

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000026843

Project ID: 03-04-213

Location: SR 1213 (Blue Creek Road) – 0.2 mile on each side of Bridge #55 – Between SR 1241 (Jim Blake Road) and SR 1134 (Raynor Avenue)

County: Onslow

City: West of Jacksonville

Division: 3

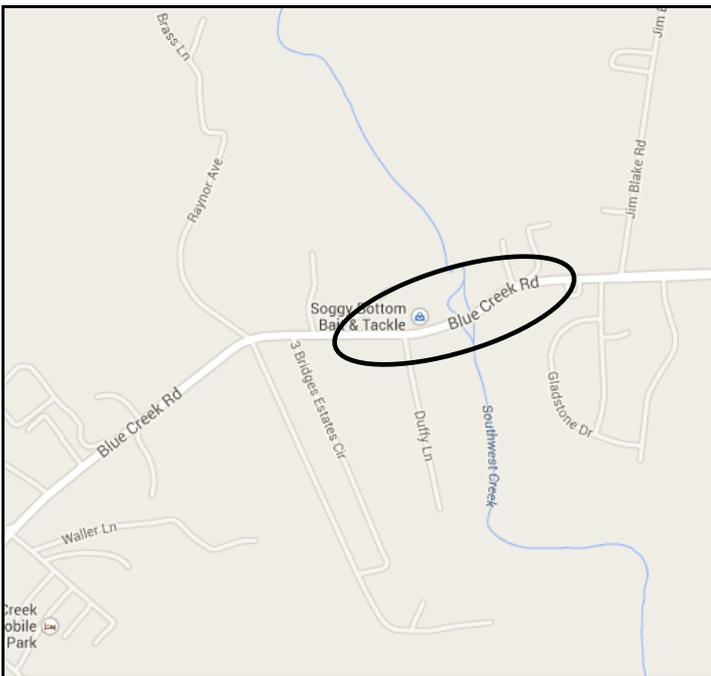
Signal ID: N/A

Countermeasures: Construct 2-foot paved shoulders on both sides of bridge for 0.2 mile, install rumble strips along segment, and install bridge guardrail on the four approaches.

Project Completion: August 26, 2008

Project Cost: \$115,000

## Map and Aerial (from Google Maps)



## Naive Before and After Analysis

- Before Period: June 1, 2003 through June 30, 2008 (5 years, 1 month)
- Const. Period: July 1, 2008 through August 31, 2008
- After Period: September 1, 2008 through September 30, 2013 (5 years, 1 month)
- Analysis Criteria: Treatment data consisted of all crashes with a 0-foot y-line of the subject section which includes 0.2 mile around Bridge #55; Milepost 3.483-3.883
- Target Crashes: Lane Departure Crashes: Ran-off Road (Left, Right, Straight); Fixed Object, Head-On, and Sideswipe (Opposite Direction)

<u>Treatment Information</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	13	12	- 7.7 %
Total Severity Index	2.71	5.32	96.3 %
Target Crashes – Lane Departure	12	10	- 16.7 %
Target Crash Severity Index	2.85	5.44	90.9 %
Volume (2005, 2011)	4,200	4,300	2.4 %

<u>Injury Crash Summary</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	3	1	- 66.7 %
Class C Injury Crashes	0	6	200+ %
Property Damage Only	10	5	- 50.0 %

## **Overall Summary Results**

Total Crashes:	- 8 %	(reduction)
Total Crash Severity:	96 %	(increase)
Target Crashes:	- 17 %	(reduction)
Target Crash Severity:	91 %	(increase)
Volume:	2 %	(increase)

## **Items for Discussion/Concerns**

Referencing the collision diagrams, crashes along this segment did not change significantly from the before to the after period. Bridge strike collisions increased from one (1) to three (3). Crashes in the s-curve to the east of the bridge dropped slightly from nine (9) in the before period to six (6) in the after period.

This roadway segment was selected to be a part of a Road Safety Review Audit in November 2012, led by the Safety Evaluation Section. Projects from the RSR recommendations were submitted for Spot Safety Funding in Spring of 2013 and no construction has been completed as of this report. In addition to forthcoming roadway improvements, the entire roadway of SR 1213 (Blue Creek Road) is now re-ordinanced to 45-mph.

