21
सहायक अभियंता


28.9.2021
कार्य प्रमंडल, अभियंता
ग्रामीण कार्य विभाग
का० प्रमंडल, छपरा - 1

GENERAL ABSTRACT OF COST

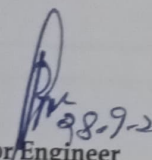
Name of Road :- Restoration/ Motrable of road from NH19 se
Dharampura.

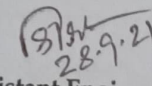
District :- CHAPRA

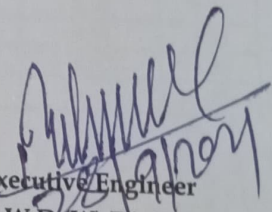
BLOCK :- SADAR CHAPRA

Length of the Road:- 0.267 KM

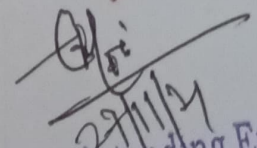
Sl No.	Item of Work	Amount (in Rs.)
1	Cost for Work	8,31,936.79
2	Add 12 % GST	99832.41
3	Add 1 % Labour Cess	8,319.37
	Total cost:-	9,40,088.57
Say Rs		940089.00


28.9.21
Junior Engineer
SADAR CHAPRA


28.9.21
Assistant Engineer
SADAR CHAPRA


Executive Engineer
R.W.D.(W) Division, CHAPRA-1

T/A. for Rs. 9,40,089/- (Rupees Nine Lakhs.
forty thousand. Eighty Nine) only.


29/11/21
Superintending Engineer
Rural (Works) Deptt.
Works Circle, Chapra

T/S for Rs 9,40,089/- (Rupees nine lakh forty thousands
Eighty Nine) only.

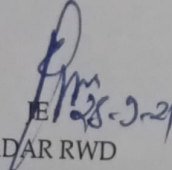
27/11/24

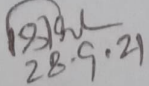
Superintending Engineer
Rural (Works) Deptt.
Works Circle, Chapra

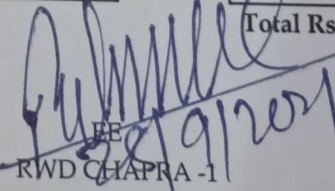
DETAILED ESTIMATE

Name of Work :- Restoration/ Motrable of road from NH19 se Dharampura.

no.	Item	No	Length	Width	Avg. H/D	Qnty.	Unit	Rate	Amount
1	Providing laying and spreading brickbats in Road ditches all complete as per approved design. Secifications and direction E/I	1.00	20.00	3.20	0.60	38.40			
		1.00	15.00	3.10	0.70	32.55			
		1.00	25.00	3.10	0.65	50.38			
		1.00	20.00	2.90	0.50	29.00			
		1.00	30.00	2.30	0.90	62.10			
		1.00	10.00	2.10	0.60	12.60			
		1.00	15.00	2.30	0.90	31.05			
		3.00	3.00	2.00	0.60	10.80			
		4.00	5.00	2.20	0.50	22.00			
		1.00	15.00	2.10	0.45	14.18			
		5.00	5.00	3.00	0.50	37.50			
		1.00	10.00	2.30	0.60	13.80			
		6.00	3.00	2.80	0.40	20.16			
		1.00	15.00	2.70	0.60	24.30			
		4.00	5.00	2.40	0.40	19.20			
			267.00			418.01	Cum	1909.87	798344.76
2	Filling and sdreading local sand over brick bats as per drawing and Technical Specifications clause 305.3.9 and direction E/I	1.00	20.00	3.20	0.10	6.40			
		1.00	15.00	3.10	0.10	4.65			
		1.00	25.00	3.10	0.10	7.75			
		1.00	20.00	2.90	0.10	5.80			
		1.00	30.00	2.30	0.10	6.90			
		1.00	10.00	2.10	0.10	2.10			
		1.00	15.00	2.30	0.10	3.45			
		3.00	3.00	2.00	0.10	1.80			
		4.00	5.00	2.20	0.10	4.40			
		1.00	15.00	2.10	0.10	3.15			
		5.00	5.00	3.00	0.10	7.50			
		1.00	10.00	2.30	0.10	2.30			
		6.00	3.00	2.80	0.10	5.04			
		1.00	15.00	2.70	0.10	4.05			
		4.00	5.00	2.40	0.10	4.80			
						70.09	Cum	479.27	33592.03
								Total Rs	831936.79


