



# CMF / CRF Details

CMF ID: 7739

Install shoulder rumble strips

Description:

Prior Condition: Roadways without should rumble strips

Category: Shoulder treatments

Study: [Validation and Application of Highway Safety Manual \(Part D\) in Florida, Abdel-Aty et al., 2014](#)

Star Quality Rating:

Stars

[\[View score details\]](#)

## Crash Modification Factor (CMF)

Value: 0.67

Adjusted Standard Error:

Unadjusted Standard Error: 0.249

## Crash Reduction Factor (CRF)

Value: 33 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 24.9

## Applicability

**Crash Type:** Run off road

**Crash Severity:** K (fatal),A (serious injury),B (minor injury),C (possible injury)

**Roadway Types:** Not specified

**Number of Lanes:** 2

**Road Division Type:** Undivided

**Speed Limit:**

**Area Type:** All

**Traffic Volume:**

**Time of Day:** All

### *If countermeasure is intersection-based*

**Intersection Type:**

**Intersection Geometry:**

**Traffic Control:**

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

## Development Details

**Date Range of Data Used:** 2007 to 2010

**Municipality:**

**State:** FL

**Country:** USA

**Type of Methodology Used:** 1

<b>Sample Size Used:</b>	
<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Mar-08-2016
<b>Comments:</b>	This CMF applies to single-vehicle run-off-road crashes

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