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P.O. BOX 40278, ST. 50, GATE 26, INDUSTRIAL AREA
DOHA, QATAR

Testing Laboratory TL-424

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories,* and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation on the following page(s).

This certificate is valid up to JULY 1, 2022.

This accreditation certificate supersedes any IAS accreditation bearing an earlier effective date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See www.iasonline.org for current accreditation information, or contact IAS at 562-364-8201.

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President

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SCOPE OF ACCREDITATION

IAS Accreditation Number	TL-424
Company Name	Qatar Engineering Laboratories WLL
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Effective Date of Scope	April 30, 2020
Accreditation Standard	ISO/IEC 17025: 2017

SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
1.	2.13	Aggregate	ASTM C88 - 18	Soundness of Aggregate Using Sodium Sulfate or Magnesium Sulfate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2.Sirash Pokrel 3. Bishnu Bahadur
2.	2.4	Aggregate	ASTM C117 - 13	Standard Test Method for Material Finer Than 75 Micron Sieve in Mineral Aggregate by Washing	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Varun Krishna
3.	2.8	Aggregate	ASTM C123 / C23M - 14	Standard Test Method for Light Weight Particles in Aggregate	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3.Sanila Riju
4.	2.6	Aggregate	ASTM C127 - 15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel
5.	2.5	Aggregate	ASTM C128 - 15	Standard Test Method for Density, Relative Density and Absorption of Fine Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel
6.	2.11	Aggregate	ASTM C131 / C131 - 14	Standard Test Method for Los Angeles Abrasion – Small Size Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
7.	2.7	Aggregate	ASTM C142 - 17	Standard Test Method for Clay Lumps and Friable Particles in Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Varun Krishna 3. Sirash Pokrel 4. Bishnu Bahadur
8.	2.12	Aggregate	ASTM C535 - 16	Standard Test Method for Los Angeles Abrasion – Large Size Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel
9.		Aggregate	ASTM C702 / C702M - 18	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Main Laboratory	1. Shirash Pokhrel 2. Praji P 3. Ramlal P
10.	2.1	Aggregate	ASTM D75 / D75M - 14	Standard Practice for Sampling Aggregates	QEL Main Laboratory	1. Shirash Pokhrel 2. Bishnu Bahadur
11.	2.10	Aggregate	ASTM D4791 - 10	Standard Test Method for Flat & Elongated Particles	QEL Main Laboratory	1. Sreenivasan Kakurayil 2.Sirash Pokrel 3. Bishnu Bahadur
12.		Aggregate	BS 812-2:1995 Cl 5.3	Sampling Method for Aggregate Larger Than 10 mm.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur
13.	2.21	Aggregate	BS 812-2:1995 CL 5.4	Particle Density and Water Absorption CL 5.4 Method for aggregates between 40 mm and 5 mm	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash pokrel 3. Praji Prasannanakumar
14.	2.22	Aggregate	BS 812-2:1995 CL 5.5	Particle Density and Water Absorption CL 5.5 Method for aggregates 10 mm nominal size and smaller	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash pokrel 3. Praji Prasannanakumar
15.		Aggregate	BS 812-2:1995 Cl 6.2	Testing aggregates CL 6.2 Sampling	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur
16.		Aggregate	BS 812-2:1995 Cl 6.3.4.2	Determination of Bulk Density and Voids of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
17.		Aggregate	BS 812-102:1989	Method of Sampling of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur
18.	2.24, 2.25	Aggregate	BS 812-103:1985	Method for the Determination of Particle Size Distribution	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
19.	2.3	Aggregate	BS 812-105.1:1989	Method for the Determination of Particle Shape, Flakiness Index of Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
20.	2.32	Aggregate	BS 812-105.2:1989	Method for the Determination of Particle Shape, Elongation Index of Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
21.		Aggregate	BS 812-109:1990	Method for the Determination of Moisture Content	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
22.	2.33	Aggregate	BS 812-110:1990	Method for the Determination of Aggregate Crushing Value	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur
23.	2.34	Aggregate	BS 812-111:1990	Method for the Determination of Ten Percentage Fines Value of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur
24.	2.35	Aggregate	BS 812-112:1990	Method for the Determination of Aggregate Impact Value	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Varun Krishna 3. Sirash Pokrel 4. Bishnu Bahadur
25.		Aggregate	BS 812-121:1989	Testing Aggregate- Method for Determination of Soundness of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3.Sirash Pokrel 4.Bishnu Bahadur

