

Turkeyfoot Road (KY 1303) Scoping Study

Barnwood Dr. (MP 5.085)
to
I-275 (MP 5.797)



December 13, 2017



Opening Comments ~~ KYTC

- Introductions
- Project Purpose and Need:
 - *Improve safety and mobility within the Corridor*
- Project Goals:
 - *Develop improvement strategies that reduce the potential for crashes and reduce travel delays*
- *We Need Your Input*
 - *Questionnaire*
 - *Discussions*

Questionnaire

- We Need Your Feedback
 - Does our representation of the existing conditions reflect your knowledge of the study corridor?
 - What do you perceive to be the problems and the problem areas (congestion, travel times, crashes)?

Displays ~~ Existing Conditions

- Roadway / Traffic
- Crash History
- Utilities



Existing Roadway Conditions

- Lane, Shoulder, and Median Configuration
- Turning Movements
- Origin – Destination Movements
- Access Points
- Accommodations for Bicycles and Pedestrians
- Geometry not meeting current standards

TURKEYFOOT RD (KY 1303)
TRAFFIC AND ROADWAY CHARACTERISTICS
DECEMBER 13th, 2017

KENTUCKY TRANSPORTATION CABINET
Palmer ENGINEERING

SCALE: 1"=50'

LOCATION	AM TRAVEL TIME (MINUTES)	AM VOLUME (VPH)	PM TRAVEL TIME (MINUTES)	PM VOLUME (VPH)	VERTICAL LENGTH OF CURVE			
					ACTUAL (FT)	STANDARD (FT)	MINIMUM (FT)	ACTUAL (FT)
1303 WB TO TURKEYFOOT AT DUDLEY	0:30	100	0:30	100	100	100	100	100
1303 WB TO TURKEYFOOT AT DUDLEY	0:30	100	0:30	100	100	100	100	100
1303 WB TO TURKEYFOOT AT DUDLEY	0:30	100	0:30	100	100	100	100	100
1303 WB TO TURKEYFOOT AT DUDLEY	0:30	100	0:30	100	100	100	100	100

Existing Utilities

- Water
- Natural Gas
- Overhead Utilities
- Underground Electric
- Communications – Fiber, TV, Telephone
- Storm Sewer
- Sanitary Sewer
- Right of Way / Property