 SADAR RWD


 AE
 SADAR RWD


 RWD CHAPRA -1

**BASIC RATES
(A) Labour**

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	292.00
L-02	Bitumen Sprayer	day	307.00
L-03	Head Blacksmith	day	394.00
L-04	Blaster	day	485.00
L-05	Carpenter 1st Class	day	394.00
L-06	Chips spreader	day	351.00
L-07	Chiseller	day	451.00
L-08	Dresser (Skilled)	day	373.00
L-09	Driller	day	304.00
L-10	Electrician	day	373.00
L-11	Fitter	day	401.00
L-12	Mason (1st class)	day	394.00
L-13	Mason (2nd Class)	day	351.00
L-14	Mate	day	310.00
L-15	Mazdoor (Unskilled)	day	292.00
L-16	Mazdoor (Semi skilled)	day	304.00
L-17	Mazdoor (Skilled)	day	370.00
L-18	Painter (1st class)	day	373.00
L-19	Plumber	day	373.00
L-20	Surveyor	day	355.00
L-21	White Washer	day	370.00

(Basic Rates taken from SOR, 15th edition, Road Construction Department, Govt of Bihar
effective from 01/04/2021)

**BASIC RATES
(B) Material**

Sl. No.	SOR Code	Description	Unit	Basic Rate as Per SOR	Add Royalty Royalty	Final Basic rate
M-001	M-056	AC pipe 100 mm	m	42.54		42.54
M-002	M-031	Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm	cum	422.92	150.00	572.92
M-003	M-033	Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm	cum	374.49	150.00	524.49
M-004	M-029	Aggregate - For 37.5 mm Maximum size - Below 5.6 mm	cum	99.22	150.00	249.22
M-005	M-031	Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm	cum	422.92	150.00	572.92
M-006	M-037	Aggregate - For 53 mm Maximum size - 63 mm to 45 mm	cum	323.70	150.00	473.70
M-007	M-029	Aggregate - For 53 mm Maximum size - Below 5.6 mm	cum	99.22	150.00	249.22
M-008	M-039	Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm	cum	423.71	150.00	573.71
M-009	M-045	Aggregate - Grading I (40 mm nominal Size) 25 mm - 10 mm	cum	506.34	150.00	656.34
M-010	M-048	Aggregate - Grading I (40 mm nominal Size) 37.25 mm - 25 mm	cum	374.49	150.00	524.49
M-011	M-029	Aggregate - Grading I (40 mm nominal Size) 5 mm and below	cum	99.22	150.00	249.22
M-012	M-039	Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm	cum	423.71	150.00	573.71
M-013	M-045	Aggregate - Grading II (19 mm nominal Size) 25 mm - 10 mm	cum	506.34	150.00	656.34
M-014	M-030	Aggregate - Grading II (19 mm nominal Size) 5 mm and below	cum	99.22	150.00	249.22
M-015	M-050	Aggregate 10 mm	cum	507.91	150.00	657.91
M-016	M-052	Aggregate 20 mm	cum	445.36	150.00	595.36
M-017	M-054	Aggregate 40 mm	cum	336.92	150.00	486.92
M-018	M-007	Aggregate- Crushable type such as moorum or Gravel for Grading I	cum	75.35	83.00	158.35
M-019	M-007	Aggregate- Crushable type such as moorum or Gravel for Grading II	cum	75.35	83.00	158.35
M-020	M-007	Aggregate- Crushable type such as moorum or Gravel for Grading III	cum	75.35	83.00	158.35
M-021	M-038	Aggregate-Grading I 90 mm to 45 mm	cum	292.63	150.00	442.63
M-022	M-037	Aggregate-Grading II 63 mm to 45 mm	cum	323.70	150.00	473.70
M-023	M-035	Aggregate-Grading III 53 mm to 22.4 mm	cum	353.85	150.00	503.85
M-024	M-030	Aggregates 22.4 mm to 2.36 mm for wet mix macadam	cum	422.92	150.00	572.92
M-025	M-033	Aggregates 45 mm to 22.4 mm for wet mix macadam	cum	374.49	150.00	524.49
M-026	M-059	Aluminium sheeting (1.5 mm thick)	sqm	7,980.04		7,980.04
M-027	M-062	Aluminium Studs 100 mm x 100 mm fitted with lense reflectors	Nos.	169.19		169.19
M-028		Bamboo (1st Class) 85 mm - 100 mm dia, 2.0 m long	No.	15.00		15.00
M-029		Bamboo (1st Class) 85 mm - 100 mm dia, 2.5 m long	No.	20.00		20.00
M-029		Bamboo (1st Class) 85 mm - 100 mm dia, 3.0 m long	No.	20.00		20.00
M-030		Bamboo (1st Class) 85 mm - 100 mm dia, 4.5 m - 5.5 m long	No.	50.00		50.00
M-029		Bamboo (2nd Class) 75mm dia, 1.8 m - 2.5 m long	No.	15.00		15.00
M-030		Bamboo (2nd Class) 75mm dia, 2.1 m - 3.0 m long	No.	20.00		20.00
M-031	M-063	Barbed wire	kg	57.95		57.95