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
26.		Aggregate	BS EN 932-1:1997	Tests for General Properties of Aggregate. Method of Sampling	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
27.		Aggregate	BS EN 932-2:1999 CL 8 & CL 10	Tests for General Properties of Aggregate. Test for Reducing the Samples	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
28.	2.23	Aggregate	BS EN 933-1:2012	Determination of Particle Size Distribution of Aggregate)	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Varun Krishna 3. Sirash Pokrel 4. Bishnu Bahadur
29.		Aggregate	BS EN 933-3:2012	Determination of Aggregate Particle Shape-Flakiness Index	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Varun Krishna
30.	2.28	Aggregate	BS EN 933-7:1998	Determination of Shell Content in Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2.Sirash Pokrel 3. Bishnu Bahadur
31.		Aggregate	BS EN 933-8:2012	Assessment of Sand Equivalent Test	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Bishnu Bahadur
32.	2.19	Aggregate	BS EN 1097-6:2013	Determination of Particle Density and Water Absorption of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Varun Krishna 3. Sirash Pokrel 4. Bishnu Bahadur
33.	2.3	Asphalt Aggregate	ASTM C136 / C136 M - 14	Standard Test Method for Sieve Analysis	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel
34.	2.15	Asphalt Aggregate	ASTM D546 - 10	Standard Practice for Sieve Analysis of Mineral Filler in Bituminous Mixtures	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Praji P 3. Sirash Pokrel 4. Varun Krishna
35.	2.14	Asphalt Aggregate	ASTM D5821 - 13	Standard Practice for Determining the Percentage of Fractured Particles in Coarse Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
36.	6.46	Asphalt	AASTHO T 283	Resistance of Compacted Asphalt to Moisture Induced Damage	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
37.	6.1	Asphalt	ASTM D6	Loss on Heating of Oil and Asphaltic Compounds	Main Laboratory	1. Sreenivasan K 2. Dennis Babiera Roaas 3. Bob K
38.	6.6	Asphalt	ASTM D36 / D36M - 14e	Standard Test Method for Softening Point of Bitumen (Ring & Ball Apparatus)	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Bob K 3. Deepak Lakshmanan Achary 4. Surya Kumar Shrestha
39.	6.4	Asphalt	ASTM D70 - 09	Standard Test Method for Density of Semi Solid Bituminous Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Bob K 4. Ramesh B
40.	6.7	Asphalt	ASTM D92 – 12	Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
41.	6.8	Asphalt	ASTM D113	Standard Test Method for Ductility of Bituminous Material.	Main Laboratory	1. Sreenivasan K 2. Bob K 3. Dennis Babiera Roaas
42.	6.1	Asphalt	ASTM D140 / D140M - 14	Standard Practice for Sampling Bituminous Materials	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
43.		Asphalt	ASTM D979 / D979M - 12	Standard Practice for Sampling Bituminous Paving Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
44.	6.26	Asphalt	ASTM D1188 – 07	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
45.		Asphalt	ASTM D1754	Standard Test Method for the Effect of Air and Air on Asphaltic Materials.	Main Laboratory	1. Sreenivasan K 2. Dennis Babiera Roaas 3. Ananth S 4. Sreeram Anil
46.	6.27	Asphalt	ASTM D2041 / D2041 - 11	Standard Test Method for Theoretical Specific Gravity & Density of Bituminous Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
47.	6.11	Asphalt	ASTM D2171	Standard Test Method for Viscosity of Asphalt by Vacuum Capillary Viscometer.	Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
48.	6.32	Asphalt	ASTM D2172 / D2172M - 11	Standard Test Method for the Quantitative Extraction of Bitumen From Bituminous Paving Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Ramesh B 5. Danniel T
49.	6.25	Asphalt	ASTM D2726 / D2726 - 14	Standard Test Method for Bulk Specific Gravity and Density of Non Absorptive Compacted Bituminous Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
50.	6.35	Asphalt	ASTM D2950 / D2950M - 14	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods	QEL Main Laboratory	1. Rajesh Shrestha 2.Hari Narayanan 3. Bikal Gurung
51.		Asphalt	ASTM D2995 – 99 (2009)	Standard Practice for Estimating Application Rate of Bituminous Distributors	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
52.	6.29	Asphalt	ASTM D3549 / D3549 - 11	Standard Test Method for Thickness or Height of Compacted Bituminous Specimens	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
						4. Bob K 5. Ramesh B
53.	6.23	Asphalt	ASTM D5361 / D5361M - 14	Standard Practice for Sampling Compacted Bituminous Mixtures for Laboratory Testing	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Hytham Osman 3. Surya Kumar Shrestha
54.	6.34	Asphalt	ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate	QEL Main Laboratory	1. Deepak Lakshmanan 2. Surya Kumar Shrestha
55.	6.31	Asphalt	ASTM D5581 - 07 (2013)	Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 inch- Diameter Specimen)	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
56.	6.24	Asphalt	ASTM D6926 - 10	Standard Practice for Preparation of Bituminous Specimen Using Marshall Apparatus	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
57.	6.3	Asphalt	ASTM D6927 - 15	Standard Test Method for Marshall Stability & Flow of Asphalt Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
58.	6.45	Asphalt	ASTM E1926- 08 (2015)	Standard Practice for Computing International Roughness Index of Roads from Longitudinal Profile Measurements	QEL Main Laboratory	1. Arun Bhasi 2. Rajath Bauraj 3. Varun Krishna 4. Sreenivasan Kakurayil
59.		Asphalt	BS 598-102:2003 Annex E & F	Determination of Binder Content by Centrifugal Extraction Method	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
60.	6.62	Asphalt	BS EN 1426:2007	Determination of Needle Penetration of Bituminous Binders	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
61.	6.63	Asphalt	BS EN 1427:2007	Determination of Softening Point- Ring & Ball Method.	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
62.	6.50	Asphalt	BS EN 12697-1:2012	Test Method for Hot Mix Asphalt- Soluble Binder Content.	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
63.	6.51	Asphalt	BS EN 12697-2:2002	Determination of Hot Mix Asphalt– Determination of Particle Size Distribution.	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
64.	6.52	Asphalt	BS EN 12697-5:2009	Test Method for Hot Mix Asphalt- Determination of Maximum Density	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
65.	6.53	Asphalt	BS EN 12697-6:2012	Test Method for Hot Mix Asphalt- Determination of Bulk Density of Bituminous Specimens	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
66.	6.54	Asphalt	BS EN 12697-8:2003	Test Method for Hot Mix Asphalt- Determination of Void Characteristics of Bituminous Specimens	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
67.	6.56	Asphalt	BS EN 12697-13:2000	Test Method for Hot Mix Asphalt - Temperature Measurement	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
						5. Ramesh B 6. Anoop Shrestha
68.		Asphalt	BS EN 12697-14:2000	Test Method for Hot Mix Asphalt - Water Content	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
69.	6.47	Asphalt	BS EN 12697-27:2001	Test Method for Hot Mix Asphalt - Sampling	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
70.		Asphalt	BS EN 12697-28:2001	Test Method for Hot Mix Asphalt - Preparation of Samples for Determining Binder Content, Water Content & Grading	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
71.	6.57	Asphalt	BS EN 12697-29:2002	Test Method for Hot Mix Asphalt - Determination of Dimensions of Bituminous Specimen	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak L Achary 3. Surya Kumar Shrestha 4. Vishnu R 5. Ramesh B 6. Anoop Shrestha
72.	6.49	Asphalt	BS EN 12697-30:2012	Test Method for Hot Mix Asphalt - Specimen by Impact Compactor	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
73.		Asphalt	BS EN 12697-34:2012	Test Method for Hot Mix Asphalt- Marshall Test	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
74.	6.60	Asphalt	BS EN 12697-36:2003	Test Method for Hot Mix Asphalt - Determination of Thickness of Bituminous Pavement	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
75.		Asphalt	BS EN 13036-6:2008	Test Method-Measurement of Transverse and Longitudinal Profiles in the Evenness and Mega structure Wavelength Ranges	QEL Main Laboratory	1. Varun Krishna 2. Abhilash V 3.Aneesh Thampi
76.	6.5	Bitumen	ASTM D5 / D5M - 13	Standard Test Method for Penetration of Bituminous Mixtures	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha 4. Bob K 5. Ramesh B
77.	6.9	Bitumen	ASTM D2042	Solubility in Trichloroethylene	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
78.	6.16	Bitumen	ASTM D2872	Effect of Heat and Air on Moving Film of Asphalt	QEL Main Laboratory	1. Sreenivasan K 2. Bob K 3. Dennis Babiera Roaas
79.	6.12	Bitumen	ASTM D4402	Viscosity Determination by Rotational Viscometer	QEL Main Laboratory	1. Sreenivasan K 2. Bob K 3. Dennis Babiera Roaas
80.	10.3	Bitumen	ASTM D7113 / D7113 - 10	Standard Test Method for Density of Bituminous Mixtures in Place by Electromagnetic Surface Contact Method	QEL Main Laboratory	1. Dennis Babiera Roaas 2. Deepak Lakshmanan Achary 3. Surya Kumar Shrestha
81.	2.24/ 2.25	Bitumen	BS 812-103:1985	Method for the Determination of Particle Size Distribution of Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Varun Krishna 3. Sirash Pokrel 4. Praji Prasannakumar 5. Bishnu Bahadur 6. Sajith Prasanna Thisera
82.	5.2	Cement	ASTM C183 - 02	Standard Practice for Sampling & Amount of Testing for Hydraulic Cement	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3.Anis Sayed 4.Sreeram Anil

