

ALABAMA DEPARTMENT OF TRANSPORTATION

General Application Special Provision

DATE: December 15, 2023

GASP No. 22-GA0013(2)

EFFECTIVE DATE: June 1, 2024

SUBJECT: Roadway Signs, Construction Signs, and Cones.

Alabama Standard Specifications, 2022 Edition, SECTION 710, SECTION 740, and SECTION 880 shall be amended as follows:

SECTION 710 ROADWAY SIGNS

710.01 Description.

(b) Types and Classes of Signs

The table “Classes and Descriptions of Signs” shall be replaced with the following:

CLASSES AND DESCRIPTIONS OF SIGNS	
Class 1	Obsolete
Class 1A	Obsolete
Class 2	Type IV ReflectORIZED Sheeting Background with the same Type ReflectORIZED Sheeting Cut-Out Copy. Type IV ReflectORIZED Sheeting Background with Digital Printing is also allowable.
Class 2A	Type IV ReflectORIZED Sheeting Background with Non-ReflectORIZED Cut-Out Copy For Multiple Extruded Panels, Type XI ReflectORIZED Sheeting Background with Digital Printing is also allowable.
Class 3	Obsolete
Class 4	Type IV ReflectORIZED Background with Screen Copy. Type IV ReflectORIZED Sheeting Background with Digital Printing is also allowable
Class 5	Obsolete
Class 6	Type IV ReflectORIZED Sheeting Background with Type XI ReflectORIZED Sheeting Cut-out Copy For Multiple Extruded Panels, Type XI ReflectORIZED Sheeting Background with Digital Printing is also allowable.
Class 7	Obsolete
Class 8	Obsolete
Class 9	Type XI ReflectORIZED Sheeting Background with the same Type ReflectORIZED Sheeting Cut-Out Copy or Digital Printing.
Class 10	Type XI with Screen Copy or Digital Printing

(c) Methods of Fabrication.

The first paragraph of Subarticle 710.01(c) shall be replaced with the following:

In addition to the Classes noted above, signs will be designated by the method of fabrication as follows. At the Contractor’s discretion multiple panel signs may be made of multiple flat panels or multiple extruded sections.

710.05 Basis of Payment.

(b) Payment will be made under Item No.:

Subarticle 710.05(b) shall be replaced with the following:

(b) Payment will be made under Item No.:

- 710-A Class * Sign Panels - per square foot {square meter}
- 710-B Roadway Sign Post (Description & Size) - per linear foot {meter}
- 710-C Removal of Existing Roadway Signs - per lump sum
- * Appropriate Class

SECTION 740 TRAFFIC CONTROL DEVICES FOR CONSTRUCTION WORK ZONES

740.02 Materials.

(b) Crashworthiness of Devices.

Subarticle 740.02(b) shall be replaced by the following:

(b) Crashworthiness of Devices.

The Contractor shall be responsible for ensuring that all devices that are used for work zone traffic control meet "crashworthy" requirements given in the National Cooperative Highway research Program (NCHRP) Report 350 for the appropriate category of device.

(d) Materials for Fabrication, Construction, and Installation.

Subarticle 740.02(d) shall be replaced by the following:

(d) Materials for Fabrication, Construction, and Installation.

Materials used in the fabrication, construction and installation of the construction signs, barricades and other devices shall conform to the requirements of Article 104.04, plan details, the MUTCD and the details noted in this Section:

Sign panels may be fabricated from one of the types of material shown below:

Material	Min. Panel Thickness	* Sign Face Area
Aluminum Flat Sheets	0.080 inches {2.00 mm}	All sizes
Aluminum Composite	0.080 inches {2.00 mm}	All sizes

*NOTE: Any sign panel installation using Standard Mounting procedures, which in the opinion of the Engineer does not provide a reasonably rigid sign installation, shall be strengthened by the use of additional supports and/or backing stringers.

Sign background and messages shall be formed using materials noted for such in Articles 880.02 and 880.03. To permit visual verification of proper use, each type sheeting shall display an identifiable symbol, on the face of the sheeting, in a repeat pattern.

When no pre-requirements are specified for units, they shall comply with the manufacturer's specifications as approved by the Department under the provisions of Section 32-5-36 of the Alabama Code.

Items are not required to be new. Used items may be acceptable provided the following conditions are met:

- Units are in good repair, clean and structurally sound.
- Reflective sheeting on any unit is clean and in good repair.
- All legends and messages are sharp, clean and legible.
- Reflectivity of said units during the hours of darkness shall provide acceptable, clear and uniform delineation without dead spots.

No test reports are required, but the Engineer shall visually inspect all units and accessories for compliance with the various dimensional and material stipulations noted before approving their use in

the work. The approval of any unit for use is subject to satisfactory field performance and does not preclude the Engineer ordering replacements of units; said replacements for these previously approved units shall be without additional compensation.

