



BOARD OF COUNTY
COMMISSIONERS



TOWN
COUNCIL

JOINT INFORMATION MEETING AGENDA DOCUMENTATION

SUBMITTING DEPARTMENT: START

PRESENTER: Darren Brugmann

MEETING DATE: July 6, 2020 (Continued from June 1 JIM)

SUBJECT: START 2020-2025 Route Plan – Final Plan

STATEMENT/PURPOSE

This meeting is a continuation of the June 1st JIM meeting whereas the FINAL Report was presented by LSC Consultants with the attached PowerPoint presentation. There was not time for the discussion, and this was continued to July JIM meeting.

The purpose of this item is to request acceptance of FINAL Report for the START 2020-2025 Route Plan conducted by LSC Transportation Consultants, Inc. (LSC). If accepted, this Report will shall serve as the primary guiding document to assist START in future operational plans. Implementation of this plan would require future approval or amendments of its Operations Plan and corresponding budget as dictated in the Joint Powers Agreement (JPA) as appropriate.

BACKGROUND/ALTERNATIVES

The purpose of the 2020-2025 Route Plan project was to evaluate alternative routing options utilizing existing START resources and use this Plan as START's guidance for operational changes to routes and services provided. While the Integrated Transportation Plan (ITP) establishes a long-term strategic transit plan for START (see Chapter 2 of the ITP), the short-term need is evaluation of routing alternatives in order to maximize the efficiency of existing resources. The expansions to START that are called for in the ITP were also considered in the 2020-2025 Route Plan to provide as much synergy as possible.

The initial expectation was that the recommended 2020-2025 Route Plan will be delivered by February 2020, in order that it can be considered for FY2021 Budget process and adoption in time for the 2020 summer route schedule to be adjusted accordingly. START's original submitted Operations Plan for FY21 and corresponding budget submitted in February 2020 represented this intent. However, COVID-19 has adjusted those plans to look at full implementation in FY22 and beyond. The Adopted FY21 START budget and operation plan does not include implementation of this plan at this time. Implementation of this plan will require START to gain approval from Councilors and Commission as part of its annual budget plan and Operations Plan submittal as detailed in the JPA.

To summarize, this recommended plan will aim to achieve the following benefits:

- Estimated 55-60% ridership increase
- Reduced Vehicle Emissions
- Direct routing for Town Shuttle and Teton Village routes
- Higher frequency to maximize ridership
- Increased commuter and regional services
- Efficient transit connections with travel times that are competitive with personal auto travel time

Reduced VMT within Teton County, WY
Introducing 'Microtransit' with smaller vehicles and real-time on-demand service for East Jackson
New routes for south Jackson and south of Jackson

The following outlines future supporting infrastructure needs from the report that would need to be considered with implementation of this Plan:

Simple Downtown Transfer Point using existing assets, paint/signage
Park and ride improvements/additions
New bus stop locations supporting South Jackson Route
Stilson Transit Center improvements and transit prioritization
Roadway improvements to facilitate Bus Rapid Transit (BRT) between Town and Stilson

COMPREHENSIVE PLAN ALIGNMENT

The START 2020-2025 Route Plan addresses 8 of the 16 transit development actions identified in the ITP – the ITP is a product of Policy 7.1.a and Strategy 7.1.S.1 of the Comprehensive Plan. The START 2020-2025 Route Plan was funded by a FTA grant awarded to START and by local match, implementing Strategy 7.1.S.3 of the Comprehensive Plan.

STAKEHOLDER ANALYSIS

There is significant impact for our public transit riding community and our community's effort to achieve strategies outlined in the Comprehensive and ITP plans. In reference to public input, part of the START 2020-2025 Route Plan engaged all stakeholders including current, riders, drivers, and decision makers (START Board) as well as identification of currently unmet needs. The START Board has reviewed the final report and unanimously accepted the report on April 9, 2020.

FISCAL IMPACT

Future implementation of any major components of this plan could have significant fiscal impact but would be addressed accordingly in the budget process (and/or budget amendments) – including submission of an operations plan detailing recommended changes.

STAFF IMPACT

The START 2020-2025 Route Plan required extensive START director resources to manage the contract as well as other START and Town staff participation in the information gathering and alternatives analysis phases of the plan. Implementation of the plan will require considerable future START staff resources.

LEGAL REVIEW

None

ATTACHMENTS

- START 5-year Route Plan – June 1, 2020 JIM Presentation
- START FINAL 5 Year Route Plan Report

RECOMMENDATION

The START Director, with unanimous concurrence of the START Board, recommends accepting the START 2020-2025 Route Plan as presented by LSC Transportation Consultants, Inc.

SUGGESTED MOTION

I move to accept the START 2020-2025 Route Plan as presented by LSC Transportation Consultants, Inc. for START use as its primary guidance in future operational plans.

START 2020-2025 Routing Plan



Final Recommended Plan
June 1, 2020: JIM Presentation

START
BUS



Project Overview

◆ Goal of the study:

- ◆ Evaluate routing alternatives that will increase ridership, increase system efficiency, and reduce vehicle miles traveled

- ◆ (intertwined with ITP goals and update process)

◆ Process:

- ◆ *Analysis of existing routes*
- ◆ *Development of preliminary route alternatives*
- ◆ *Preferred alternative(s) and technical analysis*
- ◆ *Public input and review of the preferred alternative(s)*
- ◆ *Draft and final 5-year Route Plan*
- ◆ *START Board Plan Recommendation: April 9th*



Timeline

Project Kickoff

- June 2019

Rider Survey, Community Survey

- August 2019

Interim Report #1: Existing Conditions

- September 2019 presentation

System Alternatives Development

- November 2019 presentation

Preferred Alternatives Presentation and Open Houses

- February 2020

Draft Final Report

- March 2020

Final Report Presentation

- April 2020

Public Outreach

- ◇ **Vigorous Community Outreach Process**
 - ◇ **Phase 1 – Stakeholder Interviews, Community Familiarization (June 2019)**
 - ◇ **Phase 2 – Rider Survey, Focus Groups, Driver Meeting, General Community Survey (August 2019)**
 - ◇ 356 onboard rider survey responses
 - ◇ 641 online community survey responses
 - ◇ **Phase 3 – Route Options Workshop (February 2020)**
 - ◇ 5 different open houses
 - ◇ 125 attendees
 - ◇ **Phase 4 – Community Survey on Route Options (February-March 2020)**
 - ◇ 255 responses
 - ◇ **Phase 5 – Draft Presentation (April 2020)**

Final Recommended Plan Benefits

- ◇ *Estimated 55-60% ridership increase*
- ◇ *Direct routing for Town Shuttle and Teton Village routes*
- ◇ *Higher frequency to maximize ridership*
- ◇ *Increased commuter and regional services*
- ◇ *Efficient transit connections with travel times that are competitive with personal auto travel time*
- ◇ *Reduced VMT within Teton County, WY*
- ◇ *Introducing microtransit with smaller vehicles and real-time on-demand service for East Jackson*
- ◇ *New routes for south Jackson and south of Jackson*

Financial Plan

- ◇ FY2019 data used, given last full year
- ◇ In comparison, FY2020 adopted budget is \$5.7 million for operating expenses
- ◇ 3.5% inflation factor used

Table V-1: Final Recommended Route Plan - Operating and Capital Plan						
	Status Quo (FY 2019)	Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses						
Town Shuttle	\$1,808,959	\$1,109,000	\$1,148,000	\$1,188,000	\$1,230,000	\$1,273,000
Teton Village Routes	\$2,386,665	\$2,715,000	\$2,810,000	\$2,908,000	\$3,010,000	\$3,115,000
Rafter J-Melody-South Park Route		\$198,000	\$205,000	\$212,000	\$219,000	\$227,000
Microtransit		\$633,000	\$655,000	\$678,000	\$702,000	\$727,000
Star Valley Commuter	\$254,439	\$419,000	\$434,000	\$449,000	\$465,000	\$481,000
Teton Valley Commuter	\$267,702	\$460,000	\$476,000	\$493,000	\$510,000	\$528,000
ADA*	\$408,940	\$300,000	\$311,000	\$322,000	\$333,000	\$345,000
Bikeshare	\$74,107	\$75,000	\$78,000	\$81,000	\$84,000	\$87,000
Grand Targhee	\$75,511	\$122,000	\$126,000	\$130,000	\$135,000	\$140,000
Operating Expenses Subtotal	\$5,276,323	\$6,031,000	\$6,243,000	\$6,461,000	\$6,688,000	\$6,923,000
Implementation Capital Expenses (Excludes Ongoing Capital Projects and Fleet Replacements)						
Status Quo Capital	\$294,654					
Downtown Transfer Point		\$10,000	\$10,000			
Bus Stop Improvements for New Stops		\$10,000	\$10,000			
Stilson Improvements		\$100,000	\$75,000			
Park-n-Ride Lot Improvements		\$25,000	\$25,000	\$25,000		
Microtransit Start-Up Costs		\$40,000				
Capital Expenses Subtotal	\$294,654	\$185,000	\$120,000	\$25,000	\$0	\$0
Startup Expenses (For Accelerated Implementation in 6-9 months After Plan Adoption)						
Years 1-2 inefficiencies		\$225,000	\$100,000			
Additional marketing, education, outreach		\$50,000	\$20,000			
Consulting support, staff capacity building		\$65,000	\$25,000	\$25,875	\$26,781	\$27,718
Startup Expenses Subtotal	\$0	\$340,000	\$145,000	\$25,875	\$26,781	\$27,718
Total Expenses	\$5,570,977	\$6,556,000	\$6,508,000	\$6,511,875	\$6,714,781	\$6,950,718

Note: Assumes 3.5% annual inflation rate.

* ADA estimate includes \$275,000 from FY2020 plus \$25,000 for Rafter J

Source: LSC, 2020.

Supporting Infrastructure Needs

- ◇ Simple Downtown Transfer Point using existing assets, paint/signage
- ◇ Park and ride improvements/additions
- ◇ New bus stop locations supporting South Jackson Route
- ◇ Stilson Transit Center improvements and transit prioritization
- ◇ Roadway improvements to facilitate Bus Rapid Transit (BRT) between Town and Stilson

Final Recommended Plan Route Highlights

- ◇ Direct, higher frequency Town Shuttle
- ◇ Microtransit zone for East Jackson
- ◇ New Rafter J/Melody Ranch Route
- ◇ New high-frequency Express Teton Village Route
- ◇ New South Park Loop/Smith's Teton Village Route
- ◇ Doubling of service on Commuter Routes

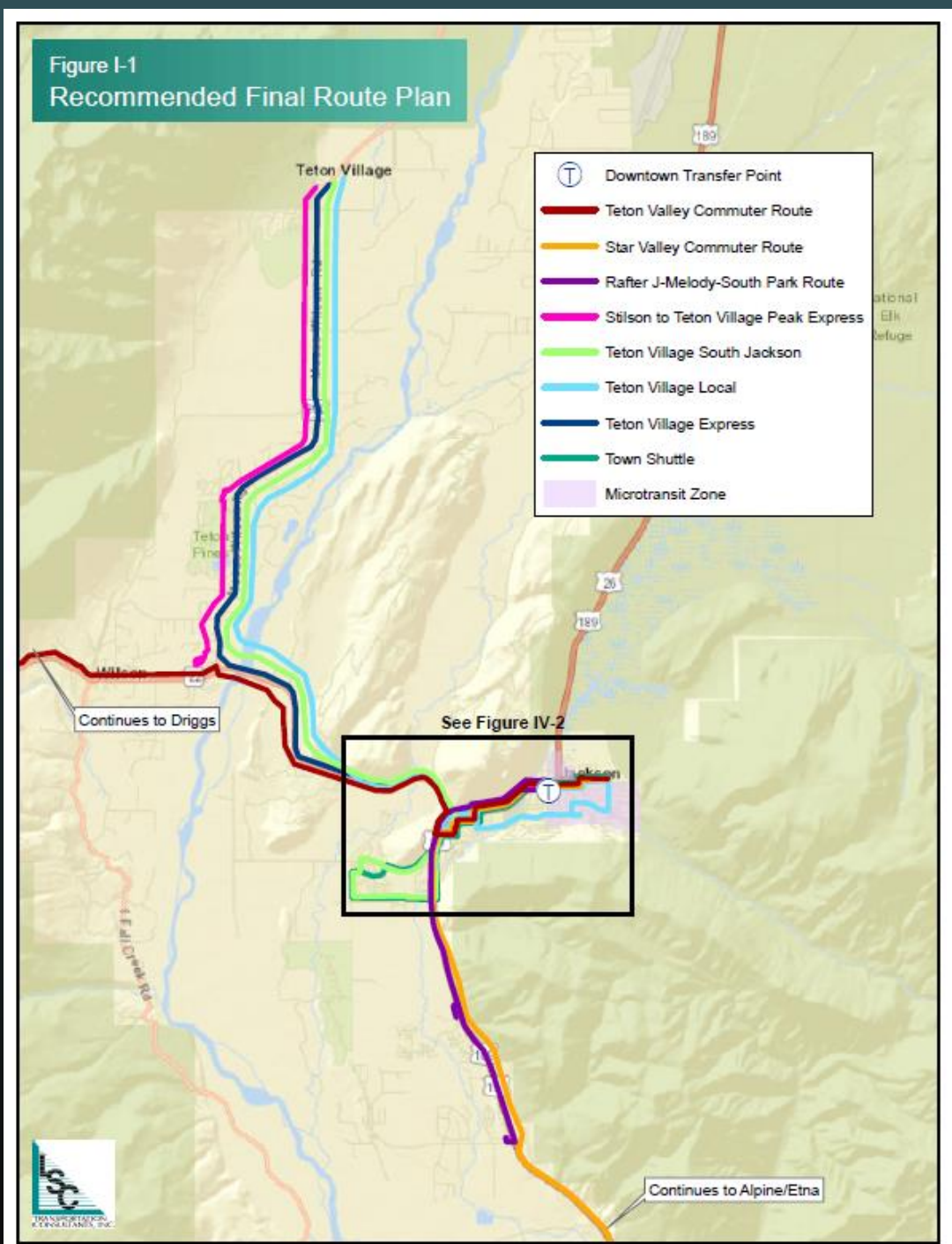
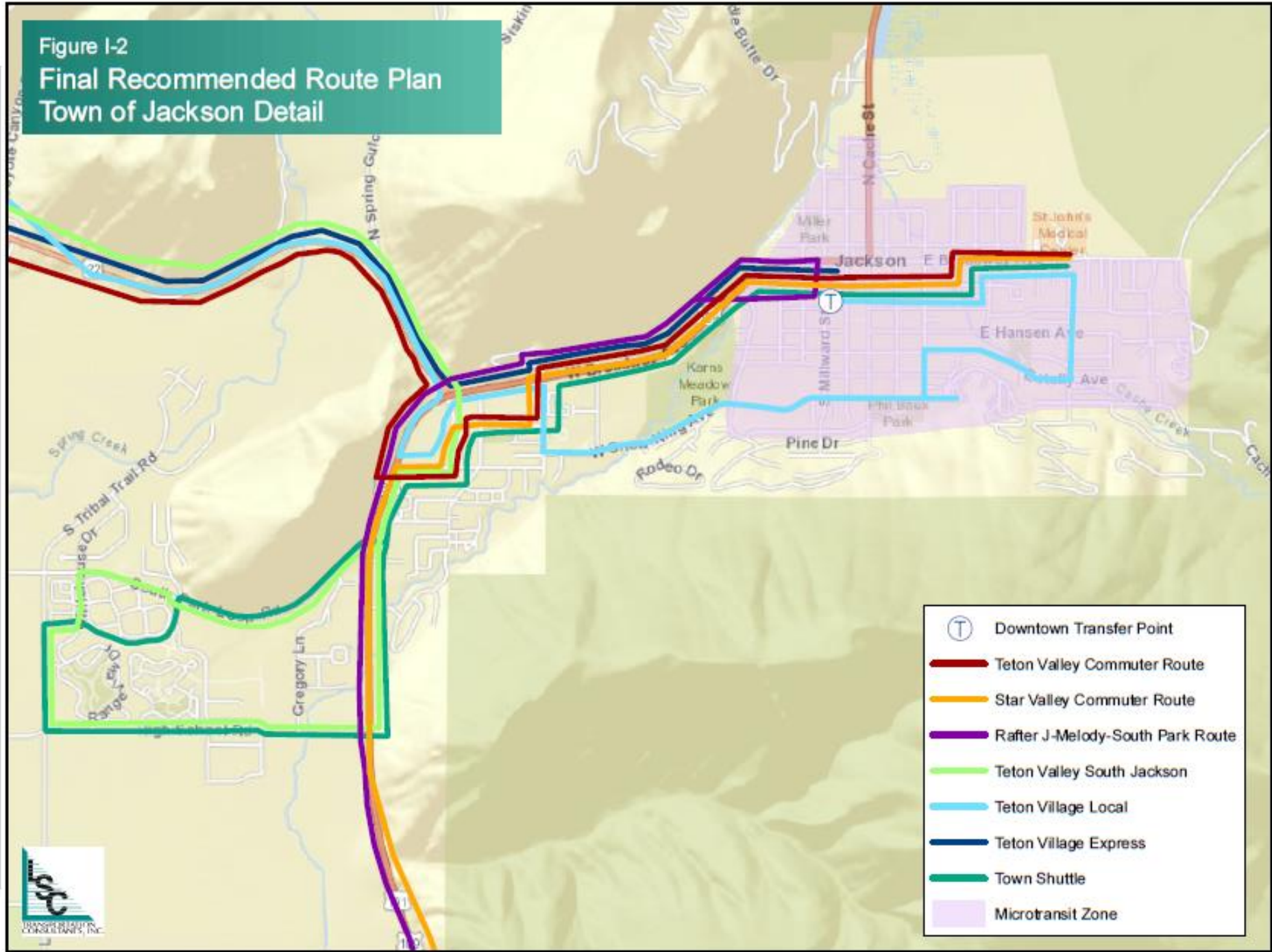
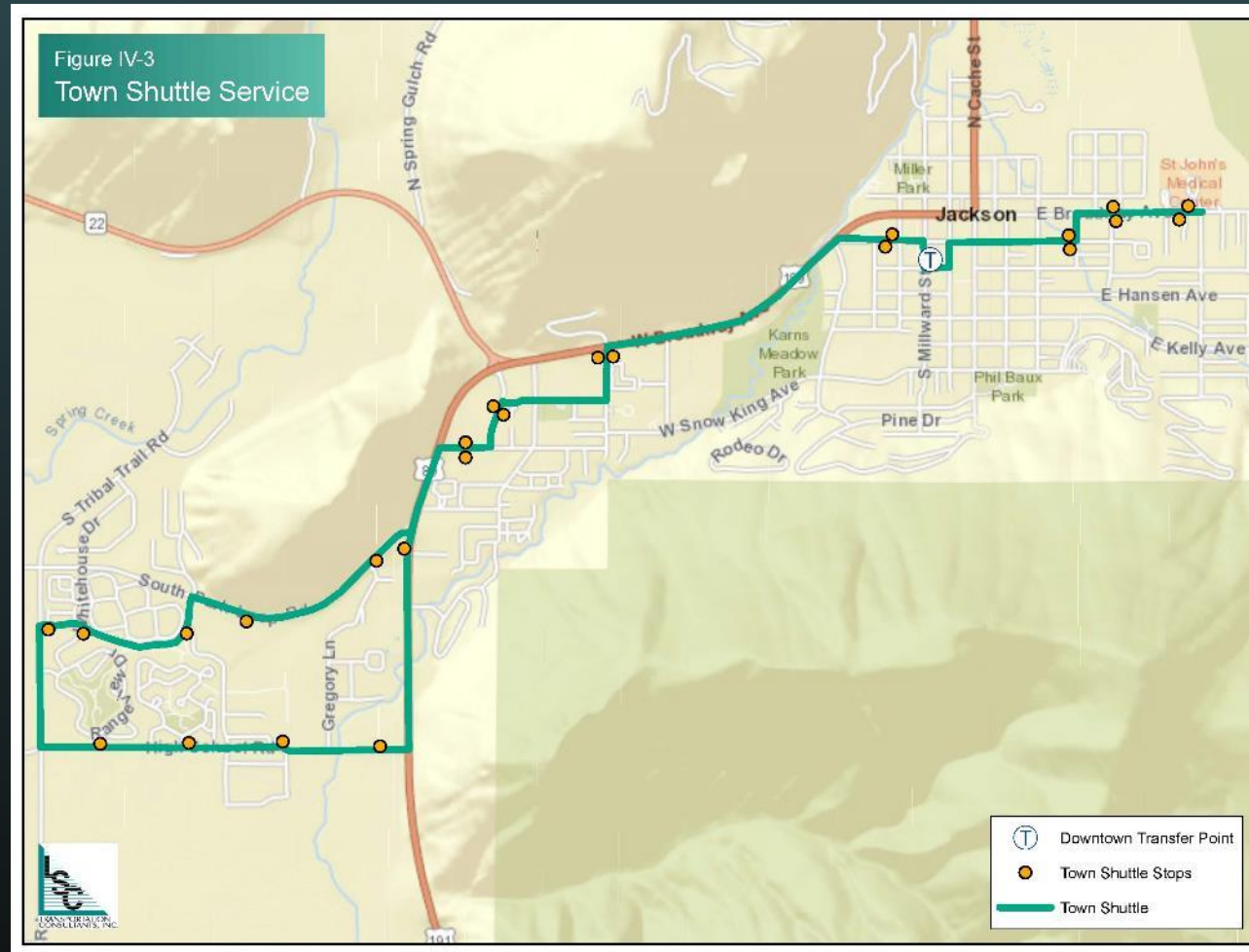


Figure I-2
 Final Recommended Route Plan
 Town of Jackson Detail



Town Shuttle

- ◇ 2 buses
- ◇ 20 min freq.
- ◇ 6a – 10p
year-round



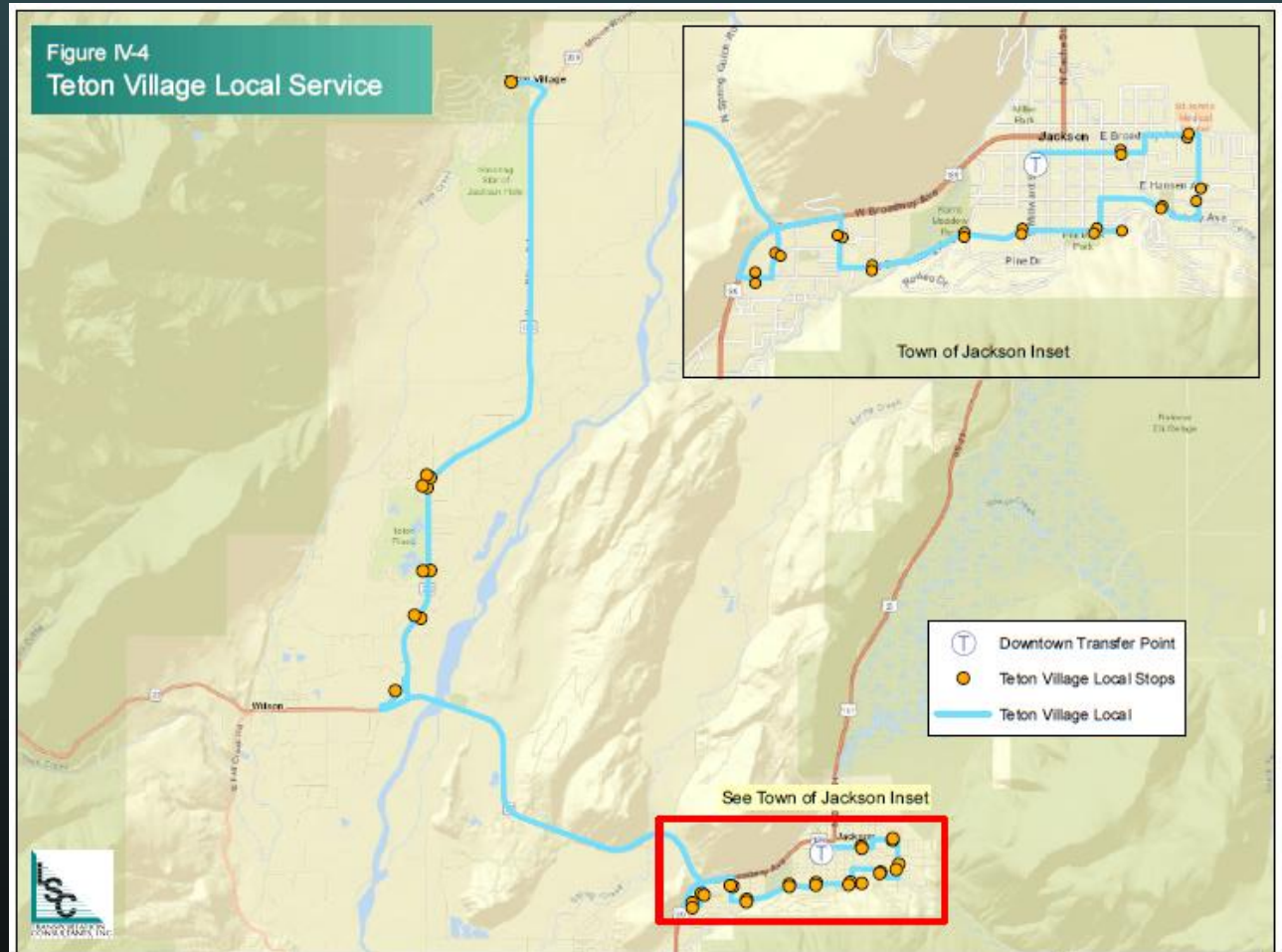
Microtransit

- ◇ On demand via app and phone dispatch
- ◇ 1 – 4 vans
- ◇ 10 min. response
- ◇ 7a – 8p year-round



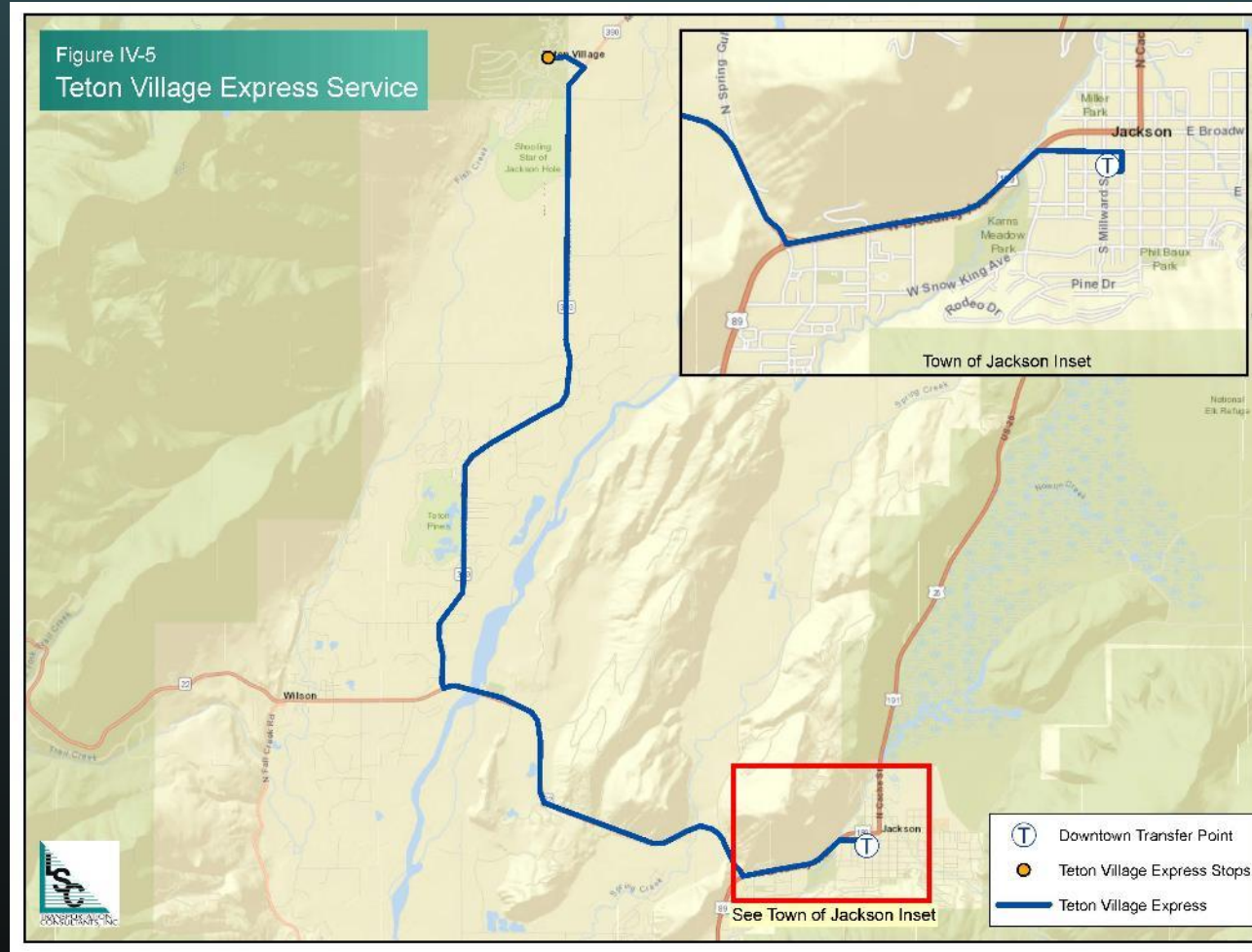
Teton Village Local

- ◇ 30 min. freq.
- ◇ 6a – 9p year-round plus extra early and late service in winter
- ◇ Serves dual purpose of local Jackson circulation and Village connection



