

GOVERNMENT OF GOA
QUALITY CONTROL LABORATORY
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 5008 to 5011,5018 to 5031,5040 to 5047,/ Lab / **138/** 2022 - 23 Dated:- 27/06/2022. Laboratory : Bicholim - Goa.
5058 to 5063,5074 to 5078,5090 to 5095,5103 to 5108,5114 to 5119 Sub Division V (QC)/WRD/ Bicholim- Goa.

Name of work : Rejuvenation of St. Inez nallah - Improvement to Hydrodynamic, Water Quality and Stabilization of banks, under Smart City Mission.

Ref. to Requisition No.: SDIV/WDI/WRD/F.38/22-23/223 Dt.:- 17/ 06/ 2022

Qty. Received. :55 Sets of cube Date of Receipt:-17/06/ 2022. Tested on:17,18,19,20,21,22,23,24 & 25/06/2022 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix **M -25 & 1:1.5:3** O.S No. :8982 to 8985,8992 to 9005,9014 to 9021,9032 to 9037,9048 to 9052,9064 to 9069,9077 to 9082,9088 to 9093/SS Lab. Sample No.: **4932 to 4986**

Tested By: Mrs. S. B. Naik Shirodkar. J.E.

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix M-25 , cast on 20/05/2022. For fire station main building 2 nd lift fire station barrack 2 nd lift.	28 th day compressive strength	299.01	Kg/Cm ²	290.00 Kg/cm ²	5.97	Qty represents - 48.00 M3 for four sets of cubes.
			317.14	Kg/Cm ²			
			305.81	Kg/Cm ²			
			Average	307.32			
2	Cement concrete cube of mix M-25 , cast on 20/05/2022. For fire station main building 2 nd lift fire station barrack 2 nd lift.	28 th day compressive strength	303.55	Kg/Cm ²	290.00 Kg/cm ²	8.32	----- do -----
			317.14	Kg/Cm ²			
			321.67	Kg/Cm ²			
			Average	314.12			
3	Cement concrete cube of mix M-25 , cast on 20/05/2022. For fire station main building 2 nd lift fire station barrack 2 nd lift.	28 th day compressive strength	289.95	Kg/Cm ²	290.00 Kg/cm ²	4.41	----- do -----
			299.01	Kg/Cm ²			
			319.40	Kg/Cm ²			
			Average	302.79			
4	Cement concrete cube of mix M-25 , cast on 20/05/2022. For fire station main building 2 nd lift fire station barrack 2 nd lift.	28 th day compressive strength	301.28	Kg/Cm ²	290.00 Kg/cm ²	4.41	----- do -----
			294.48	Kg/Cm ²			
			312.61	Kg/Cm ²			
			Average	302.79			
5	Cement concrete cube of mix M-25 , cast on 21/05/2022. For Piles no. 26,27,28,29,30.	28 th day compressive strength	292.22	Kg/Cm ²	290.00 Kg/cm ²	4.93	Qty represents - 36.00 M3 for four sets of cubes.
			303.55	Kg/Cm ²			
			317.14	Kg/Cm ²			
			Average	304.30			
6	Cement concrete cube of mix M-25 , cast on 21/05/2022. For Piles no. 26,27,28,29,30.	28 th day compressive strength	299.01	Kg/Cm ²	290.00 Kg/cm ²	7.53	----- do -----
			308.08	Kg/Cm ²			
			328.46	Kg/Cm ²			
			Average	311.85			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
7	Cement concrete cube of mix M-25 , cast on 21/05/2022. For Piles no. 26,27,28,29,30.	28 th day compressive strength	305.81	Kg/Cm ²	290.00 Kg/cm ²	8.58	Qty represents - 36.00 M3 for four sets of cubes.
			317.14	Kg/Cm ²			
			321.67	Kg/Cm ²			
		Average	314.87	Kg/Cm²			
8	Cement concrete cube of mix M-25 , cast on 21/05/2022. For Piles no. 26,27,28,29,30.	28 th day compressive strength	289.95	Kg/Cm ²	290.00 Kg/cm ²	5.97	----- do -----
			305.81	Kg/Cm ²			
			326.20	Kg/Cm ²			
		Average	307.32	Kg/Cm²			
9	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2022. For Bhandra pier block fd PCC.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	8.28	Qty represents - 84.00 M3 for five sets of cubes.
			292.22	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	286.93	Kg/Cm²			
10	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2022. For Bhandra pier block fd PCC.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	6.28	----- do -----
			289.95	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	281.65	Kg/Cm²			
11	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2022. For Bhandra pier block fd PCC.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	2.86	----- do -----
			258.24	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
12	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2022. For Bhandra pier block fd PCC.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	2.58	----- do -----
			271.83	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
13	Cement concrete cube of mix 1:1.5:3 , cast on 21/05/2022. For Bhandra pier block fd PCC.	28 th day compressive strength	255.97	Kg/Cm ²	265.00 Kg/cm ²	2.58	----- do -----
			278.63	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
14	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2022. For Bhandra U/S Rt. Wall RHS fd.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	2.01	Qty represents - 92.00 M3 for five sets of cubes.
			269.57	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	270.32	Kg/Cm²			
15	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2022. For Bhandra U/S Rt. Wall RHS fd.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	3.43	----- do -----
			265.04	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	274.10	Kg/Cm²			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
16	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2022. For Bhandra U/S Rt. Wall RHS fd.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	7.14	Qty represents - 92.00 M3 for five sets of cubes.
			289.95	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	283.91	Kg/Cm²			
17	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2022. For Bhandra U/S Rt. Wall RHS fd.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	6.57	----- do -----
			308.08	Kg/Cm ²			
			265.04	Kg/Cm ²			
		Average	282.40	Kg/Cm²			
18	Cement concrete cube of mix 1:1.5:3 , cast on 22/05/2022. For Bhandra U/S Rt. Wall RHS fd.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			278.63	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
