CENTRAL CORRIDOR TRANSIT STUDY

Utah Transit Authority Utah Department of Transportation

Lehi City American Fork Pleasant Grove Lindon Orem Vineyard Provo Utah County *and* Mountainland Association of Governments



Final Alternatives Evaluation Report

Prepared for Utah Department of Transportation, in collaboration with the Utah Transit Authority

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ACRONYMS

BRT	bus rapid transit
BUILD	Better Utilizing Investments to Leverage Development
CIG	Capital Investment Grants
CRA	Community Reinvestment Area
CRT	commuter rail transit
ESA	Endangered Species Act
FTA	Federal Transit Administration
GIS	geographic information systems
LRT	light rail transit
Μ	million
MAG	Mountainland Association of Governments
NEPA	National Environmental Policy Act
PID	Public Infrastructure Districts
RDA	Redevelopment Agency
RTP	Regional Transportation Plan
SGR	state of good repair
SOV	single occupancy vehicle
SR	State Route
STP	Surface Transportation Program
TAC	Technical Advisory Committee
TIFIA	Transportation Infrastructure Finance and Innovation Act
TOD	transit-oriented development
TRZ	Transportation Reinvestment Zone
UDOT	Utah Department of Transportation
UTA	Utah Transit Authority
UVX	Utah Valley Express
WFRC	Wasatch Front Regional Council





Executive Summary



What is the Central Corridor Transit Study?

The Central Corridor Transit Study evaluated options for providing expanded high-capacity transit service in Utah County, from Lehi to Provo. The purpose of the study is to determine a Preferred Alternative, which identifies the transit alignment (corridor and station areas), and the transit mode (type of transit technology, such as bus rapid transit, light rail). The study brought together the cities of Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, and Provo, and Utah County, in collaboration with Mountainland Association of Governments (MAG), Utah Transit Authority (UTA), and Utah Department of Transportation (UDOT).

The study process consisted of several distinct steps as shown below:

WHAT IS HIGH-CAPACITY TRANSIT?

High-capacity transit carries larger numbers of passengers and provides more frequent and reliable service than a standard bus system. Typically, it serves as a "transit backbone," connecting major destinations within the region, with fewer stops than typical bus systems.

Understand Existing Conditions Purpose and Need

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Develop Initial Range of Alternatives

Initial Screening Level 1 Alternative **Evaluation**

Detailed Screening Level 2 Alternative Evaluation

Select and Further Develop Preferred Alternative

Why is this project needed?

- Accommodating rapid population and employment growth
- 🚔 Increasing roadway congestion and need for reliable transportation options
- Planning for existing development and expected growth with supportive transit infrastructure
- Creating economic development and revitalization opportunities for cities
- Connecting key destinations and employment centers with where people live

What is the Preferred Alternative?

The Preferred Alternative is a new bus rapid transit (BRT) transit route with high-quality service connecting communities and major destinations along a north-south transit spine, generally following State Street from Lehi to Provo, and a branch connecting to Vineyard along 800 North. The Preferred Alternative:

- Provides high-quality transit service to all communities in the study area and connects to key transit-oriented development (TOD) opportunities and transit-supportive land uses, as well as emerging development areas
- Links key destinations and employment centers, including Silicon Slopes, Timpanogos Regional Hospital, and Utah Valley Hospital
- Integrates with the local and regional transit system by providing connections to FrontRunner, UVX, the potential Point of the Mountain transit project, and local bus service



KEY CHARACTERISTICS OF THE PREFERRED ALTERNATIVE



CONNECTIONS TO FRONTRUNNER, UVX, AND POINT OF THE MOUNTAIN







This planning level estimate maximizes the use of dedicated lanes for a high-quality transit project and will continue to be refined as the project undergoes additional analysis and engineering. This detailed analysis will inform tradeoffs that will refine and potentially reduce total project costs.



Operating costs do not include capital, support, overhead, insurance, maintenance, ROW administration, marketing, transit police, customer support, or any other company-wide costs.

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What is high-quality BRT?

BRT is often referred to as "light rail on tires." It offers many features similar to light rail but at a lower cost (light rail is 2-3 times more costly than BRT). BRT is intended to move larger numbers of people efficiently to their destinations.



How was the Preferred Alternative developed and selected?

The study included a multi-step screening process to evaluate alternatives and select a Preferred Alternative. At each step of the process, extensive coordination with project partners and the public helped guide decision making.

LEVEL OF SCREENING		MODE		ALIGNMENT		
 Recommended mode or alignment for subsequent screening Eliminated mode or alignment 	LIGHT RAIL	BRT COMMUTER	RAIL RAIL	STATE STREET	GENEVA ROAD	VINEYARD CONNECTOR I-15
1 Initial Range of Alternatives						
Alternatives:	\checkmark				\checkmark	\checkmark
Pre-Screening: Screen modes and alignments that do not me	et pr	oject pur	pose a	nd/or h	nave fat	tal flaws
V Outcome:	\checkmark	V >	\$ 🗸		\checkmark	XX
3 Initial Screening: High-level evaluation of alternatives						
V Outcome:	X					
4 Detailed Screening: Detailed evaluation of remaining altern	ative	S				
V Outcome:		\checkmark		· 🗸	X	
5 Select Preferred Alternative: BRT; combined portions of Ra	il Co	rridor and	d State	Street	alignn	nents
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How were the public and stakeholders involved?

A robust public and stakeholder engagement program was utilized to provide input and coordination throughout the study. This effort included:

- Ongoing opportunities for education and input through a public website and three targeted public outreach periods to solicit targeted feedback at key milestones
- Coordination with a Technical Advisory Committee (TAC) that provided planning and engineering expertise throughout the process. The TAC was comprised of city and agency staff.
- Coordination with an Executive Committee that provided guidance and decisions at key milestones. The Executive Committee included mayors, city managers, and key agency policy makers



What's next?

The characteristics of the BRT system (exclusive versus mixed flow operations, type of bus vehicle, service frequency, station area amenities, etc.) will be refined in the next phases of project development – environmental review.

PROJECT DEVELOPMENT PROCESS

We Are Here

Planning and Alternatives Analysis

Investigation of Alternatives

Identify Preferred Alternative (Alignment and Mode) Environmental Review NEPA Environmental Study Preliminary Engineering Agency Issues Decision Final Design Final Route and Station Design Property and Right-of-Way Acquisition Funding Secured

Construction

Groundbreaking Testing and Operations

Start of Service

Visit centraltransitutah.com



1. Introduction

1.1 Overview

The Cities of Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, Provo; and Utah County in collaboration with Mountainland Association of Governments (MAG), Utah Transit Authority (UTA), and Utah Department of Transportation (UDOT) have completed a transit study that evaluated options for providing expanded high-capacity transit service in Utah County, from Lehi to Provo. The purpose of the study was to determine a Preferred Alternative that can be advanced into the next phase of project development – environmental study and preliminary engineering (Figure 1-1). The Preferred Alternative identifies the transit alignment (corridor and locations to be served) and the transit mode (type of transit technology, e.g. BRT, light trail transit).

PROJECT DEVELOPMENT PROCESS



Figure 1-1. Project Development Process

The study process consisted of several distinct steps, including establishing the project context, determining the Purpose and Need for the proposed improvement, identifying and evaluating alternatives, and recommending a Preferred Alternative (Figure 1-2). Coordination and involvement with affected jurisdictions, stakeholders, and the public occurred throughout the process.



1.2 Study Context

According to MAG¹, the regional planning agency for Summit, Utah, and Wasatch counties, by 2050 Utah County is expected to double in population – adding over 660,000 more people and surpassing 1.3 million people. This population would be slightly larger than the current day population of Salt Lake County. This equates to 100 percent growth and is more than double any other Wasatch Front county. During this period, Utah County's growth will be larger than the other three Wasatch Front counties combined. By 2065, Utah and Salt Lake counties will nearly be the same size.

Thus, it is important to plan for this growth in a proactive and appropriate manner. Maintaining reliable and efficient mobility, including offering mobility choices, are key to fostering a positive quality of life. This high-capacity transit service is just one potential option to serve the needs of the increased population.

1.3 What is High-Capacity Transit?

High-capacity transit carries larger numbers of passengers and provides more frequent and reliable service than a standard bus system. Typically, it serves as a "backbone", connecting major destinations, within a region. A number of features can be used to help accommodate more passengers and reduce travel times. It can operate in exclusive right-of-way (out of traffic) or on existing streets. High-capacity transit service typically features modern vehicles and enhanced station areas, off vehicle fare collection to allow for faster boarding, and signal priority at intersections.

Table 1-1 compares the three primary types of high-capacity transit considered: BRT, light rail transit (LRT), and commuter rail transit (CRT). For this effort, high-capacity transit is needed that serves both regional and local trips.

Table 1-1. High-Capacity Transit Modal Options

	BUS RAPID TRANSIT	LIGHT RAIL TRANSIT	COMMUTER RAIL TRANSIT	
Trip Types	Local and regional	Local and regional	Regional	
Operating Environment	Exclusive right-of-way or mixed traffic along arterial streets or highways ^a	Exclusive right-of-way within arte- rial streets or in dedicated right- of-way separate from streets	Separate right-of-way	
Typical Spacing of Stops	1/2 - 1 mile	1 mile	4-5 miles	
Typical Peak Frequencies	5-10 minutes	15 minutes	30 minutes	
Passenger Capacity per Vehicle	60-90 per bus	180-200 per car ^b	100-200 per car ^b	
UTA Example				



a - BRT has the greatest flexibility in operating environment. In addition to functioning in a typical street environment, it can also operate along highways, including in high-occupancy vehicle (HOV) lanes.

b - Multiple LRT and CRT vehicles can be linked to create a longer train, moving a higher capacity of passengers per trip.

¹ Mountainland Association of Governments. TransPlan50, 2019-2050 Regional Transportation Plan



1.4 Study Area

Figure 1-3 illustrates the general study area boundary. It spans from Lehi to Provo in a northsouth manner, generally following the I-15 and FrontRunner corridors. This is a narrow area of study, located between Utah Lake and the Wasatch Mountains, which form a natural area of constraint.



Figure 1-3. Study Area



2. Existing and Planned Conditions

This section includes a discussion of existing and planned conditions in the Central Corridor study area, including major roadway conditions, existing transit services and facilities, other multimodal travel, land use, socioeconomics, and environmental constraints.

2.1 Transportation Conditions

2.1.1 Roadway Network

Existing Roadway Conditions

Currently, I-15 forms the primary north-south connection in the area, supplemented by both State Street – which spans most of the study area – and Geneva Road, which forms a secondary north-south connection in the central and southern portions of the study area. These corridors currently see some of the heaviest traffic volumes in the county. MAG is planning to expand Utah County's grid network with an additional 1,000 miles of new lanes, which can remove localized trips from I-15, State Street, and Geneva Road, thereby reducing congestion throughout.

Future Roadway Conditions

In the MAG Regional Transportation Plan (RTP), traffic modeling was conducted to understand level of service on roadways in the future both with and without implementation of planned projects. By 2050 with no roadway improvements in place, severe congestion will occur on I-15, along with several connector arterial roadways in the study area (Figure 2-1).

By 2050, with the proposed growth, overall travel delay in Utah County will be 7 times worse than today.

(MAG TransPlan50)

Even with build out of the underlying arterial grid network and planned improvements, congestion still remains on I-15 in the PM peak period as the freeway reaches capacity. Thus, additional travel options are warranted. As part of the long range planning effort, modeling was conducted on various new highway facilities (e.g., west The study area includes a variety of choices for travel, from local streets and buses to highways and commuter rail (FrontRunner). As population growth increases, however, the demand for these facilities will increase and contribute to congestion, increased travel times, and unreliable transit.



side corridor, Utah Lake crossing, etc.), with the greatest need being for additional north-south travel choices east of the lake. High-capacity transit is one feasible option to fulfill this need. A benefit of building out the underlying grid network is creating more direct paths and options for transit implementation.

Future planned and programmed roadway projects include strengthening the core arterial network in the study area, including several widening and operations improvements. Key new construction projects that will improve connectivity within and to the region include the Point of the Mountain Connector, Vineyard Connector, and capacity improvements to State Street and Geneva Road. Most new construction projects are adding north-south capacity (new facilities, added lanes) through the study area to points north and south, reinforcing the projected north-south travel demand in this area.

2.1.2 Transit Services

Existing Transit Services

The study area is currently served by FrontRunner (commuter rail transit), UVX (BRT), and several local bus routes. The FrontRunner





Figure 2-1. 2015 Congestion (left); 2050 Congestion with Planned Projects and Arterial Grid Network (right))Source: MAG TransPlan50)

route generally parallels I-15 and includes four stops within the study area (Lehi, American Fork, Orem, and Provo), with a planned station in Vineyard (service anticipated to start in 2021). The route generally has 30-minute headways (frequencies) during peak travel periods.

UVX is the only BRT route in the study area, connecting Orem and Provo. The route includes 18 stops, with 3 located near the Brigham Young University campus. This route connects to two FrontRunner stations (Orem Central Station and Provo Central Station. The UVX line maintains frequent service throughout most of the day (6-minute headways), with 10- to 30-minute headways in the early morning and late evening.

The most notable local route is Route 850, which traverses State Street throughout the study area (Lehi to Provo), connecting most of the study area community centers. It has 15-minute headways during most of the day, and 164 designated stops. Route 850 has the highest ridership of all local bus routes in the study area.

Future Transit Services

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Proposed transit improvements programmed in the MAG TransPlan50 2050 RTP within the study area include an extension of light rail to Lehi and American Fork from Salt Lake County; central light rail from American Fork to Orem; and the State Street BRT corridor connecting the American Fork commuter rail station to UVX. FrontRunner stops in Orem and Provo are in the top five highest boarding stations system-wide.

Ridership on the UVX bus route rivals ridership on the Green Line TRAX on major event days at Utah Valley University and Brigham Young University.



Implementation of the UVX BRT service increased ridership by five times what the existing bus route 830 was experiencing.



2.1.3 Non-Motorized Travel

Utah County municipalities have embraced non-motorized transportation as integral to improving air quality, reducing congestion, and lowering travel costs. These options are ideal for shorter trips, typically under two miles, which support transit very well as choices for "first/ last mile connections" – how a traveler gets to/ from their final destination from a high-capacity transit route. Non-motorized travel, also known as active transportation, includes sidewalks, multi-use paths, trails, and on-street bike lanes.

Almost all study area communities have adopted an Active Transportation Plan to further nonmotorized travel in their community, with many planned improvements oriented toward connecting to the transit system, including UVX and FrontRunner, which allows a traveler to significantly extend their trips by transferring between modes.

2.2 Land Use and Socioeconomic Conditions

2.2.1 Land Use and Growth

Existing Land Use and Zoning

The existing land use throughout the Central Corridor Study Area varies between each community. Overall, the primary land uses within each community are generally low density, single-family residential development. A large number of schools, churches, and parks are dispersed through each community, with commercial, retail, and industrial land uses focused along major arterial thoroughfares and I-15. This land use pattern follows a typical suburban development pattern.

Zoning categories in each study area community are fairly consistent, allowing for careful

organization and development of land uses in a compatible manner. Planning ahead for potential transit implementation, most communities include a transit-oriented development (TOD) overlay zone, allowing for denser, more compact development around transit corridors and/or stops with the intent to create a cohesive mixture of land uses.

Planned Land Use

Bound by Utah Lake to the west and the mountains to the east, future development in this area of Utah County will be focused on infill and redevelopment opportunities. Figure 2-2 displays generalized planned land uses from each community.

Typically, TOD encourages more pedestrian activity, with a higher emphasis on retail, restaurant, employment, hospitality, entertainment, and high-density residential uses.

Overwhelmingly, much of the study area is expected to develop out into residential development, with small clusters of commercial development at major roadway intersections. The State Street corridor is planned mostly as commercial development, with nodes of mixed use near community centers. The Geneva Road corridor is similar, although with a greater portion of industrial land uses expected to remain. Vineyard is expected to see the greatest amount of new growth and redevelopment. Office and business park development, which typically draw employees from a broader geography, are located mostly along the I-15 corridor, with other pockets throughout the study area communities.



MAG staff conducted a network analysis of all the stations for FrontRunner and for UVX to understand where connections and gaps between active transportation facilities and fixed transit centers existed. Filling those was a significant component of selecting TransPlan50 projects.

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The I-15 corridor in northern Utah County is planned to become a major employment center, named "Silicon Slopes" for the high-tech industry the region is attracting.



Growth Areas

Wasatch Choice 2050 is a vision shared by regional communities for transportation investments, development patterns, and economic opportunities, including anticipated areas of growth and development. Within the study area, most of the centers are located along the three primary north-south transportation corridors: I-15, State Street, and Geneva Road. The highest density centers (urban centers) are concentrated along State Street in Lehi, Orem, and Provo, with city and neighborhood centers located in Lindon, Pleasant Grove, American Fork and a planned urban center in Vineyard. Three large education centers are located in the southern portion of the study area, with large

An active project in the study area, the Vineyard RDA area (@geneva) encompasses the former Geneva Steel site. Major environmental remediation efforts were undertaken to transform this 1,700 acre site into a regional mixeduse development, anticipated to become the new town center of Vineyard. Utah Valley University will have a presence at @geneva, including relocation of its special events center, a new soccer stadium, administration buildings, classrooms, and a convention center.

"By 2025, @geneva is expected to have over 26,000 residents, contributing significantly to Vineyard's expected population of 50,000 by 2030. It will also employ about 20,000 people—five times the number that was employed at Geneva Steel during its peak."



- Stewart Park, project manager for @geneva

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tracts of industrial employment along Geneva Road.

2.2.2 Socioeconomic Analysis

Population and Employment Growth

Population growth in Utah County has been steadily increasing, rising by 40 percent each of the last two decades, and is the fastest growing county in the state (MAG TransPlan 2050). More recently, the Provo/Orem area was the fourth fastest growing metro area in the country with the population now exceeding 630,000. By 2050, Utah County will double in population, rivaling the population of Salt Lake County. Current and projected population and employment are presented in Table 2-1 for the state, Salt Lake and Utah counties, and within the study area.

In 2050, population densities in the study area are highest along the State Street corridor, particularly, in Pleasant Grove, Orem, and Provo, along with clustered growth in Vineyard. Employment is more focused along the I-15 corridor.

In response to projected growth, the state and county have invested nearly \$4 billion in highway and rail projects to ease congestion and create better connectivity within the region.

(MAG TransPlan50)

2.3 Environmental Considerations

A high-level environmental review using readily available data was completed to build awareness of major constraints or fatal flaws that may impact the feasibility of broad corridor alternatives. A more detailed and exhaustive inventory of potential environmental resource impacts will be undertaken during National Environmental Policy Act (NEPA) studies.

Utah Lake is a large constraining water feature to the west and south, and to the north and east are large-scale mountain ranges – creating a narrow strip of developable land in northern and central Utah County. Because of this, major drainage patterns form in a southwest nature, and many stream and wetland flows are funneled to crossings beneath I-15 to manage drainage conditions on the freeway.

The study area has a high concentration of community facilities, including educational facilities, civic operations, medical facilities, and cultural/recreational facilities. In general, these features are dispersed throughout the area, however there is a likelihood for historic features being located along State Street, which serves as the "main street" for many study area communities.

Air quality in particular pollutants that exceed National Ambient Air Quality Standards, are of concern along much of the Wasatch Front. The project area lies within non-attainment areas for PM10 and PM2.5, with the very southern area of the corridor in a maintenance area for carbon monoxide. Major sources of carbon monoxide and PM10/PM2.5 include vehicular emissions, service stations, and resuspension of dust.

	Р	OPULATIO	Ν	EMPLOYMENT		
	2019 2050 % Change			2019	2050	% Change
State of Utah	3,260,765	5,017,232	54%	2,113,031	3,214,743	54%
Salt Lake County	1,164,057	1,531,282	32%	948,858	1,341,790	41%
Utah County	661,286	1,297,515	96%	365,174	689,992	89%
Study Area	256,268	395,522	54%	204,984	310,356	51%

Table 2-1. Estimated Population and Employment Growth^a

a - University of Utah's Kem C Gardner Policy Institute. July 1, 2017. Long-term Demographic and Economic Projections.

3. Public and Stakeholder Engagement

A robust public and stakeholder engagement program was established to provide input and coordination with project partners throughout the study. This section summarizes public outreach efforts as well as coordination with stakeholders. A full list of all project activities and comments can be found in Appendix A Public Involvement Report.

3.1 Public Involvement

Public outreach was organized into three phases throughout the study, to solicit targeted feedback at key milestones. Various outreach methods and tools were used to reach a wide audience, including social media, a public-friendly website, news media articles, a telephone hotline, various commenting methods, including interactive maps and two online public meetings.

3.1.1 Phase One

Phase One of the Central Corridor Transit Study public outreach component focused on gathering input related to the purpose and need of the study. The first comment period began in February 2020 and ran through May 2020.

The study website received 3,361 pageviews visits through social media, traditional media, and city newsletter content that pushed readers to the site for more information about the study. An additional comment form requesting input on the purpose and need for the transit study was located on the study website.

Social media content was developed and distributed to the partnering cities and agencies, resulting in 15 posts from six of the seven cities as well as from UTA and UDOT. In addition, two news outlets and two city newsletters published online stories about the study, garnering more comments and views.

From February 20, 2020, through May 22, 2020, the study team received 123 comments through the interactive web map, email, and phone hotline. Comment themes from this comment period included:

Purpose and Need (3 Comments)

Comments received highlighted the benefits of transit on reduced air pollutants and an

improved overall quality of life; future economic growth and social function within Utah Valley; and increased mobility, specifically for local university students and professors.

State Street Alignment (15 comments)

Comments received expressed support of the State Street alignment option because it would enhance access and mobility to popular destinations such as the Utah Valley Convention Center, Utah Valley Hospital and University Place Mall. Additionally, commenters stated this alignment would alleviate traffic that tends to build up on State Street through Thanksgiving Point. Several supporters stated that a BRT line was their preferred mode because it would enhance safety, mobility and connectivity.

Other comments regarding the State Street alignment included concern for property values along the route and increased taxes to pay for the transit improvement.

Geneva Road Alignment (2 comments)

Supporters of the Geneva Road alignment option felt that this transit route would significantly cut down on the use of their personal vehicles. Others were concerned about the increased traffic and noise near their homes on Geneva Road as well as tax increases to support the study.

Vineyard Alignment (3 comments)

Feedback on the Vineyard alignment included the sentiment that it would attract the most riders due to the high level of businesses on the west side of the interstate and a growing population. Other comments highlighted the direct connection from Pioneer Crossing to Geneva Road as being a significant benefit.

Rail Corridor Alignment (4 comments)

Many of the comments in support of the Rail Corridor alignment also suggested implementing a shuttle system for added mobility, stating a need for high-frequency transit with runtimes every five to 15 minutes for increased convenience. Some comments suggested altering the Rail Corridor alignment to shift north of State Street or east of State Street where the majority of residents are located. Comments also expressed concern about the amount of improvements that would need to be made to the Union Pacific Railroad to make the alignment a viable and safe option.

Other Comments (64 Comments)

Some feedback did not fall within the categories above. Those topics include:



- Current traffic congestion
- Increased active transportation
- General approval/disapproval of transit

Out-of-Scope (32 Comments)

Several comments did not fall within the current study initiative, including protected bike lanes, city street improvements and traffic signal timing.

3.1.2 Phase Two

The Phase Two public outreach period focused on gathering public input related to the three alternative routes under consideration. The second phase began in June 2020 and ran through September 2020.

The study website received 2,906 pageviews visits through social media, traditional media, and city newsletter content that pushed readers to the site for more information about the study. An additional comment form providing a project update and requesting feedback on three alternatives was provided on the study website.

Social media content was developed and distributed to the partnering cities and agencies, resulting in 11 posts from six of the seven cities, as well as from UTA and UDOT.

From June 1, 2020, to September 30, 2020, the study team received another 125 public comments through the interactive web map, email, and phone hotline. A breakdown of the comments by topic is provided below.

State Street Alignment (50 comments)

Public comments in this phase showed strong support for a State Street alignment. Additionally, many of the comments addressed the diversion of the route along State Street to connect North County Boulevard in Pleasant Grove to the State Street route. Many comments in this category mentioned support of BRT as the mode proposed in the study. Finally, several comments advocated for including a Lindon connection.

Other Alignment (29 comments)

A common theme was the need for more eastwest connections. Specifically, comments referenced a connection between Bulldog (Cougar Boulevard) and 100 North, Pioneer Crossing, 850 East and Vineyard. Other comments mentioned additional FrontRunner stations and connectivity. Several comments requested a FrontRunner North Orem Station and a tie into the FrontRunner Lehi Station. Within this category, there were comments in opposition to the BRT mode. Many felt that the current UVX route had disturbed traffic flow and the current demand on the UVX line did not justify the extension of BRT proposed by this project.

Rail Corridor Alignment (15 comments)

Comments in support of the Rail Corridor Alignment mentioned that this route would be preferable due to its proximity to dense residential areas. With close proximity to residences, many felt this would be the best option for commuters. Comments commonly requested a tie-in to Pioneer Crossing. Comments mentioned the importance of a FrontRunner tie-ins, which was a repeating theme from other comment categories. Lastly, those who favored this route expressed concern about overcrowding and heavy traffic on State Street.

Geneva Road Alignment (16 comments)

Comments under this category referenced the importance of including east-west transit options in Utah County, especially prevalent in this category was the request for a Vineyard tie-in. Comments specifically called out the 800 North corridor and the connection it brought to Vineyard and west Orem.

Stop Recommendations (9 comments)

Recommendations for stops included:

- NuSkin
- Utah Valley Hospital
- Cougar Boulevard
- Utah Valley University Convention Center
- Silicon Slopes
- Bulldog Boulevard
- Freedom Boulevard
- 500 West

Out-of-Scope (6 comments)

Several comments did not fall within the current study initiative, including UTA route timing and frequency and improvements outside of the study area.

3.1.3 Phase Three

The Phase 3 outreach period focused on gathering input related to the Preferred Alternative and publicizing the upcoming online public meetings. The second phase began in October 2020 and ran through November 2020.



The study website received 5,171 pageviews visits through social media, traditional media, and city newsletter content that pushed readers to the site for more information about the study. An additional comment form providing a project update and requesting feedback on Preferred Alternative was provided on the study website. Additionally, updates were made to the FAQ page to provide additional study data to the public.

Social media campaigns were developed and distributed to partnering cities and agencies to notify the public of the release of the Preferred Alternative route, the promotion of the online public meetings and a final push for public comments before the end of the study. In total, 40 posts were shared via Facebook and Twitter from all seven participating cities, as well as from UTA and UDOT. In addition, three news outlets and two city newsletters published online stories about the study, garnering more comments and views.

Two online public meetings were held via Zoom on Monday, October 26, from 6-7 p.m. and Thursday, October 29 from 7-8 p.m. The purpose of these online public meetings was to provide an overview of the study and allow for the public to ask questions and receive answers from the project team in "real-time." 57 people attended the online public meetings.

There were 157 public comments received between October 1 and November 13, 2020. Comments were collected using the interactive GIS comment map, email and hotline. Key themes heard during this public comment period included:

Preferred Alternative (53 comments)

The majority of comments supported the preferred alignment along State Street and felt that a BRT line from Lehi to Provo was a net benefit. Comments mentioned that an expanded BRT route would increase rider utilization and be beneficial to a broader transit audience. Concerns were raised regarding road construction and the impacts to residents and drivers and overcrowding on State Street.

Other Alignments (26 comments)

Comments advocating for previously presented alternatives were included in this category. The previous alignment that received the most comments was the Geneva route. Comments recommend a direct route through Pleasant Grove and Vineyard. This category captured overall support for the State Street route emphasizing that State Street is most central to population and business dense areas.

Additional Connections to FrontRunner (24 comments)

Comments questioned the exclusion of connections of the Preferred Alternative to the Lehi and American Fork FrontRunner stations. Comments were concerned that excluding these connections would decrease and disincentivize ridership were raised. Lastly, future tie-ins at 800 North and State Street, Draper FrontRunner, and Mountain View Corridor were suggested.

Out-of-Scope (14 comments)

Several comments did not fall within the current study and comment period initiative, including improvements outside of the study area, population densities required to support transit, route frequency and timing, street parking,



Executive Committee 850-UVX Bus Tour



flyover bridges at major intersections, and traffic constraints attributed to the UVX line.

Stop Locations (12 comments)

Recommendations for stops included:

- 800 North
- Utah Valley Hospital
- Riverside Avenue
- Cougar Boulevard
- Freedom Boulevard
- Pioneer Crossing
- Main Street, Vineyard
- 500 West

In this category there were also suggestions to connect FrontRunner stations to the Preferred Alternative throughout the corridor.

Other (22 comments)

The other category captured comments related to increased traffic on State Street with the extension of a BRT route, future connections to the Point of the Mountain and other FrontRunner stations, alternative solutions to current transit issues, and clarification on the proposed mode.

Active Transportation (4 comments)

Active transportation users advocated for prioritizing space for bike lanes and landscaping in the final design. Comments emphasized that State Street is hazardous for bicyclists currently,

Table 3-1. TAC and Executive Team Meetings Summary

and asked that any plans account for increased bike accessibility along State Street.

Funding (2 comments)

Two comments expressed concern over taxpayer dollars being allocated to the project. Both comments compared the study to the current UVX line and included criticism regarding usage of the UVX line and the feeling that it has increased traffic on State Street.

3.2 Stakeholder Engagement

To keep project partners and constituent To keep project partners and constituent cities engaged throughout the study process, a Technical Advisory Committee (TAC) and Executive Committee were established to coordinate with jurisdictions and agencies throughout the planning process. The TAC was comprised of technical planning and engineering staff from UDOT, UTA, MAG, and all participating cities (Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, and Provo) and provided technical feedback and recommendations on decision making to the Executive Committee at key milestones. The Executive Committee was comprised of Mayors, City Managers, and key agency policy makers that provided guidance throughout the process and made decisions at key milestones. The meeting schedule of both the TAC and Executive Team is summarized in Table 31.

Date	Meeting Purpose				
Technical Advisory Committee					
December 4, 2019	Project kickoff				
January 27, 2020	Purpose and Need, Level 1 evaluation criteria				
March 5, 2020	Level 1 alternatives evaluation and recommendation				
July 28, 2020	Level 2 alternatives evaluation review and Preferred Alternative recommendation				
Executive Committee					
November 8, 2019	Project kickoff and 850/UVX tour				
February 10, 2020	Purpose and Need, Level 1 evaluation criteria				
May 21, 2020	Level 1 alternatives evaluation review and recommendation				
September 24, 2020	Level 2 alternatives evaluation review and Preferred Alternatives recommendation				
November 9, 2020	Preferred Alternative recommendation				
January 13, 2021	Finalized Preferred Alternative, project wrap-up				

In addition to TAC and Executive Committee meetings, the study team also met with cities individually at three distinct points (project kickoff, prior to Preferred Alternative Recommendations, after detailed analysis of Preferred Alternative).



4. Purpose and Need

A project's purpose statement defines the objectives to be achieved. A project's need describes the underlying problems or conditions that the project should address. If a major transit project seeks potential federal or state funding, a Purpose and Need statement is required under federal environmental regulations. The statement is used to help guide decisions about alternatives that should be considered and helps measure their performance.

The Central Corridor Transit Study Purpose and Need was developed through an iterative and collaborative process and informed by an understanding of the study area context, as presented in the inventory of existing and future conditions.

4.1 Project Need

4.1.1 Roadway Congestion

Need: Roadway congestion is increasing on I-15 and major arterials in Utah County, affecting reliability (i.e., increased travel times and delay) for transit and vehicles.

Transit investments are one solution in the toolbox. Not everyone needs to ride transit to see overall success; diverting some trips to transit reduces congestion on the roads, benefiting everyone. Shifting more trips from single-occupancy vehicles to transit increases the capacity of the transportation system to serve travel demand.

By 2050, with planned roadway improvements in place, including build-out of the underlying arterial grid network, severe congestion will still occur on I-15, along with several connector arterial roadways in the study area. Arterialto-arterial intersections will be extremely constrained. Thus, additional alternatives to vehicle travel are warranted in the study area. 4.1.2 Limited Locally-Serving High-Capacity Transit Options

Need: Limited locally-serving northsouth high-capacity transit options exist to meet existing and future transportation demands in northern and central Utah County.

High-capacity transit carries a larger volume of passengers, using larger vehicles and/or more frequent service than standard fixed route bus service. It provides local service, stopping every one-half to one mile, with a goal to provide faster, more convenient, and more reliable service. High-capacity transit is one solution to address growth in travel demand.

While existing study area transit services provide several options for transportation choices to residents, only FrontRunner and local Route 850 provide north-south service through the study area - but at vastly different service options. FrontRunner serves longdistance trips, only stopping every 5+ miles and at limited frequencies. Route 850 serves local trips, stopping very frequently and therefore experiences slower travel times. UVX mostly serves east-west trips. Thus, a high-capacity transit facility, with service options between commuter rail and local bus, that serves northsouth trips is missing.

4.1.3 Rapid Population and Employment Growth

Need: Long-term population and employment growth in the study area is forecasted to be substantial and as a result will require additional and robust transit options to meet the forecasted demand.

Population and employment are forecast to grow significantly in Utah County over the next few decades, which will create additional

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transportation demand in the geographically constrained area. This growth will arrive incrementally – not all at once – and therefore the changes incurred will build on another and not necessarily be noticeable until they pose a problem. Appropriately planning and preparing for growth allows communities to accommodate growth when/if it comes in a context-sensitive manner, helping cities maintain community cohesion and compatibility.

By 2050, Utah County will nearly double in population, rivaling the population of Salt Lake County. Population densities in the study area are expected to be highest along the State Street corridor, particularly, in Pleasant Grove, Orem, and Provo. The Vineyard town center is also expected to see high concentration of residential development. Employment is more focused along the I-15 corridor; however, dense clusters of employment growth will also encompass both the Geneva Road and State Street corridors in 2050.

4.1.4 Transit-Oriented Land Uses

Need: Local and regional plans call for increased residential, commercial, and employment center development locatedinareasserved by high-capacity transit and multi-modal transportation systems. Local and regional future land use plans would not be adequately served by the existing transit network.

Density plays a key role in driving ridership: the more people located close to a transit stop, the more potential for increased transit ridership. As population grows, residents need a robust transportation network to access their homes and workspaces. Focusing opportunities for residential and employment growth around transit benefits residents, the community.

Currently, the existing primary land uses within each community are generally low density, single-family residential development with commercial, retail, and industrial land uses focused along major arterial thoroughfares and I-15. The mix and density of existing uses is not always advantageous to high-capacity transit. However, nearly each community has some plans for TOD, from established TOD overlay zones and zoning, or general plan goals to adopt future TOD policies.

4.1.5 Redevelopment Opportunities

Need: Local plans call for transit investments to catalyze economic development and redevelopment opportunities.

Development surrounding transit can create dense, walkable communities that greatly reduce the need for driving. By promoting development opportunities that create economic and pedestrian activity around transit stations, communities can capitalize on enhanced transit service as an opportunity to catalyze development and redevelopment.

This has already been seen in study area communities like Orem and Provo, and is a goal for other communities, like Lehi, American Fork, Pleasant Grove, and Vineyard, whose longrange planning documents include goals and strategies to revitalize/redevelop city center areas in tandem with creating more walkable communities and including more transit service options.

4.2 Project Purpose

Based on the identification of needs in the study area, the following purpose statements describe the objectives to be achieved by this project.

The project purpose is to:

- Provide a context-sensitive high-quality, reliable, efficient, and frequent highcapacity transit service to communities in northern and central Utah County that improve mobility and provide an alternative to driving for both local and regional trips
- Create a north-south transit spine in northern and central Utah County that connects to the existing and planned multimodal transportation network (including FrontRunner, local bus, UVX, bicycle, and pedestrian)



- Appropriately support the long-range transportation demands of planned growth in population and employment in northern and central Utah County
- Support adopted land use and economic development plans and policies of the Central Corridor communities and region
- Improve access and mobility between existing and planned centers and development areas

In addition, and while not fundamental to the purpose, there are several other desirable outcomes of this investment. Project partners seek a project that:

- Is a fiscally-responsible capital and operations investment
- Has flexibility to be phased to accommodate existing and future transportation needs
- Supports local and regional efforts to improve air quality
- Minimizes adverse impacts to the natural and built environment and community character

5. Definition of Alternatives and Evaluation Criteria

5.1 Initial Range of Alternatives

A series of meetings were held with project stakeholders to generate the broad range of corridor alternatives to be assessed during this study, including the TAC, Executive Committee, and individual cities. In addition, the study team referenced previous plans and recommendations to understand what has been proposed in the past based on existing and future land uses and the planned transportation network. Figure 5-1 illustrates the five corridor alternatives developed, all beginning in Lehi, and ending at the Provo FrontRunner station:

• Rail Corridor: beginning east of I-15 in Lehi, generally following a UTA rail corridor through Lehi, American Fork, Pleasant Grove, Lindon, Vineyard, Orem, and Provo. Note that while this alternative follows an actual railroad track, right-of-way exists to consider all modal options, including both LRT and BRT.

- **State Street:** beginning west of I-15 at FrontRunner Lehi station, generally following State Street throughout the study area, with a diversion on North County Boulevard in Pleasant Grove.
- Geneva Road: same as State Street alternative through Pleasant Grove, uses Geneva Road to connect to 800 North in Orem and connect back to State Street.
- Vineyard Connector: similar to the Geneva Road alternative, but uses the proposed Vineyard Connector route south of Lehi to connect into Vineyard.
- I-15: co-located on I-15 throughout study area.

Additionally, and independent of corridor alignments, the Purpose and Need identified three high-capacity transit modes as possible options to implement within this corridor:

- BRT
- LRT
- Commuter Rail

5.2 Evaluation Criteria

This study process included a two-tiered evaluation screening, with both the Level 1 and 2 screening including multiple quantitative and qualitative measures that correspond with the Purpose and Need, as well as additional planningrelated factors such as potential impacts to sensitive environmental resources. The intent is that the Level 2 screening will provide more detailed outputs than Level 1. The evaluation criteria is presented in Table 5-1.





Figure 5-1. Initial Range of Alternatives





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Table 5-1. Evaluation Criteria

Transportation Challenge/Need	Purpose Statement(s)	Evaluation Criteria	Level 1 Measures	Level 2 Measures		
GOAL: Improve Transportation Mobility and Access with Anticipated Growth						
 Northern and central Utah County is growing rapidly, and the street/highway network will not be able to serve increased traffic; robust transit options will be required to meet the forecasted demand Roadways are becoming more congested and travel times are unreliable 	 Appropriately support the long-range transportation demands of planned growth in population and employment in northern and central Utah County that improve mobility and provide an alternative to driving for both local and regional trips Create a transit spine in northern and central Utah County that connects to the existing and planned multimodal transportation network 	Transit Ridership Potential	• Current and future population and employment in proximity to transit (0.5 mile buffer)	 Daily and annual projected ridership (2019 and 2050) and station boardings 		
		Transit Network Integrity and Reliability	 Ability to accommodate transit operations within the street 	 Potential effects on existing planned traffic operations, including freight (truck and rail) Transit reliability Travel time 		
		Active Transportation Accessibility	 Accessibility of station area to major existing/ planned bicycle and pedestrian facilities 	 Station area accessibility (walking or biking) 		
GOAL: Support Land	d Use and Economic Devel	opment Plannin	g			
 Local plans call for transit investments to catalyze economic development opportunities and desire for planned growth to occur in areas served by high- capacity transit 	 Support adopted land use and economic development plans and policies of the Central Corridor communities and region Improve access and mobility between existing and planned centers and development areas 	Community Compatibility	 Compatibility of alignments with adjacent existing land use 	 Zoning policies that allow for mixed- use development, transit overlay zones, development oriented toward the street, and/or incentives for development supportive of transit 		
		Station Area/TOD Development Potential	Presence of factors that drive TOD development	 Development potential/ redevelopment susceptibility (vacant or underutilized areas) 		
Supporting Objectiv	'es					
	 Is a fiscally-responsible capital and operations investment 	Cost Considerations	Order of magnitude costs	 Capital cost estimate Operating cost estimate State of good repair considerations 		
	 Has flexibility to be phased to accommodate existing and future transportation needs 	Constructibility Considerations	 Consideration of potential constructibility risks (major utilities, transportation infrastructure) and flexibility to accommodate phased construction 	 Potential conflicts with major utilities, structures, or other transportation infrastructure; unique construction challenges 		
	 Minimizes adverse impacts to the natural and built environment and community character 	Environmental Effects	 Potential impacts on environmental resources 	 Assessment of environmental risk to key resources (water, ESA, Section 4(f), historic resources, hazardous resources) Estimated levels of property impacts 		
	 Supports local and regional efforts to improve air quality 	Potential for Air Quality Improvements	 Potential for reduction in single occupancy vehicle (SOV) trips, increase in transit trips 	 Reduction in vehicle miles traveled 		

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6. Level 1 Screening

6.1 Pre-Screening

Pre-screening is used to ensure alternatives meet the project's Purpose and Need, and to eliminate alternatives that clearly do not address it, or that are addressing other problems. Input was solicited from stakeholders to refine corridor alignments, assign station locations correctly, and confirm if the alternative (corridor and modal options) satisfies the project's purpose. *Feedback received screened out one modal option and two corridor options.*

- Commuter rail was eliminated from further modal consideration because it does not meet the Purpose and Need elements of providing local connectivity and fostering community goals related to land use and economic development. Additionally, commuter rail service exists through the study area and this would be duplicating services and ridership capture.
- I-15 • The corridor alternative was eliminated from further consideration, as it would not easily serve local trips (similar to FrontRunner service), does not serve local land use/economic development planning, is not conducive to connecting to the local multimodal network (pedestrian/ bicyclists), and could actually take away capacity from I-15. An I-15 alternative would require a transfer to access destinations within the local communities, adding actual/perceived time and effort, which can be a detriment to ridership.
- The Vineyard Connector corridor alternative also screened out was because there is not enough assurance that the new roadway corridor would be constructed in the future and that there would be adequate right-of-way and transit supportive land-use. Without this transportation connection, this corridor is not a viable option. In addition, the alignment on the west side of I-15 did not satisfy the local land use and economic development interests of the communities along this alignment.

