





Addressing Bike Lane Obstructions and HB 290

An Implementation Guide for Local Governments



BikeUtah

WFRC ATC Meeting
August 12, 2025

AGENDA

- Why are bike lanes important?
 - Bike Lane Obstructions
 - HB 290 Bicycle Lane Safety Amendments
 - Recent Examples
-

Why are bike lanes important?



Bike Lane Benefits

SAFETY

Reduces vehicle-cyclist collisions by 30-49%.

PREDICTABILITY

Reduces confusion and improves traffic flow.

TRAFFIC CALMING

Reduces vehicle speeds by narrowing the road.



Bike Lane Benefits

MODE SHIFT

Increases bike commuting by 21-171%.

ENVIRONMENT

Lowers emissions and improves air quality.

ECONOMY

Cyclists shop and spend more than drivers.

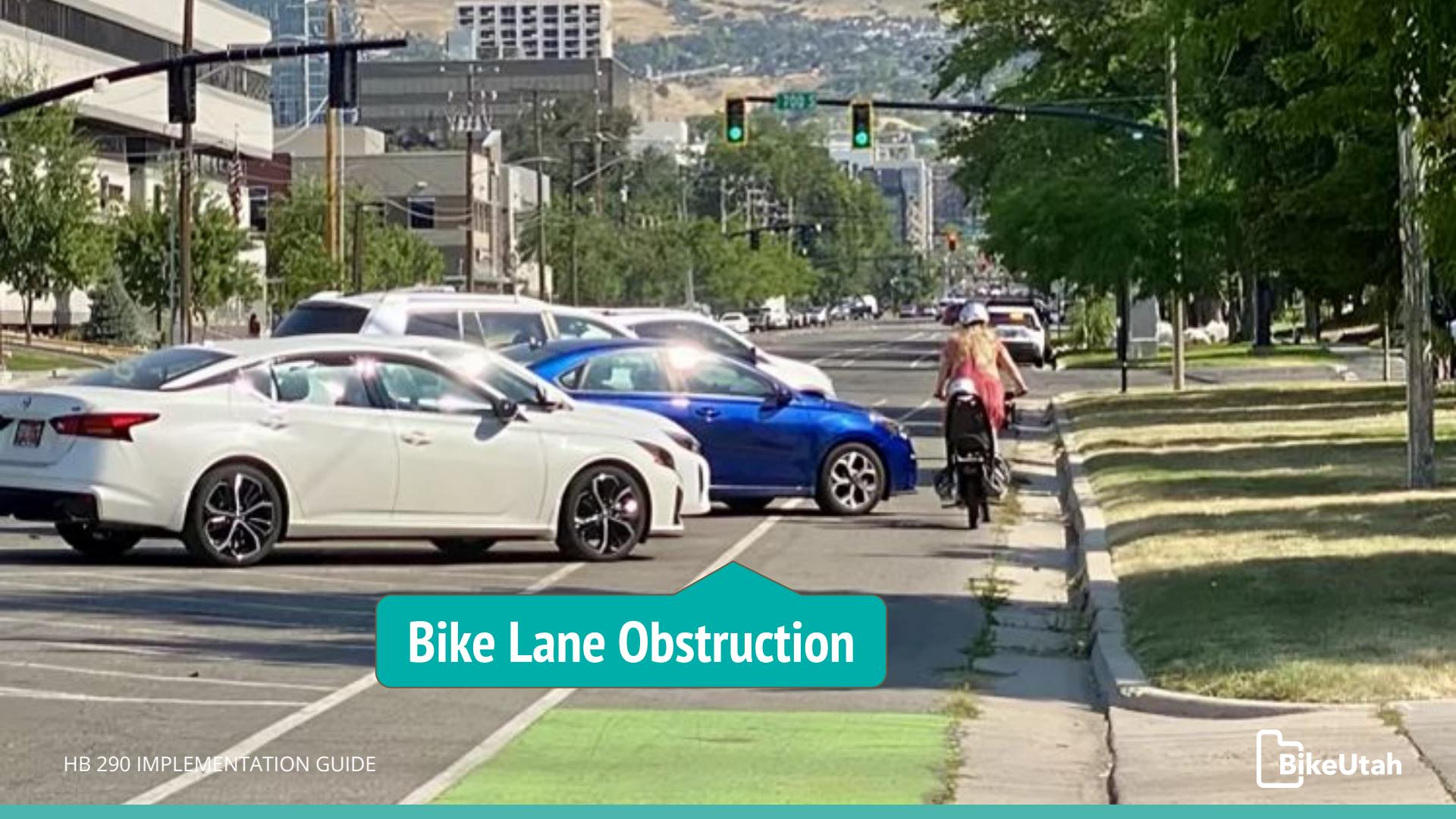




Bike Lane Obstructions



Bike Lane Obstruction



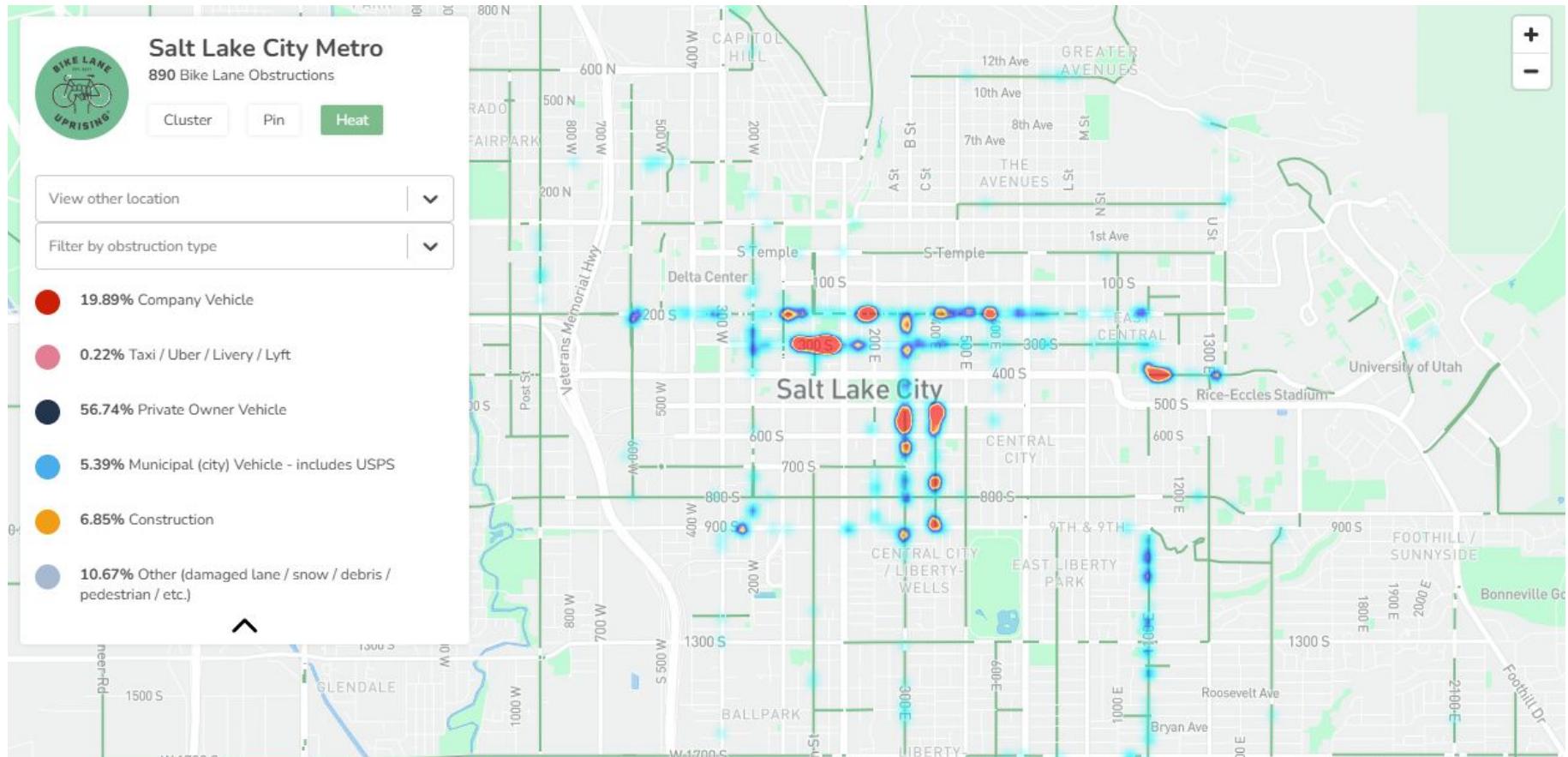
Bike Lane Obstruction



Bike Lane Obstruction



Bike Lane Obstruction





HB 290 Bicycle Lane Safety Amendments

HB 290 IMPLEMENTATION GUIDE

What does HB 290 do?

- 🚫 Prohibits **parking or driving** within a bike lane (with exceptions).
- During **road construction**, requires a highway authority to minimize the obstruction or provide a detour.
- ✓ Passed 61-10 in the House, 16-8 in the Senate



Bill sponsor:
Rep. Verona Mauga

Purposes of the bill

- ✓ **Encourage better design:** Motivate cities to design better bike lanes and to be more intentional about street parking.
- ✓ **Educate drivers:** Inform drivers about bike lane safety and where not to park.
- ✓ **Reduce liability:** Provide liability protection for cyclists when forced into traffic because of parked vehicles.
- ✗ **Punitive enforcement:** The goal is safe street design, not widespread ticketing or surveillance.

Implementation Tips



Start with education:

Use social media and warning tickets to inform residents why blocked bike lanes are dangerous.



Install targeted signs:

Place “No Parking - Bike Lane” signs where confusion or enforcement is likely.



Implementation Tips



Design for self-enforcement:

Avoid placing bike lanes directly against the curb without a physical buffer, so drivers don't mistake the bike lane for parking.



Redesign problem areas:

Identify commonly blocked bike lanes, then redesign them to reduce violations.



Recent Examples

Education



sojopolice · Follow

sojopolice 12w Did you know both SoJo Municipal Code and state law make parking in a marked bike lane illegal?

We've had several complaints related to this and we are hoping to educate those who regularly park in these areas. Some of you may have already received our warning flyers on your windshield...

betterutah 12w Thanks for keeping our cyclists safe! ❤️

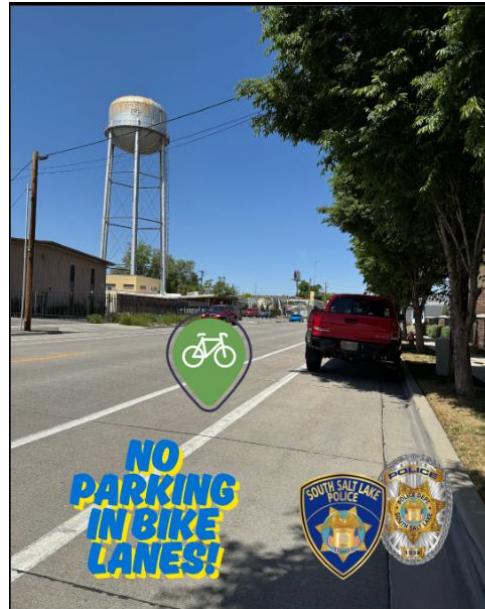
Reply

pistol_pete_spt 12w No one should be able to workout on the road! Go ride your bike safely in the mountains, or on the

61 likes

May 7

Add a comment...



southsaltlakepolicedepartment · Follow

southsaltlakepolicedepartment 12w Keep Bike Lanes Clear!

A new slew of state laws went into effect this week, including the amendments to HB290, which aim to improve bicycle safety by making it illegal to park or stop a vehicle in a bike lane. Drivers are still permitted to temporarily cross into a bicycle lane when turning into an intersection, street, alley, driveway, or other parking area.

Make sure you keep bike lanes clear when parking on the street or you may end up with a ticket!

#police #SSLPD #traffic #bicycle #bikelane

20 likes

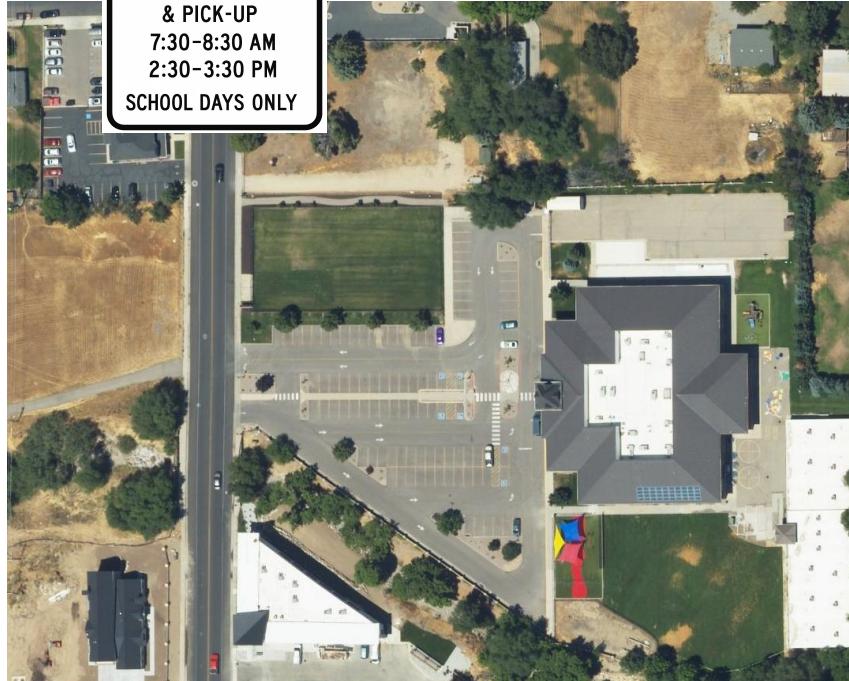
May 9

Add a comment...