19	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2022. For Bhandra U/S Rt. Wall LHS fd.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.57	Qty represents - 78.00 M3 for five sets of cubes.
			278.63	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	277.12	Kg/Cm²			
20	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2022. For Bhandra U/S Rt. Wall LHS fd.	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/cm ²	4.86	----- do -----
			292.22	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
21	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2022. For Bhandra U/S Rt. Wall LHS fd.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	4.29	----- do -----
			283.16	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
22	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2022. For Bhandra U/S Rt. Wall LHS fd.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	6.00	----- do -----
			294.48	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	280.89	Kg/Cm²			
23	Cement concrete cube of mix 1:1.5:3 , cast on 23/05/2022. For Bhandra U/S Rt. Wall LHS fd.	28 th day compressive strength	260.51	Kg/Cm ²	265.00 Kg/cm ²	4.86	----- do -----
			283.16	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
24	Cement concrete cube of mix M-25 , cast on 23/05/2022. For Piles no. 31,32,33,34,35,36.	28 th day compressive strength	283.16	Kg/Cm ²	290.00 Kg/cm ²	5.45	Qty represents - 18.00 M3 for three sets of cubes.
			308.08	Kg/Cm ²			
			326.20	Kg/Cm ²			
		Average	305.81	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
25	Cement concrete cube of mix M-25 , cast on 23/05/2022. For Piles no. 31,32,3334,35,36.	28 th day compressive strength	305.81	Kg/Cm ²	290.00 Kg/cm ²	3.89	Qty represents - 18.00 M3 for three sets of cubes.
			289.95	Kg/Cm ²			
			308.08	Kg/Cm ²			
		Average	301.28	Kg/Cm²			
26	Cement concrete cube of mix M-25 , cast on 23/05/2022. For Piles no. 31,32,3334,35,36.	28 th day compressive strength	292.22	Kg/Cm ²	290.00 Kg/cm ²	2.07	----- do -----
			283.16	Kg/Cm ²			
			312.61	Kg/Cm ²			
		Average	295.99	Kg/Cm²			
27	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	278.63	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 118.00 M3 for six sets of cubes.
			283.16	Kg/Cm ²			
			262.77	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
28	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	2.29	----- do -----
			255.97	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	271.08	Kg/Cm²			
29	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	6.57	----- do -----
			271.83	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	282.40	Kg/Cm²			
30	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	4.86	----- do -----
			283.16	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	277.87	Kg/Cm²			
31	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	6.28	----- do -----
			305.81	Kg/Cm ²			
			246.91	Kg/Cm ²			
		Average	281.65	Kg/Cm²			
32	Cement concrete cube of mix 1:1.5:3 , cast on 24/05/2022. For Bhandra U/S Rt. Wall RHS 1st lift Bhandra U/S Rt. Wall LHS 1st lift.	28 th day compressive strength	276.36	Kg/Cm ²	265.00 Kg/cm ²	9.99	----- do -----
			294.48	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	291.46	Kg/Cm²			
33	Cement concrete cube of mix 1:1.5:3 , cast on 25/05/2022. For Bhandra U/S Rt. Wall RHS 2 nd lift Bhandra U/S Rt. Wall LHS 2 nd lift.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	3.43	Qty represents - 90.00 M3 for five sets of cubes.
			278.63	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	274.10	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
34	Cement concrete cube of mix 1:1.5:3 , cast on 25/05/2022. For Bhandra U/S Rt. Wall RHS 2 nd lift Bhandra U/S Rt. Wall LHS 2 nd lift.	28 th day compressive strength	289.95	Kg/Cm ²	265.00 Kg/cm ²	9.13	Qty represents - 90.00 M3 for five sets of cubes.
			299.01	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	289.20	Kg/Cm²			
35	Cement concrete cube of mix 1:1.5:3 , cast on 25/05/2022. For Bhandra U/S Rt. Wall RHS 2 nd lift Bhandra U/S Rt. Wall LHS 2 nd lift.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	7.99	----- do -----
			283.16	Kg/Cm ²			
			303.55	Kg/Cm ²			
		Average	286.18	Kg/Cm²			
36	Cement concrete cube of mix 1:1.5:3 , cast on 25/05/2022. For Bhandra U/S Rt. Wall RHS 2 nd lift Bhandra U/S Rt. Wall LHS 2 nd lift.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	9.13	----- do -----
			303.55	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	289.20	Kg/Cm²			
37	Cement concrete cube of mix 1:1.5:3 , cast on 25/05/2022. For Bhandra U/S Rt. Wall RHS 2 nd lift Bhandra U/S Rt. Wall LHS 2 nd lift.	28 th day compressive strength	262.77	Kg/Cm ²	265.00 Kg/cm ²	2.86	----- do -----
			255.97	Kg/Cm ²			
			299.01	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
38	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	294.48	Kg/Cm ²	265.00 Kg/cm ²	12.27	Qty represents - 133.00 M3 for six sets of cubes.
			305.81	Kg/Cm ²			
			292.22	Kg/Cm ²			
		Average	297.50	Kg/Cm²			
39	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	7.99	----- do -----
			296.75	Kg/Cm ²			
			278.63	Kg/Cm ²			
		Average	286.18	Kg/Cm²			
40	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	2.86	----- do -----
			258.24	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
41	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	5.71	----- do -----
			285.42	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	280.14	Kg/Cm²			
42	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	271.83	Kg/Cm ²	265.00 Kg/cm ²	4.86	----- do -----
			267.30	Kg/Cm ²			
			294.48	Kg/Cm ²			
		Average	277.87	Kg/Cm²			

