



ZION CANYON TRANSPORTATION SYSTEM TECHNICAL ANALYSIS

DRAFT REPORT



National Park Service
U.S. Department of the Interior

Zion National Park
Utah



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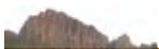


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EXECUTIVE SUMMARY



Purpose of the Technical Analysis:

The overarching purpose and intended outcome of this analysis and subsequent implementation of recommendations is **to improve the long term viability of the Zion Canyon transportation system.**

Zion Canyon Transportation System Background Information

Since its implementation in 2000, the Zion Canyon shuttle system at Zion National Park has been a great success. The park shuttle carries visitors from the visitor center plaza to the Temple of Sinawava trailhead in the Zion Canyon portion of the park, operating seasonally, from Easter to the end of November

(weekends only in November). The system also includes a connecting town loop in Springdale that takes visitors to the visitor center for transfer to the park shuttle. This has resulted in a strong connection between the town and the park. The fleet consists of 30 buses, and maintenance of the buses is conducted in a facility within the park.

National Park Service representatives from throughout the country frequently reference



Zion Canyon shuttle on a typical summer day

the system as an excellent model for expanding visitor access and enhancing visitor experience. Visitors and Springdale community members who ride the shuttle are very supportive of the system and frequently comment on the experience as positive and enjoyable. A recent survey found that 95 to 98 percent of visitors like the system, and the shuttle has carried increasing numbers of passengers since service began. In 2007, Zion Canyon shuttle ridership was just under three million. Even with this increase in visitation and visitor access, implementation of the system has reduced resource impacts in the canyon overall.

It's Time for a Check Up

Although the shuttle program has been a great success, the time has come to reevaluate the system and, if necessary, make adjustments to improve its operational and financial efficiency. In 2007, the park received funding from the Alternative Transportation in the Parks and Public Lands Program (ATPPL) program and the US Department of Transportation's Volpe National Transportation Systems center to evaluate the Zion Canyon transportation system and make recommendations to improve the system and supporting facilities.

As a result, the technical analysis process began with a scoping meeting in early 2008. Field observations and data collection efforts were completed over the course of the spring and summer. Subsequent analysis was completed in late summer and fall. The analysis and



Zion Canyon transportation system stakeholder workshop session, May 2008

recommendations were then compiled into this report in late fall 2008.

Involvement of the public and stakeholders has been a key component of the analysis. Initial workshops with stakeholders and the general public were held in May 2008. Additional workshop sessions with stakeholders and the public were held on November 19, 2008 to present the draft findings and recommendations of the analysis and obtain further input and comments prior to completion of the draft report.

Technical Analysis Focus

The technical analysis has involved a comprehensive look at several elements related to the Zion Canyon transportation system. The analysis started with a review of relevant background studies and information. Then additional data and information was collected in the park and Springdale, including comments and input from stakeholder and public workshops. The technical analysis has focused on the following areas:

- Financial analysis and related service planning scenarios
- Shuttle vehicle replacement/rehabilitation options
- Review of existing parking capacity and efficiency in Springdale and development of recommendations for parking
- Recommendations for enhancing visitor wayfinding and communications, including strategies for Intelligent Transportation Systems (ITS), as well as additional signing and information distribution
- Recommendations for improving pedestrian and bicycle connectivity, mobility, and safety in Zion Canyon and Springdale
- Assessment of existing Springdale streetscape conditions and related maintenance needs
- Recommendations to address traffic congestion problems at the entrance to Zion National Park and the north end of Springdale

- Evaluation of regional transportation system planning opportunities for connectivity with the Zion Canyon transportation system
- Identification of partnership and stewardship needs, as well as funding opportunities for long-term financial sustainability of the Zion Canyon transportation system

the potential for increasing challenges in the ongoing operation and maintenance of the shuttle system in the coming years. As Figures ES-1 and ES-2 below indicate, the projected cost of operating the system is expected to eventually exceed the amount of revenue available in the coming years. Figure ES-1 below indicates that if revenue were capped at the 2008 level, costs would exceed revenue by 2012. As a result, the park will need to either cut back on the level of service provided or find additional funding to support operations and maintenance.

Financial Analysis and Related Service Planning Scenarios

Operations and Maintenance Challenges Ahead – Financial analysis has identified



Figure ES-1. Scenario A

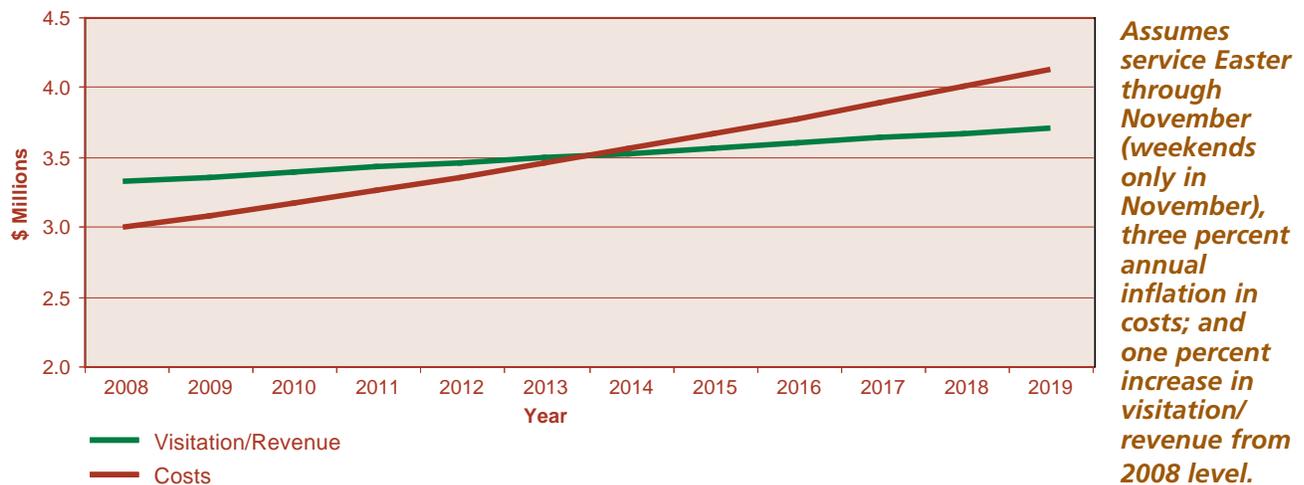


Figure ES-2. Scenario B

Expanded Service Opportunities Are Limited

– The public and stakeholders have suggested that the shuttle program be expanded to include more service. Requests to extend the seasonal operation of the system, expand operating hours, and provide service further down canyon have come forward. Unfortunately, given the financial challenges the park will be facing to operate and maintain the existing service, it is anticipated that expanded service in the future would not be possible unless additional financial support can be obtained from other sources (e.g. state, regional, or local community support).

Service Cutbacks – Potential Scenarios –

People have asked what potential service cutbacks might look like if the Zion Canyon shuttle system had to reduce its operating and maintenance costs. Service cutbacks could include one or more of the following options:

- Reduced hours of service during peak season (limited morning and evening service);
- Shortening the season of service – going from the current period of service (Easter

through end of October and November weekends) to May through September for example;

- Increasing “headways” – extending time between shuttle service (going from 6 to 10 minute periods between shuttle pick-ups to 10 to 15 minute periods for example); and/or
- As a last resort, unless additional funding/ financial support can be obtained, some areas of service may need to be significantly reduced or eliminated altogether – such as a portion of or possibly all of the Springdale route (as financial conditions worsen).

Shuttle Vehicle Replacement – The shuttle system fleet has an expected operating life of ten to twelve years, and the shuttle system is nearing its tenth year of operation. The park is looking at a range of options that include either rehabilitating the existing fleet or replacing the fleet with new vehicles. The estimated cost of these options ranges between \$6,000,000 and \$12,000,000. This is in addition to annual operating and maintenance costs for the shuttle system. The park will be seeking funding through



Zion NP shuttle vehicles

federal transportation grants and other sources to support the vehicle rehabilitation/replacement program.

Parking Capacity and Efficiency

The Springdale/Zion National Park Partnership – There has always been a synergistic relationship between Zion National Park and the town of Springdale. The millions of visitors who come to the park annually bring substantial direct and indirect economic benefits to the community. However, visitation levels also require extensive management and resources on an ongoing basis from the National Park Service, the town of Springdale, the Utah Department of Transportation, and others.

When shuttle service was initially established in 2000, there was a general understanding that park visitors would leave their cars at hotels and parking areas in Springdale and ride the town shuttle to the visitor center plaza to transfer to the park shuttle. Town representatives recognized the benefits and opportunities of visitors parking, walking, and riding the shuttle in proximity to businesses. It was also understood that leaving cars at parking areas in town would result in less traffic congestion on the town’s limited road network. These benefits have clearly been realized and continue to occur each year.

Issues and Problems Related to Parking and Traffic Congestion – In spite of the ongoing benefits of the park and ride relationship between Springdale and Zion National Park, traffic congestion in town has been increasing, particularly near the park entrance at the north end of town. Questions about the level of parking available in town have been raised, and some hotels and businesses previously supportive of visitors parking at their establishments to ride the shuttle have recently put up “no parking” signs. These issues have raised the need for a careful evaluation of parking capacity and problems related to parking so that effective solutions can be identified and implemented.

Is There Enough Parking in Springdale for Zion Canyon Shuttle Riders? This technical

analysis has confirmed that YES, there is ample parking capacity in Springdale to serve park visitors. However, many of these areas are “invisible” or unknown to visitors coming into town – particularly first time visitors. Many visitors are confused about how and where to park and ride the shuttle and how to make the connection to the park shuttle. Visitors often drive right up to the gate, without realizing they should leave their cars in town. Another issue is that property owner agreements for providing parking are not formalized and should be in order to ensure ongoing certainty and reliability of parking areas for visitors.

