

Spot Safety Project Evaluation

Project Information

Order ID: 41000028028

Project ID: 07-03-210

Location: SR 3300 (South Elm-Eugene Street) and SR 3325 (Ritters Lake Road)

County: Guilford

City: Greensboro

Division: 7

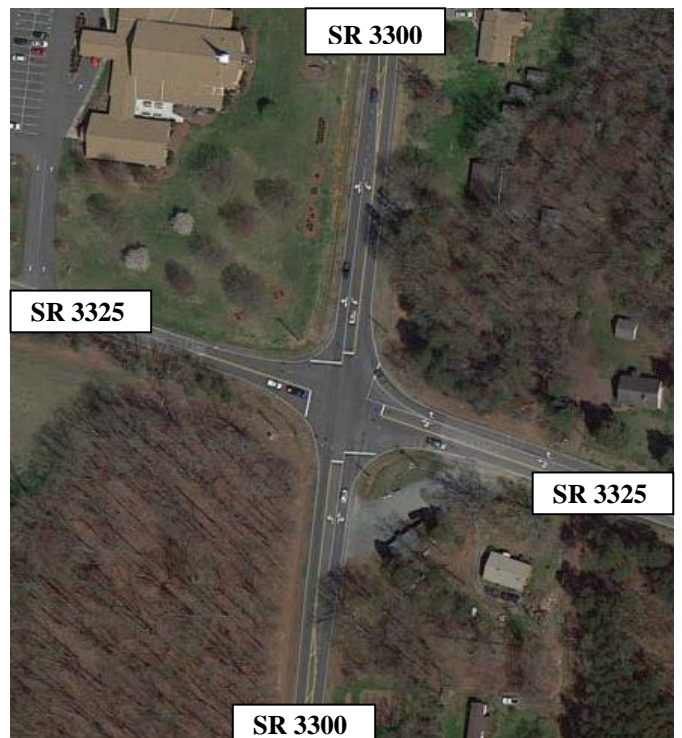
Signal ID: 07-0977

Countermeasure: Install left-turn lanes on SR 3300 and a right-turn lane on SR 3325.
(Implemented November 2008)
Install a traffic signal
(Implemented April 2009)

Project Completion: May 8, 2009

Project Cost: \$265,500

Map and Aerial (from Google Maps - 35.992441,-79.793348)



Naive Before and After Analysis

- Before Period: January 1, 2004 through October 31, 2009 (4 years 10 months)
- Const. Period: November 1, 2008 through March 31, 2009
- After Period: April 1, 2009 through January 31, 2014 (4 years 10 months)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the SR 3300 and SR 3325 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)

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	25	14	- 44.0 %
Total Severity Index	5.74	3.11	- 45.8 %
Target Crashes	21	6	- 71.4 %
Target Crash Severity Index	6.29	4.70	- 25.3 %
Volume (2006, 2011)	6,000	7,000	+ 16.7 %

<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	7	1	- 85.7 %
Class C Injury Crashes	9	3	- 66.7 %
Property Damage Only	9	10	+ 11.1 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Frontal Impact Crashes (Target)	21	6	- 71.4 %
Angle Crashes	18	3	- 83.3 %
Left-turn, different roadway	1	0	- 100.0 %
Left-turn, same roadway	2	3	+ 50.0 %
Rear End Crashes	2	7	+ 250.0 %

Overall Summary Results

Total Crashes:	- 44 %	(reduction)
Total Crash Severity:	- 46 %	(reduction)
Target Crashes:	- 71 %	(reduction)
Target Crash Severity:	- 25 %	(reduction)
Volume:	+ 17 %	(increase)

Additional Summary Results

Frontal Impact Crashes (Target):	- 71 %	(reduction)
Angle Crashes:	- 83 %	(reduction)
Left-turn, different roadway:	- 100 %	(reduction)
Left-turn, same roadway:	+ 50 %	(increase)
Rear End Crashes:	+ 250 %	(increase)

Items for Discussion/Concerns

The target crashes (frontal impact crashes) experienced a 71% reduction (21 to 6 crashes). Angle crashes experienced an 83% reduction (18 to 3). Rear end crashes experienced a 250% increase (2 to 7).

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: Andrew Covington, EI
Work Group/Consultant: AECOM
Date: April 25, 2014

SS# 07-03-210
 Order# 41000028028
 Guilford County
 BEFORE Period
 1/1/04 - 10/31/08

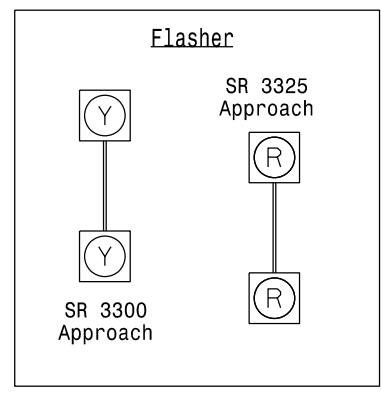
SR 3300 (Elm-Eugene Street)
 45 MPH
 2006 ADT - 6,200