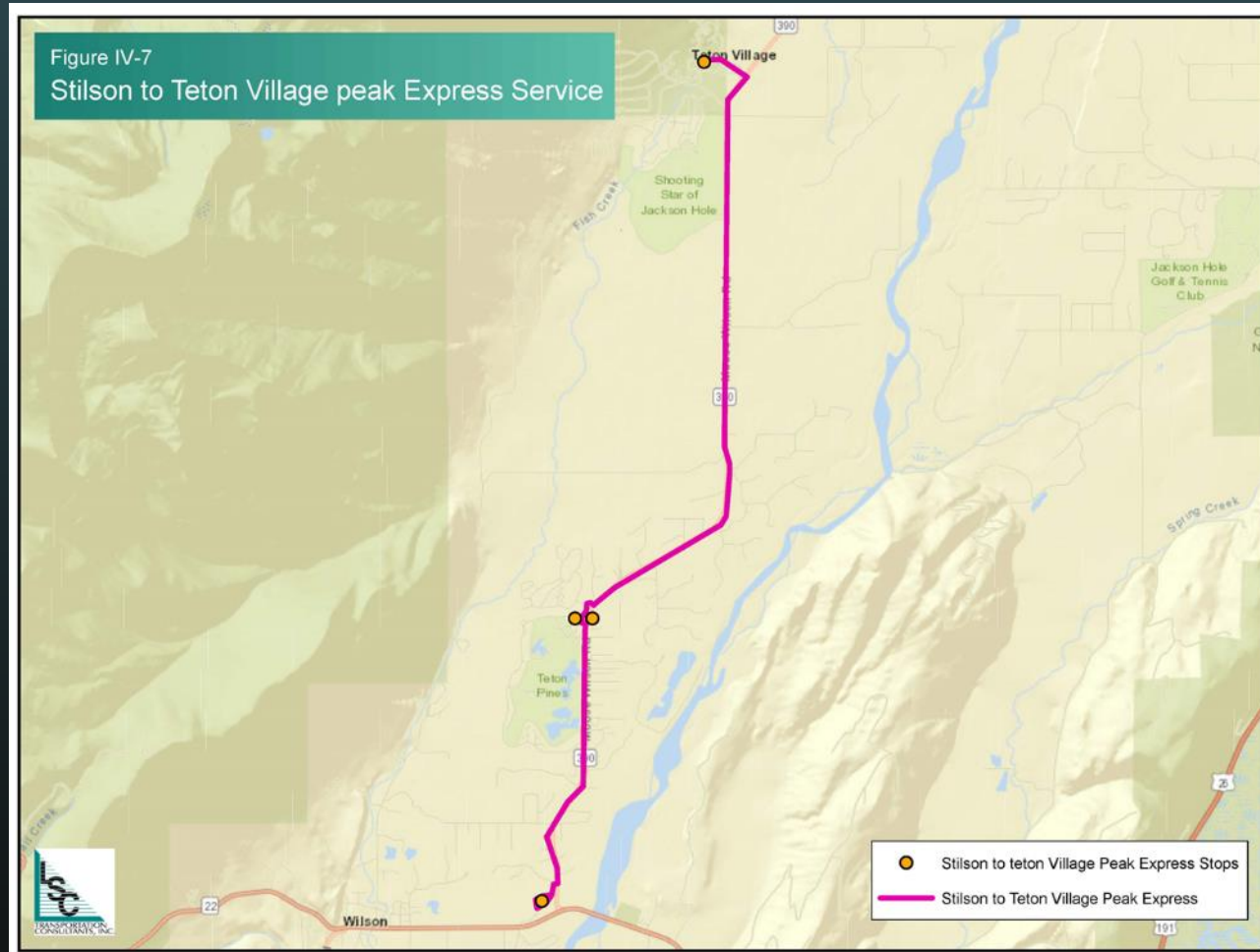
Teton Village Express (downtown to Village)

- ◇ Only two stops: Downtown and the Village
- ◇ 10 min. peak freq.
- ◇ Winter only



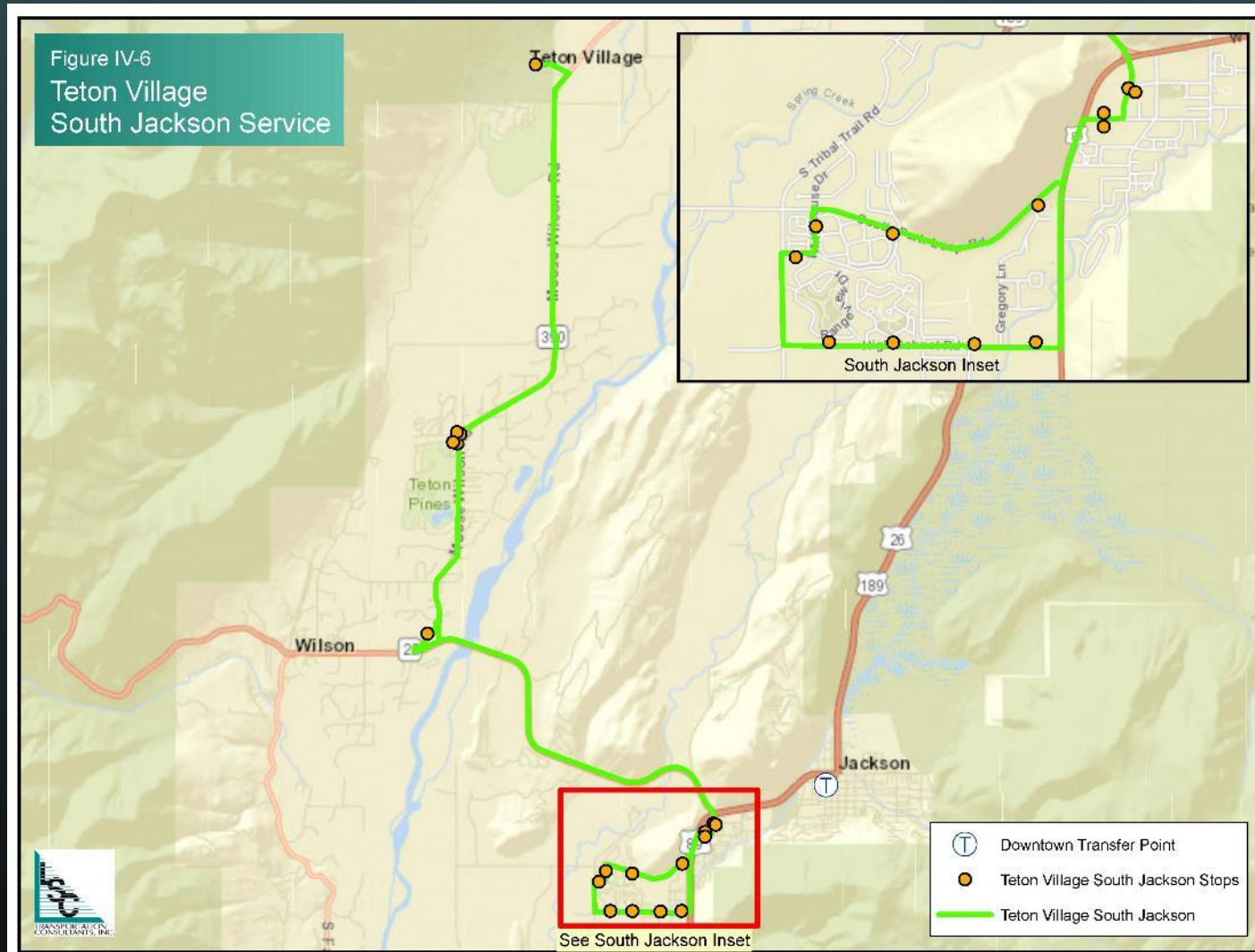
Stilson to Teton Village Express

- ◇ 15 min. freq.
- ◇ Morning and afternoon peak service
- ◇ Mid-Dec to end of Feb.



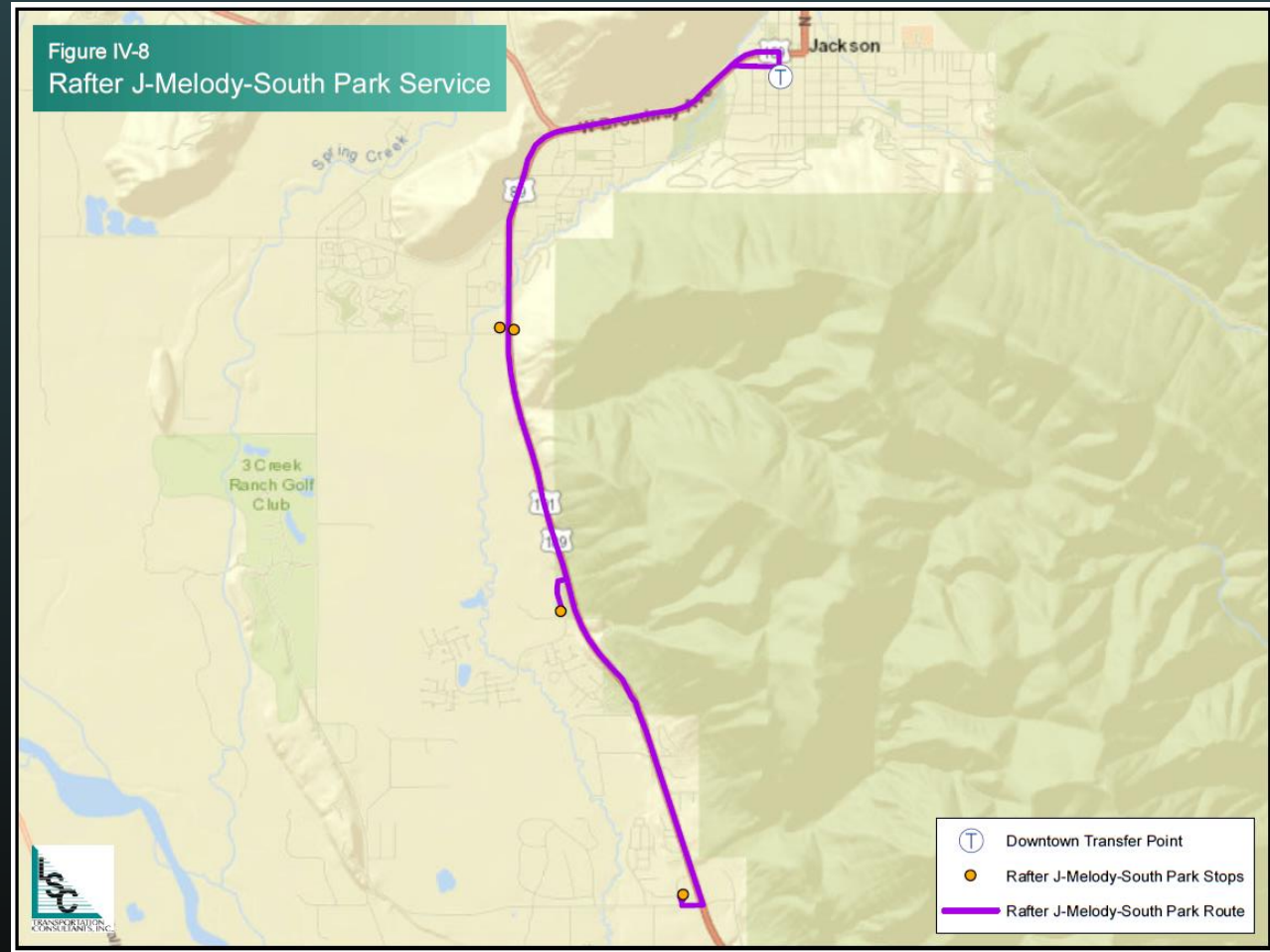
Teton Village – South Jackson

- ◇ 45 min. freq.
- ◇ 7a – 6p winter only



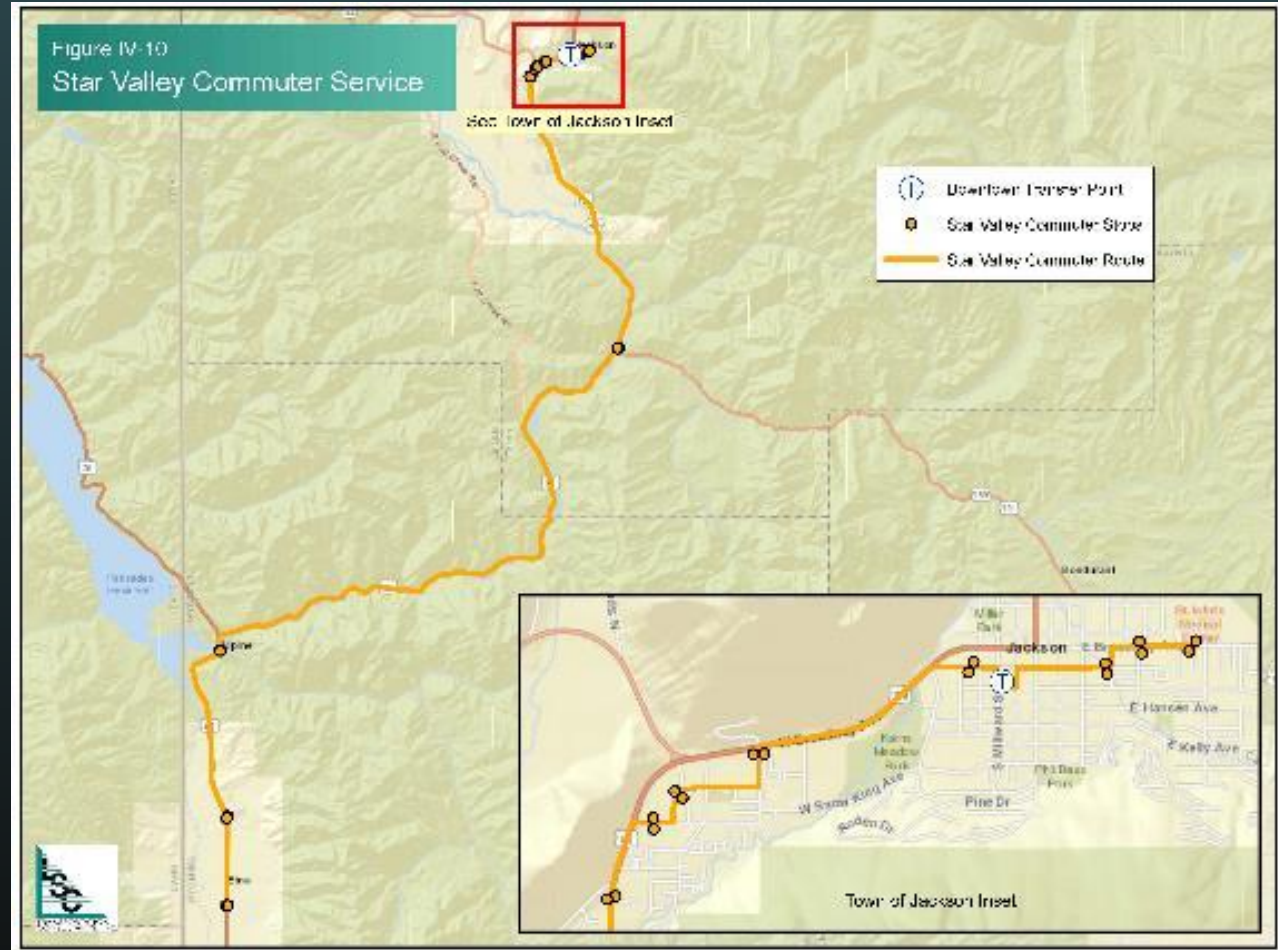
Rafter J-Melody Ranch South Route

- ◆ Serves limited points at highway entrances
- ◆ 30 min. freq.
- ◆ 6am-10am; 2pm-6pm
- ◆ Year round, weekdays



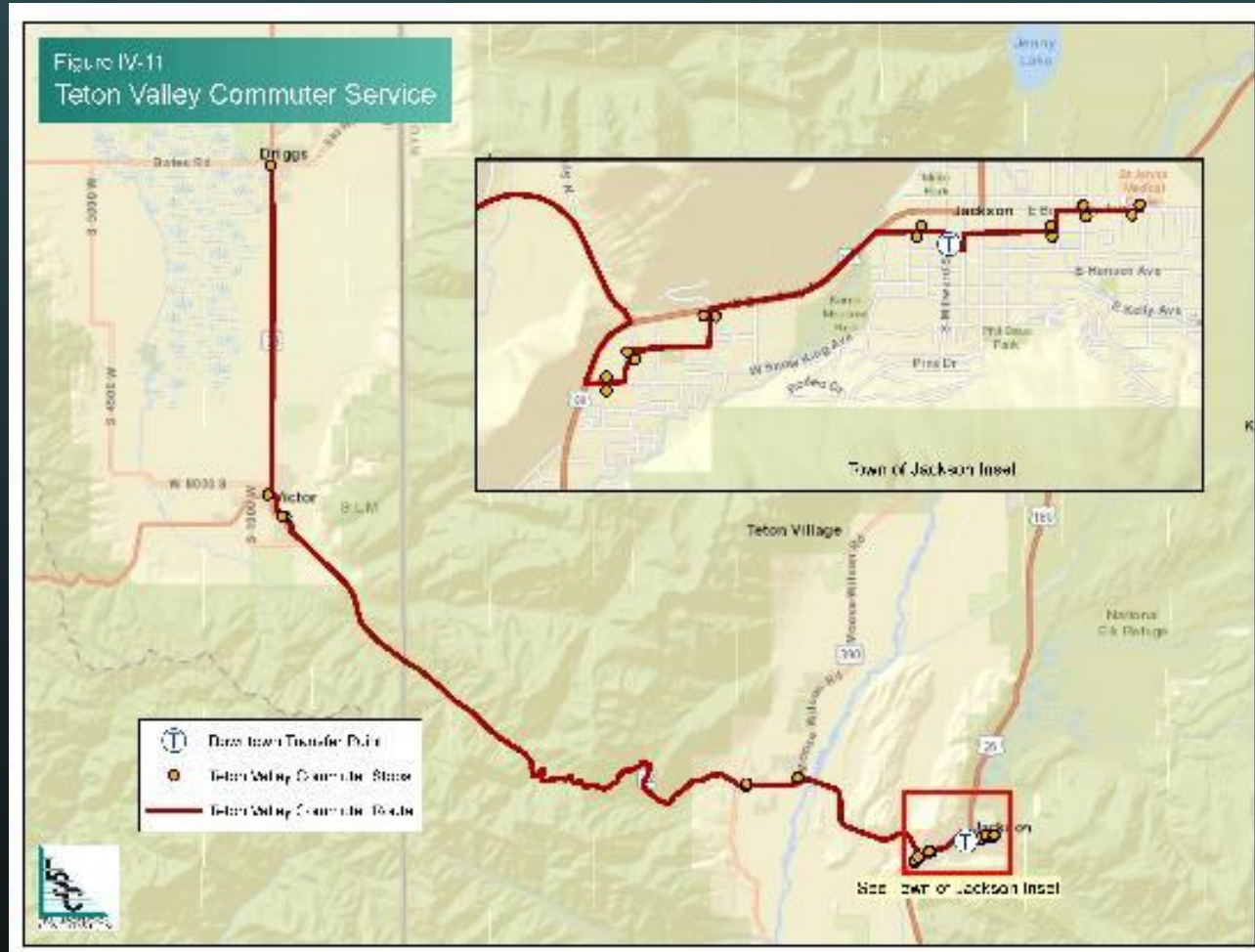
Star Valley commuter

- ◆ Increase service to 8 roundtrips per weekday
- ◆ More midday, evening options
- ◆ Similar route



Teton Valley commuter

- ◆ Increase service to 8 roundtrips per weekday
- ◆ More midday, evening options
- ◆ Similar route



Thank you!

- ◆ Project information posted:
lsctrans.com/start
- ◆ Questions?



START Routing Plan 2020-2025



Prepared for:



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Chapter I: Introduction and Overview

Through its issuance of Request for Proposals (RFP) 19-20, issued on February 28, 2019, the Southern Teton Area Rapid Transit (START) sought a qualified consultant to develop the 2020-2025 Route Plan to evaluate alternative routing options for the START fixed-route bus system.

LSC Transportation Consultants, Inc. (LSC) was selected by START to complete this work. The project started in June of 2019 and has progressed incrementally since then with a series of reports, presentations, and public meetings – this final report is being delivered in March of 2020 with anticipated START board approval in April of 2020. The final step will be a presentation to elected officials in May of 2020 at the Joint Information Meeting.

PROJECT OVERVIEW AND PURPOSE

START Bus ordered this 2020-2025 Route Plan to determine the future of how START’s routes can operate more effectively with maximum service effectiveness. The long-term strategic transit plan for START is established in the Jackson/Teton County Integrated Transportation Plan (the ITP is available at www.jacksontetonplan.com/239). The purpose of this START Route Plan is to evaluate routing alternatives that will increase ridership and reduce vehicle miles traveled, the central tenant of the ITP.

This Route Plan study is critical to improving ridership, making transit more competitive with driving, and maximizing existing resources of the 63,000 START bus hours. Given that the 2020-2025 Route Plan alternatives are largely limited by the existing resources, some of the routing actions or potential changes contemplated may not happen immediately. This Route Plan considers, among other things: routing options, service delivery modes, and supporting infrastructure needs (park and ride lots, bus stop improvements, hubs).

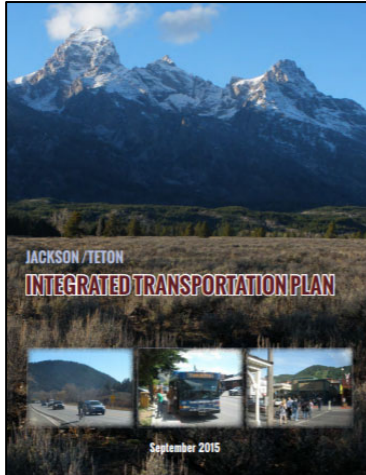
The study area of the project is the START service area, which includes the Town of Jackson and Southern Teton County in western Wyoming, as well as the communities of Alpine and Etna in Lincoln County, Wyoming, and the towns of Victor and Driggs in Idaho.

PROJECT CONTEXT

START is the transit provider for Jackson and Teton County, Wyoming, as well as providing commuter transit service for Teton County, Idaho. START originated in 1987 as a ski shuttle and has steadily expanded



service over the last 25 years. START currently operates year-round service on five fixed-routes, which can be grouped into three service types (commuter, corridor, circulator) based on the operating structure, fare type, and markets being served. Service intensity varies seasonally by route and can be divided into two distinct seasons: the winter season extending into the limited spring season, and the summer season extending into the limited fall season.



The ITP was adopted in 2015 to implement the Transportation section of the Jackson/Teton County Comprehensive Plan – the ITP establishes a Plan Scenario, which is a combination of actions that will reduce the growth in Vehicle Miles Traveled (VMT) by almost half by 2035. versus a status quo approach. At the heart of the Plan Scenario is a doubling of transit ridership from 2013 to 2024, then a redoubling from 2024 to 2035. The ITP Plan Scenario includes a list of 16 needed actions for implementation of the ambitious transit development goals, as well as, active transportation, transportation demand management, capital projects, and regional transportation planning. However, this project is focused on evaluating eight of these actions, as part of this 2020-2025 Route Plan development process:

- ➔ Evaluate demand for park ‘n ride facilities
- ➔ Increase service frequency of the commuter routes
- ➔ Implement express and local service on the commuter routes
- ➔ Implement express route to Teton Village in the winter
- ➔ Increase service on the Teton Village route in the summer
- ➔ Streamline the Town Shuttle route
- ➔ Increase service on the Town Shuttle route
- ➔ Provide or increase fixed-route transit service to Wilson and South Park

LSC understands the local context for this study and how important it is to get it right. We understand the challenges that the Town of Jackson, Teton County, and Jackson County areas face in sustaining and growing viable transit solutions. Issues such as the lack of affordable housing, traffic and congestion, and a desire to balance transportation access with resident quality of life and visitor experience must all be addressed. We understand that fostering collaboration and coordination of transportation services between the Town of Jackson, Teton County, Jackson County, the Jackson Hole Mountain Resort, Teton Village, and the surrounding rural commuter communities, both in Wyoming and Idaho, is critical, and we are sensitive to the political cooperation and compromises necessary for success.



STUDY OUTCOME AND APPROACH

The study process has followed a series of project deliverables:

- Analysis of existing routes
- Development of route alternatives
- Technical analysis of the alternatives
- Public input and review of the alternatives
- Recommended route alternatives and final plan



The outcome of this planning process is this final report with an actionable strategic 2020-2025 Route Plan driven by community input that includes creative options and scenarios, technical route alternatives analysis, a robust resource analysis, recommendations for service sustainability, and key service expansion opportunities.

Each step in the process has been informed by the previous steps and associated deliverables in a way that has built towards this final report and its recommendations. The intent has been to create a process that is clear and incremental. The Town of Jackson Town Council is ultimately responsible for approval of this plan, but the START Board and a specifically-established 2020-2025 Route Plan Advisory Committee has provided study oversight, feedback on study progress, review of progress reports and Interim Reports, and direction for the development of the final report.

OVERVIEW OF ROUTE PLAN

As shown in Figures I-1 and I-2, the final Route Plan consists of:

- More direct Town Shuttles with improved frequency
- Simplified Teton Village routes, along with a new high frequency express route and a route version from Smiths, and improved year-round frequency
- New connectivity to areas south of Jackson (Melody Ranch, Rafter J) via a new fixed route
- Microtransit serving East Jackson

BENEFITS OF ROUTE PLAN

The route and service details contained herein are built around fulfilling START goals established in the ITP through the following key concepts:

- More efficient and direct routing overall
- Higher frequency to maximize ridership
- Increased commuter and regional services
- Adding a new route to connect to points south of the Town of Jackson
- Using microtransit as a more flexible and context appropriate solution for East Jackson

Once implemented, and as shown in Table I-1, this final Route Plan will create many community benefits including:

- Increased overall ridership by an estimated 60%
- Connections between key destinations with transit travel times that are competitive with personal auto travel time
- Reduced Vehicle Miles Traveled (VMT) within Teton County, WY
- Smaller vehicles with lower neighborhood impact for East Jackson

**Figure I-1
Recommended Final Route Plan**

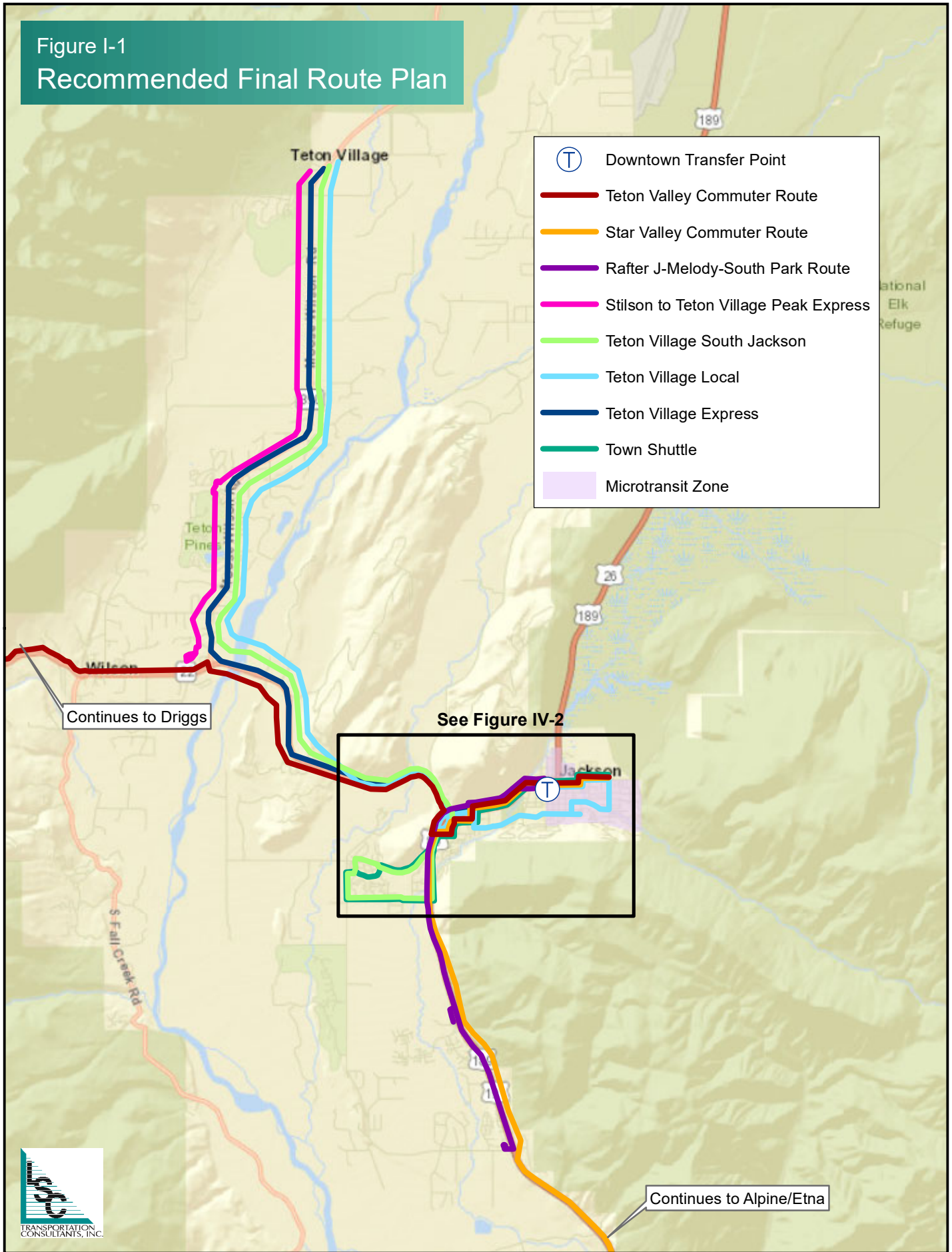
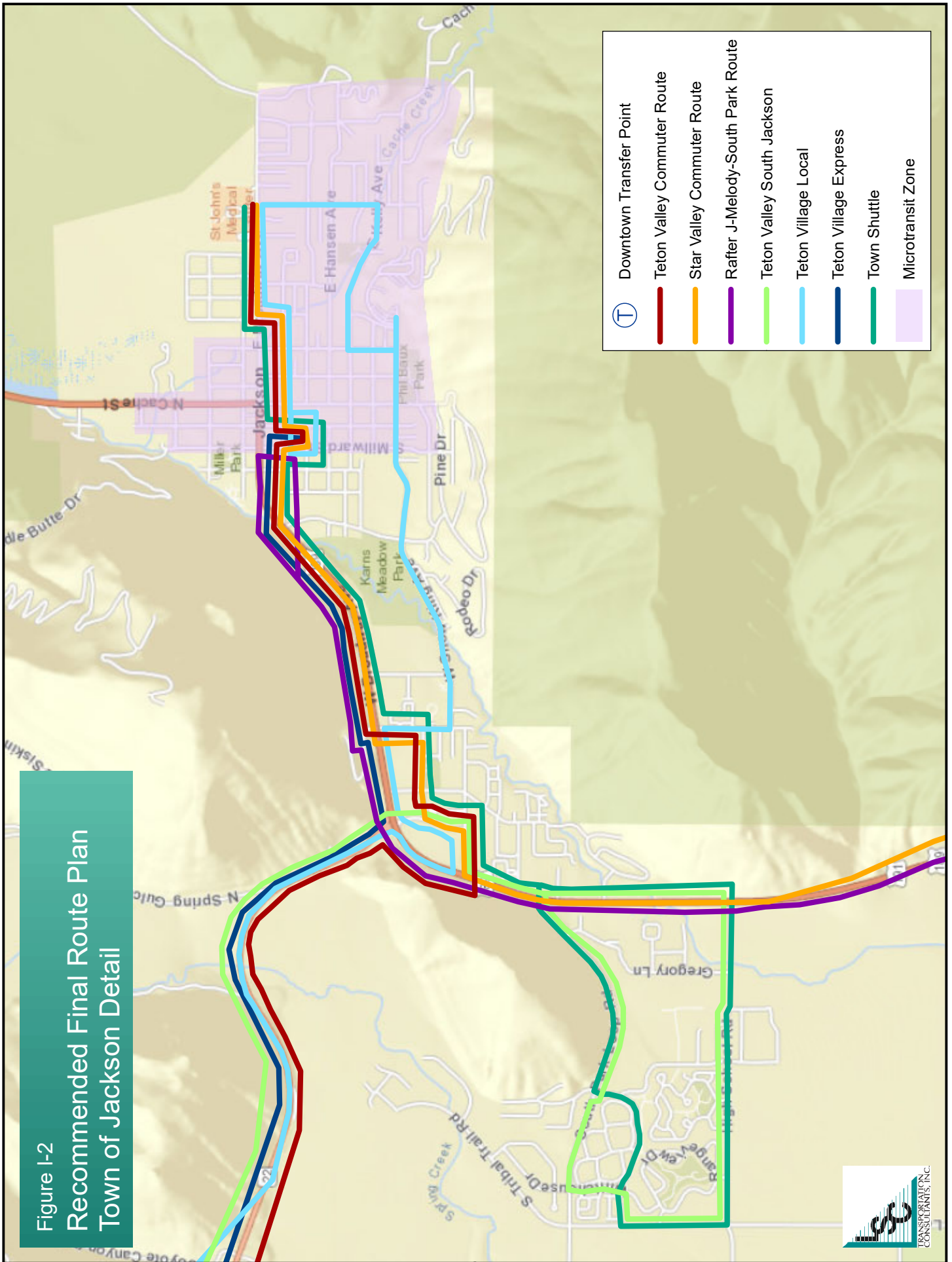


Figure I-2
 Recommended Final Route Plan
 Town of Jackson Detail



- Reduced cost per passenger
- Increased efficiency and estimated productivity
- No increase in peak buses

Table I-1: Comparison of Final Plan with Status Quo								
	Operating Cost	Revenue Hours	Total Hours	Ridership	Cost per Passenger	Passengers per Revenue Hour	Impact on Transfers	Number of Peak Buses
Status Quo (FY2019)	\$4,717,765	39,589	59,616	1,082,089	\$4.36	27.3	-	27
Final Plan	\$5,530,000	61,000	72,000	1,750,000	\$3.16	28.7	Microtransit will increase transfers for E. Jackson riders	26 + microtransit vehicles
FY2020 (Est.)	\$5,306,292	46,726	65,645	-	-	-	-	-

Source: LSC, 2020.

It should be noted that ridership is an estimation for the final Route Plan once it is at maturity, which is usually at year three. Using various demand estimation models, based on industry best practices, the ridership at year three yielded 1,750,000 one-way rides – actual ridership will likely fall in a range of 1,600,000 to 1,900,000 and will be dependent on many external factors such as downtown Jackson parking strategies, local economic conditions (especially employment levels and visitation numbers), gas prices, and roadway infrastructure development.

REPORT CONTENTS

This Interim Report includes eight chapters in total, organized with demographics, background research, and organizational analysis preceding a review of progress made on the ITP goals to date, analysis of existing routes, initial stakeholder input, financial analysis, and infrastructure.

- ➔ Chapter II considers the context for the project.
- ➔ Chapter III reviews the public outreach process.
- ➔ Chapter IV contains details on the final Route Plan.
- ➔ Chapter V presents implementation details.
- ➔ Chapter VI gives a summary of previous project deliverables and work products.





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Chapter II: Context and Need

The 2020-2025 Route Plan was established as a priority activity in the Jackson/Teton County Integrated Transportation Plan (the ITP is available at www.jacksontetonplan.com/239), adopted in 2015 to implement the Transportation section of the Jackson/Teton County Comprehensive Plan.

PROJECT CONTEXT

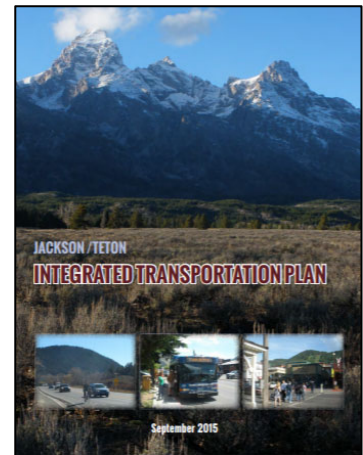
As the regional transit provider for Jackson and Teton County, Wyoming, as well as providing commuter transit service for Teton County, Idaho, START has grown significantly over the last 25 years since its inception in 1987 as a local ski shuttle. Over the years, START services have grown to include five fixed-routes, which can be grouped into three service types (commuter, corridor, circulator) based on the operating structure, fare type, and markets being served. Service intensity varies seasonally by route and can be divided into three distinct seasonal service profiles: the winter season, the summer season, and the shoulder seasons of fall and spring, which have continued to shrink in duration as tourism has grown to include the early summer and fall.

START services have grown organically over the years as needs have been identified and service requests have been made. This growth has often been without a comprehensive system-wide approach to service connectivity and efficiency. The 2020-2025 Route Plan seeks to correct this by taking a look at how best to deliver service throughout the START service area.

Linkage to ITP

The ITP establishes a Plan Scenario, which is a combination of actions that will reduce the growth in Vehicle Miles Traveled (VMT) by almost half by 2035, versus a status quo approach. At the heart of the Plan Scenario is a doubling of transit ridership from 2013 to 2024, then a redoubling from 2024 to 2035. The ITP Plan Scenario includes a list of 16 needed actions for implementation of the ambitious transit development goals, as well as active transportation, transportation demand management, capital projects, and regional transportation planning. However, the Route Plan project is focused on evaluating eight of these actions, as part of this 2020-2025 Route Plan development process:

- Evaluate demand for park 'n ride facilities
- Increase service frequency of the commuter routes
- Implement express and local service on the commuter routes
- Implement express route to Teton Village in the winter
- Increase service on the Teton Village route in the summer
- Streamline the Town Shuttle route
- Increase service on the Town Shuttle route
- Provide or increase fixed-route transit service to Wilson and South Park



Details of the key indicators under the Baseline and Plan Scenario are shown in Table II-1.

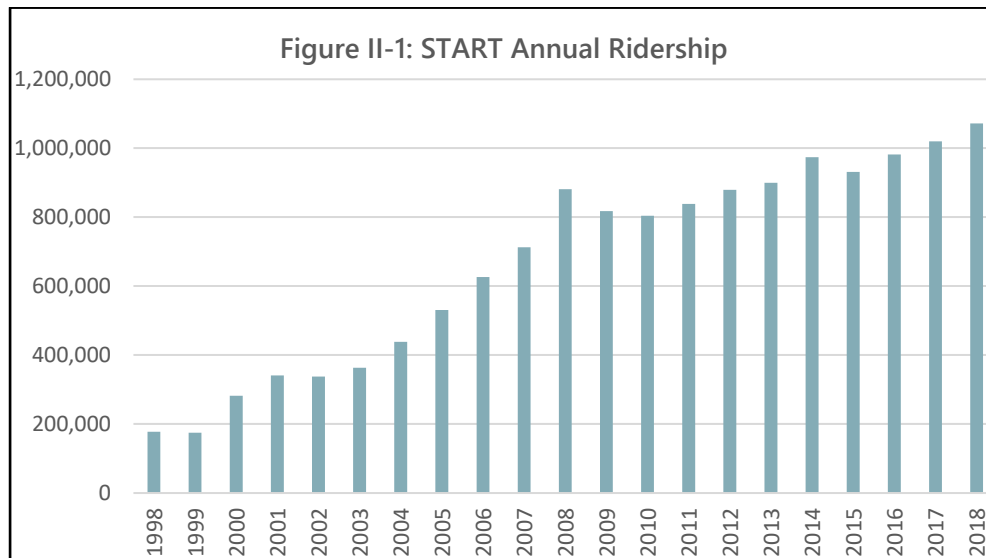
Table II-1: Key Indicators from the ITP (source: Charlier Associates, Inc.)

Indicator		Base Year	Baseline Scenario		Plan Scenario	
		2013	2024	2035	2024	2035
Mode Share (of total annual trips)	SOV (single occupant vehicle)	54%	54%	54%	51%	48%
	MOA (multiple occupant auto)	29%	29%	29%	29%	29%
	Walk	9%	9%	9%	10%	11%
	Bicycle	7%	7%	7%	8%	9%
	Transit	1%	1%	1%	2%	3%
Annual vehicle miles traveled (VMT)		480 million	550 million	610 million	525 million	560 million
% Growth in VMT from 2013		-	14%	28%	9%	17%
Annual transit ridership		0.9 million	1.1 million	1.2 million	1.8 million	3.6 million

The theme of Chapter 2 of the ITP is “Make Transit a Viable Choice” and this 2020-2025 Route Plan seeks to fulfill this goal of making transit a more viable choice through improvements in route frequency and directness.

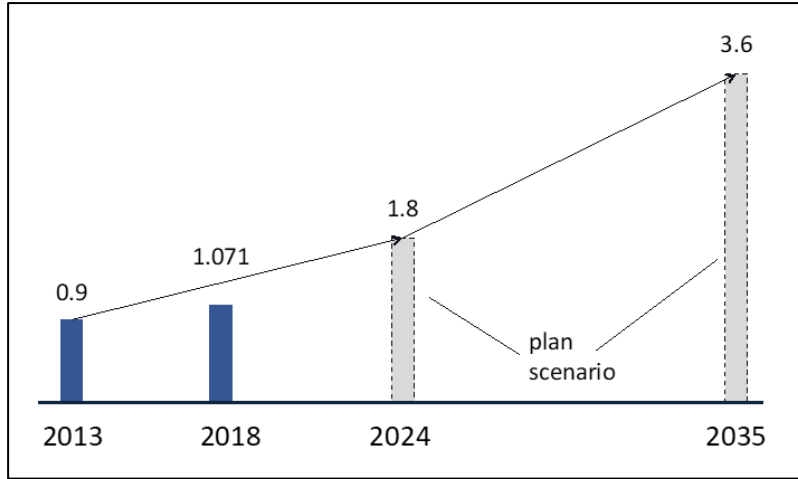
RIDERSHIP GROWING... BUT NOT FAST ENOUGH

As shown in Figure II-1, START ridership has grown significantly over the past two decades, growing from under 200,000 one-way rides annually in 1998 to almost 1.1 million in 2018.



However, this pace of ridership growth in the past few years is falling short of the ITP goals and needs to increase quickly in order to keep pace, as shown in Figure II-2.

Figure II-2: Ridership goal from ITP (source: Charlier and Associates, Inc.)



The Route Plan recognizes this urgency by creating a plan focused on ridership growth.

TRAFFIC AND CONGESTION GROWTH

The ITP is currently undergoing a technical update, as of early 2020, which shows that the need for growth in transit services and usage can't come fast enough. One of the most striking key indicators, as shown in Figures II-3 and II-4, is the growth in total annual VMT that has occurred between 2013 and 2018 – the data show that VMT is already well above the original ITP plan projections for 2035.

Figure II-3: VMT growth vs. ITP plan (source: Charlier and Associates, Inc.)

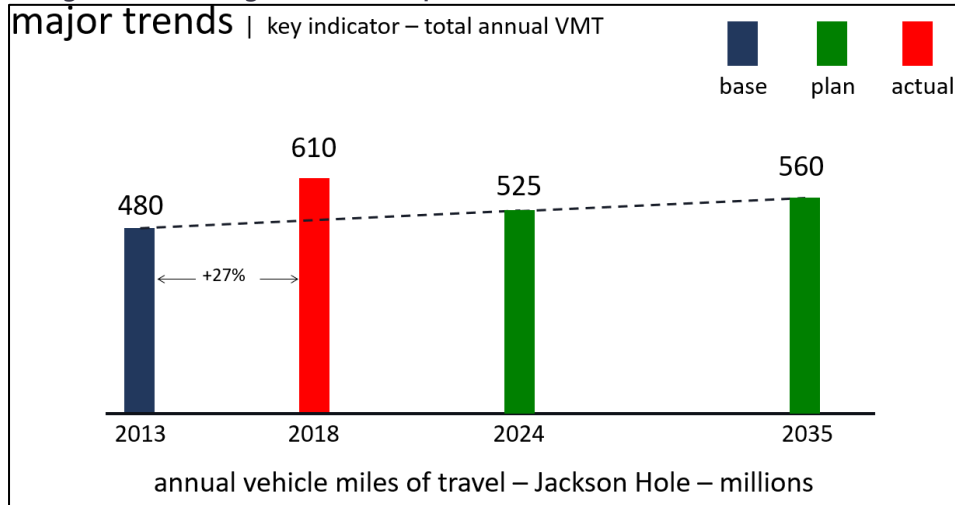
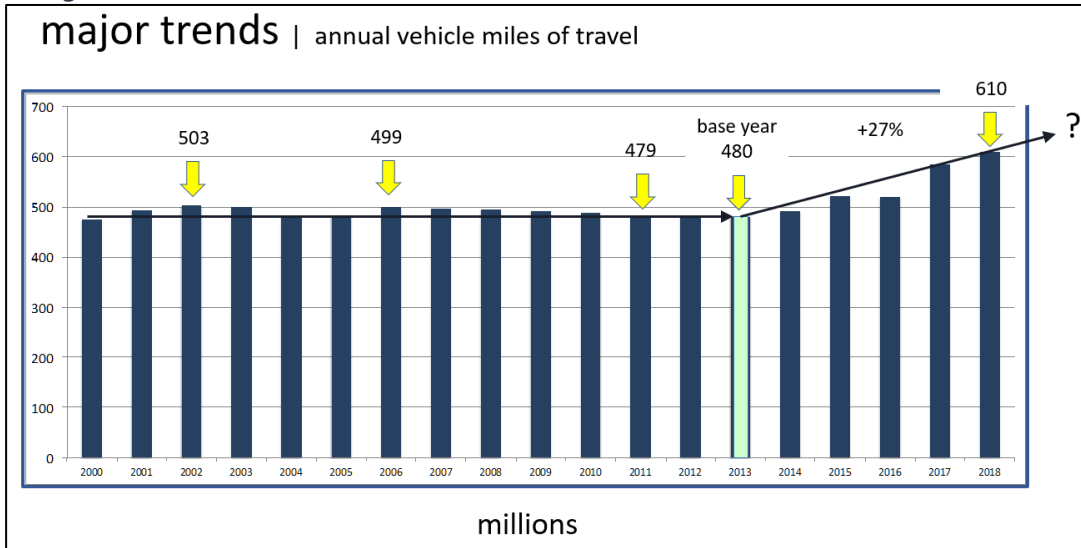
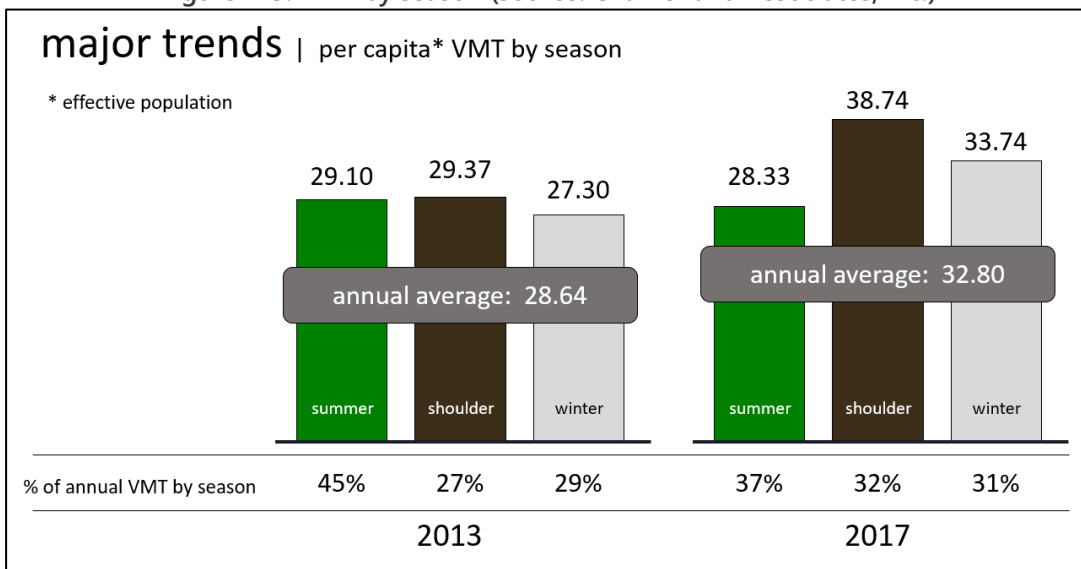


Figure II-4: VMT trend between 2000 and 2018 (source: Charlier and Associates, Inc.)



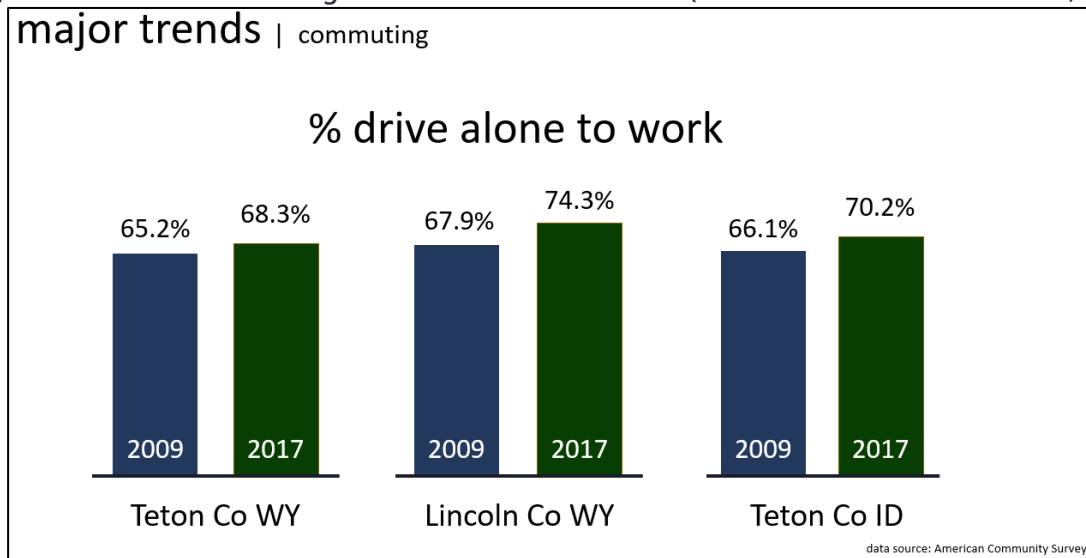
VMT growth between 2013 and 2017 has been focused on the winter and shoulder seasons, as shown in Figure II-5, with summer VMT actually dropping slightly. This points to a need to continue to bolster winter and shoulder season transit services.

Figure II-5: VMT by season (source: Charlier and Associates, Inc.)



Another pertinent trend highlighted in the recent ITP update is the percentage of commuters driving alone to work, which has grown across all counties served by START commuter routes, as shown in Figure II-6.

Figure II-6: Commuters driving alone to work 2009 vs. 2017 (source: Charlier and Associates, Inc.)



EMERGING MOBILITY TRENDS

The 2020-2025 Route Plan is being completed during a time of much change and innovation within the public transportation space. As part of the planning process, we have identified several trends with applicability to START and the Route Plan.

Trend #1: Microtransit

What Is It?

Microtransit is a form of demand response transit that leverages smartphone technology using an app to match trip requests in real-time to dynamic/flexible routes in a defined service area. It typically operates with smaller vehicles, such as cars or vans, which are often electric.



What Are The Critical Success Factors?

Microtransit has been around for several years and many lessons have been learned in how to build a successful microtransit program:

- Smaller service area of one to four square miles, usually connecting to a transit center which transfers to frequent fixed route service
- Medium density of housing
- Ability to group trips to/from key destination at similar times
- Fare structure that balances convenience and ridership
- Robust marketing and public education
- Accessible vehicles and call-in option for those without smartphones

Operational Considerations

Microtransit can be contracted turn-key with an experienced vendor or operated directly by the transit agency utilizing purchased real-time ride-matching technology. Productivity can be lower than fixed-

route bus (microtransit typically operates at between four and nine passengers per hour) and costs may vary by the number of vehicles needed to serve the demand. The smaller vehicles utilized operate at lower cost per hour and provide more flexibility in where they serve. Residential neighborhoods may find that microtransit is less impactful than fixed route bus service due to reduced noise and vehicle pollution.

Applicability for Jackson

The east Jackson area and incorporating downtown has been identified as a place where microtransit could be appropriate and successful.

Trend #2: Mobility Hub

What is it?

A mobility hub is a physical space where multiple transportation modes can interact, providing a seamless transportation experience for end users. A mobility hub facilitates to make a user's trip easy and interconnected with a view of mobility as a service.

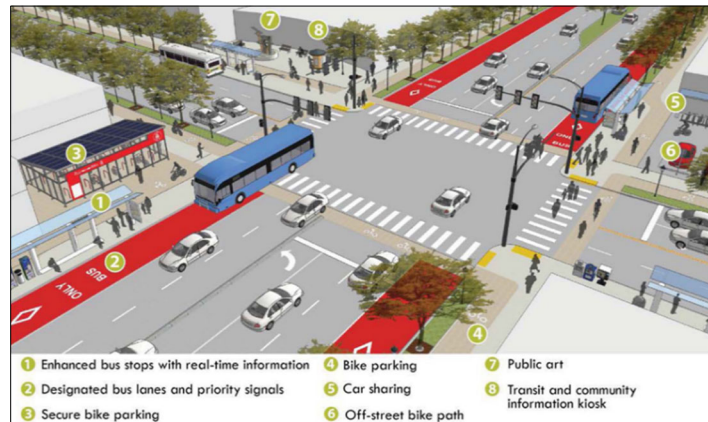


Image credit: City of Boulder, CO

(<https://bouldercolorado.gov/goboulder/north-boulder-mobility-hub>)

What Are The Critical Success Factors?