School Pick-Up/Drop-Off

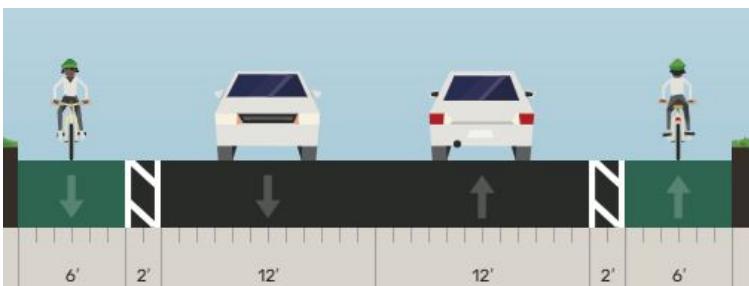


Mountainville Academy - Alpine



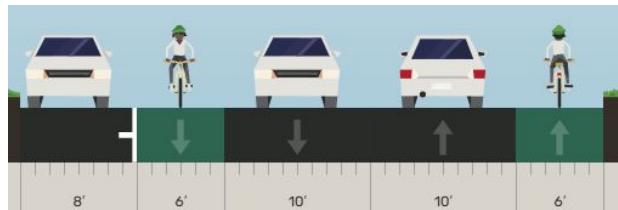
2300 E - Cottonwood Heights

Existing design

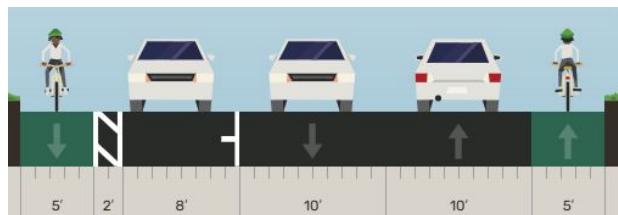


Proposed design

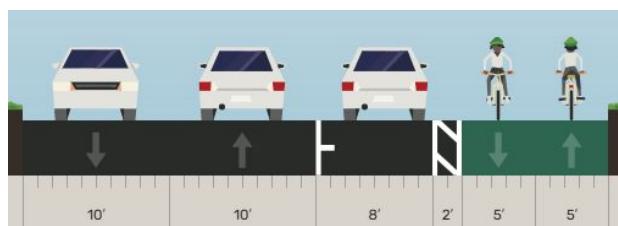
Option #1



Option #2



Option #3





Need help?

Contact info@bikeutah.org for free technical assistance with preliminary bike lane design and conflicts.

WEST JORDAN



RESIDENTIAL TRAFFIC CALMING PLAN

WFRC Presentation

Aug 8th, 2025



Project Team Key Staff



WJ Project Mgr – **Krista Riester, PE**



Consultant Project Mgr – **Kirby Snideman, AICP**



Research Lead – **Shaunna Burbidge, PhD**



Decision Matrix Lead – **Rob Eldredge, AICP**



Implementation Lead – **Kevin Croshaw, PE**



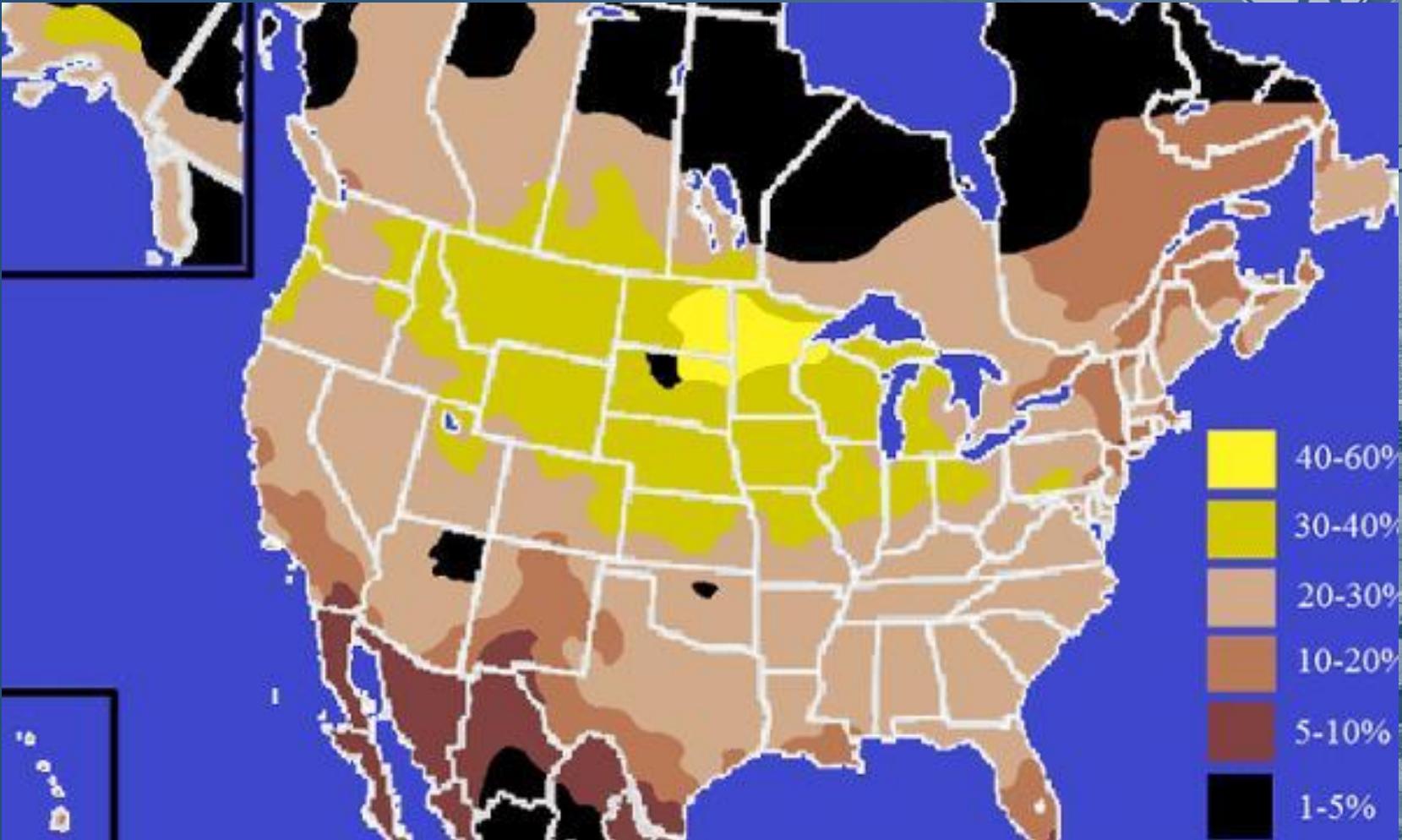
AT Design Lead – **Blair Tomten, PE**



WRFC Project Mgr – **Marcia White**



Project Team Key Staff





Project Overview

1. Research Traffic Calming Solutions
2. Create a Toolbox & Decision Matrix
3. Test the Matrix on WJ selected neighborhoods
4. Update Neighborhood Traffic Management Program (NTMP)



Speed Involved Crashes

Speed Involved Crashes

2019-2023

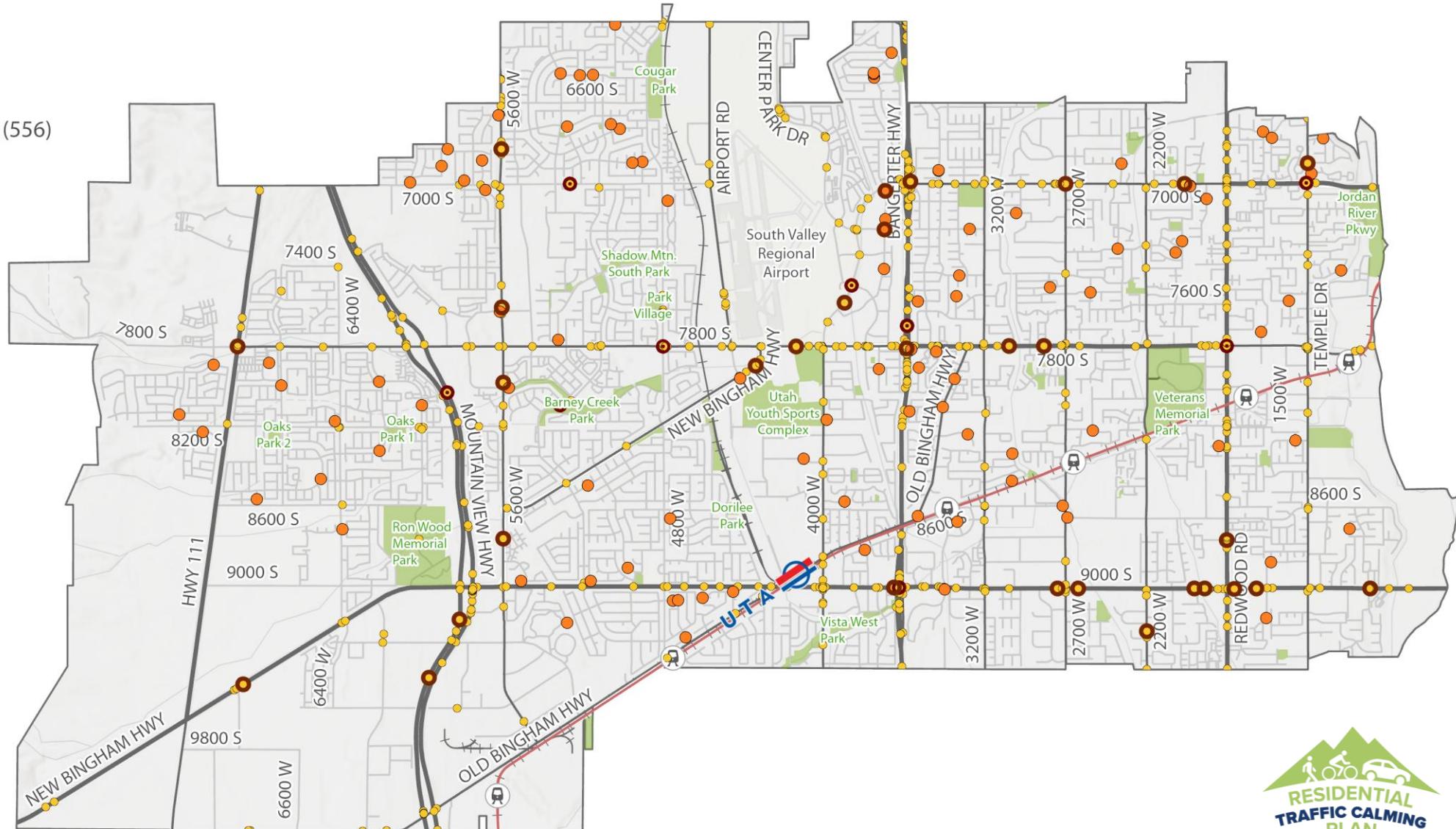
- Functionally Classified Roads (556)
- Local Roads (102)

Crash Severity

- Suspected Serious Injury (30)
- Fatal (9)

Street # Crashes

Street	# Crashes
PLAZA CENTER DR	5
DIXIE DR	4
3420 W	2
BANQUET AVE	2
CAMELOT WAY	2
GRANADA HILLS DR	2
OLD BINGHAM HWY	2



Bicycle & Pedestrian Crashes

Bicycle & Pedestrian Crashes
2019 - 2023

Functionally Classified Roads

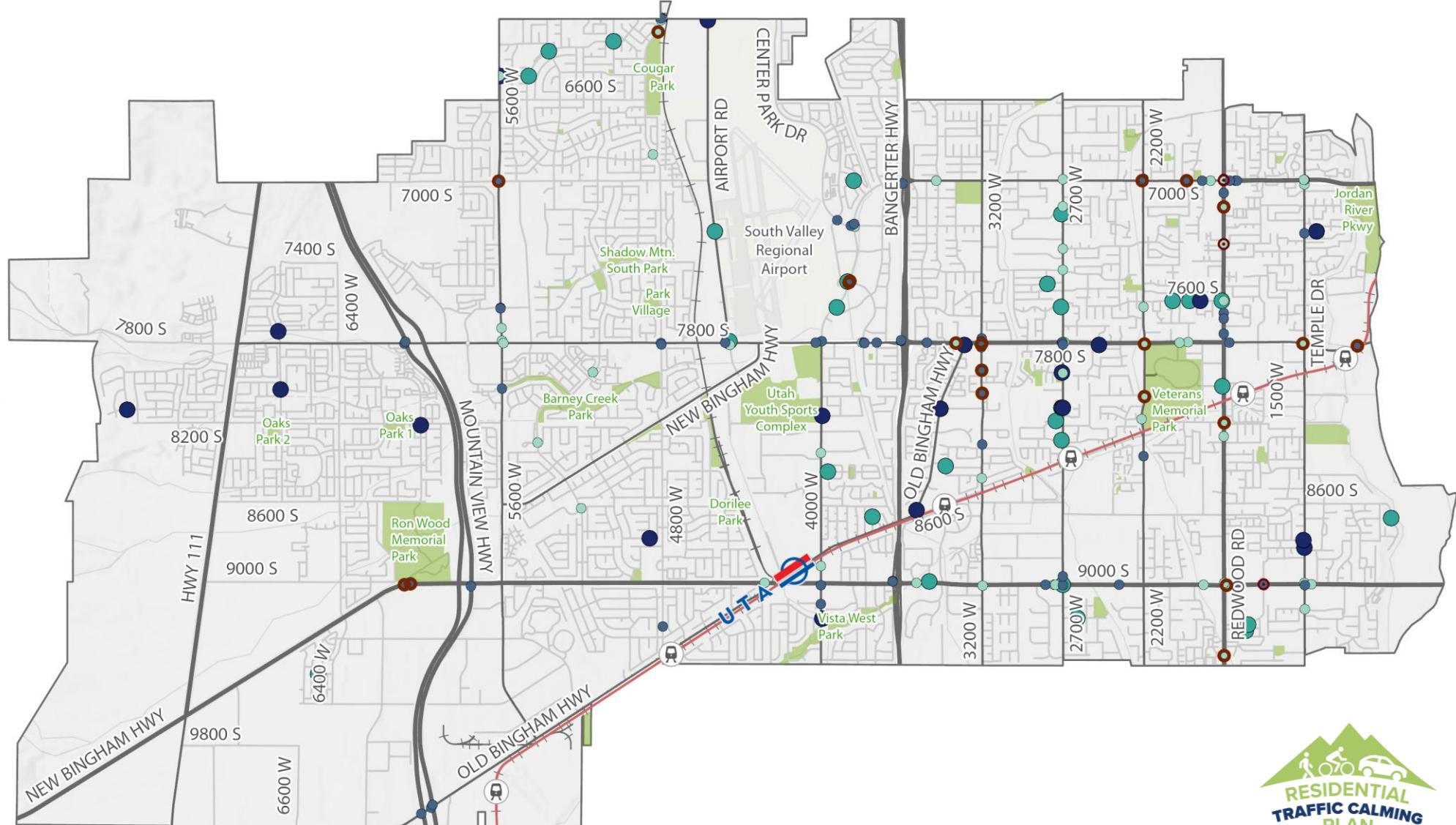
- Pedestrian Involved (80)
- Bicycle Involved (63)

Local Roads

- Pedestrian Involved (29)
- Bicycle Involved (20)

Crash Severity

- Suspected Serious Injury (21)
- Fatal (3)



Existing Traffic Calming Infrastructure

- ## ■ Roundabouts (21)

- ## ■ Roundabout Splitter Island (121)

- ## ■ Raised Medians (142)