Sl. No.	SOR Code	Description	Unit	Basic Rate as Per SOR	Add Royalty Royalty	Final Basic rate
M-032	M-007	Binding Material (Moorum)	cum	75.35	83.00	158.35
M-033	M-072	Binding wire	kg	58.95		58.95
M-034	M-078	Bitumen (Crumb Rubber Modified)	tonne	44,632.00		44,632.00
M-035		Bitumen (Natural Rubber Modified)	tonne	41,271.30		41,271.30
M-036		Bitumen (Polymer Modified)	tonne			
M-037	M-074	Bitumen (S-65) VG-30 (Muzaffarpur) Excluding the cost of empty drum @ 764.59/per MT	t	41,620.41		41,620.41
M-038	M-075	Bitumen (S-90) VG-30 (Muzaffarpur) Excluding the cost of empty drum @ 764.59/per MT	t	40,820.41		40,820.41
M-039	M-077	Bitumen Emulsion (RS-1) (Rukunpura) Excluding the cost of empty drum @ 764.59/per MT	t	43,341.41		43,341.41
M-040	M-077	Bitumen Emulsion (SS-1) (Rukunpura) Excluding the cost of empty drum @ 764.59/per MT	t	45,444.41		45,444.41
	M-292	Waste Plastic	t	14,580.00		14,580.00
M-041	M-119	Bituminous sealant	litre	24.61		24.61
M-042	M-147	Random Rubble Stone	kg	186.55	150.00	336.55
M-043		Blasting material	kg	781.83		781.83
M-044	M-182	Bond stone (400 mm x 150 mm x 150 mm)	No.	10.48		10.48
M-045	M-079	Brick 1st Class	No.	4.807	0.045	4.852
M-046		Cement (OPC - 43 Grade) (Excluding the cost of Empty Bag @ Rs 3.80 Per Bag)	t	4,686.00		4,686.00
M-047		Cement Primer	litre	122.56		122.56
M-048		Chlorprene Elastomer or Closed Cell Foam Sealing Element	m			
M-049	M-164	Compensation for earth taken from private land (Including royalty @ Rs. 33.0 per cum & compensation @ Rs. 1.81 per cum)	cum	1.82	33.00	34.82
M-050	M-085	Compressible Fibre Board	sqm	930.96		930.96
M-051	M-087	Copper plate	kg	749.21		749.21
M-052		Corbelling Stones (300 mm x 150 mm x 150 mm)	No.			
M-053	M-088	Corrosion Resistant Structural Steel Grating	kg	43.85		43.85
M-054	M-090	Credit for excavated rock found suitable for use	cum	106.98	32.09	139.07
M-055		Crow bars 40 mm dia (hire charges)	hour	5.00		5.00
M-056	M-020	Crushed Sand or Grit Passing 2.36 mm and retained on 180 micron	cum	87.23	30.00	117.23
M-057		Crushed Slag	cum	775.57		775.57
M-058	M-025	Crushed Stone Aggregate 26.5 mm to 75 micron	cum	394.89	150.00	544.89
M-059	M-051	Crushed Stone chipping 13.2 mm nominal size	cum	536.05	150.00	686.05
M-060	M-049	Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm	cum	304.98	150.00	454.98
M-061	M-049	Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm	cum	304.98	150.00	454.98
M-062	M-050	Crushed Stone chipping 9.5 mm nominal size	cum	507.91	150.00	657.91
M-063	M-034	Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm	cum	266.41	150.00	516.41
M-064	M-091	Curing compound	litre	123.05		123.05
M-065		Debonding strips	m	45.00		45.00

0100-0010

Sl. No.	SNR Code	Description	Unit	Basic Rate as Per SNR	Add Royalty Royalty	Final Basic rate
No-260		Edge Stone (450 mm x 150 mm x 100 mm)	No.			
No-261		Edge Stone (450 mm x 150 mm x 200 mm)	No.			
No-263	No-294	Elastomer's bearing assembly	Nos.	27,202.73		27,202.73
No-263	No-294	Electric Transformer	each	5.75		5.75
No-270	No-296	Epoxy Paint	litre	676.96		676.96
No-271	No-297	Epoxy Primer	litre	114.14		114.14
No-272	No-248	Farmyard manure	cum	552.00		552.00
No-273		Flexicol adhesive	kg	125.00		125.00
No-274	No-211	Filter media	cum	354.46	150.00	504.46
No-275	No-220	Fine aggregate/Crushed sand 2.36 mm to 75 micron	cum	87.23	30.00	117.23
No-276	No-103	Galvanised angle	kg	42.70		42.70
No-277		Galvanised angle Section 100 mm x 100 mm of 12 mm thickness	kg	42.70		42.70
No-278	No-204	Galatine 80 per cent	kg	806.85		806.85
No-279	No-258	GI Pipe 100 mm dia	m	522.42		522.42
No-280	No-258	GI Pipe 50 mm dia	m	211.02		211.02
No-281	No-102	GI wires	kg	96.39		96.39
No-282	No-049	Graded stone aggregate	cum	304.98	150.00	454.98
No-283	No-003	Granular material (Natural occurring, soil gravel mixture / quarry waste, kankar, laterite, dhandia)	cum	201.36	150.00	351.36
No-284	M-254	Hand Broken Metal 40 mm size	cum	336.92	150.00	486.92
M-285		Indigo	kg	416.00		416.00
M-286		Interlocking Blocks with 60 mm thickness	sqm			
M-287		Interlocking Blocks with 80 mm thickness	sqm			
M-288	M-140	Joint filler board	sqm	961.32		961.32
M-289	M-120	Jute netting, open weave 25 mm square opening	sqm	36.94		36.94
M-290		Jute rope 12 mm dia	m	43.28		43.28
M-291	M-031	Key Aggregates passing 22.4 mm and retained on 2.8 mm	cum	422.92	150.00	572.92
M-292	M-190	Lime	t	3,637.51		3,637.51
M-293	M-190	Lime putty	t	3,637.51		3,637.51
M-294	M-094	Local Wood Piles (1st Class) 150-200 mm dia, 6m long	No.	525.75		525.75
M-295		Local Wood Piles (1st Class) 100 mm x 75 mm	cum	42,224.54		42,224.54
M-296	M-002	Loose stone	cum	201.36	150.00	351.36
M-297	M-101	MS clamps	Nos.	14.53		14.53
M-298	M-181	MS Flat / Structural Steel	t	46,658.00		46,658.00
M-299		MS Sheet Tube (47 mm x 47 mm x 12 SWG Sheet)	kg	43.62		43.62
M-300		MS Sheet 1.5 mm thick	sqm	416.00		416.00