6.2 Level 1 Screening Analysis and Outcomes

6.2.1 Corridor Alternatives

Three corridor alternatives (Rail Corridor, State Street, and Geneva Road) and two modal options (BRT and LRT) were advanced from the pre-screening into the Level 1 screening for more thorough analysis against the project goal areas (Figure 6-1).

Table 6-1 provides a summary overview of the Level 1 screening results. A more detailed description of the results can be found in Appendix B Level 1 Screening Memo. Relative performance of each corridor alternative was assessed using a three-scale rating to assess how well each alternative meets the criteria (high/moderate/low - ranging from best meets to least meets criteria).

This screening process constitutes a high-level evaluation of the corridor options, with the intent that alternatives advanced into a Level 2 screening meet the Purpose and Need and avoid major environmental and engineering constraints to the extent possible at this stage. More detailed impacts analysis will occur in both Level 2 screening, as well as subsequent project development phases, including detailed resource area topics such as property impacts, biological resources, water resources, Section 4(f) properties, etc.

The evaluation results from this Level 1 screening will not be carried forward into Level 2. All corridors recommended for advancement will be on equal footing with a new set of evaluation criteria that provides a deeper dive into the performance and potential impacts of each alternative.

Summary Findings

Based on the relative similarities in alternative alignments, all alternatives performed comparably in Level 1 evaluation. No alternatives performed poorly enough to warrant eliminating from further consideration. Additional alignment modifications/design options should be explored in Level 2 evaluation, including the connection between rail corridor alignment and State Street/ Geneva Road alignment in Lehi to provide service between FrontRunner Lehi Station and the east side of I-15; an option to provide continuous service down State Street instead of deviating



Figure 6-1. Level 1 Alternatives



onto North County Boulevard; and, an alignment between downtown Provo and Provo FrontRunner to minimize overlap with UVX.

6.2.2 Modal Alternatives

Both LRT and BRT provide alternative mode technology options to meet the project Purpose. However, an additional review was performed after the Level 1 screening to evaluate the performance of LRT and BRT in the study area, which assumed that both LRT and BRT would operate in exclusive right-of-way, with enhancements such as signal priority at intersections. The purpose of this effort was to assess whether it is prudent and reasonable to carry forward both or one mode into the more detailed Level 2 screening process.

Summary Findings

The Central Corridor study area is characterized by a wide range of existing and future land use densities and a variety of both transitsupportive and less-transit supportive development patterns. Although both LRT and BRT generally meet Purpose elements; LRT was not recommended for further evaluation based on the following findings:

- A primary goal of project partners is to allow for flexibility of service and implementation. Implementation of BRT may allow for greater flexibility for phased implementation to match the varied local conditions in the study area. In addition, given the wide range of "readiness" for a large capital investment along the length of the corridor, a modal solution such as BRT may offer greater flexibility for implementing sooner and scaling up transit service as transportation demands warrant the investment
- The varied land uses and population and employment densities along the corridor that may not be as supportive or generate the ridership necessary to justify a higher capital transit investment, such as LRT

	Rail Corridor	State Street	Geneva Road/800 N			
Evaluation Criteria	23.6 miles	21.8 miles	22.5 miles			
	24	24	24			
Transportation Growth Factors						
Transit Ridership Potential						
Transit Network Integrity/Reliability						
Transit Connections						
Active Transportation Accessibility						
Land Use/Economic Development Factors						
Community Compatibility						
Station Area/TOD Development Potential						
Access to Centers/Development Areas						
Supporting Considerations						
Cost Considerations						
Constructibility Considerations						
Environmental Effects						
Potential for Air Quality Improvements						

Table 6-1. Level 1 Screening Results Summary

Rating Key:

Low Performance Medium Performance High Performance

- Implementation of BRT is not reliant on actions occurring outside of study area and can operate independently of other regional transit investments
- Funding for LRT could be secured with significant effort; however, funding may not be available in the short-term to support an LRT investment
- Support for high-capacity bus-based technologies has been expressed by partner agencies and jurisdictions

7. Level 2 Screening

The Level 2 alternatives evaluation was performed for three BRT alternatives: Rail Corridor, State Street, and Geneva Road. The purpose of the Level 2 alternatives evaluation was to obtain more quantitative data to compare alternatives and make an informed decision on the best option to recommend as the Preferred Alternative. Because of the near proximity and shared alignment of some alternatives, this evaluation took a different approach from Level 1 in reviewing data on a segment-by-segment basis, as well as looking at individual station locations. The purpose of this approach was to better understand the factors contributing to the comparison among the alternatives that might be less obvious when end-to-end corridor data is aggregated.

Figure 7-1 illustrates the Level 2 alternatives that were evaluated. This map reflects a series of minor alignment changes from Level 1 that were conducted to respond to stakeholder requests and concerns, including:

- Moved the Rail Corridor Alternative off State Street to North County Boulevard through Pleasant Grove
- Adjusted the Rail Corridor Alternative through Vineyard to better match development plans
- Adjusted route and added new stations near downtown Provo

7.1 Level 2 Screening Analysis and Outcomes

Findings presented for the Level 2 screening are based on representative alignments which provide initial conceptual engineering and general assumptions about how the transit service would operate. Ratings of high – medium – low performance are assigned at the segment and station area level. The screening results are comparative to each other, ranging from those that best meet the criteria (high), to those least meeting the criteria (low). Those with the highest performance or most competitive outcome are ranked high.

Because the analysis is comparative, highmedium-low are not indicators of peak performance or impacts, but rather how well an option performs relative to the other options under consideration.

Table 7-1 includes a summary of the overall evaluation. A more in-depth discussion of the screening methodology and results, including detailed outcomes for each alternative, can be found in Appendix C - Level 2 Screening Memo.





Figure 7-1. Level 2 Alternatives



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Evaluation	Alternative Snapshot				
Criteria	RAIL CORRIDOR	STATE STREET	GENEVA ROAD/800 N		
	23.4 miles / 26 stations	21.9 miles / 25 stations	22.6 miles / 25 stations		
Ridership	2019: 4,150 riders	2019: 4,100 riders	2019: 4, 250 riders		
	2050: 8,250 riders	2050: 7,650 riders	2050: 7,250 riders		
	2050 SE data change:	2050 SE data change:	2050 SE data change:		
	8,400 riders	7,700 riders	7,300 riders		
Transit Reliability	71 signals, 84% exclusive lanes	61 signals, 88% exclusive lanes	64 signals, 73% exclusive lanes		
Travel Time ¹	73-90 minutes	70 minutes	71 minutes		
Corridor Transit Trips	2019: +1,800 new transit riders	2019: +1,650 new transit riders	2019: +1,700 new transit riders		
	2050: +3,000 new transit riders	2050: +2,750 new transit riders	2050: +2,300 new transit riders		
Capital Costs ²	Lowest level of investment	10% more than lowest level of investment	Lowest level of investment		
Operating Costs ³	Due to longer travel times with this alternative, operating costs are estimated to be slightly more expensive than the State Street and Geneva Road alternatives, operating costs end up being about the same and are slightly lower than the Rail Corridor alternative.				
State of Good Repair	State of good repair (SGR) takes into account costs associated with replacement of facilities over a 50-year lifespan. For this project, major SGR costs would include replacement of bus fleet (12-15-year replacement cycle), guideway improvements (20-year for flexible pavement, 40-year for rigid pavement), and station improvements (estimated 30-year lifespan). Due to similarities in corridor length and number of stations, it is assumed these costs would be similar for all alternatives.				
Air Quality Improvement	All alternatives show a slight decrease in vehicle miles traveled and a slight increase in transit mode share; however, in the context of the broader region these decreases/increases are negligible.				

Table 7-1. Level 2 Screening Results Summary

¹ Initial travel times are estimated from posted roadway speeds (where applicable) and high-level assumptions of transit service operating characteristics and signal delay along the length of the corridor. Travel times will be refined as the project progresses through future phases of project development.

² Rough order of magnitude capital cost range based on representative alignment (length of BRT construction, number of stations, intersection/roadway reconstruction, crossing structures, as applicable) which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations and SGR costs, or station programming elements (park and rides, operator facilities, etc.).

³ As a Preferred Alternative is selected, assumptions to determine high-level operating costs will be refined and presented as part of the project operating plan.

8. Preferred Alternative

8.1 Overview

Findings from Level 2 alternative evaluation informed the development of a Preferred Alternative. The Preferred Alternative includes the following components of Level 2 alternatives, as part of one project (Figure 8-1):

- Segment 1 Rail Corridor Alternative
- Segment 2 State Street Alternative
- Segment 2 Vineyard "branch" connection from FrontRunner Vineyard to State Street along 800 North
- Segment 3 Shared alignment

The preferred mode is BRT. It has been expressed by project partners that a highquality BRT that operates in exclusive right-ofway is desired. The characteristics of the BRT system (exclusive versus mixed flow operations, type of bus vehicle, service frequency, station area amenities, etc.) and potential project phasing will be refined in the next phases of project development (i.e. environmental study through final design).

Several overarching factors were considered in the development of the proposed Preferred Alternative:

- Rail Corridor performance in Segment 1 The Rail Corridor Alternative performed better than the other alternatives in Segment 1 and should be the preferred corridor in this Segment.
- Maximizing ridership and connecting communities in Segment 2 – Notably, the three alternatives explored in Level 2 showed minimal ridership differentiation in Segment 2. However, leveraging a north-south transit spine with a branch to Vineyard substantively increases ridership over the three alternatives considered and better connects all communities.
- Connecting key land uses and destinations This alternative serves all communities in the study area. In addition, the proposed Preferred Alternative provides connections to many of the Wasatch Choice 2050 centers and TOD opportunities identified by communities in the study area. Key destinations served include Silicon Slopes, Timpanogos Regional Hospital, and Utah Valley Hospital.

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Key Features of the Preferred Alternative:

- Creates a robust north-south highcapacity transit spine in Utah County with connections to key rapidly developing areas
- Connects to key Wasatch Choice 2050 centers and TOD opportunities
- Provides connections to regional transit system - FrontRunner, UVX, proposed Point of the Mountain transit
- Serves all communities in the study area
- Preliminary modeling indicates that this alternative maximizes ridership potential compared to the State Street, Rail Corridor, and Geneva Road alternatives on their own
- Leveraging regional transit investments The Preferred Alternative includes a direct connection to Vineyard and Provo FrontRunner stations, with potential connections to be explored in Lehi and American Fork. The project connects with UVX in numerous locations (University Place and Provo FrontRunner) and connects to the proposed Point of the Mountain project at the northern terminus. The Preferred Alternative also supports future expansion of UVX that envisions a potential connection from the FrontRunner Orem Station to the FrontRunner Vineyard Station. Additional analysis is needed to understand the feasibility of this connection.
- Optimizing funding success Due to the corridor length, number of stations, and large proportion of exclusive guideway, this project will be a major capital investment. However, this project is strongly desired and supported by all communities and would likely require both federal and local funding to construct and operate. Support from all communities in the study area is critical.
- Maintaining eligibility for federal funding A project that includes the north-south spine with an east-west branch to Vineyard could be eligible for funding under the FTA Capital Improvement Grant program.


Figure 8-1. Preferred Alternative



Key Characteristics of the Preferred Alternative:

Primary Mode: Bus Rapid Transit

Length: 25 miles

Percent Exclusive: 84%

Projected Ridership: Approximately 10,000 riders/day

Travel Time: 83-102 minutes

Capital Costs: \$800M - 1.2B. Note: Capital costs include major infrastructure for the representative project, including but not limited to; roadway reconstruction and widening and associated right-of-way acquisition, BRT stations, vehicles, maintenance base and station access funds. Capital costs are based on a representative alignment based on UDOT and UTA standard cross-sections and could change as the scope of the project is further refined in future phases of work. This planning level estimate maximizes the use of dedicated lanes for a high-quality transit project and will continue to be refined as the project undergoes additional analysis and engineering. This detailed analysis will inform trade offs that will refine and potentially reduce total project costs.

Operating Costs: Approximately \$11-13M/year. Note: Operating cost estimates do not include capital, support, overhead, insurance, maintenance, right-of-way, administration, marketing, transit police, customer support, or any other company-wide costs.

Headways: 10-minute peak service

The following renderings show potential BRT features and amenities, including:

- Dedicated transit lane that operates outside of general purpose traffic
- Station areas with enhanced shelter and seating, off-board payment, wayfinding, real time arrival information
- Transit signal priority
- Enhanced pedestrian and bicycle access
- Landscaping, urban design features, and other corridor branding













8.2 Definition and Characteristics

This 25-mile BRT project would design and implement BRT along the existing UTA owned rail corridor and State Street from Lehi to Provo and provides a branch connection to Vineyard along 800 North. The representative alignment and proposed station locations are described below and depicted on Figure 8-1. Definition and characteristics are based on the project partner's desire for maximizing exclusive transit facilities and a high level of station area amenities where possible. Additional refinements to the alignment and station area locations, including exploration of design options at the northern terminus and in American Fork and Provo, will be explored in future phases of project development.

8.2.1 Alignment

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The alignment begins north of SR-92 in Lehi, connecting to the proposed Point of the Mountain transit project and terminates at the Provo Intermodal Hub. From the northern terminus, the project would operate in exclusive BRT guideway along the existing UTA owned rail corridor beginning north of SR-92 and east of I-15 and would run south, with a grade separated crossing at SR-92. It would continue south, operating in existing UTA owned rail corridor, under I-15, where the UTA owned rail corridor transitions to the north and east side of State Street in Lehi. The alignment would continue to operate in exclusive BRT guideway along the UTA owned rail corridor as it parallels State Street to approximately the intersection with Pacific Drive in American Fork. Along Pacific Drive, the alignment transitions to center running, exclusive BRT operations before turning south on 100 West where it operates in joint use. The alignment then turns east on Main Street, operating in center running exclusive BRT lanes as Main Street transitions to State Street in American Fork. The alignment continues in center running exclusive BRT lanes along State Street until North County Boulevard, where it continues south onto North County Boulevard in Pleasant Grove and then 700 North in Lindon. The alignment turns south at State Street and operates in center running, exclusive BRT lanes along State Street through Lindon, Orem, and into Provo. In Provo the alignment runs along 500 West south of Cougar Boulevard and turns east at 300 South where it operates in joint use.

The alignment then turns south on University Avenue where it utilizes the UVX center running exclusive lanes until just south of 400 South where it becomes joint use to the southern terminus located at the Provo Intermodal Hub.

The project also provides a branch connection from the north-south alignment described above. The branch alignment runs west from the State Street and 800 North intersection in Orem, along 800 North in center running exclusive BRT lanes to approximately 900 West. The alignment continues west in joint use from 900 West to the Vineyard Town Center/future FrontRunner station.

8.2.2 Station Locations

The following station locations were defined for this exercise, offering appropriate spacing to ensure convenient access as well as streamlined service:

- North SR 92 (Lehi)
- South Triumph (Lehi)
- 2100 North (Lehi)
- 500 West (Lehi), 300 E (Lehi)
- Main Street (Lehi)
- Pacific Drive (American Fork)
- Center Street (American Fork)
- 860 E (American Fork)
- Center Street (Pleasant Grove)
- The Grove (Pleasant Grove)
- 2000 West (Pleasant Grove/Lindon)
- Anderson Boulevard (Lindon)
- 700 North and State Street (Lindon)
- 400 North (Lindon)
- 2000 North (Orem)
- 1600 North (Orem)
- 800 North (Orem)
- Center Street (Orem)
- 800 South (Orem)
- University Parkway (Orem)
- 1700 South (Orem)
- 900 West (Orem)
- Vineyard/Geneva (Orem/Vineyard)
- FrontRunner Vineyard (Vineyard)
- 1720 North (Provo)
- 960 North (Provo)
- 500 North (Provo)

- Provo Downtown (Provo)
- 300 S (Provo)
- University Ave (Provo)
- FrontRunner Provo (Provo)

8.2.3 Project Elements

- Up to 32 stations with BRT branding
- 84% exclusive right-of-way, where the buses operate in an exclusive lane outside of vehicle traffic
- Enhanced stations with weather protection, passenger seating and lighting
- Real-time next bus arrival information and possible off-board payment options
- Level boarding and alighting platforms
- Transit connections to FrontRunner at Vineyard and Provo and connections to UVX at University Parkway, University Avenue, and Provo Intermodal Hub. Additional FrontRunner and UVX connections to be explored in future planning efforts.
- Connects seven cities to transit through the northern and central Utah valley: Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, and Provo
- Maintenance base expansion for additional fleet
- Purchase of vehicles

8.3 Ridership

Ridership forecasts for the Preferred Alternative were completed using the Wasatch Front Regional Council (WFRC)/MAG regional travel demand model. The Preferred Alternative resulted in 10,200 average weekday boardings in forecast year 2050. Similar to results completed on alternatives in Level 2 screening, segment level boardings for the Preferred Alternative were highest in Segment 3 with 4,850 total boardings, followed by Segment 1 with 3,100 boardings and then Segment 2 with 2,300 boardings.

To understand the potential impact of changes to variables that would impact ridership on the Preferred Alternative, a series of sensitivity tests were completed using full WFRC/MAG model runs that included coding of variations on top of the Preferred Alternative. Table 8-1 below provides information on the magnitude of the impact on 2050 ridership as compared to the Preferred Alternative for each of the sensitivity tests performed.

As shown in Table 8-1, the sensitivity test that impacted boardings the most was a change in service assumptions that reflected BRT operating in mixed traffic in Segments 2 and 3 and assumed to be a lower level BRT in the model with nearly a 39% drop in boardings. On the positive side, the implementation of a free fare on the project resulted in a 20% increase in boardings. Each of the other sensitivity tests performed showed impacts of less than 5% difference in ridership on the project. Additional ways to optimize ridership will be explored in future phases of project development.

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Sensitivity Test Description	Daily Boarding Percentage Change
Vineyard Branch Coded as Lower BRT (Mode 5)	-1.3%
Double Frequency of FrontRunner (15 Peak/30 Off-Peak)	-4.6%
Hospital TOD Terminus	-4.3%
Free Fare on Project	20.0%
Project in Mixed Traffic an Coded as Lower BRT (Mode 5)	-38.8%
Interlined with Point of the Mountain Transit	-1.9%
Addition of Lehi Connector Route to FrontRunner (Mode 9)	4.8%
Addition of Lehi Connector Route to FrontRunner (Mode 5)	4.4%

Table 8-1. Modeling Sensitivity Test Results

8.4 Costs

Rough order of magnitude cost estimates were prepared using previous UTA estimates from the Point of the Mountain Study that was developed in conjunction with Krebs Corporation. Proposed project scope (length of corridor, portion of exclusive guideway, number of stations, etc.) was based on the information from the Level 2 development of alternatives. The estimate approach utilizes past and 60% design cost information from the UVX, Ogden, and Mid Valley BRT projects and past roadway projects to develop unit costs using a route per foot basis.

The quantities were based on the envisioned scope of work for the project. It should also be noted that at this early stage of project development, the estimate was very high-level which can lead to wide variations in estimated costs. To capture the variety of treatments along the corridor, the estimate was broken down by type of BRT facility, elevated structure, roadway widening, grind and overlay, etc. Typical cross sections along the corridor were used to determine potential widening and right-of-way acquisition based on maintaining the typical UDOT roadway standards. A design allowance of 30% was added to account for design unknowns at this stage of project development.

Right-of-way costs were developed based on GIS parcel information. To account for variability of right-of-way costs along the corridor, a unit price for "over the fence" values of properties from the Utah County Assessor's office was developed using GIS to assess an average cost per square foot of right-of-way. This was applied to a rightof-way estimate based on areas requiring rightof-way from the design, including stations and intersections where widening is assumed due to the existing roadway configuration with left/right turning movements. The unit price was doubled to help account for right-of-way contingency as well as relocation and acquisitions fees and real estate market adjustments.

The estimate also includes vehicle costs (based on frequency and route length, including spares), a contribution to a new or expanded operations and maintenance base (to accommodate the expanded vehicle fleet), and station programming. Station programming is an allowance for potential costs related to pedestrian/bike access, kiss-and-ride areas, park-and-ride lots, or operator facilities that have

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yet to be identified. Lastly, professional services/ soft costs of 30% were applied based on UTA guidance. The professional service/soft costs account for UTA administration of the project, environmental, engineering, construction management and construction change order contingency. A range of magnitude low and high cost range was created by adding an additional 40% to the total program low cost to produce a range to capture the variability of scope on planning level project.

The rough order of magnitude cost estimate for the Preferred Alternative is \$800M to 1.2 billion. This cost estimate will continue to be refined in future phases of work.

8.5 Funding

Given the scope of the Preferred Alternative, a multitude of funding options are available and should be considered as the project moves forward (Appendix D Funding Memorandum). Potential funding sources include:

- Federal funds and grants, including: Transportation Infrastructure Finance and Innovation Act (TIFIA) program, Surface Transportation Program (STP), Better Utilizing Investments to Leverage Development (BUILD) grants, and the FTA Capital Investments Grants (CIG) program.
- Local funds including existing and/or new tax revenues (e.g. local and county sales and use taxes, mass transit sales taxes, and others)
- Economic development tools such as Community Reinvestment Area (CRA), Public Infrastructure Districts (PIDs), and transportation reinvestment zones (TRZs).

The available funding tools listed above may be combined in a variety of viable options to arrive at the desired funding level. The following options are illustrated as examples of combining various components to potentially accelerate funding:

- Traditional Funding Mechanisms
- Non-Traditional Funding Mechanisms
- Hybrid Options

The Hybrid Option, which utilizes a combination of traditional and non-traditional funding mechanisms, pulling from existing and new revenue streams is recommended as the most viable option. Some key components of this option are as follows:

- State of Utah General Obligation Bonds
- Utah Transit Authority Sales Tax Revenue Bonds
- Tax Increment Bonds from CRAs or TRZs (or potential new, enhanced tax increment financing tools)
- Federal Grant Money

Detailed description of funding sources can be found in Appendix D.

8.6 Operations8.6.1 Corridor Operations and Considerations

The Central Corridor Preferred Alternative is proposed to operate differently throughout the length of the corridor, including operating in mixed traffic in some portions and in exclusive lanes for others. As demand for transit increases, operations may change to see more exclusive lane development. However, for planning purposes, initial operating assumptions were made to begin estimating costs and other operational needs. The following bullets articulate six locations where additional design and operational logistics will need to be considered as more detailed environmental planning and design occurs.

- Connection to Point of the Mountain Transit: The Point of the Mountain transit study has recently selected a Preferred Alternative that provides BRT service between Draper and Lehi, with a connection to Central Corridor in Lehi. Additional analysis will occur in future phases of work to determine an operating plan for these two BRT projects, including consideration of potential connections to FrontRunner Lehi.
- Vineyard Branch Operations: The Vineyard branch connection (running along 800 North) is expected to operate as a separate line, traveling to and from the station at State Street/800 North to the planned FrontRunner Vineyard Station, with a transfer required to travel the main alignment. Without this transfer, the frequency on the main alignment would be reduced to accommodate the two southern route options.

Additional attention is required to understand where/how the bus turns around both at State Street and at the FrontRunner station. A future a study will evaluate the feasibility of extending UVX to the planned FrontRunner Vineyard Station. From a transit systems perspective, it will be important to understand how the UVX extension and Central Corridor branch line interface.

- Station Spacing in Orem: Between 1600 North and 1700 South, stations are spaced slightly farther apart than other corridor segments. These stations have primarily been identified and planned in the State Street Corridor Master Plan, however from UTA's experience with other BRT routes, additional station locations, resulting in closer station proximity, should be considered in future phases of project development.
- University Parkway/UVX Connection (Orem): The Central Corridor alignment intersects with UVX at University Parkway. Based on current routing logistics, the Central Corridor route would not stop at the existing UVX station. However, a shared station – or easily accessible stations in near proximity – would be preferred. In an effort to keep both routes as straight and rapid as possible, further design is required to understand how these two stops could operate more effectively in one location.
- Routing through Downtown Provo: The southern terminus of the Central Corridor line is the Provo FrontRunner station. Navigating the dense street network of downtown Provo and crossing the eastwest rail corridor comes with several options. Further phases will determine (1) the best manner to interline with UVX on University Avenue to avoid user confusion; (2) the best connection across the railroad tracks to the FrontRunner station (e.g., 100 North, 500 West, Center Street, Freedom Boulevard); and (3) where this route stops within the FrontRunner station.

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8.6.2 Planning-Level Operations Costs

Operating costs were estimated based on several key variables, such as corridor frequencies, travel times (based on length and number of stations), layovers, and recovery times. This route is anticipated to operate daily, with 10-minute frequencies during most of the day (6:00 am to 8:00 pm). Reduced operating hours and longer frequencies can be expected on Sundays and holidays.

An hourly operating cost estimate was provided by UTA based on costs incurred per hour, such as labor; and costs per mile, such as fuel and tires. Paired with the above mentioned operating assumptions, total operating costs were estimated for both the main corridor and Vineyard branch line, with a high and low cost range based on the span of variables which could impact length and travel times (e.g., connecting to the POM corridor, syncing schedules with UVX, branch transfers, etc.).

This summary is presented in Table 8-2, showing an estimated full project annual operating cost range of \$11 million to \$13 million. It is important to note that these estimates do not include capital (buses), support, overhead, insurance, maintenance, right-of-way, administration, marketing, transit police, customer support, or any other company-wide costs.

Vehicle fleet assumptions have not yet been made. It is expected that a high-quality BRT

Table 8-2. Rough Order of Magnitude of Cost Estimates

vehicle will be purchased, but costs per vehicle have not been factored into these assumptions. Additionally, with an expanded fleet of 24 to 27 buses, either a new or expanded maintenance facility will be required. The determination on maintenance facility needs will occur in later phases as regional transit system expansion needs and implementation time frames are understood.

8.7 Land Use and Zoning Recommendations

High-quality transit investments are one major step in creating vibrant connected communities. Planning for the immediate station area, for the walkable transit-served district, and for the transit corridor are equally important to capitalizing on high-capacity transit. TODs typically includes a mix of commercial, residential, office and entertainment adjacent to the transit station. Dense, walkable, mixeduse places near transit attract people and catalyze additional investments. TOD is most successful when regional and local governments encourage it through land use planning, zoning laws, and changes to building codes, among other proactive steps.

Many of the communities in the Central Corridor study area already have TOD zoning policies in place to encourage a more dense transitsupportive development pattern. However, the Federal Transit Administration requires a baseline

Scenario	Peak Vehicle Requirement	Annual Operating Hours	Annual Cost*
High Range			
Main Corridor	22	115,00	\$10,500,000
Vineyard Branch	5	30,00	\$2,500,000
Full Project (Sum)	l Project (Sum) 27 145,00 \$13		\$13,000,000
Low Range			
Main Corridor	19	96,000	\$9,000,000
Vineyard Branch	5	27,000	\$2,000,000
Full Project (Sum)	24	123,000	\$11,000,000

* This estimate does not include capital (buses), support, overhead, insurance, maintenance, rightof-way, administration, marketing, transit police, customer support, or any other company-wide costs.

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threshold of densities and policies to be in place to successfully award funding for major transit investments. Appendix E includes a review of TOD Station Area Planning Best Practices that communities can begin to reference now, as more detailed planning and design occurs on the Central Corridor BRT route. By beginning to strengthen and codify TOD plans and policies, these measures can be in place by the time a federal funding award may be sought.





















CENTRAL CORRIDOR TRANSIT STUDY PUBLIC INVOLVEMENT REPORT

PREPARED BY HORROCKS ENGINEERS DEC. 29, 2020

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Public Involvement Summary

The following report highlights all outreach and public engagement efforts from the beginning of the Central Corridor Transit Study in February 2020 through November 2020. Outreach efforts were focused on creating social media and content; creating the public-friendly website covering the schedule, area and background of the study; pitching news media; and managing the public comment map regarding the purpose and need.

Phase One

The first comment period for the Central Corridor Transit Study focused on gathering input related to the purpose and need of the study. Phase One began in February 2020 and ran through May 2020.

STUDY WEBSITE

(See Appendix A: Website Analytics - Phase One)

The study website received 3,361-page views through social media, traditional media and city newsletter content that pushed readers to the site for more information about the study in Phase One. An additional comment form requesting input on the purpose and need for the transit study was created and published to the project website.

PUBLIC COMMENTS

(See Appendix B: Public Comment Report - Phase One)

There were 123 public comments received from Feb. 20 through May 22, 2020 using a GIS based comment map on the website, as well as through the study email and hotline. A breakdown of the comments by topic is provided below.

Purpose and Need (Three Comments)

Comments received highlighted the benefits of transit on air quality and an improved overall quality of life; future economic growth and social function within Utah Valley; and increased mobility, specifically for local university students, faculty and staff.

State Street Alignment (15 comments)

Comments received expressed support of the State Street alignment because it would enhance access and mobility to popular destinations such as the Utah Valley Convention Center, Utah Valley Hospital and University Place Mall. Additionally, commenters stated this alignment would alleviate traffic that tends to build up on State Street through Thanksgiving Point. Several supporters stated that a Bus Rapid Transit (BRT) line was their preferred mode because it would enhance safety, mobility and connectivity.

Other comments regarding the State Street alignment included concern for property values along the route and increased taxes to pay for the transit improvement.

Geneva Road Alignment (Two comments)

Supporters of the Geneva Road alignment indicated that this transit route would significantly cut down on the use of their personal vehicles. Other comments expressed concern about the increased traffic and noise near their homes on Geneva Road as well as tax increases to support the study.

Vineyard Alignment (Three comments)

Feedback on the Vineyard alignment included the sentiment that it would attract the most riders due to the high level of businesses on the west side of the interstate and a growing population. Other comments highlighted the direct connection from Pioneer Crossing to Geneva Road as being a significant benefit.

Rail Corridor Alignment (Four comments)

Many of the comments in support of the Rail Corridor alignment also suggested implementing a shuttle system for added mobility, stating a need for high-frequency transit with runtimes every five to 15 minutes for increased convenience. Some comments suggested altering the Rail Corridor alignment to shift north of State Street or east of State Street where the majority of residents are located. Comments also expressed concern about the amount of improvements that would need to be made to the Union Pacific Railroad to make the alignment a viable and safe option.

Other Comments (64 Comments)

Some feedback did not fall within the categories above. Those topics include:

- Current traffic congestion
- Increased active transportation
- General approval/disapproval of transit

Out-of-Scope (32 Comments)

Several comments did not fall within the current study initiative, including protected bike lanes, city street improvements and traffic signal timing.

TRADITIONAL MEDIA

(See Appendix C: Media Tracking - Phase One)

Two news outlets published online news stories about the Central Corridor Transit Study:

- "The Daily Herald" published an article on March 3, which received 12 comments from readers.
- "The Lehi Free Press" published an article on Feb. 7, which received 1,198 views and five comments from readers.

Additionally, two city newsletters featured content on the Central Corridor Transit Study:

- Vineyard City Newsletter (March)
- Lindon City Newsletter (March)

SOCIAL MEDIA

(See Appendix D: Social Media Report - Phase One)

Social media content was developed and distributed to the partnering cities and agencies, resulting in 15 posts from six of the seven cities as well as from the Utah Transit Authority (UTA) and Utah Department of Transportation (UDOT). All of the posts resulted in 243 total engagements and linked readers to the study website.

COLLATERAL

(See Appendix E: Collateral Report – Phase One)

The following collateral items were produced during Phase One: maps for the initial range of alternatives, project overview flyers and study branding.

Phase Two

The comment period for phase two of the Central Corridor Transit Study focused on gathering public input related to the three refined alternatives or alignments presented. The second phase began in June 2020 and ran through September 2020.

STUDY WEBSITE

(See Appendix F: Website Analytics - Phase Two)

The study website received 2,906 visits through social media, traditional media and city newsletter content that pushed readers to the site for more information about the study. An additional comment form that provided a project update and requested feedback on the three alternatives was also available on the study website.

PUBLIC COMMENTS

(See Appendix G: Public Comment Report - Phase Two)

There were 125 public comments received between June 1 and Sept. 30, 2020. Comments were collected using the interactive GIS comment map, email and hotline. A breakdown of the comments by topic is provided below.

State Street Alignment (50 comments)

Public comments in this phase showed strong support for a State Street alignment. Additionally, many of the comments addressed the diversion of the route along State Street to connect North County Boulevard in Pleasant Grove to the State Street route. Many comments in this category mentioned support of bus rapid transit as the mode proposed in the study. Finally, several comments advocated for including a Lindon connection.

Other Alignment (29 comments)

A common theme was the need for more east-west connections. Specifically, comments referenced a connection between Bulldog (Cougar Boulevard) and 100 North, Pioneer Crossing, 850 East and Vineyard. Other comments mentioned additional FrontRunner stations and connectivity. Several comments requested a North Orem FrontRunner Station and a tie in to the Lehi FrontRunner Station. Within this category, there were comments in opposition to the BRT mode. Many felt that the current Utah Valley Express (UVX) route had disturbed traffic flow and the current demand on the UVX line did not justify the extension of BRT proposed by this project.

Rail Corridor Alignment (15 comments)

Comments in support of the Rail Corridor alignment mentioned that this route would be preferable due to its proximity to dense residential areas. With close proximity to residences, many felt this would be the best option for commuters. Comments commonly requested a tie-in to Pioneer Crossing. Comments mentioned the importance of a FrontRunner tie-ins, which was a repeating theme from other comment categories. Lastly, those who favored this route expressed concern about overcrowding and heavy traffic on State Street.

Geneva Road Alignment (16 comments)

Comments under this category referenced the importance of including east-west transit options in Utah County, especially prevalent in this category was the request for a Vineyard tie-in. Comments specifically called out the 800 North corridor and the connection it brought to Vineyard and west Orem.

Stop Recommendations (Nine comments)

Recommendations for stops included:

- NuSkin
- Utah Valley Hospital
- Cougar Boulevard
- Utah Valley University Convention Center
- Silicon Slopes
- Bulldog Boulevard
- Freedom Boulevard
- 500 West

In this category there were suggestions to connect the alignment to FrontRunner station in Lehi.

Out-of-Scope (Six comments)

Several comments did not fall within the current study initiative, including UTA route timing and frequency and improvements outside of the study area.

SOCIAL MEDIA

(See Appendix H: Social Media Report - Phase Two)

Social media content was developed and distributed to the partnering cities and agencies, resulting in 11 posts from six of the seven cities as well as from UTA and UDOT. All of the posts resulted in 161 total engagements and linked readers to the study website.

COLLATERAL

(See Appendix I: Collateral Report – Phase Two)

The following collateral materials were created in Phase Two: maps for the updated range of alternatives and posters that were hung in the UTA Route 850 buses.

Phase Three

The comment period for phase three of the Central Corridor Transit Study focused on gathering input related to the Locally Preferred Alternative (LPA) and publicizing the upcoming online public meetings. The third phase of public outreach and engagement began in October 2020 and ran through November 2020.

STUDY WEBSITE

(See Appendix J: Website Analytics – Phase Three)

The study website received 5,171 visits through social media, traditional media, bus stop signage, route signage and city newsletter content that pushed readers to the site for more information about the study. An additional comment form that provided a project update and requested feedback on the LPA was provided on the study website. Additionally, updates were made to the FAQ page to provide additional information to the public and answer the common questions received.

PUBLIC COMMENTS

(See Appendix K: Public Comment Report – Phase Three)

There were 157 public comments received between Oct. 1 and Nov. 13, 2020. Comments were collected using the interactive GIS comment map, email and hotline. A breakdown of the comments by topic is provided below.

Preferred Alternative (53 comments)

The majority of comments supported the Preferred Alternative along State Street and felt that a BRT line from Lehi to Provo was a net benefit. Comments mentioned that an expanded BRT route would increase rider utilization and be beneficial to a broader transit audience. Concerns were raised regarding road construction and the impacts to residents and drivers and overcrowding on State Street.

Other Alignments (26 comments)

Comments advocating for previously presented alternatives were included in this category. The previous alignment that received the most comments was the Geneva Road route. Comments recommend a direct route through Pleasant Grove and Vineyard. This category captured overall support for the State Street route, emphasizing that State Street is most central to population and business dense areas.

Additional Connections to FrontRunner (24 comments)

Comments questioned the exclusion of connections of the LPA to the Lehi and American Fork FrontRunner stations. Comments were concerned that excluding these connections would decrease and disincentivize ridership. Lastly, future tie-ins at 800 North and State Street, Draper FrontRunner, and Mountain View Corridor were suggested.

Out-of-Scope (14 comments)

Several comments did not fall within the current study and comment period initiative, including improvements outside of the study area, population densities required to support transit, route

frequency and timing, street parking, flyover bridges at major intersections, and traffic constraints attributed to the UVX line.

Stop Locations (12 comments)

Recommendations for stops included:

- 800 North
- Utah Valley Hospital
- Riverside Avenue
- Cougar Boulevard
- Freedom Boulevard
- Pioneer Crossing
- Main Street, Vineyard
- 500 West

In this category there were also suggestions to connect FrontRunner stations to the LPA throughout the corridor.

Other (22 comments)/Active Transportation (Four comments)

The other category captured comments related to increased traffic on State Street with the extension of a BRT route, future connections to the Point of the Mountain and other FrontRunner stations, alternative solutions to current transit issues, and clarification on the proposed mode.

Active transportation users advocated for prioritizing space for bike lanes and landscaping in the final design. Comments emphasized that State Street is hazardous for bicyclists currently, and asked that any plans account for increased bike accessibility along State Street.

Funding (Two comments)

Two comments expressed concern over taxpayer dollars being allocated to the project. Both comments compared the study to the current UVX line and included criticism regarding usage of the UVX line and the feeling that it has increased traffic on State Street.

TRADITIONAL MEDIA

(See Appendix L: Media Tracking – Phase Three)

Two news outlets published online news stories about the Central Corridor Transit Study:

- "The Daily Herald" published an article on Oct. 13, which received no comments from readers.
- "The Daily Herald" published an article on Oct. 21, which received three comments from readers.
- "The Daily Herald" posted an article on Oct. 26, which received no comments from readers.
- "The Deseret News" posted an article on Nov. 1, which received four comments from readers.

Additionally, two city newsletters featured content on the Central Corridor Transit Study:

- Lindon City Newsletter (October)
- Pleasant Grove City Newsletter (October)

SOCIAL MEDIA

(See Appendix M: Social Media Report – Phase Three)

Social media content was developed and distributed to partnering cities and agencies to notify the public of the release of the LPA, the promotion of the online public meetings and a final push for public comments before the end of the study. In total, 40 posts were shared via Facebook and Twitter from all seven participating cities as well as from UTA and UDOT.

Facebook

- Engagements: 211
- Shares: 77
- Posts: 29

<u>Twitter</u>

- Comments: 2
- Retweets: 19
- Likes: 27
- Posts: 10

COLLATERAL

(See Appendix N: Collateral Report – Phase Three)

The following collateral materials were created in Phase Three: social media graphics to advertise the public meetings, LPA maps, posters (11x17) for the UTA's 850 buses, A-frame signs (24x36) for FrontRunner and UVX platforms, and outdoor signage (20x22) for key UTA bus stops along the 850 route.

PUBLIC MEETINGS

(See Appendix O: Public Meeting Report – Phase Three)

Two online public meetings were held via Zoom on Monday, Oct. 26, from 6-7 p.m. and Thursday, Oct. 29, from 7-8 p.m. The meetings were used to provide an overview of the study and allow for the public to ask questions and receive answers from the project team in "real-time." 57 people attended the online public meetings.

