

Name of Recd:- M/s Bhangraha Chowk + Co

Bhawanipura SH-74

M/A '30 I 4'

M.B.No. - 460/2020-21

MNP

Schedule XLV-Form No. 134

M/s Bhangra Enterprises

ARERAJ

DIVISION

Bhawanipura

SUB-DIVISION

Measurement Book

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Est on A/C Bill

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Name of Work—
 Situation of Work—
 Agency by which work is executed—
 Date of Measurement—
 No. and date of agreement

(These four lines should be repeated at the commencement of the measurement relating to each work)

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>Name of Road :- Dharmgarha chowk</u>					
<u>NH 8 to Bhawanipatna SH-74</u>					
<u>Schematic end :- M/R 30541</u>					
<u>Agency :- ^{MIS} Andhra Pradesh</u>					
<u>Agg No :- TMBD/2020-2021</u>					
<u>Date of start :- 25/5/2020</u>					
<u>Date of completion :-</u>					
<u>Estimated cost :- Rs. 827.69 lakhs</u>					

Measurement

<u>① Clearing & grubbing road</u>					
<u>land etc. do do alt. 5.6</u>					
2x33	30.0	1.10	—	—	= 2178.0m ²
2x1	10.0	1.0	—	—	= 20.0m ²
2x33	30.0	1.50	—	—	= 2970.0m ²
2x30	30.0	1.50	—	—	= 2700.0m ²
2x1	10.0	1.0	—	—	= 20.0m ²
					<u>Alt 5.88m²</u>
					<u>7888m²</u>
					<u>= 0.79 Hact</u>

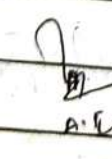
<u>② Demolition of existing</u>					
<u>Structure etc. do do do</u>					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
2x2	5.0x	970.45	0.90		12.50 m ³
1x1	3.90	0.45	0.95		1.45 m ³
					<u>Qts</u> 13.95 m ³
<u>Construction of Humo Pipe</u>					
<u>Calcutt. NP 600mm</u>					
① R/W excavation in foundation trench etc de - d - all - job					
<u>For 600mm Pipe (2 Nos)</u>					
H. wall	2	3.90	1.15	1.50	13.45 m ³
	1	5.35	1.13	0.25	2.207
					15.66 m ³
<u>Qts for 2 Nos Calcutt</u>					
<u>= 2 x 15.66 m³ = 31.32 m³</u>					
<u>Qts = 31.32 m³</u>					
② Acc. M/s in foundation etc de - d - all - job					
Headwall	2	3.90	1.15	0.15	1.345 m ³
Bew. Pipe	1	5.311	1.15	0.25	1.5011
Lev. for Pipe	0.25	0.75	0.75	0.25	0.107911
					<u>Qts</u> 2.105 m ³
<u>For 2 Nos Calcutt</u>					
<u>Qts = 2 x 2.105 m³ = 4.10 m³</u>					

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					$2.15 = 4.15 \text{ m}^2$
③ Brick masonry work					
in C. on (1:4) in brick and mortar					
do do all complete job					
H/Nall: Parapet	2	3.60	0.70	2.18	$= 10.97 \text{ m}^2$
Less for Pipe	2	3.60	0.40	1.20	$= 3.456 \text{ m}^2$
 P.V.	2	0.7857	0.83	1.53	$= 4.70.54 \text{ m}^2$
					13.87 m^2
Rate for 2 Nos Calm					
2x 13.87 m ²					$= 27.74 \text{ m}^2$
					27.74 m^2
④ P.V & F/B N ₂ Hume Pipe					
30 600 mm φ single work etc					
do do all complete job					
2x 3	2	2.50	-	-	$= 7.50 \text{ m}$
					7.50 m
⑤ Plastering with cement					
mortar (1:4) on brick work					
in S/S etc etc					
Outer Side	2	3.60	7.38	-	$= 24.336 \text{ m}^2$
	2	3.60	0.60	-	$= 4.32 \text{ m}^2$
	2	3.60	0.40	-	$= 2.88 \text{ m}^2$
 P.V.	4	0.70	2.18	-	$= 6.104 \text{ m}^2$
	4	0.40	1.20	-	$= 1.92 \text{ m}^2$
	2	0.7857	0.83	-	$= 1.083 \text{ m}^2$
Continuation					38.48 m^2

