



MARICOPA COUNTY
Department of Transportation

MEMORANDUM

Date: January 6, 2016 Revised 2016-07-06
To: MAG Specifications and Details Committee
From: Robert Herz, MCDOT Representative
Subject: Add to Section 106.2 the requirements for certificate of compliance and certificate of analysis. **Case 16-02**

PURPOSE: Define the requirements for certificate of compliance and certificate of analysis referenced in Section 106.2 and modify section **717.2.1.2 Crumb Rubber** to delete references to ADOT specifications for certificates of compliance.

REVISIONS: Add section **106.2.1 Certificate of Compliance**, add section **106.2.2 Certificate of Analysis**, modify section **717.2.1.2 Crumb Rubber**, and modify other various locations within the specifications to have the submission of certificates to the Engineer be upon request.

SECTION 106 - CONTROL OF MATERIALS

106.2 SAMPLES AND TESTS OF MATERIALS:

All materials to be incorporated in the work may be subject to sampling, testing and approval, and samples furnished shall be representative of the materials to be used. The Engineer may select samples, or may require that samples be delivered by the Contractor to a laboratory designated by the Engineer.

The Contracting Agency will pay for the initial or normal test required by the Engineer to guard against unsuitable materials or defective workmanship. Additional tests, required due to failure of the initial or normal test(s), shall be paid for by the Contractor. The Engineer will designate the laboratory which will accomplish the additional test(s).

The procedures and methods used to sample and test materials will be determined by the Engineer. Unless otherwise specified, samples and tests will be made in accordance with either: the Materials Testing Manual of the Contracting Agency; the standard methods of AASHTO or ASTM, which were in effect and published at the time of issuance of the solicitation for a construction price proposal (aka: at the time of advertising for bids).

The laboratory responsible for the test shall furnish at least one copy of the test results to the ~~Contracting Agency or his designated representative~~ Engineer, to the Contractor, and to the appropriate material supplier.

With respect to certain manufactured materials, the Engineer may permit the use of some materials prior to sampling and testing provided they are delivered with either a certificate of compliance or analysis or both, stating that the materials comply in all respects with the requirements of the specifications. These certificates shall be furnished in

triplicate and clearly identify each delivery of materials to the work area. The certificates shall be signed by a person having legal authority to bind the supplier or manufacturer.

106.2.1 Certificate of Compliance: A Certificate of Compliance shall be submitted on the manufacturer's or supplier's official letterhead, and shall contain the following information:

1. The current name, address, and phone number of the manufacturer or supplier of the material or equipment.
2. A description of the material or equipment supplied.
3. Quantity of material represented by the certificate.
4. Means of material identification, such as label, lot number, or marking.
5. A statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state the name of the specific cited specifications, such as AASHTO M 320, ASTM C494, or specific table or subsection of the Specifications or Special Provisions.
6. A statement that the individual identified in item eight below has the legal authority to bind the manufacturer or the supplier of the material.
7. Project identification: Project name and all associated numbers (agency, Federal, and ADOT TRACS).
8. The name, title, and signature of the responsible individual. The date of the signature shall also be given.

Each of the first six items specified above shall be completed prior to the signing of the certificate as defined in item eight. No certificate will be accepted that has been altered, added to, or changed in any way after the authorized signature has been affixed to the original certificate. However, notations related to project specifics such as project identification, contractor, or quantity shipped are acceptable, provided the basic requirements of the certificate (items one through six) are not affected.

A copy or facsimile reproduction of the original certificate will be acceptable; however, the original certificate shall be made available upon request.

106.2.2 Certificate of Analysis: A Certificate of Analysis shall include all the information required for a Certificate of Compliance and, in addition, shall include the results of all tests required by the specifications.

SECTION 717 - ASPHALT-RUBBER ASPHALT CONCRETE

717.2.1.2 Crumb Rubber: Crumb Rubber shall meet the gradation requirements as shown in Table 717-1 below when tested in accordance with Arizona Test Method 714.

TABLE 717-1	
GRADATION REQUIREMENTS OF CRUMB RUBBER	
Sieve Size	Percent Passing
	Type B
2.36 mm (#8)	
2.00 mm (#10)	100
1.18 mm (#16)	65 - 100
600 µm (#30)	20 - 100
300 µm (#50)	0 - 45
75 µm (#200)	0 - 5

The crumb rubber shall have a specific gravity of 1.15 ± 0.05 and shall be free of wire or other contaminating materials, and shall contain not more than 0.5 percent fabric. Calcium carbonate, up to four percent by weight of the crumb rubber, may be added to prevent the particles from sticking together.

Crumb rubber shall be derived from processing whole scrap tires or shredded tire materials through a process of mechanical grinding at ambient temperature. Use of crumb rubber granules produced from a cryogenic process is prohibited. The tires from which the crumb rubber is produced shall be from automobiles, trucks, or other equipment owned and operated in the United States.

