2022 TRANSIT DEVELOPMENT PLAN

RAPID CITY

April 2022

RTS
RAPID TRANSIT SYSTEM

RAPID CITY AREA
Metropolitan Planning Organization

SRF

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EXECUTIVE SUMMARY

Background

As a department of the City of Rapid City, Rapid Transit System (RTS) offers fixed route bus service and Americans with Disabilities Act (ADA) complementary paratransit within city limits. RTS and the Rapid City Area Metropolitan Planning Organization (RCAMPO) developed this Transit Development Plan (TDP) to provide strategic guidance for a sustainable transit system to serve the community. The TDP will also serve as the basis for the transit element of the regional transportation plan.

The TDP is organized as follows.

- Part 1: Introduction describes RTS as it currently operates its fixed route and paratransit service and identifies the previous work the TDP builds on.
- Part 2: Existing Conditions and Needs Assessment examines in detail the demographics of Rapid City, housing and employment density, and ridership patterns by route, time of day, and time of year. A peer analysis compares RTS with six similar transit transit agencies on key performance indicators.
- Part 3: Public Engagement describes the work done to involve transit riders and other stakeholders in the planning process and summarizes their input. This effort included an onboard survey, a community survey, and several in-person public events.
- Part 4: Service Recommendations details the recommended changes to service developed in response to the existing conditions analysis and public engagement.
- Part 5: Non-Service Recommendations prepares a capital plan for the agency, summarizing the condition of its current assets and estimating capital spending needs for the next ten years. In addition to scheduled vehicle replacement, the capital plan recommends upgrades to farebox, vehicle location, and passenger counting technologies.

Service Recommendations

The service recommendations described in Part 4 are summarized here for ease of reference.

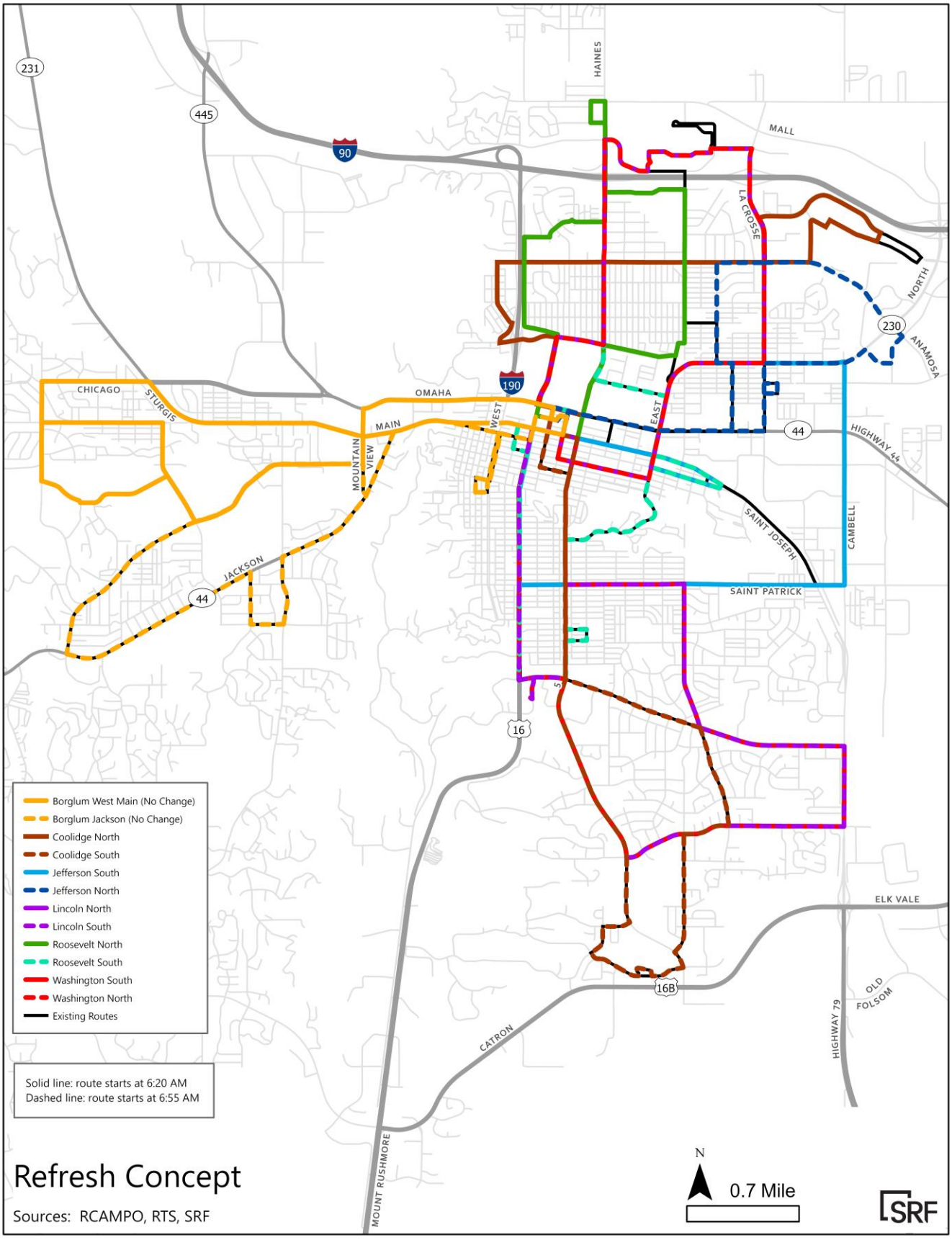
Refresh

First, a set of revenue-neutral changes to the current routes is recommended. This “refresh” program can be carried out in the near term. Although small at first glance, the refresh makes meaningful improvements to RTS service. Among other changes, it adds a new service area, improves the efficiency of the loop system, and promotes reliability by making the operating schedule more consistent.

Figure 1 shows the full refresh concept overlaid on existing routes for comparison. The main changes are as follows:

- Southbound service on Coolidge South is shifted from Mount Rushmore Road to 5th Street.
- Coolidge North undergoes a similar change – by shifting to North 5th Street and Haines Avenue, it becomes bidirectional along Anamosa.
- The Jefferson refresh eliminates an unproductive half-mile stretch of Saint Joseph Street from the Jefferson Northeast loop and adds a new service area near the intersection of Anamosa and East North Street, where significant recent development has occurred. The Jefferson Southeast loop is shifted to travel on Mount Rushmore Road.
- Some segments are exchanged with Jefferson and other routes. A segment of Roosevelt South moves to New York Street.
- Lincoln and Washington are each slightly modified so that they create identical, complementary loops. The stop serving the South Dakota Department of Labor and Regulation (north of Rushmore Mall) is removed.

Figure 1: Refresh Concept



Service Hour Expansion

The federal Infrastructure Investment and Jobs Act of 2021 transit funding over the next five years is estimated to be 40 percent more than current federal funding. Given a 40 percent increase in operating budget, RTS could extend service in the following ways.

Table 1: Estimated Annual Cost of Service Hour Extensions

Extension	Hours per Route	Routes	Days	Cost (2019$)	% 2019 Fixed-route Budget	Inflation Rate	Cost (2022$)
Evening	2.3	6	255	$234,049	16.96	3%	$255,752
Sunday Service	7	6	51	$142,464	10.32	3%	$155,674

Source: SRF analysis of NTD data

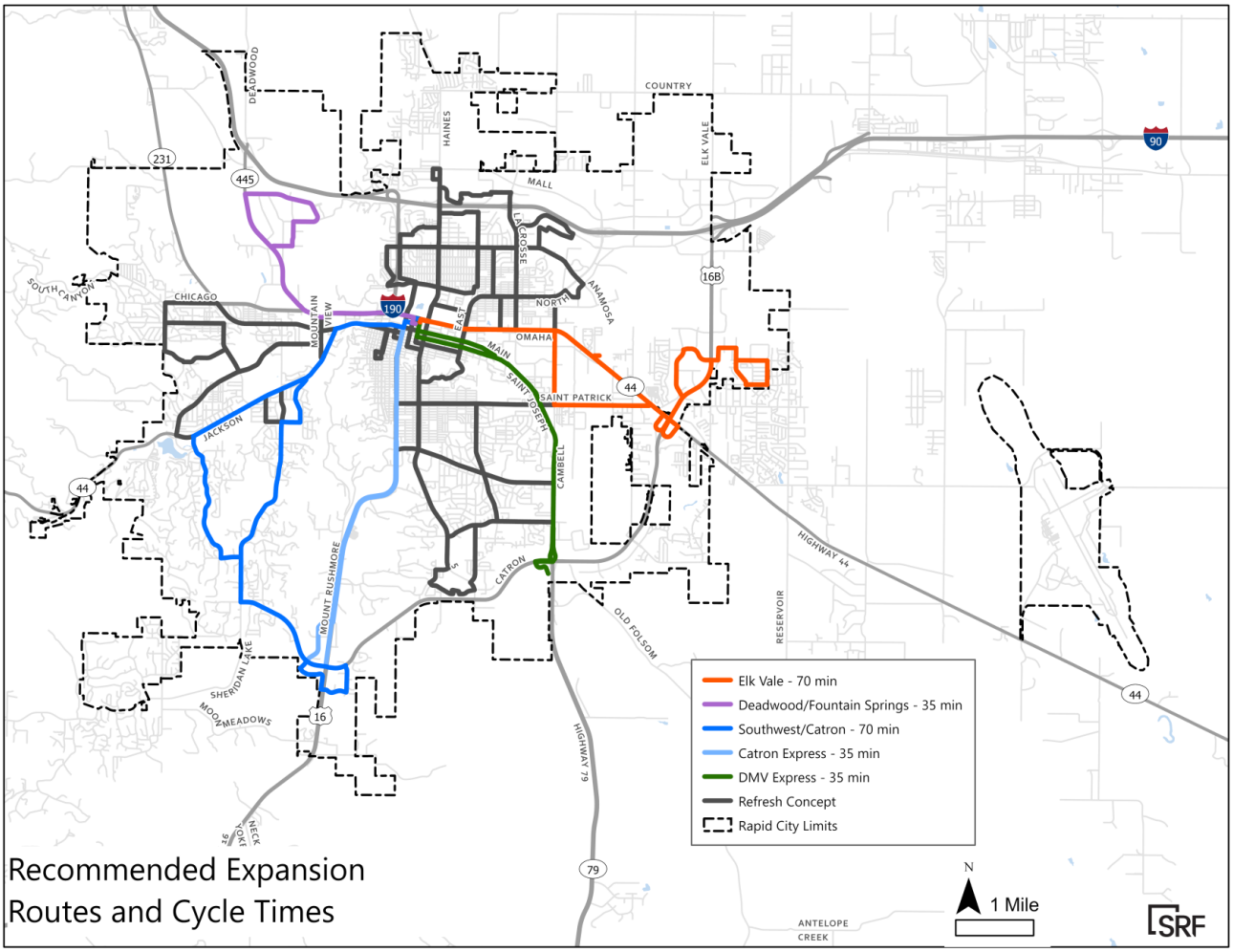
Fixed-Route Expansion

RTS has received repeated requests for service to new areas for many years. This report recommends five possible new routes for consideration. Each route is designed to build off the refresh concept, on the assumption that the first phase of service changes will have been adopted by the time service is expanded.

The expansion routes are shown in Figure 2 and labeled with the time it would take to complete one run from start to finish. The cost of operating one 70-minute route, or two 35-minute routes combined, is estimated at $239,072.

- Elk Vale: This route leaves MBTC and travel east on Omaha, south on Cambell, east on Saint Patrick, then north on Elk Vale Road. Turning right on Homestead Street, it passes commercial and residential destinations as well as two schools before looping back across Elk Vale Road and onto Concourse Drive. It returns to MBTC via Highway 44, stopping once at Western Dakota Tech.
- Deadwood/Fountain Springs: This lollipop-shaped route fulfills requests for service on Deadwood Avenue and the residential/institutional facilities in Fountain Springs. It serves the DakotaLink office on Deadwood Avenue.
- Southwest/Catron: This route fulfills requests for service to Catron, Sheridan Lake Road, Southwest Middle School, and the southwest residential growth areas more generally. It travels on Park Drive outbound and Sheridan Lake inbound for maximum coverage, although the route could likely be adjusted to better match local needs.
- Catron Express: This route serves only the apartments and businesses directly surrounding the intersection of Catron with Mount Rushmore Road/Highway 16.
- DMV Express: This route fulfills two requests: service to the Department of Motor Vehicles, and service to a prison reentry center directly next door to the DMV.

Figure 2: Expansion Routes

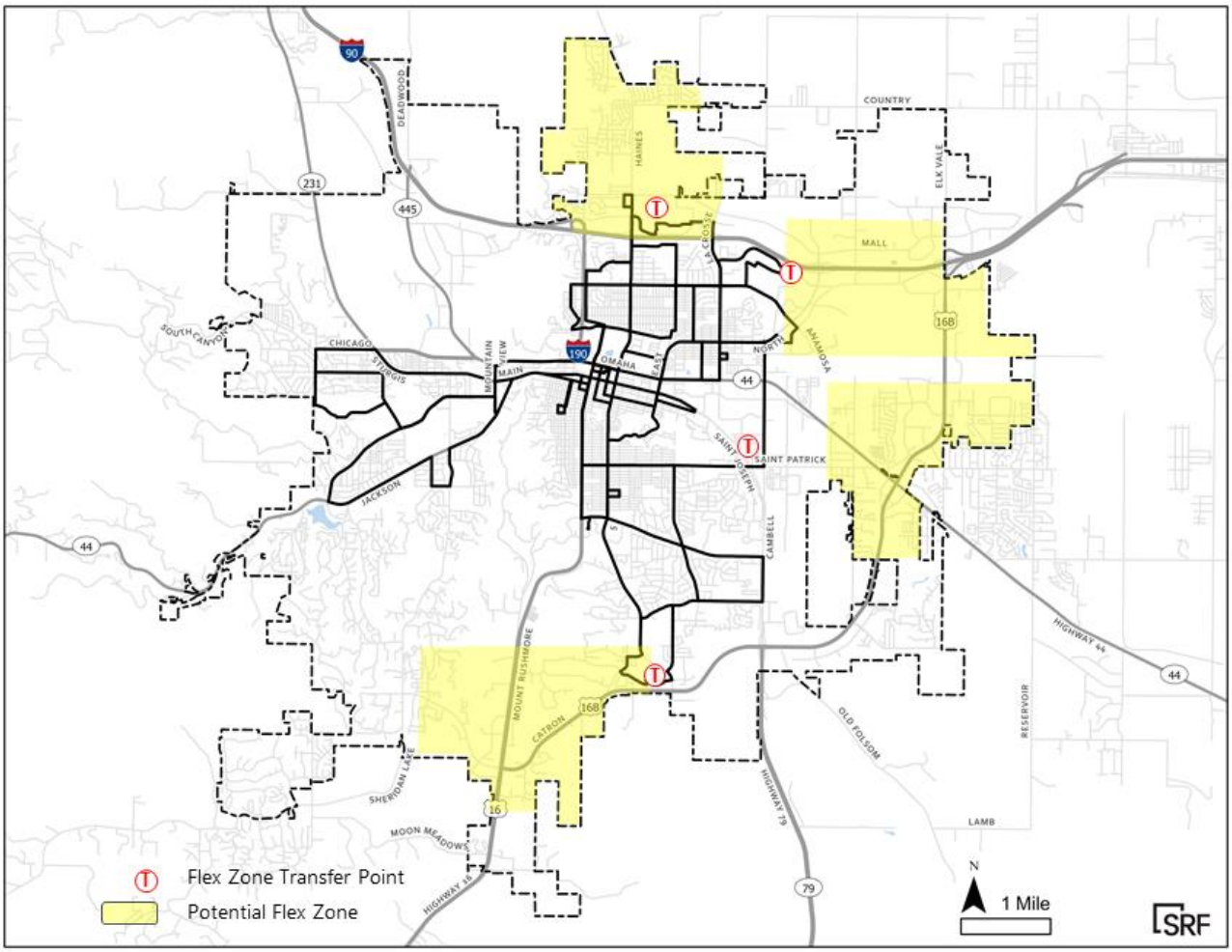


Demand-Response

RTS has historically provided only fixed-route service to the general public, and this mode was the primary focus of the TDP. However, many transit agencies have taken advantage of technology advances to pilot a new generation of demand-response service for the general public. Also known as microtransit or flex zone service, demand-response uses smaller vehicles to circulate through a defined zone, doing pickups and dropoffs at more locations than fixed-route service can serve.

Several possible flex zones are shown in Figure 72. The yellow areas indicate a zone of four to six square miles in which trips would need to start and end. The red Ts mark locations where customers could transfer to fixed-route service. The estimated cost of a one-year pilot – covering only one of the flex zones – is $410,000.

Figure 3: Potential Flex Zones



PART 1: INTRODUCTION

Introduction

Rapid Transit System

As a department of the City of Rapid City, Rapid Transit System (RTS) offers fixed route bus service and Americans with Disabilities Act (ADA) complementary paratransit within city limits. Fixed-route service has been branded as Rapid Ride and paratransit as Dial-a-Ride. In 2019, RapidRide provided more than 400,000 passenger trips and Dial-a-Ride approximately 78,000 trips, using a fleet of 37 buses. Since the initiation of the Youth Ride Free Campaign in 2016, a substantial number of trips have served youth under 18 – amounting to more than 340,000 in total.

Project Purpose and Scope

RTS and the Rapid City Area Metropolitan Planning Organization (RCAMPO) developed this Transit Development Plan (TDP) to provide strategic guidance for a sustainable transit system to serve the community. The TDP will also serve as the basis for the transit element of the regional transportation plan.

The overall desired outcome for the TDP is to provide a public transit system that offers travel options to residents, employees and visitors who cannot or choose not to drive. Other outcomes for the TDP are to:

- Improve the efficiency of the existing service
- Assess opportunities to serve areas where requests for service have been received through other public involvement programs
- Meet needs expected from future regional growth
- Develop operating and capital cost estimates to serve future growth areas

The project scope includes the following:

- Identification of issues
- Service evaluation, including performance indicator evaluation and comparison with peer agencies
- Development of recommended fixed-route service plans
- Exploration of additional service concepts as warranted
- Development of a capital asset plan

Project Team

The TDP project team was led by the Long-Range Planner at RCAMPO and by the Transit Manager at RTS. Staff from SRF Consulting provided technical expertise and content creation. A Study Advisory Team (SAT) met periodically over the course of the project to provide input and oversight.

Transit System Overview

Fixed-Route Service

Rapid Transit System operates six regular fixed routes on weekdays and Saturdays. Each of the six routes consists of two alternating loops, described below and illustrated in Figure 5 (page 6).

Each loop begins and ends at the Milo Barber Transportation Center (MBTC) in downtown Rapid City. RTS uses a pulse system, with all six buses scheduled to depart together at 35-minute intervals. The agency term for a run beginning at a given time is a "lap." On weekdays, the first lap departs at 6:20 AM and the last lap departs at 5:25 PM. On Saturdays, the first lap departs at 9:50 AM and the last lap departs at 4:15 PM. Upon return to MBTC, there is a layover time of 7 to 10 minutes between laps.

Routes

The Borglum route serves Rapid City's Westside, including Oyate Health Center, West Middle School, Canyon Lake Senior Citizens Center, and West Family Fare. The West Main Street loop runs along West Main and Canyon Lake Drive, while the Jackson Boulevard loop travels primarily on Canyon Lake Drive and Jackson Boulevard. Stevens High School and Black Hills Works are served via a scheduled deviation twice a day.

The Coolidge route has two generally non-overlapping loops. The Northbound loop serves Wal-mart North, Rushmore Crossing, multiple schools, and (on request) the Community Health Center. The Southbound loop travels along 5th Street, Parkview Drive, Elm Avenue, Fairmont Boulevard, and Mount Rushmore Road. It is the only route serving Wal-Mart South (on request).

The Jefferson route's Southeast loop runs along St. Patrick Street, Cambell Street, and East North Street, with service to the South Dakota School of Mines. The Northeast Loop provides opposite-direction service on Cambell and portions of East North, but travels along St. Joseph Street rather than 5th and St. Patrick. It also extends further north to Knollwood Drive, serving Oglala Lakota College and Knollwood Heights Elementary.

The Lincoln route has two non-overlapping loops. The Northbound loop travels north on 5th Street to Disk Drive, North La Crosse Street, and Mount Rushmore Road, serving Rushmore Mall, the Social Security Administration, and Central High School. The Southbound loop travels south on Mount Rushmore Road and serves Monument Health, the VA clinic, South Middle School, and Robbinsdale Elementary School.

The Roosevelt route provides service that largely overlaps with at least one other route. Its Northeast loop serves the Roosevelt Park Ice Arena, several schools, and the Rushmore Mall. Its Southeast loop serves the YMCA, Monument Health, and the Star Village apartment complex.

The Washington route provides entirely overlapping service with other routes, via its Southbound loop on 5th Street, East Minnesota Street, and Elm Avenue, and via its Northbound loop on North Lacrosse Street, Disk Drive, and Haines Avenue. Key destinations include Monument Health and Rushmore Mall.

Until recently, RTS provided tripper service. For the past several years, St. Elizabeth Seton Elementary School and Southwest Middle School have been served by morning and afternoon runs roughly following the Borglum route. A pre-pandemic shopping tripper made two Friday runs between low-income housing and Wal-Mart South, roughly following the Coolidge route. As of autumn 2021, all trippers were suspended due to operator shortages.

Figure 4: Waiting to Board at Milo Barber Transportation Center

Dial-A-Ride

Door-to-door paratransit service is available to residents of Rapid City whose disability prevents them from using the fixed-route bus system. This ADA complementary paratransit service is available from 6:20 AM to 5:30 PM on weekdays and from 8:00 AM to 5:40 PM on Saturdays. Trips can be scheduled from 14 days before the trip to 3:30 PM on the preceding day. The service is available anywhere within city limits, although there is an extra charge for trips starting or ending more than three-quarters of a mile away from fixed routes.

City View Trolley

In the summer months, a tourist-oriented trolley service offers narrated tours of local points of interest. It operates Monday through Saturday, June through August, with the first hourly run departing MBTC at 10:00 AM and the last at 4:00 PM. The route includes museums, parks, and other sites of interest, primarily in downtown Rapid City and the Westside.

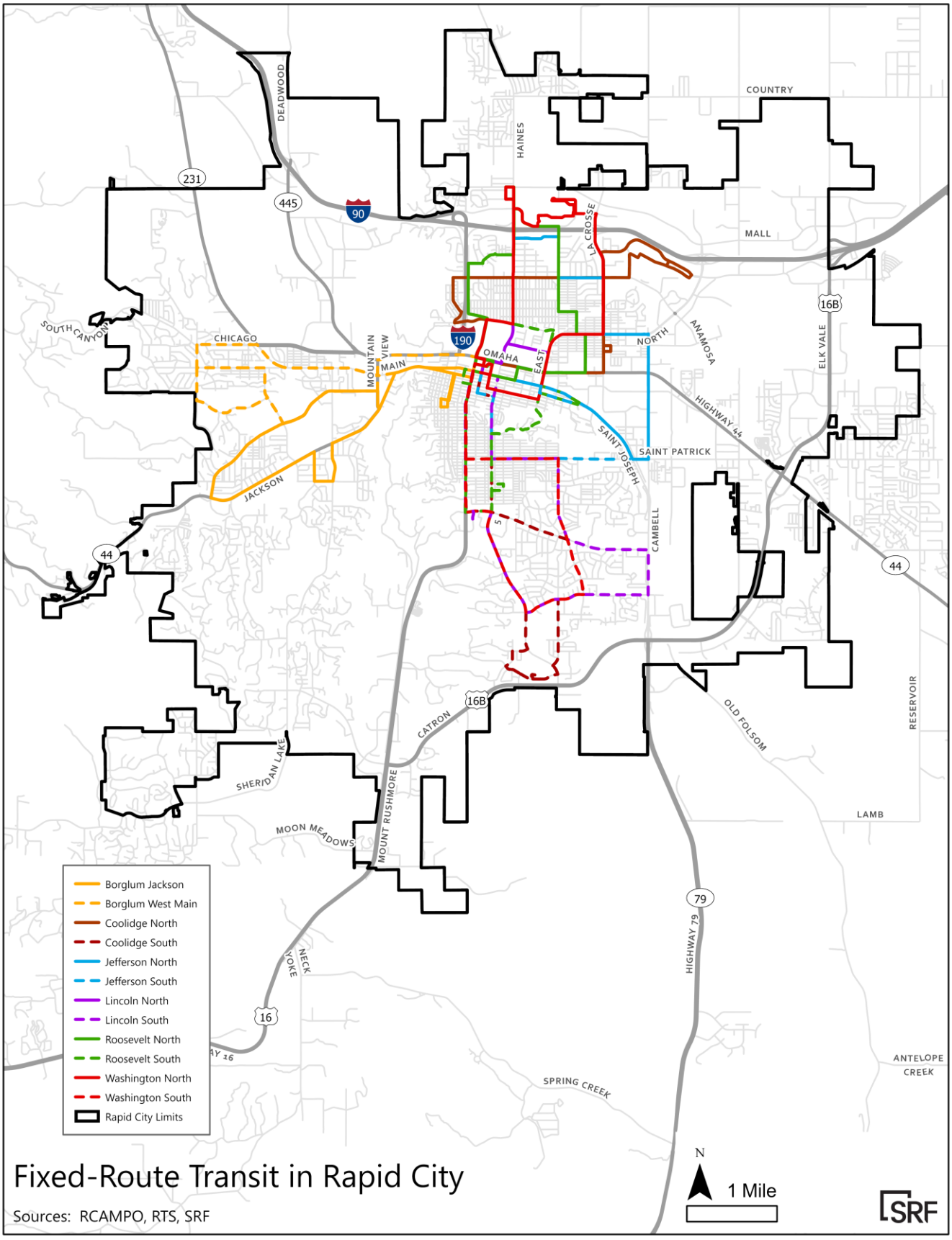
Staff

In addition to the Manager (Megan Gould) and Transit Operations Coordinator (Kendra Magelky), RTS functions with two route supervisors, two dispatchers, one custodian, and 27 bus operators. Three operators are temporary employees; there are also four other temporary employees in various positions at the agency. Buses are cleaned in-house, but mechanical maintenance and repairs are contracted out.

Operator availability has been a limiting factor in the level of service that RTS is able to deliver. A shortage in 2021 forced RTS to shorten the City View Trolley season and to end school trippers in the 2021-2022 academic year. This was despite a union contract raising driver pay to $17.79 per hour. Although competitive with other transportation jobs, this is lower than the average wage in the metropolitan area ($21.47 as of May 2020[1]).

[1] U.S. Bureau of Labor Statistics, "Occupational Employment and Wages in Rapid City — May 2020." https://www.bls.gov/regions/midwest/news-release/occupationalemploymentandwages_rapidcity.htm

Figure 5: Existing Fixed-Route System



Fares

The most striking feature in RTS's fixed-route fare system is that it offers free rides to all youth 18 and under. The "Youth Ride Free" program began in 2016.

The regular adult fare is $1.50 cash and $13.50 for a book of 10 ride coupons. Honored Citizens – seniors 60 and over or people with disabilities – can pay cash or buy a book of coupons for half-price. Each fare covers a one-way trip, including one free transfer onto a different route. Unlimited rides are also available with a $30 monthly pass. All of these fare types can be purchased directly from the driver on board the bus (with exact change) or at the MBTC.

Dial-A-Ride has a two-tier fare system. For trips that begin and end within three-quarters of a mile from a fixed-route bus stop, the cash fare is set at twice the regular adult fare. This is the minimum service area and maximum fare allowed under DOT ADA regulations. For trips outside this service area but still within Rapid City limits, the fare is slightly higher. Passengers can also purchase a zone-specific book of 10 coupons for the price of nine trips or a monthly pass that includes unlimited trips in both zones.

Table 2: Fares

Group/Service	Cash	Monthly Pass	Book of 10 Coupons	Transfers
Adult (19-59)	$1.50	$30.00	$13.50	Free
Honored Citizen (60 and over, disabled and Medicare card holders)	$0.75	-	$6.75	Free
Youth Ride Free	Free			
Paratransit Zone 1	$3.00	$90.00	$27.00	-
Paratransit Zone 2	$3.50		$31.50	

Source: RTS

The two-zone fare structure for paratransit was recommended in the 2009-2013 TDP. At that time, service was available for twice the regular fare everywhere inside city limits. The TDP also recommended raising the fares to their current rates, as they had remained at $1 regular adult, $.50 Honored Citizen, and $25 for a month pass for several years.

Fleet

RTS directly owns and operates the bus fleet for both fixed-route and paratransit service. Like other RTS capital assets, these vehicles are inventoried in the SDDOT Transit Asset Management Plan. Most of the fixed-route fleet is nearing the end of its useful life.

All but the two oldest vehicles in the fixed-route fleet have ratings of 3 in SDDOT's five-point scale, indicating they have vehicle repairs exceeding $1,500 in the most recent year but only minor damages. The vehicles acquired in 2006 have ratings of 2, indicating they have had a major repair in the most recent year and exceed either the mileage-based or year-based useful life standard.

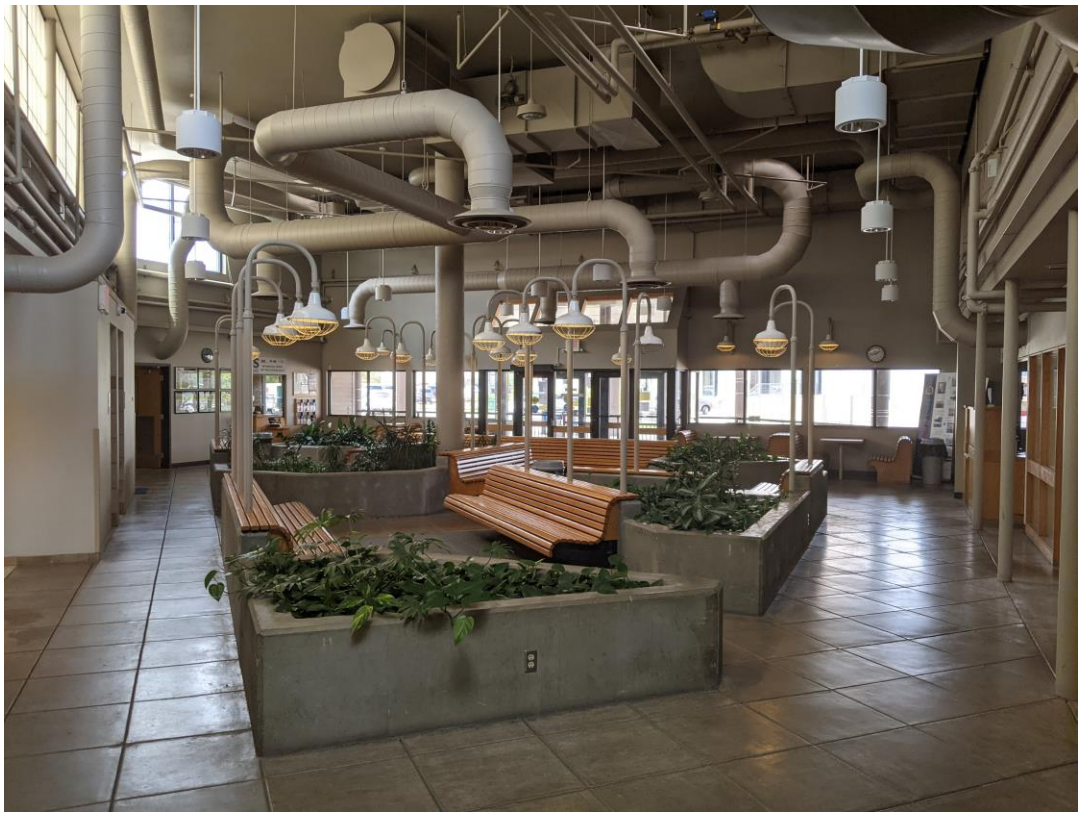
Paratransit buses have a shorter useful life of five to seven years, are replaced more frequently, and show more variation in overall condition. RTS makes purchases about every two years using FTA 5307 Urbanized Area Formula Grants and City of Rapid City general funds. A planned 2020 order of replacement vehicles has been delayed by pandemic-related scarcity on the supplier end.

A full list of fleet vehicles, as well as a schedule and budget for replacing them as they age, is in the Capital Plan section of this document.

Facilities

All fixed routes depart from and return to the MBTC at 333 Sixth Street. In addition to RTS and city planning offices, the building includes a sheltered waiting area with benches, maps, route information, and ticket purchases during office hours. RTS stores buses at a garage and maintenance facility located at 760 Centre Street. Constructed in 1980 and 2016 respectively, these facilities are both in good condition.

Figure 6: Waiting Area at Milo Barber Transportation Center

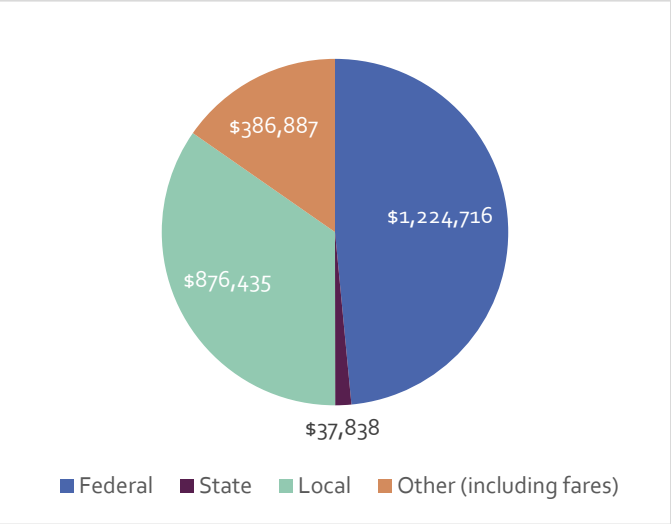


Funding

RTS is a direct recipient of FTA section 5307 funds. In 2019, federal funding composed nearly half of RTS operating and capital expenditures. The remainder included 35 percent local funding – including fare

revenue, advertising revenue, and allocations from the city's general fund – with only one percent in state contributions (Figure 7).

Figure 7: RTS Funding Sources 2019



Source: National Transit Database

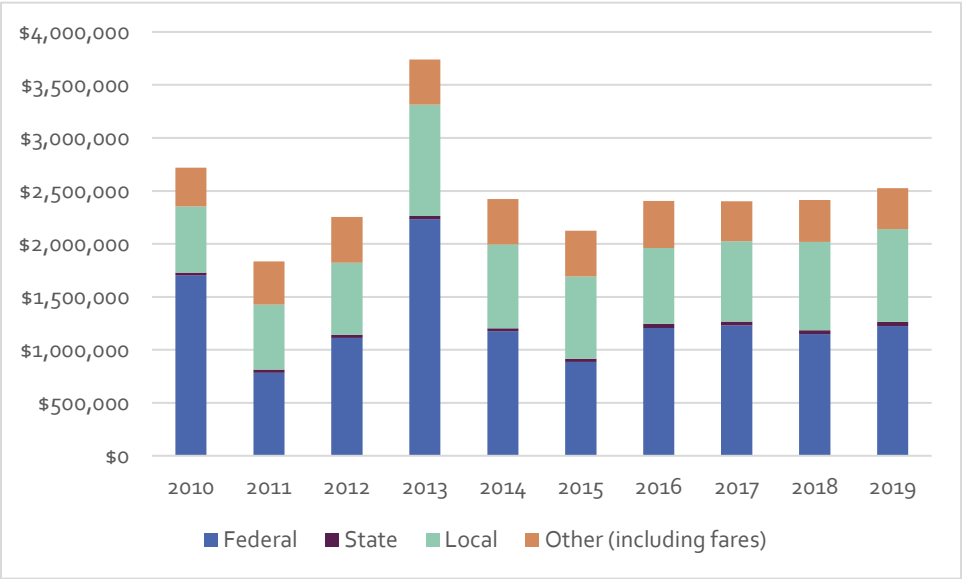
Over the last ten years, the dollar amount of state, local, and fare revenue has remained largely consistent. Federal funding has fluctuated from year to year; it was particularly large in 2013, when RTS replaced most of its fixed-route fleet at once using an 80 percent federal match. Funding levels over time are shown in greater detail in Table 3 and Figure 8.

Table 3: RTS Funding Sources, 2010-2019

Source	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fed.	$1,700,511	$784,378	$1,112,889	$2,233,490	$1,175,745	$887,403	$1,207,183	$1,229,427	$1,148,180	$1,224,716
State	$28,425	$28,425	$28,425	$28,425	$28,425	$28,425	$37,838	$37,838	$37,838	$37,838
Local	$624,677	$613,112	$680,664	$1,051,826	$790,799	$775,038	$717,174	$756,662	$831,043	$876,435
Other	$366,107	$406,993	$431,582	$426,590	$427,909	$433,946	$443,926	$377,934	$398,538	$386,887
Total (rounded)	$2.7 million	$1.8 million	$2.3 million	$3.7 million	$2.4 million	$2.2 million	$2.4 million	$2.4 million	$2.4 million	$2.5 million

Source: National Transit Database

Figure 8: RTS Funding Sources, 2010-2019



Source: National Transit Database

Non-RTS Services in Region

Prairie Hills Transit provides a combination of deviated fixed-route and demand-response service to communities surrounding Rapid City, including the I-90 corridor to Spearfish. Prairie Hills Transit serves jurisdictions that have reached out with a request for help and a budget for service provision. The organization works with Monument Health and other organizations to offer rides for medical appointments as available. Although open to all riders, this service is primarily used by seniors and people with disabilities. Nonprofits such as Black Hills Works, the YMCA, and Youth and Family Services also provide program-specific transportation services.

Transit providers in the region recognize that they need to coordinate service, as work commutes and medical travel often take residents across the borders between cities, towns, and unincorporated communities. However, developing more than casual coordination or partnership agreements is challenging, due to the absence of county or regional funding structures and the fact that every service is operating at the limits of its current budget.

Policy Guidance

Transit service in the Rapid City area is informed by preceding policies and plans created by the City and RCAMPO. Table 4 lists plans that are relevant to this TDP update.

Table 4: Guiding Plans that Inform the Transit Development Plan

Policy Document	Description	Themes & Connection to Transit
2009-2013 TDP	This plan describes the RTS system, its history, and national trends affecting transit; analyzes the system's performance and compares it to similar transit systems; addresses stakeholder input; and outlines recommendations to improve system performance within its budgetary and other constraints.	The plan provides useful history on previous conditions at RTS. The principles embedded in its recommendations are consistent with good transit planning practices, and it shows thematic continuity from one TDP to the next.
2018 Transit Feasibility Study	This study explored possible improvements to transit service on a regional level, based on the needs of communities in two counties and a peer comparison with other regional transit systems.	The study identifies challenges using transit that include limited hours/locations and affordability. It identifies opportunities for carpooling, vanpooling, subsidized voucher programs, group trips, lifeline services, expanded demand-response service, and commuter express bus routes. As of the end of 2021, these opportunities had not been pursued, largely because they rely on partners, such as Pennington and Meade counties, uninterested in providing transit.
Coordinated Public Transit Human Services Plan (2019)	This plan identified gaps in service for human services clients, including seniors, people with disabilities, and low-income people. A survey asked Rapid City residents about their travel behavior. Stakeholder organizations were also surveyed.	About 15 percent of survey respondents relied on transit or taxi service to get around, and about 30 percent used these services occasionally. Challenges included coverage limitations, limited hours, low frequency, late shifts, childcare pickup, social trips, and afterschool activities or evening classes. Other challenges included stop spacing, affordability, and cold weather. Expanding to new destinations was popular among survey respondents and the desired locations included doctors' offices, supermarkets, and schools. More than half of stakeholder organizations provide transportation, but the resources to do so are perceived as very limited. The plan makes 20 distinct recommendations. Those relevant to RTS include adding regular fixed routes to hubs in need of service; analyzing stop safety and accessibility; systematically adding service early mornings and evenings; adding service to high-need areas on Sundays; adding demand-response service to underserved communities; working with the city and developers early to plan for transit in new communities; and examining the use of low-income reduced fares. The bus stop analysis is currently underway.

Rapid City Comprehensive Plan (2014)	This plan provides an overarching framework for planning in Rapid City; it defines a community vision and values, goals, policies, future land use plans, and implementation pathways.	Planning Goal TI-2.5 aims to expand transit participation, service, and coordination as part of a safe and efficient multimodal transportation network. Specific objectives include better bus stop amenities, connections with other modes, access to activity centers and services, coordination between different transit service providers, and service expansion, especially for the underserved and transit dependent.
Rapid City Metropolitan Area Bike and Pedestrian Master Plan Update (2020)	This plan identifies and prioritizes improvements to the Rapid City bicycle and pedestrian network. It also provides guidance on policies and strategies that encourage biking and walking.	The plan recommends promoting the use of bicycle racks on RapidRide buses and enhancing the bike-ped connections around transit stops. The plan recommends pedestrian improvements at specific locations, which may enhance the accessibility of transit service to those locations. The appendices to this document contain public comments gathered in 2019-2020 as part of the overarching long-range plan transportation plan update. Many of these comments were related to transit; they have been extracted and summarized in Appendix A of this TDP update.
Rapid Trip 2045: Rapid City Metropolitan Transportation Plan (2020)	This plan is RCAMPO's long-range plan for the regional transportation system. It incorporates the 2018 Transit Feasibility Study and the 2020 Bike and Pedestrian Master Plan Update into a less detailed, but more comprehensive plan that also includes auto traffic. It updates the regional travel demand model and uses the results to identify future deficiencies and mitigation strategies.	Public input gathered in 2019-2020 included many comments related to transit (extracted and summarized in Appendix A).

PART 2:
EXISTING CONDITIONS + NEEDS ASSESSMENT

Market and Needs

Analyzing trends and patterns in Rapid City is a critical task in assessing the community's transportation needs. The following section uses socioeconomic data to develop a baseline understanding of community demographics. Cumulatively, this information is used to:

- Identify locations that can potentially generate the highest levels of transit use
- Identify areas to which transit services should be expanded or introduced
- Inform what type of transit service is best suited for an area

Activity Patterns

Several factors are often correlated with and suggest the need for public transit service. Among the most important are job locations, density of job locations, and density of housing.

Figure 9 displays the number of jobs per census block. To create this map, jobs were identified using the Longitudinal Emplower-Household Dynamics database available from the US Census Bureau. This represents the best publicly available information. One of its limitations is that place of work is defined by the physical or mailing address reported by employers in the Quarterly Census of Employment and Wages (QCEW) or Multiple Worksite Reports, so that the address from administrative data may or may or may not be the actual location that a worker reports to most often.

With that caveat, the map shows large numbers of jobs in downtown Rapid City, with additional job centers outside the city center. Monument Health on East Fairmont Boulevard stands out as a large employer. High job counts are also visible in the industrial park located just west of Elk Vale Road.

Figure 10 shows not the absolute number of jobs, but the density of jobs by census block. Monument Health and the Elk Vale Road/SD 44 area stand out by this metric as well, as do downtown Rapid City; Walgreens on North Lacrosse Street; and the businesses surrounding Rushmore Mall, in particular Lowes, Best Buy, Phase Technologies, and the Best Western Ramkota Hotel.

The overall trend is toward distinct islands separated by areas of low density. Current fixed-route service is able to reach the more central islands, but if development continues in this pattern, it will become less productive to run service through low-density areas in order to reach higher-density employment centers.

Figure 9: Employment Counts by Block

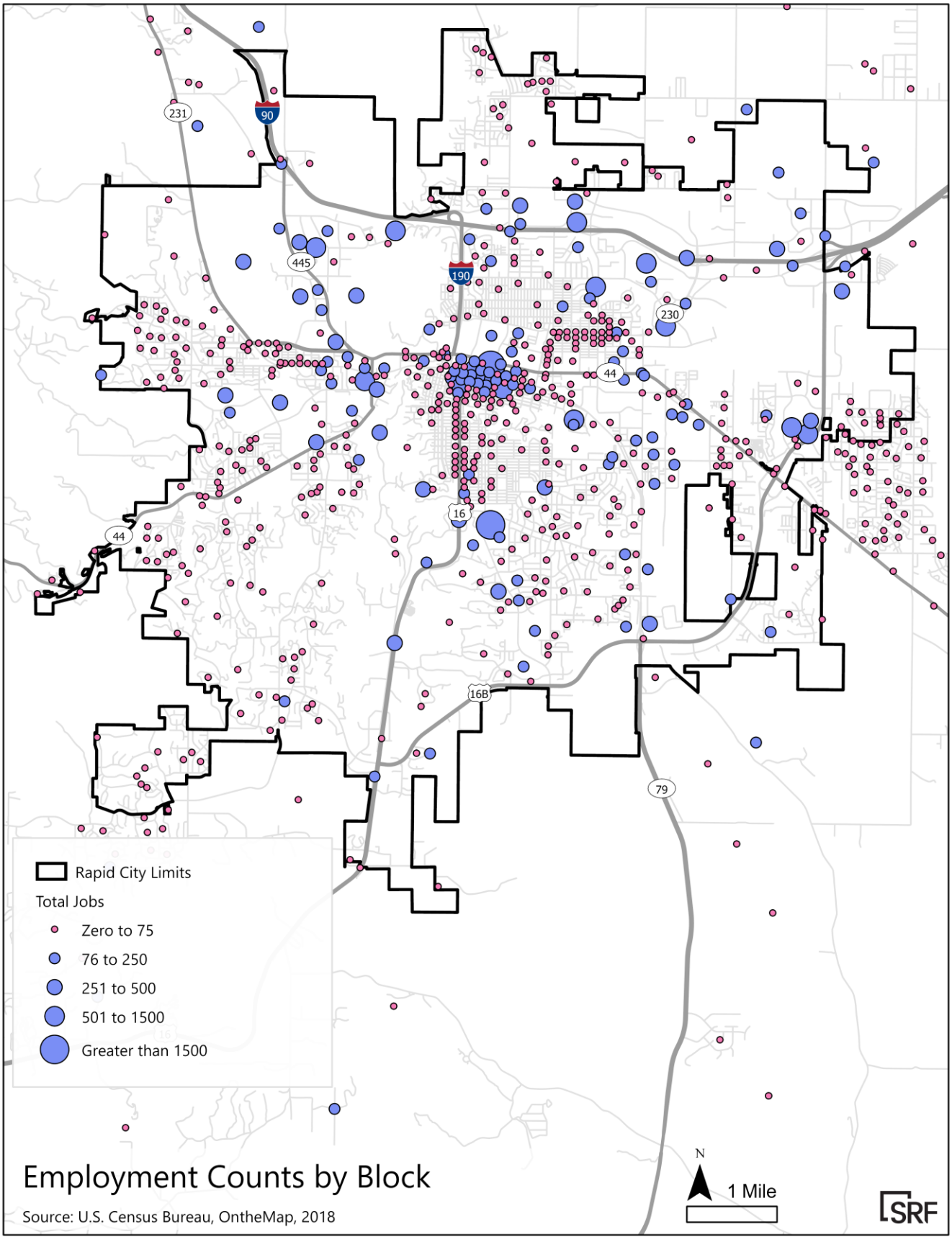
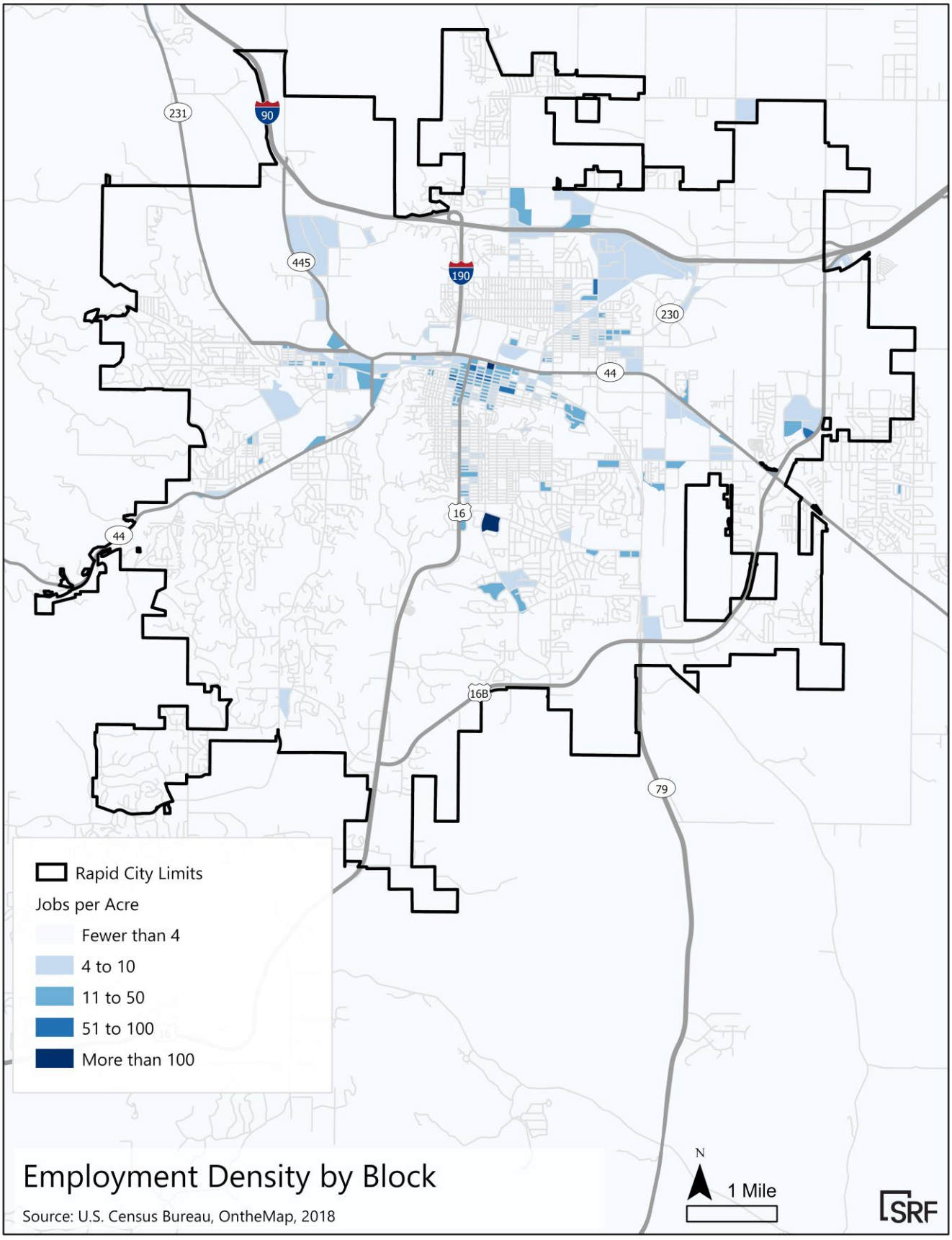


Figure 10: Employment Density



The most recent data on population density, in terms of people per acre, is shown in Figure 11. This map suggests that RTS fixed-route service is currently reaching most higher-density block groups within city limits.

However, block groups are a very limited scale at which to understand population density. Transit planners typically assume that passengers will walk up to a quarter-mile to reach local bus service. A more fine-grained look at density offers a more realistic map of neighborhoods that can, and cannot, generate enough ridership to justify fixed-route transit service.

Figure 12 identifies census blocks that are transit-supportive (Transit-Supportive Areas, or TSAs) on the basis of their housing density, their job density, or both. For this purpose, a TSA is defined as having residential density of at least three households per acre or employment density of at least four jobs per acre. This service planning rule of thumb assumes low service frequency (approximately 60 minutes) and partial farebox recovery.[2]

Figure 13 shows the TSAs in the Rapid City region, based on the same block-level data as Figure 12. If the centroid of any given block is within a quarter-mile of a bus route, it is considered served by existing transit. Most of the transit-supportive areas in the city do fall into this category; of the remaining unserved areas (shown in orange), many are separated from the existing system by large tracts of low-density development or undevelopable land. Property owners submitting a permit application are asked about their transit needs but are not required to, and typically do not, plan for transit when siting their developments.

[2]For more detailed discussion, see TCRP Report 165, Transit Capacity and Quality of Service Manual, Third Edition, pp. 3-19 to 3-20.

Figure 11: Population Density

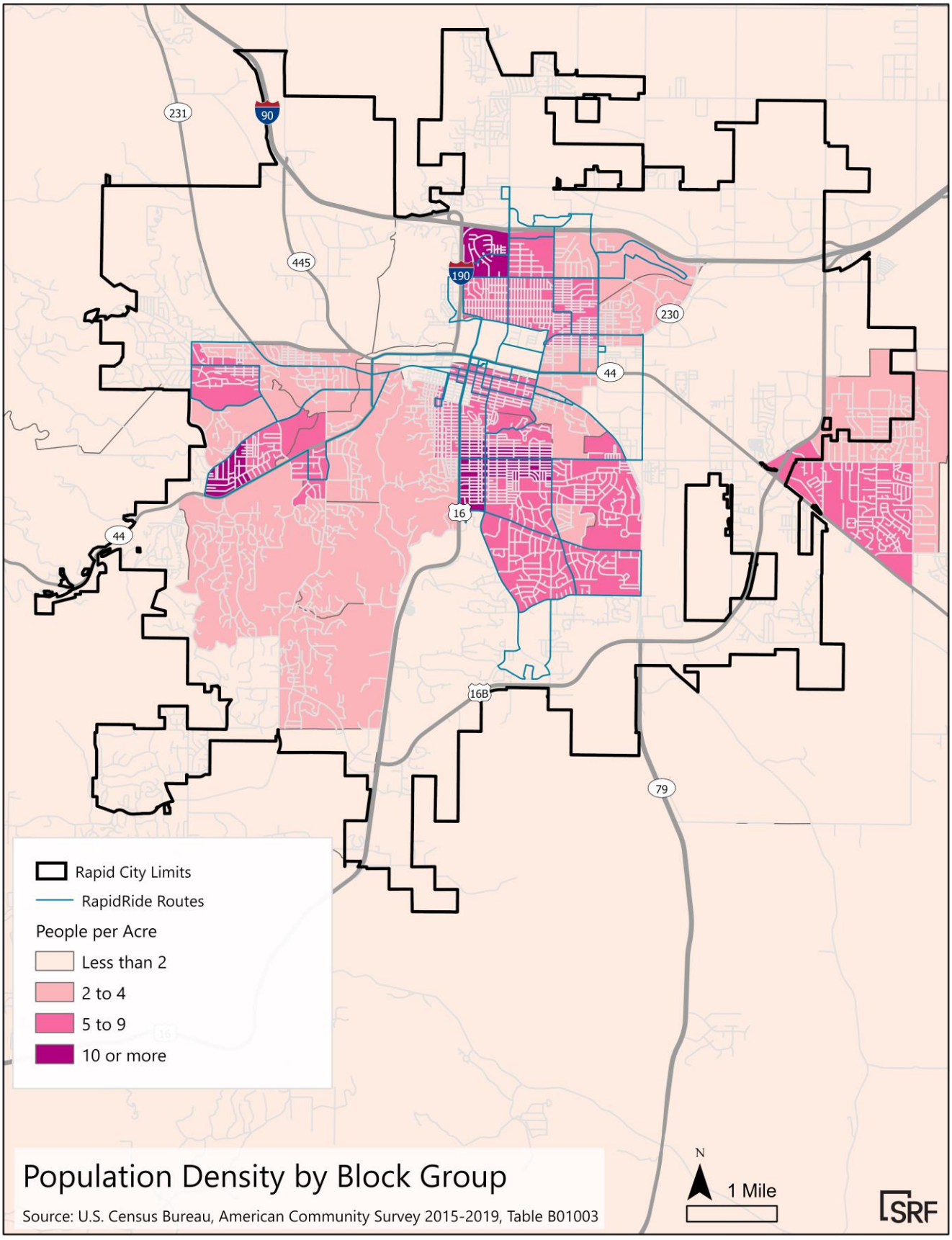


Figure 12: Housing and Employment Density

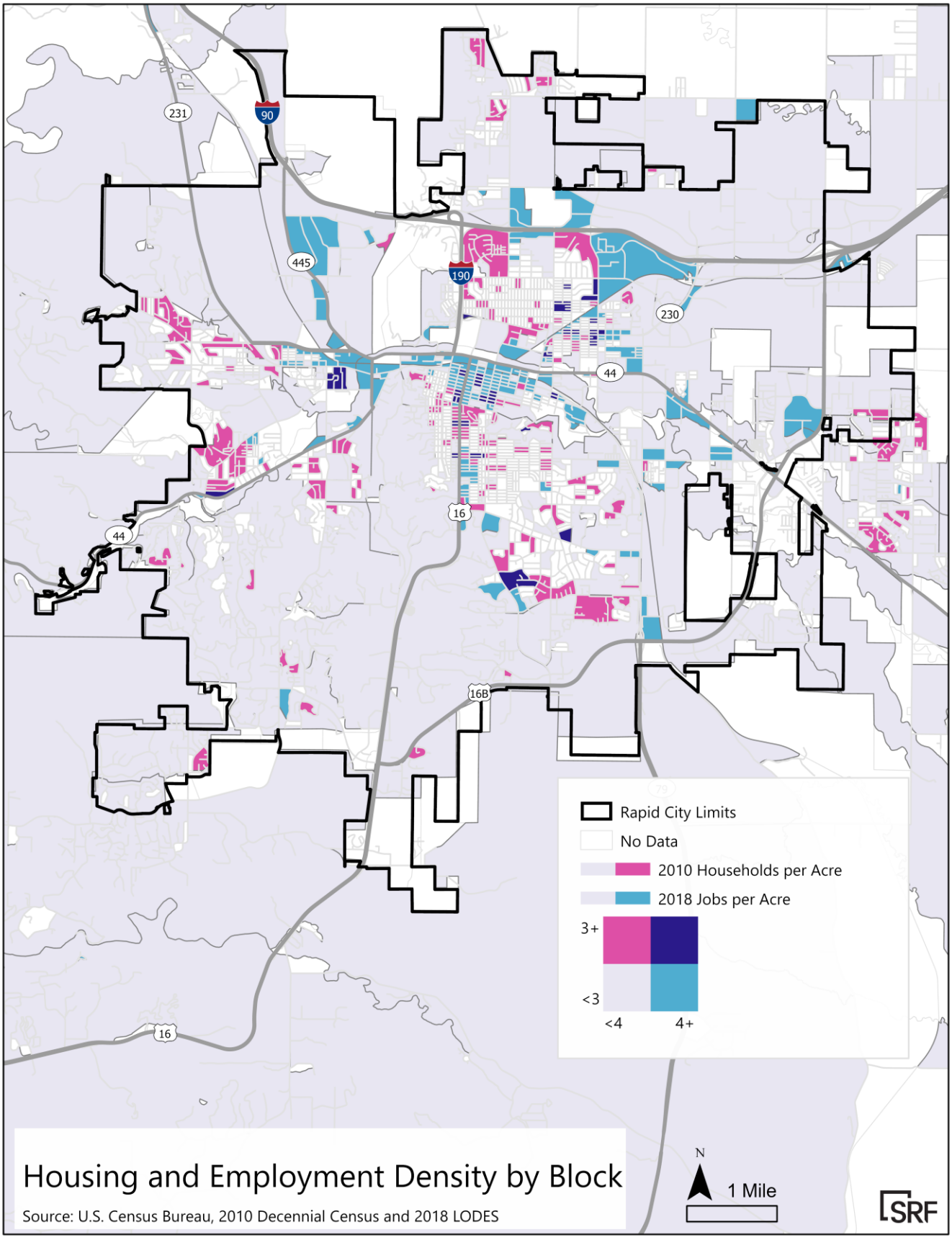
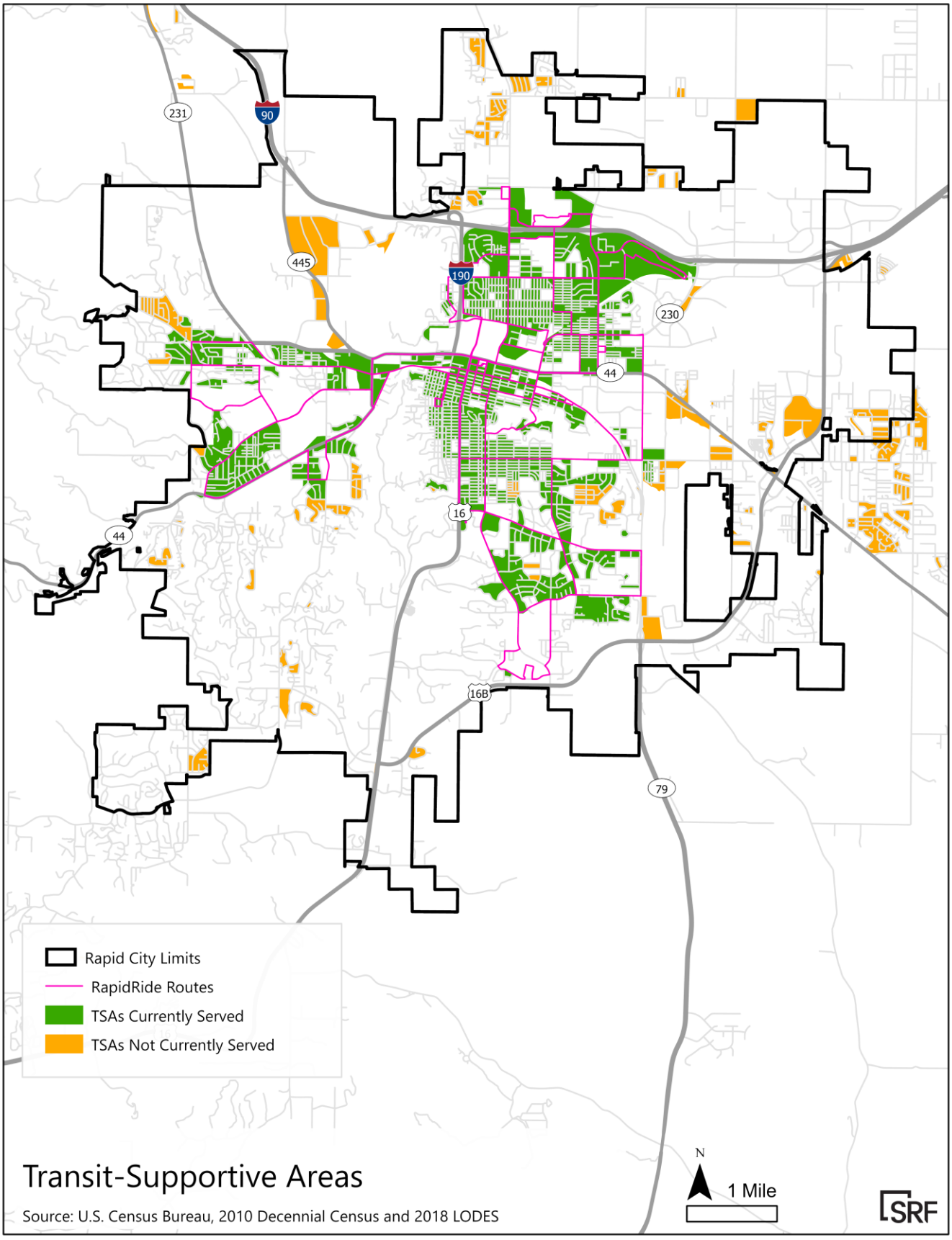


Figure 13: Transit-Supportive Areas



Regional Change

Rapid City's population growth over the last 10 years has outstripped its surrounding county and state at 9.9 percent (Table 5). With a total population of 74,703, it continues to be the second-largest city in South Dakota.[3]

Table 5: Population Change, 2010-2020

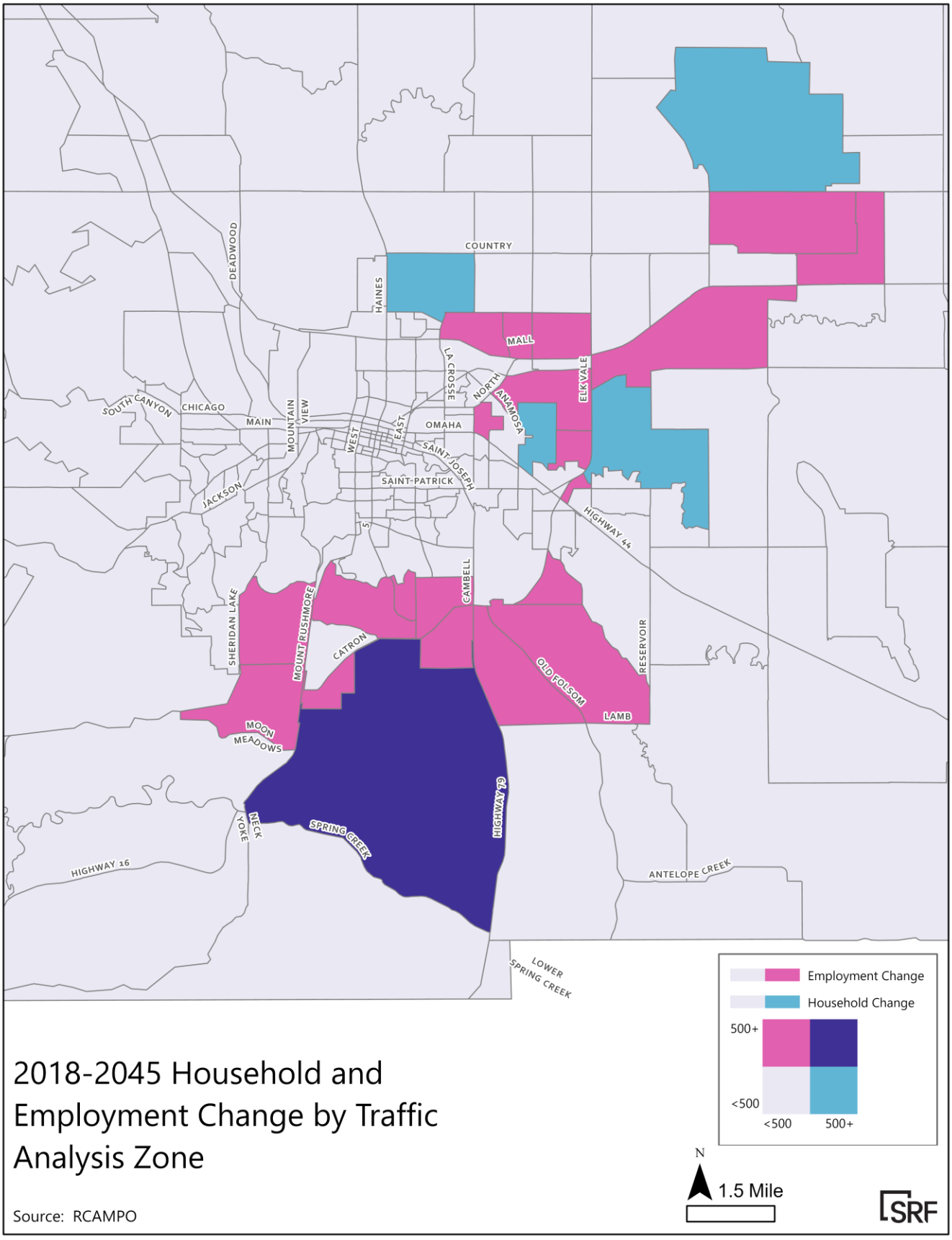
Geography	2010	2020	% Change
Rapid City	67,956	74,703	9.9
Pennington County	100,948	109,222	8.1
South Dakota	814,180	886,667	8.9
Sioux Falls	153,888	192,517	25

Source: U.S. Census Bureau, 2010 and 2020 Decennial Census

Further growth is projected over the next 20 years. The broad pattern of regional growth shows new housing and job opportunities continuing to locate in low-density areas in the outer ring of the city proper or beyond city limits (Figure 14). This will pose a challenge for serving growth areas and connecting residents with jobs via transit. Unless changes to development permitting are made, this is likely to continue to be the pattern in which the region develops.

[3] This estimate was sourced from the 2020 Decennial Census, which produced a count substantially lower than the 2019 American Community Survey estimate of 77, 503.

Figure 14: 2018-2045 Household and Employment Change by Traffic Analysis Zone



Demographics

Several demographic factors are often correlated with transit demand, including income, vehicle ownership, and age. People with lower incomes are more likely to ride public transit, as are those whose households do not own a vehicle. Single-parent households may also have a greater propensity to use transit.

The age of residents can also be a predictor of transit use. Children and older adults may benefit from access to transit and it is typical for young adults of student age to use transit at a higher rate than other groups.

Additionally, it is critical to consider racial equity in the allocation of transit service. Looking at the spatial distribution of populations of color[4] in relationship to existing transit routes can identify potential equity gaps in service.

The next six pages include maps displaying spatial distribution of the following groups in Rapid City:

- People of color
- Low-income people[5]
- Households without a vehicle
- Single-parent households
- Seniors, ages 65 and over
- Children ages 5 to 17

Block groups with the highest concentrations of people of color, low-income people, and zero-vehicle households are located in central parts of the city currently served by transit. However, this is not the case for households with single parents, seniors, and youth. For all populations of interest listed above, there are significant proportions in areas that are not served by transit.

[4] Defined here as individuals who reported any combination of race and ethnicity other than White, Non-Hispanic. In Rapid City, a majority of people of color are Native American.

[5] Defined here as individuals with household incomes below 200 percent of the federal poverty limit (FPL). In 2022, FPL is $27,750 for a family of four.

Figure 15: People of Color

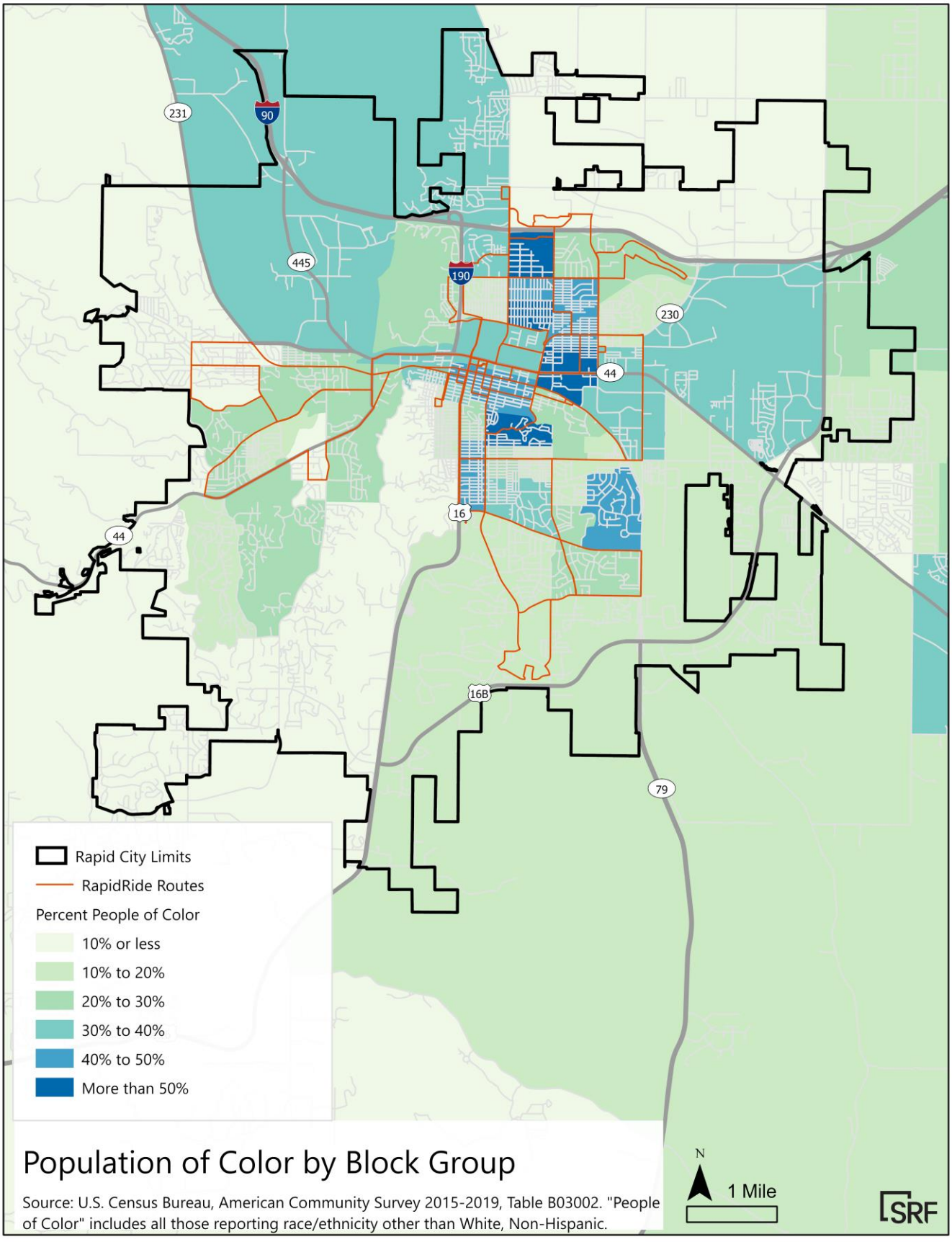


Figure 16: Low-Income Population

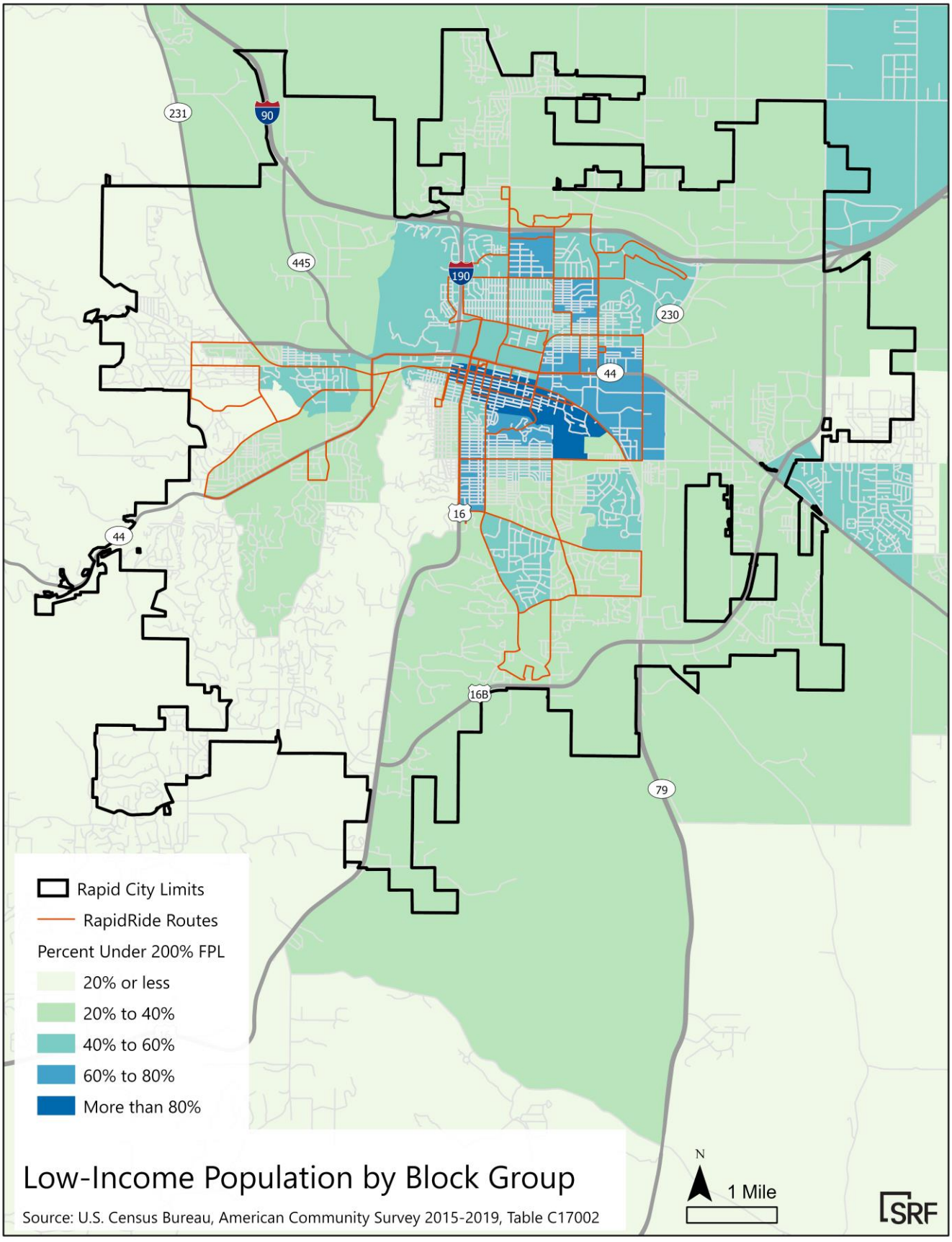


Figure 17: Households without a Vehicle

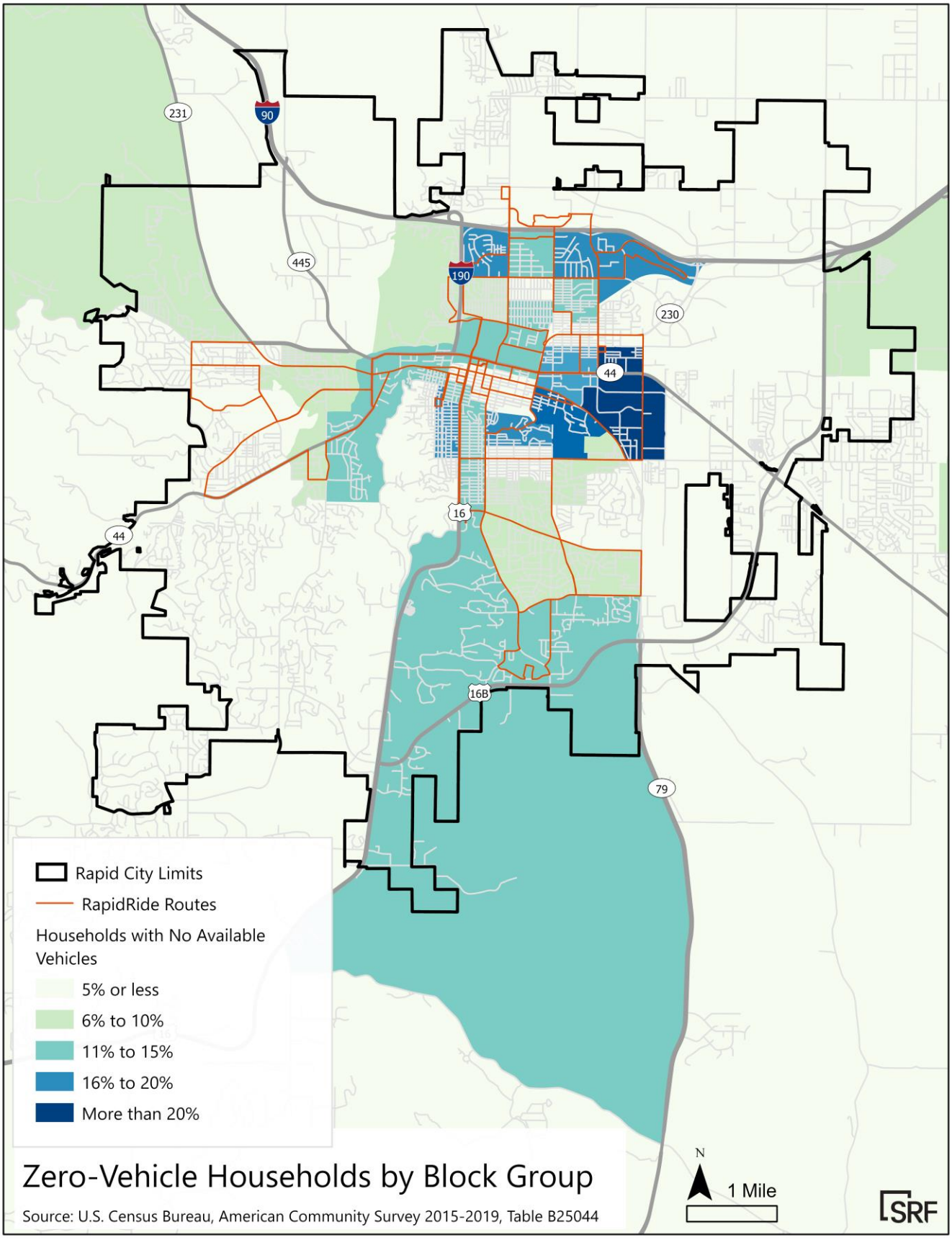


Figure 18: Single-Parent Households

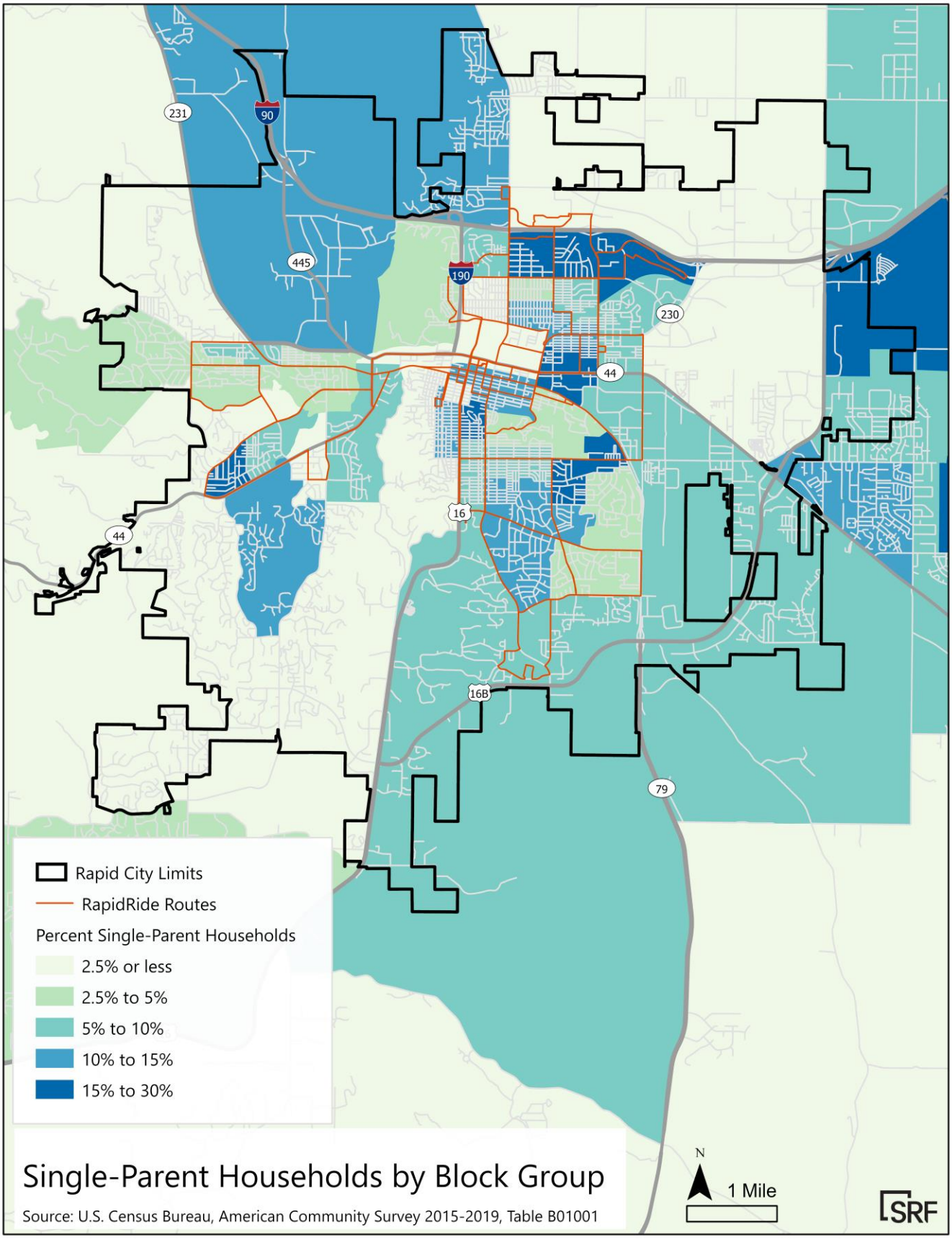


Figure 19: Senior Population

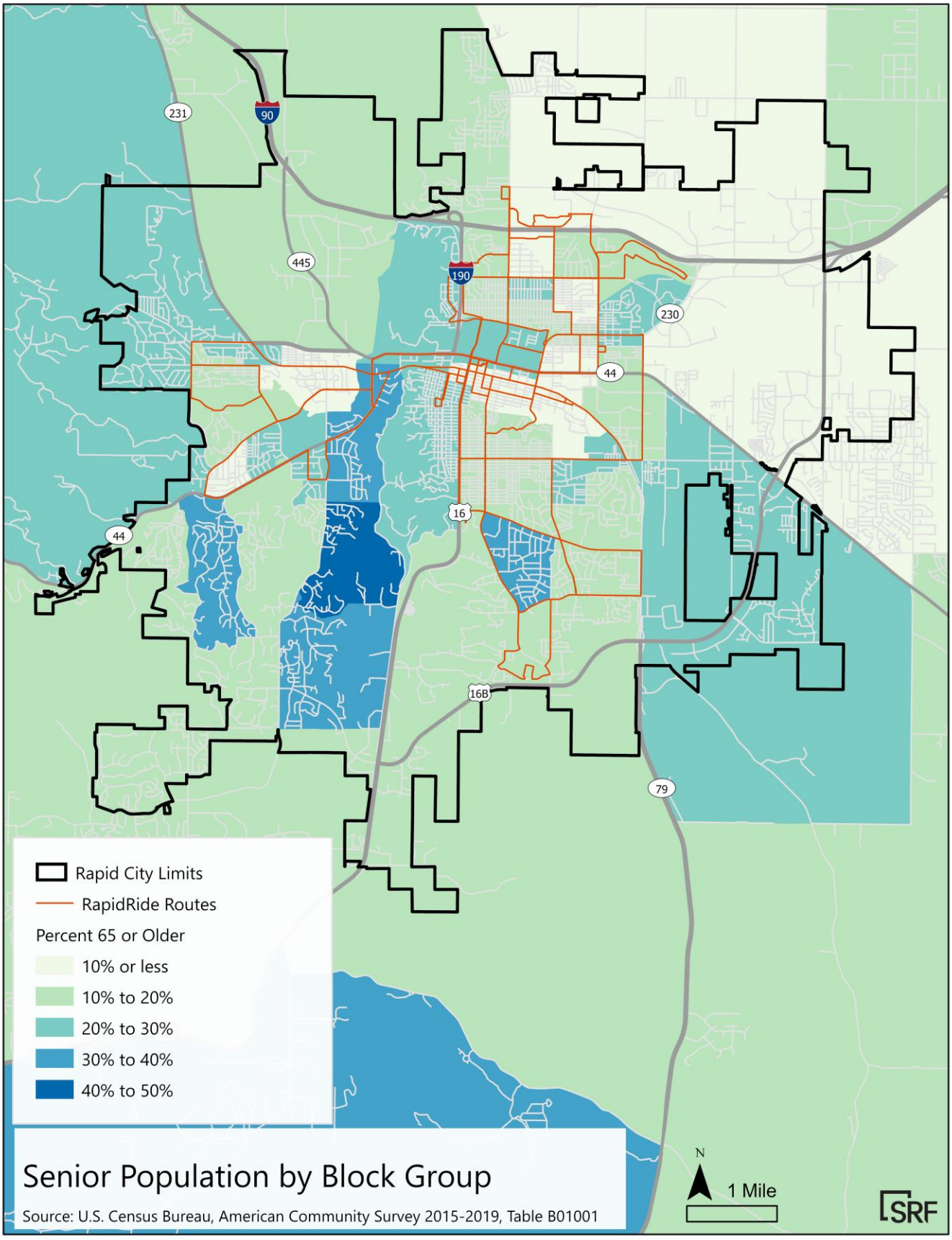
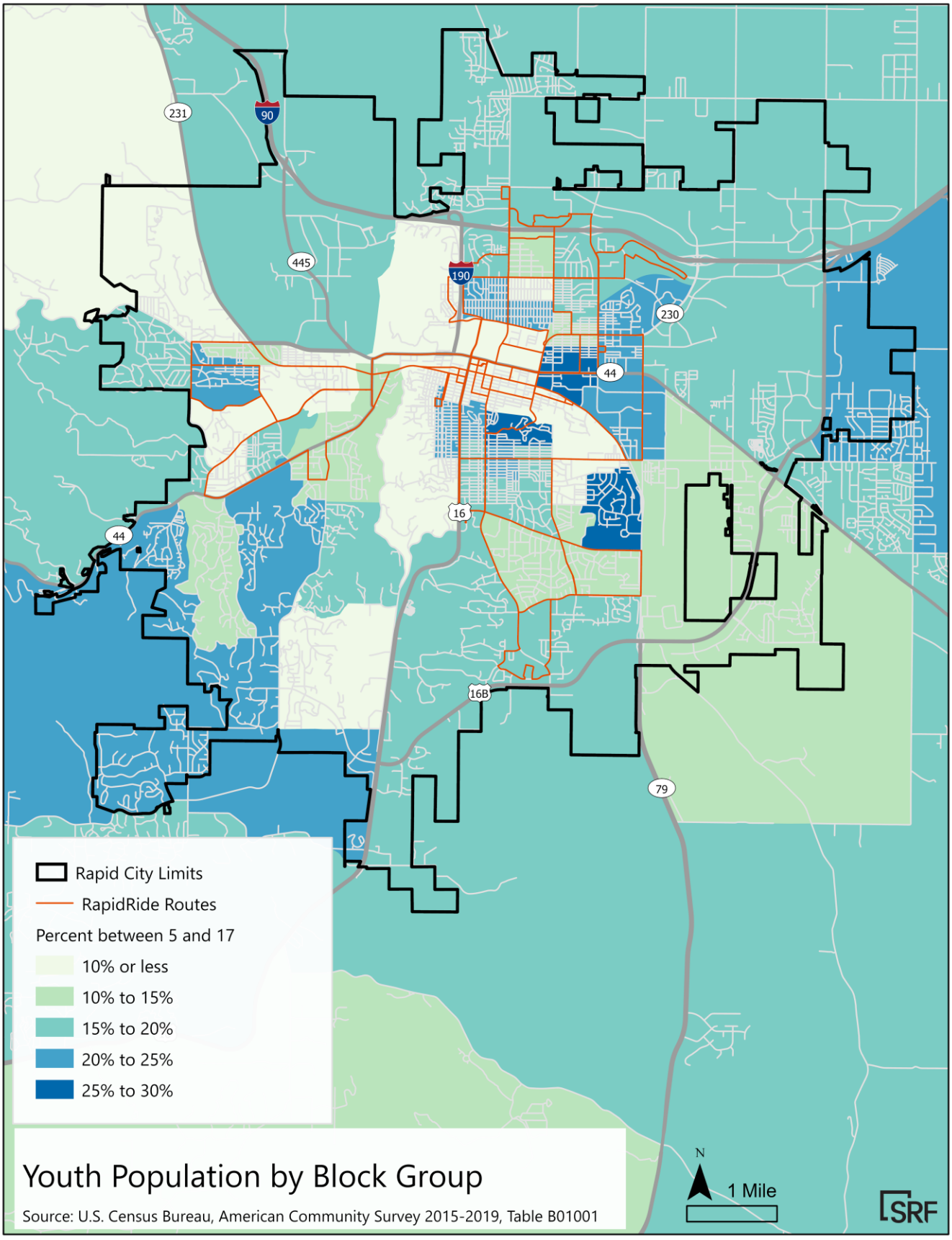


Figure 20: Children between 5 and 17



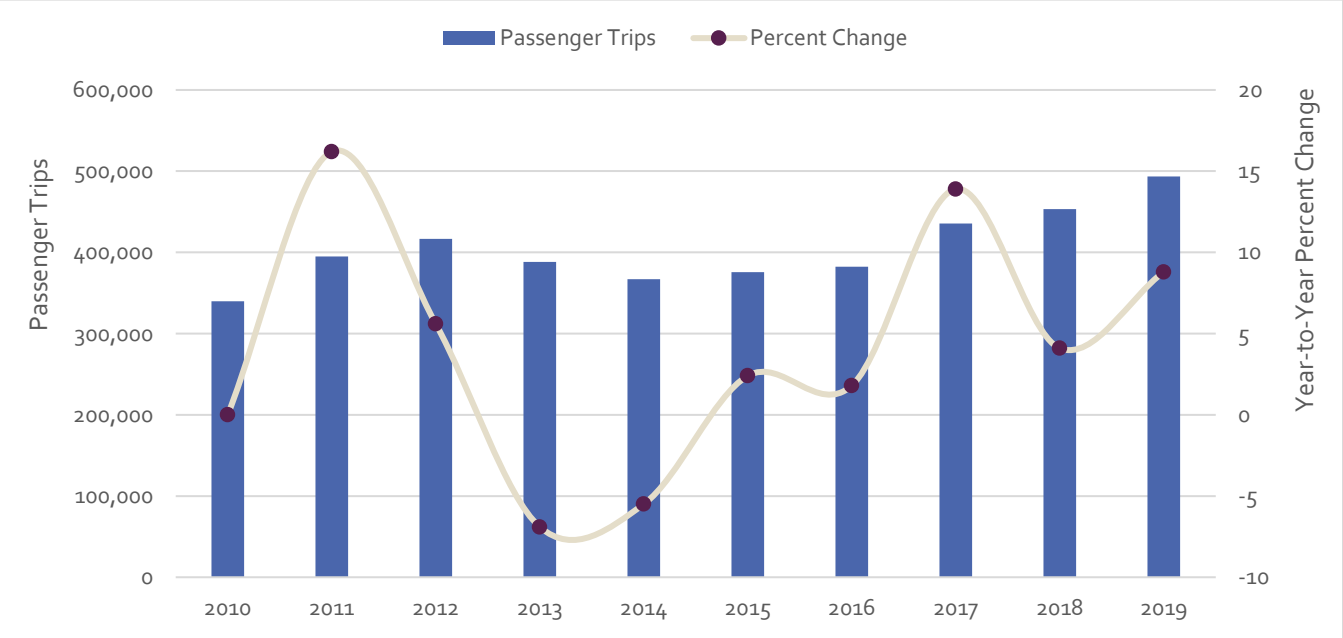
Existing Service Review

The following section summarizes existing fixed-route service and productivity at the system and route levels. The year 2019 is used to represent current levels of service provision and demand, primarily because the global COVID-19 pandemic that began in early 2020 caused ridership levels to drop noticeably as workplaces and schools closed. Since the deepest impacts of the pandemic are not expected to be permanent, 2020 data cannot be considered representative of 'normal' conditions.

System-Wide Review

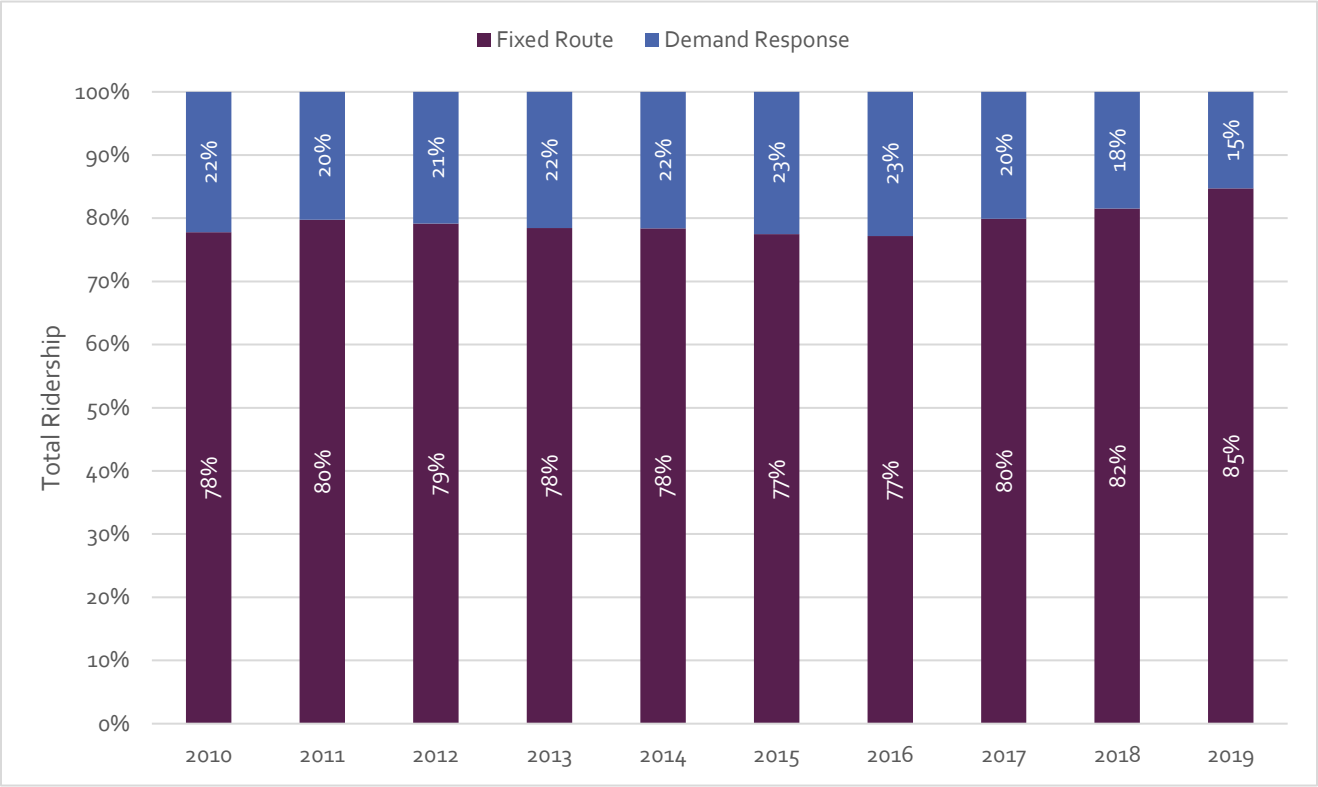
RTS provided 493,541 rides in 2019 across its fixed-route and demand-response modes combined. Ridership has been on an upward trend since 2015, with the largest annual increase of 13.9 percent immediately following the introduction of the Youth Ride Free Campaign in 2016. Ridership increased four percent between 2017 and 2018. The percent of total ridership by mode remained steady over the 10-year period, with fixed-route service accounting for 77 to 85 percent of total ridership annually (Figure 22).

Figure 21: Annual Ridership on All Modes, 2010-2019



Source: National Transit Database

Figure 22: Percent of Annual Ridership by Mode, 2010-2019

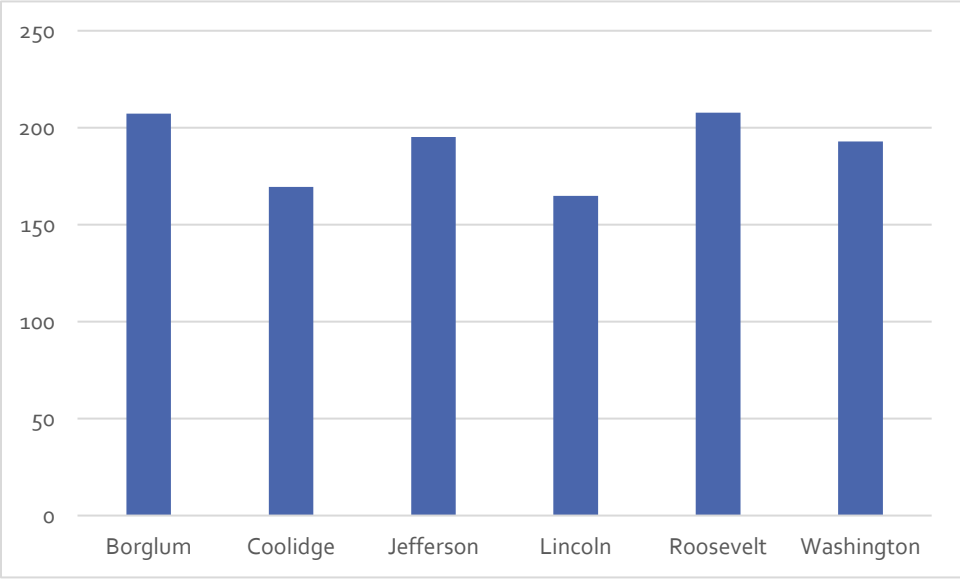


Source: National Transit Database

Ridership Patterns by Route

Over the course of 2019, daily weekday boardings by route averaged between approximately 150 and 200 (Figure 23). The Borglum and Roosevelt routes experienced the highest levels of weekday activity.

Figure 23: Average Daily Weekday Boardings Jan-Dec 2019



Source: SRF analysis of RTS data

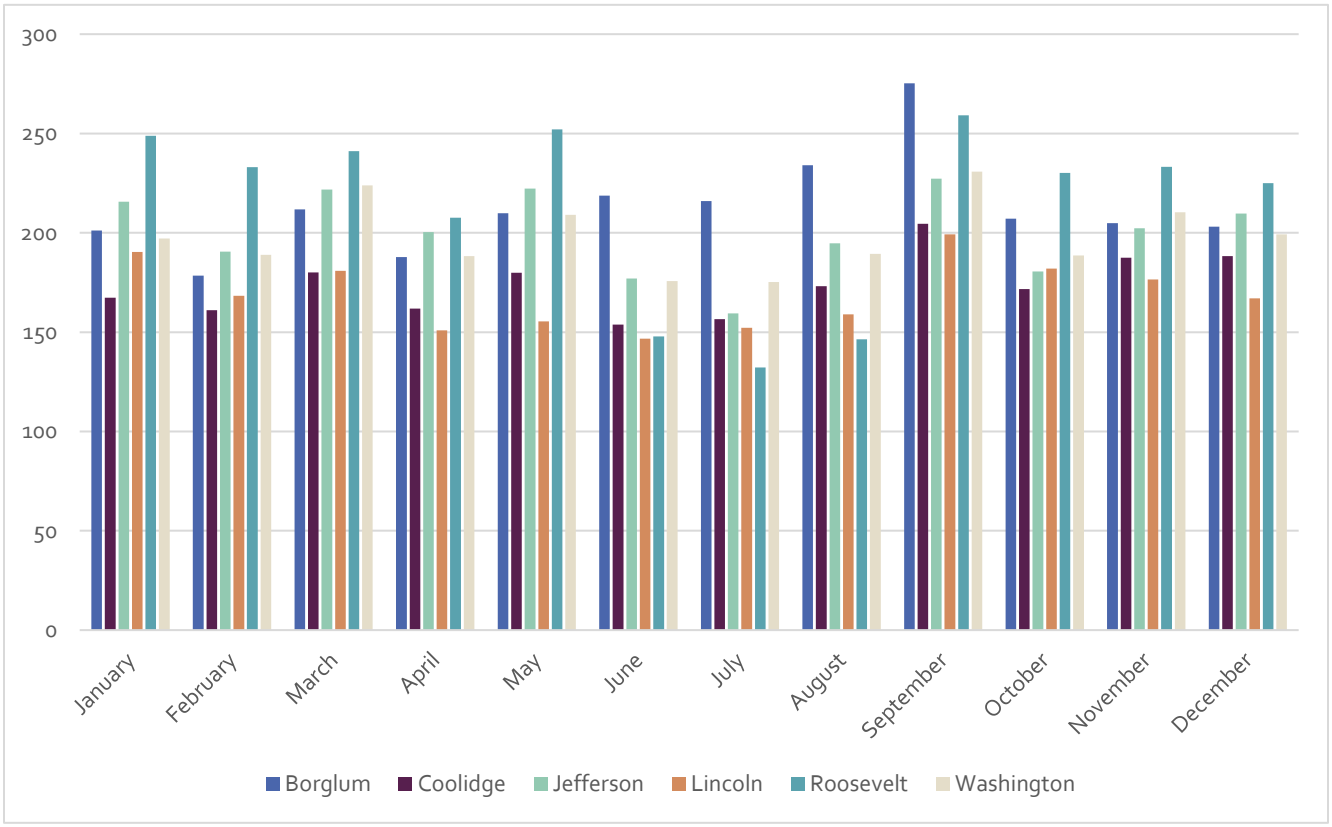
Weekday ridership waned slightly in the summer months on all but the Borglum route, as Table 6 and Figure 24 show. The highest-activity month systemwide was September, with 1,396 average weekday boardings.

Table 6: Daily Average Boardings (Weekdays in 2019)

Period	Borglum	Coolidge	Jefferson	Lincoln	Roosevelt	Washington	All Routes
January	201	167	216	190	249	197	1221
February	179	161	191	168	233	189	1120
March	212	180	222	181	241	224	1259
April	188	162	200	151	208	188	1097
May	210	180	222	155	252	209	1229
June	219	154	177	147	148	176	1020
July	216	157	159	152	132	175	992
August	234	173	195	159	146	189	1097
September	275	205	227	199	259	231	1396
October	207	172	180	182	230	189	1160
November	205	187	202	177	233	210	1215
December	203	188	210	167	225	199	1192

Source: SRF analysis of RTS data

Figure 24: Daily Average Boardings (Weekdays in 2019)



Source: SRF analysis of RTS data

Saturday service does not show the same pattern; systemwide, March and December were the lowest-activity months and August was the highest (Table 7). Washington and Coolidge show the highest average Saturday boardings, although the differences among routes are not significant.

Table 7: Daily Average Boardings (Saturdays in 2019)

Period	Borglum	Coolidge	Jefferson	Lincoln	Roosevelt	Washington	All Routes
January	67	89	92	72	62	83	465
February	68	91	86	65	64	84	458
March	51	75	68	52	64	89	399
April	66	88	82	69	67	92	463
May	77	101	75	66	69	77	465
June	71	84	72	65	69	97	458
July	71	90	69	63	67	101	460
August	83	95	93	77	69	104	522
September	85	96	68	64	64	88	464
October	82	84	56	66	49	75	413
November	62	99	70	54	68	76	428
December	49	73	85	45	49	72	373
Full Year	69	88	76	63	64	87	448

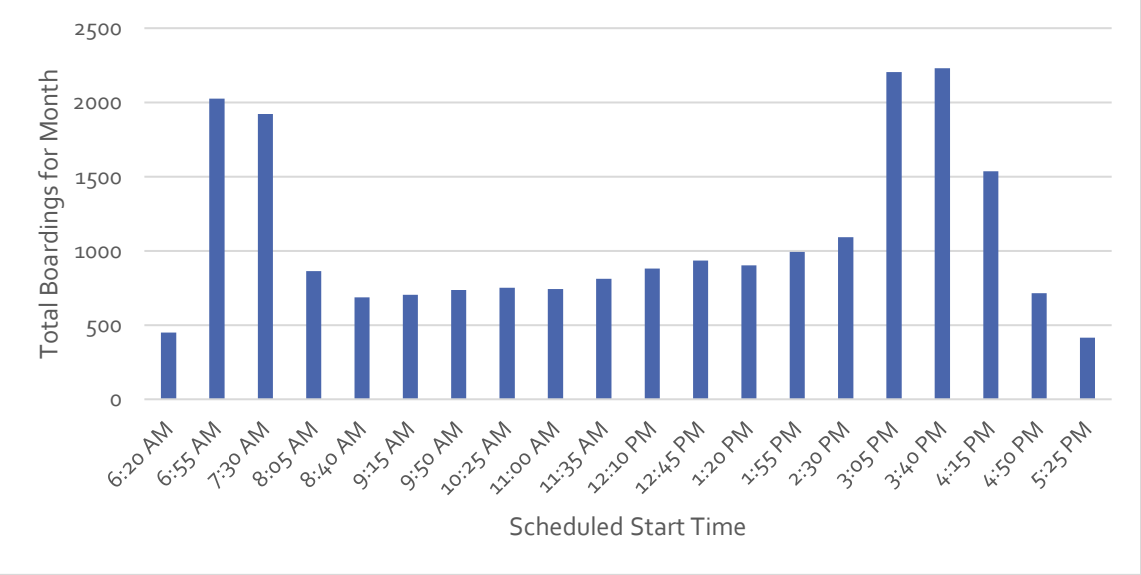
Source: SRF analysis of RTS data

Fixed-Route Ridership by Time of Day

RapidRide drivers write down the number of passengers boarding during each lap of the day, as well as the type of fare each passenger used. These daily records were analyzed for the month of October 2019. October was chosen because its ridership numbers are closest to the annual average.

Figure 25 shows the total October weekday boardings by lap on all six routes. Peak hours are between 7 and 8 in the morning and between 3 and 5 in the afternoon.

Figure 25: Fixed-Route Boardings by Lap, October 2019



Ridership by Route, Fare Type, and Time of Day

Ridership by fare type was examined more closely for each route. The results are displayed in Figure 26 through Figure 31; each figure shows the total boardings over the month of October 2019 for a particular route. Youth fares play a substantial role in defining peak hours for every route. Coolidge and Washington have the most even distribution of ridership over the course of the day. Please note that the total October ridership varies significantly by route, so that the y-axis in Figure 26 (Borglum) ends at 600 boardings but Figure 27 (Coolidge) tops out at 350 boardings per month.

Figure 32 and Figure 33 (page 41) show systemwide trends in ridership over the course of 2019. The most noticeable dips in ridership coincided with federal holidays or inclement weather.

Figure 26: Borglum Weekday Ridership by Time of Day and Fare Type, October 2019

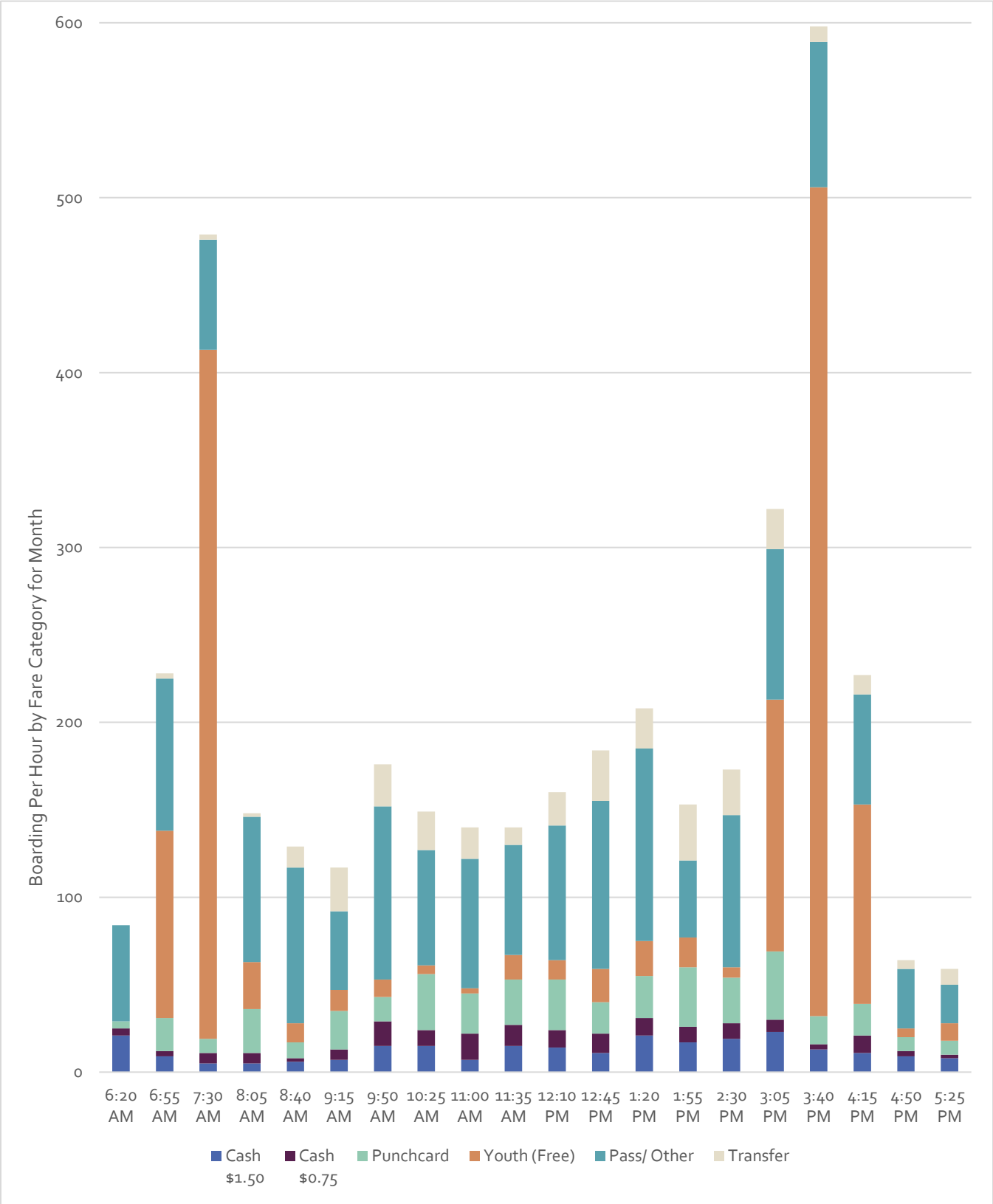


Figure 27: Coolidge Weekday Ridership by Time of Day and Fare Type, October 2019

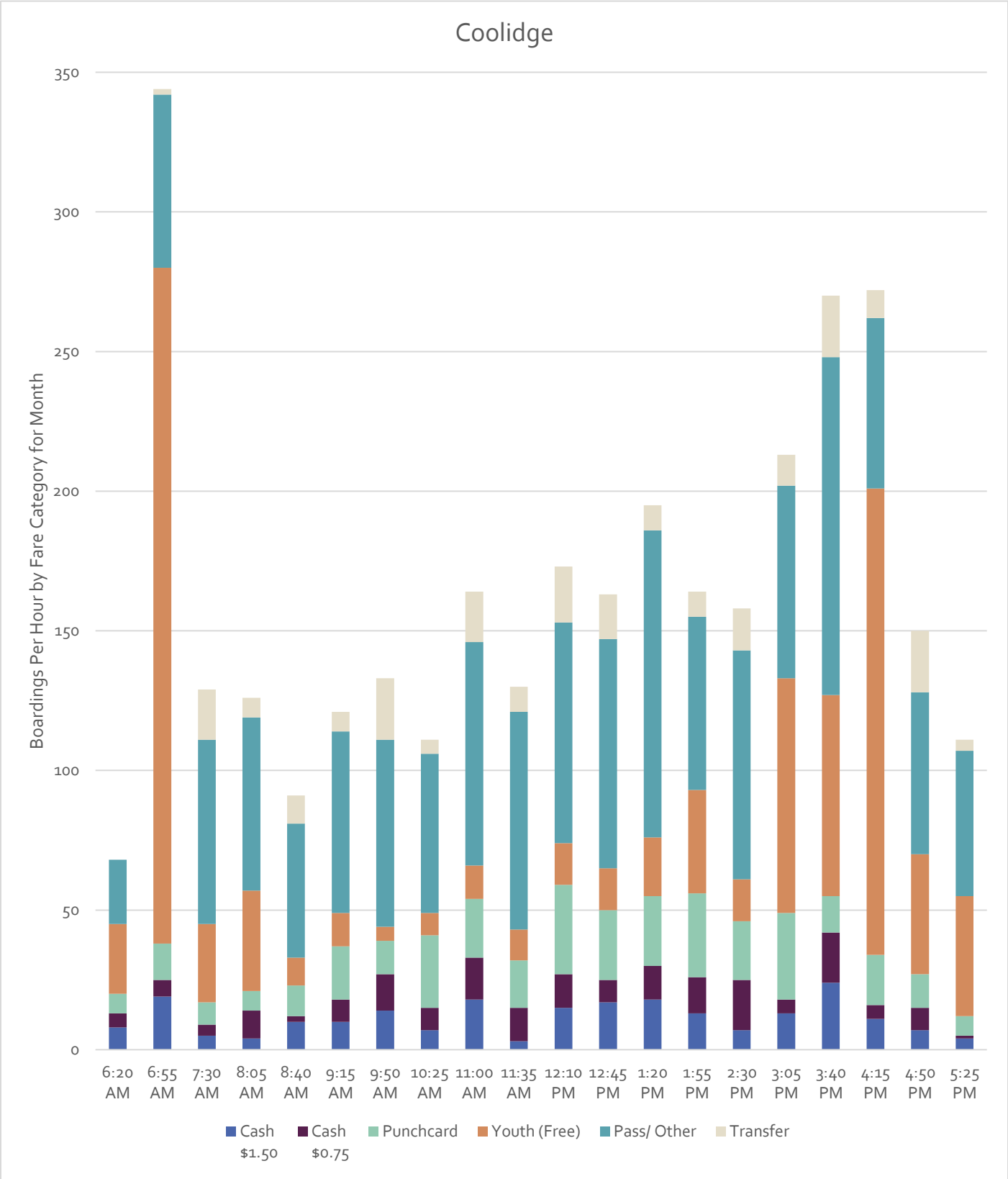


Figure 28: Jefferson Weekday Ridership by Time of Day and Fare Type, October 2019

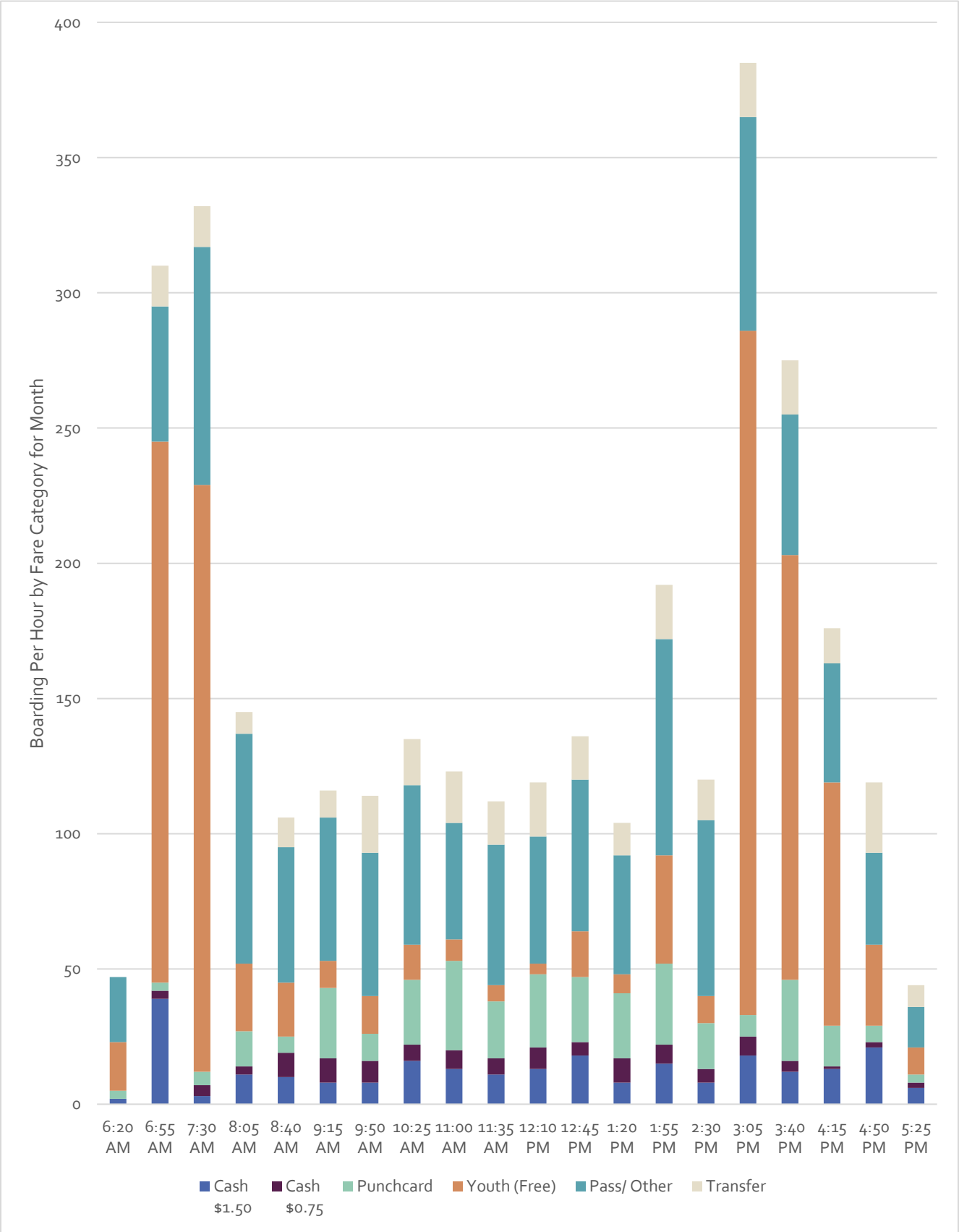


Figure 29: Lincoln Weekday Ridership by Time of Day and Fare Type, October 2019

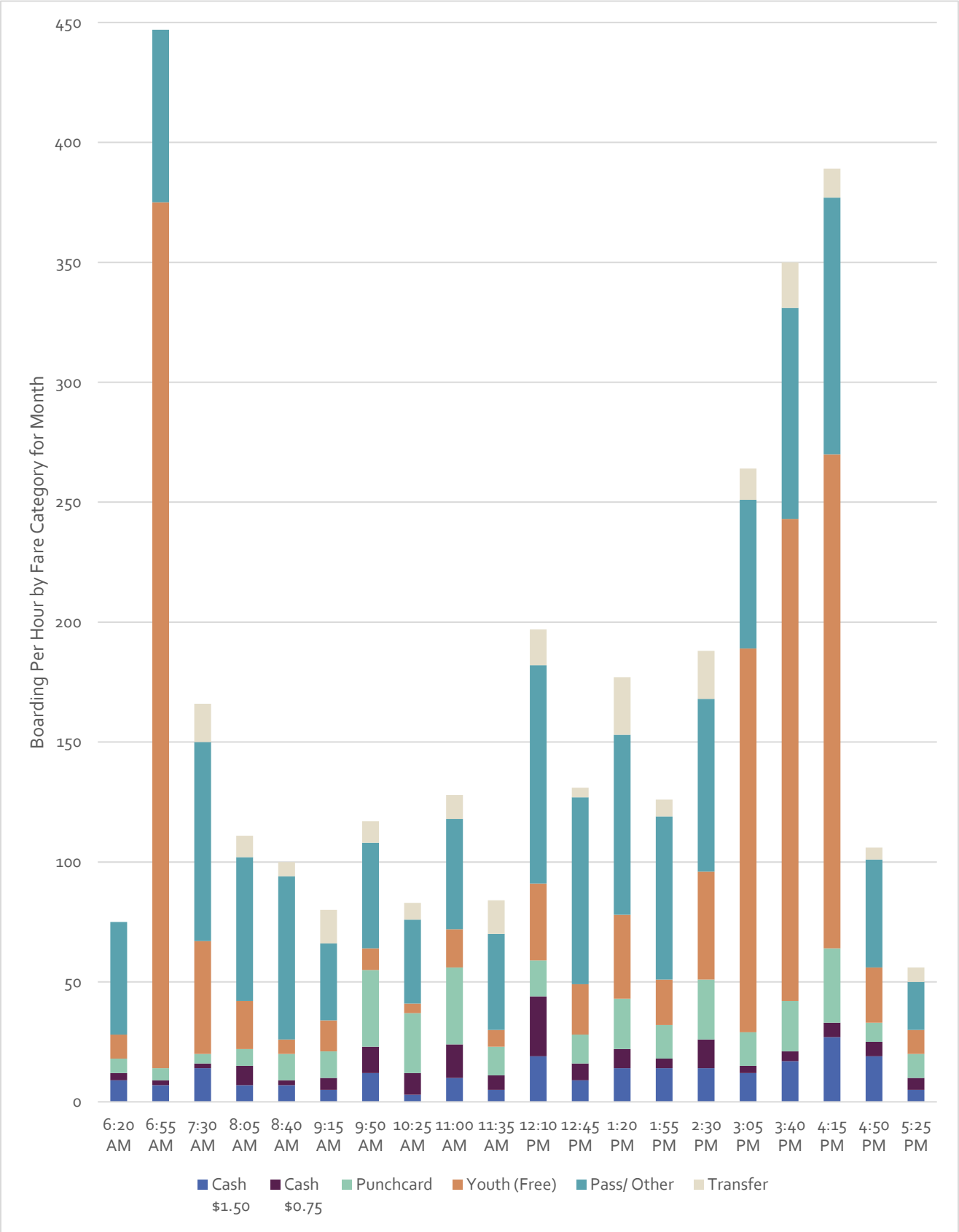


Figure 30: Roosevelt Weekday Ridership by Time of Day and Fare Type, October 2019

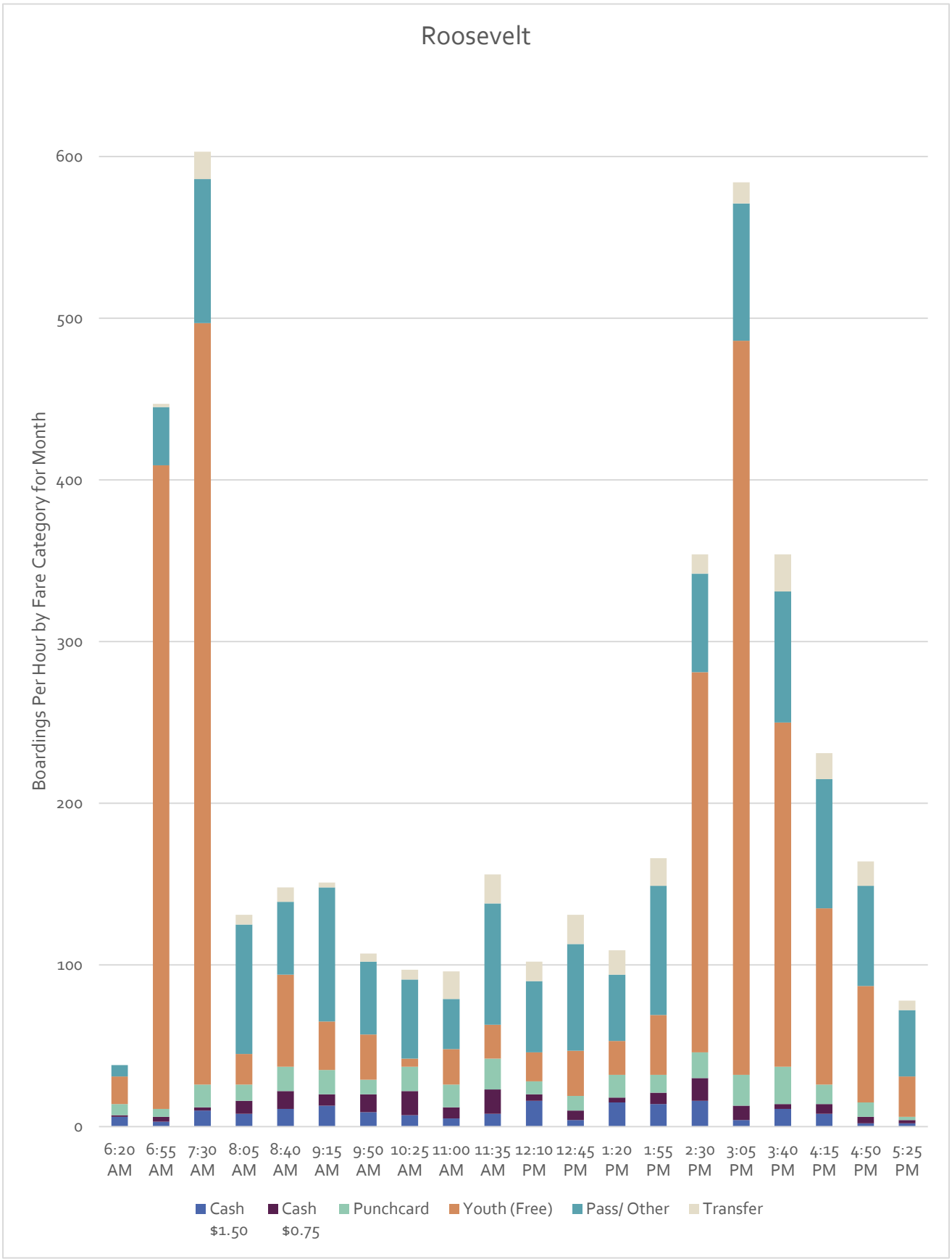


Figure 31: Washington Weekday Ridership by Time of Day and Fare Type, October 2019

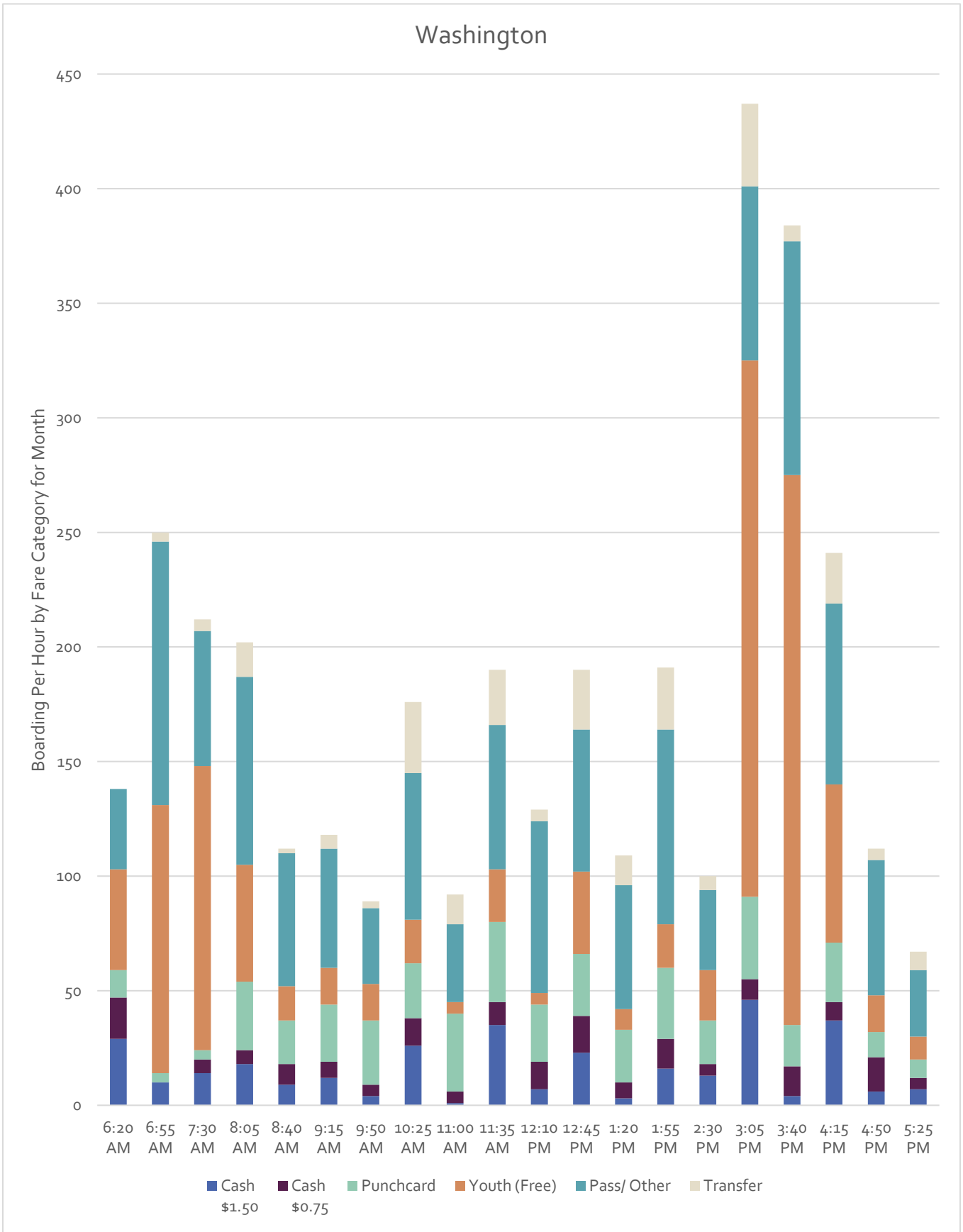


Figure 32: Weekday Fixed-Route Ridership, 2019

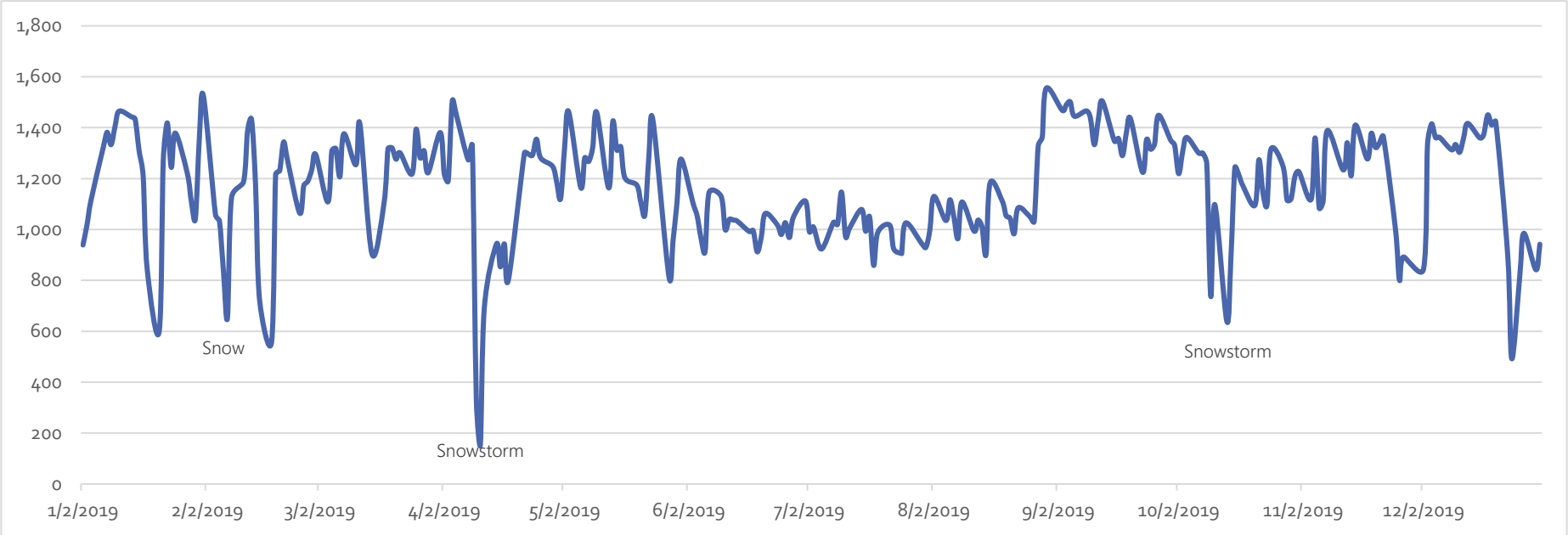
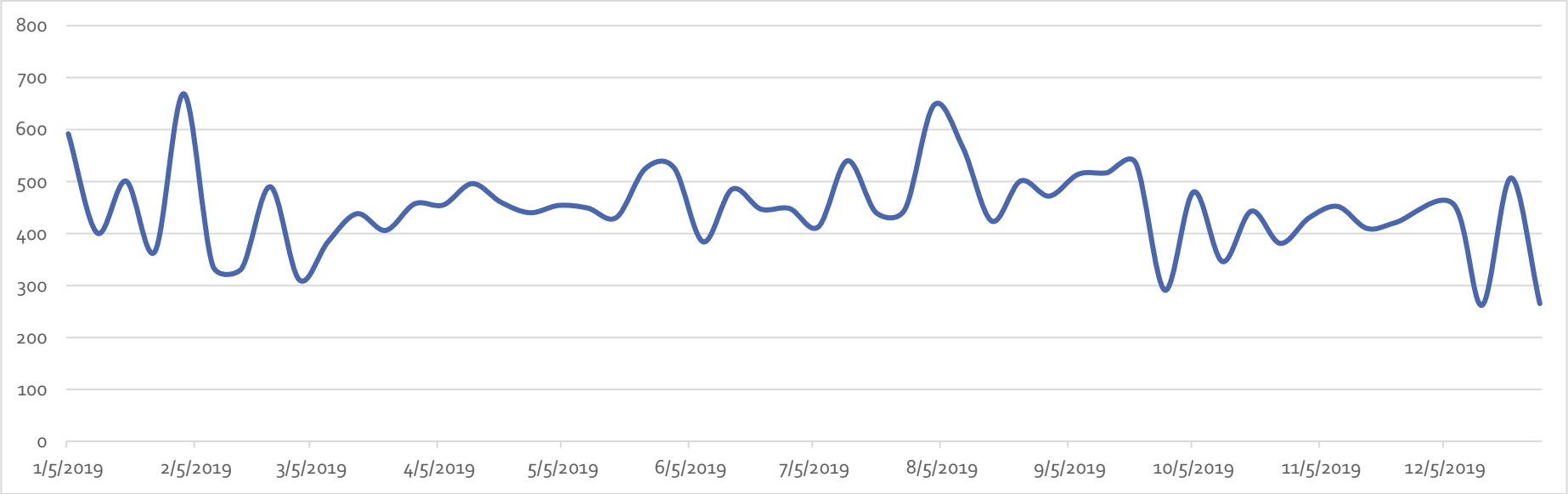


Figure 33: Saturday Fixed-Route Ridership, 2019



Reliability

Reliability is a critical element of the transit rider's experience; if the rider expects to catch a bus at a given time, it should not depart the stop too early or late. Although not every bus stop departure can be timed to the minute, transit systems typically identify several stops on each route that serve as timepoints. Their scheduled departure time is published for riders to use, and/or their adherence to that time is monitored by the agency.

In Rapid City, on-time performance is monitored at MBTC. Each time a driver leaves the MBTC at the start of their run or returns at the end of the run, they report the time to the dispatcher, who writes it by hand on a daily log sheet. There are six or seven additional scheduled timepoints along each route, but adherence to these timepoints is not logged. Because the log sheets are handwritten, reviewing and analyzing RapidRide reliability in detail is generally not done.

One clear trend is that buses tend to run late between the 2:30 PM and 4:30 PM laps, largely due to high student volumes after school ending times. This necessitated a policy that no buses leave MBTC until all transfers have been made. By the 4:50 PM lap, drivers have caught up to the schedule.

Speed

A local-service transit bus travels at a lower average speed than a personal vehicle because it has to stop more frequently. Transit service planners aim for an average operating speed of 12 to 15 miles per hour.[6] Values too far below or above that range indicate that the stop spacing or schedule may need to be adjusted.

The current RapidRide routes and schedule do not allow for average operating speeds under 15 miles per hour (Table 8). The Jefferson North route has the lowest average speed at 15.55 miles per hour. Some route segments naturally move fast; for example, Lincoln South runs nonstop for half a mile along Cambell Street, which has a posted speed limit of 45 miles per hour. Even with these segments taken into consideration, scheduled run times are surprisingly short compared with the distance each route must cover. The Lincoln South route has the highest average speed at 23.32 miles per hour.

[6] This is a practical goal born of the observation that buses stopping to load passengers at regular intervals move slowly. The Transit Capacity and Quality of Service Manual does not discuss average operating speed in detail. Local bus service was defined by MBTA in the 1970s as a route that operates primarily on arterial streets, with a minimum of eight stops per mile and an average operating speed of 15 miles per hour or less. More recently, the industry has begun to use Google Maps for estimates, using the rule of thumb that the travel time of a bus should be about 30 percent higher than Google's predicted travel time for a car making the same trip.

Table 8. Scheduled Route Length and Speed

Route	Segment	Miles	Run Time (Minutes)	Average MPH
Borglum	Jackson	8.37	25	20.08
	West Main	8.10	25	19.43
Coolidge	North	8.66	25	20.78
	South 5th Street	10.38	28	22.23
Jefferson	North	7.98	23	20.81
	South	6.74	26	15.55
Lincoln	North	6.78	22	18.49
	South	9.33	24	23.32
Roosevelt	North	6.96	25	16.71
	South	7.16	25	17.19
Washington	North	6.95	25	16.69
	South	7.93	25	19.02

Stop Activity

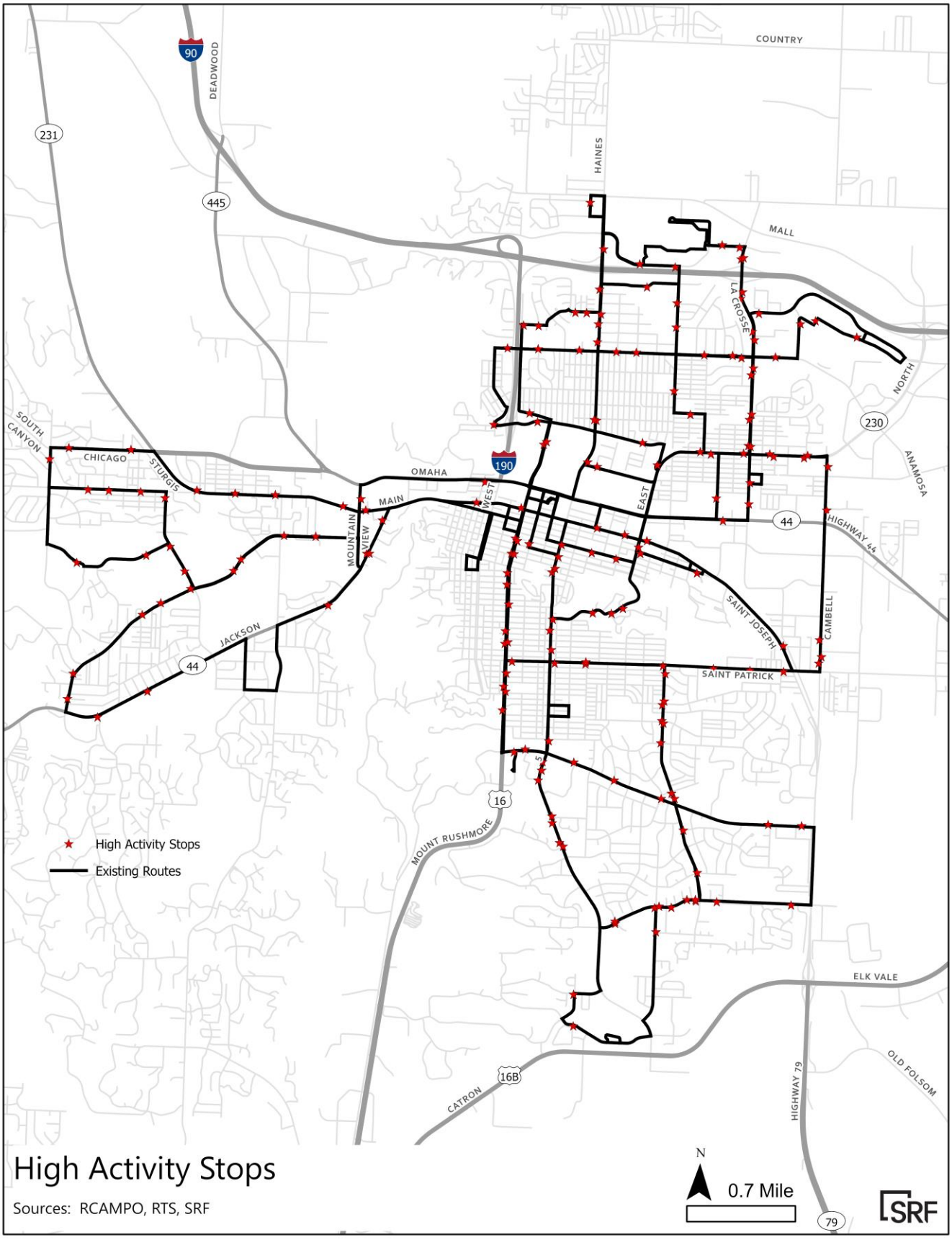
Stops near major trip generators typically show more boarding and alighting activity than others. Examining the level of activity at different stops can suggest which parts of the system are critically important and which have narrower use value to riders.

For this study, two operators (one from the AM shift and one from the PM shift) were asked to mark on a map the locations where they typically witnessed "high" activity and "moderate" activity[7] on each route. These locations were then matched with official stop locations as listed in a GIS shapefile created by RCAMPO in 2020. The route-specific activity maps are shown in Appendix B. It must be noted that drivers occasionally marked high activity in locations that do not have official stop locations. The Borglum – Jackson route in particular includes a southern segment that shows no activity on the stop map, but that was marked as high activity by both operators.

The map of all stops marked "high" on at least one route is shown in Figure 34. The results of this exercise indicate that there are no large segments of the fixed-route system with low activity. Short segments, such as those on Cambell and 5th Street, are relatively unproductive, but they directly connect high-activity locations.

[7] The operators were not given thresholds or asked to devise their own thresholds. They were assumed to have a reliable sense of the busiest stops on the route. The AM and PM operators by and large assigned the same scores to stops. Where they differed, the higher score was chosen.

Figure 34: High Activity Stops



Peer Performance Analysis

This peer analysis examines the performance of the RTS fixed-route network relative to that of peer systems. Since there are no recognized industry standards for most measures of transit system performance, widespread practice is to compare the performance of a system to the average values of a peer group of systems. Data used in this report come from the FTA's National Transit Database (NTD), a repository of data about American public transit systems. NTD was used because its data are readily available and consistently reported.

The following peer analysis compares RapidRide performance to a peer group of six other fixed-route bus systems, using the performance measures listed in Table 9.

Table 9: Performance Objectives and Performance Measures

Performance Objective	Performance Measure
Cost Effectiveness	Operating Expenses Per Passenger Trip
Cost Efficiency	Operating Expenses Per Revenue Hour
Service Effectiveness	Passenger Trips Per Revenue Hour
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip
	Operating Ratio (Passenger Revenues Per Operating Expenses)
	Subsidy Per Passenger Trip
Community Investment	Passenger Trips Per Capita
	Total Investment Per Capita
	Local Investment Per Capita

The measures in Table 9 are used to assess RTS fixed-route performance in two ways:

- Single Year: Comparison to peer average for the most current year. Year 2019 NTD data are used. This is the most recent year for which NTD data was available for all peer systems at the time of analysis.
- Multi-Year Trend Analysis: Comparison to peer average for five consecutive years. NTD data from 2015 to 2019 are used. The multi-year analysis excludes the three per capita measures, as reliable annual population updates are not available.

Peer Groups

The selection of the peer groups for RTS was based on a review of small urban bus systems in NTD. Other systems' fixed-route bus data (excluding any other modes operated) were used in the selection of peers and the subsequent analyses. Missoula, MT stands out in that it introduced a zero-fare policy in 2015. It was included in the peer group because it is one of the closest peers in terms of service area population and because its post-2015 boost in ridership is similar to the outcome of the Youth Ride Free campaign in Rapid City.

Table 10 contains 2019 operating statistics for RapidRide and the selected peer systems.

Table 10: 2019 Operating Statistics – Rapid City Peer Group

System Name	City	Revenue Hours	Passenger Trips	Operating Expenses	Passenger Revenues	Service Area Population
MET Transit	Billings, MT	41,735	424,671	$3,893,242	$369,856	114,773
CTP	Cheyenne, WY	21,966	146,166	$937,786	$93,597	73,588
GET	Greeley, CO	41,956	807,836	$3,710,029	$397,733	117,825
Mountain Line	Missoula, MT	50,193	1,556,774	$5,543,103	$0	82,157
SCTS	Sioux City, IA	42,820	834,379	$4,923,397	$675,803	106,494
SAM	Sioux Falls, SD	62,344	769,437	$4,280,835	$431,576	156,777
RTS	**Rapid City, SD**	20,752	**418,085**	**$1,380,153**	**$194,389**	81,251
Average		40,252	708,193	3,524,078	$360,492	104,695
RTS as Percent of Average		51.6%	59%	39.2%	53.9%	77.6%

Source: National Transit Database.

Performance Measures: Results

RapidRide Five-Year Summary

Table 11 and Table 12 show RapidRide operating statistics and performance measures, respectively, for 2015 through 2019. The average annual rate of change for the five-year period is calculated for each statistic and measure.

Table 11: Operating Statistics – RapidRide, 2015-2019

Operating Statistic	2015	2016	2017	2018	2019	Annual Rate of Change
Revenue Hours	19,452	19,755	21,043	20,987	20,752	2%
Passenger Trips	291,026	295,060	348,210	369,697	418,085	9%
Operating Expenses	$1,009,286	$988,280	$997,384	$1,211,152	$1,380,153	8%
Passenger Revenue	$229,542	$226,710	$174,897	$209,652	$194,389	-4%

Source: National Transit Database

Table 12: Performance Measures – RapidRide, 2015-2019

Performance Measure	2015	2016	2017	2018	2019	Annual Rate of Change
Operating Expense Per Passenger Trip	$3.47	$3.35	$2.86	$3.28	$3.30	-1%
Operating Expense Per Revenue Hour	$51.89	$50.03	$47.40	$57.71	$66.51	6%
Passenger Trips Per Revenue Hour	14.96	14.94	16.55	17.62	20.15	8%
Average Fare Per Passenger Trip	$0.79	$0.77	$0.50	$0.57	$0.46	-12%
Operating Ratio	22.74%	22.94%	17.54%	17.31%	14.08%	-11%
Subsidy Per Passenger Trip	$2.68	$2.58	$2.36	$2.71	$2.84	1%

Source: National Transit Database

RTS Performance Relative to Peer Groups

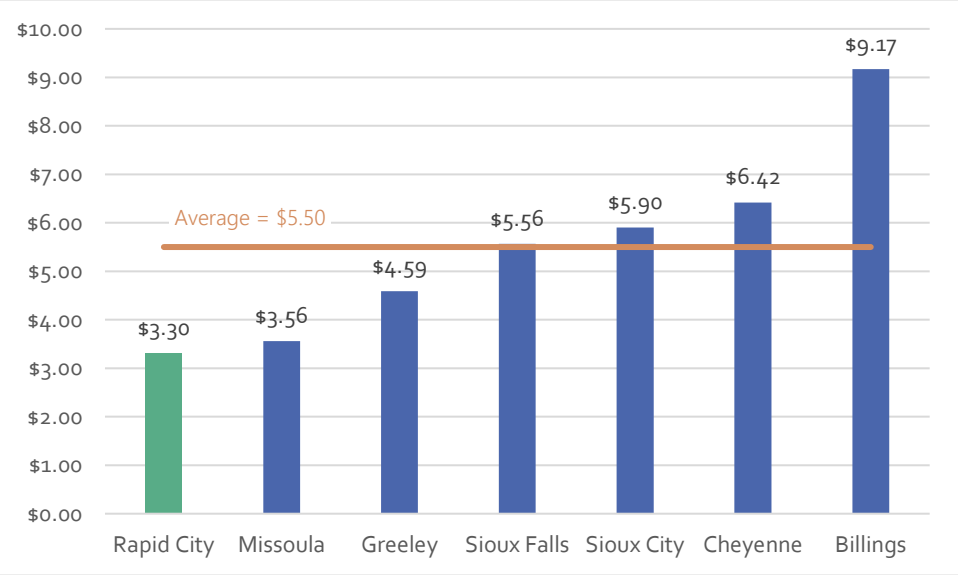
This section summarizes the results of the single-year (2019) and multi-year (2015-2019) analyses of the performance measures. RTS is compared to its peer group for each of the performance measures.

Cost Effectiveness

Cost effectiveness addresses transit use in relation to the level of resources expended. The primary measure for comparison in this category is **operating expenses per passenger trip.** The lower the cost per passenger trip, the more cost effective the service.

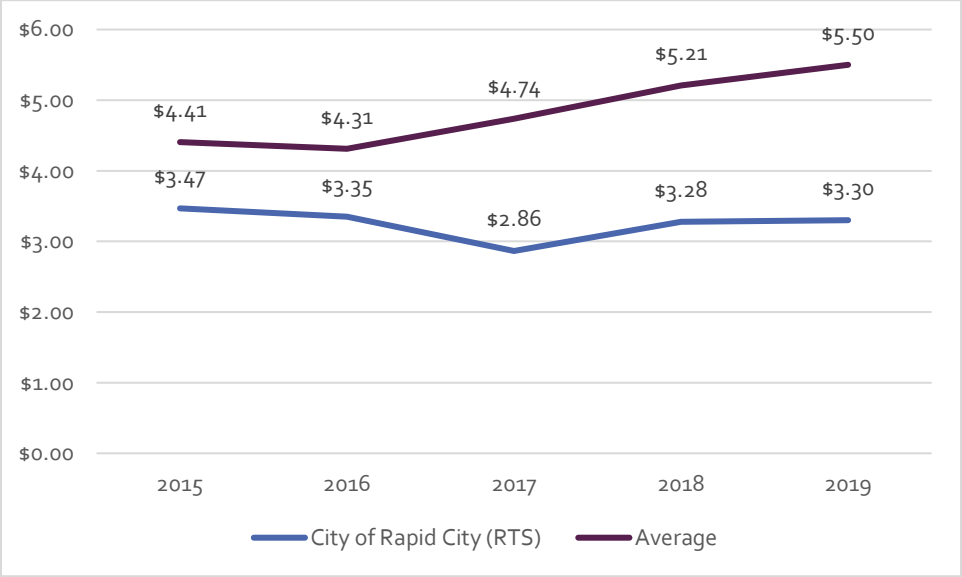
Rapid City has the lowest cost per passenger trip in its peer group, with Missoula a close second. Over the last five years it has trended in an opposite direction from peers, holding roughly steady as the peer average pulls upward.

Figure 35: Peer Operating Expenses Per Passenger Trip (2019)



Source: National Transit Database

Figure 36: Operating Expenses Per Passenger Trip Compared to Peer Average, 2015-2019



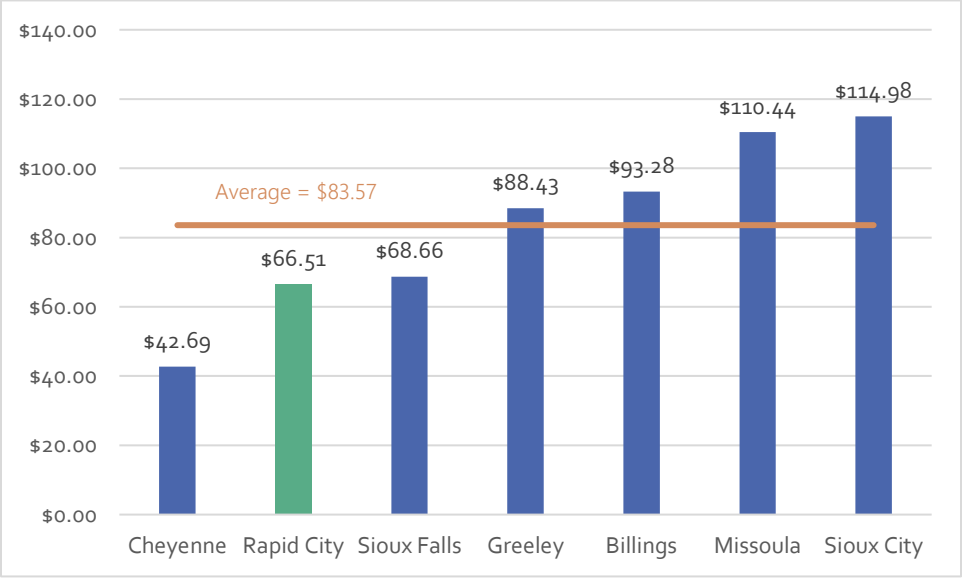
Source: National Transit Database

Cost Efficiency

Cost efficiency examines the amount of service produced in relation to the amount of resources expended. **Operating expenses per revenue hour** is the measure used to assess service efficiency.

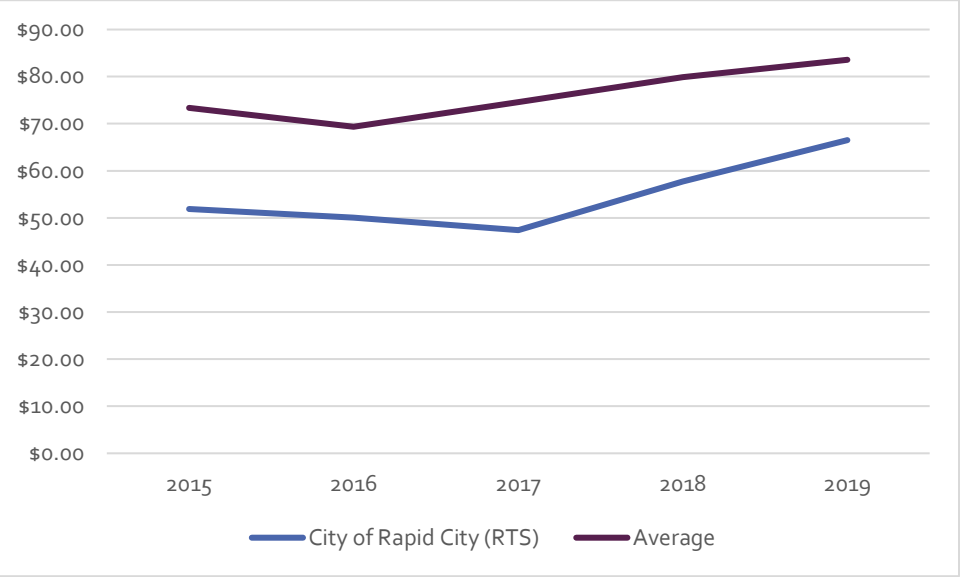
Rapid City is well below average in this metric as well, although it has been increasing faster than the peer average since 2017.

Figure 37: Peer Operating Expenses per Revenue Hour, 2019



Source: National Transit Database

Figure 38: Operating Expenses per Revenue Hour Compared to Peer Average, 2015-2019



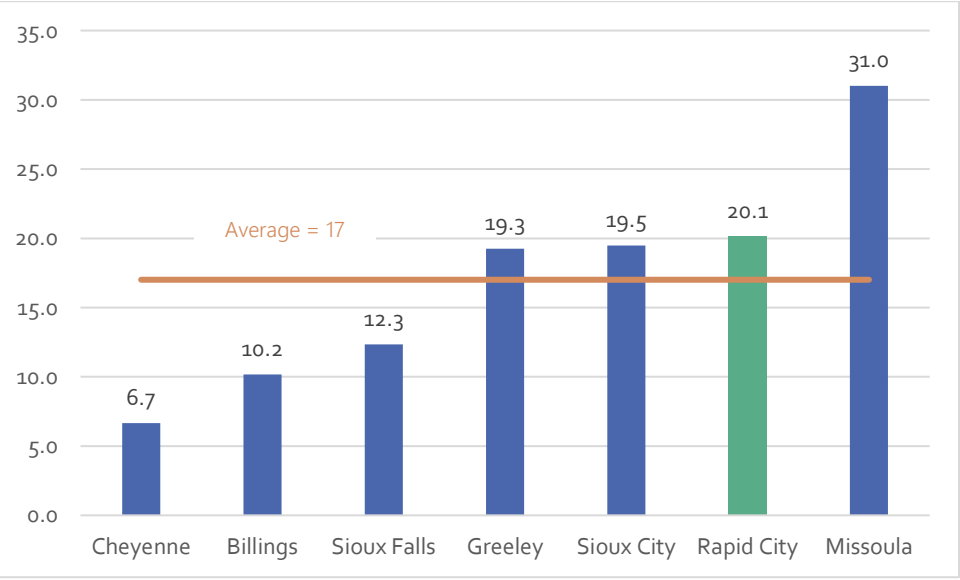
Source: National Transit Database

Service Effectiveness

Service effectiveness is a measure of the consumption of public transportation service in relation to the amount of service available. **Passenger trips per revenue hour** is the measure used to assess service effectiveness.

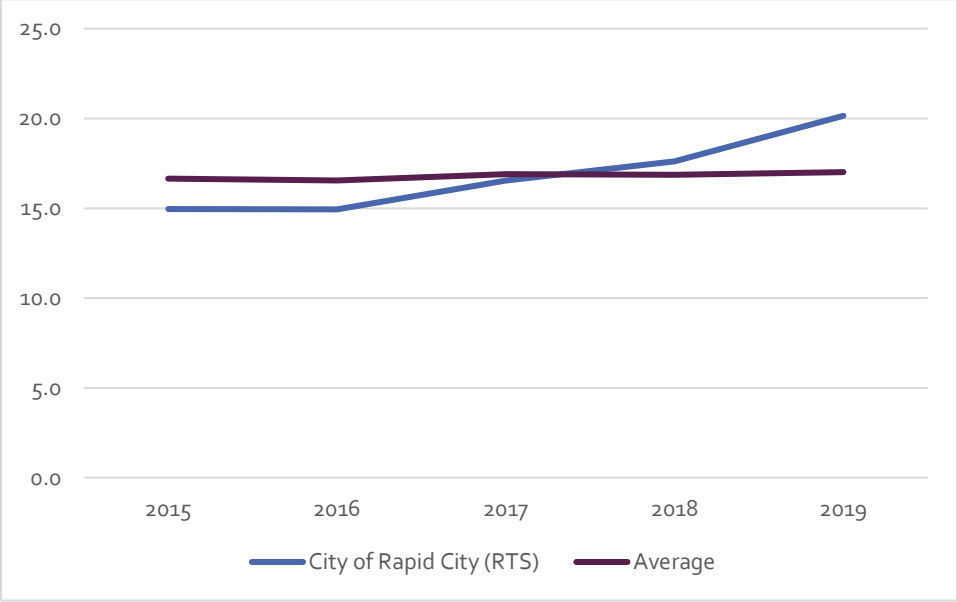
Rapid City has the second-highest number of passenger trips per revenue hour in its peer group, putting it above average and second only to Missoula. Unlike the peer average, Rapid City's performance has improved between 2015 and 2019.

Figure 39: Peer Passenger Trips per Revenue Hour



Source: National Transit Database

Figure 40: Passenger Trips per Revenue Hour Compared to Peer Average, 2015-2019



Source: National Transit Database, 2015-2019.

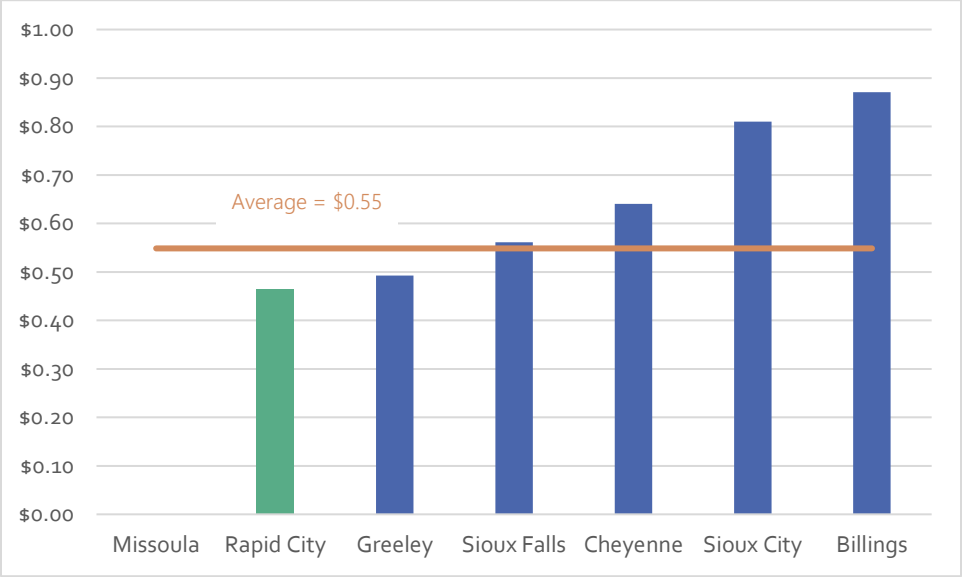
Passenger Revenue Effectiveness

Passenger revenue per passenger trip is a measure of the amount each passenger is paying to use the service and is reported as the **average fare per passenger trip**. From a financial perspective, a higher average fare is a positive finding for a public transit system whose operating budget depends on passenger fares. Understanding many transit customers are lower-income persons, active monitoring of whether the average fare level reduces use is needed and can be assessed relative to peers. Across the peers, the City of Missoula is an obvious exception, having decided to fund its service by other means. The zero-fare policy was initiated in 2015 with the financial support of the City of Missoula, Missoula County, and 13 other organizations. Prior to that, fares had represented nine percent of the operating budget.

Rapid City is again closest to Missoula in the peer group with below-average[8] fares per passenger trip. As Figure 42 illustrates, this metric declined sharply in 2016, coinciding with increased fare-free youth ridership.

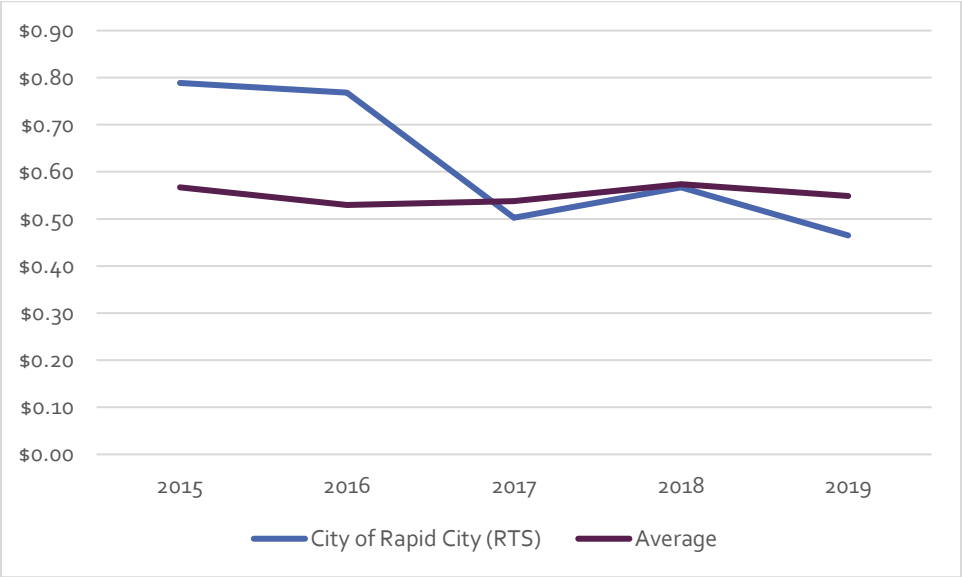
[8] Missoula is included in the calculation of every peer average, including fare-based metrics such as average fare per passenger trip. This decision was made because the metrics are not independent of one another. In Missoula as in Rapid City, zero-fare for all or some passengers results in higher ridership. The same factor that draws down the peer average for fares raises the peer average for ridership.

Figure 41: Peer Average Fare per Passenger Trip, 2019



Source: National Transit Database

Figure 42: Average Fare per Passenger Trip Compared to Peer Average, 2015-2019

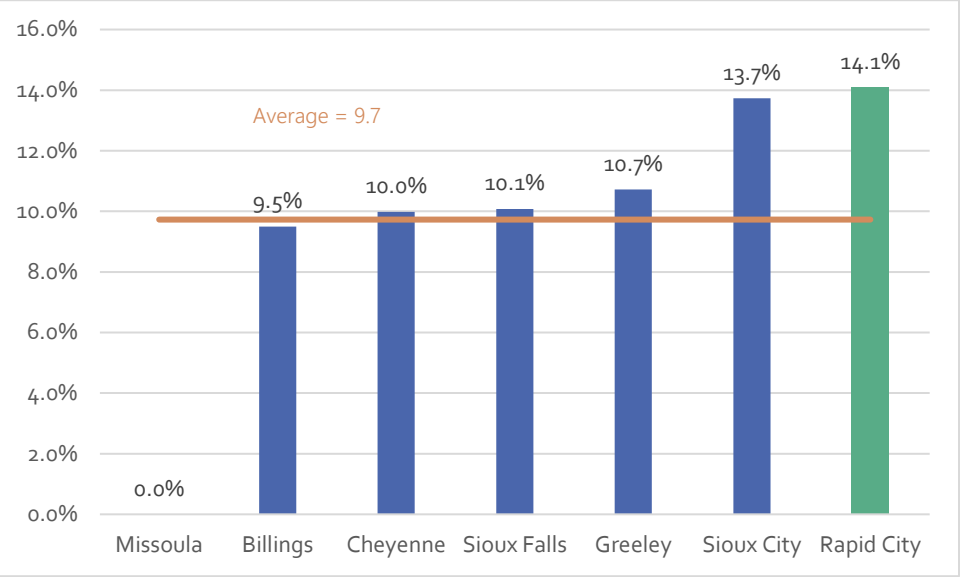


Source: National Transit Database

The ratio of revenue to operating expenses measures the level of operating expenses that are recovered through passenger fare payment. This measure is also simply referred to as the **operating ratio** or **farebox recovery**.

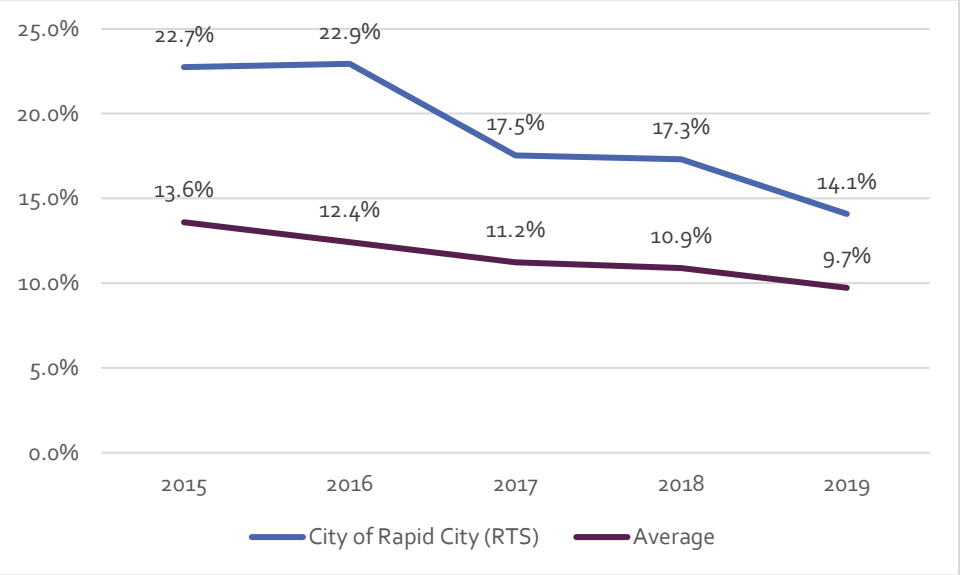
Rapid City's operating ratio is the highest in its peer group, although it has been declining at a faster rate than the peer average over the last five years.

Figure 43: Peer Operating Ratio, 2019



Source: National Transit Database

Figure 44: Operating Ratio Compared to Peer Average, 2015-2019

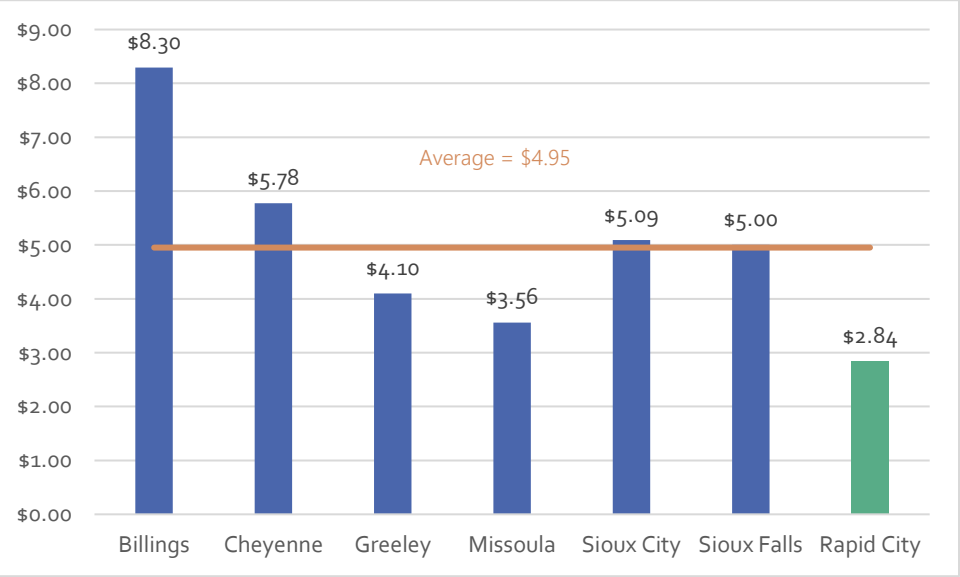


Source: National Transit Database

Net expense (subsidy) per passenger trip is used to measure the portion of each passenger trip that comes from sources other than fares.. Subsidy per passenger trip is calculated by subtracting passenger revenues from total operating expenses and dividing by total trips. The higher the operating subsidy, the more local, state, and federal resources are required to cover expenses.

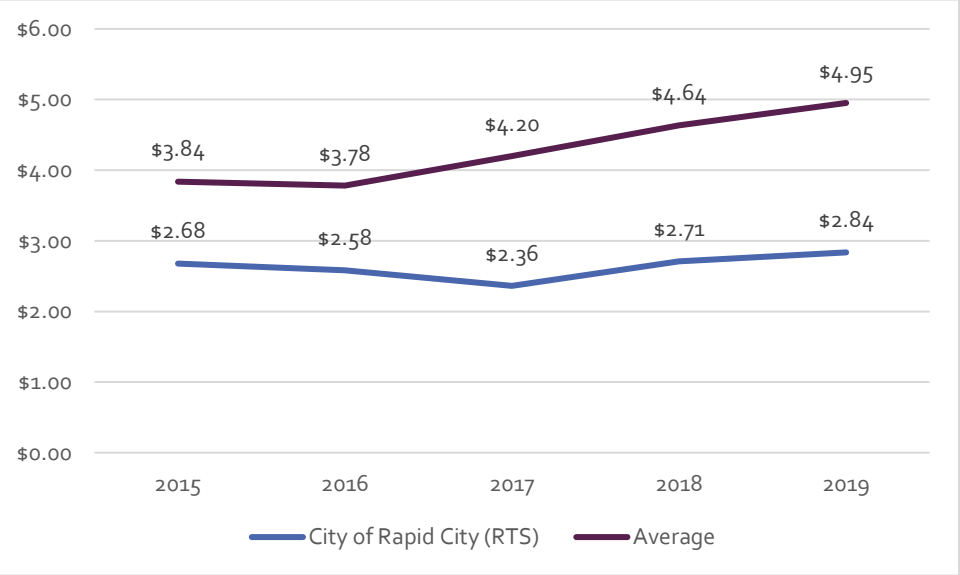
Rapid City's net subsidy per passenger trip is the lowest in its peer group at $2.84. It is increasing, but at a slower pace than the peer average.

Figure 45: Subsidy per Passenger Trip, 2019 Peers



Source: National Transit Database

Figure 46: Subsidy per Passenger Trip Compared to Peer Average, 2015-2019



Source: National Transit Database

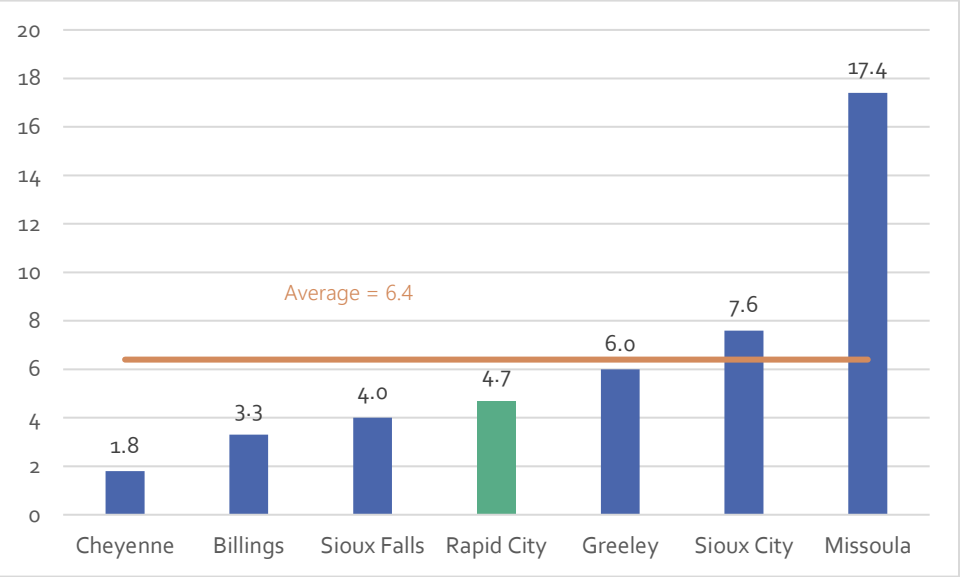
Community Investment

Three performance metrics use the total population of the transit service area to identify to the degree to which the community invested in public transit. This category includes market penetration, as measured by passenger trips per capita, but it also includes the degree of funding allocated to transit by decision-makers, as measured by total investment per capita and local investment per capita.

The per-capita figures used here are derived from the urbanized area population reported by each transit agency to the NTD. This count relies on the 2010 Decennial Census and will not be updated again until the 2021 reporting year. In the last decade, each of the peer cities has experienced annual population growth of up to two percent, resulting in populations that are between three and 25 percent larger than they were in 2010.[9] These city-specific growth rates are used to estimate 2019 urbanized area populations.

Although Rapid City comes in ahead of Cheyenne, Billings and Sioux Falls in terms of passenger trips per capita, it is well below average – likely because Missoula's high ridership drives the peer average upward.

Figure 47: Passenger Trips Per Capita, 2019 Peers

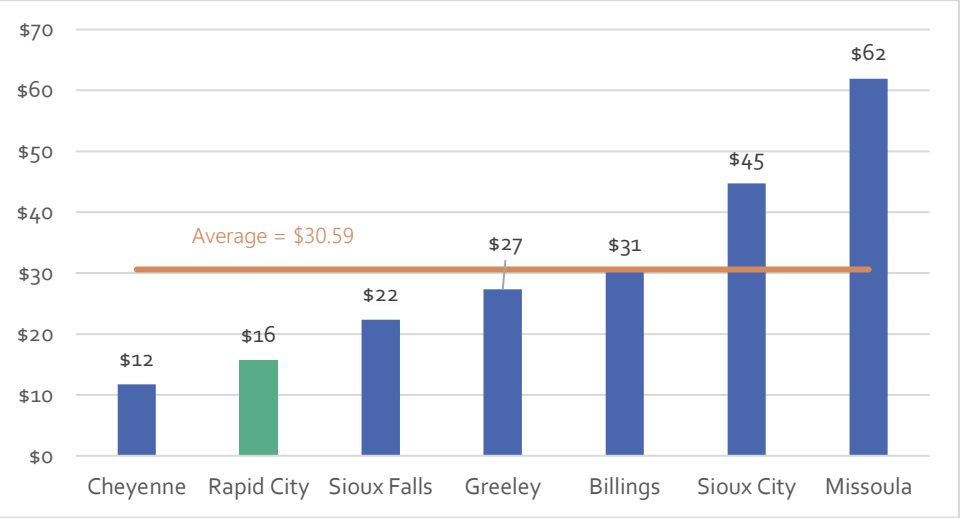


Sources: National Transit Database, U.S. Census Bureau

Rapid City is at the low end of the spectrum in terms of dollar investment per capita. Figure 48 shows the total operating expenses (for all modes) reported to the NTD for 2019. At $16.99 per capita, Rapid City is well below the average and lower than all but one of its peers.

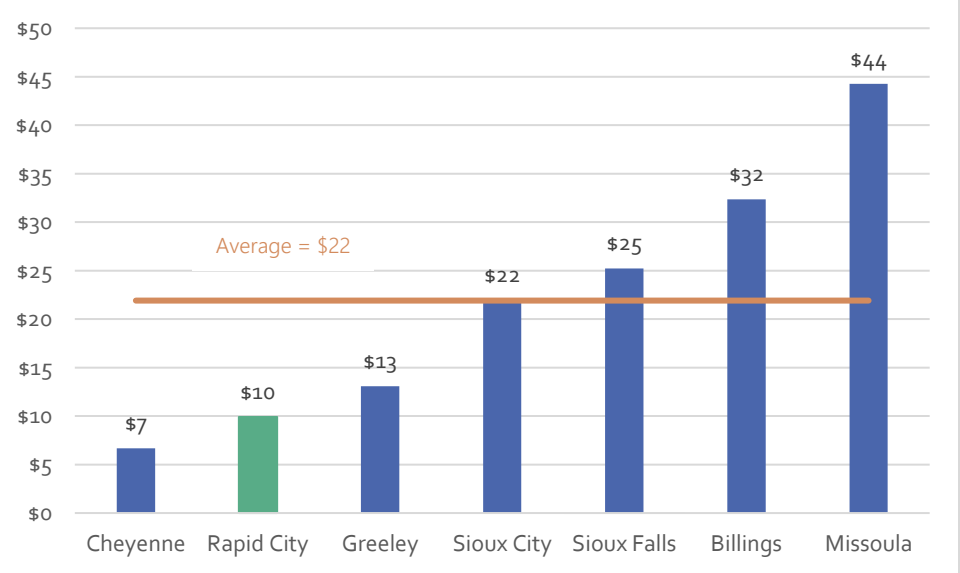
[9] Based on the difference between the 2020 Census high-level counts released in August 2021 and the 2010 Census counts.

Figure 48: Investment per Capita, 2019 Peers



Source: National Transit Database

Figure 49: Local Investment Per Capita, 2019 Peers



PART 3:
PUBLIC ENGAGEMENT

Overview

Engagement efforts conducted in 2021 provided input on current conditions and generated ideas for service improvements from current riders and community members through an onboard passenger survey, a community survey, presentations and discussions with stakeholder groups, and pop-up events.

Study Advisory Team

The outreach process included three videoconference meetings with a Study Advisory Team (SAT) composed primarily of representatives from federal, state, and local government agencies. The SAT provided input and oversight over the course of the project. Participants in these meetings included Bill Troe, Menno Schukking, and Eavan Moore (SRF); Kelly Brennan (RCAMPO); Megan Gould (RTS); Kip Harrington (City of Rapid City); Sarah Gilkerson and Monte Meier (SDDOT); Kumar Veluswamy (Rapid City Area Schools); Pat Jones (Rapid City Council); and Kristin Kenyon (FTA).

Project Website

A standalone project website (rtstransitplan.com) went live in April 2021 and remained online for the duration of the project. It included information on the TDP process; contacts at RCAMPO, RTS, and SRF; a link to a community survey; and a link to an interactive map-based survey described in more detail below.

Normally a transit development plan would launch with a public meeting that would include a presentation by project staff and/or an open house. In light of pandemic-related restrictions on public gatherings, the project team instead recorded a presentation and uploaded it to the website.

Stakeholder Meetings

The project team held small group discussions and interviews with stakeholders to gain their perspectives on how transit service can make their communities better places to live and work. In doing so, valuable insights were gained from people with diverse viewpoints and experiences in the community; this stimulated creative thinking and enabled discussions to be driven by stakeholders.

Small group discussions took place in person and via conference call. Participants included representatives from the Pennington County Housing Authority; Monument Health; Rapid City Council; the Standing Committee on Sustainability; Western SD Community Action Agency; YMCA; Elevate Rapid City; Feeding South Dakota; Prairie Hills Transit; and RTS personnel employed in dispatch, route supervision, bus operation, and maintenance.

The following is a summary of themes that emerged from stakeholder meetings and conversations with transit riders.

Input Received
Lack of transportation is a barrier to human services agencies outside the transit service area. Request expanding area – Catron/Mt. Rushmore area, industrial areas in northeast part of town, apartments near Black Hills Energy are examples.
Focus needs to be on getting people to work.
Service to Western Dakota Tech is needed.
Additional service hours are needed. There is demand between 6 PM and 6 AM that is not served.
Need to equitably provide service to areas with low-income populations.
There are dialysis services on the east side of town – outside the fixed-route coverage – As long as location is inside the city limits, people can use Dial-a-Ride to get to dialysis (short-term certification).
Need to consider greenhouse gas emissions from diesel buses. Are electric buses feasible?
Sidewalk condition and whether they are present at stops and from stops to destinations is critical.
Development patterns are not transit friendly.
Added information on bus location is needed at stops.
Are crosstown routes (or one route) feasible? Not everyone wants to go downtown. An issue to address – Very few transfers occur outside the downtown transit center.

Pop-Ups

In July 2021, the project team spent time engaging those who were unable to attend a meeting or have a phone call by spending time in community places. These "pop-up" events enable brief but impactful engagement with the broader public, especially those who are less likely to attend a formal meeting, including low-income people, those working multiple jobs, and busy families.

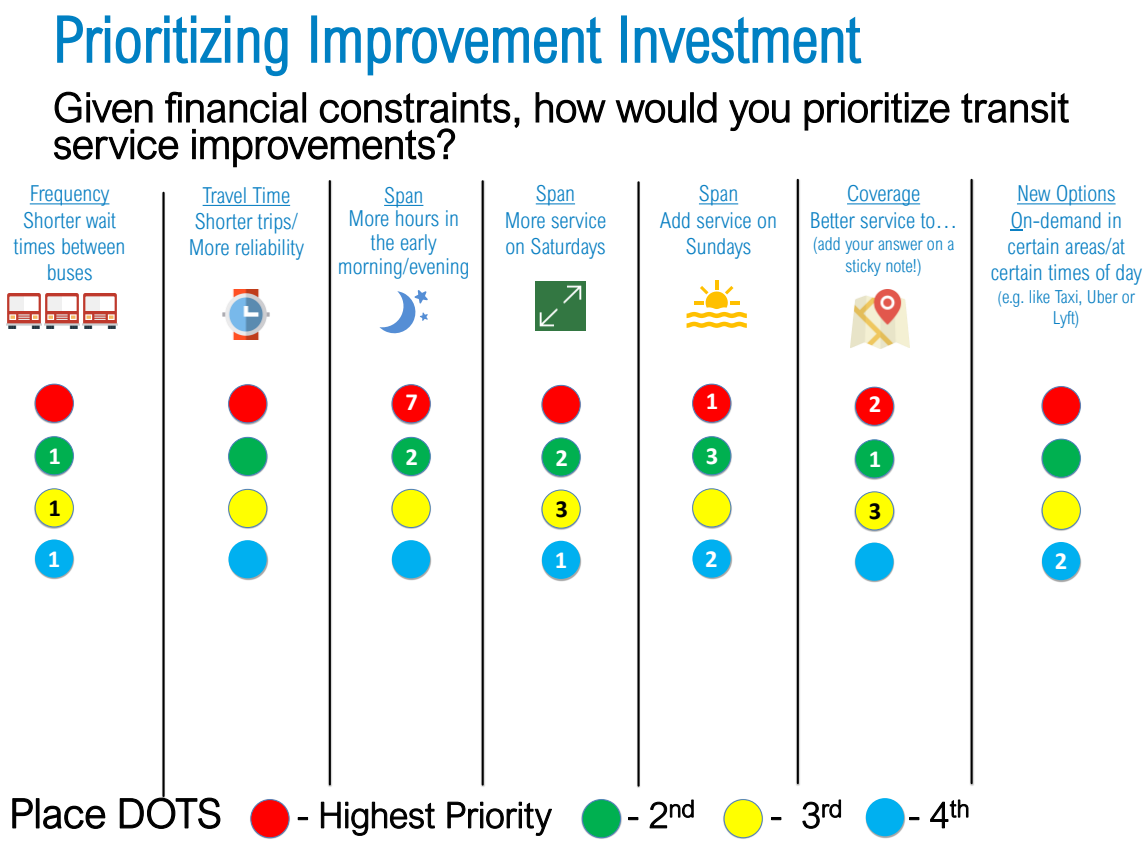
This engagement strategy allows opportunity to introduce the project in an informal setting and initiate open dialogue with community members. At the pop-up events, community members could talk with the project team and provide input through dot exercises and filling out the community survey. The project team held pop-up meetings at a "Coffee with Planners" event at City Hall, at a Summer Nights outdoor concert, and at a public housing complex.

During the July 15 Summer Nights pop-up, passersby were engaged to gather input on their use of transit and types of improvements that would benefit the community. While the majority of people the team interacted with were not transit riders, those who were provided input on current service perceptions and types of new service or new service areas needed. In a dot-sticker exercise, they indicated which service improvements were highest priority. The final results of the exercise are illustrated in Figure 51. In summary, preferences for service improvements were as follows:

- Add more service hours: 7 Highest Preference; 2 Second Highest
- Expand service coverage: 2 Highest Preference; 1 Second Highest; 3 Third Highest

Figure 50: Summer Nights Pop-Up Engagement

Figure 51: Preference for Transit Service Investment, July 25 Summer Nights Event Input



Onboard Survey

Surveys of transit customers, often referred to as onboard surveys, are useful in informing a transit system's planning and operations functions; they enable staff and elected officials to make data-driven decisions. The RTS onboard survey gathered information about how the transit system is working for customers, identified areas of need and priorities, and collected demographic information.

Methodology

The survey consisted of 15 questions, presented concisely to maximize legibility and responses. Questions included the subjects of the passenger's trip origin and destination, trip purpose, and bus transfer information; demographics; and which potential improvements would be preferred by riders.

The survey was offered in both online and paper format from Thursday, May 13 through Saturday, May 15. The online survey was promoted by including a QR code link on the paper surveys and on posters hung on bus and MBTC walls. However, only two individuals chose to fill out the online version of the survey.

Paper onboard surveys were handed out by bus drivers and self-administered by passengers. Passengers were asked to fill out a new survey every time they boarded. As an incentive to participate in the survey, those who voluntarily entered their contact information at the end of the survey were entered to win one of five $25 gift cards.

Findings

A total of 240 responses were collected, equivalent to about a quarter of one day's average ridership. 128 were collected on a Thursday, 89 were collected on a Friday, and 13 were collected on a Saturday. Ten surveys could not be attributed to a specific date.

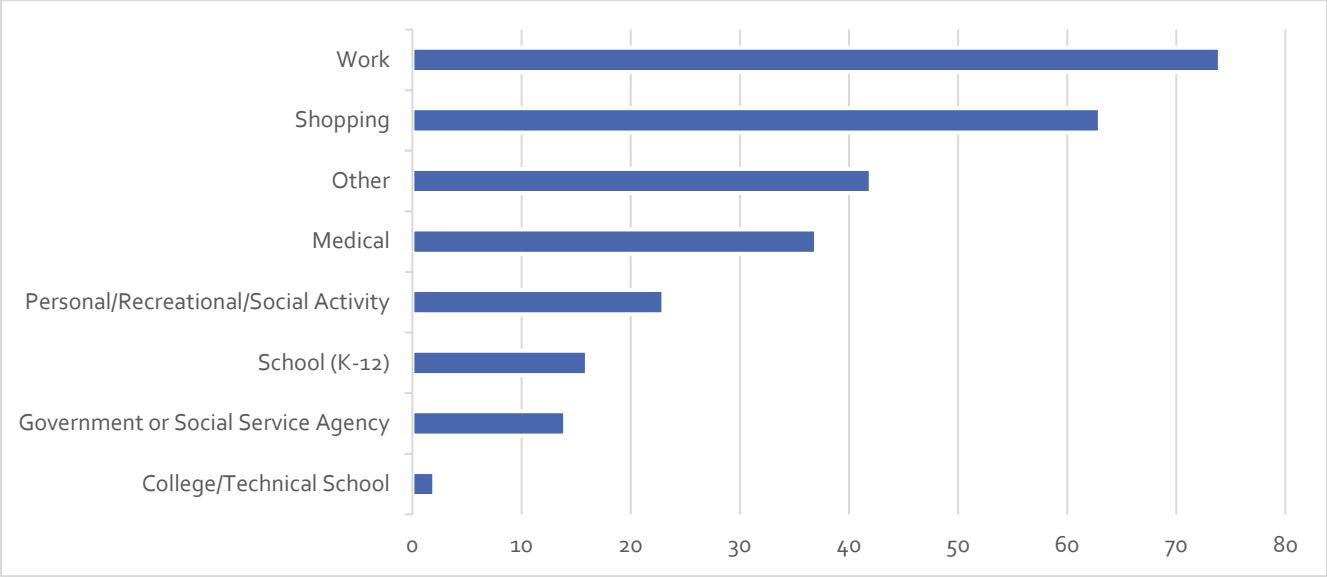
One survey response represents one boarding, not one individual; a review of the responses showed that at least some passengers did fill out the survey multiple times as requested. All of the findings discussed in this section, including demographic data, should be interpreted in this light.

Trip Purpose

Passengers were asked for the origin and destination of their trip, both as a type of place (such as "home" or "medical") and as a specific location. About 80 percent of trips were made directly to or from home. About one in five responses were chained trips, i.e. they combined multiple stops into one transit journey. For example, five surveys reported leaving a medical appointment to go shopping, and four reported traveling from one shopping destination to another.[10]

[10] This is a common but often overlooked feature of transit-dependent life. In this case, the four trips were made from 6th and Main to Rushmore Mall; from Sweet Treats on North Haines to Bankwest on Omaha Street; from Family Fare to Cloud 9 on North Haines; and from Mount Rushmore Road and East Anamosa to Wal-Mart.

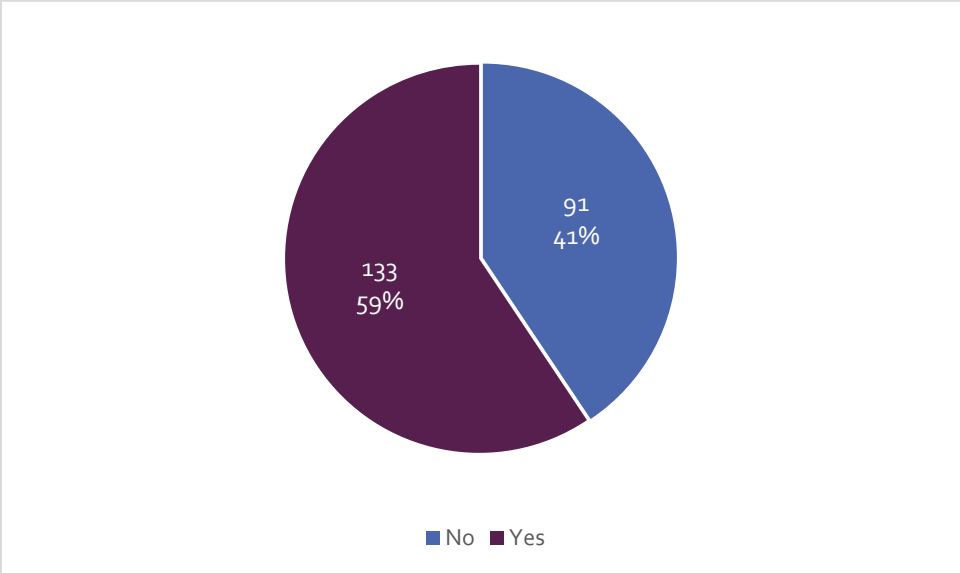
Figure 52: Combined Origins and Destinations (Excluding Home)



Travel Mode and Transfers

Figure 53 shows whether respondents transferred during their one-way trip.

Figure 53: Number and Percent of Trips Requiring Transfers



Source: 2021 Onboard survey

Few of the survey respondents named the route they were planning to transfer to; only 98 offered one of the six official route names. Table 13 was produced by counting these 98 and by interpreting an additional 19 responses. "Brown" (one response) was reclassed as "Coolidge," and "North" (eight responses) was assumed to mean the northbound loop of the same route. Responses not included in the table were "East" and "Main."

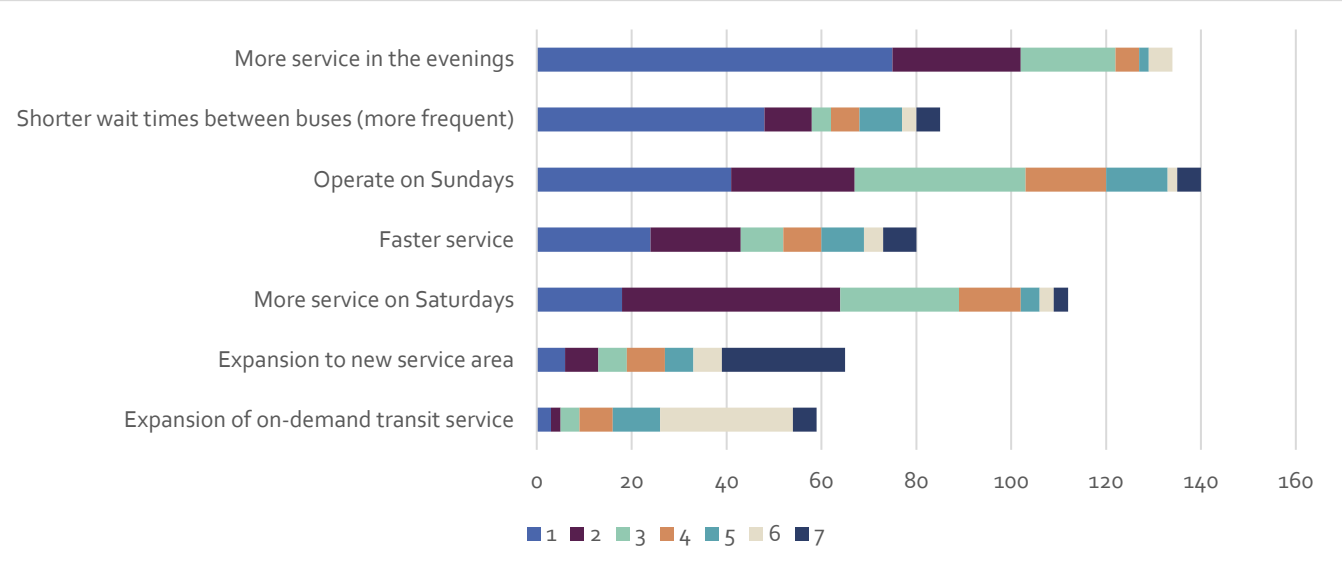
Table 13: Onboard Survey Transfer Routes

Current Route	Transfer Route					
	Borglum	Coolidge	Jefferson	Lincoln	Roosevelt	Washington
Borglum		4	3	3	8	6
Coolidge	2	5	4		3	3
Jefferson	6	3	3	1	2	2
Lincoln	3	2	2	1	5	3
Roosevelt	8	3	2	1		2
Washington	6		2	4	3	2

Potential Improvement Preferences

Passengers were presented with six potential transit service improvements and asked to rank them. Figure 54 shows these improvements ordered by the number of surveys that assigned them the top ranking of 1. The most frequently top-ranked improvement was "more service in the evenings." Frequency was the second most desirable service improvement.

Figure 54: Potential Improvements



Source: Onboard survey

Few respondents ranked all seven improvements. Among those who did, a majority assigned the lowest ranking of 7 to service area expansion. That, and the relatively low response rate for this improvement, suggests little positive interest among current fixed-route riders. However, a number did take the time to write out a potential expansion area. Their responses are shown in Table 14, along with the rank they assigned this improvement.

Table 14: Suggested Service Areas

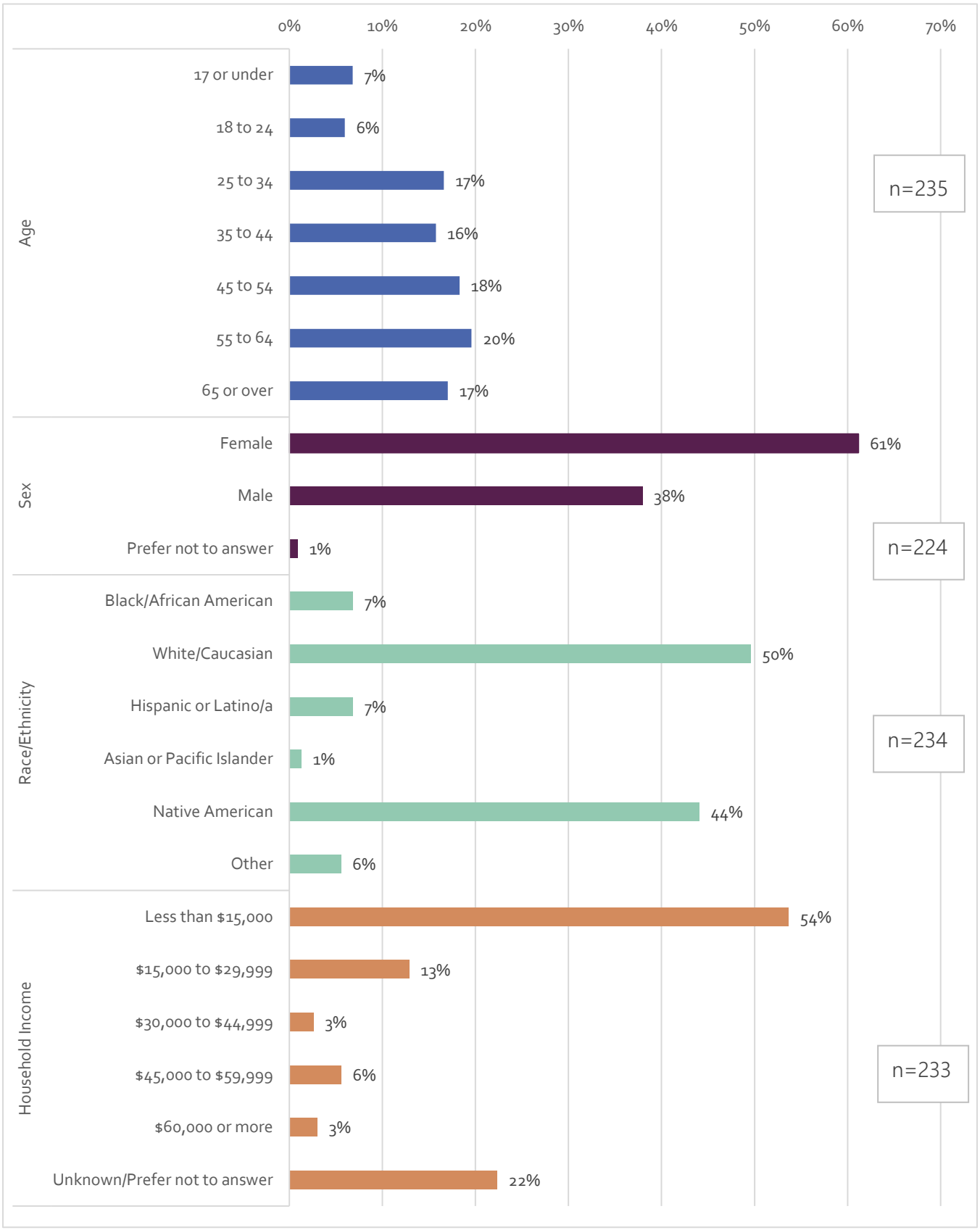
Ranking	New Service Area
Left blank	Watiki & Box Elder
1	Lombardy Rd.
1	Drive uphill at Village at Skyline Pines. A lot of people that live and work there take the bus.
1	Lumbardy St
1	Canyon Lake, and Haggerty's
2	Valley
3	Elk Vale Road
3	More Valley Buses
4	The Valley; Twilight Dr.
4	Twilight Dr. in Valley
4	The Valley; Twilight Drive
5	Service to outer city limits
5	Fair grounds area
6	Box Elder and Blackhawk
6	Valley
7	Downtown
7	Valley

Source: Onboard survey

Rider Demographics

Figure 55 shows the demographic and socioeconomic characteristics of onboard survey respondents, including age, student status, race or ethnicity, sex, and household income.

Figure 55: Onboard Survey Demographic and Socioeconomic Characteristics

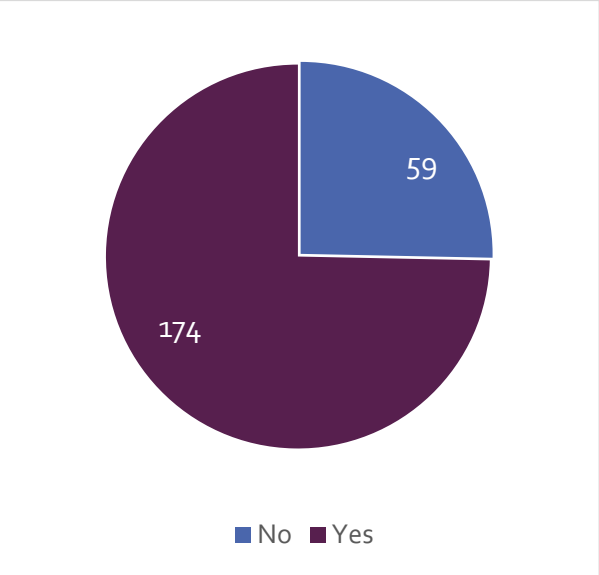


Source: Onboard survey

Mobile Devices

The survey also asked: "Do you own a smart phone or other Internet-connected mobile device?" A quarter of the respondents did not own a mobile device, as shown in Figure 56.

Figure 56: Mobile Device Ownership



Additional Comments

The survey ended by asking how else Rapid City transit services could be improved. Many of the comments reiterated the service improvement preferences listed earlier in the survey, such as frequency and service hours. By far the most frequent comment was a request for evening hours (25 mentions). Other suggestions include:

- Bus driver attitude. Thirteen comments mentioned this in varying ways, e.g. "Nicer drivers", "Less grouchy drivers", "More patience", "Give bus drivers a raise", "Don't drive so aggressively."
- New buses. Nine comments suggested new and/or larger buses.
- Transfers. Seven comments requested more free transfer points or faster transfers.
- Stop placement. Four comments suggested more stops or more efficient stops.
- Technology. Requested technologies include phone apps with bus arrival updates, electronic fare payment, and automated fareboxes.
- Lower volume of music played by drivers, regular brake inspections, timeliness, more shelters, more fare-free senior days, fewer storm sewer grates between the curb and bus door, safer crossings at 5th and Minnesota, and bathroom access at MBTC.

The full list is included in Appendix A.

Community Survey

Community surveys – distributed to transit riders and non-riders alike – help establish the value a community places on transit services and can provide insight for guiding future investments. The

community survey addressed transit use, future travel patterns, and overall interest and willingness to support additional transit services in the community.

Methodology

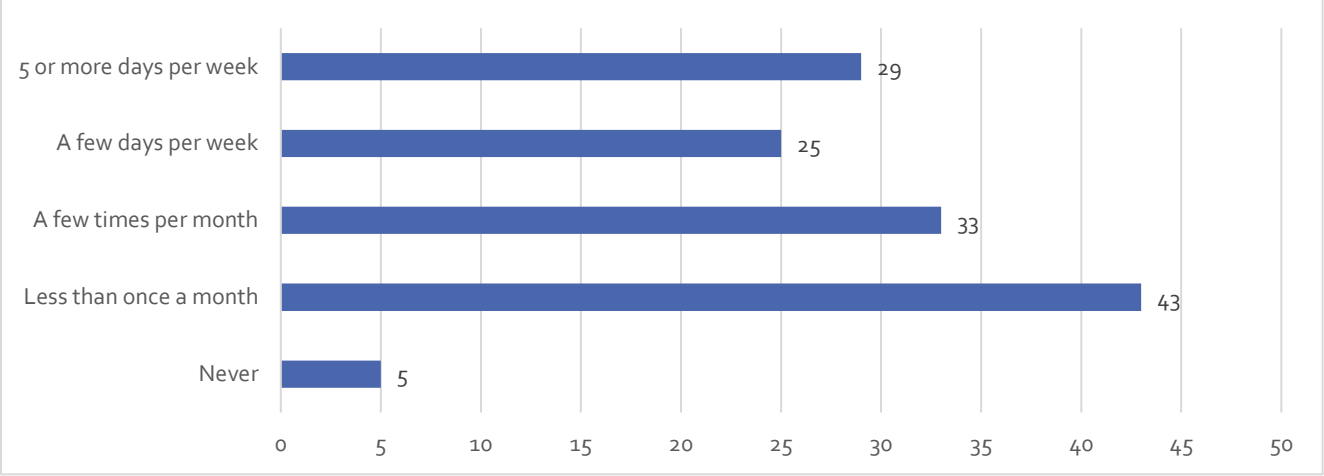
The community survey was designed to enable participation from as many users as possible. The survey collected information on the use of transit, the use and perception of transit, potential improvements, and demographic information, such as the number of vehicles in the household, income, age, race, and gender. See Appendix A for a copy of the community survey.

The survey was conducted in both online and paper formats during spring and summer of 2021. Paper copies of the survey were available at City Hall, MBTC, and the downtown public library. The Pennington County Housing Authority mailed out paper copies with its June rent invoices and received a substantial number of completed surveys from tenants. The paper survey included a QR code link to the online version, which was also advertised on the project website and on social media.

Findings

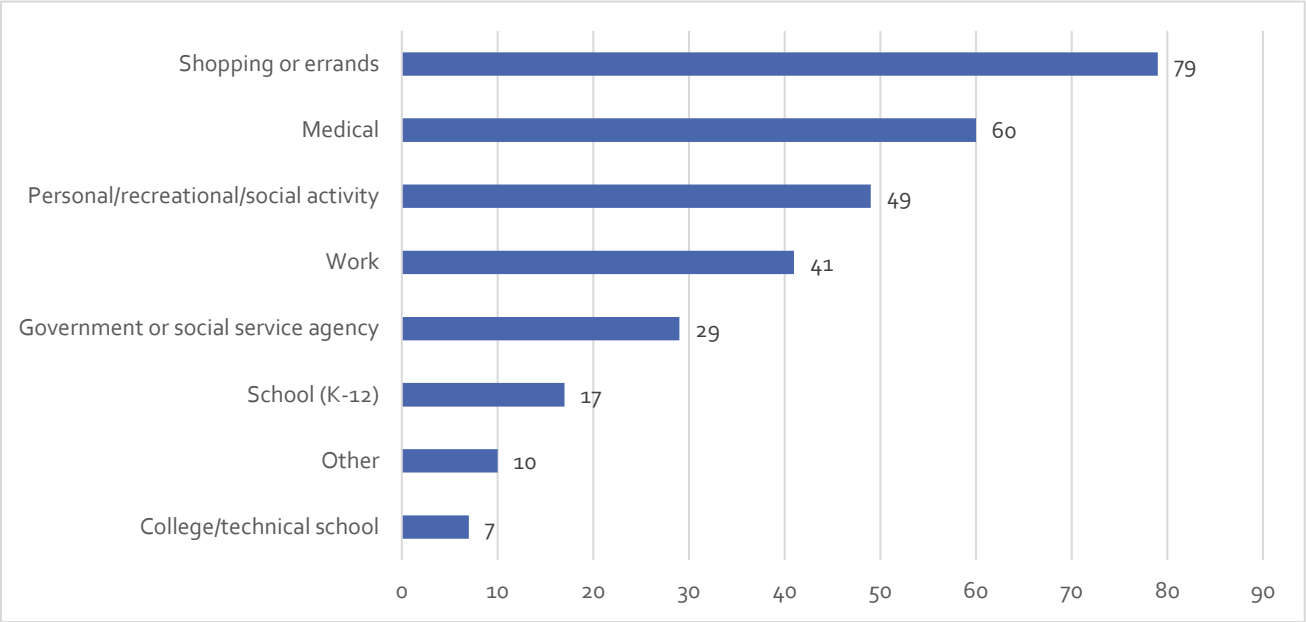
Altogether, 303 surveys were completed, representing about 0.4 percent of the Rapid City population. About 40 percent of respondents reported riding at least a few days a week (Figure 57). The remainder were largely infrequent/occasional riders.

Figure 57: Frequency of Transit Use



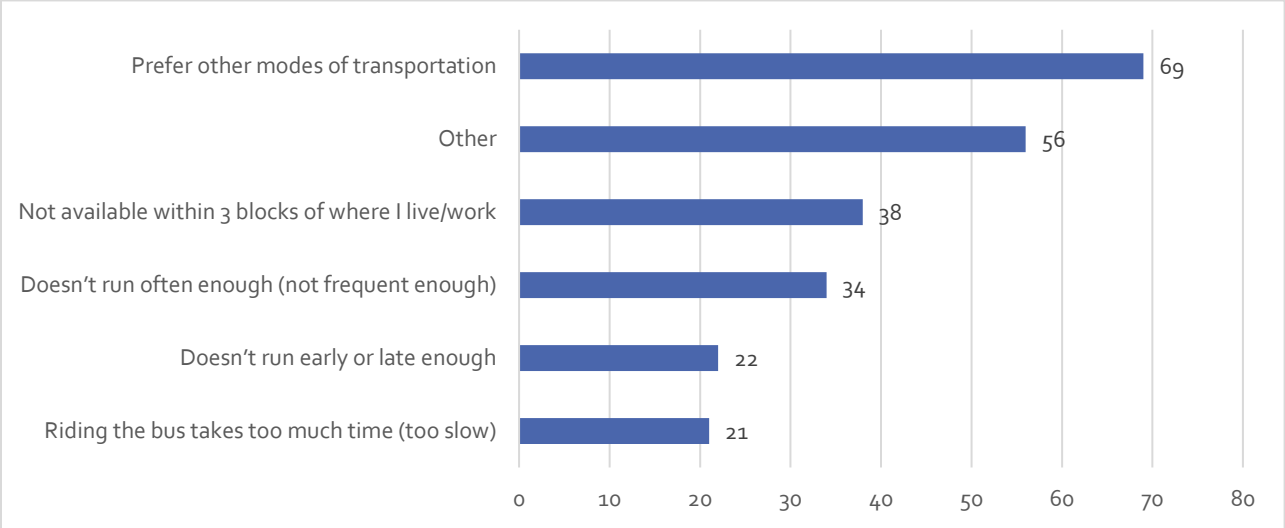
The next question asked for a typical transit trip purpose. Shopping or errands was the most common purpose, followed by medical trips and personal/recreational (Figure 58). College commutes were the least frequent. The broad pattern here is similar to the onboard survey results; the most notable exception is that only 31 percent of community respondents reported taking transit to work, whereas work was the single most common trip purpose in the onboard survey. This is likely due to the greater inclusion of infrequent riders in the community survey.

Figure 58: Typical Trip Purpose



The survey then asked: "If you do not use RTS regularly, what are the reasons discouraging you from doing so?" The two most common categories checked were "Prefer other modes of transportation" (46 percent of respondents) and "Not available within 3 blocks of where I live/work" (25 percent of respondents).

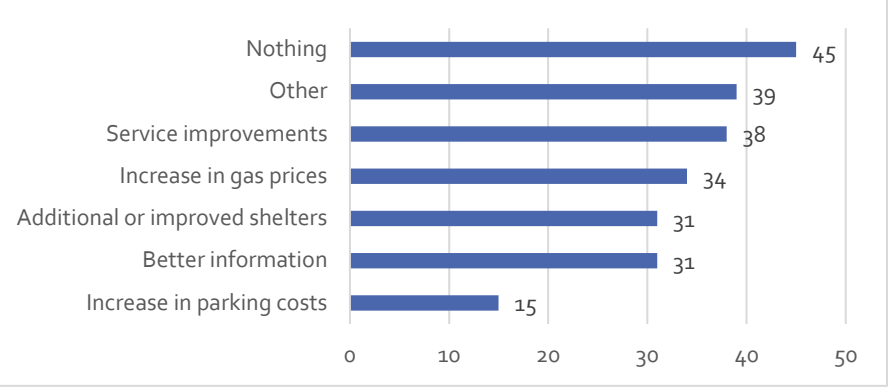
Figure 59: Reasons Not to Take Transit



Thirty-seven percent wrote in a response under "Other." Although some of these responses simply expanded on other categories – e.g. "have a car" is a more specific way of saying "prefer other modes of transportation" – others offered new reasons, including inadequate space for shopping bags, safety concerns, timeliness, and cost. The full list is included in Appendix A.

The next question asked: "What condition(s) might make you reconsider using transit in the future?" Thirty percent of respondents answered "nothing." Only 10 percent checked "Increase in parking costs."

Figure 60: Reasons to Reconsider Transit

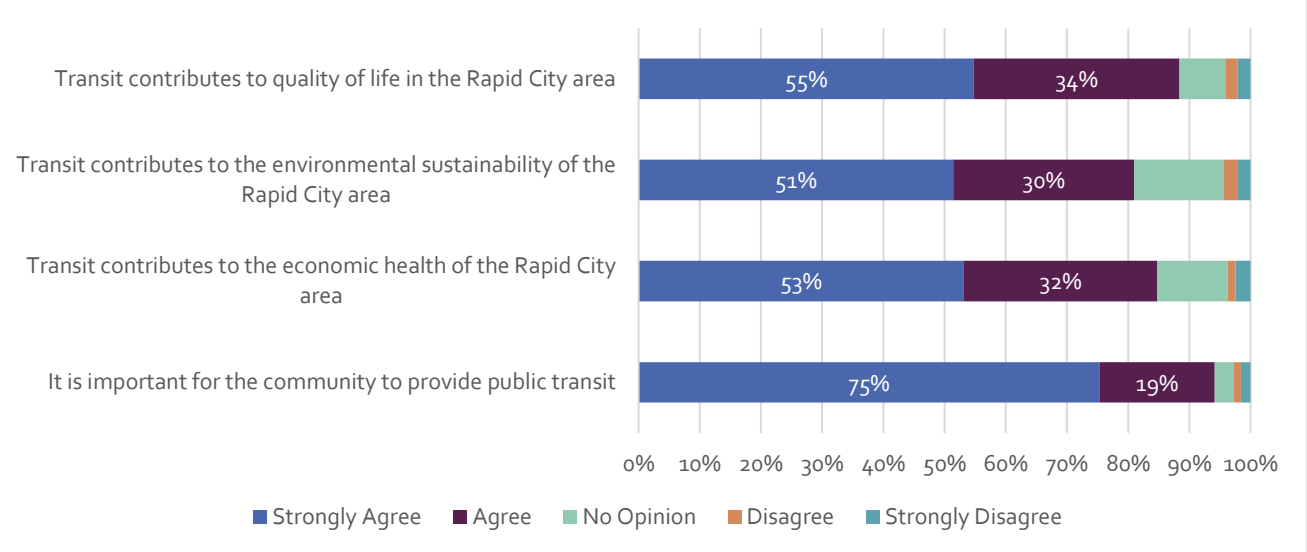


The "Other" category included varied responses, many of which could also be categorized as service improvements and better information. Seven people indicated they would take transit only if driving became impossible. One person requested door service for those visually impaired. The full list is included in Appendix A.

Transit and the Community

Respondents were asked whether they agreed or disagreed with statements describing the value of transit in the community.

Figure 61: Transit and Community Values



Strong majorities agreed that public transit is important (94 percent), that it contributes to quality of life (89 percent), that it contributes to the city's economic health (85 percent) and that it contributes to environmental sustainability (81 percent).

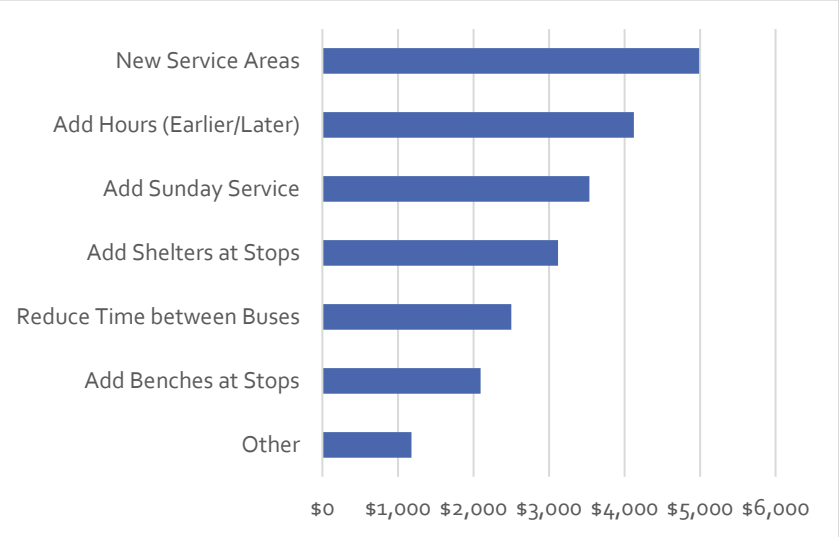
Community Priorities

Like the onboard survey, the community survey asked respondents to prioritize potential improvements. Rather than rank their choices, respondents were instead asked: "If you had $100 to invest in transit service, how would you allocate the funds to make service better for you?" Respondents could choose from a list of six improvements or add their own.

The results of this question are shown in Figure 62. New service areas received the total largest amount of proposed funding, followed by extended service hours.

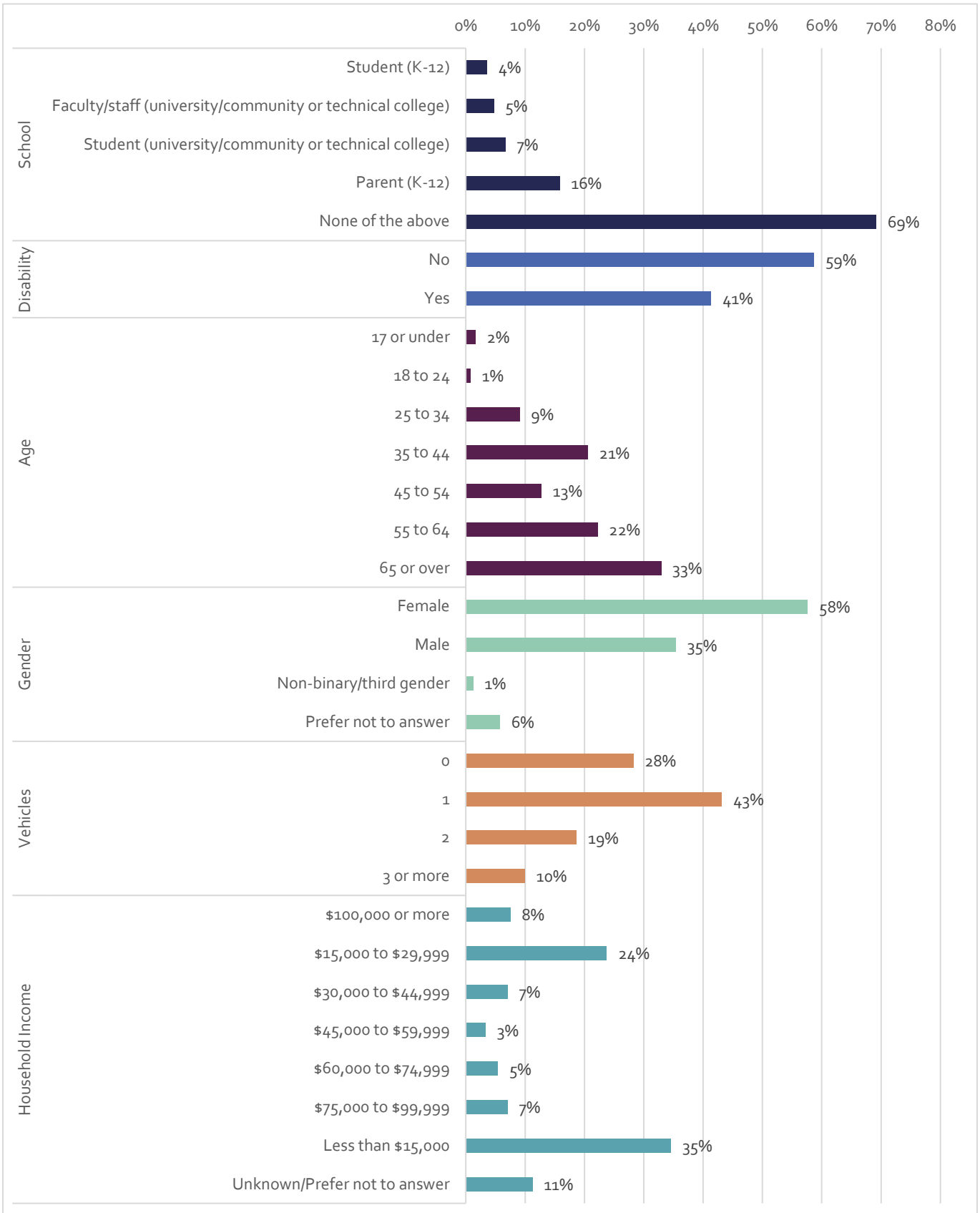
"Other" received the smallest total allocation. Some of the write-in suggestions included "safer rest stops," "making payment easier," "proper cleaning," "more disability training and enforcement for drivers," and "lower ticket prices." The full list of open-ended comments and suggestions is included in Appendix A.

Figure 62: Community Transit Priorities



Finally, the community survey also asked for demographic information. The responses are shown in Figure 63.

Figure 63: Demographic Information



PART 4: SERVICE RECOMMENDATIONS

Introduction

This plan makes two recommendations based on the operations analysis, public outreach, and planning principles described in the previous chapter.

Refresh

First, a set of revenue-neutral changes to the current routes is recommended. This "refresh" program can be carried out in the near term. Although small at first glance, the refresh makes meaningful improvements to RTS service. Among other changes, it adds a new service area, improves the efficiency of the loop system, and promotes reliability by making the operating schedule more consistent.

Service Expansion

Looking at opportunities to expand service to new hours and locations was included in the original scope of work, with the intention that planning staff would approach the Rapid City Common Council for any needed budget increases. Since then, Congress has approved an increase in federal formula funds for transit starting in 2022, making it all the more imperative to identify feasible service expansions. The recommendations presented here include:

- Expansion of evening service hours
- Expansion to Sunday service hours
- Coverage expansion by one or more new routes
- A flex zone pilot

Refresh Concept

An ideal bus route picks up and drops off passengers throughout its run, stops at regularly spaced intervals, is spaced from other routes so as not to compete for riders, arrives on time, and is easy for riders to use and understand. While the previous sentence highlights the ideal route and system characteristics, every network is influenced by geographic and budgetary constraints that result in some level of conflict with the ideal. Through the detailed service assessment completed as part of the TDP, series of network adjustments that reflect a "refreshing" of the RapidRide system to move closer to the ideal, while staying within local constraints. The following sections describe the constraints that guided service planning; the objectives that drove it; and the full refresh concept.

Constraints

Discussions with RTS staff established critical considerations that set hard constraints on any service changes.

Layover Time

Current schedules were planned around a layover/recovery time of 10 minutes at the end of each lap. Layover/recovery time built into each route ranges from nine to 13 minutes, out of a total 35-minute cycle time. While long by industry guidelines, the recovery time helps to ensure that drivers accumulate their contractually required 15 minutes of break time per shift without a separate break schedule. It also provides a buffer to address unavoidable sources of delay, most importantly the several points at which bus routes cross train tracks.

Maintain Service to Existing Locations

RTS made clear that no route segments could lose service altogether. Most critically, serving public schools is a top priority for RTS, as school trips account for a high proportion (approximately 40 percent) of its ridership. This includes continuing to serve all schools; maintaining a scheduled deviation to South Park Elementary School; and maintaining a direct connection between housing on Signal Drive and the nearest elementary and middle schools.

Objectives

The refresh incorporates six objectives based on fundamentals of service planning as they apply to the Rapid City context.

Minimize Redundancy

When transit routes run in the same direction along the same road during the same lap, they each pick up fewer riders than if the service were distributed to separate, parallel roads. To maximize the productivity of

each route, it is better to avoid long stretches where multiple bus routes overlap. (There are some exceptions to this observation, such as busy downtown transit malls.) In Rapid City, routes overlap chiefly because the limited number of continuous streets leaves few through streets to choose from. The refresh reduces redundancy while keeping some overlaps out of necessity.

Reduce Unproductive Time

When bus routes do not stop at all on a segment of the route to pick up or drop off riders, the time spent traveling that segment is unproductive. An effort to optimize such routes would look for ways that the nonstop segment could either be cut out entirely or be shifted to a different street with adjacent land uses that may be better representative of areas generating transit demand.

Where nonstop segments exist on Rapid City routes, they serve to connect one productive segment/area with another or to reach a single, relatively distant stop. For instance, cutting along Cambell Street is the fastest way to connect East Minnesota Street and East Fairmont Boulevard, but the 45 mile per hour speed limit makes it unsafe to stop on Cambell.

The refresh concept retains the Cambell routing, but it reduces unproductive time by eliminating one stop on Saint Joseph Street and one stop north of Rushmore Mall. These changes are detailed in the route description section.

Identify and Adjust Low-Performing Route Segments

Sometimes route segments are unproductive, not because there are no scheduled stops, but because riders simply do not board or alight there. Stop-level activity data can reveal locations where the agency appears to be providing largely unused service. Adjustments can include changing stop locations, changing the schedule to meet local needs, or rerouting to more productive areas.

As described in the existing conditions section, the bus operators who were asked to share their perception of high-activity stops did not point out any low-performing segments. This speaks to the effectiveness of the current system in meeting customer needs.

Standardize Operating Speed and Run Time

RapidRide operates on a pulse system in which every route leaves MBTC at the same time. However, not every route returns at the same time; the scheduled run time for a given loop ranges from 22 to 28 minutes, allowing between seven and 13 minutes of layover time.

The current condition with a relatively wide range of run times is challenging for two reasons. Firstly, the variability of run times blurs the distinction between run time and layover time, which in turn blurs the distinction between work time and break time for each operator. Secondly, longer routes are more vulnerable to unacceptable layover impacts should even minor delays occur along the route.

The refresh concept standardizes each loop's run time to 25 minutes, with a 10-minute layover at MBTC. In the near term, this should mitigate the impacts of delays.

In the longer term, a 25-minute standard run time could serve as the first step toward another improvement: moving to a clock face schedule in which every lap departs MBTC at the hour or half-hour. This type of schedule is easy for passengers to memorize and build into their plans for the day, as they can always expect the bus to drive past their stop at the same minute past the hour.

The idea of tightening cycle times from 35 to 30 minutes was brought up early in the study. However, it soon became clear that would be too ambitious to target while maintaining service to all existing streets. In the future, if operators are able to consistently maintain a 25-minute run time, that will provide support for a consistent five-minute layover and 30-minute cycle.

Improve Legibility

The legibility of a transit system is critically important to ridership and user experience. Legibility encompasses such questions as:

- Do I know which route(s) I can take to reach my destination?
- Do I know where the route stops, where it ends, and which streets it will follow in between?
- Do I know where I can/have to transfer?
- Can I pick up this information easily by looking at a system map, route name, stop pole, or schedule?

RapidRide is simple to understand in that all routes begin and end at MBTC, and all transfers are completed there. However, its legibility is limited by its street grid, its system of loops, and its system of deviations. Users have a higher cognitive load to manage when transit does not travel in a straight line, when it does not travel in the same direction inbound and outbound, and when it deviates from the main route. From a service perspective, little can be changed about this given the current constraints, but the refresh concept does make one improvement discussed in the next section, "Improve Directness."

Improve Directness

Like anyone getting from A to B, transit users prefer a straight line to a scenic tour. The direct line concept is rarely possible in a loop-based system. A short clockwise outbound trip becomes a very long clockwise return trip if there is no service traveling counterclockwise.

The refresh concept takes the combined resources of the Lincoln and Washington routes and redraws them as two sets of complementary loops. Lincoln North covers follows the same street path as Washington North – only in the opposite direction. Lincoln North runs clockwise where Washington North runs counterclockwise. Where Washington South runs clockwise, Lincoln South runs counterclockwise. This change will allow passengers to make comparatively short and predictable journeys in both inbound and outbound directions. 35 minutes after they get off the bus, another bus will go by in the opposite direction. 70 minutes later, they will be able to catch a bus in the same direction. This improvement addresses both directness and legibility.

Refreshed Route Descriptions

Figure 64 shows the full refresh concept overlaid on existing routes for comparison. In terms of coverage, the most significant changes are as follows:

- Service is extended eastward on Anamosa
- Service is truncated at Rushmore Mall
- Service is removed from 3rd Street downtown
- Service is removed from East Adams Street
- Service is removed from Saint Joseph Street

The refresh concept does not make any changes to the Borglum route, primarily because the payoff would be minimal. As detailed in the existing conditions section, Borglum is already a top performer in terms of ridership. It is geographically isolated from other routes; stretched to the limits of its coverage possibilities; and constrained by the steep hills of Rapid City's west side.

Figure 64: Refresh Concept

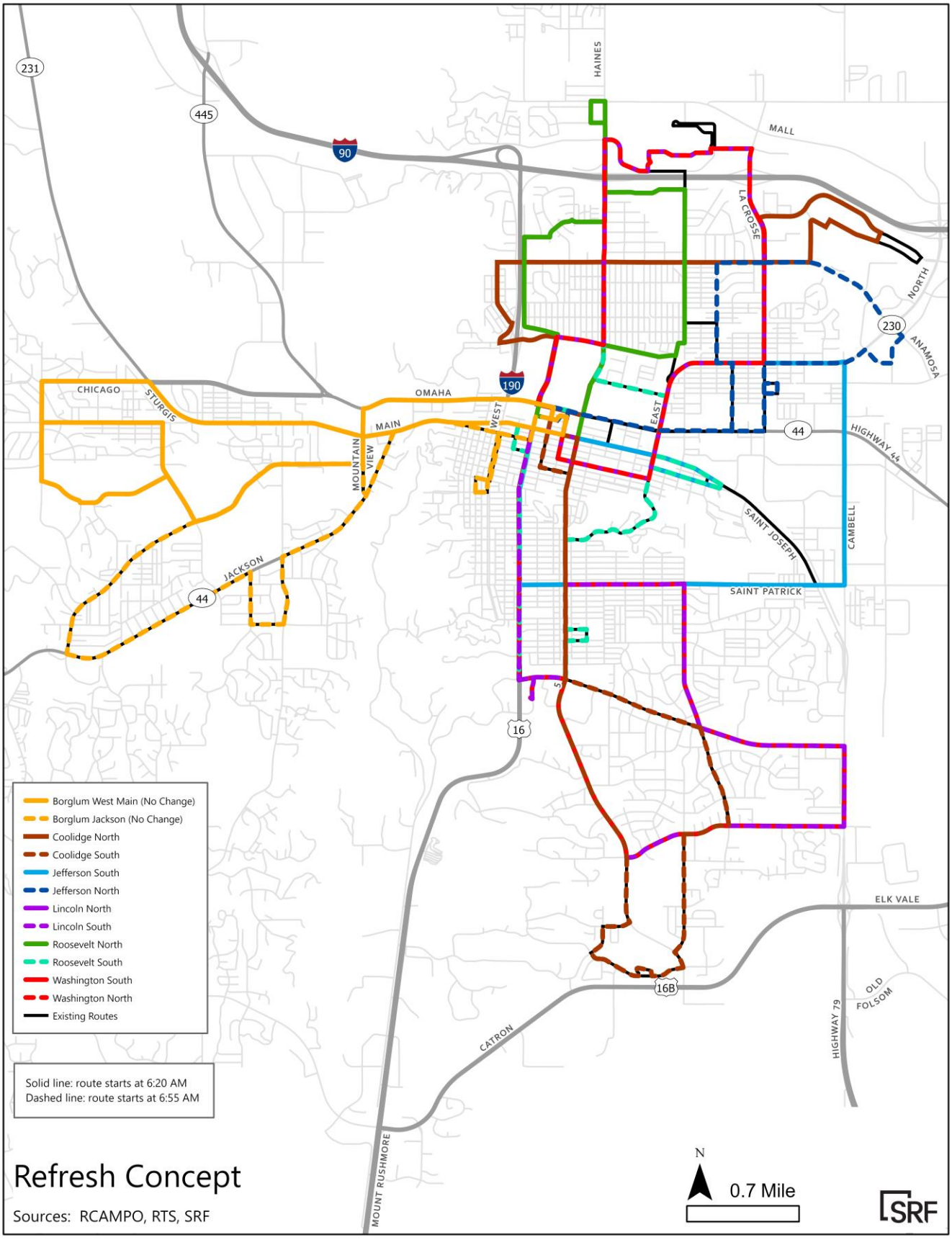


Figure 65 through Figure 69 show each refreshed route separately for the sake of clarity. The refresh should be viewed as a system, since many of the changes to individual routes are dependent on changes made to other routes.

Coolidge

Southbound service on Coolidge South is shifted from Mount Rushmore Road to 5th Street. The refreshed Coolidge South loop thereby becomes less of a loop and more of a "lollipop" – a bidirectional route that loops at the end.

Coolidge North undergoes a similar change – by shifting to North 5th Street and Haines Avenue, it becomes bidirectional along Anamosa. An on-request deviation at Rushmore Crossing is eliminated to make the route more consistent and reduce unproductive time.

Jefferson

The Jefferson refresh eliminates an unproductive half-mile stretch of Saint Joseph Street from the Jefferson Northeast loop and adds a new service area near the intersection of Anamosa and East North Street, where significant recent development has occurred. Some segments of Jefferson are also exchanged with other routes, either to compensate for other changes or to reduce the size of the loop. The Jefferson Southeast loop is shifted to travel on Mount Rushmore Road.

Roosevelt

The Roosevelt refresh changes little on its south end, as the existing loop structure serves an important function for students. Similarly, the north end of the Roosevelt route serves Lakota Homes with no change. However, segments closer to MBTC are exchanged with Jefferson and other routes. A segment of Roosevelt South moves to New York Street.

Lincoln and Washington

In the refresh, Lincoln and Washington are each slightly modified so that they create identical, complementary loops for the reasons described earlier.

The most noticeable change in coverage is the removal of a stop north of Rushmore Mall. In order to serve the South Dakota Department of Labor and Regulation, buses on the Washington route currently take a circuitous detour on North Maple Avenue. Some operators already choose not to make this detour if the stop looks empty from a distance, resulting in confusion and missed rides if passengers were not waiting directly at the stop. Eliminating the stop would avoid both confusion and unproductive time, at the cost of a longer walk for some riders.

Figure 65: Coolidge Refresh

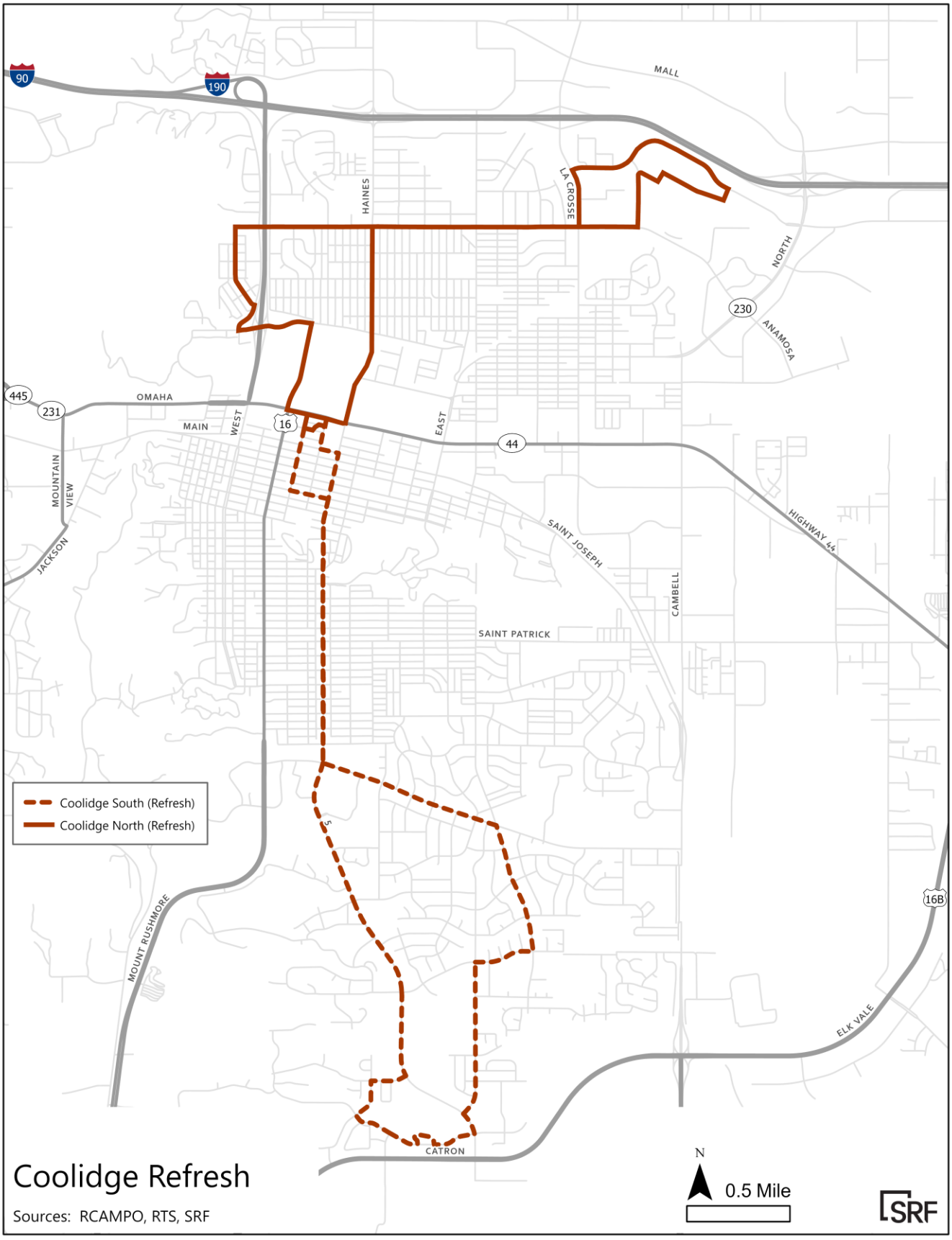


Figure 66: Jefferson Refresh

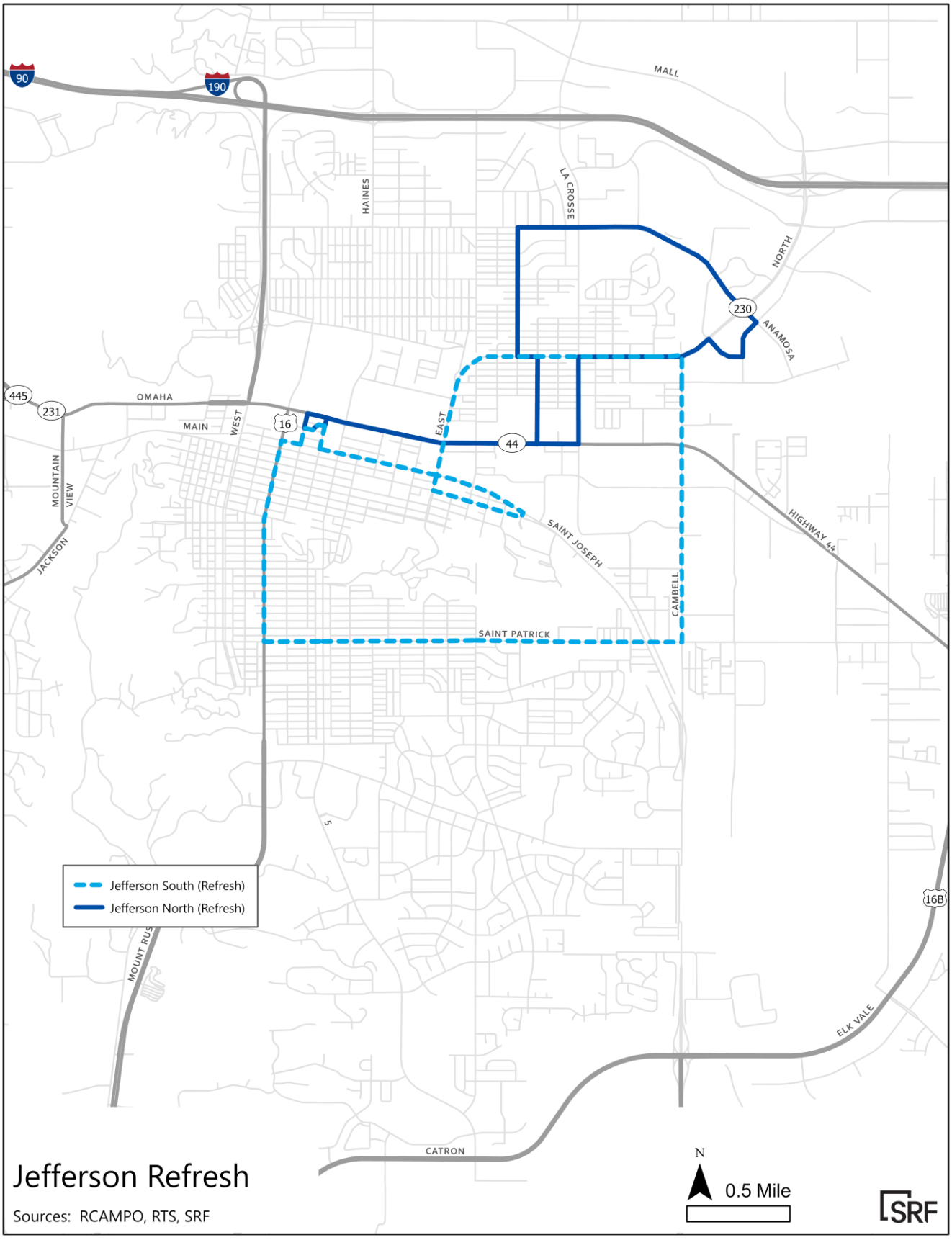


Figure 67: Lincoln Refresh

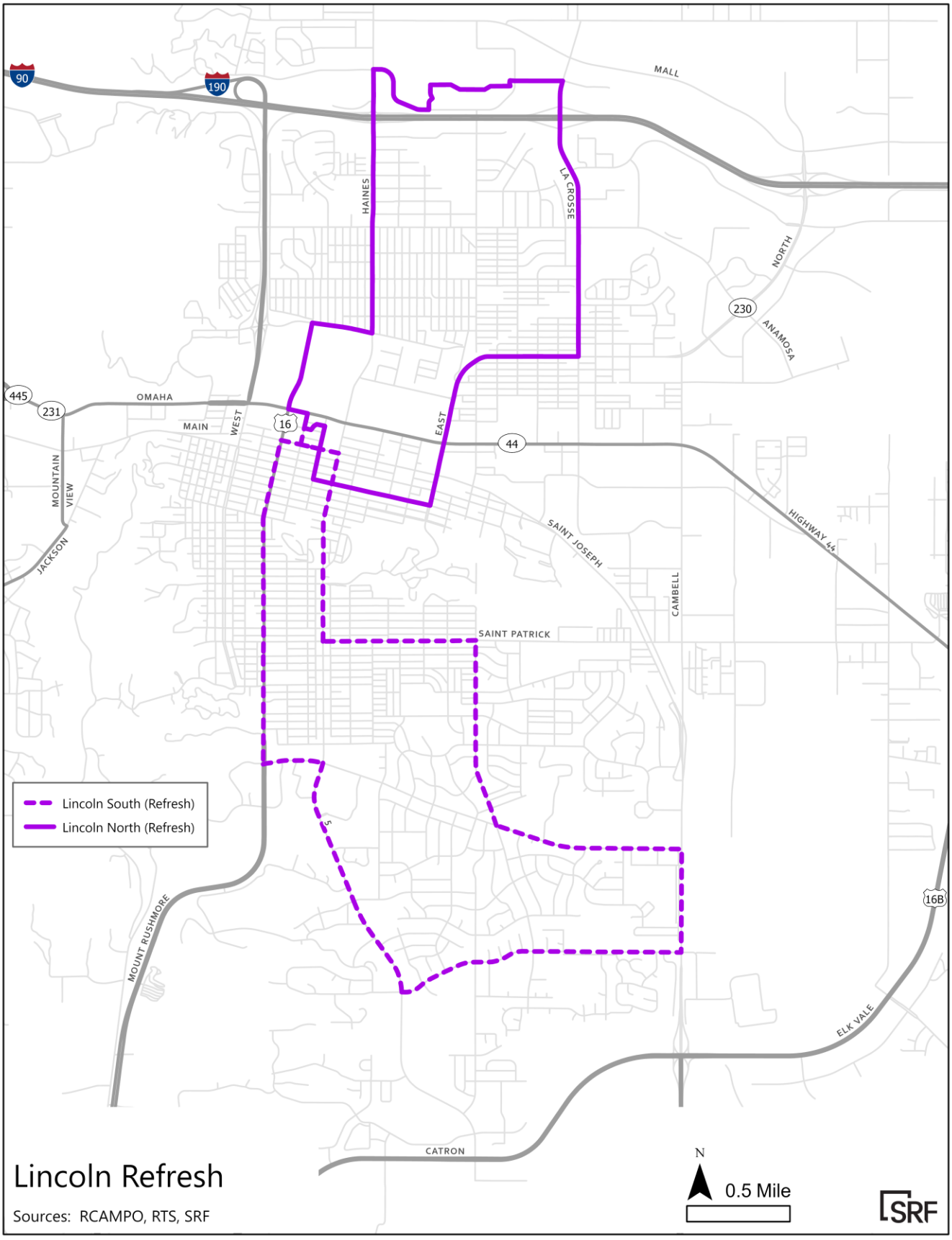


Figure 68: Roosevelt Refresh

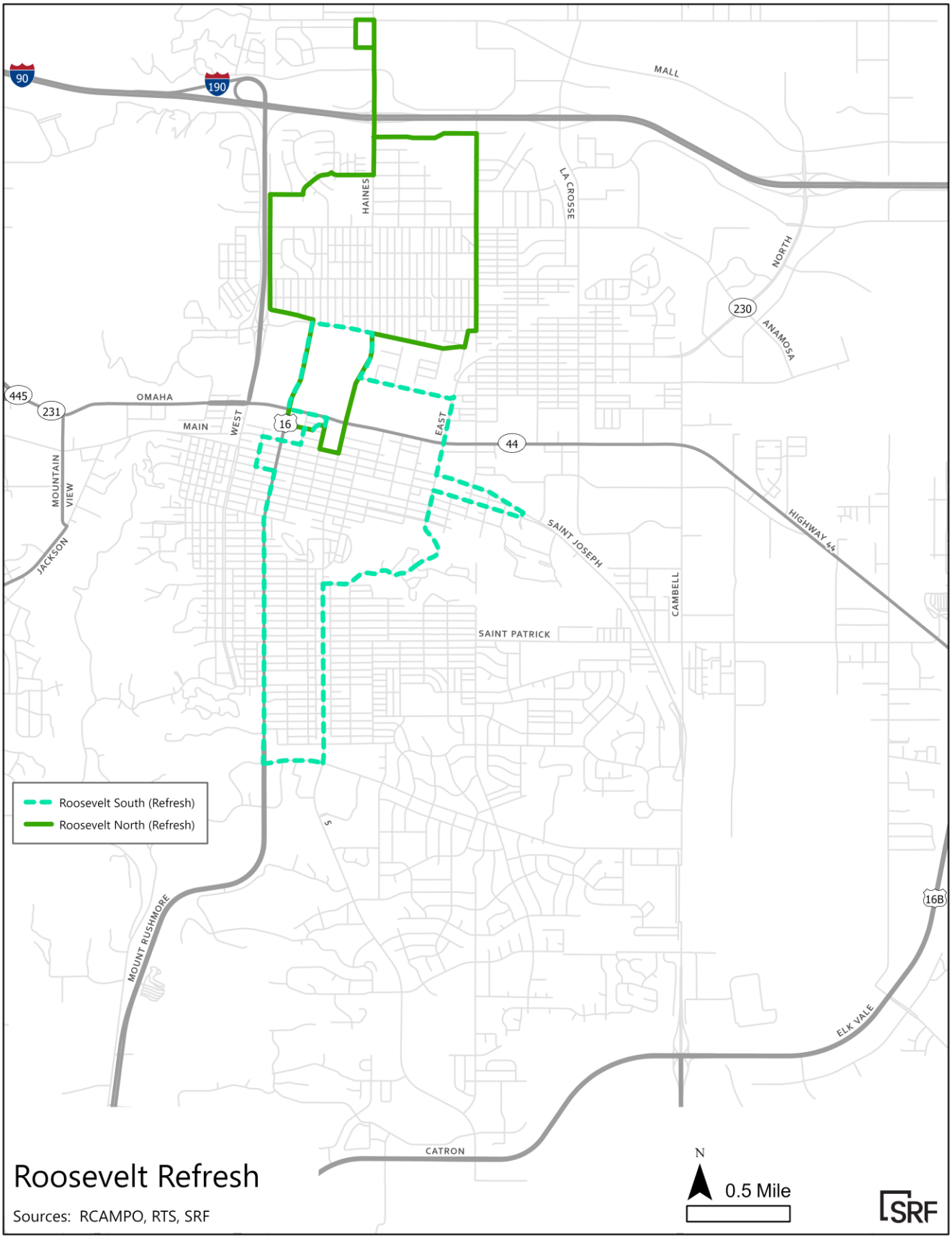
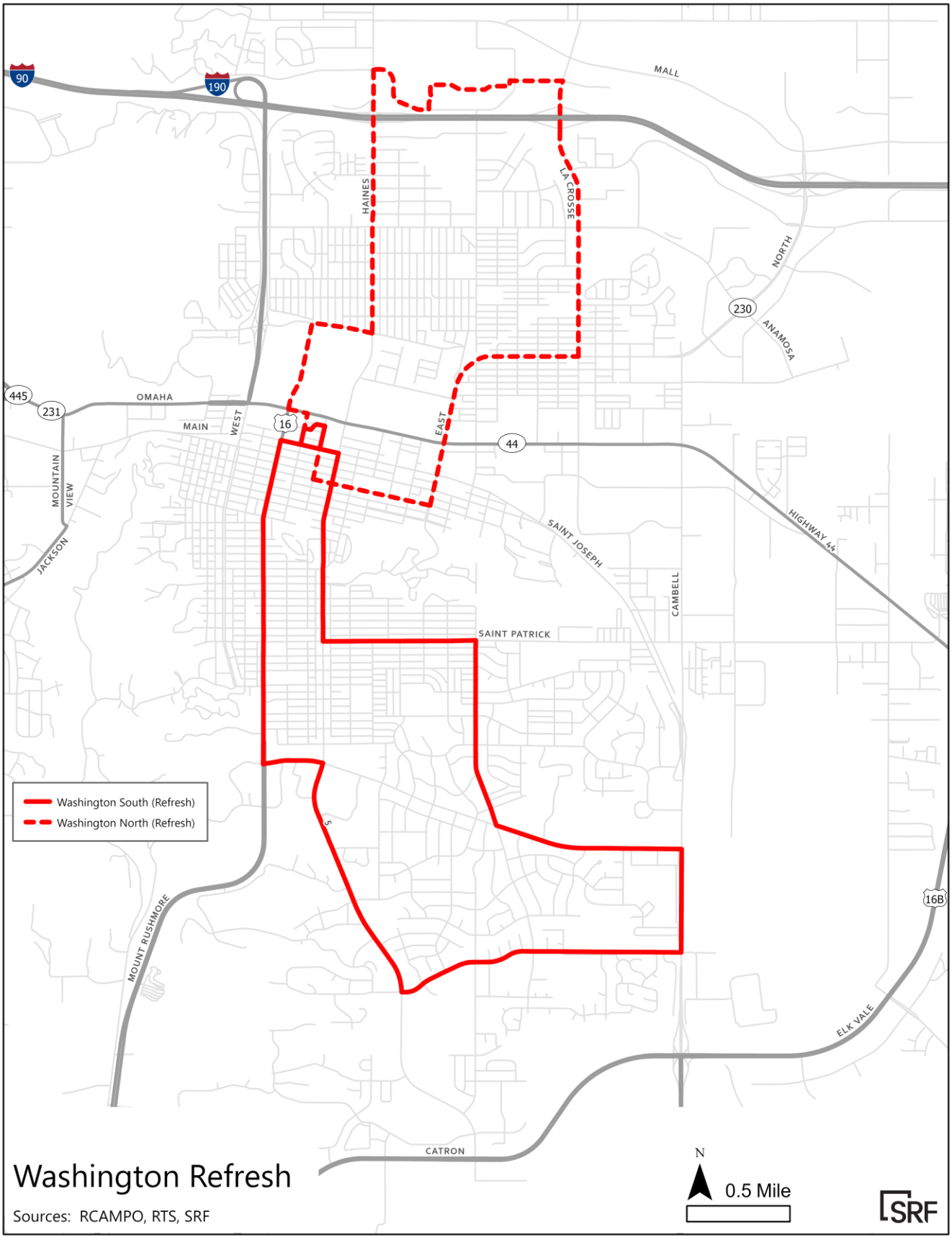


Figure 69: Washington Refresh



Service Hour Extension

Current service hours per day, the span of service, is controlled to a large extent by the amount of operating subsidy available from federal and state sources. The federal Infrastructure Investment and Jobs Act of 2021 transit funding over the next five years is estimated to be 40 percent more than current federal funding. As federal funding makes up approximately 50 percent of RTS' budget and almost 60 percent of the subsidy, it is prudent to plan for effectively accessing additional federal funds when they are available.

