



SPRINGVILLE CITY
TRANSPORTATION MASTER PLAN



 Horrocks.
2024

GLOSSARY OF TERMS

AASHTO	American Association of State Highways and Transportation Officials
ADA	Americans with Disability Act
ADT	Average Annual Daily Traffic
BRT	Bus Rapid Transit
CFP	Capital Facilities Plan
FHWA	Federal Highway Administration
GOPB	Governor’s Office of Planning and Budget
HCM	Highway Capacity Manual
HOA	Homeowners Association
IFFP	Impact Fee Facilities Plan
ITE	Institute of Transportation Engineers
LOS	Level of Service
L RTP	Long Range Transportation Plan
MAG	Mountainland Association of Governments
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
RTP	Regional Transportation Plan
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TAZ	Traffic Analysis Zone
TCM	Traffic Calming Measures
TDM	Travel Demand Model
TIP	Transportation Improvement Program
TIS	Traffic Impact Study
TMP	Transportation Master Plan
TransPlan50	MAG Regional Transportation Plan
TRAX	Transit Express (light rail)
TRB	Transportation Research Board
UDOT	Utah Department of Transportation
UTA	Utah Transit Authority

EXECUTIVE SUMMARY

2024 Update

The Springville Transportation Master Plan (TMP) was updated in 2024 to include updates to the following areas:

- **Update of 2040 Roadway Network to incorporate the MAG TransPlan 50 updates.**
- **Update the Capital Facilities Plan Project List and costs.**

Springville City, founded in 1850, has experienced significant growth and development in recent years, with an increase of approximately 17,500 residents since 1990. With Springville City committed to continued growth, it is projected that the population in 2040 will be around 58,000. A Transportation Master Plan (TMP) has been implemented so the transportation system can accommodate the projected growth in the City for the year 2040.

As part of the plan, the current roadway network was assessed using existing traffic volumes. Traffic volumes were projected to the year 2040 using the current roadway network to find the capacity improvements necessary for the roadway network to positively contribute to the economic and community development in Springville City. The following sections are included in the Springville City TMP.

Roadway Network

To have an effective transportation system, the City requires a connected street system. A connected system decreases traffic congestion, commute times, emergency response times, etc. Roadways share two functions: mobility and land access. These two functions share an inverse relationship, meaning a roadway with high mobility has minimal land access points and a roadway with low mobility has frequent land access points. Roadway classifications are implemented in a connected roadway network to designate the amount of mobility and land access the roadway will have. The following roadway classification system is used in Springville City: Freeway, Major Arterial, Major Collector, Minor Collector, Commercial Local, and Local Street. These classifications range from most mobile and least land access points (Freeway) to least mobile with frequent land access points (Local Street), creating a hierarchy in the roadway system. Intersections are used in the roadway system to allow for the progression from high mobility to low mobility. Freeways connect with Arterial Streets, which connect with Collector Streets, which connect with Local Streets. Correct use of all roadways' functional classifications within the city allows for a successful, connected roadway system.

To measure the performance of a roadway, Level of Service (LOS) is used. LOS, as defined by the Highway Capacity Manual (HCM), determines the level of congestion on a roadway segment or intersection. To measure LOS, a roadway segment is assigned a letter grade A through F where A represents free-flowing traffic and F represents gridlock. LOS is measured on a roadway segment using its daily traffic volume and

at an intersection based on the average delay per vehicle. The LOS of a roadway segment or intersection is used to determine if capacity improvements are necessary. In Springville City, the standard for LOS is LOS D or better.

As part of the TMP, data was collected for the existing roadway network, and a LOS was determined for each major roadway segment and major intersection. The existing traffic volumes were projected to 2040 using the Mountainland Association of Governments (MAG) travel demand model (TDM). MAG is a collaboration of local government and community members from Utah, Summit, and Wasatch Counties in Utah tasked with regional transportation planning. Adjustments to the MAG travel demand model were made based on socioeconomic data and the City's land use plan. Projected 2040 traffic was first modeled for the no-build scenario. Typically, the no-build scenario acts as a guide for roadway capacity inefficiencies that will need to be improved by 2040. Using the no-build scenario as a base for roadway capacity improvements, the projected 2040 traffic was modeled using the MAG model. The segments with LOS E or worse with the 2040 projected traffic volumes will be recommended for capacity improvements to achieve acceptable LOS.

Alternative Modes of Transportation

This TMP discusses alternative modes of transportation. Currently, the transit service in Springville City is operated by the Utah Transit Authority (UTA). UTA offers services such as commuter rail, light rail, bus, bus rapid transit (BRT), ski buses, and van share. Currently, transit service in Springville City is limited to bus services. The MAG long-range plan calls for more transit service in Springville City as well as the addition of the FrontRunner commuter rail as it continues to develop.

Non-motorized modes of transportation include pedestrians and bicycles. Included in this TMP are discussions for safe pedestrian and bicycle facilities and planned future bike lanes and trails in Springville.

Other Elements of the Transportation Master Plan

This section is a discussion of the other elements included in the TMP. There is a discussion describing the appropriate use of Traffic Impact Studies (TIS) before development. A TIS assesses the impacts to the roadway system due to new development, which helps the City prepare for the impacts to the roadway network caused by the development. Another discussion included in the TMP is Intelligent Transportation Systems (ITS). ITS refers to the increased use of technology and communication methods to improve traffic operations. Specifically, the use of ITS to improve traffic signal performance. The other elements discussed in this section are Access Management, Travel Demand Management, Safety, Intersection Improvements, Americans with Disabilities Act (ADA), and Corridor Preservation.

Capital Facilities Plan

A Capital Facilities Plan (CFP) outlines all improvements necessary to provide Springville City with an adequate roadway system in 2040 based on the projected 2040 traffic volumes. This plan is updated by the City as project scope changes and development occurs. As part of the TMP, a Transportation Improvement Plan (TIP) outlines all the projects necessary to accommodate future traffic volumes. It is expected that the total cost of roadway improvements necessary to accommodate 2040 growth for Springville City is approximately **\$514,355,700**, of which **\$63,159,150** will be the responsibility of the City and may be eligible for impact fee expenditure.

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INTRODUCTION

2024 Update

The Springville Transportation Master Plan (TMP) was updated in 2024 to include updates to the following areas:

- Update of 2040 Roadway Network to incorporate the MAG TransPlan 50 Updates
- Update the Capital Facilities Plan Project List and costs.

Overview

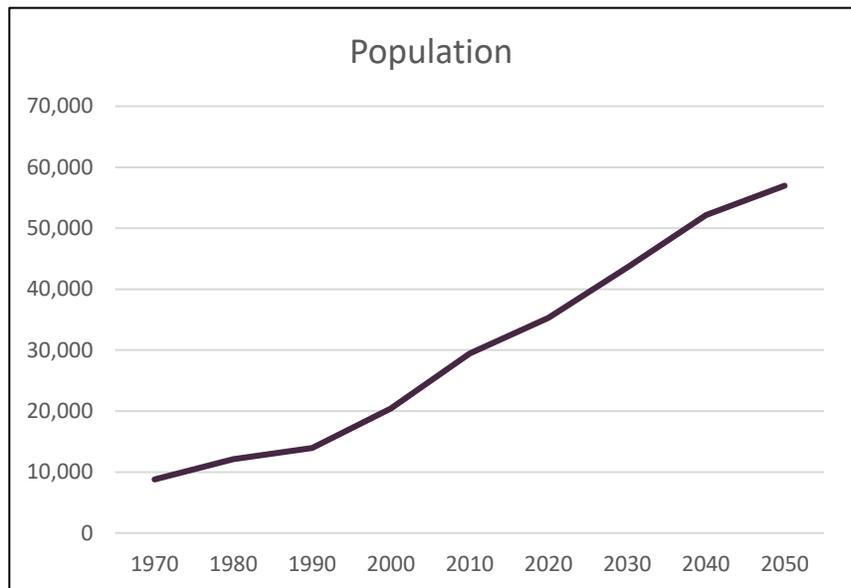
Springville City is a rapidly growing community located in the middle of Utah County. It is bordered by Provo on the north, the Wasatch Mountains on the east, Mapleton and Spanish Fork on the south, and Palmyra and Utah Lake on the west. Springville has a mix of agricultural, commercial, residential, and industrial areas. The city is bisected by I-15, with most of the city being located east of I-15, giving it good access to the rest of the state. A map of Springville and the surrounding areas is shown in [Figure 2](#).

Springville and the surrounding communities have experienced a significant amount of growth and development over the last several years, and this growth is expected to continue in the future, as shown in [Figure 1](#). The population in Springville is expected to approximately double from 2010 to 2050.

Table 1: Springville Population

Year	Population
1970	8,790
1980	12,101
1990	13,950
2000	20,424
2010	29,466
2020	35,268
2030	43,562
2040	52,174
2050	56,969

Figure 1: Projected Population



To keep up with this projected growth, a comprehensive transportation plan must be developed and regularly updated. The purpose of this plan is to incorporate the goals of Springville City regarding the

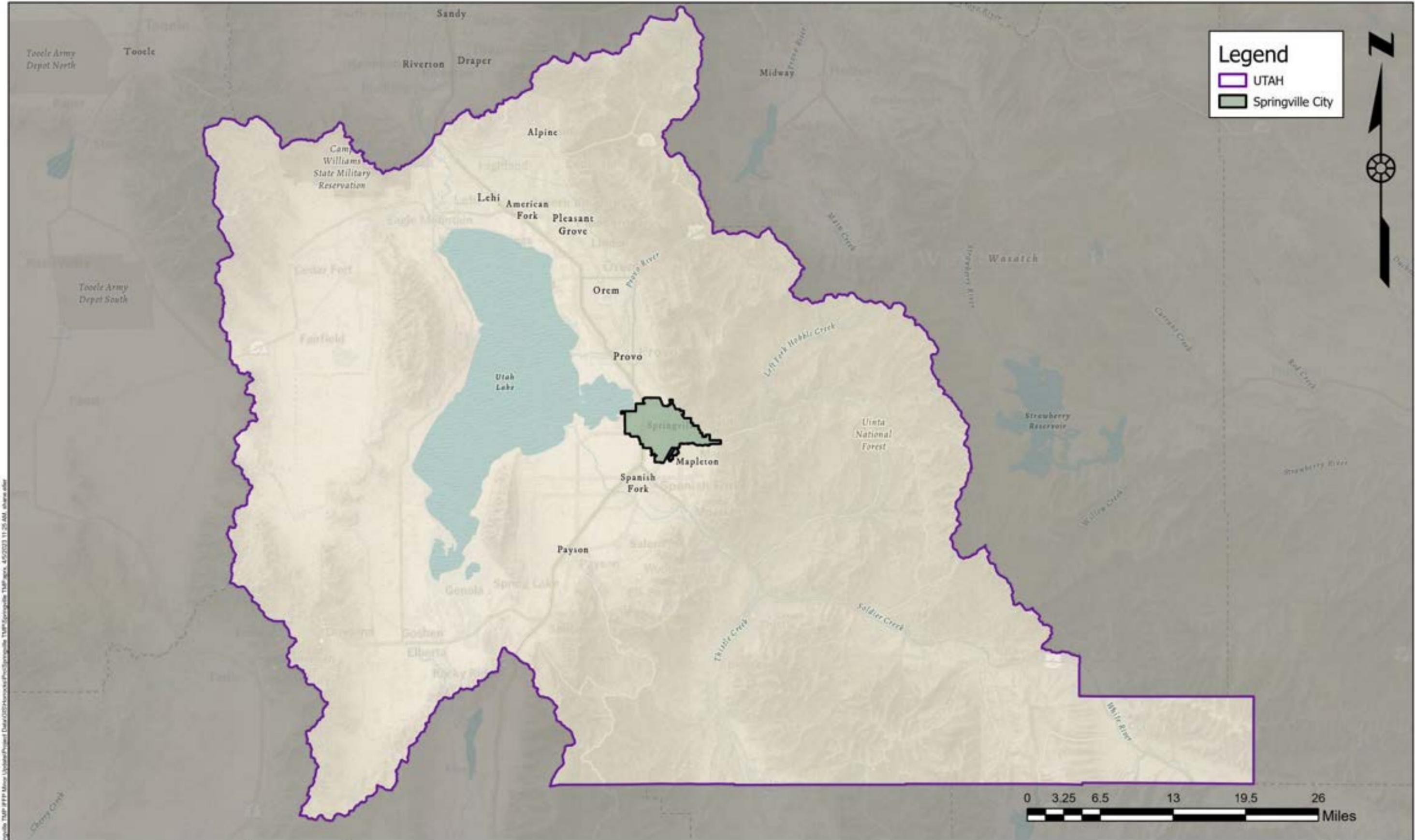
transportation systems within their jurisdiction including regional facilities maintained by the Utah Department of Transportation (UDOT), Utah Transit Authority (UTA), Utah County, and all neighboring communities.

History

First explored by Father Escalante, a Jesuit Priest, in 1776, Springville was originally settled by eight pioneer families in 1850. It was first called Hobble Creek by the early pioneers because their horses were often hobbled (by loosely tying their front feet together) and left along the stream to graze in the lush grass. If the horses wandered into the creek, the hobbles came off in the water. Thus, the settlement earned its original name. Later as the town grew, the name was changed to Springville, but the canyon stream and golf course have retained the name of Hobble Creek.

Springville is known as "Art City" due to its strong development of the arts. Springville is home to the Springville Museum of Art, Utah's oldest museum for the visual fine arts. The museum showcases a variety of collections of local and other well-known artists.

Springville is a thriving community that has experienced steady growth over the past 10 years. As shown in [Table 1](#) and [Figure 1](#), a large growth rate is projected in Springville through 2040 in line with the expected future expansion of its commercial, office, retail, and industrial sectors along the I-15 Corridor.



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Springville Transportation Master Plan
 Springville Area Map

DATE	4/5/2023
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Figure 2	

ROADWAY NETWORK

Transportation planning in the region is a cooperative effort of state and local agencies. All urbanized areas throughout the country are separated into areas called Metropolitan Planning Organizations (MPOs), where the responsible agency coordinates transportation planning for the area. The MPO for Utah, Summit, and Wasatch Counties is called the Mountainland Association of Governments (MAG). MAG became the MPO for these counties in 1972. Included in this section is an inventory of existing conditions as well as the projected future conditions in 2040.

Existing Conditions

Before projecting traffic into the future, a thorough documentation of the city's existing conditions is necessary. Accurate data within the existing roadway network will ensure that future traffic projections are as accurate as possible. It also helps evaluate the existing transportation system to address needs within the City. The existing roadway network in Springville City is found in [Figure 4](#). The data collected for this TMP update includes:

- **Key Roadway Traffic Volumes**
- **Socioeconomic Conditions**
- **Land Use and Zoning**
- **Roadway Classifications/Widths/Cross Sections**
- **Public Transit Routes**
- **Bicycle/Pedestrian Trails**

This data forms the basis for analyzing the existing transportation system, as well as providing the foundation to project future traffic conditions.

Existing Socioeconomic Conditions

Socioeconomic data used in the transportation analysis was obtained from the City and the Mountainland Association of Governments (MAG). MAG involves Utah, Summit, and Wasatch counties. When estimating future traffic on roadways throughout the county, MAG uses a travel demand model (TDM) that uses specific inputs based on population, existing and future land use, as well as socioeconomic data. This model will be referenced throughout the document as the MAG Travel Demand Model or TDM.

To generate future traffic, the area is split into areas known as Traffic Analysis Zones (TAZ). Each TAZ uses the land use and socioeconomic data to determine how many vehicle trips begin and end within the zone. The MAG Travel Demand Model focuses on traffic on a regional level and has large TAZs. The MAG regional travel demand model was modified within Springville with smaller TAZs to estimate the travel demand more accurately within the City.

Street System

Streets provide for two distinct and competing functions: mobility and land access. As mobility increases, land access decreases and vice versa as shown in **Figure 3**. Both functions are vital, and no trip is made without both. In Springville, street facilities are classified by the relative amounts of through and land-access service they provide. There are four primary classifications, with detailed descriptions in **Table 2**:

Local Streets – Local facilities primarily serve land-access functions. Local Street design and control facilitates the movement of vehicles onto and off the street system from land parcels. Movement is difficult and is discouraged by both the design and control of this facility.

Collectors – Collector facilities, the “middle” classification, are intended to serve both through and land-access functions in relatively equal proportions. For long through trips, such facilities are usually inefficient, nevertheless, they are frequently used for shorter through movements associated with the distribution and collection portion of trips.

Arterials – Arterial facilities are provided to primarily serve through traffic movement. While some land-access services may be accommodated, it is a minor function. All traffic controls and the facility design are intended to provide efficient through movement.

Freeways and Expressways – Freeway and expressway facilities are provided to service long-distance trips between cities and states. No land access is provided by these facilities.

Roadway functional classification does not define the number of lanes required for each roadway. For instance, a collector street may have two or four lanes, whereas an arterial street may have up to nine lanes. The number of lanes is a function of the expected traffic volume on the roadway and serves as the greatest measure of roadway capacity. The roadway network in **Figure 4** is separated into functional classes by access as well as the number of lanes.

Figure 3: Mobility vs. Access by Functional Classification



Table 2: Street Functional Classification

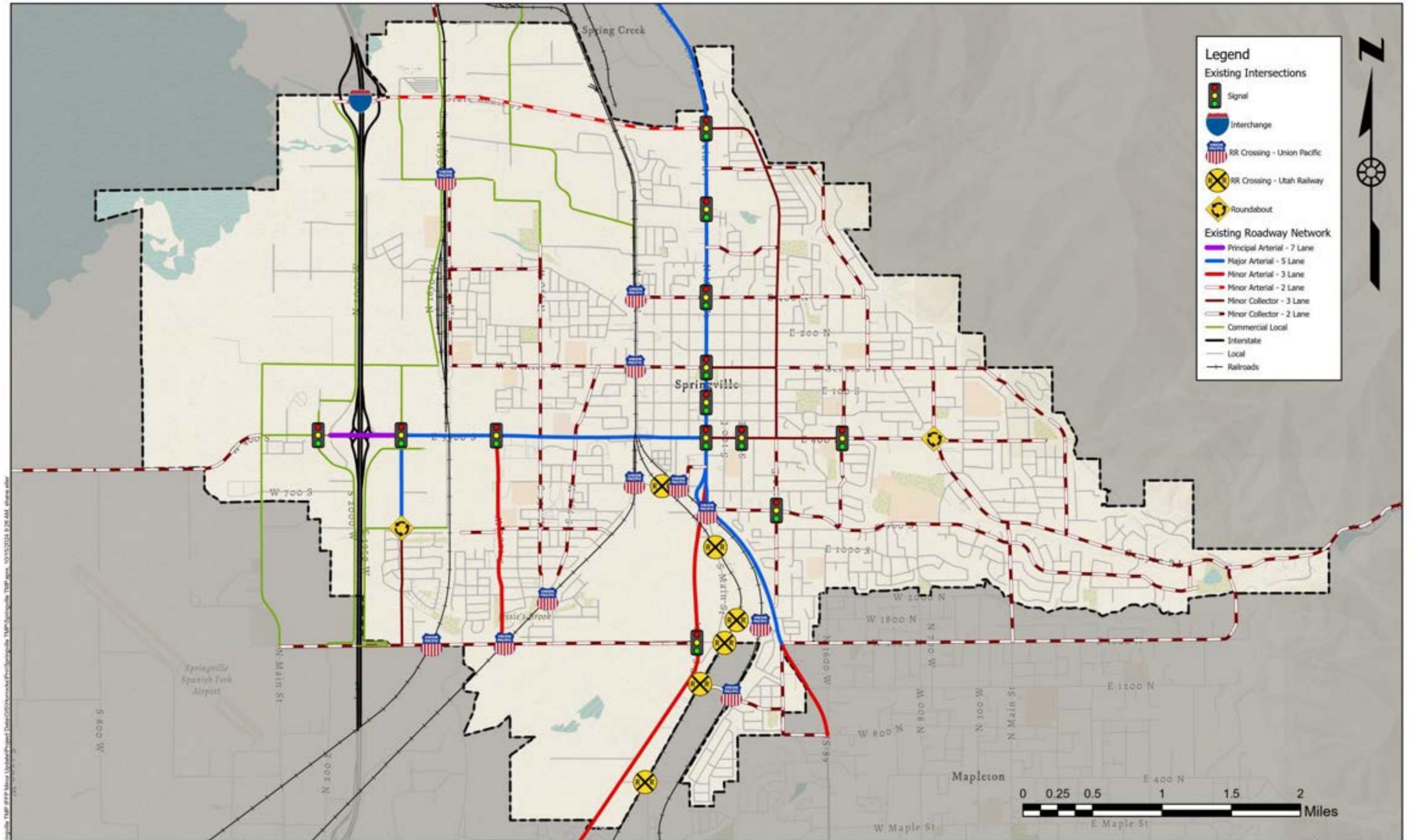
Characteristic	Functional Classification			
	Freeway and Expressway	Arterial	Collector	Local Street
Function	Traffic movement	Traffic movement, land access	Collect and distribute traffic between streets and arterials, land access	Land access
Typical % of Surface Street System Mileage	Not applicable	5-10%	10-20%	60-80%
Continuity	Continuous	Continuous	Continuous	None
Spacing	4 miles	1 mile	<u>Major Collector</u> ½ Mile <u>Minor Collector</u> ⅛ - ¼ Mile	As needed
Typical % of Surface Street System Vehicle-Miles Carried	Not applicable	40-65%	10-20%	10-25%
Direct Land Access	None	Limited: Major Generators Only	Restricted: Some movements are prohibited; the number and spacing of driveways controlled	Safety controls access
Minimum Roadway Intersection Spacing	Approximately 1 Mile	Approximately ½ Mile	300 feet – ¼ Mile	150 Feet
Speed Limit	55-75 mph	40-50 mph in fully developed areas	30-40 mph	25 mph
Parking	Prohibited	Discouraged	Limited	Allowed
Comments	Supplements capacity of arterial street system & provides high-speed mobility	The backbone of the Street System		Through traffic should be discouraged

Roadway Cross Sections

The typical cross-sections for each functional classification in Springville were updated. Ranges for Right of Way (ROW) width as well as pavement width for each functional classification are included in **Table 3**. Springville needs to use specific values for each cross-section for future development. The cross-sections can be found in **Appendix A: Typical Cross-Sections**. As these are newly developed cross-sections, the existing roadway network in **Figure 4** may not reflect the new cross-sections. All roadways in **Figure 4** highlighted in grey are not built to the standards outlined in **Table 3**. These will be addressed as “Incomplete Street” projects as part of this TMP. All new roadways will be built to these standards. Adopted cross-sections shall govern and be used for new development unless a special zoning district (with cross-sections established for the district) or as called out in the current adopted Active Transportation Master Plan.

