

Target Zero Criteria

It is the policy of the Department of Transportation to implement Target Zero, a performance driven statewide safety initiative. Target Zero is a proactive, bold, and systematic approach toward eliminating all fatalities and serious injuries across Florida's transportation system.

One way the Department supports the Target Zero goal is by *implementing engineering solutions*. As such, the State Safety Office has identified a series of safety countermeasures to be introduced across the State Highway System. The Office of Design is therefore introducing critical changes to the **FDOT Design Manual** to support the implementation of these countermeasures.

This document shows each safety countermeasure identified and the corresponding changes being made to the Department's design criteria. These changes are currently under review. Changes that are ultimately approved will become criteria for all projects starting design after January 1, 2027 or on projects for which their adoption will not inhibit the production process.

Please visit the [2027 FDOT Design Manual Summary of Revisions](#) to leave comments on any of these items by August 14, 2026.

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© Centerline and Edgeline Rumble Strips (ID 860)

Recommendation: Provide centerline and edgeline rumble strips on rural 2-lane high speed roadways with flush shoulders

210 Arterials and Collectors

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210.4.6 Audible and Vibratory Treatment

Provide audible and vibratory treatment (AVT) for edge lines and center lines on flush shoulder roadways with a Posted Speed of 50 mph or greater. Do not place edge line AVTs on lanes that are less than 11 feet wide. Do not exclude sections of the project where advisory speeds are used due to restricted horizontal or vertical geometry. Do not place AVTs within the limits of crosswalks.

Use sinusoidal ground-in rumble strips on flexible pavements as shown in ***Standard Plans, Index 546-020***.

Use profiled thermoplastic on rigid pavements. Otherwise, the use of profiled thermoplastic for any project including RRR, permits, push-button safety, and restriping projects must be approved by the State Roadway Design Engineer. ***Figure 210.4.4*** provides guidance for placement of AVTs. See ***FDM 940*** for information regarding plan requirements. Ground-in rumble strips are to be quantified in the Signing and Marking Plans component.

211 Limited Access Facilities

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211.4.4.1 Ground-in Rumble Strips

Use ground-in rumble strips on mainline flexible pavement shoulders (both inside and outside) in accordance with **Standard Plans, Index 546-010**. ~~Use the skip array on both inside and outside shoulders. Use the continuous array in advance of bridge ends for a distance of 1,000 feet or back to the gore recovery area for mainline interchange bridges.~~ **Figure 211.4.4** provides guidance for placement of ground-in rumble strips at interchanges.

~~Exclude ground-in rumble strips at the following locations:~~

- ~~(1) On bridges, terminate at the approach slab joint.~~
- ~~(2) At mainline toll sites within the toll loop pavement area.~~
- ~~(3) On All Electronic Tolling (AET) facilities within the tolling area as defined in the **GTR**.~~
- ~~(4) On outside shoulders of entrance ramp terminals, terminate at the point of the physical gore and resume at the end of the acceleration lane taper.~~
- ~~(5) On outside shoulders of exit ramp terminals, terminate at the start of the deceleration lane taper, and resume at the point of the physical gore.~~
- ~~(6) On either side of median crossover openings, terminate within 400 feet.~~

© Median with a Pedestrian Refuge Island (ID 873)

Recommendation: Expand the current criteria to provide pedestrian refuge islands at existing midblock crossings along C3C and C4 multilane/TWLT roadways, with posted speeds of 35-45 mph

222 Pedestrian Facilities

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222.2.3.2 Midblock

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Provide a pedestrian refuge island at midblock crossings in C3C and C4 multilane with a two-way left-turn lane and posted speeds of 35-45 mph. Consider providing pedestrian refuge islands at all other midblock crossing locations. See **Figures 210.3.4** and **210.3.5** for examples of midblock crossings with refuge islands. Refer to **FDM 230.6** for information on pavement markings and midblock crossings.

© Midblock Crossing Lighting (ID 854)

Recommendation: Provide lighting for existing midblock crossings along C3C/C4 multilane/TWLTL, 35 – 45 mph roadways.

222 Pedestrian Facilities

222.2.3.2 Midblock

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Provide ~~illumination~~ lighting for all new midblock crosswalks in accordance with FDM 231. Additionally, lighting is required for existing midblock crosswalks with context classifications C3C and C4 and design speeds greater than 30 mph. For all other existing midblock crosswalks, cCoordinate with the District Safety Engineer and the District Safety Administrator to determine if illumination should be provided to address any site specific safety concerns at existing midblock crosswalks. All lighting installations must meet the requirements of **FDM 231**.

© Signalized Intersection Lighting (ID 917)

Recommendation: Provide lighting retrofits and installation of new lighting (where none exist) at existing signalized intersections along C3C/C4 multilane/TWLTL, 35 – 45 mph roadways

231 Lighting

231.1 General

Roadway lighting benefits the traveling public by improving nighttime visibility of roadway geometry, vehicles, pedestrians, and obstructions. The requirements of this chapter apply to new construction, reconstruction, and Resurfacing, Restoration, and Rehabilitation (RRR) projects. Applicability to other project types is at the discretion of the district office.