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty for 2 Nos culvert					
$= 2 \times 38.48 \text{ m}^2$					$= 76.96 \text{ m}^2$
					Qty 76.96 m^2
⑥ Painting on Parapet wall (Colour White) two coats do do all complete job					
2	3.60	0.40	—		$= 2.88 \text{ m}^2$
4	3.60	0.60	—		$= 8.64 \text{ m}^2$
4	0.40	0.60	—		$= 0.96 \text{ m}^2$
					12.48 m^2
Qty for 2 Nos culvert					
$2 \times 12.48 \text{ m}^2$					$= 24.96 \text{ m}^2$
					Qty $= 24.96 \text{ m}^2$
Construction of H.F. culvert 100 mm ϕ N.P. 2 angle iron (2 Nos CD)					
⑦ R/N in excavation for foundation of structure etc do do all job					
H. Wall	2	6.45	1.40	1.50	$= 27.09 \text{ m}^3$
	1	4.85	1.53	0.765	$= 2.708 \text{ m}^3$
					29.80 m^3
Qty for 2 Nos culvert					
$2 \times 29.80 \text{ m}^3$					$= 59.60 \text{ m}^3$
					Qty $= 59.60 \text{ m}^3$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑧ P/L laying RCC in foundation etc. do do job					
H/Wall	2	6.45	1.40	0.15	= 2.709 m ³
Below Pipe	1	4.93	1.53	0.25	= 1.976 "
100 for Pipe	0.25	0.7857	(1.23) ²	5.496	= 11.633 "
					<u>Qty = 2.96 m³</u>
Qty for 2 Nos. culvert					
⑨ 2 x 2.96 m ³					= 5.92 m ³
					<u>Qty = 5.92 m³</u>
⑩ P/L laying 1000 mm N.P. Hum. Pipe in ground etc. do do job					
2 x 3 2.50 - -					= 15.00 m
					<u>Qty = 15.00 m</u>
⑪ Plastering with cement mortar (1:4) on 2/w etc. do do job					
outside	2	6.15	3.78	-	= 46.494 m ²
	2	6.15	0.60	-	= 7.38 "
	2	6.15	0.40	-	= 4.92 "
	4	0.825	2.58	-	= 8.514 "
	4	0.40	0.60	-	= 0.96 "
	2	0.7857	(1.23) ²	-	= 2.377 "
					<u>65.89 m²</u>
For 2 Nos. culvert					

Continuation
 $2 \times 65.89 \text{ m}^2 = 131.78 \text{ m}^2$
Qty = 131.78 m²

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑪ Paintings on parapet wall					
including primer coat etc					
do - do - all - job					
TOP :	2	6.15	0.40	-	= 4.92 m ²
	4	6.15	0.60	-	= 14.76 "
	4	0.40	0.60	-	= 0.96 "
					<u>20.64 m²</u>
Qty for 2 Nos culvert					
2 x 20.64 m ²					= 41.28 m ²
					Qty = 41.28 m ²

(A/E)

10/1/2021

JG

⑫ P/W Laying brick work

in c/w (1:4) in head wall

etc do - do - all - job

M/wall 2 6.15 0.825 2.58 = 26.18 m³

Parapet 2 6.15 0.40 0.60 = 2.952 "