Table 3: Cross-Sections in Springville

Functional Classification	Number of Lanes	Right-of-Way (ROW)	Pavement Width
Principal Arterial	7	118'	72'
Major Arterial with Trail	5	107'	58'
Major Arterial	5	102'	58'
Minor Collector with 10' Trail	3	77'	42'
Minor Collector	3	72'	42'
Minor Collector	2	72'	42'
Commercial Local	2	67'	37'
Residential Local	2	59'	29'
Country Lane	2	38'	24'



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Springville Transportation Master Plan
 Existing Functional Classification Map

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Figure 4	

Existing Traffic Volumes and Level of Service

The adequacy of an existing street system can be quantified by assigning Levels of Service (LOS) to major roadways and intersections. As defined in the Highway Capacity Manual (HCM), a document published by the Transportation Research Board (TRB), LOS serves as the traditional form of measurement of a roadway's functionality. The TRB identifies LOS by reviewing elements, such as the number of lanes assigned to a roadway, the amount of traffic using the roadway, and the time of delay per vehicle traveling on the roadway and at the intersections. Levels of service range from A (free flow where users are virtually unimpeded by other traffic on the roadway) to F (traffic exceeds the operating capacity of the roadway).

Roadway Level of Service

Roadway LOS is used as a planning tool to quantitatively represent the ability of a particular roadway to accommodate the travel demand. LOS D is approximately 80 percent of a roadway's capacity and is a common goal for urban streets during peak hours. Peak hours during the day usually occur from 6:00 AM to 8:00 AM and 4:00 PM to 6:00 PM. Typically, the PM peak hours have the highest traffic volumes. LOS D was adopted by the Springville City Council with the general plan for system streets (collectors and arterials) as acceptable for future planning and was used in this TMP. Attaining LOS C on these streets would be potentially cost-prohibitive and may present societal impacts, such as the need for additional lanes and wider street cross-sections. LOS D suggests that for most times of the day, the roadways will be operating at well below capacity. During peak times of day, the roadway network will likely experience moderate congestion characterized by a higher vehicle density and slower than free-flow speeds. **Table 4**, **Table 5**, and **Table 6** were used as guides for quantifying LOS, and, subsequently, the conditions of each of the major roadways in the City are based on HCM principles and regional experience. A four-lane freeway facility can accommodate 70,000 vehicles per day at LOS D; adding two additional lanes will increase this threshold by 42,000 vehicles to 112,000 vehicles per day. Arterial streets can handle significantly less traffic at LOS D; a seven-lane arterial (6 travel lanes and one center turn lane) can only accommodate approximately 50 percent of the traffic of a freeway of similar lane configuration (55,000 versus 110,000). Similarly, much capacity is lost when reducing the number of arterial lanes by one in each direction, which results in a 17,700 vehicle-per-day reduction in LOS D capacity. Collector streets are designed at lower speeds than arterials to be less intrusive and are not as strictly access-controlled. Again, this results in a loss of capacity when compared to arterial streets. A three-lane collector street will be able to move 1,700 fewer vehicles per day than a three-lane arterial street.

Special consideration is needed to determine the capacity of 2-lane collector streets. Many factors determine the capacity for roadways. One factor considered is livability. Two-lane collector streets typically include on-street parking, many driveways as well as significant amounts of pedestrian and bicyclist activity. The number of driveways and conflicts due to pedestrians and bicyclists cause increased delays as traffic volumes increase since left-turning vehicles do not have a turn lane. To ensure adequate traffic flow, the LOS D capacity for a 2-lane suburban collector is 12,100 vehicles per day. For this reason, Springville has a 2-lane and 3-lane Minor Collector roadway which fit within the same Right-of-Way and pavement width (as shown in **Table 3** and **Appendix A: Typical Cross-Sections**) to minimize the cost of increasing lane capacity as traffic volumes grow.

Table 4: Suburban Freeway LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
4	60,000	70,000	89,000
6	95,000	112,000	140,000

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Table 5: Suburban Arterial LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
3	12,400	15,100	17,700
5	28,500	32,800	40,300
7	43,000	50,500	63,400

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Table 6: Suburban Collector LOS Capacity Criteria in Vehicles per Day

Lanes	LOS C	LOS D	LOS E
2	9,700	12,100	14,500
3	10,800	13,400	16,100
5	23,100	26,900	33,900

Source: Utah/Wasatch Front Specific Daily Capacity Estimates; MAG & WFRC

Intersection Level of Service

Whereas roadway LOS considers an overall picture of a roadway to estimate operating conditions, intersection LOS looks at each movement at an intersection and provides a much more precise method for quantifying operations. Since intersections tend to be a source of bottlenecks in the transportation network, a detailed look into the delay at each intersection should be performed regularly. The methodology for calculating delay at an intersection is outlined in the *Highway Capacity Manual* and the resulting criteria for assigning LOS to signalized and un-signalized intersections are outlined in [Table 7](#). As in the case of roadways, LOS D is considered the industry standard for intersections in an urbanized area. LOS D at an intersection corresponds to an average control delay of 35-55 seconds per vehicle for a signalized intersection and 25-35 seconds per vehicle for an un-signalized intersection.

At a signalized intersection under LOS D conditions, the average vehicle will be stopped for less than 55 seconds. This is considered an acceptable amount of delay to experience during the times of the day when roadways are most congested. As a rule, traffic signal cycle lengths (the length of time it takes for a traffic signal to cycle through each movement in turn) are kept below 90 seconds. An average delay of less than 55 seconds suggests that in most cases, vehicles will not have to wait more than one cycle before proceeding through an intersection.

Un-signalized intersections are generally stop-controlled. In areas where there is a major street, the intersection may be two-way stop-controlled where the minor street traffic must stop. In cases where traffic volumes are more evenly distributed or where sight distances may be limited, four-way stop-controlled intersections are common. LOS for an un-signalized intersection is assigned based on the average control at the worst approach (always a stopped approach) of the intersection. An un-signalized intersection operating at LOS D means that the average vehicle waiting at one of the stop-controlled approaches will wait no longer than 35 seconds before proceeding through the intersection. This delay

may be caused by large volumes of traffic on the major street resulting in fewer gaps in traffic for a vehicle to turn into, or from queued vehicles waiting at the stop sign.

Table 7: Signalized and Unsignalized Intersection LOS Criteria

LOS	Signalized Intersections (sec/veh)	Unsignalized Intersections (sec/veh)
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Note: LOS for unsignalized intersections is measured for the worst approach only

Existing Operating Conditions

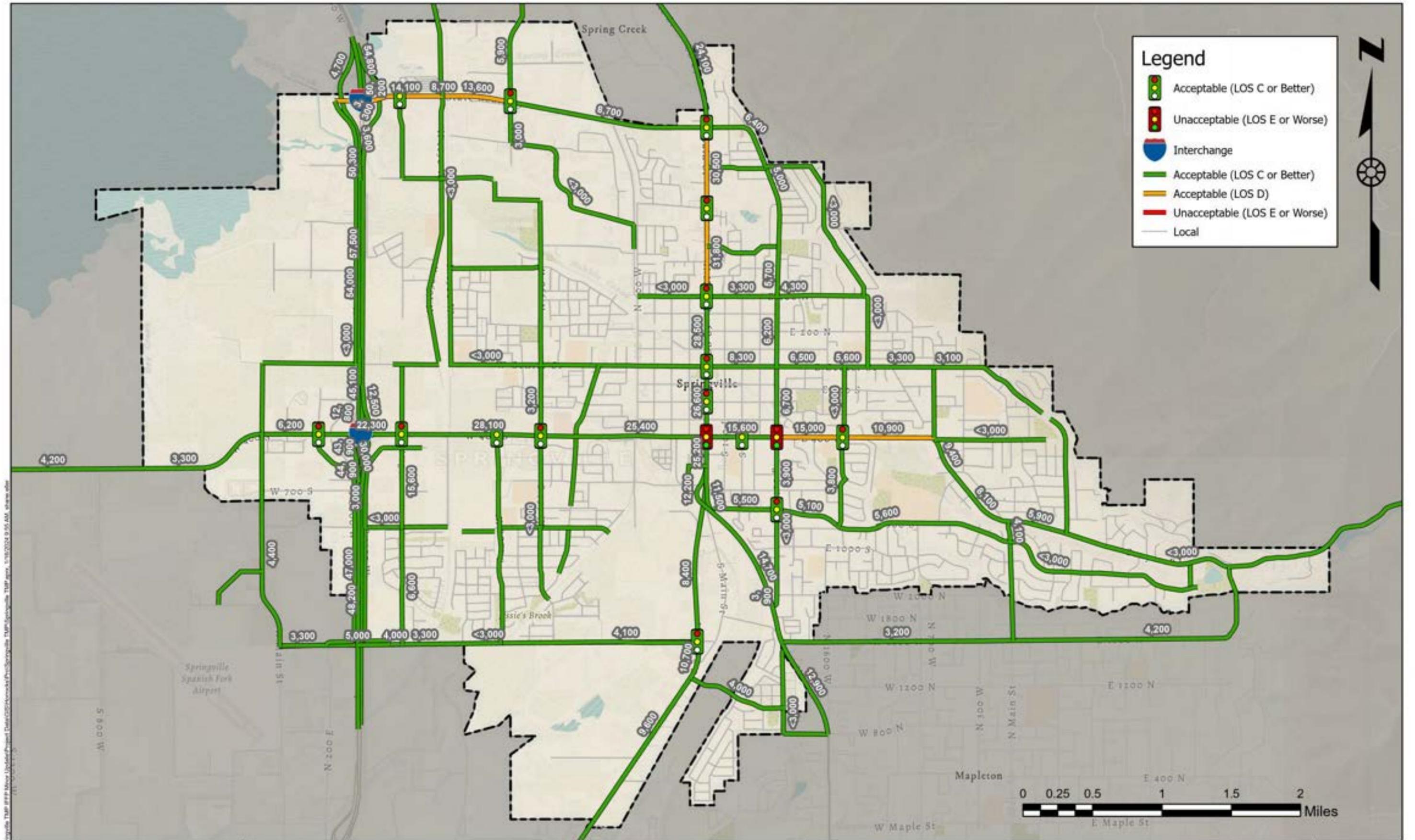
Using the methodologies above, the LOS for the existing network was found. The results are shown in **Figure 5** with acceptable roads and intersections represented in green and unacceptable roads represented in red. Roadways represented in yellow signify an acceptable roadway or intersection at LOS D. Roadways and intersections presently operating at LOS D have been included to alert the City to areas where mitigation efforts may be needed soon. The following roadways from **Figure 5** are at LOS D or experience unacceptable conditions currently:

LOS D (Acceptable)

- **1400 North** (I-15 to 1100 West)
- **Main Street** (1400 North to 400 North)
- **400 South** (400 East to 1300 East)

LOS E or Worse (Unacceptable)

- **Main Street & SR-77** (Traffic Signal)



Legend

- Acceptable (LOS C or Better)
- Unacceptable (LOS E or Worse)
- Interchange
- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or Worse)
- Local

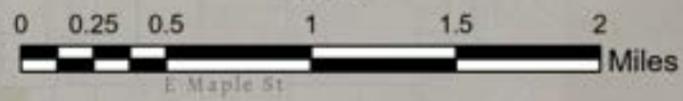
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Springville Transportation Master Plan

Existing Level of Service Map



DATE	1/16/2024
DRAWN	SEE
Figure 5	

Future Conditions

Future Socioeconomic Conditions

Most of the projected socioeconomic data used in this study comes from the MAG travel demand model, which is based on the best available statewide data provided by the Governor’s Office of Planning and Budget (GOPB). This data was supplemented and verified using the data provided by the City in the form of the adopted Land Use Plan shown in **Figure 6**. The current zoning map for Springville includes a variety of uses, including agriculture, residential, industrial manufacturing, commercial, and business. The information provided is considered the best available for predicting future travel demand. However, land use planning is a dynamic process, and the assumptions made in this report should be used as a guide and should not supersede other planning efforts particularly when it comes to localized intersections and roadways.

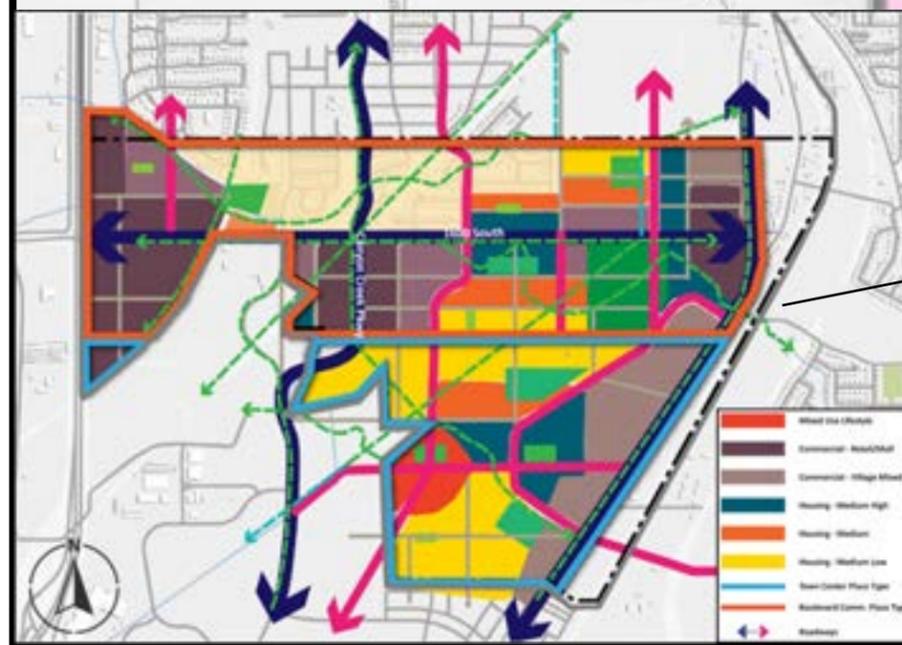
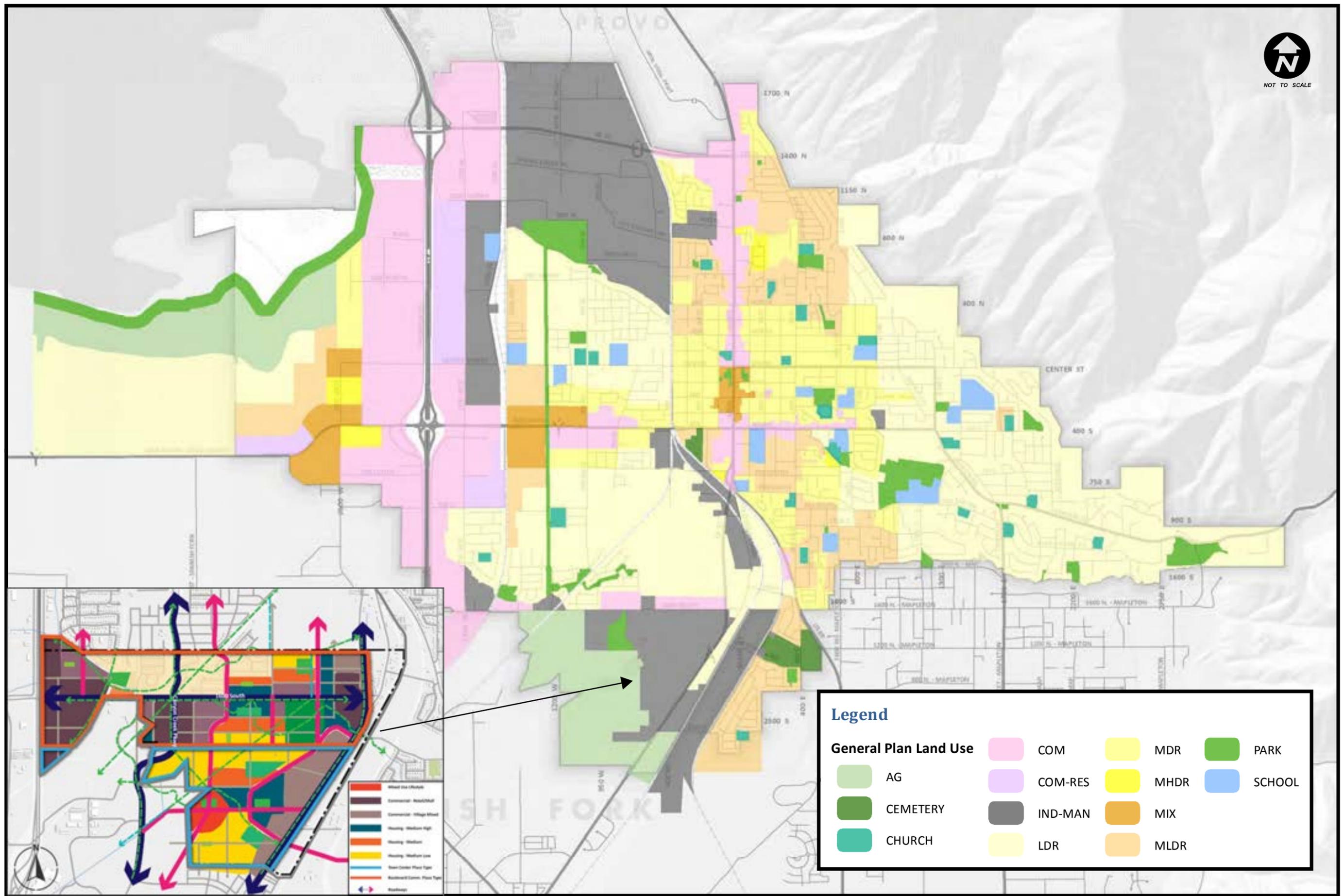
Transportation planning in the region is a cooperative effort of state and local agencies. MAG is responsible for coordinating this transportation planning process in the Summit, Wasatch, and Utah County urbanized areas as the designated Metropolitan Planning Organization (MPO). Metropolitan Planning Organizations are agencies responsible for transportation planning in urbanized areas throughout the United States. The Governor designated MAG as the Metropolitan Planning Organization for Utah County, Summit County, and Wasatch County.

