

Spot Safety Project Evaluation

Project Information

Order ID: 41000030179

Project ID: 09-08-204

Location: SR 4315 (Main St) at Century Blvd

County: Forsyth

City: Kernersville

Division: 9

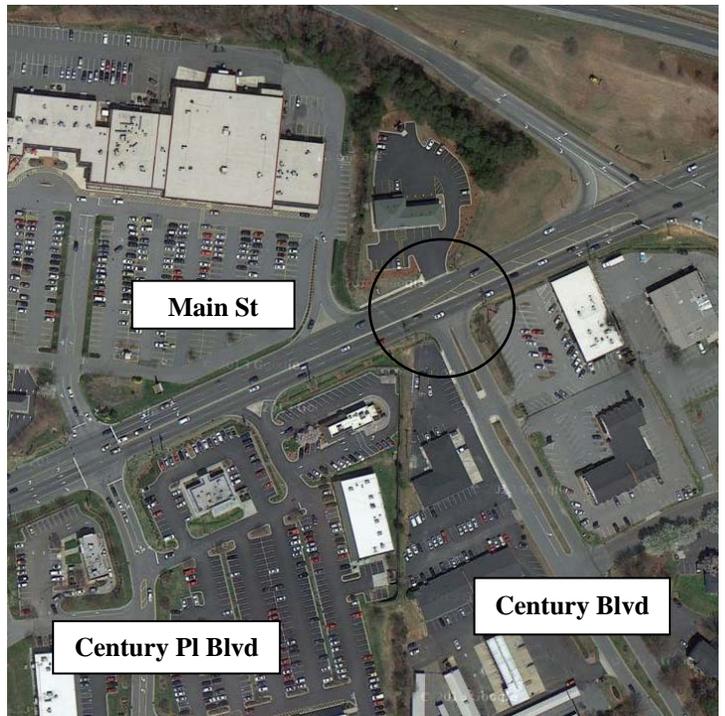
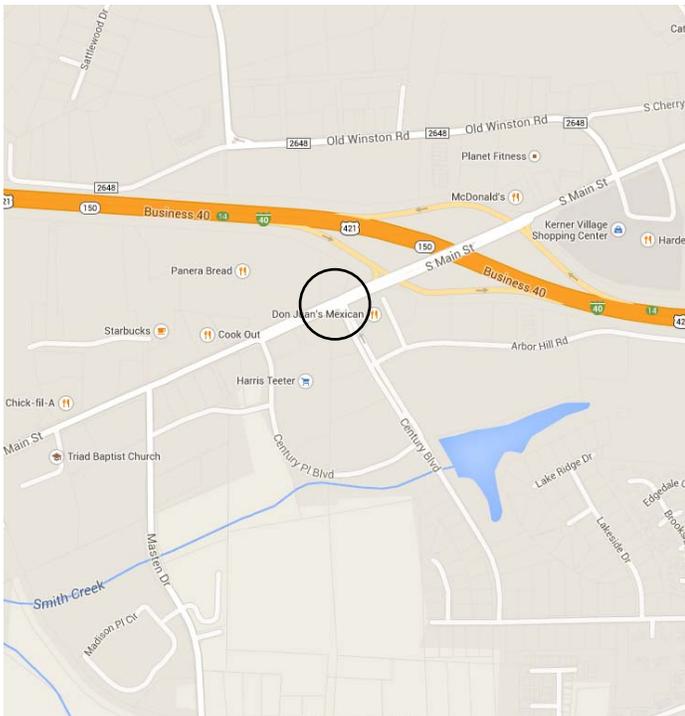
Signal ID: N/A

Countermeasure: Install a concrete median island to close the existing directional crossover.

Project Completion: December 15, 2009

Project Cost: \$74,000

Map and Aerial (from Google Maps – Coordinates: 36.10938,-80.093819)



Naive Before and After Analysis

- Before Period: July 1, 2005 through October 31, 2009 (4.33 years)
- Const. Period: November 1, 2009 through January 31, 2010
- After Period: February 1, 2010 through May 31, 2014 (4.33 years)
- Analysis Criteria: Treatment data consists of all crashes within 150 feet of the subject intersection.
- Target Crashes: Target crashes include Left Turn-Same Roadway crashes involving left turners on Westbound Main Street (which are restricted in the after period).