A mobility hub should incorporate:

- Seamless interconnectivity between transportation modes such as fixed route bus, microtransit, bike share, and pedestrian/bicycle infrastructure
- Single-point, app-based ticketing and trip planning resources
- Real-time customer information, across modes
- Smart infrastructure that relays real-time parking availability information and traffic updates
- Space for buses to operate and passenger amenities such as shelters and bathrooms

Operational Considerations

A mobility hub requires that cities, transit agencies, bike and car share providers, and technology providers cooperate and combine efforts, often through information sharing, co-branding, and platform integration. The mobility hub concept requires dedicated physical space and a safe, well-developed pedestrian and bicycle environment. There are often many technology challenges to implementing this concept.

Applicability for Jackson

The downtown area around the intersection of Pearl Ave. and Millward St., near the existing downtown parking structure has been identified as a place where some of the mobility hub concepts could be applied long-term.

Trend #3: Bus Rapid Transit and Transit Prioritization

What Is It?

Bus rapid transit (BRT) is a term for high frequency bus service that operates on a dedicated lane, shoulder, or corridor that is typically as quick or quicker than car travel and has characteristics such as:

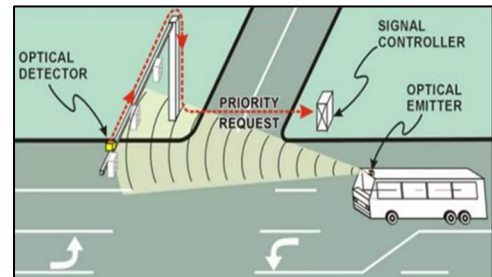
- Limited stops and longer distances between stops than typical fixed route bus service; usually half a mile or more between stops
- Enhanced bus stops that offer zero height entry and exit utilizing train station style platforms
- Unique bus designs that often have larger door openings for quicker boarding and unloading
- Electronic ticketing or fare media that offer “tap and board” convenience
- 15 minute or less headways between buses
- Has infrastructure for buses to operate quickly, sometimes in the form of dedicated lanes or separate bus-only corridors, but can also utilize high occupancy vehicle (HOV) or high occupancy toll (HOT) lanes shared with private vehicles. Can also utilize highway shoulders if there is space (called bus-on-shoulder or BOS).
- BRT and BOS tools have been successfully deployed in other mountain resort communities including the Glenwood Springs to Aspen, CO corridor, operated by the Roaring Fork Transportation Authority, and the Park City Transit Silver Line on SR224 between Kimball Junction and Park City, Utah.



What Are The Critical Success Factors?

In order for BRT or BOS to succeed, there are several considerations:

- There must be dedicated infrastructure that is well maintained and clearly marked or signed to indicate that only buses can operate in the space
- Travel time advantage over single occupancy vehicles (SOVs) should be the goal, as this creates operational efficiency and motivation to use the bus
- Technology must be integrated and be tied to the infrastructure such as transit priority traffic signals that allow the bus to go before other vehicles or on-demand to keep the bus moving quickly
- Public education, signage, and marketing around how the infrastructure operates, what types of vehicles are allowed to be in which lanes, and what times of day to accept certain roadway operations (in some national examples, buses only use the shoulder during commuter times and/or HOV lanes are only designated as such during commute times)



Operational Considerations

BRT or BOS solutions require transit operators to alter normal operations. BRT or BOS often requires specialized buses, advanced driver training, high frequency bus service with extra cost, and technology integration between the buses and the roadway infrastructure such as transit priority signals.

Applicability for Jackson

The applicability of BRT and HOV has been discussed extensively lately as part of the Wyoming Department of Transportation (WYDOT) Snake River Bridge replacement on WYO 22 (as identified in the Draft Wyoming 2020 State Improvement Program) and the WYO 22/WYO 390 intersection improvements. The programmed improvements consist of bridge replacement over the Snake River, WYO 22/WYO 390 intersection modifications, and roadway widening to 4-lanes.

BRT, HOV, BOS, and transit prioritization tools all have benefits to START as part of these WYDOT planned improvements. Incorporating park and ride improvements to the Stilson Transit Center and Parking would also be beneficial and should be a part of any roadway improvements in this area.

CONCLUSIONS

The context described in this chapter points to an urgency to move forward quickly to implement the START system improvements described in this final report. Recent spikes in VMT and SOV mode use, new emerging mobility trends, and current infrastructure projects with transit impacts all reinforce the need to position START for future ridership growth and community impact. Through strategies described in this plan, START will be able to positively impact emission reduction goals and traffic mitigation.



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Chapter III presents the public input gathered throughout this study as well as discussion on how the Preferred System Alternative was modified in the final plan based on public input.

PUBLIC OUTREACH PLAN

In response to the START RFP# 19-20, 2020-2025 Route Plan, LSC proposed a robust public outreach plan to support the plan development and ensure implementation. The public outreach goal for the project was to connect with as many people as possible through a public involvement effort that engages key partners, stakeholders, and constituents throughout the entire planning process via five phases of public engagement and outreach. The public outreach plan included four phases:

- ➔ Phase 1 – Stakeholder Interviews, Community Familiarization (June 2019)
- ➔ Phase 2 – Rider Survey, Focus Groups, Driver Meeting, General Community Survey (August 2019)
- ➔ Phase 3 – Route Options Workshop (February 2020)
- ➔ Phase 4 – Community Survey on Route Options (February 2020)
- ➔ Phase 5 – Draft Presentation (April/May 2020)

Kick-Off Trip

The LSC team traveled to Jackson June 25 through 27, 2019 to kick-off the project and conduct initial community familiarization, outreach, and engagement.

Stakeholder Interviews



As part of the initial community engagement, LSC interviewed a variety of stakeholders with the purpose of introducing the plan and its process to the community, as well as soliciting feedback on community transportation needs. LSC conducted stakeholder interviews with representatives from:

- Town of Jackson - Larry Pardee, Town Manager
- St. Johns Medical Center - Thom Kinney, Human Resource Director
- Teton Village Association - Melissa Turley, Executive Director
- Jackson Hole Mountain Resort - Mike McGrath, Parking and Transportation Manager
- START Board - Sedar Davis, Vice Chair and Susan Mick, Chair
- START staff

The following takeaways were gained from the stakeholder interviews:

- START has grown organically, and this plan presents the opportunity to look at the system more strategically and efficiently.
- Service options should incorporate multimodal options as well as a variety of service types, such as vanpool.

- Service options should consider current and future development patterns, as well as the location of employee housing.
- Park-n-ride lots:
 - Where should new lots be located?
 - How can existing lots be used more efficiently?
 - Is there an opportunity to partner with a business in Jackson for an in-town lot?
- What are other resort communities doing? What are the industry best practices that could be applied to START?
- Unserved/underserved areas to consider: airport, Grand Teton National Park, Moose, Wilson, Rafter J, South Park, and the new Munger Mountain elementary school.
- WyDOT road improvements by the Stilson lot could impact service options. Potential for transit priority signal at the Stilson lot would require working with WyDOT.
- Jackson Chamber of Commerce may have ideas on the best way to engage the community – they have conducted several past survey efforts.
- What is the real potential for service to the airport? The “Taxi and Fly” program has largely been unsuccessful to date with little usage.

In addition, LSC also attended a Town of Jackson Development Review Committee Meeting to present the project and solicit feedback from the committee on community transportation needs. Issues discussed included:

- Importance of streamlining the existing services to make them more efficient, while also operating on 15-20 minute headways in town.
- The current system is difficult to navigate and understand, so locals end up walking or biking around town instead of waiting for the bus.
- Need to consider traffic and seasonal parking issues, as part of developing route options.
- The Town is currently conducting a parking study – important to keep in mind as this project progresses.
- Should START provide transportation to the airport, national park, trailheads?
- Location and formalization of park-n-ride lots will be a key part of developing route options. Is there potential to partner with businesses in town for new park-n-ride lots?
- How does land use and density impact transit service?

Initial START Advisory Committee Meeting

LSC’s first meeting with the START Advisory Committee occurred after the kick-off trip on July 17, 2019. The Advisory Committee is an important group and will be meeting five times throughout the course of this project. The next meeting with the Advisory Committee is planned for October in order to coincide with the START Board retreat.

As part of the initial meeting, LSC and the Advisory Committee discussed study issues and goals, including:

- How do we continue the vision of the Jackson Integrated Transportation Plan?
- Overall, there is a need to reduce vehicle miles traveled (VMT) and get more people using transit, so how do we make transit a viable choice and how do we use resources more efficiently and make transit customer friendly?

- Should service options adhere to the 63,000-64,000 hours range per the RFP? The tradeoff between existing resources and potential growth needs to be considered.
- How do technology and infrastructure needs (i.e. reducing dwell times, fare collection methods, signal prioritization, etc.) impact service options? What is the opportunity, realistically, with the understanding that this project is limited by the five-year timeline?
- How does the separate, ongoing Microtransit RFP impact this project?
- Does new service to the airport and/or Grand Teton National Park make sense and is it feasible?
- What are the best ways to engage the entire community throughout the entire planning process?

Onboard Survey

LSC staff conducted an onboard rider survey over three days in mid-August on the Town Shuttles and the Teton Village Route. Riders were asked to participate as they boarded the bus by filling out a written survey while they rode the bus. The surveys were tailored to the route with questions developed to address the specific aspects of each route.

A total of 356 onboard survey responses were received, which represents approximately 12 percent of the average daily START ridership. The printed surveys were available in English and Spanish, and response rates were 86 percent English and 14 percent Spanish.

Initial Community Survey

In order to solicit community input on needs and new service opportunities, LSC developed an online survey that both START Bus riders and non-riders could complete. Since only a sample of existing riders were captured by the onboard survey, the online survey provided an important additional opportunity to solicit broader community input on the future development of START Bus.

The online survey was open between August 12, 2019 and September 19, 2019 and was available in both English and Spanish (the Spanish survey was open August 21, 2019 through September 19, 2019). A total of 641 responses were received, of which 97 percent were English and 3 percent were Spanish.

Presentation of the Preliminary System Alternatives

During the week of November 11th, 2019, LSC presented the five preliminary system alternatives to the Route Plan Advisory Committee, the START Board of Directors, START operations staff, Town of Jackson staff, and various community stakeholders. The goals of the meetings and discussions were to brainstorm the initial system alternatives, understand the trade-offs associated with each, and start to identify common themes to use for development of the two preferred alternatives.

Preferred System Alternatives Stakeholder Open Houses

Once the two preferred system alternative were developed, LSC conducted a series of open houses during early February 2020 for stakeholders to attend. The open houses were held at:

- TVA & JHMR – TVA Office
- START Bus Facility Lobby
- Town of Jackson Town Council Chambers
- Teton County/Jackson Recreation Center
- St. John’s Hospital

In total, there were over 125 attendees at these events – the conversations were very engaging and overall positive with attendees developing a deeper understanding for the preferred alternatives presented.



The feedback received at the open houses included:

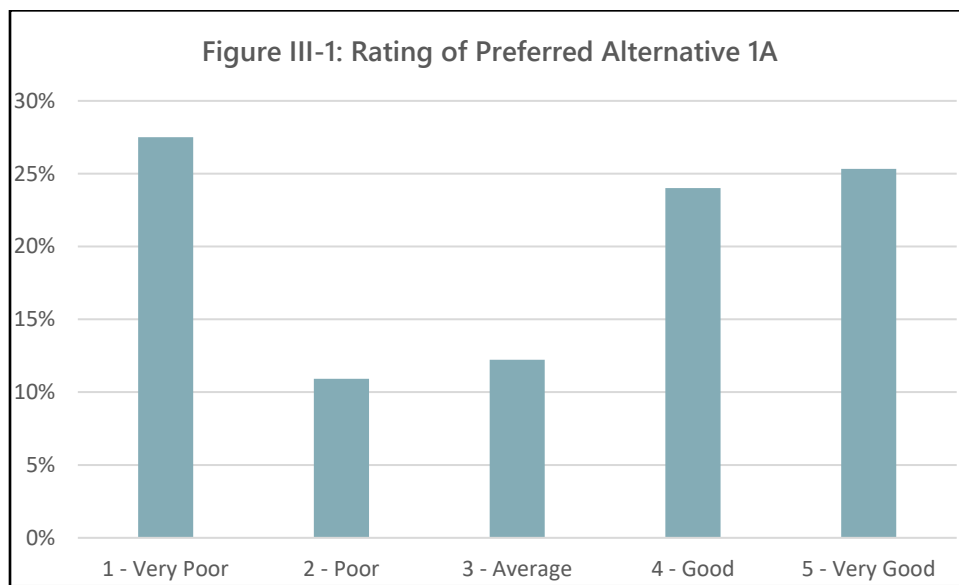
- Alternative 1A with microtransit for East Jackson was favored over Alternative 1B by the majority of attendees.
- For Commuter routes as shown in Alternative 1A, input included:
 - Departure times in our proposed schedule should be adjusted and spread out to serve more of the day, including later morning, midday, and later evening.
 - Weekend service should be considered and included in the plan.
- For Teton Village routes as shown in Alternative 1A, input included:
 - The Local version should go further east and utilize Redmond to get to Snow King.
 - The South Jackson/Smith’s version should serve the South Park Loop/Middle School areas, given that so many employees in this neighborhood would utilize this, and not go on Gregory Lane.
 - The Express from downtown should run in the summer, if possible.
- For Town Shuttle as shown in Alternative 1A, input included:
 - Overall, this route was well received and attendees were excited about having one efficient route running with 20-minute frequency.
 - The routing in the South Loop/Middle School area may need to be adjusted to run the length of High School Rd. before coming back on Blair (this would be more similar to the current Town Shuttle 1).
- For new Rafter J route and Microtransit area as shown in Alternative 1A, input included:
 - The microtransit zone needs to be larger and stretch into north Jackson to the northern edge of downtown.
 - Attendees were excited about the new Rafter J route and the routing shown in Alternative 1A, but many commented that they would like to see more hours of service, including midday and evening.
- Infrastructure needs to support Alternative 1A, input included:
 - The downtown transfer point should be a modest facility using existing curb space along Pearl, between Millward and Glenwood, and curb space along Millward between Pearl and Simpson.
 - Final plan needs to include recommendations for improvements to Stilson parking lot and transit center.
 - A formalized parking partnership at Albertson’s or KMART lots should be pursued.
- Miscellaneous input
 - Certain high demand needs may require specific route variations and/or additional peak vehicles.

- Implementation of this plan will require significant public outreach, education, and marketing, not just initially but throughout the first 18 months of service changes.

Preliminary System Alternatives Community Survey

The LSC team also developed an online community survey to solicit public input about the two preferred system alternatives. The online survey was open between February 10, 2020 and March 10, 2020 and was available in both English and Spanish. A total of 255 responses were received, of which 253 percent were completed in English and two were completed in Spanish.

Respondents were asked to rate each preferred alternative on a scale from one (very poor) to five (very good). Figure III-1 illustrates the results for Preferred Alternative 1A. Approximately 49 percent of respondents gave a positive rating to Preferred Alternative 1A, followed by 38 percent of respondents who gave a negative rating to Preferred Alternative 1A and 12 percent of respondents who had neutral feelings on Preferred Alternative 1A.



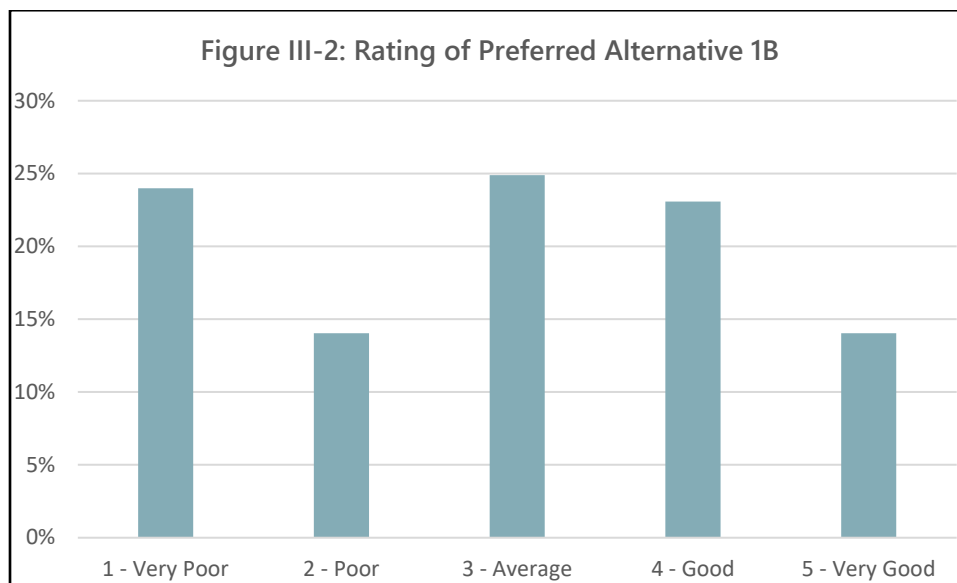
Respondents were asked to indicate what they liked most and least about each of the Preferred Alternatives. For Preferred Alternative 1A, respondents most liked:

- New microtransit service and reduced bus congestion in East Jackson
- New route south of Jackson to Rafter J, Melody Ranch, and South Park
- Direct routing of services – single town shuttle, express service to Teton Village
- Increased commuter service
- High frequency of service and better year-round service

For Preferred Alternative 1A, respondents had concerns about:

- Change in service delivery in East Jackson
- How microtransit service will work
- Removing stops in Jackson for commuter routes
- The need to transfer between routes
- Eliminating the Red Line

Figure III-2 illustrates the results for Preferred Alternative 1B. Approximately 38 percent of respondents gave a negative rating to Preferred Alternative 1B, followed by 37 percent of respondents who gave a positive rating to Preferred Alternative 1B and 25 percent of respondents who had neutral feelings on Preferred Alternative 1B.



For Preferred Alternative 1B, respondents most liked:

- East Jackson fixed-route service and no microtransit service
- New route south of Jackson to Rafter J, Melody Ranch, and South Park
- Direct routing of services – single town shuttle, express service to Teton Village
- Increased commuter service
- High frequency of service and better year-round service

For Preferred Alternative 1B, respondents had concerns about:

- Lots of bus stops, longer routes, less direct service
- Bus congestion in East Jackson
- The need to transfer between routes
- Eliminating the Red Line

Respondents were also provided the opportunity to add additional comments. Top comments included:

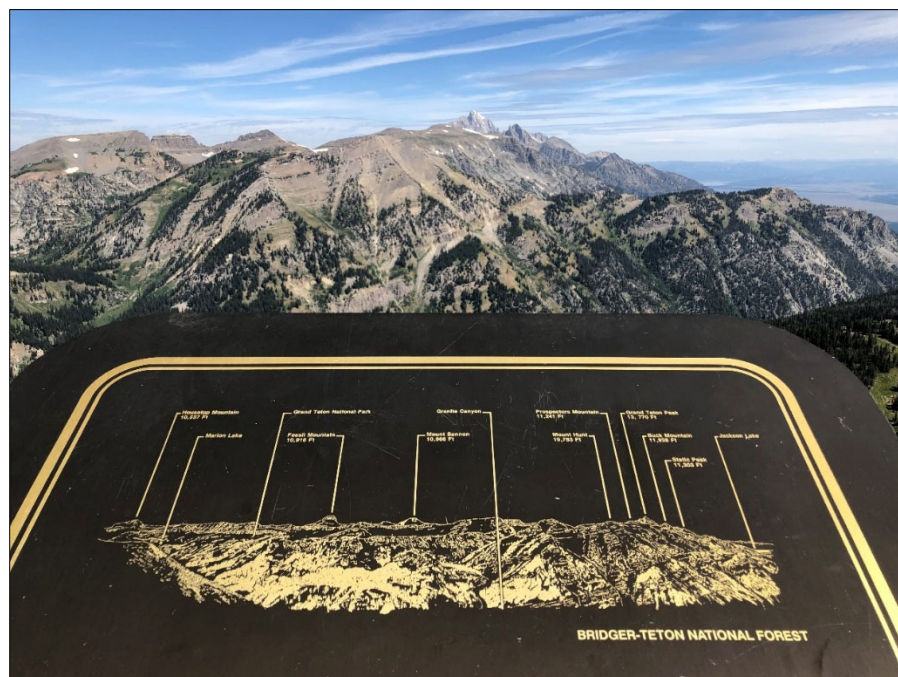
- The need to improve on-time performance
- The need for bus only lanes/street improvements, as well as more park-n-ride facilities
- Adding weekend service and runs accommodating non-traditional work shifts on the commuter routes
- Other service areas not included – National Museum of Wildlife Art, Airport, Munger Mountain, Moose, etc.

ROUTE CHANGES BASED ON PUBLIC INPUT

In the final Route Plan presented in this report, there were several changes made to address public comment received:

- The Teton Village Local route was changed to run further into East Jackson to replicate connectivity from East Jackson to Teton Village, replicating the connectivity that exists on the current Red Line (24) route
- The microtransit zone was expanded to cover more of downtown so that most connections between points within the core of the Town of Jackson (e.g., East Jackson to downtown or the Rec Center) could be made without a transfer
- Making the Teton Village Express route truly express but eliminating intermediate stops and creating a fast connection between downtown Jackson and Teton Village
- Making the new Town Shuttle route operate differently in the South Park Loop area, more similar to the current Town Shuttle 1
- Identifying the costs associated with adding weekend commuter routes for as a future enhancement
- Considering as a possibility having commuter routes run further into East Jackson, similar to how they currently operate
- Additional marketing resources were added to the financial plan to address public education and outreach

These changes address many of the public concerns expressed in the online community survey and will create a better overall system for the final Route Plan.



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Chapter IV: Route Service Plan

This chapter presents the final route service plan for START that meets the long-term goals of START, its riders, and the communities it serves. This final service plan is largely based on Preferred Alternative 1A with some small adjustments, changes, and improvements.

FINAL ROUTE SERVICE PLAN

The final route service plan consists of the following routes and services:

- Town Shuttle
- Teton Village Routes
 - Teton Village Local Route
 - Teton Village Express
 - Teton Village South Jackson
 - Stilson to Teton Village Peak Express
- Rafter J – Melody – South Park Route
- Microtransit
- Star Valley Commuter Route
- Teton Valley Commuter Route

The recommended final route plan is shown in Figures IV-1 and IV-2, and a detailed service plan is presented in Table IV-1. Detailed descriptions of each route in the final route plan are included on the following pages.



