

US 395 Deer Park Intersection Improvements

Larry Frostad, PE, Eastern Region Assistant Traffic Engineer

August 18, 2016

Presentation Outline

US 395 DEER PARK INTERSECTION IMPROVEMENTS

- **Background Information**
- **Our Approach to Safety**
- **Solutions Development**
- **Conceptual Designs**
- **What's Next**
- **Your Questions**

Background Information

FACTS AND FIGURES

Geometrics

- Shoulders – 4' to 8'
- Lane widths – 11' to 12'
- Mainline typically has left turn lanes (not Short Rd) & right turn tapers
- Adequate intersection sight distance (triangle)

Volumes

- 12,000 Average Annual Daily Traffic (AADT) south of Short
- Approx. 3% Large Trucks, and 5% Small to Medium sized, including buses
- 10,000 AADT north of Short
- Side roads: 1,000 to 3,000 AADT (< 200 vph)
- 1% growth since year 2000

Speed Limit

- Posted 60 mph, 25-45 on side roads
- 62-63 mph 85th percentile speeds – with travel speeds generally ranging from 52 to 67 mph
- Speed not a factor in crashes except in snow/ice conditions

Background Information

PAST PLANNING AND CURRENT FOCUS

- March 2003 – Route Development Plan for US 395 from MP 172 to MP 183.69. While it presented a long-term vision, it was not funded.
- Recognizing that current asset needs are greater than the ability to fund them, WSDOT has increased efforts in the area of Least Cost Planning – the planning and development of solutions that meet objectives at the lowest possible cost.
- Intersection-related collisions continue to occur in the Deer Park area – over 160 since the 2003 Route Development Plan.
- WSDOT Eastern Region received funding to develop proposals to address intersection safety on the segment of US 395 from Burroughs/Dalton Road to Dahl Road.

Background Information

"INTERSECTIONS REPRESENT A DISPROPORTIONATE SHARE OF THE SAFETY PROBLEM" - FHWA

Crashes at intersections (2002-2015) constitute:

All State Routes:

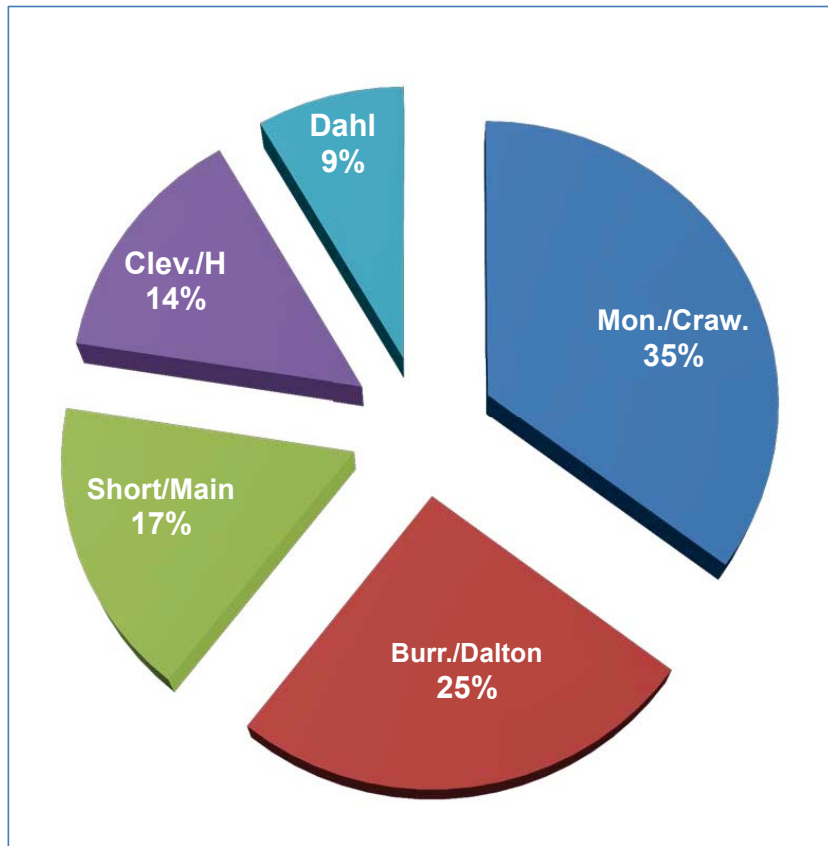
- 37.8% of all crashes
- 19.3% of fatality crashes
- 35.6% of serious injury crashes

