

### AVILES ENGINEERING CORPORATION 5790 Windfern Rd Houston, TX 77041 Ronald E. Ortwerth, P.E. Phone: 713 895 7645

Valid To: November 30, 2025

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, Testing, or Special Inspection)

| Test Method:                 | Test Description:   |
|------------------------------|---|
| Aggregates:                  |   |
| ASTM C29/C29M                | Bulk Density ("Unit Weight") and Voids in Aggregate                                 |
| ASTM C40/C40M                | Organic Impurities in Fine Aggregates for Concrete                                  |
| ASTM C70                     | Surface Moisture in Fine Aggregate  |
| ASTM C117                    | Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing         |
| ASTM C127                    | Density, Relative Density (Specific Gravity), and Absorption of<br>Coarse Aggregate |
| ASTM C128                    | Density, Relative Density (Specific Gravity), and Absorption of Fine<br>Aggregate   |
| ASTM C136/C136M              | Sieve Analysis of Fine and Coarse Aggregates  |
| ASTM C142/C142M              | Clay Lumps and Friable Particles in Aggregates                                      |
| ASTM C566                    | Total Evaporable Moisture Content of Aggregate by Drying                            |
| ASTM C702/C702M              | Reducing Samples of Aggregate to Testing Size                                       |
| ASTM D75/D75M <sup>1</sup>   | Sampling Aggregates   |
| ASTM D2419                   | Sand Equivalent Value of Soils and Fine Aggregate                                   |
| 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                    | Sand Equivalent Test  |
|                              |   |
| Bituminous:                  |   |
| ASTM D979/D979M <sup>1</sup> | Sampling Bituminous Paving Mixtures   |
| ASTM D2041/D2041M            | Theoretical Maximum Specific Gravity and Density of Bituminous<br>Paving Mixtures   |

### CONSTRUCTION MATERIALS TESTING

| Test Method:   | Test Description:   |
|--|---|
| ASTM D2726/D2726M  | Bulk Specific Gravity and Density of Non-Absorptive Compacted   |
|  | Bituminous Mixtures   |
| ASTM D2950 <sup>1</sup>  | Density of Bituminous Concrete in Place by Nuclear Methods  |
| ASTM D3203/D3203M  | Percent Air Voids in Compacted Dense and Open Bituminous<br>Paving Mixtures   |
| ASTM D3549/D3549M  | Thickness or Height of Compacted Bituminous Paving Mixture  |
| ASTWI D3549/D3549/M  | 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/D6752M  | 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-205-F  | Laboratory Method of Mixing Bituminous Mixtures   |
| Tex-206-F  | Compacting Specimens Using the Texas Gyratory Compactor (TGC)   |
| Tex-207-F  | Determining Density of Compacted Bituminous Mixtures  |
| Tex-208-F  | Test for Stabilometer Value of Bituminous Mixtures  |
| 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<br>Ignition Method  |
| Tex-241-F  | Compacting Bituminous Specimens using the Superpave Gyratory  |
|  | Compactor (SGC)   |
| Concrete:  |   |
| ASTM C31/C31M <sup>1</sup>   | 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 <sup>1</sup>   | Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)  |
| ASTM C138/C138M <sup>1</sup>                                       | Density (Unit Weight), Yield, and Air Content (Gravimetric) of<br>Concrete  |
| ASTM C143/C143M  | Slump of Hydraulic-Cement Concrete  |
| ASTM C172/C172M <sup>1</sup>                                       | Sampling Freshly Mixed Concrete   |
|  |   |
| ASTM C173/C173M <sup>1</sup>                                       | Air Content of Freshly Mixed Concrete by the Volumetric Method  |
| ASTM C173/C173M <sup>1</sup><br>ASTM C174/C174M                    | Air Content of Freshly Mixed Concrete by the Volumetric Method<br>Measuring Thickness of Concrete Elements Using Drilled Concrete   |
| ASTM C173/C173M <sup>1</sup><br>ASTM C174/C174M                    | Air Content of Freshly Mixed Concrete by the Volumetric Method<br>Measuring Thickness of Concrete Elements Using Drilled Concrete<br>Cores  |
| ASTM C174/C174M<br>ASTM C192/C192M                                 | Measuring Thickness of Concrete Elements Using Drilled Concrete<br>Cores       Making and Curing Concrete Test Specimens in the Laboratory  |
| ASTM C174/C174M<br>ASTM C192/C192M<br>ASTM C231/C231M <sup>1</sup> | Measuring Thickness of Concrete Elements Using Drilled Concrete<br>Cores       Making and Curing Concrete Test Specimens in the Laboratory       Air Content of Freshly Mixed Concrete by the Pressure Method   |
| ASTM C174/C174M<br>ASTM C192/C192M                                 | Measuring Thickness of Concrete Elements Using Drilled Concrete<br>Cores       Making and Curing Concrete Test Specimens in the Laboratory       Air Content of Freshly Mixed Concrete by the Pressure Method       Flexural Strength of Concrete (Using Simple Beam With |
| ASTM C174/C174M<br>ASTM C192/C192M<br>ASTM C231/C231M <sup>1</sup> | Measuring Thickness of Concrete Elements Using Drilled Concrete<br>Cores       Making and Curing Concrete Test Specimens in the Laboratory       Air Content of Freshly Mixed Concrete by the Pressure Method   |