NO=2070

Sl. No.	SOR Code	Description	Unit	Basic Rate (per unit)	Unit Quantity	Final Rate (per unit)
M-101		MS Sheet 2 mm thick	sqm	872.00		872.00
M-102	M-129	Nuts, Bolts and Rivets	t	46,740.00		46,740.00
M-103	M-130	Paint: (Synthetic Enamel)	litre	224.02		224.02
M-104	M-132	Plasticizer	litre	139.51		139.51
M-105	M-137	Polythene sheet (125 micron)	sqm	15.02		15.02
M-106	M-138	Polythene Sheeting	sqm	15.02		15.02
M-107	M-002	Quarried Stone 150-200 mm size	cum	201.36	150.00	351.36
M-108	M-149	RCC Pipe NP3 (1200 mm dia)	m	4,510.00		4,510.00
M-109	M-148	RCC Pipe NP3 (1000 mm dia)	m	5,565.00		5,565.00
M-110		RCC Pipe NP3 (750 mm dia)	m	2,037.52		2,037.52
M-111		RCC Pipe NP3 (600 mm dia)	m	2,310.00		2,310.00
M-112		RCC Pipe NP3 (500 mm dia)	m			
		RCC Pipe NP3 (300 mm dia)	m	506.74		506.74
M-113	M-149	RCC Pipe NP4 (1200 mm dia)	m	4,510.00		4,510.00
M-114	M-148	RCC Pipe NP4 (1000 mm dia)	m	5,565.00		5,565.00
M-115		RCC Pipe NP4 (750 mm dia)	m			
M-116		RCC Pipe NP4 (600 mm dia)	m	2,310.00		2,310.00
M-117		RCC Pipe NP4 (300 mm dia)	m	506.74		506.74
M-118		Red-oxide Primer	litre	226.49		226.49
M-119	M-131	Road marking paint	litre	224.02		224.02
M-120	M-005	Sand (Coarse)	cum	100.80	75.00	175.80
M-121	M-006	Sand (Fine)	cum	66.85	75.00	141.85
M-122	M-163	Seeds	kg	34.61		34.61
M-123	M-176	Steel Pipe 50 mm dia	m	221.22		221.22
M-124	M-083	Steel Reinforcement (HYSD Bars)	t	46,824.13		46,824.13
M-125	M-125	Steel Reinforcement (MS Round Bars)	t	50,325.00		50,325.00
M-126	M-083	Steel Reinforcement (TMT Bars)	t	46,824.13		46,824.13
M-127	M-001	Stone Boulder of size 150 mm and below	cum	201.36	150.00	351.36
M-128	M-051	Stone Chips 12 mm size	cum	536.05	150.00	686.05
M-129	M-042	Stone Chips 13.2 mm to 5.6 mm	cum	507.91	150.00	657.91
M-130	M-040	Stone Crushed Aggregate 11.2 mm to 0.09 mm	cum	242.53	150.00	392.53
M-131		Stone for Coarse Rubble Masonry 1st Sort	cum			
M-132		Stone for Coarse Rubble Masonry 2nd Sort	cum			
M-133	M-147	Stone for Random Rubble Masonry	cum	186.55	150.00	336.55
M-134		Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)	No.			

