

GRAND JUNCTION CITY COUNCIL  
MONDAY, JUNE 13, 2016

WORKSHOP, 4:00 P.M. (note early start time)  
CITY HALL AUDITORIUM  
250 N. 5<sup>TH</sup> STREET

*To become the most livable community west of the Rockies by 2025*

1. CDOT Update on Redlands Parkway/Highway 340 Roundabout

[Supplemental Documents](#)

2. Financial Update

[Attachment](#)

3. Committee and Board Reports

4. Other Business

## ***Memorandum***

**TO: City Council**  
**FROM: Greg Caton, City Manager**  
**Jodi Romero, Financial Operations Director**  
**DATE: June 10<sup>th</sup>, 2016**  
**SUBJECT: Financial Update-City Council Workshop June 13<sup>th</sup>, 2016**

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At five months into the year we are closely monitoring the revenues and expenses in the General Fund. Sales and use tax revenues are not meeting projections, however May's sales tax revenue showed 2.1% growth over prior year and slightly exceeded the monthly budget. The City Manager and management team are working together to identify reductions in the spending budget.

We have closed the books and there are \$1.1 million in additional funds above the projected 2015 ending fund balance of \$19.1 million. The source of additional funds is a 1% spending savings among all department budgets and better than expected revenues in ambulance transports. The \$1.1 is sufficient to fund a portion but not all of the pending items. Following are the decision points for Council's consideration and direction.

### **Items for Consideration and Options for Funding**

- 1) GJHA Fees \$388,329 and Homeward Bound \$100,000 Development Fees. Authorized by Council in April and May of 2015 respectively. Certificate of Occupancy for both projects expected this year
  - A. Fund out of General Fund Reserve-*Recommended by Staff*
  - B. Pay enterprise and capital funds over a two year period
  - C. Do not fund and enterprise and capital funds absorb the costs
  
- 2) Colorado Mesa University Campus Expansion \$500,000. Deferred by Council during 2016 Budget Development process.
  - A. Fund out of General Fund Reserve-*Recommended by Staff*
  - B. Do not pay and defer until later in the year or 2017 budget cycle

- 3) Purchase of School District 51 property \$355,000. Final authorization set for June 15<sup>th</sup> Council meeting.
  - A. Fund out of General Fund Reserve.
  - B. Fund from Parkland Expansion-*Recommended by Staff*
  
- 4) Reinstate the Arts Commission Funding. Deferred during 2016 Budget Development Process. Parks & Recreation has advised that it is too late to complete the application and award process.
  - A. Fund out of General Fund Reserve and if not used completely plan on carrying forward to 2017
  - B. Do not fund because of implementation -*Staff Recommendation*
  
- 5) Another item that was deferred during the 2016 Budget Development Process was the Implementation of the 1.2% wage adjustment for all positions. Staff recognizes the importance of support of the Pay Plan Philosophy and the consistent implementation of recommendations under the plan. However, acknowledging the financial constraints of 2016, staff recommend tabling this item until later in the year to be heard in connection with the results of the 2016 market survey for implementation in the 2017 budget.

In Summary if Council approves of staff recommendations, the supplemental appropriation will be prepared accordingly and \$988,329 will be used out of the \$1.1 million in the General Fund with the remaining amount falling to the fund balance for 2016.



## COLORADO

Department of Transportation

Region 3 Traffic

DATE: May 13, 2016

Project Number: 20145/STA 340A-018

Location: SH340 & Redlands Parkway Intersection

TO: Grand Valley Regional Transportation Committee

FROM: Zane Znamenacek, CDOT Region 3 Traffic Program Manager

VIA: Mike Curtis, CDOT Region 3 Traffic Project Engineer

RE: Results of April 18, 2016 Open House for Proposed Roundabout SH340/Redlands Parkway

- An open house was held on April 18, 2016 at Broadway Elementary School from 4 to 7 pm, to review proposed roundabout design elements at the intersection of SH340 and Redlands Parkway.
- The existing signalized intersection experienced 28 accidents between July 1, 2010 and June 30, 2015. The vast majority of these accidents involved rear-end and left turning movement accidents.
- Roundabout type intersections are the most effective of all at-grade intersections at reducing these types of accidents, as well as preventing fatal accidents. In the past five years, there have been no fatal accidents at roundabouts in CDOT Region 3.
- Because of the history of accidents at this intersection, safety funding is available to replace this signalized intersection with a roundabout due to the inherent safety benefits of a roundabout. This intersection was listed #3 on the Region 3 Intersection Priority List published June 2011.
- Approximately 200 people attended the open house. The majority of the people that attended live in the Redlands and drive or bicycle or walk through this intersection on a frequent basis.
- Ninety written comments were received. Reviewing the comments, four issues were among the top concerns:
  - Construction phasing, detour routes and road closures
  - Bicyclists and pedestrian safety
  - Available gaps for motorists turning onto SH340 at adjacent intersections with elimination of traffic signal
  - Modifications to the existing signalized intersection should take place to improve left turn movements, as either an interim or long-term solution
- We propose to address the comments as follows:

- **Construction phasing, detour routes and road closures:** A second open house will be held this summer to review design plans for the roundabout. Prior to the second open house, the plans will be submitted to the Colorado Contractors Association as well as the Western Colorado Contractors Association for a constructability review, with emphasis on construction phasing, detour routes and road closures. Our goals are to maintain local access throughout construction, minimize impacts along detour routes, minimize road closures and complete construction of the roundabout in the shortest time possible. Maintaining all of these goals will be a balancing act. We will quantify benefits and disbenefits following the constructability review.
- **Bicyclists and pedestrian safety:** There is an existing multi-use path on the east side of Redlands Parkway north of the intersection, as well as south of the intersection on the east side of South Broadway. Connections to the existing signalized intersection are poor. There are crosswalks on all legs of the intersection, but no accessibility ramps. There will be crosswalks on all legs of the roundabout, with center medians and accessibility ramps. The existing multi-use path will be connected at the roundabout. Accessibility ramps and new sidewalk will also be installed approaching the roundabout so cyclists can chose to ride on the sidewalk or ride through the roundabout.
- **Available gaps for motorists turning onto SH340:** Many motorists feel that the existing traffic signal provides gaps for left turns onto SH340 at adjacent intersections. To address the availability of gaps with the roundabout, additional peak hour traffic counts were taken on SH340 at 22.5 Road and Village Way. Using simulation software calibrated with existing traffic counts, the following scenarios were analysed:
  - Predicted gaps and delays during am and pm peak hour and school peak for motorists at 22.5 Road and Village Way, with current signalized intersection.
  - Predicted gaps and delays during am and pm peak hour and school peak for motorists at 22.5 Road and Village Way, with proposed roundabout after construction.
  - From the simulation analysis, the am peak is the worst case for average delay, and is presented in the table below.

**Westbound Gap Comparison – Signal vs Roundabout**  
**Existing AM Peak Period Average Delays**

	Village Drive		School Exit		22 ½ Rd	
	SBL	SBR	SBL	SBR	SBL	SBR
<b>With Signal</b>						
<b>Peak Hour</b>	21 sec	9 sec	18 sec	9 sec	16 sec	9 sec
<b>School Peak</b>	22 sec	17 sec	41 sec	15 sec	26 sec	9 sec
<b>With Roundabout</b>						
<b>Peak Hour</b>	18 sec	8 sec	13 sec	10 sec	12 sec	8 sec
<b>School Peak</b>	23 sec	15 sec	19 sec	10 sec	13 sec	9 sec

- Average delays between the existing signal and a roundabout during the am peak are generally similar. In some cases, like southbound lefts from the School Exit and 22 ½ Road, the delays are considerably less with the roundabout. The PM peak hour and school peak average delays for signal versus roundabout are similar for Village Drive, School Exit and 22 ½ Road. Average delays are expected to be similar for other intersections west of Village Drive.

