

The Executive Engineers may verify the following draft Observed Datas with the help of Liason officers of PRICE or other competent Engineers and report the remarks to this office via email to [pricelsgd@gmail.com](mailto:pricelsgd@gmail.com) and on the meeting scheduled on 18.08.2016.

### **DRAFT OBSERVED DATAS AS PER CPWD SCHEDULE OF RATES 2014**

- 1 Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5.0 in foundation and plinth in Cement mortar 1:6 (1 cement : 6 coarse sand) (modified the item 6.1.2 )

**Details of cost for 1 cum**

**MATERIAL**

Common burnt clay F.P.S. (non modular) bricks

2603 class designation 5.0	1000 nos	494	4200	2074.8
2201 Carriage of bricks	1000 nos	494	283.96	140.28
3.11 Cement mortar 1:6, Rate as per item no. 3.11 of SH M	Cum	0.25	3340.75	835.19
9999 Sundries	L.S.	2.73	1.78	4.86
<b>LABOUR</b>				
123 Mason (brick layer) 1st class	Day	0.36	435	156.60
124 Mason (brick layer) 2nd class	Day	0.36	399	143.64
115 Coolie	Day	1.37	329	450.73
101 Bhisti	Day	0.2	363	72.60

<b>Total</b>	<b>3878.69</b>
Add water charges 1%	38.79
<b>Total</b>	<b>3917.48</b>
Add CPOH 15%	587.62
<b>Total</b>	<b>4505.10</b>

- 2 Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5.0 in superstructure above plinth level in floor II level in all shapes and sizes in Cement mortar 1:6 (1 cement : 6 coarse sand) (modified the item 6.4.2 )

**Details of cost for 1 cum**

**MATERIAL**

Common burnt clay F.P.S. (non modular) bricks

2603 class designation 5.0	1000 nos	494	4200	2074.8
2201 Carriage of bricks	1000 nos	494	283.96	140.28
3.11 Cement mortar 1:4, Rate as per item no. 3.9 of SH M	Cum	0.25	3340.75	835.19
9999 Sundries	L.S.	2.73	1.78	4.86
<b>LABOUR</b>				
123 Mason (brick layer) 1st class	Day	0.47	435	204.45
124 Mason (brick layer) 2nd class	Day	0.47	399	187.53
115 Coolie	Day	1.8	329	592.20
101 Bhisti	Day	0.2	363	72.60
9999 Scaffolding	L.S.	22.36	1.78	39.80

<b>Total</b>	<b>4151.70</b>
Add water charges 1%	41.52
<b>Total</b>	<b>4193.22</b>
Add CPOH 15%	628.98
<b>Total</b>	<b>4822.20</b>

- 3 Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5.0 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:6 (1 cement : 6 coarse sand) (modified the item 6.4.2 )

**Details of cost for 1 cum**

**MATERIAL**

Common burnt clay F.P.S. (non modular) bricks

2603 class designation 5.0	1000 nos	494	4200	2074.8
2201 Carriage of bricks	1000 nos	494	283.96	140.28
3.11 Cement mortar 1:4, Rate as per item no. 3.9 of SH M	Cum	0.25	3340.75	835.19
9999 Sundries	L.S.	2.73	1.78	4.86

**LABOUR**

123 Mason (brick layer) 1st class	Day	0.47	435	204.45
124 Mason (brick layer) 2nd class	Day	0.47	399	187.53
115 Coolie	Day	1.8	329	592.20
101 Bhisti	Day	0.2	363	72.60
9999 Scaffolding	L.S.	22.36	1.78	39.80

Extra labour element required for lifting of materials (above floor two level upto floor five level)

115 Coolie	Day	1.13	329	371.77
			<b>Total</b>	<b>4523.47</b>
			Add water charges 1%	45.23
			<b>Total</b>	<b>4568.71</b>
			Add CPOH 15%	685.31
			<b>Total</b>	<b>5254.01</b>

- 4 Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineerin- charge.

**Vengai wood**

**25 mm thick shutters.**

Details of cost for shutters of a Door (1/3rd glazed and 2/3rd panelled) 200x108cm = 2.16sqm).

