

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
4th Encl. on A/C Bill.					
Record measurement					
N/W - Const. of H.L. ^{R.C.} Bridges in Patahi. Jhanda chaur to Sugapipar Rd. in Kodariya village under State Scheme 4515 (NABARD).					
Block - Patahi.					
Agency - M/s Kumar const. company.					
C/O - Surendra Kumar.					
Chandmari, Motikari, E. Champaran.					
A/c NO. - 20 SBD/2023-24.					
Const. cost - RS. 6,00,39,769 = ₹					
main. cost - RS. 9,54,538 = ₹					

Date of start - 14.12.2023.					
Date of completion - 8.1.24.					
(1) Reinforcement in abut. cap -					
(103) main 25 Φ - 1x98x7.95m					
@ 3.85 Ky/m = 2999.54 Ky.					
Bottom 25 Φ - 1x40x15.15m					
@ 3.85 Ky/m = 2333.10 Ky.					
Chair - 16 Φ - 1x15nos x 6.00m.					
@ 1.58 Ky/m = 142.20 Ky.					
(102) 20 Φ top layer - Bottom bar -					
1x33nos x 15.15m					
@ 2.47 Ky/m = 1234.88 Ky.					
(101) Top layer top bar -					
20 Φ - 1x81 x 7.95m.					
@ 2.47 Ky/m = 1590.56 Ky.					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(106) Binder -					
	16 Φ	2x2	6x13	15m	
			@ 1.58 kg/m		= 498.65 kg.
(106A) Binder - 16 Φ -					
	2x2	6x5.95m			
			@ 1.58 kg/m		= 225.62 kg.
					T-9024.55 kg.
					Say, 9102.5 MT.
(2) P.V.R. C.C. M ₃₅ in abut					
(A1) Cap - do - do - B/I.					
	1 x	12.30 x 5.10	1.80		= 112.91 m ³
Ans.	24.7.24.		5.13.24		
	J.E.		A.E.		
(3) Reinforcement in Abut (A2)					
Cap - do - do - B/I.					
(103) main 25 Φ - 1x98x7.95m.					
			@ 3.85 kg/m		= 2999.54 kg.
Bottom 25 Φ - 1x46x15.15m					
			@ 3.85 kg/m		= 2333.10 kg.
Chair - 16 Φ - 1x15x6.10m					
			@ 1.58 kg/m		= 142.20 kg.
(102) 20 Φ top layer, Bottom -					
	1 x	33 x 15.15m			
			@ 2.47 kg/m		= 1234.88 kg.
(101) Top layer top bay -					
	20 Φ -	1x81x7.95m			
			@ 2.47 kg/m		= 1590.56 kg.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(106) Binder-16 Φ -					
		2x2x6x	13.15m		
			@1.58k γ /m		= 498.65 k γ .
(106A) Binder 16 Φ -					
		2x2x6x	5.95m		
			@1.58k γ /m		= 225.62 k γ .
				T-3024.55 k γ .	
				Say, 3.025 MT.	
(4) P.V. R.C.C. M35 in abut (A ₂)					
		comp - do-do-E.I.			
		1x	12.30x5.10x1.80		= 112.91 m ³
		28.394 J.E.	28.394 A.C.		
(5) Reinforcement in Abut					
(A ₁) Shaft - do-do-E.I.					
Earth face @ Nose portion -					
(110) 25 Φ - 1x86x5.43m					
			@3.85k γ /m		= 1797.87 k γ .
(110A) 20 Φ - 1x68x5.43m					
			@2.47k γ /m		= 912.02 k γ .
(111) 12 Φ - Shaft Distribution -					
		1x2x14x	10.55m		
			@0.89k γ /m		= 262.91 k γ .
(124) Vertical bar R/W -					
16 Φ - 1x116x			5.97m		
			@1.58k γ /m		= 1094.18 k γ .
(125) Distribution bar - R/W -					
12 Φ - 1x44x			5.84m		
			@0.89k γ /m		= 228.69 k γ .

