

GENERAL INSTRUCTIONS

This manual aids uniform sampling and testing procedures by the Alabama Department of Transportation. Compliance with these procedures ensures all materials incorporated in a project can be documented as conforming satisfactorily with specification requirements and established Department policies. Revised or additional schedules and procedures are issued periodically. They should be immediately placed in the appropriate section of this manual. Note that the primary units used in this document are English. For projects that may be administered in metric units, appropriate metric values have been included in parentheses. English and metric units are provided in a manner consistent with the intent of the specifications and may not be exact conversions.

The Sampling and Testing Program

A copy of the Department's official sampling and testing program is for reference and study by project personnel. It defines their responsibilities for acceptance of materials incorporated in the work. Many items are produced or fabricated away from the project site and, inspected and tested by other Department personnel or agencies. Thoroughly study procedure ALDOT-195 **before** allowing contractors to incorporate these items.

The Sampling and Testing Schedule

To provide a cost effective sampling and testing program, schedules contained herein were developed for major projects when materials are produced by **previously unused sources**. For materials delivered to a major project from sources consistently producing quality material, the sampling and testing frequency may be decreased on a **job-by-job** basis. The Materials and Tests Engineer must approve this frequency decrease. Conversely, the frequency may be **increased** for a source with a history of supplying marginal quality material.

Requirements for testing material may be waived on certain minor projects. Material must be visually inspected to ensure it is in reasonable close conformance with specifications and will do the intended job. This includes projects with very small materials quantities of a noncritical nature. Examples are certain intersection improvements, safety projects, etc. Before beginning work, the **Region** recommends this waiver in writing to the **Materials and Tests Engineer**. This approval would then be on file. Form BMT-16 should be completed at the time the materials are incorporated into the project to show a visual inspection of all materials was acceptable. BMT-16 accompanies the **Region** Materials Certificate and becomes a part of the project files.

For contracts requiring miscellaneous material items in quantities smaller than normal lots for testing purposes, quantities may be accepted by a certified test report from the manufacturer when validated by the Testing Engineer. (Examples are steel fence posts, nuts, bolts, filter fabrics, etc.). For sources consistently producing quality materials, the **Area Materials Engineer** may authorize project personnel to accept these materials following visual inspections. Project personnel will execute Form BMT-16 for materials accepted on a visual basis at the time of acceptance and incorporation into the project. State on the report the **quantity accepted** and observed physical characteristics such as dimensions where applicable, general condition, workmanship, appearance, etc.

Sampling and Testing Procedures

Generally, American Association of State Highway and Transportation Officials (AASHTO) or Alabama Department of Transportation Procedures (ALDOT) are used; occasionally, ASTM or other agencies such as FAA or Corps of Engineers procedures are required. AASHTO, ASTM, or other agency procedures are not in this manual. Project personnel may obtain these procedures from the District Engineer's Office, Area Materials Engineers, or Bureau of Materials and Tests.

ALDOT-210 is used to determine when or where a sample or test will be taken for normal lot or subplot of material. This procedure provides unbiased samples and tests. If it is apparent that failing material exists due to segregation, mishandling, or worn equipment, the contractor will be required to rework or replace the failing portion **before** taking the acceptance sample or test. All personnel engaged in sampling and testing duties should thoroughly study this procedure.

Retest Provisions

Some AASHTO, ASTM, or Alabama Department of Transportation procedures contain retest provisions. The following general policy applies for those provisions not contained in the procedure. For occasionally failing samples, two additional samples or tests (randomly selected per ALDOT-210), will be obtained for the failing lot. If the two additional tests meet the requirements, the lot may be accepted; if only one or none of the samples or tests meet the requirements, the entire lot is rejected until replaced or reworked per the Standard Specifications, Section 106. When more than two failing lots of material are sampled and tested during the same time period, all lots may be rejected without retests. In this event, the source of material and/or contractor's workmanship should be evaluated before allowing any further shipments or work to proceed.

In conclusion, project personnel are urged to thoroughly study the individual sampling and testing schedules and procedures **before beginning** any item of work. Place particular emphasis on ALDOT-195. This results in timely payments to the contractor and rapid clearance of the final Materials Certificate of Conformance (BMT-38).