Travel Model Development

Projecting future travel demand is a function of projected land use and socioeconomic conditions. The MAG Travel Demand Model was used to predict future traffic patterns and travel demand. The travel demand model was modified to reflect better accuracy through the Springville area by creating smaller TAZs and a more accurate and extensive roadway network. Existing conditions were simulated in the travel demand model and compared to the observed traffic count data to get a reasonable baseline for future travel demand. Once this effort was completed, future land uses and socioeconomic data were input into the model to predict the roadway conditions for the design year 2040. 2040 was selected as the design year to be consistent with the MAG planning process. The 2040 Metropolitan Transportation Plan, TransPlan50, (available at www.mountainland.org) was adopted by the Mountainland MPO Regional Planning Committee in 2019. TransPlan50 is a guide to maintain and enhance the regional transportation system for urbanized Utah County.



NOT TO SCALE



Legend

General Plan Land Use	COM	MDR	PARK
AG	COM-RES	MHDR	SCHOOL
CEMETERY	IND-MAN	MIX	
CHURCH	LDR	MLDR	

General Plan Land Use

Projected Traffic Volumes and Conditions

The resulting outputs of the travel demand model were made up of traffic volumes on all the classified streets in the City and surrounding area. This data was used to identify the need for future roadway improvements to accommodate the projected growth in the City. The following two scenarios were analyzed in detail to assess the travel demand and resulting network performance in the City:

- No-Build
- Recommended Roadway Network
 - MAG Regional Transportation Plan (TransPlan50)
 - Additional Projects

No-Build Conditions

A no-build scenario is intended to show what the roadway network would be like in the future if no action were taken to improve the City roadway network. The travel demand model was again used to predict this condition by applying the future growth and travel demand to the existing roadway network. As shown in **Figure 7**, if no improvements are made to Springville’s transportation infrastructure, projected traffic volumes for the planning year 2040 will significantly worsen the LOS of many of the major streets and intersections throughout the city. The following list includes the streets expected to perform at LOS D or worse:

LOS D (Acceptable)

- **1400 North** (1200 West to Main Street)
- **Main Street** (Northern Border to 1400 North)
- **Center Street** (Main Street to 700 East)
- **400 South** (I-15 to 1750 West)
- **400 South** (Western Border to 2600 West)
- **400 South** (Brookside Drive/800 East to Canyon Road)
- **400 South** (Center Street to 400 South)
- **Canyon Road** (400 South to 1700 East)
- **1600 South** (1800 West to 950 West)
- **950 West** (400 South to Center Street)
- **2600 West** (Center Street to Southern Border)
- **SR-51** (5400 South to Southern Border)

LOS E or Worse (Unacceptable)

- **1400 North** (I-15 to 1200 West)
- **1200 West** (Northern Border to Spring Creek Road)
- **Main Street** (1400 North to 400 North & 400 South to 700 South)
- **950 West** (550 North to Center Street)
- **400 South** (2600 West to I-15 & 1750 West to Main Street & 400 East to Brookside Drive/800 East)
- **State Street (SR-51)** (1600 South to 5400 South)
- **1400 North (SR-75) & 1750 West** (Traffic Signal)
- **1400 North (SR-75) & 1100 West** (Traffic Signal)
- **Center Street & 400 East** (Stop Controlled Intersection)
- **400 South & 2600 West** (Stop Controlled Intersection)

- 400 South & 950 West (Traffic Signal)
- 400 South & Main Street (Traffic Signal)
- 400 South & 400 East (Traffic Signal)
- 1600 South & 1750 West (Stop Controlled Intersection)
- 1600 South & State Street (Traffic Signal)
- State Street & Evergreen Drive (Stop Controlled Intersection)
- Canyon Road & 620 South (Stop Controlled Intersection)
- 900 South & 800 East (Stop Controlled Intersection)
- 900 South & 1700 East (Stop Controlled Intersection)

Based on the number of roadways at LOS D and worse, there are a significant amount of capacity improvements necessary for 2040.

Recommended 2040 Roadway Conditions

Improvements will need to be made as growth continues in Springville to preserve the quality of life and to maintain an acceptable LOS on city streets and intersections. These improvements will also provide a sound street system that will support the city's growing economic base.

Signals will also need to be monitored and updated as conditions change. It is recommended that the signalized intersections in the city be regularly monitored, and signal timings adjusted as needed to maintain acceptable operating conditions. Additionally, care should be taken to regularly monitor the non-signalized intersections in the city, and, where appropriate, studies should be completed to determine the best mitigation for the intersection. The most common mitigations to failing non-signalized intersections are roundabouts and traffic signals. For each intersection, both roundabout and traffic signal mitigations should be investigated and studied to determine the best alternative. Funding sources for signals and roundabouts should be explored and may include general funds, impact fees, where appropriate, and/or a special transportation improvement fund.

The future analysis in Springville can be split into two sections. The first are regional projects included in MAG's TransPlan50. These projects may be funded by MAG with a 6.77% match by Springville. After determining where the improvements occur after the addition of the MAG projects, the second section includes the rest of the projects necessary to improve the roadway network to LOS D or better.

Regional Transportation Plan

Springville is not alone in improving the roadway network. MAG, in cooperation with UDOT, provides financial assistance for projects included in their Regional Transportation Plan (RTP) as shown in **Figure 8**. If the roadway is included on the RTP and is owned and operated by UDOT, full financial responsibility falls to UDOT. Springville needs to include these projects in this TMP as well as coordinate with UDOT to ensure these projects are implemented. If the roadway is on the RTP and not owned by UDOT, Springville must match 6.77% of the project cost. The projects in Springville included on the RTP are shown in **Figure 8** and the following is a list of the RTP projects to be completed in various phases. An interactive map can be viewed on MAG's website www.mountainland.org:

Phase 1 (2022-2030)

- **I-15/Springville 1600 South/Spanish Fork 2700 North Interchange**
 - New Interchange
- **Springville 1200 West/Canyon Creek Pkwy**
 - Market Place Drive to Lakeview Parkway
 - New and widened to a 5-lane road.
- **Springville 1600 South/ Spanish Fork 2700 North**
 - Spanish Fork Main Street to US-89
 - New and widened to a 5-lane road.
- **Springville Main Street/US-89/SR-51 Interchange**
 - Reconstruct interchange.

Phase 2 (2031-2040)

- **Springville 1400 North (SR-75)**
 - I-15 to Springville Main Street (US-89)
 - Widen to 5 lanes.

Phase 3 (2041-2050)

- **Springville 2600 West (Spanish Fork Main St/Provo 500 W)**
 - Spanish Fork 1400 North to Lakeview Drive
 - New and widened to 5 lanes.
- **Springville 500 North**
 - Springville 2250 West to Springville 400 West
 - New and widened to 3 lanes.

To indicate the impacts of the RTP projects, these projects from **Figure 8** were added to the future travel demand model to determine how the roadway network would improve. This is necessary as major roadway changes will occur in Springville, specifically the new interchange at 1600 South and I-15. Since this interchange will attract traffic serving the city's southern half, the vehicles currently using 400 South will use 1600 South to travel east/west through Springville.

Only the RTP projects were added to the travel demand model. The LOS is represented in **Figure 9** and the following roads perform at LOS D or LOS E or worse.

LOS D (Acceptable)

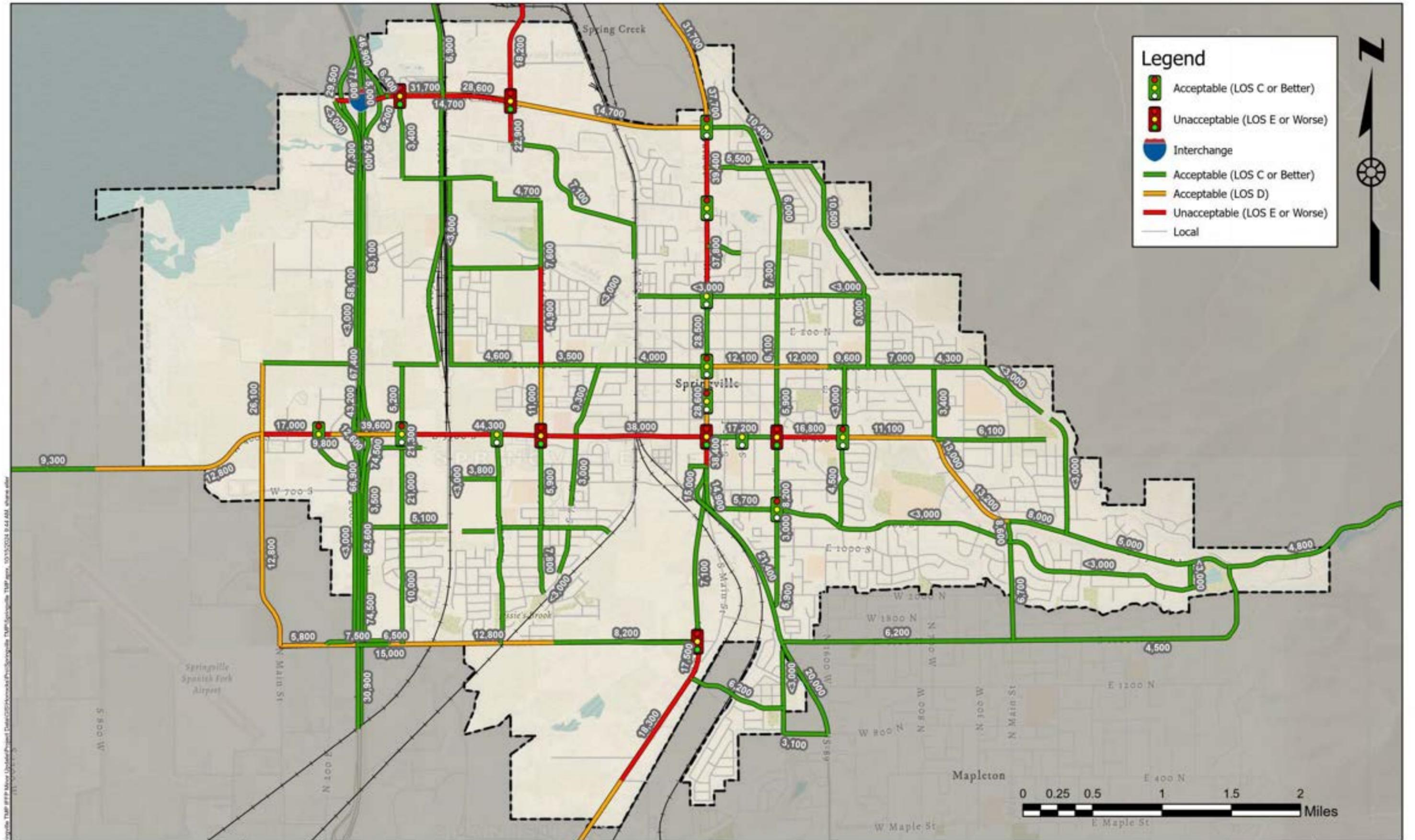
- **400 South** (I-15 to Main Street)
- **1100 West** (Northern Border to 1400 North)
- **Canyon Road** (400 South to 1700 East)
- **State Street** (400 South to 400 North)

LOS E or Worse (Unacceptable)

- **Main Street** (Northern Border to 400 North)
- **State Street** (SR-51) (1600 South to Southern Border)

Additional Projects

The improvements for the roadways at LOS E or worse from the RTP LOS map ([Figure 9](#)) need to be addressed by the City and incorporated into this TMP to receive any additional funding where possible. [Figure 9](#) acts as a base to plan additional projects not included in the MAG RTP. These projects along with improvement projects that need to be addressed are those of connectivity, frontage roads, crossings, and traffic signals make up the additional projects necessary to maintain an acceptable level of service. [Figure 10](#) shows all the additional projects included in the TMP. A full project list is shown in [Table 8](#) on page 39.



Legend

- Acceptable (LOS C or Better)
- Unacceptable (LOS E or Worse)
- Interchange
- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or Worse)
- Local

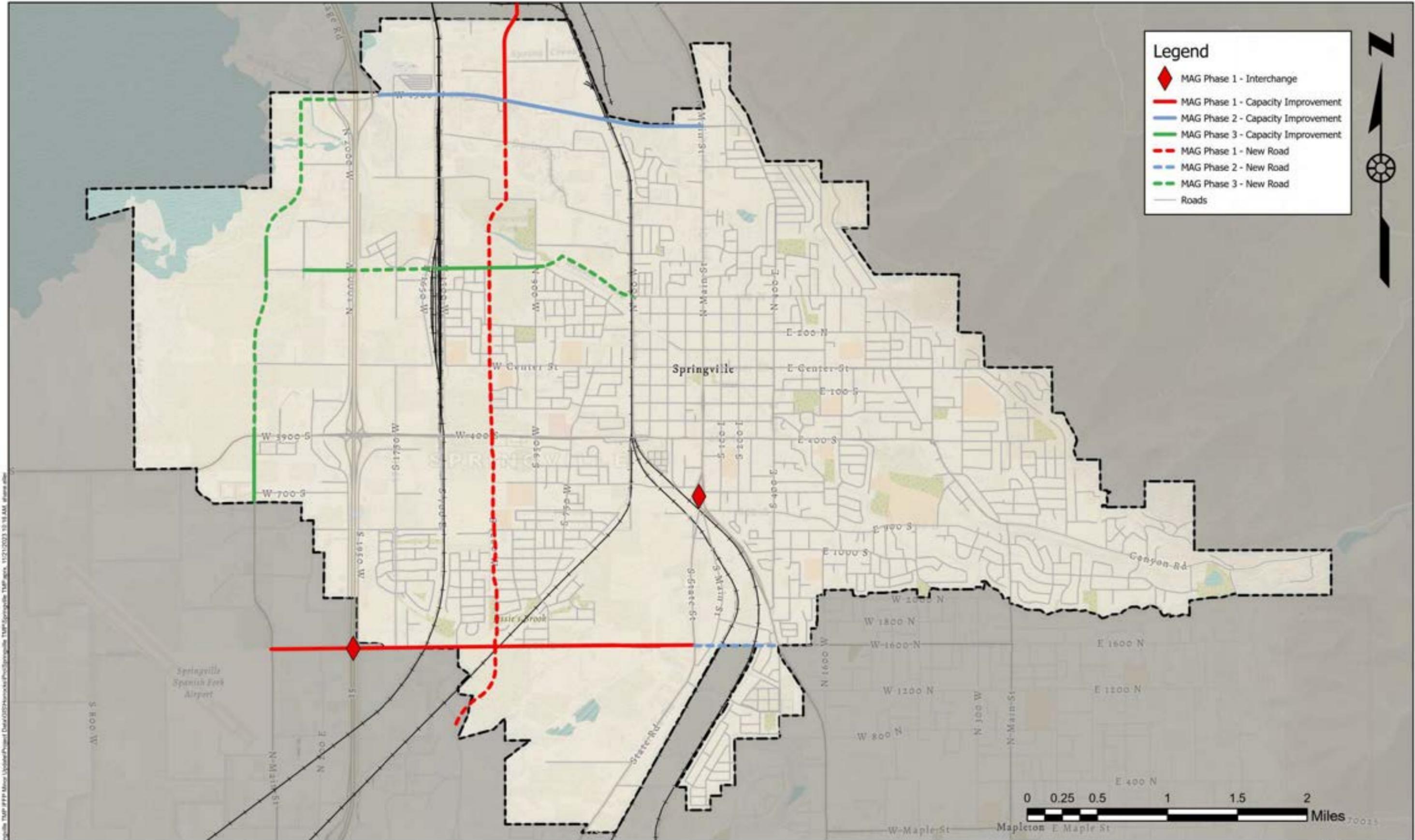
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2162 West Grove Parkway
 Suite 400
 Pleasant Grove, UT 84062
 (801) 763-5100

Springville Transportation Master Plan
 2040 No Build Level of Service Map

DATE	10/15/2024
DRAWN	SEE
Figure 7	



C:\Users\jg\Documents\Projects\Springville\Map_Springville\Map_Springville_11/21/2023 10:18 AM.dwg



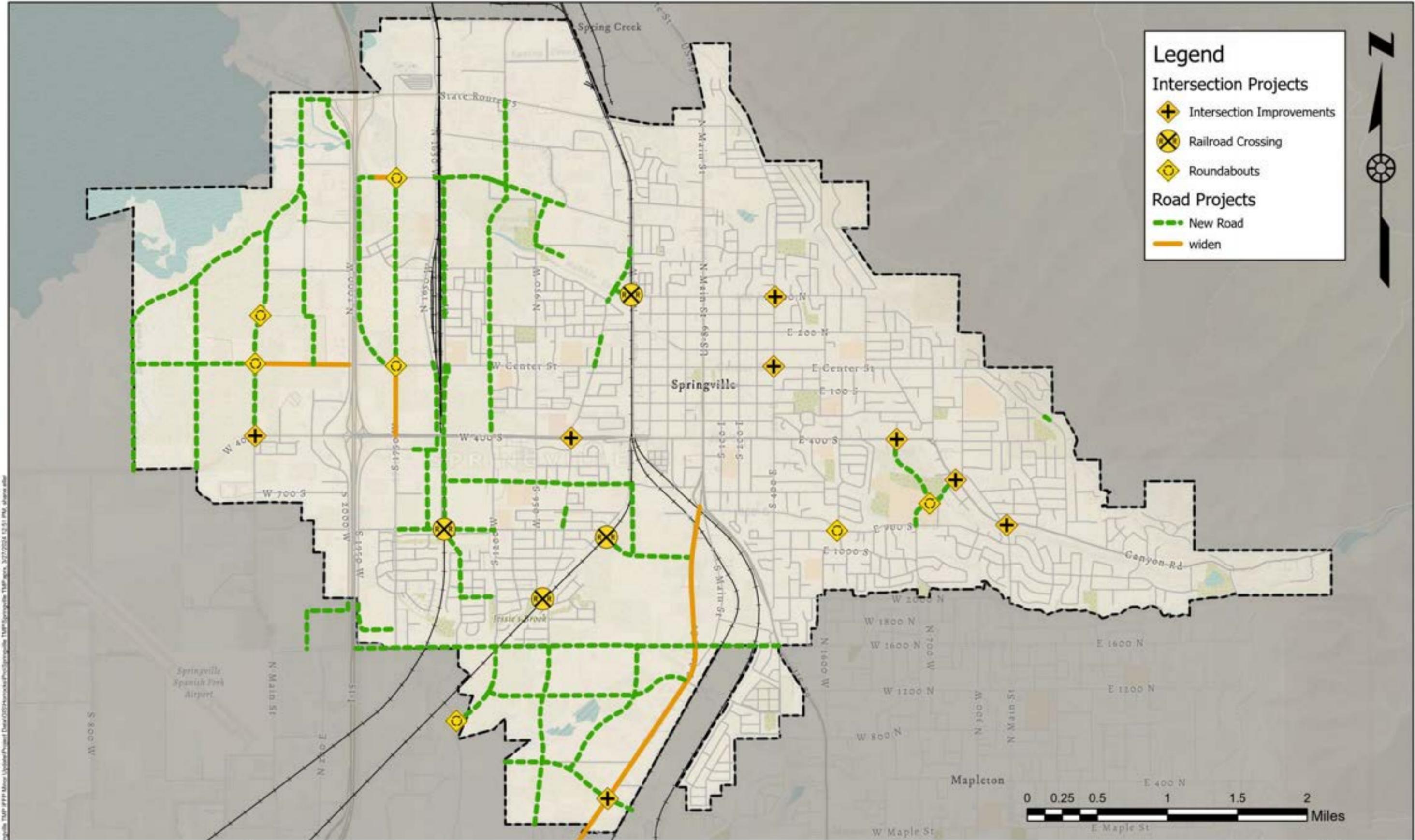
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Springville Transportation Master Plan
 2040 RTP Projects Map