Page 2 of 4

| Test Method:                   | Test Description:   |
|--------------------------------|---|
| ASTM C567/C567M                | Determining Density of Structural Lightweight Concrete  |
| ASTM C617/C617M                | Capping Cylindrical Concrete Specimens  |
| ASTM C642                      | Density, Absorption, and Voids in Hardened Concrete   |
| ASTM C803/C803M                | Penetration Resistance of Hardened Concrete   |
| ASTM C805/C805M <sup>1</sup>   | Rebound Number of Hardened Concrete   |
| ASTM C823/C823M                | Examination and Sampling of Hardened Concrete in Constructions  |
| ASTM C1064/C1064M <sup>1</sup> | Temperature of Freshly Mixed Hydraulic-Cement Concrete  |
| ASTM C1231/C1231M              | Unbonded Caps in Determination of Compressive Strength of<br>Hardened Concrete Cylinders                      |
| ASTM C1435/C1435M              | Molding Roller-Compacted Concrete in Cylinder Molds Using a<br>Vibrating Hammer                               |
| Masonry:                       |   |
| ASTM C780, Annex A.6           | Preconstruction and Construction Evaluation of Mortars for Plain<br>and Reinforced Unit Masonry               |
| ASTM C1019                     | Sampling and Testing Grout  |
| ASTM C1314                     | Compressive Strength of Masonry Prisms  |
| Soils:                         |   |
| <u>Sons</u> :<br>ASTM D558     | Moisture-Density (Unit Weight) Relations of Soil-Cement Mixtures  |
| ASTM D558/D559M                | Wetting and Drying Compacted Soil-Cement Mixtures   |
| ASTM D559/D559/M               | Laboratory Compaction Characteristics of Soil Using Standard<br>Effort  |
| ASTM D854                      | Specific Gravity of Soil Solids by Water Pycnometer   |
| ASTM D1140                     | Amount of Material in Soils Finer than No. 200 (75-µm) Sieve  |
| ASTM D1556/D1556M              | Density and Unit Weight of Soil in Place by Sand-Cone Method  |
| ASTM D1557                     | Laboratory Compaction Characteristics of Soil Using Modified<br>Effort  |
| ASTM D1632 (Curing only)       | Making and Curing Soil-Cement Compression and Flexure Test<br>Specimens in the Laboratory                     |
| ASTM D1633                     | Compressive Strength of Molded Soil-Cement Cylinders  |
| ASTM D2216                     | Laboratory Determination of Water (Moisture) Content of Soil and<br>Rock by Mass                              |
| ASTM D2488 <sup>1</sup>        | Description and Identification of Soils (Visual-Manual Procedure)   |
| ASTM D3282                     | Classification of Soils and Soil-Aggregate Mixtures for Highway<br>Construction Purposes                      |
| ASTM D4253                     | Maximum Index Density and Unit Weight of Soils Using a<br>Vibratory Table                                     |
| ASTM D4254                     | Minimum Index Density and Unit Weight of Soils and Calculation<br>of Relative Density                         |
| ASTM D4318                     | Liquid Limit, Plastic Limit, and Plasticity Index of Soils  |
| ASTM D4718/D4718M              | Unit Weight and Water Content for Soils Containing Oversize<br>Particles                                      |
| ASTM D4832                     | Preparation and Testing of Controlled Low Strength Material<br>(CLSM) Test Cylinders                          |
| ASTM D6913/D6913M              | Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis  |
| ASTM D6938 <sup>1</sup>        | In-Place Density and Water Content of Soil and Soil-Aggregate by<br>Nuclear Methods (Shallow Depth)           |
| ASTM D7928                     | Particle-Size Distribution (Gradation) of Fine-Grained Soils Using<br>the Sedimentation (Hydrometer) Analysis |

Page 3 of 4

| Test Method:        | Test Description:   |
|---------------------|---|
| Тех-100-Е           | Surveying and Sampling Soils for Highways                         |
| Тех-101-Е           | Preparing Soil and Flexible Base Materials for Testing            |
| Тех-103-Е           | Determining Moisture Content in Soil Materials                    |
| Тех-104-Е           | Determining Liquid Limits of Soils                                |
| Тех-105-Е           | Determining Plastic Limit of Soils                                |
| Тех-106-Е           | Calculating the Plasticity Index of Soils                         |
| Тех-108-Е           | Determining the Specific Gravity of Soils                         |
| Тех-110-Е           | Particle Size Analysis of Soils                                   |
| Tex-111-E           | Determining the Amount of Material in Soils Finer than the 75 m   |
|                     | (No. 200) Sieve   |
| Тех-112-Е           | Admixing Lime to Reduce Plasticity Index of Soils                 |
| Тех-113-Е           | 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                   |
| Тех-120-Е           | Soil-Cement Testing   |
| Тех-121-Е           | Soil-Lime Testing   |
| Тех-127-Е           | Lime Fly-Ash Compressive Strength Test Methods                    |
| Тех-128-Е           | Determining Soil pH   |

<sup>1</sup> This laboratory performs field testing activities for these tests.

 $^{2}$  This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

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# **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 17025:2017 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 April 2017).



Presented this 10<sup>th</sup> day of November 2023.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 0035.01 Valid to November 30, 2025