Sl. No.	SOR Code	Description	Unit	Basic Rate as Per SOR	Add Royalty Royalty	Final Basic rate
M-135	M-041	Stone Screening - Type A 13.2 mm for Grading-1	cum	365.53	150.00	515.53
M-136	M-042	Stone Screening - Type A 13.2 mm for Grading-2	cum	365.53	150.00	515.53
M-137	M-040	Stone Screening - Type B 11.2 mm for Grading-2	cum	242.53	150.00	392.53
M-138	M-041	Stone Screening - Type B 11.2 mm for Grading-3	cum	242.53	150.00	392.53
M-139	M-001	Stone spall	cum	201.36	150.00	351.36
M-140		Traffic cones	No.			
M-141	M-189	Water	kl	40.00		40.00
M-142	M-021	Well graded Granular Base Material - Grading A 2.36 mm below	cum	136.72	150.00	286.72
M-143	M-025	Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm	cum	394.89	150.00	544.89
M-144	M-028	Well graded Granular Base Material - Grading A 53 mm to 26.5 mm	cum	353.85	150.00	503.85
M-145	M-021	Well graded Granular Base Material - Grading B 2.36 mm below	cum	136.72	150.00	286.72
M-146	M-025	Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm	cum	394.89	150.00	544.89
M-147	M-019	Well graded Granular Base Material - Grading C 2.36 mm below	cum	136.72	150.00	286.72
M-148	M-015	Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm	cum	475.53	150.00	625.53
M-149	M-019	Well Graded Material for Sub-Base - Grading I 2.36 mm below	cum	136.72	150.00	286.72
M-150	M-012	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	cum	460.74	150.00	610.74
M-151	M-016	Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm	cum	356.92	150.00	506.92
M-152	M-019	Well Graded Material for Sub-Base - Grading II 2.36 mm below	cum	136.72	150.00	286.72
M-153	M-026	Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm	cum	445.36	150.00	595.36
M-154	M-016	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	cum	356.92	150.00	506.92
M-155	M-019	Well Graded Material for Sub-Base - Grading III 2.36 mm below	cum	136.72	150.00	286.72
M-156	M-023	Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm	cum	99.22	150.00	249.22
M-157	M-024	Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm	cum	423.71	150.00	573.71
M-158		Wooden sleepers (250 mm x 250 mm x 125 mm) (hire charges)	No.	5.00		5.00
RCD						
M-118	M-118	Hot applied thermoplastic compound (Sp. Gravity - 2.10)	litre	183.25		183.25
M-152	M-153	Reflectorising glass beads	kg	65.04		65.04
M-146	M-146	Stone crushed aggregates 13.2 mm to 0.09 mm	cum			
		Slow-curing bitumen emulsion	kg	115.16		115.16
M-146	M-161	Sapling 2 m high 25 mm dia	each	23.08		23.08
M-146	M-135	Pesticide	Kg	77.86		77.86
M-146	M-092	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	each	794.08		794.08

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BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	SOR Code	Description of		Output of Machine		Usage Rates in Rs.	
		Machine	Activity	Unit	Output	Unit	Rate
PM-001	PM-15001	Air Compressor 210 cfm	Supplying compressed air	cfm	250.00	per hour	416.00
PM-002	P&M-024	HMP 30-40 TPH	BM, DBM, SDBC, PM	Cum/h	17.00	per hour	23,729.00
PM-003	P&M-002	Batch mix Plant 30 cum capacity	Concrete mixing	Cum/h	20.00	per hour	2,981.00
PM-004	PM-26001	Bitumen boiler oil fired	Bitumen Spraying				
		200		litre / h	400.00	per hour	606.00
		1000		litre / h	2000.00	per hour	606.00
PM-005	PM-24001	Bitumen pressure distributor	Applying bitumen tack coat	sqm/h	1750.00	per hour	1,645.00
PM-006	PM-21001	Concrete mixer 0.28/0.4 cum	Mixing of ingredients	cum/h	2.50	per hour	286.00
PM-007	PM-63002	Crane upto 3.5T	Lifting of materials			per hour	909.00
PM-008	PM-1003	Dozer D 50	Dozing/cutting/ Clearing	cum/h	200.00	per hour	3,274.00
				cum/h	100.00		3,274.00
PM-009	PM-22005	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,653.00
PM-010	PM-25001	Emulsion Sprayer with Tractor	Spraying of Emulsion			per hour	1,645.00
PM-011	P&M-017	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	1,403.00
			Loading Soil	cum/h	100.00		1,403.00
PM-012	P&M-031	Hydraulic broom with tractor	Surface cleaning	sqm/h	1250.00	per hour	572.00
PM-013	PM-3005	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	2,702.00
PM-014	PM-2146	Hydraulic self propelled chip spreader	Surface Dressing	sqm/h	1500.00	per hour	2,146.00
PM-015	P&M-084	Jack Hammer with tractor	Pavement breaking & rock drilling	cum/h	05. to 1	per hour	939.30
PM-016	PM-42001	Joint Cutting Machine with 2-3 blades	Cutting of Joints	h		per hour	317.00
PM-017		Mixall 6-10 t capacity	Mixing of bituminous materials	t/h	8.00	per hour	2,218.00
PM-018	P&M-032	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	2,786.00
	P&M-054	Tractor Mounted Grader			100.00		573.20
PM-019	PM-44001	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	347.00
PM-020	PM-1583	Paver finisher	Laying/spreading	t/h	75.00	per hour	1,583.00
PM-021	PM-46001	Plate compactor	Compaction	cum/h		per hour	352.00
PM-022	P&M-086	Plate vibrator	Compaction	cum/h		per hour	469.70
PM-023		Screed vibrator	Compaction	cum/h		per hour	102.65
PM-024	PM-8001	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	901.00
PM-025	PM-16001	Stone crusher (Integrated) of 250 TPH	Crushing of Spalls	t/h	250.00	per hour	13,431.00

