



ROAD SAFETY AUDIT: 2550 SOUTH IN WEBER COUNTY

5/26/2026

PREPARED FOR:



SUBMITTED BY:



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1. INTRODUCTION

Weber County, Utah submitted a request to the Wasatch Front Regional Council (WFRC) to conduct a Road Safety Audit along 2550 South. WFRC approved this request and retained METHODS Consulting as a third-party consultant to perform a Road Safety Audit with WFRC and staff from Weber County, including engineers and planners in November 2025. This report summarizes the existing conditions of the project area, observations made in the field, and short-, medium-, and long-term recommendations.

Road Safety Audit Definition

According to the Federal Highway Administration (FHWA), a **Road Safety Audit (RSA)** is a formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in safety for all road users.

Figure 1: Summary of What RSAs Are and Are Not

<u>RSAs are:</u>	<u>RSAs are not:</u>
♦ Focused on road safety ♦ A formal examination ♦ Proactive in nature ♦ Conducted by a multidisciplinary team ♦ Conducted by a team that is independent of the operations, design, or ownership of the facility ♦ Conducted by a qualified team ♦ Broad enough to consider the safety of all road users of the facility ♦ Qualitative in nature	♦ A means to evaluate the design of a facility ♦ A check of compliance with standards ♦ A means of ranking or justifying one project over another ♦ A means of rating one design option over another ♦ A redesign of a project ♦ A crash investigation (although the crash history of an existing facility is reviewed by an RSA team)

Road Safety Audit Meetings and Process

As noted above, the RSA process is conducted in accordance with FHWA guidelines. **Figure 2** outlines the steps involved in an RSA.

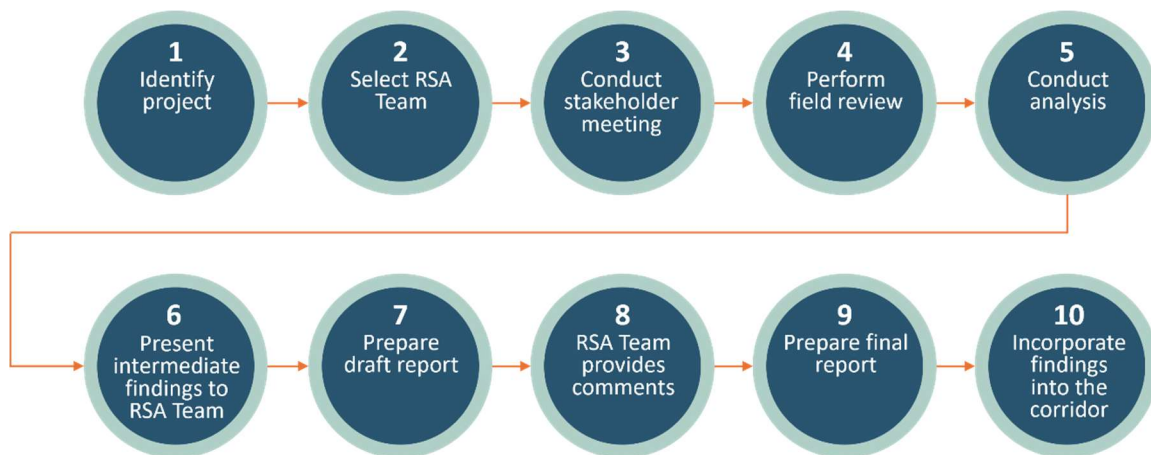


Figure 2: Key Steps in a Road Safety Audit

Stakeholders and points of contact participate throughout the process, particularly during key meetings. The kick-off meeting introduced concept of an RSA, its process, and the responsibilities of the point of contact. At the organization meeting, WFRC staff, METHODS staff, and the point of contact identified the following locations for the field review:

- 3500 West
- 4050 West
- 4300 West
- 4700 West

At the stakeholder meeting the RSA process was introduced, key features of the corridor were presented, and the plan for the field review was outlined. At the field review, observations were made at the locations outlined above. Key takeaways from the field review are included in the Appendix. The consultant team presented the identified key concerns and potential solutions at the intermediate meeting.

Project Team and Field Review

RSAs require an independent, qualified, and multidisciplinary team of experts. Team members should act independently of the project owner/design team and have the freedom, ability, and comfort to comment frankly on potentially controversial safety issues. Having a combination of skills and experience in different areas is also helpful to ensure the most critical aspects of the project are addressed¹.

The 2550 South RSA's team included 12 members, identified in Table 1 with the elements of the audit for which they were present. Erica Wygonik of METHODS Consulting was the RSA team leader.

¹ FHWA Road Safety Audit Guidelines, Publication No. FHWA-SA-06-06, page 27

Table 1: RSA Team Members and Attendance

Name	Agency	AM Peak Hour Review	Stakeholder Meeting	Field Review	PM Peak Hour Review	Intermediate Results Meeting
Ashley Thoman	Weber County		X	X		X
Gary Myers	Weber County		X	X		X
Joe Hadley	Weber County		X	X		
Charlie Ewert	Weber County		X	X		X
Rick Grover	Weber County		X	X		
Tyler Nielson	Gardner Engineering		X	X		X
Kip Billings	WFRC		X	X		
Fariba Soltani	WFRC		X	X		
Wayne Bennion	WFRC		X	X		X
Erica Wygonik (team leader)	METHODS (Consultant)	X	X	X	X	X
Ian MacGregor	METHODS (Consultant)	X	X	X		X
Dallas Wall	METHODS (Consultant)		X	X		

The team gathered for a stakeholder meeting at the Weber County office at 9:00 am on November 17, 2025, then held a field review, driving the corridor and making stops at key locations to discuss and observe together. METHODS also observed the corridor including specific observations at the intersections of 4300 West during West Field High School start and end times. After the formal field review was over, METHODS collected speed data and made additional observations throughout the corridor. Findings and analysis from these observations are included in this report.

Following the field review and additional observations, METHODS met with members of the RSA team to discuss a list of short-, medium-, and long-term recommendations to include in the final report.

