

Spot Safety Project Evaluation

Project Information

Order ID: 41000033859

Project ID: 14-10-205

Location: SR 1503 (Clear Creek Rd) at SR 1508 (Balfour Road)

County: Henderson

City: Hendersonville

Division: 14

Signal ID: 14-1261

Countermeasure: Install actuated flasher and signs warning the side street with “Watch for Approaching Vehicle” signs as well as the approaches on SR 1503 with “Vehicle Entering” signs. A red flasher was mounted to the stop sign facing SR 1508.

Project Completion: January 27, 2011

Project Cost: \$55,000

Map and Aerial (from Google Maps, Google Coordinates are: 35.349611, -82.457233)



Naive Before and After Analysis

- Before Period: November 1, 2006 through October 31, 2010 (4 years)
- Const. Period: November 1, 2010 through January 31, 2011
- After Period: February 1, 2011 through January 31, 2015 (4 years)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the SR 1503 (Clear Creek Rd) and SR 1508 (Balfour Rd) approaches.
- Target Crashes: Frontal Impact Crashes (left-turn, same roadway; left-turn, different roadway; right-turn, same roadway; right-turn, different roadway; head-on; and angle crashes) in the intersection.

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	13	6	- 53.8 %
Total Severity Index	14.94	27.50	+ 84.1 %
Target Crashes	9	3	- 66.7 %
Target Crash Severity Index	19.49	28.73	+ 47.4 %
Volume (2008, 2013)	7,400	6,700	- 9.5 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	1	0	- 100.0 %
Class A injury Crashes	1	2	+ 100.0 %
Class B injury Crashes	1	0	- 100.0 %
Class C Injury Crashes	3	1	- 66.7 %
Property Damage Only	7	3	- 57.1 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Left Turn, Different Roadway Crashes (Target)	6	2	- 66.7 %
Right Turn, Different Roadway Crashes (Target)	3	0	- 100.0 %

Overall Summary Results

Total Crashes:	- 54 %	(reduction)
Total Crash Severity:	+ 84 %	(increase)
Target Crashes:	- 67 %	(reduction)
Target Crash Severity:	+ 47 %	(increase)
Volume:	- 10 %	(reduction)

Additional Summary Results

Left Turn, Different Roadway Crashes (Target):	- 67 %	(reduction)
Right Turn, Different Roadway Crashes (Target):	- 100 %	(reduction)

Items for Discussion/Concerns

Left Turn, Different Roadway Crashes and Right Turn, Different Roadway Crashes were reduced in the after period.

Overall, crashes within the intersection were reduced from 13 crashes in the before to 6 in the after.

Data Prepared For

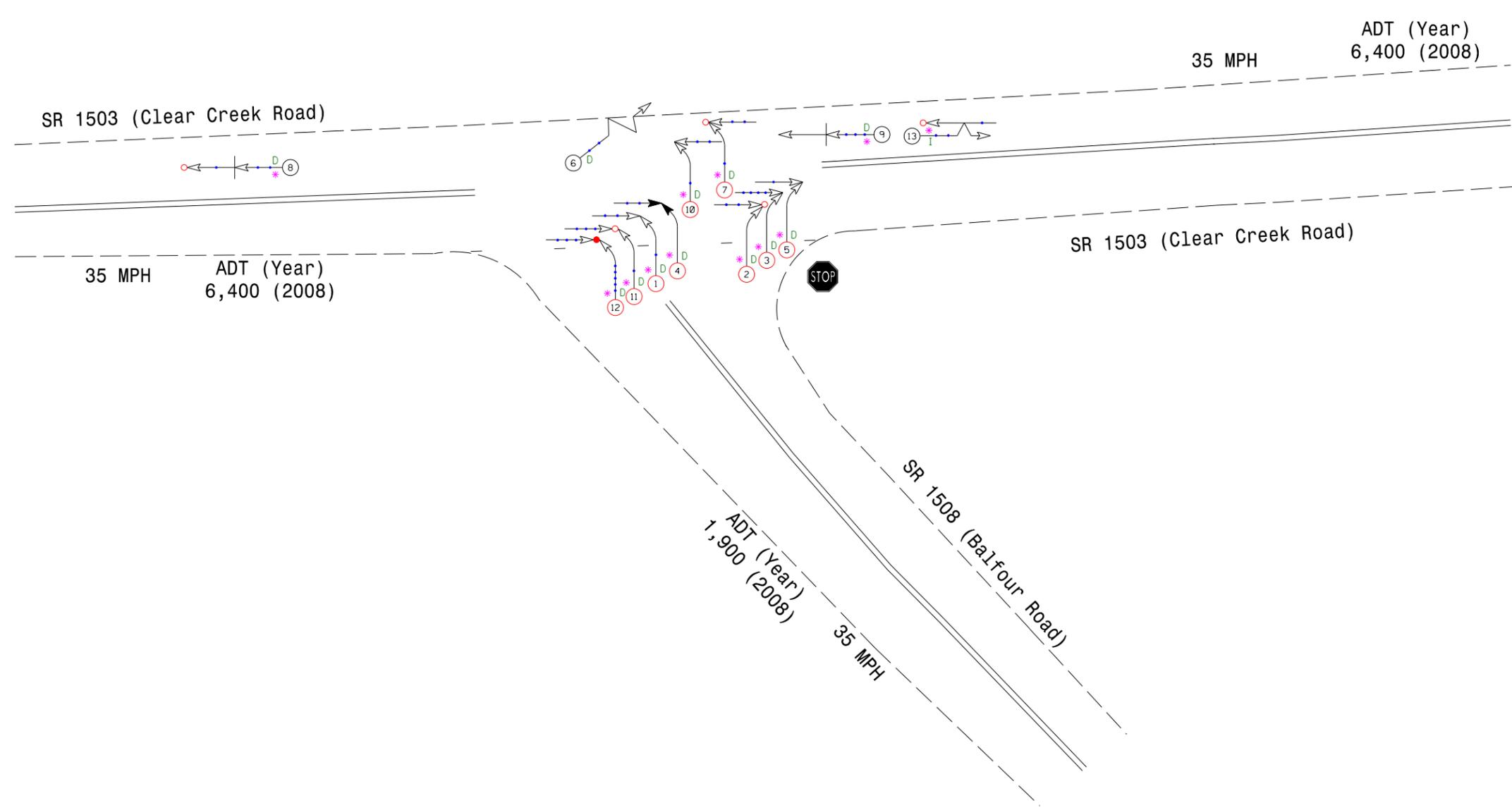
The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By

Principal Investigator: Elizabeth Scott, EI
Work Group/Consultant: Stantec Consulting Services Inc.
Date: March 20, 2015

SS# 14-10-205
 Order# 41000033859
 Henderson County
 Before Period
 11/1/06 - 10/31/10

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



Target Crashes

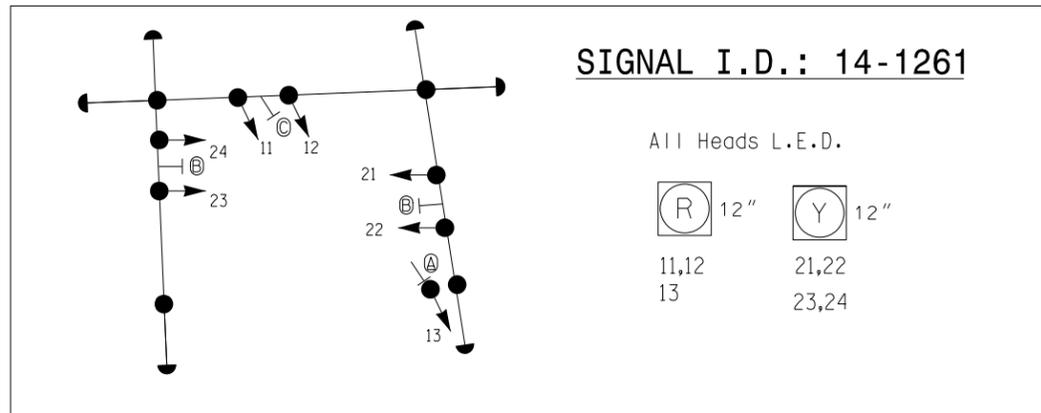
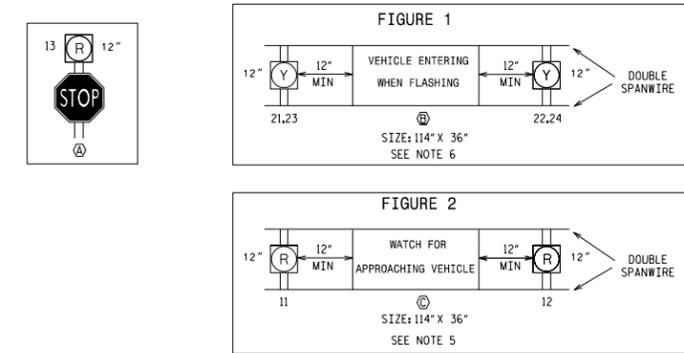
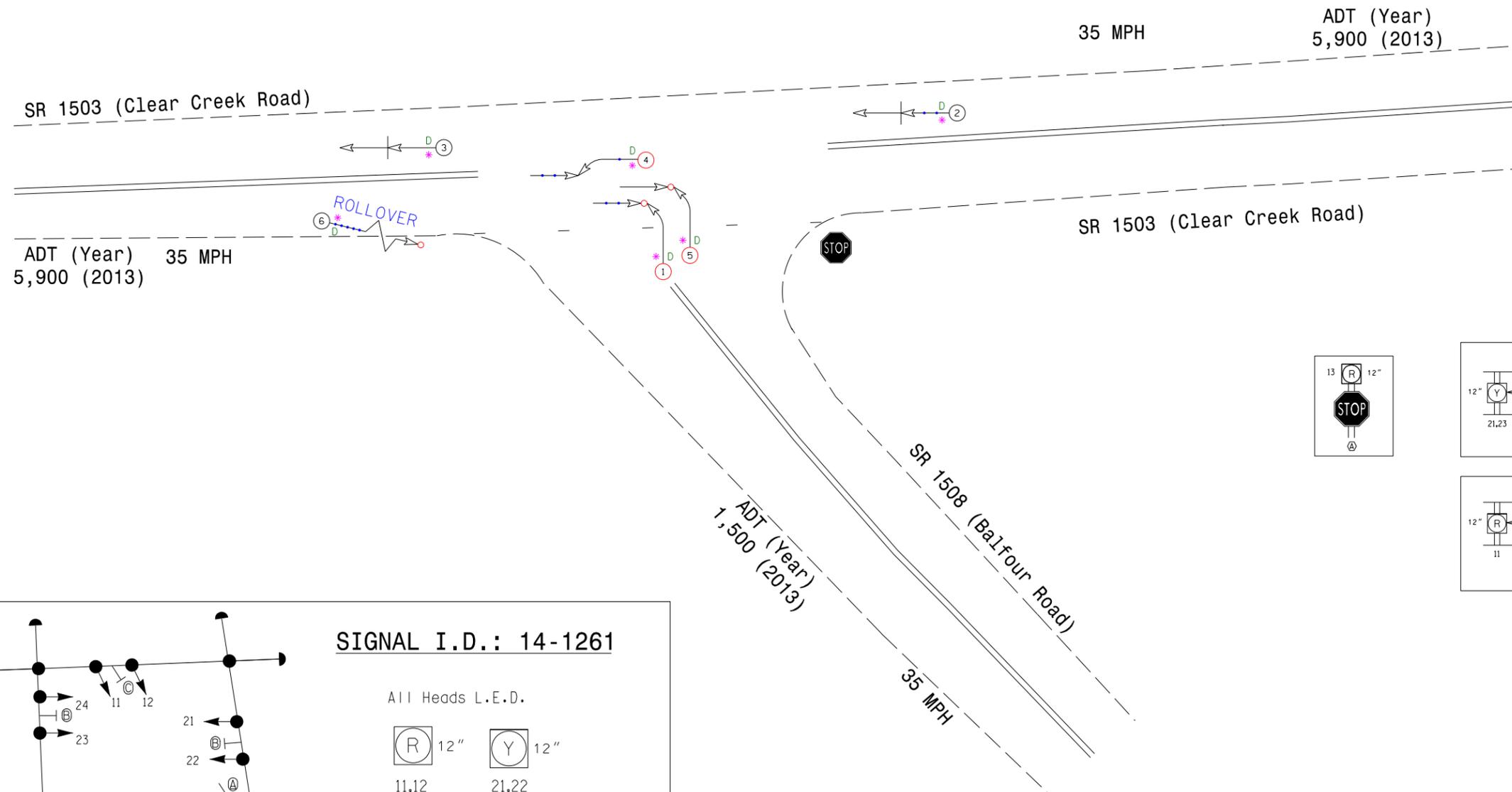
N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and SAFETY DIVISION

Date: 3/20/2015 Prepared By: ESS

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SS# 14-10-205
 Order# 41000033859
 Henderson County
 After Period
 2/1/11 - 1/31/15

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



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