KARNATAKA RURAL INFRASTRUCTURE DEVELOPMENT LIMITED

(FORMERLY KARNATAKA LAND ARMY CORPORATION LIMITED)
GRAMEENABHIVRUDDHI BHAVANA, 4th & 5th FLOOR, ANAND RAO CIRCLE BANGALORE-9



Quality Control Register Part 1 (Building Work)

Record of Tests

T	• 4	
11 01	mot	•
Dist	IIICL	٠

Programme Implementation Unit(Name of Project):

Name of Work:

Total Volumes of this Register:

This Volume Number:

Prescribed By:
Quality Control Cell,
KARNATAKA RURAL INFRASTRUCTURE DEVELOPMENT LIMITED, BANGALORE

KARNATAKA RURAL INFRASTRUCTURE DEVELOPMENT LIMITED

(FORMERLY KARNATAKA LAND ARMY CORPORATION LIMITED)
GRAMEENABHIVRUDDHI BHAVANA, 4th & 5th FLOOR, ANAND RAO CIRCLE BANGALORE-9

Quality Control Register Part 1

Record of Tests

Contents

SI. No.	Description	Page
1.	Soil Investigation	3
2.	Concrete for Structures	4
3.	Brick and Stone Masonry	21
4.	Steel Reinforcements	31
5.	Plastering & Flooring	33
6.	Water supply and Sanitation	34
7.	Electrification work	34
8.	Finishing work	35

All these specifications and tables have been drawn by referring IRC codes, Building codes, KRRDA norms and IS codes, compiled and rearranged by

T.H. Gurumurthy, EE

K. Abdul Raheem, AEE,

Quality Control Cell,

KARNATAKA RURAL INFRASTRUCTURE DEVELOPMENT LIMITED, BANGALORE

Record of Tests: Section - 1 Soil Investigation

Details of Lab Tests conducted for SBC and Classification of soil for foundation

Type	of Soil :-	
-5 -5	02 0022 0	

- J PV 01 2 01 V
Whether Ground water table encountered:-
AVERAGE SOIL PROPERTIES AT A DEAPTH m to m

<u>Sl.</u>	PARTICULARS	Test Pit-1	Test Pit-1	Test Pit-1
No.				
01.	Specific Gravity (G ₂₇ ⁰)			
02.	Incitue bulk density (r _t - KN / M ³)			
03.	Natural Moisture Content (Wn%)			
04.	Incitue dry density (r _d -KN/M ³)			
05.	Grain size Distribution Analysis. Texture: Gravel %; Sand %; Fines %;			
06.	Atterberg limits & indices Liquid limit (W 1 %) Plastic limit (W p %) Plasticity Index (I p %)			
07.	Triaxial Compression Test Cohension (C - KN / M ²) Friction angle (Ø ⁰)			
08.	Consolidation Test. Compression index (Cc)			
09.	Differential Free Swell Index (%)			
10.	Classifiation (ISSCS) IS: 1498 - 1970			
11.				

			AEE:			EE:	
Co	unter	Signed by:					
	SBC of Soil : Recommendation : JE/AE:						
	11.						
		IS: 1498 - 1970					

Quality Control Register Part-1 Record of Tests: Section - 2 Concrete for Structures <u>Abstract of tests Conducted</u>

Test No.	Name of Test	Test No.	Date of Test Result	Qualified Not Qualified If No. Page No.	and Date of NCR Page No. & Date on	Which Test Qualified
1	2	3	4	5	6	7
	Concrete for structures					
	Test prior to construction					
CC-1	Setting time of cement	Test 1				
CC-2	Soundness	Test 2				
CC-3	Comp. sig of mortor cubes	Test 1				
CC-4	Crushing stg. Of CA	Test 1				
GB-1	Flackiness Index	Test 1				
GB-2	Water absorption	Test 1				
GB-3/4	Soundness (if water					
	Absorption exceeds 2%)	Test 1				
SB-2	Aggregate impact value	Test 1				
CC-8	Water for construction	Test 1				
CC-9	Deleterious constituents	Test 1				
CC-10	Gradation of FA	Test 1				
		Test 2				
		Test 3				
CC-11	Gradation of CA	Test 1				
		Test 2				
		Test 3				
CC-12	Alkali Silica reactivity	Test 1				
CC-13	Mix Design	Test Table				
	Tests during construction					
CC-5	Workability of concrete	Test Table				
CC-6	Comp. Stg of CC cubes	Test Table				
CC-14	Moisture content of FA/CA	Test Table				
CC-15	Form work, construction					
	Joints and surface finish	Test Table				
CC-16	Cement consumption, adherence to mix design, Transporting, Placing, Compaction and curing of concrete	Test Table				

Section - 2 : Concrete for Structures

Quantities of Items, Quality control tests, Frequencies and Total Number of Tests Required