(e) Pilot Car, Flaggers, and Flagging Equipment.

Subarticle 740.02(e) shall be replaced with the following:

(e) Pilot Car, Flaggers, Flagging Equipment, and AFAD.

The pilot car, flaggers, flagging equipment, and AFAD shall meet the requirements of the MUTCD. The pilot car shall be a registered motor vehicle designed for use upon a highway. "Off-road" type vehicles will not be allowed.

Automatic Flagger Assistance Devices (AFAD) must be selected from List IV-3 of the Department's MSDSAR.

740.03 Construction Requirements.

(a) Traffic Control Personnel, Devices, Equipment and Training.

Item 740.03(a)3 shall be replaced with the following:

3. Moving and Covering Traffic Control Signs and Other Devices While Not in Use.

During periods when signs and other devices are not being used for traffic control, they shall be removed from the work area, covered with the specified material or otherwise positioned so they do not convey their message to the traveling public. If covered, the covering material shall be 1/2 inch {13 mm} (nominal size) exterior plywood or aluminum composite material cut to fit the shape of the sign panel. The covering material shall be installed in accordance with the plan details and in such manner that no damage will occur to the sign panel during installation. Covering material shall be maintained in a neat and workmanlike manner during its use.

740.04 Method of Measurement.

Article 740.04 shall be modified by the deletion of the following paragraph

~~Ballasts for cones will be measured per each for each weight {mass} ordered, accepted, and used.~~

740.05 Basis of Payment.

Article 740.05 shall be replaced by the following:

740.05 Basis of Payment.

(a) General.

Payment for Construction Signs and Special Construction Signs measured as noted above will be paid for at the contract unit price bid which shall be full compensation for fabrication of sign panel with proper sheeting and legend, furnishing and erecting on proper supports, furnishing all mounting hardware, covering when not in use, handling and maintaining until project completion.

Payment for drums, barricades, cones, delineators, warning lights, and vertical panels, measured as noted above, will be paid for at the contract unit price bid which shall be full compensation for fabrication, erection at designated locations whenever required, furnishing continuous power source for lights, handling and maintenance until project completion. Payment for cones shall include ballasts.

Electric incandescent or fluorescent lights measured as noted above will be paid for at the contract unit price bid which shall be full compensation for furnishing all materials and mounting hardware, wiring, erecting, maintaining and investigating, procuring and bearing the expense of continuous power supply.

Area Lights measured as noted above will be paid for at the contract unit price bid which shall be full compensation for furnishing all materials and mounting hardware including 250 watt mercury vapor lamp or equivalent luminaire and luminaire mounting arm and Class 7 wood pole, wiring, erecting, maintaining and investigating, procuring and bearing the expense of continuous power supply.

Item 740-O, Pilot Car, measured as noted above will be paid for at the contract unit price bid which shall be full compensation for furnishing and operating the pilot car, for furnishing the pilot car driver and flaggers, for all equipment and materials necessary to complete the work.

Item 740-P, Portable Rumble Strips, measured as noted above will be paid for at the contract unit price bid which shall be full compensation for fabrication, for installation at designated locations whenever required, and for handling and maintenance until project completion.

Payment for Items 740-B - L and 740-P will further include all costs in relocating, removing and returning these Items to the project when required to provide a complete traffic control system throughout the life of the project. No payment will be made beyond the maximum quantity of signs, barricades or other traffic control devices installed at any one time except when alternate sign panels are required for proper handling of the traffic, in such case both alternate panels will be measured for payment.

The Lump Sum payment for traffic control devices specified by plan details shall be full compensation for furnishing all materials, power sources and mounting hardware, erecting, handling, relocating signs and devices within the indicated "Traffic Handling Scheme" and maintaining all traffic control devices until project completion. If traffic control devices are deleted from the traffic handling scheme that is to be paid on a lump sum basis, deductions for the items deleted will be made from the lump sum cost in the amount of the contract unit prices bid for the quantity of individual traffic control items so deleted. Traffic control items which are added to the lump sum traffic handling scheme will be paid for at the contract unit price for the item added. A lump sum payment will be considered as full compensation for "traffic handling scheme". Once construction signs or other warning devices are no longer needed within the designated limits of the lump sum "traffic handling scheme", they may be used in other areas of traffic control and payment will be made under the appropriate pay item.

Unless otherwise designated on the construction plans, all signs, barricades, and other traffic control devices covered by this Section shall become the property of the Contractor at the completion of the project. The salvage value for these items shall be reflected in the contract unit prices bid.

No payment will be made for stored materials under this Section unless the material in storage was either manufactured or purchased new for specific use on the project.