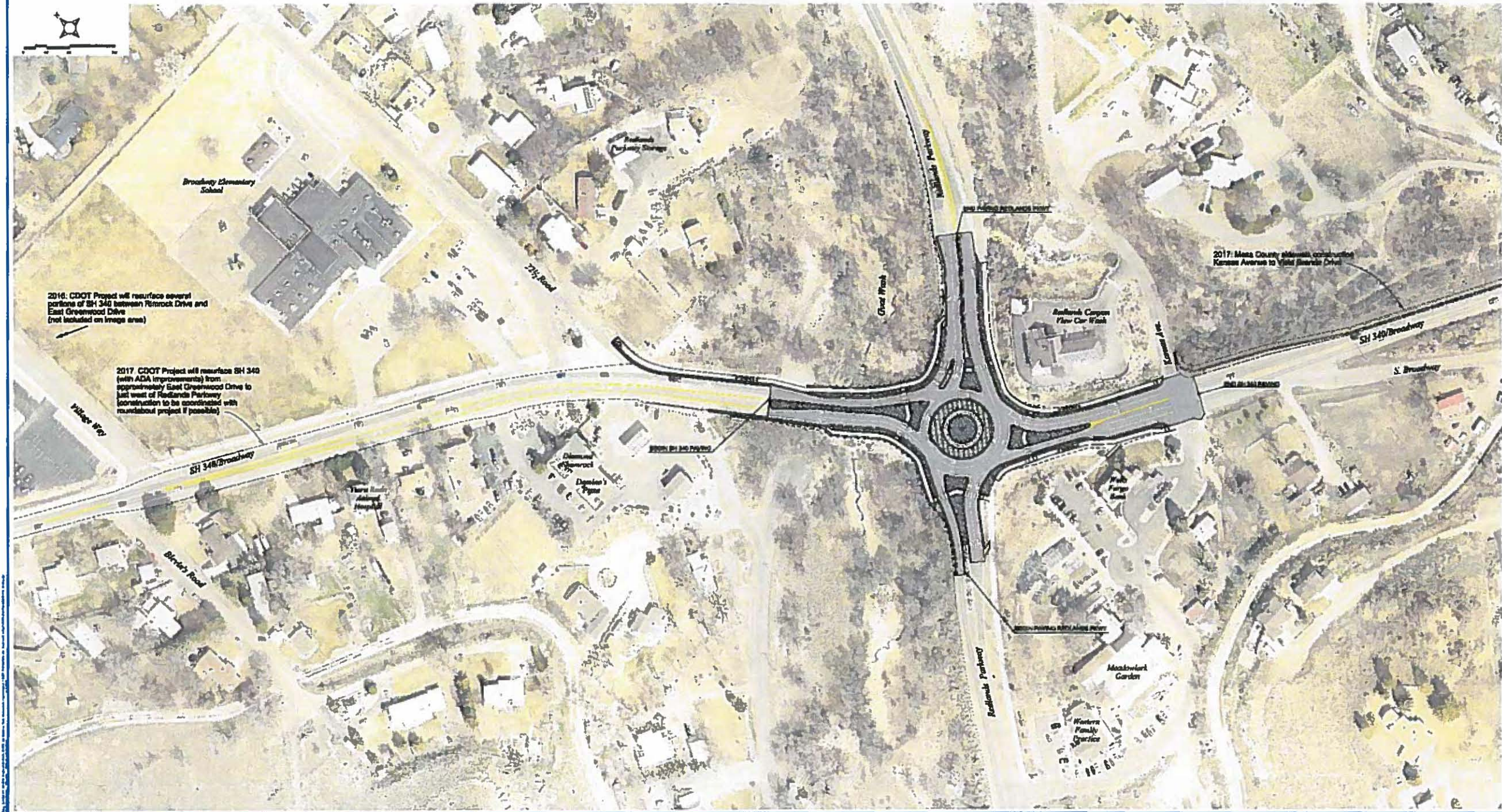
- o **Modifications to existing signalized left turn movements (as either an interim or long-term solution):**  
Currently, the eastbound SH340 to northbound Redlands Parkway movement is the only protected-permissive left turn movement, because of the high number of left turns during the peak hours. All other left turn movements are permissive only. For those movements, the number of left turns during peak hours are much lower, and adequate gaps exist. Therefore, the addition of protected-permissive phasing is not warranted for the other left turn movements on an interim basis. And the existing intersection will not handle the projected traffic volumes in the long term.

**CC:** Zane Znamenacek, CDOT R3 Traffic Program Engineer  
Sean Yeates, CDOT R3 Traffic Resident Engineer  
Trent Prall, City of Grand Junction Engineering Manager  
Paul Jagim, City of Grand Junction Transportation Engineer  
Todd Hollenbeck, RTP / GVMPO Director  
Dean Bressler, Mesa County Senior Transportation Planner/Engineer  
Julie Constans, Mesa County Engineering Manager  
Jim Nall, Mesa County Transportation Engineer

# SH340 & Redlands Parkway Intersection Improvements



# SH 340 (BROADWAY) & REDLANDS PARKWAY INTERSECTION IMPROVEMENTS





# *Project History and Timeline*



- The City of Grand Junction began preliminary design on the SH 340 (Broadway) and Redlands Parkway roundabout.
- CDOT secured safety improvement funding for final design and construction in 2014, and took over the project.
- Ourston Roundabout Engineering (nationally acclaimed roundabout experts) has reviewed traffic projections and evaluated roundabout configurations for the City and CDOT.
- Anticipated roundabout construction advertisement date in Fall 2017.



