

City of La Verkin

435 North Main St., La Verkin, Utah, 84745

(435) 635-2581 Fax (435) 635-2104

www.laverkin.org

La Verkin City Council Meeting Minutes

Wednesday, March 1, 2023, 6:00 pm.

Council Chambers, 111 S. Main, La Verkin, Utah

Present: Mayor Kelly Wilson; Council Members: Blair Gubler, Chuck Hardy, and Richard Hirschi; Staff: Kevin Bennett, Kyle Gubler, Derek Imlay, and Chief Nick Nuccitelli; Public: Cameron Carlson, Chris Hall, and John Valenti.

Electronic Participation: Patricia Wise

Christy Ballard was excused

A. Called to Order –The invocation/thought and Pledge of Allegiance were given by Kelly Wilson at 6:00 pm.

B. Presentation:

1. Utah Department of Transportation-Chris Hall

See Exhibit A.

The implementation would require additional information to move forward. UDOT recommends La Verkin get a better feasibility study and cost estimate. UDOT has technical planning assistant grants available the City can apply for that would cover most of the cost of these requirements. The City would also need to implement the plan and preserve the area if they are interested in the proposed new road.

Mr. Hall briefly went over the grant submission process. The deadline is October/November.

Mayor Wilson said when he first heard about the roadway option, he didn't think it would work, but the more they talked about it and explained it, he felt most of the people on the Committee agreed that would be the best option for the downtown area and moving traffic in La Verkin.

Kyle reported Chris Smedley is the manager of Davis Market, and he did have some concerns with the roadway because it would require customers to do a U-turn to get into his business, but he wasn't totally against it.

It would also double the amount of street-facing commercial in that section.

Most of the land is undeveloped, so now would be the time to implement the one-way couplet if the Council is interested.

Chris explained UDOT would keep an eye on the area and try to preserve it for future things. Center medians are not popular but must be considered as traffic increases. Crashes decrease by 40% with them.

This is quite a few years in the future, but UDOT likes to get everyone involved to make sure they understand what is going on so that it's not a shock for business owners when it does happen.

C. Consent Agenda: (Items on the consent agenda may not require discussion. These items will be a single motion unless removed at the request of the Mayor or City Council.)

1. Declarations of conflict of interest
2. Agenda
3. Minutes: February 15, 2023, regular meeting
4. Checks & Invoices: \$160,513.75

Mayor Wilson would like to move business item 4 to business item 1.

The motion was made by Councilman Richard Hirschi to approve the consent agenda as amended, moving business item 4 to the business item 1 position and continuing with the items as listed, including the minutes of February 15, 2023, regular meeting, and checks and invoices in the amount of \$160,513.75, second by Councilman Chuck Hardy. Roll Call Vote: Hardy-yes, Hirschi-yes, Micah Gubler-yes, Blair Gubler-yes, Wise-yes. The motion carried unanimously.

D. Business:

1. Discussion and possible action to approve Ordinance No. 2023-04; an ordinance amending Ordinance No. 2022-08 and section 8-8-1-3 of the La Verkin City Code relative to the City's regulations for landscaping and water conservation applicable to the development of land in La Verkin City.

Mayor Wilson explained this was the landscape ordinance approved last year, allowing new construction with access to secondary water to be exempt from the landscape ordinance.

This ordinance amends that to say any new construction would need to comply with the landscaping ordinance, except for individuals with delivery contracts from La Verkin City.

Kevin explained that he included one clause for people with water rights pertinent to their land to have the same exemption as delivery contract holders.

The motion was made by Councilman Micah Gubler to approve Ordinance No. 2023-04, an ordinance amending Ordinance No. 2022-08 and section 8-8-1-3 of the La Verkin City Code relative to the City's regulations for landscaping and water conservation applicable to the development of land in La Verkin City, second by Councilman Richard Hirschi. Roll Call Vote: Wise-yes, Blair Gubler-yes, Micah Gubler-yes, Hirschi-yes, Hardy-yes. The motion carried unanimously.

2. Discussion and possible action to approve Resolution R-2023-03; a resolution increasing the excess water use surcharge.

Mayor Wilson explained this was for new construction only. There will be a seasonal tiered base amount for residents without access to secondary water. If the water usage exceeds that amount, you will be charged \$10 per thousand gallons for everything over.

For residents with access to the secondary water system, there will be a base amount of 8,000 gallons per month of culinary water. Anything over that amount will be charged \$10 per thousand gallons.

The District is trying to get everyone to .59 Equivalent Residential Units (ERUs). If we can do that, the County will have enough water for an additional 10-15 years.

Councilman Micah Gubler asked about the average household usage.

Derek replied he felt most households could fit within the realm.
Most citizens have access to secondary water.

Councilman Blair Gubler asked how much culinary water La Verkin City uses from the water rights.

Derek replied about 85-90% of the two springs. The remaining amount will cover the remaining lots in La Verkin, not counting Interstate Rock's development.

Mayor Wilson said we already know we will need to purchase water from the Water District to grow. We must adhere to the .59 ERU for them to provide us with that additional water.

Councilman Blair Gubler asked about the secondary water system.

Mayor Wilson reported the City is in great shape with the secondary water. Over the past ten years, we have averaged 700 acre-feet of unused water annually. As the community starts to build out, we will use less, which could be used as a bargaining chip with the District.

Kevin mentioned the City could also possibly convert it to Municipal and Industrial (M&I) water through the State and not go through the District.

Councilman Micah Gubler said he heard Washington City and St. George City are giving developers a letter stating there is no guarantee the development will get water.

Mayor Wilson replied that was right. When a developer comes in with a plat, they let them know there is no guarantee for water.

Several communities are making properties meet the .59 ERU requirement, regardless of property size. Santa Clara is exempting some of their larger lots by making up the difference in other areas of town that will use less water. Toquerville is looking at doing something similar.

It would be the same as what we are doing by exempting delivery contract holders.

Councilman Blair Gubler pointed out La Verkin City finds ways to conserve water so the County can build longer, but our city isn't building. It's the cities around us that are building. How are communities with no water building? La Verkin needs to be able to use our water rights for our growth and not get tied up in these agreements.

Mayor Wilson stated La Verkin City is probably in the best position of any city in the County.

Kevin explained part two of this resolution deals with new construction after 2023 and part one clarifies the resolution approved on September 7, 2022, applies to all connections up to December 31, 2022.

Mayor Wilson said the City wouldn't begin implementing the billing until all communities approve the surcharge increase. It will not be retroactive but will begin billing once all communities have approved it.

If the WCWCD doesn't approve our landscaping ordinance, the resolution will not go into effect.

The motion was made by Councilman Richard Hirschi to approve Resolution R-2023-03, a resolution increasing the excess water use surcharge, second by Councilman Micah Gubler. Roll Call Vote: Wise-yes, Blair Gubler-yes, Micah Gubler-yes, Hirschi-yes, Hardy-yes. The motion carried unanimously.

3. Discussion and possible action to approve an agreement with Western Design Group for architecture for the City Council Chambers remodel.

Kyle explained after not hearing anything back from the company in Northern Utah, he contacted Sunrise Engineering to get a name to draw architectural renderings of the Council Chambers remodel.

He also contacted the State, and this project does qualify for ARPA funds.

Kyle went over the changes anticipated for the chambers. The biggest difference will be moving the foyer to the west side of the room.

The contract is for \$24,000 for the renderings.

The motion was made by Councilman Chuck Hardy to approve the agreement with Western Design Group for architecture for the City Council chambers remodel, second by Councilman Richard Hirschi. Roll Call Vote: Hardy-yes, Hirschi-yes, Micah Gubler-yes, Blair Gubler-yes, Wise-yes. The motion carried unanimously.

4. Discussion and possible action to approve Proclamation No. 2023-01; a proclamation designating April 28, 2023, as Arbor Day for the City of La Verkin.

The motion was made by Councilman Chuck Hardy to approve Proclamation No. 2023-01, a proclamation designating April 28, 2023, as Arbor Day for the City of La Verkin, second by Councilman Ricard Hirschi. Blair Gubler-yes, Wise-yes, Micah Gubler-yes, Hirschi-yes, Hardy-yes. The motion carried unanimously.

E. Mayor & Council Reports:

Wilson-Kyle will get the scholarship applications to the high school. The Council will make that decision next month.

Wise- Nothing to report.

Hirschi-Nothing new to report.

Hardy-Nothing new to report.

Blair Gubler-Passed out a handout from the Solid Waste District.

F. Citizen Comment & Request for Future Agenda Items:

No comments.

G. Adjourn:

The meeting adjourned shortly after 7:00 pm.

April 5, 2023

Date Approved

ATTEST:

Christy Ballard
Christy Ballard
City Recorder

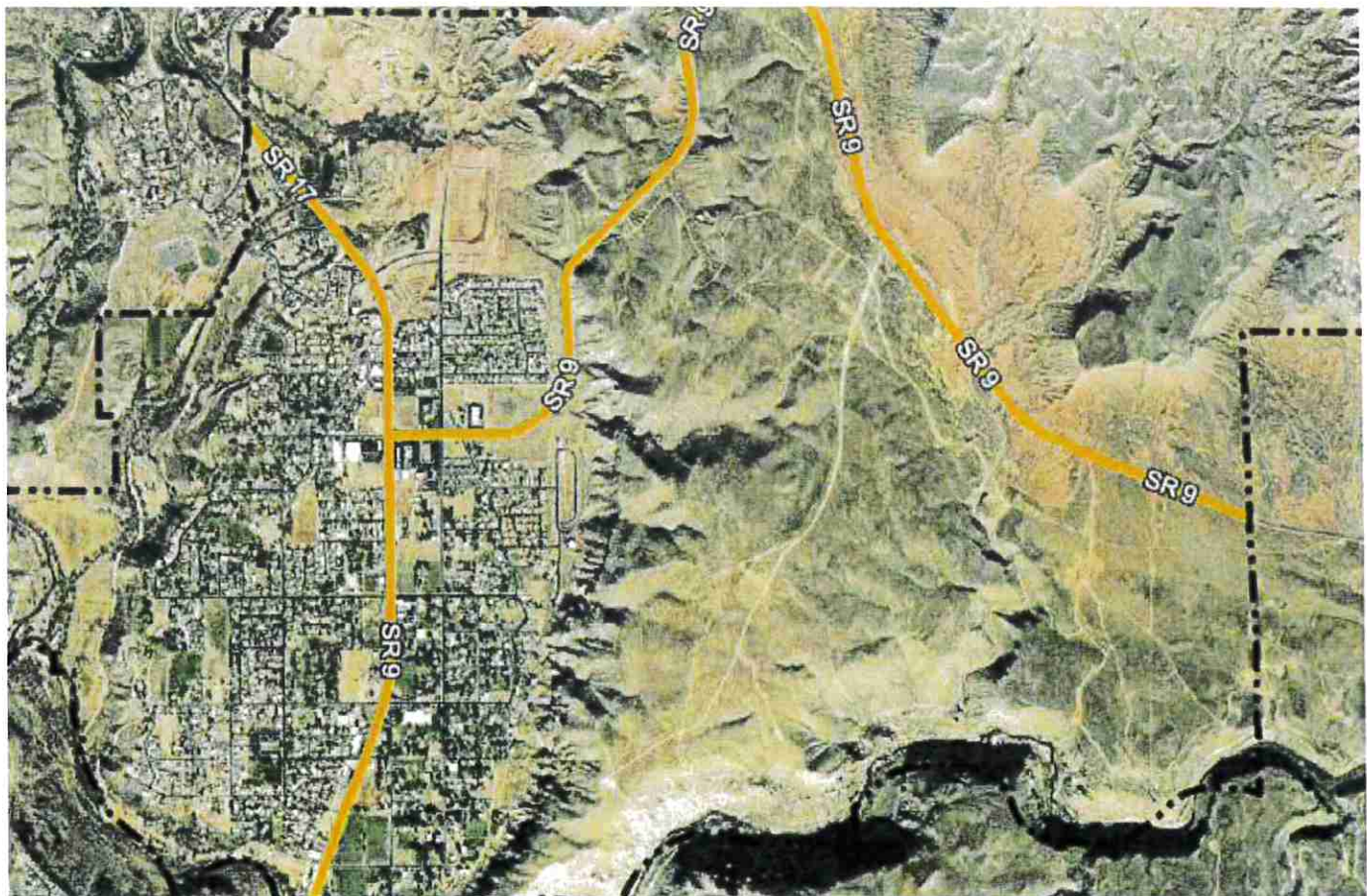
Kelly B. Wilson
Mayor Kelly B. Wilson

SR-9/SR-17 La Verkin Planning Study

A collaborative effort between UDOT and the City of La Verkin, Utah to identify transportation strategies for the SR-9/SR-17 Corridor.