2. PROJECT CONTEXT

The total length of the study corridor is the 1.5-mile segment between 3500 West and 4700 West. The project corridor is located to the west of I-15 and east of 4700 West (SR-134). 2550 South is an east-west road. It is a federal aid eligible road (3364)². Existing land uses adjacent to the study corridor are rural residential lots as well as medium to large residential lots closer to 3500 West. West Field High School is located to the north of 2550 South, along 4300 West. This area is anticipated to continue to be mostly residential. However, 13,200 housing units have been approved west of the corridor with

² Federal-aid eligible roads are roads the Federal-Aid Highway Program supports with financial assistance for the nation's highway network, which includes locally owned roads. <https://www.fhwa.dot.gov/federal-aidessentials/federalaid.cfm>

a 25 to 50-year build-out schedule. These units are expected to significantly increase traffic along the study corridor.

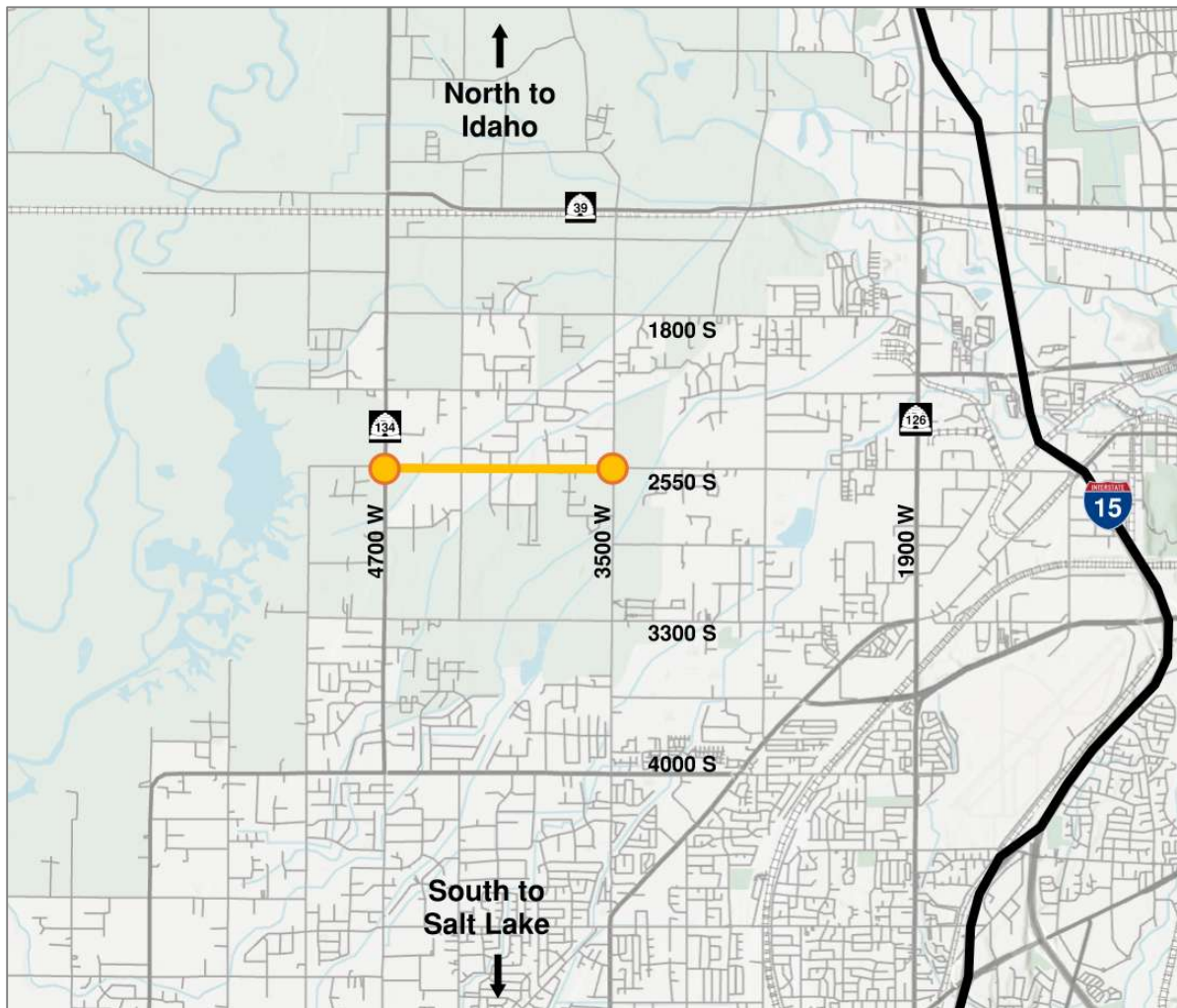


Figure 3: Project Location

Planned Improvements

There are currently plans to widen this road. The planned cross section is shown in [Figure 4](#).

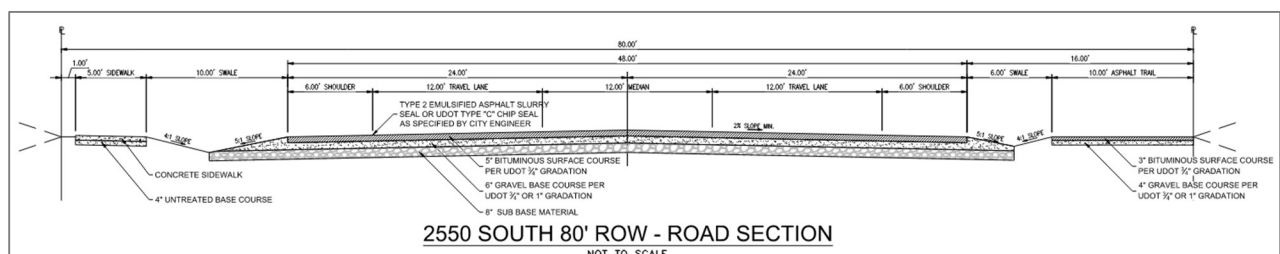


Figure 4: Planned 2550 South Cross Section

WFRC Comprehensive Safety Action Plan

The WFRC Comprehensive Safety Action Plan (CSAP) was completed in 2024. This plan presents strategies to reduce roadway fatalities and serious injuries in the WFRC region. 2550 South east of 3500 West was discussed in the CSAP. While this portion of 2550 South is not studied in this RSA, safety improvements were identified at the 2500 South & 3500 West intersection, which is part of this study. At that intersection, lighting and systemic low-cost countermeasure upgrades were recommended.