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
83.	5.2	Cement	ASTM C191 - 13	Standard Test Method for Setting Time of Cement by Vicat Needle.	QEL Main Laboratory	1. Praseeth Rethnakumar 2. Aneesh Thampi
84.	5.3	Cement	BS EN 196-1:2005	Determination of Strength Test for Cement	QEL Main Laboratory	1. Praseeth Rethnakumar 2. Sreenivasan Kakurayil 3. Aneesh Thampi
85.	5.14	Cement	BS EN 196-3:2008	Determination of Soundness and Setting Time.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Rajesh R
86.	5.21	Cement	BS EN 196-6:2010	Determination of Fines of Cement	QEL Main Laboratory	1. Praseeth Rethnakumar 2. Sreenivasan Kakurayil 3. Aneesh Thampi
87.	5.1	Cement	BS EN 196-7:2007	Method of Taking and Preparing Samples of Cement	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
88.	5.17	Cementitious Materials	ASTM C187 - 11	Standard Test Method for the Amount of Water Required for the Standard Consistency of Hydraulic Cement Paste.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Rajesh R
89.	5.25	Cementitious Materials	ASTM C311 / C311M - 13	Standard Test Method for Sampling and Testing Fly Ash	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
90.	5.4	Cementitious Materials	ASTM C349 - 14	Standard Test Method for Compressive Strength of Hydraulic Cement	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Rajesh R
91.	5.22	Cementitious Materials	ASTM C989 / C989M - 14	Standard Specification for Slag Cement for Use in Concrete	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
92.	5.26	Cementitious Materials	ASTM C1012	Length Change of Cement Mortars	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Shyam Kumar
93.	5.23	Cementitious Materials	ASTM C1240 - 14	Standard Test Method for Silica Fumes Used In Cementitious Mixture	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
94.	5.24	Cementitious Materials	ASTM D5759 - 12	Standard Guide for Characterization of Coal and Fly Ash	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
95.		Chemical	HACH 8192	Quantitative Determination of Nitrate.	Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
96.	2.9	Chemical Aggregate	ASTM C40 / C40M - 11	Standard Test Method for Organic Impurities in Fine Aggregate for Concrete	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
97.	3.9	Chemical Aggregate	ASTM C1218 / C1218M 1999 (2008)	Standard Test Method of Water Soluble Chloride in Mortar Concrete	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
98.	2.37	Chemical Aggregate	BS 812-117:1988 Appendix C	Method for the Determination for Water Soluble Chloride Content in Aggregate.	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
99.	2.39	Chemical Aggregate	BS 812-118:1988 – Cl 6	Determination of Total Sulphate Content by Acid Extraction	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
100.		Chemical Aggregate	BS EN 933-9	Methlyne Blue Test	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
101.	2.40	Chemical Aggregate	BS EN 1744-1:2009+A1:2012	Test for Chemical Properties of Aggregate Sulphate -Chemical Analysis	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
102.	2.36	Chemical Aggregate	BS EN 1744-5:2006	Test for Chemical Properties of Aggregate-Determination of acid Soluble Chloride Salts	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
103.		Chemical Cement	ASTM C114 - 13	Standard Test Method for Chemical Analysis of Hydraulic Cement	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
104.	5.5, 5.6, 5.7, 5.8, 5.9,	Chemical Cement	BS EN 196-2:2013 Tests-7, 8, 9, 13.5, 13.6, 13.8, 13.9, 13.10, 13.11,	Chemical Analysis of Cement	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju

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	5.10, 5.11. 5.12, 5.13		13.14, 13.15, 14, 17			
105.		Chemical Cement	BS EN 196-4:2007	Quantitative Determination of Constituents of Cement	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
106.	5.18	Chemical Cement	BS EN 196-5:2011	Pozzolancty Test of Pozzolanic Cement	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
107.	5.19	Chemical Cement	BS EN 196-21:1992 (Tests 4 and 7)	Determination of Chloride, Carbon Dioxide & Alkali Content of Cement (tests 4 and 7)	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
108.	3.10	Chemical Concrete	ASTM C1152 / C1152M – 04 (2012)	Standard Test Method for Acid Soluble Chloride in Mortar & Concrete	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
109.	3.3	Chemical Concrete	BS 1881-124:1988 CL 10.2 & 10.3	Determination of Chloride & Sulphate Content of Concrete	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
110.		Concrete	AASHTO TP- 64. 03 /NT BUILD 492	Predicting Chloride Penetration of Hydraulic Cement Concrete by Rapid Migration Process	QEL Main Laboratory	1. Sreeram Anil 2. Santosh Eenthulla Prambath 3-Vivek Kumar Yadav 4-Vasudevan P
111.	3.1	Concrete	ASTM C31 / C31M - 12	Standard Practice for Making & Curing Concrete Test Specimens	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sreejith K 4. Shahi S 5. Vasudevan P
112.		Concrete	ASTM C39 / C39M - 14a	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sreejith K 4. Shahi S 5. Vasudevan P

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113.	3.8	Concrete	ASTM C42 - 04	Obtaining and Testing of Drilled Cores and Sawed Beams	QEL Main Laboratory	1. Niyas S 2. Dinesh Shrestha
114.		Concrete	ASTM C78 / C78M - 10e1	Standard Test Method for Flexural Strength of Concrete (3 Point Method)	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sajith Prasanna Thisera
115.	3.14	Concrete	ASTM C138 / C138M - 14	Standard Test Method for Density and Air Content (Gravimetric) of Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3. Vivek Kumar Yadav 4. Vasudevan P
116.	3.4	Concrete	ASTM C143 / C143M - 12	Standard Test Method for Slump of Hydraulic Cement Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sreejith K 4. Shahi S 5. Vasudevan P
117.	3.10	Concrete	ASTM C172 / C172M - 14a	Standard Practice for Sampling Freshly Mixed Concrete	QEL Main Laboratory	1. Vivek Kumar Yadav 2. Sreeram Anil 3. Sreejith K 4. Shahi S 5. Vasudevan P
118.	3.12	Concrete	ASTM C231 / C231M - 14	Standard Test Method for Air Content of Freshly Mixed Concrete by Pressure Method	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sreejith K 4. Shahi S 5. Vasudevan P
119.		Concrete	ASTM C403 / C403M - 08	Standard Test Method for Time of Setting of Concrete by Penetration Resistance	QEL Main Laboratory	1. Sreeram Anil 2. Santosh Eenthulla Parambath 3. Vivek Kumar Yadav 4. Vasudevan P
120.		Concrete	ASTM C597 - 16	Standard Test Method of Pulse Velocity Through Concrete.	Main Laboratory	1. Sreenivasan K 2. Sreeram Anil 3. Swadish K
121.	3.60	Concrete	ASTM C617 / C617M - 12	Standard Test Method for Capping Cylindrical Concrete Specimens	QEL Main Laboratory	1. Sreeram Anil2. Vivek Kumar Yadav3. Vasudevan P