SI. No.	Description of item of Work	Unit	Quantity	Test No.	Name of Test	Frequency of Tests	No. of tests reqd
1	2	3	4	5	6	7	8
	CONCRETE FOR STRUCTURES						
					Tests Prior to Construction		
				CC-1	Setting time of Cement	One test for 2000 bags 10 tonnes	
				CC-2	Soundness of cement	One test for 2000 bags or 10 tonnes	
				CC-3	Compressive Stg of Mortor Cubes	3 specimens for each lot	
				CC-4	Crushing strength of CA	3 samples from each source	
				CC10	Gradation of FA	3 samples from each source	
				CC-11	Gradation of CA	3 samples from each source	
				GB-1	Flakiness Index	Once for each source	
				SB-2	Aggregate Impact Value	One test per source	
				GB-2	Water absorption	One test per source	
				GB3/4	Soundness (if water absorption exceeds 2%)	Once	
				CC-12	Alkali Silica reactivity	If in doubt - once	
				CC-9	Deleterious constituents of FA/CA	If in doubt, one test	
				CC-8	Water for construction	Once for large work for each source	
				CC-13	Mix design	Before approval	
					Tests during Construction		
				CC-14	Moisture content of sand/CA	Once	
				CC-5	Workability of concrete by slump test	2 tests / day	
				CC-6	Compressing Stg of CC cubes & its Reviev.	Min 6 cubes per day	
				CC-15	Form Work, Construction joints, and Surface finish,	Daily and through out concerting and as and when work demands	
				CC-16	Cement consumption, adherence to mix design, Transporting, placing, compaction and curing of concrete	Regularly and Daily	

TEST FOR CONCRETE STRUCTURES

TEST PRIOR TO CONSTRUCTION

1	T4-		XX7~4	t
Ι.	Tests	on	Wa1	er:

Sample: Reference No: Date & Time:

Name of project: Place of work:

Name of work: Estimation cost:

QCT 21: Laboratory tests on Water

		BIS code			
Sl.no.	Tests carried out	Ref.	Results obtained		Remarks
			As per	As per	
			Standard	report	
1	PH value	IS 3025-1964			
2	Concentration of solids in				
	water				
3	Sulphate impurities				
4	Organic / Inorganic solids	456-1978			
5	Chloride content				

Setting Time of Cement (IS 4032 (Part 5) - 1988

Road / Section details : Date of testing :

Sample No.

SI. No.	Starting time (Stop watch) To	Time when initial set has taken place T1	Time when final set has taken place T2	Initial setting time = T1-T6	Final setting time = T2-T0	Whether acceptable Y/N	If No. Date of NCR issued and page no. of Q/C Part II

Checked by : AEE/EE Tested by : AE/JE

Form CC-2

Soundness of Cement by Le-Chatelier Method IS 4031 (Part 3) - 1988

Road / Section details : Date :

Snasiman Na	Wt. of Cement	Distance Separating the Indicator Points (mm)			
Speamen No	W (gm)	Before Submegence	After Submegence		

Checked by : AEE/EE Tested by : AE/JE

Form CC-2

Compressive Stg of Cement IS 4031 (Part 6) - 1988

Road / Section details : Date :

SI.		Compressive Stg	g after 3 days	5		Compressive	at 7 days	
No		Observation			Observation			
	Plan area A(mm²)	Load at failure W (N)	Comp Stg N/mm ²	Average Stg N	Plan area A(mm²)	Load at failure N (N)	Comp Stg N/mm ²	Average Stg N

Crushing Strength of coarse aggregate (IS: 2720 (Part 22) - 1972)

Sample No: Date:

Name of Quarry/Location

SI. No.	Wt. of the container C gm	Wt. of surfaces dry specimen + container A gms	Wt. of fines passing 2.36 mm + container B gms	Crushing Value = B - C x 100% A - C	Whether the volume is within the permissible limits (Y/N)	If no, Date & NCR issued and page no. of Q/C Part II

Checked by : AEE/EE Tested by : AE/JE

Form SB-2

Aggregate Impact Value (IS : 2386 - Part 4)

Test 3

Sample No: Date of Testing:

Name of Quarry/Location : Weight of Sample taken:

Observations	Test No.			Average
	1	2	3	
Weight of aggregate sample filling in the cylinder = W, (gm)				
Weight of aggregate passing 2.36 mm Sieve after the test = W ₂ (gm)				

Layer	Value	Permissible Limit	Whether Conforms to
			the Prescribed Limits
			(Yes/No)
		Max 30%	

If Results don't conform to the prescribed limits, non conformance Report will be issued by the PIU. The reference of the Page No. of this Register on which Non Conformance Reports copy preserved.

