



CERTIFICATE OF ACCREDITATION



HWA GeoSciences, Inc.

in

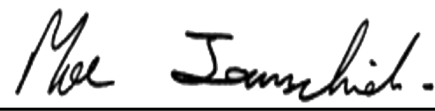
Bothell, Washington, USA

has demonstrated proficiency for the testing of construction materials and has conformed to the requirements established in AASHTO R 18 and the AASHTO Accreditation policies established by the AASHTO Committee on Materials and Pavements.

The scope of accreditation can be viewed on the Directory of AASHTO Accredited Laboratories (aashtoresource.org).



Bud Wright,
AASHTO Executive Director



Moe Jamshidi,
AASHTO COMP Chair

This certificate was generated on 01/10/2019 at 5:51 PM Eastern Time. Please confirm the current accreditation status of this laboratory at aashtoresource.org/aap/accreditation-directory



SCOPE OF AASHTO ACCREDITATION FOR:

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Quality Management System

Standard:

Accredited Since:

Standard:		Accredited Since:
R18	Establishing and Implementing a Quality System for Construction Materials Testing Laboratories	10/23/2008
C1077 (Aggregate)	Laboratories Testing Concrete and Concrete Aggregates	03/18/2016
C1077 (Concrete)	Laboratories Testing Concrete and Concrete Aggregates	02/23/2016
D3666 (Aggregate)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	03/18/2016
D3666 (Asphalt Mixture)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	03/18/2016
D3740 (Soil)	Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction	03/18/2016
E329 (Aggregate)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	03/18/2016
E329 (Asphalt Mixture)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	03/18/2016
E329 (Concrete)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	02/26/2018
E329 (Soil)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	03/18/2016



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Asphalt Mixture

Standard:

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R47	Reducing Samples of Hot-Mix Asphalt to Testing Size	12/02/2008
T30	Mechanical Analysis of Extracted Aggregate	01/10/2019
T308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	01/10/2019
T329	Moisture Content of Hot-Mix Asphalt (HMA) by Oven Method	01/10/2019
T355	Density of Bituminous Concrete In Place by Nuclear Methods	01/10/2019
D979	Sampling Bituminous Paving Mixtures	01/10/2019
D1188	Bulk Specific Gravity of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens	01/10/2019
D2041	Maximum Specific Gravity of Hot Mix Asphalt Paving Mixtures	12/02/2008
D2726	Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens	12/02/2008
D2950	Density of Bituminous Concrete In Place by Nuclear Methods	01/10/2019
D3203	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	12/02/2008
D5444	Mechanical Analysis of Extracted Aggregate	12/02/2008
D6307	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	12/02/2008
D6926	Preparation of Asphalt Mixtures by Means of the Marshall Apparatus	09/13/2017
D6927	Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus	01/10/2019



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Soil

Standard:		Accredited Since:
R58	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	01/10/2019
T89	Determining the Liquid Limit of Soils (Atterberg Limits)	01/10/2019
T90	Plastic Limit of Soils (Atterberg Limits)	01/10/2019
T216	One-Dimensional Consolidation Properties of Soils Using Incremental Loading	01/10/2019
T236	Direct Shear Test of Soils Under Consolidated Drained Conditions	01/10/2019
T265	Laboratory Determination of Moisture Content of Soils	01/10/2019
T267	Determination of Organic Content in Soils by Loss on Ignition	01/10/2019
T310	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	01/10/2019
D421	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	12/02/2008
D422	Particle Size Analysis of Soils by Hydrometer	12/02/2008
D558	Moisture-Density Relations of Soil-Cement Mixtures	01/10/2019
D698	The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	12/02/2008
D854	Specific Gravity of Soils	09/13/2017
D1140	Amount of Material in Soils Finer than the No. 200 (75- μ m) Sieve	01/10/2019
D1557	Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	12/02/2008
D1883	The California Bearing Ratio	12/02/2008
D2166	Unconfined Compressive Strength of Cohesive Soil	01/10/2019
D2216	Laboratory Determination of Moisture Content of Soils	01/10/2019
D2435	One-Dimensional Consolidation Properties of Soils Using Incremental Loading	01/10/2019
D2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)	01/10/2019
D2488	Description and Identification of Soils (Visual-Manual Procedure)	01/10/2019
D2850	Unconsolidated, Undrained Compressive Strength of Cohesive Soils in Triaxial Compression	01/10/2019
D2974	Determination of Organic Content in Soils by Loss on Ignition	01/10/2019



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Soil (Continued)

Standard:		Accredited Since:
D3080 (7000 lb/ft-sq or Greater Normal Stress)	Direct Shear Test of Soils Under Consolidated Drained Conditions (with Exceptions)	01/10/2019
D4253	Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	01/10/2019
D4254	Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density	01/10/2019
D4318	Determining the Liquid Limit of Soils (Atterberg Limits)	01/10/2019
D4318	Plastic Limit of Soils (Atterberg Limits)	01/10/2019
D4546	One-Dimensional Swell or Settlement Potential of Cohesive Soils	01/10/2019
D4718	Oversize Particle Correction	01/10/2019
D4767	Consolidated-Undrained Triaxial Compression Test on Cohesive Soils	01/10/2019
D5084	Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	01/10/2019
D6913	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis	01/10/2019
D6938	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	01/10/2019
D7928	Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis	01/10/2019
G51	Measuring pH for Corrosion Testing	01/10/2019
G187	Soil Resistivity Using the Two-Electrode Soil Box	01/10/2019



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Aggregate

Standard:

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C29	Bulk Density ("Unit Weight") and Voids in Aggregate	12/02/2008
C40	Organic Impurities in Fine Aggregates for Concrete	01/10/2019
C117	Materials Finer Than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing	12/02/2008
C127	Specific Gravity and Absorption of Coarse Aggregate	12/02/2008
C128	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	12/02/2008
C131	Resistance to Abrasion of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	12/02/2008
C136	Sieve Analysis of Fine and Coarse Aggregates	12/02/2008
C142	Clay Lumps and Friable Particles in Aggregate	01/10/2019
C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	12/02/2008
C566	Total Moisture Content of Aggregate by Drying	12/02/2008
C702	Reducing Samples of Aggregate to Testing Size	12/02/2008
C1252	Uncompacted Void Content of Fine Aggregate (Influenced by Shape, Texture, and Grading)	09/13/2017
D75	Sampling Aggregate	12/18/2012
D2419	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test	12/02/2008
D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	01/10/2019
D5821	Determining the Percentage of Fractured Particles in Coarse Aggregate	12/02/2008



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Concrete

Standard:

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C31	Making and Curing Concrete Test Specimens in the Field	03/06/2013
C39	Compressive Strength of Cylindrical Concrete Specimens	10/23/2008
C78	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	03/06/2013
C138	Density (Unit Weight), Yield, and Air Content of Concrete	10/23/2008
C143	Slump of Hydraulic Cement Concrete	10/23/2008
C172	Sampling Freshly Mixed Concrete	10/23/2008
C231	Air Content of Freshly Mixed Concrete by the Pressure Method	10/23/2008
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	03/06/2013
C617 (7000 psi and below)	Capping Cylindrical Concrete Specimens	03/06/2013
C1064	Temperature of Freshly Mixed Portland Cement Concrete	10/23/2008
C1231 (7000 psi and below)	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders	10/23/2008