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(126)	12 Φ	1x44	5.84m		
		@ 0.89 Ky/m = 228.69 Ky.			
(127)	16 Φ	2x44	5.97m		
		@ 1.58 Ky/m = 75.46 Ky.			
(112)	10 Φ	1x302	1.30m		
		@ 0.62 Ky/m = 243.41 Ky.			
		T = 4843.23 Ky.			
		Say, 4.843 MT.			
(6) P.V. R.C.C. M30 in abut					
(A) Shaft as R/W - do - E/D.					
Shaft		1x8.45x1.20x1.833 = 18.59 ^{m³} Ky			
R/W		1x2x3.50x $\frac{0.65+0.30}{2}$ x 1.833 = 6.09 ^{m³} Ky			
		24.68 m ³			

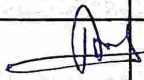
1.4.24.		1.4.24.			
1.4.24.		1.4.24.		AG	
J-E.					
(7) Reinforcement in abut (A2)					
Shaft - do - E/D.					
Earth face as nose portion -					
(110)	25 Φ	1x86 x 5.43 m			
		@ 3.85 Ky/m = 1797.87 Ky.			
(110A)	20 Φ	1x68 x 5.43 m			
		@ 2.47 Ky/m = 912.02 Ky.			
(111)	12 Φ	Shaft Distribution -			
		1x 2x14 x 10.55 m			
		@ 0.89 Ky/m = 262.91 Ky.			
(124) vertical R/W -					
	16 Φ	1x116 x 5.97 m			

Continuation

@ 1.58 Ky/m = 1094.18 Ky.

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(125) Distribution R/W -					
	120	1 x 44	5.84 m		
			@ 0.89 ky/m		228.69 ky.
(126) 120 -	1 x 44	5.84 m			
			@ 0.89 ky/m		228.69 ky.
(127) 160 -	2 x 4	5.97 m			
			@ 1.58 ky/m		75.46 ky.
(112) 100 -	1 x 30	2 x 1.30 m			
			@ 0.62 ky/m		243.41 ky.
			T -		4843.23 ky.
			Say,		4.843 MT.
(8) P/W R.C.C M30 in Abut (A ₂)					
Shift to R/W - do - E/I.					

Shift	- 1 x	8.45	x 1.20 x	1.833 =	18.59 m ³
R/W	- 1 x	2 x 3.50 x	$\frac{0.65 \times 0.30}{2}$	x 1.833 =	6.09 m ³
					24.68 m ³

					
4.4.24.	AE				
S.E.					

(9) Reinforcement in abut (A ₁)					
Harvey - do - E/I.					

(113) 160 -	strips -				
	1 x	3 x 57	3.20 m		
			@ 1.58 ky/m		432.29 ky.

(114) Distribution -	160 -				
	1 x	16 x	8.35 m		
			@ 1.85 ky/m		105.545 ky.

(115) Shift cap (Harvey Head) -					
Distribution outer -					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
12 ϕ -		1 x 57 x 3.67m			
		@ 0.89 kg/m			= 186.18 kg
Distance ll inner -					
12 ϕ -		1 x 57 x 3.37m			
		@ 0.89 kg/m			= 170.96
Pedestal (M ₁) - 16 ϕ -					
		1 x 3 x 6 x 2.37m			
		@ 1.58 kg/m			= 67.405 kg.
(M ₂) 16 ϕ - 1 x 3 x 6 x 2.37m					
		@ 1.58 kg/m			= 67.405 kg.
(M ₃) 8 ϕ - 1 x 2 x 3 x 18.84m					
		@ 0.40 kg/m			= 45.25 kg.

(M ₇) 12 ϕ - 1 x 2 x 12 x 3.98m					
		@ 0.89 kg/m			= 85.01 kg.
(M ₈) 8 ϕ - 1 x 2 x 2 x 23.51m					
		@ 0.40 kg/m			= 37.62 kg.
					1197.63 kg.
					Say, 1.198 MT.

