Oklahoma Department of Transportation

Certification of Materials Construction Control Directive No. **19970115**

February 15, 2002

Scope: To establish the format for certifying the materials installed on a construction project.

The Resident Engineer is responsible for certifying that the materials placed on or incorporated in his/her assigned projects meet specification requirements. This directive clarifies the certification format to be used for that process and addresses those occasions when a failing test is found or, due to circumstances beyond the control of the Resident Engineer, testing is not performed.

All tests, certifications and brochure items for materials used in the construction of the project are to be tallied and compared to the as-built quantities (L-5). The certification is to address all failing tests, noncomplying materials and waivers. The certification must read as follows:

 DATE ______
 PROJECT NO._____

 JOB PIECE______
 COUNTY______

This is to certify that:

The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and the construction operations controlled by sampling and testing, were in conformity with the approved plans and specifications. All Independent Assurance samples and tests are within tolerance limits of the samples and tests that are used in the acceptance program¹.

Exceptions to the plans and specifications are as follows:

(List each failing test and what action was taken with regard to the materials represented by the failing test. Also include any material test that was waived.)

Resident Engineer

¹If Independent Assurance Sampling was not done, omit the last sentence in the certification.

Only the Resident Engineer is authorized to sign and seal the certification. Residency Managers that are not Professional Engineers are to initial the certification and forward to the Assistant Division Engineer or Division Engineer to be signed and sealed.

Send a final list of all of the items and quantities and the certification to the Materials Division and to the Construction Division². When the project has a contract amount of \$1,000,000 or more and is on the National Highway System, send the Federal Highway Administration a copy also. You will not receive a response from the Materials Division as in the past. Proceed with finalization of the contract.

Please summarize the exceptions on the certification. A sample certification might appear as shown in the attachment.

It is not necessary to attach copies of the test or work sheets, we only need the summary indicating what action was taken.

ADMINISTRATION OF MATERIALS TESTING

Production and distribution of the monthly Materials Received Report, which has been done routinely for several years, is found to have little value and <u>is</u> no longer required.

CATEGORIES OF TESTING

There are basically five areas of testing and verification for acceptance; Tests performed by the Residency, Pretested stock materials, Manufacturer's Certification, Brochure Items, and tests by the Central Laboratory for Acceptance. The types of materials in each category will be addressed on the following pages:

²You may use the L-5 Form but it may be easier to use the audit sheet which transmits information between the Residency and Division. Be sure to list all items including the earthwork items and items established by change order.

OKLAHOMA DEPARTMENT OF TRANSPORTATION A REFERENCE GUIDE FOR HANDLING OF TESTS, CERTIFICATIONS AND DRAWINGS FOR APPROVAL		
Sampling and Testing by the Construction Residency	The Resident Engineer will sample, test, and maintain records at his office.	
 Pre-tested Materials Materials that have been sampled by the Materials Division or certified as pretested stock to a supplier. 	The supplier will send the original shipping report (DT Form 217) to the materials Engineer and (1) copy each to the Resident Engineer and Contractor.	
Manufacturer's Certification	The Supplier will send the original certification to the Materials Engineer and one (1) copy each to the Resident Engineer and Contractor. (Some materials require sampling in addition to the certification.) After the certification is deemed acceptable, by the Materials Division, one (1) copy each will be sent to the Resident Engineer and the prime contractor. The Materials Engineer may authorize the Resident Engineer to accept certifications for specific materials.	
Brochure I tems	The Contractor/Supplier will send five (5) copies to the ODOT Approving Authority ³ . On approval, four (4) copies will will be sent to the Materials Engineer for distribution. The Materials Engineer will send one (1) copy to the Contractor and two (2) copies to the Resident Engineer.	
Materials Sampled & Tested by Central Laboratory for acceptance • Project specific	One copy of the report is sent to the contractor and one copy to the Resident Engineer.	
Shop Drawings	Generally, all shop drawings go to the Roadway Standards Engineer.	

³Send a copy of the transmittal only to the Resident Engineer so that he will know that the brochure has been submitted. The Approving Authority is the Division (ie., Traffic, Bridge, Roadway, Local Government) that has primary responsibility for the approval.

1. Tests performed or samples acquired by the Construction Residency and forwarded to the Materials Division are as follows:

Filter Blanket	Electric Conduit
Cement	Waterproofing Materials
Fly Ash	Fencing Materials
Aggregate (all types)	Jute Mesh
Soils	Lime
Asphaltic Mixtures	Electric Conductors
Rip Rap	Liquid Asphalt
	Penetrating Water Repellant

2. Materials from Pretested Stockpiles:

These are materials that have been purchased in bulk by a supplier. The materials are tested in lots and later shipped to the project accompanied by a test report that identifies the lot source. The testing entity may be the Central Laboratory, a Consulting Firm, and in some cases, another State. The materials in this category typically are:

P.C. Concrete

- R/W Markers Delineators Traffic Stripe(solvent based paint & plastic) Brick Glass Beads Pull Boxes, Lids Reinforced Concrete Pipe Signs (all) Guardrail Posts & Blocks (wood&stl.) Paint Underdrain Pipe (plastic) Sign Posts Stubs Welded Wire Fabric
- 3. Manufacturer Certified Materials:
 - Aluminum Bridge Rails Valves & Boxes Air Entraining Agents Bearing Pads (1) Fertilizer Seeding Penetrating Water Repellant (1)

Curing Compound (membrane & emulsion) Glass Beads Castings Joint Fillers Joint Sealers (other than silicone) Guardrail End Section Wood Fence Post Pavement Markers & Epoxy Compression Joint Reinforcing Steel (for CRCP)

Cast Iron Pipe & Fittings Fire Hydrants Admixtures Liquid Asphalt(1) Construction Traffic Control Ditch Liner Protection Fly Ash (1) Certification of Materials October 22, 2009

> Glare Screen Geogrid Reinforcing Materials Corrugated Metal Pipe Unfabricated Steel Sign Posts Acrylic Waterborne Paint Filter Fabric (1) Reinforcing Fabric (1) Separator Fabric (1)

Attenuator Modules Silicone Joint Sealants Coated Metal Pipe Guardrail, Hardware & End Terminals Portland Cement (1) Paint Systems (for Structural Steel)

- (1) Sample Required
- 4. Items Verified by Brochure:

The specification for signal and lighting items may be met by several manufacturers. After award of the project, the contractor indicates which manufacturer will furnish the materials by submitting a Brochure depicting the model num ber etc. The Brochure is then sent to the designer for approval. Typically, the items are Signal Heads, Overhead Lighting, Signal Controllers and Cabinets and other miscellaneous hardware items.

5. Materials Sampled and Tested By The Central Laboratory For Acceptance (Project Specific).

Precast Concrete Median Barriers, Concrete Boxes, Manholes & Inlets Reinforcing Steel Pipe Railing Wire Mesh Fabricated Steel Pipe Posts Culvert End Treatments

George Raymond, P.E. Construction Engineer

Epoxy Coated Steel Heavy Weld Steel Grates Overhead Sign Structures (aluminum) Prestressed Concrete Beams Timber and Lumber Piling (all) Structural Steel