Bismarck-Mandan Metropolitan Planning Organization

TRANSIT DEVELOPMENT PLAN

April 2019

(Appendices Updated - May 2020)

SRF Consulting Group, Inc.

AECOM

Final Report

Bis-Man Transit Development Plan

Prepared for:
Bis-Man Transit and Bis-Man Metropolitan Planning Organization

Prepared by:

April 2019 (Approved)
May 2020 (Appendices Updated)

SRF No. 11210

Table of Contents

List of Figures iv

List of Tables vi

Executive Summary 1

Overview 1

Plan Recommendations 2

Immediate/Near Term 2

One to Six Year Period 3

Community Demographics 4

Household Density and Transit Supportive Areas 4

Transit Dependent Population 7

Elderly Population 7

Youth Population 9

Households Below Poverty Level 9

Zero Car Households 9

Population with Limited English Proficiency 13

Disabled Population 13

Transit Service Overview 16

Bis-Man Transit Background 16

Bis-Man Transit Services Overview 16

Bis-Man Transit Paratransit Service 16

Capital Area Transit Fixed Route Service 18

Bis-Man Transit Fleet 22

Bis-Man Transit Facilities 22

Fixed Route Operations Analysis 24

Route Profiles 24

Operating Performance 24

Key Operating Characteristics 24

Performance Indicators 27
On-time Performance 30

Paratransit System Operations Analysis 31

Operating Performance 31
Key Operating Characteristics 32
Performance Indicators 34
Passenger Load Assessment 37
Peer Comparison 39
Key Trends in Paratransit Operations Data 40

Community Engagement 43

Community Survey 43
Survey Instrument and Schedule 43
Survey Findings 44
Public Meetings 47
Stakeholder Interviews 48

Mission, Goals and Objectives 49

Mission 49
Goals and Objectives 49

Transit Service Plans – Immediate and Future 51

Immediate/Near Term 51
One to Six Year Recommendations 53
Two Possible Paths 54
Transit Center 62
Designated Fixed Route Stops 63
Capital Improvement Item Cost Estimate 63
Input on Service Change (Reduction/Enhancement) Options 65

Funding the Transit Plan 67

Technology and Marketing 70

Real Time Transit Information 70
Traveler Information System 70

Scheduling and Dispatching Software....70
Fareboxes....70
Autonomous Vehicles in Public Transit....71
Technology Overview....71
Benefits....72
Challenges....74
AVs in Public Transit....74
Marketing Strategies....78
Short-Term Marketing Strategies....78
Long-Term Marketing Strategies....80
Steps to Implementation....82

Appendices....83

Appendix 1. Route Profiles
Appendix 2. Community Survey Summary Report
Appendix 3. Summary of Public Meetings' Feedback
Appendix 4. Summary of Stakeholder Interviews
Appendix 5. Additional Service Concepts
Appendix 6. Additional Written Comments
Appendix 7. Additional End-of-Study Deliverables

H:\Projects\11000\11210\TP\Final Report\Final Report.docx

List of Figures

Figure 1. Household Density in Bis-Man Region 5
Figure 2. Transit Supportive Areas in Bis-Man Region 6
Figure 3. Distribution of Elderly Population (65 years and Older) 8
Figure 4. Distribution of Youth Population 10
Figure 5. Distribution of Households below Poverty Level 11
Figure 6. Distribution of Zero Vehicle Households 12
Figure 7. Distribution of Limited English Speaking Households 14
Figure 8. Distribution of Disabled Population 15
Figure 9. Fixed Route Overview (2018) 19
Figure 10. Route Level Average Daily Boardings 21
Figure 11. Annual Passenger Trips 25
Figure 12. Annual Operating Costs 26
Figure 13. Annual Farebox Revenue 26
Figure 14. Passengers per Revenue Hour 27
Figure 15. Passengers per Revenue Mile 27
Figure 16. Cost per Passenger 28
Figure 17. Cost per Revenue Hour 29
Figure 18. Farebox Recovery Ratio 29
Figure 19. Annual Passenger Trips for Paratransit 32
Figure 20. Annual Operating Costs for Paratransit 33
Figure 21. Annual Farebox Revenue for Paratransit 34
Figure 22. Passengers per Revenue Hour (2012-2016) 35
Figure 23. Costs per Passenger for Paratransit 35
Figure 24. Costs per Revenue Hour 36
Figure 25. Farebox Recovery Ratio for Paratransit 36
Figure 26. Paratransit Average Passenger Per Vehicle by 15-Minute Periods (April 2018) 38
Figure 27. Location of Trip Origins for Paratransit Trips (April 2018) 41