Extending service hours or days is a straightforward means of adding service. Table 15 shows the estimated operating cost of adding evening hours and adding Sunday service. It does not include the cost of expanding paratransit hours to match the fixed-route service span. Even with that caveat, it is likely that both service hour expansions could be achieved with a 40 percent increase in budget. The two extension scenarios are discussed in more detail below.

Table 15: Estimated Annual Cost of Service Hour Extensions

Extension	Hours per Route	Routes	Days	Cost (2019$)	% 2019 Fixed-route Budget	Inflation Rate	Cost (2022$)
Evening	2.3	6	255	$234,049	16.96	3%	$255,752
Sunday Service	7	6	51	$142,464	10.32	3%	$155,674

Source: SRF analysis of NTD data

Weekday Evenings

During public outreach, one of the most-requested service changes was an extension of hours into the evening. The last weekday bus currently returns to MBTC at 5:53 PM. If each loop ran twice more, the last bus would pull in at 8:10 PM. This would allow enough time to cover some after-school activities and the homeward commute for those who work until 6:00 PM.

Table 16: Scheduled Weekday Departures from MBTC with Service Extension

First Loop	Second Loop	
6:20 AM	6:55 AM	Current
7:30 AM	8:05 AM	
8:40 AM	9:15 AM	
9:50 AM	10:25 AM	
11:00 AM	11:35 AM	
12:10 PM	12:45 PM	
1:20 PM	1:55 PM	
2:30 PM	3:05 PM	
3:40 PM	4:15 PM	
4:50 PM	5:25 PM	
6:00 PM	6:35 PM	Extended
7:10 PM	7:45 PM	

A key advantage of this service expansion is its potential to extend the workday for current drivers, rather than requiring new hires. Current drivers work in two six-hour shifts. With an extension past 8:00 PM, the service day would be about 14 hours long and could be maintained with two eight-hour shifts.

The ridership potential of adding evening service is difficult to predict. On the one hand, ridership is at its lowest in the last hour of the current service span, and it is possible that extending service by two more hours would show similarly low ridership per hour. On the other hand, the absence of an evening peak after 5:00 PM is unusual and may indicate there is an untapped pool of evening commuters currently excluded from transit service.

Sunday Service

With an approximately 10 percent increase in the current fixed-route budget, it would also be possible to extend the Saturday service schedule to Sundays. Currently, Saturday service is provided by truncating the weekday schedule (Table 17).

Table 17: Scheduled Saturday Departures from MBTC

First Loop	Second Loop
9:50 AM	10:25 AM
11:00 AM	11:35 AM
12:10 PM	12:45 PM
1:20 PM	1:55 PM
2:30 PM	3:05 PM
3:40 PM	4:15 PM

For simplicity's sake, this plan assumes that Sunday service would mirror Saturday service. Introduction of Sunday service would likely need to include additional public engagement to fine-tune a proposed schedule. Ridership in every possible scenario would be low, likely less than Saturdays.

A Sunday service extension would add at least one new shift for both operators and dispatch. The barrier to introducing Sunday service is likely to be labor availability.

Fixed-Route Expansion

RTS has fielded requests for service to new areas for many years. Figure 70 (page 87) shows a composite of the routes and locations requested by local stakeholders both prior to the start of this plan update and during the public outreach phase.

The map shows only locations within Rapid City limits. RTS has also received repeated requests for service to Box Elder, areas east of Elk Vale Road and SD 44, and other areas outside city limits. However, providing service to these locations is beyond the ability of RTS and outside the scope of this study.

This section recommends five routes for consideration, shown together in Figure 71 (page 88). They fulfill the requests shown above – under certain constraints, as detailed below. Each route is designed to build off the refresh concept, on the assumption that the first phase of service changes will have been adopted by the time service is expanded.

Constraints

Scheduling

As detailed in the existing conditions section, the new areas under development are largely at the city's edge. This would pose challenges for any system, but it is especially challenging for a system that pulses out of one downtown location every 35 minutes. For this reason, most of the routes proposed in this section either are limited-stop express routes or operate on 70-minute cycles.

New Stop Placement

In order to serve an area, buses must be able to stop safely. The following stop guidelines drove the choice of routing:

- Service planners prefer not to stop buses on high-speed roads above about 40 miles per hour, as this presents potential safety hazards.
- According to ADA bus stop guidelines, boarding and alighting areas must have a firm, stable surface and connect to streets, sidewalks, or pedestrian paths by an accessible route.
- Grass is not a firm surface.

Arterial streets in the growth areas of Rapid City typically do not offer bus stop locations that meet these guidelines. However, major roads are the only efficient routes into growth areas. As a result, serving these areas means frequently diverting off direct paths in order to reach locations with sidewalks.

Each route is described in detail in the next sections.

Figure 70: Requested Transit Expansion Areas within Rapid City Limits

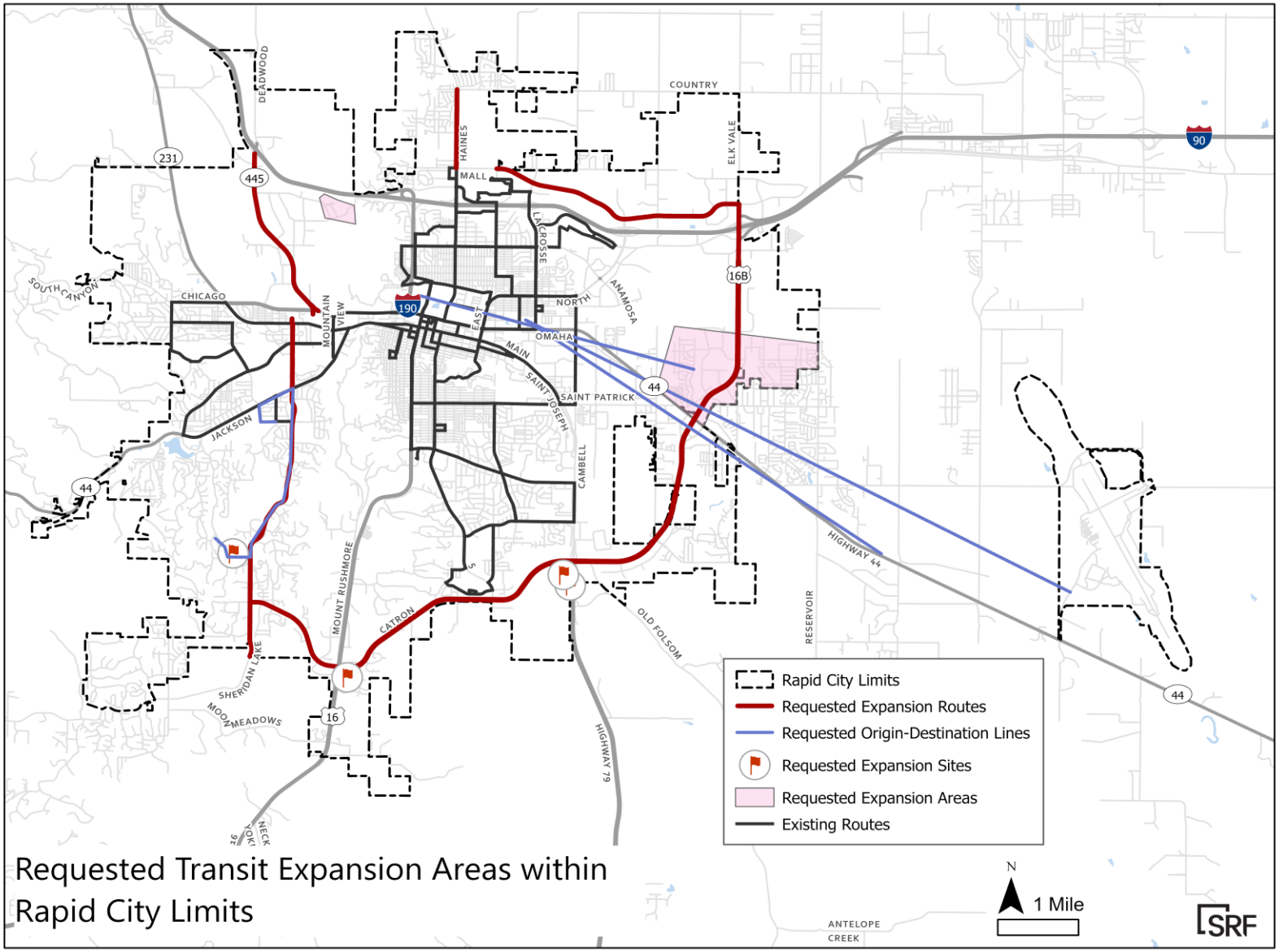
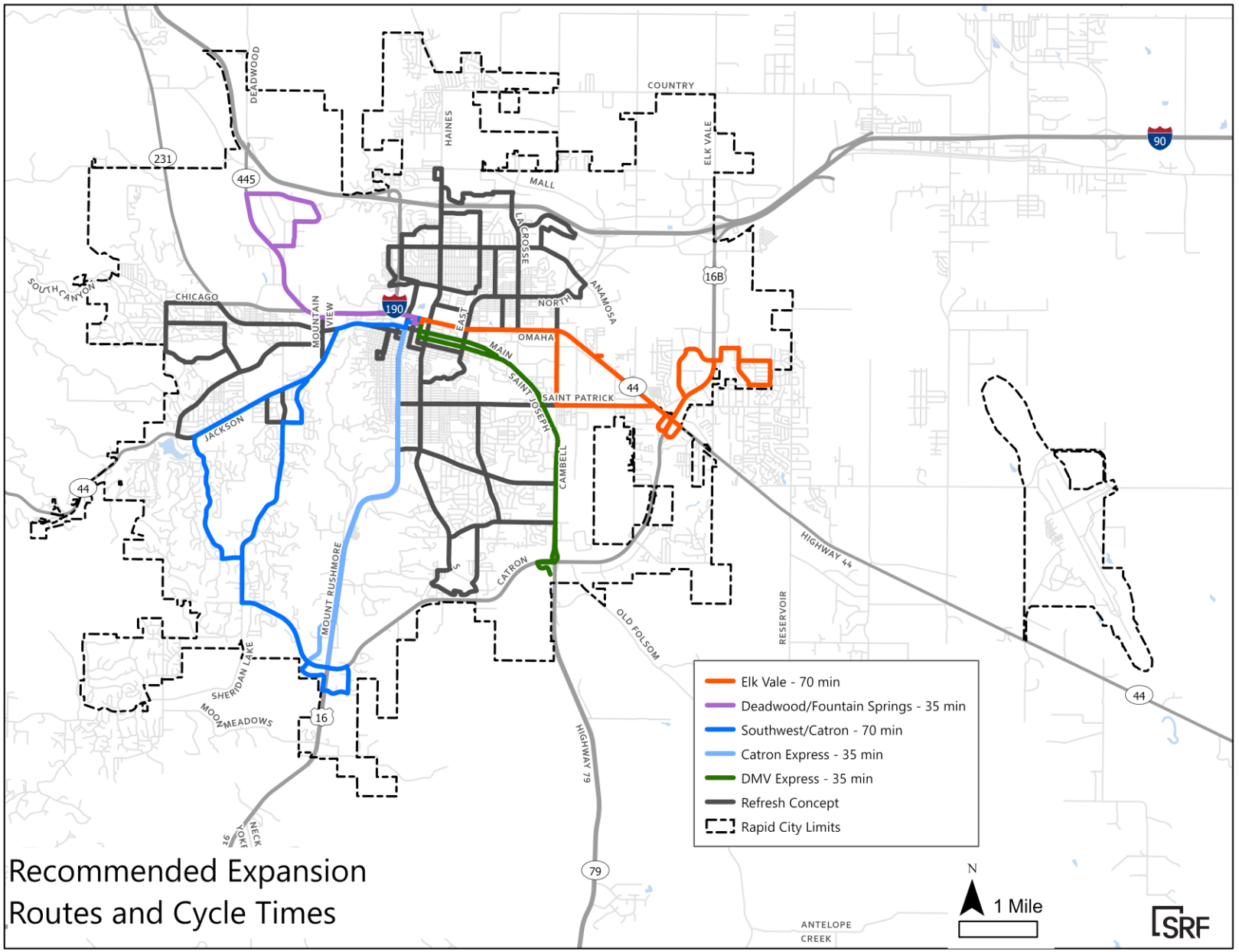


Figure 71: Expansion Routes



Route Descriptions

Elk Vale

This route leaves MBTC and travel east on Omaha, south on Cambell, east on Saint Patrick, then north on Elk Vale Road. Turning right on Homestead Street, it passes commercial and residential destinations as well as two schools before looping back across Elk Vale Road and onto Concourse Drive. It returns to MBTC via Highway 44, stopping once at Western Dakota Tech. Even traveling on high-speed roads, this trip cannot be made within a 35-minute cycle time. Therefore, this road was designed for a 70-minute cycle time. In addition to a 10-minute layover at MBTC, operators would also have time for a five-minute layover at the eastern terminus.

Deadwood/Fountain Springs

This lollipop-shaped route fulfills requests for service on Deadwood Avenue and the residential/institutional facilities in Fountain Springs. It serves the DakotaLink office on Deadwood Avenue. This route can be completed in a 35-minute cycle.

Southwest/Catron

This route fulfills requests for service to Catron, Sheridan Lake Road, Southwest Middle School, and the southwest residential growth areas more generally. It travels on Park Drive outbound and Sheridan Lake inbound for maximum coverage, although the route could likely be adjusted to better match local needs. Like the Elk Vale Road/SD 44 area route, this is also designed for a 70-minute cycle time.

Catron Express

This route serves only the apartments and businesses directly surrounding the intersection of Catron with Mount Rushmore Road/Highway 16. By operating nonstop along Mount Rushmore Road, it can make the trip in a 35-minute cycle.

DMV Express

This route fulfills two requests: service to the Department of Motor Vehicles, and service to a prison reentry center directly next door to the DMV. By operating nonstop along Saint Joseph and Cambell, it can make the trip in a 35-minute cycle.

Selection Criteria

For the sake of comparison, these expansion routes are scored in Table 2. The criteria chosen were based on the service planning objectives used to develop the refresh concept, plus additional considerations for choosing new service areas.

Table 18: Expansion Route Selection Criteria

Criterion	Elk Vale	Deadwood/ Fountain Springs	Southwest/ Catron	Catron Express	DMV Express
Minimize redundancy	✓	✓	✓	✓	✓
Minimize unproductive time	☒	☒	✓	☒	☒
Legibility for customer	☒	✓	☒	✓	✓
25-minute run time	☒	✓	☒	✓	✓
Maximize directness	☒	✓	☒	✓	✓
Safe, accessible stop locations	✓	✓	✓	✓	✓
Average speed under 20 mph	✓	✓	✓	☒	☒
Serve block groups with high % low-income residents	☒	☒	☒	☒	☒
Serve block groups with high % people of color	✓	✓	☒	☒	☒
Extend service to TSAs	✓	✓	✓	☒	☒
Serve high- growth areas	✓	✓	✓	✓	✓

Over the years, public input has often included suggestions for routes that bypass downtown, including the concept of a large ring route following Elk Vale, Catron, and other major roads around the edges of the city. The ring route was explored at an early stage of this project, as were potential crosstown routes serving transfer centers at the north and south Wal-Mart locations. However, operating constraints on these routes – long cycle times and/or limited transfer opportunities – were deemed likely to keep demand for them very low, and they did not proceed to further evaluation.

Cost Estimate

Because the expansion routes operate on the same schedule as existing routes, the incremental cost to add each route can be estimated using the existing operating cost per service hour (Table 19).

This is the cost estimate for one 70-minute route. In the current system, every 70-minute route is operated as two 35-minute loops. In these expansion scenarios, the Elk Vale or Southwest route would be the cost equivalent of a Jefferson or Borglum, north and south loops both included. The DMV Express, Catron Express, and Deadwood/Fountain Springs routes could be matched in pairs to create a full route. For example, a new "Black Elk" route could alternately serve Deadwood Avenue and Catron.

Table 19: Estimated Annual Cost of Additional Routes

	Hours per Route	Routes	Days	Cost (2019$)	% 2019 Fixed-route Budget	Inflation Rate	Cost (2022$)
Weekday	11.5	1	255	$195,041	14.13	3%	$213,127
Saturday	7	1	51	$23,744	1.72	3%	$25,946
Total	-	1	-	$218,785	15.85	3%	$239,072

Source: SRF analysis of NTD data

Flex Zones

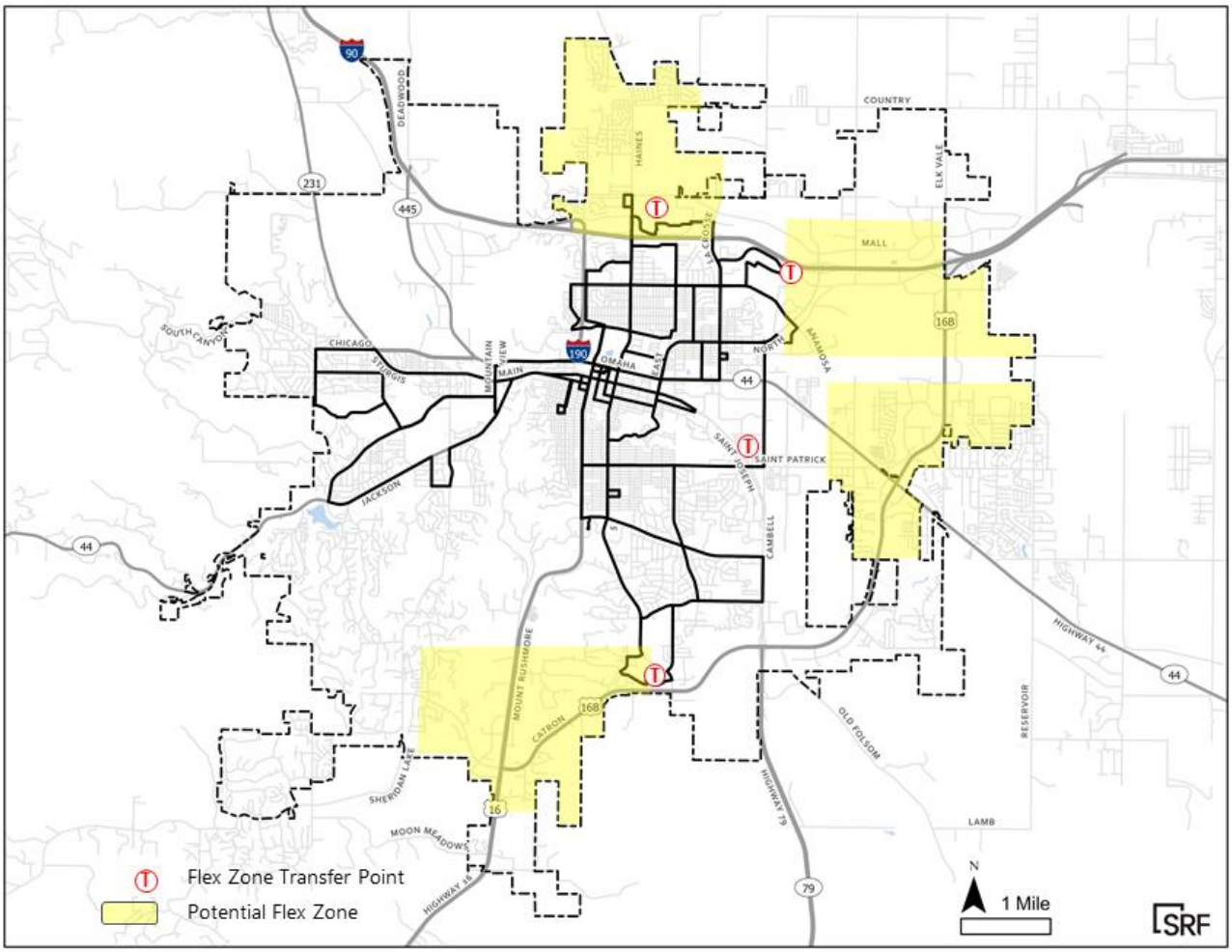
RTS has historically provided only fixed-route service to the general public, and this mode was the primary focus of the TDP. However, many transit agencies have taken advantage of technology advances to pilot a new generation of demand-response service for the general public. Also known as microtransit or flex zone service, demand-response uses smaller vehicles to circulate through a defined zone, doing pickups and dropoffs at more locations than fixed-route service can serve. In a typical system, the process would look something like this:

- A customer living in a suburban neighborhood uses an app on her phone to book a ride from her home to a large grocery store. The app gives her an arrival window 15 to 30 minutes from now.
- 20 minutes after she requested the ride, a van pulls up at the curb where she is waiting. After picking up a second passenger a few blocks away, the van travels to a bus stop in the grocery store parking lot.
- The first passenger gets out to go grocery shopping. The second passenger also gets out – and sits down on the bus shelter bench to wait for the fixed-route bus that serves this stop. Meanwhile, the van driver checks the tablet in the vehicle to see where the routing algorithm will take him next. He will likely be circulating through this suburb throughout his shift, although he might be sent to a separate, nearby zone if things get quiet here. In any given hour, he will see between one and five passengers.

From a planning perspective, the great advantage of demand-response service is that vehicles travel only where they are needed, when they are needed. That can be highly beneficial in a neighborhood with low, sporadic ridership spread out over a large, broken street grid. In Rapid City, an additional rationale is that extending fixed-route service as far as Elk Vale, Catron, or other far-flung locations results in compromises: a 70-minute loop when 35 minutes is the current standard, or running long, unproductive nonstop segments along major arterials. If each of these locations were instead a flex zone, residents or workers would be able to connect to closer-in fixed routes at designated transfer points.

Several possible flex zones are shown in Figure 72. The yellow areas indicate a zone of four to six square miles in which trips would need to start and end. The red Ts mark locations where customers could transfer to fixed-route service.

Figure 72: Potential Flex Zones



The disadvantage of starting up a flex zone pilot is that it requires flexibility, technology, and marketing. It is difficult to predict how much use a service will attract, so agencies must be open to possibility and willing to adapt on the fly. They must also give careful thought to technology needs. An effective, modern flex zone requires a smartphone app; a web interface; a dial-in dispatch alternative for riders without internet access; routing software with customizable algorithms; reliable in-vehicle hardware; and a technology vendor able to work with the agency to meet unique needs. Finally, because it is a new service without fixed and visible signage, the flex zone should be marketed heavily and continually enhance its success.

Cost Estimate

Table 20 shows the estimated cost of operating a single flex zone for one year. It is based on the operating cost of paratransit service in Rapid City, largely because RTS would prefer to operate flex service with its own employees and vehicles as is currently done with paratransit.

Table 20: Estimated Operating Cost of One-Year Flex Pilot

	Hours per Zone	Zones	Days	Paratransit Cost per Hour (2019)	Annual Cost (2019$)	Inflation Rate	Annual Cost (2022$)
Weekday	11.5	1	255	$55.59	$163,018	3%	$178,134
Saturday	7	1	51	$55.59	$19,846	3%	$21,686
Total	-	1	-		$182,863		$199,820

Source: SRF analysis of NTD data

Table 21 adds to the operating cost all the other costs associated with starting up a new service. "Marketing/other staff time" adds up to the cost of one full administrative FTE, as the time involved in selecting technology vendors, designing the service, training drivers and dispatchers, marketing the service, and coordinating participants would be substantial.

Table 21: Estimated Total Cost of One-Year Flex Pilot

	Funding Source	Annual Cost (2022$)
Operating	General Fund	$199,820
Technology	Federal grants, general fund	$50,000
Vehicle Purchase	Federal grants, general fund	$100,000
Marketing/other staff time	General fund	$60,000
Total (Rounded)		$410,000

Source: SRF research

PART 5: NON-SERVICE RECOMMENDATIONS

Capital Plan

Current Fleet Summary and Condition

Current Fixed-Route and Paratransit Fleet and Condition

RTS operates nine buses in peak service and has 12 paratransit vehicles in the fleet. All vehicles, including the summer trolleys, can accommodate a wheelchair. Vehicles are equipped with radios to communicate with dispatch at the transit center.

Table 22 highlights the general condition of each vehicle in the RTS fleet. In 2013, RTS replaced seven vehicles with medium-duty buses with a useful life of 10 years. Two additional replacements were brought on-line in 2016. Thus, eligibility for replacement of the current fixed-route fleet will begin in 2023. Paratransit vehicles employed in the fleet have useful life of seven years and RTS typically budgets for replacing two paratransit vehicles each year. At this pace, vehicles are replaced essentially at the end of their useful life. Presently, RTS does not include a line item in their annual budget process to replace fixed-route vehicles. Thus, a central element of the capital plan is to understand options and identify a program. Installing a program is critical to operations as vehicle maintenance increases at a faster rate as vehicles age and have more mileage on them.

All but the two oldest vehicles in the fixed-route fleet have ratings of 3 in SDDOT's five-point scale, indicating they have vehicle repairs exceeding $1,500 in the most recent year but only minor damages. The vehicles acquired in 2006 have ratings of 2, indicating they have had a major repair in the most recent year and exceed either the mileage-based or year-based useful life standard.

Table 22: Fixed-Route Vehicle Fleet

Year	Description	Acquisition Date	Current Mileage	Useful Life	Rating	Anticipated Replacement
2006	GMC Glaval Titan	7/27/2006	260,089	10	2	2019
2006	GMC Glaval Titan	7/31/2006	247,985	10	2	2019
2009	GMC Glaval Titan	7/20/2009	237,378	10	3	2020
2009	GMC Glaval Titan	7/20/2009	264,672	10	3	2020
2013	Int Passport-HD	8/5/2013	219,671	10	3	2023
2013	Int Passport-HD	8/6/2013	220,777	10	3	2023
2013	Int Passport-HD	8/5/2013	221,951	10	3	2023
2013	Int Passport-HD	8/5/2013	220,766	10	3	2023
2013	Int Passport-HD	8/5/2013	209,773	10	3	2023
2013	Int Passport-HD	8/8/2013	217,882	10	3	2023
2013	Int Passport-HD	8/5/2013	238,900	10	3	2023

Year	Description	Acquisition Date	Current Mileage	Useful Life	Rating	Anticipated Replacement
2016	Int Passport-HD	2/3/2016	203,844	10	3	2026
2016	Int Passport-HD	2/1/2016	201,664	10	3	2026
Trolleys						
2007	Ford SVI Trolley	7/2/2007	61,920	10	3	2023
2007	Ford SVI Trolley	7/18/2007	57,615	10	3	2023
2008	Ford SVI Trolley	5/25/2009	48,259	10	3	2023

Paratransit buses have a shorter useful life of seven years, are replaced more frequently, and show more variation in overall condition. Table 23 provides a summary of the current fleet.

Table 23: Paratransit Fleet

Year	Description	Acquisition Date	Current Mileage	Useful Life	Cost	Rating	Anticipated Replacement
2012	Chevy El Dorado	10/1/2012	132,254	5	$86,020	2	2019
2012	Chevy El Dorado	10/1/2012	128,912	5	$86,020	2	2019
2014	Chevy El Dorado	7/22/2014	120,649	5	$85,207	3	2021
2014	Chevy El Dorado	7/25/2014	103,254	5	$85,207	3	2021
2014	Chevy El Dorado	7/22/2014	133,207	5	$85,207	3	2021
2014	Chevy El Dorado	7/25/2014	124,613	5	$85,207	3	2021
2016	Ford ElDorado	7/18/2016	74,029	7	$77,462	4	2023
2016	Ford ElDorado	7/18/2016	78,621	7	$77,462	4	2023
2016	Ford ElDorado	7/18/2016	71,713	7	$77,462	4	2023
2016	Ford ElDorado	7/20/2016	77,648	7	$77,462	4	2023
2017	Ford El Dorado	5/29/2017	54,477	7	$81,901	4	2024
2017	Ford El Dorado	5/29/2017	52,164	7	$81,901	4	2024
2017	Ford El Dorado	5/29/2017	55,122	7	$81,901	4	2024
2017	Ford El Dorado	5/29/2017	74,024	7	$81,901	4	2024
2018	Ford El Dorado	5/16/2018	36,382	7	$79,636	4	2025
2018	Ford El Dorado	5/16/2018	42,383	7	$79,636	4	2025
2008	Glaval/GMC 4500	6/13/2008	111,870	5	$86,290	2	2021
2008	Glaval/GMC 4500	6/16/2008	140,335	5	$86,290	2	2021
2008	Glaval/GMC 4500	6/20/2008	139,787	5	$86,290	2	2018
2008	Dodge Sprinter	8/24/2009	141,445	5	$77,995	2	2019

Support Vehicles

RTS has an inventory of three vehicles used to support operations such as driver relief, investigating breakdowns, and general service support. These vehicles have a useful life of five years, based on FTA guidelines.

Fixed-Route Vehicle Replacement Options and Costs

Table 24 highlights the assumptions for the cost and replacement year of the fleet, including fixed-route vehicles, paratransit vehicles, trolley service vehicles and support vehicles used by RTS.

As part of the transit development plan process, RTS investigated the following options:

- Option 1: Replace all fixed-route vehicles in one year (or when they have reached their useful life). Based on the 10-year useful life of the current fleet, this option would include replacement of seven vehicles in 2023 and two in 2026. Additionally, there is assumption of two spare vehicles are needed. Vehicles in the "spares" inventory would be included in the 2026 purchase.
- Option 2: Replace a part of the fleet every other year to lower the local match impact. While the option would lower the local burden for any purchase year, it would extend the replacement period beyond the useful life of some of the fleet. Extending replacement beyond the useful life likely results in added vehicle maintenance, which needs to be addressed in the alternatives analysis.

Table 24: Fleet Replacement Year and Unit Cost (Fixed-Route)

Vehicles	Eligible Replacement Year	Replacement Cost		Vehicle Age Associated Incremental Maintenance	
		Current Year	Escalation	Current Year	Escalation
Fixed Route					
1	2023	$375,000	3.00%	$4,950	3.00%
2	2023	$375,000	3.00%	$4,950	3.00%
3	2023	$375,000	3.00%	$4,950	3.00%
4	2023	$375,000	3.00%	$4,950	3.00%
5	2023	$375,000	3.00%	$4,950	3.00%
6	2023	$375,000	3.00%	$4,950	3.00%
7	2023	$375,000	3.00%	$4,950	3.00%
8	2026	$375,000	3.00%	$4,950	3.00%
9	2026	$375,000	3.00%	$4,950	3.00%
Spare 1	2026	$375,000	3.00%	$0	3.00%
Spare 2	2026	$375,000	3.00%	$0	3.00%

Vehicles	Eligible Replacement Year	Replacement Cost		Vehicle Age Associated Incremental Maintenance	
		Current Year	Escalation	Current Year	Escalation
Trolley					
1	2027	$300,000	3.00%		
2	2027	$300,000	3.00%		
3	2027	$300,000	3.00%		
Paratransit					
1		$100,000	3.00%		
2		$100,000	3.00%		
3		$100,000	3.00%		
4		$100,000	3.00%		
5		$100,000	3.00%		
6		$100,000	3.00%		
7		$100,000	3.00%		
8		$100,000	3.00%		
9		$100,000	3.00%		
10		$100,000	3.00%		
11		$100,000	3.00%		
12		$100,000	3.00%		
Support Vehicle					
1		$45,000	3.00%		
2		$45,000	3.00%		
3		$45,000	3.00%		

Replacement of trolley vehicles is included in the capital plan at the end of the 10-year useful life. No spare trolley vehicles were included in the analysis as fixed-route vehicles could be used for the short-term period if repairs result in taking a trolly out of service. Holding a trolley as a spare would result in a higher than typical spare ratio of 20 percent.

The cost analysis of the extended replacement purchase (Option 2) includes the assumption of increased annual maintenance costs for more aged vehicles, which is a trend RTS has observed in the fleet. On average, older vehicles have cost RTS an additional $4,950 per vehicle per year to keep them in a state good repair. For each of the replacement options, the maintenance cost increment has been applied to those vehicles that approach or exceed the useful life.

The capital cost analysis assumes going forward, vehicles will be replaced as they reach their useful life, which has been addressed by not including the elevated maintenance cost assumption in replacement after the current fleet is turned over.

The cost difference between Option 1 and Option 2 through 2037, which allows for the current fleet to be replaced twice, is approximately $442,000. The incremental cost for Option 2 is attributed to:

- Extending the elevated annual maintenance costs for a portion of the current fleet for a longer period.
- Inflation applied to extending replacement of the current fleet an additional four years relative to Option 1 and carrying that assumption forward to the next replacement.

As capital needs are cost shared with federal grants, understanding the local responsibility is important in the decision-making process of which alternative to select. Between the two options, there is a local cost differential of $88,300 over the two rounds of replacement period.

Paratransit Vehicle Replacement Costs

The current schedule for paratransit vehicles is to replace two each year, which allows turnover of the fleet on the seven-year useful life schedule. Table 26 documents the assumptions for each vehicle replacement cost and Table 27 documents the annual cost over the next 25 years. The cost responsibility portion of the table assumes a local match of 20 percent of the purchase price.

Support Vehicle Replacement Costs

Support vehicles used generally have a useful life of five years, and the analysis in Table 26 reflects replacement on that schedule.

Table 25: Fixed-Route Vehicle Replacement Cost Options

Replacement Period	FIXED-ROUTE BUSES							
	Rotating Replacement Timing		Cost Share (All at Once)			Cost Share (Every 2-Year Rotating Period)		
	All at Once	Partial Every 2 Years	Local	Federal	Total	Local	Federal	Total
2021	$44,550	$44,550	$8,900	$35,600	$44,500	$8,900	$35,600	$44,500
2022	$45,887	$45,887	$9,200	$36,700	$45,900	$9,200	$36,700	$45,900
2023	$2,784,863	$1,225,021	$557,000	$2,227,900	$2,784,900	$245,000	$980,000	$1,225,000
2024		$32,454				$6,500	$26,000	$32,500
2025		$1,704,977				$341,000	$1,364,000	$1,705,000
2026	$1,738,911	$11,477	$347,800	$1,391,100	$1,738,900	$2,300	$9,200	$11,500
2027		$1,791,078				$358,200	$1,432,900	$1,791,100
2028								
2029								
2030								
2031								
2032								
2033	$3,742,622	$1,603,981	$748,500	$2,994,100	$3,742,600	$320,800	$1,283,200	$1,604,000
2034								
2035		$2,268,885				$453,800	$1,815,100	$2,268,900
2036	$2,336,951		$467,400	$1,869,600	$2,337,000			
2037		$2,407,060				$481,400	$1,925,600	$2,407,000
2038								
2039								
2040								
TOTALS	$10,693,784	$11,135,369	$2,138,800	$8,555,000	$10,693,800	$2,227,100	$8,908,300	$11,135,400

Table 26: Paratransit, Trolley, and Support Vehicle Replacement Cost Options

Replacement Period	PARATRANSIT				TROLLEY				SUPPORT VEHICLES			
	Total Cost	Cost Share (Replace 2 per Year)			Total Cost	Cost Share (10 Year Placement of 2)			Total Cost	Cost Share (5 Year Placement of 3)		
		Local	Federal	Total		Local	Federal	Total		Local	Federal	Total
2021												
2022	$206,000	$41,200	$164,800	$206,000					$46,350	$9,300	$37,100	$46,400
2023	$212,180	$42,400	$169,700	$212,100					$47,741	$9,500	$38,200	$47,700
2024	$218,545	$43,700	$174,800	$218,500					$49,173	$9,800	$39,300	$49,100
2025	$225,102	$45,000	$180,100	$225,100								
2026	$231,855	$46,400	$185,500	$231,900								
2027	$238,810	$47,800	$191,000	$238,800	$716,431	$143,300	$573,100	$716,400	$53,732	$10,700	$43,000	$53,700
2028	$245,975	$49,200	$196,800	$246,000					$55,344	$11,100	$44,300	$55,400
2029	$253,354	$50,700	$202,700	$253,400					$57,005	$11,400	$45,600	$57,000
2030	$260,955	$52,200	$208,800	$261,000								
2031	$268,783	$53,800	$215,000	$268,800								
2032	$276,847	$55,400	$221,500	$276,900					$62,291	$12,500	$49,800	$62,300
2033	$285,152	$57,000	$228,100	$285,100					$64,159	$12,800	$51,300	$64,100
2034	$293,707	$58,700	$235,000	$293,700					$66,084	$13,200	$52,900	$66,100
2035	$293,707	$58,700	$235,000	$293,700								
2036	$302,518	$60,500	$242,000	$302,500								
2037	$311,593	$62,300	$249,300	$311,600	$962,824	$192,600	$770,300	$962,900	$72,212	$14,400	$57,800	$72,200
2038	$320,941	$64,200	$256,800	$321,000					$74,378	$14,900	$59,500	$74,400
2039	$320,941	$64,200	$256,800	$321,000					$76,609	$15,300	$61,300	$76,600
2040												
TOTALS	$4,125,083	$825,000	$3,300,100	$4,125,100	$1,679,255	$335,900	$1,343,400	$1,679,300	$725,078	$144,900	$580,100	$725,000

Table 27: Cumulative Fleet Replacement Costs and Responsibility

Replacement Period	ANNUAL TOTALS					
	Replace Fixed-Route at Same Time			Fixed-Route Partial (3-4 Every 2 Years)		
	Local	Federal	Total	Local	Federal	Total
2021	$8,900	$35,600	$44,500	$8,900	$35,600	$44,500
2022	$59,700	$238,600	$298,300	$59,700	$238,600	$298,300
2023	$608,900	$2,435,800	$3,044,700	$296,900	$1,187,900	$1,484,800
2024	$53,500	$1,605,200	$2,006,500	$60,000	$240,100	$300,100
2025	$45,000	$180,100	$225,100	$386,000	$1,544,100	$1,930,100
2026	$394,200	$185,500	$231,900	$48,700	$194,700	$243,400
2027	$201,800	$807,100	$1,008,900	$560,000	$2,240,000	$2,800,000
2028	$60,300	$241,100	$301,400	$60,300	$241,100	$301,400
2029	$62,100	$248,300	$310,400	$62,100	$248,300	$310,400
2030	$52,200	$208,800	$261,000	$52,200	$208,800	$261,000
2031	$53,800	$215,000	$268,800	$53,800	$215,000	$268,800
2032	$67,900	$271,300	$339,200	$67,900	$271,300	$339,200
2033	$818,300	$3,273,500	$4,091,800	$390,600	$1,562,600	$1,953,200
2034	$71,900	$287,900	$359,800	$71,900	$287,900	$359,800
2035	$58,700	$235,000	$293,700	$512,500	$2,050,100	$2,562,600
2036	$527,900	$2,111,600	$2,639,500	$60,500	$242,000	$302,500
2037	$269,300	$1,077,400	$1,346,700	$750,700	$3,003,000	$3,753,700
2038	$79,100	$316,300	$395,400	$79,100	$316,300	$395,400
2039	$79,500	$318,100	$397,600	$79,500	$318,100	$397,600
2040						
TOTALS	$3,573,000	$14,292,200	$17,865,200	$3,661,300	$14,645,500	$18,306,800

Bus Stops and Amenities

To accommodate modifications to the current routing and route extensions to fringe areas, bus stop additions should be included in the capital planning. To address ADA, stops should have a concrete pad as well as signage that indicates what transit service is available from the stop and the name of the stop. Additional amenities to include at stops may include benches, bus shelters, informational maps, and pedestrian wayfinding signage. Cities have found cost-effective ways to implement these bus stop features by combining construction with pedestrian, bike and roadway capital projects. Bus stop improvement plans can help communicate needs with local organizations that may also assist with relatively small improvements.

Table 28 provides documentation of the basics of a bus stop, including signage and other amenities.

Table 28: Bus Stop and Amenities

Cost Per Element/Amenity	Item Cost (2021)	Basic Stop (Pad and Sign)	Enhanced Stop (Basic Plus Shelter)
Concrete Pad (5 feet by 8 feet)	$2000	$2,200	$11,700 – No Bench $12,450 - Bench
Sign	$200		
Bench	$750		
Shelter (Larger Pad)	$11,500		

Maintenance Facilities/Storage

The current facility has reserve capacity for growth in the fleet for both maintenance and storage of the current fleet and additional vehicles associated with route expansion to fringe areas or operating a limited number of flexible zone vehicles.

Fleet Expansion to Support Service Expansion

Adding routes and/or flex service zones will require adding vehicles to the fleet. Operating cost estimates documented in earlier sections address the personnel and daily service costs, however, fleet vehicles will also be needed. Consistent with existing service, adding a route/area, would require adding one vehicle to the fleet. The class of vehicle varies by the service, with a medium-duty bus, identical to the RapidRide vehicles would be used for expanded fixed-route service and a vehicle consistent with those used for paratransit service would be appropriate for flex service. Table 29 documents the current assumptions in the cost per vehicle.

Table 29: Expansion Vehicle Costs by Type

Service Type	Vehicle Type	Useful Life (Years)	Estimated Cost
Fixed Route	Medium Duty Bus	10	$375,000
Flex Area	Light Duty Bus	7	$100,000

Technology Upgrades

Up-to-date technology helps operations run smoothly, improves customer experience, and provides useful data for future service planning. This section lists recommended technology upgrades in order of priority to RTS and provides a high-level estimate of the costs that may be involved.

Upgrade Overview

GTFS/Google Transit

RTS and RCAMPO have already begun the process of creating a General Transit Feed Specification (GTFS) for RapidRide schedules. This will enable users to use Google Transit's trip planner in Rapid City.

Fareboxes

The current fare collection system relies on operators to count cash, passengers, and ticket types by hand. Upgraded fareboxes would automate much of this process, freeing operator attention and generating digital logs that could be used more easily for data analysis. Onboard survey responses indicated that upgraded fare payment options would meet a warm welcome with riders.

Tracking App

Predictability is one of the keys to user experience in transit. RTS should consider developing or purchasing a smartphone app that provides arrival updates for riders waiting for a bus. The first step necessary to achieve this has already been completed, as GPS devices are already installed.

In assessing its options for both farebox upgrades and tracking apps, RTS should give attention to the full range of demands that might be placed on an application. In the future, the fareboxes may need to be integrated with electronic fare payment methods such as smartcards and smartphone apps. Ideally, transit users will be able to download one app and use it for trip planning, arrival tracking, fare payment, and even on-demand trip booking.

Automatic Passenger Counters

Automatic Passenger Counters (APCs) use sensors positioned at each door of a bus to count boardings and alightings by stop. The exact technology varies; one of the most common is an infrared beam that breaks when a rider passes through, but other technologies include three-dimensional cameras and pressure-sending treadle mats.

Once APCs have been installed and calibrated, they generate large amounts of ridership data for very little effort. This is helpful not only when completing annual NTD reports, but also for analyzing stop-level ridership. If APCs are installed by the time the next TDP is completed, Rapid City will have high-quality data available to understand where its riders are most and least active.

Costs

The cost of each technology upgrade will depend greatly on the features sought, in addition to system size and vendor availability. Generally speaking, RTS should expect to see costs for hardware, software, project management, and training. Table 30 offers a high-level estimate of the costs associated with recommended technology upgrades, based on discussions with national vendors. For onboard technology such as fare media readers, driver interfaces, and automatic passenger counters, the per-unit cost should be multiplied by the number of vehicles in the upgraded fleet and the number of units needed on each vehicle.

Table 30: Estimated Technology Upgrade Costs

Technology	Item	Capital Cost (Per Unit, 2020 $)	Annual Operations & Maintenance Cost (2020 $)
Fare Management	Fare Media Readers	$2,300	$5,700
	Warranty and Support (per unit)	-	$300
	Management Software & Apps	$51,000	$24,000
	Fare Media Kiosks	$30,000	-
	Point of Sale Systems	$1,300	$3,000
	Project Management	$33,000	-
	Training	$5,000	-
Vehicle Location	Driver User Interface	$2,000	
	GTFS Feed Publishing	$2,000	$425
	Driver Checklist	$3,000	$1,100
	Management Software	$3,300	-
	Software Hosting	$1,400	-
	Project Management	$16,000	-
	Training	$5,000	-
Automatic Passenger Counters	Automatic Passenger Counters	$3,000	
	Project Management	$6,000	
	Warranty and Support (per unit)	-	$500

APPENDIX A: PUBLIC ENGAGEMENT

RAPID CITY TRANSIT DEVELOPMENT PLAN

April 2022

RTS
RAPID TRANSIT SYSTEM

RAPID CITY AREA
Metropolitan Planning Organization

SRF

Table of Contents

Introduction

The 2022 Transit Development Plan (TDP) incorporates builds on years of previous public engagement, including substantial work for the 2020 update of the Metropolitan Transportation Plan. The TDP further involved community members by way of public meetings, an onboard rider survey, a separate community survey, public events, and email.

Final Public Information Meeting – January 2022

Public Meeting 3 Sign-In

RTS RAPID TRANSIT SYSTEM

Date: JAN 12, 2022 Purpose: PUBLIC MEETING 3

Name	Address (Optional)	E-mail (Optional)	Phone (Optional)
Duanna Briner	415 Kansas City Rapid City SD	mission.redeem501@gmail.com	501-217-3847
Jerry Munson	2310 Arrow St, RCSD 57702		
Barbara Cromwell	4717 Baldwin St. 57702	manager@blackhillsfarmersmarket.org	605-646-0976
Ritchie Nordstrom	401 E Meade St	Ritchie.Nordstrom@rcgov.org	

TRANSIT CENTER

Rapid City
Transit Development Plan
Public Meeting Comment Sheet

Please use this sheet to record your comments and/or questions regarding the information presented at the January 12, 2022 Public Information Meeting. Please leave your completed form with meeting staff.

Comments can also be provided through the project website www.rtstransitplan.com. Look for Contact button.

THANKS.

Transportation would be an outstanding growing. not only that but it will help Economy Build Up.

Thank You God Bless.

Duanna Banes

Request for consideration of minor change on Borglum- Jackson Blvd Rapid Ride route:

Proposed change: From bus stop at West Flormann and Sheridan Lake Road intersection, instead of turning left (Northbound) onto Sheridan Lake Road, proceed East on West Flormann to Mountain View Road intersection. Turn left, proceed North on Mountain View Road to 50 ft. South of Arrow Street intersection, creating bus stop adjacent to existing city owned property. Proceed North to Jackson Blvd., turning right and resuming original route.

Benefits of implementing proposed change at this time:

1) No change or reduction in service to existing stops

2) Eliminate the only steep hill on the route, thereby: a) reducing maintenance of equipment (brakes, etc) b) reducing potential for accidents in winter on slippery hill going up and down c) reducing unnecessary fuel costs climbing steep hill

3) No perceptible increase in miles, timing, or overall length of route

4) No (or statistically negligible) reduction in timeliness of service to existing stops

5) Potential for noticeable increase in ridership and participation due to proximity to Mountain View neighborhood

6) Potential for increased revenues for Rapid Ride

7) Potential for dramatic cost savings on transportation for additional riders, thereby reducing general carbon footprint of those participants.

8) Potential for increased goodwill and public relations for Rapid Ride, due to increased ridership, convenience of proposed route, and resultant customer satisfaction.

9) Potential for increased benefits for local economy, due to a reduction in hesitancy of consumers to shop, knowing they don't have to spend expensive gas money and motoring costs or having to warm up/scrape the windows on their car in winter on every single outing.