(10) PN. R.C.C. M₃₀ in Abut (A₂)

Shall cap (Hammer Head)

do do - B.I.D. 8.957 m³

1 x 8 x 8.45 x 1.325 x 0.840 = 71.656 m³

ME 8.4.24. AE

8.4.24.

J.E.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(11) Reinforcement in Abut.					
(A2) shaft cap (Hemmed Head)					
— olo-olo-B/I.					
(113) 16 Φ - 3415 MP3 -					
1x3x57x3.20m					
@ 1.58 K $\frac{kg}{m}$ = 432.29 K $\frac{kg}{m}$.					
(114) Distribution bar -					
16 Φ - 1x1.6x8.35m.					
@ 1.58 K $\frac{kg}{m}$ = 10.5.545 K $\frac{kg}{m}$.					
(115) Shaft cap -					
Dirt wall outer - 12 Φ - 1x57x3.67m					
@ 0.89 K $\frac{kg}{m}$ = 186.18 K $\frac{kg}{m}$.					
Dirt wall inner -					
12 Φ - 1x57x3.37m					
@ 0.89 K $\frac{kg}{m}$ = 170.96 K $\frac{kg}{m}$.					
Padestal (M ₁) - 16 Φ -					
1x3x6x2.37m					
@ 1.58 K $\frac{kg}{m}$ = 67.405 K $\frac{kg}{m}$.					
(M ₂) - 16 Φ - 1x3x6x2.37m					
@ 1.58 K $\frac{kg}{m}$ = 67.405 K $\frac{kg}{m}$.					
(M ₃) - 8 Φ - 1x2x3x18.84m = 45.215 K $\frac{kg}{m}$.					
(M ₇) - 12 Φ - 1x2x12x3.98m = 85.01 K $\frac{kg}{m}$.					
(M ₈) - 8 Φ - 1x2x2x23.51m					
@ 0.40 K $\frac{kg}{m}$ = 37.62 K $\frac{kg}{m}$.					
					1197.63 K $\frac{kg}{m}$.
					Say, 1198 MT.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(12) P.V. R.C.C. M30 abut (A ₂)					
Shall cap - do - E.I.					8.957m ³
1 $\frac{8}{m} \times 8.45 \times 1.325 \times 0.80$					71.656m ³
11.4.24					
J.E.					
(13) Reinforcement in pier					
(P ₁) Cap - do - do - E.I.					
(203) Main bar 1st layer -					
25 ϕ - 69 x 7.95m					
@ 3.85kg/m					= 2111.92kg.
(204) 2nd layer -					
25 ϕ - 41 x 11.55m					
@ 3.85kg/m					= 1823.17kg.
(205) Chair - 16 ϕ - 12 x 6.00m					
@ 1.58kg/m					= 113.76kg.
Top layer -					
(202) - 16 ϕ - 41 x 11.55m					
@ 1.58kg/m					= 748.209kg.
Top Layer (201) - 16 ϕ - 69 x 7.95m					
@ 1.58kg/m					= 866.71kg.
(206) Distribution -					
16 ϕ - 2 x 6 x 9.55m					
@ 1.58kg/m					= 181.07kg.
(206A) Distribution -					
16 ϕ - 2 x 6 x 5.95m					
@ 1.58kg/m					= 112.81kg.
					60.34 - 5957.649kg.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					B.F. 844-5957.649 K _g
(207) Shaft reinforcement -					
25 Φ - 1x40 x 6.53 m.					
					@ 3.85 K _g /m = 1005.62 K _g
(208) Binder - 16 Φ - 10 x 5.66 m					
					@ 1.58 K _g /m = 85.43 K _g
					T-7052.699 K _g
					Sq, 7.053 MT.
(14) P.V. R.C.C. M35 in pier					
(P ₁) cap - do - E.I.F.					
1 x 8.70 x 5.10 x 1.80 = 79.866 m ³					
14.4.21 S.E.					14.4.21 A.B.
(15) Reinforcement in pier (P ₂)					
cap - do - E.I.F.					
(203) main bar Ist. layer -					
25 Φ - 69 x 7.95 m					
					@ 3.85 K _g /m = 2111.99 K _g
(204) 2nd layer -					
25 Φ - 41 x 11.55 m					
					@ 3.85 K _g /m = 1823.17 K _g
(205) chair - 16 Φ - 12 x 6.10 m.					
					@ 1.58 K _g /m = 113.76 K _g
(202) TOP layer - 16 Φ - 41 x 11.55 m					
					@ 1.58 K _g /m = 748.209 K _g
TOP bar (201) - 16 Φ - 69 x 7.95 m					
					@ 1.58 K _g /m = 866.71 K _g