DATE: 11/21/2023

DRAWN: SEE

Figure 8



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Springville Transportation Master Plan
 2040 Additional Projects Map

DATE	3/27/2024
DRAWN	SEE
Figure 10	

With all projects included, **Figure 11** and **Figure 12** show the proposed 2040 roadway network and LOS with all future projects (including MAG RTP projects) respectively. The following roadways perform at LOS D or worse in the 2040 proposed roadway network:

LOS D (Acceptable)

- **1200 West** (Northern Border to 400 South)
- **Main Street** (700 South to 900 North)
- **Center Street** (400 East to 700 East)
- **Canyon Road** (400 South to 1700 East)
- **400 South** (West Frontage Road to 1750 West & 950 West to Main Street)

LOS E or Worse (Unacceptable)

- **Main Street** (Northern Border to 900 North)

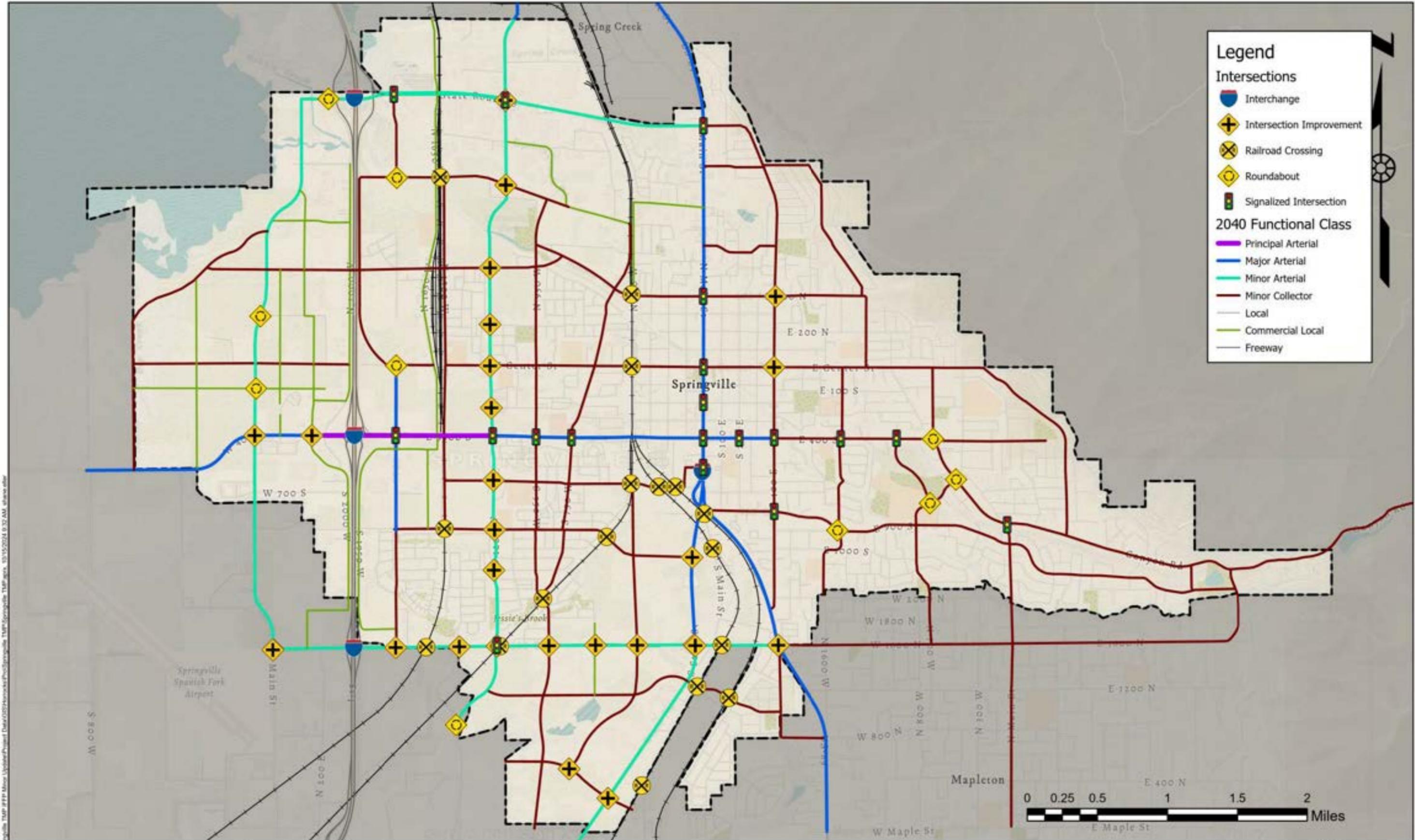
Although the goal of this TMP is to improve the entire roadway network to LOS D or better, there are circumstances where additional lanes are not possible. Main Street is a five-lane, UDOT-owned corridor with many businesses. To increase to seven lanes would impact all the businesses along the corridor. Therefore, it is not in the best interest of the City to encourage UDOT to widen Main Street and displace the businesses along the corridor.

1200 West Alignment

The alignment for the proposed 1200 West roadway is near the north/south power corridor which runs through the city. The alignment for 1200 West is shown in **Figure 11** is an approximate location for the roadway. There are three potential alignments to best serve future development as well as maintain the proper distance from the power corridor:

- **East of the Power Corridor** (both travel directions east of the power corridor)
- **West of the Power Corridor** (both travel directions west of the power corridor)
- **Both Sides of the Power Corridor** (NB lanes to the east and SB lanes to the west of the power corridor)

1200 West will be designed in phases based on development within the City. When each phase is built, the location of the roadway will be determined based on the type of development as well as any Right-of-Way constraints due to the power corridor.



Legend

Intersections

- Interchange
- Intersection Improvement
- Railroad Crossing
- Roundabout
- Signalized Intersection

2040 Functional Class

- Principal Arterial
- Major Arterial
- Minor Arterial
- Minor Collector
- Local
- Commercial Local
- Freeway

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Springville Transportation Master Plan
 2040 Build Functional Classification Map

DATE	10/15/2024
DRAWN	SEE
Figure 11	

ALTERNATIVE MODES OF TRANSPORTATION

Existing Alternative Transportation Modes

Accommodating alternative modes of transportation is a vital consideration when planning a livable and sustainable community. As a vibrant and growing city, Springville needs to continue to plan for improved transit, trails, and pedestrian facilities. These facilities will improve the overall quality of life of the residents while aiding in congestion relief and increasing the lifespan of the City's roadway network.

Pedestrian and Bicycle

Pedestrian and bicycle safety are an important feature of any transportation master plan. People will be more inclined to walk or ride their bicycle when the experience is pleasant, they feel safe, and distances are reasonable. The following descriptions of bicycle-related terms are provided to assist readers who are unfamiliar with bicycle terminology. The terms bicycle and bike are used interchangeably. **Figure 13** shows the existing and future pedestrian and bike paths in Springville.

- **Bikeway** - A thoroughfare suitable for bicycles - it may either exist within the right-of-way of other modes of transportation, such as highways, or along a separate and independent corridor.
- **Bicycle Facilities** - A general term denoting improvements and provisions to accommodate or encourage bicycling, including parking facilities, maps, all bikeways, and shared roadways.
- **Bicycle or Multi-use Path (Bike Path)** - A bikeway physically separated from motorized vehicular traffic and either within the highway right-of-way or within an independent right-of-way. Bike path facilities are often excellent recreational routes and can be developed where right-of-way is available. Typically, bike paths are a minimum of 10 feet to 12 feet wide, with an additional graded area maintained on each side of the path.
- **Bicycle Lane (Bike Lane)** - A portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes are ideal for minor thoroughfares or collectors. Under certain conditions, bike lanes may be beneficial on streets with significant traffic volumes and/or speeds. Under ideal conditions, the minimum bike lane width is five feet.
- **Signed Bike Route** - A segment of a system of bikeways designated by appropriate directional and/or informational signs. In this plan, a signed bike route may be a local or residential street, a Bicycle Boulevard, an arterial with wide outside lanes, or a roadway with a paved shoulder.
- **Paved Shoulder** - The part of the highway that is adjacent to the regularly traveled portion of the highway, is on the same level as the highway, and when paved can serve as a bikeway. Paved shoulders should be at least four feet wide, and additional width is desirable in areas where speeds are high and/or many trucks use the roadway.

- **Wide Outside Lane** - An outside (curb) lane on a roadway that does not have a striped bike lane but is of sufficient width for a bicyclist and motorist to share the lane with a degree of separation. A width of 14 feet is recommended to safely accommodate both motor vehicles and bicycles.
- **Bicycle Boulevard** - A residential street that has been modified for bicyclist safety and access.

The Mountainland Association of Governments, in conjunction with the communities of Springville, Mapleton, Salem, Spanish Fork, Woodland Hills, Elk Ridge, Payson, and Santaquin, is developing an Active Transportation Plan to improve bicycling and walking in South Utah County. The Plan will address walking and biking for both transportation and recreation through improvements to trails and on-street facilities. The Plan began in July 2015 and was completed the summer of 2016. The goals of this plan are found online at <http://bikewalksutahco.com/> and are listed below:

- **Develop well-used active transportation facilities.**
- **Create regional connections and routes.**
- **Create collaborative energy and a shared vision between municipalities and others.**
- **Develop design and maintenance standards.**
- **Institutionalize trails as integral to our growth and future.**

Transit Service

The Utah Transit Authority (UTA) is the public transportation provider throughout the Wasatch Front. UTA operates fixed-route buses, express buses, bus rapid transit (BRT), ski buses, light rail, and commuter rail. In this capacity, UTA is responsible for operating the transit network in Springville. It is the responsibility of both Springville and UTA to cooperate to provide transit planning to accommodate alternative transportation options to residents as demand increases. Currently, two UTA bus routes have stops in Springville. Route 821 begins at the Provo FrontRunner Station and ends in Payson, and Route 822 begins at Utah Valley University and ends in Payson. Both have stops at 900 North and Main and 400 South and Main in Springville.

The combined efforts of the Utah Transit Authority (UTA), UDOT, MAG, and Springville will largely dictate the nature of a future expanded transit system. The following sections describe planned improvements as well as recommendations for the transit system in Springville.

Local Bus Routes

There are many opportunities for transit service enhancements in Springville. As new roads are built and the population expands, it will be necessary for UTA to provide service to these new corridors.

It is recommended that more frequent and additional bus routes be considered and that the City meet with UTA to decide on bus stop locations, frequency, better signage, and shelter alternatives. Attention should also be given to ensuring that bus stops follow the Americans with Disabilities Act (ADA).

Bus Rapid Transit (BRT)

Other enhancements to bus service will be through the implementation of Bus Rapid Transit (BRT). BRT is a way to provide a higher level of service like that of a rail system without the high capital costs of a rail system. There are several ways in which a BRT system can be implemented and by which bus service is made more efficient by reducing travel time and delay. One of the simplest forms of BRT is to provide transit priority at traffic signals. Through this technology, the traffic signal timing is adjusted by extending the green phase for approaching buses so there is a greater chance for the bus to make it through the intersection without stopping. Another BRT enhancement is to provide queue jumper lanes for buses. These are essentially right-turn lanes that are available for buses to use. The bus can then travel past the queue in the through lanes to the stop bar. This is typically used in conjunction with transit priority at the traffic signal, in which the bus can proceed through a green light before other vehicles, so the bus can get a head start.

More advanced BRT systems include exclusive bus-only travel lanes, like a light rail system. The system has regularly spaced bus stations and operates just like a rail system. With lower construction costs and a lack of a fixed guideway, these systems are more flexible than traditional light rail.

According to MAG's Metropolitan Transportation Plan, a BRT system is planned to run from Provo to Spanish Fork, traveling through Springville. This is a Vision project, meaning it is unfunded as seen in [Figure 14](#).

Commuter Rail: FrontRunner

The most recent addition to the Utah statewide transit system is UTA's FrontRunner commuter rail line. The line connects Davis, Weber, Salt Lake, and Utah counties with stations along the Wasatch Front. Many stations have a connection to the TRAX and bus networks. FrontRunner is a push/pull locomotive system,

which can travel up to 79 miles per hour. Future planned expansions will add service to Brigham City in the north and Payson in the South. Part of the MAG plan includes a FrontRunner line connecting Provo to Payson. This line passes through and has a stop in Springville (located just south of 400 South on 1500 West) and is included as a phase 2 project (2025-2034).

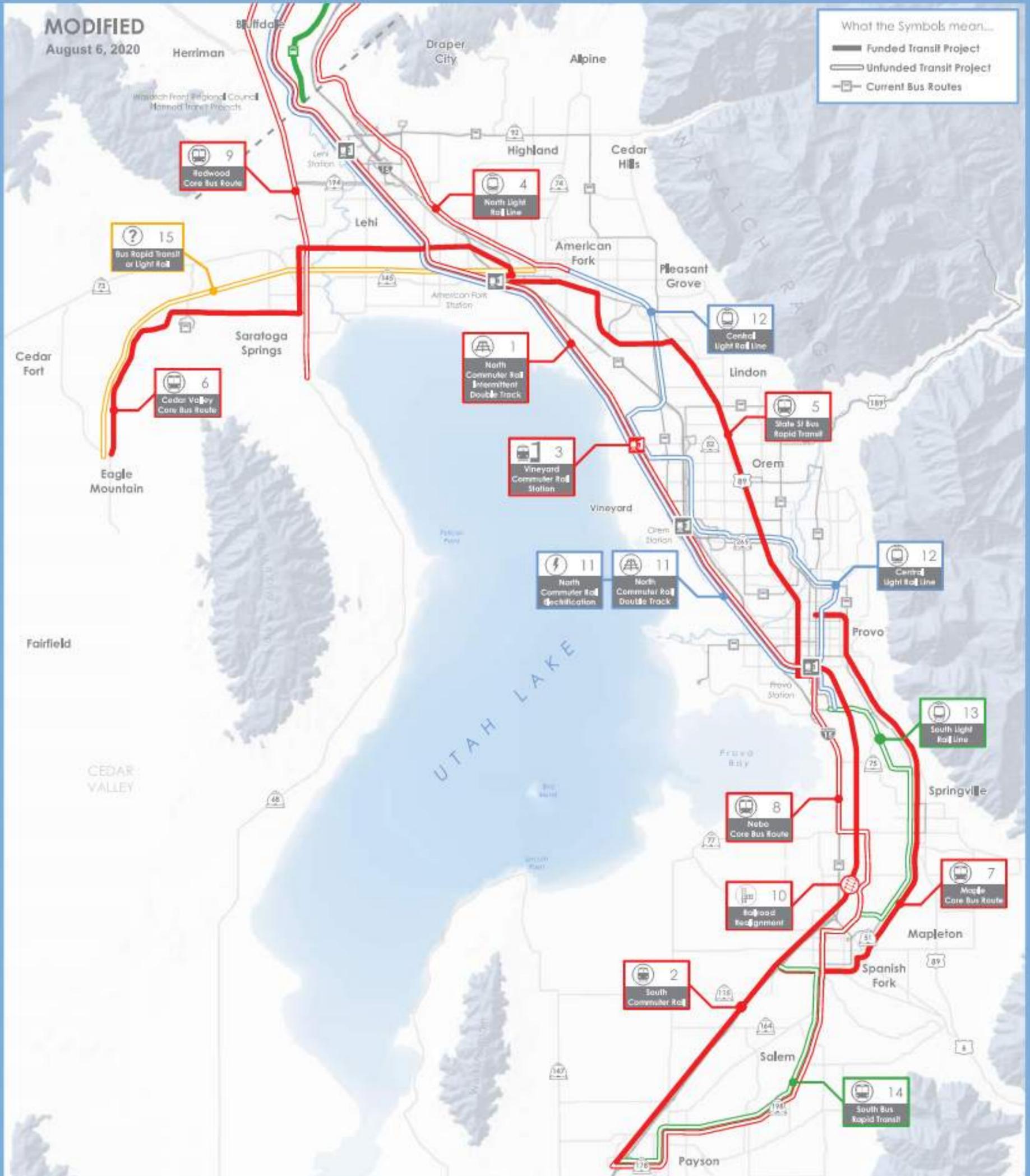
An essential consideration of a good transportation system is the ability to seamlessly transfer from one transportation mode to the next. This could be from car to commuter rail, bike to bus, or foot to light rail. Each of these transfers must be accomplished efficiently for a transit system to be attractive to users. One way to accomplish exceptional connectivity is with an intermodal center. Intermodal centers are transit hubs where multiple modes of transportation converge, and passengers enter using one form of transportation and leave by another. Transfers can occur between as many modes as the physical space can permit. The future FrontRunner station in Springville has the potential to provide this connectivity. In the future, other pieces of the transportation system may be added to this area.

Transit TransPlan50

Regional Transportation Plan
2019-2050 Plan for the Provo/Orem
Metropolitan Area



Modeled Need Phase of Construction



What the Symbols mean...

- Funded Transit Project
- Unfunded Transit Project
- Current Bus Routes

MAP ID	Project Name	Phasing*		Cost
		Need	Fund	
1	North Commuter Rail Intermittent Double Track	1	2	\$113M
2	South Commuter Rail - Payson to Provo	1	1	\$252M
3	Vineyard Commuter Rail Station at 800 N	1	1	\$16M
4	North Light Rail Line - American Fork to Draper	1	3	\$654M
5	State St Bus Rapid Transit - State St; Provo to Am Fork	1	1	\$313M
6	Cedar Valley Core Bus Route - Eagle Mtn to Am Fork	1	1	\$31M
7	Maple Core Bus Route - Spanish Fork to Provo	1	1	\$39M
8	Nebo Core Bus Route - Payson to Provo	1	2	\$69M
9	Redwood Core Bus Route - Saratoga Spgs to SL Co on Redwood RD	1	2	\$24M
10	Sharp - Tintic Railroad Realignment	1	1	\$7M
11	North Commuter Rail Electrification & Double Track - Provo to SL Co	2	Unfunded	\$689M
12	Central Light Rail Line - Provo to American Fork	2	Unfunded	\$1.1B
13	South Light Rail Line - Spanish Fork to Provo	3	Unfunded	\$834M
14	South Bus Rapid Transit - Payson to Spanish Fork	3	Unfunded	\$196M
15	BRT or Light Rail - Eagle Mtn to Am Fork	Vision	Unfunded	

*Phasing Need is the phase the project is warranted, Phasing Fund is when funding is anticipated

0 0.5 1 Mile 1:164,000

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Map Produced by Kory Brown
Map Production Date: Aug. 2020

www.mountainland.org

OTHER ELEMENTS OF THE TRANSPORTATION MASTER PLAN

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) refers to the increased use of technology and communication methods to improve traffic operations. Pavement detectors, traffic cameras, and weather sensors are used to gather constant information about traffic flow conditions along corridors or at intersections. This information may be relayed to a traffic control center where operators can change traffic signal timing plans or post messages on variable message signs. All the traffic signals located on UDOT-owned roadways are connected to the new fiber optic network called Max View.

Traffic Signal Coordination

Traffic signal coordination is another ITS method that is used to improve traffic operations and efficiency. Traffic signal timing and phasing improvements generally improve all traffic flow but can also be used to favor high-occupancy vehicles or buses. Some ways in which signal timing can be used to favor transit include transit pre-emption and priority. Transit pre-emption means that as a transit vehicle approaches an intersection the signal timing is interrupted to accommodate the transit vehicle. This interrupts the signal coordination of a corridor or network and as such is generally not recommended. Transit priority allows traffic signals to adjust their phasing to give priority to transit vehicles without interrupting the overall traffic signal timing plan.