No payment will be made for devices installed solely for the protection of the Contractor's work and which serve no useful purpose in protecting the safety of the public or workmen such as traffic cones for paint protection, devices installed to protect fresh concrete presenting no hazard, etc.

The Contractor will be expected to submit a balanced bid for all traffic control items. The submission of unbalanced bid prices may result in loss of contract award.

(b) Payment will be made under Item No.:

- 740-A Traffic Control Scheme - per lump sum
- 740-B Construction Signs - per square foot {square meter}
- 740-C Special Construction Signs - per square foot {square meter}
- 740-D Channelizing Drums - per each
- 740-E Cones (36 inches {900 mm} high) - per each
- 740-F Barricades, Type ____ - per each
- 740-G Barricades, Type I, (Portable, 24 inches {600 mm} wide) - per each
- 740-H Delineators - per each
- 740-I Warning Lights, Type ____ - per each
- 740-J Electric Incandescent or Fluorescent Light - per each
- 740-K Area Light - per each
- 740-L Vertical Panel Type __*, __** Sided - per Each
- 740-O Pilot Car - per each
- 740-P Portable Rumble Strips - per lump sum

* Specify either I or II

** Specify either Single or Double

SECTION 880 SIGN MATERIALS

880.01 Sign Panels.

(a) Aluminum Sign Materials.

Subarticle 880.01(a) shall be replaced with the following:

(a) Aluminum Sign Materials.

1. General.

Aluminum sign materials shall conform to the details shown on the plans and the following:

The materials used, unless otherwise noted by plan details, shall meet the requirements noted below and, in addition, the material used shall be free from corrosion, white rust, water stains, dirt, and grease with the panels processed as noted in Item 2 below.

ALUMINUM SIGN MATERIALS	
USE	ALLOY & TEMPER DESIGNATION
Sign Panels	ASTM B 209 Alloy 5052-H38 or 6061-T6
Extruded Shapes (sign panels), Bars or Rods	ASTM B 221 Alloy 6063 - T6
Angles, Structural Shapes (including Stiffeners)	ASTM B 308 Alloy 6061-T6
*Bolts	ASTM B 211 Alloy 2024-T4
Tamper Proof Nuts $\leq \frac{1}{4}$ "	ASTM B 211 Alloy 2024 - T4
*Spring Lock Washers	ASTM B 211 Alloy 7075-T6
Washers	ASTM B 209 Alloy Alclad 2024 - T4
Rivets	ASTM B 316 Alloy 6053 - T6
Shims	ASTM B 209 Alloy 1100-0
Flange Splicing Material	ASTM B 209 Alloy 6061 - T6
Weld Filler Wire	ASTM B 285 Alloy ER 5356 or ER 5556
*Hex. Nuts (Plain)	ASTM B 211 Alloy 6262-T9
*Hex. Lock Nuts	ASTM B 211 Alloy 2017-T4
* Unless otherwise specified	

Aluminum Sign Panel Thickness	
Class 4, 9, and 10 Flat	0.080 inches {2.00 mm}
Class 2, 2A, and 6 Multiple Flat or Multiple Extruded Panels	0.125 inches {3.00 mm}

Aluminum bolts, nuts, and washers shall have an anodic coating of at least 0.0002 inch {0.0051 mm} in thickness and shall be chromate sealed.

Galvanized bolts, nuts, and washers as specified under Galvanized Signs, or stainless steel hardware meeting the requirements of ASTM F 593, will be acceptable in lieu of the above.

2. Special Treatment of Aluminum Sign Material.

Each panel shall receive a chemical conversion treatment that will produce an acceptable etched surface suitable for either porcelainizing or attachment of reflectorized or non-reflectorized sheeting.

3. Tests and Samples.

The Contractor shall furnish certified test reports confirming compliance with the requirements noted and, in addition, shall furnish samples of all materials used in the signs in accordance with current Departmental policy for evaluation and verification tests.

4. Recycled Aluminum Sign Panels.

Recycled aluminum sign panels will be allowed for installation in accordance with the following requirements.

Recycled sign panels shall be the same alloy and temper required for new sign panels. They shall be free of corrosion and white rust and shall meet the required tolerances for flatness and thickness for new sign panels. The process for removing the old reflectorized or non-reflectorized sheeting shall not damage the chromate coating. Smelting, sanding, and chemical stripping processes for recycling will not be allowed.

Recycled signs will be inspected, sampled, and tested in accordance with current Departmental policy, except certified test reports will not be required. The Contractor shall furnish a materials guaranty that the materials conform to the requirements for recycling the sign panels.

(d) Porcelain Enamel Signs.

Subarticle 880.01(d) shall be replaced with the following:

(d) Blank.