



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AVILES ENGINEERING CORPORATION
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Valid To: November 30, 2019

Certificate Number: 0035.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests:

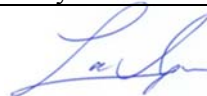
CONSTRUCTION MATERIALS ENGINEERING

ASTM: C1077 (Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation);
D3666 (Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials);
D3740 (Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction);
E329 (Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection)

CONSTRUCTION MATERIALS TESTING

| <u>Test Method:</u> | <u>Test Description:</u> |
|---------------------------|---|
| <u>Aggregates:</u> | |
| ASTM C29 | Bulk Density (“Unit Weight”) and Voids in Aggregate |
| ASTM C40 | Organic Impurities in Fine Aggregates for Concrete |
| ASTM C70 | Surface Moisture in Fine Aggregate |
| ASTM C117 | Materials Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing |
| ASTM C127 | Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate |
| ASTM C128 | Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate |
| ASTM C136 | Sieve Analysis of Fine and Coarse Aggregates |
| ASTM C142 | Clay Lumps and Friable Particles in Aggregates |
| ASTM C566 | Total Evaporable Moisture Content of Aggregate by Drying |
| ASTM C702 | Reducing Samples of Aggregate to Testing Size |
| ASTM D75 ² | Sampling Aggregates |
| ASTM D2419 | Sand Equivalent Value of Soils and Fine Aggregate |
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| <u>Bituminous:</u> | |
| ASTM D979 ¹ | Sampling Bituminous Paving Mixtures |
| ASTM D1188 | Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples |

| <u>Test Method:</u> | <u>Test Description:</u> |
|------------------------------|---|
| ASTM D1856 | Recovery of Asphalt from Solution by Abson Method |
| ASTM D2041 | Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures |
| ASTM D2171/D2171M | Viscosity of Asphalts by Vacuum Capillary Viscometer |
| ASTM D2726 | Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures |
| ASTM D2950 ¹ | Density of Bituminous Concrete in Place by Nuclear Methods |
| ASTM D3203 | Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures |
| ASTM D3549 ¹ | Thickness or Height of Compacted Bituminous Paving Mixture Specimens |
| ASTM D3665 | Random Sampling of Construction Materials |
| ASTM D5444 | Mechanical Size Analysis of Extracted Aggregate |
| ASTM D6307 | Asphalt Content of Hot-Mix Asphalt by Ignition Method |
| ASTM D6752 | Bulk Specific Gravity and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method |
| ASTM D6926 | Preparation of Bituminous Specimens Using Marshall Apparatus |
| ASTM D6927 | Marshall Stability and Flow of Bituminous Mixtures |
| AASHTO T30 | Mechanical Analysis of Extracted Aggregate |
| Tex-200-F | Sieve Analysis of Fine and Coarse Aggregates |
| Tex-201-F | Bulk Specific Gravity and Water Absorption of Aggregate |
| Tex-202-F | Apparent Specific Gravity of Material Finer Than No.50 Sieve |
| Tex-203-F | Sieve Analysis of Fine and Coarse Aggregates |
| Tex-205-F | Laboratory Method of Mixing Bituminous Mixtures |
| Tex-206-F | Compacting Specimens Using the Texas Gyrotory Compactor (TGC) |
| Tex-207-F | Determining Density of Compacted Bituminous Mixtures |
| Tex-208-F | Test for Stabilometer Value of Bituminous Mixtures |
| Tex-210-F | Determining Asphalt Content of Bituminous Mixtures by Extraction |
| Tex-211-F | Recovery of Asphalt from Bituminous Mixtures by the Abson Process |
| Tex-217-F | Determining Deleterious Material and Decantation Test for Coarse Aggregates |
| Tex-222-F | Sampling Bituminous Mixtures |
| Tex-225-F | Random Selection of Bituminous Mixture Samples |
| Tex-227-F | Theoretical Maximum Specific Gravity of Bituminous Mixtures |
| Tex-236-F | Determining Asphalt Content from Asphalt Paving Mixtures by the Ignition Method |
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| <u>Concrete:</u> | |
| ASTM C31/C31M ¹ | Making and Curing Concrete Test Specimens in the Field |
| ASTM C39/C39M | Compressive Strength of Cylindrical Concrete Specimens |
| ASTM C42/C42M | Obtaining and Testing Drilled Cores and Sawed Beams of Concrete |
| ASTM C78/C78M ¹ | Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading) |
| ASTM C138/C138M ¹ | Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete |
| ASTM C143/C143Mv | Slump of Hydraulic-Cement Concrete |
| ASTM C172/C172M ¹ | Sampling Freshly Mixed Concrete |
| ASTM C173 ¹ | Air Content of Freshly Mixed Concrete by the Volumetric Method |