Access Management

Access management is a term that refers to providing and managing access to land development while maintaining traffic flow and being attentive to safety issues. It includes elements such as driveway spacing, signal spacing, and corner clearance. Access management is a key element in transportation planning, helping to make transportation corridors operate more efficiently and carry more traffic without costly road widening projects. Access management offers local governments a systematic approach to decision-making, applying principles uniformly, equitably, and consistently throughout the jurisdiction. It is recommended that the City adopt an Access Management Program.

Principles of Access Management

Constantly growing traffic congestion, concerns over traffic safety, and the ever-increasing cost of upgrading roads have generated interest in managing access to not only the highway system but to surface streets as well. Access management is the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed. Access management attempts to balance the need to provide good mobility for through traffic with the requirements for reasonable access to adjacent land uses.

Arguably the most important concept in understanding the need for access management is to understand that movement of traffic and access to property are competing priorities. No facility can move traffic very well and provide unlimited access at the same time. The extreme examples of this concept are the freeways and the cul-de-sac. The freeway moves traffic very well with few opportunities for access, while the cul-de-sac has unlimited opportunities for access, but doesn't move traffic very well. In many cases, accidents and congestion are the result of streets trying to serve both mobility and access at the same time.

A good access management program will accomplish the following:

- **Limit the number of conflict points at driveway locations.**
- **Separate conflict areas.**
- **Reduce the interference of through traffic.**
- **Provide sufficient spacing for at-grade, signalized intersections.**
- **Provide adequate on-site circulation and storage.**

Access management attempts to put an end to the seemingly endless cycle of road improvements followed by increased access, increased congestion, and the need for more road improvements.

Poor planning and inadequate control of access can quickly lead to an unnecessarily high number of direct accesses along roadways. The movements that occur on and off roadways at driveway locations, when those driveways are too closely spaced, can make it very difficult for through traffic to flow smoothly at desired speeds and levels of safety. The American Association of State Highway and Transportation Officials (AASHTO) states, "The number of accidents is disproportionately higher at driveways than at other intersections...thus their design and location merits special consideration." Studies have shown that anywhere between 50 and 70 percent of all crashes that occur on the urban street system are access-related.

Fewer direct access, greater separation of driveways, and better driveway design and location are the basic elements of access management. There is less occasion for through traffic to brake and change lanes to avoid turning traffic when these techniques are implemented uniformly and comprehensively.

Consequently, with good access management, the flow of traffic will be smoother and average travel speeds higher. There will be less potential for accidents. According to the Federal Highway Administration (FHWA), before and after analyses show that routes with well-managed access can experience 50 percent fewer accidents than comparable facilities with no access controls.

Traffic Calming

Street patterns are typically developed at the time of construction. In Utah, the history of using a grid system for planning and development purposes started with the first settlers and has proven efficient for moving people and goods throughout a network of surface streets. However, the nature of a grid system with wide and often long, straight roads can result in excessive speeds. For that reason, traffic calming measures (TCM) can be implemented to reduce speeds on residential roadways. Springville also follows the Utah grid system, with some minor interruptions. Traffic calming is however still applicable to many neighborhood or local streets and should be at least considered on the City's local and residential streets on a case-by-case basis where applicable.

ITE has established a definition for traffic calming that reads, “*Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.*” Altering driver behavior includes lowering speeds, reducing aggressive driving, and increasing respect for non-motorized street users. It is recommended that the City adopt traffic calming guidelines to allow specified traffic calming measures to be implemented within the City.

Corridor Preservation

Corridor preservation is an important transportation planning tool that agencies should use and apply to all future transportation corridors. Several new transportation facilities have been identified in the TMP. In planning for these future facilities, corridor preservation techniques should be employed. The main purposes of corridor preservation are to:

- **Preserve the viability of future options.**
- **Reduce the cost of these options.**
- **Minimize environmental and socio-economic impacts of future implementation.**

Corridor preservation seeks to preserve the right-of-way needed for future transportation facilities and prevent development that might be incompatible with these facilities. This is primarily accomplished by the community’s ability to apply land use controls, such as zoning and approval of developments.

Perhaps the most important elements of corridor preservation are ensuring that the corridors are preserved in the correct location and that they meet the applicable design and right-of-way standards for the type of facility being preserved. As the master plan does not define the exact alignment of each future corridor, it becomes the responsibility of the City to make sure that the corridors are correctly preserved. This will have to be accomplished through the engineering and planning reviews done within the City as development and annexation requests are approved that involve properties within or adjacent to the future corridors.

Corridor Preservation Techniques

Some examples of specific corridor preservation techniques that may be most beneficial and easily implemented include the following:

- **Developer Incentives and Agreements:** Public agencies can offer incentives in the form of tax abatements, density credits, or timely site plan approvals to developers who maintain property within proposed transportation corridors in an undeveloped state.
- **Exactions:** As development proposals are submitted to the City for review, efforts should be made to exact land identified within the future corridors. Exactions are like impact fees; except they are paid with land rather than cash.
- **Fee Simple Acquisitions:** This will most likely consist of hardship purchases or possible City acquisition of property identified within the corridors. Parcels obtained in fee title can later be sold at market value to the owner of the transportation facility when construction begins.
- **Transfer of Development Rights and Density Transfers:** Government entities can provide incentives for developers and landowners to participate in corridor preservation programs using

the transfer of development rights and density transfers. This is a powerful tool in that there seldom is any capital cost to local governments.

- **Land Use Controls:** This method allows government entities to use their policing power to regulate the intensity and types of land use. Zoning ordinances are the primary controls over land use and the most important land use tools available for use in corridor preservation programs.
- **Purchase of Options and Easements:** Options and easements allow government agencies to purchase property interests that lie within highway corridors without obtaining full title of the land. Usually, easements are far less expensive than fee title acquisitions.

Traffic Impact Studies

As growth occurs throughout the City, the City will evaluate the impacts of proposed developments on the surrounding transportation networks before approving to build. This can be accomplished by requiring that a Traffic Impact Study (TIS) be performed for any development in the City based on City staff recommendations. A TIS will allow the City to determine the site-specific impacts of a development including internal site circulation, access issues, and adjacent roadway and intersection impacts. In addition, a TIS will assist in defining possible impacts to the overall transportation system in the vicinity of the development. The area and items to be evaluated in a TIS include key intersections and roads as determined by the City Engineer on a case-by-case basis. It is recommended that the City adopt specific TIS guidelines for future development within the City.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act of 1990 prohibits discrimination and ensures equal opportunity and access for persons with disabilities. ADA standards govern the construction and alteration of places of public accommodation, commercial facilities, and State and local government facilities. The Department of Justice (DOJ) maintains ADA standards that apply to all ADA facilities except transit facilities, which are subject to similar standards issued by the Department of Transportation (DOT). The DOJ published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 in the Federal Register on September 15, 2010, which are available online at http://www.ada.gov/2010ADASTandards_index.htm. Chapter 4: Accessible Routes of the 2010 ADA Standards for Titles II and III Facilities governs the design of Accessible Routes.

The ADA standards should be regularly reviewed to ensure that City standards and specifications follow Federal ADA regulations. All areas of newly designed and newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with the ADA requirements as published. All new and altered facilities must follow ADA standards. To improve the quality of life of Springville residents with disabilities, a review of all public rights-of-way and facilities should be conducted over the next few years, as far as is economically viable.

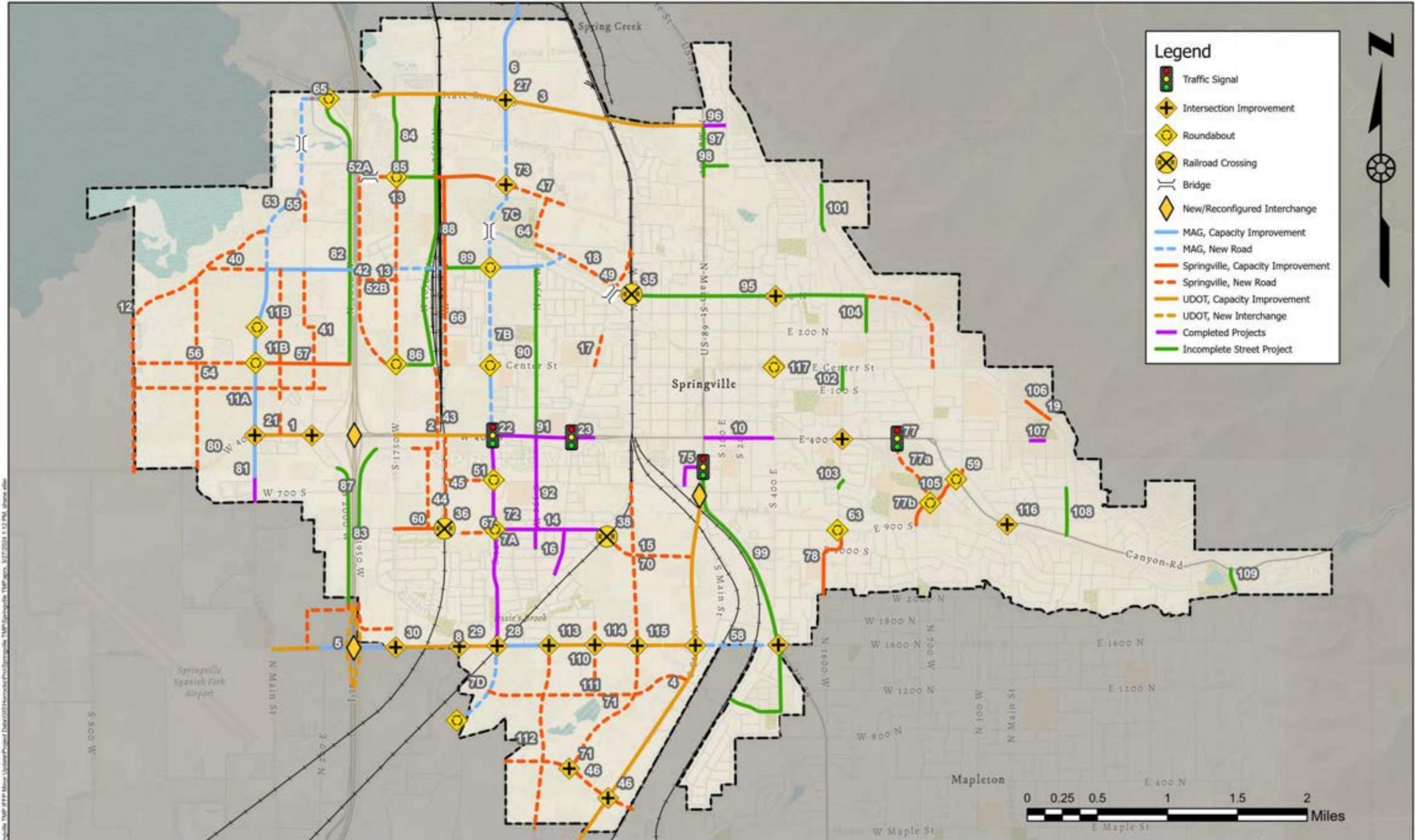
CAPITAL FACILITIES PLAN

As shown in the [Roadway Network](#) section of this document, Springville will need to construct new roads, widen existing transportation corridors, and make spot intersection improvements to provide future residents of the City with an adequate transportation system. A concept plan for future growth between the planning years of 2015-2040 is provided below.

Transportation Needs as a Result of New Development

The specific transportation needs resulting from future growth throughout the City are identified in [Table 8](#) and [Figure 15](#). [Table 8](#) and [Figure 15](#) will need to be regularly updated by the City as project scope changes and development occurs in the City. Individual projects were identified, and cost estimates were compiled to produce a Transportation Improvement Plan (TIP) for the City. [Table 8](#) identifies the specific projects that will be necessary soon; however, only arterial and collector improvements were identified since any local roads would be required to be built as part of future development. Costs have not been adjusted for inflation and therefore represent 2024 costs. The cost estimates shown represent the costs of construction, right-of-way, and engineering. Impact fee-eligible costs, as well as other potential funding sources, were identified for each project [Table 8](#). Roadways of regional significance were assumed to be built with help from other jurisdictions, such as UDOT and MAG. Details for each project cost can be found in [Appendix B: Cost Estimates](#)

[Table 8](#) includes all projects in the City through the year 2040. Actual development and transportation needs should provide the final decision on project timing. Although many of these projects are included in MAG's RTP (see [Figure 8](#)), MAG funding is not guaranteed. The City will assume these projects will only be completed with financial assistance from MAG. Therefore, the City will only collect impact fees for the required 6.77 percent match. It is expected that the total cost of roadway improvements needed before 2040 will be approximately [\\$514,355,700](#), of which [\\$63,159,150](#) will be the responsibility of the City and may be eligible for impact fee expenditure.



© 2024 UT 0733-23 Springville, UT 84062. All rights reserved. This map is a conceptual illustration and does not constitute a contract. For more information, contact the City of Springville at 327.2024.1.12.84. please refer to the project website.



2162 West Grove Parkway
 Suite 400
 Pleasant Grove, UT 84062
 (801) 763-5100

Springville Transportation Master Plan
 2040 Project Map

DATE: 3/27/2024

DRAWN: SEE

Figure 15

Table 8: Capital Facilities Plan Costs – 2040

Capital Facilities Plan - 2040					
Project	Location	Total Price	Funding Source	Springville City %	Springville City Total
1	400 South Widening: I-15 to Spanish Fork Main Street	\$3,724,000	UDOT	0%	\$0
2	400 South Widening: 1750 West to 950 West	\$6,346,000	UDOT	0%	\$0
3	1400 North Widening: I-15 to Main Street	\$59,828,000	UDOT	0%	\$0
4	SR-51 Widening: Main Street to Southern Border	\$21,336,000	UDOT	0%	\$0
5	1600 South Interchange	\$61,368,000	UDOT	0%	\$0
6	1200 West Widening: Northern Border to 1200 North	\$5,202,000	Springville/MAG	6.77%	\$353,000
7A	1200 West: 400 South to 1600 South (Complete)	\$2,300,000	Springville/MAG	6.77%	\$156,000
7B	1200 West: 400 South to 550 North	\$2,348,000	Springville/MAG	6.77%	\$159,000
7C	1200 West: 550 North to SR-75	\$5,168,000	Springville/MAG	6.77%	\$350,000
7D	1200 West: 1600 South to Canyon Creek Pkwy	\$2,373,000	Springville/MAG	6.77%	\$161,000
8	1600 South Widening: I-15 to SR-51	\$46,629,000	UDOT	0.00%	\$0
10	400 South Widening: Main Street to 400 East	\$3,338,000	Springville/MAG	6.77%	\$226,000
11A	2600 West Widening: 400 South to 500 North	\$5,168,000	Springville	50%	\$2,584,000
11B	Roundabout: 2600 West & Center Street and 2600 West & 200 North	\$2,189,000	Springville	50%	\$1,095,000
12	New Road: 1400 North to 400 South (West of I-15)	\$23,177,000	Springville	6%	\$1,489,000
13	Roundabout: 1750 West & 1000 North	\$1,095,000	Springville	100%	\$1,095,000
14	900 South: 1200 West to RR Crossing (Project 38) (Complete)	\$644,000	Springville	6%	\$42,000
15	900 South Extension to SR-51	\$6,642,000	Springville	17%	\$1,110,000
16	Connection of Mattea Lane & 750 West (Complete)	\$2,684,000	Springville	17%	\$449,000
17	Connection of Wood Springs Dr. & 550 West	\$1,174,000	Springville	17%	\$197,000
18	Connection of 550 West & 400 North	\$3,479,000	Springville	6%	\$209,000
19	Connection of 2080 East Near 250 South	\$538,000	Springville	100%	\$538,000
20	400 South Eastern Extension	\$746,000	Springville	17%	\$125,000
21	Intersection Improvement: 400 South & 2600 West	\$254,000	UDOT	0%	\$0
22	Intersection Improvement: 400 South & 1200 West	\$254,000	Springville/MAG	7%	\$18,000
23	Intersection Improvement: 400 South & Wood Springs Dr.	\$254,000	UDOT	0%	\$0
24	Intersection Improvement: 400 South & Main Street	\$254,000	UDOT	0%	\$0
25	Traffic Signal and Intersection Reconfiguration: Main Street & US-89	\$22,205,000	UDOT	0%	\$0
26	Intersection Improvement: SR-51 & 1600 South Extension	\$254,000	UDOT	0%	\$0
27	Intersection Improvement: 1400 North & 1200 West	\$254,000	UDOT	0%	\$0
28	Intersection Improvement: 1600 South & 1200 West	\$254,000	UDOT	0.00%	\$0
29	Intersection Improvement: 1600 South & Wallace Dr.	\$254,000	UDOT	0.00%	\$0
30	Intersection Improvement: 1600 South & 1750 West	\$254,000	UDOT	0.00%	\$0
31	Intersection Improvement: US:89 & 1600 South Extension	\$254,000	UDOT	0%	\$0
32	Intersection Improvement: 400 East & 400 North	\$254,000	Springville	100%	\$254,000
33	Intersection Improvement: 400 East & Center Street	\$254,000	Springville	100%	\$254,000

Capital Facilities Plan - 2040

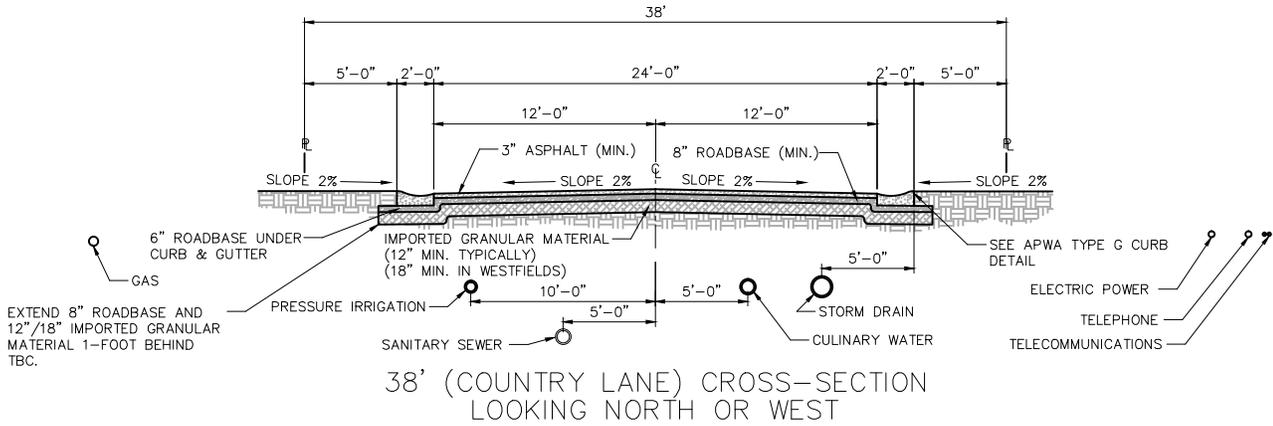
Project	Location	Total Price	Funding Source	Springville City %	Springville City Total
34	Intersection Improvement: 400 South & 800 East	\$254,000	Springville	100%	\$254,000
35	Railroad Crossing: 400 North & 450 West	\$705,000	Springville	100%	\$705,000
36	Railroad Crossing: 900 South & 1500 West	\$705,000	Springville	100%	\$705,000
38	Railroad Crossing: 900 South & 600 West	\$705,000	Springville	100%	\$705,000
39	Intersection Improvement: West of 400 South Interchange	\$254,000	UDOT	0%	\$0
40	500 North: 2500 West to 2650 West	\$353,000	Springville	16%	\$57,000
41	2200 West Extension to 500 North	\$4,454,000	Springville	0%	\$0
42	Roundabout: 1750 West & Center Street	\$1,095,000	Springville	100%	\$1,095,000
43	1500 West Extension to 500 South	\$4,078,000	Springville	6%	\$245,000
44	1700 West: 500 South to 900 South	\$2,876,000	Springville	0%	\$0
45	1500 West: Center Street to 900 South	\$6,506,000	Springville	17%	\$1,087,000
46	1600 South & SR-51 Connection	\$7,761,000	UDOT	0%	\$0
47	1000 North Extension to 1650 West	\$3,054,000	Springville	6%	\$184,000
49	550 West Extension: 550 North to 450 West	\$2,206,000	Springville	6%	\$142,000
51	700 South New Road: 1500 West (Project 45) to 1250 West (Project 7)	\$1,927,000	Springville	16%	\$309,000
52	Frontage Road: 1000 North to Center Street with Culvert	\$8,984,000	Springville	39%	\$3,504,000
53	2600 West Extension: 500 North to SR -57	\$11,153,700	Springville/MAG	7%	\$756,000
54	3200 West: 400 South to New Road	\$8,780,000	Springville	16%	\$1,405,000
55	2250 West Extension to 1150 North	\$2,736,000	Springville	6%	\$165,000
56	Center Street: Extension to Western Border	\$7,861,000	Springville	16%	\$1,258,000
57	Center Street Widening: I-15 to 2600 West	\$5,772,000	Springville	6%	\$347,000
59	Roundabout: Canyon Road and 620 South	\$1,095,000	Springville	100%	\$1,095,000
60	900 South: 1750 West to 1500 West	\$2,099,000	Springville	6%	\$126,000
62	Traffic Signal: Main Street & 900 North (Complete)	\$254,000	UDOT	0%	\$0
63	Roundabout: 900 South and 800 East	\$795,000	Springville/MAG	7%	\$54,000
64	950 West Realignment: 700 North to 850 North	\$949,000	Springville	17%	\$159,000
65	Frontage Road Realignment: North of 1150 North to New Road (Project 12)	\$2,665,000	Springville/MAG	6%	\$160,000
66	1500 West: Center Street to 550 North	\$4,664,000	Springville	16%	\$747,000
67	900 South: 1500 West to 1200 West	\$2,440,000	Springville	16%	\$391,000
70	450 West New Road: 700 South to 1600 South	\$8,404,000	Springville	16%	\$1,345,000
71	700 South: 1600 South to Project 46	\$7,062,000	Springville	16%	\$7,062,000
72	1200 West Intersection Improvements	\$4,377,000	Springville	100%	\$4,377,000
73	Intersection Improvement: 1000 N & 1200 W	\$1,095,000	Springville	100%	\$1,095,000
74	Main Street/US-89 Interchange Reconstruction	\$23,159,000	Springville	100%	\$0
75	100 West and 600 South New Road (Complete)	\$49,000	Springville	6%	\$3,150
76	500 North New Road with Overpass: 2250 West to 400 West	\$31,245,000	Springville/MAG	7%	\$2,116,000
77a	1200 East Extension: Canyon Road to 900 South with Traffic Signal	\$4,185,000	Springville	50%	\$2,093,000
77b	620 South Realignment: Canyon Road and 900 South	\$4,035,000	Springville	50%	\$2,018,000
78	800 East/700 East Widening: 900 South to 1355 South	\$4,212,000	Springville	100%	\$4,212,000

