

Name of Road - Near Durga Mandir to Usha
Omang Factory Near Patna Bypass Road

NEER NAGAN

Schedule XLV-Form No. 134

Executive Engineer, R.W.D.W. DIVISION

Sampadchak SUB-DIVISION

(Anush)h)

MB No - 7638

Measurement Book



Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
2 nd & Final Bill					
N/W :-					
Course of Road From					
Near Durga Mandir to					
Usha company factor near					
Pudna Ganga Road					
Agency :-					
Neergagan Court					
Pvt. Ltd.					
Agreement No. :-					
45/530/2023-24					
Date of Start :-					
16/01/24					
Measurement					
Entry					
(1) Course of Subgrade &					
Shoulder — 0.0 — E/L					
20 x	30.0	1.70	0.300	=	306.0 m ³
16 x	30.0	1.70	0.30	=	244.80 m ³
01 x	20.0	1.70	0.30	=	10.20 m ³
C.O. = 561.0 m ³					

Continuation



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B.F. = 561.0 m³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
20 x 02 x	30.0	1.325	x 0.200	=	318.0 m ³
16 x 02 x	36.0	x 1.325	x 0.200	=	254.40 m ³
01 x 02 x	20.0	x 1.325	x 0.200	=	10.60 m ³
20 x 02 x	30.0	x 1.20	x 0.075	=	108.0 m ³
16 x 02 x	30.0	x 1.20	x 0.075	=	86.40 m ³
01 x 02 x	20.0	x 1.20	x 0.075	=	3.60 m ³
05 x 02 x	30.0	x 0.875	x 0.160	=	42.0 m ³
				T =	1384.0 m ³

(82) Const. of G.L.B. Cr. I
 — do — E/R

Curve

$$02 \times 13.50 \times \frac{(5.95 - 4.05)}{2} \times 0.20 = 5.13 \text{ m}^3$$

$$02 \times 12.60 \times \frac{(5.90 - 4.05)}{2} \times 0.20 = 4.662 \text{ m}^3$$

Approach

$$02 \times 9.50 \times \frac{(5.85 - 4.05)}{3} \times 0.20 = 2.280 \text{ m}^3$$

$$02 \times 8.90 \times \frac{(6.10 - 4.05)}{3} \times 0.20 = 2.433 \text{ m}^3$$

$$02 \times 10.20 \times \frac{(5.90 - 4.05)}{3} \times 0.20 = 2.516 \text{ m}^3$$

$$01 \times 9.80 \times \frac{(6.25 - 4.05)}{3} \times 0.20 = 1.437 \text{ m}^3$$

$$T = 18.458 \text{ m}^3$$

Continuation

RA
 01/04/24
 AG

Subang
 01/04/24
 AG



Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(33) Const. of W.B.M. Gr. III					
— do — E/I					
10 x 30.0 x 3.75 x 0.075 =					84.375 m ³
05 x 10 x 3.75 x 0.075 =					14.063 m ³
Curve					
02 x 13.50 x $\frac{(5.85 - 3.75)}{2}$ x 0.075 =					2.126 m ³
02 x 12.60 x $\frac{(5.90 - 3.75)}{2}$ x 0.075 =					2.032 m ³
Approach					
02 x 9.50 x $\frac{(5.85 - 3.75)}{3}$ x 0.075 =					0.996 m ³
02 x 8.90 x $\frac{(6.10 - 3.75)}{3}$ x 0.075 =					1.649 m ³
02 x 10.20 x $\frac{(5.90 - 3.75)}{3}$ x 0.075 =					1.695 m ³
01 x 9.80 x $\frac{(6.25 - 3.75)}{3}$ x 0.075 =					0.612 m ³
					T = 106.349 m ³
(34) Prov. & Lay. Prime Coat					
— do — E/I					
10 x 30.0 x 3.75 =					1125.0 m ²
10 x 30.0 x 3.75 =					1125.0 m ²
					C.O. = 2250.0 m ²

Continuation

Particulars	Details of actual measurement			Contents of area
	No.	L.	B. D.	
				B.F. = 2250.0m ²
10 x 30.0	x	3.75	=	1125.0m ²
10 x 20.0	x	3.75	=	750.0m ²
Curve				
02 x 13.50 x		(5.50 - 3.75)	=	24.975m ²
		2		
02 x 12.60 x		(5.85 - 3.75)	=	26.46m ²
		2		
Approach				
02 x 9.50 x		(5.85 - 3.75)	=	19.95m ²
		3		
02 x 8.90 x		(6.10 - 3.75)	=	13.943m ²
		3		
02 x 10.20 x		(5.90 - 3.75)	=	14.620m ²
		3		
				T = 4224.948m ²
				Limit = 4215.35m ²
(05) Prev. & Lay. Tack Cont				
	do	E/I		
Qty. = same as Prime Cost =				4224.948m ²
				Limit = 4215.35m ²

