

US 50 East Carson Complete Streets Study

2025



Agenda



- Study Overview
- Phase I Study Results
- Phase II Purpose
- Phase II Survey Results
- Intersection Treatments
- Previous Studies



Study Area



Corridor Goals



GOAL 1: Identify improvements that enhance safety for all corridor users.



GOAL 2: Plan and deliver roadway safety and traffic projects that meet the needs of local residents, commuters, freight, and business owners.



GOAL 3: Improve multimodal and non-motorized connections between residential areas, essential services, and recreational opportunities.



GOAL 4: Identify improvements that prioritize business access and economic development objectives while maintaining mobility.

Phase I Survey Results



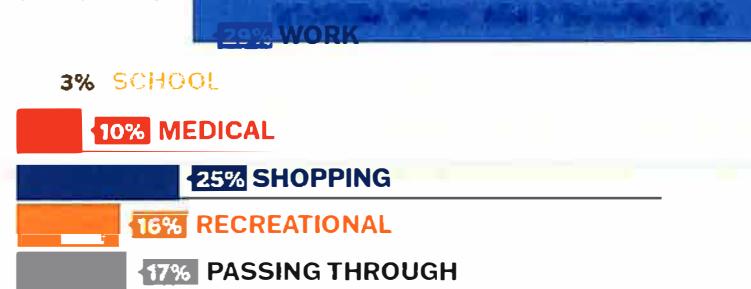
How often do you travel along the study area section of US 50?



When you travel along US 50, which mode(s) of transportation do you typically use?



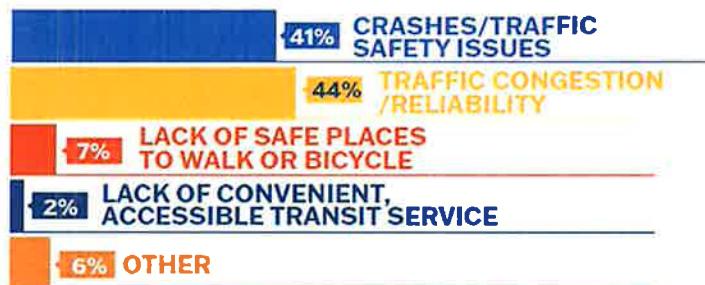
For which of the following trip purposes do you most often travel along the study area section of US 50?



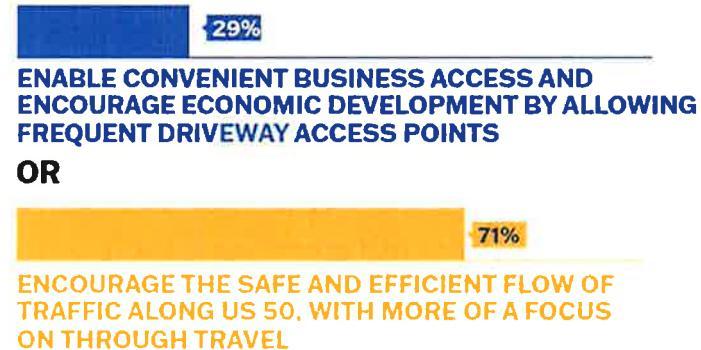
Phase I Survey Results



What do you think is currently the biggest problem on or along this section of US 50?



Do you think it is more important for US 50 to:



Issues Identified (Mound House)



- Three traffic fatalities in 2023-2024 (two between Highlands Drive and Newman Lane; one at Red Rock Road)
- Average crash rate on US 50 in Mound House is 117% higher than statewide average (source: NDOT)
- US 50 and Linehan Road is at LOS F during AM/PM peak
- US 50 and Highlands Drive is at LOS F during PM peak



Key Recommendations



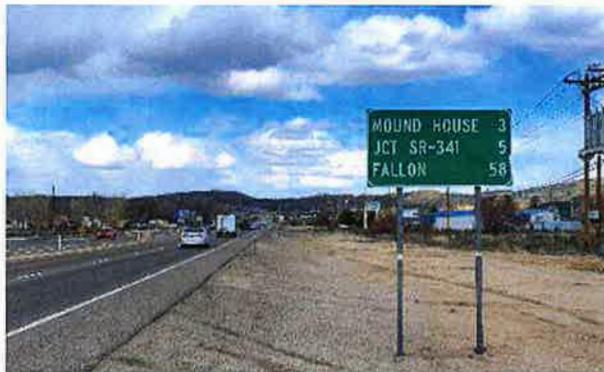
- **Roadway Segments**
 - ✓ High visibility striping, signage
 - ✓ Sidewalks and multiuse path connectivity
- **Signalized Intersections**
 - ✓ Pedestrian hybrid beacon
 - ✓ Intersection lighting
- **Speed Policy**
 - ✓ Changeable message signs for congestion alerts
 - ✓ Speed safety camera for data collection



Phase II Purpose



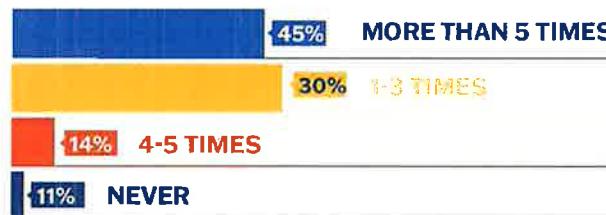
- Extend the study area to include the section of US 50 between Highlands Drive and US 341
- Conduct more detailed analysis about pedestrian, bicycle, and freight considerations
- Update or refine project recommendations from Phase I



Phase II Survey Results



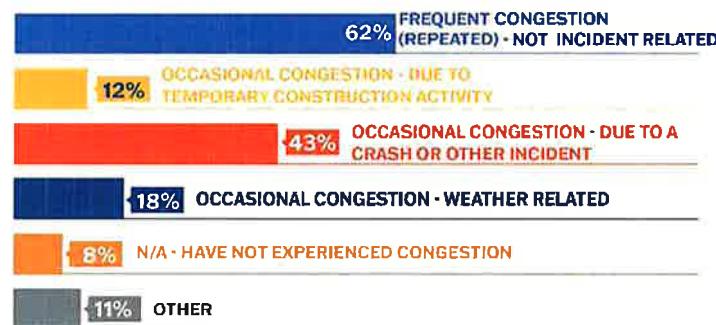
In the past six months, how often has traffic congestion along the study area section of US 50 impacted your ability to drive to destinations in a timely manner?



What time of day do you most often experience traffic congestion along the study area section of US 50?



If you have experienced traffic congestion on this section of US 50, what was the main cause?



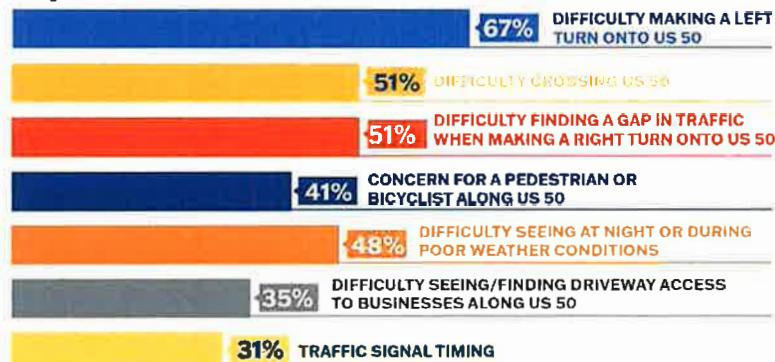
Phase II Survey Results



Which direction have you been traveling when you most often experience traffic congestion along the study area section of US 50?



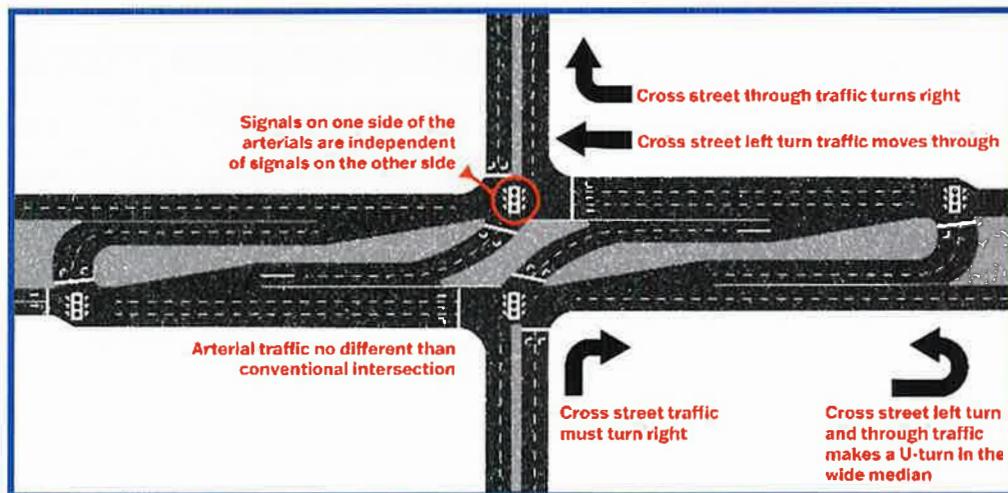
Which of the following issues have you experienced or have been a cause of concern?