Project No. S-009(62), PIN No. 19607
January 17, 2023

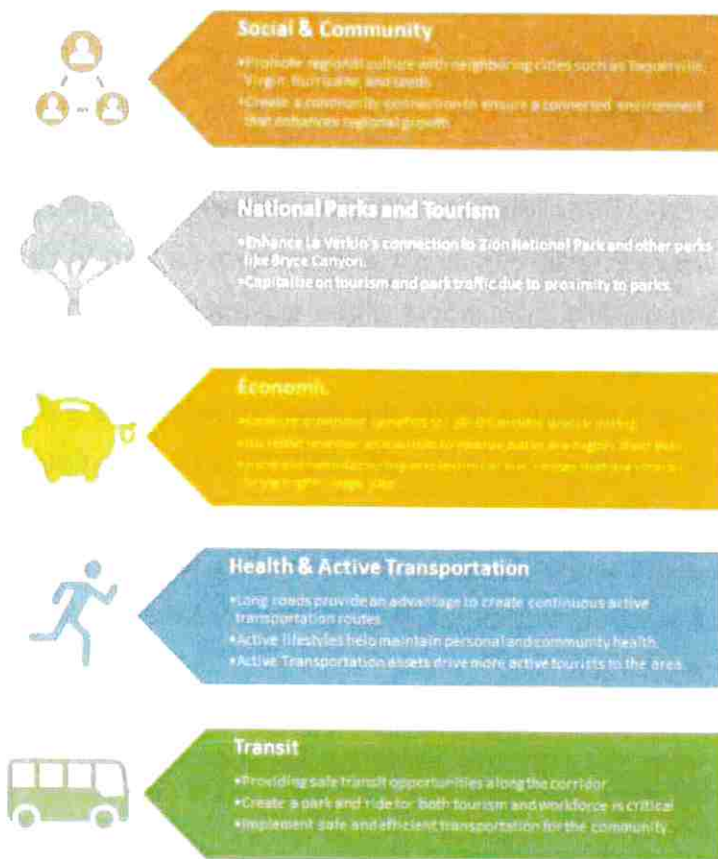
Introduction



Introduction

A collaborative effort between UDOT and the City of La Verkin, this planning study is intended to identify potential changes that UDOT and the City of La Verkin could implement in an effort to future-proof and improve numerous aspects of the transportation system, including mobility and safety. The vision shared between the agencies seeks to improve the SR-9 and SR-17 corridor within the area and establish principles that will move the community towards a shared vision. Determining future traffic demand and growth, identifying city streets improvements, and finding key intersections and access points are some of the objectives in this project. This corridor is located in one of the most prominent areas in Utah. La Verkin is a gateway to Zion National Park and other recreational areas such as Red Cliffs National Conservation Area, Babylon Arch Trailhead, and many others. Improvement of city infrastructure, including the SR-9 and SR-17 corridor is crucial in connecting individuals and families traveling in, out, and around the region.

Context



Context

La Verkin, Utah is a gateway city to many of the surrounding recreational areas within Utah and provides services to travelers from all over the world. Located in Washington County in Southern Utah, La Verkin's unique geographic location provides the city and its travelers a one of a kind detour from traditional cities. Many parks, trails, and other recreational areas are located within a relatively short drive from the city. Because of it's nature and location, there are many opportunities to expand infrastructure to capture as much economic activity as possible. La Verkin had a population of 4,383 in 2020, which allows for many growth opportunities as a relatively small city. Along with capturing more economic activity, UDOT and the city also aims to address the following items:

1. Travel Demand & Congestion
2. Access Management
3. Walkability and Active Transportation
4. Beautification

- 5. Transit
- 6. Economic Needs
- 7. Maintenance

The SR-9/SR-17 Corridor are critical roadways and serve as the primary way for residents and travelers from La Verkin to reach Zion National Park. Zion is one of the busiest parks in the country during peak travel times. In 2021, Zion National Park reached over 5 million visitors, the most travelers the park has ever seen. Travelers taking the SR-9/SR-17 corridor to and from Zion National Park may pass through La Verkin, so capitalizing on increased traveler numbers would be key to secure economic activity. Moreover, trends show a steady increase in travelers to Zion National Park.



Earthstar Geographics | Sources: Esri, TomTom, U.S. Department of Transportation | Powered by Esri

La Verkin is located in Washington County, Utah and is a gateway to Zion National Park.



Crashes (2016-2022)

One of the objectives of this study is to identify locations where safety in La Verkin is an issue and to provide guidance and solutions that could mitigate the issues.

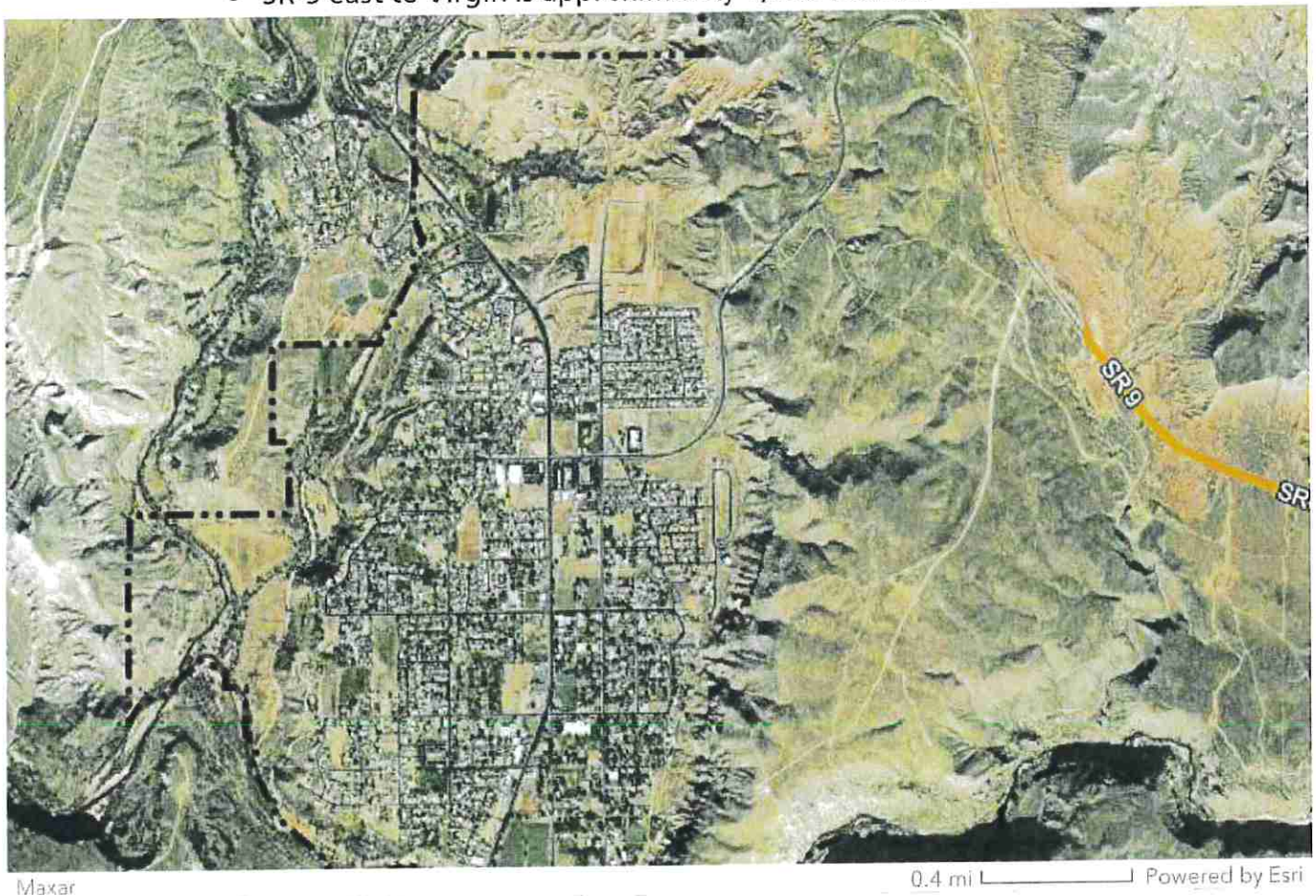
The adjacent map identifies where crashes have occurred from 2016 to 2022. They are symbolized by the severity of the crash. As identified by the map, one fatal crash occurred along SR-9 east of the city. There also appear to be hot spot locations near the intersection of SR-9 and SR-17, and the intersection of SR-9 and Center Street.