Leuf for Pipe 2 0.785 x (1.23) 0.62 = 1.478 m

27.61 m³

Qty for 2 Nos Culvert

2 x 27.61 m³ = 55.30 m³

Qty = 55.30 m³

Continuation

10.01.21
A.E

10/1/2021
JG

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	<u>Further measurement</u>				
① Construction of subgrade & reaction shoulder etc					
do do all etc					
2x20 30.0	0.9+1.30	0.60			792.0m ³
2x33 30.0	0.9+1.20	0.45			935.55m ³
					1727.55m ³
Deduction for material etc					159.73m ³
work					Q/S = 1567.82m ³
② R/W excavation for Roadway in balancing					
menualment etc do etc					
2x33 30.0	0.525	0.325			337.84m ³
2x33 30.0	0.525	0.325			337.84m ³
2x30 30.0	0.525	0.325			307.12
2x2x10.0	0.525	0.325			6.925m ³
					Total Q/S = 989.62m ³
③ Construction of formwork					
Sub base with well granular material etc do etc					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
For leveling portion	2x33	30.00	0.525	0.175	= 181.91 m ³
	2x1	10.10	0.525	0.175	= 1.837 m.
	8x33	30.0	0.525	0.175	= 181.91
	2x1	30.10	0.525	0.175	= 5.51
	2x30x30.10	0.525	0.175		= 1.65.37
For Port Area	10	2.50	1.10	0.175	= 4.81 m ²
	20	1.50	0.90	0.175	= 4.7211
	30	2.10	1.10	0.15	= 9.0 "
	14	1.25	0.75	0.115	= 1.9681
	19	2.10	0.60	0.175	= 3.99
	17	1.50	0.60	0.15	= 2.60
	21	2.25	0.70	0.175	= 5.78
	20	3.10	2.70	0.15	= 20.7011
	2x10	5.0	0.90	0.175	= 15.75
	2x1	8.50	2.10	0.15	= 5.35 "
	4	10.10	2.50	0.175	= 17.50 "
	1	15.10	2.75	0.175	= 7.21
	1	20.10	2.10	0.15	= 6.30
For Port Area	1	25.10	1.40	0.175	= 6.125
	2x1	15.10	1.20	0.175	= 6.30
	4	1.80	0.90	0.175	= 1.13
	10	2.10	1.20	0.175	= 4.41
	2x10	5.0	0.90	0.175	= 15.75
	2x10	4.10	1.10	0.175	= 15.40
	1	14.10	2.15	0.175	= 5.28
	1	12.10	1.10	0.15	= 1.98

Continuation c.o.d. 702. Hm3

B/FQ4-702.17MB

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	2x5	3.80	1.15	0.175	7.65m ³
	10	3.20	1.10	0.175	6.1611
	20	1.25	0.90	0.20	4.5011
	1	15.0	1.80	0.175	4.7211
	1	10.0	2.25	0.175	3.9411
	1	3.50	1.10	0.15	0.57711
	10	1.50	1.10	0.175	2.8811
	1	11.20	2.50	0.175	4.90
	1	4.80	2.10	0.15	1.9211
	10	5.25	2.10	0.15	19.29 1.525
	00/	7.0	2.30	0.175	2.817
	1	8.0	2.50	0.175	3.50
	10	1.25	0.90	0.15	1.6811
	15	2.80	1.10	0.20	9.24
	10	2.75	1.40	0.175	6.73
	1	3.80	1.20	0.175	0.79811
	1	10.0	2.50	0.15	3.7811
	1	18.0	1.85	0.175	5.82
	1	5.8	1.20	0.15	1.0411
	1	2.50	1.10	0.175	0.437
	10	2.0	1.15	0.175	4.025
	1	8.8	1.50	0.175	2.31
	10	1.50	1.10	0.175	2.89
	4	10.0	2.50	0.15	15.011
	5	15.0	2.75	0.15	70.9311
	4	18.0	1.75	0.175	22.0511

Continuation

B/F $Q_{T2} = 871.35 m^3$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	10	2.80	1.15	0.175	$= 5.675 m^3$
	10	2.15	1.10	0.15	$= 3.55 //$
	1	10.0	2.10	0.15	$= 3.15 //$
	1	5.0	1.80	0.15	$= 1.35 //$
	1	4.20	1.20	0.175	$= 0.88 //$
	1	3.20	1.40	0.175	$= 0.784 //$
	1	2.15	1.10	0.175	$= 0.413 //$
	1	7.10	1.80	0.15	$= 0.837 //$
	10	2.10	0.90	0.175	$= 3.308 //$
	4	16.0	2.50	0.15	$= 15.0 //$
	1	3.20	1.50	0.175	$= 0.84 //$
	1	2.20	1.20	0.175	$= 0.462 //$