## *Summary of SH 340/Redlands Parkway Intersection Accidents and Safety Benefits of Roundabouts*



- In the last 5 years, the SH 340 at Redlands Parkway intersection experienced 28 accidents. The vast majority of these involved rear-end (6), broadside (6) and left turning movement accidents (12). Roundabouts are extremely effective at reducing broadside and left turning movement types of accidents.
- Statistically, FHWA data shows roundabouts are vastly safer than conventional signalized intersections:
  - 67% reduction in all accidents
  - 78% reduction in fatal and injury accidents
  - 89% reduction in accident-related pedestrian injuries



# SH340 & Redlands Parkway Cumulative Accident History Graph



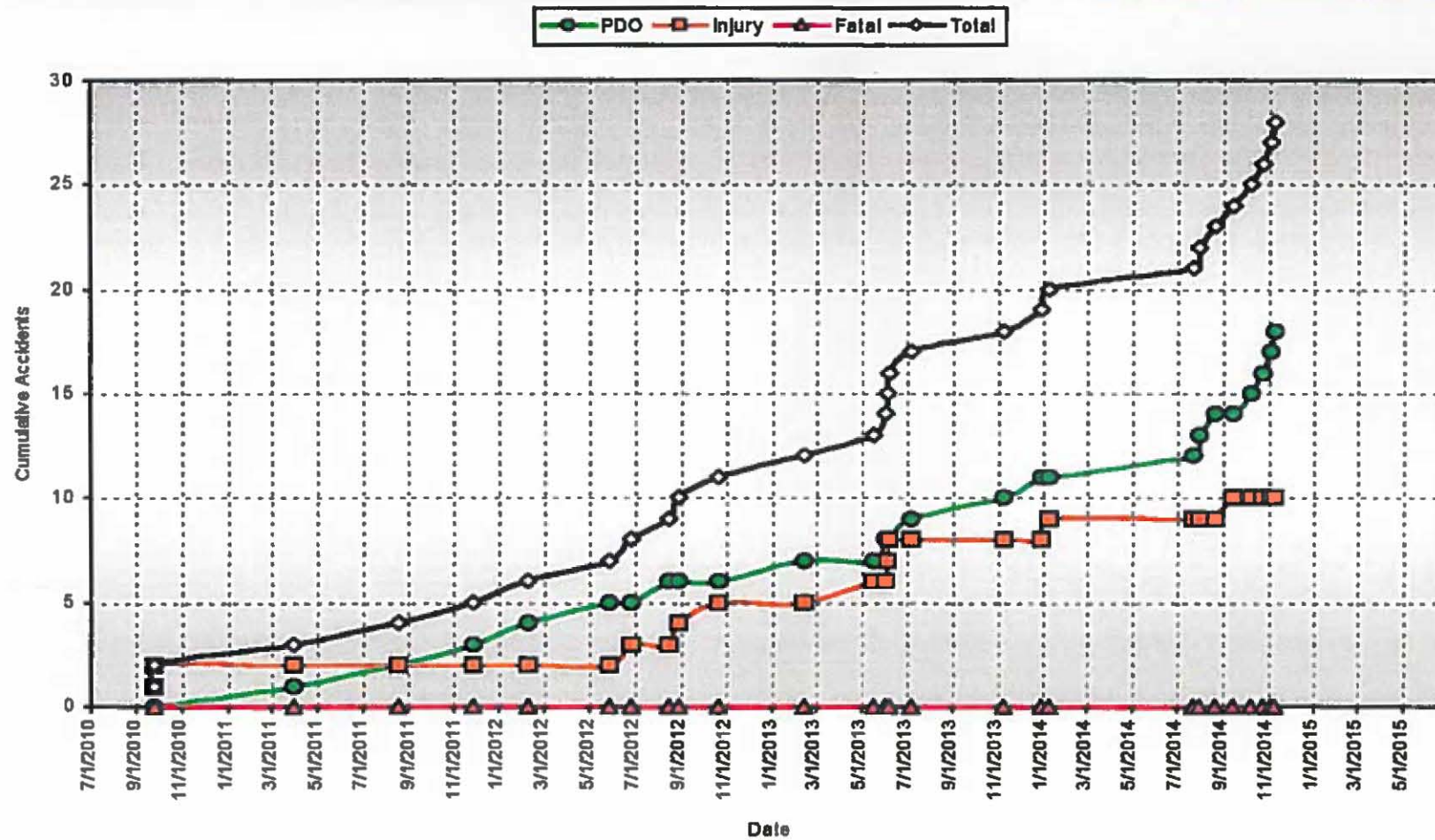
Colorado Department of Transportation  
 DiExSys™ Roadway Safety Systems  
 Accident History Graph: Cumulative Graph by Time