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	

(06.) P. & F. Mix Seal Surface

— do — E/I

Qty. = Same as Take Out = 4224.348

Limit = 4215.35 m²

(07.) Cont. of Dry lean Concrete

Concrete Sub-base

— do — E/I

$$3.70 \times 3.75 \times 0.160 = 2.220 \text{ m}^3$$

$$2.16 \times 3.75 \times 0.160 = 1.296 \text{ m}^3$$

$$1.50 \times 3.75 \times 0.160 = 0.90 \text{ m}^3$$

$$1.95 \times 3.75 \times 0.160 = 1.170 \text{ m}^3$$

$$1.85 \times 3.05 \times 0.160 = 0.903 \text{ m}^3$$

$$3.60 \times 2.60 \times 0.160 = 1.498 \text{ m}^3$$

$$4.60 \times 2.60 \times 0.160 = 1.914 \text{ m}^3$$

$$2.70 \times 2.10 \times 0.160 = 0.907 \text{ m}^3$$

$$5.35 \times 1.25 \times 0.160 = 1.070 \text{ m}^3$$

$$6.05 \times 2.35 \times 0.160 = 2.275 \text{ m}^3$$

$$3.55 \times 2.60 \times 0.160 = 1.477 \text{ m}^3$$

$$2.35 \times 1.85 \times 0.160 = 0.696 \text{ m}^3$$

$$1.70 \times 1.20 \times 0.160 = 0.326 \text{ m}^3$$

$$\text{C.O.} = 16.652 \text{ m}^3$$

Continuation



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B.F. =	16.652 m ³
	2.60	1.85	0.160		0.769 m ³
	3.60	1.90	0.160		1.094 m ³
	2.10	1.15	0.160		0.386 m ³
				T =	18.901 m ³

Limit = 18.0 m³

~~22~~ 22

(68) Const. of C.C. Pavement

— do — E/I

10	10.0	3.75	0.160	60.0 m ³
05	10.0	3.75	0.160	30.0 m ³
Curve				
08.60	$\frac{(4.90 - 3.75)}{2}$		0.160	0.791 m ³
				T = 90.791 m ³

(69) Construction of Plain

Cement Concrete

— do — E/I

30	$\frac{(4.50 - 3.75)}{2}$		0.160	1.80 m ³
30	$\frac{(5.70 - 3.75)}{2}$		0.160	4.68 m ³
				C.C. = 6.48 m ³

Continuation

(10.)	Costo of PCC M15 in Headwall — do-E/I
02x	6.15 x 0.930 x 3.180 = 36.376 m ³
02x	6.15 x 0.400 x 0.600 = 2.952 m ³
-)	less for pipe
02x T1/4	x 1.23 x 1.23 x 0.805 = (-) 1.913 m ³
	T = 37.158 m ³
(11.)	P. & F. Retro-reflectored traffic sign — do — E/I



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
i) 600mm eq. & Δ					08 Nos.
ii) 600mm Circular					08 Nos.
iii) 800mm x 600mm Rect.					06 Nos.
iv) 900mm Octagonal					01 Nos.
(12) P. & F. Boundary Pillar					
— do —			E/S		
	08	x	06	=	48 Nos.

(13) P. & F. KM. Stones.					
— do —			E/S		
i) KM Stones					02 Nos.
ii) 200m Stones					05 Nos.

(14) Planting trees & their maint.					
— do —			E/S		
				Qty =	22 Nos.

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(15) Road Marking with hot applied therm. — do — E/r					
i) On BT Surface					
02x 10x 30.0x		30.0x	0.100 =	60.0m ²	
02x 10x 30.0x		30.0x	0.100 =	60.0m ²	
02x 10x 30.0x		30.0x	0.100 =	60.0m ²	
02x 10x 20.0x		20.0x	0.100 =	40.0m ²	
			T =	220.0m ²	
ii) On CC Pavement					
02x 05x 30.0x		30.0x	0.100 =	30.0m ²	
(16) P. & F. Typical NMGSV Board — do — E/r					
			Qty =	03 Nos.	
(17) P. & F. Citizen Information Board — do — E/r					
			Qty =	02 Nos.	