10) Since changes are currently being proposed for EVERY OTHER Rapid Ride route, efficiencies should be realized by completing the work on ALL routes. Changing the Borglum Jackson Boulevard route at this time eliminates the need to "carve out" this singular route for change considerations after the other routes have been revised in this current review process. This would seem to suggest a resulting beneficial cost savings overall, as well. Leaving the Borglum-Jackson as the only Rapid Ride route unchanged for the better would also seem to be "work left undone", and an opportunity lost. Respectfully submitted, 1-12-22

-- Jerry Munson, 2310 Arrow Street, Rapid City, SD 57702 (jam@rap.midco.net)

JM

Memorandum

SRF No. 14299

To: Megan Gould, Transit Director
Rapid Transit System

From: William Troe, Principal

Date: January 13, 2022

Subject: Follow-Up From Borglum Route Comments Received at January 12, 2022 Public Meeting

Purpose

The purpose of this memo is to provide follow-up review of the routing proposal request brought to the January 12, 2022 public meeting by Mr. Jerry Munson. Our follow-up review includes:

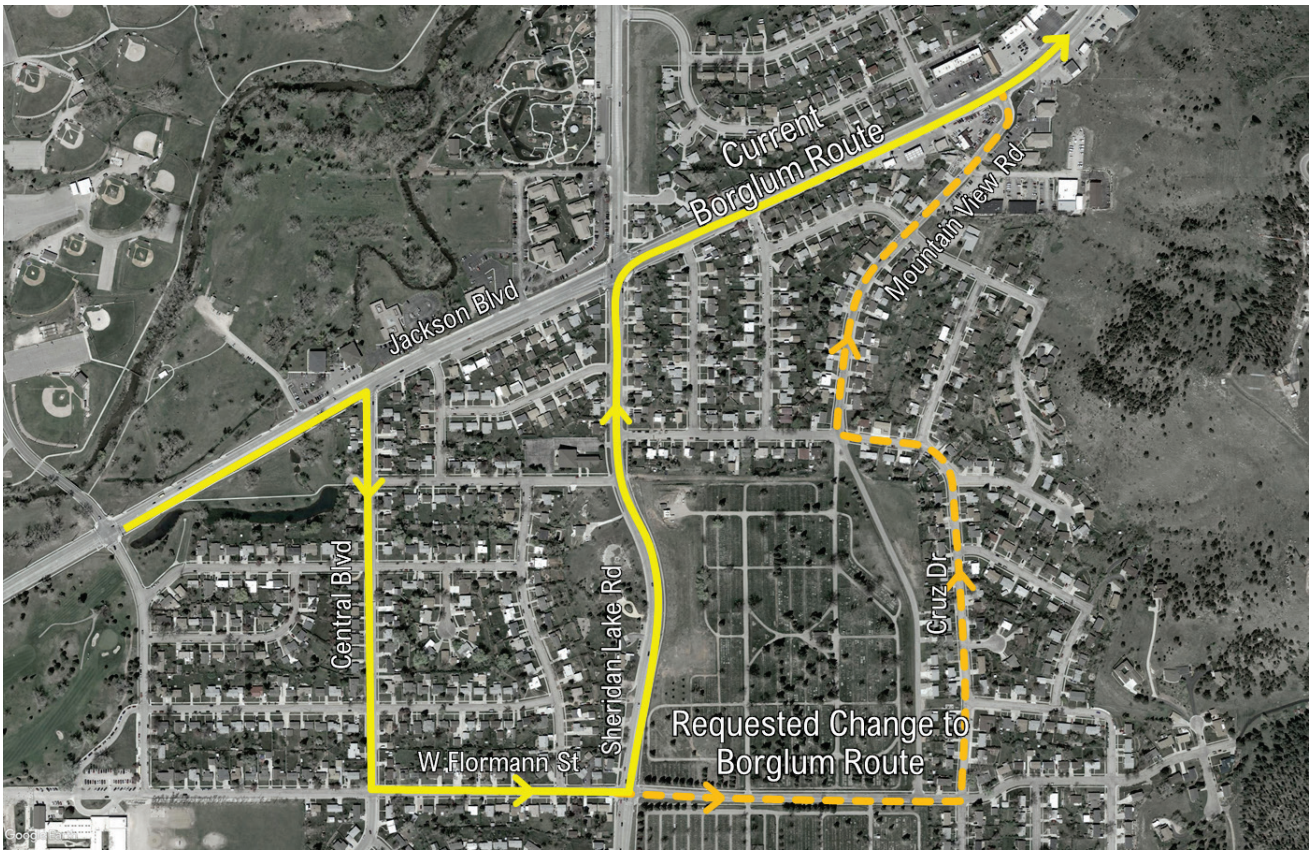
- Estimated travel time difference between the current route and the requested alternate.
- Identifying the households within the immediate area.
- Review of the street network on the requested alignment, including:
  - Street width
  - Operating speed
  - Intersection control

Requested Alternate Route

Figure 1 highlights the current Borglum Route path relative to the requested alternate. The alternate continues along Flormann Street from the current intersection of Sheridan Lake Road/West Flormann Street to Cruz Drive, where it turns to the north to the intersection of Mountain View Road. From Arrow Street (Cruz Drive turns into Arrow Street)/Mountain View Road, the route continues along Mountain View Road to Jackson Street, where it would be back on the original Borglum Route.

The requested alternate adds approximately 0.2 miles to the current route. Travel time for the requested alternate from the intersection of Sheridan Lake Road/Flormann Street to Jackson Boulevard/Mountain View Road is approximately one minute longer than the current route. The added travel time is a function of more of the route is along streets with speed limits of 25 miles per hour relative to the current route and the slightly longer distance.

Figure 1. Current and Requested Alternate – Borglum Route



The requested alternate would allow for a bus stop along Cruz Drive. Along the current route, there are no stops along Sheridan Lake Road due to road grade. Adding a stop adds dwell time to allow people to board and exit the vehicle. A conservative (high) estimate of dwell time is 25 seconds, which results in the alternate route travel time being approximately a minute and half longer than the current.

By supporting the addition of a stop on Cruz Drive residents adjacent to the route would have enhanced access relative to the current route. As the current route along Sheridan Lake Road and the alternate are within approximately 1,000 feet of each other, the rider draw areas overlap. Thus, comparison of the demographics along one path relative to the other would not yield a real difference in service. Being able to add a stop along the alternate is a benefit as there are:

- Approximately 600 households in the area (includes the entire census block).
- Approximately 11 percent of the households have one car.
- Approximately 30 percent of the households are lower income (less than 200% of the federal poverty level).

Street widths along Cruz Drive and Mountain View Road range from 32 to 38 feet. Other segments of the Borglum Route also travel on streets of this width.

There are no substantial intersection control issues as a signal controls the crossing at Sheridan Lake Road and the access to Jackson Street is a right turn, which has fewer conflicts than a left turn.

Actions

Understanding any change to the network results in additional capital costs (reprinting maps, changing/reprinting route signs) and some costs can be consolidated (reprinting maps) if the timing of implementing multiple changes is coordinated, we are recommending the following:

- Conduct a survey of the homes and businesses within approximately ¼ mile of the requested alternate route. The purpose of this survey is to understand whether people along the route would likely use the service if it were closer to their origin/destination. RTS will take into account the level of support in the neighborhood for the requested change. RTS will look for more support than opposition to the change in their final decision as to and when to make the change.
- Determine when recommendations associated with the Refresh Concept will be implemented. As the Refresh will require the same level of route change investments (changing bus stop sign locations, changing select shelter and bench location, reprinting maps), it is logical a change to the Borglum Route be coordinated with implementing the Refresh network changes.
- The change to the Borglum Route requested during the TDP update highlights there is no specific policy regarding making changes to routes outside the TDP update analysis periods. Requests are received from time to time and reviewed, however, most of the change requests are to extend mileage further from the center city/downtown connection. As these requests generally result in more miles/more time along a route, they cannot be accommodated within the current route run time parameters. To provide a logical process for submitting, reviewing and acting on requests for intermediate time period route modifications. RTS will, following the TDP update, work to implement a policy for consistently addressing route change requests.

Policy on Requested Changes to Routes

When a route change is requested, RTS will take the following steps:

1. RTS will assess the practical feasibility of the change, taking into account factors such as route run time, sidewalk condition, and roadway speed.
2. The impact of the change will be estimated. In most cases this will involve a count of the households or property owners within walking distance of the affected bus stops.
3. Public input will be sought. At a minimum, this will include sending an informational letter and a brief survey to addresses directly adjacent to the bus stops or route segments that would change. Consultation with nearby stakeholders may also be warranted.
4. If the change involves adding stops or service to a new location, the survey will seek to understand the level of usage the new service is likely to see.
5. RTS will make a decision based on operational considerations as well as the input it receives.

Metropolitan Transportation Plan

In 2019 through 2020, HDR collected public input on the Metropolitan Transportation Plan and the Metropolitan Area Bike and Pedestrian Master Plan Update. The comments relating to public transit were used to inform the TDP and are extracted and shared below.

Table 1. Metropolitan Transportation Plan Comments

Individual/Organization	Comment
Black Hills Works	I work for Black Hills Works. We have a location off of Deadwood which houses 80-100 ppl w/ Developmental Disabilities. We also have folks working just off of Deadwood Ave. & in the Valley. Currently there is no public transportation to either. We are hoping the city change the rules to accommodate those areas. There is also very limited public transportation on the wknds to folks who work in all areas. We appreciate all you do!
Western South Dakota Community Action Agency	At Western South Dakota CAA at 1844 Lombardy Dr. we have a large population of people walking without transportation. More access to bus stops on St. Patrick near Creek would be a great improvement for people coming to the office, we [?] over 8,000 people yearly.
Jerilyn Roberts, South Dakota School of Mines	Public transportation availability at a more frequent service level is a need for students.
Melissa Hurley, Advance Services, Inc.	[Two-page letter detailing major employers' concerns about lack of bus service for their employees, with 32 employers listed as members of a Transportation Committee.]
Garth Hudson Wadsworth	I think the bus stops need to be revisited as a part of a pedestrian-oriented, multi-modal system. The physical bus stops themselves are severely lacking. They need to be more than a little sign next to a busy street. It seems that 'accessibility' to bus transit was measured by the distance to a bus stop and the means to improve access was to increase the number of stops with little consideration for the accessibility or usability of the added stops themselves. The number of bus stops should be condensed and the accessibility of each stop should be improved by making stops a focal point of pedestrian plans.
N/A	I feel that there is an urgent need for a crosswalk at the corner of South Canyon Road and Capital Street. There is heavy pedestrian traffic, especially Pinedale students/families as there is no public transportation beyond N 44th Street.
Anonymous sticky note	Need a bus route along 44 and up to the industrial park on Elk Vale
Anonymous sticky note	Bus service [near Copperfield Dr/Concourse Dr]
Anonymous sticky note	Bus transportation to Great Plains Tribal, Chairman's Health Board, BH State University Center
Anonymous sticky note	Need for public transportation to Feeding South Dakota – 40 lb. of food average, no stop right there.
Anonymous sticky note	Need for public transportation after 6PM
Phyllis Alexander	[paraphrased phone call] She uses Dial-a-Ride several times to go to the Regional Sports Center and to other doctors… and she has NEVER had a bad experience with Dial-a-Ride… she commends the drivers and they are always usually on time give or take… she doesn't want to see any changes in the system… it's great for older folks.. and demanded her voice be heard.

Onboard Survey Comments

In early 2021, RTS conducted a self-administered onboard survey to identify the needs, priorities, and demographics of current ridership. In addition to multiple-choice questions, riders were invited to share their responses to the question: "How else could Rapid City transit services be improved?" Table 2 lists all responses to this question.

Table 2. Onboard Survey Open-Ended Responses

Longer services
Charging outlets to charge phones
More buses, more service locations
Night transit
Shorter wait times
Extend hours into the evening and Sundays
Less grouchy drivers
Expanded Service Times
I think it is okay how it is, but I would appreciate it if the drivers that play music could keep it on a certain level.
Longer evening hours, newer buses
Later Hours
One of your female drivers is really unfriendly
Express bus to Rapid Valley
More routes, longer hours
24/7 hours
More evening service. Maybe a grid system for routes
Weather shelters
Have more bus stops. Coolidge doesn't stop until Waterloo St, and I'd like a stop by Holiday
Digital system for tickets; more buses on each route
More routes, longer hours, Sunday service
Nicer drivers
More patience and respect to passengers
2 buses per route
Allow transfer to other routes at any bus stop without having to pay extra.
Overnight and late nights
More routes
Evening hours
Electric ticketing machine to prevent distracting drivers
Longer hours
Bigger buses
New buses, more hours
Run 24hrs
Evening service and possible grid system
Transfer at other points
No storm sewer grates; extra free days for seniors on Holiday Weeks

No storm sewer grates; extra free days for seniors on Holiday weeks.
I wish we never had to leap across a storm sewer grate to get on or off the bus. I wish we could have an extra free day for seniors in any week in which the bus doesn't run on Friday because of a holiday.
Be more efficient with stops around town
Late evenings and nights
Phone app to say when the bus is coming
Allow alcohol on the bus
More routes on Sundays
Love the bus
Phone app with bus arrival info
Have the terminal open for bathroom use. Run 2 buses per route
Late evenings and nights
Some drivers are rude and drive mean, swinging us around in the bus.
Phone app to tell when bus will come by
In every city I've lived, they run until 11pm. Get a bus to deliver people to Skyline Pines on Fairmont St. It's a long walk uphill for residents and employees.
New buses; give the drivers a raise
Transfer at more points
Digital pay option
Give bus drivers a raise; new buses
Better hours, better service, new buses, longer hours
New buses; give the drivers a raise
Better services, new buses
Pay with cards
More routes
Bigger buses, larger font on route signs, $1 fare
Drivers should be more polite and courteous
Stay open later
Great drivers!
Add more stops
Transfer points @various locations
Shorter wait times, expand the service areas
If a holiday falls on a Friday, designate another free day for seniors during the week.
If a holiday falls on a Friday, designate a different day for seniors.
More service on Sundays
I like it
More hours - 10pm Better buses, buses on Sundays, more routes
New buses
New buses
Shorter wait times
Nicer drivers, don't drive so aggressively
More friendly drivers
Later routes after 5:25pm.
Better hours, better service
At 5th and Minnesota, there is no way to access a bus without crossing 5th St. Dangerous to cross, and the next nearest station is 5th and Anamaria, which has no weather sheltering.

Transfer at various points
More frequent stops
Services on Sundays
Doing great
Longer service hours
Timeliness
Regular brake checks
Friendlier drivers
Just fine as is
Nicer bus drivers
More routes on Jackson Blvd
More routes on Jackson Blvd
Give the bus drivers a raise; new buses
The driver be nice to good customer
Expansion of hours in the evenings
More routes
illegible
Evening rides
Evening Rides
Put in an electronic ticket device so the driver doesn't have to worry about the money.
I wish we never had to leap across a storm sewer grate to get on or off a bus. I wish there would be an additional senior free day in weeks in which there is no Friday bus runs, because of holidays.
in Box Elder
Switch to automated ticket receivers so the drivers don't have to keep an eye on the money/tickets.
I find the services to be sufficient
Offer transit services on Sundays
It is just fine
More routes and more hours of operation
Allow transfers at bus stops without having to pay extra; Have 2 buses fun for each route - both directions at the same time.
good service be good commuter
Faster transitioning between buses
It's fine now
Operate on Sundays
Have more buses going in each route
It’s perfect in my opinion
None

Community Survey Comments

During the TDP process, a community survey was available online and on paper during the period of public engagement in spring 2021. The survey included two open-ended questions, the responses to which are reproduced here as one list.

Table 3. Community Survey Open-Ended Responses

Add a route further north, east and deadwood ave
Reduce the time and add more buses. Bigger cities like Denver constantly have buses running, and they're always advertising about the public transit
Have the Depot open on Saturdays & open during all operating bus hours. Eliminate the currently existing archaic fare payment system and replace it with a new DIGITAL fare box in all buses and on the trolley. The security cameras on the buses should be regularly checked to ensure that they are always working properly in order to record incidents & accidents.
Allow more "carry on".
Need to add Sunday service and expand hours
I live in West Rapid and would love to use the bus to get my kids to school. But honestly they can walk the 2 miles faster than the bus runs so I either pick them up or they walk.
Sunday service, later daily hours
I believe that the service area needs expanded. Hours could go later as well to account for after school activities during school hours.
If there was any opportunity for public transportation from Sturgis or surrounding towns into Rapid City, that would be greatly appreciated.
More busses to decrease time.
An expanded service area as some areas are hard to get to - also the benches are so important because alot of the people who need the transportation do have issues with mobility and long waits for standing and so forth
Rapid Ride continues saying their ADA complaint when they are not to people getting off and on the bus with canes, walkers and other mobility devices
More detailed map at bus stops!
Friendlier drivers
Bring the route further north on Haines Ave to at least Country Rd.
have a bus to pick ppl up to go to the grocery store whether at Safeway Family Fare or the Wal Mart stores have it one time fee
Services to new housing development's and rapid valley
Include outer areas still in city limits.
Safer rest stops. I have seen drunks and homeless sleeping in shelter by my office. They also are filthy.
Get drunk on the bus
making payment easier is my #1
I think it would help more community members if we had bussing 7 days a week. Maybe three different shifts. To help the workers commute.
Westside locations.
need new service areas
Rapid valley service
I would like if the bus went to the Dmv. It's a hard bike ride or walk to get mobile. That's something bus riders need.
It would be nice to have an app to be able to see on your phone where the bus is
I feel unsafe riding the bus. Often there is no one to help when a situation escalates and my kids feel very unsafe on the system. The naming system is very confusing and could be better for people to understand based on areas served.
East side transit
Expand to box elder and the valley to accommodate these growing communities with low socioeconomic status.

Please and a line that Goes from West Chicargo down Sturgis Rd to Black Hawk. There are many people living in trailer courts here that don't drive anymore and can't afford a cab.
We are a retired couple. We live @ B&J's mobile home park. 4640 Sturgis rd. We pay Rapid City taxes. There is no reason we should be denied bus service on Sturgis rd connecting to Chicago st
A slight increase in taxes (sales, tourist) to reduce the cost of using the program.
Have a route that runs south to north and east to west, to help with the flow, which would add more pick up times and help people get to where their going quicker.
I would use the 100 dollars to get rid of the transit system, its nothing but a waste
Route before and after school Harney Dr./SWMS.
More routes to public schools
And bus pull outs at each stop to prevent traffic back ups and insure passenger safety. Have seen too many near misses.
Make a stop on the opposite side..
You should plan and prepare for a surge in ebikes. Plan traffic lanes for them and make rental services available. They are environmentally friendly, quiet, functional and fun - even for those without calves of steel.
More services for elderly and others needing rides to medical appointments
Cleaner buses, and a live-tracking app
Rapid Valley could really benefit from being included in the transit system, especially because existing infrastructure doesn't support walking or biking safely into the city.
Proper cleaning to ensure air fresheners are never a necessity on the buses again.
More routes outta state
You need to run the buses late into the early mornings on weekends .. if drunk driving is a big concern then you need to have bus service till 3am
Longer days, weekend
Assist with school routes that RCAS cannot cover. Add fee for these added routes.
Paper schedules acailable in bus
School service to the Rapid Valley area
Promote times/routes/rates to more sites/venues.
Further north of Lakota Homes out to Mall ridge. Also go to more locations and stores. More hours of operation later in night. Offer more bus stop shelters for when it snows and rain. Bigger benches.
App or technology that shows when busses are arriving
Service in the Fountain Springs area.
re: Dial-A-Ride: provide reasonable pickup/dropoff times. Stop bring us to NEMT appointments too soon and then having us wait an hour or more for the pickup ride home.
Add Black Hawk, Box Elder, Rapid Valley and up to the new orthopedic clinics on Hwy 16. Most people going there, that don't have a car shouldn't be walking up there from the nearest bus stop. Add the Department of Public Service so people without licenses can get ID's easier. This is a huge barrier to people getting employment and ending homelessness. Cant' rent without an ID. Due to housing shortage many are having to move out of the service area. I would expand the service area to include Box Elder, Black Hawk (3 times a day at first until revenue increases) and Rapid Valley routes and time. Add Sunday hours. People still work on weekends and have 24/7. Most people that work entry level jobs, and those that have no transportation on their own work the really early or really late shifts. 4:30 am to midnight. Make the routes easier to understand because you can't even talk to anyone to tell you how it works.
Wish there was less of it.
More availability with routes and more availibility for on demand rides with DAR
Service to DSS and Feeding SD
We need services in Rapid Valley
Wider service area, longer hours.
There needs to be a better way to communicate when service is suspended due to weather/road conditions.
I would like to see more bus routes.
Add more stops
bus safety and personal safety

more disability training and enforcement for drivers
less time between buses
Hard to plan routes - stops are not where they are needed. Later hours & weekends - Sunday church. Box elder service
more direct lines to other stops, instead of always back to the bus barn
Enjoy Service! Please apply to Dial-a-Ride also
Rules - on bus behavior
I haven't had to use RTS prior because I have had my own vehicle. If I did use it, it would be my last resort. I don't have enough experience w/ public transportation to give viable feedback.
It would work for someone who lost their driver's license due to a DUI. Or car breakdown & no money to fix it. Someone could use it to get to & from work. No gas money. The weather can be rainy or snow or too hot - need shade & protection from the cold & wind. I can't stand very long due to my back. I can't walk very far due to my back.
Better Drivers Non Aggressive Drivers
go to bars
I do Dial-A-Ride only - Takes so long
I take Dial-A-Ride bus system & NEVER Rapid Ride! Unless Dial-A-Ride is included with RTS. I'm not sure about that. I really wish that Dial-A-Ride bus service at least would go out to the Black Hawk-Piedmont area.
There isn't any handicap services on Rapid Ride. Have to pay more for Dial-A-Ride
More bus stop in and around the Rapid City area
I would help me out if the buses ran earlier and later! Sometimes I need to get to places either later in the day after 5pm or earlier in the day! Before 6am!
operate Sundays just like you do Saturdays
I really wouldn't know what to say about that, cause I rarely use it. Actually, I haven't used the transit since I got here in Rapid, and I been here for like a month now.
1. Some drivers do tasks while driving that could be done at terminals I.E. writing, turning knobs. 2. some need to work on their people skills. some have no patience with the elderly or handicaps. A few of the drivers tend to talk to customers in a verbally abusive way. 3. but there are a couple of male whom show compassion for customers and are courteous when asked about transfers 4. some of your buses brakes make sound, in fact scarey, i dont know how you pass inspection but im grateful for your service. I dont know how I would service without it. it would be nice if you had limited Sunday service just to make it to worship and maybe make your last run around 8:30pm for workers
1) Maps with location #s. Show complete rt. Show times of stops on route. 2) Need adequate inf. concerning routes, times, inf. on help provided for wheelchairs, elect. scooters for disabled. How to transfer to diff. routes. Need help for transp. for Elderly and Disabled. These persons need ways to get to groceries & to trans. [illegible] other shopping.
More pickup and drop-off locations and different routes. Open many or all of the available shelters/stops and post new schedules. That is all for now. John Watters
bus safety and personal safety
would be nice to have Sunday service, night service, and go outside city limits as far as Box or Sturgis
more disability training and enforcement for drivers. Better enforcement of drivesr announcing stops and not using the excuse that equipment is broken.
Bus routes that include my Dr.s offices. And the ability to ride home. Also, being in elderly housing, it would be better if we had a bus come to us.
I think it's fine the way it is
A bus shelter due to weather conditions
Keep computer schedules, instead of changing them. There is no reason anyone has to stay on the bus longer than 1/2 hour. I spent over 2 1/2 hours on the bus one day! Make travel time home less than 2 1/2 hours.
The kiddos were left to ride the bus due to car issues. My daughter was "hit on" by multiple men. That made the situation very uncomfortable for everyone. Maybe a schedule for kids only?
clean up bus stops, looks like homeless live there
There needs to be a route out to the Valley to connect people to medical and social services. Update routes on website with all bus stops. Last time I needed to utilize service I called Rapid Ride and she told me that they did not have an updated version. I think she might have said since 2010. Right now, we know there are alot of jobs open, but without a car. How would one get a job at Walmart or any fast food restaurant because buses stop at 6pm. I do Know you have Dial a ride and perhaps that needs to be advertised more as a reliable option.

Also perhaps printed options of routes or complete version posted on available transit center/library/social service place
to airport or north of mall
Need more routes in the community, cover more area
I think the students should pay for rides. They are loud and rude. If they pay maybe they would learn the money amount of peace on the bus
Shorter time between buses and earlier buses
Music at a standard level Better (Larger) notices when bus times aren't going to be available-Holidays etc.
Routes to WDT for students without vehicles.
Lower ticket prices
At 1805 W. Fulton if reg. bus can't turn to go up the hill send a van. Elders can't walk up hill. We had 1 death because she walked uphill in 100 degrees for a doctor appointment.
I have a car that gets me around to where I need to go. I also think it is a great idea for buses to run 24 hours, and to run on Sat & Sun. Get with the hotels & motels guest to let them know there is bus service, to pick them up so they can see places to go to for fun while they are here.
Better & easier schedules. Bus service to Rapid Valley.
Extended hours-weekends-extended routes. Otherwise very important to my transportation and quality of life
Getting children a lot closer to their homes
Easier to get reduced passes for people on SSI or SSDI. My disability is nobody's business and I believe it is against HIPAA to ask what my disability is. Due to transit asking to see a letter stating what my disability is, I have been paying full price.
Add service to outlaying areas north & southern areas
Be more patient because some of us are slow walkers
Wondering what % of total cost of program comes from riders' cost. Possibly raise costs for riders. Low cost encourages people to give up their cars & use RTO for their chauffeur. Disabled & elderly does not necessarily equate with poverty.
Better inform citizens of transit uses - adds in papers. Tell about the Rapid Transit System and how/why it works and operates. Inform about the buses and their use.

Additional Comments

Throughout the TDP process, members of the community were invited to share their thoughts by email or phone with the project staff. The following pages include copies of the emails and attachements received during the course of the project. These emails were all taken into consideration during the service planning phase of the TDP.

Eavan Moore

From: Simon, Lori J <Lori.J.Simon@k12.sd.us>
Sent: Tuesday, July 6, 2021 15:36
To: Bill Troe
Subject: Transit needs interview

Good afternoon Bill,

I received the invitation to participate in an interview about our transit needs. Unfortunately, I am unable to participate, now is my community relations manager.

I would like to provide some feedback directly to you. The main concerns that we hear from families is that they wish RapidRide extended to the Valley and further to the Southwest part of Rapid City in the Southwest/Corral Drive school area.

Sincerely, Lori

RAPID CITY AREA SCHOOLS
Inspire. Innovate. Excel.

Dr. Lori J. Simon
SUPERINTENDENT
Phone 605 716 0327
Address 625 9th St, STE 208, Rapid City, SD 57701
twitter | facebook | rcas.org

Eavan Moore

From: Brennan Kelly <Kelly.Brennan@rcgov.org>
Sent: Friday, May 21, 2021 11:49
To: Bill Troe
Cc: Gould Megan; Eavan Moore; Menno Schukking
Subject: FW: Transportation Study

Public Comment received.

From: Eileen Desmond <edesrap@gmail.com>
Sent: Friday, May 21, 2021 9:15 AM
To: Brennan Kelly <Kelly.Brennan@rcgov.org>
Subject: Transportation Study

Hi Kelly,

Richie reminded us on a street outreach call to give you input on transportation for Rapid City.

My first priority for our low income workers is bus service on the weekends so they can get to work. Many are saving to get a car but that takes time.

My second hope is that the buses would run later into the evenings all week to allow a safe harbor for women walking alone. I was raised in New York City and seeing a bus approaching with its inside lights on always felt like a safe place to be. Like a lighthouse on a dark night!

Perhaps a contest to "name each bus" could be a form of fundraising to extend bus hours and pay higher wages for night drivers.

Thank you,
Eileen Desmond
RV Ministry Street Outreach
605-430-0209

Eavan Moore

From: Gould Megan <Megan.Gould@rcgov.org>
Sent: Wednesday, July 14, 2021 9:21
To: Bill Troe
Cc: Eavan Moore; Menno Schukking; Brennan Kelly
Subject: FW: Transit Development Plan

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Community comment.

Thank you,
Megan Gould
Rapid Transit System Division Manager
605-394-6631

From: Cyndie Franklin [mailto:outlook_9EF5CACB5CCFAC17@outlook.com] **On Behalf Of** Cyndie Franklin
Sent: Tuesday, July 13, 2021 6:27 PM
To: Gould Megan
Subject: Transit Development Plan

As much as I would love to attend the meeting on 7/15, lack of bus service makes it impossible. As an older person who does not own a vehicle, the last route run being at 5:25 p.m. leaves me without transportation to get home, and issues with my hip make the walk a challenge. I work at The Monument and depend on the bus to get to and from work. Getting TO is not an issue – unless services are suspended due to weather – but sometimes getting home IS an issue if I don't get out of work right at 5 p.m. There have been times when I have arrived at the driveway of the bus depot as the buses are pulling out but the drivers won't pick me up and I end up walking two miles, mostly uphill. Right now I'm serving Jury Duty and the hike from the Courthouse to home has taken a toll since it's impossible to get to the buses before they leave on the last run of the day. I seriously doubt I'm the only person in Rapid City who has the same issue. The evening runs need to be extended by at least an hour!

Sent from Mail for Windows 10

Joe Luciano Sr.'s

Underground Guide to Dial-A-Ride[1]

. . . . . A Survival Guide . . . . .

While Dial-A-Ride (DAR) management may consider this guide irreverent, satisfaction and safety of riders should be the topmost priority. This publication is intended to help DAR riders cope with the problems or difficulties we face booking and riding. My hope in publishing this is that Dial-A-Ride will improve its NEMT paratransit service and begin providing regular public forums to enable rider feedback.

HERE ARE SOME "ACHIEVEMENTS"

Dial-A-Ride should be proud of:

2021-07-09:

1. Compared to rides I had in 2019,[2] buses now **SHOW UP ON TIME** according to pickup times scheduled. (in 2019, many buses were no-shows.)
2. When rides are sometimes late, the calls takers are **NOW FRIENDLY AND HELPFUL**—even checking the computer to let us know the new ETA. (in 2019, my calls reporting failure to arrive even after the 20-minute window were received with adversarial attitude.)
3. Dial-A-Ride Call Takers (booking agents?) are **WELCOMING, FRIENDLY, AND COURTEOUS**. (in 2019 it was the opposite). It's enjoyable interacting with Erin, Carrie, Al, and Tim., who most often answer my calls.
4. Lately, Call Takers have been unable to provide pickup times at the time of request, or on demand. It seems they have to write down ride details and then pass it to another(s) who have access to the scheduling computer program (Nova?). **NEVERTHELESS THEY TRY HARD to give reasonable pickup times.**
5. **DRIVERS ARE AMAZING**. They drive defensively, anticipating what bad drivers up ahead might do. And they know shortcuts that the GPS lady doesn't know about. In a recent ride home, after a "magical mystery tour" boarding and deboarding many passengers, *Matt* took a shortcut that got me home sooner. Thanks, *Lee* (now retired) for never tying me down near the rear wheels. (The back of the bus is the worst, for all bumps are magnified shocks to the body, as the fulcrum is forward or near the middle. My cancers include carcinoma of my ischium[3] (butt bones; so whenever I was forced to ride in the back, the ride was extremely painful.) I always feel safe riding with *Matt, Lee, Jerry, Rich, Vicki*. And their work ethic is meritorious if not sterling: they always refuse to stop at Culver's for frozen custards for everybody—even though I offer to treat . . . everyone on the bus. (This always gets laughs.)

[1] Riders are welcome to post their Dial-A-Ride experiences (good and bad) to **Rapid City: for People of All Abilities**, a closed Facebook group for persons with disabilities who enjoy out-trips. This group is like a "travel guide" to Rapid City venues. It lists only ACCESSIBLE destinations that have been visited by members.

[2] I began using DAR in April 2019. Before that, for decades I was using the well-oiled, successful paratransit system of Connecticut.

[3] the curved bone forming the base of each half of the pelvis.

6. **BUSES ARE CLEAN INSIDE**. *Matt's* is always impeccable immaculate, looking showroom new, not even a confetti sized piece of litter anywhere, even in late afternoon. How does he do it?

2021-07-08

WHAT'S GETTING TO BE COMMON AND TIRESOME?

ANSWER: **BOOKINGS ARE NOT PROCESSED IMMEDIATELY**: When I call to book a ride, **the agent doesn't give pickup times right away**. Agents say, "Give me your phone number. I'll call back later to give you your pickup times."
EXAMPLE: on June 28/11:10am I called requesting a ride. The agent called back the **next day** (June 29/10:52) to give me my pickup times. Another EXAMPLE: on July 7th/8:14am I called requesting a ride. It's the end of the business day today July 8th; I have yet to receive my pickup times. Another EXAMPLE: Pickup times for rides I need on July 14th that I requested on July 7th were not phoned to me until July 9th. Three working days to get a ride? This is unheard of in Connecticut. Compare to Connecticut ADA Service Providers: https://www.ctada.com/ServiceProviders.asp
(SEE below for reasons I believe prevent call takers from giving rides on demand.)

Let me give some **PERSPECTIVE** from my decades of experience with NEMT[4] paratransit in Connecticut with Greater New Haven Transit District (GNHTD,[5] one of the 12 I traveled with): First, calls for rides are taken Sunday through Saturday between 5:30 am to 11:30 PM![6] Second, booking agents give pickup times immediately—not hours or days later! Thus, getting pickup times from GNHTD is on demand, or immediate, because each booking agent has access to the scheduling program.

Here with Dial-A-Ride it seems that the booking agent I call has to write down the details of the ride I'm requesting—and then pass it to the person who has access to the scheduling program.

2021-07-08

ARRIVALS AT MEDICAL APPOINTMENTS ARE TOO EARLY

On recent rides I get pickup times that get me to my NEMT appointments too early! EXAMPLE: On July 1st I got picked up so early for a 1:00pm doctor appointment that **I arrived over an hour** before the appointment. That's unreasonable.

At home I never sit in my wheelchair twiddling my thumbs for an hour; excessive sitting in wheelchairs is a cause of decubitus ulcers, or pressure sores.

During a decade of rides with GNHTD I never was brought to a medical appointment too early.

2021-07-08 ALL OF THE ABOVE PROBLEMS may be caused by one or all of the following:

1. The computer program (Nova?). Its algorithms may be wrong
2. Shortage of buses
3. Shortage of drivers

========== **This subject continues** ========== ➔➔➔

[4] Non Emergency Medical Transport (trips to routine healthcare appopintments)
[5] http://www.gnhtd.org/
[6] Dial-A-Ride does not take calls for rides after 3:30pm.

ON THE MATTER OF CUSTOMER SERVICE & SATISFACTION

The following is comment I posted on Facebook:

"Dial-A-Ride (DAR) is having a meeting to receive public comment. Starts 5:30 pm. DAR provides rides for passenger with wheelchairs Monday through Friday 6:00 AM through 5:30 PM & Saturday 8:30 AM through 5:30 PM.

So . . . I might get a ride to the meeting . . . but if I stay 30 minutes to give my review (It will range from "D" to "F") I'd be stranded because service ends at 5:30pm.

Back where I come from (Ct), the Greater New Haven Transit District (GNHTD) held a Public Forum EVERY 4 MONTHS to receive our complaints, praises, and recommendations to improve service.

It provided FREE roundtrip transportation to the Forum . . . and hot/cold beverages, sandwiches, fresh fruits, and pastries. It was also a social event, enabling riders to meet each other to exchange experiences. Because GNHTD believes in customer service and satisfaction.

GNHTD also NOTIFIED us about each Forum by letter, email, and phone - just to be sure we had OPPORTUNITY to participate in service improvement.

IF I GO I'D HAVE TO PAY MY WAY AND THEN BE STRANDED.
(This notice is not posted on every DAR bus.)"

2020-11-30 **RIDER ALERT! RIDER ALERT! RIDER ALERT! RIDER ALERT!**
Beginning in late November 2020, a new dispatch/scheduling computer program called "Nova" has replaced the previous one called "Trapeze." It's not working as expected. Dial-A-Ride booking agents are having great difficulties promptly responding to requests for rides and dispatching buses for your pickups and drop-offs. I waited two days for the pickups for today's NEMT[7] rides.

Today, for example, the tablets on all buses were dead, preventing drivers from signing in. Worse, instructions drivers needed showing their itineraries (pickup addresses and pickup times) were given to them *on paper*—with updates and changes *by cellphone*. The new system "lost" instructions to take me home. Booking agents were unable to contact another bus. More than hour passed before I was picked up by another bus that wasn't scheduled for my ride home.

Therefore, 30 to 60 minutes before your scheduled pickups, CALL 394-6631 and ask for confirmation.

ACCOLADES ARE DUE

2020-11-30 **Let's show appreciation for service improvements Dial-A-Ride has made recently. Drivers have been arriving on time for pickups. And for "NEMT" rides (non-emergency medical transport, or rides to/from doctor/healthcare appointments), the dispatch office has been very cooperative in changing pickup times when your appointments take longer or end sooner than expected. They are arriving in minutes to take you home.**
Let's show appreciation. Make a call today to Dial-A-Ride and say, "thank you for improving service for my rides to medical appointments." 605/394-6631

UPDATE FTA completes investigations of Dial-A-Ride.

Recently, responding to my August 17th, 2019 complaint (FTA Complaint No. 19-0313) against Dial-A-Ride, the Federal Transportation Administration (FTA) completed its investigations of Dial-A-Ride's safety practices. But . . . found no reason to require Dial-A-Ride to post notices warning of the **hazard** wheelchair users (especially those using manual wheelchairs) face when they roll off the lift to the bus interior. They will travel down a steep ramp—because the lift rises higher than the bus floor! The FTA also found no reason to require drivers to verbally warn manual wheelchair users about that ramp. SEE page 9

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[7] Non-Emergency Medical Transport (trips to routine healthcare appopintments)

► **IF YOU SEE THIS** . . . . . **tell** the driver to "tie down" the scooter or wheelchair, or even a walker.

If drivers refuse, report to Dial-A-Ride Transit Manager: **Megan Gould**
megan.gould@rcgov.org@rcgov.org, or **phone (605) 394-6631**

Why should you report?
Because, in an accident or sudden hard stop, **any *unsecured* object** becomes a **deadly flying object**. Mobility devices, especially powerchairs and scooters (which weigh hundreds of pounds) must be secured with 4 (four) "tie downs."

It's **LAW!** (U.S. DOT; SD DOT; FTA (Federal Transportation Administration)

If your report is ignored, report to
Federal Transit Administration,
East Building,
1200 New Jersey Avenue, SE,
Washington, DC 20590.

► Or **CALL** the FTA: (202) 366-4043

▶ **NEVER EXPECT APOLOGIES** Dial-A-Ride's policy does not require its agents or administrators to ever apologize for their **mistakes, failures, errors, late pickups**, or other SNAFUs.[8] They want you to begin waiting 15 or more minutes before your scheduled pickup. When you call to report your bus is late (20 or 30 minutes late), you may be upset to hear the agent say, "You are not in our computer to be picked up." Even if they believe you did book the ride, they will not apologize. They will, however, send the "next available bus"—which can arrive an hour or more later. You will then be late for everything you planned.

HERE'S HOW TO "DEFEND" YOURSELF: For every ride you book, **create a 3 x 5 card** on which you write the following. Carry this card with you:

a) Date of rides;
b) Name & street address of your destination;
c) Telephone number of the destination;
d) Date and time you called to book these rides;
e) Names of agents who scheduled these rides;
f) Times of each pickup;
g) Name of the driver for your outgoing and returning trip.

- Before your ride arrives, **call the destination** to be assured it will be open on your arrival. If it's closed you will be waiting outside for your scheduled pickup to go home!
- When you deboard at your destination, ask your driver to check the computer screen to **confirm the time of your pickup to go home**. This is a way for you to find out if you're likely to be picked up.
- Dial-A-Ride's "arrival window for pickups is 20 minutes. Example: if the agent gives you an arrival time of noon, the bus is considered on time if it arrives between noon and 12:20.

▶ Every three months or so, **REPORT ALL PROBLEMS** you experienced (injuries, accidents, late pickups, dirty buses, buses in bad repair, unsafe securement of your wheelchair, reckless driving by your driver, etc.) to **Federal Transit Administration**, East Building, 1200 New Jersey Avenue, SE, Washington, DC 20590.
Or CALL the FTA: (202) 366-4043.
It's important to do this because **Dial-A-Ride is not interested** in improvements or customer satisfaction. And it **refuses to hold quarterly forums** as opportunities for riders to give feedback.

▶ **BOOKING RIDES CAN TAKE HOURS** Recently, call takers have been unable to give pickup times when you call. Instead they will call you back *later in the day* with pickup times. You may wait hours for their answer. And what they give you can be unreasonably inconvenient. It's "take it or leave it."
This can result in problems for riders booking rides to medical appointments or treatments. If you're on a "wait list," you need to get pickup times fast and be able to tell the office that you

[8] "Situation Normal: All Fouled Up" (military jargon)

got your ride—otherwise you lose opportunity for medical care when it's offered. Medical offices must have your answer ASAP; or they will give your appointment to someone else.

► **IF THE DRIVER DOES NOT SECURE YOU WITH LAP BELT/SHOULDER HARNESS,** ask him or her to lower the seat/bench immediately in front of you. You will then have something to grab whenever the bus stops suddenly. Though it's safer if you are secured with lap belt/shoulder harness. Think! **What will happen to you if the bus rolls over?**

► **ALWAYS CALL YOUR DESTINATION** *BEFORE* you board the bus. (It might have closed unexpectedly; or the access ramp is out of order; or it might be inaccessible for some other reason.)

► If you call Dial-A-Ride after 3:30pm, you will be told **RIDES CANNOT BE BOOKED *AFTER* 3:30pm**. (But, according to its website, Dial-A-Ride Hours of Operation are 6:20 AM through 5:50 PM Monday through Friday; ► Dial-A-Ride does not provide service on the following holidays:

New Year's Day
Good Friday
Memorial Day
Fourth of July
Labor Day
Veterans Day
Thanksgiving Day and the day after
Christmas Day

► Dial-A-Ride pick-ups begin at 6:20 AM and drop offs end at 5:50 PM Monday through Friday and from 8:00AM through 7:00 PM on Saturdays.

This means you have **no Dial-A-Ride transport** to evening events beginning at 7pm and ending at 10pm or so. You are isolated from events at

- **Main Street Square**, 512 Main St #980: Interactive water fountain in summer & ice skating rink in winter. (Thursdays on the Square begin at 7pm)
- **Rushmore Plaza Civic Center**, 444 N Mt Rushmore Rd: two multi-purpose arenas, a Fine Arts Theatre, two large convention/exhibit halls, and numerous other meeting rooms all under one roof. For Events, GO TO https://www.gotmine.com/
- **South Dakota School of Mines and Technology Music Activities**, 501 E St Joseph St: For events, GO TO https://www.sdsmt.edu/Academics/Departments/Music/Music/ COMING SOON: Spring Battle of the Bands, University Band, Wind Ensemble, and Jazz Band, *Monday, April 22nd* 8:00 PM Music Center Spring Orchestra Concert, University Orchestra *Friday, April 26th* 7:30 PM Music Center

▶ HOW TO GET BETTER pickup times:

Quick Answer: Decline the bad ride. Call again the next day.

Yesterday I needed a ride to the post office located in-store at Boyd's in Baken Park. I asked to arrive at 1:00pm and then be picked up at 2:30pm for the ride home.

All I needed was time to mail an item Certified Delivery at the Boyd's post office and then shop at Family Fare for a few things. I only needed 90 minutes in Baken Park. After first putting me on hold, the agent said he'd call back later (!) to give me pickup times.

AN HOUR LATER, he called to say, "12:30 to pick you up from home and 5:30pm to take you home." Immediately I declined—because it's unreasonable to expect an elder with disabilities to wait THREE HOURS for the ride back home. When I asked why I'm being given unreasonable wait time, a supervisor said, "we're very busy now. Take it or leave it." Does that answer reflect Dial-A-Ride's concern for accommodating its elder and disabled customers?

So ….. to get a reasonable ride I called back the next morning (you can book rides as early as 7:30am). A different agent answered (had the same agent answered I would have hanged up). In two minutes flat he gave me 12:30pm to get picked up to go to Boyd's and 2:45pm pickup to go home. Perfect! Now I had time to do the post office and get a few grocery things ….. without waiting three hours for the ride home.

► Caution! BOARDING when using a *manual* wheelchair:

When raised to its highest point, the lift is **higher** than the bus floor. Consequently you will have to roll down a ramp from the lift to the bus floor. If you're backwards, you can roll backwards off the lift, down the ramp, and then speed out of control across the bus floor, and then **collide backwards** against the bus sidewall. *Happened to me; and* ***I tipped over backwards with injuries—all because the driver failed to be behind me to prevent me from rolling off the lift.***

► **NEVER GET ON THE LIFT BACKWARDS!** **…..** *unless* ….. the driver will **pull you** onto the lift backwards …..and….. **hold your wheelchair's handlebars** while standing behind you as the lift ascends …..and….. **will grip your handlebars** while guiding you off the lift and down the ramp to the bus floor.

► Do not let the driver begin your journey unless your **wheelchair has been tied down** with **ALL FOUR** (4) tie-downs.

► It's your option to have the driver attach lap and shoulder belts. Have the driver put them on you. Your driver may give you a wild ride with jack-rabbit starts, jerking stops, and may drive fast over gullies, gutters, and potholes. The lap/shoulder belts go around you—NOT your wheelchair and you! Don't allow parts of your wheelchair to push the belts away from you.

► **WARNING** Dial-A-Ride POLICY is to **pick you up "exactly" where you were dropped off**.

If somehow circumstances or obstacles prevent you from returning to the drop-off point, you will have **a serious problem**. You may need (as I once did at Rushmore Mall) help from nearby people to push you back to the drop-off point.

Here's what happened to me:
Dial-A-Ride had transported me to the SSA office an hour before I had requested. Because the SSA agent solved my problem in five minutes I then had three hours to kill. Snow had fallen, covering the sidewalk leading from the SSA office to the entrance of the food court. The SSA security officer, noticing I have but one arm/hand to propel my wheelchair, let me get into the mall by opening the "secret" access to the mall interior. Thus I did not have to propel through snow to get to the food court entrance.
About a half-hour before my scheduled pickup, **I called Dial-A-Ride to ask** that the driver pick me up from the food court.

DIAL-A-RIDE: "No! You must go back to the SSA office and wait there!"
ME: "but the sidewalk is covered with an inch of snow. I'm disabled, use a wheelchair, and propel with one arm/hand."
DIAL-A-RIDE: "Sorry. Our policy is carved in stone."

ME: "but the distance from the SSA office and the food court is only a few yards—and a straight line. I have only one hand to propel myself. The sidewalk's covered with snow. I'm eighty years old!
DIAL-A-RIDE: "Sorry." (hangs up)

A mall security officer (Steve A.) overhearing my end of the conversation said, "That's so unreasonable. I'll help you, sir."
(He pushed me through the snow back to the SSA office.)

Back inside the SSA office I heard him telling the security officer there about Dial-A-Ride's refusal to give me a break. Both of them seemed to be dismayed that the agent refused to understand my predicament.

Here's the OUTCOME: The bus arrived late at the SSA office. After the driver boarded me, he drove straight ahead a few yards ….. and stopped at the food court entrance ….. to drop off a passenger ….. and board a wheelchair passenger who was waiting at the food court!

IMPORTANT If you ever want to be picked up from a location *different from where you were dropped off* ….. You **must ask for that** *when you book the ride*. Example: You want to be dropped off at the mall at JCPenney but later be picked up at the mall's food court.

> . . . . . Seems to me that Dial-A-Ride refuses to bend policies "carved in stone" in unexpected emergencies or predicaments . . . . .

► **NOT ALL RIDES ARE "DOOR TO DOOR"!** You might be dropped off around the corner and around the block out of sight of your destination—not at the door of your destination!
Dial-A-Ride policy forces you to wait for your pickup exactly where you were dropped off. So, if it rains, sleets, or hails, or some other South Dakota storm, you will have to propel yourself back to the pickup point and wait there for your ride home.

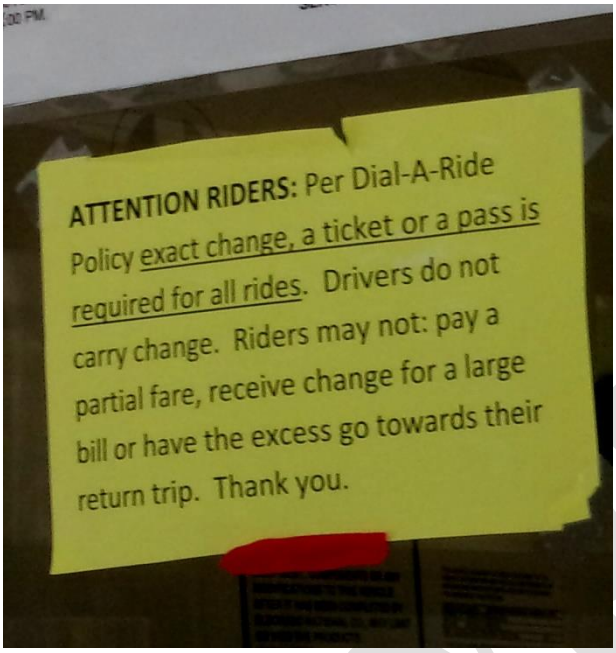
Do you want to wait for your pick up inside the destination (restaurant, doctor's office, museum, art gallery, store, etc.)? Or are you okay with waiting outdoors on the sidewalk a block away from the place you visited? Your choice.

Worse, the drop-off location may be in a seedy part of town; you may be in harm's way of harassment, shakedowns, assault, or a mugging.

HOW TO PREVENT THIS FROM HAPPENING: when booking rides, **always ask, "will I be dropped and picked up door to door?"** **Ask!** You need to know what problem you might have if the weather goes bad. Decide whether you really want that destination.

► GOING FOR GROCERIES?

Dial-A-Ride cannot be depended upon to pick you up from the supermarket at the scheduled time. Your frozen items may be melted and perishables may be spoiled by the time your bus arrives. Better to do online shopping—or ask a friend or family to take you there and back.



IF YOU DON'T HAVE *EXACT CHANGE*, drivers may force you off the bus!

If it's your ride home, how will you get home?

If all you have is a $5 dollar bill, drivers aren't allowed to make change. So, you'll pay $5 for a $3 dollar ride.

AND . . . . . some trips cost 50 cents extra!

So, always ask, when booking, "will I be charged fifty cents extra for this trip?"

► If you're using a wheelchair or powerchair and remain in it for the ride,
WHY is being **TIED DOWN IN THE BACK** of the bus a **bad place to be?**

ANSWER You're directly over the rear wheels. You will be **bumped and bounced** as the bus drives over potholes, driveway ramps, ditches, broken pavement, and more.

(Most drivers aren't motivated to fold up bench seats to allow you to be tied down away from over the rear wheels.)

