ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: June 14, 2012 Special Provision No. <u>12-0309</u>

EFFECTIVE DATE: September 1, 2012

SUBJECT: Soil, Soil Aggregate, and Aggregate, Base and Subbases.

Alabama Standard Specifications, 2012 Edition, SECTION 301 shall be amended by replacing Articles 301.05 and 301.06 with the following:

SECTION 301 SOIL, SOIL AGGREGATE, AND AGGREGATE, BASE AND SUBBASES

301.05 Sampling and Testing.

(a) GENERAL.

All sampling and testing, except in-place density, will be performed on the complete in-place base or subbase layers after final mixing and spreading on the roadway has been completed except as noted in Subarticle 301.05(c) for cement treated base material. In-place density will be performed on the layers after final shaping and compacting has been completed.

Any necessary sample holes, etc., required to satisfactorily establish the acceptability of any base layer shall be repaired by the Contractor immediately with like material. The cost of such repairs is considered to be incidental to the work and shall be performed without additional compensation.

(b) SURFACE REQUIREMENTS.

The finished surface of each subbase or base layer shall not vary more than 1/2 of an inch {13 mm} in any 25 foot {8 meter} section from a taut string applied parallel to the surface and roadbed centerline at the following locations: 1 foot {300 mm} inside the edges of subbase or base, at the centerline, and at other points as designated. The finished surface shall not vary more than 3/8 of an inch {10 mm} from the required section measured with a template placed at right angles to the roadbed centerline. The template shall be of a rigid frame adjustable metal type, accurately set, and at least as long as the width of base layer being checked up to 24 feet {7.2 m}. Additional widths may be checked by the use of string and Engineer's level. The Contractor shall furnish template, string, and necessary personnel to handle same under the direction of the Engineer.

Where a Permeable Asphalt Treated Base (PATB) layer is to be placed (Pay Item 327-E), the finished base layer elevations shall not vary from design by more than 0.03 feet {10 mm} based on rod and level survey readings taken at a minimum of five locations across each lane (edge, outer wheel path, midlane, inner wheel path, and inside edge of lane) at longitudinal intervals not greater than 50 feet {15 m}. Surface irregularities shall not exceed 1/4 inch {7 mm} between two points longitudinally or transversely using a 10-foot {3 m} straightedge.

(c) GRADATION AND DENSITY.

Testing for compliance will be made as specified in Subarticle 301.05(a) except that a layer with a cement additive will require the pretesting of the blended components prior to the addition of the cement additive on the primary belt at the mixing plant.

The gradation of each layer will be checked at intervals as currently scheduled by the Department to determine compliance with the material specifications. Material falling outside of the specified bands of the general composition table shall be evaluated in accordance with the following: for each failing test, the price reduction will be five percent plus one percent for each percent for which the material failed to meet the required specifications. This applies to each sieve, percent clay, liquid limit (LL), or plasticity index (PI) requirement. These percentages are cumulative and apply to all material represented by that sample. If the resulting reduced unit price is less than 80% of the original unit price, the contractor will be given the option of modifying the in place material or

removing and replacing the material. In either case, the gradation of the material will be re-tested for compliance with the material specifications.

The density of each layer will be checked at intervals as currently scheduled by the Department to verify compliance with specification requirements. Density requirements are specified in Section 306.

(d) THICKNESS.

The thickness of each layer will be checked at intervals as currently scheduled by the Department and at closer intervals if necessary to determine the limits of any section found to be outside of the tolerance limits.

- 1. For a layer placed under a "square yard" {"square meter"} item, the compacted thickness of the layer shall not be more than 1/2 of an inch {13 mm} less nor 1 inch {25 mm} more than the thickness specified on the plans or directed. A thickness greater than the 1 inch {25 mm} tolerance may be accepted if uniform over a sufficient length to not materially affect the riding surface or reduce any required clearances and is within surface smoothness tolerances specified in Subarticle 301.05(b).
- 2. For a layer placed under a "cubic yard" {"cubic meter"} item, the compacted thickness of the layer shall not exceed eight percent of each layer, plus or minus, of the designated thickness. Excess thickness above the eight percent noted above may be permitted to remain in place provided the riding surface is not affected and any required clearances are maintained, The excess material above the eight percent tolerance allowed will be deducted from the pay quantities.
- 3. If the base layer contains cement, areas below required thickness or elevation shall be corrected by increasing the thickness of the next layer; or for the top layer, the surface may be brought to proper elevation and thickness with layers of bituminous plant mix of appropriate gradation where the pavement is to be a bituminous type. These leveling layers shall be placed ahead of a plant mix pavement layer or after a liquid surface treatment layer, if any. These layers shall be placed without additional compensation, or the Contractor may at his option remove and replace the deficient areas at his own expense. Low areas in the subgrade under concrete pavement shall be corrected as specified under Subarticle 450.03(c).

(e) WIDTH.

The widths shown on the plans, or directed, shall be the widths used for determining the area for pay purposes of square yard {square meter} layers. Widths in excess of the designated width may be acceptable if not detrimental to the appearance or design of the project; however, no deviation in excess of 0.3 feet {90 mm} less than the designated dimension for each side of a roadway will be acceptable.

301.06 Maintenance of the Work.

Each base layer shall be maintained as provided herein without extra compensation until it is covered by a succeeding layer or acceptance of the contract. The surface shall be kept free of ruts, ridges, holes, and substantially true to profile, grade, and cross-section. Each base layer must have the required density and moisture at the time it is covered by another layer. However, maintenance requirements for moisture will be waived for Crushed Aggregate Base after the layer has been properly compacted with proper moisture content. No layer of base shall be covered by another layer or primed until it has been approved by the Engineer.

Special attention is directed to the fact that lime or cement treated bases require special care to insure proper curing. Daily watering, rolling, or maintenance of curing material is considered an integral part of the work until the treated layer is covered by another layer or completion of the contract.

The Engineer may re-test a primed base layer where he suspects that it does not have the required density and moisture. All areas found deficient shall be corrected by the Contractor, at his expense, prior to the placement of the next overlying layer.

It shall be the Contractor's responsibility to protect the base from damage and to protect the prime from being picked up or damaged by traffic and to replace promptly any base or prime so damaged.