

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 226 to 243 ; 246 to 248 / Lab / **112**/ 2020 - 2021 Dated:- 01/ 10/2020.

Laboratory : Bicholim - Goa.

Sub Division V (QC)/WRD/ Bicholim- Goa.

**Name of work : Construction of both sides retaining wall of nallah from Shri. Dina Barde house till touching the road and from Shri. Gopal Satardekar house till touching the road in Donwaddo, Saligao constituency.**

Ref. to Requisition No.: SD II/ WD I /WRD / F.24 /2020-21/ 235 Dated :- 23/ 09 / 2020.

Qty. Received. : 21 Sets of cube Date of Receipt:- 23/ 09 / 2020. Tested on: - 23/09/2020 To 30/09/2020, as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 2 : 4 O.S No. : 03 to 20/RK , 23 to 25/RK. Lab. Sample No.: 9371 To 9391 Tested By: Mrs Rashmi Kadam A.E.

Cube testing was witnessed by Sri Rui Cardozo, representative of M/S Aguiyar Construction,Civil Contractors on 23/09/2020 and Shri Rajendra Shirodkar JE SDII/WDI, WRD on 26/09/2020.

**REPORT PAGE 01 of 05**

SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 26/08/2020.PCC for Foundation Right/Left	28 <sup>th</sup> day compressive strength	228.79	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.99	Qty represents - 60.00 Cum for four sets of cubes.
			208.40	Kg/Cm <sup>2</sup>			
			224.26	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>220.49</b>	<b>Kg/Cm<sup>2</sup></b>			
2	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 26/08/2020.PCC for Foundation Right/Left	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.84	--do--
			203.87	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>215.95</b>	<b>Kg/Cm<sup>2</sup></b>			

**REPORT PAGE 02 of 05**

3	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 26/08/2020.PCC for Foundation Right/Left	28 <sup>th</sup> day compressive strength	233.32	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	Qty represents - 60.00 Cum for four sets of cubes.
			206.14	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.99</b>	<b>Kg/Cm<sup>2</sup></b>			
4	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 26/08/2020.PCC for Foundation Right/Left	28 <sup>th</sup> day compressive strength	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	1.40	--do--
			203.87	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>212.93</b>	<b>Kg/Cm<sup>2</sup></b>			
5	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/08/2020.PCC for 1st Lift Right/Left	28 <sup>th</sup> day compressive strength	242.38	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	10.03	Qty represents - 60.00 Cum for four sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			224.26	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>231.06</b>				
6	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/08/2020.PCC for 1st Lift Right/Left	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	--do--
			224.26	Kg/Cm <sup>2</sup>			
			208.40	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>	<b>Kg/Cm<sup>2</sup></b>			
7	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/08/2020.PCC for 1st Lift Right/Left	28 <sup>th</sup> day compressive strength	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	--do--
			231.06	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.99</b>	<b>Kg/Cm<sup>2</sup></b>			
8	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 27/08/2020.PCC for 1st Lift Right/Left	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	--do--
			203.87	Kg/Cm <sup>2</sup>			
			235.59	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.00</b>	<b>Kg/Cm<sup>2</sup></b>			

**REPORT PAGE 03 of 05**

9	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 28/08/2020.PCC for 2nd Lift Right/Left	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.91	Qty represents - 60.00 Cum for four sets of cubes.
			224.26	Kg/Cm <sup>2</sup>			
			212.93	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.22</b>	<b>Kg/Cm<sup>2</sup></b>			
10	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 28/08/2020.PCC for 2nd Lift Right/Left	28 <sup>th</sup> day compressive strength	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.07	--do--
			226.53	Kg/Cm <sup>2</sup>			
			210.67	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.75</b>	<b>Kg/Cm<sup>2</sup></b>			
11	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 28/08/2020.PCC for 2nd Lift Right/Left	28 <sup>th</sup> day compressive strength	208.40	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	--do--
			222.00	Kg/Cm <sup>2</sup>			
			228.79	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>				
12	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 28/08/2020.PCC for 2nd Lift Right/Left	28 <sup>th</sup> day compressive strength	203.87	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.51	--do--
			233.32	Kg/Cm <sup>2</sup>			
			240.12	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>225.77</b>	<b>Kg/Cm<sup>2</sup></b>			
13	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 29/08/2020.PCC for 3rd Lift Right/Lift, foundation for 2.5ht.	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.07	Qty represents - 50.00 Cum for three sets of cubes.
			222.00	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.75</b>	<b>Kg/Cm<sup>2</sup></b>			
14	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 29/08/2020.PCC for 3rd Lift Right/Lift, foundation for 2.5ht.	28 <sup>th</sup> day compressive strength	233.32	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	8.23	--do--
			222.00	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>227.28</b>	<b>Kg/Cm<sup>2</sup></b>			

**REPORT PAGE 04 of 05**

15	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 29/08/2020.PCC for 3rd Lift Right/Lift, foundation for 2.5ht.	28 <sup>th</sup> day compressive strength	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>3</sup>	6.79	Qty represents - 50.00 Cum for three sets of cubes.
			215.20	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>224.26</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 31/08/2020.PCC for 1st Lift 2.5m/ foundation for 1.5ht.	28 <sup>th</sup> day compressive strength	217.47	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>4</sup>	8.59	Qty represents - 45.00 Cum for three sets of cubes.
			215.20	Kg/Cm <sup>2</sup>			
			251.44	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>228.04</b>	<b>Kg/Cm<sup>2</sup></b>			
17	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 31/08/2020.PCC for 1st Lift 2.5m/ foundation for 1.5ht.	28 <sup>th</sup> day compressive strength	228.79	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>5</sup>	4.63	--do--
			219.73	Kg/Cm <sup>2</sup>			
			210.67	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>	<b>Kg/Cm<sup>2</sup></b>			
18	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 31/08/2020.PCC for 1st Lift 2.5m/ foundation for 1.5ht.	28 <sup>th</sup> day compressive strength	224.26	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>6</sup>	3.91	--do--
			203.87	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.22</b>	<b>Kg/Cm<sup>2</sup></b>			
19	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 01/09/2020.PCC for 2nd of 2.5m/1st lift of 1.5m	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>8</sup>	5.35	Qty represents - 25.00Cum for two sets of cubes.
			222.00	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.24</b>	<b>Kg/Cm<sup>2</sup></b>			

**REPORT PAGE 05 of 05**

20	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 01/09/2020.PCC for 2nd of 2.5m/1st lift of 1.5m	28 <sup>th</sup> day compressive strength	228.79	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>9</sup>	6.43	Qty represents - 25.00Cum for two sets of cubes.
			210.67	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>223.51</b>	<b>Kg/Cm<sup>2</sup></b>			
21	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 02/09/2020.PCC for 3rd of 2.5m/2nd lift of 1.5m	29 <sup>th</sup> day compressive strength	233.32	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>10</sup>	6.07	Qty represents - 15.00 Cum for one set of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			208.40	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.75</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SD II , WD I, WRD, Mapusa - Bardez - Goa.

2. Copy submitted to: The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa for kind Information.

3. Copy submitted to: The Executive Engineer , WD I ,WRD, Porvorim - Goa.

4. QC Lab File.      5. Bill File.

Assistant Engineer