Page	No	Date o	t issue
------	----	--------	---------

Form CC-8

Test on water (IS: 3025 (17, 18, 23, 24, 32)

Sample No.	Ph Value and its acceptance (Y/N)	Limits of acidity and its acceptance (Y/N)	Limits of solids and its acceptance (Y/N)	Loss in Stg and its acceptance (Y/N)	Setting time and its acceptance (Y/N)	Remarks

Form No. GB-1

Flakiness Index of Aggregate

Test 1

Sample No : Date of Sampling : Name of Quarry/Location : Date of Testing:

(gm)

Size of a	ggregate	Wt. of the	Thickness gauge	Weight of
Passing through I.S. Sieve (mm)	Retained on I.S. Sieve (mm)	fraction consisting of at leaset 200 pieces (gm)	size, (0.6 times the mean sleve) (mm)	aggregate in each fraction passing thickness gauge (gm)
63	50	W ₁ =	33.90	M =
50	40	W ₂ =	27.00	M =
40	31.5	$W_3 =$	21.50	M =
31.5	25	$W_4 =$	16.25	M =
25	20	$W_5 =$	13.50	M =
20	16	$W_6 =$	10.80	M =
16	12.5	W ₇ =	8.55	M =
12.5	10	W ₈ =	6.75	M =
10	6.3	W ₉ =	4.89	M =
Total		W =		M =

Flakiness Index (F.I.) =
$$\underline{M} \times 100 = (\%)$$

Layer	Value	Permissible Limit	Whether Conforms to the Prescribed Limits (Yes/No)
		Max. 25%	

If Result don't conform to the prescribed to the prescribed limits, non conformance Report will be issued by the PIU. The reference of the Page No. of this Register on which Non Conformance Reports copy preserved.

Page No...... Date of issue.....

Deleterious Materials and Organic Impurities Test IS 2386 Part (2) - 1963

Road / Section Details:

Date of Testing:

SI. No.	Type of aggregate CA/FA	Sample No	Organic Impurities	% of Deleterious Materials	Whether the values are within the acceptable limits (Y/N)	If no, Date & NCR issued and page no. of Q/C Part II
						_

Checked by : AEE/EE Tested by : AE/JE

Form CC-10

Gradation of Sand

Road / Section Details :

Sample No:

Date of Testing:

Test 1 Wt. of Sample taken :

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Permissible value Zone II
10 mm					100
4.75 mm					90 - 100
2.36 mm					75 - 100
1.18 mm					55 - 90
600 micron					35 - 59
300 micron					8 - 30
150 micron					0 - 10

Checked by : AEE/EE Tested by : AE/JE

Form CC-11

Gradation of Coarse Aggregates Test 1

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Permissible value Percent of weight passing the sieve for nominal size of		g the sieve
					40 mm	20 mm	12.5 mm
63 mm					100	-	-
40 mm					95-100	100	-
20 mm					30-70	95-100	100
12.5 mm					-	-	90-100
10 mm					10-35	25-55	40-85
4.75 mm					0-5	0-10	0-10

Gradation of Sand Test 2

Road / Section Details : Date of Testing : Sample No : Wt. of Sample taken :

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Permissible value Zone II
63 mm					100
40 mm					90 - 100
20 mm					75 - 100
12.5 mm					55 - 90
10 mm					35 - 59
4.75 mm					8 - 30
63 mm					0 - 10

Checked by : AEE/EE Tested by : AE/JE

Form CC-11

Gradation of Coarse Aggregates

Test 2

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Percent of	ermissible valu weight passin r nominal size	g the sieve
					40 mm	20 mm	12.5 mm
63 mm					100	-	-
40 mm					95-100	100	-
20 mm					30-70	95-100	100
12.5 mm					-	-	90-100
10 mm					10-35	25-55	40-85
4.75 mm					0-5	0-10	0-10

Checked by : AEE/EE Tested by : AE/JE

Form CC-10

Gradation of Sand Test 3

Road / Section Details : Date of Testing : Sample No : Wt. of Sample taken :

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Permissible value Zone II
10 mm					100
4.75 mm					90 - 100
2.36 mm					75 - 100
1.18 mm					55 - 90
600 micron					35 - 59
300 micron					8 - 30
150 micron					0 - 10

Gradation of Coarse Aggregates Test 3

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Percent of	ermissible valu weight passin r nominal size	g the sieve
					40 mm	20 mm	12.5 mm
63 mm					100	-	-
40 mm					95-100	100	-
20 mm					30-70	95-100	100
12.5 mm					-	-	90-100
10 mm					10-35	25-55	40-85
4.75 mm					0-5	0-10	0-10

Checked by : AEE/EE Tested by : AE/JE

Form CC-10

Gradation of Sand Test 3

Road / Section Details : Date of Testing : Sample No : Wt. of Sample taken :