Restricted Crossing U-turn (RCUT)



- Reduces conflict points and lowers the risk of severe crashes.
- Improves overall throughput.
- Large trucks may require additional turning space.
- May require additional crossings or pedestrian refuge islands.
- Works well on highways or major arterials with moderate to high speed limits.



Restricted Crossing U-turn (RCUT)



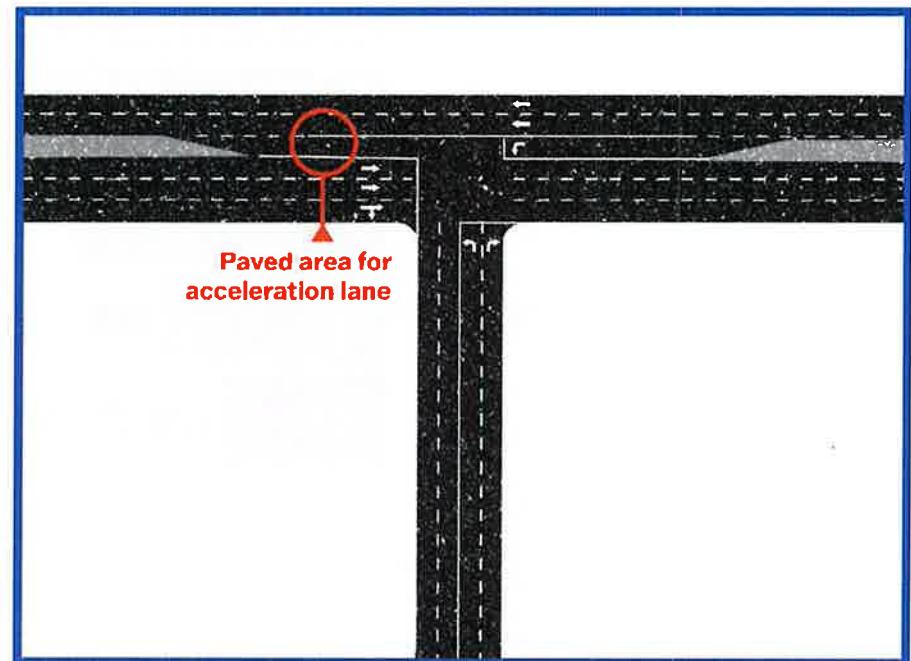
Would you be supportive of the implementation of RCUTs at select signalized or unsignalized intersections along the study area section of US 50?



Continuous Green T (CGT)



- Reduces delays and improves traffic flow.
- Improves safety by removing left-turn conflicts from the side street.
- Beneficial for freight movement.
- Pedestrians may experience longer wait times to cross.
- Moderate implementation cost.
- Best suited for T-intersections with high through volumes on the major road and lower side-street demand.



Continuous Green T (CGT)



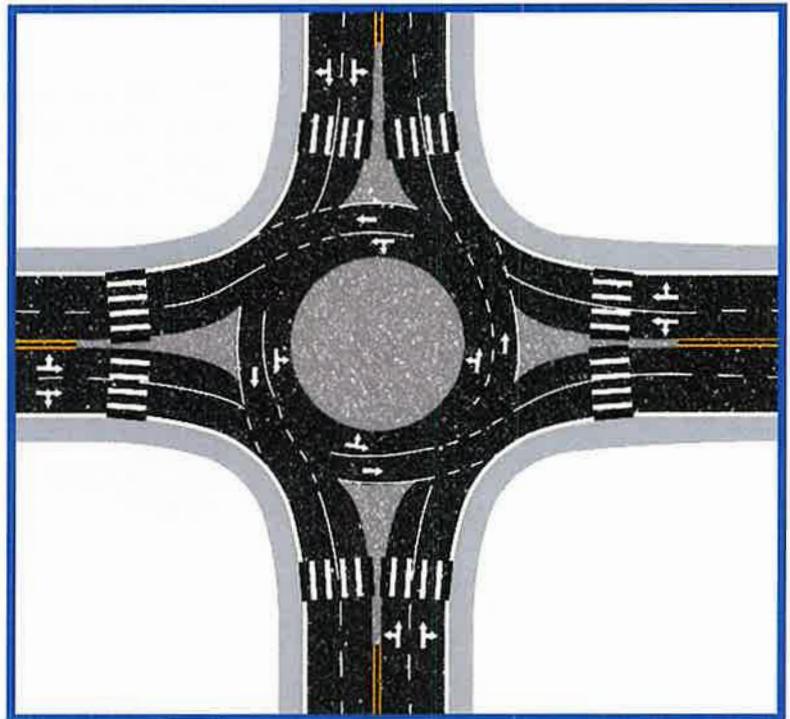
Would you be supportive of the implementation of CGTs at select signalized or unsignalized intersections along the study area section of US 50?