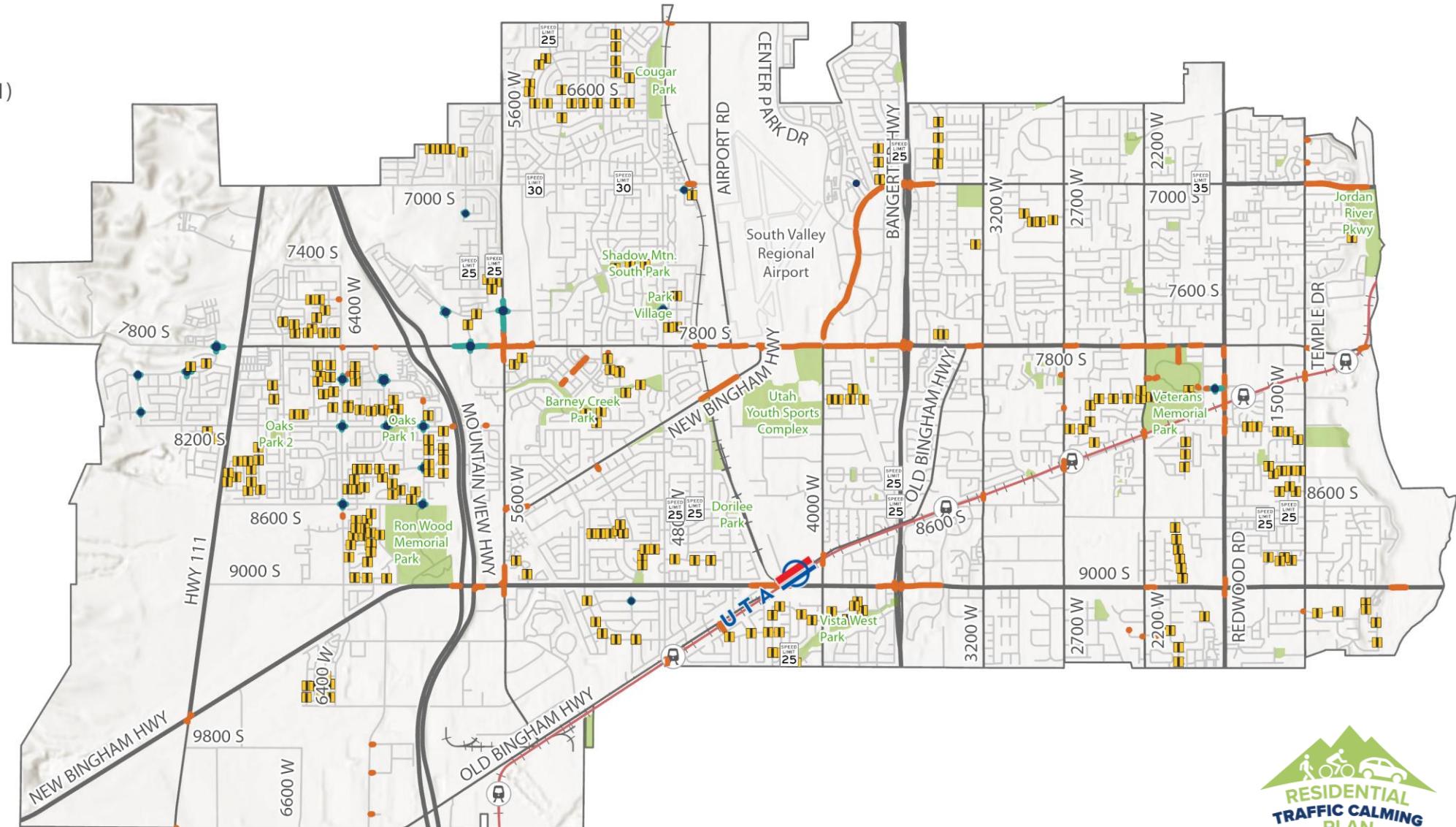
- ## █ Speed Bumps (257)

Driver Feedback Signs

- Posted 25 mph (11)

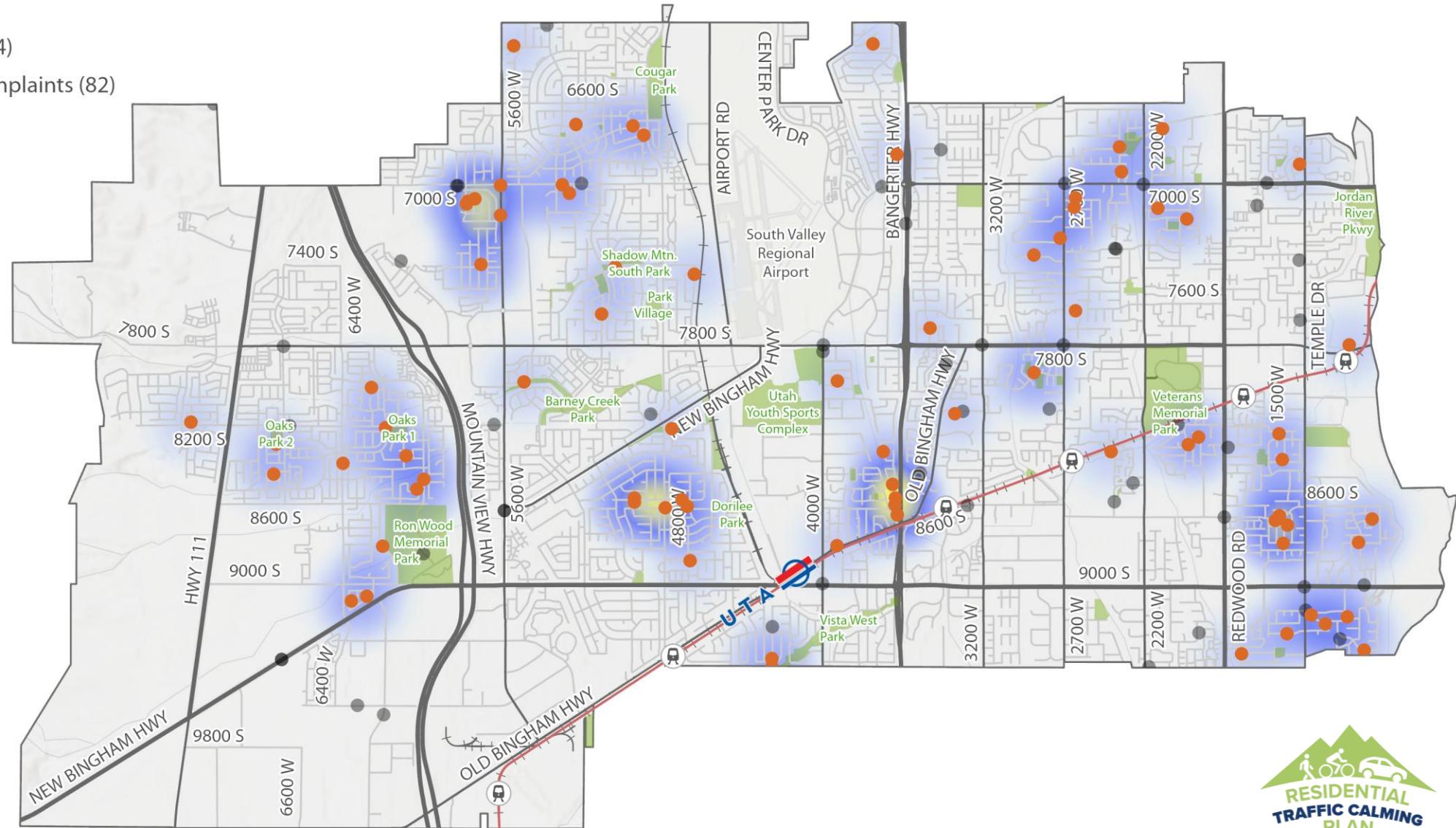
- Posted 30 mph (2)

- Posted 35 mph (1)



Traffic Speed Complaints/Requests

- All Requests/Complaints (134)
- Speed Related Requests/Complaints (82)
- Fewer Requests
- More Requests



Infrastructure vs Requests

■ Roundabouts (21)

■ Roundabout Splitter Island (121)

■ Raised Medians (142)

■ Speed Bumps (257)

Driver Feedback Signs

■ SPEED LIMIT 25 Posted 25 mph (11)

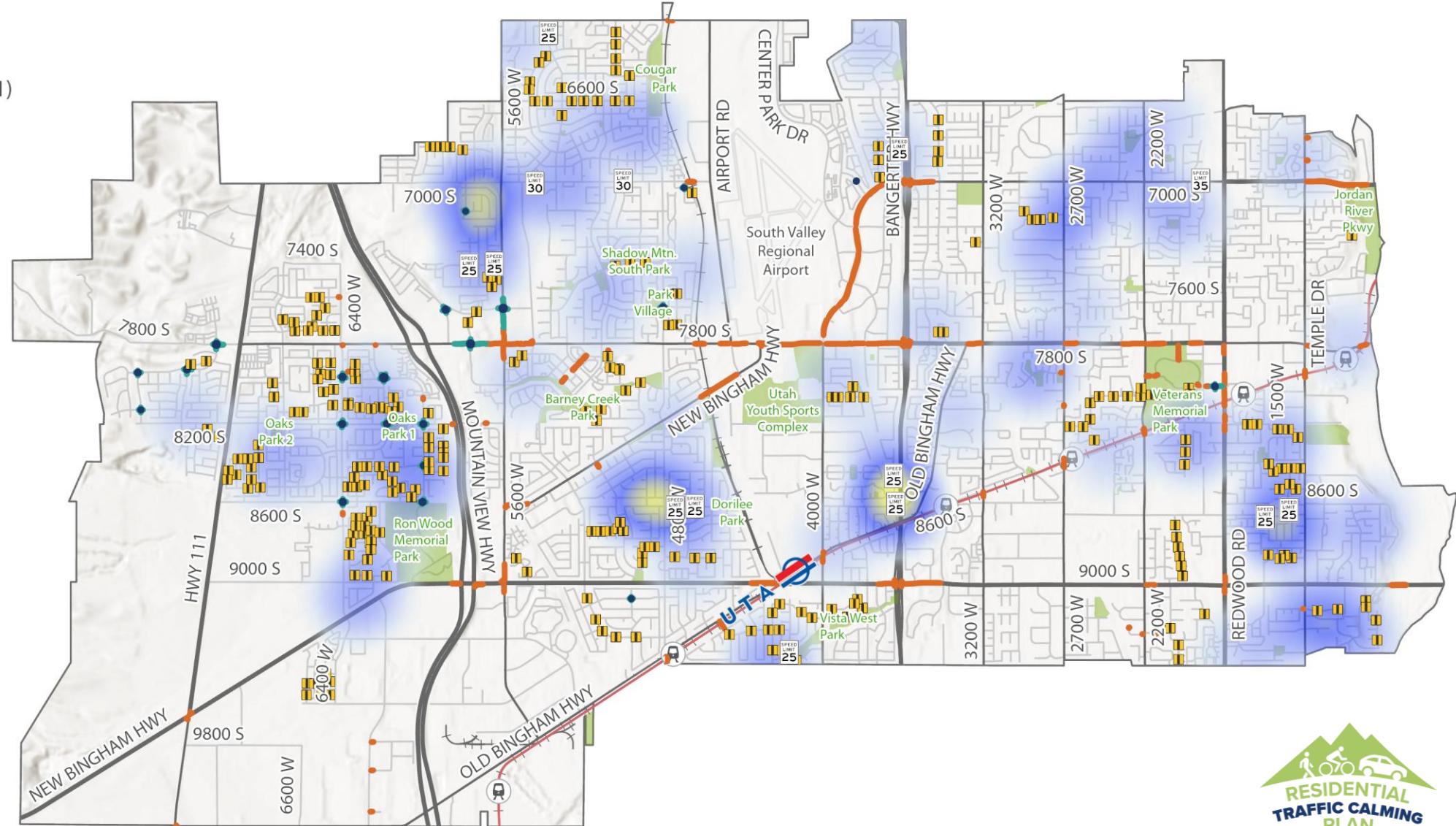
■ SPEED LIMIT 30 Posted 30 mph (2)

■ SPEED LIMIT 35 Posted 35 mph (1)

Speed Related Requests/Complaints

■ Fewer Requests

■ More Requests



Strategy 1: Road Diet

- Alters roadway design to encourage lower speeds
- Does not place an obstacle directly in the roadway
- Forces vehicles to lower speeds to navigate treatments



Strategy 2: Roadway Obstacles

- Placement of obstacles directly in roadway path
- Forces drivers to lower speeds to negotiate obstacle
- Can provide benefits of beautification and pedestrian safety
- **Most impactful to speed reduction and safety**



Strategy 3: Driver Behavior

- Strategies to impact driver behavior without physical treatments
- Lower cost and easier to implement widely
- Brings attention to speed issues



Strategy	Tool #	Tool Name	Mean Speed Reduction	85th % Speed Reduction	% Change in Crashes	Cost
1: Road Diet	1	Bulb-outs	-2 to -4 mph	-1 to -4 mph	-30%	\$20,000 to \$100,000
	2	Choker	-2 to -4 mph	-1 to -4 mph	-30%	\$20,000 to \$60,000
	3	Lane Narrowing	-1 to -4 mph	-1 to -2 mph	-17% to -62%	\$20,000 per mile
	4	On-Street Parking	-1 to -5 mph	-1 to -2 mph	-52% to +165%	\$20,000 per mile
	5	Medians (New Developments)	2 to -5 mph	2 to -5 mph	-12% to -40%	Varies
	6	Pavement Treatment	-1 to -4 mph	-1 to -2 mph	-17% to -62%	Varies
2: Roadway Obstacles	7	Speed Table / Speed Bump	-3 to -11 mph	-4 to -13 mph	-36 to -64%	Bump: \$2,000 to \$4000 Table: \$20K to \$30,000
	8	Raised Crosswalk	-3 to -11 mph	-4 to -13 mph	-30% to -40%	\$20,000 to \$30,000
	9	Speed Cushions (Temporary)	-2 to -10 mph	-5 to -7 mph		\$3,000 to \$4,000
	10	Roundabouts	-15 to -20 mph	-8 to -20 mph	-19% to -82%	\$150,000 +
	11	Ped Refuge Island	2 to -5 mph	2 to -5 mph	-26% to -32%	\$10,000 to \$20,000
	12	Realigned Intersection	-5 to -13 mph	N/A	N/A	\$15,000 to \$60,000
3: Driver Behavior	13	Driver Feedback Signs	-1 to -3 mph	-1 to -3 mph	-5% to -7%	\$7,000 to \$15,000
	14	Speed Trailer	-1 to -3 mph	-1 to -3 mph	-5% to -7%	\$10,000 to \$15,000
	15	Police Enforcement	-3 to -5 mph	N/A	N/A	Varies
	16	Lowering Speed Limits	-1 to -2 mph	N/A	-36 to -50%	\$100 to \$750 Per Sign
	17	Neighborhood Sign Program/Yard Signs	N/A	N/A	-9%	Varies
	18	Speed Campaign	N/A	N/A	-9%	Varies

Overview of Tool Impact



Larger Dot = Higher Cost

Tool #
1 Bulb-outs
2 Choker
3 Lane Narrowing
4 On-Street Parking
5 Medians (New Developments)
6 Pavement Treatment
7 Speed Table / Speed Bump
8 Raised Crosswalk
9 Speed Cushions (Temporary)
10 Roundabouts
11 Ped Refuge Island
12 Realigned Intersection
13 Driver Feedback Signs
14 Speed Trailer
15 Police Enforcement
16 Lowering Speed Limits
17 Neighborhood Sign Program/Yard Signs
18 Speed Campaign

← (more crashes) Crashes (fewer crashes)

0%

Increasing Crashes
and Speeds

← (Higher Speed)

0 mph
Speeds

(Lower Speed) →

6

17,18

15

9

12

4

16

3

1,2

11

5

13,14

7

8

10



Traffic Calming Exercise

- Four Locations
 - Bedford Avenue (Pittsburg)
 - Termon Avenue (Pittsburg)
 - Pennsylvania Street (Albuquerque)
 - Marble Avenue (Albuquerque)
- Four groups from multiple departments
- 31 traffic calming interventions “purchased”





Round 1 – Evaluate Sites

- 5 mins per station
- Split into 4 groups, select a group "spokesperson"
- Evaluate all 4 sites





Stakeholder Results – Road Diet

Strategy	Tool #	Tool Name	Select Interventions	Total	Strategy Total
Road Diet	1	Bulb-outs		0	Percent of Total Solutions 36% 11 / 31
	2	Choker	 <ul style="list-style-type: none"> Forces traffic through narrower opening midblock Potential drainage issues 	1	
	3	Lane Narrowing	 <ul style="list-style-type: none"> Benefits to non-motorized users Potential impacts to drivers 	6	
	4	On-Street Parking	 <ul style="list-style-type: none"> Allows for better access to businesses Designs parking spaces needs Allows for better access to businesses Designs parking spaces needs Allows for better access to businesses Designs parking spaces needs Allows for better access to businesses Designs parking spaces needs 	4	
	5	Medians (New Developments)		0	
	6	Pavement Treatment		0	

Stakeholder Results – Road Obstacles



Strategy	Tool #	Tool Name	Select Interventions	Total	Strategy Total
Roadway Obstacles	7	Speed Table		3	Percent of Total Solutions 16% 5 / 31
	8	Raised Crosswalk		1	
	9	Speed Cushions (Temporary)		0	
	10	Roundabouts		0	
	11	Ped Refuge Island		1	
	12	Realigned Intersection		0	

Stakeholder Results – Driver Behavior

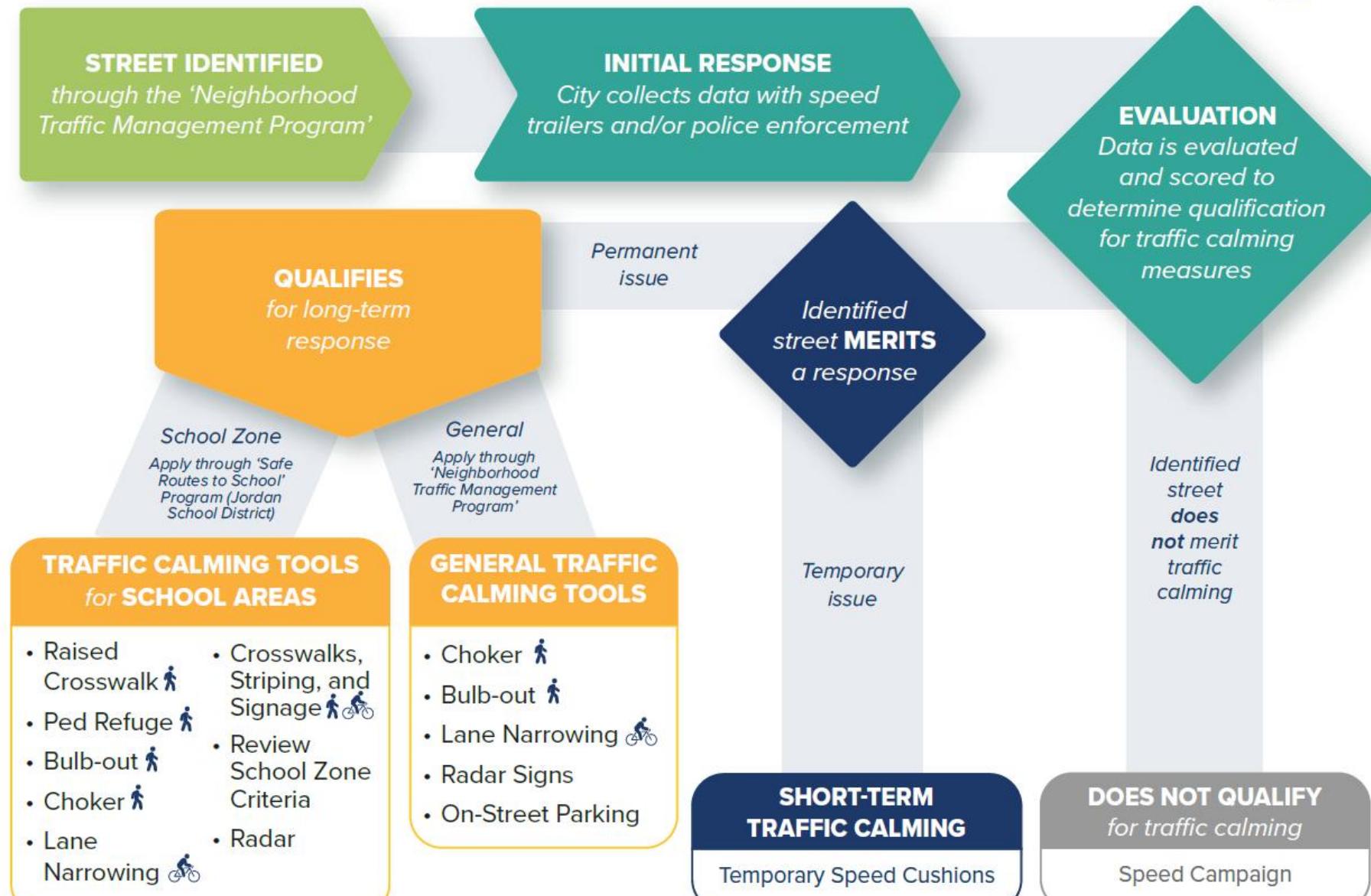


Strategy	Tool #	Tool Name	Select Interventions	Total	Strategy Total
3: Driver Behavior	13	Driver Feedback Signs	 <ul style="list-style-type: none"> Strategy DRIVER FEEDBACK SIGNS Strategy 3: Driver Behavior DRIVER FEEDBACK SIGNS \$15K • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain 	5	Percent of Total Solutions 48% 15 / 31
	14	Speed Trailer	 <ul style="list-style-type: none"> Strategy SPEED TRAILER Strategy 3: Driver Behavior SPEED TRAILER \$10K • Simple to apply • Similar to speed feedback signs, but mobile • Effectiveness is temporary 	2	
	15	Police Enforcement	 <ul style="list-style-type: none"> Strategy POLICE ENFORCEMENT Strategy 3: Driver Behavior POLICE ENFORCEMENT \$10K • Immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain • Likely will have immediate impact • Long-term impact is uncertain 	3	
	16	Lowering Speed Limits		0	
	17	Neighborhood Sign Program/Yard Signs	 <ul style="list-style-type: none"> Strategy NEIGHBORHOOD SIGN PROGRAM Strategy 3: Driver Behavior NEIGHBORHOOD SIGN PROGRAM \$5K • Indication of speed limit • No guarantee of compliance • No guarantee of long-term effectiveness • Indication of speed limit • No guarantee of compliance • No guarantee of long-term effectiveness • Indication of speed limit • No guarantee of compliance • No guarantee of long-term effectiveness • Indication of speed limit • No guarantee of compliance • No guarantee of long-term effectiveness 	3	
	18	Speed Campaign	 <ul style="list-style-type: none"> Strategy SPEED CAMPAIGN Strategy 3: Driver Behavior SPEED CAMPAIGN \$5K • Educational tool • Potential for initial impact and long-term effectiveness • Effectiveness is temporary • Effectiveness may drop long-term 	2	

		COLLECTOR STREETS	LOCAL STREETS	SCHOOL ZONE	STEEP GRADE	LIMITED ROAD USEFUL LIFE	BIKE LANES
New Road These traffic calming options should be considered when new roads and developments are being built. There is more flexibility in what devices are used since there are no existing constraints.	Recommended Options	Median 	Speed Table 	Raised Crosswalk 	Speed Cushion 		Lane Narrowing 
		Lane Narrowing 	Median 	Speed Table 	Driver Feedback Signs 		Choker 
		Bulbout 	Bulbout 	Ped Refuge Island 	Median 		Pavement Treatment 
	Other Options	Roundabout 	Roundabout 	Choker 	Lowered Speed Limit 		Lowered Speed Limits 
		Ped Refuge Island 	Choker 	Lane Narrowing 	Bulbout 		
		Bulbout 	On-Street Parking 				
Existing Road These traffic calming devices should be used when there is a need on an existing roadway. These might be less urgent and therefore support a broad range of options.	Recommended Options	Lane Narrowing 	Raised Crosswalk 	Raised Crosswalk 	Speed Cushion 	Speed Cushion 	Lane Narrowing 
		Median 	Choker 	Speed Table 	Driver Feedback Signs 	Police Enforcement 	Pavement Treatment 
		Choker 	Bulbout 	Ped Refuge Island 	Lane Narrowing 	Lane Narrowing 	
	Other Options	Bulbout 	On-Street Parking 	Lane Narrowing 	Lowered Speed Limit 	Speed Trailer 	Lowered Speed Limit 
		On-Street Parking 		Bulbout 	Choker 	On-Street Parking 	Choker (Separated) 
						Speed Campaign 	
Existing Road (Urgent Need) These traffic calming devices should be deployed in response to urgent needs. They offer a cost-effective solution that can be implemented quickly. Because of this there are fewer options to chose from.	Recommended Options	Police Enforcement 	Speed Cushions 	Police Enforcement 	Speed Cushions 	Speed Cushions 	Driver Feedback Signs 
		Driver Feedback Signs 	Police Enforcement 	Lane Narrowing 	Lane Narrowing 	Police Enforcement 	
		Speed Trailer 	Lane Narrowing 	Speed Campaign 	Speed Trailer 		
		Lane Narrowing 	Speed Trailer 				
	Other Options	Speed Campaign 	Neighborhood Sign Campaign 	Speed Cushions 	Lowered Speed Limits 	Speed Trailer 	Lowered Speed Limits 
				Neighborhood Sign Campaign 		Speed Campaign 	Lane Narrowing 

TRAFFIC CALMING DECISION PROCESS

WEST JORDAN





Project Overview – 4 Steps

1. Research Traffic Calming Solutions
2. Create a Toolbox & Decision Matrix
3. Test the Matrix on WJ selected neighborhoods
4. Update Neighborhood Traffic Management Program (NTMP)





Project Overview – 4 Steps

1. Research Traffic Calming Solutions
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4. ~~Update Neighborhood Traffic Management Program (NTMP)~~





Project Overview – 4 Steps

1. Research Traffic Calming Solutions
2. Create a Toolbox & Decision Matrix
3. Test the Matrix on WJ selected neighborhoods
- 4. Update Traffic Calming New Development Standards**



Older Cities

Existing Street Network

Prioritize Traffic Calming

Newer Cities

Expanding Street Network

Prioritize Traffic Alleviation



Need Traffic Calming Manual for New Development





Existing City Code



2025 S-30 (current)



« [UT](#) > [West Jordan](#) > [West Jordan, UT Co...](#) > [14-5-5: STREETS:](#)



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[CHAPTER 5: PUBLIC IMPROVEMENTS, SPECIFICATIONS AND PLANS](#)

[CHAPTER 5 DESIGN AND DEVELOPMENT STANDARDS](#)

[14-5-1: PUBLIC IMPROVEMENT STANDARDS, SPECIFICATIONS AND PLANS:](#)

[14-5-2: LOTS:](#)

[14-5-3: FLAG LOTS:](#)

[14-5-4: BLOCKS:](#)

[14-5-5: STREETS:](#)

[14-5-6: DEVELOPMENT OF LOTS ON PRIVATE STREETS:](#)

[14-5-7: SIDEWALKS:](#)

[14-5-8: LANDSCAPING:](#)

[14-5-9: UTILITIES AND UTILITY](#)

14-5-5: STREETS:

A. Street Layout: Streets in new subdivisions shall connect to existing stub streets from adjacent subdivisions. If adjacent land is undeveloped, stub streets shall be provided at reasonable locations to provide convenient access for future development.

B. Multiple Access Points Required: A minimum of two (2) points of ingress and egress are required for residential subdivisions unless the fire chief or his/her designee determines that more than one access point is not necessary to protect the public health and safety. The owner/developer may comply with this requirement by platting stub streets which will connect to future streets.

C. General Design Principles:

1. Public and private streets shall be designed to minimize cut through traffic in residential areas.
2. **Local streets shall incorporate traffic calming measures to reduce vehicle speeds and promote pedestrian safety.** Four-way intersections should be avoided.

3. Streets shall be designed to provide safe and convenient access between neighborhoods. Local streets should be extended to provide access between adjoining neighborhoods at appropriate intervals.

4. Compliance with Transportation Master Plan: As a condition of subdivision approval, the owner/subdivider shall install street extensions and widening as recommended by the city transportation master plan.



Proposed City Code Update

- **Existing:** "*Local streets shall incorporate traffic calming measures to reduce vehicle speeds and promote pedestrian safety.*"
- **Proposed:** "The City of West Jordan requires traffic calming measures for new public local streets to maintain mean vehicle operating speeds of 25 to 30 miles per hour (mph). To achieve this objective, the maximum length of roadway section between speed control points shall be 500 feet. For a definition of speed control points and design instructions, see the West Jordan Traffic Calming Manual. The type and number of required speed control points is subject to review and approval by the City's Traffic Engineer."