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231.3.2 Intersections

231.3.2.1 Signalized Intersections

For signalized intersections within context classifications C3 through C6, provide lighting meeting the requirements of **Table 231.2.1**. For all other signalized intersection contexts, lighting may be provided at the district's discretion. Use New or Reconstructed~~ed~~~~ion~~ lighting values for all projects, including RRR, unless different lighting values are called for in the subsections below.

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231.3.2.1.1 Intersection Lighting Retrofit

For existing signalized intersections where a full signal upgrade is not occurring, the existing infrastructure may restrict the placement of additional lighting structures necessary to meet the ~~New and Reconstruction~~ New or Reconstructed criteria of **Table 231.2.1**. With these challenges considered, **Table 231.2.1** provides reduced illumination requirements ~~which may be used~~ for Intersection Lighting Retrofit designs. These retrofits provide safety benefits of improved lighting without the full reconstruction of light and signal structures.

~~Lighting retrofits should be considered for use at existing signalized intersections that have a history of nighttime pedestrian crashes. Lighting retrofits may be included with~~

~~RRR and minor intersection improvement projects that do not include full signal reconstruction.~~ For projects with existing intersection lighting and signalization, Intersection Lighting Retrofit values may be used instead of New or Reconstructed values per **Table 231.2.1**. This applies for all project types per **FDM 231.1**, including RRR.

An Intersection Lighting Retrofit operation may include replacing older luminaire types with LED luminaires, adding additional light poles, adding luminaire support arms to existing structures, and any other minor modifications needed to meet the Lighting Retrofit requirements of **Table 231.2.1**. Lighting retrofits generally do not include removing or replacing existing structures such as light poles and signal structures.

For Intersection Lighting Retrofit designs, the vertical illuminance requirement of **Table 231.2.1** only applies to crosswalks for the near side movement (see **Figure 231.3.1**) as well as any channelized right-turn lanes per **FDM 231.3.4**.

Existing, low-mounted sidewalk lighting is generally not intended to meet the lighting requirements of **Table 231.2.1**. To prevent increased glare, do not increase light output at existing luminaire locations with mounting heights less than 30 feet.

© Midblock Crossing (ID 870)

Recommendation: Conduct a midblock crossing study for C3C and C4 corridors, with posted speeds of 35-45 mph to identify midblock crossing locations.

222 Pedestrian Facilities

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222.2.3.2 Midblock

Midblock crosswalks are used to supplement pedestrian crossings in areas between intersections.

An engineering study is required for all new midblock crosswalks. Follow the procedure and guidelines identified in **TEM 5.2**.

Midblock crosswalks should meet the following requirements~~are not recommended at locations where any of the following exist:~~

- (1) The distance from the crosswalk to the nearest intersection (or crossing location) is at least~~less than~~ 300 feet.
- (2) The crossing distance ~~exceeds~~ 60 feet or less (unless a median or a crossing island is provided).
- (3) The sight distance for both the pedestrian and motorist is ~~not~~ adequate.
- (4) The crosswalk cross slope (roadway profile) does not ~~exceeds~~ 5%.
- (5) The crosswalk grade (roadway cross slope) does not ~~exceeds~~ normal crown.

Conduct the engineering study identified in **TEM 5.2** across the project limits for new and existing C3C and C4 context classifications where all of the following are met:

- Design speed of > 30mph, and
- Multilane or have a two-way left-turn lane

Construct midblock crosswalks and associated treatments at the locations identified and justified in the study.

114 Resurfacing, Restoration, and Rehabilitation (RRR)

114.3.2.2 Safety Assessment

Perform a safety assessment, resulting in written recommendations. The safety assessment should include:

- (1) Evaluation of safety needs identified and documented through the [Safety Assessment Dashboard](#). The Safety Assessment Dashboard is an internal FDOT application accessible only to specific FDOT positions. Coordinate with the District Traffic Safety Engineer to obtain information from the dashboard.
- (2) Evaluation of proactive safety countermeasures supporting the Safe System approach.
- (3) Identification of significant crash locations, with:
 - (a) Determination of possible causes, and
 - (b) Recommended modifications, mitigation measures, implementation of speed management techniques, or other safety countermeasures.
- (4) Review of correspondence files for letters of public concern.
- (5) Review of historic crash and travel statistics.
 - Identification of safety and mobility measures such as filling pedestrian facility gaps, providing adequate crossing opportunities, correcting deficiencies of bicycle facilities, and improving connectivity of bicycle facilities.
- ~~(6) — For C3C and C4 Context Classifications, See **FDM 222.2.3.2** for [criteria for midblock crosswalk criteria on C3C and C4 roadways](#).~~
- ~~(6) —~~
- ~~(7) —~~ The safety assessment along with written recommendations must be submitted to the District Safety Engineer and District Safety Administrator.

© Corridor Lighting (ID 853)

Recommendation: Conduct study to evaluate corridor lighting at C3C & C4, multilane and TWLT lane arterial roadways.