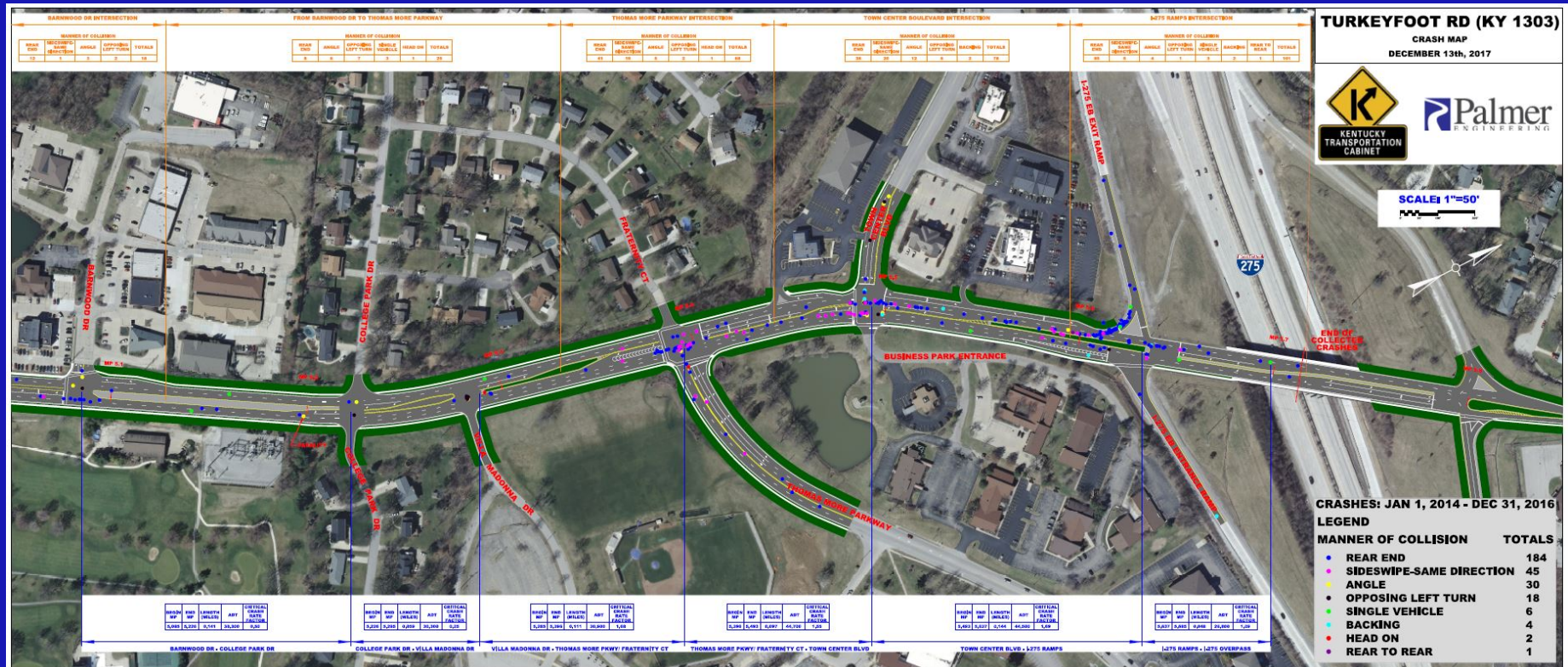
Existing Utilities



- *January 2014 to December 2016*