Model for Standards



Traffic Calming Manual Outline



1. Purpose and Definitions

- Speed Control Points

2. General Guidelines for Implementing Traffic Calming Measures

- Use of Multiple Types of Traffic Calming Devices
- Maintaining Emergency Vehicle Operations
- Design and Construction Standards
- Landscaping and Maintenance of Traffic Calming Devices
- Spacing and Location

3. Traffic Calming Devices Allowed

- Options Listed

4. Standard Drawings

- Standard Drawing Examples for Approved Traffic Calming Devices

• Appendix

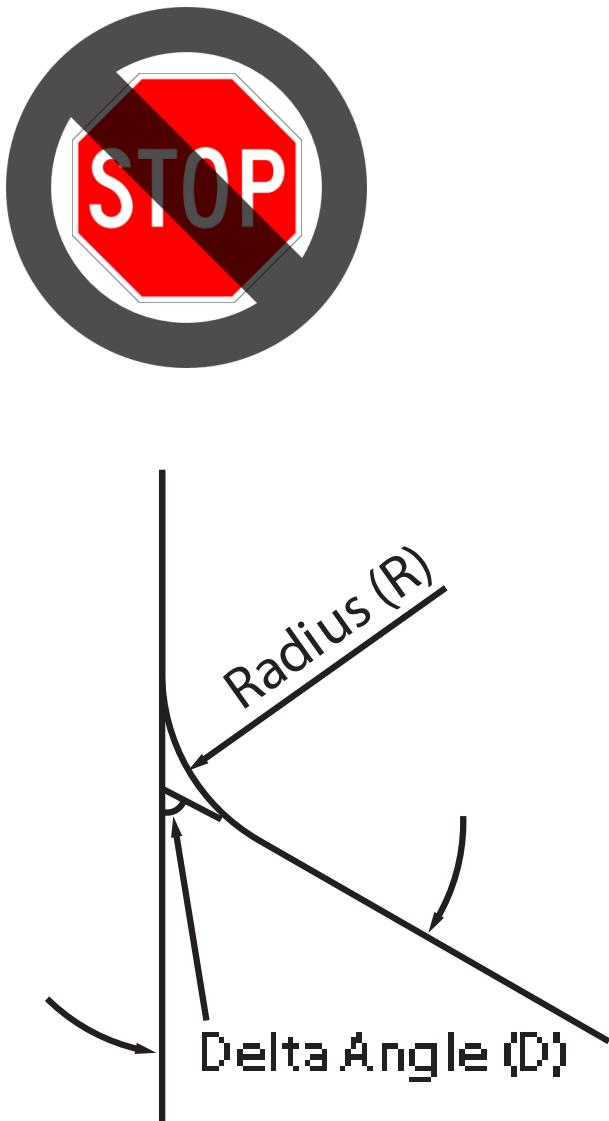
- Review Checklist
- Traffic Calming Toolbox
- Decision Matrix
- Traffic Calming Research

Key Elements

- **Speed Control Points :**

1. Any design condition that **requires a complete stop** such as the intersection of a local residential street with an arterial street, or a "**T**" **intersection** between local streets.
2. **Stop sign controls** at four-legged intersections between local streets **do not qualify**.
3. A **horizontal curve** with the following design features:
Low Speed Curve Values

Delta Angle (D)	Radius (R)
If Delta Angle is less than 30°	<u>Does Not Qualify</u> as a Speed Control Point
If Delta Angle is between 30° and 40°	Radius must be less than 100 Feet
If Delta Angle is between 41° and 50°	120 Feet (Minimum) - 130 (Maximum)
If Delta Angle is greater than 51°	130 Feet (Minimum) - 150 Feet (Maximum)
Does Not Qualify as a Speed Control Point	If Radius is greater than 150 Feet



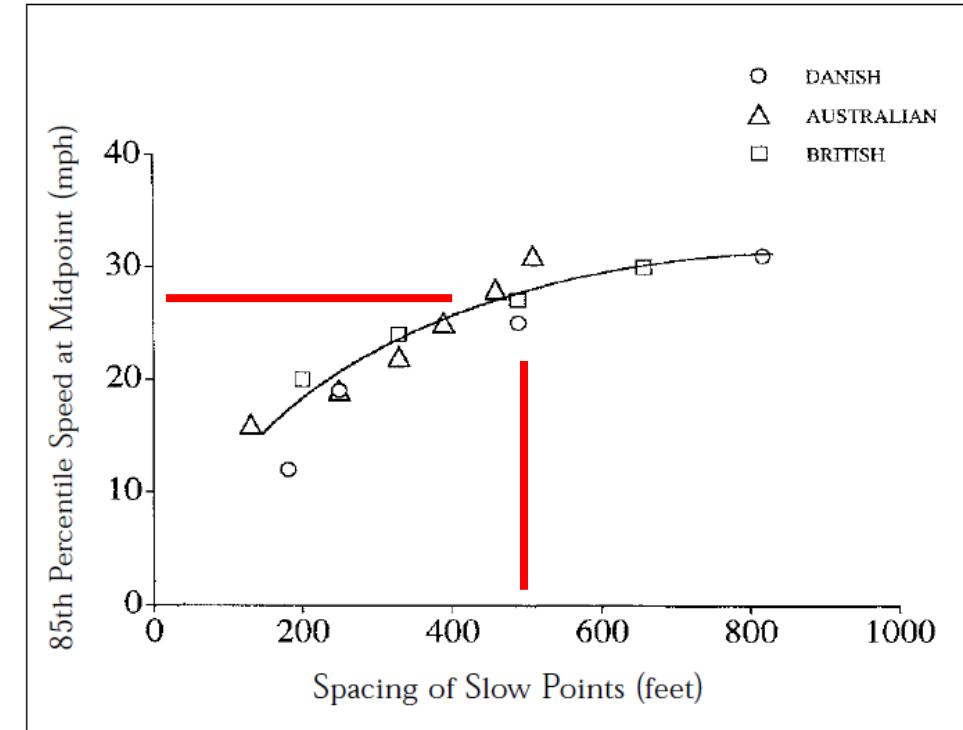
Key Elements

- **Speed Control Point Spacing:**

- To achieve this objective, the maximum length of roadway section between speed control points shall be **500 feet**.

Community	Spacing (feet)
Bellevue, WA	200–300
Berkeley, CA	150–400
Boulder, CO	150–800
Gwinnett County, GA	350–500
Howard County, MD	400–600
Montgomery County, MD	400–600
Phoenix, AZ	500 or less
Portland, OR	300–600

Spacing Requirements in Example Cities

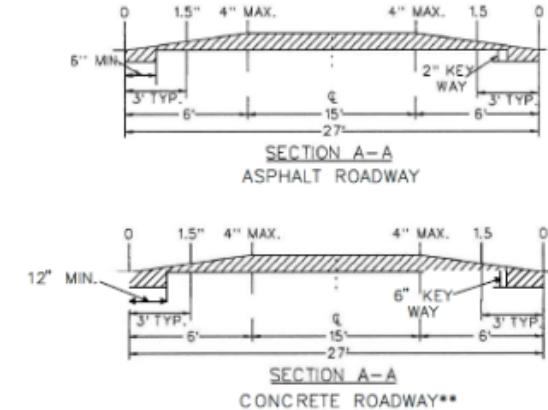
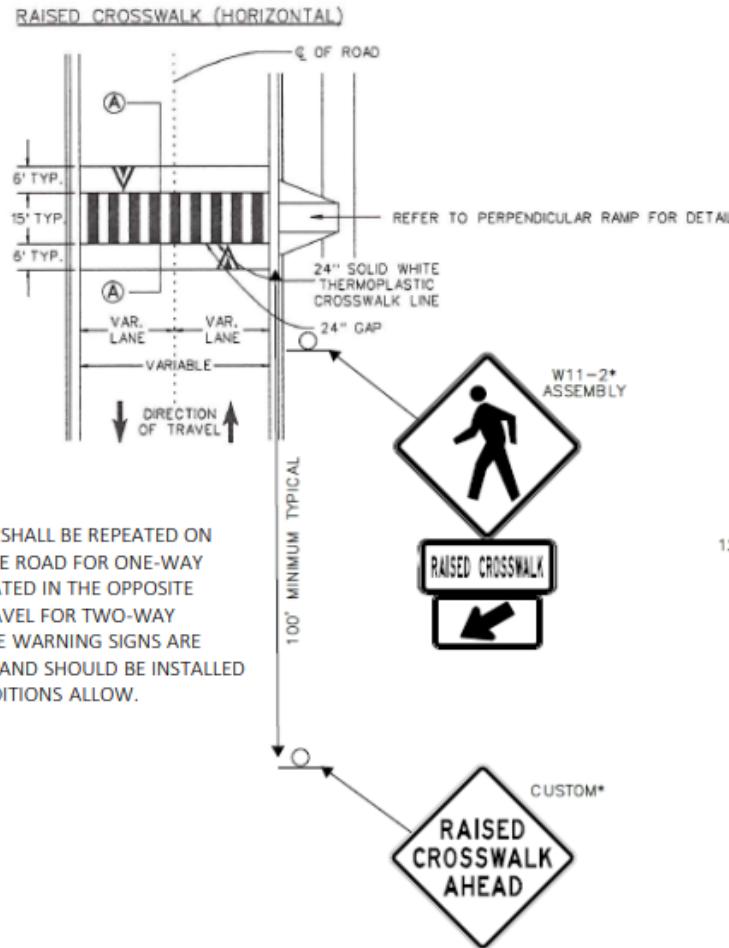


Midpoint Speed Versus Distance Between Speed Control Points

Key Elements

- Standard Drawings
 - Assemble standard drawings from multiple sources
 - Will provide developers design guidance
 - Will prioritize Utah examples, UDOT & other Utah cities

Raised Crosswalk Design Specifications



**RAISED CROSSWALKS MAY BE CONSTRUCTED ON CONCRETE ROADWAY USING ASPHALT OR CONCRETE

NOTES:

1. THE WIDTH FOR RAISED CROSSWALKS WILL BE 22 FEET FOR LOCAL ROADS AND 27 FEET FOR COLLECTOR ROADS. HEIGHT CAN BE BETWEEN 3 INCHES AND 4 INCHES. TYPICAL HEIGHT IS 4 INCHES.
2. IF INSTALLATION OF PERPENDICULAR RAMP IS NOT FEASIBLE THEN REFER TO OTHER RAMP DETAILS.

Additional Slides

Detailed Review of Highlighted Tools

- Bulb-outs
- Lane Narrowing
- On-Street Parking
- Speed Humps / Speed Tables
- Posted Speed Limit Reductions



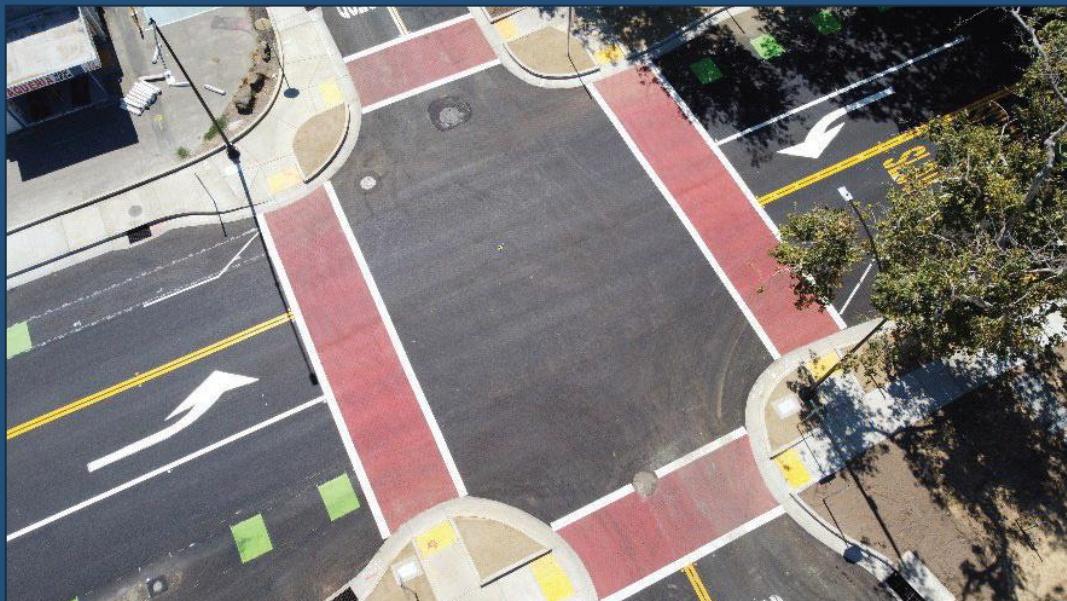
Data Resources

- Federal Highway Administration
- National Highway Traffic Safety Administration
- Institute of Transportation Engineers
- Transportation Research Board
- Crash Modifications Factors Clearinghouse
- Salt Lake City's Livable Streets Program
- Utah Department of Transportation
- California, Vermont, Minnesota DOTs
- Local studies across the country



Bulb-outs

Bulb-out Metrics	
Mean Speed	-2 to -4 mph
85th Percentile Speed	-1 to -4 mph
Crash Impact	-30%
Cost Estimate	\$20,000 to \$100,000



Positive Impacts

- Vehicle turning speeds reduced
- Shortens crossing distance for pedestrians
- Increases vehicle yielding
- Overall positive impact to pedestrian safety

Considerations

- Turning radius for large/emergency vehicles
- Relocation of curbing/drainage features
- Unlikely to reduce vehicle volumes

Bulb-Outs: References



- FHWA Traffic Calming ePrimer
- City of San Jose Traffic Calming Toolkit
- CalTrans Traffic Calming Guide
- La Mesa Traffic Calming Toolkit
- New York City Intersections Case Study
- OSU Pedestrian Safety Impact Case Study

Bulb-Outs: Research Highlight

- Location: Albany, Oregon
- Year of Study: 2005
- Study Details:
 - Pedestrian safety study; analyzed an intersection with bulb-outs on one side vs none on the other. Vehicle yields and stops for peds.
- Conclusions:
 - Reduction in vehicle passes (and increase in yields) before pedestrian cross from the bulb-out side
 - Some results were insignificant, but authors conclude that the bulb-outs provided a significant safety benefit overall.