Sieve Size	Wt. of sand Retained (gm)	Percent of Wt. Retained %	Cumulative percent of Wt. retained (%)	Percentage of wt. passing	Permissible value Zone II
10 mm					100
4.75 mm					90 - 100
2.36 mm					75 - 100
1.18 mm					55 - 90
600 micron					35 - 59
300 micron					8 - 30
150 micron					0 - 10

Checked by : AEE/EE Tested by : AE/JE

Form CC-11

Gradation of Coarse Aggregates

Test 3

Sieve	Wt. of sand	Percent of	Cumulative	Percentage	Pe	ermissible valu	ne
Size	Retained	Wt. Retained	percent of Wt.	of		weight passin	-
	(gm)	%	retained (%)	wt. passing	fo	r nominal size	e of
					40 mm	20 mm	12.5 mm
63 mm					100	-	-
40 mm					95-100	100	-
20 mm					30-70	95-100	100
12.5 mm					-	-	90-100
10 mm					10-35	25-55	40-85
4.75 mm					0-5	0-10	0-10

Form GB-2

Water Absorption of Aggregate [IS: 2386 (part-3)

Sample No :	Date of Sampling :
Name of Quarry / Location :	Date of Testing :
Size of aggregate :	Type of aggregate :

SI. No.	Specimen No.	Weight of Saturated surface dry sample B gms.	Weight of oven dried sample A gms	Water Absorption (%) = B-A x 100 A	Average Value	Remarks
1	2	3	4	5	6	7

Value	Permissible Limit	Whether Conforms to the Prescribed Limits (Yes/No)			
If Results don't conform to the prescribed limits, non conformance Report will be issued by the PIU. The reference of the Page No. of this Register on which Non Conformance Reports copy preserved.					
Page No Date of issue					

Form GB-3/4

Soundness test of aggregate with sodium sulphate / Magnesium Sulphate [IS : 2386 (part-5]

Test 1

Sample No:	Date of Sampling :
Name of Quarry / Location :	Date of Testing:
Size of aggregate :	Type of aggregate:

Sieve S	Size, mm	each fraction		Percentage passing	Downsiles
Passing	Retained	Original sample (%)	before test (gms)	finer sieve after test (actual percent loss)	Remarks
1	2	3	5	6	7
60	40				
40	20				
20	10				
10	4.75				
	Number of particles coarser than 20 mm before test		Number of particles affected, classified as to the		
Passing	Retained	Number before test	number disintegrating, splitting, crumbing, cracking flanking		
40 mm	20 mm				
60 mm	40 mm				

Value	Permissible Limit	Whether Conforms to the Prescribed Limits (Yes/No)
	Max. 12% for Sodium Sulphate	
	Mas 18% for Magnesium	
	Sulphate	
ICD It It C	to the company the addition the company to	Carrage Daniel III I.a.

If Results don't conform to the prescribed limits, non conformance Report will be issued by the PIU. The reference of the Page No. of this Register on which Non Conformance Reports copy preserved.

Dana Na	Date of issue
Page INU	Date of Issue
1 ugc 110	

Alkali Aggregate Reactivity IS 2386 (Part VII) - 1963

From Lab - Paste the Report	
Mix Design IS: 10262 - 1982 and IRC SP 23 (S & T) - 1982	Form CC-13
Paste the Report	

Tested by : AE/JE

Checked by : AEE/EE

Page 15

Moisture content of sand / Coarse aggregate

Road / Section details :	Date:
--------------------------	-------

SI. No.	Sample No.	Wt. of FA/CA W ₁ gms	Wt. of oven dried FA/CA W ₂ gms	Moisture content = W ₁ - W ₂ x 100 W ₂	Remarks

Test for Concrete Structures Test during construction Formwork, Construction Joints and Surface Finish

Form CC-16

Test for Concrete Structures

Test during construction

Cement Consumption, Adherence to mix design, transporting, Placing, Compaction and

Curing of Concrete

Workability of Concrete

Sample Identification No:	
Date of Testing:	No. of Sample
Quality of Concrete	Good / Bad
Weight of water (g)	

SI. No.	Specimen No.	Concrete taken from (Place)	Value of Slump Test or compacting factor test
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

Layer	Value	Permissible Value		

Compressive Strength of Concrete Cubes (IS - 516 - 1959)

Sample Identification No:	Age (Days) 7 and 28 days	
Date of Testing :	Minimum No. of Samples = 3 for each test	
Temperature oand Humidity	27 <u>+</u> 2 ⁰ C, Relative Humidity = 90%	
Mis Proportion by weight	As specified or as per Mix Design IRC : 44/IS : 10262-	
	1982	
Rate of Loading	140 Kg/sqcm/minute	
Workability	As per the requirement of Slump/Compaction Factor	