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(18.) Cont. of E/W in					
Embankment do - E/r					
Chainage	Area (m ²)	Mean (m ²)	Dist. (m)	Volume (m ³)	
0	2.782	—	—	—	
50	2.420	2.601	50	130.050	
100	2.249	2.335	50	116.725	
150	2.224	2.237	50	111.825	
200	6.180	4.202	50	210.10	
250	5.974	6.077	50	303.85	
300	6.960	6.467	50	323.350	
350	7.548	7.254	50	362.70	

400	7.170	7.359	50	367.95
450	6.991	7.081	50	354.025
500	7.413	7.202	50	360.10
550	7.988	7.701	50	385.025
600	8.625	8.307	50	415.325
650	7.597	8.111	50	405.55
700	8.612	8.105	50	405.225
750	8.489	8.551	50	427.525
800	8.728	8.609	50	430.425
850	8.116	8.422	50	421.10
900	8.154	8.135	50	406.750
950	7.626	7.890	50	394.50
1000	8.056	7.841	50	392.050
				C.O. = 6724.15 m ²

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				$B.F =$	6724.15
1050	8.973	8.515	50		425.725
1100	7.964	8.469	50		423.425
1150	7.553	7.760	50		387.975
1200	8.044	7.880	50		389.975
1250	9.119	8.582	50		429.075

$$T = 8780.325 m^3$$

$$(-) \text{ less for Subgrade} = (-) 3364.0 m^3$$

$$(-) \text{ less for G.R.B. Gr. I} = (-) 909.458 m^3$$

$$(-) \text{ less for W.B.M. Gr. II} = (-) 316.889 m^3$$

$$(-) \text{ less for C.C. pavement} = (-) 90.791 m^3$$

$$(-) \text{ less for Dry Lean Cement} = (-) 18.901 m^3$$

$$T = 4080.286 m^3$$

i) upto 100m lead

$$4080.286 \times 0.20 = 816.057 m^3$$

$$\text{Limit} = 771.39 m^3$$

ii) upto 1000m lead

$$4080.286 \times 0.80 = 3264.229 m^3$$

$$\text{Limit} = 3085.56 m^3$$

~~RB~~
28.04.24
AE

~~Sub~~
28.04.24
AE

Continuation

[illegible]

ABSTRACT OF COLT

Q1.	Setting	Out
	do	e/s

Qty. vide T.M.B.p-05	
= 1.25 km	

@Rs 17720=00 per km

$$P_2 \quad 22150 = 0$$

(62.) Clearing & Grubbing
— do — E/C

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty. vide T.M.B. p-05					
= 0.66 ha.					
@ Rs 19,930 = 80 per ha.					
					Rs 13,154=00
(03) Excavation of Roadwork					
— do — E/E					
Qty. vide T.M.B. p-06					
= 69.64 m ³					
@ Rs 103 = 96 per m ³					
					Rs 7240=00
(04) Removal of unsuitable soil					
— do — E/E					
Qty. vide T.M.B. p-06					
= 13.93 m ³					
@ Rs 103 = 96 per m ³					
					Rs 1448=00
(05) Const. of Embankment from Roadway					
— do —					
Qty. vide T.M.B. p-06 = 55.71 m ³					
@ Rs 83 = 71 per m ³					
					Rs 4663=00
Continuation					Rs 48,655=00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(06) Cont. of Embankment					
— do — E/F					
i) Upto 100m lead					
Qty. vide T.M.B.p-21					
= 3085.56 m ³					
@ R 217=07 per m ³					
					R 6,69,782=0
ii) Upto 1000m lead					

Qty. vide T.M.B.p-21					
= 771.39 m ³					
@ R 267=79 per m ³					
					R 2,06,571=00

(07) Cont. of Subgrade & shoulders					
— do — E/F					
Qty. vide T.M.B.p-07					
= 1980.0 m ³					
p-12 = 1384.0 m ³					
T = 3364.0 m ³					
@ R 438=03 per m ³					
					R 14,73,533=00

Continuation R 23,98,541=00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(88) Const. of C.S.B. Gr. I					
— do — E/L					
Qty. vide T.B.B.p-07					
= 891.0 m ³					
p-12 = 18.458 m ³					
T = 909.458 m ³					
Unit = 909.29 m ³					
@ Rs 3009 = 31 per m ³					
					Rs 27,36,335.00

(89) Const. of M.B.M. Gr. II					
— do — E/L					
Qty. vide T.M.B.p-07					
= 210.54 m ³					
p-13 = 106.349 m ³					
T = 316.889 m ³					
Unit = 315.99 m ³					
@ Rs 4467 = 42 per m ³					
					Rs 14,11,660.00

