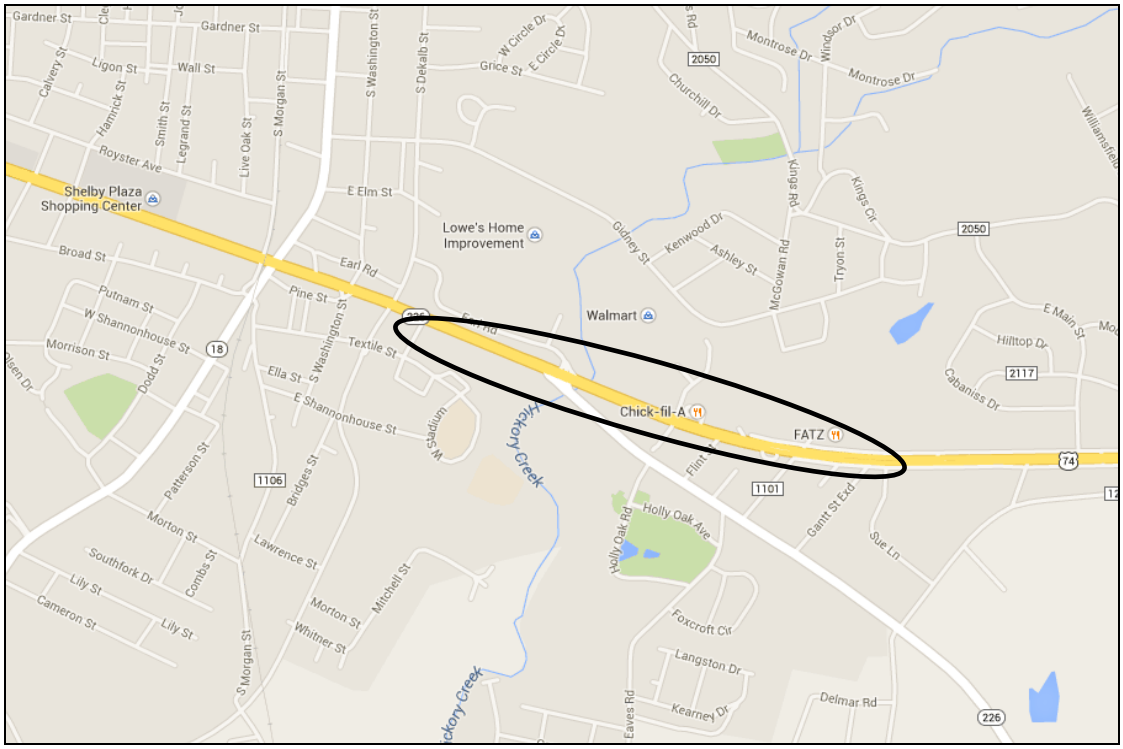
Spot Safety Project Evaluation

Project Information

Order ID:	41000032402
Project ID:	12-08-212
Location:	US-74 (Dixon Blvd) from Dekalb Street to 0.2 mile east of SR 1101 (Grove St)
County:	Cleveland
City:	Shelby
Division:	12
Signal ID:	Segment Includes Signals 12-0574 (Earl) and 12-1606 (Wal-Mart)
Countermeasure:	Install Signs in both Directions: "WATCH FOR SLOW OR STOPPED TRAFFIC AHEAD" (Signal Coordination was accessed and improved in 2008 and 2012)
Project Completion:	July 16, 2009
Project Cost:	$6,000

Map and Aerial (from Google Maps) – Coordinates: 35.275475,-81.532373



Google Streetview
Looking EASTBOUND right after Dekalb St

Google Streetview
Looking WESTBOUND near Grove Street

Naive Before and After Analysis

Before Period: April 1, 2004 through May 31, 2009 (5 years, 2 months)

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

After Period: August 1, 2009 through September 31, 2014 (5 years, 2 months)

Analysis Criteria: Treatment data consisted of all crashes within the selected US-74 (Dixon Blvd) Milepost Range: MP 11.50 (150-feet east of Dekalb) to MP 12.571 (0.2 mile east of SR 1101 Grove Street) with a 0-foot y-line.

Target Crashes: Mainline US-74 Rear-End Crashes were the selected Target Crashes for this sign treatment.

Treatment Information	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	384	280	- 27.1 %
Total Severity Index	4.19	3.39	- 19.1 %
Target Crashes: US-74 Total Rear-End	297	194	- 34.7 %
US-74 Total Rear-End Severity Index	3.93	3.17	- 19.3 %
US-74 Eastbound Rear-End	175	123	- 29.7 %
US-74 EB Rear-End Severity Index	3.64	3.41	- 6.3 %
US-74 Westbound Rear-End	122	71	- 41.8 %
US-74 WB Rear-End Severity Index	4.35	2.77	- 36.3 %
Volume (2006, 2010)	39,000	37,000	- 5.1 %
Total Crash Rate (100MVMT)	487.20	374.45	- 23.1 %