SI. No.	Specimen No.	Plan Area of cube mould 15 mm x 150 mm Ap	Maximum Applied Load just before failure at 7 and 28 days (kg) Ap	Compressive Strength (kg/cm2) W1 AP 7 days 28 days					
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
Avera	Average flexural strength of concrete sample (kg/cm ²) at 7 and 28								
days)	days) nearest to 1 kg/sqcm								

Layer	Value	Permissible Limit		
		Specified compressive	Individual Variation =	
		strength of concrete	+ 15% of the average	
		sample (kg/cm ²) at 7 and		
		28 days)		

Quality Control Register Part-1 Record of Tests: Section - 3 Brick and Stone Masonry <u>Abstract of tests Conducted</u>

Test No.	Name of Test	Test No.	Date of Test Result	Qualified Not Qualified If No. Page No.	And Date of NCR Page No. & Date on	Which Test Qualified
ı	Brick & Stone Masonry					
Te	est prior to constyruction					
BR-1	Colour, Shape, Texture,					
	affloresence, Dressing of					
	stones and dimensional					
	Checks of bricks	Test Table				
BR-2	Water absorption	Test Table				
BR-3	Compressive Stg of bricks	Test Table				
CC-1	Settign time of cement	Test Table				
BR-5	Gradation of Sand	Test 1				
		Test 2				
		Test 3				
		Test 4				
CC-7	Deleterious materials test	Test Table				
BR-6	Consistancy,					
	Water retentivity, Mix					
	Proportions and consump-					
	tion of mortor test	Test Table				
CC-8	Test on water	Test Table				
BR-4	Compressive Stg. Of					
	Cement mortor	Test Table				
	Test during construction					
BR-6	Consistancy, Water reten-	Test Table				
	Tivity, Mix proportions and					
BR-7	Height, bond, plumbness	Test Table				
	Stagering, Thickness of					
	joints and plaster, location,					
	size and spacing of					
	weepholes finishing and					
	pointing					
BR-4	Compressive Stg of mortor	Test 1				
		Test 2				
		Test 3				

Quality Control Register Part-1 Section - 3: Brick and Stone Masonry

Quantities of Items, Quality control tests, Frequencies and Total Number of Tests Required

SI. No.	Description of item of Work	Unit	Quantity	Test No.	Name of Test	Frequency of Tests	No. of tests reqd
1	2	3	4	5	6	7	8
	BRICK AND STONE MASONRY						
					Tests Prior to Construction		
					Colour, Shape, Texture, efflorosence		
				BR-1	Dressing of stones & Dimensional	3 Samples at random at source	
					check for bricks		
				BR-2	Water absorption of bricks & Stones	3 samples	
				BR-3	Compressive Strength of bricks	3 Samples at random at source	
				CC-1	Setting time of cement	3 samples of same type and grade	
				BR-5	Gradation of sand	3 samples of each source of supply	
				CC-7	Deleterious materials and organic impurities	One best	
				CC-8	Water for construction (If in doubt)	One test for each source	
				BR-6	Consistency, Water retentivity and mix proportion for different works in SSM	As required	
				BR-4	Compressive Stg of mortor	3 samples of cubes where specified	
					Tests during Construction		
				BR-7	Height, bond, plumbness, staggering, Thickness of Joints & Plaster location, size and spacing of weepholes,	For each course and Regularly	
					finishing and pointing		
				BR-6	Consistency and water retentivity,		
					mix proportion and consumption	As required at close intervals	
					of mortor	,	
				BR-4	Compressive stg. Of motor	3 Samples of cubes where specified regularly	

Test for Brick / Stone Masonry / Concrete Blocks Test prior to construction

Colour, Shape, Texture, effluroscence, Dressing of Stones & Dimensional check of bricks

Road / section details :

	Colour, Shape, Texture,		Whether Dimensions	If No, Date of issue of
Sample	Dressing of Stones,		are within the	NCR & Page No. of Q.C.
No.	effloresænæ of bricks etc is	Dimension	permissible limits	Reg.
	acceptable Y/N		Y/N	Part II
1				
2				
3				

Checked by : AEE/EE Tested by : AE/JE

Form BR-2

Water absorption test of Bricks / Stone IS 3495 (Part 2) 1992

Road / section details :

Date:

Date:

Date:

	Wt. of the dried	Wt. of the	Water absorption	Whether water	If No, Date of
Sample	specimen	specimen after	percent by mass	absorption is	issue of NCR &
No.	cooled at air	immersion in	$M_2 - M_1 \times 100$	within the	Page No. of
	temperature M ₁	water for 24hr	M_1	permissible limit?	Q/C Reg.
		M_2		Y/N	Part II
1					
2					
3					

Checked by : AE/AEE/EE Tested by :