| <u>Test Method:</u> | <u>Test Description:</u> |
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| ASTM C174/C174M | Measuring Thickness of Concrete Elements Using Drilled Concrete Cores |
| ASTM C192/C192M | Making and Curing Concrete Test Specimens in the Laboratory |
| ASTM C231/C231M ¹ | Air Content of Freshly Mixed Concrete by the Pressure Method |
| ASTM C293/C293M | Flexural Strength of Concrete (Using Simple Beam With Center-Point Loading) |
| ASTM C495 | Compressive Strength of Lightweight Insulating Concrete |
| ASTM C496/C496M | Splitting Tensile Strength of Cylindrical Concrete Specimens |
| ASTM C567 | Determining Density of Structural Lightweight Concrete |
| ASTM C617 | Capping Cylindrical Concrete Specimens |
| ASTM C642 | Density, Absorption, and Voids in Hardened Concrete |
| ASTM C803 | Penetration Resistance of Hardened Concrete |
| ASTM C805/C805M | Rebound Number of Hardened Concrete |
| ASTM C823/C823M | Examination and Sampling of Hardened Concrete in Constructions |
| ASTM C1064/C1064M ¹ | Temperature of Freshly Mixed Hydraulic-Cement Concrete |
| ASTM C1231/C1231M | Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders |
| ASTM C1435/C1435M | Molding Roller-Compacted Concrete in Cylinder Molds Using a Vibrating Hammer |
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| <u>Masonry:</u> | |
| ASTM C109/C109M (Compressive Strength Only) | Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens) |
| ASTM C780 (Section A6 Only) | Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry |
| ASTM C1019 | Sampling and Testing Grout |
| ASTM C1314 | Compressive Strength of Masonry Prisms |
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| <u>Soils:</u> | |
| ASTM D421 | Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants |
| ASTM D422 | Particle-Size Analysis of Soils |
| ASTM D558 | Moisture-Density (Unit Weight) Relations of Soil-Cement Mixtures |
| ASTM D559 | Wetting and Drying Compacted Soil-Cement Mixtures |
| ASTM D698 | Laboratory Compaction Characteristics of Soil Using Standard Effort |
| ASTM D854 | Specific Gravity of Soil Solids by Water Pycnometer |
| ASTM D1140 | Amount of Material in Soils Finer than No. 200 (75- μ m) Sieve |
| ASTM D1556 | Density and Unit Weight of Soil in Place by Sand-Cone Method |
| ASTM D1557 | Laboratory Compaction Characteristics of Soil Using Modified Effort |
| ASTM D1632 (Curing only) | Making and Curing Soil-Cement Compression and Flexure Test Specimens in the Laboratory |
| ASTM D1633 | Compressive Strength of Molded Soil-Cement Cylinders |
| ASTM D2216 | Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass |
| ASTM D2488 ¹ | Description and Identification of Soils (Visual-Manual Procedure) |
| ASTM D3282 | Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes |
| ASTM D3665 | Random Sampling of Construction Materials |
| ASTM D4318 | Liquid Limit, Plastic Limit, and Plasticity Index of Soils |

| <u>Test Method:</u> | <u>Test Description:</u> |
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| ASTM D4718 | Unit Weight and Water Content for Soils Containing Oversize Particles |
| ASTM D4832 | Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders |
| ASTM D6913 | Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis |
| ASTM D6938 ¹ | In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth) |
| Tex-100-E | Surveying and Sampling Soils for Highways |
| Tex-101-E | Preparing Soil and Flexible Base Materials for Testing |
| Tex-103-E | Determining Moisture Content in Soil Materials |
| Tex-104-E | Determining Liquid Limits of Soils |
| Tex-105-E | Determining Plastic Limit of Soils |
| Tex-106-E | Calculating the Plasticity Index of Soils |
| Tex-108-E | Determining the Specific Gravity of Soils |
| Tex-110-E | Particle Size Analysis of Soils |
| Tex-111-E | Determining the Amount of Material in Soils Finer than the 75 m (No. 200) Sieve |
| Tex-112-E | Admixing Lime to Reduce Plasticity Index of Soils |
| Tex-113-E | Laboratory Compaction Characteristics and Moisture-Density Relationship of Base Materials |
| Tex-114-E | Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material |
| Tex-115-E (Part II) | Field Method for Determining In-Place Density of Soils and Base Materials |
| Tex-117-E | Triaxial Compression for Disturbed Soils and Base Materials |
| Tex-118-E | Triaxial Compression Test for Undisturbed Soils |
| Tex-120-E | Soil-Cement Testing |
| Tex-121-E | Soil-Lime Testing |
| Tex-127-E | Lime Fly-Ash Compressive Strength Test Methods |
| Tex-128-E | Determining Soil pH |
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| <u>Structural Steel</u> | |
| AWS D1.1 (Clause 6, Inspection) ¹ | Fabrication & Erection – Visual Welding |
| RCSC (Section 9, Inspection) ¹ | RCSC Specification for Structural Joints Using High-Strength Bolts |

¹ This laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration laboratories* for these tests.



Accredited Laboratory

A2LA has accredited

AVILES ENGINEERING CORP.

Houston, TX

for technical competence in the field of

Construction Materials Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 7th day of November 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 0035.01
Valid to November 30, 2019

For the tests to which this accreditation applies, please refer to the laboratory's Construction Materials Scope of Accreditation.