Existing Traffic Volumes

In an effort to understand the flow of traffic through La Verkin, existing traffic volumes (2022) and predicted traffic volumes (2050) were collected and reviewed. As shown on the adjacent map, existing volumes from UDOT continuous count stations indicate the following traffic volumes:

- SR-9 South of SR-9/SR-17 Interchange is approximately 19,000-20,000 vehicles
- SR-17 north to Toquerville is approximately 7,000 vehicles
- SR-9 east to Virgin is approximately 7,500 vehicles



Future Traffic Volumes

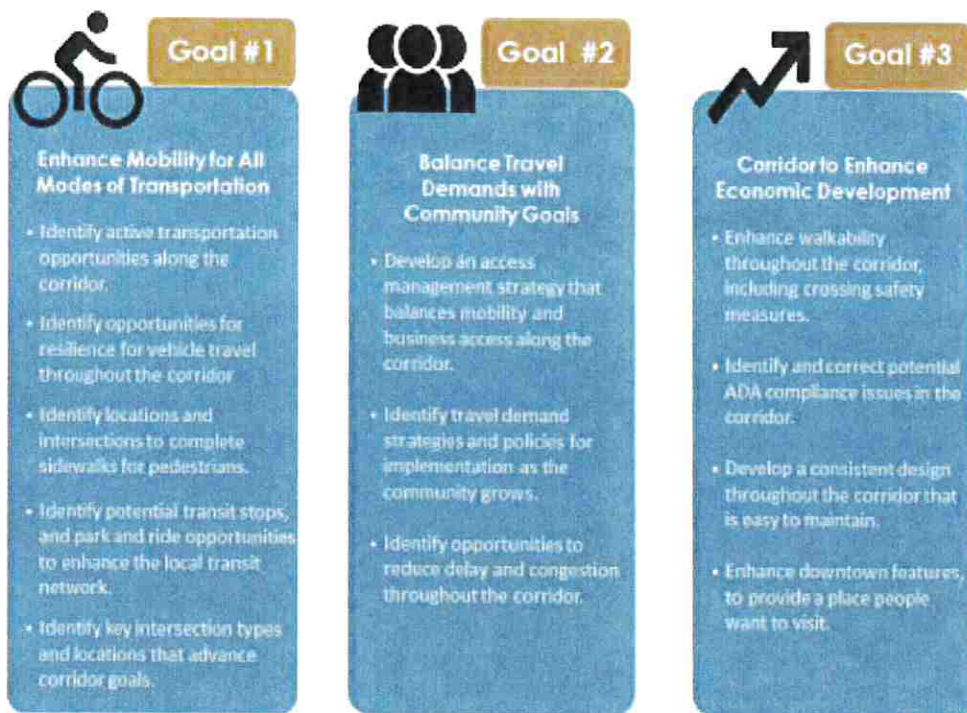
As shown on the adjacent map, La Verkin is expected to see a significant increase in traffic in the coming years. The predicted 2050 traffic volumes show:

- SR-9 south of SR-9/SR-17 intersection is predicted to have 35,000-40,000 vehicles, an increase of 15,000-20,000 vehicles

by 2050

- SR-17 north to Toquerville is predicted to have approximately 30,000 vehicles coming from Toquerville and the Toquerville Bypass, an increase of 23,000 vehicles by 2050
- SR-9 east towards Virgin is expected to have 17,000 vehicles, an increase of approximately 10,000 vehicles by 2050

Vision, Goals and Objectives



Vision

"Improved safety while enhancing mobility and balancing community needs."

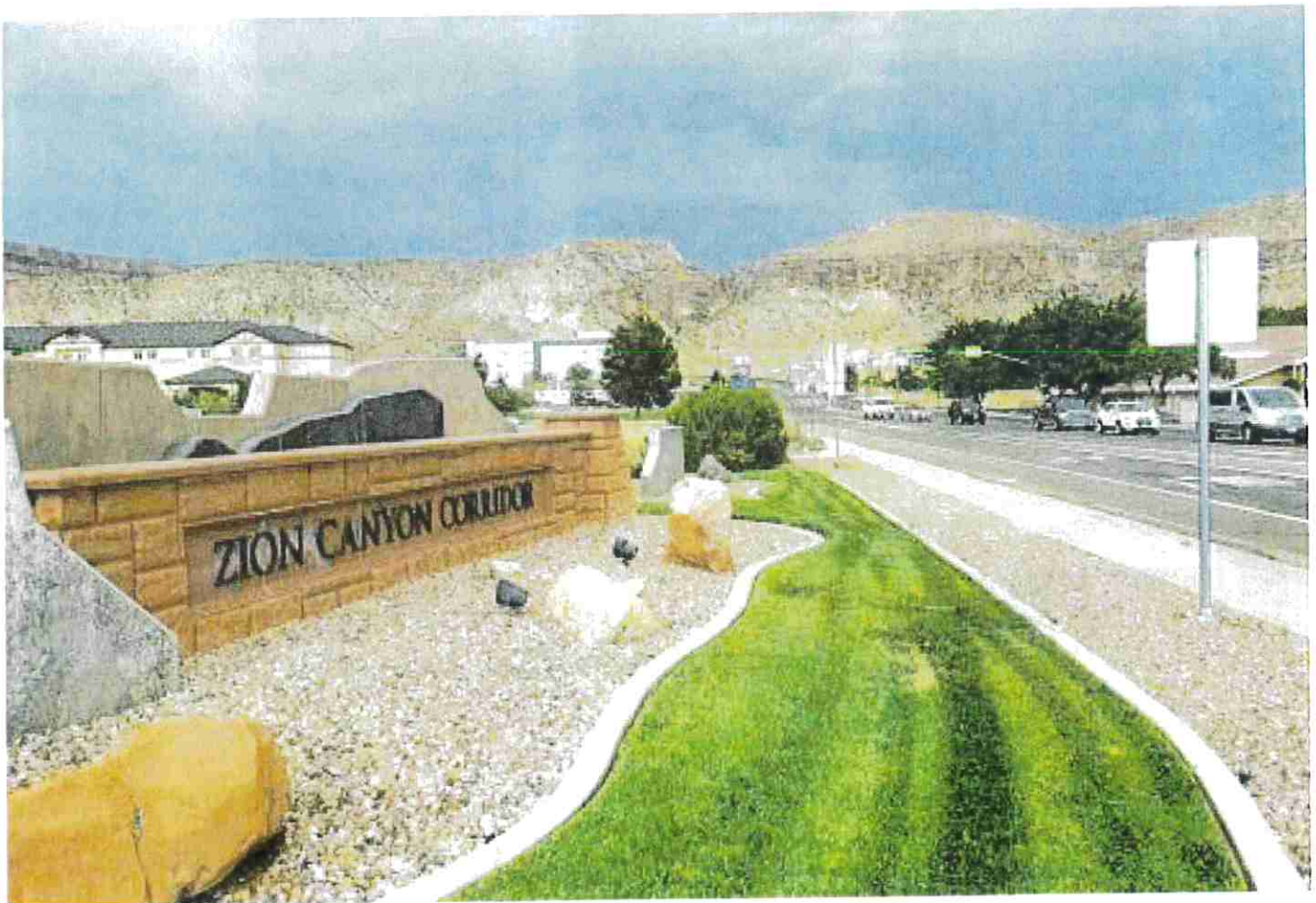
Goals and Objectives

Through discussions with stakeholders three primary study goals with associated objectives were developed. These goals

specifically address issues that were identified as key objectives for the SR-9/SR-17 Corridor and the City of La Verkin. Some of these issues include:

- Active Transportation
 - Walkability
 - Bicycling
- Pedestrian Safety
- Transit Opportunities
- Intersection Improvements
- Access Management
- Community Growth
- ADA Compliance Issues
- Enhanced Downtown
- Economic Development

Needs and Alternatives



Overview of La Verkin Needs and Desires

Based on the Vision, Goals and Objectives and input from Stakeholders a list of Needs and Desires were developed. From that list, several themes emerged. Those themes were:

- Identify and Forecast Travel Demand
- Address Congestion and Access Management
- Address Walkability and Active Transportation
- Identify Beautification and Downtown Enhancements
- Identify Economic Needs
- Identify Transit Needs
- Identify Resilience Needs

The following slides present the detailed needs and desires identified and potential strategies or solutions for meeting those needs and satisfying the identified desires.



Walkability and Active Transportation Needs

- Provide safe connected shared use active transportation opportunities along the corridor.
- Address missing sidewalks and address ADA compliance issues with sidewalks.
- Ensure safe crossing opportunities along SR-9

A Vision for Walkability

As the gateway to Zion National Park, there is incredible demand for hotels and short-term rentals like Airbnb. Tourists want to see not only the stunning geography, but also have good shopping, eating, and cultural experiences.

There is enough undeveloped land that it is still possible to create a walkable mixed-use downtown with similarities to, Moab, Vernal, and others.

However, the present trajectory will create just another auto oriented "Anywhere, USA" unless stakeholders embrace an alternative vision.

The [photos to the right](#) illustrate how other cities in the region have created walkable spaces and how La Verkin could take these concepts and create an aesthetically pleasing corridor.



Active Transportation Strategies

Identify Sidewalk Gaps and ADA Compliance Issues

The map on this slide identifies existing sidewalks and crosswalks, bike lanes, parks, and trails in relation to the SR-9/SR-17 corridor. In its current configuration, safe crossing locations along SR-9/SR-17 currently exist at Center Street and 500 North. Additional safe crossing zones could be provided at 300 South, 100 South, 200 North, 300 North, 630 North, and 740 North if warranted. Safe crossing zones should be ADA compliant and include clearly marked crossing areas, signage, and prioritization signals.

In addition, another way to provide enhanced mobility for pedestrians is to identify areas that may be disconnected by a lack of sidewalks. Connecting these facilities to provide safe passage for pedestrians will allow residents to reach more destinations by foot.

Provide Safe Active Transportation Corridors to Connect Recreational Amenities off State Routes

Providing safe active transit corridors on roadways such as Main Street, 300 West, Center Street, 200 North, and 500 North provides safer connections throughout La Verkin for bicyclists and pedestrians.

Safe active transportation corridors entail the utilization of dedicated marked or striped lanes (pink) on higher volume roadways.

Proposed Trails

The La Verkin 2018 General Plan identifies a potential perimeter trail (dashed green) around the outskirts of La Verkin,

with a north/south connection along Main Street which ends near the suggested Mobility Hub location at 500 North and Main Street.



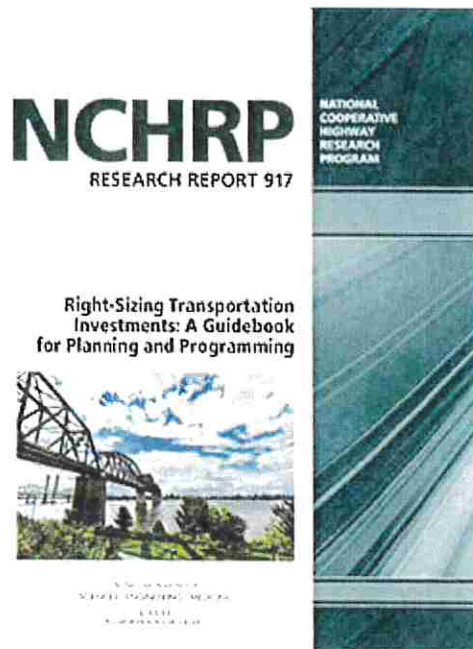
Need for Capacity + Walkability Strategy

Current traffic on SR-9 is about 19,000 vehicles per day. While 5-lane arterials often serve up to 35,000, SR-9 cannot get this high due to high seasonal variation and numerous RVs which affect capacity. Traffic forecasts for 2050 anticipate 30,000 or more – not so much due to visitors to Zion, but to development in the city and toward Zion.

There are strong reasons to maintain 2-lanes each direction, but with just 75-ft right-of-way, there is very little room for anything but pavement. In the existing conditions shown in [the photo and graphic on the right](#), building setbacks are at least 8-feet and usually more.

In the cross section graphic to the right, anything red or yellow is sub-standard when designing for mixed-use environments: Sidewalks are too narrow, 11-ft lanes are a little too wide, 8-ft setbacks are too wide (meaning buildings should be closer to the sidewalk), and a 40-mph speed limit is a little too fast (yellow).

It isn't easy to have high capacity and great walkability at the same time. However, there have been many breakthroughs recently that have potential in La Verkin. NCHRP 917 details many "rightsizing strategies" that help ensure great circulatory capacity, and great walkability at the same time.