Sr. No.	SOR Code	Description of		Output of Machine		Usage Rates in Rs.	
		Machine	Activity	Unit	Output	Unit	Rate
PM-026	P&M-044	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	803.00
			Earth:- Embankment or sub-grade	cum/h	80/70		803.00
			Sub-base G-I	cum/h	10.00		803.00
			Sub-base G-II/G-III	cum/h	8.00		803.00
			WMM	cum/h	16.00		803.00
			BUSG	cum/h	10.00		803.00
			BM 50/75 mm	cum/h	12.00		803.00
			Premix 20 mm	sqm/h	250.00		803.00
			Seal Coat	sqm/h	500.00		803.00
			Surface Dressing 1st Coat	sqm/h	400.00		803.00
			Surface Dressing 2nd Coat	sqm/h	500.00		803.00
PM-027	PM-6004	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	1,183.00
PM-028	P&M-053	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	549.10
PM-029	PM 12001&14 001	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	633.00
PM-030	PM-12001	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	612.00
PM-031	PM 12001&13 001	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	629.00
PM-032	P&M-057	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	934.30
PM-033	PM-10001	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	2,338.00
			Compaction of BM	cum/h	60.00		2,338.00
PM-034	PM-11003	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	907.00
PM-035	P&M-062	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,822.30
RCD							
P&M-036	PM-40001	Road marking machine	Road marking	Sqm/h	100.00	per hour	1,965.00
P&M-037	P&M-022	Hot Mix Plant - 100 TPH	DBM/BM/SDBC/ Premix	Cum/h	2.70	per hour	40,270.00
P&M-038	PM-90003	Sensor Paver Finisher	Paving of DBM/BM/SDBC/ Premix	Cum/h	40.00	per hour	3,958.00
P&M-039	PM-22004	250 KVA Generator Set	Generation of Electric Energy	KVA	200.00	per hour	4,359.00
P&M-040	P&M-047	Tipper 5 Cum	Transportation of Soil, GSB, WMM, Hotmix etc.	Capacity in Cum	5.50	Tonne.Km	9.07
P&M-040	PM-9001	Tandem Road Roller	Rolling of Asphalt Surface	Cum/h	30.00	per hour	2,357.00

Analysis of Rates (FORMAT F8)

No.	Sub No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	1.10	(i)	Haulage BY TIPPER Haulage excluding Loading & Unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-I : Surfaced Road Speed with load: 25 km per hour Speed while returning empty: 35 km per hour				
		a)	Machinery Tipper 10 t capacity Haulage with load Empty return trip	hour	0.40	1183.00	473.20
		b)	Overheads @ 12%	hour	0.29	1183.00	343.07
		c)	Contractor's profit @ 10% on (a+b) Cost for 100 t-km = a+b+c				97.95
			Rate per cum = (a+b+c) / 100				91.42
							1005.64
			Rate Per Km.	Cum			10.06
							10.10
2	1.10	(ii)	Haulage excluding Loading & Unloading Haulage of materials by tipper excluding cost of loading, unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-II: Unsurfaced Gravel Road. Speed with load: 20 km/hour Speed for empty return trip: 30 km/hour				
		a)	Machinery Tipper 10 t capacity Haulage with load Empty return trip	hour	0.50	1183.00	591.50
		b)	Overheads @ 12%	hour	0.33	1183.00	390.39
		c)	Contractor's profit @ 10% on (a+b) Cost for 100 t-km = a+b+c				117.83
			Rate per cum = (a+b+c) / 100				109.97
							1209.69
			Rate Per Km.	Cum			12.10
							12.10
3	1.10	(iii)	Haulage excluding Loading & Unloading Haulage of materials by tipper excluding cost of loading, unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-III : Katcha Track and Track in River Bed/Nallah Bed and Choe Bed. Speed with load: 10 km per hour Speed while returning empty: 15 km per hour				
		a)	Machinery Tipper 10 t capacity Haulage with load Empty return trip	hour	1.00	1183.00	1183.00
		b)	Overheads @ 12%	hour	0.67	1183.00	792.61
		c)	Contractor's profit @ 10% on (a+b) Cost for 100 t-km = a+b+c				237.07
			Rate per cum = (a+b+c) / 100				221.27
							2433.95
			Rate Per Km.	Cum			24.34
							24.30

Analysis of Rates (FORMAT F8)