Appendix A: Website Analytics - Phase One



Appendix B: Public Comment Report - Phase One

CATEGORY	CONTACT METHOD	COMMENT	COMMENT DATE
State Street	Public Website	It'd be amazing if there was another UVX or TRAX Line that would travel from Provo Station to Lehi Station through the use of State Street like current route 850. Please connect areas like the Utah Valley Convention Center, Utah Valley Hospital, University Place, and more.	3/3/2020
State Street	Public Website	Improving the bus amenities and stations along the State Street from Lehi to Provo is needed to increase ridership with higher frequency of buses. Potentially look at utilizing Lakeview Parkway to Geneva Road as a future bus route to connect north Utah County to the currently expanding Provo Airport.	3/3/2020
State Street	Phone	Shirl Finch called the hotline upset by the idea of having transit run down State Street. He doesn't think there is enough room and the streets are too crowded for buses. He does not like Jaime Davidson and wants him to be fired. Shirl also wanted us to disclose our funding on our website because he says UTA is in debt and should not be doing projects like this.	3/4/2020
State Street	Comment Form	Commented at 1:59 PM: Just wanted to show support for the study. Personally, I use UVX all the time when I have meetings in downtown Provo (from Orem). Should there be a similar BRT model on State Street in Orem, I would use it often as well. If there were a way to extend the grant covering those lines to beyond the initial 3 years for the public that would be great. Looking at the ridership on UVX and translating that to number of cars off the road - that's significant. Frequent and free is a great combo that equals ridership.	3/5/2020
State Street	Public Website	I agree with other commenters. Turn the 850 line into BRT. There's tons of room on State Street and lots of destinations. The road could also use a redesign for safety.	3/5/2020
State Street	Public Website	The 850 route needs to be a BRT. I regularly ride between Orem, Provo, and Lehi, and it is full at all hours of the day. This would go a long way to making transit a more viable option while alleviating traffic on State St and in Thanksgiving Point.	3/5/2020

State Street	Public Website	As a frequent user of UTA transit, I believe this alignment option would be a poor choice, especially through this section of the city. It would require significant improvements to the existing Union Pacific tracks, in order to make it safe for residents in the area, not to mention the massive negative effect on home values. Alternatively, this alignment could require that a number of homes be demolished to establish new tracks, which would also be extremely expensive to provide fair market value. Given the existing FrontRunner corridor nearby, and the possibility of using buses to connect commuters to that corridor, I believe this alignment is a poor choice. It would be expensive, and largely redundant. An alignment closer to State Street, or paralleling the I-15 corridor, would be a much better choice.	3/6/2020
State Street	Public Website	It appears that the Rail Corridor is duplicating the UVX bus route between BYU and UVU. The Rail needs to go north on State Street.	3/6/2020
State Street	Public Website	Maybe there is a stretch here somewhere where you should have both routes! Where the rail is way out to the west the Bus rapid transit could cover everything along State/to the east. If not that, you may need some form of spur connecting over to the main line. Seems pointless to have this line and frontrunner running right next to each other anywhere other than a couple spots to enable transfers.	3/9/2020
State Street	Public Website	The State Street Corridor should be a high capacity BRT or TRAX line (leaning more towards TRAX on that one). The Geneva Road Corridor should be a BRT line. For BRT please give them more bus lanes along their routes. UVX is awesome, but it does get stuck in traffic in spots where there aren't bus lanes. State Street and Geneva Road should have dedicated transit ways along most of their routes to ensure speedy and reliable service.	3/12/2020
State Street	Public Website	I really like the idea of a bus or trax line that runs the length of State Street. A couple of key connection points with the existing UVX (such as at Provo Station and at University Parkway) would really open up some good connections in the Provo/Orem area.	3/23/2020
State Street	Public Website	Having a BRT on the 850 route would greatly expand the usefulness of transit in the county, and it would cut down on Thanksgiving Point traffic	3/23/2020
State Street	Public Website	This area is well served by the BRT stop. In my experience, there is a large majority of UVX riders who use the BYU stations. In my experience I prefer a BRT to a TRAX line. A BRT that has high frequency (every 6 minutes or shorter)	3/23/2020

		and many stops is better than a large TRAX train with more capacity but a lower frequency (every 15 minutes) and fewer stops. If the UVX were to be replaced by a Light Rail, I would hope that this area would continue to be well served by a bus. Currently, this area lacks an East-West transit corridor. 831 can get you to the old high school, but not any further. The transfer to the State Street-500 west corridor requires you to ride to Center Street or go all the way up to University Place.	
State Street	Public Website	I would love to see a BRT running up State Street all the way to northern Utah county to help save it from its current dangerous "Stroad" existence. Please take measures to ensure bike lanes are not only clear of debris, but that they are not too close to parked cars and in danger of getting doored. This is especially important for parents riding with trailers or cargo bikes. Parking-protected bike lanes are one way to help with this, and there are many examples of cities designing intersections and driveways so it remains safe for people on bikes.	4/2/2020
State Street	Comment Form	Commented at 1:43 PM: UVX is awesome. Would love to have BRT on State Street from Provo to Lehi.	4/14/2020
Geneva	Comment Form	Commented at 7:26 AM: Yes, please! We need this so badly. If I had good transit options to ferry me from home (just off State Street and 1200 N in Orem) and work (just off Geneva Road and 820 N in Provo), I could decrease my usage of the car by at least 50%. That would be excellent for traffic problems, cost, and the environment.	3/7/2020
Geneva	Comment Form	Please do not choose the option that would go from Geneva road to 800 north on Provo. I'm a resident and don't want increased traffic especially as multiple schools are right there off of Independence Ave & 800 n Provo. I think University parkway or state Street make more sense especially as they're already bigger roads	4/23/2020
Vineyard	Public Website	Need quick, easy connectivity to the north	3/9/2020
Vineyard	Comment Form	Commented at 4:18 PM: I strongly support this an improved method of central corridor transit. I live near Vineyard, and traffic during peak hours is intense. It is apparent the population in Utah County will only continue to grow. This would be an excellent way to prepare for future growth.	3/23/2020
Vineyard	Comment Form	Vineyard I think would be the most used one. Mainly because of how much business is booming on the west side of the freeway, as well as the amount of homes. Having a direct route from Pioneer to Geneva would be extremely helpful.	4/28/2020

Rail	Public Website	Definitely include a rail option. Having been a Chicago commuter for 7 years, it's the best way to go! BUT it has to be 99% reliable. Not like Frontrunner. Then it would seem that a shuttle service would be needed to certain hubs in the Lehi Tech area.	3/16/2020
Rail	Public Website	If the UVX Line is converted to light rail, it should still continue to have the same peak frequency as it does now. And it should be a standalone TRAX line to serve the areas that it does	3/22/2020
Rail	Comment Form	Commented at 6:01 PM: We need to invest in public transit. A light rail is a great idea but keep in mind that buses are the core of any modern transportation system. We should have full electric buses as well as a light rail connection to Lehi. Front runner needs to run on Sunday as well. Because so many bus routes rely on front runner it's impossible to take public transit some places on Sunday.	3/30/2020
Rail	Comment Form	Commented at 9:25 Am: I believe either light rail or commuter rail between Provo and Lehi would be a good idea, especially a commuter rail. With the number of tech companies and new businesses going into Lehi, having a commuter rail that leaves frequently and consistently would be a big help to commuters.	4/2/2020
Rail	Public Website	As a year-round pedestrian/cyclist, I think converting the UVX stops to the Rail Corridor is wise but the Rail Corridor should consistently stay east of the I-15 corridor, where lots of people actually live and FrontRunner isn't so parts of it should replace or connect with the State Street Corridor and then local bussing can focus on east-west connection, which would increase UTA ridership among people who work in different cities than they live. Failing that, State Street could use something like UVX (at least at peak times and most of winter) the 850 gets plenty of riders) or at least runs early enough for someone with a 5 a.m. job in Lehi to be able to commute from south Provo (even if that means the first bus); also needs proper bike lanes and sidewalks, or paved shoulders, especially from downtown Lehi to American Fork. Geneva Road desperately needs bike lanes and sidewalks, or at least proper/clean shoulders, since it's the only major road on the west side of I-15; its corridor should not go/stay east of I-15 starting in Orem because you are ignoring all the trailer parks and subdivisions which are full of people prudent enough to not waste money on cars when they can commute cheaply by public transit plus the Provo Airport people (it could replace the 833 bus route).	4/23/2020

	Geneva Road's corridor could combine neatly with Vineyard's corridor and connect nicely with the FrontRunner Stations on the west side of I-15, which just need more east-west traffic.	
Phone	R. Paul Evans called wanting the list of who is on the committees associated with the project. Macey explained that each city has a technical and executive representative that was selected by the cities. Evans wanted to know who they were. Macey said she did not have the list and would have to do some research. Macey asked why he wanted the information on the list. Evans said that he had a right to know. Macey said she was just curious if she could help answer any of his questions. He said not until he has the list. Macey got his contact information. Macey saw that he had a BYU email address. Macey asked if he was writing a story for the Daily Universe. Evans said that it was a big assumption to make that everyone with a BYU email address is writing a story. Macey apologized and explained that they had just pitched a story to the Daily Universe and were expecting a call. Evans wanted to know who Macey worked for. Macey explained that she worked for a consultant group hired to help with Public Involvement. Evans wanted to know which group. Macey explained that she worked for Horrocks. Evans asked which office. Macey said she worked in the main office. Macey said she would give him a call or email back.	3/5/2020
Comment Form	Commented at 3:32 PM: I'm very excited to see more frequent transit options. UVX, which doubled bus ridership in the whole county, has shown how frequency and speed is key in getting people to ride transit.	3/5/2020
Email	Emailed at 3:30 PM: Just want to say thanks and I'm very excited for more frequent transit in Utah County. UVX has been a great success by giving fast and frequent rides and I hope this project will replicate the same success.	3/5/2020
Public Website	There needs to be a train station between southern Orem and North American fork. Pleasant grove exit has tech jobs popping up and doterra so that would be a good idea. I am in Orem and we often take front runner to slc work, but its inconvenient to catch it south of us to go north and by the time we reach af station we might as well face the rest of the traffic to sl county.	3/5/2020

Comment Form	Commented at 3:15 PM: I work in Midvale and live in American Fork. Due to the traffic and construction, I switched to public transportation (Frontrunner + Tracks). Since making the change, I now look to see if my destination - say, a cafe in Sugarhouse - has public transportation nearby and use it as often as possible. My biggest lament has been the lack of options in Utah County!	3/5/2020
Comment Form	Commented at 1:19 PM: This study is so needed! These cities are growing so much and anticipating that need and building for it is vital to our infrastructure. We need more options for public transportation, with more east/west connectors and not just north/south.	3/5/2020
Comment Form	Commented at 11:03 AM: I fully support this study. As someone who lives in one part of this corridor and works in another, I understand how bad the traffic can get, and adding more lanes to I-15 hasn't changed my commute. I would much rather we really evaluate the alternatives like BRT and protected bike lanes.	3/5/2020
Comment Form	Commented at 10:15 AM: This looks good so far. I think it might be useful to add to both Purpose and Need something along the lines of reducing air pollutants from so many cars and improving overall quality of life.	3/5/2020
Comment Form	Commented at 9:19 PM: This area is experiencing a lot of growth. The widening of the freeway won't be enough in the future to accommodate all the traffic. Also, mass transit will address the need for more environmentally conscious forms of travel.	3/6/2020
Public Website	By utilizing HOV lanes or new bus lanes, UTA should have express/commuter buses traveling between Provo and Lehi	3/6/2020
Comment Form	Commented at 2:02 PM: We need better transit connections through this area if it's going to continue to grow and is our best option to combat air pollution and traffic congestion	3/6/2020
Comment Form	Commented at 11:42 AM: Whatever the plans are I very much hope Sunday service is very much considered. So much of public transit just stops on Sunday in Utah county. I get that ridership maybe down, but I would settle for even less frequent service than Saturdays. Any service would be great. Here are a few specific examples. My wife and I like to shop at Trader Joes at University Mall. We will take the UVX from Orem Central to get there. However, we can't do this on Sundays because the UVX does not run. On several occasions we have flown back to Utah on a Sunday night. Any other day, we would have parked at the Orem Central	3/6/2020

	Station, taken the FrontRunner to North Temple and taken the Green Line Trax to the Airport. But if we fly back on a Sunday then we will have to drive and park, or call a taxi because the FrontRunner does not run on Sundays. And a third example, the 880 Ski bus to Sundance does not run on Sundays. My wife and I work during the week so the only chance we get to go to the resort is on the weekends. We can take the bus on Saturday, but on Sunday we are forced to drive. Not only does this add more congestion into the valley, but it's rather dangerous for us to drive powder days.	
Comment Form	Commented at 1:23 PM: More frequent and faster frontrunner times. Example a train that just goes directly from Lehi to Provo no stops and have trains run every 15 min that go to each stop	3/6/2020
Public Website	If this corridor is a TRAX line PLEASE GIVE IT SIGNAL PRIORITY. TRAX in downtown SLC is so slow because the trains run at street level and the traffic lights don't prioritize them enough. Also, build the right of way to a high enough standard that TRAX trains can operate faster than vehicular traffic.	3/6/2020
Public Website	The only way to truly fix the traffic problem is a better public transit system. We need more trains with reliable stop times. We need to invest in more rails.	3/9/2020
Public Website	Emailed at 3:39 PM: As a former Frontrunner commuter from Lehi to North Temple in Salt Lake City, I have a fairly good feel for what will make this successful. First, the project is needed and should be pursued. Endlessly expanding I-15 isn't going to cover it. Second, we need a second high-capacity, high speed roadway through the Jordan Narrows area that allows bypass of I-15 at the point- of-the-mountain or this transit is pointless because it won't address the biggest point of congestion in Utah (Mountain View Corridor heads too far to the west - we need something more up the middle). Having said that, for transit the following is needed: 1. Robust, quick, easy connectivity to Frontrunner, providing access to the north into Salt Lake Valley (and from Salt Lake Valley to Utah Valley). Frontrunner must increase frequency by adding a second track where needed or everyone riding this line will just get stuck there. 2. Frequent, regular service - people need to feel they can show up almost any time and a bus or train will be there shortly to pick them up. Every 15 minutes seems ideal. Every 20 minutes is the upper limit. 3. Dedicated lanes or rails along key corridors and through urban centers. The dedicated routes give a sense of confidence and certainty that you can reliably know where	3/9/2020

	it is headed, and most places people want to go are close to a stop. 4. Have enough stops, but not too many - this is a delicate balance. Too many and it's too slow and frustrating to use. Too few and no person or destination is close enough to a stop to want to use it. 5. The "last mile" problem is as important as or more important than the main route. The inevitable questions like: "How do I get from my house to the stop" and "how do I get from the stop to work". Spurs in the right locations help this a lot, but they still have the same problem in the end. Things like electric bikes and scooters are nice, but what about in the winter? (and it's one more thing you have to pay for on top of your transit fare) What if there were "mini-buses" (vans or something) with flexible like a taxi but carry more people (they had these in Brazil), or circular bus routes that always circled back to the mainline stops (if they went too far out, or in too wide a circle it wouldn't benefit anyone)? Options have to be very flexible, because everyone scatters in different directions at the drop off point (and then has to get back later). Park & rides work where people get on since they can drive their car there, but what do they do at the back end? I was lucky initially, a Trax line went straight from Frontrunner to the front of my office. When I later moved jobs I tried to keep doing it, but the last mile required a couple transfers and the bus route was too unreliable, it took too long overall, and so I had to give up. 6. If the fares cost as much as gas, people will want to use their cars. That's just a fact. After a longer period of use people begin to see the other benefits, but to a first time or limited rider, the "hassle" isn't worth it and they will just drive.	
Public Website	What route connects the most likely users to the most desired destinations? Which has the most useful transfer options?	3/9/2020
Public Website	I really think the long term goal should be to provide both options where it makes sense.	3/9/2020
Comment Form	Commented at 3:19 PM: This would be great! My son is already taking train to UVU and his job in Provo. Having more Options would be great. He had ADHD and was in an accident twice, he prefers public transportation.	3/10/2020
Comment Form	Commented at 1:26 Pm: I think this is a must! Utah Valley is growing at incredible rates and we need UDOT to help support those growth pains so that I-15 won't feel all the pain.	3/11/2020

Commented at 4:01 PM: I love this idea!! So many people are blessed through UTA and so many more could be through this! Especially the poor as well as college students without a car!	3/23/2020
Commented at 4:09 PM: I am a supporter of the current public transit options and also would support expansions of said public transit. It is an extremely valuable service to the community and has enabled GDP growth for the state	3/23/2020
Commented at 3:51 PM: I just want to simply state that I think more public transit options is always better and I am willing and excited to support it through using it, paying taxes, and being otherwise involved!	3/23/2020
Commented at 3:57 PM: As a BYU student without a vehicle, I think this is a great idea!	3/23/2020
Commented at 3:57 PM: I rely heavily on UTA & UVX. I based my workplace and living situation based on this transportation. I would love to see more improvements and routes	3/23/2020
Commented at 3:57 PM: I really appreciate plans to use transit rather than widening roads to cope with increased growth. Increased transit infrastructure will help keep our air cleaner, and help maintain beautiful, connected, walkable communities.	3/23/2020
Commented at 4:00 PM: The front runner and any new system should be open on Sundays.	3/23/2020
Commented at 3:55 PM: Please do these projects. The purposes and needs are important to future economic and social function within Utah Valley. If there were a bus the operated regularly from near my home to my place of work, I would use transit each day instead of commuting via car.	3/23/2020
Commented at 4:03 PM: I support this project.	3/23/2020
Commented at 4:06 PM: The UVX has been fantastic to use in Provo. My husband and I have been able to avoid buying a second car thanks to UVX. I am able to take UVX to campus and to my work in south Provo. Expanding public transportation to allow us to more easily access places in Orem and Lehi would help a lot! My husband works in Lehi and Orem and we do a lot of errands in Orem!	3/23/2020
Commented at 4:07 PM: I would love to offer my opinion, small as they are, because I love the public transit in Utah.	3/23/2020
	are blessed through UTA and so many more could be through this! Especially the poor as well as college students without a car! Commented at 4:09 PM: I am a supporter of the current public transit options and also would support expansions of said public transit. It is an extremely valuable service to the community and has enabled GDP growth for the state Commented at 3:51 PM: I just want to simply state that I think more public transit options is always better and I am willing and excited to support it through using it, paying taxes, and being otherwise involved! Commented at 3:57 PM: As a BYU student without a vehicle, I think this is a great idea! Commented at 3:57 PM: I rely heavily on UTA & UVX. I based my workplace and living situation based on this transportation. I would love to see more improvements and routes Commented at 3:57 PM: I really appreciate plans to use transit rather than widening roads to cope with increased growth. Increased transit infrastructure will help keep our air cleaner, and help maintain beautiful, connected, walkable communities. Commented at 3:55 PM: Please do these projects. The purposes and needs are important to future economic and social function within Utah Valley. If there were a bus the opperated regularly from near my home to my place of work, I would use transit each day instead of commuting via car. Commented at 4:06 PM: The UVX has been fantastic to use in Provo. My husband and I have been able to avoid buying a second car thanks to UVX. I am able to take UVX to campus and to my work in south Provo. Expanding public transportation to allow us to more easily access places in Orem and Lehi would help a lot! My husband works in Lehi and Orem and we do a lot of errands in Orem!

Commen Form	Commented at 4:10 PM: To aid in your study. My experience with the Front Runner: Positives: Free parking in train "station" parking lots Free for college Student's Great hourly times throughout the day Wifi on the train To Change: I would have taken the Front Runner more if it ran on Sundays. I, and many of my colleges, need to return to work Monday mornings. If the train ran on Sunday, we could take the train on our weekend trips and be back Sunday night. Currently, the only possibility is very early Monday morning, which is inconvenient. Such is my experience. Thank you, Avery Nusbaum	3/23/2020
Commen Form	Commented at 4:35 PM: Utah Valley is very polluted and overcrowded. We need to reduce CO2 emissions, so expanded transit service is critical. Public perception of transit also needs to improve, I know several people who will not take transit because it is too slow, or are scared of fellow passengers. This also needs to change.	3/23/2020
Commen Form	Commented at 7:20 PM: This transit system is badly needed to make our valley more livable and raise our quality of life.	3/23/2020
Commen Form	Commented at 4:44 PM; I wholeheartedly support this idea! I-15 is a nightmare, especially up near Lehi. I live in Provo near BYU and frequently travel up into Orem to shop and eat, but generally, I avoid going to Lehi because I don't like all the traffic and construction. Frontrunner and UVX are a great start, but Frontrunner runs infrequently (and not on Sundays, but that's another discussion) and UVX doesn't go all the way up. So yesa hundred times yes this project. I'm willing to support it with my tax dollars.	3/23/2020
Commen Form	Commented at 4:52 PM: As a college student who does not have a car. I feel strongly that this new transit corridor	3/23/2020
Commen Form	Commented at 6:22 PM: I've always had good experiences using the existing public transportation and would love to see it grow to accommodate the increasing traffic around where I live.	3/23/2020
Commen Form	Commented at 7:18: I support this initiative. I'm a civil engineering student at BYU. I'm graduating this semester and will be starting a full-time position at a firm in Orem. I will be staying in Utah county for the foreseeable future, and I think improved public transit is necessary.	3/23/2020
Commen Form	Commented at 10:26 PM: The purpose and reasons are great. As a college student without any car or bike, public transport is really the only way I can get to work, stores, restaurants, and home! More mobility would be amazing.	3/23/2020
Comment Form	Commented at 4:16 PM: Any alternative transportation or public transportation option in this study area will need to be more reliable and quick than simply driving. The UVX system in Provo and Orem is a great example of a bus system that is reliable and quick. I can easily get from one end of town to the next faster than in a car during highly congested travel times. If this is not a priority of this initiative, any development will likely be insufficient to bring cars off the road and commuters onto public transit.	3/23/2020
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Public Website	Right now with the BRT system, student housing south of campus is easily accessed by public transit which makes it easier for BYU students to not have cars. The future alignment of Trax by BYU campus will make it so less students are easily served by transit	3/23/2020
Public Website	Roads are already congested and the cities are only making it worse with their plan of increasing busses in the city by dedicating their own service lane. These lanes for busses are mostly empty! If other vehicles were allowed in the bus lanes, then congestion would decrease. Busses should have a dedicated pull out zone that does not interfere with traffic. There are numerous people who depend on the busses, and they provide cheap, vital services to the public, but because of the way the bus stops are organized, it only leads to more congestion, traffic jams, and irritation. Busses stopping in the middle of the road (blocking a lane of traffic), having their own dedicated bus lane, and additional stop lights only increase congestion and travel times	3/23/2020
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Public Website	Turning left onto or off of N State St in Provo can be difficult or even impossible depending on the time of day. Shopping centers, side streets, and even turns at traffic lights all have this problem. Having some differently planned outlets for those streets and shopping centers, as well as higher capacity transit, could make traffic more manageable.	3/23/2020
Comment Form	Commented at 5:10 PM: I agree entirely; having only one interstate in the area makes driving very inconvenient, and public transit can make up for it. Right now, some buses are on awkward routes, and trains can move slowly or get stopped, so a more reliable transit system would make a big difference.	3/23/2020
Public Website	An East-West public transit option from BYU campus, Joaquin and Foothills to Cougar Blvd, the hospital, and adjacent shopping areas would be greatly beneficial.	3/23/2020

Public Website	I have not seen a clear explanation of what potential options are being considered for this corridor (ex: light rail, BRT, road expansion etc), but I would be in support of expanding Utah valleys public transit and creating another BRT system similar to that of the UVX that a significant group of people might use to take to work if they were willing to take public transit and if the locations of the stops were frequent enough to make it convenient and close to enough to the places in which people worked/lived.	3/23/2020
Comment Form	Commented at 4:21 PM: I am very supportive. Public transportation is the best!	3/24/2020
Comment Form	Commented at 6:59 PM: I love the idea of public transportation, I used it often when I was in Europe. The transportation here only caters to those traveling between cities or on major arteries. Driving here can be frustrating, we have a lot of younger drivers bringing their diverse driving culture with them. The BRT disaster is expensive, unpopular and forces drivers to use selected routes to get across town, creating more congestion for those roads and neighborhoods. The simultaneous construction on 500 West and 1230 North has crippled the traffic flow in those neighborhoods and made even walking or cycling dangerous. I live in west Provo (Dixon neighborhood). I work at BYU, I shop in Provo. It takes me about an hour and a half to take public transportation to campus, assuming I don't miss a connection. It does not run as early as I need it to run. It only takes me 47 minutes to walk to campus, provided I do not get run over in a crosswalk while crossing with the walk signal. I suggest that if you want my support, that you do more to fix the public transportation within the cities, not just between them.	3/24/2020
Comment Form	Commented at 10:26 AM: I would take public transportation more often it the routes, outside of the UVX lines, ran more often; specifically every 15 minutes.	3/24/2020
Comment Form	Commented at 1:06 PM: Public transport is definitely needed but honestly, this whole website is very confusing. What is it exactly that you want me to comment on?	3/24/2020
Email	Emailed at 11:46 AM: I recommend a line down 9th East in Provo.	3/27/2020
Comment Form	Commented at 10:28 AM: As a university student without a car, I've definitely appreciated and made great use of public transit, especially the UVX, other UTA buses, and Frontrunner. The more opportunities there are to travel by public transit, the better it will be for people like me.	3/29/2020

Public Website	I love that we're doing this study. We need better transit options to support our growing community. Thank you!!	4/30/2020
Comment Form	Commented at 5:09 PM: I'm thrilled about this!! Reliable, frequent, high-capacity transit is the best path forward for transportation in a growing Utah. We went carless last year and have loved it, so we rely wholly on transit for visiting friends and family outside of Provo.	3/31/2020
Comment Form	Commented at 5:51 PM: I am in favor of any and all methods of getting cars off the road. I think this is an excellent method in a very congested area of the state to improve the quality of life. Personally, I drive 20 minutes to Provo to train to Lehi every day. So I would also be interested in anything that can reduce that daily commute time.	3/31/2020
Comment Form	Commented at 11:01 PM: PLEASE do this. I have wished many times that the public transit system from Provo to Lehi and surrounding areas were available.	4/1/2020
Comment Form	Commented at 9:06 AM: We need to start shifting our thinking from needing more and wider roads to other means of transportation, such as rapid transit, active transportation, and other alternatives	4/3/2020
Public Website	I have really enjoyed riding UVX on a daily basis to BYU campus. My favorite thing about the UVX is that it runs every 6 minutes during the day. I would not be as excited to ride a train that only runs every 15 minutes. I'd much rather have the articulated buses more often than a less frequent train.	4/24/2020
Public Website	I realize one of the reasons for replacing UVX with light rail is that trains simply hold more people than buses. You can't just run more buses, or they will just bunch up. Instead of installing light rail, is it possible to make the stations longer to accommodate two BRT buses at once? It would seem that this would be much less expensive than light rail, and would allow for shorter wait times at the stations since there would be more vehicles in the system.	4/24/2020

Comment Form	Hopefully this study will be more serious than previous studies. Every time I join or look at these type of studies and choose between false options, there always seem to be an unhealthy dose fantasy. Things like a research university replacing the prison in Bluffdale, true high density housing (not 3-5 story condos, but 20-30 story buildings) being built near Trax stations, tens of thousands of people magically deciding to ride their bikes instead of drive 30 miles every day, etc. These studies could be very useful but often become next to useless with the false choices and overly fantastic elements.	4/24/2020
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Out-of-Scope Interaction

COMMENT	COMMENT DATE	CONTACT METHOD
Emailed at 11:02 AM: I want to see a rapid-transit route that runs the entire length of 1100 North in Pleasant Grove. Top to bottom, until you but American Forks state street. Make it happen. That is all.	2/5/2020	Email
North County Blvd @ PG Blvd & PG Blvd to northbound 1-15 need immediate upgrades. For traffic turning left from 700 N onto PG Blvd, please consider allowing both left turn lanes access to northbound 1-15 by adding one more right turn lane off PG Blvd to NB 1-15. Then both turn lanes on 700 N could be utilized moving more traffic through the intersection. Traffic currently backs up for a long ways during rush hour. Much of it needlessly waiting for the right-most left turn lane.	3/2/2020	Public Website
SB North County Blvd @ PG Blvd is too narrow just prior to the intersection. During rush hour, through traffic in the right lane gets constricted by backed up automobiles in the right turn lane, especially where it narrows for the turn into Valley Grove. Widening the road slightly at this location to allow through traffic to get in the correct lane earlier and restriping would be a very cost effective solution to a major rush hour problem.	3/2/2020	Public Website
Traffic light needed North County Blvd (700 N) @ 1700 W for all of the new homes and townhomes in the area. If not here, then at Proctor Ln. There will soon be over 1,000 door fronts in this area of Lindon.	3/2/2020	Public Website
On North County Blvd (700 N), a straight connection is needed @ Proctor Ln to connect traffic across North County Blvd North toward DoTerra, Sam White Lane. If there was a light here traffic could more easily cross here toward PG, avoiding the congested PG Blvd/North Count Blvd.	3/2/2020	Public Website
Looking forward to Vineyard Connector, but don't forget to connect it to 1- 15 Proctor Lane overpass. This is especially needed for pedestrian access to Utah Lake and Lindon Trails.	3/2/2020	Public Website

Geneva Rd needs sidewalk and, or trails connecting Anderson Farms residential area to Lindon Trails.	3/2/2020	Public Website
Geneva Road needs to be improved to include bike lanes-adequate CLEAN SHOULDERS for increased safety and to encourage alternative transportation. It's one of the main connectors between Provo and Pleasant Grove and needs to provide a better means for alternative transportation. Another issue that is a huge problem between much of the Pleasant Grove, Cedar Hills American Fork area, is the lack of East to West roads that connect. So many roads dead end, and there is frequent speeding through residential neighborhoods because there isn't a good route for people along the east side of the valley to get to I-15.	3/2/2020	Public Website
TRAX and Frontrunner at Vineyard's Intermodal Hub would be a great way to ensure viable options for the long term.	3/2/2020	Public Website
The Vineyard Connector should be prioritized as a lower speed alternative route to get to Northern Utah County. Please also consider lakeshore trail enhancements as a viable way for commuters to get to work in Northern Utah County.	3/2/2020	Public Website
The intersection at Geneva Rd. and 400 South Orem needs to be better coordinated with the intersection of 400 South Orem and Vineyard Rd. These are busy intersections near a school that are close together. Traffic is a problem, especially at rush hours. This is a rapidly growing area with more and more traffic. These intersections need to be fully signalized and coordinated to allow traffic from Vineyard Rd to better access Geneva Rd, and vice versa. This will also protection for school drop-offs at Vineyard Elementary School.	3/4/2020	Public Website
The NB off-ramp onto PG Blvd becomes heavily congested during the morning rush hour. More than once I've had to slam on my breaks and/or swerve because of stopped traffic in the right travel lane. Adding an extra exit-only lane after the 2000 W overpass may help reduce this conflict.	3/4/2020	Public Website
Orem needs marked bike lanes on State Street. AF, PG, Lindon, and Provo have them on this road, but they disappear and become street parking in Orem. This is especially bad near Midtown 360, because there aren't sidewalks either. This is incredibly dangerous for cyclists, and taking the poorly maintained, out of the way side roads is not a good alternative.	3/5/2020	Public Website
Once the construction on the freeway tech corridor is completed, could we look at allowing the buses to drive in the shoulder lanes? They have this in Seattle and it's worked quite well for them.	3/5/2020	Public Website

Point. A big concern I have is already the Mountain View Corridor is getting super busy and they keep building houses and high-density housing and the road is already packed with traffic. Especially headed Northbound. Thanksgiving Point where I have to commute to work is in my mind a total traffic failure. Lehi City needs to STOP building high-density housing and huge buildingsUNTIL they can figure out the road system. I'm a native of Utah and because of the traffic MESSI would love to move away from the Lehi.3/11/2020Comment FormCommented at 4:03 PM: I believe the transit system could benefit from more cohesion of bus/rail schedules that allow for transfers to be smoother. Also, it would be fantastic if UTA had annual surveys to update schedules based on riders needs in order to increase usage based on convenience.3/23/2020Comment FormCommented at 4:10 PM: : I am very behind the goals of this initiative, and can speak from experience that as a BYU student, access to transportation from Provo to the tech companies in Lehi (such as places like Podium) would be super beneficial to my professional development/experience as well as saving me from a deal-breaking commute all the time. I was offered a position at Podium in Lehi hat would have been very beneficial to my professional development, but ultimately had to turn it down because it wouldn't be cost-effective and the travel time would put a huge hindrance on my ability to get the rest of my homework done for my other classes. In consideration of plans, please keep in mind the possibility of making it so that students can do homework on the transportation method, just like how I can do that on the frontrunner.3/23/2020Comment FormCommented at 6:27 PM; I've LOVED and used the UVX system a ton. It's been so helpful to have free and su			
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3/23/2020	Get rid of the weedy messy median as you enter and exit PG Blvd to I-15, and open up more lanes heading east.	3/23/2020	
	State street in Orem needs bike lanes. It's dangerous in this area, because the sidewalk stops around Midtown 360.	3/23/2020	

A dedicated pull out for the UVX to stop on 9th near the Creamery, thousands of residents in the foothills neighborhood and thousands of students in Heritage Halls, along with access to the Law Building and future Performing Arts building would be extremely beneficial.	3/23/2020	Public Website
There should DEFINITELY be some sort of line that goes along 9th, maybe hooking up to state street.	3/24/2020	Public Website
Emily called and wanted to leave feedback that this new bus service should run frequently on Sundays. She explained her experience of the buses/trains not running on Sundays.	3/24/2020	Phone
Freedom Blvd is not very safe for bikers. There is no bike lane, and the road shoulder disappears in some sections. I don't think that protected bike lanes like on Cougar Blvd are a good idea, because they're such a hazard to cars, but having dedicated bike lanes would be nice.	3/29/2020	Public Website
I am a college student who bikes on Cougar/Bulldog Blvd most days, and I actually do not own a car. However, as a biker, I'm doubtful whether the recently installed protected bike lanes are really a good idea. The idea has merit, don't get me wrong, but I have seen so many cars accidentally drive over the medians and get stuck that I question whether we're getting more benefit or damage out of the installments. And I'll be honest: I feel just as safe in a regular bike lane that's sufficiently wide, as I do in a protected bike lane. Additionally, the protected lanes actually make it more dangerous for me if I want to get into the left turn lane, because they block the maneuver until I'm really close to the intersection. Has any kind of study been performed to evaluate the costs compared to the real benefits for these protected bike lanes?	3/29/2020	Public Website
Commented at 11:25 AM: It may not need to be in the main points of the study, but I would consider foot/wheel connections to transit, such as pointing out areas along the potential transit line that are in need of better bicycle and pedestrian connectivity of safe non-auto infrastructure.	4/2/2020	Comment Form
Safe roads for cars are the most practical solution and in the days of the coronavirus, the use of personal cars looks like the safest way to get around. Improving arteries like Geneva Road to handle more traffic is very important to solving traffic issues.	4/27/2020	Comment Form
Turning left off of Orem State Street is difficult during daytime hours but nearly impossible during the morning and evening commutes. Left-turn signals in Albuquerque, NM are at every light and have a signal so even if just one car is present to turn left, the signal will go off FIRST, before the signal for cars continuing straight. This would help immensely in helping traffic turning left off of State Street be able to turn at a signal without having to race across after all the cars going straight have had a turn.	5/4/2020	Public Website

The way that Albuquerque, NM handles left-turn signals is the best I have ever seen in any city. Each signal has a left-turn light with a sensor when cars are in the left-turn lane. If even 1 car is in the left-turn lane, the signal will go off FIRST, before the green light for the cars continuing straight can go. This is consistent throughout the city so that everyone at every intersection knows what is going to happen with the turn signals, and would help alleviate many of Utah County's problems with left-turn signals, especially throughout Orem State Street and Provo University Avenue. Cars consistently know that whoever is in the left-turn lane gets to go first (for differing amounts of time based on the number of cars in the left-turn lane once the lights for the road perpendicular to that turn red). After the cars turning left are done, their left-turn signal becomes either yellow (for smaller roads) or red (for larger ones) and then the cars going straight get to go. The fact that Utah County's left-turn signals often do not go off unless a present number of cars (often 3-5 or more) are waiting to turn left is so frustrating for those waiting and ultimately dangerous since cars going left will frequently dart across the intersection causing more crashes than is necessary. Often the left-turn signal won't go off at all even when cars are there, most of the time it doesn't go off until the cars going straight have had their turn first, and often it will only turn green for a few seconds, allowing a very small number of cars to turn. The Albuquerque method is so consistently good; I beg you to use it. Thanks!	5/4/2020	Public Website
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Appendix C: Media Tracking - Phase One

Date	News Outlet	News Anchor/ Author	Type of Media	Title of the Story
3/3/2020	Daily Herald	Genelle Pugmire	News article	North Utah County cities, UTA start planning for rapid transit
2/27/2020	Lehi Free Press	Skyler Beltran	News article	Like pickleball? Tournament sized pickleball complex discussed in City Council
February 2020	Vineyard City		Newsletter	Transportation Survey
March 2020	Lindon City		Newsletter	Central Corridor Transit Study

Appendix D: Social Media Report - Phase One

News Outlet	Content	Engagement
UTA Twitter	Seven cities in Utah County are working with us to evaluate faster and more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved and provide feedback on the initial range of alternatives.	Likes: 4
UDOT Region Three Twitter	We are collaborating with seven cities in Utah County to evaluate options for faster & more frequent high-capacity transit between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved & provide feedback on the potential transit corridor options. @UVU@BYU@RideUTA	Likes: 20, Retweets: 5, Comments: 1
Provo City Twitter	7 cities in Utah County, in collaboration with UTA, UDOT, and MAG have initiated a study to evaluate options for faster & more frequent high-capacity transit service between Lehi & Provo. The participating cities are: Provo, Lehi, AF, Pleasant Grove, Lindon, Orem, and Vineyard.	Likes: 4
Provo City Twitter	The study will evaluate ridership, travel times, land use, economics and costs for a range of alternatives. Public and stakeholder input will be gathered throughout the process and will be a key component to shaping the study. Visit http://centraltransit.utah.gov for more details.	Likes: 1
Orem City Twitter	Orem is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved & provide feedback.	Likes: 4
Pleasant Grove City Twitter	Pleasant Grove is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved & provide feedback.	Likes: 1
Provo City Facebook	Seven cities in Utah County, in collaboration with UTA, UDOT, and the Mountainland Association of Governments (MAG), have initiated a study to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. The participating cities are: Provo, Lehi, American Fork, Pleasant Grove, Lindon, Orem, and Vineyard. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah	Reactions: 21, Shares: 2

	County. The study is building on the foundation of previous planning and is one of multiple efforts to enhance transportation and mobility in this area. The study will evaluate ridership, travel times, land use, economics and costs for a range of alternatives. Public and stakeholder input will be gathered throughout the process and will be a key component to shaping the study. To stay informed throughout the transit study process, check out the website at centraltransit.utah.gov and sign up for regular email updates.	
Provo City Facebook	Seven cities in Utah County, in collaboration with UTA, UDOT, and the Mountainland Association of Governments (MAG), have initiated a study to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. The participating cities are: Provo, Lehi, American Fork, Pleasant Grove, Lindon, Orem, and Vineyard. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. The study is building on the foundation of previous planning and is one of multiple efforts to enhance transportation and mobility in this area. The study will evaluate ridership, travel times, land use, economics and costs for a range of alternatives. Public and stakeholder input will be gathered throughout the process and will be a key component to shaping the study. To stay informed throughout the transit study process, check out the website at centraltransit.utah.gov and sign up for regular email updates.	Reactions: 31, Comments: 8, Shares: 8
Orem City Facebook	Orem is one of seven cities collaborating with UTA, UDOT and MAG to evaluate options for faster and more frequent high- capacity transit service between Lehi and Provo. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. Public input will be gathered throughout the process and will be a key component to shaping the study. Please visit centraltransit.utah.gov to provide your feedback on 1) the purpose and need of the study and 2) the initial range of transit corridors. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov	Reactions: 44, Comments: 30, Shares: 11

Lindon City Facebook	Lindon is one of seven cities collaborating with UTA, UDOT, and MAG to evaluate options for faster and more frequent high- capacity transit service between Lehi and Provo. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. Public input will be gathered throughout the process and will be a key component to shaping the study. Please visit centraltransit.utah.gov to provide your feedback on 1) the purpose and need of the study and 2) the initial range of transit corridors. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov. Click on the link below for more information. https://media.rainpos.com/442/ccts_flier_full_sheet_2.pdf	Reactions: 9, Comments: 5
Pleasant Grove City Facebook	Pleasant Grove is one of seven cities collaborating with UTA, UDOT, and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. Public input will be gathered throughout the process and will be a key component to shaping the study. Please visit www.centraltransit.utah.gov to provide your feedback on: 1. The purpose and need of the study. 2. The initial range of transit corridors. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. For more information, please call 385-355- 3133 or email the study team at centraltransit@utah.gov.	Reactions: 7, Comments: 16
Orem City Instagram	Orem is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit centraltransit.utah.gov to get involved & provide feedback.	

Vineyard City Twitter	Vineyard is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved & provide feedback.	Likes: 1
Vineyard City Facebook	Vineyard is one of seven cities collaborating with UTA, UDOT and MAG to evaluate options for faster and more frequent high- capacity transit service between Lehi and Provo. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. Public input will be gathered throughout the process and will be a key component to shaping the study. Please visit centraltransit.utah.gov to provide your feedback on 1) the purpose and need of the study and 2) the initial range of transit corridors. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov	Reactions: 3
Lehi City Facebook	Lehi is one of seven cities collaborating with UTA, UDOT, and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. Transit is a vital part of the broader transportation network needed to accommodate growth and guide planning in Utah County. Public input will be gathered throughout the process and will be a key component to shaping the study. Please visit https://www.centraltransitutah.com/ to provide your feedback on 1) the purpose and need of the study and 2) the initial range of transit corridors. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov.	Likes: 14, Shares: 3

Appendix E: Collateral Report – Phase One







Appendix F: Website Analytics - Phase Two





Appendix G: Public Comment Report - Phase Two

Other AlignmentPublic WebsiteCommented: I would love to see some more public transit options from UVU to Plesant Grove and American Fork. Many of the students there have jobs up in that area at places like doTERRA, Travers mountain, Young Living, and to give them some options for going to and from work and school.06/09/20Geneva Road AlignmentPublic WebsiteI would enjoy Vineyard having increased access and connectivity to other nearby cities through public transportation.06/10/20State Street AlignmentPublic WebsiteVote for State Street - to get people to businesses!06/10/20Stop RecommendationsPublic WebsiteThis area would be safer and more efficient for car traffic if the bus were in the middle of the road (like the UVX is) because the buses almost completely block the right lane of planning commission there. I think that the rail alternative might be best for Plesant Grove and am on the planning commission there. I think that the rail alternative might be best for Plesant Grove in the long term. It's kind of a tough decision because the outre and and reme to deserve rod mytobally have a bit more of a critical mass for commuters. However, the rail alternative mould also allow the area west of downtown Plesant Grove to explore redevelopment as a large transit-oriented development area. Ideally, we would have the BRT past through that area and could work out a circulator trolley from downtown to the Grove area along North County Boulevard, like they have in Farmington or Ogden.06/10/20	CATEGORY	CONTACT METHOD	COMMENT	DATE
Geneva Road AlignmentPUblic Websiteconnectivity to other nearby cities through public transportation.06/10/20State Street 	Other Alignment		options from UVU to Plesant Grove and American Fork. Many of the students there have jobs up in that area at places like doTERRA, Travers mountain, Young Living, and other such large businesses. I feel like it could go a long way to give them some options for going to and from work and	06/09/20
Geneva Road AlignmentPUblic Websiteconnectivity to other nearby cities through public transportation.06/10/20State Street AlignmentPublic WebsiteVote for State Street - to get people to businesses!06/10/20State Street AlignmentPublic WebsiteVote for State Street - to get people to businesses!06/10/20Stop RecommendationsPublic WebsiteThis area would be safer and more efficient for car traffic if the bus were in the middle of the road (like the UVX is) because the buses almost completely block the right lane of traffic just past the intersection heading North on State St.06/10/20Commented: I live in Pleasant Grove and am on the 				
AlignmentWebsiteVote for State Street - to get people to businesses!06/10/20Image: Stop RecommendationsPublicThis area would be safer and more efficient for car traffic if the bus were in the middle of the road (like the UVX is) because the buses almost completely block the right lane of traffic just past the intersection heading North on State St.06/10/20Image: Stop RecommendationsImage: Stop Website06/10/2006/10/20Stop RecommendationsImage: Stop Website06/10/2006/10/20Image: Stop RecommendationsImage: Stop Website06/10/2006/10/20Image: Stop PublicImage: Stop Traffic just past the intersection heading North on State St.06/10/20Image: Stop PublicImage: Stop PublicImage: Stop Commented: I live in Pleasant Grove and am on the planning commission there. I think that the rail alternative might be best for Pleasant Grove in the long term. It's kind of a tough decision because the other two alternatives would serve an area with a higher concentration of offices, and probably have a bit more of a critical mass for commuters. However, the rail alternative would be closer to residential concentrations and would also allow the area west of downtown Pleasant Grove to explore redevelopment as a large transit-oriented development area. Ideally, we would have the BRT pass through that area and could work out a circulator trolley from downtown to the Grove area along North County Boulevard, like they06/10/20			connectivity to other nearby cities through public	06/10/20
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Public Website	Geneva Rd/800 pink route. This seems to get Vineyard and Orem locations added. I'd also like to add that a new Frontrunner station in the Lindon area (between Orem & AF) would be a huge help. There are many who *would* commute to the Lehi area from North Orem/Lindon/South PG.	06/10/20
Public Website	Commented: I think whichever route is chosen should be the route with the most people living along it (or that has the highest potential to have residents living along it). Living near transit encourages more people to use it in the first place. My only issue with UVX is that there is hardly any housing near to it, it's nearly surrounded by parking lots and big box shopping centers.	06/10/20
Public Website	We wish there was a connection continuing South down Geneva Road so the growing West side of Provo could be connected.	06/11/20
Public Website	I would love transit from Center St Provo at Geneva Rd to the Orem station. I used to work at UVU and would have ridden the bus if it hadn't been a 1-hour ride instead of a 10-minute drive. It seems a bus down Geneva would be easy enough, but UVX is too much construction for that road.	06/11/20
Public Website	State street is the backbone of Utah Valley and is how our communities inter connect with each other. It just makes sense to have the Corridor follow the State Street alternative. Going west cuts off reasonable access to so many residential areas in both North Orem and Lindon and instead run the buses through mainly industrial areas. Keep it close to the people.	06/11/20
Public Website	Keep the route on state street! Cutting through vineyard doesn't make sense!	06/11/20
Public Website	Keep the road on state street! This connection route makes the most sense!	06/11/20
	Public Nebsite	Lindon area (between Orem & AF) would be a huge help. There are many who *would* commute to the Lehi area from North Orem/Lindon/South PG.Dublic WebsiteCommented: I think whichever route is chosen should be the highest potential to have residents living along it (or that has the highest potential to have residents living along it). Living near transit encourages more people to use it in the first place. My only issue with UVX is that there is hardly any housing near to it, it's nearly surrounded by parking lots and big box shopping centers.Dublic WebsiteWe wish there was a connection continuing South down Geneva Road so the growing West side of Provo could be connected.Dublic WebsiteI would love transit from Center St Provo at Geneva Rd to the Orem station. I used to work at UVU and would have ridden the bus if it hadn't been a 1-hour ride instead of a 10-minute drive. It seems a bus down Geneva would be easy enough, but UVX is too much construction for that road.Dublic WebsiteState street is the backbone of Utah Valley and is how our communities inter connect with each other. It just makes sense to have the Corridor follow the State Street alternative. Going west cuts off reasonable access to so many residential areas in both North Orem and Lindon and instead run the buses through mainly industrial areas. Keep it close to the people.Dublic WebsiteKeep the route on state street! Cutting through vineyard doesn't make sense!

State Street Alignment	Public Website	Having BRT on State Street (for any section) would be a nightmare. BRT just makes a road that is already over saturated worse. Find another route if you must put BRT in at all. It has made University Parkway an even bigger nightmare than it was before. They would have been much better off on that project to run it down 1200 S. thru Orem. Instead extra cars are clogging up the smaller parallel side streets (including 1200 S. and even up to Center St) to avoid the mess that is Parkway. Having the BRT go down such a busy road also makes it dangerous for the pedestrians who ride the BRT because they have to cross so much traffic to do so (and I have seen many jaywalk across Parkway in order to get to the bus in time which is extremely dangerous). Another problem BRT creates is in order to accommodate wider streets, the traffic signal cycle lengths have to go up, thus adding additional delay for traffic and pedestrians. Please, please, do not run BRT down State Street. It is a terrible idea.	06/11/20
State Street Alignment	Public Website	The Alt-State Street alternative is the most logical and direct route. The Geneva Road alternative will go through a lot of industrial and ridership will suffer.	06/11/20
State Street Alignment	Public Website	The BRT Route should deviate from State Street in PG and connect to North County BIVD (700 N.). PG is adding a lot of new office buildings and growth. Lindon City is also adding development and is in the process of completing a master plan that will encourage substantial job and residential growth along 700 N. As part of the master plan, Lindon City will be planning for a TOD District where 700 N. and the rail line intersect. While LRT may be a ways off, this location could be a vital intersection for BRT now, LRT and TOD in the future. Continue BRT to State Street. By going down Geneva Road an entire residential segment on the east side is missed as well as economic development potential for State Street.	06/11/20
Stop Recommendations	Public Website	Interfacing with Lehi FrontRunner is more important to me than directly servicing Adobe. Lehi pretty much gave that land away for free already, so we don't owe Adobe anything. If anything, Lehi City should be tougher about putting together a public-private circulator route around the business district on both sides of the freeway. They got themselves into this mess, and this option would be a great way to get people moving around those congested areas.	06/11/20

Rail Corridor Alignment	Public Website	Pull the alignment down 850 E here, and connect with Pioneer Crossing to interface with the American Fork FrontRunner station. This would also give a more solid alignment to continue all the way through Main Street American Fork. We need another transit option to get to that FrontRunner station.	06/11/20
Stop Recommendations	Public Website	I'm in favor of this N County Blvd alignment, and the stations along these new development.	06/11/20
Other Alignment	Public Website	Opt for the alignment to continue through 500 W, and to 920 S to get to Provo Central. This area is ripe for continued redevelopment, and also features quite a bit of medium- density residential. This also reduces UVX overlap, while still keeping them connected via Provo Central and State Street/University Parkway.	06/11/20
Geneva Road Alignment	Public Website	Commented: While I agree that the west side of Provo isn't served well by the current UTA system, if giving us a BRT route means tearing up Geneva Rd for a year or more, forget it! Haven't we suffered enough on this side of I-15? Our sewer system is at or above capacity, when there's a wreck on I-15 Geneva Rd becomes impassable, and when we want to drive into Provo to shop the traffic signals make it impossible to get to the stores quickly when I volunteer at the State Hospital it takes 20 minutes to make that 3.3 mile drive. Please don't make things worse!	06/11/20
Stop Recommendations	Public Website	Commented: the Lehi corridor on the west side of the freeway is not very useful if you live or work on the east side. the silicon slopes area is difficult to navigate without a car it definitely needs more thought than to just throw up a few stops and call it good.	06/11/20
Rail Corridor Alignment	Public Website	Commented: 1) i think connecting with FrontRunner would be a top priority. i'm surprised to see the AF stop completely missed. Hopefully there is some connector there. 2) Rail Corridor makes the most sense for commuters and visitors - but i really think it needs to connect up with Lehi Front Runner station after the Outlets area. I'm surprised that isn't in the plan. It makes the most sense.	06/30/20
Out-of-Scope	Public Website	Commented: I wish transportation had the same routes all the time and we didn't have to change them always!	06/11/20

State Street Alignment	Public Website	Commented: I would support the Alt - State Street (green line) to help support business growth along State St. in Lindon. But I HATE the dedicated bus lanes down the middle of the streets in Provo. The way they have blocked turning in downtown Provo around the Library is a nightmare. Many of us avoid driving anywhere near that downtown bus route.	06/11/20
		Commented: The proposed Rail Corridor and Geneva Road	
State Street Alignment	Public Website	Commented. The proposed kain conhoor and Geneva Road alignments look really great, though having an alignment run down State Street in Lindon/Orem/Provo would also be really beneficial for desirable growth along State. I really like the alternate alignments which loop down N County Blvd, through PG Blvd and back to State. An alignment like that would hopefully receive good ridership from the PUD residential communities to the west of that stretch of N County Blvd, and would hopefully inspire better development along PG's commercial highway zone. Though, having a line pass through some of PG's State Street areas would also be helpful for High School/Middle School kids wanting to get around some of the shops and restaurants. Eventually, I hope we can get a good line that runs down Canyon Road (100 E Pleasant Grove). I think that it would be excellent to have one of the alternate alignments loop a bit farther to be able to connect with the existing American Fork FrontRunner station. As of yet, it's still not optimally-connected to other transit options. And with American Fork wanting to revamp their Downtown area, an alignment that goes right through Main Street, with direct access to FrontRunner, would be a win-win for a lot of stakeholders. I like the idea of having this proposed BRT interfacing at the intersection of State and University with the Provo-Orem BRT. It seems like a good idea to have the new line continue south on State Street past the hospital, and potentially all the way to the Provo Central Station. In reality (and as I'm sure you feel), it would be excellent to have options available along both Geneva (where the growth has been happening), as well as State Street (where we need better, smarter growth). Some kind of solution to allow both would be excellent, though I'm not sure about the viability hurdles that that would initially create with regard to cost, ridership impact due to cost, etc. The real question is what to do with Lehi, with the mass of unorganized commercial development taking pla	06/11/20

		solution would be to have Lehi start some sort of circular shuttle system around the central [®] business district, and to have the proposed BRT interface with Lehi Front Runner. Because of Lehi City's thoughtless commercial development progression, it's hard to see a natural route for an effective single large BRT system like the proposed one. Perhaps a loop around Triumph, Timpanogos Highway, and Executive Parkway/Ashton Blvd would work well. It'd be great if there was a bridge or tunnel across the freeway from Adobe Way to Thanksgiving Way. Maybe when they redo that whole area again in 10 years we can factor in some dedicated transit freeway crossings.	
State Street Alignment	Public Website	Commented: I am a Lindon resident and would like to see the Alt-State Street (Green Line) through Lindon. Thank You	06/11/20
State Street Alignment	Public Website	As a current BYU student and Provo resident who relies on public transportation, I have looked over the proposed routes for the new Utah County Central Corridor Line and would like to suggest a few changes to the BRT route. The proposed transit stops running through Provo and Orem seem poorly placed. If I were to move the Provo and Orem stops, I'd change the line to run down Cougar Blvd to N 150 E (N Canyon Rd) then go west on University Parkway running with the UVX line until the intersection of University Parkway at State St where the bus would turn north on State Street resuming the proposed route. I would propose stops at all current UVX stops along the route as well as additional stops at: N Canyon Rd and the BYU Track and field complex (providing additional transportation and alleviating congestion for BYU sports as well as BYU students living on campus) University Parkway @ University Ave (providing public transportation for the surrounding student housing complexes and allowing for the mitigation of safety concerns frequently documented at that intersection) Attached you will find an edited copy of the map showing these changes as they go through Provo and Orem. Please feel free to reach out with any questions you may have. Thank you,	06/11/20
	D. L.P.	Commented: I support the Alt State Street [®] route	
State Street Alignment	Public Website	alternative (green line) through Lindon State Street and turning down 700 North.	06/11/20

Public Website	Commented: I prefer Bus Rapid Transit all the way down State Street instead of down to Vineyard. It only makes sense to stay with State Street.	06/11/20
Public Website	Commented: Are they planning on widening State Street? If not, I don't think the BRT needs it's own lane down State Street. The traffic is bad enough without taking a lane away.	06/11/20
Public Website	Commented: +1 vote for the State Street route. Making the route through main street will make it more available to the most people. We don't want to push public transit to the outskirts of town, but to make it available to the centers of town.	06/11/20
Public Website	Commented: Adding the bus lanes to Geneva feels like you are trying to turn this road into something more like a Redwood Road with lots of traffic. As someone who lives near Geneva, neither my neighbors nor I want more cars coming down Geneva in the Orem/Vineyard area. We live near the road and it is already load enough. It is already scary enough to cross with our kids. There are homes and schools right on Geneva and making this the freeway alternative is not helping those of us in these communities.	06/11/20
Public Website	Commented: I am strongly in favor of the State Street & North County Boulevard route. This route better serves the bulk of Lindon's residential areas / population, and provides better access to Lindon's existing and future commercial shopping core.	06/11/20
Public Website	Commented: I feel the State Street option would be most beneficial since it is already a main hub.	06/11/20
Public Website	Commented: Please do the state street plan. There are far more businesses and people living along state street. Following the rail doesn't make sense since people can just take frontrunner instead. Maybe in the future to provide more stops, but right now State Street has so much more immediate impact. I would take it up state street several times a week, and I know many other people who would too.	06/11/20
	Website Public Website Public Website Public Website Public Public Website Public Public Website Public	Public WebsiteState Street instead of down to Vineyard. It only makes sense to stay with State Street.Public WebsiteCommented: Are they planning on widening State Street? If not, I don't think the BRT needs it's own lane down State Street. The traffic is bad enough without taking a lane away.Public WebsiteCommented: +1 vote for the State Street route. Making the route through main street will make it more available to the most people. We don't want to push public transit to the outskirts of town, but to make it available to the centers of town.Public WebsiteCommented: Adding the bus lanes to Geneva feels like you are trying to turn this road into something more like a Redwood Road with lots of traffic. As someone who lives near Geneva, neither my neighbors nor I want more cars coming down Geneva in the Orem/Vineyard area. We live near the road and it is already load enough. It is already scary enough to cross with our kids. There are homes and schools right on Geneva and making this the freeway alternative is not helping those of us in these communities.Public WebsiteCommented: I am strongly in favor of the State Street & North County Boulevard route. This route better serves the bulk of Lindon's residential areas / population, and provides better access to Lindon's existing and future commercial shopping core.Public WebsiteCommented: I feel the State Street plan. There are far more businesses and people living along state street. Following the rail doesn't make sense since people can just take frontrunner instead. Maybe in the future to provide more stops, but right now State Street has som uch more immediate impact. I would take it up state street several times a week, and I know many other people who would </td

Rail Corridor Alignment	Public Website	Commented: BRT in Provo is a mess. A whole lane sits empty almost the whole time, and when a bus does come, it takes precedence over everyone else. If I had to choose one, it would be the Rail Corridor, but I am very opposed to BRT going through Lindon.	06/11/20
Geneva Road	Public	Commented: I prefer the routes that go down Geneva road.	
Alignment	Website	Trying to do BRT on state street would be a mess.	06/29/20
Geneva Road Alignment	Public Website	We need a train station along 800 n and vineyard. Many of us commute north but it doesn't make sense to drive so far south to the Orem station to go north and by the time you drive to AF station you might as well drive to Lehi and salt lake county. It would connect to movie theatre Orem tech corridor and housing. (Orem resident)	06/12/20
State Street	Public		
Alignment	Website	Vote for State Street - to get people to businesses!	06/12/20
State Street Alignment	Public Website	Commented: Like the idea of bus rapid transit on State Street	06/12/20
Stop	Public		
Recommendations	Website	Add a stop by the hospital	06/12/20
Stop Recommendations	Public Website	If possible, run a connection along Bulldog so all the businesses along that road are integrated into the transit line. At a minimum, include a stop near the intersection by Macy's, Target, and Walgreens.	06/12/20
Stop Recommendations	Public Website	Please include this stop so the line can connect with the existing UVX line.	06/12/20
Other Alignment	Public Website	There are currently north-south bus lines and UVX lines, but not a lot of direct east-west connectors. If I want to travel from my house in west Provo to anything on the east side I have to take a 10-15 bus ride north/south or a 15-20 minute walk due East to meet up with the UVX line.	06/12/20
Other Alignment	Public Website	Somewhere between Bulldog and 100 N street, it would be great to have an East-West connector of some sort.	06/12/20

Other Alignment	Public Website	Unless I'm looking at this map wrong, this is the American Fork frontrunner station. Why not extend the line an extra block or two so it connects with the station? Then it can serve as a feeder for the local neighborhoods.	06/12/20
Other Alignment	Public Website	This is probably outside of the scope of this project, but the lines should extend north eventually and connect with Draper's blue line.	06/12/20
		Connecting this area to the downtown could spur growth.	
Other Alignment	Public Website	Right now the freeway cuts the city in half and it's really inconvenient for a pedestrian to get from one side of Center to the other. I've walked it and the highway interchange is awful. Running a line right through here would help reunite the city.	06/12/20
State Street	Public Website	The state street option makes more sense, because there are more people and businesses here. Obviously, Vineyard is experiencing lots of growth and needs buses, but there is quite a lot already in this area, and ridership will decrease if this isn't connected to a quick and efficient form of transit like it is now.	06/12/20
Other Alignment	Public Website	It would be nice if there was some type of bus transit system that would go from the American Fork front runner station over to the Mill Pond Road or 850 E Lehi. That is an industrial area where many businesses hire college students and workers from Vineyard Orem area. (10that I currently know) There are no sidewalks from the station or even a safe way to cross Pioneer Crossing to get over to to 850 E. I think some sort of Bus line would benefit so many!	06/12/20
Geneva	Public Website	Commented: I prefer the Geneva or rail corridor options. My biggest concern is that whichever option is chosen there isn't currently any good/fast east to west access in these cities so one side of town is still not going to have easy access without driving to a parking lot across town.	06/12/20
State Street	Public Website	Commented: Let the BRT go down state street!	06/12/20

Other Alignment	Public Website	Commented: no one wants public transportation who is going to pay for it. people in utah county drive and have kids and day care or activities right after work. public transportation is not needed in a rural setting please look at ride stats in other parts of the state. the virus and issues associated with virus will prevent ridership for 10 years to come. be smart fix property taxes control spend and tax make utah great again	06/12/20
State Street	Public Website	Commented: I am highly in favor of the route along State Street which then turns along 700 North (North County Blvd) in Lindon towards I-15 and up through the numerous office developments in Pleasant Grove. Other route alternatives bypass Lindon State Street turning the BRT towards Vineyard then north along Geneva Road. I feel these Vineyard, Geneva Road options are VERY detrimental to the future growth and economic development of State Street an the 700 North Corridor in Lindon. These other routes limit transit availability to the core of Lindon's population and commercial areas which continues to increase daily. A lateral line between Vineyard and Orem State Street or an extension of UVX from Orem can be added without re-routing the entire north/south future BRT line away from State Street through Lindon City and turning down 700 North. I don't see the decision to be an either/or proposition. In my opinion, the State Street/Lindon 700 North corridor route provides the "most bang for the buck" without compromising other options at a later date. Thank you for the opportunity to provide feedback. Kindest regards, Mike Vanchiere	06/12/20
		Commented: How do you reduce traffic? You make the	
State Street	Public Website	distance between home (where we start everyday) and destinations closer. Home is the most important metric because we all start there each day. State street seems to make the most sense for what exists now and the potential to encourage the redevelopment of existing retail and office space into far more mixed-use developments. Continuing to build large retail monoculture centers on the fringe, just dilutes the old retail until it isn't wise to redevelop those old centers. TANGENT: I want to be clear that local commercial centers like the Day's Market area near Timpview High School should be a model to build for regular, local, daily and weekly needs. Those types of centers should be built one	06/12/20

every square mile. I'm off topic, so I digress. The state street choice will encourage redevelopment of existing commercial offices and strip mall centers thereby reducing overall county-wide sq ft of these overbuilt demographics. A principle of remove and replace the old, instead of replace over there so they decline mover here. Adding in housing to these new developments makes that all important distance from home to already existing destinations potentially closer. Does it not make sense to redevelop the existing retail, rather than build even more sq ft of shiny and new retail? Potential development of the other two routes is years away. Let's re-look at those in 10-20 years or so. State street has by far the greatest concentration of homes, businesses, and entertainment that already exists when you consider the whole valley making it the best route for an artery. The other two seem like they are too far west where development currently is sparse. State street seems ready now for the most riders, and the wise decision to encourage redevelopment of existing over shiny and new greenfield development. State street is the most direct meaning it will be faster. This is BRT (bus RAPID transit) My office is along the UVX line in Provo. I don't mind riding UVX north into Orem, but south to Provo center street? That jog around BYU seems unnecessary to me so I drive into Provo. I know that jog is great for BYU students, it just doesn't work for me and some others. I'm afraid the rail corridor and Geneva option will have the same effect. Why not a connector bus that transfers to the BRT for those who do live along those routes? BRT is the artery, it shouldn't snake around, but it can be connected to by veins to capture those not on the main route. Here's an suggestion that would help my neighborhood immensely. A high frequency bus from Provo center street intermodal center, down university ave (maybe every other bus jogs up Canyon rd to catch all those homes up there), to 800 N then down 800 N with a transfer to the BRT at state, but that bus continues down to the Front Runner station? This would keep BRT (the artery) moving fast, while connecting Provo east siders, and BRT riders to the BRT and the Front Runner as well as Vineyardites could connect to BYU that way as well. Thank you for reading this far. You're all doing great and we appreciate your hard work to add choices and make transportation more efficient for all modes.

State StreetCommented: It would be nice to have a rapid Transit or Trax like solution that runs with State Street. That combined with the current UVX route (maybe create a hub at University Mall) would create a great backbone for getting anywhere in the Provo/Orem Area. I think we should also look at making the transit free to use. I know people are generally opposed to things like that, especially at first, but encouraging ridership because everyone is paying to use it regardless of riding it, so they might as well ride it anyway, could help. It would also be helpful for sporting events at UVU and BYU to encourage people to ride it in, reducing the traffic burden.06/13/20Other AlignmentPublic WebsiteEast-west connections are important, we can't only address north-south mobility.06/14/20GenevaPublic WebsiteCommented: I think east-west connections are important, along with the primary north-south movement. I like the 800 North option.06/14/20Outer AlignmentPublic PublicCommented: I think east-west connections are important, along with the primary north-south movement. I like the 800 North option.06/14/20	Rail	Public Website	Commented; State street has become considerably more backed-up and crowded in just the last few years. If we add a bus lane, it would further the congestion. I do not believe less cars will be on state street. There are many families driving, less likely to use a bus, and housing is booming, meaning more traffic. We need more transportation routes than state street, we can not overcrowd it further if there are other options for the bus to go. Rail corridor will open up less congestion on one of our busiest roads, where the other options will congest our busiest road further.	06/13/20
Other Alignment Website north-south mobility. 06/14/20 Geneva Public Commented: I think east-west connections are important, along with the primary north-south movement. I like the 800 North option. 06/14/20 Public There should be a shared (UVX - new BBT) downtown Provo 06/14/20	State Street		Trax like solution that runs with State Street. That combined with the current UVX route (maybe create a hub at University Mall) would create a great backbone for getting anywhere in the Provo/Orem Area. I think we should also look at making the transit free to use. I know people are generally opposed to things like that, especially at first, but encouraging ridership because everyone is paying to use it regardless of riding it, so they might as well ride it anyway, could help. It would also be helpful for sporting events at UVU and BYU to encourage people to	06/13/20
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Public There should be a shared (UVX - new BKT) downtown Provo		Dublic	There should be a shared (LIV/V _ now PPT) downtown Prove	
Other Alignment Website station 06/14/20	Other Alignment			06/14/20
Public I think it will be critical to create a shared State St./Parkway		Public	I think it will be critical to create a shared State St /Parkway	
Other AlignmentPublic	Other Alignment		· · · ·	06/14/20

Out-of-Scope	Public Website	Commented: I live in the neighborhood south of Center Street/Pioneer Park and love that UVX has been added to our town. I heard there were plans to possibly add a line up 500 West towards Orem which would more directly link all the neighborhoods west of 200 West to the UVX system. As of right now it's inconvenient to have to walk all the way up to the Center Street stop and ride circuitously all the way around campus just to go to Orem. I would do this for fun with my kids but my hopes for the future of Provo include a transit plan that makes traveling by foot or public transit *more* convenient than driving. Adding a UVX route from the Rapid transit system down 500 West on towards Orem where it could meet up with the current route (or even continue straight on State Street!) would the whole of Provo (and Orem) more accessible to a vast majority of residents. I hope you will consider these recommendations. Sincerely, a homeowner in south Provo.	06/14/20
Other Alignment	Public Website	Just connect to the UVX line and be done with it. It doesn't need to extend to the Provo Front Runner Station when UVX is basically the same thing. It's not far. Maybe not a huge delay?	06/15/20
Other Alignment	Public Website	Commented: I'd like a mashup of these plans: Start with the rail corridor, then veer off to State Street going south. There needs to be a connection to Vineyard, but I don't think this BRT is the answer (sorry Vineyard!). More than anything, this BRT needs to connect people to the places they want to go, and it will need to be coordinated with local buses so people in their neighborhoods can easily get to these stops, otherwise people won't use it as much. Maybe a local bus like this would be an answer for Vineyard. To me, the most likely places people are going to want to go are the outlets, and most anywhere on State Street, with local routes connecting to those stops. I don't know PG well enough to have an opinion on whether the route there should follow the State St or Rail corridor. If a mashup isn't possible, I'd vote State St. Also, there needs to be a much more frequent connection between the outlets and the Lehi station. An hour apart on 871 is way too infrequent to make it very practical for people to use. 15-20 mins would be ideal, if possible. One question I have is why does the route finish at Provo Station? If the stop before is 500 N, can't that be combined with the UVX stop at 500 N, and UVX can take people the rest of the way?	06/15/20

		Looking forward to this! Thanks for all the work everyone has put into it.	
State Street	Public Website	From here take the State St route south, and north, do the Rail corridor. Service the outlets north, keeping the route to where people want to go.	06/15/20
State Street	Public Website	It seems odd to bring a transit line down Geneva Road, as this area is almost entirely industrial. The State Street alignment seems better suited for transit. Maybe a spur line from the State Street alignment could be provided to accommodate a connection to the new Vineyard Frontrunner station.	06/15/20
Other Alignment	Public Website	Commented: Most of the buses that are running now are mostly empty. So more buses?	06/15/20
Other Alignment	Public Website	Commented: public transit is sorely needed!!	06/16/20
State Street	Public Website	Commented: I would recommend keeping Lindon State St. in the transit loop. It is important for those who use the system to be able to get into Lindon businesses. Please do no bypass Lindon State St. in any future changes.	06/16/20
State Street	Public Website	Commented: I live in North Orem and want the Alt-State St route. I do not want the route turning off of State St at 800 N and avoiding our neighborhood by going around to industrial areas out west. You can keep an off-shoot on 800N to connect the Vineyard train stop to the State St BRT.	06/16/20
Other Alignment	Public Website	Commented: I am absolutely, adamantly against creating a bus lane like has been done for BRT/UVX. It completely destroyed the wonderful trees and the beauty of Downtown Provo in particular. It is obscene to even consider ruining more of Utah County's towns. Keep the mega buses off of State St. for sure. Geneva would be a better alternative.	06/16/20

State Street	Public Website	Lindon 700 North (north county blvd) and Lindon State Street (Alt-State Street) is preferred route of Lindon City. This route provides transit access to the core of Lindon/PG office and retail development, higher density residential developments, and population centers near State Street in Lindon and north Orem.	06/17/20
		Commented: The 'Alt-State Street' route alternative	
State Street	Public Website	through Lindon with the route then turning west along 700 N (north county blvd) is preferred by Lindon City. This route provides the best connectivity to destination locations in Lindon and north Orem (retail, office, residential in north Orem, future TOD sites on North County Blvd, etc). Bypassing State Street through Lindon will be detrimental to future economic development along the corridor and bypasses a significant population core in north Orem and Lindon/PG area. Lindon City is working to develop transit compatible uses along both State and 700 North. The City's 2011 General Plan identified possible TOD sites on both 400 N. State and at 700 N Geneva Rd.	06/17/20
		Commented: I would like more transit options for this area.	
Other Alignment	Public Website	Especially more rapid transit options to this area. Especially more rapid transit options a to the frontrunner stations. I think that the freeways are already overcrowded and I would like to see more funding for local rapid transit like the uvx.	06/21/20
State Street	Public Website	The state street rapid transit is an amazing idea!!! would totally help make it more efficient for people to use in such a high traffic and traveled area. It would also be wonderful if there was a rapid way to connect the state street connector to the Vineyard frontrunner station at 800 north.	06/25/20
State Street	Public Website	Commented: I think the alternatives left are the most important ones, and a state street rapid transit system would be the most effective and very beneficial to the traffic and community.	06/25/20
Geneva	Public Website	Commented: I would prefer the expansion/update of Geneva Rd. and expanded rail options. I do not see expanded Bus options meeting my needs. However, I see a UVX system serving the student population.	06/25/20

State Street	Public Website	I'm in favor of the State Street/Geneva Road alignment through downtown American Fork. The Rail Corridor would be great for a future LRT.	06/29/20
State Street	Public Website	I'm in favor of the State Street/Geneva Road alignment in Lehi. The Rail Corridor would be better for a future LRT. Additionally, Adobe and other businesses should be compelled to provide employee shuttles to reduce private vehicular traffic.	06/29/20
State Street	Public Website	I'm in favor of a modification to the State Street/Geneva alignments at the AF Main/Pioneer Crossing freeway interchange, such that the FrontRunner station may be serviced by the proposed BRT.	06/29/20
State Street	Public Website	I'm in favor of the State Street alignment through Lindon and Orem. More businesses and existing homes are accessible via this alignment. The Geneva alignment should be prepared for future BRT conversion, but it's currently too far away from the developed urban centers. This alignment would inspire better development along State Street, and would hopefully encourage Orem's goals of creating strong urban centers.	06/29/20
Out-of-Scope	Public Website	Again, I'm in favor of the proposed alignment to continue down 500 W south of Center Street. The alignment could then turn onto 500 S to service the many higher-density developments in that area (including low-income housing which would be very positively impacted by easier transit access). If the alignment didn't turn on to 500 S, it would be good to continue south on 500 W, south of the tracks, to better service the apartments and multi-family housing units in that area, with the alignment meeting up with the UVX alignment at 920 S, to Provo Central Station.	06/29/20
Rail	Public Website	Given that the mode will be BRT, this rail alignment makes very little sense, especially through American Fork. Much of that path is in a purely residential area, whereas the State Street alternative would provide easier access to businesses. And there are many more businesses along the State Street option, than the Rail Corridor option. I suppose the question you have to answer, is whether it is more vauable to make it easy to get from a residence to the transit, or from the transit to a business. I'd argue that the	06/29/20
		latter (business) is more important.	

Public Website Public Website Public Website	Aligning with the frontrunner station in vineyard makes by far the most sense. The uvu property there and all of hetvineyard development is designed around transit. Purple route, connected to Front Runner is most preferred for highest volume traffic and dedicated connector routes. Commented: Hi, I am in favor of the Green Line Alt-State Street option. Thank you for all your work and allowing citizens to provide input.	06/29/20 06/30/20 06/30/20
Website Public	for highest volume traffic and dedicated connector routes. Commented: Hi, I am in favor of the Green Line Alt-State Street option. Thank you for all your work and allowing citizens to provide input.	
	Street option. Thank you for all your work and allowing citizens to provide input.	06/30/20
	Commented. The State Street would for this convider would	
Public Website	Commented: The State Street route for this corridor would be preferred. This route would provide stops that are closer to residential areas through Lindon city and would serve a much larger population. This route would also serve the North County Boulevard corridor which is being master planned for higher density residential, commercial, and office uses. The Geneva route would go through a mostly disconnected industrial area and would not provide convenient service to Lindon City.	06/30/20
Public Website	Please put a FrontRunner station in North Orem. 1600 N Geneva would be ideal. Thank you	07/01/20
Public Website	Commented: I want to use FrontRunner to commute from North Orem / Lindon to SL County. I cannot practically do so. If I drive to UVSC or to AF to the FrontRunner station, it defeats any benefit of taking the train. PLEASE PLEASE PLEASE put a FrontRunner station near 1600 North Orem. Thank you!	07/01/20
Public Website	I worry about a stop at this location bringing a greater likelihood of crime. Right now, the area is quite undeveloped (which is very nice!), but there wouldn't be a lot of people around or a lot of oversight to discourage crime. Don't know if this would be an issue or not, just a thought.	07/02/20
	Website Public Website Public	WebsiteGeneva would be ideal. Thank youWebsiteCommented: I want to use FrontRunner to commute from North Orem / Lindon to SL County. I cannot practically do so. If I drive to UVSC or to AF to the FrontRunner station, it defeats any benefit of taking the train. PLEASE PLEASE PLEASE put a FrontRunner station near 1600 North Orem. Thank you!PublicI worry about a stop at this location bringing a greater likelihood of crime. Right now, the area is quite undeveloped (which is very nice!), but there wouldn't be a lot of people around or a lot of oversight to discourage crime. Don't know if this would be an issue or not, just a

Other Alignment	Public Website	Commented: I know people that live and work in Lehi, and a huge frustration they have (besides the obvious complaints about traffic congestion) is that they don't have a good local transit option and are confined to either walking or driving their personal vehicle to travel anywhere within the city. Hopefully this effort of regional transit connections includes future plans that will lead to a better system of local transit within Lehi. A comment on the public outreach resources used for this project. As a planner it was a bit grueling to read and comprehend all the information presented on this platform. I have a hard time imagining that citizens and other parties interested in this project will have the motivation to slog through the information. Whoever is responsible for the PI for this project needs to up their game so this outreach is meaningful and provides useful comments.	07/03/20
State Street	Public Website	Commented: Please select the east-most options all the way down. (A combination of multiple routes.) This will be the most useful for residential commuters.	07/03/20
Rail	Phone	Neil called and left a voicemail with a question about the rail corridor alignment.	07/03/20
Other Alignment	Phone	Molly called Neil back to let him know the chosen mode was BRT. She explained what BRT was and he was excited. He grew up in England and loves to see buses being used in America, although he had some criticism. He thinks we should use smaller buses that pick people up and drop people off at their exact locations like supermarkets, movie theaters, and restaurants. Molly said she would pass his ideas onto the team. He really likes UTA and is excited about more transit options. He also said our alignment map was really hard to understand where the lines merge and separate. He advised that we build three separate maps that show each line separately in addition to the comment map with all three.	07/06/20
Other Alignment	Public Website	Commented: Several TOD's have already been approved and are in the process of being developed in Lehi. This study seems too late for some of the cities Lehi included.	07/03/20
Central Corridor Transit Study

Rail	Public Website	Commented: I think the Rail Corridor from the point of the mountain down to the Pleasant Grove- Lindon area looks like the best option from northern Utah County. Then let it follow the state street plan through Lindon to Provo.	07/07/20
Other	Public Website	Consider a 300 South and 500 West route instead of 100 North. Or consider a looped North/South route 300 South south and 100 North north.	07/14/20
Rail	Public Website	The Red/Rail Corridor and the Green/State Street Alternatives should be spliced with one covering northward commute and the other southward commute. For the most part the routes overlap or don't diverge too far from each other, except in the cases of 800N/Vineyard-Lindon and PG where it services opposite sides of the same area. This would increase the single combined route's utility, especially for people who can/do not drive, without greatly increasing road traffic, and valley-wide connectivity for those who can make it to one stop on the route especially if the buses the frequency of something approaching the UVX's. As a summer cyclist-winter pedestrian, I can say the annoyance of having to change buses is nothing compared to the pain of having to walk 3+ miles to get to an 8 hour shift where you're on your feet all day and have to hike home afterwards. And I know this is beyond the scope of this study, but I'd really like it if they did something like this for South Utah County.	07/14/20
Other Alignment	Public Website	Commented at 7:34 PM: I think this is a great idea!	07/23/20
State Street	Public Website	Commented: State Street.	07/23/20
Out-of-Scope	Public Website	Commented: In the Results and Recommendations, please define any acronyms used. The general public might not know what LRT (Light Rail Transit?) and BRT (Bus Rapid Transit?) mean.	07/27/20
Public WebsiteIt would be really nice to have a train stop somewhere between the American Fork and State street area. N 5th by the rodeo grounds maybe.		It would be really nice to have a train stop somewhere	07/28/20

Other Alignment	Phone	Dave called to ask if BRT was the official mode of the study. Macey said it was. He asked if the abandoned rail line would be altered or used in anyway for BRT. Macey said she believes that BRT expands on existing roads, but she will confirm with the project team. Dave said he will sell his house if they are planning on using the rail corridor. Macey said she would call him back.	07/31/20
Rail	Public Website	Commented: It seems like the rail corridor would provide the most benefit both now and in the future.	08/08/20
State Street	Public Website	Commented: State Street	08/15/20
Rail	Public Website	Rail corridor is my vote. To pass through vineyard.	08/16/20
Geneva	Email	I believe you should put the next one on Geneva road in Provo Utah.	08/17/20
Rail	Public Website	Personally, I think that constructing the Rail Corridor would be best for commuters. The route seems to hit core areas between Lehi (key city between SLC and Provo) and Provo in Pleasant Grove, Vineyard, Orem.	08/19/20
Other Alignment	Public Website	A stop at 500 W and 500 N in Provo would be amazing! A lot of the people in this neighborhood (including myself) prefer walking and public transit vs. driving, and having BRT on 500 W would greatly increase mobility in the area. The one downer is that UDOT is finishing up the construction on 500 W, and it would be disappointing to have this road closed down for another construction project so soon after it's completed.	09/08/20
State Street	Public Website	consider an alignment tin Provo that comes south on State Street turns east onto Cougar BLVD, then South on Freedom BLVD (200 West) and goes straight south until the UTA FrontRunner station on 800 South. Placing a station at State Street and north of Cougar BLVD, Freedom BLVD (south of Cougar BLVD), 500 N Freedom BLVD, Utah Valley Convention Center, NuSkin Building, and 300 South Freedom BLVD.	09/10/20

Stop Recommendations	station at XUU South This alignment gives great access		08/10/20
State Street	Phone	A man called and talked to Molly for about 20 minutes about what he would like in a transit alignment. Molly told him this line would not be completed for several years and this is just the study phase. he asked how long the Environmental phase would last and if they would be accepting comments again during that phase. He said he currently prefers the State Street alignment and would love if there was a stop at 2nd N and State, right outside his house. However, he is planning on moving further north soon and if the alignment isn't going to be built soon his opinions might change. Molly told him that there will be opportunities to contact the team throughout the process.	09/15/20
State Street	Public Website	Commented: I think a route via state street would be the most trafficked. It definitely would by me!	09/17/20
Rail	Public Website	Commented: I like the red Rail corridor route the most because it shares a stop with the frontrunner	09/19/20
Rail	Email	I was thinking possibly that the UVX ROUTE FOLLOWED the interstate 15 on a raised road, tunnel or separate lanes on the interstate.	09/23/20
State Street	Email	All State	09/23/20

Rail	Public Website	Commented: Alt rail transit please	09/23/20
State Street	Public Website	Commented: I would like to see a UVX line along State Street!	09/23/20
Vineyard	Public Website	I find myself trying to get out to Vineyard from Provo almost everyday and unless I can figure out a ride, I can't get there.	09/28/20
Geneva	Public Website	Commented: Looking at the three possibilities currently available, I believe the best option would be the Alt-Geneva Rd/800 N route. This would transverse much of state street, and then connect to the Front-Runner station in Lehi. This route would provide the most options for people wishing to use public transportation. The problems with the other two options are: The Alt-State street Route would provide service to Lindon, most businesses in that area are on 800 N. The Alt-Rail Corridor would not connect to the Lehi front runner station.	09/28/20
State Street	Phone	Paul Dalley wanted to provide his input for the State Street line. He said the line is close to the 850 and close to his home and he would benefit from the State Street transit line. Macey thanked him for his input. Macey also explained to Paul how to view the interactive map.	09/28/20
State Street Alignment	Public Website	The university mall is a great hub, and having business access to everything on state street North of the mall would be great.	09/30/20
Stop Recommendations	Public Website	We NEED easier hospital/ revere health access	09/30/20
State Street	Public Website	Commented: I would love and use the state street alternative	09/30/20
Out-of-Scope	Public Website	Commented: The path through Lindon would be cool, close to the mountains.	09/30/20

Appendix H: Social Media Report - Phase Two

News Outlet	Content	Engagements
Lehi City Facebook	The Central Corridor Transit Study is seeking public input on transit alignments and stops for the transit corridor from Lehi to Provo. The transit alignments have been narrowed down to three options, including State Street, Geneva Road and the Rail Corridor. As part of this initial screening, it has been determined that bus rapid transit (BRT) will be the mode moving forward in the study. Learn more and provide comments by visiting https://www.centraltransitutah.com/	Likes: 5, Shares: 1, Comments: 4
Pleasant Grove Community Connection	Public Input Needed! Seven cities in Utah County, in collaboration with the Utah Transit Authority (UTA), the Utah Department of Transportation (UDOT), and the Mountainland Association of Governments (MAG), have initiated a study to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. The participating cities are Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, and Provo. The desired outcome of the study is the selection of a Preferred Alternative (transit alignment and mode) that can be advanced to a transit study process for further evaluation. Click on the link below to participate.	Reactions: 20, Comments 19
Lehi City Facebook	Lehi City is one of seven cities collaborating with UTA, UDOT, and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. Please visit centraltransit.utah.gov to provide your feedback on the updated range of transit alternatives. The study has narrowed the transit alignments to State Street, Geneva Road, and the Rail Corridor and has recommended bus rapid transit to serve these alignments. The desired outcome of the study is the selection of a Preferred Alternative (bus rapid transit alignment) that can be advanced to environmental study and engineering for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov.	Reactions: 18, Comments: 1, Shares: 4

Lindon City Facebook	Public input needed on possible Bus Rapid Transit (BRT) routes in central Utah County! Seven cities in Utah County, including Lindon City, in collaboration with the UTA, UDOT, and Mountainland Association of Governments, have initiated a study to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. Preliminary findings of the study have determined that Bus Rapid Transit (BRT) is the best transit option for the central Utah County corridor. The desired outcome of the study is the selection of a preferred route alternative for BRT that can be advanced to a transit study process for further evaluation. Lindon City strongly prefers the route alternative that keeps BRT on State Street through north Orem and Lindon then turns west along 700 North (North County Blvd). This route will serve the highest concentrations of people and businesses in Lindon City. Other alternatives pull BRT away from Lindon State Street. We want your comments on the route alternatives in the study. Please comment at this link: https://www.centraltransitutah.com/comments	Likes: 6, Comments: 6, Shares: 1
Utah DOT Facebook	Seven cities in Utah County are working with @RideUTA and UDOT to evaluate faster and more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to get involved and provide feedback on the three alignments being considered. @UtahDOT	
Pleasant Grove City Twitter	Pleasant Grove City is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to provide feedback on the three transit alignments being considered.	Likes: 1
Provo City Twitter	Provo City is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to provide feedback on the three transit alignments being considered.	Likes: 5, Retweets: 1
Pleasant Grove City Facebook	Pleasant Grove City is one of seven cities collaborating with UTA, UDOT and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo.	Likes: 11, Shares: 5, Reactions: 19

	Please visit centraltransit.utah.gov to provide your feedback on the updated range of transit alternatives. The study has narrowed the transit alignments to State Street, Geneva Road and the Rail Corridor and has recommended bus rapid transit to serve these alignments. The desired outcome of the study is the selection of a Preferred Alternative (bus rapid transit alignment) that can be advanced to environmental study and engineering for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov.	
Provo City Facebook	Please visit centraltransit.utah.gov to provide your feedback on the updated range of transit alternatives. Provo City is one of seven cities collaborating with UTA, UDOT, and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. The study has narrowed the transit alignments to State Street, Geneva Road, and the Rail Corridor and has recommended bus rapid transit to serve these alignments. The desired outcome of the study is the selection of a Preferred Alternative (bus rapid transit alignment) that can be advanced to environmental study and engineering for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov.	Shares: 7, Reactions: 8, Comments: 2
Vineyard City Twitter	Vineyard is collaborating with six other cities, UTA, UDOT, and MAG to initiate a study evaluating faster & more frequent transit options between Lehi and Provo. Visit http://centraltransit.utah.gov to provide feedback on the three transit alignments being considered.	Likes: 3, Retweets: 1
Vineyard City Facebook	Vineyard is one of seven cities collaborating with UTA, UDOT and MAG to evaluate options for faster and more frequent high-capacity transit service between Lehi and Provo. Please visit centraltransit.utah.gov to provide your feedback on the updated range of transit alternatives. The study has narrowed the transit alignments to State Street, Geneva Road and the Rail Corridor and has recommended bus rapid transit to serve these alignments. The desired outcome of the study is the selection of a Preferred Alternative (bus rapid transit alignment) that can be advanced to environmental study and engineering for further evaluation. For more information, please call 385-355-3133 or email the study team at centraltransit@utah.gov.	Reactions: 10, Comments: 2

Appendix I: Collateral Report – Phase Two



Public Involvement Report



Appendix J: Website Analytics - Phase Three



Appendix K: Public Comment Report – Phase Three

CATEGORY	IN SUPPORT/ OPPOSITION	CONTACT METHOD	COMMENT	COMME NT DATE
Out-of-Scope		Public Website	TONS of students live down on the southern parts of 900 East, and we could definitely use UVX stops all along this road. Personally, I don't have a car. I work at the MTC and my significant other lives near there as well. It is an absolute pain to find a way up and down 9th East as there is no UVX line and no direct bus route. Please add uvx stops all along 900 East in Provo!	10/01/20
Other Alignment(s)		Public Website	I think the red line looks to be the best option because it seems the most likely to be accessible from places where people actually live and are likely to live. The biggest (and one of few) problem with UVX is lack of residential options within reasonable walking distance. Sending the new BRT down state street the whole way would look nice on a map, but it wouldn't connect to where people are more likely to actually live. You ha e to consider how many people are willing to drive to the bus stop (combining trips is good, right? Why not just drive the rest of the way then?). The red line through Pleasant Grover and Vinyard seems like a better option. It hits the most "town centers" out of the three. Choose the red line.	10/02/20
Other Alignment(s)		Public Website	I changed my mind upon further study. I support the purple line from Lehi to American Fork, but think it should go THROUGH Pleasant Grove rather than around it. Then, I support a route THROUGH Vinyard similar to the red line and connecting back to state from there. We shouldn't bypass American Fork, Pleasant Grover, or Vinyard. Heck, if it'd be possible to still go on State through Lindon, I'd be down for that too.	10/02/20

Other Alignment(s)		Public Website	Commented: Rail Corridor should be the next UVX pathway. It goes up to traverse mountain where there is a lot of growth and business development.	10/03/20
Preferred Alignment	In support	Public Website	Hello I'm Matias Herrera student in mountainland college from Argentina(Patagonia) . First I'm so glad with your service ! It's amazing !!! And about my opinion a new route it would be awesome one of those more near to the lake !!!!! (We love your land scape guys)	10/03/20
Other Alignment(s)		Public Website	The Geneva Road/800 North route is the best option for riders, covering a better area than merely State Street.	10/05/20
Preferred Alignment	In support	Public Website	I like the proposed red alt- rail corridor. I need Pleasant Grove access and Provo State Street the most.	10/05/20
Preferred Alignment	In support	Public Website	The route that goes along 800 North in Orem would be the most convenient for me.	10/08/20
Other Alignment(s)		Public Website	I think the Rail Corridor is the best.	10/08/20
Out-of-Scope		Phone	The caller left a message on the project hotline and had a question about why there are no benches along the bus routes? She said that they need to have benches for those with disabilities.	10/09/20
Out-of-Scope		Phone	Katie W. returned Julie's call on 10/13/20 at 3:46 p.m. She explained to Julie that shelter and bench placement at stops is dependent upon bus frequency and ridership numbers. Julie felt that every stop should have a bench and a shelter.	10/13/20
Preferred Alignment	In support	Public Website	I have lived in utah county for 39 years and have used Uta's Services for 30 years. The only route that makes the most I'm pacted is state st. As soon as I started ridding the uvx, I thought to myself that uta needs to put this kind of line down state st. Please do this. Thank you.	10/09/20
Other Alignment(s)		Public Website	As a a taxpayer and a college student I think it would be best to go with the Geneva route	10/10/20
Other	In opposition	Public Website	Please stop spending money we don't have.	10/11/20
Additional connection to FrontRunner		Public Website	It would be nice if the line could end at Lehi Frontrunner station, since that's what most people take the 850 for.	10/12/20

Additional connection to FrontRunner		Public Website	Maybe change this stop or a stop near by to America Fork Frontrunner Station since there's no buses or other transport at that station.	10/12/20
Preferred Alignment		Public Website	The closest bus route to my home on 400 E is a half mile walk. I would love it if the route at least extended to this area or for a new bus route that goes here to be added. It's a busy area that needs a bus route.	10/12/20
Preferred Alignment	In support	Public Website	I believe it would be very helpful to have a Utah county that's more connected with UVX. A lot of the growing population in Utah would be benefited	10/12/20
Other Alignment(s)		Public Website	I think either going along the rail corridor or the Geneva Rd/800 N routes for UVX would be most beneficial and would allow for more folks to get closer to work or businesses in those areas.	10/12/20
Other Alignment(s)	In support	Public Website	State street is the best route	10/12/20
Preferred Alignment	In support	Public Website	I think this sounds great (as a college student who is a native of the valley). This would provide a means for those without cars to reasonably travel the length of the valley. It is especially appealing as a computer science major hoping to get a job in Silicone Slopes- this would be incredibly helpful for me and those like me to help the valley by staying in it.	10/12/20
Preferred Alignment	In support	Public Website	Cars are the worst and public transit is the best. So pumped for the bus route to be extended! I ride the bus every day and am hoping to get rid of my car soon!	10/12/20
Preferred Alignment	In support	Public Website	Much needed.	10/12/20
Preferred Alignment	In support	Public Website	I think there should be a green and a red corridor. I'm student and I don't have a car and I rely on the bus take me places even if it means that I have to walk far. I think having/adding two more buses just like UVUX will be helpful for students like me who rely on the bus to help them get to there destination as close and as fast as possible.	10/12/20

Preferred Alignment		Public Website	I'm curious to know why the route uses North County Blvd instead of staying on State Street. Is it to accommodate large future employment in the area? Perhaps for Doterra's sake? It's an intriguing move.	10/13/20
Additional connection to FrontRunner		Public Website	This is the most glaring problem with this alignment. If this map is correct, the line ends near Cabela's and Adobe instead of interfacing with the Lehi Frontrunner Station. If that really is the case, then it is a major missed opportunity for increased connectivity.	10/13/20
Preferred Alignment	In support	Public Website	This would be great it would allow me to use public transit for school and to get to work!	10/13/20
Other		Phone	Katie W. received a hotline call on 10/13/20 at 10:18 am from Greg Macfarlane, an engineering professor at BYU. He was calling to see if the project would provide him with the draft analysis report to share as curriculum with his students. He also wanted a contact for the Point of the Mountain transit study. Katie said she would follow-up on the report with the project planners and pass along any information to him via email.	10/13/20
Other		Email	Hello Greg- I reached out to our planners and they aren't releasing final materials until the end of November. The draft analysis is still going through edits and isn't public facing yet. They plan on posting all those materials to the project website at the end of November. The contact for the Point of the Mountain transit study is Patti Garver. You can reach her at pgarver@rideuta.com. Thanks for reaching out. Best, Katie Williams	10/13/20
Other		Email	Thank you for this information, and for putting me in touch with Patti Garver. Greg Macfarlane BYU Civil Engineering	10/13/20
Preferred Alignment	In support	Public Website	Yes I would like the uvx from lehi to provo	10/13/20
Additional connection to FrontRunner		Public Website	It should go to the station	10/14/20
Other	In support	Public Website	Sounds great! What would be the ETA from the most southern to the most northern point?	10/14/20

Other Alignment(s)		Public Website	I think rail corridor would be the best.	10/14/20
Preferred Alignment	In support	Public Website	Im all for rapid	10/14/20
Preferred Alignment	In support	Public Website	I'm in favor of the green state street extension of BRT	10/14/20
Other		Public Website	Through lindon seems good. I'd also love more uvx stops in provo.	10/14/20
Preferred Alignment	In support	Public Website	I'd love to see a bus route between provo and lehi.	10/14/20
Preferred Alignment	In support	Public Website	I am disabled and don't drive I work up at Lowes in Lehi. If the uvx went up on state street from Orem to Lehi it would make my life so easier.	10/15/20
Preferred Alignment	In support	Public Website	This new Transit System to Lehi would make more possibilities for people to travel to work outside of Utah Valley. I very much so vote for this!	10/15/20
Other Alignment(s)	In support	Public Website	From Center street and 100 North in AF and all points north it looks like the route leaves the road and uses the railroad corridor. I love that idea for many reasons. I believe this will give a more dedicated lane and a protected route thru Lehi. Less interruptions to businesses with medians. Less interruptions from road construction in this area, we've seen our fair share of that recently. Better access to the east side offices in Lehi. Between the 864 and 871, I think that handles the east west in Lehi to the Frontrunner station.	10/16/20
Other		Public Website	I've heard this is going to be BRT, but through Lehi it follows the rail line and not the roads? Is this going to be light rail or BRT?	10/16/20
Preferred Alignment	In support	Public Website	I love this idea! As the area grows, we could definitely use this!	10/16/20
Additional connection to FrontRunner		Public Website	Stops for any alternative should include ALL Frontrunner stations. Having too many connections results in declined ridership due to the inconvenience.	10/17/20
Other Alignment(s)	In support	Public Website	I think we should have a bus going through State Street	10/17/20
Additional connection to FrontRunner	In support	Public Website	I am good with the preferred alternative. However, I feel that the northern end needs to connect to the Lehi FrontRunner Station!	10/19/20

Other		Public Website	From 300 West on (going northbound) it looks like this follows the Rail Trail. Will the trial still be there after the BRT Line is put in? I think a BRT Line going up and down State Street (primarily) is great. What options will there be going east to west to help connect	10/19/20
Preferred Alignment	In support	Public Website	communities to the BRT line? We would love a uvx style bus to lehi!!!	10/19/20
Other Alignment(s)	In support	Public Website	State street route, more businesses. More destinations.	10/19/20
Stop Locations		Public Website	As a commuter from Lehi to Provo and Vineyard this is very exciting, would love to see specific stops at pioneer crossing, 1600 and 800 in vineyard, and university, center street, and UTA station in Provo.	10/19/20
Additional connection to FrontRunner		Public Website	Make a stop at the front runner in af	10/20/20
Other		Public Website	Please do not add traffic lanes or on street parking to this section of the road.	10/20/20
Additional connection to FrontRunner		Public Website	Seems very strange to not connect this with front runner stations in the north of the valley. I can see why the AF station might be left out because it's out of the way and not easily accessible. But why not start/end at Lehi Frontrunner. Certainly UVXs success comes mostly from connecting 2 large universities. But the 2 front runner connections make the system accessible for commuters regionally rather than locally. Not having the system connect at Lehi drastically lowers its usefulness.	10/20/20
Preferred Alignment	In support	Public Website	Another transit going north along state street in Orem would be awesome! University Pkwy near the mall to (at least) Center St. near the City Center/Library.	10/20/20
Active Transportatio n	In support	Public Website	I am very much in support of this project. I know that dedicated bus lanes can sometime take space from bicycles. State St is already a dangerous place for bicyclists to ride. Please consider prioritizing space for active transportation in the redesign of the street.	10/20/20

Other	Email	Is there a working link to the study itself so the public can read it? The link provided, https://www.centraltransitutah.com/ has no real information. Melanie McCoard	10/20/20
Other	Public Website	How can I give feedback when I cannot find or see the plan? Link please?	10/20/20
Stop Locations	Public Website	I think it would be great to have a route on state street from provo to American fork and have a stop at American fork train station. There are lots of places to go shopping or eat on state street that most people go to so I think it would be convenient. I would use public transportation more if it took me places that I usually go.	10/21/20
Active Transportatio n	Public Website	The street profile image depicts on street parking right next to the sidewalk without any greenery or landscaping in between, please make sure that there is a green strip with shade trees between the sidewalk and road on 500 W in Provo from Cougar Blvd down to at least Center St or 300 W.	10/21/20
Additional connection to FrontRunner	Public Website	The BRT line needs to connect to the Lehi Frontrunner Station! A connection there is extremely important and would allow more flexibility for Frontrunner and BRT line riders. Also, a connection to the Adobe/tech buildings would be nice.	10/21/20
Active Transportatio n	Public Website	What happens to the existing multi use trail system? Will it continue in the same right of way?	10/21/20
Additional connection to FrontRunner	Public Website	The northern end definitely needs to connect with the FrontRunner station.	10/21/20
Stop Locations	Public Website	There is no reason to have a BRT stop here. It would serve Provo residents better to be 3 blocks to the East at the Convention center/high density housing/ hotels found on Freedom BLVD.	10/21/20
Other Alignment(s)	Public Website	Using Freedom BLVD (200 west) rather than 500 west would increase ridership on this line. This location is the old Provo High school that BYU is developing. This is also a great access point for workers coming from the northern parts of the county to the hospital and back.	10/21/20

Other Alignment(s)		Public Website	The employer density along 200 west is much higher than along 500 West. More employees coming to/from work along Freedom BLVD than along 500 west. Please consider the Freedom BLVD as the preferred route.	10/21/20
Preferred Alignment	In support	Public Website	I would use this kind of route often.	10/21/20
Preferred Alignment		Public Website	I am the neighborhood chair for Provo's North Park Neighborhood, which includes 500 W between 1230 N and 500 N. I am concerned about your road design for this section of the project. I am very supportive of the project overall and would welcome a nearby stop. I am concerned about the addition of extra lanes on this section of road. I hope that the 500 W portion will closely resemble what is currently in place on Univeristy Ave in Provo. 2 traffic lanes, dedicated BRT lanes and no on street parking. North of 1230 N where the road is already 7 lanes can have a different design, but south of this the road design should reflect the transition to a residential section of the city. The Provo Rec Center, BYU, Timpanogos elementary, Dixon Middle School, downtown Provo, the Hospital are all destinations that are frequently accessed by pedestrians and the BRT line should enhance this access, not hinder it with more lanes of car traffic.	10/21/20
Preferred Alignment	In support	Public Website	Keep it coming, the more connected UVX gets the better it will be for the county	10/21/20

Other Alignment(s)		Public Website	I like the extension into Vineyard, I think that will be a good thing. However, I am skeptical about sending the route down State Street instead of Geneva Road. State street is a bloated behemoth and there is little development that is adjacent to the road itself (and most development is commercial, not residential. Where will people get on in the first place?). It was designed for Lightning McQueen to use, not humans. I've taken UVX to some of its stops in Orem and I found it horrendous walking across giant parking lot after giant parking lot. Ginormous stores greatly inhibit walkability and that is what Orem went all-in on long ago. Geneva Road is not yet developed much and could be designed in a way that actually benefits human beings instead of Lightning McQueen. I feel that is more likely than fixing the blight on State Street. But other than that, I think this is a good alternative.	10/21/20
Preferred Alignment	In support	Public Website	I would like for the UVX bus route to extend to Lehi. I would like to save even more money on bus fare.	10/21/20
Additional connection to FrontRunner		Public Website	This really needs to interact with the Lehi Front Runner Station. Unless there are also plans to build a large pedestrian walkway to connect the station and this side of the freeway, I worry a lot about pedestrian safety.	10/22/20
Other		Public Website	Do the plans for the BRT line include eventually converting it to light rail? How will this be accomplished and not affect service?	10/22/20
Additional connection to FrontRunner		Public Website	What is required at the end of the line to connect to the eventual extension of the light rail line from Draper to the BRT end of line? Will an intermodal center be constructed to allow for local bus connections to the front runner station and other locations, etc.?	10/22/20
Other		Public Website	Where is the bus maintenance facility proposed to be located? And will these be electric, diesel or CNG buses?	10/22/20

Other Alignment(s)		Public Website	Why not have it also run along Geneva Rd as well as State? If you are going to offer the Vineyard stop, might as well make it effective in more than one way.	10/22/20
Additional connection to FrontRunner		Public Website	I would love a connection to Frontrunner from 800 N. I work and commute to Lehi from Orem. I don't often take Frontrunner because I feel that I am exactly in the middle of the Provo and American Fork stations. I'm excited to see where this project goes!	10/22/20
Preferred Alignment		Public Website	What is the plan for the junction of this spur line at State Street? Is this going to be a transfer point, or will there be multiple lines and riders will continue either north or south?	10/22/20
Preferred Alignment	In opposition	Public Website	I don't agree with any of this. More construction on US 89, already at 3 lanes going south and two lanes in American fork each direction is busy and is a bad idea. I have never seen high sustainable ridership of busses. If you want this so badly, it would be better to have dedicated bus pullouts from the main road than to take a full lane and more to provide a dedicated bus alley. This will cause more congestion, slower traffic to accommodate all the stop lights to allow pedestrians to cross to the center of the road.	10/22/20
Additional connection to FrontRunner		Public Website	Why no connection with American Fork and Lehi stations? I can understand the need to keep the bus moving to destinations rapidly, but avoiding these connections reduces the ridership of frontrunner for those commuting to SLC. I'll be at one of the upcoming meetings. I'm extremely happy with this project overall! And I'm genuinely interested in the reasoning for the current choices. I could certainly be convinced of the current model if good reasoning is given.	10/22/20
Preferred Alignment		Public Website	The rout should share the same route as the UVX from Provo central station to center street, before turning west to 500 N. It would make it much more accessible for residents of east Provo and students	10/22/20
Preferred Alignment	In support	Public Website	I read the article about this in the Daily Herald and I LOVE IT SO MUCH! Thank you thank you THANK YOU	10/22/20

Preferred Alignment	In support	Public Website	I couldn't add my comment to a specific spot, but I would just like to say that as a Provo resident of the Dixon Neighborhood, I wholeheartedly support this project! It will make Orem/Provo access so much more feasible, especially for our low-income area! Thanks for all your efforts on this!!	10/22/20
Preferred Alignment	In support	Public Website	I think the BRT route from lehi to provo is a great idea. Gives riders more options on timing and offers greater amounts of coverage.	10/22/20
Stop Locations	In support	Public Website	I'm in Vineyard, and would absolutely love to have a station right where the preferred alternative proposes on the Vineyard Connector road right at Vineyard Main. Quick access to the bus and my job at BYU would be amazing!	10/22/20
Other Alignment(s)		Public Website	It'd be nice if there was a bus route that went along Geneva road and from the provo station to American fork station because I get jobs offered that are along or close to that road and I've had to turn them down because it's too far to walk from the nearest bus stop. AddIng more early morning routes is a big request down in Utah County. More buses along Springville, Spanish fork, and Payson.	10/22/20
Out-of-Scope	In opposition	Public Website	While I consider the UVX a success, as a motorist I HATE driving on University Parkway now. Left turns are horrible, and a huge waste of my time. If there was some way to sync the bus lanes with a flashing left arrow, I would be a much happier person. If this same situation happens on State Street it will truly be a mess.	10/22/20
Additional connection to FrontRunner	In opposition	Public Website	This whole line pretty much follows the 850 bus route which works really well (esp. pre- covid). I commute Orem to Lehi and have never seen it even close to full. Seems pointless to severely impact State street drivers with huge cost. If you do this it has to terminate at Lehi frontrunner, that is the biggest part of this routes ridership. Maybe this worked for the UVU-BYU students but it won't work for them here, or those of us commuting to work.	10/23/20

Out-of-Scope	In opposition	Public Website	Transit systems require population density to be effective. Utah County does not have a high population density, therefore mass transit is doomed to fail and a waste of my and others taxpayer dollars. Ridership is quite low and isn't magically going to get better. Kill the project please.	10/23/20
Stop Locations		Public Website	Understanding that the neighborhoods might have concerns, it might save on infrastructure to follow the existing 850 route through here and connect to the existing UPlace stop. Then you've have a transfer station that connects the University Parkway line.	10/23/20
Stop Locations		Public Website	A stop at the lighted intersection of Riverside Ave or Cougar Blvd could have amazing potential as a stop for two reasons: 1) You'd have the ability to connect to the Provo River Trail, a fantastic active transportation corridor. 2) Many low income families rely on both Deseret Industries and transit. Placing a stop a little closer to DI would be a win-win. I understand that this location might be a little too close to the hospital station and/or the 1700 N Stations, so I get why it might not be feasible to put a station here. But if possible, putting a stop a little closer to these amenities would be very beneficial to transit users.	10/23/20
Stop Locations		Public Website	I amend my comment placed at the UPlace station. A stop here would also be fantastic and save time.	10/23/20
Stop Locations		Public Website	I understand the costs associated with bringing the line to the AF station. Consider showing the future line that will connect to this station as the next phase of the project after this main corridor is done.	10/23/20
Other	In support	Public Website	Utah County absolutely can support transit! We need it! I'm sick and tired of the same old drive-or-nothing neighborhoods. Bring in the transit so that density can finally be viable!	10/23/20
Out-of-Scope		Public Website	When the bridge goes in, please do everything you can to make sure there is enough space on it for transit.	10/23/20

Other		Public Website	Consider building a pull-out/exit onto Cabelas Blvd here-ish to make that connection to the Lehi Station possible. The bus could get onto Adobe Way, then onto Digital Drive, then onto Timpanogos Hwy to get across the fwy to get to the station. If getting onto the road from the boxcar route is the issue preventing that connection, maybe this could be a solution if you haven't considered it already?	10/23/20
Out-of-Scope	In opposition	Public Website	500 W in Provo doesnt need on street parking except maybe in a few spots. There is no need to bring it back with this project as shown in your road cross sections.	10/23/20
Preferred Alignment	In opposition	Public Website	I oppose the BRT. Not as a matter of the route and location, but in 10-15 years UTA is going to want to year everything up again and install a TRAX line. Let's do it right the first time. Spend a little more now so we don't have to spend double even triple down the road. UVX was a big mistake in Provo and Orem, cause it's inevitable that TRAX will need to be installed in the future. We already witnessed how horrible the UVX construction was, pouring huge concrete pads, just to rip them out the next week. Do it right the first time, let's build for growth and the future, not for tomorrow.	10/23/20
Preferred Alignment	In support	Public Website	I personally think the proposed new route is a good idea. I've been using public transportation daily for a couple of months now and that definitely sounds like a good idea.	10/23/20
Other Alignment(s)	In opposition	Public Website	Connect to the existing line near UVU. Fastest and most pain free route is Geneva. North of that, avoid state street at all costs. Seriously, even if it costs a ton more, leave state street alone. I hate the added complexity of driving along the stupid bus route and not being able to use the traditional turning locations to access businesses along the route.	10/23/20
Preferred Alignment	In support	Public Website	Transit down the state street corridor in Orem would be a huge economic boon. The preferred alternative looks like it will greatly increase transit ridership and extend transit access to the greatest number of people.	10/23/20

Central Corridor Transit Study

	In support	Public Website	This is awesome, and would honestly be incredibly helpful!	10/23/20
Preferred Alignment	In opposition	Public Website	Please DO NOT add this to state street! State Street is already over crowded especially in Orem and Provo. This will cause more confusion. Nobody wants this here. We didn't want this on university, and the buses aren't ever full.	10/23/20
Preferred Alignment	In opposition	Public Website	No No No!!!!!! Please do not do this!!!! Those dedicated bus lanes set up in Orem to Provo right now are a waste of money. The busses aren't full most of the time. The construction is horrible, and it will take another lane from travelers who need those lanes every day!!!	10/23/20
Additional connection to FrontRunner		Public Website	Our family would be regular riders on this line IF there were to be a direct line to a frontrunner station (without transfers) from the area of 800 N and State St. As is, we may use it occasionally, but not as much as if it were to connect to a frontrunner station directly.	10/24/20
Preferred Alignment	In opposition	Public Website	Don't cheap out on BRT!! Put in light rail!!	10/24/20
Funding	In opposition	Public Website	I think it is a waste of tax payers money!! If you look at the UVX buses that are on University Parkway not one of them have more than 10 people on them, except when BYU has a home football game. Those great big accordion buses going up and down University Parkway in Orem and Provo are the biggest waste of tax payers money! If the same plan is implemented down State street from Orem to Lehi I will be livid!! There is not enough room on State Street to do that!! Don't you dare ruin our beautiful city more than you've already done. Put it down Geneva road. You can hardly drive down any major street without it being bumper to bumper now and it's because of all the stupid expensive apartments. Do NOT put this down state street	10/24/20
Additional connection to FrontRunner		Public Website	The line just needs to connect to Lehi Frontrunner at this point, since it is almost all the way there.	10/25/20

Preferred Alignment		Public Website	Any roadwork south of Cougar Blvd and 500 W/State St in Provo is extremely low priority compared to the rest of the line we can live with running it down the current UVX line (maybe directly down University Avenue) from University Place station for a while, or maybe down Freedom Blvd.	10/25/20
Other		Public Website	I wish UTA would study how Europe transports people. I would prefer street cars that run through the middle of state street than the buses that pull in and out. I don't really like the system now, however with the growth of Utah county, it was probably a good idea to have a bus lane. It might be helpful to have a bus line down state all the way from payson to Lehi with their own lane. The busses that pick up on state don't pull over to the bus stops and totally block lanes when picking up passengers. If a bus came every 10-20 minutes and rode down state as well as center, I'd be willing to give up my car to ride them, but the bus route is unpredictable. You never know when they are really coming. It's still too sporadic and undependable, and still takes too long to get from point a to point b. And I hate the idea of dealing with construction and here's a thought why not make it free to hop on a bus always. They do this in Long Beach California and it helps so much with traffic. People actually use the bus system because it's free. As far as I know, we are still paying with our taxes anyway. These are my thoughts.	10/25/20
Preferred Alignment	In support	Public Website	Thank you for your foresight on this project. I remember when people were skeptical about Trax (and you had to add more cars). People said Frontrunner wouldn't work, and it's packed. When I see a UVX platform, it's packed with students. The fact is, we do NOT have the capacity for more roads, cars and the pollution they emit. My husband has used both the 801 bus and Frontrunner for his commute since 1991. However, the commute to the Frontrunner Orem and future Vineyard stations will certainly benefit from this planned service.	10/26/20

Preferred Alignment	In opposition	Public Website	I do NOT think BRT is a good idea. Ever since UVX lanes in Provo have been put in traffic has been a mess. It's so hard to get to where you want to go because there are only curtain places where the middle island (build because of the UVX lane) splits and one can actually turn. I think it would be a disaster to make this go all the way to Lehi when there are so many alternative options. Someone can take the other buses (which I've used before and at most have a 30 min wait which isn't too bad it just takes planning ahead), or even take frontrunner which would be faster anyway. Overall I think the people it would benefit are so much less than the people it would become a hassle for. Plus, taxes would need to increase (because who's paying for this) which would probably come from people who will never set foot on the bus which in my opinion is not fair or right. Environmentally it's just another vehicle admitting fumes and most people who already plan to drive will not choose not to drive because of it resulting in more pollution.	10/26/20
Preferred Alignment	In opposition	Public Website	I am so against this. Please in the name of all things holy, do not build this stupid, stupid line. Taxpayers are not the ones using it. therefore it should not be built	10/26/20
Other Alignment(s)		Public Website	What is the proposed route of the expanded BRT? It seems like Geneva Road on the southern end would be an ideal route to develop and create an additional north/south route. Any additional traffic to State Street would be a nightmare.	10/26/20
Out-of-Scope	In opposition	Public Website	Since University Parkway started its new bus lanes, it was torn up and awful. We tried to avoid it at any cost. Since they finished and put in the bus only lane, it had made it very difficult to navigate, and we have still tried to avoid it. We were so disappointed to hear that this may be happening to our own street. We cross and use State Street several times a day. If this were to happen here, it would make every time we have to get in our car ten times worse, and our kids would be afraid to learn how to drive. Please don't	10/26/20

			turn our State Street into University Parkway!	
Other Alignment(s)		Public Website	As someone that uses Geneva Road daily, and lives close to it, along with most of my family, there isn't room for this kind of overhaul. The amount of homes and land that would need to be purchased are substantial. Many of which are brand new complexes. A bus system along state street would be much more beneficial to citizens than along Geneva, as most businesses that it would help people transit to and from would be much closer than being out by the lake. Which little options for connecting bus routes down there.	10/26/20
Preferred Alignment		Public Website	Most of this seems fine. Except in Provo where you are taking a new route. I believe this is not needed. That would be two separate routes in Provo and no other city. If this is to happen it needs to hook up with the UVX line that is already there. A whole other line does not need to be added in Provo.	10/26/20
Preferred Alignment	In support	Public Website	I am so excited for more BRT lines in Provo! My family and I are avid bus riders and chose our home based on it's proximity to bus routes. We live off of State Street in Provo (by Waffle Love)and would LOVE a BRT stop by our home. Thank you for bringing more transportation options to Utah Valley!	10/26/20
Out-of-Scope		Public Website	Adding several key fly-over bridges at major intersections for both busses and private traffic, while adding costs, would have significant positive impacts on overall traffic flows. Since it was identified 20+ years as the busiest intersection in Utah, I have repeatedly commented that State Street and University Parkway should have a fly-over bridge so traffic can move through unimpeded. The entire State Street corridor would greatly benefit from several bridges at other key intersections.	10/27/20
Additional connection to FrontRunner	In support	Public Website	The route makes sense to me, though I think that having it connect into either a TRAX or Frontrunner station on the north end would be preferable.	10/27/20

Preferred Alignment	In opposition	Public Website	I am against extending the BRT line from Lehi to Provo. As a Provo resident the BRT has severely decreased my love for Utah County and the trust I had for public officials. From what I have seen, Utah county taxpayers primarily use personal vehicles for transportation. This means the BRT extension would be servicing a small amount of people, many of whom do not share the same financial burden that most Utah County taxpayers have. This means forcing the many to pay for the few. I am against this entire project. I am currently a student at BYU and was a student at UVU for three years. I rode the bus (831) every day for to school for two years. I never saw a high capacity for the bus. It was mostly empty every day. Thanks to the high amount of UVX traffic I see into the bus regularly. Even close to BYU (where occupation is sure to be high) I have noted many empty seats, even before covid 19. Expanding the BRT will be a waste of money. Lastly, the bus is NEVER the convenient way to travel. This means that almost all riders of BRT are looking for a way in which they can travel without the bus. The BRT is a bad idea and will fail since there are very few users who are committed to using the bus long term.	10/27/20
Additional connection to FrontRunner		Public Website	Have part of the BRT to connect the Timpanogos highway would make transit available to more people and businesses, please include it in your consideration.	10/27/20
Preferred Alignment	In opposition	Public Website	Please, no more UVX lanes.	10/27/20

Active Transportatio n	In opposition	Public Website	I do not want to see more bus lanes added on the roads with years of construction only to see buses empty or nearly empty all the time. FrontRunner already covers this corridor as well as I-15 and State Street. The last mile/first mile problem is best solved by bike riding. eBikes are becoming more and more popular. I ride FrontRunner and get off at Pioneer Crossing station. There is no good bike route on the roads around that station. Add bike lanes, increase bike cars on FrontRunner and save millions, pollution and untold wasted time in construction delays for those who drive. Spend the money to push for the first/last mile to become bike centric. There is no downside to more bike use. There is lots of downside to a rapid bus system. State Street from the Point to Provo is the right size, design and flows overall well. Adding bus lanes as Provo has done will only make it all slower for everyone except the 3 people on the bus. It will require widening ruining the design or eliminating the shoulders (which is where I ride my bike) reducing bike accessibility along State Street. This is a terrible idea based on the travel concepts of the 1900's. Please be forward thinking and make decisions with the future not the past, in mind. People don't ride the bus because you're tied to that schedule. Bikes, ebikes escooters, all give people more flexibility than a bus.	10/27/20
Additional connection to FrontRunner		Public Website	This line would be so much more useful if it stopped at the Lehi Frontrunner like the 850 does now. Lots of people work near there or connect to that station to get to Salt Lake	10/28/20
Out-of-Scope		Email	Why is there no Sunday service on either Frontrunner or UVX? Would there be Sunday service for a State street BRT? It seems that with Sunday transportation options, people could choose not to own a car and rely solely on public transportation. Since there are no options for Sunday trips to church or SLC from Utah County, choosing to forego car ownership is more challenging. Please help me understand. Thank you. Jan Finlinson C: 801-830-9885	10/28/20

Other		Email	Katie - Thanks for forwarding the question. Any chance the question could be answered with respect to the proposed Utah County expansion line? Are Sunday travel options being considered for a new Utah County line? I watched Monday's Q&A video and appreciate the information and outreach for public input. On multiple occasions, I've wanted to use public transit for my family to travel from Utah to SLC counties on Sunday and I couldn't find any options. Sam - Please share what you can about the considerations for whether to run public transit on Sundays? I'm guessing more people stay home so there would be fewer boardings and less frequent pickups. Is Sunday service planned for the future or probably not? Reasoning? Anything you can share is appreciated. Thanks. Regards, Jan Finlinson C: 801-830-9885	10/28/20
	In opposition	Public Website	Please no central bus lane on an already crowded and ridiculous state street	10/28/20
Other		Public Website	 Where do we get the data referenced in the Monday, October 26th meeting? (UVX ridership, Transit Models and data) Since you are referencing this data, you must make it easily accessible to the public. 2. Where in your study to you include the impact on local businesses, as a result of making it easier or harder to reach the business? 3. Where do we find the study data on the change in pollution from fewer drivers, but longer wait times at lights. 4. UVX had the advantage of captured students that needed to get to shopping or other off campus sites. What are the anchors that will drive ridership on Central Corridor? Before spending all the \$\$ on a new BRT, should we not first test frequent (6 min) buses, for free, on the same route, at much lower cost than full development? Without this data I am firmly opposed to the new BRT. 	10/28/20
Stop Locations		Public Website	The bus needs to stop on the west side of i- 15 in Lehi, where all the high-tech businesses are.	10/28/20

Central Corridor Transit Study

Preferred Alignment	In support	Public Website	This is perfect as it is!	10/29/20
Other	In opposition	Public Website	Rapid bus transit isn't a good option. Losing a lane of traffic to an exclusive bus lane is counter productive. There's also a huge stigma against busses here in Utah county and most people hate the bus route in Orem/Provo. If it were rail more people may be on board.	10/29/20
Other		Email	Sam, Great to know we can be heard. I'm in Lindon. Should I be talking to city council members? Mayors? Which policymakers and elected officials would make the most sense to reach out to? Thanks again and all the best. Regards, Jan Finlinson	10/29/20
Preferred Alignment	In support	Public Website	I think the green route (that goes through Lindon on State Street is the best BRT route	10/30/20
Preferred Alignment	In support	Public Website	The best way is State Street	10/30/20
Preferred Alignment	In support	Public Website	I like the idea	10/31/20
Other		Public Website	I've seem a similar route proposed for a TRAX line through Utah County. I'm not sure why both would be needed or if this plan replaces the TRAX line.	11/02/20
Out-of-Scope	In opposition	Public Website	Anything to make Orem State Street worse is a terrible idea! Turning left at any point along that wretched road is impossible, especially at busy times. However as this BRT route plan seems inevitable due to the population growth we are experiencing here, I plead with you to look at the left-turn signals in Albuquerque, NM. Their street lights are amazing. Every single light in the city has a left-turn arrow. If even one car is waiting to turn left, the left turn signal will turn green, allowing them to turn left before the cars coming the opposite direction going straight can go. Every light is like this and everyone driving knows it's the case. There are so many lights in Utah County that either don't have a left-turn signal at all (causing more accidents), or the left turn signal only goes off if a certain number of cars are present, or it goes off only after the cars going straight the opposite way have gone. This is completely frustrating for drivers since no	11/02/20

one knows when or where there will be a left turn signal or if it will activate. Furthermore, it would also be beneficial to have right-turn signals similar to how they do it in Albuquerque. When a car is waiting to turn right and the cars facing the opposite direction have a left-turn signal, there is a right turn signal at their corner allowing them to turn right while the other cars across the street are turning left (this is hard to explain without a diagram!). Basically the cars are facing each other across an intersection and one gets a turn signal to go left while the other gets a turn signal to go right and after they have turned they are going different directions. Anyhow it's totally lame how no intersection in Utah County except for the one by BYU that goes from University Parkway to 900 East has this set up. It helps so much when turning right! You don't have to come to a full stop when you turn if the light is there telling you to turn (obviously the walk signal is not active so pedestrians don't get in the way). Anyhow I obviously lived in Albugerugue for a very long time and now live here and can't stand how inconsistent and time wasteful the turn signals are. Please visit (or look up online?) how Albugerugue does this and apply the same to Utah County lights. It would help so much and I'm sure is safer too. Thanks for listening.

Other	In opposition	Public Website	I would love to ride public transport, but it frankly does not meet my needs. Adding another north/south line does nothing for those who live on one side of Provo and need to get to the other east/west. As a result, we can either walk or drive. One route was added down University Ave already, and it has made driving in that part of the city a bigger hassle. The barriers added along Cougar Ave (1230 North) at the expense of 1 lane in each direction has made the traffic on this busy road even more congested. The cement barriers down 500 West (state street) have made it more difficult for residents (and there are many) to turn into their driveways or to pull out into the center lane to wait for a safe time to enter traffice. If a BRT route is added to this section of state street (south of 1230 North), it will be at the expense of another lane of traffic in either direction. This will effectively cut off both arteries of north south traffic for vehicles, but it will not decrease the number of cars on the road because the residents of Provo don't have viable options for public transportation within their own city. Please do not use this street for your alternate route. Use one that is located more in the business districts like 200 West or farther away from the University Ave route, like Geneva road. Above all, please plan around the vehicular needs of the residents instead of trying to crowd them out.	11/04/20
Other Alignment(s)		Public Website	The purple line would be best due to the straightness of the route. Most people don't want to spend an hour trying to go from Lehi to Orem.	11/04/20
Funding	In opposition	Public Website	No. No. No. Do not want a BRT in Orem. I hate the new system and how much tax payers money was wasted on the UVX line.	11/05/20
Out-of-Scope	In opposition	Email	stop trying to make orem like salt lake city. I've lived here for 30 years and we dont need this. Im fully against it. So much for familycity usa.	11/05/20
Preferred Alignment	In support	Public Website	Build it like it is! This is great for the county	11/05/20

Out-of-Scope	In opposition	Public Website	I don't want high density. I don't want to cram thousands of units into small spaces. I don't understand the value of what they are doing with the old Geneva Steel property. Cities do not have accommodate growth to that level. Everyone knows that mass transit isn't used. It can only exist with tax payer support. Nobody wants to see a huge section of state street isolated for a small number of riders. That increases traffic. We will have to wait longer at lights, polluting the air. I am not excited about the many years our critical roads will be torn up. St. George Blvd. was torn up for many years. After it is all complete we will see the UTA buses intermittently riding by. You can put advertisements on the windows but we all know they will be largely empty. I've gone through this website but can't find details about the plan.	11/06/20
Out-of-Scope	In opposition	Email	To all concerned: The residents of Provo/Utah County have already suffered through the construction and resulting inconvenience of the UVX bus route. In theory and on paper, it was probably a brilliant plan. In actuality, University Ave and the 2 dozen intersections the bus route affects have become nearly impossible to navigate. There are too few places to make left turns or to cross University Ave where necessary. Why is it not possible to use regular buses, existing roadside stops where possible, and create a streamlined route covering the same territory without all the special lanes and fancy stops in the middle of the road? \$\$\$ Unless you happen to live near the bus route, they are not convenient for getting around without first driving to a stop (and good luck finding a place to park). Our money could be better spent adding additional routes to the existing infrastructure, making the option of riding a bus available to many more people. What can be done to mitigate this problem in a new, seemingly inevitable bus route from Lehi to Provo? The gridlock created at the few left turn options remaining here is	11/06/20

		ridiculous. Trying to go East at 500 North frequently results in a back-up of more than a block, turning University Ave into a One Lane Road! The buses are nearly empty through Provo, all the time, even pre-Covid. It would make sense to take these extra-long vehicles and use them on a busier, longer route, and replace the ones in Provo with normal length vehicles. The cost of running shorter buses should improve, as well. IF, and when, they begin to fill up, then the longer buses would be justified. Not now. Have you considered using Orem Blvd through Orem? Again, cutting off the left turn options will cause more headaches. There's not a good place for a dedicated 2 lane bus line. Short of constructing an elevated roadway, like larger cities use for trains, there is not a good option (or a burning need) for a rapid transit system from Provo to Lehi. Especially if it's going to make as many stops as UVX does. There's nothing rapid there. It would make MUCH more sense to expand/create Trax lines through Utah county, than to mess up the existing auto travel lanes by adding buses and bus lanes. I speak for many, and especially for all those who are too frustrated and angry to put civil words on paper. Please consider these thoughts. Thank you GLPage		
Other Alignment(s)	ublic Vebsite	I have a couple points of positive feedback as well as a concern. I like that BRT is being considered instead of LRT; BRT seems to be a safer investment. And for BRT, I think using the rail right-of-way between American Fork and North Lehi is a great way to make this route travel fast. My concern is that the decreased number of stops is going to pose a challenge for people who depend on being able to walk to a current 850 bus stop.	11/07/20	
Stop Locations		Email	(1 of 2) Central Corridor Transit Study Team, Thank you for hosting the public meeting showing and describing your preferred alternative for a new bus rapid transit line from Provo to Lehi. As a frequent rider of UVX, I am excited for this new potential route. I might also be a little biased; I live in Orem and work in the Valley Grove area of Pleasant Grove, so I would take this route everyday if it were available now. In general, I am pleased with the preferred alignment and the proposed station locations. However, I do have several opinions and suggestions for the route. Forgive me if this is a lengthy email, but this is the public comment period after all. :) Beginning our discussion in Provo, I am more in favor of the alignment taking 100 N, following the existing UTA 850 route. This would provide access to the Utah County Convention Center, the courthouse, downtown Provo, and the new city offices. I like stations at 100 N / 200 E and 100 N / 500 W, as well as shared stations with UVX at University Ave / Center St and University Ave / 400 S. Proceeding north, I am in favor of all the station locations along 500 W and State St to University Pkwy. The public meeting made it clear that the station here would be shared with UVX. I once again am in favor of following the existing 850 route, which would allow the University Place station to be shared, then have the route proceed along 800 E to 800 S. However, this would require exclusive bus turn phases for the new route out of the bus lanes at University Pkwy / State St and University Pkwy / 800 E. If feasible, I would also like to see a station at 800 S / 800 E to service the new apartment buildings and the northeastern corner of University Place. Returning to the preferred alignment on Orem State St, 1 like the stations at 400 S. 400 N, and 1200 N as well, thereby allowing stations every half mile instead of every mile through the Orem core.	11/07/20
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I personally think doing this would help foster development more evenly along State St. The existing UVX station density is 1.54 stations/mile. The preferred alignment station density (not including the Vineyard spur) is about 0.75 stations/mile (21.75 miles / 29 stations). However, I understand if increasing the station density, even in Orem, would not be worth the taxpayer investment. I will address the alignment on 800 N further down, for now we will continue north on State St. Simply, I fully support the alignment and stop locations through Lindon, Pleasant Grove, and most of American Fork. I was a fan of the State St alignment from Am. Fork into Lehi offered in the previous round of public comment. That said, knowing that a future transit center with light rail access into Salt Lake County will be located near the Adobe offices makes the rail route much more appealing. Additionally, if light rail extends into Utah County in the distant future, having already created transit oriented developments along the future rail route will be very beneficial. That said, I have two oppositions with this alignment. First, I understand there is a new park & ride
station density (not including the Vineyard
spur) is about 0.75 stations/mile (21.75 miles
/ 29 stations). However, I understand if
increasing the station density, even in Orem,
would not be worth the taxpayer investment.
I will address the alignment on 800 N further
down, for now we will continue north on
-
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future transit center with light rail access into
Salt Lake County will be located near the
Adobe offices makes the rail route much
more appealing. Additionally, if light rail
-
•
being installed at State St / 2100 N as part of
the I-15 Technology Corridor project. It
seems like a missed opportunity to not
connect to this small transit hub. Second,
the number one reason I ride UVX is easy
access to FrontRunner. To not have the
alignment connect to the Lehi FrontRunner
Station is still baffling. It is a one mile
-
extension to the station that would provide
significant connection to the artery of the
UTA system. That said, I recognize there are
other routes operating in Lehi that connect
to the train station and will connect to the
future Adobe station, and again cost/benefits
play a large role to which I am not privy.

Stop Locations	tions Email		(2 of 2) CONT. Jumping back to the Orem 800 N portion of the alignment, I LOVE the idea of extending UVX into Vineyard and covering this portion of the preferred alignment. This would provide access to a fast growing dense area of Utah County and offer transit along one of the busiest E/W corridors. I wish this was better shown in the preferred alternative with potential stop locations. Since it's not, however, may I offer a few station locations? Geneva Rd / 400 S, Mill Rd / Center St. / Mill Rd / ~600 N, followed by the stops that are shown: Vineyard FrontRunner Station, 800 N / Geneva Rd, 800 N / 800 W, 800 N / State St. I suppose there's no chance of running this expanded UVX all the way on 800 N to the Riverwoods Mall, is there? In summary, I am excited for the potential to have this new bus rapid transit route servicing Utah County. I hope this project comes to fruition to the long term benefit of the communities and developments it will serve. Thank you for performing this public comment period and for the valuable work you do for us. It does not go unnoticed. Respectfully yours, Daniel Wells 8437372366	11/07/20
Preferred Alignment	In support	Public Website	We need a brt though	11/08/20
Additional connection to FrontRunner		Public Website	1) needs to connect to the front runner station in lehi. 2) need to see how the bus routes are going to change to support ridership. this is especially true for the north county blvd deviation. 3) it appears that much of this BRT route is along the 850 route. one of the biggest complaints with this is the lack of ready access to that route. people need to walk or drive 1 to 2 miles just to get to the stop just to wait in the weather to get on the bus. how is this going to change that? 4) UVX has been somewhat successful because of the student draw between the 2 universities. What is going to be the draw for this new BRT line other than being a "faster" bus?	11/09/20

Additional connection to FrontRunner		Public Website	If the line is going to lehi anyway, it would be extremely helpful to have a frontrunner connection there as well. I do worry about MORE construction on 500 W in Provo where my husband and I, as well as my brother and his wife live. They've lived here three years and have had to deal with this construction the whole time. So if there were any way to prioritize and limit the amount of time spent in previous construction areas that would be great.	11/10/20
Other Alignment(s)		Public Website	Alt- Rail Corridor	11/10/20
Other Alignment(s)	In opposition	Public Website	I do not want to see a bus line come on state street. State street is already busy enough. In addition anytime you had mass transit from Salt Lake County and bring it up further to Utah County you have increased crime and beggers on every corners. Facts and evidence backs that up. Keep the additional lines down by I-15. Lindon city officials has already done the dirty work for you and forced all of our farmres out of business and forced them to sale their lands. Don't put the rest of us out of business and out of our houses. Lindon is known for a little bit of country. Putting mass transit or BRT through Lindon will destroy this fill.	11/10/20
Other		Email	From Jerry Winkel (jcwinkel@gmail.com): "When the UVX BRT service was implemented in 2019, it increased ridership by five times of what the local bus routes had been experiencing." Can you provide the actual numbers? Percentages can paint a vastly different picture. 1 to 5, 1000 to 5000? Thank you. Jerry Winkel Lindon, Utah	11/10/20
Preferred Alignment	In opposition	Email	I am not in favor of the Central Corridor Plan as presently configured. We have 4 public utility easements running through our property. We do not need one more to cut up our property. Alan Thomson	11/11/20

Preferred Alignment	Public Website	This portion should be routed through the existing A.F. station. Why cross over/under I- 15 multiple times - stay on the west and hit the existing station. Vineyard Connector and the new E-W supplement to Pioneer will likely be in the same area as the existing station. If this alignment on the east of I-15 is chosen, at least align with State Street where all the development is. Pacific Dr is nothing and profits little. You are bypassing all of A.F. that is a destination for people (STate/Main Street).	11/13/20
Other	Public Website	How does this alignment coordinate with the new regional hospital and other expected development west of I-15? There needs to be a connection considered. And with the future MVC.	11/13/20
Other	Public Website	How does this terminus align with the Point of the Mountain Alternatives Analysis currently being studied?	11/13/20
Additional connection to FrontRunner	Public Website	How does this terminus work in conjunction with the FrontRunner station? My thought is that not connecting those with a viable and reliable connection greatly inhibits this transit corridor. I feel that is a crucial connection.	11/13/20
Stop Locations	Public Website	Preference is to have pickup/drop off points at or near hospitals, grocery stores, banks or nearby clusters of medical clinics, retail stores, restaurants/take-out, and movies. It provides customers to access these services and the businesses receive additional channel for customer growth.	11/13/20
Additional connection to FrontRunner	Public Website	How will the corridor tie into 2100 N in Lehi and subsequently the new MVC in the future? Connecting E-W service to the west side of the Lake needs to be considered. A good "hub" may be the A.F. station, as the Vineyard Connector and the likely E-W supplement to Pioneer Crossing will meet in the area, along with the existing FrontRunner.	11/13/20

Other Alignment(s)	Public Website	Any consideration to take the route down 500 East in A.F. near I-15. High employer and office space density in that area, compared to State Street which is already developed and includes basically only fast-food. Down 500 East is a brand new high density development bringing MANY people to the area. And connecting more towards I-15 between 500 East and PG Blvd Exit captures a few of the very large office spaces either recently completed or in construction. Route south on 500 East, then along Utah Valley Drive and Sam White Lane (capturing DOMO and other large employers), then meet back on North County Blvd near the PG Blvd and NOrth County intersection as planned. You could have a stop at your office's front door :)	11/13/20
Other Alignment(s)	Public Website	Consider bypassing this portion of State Street and the mess that it is. Instead route south on Geneva Road which will connect to Vineyard and then 800 North to State Street if you'd like. As Vineyard continues to grow there is expected development and employment density along Geneva Road. State Street is simply already filled in with the typical blah.	11/13/20

Appendix L: Media Tracking – Phase Three

Date	News Outlet	News Anchor/ Author	Type of Media	Title of the Story
Oct. 2020	Lindon City		Newsletter	Lindon City Oct. 2020 Newsletter
10/13/2020	Daily Herald	Genelle Pugmire	News article	Orem city council gets update on State Street rapid transit
10/21/2020	Daily Herald	Ryne Williams	News article	UTA moving forward with plans for transit spine through Utah County
10/26/2020	Daily Herald	Genelle Pugmire	News article	UTA taking public input on transportation corridor
11/1/2020	Deseret News	Jasen Lee	News article	UTA to unveil its five-year mass transit plan

Appendix M: Social Media Report – Phase Three























UPDATED: Feb. 10, 2021













Lindon City ... October 29 at 1:11 PM · 🕲 Thanks to everyone who participated in the first Central Corridor Transit Study (CCTS) online public meeting on Monday, Oct. 26. If you missed it, you can join the study team again tonight, Oct. 29 at 7 p.m., through Zoom. The same information will be presented. Come learn more about the Preferred Alternative and get your questions answered by the study team. The meeting link will be provided at www.centraltransit.utah.gov 15 minutes prior to the meeting. CENTRAL CORRIDOR w (S.R. 92) TRANSIT STUDY a LEH AMERICAN Main St. e, PLEASANT GROVE LINDON Lake Preferred Alternative Station FrontRunner Connection æ +0+ FrontRunner - LIVX 🖒 Like Comment A Share





















The C	Utah DOT © October 21 at 4: entral Corridor 1		r input! Join an onli				
public about	The Central Corridor Transit Study needs your input! Join an online public meeting on 10/26 at 6 pm or 10/29 at 7 pm to learn more about the next BRT line in Utah County and to get your questions answered. For more info visit www.centraltransit.utah.gov/. Ride UTA						
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Pleasant Grove City October 16 at 12:45 PM · 🔇

Central Corridor Transit Study Update.

After the evaluation of five initial and three refined alignments, the study has identified a Preferred Alternative. The proposed mode includes a bus rapid transit (BRT) line from Lehi to Provo, similar to Utah Valley Express (UVX). BRT includes higher capacity buses, includes higher capacity buses traveling almost exclusively in their own lane, enhanced station areas and features that allow for faster boarding.

Learn more about the ... See More




Pleasant Grove City @pleasantgroveut · 20h

The Central Corridor Transit Study needs your input! Join an online public meeting on 10/26 at 6 pm or 10/29 at 7 pm to learn more about the next stages in the study and to have your questions answered. Find more meeting details at centraltransit.utah.gov. @UtahDOT @RideUTA



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Pleasant Grove City @pleasantgroveut

Reminder! The online public meeting for the Central Corridor Transit Study (CCTS) is tonight at 6 pm. Don't stress if you miss tonight: The same information will be presented again on Thurs. at 7 pm. Visit centraltransit.utah.gov for more information. @UtahDOT @RideUTA







Lehi City 📀 October 16 · 🔇 ••• Central Corridor Transit Study Update. After the evaluation of five initial and three refined alignments, the study has identified a Preferred Alternative. The proposed mode includes a bus rapid transit (BRT) line from Lehi to Provo, similar to Utah Valley Express (UVX). BRT includes higher capacity buses, incudes higher capacity buses traveling almost exclusively in their own lane, enhanced station areas, and features that allow for faster boarding. Learn more about the Pr... See More CENTRAL CORRIDOR TRANSIT STUDY ----B AMERICAN -13 PLEASANT CROVE Preferred Alternative Station . RontRunner Connect +O+ FrontRunner _____ UVX 【 385-355-3133 🖂 centraltransit@utah.gov 🌐 www.centraltransit.utah.gov C 6



UPDATED: Feb. 10, 2021

Appendix N: Collateral Report – Phase Three





20011



ONLINE PUBLIC MEETING PARTICIPANT GUIDE



ABOUT THE MEETING

MONDAY, OCT. 26, 2020 5p.m.-6p.m. THURSDAY, OCT. 29, 2020 7p.m.-8p.m.

- The same information will be provided at both meetings.
- · The meeting will be held via Zoom.
- There is a 500-participant capacity per meeting.
- If the meeting reaches capacity, others may leave and open spaces. Additionally, the meeting will be recorded and available on the project website.
- The meeting will include a project overview presentation followed by an opportunity for Q & A.

HOW TO JOIN

Copy and paste the link below to join the public meeting on Monday, Oct. 26 at 6 p.m.

https://us02web.zoom.us/j/85123978598.

385-355-3133

- All participants will be muted and only the project team will be speaking.
- Participants will be able to ask guestions through the chat box that will be addressed during the Q & A portion of the meeting.
- Respect the group and presenters. Comments that are inappropriate or include foul language will immediately be removed from the meeting.



DURING THE MEETING

🔀 centraltransit@utah.gov

www.centraltransit.utah.gov













Appendix O: Public Meeting Report – Phase Three

Central Corridor Transit Study Online Public Meeting Report

Meeting Overview

Two online public meetings were held via Zoom on:

Monday, Oct. 26 (6-7 p.m.)

Thursday, Oct. 29 (7-8 p.m.)

The purpose of these online public meetings was to provide an overview of the study and allow for the public to ask questions and receive answers from the project team in "real-time."

Attendees	
Total number of unique viewers*	57
*This value shows how many people viewed the webinar on their computer. It does not attendees who only listened by phone. Viewers who joined the meeting multiple times of and counted only once.	

Polling Results

Attendees were prompted with an online poll at the beginning of each meeting to help them stay engaged during the meeting and for the project team to better understand their priorities and plan for future outreach activities.

Where do you live? (24 total respondents)								
Lehi	American Fork	Pleasant Grove	Lindon	Vineyard	Orem	Provo	Other, Utah Co.	Other, outside of Utah County
2	1	2	1	1	5	7	1	4

Where did you hear about the meeting? (23 total respondents)						
Social media	Email	Other	UVX poster	City platforms	Study platforms	Other
10	3	3	2	1	1	3

What are you most interested in learning about during this meeting? (23 total respondents)						
Preferred Alternative	Study process	Schedule	Other	Funding	Where to get more info	
11	3	3	3	2	1	

How often do you use transit? (24 total respondents)						
Infrequently	Daily	Weekly	Never	Monthly		
11	5	3	3	2		

Question report

The Q&A portion of the meeting received 82 questions about the project. The questions were then categorized into themes to help the project team better understand the priorities or concerns of the public.

Questio	Question Categories								
Lehi Connection	Funding	Study process	Preferred Alternative	Where to get more info	Construction	Design	Out-of-scope	In favor of	Other
7	4	14	14	1	1	12	14	3	11



CENTRAL CORRIDOR TRANSIT STUDY | 2021



Level 1 Screening Results and Recommendations

Overview

The Cities of Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, Provo, and Utah County in collaboration with Mountainland Association of Governments (MAG), Utah Transit Authority (UTA), and Utah Department of Transportation (UDOT) have initiated the Central Corridor Transit Study to evaluate options for providing expanded high-capacity transit service in Utah County, from Lehi to Provo. The intent of the study is to determine a Preferred Alternative (PA) that can be advanced into the next phase of project development – environmental study and preliminary engineering. The PA will identify the transit alignment (corridor and locations to be served) and the transit mode/type of transit technology (e.g., bus rapid transit, light trail transit).

The Central Corridor Transit Study is utilizing a multi-step screening process to determine a PA. An initial **Pre-screening** step is used to ensure alternatives meet the project's Purpose and Need and to eliminate alternatives that clearly do not address it, or that are addressing other problems. The next screening step – **Level 1 alternative evaluation** – is a high-level evaluation to further refine project alternatives and identify those that are "best performing." This step is followed by a **Level 2 alternative evaluation** which will examine the remaining alternatives in greater detail to inform the recommendation of a PA.

Purpose

The purpose of this memo is to summarize:

- Recommendations and desired feedback from the Technical Advisory Committee (TAC¹)
- Development of Level 1 transit alternatives
- Level 1 alternative evaluation (screening) and transit modal screening findings
- Next steps

Recommendation

Based on the Level 1 screening results, the following recommendations are proposed:

- Carry all three alternatives into Level 2 evaluation Based on the relative similarities in alternative alignments, all alternatives performed comparably in Level 1 evaluation. No alternatives performed poorly enough to warrant eliminating from further consideration.
- Explore alignment modifications/design options in Level 2 evaluation, including:
 - Connection between rail corridor alignment and State Street/Geneva Road alignment in Lehi to provide service between Lehi FrontRunner and the east side of I-15
 - Option to provide continuous service down State Street instead of deviating onto North County Boulevard
 - Refine alignment between downtown Provo and Provo FrontRunner to minimize duplication of service with UVX

¹ The TAC is comprised of technical planning and engineering staff from UDOT, UTA, MAG, and all participating cities (Lehi, American Fork, Pleasant Grove, Lindon, Orem, Vineyard, and Provo).

• **Consider screening out LRT as a modal choice** – BRT may be the most promising and costeffective modal alternative to meet existing and future demand. This is primarily due to LRT costs being up to four times more expensive than BRT and the varied land uses and densities along the corridor that may not be as supportive or generate the ridership necessary to justify a higher capital transit investment, such as LRT. In addition, given the wide range of "readiness" for a large capital investment along the length of the corridor, a modal solution such as BRT may offer greater flexibility for implementing sooner and scaling up transit service as transportation demands warrant the investment. This recommendation is not meant to preclude future LRT, however; it will remain in the discussion as a viable option for future investment as ridership demand warrants.

Initial Range of Alternatives

A series of meetings were held with project stakeholders to generate the broad range of corridor alternatives to be assessed during this study, including the TAC, Executive Committee, and individual cities. In addition, the study team referenced previous plans and recommendations to understand what has been proposed in the past based on existing and future land uses and the planned transportation network.

Figure 1 illustrates the five corridor alternatives developed, all beginning in Lehi, and ending at the Provo FrontRunner station:

- **Rail Corridor:** beginning east of I-15 in Lehi, generally following a UTA rail corridor through Lehi, American Fork, Pleasant Grove, Lindon, Vineyard, Orem, and Provo. Note that while this alternative follows an actual railroad track, right-of-way exists to consider all modal options, including both LRT and BRT.
- **State Street:** beginning west of I-15 at Lehi FrontRunner station, generally following State Street throughout the study area, with a diversion on North County Boulevard in Pleasant Grove.
- **Geneva Road:** same as State Street alternative through Pleasant Grove, uses Geneva Road to connect to 800 North in Orem and connect back to State Street.
- **Vineyard Connector:** similar to the Geneva Road alternative, but uses the proposed Vineyard Connector route south of Lehi to connect into Vineyard.
- I-15: co-located on I-15 throughout study area.

Additionally, and independent of corridor alignments, the Purpose and Need identified three highcapacity transit modes as possible options to implement within this corridor:

- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)
- Commuter Rail

Pre-Screening Results

Pre-screening is used to ensure alternatives meet the project's Purpose and Need, and to eliminate alternatives that clearly do not address it, or that are addressing other problems. Input was solicited from stakeholders to refine corridor alignments, assign station locations correctly, and confirm if the alternative (corridor and modal options) satisfies the project's purpose:

- Provide a north-south corridor through the study area (corridor)
- Provide a locally-serving, high-capacity transit option (mode)
- Connects with the existing and planned multimodal transportation network (including FrontRunner, local bus, UVX, bicycle, and pedestrian facilities) (corridor/mode)

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• Serves agency and jurisdiction land use and economic development goals and policies

Feedback received screened out <u>one modal option</u> and <u>two corridor options</u>.

- **Commuter rail was eliminated from further modal consideration** because it does not meet the Purpose and Need elements of providing local connectivity and fostering community goals related to land use and economic development. Additionally, commuter rail service exists through the study area and this would be duplicating services and ridership capture.
- The I-15 corridor alternative was eliminated from further consideration, as it would not easily serve local trips (similar to FrontRunner service), does not serve local land use/economic development planning, is not conducive to connecting to the local multimodal network (pedestrian/bicyclists), and could actually take away capacity from I-15. An I-15 alternative would require a transfer to access destinations within the local communities, adding actual/perceived time and effort, which can be a detriment to ridership.
- The Vineyard Connector corridor alternative was also screened out because there is not enough assurance that the new roadway corridor would be constructed in the future and that there would be adequate right-of-way. Without this transportation connection, this corridor is not a viable option. In addition, the alignment on the west side of I-15 did not satisfy the local land use and economic development interests of the communities along this alignment.



Figure 1. Initial Range of Alternatives



Level 1 Screening

The Level 1 screening includes multiple quantitative and qualitative measures that correspond with the Purpose and Need, as well as additional planning-related factors, such as potential impacts to sensitive environmental resources. Three corridor alternatives and two modal options (BRT and LRT) were advanced from the pre-screening into the Level 1 screening for more thorough analysis against the project goal areas (Figure 2).

Table 1 provides a summary overview of the Level 1 screening results. A more detailed description of the results can be found in Table 2. Relative performance of each corridor alternative is assessed using a three-scale rating to assess how well each alternative meets the criteria (high/moderate/low – ranging from best meets to least meets criteria). A conclusion on relative performance of both modal options (LRT, BRT) are made for each criterion.

This screening process constitutes a high-level evaluation of the corridor options, with the intent that alternatives advanced into a Level 2 screening meet the Purpose and Need and avoid major environmental and engineering constraints to the extent possible at this stage. More detailed impacts analysis will occur in both Level 2 screening as well as subsequent project development phases, including detailed resource area topics such as property impacts, biological resources, water resources, Section 4(f) properties, etc.

The evaluation results from this Level 1 screening will not be carried forward into Level 2. All corridors recommended for advancement will be on equal footing with a new set of evaluation criteria that provides a deeper dive into the performance and potential impacts of each alternative.

Summary Findings

Based on the relative similarities in alternative alignments, all alternatives performed comparably in Level 1 evaluation. No alternatives performed poorly enough to warrant eliminating from further consideration. Additional alignment modifications/design options should be explored in Level 2 evaluation, including: connection between rail corridor alignment and State Street/Geneva Road alignment in Lehi to provide service between Lehi FrontRunner and the east side of I-15; option to provide continuous service down State Street instead of deviating onto North County Boulevard; and, alignment between downtown Provo and Provo FrontRunner to minimize overlap with UVX.



Figure 2. Level 1 Alternatives



Table 1. Level 1 Screening Results Summary

Evaluation Criteria	Rail Corridor	State Street	Geneva Road/800N
Transportation/Growth Factors			
Transit Ridership Potential			
Transit Network Integrity and Reliability			
Transit Connections			
Active Transportation Accessibility			
Land Use/Economic Development Factors			
Community compatibility			
Station area/TOD development potential			
Access to centers/development areas			
Supporting Considerations			
Cost Considerations			
Constructability considerations			
Environmental Effects			
Potential for air quality improvements			

Rating Key:

Low Performance Medium High Performance Performance



Table 2. Level 1 Detailed Screening Results

Evaluation Criteria	Performance Measure	Rail Corridor	State Street	Geneva Road/800N
	Route Description	Starts east of I-15 and north of SR- 92, following UTA right-of-way from Lehi to Vineyard, transitioning to 800N and State Street to connect to Provo FrontRunner station.	Starts at Lehi FrontRunner station, generally following State Street throughout, and includes a deviation to North County Boulevard in Pleasant Grove, connecting back to State Street in Lindon, and connecting with Provo FrontRunner station.	Starts at Lehi FrontRunner station, follows State Street and North County Boulevard to Geneva Road, connects to 800N and State Street, ends at Provo FrontRunner station.
	Length	23.6 miles	21.8 miles	22.5 miles
	Stations	24	24	24
Transportation	/Growth			
Transit Ridership Potential	Current and future population and employment in proximity to transit (within 1/2 mile of transit stop) <i>Mode consideration: LRT</i> <i>may lend itself towards</i> <i>higher ridership than BRT</i>	High Performance Largest population and employment in proximity to transit stops for both 2030 and 2050.	Medium Performance Population and employment in proximity to transit stops is reduced (<10%) for both 2030 and 2050 compared to Rail Corridor.	Medium Performance Population and employment in proximity to transit stops is reduced (<10%) for both 2030 and 2050 compared to Rail Corridor.
Transit Network Integrity and Reliability	Ability to accommodate transit operations within the street <i>Mode considerations: By</i> <i>alternative, as described</i>	Low Performance The existing rail corridor generally provides sufficient right-of-way through Lehi. South of 300 E (Lehi), the rail corridor would be shared with an existing freight line that is in operation and is assumed to continue in the future. Operating transit alongside the single freight line results in right-	Medium Performance Along State Street, the cross section typically could be repurposed to fit either LRT or BRT without significant right-of- way impacts along the corridor. For LRT or BRT, a center-running system could impact left turn business access and potentially	Low Performance Along State Street, the cross section could be repurposed to fit either LRT or BRT without significant right-of-way impacts along the corridor. The cross section is more constrained on Geneva Road, and therefore additional right-of-way

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Evaluation	Performance Measure	Bail Corridor	State Street	Geneva Road/800N
	renormance measure	Kair Corridor		
Evaluation Criteria	Performance Measure	Rail Corridor of-way constraints that would require either single track operations or substantive property acquisition for both BRT and LRT. As the alignment goes west to Vineyard, it is assumed that right- of-way will be acquired to support sufficient space for BRT/LRT with the ongoing freight improvements by UDOT. Both BRT and LRT will be able to maintain higher speeds along this corridor due to the existing rail corridor configuration. Large radius curves and long tangents result in high speeds, particularly for LRT. Utilizing the rail corridor and side running operations as opposed to the roadway network may result in less traffic signal conflict and delay	State Street displace some parking along the corridor. LRT is required to operate with the highest signal priority and level of exclusivity, which reduces the delay and increases speeds for passengers, but may cause delay at signals for vehicles due to the vehicle preemption. BRT (where level of signal priority and exclusivity is a choice) may experience more delays throughout the system due to the number of signals, and the volume of traffic along State Street than other corridors. In general, BRT and LRT speeds may be similar along this corridor due existing roadway network. Small radius curves	Geneva Road/800N acquisition may be required for both BRT/LRT. For LRT or BRT, a center-running system would could impact left turn business access and potentially displace some parking along the corridor. LRT is required to operate with the highest signal priority and level of exclusivity, which reduces the delay and increases speeds for passengers, but may cause delay at signals for vehicles due to the vehicle preemption. BRT (where level of signal priority and exclusivity is a choice) may experience more delays throughout the system due to the number of signals, and the volume of traffic along State Street than other
			corridor due existing roadway	and the volume of traffic along
Transit	Potential to complement	Medium Performance	High Performance	Medium Performance
Connections	and integrate with existing			

Evaluation Criteria	Performance Measure	Rail Corridor	State Street	Geneva Road/800N			
	and planned transit service <i>Mode consideration:</i> <i>Neutral</i>	Moderate number of shared stop locations (connections) with other local transit service within the study area. Provides two connections to regional transit network (Vineyard and Provo FrontRunner).	Greatest number of shared stop locations (connections) with other local transit service within the study area. Provides two connections to regional transit network (Lehi and Provo FrontRunner).	Moderate number of shared stop locations (connections) with other local transit service within the study area. Provides two connections to regional transit network (Lehi and Provo FrontRunner).			
Active Transportation Accessibility	Accessibility of station area to major existing/ planned bicycle and pedestrian facilities <i>Mode consideration:</i> <i>Neutral</i>	High Performance High-level analysis shows this alternative provides high number of connections to existing and planned MAG active transportation network, including the parallel Rail Trail.	High Performance High-level analysis shows this alternative provides high number of connections to existing and planned MAG active transportation network.	High Performance High-level analysis shows this alternative provides high number of connections to existing and planned MAG active transportation network.			
Land Use/ Econo	omic Development						
Community compatibility	Presence of transit supportive land uses adjacent to proposed station areas <i>Mode consideration:</i> <i>Existing land uses lend</i> <i>more toward BRT than LRT</i>	Medium Performance Station areas are generally surrounded by offices with large parking lots, single-family homes, and vacant/open lands in the northern segment; more dense and mixed use development is present in the southern portion.	Medium Performance Station areas are generally surrounded by commercial or office uses with large parking lots, single-family homes, and vacant/open lands in the northern segment; more dense and mixed use development is present in the southern portion.	Medium Performance Station areas are generally surrounded by commercial uses with large parking lots, single- family homes, industrial land and vacant/open lands in the northern segment; more dense and mixed use development is present in the southern portion.			
Station area/TOD development potential	Presence of factors that drive TOD development <i>Mode consideration:</i> <i>Average planned</i> <i>residential densities</i> <i>throughout the corridor</i>	High Performance Many station areas have planned land uses that include mixed use or commercial cores, surrounded by medium/higher density	Medium Performance Planned land use at station areas have a mix of office/business park development, with mixed use,	Medium Performance Planned land uses at stations areas have a mix of office/business park development, with mixed use, commercial, and varying			

Evaluation Criteria	Performance Measure	Rail Corridor	State Street	Geneva Road/800N		
	lend more toward BRT than LRT	residential that would be most supportive of TOD development Connects the highest number of defined TOD zones Includes station areas with vacant or underutilized lands that may have greater potential for	commercial, and varying residential densities Connects a large number of defined TOD zones Station areas represent a mix of built out uses with those with	residential densities; higher presence of industrial uses Connects a large number of defined TOD zones Includes station areas with vacant or underutilized lands that may have potential for		
		redevelopment	vacant or underutilized lands that may have potential for redevelopment	redevelopment		
Access to centers and key identified development areas	Number of designated urban/city centers and development areas served <i>Mode consideration:</i> <i>Neutral</i>	High Performance Traverses 10 growth areas identified by Wasatch Choice 2050	High Performance Traverses 10 growth areas identified by Wasatch Choice 2050	High Performance Traverses 10 growth areas identified by Wasatch Choice 2050		
Supporting Cons	iderations					
Cost Considerations	Order of magnitude capital costs Mode consideration: Approximate base construction costs are \$25M-50M/mile for LRT and \$10M-25M/mile for BRT. This does not include soft costs such as contingencies, right-of- way acquisition, vehicle cost, and other factors. Performance by alternative is noted.	High Performance (BRT) Low Performance (LRT) The Rail Corridor is the longest alignment (approximately 8% longer than State Street), and therefore will have the highest infrastructure cost compared to other alternatives.	High Performance (BRT) Low Performance (LRT) State Street is the shortest alignment, and therefore will have the lowest infrastructure costs compared to other alternatives.	High Performance (BRT) Low Performance (LRT) The Geneva Road/800 N alternative is in between the two longest and shortest alignments (approximately 3% longer than State Street), and therefore will have moderate infrastructure costs compared to other alternatives.		

Evaluation Criteria	Performance Measure	Rail Corridor	State Street	Geneva Road/800N	
Constructability considerations	Consideration of potential constructability risks (major utilities, transportation infrastructure) and flexibility to accommodate phased construction <i>Mode consideration: LRT</i> <i>construction is more</i> <i>complex than BRT. BRT</i> <i>can be constructed in</i> <i>phases as transportation</i> <i>demands increase.</i>	Medium Performance (BRT) Low Performance (LRT) For both LRT and BRT, a bridge will be required to cross SR 92 to connect to the POM transit extension. South of this crossing, light rail and bus rapid transit will require a similar footprint of infrastructure, but light rail includes more complex construction related to systems and the stations. As the alignment transitions on 800N, light rail has a high constructability complexity through the I-15 interchange (potentially requiring rebuild), versus BRT which could share the existing roadway lanes.	High Performance (BRT) Medium Performance (LRT) LRT infrastructure includes system work and additional utility/infrastructure work as compared to a potential BRT system. In addition, State Street is an existing roadway that already provides infrastructure to move a bus, whereas light rail would require significant construction.	High Performance (BRT) Medium Performance (LRT) LRT infrastructure includes system work and additional utility/infrastructure work as compared to a potential BRT system. In addition, State Street, North County Blvd and Geneva Road are existing roadways that already provide infrastructure to move a bus, whereas the light rail would require significant construction. As the alignment transitions on 800N, light rail has a high constructability complexity through the I-15 interchange, versus BRT which could share the existing roadway lanes.	
Environmental Effects Potential for air	Potential impacts on environmental resources <i>Mode consideration:</i> <i>Neutral</i> Potential for reduction in	Medium Performance Alternative would have moderate potential to impact elements of the natural and built environment including water resources, parks, and historic properties. Medium Performance	Medium Performance Alternative would have moderate potential to impact elements of the natural and built environment including water resources, parks, and historic properties. Medium Performance	Medium Performance Alternative would have moderate potential to impact elements of the natural and built environment including water resources, parks, and historic properties. Medium Performance	
quality improvements	SOV trips, increase in transit trips <i>Mode consideration:</i> <i>Neutral</i>	Alternative would have potential to reduce SOV trips and increase transit trips.	Alternative would have potential to reduce SOV trips and increase transit trips.	Alternative would have potential to reduce SOV trips and increase transit trips.	



Screening of Technology (Mode) Alternatives

The findings described above in Table 2 show high level tradeoffs between LRT for BRT in the study area. Both LRT and BRT provide alternative mode technology options to meet the project Purpose. However, an additional screening step was performed after Level 1 screening to evaluate the performance of LRT and BRT in the study area.

Table 3 presents the comparison and implications of implementing LRT or BRT in the Central Corridor study area. For this screening, it was assumed that both LRT and BRT would operate in exclusive right-of-way (unless otherwise noted), with enhancements such as signal priority at intersections. Because the three corridor alignments are spaced very closely with similar lengths and the same numbers of stations, the results of this evaluation can generally be applied to each alternative. The purpose of this interim screening is to assess whether it is prudent and reasonable to carry forward both or one mode into the more detailed Level 2 screening process. For each of the screening criteria, a statement on the general performance of that criteria to each mode is presented, along with any specific implications to the study area. A determination of which mode performs better per each criterion is made.

Summary Findings

The Central Corridor study area is characterized by a wide range of existing and future land use densities and a variety of both transitsupportive and less-transit supportive development patterns. Although both LRT and BRT generally meet Purpose elements; LRT is not recommended for further evaluation based on the following findings:

- A primary goal of project partners is to allow for flexibility of service and implementation. Implementation of BRT may allow for greater flexibility for phased implementation to match the varied local conditions in the study area. In addition, given the wide range of "readiness" for a large capital investment along the length of the corridor, a modal solution such as BRT may offer greater flexibility for implementing sooner and scaling up transit service as transportation demands warrant the investment.
- The varied land uses and population and employment densities along the corridor that may not be as supportive or generate the ridership necessary to justify a higher capital transit investment, such as LRT.
- Implementation of BRT is not reliant on actions occurring outside of study area and can operate independently of other regional transit investments.
- Funding for LRT could be secured with significant effort; however, funding may not be available in the short-term to support an LRT investment.
- Support for high-capacity bus-based technologies has been expressed by partner agencies and jurisdictions.



Table 3. Transit Technology Comparison Screening

Criteria		LRT	BRT	Performance/ Preference	
Transit Ridership Modal Potential Consideration		Because of its high capacity, its proven ability to attract riders from modes other than transit, and operation in exclusive ROW allowing it to travel at higher speeds with greater reliability, LRT has the highest potential to attract ridership. LRT tends to have stations spaced further apart to serve more defined and higher density centers.	BRT in exclusive lanes has the potential to attract substantial ridership, but not as much as LRT. BRT allows the opportunity to have more stations and therefore more access along a corridor that may have more dispersed or transitioning land uses.	LRT	
	Study Area	Existing transit stop boardings in proximity to the population and employment in proximity to the Implementation of either LRT or BRT would incr the increase would be larger with LRT. However population and employment density along the or reach levels to support an LRT as a cost-effective			
Right-of-Way Modal Considerations Consideration		Would generally require more space for exclusive ROW and requires trackway along the full length of the alignment, with added space for station areas. LRT has more complex geometry requirements that can make it harder to avoid certain right-of-way impacts.	Could be implemented in exclusive travel lanes, with added space for station areas, but has more flexibility for operating in mixed traffic if right-of-way is constrained or other treatments create adverse impacts.	BRT	
	Study Area	Most of the study area has wide enough corrido lanes without losing roadway capacity (would li parking in coordination with UDOT and local go would be likely in areas of constraint and at stat			
Traffic Operations	Modal Consideration	With the exclusive lanes needed for LRT, there is increased potential for impacts to traffic on the surrounding roadway network. Delays for other traffic at intersections are also more likely to increase, particularly for turning movements.	Since BRT is able to operate in mixed traffic, potential impacts to the roadway network from exclusive operations may be avoided to minimize impacts. Running in exclusive or exclusive right-of-way could restrict turn movements or business	BRT	

Criteria		LRT	BRT	Performance/ Preference	
		Running in exclusive right-of-way would restrict left turn business access and would likely displace parking along the corridors.	access and would likely displace parking along the corridors.		
	Study Area	Portions of all alternatives in the study area would require operation within the roadway network. BRT would offer greater flexibility in transit operations to minimize impacts to the surrounding roadway network.			
Flexibility of Implementation	Modal Consideration	LRT would require interlining with an existing LRT route or require development of new ancillary facilities to support a new LRT alignment. Implementation of LRT can occur in phases by geographical segment but has less flexibility in terms of being scalable to transportation demands.	BRT is easier to implement as an independent transit service. While it can interline with other modes at park-and-rides/shared station areas, it is not dependent upon other high- capacity transit corridors for immediate operations. Implementation of BRT can occur in phases by geographical segment and is scalable to transportation demands (i.e. service could start in mixed traffic operations and can be transitioned to exclusive operations as conditions warrant)	BRT	
	Study Area	A modal selection has not yet been made for the Point of the Mountain (PoM) corridor. Interlining with LRT, if decided as the preferred route, is feasible, but would depend on the PoM implementation schedule. Interlining LRT in this corridor with a northern BRT connection would not be preferred.	BRT could be implemented and operated in the near-term in the study area – independent of other transit corridors. The existing bus O&M center in Vineyard has already been retrofitted to accommodate lengthier BRT vehicles (UVX) but may require expansion to serve an additional BRT corridor.		
Adjacent Development Densities to Serve Demand	Modal Consideration	LRT typically requires a minimum of 40 dwelling units/acre around transit station areas to be supportive of ridership/modal productivity. Land uses supportive of LRT tend to include a combination of mixed use, high- density residential, and employment/office, with a high share of transit-supportive jobs.	BRT can thrive on lesser land use densities (12-30 dwelling units/acre). Land use mixes tend to be similar as LRT, but can accommodate more neighborhood commercial uses, medium-density residential, and less dense employment. BRT can also have connecting stretches with minimal treatments running in low density areas where congestion is less of concern.	BRT	

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Criteria		LRT	BRT	Performance/ Preference	
	Study Area	Planned land use densities (from current approved municipal general plans) show the following maximum ranges within one-half mile of proposed stop locations: 6-12 du/acre in Lehi, American Fork, and Pleasant Grove; less than 6 in Lindon; 16-40 in Orem and Vineyard; and up to 80 in Provo. Because of the lower land use densities along a substantive portion of the corridor, BRT may be a more appropriate mode choice.			
Capital Cost	Modal Consideration	Cost to construct LRT can be several times higher than BRT depending on the sophistication of the BRT line. These costs can fluctuate based on corridor-specific needs, such as utility relocations or the number of structures required, and right-of-way acquisition required.	Cost to construct BRT can be substantially lower than LRT. In addition, BRT costs can be phased/scaled up or down dependent on the amenities implemented, such as station location design/features, operations in mixed traffic vs exclusive right-of-way, and vehicle type/size.	BRT	
	Study Area	Approximate base construction costs are \$25M-50M/mile for LRT. This does not include soft costs such as contingencies, right-of-way acquisition, vehicle cost, and other factors. Right-of-way costs and roadway reconstruction costs are likely to be higher for LRT than BRT.	Approximate base construction costs are \$10M-25M/mile for BRT. This does not include soft costs such as contingencies, right- of-way acquisition, vehicle cost, and other factors.		

Next Steps

After reviewing feedback from the TAC on Level 1 screening results and proposed Level 2 screening measures, the project team will make a recommendation to the Executive Committee for agreement on alternatives and mode(s) to carry into Level 2. This recommendation may also include suggestions on alternative alignment refinements, design options, station location modifications/additions/deletions, as desired.

After the recommendation is made, the project team will evaluate the alternatives in greater detail. Level 2 alternative screening will include the following:

- Analysis of smaller study area segments (i.e. Lehi to American Fork; Pleasant Grove to Lindon, etc.) to determine an optimal alignment that allows for blending of several alternatives to create the best performing alignment.
- More detailed evaluation criteria will be used to allow for greater differentiation between alternatives. See proposed Level 2 screening criteria in Table 4.

Table 4. Proposed Level 2 Screening Criteria

Transportation Challenge/Need	Purpose Statement(s)	Evaluation Criteria	Level 1 Measures	Level 2 Measures	
Goal: Improve Transport	Goal: Improve Transportation Mobility and Access with Anticipated Growth				
 Northern and central Utah County is growing rapidly, and the street/ highway network will not be able serve increased traffic; robust transit options will be required to meet the forecasted transportation 	 Appropriately support the long-range transportation demands 	Transit Ridership Potential	• Current and future population and employment in proximity to transit (0.5 mile buffer)	 Daily and annual projected ridership current, 2050) and station boardings 	
	 t/ of planned growth in population and employment in northern and central Utah County Provide high-quality, reliable, efficient, and frequent high-capacity transit service to communities in northern and central Utah County that improve mobility and provide an alternative to driving for 	Transit Network Integrity and Reliability	 Ability to accommodate transit operations within the street 	 Potential effects on existing and planned traffic operations, including freight Transit reliability Travel time 	
		Transit Connections	 Potential to complement and integrate with existing and planned transit service 	Total corridor transit trips	
 demand Roadways are becoming more congested and travel times are unreliable 		Active Transportation Accessibility	 Accessibility of station area to major existing/ planned bicycle and pedestrian facilities 	 Station area access by walking or biking 	
Goal: Support Land Use and Economic Development Planning					
 Local plans call for transit investments to catalyze 	 Support adopted land use and economic development plans and 	Community compatibility	 Compatibility of alignments with adjacent existing land uses 	 Zoning policies that allow for mixed-use development, transit overlay zones, development oriented toward the 	

Transportation Challenge/Need	Purpose Statement(s)	Evaluation Criteria	Level 1 Measures	Level 2 Measures
economic development	policies of the Central Corridor communities			street, and/or incentives for development supportive of transit
opportunities and desire for planned growth to occur in areas served by high-capacity transit	 and region Improve access and mobility between existing and planned centers and development areas 	Station area/TOD development potential	Presence of factors that drive TOD development	 Development potential/redevelopment susceptibility (vacant or underutilized areas)
Supporting Objectives				
	 Is a fiscally-responsible capital and operations investment 	Cost Considerations	Order of magnitude costs	 Capital cost estimate Operating cost estimate State of good repair considerations
	 Has flexibility to be phased to accommodate existing and future transportation needs 	Constructability considerations	 Consideration of potential constructability risks (major utilities, transportation infrastructure) and flexibility to accommodate phased construction 	 Potential conflicts with major utilities, structures, or other transportation infrastructure; unique construction challenges
	 Minimizes adverse impacts to the natural and built environment and community character 	Environmental Effects	 Potential impacts on environmental resources 	 Assessment of environmental risk to key resources (water, ESA, Section 4(f), historic resources, hazardous resources) Estimated levels of property impacts
	 Supports local and regional efforts to improve air quality 	Potential for air quality improvements	 Potential for reduction in SOV trips, increase in transit trips 	 Reduction in vehicle miles traveled, SOV trips, transit mode share


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Level 2 Screening Results

Purpose

The purpose of this memo is to summarize:

- Level 2 alternative corridors
- Level 2 alternatives evaluation (screening)
- Stakeholder outreach and coordination
- Preferred Alternative framework

Level 2 Alternative Corridors

The Level 2 alternatives evaluation was performed for three bus rapid transit (BRT) alternatives. The study area was broken into three segments to understand the differentiation between alternatives and allow for an opportunity to create a Preferred Alternative that combines the best performing alternatives from each segment.

Figure 1 illustrates the Level 2 alternatives that were evaluated. This map reflects a series of minor alignment changes from Level 1 that were conducted to respond to stakeholder requests and concerns, including:

- Moved the Rail Alternative off State Street to North County Boulevard through Pleasant Grove
- Adjusted the Rail Alternative through Vineyard to better match development plans
- Adjusted route and added two new stations near downtown Provo

Level 2 Alternatives Evaluation

The purpose of the Level 2 alternatives evaluation was to obtain more quantitative data to compare alternatives and make an informed decision on the best option to recommend as the Preferred Alternative. Because of the near proximity and shared alignment of some alternatives, this evaluation took a different approach from Level 1 in reviewing data on a segment-by-segment basis, as well as looking at individual station locations. The purpose of this approach was to better understand the factors contributing to the comparison among the alternatives that might be less obvious when end-to-end corridor data is aggregated.

Screening Criteria

Table 1 describes the evaluation criteria and performance measures that were used to compare each alternative. This builds upon the Level 1 screening criteria, with more quantitative or detailed data findings to better differentiate performance and/or implementation feasibility.

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Figure 1. Level 2 Alternatives



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Table 1. Level 2 Screening Criteria and Performance Measurement

Evaluation Criteria	Performance Measure
Goal: Improve Transpo	rtation Mobility and Access with Anticipated Growth
Daily and annual projected ridership current, 2050) and station boardings	 Transit ridership was forecasted using the WFRC/MAG Travel Demand Model 8.3.1 for 2019 and 2050 years. In addition, a secondary run was made for 2050 with adjustments to population/employment projections. 2050: Model runs were performed with WFRC/MAG Travel Demand model 2050 RTP. 2050 SE: A secondary run was made with adjustments to population/employment projections in Lindon, Orem, and Vineyard. Reported at segment and station level.
Potential effects on existing and planned traffic operations, including freight (truck and rail)	This measure will provide an assessment of impacts on general traffic and freight operations, including impacts to: property access (through impacts related to turning movement changes along alignments); reduction in general travel lanes, shoulders and/or parking; and freight operations (truck and rail). Reported at segment level.
Transit reliability	The number of signalized intersections will be quantified for each alignment. The number of signalized intersections includes both major, high volume intersections, as well as minor intersection or intersections that will likely require signalization or transit signal priority due to the configuration of the alignment. Also includes percentage of alignment operating in exclusive guideway. Reported at segment level.
Travel time	Travel times for each alternative will be calculated based on alignment characteristics and lengths. Alignment characteristics include station locations and associated dwell time, transit priority at signals, and existing corridor posted speed limits. Based off the alignment characteristics, full corridor and segment travel times, as well compared to existing transit trip times, will be developed. Reported at segment level.
Corridor transit trips	This measure will take modeled total transit trips along with total person trips produced in each TAZ within the corridor to understand the impact on overall transit trips as well as mode shares for each alternative. The transit trip productions will be mapped to show changes compared to the No Build alternative. In addition to total transit trips, daily boardings on corridor transit routes will be summarized to help understand how each alternative performs in coordination with other transit services in the corridor. Reported at segment level.
Station area accessibility	This measure will combine both a qualitative and quantitative analysis of walk/bike sheds and facilities in place that support pedestrian and bicycle station access. Connectivity will be assessed though the measurement of quarter-mile, half-mile, and 1-mile travel shed areas surrounding each station, based upon the existing roadway network. This will be supplemented by a qualitative analysis, assessing the ease and safety for pedestrians and bicyclists to access each station (considering factors such as completeness of sidewalk network, available bicycle facilities, ADA access, and barriers to access). Reported at station level.

CENTRAL CORRIDOR

Evaluation Criteria	Performance Measure
Goal: Support Land Use	and Economic Development Planning
Zoning policies that allow for mixed-use development, transit overlay zones, development oriented toward the street, and/or incentives for development supportive of transit	Review of municipal zoning codes to understand which station areas allow for any of the following: mixed-use development, transit-oriented development overlay zone, parking reduction incentives, or existing plans that are oriented around transit. Current planning processes that have not been finalized and are likely to recommend these types of zoning changes will be considered, as well as zoning codes that are currently under review for possible action in the short-term. Reported at station level.
Development potential/ redevelopment susceptibility (vacant or underutilized areas)	Assessment of the degree to which the station area has land available to support development into a TOD neighborhood, as measured by the amount of land within a quarter-mile buffer of each station that has a relatively greater likelihood to redevelop into transit-supportive uses. Reported at station level.
Supporting Objectives	
Capital cost estimate	This measure is a quantitative analysis of the potential construction and right of way acquisition costs associated with an alternative. A rough order of magnitude (ROM) cost estimate was developed for each alternative, based on the representative alignment configuration. Previous UTA 100% cost estimates will be used to develop high level unit costs (inflated to current year). Recent UTA BRT projects, such as UVX (constructed), Ogden BRT, Midvalley BRT (not constructed, cost estimates only), will be used to develop unit pricing. [It has been noted that operation of this project would likely require the expansion of existing bus maintenance facility. If readily available, this cost will be provided as a separate line item, though would be the same cost for all alternatives.] Reported at segment level.
Operating cost estimate	In coordination with UTA operations staff, operating costs per year for each alternative will be estimated. Reported at segment level.
State of good repair considerations	In coordination with UTA operations staff, state of good repair considerations for each alternative will be considered. State of good repair considerations include replacement of vehicle fleet, guideway improvements, and station improvements over the 50 year life cycle of the investment. Reported at segment level.
Potential conflicts with major utilities, structures, or other transportation infrastructure; unique construction challenges	This measure is a qualitative analysis of the construction challenges and potential risks associated with an alternative. Each alternative is evaluated based on the type of construction required while also considering the existing conditions within a corridor. Existing conditions could include major above ground utilities and existing infrastructure. Other constructability considerations will include major infrastructure improvements such as bridges, complex construction elements and potential impacts during construction. Reported at segment level.

CENTRAL CORRIDOR

Evaluation Criteria	Performance Measure
Assessment of environmental risk to key resources (water, ESA, Section 4(f), historic resources, hazardous resources)	Assessment of overall risk to project development based on proximity to key environmental resources such as water, wetlands, ESA species, Section 4(f), historic, and hazardous resources. Risk will be assessed based on location of resource in proximity to project footprint and will consider type of resource impacted and potential type of impact anticipated (long-term versus short-term impact). Reported at segment level.
Estimated levels of property impacts	This measure will estimate the number of properties impacts. Using GIS, each alternative will be analyzed to determine the property impacts based on an assumed project footprint. Reported at segment level.
Reduction in vehicle miles traveled, transit mode share	This measure will use the WFRC/MAG Travel Demand Model to access the reduction in vehicle miles traveled and transit mode share (compared to the no build condition). Reported at segment level.

Screening Results

Findings presented for Level 2 are based on representative alignments which provide initial conceptual engineering and general assumptions about how the transit service would operate. Ratings of high – medium – low performance are assigned at the segment and station area level. The screening results are comparative to each other, ranging from those that best meet the criteria (high), to those least meeting the criteria (low). Those with the highest performance or most competitive outcome are ranked high.

Because the analysis is comparative, high-medium-low are not indicators of peak performance or impacts, but rather how well an option performs relative to the other options under consideration.

Additional refinements to the characteristics of the alignment and stations areas will be considered as the Preferred Alternative is developed in the final step in this study. Factors such as cost, travel time, and ridership will continue to be refined to optimize the performance of the Preferred Alternative. These findings will continue to be refined as engineering progresses and additional information is available in later phases of project development that follow this study.

Table 2 includes a snapshot of the overall evaluation, with figures to follow that detail the screening outcomes for each segment.

Stakeholder Outreach and Coordination

As part of the Level 2 screening process, a series of one-on-one meetings were held with each city in the study area to present the findings of the evaluation and discuss preferences for the Preferred Alternative. These discussions led to additional data analysis, and refinements in the alignments and station locations that led to the formulation of a Preferred Alternative.

Table 2. Level 2 Screening Summary

Evaluation	Alternative Snapshot				
Criteria		STATE STREET	GENEVA ROAD/800 N		
	23.4 miles / 27 stations	21.9 miles / 26 stations	22.6 miles / 26 stations		
Ridership	2019: 4,150 riders	2019: 4,100 riders	2019: 4,250 riders		
	2050: 8,250 riders	2050: 7,650 riders	2050: 7,250 riders		
	2050 SE data change: 8,400 riders	2050 SE data change: 7,700 riders	2050 SE data change: 7,300 riders		
Transit Reliability	71 signals, 84% exclusive lanes	63 signals, 91% exclusive66 signals, 76% exclusivelaneslanes			
Travel Time ¹	73-90 minutes	70-90 minutes	71-90 minutes		
Corridor Transit	2019: +1,800 new transit	2019: +1,650 new transit	2019: +1,700 new transit		
Trips	riders	riders	riders		
	2050: +3,000 new transit riders	2050: +2,750 new transit riders	2050: +2,300 new transit riders		
Capital Costs ²	Lowest level of investment	10% more than lowest level of investment	Lowest level of investment		
Operating Costs ³	Due to longer travel times with this alternative, operating costs are estimated to be slightly more expensive than the State Street and Geneva Road alternatives.	Due to similar estimated travel times between State and Geneva Road alternatives, operating costs end up being about the same and are slightly lower than the Rail Corridor alternative.			
State of Good Repair	facilities over a 50-year lifesp replacement of bus fleet (12- years for flexible pavement, 4 (estimated 30 year life span).	kes into account costs associated with replacement of pan. For this project, major SGR costs would include -15 year replacement cycle), guideway improvements (20 40 years for rigid pavement), and station improvements . Due to similarities in corridor length and number of costs would be similar for all alternatives.			
Air Quality Improvement	_	decrease in vehicle miles traveled and a slight increase in , in the context of the broader region these			

¹ Initial travel times are estimated from posted roadway speeds (where applicable) and high-level assumptions of transit service operating characteristics and signal delay along the length of the corridor. Travel times will be refined as the project progresses through future phases of project development.

² Rough order of magnitude capital cost range based on representative alignment (length of BRT construction, number of stations, intersection/roadway reconstruction, crossing structures, as applicable) which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations and state of good repair costs, or station programming elements (park and rides, operator facilities, etc.).

³ As a Preferred Alternative is selected, assumptions to determine high-level operating costs will be refined and presented as part of the project operating plan.

TRANSIT STUDY Level 2 Evaluation Summary

A Level 2 alternatives evaluation was performed for the Central Corridor Transit Study. Three bus rapid transit (BRT) alternatives were evaluated for performance in areas of transit system operations, land use and economic development, and other factors such as cost and environmental impacts. An alternative "snapshot" is presented below that captures highlights of each of the full-length alternatives.

The study area was broken into three segments to understand the differentiation between alternatives and allow for an opportunity to create a Preferred Alternative that combines the best performing alternatives from each segment. The purpose of this approach was to better understand the factors contributing to the comparison among the alternatives that might be less obvious when end-to-end corridor data is aggregated. The following materials present a high-level overview of findings from the Level 2 alternatives evaluation:

- Pages 2-4: Segment level findings, station area results, key findings and recommendations
- Page 5: Station area boardings for each alternative and segment
- Page 6: Transit trip production maps that accompany the transit trips evaluation criteria and depict where each alternative would increase or decrease transit trips in the study area
- Pages 7-9: Detailed information on Level 2 evaluation criteria, methodology, and scoring

Findings presented for Level 2 are based on representative alignments which provide initial conceptual engineering and general assumptions about how the transit service would operate. Ratings of high – medium – low performance are assigned at the segment and station area level. The screening results are comparative to each other, ranging from those that best meet the criteria (high), to those least meeting the criteria (low). Because the analysis is comparative, high-medium-low are not indicators of peak performance or impacts, but rather how well an option performs relative to the other options under consideration. A full description of the methodology and scoring for each criterion can be found starting on page 7.

Additional refinements to the characteristics of the alignment and stations areas will be considered as the Preferred Alternative is developed in the final step in this study. Factors such as cost, travel time, and ridership will continue to be refined to optimize the performance of the Preferred Alternative. These findings will continue to be refined as engineering progresses and additional information is available in later phases of project development that follow this study.

	EVALUATION MEASURE	IRE ALTERNATIVE SNAPSHOT				
		RAIL CORRIDOR 23.4 Miles/26 Stations	STATE STREET 21.9 Miles/25 Stations	GENEVA ROAD/ 800 NORTH 22.6 Miles/25 Stations		
فرفرف	Ridership	2019: 4,150 riders 2050: 8,250 riders 2050 SE data change: 8,400 riders	2019: 4,100 riders 2050: 7,650 riders 2050 SE data change: 7,700 riders	2019: 4,250 riders 2050: 7,250 riders 2050 SE data change: 7,300 riders		
	Transit Reliability	71 signals, 84% exclusive lanes	63 signals, 91% exclusive lanes	66 signals, 76% exclusive lanes		
Ó	Travel Time ¹	73-90 minutes	70-90 minutes	71-91 minutes		
Ø	Corridor Transit Trips	2019: 1,800 new transit riders 2050: +3,000 new transit riders	2019: +1,650 new transit riders 2050: +2,750 new transit riders	2019: +1,700 new transit riders 2050: +2,300 new transit riders		
8	Capital Costs ²	Lowest level of investment	10% more than lowest level of investment	Lowest level of investment		
8	Operating Costs ³	Due to longer travel times with this alternative, operating costs are estimated to be slightly more expensive than the State Street and Geneva Road alternatives.		es between State and Geneva Road ng about the same and are slightly lower ridor alternative.		
*	State of Good Repair	State of good repair (SGR) takes into account costs associated with replacement of facilities over a 50-year lifespan. For this project, major SGR costs would include replacement of bus fleet (12-15 year replacement cycle), guideway improvements (20 years for flexible pavement, 40 years for rigid pavement), and station improvements (estimated 30 year life span). Due to similarities in corridor length and number of stations, it is assumed these costs would be similar for all alternatives.				
e	Air Quality Improvement		n vehicle miles traveled and a slight increas broader region these decreases/increases			

¹ Initial travel times are estimated from posted roadway speeds (where applicable) and high-level assumptions of transit service operating characteristics and signal delay along the length of the corridor. Travel times will be refined as the project progresses through future phases of project development.

² Rough order of magnitude capital cost range based on representative alignment (length of BRT construction, number of stations, intersection/ roadway reconstruction, crossing structures, as applicable) which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations and state of good repair costs, or station programming elements (park and rides, operator facilities, etc.).

³ As a Preferred Alternative is selected, assumptions to determine high-level operating costs will be refined and presented as part of the project operating plan.





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KEY FINDINGS AND RECOMMENDATIONS

Rail Corridor Alternative shows an increase in ridership and reduced costs compared to State Street/Geneva Road. Station areas in the northern portion show higher performance for most criteria in the Rail Corridor compared to State Street/Geneva Road. Other evaluation criteria are similar for both alternatives. Recommendation: The Rail Corridor Alternative in Segment 1 should be considered for the Preferred Alternative.

¹ Initial travel times are estimated from posted roadway speeds (where applicable) and high-level assumptions of transit service operating characteristics and signal delay along the length of the corridor. Travel times will be refined as the project progresses through future phases of project development.

² Rough order of magnitude capital cost range based on representative alignment (length of BRT construction, number of stations, intersection/ roadway reconstruction, crossing structures, as applicable) which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations and state of good repair costs, or station programming elements (park and rides, operator facilities, etc.).

ALTERNATIVE ALIGNMENTS					
RAIL CORRIDOR 10.6 Miles/11 Stations	STATE STREET 11.0 Miles/11 Stations	GENEVA ROAD/ 800 NORTH 11.0 Miles/11 Stations			
on Mobility and Acce	ess with Anticipated Gr	owth			
2019: 1,000 riders 2050: 2,600 riders 2050 SE data change: 2,650 riders	2019: 1,000 riders 2050: 1,950 riders 2050 SE data change: 2,000 riders	2019: 1,000 riders 2050: 1,900 riders 2050 SE data change: 1,900 riders			
Displacement of existing right rail users along corridor (Lehi). Restricts left turn movements.	Portions of center running mo turn mov	-			
32 signals 100% exclusive lanes	29 signals s 94% exclusive lanes				
31-37 minutes	● ● ○ 32-42 minutes				
● ○ 2019 ● ● ○ 2050 019 gain of 18% new riders 2050 gain of 9% new riders	• • 2019 • 2050 2019 gain of 14% new riders 2050 gain of 5% new riders	• • 2019 • 2050 2019 gain of 11% new riders 2050 gain of 4% new riders			
Lowest level of investment	18% more than lowes	st level of investment			
Operat	ing costs not calculated at segmer	nt level.			
State of good rep	air considerations not addressed	at segment level.			
tructure crossing needed SR-92 Utility relocations may be required at 19 intersection rebuilds.					
Moderate potential to impact parks, historic properties, wetlands, and biological resources.					
ostly within UTA owned right way, limiting impacts (Lehi). ome property impacts due intersection widening and station areas (AF).	More property impacts due station area				
Not calculated at segment level.					



KEY FINDINGS AND RECOMMENDATIONS

2050 ridership is similar for the State Street and Rail Corridor alternatives. State Street Alternative and Rail Corridor alternatives are the most expensive due to larger portions of exclusive lanes and the length of the alignment, respectively. The State Street Alternative has faster travel times and greater transit reliability due to shorter alignment and nearly exclusive transit operation. Rail Corridor and Geneva Road alternatives show decreased transit reliability due to the smaller portion of transit operating in exclusive lanes. Recommendation: Perform additional analysis around transit system performance to further understand the differences between the State Street and Rail Corridor alternatives. Consider dropping the Geneva Road Alternative. Discuss preferences with the TAC on tradeoffs and priorities of exclusive versus mixed-running transit investment.

4 Improvement ¹ Initial travel times are estimated from posted operating characteristics and signal delay along through future phases of project development. ² Rough order of magnitude capital cost range intersection/ roadway reconstruction, crossing costs, but does not include vehicle costs, mainte elements (park and rides, operator facilities, etc.).

Air Quality

ALTERNATIVE ALIGNMENTS					
RAIL ORRIDOR liles/5 Stations	STATE STREET 3.8 Miles/4 Stations	GENEVA ROAD/ 800 NORTH 4.5 Miles/4 Stations			
obility and Acce	ess with Anticipated Gr	rowth			
19: 700 riders 60: 1,550 riders 14a change: 1,600 riders of alignment operate d traffic to minimize	2019: 750 riders 2050: 1,650 riders 2050 SE data change: 1,650 riders Portions of center running median alignment restricts left	2019: 800 riders 2050: 1,350 riders 2050 SE data change: 1,400 riders Portions of alignment operate in mixed traffic to preserve			
to left turning freight eavy left turn volume nts at 800 N/State St.	turn movements.	ability for left turning freight traffic. Heavy left turn volume movements at 800 N/State St.			
13 signals exclusive lanes	8 signals 100% exclusive lanes	11 signals 22% exclusive lanes			
6-18 minutes	12-13 minutes	13-14 minutes			
2019 2050 n of 26% new riders in of 4% new riders	 2019 2019 2050 <li< td=""><td> 2019 2050 2019 2050 gain of 32% new riders 2050 gain of 5% new riders </td></li<>	 2019 2050 2019 2050 gain of 32% new riders 2050 gain of 5% new riders 			
re than lowest level f investment	64% more than lowest level of investment	Lowest level of investment			
Operat	ing costs not calculated at segmer	nt level.			
State of good rep	air considerations not addressed	at segment level.			
elocations may be d at 8 signals. Timing investment with UVU development requires on. Major intersection 800 N/State St. due to urn movements.	Utility relocations may be required at 8 signals.	Utility relocations may be required at 3 signals. Major intersection rebuild at 800 N/State St. due to left turn movements.			
ate potential to impact	parks, historic properties, wetlar	nds, and biological resources.			
operty impacts due vay and intersection g and station areas. g along 1600 N and 00 N/State St.	More property impacts due to roadway and intersection widening and station areas along State St.	Limited property impacts due to joint use configuration on Geneva Rd. Additional widening required at 800 N/ State St.			
	Not calculated at segment level.				
Not calculated at segment level. To adway speeds (where applicable) and high-level assumptions of transit service of the length of the corridor. Travel times will be refined as the project progresses pased on representative alignment (length of BRT construction, number of stations, structures, as applicable) which includes an allowance for real estate and soft mance facilities, operations and state of good repair costs, or station programming					



STATION BOARDINGS BY ALTERNATIVE (2019, 2050, AND 2050 WITH SE DATA CHANGES*)									
		2019			2050			2050 SE ADJUSTMEN	Г
STATION NAME	RAIL CORRIDOR	STATE STREET	GENEVA ROAD/ 800 NORTH	RAIL CORRIDOR	STATE STREET	GENEVA ROAD/ 800 NORTH	RAIL CORRIDOR	STATE STREET	GENEVA ROAD/ 800 NORTH
Segment 1**									
North SR-92 (Lehi)	100	-	-	650	-	-	650	-	-
South Triumph (Lehi)	50	-	-	200	-	-	200	-	-
2100 N (Lehi)	50	-	-	100	-	-	100	-	-
Lehi FrontRunner (Lehi)	-	150	150	-	300	300	-	300	300
Ashton/Triumph (Lehi)	-	50	50	-	150	150	-	150	150
2100 N/Ashton (Lehi)	-	-	-	-	50	50	-	50	50
500 West (Lehi)	-	50	50	50	100	100	50	100	100
300 E (Lehi)	50	50	50	100	50	50	100	50	50
Main Street (Lehi)	100	100	100	200	150	150	200	150	150
Pacific Dr (AF)	150	150	150	200	200	200	200	200	200
Center St (AF)	150	100	100	200	150	150	250	150	150
860 E (AF)	200	150	150	400	250	250	400	250	250
The Grove (PG)	100	150	150	300	400	350	350	400	400
2000 W (PG)	50	100	50	150	150	150	200	200	150
Segment 2**									
700 N & Geneva (Lindon)	100	100	100	200	150	200	200	150	200
700 N & State (Lindon)	-	100	-	-	200	-	-	200	-
400 N (Lindon)	-	50	-	-	100	-	-	100	-
2000 N (Orem)	-	100	-	-	150	-	-	150	-
1600 N (Orem)	-	150	-	-	250	-	-	200	-
200 S (Lindon)	-	-	50	-	-	150	-	0	150
600 S (Lindon)	50	-	-	100	-	-	150	0	0
Vineyard FrontRunner (Vineyard)	<10	-	-	300	-	-	300	0	0
Vineyard/Geneva (Orem)	100	-	100	50	-	100	50	0	100
900 W (Orem)	250	-	250	350	-	350	350	0	300
800 N (Orem)	200	250	200	650	850	600	650	850	600
Segment 3**									
Center St (Orem)	300	300	300	750	700	700	750	700	700
800 S (Orem)	250	250	250	650	600	600	650	600	600
University Pkwy (Orem)	300	300	300	900	900	850	900	900	900
1720 N (Provo)	250	250	250	400	400	400	400	400	400
Cougar Blvd (Provo)	400	400	400	350	350	350	350	350	350
500 N (Provo)	200	200	200	200	150	200	200	150	150
Provo Downtown (Provo)	200	200	200	150	150	150	150	150	150
Freedom Blvd. (Provo)	100	100	100	100	100	100	100	100	100
UVX 400 South (Provo)	100	100	100	100	50	100	100	50	50
Provo FrontRunner (Provo)	300	300	300	500	550	550	550	550	550

*Per coordination with jurisdictions, SE data for population and employment was adjusted in Lindon, Orem, and Vineyard. **Numbers may not total to segment boarding totals due to rounding.



Figures show the difference in 2050 transit trip productions (i.e. where trips would originate) for each alternative compared to the No-Build Alternative. The map indicates which areas within the broader Central Corridor study area would benefit from the project, and conversely, which areas would experience a decrease in transit ridership production.



Level 2 Screening Criteria, Methodology, and Scoring

Level 2 Evaluation Measures	Level 2 Evaluation Methodology	Scoring/Rating Information and Notes
Goal: Improve Transportat	ion Mobility and Access with Anticipated Growth	
Daily and annual projected ridership	Transit ridership was forecasted using the WFRC/MAG Travel Demand Model 8.3.1 for 2019 and 2050 years. In addition, a secondary run was made for 2050 with adjustments to population/employment projections in Lindon,	Segment scoring: Ratings assigned based on co alternatives.
current, 2050) and station boardings	Orem, and Vineyard. 2050 : Model runs were performed with WFRC/MAG Travel Demand model 2050 RTP.	Station scoring: Ratings assigned based on con the study area.
	2050 SE: A secondary run was made with adjustments to population/employment projections in Lindon, Orem, and	High performance = 0-300 boardings
	Vineyard.	Medium performance = ≥ 300 and < 600 boardings
	Ridership reported at station, segment, and full corridor level.	Low performance = ≥ 600 boardings
Potential effects on existing and planned	This measure provides an qualitative assessment of impacts on general traffic and freight operations, including impacts to: property access (through impacts related to turning movement changes along alignments); reduction in general	Segment scoring: Ratings assigned based on co alternatives.
traffic operations,	travel lanes, shoulders and/or parking; and freight operations (truck and rail).	High performance = Limited impacts to traffic operation
including freight (truck and rail)	Reported at segment level.	Medium Performance = Some impacts to traffic operative removal of parking and/or other considerations
		Low performance = Greater impacts to traffic operation removal of parking and/or other considerations
Transit reliability	The number of signalized intersections was quantified for each alignment. The number of signalized intersections includes both major, high volume intersections, as well as minor intersection or intersections that will likely require signalization or transit signal priority due to the configuration of the alignment. Measures also factors in percentage of alignment operating in exclusive guideway. Reported at segment level.	Segment scoring: Ratings assigned based on co alternatives.
		High performance = Low number of signalized interse segment
		Medium Performance = Limited number of signalized entire segment
		Low performance = Large number of signalized interse
Travel time	Travel times for each alternative were calculated based on alignment characteristics and lengths. Alignment characteristics include station locations and associated dwell time, transit priority at signals, and existing corridor	Segment scoring: Ratings assigned based on co alternatives, with the fastest segment travel time
	posted speed limits. Based off the alignment characteristics, full corridor and segment travel times will be developed.	High performance = Fastest segment travel time
	Reported at segment and full corridor level.	Medium Performance = Up to 25% increase in travel t
		Low performance = Over 25% increase in travel time of
Corridor transit trips	This measure modeled total transit trips along with total person trips produced in each TAZ within the corridor to understand the impact on overall transit trips as well as mode shares for each alternative. The transit trip productions	Segment scoring: Ratings assigned based on co alternatives.
	were mapped to show changes compared to the No Build alternative. In addition to total transit trips, daily boardings	High performance = >20% transit percentage increase
	on corridor transit routes are summarized to help understand how each alternative performs in coordination with	Medium Performance = 5% - 20% increase
	other transit services in the corridor. Reported at segment and full corridor level.	Low performance = <5% increase
Station area accessibility	This measure combined both a qualitative and quantitative analysis of walk/bike sheds and facilities in place that support pedestrian and bicycle station access. Connectivity was assessed though the measurement of half-mile travel	Station scoring: Ratings assigned based on con the study area.
	shed areas surrounding each station, based upon the existing roadway network. This was supplemented by a qualitative analysis, assessing the ease and safety for pedestrians and bicyclists to access each station (considering	High performance = > 80% station area with connected connectivity barriers
	factors such as completeness of sidewalk network, available bicycle facilities, ADA access, and barriers to access). Reported at the station level.	Medium performance = 60% - 80% station area conne freeway, railroad corridor, etc.)
		Low performance = <60% station area connectivity/la

on comparative performance between segment

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n comparative performance between segment

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perations through restrictions on turning movements or

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tersections and limited exclusive transit operations

on comparative performance between segment me receiving the highest rating.

vel time over fastest segment travel time me over fastest segment travel time

on comparative performance between segment

comparative performance between all station areas in

nected sidewalks, bikeways, and/or trails, along with minimal

onnectivity, with some gaps and barriers (e.g., wide streets,

ty/large areas of incomplete sidewalks/bikeways/trails

CENTRAL CORRIDOR

Level 2 Evaluation Measures	Level 2 Evaluation Methodology	Scoring/Rating Information and Notes
Goal: Support Land Use a	nd Economic Development Planning	
Zoning policies that allow for mixed-use development, transit overlay zones, development oriented toward the street, and/or incentives for development supportive of transit	Municipal zoning codes were reviewed to understand which station areas allow for any of the following: mixed-use development, transit-oriented development overlay zone, parking reduction incentives, or existing plans that are oriented around transit. Current planning processes that have not been finalized and are likely to recommend these types of zoning changes will be considered, as well as zoning codes that are currently under review for possible action in the short-term. Reported at station level.	 Station scoring: Ratings assigned based on contrast the study area. High performance = Designated TOD zoning and/or Medium performance = Transit supportive zoning in residential) Low performance = No or limited transit supportive
Development potential/ redevelopment susceptibility (vacant or underutilized areas)	This measure assessed the degree to which the station area has land available to support development into a TOD area, as measured by the amount of land within a quarter-mile buffer of each station that has a relatively greater likelihood to redevelop into transit-supportive uses. Reported at station level.	 Station scoring: Ratings assigned based on certified the study area. High performance = Greater likelihood to redevelop currently allows residential of at least 12 du/acre or areas already built in a transit-supportive manner. Medium performance = Some redevelopment pote cores) Low performance = Not likely to redevelop (built ou or equivalent zoning, single-family low-density residential of a statement of the study area of the study area of the study area of the study area.
Supporting Objectives		
Capital cost estimate	This measure is a quantitative analysis of the potential construction and right of way acquisition costs associated with an alternative. A rough order of magnitude (ROM) cost estimate was developed for each alternative, based on the representative alignment configuration. Previous UTA 100% cost estimates will be used to develop high level unit costs (inflated to current year). Recent UTA BRT projects, such as UVX (constructed), Ogden BRT, Midvalley BRT (not constructed, cost estimates only), were used to develop unit pricing. [It has been noted that operation of this project would likely require the expansion of existing bus maintenance facility. If readily available, this cost will be provided as a separate line item, though would be the same cost for all alternatives.] Reported at segment and full corridor level.	Segment scoring: Ratings assigned based on alternatives. If quantitative difference between a to be similar enough to warrant the same rating. High performance = Lowest cost alternative of the s Medium performance = Mid-range cost alternative Low performance = Highest cost alternative of the s
Operating cost estimate	In coordination with UTA operations staff, operating costs per year for each alternative were estimated. Reported at full corridor level.	Described at full corridor level. Consideration range of project costs. Will be developed furthe
State of good repair considerations	In coordination with UTA operations staff, state of good repair considerations for each alternative were considered. State of good repair considerations include replacement of vehicle fleet, guideway improvements, and station improvements over the 50-year life cycle of the investment. Reported at full corridor level.	Described at full corridor level. Consideration range of project costs. Will be developed further
Potential conflicts with major utilities,	This measure is a qualitative analysis of the construction challenges and potential risks associated with an alternative. Each alternative was evaluated based on the type of construction required while also considering the existing	Segment scoring: Ratings assigned based on alternatives.
structures, or other transportation	conditions within a corridor. Existing conditions could include major above ground utilities and existing infrastructure. Other constructability considerations include major infrastructure improvements such as bridges, complex construction	High performance = Limited intersection rebuilds, u noted.
infrastructure; unique construction challenges	elements and potential impacts during construction.	Medium performance = Numerous intersection reb
	Reported at segment level.	Low performance = Numerous intersection rebuilds major intersections and/or structures would be need

comparative performance between all station areas in for TOD polices/incentives in place g in place (i.e. mixed use, moderate to high density ive zoning or policies in place *comparative performance between all station areas in* lop (large vacant or underutilized parcels, zoning that or a mix of uses, including TOD overlays)]. Also includes to tential (vacant parcels, excess parking in retail/commercial out land uses that are not transit supportive, e.g., industrial sidential development [less than 5 du/acre]) on comparative performance between segment in alternatives was less than 10%, ratings were assumed ng. e segment alternatives

ve of the segment alternatives

segment alternatives

ions noted for informational purposes and to present full ther as part of the Preferred Alternative.

ons noted for informational purposes and to present full her as part of the Preferred Alternative.

on comparative performance between segment

, utility conflicts, and no unique construction challenges

ebuilds and utility relocations are likely.

lds and utility relocations are likely and reconstruction of eeded.

TRANSIT STUDY

Level 2 Evaluation Measures	Level 2 Evaluation Methodology	Scoring/Rating Information and Notes
Assessment of environmental risk to	Assessment of overall risk to project development based on proximity to key environmental resources such as water, wetlands, ESA species, Section 4(f), historic, and hazardous resources. Risk was assessed based on location of resource	Segment scoring: Ratings assigned based on alternatives.
key resources (water,	in proximity to project footprint and will consider type of resource impacted and potential type of impact anticipated	High performance = No environmental resources in
ESA, Section 4(f), historic resources, hazardous	(long-term versus short-term impact). Reported at segment level.	Medium performance = Some environmental resou environmental risk is moderate.
resources)		Low performance = Many environmental resources environmental risk is high.
Estimated levels of property impacts	This measure estimates the number of properties impacts. Using GIS, each alternative was analyzed to determine the property impacts based on an assumed project footprint.	Segment scoring: Ratings assigned based on alternatives.
	Reported at segment level.	High performance = No or very limited property imp
		Medium performance = Moderate property impacts
		Low performance = Higher property impacts
Reduction in vehicle miles traveled, transit	This measure used the WFRC/MAG Travel Demand Model to access the reduction in vehicle miles traveled and transit mode share (compared to the no build condition).	Described at full corridor level. Considerations
mode share	Reported at full corridor level.	

on comparative performance between segment

in proximity to project footprint, environmental risk is low. sources are present in proximity to project footprint,

es are present in proximity to project footprint,

on comparative performance between segment

mpacts Icts

ions noted for informational purposes.



CENTRAL CORRIDOR TRANSIT STUDY | 2021

FUNDING MEMORANDUM

This memo addresses potential funding options for the preferred transit scenario for the "Central Corridor," an area from Lehi to Provo. The proposed Bus Rapid Transit (BRT) option is estimated to have roughly 32 stops, extending through Lehi, American Fork, Pleasant Grove, Lindon, Vineyard, Orem, and Provo. Previous findings presented economic benefits of this proposed transit project, based on assumptions made regarding development that may occur due to the BRT improvements. Through an in-depth study process, the consultant team (led by Parametrix and Horrocks), has arrived at a preferred scenario that recommends a Bus Rapid Transit (BRT) system for this key area. That scenario is estimated at a cost of roughly \$1.0 billion. This memorandum is intended to present possible funding options that may aid in addressing some of the proposed BRT cost. Key information that is presented in this memo includes the following:

- Priority projects and regional transit needs
- Possible federal funds and grants that might be utilized
- Local funds including existing tax revenues and the possibility of engaging various economic development tools
- New possible local funds from new tax revenues or enhancements to existing economic development tools

The proposed Central Corridor transit system may affect a significant portion of northern and central Utah County. This possible transit improvement should be viewed as an independent system, considering the demographics and characteristics of the area. Potential connections to Salt Lake County and other systems should be considered for the larger region, but funding of this proposed improvement is likely better with recognition for its stand-alone ability.

Key funding sources will be addressed in this memorandum. Possible federal grants and funding programs will be highlighted, although their applicability for some programs is potentially limited based on initial ridership forecast estimates in relation to total project cost. Other sources of potential funding will be shown in a later table, with key possibilities shown below:

- New general obligation bonds through a tax assessment of residences within the Central Corridor area
- An increase in local transportation sales tax for key affected areas in northern and central Utah County
- An increase to existing taxes such as VMT, restaurant taxes, income taxes, vehicle registration fees, etc.
- Potential TIFIA bonds

PRIORITY PROJECTS AND REGIONAL TRANSIT NEED

Key priority projects are identified herein to help understand potential pressures on funding mechanisms for already planned and proposed projects. Ultimately, local municipalities and/or the state government/entities may approve of additional funding sources that could expedite planned projects.

The Mountainland Association of Governments (MAG), in conjunction with UDOT and UTA, created a Regional Transportation Plan (RTP). Similarly, a RTP was completed by the Wasatch Front Regional Council, UDOT, and UTA for Salt Lake County and surrounding areas. These RTPS are blueprints for transportation, land use, and economic development. Both plans were recently updated and consider possible needs from the 2019-2050 period, and were formed through a partnership of local governments, transportation agencies, community organizations, local stakeholders, and residents. The 2019-2050 RTP prioritize roughly \$74.2 billion in transportation spending during the time period, in an effort to optimize roadway systems and transit opportunities. Key considerations and priorities in the RTPs are noted below (with wording taken directly from the RTPs):

- There are 82 prioritized transit projects in the 2019-2050 RTP focused primarily on Salt Lake, Davis, and Weber Counties, which would add or enhance 595 miles in the transit network. Total estimated transit costs total \$5.3 billion. More than 384 roadway projects are identified at a cost of \$15.7 billion.
- In the 2019-2050 RTP for Utah County, roughly 60 highway projects are identified in the near-term (\$5.23 billion), and approximately 15 transit-related projects (\$2.64 billion)

The RTPs indicate that "there are always more needed projects than anticipated revenues can fund. Therefore, some projects were moved to future phases or placed into an unfunded category." The associated table, as contained in the RTP for Utah County, highlights needs versus perceived, available revenues.

January 2021

Funds showed in 2019 dollars Highway	2019-30 Phase 1	2031-40 Phase 2	2041-50 Phase 3	TOTAL
Revenue	5.17b	4.10b	4.26b	13.53b
Need	5.23b	4.05b	4.15b	13.43b
Revenue minus Need AMOUNT FUNDED	-57m	+57m	+106m	+106m

Transit				
Revenue	1.74b	1.73b	1.80b	5.27b
Need	2.64b	4.18b	3.52b	10.33b
Revenue minus Need AMOUNT FUNDED	-902m	-2.45b	-1.72b	-5.06b

TOTAL				
Revenue	6.91b	5.83b	6.06b	18.80b
Need	7.87b	8.22b	7.67b	23.76b
Revenue minus Need	-959m	-2.39b	-1.61b	-4.96b

Key proposed transit projects in the RTP for Salt Lake County are identified in the RTP. Those which have notable significance (in terms of funding areas just to the north of the study area) are highlighted below, with particular focus on planned uses in the near term:

- Doubletrack Frontrunner for four miles from Salt Lake County to Utah County cost estimated at current of \$115 million and phased cost of \$215 million
- Electrify Frontrunner line for 27.5 miles from Salt Lake County to Utah County cost estimated at \$750,000,000
- Draper TRAX line (South) from Draper TRAX station to Utah County line Cost estimated at current of \$361,690,000 (done before this and other studies), with phased cost of \$1.0 billion

- As an option to the Draper TRAX line, a TRAX line west alignment is considered for 14 miles that would have a current capital cost of \$965 million, and a phased capital cost of \$2.7 billion
- Several BRT systems throughout the county are identified with estimated current capital costs reflected together at nearly \$770 million

For the Utah County RTP, key transit and projects are highlighted below, all of which are identified as near-term needs:

- South Commuter Rail Payson to Provo \$252 million
- North Light Rail Line American Fork to Draper \$654 million
- State Street Bus Rapid Transit Provo to American Fork \$313 million
- North Commuter Rail Intermittent Double Track \$113 million

As reflected, the larger region represents notable needs for a variety of transit improvements with estimated costs that exceed transit revenues. Following sections will highlight possible revenue sources for the proposed BRT improvements for the study area. As the BRT may have economic benefits beyond the affected cities (where stops will be located), impacts are estimated for portion of Utah County.

POSSIBLE FEDERAL FUNDS

Federal fund programs are now highlighted for their potential applicability to the Central Corridor study area and the proposed BRT improvements. The initial ridership projections for the BRT result in a total that may restrict eligibility and/or competitiveness for most federal funds. Nonetheless, the following sections present existing programs that may be further studied to determine applicability for the proposed BRT improvements. Future phases of project work should target increases in transit ridership to increase eligibility and/or competitiveness for federal funding.

Transportation Infrastructure Finance and Innovation Act (TIFIA)

The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides Federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments. TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many surface transportation projects - highway, transit, railroad, intermodal freight, and port access - are eligible for assistance. Each dollar of Federal funds can provide up to \$10 in TIFIA credit assistance - and leverage \$30 in transportation infrastructure investment (*Department of Transportation*).

Surface Transportation Program (STP)

The Fixing America's Surface Transportation Act (FAST), enacted on December 4, 2015, converted the longstanding Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBG) acknowledging that this program has the most flexible eligibilities among all Federal-aid highway programs and aligning the program's name with how the Federal Highway Administration (FHWA) has historically administered. The STBG promotes flexibility in State and local transportation decisions and provides funding to best address State and local transportation needs.

Historical annual STBG funding under the FAST Act is as follows:

Estimated	Annual STBG Funding	
FY 2016	\$11.162 B	
FY 2017	\$11.424 B	
FY 2018	\$11.667 B	
FY 2019	\$11.876 B	
FY 2020	\$12.136 B	

The FAST Act distributes formula funds annually based on the amounts of funds each State received under the Moving Ahead for Progress in the 21st Century (MAP-21) Act. These funds may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities. As funding for planning, these funds can be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures.

STBG obligations are reimbursed from the Highway Account of the Highway Trust Fund and are available for obligation for a period of three years after the last day of the fiscal year for which the funds are authorized. Thus, funds are available for obligation for up to four years. STBG funds are subject to the annual obligation limitation imposed on the Federal-aid highway program.

The Federal share is generally 80 percent. The Federal share for projects on the Interstate System is 90 percent unless the project adds lanes that are not high-occupancy-vehicle or auxiliary lanes. For projects that add single occupancy vehicle capacity, that portion of the project will revert to the 80 percent level. An upward sliding scale adjustment is available to States having public lands (<u>https://www.fhwa.dot.gov/legsregs/directives/notices/n4540-12.cfm</u>). States may use a lower Federal share on Federal-aid projects as provided in 23 U.S.C. 120.

Projects must be identified in the Statewide Transportation Improvement Program (STIP)/Transportation Improvement Program (TIP) and be consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan(s). When obligating allocated funding, the State must coordinate with relevant metropolitan planning organizations (MPO) or rural planning organizations.

Better Utilizing Investments to Leverage Development (BUILD)

The Consolidated Appropriations Act of 2018 made available \$1.5 billion in discretionary grant funding through the Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program. In 2019, \$900 million was made available, and approximately \$1.0 billion was appropriated in 2020.

For current rounds of BUILD Transportation grants, the maximum grant award is \$25 million, and no more than \$150 million can be awarded to a single State. At least 30 percent of funds must be awarded to projects located in rural areas. BUILD Transportation grants replaced the pre-existing Transportation Investment Generating Economic Recovery (TIGER) grant program. Since 2009, Congress has dedicated more than \$4.1 billion for six rounds to fund projects through TIGER grants. Utah has been the recipient of TIGER grants in the past.

The BUILD Transportation grants are for investments in surface transportation infrastructure and are to be awarded on a competitive basis for projects that will have a significant local or regional impact. BUILD funding can support roads, bridges, transit, rail, ports or intermodal transportation. Projects for BUILD are evaluated based on merit criteria that include safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and additional non-Federal revenue for future transportation infrastructure investments.

The Department of Transportation intends to award a greater share of BUILD Transportation grant funding to projects located in rural areas that align well with the selection criteria than to such projects in urban areas. The department highlights rural needs in several of the evaluation criteria, including support for rural broadband deployment where it is part of an eligible transportation project.

FTA Capital Investment Grants

The FTA Capital Investments Grants (CIG) is a discretionary program that funds transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. Federal transit law requires transit agencies seeking CIG funding to complete a series of steps over several years. Projects are divided into groups based on their sizes and requirements. "New Starts" programs are those which request \$100 million or more or have an anticipated capital cost of \$300 million of more. Small Starts projects are those that cost less than \$300 million and total funding sought is less than \$100 million. For New Starts projects, the law requires completion of three phases in advance of receipt of a construction grant agreement – Project Development, Engineering, and Construction. For Small Starts projects, the law requires completion

of one phase in advance of receipt of a construction grant agreement – Project Development. The law also requires projects to be rated by FTA at various points in the process according to statutory criteria evaluating project justification and local financial commitments. Due to the scope and cost of the project, it is likely that New Starts funding would be sought; however, if the project were phased into smaller less costly segments, Small Starts could be a potential funding option.

In 2018, the FTA awarded \$281 million in funding for five mass transit projects in Arizona, California, Minnesota, and Texas. This represents a small portion of the \$2.62 billion that was set aside by congress that year for transit grants. In 2019 \$995 million was appropriated for ten existing projects, eight of which were "New Starts" (located in California, Massachusetts, Maryland, Texas, and Washington), and two "Core Capacity" projects (California and Illinois). In 2020, an additional \$775 million was provided for CIG projects.

The Fixing America's Surface Transportation Act (FAST), enacted on December 4, 2015, is the law that authorizes the Capital Investment Grant Program. It specifies that eligible applicants for the CIG program are State or local governmental authorities. FAST builds upon the changes to the Capital Investment Grant (CIG) program instituted by the Moving Ahead for Progress in the 21st Century Act (MAP-21) that was enacted on July 6, 2012 and took effect on October 1, 2012. The laws outline a multi-year, multi-step process that proposed transit construction projects must go through to be eligible to receive discretionary CIG program funding from the Federal Transit Administration (FTA).

The process to receive grant money through the CIG funds is rigorous and may be found at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June% https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June% https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June% https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June% <a href="https://www.transit.dot.gov/sites/fta.dot.gov/si

One of the largest recent FTA awards was in the amount of \$120 million and will be used to construct the \$2.4 billion Maryland National Capital Purple Line (a light rail system). Roughly \$300 million was suggested for three separate projects in Southern California with combined total costs in excess of \$7.0 billion.

LOCAL FUNDS – ECONOMIC DEVELOPMENT TOOLS

The potential of utilizing local funds is a consideration in this memorandum. As indicated in the economic impact memorandum, the proposed BRT improvements will enhance property values and will aid in encouraging uses that will add notable taxable value to the local municipalities. A significant amount of development will occur regardless of the availability of a mass transit option, due to market forces that provide an adequate profit for land acquisition and new development. This is evidenced by recent and ongoing construction that has occurred in the study area, with significant increases in land values experienced over the past two decades. While some of these improvements have been made with an understanding that a transit option is likely for the area, they most likely would have occurred without this consideration. Nonetheless, new and future development will continue to be enhanced by the potential or availability of a transit alternative. Highest and best use considerations may change with the availability of BRT, including greater densities, somewhat reduced parking, and more focus on key nodes that include stations/stops. This intensification of uses will be feasible from the increased values for properties that

have access to the transit improvements. The rise in values will result in greater tax generation for the area. The various tax options are highlighted in following paragraphs.

Local Sales and Use Taxes

Any city, county or town may levy a local option sales tax of one percent on the purchase price of the same transactions for which the statewide sales tax rate of 4.85 percent is charged. The local sales and use tax was established in 1959. Historically, the rate associated with the local option portion of the tax changed over the years as follows:

July 1, 1959 – June 30, 1975	½ of one percent
July 1, 1975 – June 30, 1983	¾ of one percent
July 1, 1983 – June 30, 1986	7/8 of one percent
July 1, 1986 – December 31, 1989	29/32 of one percent
January 1, 1990 – present	One percent

Currently, all counties, cities and towns in Utah have adopted ordinances to impose the maximum one percent option of the local sales and use tax. However, counties can only collect the local sales and use taxes within the unincorporated area with the county boundaries.

County Option Sales and Use Taxes

All counties in Utah have adopted ordinances to impose a 0.25 percent County Option Sales and Use Tax. This tax applies on the purchase price of the same transactions for which the statewide sales and local sales taxes applies (as noted above). The county option sales tax may be used for any purpose that the county desires. County option sales and use taxes are collected by the State Tax Commission and distributed on a monthly basis to each county. The distributions are based on a formula that, in general, provides:

- (i) 50 percent of each dollar of sales and use taxes collected distributed to the county in which the tax was collected; and
- (ii) 50 percent of each dollar of sales and use taxes collected distributed proportionately among all counties imposing the tax, based on the total population of each county.

Mass Transit Sales Taxes

Counties, cities and towns may levy a sales and use tax of up to 0.30 percent to fund a public transportation system. However, the maximum rate for the Mass Transit Tax is 0.25 percent for any county, city, or town in which the *Mass Transit Fixed Guideway Tax* (defined below) is also levied. Utah County levies the 0.25 percent rate under this tax.

Mass Transit Fixed Guideway Taxes

Counties that do not levy and do not contain any municipalities that levy the Additional Mass Transit Tax (defined below), may, upon approval of the voters of the county at an election, levy a sales and use tax of up to 0.30 percent of taxable sales for fixed guideway, public transit, and highway projects within the county.

Additional Mass Transit Taxes

Any county, city or town may, upon approval of the voters of such entity at an election, levy an additional sales tax to fund a system for public transit or a project or service related to an airport facility of up to 0.25 percent on all taxable sales within its boundaries.

County Option Transportation Taxes

Additionally, counties may, upon approval of the voters of the county at an election, levy a sales and use tax of up to 0.25 percent of taxable sales for corridor preservation, or congestion mitigation, or to expand capacity for regionally significant transportation facilities. Utah County has not opted for this transportation tax.

Utah Transit Authority Sales Tax Revenues

Sales and use taxes received by UTA and pledged under its bond indentures consist of revenues received from the following sales taxes:

0.30% Mass Transit Sales Tax	Salt Lake County	
	Box Elder County	
	Tooele County	
0.25% Mass Transit Sales Tax	Davis County	
	Utah County	
	Weber County	
	Juab County	
0.25% Additional Mass Transit Sales Tax	Weber County	
	Davis County	
	Salt Lake County	
	Box Elder County	
0.276% Additional Mass Transit Fixed Guideway Tax	Utah County	
0.1875% County Option Transportation Tax	Salt Lake County	
0.05% Supplemental State Sales and Use Tax	Weber County	
	Davis County	
The new 2219 and 2220 sales taxes imposed in accordance with SB 136 (see below)		

Supplemental State Sales and Use Tax

Pursuant to Section 2003 of the Sales Tax Act, the State levies a sales and use tax of up to 0.30 percent of taxable sales ("Supplemental State Sales and Use Tax") within any city, town or unincorporated area within a county of the first or second class in UTA's Service Area that does not levy either the maximum 0.30 percent Mass Transit Tax or the maximum 0.30 percent Mass Transit Fixed Guideway Tax. The Supplemental State Sales and Use Tax rate to be levied by the State within such counties equals the difference between 0.30 percent and the Mass Transit Tax rate or Mass Transit Fixed Guideway Tax rate, as applicable, that is levied in such areas. Currently, the State is levying a 0.05 percent Supplemental State Sales and Use Tax in Weber and Davis Counties. Each of the other municipalities and unincorporated areas within counties of the first and second class in the UTA Service Area levies the maximum Mass Transit Tax and/or Mass Transit Fixed Guideway Tax.

2219 Proposition 1 Taxes

In 2015, the Legislature passed legislation allowing counties to place an additional local option sales tax for transportation purposes on their ballots in November 2015. For counties in which the Proposition 1 Tax was approved and which are served by UTA, revenue is allocated among the counties, cities and UTA to address transportation needs. Voters approved the Proposition 1 Tax in Davis, Weber, and Tooele Counties as well as additional areas outside the UTA service area. UTA will use funds generated by such tax to improve its transit services in those specific counties. Sales tax revenues collected from the Proposition 1 Tax are not pledged as collateral for UTA's outstanding bonds. However, none of the members of the study area are levying the Proposition 1 Tax.

SB 136 – Revived 2219 Taxes

With the failure of voters in Salt Lake and Utah counties to approve Proposition 1 taxes, the Utah Legislature, in the 2018 General Session, passed Senate Bill 136 as a transportation reform bill. Among other things, the bill expanded and clarified the authority of counties to implement a local sales tax option of 0.25% for public transit after July 1, 2019. In December 2018, the Utah County Commission voted to impose this option. Forty percent of revenues will flow to UTA, another 40 percent flows to the cities within the respective counties, and 20 percent can be kept by the counties.

59-12-2220 Sales Tax

In 2018, Senate Bill 136 also provided for a new 0.20 percent sales tax that was imposed beginning July 1, 2019, by any county that had already imposed every other county option sales tax allowed under Section 59-12 of the Utah Code. Both Salt Lake and Utah counties became eligible to impose this tax. The funds must be spent for public transit purposes, and the tax must be imposed before June 30, 2023.

Interlocal Agreements

UTA has entered into Interlocal Cooperation Agreements ("Interlocal Agreements") with Salt Lake County and Utah County, each of which extends to at least 2045. The Interlocal Agreements require participating counties to allocate the Sales and Use Taxes levied by participating entities to UTA. The Interlocal Agreements authorize the Utah State Tax Commission to remit the participating counties' respective sales and use tax revenues directly to UTA. UTA is required to use the amounts allocated by the participating counties on system projects designated under the respective Interlocal Agreements.

Tax Collection

UTA's portion of the above-described transit sales taxes is remitted to UTA by the Utah State Tax Commission on behalf of the participating counties and cities or, with respect to certain participating counties and cities that have not entered into Interlocal Agreements, by the participating counties and cities themselves.

Examples/Impacts

As reflected in the economic benefits analysis and in the above narratives, the study area collects various taxes for a variety of transportation and transit purposes. The study cities have all enacted use tax rates for "Mass Transit (0.25%)," "Mass Transit Fixed Guideways (0.25%)," "County Airport, Highway, Public Transit (0.25%)," "County Option Transportation (0.25%)," and "Transportation Infrastructure (0.25%)."

The economic benefit analysis calculated new potential taxes for these sources based on the estimated absorption and valuation of likely development that will include retail sales tax. This includes not only commercial offerings but takes into consideration the minimal retail sales tax generated by residential units. The table below highlights the estimated annual revenues from these sources:

Use Tax – All Cities (Impacted Development)	Annual Total
Annual Mass Transit Tax	\$34,569
Annual Mass Transit Fixed Guideways	\$34,569
Annual County Airport, Highway, Public Trans	\$34,569
Annual Transportation Infrastructure	\$34,569
Annual County Option Transportation Tax	\$34,569

Supposing that one of these sources could be directed towards construction of the BRT improvements, the current market may allow for some, albeit limited, bonding potential. If all four of these transit tax sources was available, taking just the new tax generation from the properties to benefit from the BRT, bonding of roughly \$3,000,000 could possibly be secured.

While the economic benefits analysis memo considered the area of immediate influence for the proposed BRT, it is likely that a larger area would benefit indirectly from a BRT system. The transit option would ultimately connect other transit improvements and have benefits to a larger area.

Total sales tax dollars are calculated for an expanded area, with the table below highlighting *total* sales tax revenue for the total areas directly impacted by the proposed improvements, while the previous analysis considered just the possible transportation related tax revenues from new growth that would benefit from BRT.

CITY	SALES REVENUES – 2019
Lehi	\$1,440,714,424
American Fork	\$1,248,325,145
Pleasant Grove	\$ 467,808,892
Vineyard	\$ 96,084,092
Lindon	\$ 669,836,453
Orem	\$2,647,149,955
Provo	\$1,621,552,604

Sales tax from these municipalities is calculated in a following table for the previously outlined transit options (mass transit, mass transit fixed guideways, county airport, highway, public transportation, county option transportation, and transportation infrastructure). Overall, these amount to 1.25 percent of sales tax. For the affected seven cities, the 1.25 percent is calculated for 50 percent of citywide sales, noting indirect benefits of BRT to these cities. Ultimately, these numbers merely reflect what a possible affected

area is generating in transit use taxes. The availability of a portion of these funds for BRT implementation is unknown.

CITY	TRANSIT-RELATED USE TAXES – 2019*
Lehi	\$18,008,930
American Fork	\$15,604,064
Pleasant Grove	\$ 5,847,611
Vineyard	\$ 1,201,051
Lindon	\$ 8,372,956
Orem	\$33,089,374
Provo	\$20,269,408

*Based on transit taxes for 50% of the sales tax income for these communities

POTENTIAL NEW ECONOMIC DEVELOPMENT ACTIONS

Enhanced Community Reinvestment Area

Consideration is also made herein for possible new economic development tools that could be utilized to generate funds to offset costs of construction. The current Community Reinvestment Area (CRA) structure provides taxing entities with the option of participating in the sharing of tax increment. Some taxing entities have formed policies that result in heavy restrictions on participation and ultimately create CRAs that lack some of the intended economic development potential. As a result, CRAs have become somewhat less effective than originally planned, and new tools are being discussed, particularly for areas with major transit improvements.

An effective tool for notable tax generation will likely require the participation of all taxing entities, including potentially the State of Utah. An "all-hands-on-deck" approach may be necessary to fund significant new transportation infrastructure. Areas which have significant development potential and transportation infrastructure are being considered for possible designation as TOD enhanced areas that may have the ability to generate tax increment. In addition, these key areas that fit certain development criteria, could potentially have participation from the State of Utah via various means.

Public Infrastructure District (PID)

Consideration should also be given for implementing Public Infrastructure Districts (PIDs) throughout the Central Corridor area to further facilitate development that may in turn provide for more opportunities to fund transportation infrastructure. The PID tool allows for creation of a separate taxing entity in order to fund public infrastructure. Ultimate users of the property pay for the improvements via the taxing entity through property assessments. These assessments permit for bonding, allowing for covering upfront infrastructure expenses that are repaid over periods typically ranging from 30 to 40 years. This tool results in higher property taxes for property owners/users in the defined district. Consequently, benefits beyond the improved infrastructure need to be included in the area. This can be in the form of better landscaping, street lighting, public spaces, parks, trails, finishes, etc. These benefits aid in creating property appeal and property value increases.

The PID tool may not result in direct revenue potential to fund the proposed BRT improvements, but the PID tool may aid in creating higher overall values and development potential for the areas to be affected by the BRT. This may benefit the tax increment generating potential of a tax increment financing area and may aid in creating more sales tax.

Transportation Reinvestment Zone

Utah State Senate Bill 136 was adopted in 2018, and, amongst numerous other transportation-related directives, the bill provided for transportation reinvestment zones (TRZs). According to the bill, the definition of a transportation reinvestment zone is as follows:

"Transportation Reinvestment Zone" means an area created by two or more public agencies by interlocal agreement to capture increased property or sales tax revenue generated by a transportation infrastructure project. Utah Code §11-13-103(22)

Any two or more public agencies may enter into an agreement to create a transportation reinvestment zone. One of these entities must have land use authority over a TRZ area. The agreement between the two or more public entities must include the following:

- Define the transportation need and proposed improvement
- Define the boundaries of the zone
- Establish terms for sharing sales tax revenue among the members of the agreement
- Establish a base year to calculate the increase of property tax revenue within the zone
- Establish terms for sharing any increase in property tax revenue within the zone
- Hold a public hearing regarding the details of the TRZ

A TRZ must be centered around transportation infrastructure needs because the agreement between the parties must define the transportation need and proposed investment (Utah Code §11-13-227(2)(a)). However, the type of transportation needs is not defined in the law. There could be a wide range of uses, all with a transportation purpose. These uses may include but are not limited to roads, multi-modal transportation improvements, airports, street widenings, street landscaping, pedestrian access and walkways, transit-oriented development, transit, expanded bus routes, parking garages, etc.

The same funding mechanisms used by the public entities involved in the agreement would be available for TRZs. For example, a City could issue general obligation (GO) bonds, sales tax bonds, municipal building authority bonds and Class B/C road bonds. An assessment area could be overlaid on the zone and special assessment bonds could be issued. The major difference between issuing bonds for a TRZ, as compared to a CRA, is regarding which entity carries the debt obligation on its books. In a CRA, the debt obligation is carried on the books of the Redevelopment Agency, and Utah laws provide express permission for redevelopment agencies to issue debt. This keeps the debt off the books of the city or county and clears them of this additional debt. With a TRZ, there is no other entity, other than those participating in the agreement, that can issue the debt. Therefore, the debt would need to be carried by either the city, county, or one of the other public entities participating in the agreement.

TRZs, similar to CRAs, appear to have broad applicability to the study area and the larger Central Corridor area. Compositely, this is a multi-jurisdictional area with significant needs for transportation infrastructure. As the proposed BRT improvements will expand across municipalities, the TRZ format may lead to easier application than the CRA program.

Another advantage to TRZs is the ability to obtain the commitment of transportation agencies, such as UDOT or UTA, for specific planning projects. Interlocal agreements between the public entity with the landuse authority and a transportation agency will identify the specific projects associated with the TRZ. This will add another level of certainty to City/County planning efforts and will give these public entities some additional leverage in prioritizing needed transportation projects.

EXISTING REVENUE STREAMS

As indicated previously, tools available to fund the proposed BRT project consist of both existing and new revenue streams as well as traditional and non-traditional funding mechanisms. Some existing potential revenue streams to fund transportation projects are shown below:

Existing Revenue Stream	Existing Revenue Stream	Existing Revenue Stream
Property Taxes	Sales and Use Taxes	Gas Taxes
Class B&C Road Funds	Municipal Energy Sales and Use Tax	Motor Vehicle Registration Fees
Vehicle Uniform Fee-in-Lieu of	Local Government's Appropriations	
Property Tax	from General Fund	

Potential new revenue streams, as shown herein, vary in practicality, revenue generating potential, and political viability. A summary of projected tax increment in the greater Central Corridor area is shown in the associated table. This assumes a TRZ (or similar tax increment tool) is created that covers a portion of the area to be affected by the BRT. However, areas that are currently encumbered by tax increment would most likely not be included in a larger TRZ. Assumptions for growth and for city participation in a larger, multiple municipality economic development tool are unknown. Tax increment, over an approximate 25-year period, could potentially generate between \$175 and \$275 million, dependent upon approved boundaries and participation from the taxing entities. These are notable variables, considering current patterns of practice from the school districts, county, and other taxing entities.

Revenue Stream	Projected Revenue	Assumptions
BRT TRZ Tax Increment	\$175-\$275M	Over a 25-year period.

The table on the following page lists possible potential new revenue streams and projected revenue. It is important to note that the cost of providing infrastructure and ongoing municipal-type services may not be offset by the revenues generated by the Central Corridor area. These revenues have not been measured as part of this memorandum but can provide a significant benefit to the State and local area. Additionally, the actual cost of providing municipal-type services to the areas of the Central Corridor has not been analyzed as part of this memo.

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Revenue Stream Increase	Projected New Revenue	Assumptions
Property Tax		
Statewide	\$179.5M new State GO bonds	State imposes property tax of \$10
Statewide	\$15.6M/year	per \$300,000 home value
Utah County	\$138.1M new GO Bond	County imposes property tax of \$50
Otan County	\$9.9M/year	per \$340,000 home value
Transportation Local District	\$86.1M new GO Bond	District imposes property tax of \$50
Transportation Local District	\$6.6M/year	per \$402,000 home value
Sales Tax		
Statewide	\$110.5M/year	For every 0.25% increase
County Option	\$28.1M/year	For every 0.25%
Salas Tay Ingrass to LIDOT	\$276.6M new State GO bonds	Current 21% UDOT allegation
Sales Tax Increase to UDOT	\$23.2M/year	Current 21% UDOT allocation
	\$1.32B new State Go bonds	
Sales Tax Increase to UDOT	\$110.5M/year	Full 0.25% increase
Local Transportation Sales Tax		
	\$170M new UTA STRB	Increase from 0.25% to 0.50%
2219 Tax Increase to UTA	\$12M/year	40% to UT#
	\$330M new UTA STRB	Increase from 0.25% to 0.50%
2219 Tax Increase to UTA	\$23.2M/year	100% to UT/
	\$330M new UTA STRB	New 0.20% tax levied in Utah Count
2220 Tax Increase to UTA	, \$23.4M/year	100% to UT/
Eliminating Sales Tax Exemptions		
Sale of Fossil Fuels	\$44.1M/year	Source: Utah State Tax Commission
Vehicle Trade-Ins	\$69.6/year	Source: Utah State Tax Commission
Gasoline Tax	\$69M/year	\$0.05 increase/gallor
		An increase in the fare may result in
UTA Rider Fare	\$0	decreased ridershi
	\$403M/year	0.5% increase
Income Tax	\$806M/year	1% increase
Cigarette, Tobacco and Beer Tax		
Cigarette Tax	\$25M/year	\$0.50 increase per pac
e-Cigarette Tax	\$2.5M - \$4.2M	Impose 100% ta
Tobacco Tax	\$4M/year	Increase to 108% tax/mfr. sale price
Beer Tax	\$2M/year	\$3.20 increase per 31G barre
		\$0.005/mile state-wide
	\$157.5M/year	\$0.017/mile state-wide
Vehicle Miles Traveled (VMT)	\$535.5M/year	\$0.017/mile on electric cars only
	\$700,000/year	state-wide
Motor Vehicle Registration Fee		\$5/vehicle increase state-wide
	\$13.5M/year	\$15/vehicle increase in SLCo and
Motor Vehicle Registration Fee	620N4/	+ = -, · = · · · · · · · · · · · · · · · · ·
Motor Vehicle Registration Fee	\$20M/year	Utah Countie
	-	
Transient Room Taxes (TRT)	\$30M - \$50M	Rate increase to 2% - 4% state-wide
	-	Utah Countie Rate increase to 2% - 4% state-wide Increase rate to 29 0.2% of sale price state-wide

The State of Utah has generally used traditional funding mechanisms to capitalize revenue streams for the construction of transportation projects. Additionally, there are a few non-traditional funding mechanisms that could be used for financing transportation projects. The table below includes the potential traditional and non-traditional funding mechanisms.

Non-Traditional Funding Mechanisms	
Public Private Partnerships (P3s)	
Community Reinvestment Areas (CRAs)	
TIFIA Bonds	
Private Activity Bonds (A type of P3 Project)	
Combining Tax Increment Bonds with Special	
Assessment Area	
Public Infrastructure Districts	

ISSUING ENTITIES

Issuing entities as shown in the associated table include governmental entities that could contribute to the financing of the proposed BRT improvements through either revenues or the issuance of debt. It is important to keep in mind that the capacity of the issuer to issue bonds under the State's debt limits does not give the issuer the ability to make debt service payments on new debt. New revenue streams would need to be developed before issuing new debt.

Issuing Entity	Potential Contribution
State of Utah	Construction Contractor
	Issue Bonds
	Provider of Pay-Go Appropriations
	Counterparty to a P3 Provider
	Applicant for Federal Grants
	Applicant for Private Activity Bond Allocation
	Applicant for TIFIA Funding
	Create New Revenue Streams – Impose/Raise New Taxes/Fees
	Co-Creator of Transportation Reinvestment Zones
	Authorize New UTA Bonds
Utah Transit Authority (UTA)	Issue Sales Tax Bonds
	Counterparty to a P3 Provider
Utah County	Issue Bonds
	Tax Increment
Cities Located in the Central Corridor Study Area	Issue Bonds
	General Fund Contributior
	Tax Increment
New Transportation District	Levy Property Tax
	Impose Impact Fees
Private Sector (P3)	Cash contribution as a Joint-Venture Development Partner
	Create New LLC to Finance Project

COMBINED COMPONENTS FOR FUNDING OPTIONS

The available tools listed in the table may be combined in a variety of viable options to arrive at the desired funding level for the study area proposed BRT project. When selecting funding components, it is important to retain the ability to issue other forms of debt, including commercial paper or bond anticipation notes, which can provide significant timing and funding flexibility. The following options are illustrated as examples of combining various components to potentially accelerate funding for BRT in the area.

- Traditional Funding Mechanisms;
- Non-Traditional Funding Mechanisms; and
- Hybrid Options.

The Hybrid Option, which utilizes a combination of traditional and non-traditional funding mechanisms, pulling from existing and new revenue streams is recommended as the most viable option. Some key components of this option are as follows:

- State of Utah General Obligation Bonds;
- Utah Transit Authority Sales Tax Revenue Bonds;
- Tax Increment Bonds from Community Reinvestment Areas (CRAs) or Transportation Reinvestment Zones (TRZs) (or potential new, enhanced tax increment financing tools);
- Federal Grant Money

The advantages and disadvantages of financing the proposed BRT transportation projects with the components listed in a Hybrid Option scenario are included in table below.

Advantages Hybrid Funding Mechanisms	Disadvantages Hybrid Funding Mechanisms
Potential to accelerate BRT funding.	Political will is required to raise taxes or fees.
Federal grants do not need to be repaid.	Tax increases place additional financial burdens on citizens.
Significant variety of revenue mixes available.	Tax increment revenues would be dependent on growth.
State and County bond ratings would not be jeopardized.	Proposed ridership is not significant enough to qualify for most grants.
Sufficient capacity under debt limits and bond covenants.	Other taxing entities may oppose capture of tax increment.
Bonds issued by the State are issued at low rates.	Tax increment and existing revenues redirected to BRT infrastructure would not be available to provide other services required by growth.
Costs of financing would be generally predictable.	Federal grants may impose some higher construction costs and a hassle factor.

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As the proposed BRT transportation project is the responsibility of the State (through UDOT) or of UTA, the majority of the financing burden will likely fall on these two entities. The cities in the study area have little capacity to share in the funding of these projects in any significant manner. County capacity and ability to help will likely depend on voter approval. The capture of tax increment within Transportation Reinvestment Zones or Community Reinvestment Areas within the larger Central Corridor area may provide a revenue stream to help support these projects.



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TOD Station Area Planning – Best Practices for Land Use and Economic Development

Purpose

The purpose of this memo is to identify best practices for station area planning to align land use with high quality transit investments. This memo includes a series of questions that serve as an informal inventory for City staff and leaders to assess how well their current planning/policy landscape aligns with FTA scoring criteria for Small Starts grant funding. The intent is to identify strengths and areas where City planning, policy and code can be modified to take best advantage of future transit infrastructure.

The Federal Transit Administration identifies many benefits of Transit Oriented Development (TOD). *"Focusing growth near transit stations capitalizes on public investments in transit and provides many benefits, including:*

- increased ridership and associated revenue gains for transit systems
- incorporation of public and private sector engagement and investment
- revitalization of neighborhoods
- a larger supply of affordable housing
- economic returns to surrounding landowners and businesses
- congestion relief and associated environmental benefits
- improved safety for pedestrians and cyclists through non-motorized infrastructure.¹

Transit-Supportive Plans and Policies

High quality transit investments are one major step in creating vibrant connected communities. Planning for the immediate station area, for the walkable transit-served district, and for the transit corridor are equally important to capitalizing on high capacity transit. Transit-oriented development typically includes a mix of commercial, residential, office and entertainment adjacent to the transit station. Dense, walkable, mixed-use places near transit attract people and catalyze additional investments. TOD is most successful when regional and local governments encourage it through land use planning, zoning laws, and changes to building codes, among other proactive steps.

The following three sections cover the FTA considerations for transit areas.

- **Coordinated Planning**: alignment of purpose and policy at the state, regional and city levels
- **Corridor Plans and Policies**: integrated transportation and land use planning for the transit corridor
- Station Area Zoning: development regulations to maximize transit integration

¹ Federal Transit Administration. Transit Oriented Development. <u>https://www.transit.dot.gov/TOD</u> Accessed Nov. 12, 2020.

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Coordinated Planning

Successful transit-oriented development is most often supported by a coordinated ecosystem of regional, citywide, corridor-level and station area planning to ensure planning and policies are aligned to support development and maximize public benefit of the transit investment.

- Are policies in place at the state and regional level to support transit and transit-oriented development?
- Are station areas identified at the regional level as growth centers or corridors? *Example:* Wasatch Choice 2050 identified centers
- Does the City's General Plan reflect a diverse mix of future land uses and higher development intensities for transit station areas?
- Are there citywide tools that could be applied to station areas or transit corridors? Are there development tools the City does not currently employ that should be considered? *Examples:* regulatory and financial incentives to promote development; urban renewal or urban redevelopment agency tools; value capture; public private partnerships; traffic impact regulations; other economic development strategies or programs that could be applied to the transit corridor and station areas.
- Does the City have adopted corridor plan or station area plans that capture the community's desires? *Examples: Orem State Street Corridor Master Plan (2015); Lindon 700 North Small Area Plan (in progress).*

Corridor Plans and Policies

Corridor planning is a critical element in realizing the potential of transit investments. Plans should create guidance for future development that reflects community priorities and desired outcomes. Private investment is much more likely to succeed when community expectations are clear and when the development process is made predictable, efficient, and transparent.

- Are plans and policies based on robust community input and in alignment with local priorities?
- Do plans establish future land uses and expected development densities for housing and employment growth?
- Do plans and policies support or enable needed zone changes to increase development density in station areas and along transit corridors?
- Do plans and policies promote urban design that is pedestrian-scaled and transit-oriented? *Examples: mixed uses, multistory buildings, pedestrian-oriented entrances, buildings oriented towards the street, and ground-floor transparency.*

Station Area Zoning Regulations

Development Intensity

TOD districts are typically appropriate places for higher density and development intensity, relative to the City as a whole. Corridor planning can identify which station areas are most likely to see the greatest development intensity; zoning should be updated to enable TOD in station areas. It is likely that most or all station areas should see some increase in allowable building height and floor area ratio.

• Has zoning been updated to enable desired growth in station areas and corridors?



- Does the City have the necessary zoning/regulatory tools in place to enable TOD? Are there additional tools or zoning districts that should be created to encourage dense, mixed use development?
- Are there prescribed densities and/or floor area ratios for station areas?

Allowed Uses

TOD districts are by nature mixed use places where people can travel and access what they need. The station areas and corridors should allow a broad range of uses compatible with walkable, urban development – from housing, office and retail employment to arts and entertainment, health care, human services, childcare, and more. Uses that are incompatible are most often excluded based on form and use of space – auto-scaled buildings such as drive thrus or uses that need an expanse of parking. Large format warehousing, manufacturing and industrial uses are not appropriate. However smallformat warehousing, manufacturing and light industrial (without nuisance) should not be excluded based on use alone and could add to the diversity of the transit corridor as a whole. Transit-served employment can take many forms.

- Are allowable uses in station areas compatible with TOD? What uses are prohibited or conditional on approval?
- Does the City employ form-based code or a hybrid that shift focus from use-based approval?

Mixed Use Development

Some communities may find high-density TOD a poor fit with existing development and community fabric. Mixed use districts can take many forms, beyond the images that first come to mind. Vertical mixed use is a common form of TOD (that is, ground floor commercial uses with residential or office in upper stories). Horizontal mixed use, where a variety of uses of single-use buildings, is equally important to creating a vibrant, transit district. Horizontal mixed use can achieve the same placemaking aims and can be a better fit where multistory buildings and vertical mixed use may not be appropriate or supported by the market.

• Does station area zoning allow for a mix of uses?

Pedestrian-Friendly Urban Design

Walkability is critical in TOD areas. Many factors contribute to a walkable district; the list below offers some elements of walkable urban design.

- Does City policy and code require sidewalks, walkways and street connections to enable direct walking routes to and through the station area?
- Has the City invested in capital improvements to build or enhance pedestrian facilities?
- Is the area accessible for people of all ages and abilities, including people with physical disabilities and those who use mobility devices? Are there curb ramps at all intersections, or a timeline for intersection retrofits?
- Is there a plan for wayfinding and street signage in the station area or corridor?
- Are the streets scaled appropriately for pedestrians? Does the City have street design guidelines for pedestrian- and transit-friendly streets? How are they applied to station areas?

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Parking Policies

Like walkability, parking is a key ingredient to quality transit districts. Driving alone is still the dominant mode of transportation, and TOD areas need an *appropriate* supply of parking to succeed. Existing surface parking lots can be prime infill redevelopment sites as station areas mature, which provides one strategy for station area evolution as the transit mode share increases. There are a variety of policy and code approaches to manage parking and prevent oversupply.

- What are the current parking requirements for development in transit station areas? Does the City allow for reduced parking in transit-rich areas? Does the City employ parking maximums for areas with high quality transit?
- How is parking managed? Does the City have a role in parking supply or management?
- Is parking free? Is there a plan for paid parking in the future? How is the price of parking determined (static or dynamic)? Are there per-space parking taxes to discourage oversupply?
- Are there policies or guidelines to encourage station-area building managers to unbundle the cost of parking (that is, to separate parking from the cost of rent for residential and commercial tenants)?
- How do the City's parking policies encourage shared parking?
- Are park-and-ride facilities planned for station areas?

Tools to Increase Affordable Housing

Special focus should be paid to housing affordability in transit corridors. Cities can take steps to stabilize and increase the supply of affordable housing and increase equitable access to TOD station areas, as described below. In the meantime, to support a successful high-capacity transit investment, cities should maintain an inventory of housing availability within one-half mile of proposed transit stations, including total housing units and affordable housing units.

Evaluate Corridor-Specific Needs

As part of city-wide housing needs analysis, Cities should identify specific needs along transit corridors and/or in station areas and compare needs to current affordable housing supply. It is important to understand corridor-specific needs as well as how TOD areas can serve the broader city and region in providing transit-accessible affordable housing.

- Does the City have a recent housing needs analysis? Does the study provide data on housing supply and demand at the corridor or station area level?
- Does the City track housing supply, including number and location of affordable housing units?

Tools to Increase Affordable Housing

There are a wide variety of tools available to preserve and increase affordable housing supply. Inclusionary zoning is one of the most common tools to maintain a percentage of affordable housing around transit. Inclusionary zoning is written into municipal or county ordinances to require a share of new construction to be affordable by people with low to moderate incomes. The intent is to offer a mix of housing through the zoning code, rather than "excluding" certain populations. These requirements can be mandatory or voluntary, or offered through incentive programs.

Which of the following tools does the City employ to increase the supply of affordable housing?
 Inclusionary zoning;



- o Developer incentives for income-restricted affordable units;
- Density bonus or parking requirement reduction;
- Employer-assisted housing using tax credits, partnerships, matching funds or other mechanisms;
- Rent controls or condo conversion controls;
- Affordability covenants;
- Zoning to allow "missing middle" housing types such as accessory dwelling units, townhouses, family-size units.

Additionally, there are financing tools available to expand affordable housing, which include:

- Funding for property acquisition, rehabilitation and development of affordable housing;
- Low income housing tax credits (LIHTC), and local tax abatement for low income or senior housing;
- Land banking by public, private or nonprofit developers;
- Direct financial assistance to owners and renters in need (including home repairs, weatherization, utility support, tax abatement, mortgage or rent assistance);
- Housing trust funds for low-interest loans to housing developers;
- Directing revenue from targeted tax increment financing, value capture, or transfer tax programs toward affordable housing.

Finally, in creating a program to expand affordable housing and equitable access to housing in TOD station areas, it is important for Cities to prioritize strategies that result in *permanently* affordable housing. Equally important is to understand the timing of restrictions on units that are not permanently affordable, to ensure a consistent long-term housing supply for low-income households.

Several resources have been developed to help guide local leaders in providing low- or moderateincome households with housing that is affordable and convenient, with access to reliable transportation options. Three documents are linked below, and just offer a glimpse into what is available. They offer many tools to consider, which should be utilized as early as possible, to lay the groundwork for affordable housing before, during, and after transit service implementation.

Creating Connected Communities: A Guidebook for Improving Transportation Connections for Lowand Moderate-Income Households in Small and Mid-Sized Cities; U.S. Department of Housing and Urban Development, Office of Policy Development and Research

https://www.huduser.gov/portal/publications/pdf/Creating_Cnnted_Comm.pdf

Preserving Affordable Housing Near Transit: Case Studies from Atlanta, Denver, Seattle, and Washington, D.C.; National Housing Trust, Reconnecting America http://www.reconnectingamerica.org/assets/Uploads/preservingaffordablehousingneartransit2010.pdf

Mixed-Income Housing Near Transit: Increasing Affordability with Location Efficiency; The Center for Transit-Oriented Development https://ctod.org/pdfs/tod201.pdf

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Implementation Tools

Regulatory and Financial Development Incentives

Incentives are the "carrots" of a carrot and stick approach to regulating transit-oriented development. These tools include density bonuses, streamlined processing, waiving or reducing traffic mitigation requirements, planning grants, tax increment financing districts, tax abatement, and TOD loan support, among other possible tools.

Developers prioritize speed and clarity because delays and uncertainty increase their costs. Plans and policies should make *desired* development the easiest path for private developers. Consider a process audit to understand where there may be barriers or delays that could limit development.

- Which programs, tools, or incentives does the City provide to encourage TOD?
- Are local developers familiar with the tools available? How often are such tools being utilized? How well does the development review process work from the perspective of developers?
- Does the City provide educational programming and opportunities for feedback?

Monitoring and Tracking Progress

Data collected by the City that establishes a baseline and tracks station-area development characteristics over time is invaluable in demonstrating the City's commitment to successful TOD, especially when pursuing federal grant support for capital investments.

- Does the City track data relevant to station area development? Data to collect include:
 - o Existing population, employment, business inventory
 - Expected growth rates for housing and employment (whether available at the regional, citywide, or corridor level)
 - Key destinations (including residential developments)
 - Buildable land inventory for vacant and redevelopable land, including "shovel-ready" sites
 - Location and count of parking supply (surface or structured) and price per hour or month
 - Number and location of existing affordable housing units
 - Protections for ensuring supply of affordable housing remains permanently affordable
 - Development applications and proposals (including periodic status updates)
 - Completed projects (development and redevelopment), including building characteristics, uses, number of units and/or square footage, tenants, and the municipal tools used during the development process

Additional Resources

For more information about transit-supportive land use and community planning, the Federal Transit Administration has resources available including the <u>Practitioner's Guide to Transit Supportive</u> <u>Development</u>. And the <u>Reporting Instructions for FTA's Capital Investment Grants Programs</u> is helpful in understanding the criteria by which potential projects will be selected for federal funding.