Upon request a Certificate of Compliance conforming to the requirements of Section 106.2 conforming to Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05 shall be submitted. In addition, the Certificate shall that confirms that the rubber is a crumb rubber, derived from processing at ambient temperature, whole scrap tires or shredded tire materials; and the tires from which the crumb rubber is produced is taken from automobiles, trucks, or other equipment owned and operated in the United States. complies with the gradation and specific gravity of this section 717 and is free of wire or other contaminating materials. The Certificate shall also attest/verify; that

- The processing does not produce, as a waste product, casings or other round tire material that can hold water when stored or disposed of above the ground.
- The crumb rubber to be used in ARB shall be the type is produced through a process of mechanical grinding at ambient temperature. Use of crumb rubber granules produced from a cryogenic process is prohibited.
- The tires from which the crumb rubber is produced were from automobiles, trucks, or other equipment owned and operated in the United States. (Certificates of Compliance conforming to Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05 shall be submitted.)

CHANGES to other sections that reference 'Certificates of Compliance':

Lime Stabilization or Modification of Subgrade Section 309.2.3 Lime Slurry:

Lime slurry shall be a pumpable suspension of solids in water. The solids portion of the mixture, when considered on the basis of solids content, shall consist principally of hydrated lime of a quality and fineness sufficient to meet Section 309.2.2 requirements. Upon request a Certificate of Compliance shall be provided to the Engineer for each load of lime applied at the project.)

Decorative Asphalt Section 322.2 Materials, revise the second sentence as noted:

All products used in the surfacing system shall meet the minimum physical and performance properties in Table 322-1. The Contractor shall upon request submit a Certificate of Compliance to the Engineer indicating that the materials to be included in the work meet these specification requirements.

Microsurfacing Specifications Section 331.2 Materials:

The Contractor shall supply all materials necessary for the performance of the work in accordance with the specifications. The asphalt emulsion, aggregate, and mineral filler shall be as specified in Section 714. Materials shall be approved by the Engineer prior to the start of construction. When requested by the Engineer Certificates of Compliance shall be provided for accompany each delivery of emulsion.

The Contractor shall be responsible for the safety of all materials of which he has taken delivery until they are in place on the road, and shall take all necessary precautions to avoid loss by fire or theft, or damage by water, and shall bear the cost of replacing any such material that is lost, spilt, destroyed or damaged after delivery.

Concrete Structures Section 505.5.4.2 Anchoring Materials, revise the first paragraph as follows:

Epoxy materials shall be used for anchoring dowels. The Contractor shall upon request submit Certificates of Compliance or Analysis, complete with supporting documentation, to the Engineer for all epoxy materials to be used for anchoring dowels on a specific project, in accordance with the requirements of Section 106.2. The epoxy materials shall be provided by the Contractor in general conformance with the requirements of Section 1015-1— General Requirements of Section 1015— EPOXY MATERIALS of the current Arizona Department of Transportation (ADOT) Standard Specifications for Road and Bridge Construction, amended to date.

Section 505.6.3.3 Construction Requirements, paragraph (1) General, revise the last sentence as noted:

Upon request Certificates of Compliance conforming to the requirements of Section 106.2 shall also be submitted by the Contractor.

Section 711.3 Test Report and Certification:

Test reports and certifications shall be provided to the Engineer when requested by the Engineer. At the time of delivery of each shipment of asphalt, the supplier supplying the material shall deliver to the purchaser ~~3 a~~ certified ~~copies copy~~ of the test report which shall indicate the name of the refinery and supplier, type and grade of asphalt delivered, date and point of delivery, quantity delivered, delivery ticket number, purchase order number, and results of the above specified tests. The test report shall be signed by an authorized representative of the supplier certifying that the product delivered conforms to the specifications for the type and grade indicated.

Until the certified test reports and samples of the material have been checked by the Engineer, that material will be only tentatively accepted by the Contracting Agency. Final acceptance will be dependent upon the determination of the Engineer that the material involved fulfills the requirements prescribed. The certified test reports and the testing required in connection with the reports shall be at no additional cost to the Contracting Agency.

Section 725.2 Cementitious Materials, revise the third paragraph as follows:

Cementitious materials shall be sampled and tested as prescribed in the applicable ASTM specifications. Upon request, ~~t~~he Contractor shall obtain and deliver to the Engineer a Certificate of Analysis or certification—Certificate of Compliance conforming to the requirements of Section 106.2 signed by the material manufacturer, identifying the cementitious material and stating that the cementitious material delivered to the batching site has been tested in accordance with the cited specifications and complies with the cited appropriate—specifications. ~~When requested by the Engineer, the Contractor shall furnish three copies of the cementitious materials certification.~~ The cost of furnishing tested cementitious materials shall be considered as included in the contract ~~bid~~ price and no additional allowance will be made therefore.