NCHRP Research Report 917 - Right Sizing Transportation Investments: A Guidebook for Planning and Programming





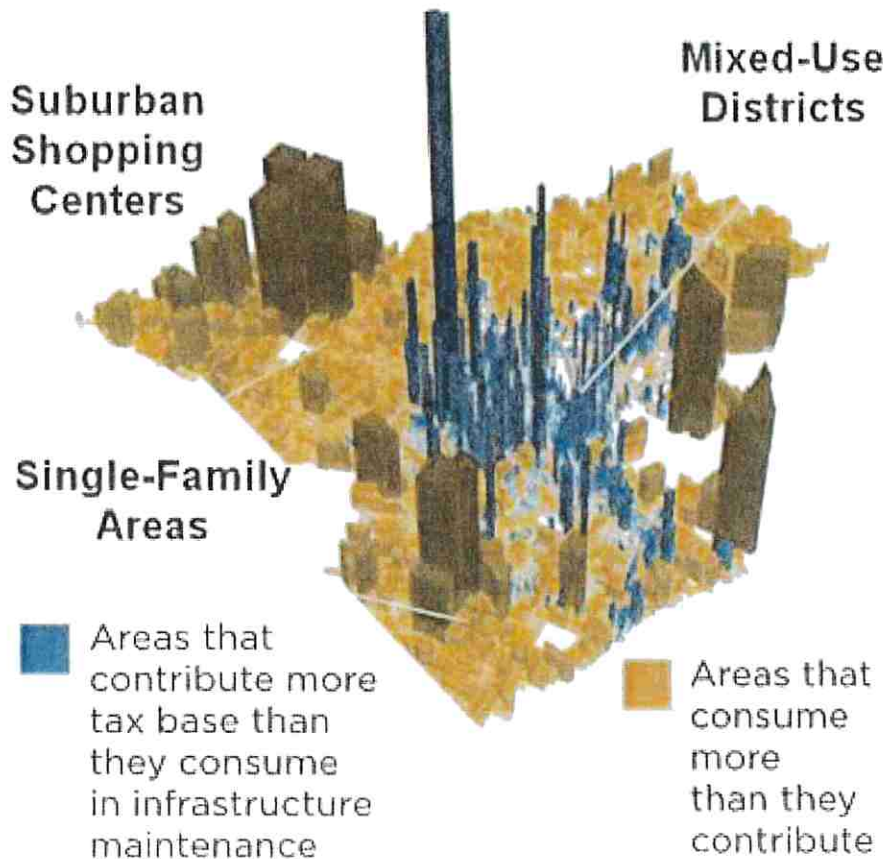
Right-Sizing for Walkable Activity Centers

Economics of Walkable Districts

Low-density means high taxes per capita for maintaining infrastructure. Creating high-value districts can offset the cost of maintaining lower-density areas. In the graphic below, single-family neighborhoods (orange) cost more to maintain than they contribute to the tax base. This includes auto-oriented commercial.

LIFE CYCLE COST VS REVENUE

LAFAYETTE, LOUISIANA



Source: Urban3, Strong Towns

Also featured in APA's Planning Magazine, Aug / Sept 2020

Implement Mixed-Use Areas in La Verkin

Mixed-use, higher-density neighborhoods are the opposite, generating more revenue than it takes to maintain their street trees and other walkable features.

The adjacent map identifies areas in pink where mixed-use neighborhoods could be potentially beneficial to La Verkin.



Beautification, Downtown Enhancements and Tourism Needs

- Enhance downtown area to be a destination where people want to stop.
- Provide a clean aesthetic consistent design throughout the corridor.
- Manage planned and future business development through land use and policy changes.
- Increase revenue from tourism Industry, including tourism-driven businesses.
- Be conscious of the desire for simple maintenance of roadways and landscaping.

Beautification and Downtown Enhancement Strategies

The following slides include potential side treatments, parking strategies, and land use policies that could be implemented to

make La Verkin a destination for tourist and tourist- related business activities.

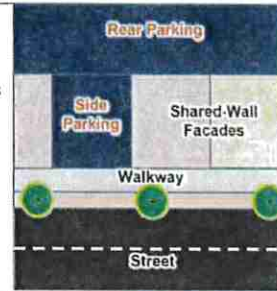
Front & Side

Pros: Market familiarity
Cons: Repels walkability, dangerous speeds, low tax revenue per acre, hard to retrofit. Parking usually under-utilized. Haphazard look and feel.



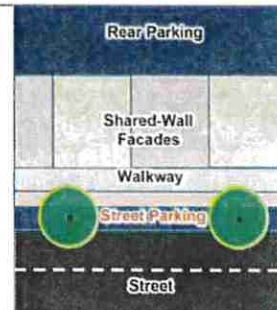
Side & Rear

Pros: Catalyzes walkability, high tax revenue, high traffic capacity relative to next option.
Cons: "Jack-o-lantern" effect, large trees may touch buildings. No street parking = no barrier between traffic and pedestrians.



Street & Rear

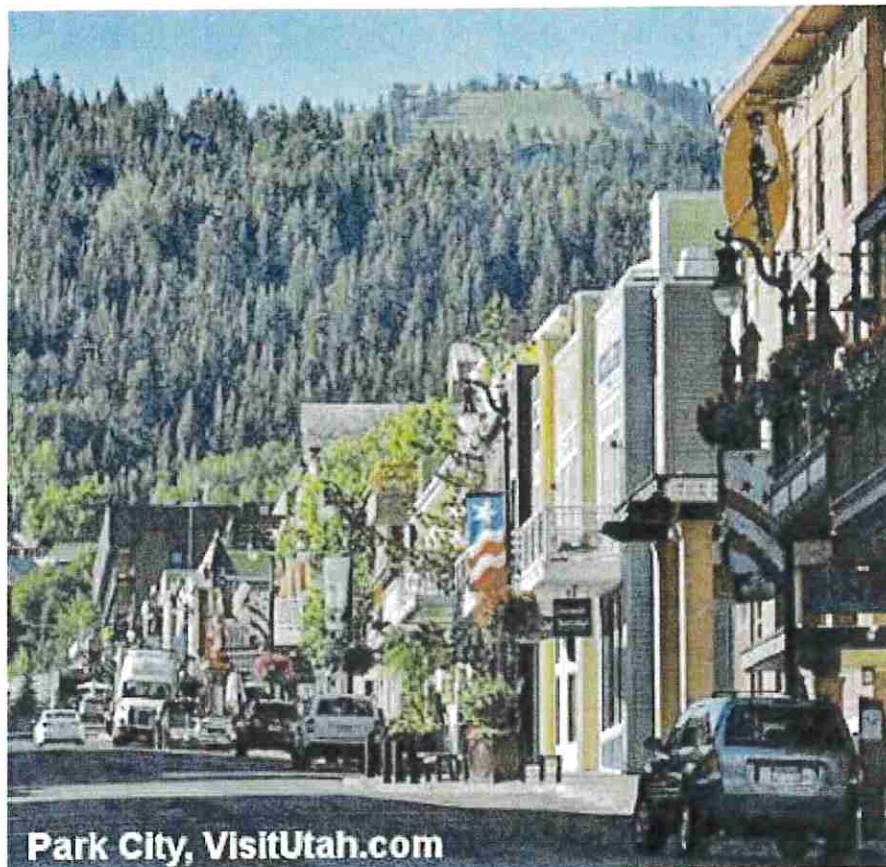
Pros: Best possible walkable / tourism arrangement. On-street parking leaves more land for buildings. Large trees possible when planted in parking lane. Slower traffic.
Cons: Parking has modest impact on traffic capacity and travel time.



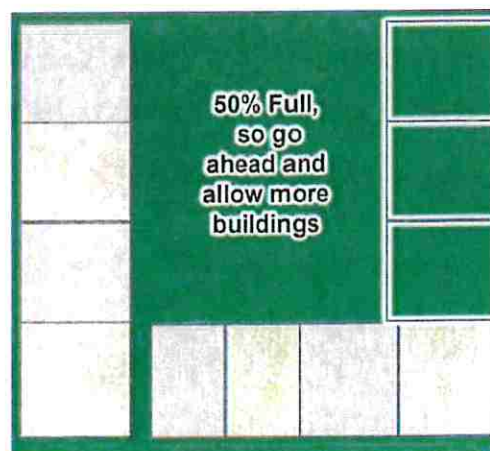
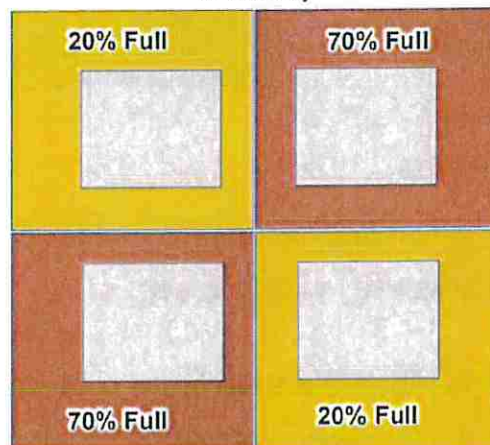
Parking Strategies

The way parking is handled has a major effect on whether an area will be walkable and inviting or not.

Consider adopting a form-based land use code that discourages private parking and driveways in front of buildings. Instead, encourage rear-access parking from side-streets, alleys, or backage roads. Allow side parking if there is no way to have enough in back. Then encourage buildings to be within 3-5 feet of the eventual right-of-way line.



Shared-wall commercial with over-top residential and on-street parking along Main Street
in Park City



Remove Parking Requirements and Encourage Public over Private

As illustrated in the side panels, when parking must be supplied directly on the parcel being developed, the result is anything but walkable. Some parcels might then be 70% full, while others are only 20% - very inefficient.

Instead, aim for common-lots where stakeholders on the block budget for maintenance – as with a homeowner's association. Then if the common lot is under-utilized, convert part of it to buildings. If it is over-utilized, the success may justify a garage.

Best practice in downtowns is to eliminate minimum parking requirements. Trust the market – business knows it must have parking. Create great on-street parking to minimize how much land goes to off-street parking.



Parcel-by-parcel parking, especially in front of buildings, makes it nearly impossible to retrofit into a truly walkable street. Public lots behind or to the side of buildings, and form-based codes guiding buildings to abut the sidewalk, foster walkability.



Street Trees – Essential for Walkable, Tourist-Oriented Activity Centers

Street Trees may well be the single most cost-effective thing you can do to catalyze walkable development. This is especially true in La Verkin, where punishing sun will hinder tourism, but large-canopy trees will encourage exploration.

Structured Soil

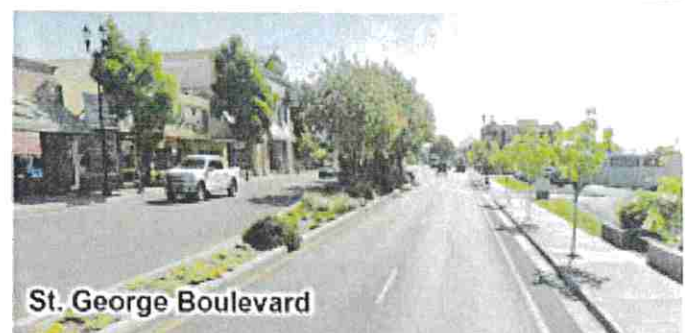
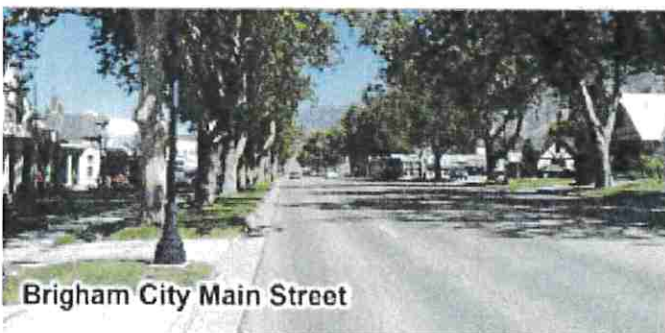
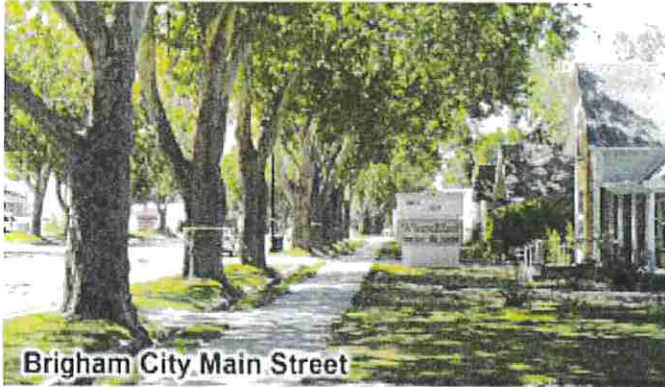
Street trees do best with loose organic soil, but pavements around trees need rock-solid foundations. Concrete root boxes or plastic structures, [as shown here](#), create space inside the box for roots, while the box itself keeps sidewalks and pavers above it from shifting.