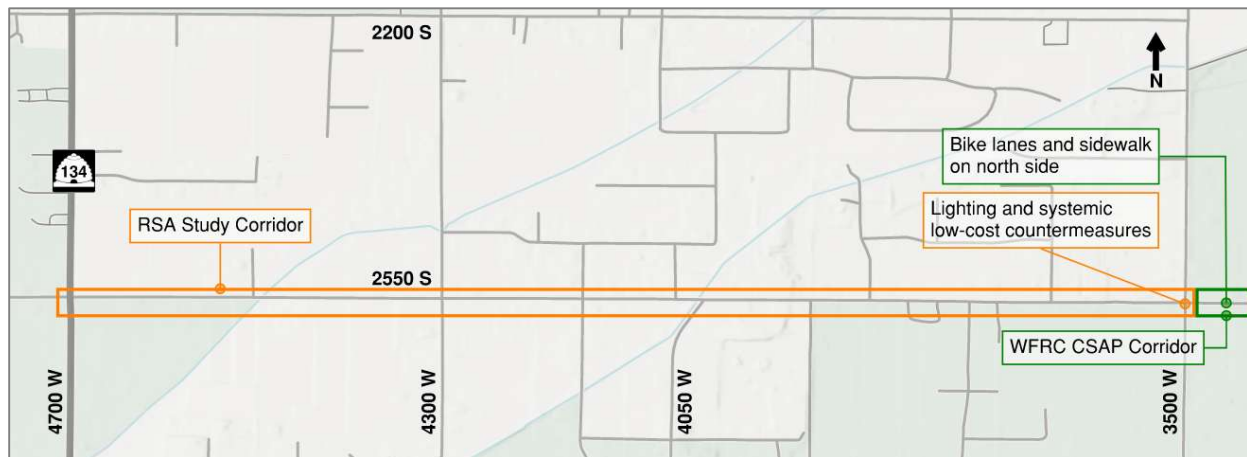


Figure 5: Safety Measures Identified in WFRC CSAP Proximate to the Study Corridor

3. EXISTING CONDITIONS

The study corridor is the 1.5-mile segment between 3500 West and 4700 West.

Roadway Cross Section

The typical cross section of the study corridor has one 10-foot travel lane in each direction, with no shoulders, curbs, or sidewalks. There are no turn lanes at any of the intersections, except for the intersection at 3500 West. At this intersection, 2550 South has a left turn lane and a shared through/right turn lane.

Volumes

The annual average daily traffic volume was reported as 6,500 vehicles per day in 2024. Volumes are higher near 4300 West as this roadway continues north to West Field High School. An all-way stop study was conducted at this intersection in November 2025. Counts for this study were completed in September 2025. Volumes from this study are shown in [Figure 6](#).

Key

XX (XX) – AM Peak Hour (PM Peak Hour)

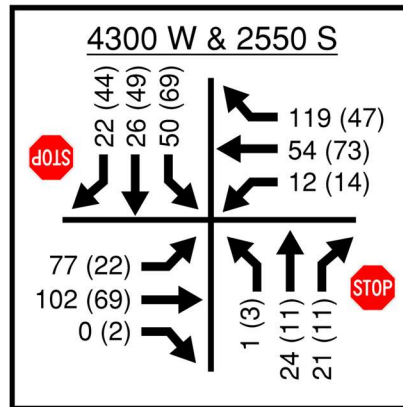


Figure 6: Traffic Counts at 4300 West & 2550 South (September 2025)

Speeds

The speed limit is 40 mph along 2550 South. Speed data was collected the day after the RSA west of 4300 South during free flow conditions outside of peak hours. The 85th percentile speed was **46 mph** in both the eastbound and westbound directions.

Crash Summary

Crash data was obtained from the UDOT Traffic and Safety Division. Crash data may be protected under 23 USC 407. A summary of crashes is shown in [Table 2](#) and [Figure 7](#). Data from the most recent complete five-year period (January 2020 to December 2024) was used. Crashes reported in 2025 and 2026 were also reviewed. Crashes reported in 2025 and 2026 may not be fully validated.

Table 2: Crash Data Summary

Year	All Crashes	
	Total	Severe (Fatal or Serious Injury)
2020	11	0
2021	10	1
2022	4	0
2023	4	0
2024	6	0
2025*	13	0
2026*	4	0
Total:	48	1

*2025 and 2026 crash data may not be fully validated



Figure 7: Crashes Along the Study Corridor

Notable Crash History Findings Along the Study Corridor

- ♦ 35 crashes were reported along 2550 South between 2020 and 2024.
- ♦ 15 crashes were reported at the 2550 South & 3500 West intersection, including eight angle crashes in 2020.
- ♦ 11 crashes were reported at the 2550 South & 4700 West intersection, including one serious injury crash.
 - The serious injury crash involved a westbound vehicle failing to yield to a stop sign and colliding with a northbound vehicle.
- ♦ No crashes have been reported involving pedestrians or bicyclists along this corridor.

4. FINDINGS AND MEASURES FOR CONSIDERATION

During the RSA stakeholder meeting and field review, the project team members discussed their collective knowledge and experience with the corridor, observed the corridor together at various stopping points, and identified possible improvements. The following sections summarize these findings and measures for consideration, backed by data after a summary of corridor-wide findings and measures for consideration. Measures for consideration are identified as **short-**, **medium-**, or **long-term**. Short-, medium- and long-term designations reflect the overall order of magnitude of the cost or logistical requirements to install a particular infrastructure. In some cases, funding or planning may already be available that would enable constructing treatments sooner. However, the classification in this report is independent of those resources and designed to classify according to typical construction timelines.

A summary map of all location-specific insights and issues is shown in **Figure 8**. Insights are not necessarily safety concerns, but observations or background information that inform recommended safety measures. Issues are safety concerns which the suggested measures intend to address.