Figure 28. Location of Trip Destinations for Paratransit Trips (April 2018) 42
Figure 29. Primary Mode of Transportation by Trip Purpose 45
Figure 30. Barriers to Taking Transit 46
Figure 31. Transit Improvement Suggestions 47
Figure 32. Northbound Blue Route Modification at Kirkwood Mall 52
Figure 33. Recommended Immediate Term Black Route Modification 53
Figure 34. Historical and 2020 Projected Capital Reserve Balance 54
Figure 35. AV Automation Levels 73

List of Tables

Table 1. Characterization of Bis-Man Transit Paratransit Service 18

Table 2. Fixed Route Weekday Operating Characteristics 21

Table 3. Fixed Route Saturday Operating Characteristics 21

Table 4. Fleet Inventory 23

Table 5. Capital Area Transit Fixed Route Service Operating Statistics and Performance Measures 25

Table 6. Fixed Route Service On-Time Performance 30

Table 7. Operating Characteristics and Performance Measures for Paratransit 31

Table 8. Annual Ridership: Paratransit versus Fixed Route 33

Table 9. 2016 Paratransit Service Parameters – Bis-Man Transit and Peers 39

Table 10. Paratransit Service Hours and Miles Performance 40

Table 11. Outreach Schedule and Response Rate for Community Survey 43

Table 12. Fixed Route and Paratransit Service Reduction Options 57

Table 13. Six Year Annual Capital Investment Plan 64

Table 14. Public - Community Leader – Staff Input on Service Options 65

Table 15. Alternate Local Operating Revenue Concepts 68

Table 16. Short-term and Long-Term Strategies for Adoption of AV Technology 78

Table 17. Bis-Man Transit Website Activity Statistics (October 2018-January 2019) 80

Executive Summary

Overview

The Bismarck-Mandan Transit Development Plan (TDP) is a short- to medium-range strategic plan intended to identify transit needs and proposed improvements for a five-year planning horizon. Preparation of the TDP has included coordinated efforts of Bis-Man Transit, the Bismarck-Mandan Metropolitan Planning Organization (MPO), the Bis-Man Transit Board, and stakeholders throughout the region.

Bis-Man Transit's overall ridership has been declining since the last update was completed in 2012. Over this period, fixed route ridership has declined by approximately 11 percent and paratransit[1] (curb-to-curb service for persons unable to use fixed route service) has declined by approximately eight percent. While ridership has been declining, the cost of providing service has increased as costs for labor, fuel, and vehicles, the three largest components of service cost, have increased.

A unique condition in the Bismarck-Mandan region is distribution of total system use between fixed route service and paratransit service. In similar metropolitan areas, fixed route service is the dominant element based on ridership, revenue miles, revenue hours, and most other factors, typically representing 85 to 90 percent of annual ridership. For the Bismarck-Mandan region, however, paratransit service has traditionally carried more passengers than fixed route service. Thus, identifying true peers for comparison (such as operating efficiency, service costs, and amount of service provided per capita) needs to be approached with some caution as the unique nature of the Bismarck-Mandan area system will affect comparison to other metro areas. Understanding the history of how public transit was initiated in the region is critical to having the appropriate sensitivity and perspective regarding the unique conditions in the metro.

The TDP study area is determined by the demand response service area, which encompasses the city limits of Bismarck and Mandan, the jurisdictions committing funds annually for service operations and capital expenditures.

The TDP Report documents examination of:

- Community demographics.
- Current fixed route service characteristics and productivity.
- Current paratransit service characteristics and productivity.