231 Lighting

231.4 Lighting Justification

For corridors and interchanges, the Department requires a lighting justification procedure in accordance with the **Manual on Uniform Traffic Studies (MUTS), Chapter 14**. This applies to all projects types per **FDM 231.1**, including RRR.

~~The Department follows the warrants for lighting of corridors and interchanges established by **AASHTO**. The warrants are based on benefit-cost ratios determined from the Average Daily Traffic (ADT), the ratio of night to day crashes, initial cost, and maintenance.~~

Interchanges that are not on the interstate highway system will require a warrant analysis the justification procedure to determine lighting usage. A benefit-cost ratio of 2.0 or greater is the threshold for ~~lighting~~ usage at these interchanges.

Interchanges that are on the interstate highway system must all be lighted to assure consistency and to meet driver expectations. ~~A warrant analysis~~ The justification procedure is still required for funding evaluation and information, but it will not be used as the determining factor for lighting usage at these interchanges.

~~A lighting justification must be completed in accordance with **Manual on Uniform Traffic Studies (MUTS), Chapter 14**.~~

All roadway corridors require the justification procedure to determine new lighting usage unless otherwise described below.

For multilane or two-way left-turn lane roadways with context classifications C3C or C4 and design speeds greater than 30mph, only the warrant analysis per **MUTS, Figure 14-1 (Form No. 750-020-20)** is required. Provide lighting for these roadways if the warrant is met.

Note that locations with existing roadway lighting are exempt from requiring a usage analysis, but the lighting must remain and be updated per the requirements of this **FDM** chapter.

© Shared Use Path or Separated Bike Lane (ID 872)

Recommendation: Provide shared use path or separated bicycle lanes on C3C/C4 multilane/TWLTL, 35-45 MPH roadways.

223 Bicycle Facilities

Table 223.1.1 Bicycle Facility Assignment to Meet 335.065 F.S.

Context Classification	Design Speed (mph)	Bicycle Facility					
		Paved Shoulder ²	Bike Lane ²	Separated Bike Lane ²	*SLS Bike Lane ²	Shared Use Path ³	Urban Side Path ³
<u>C6, C5, C4</u>	<u>25-35</u>	<u>X</u>	<u>X</u>	<u>X¹</u>	<u>X</u>	<u>X¹</u>	<u>X</u>
<u>C4</u>	<u>40-45</u>	<u>X</u>	<u>X</u>	<u>X¹</u>		<u>X¹</u>	
<u>C3C, C3R</u>	<u>35</u>	<u>X</u>	<u>X</u>	<u>X¹</u>		<u>X¹</u>	
	<u>40-45</u>	<u>X</u>	<u>X</u>	<u>X¹</u>		<u>X¹</u>	
	<u>50-55</u>	<u>X</u>				<u>X</u>	
<u>C2T</u>	<u>35</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		<u>X</u>
	<u>40-45</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>C1, C2</u>	<u>55-70</u>	<u>X</u>				<u>X</u>	
Notes: <u>(1) Provide a shared use path or separated bicycle lane on a C3C or C4 multilane roadway with a two-way left turn lanes and a design speed of 35-45 MPH.</u> <u>(2) See FDM 223.2 for requirements.</u> <u>(3) See FDM 224 for requirements.</u>							

*SLS Bike Lane = Sidewalk Level Separated Bicycle Lane

© Back Plates with Retro-Reflective Borders

Recommendation: Provide at existing C3C/C3R/C4 signalized intersections posted 40-45mph

This item does not require changes to the FDM.

© Leading Pedestrian Interval

Recommendation: In addition to current criteria – Conduct analysis to provide LPI at all new and existing C3C/C3R/C4 signalized intersections posted at 35-45 mph.

This item does not require changes to the FDM.

© Chevron Signs, Curve Warning Signs, In-Lane Pavement Markings

Recommendation: Provide chevron signs, curve ahead warning sign, and in-lane pavement warning markings at rural/urban horizontal curve <2000' radius.

This item does not require changes to the FDM.

© Convert Permissive/Protected Left Turn Phasing to Protected Only

Recommendation: Protected only study for use on signalized intersections posted at 40-45 mph in an C3C/C3R/C4 area crossing three or more opposing through lanes.

This item does not require changes to the FDM.

⦿ **Flashing Yellow Arrow**

Recommendation: In addition to current criteria - Review all new and existing C3C/C3R/C4 intersections posted at 40–45 mph for appropriate application of FYA for protected/permmissive or permmissive-only operations.

This item does not require changes to the FDM.

⦿ **Stop-Controlled Intersection into Single Lane Roundabout**

Recommendation: Conduct ICE analysis as part of an access management evaluation, particularly at locations where data has shown elevated fatal and serious injuries for similar roadway/intersection characteristic profiles.

This item does not require changes to the FDM.

⦿ **Convert intersection to median U-turn (MUT) or restricted crossing U-turn (RCUT) intersection**

Recommendation: Conduct ICE analysis as part of an access management evaluation, particularly at locations where data has shown elevated fatal and serious injuries for similar roadway/intersection characteristic profiles.

This item does not require changes to the FDM.