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(206) Distribution bar -					
	16 Φ	- 2 x 6	19.55 m		
		@ 1.58 kg/m			- 181.07 kg.
(206A) Binder - 16 Φ - 2 x 6 x 5.95 m					
		@ 1.58 kg/m			- 112.81 kg.
(207) shaft reinforcement -					
	25 Φ	- 1 x 40	6.53 m		
		@ 3.85 kg/m			- 1005.62 kg.
(208) Binder - 16 Φ - 10 x 5.66 m					
		@ 1.58 kg/m			- 29.43 kg.
					T - 7052.693 kg.
					Say - 7.053 MT.
(16) P.V. R.C.C. Mass - 25 Φ in (P2)					
Comp - do - do - E.I.					
	1	8.70 x 5.10	1.80		- 79.86 m ³
 17.4.24 J.E.					
 17.4.24 A.E.					
(17) Reinforcement in Pier (P3)					
Comp - do - do - E.I.					
(203) min bar 1st Layer					
	25 Φ	- 69	7.95 m		
		@ 3.85 kg/m			- 2111.92 kg.
(204) 2nd. Layer -					
	25 Φ	- 41	11.55 m		
		@ 3.85 kg/m			- 1823.17 kg.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(205) Chair -	16Φ	12 x 6.10 m			
		@ 1.58 Kx/m			= 748.209 Kx
Top bar (201) -	16Φ	69 x 7.95 m			
		@ 1.58 Kx/m			= 866.71 Kx
(206) Distribution -					
(206A) 16Φ -	2 x 6 x 9.55 m				
		@ 1.58 Kx/m			= 181.07 Kx
(206A) - Binder -					
16Φ -	2 x 6 x 5.95 m				
		@ 1.58 Kx/m			= 112.81 Kx
(207) Shaft reinforcement -					
25Φ -	1 x 40 x 6.53 m				
		@ 3.85 Kx/m			= 1005.62 Kx
(208) Binder -					
16Φ -	10 x 5.60 m				
		@ 1.58 Kx/m			= 29.43 Kx
					T - 7052.695 Kx
					Qty, 7.053 MT
(18) PIV R.C.C. m ₃₅ in Pier (P ₃)					
Cap - do-do-EI					
	1 x 8.70 x 5.10 x 1.80				= 79.866 m ³
Qty					
20.4.24 -					
J.E.					
(19) PIV R.C.C. m ₃₅ in Pier shaft,					
— do-do-EI					
	1 x 0.7857 x (1.80) ² x 1.45				= 3.69 m ³
Qty					
23.10.24					
J.E.					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(20) P.V. R.C.C. M35 in pier					
Shattz - do - E.I.					
$1 \times 0.7857 \times (1.80)^2 \times 1.45 = 3.69 \text{ m}^3$					
25.4.24.					
J.E.					
(21) P.V. R.C.C. M25 in pier					
Shattz - do - do - E.I.					
$1 \times 0.7857 \times (1.80)^2 \times 1.45 = 3.69 \text{ m}^3$					
27.4.24.					
J.E.					