Parking Survey Results

The Springdale Parking Task Force surveyed the usage of all existing private and public off-street parking areas in the town on April 7, May 22, May 26 (the Saturday of Memorial Day weekend), July 3, and July 25, 2007. Parking areas were checked at 10:00 am, 1:00 pm, 4:00 pm and 7:00



The Springdale Parking Task Force surveyed the usage of all existing private and public off-street parking areas in the town.

pm. This survey showed that even during one of the busiest times of the year (Memorial Day weekend), Springdale parking areas still had plenty of capacity, as shown in Table ES-1.

Table ES-1. Memorial Day Weekend 2007 Parking Survey Results

Time Surveyed	Parking Utilization
10:00 am	Parking areas were 48.1 % full
1:00 pm	Parking areas were 49.6 % full
4:00 pm	Parking areas were 61.5 % full
7:00 pm	Parking areas were 63.5 % full

On the other days surveyed, parking utilization ranged from 24 to 47 percent depending on the time of the survey. This survey did not account for the large amount of on-street parking available on Zion Park Boulevard and Lion Boulevard. During field observations August 6-9, 2008, it appeared that the on-street parking on Zion Park Boulevard was less than 20 percent utilized. On Lion Boulevard less than 50 percent of available parking was utilized during the peak period of visitation.

Parking capacity is available, but visitors are not always using it. Many visitors who approach the gate for entry into the park are turned around and directed to nearby parking areas, such as Lion Boulevard. Many of these visitors have stated they were unaware of where they should park to ride the shuttle.

Finding the Right Solutions – A variety of solutions can be pursued to improve parking efficiency and help people understand where to park. Some lower cost solutions could be implemented right away. Other more intensive solutions, such as adding new parking areas either inside or outside the park, would take time to implement. Zion National Park is interested in increasing the capacity of parking inside the park near the visitor center and has identified an area where this could occur. Park management foresees that adding this parking would reduce some of the problems with visitors parking in unwanted areas of Springdale and with the parking congestion that occurs in the vicinity of the gate on busy days. There are also some areas

in Springdale where parking could be expanded or newly constructed.

These opportunities will need to be further assessed and reviewed in more detail as planning continues in the coming year. A few considerations related to the ongoing assessment of where to add parking are provided below. In the near term, it is recommended that the park and town representatives focus on some of the lower cost solutions listed below to better orient visitors to available parking areas in town. The Zion Canyon Visitor Bureau has expressed interest in assisting with some of these activities.

Parking Recommendations

Lower Cost Solutions

- Intensify visitor wayfinding and communication efforts.
- Formalize parking use agreements with property owners and confirm exact locations and quantities available for visitor parking.
- More heavily promote the shuttle system and park and ride opportunities through local businesses, hotels, and community venues.
- Continue the Springdale Parking Task Force efforts.
- Initiate a community-based “parking ambassadors” volunteer program.
- Monitor effectiveness of these actions and if necessary, proceed with more extensive improvements, such as development of a new parking area either inside or outside the park.

Higher Cost Solutions/ Potential New Parking Areas

If it is ultimately determined that more parking is needed to serve visitor demand, there are potential locations both inside and outside the park that could be further evaluated. The following important considerations factor into the evaluation of potential new parking improvements:

Inside the Park:

- No land acquisition would be required (less costs).



- The NPS would be responsible for maintenance of the parking area.
- With any new parking and access improvements, it must be demonstrated that there would be minimal effects to park resources and that a full range of alternatives have been considered in compliance with the National Environmental Policy Act (NEPA).
- Adding parking inside the park may reduce interactions with town businesses and may reduce the amount of service needed for the town shuttle route.

Outside the Park:

- Land acquisition through a willing seller agreement would be required (higher costs).
- Either the town or another entity would need to be responsible for maintenance of the parking area unless a cooperative agreement with the NPS is established.
- NEPA compliance may still be required given the purpose of the parking as relates to park shuttle access and/or funding sources.
- The potential for impacts to adjacent properties (visual, noise, etc.) would need to be carefully considered.
- Candidate locations should not require changes to shuttle route (should be

within easy walking distance from a town shuttle stop).

Under either scenario (inside or outside the park) there are a variety of funding sources available, but given current federal economic conditions, some funding sources may be limited.

Visitor Wayfinding and Communications Recommendations

The following are recommendations for improving and intensifying visitor wayfinding and communications. If successfully implemented, the park and town should see more people using parking areas in town and riding the town shuttle to get to the park.

- Expand information about park and ride and shuttle service on key partner websites (Zion NP, town of Springdale, Washington County, UDOT, etc.)
- Update the highway advisory radio broadcast message to provide more specific information about where to park and access the shuttle.
- Create a stronger sense of entry to the Zion National Park experience in Springdale. See Figure ES-4.
- Provide “real time” variable message signs



Figure ES-4. A stronger sense of entry to the Zion National Park experience in Springdale

- at key locations to direct visitors to parking. See Figures ES-5A and ES-5B.
- Carefully and thoughtfully enhance signing to help visitors find parking and shuttle locations.
- Better identify shuttle stops. See Figure ES-6.
- Provide information to visitors via Closed Caption TV, as well as public service announcements via TV and radio.
- Provide more detailed maps about where to park in Springdale. See Figure ES-7.
- Implement a new marketing campaign that



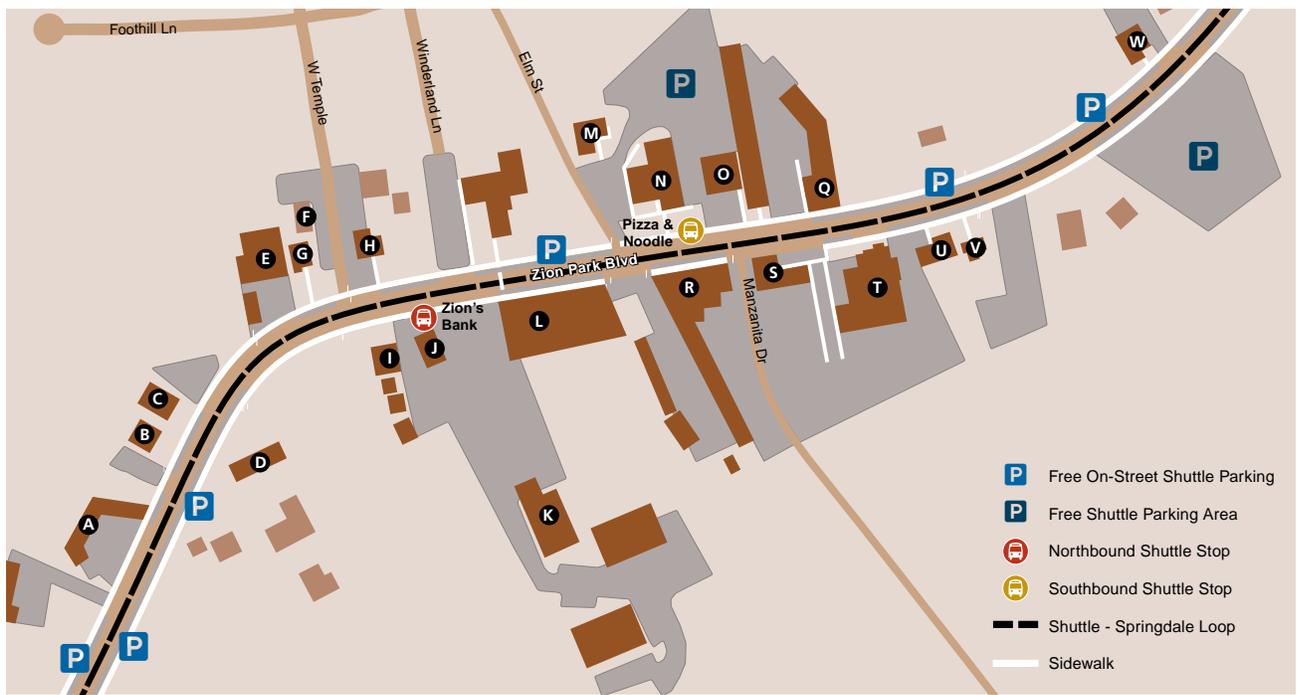
Figure ES-5A. Visual simulation of digital sign in advance of Lion Boulevard



Figure ES-5B. Visual simulation of "real time" variable message direct visitors to parking at south end of Springdale.



Figure ES-6. Visual simulation of improved shuttle stop signing



Parking is limited in Zion National Park and is full between 10 a.m. and 3 p.m. To avoid parking hassles, park in Springdale and ride the free shuttle to the park.

- | | | | |
|-----------------------------------|-------------------------------------------|-------------------------------------|-------------------------------------------------------------|
| A Terrace Brook | G Lazy Lizards | M Zion Outdoor Center | T Gift Shops / Fresh Mex Restaurant |
| B Red Rock Jewelry and B&B | H Mean Bean | N Pizza & Noodle | U Asia To Zion / West Gallery / Crystals & Creatures |
| C Under the Eaves B&B | I Canyon Offerings | O Zion Park Gift and Deli | V Worthington Gallery |
| D El Rio | J Zion's Bank | Q Pioneer Lodge / Restaurant | W Blondie's Diner |
| E Shell Gas Station | K Bumbleberry Inn | R Zion Park Motel/Market | |
| F Oscars | L Bumbleberry Gift Shop/Restaurant | S Indian Village | |

Figure ES-7. Example of a more detailed parking map that could be created for Springdale

encourages visitors to park and ride the shuttle and Zion National Park as a car free tourism experience. The campaign could include marketing and advertising activities, as well as development of brochures and other media outreach.

- Provide a visitor outreach kit to local businesses and hotels with brochures and maps that can be distributed to visitors.