SR 3325 (Ritters Lake Road)
 45 MPH
 2006 ADT - 1,400

SR 3325 (Ritters Lake Road)
 45 MPH
 2006 ADT - 1,400 (Assumed)

SR 3300 (Elm-Eugene Street)
 45 MPH
 2006 ADT - 3,050

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		60 MPH TO 69		70 AND UP		W WET
	DAYLIGHT CRASH		SPEED UNKNOWN				I ICY OR SNOW
	NIGHT CRASH						O Other

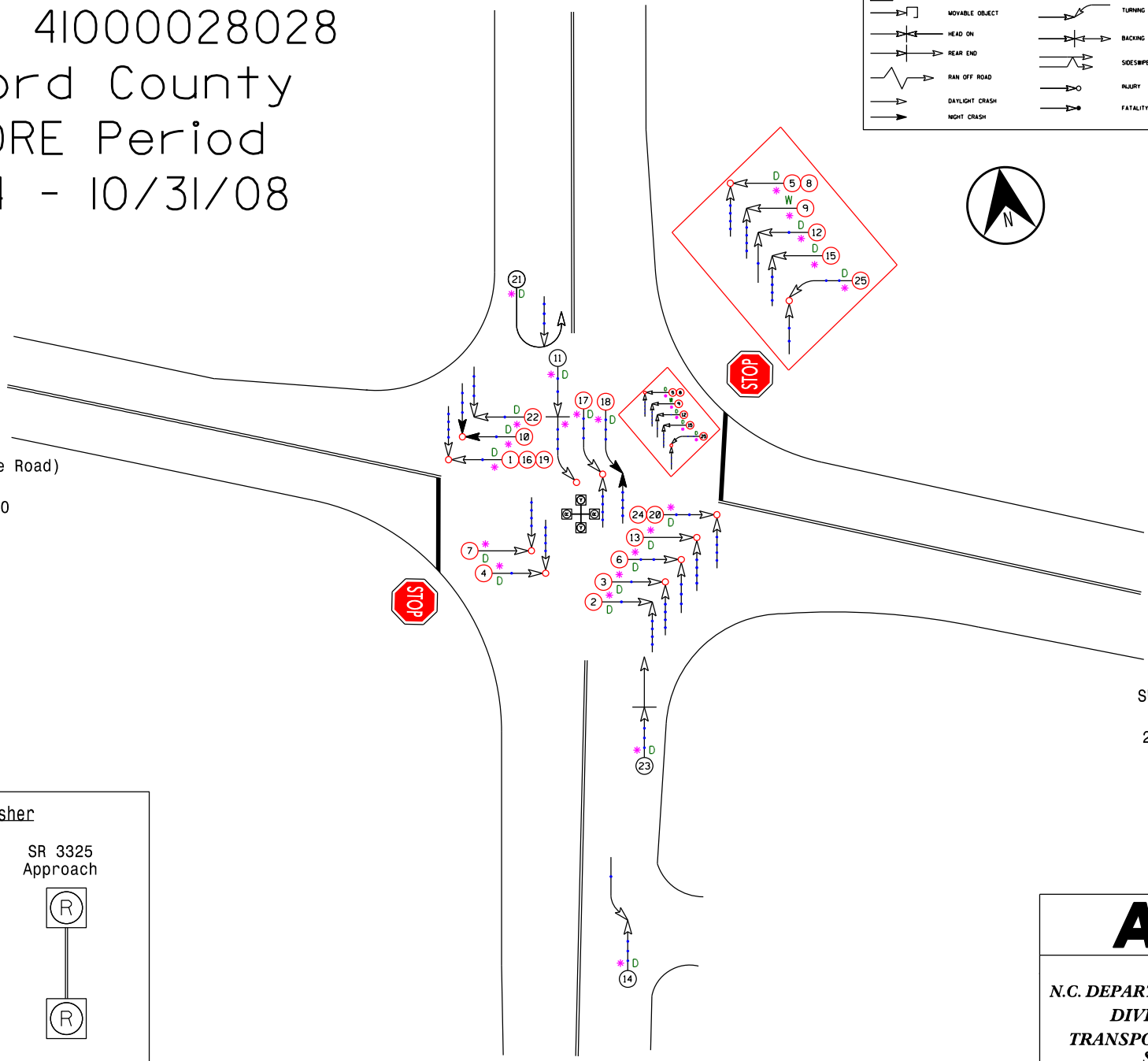


AECOM

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

TRAFFIC SAFETY UNIT

Date: April 25, 2014	Prepared By: Andrew Covington, EI
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SS# 07-03-210
 Order# 41000028028
 Guilford County
 AFTER Period
 4/1/09 - 1/31/14