ONLY ONE DRIVER shows me consideration**!**
He folds up all the bench seats on the left-hand side—allowing me to be tied down up front, giving me a smooth comfortable ride!

SEE following page for recent "bad" rides.

###

========== **This document will be continued** ========== ►

City of Rapid City
Standing Committee on
Sustainability

Bill Troe, Project Manager
SRF Consulting
Rail and Commerce Building
950 South 10th Street, Suite 008
Omaha, NE 68108
btroe@srfconsulting.com

August 10, 2021

RE: Comments from the Rapid City sustainability committee
Rapid City Transit Development Plan

Dear Mr. Troe,

The Rapid City Sustainability Committee would like to provide comments regarding the transit plan updates currently under way. Our comments are focused on reducing the carbon footprint of the transit network, reducing overall costs and increasing accessibility to users. The sustainability committee has prepared a list of comments for both short term and long-term planning.

Short-term planning

1) Bus routes available real-time via Google navigation
2) Transition to alternative fuel busses (electric/natural gas/hybrid)
3) Provide shelters at bus stops
4) Bus stops closer to high density residential catering to handicap residents

Long-term planning

1) Encourage high density residential development closer to planned transit corridors
2) Limit high density residential development far from the city center where it would not be feasible to serve by the transit system
3) Develop transit routes to serve the greater Black Hills area (Sturgis, Keystone, Box Elder, etc.)

City of Rapid City
Standing Committee on
Sustainability

We acknowledge that some of the comments are a departure from the way operations are currently carried out. But we think these changes will improve the function and sustainability of the transit system. Our committee is committed to partnering with the transit authority to create a more sustainable vision and future for public transit in Rapid City.

Sincerely,
Alan
Alan Anderson, Chair

On behalf of the Rapid City Sustainability Committee

cc: Megan Gould, RTS Division Manager megan.gould@rcgov.org
Kelly Brennan, Long Range Planning kelly.brennan@rcgov.org

Onboard Survey

Passenger Survey

This survey can be completed online - scan QR or visit https://tinyurl.com/RTSonboard

Help us shape the future of Rapid City transit! RTS is developing a plan to guide the transit system over the next 10 years. Our first step is to better understand how you, our customer, use the bus service, and how it could be improved. Your responses will remain confidential and will not be shared or used for any other purposes. Please return the completed survey to the bus driver. Thank you!

1. Which route are you on? _____

2. Where are you coming from now?

- o Home
- o Work
- o Medical
- o School (K-12)
- o College/Technical School
- o Other
- o Personal/Recreational/Social Activity
- o Shopping
- o Government or Social Service Agency

3. What is the address, cross streets, OR name of the place you are coming from?

Address: _____

Cross Street 1: _____ Cross Street 2: _____

Name of place/Landmark: _____

4. Did you transfer to this route or will you transfer to another route?

- o Yes – which route: _____
- o No

5. Where are you going to now?

- o Home
- o Work
- o Medical
- o School (K-12)
- o College/Technical School
- o Other
- o Personal/Recreational/Social Activity
- o Shopping
- o Government or Social Service Agency

6. What is the address, cross streets, OR name of the place you are going to?

Address: _____

Cross Street 1: _____ Cross Street 2: _____

Name of place/Landmark: _____

7. What would lead you to use Rapid Transit System more often? Please rank these potential improvements to service, from 1 (most important) to 7 (least important).

___ Shorter wait times between buses (more frequent)
___ Faster service
___ More service in the evenings
___ More service on Saturdays
___ Operate on Sundays
___ Expansion of on-demand transit service
___ Expansion to new service area (please specify)

_____

8. What is the main reason you took the bus today? (Please check only one)

- o Don't drive/have valid license
- o Bus is more convenient
- o Car is not available
- o Better for the environment
- o Bus is more economical
- o Parking is too difficult/expensive

9. How often do you ride RTS? (Please check only one)

- o 5 or more days per week
- o 3 – 4 days per week
- o 1 or 2 days per week
- o A few times per month
- o Less than once a month
- o This is my first time

10. What is your age?

- o 17 or under
- o 18 to 24
- o 25 to 34
- o 35 to 44
- o 45 to 54
- o 55 to 64
- o 65 or over

11. What is your sex?

- o Male
- o Female
- o Prefer not to answer

12. What is your race or ethnicity? (Select all that apply)

- o Black/African American
- o White/Caucasian
- o Hispanic or Latino/a
- o Asian or Pacific Islander
- o Native American
- o Other

13. What is the combined annual income for your household?

- o Less than $15,000
- o $15,000 to $29,999
- o $30,000 to $44,999
- o $45,000 to $59,999
- o $60,000 or more
- o Unknown/Prefer not to answer

14. Do you own a smart phone or other Internet-connected mobile device?

- o Yes
- o No

15. How else could Rapid City transit services be improved?

Please Turn to Other Side

Thank you for completing this survey! Your input is important to RTS, and we want to show our appreciation. List your email address or phone number below for a chance to win one of five $25 gift cards to be given out after the survey is done.

16. What is your email address?

_____

17. What is your phone number?

_____

Entering the drawing is optional. Email addresses and phone numbers will ONLY be used to contact the winner; RTS will NOT share your email address or use it for any other purpose.

Community Survey

Community Survey

This survey can be completed online - scan QR or visit https://www.rtstransitplan.com/get-involved/

Help us shape the future of Rapid City transit services! The Rapid City Metropolitan planning organization (M developing a plan to guide the city's public transit systems – Rapid Transit System (RTS) – over the next ten step is to better understand how the community uses RTS services, and how they could be improved. Your remain confidential and will not be shared or used for any other purposes. Thank you!

1. Have you or anyone in your household used the Rapid Transit System (RTS) at least once in the past two years?

- ○ Yes (Go to Question 2)
- ○ No (Skip to Question 4)

2. How often do you ride RTS? (Please check only one)

- ○ 5 or more days per week
- ○ A few days per week
- ○ A few times per month
- ○ Less than once a month
- ○ Never

3. When using RTS, what is your usual trip purpose?

- ○ Work
- ○ Medical
- ○ School (K-12)
- ○ College/technical school
- ○ Personal/recreational/ social activity
- ○ Shopping or errands
- ○ Government or social service agency
- ○ Other (please specify)

_____

4. If you do not use RTS regularly, what are the reasons discouraging you from doing so? (Select all that apply.)

- ○ Not available within 3 blocks of where I live/work
- ○ Doesn't run early or late enough
- ○ Doesn't run often enough (not frequent enough)
- ○ Riding the bus takes too much time (too slow)
- ○ Prefer other modes of transportation
- ○ Other (please specify)

_____

5. What condition(s) might make you reconsider using transit in the future? (Select all that apply.)

- ○ Service improvements
- ○ Better information
- ○ Additional or improved shelters
- ○ Increase in gas prices
- ○ Increase in parking costs
- ○ Other (please specify)

_____

- ○ Nothing

6. Do you agree or disagree with the following statements about Rapid Transit System?

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
It is important for the community to provide public transit	○	○	○	○	○
Transit contributes to the economic health of the Rapid City area	○	○	○	○	○
Transit contributes to the environmental sustainability of the Rapid City area	○	○	○	○	○
Transit contributes to quality of life in the Rapid City area	○	○	○	○	○

7. If you had $100 to invest in transit service, how would you allocate the funds to make service better for you?

New Service Areas	$_____	Add Shelters at Stops	$_____
Add Sunday Service	$_____	Add Benches at Stops	$_____
Add Hours (Earlier/Later)	$_____	Other:	$_____
Reduce Time between Buses	$_____	Other:	$_____

8. What other changes to the Rapid Transit System service would you like to see, if any? Please provide any additional comments here, including those specific to a certain bus route, area in the community, or policy.

9. Which of the following, if any, do you identify with?

- ○ Student (university/community or technical college)
- ○ Faculty/staff (university/community or technical college)
- ○ Student (K-12)
- ○ Parent (K-12)
- ○ None of the above

10. Do you consider yourself to have a disability that limits your mobility?

○ Yes ○ No

11. Do you own a smart phone or other Internet-connected mobile device?

○ Yes ○ No

12. What is your age?

○ 17 or under ○ 25 to 34 ○ 45 to 54 ○ 65 or over
○ 18 to 24 ○ 35 to 44 ○ 55 to 64

13. What is your gender?

○ Male ○ Female
○ Non-binary/third gender ○ Prefer not to answer

14. How many working vehicles are available in your household?

○ 0 ○ 1 ○ 2 ○ 3 or more

15. What is the combined annual income for your household?

- ○ Less than $15,000
- ○ $15,000 to $29,999
- ○ $30,000 to $44,999
- ○ $45,000 to $59,999
- ○ $60,000 to $74,999
- ○ $75,000 to $99,999
- ○ $100,000 or more
- ○ Unknown/prefer not to answer

APPENDIX B: STOP ACTIVITY MAPS

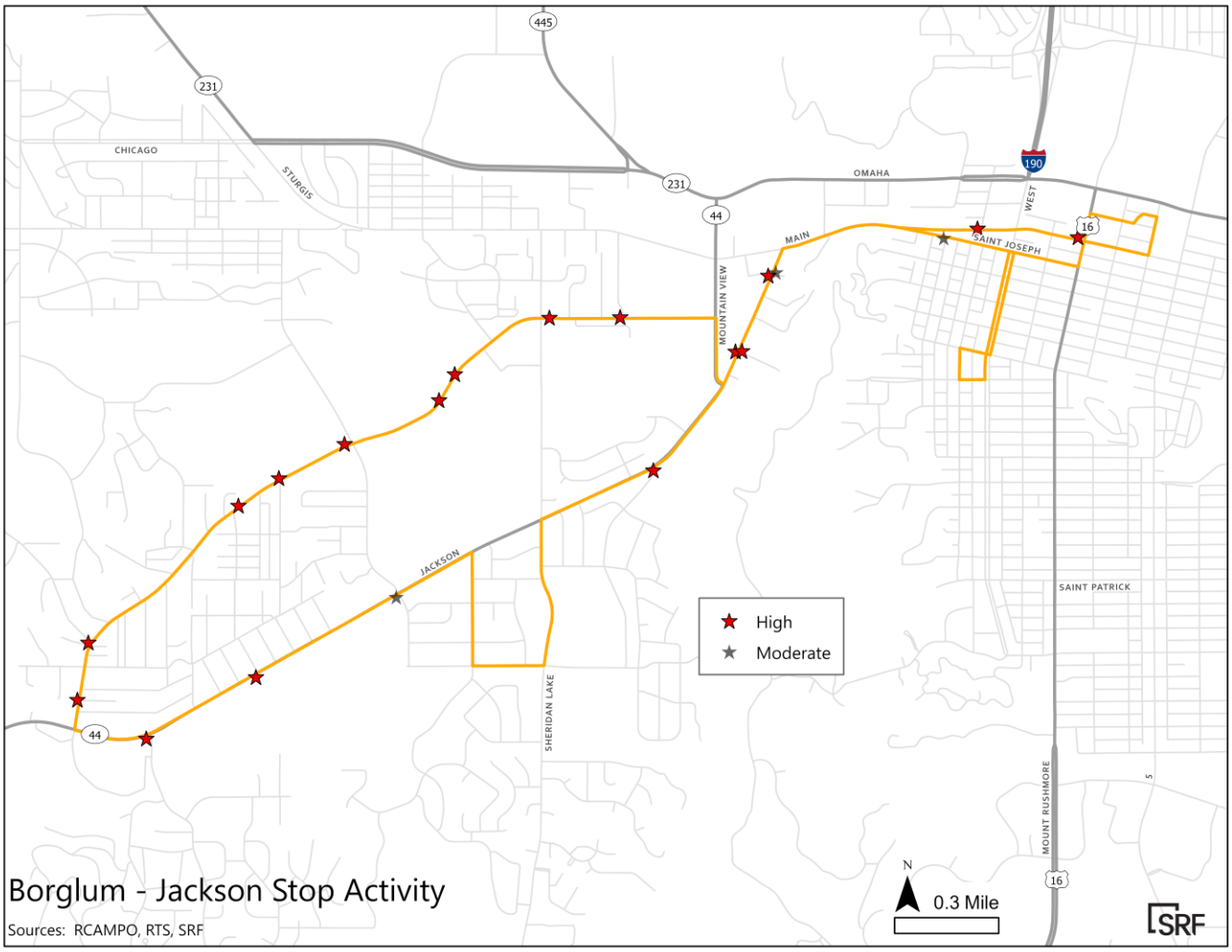
RAPID CITY TRANSIT DEVELOPMENT PLAN

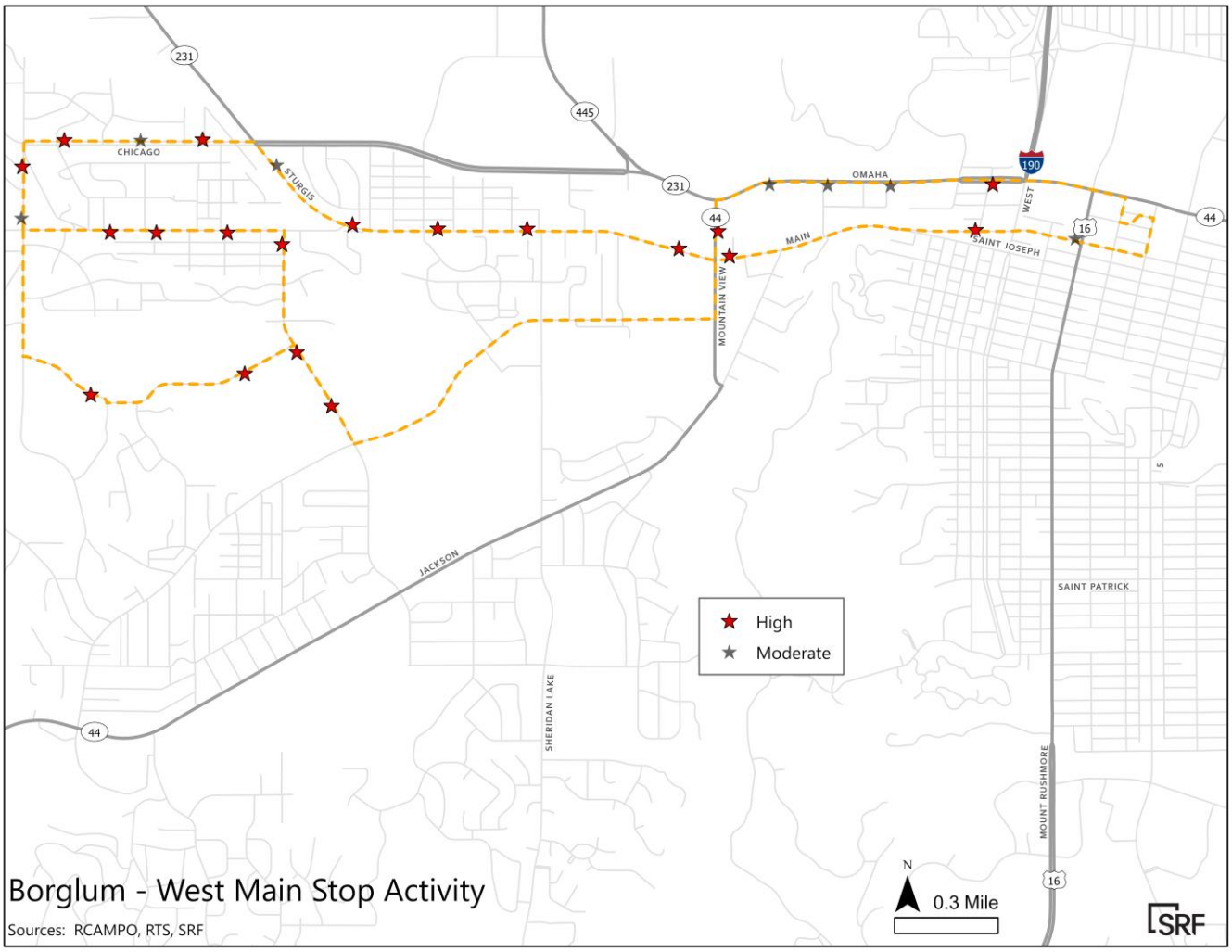
April 2022

RTS RAPID TRANSIT SYSTEM

RAPID CITY AREA Metropolitan Planning Organization

SRF


445
231
CHICAGO
STURGIS
231
44
OMAHA
190
WEST
16
SAINT JOSEPH
MAIN
MOUNTAIN VIEW
JACKSON
SHERIDAN LAKE
SAINT PATRICK
MOUNT RUSHMORE
44
16
High
Moderate
N
0.3 Mile
SRF
Borglum - Jackson Stop Activity
Sources: RCAMPO, RTS, SRF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WEST
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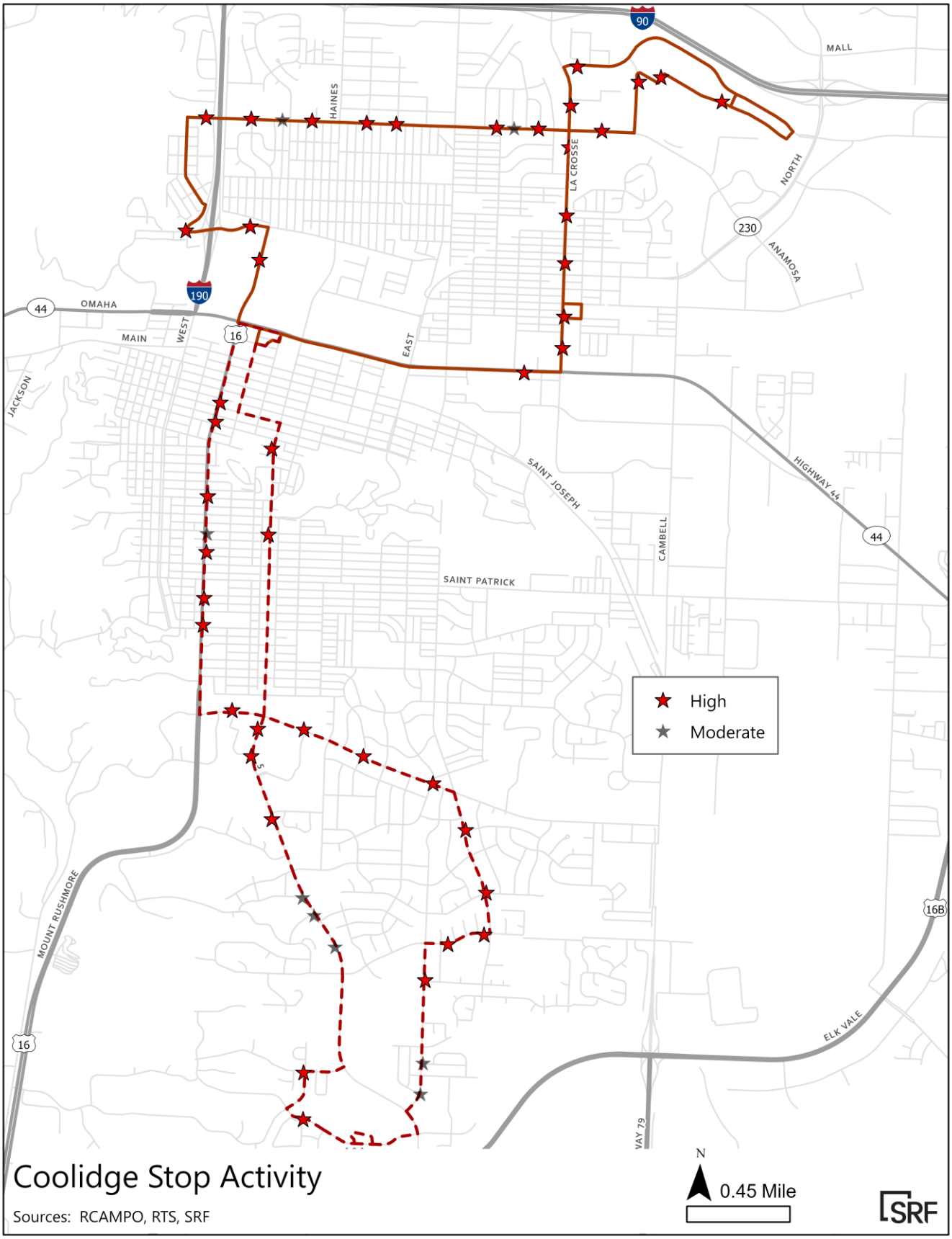
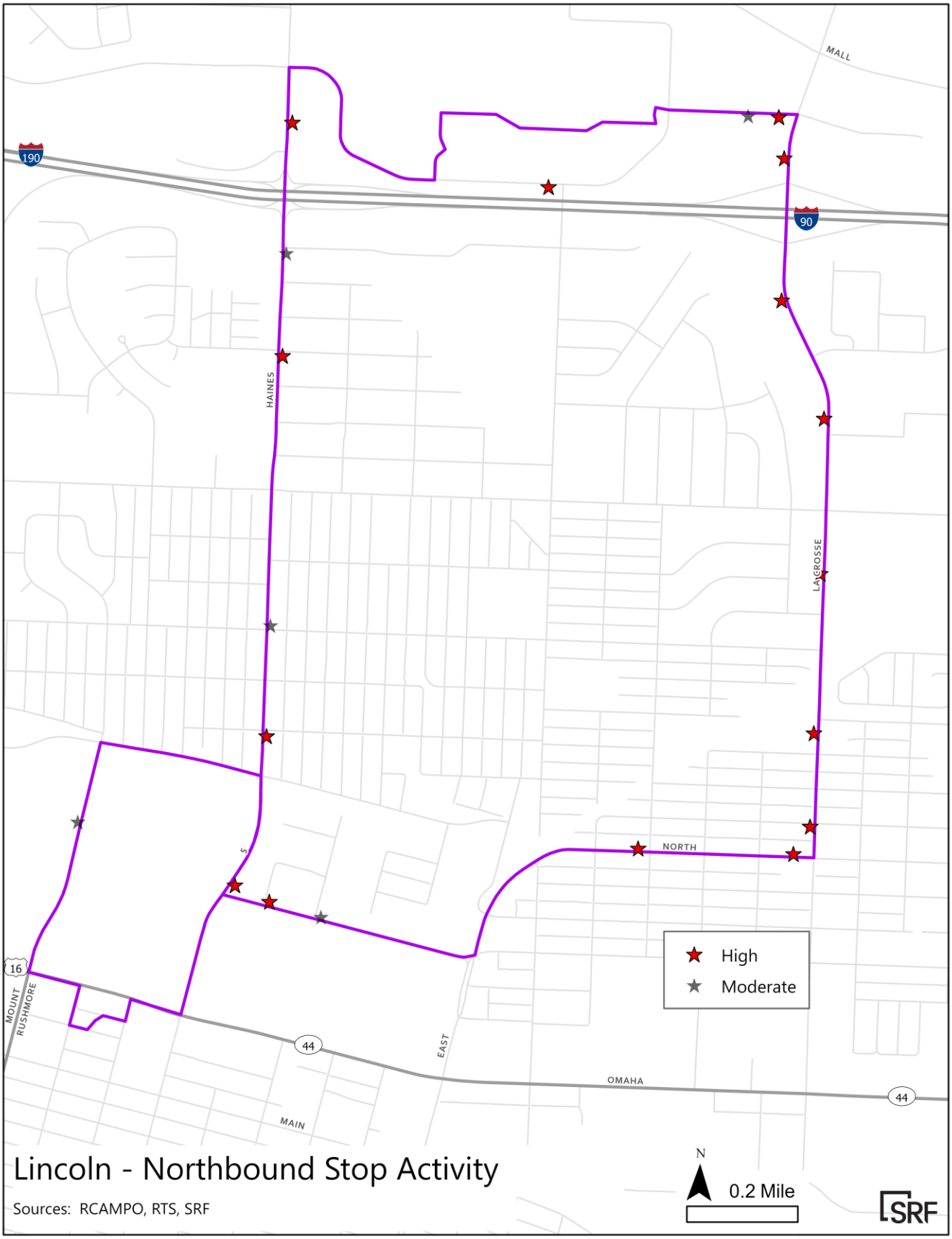
JACKSON
SAINT PATRICK
SHERIDAN LAKE
MOUNT RUSHMORE
44
16
High
Moderate
N
0.3 Mile
SRF
Borglum - West Main Stop Activity
Sources: RCAMPO, RTS, SRF



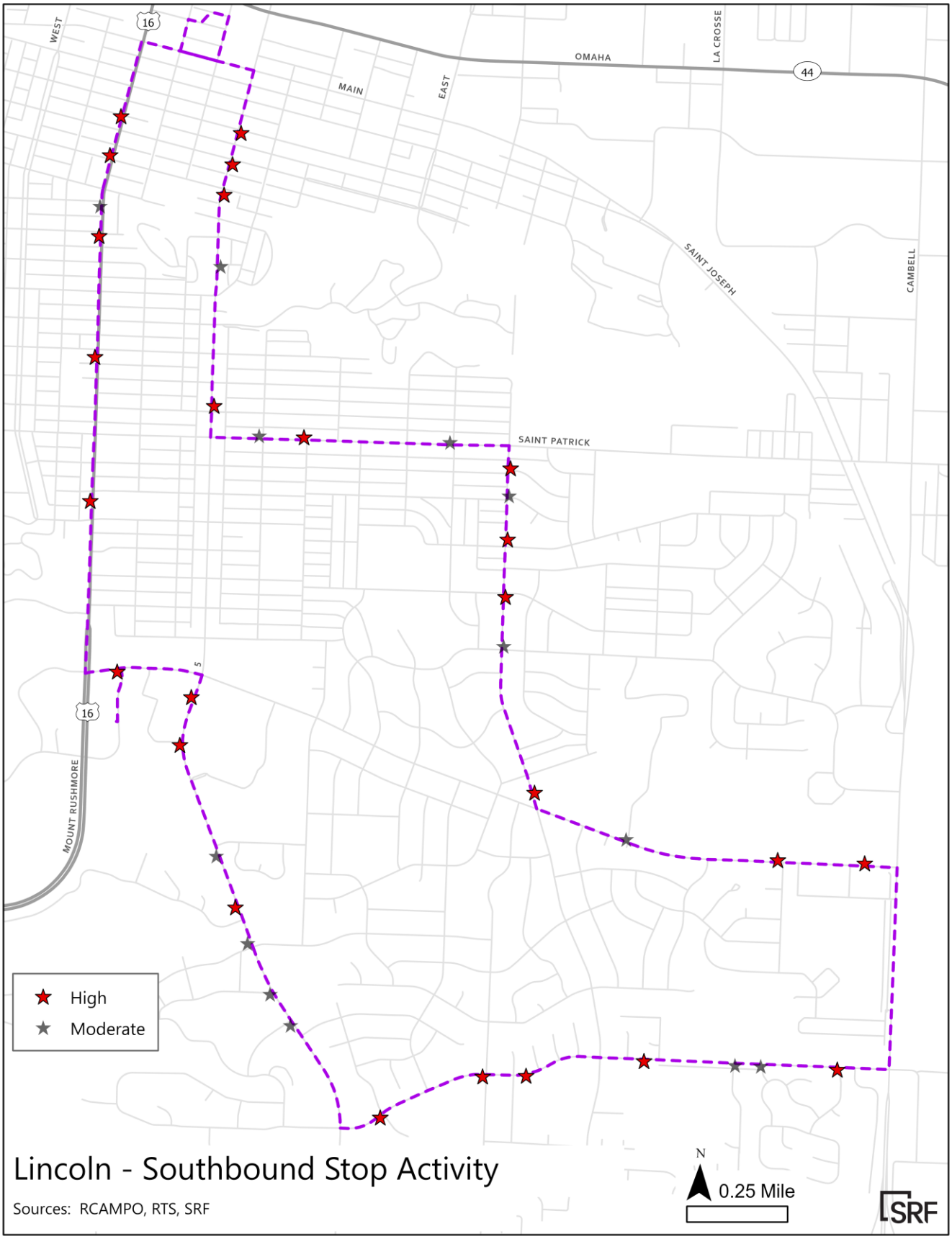
Coolidge Stop Activity

Sources: RCAMPO, RTS, SRF



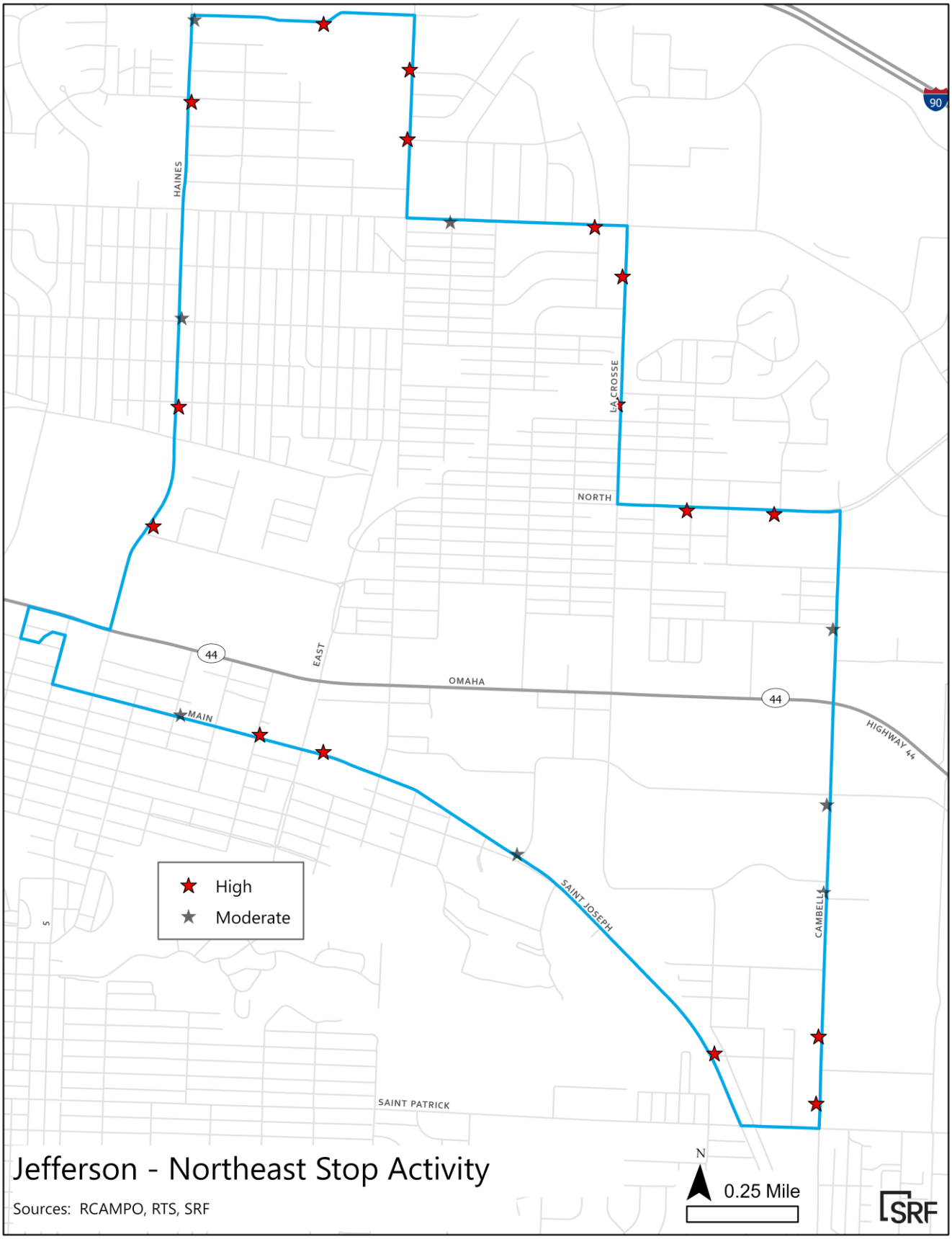
Lincoln - Northbound Stop Activity

Sources: RCAMPO, RTS, SRF



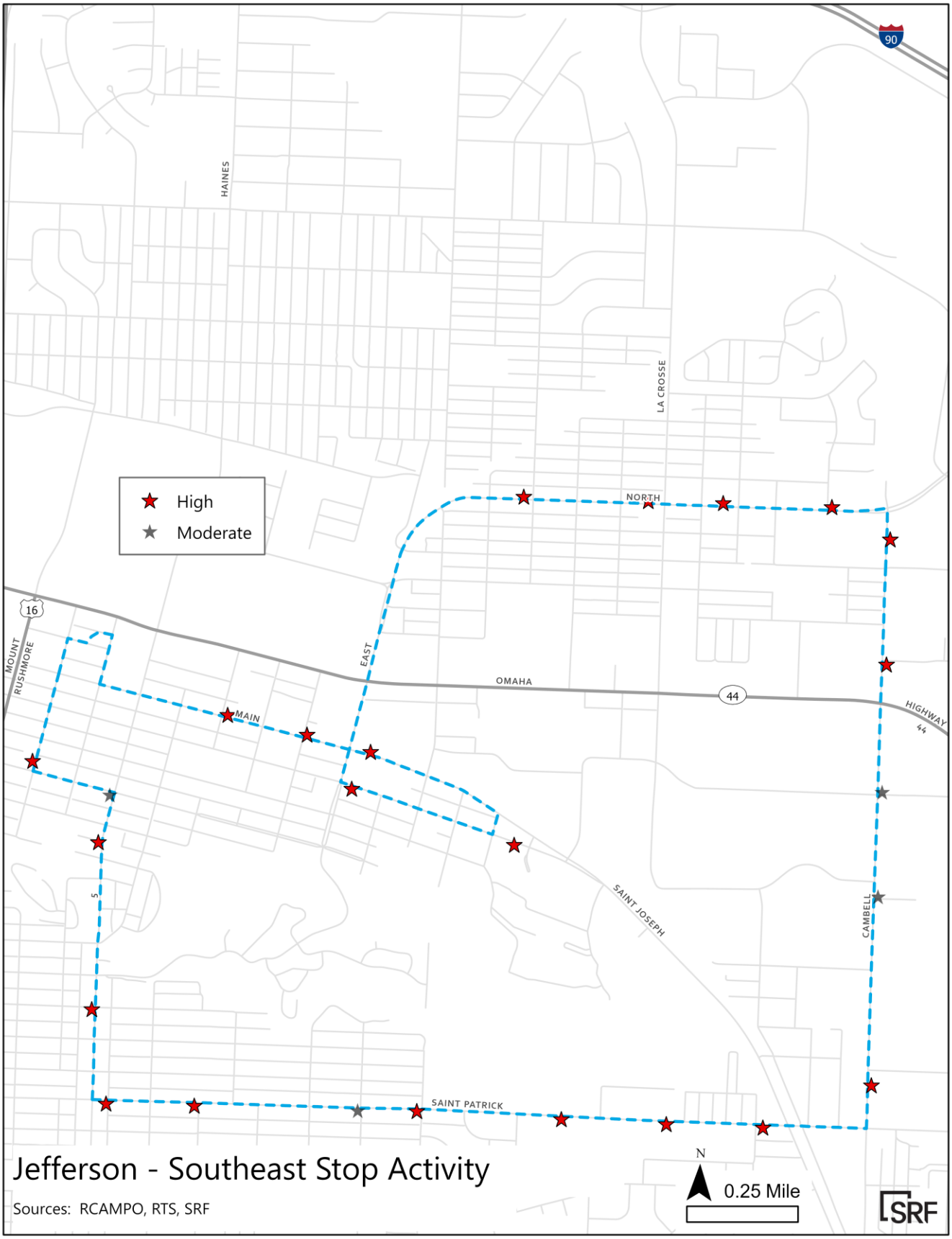
Lincoln - Southbound Stop Activity

Sources: RCAMPO, RTS, SRF



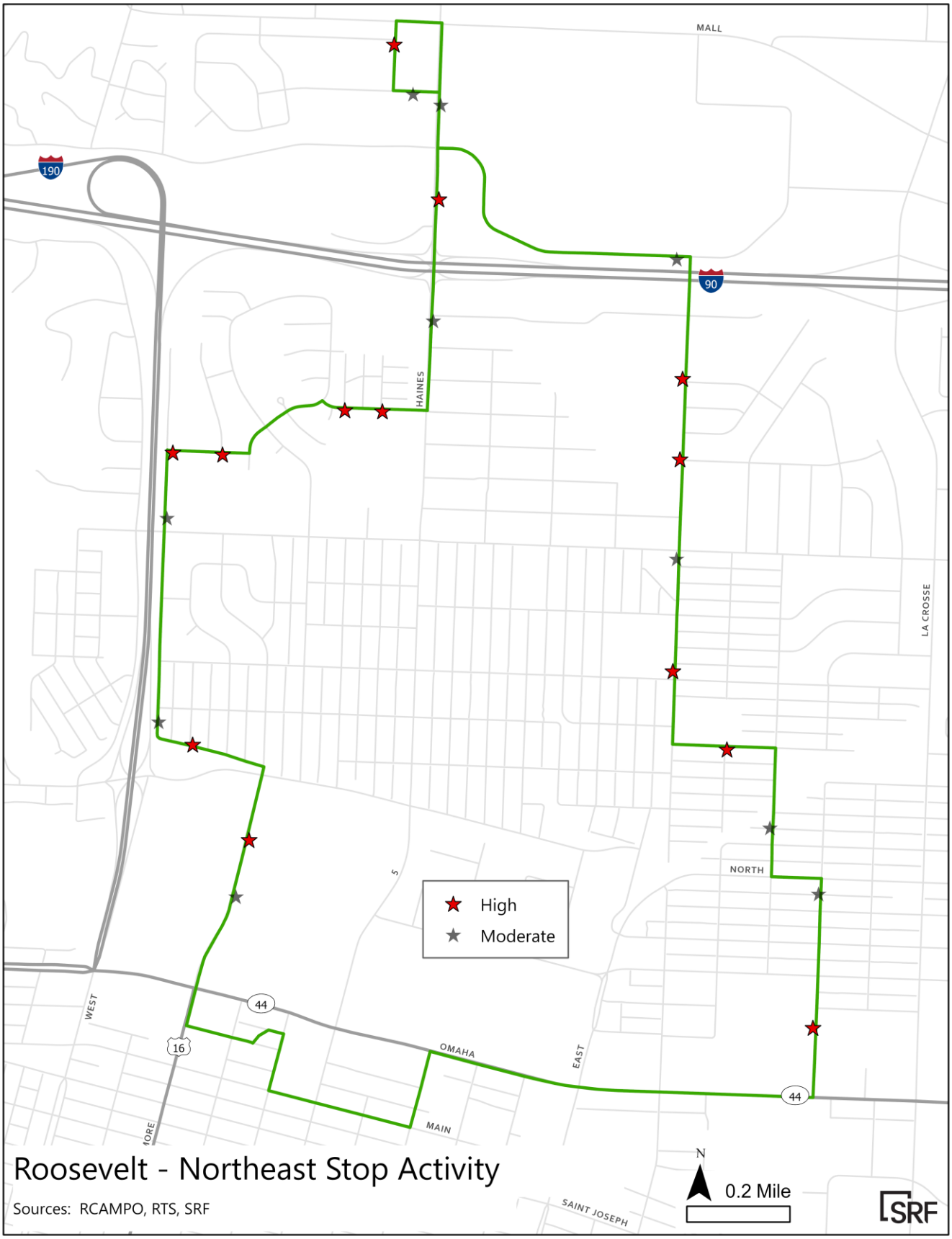
Jefferson - Northeast Stop Activity

Sources: RCAMPO, RTS, SRF



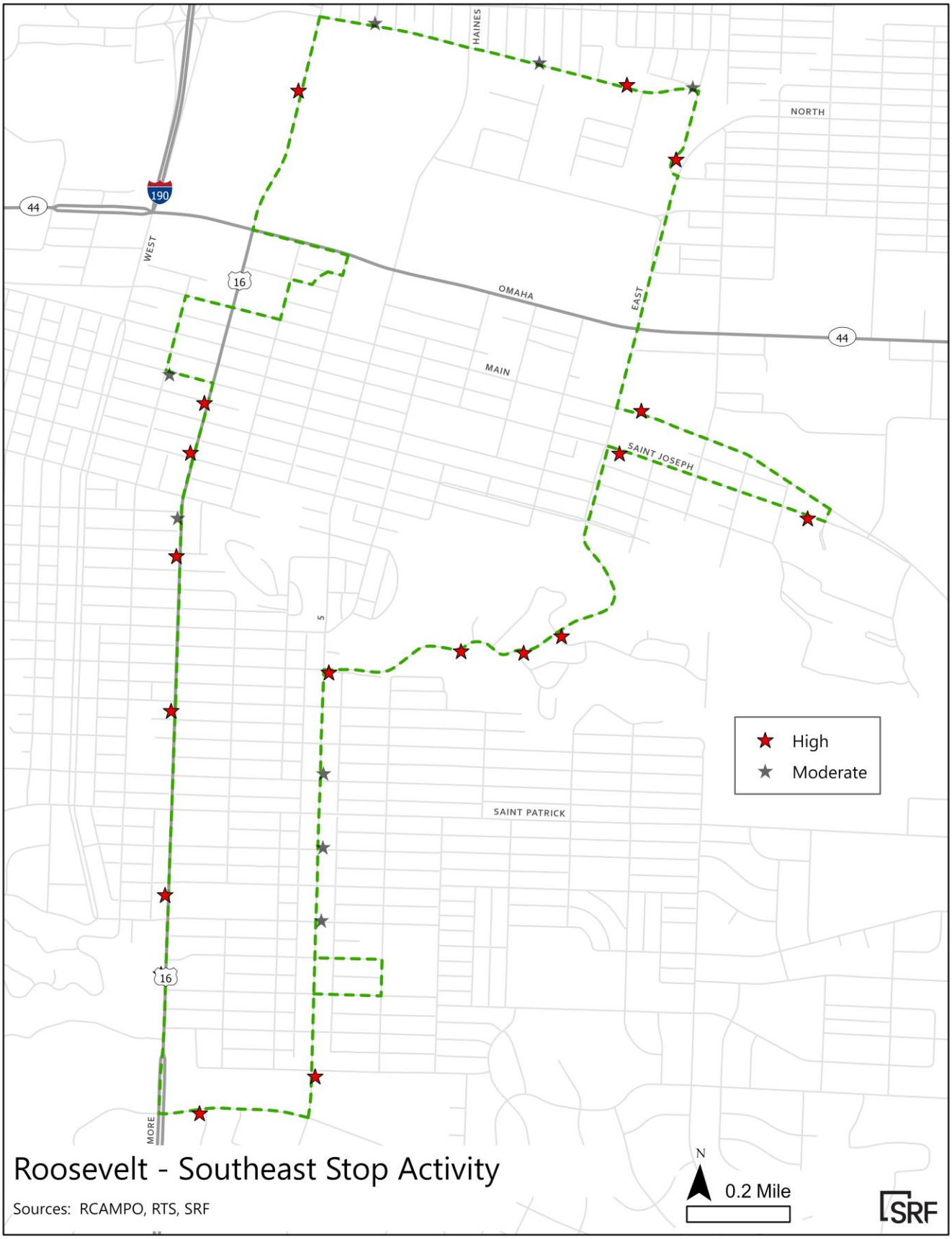
Jefferson - Southeast Stop Activity

Sources: RCAMPO, RTS, SRF



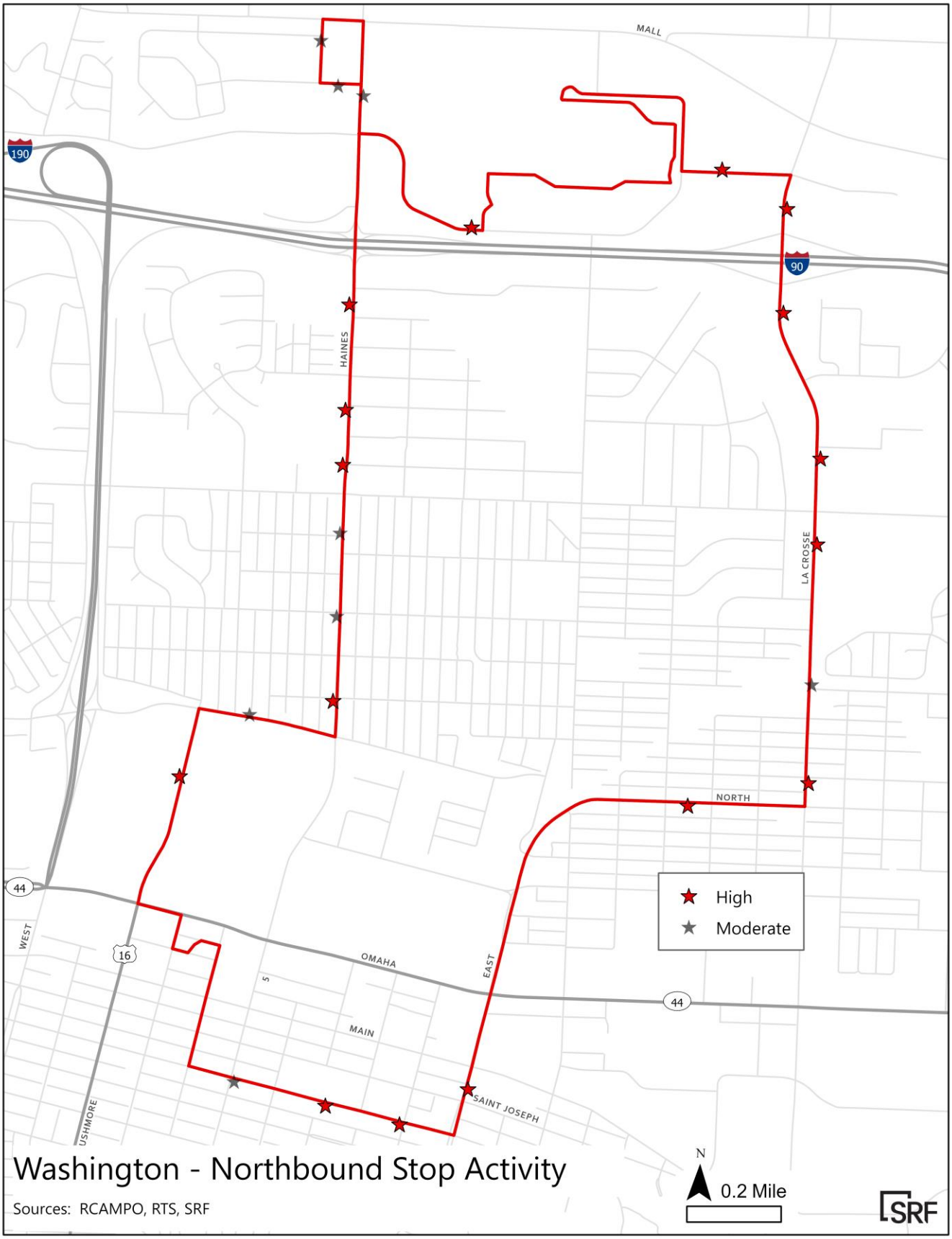
Roosevelt - Northeast Stop Activity

Sources: RCAMPO, RTS, SRF



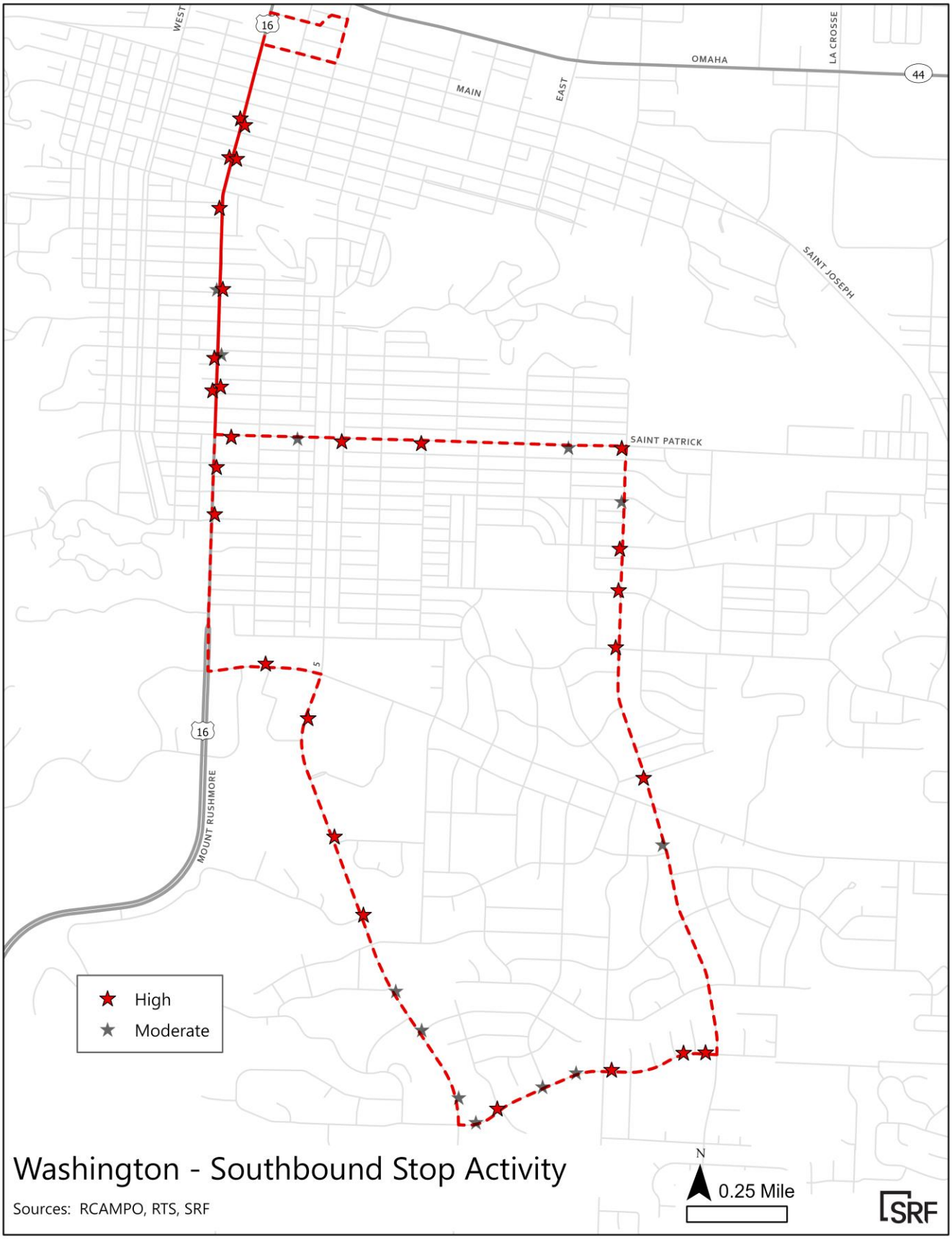
Roosevelt - Southeast Stop Activity

Sources: RCAMPO, RTS, SRF



Washington - Northbound Stop Activity

Sources: RCAMPO, RTS, SRF



Washington - Southbound Stop Activity

Sources: RCAMPO, RTS, SRF