Form BR-3

Compressive Strength of bricks (IS 3495(Part 1) - 1992

Road / section details :

SI. No.	Length of bed No.1 (mm)	Width of bed face No.1	Area of bed face no.1	Length of bed face no.2	Width of bed face No.2	Area of bed face no.1 (mm²)	Ave rage a rea of bed face (mm ²)	Max load at failure P	Compressive strength <u>Maxload</u> area of bed	Whether comp. stg is within the permissible	Whether comp.stgis within the permissible	If no, date of Issue of NCR and page no. of Reg.
	()	(mm)	(mm²)	(mm)	(mm)	······ /	()	N _n	face(N/mm)	limit? Y/N	limit? Y/N	Part II

Gradation test of sand (IS 2386 (Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 1

Road / section details :	Date of testing:	
Sample No.	Wt. of soil sample taken :	зm

IS Sieve	Wt. of sand Retained	Percent of Wt.	Cumulative percent of wt.	Percentage of wt. passing	Prescribed Limits Percentage of wt. passin	
Designation	(gm)	Retained	retained (%)		Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Checked by : AEE/EE Tested by : AE/JE

Form BR-5

Gradation test of sand (IS 2386 (Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 2

Road / section details :	Date of testing :	
Sample No.	Wt. of soil sample taken:	gm

IS Sieve	Wt. of sand Retained	Percent of Wt.	Cumulative percent of wt.	Percentage of	Prescribed Limits wt. pas	ū
Designation	(gm)	Retained	retained (%)	wt. passing	Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Gradation test of sand (IS 2386 (Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 3

Road / section details :	Date of testing:	
Sample No.	Wt. of soil sample taken:g	gm

IS Sieve	Wt. of sand Retained Percent of Percent of Percentage of P	Prescribed Lim of wt.	its Percentage passing			
Designation	(gm)	Wt. Retained	retained (%)	wt. passing	Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Checked by : AEE/EE Tested by : AE/JE

Form BR-5

Gradation test of sand (IS 2386(Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 4

Road / section details :	Date of testing :	
Sample No.	Wt. of soil sample taken :	gm

IS Sieve	Wt. of sand Retained	Retained Percent of I percent of wt Pe	Percentage of	Prescribed Limits Percentage of wt. passing		
Designation	(gm)	Wt. Retained	retained (%)	wt. passing	Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Gradation test of sand (IS 2386 (Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 3

Road / section details : Date of testing :

Sample No. Wt. of soil sample taken: _____ gm

IS Sieve	Wt. of sand Retained	Retained Percent of Wt. nercent of wt F	Percentage of		Prescribed Limits Percentage of wt. passing	
Designation	(gm)	Retained	retained (%)	wt. passing	Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Checked by : AEE/EE Tested by : AE/JE

Form BR-5

Gradation test of sand (IS 2386 (Part 1-1963 & IS 2116-1984) & IS 1542-1977) Test 4

Road / section details : Date of testing :

Sample No. Wt. of soil sample taken: _____ gm

IS Sieve	Wt. of sand Retained	Percent of Wt.	Cumulative percent of wt.	Percentage of	i cicciitage oi wa pass	
Designation	(gm)	Retained	retained (%)	wt. passing	Masonry	Plaster
10 mm					-	100
4.75 mm					100	95-100
2.36 mm					90-100	95-100
1.18 mm					70-100	90-100
600 micron					40-100	80-100
300 micron					5-70	20-65
150 micron					0-15	0-50

Setting Time of Cement (IS 4032 (Part 5) - 1988

Road / section details : Date of testing :

Sample No.

SI. No.	Starting time (Stop watch) To	Time when initial set has taken place T1	Time when final set has taken place T2	Initial setting time = T1-T6	Final setting time = T2-T0	Whether acceptable Y/N	If No. Date of NCR issued and page no. of Q/C Part II

Checked by : AEE/EE Tested by : AE/JE

Form CC-7

Deleterious Materials and Organic Impurities Test IS 2386 Part

Road / section details : Date of testing :

SI. No.	Type of aggregate CA/FA	Sample No	Organic Impurities	% of Deleterious Materials	Whether values are within the acceptable limits Y/N	If No. Date of NCR issued and page no. of Q/C Part II

Consistency, Water retentivity, Mix Proportions and Consumption of mortor test (IS 2250 - 1981)

Road / Section Details:

Date of testing:

SI. No.	Sample No.	Consistency	Water retentivity	Mix Proportion	Consumption of mortor	Whether values are within the acceptable limits (Y/N)	If no, Date & NCR issued and page no. of Q/C Part II

Checked by : AEE/EE Tested by : AE/JE

Form CC-8

Test on water (IS: 3025 (17,18,23,24,32)