Storm water storage in the boxes help ensure water during drought conditions.

Tree "Zippers"

Trees are usually placed in the “park strip.” But if there is on-street parking or an under-utilized shoulder, planting them there creates a “zipper effect”:

- Better shading of the roadway
- Tighter = safer speeds
- Further from wires and buildings.



Street Trees – Essential for Walkable, Tourist-Oriented Activity Centers

Examples of Great Streets, Made Possible by Great Trees

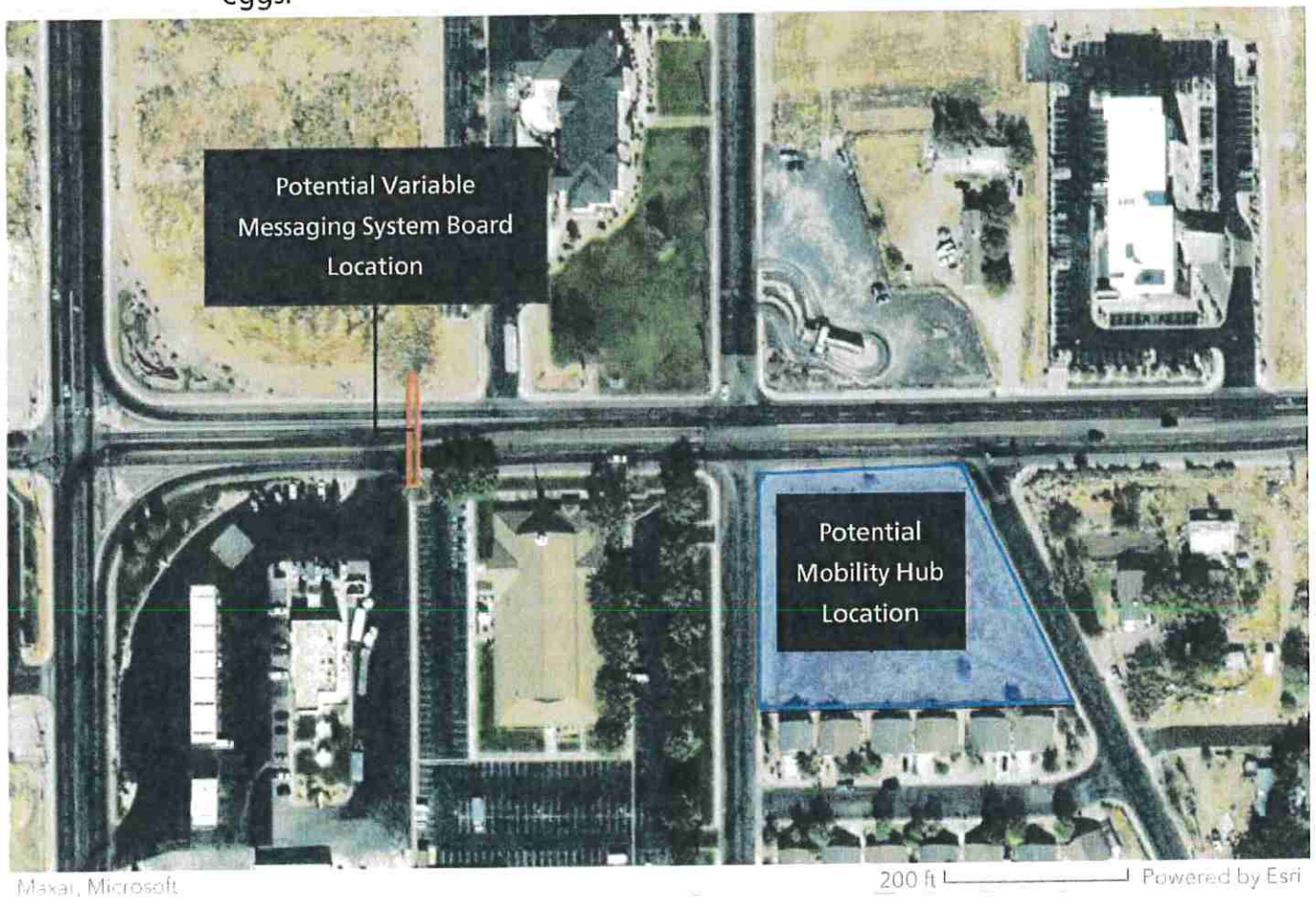
Uniform trees, where both sides of a block are the same species and planted at the same time, was common decades ago. Today, streetscape is “developer-by-developer,” – a recipe for randomness that hinders the walkability that tourists and residents alike are seeking.

For La Verkin to achieve its goals, there is a need for a strategy to implement relatively tall, wide-canopy street trees.

Funding and Maintenance of Street Trees

Along most arterials, it is hard to adequately fund trees in a way that ensures they will thrive and create a lot of shade. But as a town where the whole world will gain either a positive or negative impression of Utah, La Verkin may have success in securing funds directly from the state legislature, perhaps with assistance from the Utah Economic Development Corporation.

Moving quickly to designate mixed-use districts where higher densities (perhaps 2-4-stories) are encouraged and adopting a form-based code to guide emerging development, will help ensure long-term funds to "feed the goose that is laying golden eggs."



Travel Demand Strategies

- Address congestion into and out of La Verkin.
- Address congestion near the La Verkin Shooting Range and the new Master Planned Community on SR 9.

Travel Demand Opportunities

Zion National Park Shuttle and Parking

Currently, Zion National Park does not require reservations to visit the park, however, permits are required to visit some of the attractions, like Angel's Landing. Shuttles operate daily from March -November, and weekends in February and March. Zion National Park often experiences crowding and lack of parking, causing the park to close traffic once parking is full. A shuttle operates from nearby Springdale, where a parking fee is required.

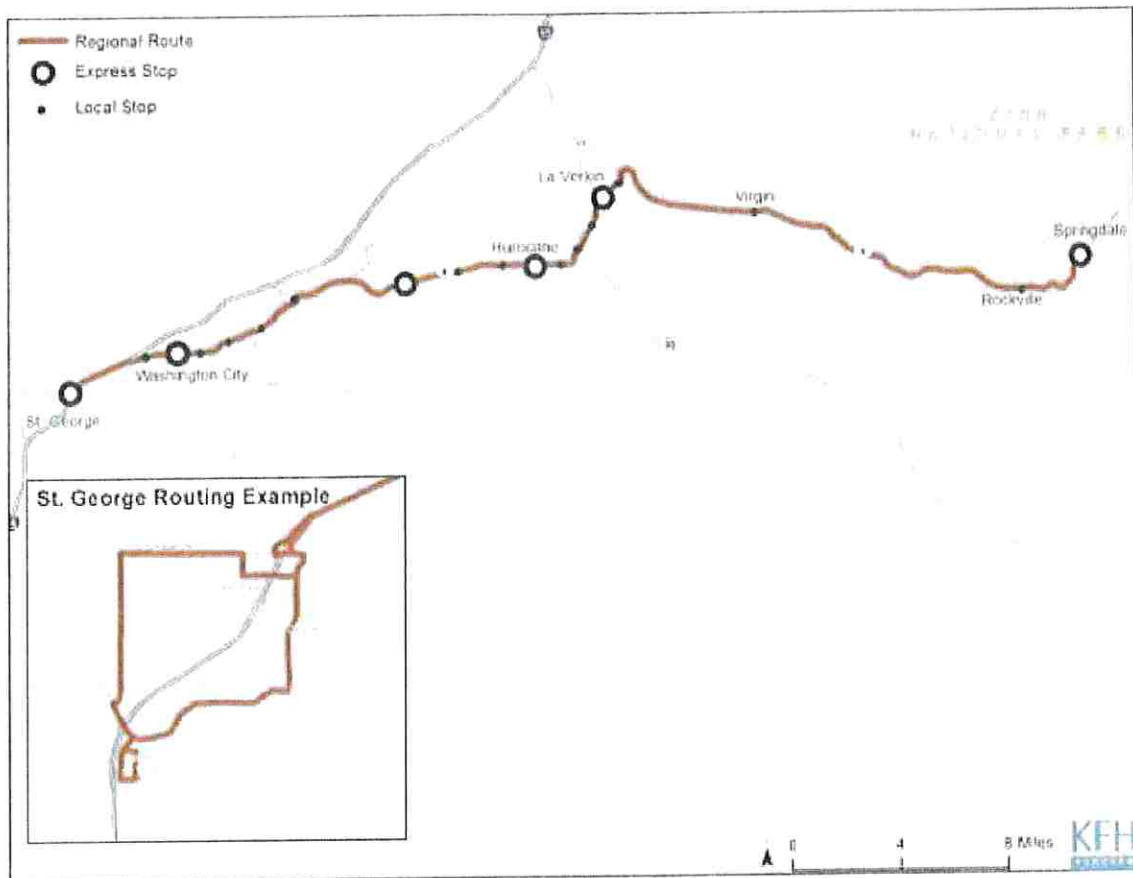
Transit/Rideshare Opportunities

The expansion of transit services and a mobility hub (potential location illustrated on the right) into La Verkin would help alleviate congestion by minimizing traffic on SR-9 and SR-17. The proposed SunTran bus line would provide an alternative way to get to Zion National Park for tourists and St. George for the workforce. A mobility hub would also provide an opportunity for the workforce traveling outside of La Verkin to rideshare.

Variable Messaging Boards

Another option is to provide Variable Messaging Boards (potential location illustrated on the right). These boards can:

- Help reduce congestion
- Allows quick communication with drivers
- Can provide trip ETA's or communicate that parking is full



Transit Needs

- Provide safe transit opportunities along the corridor.
- Identify locations for a potential Park and Ride for tourism and workforce.

Transit Opportunities

SUNTRAN Expansion into La Verkin

St. George's Public Transit System is anticipating the implementation of a regional transit service from St. George to Springdale in 2023 with a proposed stop in La Verkin. This will provide transit opportunities to the citizens of La Verkin. The proposed transit route will follow SR 9 through La Verkin.

