Utah’s Unified Transportation Plan

CACHE MPO
WFRC
MAG
DIXIE MPO

UDOT
Financial Overview

Total Transportation Needs

- $23.1 B Road Capacity
- $33.0 B Road Maintenance, Preservation & Operations
- $10.6 B Transit Capacity
- $13.8 B Transit Maintenance, Preservation & Operations

Prioritized Transportation Needs

- $18.0 B Road Capacity
- $28.8 B Road Maintenance, Preservation & Operations
- $7.0 B Transit Capacity
- $13.7 B Transit Maintenance, Preservation & Operations

Total Needs: $80.5 B

Prioritized Needs: $67.5 B
Financial Overview

$67.5 B

$18.0 B Road Capacity

$28.8 B Road Maintenance, Preservation & Operations

$7.0 B Transit Capacity

$13.7 B Transit Maintenance, Preservation & Operations

$7.3 B Planned New Revenue

$700 M SB 80

$59.5 B Existing Revenue

Prioritized Transportation Needs
### Unified Plan: Growth Rate Assumptions

Lewis Young Robertson & Burningham, Inc. ("LYRB") has contracted with Mountainland Association of Governments ("MAG") to complete the Unified Transportation Plan Funding Model Update. As part of this update, LYRB has provided technical assistance and recommendations to stakeholders regarding which growth rates should be used in the Unified Transportation Plan to estimate future existing revenue streams. The following table summarizes the growth rate assumptions used in the previous 2011 Unified Plan compared to the assumptions that have been finalized for the 2014 Unified Plan. The following pages provide additional background on the 2014 revised revenue assumptions.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>36.44%</td>
<td>Federal Revenues 2.00%</td>
<td>1.56%</td>
<td>Congressional Budget Office Testimony, &quot;The Highway Trust Fund and Paying for Highways&quot;</td>
</tr>
<tr>
<td>27.36%</td>
<td>Motor Fuel 2.00%</td>
<td>2014: -1.4%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2015: 0.0%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2016 - 2018: 1.50%</td>
<td>Governor's Office of Planning &amp; Budget estimate</td>
</tr>
<tr>
<td>8.19%</td>
<td>Special Fuel 5.00%</td>
<td>4.10%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2015: 1.10%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2016 - 2018: 1.50%</td>
<td>Governor's Office of Planning &amp; Budget estimate</td>
</tr>
<tr>
<td>6.80%</td>
<td>Registration Fees &amp; Permits 1.90%</td>
<td>4.04%</td>
<td>Historic weighted AAGR for Registrations &amp; Permits from 1992 - 2012</td>
</tr>
<tr>
<td></td>
<td>B&amp;O Road Funds</td>
<td>Mixed (combo of Motor Fuel, Special Fuel, Registration Fees, etc.)</td>
<td>2.03%</td>
</tr>
<tr>
<td>6.17%</td>
<td>Registration Increases (TIF) 1.90%</td>
<td>4.04%</td>
<td>See above &quot;Registrations &amp; Permits&quot;</td>
</tr>
<tr>
<td>31.06%</td>
<td>Sales Tax (TIF) 5.00%</td>
<td>2014: 3.03%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2015: 4.86%</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2016 - 2018: 4.00%</td>
<td>Governor's Office of Planning &amp; Budget estimate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019 - 2040: 5.00%</td>
<td>After reviewing various historic growth rates since 1978 - 2013, we recommend a conservative estimate of 5% that matches UTA's rate</td>
</tr>
<tr>
<td>100.00%</td>
<td>MPO: Revenue Assumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highway Quarters Sales Tax (County Revenues)</td>
<td>5.00%</td>
<td>Historic AAGR from 1993 - 2013 for WFRC, MAQ, and Cache.</td>
</tr>
<tr>
<td></td>
<td>Salt Lake County: 5.00%</td>
<td>Weber County: 5.00%</td>
<td>Historic AAGR from 1993 - 2013 for WFRC, MAQ, and Cache.</td>
</tr>
<tr>
<td></td>
<td>Davis County: 5.00%</td>
<td>Weber County: 4.17%</td>
<td>Historic AAGR from 1993 - 2013 for WFRC, MAQ, and Cache.</td>
</tr>
<tr>
<td></td>
<td>Utah County: 5.50%</td>
<td>Cache County: 5.05%</td>
<td>Historic AAGR from 1993 - 2013 for WFRC, MAQ, and Cache.</td>
</tr>
<tr>
<td></td>
<td>Registration Fees (County Revenues)</td>
<td>4.04%</td>
<td>See &quot;Registrations &amp; Permits&quot; above</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Revenue Assumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UTA Sales Tax</td>
<td>2014: 4.26%</td>
<td>UTA TDP Analysis, 30 year historic average is 5.4%, so UTA uses a conservative 5% in their projections past 2016. (UTA's sales tax growth rate projections may differ slightly from UDOT's in the short term due to the fact that UTA encompasses a different geographic location and calculates sales tax revenue based on a slightly different basket of goods.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2015: 4.75%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2016: 4.86%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2017 - 2040: 5.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Finance Committee

**MPO’s, UDOT, UTA & LYRB**

**OCTOBER 29, 2014**
Federal Funds apportionment grow of 4% for years 1-5 then Highway Trust Fund growth rate of 1% for year 5-30

State Funds grow at consensus rate for years 1-5 then 20 year historical growth

Fuel Tax ceiling increase 10 cent per decade

$10 Vehicle Registration Fee increase per decade
Local Assumptions

- Local Vehicle Registration Fee
- Local Option Sales Tax (Quarters)
New Assumptions

Point of the Mountain
Inland Port
Opportunity Zones
Trans. Reinvest Zones
Internet Sales Tax
Vehicle Miles Travel Tax
FEDERAL-AID HIGHWAY Program Overview
Ivan Marrero, P.E.
FHWA Division Administrator
Utah Division
August 2, 2018 JPAC Meeting
Federal-aid Highway Program
Federal-aid funding
Highway Trust Fund
Per gallon Federal Gas Tax over the years:
- 1956-1959: $0.03
- 1959-1983: $0.04
- 1983-1990: $0.09
- 1990-1993: $0.14
- 1993-present: $0.184

- 0.1 cent (Leaking Underground Storage Tanks)
- 18.3 cents (HTF)
- 15.44 cents (Highways)
- 2.86 cents (Mass Transit)
### Table 7. Current Highway Trust Fund tax rates

<table>
<thead>
<tr>
<th>Tax type</th>
<th>Tax rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal fuel taxes</strong></td>
<td></td>
</tr>
<tr>
<td>Gasoline and gasohol</td>
<td>18.4 cents per gallon</td>
</tr>
<tr>
<td>Diesel</td>
<td>24.4 cents per gallon</td>
</tr>
<tr>
<td><strong>Special Fuels:</strong></td>
<td></td>
</tr>
<tr>
<td>General rate</td>
<td>18.4 cents per gallon</td>
</tr>
<tr>
<td>Liquefied petroleum gas</td>
<td>18.3 cents per gasoline-equivalent gallon</td>
</tr>
<tr>
<td>Liquefied natural gas</td>
<td>24.3 cents per gallon diesel-equivalent gallon</td>
</tr>
<tr>
<td>M85 from natural gas</td>
<td>9.25 cents per gallon</td>
</tr>
<tr>
<td>Compressed natural gas</td>
<td>18.3 cents per gasoline-equivalent gallon</td>
</tr>
<tr>
<td><strong>Other Federal taxes on truck users</strong></td>
<td></td>
</tr>
<tr>
<td>Tires: (maximum rated load capacity)</td>
<td></td>
</tr>
<tr>
<td>0-3,500 pounds</td>
<td>No Tax</td>
</tr>
<tr>
<td>Over 3,500 pounds</td>
<td>9.45 cents per each 10 pounds in excess of 3,500</td>
</tr>
<tr>
<td>Truck and Trailer Sales</td>
<td>12 percent of retailer's sales price for tractors and trucks over 33,000 pounds gross vehicle weight (GVW) and trailers over 28,000 pounds GVW</td>
</tr>
<tr>
<td>Heavy Vehicle Use</td>
<td>Annual tax: Trucks 55,000 pounds and over GVW, $100 plus $22 for each 1,000 pounds (or fraction thereof) in excess of 55,000 pounds (maximum tax of $550)</td>
</tr>
</tbody>
</table>

85-90 Percent of the HTF
Federal-aid funds

- Distributed by Formula
- Money not provided up front
Federal-aid funds

STATE DOT

Agreement

U.S. Department of Transportation
Federal Highway Administration
Surface Transportation Program

Highway Safety Improvement Program
Federal-aid
- Reimbursable
- Matching
Utah Sliding Scale:
- Intestate: 94.18%
- Non-Interstate: 93.23%

Federal-aid:
- Federal Funds: 80%
- Local Agency: 20%
- Total project cost
Capital improvement & planned upkeep

Not routine maintenance

- Pothole Patching
- Mowing
- Snow Removal
- Graffiti Removal
<table>
<thead>
<tr>
<th>National Highway Performance Program</th>
<th>Surface Transportation Program</th>
<th>Highway Safety Program</th>
<th>Railway-Highway Safety Improvement Program</th>
<th>Congestion Mitigation &amp; Air Quality Improvement Program</th>
<th>Metropolitan Planning Program</th>
<th>National Highway Freight Program</th>
<th>Apportioned Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>210,095,715</td>
<td>105,179,508</td>
<td>21,315,155</td>
<td>1,740,677</td>
<td>13,341,201</td>
<td>3,345,549</td>
<td>10,489,966</td>
<td>365,507,771</td>
</tr>
</tbody>
</table>
Statewide Transportation Improvement Program

- Project 1
- Project 2
- Project 3
- Project 4
Federal Highway Administration Field

52 Federal-aid Division Offices

4 Metro Offices

- Los Angeles
- Chicago
- Philadelphia
- New York City
Who We Are and What We Do

- We are your partners
- We are here in Utah
- We provide expertise, resources, and information to improve Utah’s and the nation's highway system and its intermodal connections.
- We provide financial assistance to Utah to construct and improve the National Highway System, other roads, and bridges.
- We conduct and manage a comprehensive research, development, and technology program.
YOUR SUCCESS IS OUR SUCCESS

Thank You
Introduction

- The Alternatives Analysis study began in the summer of 2016 and built on previous planning efforts in the region.
- Led by Summit County with several project partners: Park City, UDOT, UTA, Salt Lake City, and WFRC.
- Evaluated the benefits, costs, and impacts of implementing upgraded transit on State Route (S.R.) 224 in Summit County.
- Objective of the study was to evaluate all reasonable modal alternatives and general alignment options for the SR 224 corridor.
- Focus was S.R. 224 between Kimball Junction and Old Town Park City, since at times a trip between these two points can take more than 40 minutes, whereas the trip takes 15 to 20 minutes during non-peak times.
AA Study Process

- Developed a purpose and need statement and project goals.
- Developed evaluation criteria based on the purpose, goals, and objectives.
- Used the evaluation criteria to screen a wide variety of transit technology options.
- Conducted a second screening to determine the footprint within the S.R. 224 corridor for the transit solution’s alignment.
- Evaluated the costs and benefits of the remaining technology options combined with the various alignment configurations to determine the best alternative to recommend as the LPA.
Stakeholder and Public Outreach

• Stakeholders and the public had an opportunity to direct the project purpose and goals as well as review and comment on the proposed transit technology and alignment alternatives at key milestones during the study. The public outreach process included:
  • Two formal online public meetings
  • An open-house-format public meeting
  • A small focus group discussion

• Overall, people felt that congestion on S.R. 224 is a primary issue in the community that should be addressed and believe that better transit service and options on S.R. 224 will contribute to reduced congestion and improved mobility in the study area.
What is the purpose of the project?

Park City’s existing bus service on S.R. 224 has become even more successful with the introduction of the Electric Xpress between the Kimball Junction and Old Town Transit Centers. Now the project partners would like to strengthen their commitment to transit on S.R. 224.

The purpose of the Valley to Mountain Alternatives Analysis is to:

- enhance multi-modal transportation choices
- promote sustainability and system efficiencies in the S.R. 224 corridor and in Park City
What are the goals of the project?