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122.		Concrete	ASTM C876 - 15	Standard Test Method for Corrosion Potentials of Uncoated Resistance Steel in Concrete	QEL Main Laboratory	1. Sreenivasan Kakurayil
123.	3.16	Concrete	ASTM C900 - 14	Standard Test Method for Pull Out Strength of Harden Concrete	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Naindra Bahadur 3. Aneesh Thampi
124.	3.30	Concrete	ASTM C1064 / C1064 - 12	Standard Test Method for Temperature of Freshly Mixed Hydraulic Cement Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreejith K 3. Shahi S 4. Vasudevan P
125.	3.11	Concrete	ASTM C1202 - 12	Standard Test Method for Electrical Indication of Concrete Ability to Resist to Chloride Ion Penetration	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Ananthu Sanil 3. Sreeram Anil
126.	3.70	Concrete	ASTM C1231 / C1231M - 14	Standard Practice for Use of Unbounded Caps in the Determination of Compressive Strength of Hardened Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3. Vivek Kumar Yadav 4. Vasudevan P 5. Jayasanthosh J
127.	3.15	Concrete	ASTM C1385 - 10 (2017)	Sampling of Shotcrete ASTM C1385	QEL Main Laboratory	1. Santosh E 2. Vivek Kumar Yadav
128.	3.17	Concrete	ASTM C1688 - 14	Density Determination of Pervious Concrete	QEL Main Laboratory	1. Santosh E 2. Vivek Kumar Yadav
129.	3.18	Concrete	ASTM C1701 - 17	Infiltration Test for In place Pervious Concrete	QEL Main Laboratory	1. Santosh E 2. Vivek Kumar Yadav
130.		Concrete	BS 1881-102:1983	Method of Determination of Slump	QEL Main Laboratory	1. Shahi S 2. Vivek Kumar Yadav 3. Vasudevan P 4. Sreejith K
131.		Concrete	BS 1881-108:1983	Method for Making Test Cubes from Fresh Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3. Vivek Kumar Yadav 4. Vasudevan P

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						5. Shahi S 6. Sreejith K
132.		Concrete	BS 1881-116:1983	Method for the Determination of Compressive Strength of Concrete Cube	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3. Vivek Kumar Yadav 4. Vasudevan P 5. Shahi S 6. Sreejith K
133.		Concrete	BS 1881-118:1983	Determination of Flexural Strength of Beams	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2.Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
134.		Concrete	BS 1881-120:1983	Method for the Determination of Compressive Strength of Concrete Cores	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
135.		Concrete	BS 1881-22:2011	Method for the Determination of Water Absorption of Concrete	QEL Main Laboratory	1. Prateek Velandi 2. Anurag Reghu 3. Santosh Eenthulla Parambath 4. Arulvarnan Sathasivam
136.	3.31	Concrete	BS 1881-208:1996	Initial Surface Absorption of Hardened Concrete	QEL Main Laboratory	1. Sriram Anil
137.		Concrete	BS 6717-1:2001	Precast, Unreinforced Concrete Paving Blocks	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sajith Prasanna Thisera
138.	3.21	Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temprature	QEL Main Laboratory	1. Santhosh EP 2. Vivek Kumar Yadav 3. Sreejith K 4. Vasudevan P
139.	3.22, 3.23	Concrete	BS EN 12350-2:2009	Testing Fresh Concrete – Slump Test	QEL Main Laboratory	1. Santhosh EP 2. Shahi S 3. Sreejith K 4. Vasudevan P
140.	3.24	Concrete	BS EN 12350-5:2009	Flow Table Test	QEL Main Laboratory	1. Santosh Eenthulla Parambath

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						2. Vivek Kumar Yadav 3. Shahi S 4. Vasudevan P 5. Sreejith K
141.		Concrete	BS EN 12350-9	V Funnel Test for Self Compacting Concrete	QEL Main Laboratory	1. Sreenivasan K 2. Santosh Eenthulla Parambath 3. Sreejith K 4. Sreeram A
142.	3.25	Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Shahi S 3. Sreejith K
143.	3.22	Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreejith K 3. Shahi S 4. Vasudevan P
144.	3.26	Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreejith K 3. Shahi S 4. Vasudevan P
145.		Concrete	BS EN 12390-5	Testing hardened concrete. Flexural strength of test specimens	Main Laboratory	1. Sreeram Anil 2. Santosh Eenthulla Parambath3. Vivek Kumar Yadav
146.		Concrete	BS EN 12390-6:2009	Tensile Splitting Strength of Test Specimens	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sajith Prasanna Thisera
147.	3.27	Concrete	BS EN 12390 Part-7, CL 5.1.2	Density of Hardened Concrete	QEL Main Laboratory	1. Santhosh EP 2. Shahi S 3. Sreejith K 4. Vasudevan P
148.	3.29	Concrete	BS EN 12390-8:2009	Water Penetration of Hardened Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath

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						2. Sreeram Anil 3. Sajith Prasanna Thisera
149.	3.28	Concrete	BS EN 12504-1:2009	Cored Specimens: Taking, Examining & Testing in Compression.	QEL Main Laboratory	1. Sreeram Anil 2. Vivek Kumar Yadav 3. Sreejith K 4. Vasudevan P 5. Lavan S.
150.		Concrete	BS EN 12504-2	Testing Hardened Concrete in Structures. Non Destructive Testing-Determination of Rebound Number	QEL Main Laboratory	1. Sreenivasan Kakurayil
151.		Concrete	DIN-1048	Permeability Test	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Santosh Eenthulla Parambath 3. Sajith Prasanna Thisera
152.		Concrete	IWPT 146 - (Robin Summers Specification Appendix A)	Capillary Index of Concrete	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P 5.Jayasanthosh J
153.	9.3	Environmental Testing	APHA/AWWA 2130 B	Turbidity	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
154.	9.70	Environmental Testing	APHA/AWWA 2320-B	Phenolphthalein Alkalinity	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
155.	9.69	Environmental Testing	APHA/AWWA 2320-B	Total Alkalinity	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
156.	9.35	Environmental Testing	APHA 2340-C	Total Hardness-EDTA Method	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
157.	9.2	Environmental Testing	APHA 2510-B	Electrical Conductivity	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju

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158.	9.4	Environmental Testing	APHA/AWWA 2540 B	Total Solids	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
159.		Environmental Testing	APHA 2540-C	Total Dissolved Solids	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
160.		Environmental Testing	APHA 2540-D	Total Suspended Solids	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
161.	9.5	Environmental Testing	APHA/AWWA 2540 D	Total Suspended Solids	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
162.	9.9	Environmental Testing	APHA/AWWA 2540F	Settleable Solids	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
163.	9.11	Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Volume	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3.Sanila Riju
164.	9.12	Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Volume Index	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
165.	9.10	Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Weight	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
166.	9.36	Environmental Testing	APHA 3500 Ca- B	Calcium-EDTA Titration Method	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
167.	9.37	Environmental Testing	APHA 3500 Mg- B	Magnesium- Calculation Method	QEL Main Laboratory	1.Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
168.	9.24	Environmental Testing	APHA 4500 Cl- B	Chloride- Argentometric Method	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
169.	9.22	Environmental Testing	APHA/AWWA 4500-ClG	Total Chlorine	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju

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170.	9.23	Environmental Testing	APHA/AWWA 4500-Cll	Residual Chlorine	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
171.		Environmental Testing	APHA 4500- H+- B	pH Value- Electrometric Method	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
172.	9.16	Environmental Testing	APHA/AWWA 4500 N	Total Kjeldahl Nitogen	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
173.		Environmental Testing	APHA/AWWA 4500 NO3-D	Nitrate	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
174.	9.26	Environmental Testing	APHA/AWWA 4500-SO4	Sulphate	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
175.	9.32	Environmental Testing	APHA 4500- SO24 –E	Sulphate-Turbudity Method	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
176.	9.33	Environmental Testing	APHA/AWWA 4500-S2 F	Sulphide	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
177.	9.13	Environmental Testing	APHA 5210-B	Biochemical Oxygen Demand	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
178.	9.14	Environmental Testing	APHA 5220-D	Chemical Oxygen Demand	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
179.	9.21	Environmental Testing	APHA/AWWA 5520 D	Oil & Grease	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
180.	9.73	Environmental Testing	APHA/AWWA 5310-B or C	Total Organic Carbon	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
181.	9.78	Environmental Testing	APHA/AWWA 9222 B & 9222 D	Total Coliforms	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju

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182.	9.80	Environmental Testing	APHA/AWWA 9223 B & G	E- Coli	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
183.	1.25, 1.26, 1.27, 1.28, 1.29	Environmental Testing	BS 1377-3:1990	Chemical & Electrochemical Test of Soil	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
184.	9.45	Environmental Testing	HACH Method	Cadmium	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
185.	9.42	Environmental Testing	HACH Method	Iron	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
186.		Environmental Testing	HACH Method	Silica	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
187.	9.51	Environmental Testing	HACH Method 8009	Zinc	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
188.	9.31	Environmental Testing	HACH 8027	Cyanide	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3.Sanila Riju
189.	9.64	Environmental Testing	HACH Method 8033	Lead	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
190.	9.30	Environmental Testing	HACH 8047	Phenol	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
191.	9.41	Environmental Testing	HACH Method 8049	Potassium	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3.Sanila Riju
192.	9.48	Environmental Testing	HACH Method 8143	Copper	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
193.	9.49	Environmental Testing	HACH Method 8150	Nickel	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3.Sanila Riju

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194.		Environmental Testing	HACH 8326	Aluminum	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
195.		Environmental Testing	QEL SOP/OPN/10	Microscopic Examination	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
196.	8.7	Geotechnical	ASTM D2435 / D2435 M - 11	Standard Test Method for One Dimensional Consolidation Properties of Soil Using Incremental Loading.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Dhan Bahadur 3. Dineshan Kakurayil 4. Naindra Bahadur 5. Shoeb Khan
197.	8.20	GeoTech	ASTM G57	Standard Test Method for Field Measurement of Soil Resisitivity Using te Wenner Four- Electrode Method	Street 50 Lab	1. Sreenivasan Kakurayil 2. Abhilash V 3- Varun K
198.	8.21	GeoTech	BS 1377-9:1990 CL 4.1	Methods of test for Soils for civil engineering purposes — Part 9: In-situ tests CL 4.1 Determination of the vertical deformation and strength characteristics of soil by the plate loading test	Street 50 Lab	1. Sreenivasan Kakurayil 2. Aneesh Thampi 3. Mandy V
199.	8.18	GeoTechl	BS 5930:2010 CL 25.5	Code of Practice for Site Investigation CL 25.5 Packer Test	QEL Main Laboratory	1.Sreenivasan Kakurayil 2. Shavan K
200.	11.16	Geotextiles & Waterproofing Tests	ASTM D412	Tensile Strength of Vulcanized Rubber & Thermoplastic Elastomers	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
201.	11.20	Geotextiles & Waterproofing Tests	ASTM D570	Water Absorption of Plastics	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
202.	11.14	Geotextiles & Waterproofing Tests	ASTM D638	Determination of Tensile Properties of Plastics	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil

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203.	11.2	Geotextiles & Waterproofing Tests	ASTM D751	Textiles Puncture Resistance.	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
204.	11.17	Geotextiles & Waterproofing Tests	ASTM D1004	Initial Tear Resistance of Plastic Film and Sheeting	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
205.	11.24	Geotextiles & Waterproofing Tests	ASTM D2240	Determination of Durometer Hardness	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
206.	11.27	Geotextiles & Waterproofing Tests	ASTM D3767	Dimensions Measurement of Rubber	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
207.	11.3	Geotextiles & Waterproofing Tests	ASTM D3787	Textiles Bursting Strength	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
208.	11.4	Geotextiles & Waterproofing Tests	ASTM D4533	Trapezoid Tearing Strength of Geotextiles.	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
209.	11.12	Geotextiles & Waterproofing Tests	ASTM D5199	Determination of Thickness of Geosynthetics	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
210.	11.1	Geotextiles & Waterproofing Tests	ASTM D5034	Breaking Strength and Elongation of Textile Fabrics (Grab Test)	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
211.	11.7	Geotextiles & Waterproofing Tests	ASTM D5035	Breaking Strength and Elongation of Textile (Strip Test)	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
212.	11.19	Geotextiles & Waterproofing Tests	ASTM E154	Puncture Resistance of Ground Covers	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
213.	11.15	Geotextiles & Waterproofing Tests	BS EN ISO 527-3	Determination of Tensile Properties of Plastics	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
214.	11.25	Geotextiles & Waterproofing Tests	BS EN 1849-1	Determination of Thickness and Mass per unit area of Bitumen sheets for roof waterproofing	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil

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215.	11.26	Geotextiles & Waterproofing Tests	BS EN 1849-2	Determination of Thickness and Mass per unit area of Plastic and Rubber	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
216.	11.13	Geotextiles & Waterproofing Tests	BS EN ISO 5084	Determination of Thickness of Textiles	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
217.	11.6	Geotextiles & Waterproofing Tests	BS EN ISO 10319:2015	Tensile Strength & Elongation at Rupture	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
218.	11.11	Geotextiles & Waterproofing Tests	BS EN 12127	Determination of Mass Per Unit Area (Weight)	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
219.	11.5	Geotextiles & Waterproofing Tests	BS EN ISO 12236	Static Puncture Test (CBR Test)	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
220.	11.10	Geotextiles & Waterproofing Tests	BS EN ISO 12956	Pore Size	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
221.	11.8	Geotextiles & Waterproofing Tests	BS EN ISO 13433	Dynamic Perforation Test (Cone Drop Test)	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil
222.		GRP Pipe Test	ASTM D2122, ASTM D3567	Dimensions	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil 4. Rabeek Raja
223.		GRP Pipe Test	ASTM D2563	Visual Inspection	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil 4. Rabeek Raja
224.		GRP Pipe Test	ASTM D2583	Hardness	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil 4. Rabeek Raja
225.		GRP Pipe Test	ASTM D3681	Strain Corrosion	QEL Main Laboratory	1. Sreenivasan k 2. Swadish K 3. Ananthu Sanil 4. Rabeek Raja 5. Rajeesh R

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226.	6.10	Masonry	ASTM C140 / C140M - 14 Cl 8	Standard Test Method for Sampling and Testing Concrete Masonry Units& Related Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sajith Prasanna Thisera 3.Vivek Kumar Yadav
227.	4.3	Masonry	BS 6073-1:1981 Appendix A & B	Specification for Precast Concrete Masonry Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
228.		Masonry	BS 6073-2:2008	Specification for Precast Concrete Masonry Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sajith Prasanna Thisera
229.		Masonry	BS 6717:2001	Specification for Precast Concrete Masonry Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Vivek Kumar Yadav 3. Sajith Prasanna Thisera
230.	4.5	Masonry	BS EN 771-3:2011	Specification for Masonry Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
231.	4.4	Masonry	BS EN 772-1:2011	Determination of Compressive Strength of Masonry Units	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
232.		Masonry	BS EN 772-11:2011	Determination of Water Absorption of Aggregate Concrete Autoclaved Aerated Concrete, Manufactured Stone & Natural Stone Masonry Units Due to Capillary Action and the Internal Rate of Water Absorption of Clay Masonry Units.	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
233.	4.9, 4.10	Masonry	BS EN 1338:2003 Annex E & F	Requirements and Test Method for Concrete Paving Blocks	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2.Vivek Kumar Yadav
234.	4.11/ 4.12	Masonry	BS EN 1339:2003 Annex E & F	Concrete Paving Flags and Test Methods	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2. Sreeram Anil 3.Vivek Kumar Yadav 4.Vasudevan P
235.	4.7/ 4.8/ 4.9	Masonry	BS EN 1340:2003 Annex C, E & F	Determination of Water Absorption of Paving Flags.	QEL Main Laboratory	1. Santosh Eenthulla Parambath 2..Sajith Prasanna Thisera
236.	10.4	NDT	ASTM C805	Standard Test Method for Rebound Number of Hardened Concrete	QEL Main Laboratory	1.Sreenivasan Kakurayil
237.	10.4	NDT	ASTM C805 / C805 - 13a	Standard Test Method for Rebound Number of Hardened Concrete	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sreeram Anil
238.	10.15	NDT	ASTM D4787 - 13	Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete	QEL Main Laboratory	1. Sreenivasan Kakurayil
239.	10.11	NDT	ASTM D4945 - 12	Standard Test Method for High Strain Dynamic Testing of Deep Foundations	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sreernam Anil
240.	10.15	NDT	ASTM D5162 - 08	Standard Practice for Discontinuity Testing of Nonconductive Protective Coating on Metallic Substance	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Ananth S 3. Abhilash V
241.	10.9	NDT	ASTM D5882 - 07(2013)	Standard Test Method for Low Strain Impact Integrity Testing of Deep Foundations	QEL Main Laboratory	1. Sreenivasan Kakurayil
242.	10.14	NDT	ASTM D6132-13	Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Applied	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Rohit S

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
				Organic Coatings Using an Ultrasonic Coating Thickness Gage		
243.	10.10	NDT	ASTM D6760 - 14	Standard Test Method for Integrity Testing of Concrete Deep Foundations by Ultrasonic Cross hole Testing	QEL Main Laboratory	1. Sreenivasan Kakurayil
244.		NDT	ASTM E 965	Standard Test Method for Measuring Pavement Macrotexture Depth Using a Volumetric Technique.	Main Laboratory	Sreenivasan Kakurayil Ananth S Swadish K
245.	7.1	NDT	BS EN 10002:2001	Tensile Testing of Metallic Materials	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Aneesh Thampi
246.	10.6	NDT	BS EN 12504-4:2004	Testing Concrete – Determination of Ultrasonic Pulse Velocity	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Rohit S
247.	13.2	Paints & Varnishes Tests	ASTM D1005	Measurement of Dry-Film Thickness of Organic Coatings	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
248.	13.3	Paints & Varnishes Tests	ASTM D1212	Measurement of Wet Film Thickness of Organic Coatings	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
249.	13.1	Paints & Varnishes Tests	ASTM D1475	Density of Liquid Coatings, Inks & paints	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
250.	13.25	Paints & Varnishes Tests	ASTM D1640	Drying, Curing, or Film Formation of Organic Coatings at Room Temperature	QEL Main Laboratory	1. Kannan N 2. Rejeesh R 3. Sanila Riju
251.	13.27	Paints & Varnishes Tests	ASTM D1647	Alkali Resistance	QEL Main Laboratory	1. Kannan N 2. Rejeesh R 3. Sanila Riju
252.	13.26	Paints & Varnishes Tests	ASTM D2196	Rheological Properties of Non-Newtonian Materials by Rotational Viscometer	QEL Main Laboratory	1. Sreenivasan K 2. Bob K 3. Rohit S