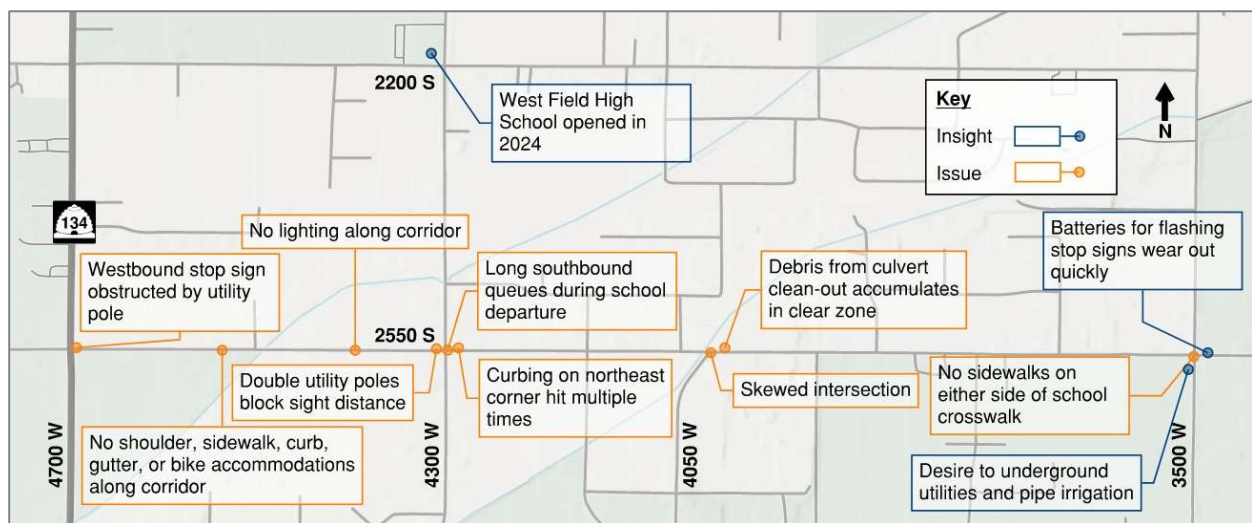


Figure 8: Insights and Issues Summary

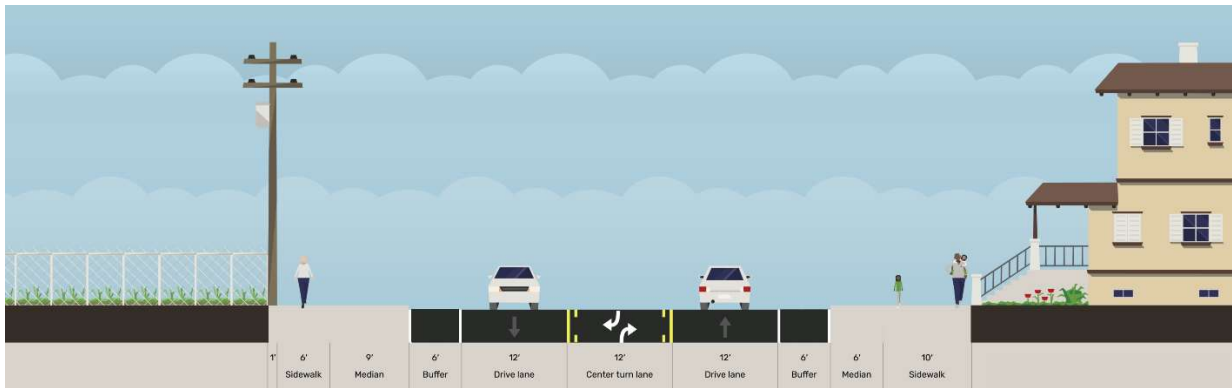
Corridor-Wide

Issue #1: 2550 South does not have shoulders, sidewalk, curb, or bicycle infrastructure.



Long-Term Measure: Continue with plans to add shoulders and sidewalks or paths as this roadway is built out.

Long-Term Measure: Considering adding curbing to design.



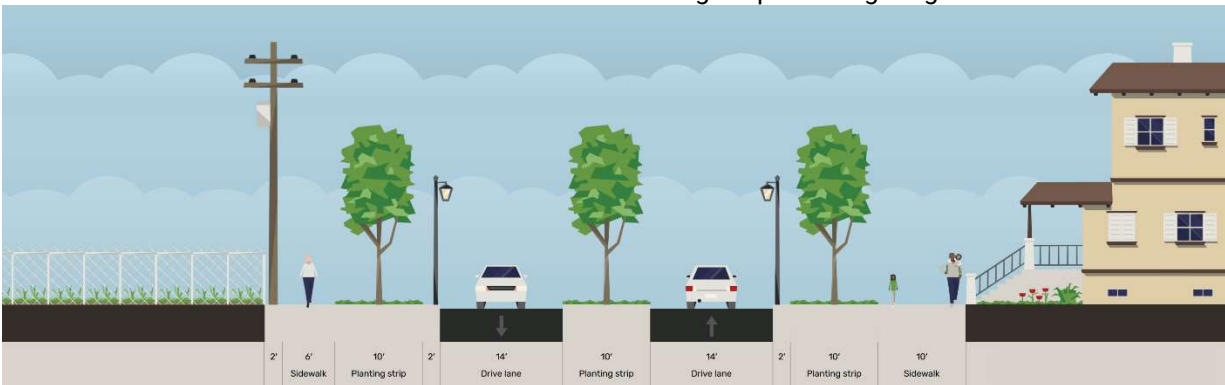
Planned Cross Section



Alternative Cross Section – Planting Strips



Alternative Cross Section – Planting Strips and Lighting



Alternative Cross Section – Planting Strips and Median

Figure 9: Planned and Alternative Cross Sections for 2550 South

Issue #2: Corridor is dark

Medium-Term Measure: Add lighting, particularly at intersections, while taking surrounding homes into consideration

Issue #3: Cross streets along the corridor are unexpected.

Short-Term Measure: Install stop bars on the minor legs

Short-Term Measure: Remove passing zones, replace with double yellow striping

Issue #4: There are speeding concerns on the corridor.

Short-Term Measure: Install driver feedback signs

3500 West

Insight: There is a desire to replace the open ditches on 3500 West with piped irrigation.

Issue #1: The school crosswalk on the west leg of the intersection does not have sidewalks on either side of the roadway.



Short-Term Measure: Remove school crosswalk striping

Long-Term Measure: Install receiving sidewalks on either side of the road as development fills in, with crosswalks as appropriate.

Issue #2: Batteries on LED Stop signs are wearing out quickly.

Short-Term Measure: Budget for sign and light maintenance.

Short-Term Measure: Consider stop ahead signs.

Long-Term Measure: Consider a roundabout at this location.

Issue #3: There is no lighting at this intersection.

Medium-Term Measure: Add lighting, particularly at intersections, while taking surrounding homes into consideration.

Issue #4: The street sign on the northeast corner of the intersection has been hit.



Short-Term Measure: Replace street sign

Long-Term Measure: Consider widening the turn radius for westbound left turn vehicles to accommodate larger trucks.

4050 West

Issue #1: 4050 West intersects 2550 South at a skew.