Figure IV-1
Recommended Final Route Plan

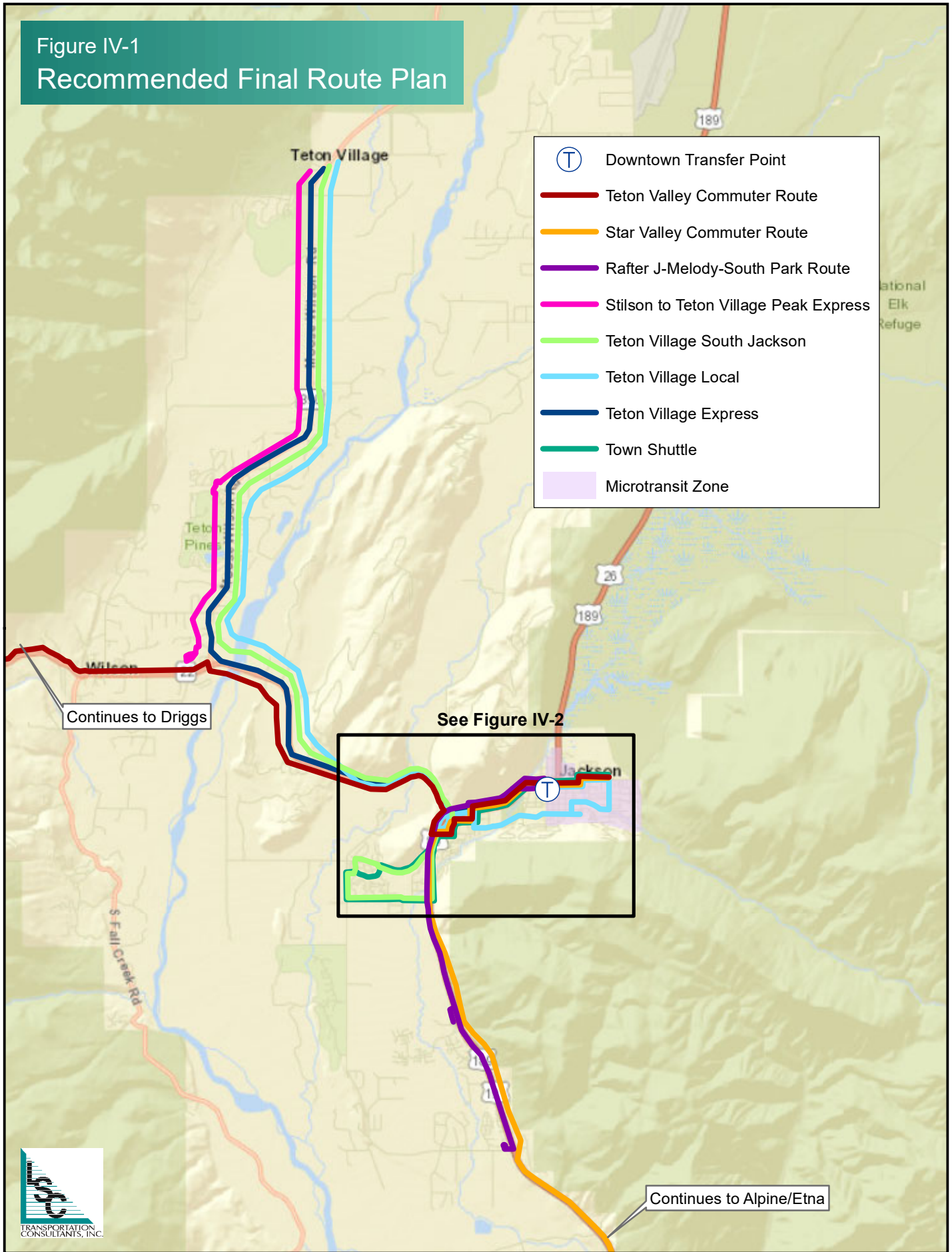


Figure IV-2
 Recommended Final Route Plan
 Town of Jackson Detail

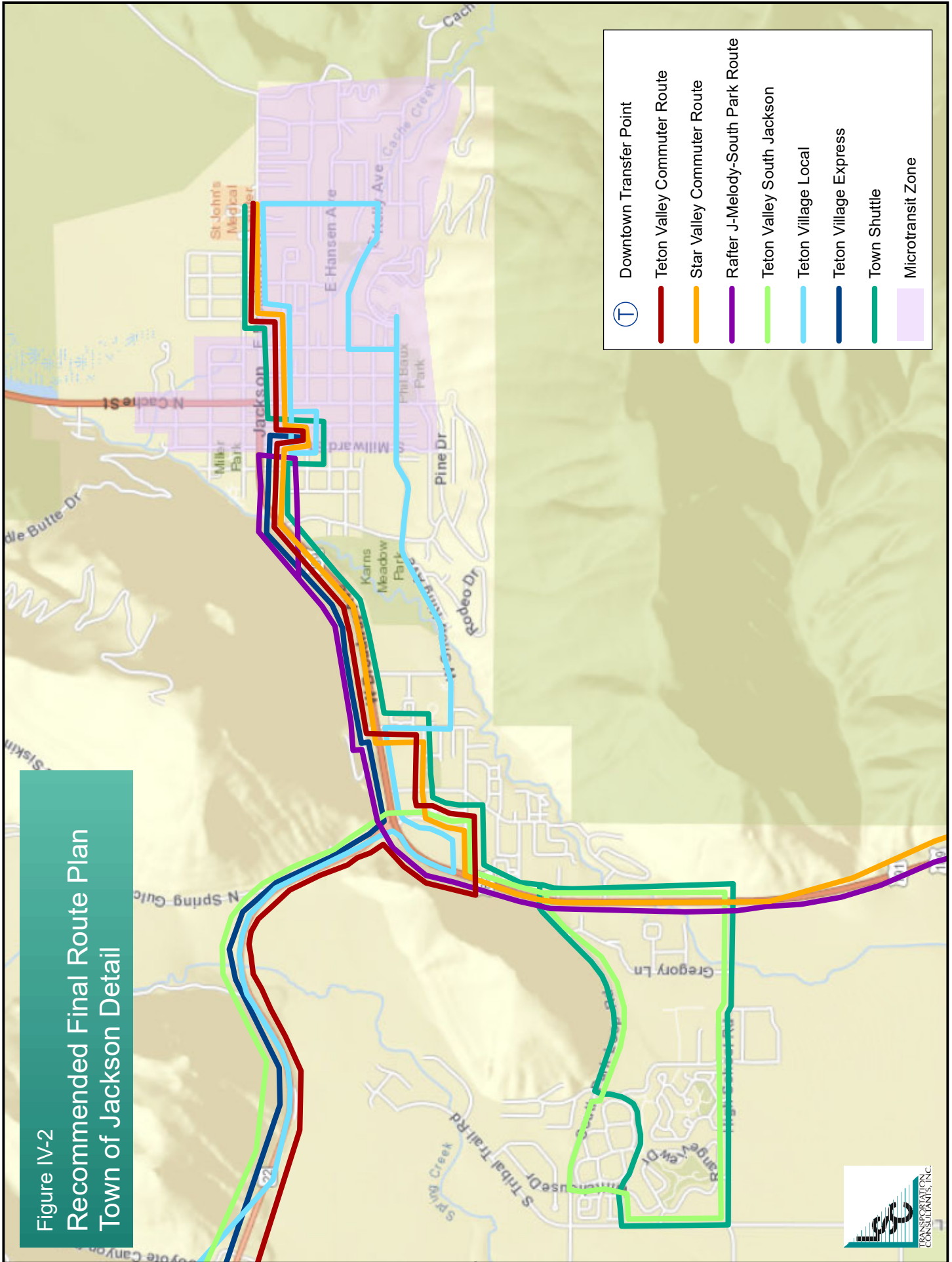


Table IV-1: Final Service Plan Summary													
Service Description	# of Vehicles Required	Total Daily			Total Annual			Annual Operating Days	Annual Operating Cost	Annual Ridership	Cost per Passenger	Passengers per Rev Hour	
		Revenue - Miles	Revenue - Hours	Roundtrips	Revenue - Miles	Revenue - Hours	Total Hours						
Town Shuttles													
Status Quo	FY 2019 - Town Shuttle 1 and 2 with seasonal service changes.	4	606 (Spring/Fall) 691 (Summer/Winter)	46 (Spring) 49 (Summer) 46 (Fall) 48 (Winter)	57 (Spring/Fall) 65 (Summer/Winter)	243,031	17,408	24,757	365	\$1,808,959	482,655	\$3.75	27.7
Final Plan	Route operates on a 20-minute frequency, year-round from 6am-10pm daily.	2	432	32	48	157,680	11,680	14,016	365	\$1,109,000	530,921	\$2.09	45.5
<i>Difference between Current and Final Plan</i>		-2	-174 (Spring/Fall) -259 (Summer/Winter)	-14 (Spring), -17 (Summer), -14 (Fall), -16 (Winter)	-9 (Spring/Fall) -17 (Summer/Winter)	-85,351	-5,728	-10,741	No Change	-\$699,959	48,266	-\$1.66	17.7
Teton Village Routes													
Status Quo	FY 2019 - Teton Village with seasonal service changes (Blue, Red, Yellow, and Green variations).	16 (peak)	279 (Spring/Fall) 528 (Summer) 2,716 (Winter)	10 (Spring/Fall) 24 (Summer) 106 (Winter)	9 (Spring/Fall) 17 (Summer) 98 (Winter)	463,674	18,110	28,499	365	\$2,386,665	533,997	\$4.47	29.5
Final Plan	Winter Service Teton Village Local Route (daily, 5am-6am 60-minute frequency, 6am-6pm 30 minute frequency, 8pm-midnight 60-minute frequency) Teton Village Express Route (daily, 7am-8am 20-minute frequency, 8am-5pm 10-minute frequency, 5pm-7pm 20-minute frequency) Teton Village South Jackson (daily, 7am-6pm with 45-minute frequency) Stilson to Teton Village Peak Express (daily from mid-December to end of Feb. only, 7:30am-10am and 2:30pm-4pm with 15-minute frequency)	11	3,080	136	124	405,664	18,263	22,280	136	\$1,763,000	716,529	\$2.46	39.2
Summer Service	Teton Village Local Route (daily, 5am-6am 60-minute frequency, 6am-9pm 30 minute frequency, 9pm-midnight 60-minute frequency)	3	976	48	32	119,072	5,856	7,027	122	\$556,000	172,752	\$3.22	29.5
Off-Season (Spring and Fall Combined)	Teton Village Local Route (daily, 6am-9pm with 30-minute frequency)	3	793	39	26	84,851	4,173	5,008	107	\$396,000	92,328	\$4.29	22.1
Annual Total:		11	4,849	223	182	609,587	28,292	34,315	365	\$2,715,000	981,609	\$2.77	35
<i>Difference between Current and Final Plan</i>		-5	+514 (Spring/Fall) +448 (Summer) +692 (Winter)	+29 (Spring/Fall) +24 (Summer) +30 (Winter)	+17 (Spring/Fall) +15 (Summer) +26 (Winter)	145,913	10,182	5,816	No Change	\$328,335	447,612	-\$1.70	5.2
Rafter J-Melody-South Park Route													
Final Plan	New route operates year-round, weekdays only on 30-minute frequency during commute times (6:00-10:00 a.m. and 2:00-6:00 p.m).	1	203	8	16	52,832	2,080	2,496	260	\$198,000	29,120	\$6.80	14.0
Microtransit													
Final Plan	New service operates daily year-round from 7am-8pm.	1-4	213	27	n/a	77,880	9,735	10,709	365	\$633,000	77,880	\$8.13	8.0
Star Valley Commuter													
Status Quo	FY 2019 - Star Valley Route operates on weekdays with 3 roundtrips per day.	3	292	6	3	76,202	2,183	3,414	261	\$254,439	32,054	\$7.94	14.7
Final Plan	8 roundtrips per weekday with focused departures morning and evening commute hours plus additional midday and evening trips	4	768	16	8	200,448	4,176	5,095	261	\$419,000	64,108	\$6.54	15.4
<i>Difference between Current and Final Plan</i>		1	476	10	5	124,246	1,993	1,681	No Change	\$164,561	32,054	-\$1.40	0.7
Teton Valley Commuter													
Status Quo	FY 2019 - Based on second half of year, with Teton Valley Route operating on weekdays with 4 roundtrips per day.	4	288	9	4	66,510	2,297	2,946	261	\$267,702	33,383	\$8.02	14.5
Final Plan	8 roundtrips per weekday with focused departures morning and evening commute hours plus additional midday and evening trips	5	544	18	8	141,984	4,594	5,604	261	\$460,000	66,766	\$6.89	14.5
<i>Difference between Current and Final Plan</i>		1	256.00	9	4	75,474	2,297	2,658	No Change	\$192,298	33,383	-\$1.13	0.0
SUMMARY													
TOTAL OF CURRENT START ROUTES (FY2019)						849,416	39,998	59,616	365	\$4,717,765	1,082,089	\$4.36	27.1
TOTAL OF FINAL ROUTE PLAN						1,163,000	61,000	72,000	365	\$5,530,000	1,750,000	\$3.16	28.7
<i>Difference between Current and Recommended Plan</i>						313,584	21,002	12,384	No Change	\$812,235	667,911	-\$1.20	1.6
<small>Notes: - Star Valley and Teton Valley operating costs were combined, so the table shows an approximate cost per hour based on revenue hours. - For FY 2019 status quo revenue and non-revenue hours are shown. For preferred alternatives, total hours are 20% higher than revenue hours, based on reasonable goal for efficient operations and better, more consistent driver shifts with less non-revenue time. - Operating costs are based on a cost of \$79.14 per total hour (total cost/total hours) for fixed routes and \$82.20 per total hour for commuter routes. Microtransit is based on \$65 per revenue hour, which is industry competitive for turn-key operations. - Ridership numbers are estimated for mature service, usually at year 3 of operations. Source: LSC 2020.</small>													

Town Shuttle

In the final route service plan, the two existing town shuttle routes are combined into a single more streamlined route.

The Town Shuttle Route is shown in Figure IV-3, on the following page. The Town Shuttle Route begins at St. John’s Hospital, stops at the new downtown transfer point, heads southwest along Broadway, serves Albertsons and Kmart, and completes a loop west of Smiths and the Middle School in South Jackson.

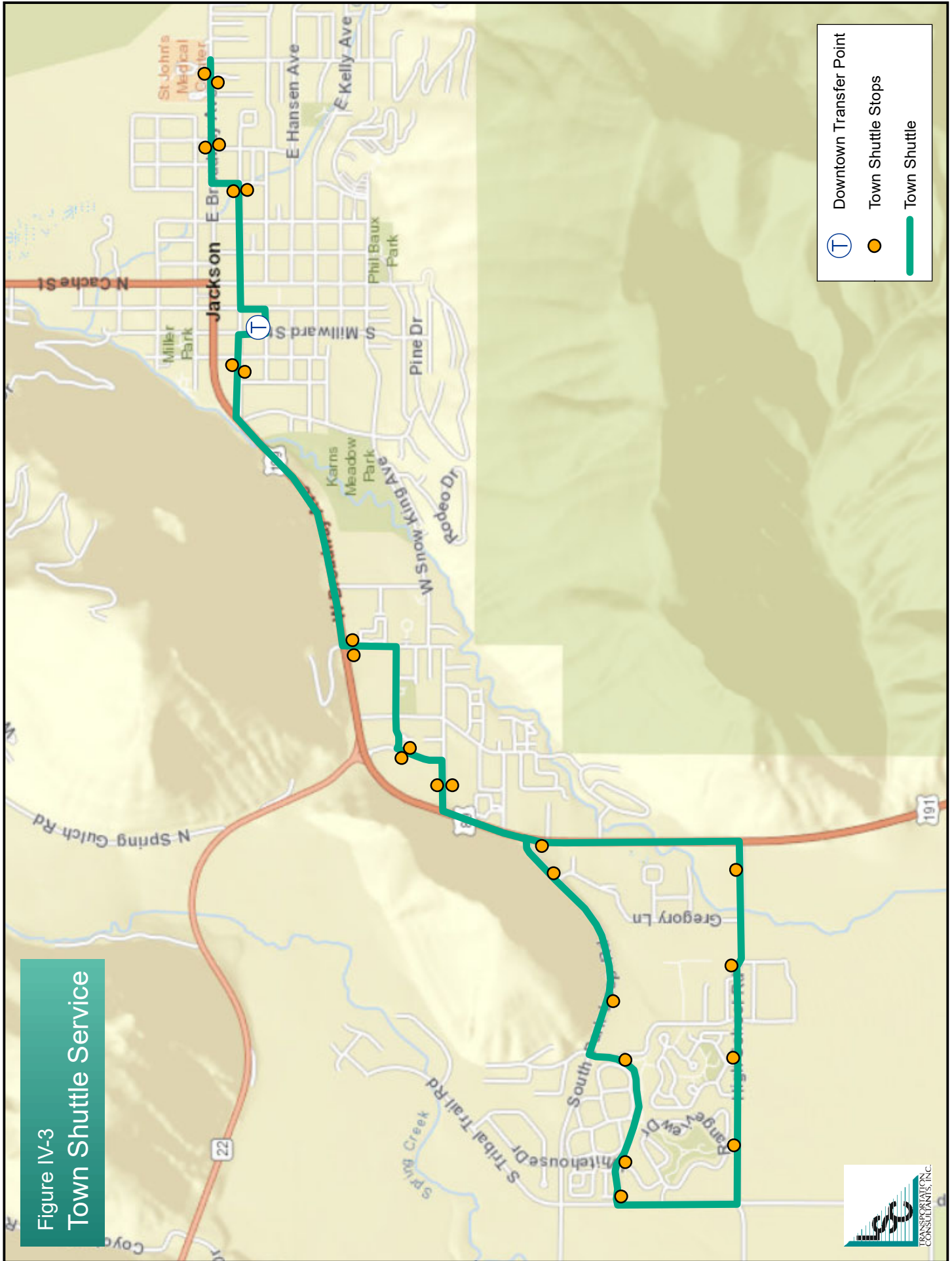
The Town Shuttle Route provides consistent year-round service, operating seven days per week from approximately 6:00 a.m. to 10:00 p.m. The Town Shuttle Route would be operated by two buses on a 20-minute frequency. Table IV-2 presents the schedule for the Town Shuttle Route.



Table IV-2: Schedule for Town Shuttle Route							
Bus Stop		First Bus	Departures All Day			Last Bus	
Towards Smiths	11	St. John's Hospital	6:06 AM	:06	:26	:46	9:46 PM
	15	Broadway & Gros Ventre	6:07 AM	:07	:27	:47	9:47 PM
	19	Pearl & Jean	6:08 AM	:08	:28	:48	9:48 PM
	New	Downtown Transfer Point	6:10 AM	:10	:30	:50	9:50 PM
	35	Pearl & Jackson	6:11 AM	:11	:31	:51	9:51 PM
	50	Scott & Broadway	6:14 AM	:14	:34	:54	9:54 PM
	53	Albertsons	6:16 AM	:16	:36	:56	9:56 PM
	55	Hampton Inn	6:17 AM	:17	:37	:57	9:57 PM
	57	Maverick	6:18 AM	:18	:38	:58	9:58 PM
	60	Smiths	6:20 AM	:20	:40	:00	10:00 PM
Towards Town/Hospital	61	High School	6:21 AM	:21	:41	:01	10:01 PM
	62	High School Rd. & Corner Creek	6:22 AM	:22	:42	:02	10:02 PM
	63	High School Rd. & Rangeview	6:22 AM	:22	:42	:02	10:02 PM
	64	Blair & South Park	6:23 AM	:23	:43	:03	10:03 PM
	66	Blair & Whitehouse (adjusted location)	6:24 AM	:24	:44	:04	10:04 PM
	65	Blair & Middle School Rd.	6:25 AM	:25	:45	:05	10:05 PM
	68	South Park @Middle School	6:26 AM	:26	:46	:06	10:06 PM
	69	South Park & Gregory	6:27 AM	:27	:47	:07	10:07 PM
	56	Kmart	6:29 AM	:29	:49	:09	10:09 PM
	54	Buffalo Way & Alpine	6:30 AM	:30	:50	:10	10:10 PM
	49	Lodge	6:32 AM	:32	:52	:12	10:12 PM
	36	49'er	6:36 AM	:36	:56	:16	10:16 PM
	New	Downtown Transfer Point	6:37 AM	:37	:57	:17	10:17 PM
	18	Pearl & Jean	6:39 AM	:39	:59	:19	X
14	Broadway & Gros Ventre	6:40 AM	:40	:00	:20	X	
10	Broadway & Stormy Cr. (Hospital)	6:41 AM	:41	:01	:21	X	

Source: LSC, 2020.

**Figure IV-3
Town Shuttle Service**



Teton Village Routes

The final route plan has four different variations of service to Teton Village that vary in route structure, seasonality of service, operating hours, and frequency of service.

Teton Village Local

The Teton Village Local route is shown in Figure IV-4. The route begins in Jackson at the new downtown transfer point, proceeds east along Pearl Avenue and south along Redmond to serve Snow King, heads west along Snow King Avenue, and loops to serve the Lodge at Jackson Hole, Albertsons, and Kmart. Beyond Jackson, the Teton Village Local route serves the Village Road Transit Center in the spring, summer, and fall (but not during the winter), as well as serving the intermediate stops along Highway (Hwy.) 390 out to Teton Village.



The Teton Village Local route provides consistent year-round service, operating seven days per week from approximately 6:00 a.m. to 8:00 p.m. The Teton Village Local route is operated by three buses on a 30-minute frequency. During the summer and winter seasons, additional service would be operated between 5:00 a.m. to 6:00 a.m. and 8:00 p.m. to midnight, on a 60-minute frequency. Table IV-3 presents the schedule for the Teton Village Local route.

Teton Village Express

The Teton Village Express service is shown in Figure IV-5. The route operates as a true express route, beginning in Jackson at the new downtown transfer point and proceeding directly to Teton Village without any intermediate stops.



The Teton Village Express route would only operate during the winter season, operating seven days per week from approximately 7:00 a.m. to 7:00 p.m. During peak hours, from 8:00 a.m. to 5:00 p.m., the route would operate on a 10-minute frequency using seven buses. During off-peak hours, from 7:00 a.m. to 8:00 a.m. and 5:00 p.m. to 7:00 p.m., the route would operate on a 20-minute frequency. Table IV-4 presents the schedule for the Teton Village Express route.

Figure IV-4
Teton Village Local Service

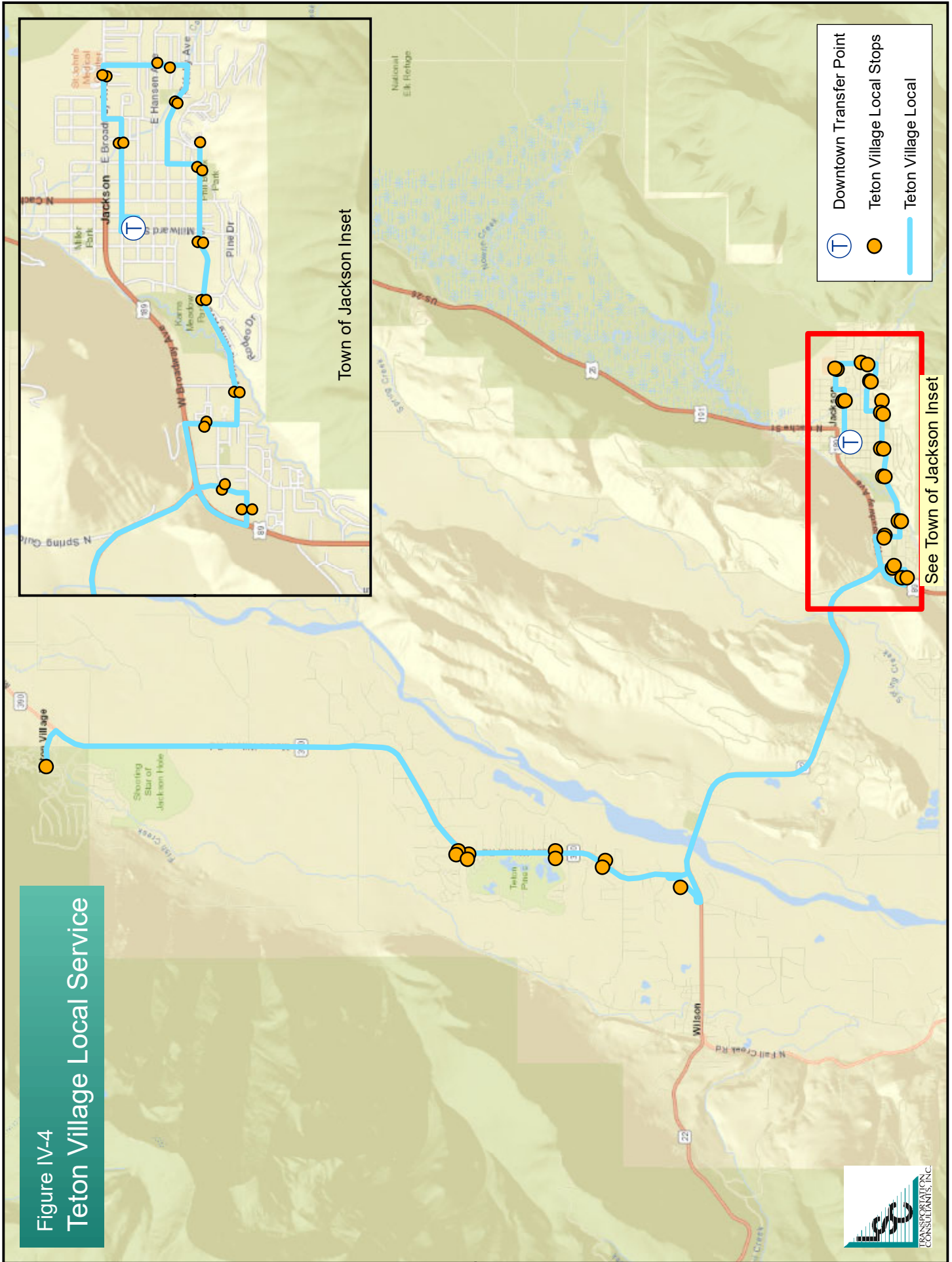


Table IV-3: Schedule for Teton Village Local

Bus Stop		First Bus	Departures All Day		Last Bus
Towards Teton Village	New Downtown Transfer Point	6:00 AM	:00	:30	6:30 PM
	18 Pearl & Jean	6:01 AM	:01	:31	6:31 PM
	10 Broadway & Stormy Circle	6:02 AM	:02	:32	6:32 PM
	6 Redmond & Hall	6:03 AM	:03	:33	6:33 PM
	4 Mike Yokel Park	6:04 AM	:04	:34	6:34 PM
	7 Snow King Resort	6:05 AM	:05	:35	6:34 PM
	9 Snow King & Willow	6:06 AM	:06	:36	6:35 PM
	43 Rodeo Grounds	6:07 AM	:07	:37	6:37 PM
	45 Snow King & Flat Creek	6:08 AM	:08	:38	6:38 PM
	47 Teton County Library	6:10 AM	:10	:40	6:40 PM
	49 Lodge at Jackson Hole	6:11 AM	:11	:41	6:41 PM
	53 Albertsons	6:14 AM	:14	:44	6:44 PM
	55 Hampton Inn	6:15 AM	:15	:45	6:45 PM
	70 Village Road Transit Center (No Winter Service)	6:25 AM	:25	:55	6:55 PM
	81 Teton Science School Res.	6:28 AM	:28	:58	6:58 PM
	83 Calico	6:29 AM	:29	:59	6:59 PM
	82 Westbank Center	6:30 AM	:30	:00	7:00 PM
	84 The Aspens	6:31 AM	:31	:01	7:01 PM
	89 Arrive Teton Village	6:39 AM	:39	:09	7:09 PM
Towards Jackson	89 Depart Teton Village	6:44 AM	:44	:14	7:14 PM
	84 The Aspens	6:52 AM	:52	:22	7:22 PM
	82 Westbank Center	6:53 AM	:53	:23	7:23 PM
	83 Calico	6:54 AM	:54	:24	7:24 PM
	81 Teton Science School Res.	6:55 AM	:55	:25	7:25 PM
	70 Village Road Transit Center (No Winter Service)	6:58 AM	:58	:28	7:28 PM
	56 Kmart	7:08 AM	:08	:38	7:38 PM
	54 Buffalo Way & Alpine	7:09 AM	:09	:39	7:39 PM
	50 Scott & Broadway	7:12 AM	:12	:42	7:42 PM
	48 810 West	7:13 AM	:13	:43	7:43 PM
	44 Snow King & Flat Creek	7:15 AM	:15	:45	7:45 PM
	42 Fair Buiding	7:16 AM	:16	:46	7:46 PM
	8 Snow King Center	7:17 AM	:17	:47	7:47 PM
	7 Snow King Resort	7:18 AM	:18	:48	7:48 PM
	3 Mike Yokel Park	7:20 AM	:20	:50	7:50 PM
	7 Redmond & Hansen	7:21 AM	:21	:51	7:51 PM
	11 St. Johns Hospital	7:22 AM	:22	:52	7:52 PM
	19 Pearl & Jean	7:24 AM	:24	:54	7:54 PM
	New Downtown Transfer Point	7:25 AM	:25	:55	7:55 PM

Note: Extra service from 8pm-midnight and 5am-6am during the winter and summer only with hourly frequency.

Source: LSC, 2020.

Figure IV-5
Teton Village Express Service

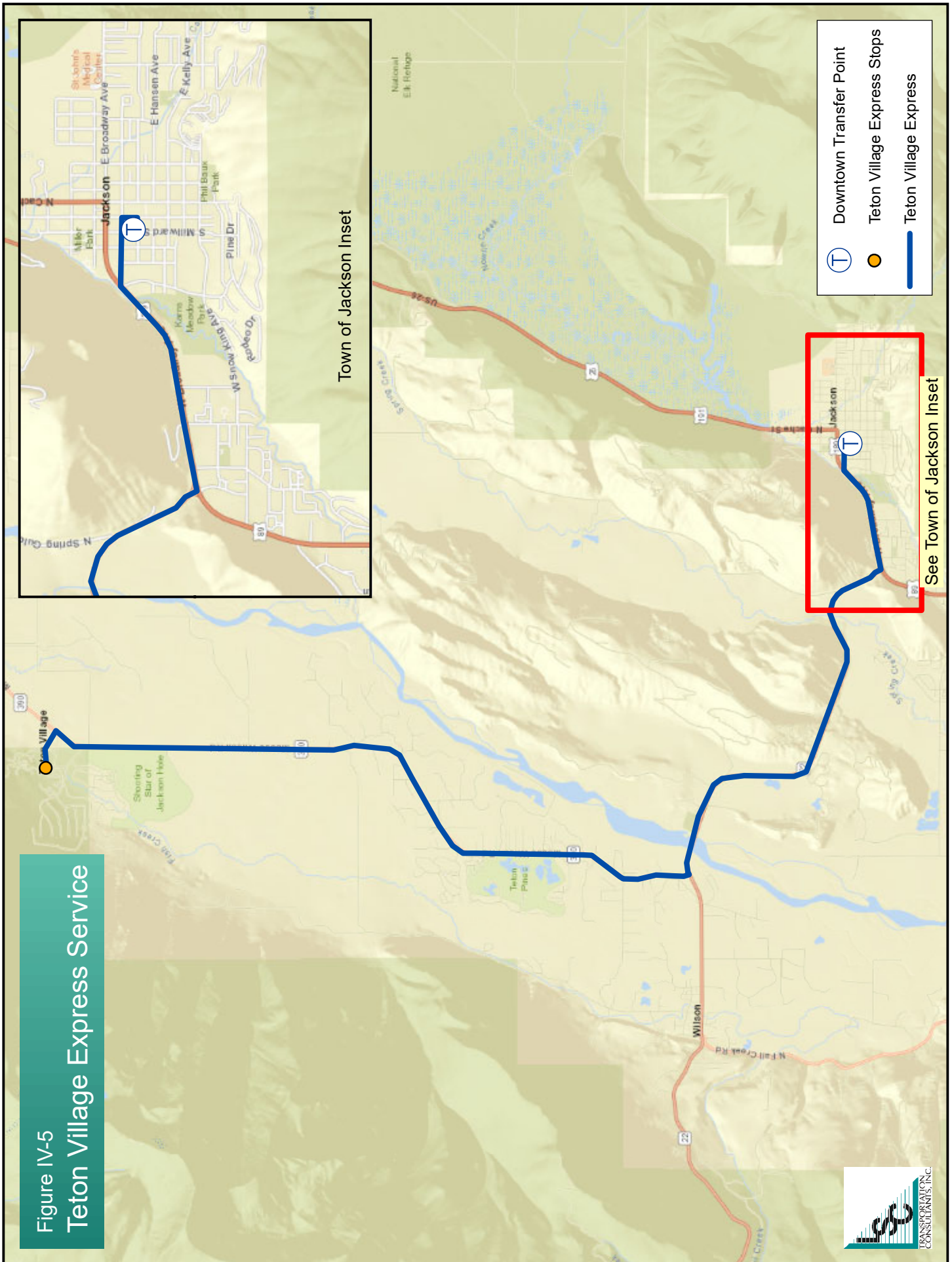


Table IV-4: Schedule for Teton Village Express

Bus Stop	20-Minute Frequency			10-Minute Frequency			20-Minute Frequency						
	Starting	Departures All Day	Ending	Starting	Departures All Day	Ending	Starting	Departures All Day	Ending				
Towards Teton Village	New	Downtown Transfer Point	7:00 AM	7:20 AM	7:40 AM	8:00 AM	8:10 :20 :30 :40 :50	4:50 PM	5:00 PM	5:20 PM	5:40 PM	6:00 PM	6:20 PM
Towards Jackson	89	Arrive Teton Village	7:25 AM	7:45 AM	8:05 AM	8:25 AM	:25 :35 :45 :55 :05 :15	5:15 PM	5:25 PM	5:45 PM	6:05 PM	6:25 PM	6:45 PM
Towards Jackson	89	Depart Teton Village	7:30 AM	7:50 AM	8:10 AM	8:30 AM	:45 :55 :05 :15 :25	5:20 PM	5:30 PM	5:50 PM	6:10 PM	6:30 PM	6:50 PM
Towards Jackson	New	Downtown Transfer Point	7:55 AM	8:15 AM	8:35 AM	8:55 AM	:05 :15 :25 :35 :45 :55	5:45 PM	5:55 PM	6:15 PM	6:35 PM	6:55 PM	7:15 PM

Source: LSC, 2020.