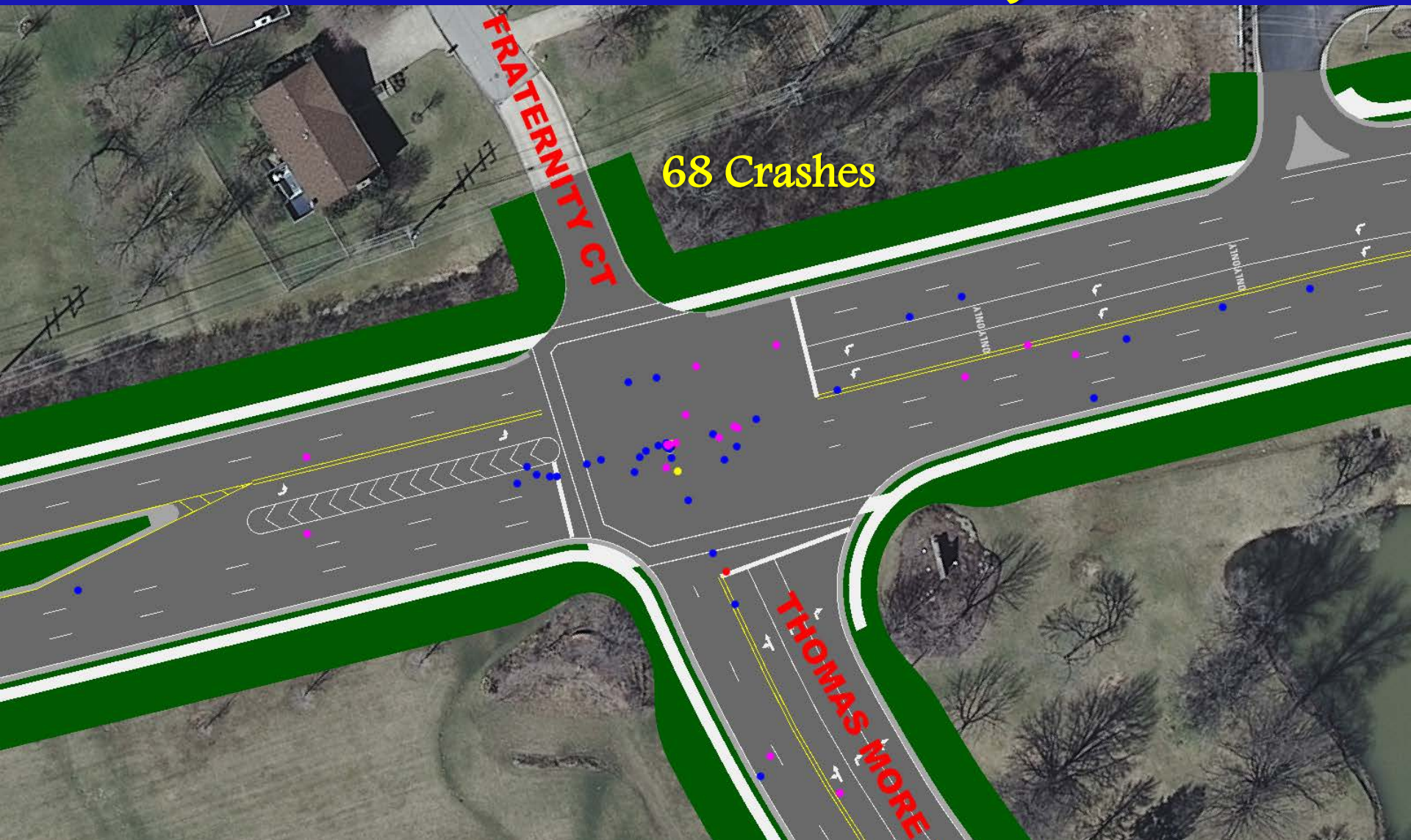
– 290 Reported Crashes (1 fatality)