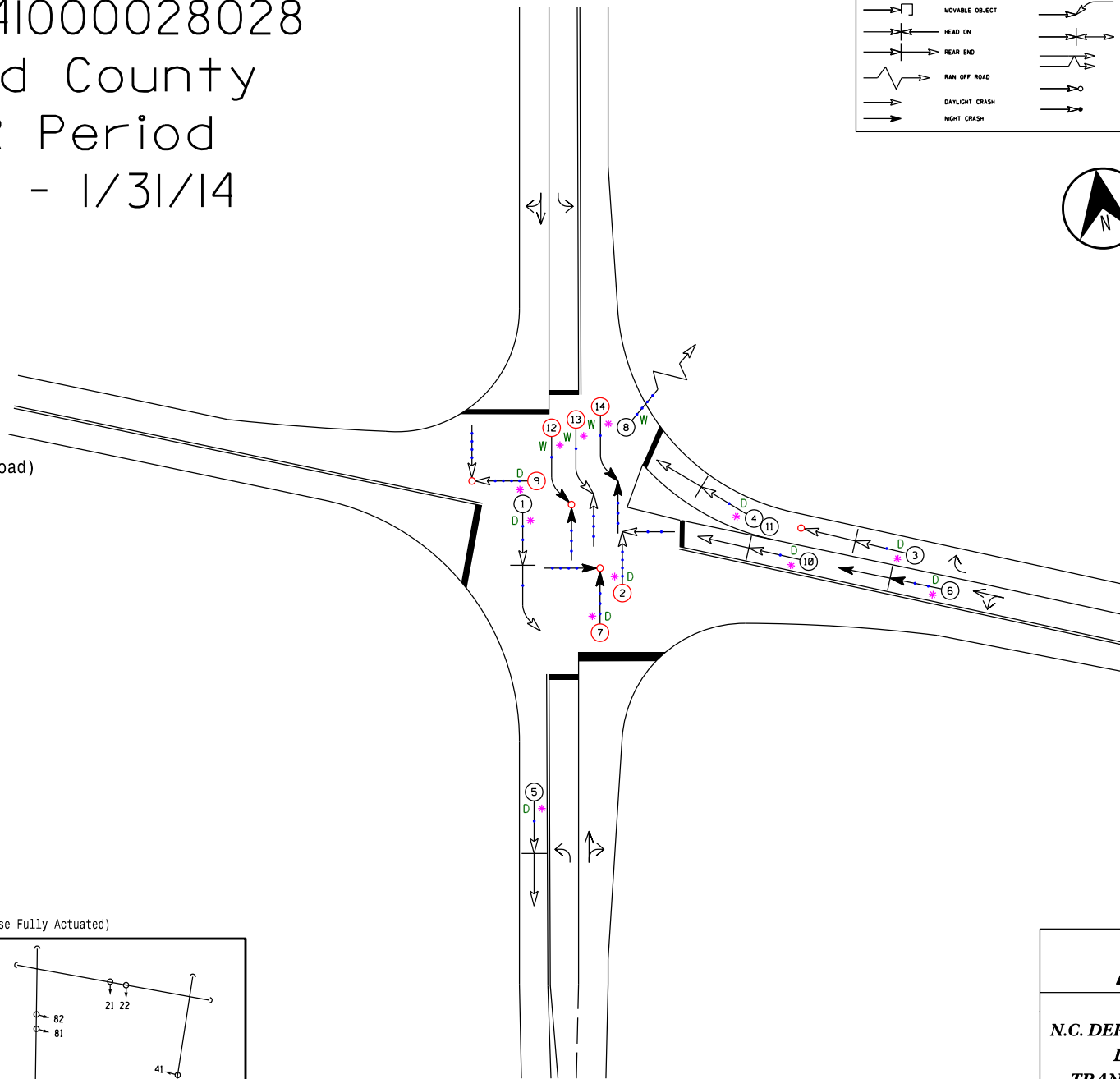
SR 3300 (Elm-Eugene Street)
 45 MPH
 2011 ADT - 8,000

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 TRUCK
	HEAD ON		INJURY		40 MPH TO 49		* DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59		D DRY
	RAN OFF ROAD		TO AND UP		60 MPH TO 69		W WET
	DAYLIGHT CRASH		SPEED UNKNOWN		70 AND UP		I ICY OR SNOWY
	NIGHT CRASH				OTHER		O OTHER

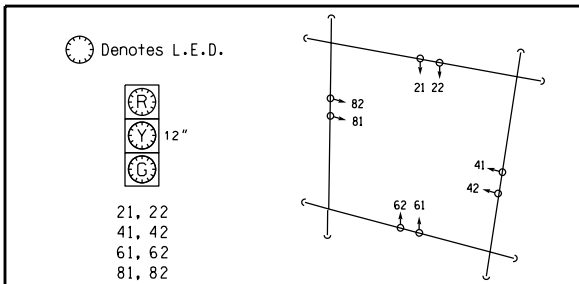


SR 3325 (Ritters Lake Road)
 45 MPH
 2011 ADT - 1,100

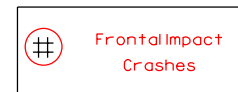
SR 3325 (Ritters Lake Road)
 45 MPH
 2011 ADT - 1,100 (Assumed)



SIG ID 07-0977 (2 Phase Fully Actuated)



SR 3300 (Elm-Eugene Street)
 45 MPH
 2011 ADT - 3,700



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

TRAFFIC SAFETY UNIT

Date: April 25, 2014	Prepared By: Andrew Covington, EI
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