Teton Village South Jackson



The Teton Village South Jackson service is a completely new connection from South Jackson to Teton Village. The Teton Village South Jackson service is shown in Figure IV-6. The route begins in South Jackson at Smiths, makes a loop in South Park, proceeds north along Broadway, and serves Albertsons and Kmart. Beyond Jackson, the route serves the Village Road Transit Center, as well as the West Bank Center and the Aspens, but does not serve the remaining existing stops along Hwy. 390 out to Teton Village. If/when a new road connection is built that bypasses Town/Y, this route could use the new connection.

The Teton Village Express route operates only during the winter season, but could be expanded to the summer as resources allow. The route would operate seven days per week from approximately 7:00 a.m. to 6:00 p.m. on a 45-minute frequency using two buses. Table IV-5 presents the schedule for the Teton Village South Jackson route.

Stilson to Teton Village Peak Express

The Stilson to Teton Village Peak Express route is designed to replace and replicate the existing service that the Jackson Hole Mountain Resort (JHMR) and the Teton Village Association (TVA) currently contract for, and is shown in Figure IV-7. The route operates direct service between the Village Road Transit Center (Stilson) and Teton Village, with one stop along Hwy. 390 at the Westbank Center.

The Teton Village Express route operates during a shortened peak winter season from approximately mid-December until the end of February. The route operates seven days per week during peak skier commute times from approximately 7:30 a.m. to 10:00 a.m. and 2:30 p.m. to 4:00 p.m. The route would operate on a 15-minute frequency using two buses. Table IV-6 presents the schedule for the Stilson to Teton Village Peak Express route.

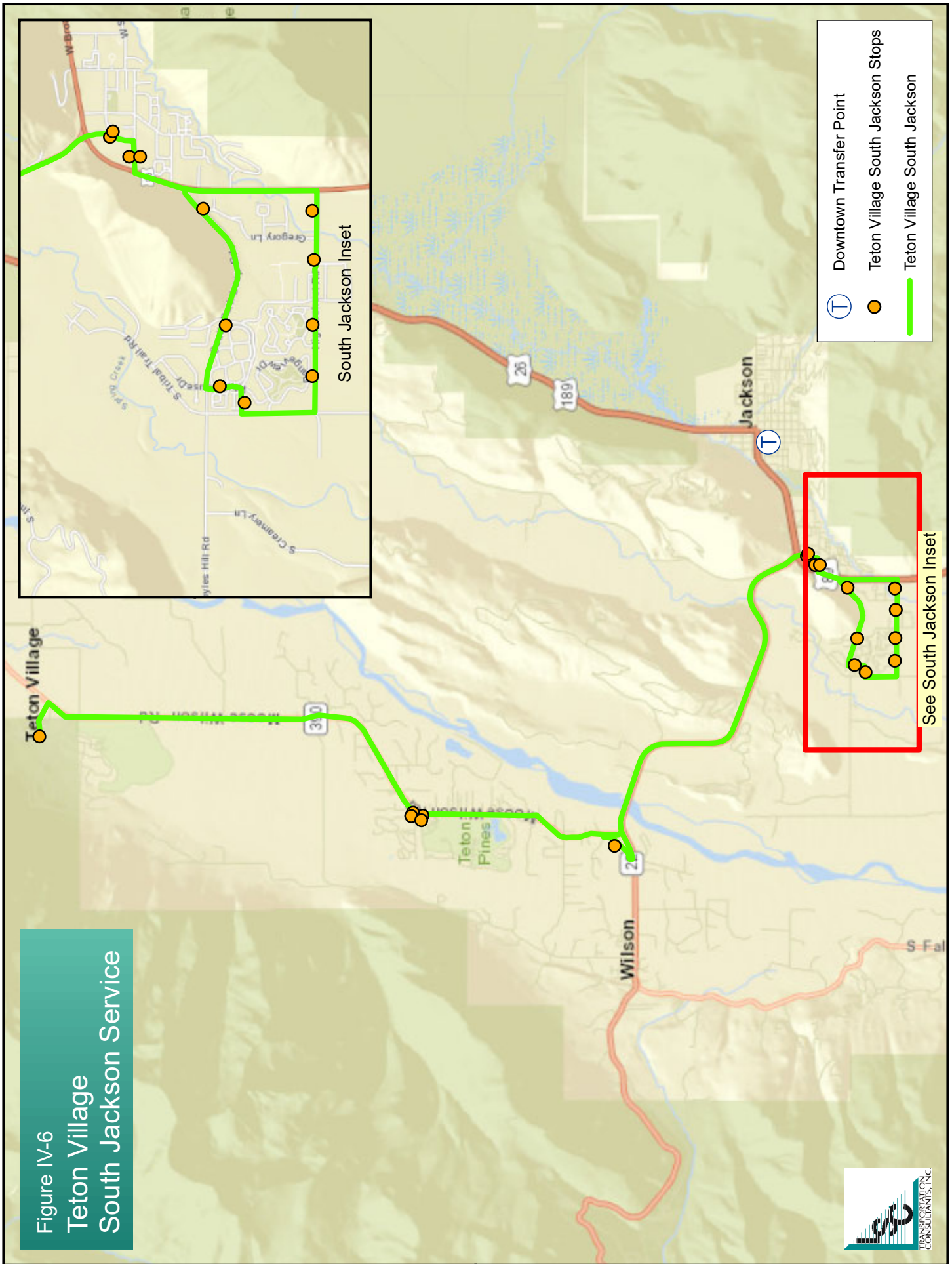


Rafter J – Melody – South Park Route

The Rafter J – Melody – South Park service is a completely new connection from Jackson to South Park, as shown in Figure IV-8. The route makes limited stops connecting downtown Jackson with Rafter J and Melody Ranch areas, including a new stop at High School Road and Highway 89 (Smith's), a new stop at Rafter J, and a new stop in South Park.

The Rafter J – Melody – South Park route provides consistent year-round service, operating five days per week (weekdays) from approximately 6:00 a.m. to 10:00 a.m. and 2:00 p.m. to 6:00 p.m. The route would be operated by one bus on a 30-minute frequency. Table IV-7 presents the schedule for the Rafter J – Melody – South Park route. As much as possible, the Rafter J – Melody – South Park route schedule is designed to allow for transfers at Smith's to the Teton Village South Jackson route, although they operate on different headways.

Figure IV-6
Teton Village
South Jackson Service



Bus Stop		45-Minute Frequency															
Towards Teton Village	60	Smiths	7:00 AM	7:45 AM	8:30 AM	9:15 AM	10:00 AM	10:45 AM	11:30 AM	12:15 PM	1:00 PM	1:45 PM	2:30 PM	3:15 PM	4:00 PM	4:45 PM	
	61	High School	7:01 AM	7:46 AM	8:31 AM	9:16 AM	10:01 AM	10:46 AM	11:31 AM	12:16 PM	1:01 PM	1:46 PM	2:31 PM	3:16 PM	4:01 PM	4:46 PM	
	62	High School Rd & Corner Crk	7:02 AM	7:47 AM	8:32 AM	9:17 AM	10:02 AM	10:47 AM	11:32 AM	12:17 PM	1:02 PM	1:47 PM	2:32 PM	3:17 PM	4:02 PM	4:47 PM	
	63	High School Rd & Rangeview	7:03 AM	7:48 AM	8:33 AM	9:18 AM	10:03 AM	10:48 AM	11:33 AM	12:18 PM	1:03 PM	1:48 PM	2:33 PM	3:18 PM	4:03 PM	4:48 PM	
	64	Blair & South Park	7:04 AM	7:49 AM	8:34 AM	9:19 AM	10:04 AM	10:49 AM	11:34 AM	12:19 PM	1:04 PM	1:49 PM	2:34 PM	3:19 PM	4:04 PM	4:49 PM	
	66	Blair & Whitehouse	7:05 AM	7:50 AM	8:35 AM	9:20 AM	10:05 AM	10:50 AM	11:35 AM	12:20 PM	1:05 PM	1:50 PM	2:35 PM	3:20 PM	4:05 PM	4:50 PM	
	68	South Park @ Middle School	7:07 AM	7:52 AM	8:37 AM	9:22 AM	10:07 AM	10:52 AM	11:37 AM	12:22 PM	1:07 PM	1:52 PM	2:37 PM	3:22 PM	4:07 PM	4:52 PM	
	56	Kmart	7:10 AM	7:55 AM	8:40 AM	9:25 AM	10:10 AM	10:55 AM	11:40 AM	12:25 PM	1:10 PM	1:55 PM	2:40 PM	3:25 PM	4:10 PM	4:55 PM	
	54	Buffalo Way & Alpine	7:11 AM	7:56 AM	8:41 AM	9:26 AM	10:11 AM	10:56 AM	11:41 AM	12:26 PM	1:11 PM	1:56 PM	2:41 PM	3:26 PM	4:11 PM	4:56 PM	
	70	Village Road Transit Center	7:23 AM	8:08 AM	8:53 AM	9:38 AM	10:23 AM	11:08 AM	11:53 AM	12:38 PM	1:23 PM	2:08 PM	2:53 PM	3:38 PM	4:23 PM	5:08 PM	
	83	Calico	7:26 AM	8:11 AM	8:56 AM	9:41 AM	10:26 AM	11:11 AM	11:56 AM	12:41 PM	1:26 PM	2:11 PM	2:56 PM	3:41 PM	4:26 PM	5:11 PM	
	82	Westbank Center	7:28 AM	8:13 AM	8:58 AM	9:43 AM	10:28 AM	11:13 AM	11:58 AM	12:43 PM	1:28 PM	2:13 PM	2:58 PM	3:43 PM	4:28 PM	5:13 PM	
	84	The Aspens	7:29 AM	8:14 AM	8:59 AM	9:44 AM	10:29 AM	11:14 AM	11:59 AM	12:44 PM	1:29 PM	2:14 PM	2:59 PM	3:44 PM	4:29 PM	5:14 PM	
	89	Arrive Teton Village	7:38 AM	8:23 AM	9:08 AM	9:53 AM	10:38 AM	11:23 AM	12:08 PM	12:53 PM	1:38 PM	2:23 PM	3:08 PM	3:53 PM	4:38 PM	5:23 PM	
	Towards Jackson	89	Depart Teton Village	7:45 AM	8:30 AM	9:15 AM	10:00 AM	10:45 AM	11:30 AM	12:15 PM	1:00 PM	1:45 PM	2:30 PM	3:15 PM	4:00 PM	4:45 PM	5:30 PM
		84	The Aspens	7:53 AM	8:38 AM	9:23 AM	10:08 AM	10:53 AM	11:38 AM	12:23 PM	1:08 PM	1:53 PM	2:38 PM	3:23 PM	4:08 PM	4:53 PM	5:38 PM
82		Westbank Center	7:54 AM	8:39 AM	9:24 AM	10:09 AM	10:54 AM	11:39 AM	12:24 PM	1:09 PM	1:54 PM	2:39 PM	3:24 PM	4:09 PM	4:54 PM	5:39 PM	
83		Calico	7:56 AM	8:41 AM	9:26 AM	10:11 AM	10:56 AM	11:41 AM	12:26 PM	1:11 PM	1:56 PM	2:41 PM	3:26 PM	4:11 PM	4:56 PM	5:41 PM	
70		Village Road Transit Center	7:59 AM	8:44 AM	9:29 AM	10:14 AM	10:59 AM	11:44 AM	12:29 PM	1:14 PM	1:59 PM	2:44 PM	3:29 PM	4:14 PM	4:59 PM	5:44 PM	
53		Albertsons	8:11 AM	8:56 AM	9:41 AM	10:26 AM	11:11 AM	11:56 AM	12:41 PM	1:26 PM	2:11 PM	2:56 PM	3:41 PM	4:26 PM	5:11 PM	5:56 PM	
55		Hampton Inn	8:13 AM	8:58 AM	9:43 AM	10:28 AM	11:13 AM	11:58 AM	12:43 PM	1:28 PM	2:13 PM	2:58 PM	3:43 PM	4:28 PM	5:13 PM	5:58 PM	
60		Smiths	8:20 AM	9:05 AM	9:50 AM	10:35 AM	11:20 AM	12:05 PM	12:50 PM	1:35 PM	2:20 PM	3:05 PM	3:50 PM	4:35 PM	5:20 PM	6:05 PM	

Source: LSC, 2020.

Figure IV-7
Stilson to Teton Village Service

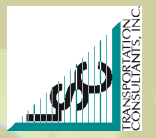
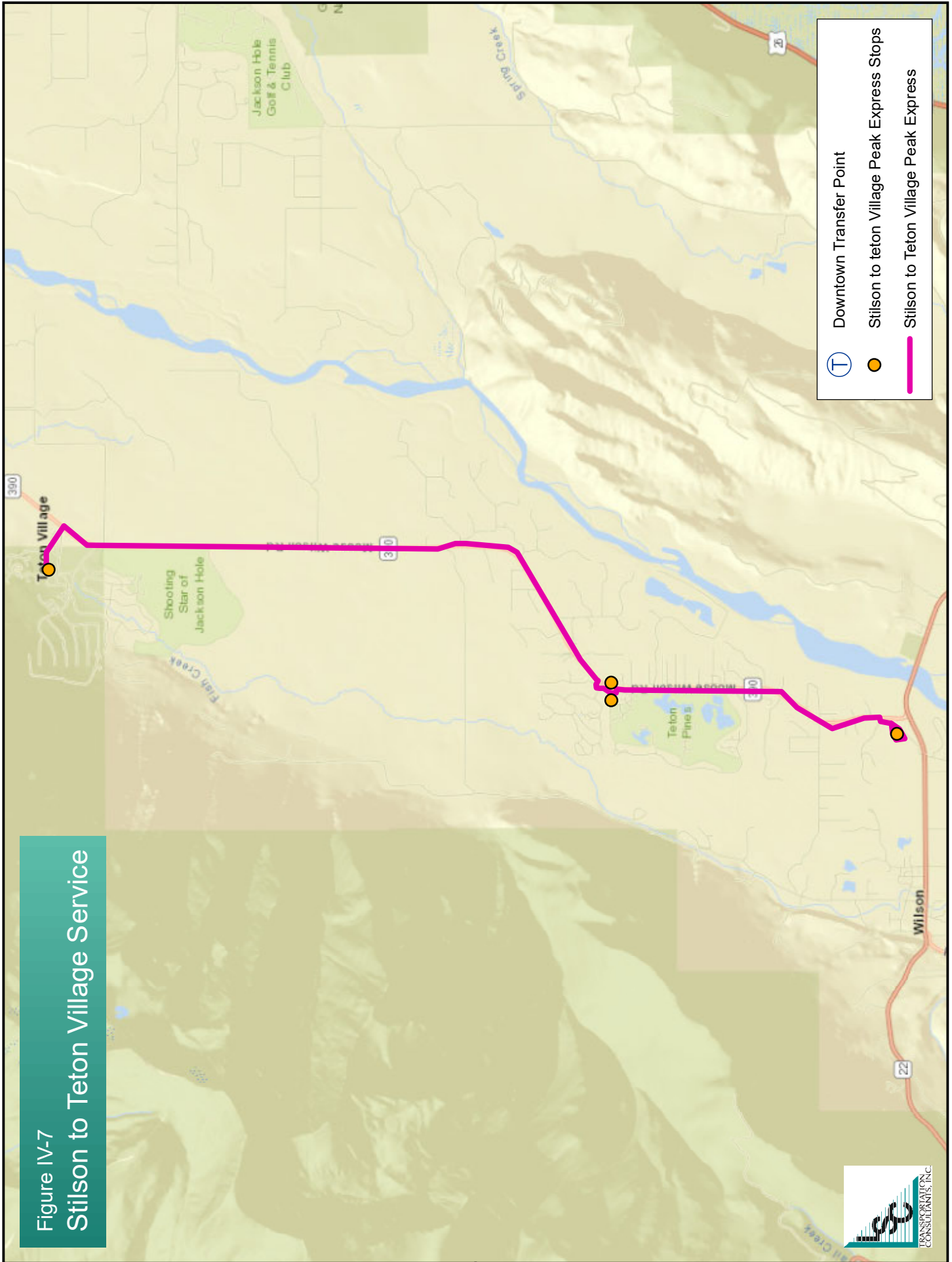


Table IV-6: Schedule for Stilson to Teton Village Peak Express

Bus Stop		15-Minute Frequency Between 7:30-10:00 a.m. and 2:00-4:00 p.m.																
		7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	
Towards Teton Village	70	Village Road Transit Center	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM
	82	Westbank Center	7:35 AM	7:50 AM	8:05 AM	8:20 AM	8:35 AM	8:50 AM	9:05 AM	9:20 AM	9:35 AM	2:05 PM	2:20 PM	2:35 PM	2:50 PM	3:05 PM	3:20 PM	3:35 PM
	89	Arrive Teton Village	7:43 AM	7:58 AM	8:13 AM	8:28 AM	8:43 AM	8:58 AM	9:13 AM	9:28 AM	9:43 AM	2:13 PM	2:28 PM	2:43 PM	2:58 PM	3:13 PM	3:28 PM	3:43 PM
Towards Stilson	89	Depart Teton Village	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	9:15 AM	9:30 AM	9:45 AM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM
	82	Westbank Center	7:53 AM	8:08 AM	8:23 AM	8:38 AM	8:53 AM	9:08 AM	9:23 AM	9:38 AM	9:53 AM	2:23 PM	2:38 PM	2:53 PM	3:08 PM	3:23 PM	3:38 PM	3:53 PM
	70	Village Road Transit Center	7:58 AM	8:13 AM	8:28 AM	8:43 AM	8:58 AM	9:13 AM	9:28 AM	9:43 AM	9:58 AM	2:28 PM	2:43 PM	2:58 PM	3:13 PM	3:28 PM	3:43 PM	3:58 PM

Source: LSC, 2020.

Figure IV-8
Rafter J-Melody-South Park Service

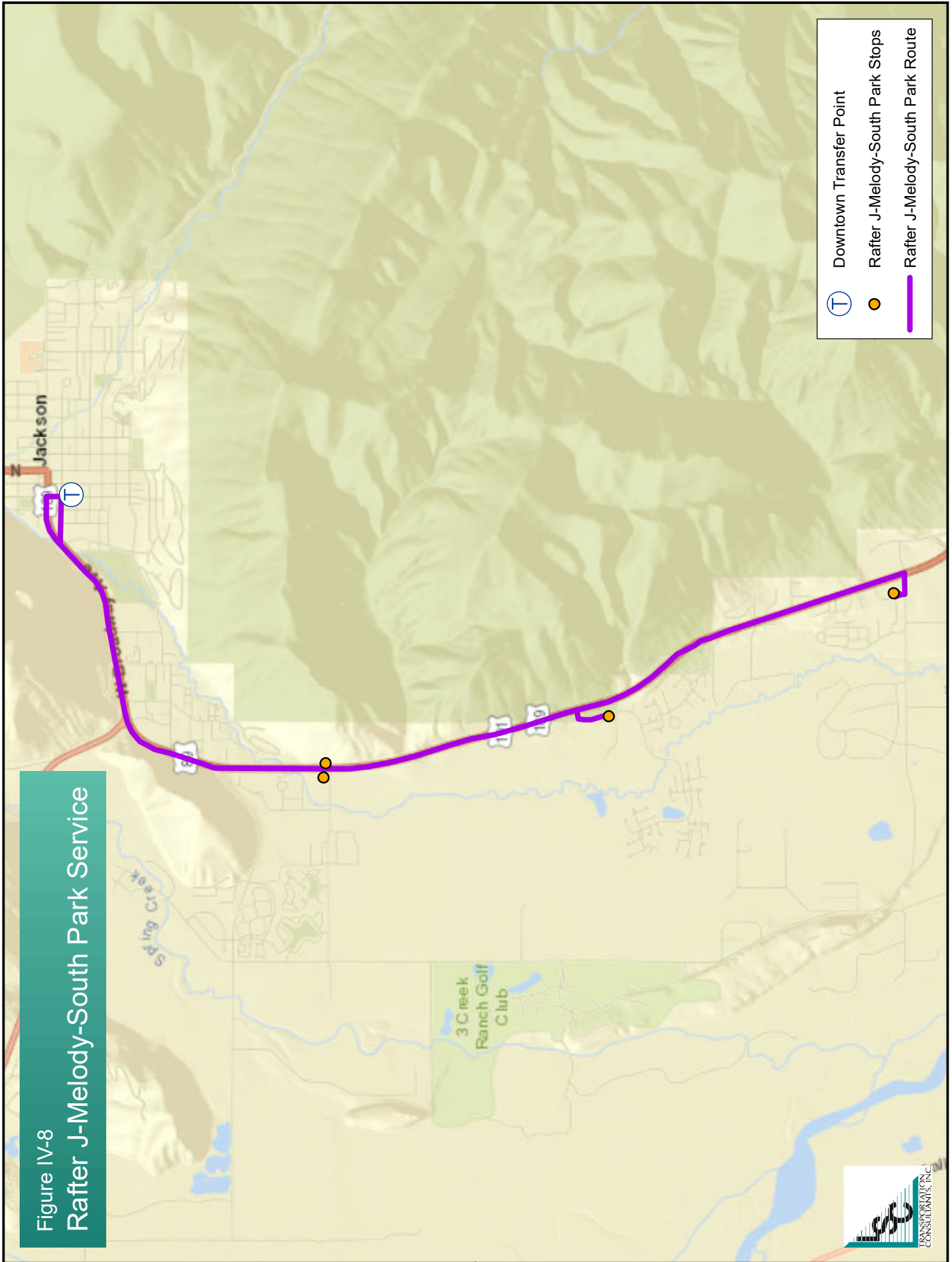


Table IV-7: Schedule for Rafter J – Melody – South Park Route
30-Minute Frequency Between 6:00-10:00 a.m. and 2:00-6:00 p.m.

Bus Stop		30-Minute Frequency Between 6:00-10:00 a.m. and 2:00-6:00 p.m.															
Towards South Park	New	5:52 AM	6:22 AM	6:52 AM	7:22 AM	7:52 AM	8:22 AM	8:52 AM	9:22 AM	1:52 PM	2:22 PM	2:52 PM	3:22 PM	3:52 PM	4:22 PM	4:52 PM	5:22 PM
	New	5:59 AM	6:29 AM	6:59 AM	7:29 AM	7:59 AM	8:29 AM	8:59 AM	9:29 AM	1:59 PM	2:29 PM	2:59 PM	3:29 PM	3:59 PM	4:29 PM	4:59 PM	5:29 PM
	New	6:02 AM	6:32 AM	7:02 AM	7:32 AM	8:02 AM	8:32 AM	9:02 AM	9:32 AM	2:02 PM	2:32 PM	3:02 PM	3:32 PM	4:02 PM	4:32 PM	5:02 PM	5:32 PM
Towards Jackson	New	6:05 AM	6:35 AM	7:05 AM	7:35 AM	8:05 AM	8:35 AM	9:05 AM	9:35 AM	2:05 PM	2:35 PM	3:05 PM	3:35 PM	4:05 PM	4:35 PM	5:05 PM	5:35 PM
	New	6:06 AM	6:36 AM	7:06 AM	7:36 AM	8:06 AM	8:36 AM	9:06 AM	9:36 AM	2:06 PM	2:36 PM	3:06 PM	3:36 PM	4:06 PM	4:36 PM	5:06 PM	5:36 PM
	New	6:09 AM	6:39 AM	7:09 AM	7:39 AM	8:09 AM	8:39 AM	9:09 AM	9:39 AM	2:09 PM	2:39 PM	3:09 PM	3:39 PM	4:09 PM	4:39 PM	5:09 PM	5:39 PM
Towards Downtown Transfer Point	New	6:12 AM	6:42 AM	7:12 AM	7:42 AM	8:12 AM	8:42 AM	9:12 AM	9:42 AM	2:12 PM	2:42 PM	3:12 PM	3:42 PM	4:12 PM	4:42 PM	5:12 PM	5:42 PM
	New	6:19 AM	6:49 AM	7:19 AM	7:49 AM	8:19 AM	8:49 AM	9:19 AM	9:49 AM	2:19 PM	2:49 PM	3:19 PM	3:49 PM	4:19 PM	4:49 PM	5:19 PM	5:49 PM
	New	6:22 AM	6:52 AM	7:22 AM	7:52 AM	8:22 AM	8:52 AM	9:22 AM	9:52 AM	2:22 PM	2:52 PM	3:22 PM	3:52 PM	4:22 PM	4:52 PM	5:22 PM	5:52 PM

Source: LSC, 2020.

Microtransit



The final route service plan includes a new microtransit zone in Jackson, as shown in Figure IV-9. The service area is designed to serve east Jackson, the new downtown transfer point, Snow King, town square area (including visitor center and hotels in north Jackson), and St. John’s Hospital. The microtransit service operates seven days per week year-round from 7:00 a.m. to 8:00 p.m. During the spring, summer, and fall seasons the service would operate with one to three vehicles, and during the winter season the service would operate with two to four vehicles.

Star Valley Commuter

The Star Valley Commuter Route remains mostly the same as existing, with a slight change to the route structure in Jackson, as shown in Figure IV-10. In Jackson, the route serves Kmart and Albertsons and loops around to serve the Lodge before continuing to downtown along Broadway. The route serves the new downtown transfer point and ends at St. John’s Hospital.

Service on the Star Valley Commuter Route increases from three roundtrips per day to eight roundtrips per day, with morning northbound departures between 5:30 a.m. and 11:30 a.m. and afternoon/evening departures from Jackson between 3:35 p.m. and 9:35 p.m. Table IV-8 presents the schedule for the Star Valley Commuter Route. The last three trips of the morning depart from Alpine while all other northbound departures are from Etna.

