

Spot Safety Project Evaluation

Project Information

Order ID: 41000028024

Project ID: 04-06-205

Location: US 13 (Berkeley Blvd) at SR 1705 (Hood Swamp Road)

County: Wayne

City: Near Goldsboro

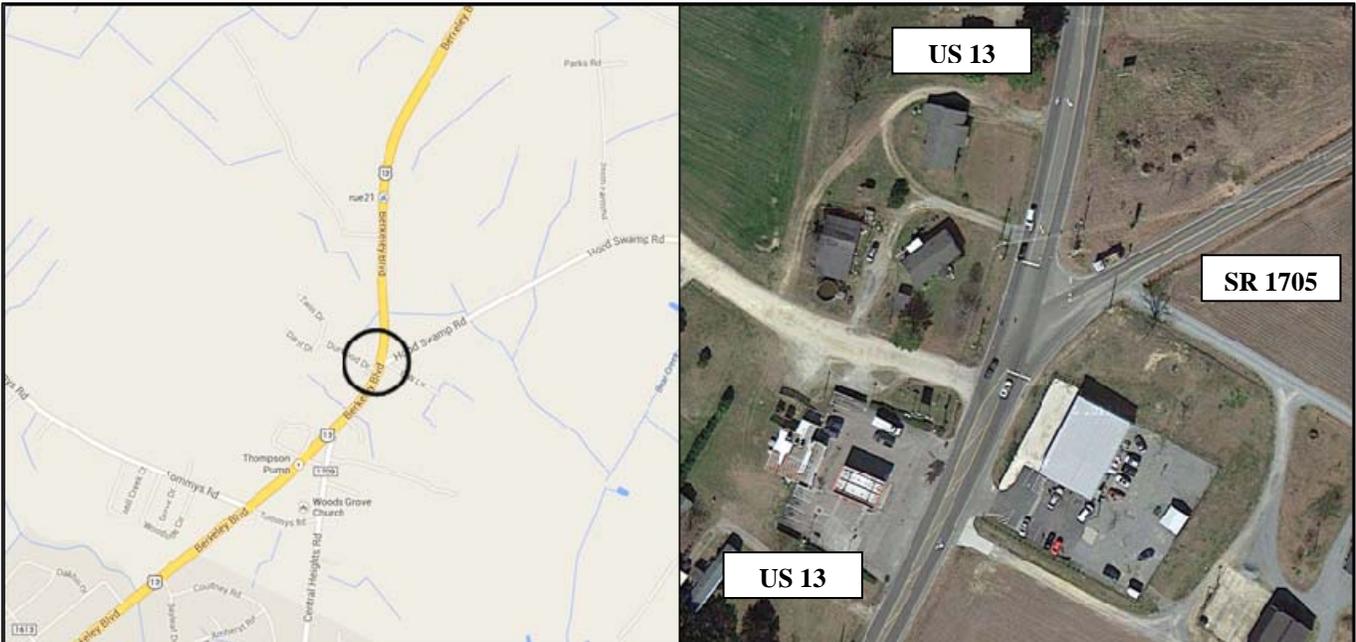
Division: 4

Signal ID: 04-0991

Countermeasure: Construct a left turn lane on US 13 Southbound and install a signal

Project Completion: July 8, 2009 Project Cost: \$250,000

Map and Aerial (from Google Maps)



Naive Before and After Analysis

Before Period: February 1, 2005 through May 31, 2009 (4 years 4 months)

Const. Period: June 1, 2009 through August 31, 2009

After Period: September 1, 2009 through December 31, 2013 (4 years 4 months)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the US 13 and SR 1705 approaches as well as crashes involving the Exxon gas station entrance.

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	17	13	- 23.5 %
Total Severity Index	3.61	2.14	- 40.7 %
Target Crashes	3	0	- 100.0 %
Target Crash Severity Index	1.00	0	- 100.0 %
Volume (2007, 2011)	10,700	11,200	+ 4.7 %

<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	0	1	+ 100.0 %
Class C Injury Crashes	6	1	- 83.3 %
Property Damage Only	11	11	0.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Frontal Impact Crashes (Target)	3	0	- 100.0 %
Exxon Gas Station Entrance Crashes	3	4	+ 33.3 %
Rear End Crashes	8	5	- 37.5 %

Overall Summary Results

Total Crashes:	- 24 %	(reduction)
Total Crash Severity:	- 41 %	(reduction)
Target Crashes:	- 100 %	(reduction)
Target Crash Severity:	- 100 %	(reduction)
Volume:	+ 5 %	(increase)

Additional Summary Results

Frontal Impact Crashes (Target):	- 100 %	(reduction)
Exxon Gas Station Crashes:	+ 33 %	(increase)
Rear End Crashes:	- 38 %	(reduction)

Items for Discussion/Concerns

The study intersection experienced an elimination of target frontal impact crashes (3 to 0 crashes).