Park Road and Springdale Streetscape Conditions

The technical analysis included evaluation of existing conditions related to the park road and Springdale streetscape, including conditions at shuttle stops. For the most part, shelters, furnishings, and shuttle stop features remain in excellent condition both inside and outside the park. However, there are areas of the Springdale streetscape that will require some maintenance in the near term. These include the following:

- Several pavement pads at bus stops need to be replaced.
- The ditch structure is in need of repair in several locations.
- Some utility boxes and conduits are in need of repair.
- There is a general need for sidewalk repair and maintenance, as well as landscape maintenance along the corridor.
- Several segments of sidewalk need to be replaced.

Given the costs that Zion National Park will incur related to ongoing operations and maintenance of the shuttle system, as well as vehicle replacement, it will be important to actively pursue a variety of funding and partnership opportunities to implement these needed maintenance improvements. Funding sources, such as the federal transportation enhancement and congestion management programs should be pursued.

Pedestrian and Bicycle Connectivity, Mobility, and Safety

It is anticipated that increased pedestrian and bicycle mobility within Springdale and in the Zion Canyon portion of the park would help

to expand options for visitor access and relieve pressure on the shuttle system during peak periods. The technical analysis identified missing gaps in the sidewalk system in Springdale, as well as locations for new pedestrian crosswalks and signing. Inside the park, potential areas for extending the Pa' Rus Trail are being evaluated. See Figures ES-8A and ES-8B.



Figure ES-8A. Visual simulation showing creation of a shared pathway along the shoulder in Zion Canyon as an extension of the Pa' Rus Trail



Figure ES-8B. Visual simulation of the extension of the Pa 'rus Trail further up Zion Canyon



Traffic Congestion at the South Gate to Zion NP

At certain times of the day on peak visitation days, visitors get caught in a traffic queue at the south gate to Zion National Park. Sometimes this queue can stretch for as much as a half mile to Lion Blvd. The queue tends to lengthen when the parking area at the visitor center inside the park closes. Many of the visitors in the queue are seeking to ride the shuttle and don't understand that they should have parked in town. This queue of idling vehicles:

- Causes driver frustration and degrades visitor experience at the entrance to the park
- Contributes to unnecessary emissions of Green House Gases (GHG)
- Impacts the operation of the Springdale shuttle (buses must navigate the queue to reach the transfer station at the visitor center plaza)

Parking management in the vicinity of the entrance requires significant Zion National Park staff resources and puts staff in the roadway directing traffic. Turning automobiles around at the gate increases the potential for accidents

and conflicts with other vehicles, pedestrians, and bicyclists. The entrance area becomes filled with parked cars on both sides of the road, which negatively affects the visual experience of entering the park. Visitors who have parked in this vicinity are then directed downhill to the visitor center plaza, but the route of access is not clearly intuitive, nor accessible.

Recommendations to address these problems include:

- Catch visitors further downstream and direct them to other parking areas in town through additional signing (see wayfinding and communications recommendations).
- Improve the visibility of the shuttle and heavily promote shuttle park and ride.
- Develop parking direction cards with multi-lingual instructions about where to park and catch the shuttle in Springdale.
- Create a "bus only" lane so that shuttle buses can bypass the automobile queue.
- If necessary in the future, provide additional parking in the park or in town to accommodate visitor needs.



Vehicles queuing at the Zion National Park entrance station

Regional Transportation Planning Opportunities

Various agencies and interests, including the National Park Service, town of Springdale, UDOT, Dixie Metropolitan Planning Organization, Washington County, and others should continue to work together to develop a strong vision for transportation in the region. Over the long term, the demand for more car-free travel experiences may drive the need to better connect the Zion Canyon transportation system with the outside world via private and public transportation programs. For example, St. George will be constructing a new airport, which may result in more visitors seeking opportunities to fly into St. George and travel via shuttle to and from Springdale. In addition to improving transportation options for visitors, the region may identify needs to expand transportation options for citizens and workers over the long term – improving public transportation service between Springdale and down canyon communities.

A Call for Partnership and Stewardship

Ongoing operation of the Zion Canyon transportation system will require significant resources. While Zion National Park will continue to have the primary responsibility for annual operations and maintenance of the shuttle system, the park will be faced with some tough decisions in the future. Service cutbacks may be needed in the coming years unless supplemental funding resources can be found. The park will seek federal funding to replace the shuttle fleet; however funding sources are becoming increasingly limited and competitive. The Springdale streetscape and shuttle facilities will require ongoing maintenance and repairs. Wayfinding and communications efforts will require near term funding, while development of new parking areas, pathways, and other improvements will require additional funding over the long term.

How Will All These Needs Be Met?

The Zion Canyon transportation system has been a huge success and a nationwide model for environmental sustainability and enhanced visitor access at national parks. Representatives from Zion National Park, Springdale, UDOT, and other agencies and organizations have been coordinating on a regular basis, but the time has come for these partners to jointly define opportunities for additional funding and resources to support the system. Ongoing partnership and stewardship responsibilities should be more clearly defined, and all parties should be working together to actively plan for the successful future of the transportation system.



Zion National Park Mission

- Provide educational and recreational opportunities for visitors.
- Foster an appreciation of Zion National Park and its resources.
- Maintain natural resources at healthy and viable levels and manage cultural and physical resources to ensure long term integrity.
- Manage facilities to maximize safety, cost efficiency, and long term sustainability.



INTRODUCTION AND BACKGROUND



Technical Analysis Background

The Zion Canyon shuttle system has been very successful. Since its implementation in 2000, representatives from national parks throughout the country have acknowledged the system as an excellent example of how to expand visitor access and enhance visitor experience. Visitors and Springdale community members who ride the shuttle are very supportive of the system and frequently comment on the experience as positive and enjoyable. Based on visitor surveys, 95 to 98 percent of visitors like the system – including visitors with disabilities. Zion Canyon visitation has been up on average of about eight percent annually since the start of the shuttle system. Implementation of the system has

reduced resource impacts in the Canyon and enabled improved management and protection of Zion National Park resources.

Although the system has been a great success, the time has come to reevaluate the system and if necessary, make adjustments to improve its operational and financial efficiency.

In 2007, the park was successful in competing for an Alternative Transportation in the Parks and Public Lands Program (ATPPL) Planning Project Grant to “Conduct a Planning Study to Evaluate the Existing Transportation Service at Zion National Park”. In addition, the park received funding from the NPS Alternative Transportation Program for the US Department of Transportation’s Volpe National



According to visitor surveys, 95 to 98 percent of visitors like the shuttle system.

Transportation Systems Center (Volpe) to provide additional technical assistance to the park as part of the planning study efforts.

Overarching Purpose and Objectives of the Technical Analysis

The overarching purpose and intended outcome of this analysis and implementation of recommendations is:

To improve the long term viability of the Zion Canyon transportation system.

In order to achieve this overarching purpose, the technical analysis presented in this report was scoped to achieve the following objectives:

- To review and analyze available background data and information related to the Zion Canyon Transportation System;
- To gain an understanding of the operation of the shuttle and associated transportation system both inside the park and within Springdale;
- To clearly understand activity levels at each shuttle stop, as well as loading patterns and maximum load points during peak periods;
- To confirm as much as possible, the differing needs and usage patterns related to the transportation system of those who live in the immediate area versus those who visit the area;
- To clearly understand and analyze parking capacity and utilization patterns in Springdale during peak periods;
- To gain a better understanding of park entrance area congestion and contributing factors;
- To identify the full range of parking and traffic congestion problems and issues within Springdale;
- To inventory the existing pedestrian network in Springdale and identify missing gaps and needs for pedestrian system and streetscape improvements;

- To discern the general availability of signing, wayfinding, and visitor information to Zion National Park visitors and shuttle riders;
- To examine the sense of entry and level of information/communication provided to Zion National Park visitors (pre-trip, en route, and on-site) to determine needs for additional visitor communication improvements and strategies;
- To explore opportunities to provide for other forms of access in the Zion Canyon portion of the park to potentially relieve congestion on the shuttle system during peak periods; and
- To coordinate with regional transportation interests to explore long range opportunities for better transit connectivity between Springdale and regional portals to serve needs of visitors and employees.

Overall Approach to the Project

To accomplish the technical analysis of and preparation of recommendations for the Zion Canyon shuttle service, the project has followed a planning framework approach. The 2007 ATPPL grant proposal served as a guide to determine the focus of the technical analysis and the components of the system to be analyzed.

Steps in the process included: scoping and stakeholder input; determination of issues; analysis of existing data and conditions; determination of data needs; data collection;



Visitors boarding the shuttle in Springdale

data analysis; development of draft recommendations; park and stakeholder feedback on draft recommendations; and determination of final recommendations. The technical analysis process schedule is illustrated in Figure 1-1.

The recommendations are comprised of a series of operational and planning refinements that can be implemented within existing NPS management decisions, contracts, and operations. This technical analysis also recommends future planning activities that may or may not require further compliance documentation and a more structured public involvement process.

The project approach included the following components:

- **Scoping and Stakeholder Input** – To confirm the study requirements, scoping sessions were conducted with Park staff, community, and agency stakeholders. In January 2008 (along with project startup discussions) an initial, internal Park staff scoping session was conducted. Additional scoping discussions with council and community members of the town of Springdale, the Utah Department of Transportation, Washington County, and others occurred in May 2008 to determine study parameters.
- **Data Collection** – After the data and information needs were identified and confirmed, data collection analysis was completed in May through August, 2008 to inform the technical analysis. Data collected included parking supply and demand verification, detailed ridership analysis identifying shuttle user patterns, and future capital and operating fund sources, as well as other information.
- **Technical Analysis** – Technical analysis occurred in September through November, 2008 consisted of review of existing data, field observations, research, and other activities in order to identify efficiencies and enhancements to improve the existing shuttle system. Analysis topics included: visitor, community, and shuttle system operating characteristics; infrastructure needs; regional and local informational needs; parking strategies in the park and Springdale; and expanded pedestrian and bicycle use in upper Zion Canyon.
- **Recommendations** – Recommendations for improvements to the shuttle system’s operational and financial efficiency were prepared in November through December, 2008. Recommendations were prepared for all the elements addressed in the technical analysis (listed on this page). In addition to the recommendations of each section, Section 9 provides a summary of financial analysis completed as part of the study efforts and a description of potential funding opportunities. Section 9 also prescribes an action plan for 2009, as well as near term actions to be completed by 2012 (within the next three years), farther term actions for beyond 2012, and actions to be completed on an ongoing basis.