Short-Term Measure: Install low-cost countermeasures to warn drivers of skew and upcoming intersection.

Short-Term Measure: Install stop bars.

Long-Term Measure: Consider aligning 4050 West and 4045 West.

Issue #2: Debris from culvert clean-out accumulates in the clear zone.

Short-Term Measure: Regularly remove debris from culvert clean-out

Short-Term Measure: Prune landscaping, decrease the amount of debris

Issue #3: There is no lighting at this intersection.

Medium-Term Measure: Add lighting, particularly at intersections, while taking surrounding homes into consideration

Issue #4: The culvert constrains the road width at this location.

Long-Term Measure: Widen the culvert as the road is widened.

4300 West

Insight: During school departure, southbound queues are long at this intersection.



Issue #1: There is no lighting at this intersection.

Medium-Term Measure: Add lighting, particularly at intersections, while taking surrounding homes into consideration

Issue #2: Homeowner on northeast corner has installed landscape rocks to separate yard from the roadway. Curbing on the northeast corner has been hit multiple times.

Long-Term Measure: Increase turning radius for this movement.

Issue #3: The utility pole on the northwest corner of this intersection is a double pole.



Long-Term Measure: Consolidate utility poles

Issue #4: There are no stop bars at the intersection.

Short-Term Measure: Install stop bars on the minor street approaches.

4700 West

Issue #1: There is no stop bar on the 2550 South approach to this intersection.

Short-Term Measure: Install stop bars on the minor street approaches.

Issue #2: The stop sign for the westbound approach is obstructed by the power pole when approaching the intersection.



Short-Term Measure: Implement low-cost countermeasures for stop-controlled intersections such as installing a stop bar on the 2550 South approach as well as double stop signs.

Short-Term Measure: Relocate stop sign so it is not obstructed by utility pole.

Benefit-Cost Analysis

The following tables show the cost estimate, expected crash reduction, and benefit-cost ratio of each improvement. These are high-level estimates, based on the best available information. Cost estimates rely on current unit costs, available project estimates, or estimates from similar projects.

METHODS estimated the safety costs in the study area using both predictive modeling and the observed crash data. The estimates relied on the observed crash history unless the crash history was relatively limited. In those instances, the values from the predictive modeling were used. When predictive modeling was used, AADTs were developed using UDOT 2024 AADT information, estimated from turning movements, or estimated from similar roads or surrounding land use. In both cases, crash modification factors (CMFs) from the Utah CMF database, the WFRCSAP, and CMF Clearinghouse were applied to each measure when there was an applicable equivalent countermeasure. Not all measures have an equivalent countermeasure for various reasons. The lower the CMF, the greater reduction in crashes a countermeasure is expected to produce.

The following table summarizes the improvements with their CMF, cost estimate, and benefit-cost ratio. A benefit-cost ratio (B/C) above 1 means the benefit of a countermeasure is greater than the cost of that countermeasure. The benefit values used to determine the final B/C ratio are based on a 20-year analysis. The cost of a countermeasure is factored based on its service life. Complete calculations for each improvement are included in the Appendix.

Table 3: Benefit-Cost Analysis³

ID	Location	Measure	CMF	20-Year Benefit	20-Year Cost	Benefit-Cost Ratio (B/C)
SHORT TERM						
S-1	Corridor Wide	Install stop bars on the minor legs	0.950	\$1,300,000	\$5,000	260.00
S-2	Corridor Wide	Remove passing zones, replace with double yellow striping	0.917	\$5,945,000	\$16,000	371.56
S-3	Corridor Wide	Driver feedback signs	0.950	\$1,300,000	\$210,000	6.19
S-4	3500 W	Remove school crosswalk striping	Compliance issue			
S-5	3500 W	Budget for sign and LED maintenance	0.933	\$535,000	\$63,000	8.49
S-6	3500 W	Consider stop ahead signs	0.950	\$371,000	\$16,000	23.19
S-7	3500 W	New street signage	0.902	\$800,000	\$11,000	72.73
S-8	4050 W	Low-cost countermeasures (Double stop signs, stop ahead signs & striping, LED flashers)	0.90	\$119,000	\$100,000	1.19
S-9	4050 W	Install stop bars on the minor legs	0.950	\$60,000	\$200	300.00
S-10	4050 W	Regularly remove culvert cleanout debris	0.996	\$4,500	\$31,000	0.15
S-11	4050 W	Prune landscaping to maintain sight lines	0.890	\$131,000	\$15,000	8.73
S-12	4300 W	Install stop bars on the minor legs	0.950	\$351,000	\$200	1755.00
S-13	4700 W	Low-cost countermeasures (Double stop signs, stop ahead signs & striping, LED flashers)	0.900	\$1,678,000	\$100,000	16.78
MEDIUM TERM						
M-1	Corridor Wide	Lighting	0.957	\$1,317,000	\$461,000	2.86
M-2	3500 W	Intersection lighting	0.982	\$268,000	\$50,000	5.36
M-3	4050 W	Intersection lighting	0.982	\$22,000	\$50,000	0.44
M-4	4300 W	Intersection lighting	0.982	\$129,000	\$50,000	2.58
LONG TERM						
L-1	Corridor Wide	Continue with plans to add shoulder, sidewalks and path	0.849	\$6,300,000	\$9,500,000	0.66
L-2	Corridor Wide	Considering adding curbing to design	0.890	\$2,863,000	\$634,000	4.52
L-3	3500 W	Install sidewalks as development fills in	0.994	\$48,000	\$92,000	0.52
L-4	3500 W	Consider a single lane roundabout	0.313	\$5,100,000	\$2,989,000	1.71
L-5	3500 W	Increasing westbound right turn radius	0.998	\$11,000	\$392,000	0.03
L-6	4050 W	Realign intersection into 4045 W	0.800	\$239,000	\$1,500,000	0.16
L-7	4050 W	Widen culvert	0.849	\$180,000	\$540,000	0.33
L-8	4300 W	Increase westbound right turn radius	0.998	\$11,000	\$288,000	0.04
L-9	4300 W	Consolidate utility poles on northwest corner	0.866	\$944,000	\$19,000	49.68

³ Lower CMFs indicate a countermeasure is expected to result in a larger reduction in crashes.

5. RECOMMENDATIONS

The following summarizes recommendations based on known operations, safety, and geometry along the study corridor and the preliminary evaluation of the measures described above.

