

ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: September 12, 2019

Special Provision No. 18-0696

EFFECTIVE DATE: January 1, 2020

SUBJECT: Sidewalks.

Alabama Standard Specifications, 2018 Edition, SECTION 618 shall be revised as follows:

SECTION 618 CONCRETE SIDEWALKS AND DRIVEWAYS

618.01 Description.

This Section shall cover the work of constructing a portland cement concrete sidewalk or driveway. Sidewalks and driveways shall be constructed to the lines, grades, and typical cross-sections shown on the plans with or without reinforcement and in one course on a prepared subgrade. "Subgrade" in this Section shall mean the prepared foundation on which the sidewalk or driveway is constructed. Detectable warning surfaces shall be installed as shown on the plans.

618.02 Materials.

All materials furnished for use shall comply with the appropriate requirements of Division 800, Materials, and the following:

- Concrete shall meet the requirements for a Class A concrete as provided in Section 501.
- Reinforcing steel shall meet the requirements of Section 502 and plan details.
- Detectable Warning Surfaces shall be selected from the Department's List II-25, Detectable Warning Devices in the MSDSAR.

618.03 Construction Requirements.

(a) Equipment.

The equipment used for mixing concrete shall conform to the requirements of Section 501.

The Contractor may use forms or, if requested in writing and approved by the Department, an approved automatic extrusion type paving machine.

Forms shall be of wood, or metal, and shall be sufficiently staked to hold them true to line and grade while concrete is being deposited against them. If of wood, they shall be 2 inch {50 mm} or 3 inch {75 mm} (nominal size) stock lumber surfaces on all sides. If of metal, they shall be of approved section having a base width of at least 4 inches {100 mm} and shall have a flat surface on top. The depth of the forms shall equal the depth of the sidewalk or driveway. Adequate means shall be provided for securely fastening the ends of forms together.

Any automatic extrusion machine considered must be demonstrated to produce a consolidated concrete section conforming to the dimensions, cross-section, line, and grades shown on the plans or directed within the requirements noted herein in this Section.

(b) Subgrade.

All soft or other unsuitable material in the subgrade shall be removed and replaced with suitable material. All fills and filling material shall be placed and compacted by rolling with an approved roller or hand tamped with approved tamping devices in layers not exceeding 6 inches {150 mm} in thickness. Any existing areas that have been previously compacted by traffic to a greater degree than the remainder of the subgrade, shall be loosened and the whole subgrade uniformly compacted as directed.

(c) Foundation Backfill.

Where provided by the plans and/or proposal, foundation backfill shall be placed and constructed as provided in Section 214. No direct payment will be made for foundation backfill except when Item 214-B is provided in the proposal and such is ordered placed by the Engineer.

(d) Setting Forms.

Forms shall be set to true line and grade and rigidly held in place by stakes or braces. Ends of adjoining form sections shall be flush. Forms and division plates shall be cleaned and oiled before placing concrete against them.

(e) Handling, Measuring, Proportioning, and Mixing Materials.

The method of handling, measuring, proportioning, and mixing concrete materials shall conform to Section 501, Structure Concrete. Where metal reinforcement is shown on the plans and/or provided in the proposal, it shall be placed in accordance with Section 502.

(f) Placing Concrete.

A template resting upon the side forms and having its lower edge at the exact elevation of the subgrade shall be drawn along the forms and the subgrade shaped true before any concrete is deposited. The subgrade shall be moist and shall be free of debris and all foreign material when concrete is deposited upon it. The freshly mixed concrete shall be placed promptly on the prepared subgrade to the depth required to complete the sidewalk or driveway in one course. It shall then be vibrated and/or tamped and struck off with an approved straightedge resting upon the side forms and drawn forward with a sawing motion. The concrete shall then be floated with a wooden float until the surface is true. Concrete laid during cold weather shall conform to the requirements given in Section 501.

(g) Curb and Gutter Transitions.