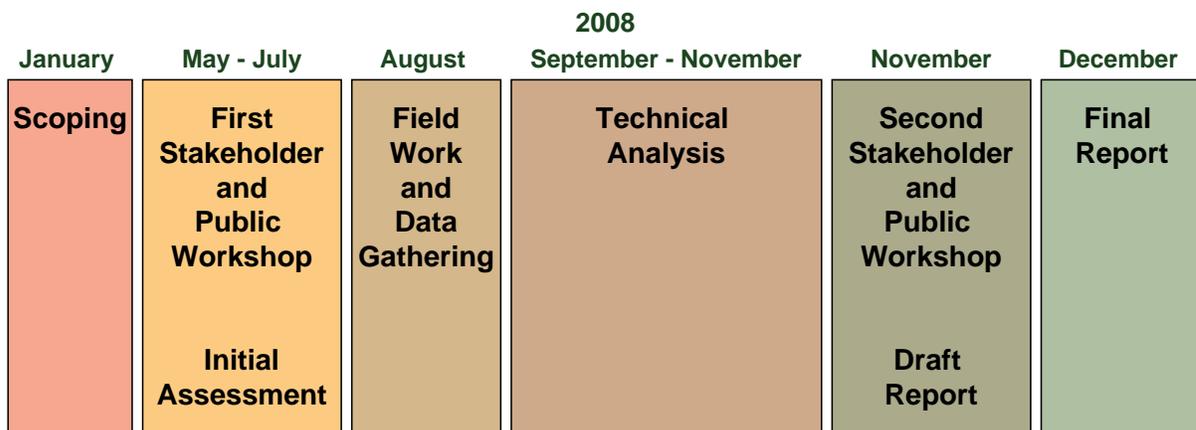


Figure 1-1. Technical Analysis Process Schedule

Elements Addressed in this Report

This report provides technical analysis and recommendations related to the following elements:

- Section 2: Wayfinding and Visitor Information
- Section 3: Springdale Parking Utilization
- Section 4: Springdale Streetscape and Multi-Modal Connectivity
- Section 5: Zion Canyon (Park) Multi-Modal Connectivity
- Section 6: Shuttle System Service and Operations
- Section 7: Park Gate/Entrance Area Congestion
- Section 8: Regional Transportation System Connectivity
- Section 9: Financial Analysis, Funding Opportunities, and Action Plan

Project Team

This technical analysis is the result of collaborative efforts of National Park Service staff from the Denver Service Center and Zion National Park and consultants from Otak, Inc., Nelson/Nygaard Consulting, and the Volpe Center. Parks Transportation Inc., Zion



On-street parking in Springdale

National Park's shuttle service contractor, provided significant assistance and support to the consultant team related to the ridecheck/timecheck and financial planning elements of the study.

Study Context

Zion National Park is located about 40 miles east of St. George, Utah and is part of southwestern Utah's Colorado Plateau area. The town of Springdale is directly adjacent to the Park's southern boundary. The Park's dramatic scenery, rich mix of natural and cultural resources, and wide array of activities lure over 2.5 million visitors each year. Though the Park is 229 square miles, most visitors never leave a small portion of the southern area of the Park – Zion Canyon. Refer to Figure I-2, Regional Context Map and Figure I-3, Vicinity Map on the following pages.

Existing Conditions of the Zion Canyon Shuttle System

The Zion Canyon shuttle system (shuttle) operates from the northernmost, vehicular accessible area in Zion Canyon (the Temple of Sinawava parking lot) southward to the town of Springdale. The Zion Canyon shuttle system consists of two loops operating as one system – the park loop and the town loop through Springdale. The park loop operates from the Visitor Center plaza to the Temple of Sinawava. The town loop operates from the Visitor Center plaza to the southern limits of Springdale (Majestic View Lodge vicinity). In between the two loops, visitors walk through the park entrance and the Visitor Center plaza, where the two routes interface and provide transfer opportunities.

The shuttle has carried an increasing number of passengers since it became operational in 2000. In 2007, ridership was just under three million.

The shuttle has resulted in a strong connection between the town and the park. Parks Transportation, Inc. (PTI) operates the shuttle system under a service contract with the park. The fleet consists of 30 buses; maintenance of the buses is conducted in a facility within the park.

Stakeholder and Community Involvement Summary

As mentioned above, stakeholder and community involvement has been an important and integral part of the technical analysis process. Workshop sessions were held in May 2008 to gain input to help shape the analysis efforts, and again in November 2008 to present preliminary draft results and obtain comments on these and further ideas to be incorporated into the draft study. In both May and November, the team met with park staff, stakeholders and partners, and conducted a separate meeting with the community that was advertised and open to the general public.

A summary of priority elements to be analyzed based on input from the May 2008 workshop sessions is provided in Table 1-1. Summary notes of the ideas and comments received in the November 2008 sessions are provided in Appendix D.

Results of May 2008 Initial Assessment and Partner/Stakeholder Meeting

As part of data collection stage of work, an initial

assessment of the Zion Canyon transportation system was conducted in May 2008. The project team met with Zion National Park representatives, as well as regional partners and stakeholders in workshop sessions designed to identify issues and elements that needed further analysis. A general public meeting was held in the evening for the same purpose. A separate Initial Assessment Report was prepared summarizing the results of these meetings and the limited “on-the-ground” assessment of existing conditions and shuttle operations conducted during the same timeframe.

Table 1-1 summarizes and prioritizes the issues and elements that needed further analysis as identified by partners and stakeholders. The technical analysis and resulting recommendations of this report were scoped specifically to address these issues. Categories of comments and issues most often discussed and mentioned are listed first in the table. Least mentioned topics are listed last. Table 1-1 illustrates how some of the separate discussions in the meetings tended to align. For example, parking was the most often mentioned and discussed concern/issue in all three meetings.

Table 1-1. Issues Prioritization (Listed in Order of Most-Often Discussed/Mentioned)

Meeting 1: May 7, 2008 Zion NP Staff*		Meeting 2: May 8, 2008 Stakeholders		Meeting 3: May 8, 2008 General Public Meeting Open House
Topic	Number of Comments Received	Topic	Number of Comments Received	Comments
Parking	13	Parking	8	Parking (can't find parking, need more parking, need better parking management; do not pave open spaces in town for more parking)
Financial Sustainability	11	Gate Back Up	6	Shuttle service/shuttle stops (includes mention of need for down canyon connections)
Service Planning	9	Connection to Down Canyon	5	Wayfinding/signing/visitor information (concerns about passive vs. electronic signs)
Fleet Replacement	7	Buses/Financial Feasibility	2	Shuttle vehicles
Ridership	1	Maintenance Outside the Park	2	Pedestrian considerations in Springdale/multi-modal pathways and trails in park
Other	--	Sharing the Road	1	Regional transportation

**Similar comments to those from scoping meeting with the park in January 2008*

Benefits of the Zion Canyon Shuttle System

An important outcome of the technical analysis has been solid confirmation that the Zion Canyon shuttle system is viewed positively by the community of Springdale and park visitors. Many visitors and Springdale representatives have commented on the benefits of the system. Not only does the system enhance visitor experience, reduce traffic congestion, and provide alternative transportation options, it also brings significant economic and environmental benefits.

Regional and Local Economic Benefits

The shuttle system has drawn more visitors to the park since it began its operation in 2000, and visitation to Zion National Park provides a huge boost to the local and regional economy. The average visitor group at Zion typically consists of 2.7 people and the group will spend about \$246 within an hour's drive of the park (2006 statistics provided by Zion National Park). On a group trip basis, the average spending in 2006 for groups was:

- \$67 for day trips
- \$178 for campers staying inside the park
- \$273 for campers staying outside the park
- \$560 for visitors staying in motels and lodges outside the park
- \$639 for visitors staying in park lodges or cabins

Total visitor spending in 2006 within an hour drive of the park was \$113 million (not including revenues received by the park such as park admissions and donations). Of this amount, 35% was for lodging, 23% was for restaurants and cafes, 12% was for local transportation, 9% for gas and oil, 6% for groceries, and 13% for souvenirs and shopping.

Eighty percent of visitors indicated the park visit was the primary reason for the trip to the area. Counting only a portion of visitor expenses if the park visit was not the primary trip purpose yields \$99 million in spending attributed directly to the park.

Including direct and secondary effects, the \$113

million spent by park visitors in 2006 supported 2,432 jobs in the area and generated \$143 million in sales, \$57 million in labor income, and \$83 million in value added (labor income as well as profits and rents to area businesses and sales and excise taxes). After adjusting for non-primary purpose trips, local economic impacts of \$99 million in spending in 2006 as a result of specific visits to Zion National Park supported 2,084 jobs and generated \$49 million in labor income and \$72 million value added.

Environmental Benefits

Implementation of the Zion Canyon shuttle has reduced the level of resource impacts in the canyon/national park and has resulted in improved environmental conditions (better air quality, less noise, reduced social trails, etc.) In addition to these specific benefits to Zion National Park, the shuttle system also has resulted in the following planet-friendly environmental benefits.