**Material**

**Vengai wood**

Styles 4x200x10.0x2.5cm = 0.02cum+

Rails

0.006cum.+

Bottom rails 1x110.5x10x2.5cm = 0.003cum+

Lock rails 1x110.5x15x2.5cm = 0.004cum+

Lock rails 1x110.5x15x2.5cm = 0.004cum+

Beading 2x186. 1x1. 9x1.2cm = 0.001cum.

Total = 0.034 cum+

Add for wastage @ 10% = 0.003cum

Grand Total = 0.037 cum = 37 cudm

MR15	Vengai wood in planks	10 cudm	37.00	472.50	1748.25
595	Bright finished or black enameled mild steel butt hinges 100x58x1.90 mm	10 Nos	6.00	90.00	54.00
597	Bright finished or black enameled mild steel	10 Nos	2.00	55.00	11.00

	butt hinges 50x37x1.50 mm				
637	Bright finished or black enameled mildsteel screws 40 mm	100 Nos	48.00	52.00	24.96
640	Bright finished or black enameled mild steel screws 20 mm	100 Nos	8.00	32.00	2.56
	<b><u>Labour</u></b>				
156	Carpenter (average)	Day	1.83	417.00	763.11
114	Beldar	Day	0.76	329.00	250.04
9999	Sundries	LS	35.88	1.78	63.87
				<b>Total</b>	2917.79
				Add water charges 1%	29.18
				<b>Total</b>	2946.97
				Add CPOH 15%	442.05
				<b>Total</b>	3389.01
	<b>for 1 sqm</b>				1568.99

5 Providing and fixing **glazed shutters (25mm Thick)**for doors, windows and clerestory windows using **4 mm thick float glass panes** including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.-VENGAI WOOD

Details of cost for shutter of a door (glazed)

200x108cm = 2.16 sqm.

WOOD SCANTLINGS

thick 58cudm There fore for 25mm thick

$(58/35)*25=41.4$  cudm

MR15	<b>Vengai wood-planks</b>	10 cudm	41.40	472.50	1956.15
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	1.27	345.00	438.15
595	Bright finished or black enameled mild steel butt hinges 100x58x1.90 mm	10 Nos	6.00	90.00	54.00
597	Bright finished or black enameled mild steel butt hinges 50x37x1.50 mm	10 Nos	2.00	55.00	11.00
637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	48.00	52.00	24.96
640	Bright finished or black enameled mild steel screws 20 mm	100 Nos	8.00	32.00	2.56
	<b><u>Labour</u></b>				
156	Carpenter (average)	day	1.83	417.00	763.11
119	Glazier	Day	0.23	399.00	91.77
114	Beldar	Day	0.77	329.00	253.33
9999	Sundries	LS	40.43	1.78	71.97
				<b>Total</b>	3667.00
				Add water charges 1%	36.67
				<b>Total</b>	3703.67
				Add CPOH 15%	555.55
				<b>Total</b>	4259.22
	<b>for 1 sqm</b>				1971.86

6 Supplying and installing ready made PVC Septic tank of specified size including the cost of carriage, trenching, placing at the level below ground level as specified as per the direction of engineer in charge:

**10 flush capacity**

MATERIALS:

MR	PVC ready made septic tank : 10 flush capacity	Each	1.000	14000.00	14000.00
9999	Carriage to site	LS	179.400	1.78	319.33
2.8.1	Excavation Charges (L= 2.30, B= 0.70, D= 0.60)	cum	0.966	135.59	130.98
9999	Placing at specified level including back filling as necessary (1/4 th of LS provided for item 18.48)	each	22.425	1.78	39.92
<b>Total</b>					<b>14490.23</b>
Add water charges 1%					144.90
<b>Total</b>					<b>14635.13</b>
Add CPOH 15%					2195.27
<b>Total</b>					<b>16830.40</b>
<b>for Each</b>					<b>7791.85</b>

7 Supplying and installing ready made PVC Septic tank of specified size including the cost of carriage, trenching, placing at the level below ground level as specified as per the direction of engineer in charge:

**15 flush capacity**

MATERIALS:

MR	PVC redy made septic tank : 15 flush capacity	Each	1.000	16000.00	16000.00
9999	Carriage to site	LS	179.400	1.78	319.33
2.8.1	Excavation Charges (L= 2.60, B= 0.80, D= 0.70)	cum	1.456	135.59	197.42
9999	Placing at specified level including back filling as necessary (1/4 th of LS provided for item 18.48)	each	22.425	1.78	39.92
<b>Total</b>					<b>16556.67</b>
Add water charges 1%					165.57
<b>Total</b>					<b>16722.23</b>
Add CPOH 15%					2508.34
<b>Total</b>					<b>19230.57</b>
<b>for Each</b>					<b>8903.04</b>

8 Supplying and installing ready made PVC Septic tank of specified size including the cost of carriage, trenching, placing at the level below ground level as specified as per the direction of engineer in charge:

**25 flush capacity**

MATERIALS:

MR	PVC redy made septic tank : 25 flush capacity	Each	1.000	20000.00	20000.00
9999	Carriage to site	LS	179.400	1.78	319.33
2.8.1	Excavation Charges (L= 2.60, B= 1.00, D= 0.85)	cum	2.210	135.59	299.65
9999	Placing at specified level including back filling as necessary (1/4 th of LS provided for item 18.48)	each	22.425	1.78	39.92
<b>Total</b>					<b>20658.90</b>
Add water charges 1%					206.59
<b>Total</b>					<b>20865.49</b>
Add CPOH 15%					3129.82
<b>Total</b>					<b>23995.32</b>
<b>for Each</b>					<b>11108.94</b>

9 Supplying and installing ready made PVC Septic tank of specified size including the cost of carriage, trenching, placing at the level below ground level as specified as per the direction of engineer in charge:

**35 flush capacity**

**MATERIALS:**

MR	PVC redy made septic tank : 25 flush capacity	Each	1.000	20000.00	20000.00
9999	Carriage to site	LS	179.400	1.78	319.33
2.8.1	Excavation Charges (L= 2.60, B= 1.20, D= 1.10)	cum	3.432	135.59	465.34
9999	Placing at specified level including back filling as necessary (1/4 th of LS provided for item 18.48)	each	22.425	1.78	39.92
	<b>Total</b>				<b>20824.59</b>
				Add water charges 1%	208.25
				<b>Total</b>	21032.84
				Add CPOH 15%	3154.93
				<b>Total</b>	24187.77
	<b>for Each</b>				11198.04

**ROAD RESTORATION**

10 Cutting road and making good the same  
Berm portion  
For a cutting of 4.00 x 1.00 x 1.35 m

2.8.1	Excavation	m3	5.400	157.50	850.50
2.25.	Filling	m3	5.400	112.40	606.96
	<b>TOTAL</b>				1457.46
	<b>per m2</b>				364.365

11 Cutting road and making good the same including supply of extra quantities of materials and labour required. Modified 16.13.2

**Water Bound Macadam**

For a cutting of 4.00 x 1.00 x 0.25 m

Details of cost for 4 sqm

Consider a road 4m wide and 1m lengthwise with 0.25m average

**MATERIAL**

16.3.3	Supplying and stacking stone aggregate 53 mm to 22.4 mm nominal size at site	cum	0.100	1165.75	116.58
16.3.7	Supplying and stacking 11.2 mm nominal size stone screening at site	cum	0.084	1266.49	106.39
16.3.9	Supplying and stacking at site good earth	cum	0.036	276.28	9.95

**LABOUR**

For cutting road and taking out soling and metalling including sorting and

0114	Beldar	day	0.533	329.00	175.36
0115	Coolie	day	0.267	329.00	87.84
	For relaying soling stone 4 x 1 x 0.15 = 0.6 cum				
0114	Beldar	day	0.267	329.00	87.84
0115	Coolie	day	0.267	329.00	87.84
	For relaying road metal with extra quantity and consolidation to 0.10 m thickness - 4 x 1 x 0.10 = 0.4 cum				
0114	Beldar	day	0.533	329.00	175.36
0115	Coolie	day	0.533	329.00	175.36
0101	Bhisti	day	0.111	363.00	40.29
9999	Barrier, chowkidar etc.	L.S.	59.800	1.78	106.44
	<b>TOTAL</b>				1169.25