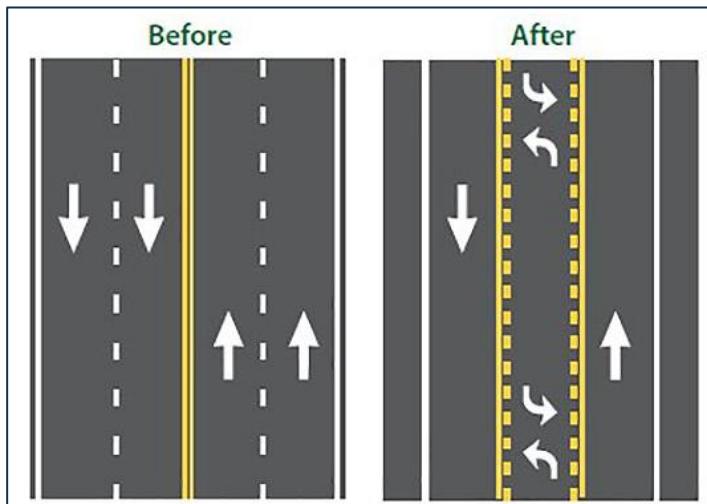
Table 3.0: Results for average number of vehicles passing before a pedestrian-cross

	Lane	Non-Curb Extension	Curb Extension	Percent difference in means	Sample Size (n)	t-test p-value	Difference in Means
<i>Average number of vehicles that pass before pedestrian cross</i>	Near	2.58	1.81	-42.7%	219	0.0017	Significant
	Far	2.36	1.76	-33.9%	214	0.0362	Significant



Lane Narrowing

Lane Narrowing Metrics	
Mean Speed	-1 to -4 mph
85th Percentile Speed	-1 to -2 mph
% Crash Reduction (FHWA)	17 - 62%
% Crash Reduction (CMF) 12 to 10 ft Lane	27 - 42%
% Crash Reduction (CMF) 12 to 9 ft Lane	38 - 56%
Cost Estimate	\$20,000 per mile



Positive Impacts

- Vehicle speeds reduced overall
- Reduces severity of crashes
- Can include bicycle lanes, transit lanes, street-parking, etc.
- Capacity not altered until under 10ft

Considerations

- May require signal modification along roadway
- Previous striping must be completely removed
- Potential impacts to large vehicles/EMS
- Effectiveness may lessen over time

Lane Narrowing References

- Traffic Calming ePrimer
- CalTrans Traffic Calming Guide
- Johns Hopkins Lane Width Study
- Accident Analysis and Prevention Nebraska Study
- NACTO Summary of Findings; Lane Widths
- Synectics Transportation Canadian Study on Lane Narrowing
- CMF Clearinghouse

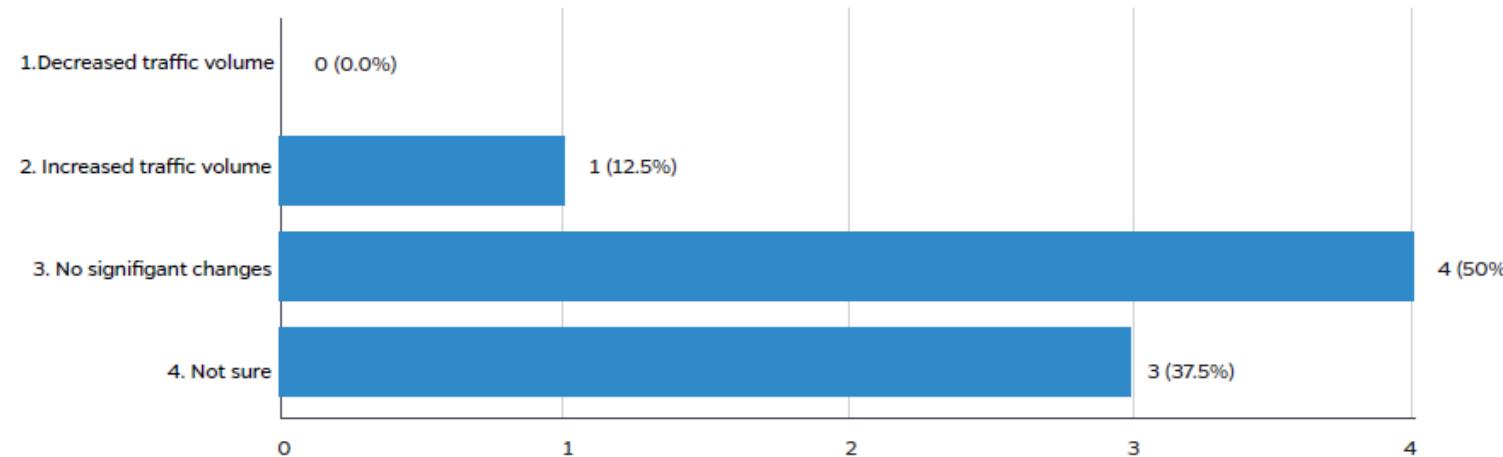


Lane Narrowing: Research Highlight

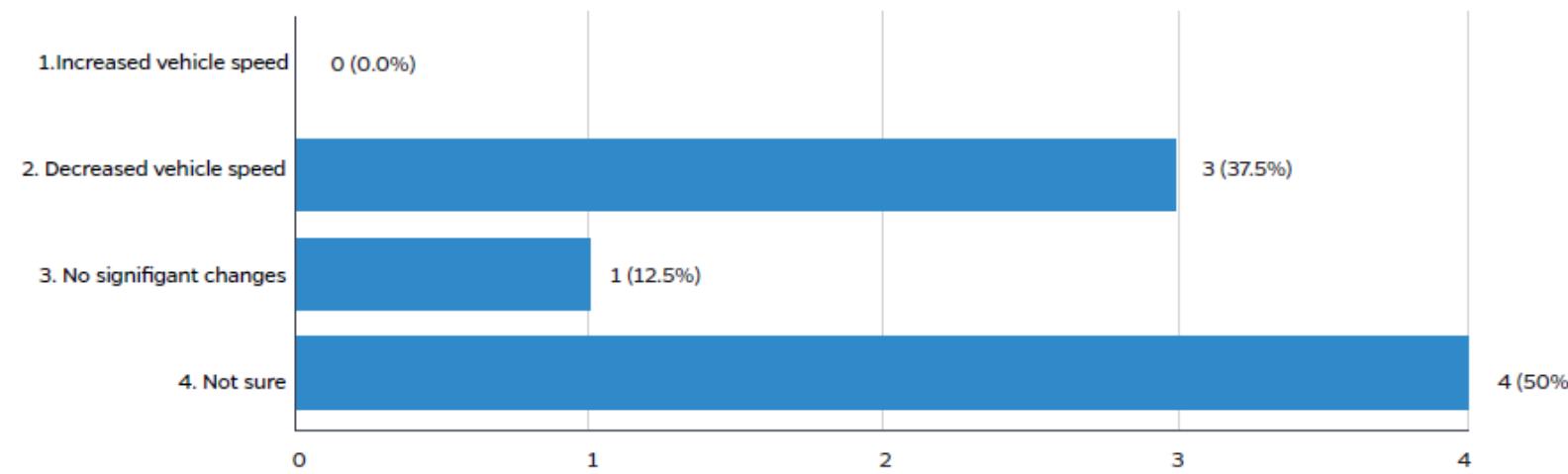
- Location: Nationwide
- Year of Study: 2023
- Study Details:
 - Nationwide two-part study of lane narrowing guidelines and impacts at DOTs. DOT Survey and analysis of lane narrowing
- Conclusions:
 - 30-35 mph: significant crash reductions, less at lower speeds
 - No major crash reductions between 9ft – 11ft lanes
 - Recommendation to set 10ft lanes as standard; justify wider lanes



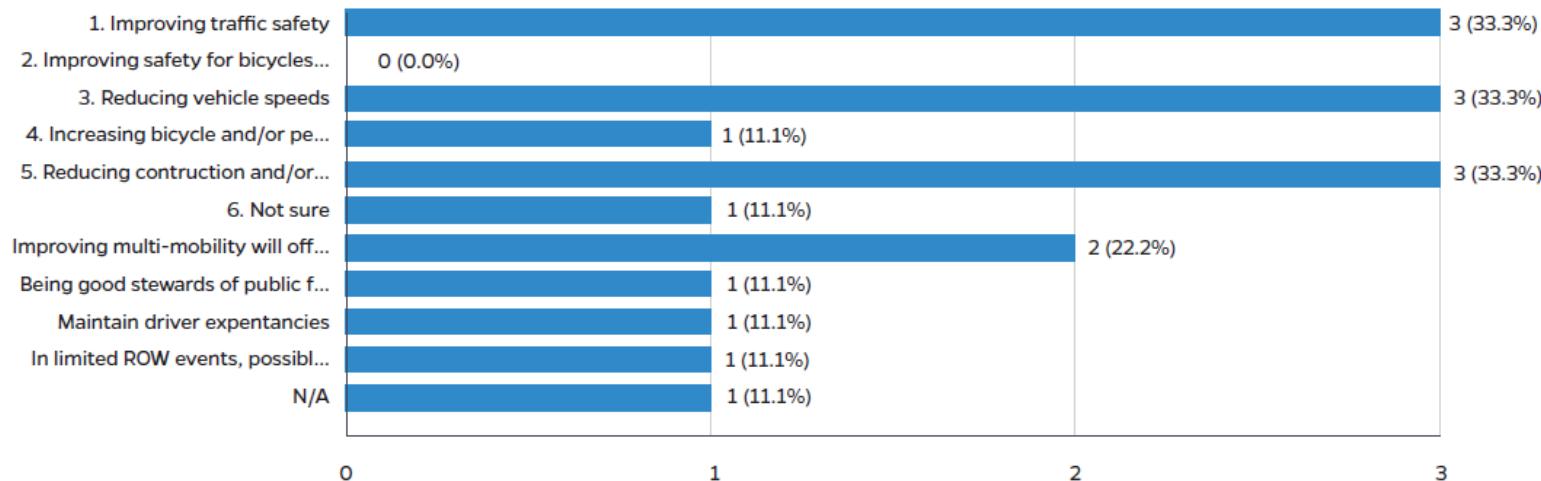
DOTs' Observed/Measured Traffic Volume Changes After Reducing Lane Widths



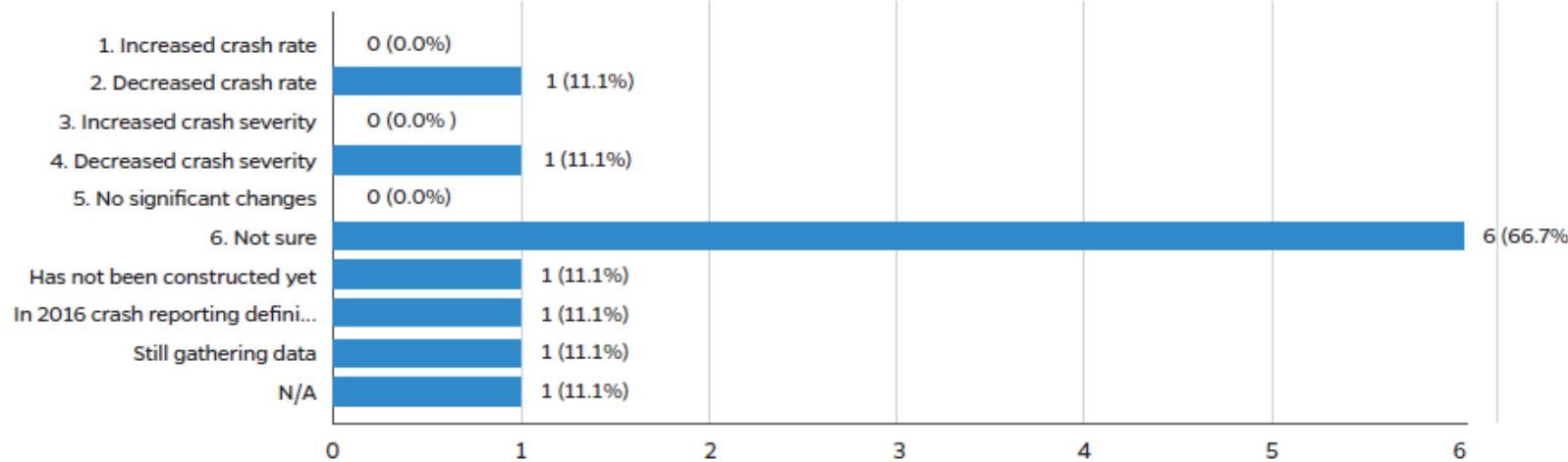
State DOTs' Observed/Measured Vehicle Speed Changes After Reducing Lane Width



State DOTs' Overall Observed/Measured Changes After Reducing Lane Width



State DOTs' Observed/Measured Safety Changes After Reducing Lane Width



On-Street Parking

On-Street Parking Metrics	
Mean Speed	-1 to -5 mph
85th Percentile Speed	-1 to -2 mph
% Crash Reduction	-52% to +165%
Cost Estimate	\$20,000 per Mile



Positive Impacts

- Noted impact to speed reduction
- Can provide a pedestrian buffer
- Contribution to aesthetics/walkability

Considerations

- Mixed results on crash impact
 - Crashes may increase
 - Likely will depend on location
 - Concerns with peds and bikes
- Do not use near roundabouts or medians

On-Street Parking References

- Traffic Calming ePrimer
- ITE Angle vs. Parallel Parking Review
- ODOT Parking Safety Comparison
- Johns Hopkins Lane Width Study (Parking Discussed)
- Ghent University Road Crash Factors Study
- CMF Clearinghouse



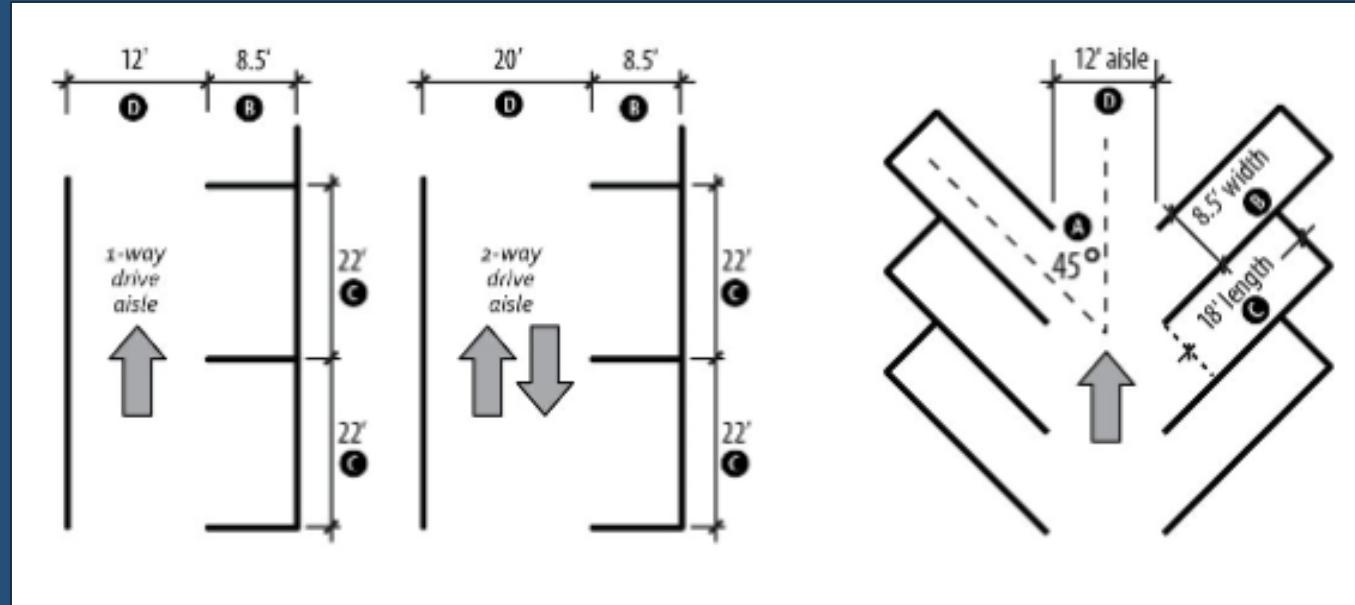
On-Street Parking: Research Highlight

- Location: Lincoln, Nebraska / Oregon DOT
- Year of Study: 2001
- Study Details:
 - Crash comparison of parallel parking vs. angled parking from Lincoln, Nebraska.
 - Overview by Oregon DOT of crash severity results.
- Conclusions:
 - Angle parking creates higher crash rates
 - Agencies must weigh pros and cons to decide which is preferred



On-Street Parking Research Highlight

- Angle parking
 - More calming impact
 - Better for steeper grades
 - Parking space maximized
 - Higher crash rates
 - Less visibility



- Parallel parking
 - Lower crash rate
 - More visibility
 - More time needed to park
 - Possible traffic interruptions

Speed Table / Speed Hump

Speed Table Metrics	
Mean Speed	-3 to -11 mph
85th Percentile Speed	-4 to -11 mph
% Crash Reduction (FHWA)	36 - 64%
Cost Estimate	\$20,000 - \$30,000

Speed Hump Metrics	
Mean Speed	1 to -6 mph
85th Percentile Speed	-5 to -13 mph
Crash Reduction (FHWA)	33 - 48%
% Crash Reduction (CMF)	40 - 50%
Cost Estimate	\$2,000 - \$4,000

Positive Impacts

- Significant speed reductions
- Significant crash reduction impact
- Opportunity for raised crosswalks

Considerations

- Use on roads where speeds are 25-35 mph
- Impacts/Delays to larger vehicles/EMS

Speed Table / Speed Hump References

- FHWA Traffic Calming ePrimer
- CalTrans Traffic Calming Guide
- VTrans Traffic Safety Toolkit
- Journal of Transport & Health Speed hump study
- ITE Guidelines for Speed Hump Design & Application
- U of U Traffic Calming Measures Study
- CMF Clearinghouse



Speed Table / Speed Hump: Research Highlight

- Location: Nationwide
- Year of Study: 2007
- Study Details:
 - Update of ITE Guidelines for the design and application of speed humps (and tables). Survey was utilized to gather data and provide guidance based on DOT practices.
- Conclusions (Highlights):
 - Don't use speed humps where 85th speed > 45 mph
 - Avoid placing on bus routes and common EMS routes
 - Space speed humps no more than 500 ft apart where 85th speed should be 25 to 35 mph.