	1	5.0	2.80	0.15	$= 2.10 //$
	1	7.80	1.20	0.15	$= 1.40 //$
	3	2.50	1.10	0.175	$= 1.44 //$
					$Q_{T2} = 92.49 m^3$

④ Providing lagging work

Grit stone muf / consolidation

on etc. etc. job

For working portion	2x33	30.0	0.525	0.075	$= 77.96 m^3$
"	2x33	30.0	0.525	0.075	$= 77.96 //$
"	2x30	30.0	0.525	0.075	$= 70.87 //$
For level					$226.79 m^3$
For level	2x5	10.0	0.90	0.075	$= 6.75 m^3$

Continuation

$$10/1/2018 = 235.53 m^3$$

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	5	10.0	3.20	0.075	12.073
	10	5.80	1.80	0.075	7.831
	1	4.80	2.80	0.075	1.08
	1	15.0	2.85	0.075	3.20611
	1	14.0	2.80	0.075	2.9411
	2x10	8.0	1.25	0.075	1.5011
	2x5	10.0	1.50	0.075	11.7511
	10	5.80	1.10	0.075	4.7811
	1	4.10	2.10	0.075	0.645
	10	3.0	1.50	0.075	3.375
	2	10.0	1.10	0.075	1.6511
	5	30.0	2.75	0.075	30.9411
	10	2.10	1.10	0.075	1.7311
	10	2.80	1.10	0.075	2.3111
	1	30.0	2.50	0.075	5.62511
	1	25.0	1.75	0.075	3.2811
	1	30.0	2.75	0.075	6.187
	10	5.0	1.50	0.075	5.62
	1	4.80	1.80	0.075	0.65
	1	15.0	2.75	0.075	3.0911
	10	1.80	1.10	0.075	1.48711
	1	25.0	2.30	0.075	4.3111
	1	4.80	1.10	0.075	0.37611
	10	3.80	1.0	0.075	2.8511
	1	30.0	2.50	0.075	5.62511
	1	10.0	1.80	0.075	1.3511

Continuation

$$B/P \& T_g = 372.73 m^3$$

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	1	5.0	1.50	0.075	$= 0.56 m^3$
	2	25.0	2.70	0.075	$= 15.18 "$
	1	10.0	3.10	0.075	$= 2.25 "$
	4	15.0	3.75	0.075	$= 16.87 "$
	6	15.0	3.25	0.075	$= 21.97 "$
	1	10.0	2.50	0.075	$= 1.875 "$
	1	7.0	1.50	0.075	$= 0.998 "$
	1	4.0	2.10	0.075	$= 0.63 "$
	1	2.10	1.80	0.075	$= 0.28 "$
	1	2.50	0.90	0.075	$= 0.168 "$
					$\underline{Q/T_g = 433.55 m^3}$

⑤ Plastering W.B.M.C.T.
Stone mital condiction
in proper grade Cement
Super Abundant etc
to do wall job

7m 8x1m	10	30.0	3.75	0.075	$= 84.375 m^3$
7m 2x1m	10	30.0	3.75	0.075	$= 84.375 "$
7m 3x4m	4	30.0	3.75	0.075	$= 33.75 "$
1	1	10.0	3.75	0.075	$= 2.81 "$
					$\underline{205.31 m^3}$
Over W.B.M.C.T. area					
Wide stem N.O. P-12					$433.55 m^3$
					$\underline{\text{Total } Q/T_g = 638.86 m^3}$

⑥ Provision of repblaying
to

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Prime coat with bitumen emulsion etc. - 1.50					
As wide 90m No. 5					
Page - 12					
		638.86m ³			8518.13m ³
		10.075m			
Add for extra					
width 6x10.075x0.30/0.60 = 54.01					
					8572.0m ²

⑦ Providing & applying					
12 Jack coat with bitumen emulsion etc. as per spec.					
For c.c.					
Box in Patch	10	9.50	1.50	-	37.50m ²
	15	4.10	2.10	-	126.00
	5	9.80	1.20	-	58.80
		30.00	3.75	-	787.50
Add for loss as per spec					41857.00
					2794.30m ²