Park visitors spend \$113 million each year in the area

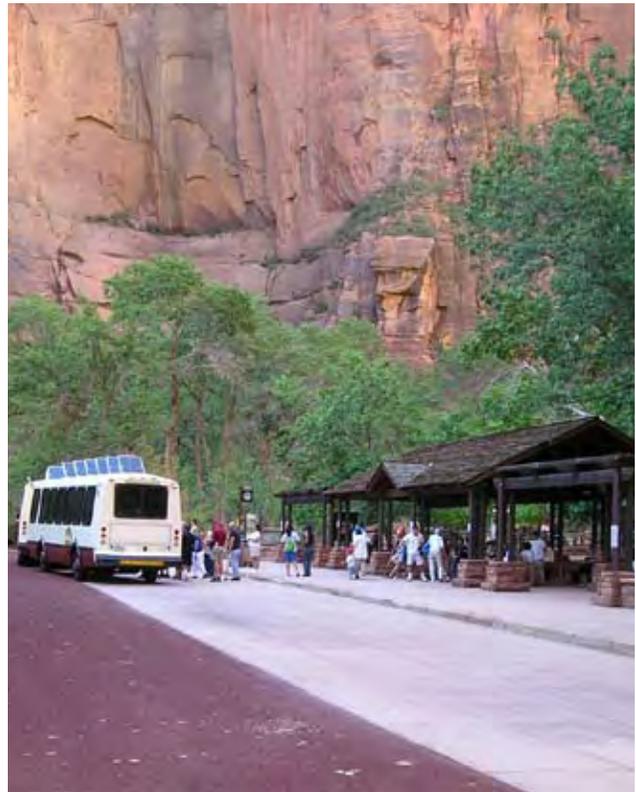


- **LESS CARS:** Each full shuttle replaces 28 cars <add calc of cars per day>
- **LESS MILES DRIVEN:** The shuttle reduced visitor miles driven in private cars by 50,385 by 50,385 each day or 10.6 million miles a year.
- **REDUCED CARBON EMISSIONS:** This reduced CO₂ emissions by 24,201 pounds (12 tons) each day or 2,264 tons a year for a 222-day season.

Documents Reviewed

Several reports, plans, and documents were provided to the consultant team for review and background information to inform the study process, including the following:

- Transportation Scholar Reports - *Sharing the Road, Shuttle Operational Analysis, Parking Analysis*
- End-of-year reports
- Comparative bus costs
- Monthly reports
- Optional service controls
- PTI cost projections
- Transportation revenue scenarios
- Vehicle data spreadsheets
- Springdale streetscape plans
- Visitor signage systems plans



Visitors catching the shuttle inside the park

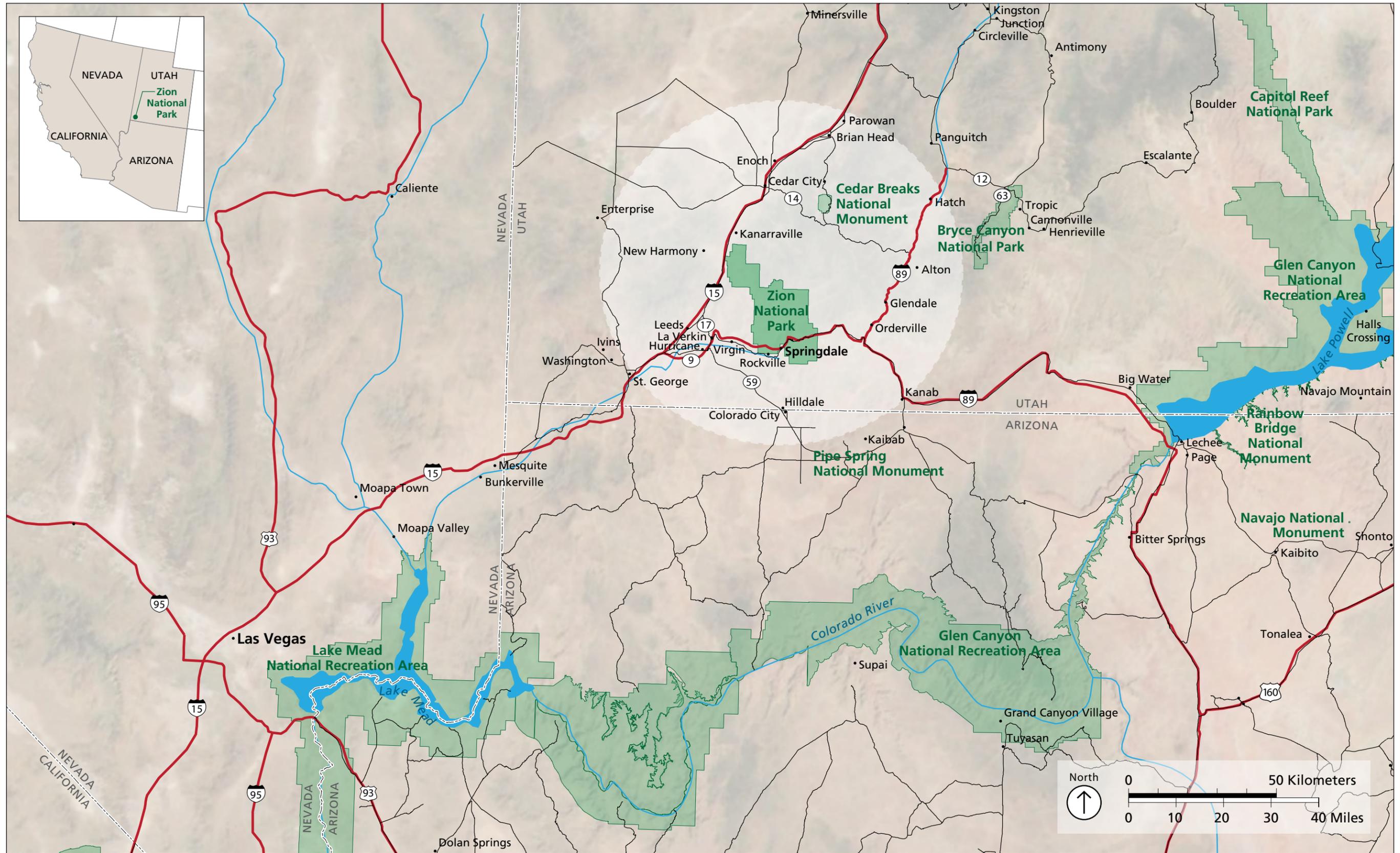


Figure 1-2. Regional Context Map

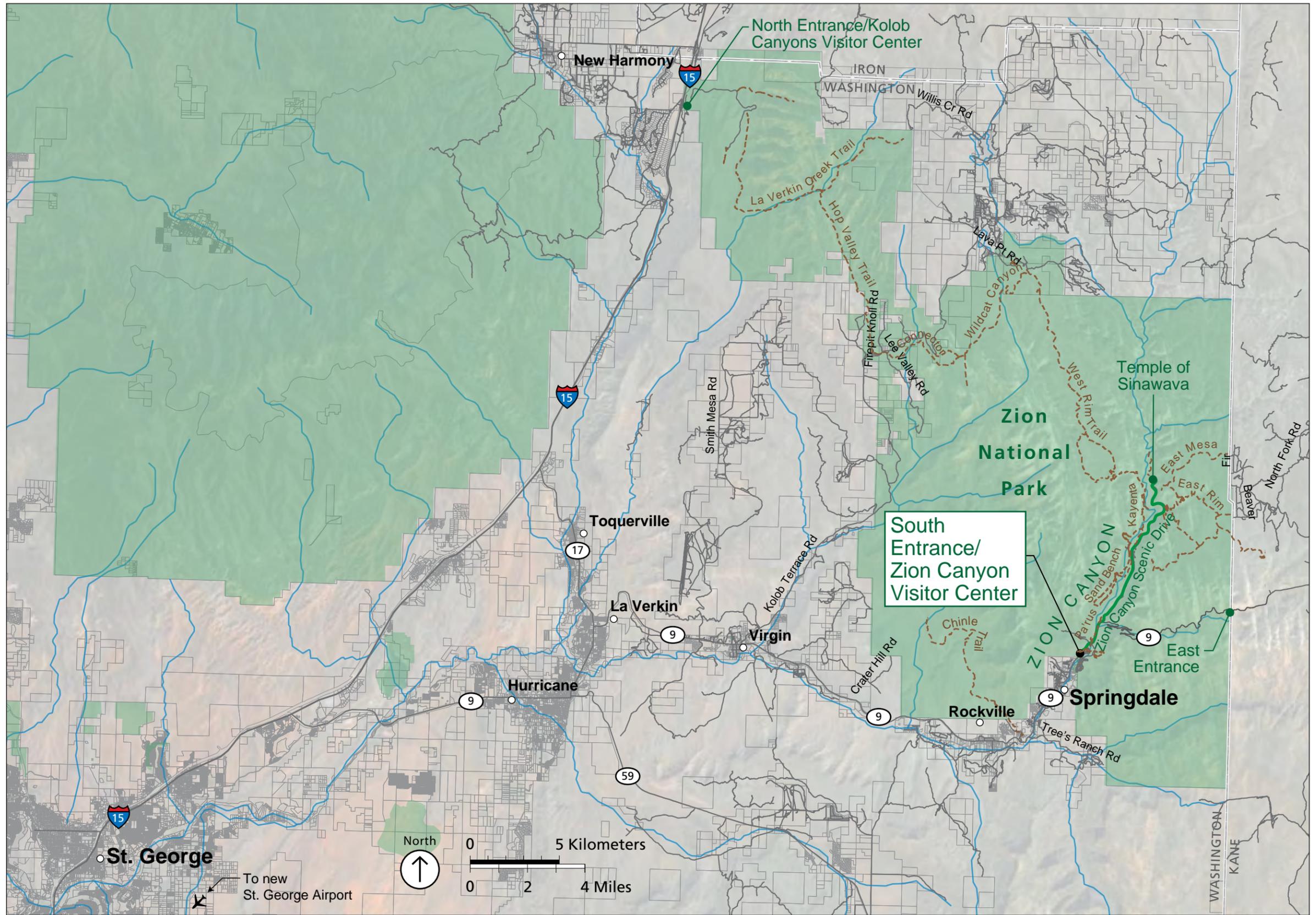


Figure 1-3. Project Vicinity Map



Section Overview

Conditions related to visitor information and wayfinding are analyzed in this section of the report. A general inventory and evaluation of the existing signing, wayfinding, and visitor information conditions is presented. The analysis generally covers:

- Information available for advance planning/pre-trip access
- Information available and signing en route to Springdale from St. George
- Signing, wayfinding, and visitor information conditions “on-site” – in Springdale and at the park

Objective of Analysis

The objective of this analysis has been to discern the general availability of signing, wayfinding, and visitor information to Zion Canyon visitors, as well as to inventory existing signing specific to the shuttle/transportation system. The evaluation has recorded, as best as possible, the means and methods being used to notify visitors of parking and shuttle options prior to and en route to the canyon. The analysis has also helped to confirm issues and problems related to existing signing, wayfinding, and information dissemination in Springdale and at the park, and has provided a basis for developing recommendations to address these issues and problems.