The intersection experienced an increase in Exxon gas station related crashes (3 to 4 crashes).

The intersection experienced a decrease in rear end crashes (8 to 5 crashes).

Data Prepared For

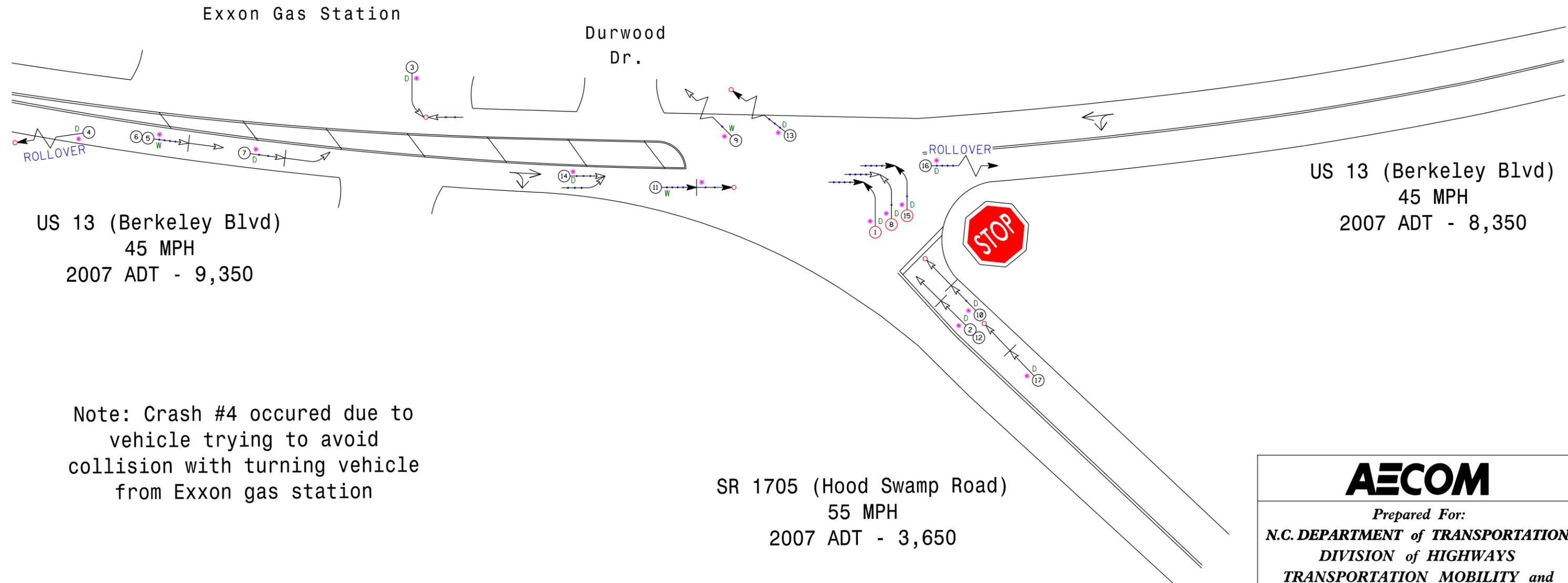
The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By

Principal Investigator: Andrew Covington, EI
Work Group/Consultant: AECOM
Date: March 21, 2014

SS# 04-06-205
 Order# 41000028024
 Wayne County
 BEFORE Period
 2/1/05 - 5/31/09

LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
	RAN OFF ROAD		9 MPH OR LESS
	DAYLIGHT CRASH		10 MPH TO 19
	NIGHT CRASH		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
			A ANIMAL
			P PEDESTRIAN
			B BICYCLE
			T TRAIN
			* DRIVER AT FAULT
			D DRY
			W WET
			I ICY OR SNOWY
			O Other



US 13 (Berkeley Blvd)
 45 MPH
 2007 ADT - 9,350

US 13 (Berkeley Blvd)
 45 MPH
 2007 ADT - 8,350

SR 1705 (Hood Swamp Road)
 55 MPH
 2007 ADT - 3,650

Note: Crash #4 occurred due to vehicle trying to avoid collision with turning vehicle from Exxon gas station