Junior Engineer

Assistant Engineer

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
43	Cement concrete cube of mix 1:1.5:3 , cast on 26/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	253.71	Kg/Cm ²	265.00 Kg/cm ²	0.87	Qty represents - 133.00 M3 for six sets of cubes.
			265.04	Kg/Cm ²			
			283.16	Kg/Cm ²			
		Average	267.30	Kg/Cm²			
44	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	274.10	Kg/Cm ²	265.00 Kg/cm ²	4.29	Qty represents - 118.00 M3 for six sets of cubes.
			258.24	Kg/Cm ²			
			296.75	Kg/Cm ²			
		Average	276.36	Kg/Cm²			
45	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	2.86	----- do -----
			253.71	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
46	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	246.91	Kg/Cm ²	265.00 Kg/cm ²	2.58	----- do -----
			278.63	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	271.83	Kg/Cm²			
47	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	258.24	Kg/Cm ²	265.00 Kg/cm ²	1.44	----- do -----
			271.83	Kg/Cm ²			
			276.36	Kg/Cm ²			
		Average	268.81	Kg/Cm²			
48	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	3.72	----- do -----
			269.57	Kg/Cm ²			
			289.95	Kg/Cm ²			
		Average	274.85	Kg/Cm²			
49	Cement concrete cube of mix 1:1.5:3 , cast on 27/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	285.42	Kg/Cm ²	265.00 Kg/cm ²	3.15	----- do -----
			260.51	Kg/Cm ²			
			274.10	Kg/Cm ²			
		Average	273.34	Kg/Cm²			
50	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	255.97	Kg/Cm ²	265.00 Kg/cm ²	3.72	Qty represents - 120.00 M3 for six sets of cubes.
			283.16	Kg/Cm ²			
			285.42	Kg/Cm ²			
		Average	274.85	Kg/Cm²			

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SR. NO.	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
51	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	265.04	Kg/Cm ²	265.00 Kg/cm ²	5.14	Qty represents - 120.00 M3 for six sets of cubes.
			289.95	Kg/Cm ²			
			280.89	Kg/Cm ²			
		Average	278.63	Kg/Cm²			
52	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	283.16	Kg/Cm ²	265.00 Kg/cm ²	2.86	----- do -----
			271.83	Kg/Cm ²			
			262.77	Kg/Cm ²			
		Average	272.59	Kg/Cm²			
53	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	2.01	----- do -----
			246.91	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	270.32	Kg/Cm²			
54	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	255.97	Kg/Cm ²	265.00 Kg/cm ²	4.00	----- do -----
			283.16	Kg/Cm ²			
			287.69	Kg/Cm ²			
		Average	275.61	Kg/Cm²			
55	Cement concrete cube of mix 1:1.5:3 , cast on 28/05/2022. For Bhandra pier block fd RCC.	28 th day compressive strength	292.22	Kg/Cm ²	265.00 Kg/cm ²	9.13	----- do -----
			303.55	Kg/Cm ²			
			271.83	Kg/Cm ²			
		Average	289.20	Kg/Cm²			

Copy to: 1. The Assistant Engineer , SD IV , WDI, WRD, Porvorim - Goa.

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

3. Copy submitted to The Executive Engineer , WDI ,WRD, Porvorim - Goa.

4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer