RFTA Planning Department Monthly Update
April 13th, 2017

RFTA Vision Statement
RFTA pursues excellence and innovation in providing preferred transportation choices that connect and support vibrant communities.

RFTA Planning Department Vision Statement
We will work creatively, cooperatively and comprehensively with our partners in the public, private and nonprofit sectors and other groups to create healthy and vibrant communities.

CONTENTS

INTEGRATED TRANSPORTATION SYSTEM PLAN (ITSP) UPDATE 3

UPPER VALLEY MOBILITY STUDY (UVMS) 4

General Findings 4
Cost Estimates 4
Summary Comparison of LRT/BRT 5
Potential BRT Phasing Options 5
UVMS Next Steps 5

GRAND AVENUE BRIDGE (GAB) TRANSIT MITIGATION 6

GLENWOOD SPRINGS 5-YEAR TRANSIT OPERATIONS PLAN (TOP) 7

BATTERY ELECTRIC BUS (BEB) STRATEGIC PLANNING WORKSHOP 8

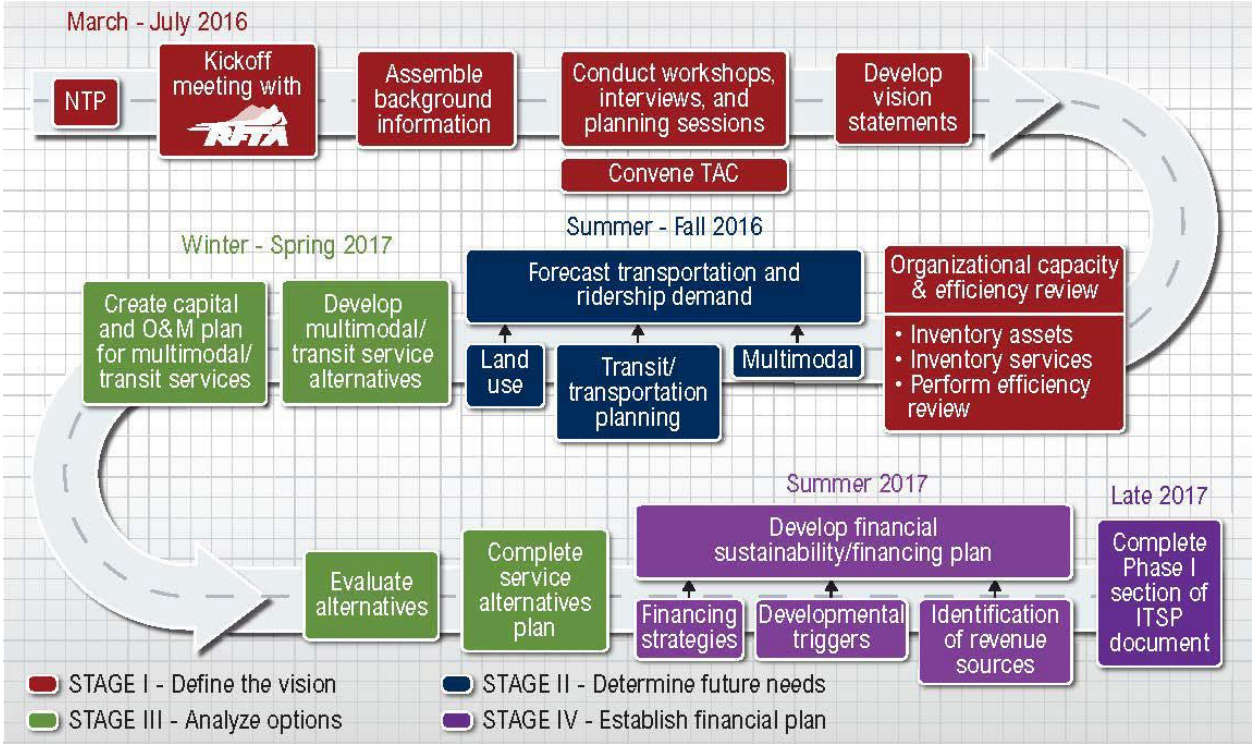
Integrated Transportation System Plan (ITSP) Update

Last year, RFTA and its consultant team Parsons Transportation Group (PTG) initiated the Integrated Transportation System Plan (ITSP), to develop a 20-year transportation vision for the region encompassing Parachute to Aspen.

The ITSP Process is divided into four Stages:

Stage 1 – Define the Vision (Completed in August 2016)
Stage 2 – Determine Future Needs (Completed in March 2017)
Stage 3 – Analyze Options (We are here)
Stage 4 – Establish Financial Plan (Summer 2017)

An outline of the process is illustrated below.



In Stage 1, RFTA met with elected officials, government staff, major employers and others from Aspen to Parachute to discuss long-term transportation goals and priorities. We discovered a lot about people's current and future needs and expectations. This information is captured in the Summary of ITSP Stakeholder Input and the Summary of Transportation Goals, Needs and Priorities – the top 10.

In this stage, RFTA also created an Organizational Capacity and Efficiency Review, an inventory of RFTA's organizational assets, including fleet size, facility capacities and staffing, to

understand what services RFTA is capable of handling today, and how it might adapt to future needs

In Stage 2, RFTA examined population, employment and land use growth data and developed a transit ridership forecasting tool to help RFTA examine the transportation impact of various multimodal transportation alternatives.

Last month, RFTA and PTG initiated Stage 3 of the ITSP: Analyze Options. In this Stage, we are developing scopes and costs of various transportation alternatives and examining their impact on mobility in the region.

Upper Valley Mobility Study (UVMS)

During the ITSP Process, the upper valley governments realized that their transportation issues would require more detailed study than the ITSP was intended to provide. Concurrent with the ITSP process, the Elected Officials Transportation Committee engaged PTG to conduct a comparison of light rail transit and bus rapid transit alternatives between Brush Creek Intercept Lot and Aspen, consistent project definitions outlined in the record of decision.

On March 23, 2017, PTG presented progress on the UVMS to the EOTC. Findings included preliminary service plans, routing and ridership for BRT and LRT, with routing across the Marot easement (including one highway lane in each direction) and two end-of-line station options (Rubey Park or Galena/Main).

General Findings

1. Both LRT and BRT can handle projected ridership
2. Ridership will not differentiate the alternatives

Cost Estimates

Component	LRT	BRT
Base Case Cost Estimate	$428 million	$159 million
Prime Case Cost Estimate	$528 million	$201 million
Operations and Maintenance (annual)	$6 million (with some savings from bus service reductions)	$3.2 million (with some savings from bus service reductions)

Summary Comparison of LRT/BRT

- LRT and BRT ridership is virtually the same
- LRT would reduce number of buses at Rubey Park and improve air/noise quality more than current BRT
- LRT capital cost is more than 2X BRT capital cost
- LRT O&M cost is nearly 2X BRT O&M cost
- Bus service plan refinements would help reduce number of buses and improve efficiency (higher passenger loads)
- Electric buses would improve air/noise quality at Rubey Park
- Phased BRT improvements set the stage for future LRT if desired
- Routing BRT on Marolt easement will save about 2-3 minutes travel time

Potential BRT Phasing Options

- Optimize Service Plan for Buttermilk, Snowmass, BRT and Valley Routes
- Buy electric buses for Buttermilk & Snowmass Village Routes - $ 0.9M each
- Buy electric buses for BRT and Valley Routes - $ 1.3M each
- Continue Replacing Existing Buses with Electric Buses - $ 0.9M each
- Build Preferred Alignment across Marolt Easement w/ New Castle Creek Bridge - $102.6M
- Build Continuous Dedicated Bus Lanes from Brush Creek to Buttermilk - $ 3.4M plus cost to widen
- Retrofit Buses to Autonomous Control - $ 4.9 M plus $ .33 M per Bus retrofit

UVMS Next Steps

- Document analysis results in UVMS Report
- Funding Discussion
- Public open house in Aspen (May)

Grand Avenue Bridge (GAB) Transit Mitigation

RFTA Staff continues to meet regularly with regional partners regarding transit mitigation measures during the Grand Avenue Bridge (GAB) closure; projected for Aug-Oct 2017. As we have reported in previous updates, transit mitigation services include:

- Three new shuttle routes operating within GWS
- Regional SH 82 Corridor BRT & Local buses will take and make transfers to/from Glenwood shuttles at 27th St. BRT Station
- Additional frequency on Grand Hogback routes between Rifle-GWS
- Grand Hogback Route extended to Parachute
- Grand Hogback service FREE during bridge closure
- Additional parking at RFTA West GWS PNR
- Collaboration with Western Garfield County communities on transit overflow parking
- Old pedestrian bridge has been repurposed at 14th St. in GWS
- Expanded public outreach

In Silt, RFTA Staff is negotiating a temporary land lease with Alpine Bank, on the approximately ½ acre, bank-owned parcel in eastern Silt near the Silt Co-op bus stops on SH 6. The Town of Silt is already receiving complaints from Main Street business owners that commuters are taking up downtown parking by trying to park as close as possible to the 7th Street bus stops. The Alpine parcel would be a Plan B option for RFTA in case Hogback ridership increases dramatically and RFTA needs additional overflow parking.

In New Castle, RFTA Staff is exploring two options. One option includes working with the New Castle Center (City Market) parking lot association. RFTA has submitted a parking space site plan to the landowner that proposes striping 40+ new diagonal spaces along the southern curb to provide additional parking options during the GAB closure. RFTA would also install dedicated transit parking signage and work with the Town on some pedestrian improvements at the Castle Valley Boulevard/SH 6 intersection. The second option in New Castle is a possible temporary lease of an empty parcel in front of the existing Alpine Bank, which is just west of the New Castle Center. Staff continues to communicate with both landowners and we will provide updates in future reports.

Unfortunately, plans to expand the existing CDOT Park-n-Ride in Parachute (north of I-70 near the rest area) are no longer being pursued. The Town and CDOT could not reach a financial agreement for either the temporary, or the future expansion plans. The Town continues to consider where the RFTA buses will turn around at the western terminus of the Hogback route. It is likely that RFTA will approach a private landowner near the Parachute Town Hall (south of I-70 on the way to Battlement Mesa) to lease parking spaces and provide a safe bus turnaround.

Glenwood Springs 5-Year Transit Operations Plan (TOP)

The City of Glenwood Springs (COGS) is updating the Ride Glenwood Springs (RGS) 5-Year Transit Operations Plan (TOP), for the period 2017-2021, which was last updated in 2010. The primary goal of this project is to update the City's most recent 2010 Five-Year Transit Operations Plan to better respond to existing conditions and possible changes in travel patterns following the completion of the new Grand Avenue Bridge (GAB). A primary objective of this project is to streamline RGS operations and promote full integration into, and synchronization with, regional RFTA services.

This project will also anticipate future funding availability and needs, ridership trends, and local travel patterns. The results of this project can be used by any public transit agency, but will be particularly useful to small rural transit providers. Operations efficiencies realized from the results of this study can be immediately implemented by RGS staff; note that RFTA can also directly benefit from this plan update as they contract RGS operations with the City and many customers combine both RFTA and RGS services to move throughout the Roaring Fork Valley.

The resulting TOP will be used to:

- understand and determine the community's transit needs;
- ensure service levels are appropriate to existing demands;
- make educated decisions regarding future transit operations, service enhancements, and management and staffing needs;
- assess and obtain funding for transit operations;
- evaluate existing City fixed-route and complementary para-transit service according to consistent performance standards;
- ensure compliance with all federal and state rules and regulations;
- educate the community about transit and other multi-modal travel options; and
- evaluate additional mobility options to relieve traffic congestion.

As a primary stakeholder, RFTA has been participating in monthly coordination meetings. We also attended the first public workshop, held at the Glenwood Springs Community Center on Tuesday April 4th. Approximately 20 citizens were there to casually discuss various elements of local transportation and transit in Glenwood Springs. Comments ranged from the history of the $1 fare for RGWS routes, to the approximate per-rider cost of operating the current service. IBI Group hopes to bring some service alternatives back to the stakeholders in May/June. The study should be completed by the end of 2017.

Battery Electric Bus (BEB) Strategic Planning Workshop

The City of Aspen and RFTA are assessing the feasibility of a Battery Electric Bus (BEB) Program for local Aspen routes, upper valley RFTA routes and possibly more regional commuter routes in the future. Capital costs of electric buses and charging infrastructure are more expensive than diesel or CNG buses; however over a 12-15 year life they have proven to have lower operating and maintenance costs and almost zero emissions from the tailpipe.

In the shorter term, eight (8) 35-40 foot buses are scheduled for replacement in the next 6-18 months. Because these buses operate in the Aspen area on traditional transit routes, Staff believes BEB technology might be a good alternative.

In the longer term, as part of both the Integrated Transportation System Plan (ITSP) and the Upper Valley Mobility Study (UVMS), electric buses are being considered as a possible alternative to Light Rail between downtown Aspen and the Brush Creek BRT Station. Likely more affordable than Light Rail, a BEB alternative could potentially add 30-40 additional electric buses to the RFTA fleet over the next 5-15 years. To consider feasibility in greater detail, a Battery Electric Bus Strategic Planning Workshop will be held on Wednesday May 3, 2017 at the Aspen Institute in Aspen, Colorado.

Aspen and RFTA Staff will use this first workshop as a “fatal flaw analysis” to explore the feasibility of this technology in our mountain resort region with challenging operational parameters. Approximately five BEB manufacturers and other appropriate regional partners have been invited to the workshop. A set of pointed operational and financial questions, along with annual operating data, was shared with the manufacturers. The vendors’ answers will be

used to better guide conversation at the workshop to maximize having all of the expertise in the same room.

It is apparent that Aspen and RFTA will not be able to afford the high upfront costs of the BEB equipment without utilizing significant external grant funding. Depending on the outcomes of the 5/3 workshop, it is likely that RFTA will solicit a RFP to choose one manufacturer to partner with for a FY17 or FY18 FTA Low or No Emissions (Lo-No) grant application; pending federal funding and timing. RFTA is also exploring the leveraging of other State funds (5311, FASTER) and private (VW mitigation funds) to offset Lo-No funding. All of these funding options will be explored in more detail over the next several months.