Capital Facilities Plan - 2040

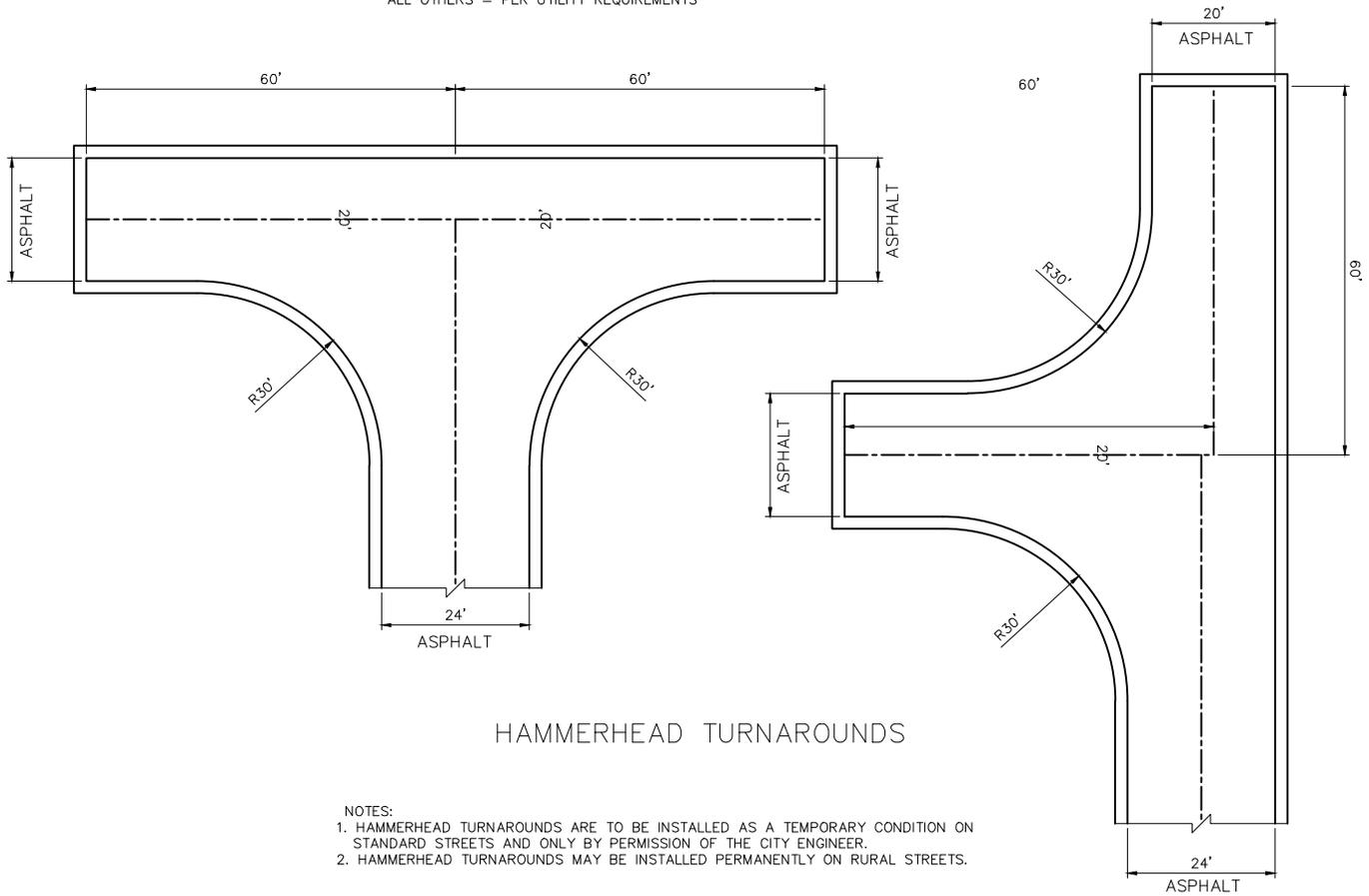
Project	Location	Total Price	Funding Source	Springville City %	Springville City Total
79	700 South Widening 400 West to Main Street	\$1,659,000	Springville	100%	\$1,659,000
Incomplete Street Projects					
81	Spanish Fork Main Street: 400 South to South Border	\$3,155,000	Springville/MAG	7%	\$214,000
82	2000 West: 1150 North to Center Street	\$1,450,000	Springville	50%	\$725,000
83	350 East: Neways International to Freeway Fencing	\$686,000	Springville	30%	\$206,000
84	1750 West: 1400 North to 1000 North	\$1,134,000	Springville	6%	\$73,000
85	1000 North: New Road (Project 52) to 1650 West	\$1,460,000	Springville	6%	\$94,000
86	Center Street: 1750 West to 1650 West	\$373,000	Springville	6%	\$24,000
87	1950 West: 500 South to 1600 South	\$2,614,000	Springville	60%	\$1,569,000
88	1650 West: 950 East to 3600 South	\$4,092,000	Springville	16%	\$655,000
89	550 North: 1500 West to 950 West	\$1,544,000	Springville	17%	\$258,000
90	950 West: 550 North to 400 South	\$1,690,000	Springville	17%	\$283,000
91	400 South: 1250 West to 550 East	\$183,000	UDOT	0%	\$0
92	950 West: 400 South to 1000 South	\$804,000	Springville	17%	\$135,000
95	400 North: 400 West to 900 East	\$1,389,000	Springville	100%	\$1,389,000
96	1400 North: Main Street to 150 East (Complete)	\$121,000	Complete	0%	\$0
97	Main Street: 1400 North to 1060 North	\$327,000	UDOT	0%	\$0
98	1150 North: Main Street to 200 East	\$132,000	Springville	50%	\$66,000
99	US-89: 800 South to 400 East	\$730,000	UDOT	0%	\$0
101	880 East: 1125 North to 800 North	\$567,000	Springville	0%	\$0
102	800 East: Center Street to 100 South	\$23,000	Springville	100%	\$23,000
103	800 East: Brookside Drive to 650 South	\$133,000	Springville	100%	\$133,000
104	900 East: 400 North to 200 North	\$213,000	Springville	100%	\$213,000
105	Roundabout: Red Devil Drive & 620 South	\$1,095,000	Springville	50%	\$548,000
106	Center St/2080 East: Sprong Oaks Dr to New Road	\$465,000	Springville	0%	\$0
107	400 South: 1850 East to 1950 East (Complete)	\$126,000	Complete	17%	\$22,000
108	2080 East: 700 South to Canyon Road	\$480,000	Springville	17%	\$81,000
109	2900 East: Canyon Road to Southeast Border	\$1,198,000	Springville	100%	\$1,198,000
110	600 West: Extension to Evergreen Road	\$1,095,000	Springville	17%	\$187,000
111	Evergreen Road: State Road to 1200 West	\$1,095,000	Springville	17%	\$187,000
112	950 West: 1600 South to Southern Border	\$1,095,000	Springville	17%	\$187,000
113	Intersection Improvement: 1600 South & 950 West	\$1,095,000	UDOT	0%	\$0
114	Intersection Improvement: 1600 South & 600 West	\$1,095,000	UDOT	0%	\$0
115	Intersection Improvement: 1600 South & 400 West	\$1,095,000	UDOT	0%	\$0
116	Intersection Improvement: 1700 South & Canyon Road	\$1,095,000	Springville	100%	\$1,095,000
117	Roundabout: 400 East & Center Street	\$1,095,000	Springville	100%	\$1,095,000
Total		\$514,355,700			\$63,159,150

APPENDIX A: TYPICAL CROSS-SECTIONS

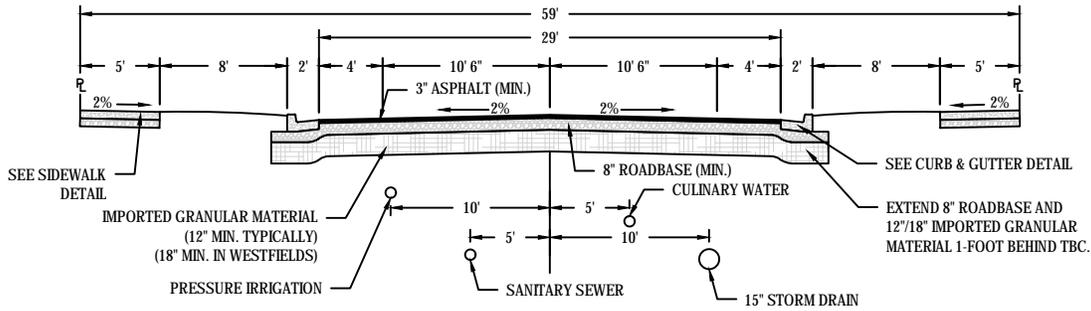
DETAILS ON THIS SHEET TO BE USED ONLY BY PERMISSION OF CITY ENGINEER



- NOTES:
1. CULINARY WATER LINES SHALL BE INSTALLED ON THE NORTH AND EAST SIDE OF THE STREET AND PRESSURE IRRIGATION ON THE SOUTH AND WEST SIDE.
 2. FIRE HYDRANTS SHALL BE LOCATED EVERY 500 FEET AND ON THE SAME SIDE AS THE CULINARY WATER LINES OR AS APPROVED BY THE CITY.
 3. CULINARY VALVES SHALL BE LOCATED ADJACENT TO THE TEE OR CROSS IN THE INTERSECTION. PRESSURE IRRIGATION VALVES SHALL BE ALIGNED WITH PROPERTY LINES WHERE POSSIBLE.
 4. NO CULINARY WATER LINE SMALLER THAN 8" DIA. SHALL BE INSTALLED WITHOUT APPROVAL OF PUBLIC WORKS.
 5. NO PRESSURE IRRIGATION LINE SMALLER THAN 6" DIA. SHALL BE INSTALLED WITHOUT APPROVAL OF PUBLIC WORKS.
 6. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
 7. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
 8. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
 CULINARY WATER = 48" MINIMUM
 PRESSURE IRRIGATION = 30" MINIMUM
 SANITARY SEWER = PER DESIGN
 STORM DRAIN = 30" MINIMUM
 TELECOMMUNICATIONS = 30" MINIMUM
 ALL OTHERS = PER UTILITY REQUIREMENTS

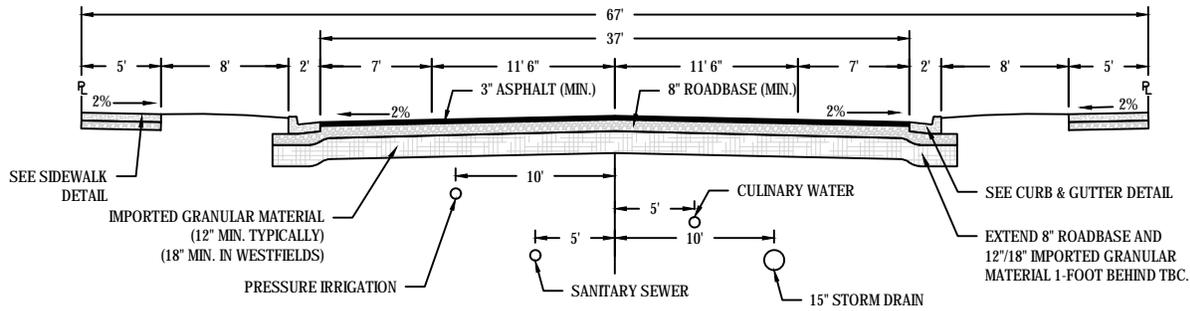


- NOTES:
1. HAMMERHEAD TURNAROUNDS ARE TO BE INSTALLED AS A TEMPORARY CONDITION ON STANDARD STREETS AND ONLY BY PERMISSION OF THE CITY ENGINEER.
 2. HAMMERHEAD TURNAROUNDS MAY BE INSTALLED PERMANENTLY ON RURAL STREETS.



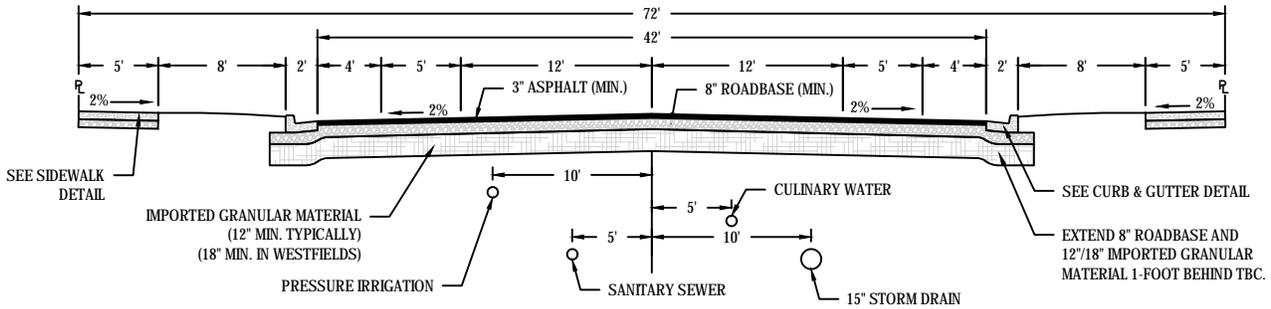
59' STREET CROSS-SECTION (RESIDENTIAL LOCAL)

LOOKING NORTH OR WEST



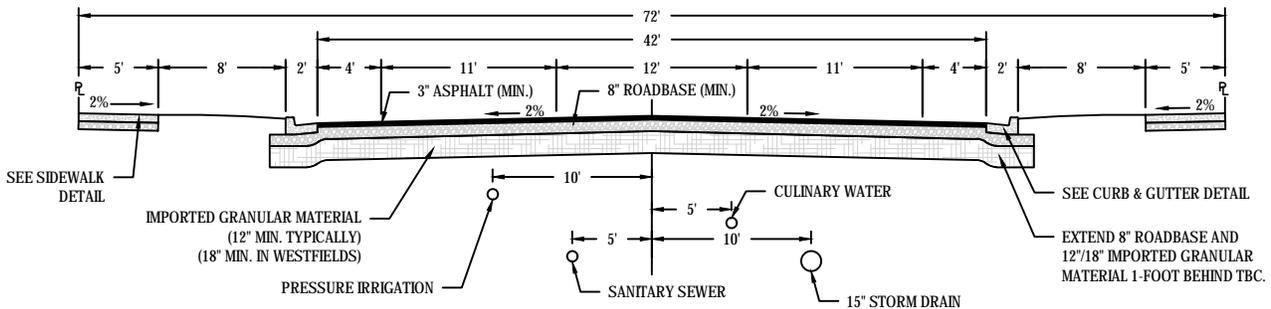
67' STREET CROSS-SECTION (COMMERCIAL LOCAL)

LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

TWO LANE LOOKING NORTH OR WEST



72' STREET CROSS-SECTION (MINOR COLLECTOR)

THREE LANE LOOKING NORTH OR WEST

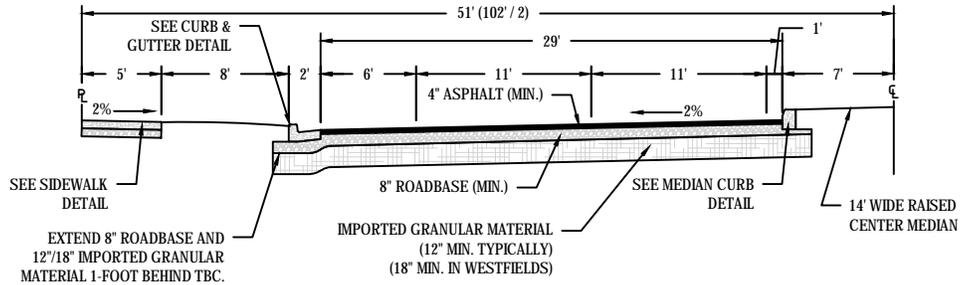
NOTES:

1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
 CULINARY WATER = 48" MINIMUM
 PRESSURE IRRIGATION = 30" MINIMUM
 SANITARY SEWER = PER DESIGN
 STORM DRAIN = 30" MINIMUM
 TELECOMMUNICATIONS = 30" MINIMUM
 ALL OTHERS = PER UTILITY REQUIREMENTS

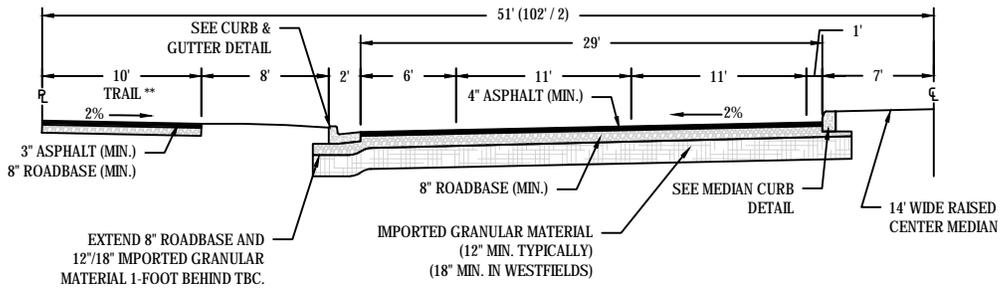


**MAJOR STREET CROSS SECTION
AND UTILITY LOCATION**

DRAWING #
RD-04
ADOPTED DATE
JAN. 2016

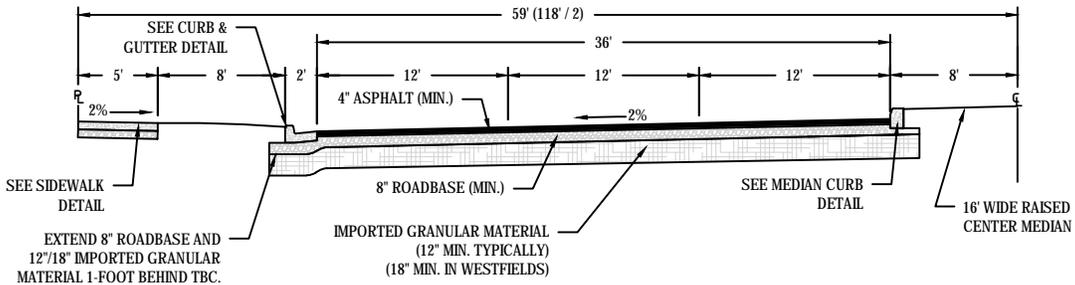


102' STREET CROSS-SECTION (MAJOR ARTERIAL)