State Routes in Eastern Region:

- 40.2% of all crashes
- 17.7% of fatality crashes
- 34.0% of serious injury crashes

Background Information

FIVE YEAR CRASH HISTORY - BURROUGHS/DALTON TO DAHL



Crashes 2010-2014:

- 65 “At Intersection & Related”
- 2 Fatal (Cleveland & Dahl)
- 18 Evident/Serious Injury
- 64% Entering-at-Angle

Other:

- 10 recorded intersection crashes since study began in November 2015

Our Approach to Safety

TARGET ZERO

Compare performance against similar intersections:

Per Highway Safety Manual procedures, these intersections are performing at or above average:

- Short/Main
- Cleveland/H (small potential for safety improvement)
- Dahl

Per Highway Safety Manual these intersections are performing below average & have potential for safety improvement:

- Monroe/Crawford
- Burroughs/Dalton

Crash Modification Factors (CMF) are used to estimate the potential change in crash frequency/severity from installing a particular treatment.

Solutions Development

PUBLIC COMMENTS - PAST HISTORY

Public comments/requests prior to this study (2001-2015):

- 19+ letters, emails and/or phone calls with the public
- Majority requested speed reduction (to better access US 395)
- Southbound Left Turn at Short Rd
- Requests for traffic signals, right turn lanes, crosswalks
- More vegetation management
- Multiple vehicles at stop line as drivers wait to make various turning movements
- Intersection offset/skew
- Impatience when choosing a gap

Solutions Development

PUBLIC COMMENTS - STAKEHOLDERS' GROUP

February Stakeholders' Meeting:

- Heard from WSP, law enforcement, Maintenance, DP School District, City of DP, DP Chamber of Commerce, Spokane County
- Education key – e.g. left turning vehicle must yield to through vehicle (RCW)
- Keep access open for the businesses, school bus routes & emergency response
- SBLT at Short Rd ~ people still make illegal movement
- Driver behavior is effecting crash rates
- Understanding that speed limit is set to reflect reasonable behavior
- Current sight obstructions – vegetation, guardrail & signs
- Vehicles park side by side at stop line – causing sight obstruction
- Intersection offset/skew

Solutions Development

PUBLIC COMMENTS - MARCH COMMUNITY MEETING

Community Meeting Highlights:

- Approximately 200 people in attendance
- 45 minutes of one-on-one with public & 1 ½ hours of presentation / Q&A
- Captain Otis & Sheriff's Deputy Dutton spoke about speed limits and how they are set
- Reminder to consider commuters who live north of Deer Park
- Burroughs/Dalton & Monroe/Crawford are the top intersections of concern

Main Themes Heard From Public (60+ Comment Forms):

- Lower the speed limit
- Acceleration / deceleration lanes
- Intersection Control (Signal / Roundabout)
- Grade Separation / Interchange

Solutions Development

PUBLIC COMMENTS - JUNE OPEN HOUSE

Feedback from WSDOT Open House held June 1, 2016:

Some comments favorable, some not so much:

- For: acceptance by a greater percentage of public than past roundabout projects
- Against: “can’t fix stupid”, “other people can’t drive them”, “are you on crack?”

Solutions Development

PUBLIC COMMENTS - JUNE OPEN HOUSE

Feedback from WSDOT Open House held June 1, 2016:

On the proposed Burroughs/Dalton closure:

Some support for closure; however,

- “I have to change my commute”
- “It will increase volumes on Short Road”
 - AM Peak Hour: 94 additional vehicles
 - PM Peak Hour: 51 additional vehicles
- “It will increase volume on the county network and shift crashes to other intersections”
 - Survey at the Open House confirmed our assumption: nearly all respondents indicated they would use Short/Main
- Concern that Dalton is used as a Truck Route (300 thousand to 4 million tons per year), although it has seasonal restrictions

Solutions Development

ADDITIONAL REFINEMENTS

Changes implemented after the June Open House:

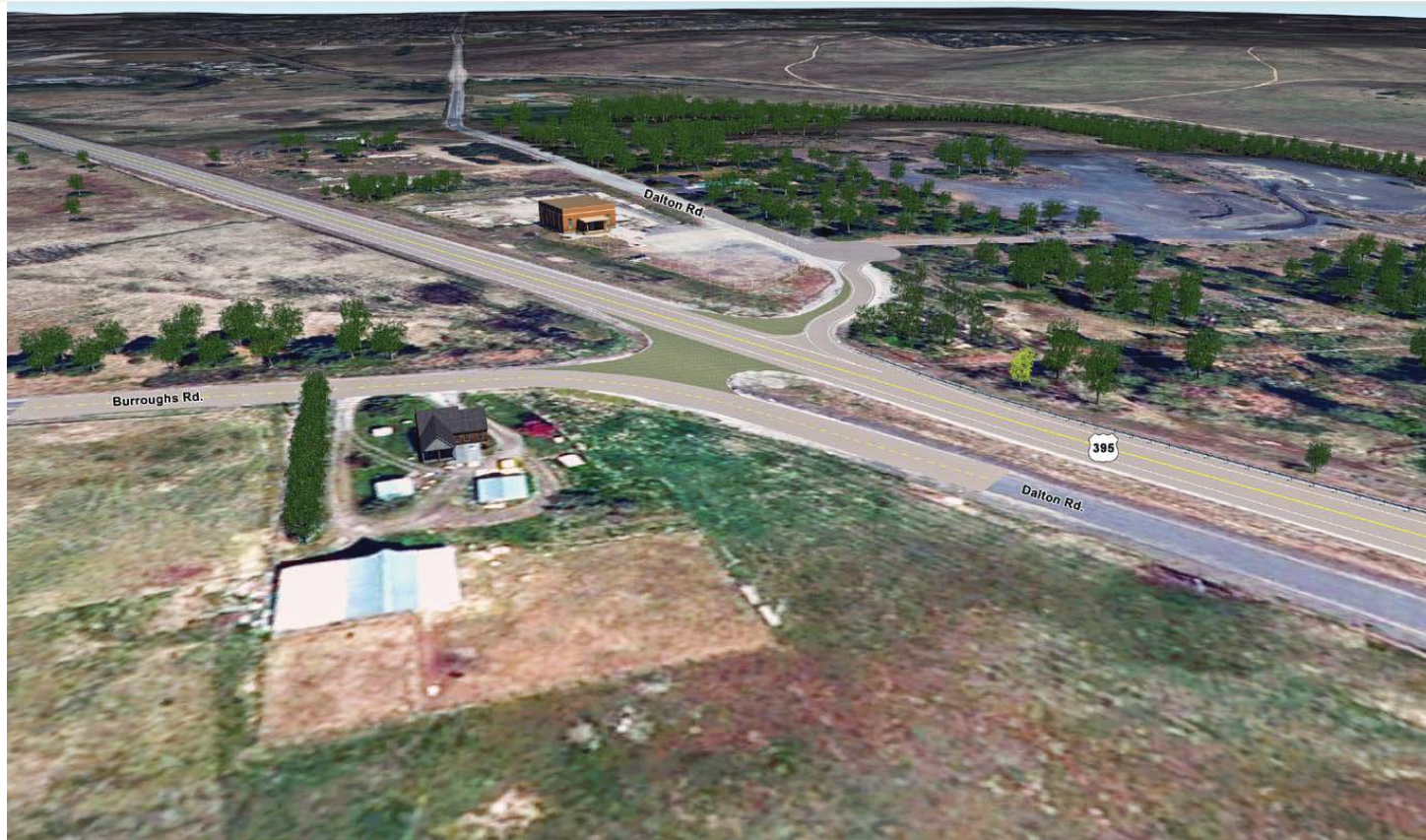
- Allow the right turn from Northbound US 395 to Northbound Dalton Road
 - Volume is ~110 vehicles in both AM and PM Peak.

Evaluating need for:

- Paving Owens Road to address closure of US 395/Burroughs
- Improving northbound shoulder to allow daytime truck use north of Monroe/Crawford

Burroughs/Dalton Conceptual Design

VIEWING NORTHEAST



Short / Main Conceptual Design

VIEWING NORTHEAST



Monroe / Crawford Conceptual Design

VIEWING NORTHWEST



SR 243 at Mattawa

“ROUNDAOBOUTS ARE NOT GOING TO WORK ON A HIGHWAY” – Public comment



- 60 MPH on SR 243
- At least eight roundabouts on State highways with 50 MPH speed limit
- At least five roundabouts on State highways with 55 MPH speed limit

What's next



January 2017 – Legislature convenes

July 10, 2017 – Begin project design

March 26, 2018 – Project Advertisement

Questions?