The Contractor shall make any necessary transitions in the curb and gutter to match the surface of the curb ramp. These transitions shall be made according to the plan details or as directed by the Engineer.

(h) Joints.

Unless otherwise shown by plan details, the surface of sidewalks and driveways shall be marked in squares or rectangles not exceeding 36 square feet {3.5 m²} in area by using an approved marking tool. The marking tool shall provide a groove approximately 1 inch {25 mm} in depth and with rounded edges.

Unless otherwise directed by the Engineer, expansion joints 3/8 of an inch {9 mm} (min.) wide shall be placed as follows:

At all curb returns and where the walks or drives join other rigid units.

To line up with expansion joints of adjacent curbs, drives, etc., but in no instance more than 80 feet {24 m} between joints.

Where continuous runs of walks or drives are 80 feet {24 m} or longer, transverse expansion joints shall be provided; one joint for each additional 80 feet {24 m} or fraction thereof, of length.

Where walks or drives are confined longitudinally by other concrete units and the width of the walk or drive is in excess of 15 feet {5 m}, one longitudinal expansion joint will be required for each additional 15 feet {5 m}, or fraction thereof, of width.

Expansion joints shall be formed using a filler and sealer specified in Articles 832.01 and 832.02.

Unless shown otherwise by plan details, the joint filler shall be from the bottom of the walks or drives to 1 inch {25 mm} from the top; the sealer shall be 3/4 of an inch {19 mm} thick and shall be recessed 1/4 of an inch {6 mm} from the top.

(i) Curing and Protecting.

Immediately after the finishing operations have been completed, the entire surface of the newly laid concrete shall be protected against rapid drying out and cured as provided in Subarticle 450.03(m), unless the Contractor elects to use Type III portland cement, in which case the total curing time will be reduced. No vehicles shall be permitted on the new concrete for seven days and pedestrians shall not be permitted thereon for at least 72 hours unless the Contractor elects to use

Type III portland cement, in which case the time limit will be reduced to 24 hours for walks and four days for driveways.

(j) Backfilling.

After the concrete has set sufficiently, the side forms shall be removed and the spaces on both sides shall be backfilled with suitable material. This backfill shall be compacted to a level 1 inch {25 mm} below the walk or driveway and left in a neat and workmanlike condition.

(k) Detectable Warning Surface

Detectable warning surfaces shall be installed according to the details shown in the plans and the manufacturer's recommendations.

618.04 Method of Measurement.

The quantity of accepted sidewalks or driveways will be measured, complete in place, and the area computed in square yards {square meters}. Measurement for separate payment for foundation backfill will only be made when Item 214-B is provided in the proposal and such is ordered by the Engineer.

Detectable warning surfaces shall be measured per square foot {square meter}, complete in place.

Curb ramps shall be measured in square yards {square meters} and shall include the areas within the pay limits shown on the plans.

618.05 Basis of Payment.

(a) Unit Price Coverage.

The accepted quantity of sidewalk or driveway will be paid for at the contract unit price for Concrete Sidewalks or Concrete Driveways, complete in place, which shall be payment in full for furnishing all materials (including joints), for the hauling, preparation, and placing of all materials, for the preparation of the subgrade, excavation, backfilling, and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment for detectable warning surfaces shall include preparation of the underlying surface, labor, equipment, tools, and incidentals necessary to complete the work.

Payment for curb ramps shall include all excavation, subgrade preparation, grading, making transitions in the curb and gutter, construction of joints, and for all labor, equipment, tools, and incidentals necessary to complete the work.

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

- 618—A Concrete Sidewalk, ____ inch(es) {mm} Thick - per square yard {square meter}
- 618—B Concrete Driveway, ____ inch(es) {mm} Thick - per square yard {square meter}
- 618—C Detectable Warning Surface - per square foot {square meter}
- 618—D Curb Ramp - per square yard {square meter}