- 63% Rear End 16% Sideswipe 10% Angle
- 0% Pedestrian <3% Truck/Transit Involved



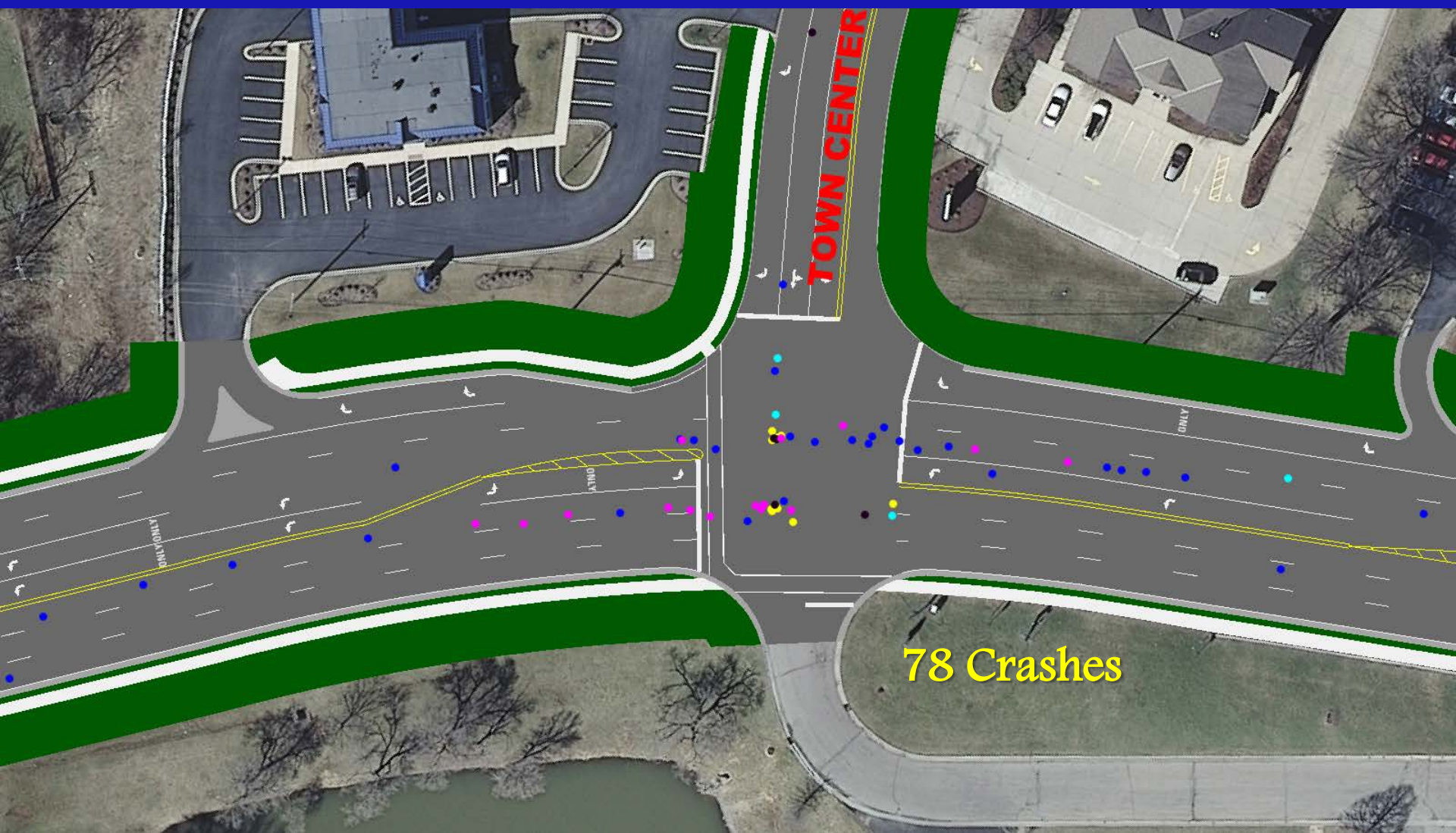
Crash Histories

Thomas More Parkway



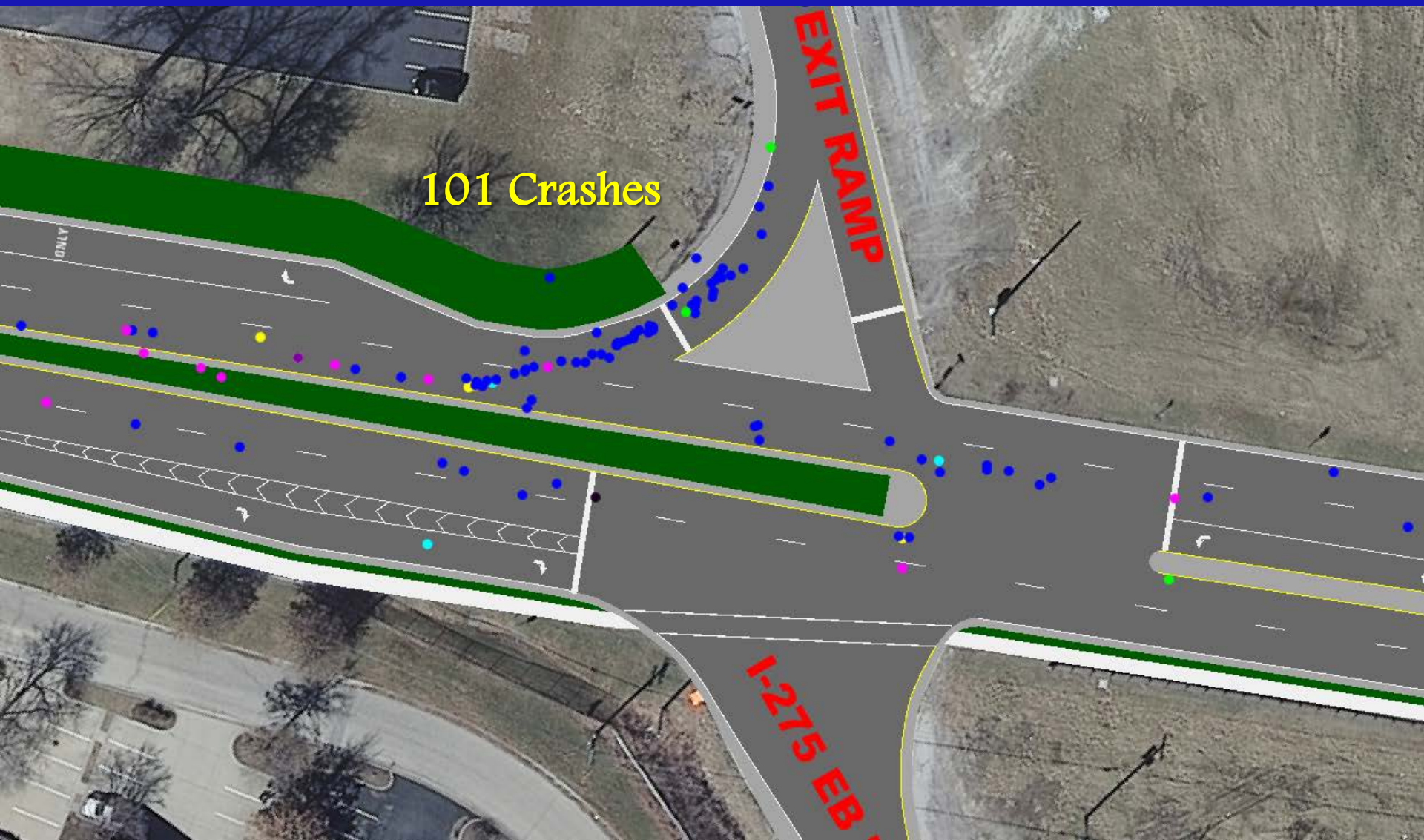
Crash Histories

Town Center Blvd



Crash Histories

I-275 EB Off-Ramp



Traffic Analyses

- Traffic Counts – *video count methodology*
 - *24 Hour Count – October 3, 2017*
 - *Identification of critical traffic weaving operations*
- Calibrated with field run travel times
- Operational Characteristics
 - *Travel Times*
 - *Queue Lengths (back-ups)*
 - *Delay / Level of Service*



Microsimulations

Morning Peak Hours



Microsimulations

Evening Peak Hours



Traffic Analyses

Travel Times			2017 AM		2017 PM	
Map Nodes	From	To	Time (min:sec)	Volume (vph)	Time (min:sec)	Volume (vph)
1 to 5	I-275 EB	Thomas More Pkwy	6:50	414	5:41	236
1 to 6	I-275 EB	Dudley Road	6:22	165	6:39	473
3 to 5	I-275 WB	Thomas More Pkwy	7:15	194	4:49	106
3 to 6	I-275 WB	Dudley Road	5:58	386	5:47	647