Table 4: Recommendations

ID	Location	Measure	Recommended?	Details
SHORT TERM				
S-1	Corridor Wide	Install stop bars on the minor legs	Yes	-
S-2	Corridor Wide	Remove passing zones, replace with double yellow striping	Yes	-
S-3	Corridor Wide	Driver feedback signs	Yes	-
S-4	3500 W	Remove school crosswalk striping		Compliance issue
S-5	3500 W	Budget for sign and LED maintenance	Yes	-
S-6	3500 W	Consider stop ahead signs	Yes	-
S-7	3500 W	New street signage	Yes	-
S-8	4050 W	Low-cost countermeasures (Double stop signs, stop ahead signs, LED flashers, stop ahead striping)	Yes	-
S-9	4050 W	Install stop bars on the minor legs	Yes	-
S-10	4050 W	Regularly remove culvert cleanout debris	Not at this time	B/C < 1 Assumes removing debris 2x/year
S-11	4050 W	Prune landscaping to maintain sight lines	Yes	-
S-12	4300 W	Install stop bars on the minor legs	Yes	-
S-13	4700 W	Low-cost countermeasures (Double stop signs, stop ahead signs, LED flashers, stop ahead striping)	Yes	-
MEDIUM TERM				
M-1	Corridor Wide	Lighting	Yes	-
M-2	3500 W	Intersection lighting	Yes	-
M-3	4050 W	Intersection lighting	Not at this time	B/C < 1
M-4	4300 W	Intersection lighting	Yes	-
LONG TERM				
L-1	Corridor Wide	Continue with plans to add shoulder, sidewalks and path	Yes	B/C will depend on the final cross section. The B/C in Table 3 is based on current cross section plan
L-2	Corridor Wide	Considering adding curbing to design	Yes	-
L-3	3500 W	Install sidewalks as development fills in	As possible	B/C < 1 Having developers pay for sidewalks will lower B/C
L-4	3500 W	Consider a single lane roundabout	Yes	-
L-5	3500 W	Increase westbound right turn radius	Not at this time	B/C < 1
L-6	4050 W	Realign intersection into 4045 W	Not at this time	B/C < 1
L-7	4050 W	Widen culvert	Yes	-
L-8	4300 W	Increase westbound right turn radius	Not at this time	B/C < 1
L-9	4300 W	Consolidate utility poles on northwest corner	Yes	-

6. APPENDIX

A: Summary of Issues

B: Detailed Benefit-Cost Calculation Table

APPENDIX A: Summary of Issues

The following list of issues are a compilation of the project team's observations during the RSA field review on November 17, 2025, the experience of City officials, and the crash history and volumes discussed in the Existing Conditions.

Entire Corridor

- 10' lanes in each direction
- No shoulder
- No Sidewalk/curb/bicycle accommodations
- No lighting – corridor feels dark
- 40 MPH speed limit
- Currently and in more rural parts there is horse activity; transitions to bicyclists and joggers as area is more developed
- Wider shoulders good for agricultural traffic and tractors
- Planned to be widened this spring
 - 12' lanes, 12' TWLTL, 6' shoulders, sidewalk on south, path on north
 - Are 6' shoulders necessary if AT infrastructure is available?
- Include West Haven in conversations

3500 W

- School crosswalk on west side doesn't have receiving infrastructure
 - Crosswalk on east side has been removed
- No intersection lighting
 - Any solutions should be sensitive to proximate homes
- Would love to place utilities underground and pipe irrigation if funding was available
- Someone clipped northeast corner sign
- 40 mph on both roads
- Some open ditches
- Active cyclists on 3500 W (trail for casual riders, bike lanes for bikers)
- Part of bike lane was meant for horses
- Batteries for flashing lights on stop signs are wearing out more quickly than expected
- Advanced warning for stop signs – retroreflective poles

4050 W

- 4050 W has a skew approach
 - Long term consider aligning 4050 and 4045
 - 4050 is a dead-end (except 2750 South connects to 4150 West up to 2500 South)
- Culvert constrains road width
- Debris from culvert clean-out accumulates in the clear zone
- If canal was piped, future ROW would allow a trail on the surface.
- Culvert will be widened ahead of irrigation season
- No intersection lighting

4300 W

- New high school (opened fall 2024) is located to the north along 4300 W, current AADT estimates were done before high school opened
- Southbound queues are long during school departure
- Minor legs are stop-controlled; 4-way stop is under evaluation.
- 4300 W will have a north/south walking trail long-term.
 - They try to keep trails on north and east side (so north side of 2500 and east side of 4300 W)
- Northeast curbing has been hit multiple times (homeowner installed)
- Northwest house will be taken long term. 4 parcels left to negotiate ROW for Phase 1: including brown & red houses
- The utility pole on the northwest corner is doubled.
- Northeast quadrant uses large landscape rocks to separate the yard from the roadway.
- No intersection lighting.

4700 W

- 4700 W is a UDOT road SR-134, and is a higher speed, higher volume road.
- 4700 W CHECK FUTURE PLAN FOR TRAIL/PATHWAY
- 4700 W is a 2-lane road, can only be built out to a 5-lane cross section.
- 2550 S on the west side of this intersection serves as a cut-through/bypass, and carries more traffic than the land use would suggest.
- Speeding observed on eastbound 2550 S coming up from 5100 W
- Northeast corner may be a future church house (LDS owns ~14 acres)
- Trees on the southeast corner are potentially a sight distance issue (in the field this did not look like an issue).

- One luminaire on power pole.
- Further west a new development with 13,200 units is approved with a 25-50 year build out.
 - The development must make improvements if the 2550 S intersection degrades below LOS C
 - 2550 will go over the river before the West Davis corridor goes in