107' STREET CROSS-SECTION (MAJOR ARTERIAL WITH TRAIL)

** TRAIL LOCATION MAY VARY EITHER SIDE OF CROSS SECTION (6' SIDEWALK ON OPPOSITE SIDE)



118' STREET CROSS-SECTION (PRINCIPAL ARTERIAL)

NOTES:

1. IMPORTED GRANULAR MATERIAL, ROADBASE AND WHERE NECESSARY ASPHALT THICKNESS WILL MEET THE CITY MIN. AS SHOWN ABOVE OR THE RECOMMENDED THICKNESS FROM THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
2. TELECOMMUNICATIONS CONDUIT SHALL BE LAID WHERE TELEPHONE CONDUIT IS LAID.
3. ALL UTILITY LOCATIONS TO BE APPROVED BY CITY ENGINEER.
4. 30" OF COVER IS REQUIRED FOR ALL UTILITIES UNDER THE ASPHALT SECTION OF A PUBLIC ROADWAY. THE REQUIRED COVER OVER UTILITY LINES ARE AS FOLLOWS:
 CULINARY WATER = 48" MINIMUM
 PRESSURE IRRIGATION = 30" MINIMUM
 SANITARY SEWER = PER DESIGN
 STORM DRAIN = 30" MINIMUM
 TELECOMMUNICATIONS = 30" MINIMUM
 ALL OTHERS = PER UTILITY REQUIREMENTS



MAJOR STREET CROSS SECTION AND UTILITY LOCATION

DRAWING #
RD-04
 ADOPTED DATE
JAN. 2016

APPENDIX B: COST ESTIMATES

**Springville City
Transportation Master Plan**

1200 West: 400 South to 550 North

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	16,349	\$65,396
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	3	\$5,020
Roadway Excavation	C.Y.	\$23.00	5,450	\$125,342
HMA Concrete	Ton	\$100.00	1,901	\$190,056
Untreated Base Course	C.Y.	\$45.00	1,817	\$81,745
Granular Borrow	C.Y.	\$40.00	4,087	\$163,489
Curb and Gutter (2' width)	L.F.	\$32.00	2,044	\$65,396
Sidewalk (5' width)	L.F.	\$50.00	2,044	\$102,181
Drainage	L.F.	\$45.00	2,044	\$91,963
Right of Way	S.F.	\$4.75	109,333	\$519,334
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,022	\$5,109
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Culvert (Cast in Place)	Each	\$250,000	1	\$250,000
Subtotal				\$1,665,030

Contingency	15%	\$249,754
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Mobilization	10%	\$166,503
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Preconstruction Engineering	8%	\$133,202
Construction Engineering	8%	\$133,202

Total Project Costs	\$2,348,000
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Springville City's Responsibility	6.77%
	\$159,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

7B

Project No.	Springville/MAG
Funding:	New Road
Type:	New Road
Costs apportioned from 2040 RTP	

**Springville City
Transportation Master Plan**

1200 West: 550 North to SR-75

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	39,458	\$157,830
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	6	\$12,115
Roadway Excavation	C.Y.	\$23.00	13,153	\$302,508
HMA Concrete	Ton	\$100.00	4,587	\$458,694
Untreated Base Course	C.Y.	\$45.00	4,384	\$197,288
Granular Borrow	C.Y.	\$40.00	9,864	\$394,575
Curb and Gutter (2' width)	L.F.	\$32.00	4,932	\$157,830
Sidewalk (5' width)	L.F.	\$50.00	4,932	\$246,610
Drainage	L.F.	\$45.00	4,932	\$221,949
Right of Way	S.F.	\$4.75	263,872	\$1,253,393
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	2,466	\$12,330
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Culvert (Cast in Place)	Each	\$250,000	1	\$250,000
			Subtotal	\$3,665,122

Contingency	15%	\$549,768
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Mobilization	10%	\$366,512
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Preconstruction Engineering	8%	\$293,210
Construction Engineering	8%	\$293,210

Total Project Costs	\$5,168,000	
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Springville City's Responsibility	6.77%	
	\$350,000	

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

7C

Project No.	Springville/MAG
Funding:	New Road
Type:	New Road
Costs apportioned from 2040 RTP	

**Springville City
Transportation Master Plan**

1200 West: 1600 South to Canyon Creek Pkwy

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	16,554	\$66,215
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	3	\$5,083
Roadway Excavation	C.Y.	\$23.00	5,518	\$126,912
HMA Concrete	Ton	\$100.00	1,924	\$192,438
Untreated Base Course	C.Y.	\$45.00	1,839	\$82,769
Granular Borrow	C.Y.	\$40.00	4,138	\$165,538
Curb and Gutter (2' width)	L.F.	\$32.00	2,069	\$66,215
Sidewalk (5' width)	L.F.	\$50.00	2,069	\$103,461
Drainage	L.F.	\$45.00	2,069	\$93,115
Right of Way	S.F.	\$4.75	110,703	\$525,842
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,035	\$5,173
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Culvert (Cast in Place)	Each	\$250,000	1	\$250,000
Subtotal				\$1,682,761

Contingency	15%	\$252,414
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Mobilization	10%	\$168,276
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Preconstruction Engineering	8%	\$134,621
Construction Engineering	8%	\$134,621

Total Project Costs	\$2,373,000
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Springville City's Responsibility	6.77%
	\$161,000

Overall Assumptions:

HMA Pavement Density (pcf) = 155
 HMA Thickness (in) = 4
 Untreated Base Course Thickness (in) = 8
 Granular Borrow Thickness (in) = 18
 Roadway Excavation Depth (ft) = 2
 Number of Sidewalks (No.) = 2
 Overlay HMA Thickness (in) = 3

7D

Project No. **Springville/MAG**
 Funding: **New Road**
 Type: **New Road**
 Costs apportioned from 2040 RTP

**Springville City
Transportation Master Plan**

1600 South Widening: I-15 to SR-51

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	486,957	\$1,947,830
Removal of Existing Asphalt	S.Y.	\$4.50	98,068	\$441,305
Clearing and Grubbing	Acre	\$2,000.00	30	\$60,087
Roadway Excavation	C.Y.	\$23.00	96,941	\$2,229,634
HMA Concrete	Ton	\$100.00	50,909	\$5,090,860
Untreated Base Course	C.Y.	\$45.00	32,314	\$1,454,109
Granular Borrow	C.Y.	\$40.00	72,705	\$2,908,218
Curb and Gutter (2' width)	L.F.	\$32.00	60,870	\$1,947,830
Sidewalk (5' width)	L.F.	\$50.00	60,870	\$3,043,484
Drainage	L.F.	\$45.00	60,870	\$2,739,135
Right of Way	S.F.	\$4.75	1,308,698	\$6,216,315
Removal of Existing Curb and Gutter	L.F.	\$7.00	60,870	\$426,088
Grind Existing Asphalt	S.F.	\$5.00	882,610	\$4,413,051
Restriping	L.F.	\$5.00	30,435	\$152,174
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$33,070,119

Contingency	15%	\$4,960,518
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Mobilization	10%	\$3,307,012
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Preconstruction Engineering	8%	\$2,645,610
Construction Engineering	8%	\$2,645,610

Total Project Costs	\$46,629,000	
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Springville City's Responsibility	0.00%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	8
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Capacity Improvement
Granular Borrow Thickness (in) =	18	Cost apportioned from 2050 RTP	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

2600 West Widening: 400 South to 500 North

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	52,804	\$211,218
Removal of Existing Asphalt	S.Y.	\$4.50	10,634	\$47,854
Clearing and Grubbing	Acre	\$2,000.00	4	\$7,273
Roadway Excavation	C.Y.	\$23.00	10,512	\$241,776
HMA Concrete	Ton	\$100.00	5,520	\$552,040
Untreated Base Course	C.Y.	\$45.00	3,504	\$157,680
Granular Borrow	C.Y.	\$40.00	7,884	\$315,360
Curb and Gutter (2' width)	L.F.	\$32.00	6,601	\$211,218
Sidewalk (5' width)	L.F.	\$50.00	6,601	\$330,027
Drainage	L.F.	\$45.00	6,601	\$297,025
Right of Way	S.F.	\$4.75	158,413	\$752,463
Removal of Existing Curb and Gutter	L.F.	\$7.00	6,601	\$46,204
Grind Existing Asphalt	S.F.	\$5.00	95,708	\$478,540
Restriping	L.F.	\$5.00	3,300	\$16,501
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$3,665,177

Contingency	15%	\$549,776
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Mobilization	10%	\$366,518
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Preconstruction Engineering	8%	\$293,214
Construction Engineering	8%	\$293,214

Total Project Costs	\$5,168,000
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Springville City's Responsibility	50%
	\$2,584,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	11a
HMA Thickness (in) =	4	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Capacity Improvement
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Roundabouts: 2600 W & Center St and 2600 W & 200 N

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	2	\$1,552,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$1,552,000

Contingency	15%	\$232,800
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Mobilization	10%	\$155,200
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Preconstruction Engineering	8%	\$124,160
Construction Engineering	8%	\$124,160

Total Project Costs	\$2,189,000	
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Springville City's Responsibility	50%
	\$1,095,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	11b
HMA Thickness (in) =	4	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Roundabout
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Roundabout: 1750 West & 1000 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Culvert (Cast in Place)	Each	\$250,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	100%
	\$1,095,000

Overall Assumptions:

HMA Pavement Density (pcf) = 155
HMA Thickness (in) = 3
Untreated Base Course Thickness (in) = 8
Granular Borrow Thickness (in) = 18
Roadway Excavation Depth (ft) = 2
Number of Sidewalks (No.) = 2
Overlay HMA Thickness (in) = 3

Project No.
Funding:
Type:

13
Springville
Roundabout
Roundabout

**Springville City
Transportation Master Plan**

900 South Extension to SR-51

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	78,400	\$313,600
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	8.10	\$16,198
Roadway Excavation	C.Y.	\$23.00	15,244	\$350,622
HMA Concrete	Ton	\$100.00	3,987	\$398,738
Untreated Base Course	C.Y.	\$45.00	5,081	\$228,667
Granular Borrow	C.Y.	\$40.00	11,433	\$457,333
Curb and Gutter (2' width)	L.F.	\$32.00	9,800	\$313,600
Sidewalk (5' width)	L.F.	\$50.00	9,800	\$490,000
Drainage	L.F.	\$45.00	9,800	\$441,000
Right of Way	S.F.	\$4.75	352,800	\$1,675,800
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	4,900	\$24,500
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$4,710,058

Contingency	15%	\$706,509
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Mobilization	10%	\$471,006
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Preconstruction Engineering	8%	\$376,805
Construction Engineering	8%	\$376,805

Total Project Costs	\$6,642,000
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Springville City's Responsibility	17%
	\$1,110,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	15
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Connection of Wood Springs Dr. & 550 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	13,856	\$55,424
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	1	\$2,863
Roadway Excavation	C.Y.	\$23.00	2,694	\$61,967
HMA Concrete	Ton	\$100.00	705	\$70,471
Untreated Base Course	C.Y.	\$45.00	898	\$40,413
Granular Borrow	C.Y.	\$40.00	2,021	\$80,827
Curb and Gutter (2' width)	L.F.	\$32.00	1,732	\$55,424
Sidewalk (5' width)	L.F.	\$50.00	1,732	\$86,600
Drainage	L.F.	\$45.00	1,732	\$77,940
Right of Way	S.F.	\$4.75	62,352	\$296,172
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	866	\$4,330
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$832,431

Contingency	15%	\$124,865
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Mobilization	10%	\$83,243
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Preconstruction Engineering	8%	\$66,594
Construction Engineering	8%	\$66,594

Total Project Costs	\$1,174,000	
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Springville City's Responsibility	17%
	\$197,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	17
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Connection of 2080 East Near 250 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	10,272	\$41,088
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	1	\$2,122
Roadway Excavation	C.Y.	\$23.00	1,997	\$45,939
HMA Concrete	Ton	\$100.00	522	\$52,243
Untreated Base Course	C.Y.	\$45.00	666	\$29,960
Granular Borrow	C.Y.	\$40.00	1,498	\$59,920
Curb and Gutter (2' width)	L.F.	\$32.00	1,284	\$41,088
Sidewalk (5' width)	L.F.	\$50.00	1,284	\$64,200
Drainage	L.F.	\$45.00	1,284	\$57,780
Right of Way	S.F.	\$4.75	46,224	\$219,564
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	642	\$3,210
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$617,114

Contingency	15%	\$92,567
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Mobilization	10%	\$61,711
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Preconstruction Engineering	8%	\$49,369
Construction Engineering	8%	\$49,369

Total Project Costs	\$871,000
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Springville City's Responsibility	100%
	\$871,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	19
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 400 South & 2600 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	21
HMA Thickness (in) =	3	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 400 South & 1200 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000
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Springville City's Responsibility	7%
	\$18,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	22
HMA Thickness (in) =	3	Funding:	Springville/MAG
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2	Currently two sidewalks	
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 400 South & Wood Springs Dr.

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	23
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1400 North & 1200 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	27
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Springville City Transportation Master Plan

Intersection Improvement: 1600 South & 1200 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	28
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1600 South & Wallace Dr.

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	29
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1600 South & 1750 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
			Subtotal	\$180,000

Contingency	15%	\$27,000
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Mobilization	10%	\$18,000
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Preconstruction Engineering	8%	\$14,400
Construction Engineering	8%	\$14,400

Total Project Costs	\$254,000
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	30
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18	Springville City Paying 10%	
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Railroad Crossing: 400 North & 450 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Railroad Crossing	Each	\$500,000	1	\$500,000
Subtotal				\$500,000

Contingency	15%	\$75,000
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Mobilization	10%	\$50,000
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Preconstruction Engineering	8%	\$40,000
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Construction Engineering	8%	\$40,000
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Total Project Costs		\$705,000
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Springville City's Responsibility		100%
		\$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	
HMA Thickness (in) =	3	Funding:	
Untreated Base Course Thickness (in) =	8	Type:	
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

35
Springville
Railroad
Railroad

**Springville City
Transportation Master Plan**

Railroad Crossing: 900 South & 600 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Railroad Crossing	Each	\$500,000	1	\$500,000
Subtotal				\$500,000

Contingency	15%	\$75,000
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Mobilization	10%	\$50,000
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Preconstruction Engineering	8%	\$40,000
Construction Engineering	8%	\$40,000

Total Project Costs	\$705,000	
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Springville City's Responsibility	100%
	\$705,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	
HMA Thickness (in) =	3	Funding:	
Untreated Base Course Thickness (in) =	8	Type:	
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

38
Springville
Railroad
Railroad

**Springville City
Transportation Master Plan**

1500 West: Center Street to 900 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	76,800	\$307,200
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	8	\$15,868
Roadway Excavation	C.Y.	\$23.00	14,933	\$343,467
HMA Concrete	Ton	\$100.00	3,906	\$390,600
Untreated Base Course	C.Y.	\$45.00	4,978	\$224,000
Granular Borrow	C.Y.	\$40.00	11,200	\$448,000
Curb and Gutter (2' width)	L.F.	\$32.00	9,600	\$307,200
Sidewalk (5' width)	L.F.	\$50.00	9,600	\$480,000
Drainage	L.F.	\$45.00	9,600	\$432,000
Right of Way	S.F.	\$4.75	345,600	\$1,641,600
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	4,800	\$24,000
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$4,613,934

Contingency	15%	\$692,090
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Mobilization	10%	\$461,393
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Preconstruction Engineering	8%	\$369,115
Construction Engineering	8%	\$369,115

Total Project Costs	\$6,506,000	
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Springville City's Responsibility	17%
	\$1,087,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	45
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

1600 South & SR-51 Connection

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	94,400	\$377,600
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	9	\$18,150
Roadway Excavation	C.Y.	\$23.00	16,170	\$371,919
HMA Concrete	Ton	\$100.00	4,230	\$422,956
Untreated Base Course	C.Y.	\$45.00	5,390	\$242,556
Granular Borrow	C.Y.	\$40.00	12,128	\$485,111
Curb and Gutter (2' width)	L.F.	\$32.00	11,800	\$377,600
Sidewalk (5' width)	L.F.	\$50.00	11,800	\$590,000
Drainage	L.F.	\$45.00	11,800	\$531,000
Right of Way	S.F.	\$4.75	395,300	\$1,877,675
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	5,900	\$29,500
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	1	\$180,000
Subtotal				\$5,504,066

Contingency	15%	\$825,610
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Mobilization	10%	\$550,407
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Preconstruction Engineering	8%	\$440,325
Construction Engineering	8%	\$440,325

Total Project Costs	\$7,761,000
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	46
HMA Thickness (in) =	3	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

1000 North Extension to 1650 West

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	38,400	\$153,600
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	4	\$7,383
Roadway Excavation	C.Y.	\$23.00	6,578	\$151,289
HMA Concrete	Ton	\$100.00	1,721	\$172,050
Untreated Base Course	C.Y.	\$45.00	2,193	\$98,667
Granular Borrow	C.Y.	\$40.00	4,933	\$197,333
Curb and Gutter (2' width)	L.F.	\$32.00	4,800	\$153,600
Sidewalk (5' width)	L.F.	\$50.00	4,800	\$240,000
Drainage	L.F.	\$45.00	4,800	\$216,000
Right of Way	S.F.	\$4.75	160,800	\$763,800
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	2,400	\$12,000
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$2,165,722

Contingency	15%	\$324,858
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Mobilization	10%	\$216,572
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Preconstruction Engineering	8%	\$173,258
Construction Engineering	8%	\$173,258

Total Project Costs	\$3,054,000	
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Springville City's Responsibility	6%
	\$184,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	47
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

550 West Extension: 550 North to 450 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	21,872	\$87,488
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	2	\$4,519
Roadway Excavation	C.Y.	\$23.00	4,253	\$97,816
HMA Concrete	Ton	\$100.00	1,112	\$111,240
Untreated Base Course	C.Y.	\$45.00	1,418	\$63,793
Granular Borrow	C.Y.	\$40.00	3,190	\$127,587
Curb and Gutter (2' width)	L.F.	\$32.00	2,734	\$87,488
Sidewalk (5' width)	L.F.	\$50.00	2,734	\$136,700
Drainage	L.F.	\$45.00	2,734	\$123,030
Right of Way	S.F.	\$4.75	98,424	\$467,514
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,367	\$6,835
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Culvert (Cast in Place)	Each	\$250,000	1	\$250,000
			Subtotal	\$1,564,010

Contingency	15%	\$234,602
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Mobilization	10%	\$156,401
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Preconstruction Engineering	8%	\$125,121
Construction Engineering	8%	\$125,121

Total Project Costs	\$2,206,000
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Springville City's Responsibility	6%
	\$142,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	3
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No.
Funding:
Type:

49
Springville
New Road
New Road

**Springville City
Transportation Master Plan**

700 South New Road: 1500 West (Project 45) to 1250 West (Project 7)

Minor Collector with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	22,192	\$88,768
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	2	\$4,904
Roadway Excavation	C.Y.	\$23.00	4,315	\$99,248
HMA Concrete	Ton	\$100.00	1,129	\$112,867
Untreated Base Course	C.Y.	\$45.00	1,438	\$64,727
Granular Borrow	C.Y.	\$40.00	3,236	\$129,453
Curb and Gutter (2' width)	L.F.	\$32.00	2,774	\$88,768
Sidewalk (5' width)	L.F.	\$50.00	2,774	\$138,700
Drainage	L.F.	\$45.00	2,774	\$124,830
Right of Way	S.F.	\$4.75	106,799	\$507,295
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,387	\$6,935
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$1,366,494