Roundabout



- Eliminates angle and head-on crashes and reduces crash severity.
- Reduces delays and queuing at many locations.
- Can accommodate freight with proper design.
- Provides safer pedestrian crossings.
- Higher upfront construction costs but lower long-term maintenance costs compared to signals.
- Ideal for intersections with balanced traffic volumes, where reducing speeds and improving safety is a priority.



Example: US 50 and USA Parkway



Roundabout



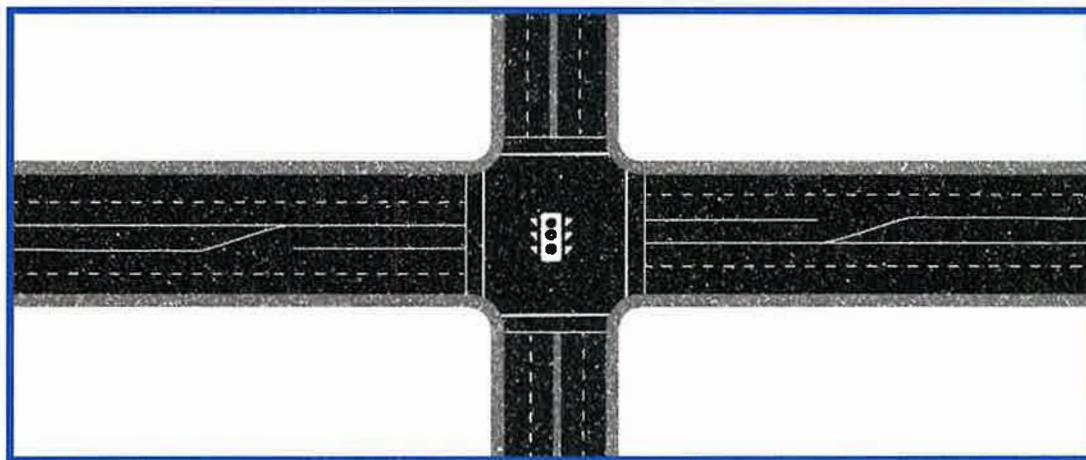
Would you be supportive of the implementation of roundabouts at select signalized or unsignalized intersections along the study area section of US 50?



Signalized Intersections



- Provides controlled movements for all users; requires signal warrant analysis.
- Can manage high traffic volumes and accommodate freight efficiently.
- Allows clear pedestrian crossing opportunities with dedicated signal phases.
- Higher implementation and maintenance costs.
- Best suited for locations with high traffic demand, complex turning movements, or multimodal needs.



Intersection Treatments



	Restricted Crossing U-turn (RCUT)	Continuous Green T (CGT)	Roundabout	Signalized Intersection (requires warrant analysis)
Safety	Proven Safety Countermeasure (PSC); reduces conflict points and severe crash types.	Not a PSC; reduces conflict points for vehicles.	PSC; reduces severe crashes due to lower speeds/fewer conflict points.	Can control conflicts; red-light running and high-speed crashes remain concerns.
Traffic Flow	Improves flow for major road but may add delay for minor road.	Maintains mainline traffic flow with minimal stops.	Maintains traffic flow without signal delay, but not ideal for high volume through traffic.	Efficient when well-timed, but delays can occur with heavy side street demand.
Truck Movement	Large trucks may require additional space for U-turns.	Benefits through-movement on the main road but may not improve side street access.	Large trucks require wider spacing or truck aprons.	Accommodates large vehicles effectively with appropriate design.
Ped/Bike Mobility	Crossings are indirect, and additional treatments may be needed.	Can be challenging for pedestrians/cyclists crossing the main road.	Slower speeds improve safety, but crossings can be indirect.	Long crossing times and turning conflicts can be problematic.
Implementation Cost	HIGH: Requires roadway modifications but lower than grade-separated options.	MEDIUM: Requires signal adjustments; less costly than full intersection redesigns.	HIGH: Requires full intersection reconstruction, additional ROW.	MEDIUM: Requires signals, poles, controllers, and maintenance

Previous Work – 2010 Study



Next Steps



- Final survey results
- Public meeting (April 30, 2025)
- Draft recommendations
- Final recommendations