Speed Table / Speed Hump Research Highlight

- Speed Tables/Humps and issues of maintenance
 - Snowplow operators should know locations
 - Generally not damaged by snowplow activity
 - Concrete may deform over time
 - Will deform in direction of traffic flow
 - Markings must be visible at all times



Speed Table / Speed Hump Research Highlight

- Location: U of U / SLC
- Year of Study: 2019
- Study Details:
 - Speed reduction analysis of traffic calming treatments around SLC
- Conclusions (Highlights):
 - All speed humps lowered speeds significantly (typically 5 to 10 mph)

	Sample Size	Average After Calming	Speed Traffic	Average Change in Speed with Traffic Calming	Average % Change in Speed with Traffic Calming
12' Humps	184	27.3 mph (4.0 mph)	-7.8 mph (3.7 mph)	-22	(9)
14' Humps	15	25.6 (2.1)	-7.7 (2.1)	-23	(6)
Lumps	49	27.0 (3.4)	-8.9 (5.3)	-24	(12)
22' Tables	78	29.2 (3.1)	-7.3 (3.4)	-20	(8)
Longer Tables	11	31.3 (2.9)	-3.6 (2.6)	-10	(7)

Lowered Speed Limits

Lowered Speed limit Metrics	
Mean Speed	-1 to -2 mph
85th Percentile Speed	N/A
% Crash Reduction	36 to 50%
Cost Estimate	\$100 - \$750 Per Sign



Positive Impacts

- Significant crash reductions
- Potentially significant speed reductions
- Used by several other cities with success

Considerations

- Time needed for drivers to change and adapt
- Real-world speeds may not match the posted speed limit
- Results have varied across different studies
- Enforcement may be needed for compliance

Lowered Speed Limits References

- NHTSA Countermeasures: Speed Limits
- MNDOT Speed Limit Changes Study
- Institute for Highway Safety Seattle Speed Limits Study
- Accident Analysis and Prevention Study – Lower Speed Limits
- BMJ Injury Prevention - New York City Slow Zones Program
- VTrans Traffic Safety Toolbox



Lowered Speed Limits: Research Highlight

- Location: Portland, Oregon
- Year of Study: 2022
- Study Details:
 - Before-and-after analysis of Portland locations (residential and higher speed) were analyzed after speeds were lowered by 5 mph
- Conclusions:
 - Resulted in lower observed speeds and fewer higher-speed vehicles (Largest change: 30-35+ mph range)
 - Roadway characteristics play an important role
 - Higher-speed roads: most effective when lower speeds combined with other treatment (cameras, speed humps)



Lowered Speed Limits: Research Highlight

Summary Statistics of Observed Vehicle Speeds						
Period	Mean	Median	85th Percentile	Greater Than 25 mi/h	Greater Than 30 mi/h	Greater Than 35 mi/h
Before (<i>n</i> = 131,452)	21.66	22	27	24.13%	6.49%	1.11%
After (<i>n</i> = 82,768)	21.70	22	27	23.60%	4.83%	0.59%
Number of Sites with Decrease Observed	33	43	50	43	40	42
Percentage of Sites with Decrease Observed	56.9%	74.1%	86.2%	74.1%	69.0%	72.4%

SLC Lowered Speed Limits

Background

- Lowered to 20 mph on local streets in 2022
- Some arterial streets lowered from 30 mph to 25 mph in 2023/2024
- \$2 million a year for livable street program

Results

- No before/after study
- Efficiencies in replacing signs and then adding traffic calming systematically & opportunistically

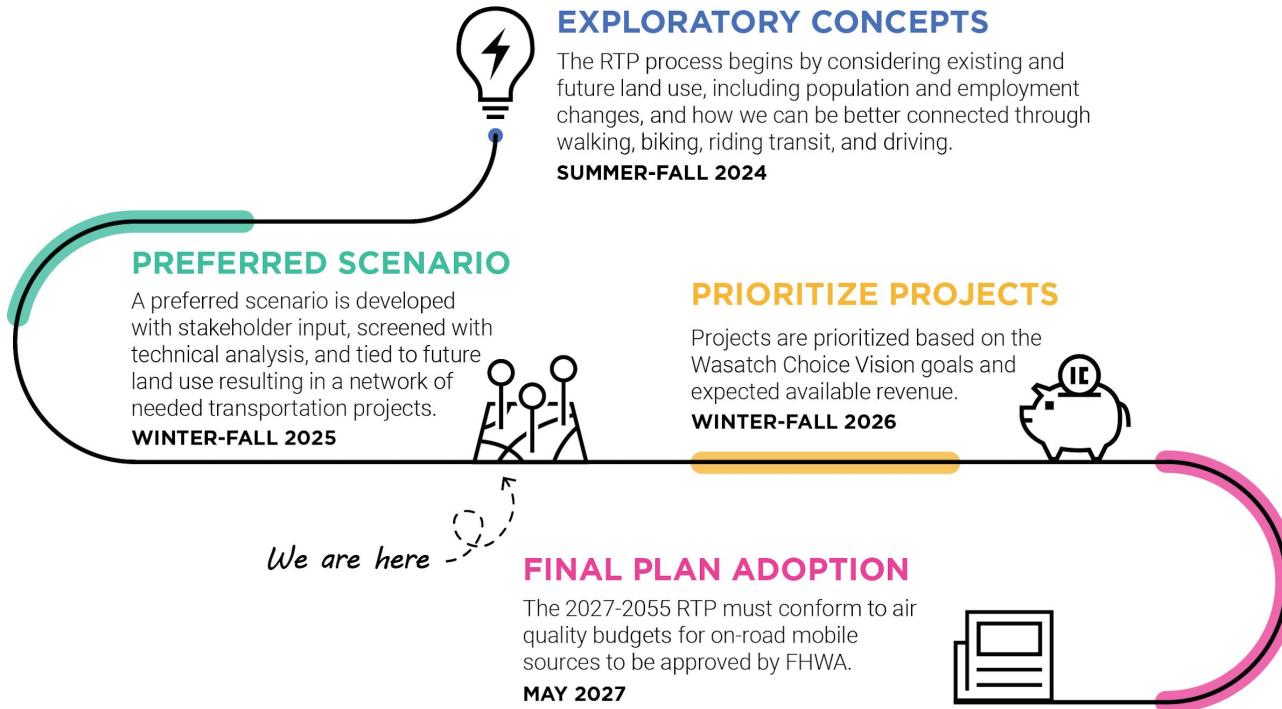




2027-2055 RTP: Draft Preferred Scenario

Active Transportation Committee
August 12, 2025

RTP Planning Process



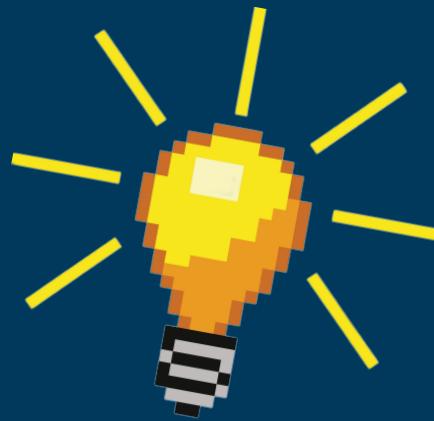
Draft Preferred Scenario

01 | Project ideas

02 | Screening process

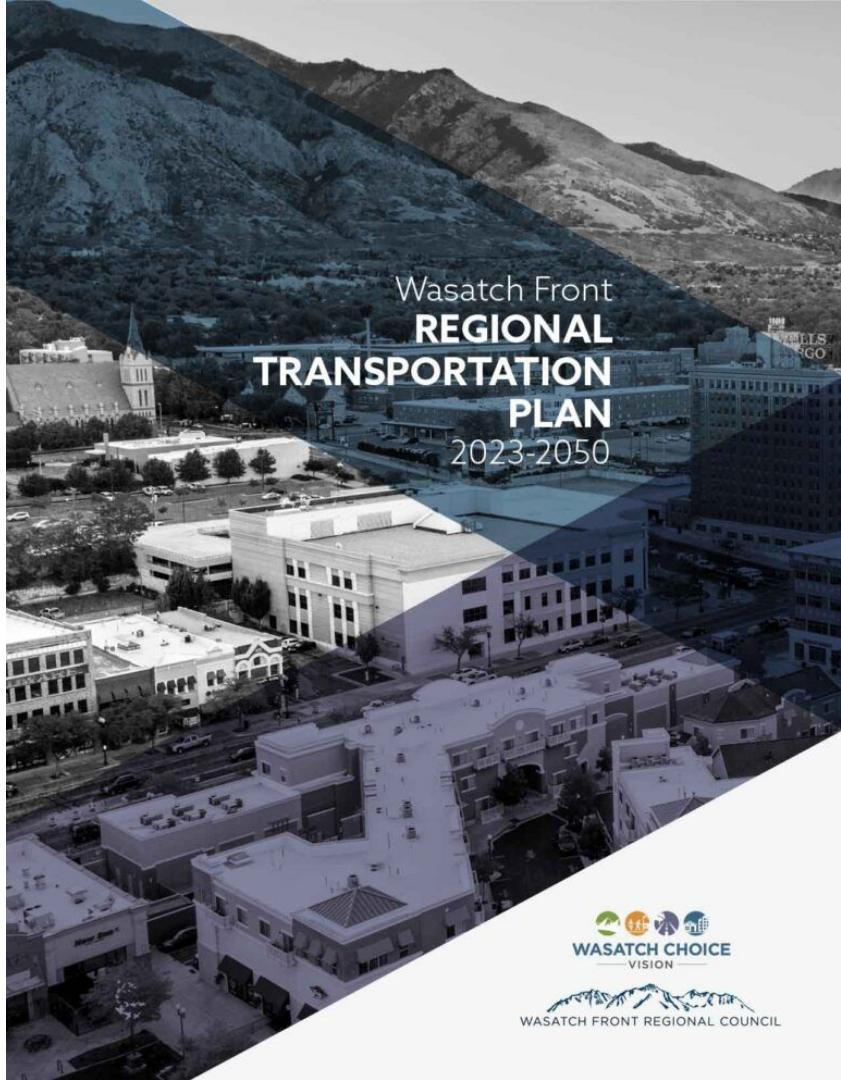
03 | Feedback

Project ideas



2023-2050 RTP

- + Currently adopted RTP
- + Includes AT, transit, and roadway projects
- + Includes amendments to the RTP



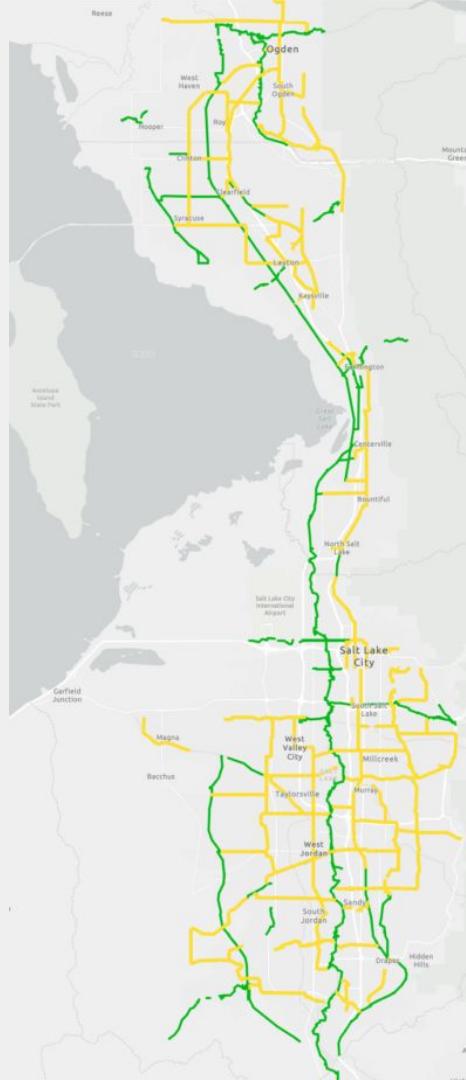
Fall Workshops (2024)

- + 8 small area workshops
- + Elected and appointed officials & planning, engineering, and economic development staff
- + Asked for ideas on AT, transit, roadway, and land use



Strategy Testing

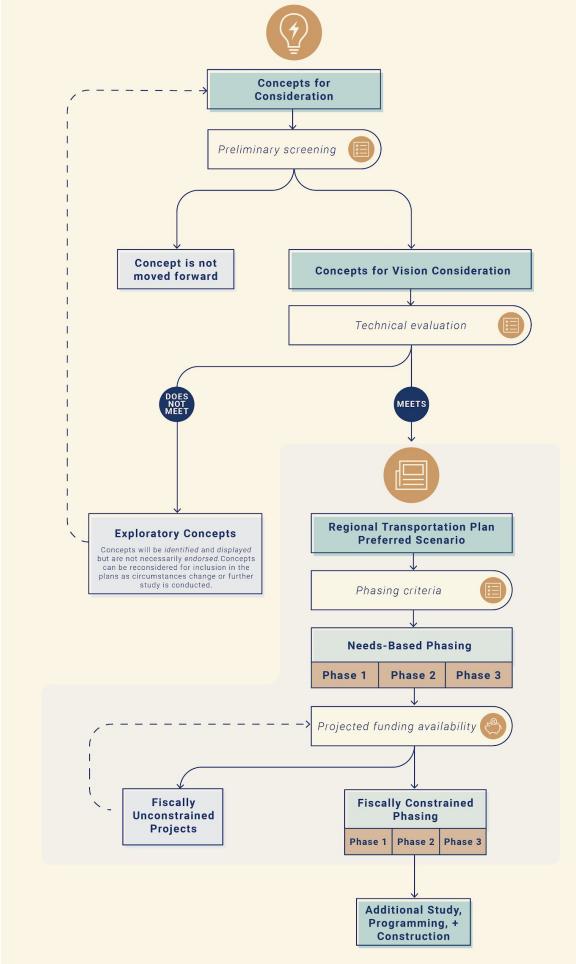
- + Roadway strategies
 - Optimization
 - Connectivity
 - Managed Lanes
- + Transit strategies
 - Enhanced bus network
 - Fixed guideway
- + Beehive Bikeways
- + Developed with UDOT & UTA