Frontal Impact Crashes

AECOM

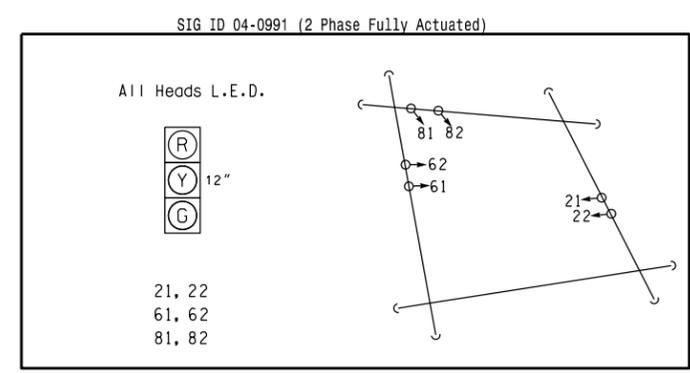
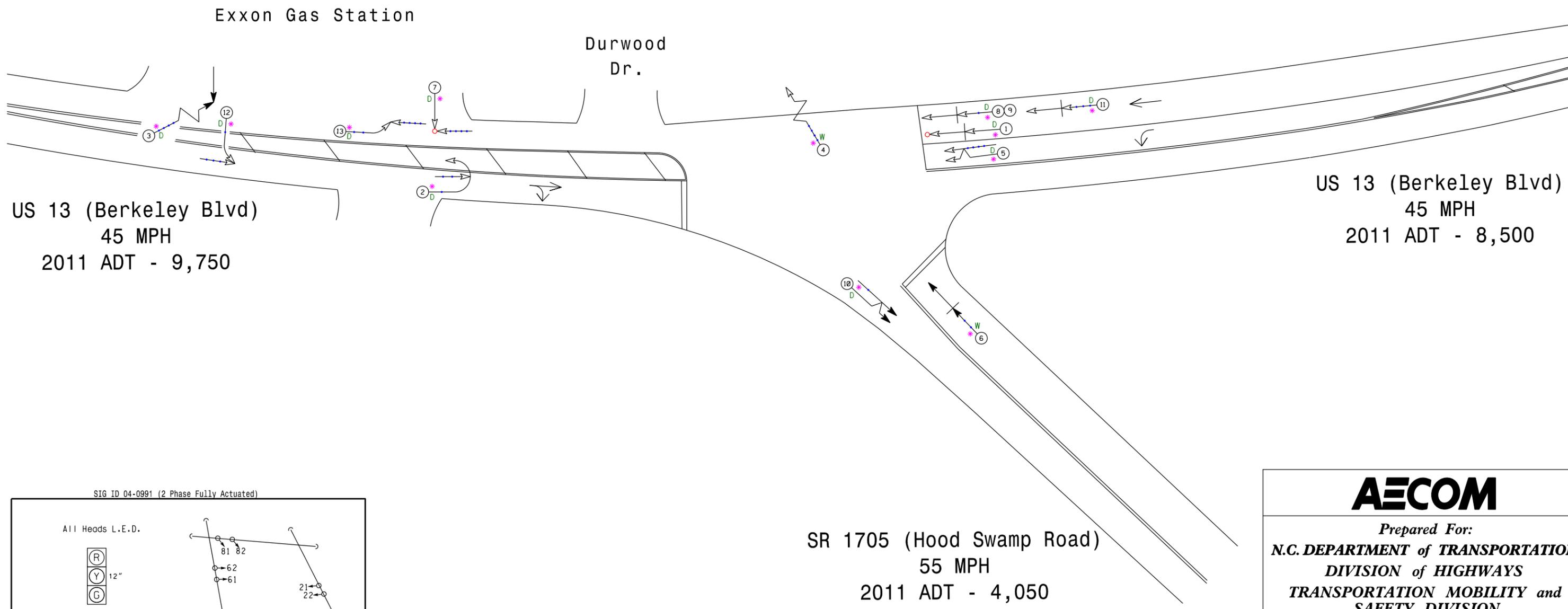
Prepared For:
N.C. DEPARTMENT of TRANSPORTATION
 DIVISION of HIGHWAYS
 TRANSPORTATION MOBILITY and SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: March 21, 2014 Prepared By: Andrew Covington, EI

SS# 04-06-205
 Order# 41000028024
 Wayne County
 AFTER Period
 9/1/09 - 12/31/13

LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
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			* DRIVER AT FAULT
			D DRY
			W WET
			I ICY OR SNOWY
			O Other



SR 1705 (Hood Swamp Road)
 55 MPH
 2011 ADT - 4,050

Frontal Impact Crashes

US 13 (Berkeley Blvd)
 45 MPH
 2011 ADT - 8,500

AECOM

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