

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000028034

Project ID: 14-03-209S

Location: NC 110 at SR 1876 (Sonoma Road)/SR 1105 (Max Thompson Road)

County: Haywood

City: Near Town of Canton

Division: 14

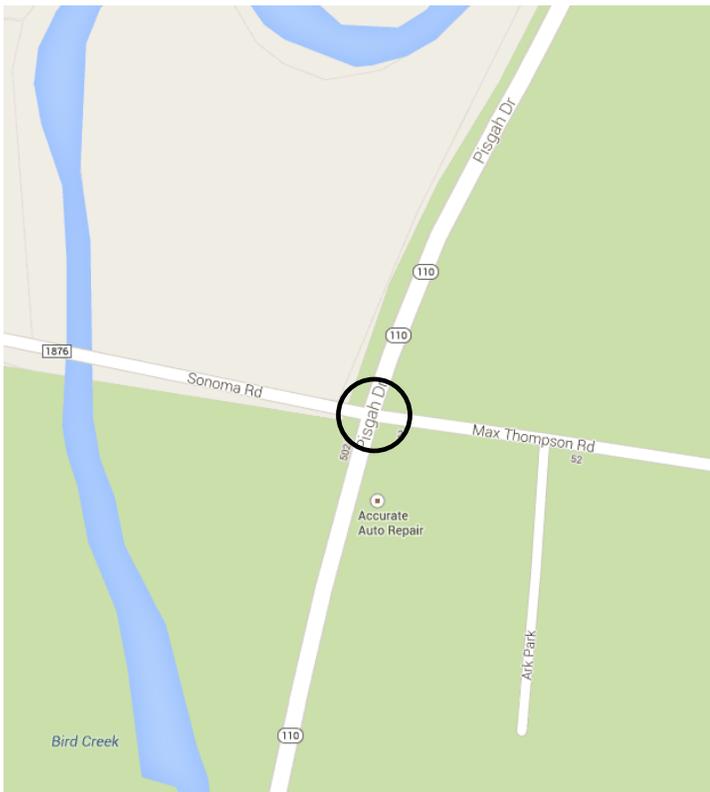
Signal ID: N/A

Countermeasure: Install left-turn lane on northbound NC 110

Project Completion: December 10, 2009

Project Cost: \$205,000

## Map and Aerial (from Google Maps)



## Naive Before and After Analysis

- Before Period: December 1, 2005 through October 31, 2009 (3 years 11 months)
- Const. Period: November 1, 2009 through January 31, 2010
- After Period: February 1, 2010 through December 31, 2013 (3 years 11 months)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the NC 110, SR 1876 and SR 1105 approaches.
- Target Crashes: Northbound rear-end and northbound left-turns, same roadway (LTSR) crashes on NC 110

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	5	1	- 80.0 %
Total Severity Index	6.92	76.8	+ 1009.8 %
Target Crashes	1	0	- 100.0 %
Target Crash Severity Index	8.40	0	- 100.0 %
Volume (2007, 2012)	6,100	6,900	+ 13.1 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	1	+ 100.0 %
Class B injury Crashes	0	0	N/A
Class C Injury Crashes	4	0	- 100.0 %
Property Damage Only	1	0	- 100.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
NB NC 110 Rear End (Target)	0	0	N/A
NB NC 110 LTSR (Target)	1	0	- 100.0 %
Angle Crashes	2	0	- 100.0 %

### **Overall Summary Results**

Total Crashes:	- 80 %	(reduction)
Total Crash Severity:	+1010 %	(increase)
Target Crashes:	- 100 %	(reduction)
Target Crash Severity:	- 100 %	(reduction)
Volume:	+ 13 %	(increase)

### **Additional Summary Results**

NB NC 110 LTSR (Target):	- 100 %	(reduction)
Angle Crashes:	- 100 %	(reduction)

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

The target crashes (northbound left-turns, same roadway) experienced a 100% percent reduction (1 to 0 crashes). There was also a reduction in angle crashes (2 to 0).

It should be noted that the severity index increased by 1010%; however, there was only one crash in the after period that was a severity A type crash.

### **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

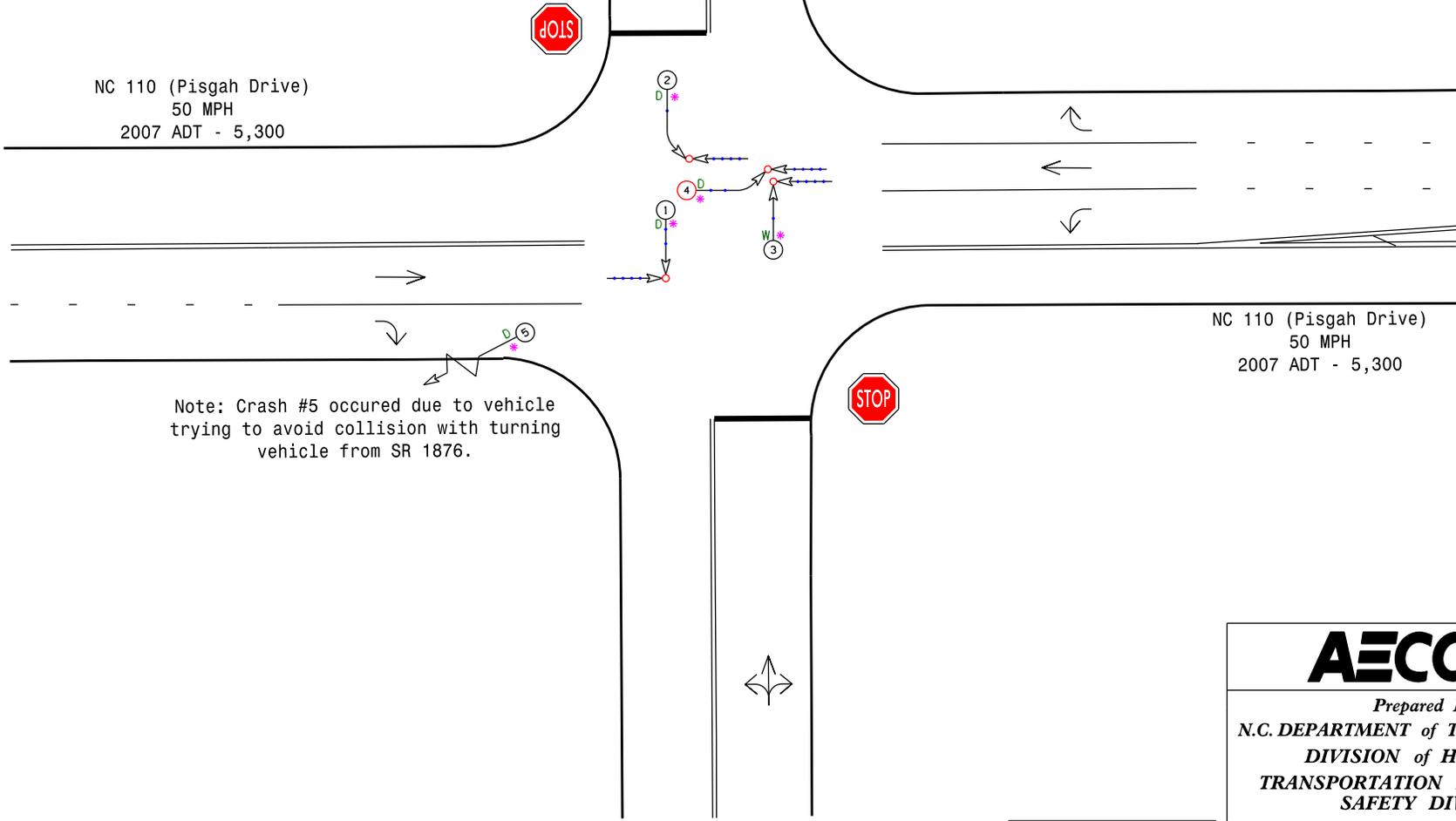
### **Data Prepared By**

Principal Investigator: Heath Gore, PE  
Work Group/Consultant: AECOM  
Date: March 14, 2013

SS# 14-03-209S  
 Order# 41000028034  
 Haywood County  
 BEFORE Period  
 12/1/05 - 10/31/09

SR 1876 (Sonoma Road)  
 35 MPH  
 2007 ADT - 1,350

LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS	A	ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19	P	PEDESTRIAN
	PARKING VEHICLE		BACKING		20 MPH TO 29	B	BICYCLE
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39	T	TRAIN
	HEAD ON		INJURY		40 MPH TO 49	*	DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59	D	DRY
	RAN OFF ROAD		SPEED UNKNOWN		60 MPH TO 69	W	WET
	DAYLIGHT CRASH				70 AND UP	I	ICY OR SNOWY
	NIGHT CRASH					O	Other



NC 110 (Pisgah Drive)  
 50 MPH  
 2007 ADT - 5,300

NC 110 (Pisgah Drive)  
 50 MPH  
 2007 ADT - 5,300

Note: Crash #5 occurred due to vehicle trying to avoid collision with turning vehicle from SR 1876.

SR 1105 (Max Thompson Road)  
 25 MPH  
 2007 ADT - 240

NB Rear-End and NB Left-turn, some roadway crashes

# AECOM

Prepared For:  
 N.C. DEPARTMENT of TRANSPORTATION  
 DIVISION of HIGHWAYS  
 TRANSPORTATION MOBILITY and SAFETY DIVISION

## TRAFFIC SAFETY UNIT

Date: 3-14-2014      Prepared By: Heath Gore, PE

SS# 14-03-209S  
 Order# 41000028034  
 Haywood County  
 AFTER Period  
 2/1/10 - 12/31/13

SR 1876 (Sonoma Road)  
 35 MPH  
 2012 ADT - 1,100

LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS	A	ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19	P	PEDESTRIAN
	PARKING VEHICLE		BACKING		20 MPH TO 29	B	BICYCLE
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39	T	TRAIN
	HEAD ON		INJURY		40 MPH TO 49	*	DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59	D	DRY
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 50 MPH  
 2012 ADT - 6,200

NC 110 (Pisgah Drive)  
 50 MPH  
 2012 ADT - 6,200

SR 1105 (Max Thompson Road)  
 25 MPH  
 2012 ADT - 240 (Calculated)

NB Rear-End and NB  
 Left-turn, some  
 roadway crashes

**AECOM**

Prepared For:  
 N.C. DEPARTMENT of TRANSPORTATION  
 DIVISION of HIGHWAYS  
 TRANSPORTATION MOBILITY and  
 SAFETY DIVISION

**TRAFFIC SAFETY UNIT**

Date: 3-14-2014      Prepared By: Heath Gore, PE

