



*Florida Department of Transportation*

**RICK SCOTT**  
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**SECRETARY**

December 14, 2017

Khoa Nguyen  
Director, Office of Technical Services  
Federal Highway Administration  
3500 Financial Plaza, Suite 400  
Tallahassee, Florida 32312

Re: State Specifications Office  
Section: **546**  
Proposed Specification: **5460302 Rumble Strips.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Ed Cashman of the State Roadway Design Office to update the language.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to [dan.hurtado@dot.state.fl.us](mailto:dan.hurtado@dot.state.fl.us).

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Dan Hurtado, P.E.  
State Specifications Engineer

DH/dt

Attachment

cc: Florida Transportation Builders' Assoc.  
State Construction Engineer

**RUMBLE STRIPS.**(REV ~~10-24-17~~ 12-14-17)

SUBARTICLE 546-3.2 is deleted and the following substituted:

**546-3.2 Ground-In Rumble Strips for Shoulders:**

**546-3.2.1 General:** ~~Construct ground-in~~ Grind rumble strips ~~on asphalt pavement surfaces only. Before the construction of any ground-in rumble strips, demonstrate to the Engineer that the equipment to be used can achieve a depression having~~ well-defined edges and a smooth interior ~~finish without snagging or tearing the finished pavement.~~

On a daily basis, ~~B~~before opening the adjacent lane to traffic, ensure that all debris generated by the grinding process is removed and disposed of daily by vacuum or a method approved by the Engineer. Do not dispose of the debris within the right of way. Do not use the debris generated by the grinding process in recycled asphalt (RAP).

Restore any pavement to the satisfaction of the Engineer, at no additional cost to the Department, when ground-in rumble strips do not meet the requirements of the Contract Documents.

**546-3.2.2 Rumble Striping for Centerlines and Edge Lines Inspection:** ~~Construct ground-in rumble strips in accordance with 546-3.2. Apply the pavement markings over the ground-in rumble strip as shown in Design Standards, Index No. 519. For Limited Access roadways, verify~~ measure depth every 1-one mile. For Arterial and Collector roadways, verify measure depth every 500- feet. Measure depth as distance from pavement grade to top of ground-in grooves at the transverse and longitudinal centerline of the grinding prior to the placement of longitudinal thermoplastic pavement markings. Measure, Rrecord and certify on a Department approved form and submit to the Engineer.

ARTICLE 546-4 is deleted and the following substituted:

**546-4 Method of Measurement.**

The quantity of raised rumble strips to be paid for under this Section will be the Plan quantity per set, constructed and accepted.

The quantity of ground-in ~~shoulder~~ rumble strips to be paid for under this Section will be the plan quantity in gross miles, constructed and accepted. No deduction will be made when the skip array is used.

~~The quantity of centerline and edge line ground-in rumble strips will be the length, in gross miles, constructed and accepted. No deduction will be made when the skip array is used.~~

ARTICLE 546-5 is deleted and the following substituted:

**546-5 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, including; all surface cleaning and preparation; ~~preparing of surfaces,~~ all debris disposal; ~~of all debris,~~ furnishing of all materials; application, curing and protection of all items; ~~protection of~~

traffic, furnishing of all tools, machines, labor, and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Payment will be made under:

- |                   |   |
|-------------------|---|
| Item No. 546- 71- | Raised Rumble Strip Sets - per set.       |
| Item No. 546- 72- | Ground-In Rumble Strips - per gross mile. |

**RUMBLE STRIPS.****(REV 12-14-17)**

SUBARTICLE 546-3.2 is deleted and the following substituted:

**546-3.2 Ground-In Rumble Strips:**

**546-3.2.1 General:** Grind rumble strips that have well-defined edges and smooth interiors without tearing the finished pavement.

On a daily basis, before opening the adjacent lane to traffic, ensure that all debris generated by the grinding process is removed and disposed of by vacuum or a method approved by the Engineer. Do not dispose of the debris within the right of way. Do not use the debris generated by the grinding process in recycled asphalt (RAP).

Restore any pavement to the satisfaction of the Engineer, at no additional cost to the Department, when ground-in rumble strips do not meet the requirements of the Contract Documents.

**546-3.2.2 Inspection:** For limited access roadways, measure depth every one mile. For arterial and collector roadways, measure depth every 500 feet. Measure depth as distance from pavement grade to top of ground-in grooves at the transverse and longitudinal centerline of the grinding prior to the placement of longitudinal thermoplastic pavement markings. Measure, record and certify on a Department approved form and submit to the Engineer.

ARTICLE 546-4 is deleted and the following substituted:

**546-4 Method of Measurement.**

The quantity of raised rumble strips to be paid for under this Section will be the Plan quantity per set, constructed and accepted.

The quantity of ground-in rumble strips to be paid for under this Section will be the plan quantity in gross miles, constructed and accepted. No deduction will be made when the skip array is used.

ARTICLE 546-5 is deleted and the following substituted:

**546-5 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, including all surface cleaning and preparation, all debris disposal, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines, labor, and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Payment will be made under:

Item No. 546- 71-	Raised Rumble Strip Sets - per set.
Item No. 546- 72-	Ground-In Rumble Strips - per gross mile.