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	41	14	- 65.9 %
Total Severity Index	4.07	3.11	- 23.6 %
Target Crashes	18	0	- 100.0 %
Target Crash Severity Index	4.29	0	- 100.0 %
Volume (2007, 2012)	28,300	28,800	+ 1.8 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	2	0	- 100.0 %
Class C Injury Crashes	15	4	- 73.3 %
Property Damage Only	24	10	- 58.3 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Area of Influence: Main St at Century Place Blvd			
Total Crashes	55	65	+ 18.2 %
Total Severity Index	4.09	3.28	- 19.8 %
Westbound Main St Left-Turn/U-Turn Crashes	6	8	+ 33.3 %
WB Main St Left-Turn/U-Turn Crash Severity Index	5.93	5.62	- 5.2 %

Overall Summary Results

Total Crashes:	- 66 %	(reduction)
Total Crash Severity:	- 24 %	(reduction)
Target Crashes:	- 100 %	(reduction)
Target Crash Severity:	- 100 %	(reduction)
Volume:	+ 2 %	(increase)

Items for Discussion/Concerns

- There were substantial decreases in total crashes and an elimination of target crashes at the treatment intersection.
- When we evaluate the closure of a median opening, we typically analyze a potential area of influence due to the changes in traffic flow caused by the restricted movements. The left turn movement from westbound Main St onto Century Blvd was eliminated. Vehicles wanting to access Century Blvd may now do so via Century Place Blvd, the nearest full movement intersection to the south. Century Place Blvd was extended to provide access to Century Blvd. Crash data at this signalized intersection was evaluated to check for potential crash migration.
 - Total crashes increased by 18%, from 55 to 65 crashes.
 - WB Main St Left-Turn/U-turn Crashes increased by 33%, from 6 to 8 crashes.

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

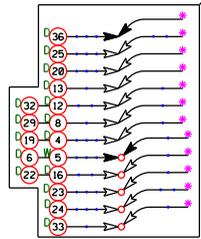
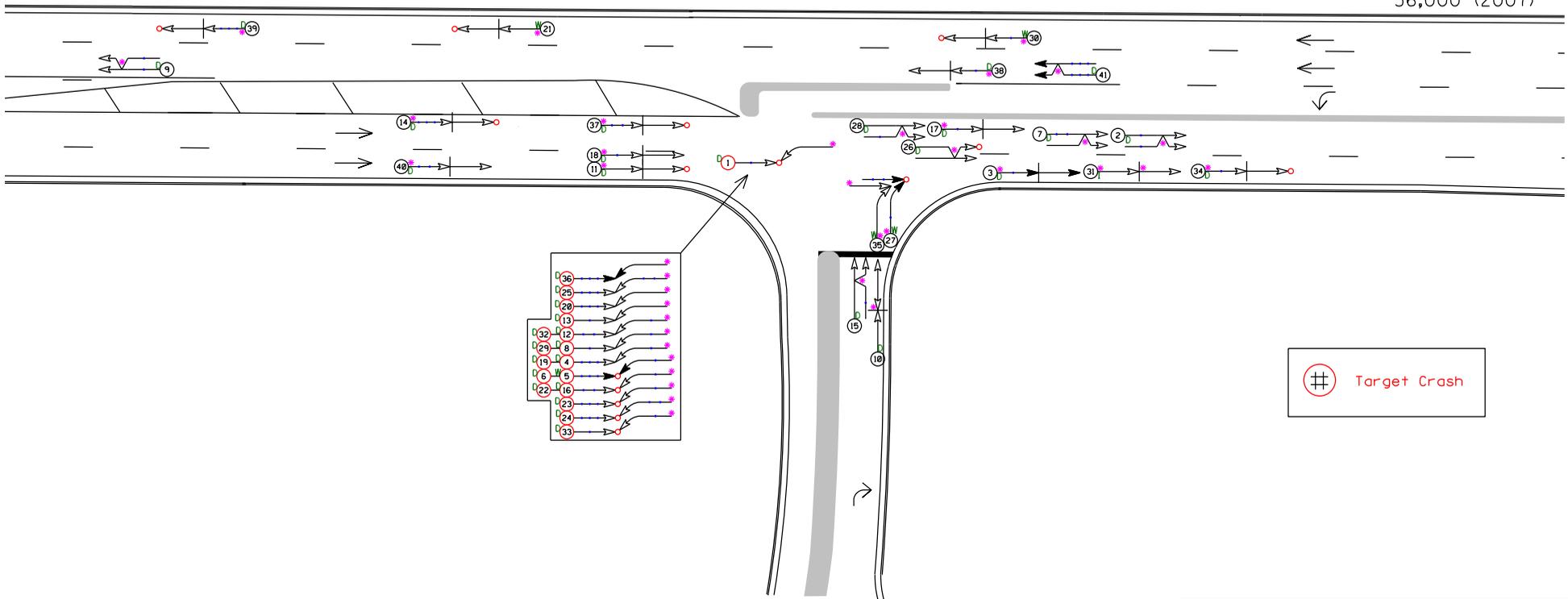
Principal Investigator: Carrie L. Simpson, PE
Work Group/Consultant: NCDOT - Safety Evaluation Group
Date: November 4, 2014