Analysis Approach

Concurrently to the technical analysis and field work associated with other components of the project, the consultant team completed a general inventory and evaluation of wayfinding,

signing, and visitor information conditions. The inventory addressed physical signs and cues to visitors, as well as messaging and information conveyed through other media (highway advisory radio, wayside stops, local CCTV and cable programs, Internet, etc.)

Photographs of existing signs related to shuttle stops, parking, visitor wayfinding and information were taken. Shuttle stop and parking signs were reviewed in conjunction with the pedestrian network analysis and identified in the inventory maps. Refer to



This type of sign marks the location of a Zion Canyon shuttle stop.

Appendix A, Streetscape, Shuttle Stops, and Parking Inventory, for a summary of these field observations.

Observations and Findings

The following observations and findings were documented in the technical analysis. Specific recommendations are presented later in this section.

Springdale Parking Committee Activities – The Springdale parking committee is made up of representatives from the planning commission, town council, town staff, and Zion National Park staff, who are tasked with working on parking issues in town. For more information about the parking committee and town planning initiatives related to parking, refer to Section 3. The parking committee has been working to help visitors better understand where to parking Springdale and has installed various permanent signs and markings. They also have been using temporary signs and banners to direct visitors (see later discussion in this section for more information.)

Pre-Trip Communications

Website – Currently, visitors can receive information about the shuttle system at Zion National Park’s website, (homepage shown to the right). However, the shuttle system information is not prominently displayed on the homepage. Prospective visitors can obtain the shuttle information via links listed on the sidebar of the page. Once on the shuttle’s webpage, prospective visitors can learn about the history of the shuttle system, how to use the shuttle, parking in town, what to bring, and rules.

A PDF park and ride map, shown at right, shown on pages 2 and 3, can be obtained by clicking on a link. The map, while graphically clear, is somewhat challenging to interpret. It does not specifically highlight the parking areas that are available to shuttle riders. The information is iconic and not contextual enough to provide a sense of orientation. Displaying a reduced image of the map on the shuttle webpage would help people access it more

easily. Also, the park should consider updating the map to more clearly indicate where to park through more detail and notes.

The town of Springdale website also displays shuttle information, but it must be accessed through a link in the menu bar of the homepage. There is an image (not downloadable) of the shuttle stops as well as a link to the NPS park and ride map. The following websites include information on the shuttle in varied detail:

- Cedar City Brian Head Tourism Bureau (www.scenicssouthernutah.com/)
- Kane County: (www.kaneutah.com/)
- St. George (www.sgcity.org/)
- East Zion Tourism Council (www.eastziontourismcouncil.org/)
- Zion Canyon Visitors Bureau: (www.zionpark.com/)
- Zion Natural History Association (www.zionpark.org/)

Additionally, the Utah Travel Industry Website



www.nps.gov/zion home page



(www.utah.com) displays a short summary of shuttle operations under the “Zion Canyon Scenic Drive” section. However, there is not a link available to take browsers directly to the Zion National Park or Springdale sites.

Information about the Springdale shuttle is currently not displayed on the Washington County or UDOT websites.

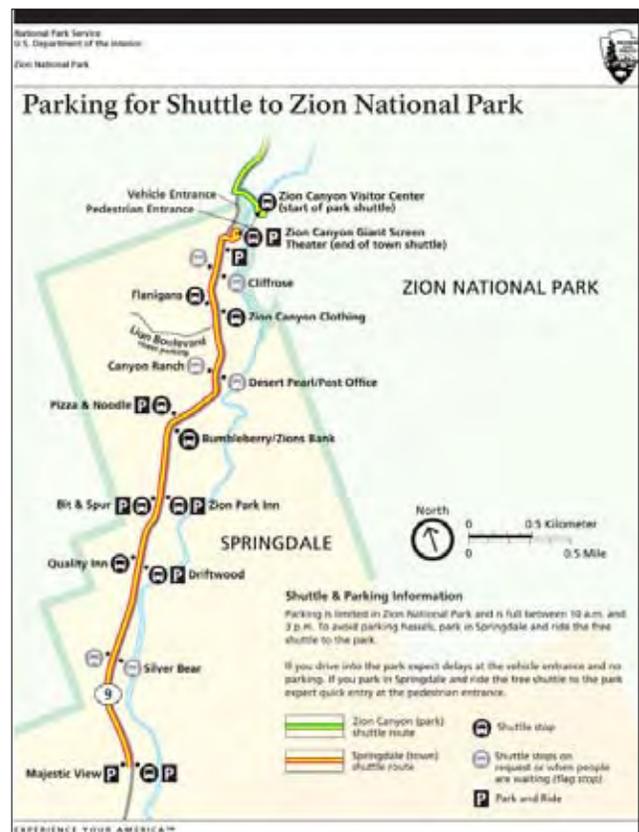
En Route Communications

Signs – Visitors en route to Zion National Park are first informed of the Springdale/Zion Canyon Shuttle system at a paved pull off area approximately six miles south of Rockville, shown below. At the pull off area are three large signs that present “Tunnel and Shuttle Information.” The font is large enough in size that travelers do not need to leave their vehicles to read them. The signs have been vandalized and have numerous bullet holes. The parking committee would like to explore a more robust material. This pull off area is the first formal pull off area for visitors headed to Zion National Park. While it is being used by some travelers, a few stakeholders have the perception that the pull off is not effective in drawing people to stop. Also the signs provide limited information about the shuttle but are first focused on telling people about the Zion National Park tunnel. While they do offer some information about the Zion Canyon briefly encouraging visitors to park in Springdale and ride the shuttle, it’s a pretty “soft” message, and there are no details about where to park.

South of Springdale and Majestic View Lodge, there are three wood signs in the traditional park service style, as shown on the following page. These signs are discreet, and difficult to fully capture from a moving vehicle. For travelers heading northbound towards Springdale, the signs state, in order:

- “Avoid Parking Hassles Tune Radio to 1610 AM”
- “Parking in Zion NP Full 10 AM - 3 PM”
- “Park in Springdale Ride Shuttle to Zion NP”

Visitors from East Entrance – Visitors entering the park from the east are often



Existing map showing park and ride and shuttle stop locations



Zion shuttle information signs at pull off area south of Rockville



AVOID PARKING HASSLES
TUNE RADIO TO 1610 AM



PARKING IN ZION NP
FULL 10 AM - 3 PM



PARKING IN ZION NP
FULL 10 AM - 3 PM



PARK IN SPRINGDALE
RIDE SHUTTLE TO ZION NP



PARK IN SPRINGDALE
RIDE SHUTTLE TO ZION NP

Signs south of Springdale that provide parking information for northbound travelers

unaware of the parking and shuttle system in Zion National Park. Signs at Canyon Junction direct drivers to the Visitor Center but do not include expanded information about the shuttle system. Many drivers park at Canyon Junction, if there is space available, to catch the shuttle.

Highway Advisory Radio – 1610 AM – En route to Springdale from St. George, travelers are advised to tune into 1610 for Zion National Park information multiple times. The highway advisory radio message provided is clear, audible and fairly brief. While the shuttle is mentioned in the broadcast, visitors are not specifically encouraged to park in town, nor are they told where to park and made known of the benefits of parking in town to ride the shuttle.

On Site Communications (in Springdale and at Zion National Park)

Printed Material – The National Park Service publishes a newspaper titled Zion Map & Guide for distribution to visitors. The front page describes how to use the shuttle and where to park. Unfortunately many visitors obtain this publication either at the gate or once they are already within the park, while the information is most useful for people who trying to reach the park. The same is true for maps (including those in the newspaper). Many people do not obtain these until they reach the park entrance gate or Visitor Center. The maps are too general and do not show enough detail to guide visitors to the appropriate locations.

Some visitors also obtain their information from their place of lodging. The shuttle system is very convenient as many shuttle stops are in the vicinity of hotels. The town reports mixed success in getting the word out about the shuttle through businesses and hotels. Some do a better job at this, but some have limited resources. This is one of the best methods to communicate with visitors though, so more needs to be done to improve effectiveness.

Gateways – The strongest sense of arrival to Zion National Park is at the South Gate to the park, shown on page 2-6, where the pay stations and large gateway sign are located. It

is presumed that because Zion National Park is the destination of the majority of travelers, they continue to proceed to the park entrance to gain a sense of “having arrived.” The town of Springdale has a gateway sign to Zion Canyon, but it does not convey a sense of arrival to the national park. Therefore, most people continue driving until they reach the park gate and are then often turned around to find parking in town.

Parking Signs – Zion National Park and the parking committee are currently using two types of park and ride signing systems, temporary and permanent. The temporary system consists of blue 3M vinyl sandwich board signs placed in the roadway when needed and banner signs, which are mounted on permanently installed poles. The banner signs are difficult to mount, but effective when mounted. In an effort to better direct visitors, small blue sandwich board signs are placed in locations by Zion National Park staff directing people where to park. The sandwich boards are typically placed near the park entrance, but have also been placed at Lion Boulevard and the vacant lot near Desert Pearl. A park service employee will sometimes stand by the sandwich board signs to assist drivers and address questions. While these signs have been somewhat effective in helping to notify repeat visitors to the park, first time visitors may not be on the look out for them.