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
253.	13.17	Paints & Varnishes Tests	ASTM D2369	Determination Volatile Content of Coatings	QEL Main Laboratory	1. Kannan N 2. Rejeesh R 3. Sanila Riju
254.	13.4	Paints & Varnishes Tests	ASTM D2486	Scrub Resistance of Wall Paints	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
255.	13.14	Paints & Varnishes Tests	ASTM D3723	Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing	QEL Main Laboratory	1. Kannan N 2. Rejeesh R 3. Sanila Riju
256.	13.21	Paints & Varnishes Tests	ASTM D4060	Abrasion Resistance of Organic Coatings by the Taber Abraser	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
257.	13.15	Paints & Varnishes Tests	ASTM D5401	Determination of resistance to liquids	QEL Main Laboratory	1. Kannan N 2. Rejeesh R 3. Sanila Riju
258.	13.12	Paints & Varnishes Tests	BS EN ISO 2409	Cross-cut Tests of Paints and Varnishes	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Rohit S
259.	6.68	Road Marking Test	AASHTO T250	Glass Bead Content of Thermoplastic Material	QEL Main Laboratory	1. Kannan Narayanan 2. Rejeesh Ramachandran 3. Sanila Riju
260.	6.66	Road Marking Test	BS 2000-58	Softening Point (Ring and Ball Method) of Thermoplastic Material	QEL Main Laboratory	1. Sreenivasan K 2. Bob K 3. Dennis Babiera Roaas
261.	6.67	Road Marking Test	BS 3262 Part 1–Ap. D	Combined Gradation of Material	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Ananthu Sanil 4. Bob K 5. Praji P
262.	6.67	Road Marking Test	BS 3262 Part 1–Ap. D	Glass Bead Content of Thermoplastic Material	QEL Main Laboratory	1. Sreenivasan K 2. Sreeram A 3. Rajesh R
263.	6.71	Road Marking Test	BS 3262 Part 1–Ap. H	Flow Resistance of Thermoplastic Material	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Ananthu Sanil 4. Bob K
264.	6.69	Road Marking Test	BS 3262 Part 3–Ap. C	Determination of Density of Thermoplastic Material	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
						3. Ananthu Sanil 4. Bob K
265.	6.73	Road Marking Test	BS 6088 Appendix B	Particle Size Distribution of Glass Beads	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K 3. Ananthu Sanil 4. Bob K
266.	8.4	Rock	ASTM D4543 - 08	Standard Practice for Preparing Rock Core as Cylindrical Specimens& Verifying conformance to Dimensional and Shape Tolerance.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Sreeram Anil
267.	8.3	Rock	ASTM D5731 - 08	Standard Test Method for the Determination of Point Load Index of Rock	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Anandhu Sanil
268.	8.5	Rock	ASTM D7012 - 14	Standard Test Method for the Determination of Compressive Strength and Elastic Moduli of Intact Rock Core Specimen Under Varying Stress and Temperature	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Naindra Bahadur Shrestha 3. Ganesh Krishnan
269.		Rock	BS EN 13383-1:2002 CL 4, 5.2, 5.3, 5.4, 5.6, 6.3	Drop Test	QEL Main Laboratory	1. Abilash Viswabaran 2. Jessil Joy
270.	1.1	Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Main Laboratory	1. Shirash Pokhrel 2. Ramlal P
271.	1.4	Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Main Laboratory	1. Sreenivasan Kakurayil 2 Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
272.		Soil	ASTM D1196 / D1196M - 12	Standard Test Method for Non Repetitive Static Plate Load Tests of Soil & Flexible Pavement Components	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Abhilash V 3. Dineshan Kakurayil 4. Shoeb Khan

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
273.	1.8	Soil	ASTM D1556 / D1556M - 15	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Erapparayil Varghese Sajimon 3. Dhan Bahadur 4. Anish Shrestha 5. Dinesh Shrestha
274.	1.60	Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Main Laboratory	1. Sreenivasan Kakurayil 2 Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
275.	1.11	Soil	ASTM D1883 - 16	Standard Test Method for California Bearing Ratio of Laboratory Compacted Soils	QEL Main Laboratory	1. Sreenivasan Kakurayil 2 Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
276.	1.2	Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Main Lab	1. Sreenivasan Kakurayil 2 Dhan Bahadur
277.	1.13	Soil	ASTM D2419 - 14	Standard Test Method for Sand Equivalent Value of Soil & Fine Aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Sirash Pokrel
278.		Soil	ASTM D2922 - 05	Standard Test Method for Density of Soil- Aggregate in Place by Nuclear Methods	QEL Main Laboratory	1. Rajesh Shrestha 2. Sreeram Anil 3. Bikal Gurung 4. Syam Kumar
279.	1.5	Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Main Laboratory	1. Sreenivasan Kakurayil 2 Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
280.	1.12	Soil	ASTM D4429 -09a	Standard Test Method for CBR in Place	QEL Main Laboratory	1. Erapparayil Varghese Sajimon 2. Sreenivasan 3. Ganesh Krishnan 4. Dinesh Shrestha
281.	1.07	Soil	ASTM D4718	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles	QEL Main Laboratory	1. Sreenivasan Kakurayil

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
282.	1.1	Soil	ASTM D4944	In Place Moisture Content (Calcium Carbide Tester)	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Dhan Bahadur
283.	1.3	Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Dhan Bahadur 4. Anish Shrestha 5. Dinesh Shrestha
284.	1.9	Soil	ASTM D6938 - 10	Standard Test Method for In-Place Density and Water Content of Soil and Soil- Aggregate by Nuclear Methods (Shallow Depth)	QEL Main Laboratory	1. Rajesh Shrestha 2. Hari Narayanan 3. Bikal Gurung
285.		Soil	BS 1377-2:1990 Cl 4	Determination of Liquid Limit of Soil	QEL Main Laboratory	1. Erapparayil Varghese Sajimon 2. Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
286.		Soil	BS 1377-2:1990 Cl 5	Determination of Plastic Limit & Plasticity Index of Soil	QEL Main Laboratory	1. Erapparayil (Sajeed) Varghese Sajimon 2. Dhan Bahadur 3.Anish Shrestha 4.Dinesh Shrestha
287.		Soil	BS 1377-2:1990 Cl 8	Determination of Particle Density	QEL Main Laboratory	1. Naindra Bahadur 2. Shoeb Khan
288.		Soil	BS 1377-2:1990 Cl 9	Determination of Particle Size Distribution	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Dineshan K 3. Dhan Bahadur 4. Naindra B
289.		Soil	BS 1377-4:1990 Cl 3	Determination of Dry Density- Moisture Content Relationship of Soil	QEL Main Laboratory	1. Erapparayil Varghese Sajimon 2. Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha
290.		Soil	BS 1377-4:1990 Cl 7	Determination of CBR	QEL Main Laboratory	1. Naindra Bahadur 2. Shoeb Khan
291.		Soil	BS 1377-9:1990 Cl 4.3	Methods of test for Soils for civil engineering purposes — Part 9: In-situ tests CL 4.3 Determination	QEL Main Laboratory	1. Erapparayil Varghese Sajimon 2. Dhan Bahadur 3. Anish Shrestha 4. Dinesh Shrestha

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
				of In Situ California Bearing Ratio		
292.	1.31	Soil	BS 1924.2:1990Part 4.2	Method of Testing for Cement Stabilized & Lime Stabilized Material Part 4.2 Determination of Compressive Strength of Cubic Specimens	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Santhosh EP 3. Sreeram Anil
293.	2.16	Soil/Rock	AASHTO T- 304.11 Method A- Standard Grade Sample	Standard Method of Test for Un- compacted Void content of Fine aggregate	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Dineshan K 3. Dhan Bahadur
294.	8.23	Soil/Rock	ASTM D6951 / D6951 M - 09 (2015)	Standard Method for use of the Dynamic Cone Penetrometer in Shallow Pavement Application	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Shavan Kalady
295.		Steel	ASME BPVC IX QW-183, QW- 184, QW-472.1, QW-472.4	ASME Boiler & Pressure Vessel Code Section IX: Welding & Brazing Qualifications Macro Examination (QW-183, QW-184), Etching (QW-472.1, QW-472.4)	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
296.	7.2	Steel	ASTM A370 - 14	Standard Test Method & Definition of Mechanical Testing of Steel Products	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Aneesh Thampi
297.		Steel	ASTM A615 / 615M - 14	Standard Test Method for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Aneesh Thampi
298.	7.10	Steel	ASTM A931	Tension Testing of Wire Ropes & Strands	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K
299.	7.9	Steel	ASTM A1061	Testing Multiwire Steel Prestressing Strand	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K
300.	7.6	Steel	ASTM E23 - 12	Standard Test Method for Notched Bar Impact Testing of Metallic Materials.	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil

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SN	PWA No.	Category	Standard / Method No. / Date	Standard / Method Title & Section	Location / Facility	Authorized Technicians
301.		Steel	ASTM G62	Standard Test Method for Holiday Detection of Pipe Line coating	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Abhilash V.K. 3. Varun K. 4. Ananth S.
302.	7.5	Steel	BS 131-1961	Notched Bar Test. Izod Impact Test of Materials	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
303.	7.3/ 7.4	Steel	BS 4449:2009	Steel for Reinforcement of Concrete. Weldable Reinforcing Steel, Bar Coil & Decoil Product Specification	QEL Main Laboratory	1. Swadish K 2. Jayasanthoh J
304.	7.11	Steel	BS EN 124	Load Resistance Test of Manhole covers	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K
305.	7.7	Steel	BS EN 10045-1:1990	Charpy Impact Test on Metallic Materials	QEL Main Laboratory	1. Sreenivasan Kakurayil 2. Swadish K 3. Anis Sayed 4. Sreeram Anil
306.	7.8	Steel	BS EN 15630-3	Tensile Test of High Tensile Steel Wire Strands	QEL Main Laboratory	1. Sreenivasan K 2. Swadish K
307.	13.12	Water Leakage	AAMA 501.2	Quality Assurance and Diagnostic Water Leakage Field Check of Installed Store Fronts, Curtains walls and Sloped Glazing Systems	Field Test	1- Bishnu B 2- Lavan S 3- Tamar Osman

QEL Daewoo Site Laboratory:
Daewoo E & C Co Ltd. Construction and Upgrading of E-ring Road North South Link (P008-C2) P.O Box 40278, Doha, State of Qatar

1.	2.6	Aggregate	ASTM C127 - 15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)

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2.	2.5	Aggregate	ASTM C128 - 15	Standard Test Method for Density, Relative Density and Absorption of Fine Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
3.	2.3	Aggregate	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B. Sajith T(Asst. Tech)
4.	2.7	Aggregate	ASTM C142 - 17	Standard Test Method for Clay Lumps and Friable Particles in Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
5.	2.12, 2.11	Aggregate	ASTM C535, ASTM C131	Standard Test Method for Los Angeles Abrasion – Large Size Coarse Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
6.		Aggregate	ASTM C702 / C702M - 18	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
7.	2.1	Aggregate	ASTM D75 / D75M - 14	Standard Practice for Sampling Aggregates	QEL Daewoo Site Laboratory	1. Dineshan K. 2. Vishnu R
8.	1.1	Aggregate	ASTM D2419-14	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
9.	2.10	Aggregate	ASTM D4791 - 10	Standard Test Method for Flat & Elongated Particles	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
10.	2.14	Aggregate	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
11.	2.28	Aggregate	BS EN 933-7:1998	Determination of Shell Content in Coarse Aggregate	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T (Asst. Tech)
12.	3.30	Concrete	ASTM C1064	Test for Temprature of fresh concrete	QEL Daewoo Site Laboratory	Vishnu M
13.	3.21	Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temprature	QEL Daewoo Site Laboratory	1. Vishnu M 2. BIMAL S

14.	3.22, 3.23	Concrete	BS EN 12350-2:2009	Testing Fresh Concrete – Slump Test	QEL Daewoo Site Laboratory	1. Vishnu M 2. BIMAL S
15.	3.25	Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Daewoo Site Laboratory	1. Syam Kumar 2. Sajith T.
16.	3.22	Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Daewoo Site Laboratory	1. Vishnu M 2. BIMAL S
17.	3.26	Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Daewoo Site Laboratory	1. Syam Kumar 2. Sajith T(Asst. Tech)
18.		Concrete	BSEN 12390-7	Density of Concrete	QEL Daewoo Site Laboratory	1. Shyam Kumar 2. Sajith T
19.		Concrete	IWPT 146 - (Robin Summers Specification Appendix A)	Capillary Index of Concrete	QEL Daewoo Site Laboratory	1. Praji P 2. Chitra B 3. Sajith T(Asst. Tech)
20.	1.1	Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Daewoo Site Laboratory	1. Dineeshan K
21.	1.4	Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Daewoo Site Laboratory	1. Dineeshan K
22.	1.60	Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Daewoo Site Laboratory	1. Dineeshan K
23.	1.11	Soil	ASTM D1883 - 16	Standard Test Method for California Bearing Ratio of Laboratory Compacted Soils	QEL Daewoo Site Laboratory	1. Dineeshan K
24.	1.2	Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Daewoo Site Laboratory	1. Dineshan K 2. Chitra B

25.	1.5	Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Daewoo Site Laboratory	1. Dineeshan K
26.	1.3	Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Daewoo Site Laboratory	1. Dineeshan K

QEL Hyundai Site Laboratory:
Hyundai Engineering & Construction Co. Ltd, Construction of Al Bustan Street South (P007 C5 P1) Doha, Qatar

1.	3.30	Concrete	ASTM C1064	Test for Temprature of fresh concrete	QEL Hyundai Site Laboratory	1. Sreeram A 2. Vivek Yadav
2.	3.21	Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temprature	QEL Hyundai Site Laboratory	1. Aswin A 2. Abdulhajis MH
3.	3.22, 3.23	Concrete	BS EN 12350-2:2009	Testing Fresh Concrete – Slump Test	QEL Hyundai Site Laboratory	1. Aswin A 2. Abdulhajis MH
4.	3.25	Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Hyundai Site Laboratory	1. Sreeram A 2. Vivek Yadav 3. Santhosh Das
5.	3.22	Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Hyundai Site Laboratory	1. Aswin A 2. Abdulhajis MH
6.	3.26	Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Hyundai Site Laboratory	1. Sreeram A 2. Vivek Yadav 3. Santhosh Das
7.	3.27	Concrete	BS EN 12390 Part-7, CL 5.1.2	Density of Hardened Concrete	QEL Hyundai Site Laboratory	1. Sreeram A 2. Vivek Yadav
8.	1.1	Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid 3. Kemarajithan
9.	2.10	Soil	ASTM D75	Sampling	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid 3. Kemarajithan

10.	1.4	Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid 3. Kemarajithan
11.	1.60	Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid
12.	1.2	Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid
13.	1.5	Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid
14.	1.3	Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Hyundai Site Laboratory	1. Naindra B 2. Mohammed Khalid 3. Kemarajithan