[1] Bis-Man paratransit door-to-door services are available to senior citizens 70 years of age or older and to individuals with any type of certifiable disability.

- Peer Group Analysis.
- Transit service goals and objectives.
- Public Outreach Summary.
- Service Alternatives.

Plan Recommendations

The plan includes recommendations organized as:

- Immediate/Near Term Changes: These represent minor changes to the current route paths to address input received from riders, persons attending public meetings, and discussions with drivers. These adjustments to the current system would be "revenue neutral", which reflect changes that do not result in a measurable increase/decrease in the current operating budget.
- One to Six Years Out: Recommendations for the system through the bulk of the six-year planning period have been organized into two alternate paths that are based on funding conditions. The alternate paths address conditions likely to exist if the current revenue and expenditures programs are followed or if additional revenue for transit operations is identified.

Immediate/Near Term

Minor changes to the current six routes of the fixed route network were developed based on input received at public meetings, a community survey and discussions with drivers. This concept focuses on incorporating changes into the current operating plan without making significant revisions to the route timetable, driver schedules and only minor changes to any route. Table ES-1 summarizes the immediate/near term route changes proposed; and many have already been implemented.

Table ES-1. Immediate/Near Term Service Recommendations

Route Name	Description
Brown Route	Travel through the ND 1806-19th Street SE-8th Avenue SE loop in only the eastbound direction
	46th Avenue SE-McKenzie Drive-40th Avenue SE-21st Street SE loop - Eliminate the 21st Street SE segment and stay on 40th Avenue SE from 21st Street to Memorial Highway
Blue Route	Kirkwood Mall Area – Northbound. Eliminating recirculation through the mall parking area in the northbound direction on 3rd Street. Create a new stop on 3rd Street north of Bismarck Expressway with paved access to the mall.
Black Route	Capitol Avenue to Divide Avenue – Relocate the route from States Street (a no stop area) to 11th Street.

One to Six Year Period

Over the last three years capital reserves have been used, in part, to support daily service operations. Capital reserve funds have been used to offset revenue from key federal and state sources that has not kept up with the cost of providing service. Bis-Man Transit has adjusted the level of service (both fixed route and paratransit) provided to better match funding levels, however, changes made have a negative impact on users and their level of use. Continuing to use reserve funds to balance out operating shortfalls, whether they are short or longer term) is not sustainable and is not recommended.

Two potential paths for service recommendations were provided, with selection of a direction being based on whether the current operating funding gap can be closed through revenue enhancement. The preferred path is to request and secure additional local funding for transit operations. If added funding cannot be found, by the end of 2020 the cash-on-hand in the capital reserve fund will be depleted, which will most likely result in the need to reduce service. Recommendations for the next six years are influenced by whether the operating funding gap can be eliminated. Eliminating the gap and creating a cushion will allow service to be expanded to better meet needs. Maintaining the current course will likely result in making service cuts.

Table ES-2 documents recommended actions reflective of which of the funding paths are taken; the current path that results in service reductions or an enhanced funding path that allows more service to be provided.

Table ES-2. One to Six Year Period Recommendations

Option	Description
Stay on Current Funding/Operating Cost Path (Service Reductions) – Not Preferred	
Fixed Route Service	Convert Purple and Brown Routes to 120-Minute Frequency
Paratransit Service	Eliminate >70 Years Age Qualifier for Paratransit
	Reduce Paratransit Hours – Eliminate Weekday Service After 7 PM
Increase Operating Funding (Service Expansion) - Preferred	
Mandan Service	Establish Mandan Flex Route. One vehicle/driver.
Bismarck Service	Black Route – Provide 30-minute frequency (all day or only in peak – depends on funding). One vehicle/driver
	Blue Route – Provide 30-minute frequency (all day or only in peak – depends on funding). One vehicle/driver.
	Red Route – One of two options: • Improve frequency to 60-minute. One vehicle/driver. • Create NW Bismarck Flex Route and 60-minute on east portion of Red Route. One vehicle/driver.
Facilities	
	Continue to evaluate transit hub at Front Avenue

