 BHOPAL FACTORY CIVIL DEPARTMENT		<h2 style="text-align: center;">Standard Field Quality Plan</h2>					DOC NO: FQP/FCX/005	
							REV NO: 01	
S No.	CHARACTERISTICS / ITEM	TYPE OF CHECK	INSTRUMENT	CLASS	QUANTUM/ FREQUENCY OF CHECK	REFERENCE DOCUMENT/ ACCEPTANCE STANDARD	FORMAT OF RECORD	REMARKS
1.0 Fabrication Works								
1.1 Electrodes								
1.1.1	Moisture Free storage for electrodes as per IS 1395:1982	W	As per IS:1395:1982	B	100%	As per IS:1395:1982	IR	
1.1.2	100% visual examination shall be carried out in the vicinity of welds for arc strikes, undercuts, cleats, tacks & gouges & shall be ground and blended. The entire butt weld area shall be dye penetrant/magnetic particles tested.	W	As per Corporate Standard AA 0622101	B	100%	As per Corporate Standard AA 0622101	IR	
1.1.3	Visual checks/Dye penetration test as per criticality of the joint	W	As per relevant standards	A	As per Criticality of Joints.	As per relevant standards	IR	
2 Galvalume Sheet & Polycarbonate sheet								
Note : Source Inspection and Test witness as required shall be done.								
3.1	Physical dimensions such as pitch, crest depth etc	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.2	Tensile Strength	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.3	Thickness of Color coating	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.4	Bend test	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.5	Impact resistance test	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.6	Pencil hardness test	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.7	Scratch resistance test	W	IS 14246	A	For each supply of 10 tonnes	IS 14246	Test record	
2.8	Composition test	W	IS 15961	A	For each supply of 10 tonnes	IS 15961	Test record	
(For Supply less than 10 T , Certification by Engineer In charge for adherence of material to IS: 14246 shall be done)								
3 POLYCARBONATE SPECIFICATIONS								



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3.1	Dart Drop Impact resistance		W	IS 14443:1997 REAFFIRMED 2013	A	Sampling as per Table 18 of IS 14443: 1997 reaffirmed 2013	IS 14443 ; 1997 REAFFIRMED 2013	TEST RECORD	
3.2	Test for Vandal Resistance		W	IS 14443:1997 REAFFIRMED 2013	A	Sampling as per Table 18 of IS 14443: 1997 reaffirmed 2013		TEST RECORD	
3.3	Test for resistance to forced entry		W	IS 14443:1997 REAFFIRMED 2013	A	Sampling as per Table 18 of IS 14443: 1997 reaffirmed 2013		TEST RECORD	
3.4	Test for bullet resistance		W	IS 14443:1997 REAFFIRMED 2013	A	Sampling as per Table 18 of IS 14443: 1997 reaffirmed 2013		TEST RECORD	
4.0	CAST-IN-SITU CONCRETE								
	MATERIALS								
4.1	CEMENT								
	Ensure that cement is stored in weather tight covered storage on raised		V	As per IS:4082	B	100% Covered storage	IS:4082	SR/LB	
4.2	COARSE AGGREGATE								
4.2.1	Moisture Content		T	As per IS:2386 Part III	B	Once for Each stack of 100 Cum or part there of.	As per IS:2386 Part III IS:456, IS:383	Test Report	
4.2.2	Specific Gravity, Bulk Density, Voids, Water absorption		T	As per IS:2386 Part III	B	Once for Each source & for every change of source	As per IS:2386 Part III IS:456, IS:383	Test Report	
4.2.3	Particle Size & shape-(Sieve analysis, determination of material finer than 75		T	As per IS:2386 Part I	B	One per 100 cum or part thereof/change of source	As per IS:2386 Part I IS:456, IS:383	Form -5 & Test Report	
4.2.4	Crushing Value, abrasion value impact value, soundness.		T	As per IS:2386 Part II,IV,VI,VII	B	Once per source/on every change of source	As per IS:2386 Part II,IV,VI,IS:383	SR/LB/ Test Report	
4.3	FINE AGGREGATE (10mm)								
4.3.1	Bulkage & Moisture Content		T	As per IS:2386 Part III	B	Once for Each stack of 100 Cum or part there of.	As per IS:2386 Part III ,IS:383	Form-3&4	