Sample No.	Ph Value and its acceptance (Y/N)	Limits of acidity and its acceptance (Y/N)	Limits of solids and its acceptance (Y/N)	Loss in Stg and its acceptance (Y/N)	Setting time and its acceptance (Y/N)	Remarks

Checked by : AEE/EE Tested by : AE/JE

Form BR-4

Compressive Stg. Of Cement Mortor

Road / Section details :

Date of testing:

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Consistency, Water retentivity, Mix Proportions and Consumption of mortor test (IS 2250 - 1981)

Road / Section Details : Date of testing :

						Whether values	If no, Date &
SI.	SI. Sample Consistency	Water	Mix	Consumption	are within the	NCR issued	
No.	No.	Consistency	retentivity	Proportion	of mortor	acceptable limits	and page no.
					(Y/N)	of Q/C Part II	

Checked by : AEE/EE Tested by : AE/JE

Form BR-7

Height, Bond, Plumbness, Staggering & Thickness of Joints Plaster Finish, Pointing, Location, Size and spacing & Weep holes (IS 2250 - 1981)

Road / Section Details : Date of testing :

SI. No.	Location	Date	Whether acceptable limits (Y/N)	If no, Date of NCR issued and Page No. of Part II	Tested by	Checked by

Compressive Stg. Of Cement Mortor Test 1

Road / Section details : Date of testing :

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Checked by : AEE/EE Tested by : AE/JE

Form BR-4

Compressive Stg. Of Cement Mortor Test 2

Road / Section details : Date of testing :

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Checked by : AEE/EE Tested by : AE/JE

Form BR-4

Compressive Stg. Of Cement Mortor Test 3

Road / Section details : Date of testing :

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Quality Control Register Part-1 Record of Tests: Section - 4 Steel Reinforcements Abstract of tests Conducted

Test No.	Name of Test	Test No.	Date of Test Result	Qualified Not Qualified If No. Page No.	and Date of NCR Page No. & Date on	Which Test Qualified
1	2	3	4	5	6	7
Ste	eel Reinforcements					
Test	prior to construction					
SR-1	Grade, Percentage					
	elangatin and ultimate					
	Tensile stg. Of steel	Test Table				
SR-2	Pitch of the ribs, nominal					
	Diameter protection and					
	Storage of steel	Test Table				
	Tests during construction					
SR-3	Bending, placing, spliang					
	Welding, Spacing					
	covers etc.,	Test Table				

Quality Control Register Part-1 Section - 4: Steel Reinforcements Quantities of Items, Quality control tests, Frequencies and Total Number of Tests Required

SI. No.	Description of item of Work	Unit	Quantity	Test No.	Name of Test	Frequency of Tests	No. of tests reqd
1	2	3	4	5	6	7	8
	STEEL REINFORCEMENT						
					Tests Prior to construction		
				SR-1	Grade, Percentage elongation and ultimate tensile stg of steel	3 samples from each supplier	
				SR-2	Pitch of the ribs, nominal diameter, Protection & Storage of Steel	Random Checking and Regularly	
					Tests during construction		
				SR-3	Bending, Placing of reinforcement Splicing, Welding, Spacing, Covers etc.	Regularly and as and when work is taken up and before concreting	
-							
-							
				1			l

Form SR-1

Test for Steel Reinforcement Test prior to construction

Road / Section Details:

Date of testing:

SI. No.	Speamen No.	Grade of Steel	Percentage of elongation	Ultimate Tensile Stg of Steel	Whether the values are acceptable Y/N	If No. Date of NCR and Page No. of Q/C, Reg. Part II

Checked by : AEE/EE Tested by : AE/JE

Form SR-2

Road / Section Details:

Date of testing:

SI.	Pitch of the	Nominal	Protection &	Whether the value are	If No. Date of NCR and
No.	ribs	dia of Steel	Storage of Steel	within the permissible limits	Page No. of Q/C,
INO.	1105	uia di Steel	is acceptable Y/N	Y/N	Reg. Part II

Checked by : AEE/EE Tested by : AE/JE

Form SR-2

Road / Section Details:

Date of testing:

	,			
SI. No.	Bending and Placing is acceptable Y/N	Splicing Welding and Spacing is acceptable Y/N	Cover to Reinforcement is acceptable Y/N	If No. Date of NCR and Page No. of Q/C, Reg. Part II

Section 5: Plastering & Flooring Abstract of tests Conducted

Test No.	Name of Test	Test No.	Date of Test Result	Qualified Not Qualified If No. Page No.	And Date of NCR Page No. & Date on	Which Test Qualified
1	Compressive Stg. Of Cement Mortor for Plastreing					
	S	Test 1				
		Test 2				
		Test 3				
		Test 4				
2	Compressive Stg. Of Cement Mortor for flooring	Test 1				
		Test 2				
		Test 3				
		Test 4				
3	Flexural Strength of Glazed, Ceramic, Vitrified Tiles, Granite, Marble for floor	Test 1				
		Test 2				
		Test 3				
		Test 4				
_						

Section 5: Plastering & Flooring

Compressive Stg. Of Cement Mortor for Plastreing Test 1

Road / Section details : Date of testing :

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Checked by : AEE/EE Tested by : AE/JE

Form BR-4

Compressive Stg. Of Cement Mortor for Plastreing Test 2

Road / Section details : Date of testing :

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

Checked by : AEE/EE Tested by : AE/JE

Form BR-4

Compressive Stg. Of Cement Mortor for Plastreing Test 3

Road / Section details :

Date of testing:

Sample No.