The sandwich board signs are fairly low and may be difficult to see if people are standing in front of them or cars are parked that block them. Also, just by their nature, they appear to be temporary and advertisement oriented, which may cause park visitors to disregard them. These signs are probably not as effective as permanent signs would be.

On Memorial Day Weekend, a portable electronic variable message sign was placed in advance of Majestic View Lodge on the side of Zion Park Boulevard. The electronic sign delivered the message to inbound visitors that the parking inside the park was full and that they should pull off “here” to park. This sign was extremely effective in getting people to pull immediately off the highway and park at the



Signs at Canyon Junction direct drivers to the Visitor Center



The sign at the main gate to the park provides a strong sense of arrival, and is a destination unto itself. Many visitors take photographs of their parties standing by National Park Service gateway signs.

Majestic View Lodge parking area.

Smaller, permanent park and ride signs have been installed in Springdale. The signs are blue and include the NPS arrowhead. In the *Zion Map & Guide* newspaper, visitors are advised to watch for the shuttle parking signs at the following Springdale businesses:

- Majestic View Lodge
- Driftwood Lodge
- Zion Park Inn
- Bit & Spur Restaurant
- Zion Pizza & Noodle Co.
- Lion Boulevard (street parking)
- Paved lot next to theater
- Zion Canyon Giant Screen Theater

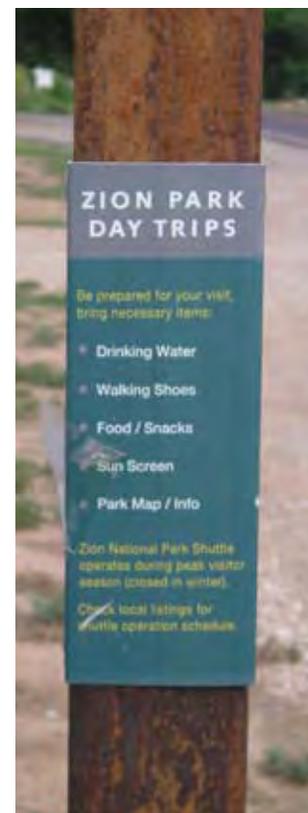
These new permanent blue colored signs replaced the older gray and green “P” signs and have been more effective in capturing visitor attention. With the message “Park & Ride - FREE SHUTTLE” and the NPS arrowhead, they have more clearly indicated to visitors where to



New shuttle park and ride sign on Lion Boulevard



Shuttle map and safety tips signs



park to access the shuttle system and get to Zion National Park.

On Lion Boulevard the town is also experimenting with painting blue “P” circles on the pavement to indicate where people should park. This treatment has helped to visually highlight where visitors should park; however, it will be difficult to maintain over time, and also the circles do not correlate specifically with parallel parking spaces so visitors get confused. A more standard white lane parallel parking system may be more effective and easier to maintain.

Shuttle Stop Signs – The shuttle stop signs in downtown Springdale do not exhibit location information as often as the shuttle signs in the park do. Typically, on the pole of the sign, a sleeve contains a small shuttle map on one side and safety tips on the other side, as shown below right. Many of these signs are faded or cracked. Though these signs blend with the context, they are difficult to spot from the shuttle. It is also unclear what direction the shuttle is traveling (to park or away from park). Even though the shuttle stop signs in the park display the stop location, it can be confusing as to what direction they are heading. This is especially an issue at the Zion Lodge and Museum stops, where the shuttle stops are located side by side and not across the road from each other.

Other materials found at shuttle stops include schedule information. The majority of these schedules are either missing or in disrepair, as shown at above right.

Pedestrian Wayfinding – Currently, Springdale does not have a comprehensive pedestrian wayfinding system. Without this, wayfinding and orientation are a challenge for people attempting to locate the nearest shuttle stop from their parking area. It is also difficult for visitors to determine what direction they need to go to reach the park. It should be noted that there are many international visitors who come to the park each year.

While the shuttle system is somewhat intuitive and the shuttle stops are visible and act as



Damaged shuttle information sign

icons for the system, the directional travel and connections of the system can be confusing. Visitors are not always sure that the town shuttle connects to the park shuttle. Sometimes they forget which shuttle stop to get off at to get to where they parked. Shuttle stops keyed to the map by only name can also be confusing, particularly to people who do not use English as their primary language. Some simple additions related to signing and wayfinding could go a long way to better help visitors understand the system.

Visitors often become disoriented between the Giant Screen Theater stop (last stop of the Springdale loop) and pedestrian entrance to the park. Trees, vegetation, and obstacles impede sightlines towards the entrance. The route to the Visitor Center is not direct and could use some improvement and additional signs. In addition, once visitors leave the park, it is difficult to determine where to catch the shuttle towards town as sightlines again are obstructed. The shuttle stop and shelter are not clearly identified with a sign or other indicator.

Maps in Shuttle Vehicles – The shuttle maps displayed in the shuttles are currently out of date

and should be updated/replaced.

Lack of Public Focal Points for Information in Springdale – While visitors can obtain information about how to access the park via the shuttle from some hotels, businesses, and restaurants, there currently are limited public focal points in proximity to the shuttle system that can draw visitors and give them information about the system. The shuttle stops themselves serve as attractive focal points, but there is minimal information at those locations about the shuttle system and park and ride (and once you’ve reached the stop, you are generally beyond the point of needing that information anyway). Multiple public focal points, such as small plazas with kiosk, in places where there is extensive pedestrian activity are needed.

Recommendations

The following are recommendations for improving and intensifying wayfinding and communications. If successfully implemented, the park and town should see more people using parking areas in Springdale and riding the town shuttle to get to the park.

Springdale Parking Committee

This committee has been very effective and successful in helping to address some of the problems that occur related to parking in Springdale. The committee should continue. In addition to ongoing work related to managing and improving parking and visitor orientation, the committee could expand and take on a broader focus related to Zion Canyon transportation – the shuttle system, parking, pedestrian safety, bicycling, the proposed Zion Canyon trail system, and other transportation issues. The action plan provided in Section 9 could be a starting planning framework for the committee to focus on, updating the plan as conditions change and projects are implemented. It will be important for there to be representation from the town of Springdale, Zion National Park, UDOT, Visitors Bureau/town businesses, and perhaps down canyon towns on this committee, at a minimum.

Pre-Trip Communications

Websites – Information on the park and town websites should be expanded and updated to strengthen the “park and ride” and shuttle information messages and make them more prominent and more easily accessible to visitors. Information about the shuttle and messages that encourage parking in Springdale to access the shuttle should also be added to/expanded on partner websites (Visitors Bureau, hotels, businesses, UDOT, Utah Travel Industry, Washington County, etc.)

Website information should include downloadable (PDF) maps for visitors to print out for their use. These maps should provide a detailed picture of where visitors can park and ride in Springdale – similar to how a college campus map looks (see example, Figure 2-6).

En Route Communications

Pull Off Area near Virgin – The pull off area near Virgin (south of Rockville) should be improved as follows:

- Replace upright signs and provide more of an enticing environment to stop with interpretive and information kiosks and/or low profile interpretive panels that require visitors to get out of their cars to view (this will also reduce drive by shooting/vandalism). The signs should provide more detail and graphics related to the shuttle system and where to park in Springdale, along with all the other information about Zion National Park that is important to convey to visitors.
- Provide more formalized improvements such as striped parking areas and more landscaping so the area looks more like a finished travelers’ rest stop.
- Consider putting a self contained concrete vault restroom unit here, which will encourage travelers to stop even more and also make the site look more like a public focal point and official place for information. New technology and designs for vault restrooms have become increasingly attractive and context sensitive. Many of



these restroom buildings come equipped with solar powered fans and features (such as low odor technology) and require very minimal maintenance.

Signs – Replace the inbound brown and white signs with slightly larger and more prominent (but not visually intrusive) signs placed in highly visible locations to more readily capture visitor attention.

Coming from the East Entrance – visitors coming into Zion National Park and Springdale from the east entrance via Highway 9 need to be given clearer direction about where to park and ride the shuttle. Include more wayfinding aids and parking notifications for travelers coming in from the east entrance (the highway advisory radio message and 511 traveler program could help here – see below).

Highway Advisory Radio – 1610 AM – Update the message to include more specific instructions about where to park in Springdale and access the shuttle system. More directly and forcefully encourage visitors to leave their cars in Springdale and ride the shuttle.

511 Traveler Advisory – Work with the UDOT 511 traveler advisory system to provide information Zion National Park on the 511 system and provide signs on approach to Springdale announcing the availability of the information via the 511 program.

Other En Route Sources – Work with partners, stakeholders, and regional interests to increase awareness of the opportunities to enjoy Zion National Park by leaving your car in Springdale and riding the shuttle. Work with the Visitors Bureau and Utah Travel Council to emphasize this message to visitors through printed materials at businesses along the route to Springdale and other means.

As conditions change and opportunities develop for people to travel to Springdale via private transit or shuttle services from St. George and other locations, a new campaign should be implemented that promotes Zion National Park as a “car free vacation” destination. (This

is also an opportunity related to Pre-Trip Communications.)

On Site Communications

Printed Materials, Including Visitors Information Packets for Hotels/Businesses and Detailed Maps

– Implement a new marketing campaign that encourages visitors to park and ride the shuttle. The campaign should include marketing and advertising activities, as well as development of brochures and other media outreach. Sometimes “low key, low-tech” solutions go a long way. Consider printing up place mats that show the detailed maps and encourage people about parking and riding the shuttle through stewardship messages. Produce small pins/buttons with clever messages about riding the shuttle for people to wear.