Sl. No.	SPE. Sl. No.	MORD Ref. No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs.
Haulage BY TRUCK							
4	1.10	(i)	Haulage excluding Loading & Unloading Haulage of materials by tipper excluding cost of loading, unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-I : Surfaced Road Speed with load: 25 km per hour Speed while returning empty: 35 km per hour				
		a)	Machinery Truck 10 t capacity Haulage with load	hour	0.40	934.30	373.72
			Empty return trip	hour	0.29	934.30	270.95
		b)	Overheads @ 12%				77.36
		c)	Contractor's profit @ 10% on (a+b)				72.20
			Cost for 100 t-km = a+b+c				794.23
			Rate per cum = (a+b+c) / 100				7.94
			Rate Per Km.	Cum			
5	1.10	(ii)	Haulage excluding Loading & Unloading Haulage of materials by tipper excluding cost of loading, unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-II: Unsurfaced Gravel Road. Speed with load: 20 km/hour Speed for empty return trip: 30 km/hour				
		a)	Machinery Truck 10 t capacity Haulage with load	hour	0.50	934.30	467.15
			Empty return trip	hour	0.33	934.30	308.32
		b)	Overheads @ 12%				93.06
		c)	Contractor's profit @ 10% on (a+b)				86.85
			Cost for 100 t-km = a+b+c				955.38
			Rate per cum = (a+b+c) / 100				9.55
			Rate Per Km.	Cum			9.55
6	1.10	(iii)	Haulage excluding Loading & Unloading Haulage of materials by tipper excluding cost of loading, unloading and stacking. Unit = t.km Taking output 10 t load and lead 10 km = 100 t.km Case-III : Katcha Track and Track in River Bed/Nallah Bed and Choe Bed. Speed with load: 10 km per hour Speed while returning empty: 15 km per hour				
		a)	Machinery Truck 10 t capacity Haulage with load	hour	1.00	934.30	934.30
			Empty return trip	hour	0.67	934.30	625.98
		b)	Overheads @ 12%				187.23
		c)	Contractor's profit @ 10% on (a+b)				174.75
			Cost for 100 t-km = a+b+c				1922.27
			Rate per cum = (a+b+c) / 100				19.22
			Rate Per Km.	Cum			19.22
7	1.10	RCD	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum. Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and Unit = cum Taking output = 5.5 cum Time required for i) Positioning of tipper at loading point ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour iii) Maneuvering, reversing, dumping and turning for return iv) Waiting time, unforeseen contingencies etc Total		1 Min 13 Min 2 Min 4 Min 20 Min		

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			a) Machinery Tipper 5.5 tonnes capacity Front end-loader 1 cum bucket capacity @ 25 cum/hour Overheads @ 12%	hour hour	0.33 0.33	1183.00 1403.00	390.39 462.99
			c) Contractor's profit @ 10% on (a+b) Cost for 5.5 cum = a+b+c				102.41 95.58
			Rate per cum = (a+b+c) / 5.5				1051.36
			Unloading will be by tipping.				191.16
8	1.20	RCD	Loading and Unloading of Boulders by Manual Means Unit = cum Taking output = 5.5 cum				say 191.20
			a) Labour Mate Mazdoor for loading and unloading	day day	0.11 0.75	310.00 292.00	34.10 219.00
			b) Machinery Tipper 5.5 tonne capacity Overheads @ 12%	hour	0.75	1183.00	887.25
			d) Contractor's profit @ 10% on (a+b+c) Cost for 5.5 cum = a+b+c+d				136.84 127.72
			Rate per cum = (a+b+c+d)/5.5				1404.91
			Unloading will be by tipping.				255.44
9	1.30	RCD	Loading and Unloading of Cement or Steel by Manual Means and Unit = tonne Taking output = 10 tonnes				say 255.45
			a) Labour Mate Mazdoor for loading and unloading	day day	0.08 2.00	310.00 292.00	24.80 584.00
			b) Machinery Truck 10 tonne capacity Overheads @ 12%	hour	2.00	934.30	1868.60
			d) Contractor's profit @ 10% on (a+b+c) Cost for 10 tonnes = a+b+c+d				297.29 277.47
			Rate per tonnes = (a+b+c+d)/10				3052.16
							305.22
10	1.1	(i)	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m Unit = cum Taking output = 5.5 cum				say 305.20
			a) Labour Mate Mazdoor (Unskilled)	day day	0.02 0.50	310.00 292.00	6.20 146.00
			b) Machinery Truck	hour	0.50	934.30	467.15
			c) Overheads @ 12%				74.32
			d) Contractor's profit @ 10% on (a+b+c) Cost for 5.5 cum = a+b+c+d				69.37 763.04
			Rate per cum = (a+b+c+d) / 5.5				138.73
			Total Cost	Cum			138.73
11		(ii)	Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m. Unit = cum Taking output = 5.5 cum				
			a) Labour Mate Mazdoor (Unskilled)	day day	0.01 0.25	310.00 292.00	3.10 73.00
			b) Machinery Truck	hour	0.25	934.30	233.58
			c) Overheads @ 12%				37.16
			d) Contractor's profit @ 10% on (a+b+c) Cost for 5.5 cum = a+b+c+d				34.68 381.52
			Rate per cum = (a+b+c+d) / 5.5				69.37
			Total Cost	Cum			69.37