The schedule is designed so that buses could run multiple roundtrip laps in the morning and evening, but the return trips are not shown in the schedule in order to give operational flexibility in how buses may be assigned to multiple roundtrips or not. It may make sense to show these “reverse commute” direction trips on a published schedule.

Teton Valley Commuter

The Teton Valley Commuter Route also remains mostly the same as existing, with a slight change to the route structure in Jackson, as shown in Figure IV-11. In Jackson, the route serves Kmart and Albertsons and loops around to serve the Lodge before continuing to downtown along Broadway. The route serves the new downtown transfer point and ends at St. John’s Hospital.

Service on the Teton Valley Commuter Route would increase from four roundtrips per day to eight roundtrips per day with morning northbound departures between 5:30 a.m. and 11:30 a.m. and afternoon/evening departures from Jackson between 3:35 p.m. and 9:35 p.m. Table IV-8 presents the schedule for the Star Valley Commuter Route. The last three trips of the morning depart from Alpine while all other northbound departures are from Etna.

The schedule is designed so that buses could run multiple roundtrip laps in the morning and evening, but the return trips are not shown in the schedule in order to give operational flexibility in how buses may be assigned to multiple roundtrips or not. It may make sense to show these “reverse commute” direction trips on a published schedule.



Figure IV-9
Microtransit Zone

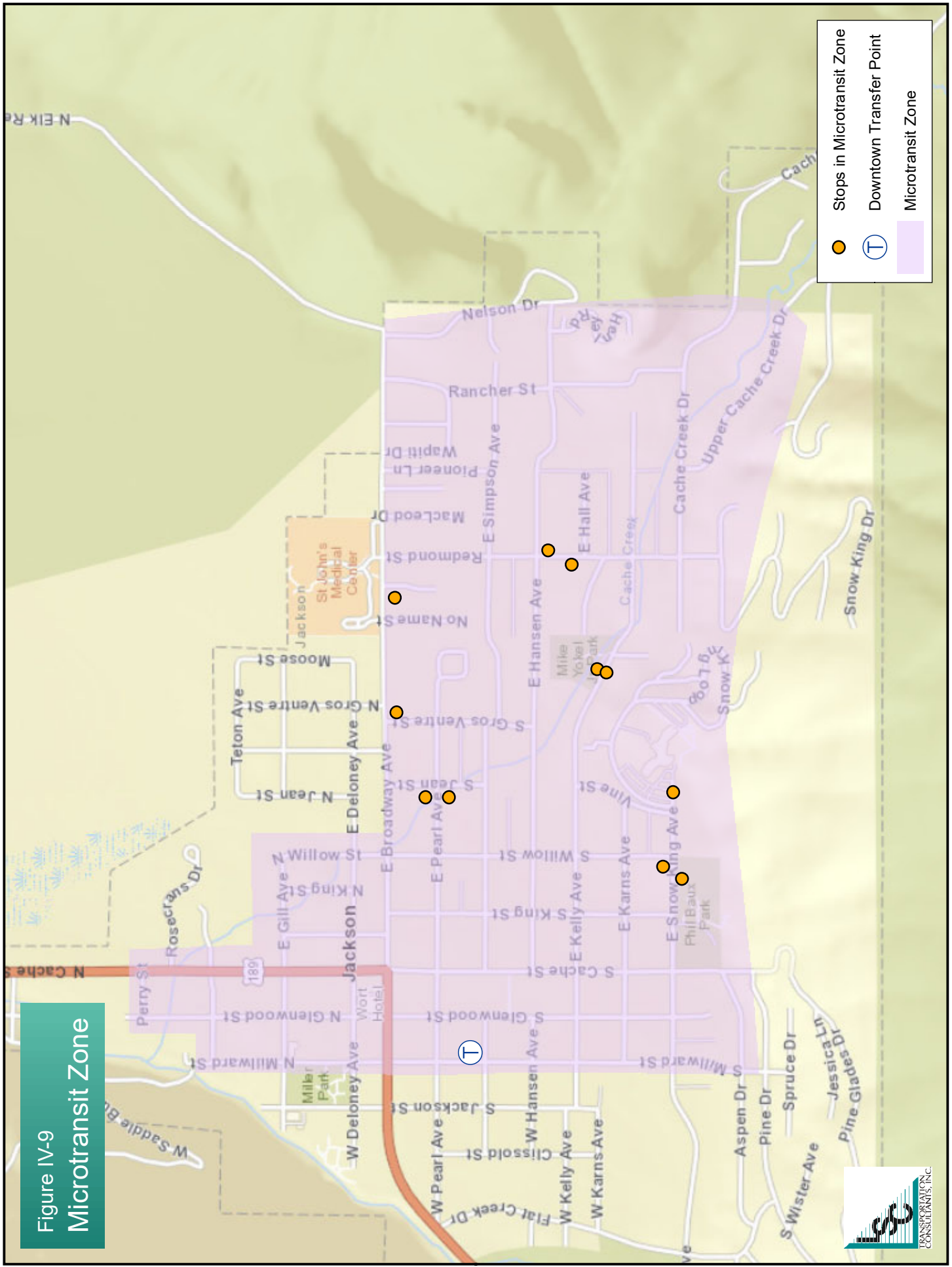


Figure IV-10
Star Valley Commuter Service

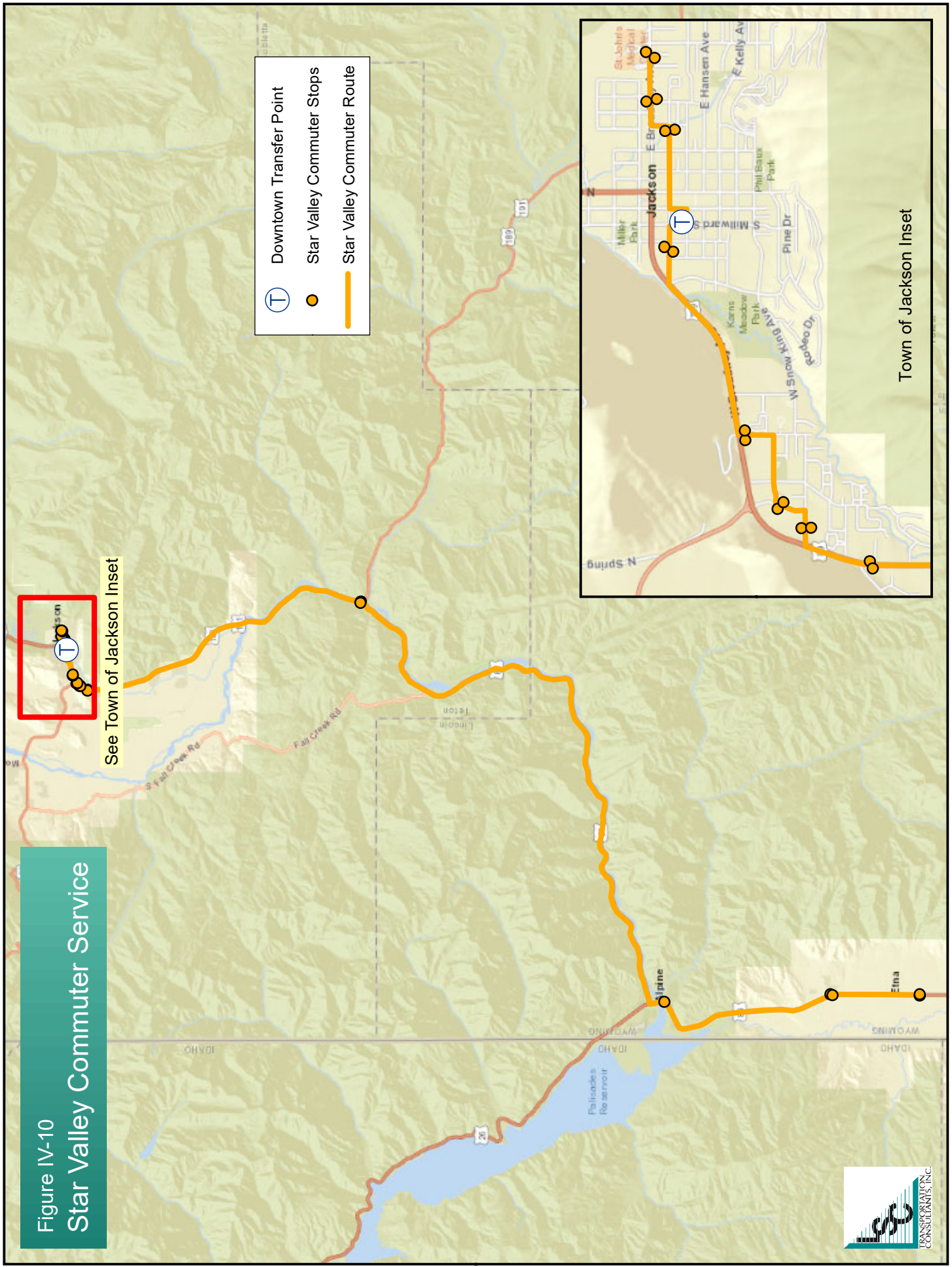


Table IV-8: Schedule for Star Valley Commuter Route												
Bus Stop		Eight roundtrips per weekday										
Towards Jackson (AM)	98	Etna / Star Valley Community Center	5:30 AM	6:15 AM	6:45 AM	7:15 AM	8:15 AM	X	X	X	X	X
	96	County Road 106 & Highway 89	5:35 AM	6:20 AM	6:50 AM	7:20 AM	8:20 AM	X	X	X	X	X
	94	Alpine / KJ's Super Store	5:45 AM	6:30 AM	7:00 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	11:30 AM	11:30 AM
	92	Hoback Market	6:10 AM	6:55 AM	7:25 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	11:55 AM	11:55 AM
	58	Broadway & Huff	6:25 AM	7:10 AM	7:40 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	12:10 PM	12:10 PM
	56	Kmart	6:27 AM	7:12 AM	7:42 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	12:12 PM	12:12 PM
	54	Buffalo Way & Alpine	6:28 AM	7:13 AM	7:43 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	12:13 PM	12:13 PM
	49	Lodge	6:30 AM	7:15 AM	7:45 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	12:15 PM	12:15 PM
	36	49er	6:33 AM	7:18 AM	7:48 AM	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	12:18 PM	12:18 PM
	New	Downtown Transfer Point	6:34 AM	7:19 AM	7:49 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	12:19 PM	12:19 PM
18	Pearl & Jean	6:35 AM	7:20 AM	7:50 AM	8:20 AM	9:20 AM	10:20 AM	11:20 AM	12:20 PM	12:20 PM	12:20 PM	
14	Broadway & Gros Ventre	6:37 AM	7:22 AM	7:52 AM	8:22 AM	9:22 AM	10:22 AM	11:22 AM	12:22 PM	12:22 PM	12:22 PM	
10	Broadway & Stormy Cr. (Hospital)	6:38 AM	7:23 AM	7:53 AM	8:23 AM	9:23 AM	10:23 AM	11:23 AM	12:23 PM	12:23 PM	12:23 PM	
Towards Alpine/Etna (PM)	11	St. John's Hospital	3:35 PM	4:35 PM	5:05 PM	5:35 PM	6:35 PM	7:35 PM	8:35 PM	9:35 PM	9:35 PM	9:35 PM
	15	Broadway & Gros Ventre	3:36 PM	4:36 PM	5:06 PM	5:36 PM	6:36 PM	7:36 PM	8:36 PM	9:36 PM	9:36 PM	9:36 PM
	19	Pearl & Jean	3:38 PM	4:38 PM	5:08 PM	5:38 PM	6:38 PM	7:38 PM	8:38 PM	9:38 PM	9:38 PM	9:38 PM
	New	Downtown Transfer Point	3:39 PM	4:39 PM	5:09 PM	5:39 PM	6:39 PM	7:39 PM	8:39 PM	9:39 PM	9:39 PM	9:39 PM
	35	Pearl & Jackson	3:40 PM	4:40 PM	5:10 PM	5:40 PM	6:40 PM	7:40 PM	8:40 PM	9:40 PM	9:40 PM	9:40 PM
	50	Scott & Broadway	3:43 PM	4:43 PM	5:13 PM	5:43 PM	6:43 PM	7:43 PM	8:43 PM	9:43 PM	9:43 PM	9:43 PM
	53	Albertsons	3:45 PM	4:45 PM	5:15 PM	5:45 PM	6:45 PM	7:45 PM	8:45 PM	9:45 PM	9:45 PM	9:45 PM
	55	Hampton Inn	3:46 PM	4:46 PM	5:16 PM	5:46 PM	6:46 PM	7:46 PM	8:46 PM	9:46 PM	9:46 PM	9:46 PM
	57	Maverick	3:48 PM	4:48 PM	5:18 PM	5:48 PM	6:48 PM	7:48 PM	8:48 PM	9:48 PM	9:48 PM	9:48 PM
	92	Hoback Market	4:03 PM	5:03 PM	5:33 PM	6:03 PM	7:03 PM	8:03 PM	9:03 PM	10:03 PM	10:03 PM	10:03 PM
94	Alpine / KJ's Super Store	4:28 PM	5:28 PM	5:58 PM	6:28 PM	7:28 PM	8:28 PM	9:28 PM	10:28 PM	10:28 PM	10:28 PM	
96	County Road 106 & Highway 89	4:38 PM	5:38 PM	6:23 PM	6:38 PM	7:38 PM	8:38 PM	9:38 PM	10:38 PM	10:38 PM	10:38 PM	
98	Etna / Star Valley Community Center	4:43 PM	5:43 PM	6:28 PM	6:43 PM	7:43 PM	8:43 PM	9:43 PM	10:43 PM	10:43 PM	10:43 PM	

X = stop not served at this time
Source: LSC, 2020.



Figure IV-11
Teton Valley Commuter Service

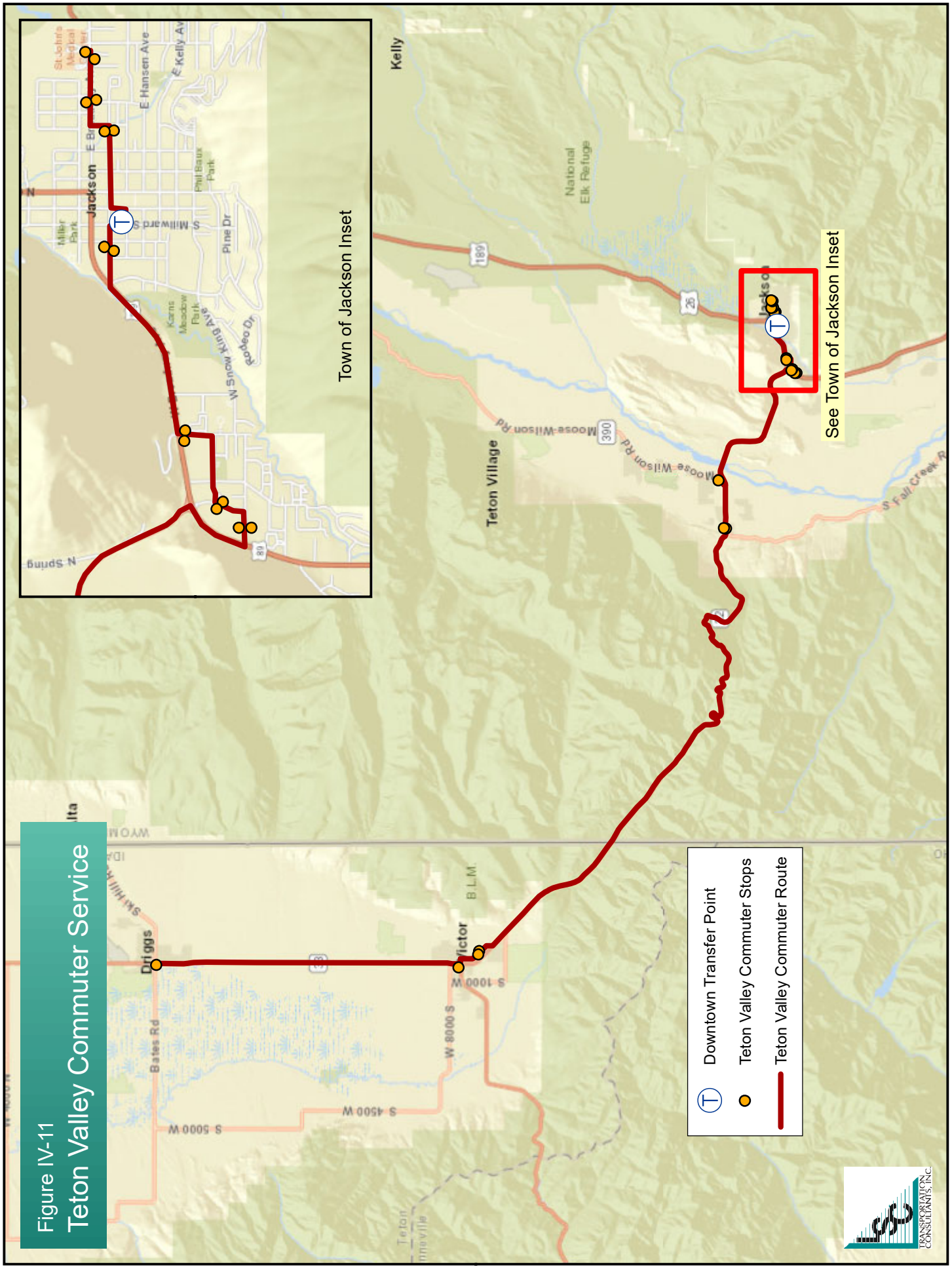


Table IV-9: Schedule for Teton Valley Commuter Route												
Bus Stop		Eight roundtrips per weekday										
Towards Jackson (AM)	78	Driggs Community Center	5:30 AM	6:15 AM	6:45 AM	7:15 AM	7:45 AM	8:45 AM	X	X		
	76	Victor Depot	5:42 AM	6:27 AM	6:57 AM	7:27 AM	7:57 AM	8:57 AM	X	X		
	74	Victor Transit Center	5:46 AM	6:31 AM	7:01 AM	7:31 AM	8:01 AM	9:01 AM	10:01 AM	11:01 AM		
	72	Wilson / Nora's	6:12 AM	6:57 AM	7:27 AM	7:57 AM	8:27 AM	9:27 AM	10:27 AM	11:27 AM		
	70	Village Rd. Transit Center	6:15 AM	7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM		
	56	Kmart	6:25 AM	7:10 AM	7:40 AM	8:10 AM	8:40 AM	9:40 AM	10:40 AM	11:40 AM		
	54	Buffalo Way & Alpine	6:26 AM	7:11 AM	7:41 AM	8:11 AM	8:41 AM	9:41 AM	10:41 AM	11:41 AM		
	49	Lodge	6:28 AM	7:13 AM	7:43 AM	8:13 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM		
	36	49er	6:31 AM	7:16 AM	7:46 AM	8:16 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM		
	New	Downtown Transfer Point	6:32 AM	7:17 AM	7:47 AM	8:17 AM	8:47 AM	9:47 AM	10:47 AM	11:47 AM		
18	Pearl & Jean	6:33 AM	7:18 AM	7:48 AM	8:18 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM			
14	Broadway & Gros Ventre	6:34 AM	7:19 AM	7:49 AM	8:19 AM	8:49 AM	9:49 AM	10:49 AM	11:49 AM			
10	Broadway & Stormy Cr. (Hospital)	6:35 AM	7:20 AM	7:50 AM	8:20 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM			
Towards Driggs (PM)	11	St. John's Hospital	3:35 PM	4:35 PM	5:05 PM	5:35 PM	6:35 PM	7:35 PM	8:35 PM	9:35 PM		
	15	Broadway & Gros Ventre	3:36 PM	4:36 PM	5:06 PM	5:36 PM	6:36 PM	7:36 PM	8:36 PM	9:36 PM		
	19	Pearl & Jean	3:37 PM	4:37 PM	5:07 PM	5:37 PM	6:37 PM	7:37 PM	8:37 PM	9:37 PM		
	New	Downtown Transfer Point	3:38 PM	4:38 PM	5:08 PM	5:38 PM	6:38 PM	7:38 PM	8:38 PM	9:38 PM		
	35	Pearl & Jackson	3:39 PM	4:39 PM	5:09 PM	5:39 PM	6:39 PM	7:39 PM	8:39 PM	9:39 PM		
	50	Scott & Broadway	3:42 PM	4:42 PM	5:12 PM	5:42 PM	6:42 PM	7:42 PM	8:42 PM	9:42 PM		
	53	Albertsons	3:44 PM	4:44 PM	5:14 PM	5:44 PM	6:44 PM	7:44 PM	8:44 PM	9:44 PM		
	55	Hampton Inn	3:45 PM	4:45 PM	5:15 PM	5:45 PM	6:45 PM	7:45 PM	8:45 PM	9:45 PM		
	70	Village Rd. Transit Center	3:55 PM	4:55 PM	5:25 PM	5:55 PM	6:55 PM	7:55 PM	8:55 PM	9:55 PM		
	71	Wilson / Hungry Jack's	3:58 PM	4:58 PM	5:28 PM	5:58 PM	6:58 PM	7:58 PM	8:58 PM	9:58 PM		
74	Victor Transit Center	4:24 PM	5:24 PM	5:54 PM	6:24 PM	7:24 PM	8:24 PM	9:24 PM	10:24 PM			
76	Victor Depot	4:28 PM	5:28 PM	5:58 PM	6:28 PM	7:28 PM	8:28 PM	9:28 PM	10:28 PM			
78	Driggs Community Center	4:40 PM	5:40 PM	6:10 PM	6:40 PM	7:40 PM	8:40 PM	9:40 PM	10:40 PM			

X = stop not served at this time
Source: LSC, 2020.



SEASONALITY

START operates a seasonal system with service levels that vary significantly by time of year, with highest service level in the winter and summer and less service in the spring and fall. The final service plan adds more year-round service, but there is still considerable seasonal variation, as shown in Table IV-10.

Route	Season			
	Spring	Summer	Fall	Winter
Town Shuttles	20-Minute Frequency, 7 Days per Week, 6 AM - 10 PM	20-Minute Frequency, 7 Days per Week, 6 AM - 10 PM	20-Minute Frequency, 7 Days per Week, 6 AM - 10 PM	20-Minute Frequency, 7 Days per Week, 6 AM - 10 PM
Teton Village Local	30-Minute Frequency, 7 Days per Week, 6 AM - 8 PM	30-Minute Frequency, 7 Days per Week, 6 AM - 8 PM	30-Minute Frequency, 7 Days per Week, 6 AM - 8 PM	30-Minute Frequency, 7 Days per Week, 6 AM - 8 PM
		60-Minute Frequency, 7 Days per Week, 5-6 AM, 8 PM - Midnight		60-Minute Frequency, 7 Days per Week, 5-6 AM, 8 PM - Midnight
Teton Village Express				20-Minute Frequency, 7 Days per Week, 7-8 AM, 5-7 PM 10-Minute Frequency, 7 Days per Week, 8 AM - 5 PM
Teton Village South Jackson				45-Minute Frequency, 7 Days per Week, 7 AM - 6 PM
Stilson to Teton Village Peak Express				15-Minute Frequency, 7 Days per Week (Mid-December - End of February Only), 7:30-10 AM, 2:30-4 PM
Rafter J-Melody-South Park Route	30-Minute Frequency, Year-round, Weekdays, 6-10 AM, 2-6 PM			
Microtransit	1-2 Vans, 7 Days per Week, 7 AM - 8 PM	1-3 Vans, 7 Days per Week, 7 AM - 8 PM	1-2 Vans, 7 Days per Week, 7 AM - 8 PM	2-4 Vans, 7 Days per Week, 7 AM - 8 PM
Star Valley Commuter	8 Roundtrips, Year-round, Weekdays, 5:30 AM - 10:45 PM			
Teton Valley Commuter	8 Roundtrips, Year-round, Weekdays, 5:30 AM - 10:40 PM			

Source: LSC, 2020.

TRANSFERS AND COORDINATION

The route plan is designed to facilitate coordination among the various routes and services. The downtown transfer point is designed to facilitate activity at top of the hour and :30 after the hour, as well as at :10, :20, :40, and :50 after the hour for more frequent routes such as Teton Village Express and Town Shuttle.

Commuter routes are designed to get employees to work for shifts that start at the top of the hour or :30 after the hour. They also coordinate with other routes through timed transfers at the downtown transfer point.

Another transfer point is at the Albertsons and Kmart stops where the new version of Teton Village South Jackson, the new Rafter J-Melody Ranch route, the new Town Shuttle, and commuter routes can interact.

FUTURE SERVICE INVESTMENTS

The routes and associated service levels presented in this plan fit largely in the existing total service hours, and thus represent a resource-constrained plan with a small amount of service hour and budget growth in the next five years. However, START should be considering how it will grow beyond the next five years and how it would invest if new or additional resources were to come available.

If new funding were to materialize, START would have to answer a fundamental question:

Do you invest in improvements to the service concepts in the final route plan or do you invest in additional/new services?

Table IV-11 shows the estimated costs and performance associated with the investments for the final service plan and for new services that were identified as potential needs but not included in the final plan.

Table IV-11: Future Service Investments										
Service Description	Additional Peak Vehicles Required	Total Annual			Annual Operating Days	Annual Operating Cost	Annual Ridership	Cost per Passenger	Passengers per Rev Hour	
		Revenue - Miles	Revenue - Hours	Total Hours						
INVESTMENTS IN IMPROVEMENTS TO FINAL ROUTE PLAN										
Teton Village Express - Add Summer Service	Operate Teton Village Express during the summer, 8am-4pm 20-minute frequency	0	73,200	2,928	3,514	122	\$278,000	73,200	\$3.80	25.0
Stilson to Teton Village Peak Express - Expanded Hours	Operate Stilson to Teton Village Express all day 7:30am - 4:30p, filling in midday gap, with 15-minute frequency (mid-Dec to end of Feb)	0	38,808	693	832	77	\$66,000	20,790	\$3.17	30.0
Teton Village South Jackson - Add Summer Service	Operate the new route connecting Smiths in South Jackson to the Village during the summer, daily from 7am-6pm with 45-minute frequency.	0	46,116	2,562	3,074	122	\$243,000	56,364	\$4.31	22.0
Rafter J-Melody-South Park Route - Add Midday Service	Operate the new route connecting Melody Ranch and Rafter J with Jackson all day, filling in the midday gap so that 30-minute frequency runs from 6am to 6pm weekdays.	0	37,084	1,460	1,752	365	\$139,000	17,520	\$7.93	12.0
Commuter Routes - Add More Weekday Service	Add two more weekday roundtrips to both commuter routes.	2-4	85,608	1,305	1,566	261	\$129,000	15,660	\$8.24	12.0
Commuter Routes - Add Weekend Service	Add two roundtrips on Saturday and one roundtrip on Sunday to both commuter routes.	0	25,584	343	412	52	\$34,000	3,432	\$9.91	10.0
INVESTMENTS IN NEW SERVICES										
Airport Service	New route connecting the airport to Jackson with six roundtrips per day during the summer and winter seasons.	1	4,644	903	1,084	258	\$86,000	9,030	\$9.52	10.0
Grand Teton National Park Service	New route connecting the airport to Jackson with Moose and Jenny Lake in GTNP with five roundtrips per day in the summer only	2	5,124	915	1,098	122	\$87,000	7,320	\$11.89	8.0

Source: LSC 2020.



TRANSPORTATION
CONSULTANTS, INC.

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Chapter V: Implementation

Chapter V presents activities associated with implementing the 2020-2025 START Route Plan including the five-year operating and capital plan, phasing, supporting infrastructure, and implementation steps.