02/05/2016

Job #: 20160205175828

Location: 340A

Begin: 9.51 End: 9.55 From: 07/01/2010 To: 06/30/2015

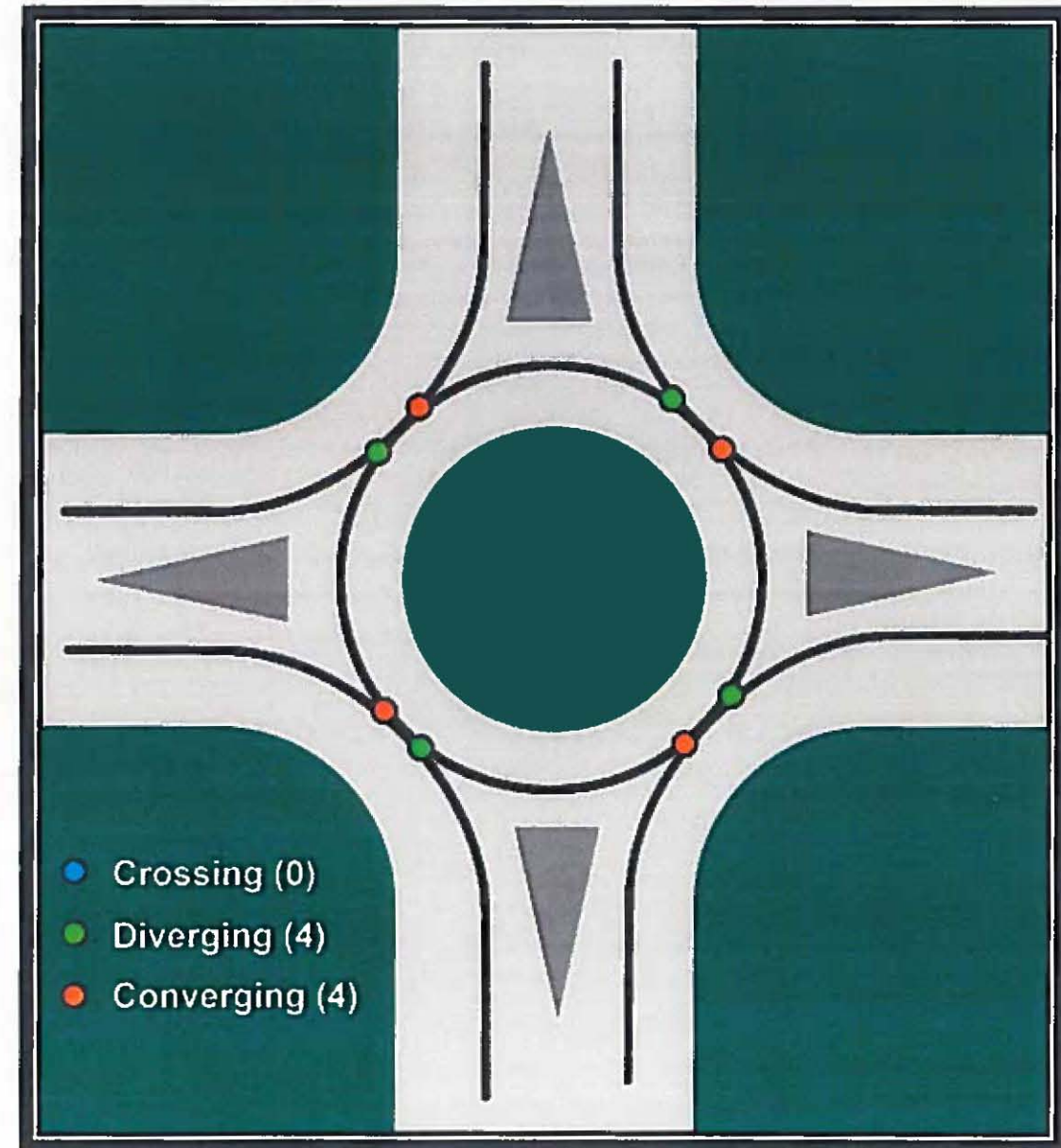
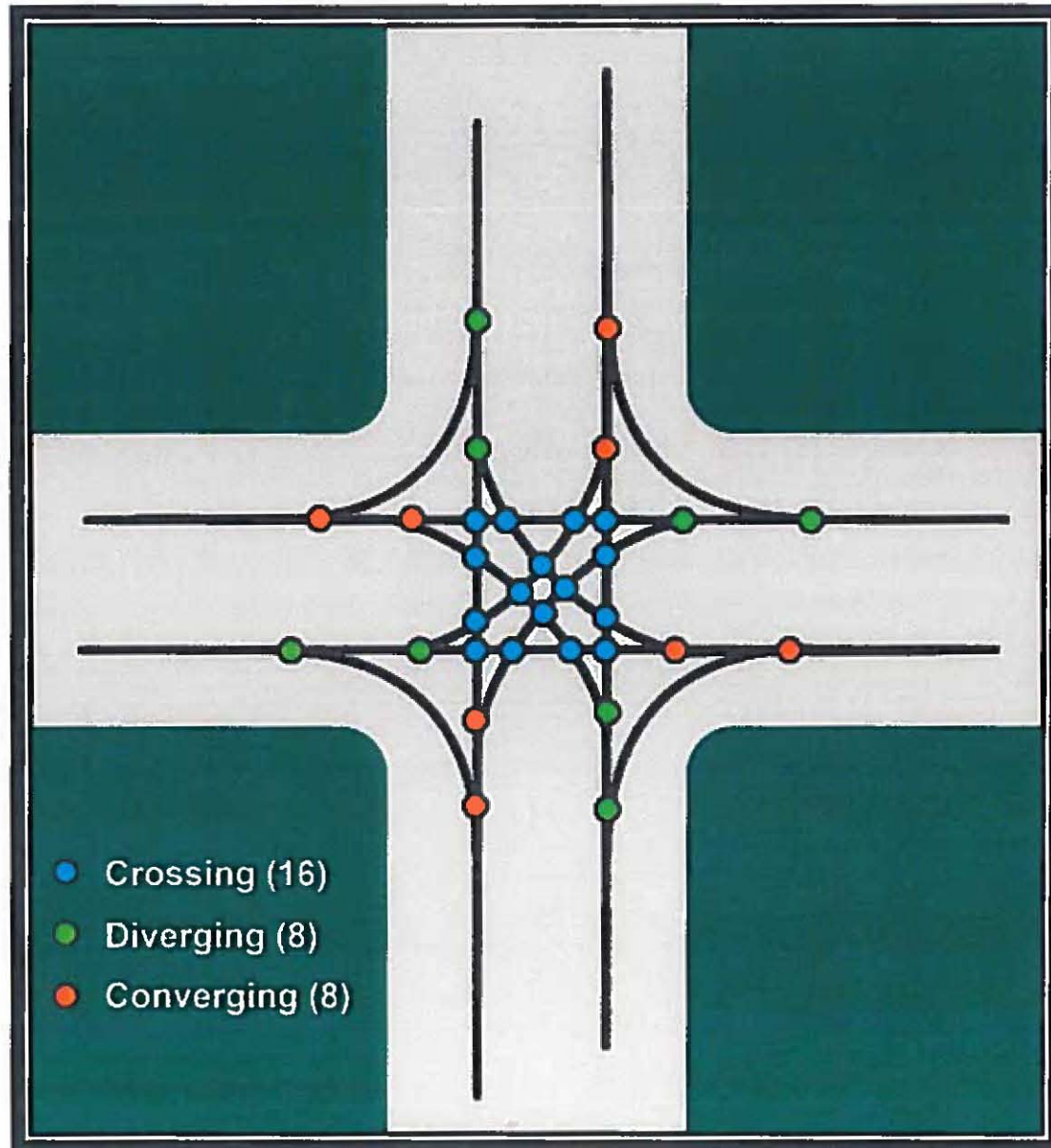