Contingency	15%	\$204,974
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Mobilization	10%	\$136,649
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Preconstruction Engineering	8%	\$109,320
Construction Engineering	8%	\$109,320

Total Project Costs	\$1,927,000	
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Springville City's Responsibility	16%
	\$309,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	51
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Frontage Road: 1000 North to Center Street with Culvert

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	92,800	\$371,200
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	9	\$17,842
Roadway Excavation	C.Y.	\$23.00	15,896	\$365,615
HMA Concrete	Ton	\$100.00	4,158	\$415,788
Untreated Base Course	C.Y.	\$45.00	5,299	\$238,444
Granular Borrow	C.Y.	\$40.00	11,922	\$476,889
Curb and Gutter (2' width)	L.F.	\$32.00	11,600	\$371,200
Sidewalk (5' width)	L.F.	\$50.00	11,600	\$580,000
Drainage	L.F.	\$45.00	11,600	\$522,000
Right of Way	S.F.	\$4.75	388,600	\$1,845,850
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	5,800	\$29,000
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Culvert/Bridge	S.F.	\$325	3,500	\$1,137,500
Subtotal				\$6,371,328

Contingency	15%	\$955,699
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Mobilization	10%	\$637,133
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Preconstruction Engineering	8%	\$509,706
Construction Engineering	8%	\$509,706

Total Project Costs	\$8,984,000
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Springville City's Responsibility	39%
	\$3,504,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	3
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	18
Roadway Excavation Depth (ft) =	2
Number of Sidewalks (No.) =	2
Overlay HMA Thickness (in) =	3

Project No. **52**
 Funding: **Springville**
 Type: **New Road**
New Road

**Springville City
Transportation Master Plan**

2600 West Extension: 500 North to SR -57

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	91,395	\$365,581
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	14	\$28,063
Roadway Excavation	C.Y.	\$23.00	30,465	\$700,697
HMA Concrete	Ton	\$100.00	10,625	\$1,062,470
Untreated Base Course	C.Y.	\$45.00	10,155	\$456,976
Granular Borrow	C.Y.	\$40.00	22,849	\$913,952
Curb and Gutter (2' width)	L.F.	\$32.00	11,424	\$365,581
Sidewalk (5' width)	L.F.	\$50.00	11,424	\$571,220
Drainage	L.F.	\$45.00	11,424	\$514,098
Right of Way	S.F.	\$4.75	611,206	\$2,903,227
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	5,712	\$28,561
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$7,910,426

Contingency	15%	\$1,186,564
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Mobilization	10%	\$791,043
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Preconstruction Engineering	8%	\$632,834
Construction Engineering	8%	\$632,834

Total Project Costs	\$11,153,700
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Springville City's Responsibility	6.77%
	\$756,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	53
HMA Thickness (in) =	4	Funding:	Springville/MAG
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Roundabout: Canyon Road and 620 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	100%
	\$1,095,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	59
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Roundabout
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Roundabout: 900 South and 800 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$563,456	1	\$563,456
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$563,456

Contingency	15%	\$84,518
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Mobilization	10%	\$56,346
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Preconstruction Engineering	8%	\$45,076
Construction Engineering	8%	\$45,076

Total Project Costs	\$795,000
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Springville City's Responsibility	7%
	\$54,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	63
HMA Thickness (in) =	3	Funding:	Springville/MAG
Untreated Base Course Thickness (in) =	8	Type:	Roundabout
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

950 West Realignment: 700 North to 850 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	11,200	\$44,800
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	1	\$2,314
Roadway Excavation	C.Y.	\$23.00	2,178	\$50,089
HMA Concrete	Ton	\$100.00	570	\$56,963
Untreated Base Course	C.Y.	\$45.00	726	\$32,667
Granular Borrow	C.Y.	\$40.00	1,633	\$65,333
Curb and Gutter (2' width)	L.F.	\$32.00	1,400	\$44,800
Sidewalk (5' width)	L.F.	\$50.00	1,400	\$70,000
Drainage	L.F.	\$45.00	1,400	\$63,000
Right of Way	S.F.	\$4.75	50,400	\$239,400
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	700	\$3,500
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$672,865

Contingency	15%	\$100,930
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Mobilization	10%	\$67,287
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Preconstruction Engineering	8%	\$53,829
Construction Engineering	8%	\$53,829

Total Project Costs	\$949,000
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Springville City's Responsibility	17%
	\$159,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	64
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

1500 West: Center Street to 550 North

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	58,640	\$234,560
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	6	\$11,274
Roadway Excavation	C.Y.	\$23.00	10,045	\$231,031
HMA Concrete	Ton	\$100.00	2,627	\$262,735
Untreated Base Course	C.Y.	\$45.00	3,348	\$150,672
Granular Borrow	C.Y.	\$40.00	7,534	\$301,344
Curb and Gutter (2' width)	L.F.	\$32.00	7,330	\$234,560
Sidewalk (5' width)	L.F.	\$50.00	7,330	\$366,500
Drainage	L.F.	\$45.00	7,330	\$329,850
Right of Way	S.F.	\$4.75	245,555	\$1,166,386
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	3,665	\$18,325
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$3,307,238

Contingency	15%	\$496,086
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Mobilization	10%	\$330,724
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Preconstruction Engineering	8%	\$264,579
Construction Engineering	8%	\$264,579

Total Project Costs	\$4,664,000	
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Springville City's Responsibility	16%
	\$747,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	66
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

900 South: 1500 West to 1200 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	28,800	\$115,200
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	3	\$5,950
Roadway Excavation	C.Y.	\$23.00	5,600	\$128,800
HMA Concrete	Ton	\$100.00	1,465	\$146,475
Untreated Base Course	C.Y.	\$45.00	1,867	\$84,000
Granular Borrow	C.Y.	\$40.00	4,200	\$168,000
Curb and Gutter (2' width)	L.F.	\$32.00	3,600	\$115,200
Sidewalk (5' width)	L.F.	\$50.00	3,600	\$180,000
Drainage	L.F.	\$45.00	3,600	\$162,000
Right of Way	S.F.	\$4.75	129,600	\$615,600
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,800	\$9,000
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$1,730,225

Contingency	15%	\$259,534
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Mobilization	10%	\$173,023
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Preconstruction Engineering	8%	\$138,418
Construction Engineering	8%	\$138,418

Total Project Costs	\$2,440,000	
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Springville City's Responsibility	16%
	\$391,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	67
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

450 West New Road: 700 South to 1600 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	99,200	\$396,800
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	10	\$20,496
Roadway Excavation	C.Y.	\$23.00	19,289	\$443,644
HMA Concrete	Ton	\$100.00	5,045	\$504,525
Untreated Base Course	C.Y.	\$45.00	6,430	\$289,333
Granular Borrow	C.Y.	\$40.00	14,467	\$578,667
Curb and Gutter (2' width)	L.F.	\$32.00	12,400	\$396,800
Sidewalk (5' width)	L.F.	\$50.00	12,400	\$620,000
Drainage	L.F.	\$45.00	12,400	\$558,000
Right of Way	S.F.	\$4.75	446,400	\$2,120,400
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	6,200	\$31,000
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$5,959,665

Contingency	15%	\$893,950
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Mobilization	10%	\$595,967
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Preconstruction Engineering	8%	\$476,773
Construction Engineering	8%	\$476,773

Total Project Costs	\$8,404,000
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Springville City's Responsibility	16%
	\$1,345,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	70
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

700 South: 1600 South to Project 46

Commercial Local

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	88,800	\$355,200
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	9	\$17,073
Roadway Excavation	C.Y.	\$23.00	15,211	\$349,856
HMA Concrete	Ton	\$100.00	3,979	\$397,866
Untreated Base Course	C.Y.	\$45.00	5,070	\$228,167
Granular Borrow	C.Y.	\$40.00	11,408	\$456,333
Curb and Gutter (2' width)	L.F.	\$32.00	11,100	\$355,200
Sidewalk (5' width)	L.F.	\$50.00	11,100	\$555,000
Drainage	L.F.	\$45.00	11,100	\$499,500
Right of Way	S.F.	\$4.75	371,850	\$1,766,288
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	5,550	\$27,750
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$5,008,232

Contingency	15%	\$751,235
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Mobilization	10%	\$500,823
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Preconstruction Engineering	8%	\$400,659
Construction Engineering	8%	\$400,659

Total Project Costs	\$7,062,000
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Springville City's Responsibility	100%
	\$7,062,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	71
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

1200 West Intersection Improvements

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	4	\$3,104,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$3,104,000

Contingency	15%	\$465,600
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Mobilization	10%	\$310,400
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Preconstruction Engineering	8%	\$248,320
Construction Engineering	8%	\$248,320

Total Project Costs	\$4,377,000	
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Springville City's Responsibility	100%
	\$4,377,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	72
HMA Thickness (in) =	4	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1000 N & 1200 W

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	100%
	\$1,095,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	73
HMA Thickness (in) =	4	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Spanish Fork Main Street: 400 South to South Border

Major Arterial with Trail

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	76,053	\$304,213
Removal of Existing Asphalt	S.Y.	\$4.50	717	\$3,227
Clearing and Grubbing	Acre	\$2,000.00	3	\$5,020
Roadway Excavation	C.Y.	\$23.00	7,746	\$178,162
HMA Concrete	Ton	\$100.00	2,701	\$270,147
Untreated Base Course	C.Y.	\$45.00	2,582	\$116,192
Granular Borrow	C.Y.	\$40.00	5,810	\$232,385
Curb and Gutter (2' width)	L.F.	\$32.00	1,918	\$61,376
Sidewalk (5' width)	L.F.	\$50.00	1,918	\$95,900
Drainage	L.F.	\$45.00	9,507	\$427,799
Right of Way	S.F.	\$4.75	109,326	\$519,301
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	4,753	\$23,767
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$2,237,488

Contingency	15%	\$335,623
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Mobilization	10%	\$223,749
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Preconstruction Engineering	8%	\$178,999
Construction Engineering	8%	\$178,999

Total Project Costs	\$3,155,000	
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Springville City's Responsibility	6.77%
	\$214,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	81
HMA Thickness (in) =	4	Funding:	Springville/MAG
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

550 North: 1500 West to 950 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	41,755	\$167,020
Removal of Existing Asphalt	S.Y.	\$4.50	1,093	\$4,919
Clearing and Grubbing	Acre	\$2,000.00	1	\$2,709
Roadway Excavation	C.Y.	\$23.00	1,020	\$23,458
HMA Concrete	Ton	\$100.00	267	\$26,677
Untreated Base Course	C.Y.	\$45.00	340	\$15,299
Granular Borrow	C.Y.	\$40.00	765	\$30,598
Curb and Gutter (2' width)	L.F.	\$32.00	3,940	\$126,080
Sidewalk (5' width)	L.F.	\$50.00	4,615	\$230,750
Drainage	L.F.	\$45.00	3,934	\$177,030
Right of Way	S.F.	\$4.75	59,010	\$280,298
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,967	\$9,835
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$1,094,673

Contingency	15%	\$164,201
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Mobilization	10%	\$109,467
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Preconstruction Engineering	8%	\$87,574
Construction Engineering	8%	\$87,574

Total Project Costs	\$1,544,000
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Springville City's Responsibility	17%
	\$258,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	89
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

950 West: 550 North to 400 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	24,250	\$97,000
Removal of Existing Asphalt	S.Y.	\$4.50	1,641	\$7,385
Clearing and Grubbing	Acre	\$2,000.00	1	\$1,628
Roadway Excavation	C.Y.	\$23.00	3,063	\$70,458
HMA Concrete	Ton	\$100.00	801	\$80,127
Untreated Base Course	C.Y.	\$45.00	1,021	\$45,951
Granular Borrow	C.Y.	\$40.00	2,298	\$91,902
Curb and Gutter (2' width)	L.F.	\$32.00	4,130	\$132,160
Sidewalk (5' width)	L.F.	\$50.00	4,850	\$242,500
Drainage	L.F.	\$45.00	5,470	\$246,150
Right of Way	S.F.	\$4.75	35,448	\$168,378
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	2,954	\$14,770
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$1,198,409

Contingency	15%	\$179,761
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Mobilization	10%	\$119,841
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Preconstruction Engineering	8%	\$95,873
Construction Engineering	8%	\$95,873

Total Project Costs	\$1,690,000
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Springville City's Responsibility	17%
	\$283,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	90
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

950 West: 400 South to 1000 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	9,935	\$39,740
Removal of Existing Asphalt	S.Y.	\$4.50	744	\$3,348
Clearing and Grubbing	Acre	\$2,000.00	1	\$1,924
Roadway Excavation	C.Y.	\$23.00	776	\$17,848
HMA Concrete	Ton	\$100.00	203	\$20,297
Untreated Base Course	C.Y.	\$45.00	259	\$11,640
Granular Borrow	C.Y.	\$40.00	582	\$23,280
Curb and Gutter (2' width)	L.F.	\$32.00	1,340	\$42,880
Sidewalk (5' width)	L.F.	\$50.00	1,987	\$99,350
Drainage	L.F.	\$45.00	2,328	\$104,760
Right of Way	S.F.	\$4.75	41,904	\$199,044
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,164	\$5,820
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$569,931

Contingency	15%	\$85,490
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Mobilization	10%	\$56,993
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Preconstruction Engineering	8%	\$45,594
Construction Engineering	8%	\$45,594

Total Project Costs	\$804,000	
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Springville City's Responsibility	17%
	\$135,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	92
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

1150 North: Main Street to 200 East

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	732	\$23,424
Sidewalk (5' width)	L.F.	\$50.00	732	\$36,600
Drainage	L.F.	\$45.00	732	\$32,940
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$92,964

Contingency	15%	\$13,945
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Mobilization	10%	\$9,296
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Preconstruction Engineering	8%	\$7,437
Construction Engineering	8%	\$7,437

Total Project Costs	\$132,000
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Springville City's Responsibility	50%
	\$66,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	98
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

800 East: Center Street to 100 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	491	\$15,712
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$15,712

Contingency	15%	\$2,357
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Mobilization	10%	\$1,571
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Preconstruction Engineering	8%	\$1,257
Construction Engineering	8%	\$1,257

Total Project Costs	\$23,000
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Springville City's Responsibility	100%
	\$23,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	102
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

800 East: Brookside Drive to 650 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	89	\$401
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	201	\$4,634
HMA Concrete	Ton	\$100.00	53	\$5,270
Untreated Base Course	C.Y.	\$45.00	67	\$3,022
Granular Borrow	C.Y.	\$40.00	151	\$6,044
Curb and Gutter (2' width)	L.F.	\$32.00	580	\$18,560
Sidewalk (5' width)	L.F.	\$50.00	580	\$29,000
Drainage	L.F.	\$45.00	580	\$26,100
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	160	\$800
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$93,831

Contingency	15%	\$14,075
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Mobilization	10%	\$9,383
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Preconstruction Engineering	8%	\$7,506
Construction Engineering	8%	\$7,506

Total Project Costs	\$133,000
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Springville City's Responsibility	100%
	\$133,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	103
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

900 East: 400 North to 200 North

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	751	\$3,004
Removal of Existing Asphalt	S.Y.	\$4.50	4,503	\$20,265
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	965	\$30,880
Sidewalk (5' width)	L.F.	\$50.00	965	\$48,250
Drainage	L.F.	\$45.00	965	\$43,425
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	965	\$4,825
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$150,649

Contingency	15%	\$22,597
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Mobilization	10%	\$15,065
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Preconstruction Engineering	8%	\$12,052
Construction Engineering	8%	\$12,052

Total Project Costs	\$213,000	
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Springville City's Responsibility	100%
	\$213,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	104
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Roundabout: Red Devil Drive & 620 South

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	50%
	\$548,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	105
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Roundabout
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

2080 East: 700 South to Canyon Road

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	8,470	\$33,880
Removal of Existing Asphalt	S.Y.	\$4.50	673	\$3,029
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	1,524	\$35,045
HMA Concrete	Ton	\$100.00	399	\$39,854
Untreated Base Course	C.Y.	\$45.00	508	\$22,856
Granular Borrow	C.Y.	\$40.00	1,143	\$45,711
Curb and Gutter (2' width)	L.F.	\$32.00	1,210	\$38,720
Sidewalk (5' width)	L.F.	\$50.00	1,210	\$60,500
Drainage	L.F.	\$45.00	1,210	\$54,450
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	1,210	\$6,050
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$340,095

Contingency	15%	\$51,014
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Mobilization	10%	\$34,009
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Preconstruction Engineering	8%	\$27,208
Construction Engineering	8%	\$27,208

Total Project Costs	\$480,000	
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Springville City's Responsibility	17%
	\$81,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	108
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

2900 East: Canyon Road to Southeast Border

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	1,562	\$7,029
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	2,707	\$62,258
HMA Concrete	Ton	\$100.00	708	\$70,802
Untreated Base Course	C.Y.	\$45.00	902	\$40,603
Granular Borrow	C.Y.	\$40.00	2,030	\$81,207
Curb and Gutter (2' width)	L.F.	\$32.00	5,622	\$179,904
Sidewalk (5' width)	L.F.	\$50.00	2,811	\$140,550
Drainage	L.F.	\$45.00	5,622	\$252,990
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	2,811	\$14,055
Roundabout	Each	\$776,000	0	\$0
Traffic Signal	Each	\$180,000	0	\$0
			Subtotal	\$849,399

Contingency	15%	\$127,410
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Mobilization	10%	\$84,940
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Preconstruction Engineering	8%	\$67,952
Construction Engineering	8%	\$67,952

Total Project Costs	\$1,198,000
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Springville City's Responsibility	100%
	\$1,198,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	109
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Incomplete Street
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

600 West: Extention to Evergreen Road

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	17%
	\$187,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	110
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granual Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Evergreen Road: State Road to 1200 West

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	17%
	\$187,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	111
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

950 West: 1600 South to Southern Border

Minor Collector

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000
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Springville City's Responsibility	17%
	\$187,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	112
HMA Thickness (in) =	3	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	New Road
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1600 South & 950 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	113
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1600 South & 600 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	114
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1600 South & 400 West

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	0%
	\$0

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	115
HMA Thickness (in) =	4	Funding:	UDOT
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

**Springville City
Transportation Master Plan**

Intersection Improvement: 1700 East & Canyon Road

Major Arterial

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$4.00	0	\$0
Removal of Existing Asphalt	S.Y.	\$4.50	0	\$0
Clearing and Grubbing	Acre	\$2,000.00	0	\$0
Roadway Excavation	C.Y.	\$23.00	0	\$0
HMA Concrete	Ton	\$100.00	0	\$0
Untreated Base Course	C.Y.	\$45.00	0	\$0
Granular Borrow	C.Y.	\$40.00	0	\$0
Curb and Gutter (2' width)	L.F.	\$32.00	0	\$0
Sidewalk (5' width)	L.F.	\$50.00	0	\$0
Drainage	L.F.	\$45.00	0	\$0
Right of Way	S.F.	\$4.75	0	\$0
Removal of Existing Curb and Gutter	L.F.	\$7.00	0	\$0
Grind Existing Asphalt	S.F.	\$5.00	0	\$0
Restriping	L.F.	\$5.00	0	\$0
Roundabout	Each	\$776,000	1.00000	\$776,000
Traffic Signal	Each	\$180,000	0	\$0
Subtotal				\$776,000

Contingency	15%	\$116,400
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Mobilization	10%	\$77,600
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Preconstruction Engineering	8%	\$62,080
Construction Engineering	8%	\$62,080

Total Project Costs	\$1,095,000	
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Springville City's Responsibility	100%
	\$1,095,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	116
HMA Thickness (in) =	4	Funding:	Springville
Untreated Base Course Thickness (in) =	8	Type:	Traffic Signal
Granular Borrow Thickness (in) =	18		
Roadway Excavation Depth (ft) =	2		
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		