SI. No.	Specimen No.	Plan area of Cube mould A (mm2)	Load at failure w (N)	Compressive Stg=W/A N/mm2
1.				
2.				
3.				

5. Flooring

Flexural Strength of Glazed, Ceramic, Vitrified Tiles, Granite, Marble for floor

SI. No.	Length of bed (mm)	Width of bed face (mm)	Area of bed face (mm²)	Average area of bed face (mm²)	Max load at failure P N _n	Flexural strength <u>Max load</u> a rea of bed faæ(N/mm)	Whether comp.stg is within the permissible limit? Y/N	Whether comp.stgis within the permissible limit? Y/N	If no, date of Issue of NCR and page no. of Reg. Part II	Tes ted by - Signa ture of AE/JE
Test	1	Date:								
Test	2	Date:								
Test	3	Date:								

Checked by : AEE/EE

Compressive Stg. Of Cement Mortor for flooring Test 1

Road / Section details :	Date of testing:
Sample No.	

SI.		Specimen No.	Plan area of	Load at	Compressive
No.	Test Nos		Cube mould	failure w	Stg=W/A
INO.			A (mm2)	(N)	N/mm2
1.	Test No.1				
2.					
3.					
1.	Test No.2				
2.					
3.					
1.	Test No.3				
2.					
3.					

Quality Control Register Part-1 Section 6: Water supply and Sanitation Abstract of tests Conducted

Test No.	Name of Test	Test No.	Date of Test Result	Qualified Not Qualified If No. Page No.	And Date of NCR Page No. & Date on	Which Test Qualified
1	Water supply works					
		Test 1				
		Test 2				
		Test 3				
		Test 4				
2	Sanitation works					
		Test 1				
		Test 2				
		Test 3				
		Test 4				
		1				
		1				
		1				

Section 6: Water supply and Sanitation

For Water supply and Sanitation works Test during construction

Paste the Report		

Section - 7: Electrification work Abstract of tests Conducted

		1	1	ı	1	
Test	Name of Test	Test No.	Date of	Qualified Not	And Date of	Which Test
No.			Test	Qualified If	NCR Page	Qualified
			Result	No. Page No.	No. & Date	
			resure	110.1 age 110.		
					on	
1	Electrification work					
		Test 1				
		Test 2				
		Test 3				
		Test 4				

Section - 7: Electrification work

For Electrical works Test during construction

Paste the Report		

Section - 8: Finishing work Abstract of tests Conducted

			Date of Test Result	Qualified Not Qualified If No. Page No.	And Date of NCR Page No. & Date on	Which Test Qualified
1	Painting(External) works					
		Test 1				
		Test 2				
		Test 3				
		Test 4				
2	Painting(Internal) works					
		Test 1				
		Test 2				
		Test 3				
		Test 4				
3	Joineries(Wooden/Aluminium/ Steel) works					
		Test 1				
		Test 2				
		Test 3				
		Test 4				

Section - 8: Finishing work

Checked by : AEE/EE

(a) For Painting works Test during construction

Checked by : AEE/EE (b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE (c) For Painting(External/Internal) works Test during construction Paste the Report	rest during construction					
Checked by : AEE/EE (b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction	Paste the Report					
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction	•					
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
(b) For Joineries(Wooden/Aluminium/Steel) works Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction	Checked by : AEE/EE	Tested by : AE/JE				
Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction	*- ·					
Test during construction Paste the Report Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction	(b) F	or Joineries(Wooden/Aluminium/Steel) works				
Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction						
Checked by : AEE/EE Tested by : AE/JE (c) For Painting(External/Internal) works Test during construction		rest during construction				
(c) For Painting(External/Internal) works Test during construction	Paste the Report					
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction						
(c) For Painting(External/Internal) works Test during construction	0	T				
Test during construction	Checked by : AEE/EE	Tested by : AE/JE				
Test during construction						
Test during construction						
	(c) For Painting(External/Internal) works					
	Test during construction					
Paste tne keport	Destruite D	1000 Marinia dolladi mediali				
	Paste the Report					

Page 40

Tested by : AE/JE