			Add water charges 1%	11.69	
			<b>Total</b>	1180.94	
			Add CPOH 15%	177.14	
			<b>Total</b>	1358.08	
		<b>per m2</b>		339.52	
		<b>For subgrade cutting per sqm</b>		364.365	
		<b>TOTAL per m2</b>		<b>703.89</b>	
12	Cutting road and making good the same including supply of extra quantities of materials and labour required. Modified 16.13.1				
	Bituminous portion				
	For a cutting of 4.00 x 1.00 x 0.30 m				
	Details of cost for 4 sqm				
	Consider a road 4m wide and 1m lengthwise with 0.30 m average				
	<u>MATERIAL</u>				
16.3.3	Supplying and stacking stone aggregate 53 mm to 22.4 mm nominal size at site	cum	0.100	1165.75	116.58
16.3.7	Supplying and stacking 11.2 mm nominal size stone screening at site	cum	0.084	1266.49	106.39
16.3.9	Supplying and stacking at site good earth	cum	0.036	276.28	9.95
	<u>LABOUR</u>				
	For cutting road and taking out soling and metalling including sorting and				
0114	Beldar	day	1.067	329.00	351.04
0115	Coolie	day	0.533	329.00	175.36
	For relaying soling stone 4 x 1 x 0.15 = 0.6 cum				
0114	Beldar	day	0.267	329.00	87.84
0115	Coolie	day	0.267	329.00	87.84
	For relaying road metal with extra quantity and consolidation to 0.10 m thickness - 4 x 1 x 0.10 = 0.4 cum				
0114	Beldar	day	0.789	329.00	259.58
0115	Coolie	day	0.533	329.00	175.36
0101	Bhisti	day	0.111	363.00	40.29
9999	Barrier, chowkidar etc.	L.S.	59.800	1.78	106.44
		<b>TOTAL</b>			1516.67
			Add water charges 1%	15.17	
			<b>Total</b>	1531.84	
			Add CPOH 15%	229.78	
			<b>Total</b>	1761.61	
		<b>per m2</b>		440.40	
		<b>For subgrade cutting per sqm</b>		364.37	
16.30.1	<b>Tack Coat</b>			53.75	
16.32.1	<b>2 cm chipping carpet</b>			173.25	
16.41	<b>Seal Coat</b>			100.37	
		<b>TOTAL per m2</b>		<b>1132.14</b>	
13	Cutting road and making good the same				
	Concrete Road				
	For a cutting of 4.00 x 1.00 x 0.15 m				
15.2.2	Demolishing concrete, 1:4:8	m3	0.400	550.50	220.20
15.2.1	Demolishing concrete, 1:2:4	m3	0.200	892.70	178.54

4.1.8	Laying concrete, 1:4:8	m3	0.400	4301.15	1720.46
4.1.3	Laying concrete, 1:2:4	m3	0.200	5466.30	1093.26
	<b>TOTAL</b>				3212.46
	<b>per m2</b>				803.12
	<b>For subgrade cutting per sqm</b>				364.37
					1167.48

### **Structural Rehabilitation Data**

- 14 Removing the spallen delaminated concrete by chipping the area after providing necessary supports, Removing the paint using mechanical grinder then Cleaning and applying anti corrosive coating on reinforcement with CERA ZINC ZR (Epoxy – zinc rich primer)Applying epoxy bonding coat using CERA BOND EP (Epoxy bonding agent for structural concrete)

#### **Details of cost for 10sq.m**

##### **MATERIAL**

MR	rust remover	ltr	3.000	600.00	1800
MR	cera zinc ZR	kg	2.000	681.60	1363.2
MR	cera bond EP	kg	2.500	1104.00	2760
999	support for column or beam	ls	400.000	1.70	680

##### **LABOUR**

131	painter	Nos	3.500	361.00	1263.5
114	Beldar	Nos	5.000	297.00	1485
115	Coolie(for chipping and assisting)	Nos	10.000	297.00	2970
999	sundries including grinding mechine	ls	175.000	1.70	297.5