Community Demographics

The most recent population estimate for the Bismarck-Mandan metropolitan area is 126,400 persons (2012-2016 American Community Survey), with the components being:

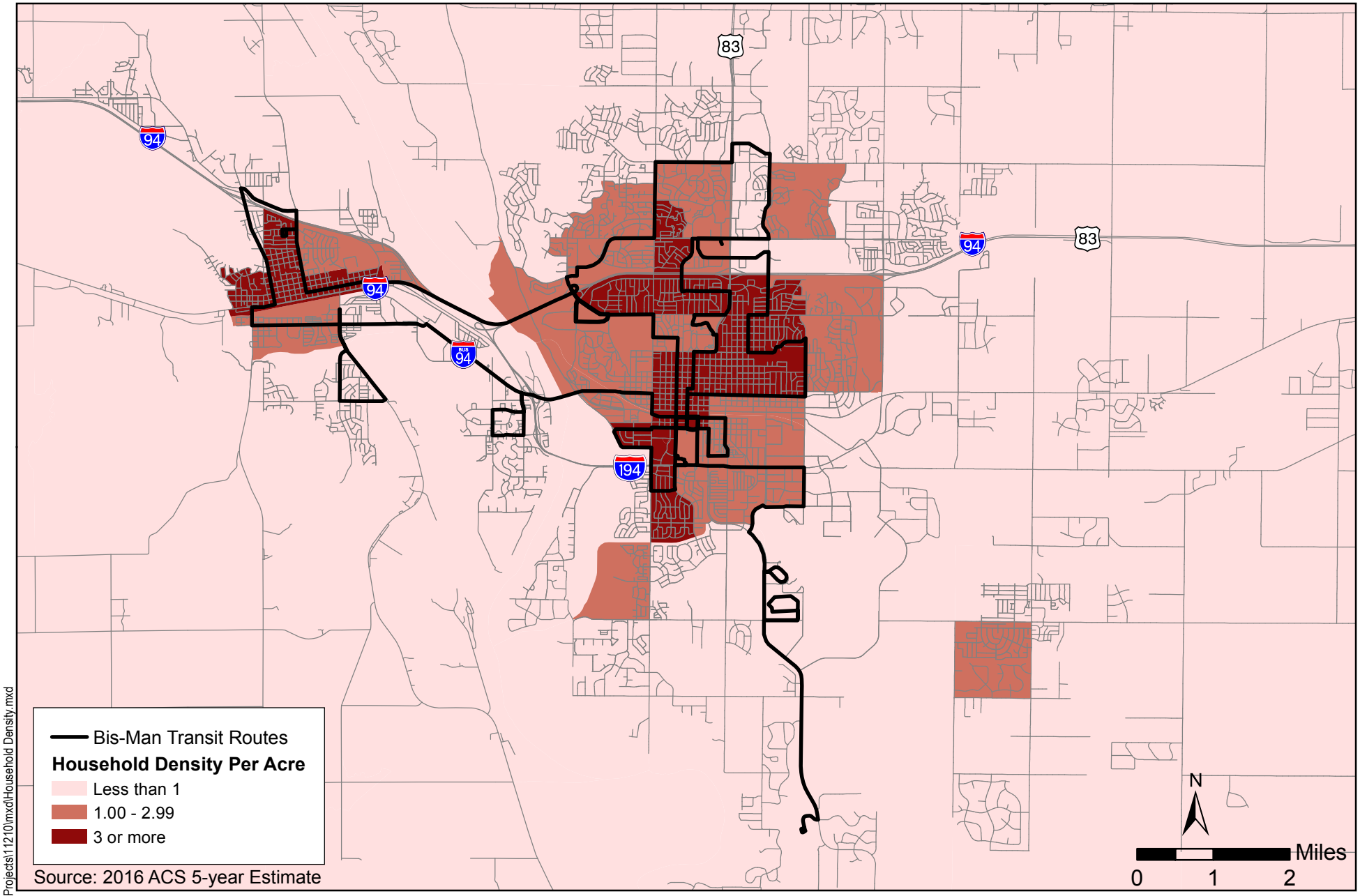
- Bismarck: 69,000
- Mandan: 20,600
- Lincoln: 3,700
- Remainder of Burleigh and Morton Counties: 33,100

