

# Hazard Elimination Project Evaluation

## Project Information

Order ID: 41000034932

Project ID: W-5203B

Location: US-421/701 (Faircloth Freeway) from 0.25 mile south of US-701 Business to the intersection of SR 1934 (Byrd-Yancey Bass Rd)

County: Sampson

City: Clinton

Division: 3

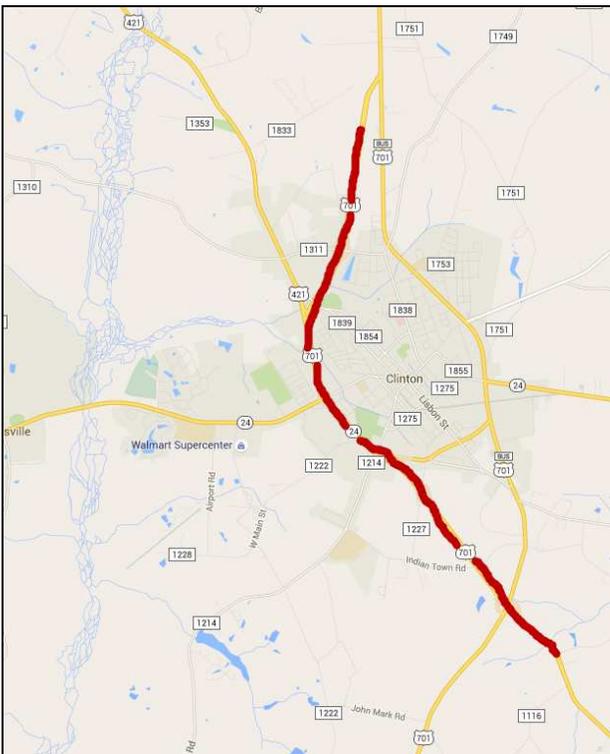
Signal ID: N/A

Countermeasure: Install Median and Shoulder Rumble Strips

Project Completion: June 17, 2010

Project Cost: \$45,000

## Map and Aerial (from Google Maps) – Coordinates 35.029688, -78.331409



## Naive Before and After Analysis

- Before Period: August 1, 2005 through April 30, 2010 (4 years, 9 months)
- Const. Period: May 1, 2010 through June 30, 2010
- After Period: July 1, 2010 through March 31, 2015 (4 years, 9 months)
- Analysis Criteria: Treatment data consisted of all crashes from 0.25 mile south of US-701 Business to 150-feet north of SR 1934 with a 0-Foot Y-Line; total length is 6.5 miles.
- Target Crashes: Lane Departure crashes were the target crashes for the applied countermeasure. Lane Departure crashes include: Ran-Off Road (Left, Right, Straight); Fixed Object; Head-On; Parked Motor Vehicle; and Overturn/Rollover.
- Correctable Crashes: Correctable Crashes are Lane Departure crashes that are potentially correctable by rumble strips. Crashes are considered correctable if: the first event involved at least one vehicle crossing a roadway edge line; it was NOT caused by a vehicle swerving to avoid a vehicle, person, animal, or other object in the roadway; it was NOT caused by mechanical problems, blown tires, or a medical problem with the driver; it was NOT caused by the weather, such as hydroplaning or sliding on ice; and it was NOT clear from the crash diagram/narrative that the driver lost control prior to crossing the edge line.

<u>Treatment Information</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	47	67	42.6 %
Total Severity Index	4.03	3.79	- 6.0 %
Target Crashes – Lane Departure	26	23	- 11.5 %
LD Target Crash Severity Index	2.42	4.86	100.8 %
Correctable Crashes	14	14	0.0 %
Correctable Crash Severity Index	2.59	4.70	81.5 %
Volume (2007, 2012)	7,400	8,000	8.1 %

<u>Injury Crash Summary</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	1	1	0.0 %
Class A injury Crashes	0	0	0.0 %
Class B injury Crashes	4	6	50.0 %
Class C Injury Crashes	5	9	80.0 %
Property Damage Only	37	51	37.8 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	12	24	100.0 %
Wet Roadway Crashes	17	11	- 35.3 %
Alcohol/Drugs Involvement Crashes	0	3	100+ %
Animal Crashes	8	23	100+ %
Merge/Sideswipe Crashes	8	11	37.5 %

### **Overall Summary Results**

Total Crashes:	42 %	(increase)
Total Crash Severity:	- 6 %	(reduction)
Target Crashes:	- 12 %	(reduction)
Target Crash Severity:	100 %	(increase)
Volume:	8 %	(increase)

### **Additional Summary Results**

Correctable Lane Departure:	0 %	(no change)
Animal Crashes:	100 %	(increase)

### **Items for Discussion/Concerns**

The evaluation indicates very similar crash patterns in the before and after periods. Both fatal crashes along this section (one in the before period and one in the after period) involved a rear-end crash where an at-speed motor vehicle struck a moped who was travelling well below the speed limit for the roadway. Night crashes and Animal crashes doubled in the after period leading to an increase in the total number of collisions.

### **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, PE

Work Group/Consultant: NCDOT - Safety Evaluation Group

Date: June 26, 2015

# W-5203B - SAMPSON County

## US-421/701 (Faircloth) from 0.25 mile south of Hookerton to SR 1934

### Length = 6.5 Miles

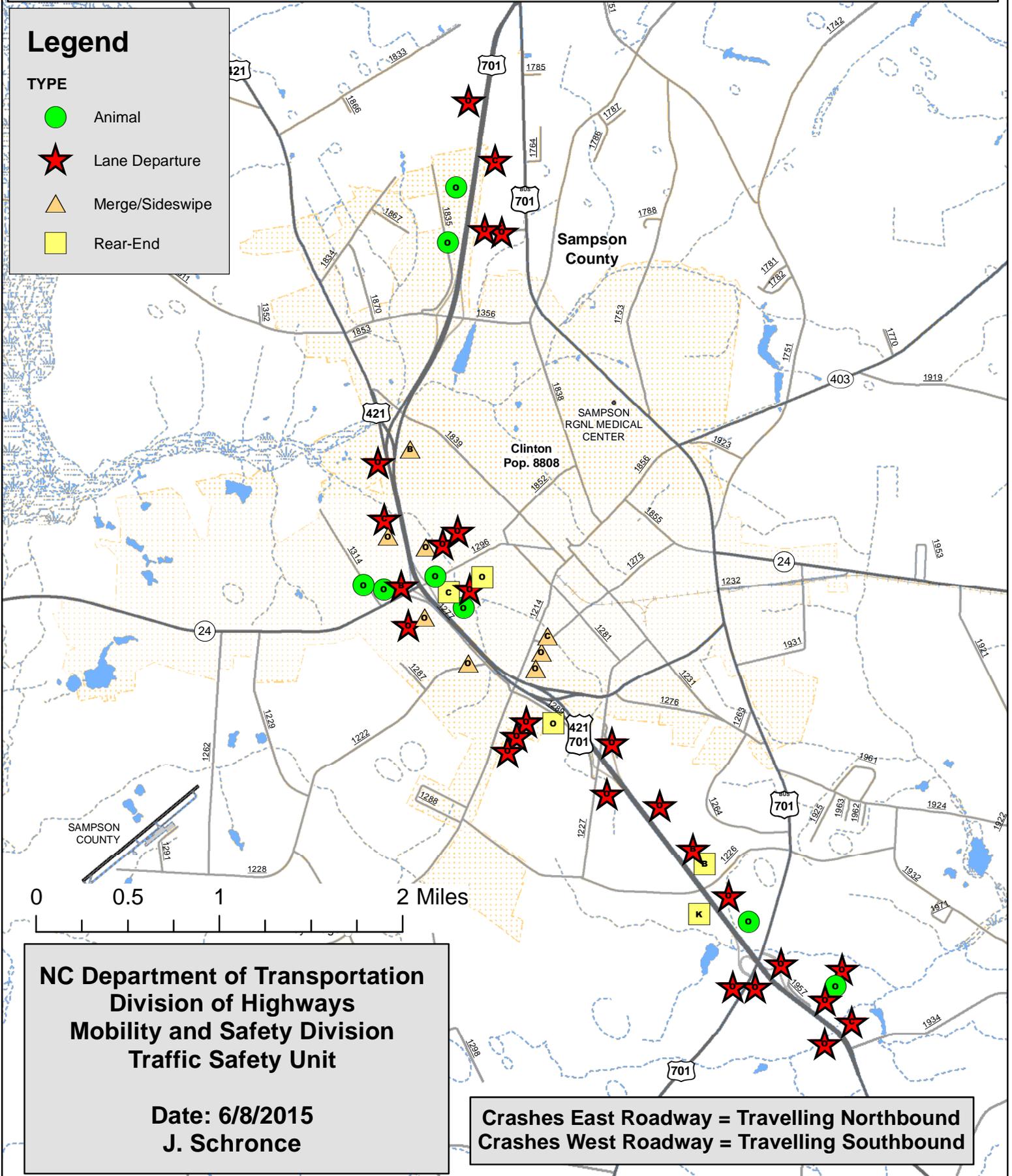
### BEFORE PERIOD - 8/1/2005 to 4/30/2010 (4.75 Yrs)