Abstract of cost.					
(1/28) Const. of embankment with					
approved material - do - E.I.					
Qty. vol. T.M.B.P. NO. - (144)					
$600.4 \text{ m}^3 @ 211.35/\text{m}^3 = \text{RS. } 126810 = 00$					
(2/20) P.V. enclosing R.C. G.N.P.					
H.P. 1000 mm dia. - do - E.I.					
Qty. vol. T.M.B.P. NO. - (144)					
$52.50 \text{ m} @ 814.8 = 55/\text{m} = \text{RS. } 427799 = 00$					
(3/25) Const. of G. S.B. G.I. -					
- do - do - E.I.					
Qty. vol. T.M.B.P. NO. - (145)					
$3010 \text{ cm}^3 @ 4026 = 49/\text{m}^3 = \text{RS. } 120795 = 00$					
(4/2) Const. of service rel. -					
- do - do - E.I.					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty. Wick T.M.B.P. NO. - (45),					
68.48 M. @ 4378 = 01/MT-RB-99806 = 0					
(51) E/W. in exca. in form.					
- do - do - E/I.					
Qty. Wick T.M.B.P. NO. - (45),					
642.79 M ³ @ 205 = 54/MT-RB-132119 = 0					
(58) S/F @ placing H.Y.S.D.					
bar - do - do - E/I.					
Qty. Wick T.M.B.P. NO. - (45),					
81.032 @ 77941 = 70/MT-RB-6315772 = 0					
(73) P.V. Steel lining 6mm thick					
for pile - do - E/I					
Qty. Wick T.M.B.P. NO. - (45),					
12.18 MT. @ 1066716 = 13/MT-RB-2046817 = 0					
(84) P.V. Board cost in situ					
R.C.C. M35 grade - do - E/I.					
Qty. Wick T.M.B.P. NO. - (45),					
750.00 MT. @ 18536 = 11/MT-RB-13902083 = 0					
(98) Reinforcement in Abut. cap					
- do - do - E/I.					
Qty. Wick T.M.B.P. NO. - (49) - 9.025 MT					
" " " - (50) - 9.025 "					
" " " - (56) - 7.053 "					
" " " - (57) - 7.053 "					
" " " - (58) - 7.053 "					
				39.209 MT.	
				@ 77941 = 70/MT-RB-3056016 = 0	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(8/9) P.V. M30 R.C.C. in sub- struc - do - E.I.					
Sty. width F.M.B.P. NO - (51) - 24.68 m ³					
" " " - (53) - 24.68 "					
" " " - (53) - 8.957 "					
" " " - (55) - 8.957 "					
" " " - (58) - 3.69 "					
" " " - (59) - 3.69 "					
" " " - (59) - 3.69 "					
					781344 m ³
					@ 9537 = 60/m ³ RS 7,47,214 = 00

(9/13) - Reinforcement in Abut
Sheet & Pier Sheet - do - E.I.

Sty. width F.M.B.P. NO - (51) - 4.843 MT.					
" " " - (52) - 4.843 MT.					
" " " - (53) - 1.198 "					
" " " - (54) - 1.198 "					
					12.082 MT.
					@ 78163 = 57/m ³ RS 944372 = 00

(16/7) P.V. R.C.C. M35 in Abut
Sheet & Pier Sheet -
- do - E.I.

Sty. width F.M.B.P. NO - (49) - 112.91 m ³					
" " " - (50) - 112.91 "					
" " " - (56) - 79.866 "					
" " " - (57) - 79.866 "					
" " " - (58) - 79.866 "					
					465.418 m ³
					@ 9215 = 51/m ³ RS 4289064 = 00

Continuation

C.O. RS 3,24,08,667 = 00

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B.F-RS	32408667	= 00
Add- P.S.T. - 18% -			RS	5833560	= 00
Add- L. Cess 1% -			RS	324087	= 00
Add- S. Fee -			RS	192981	= 00
			RS	3,87,59,295	= 00
Less - 0.11% -			RS	42635	= 00
			RS	38716660	= 00
Less previous payment					
ticketing m.B.P.NO - (3) -			RS	30,00,000	= 00
" " " " - (43) -			RS	23946146	= 00
			RS	1,17,70,514	= 00
27.4.24 J.E			RS	974959	
			R.	10795555	

Continuation