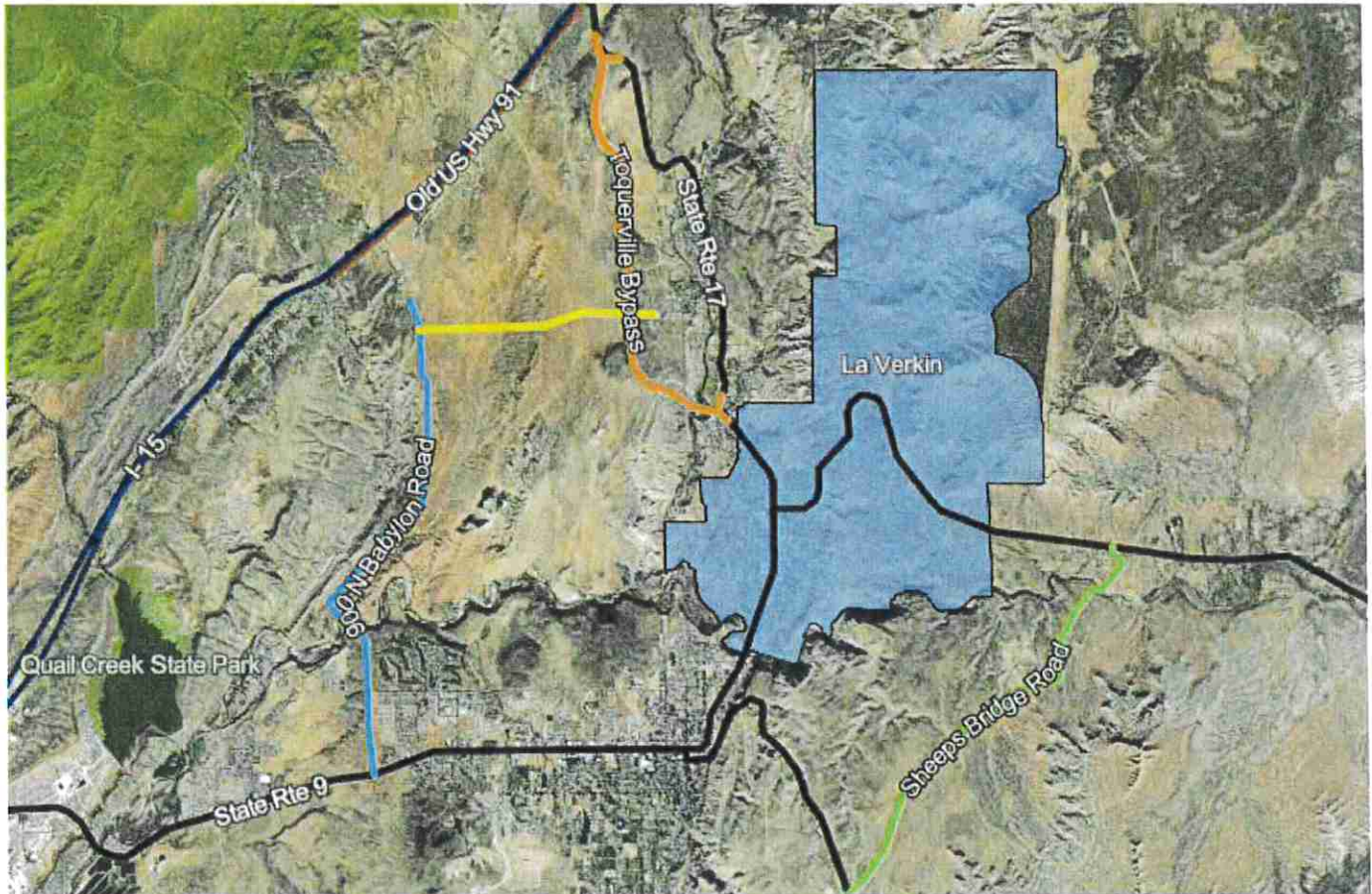
Bus Stops in La Verkin

In 2010, the [Hurricane to Zion Canyon Transit Study](#) identified potential transit stops in the vicinity of:

- SR-9/Center Street
- SR-9/500 North

Identify a Dedicated Mobility Hub

As noted above, a mobility hub located in La Verkin would provide opportunities for not only transit but also active transportation, rideshare, and recreational activities related to Zion's National Park.



Earthstar Geographics | Sources: Esri, TomTom, U.S. Department of Com

2 mi | Powered by Esri

Resilience Needs

- Provide additional connectors into and out of La Verkin.
- Provide first responders with additional routes to provide safety services.

Resilience Strategies

Toquerville Parkway

Toquerville Parkway is a proposed 4.-mile new corridor located west of Toquerville that would bypass SR-17 around Toquerville and reconnect just north of La Verkin. This new facility would provide additional access from I-15 to La Verkin. It's anticipated to be constructed in 2023.

Sheeps Bridge Road

Sheeps Bridge Road from SR-59 to SR-9 just east of La Verkin would provide an additional connection from the south to SR-9 if a disruption were to occur in La Verkin if it were upgraded from a dirt road.

900 North Babylon Road

900 North (near Babylon Trail) from Hurricane to Leeds also being considered by UDOT is another nearby potential connection across the Virgin River to traverse north and south should a disruption occur in northern La Verkin. This roadway would need to be upgraded from a dirt road and a bridge built over the Virgin River.

Toquerville-Leeds Connector

Another resilience connection being considered by the Dixie MPO is the Toquerville-Leeds Connector. It runs east from the 900 N Babylon Road project just east of Leeds to Toquerville connecting to Sunset Avenue.



Congestion and Access Management

- Provide an access management strategy that provides safe turning movements into businesses along SR-9.
- Utilize shared driveways when opportunities are available.
- Balance community needs and mobility needs.

Congestion and Access Management Solutions

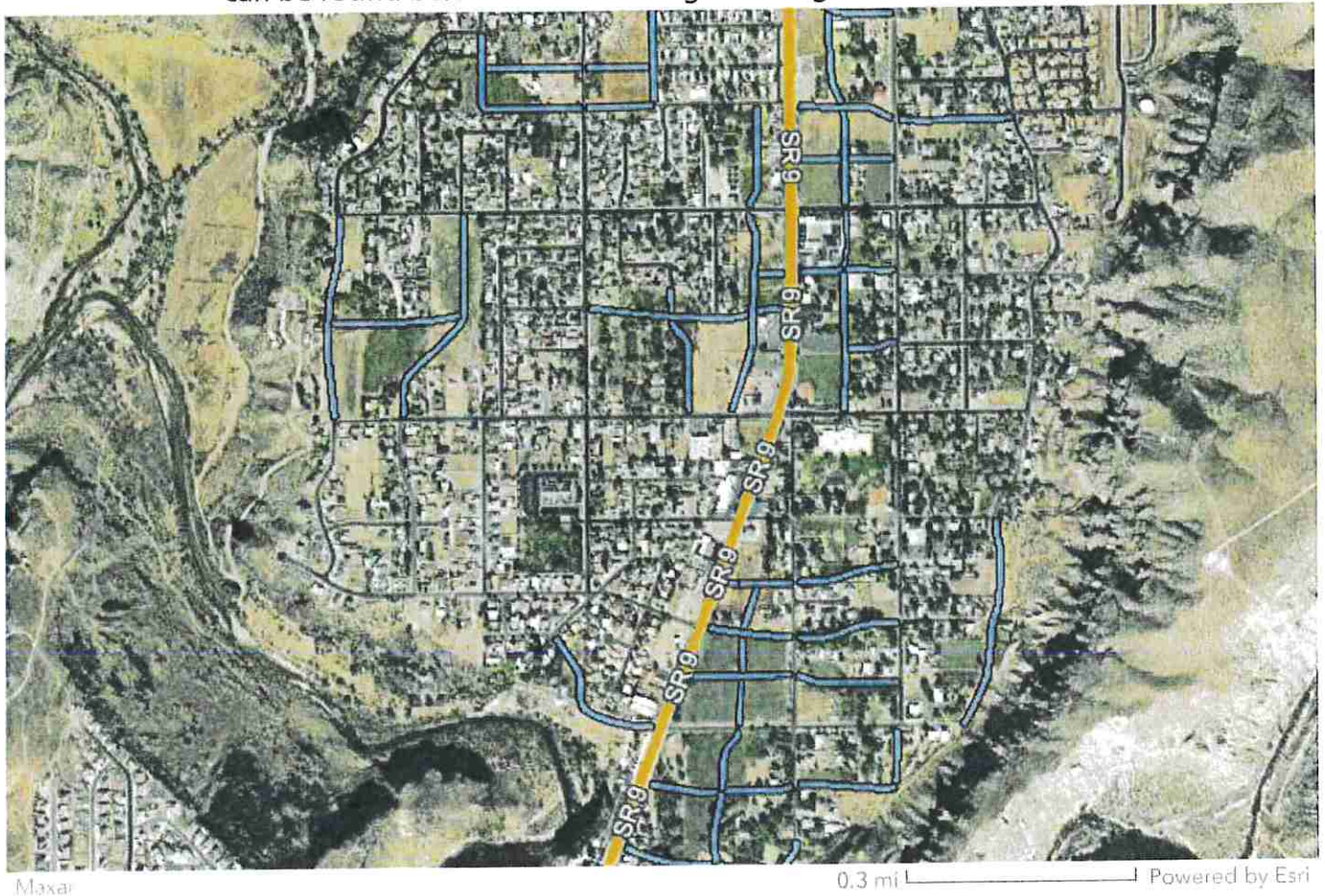
The following slides will discuss potential ways to mitigate congestion and safety issues, and introduce some potential alternatives for the SR-9/SR-17 Corridor.

A range of options were evaluated as part of the study. The options which were aimed to reduce congestion and provide better mobility through La Verkin on the SR-9/SR-17 corridor included the following:

- **Baseline or No Build Option**
- **Standard Signal Upgrades**

- Roundabouts
- Loops
- One-Way Couplet from 200 North to 600 North

More details and the results of the evaluation of these options can be found below in the "Putting it All Together Section"

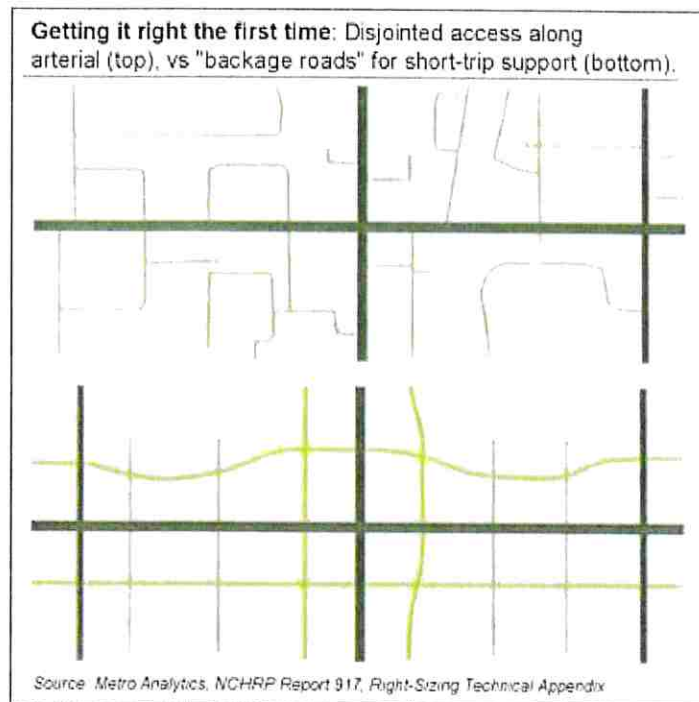


Network Connectivity and Arterial Backage Roads

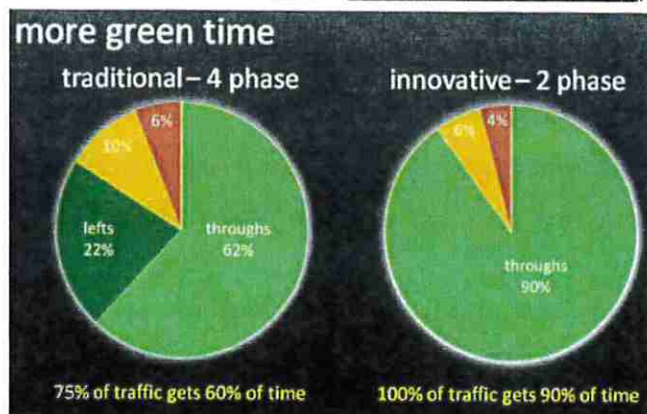
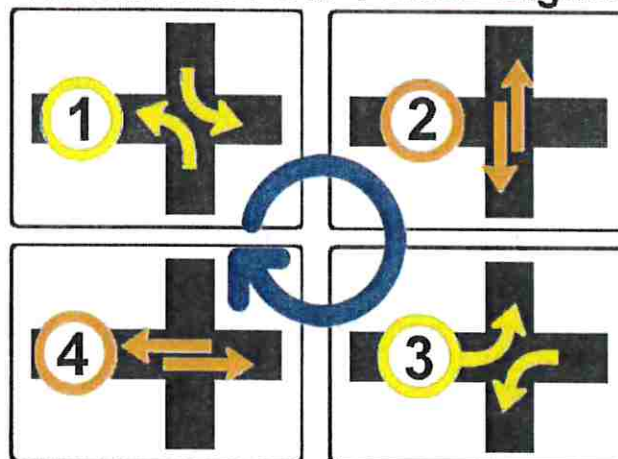
In the graphic below, the top is what typically happens in most communities in America. Cities fail to specify where they want their smallest roads, so each developer does whatever they want. The result is a mess.