Household Density and Transit Supportive Areas

Figure 1 shows the residential population density of Bismarck-Mandan Metro area and its neighboring communities. Dense pockets of households are located along the major highways (I-94 and I-94 Business and I-194). Figure 2 shows the transit supportive areas (TSAs) in the region. TSAs have at least three households or four jobs per acre. The TSAs within 0.25 mile of the transit route are shown in green while the TSAs outside 0.25 mile are shown in orange.

The current transit routes for Bis-Man Transit serve most of the TSAs in the metro. TSAs are the areas developed to a density that reasonably supports fixed route transit service. Current service coverage provides 78 percent of the total TSA acreage with convenient access (0.25 miles or less) to transit. Areas reflecting densities supportive of transit service, but outside the 0.25 mile acceptable walk buffer include:

- Around the Cottonwood Lake in Bismarck
- Northeast Mandan
- West Mandan
- Lincoln
- East Bismarck (around the Bismarck Expressway interchange on I-94)



L:\Projects\11210\mxd\Household Density.mxd

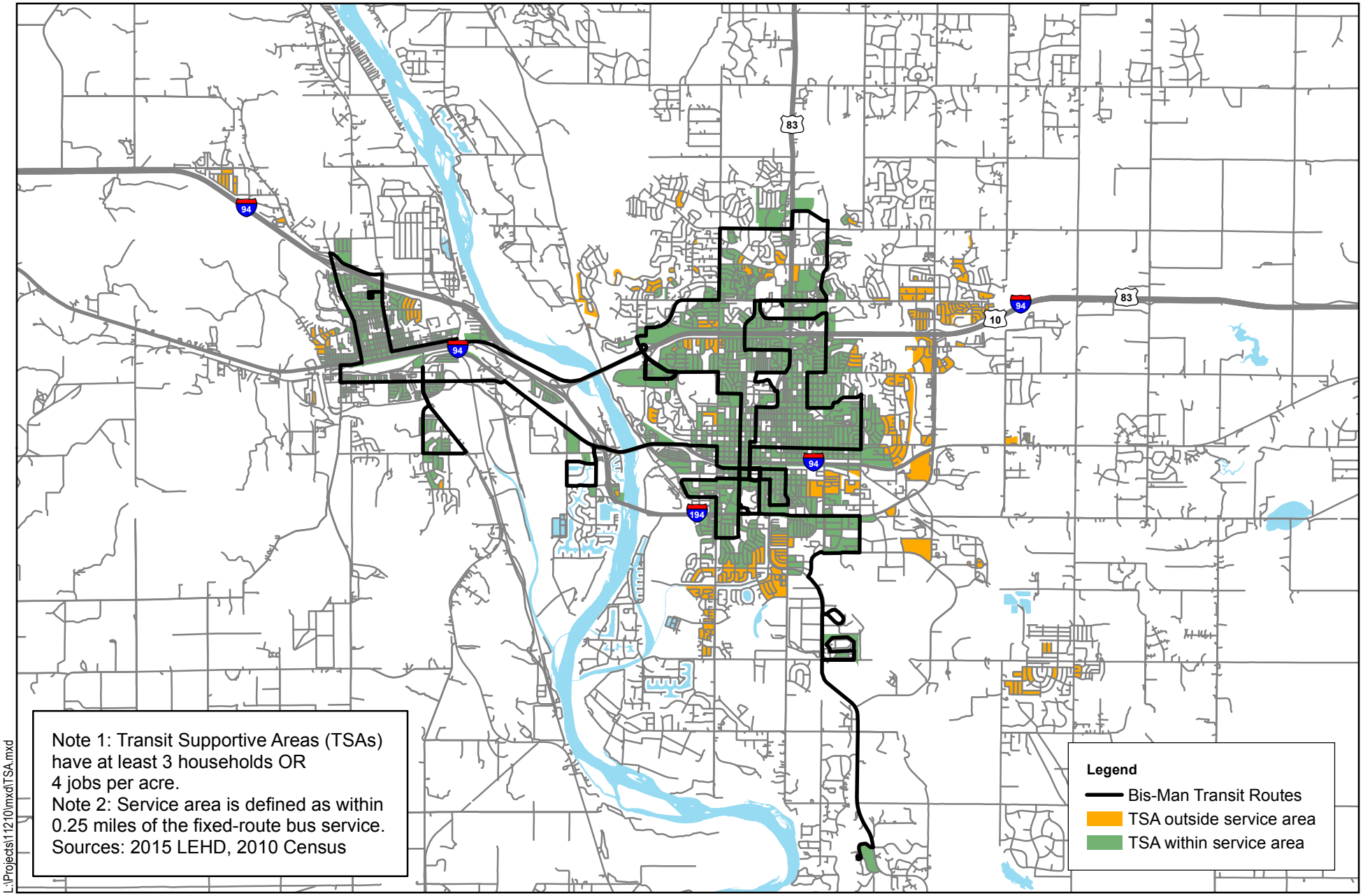
SRF Consulting Group, Inc.