Appendix B: Detailed Benefit-Cost Calculation Table

			CMF							Predicted					Observed							
ID	Location	Measure	Fatal	SI	Minor Injury	Possible Injury	PDO	Overall CMF	Type	Cost per crash	# of Crashes	# w/ Treatment	Crashes avoided	Annual Crash Costs	Safety Benefit per Year	Fatal	SI	Minor Injury	Possible Injury	PDO	# of Crashes	Fatal w/ Treatment
SHORT TERM																						
S-1	Corridor Wide	Install stop bars on the minor legs	0.95	0.95	0.95	0.95	0.95	0.95	2U	\$274,067	4.60	4.37	0.23	\$1,259,887	\$62,994	0.00	0.20	1.00	1.80	4.00	7.00	0.00
S-2	Corridor Wide	Remove passing zones, replace with double yellow striping	1.00	0.76	0.76	0.76	1.00	0.92	2U	\$274,067	4.60	4.21	0.38	\$1,259,887	\$104,742	0.00	0.20	1.00	1.80	4.00	7.00	0.00
S-3	Corridor Wide	Driver feedback signs	0.95	0.95	0.95	0.95	0.95	0.95	2U	\$274,067	4.60	4.37	0.23	\$1,259,887	\$62,994	0.00	0.20	1.00	1.80	4.00	7.00	0.00
S-4	3500 W	Remove school crosswalk striping	More of a compliance issues																			
S-5	3500 W	Budget for sign and LED maintenance	0.90	0.90	0.90	0.90	0.95	0.93	4aST	\$266,561	1.87	1.74	0.13	\$498,469	\$33,592	0.00	0.00	0.40	0.80	1.80	3.00	0.00
S-6	3500 W	Consider stop ahead signs	0.95	0.95	0.95	0.95	0.95	0.95	4aST	\$266,561	1.87	1.78	0.09	\$498,469	\$24,923	0.00	0.00	0.40	0.80	1.80	3.00	0.00
S-7	3500 W	New street signage	1.00	0.85	0.85	0.85	0.93	0.90	4aST	\$266,561	1.87	1.69	0.18	\$498,469	\$48,658	0.00	0.00	0.40	0.80	1.80	3.00	0.00
S-8	4050 W	Low-cost countermeasures	0.90	0.90	0.90	0.90	0.90	0.90	3ST	\$112,452	0.71	0.64	0.07	\$80,290	\$8,029	0.00	0.00	0.00	0.00	0.20	0.20	0.00
S-9	4050 W	Install stop bars on the minor legs	0.95	0.95	0.95	0.95	0.95	0.95	3ST	\$112,452	0.71	0.68	0.04	\$80,290	\$4,015	0.00	0.00	0.00	0.00	0.20	0.20	0.00
S-10	4050 W	Regularly remove culvert cleanout debris (clear zone)	1.00	1.00	1.00	1.00	1.00	1.00	3ST	\$112,452	0.71	0.71	0.00	\$80,290	\$305	0.00	0.00	0.00	0.00	0.20	0.20	0.00
S-11	4050 W	Prune landscaping (sight line/clear zone)	0.89	0.89	0.89	0.89	0.89	0.89	3ST	\$112,452	0.71	0.64	0.08	\$80,290	\$8,832	0.00	0.00	0.00	0.00	0.20	0.20	0.00
S-12	4300 W	Install stop bars on the minor legs	0.95	0.95	0.95	0.95	0.95	0.95	4ST	\$186,804	2.53	2.40	0.13	\$472,241	\$23,612	0.00	0.00	0.00	0.20	0.40	0.60	0.00
S-13	4700 W	Low-cost countermeasures	0.90	0.90	0.90	0.90	0.90	0.90	4ST	\$186,804	2.79	2.51	0.28	\$521,744	\$52,174	0.00	0.20	0.40	0.40	0.80	1.80	0.00
MEDIUM TERM																						
M-1	Corridor Wide	Lighting	0.95	0.95	0.95	0.95	0.96	0.96	2U	\$274,067	4.60	4.40	0.20	\$1,259,887	\$53,988	0.00	0.20	1.00	1.80	4.00	7.00	0.00
M-2	3500 W	Intersection lighting	0.95	0.95	0.95	0.95	1.00	0.98	4aST	\$266,561	1.87	1.84	0.03	\$498,469	\$9,154	0.00	0.00	0.40	0.80	1.80	3.00	0.00
M-3	4050 W	Intersection lighting	0.95	0.95	0.95	0.95	1.00	0.98	3ST	\$112,452	0.71	0.70	0.01	\$80,290	\$1,474	0.00	0.00	0.00	0.00	0.20	0.20	0.00
M-4	4300 W	Intersection lighting	0.95	0.95	0.95	0.95	1.00	0.98	4ST	\$186,804	2.53	2.48	0.05	\$472,241	\$8,672	0.00	0.00	0.00	0.20	0.40	0.60	0.00
LONG TERM																						
L-1	Corridor Wide	Continue with plans to add shoulder, sidewalks and path (add shoulders/widen roadway)	0.62	0.75	0.75	0.75	0.90	0.85	2U	\$274,067	4.60	3.90	0.69	\$1,259,887	\$189,876	0.00	0.20	1.00	1.80	4.00	7.00	0.00
L-2	Corridor Wide	Considering adding curbing to design	0.89	0.89	0.89	0.89	0.89	0.89	2U	\$274,067	4.60	4.09	0.51	\$1,259,887	\$138,588	0.00	0.20	1.00	1.80	4.00	7.00	0.00
L-3	3500 W	Install sidewalks as development fills in	0.99	0.99	0.99	0.99	0.99	0.99	4aST	\$266,561	1.87	1.86	0.01	\$498,469	\$3,240	0.00	0.00	0.40	0.80	1.80	3.00	0.00
L-4	3500 W	Consider a roundabout at this location (single lane)	0.13	0.13	0.13	0.13	0.41	0.31	4aST	\$266,561	1.87	0.58	1.29	\$498,469	\$342,640	0.00	0.00	0.40	0.80	1.80	3.00	0.00
L-5	3500 W	Increasing WB RT radius	1.00	1.00	1.00	1.00	1.00	1.00	4aST	\$266,561	1.87	1.87	0.00	\$498,469	\$758	0.00	0.00	0.40	0.80	1.80	3.00	0.00
L-6	4050 W	Realign intersection into 4045 W	0.80	0.80	0.80	0.80	0.80	0.80	3ST	\$112,452	0.71	0.57	0.14	\$80,290	\$16,058	0.00	0.00	0.00	0.00	0.20	0.20	0.00
L-7	4050 W	Widen culvert (adding shoulder)	0.62	0.75	0.75	0.75	0.90	0.85	3ST	\$112,452	0.71	0.61	0.11	\$80,290	\$12,100	0.00	0.00	0.00	0.00	0.20	0.20	0.00
L-8	4300 W	Increasing WB RT radius	1.00	1.00	1.00	1.00	1.00	1.00	4ST	\$186,804	2.53	2.52	0.00	\$472,241	\$718	0.00	0.00	0.00	0.20	0.40	0.60	0.00
L-9	4300 W	Consolidate utility poles on NW corner	0.87	0.87	0.87	0.87	0.87	0.87	4ST	\$186,804	2.53	2.19	0.34	\$472,241	\$63,469	0.00	0.00	0.00	0.20	0.40	0.60	0.00