In the bottom, cities require "backage roads" so that local circulation can occur without the delay and danger of entering the larger arterial. Frequent cross-streets are an access management strategy that reduces the need for driveways connecting directly to arterials. Developers often have flexibility on where they put a road, but they cannot entirely block its continuity.

The adjacent map identifies suggested connector roadways which would provide continuity and flow on local streets in La Verkin for local traffic.



Traditional Four-Phase Signal



Managing Traffic, Safety, and Walkability

The Main Cause of Congestion

In urbanizing areas, congestion occurs when traffic signals are “upgraded” from two to four-phases so that left-turning vehicles can proceed safely. Such intersections often require double-left lanes (as shown in the illustration on the right). High volumes and a huge number of potential conflicts with other vehicles and pedestrians makes such intersections, anything but walkable.

The Main Cause of Safety Hazards

When an arterial lacks nearby cross-streets or parallel backage roads, developers have no choice but direct driveway access. When vehicles try to turn left from these driveways, they must wait for a safe gap in both directions – hard to do on a multi-lane cross-section where speeds often exceed 5-mph. To reduce crashes, engineers often install raised medians, which force those who want to turn left to instead turn right. While this is great for safety, it often angers businesses because customers complain about it being too hard to get in and out of the business.

Placemaking Alternative Intersections

Recent breakthroughs in roadway design improve all of these things simultaneously:

- Reduced congestion by reducing signal phases
- Improved safety with business-friendly access management
- Walkability via shorter, safer crosswalks, convenient spaces for streetscape, and “drive slower, travel faster” design.

Putting It All Together



One-Way Couplet and Loon Alternative

The **interactive map to the right (use map controls to zoom, pan and expand)** illustrates how the conceptual One-Way Couplet from 200 North to 600 North incorporated with Loons (also known as an RCUT) south of the recommended "Downtown Area" could look like once fully constructed.

Clickable information points (question marks) throughout the map provide context and details to enhance or clarify this recommended alternative. **A legend button is located in the lower left corner of the map. Be sure to pan around to see all the features.**

It is important to note that the one-way couplet is ideally the first piece of realizing a vibrant new "Downtown Area" for the City of La Verkin. **It is also important to understand that the Loons south of the Downtown Area while shown here are to be considered optional, and to be constructed as needed to accommodate appropriate traffic flow through the city.**

High Level Cost Estimates

High-level evaluations of potential construction costs by roadway engineers are:

- One-Way Couplet = \$22 Million Dollars*
- Loon Development = \$24 Million Dollars*

*Includes full treatment for aesthetics, trees, and on street parking.



As the interactive map to the right was conceptual it was necessary to use a different lane configuration during evaluation at SR-17 (500 North). The above graphic represents the lane configuration modeled for evaluation.

PDF Powerpoint Presentation

Strategies Tech Memo

La Verkin Corridor Study Levels of Service (LOS)						
Intersection	Control	Existing				
		Existing	+50%	+70%	+80%	+90%
		19,200	28,800	32,640	34,560	36,480
		2022	2032	2040	2045	2050
SR-9 / SR-17 / 500 North	Signal	B	C	D	D	F
SR-9 / 200 North	Signal	B	F	F	F	F
SR-9 NB / SR-17 NB / 500 North	Signal	-	-	-	-	-
SR-9 / 400 North Loon	Yield	-	-	-	-	-
SR-9 / 400 North	EB Stop	-	-	-	-	-
Key		A	B	C	D	F

Evaluating the Recommended Alternative

To evaluate the effectiveness of the recommended alternative against existing conditions and future traffic, the alignment and intersections were input into a travel demand model to analyze the Level of Service of SR-9.

The first model evaluated the Existing Conditions and the No Build Alternative at various percentages of traffic increase from the current volumes (2022) to a 90% increase in traffic. The chart clearly identifies that SR-9 begins to fail at a 50% increase in traffic in some locations.

La Verkin Corridor Study Levels of Service (LOS)							
Intersection	Control	One-Way Couplet					
		Existing	+50%	+70%	+80%	+90%	+100%
		19,200	28,800	32,640	34,560	36,480	38,400
		2022	2032	2040	2045	2050	2050+
SR-9 / SR-17 / 500 North	Signal	B	C	C	C	C	C
SR-9 / 200 North	Signal	B	A	A	A	A	A
SR-9 NB / SR-17 NB / 500 North	Signal	A	B	B	B	B	C
SR-9 / 400 North Loon	Yield	-	-	-	-	-	-
SR-9 / 400 North	EB Stop	-	-	-	-	-	-
Key		A	B	C	D	E	F

Evaluating the One-Way Couplet

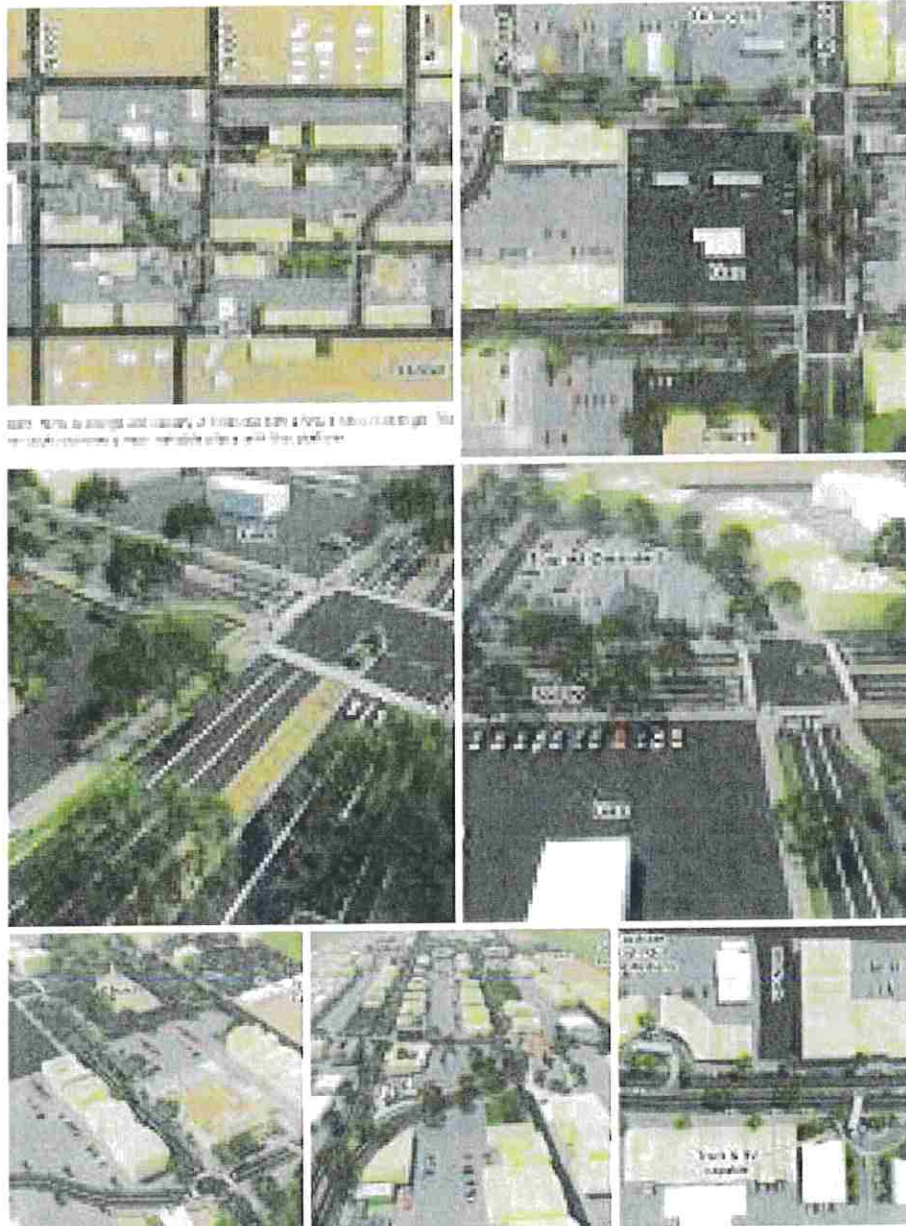
The second model evaluated the effectiveness of the One-Way Couplet from 200 North to 600 North. As shown in the table, the one-way couplet LOS ranges from A to B, which is very good under the 2022 traffic volumes. As the volumes grow to double the existing traffic, the one-way couplet continues to perform well with a LOS ranging from A to C.

La Verkin Corridor Study Levels of Service (LOS)						
Intersection	Control	Loons				
		Existing	+50%	+80%	+90%	+100%
		19,200 2022	28,800 2032	34,560 2045	36,480 2050	38,400 2050+
SR-9 / SR-17 / 500 North	Signal	B	C	D	E	F
SR-9 / 200 North	Signal	B	A	A	A	A
SR-9 NB / SR-17 NB / 500 North	Signal	-	-	-	-	-
SR-9 / 400 North Loon	Yield	A	A	A	B	B
SR-9 / 400 North	EB Stop	A	A	A	A	A
Key		A	B	C	D	E

Evaluating the Loons

The third model evaluated the effectiveness of the Loons along the southern end of the corridor as shown in the recommended alternative. As shown in the table, with the loons constructed the LOS ranges from A to B, which is very good under the 2022 traffic volumes. They continue to perform well until they reach traffic volumes 80% greater than in 2022, and begin to fail at 90% greater than in 2022 volumes at the SR-9/SR-17/500 North location, however, continue to range from LOS A to B at the other intersections.

3D Renderings of the One-Way Couplet from 200 N to 600 N and a Loon



These photos illustrate the various types of parking lots and roadways that will be constructed. The yellow and green overlays indicate the specific project areas and land use designations.