SS #09-08-204
 Order # 41000030179
 Forsyth County
 Before Period
 07/1/2005 - 10/31/2009

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

SR 4315 (MAIN ST)
 35 MPH
 ADT (Year)
 19,000 (2007)

SR 4315 (MAIN ST)
 35 MPH
 ADT (Year)
 36,000 (2007)



Century Blvd
 35 MPH
 ADT (Year)
 EST 1,500 (2007)

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

TRAFFIC SAFETY UNIT

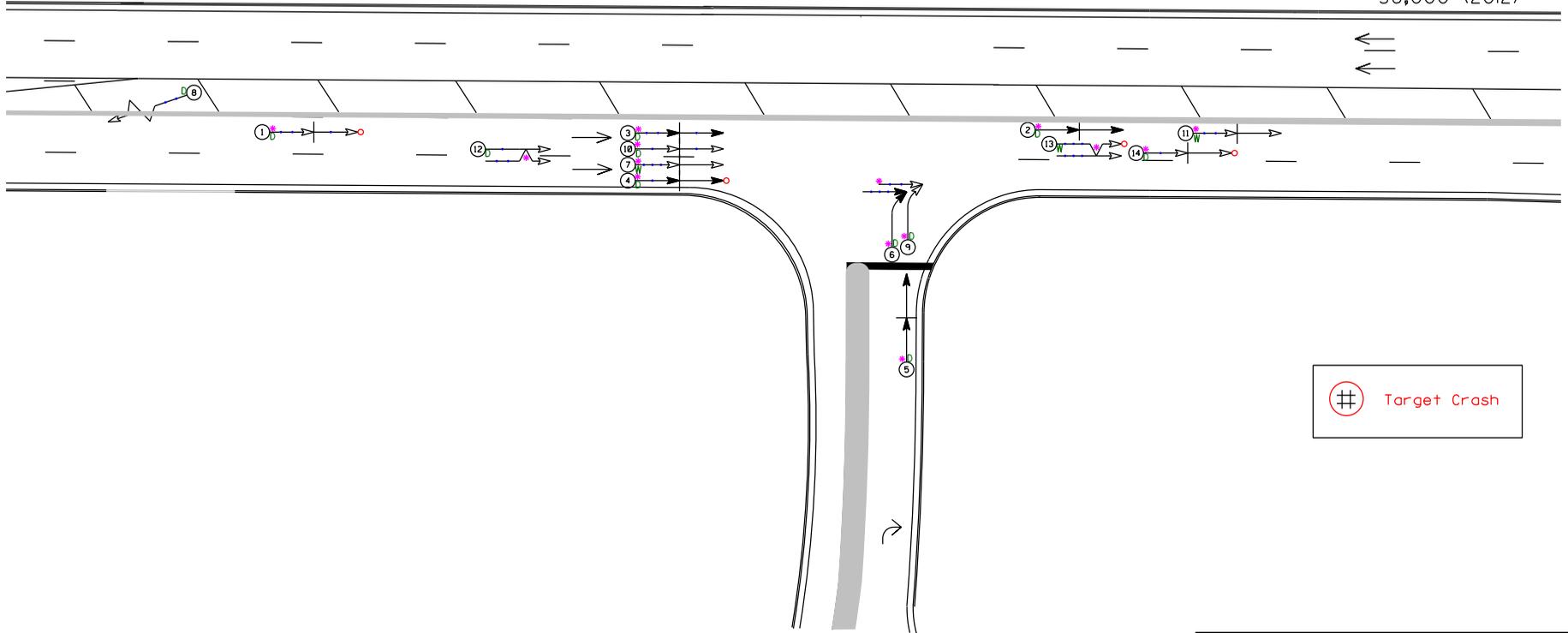
Date: 09-25-2014 Prepared By: Troy S Finn

SS #09-08-204
 Order # 41000030179
 Forsyth County
 AFTER Period
 02/1/2010 - 05/31/2014

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

SR 4315 (MAIN ST)
 35 MPH
 ADT (Year)
 20,000 (2012)

SR 4315 (MAIN ST)
 35 MPH
 ADT (Year)
 36,000 (2012)



Century Blvd
 35 MPH
 ADT (Year)
 EST 1,500 (2012)

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DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and
SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: 09-25-2014

Prepared By: Troy S Fimm