**Total** **12619.20**

Add water charges 1% 126.19

**Total** 12745.39

Add CPOH 15% 1911.81

**Total** 14657.20

**for 1 sqm** 1465.72

- 15 Plastering using polymer modified cement mortar by adding CERA BOND SBR REPAIR to the mortar (1:3:5) @5kg per bag of cement (the aggregates shall be of 6mm down size) and applying to the reprofile of the structural elements

#### **Details of cost for 10sq.m**

requirement of cement= $0.072 \times 510 \times 10 = 367.2 \text{kg}$

usage of cera bond SBR Repair: 0.1kg SBR@1kg cement, for 367.2kg of cement =  $367.2 \times 0.1 = 36.72 \text{kg}$

##### **MATERIAL**

6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams. (DSR rate)

MR	cera bond SBR Repair	kg	36.720	286.80	10531.296
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##### **EXTRA LABOUR**

123	Mason	Nos	2.500	393.00	982.5
115	Coolie(for assisting)	Nos	5.000	297.00	1485
999	sundries including curing	ls	25.000	1.70	42.5

**Total** **14660.80**

Add water charges 1% 146.61

**Total** 14807.40

Add CPOH 15%	2221.11
<b>Total</b>	17028.51
<b>for 1 sqm</b>	1702.85

- 16 Preparation of polymer modified cement concrete by adding CERA BOND SBR REPAIR to the concrete @5kg per bag of cement (the fine aggregates shall be of 6mm down size and coarse aggregate of size 10mm) and applying to the reprofile of the structural elements

sub data of concrete using 10mm b/s

0297	Stone aggregate 10mm	cum	0.8500	1050.00	892.50
2202	Carraige of Stone aggregate below 40 mm nominal	cum	0.850	106.64	90.64
0982	Coarse sand	cum	0.4250	1120.00	476.00
2203	Carraige of Coarse sand	cum	0.4250	106.64	45.32
0367	Cement	tonne	0.610	5240.00	3196.40
2209	Carraige of Cement	tonne	0.610	94.80	57.83
<b>LABOUR:</b>					
0114	Beldar	Day	0.90	297.00	267.30
0115	Coolie	Day	0.78	297.00	231.66
0101	Bhisthi	Day	0.70	328.00	229.60
0123	Mason I class	Day	0.06	393.00	23.58
0124	Mason II class	Day	0.06	361.00	21.66
0002	Hire running charges of concrete mixer	Day	0.07	800.00	56.00
9999	Scaffolding	L.S.	114.40	1.70	194.48
9999	Sundries	L.S.	14.30	1.70	24.31

**Total for 1 cum 5807.28**

Qty of concrete required for 1m<sup>2</sup> - 15mm thick surface= 0.172 m<sup>3</sup> ie 0.172 x Rs 5807.28/m<sup>3</sup> = Rs 998.85

**Details of cost for 10sq.m**

requirement of cement = 0.172 x 610 x 10m<sup>2</sup> =

usage of cera bond SBR Repair: 0.1kg SBR@1kg cement, for 1049.2kg of cement = 1049.2x0.1 =

PCC 1:1:2 For walls pillars etc	sq.m	10	998.85	9988.5
MR cera bond SBR Repair	kg	104.920	286.80	30091.056
<b>EXTRA LABOUR</b>				
123 Mason	Nos	2.500	393.00	982.5
115 Coolie(for assisting)	Nos	5.000	297.00	1485
999 sundries including curing	ls	25.000	1.70	42.5
<b>Total</b>				<b>42589.56</b>

Add water charges 1% 425.90

**Total 43015.45**

Add CPOH 15% 6452.32

**Total 49467.77**

**for 1 sqm 4946.78**

- 17 Protecting concrete pillars and beams by providing CERA CFR MEMBRANE using adhesive CERA MEC CFW ADHESIVE, The membrane shall be covered the surface of the structure by cleaning the surface and then pasting the CERA CFR MEMBRANE using CERA MEC CFW ADHESIVE. after properly dried one more coating of adhesive shall be made the surface of membrane for sticking the fine aggregate. this gives the further bonding of plastering.