Injury Crash Summary Total Crashes	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	4	0	- 100.0 %
Class A injury Crashes	2	1	- 50.0 %
Class B injury Crashes	13	10	- 23.1 %
Class C Injury Crashes	91	70	- 23.1 %
Property Damage Only	274	199	- 27.4 %

Additional Information	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	50	42	- 16.0 %
Wet Roadway Crashes (Codes 2-3)	46	45	- 2.2 %
Alcohol / Drugs Involvement Crashes	8	3	- 62.5 %

Injury Crash Summary US-74 Rear-EndCrashes	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	2	0	- 100.0 %
Class A injury Crashes	1	0	- 100.0 %
Class B injury Crashes	11	4	- 63.6 %
Class C Injury Crashes	76	53	- 30.3 %
Property Damage Only	207	137	- 33.8 %

Special Note: The US-74 corridor experienced signal re-timing in early-2008, mid-2012 (with the signal upgrades to OASIS Controllers), and October 2014 (post this evaluation period). These signal timing changes were not accounted for in this analysis; however had a potential significant effect on the corridor crash total and target values.

Overall Summary Results

Total Crashes:	- 27 %	(reduction)
Total Crash Severity:	- 19 %	(reduction)
Target Crashes:	- 35 %	(reduction)
Target Crash Severity:	- 19 %	(reduction)
Volume:	- 5 %	(reduction)

Additional Summary Results

Severe Injury US-74 Rear-End (Target):	- 100 %	(reduction)
Total Roadway Crash Rate:	- 23 %	(reduction)

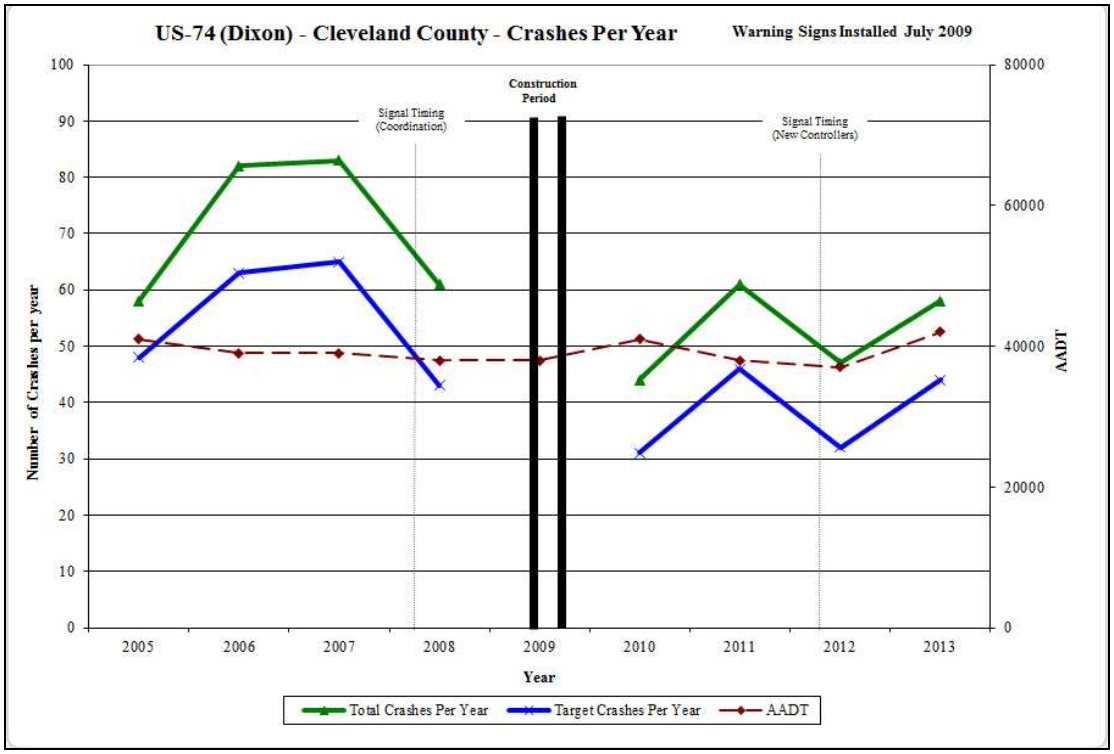
Items for Discussion/Concerns

None – the treatment (and other countermeasures) appear to have made a positive impact on the frequency and severity of the selected countermeasure target crashes.

Due to the large amount in crashes on a short roadway segment and that the evaluation resulted in a reduction in total and target crashes, *Collision Diagrams* were not provided for this analysis.

The Safety Evaluation Group did discover, through discussions with the signal timing section, that this corridor had experienced multiple signal coordination changes as previously mentioned. The effects of these projects were not accounted for in this evaluation.

The trend in total crashes has been displayed below (in crashes per year) to attempt to account for the effects of various other projects along the study section. There appears to be a spike in total and mainline rear-end crashes per year during the calendar years of 2006 and 2007 in the before period. Additionally, the after period crash reduction trend is likely contributed to the signal coordination completed on this route in 2008.



Data Prepared For

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Data Prepared By

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