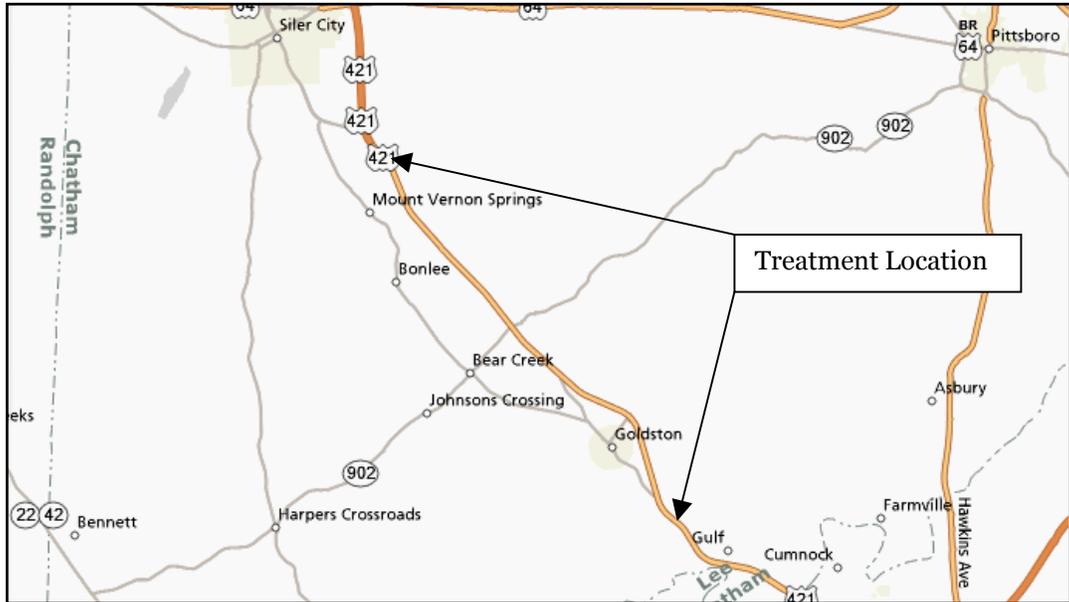


## Evaluation of the Centerline Rumblestrip Installation on US 421 in Chatham County

The NCDOT Safety Evaluation Group has completed the evaluation of the centerline rumble strip installation on the two-lane section of US 421 in Chatham County. The subject location is approximately 11.5 miles long, running from near Gulf to just south of Siler City. This section had experienced a history of high severity drift across head on crashes. Continuous milled “split” pattern centerline rumble strips were installed in July 2005 as a temporary countermeasure while construction was in progress to convert the monitored section to a four-lane divided roadway. Centerline rumblestrips were installed in the interim in an attempt to reduce the number of left of center crashes during the construction period. Traffic was split on the northern half of the project in June 2007. The remaining traffic was split and the centerline rumble strips were no longer functioning on the entire section as of early September 2007.



### ***Results (Using 3 Years Before Period and 1.83 Year After Period)***

Before Period (3 Yrs) 7/1/2002 - 6/30/2005		After Period (1 Yr, 10 Mo) 8/1/2005 - 5/31/2007		
Total Crashes	Crashes/ Yr	Total Crashes	Crashes/ Yr	Percent Change
193	64.3	66	36.1	-43.9
Lane Departure Crashes*	Crashes/ Yr	Lane Departure Crashes*	Crashes/ Yr	
102	34.0	17	9.3	-72.7
Correctable Crashes**	Crashes/ Yr	Correctable Crashes**	Crashes/ Yr	
31	10.3	4	2.2	-78.8

Correctable Crashes Crash Severity	Crashes Per Year Before	Crashes Per Year After	Percent Change
Fatal	2.0	0.5	-72.7
Class A Injury	1.0	0.0	-100.0
Class B Injury	0.7	0.5	-18.0
Class C Injury	1.0	0.0	-100.0
PDO	5.7	1.1	-80.7

\* Lane Departure Crashes include the following crash types:

Ran Off Road - Right, Ran Off Road - Left, Ran Off Road - Straight, Overturn/Rollover, Other Non-Collision, Fixed Object, Parked Motor Vehicle, Head On, Sideswipe - Same Direction, and Sideswipe - Opposite Direction.

\*\* Correctable crashes involve at least one vehicle crossing the centerline.

Note that avoidance, weather, and passing related crashes were not included. Avoidance Crashes consist of the following: Other vehicles, movable objects, deer, pedestrians, mechanical problems, flat tires, blown tires, and medical problems. Also, only crashes where the first vehicle maneuver involves veering left are included.

Before Period Location Photos (Taken June 2005)



After Period Location Photos (Taken July 2005)