Section 725.2.1 Supplementary Cementitious Materials (Pozzolans), revise the third paragraph as follows:

Upon request ~~T~~he Contractor shall obtain and deliver to the Engineer a Certificate of Analysis or eCertification of eCompliance signed by the pozzolan supplier identifying

the pozzolanic material and stating the pozzolan delivered to the batching site complies with the appropriate specifications. The cost of furnishing tested pozzolan shall be considered as included in the contract ~~bid~~-price and no additional allowance will be made therefore.

Steel Reinforcement Section 727.1 General, revise the second paragraph as follows:

No reinforcing steel will be accepted under this specification until it has been approved by the Engineer. When required by the Engineer, the Contractor or supplier shall furnish a spot sample taken on the project and notify the Engineer as to when and where they will be available. Such samples shall be furnished at the expense of the Contractor or supplier, but the cost of any testing that may be required will be borne by the Contracting Agency. Samples shall only be taken in the presence of the Engineer. The Contractor shall furnish 3 certified mill test reports or ~~a C~~Certificates of Compliance for each heat or size of steel which can be clearly identified with the lot. When such information has been furnished, placing of the steel will not be held up until results of spot samples have been received. Unless otherwise specified, all reinforcing steel bars shall be deformed intermediate grade 40 billet steel conforming ~~with~~to ASTM A615 and the shapes shall conform with ASTM B670.

Expansion Joint Filler Section 729.3 Test Report and Shipment Certificate:

~~When requested by the Engineer E~~each shipment shall be accompanied by a ~~e~~Certificate of Compliance from the supplier that the material ~~will comply~~ complies with the above specifications ~~and such certificate shall be delivered to the Engineer.~~

Geosynthetics Section 796.3 Test and Certification Requirements:

~~Upon request a~~ Certificates of eCompliance shall be submitted to the ~~e~~Engineer ~~upon delivery of for material for to be used on a specified project.~~ Samples of materials shall be submitted for testing. Each geosynthetic material lot or shipment ~~must is to~~ be approved by the Engineer before the material ~~is may be~~ incorporated into the work.

Testing methods and results shown in the ~~certificate~~ Certificate of eCompliance shall conform to the listed specifications for the proposed geosynthetic ~~use~~. Manufacturer's supporting documentation including, but not limited to, product information sheets, installation procedures and recommendations, recommended use, and project references shall be submitted to the Engineer for product evaluation and approval.

REFERENCE INFORMATION:

Arizona State Department of Transportation Standard Specifications for Road and Bridge Construction Section 106.05 (106CERT, 09/14/12 the Standard Specifications is revised to read:)

SECTION 106 CONTROL OF MATERIAL:

106.05 Certificates:

(A) General:

The contractor shall submit to the Engineer an original or copy of either a Certificate of Compliance or a Certificate of Analysis, as required, prior to the use of any materials or manufactured assemblies for which the specifications require that such a certificate be furnished.

Certificates shall be specifically identified as either a "Certificate of Compliance" or a "Certificate of Analysis".

The Engineer may permit the use of certain materials or manufactured assemblies prior to, or without, sampling and testing if accompanied by a Certificate of Compliance or Certificate of Analysis, as herein specified. Materials or manufactured assemblies for which a certificate is furnished may be sampled and tested at any time, and, if found not in conformity with the requirements of the plans and the specifications, will be subject to rejection, whether in place or not.

Certificates of Compliance and Certificates of Analysis shall comply with the requirements specified herein, the ADOT Materials Testing Manual, and applicable ADOT Materials Policy and Procedure Directives.

(B) Certificate of Compliance:

A Certificate of Compliance shall be submitted on the manufacturer's or supplier's official letterhead, and shall contain the following information:

- (1) The current name, address, and phone number of the manufacturer or supplier of the material.
- (2) A description of the material supplied.
- (3) Quantity of material represented by the certificate.
- (4) Means of material identification, such as label, lot number, or marking.
- (5) A statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.
- (6) A statement that the individual identified in item seven below has the legal authority to bind the manufacturer or the supplier of the material.
- (7) The name, title, and signature of the responsible individual. The date of the signature shall also be given.

Each of the first six items specified above shall be completed prior to the signing of the certificate as defined in item seven. No certificate will be accepted that has been altered, added to, or changed in any way after the authorized signature has been affixed to the original certificate. However, notations of a clarifying nature, such as project number, contractor, or quantity shipped are acceptable, provided the basic requirements of the certificate are not affected.

A copy or facsimile reproduction of the original certificate will be acceptable; however, the original certificate shall be made available upon request.

(C) Certificate of Analysis:

A Certificate of Analysis shall include all the information required for a Certificate of Compliance and, in addition, shall include the results of all tests required by the specifications.