Appendix B: Detailed Benefit-Cost Calculation Table

ID	Location	Measure	SI w/ Treatment	Minor Injury w/ Treatment	Possible Injury w/ Treatment	PDO w/ Treatment	# w/ Treatment	Crashes Avoided	Annual Crash Costs	Annual Crash Cost w/ Treatment	Safety Benefit per Year	20-year analysis period, 3% rate	Cost	Service Life (Years)	20-year Cost	Benefit-Cost Ratio (B/C)
SHORT TERM																
S-1	Corridor Wide	Install stop bars on the minor legs	0.19	0.95	1.71	3.80	6.65	0.35	\$1,749,440	\$1,661,968	\$87,472	\$1,300,000	\$1,000	3	\$5,000	260.00
S-2	Corridor Wide	Remove passing zones, replace with double yellow striping	0.15	0.76	1.37	4.00	6.28	0.72	\$1,749,440	\$1,349,830	\$399,610	\$5,945,000	\$3,000	3	\$16,000	371.56
S-3	Corridor Wide	Driver feedback signs	0.19	0.95	1.71	3.80	6.65	0.35	\$1,749,440	\$1,661,968	\$87,472	\$1,300,000	\$40,000	3	\$210,000	6.19
S-4	3500 W	Remove school crosswalk striping														
S-5	3500 W	Budget for sign and LED maintenance	0.00	0.36	0.72	1.71	2.79	0.21	\$378,700	\$342,729	\$35,971	\$535,000	\$12,000	3	\$63,000	8.49
S-6	3500 W	Consider stop ahead signs	0.00	0.38	0.76	1.71	2.85	0.15	\$378,700	\$359,765	\$18,935	\$371,000	\$3,000	3	\$16,000	23.19
S-7	3500 W	New street signage	0.00	0.34	0.68	1.67	2.69	0.31	\$378,700	\$324,933	\$53,767	\$800,000	\$2,000	3	\$11,000	72.73
S-8	4050 W	Low-cost countermeasures	0.00	0.00	0.00	0.18	0.18	0.02	\$4,220	\$3,798	\$422	\$119,000	\$19,000	3	\$100,000	1.19
S-9	4050 W	Install stop bars on the minor legs	0.00	0.00	0.00	0.19	0.19	0.01	\$4,220	\$4,009	\$211	\$60,000	\$40	3	\$200	300.00
S-10	4050 W	Regularly remove culvert cleanout debris (clear zone)	0.00	0.00	0.00	0.20	0.20	0.00	\$4,220	\$4,204	\$16	\$4,500	\$2,000	1	\$31,000	0.15
S-11	4050 W	Prune landscaping (sight line/clear zone)	0.00	0.00	0.00	0.18	0.18	0.02	\$4,220	\$3,756	\$464	\$131,000	\$1,000	1	\$15,000	8.73
S-12	4300 W	Install stop bars on the minor legs	0.00	0.00	0.19	0.38	0.57	0.03	\$51,520	\$48,944	\$2,576	\$351,000	\$40	3	\$200	1755.00
S-13	4700 W	Low-cost countermeasures	0.18	0.36	0.36	0.72	1.62	0.18	\$1,127,760	\$1,014,984	\$112,776	\$1,678,000	\$19,000	3	\$100,000	16.78
MEDIUM TERM																
M-1	Corridor Wide	Lighting	0.19	0.95	1.71	3.85	6.69	0.31	\$1,749,440	\$1,660,949	\$88,491	\$1,317,000	\$370,000	15	\$461,000	2.86
M-2	3500 W	Intersection lighting	0.00	0.38	0.76	1.80	2.94	0.06	\$378,700	\$360,710	\$17,990	\$268,000	\$40,000	15	\$50,000	5.36
M-3	4050 W	Intersection lighting	0.00	0.00	0.00	0.20	0.20	0.00	\$4,220	\$4,220	\$0	\$22,000	\$40,000	15	\$50,000	0.44
M-4	4300 W	Intersection lighting	0.00	0.00	0.19	0.40	0.59	0.01	\$51,520	\$49,245	\$2,275	\$129,000	\$40,000	15	\$50,000	2.58
LONG TERM																
L-1	Corridor Wide	Continue with plans to add shoulder, sidewalks and path (add shoulders/widen roadway)	0.15	0.75	1.35	3.61	5.86	1.14	\$1,749,440	\$1,326,249	\$423,191	\$6,300,000	\$9,500,000	20	\$9,500,000	0.66
L-2	Corridor Wide	Considering adding curbing to design	0.18	0.89	1.60	3.56	6.23	0.77	\$1,749,440	\$1,557,002	\$192,438	\$2,863,000	\$634,000	20	\$634,000	4.52
L-3	3500 W	Install sidewalks as development fills in	0.00	0.40	0.79	1.79	2.98	0.02	\$378,700	\$376,238	\$2,462	\$48,000	\$92,000	20	\$92,000	0.52
L-4	3500 W	Consider a roundabout at this location (single lane)	0.00	0.05	0.10	0.74	0.89	2.11	\$378,700	\$59,865	\$318,835	\$5,100,000	\$3,500,000	25	\$2,989,000	1.71
L-5	3500 W	Increasing WB RT radius	0.00	0.40	0.80	1.80	3.00	0.00	\$378,700	\$378,124	\$576	\$11,000	\$225,000	10	\$392,000	0.03
L-6	4050 W	Realign intersection into 4045 W	0.00	0.00	0.00	0.16	0.16	0.04	\$4,220	\$3,376	\$844	\$239,000	\$1,500,000	20	\$1,500,000	0.16
L-7	4050 W	Widen culvert (adding shoulder)	0.00	0.00	0.00	0.18	0.18	0.02	\$4,220	\$3,807	\$413	\$180,000	\$540,000	20	\$540,000	0.33
L-8	4300 W	Increasing WB RT radius	0.00	0.00	0.20	0.40	0.60	0.00	\$51,520	\$51,442	\$78	\$11,000	\$165,000	10	\$288,000	0.04
L-9	4300 W	Consolidate utility poles on NW corner	0.00	0.00	0.17	0.35	0.52	0.08	\$51,520	\$44,596	\$6,924	\$944,000	\$15,000	15	\$19,000	49.68