[Click to Enlarge Images](#)

Implementation Plan

Walkability and Active Transportation Needs					
Goal Addressed	Solution	Solution Champion	Key Stakeholders	Responsibilities	Timeframe
Goal #1 - Mobility for All Modes Goal #3 - Enhance Economic Development	Construct Sidewalk Recommended in Story Map to Enhance Walkability	City of La Verkin	City of La Verkin	Develop plan to construct missing or update sidewalks to be ADA compliant. Increased walkability promotes commerce in Downtown Area.	Short Term, 1-5 years
Goal #1 - Mobility for All Modes	Improve Active Transportation Recommendations in Story Map	City of La Verkin	City of La Verkin	Develop plan to construct/upgrade bike lanes along Main Street, IHO St, Center Street, IHO St, and IHO St.	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #3 - Enhance Economic Development	Complete Proposed Trails Identified in General Plan	City of La Verkin	City of La Verkin	Follow through on constructing planned trails and connectors	Short Term, 1-5 years
Goal #1 - Mobility for All Modes	Construct a Mobility Hub	SUNTRAN	City of La Verkin, SUNTRAN, UDOT	Work with SUNTRAN and UDOT to develop an appropriate site for a Mobility hub to house transit and park and ride opportunities.	Short Term, 1-5 years

Roles and Responsibilities

Key to the future success of the SR-9/SR-17 study corridor is an implementation of the solutions outlined in this study. Specific solutions and projects will need champions to see those ideas through planning, design, and ultimately construction of those projects. In addition, stakeholders will need to be engaged throughout the process to successfully navigate these solutions and projects. The following slides present the solutions, key stakeholders, responsibilities, estimated timeframes, and how they achieve the study goals identified at the onset of the study.

Walkability and Active Transportation Needs

The solutions include constructing recommended sidewalks, implementing Active Transportation Corridors, completing previously proposed trails, and constructing a mobility hub. Key stakeholders for these activities include the City of La Verkin, SUNTRAN, and UDOT. These short-term activities should be considered for implementation in the next 1 to 5 years.

Goal Addressed	Beautification, Downtown Enhancements and Tourism Needs			Responsibilities	Timeframe
Goal #2 - Balance Travel Demand and Community Goals Goal #3 - Enhance Economic Development	Solution Develop a Form-Based Land Use Code with emphasis on One-Way Couplet Area from Center Street to 600 N	Solution Champion City of La Verkin	Key Stakeholders City of La Verkin	Develop and implement land use and zoning policy focused on creating mixed-use areas within the downtown area.	Short Term, Early 2024
Goal #2 - Balance Travel Demand and Community Goals Goal #3 - Enhance Economic Development	Solution Develop Parking Strategies from a Form-Based Land Use Code	Solution Champion City of La Verkin	Key Stakeholders City of La Verkin	Develop parking policy focused on encouraging public parking over private in the downtown area.	Short Term, 1-5 years
Goal #3 - Enhance Economic Development	Solution Implement Mixed-Use Areas	Solution Champion City of La Verkin	Key Stakeholders City of La Verkin	With new land use and zoning policies in place, work with developers to implement mixed use areas in the downtown area.	Short Term, 1-5 years
Goal #3 - Enhance Economic Development	Solution Implement Street Tree Program with Structured Sub, Tree "Zippers"	Solution Champion City of La Verkin, UDOT	Key Stakeholders City of La Verkin, UDOT	Incorporate Street Trees into future development plans	Short Term, 1-5 years
Goal #3 - Enhance Economic Development	Solution Implement Clean and Aesthetic Branding and Design	Solution Champion City of La Verkin, UDOT	Key Stakeholders City of La Verkin, UDOT	Develop City Branding and Work with UDOT to incorporate into Highway Design	Short Term, 1-5 years

Beautification, Downtown Enhancements, and Tourism Needs

The solutions include developing a form-based land use code (as highlighted on the right), developing parking strategies, implementing mixed-use areas, implementing street trees, and clean and aesthetic branding. Key stakeholders for these activities include the City of La Verkin, and UDOT. The development of a form-based land use code should be a high priority and completed in the next year. This will help define the Downtown Area and kickoff many of the other activities mentioned here. The remainder of these short-term activities should be considered for implementation in the next 1 to 5 years.

Goal Addressed	Solution	Travel Demand Needs		Responsibilities	Timeframe
		Solution Champion	Key Stakeholders		
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Implement a Shuttle to/from Zion National Park	SUNTRAN, City of La Verkin	City of La Verkin, SUNTRAN	Work with Zion National Park and SUNTRAN to coordinate a shuttle that services La Verkin.	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Create Transit/BikeShare Departure Line	City of La Verkin, SUNTRAN, UDOT	City of La Verkin, SUNTRAN, UDOT	Work with SUNTRAN to coordinate a bus route that connects La Verkin to neighboring cities.	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals Goal #3 - Enhance Economic Development	Install Variable Messaging Boards	City of La Verkin, UDOT	City of La Verkin, UDOT	Construct Variable message boards as recommended in this study. Coordinate with UDOT and Zion National Park for information.	Short Term, 1-5 years

Travel Demand Needs

The solutions include implementing a shuttle to/from Zion National Park, creating transit and ride share opportunities, and installing a variable messaging board. Key stakeholders for these activities include the City of La Verkin, SUNTRAN, and UDOT. These short-term activities should be considered for implementation in the next 1 to 5 years.

Goal Addressed	Solution	Transit Needs		Key Stakeholders	Responsibilities	Timeframe
		Solution Champion				
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Acquire or Preserve Property for Mobility Hub	City of La Verkin		City of La Verkin, SUNTRAN, UDOT	Work with current land owner to purchase property recommended for Mobility Hub	Immediate, 2023
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Expand SUNTRAN into La Verkin	SUNTRAN		City of La Verkin, SUNTRAN, UDOT	Coordinate with SUNTRAN and UDOT to move transit plans forward	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Provide Transit Stops/Identify a Dedicated SUNTRAN Mobility Hub			City of La Verkin, SUNTRAN, UDOT	Develop Plans to Construct a Mobility Hub/Identify a Dedicated Mobility Hub at the recommended locations	1-5 years

Transit Needs

The solutions include acquiring or preserving property for the recommended mobility hub, expanding SUNTRAN into La Verkin, and providing transit stops and constructing a dedicated mobility hub. **As highlighted on the right, the acquisition or preservation of the property recommended for the mobility hub should be one of the city's highest priorities.** Key stakeholders for these activities include the City of La Verkin, SUNTRAN, and UDOT. The remainder of these short-term activities should be considered for implementation in the next 1 to 5 years.

Goal Addressed	Solution	Resilience Needs			Timeframe
		Solution Champion	Key Stakeholders	Responsibilities	
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Foster the development of Toquerville Parkway	UDOT, City of La Verkin	UDOT, City of La Verkin	Encourage the development of Toquerville Parkway as needed	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Upgrade Sheep Bridge Road	UDOT, City of La Verkin	UDOT, City of La Verkin	Develop a study to determine the feasibility and benefits of the Sheep Bridge Road Bypass	Mid Term, 5-10 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Consider the Toquerville-Leeds Connector	UDOT, City of Leeds	UDOT, City of La Verkin, City of Leeds	Coordinate with UDOT and the City of Leeds to further develop roadway	Mid Term, 5-10 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Consider the 900 North Babylon Road Connector	UDOT, City of Hurricane	UDOT, City of Hurricane, City of La Verkin	Coordinate with UDOT and the City of Hurricane to further develop roadway	Mid Term, 5-10 years

Resilience Needs

The solutions include the development of four corridors that would provide alternative routes for emergency events and first responders. Key stakeholders for these activities include the City of La Verkin, UDOT, the City of Leeds, and the City of Hurricane. The development of the Toquerville Bypass is currently in progress and should be fostered and encouraged by the City of La Verkin by all possible means. The other three bypasses should be considered in the next 5-10 years to help provide resilience to the City of La Verkin's transportation network.

		Congestion and Access Management Needs			
Goal Addressed	Solution	Solution Champion	Key Stakeholders	Responsibilities	Timeframe
Goal A1 - Mobility for All Modes Goal A2 - Balance Travel Demand and Community Goals Goal A3 - Enhance Economic Development	Acquire or Preserve Property for Development of One-Way Couplet	UDOT, City of La Verkin	UDOT, City of La Verkin	Work with UDOT to acquire or preserve property to construct the One-Way Couplet	Immediate, 2023
Goal A1 - Mobility for All Modes Goal A2 - Balance Travel Demand and Community Goals Goal A3 - Enhance Economic Development	Complete an engineering/feasibility study to determine cross section, right of way and costs for recommended alternative	UDOT	UDOT, City of La Verkin	UDOT to initiate an Engineering/Feasibility Study to construct the recommended one-way couplet	Immediate, 2023
Goal A1 - Mobility for All Modes Goal A2 - Balance Travel Demand and Community Goals Goal A3 - Enhance Economic Development	Develop One-Way Couplet from 200 South to 600 South	UDOT, City of La Verkin	UDOT, City of La Verkin	Construct the recommended One-Way Couplet	Mid Term, 5-10 years
Goal A1 - Mobility for All Modes Goal A2 - Balance Travel Demand and Community Goals Goal A3 - Enhance Economic Development	Develop Loops or Roundabouts at Key Intersections	UDOT, City of La Verkin	UDOT, City of La Verkin	Construct Loops or Roundabouts at key intersections outside the Downtown Area	Mid Term, 5-10 years
Goal A1 - Mobility for All Modes Goal A2 - Balance Travel Demand and Community Goals Goal A3 - Enhance Economic Development	Develop Backage, Connector Roads, and Alleys to provide better local circulation	City of La Verkin	City of La Verkin	Frontload and Construct Backage Roads, Connector Roads and Alleys	Mid Term, 5-10 years

Congestion and Access Management Needs

The solutions include acquisition or preservation for the development of the One-Way Couplet from 200 N to 600 N, the completion of an engineering or feasibility study, the construction of the One-Way Couplet, development of loons at key intersections, and the completion of backage roads, connector roads, and alleys. Key stakeholders for these activities include UDOT and the City of La Verkin. As highlighted on the right, the acquisition or preservation of property and an engineering or feasibility study should be immediate priorities for UDOT and the City of La Verkin to begin the implementation of the One-Way Couplet. The actual construction of the One-Way Couplet and other features should be targeted for the next 5 to 10 years.

Goal Addressed	Solution	Safety Needs	Key Stakeholders	Responsibilities	Timeframe
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals	Reduce Congestion by Reducing Signal Phases	UDOT, City of La Verkin	UDOT, City of La Verkin	Study Signalized Intersections to determine needs	Short Term, 1-5 years
Goal #1 - Mobility for All Modes Goal #2 - Balance Travel Demand and Community Goals Goal #3 - Enhance Economic Development	Implement Placemaking Alternative Intersections	UDOT, City of La Verkin	UDOT, City of La Verkin	Construct Unsignalized Roundabouts at key intersections outside the Downtown Area	Short Term, 1-5 years

Safety Needs

The solutions include reducing congestion by reducing signal phases and implementing placemaking alternative intersections. Key stakeholders for these activities include UDOT and the City of La Verkin. These short-term activities should be considered for implementation in the next 1 to 5 years.

[Download the Implementation Plan](#)

Study Downloads

Use the buttons below to download various supporting documentation created for this presentation.

[PDF Powerpoint Presentation](#)

Strategies Tech Memo

Implementation Plan PDF

Workshop #1 Meeting Summary

Workshop #2 Meeting Summary

Workshop #3 Meeting Summary