- Increase person throughput capacity on S.R. 224 during peak periods (season, daily peak, and special events) while avoiding excessive road widening.
- Improve the reliability and reduce travel time of transit service on S.R. 224.
- Increase the attractiveness and effectiveness of transit by separating transit vehicles from other traffic all day over the full length of S.R. 224.
- Support healthy communities, best environmental practices, and the sustainability goals of the community.
- Develop an alternative that fits the character and scale of the community and is environmentally and aesthetically acceptable to the public.
- Complement local and regional remote parking.
- Provide a transit investment that meets today’s needs and has the ability to expand for future growth.
- Support local and regional transportation plans for a long-term express transit service strategy in the corridor.
Why is the project needed?

The transportation needs in the study area are based primarily on:

- Existing system deficiencies
- Increasing roadway congestion
- Expected future travel demand resulting from projected growth in employment, tourism, development, and seasonal population fluctuations
- Project partners’ desire for the study area to comprise more-livable communities supported by a multimodal transportation system so that travelers increasingly choose transit auto travel
What technology options were considered?

- Rapid Streetcar/Light Rail Transit (LRT)
- Electric Bus Rapid Transit (BRT)
- Aerial Transit (Tram/Gondola)
- Automated Guideway Transit
- Monorail
- Rapid Rail Transit
- MAGLEV
- Hyperloop
What technology options were selected to move forward?

Based on an iterative screening process and input from the public, the initial universe of technology options was narrowed to the two most promising options for S.R. 224:

- Hybrid/electric bus rapid transit (BRT)
- Rapid streetcar/light rail transit (LRT)

These results were consistent with the feedback from the December 2016 online public meeting.
What alignment options were considered along S.R. 224?

Three alternative alignment options were considered:

- Alternative 1: Center-Running Transit
- Alternative 2: Side-Running Transit (Both Sides) (directional lanes provided on each side of S.R. 224)
- Alternative 3: Side-Running Transit (West Side) (both lanes provided on the west side of S.R. 224)

Each alternative assumed that the 6-mile long route would operate between the Kimball Junction Transit Center located at 1899 W. Ute Boulevard and end at a proposed new transit center at the intersection of Bonanza Drive and Munchkin Road (off of SR 248) in Park City. Four additional stops were assumed along the way.
Screening Summary

- The study team evaluated six various alternatives.
- Each alternative’s benefits, costs, and impacts were comparatively evaluated against those of each of the other alternatives.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Cost</th>
<th>Preliminary Traffic Effect</th>
<th>Preliminary Environmental Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1: Center-Running Bus Rapid Transit</td>
<td>$$</td>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tree" /></td>
</tr>
<tr>
<td>Alternative 1: Center-Running Streetcar or LRT</td>
<td>$$$</td>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tree" /></td>
</tr>
<tr>
<td>Alternative 2: Running, Both Bus Rapid Transit</td>
<td>$</td>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tree" /></td>
</tr>
<tr>
<td>Alternative 3: Side-Running, Bus Rapid Transit</td>
<td>$$</td>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tree" /></td>
</tr>
<tr>
<td>Alternative 3: Side-Running, Streetcar or LRT</td>
<td>$$$</td>
<td><img src="image" alt="Car" /></td>
<td><img src="image" alt="Tree" /></td>
</tr>
</tbody>
</table>
Locally Preferred Alternative

- Based on screening, side running transit on both sides of S.R. 224 with BRT was the strongest alternative and recommended as the LPA.
- Side running BRT best met the study’s purpose and goals while optimizing the existing Electric Xpress bus service.
- Public feedback supported this LPA recommendation.
- Because the buses would no longer operate in the shoulders of a portion of S.R. 224, the safety, travel time, passenger throughput, reliability and attractiveness of the transit facility would improve.
- The LPA supports local and regional transportation plans for a long-term express transit service strategy on S.R. 224 and offers a strategy that can evolve over time.
- The LPA would have the following approximate costs:
  - Capital cost: $62 million
  - Operating cost: $3 million
LPA: side running transit on both sides of S.R. 224 with BRT
What are the next steps?

- AA report with the LPA recommendation was completed in the spring of 2018.
- Summit County and Park City councils adopted the LPA by resolution earlier this summer.
- Future phases of the project will study the LPA in greater detail.
- Next steps will likely include:
  - detailed ridership forecasting
  - detailed environmental resource impact analysis, clearance and permitting
  - final design