**Details of cost for 10sq.m**

MATERIAL



MR	CERA CFR MEMBRANE	sq.m	10.500	3144.00	33012
MR	CERA MEC CFW ADHESIVE	kg	20.000	499.00	9980
999	sand paper,brush,cotton etc	ls	300.000	1.78	534
	<b>LABOUR</b>				
131	painter	Nos	2.000	361.00	722
115	Beldar	Nos	1.000	297.00	297
115	Coolie(for assisting)	Nos	1.000	297.00	297
999	sundries for fine aggregate	ls	50.000	1.70	85
	<b>Total</b>				<b>44927.00</b>
				Add water charges 1%	449.27
				<b>Total</b>	<b>45376.27</b>
				Add CPOH 15%	6806.44
				<b>Total</b>	<b>52182.71</b>
	<b>for 1 sqm</b>				<b>5218.27</b>

18 Applying CERA PRIMER - EP (Epoxy primer) on concrete surface including all charges

**Details of cost for 10sq.m**

**MATERIAL**

MR	CERA PRIMER - EP (Epoxy primer)	kg	1.350	805.00	1086.75
999	sundries for brush,sand paper,cotton etc	ls	50.000	1.70	85
	<b>LABOUR</b>				
131	painter	Nos	1.250	361.00	451.25
115	Beldar	Nos	0.500	297.00	148.5
115	Coolie(for chipping and assisting)	Nos	0.500	297.00	148.5
999	sundries including grinding mechine	ls	60.000	1.70	102
	<b>Total</b>				<b>2022.00</b>
				Add water charges 1%	20.22
				<b>Total</b>	<b>2042.22</b>
				Add CPOH 15%	306.33
				<b>Total</b>	<b>2348.55</b>
	<b>for 1 sqm</b>				<b>234.86</b>

19 Reinforced cement microconcrete work in walls, columns, pillars, piers, etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement . using cera grout and 10mm coarse aggregate in the ratio 1:2 by volume.

Qty for 9.18 m3

**MATERIALS:**

MR	cera grout .67m3/m3 of concrete (2000kg/m3)	tonne	12.300	20080.00	246984.00
0297	Stone aggregate 10mm	cum	3.0300	1175.00	3560.25
2202	Carraige of Stone aggregate below 40 mm nominal	cum	3.030	106.49	322.66
2209	Carraige cera grout(cement)	tonne	0.000	94.65	0.00
	<b>LABOUR:</b>				
0114	Beldar	Day	11.29	329.00	3714.41
0115	Coolie	Day	7.53	329.00	2477.37
0101	Bhisthi	Day	8.26	363.00	2998.38
0123	Mason I class	Day	0.92	435.00	400.20
0124	Mason II class	Day	0.92	399.00	367.08
0002	Hire running charges of concrete mixer	Day	0.64	800.00	512.00

0012	Vibrator (Hire charges)	Day	0.64	350.00	224.00
9999	Sundries	L.S.	131.82	1.70	1.78
		<b>Total</b>			<b>261562.13</b>
			Add water charges 1%		2615.62
			<b>Total</b>		<b>264177.75</b>
			Add CPOH 15%		39626.66
			<b>Total</b>		<b>303804.41</b>
		<b>for 1 sqm</b>			<b>33094.16</b>

20 Supplying and stacking laterite soling stones 75 to 150 mm size in standard heaps for premeasurement including cost and conveyance of all materials and all labour charges etc complete.

Details of Cost for : 1.00 Cum

**MATERIALS :**

MR	Laterite Soling stone	cum	1.00	450.00	450.00
2215	Carriage of Soling stone	cum	1.00	125.28	125.28
		<b>Total</b>			<b>575.28</b>
		<b>Add water charges @ 1% on</b>			<b>5.75</b>
		<b>Total</b>			<b>581.03</b>
		<b>Add C.P &amp; OH @15% on</b>			<b>87.15</b>
				Cost for 1.00 Cum	<b>668.19</b>

sd/-

**CHIEF ENGINEER**