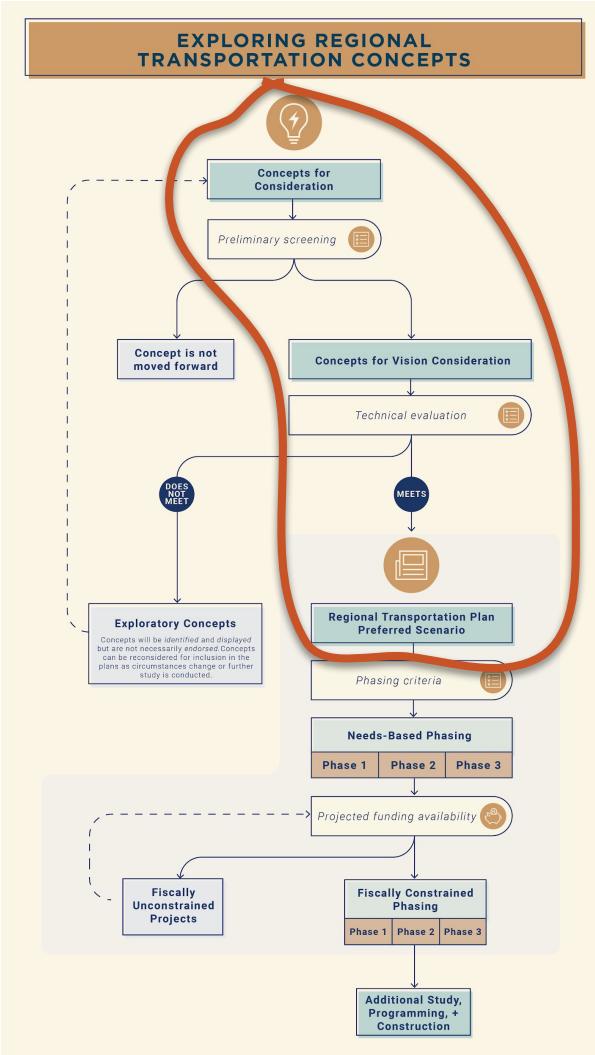


Screening process



EXPLORING REGIONAL TRANSPORTATION CONCEPTS





This is the work staff has completed or is currently in progress.

Preliminary Screening



Roadway

- A** Advances shared goals
- B** Community & transportation partner support
- C** Meaningful planning/analysis of the concept
- D** Viability
- E** Community of environmental impact
- F** Meaningful benefits to the system, relative to the potential costs



Transit



Active Transportation

- A** Regional studies
- B** Project expands access
- C** Facility type review

Technical Screening



Roadway

- A** Capacity-type improvements
- B** Operational
- C** Safety
- D** Freight
- E** Connectivity



Transit

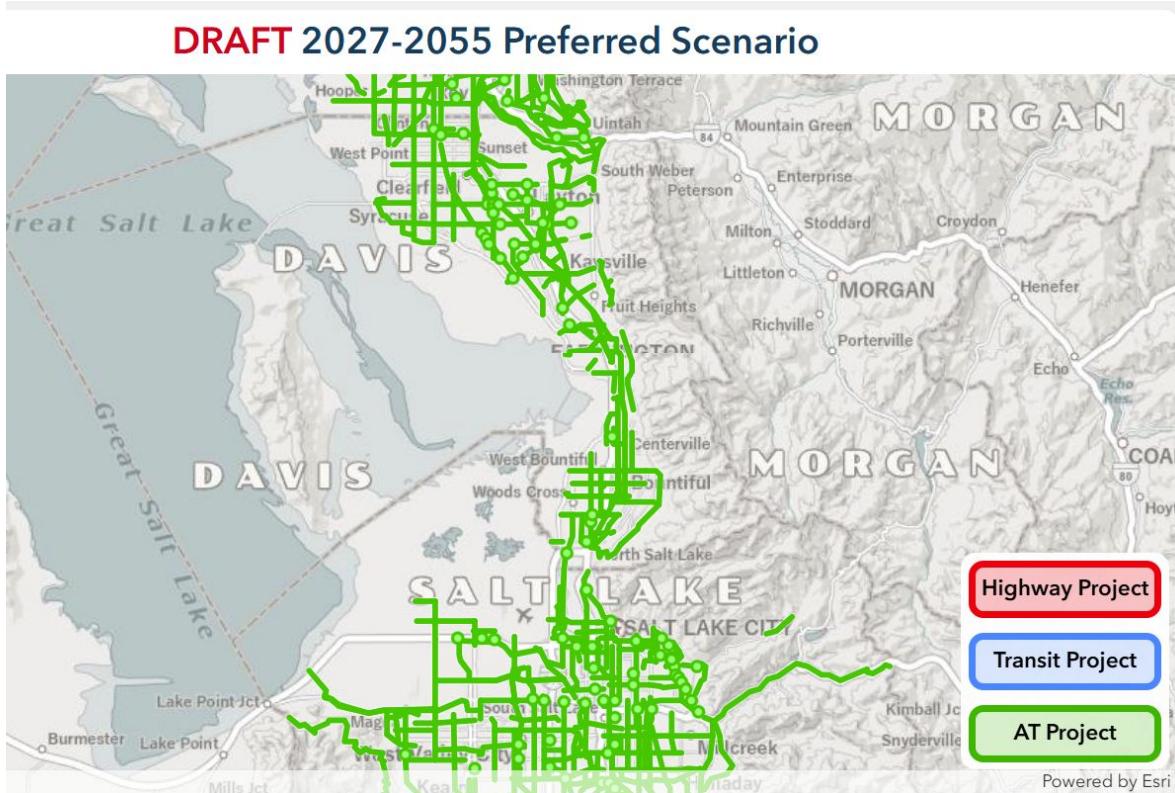
- A** Ridership
- B** Improved access to economic and education opportunities
- C** Community and transportation partner support



Active Transportation

- A** Beehive Bikeways and Utah Trail Network
- B** Overcomes barriers
- C** Serves a major destination
- D** Upgrades safety on an existing facility
- E** Community, transportation partner support
- F** Facility spacing

Draft RTP Map



Feedback

- Technical Advisory Committees
- Transportation Partners

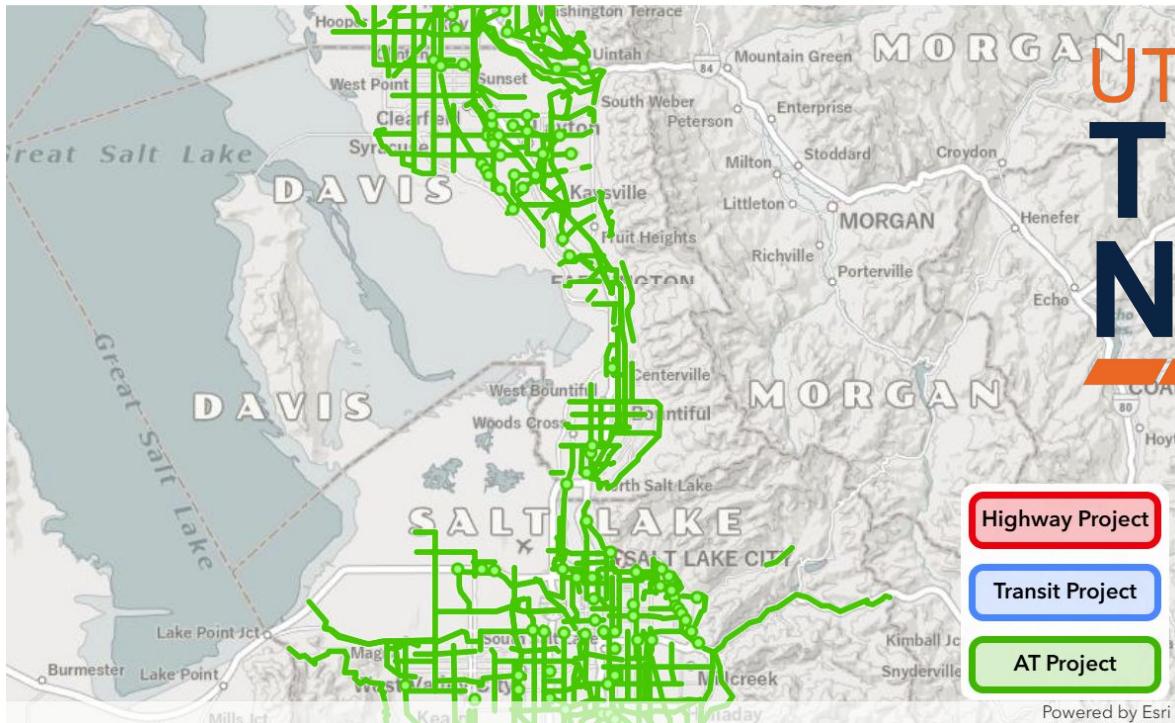
Feedback

- Technical Advisory Committees
- Transportation Partners



Draft RTP Map and Utah Trail Network

DRAFT 2027-2055 Preferred Scenario



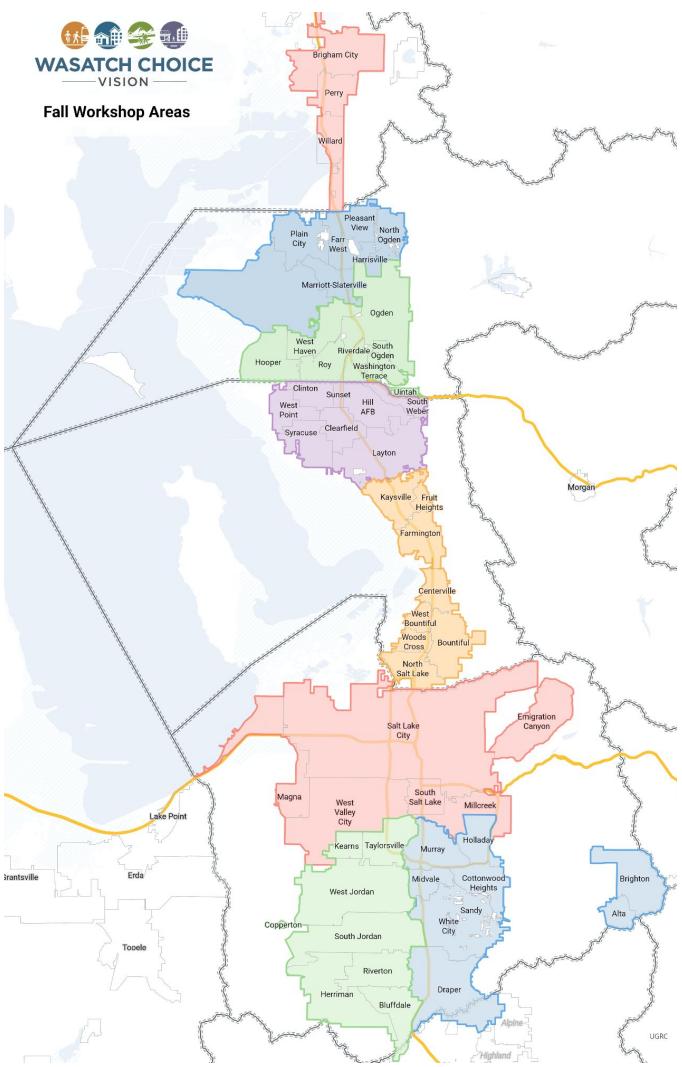
UTAH
TRAIL
NETWORK
A UDOT PROGRAM

Fall 2025 Workshops

- + Confirmation of Preferred Scenario
- + Input needed from:
 - Elected and appointed officials
 - Planning, engineering, and economic development staff
- + 8 small area workshops



Fall Workshop Areas



Contact us!



longrange@wfrc.utah.gov

ITEM 7 | TLC Upcoming Opportunity and Centers

Matt Ryan, Community Planner

Active Transportation Committee, August 12, 2025



The Transportation and Land Use Connection

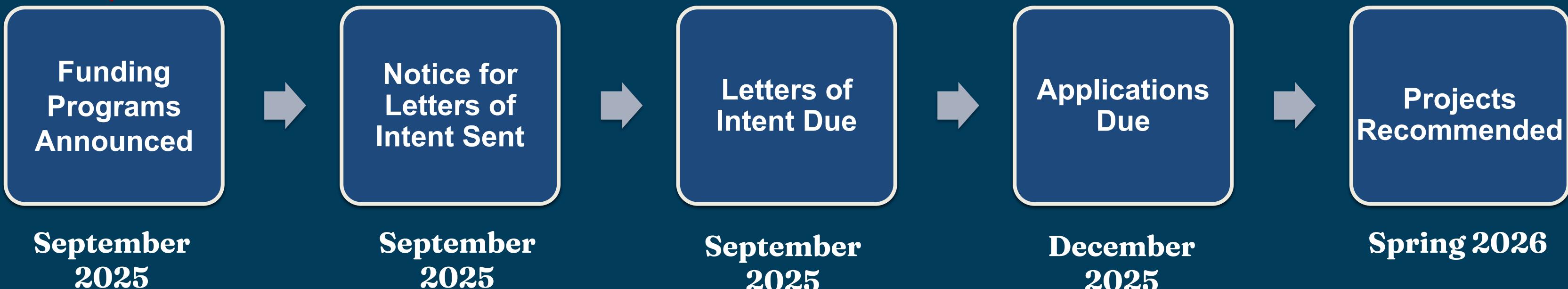
Program

• Does your community have an idea? We'd love to talk to you!

- Programs*, notice of Letters of Intent announced early September
- Letters of Intent due in late September

*The TLC Program follows the same timeline as WFRC's Transportation Improvement Program

We are almost
here



The Wasatch Choice Vision and Neighborhood Centers

71 new neighborhood centers emerged out of the Wasatch Choice Vision workshops

Several opportunities to make a neighborhood center a reality:

- Small Area Plans
- Design Standards
- Ordinance Updates
- Implementation Plans



Local and Regional Connectivity

Through Transportation Planning

Connectivity is more important than ever!

Ways to enhance connectivity in your community:

- Active Transportation Plans
- Transportation Master Plans
- *Utilize the Utah Street Connectivity Guide*
- Small Area Plans
- Studies



Additional TLC Resources:

[Transportation and Land Use Connection Website](#)

Learn more about the program

[TLC Interactive Map](#)

Explore past and present projects throughout the region

[2025 TLC Awarded Projects](#)

View project budgets and descriptions