FINANCIAL PLAN

Operating, Startup, and Capital Expenses

Table V-1 presents the five-year operating and capital expenses for the final plan. A 3.5 percent annual inflation rate is assumed and operating costs are shown with individual costs for each route – these route and service costs are fully burdened in that they contain all overhead and administration costs allocated proportionally. The required capital expenses are presented including microtransit startup costs, basic bus stop improvements for new stops, park and ride improvements for commuter service and the new Rafter J route, and costs associated with creating a new downtown transit hub, which is discussed in more detail later in this chapter.

The financial plan also shows one-time implementation costs associated with an accelerated startup and implementation within six to nine months of plan adoption. As shown in Table V-1, the most expensive startup costs are associated with inefficiencies of the first few years operating the service. This line item provides a buffer against likely expenses associated with making a large-scale change to the START routes and operations – startup costs for inefficiency includes items such as extra driver training, extra revenue and non-revenue operating hours associated with learning the new routes and making adjustments to route timing/schedules, extra standby drivers, and other contingency costs.

Additional marketing, above what START currently spends, is also included to support community/rider education about how the new routes operate and overall promotion of the new system. Finally, there is organizational capacity building included to help give START more resources to support implementation – in year one this is for consulting support of development of operational resources such as driver schedules, as well as internal transit planning. Beyond year one, \$25,000 is allocated towards part-time transit planning support, perhaps shared with other entities (more detail on this is included later in this chapter).

Revenue Sources

To support the final Route Plan, existing funding sources are estimated to remain the same with proportional growth among the various revenue sources. The historical revenue sources are shown in Table V-2. It should be noted that the final Route Plan costs presented in Table V-1 include allocations for Town of Jackson administration of START, which aren't reflected in Table V-2.

Other Potential Revenue Sources

START currently accesses a variety of funding sources for operating and capital expenses, including FTA 5311, 5339, and Low-No Emission Buses grant programs, as well as local funding from the Town of Jackson, Teton County, Teton Village Association, Jackson Hole Mountain Resort, and system fares. START has also utilized Special Purpose Excise Tax (SPET) to fund capital projects. While there is always

opportunity to increase these existing funding sources, the opportunities for significant growth in existing funding may be limited.

Table V-1: Final Route Plan - Operating and Capital Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses					
Town Shuttles	\$1,109,000	\$1,148,000	\$1,188,000	\$1,230,000	\$1,273,000
Teton Village Routes	\$2,715,000	\$2,810,000	\$2,908,000	\$3,010,000	\$3,115,000
Rafter J-Melody-South Park Route	\$198,000	\$205,000	\$212,000	\$219,000	\$227,000
Microtransit	\$633,000	\$655,000	\$678,000	\$702,000	\$727,000
Star Valley Commuter	\$419,000	\$434,000	\$449,000	\$465,000	\$481,000
Teton Valley Commuter	\$460,000	\$476,000	\$493,000	\$510,000	\$528,000
ADA*	\$300,000	\$311,000	\$322,000	\$333,000	\$345,000
Bikeshare	\$75,000	\$78,000	\$81,000	\$84,000	\$87,000
Grand Targhee	\$122,000	\$126,000	\$130,000	\$135,000	\$140,000
Operating Expenses Subtotal	\$6,031,000	\$6,243,000	\$6,461,000	\$6,688,000	\$6,923,000
Implementation Capital Expenses (excludes ongoing capital projects and fleet replacements)					
Downtown Transfer Point	\$10,000	\$10,000			
Bus stop improvements for new stops	\$10,000	\$10,000			
Stilson improvements	\$100,000	\$75,000			
Park and ride lot improvements	\$25,000	\$25,000	\$25,000		
Microtransit start-up costs	\$40,000				
Capital Expenses Subtotal	\$185,000	\$120,000	\$25,000	\$0	\$0
Startup Expenses (for accelerated implementation in 6-9 months after plan adoption)					
Years 1-2 inefficiencies	\$225,000	\$100,000			
Additional marketing, education, outreach	\$50,000	\$20,000			
Consulting support, staff capacity building	\$65,000	\$25,000	\$25,875	\$26,781	\$27,718
Startup Expenses Subtotal	\$340,000	\$145,000	\$25,875	\$26,781	\$27,718
Total Expenses	\$6,556,000	\$6,508,000	\$6,511,875	\$6,714,781	\$6,950,718
<i>Note: Assumes 3.5% annual inflation rate.</i>					
<i>* ADA estimate includes \$275,000 from FY2020 plus \$25,000 for Rafter J</i>					
<i>Source: LSC, 2020.</i>					

Description	Fiscal Year			
	FY 2018 Actual	FY 2019 Amended	FY 2019 Estimated	FY 2020 Recommended
Electronic Fare System Grant	--	\$183,000	\$178,400	--
SLIB START Grant (County)	--	\$110,000	--	\$467,460
FTA Wyoming 5311 Grant	\$1,588,610	\$2,000,000	\$2,000,000	\$2,000,000
FTA/WYDOT - Bus Replacement	--	--	--	--
ITD-FTA 5339 Capital	--	\$172,000	--	--
FTA Idaho 5311 Grant	\$70,472	\$171,230	\$171,230	\$171,230
FTA Idaho 5311 Grand Targhee Grant	--	\$116,598	\$116,598	\$116,598
FTA 5339/Wyoming Capital	\$23,363	\$1,715,702	--	\$2,320,000
Low - No Grant	--	--	--	\$2,290,000
Bus Shelter Grant	--	--	--	\$168,000
Route Plan RFP	--	--	--	\$80,000
Bike Share- Capital	--	--	--	--
Teton County Grant - Operations	\$461,757	\$584,423	\$584,423	\$782,657
Teton County Grant - Capital	--	--	--	\$727,703
Total Intergovernmental Revenue	\$2,144,202	\$5,052,953	\$3,050,651	\$9,123,648
START Transit Fares	\$273,557	\$275,000	\$282,500	\$291,000
START Fares - Star Valley Passes	\$98,908	\$87,541	\$90,000	\$92,700
START Fares - Star Valley Ticket	\$18,879	\$17,778	\$19,000	\$19,600
START Fares - Teton Valley Pass	\$70,036	\$76,825	\$77,000	\$79,300
START Fares - Teton Valley Ticket	\$39,952	\$38,475	\$38,475	\$39,600
START Bus - Commuter Subsidy	--	--	--	--
START Transit Contract Fares	\$275,367	\$315,000	\$315,000	\$315,000
START Advertising	\$11,100	\$8,000	\$8,000	\$8,000
Bike Share - Member Revenue	\$7,403	\$22,000	\$15,000	\$15,000
Teton Village Area 2 1% Transfer Fee	\$419,400	\$450,000	\$263,565	\$385,000
Short Term Rental Impact Fee	\$10,913	\$30,000	\$4,137	\$30,000
Total Charges for Services	\$1,225,515	\$1,320,619	\$1,112,677	\$1,275,200
Miscellaneous Revenue	\$37,621	\$4,500	\$452,064	\$13,000
Transfers In	\$377,801	\$430,914	\$430,914	\$1,235,748
Total START Bus System Fund	\$3,785,139	\$6,808,986	\$5,046,306	\$11,647,596

Source: Town of Jackson Town Manager's Recommended Budget FY2019-20.

In terms of new, stable funding sources, the best option would be a dedicated funding source from a tax mechanism. As discussed in Interim Report #1, the only current option for dedicated funding is through creation of a Regional Transportation Authority (RTA) but the current Wyoming statute is very limiting in terms of the maximum mill rate (current statute states that annual levy not to exceed one-half mill on the dollar of assessed valuation of the county or municipality, which would raise less than \$1 million annually) and the fact that funding must be renewed every four years by voter approval.

The best possibility would be a dedicated funding source for transit with long-term stability and higher taxation rates than currently afforded by the existing RTA statute – this would require a change to Wyoming state law to allow such a new funding source.

START should stay engaged in all local and state efforts to create a dedicated transit funding source, as well as continuing to maximize all existing local, state, and federal funding sources for operating and capital projects.

Fares

START is proactively analyzing its fare structure to balance ridership and revenue. START should continue to develop creative bulk discount programs for commuter passes supported by employers, as well as private and public sector partnerships for fares and passes.

PHASING

The potential timing and phasing of the final recommended Route Plan could follow one of three implementation paths:

Path 1 - All at once	Path 2 - Commuter/regional first	Path 3 - Town Shuttle first
<ul style="list-style-type: none"> • Implement all route and service changes together in first year • May require 1-2 years of pre-planning 	<ul style="list-style-type: none"> • Focus on implementing regional and commuter service recommendations first including changes to Star/Teton Valley, new Rafter J, and Teton Village • Would keep Town Shuttles the same for 1-2 years, which would be more expensive short-term, but pushes off decision about how to serve East Jackson 	<ul style="list-style-type: none"> • Focus on implementing changes to Town Shuttles and East Jackson, given that these are the most significant changes, plus likely add Rafter J • Would allow Town changes to be worked out before other changes are implemented

However, given how interrelated the options are and how the final Route Plan is designed to be a functioning system with all routes working together, Path 1 is the recommended implementation path.

SUPPORTING INFRASTRUCTURE

Downtown Transit Hub

To facilitate implementation of the final Route Plan, a downtown transfer point is envisioned and included in capital financial requirements. The recommended location of this facility is one full block of Pearl Ave. between Millward St. and Glenwood St., as well as the block face on Millward St. that is directly across from the downtown parking garage. This location is recommended because it is:

- Proximate to the core of downtown activities and primary rider origin and destination points
- Easy to access on foot or by bike
- Operationally efficient for buses without requiring undue time
- Located near long-term parking opportunities and public facilities such as a public restroom

This new downtown transfer point will utilize existing street infrastructure to consolidate the two existing bus stops east and west of this location along Pearl Ave. to facilitate six bus pullout locations along the existing curb face and will involve relatively simple improvements including:

- Using street markings and paint to indicate where bus stops are
- Signage and dedicated locations for particular routes going in different directions
- Benches and customer information
- Incorporating into public street right-of-way in the vicinity of the existing downtown parking structure
- Possibly using the stairwell entryway of the parking structure on the northwest corner of the building as a passenger waiting area
- Designating the curb face along Millward, directly across from the parking garage, as the spot where microtransit vehicles pickup and drop-off

The development of this downtown transit hub could be incremental and start with these modest street improvements described above, and develop over time into a more robust facility with a long-term vision of more of a mobility hub concept.

Transit Prioritization

According to the *Transit Improvements Assessment for the Jackson-Wilson Road (Snake River Bridge) Draft Final Report (Kimley Horn, October 2019)*, transit prioritization strategies applied in and around the Stilson facility could yield operational savings for relatively small infrastructure investments, as shown below in Table 11 from that report.



Table 11: Criteria Screening Results

	Recommendation	Capital Cost	Annual Operations/Maintenance Savings
1A	Construct a traffic signal on WYO 390 at the existing boat launch access road along with a transit-only access roadway to Stilson Ranch Road/Beckley Park Way with a northbound left-turn lane for buses only (Strategy 6)	\$300,000	\$87,500
	OR		
1B	Construct a traffic signal at the existing intersection of WYO 390 and Stilson Ranch Road/Beckley Park Way (Strategy 8)	\$210,000	\$64,200
2	Relocate transit stops to WYO 390 consistent with the Stilson Master Plan	\$165,000	\$184,700
3	Implement system-wide TSP*	N/A*	\$18,100**

* Cost depends on the number of signals where TSP is implemented as well as the number of buses where communication devices are installed; therefore, a system-wide cost cannot be estimated at this time.

**Savings as a result of implementing TSP could only be calculated for the WYO 22/WYO 390 intersection. Implementation across the whole Teton Village route would result in a higher corridor travel time and operations/maintenance benefit.

The report doesn’t analyze the impact that shoulder running buses or a full BRT concept using an HOV lane might have on operational efficiency, but LSC recommends that a full analysis be conducted to understand and quantify the possible benefits. A simple, “back of the envelope” calculation yields:

If a BRT/HOV lane (or bus on shoulder operations) between Jackson and Teton Village provided an average travel time benefit of 10% overall, applied to the 28,292 total revenue hours for the Teton Village Route for the final Route Plan, this yields an annual savings of 2,829 hours that would create an annual operational savings of approximately \$260,000.

Stilson Transit Center and Park and Ride

The Stilson Transit Center and Park and Ride is an asset to the START system that should be improved over time, in partnership with Jackson Hole Mountain Resort (JHMR) and Teton County, who jointly operate the facility. The facility currently provides all-day parking for skiers and JHMR employees with a basic bus stop and passenger waiting area.



In the future, this facility should be improved to allow for easier and quicker transit access, more comfortable passenger waiting facilities, and dedicated parking for general public park and ride designed to capture commuters traveling from points west and north of Stilson to points within Jackson.

Examples from Other Resort Communities

Many other resort communities have developed and improved over time similar transit facilities in places such as Park City, UT; Avon, CO; Tahoe City, CA; and Vail, CO.



Characteristics of other facilities include:

- Dedicated bus-only access lanes and pull-outs
- Space for 4-8 buses, depending on location and route demands
- Architecture that matches the community
- Safe and accessible pedestrian environment
- Comfortable and inviting passenger waiting areas with bathrooms, transit information, information desks, real-time digital information boards, and plenty of seating

Park and Ride Intercept Lots

Other park and ride lots need to be developed to support the final Route Plan. Locations for park and ride improvements include:

- Upgrades and formalization (through written agreements) of existing park and ride locations along the commuter routes
- New park and ride at Rafter J to support the new Rafter J-Melody Ranch route
- Minor upgrades and memorandum of understanding with Teton County for the existing parking lot at the corner of County Rd. 221 and US Hwy. 191 at the entrance to Melody Ranch
- Formalization (through written agreements) of parking in either the KMART or Albertson's lots, where many people are already parking to catch START buses



A small amount of capital funding is included in the plan to support upgrades such as signage, simple bus shelters or benches, paved or concrete landing pads, and grading or paving of existing lots.

ORGANIZATIONAL CAPACITY

START will need additional organizational capacity to implement the final Route Plan – this capacity is included in the financial plan:

- In Year 1, this organizational capacity includes consultancy support for implementation as well as one third of a transportation planner
- In Years 2 and beyond, the time to support one-third of a transportation planner is included and continues throughout the five years of the plan

The funding shown to support transportation planning functions is envisioned to be shared by the Town of Jackson, Teton County, and other possible partners. This transportation planning function may not be housed at START and may ultimately be a Town or County employee, or possibly an employee of a new entity such as a Regional Transportation Planning Organization (RTPO). An RTPO has been discussed as part of the Integrated Transportation Plan (ITP) development process – it is recommended to help support implementation of the ITP and should be leveraged to also support implementation of this plan.

IMPLEMENTATION STEPS

Once this Route Plan is adopted, there are many steps to be taken to move towards implementation and route/service operations of the new system. These steps would happen between plan adoption and the start of transit operations under this Route Plan.

1. Financial
 - a. Finalize FY2021 budget according to the financial plan.
 - b. Make necessary service adjustments if final budget is lower or higher than expected (implementation may need to be delayed or slowed if budget is much lower than requested).
2. Organizational and Internal
 - a. Prepare for winter 2020-2021 hiring and beyond to support the final Route Plan.
 - b. Develop RFP for consulting support, release, and award.
 - c. Work on internal systems (scheduling, run cutting, work assignments, etc.) to support transit operations.
 - d. Refine and make final adjustments to service plan for each route.
3. Microtransit
 - a. Develop RFP for turn-key operations, release, and award.
 - b. Finalize service area boundaries.
 - c. Determine policies and procedures, as well as service rules.
4. Marketing
 - a. Develop RFP for marketing support, release, and award.
 - b. Create messaging, marketing collateral, and strategy for promotion and public education.
 - c. Implement marketing strategies and continue to market throughout the first few years of new route operations.
5. Infrastructure
 - a. Prioritize bus stop and downtown transfer point improvements; develop implementation plan.
 - b. Coordinate necessary park and ride improvements with local government entities, as well as private business, and seek required approvals such as encroachment permits or operating agreements.
 - c. Apply for appropriate grants according to application timeframes.
 - d. Construct infrastructure improvements needed for transit service.
 - e. Work on long-term development strategy for larger projects such as Stilson improvements, BRT/HOV, and transit prioritization infrastructure.
6. Partnerships and Long-term Funding Strategies
 - a. Refine years 2-5 operating and capital budgets and communicate with local funding partners on long-term needs and funding scenarios.
 - b. Prepare and submit grant applications for vehicles, facilities, and operating funds.
 - c. Create long-term funding vs. service allocation strategy with input from all partners.
 - d. Lead discussion with local business community on funding partnership possibilities.
 - e. Investigate innovative and unique funding opportunities.
 - f. Communicate proactively with elected officials and all partners on progress, challenges, opportunities, and adjustments.
 - g. Pursue RTPPO or other organizational structures that meet long-term transit goals.



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Chapter VI: Summary of Previous Work Products

Chapter VI presents a summary of previous work products, including Interim Report #1, Interim Report #2, the PowerPoint on the Preliminary Service Alternatives, and the PowerPoint on the Preferred Service Alternatives. Please visit the following link to view each of the previous work products discussed in this chapter: <https://www.lctrans.com/start-deliverables>.

INTERIM REPORT #1

Interim Report #1 was the first deliverable completed as part of the START Bus 2020-2025 Route Plan planning process. The report was available in October 2019 and contained the following eight chapters:

Chapter I provided an introduction with the project overview, purpose, and context.

Chapter II presented an overview of the demographics and visitor statistics of the study area as they relate to transit, as well as transit demand estimations and local travel patterns. While the population for the Town of Jackson and Teton County has remained relatively stable over the last 10 years, like many mountain resort communities, the Town of Jackson's relatively low year-round population of approximately 10,500, swells to over 50,000 people during peak times, which poses unique challenges in providing public transportation. Visitation statistics include:

- **Overnight Lodging Visitation** – In 2017, Teton County welcomed over 1.8 million overnight visitors to the area.
- **Skier Days** – During the 2018-2019 season, the Jackson Hole Mountain Resort recorded a record number of 715,100 skier days.
- **Park Visitation** – Recreational visitors to Grand Teton National Park have remained fairly steady over the last five years, with a strong summer peak (795,725 in July 2019) and winter lows (43,913 in February 2019).
- **Enplanements** – The number of enplanements at Jackson Hole Airport has grown substantially from 284,397 in 2009 to 383,178 in 2018, representing a 34.7 percent increase in the last decade.

Chapter III reviewed the progress made on the Integrated Transportation Plan's (ITP) goals to date. The ITP established a combination of actions to reduce the growth in Vehicle Miles Traveled (VMT) by almost half by 2035 versus a status quo approach. At the heart of the Plan Scenario is a doubling of transit ridership from 2013 to 2024, then a redoubling from 2024 to 2035, as well as an additional five percent shift from single occupant vehicle trips to non-driving modes (walk, bike, transit) by 2035.

Chapter IV provided an overview of the public outreach plan, which contained five phases:

- Phase 1 – Stakeholder Interviews, Community Familiarization
- Phase 2 – Rider Survey, Focus Groups, Driver Meeting, General Community Survey
- Phase 3 – Route Options Workshop
- Phase 4 – Community Survey on Route Options
- Phase 5 – Draft Presentation

Chapter V contained an analysis of START's four existing routes, including route structure, fare structure, ridership, and performance. Individual route profiles were also included at the end of the chapter. During FY 2019:

- The Teton Village Route provided almost 534,000 passenger trips, averaged approximately 17.6 passengers per hour, had an average cost per hour of \$69.17, and had an average cost per passenger-trip of \$3.93.
- The Town Shuttles provided almost 483,000 passenger trips, averaged approximately 19.2 passengers per hour, had an average cost per hour of \$61.83, and had an average cost per passenger-trip of \$3.22.
- The Star Valley Commuter Route provided over 32,000 passenger trips and averaged approximately 11.4 passengers per hour. The Teton Valley Commuter Route provided over 33,000 passenger trips and averaged approximately 11.4 passengers per hour. Combined, the two commuter routes had an average cost per hour of \$166.75 and had an average cost per passenger-trip of \$7.25.

Chapter VI presented a budget and financial analysis, including revenues, expenditures, and a cost allocation model.

Chapter VII discussed current infrastructure needs for park-n-rides, bus roadway improvements, and a transit hub.

Chapter VII concluded the report with a summary, as well as a discussion of possible evaluation criteria and next steps. LSC identified an initial list of criteria for evaluation of the initial service delivery alternatives, including:

- Total Ridership
- Productivity
- Efficiency and Effectiveness
- Segment Cost
- Passenger Cost
- Compatibility with START Service Objectives and Board Goals
- Financial Sustainability
- Environmental Benefits
- Traffic and Congestion
- Ease of Use for Passengers
- Ease of Implementation
- Impact on Applicable ADA Regulations

POWERPOINT ON THE PRELIMINARY SERVICE ALTERNATIVES

LSC was onsite in November 2019 to present the preliminary service alternatives. The presentation contained a recap of the rider survey results, a summary of the online community survey results, a review of mobility trends and transit planning best practices, and discussion on the five preliminary system alternatives. The review of emerging mobility trends included:

- **Microtransit** – a form of demand response transit using a smartphone app to match trip requests in real-time to dynamic/flexible routes. Microtransit is successful 1) with a smaller

service area, usually connected with transit center, with urban, near urban density; 2) ability to group trips to/from key destination at similar times; 3) fare structure that balances convenience and ridership; and 4) extensive marketing. Microtransit can be contracted turn-key or agency operated with technology. Productivity is generally lower than fixed-route bus (three to six passengers per hour) and may cost more per hour due to the need for multiple vehicles. Vehicles for microtransit are smaller than fixed-route service, such as vans or even small electric shuttles.

- **Transportation Network Company (TNC) Partnerships** - generally used to enhance existing service, as well as provide first-mile last-mile solutions and extend paratransit service. TNC partnerships work best for short trips, usually non-work, in non-rural areas. They can have a lower upfront cost, but success is not guaranteed. TNC partnerships must define subsidy limits and eligibility, address accessibility and drug testing, may not be eligible for federal funding, require a supply of available drivers, and run the risk of lack of control over service consistency, availability, fares, and ridership data.
- **Mobility Hubs** – an evolving concept that takes dedicated space and a bike-pedestrian environment. Mobility hubs are seamless and interconnected with a technology focus, including: 1) single-point, app-based ticketing and trip planning; 2) real-time information across modes; and 3) smart infrastructure.
- **E-Bikes and E-Scooters (Micro-Mobility)** - E-bikes are electric-assist bike-share bikes and in Park City, e-bikes connect with battery electric buses. Scooters have recently surpassed bike-share in total trips taken, but they create right-of-way and safety challenges. Scooters are not yet present in many mountain resort communities.
- **Bus on Shoulder / Bus Rapid Transit (BRT)** – BRT provides a dedicated lane or corridor that is quicker than car travel with transit prioritization. The service has limited stops with train style platforms and provides headways of 15 minutes or less. Bus on shoulder uses existing or slightly expanded shoulder at least 11’ wide, where buses bypass traffic by using shoulder combined with transit prioritization. Bus on shoulder creates operational efficiency and motivation to use the bus, and is much cheaper than BRT systems.

The goal of the preliminary alternatives was to provide potential ideas to spur discussion and input. LSC created five preliminary system alternatives, including:

- #1: Expand System Coverage by Adding New Routes
- #2: Maximize Fixed Route Frequency with Microtransit
- #3: Maximize Fixed Route Frequency without Microtransit
- #4: Reduce Regional Traffic Congestion, BRT/HOV
- #5: Balanced Approach

INTERIM REPORT #2

Interim Report #2 was available in January 2020. It contained five chapters organized with a recap of input received on the draft service options presented in the previous Interim Report #1, followed by a preferred transit system and implementation. The five chapters included the following:

Chapter I provided an introduction with a review of the work completed to date, as well as a previous of Preferred Alternative 1A and 1B, explored in detail later in the report.

Chapter II reviewed the five preliminary system alternatives and summarized input from the START Board of Directors, the Advisory Committee for this study, and critical stakeholders from meetings and presentations conducted during November 2019. Key themes included:

- Alternatives 4 and 5 were the most preferred options, with Alternative 5 being the most highly rated.
- Microtransit is a concept that is interesting but comes with trade-offs; there was discussion of including preferred alternatives with and without microtransit for East Jackson.
- An express version of Teton Village route seems to be needed.
- South of Jackson is a high priority for new service.
- Service to/from the airport might need to come at a later point.
- Investments in increased commuter service with more roundtrips per weekday should be a part of the preferred/final alternative – timing should be filled in throughout the day to provide more commuter options for non-traditional work shifts.
- A new version of Teton Village route connecting to Smiths could work well in winter season.
- There should be an improved year-round level of service for Teton Village for what is currently the Green route variation – the addition of service in the summer of 2019 to improve frequency to every 30 minutes should be considered.
- Consider START for operations of the current JHMR contracted extra transit service to/from Stilson Transit Center.
- We have to work within existing resources, but we also need to be aspirational and identify growth opportunities.
- The need for a centrally located downtown transit hub is understood and supported but exact location needs further consideration and evaluation.

Chapter III presented the two preferred alternatives and associated service plan details.

Chapter IV contained the implementation plan, including the operating and capital requirements necessary to implement the preferred alternatives. In addition, initial ideas for potential timing and phasing of the final recommended Route Plan were presented.

Chapter V concluded the report with a review of key strategic questions, a discussion of details to come in the Final Report, and an overview of the next steps for soliciting community input and refining the preferred alternative. The key strategic questions included:

- How does East Jackson receive service? Microtransit (Alternative 1A) or fixed route bus (Alternative 1B)?
- What is the appropriate level of service for the Teton Village route variations? Do the route versions and service levels proposed in both Alternative 1A and 1B meet community goals and expectations?
- With an increase of up to eight roundtrips per day in commuter service proposed in both alternatives, does this represent enough of an increase in commuter service?
- Is the community willing to accept possibly walking a little further, or a transfer, in order to access much more direct and higher frequency service?
- What is the exact routing and service level of the new Rafter J/Melody Ranch route?
- What additional resources are needed to support the preferred alternative?

- How can the final service plan be refined to help maximize financial resources; for example, having less evening service during the off-seasons during the first couple of plan years?
- If new funding resources become available, what are the top priorities for additional investments? Do we invest in additional service for the routes and services defined in the preferred alternatives or should other new services be proposed? A prioritized “wish list” should be developed.
- How does the final service plan impact existing funding partners and how can the impacts be addressed or mitigated?
- Where exactly should the proposed Downtown Transit Hub be and what is the scale and timing of this major capital project?
- How would the preferred alternative benefit from any roadway improvements that prioritize transit operations?
- Should a fare-free concept be instituted system-wide? What would be the ridership and capacity impacts? And how would current fare revenue be replaced?

POWERPOINT ON THE PREFERRED SERVICE ALTERNATIVES

Following input received on the initial alternatives, the LSC team developed two preferred service alternatives, Alternative 1A and Alternative 1B. Both of the Preferred Alternatives are based on a few key concepts, including:

- More efficient and direct routing overall
- Higher frequency to maximize ridership
- Reducing Vehicle Miles Traveled (VMT) within Teton County, WY
- Increased commuter and regional services
- Adding a new route to connect to points south of the Town of Jackson
- Considering microtransit as a possible service delivery model for one of the preferred alternatives

Alternative 1A and 1B are the same, except that Alternative 1A serves East Jackson with microtransit and Alternative 1B uses a fixed route to serve East Jackson and areas south of Jackson.

Both Preferred Alternatives provide:

- More direct Town Shuttles with improved frequency
- Simplified Teton Village routes, along with a new high frequency express route and a route version from Smiths, and improved year-round frequency
- Provide increased service on commuter routes with more direct routing
- New connectivity to areas south of Jackson (Melody Ranch, Rafter J) via a new fixed route
- Revised service in East Jackson (either microtransit with 1A or fixed route with 1B)