Highway Safety Improvement Program (HSIP)

Public Works Department
Traffic Division
Highway Safety Improvement Program (HSIP)

Purpose

Achieve a significant reduction in traffic fatalities and serious injuries on all public roads

Facts

- Crash Data Driven (LOSS and B/C)
- Funds: 90% Federal 10% State or Local
- Performance-driven process
- Crash Reduction Factors (CRFs)
Highway Safety Improvement Program (HSIP)

Level Of Safety Service
- Observed compare to expected
- Safety Performance Factor graphs

Benefit/Cost Ratio
- Crash Reduction Factors (CRFs)
- Cost to the public
- Service Life of Improvement
- Greater than 1.0

Example: Floyd @ Elati
SPF Graphs for Floyd @ Elati

Figure 131: Floyd and Elati EB Corrected SPF Total Crashes 2013-2017

Figure 132: Floyd and Elati EB Corrected SPF INJ+FAT Crashes 2013-2017
Mitigating Broadsides

Figure 133: Floyd and Elati Distribution of Crashes by Type 2013-2017

Arapahoe County Colorado
DiExSys™ Roadway Safety Systems
Economic Analysis Report

Table 52: B/C Analysis for Replacing Intersection with Roundabout at Elati and Floyd
Floyd @ Elati Compact Roundabout
Englewood Crashes 2011-2017

Legend

- Red: >200
- Orange: 100-200
- Blue: 10-29
- Yellow: 30-99
- Green: 5-9

www.engagewoodco.gov
## Preliminary Englewood HSIP Plan

<table>
<thead>
<tr>
<th>Projects</th>
<th>Estimate</th>
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<tbody>
<tr>
<td>Platte River &amp; Dartmouth Safety &amp; Operations</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>East Dartmouth Traffic Calming Corridor</td>
<td>$1,500,000</td>
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<tr>
<td>Floyd @ Elati Roundabout</td>
<td>$500,000</td>
</tr>
<tr>
<td>Dartmouth@ Zuni &amp; Tejon Signal Upgrades</td>
<td>$700,000</td>
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<tr>
<td>Broadway @ Lehow Median</td>
<td>$150,000</td>
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<tr>
<td>Broadway Corridor - Minor Signal Improvements</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4,500,000</strong></td>
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Platte River Drive & Dartmouth Safety & Operations

Project Highlights

- Broadside occurring at both signals and Lipan
- Turn lanes and 3/4 access would reduce these crashes
- Signals will be upgraded to mast arms
- Two WB thru lane would improve safety and operations
- Improvements would be expected to improve operations on Santa Fe
Mini-Roundabout

- Mountable Islands
- Context Sensitive
- Improved Safety
- Maintain Operations
East Dartmouth Traffic Calming Corridor

**Project Highlights**

- Signals at both Logan and Downing have an unusually high rate of broadside
- Roundabouts would reduce these broadside
- Clarkson would be converted to stop or mini-roundabout for corridor consistency
- Roundabouts would also reduce speeds
- Curb extension will induce traffic calming and short pedestrian crossing
- Traffic calming efforts will enhance new bike lane
- Sidewalk connection can be improved

Example: Neighborhood Sensitive Mini-Roundabout