6 to 2	Dudley Road	I-275 EB	2:46	364	3:49	195
6 to 4	Dudley Road	I-275 WB	2:19	695	3:20	534

Maximum Queue Lengths

Location	2017 AM (ft)	2017 PM (ft)
NB Turkeyfoot at Thomas More Pkwy (Thru Movement)	780	988
SB Turkeyfoot at Thomas More Pkwy (Left Turn)	670	240
NB Turkeyfoot at Town Center Blvd (Thru Movement)	374	872
SB Turkeyfoot at Town Center Blvd (Thru Movement)	819	728
SB Turkeyfoot at I-275 EB Ramps (Thru Movement)	804	1000
EB I-275 Off-Ramp (Right Turn)	1613	1705

Level of Service/Delay

Signalized Intersection	2017 AM		2017 PM	
	LOS	Delay (sec)	LOS	Delay (sec)
Barnwood Drive	B	14	B	14
Thomas More Parkway	F	166	F	103
Town Center Blvd	D	40	E	78
I-275 EB Ramps	F	105	F	142
I-275 WB Ramps	D	46	D	45

Next Steps

- Traffic Forecasting
 - *February 2018*
- Develop Alternatives and Cost Estimates
 - *December 2017 to March 2018*
 - *Refinement of Alternatives and Cost Estimates (April 2018)*
- Local Officials / Stakeholders Meeting
 - *May 2018*
- Final Report
 - *August 2018*

Questions / Discussion