⑧ Providing & laying					
Mix seal surfacing etc.					
as per spec					
Area as per spec					7

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
with 100-120 T P H etc do -					
do - all complete - job -					
	33	30.0	3.75	0.025	$= 19.6875$
		30.0	3.75	0.025	$= 92.8125$
	1	10.0	3.75	0.025	$= 0.9375$
	33	70.0	3.75	0.025	$= 92.8125$
	30	20.0	3.75	0.025	$= 84.375$
	1	10.0	3.75	0.025	$= 0.9375$
for spectra with	6x2	18.0	0.375	0.025	$= 1.62$
					$Q/g = 293.49$
(2/12) P/V 2 applying report with					
all etc do - all - job					11739.60
$Q/g = 293.49$					10939.60
					0.025
					$Q/g = 10939.60$
					11739.60
(2) P/V & F ordinary km					
15 post etc do - all - job					
$Q/g = 0.3$					0.3
(3) P/V & F 202 M stone					
16 post etc do - all - job					
					$Q/g = 13$
					$Q/g = 13$
(4) P/V & F for stone place					
17 identify entire engine etc					
do - all - job					
	12	1.20	0.80	-	$= 11.52$
					$Q/g = 11.52$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑤ P/V & F/A 60mm regular tunnel triangle signs etc	19				Rate = 28 Nos
⑥ P/V & F/A 60mm circular signs etc do do etc	20				Rate = 2 Nos
⑦ P/V & F/A 60mm USOM in signs etc do do etc	21				Rate = 6 Nos
⑧ P/V & F/A Pole cut boundary Poles etc	22				Rate = 2 Nos
⑨ Planting of trees by road side etc do etc	24				Rate = 168 Nos 168 Nos (168)
⑩ Promising & laying of hot applied thermoplastic paint etc do do do etc	25				
	2X33	30.0	0.10	—	198.0m ²
	2X1	3.0	0.10	—	0.60m ²

Continuation

2X1X7.0X0.10 — = 1.40m²
2X7X30.0X0.10 — = 42.0m²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	2x33	30.0	0.10	-	= 198.0 m ²
	2x1	10.0	0.10	-	= 2.0 m ²
					Q19 = 100.0 m ²
	2x30	30.0	0.10	-	= 180.0 m ²
					Q19 = 580.0 m ²
					Q19 = 62.0 m ²
(11) P/v & F of typical					
M.M.C.Y. information sign					
board etc do - side					
					Q19 = 471
					= 51.6 m ²
(12) Repair of existing					
culvert					
(13) P/v & lagging bulk scale					
in Pouchet (1:3) etc					
do - do - all - job					
	5x2	6.0	0.40	0.60	= 14.40 m ³
					Q19 = 14.40 m ²
(13) Plastering with cement					
mortar (1:4) etc do - job					
Side face 5	4.0	6.0	0.60		= 72.0 m ²
	5x2x6.0x0.40				= 24.0 m ³
	5x4x0.60x0.60				= 4.80 m ³
					Q19 = 100.80 m ²
(14) Plastering cutback					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(14) of existing Culvert etc					
do do - all complete job					
old parapet					
Side	2x4x6.0	0.60			28.8m ²
					14.4m ²
	2x2x6.0x0.40				9.6m ²
					4.8m ²
(15)	2x4x0.40x0.60				1.92m ²
					40.72m ²
(15) Painting two coats					
on New concrete surface					
etc do etc all job					

Area of 1st No (13)	= 100.80m ²
" " 2nd No (14)	= 40.32m ²
Total 2nd	= 141.12m ²


 10/3/21
 J.S.

Name of Road: Dhargorha chauri NH28
 To Bhuvanapur SH 74
 Agency: M/s Rudra Enterprises
 Bump Integrator: Robert

Machine No: 406 DT: 4/4/21
 Section No: 42
 Length (km) IRI (mm/km)
 42 0.10 3109

Continuation
 42 0.10 31879
 42 0.10 34489
 42 0.10 24929
 42 0.10 34489