# Vehicle Conflict Points

## 4-Leg Intersection

## Roundabout





## Pedestrian and Bicyclist Considerations

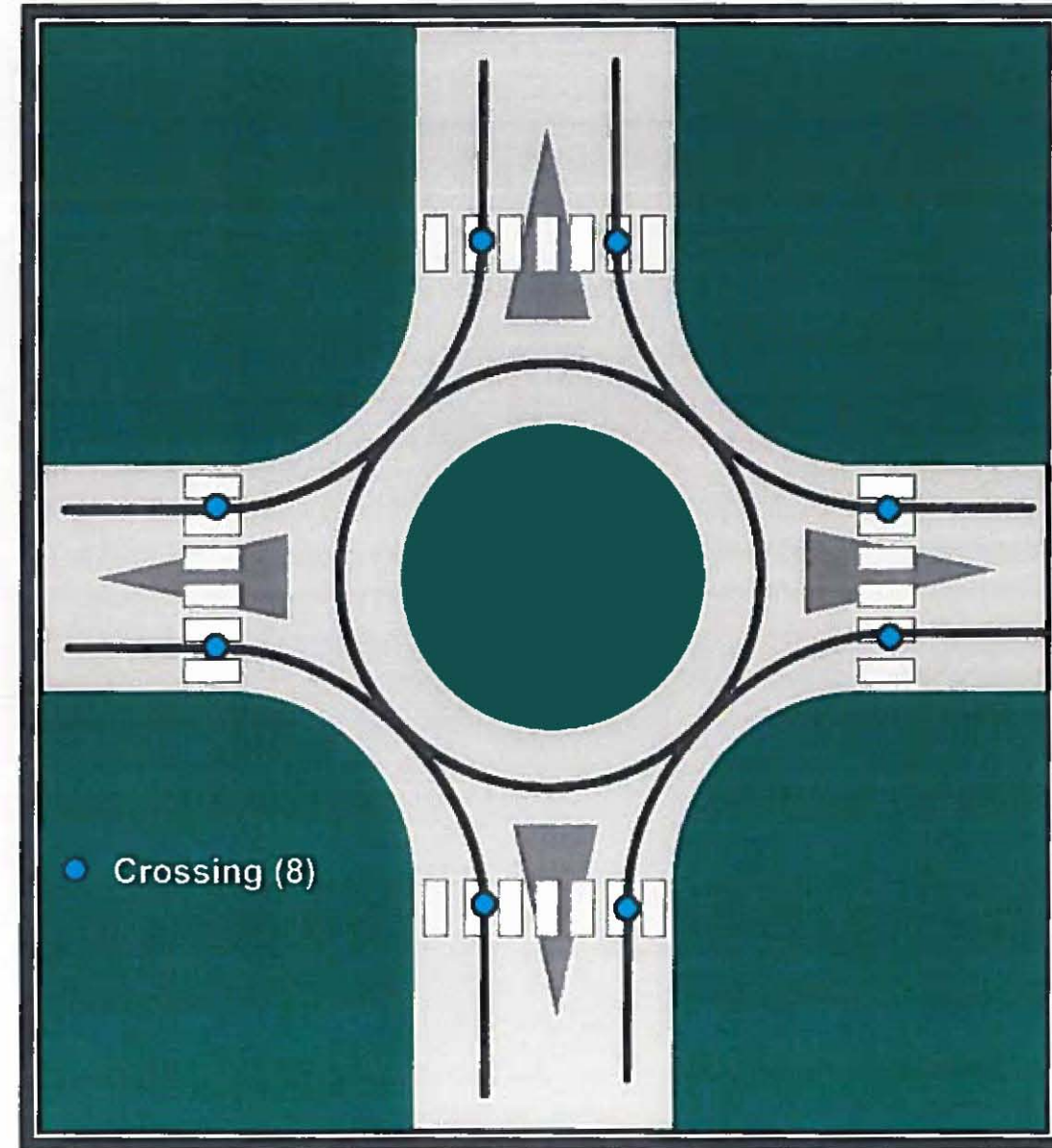
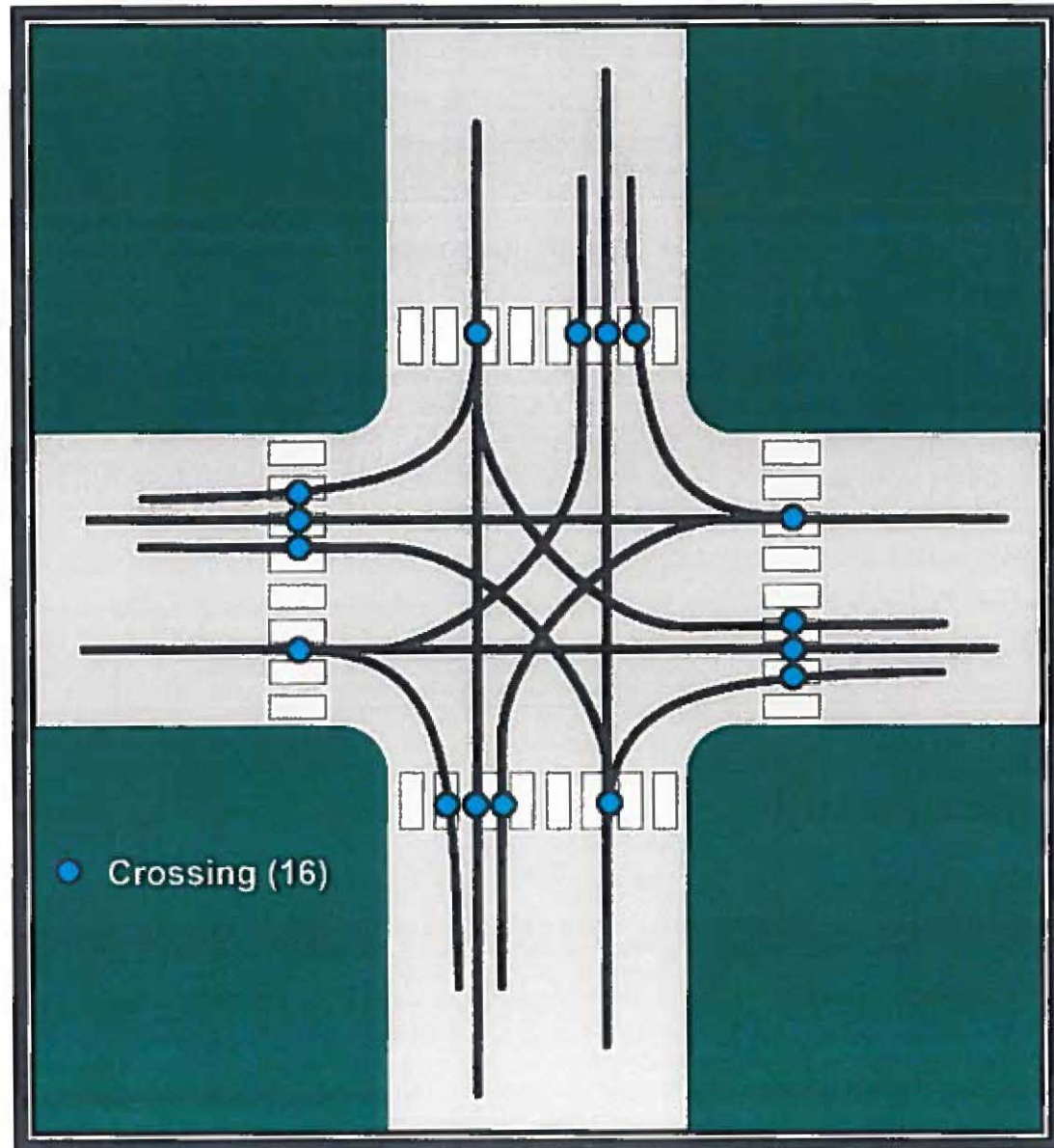
- Pedestrian considerations
  - Consider one direction of conflicting traffic at a time
  - Low vehicular speeds allow more time to react
- Bicyclist considerations
  - Can navigate roundabouts either as motor vehicles or pedestrians depending on the size of the intersection, traffic volumes, and their experience level



# Vehicle-Pedestrian Conflict Points

## 4-Leg Intersection

## Roundabout



## *Other Benefits of Roundabouts*



- Unlike a signalized intersection, roundabouts don't force drivers to stop when there is no traffic. Motorists are only required to stop when there is conflicting traffic.
- With fewer stops and hard accelerations, less time idling means reduced pollution and fuel use.
- They require no electronic operation, which results in operational cost savings and functional reliability.
- Complement other community values with quieter operation and are aesthetically more pleasing.
- Fact: In the past five years, there have been no fatal accidents at roundabouts in CDOT Region 3.



## Schedule to complete Roundabout



- Revise plans based on public comments from April 18, 2016 Open House
- Submit plans to Colorado Contractor's Association and Western Colorado Contractor's Association for constructability review; comment on construction phasing, closures, detour routes and length of construction
- Final Open House Summer/Fall 2016
- Incorporate Final Open House comments
- Obtain all Right-of-Way
- Advertise for Construction in 2017