## **Data Prepared For**

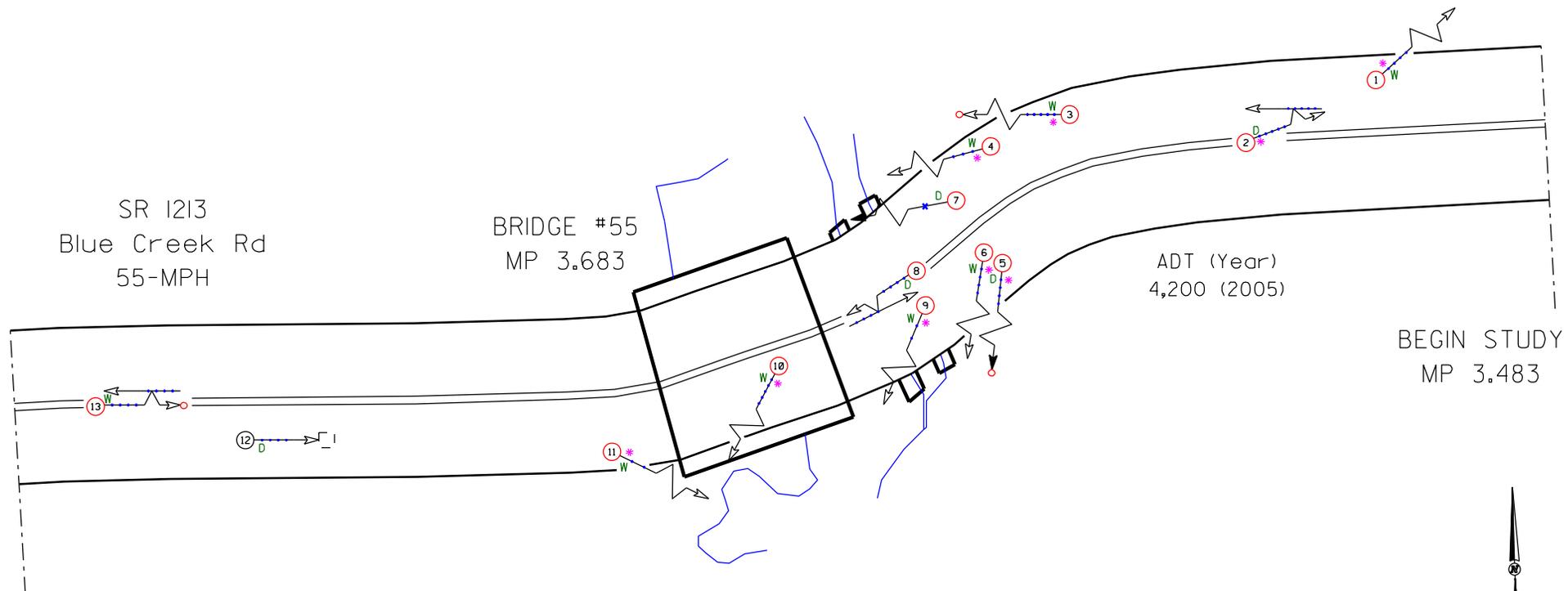
The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

## **Data Prepared By**

Principal Investigator: Jason B. Schronce, EI  
Work Group/Consultant: NCDOT - Safety Evaluation Group  
Date: February 5, 2013

SS# 03-04-213  
 Order# 41000026843  
 Onslow County  
 BEFORE Period  
 6/1/03 - 6/30/08  
 5.08 Years

LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS		PEDESTRIAN
	PAKED VEHICLE		TURNING		10 MPH TO 19		TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		DRIVER AT FAULT
	FIXED OBJECT		SIDESWIPE		30 MPH TO 39		DRY
	HEAD ON		REAR END		40 MPH TO 49		WET
	HEAD ON		REAR END		50 MPH TO 59		ICY OR SNOWY
	HEAD ON		REAR END		60 MPH TO 69		OTHER
	RAN OFF ROAD		FATALITY		70 AND UP		
			SPEED UNKNOWN				



END STUDY  
 MP 3.883

NOTE: Crashes #7 & #11 caused by vehicle approaching in wrong lane

ADT (Year)  
 4,200 (2005)