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4.3.2	Silt, Clay content, soundness.	T	As per IS:2386 Part II,V,VI & VIII	B	Once per source & for on every change of source	As per IS:2386 Part-II, V, VI,VII IS:383	Test Report	
4.3.3	Sieve analysis, particle size & shape	T	As per IS:2386 Part I	B	Once per 100 cum or every change of source	As per IS:2386 IS:383/	Form-2	
4.3.4	Specific Gravity, Water absorption, bulk density & voids	T	As per IS:2386 Part III	B	Once per source & for on every change of source	As per IS:2386 Part-III, IS:383	Test Report	
4.4	SAND							
4.4.1	Fineness Modulus(Sieve analysis)	T	As per IS:2386 Part I	B	Once per 100 cum or every change of source	As per IS:2386 IS:383/	Form-2	
4.4.2	Silt Content	T	As per IS:2386	B	Once per source & for on every change of source	As per IS:2386 IS:383/	Test Report	
4.4.3	Bulkage/Moisture Content	T	As per IS:2386 Part III	B	Once per 100 cum or every change of source	As per IS:2386 Part III ,IS:383	Form-3 &4	
4.5	CONCRETE							
4.5.1	Crushing strength (Works tests cubes)	W&T	Cube Crushing Machine	A	As per IS :456	IS:516 & IS:456, IS:10262	Form-6	
4.5.2	Workability-Slump Test	W&T	Slump Cone	B	In every load for RMC and every 10 cum for BMC.	IS:456 & IS:1199	Form-7	
5.0	BRICKS							
5.1	Water absorption	T	As per IS:3495 (Part-I)	A	As per IS:3495 & IS 5454	IS 1077 , IS 3495 & IS 5454	Form-8	
5.2	Compressive Strength	T	Compressive strength testing machine	A	Sampling as per IS:1077	IS 1077 , IS 3495 & IS 5454	Form-8	
5.3	Check for dimension, soundness, colour, warpage & Efflorescence	V & M & T		B	Sampling as per IS:1077 A set of 20 bricks min. for each lot of 50,000 or part thereof	IS 1077 , IS 3495 & IS 5454	Form-8	

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6	ROAD WORK										
1.0	GENERAL REQUIREMENTS										
6.1	Setting up of Field QA & QC laboratory	V	As agreed/required	A	Once prior to start of work	Tech Spec	SR	Contractor may also opt to get the material tested in outside reputed laboratory. In such a case, contractor has to establish a field laboratory with only instruments required for in-situ testing.			
6.2	Availability of requisite laboratory setup & equipment in good working condition well before commencement of concerned activity .	V	As agreed/required	A	Once prior to start of work	Tech Spec	SR				
6.2	EXCAVATIONS & FILLING IN FOUNDATION WORKS										
6.2.1	EXCAVATION										
6.2.1.1	Check for the initial ground level before start of excavations.	M	As agreed/required	B	100%	Tech Spec & Const Drawing	SR				
6.2.1.2	Check for the final shape and Dimensions of Excavation including final	M	As agreed/required	B	100%	Tech Spec & Const Drawing	SR				
6.3	WATER BOUND MACADAM										
6.3.1	COARSE AGGREGATE										
	Aggreagate impact value	T	As per IS:2386 Part IV	B	One test per 100m3 of aggregate	As per IS:2386 Part IV	SR/LB				
6.3.1.1											
6.3.1.2	Flakiness index and elongation index of a	T	As per IS:2386 Part I	B	Once for Each stack of 200 Cum or part there of.	As per IS:2386 Part I	TR				



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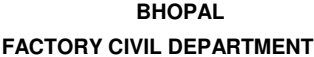
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6.3.1.3	Grading of aggregates	T	As per IS:2386 Part I	B	Once for Each source & for every change of source	As per IS:2386 Part I	TR	
6.3.1.4	Atterberg Limit of aggregate passing 425 micron sieve	T	As per IS:2386 Part I	B	One per 100 cum or part thereof/change of source whichever is earlier	As per IS:2386 Part I	TR	
6.3.1.5	Atterberg Limit of Binding Material.	T	As per IS:2386 Part II,IV,VI,VII	B	Once per source/on every change of source	As per IS:2386 Part II,IV,VI,IS:383	TR	
6.4	Prime Coat/ Tack Coat							
6.4.1	Binder temperature for application	V & M	IS 73	A	At regular close intervals	As per IS:2386 Part-II,	TR	
6.4.2	Rate of spread of Binder	V&M	IS 73	B	One test per day	As per IS 73	TR	
6.5	Bituminous Macadam							
6.5.1	Aggregate impact value	T	As per IS:2386 Part IV	A	One test per 100m ³	As per IS:2386 Part IV	TR	
6.5.2	Flakiness index and elongation index of aggregates	T	As per IS:2386 Part I	A	One test per 200m ³	As per IS:2386	TR	
6.5.3	Grading of aggregates	T	As per IS:2386 Part I	B	One test per day	As per IS:2386	TR	
6.5.4	Water absorption	T	As per IS:2386 Part III	B	One test per 100m ³ of aggregate	As per IS:2386	TR	
6.5.5	Binder Content	T	As per IS:73	A	One test for each 100 tonnes of mix subject to minimum of two tests per day per plant	IS 73	TR	
6.5.6	Control of temperature of binder and aggregate for mixing and of the mix at the time of laying and rolling	T	As per instructions of Engineer Incharge	C	At regular close intervals	As per instructions of Engineer Incharge	SR	



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7.1	Bitumen Primer		V	As per IS 702	B	Once for Each Lot of material supplied	As per IS 702	TR	
7.2	Atactic Polypropylene Polymer (APP)		V	As per ASTM D-5147	B	Once for Each Lot of material supplied	As per ASTM D-5147	TR	