(90) Const. of C.C. Pavement

— do — E/L

Continuation Rs 65,46,536.00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty. vide T.M.B.p-16					
= 90.7 m ³					
@ R 7564 = 54 per m ³					
					R 6,86,792.00

(11) Cont. of Dry lean
Cement — do — E/r

Qty. vide T.M.B.p-16					
= 18.0 m ³					
@ R 4199 = 74 per m ³					
					R 75,595.00

(12) Cont. of Plain Cement
Concrete
— do — E/r

Qty. vide T.M.B.p-17					
= 31.884 m ³					
@ R 6462 = 99 per m ³					
					R 2,06,066.00

(13) Prop. & lay. Prime Coat
— do — E/r

Qty. vide T.M.B.p-14					
= 4215.35 m ²					

Continuation

R 75,14,989.00



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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Q.R. 58-19		per	m ²		
					Rs 2,45,291-00
(14) P. & L. Track Coal					
— do —		E/I			
Qty. vide T.M.B. p-14					
					= 4215.35 m ²
@R. 19-90		per	m ²		
					Rs 83,885-00

(15) P. & L. M/V Seal Surface					
— do —		E/I			
Qty. vide T.M.B. p-15					
					= 4215.35 m ²
@R. 257-13		per	m ²		
					Rs 10,83,893-00

(16) Const. of Pcc M15 in					
headwall — do —		E/I			
Qty vide T.M.B. p-17 =					37.410 m ³
@R. 7105-94		per	m ³		
					Rs 2,65,833-00

Continuation Rs 91,93,891-00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(17) Retro-reflectorized traffic signs					
— do —			E/r		
Qty. vide T.M.B.P-18					
i) 600mm sq. & A = 08 Nos.					
@ Rs 4262 = 38 Each					
					Rs 34099 = 00
ii) 600mm Circular = 08 Nos.					
@ Rs 5669 = 78 Each					
					Rs 45358 = 00
iii) 600mm x 600mm Rect. = 06 Nos.					
@ Rs 7852 = 90 Each					
					Rs 47117 = 00
iv) 900mm side Oct = 01 Nos.					
@ Rs 9980 = 61 Each					
					Rs 9981 = 00
(18) P. & F. Boundary Pillar					
— do —			E/r		

Continuation Rs 93,30,446 = 00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty. vide T.M.B.p-18					
= 48 Nos.					
@Rs 649=06 Each					
					Rs 31164=00

(19) P. & F. 1CM Stones
— do — E/t

Qty. vide T.M.B.p-18

i) 1CM Stones = 02 Nos.

@Rs 2616=33 Each

Rs 5233=00

ii) 200mm Stones = 05 Nos.

@Rs 763=88 Each

Rs 3819=00

(20) Planting trees & their
maint. — do — E/t

Qty. vide T.M.B.p-18

= 22 Nos.

@Rs 1288=76 Each

Rs 28553=00

Continuation Rs 9399005=00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(21) Road Marking with hot applied thermo.					
— do —			1/2		
i) On BT surface					
Qty. vide T.M.B. p-19					
= 220.0 m ²					
@ 8884 = 86 per m ²					
					Rs 1,94,669.00

ii) On CC surface					
Qty. vide T.M.B. p-19					
= 30.0 m ²					
@ Rs 970 = 12 per m ²					
					Rs 29104.00

(22) P. & F. Typical MNGSY					
Board — do —			1/2		
Qty. vide T.M.B. p-19					
= 03 Nos					
@ Rs 14020 = 97 each					
					Rs 42063.00

Continuation Rs 96,64,841.00

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(23) P. & F. Citizen Inform.					
Board — do — E					
Qty. wale T.H.B. P-19					
= 02 Nos					
@ Rs 11,991 = 74 Each					
					Rs 23,983=00

TOTAL = Rs 96,88,824=00

Add 1% Labour Cen = Rs 96,888=00

Add 18% G. & T. = Rs ~~17,43,988=00~~
Rs 11,62,659=00

Add Seigniorage fee = Rs 1,87,200=00

GRAND TOTAL = Rs ~~1,17,16,900=00~~
Rs 1,11,35,571=00(-) less 12.79% Below = (-) Rs ~~14,24,240=00~~
Rs 97,11,331=00

NET TOTAL = Rs 97,11,331=00

(-) less Previous Payment = Rs 54,61,756=00

NET PAYMENT = Rs ~~42,49,575=00~~
Rs 47,56,552=00R.P.M.
28/01/24
AESubsig
1-4-24
28.04.24
AE.C.P.R.
28/01/24

Continuation