BEGIN STUDY  
 MP 3.483



Lane Departure  
 Target Crashes

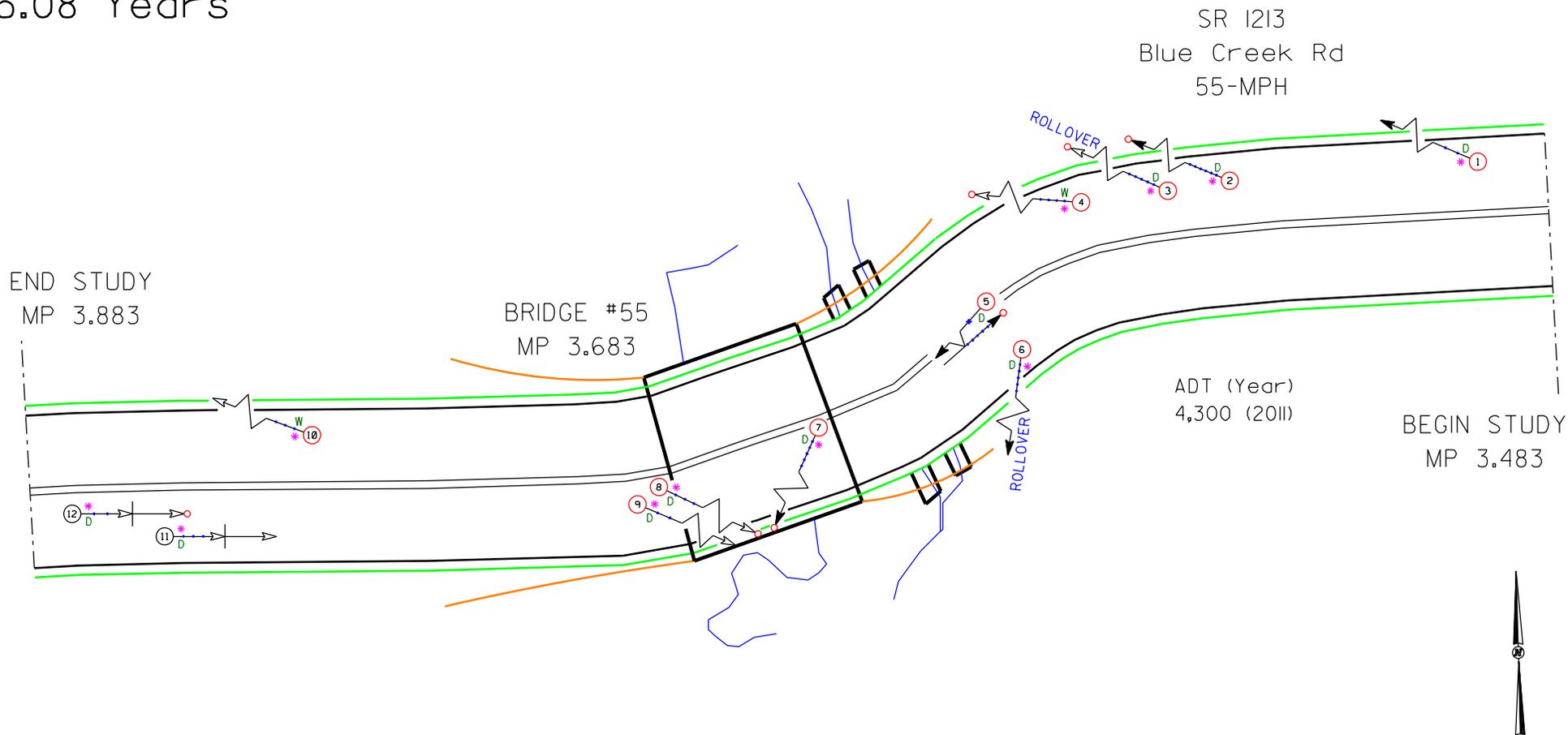
**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**

**TRAFFIC SAFETY UNIT**

Date: 2-3-2014      Prepared By: J. Schronce

SS# 03-04-213  
 Order# 41000026843  
 Onslow County  
 AFTER Period  
 9/1/08 - 9/30/13  
 5.08 Years

LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS		PEDESTRIAN
	PARKED VEHICLE		TURNING		10 MPH TO 19		TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		DRIVER AT FAULT
	FIXED OBJECT		SIDEWPE		30 MPH TO 39		DRY
	HEAD ON		RAZURY		40 MPH TO 49		WET
	REAR END		FATALTY		50 MPH TO 59		ICY OR SNOWY
	RAN OFF ROAD				60 MPH TO 69		OTHER
					70 AND UP		
					SPEED UNKNOWN		



COUNTERMEASURES:

- 1- 2-Foot Paved Shoulders for 0.2 Mile around Bridge
- 2 - Install Guardrail along each of the four bridge approaches
- 3 - Install Rumble strips along the segment

Lane Departure  
 Target Crashes

**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**

**TRAFFIC SAFETY UNIT**

Date: 2-3-2014

Prepared By: J. Schronce