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref. No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
12		(iii)	Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by mechanical means including a lead upto 30 m Unit = cum Taking output = 5.5 cum				
		a)	Labour				
			Mate	day	0.01	310.00	3.10
			Mazdoor (Unskilled)	day	0.25	292.00	73.00
		b)	Machinery				
			Truck	hour	0.25	934.30	233.58
		c)	Overheads @ 12%				37.16
		d)	Contractor's profit @ 10% on (a+b+c)				34.68
			Cost for 5.5 cum = a+b+c+d				381.52
			Rate per cum = (a+b+c+d) / 5.5				69.37
			Total Cost	Cum			69.37
			Total Loding & Unloading of Stone Aggregate	Cum		= 138.73 + 69.37 =	208.10
13		(iv)	Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m. Unit = cum Taking output = 5.5 cum				
		a)	Labour				
			Mate	day	0.01	310.00	1.55
			Mazdoor (Unskilled)	day	0.13	292.00	36.50
		b)	Machinery				
			Truck	hour	0.17	934.30	155.09
		c)	Overheads @ 12%				23.18
		d)	Contractor's profit @ 10% on (a+b+c)				21.63
			Cost for 5.5 cum = a+b+c+d				237.95
			Rate per cum = (a+b+c+d) / 5.5				43.26
			Total Cost	Cum			43.26
			Total Loding & Unloading of Sand / Moorum	Cum		= 69.37 + 43.26 =	112.63

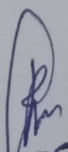
Analysis of Rates (FORMAT F8)

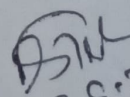
SL No.	SDB SL No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
20	1.6	(i)	Loading and Unloading of Bitumen Drums by Manual Means Loading of Bitumen Drums by manual means including a lead upto 30 m Unit = t Taking output = 10 t				
		a)	Labour Mate Mazdoor (Unskilled)	day	0.06	310.00	18.60
		b)	Machinery Truck	day	1.60	292.00	467.20
		c)	Overheads @ 12%	hour	1.25	934.30	1167.88
		d)	Contractor's profit @ 10% on (a+b+c)				198.44
			Cost for 10 t = a+b+c+d				185.21
			Rate per tonnes = (a+b+c+d)/10				2037.33
			Total Cost	t			203.73
21		(ii)	Unloading of Bitumen Drums by Manual Means including a lead upto 30 m Unit = t Taking output = 10 t				
		a)	Labour Mate Mazdoor (Unskilled)	day	0.05	310.00	15.50
		b)	Machinery Truck	day	1.20	292.00	350.40
		c)	Overheads @ 12%	hour	1.25	934.30	1167.88
		d)	Contractor's profit @ 10% on (a+b+c)				184.05
			Cost for 10 t = a+b+c+d				171.78
			Rate per t = (a+b+c+d)/10				1889.61
		Note :-	The rate is inclusive of the self weight of drum				188.96
			Total Cost	t			188.96
			Total Loading & Unloading of Bitumen Drums	t		= 203.73 + 188.96 =	392.69

Analysis of Rates (FORMAT F8)

5.7.40 Providing laying and spreading brick bats in Road ditches all complete as per approved design. Secifications and direction E/I							
			Unit :- Per Cum				
SL No	SDB	MORDRef	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs
		a)	Taking out= 1 cum				
			Labour	day	0.040	327.000	13.08
			Mate	day	1.000	304.000	304.00
			Unskilled Mazdoor				0.00
		b)	Materials				
			Brick bats	Cum	1.120	1050.000	1176.00
		c)	Overheads on (a+b) =@	6%			89.58
		d)	Contractore's profiton (a+b+c) =@	0%			0.000
			Rate Per cum=(a+b+c+d)				1582.66
			<u>CARRIAGE</u>				
			Brick bats	cum	1.120	292.150	327.21
							1909.87
			Total Cost	CUM			1909.87

11.2 Filling and sdreading local sand over brick bats as per drawing and Technical Specifications clause 305.3.9 and direction E/I							
			Fine Sand filling				
			Unit :- Per Cum				
SL No	SDB	MORDRef	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs
		a)	Taking out= 1 cum				
			Labour	day	0.010	327.000	3.27
			Mate	day	0.300	304.000	91.20
			Unskilled Mazdoor				0.00
		b)	Materials				
			Sand(Assuming 20 per cent Voids)	Cum	1.100	141.850	156.04
		c)	Overheads on (a+b) =@	6%			15.03
		d)	Contractore's profiton (a+b+c) =@	0%			0.000
			Rate Per cum=(a+b+c+d)				265.54
			<u>CARRIAGE</u>				
			Fine Sand	cum	1.100	194.300	213.73
							479.27
			Total Cost	CUM			479.27


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