Provide a visitor outreach kit to local businesses and hotels, with brochures and maps that can be distributed to visitors. Provide enhanced, detailed maps, such as the one shown in Figure 2-6 at the end of this section, to help visitors understand specifically where they should park and ride the shuttle.

Part of the focus of the campaign could be on educating visitors and encouraging park stewardship. Messages and tag lines could key in to the environmentally friendly benefits of parking in Springdale and riding the shuttle.

Gateways – Create a stronger sense of arrival to the Zion National Park experience upon entry to Springdale. Consider installing a new gateway sign in the same red rock style as the shuttle system (see example, Figure 2-1). The sign face could be designed to lift up or slide off during busy peak days to expose the electronic variable message sign face (see Figure 2-3.).

Zion National Park, the town of Springdale, and UDOT should work together on the development of the pull off area at the south entrance to town (just south of the Majestic View Lodge). Plans call for development of this site as a trailhead for the Zion Canyon Trail. It could also include an information kiosk and short term parking area, where visitors can stop

and learn about the shuttle system and where to park in Springdale.

Real Time Variable Message Signs – Provide context-sensitive “real time” variable message signs at key locations to direct visitors to parking. To blend with the environment and strengthen identity, the sign(s) should be designed in a similar manner to the existing shuttle system features. See Figure 2-3. Signs should be placed at just a few key/strategic locations, such as at the south entrance to town in advance of the Majestic View Lodge parking area, in town in advance of Lion Boulevard, and in advance of any other larger sized parking areas.

Park and Ride Signs and Parking Area Signs– Continue to provide the blue permanent parking signs at locations where visitors should be encouraged to park and ride the shuttle. Key these locations specifically to detailed maps and information distributed to visitors. Consider providing additional signs (with all signs

designed according to a consistent, attractive template) for identifying parking areas that customers and park visitors can use, as well as other signs that clearly identify parking areas are ONLY for park visitors –or- ONLY for customers. (See example Figure 2-2)

Shuttle Stop Signs – Better identify shuttle stops with roof-mounted signs and pedestrian oriented signs that are clearly legible to pedestrians and shuttle passengers and can be read from across the street. Signs should clearly display the color indicating direction of shuttle travel and location name. See Figures 2-4 and 2-5 for examples.

Consolidate the map, schedule, and safety tips into one graphic sign at each shuttle stop.

Pedestrian Wayfinding – Carefully and thoughtfully enhance signing through Springdale to help visitors find parking and shuttle locations. Important areas to pay attention to are the Giant Screen Theater location, Majestic



Figure 2-1. Improved gateway signs would create a stronger sense of entry to the Zion National Park experience in Springdale

View Lodge, Lion Boulevard, and Pizza Noodle.

Repair or replace damaged shuttle information, including maps, posted at the shuttle stops. Whenever possible, locate the shuttle stops across from the road from each other for ease of recognition and wayfinding for users.

Update the maps displayed in the shuttles to display the correct shuttle stop name and location.

See comment regarding transition between Springdale shuttle and park pedestrian entrance in Section 4.

Other Outreach and Communications – Explore the possibility of providing information to visitors related to the “park in Springdale and ride the shuttle” campaign via Closed Caption TV or through the local cable network via public service announcements. Public service announcements via regular network TV and radio should also be explored.

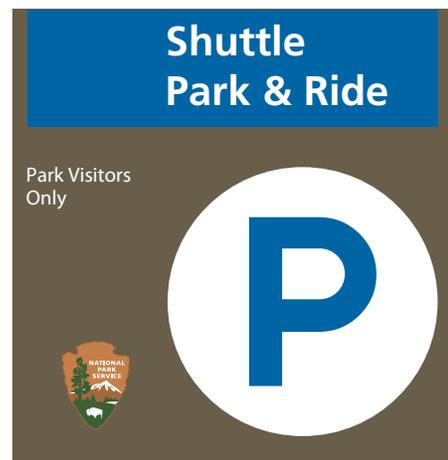
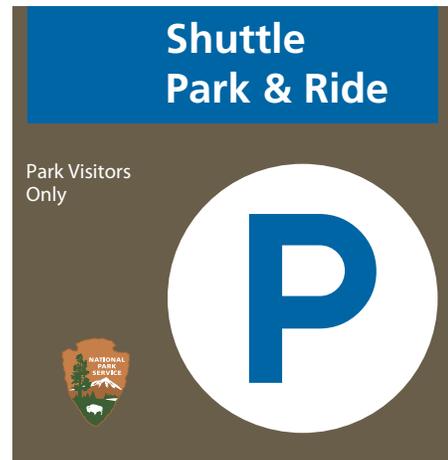


Figure 2-2. Parking area signs help visitors and customers find appropriate locations to park



Figure 2-3. "Real time" variable messaging signs direct visitors to parking and strengthen identity




Town Shuttle
 Northbound – Springdale to Zion Canyon
 Visitor Center – Transfer to Park Shuttle

3

Canyon Junction

Park Shuttle

3

Stand here for
Down Canyon service


Town Shuttle
 Southbound Service to
 and within Springdale

3

**Zion Canyon
Visitor Center**

Park Shuttle

1

Stand here for
Up Canyon service


Big Bend
 Zion Canyon – Zion National Park Shuttle

8

**Bumbleberry/
Zions Bank**

Town Shuttle

5

Northbound to Zion Canyon
Visitor Center, park entrance
and transfer to park shuttle

Figure 2-4. Improved shuttle stop signs are legible to shuttle passengers, and can be read from across the street




Zions Bank



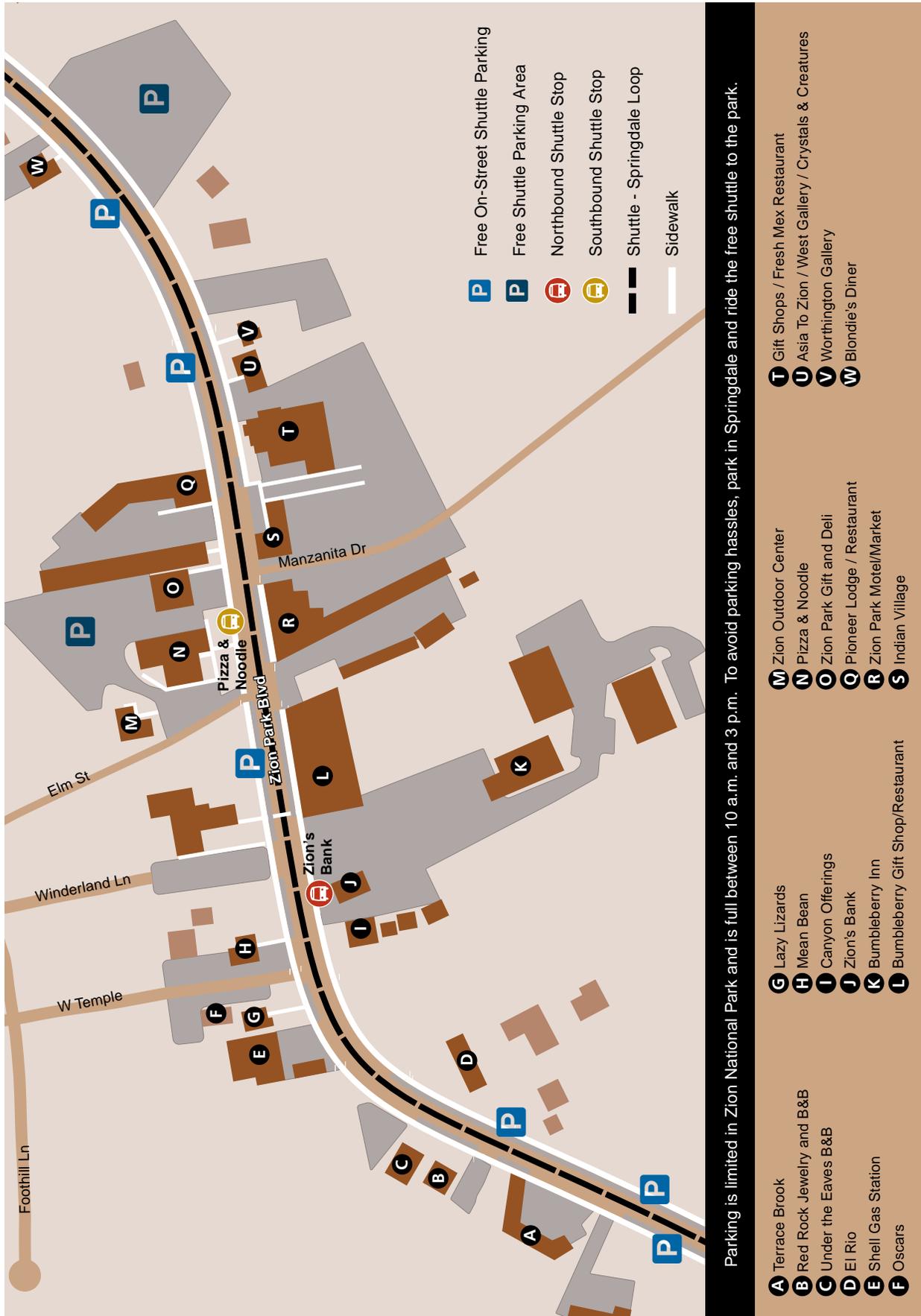
Northbound – Springdale to Zion Canyon Visitor Center – Transfer to Park Shuttle


Zion Pizza and Noodle



Southbound Service to and within Springdale

Figure 2-5. Improved shuttle stop signs are legible to shuttle passengers, and can be read from across the street



Parking is limited in Zion National Park and is full between 10 a.m. and 3 p.m. To avoid parking hassles, park in Springdale and ride the free shuttle to the park.

Figure 2-6 Example of a detailed map that could be created to help visitors find parking in Springdale