

# Improvement 1 – Southbound Route 288 to Westbound US 360 Off-Ramp Improvements

## Extend Deceleration Lane and Add 2nd Lane to Ramp

### PROJECT DESCRIPTION

- » The proposed improvement includes extending the southbound Route 288 to westbound US 360 off-ramp deceleration lane from 700 feet to approximately 4,200 feet.
- » The improvement includes constructing a second lane on the southbound Route 288 to westbound US 360 off-ramp.
- » A fifth westbound travel lane, which would terminate as a right turn at Old Hundred Road, is required on US 360.
- » This improvement requires the closure of an existing access driveway to Market Square Lane.

Planning Level Cost Estimate	2021 Dollars Six Year Improvement Program Cycle = FY16 – 21	
	Low Estimate	High Estimate
Preliminary Engineering	\$1,000,000	\$1,500,000
ROW and Utility Relocation	\$1,300,000	\$1,500,000
Construction	\$7,200,000	\$10,700,000
<b>Total Cost =</b>	<b>\$9,500,000</b>	<b>\$13,700,000</b>

Study Year	Peak Hour Traffic Volumes on SB Route 288 to WB US 360 Off-Ramp (Vehicles per Hour)	
	AM Peak Hour	PM Peak Hour
Existing (2012)	562	1,722
Future (2040)	940	2,760

### PROJECT BENEFITS

#### Safety Measures

Total Crashes <sup>^</sup> (2008 – 2013)	61
Crash Reduction Factor	42% (all crash types, all severities)
20-Year Safety Savings	\$19,800,000

<sup>^</sup> Number of crashes within a 500 foot radius of intersection

#### Traffic Operations Measures

2040 No Build Travel Time*	1,328 hours
2040 Build Travel Time*	290 hours
Δ Travel Time (% Reduction)	-1,038 hours (-78%)
20-Year Operations Savings	\$88,500,000

\*Weekday total of AM and PM travel times in the influence area of the proposed improvement

- » The additional capacity provided on the southbound Route 288 off-ramp will better accommodate the heavy peak hour volumes and reduce the queue extending north onto Route 288.
- » Extending the deceleration lane will provide safer access to the southbound Route 288 to US 360 off-ramp. Vehicles exiting Route 288 will have an additional 3,500 feet to decelerate from the mainline speed of 65 MPH to the ramp advisory speed of 35 MPH.

**Benefit/Cost Ratio: 9.3**

Benefit/Cost calculated using the midpoint of the cost estimate range

### FUNDING SCHEDULE

Note: Schedule reflects once funding has been acquired