### Legend

#### TYPE

- Animal
- Lane Departure
- Merge/Sideswipe
- Rear-End



NC Department of Transportation  
Division of Highways  
Mobility and Safety Division  
Traffic Safety Unit

Date: 6/8/2015  
J. Schronce

Crashes East Roadway = Travelling Northbound  
Crashes West Roadway = Travelling Southbound

**W-5203B - SAMPSON County**  
**US-421/701 (Faircloth) from 0.25 mile south of Hookerton to SR 1934**  
**Length = 6.5 Miles**  
**AFTER PERIOD - 7/1/2010 to 3/31/2015 (4.75 Yrs)**

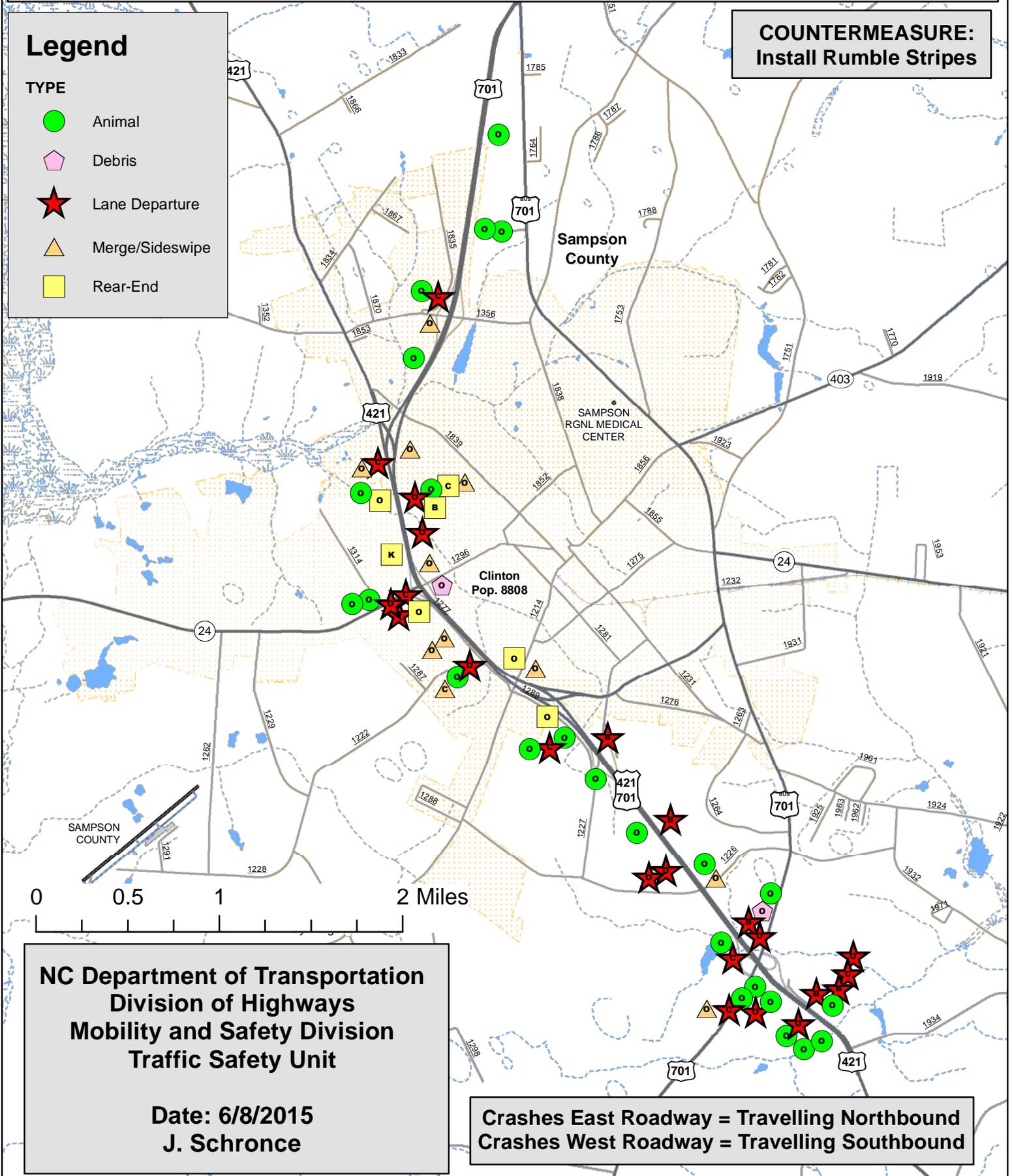


**Legend**

**TYPE**

- Animal
- ◊ Debris
- ★ Lane Departure
- ▲ Merge/Sideswipe
- Rear-End

**COUNTERMEASURE:  
Install Rumble Stripes**



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**Traffic Safety Unit**

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