Household Density

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 1



SRF Consulting Group, Inc.

Transit Supportive Areas

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 2

Transit Dependent Population

Key indicators for transit dependency can be analyzed together for a comprehensive analysis of transit needs being served in the area. Although there is no defined formula to determine transit dependent areas, the U.S. Department of Transportation (USDOT) and Federal Transit Administration (FTA) state that car-less and lower income households are reasonable surrogates for transit dependent riders. Focusing on the rider attributes likely to lead to transit dependency, characteristics analyzed in this report are the following:

- Population size, distribution, and density
- Age of Population
- Automobile ownership
- Household income
- Population with limited English proficiency
- Disability

Elderly Population

The elderly population holds a major share of the transit market because of their decreased ability to drive a vehicle due to physical or financial constraints. Thus, they are more likely to ride fixed route or paratransit transit services.

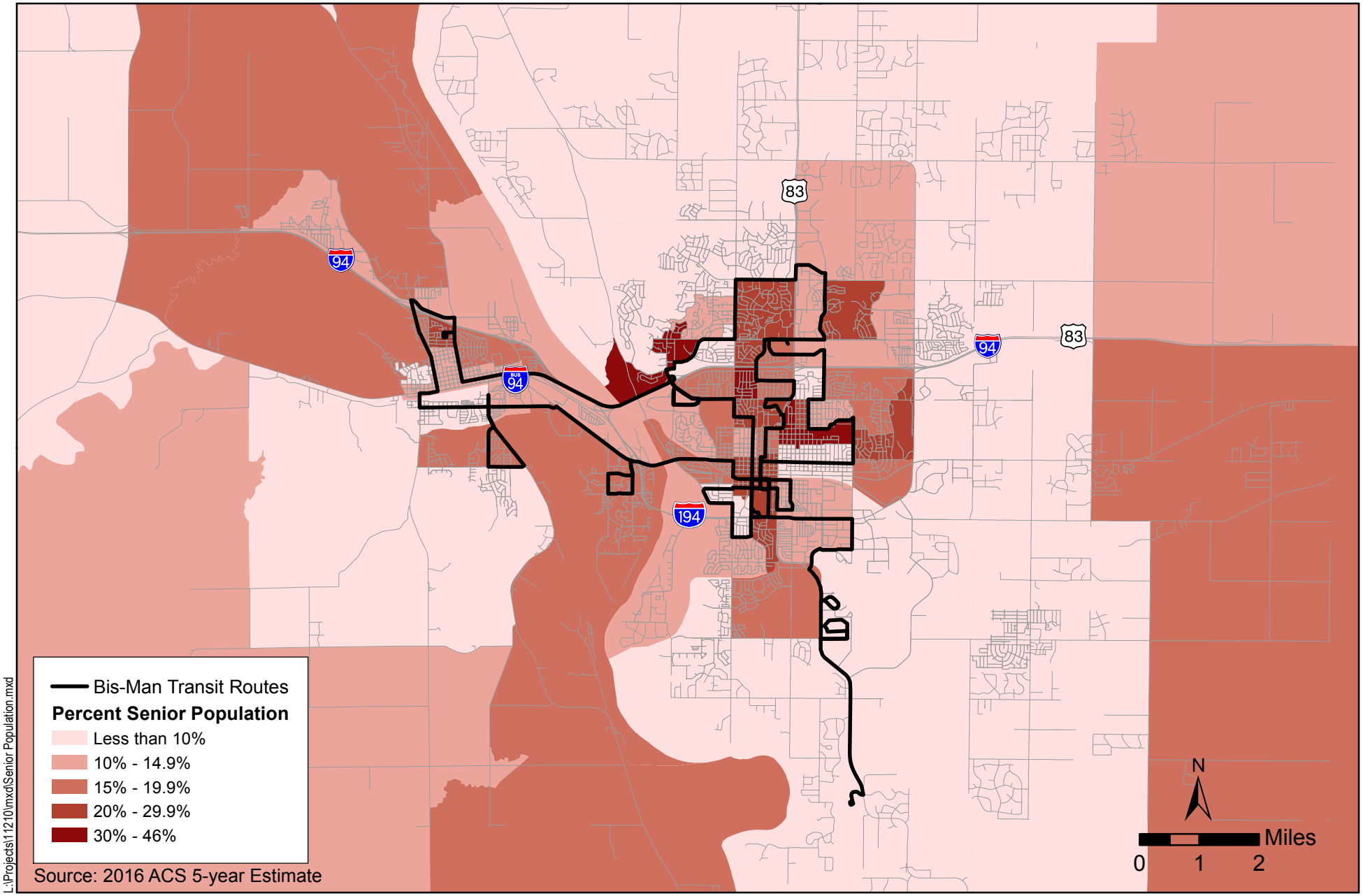
People who are 65 years and older are commonly considered elderly. The 2016 American Community Survey (ACS) 5-year estimates show that the Bismarck-Mandan metropolitan area had 16 percent elderly population as compared to the statewide elderly population share of 14 percent. Figure 3 shows the elderly population distribution in the Bismarck-Mandan area.

The areas with 30 to 46 percent senior population are in the central part of the metro area currently being served by transit. Some areas with 20 to 29.9 percent senior population are in the northwest and south portions of Mandan, which are not in Bis-Man Transit's fixed route service area[2]. Most areas with higher elderly population are served by paratransit service, which extends not less than three-quarters of a mile from fixed routes. It is important to understand that the geography used for the analysis is block groups[3] and a large block group area may only include pockets of population.

---

[2] Fixed route service area is defined as area within 0.25 mile of fixed route transit service.

[3] Year 2016 American Community Survey Block group level data was used for analysis instead of 2010 lower geography (block level) data. Since many new developments have occurred in the metro region since 2010, 2016 data was preferred.



SRF Consulting Group, Inc.

Senior (65 Years and Over) Population Distribution

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 3

Youth Population

Like senior population elevated need for mobility support through transit, youth population cohorts also have mobility needs that can be supported through transit service. Youth population cohorts include people under 18 years of age. Youth population do not likely have access to a vehicle they can drive due to legal age for possessing a driver's license and no/limited number of vehicles in the household. Transit is likely to offer much needed access to shopping, work or school to this population group.

Documented in 2016 ACS 5-year estimate data, youth population cohorts represent approximately 22 percent of total population, which is consistent with the North Dakota average of 23 percent of total population. Figure 4 shows the distribution of youth population in the Bismarck-Mandan metro area.

High concentrations of youth population are along the edges of the metro area and most higher concentration areas have some level of access to fixed-route service. Areas north of 43rd Avenue and west of University Drive (including Lincoln) contain higher (30-41 percent) concentrations of youth population. However, these are not currently served by fixed-route service.

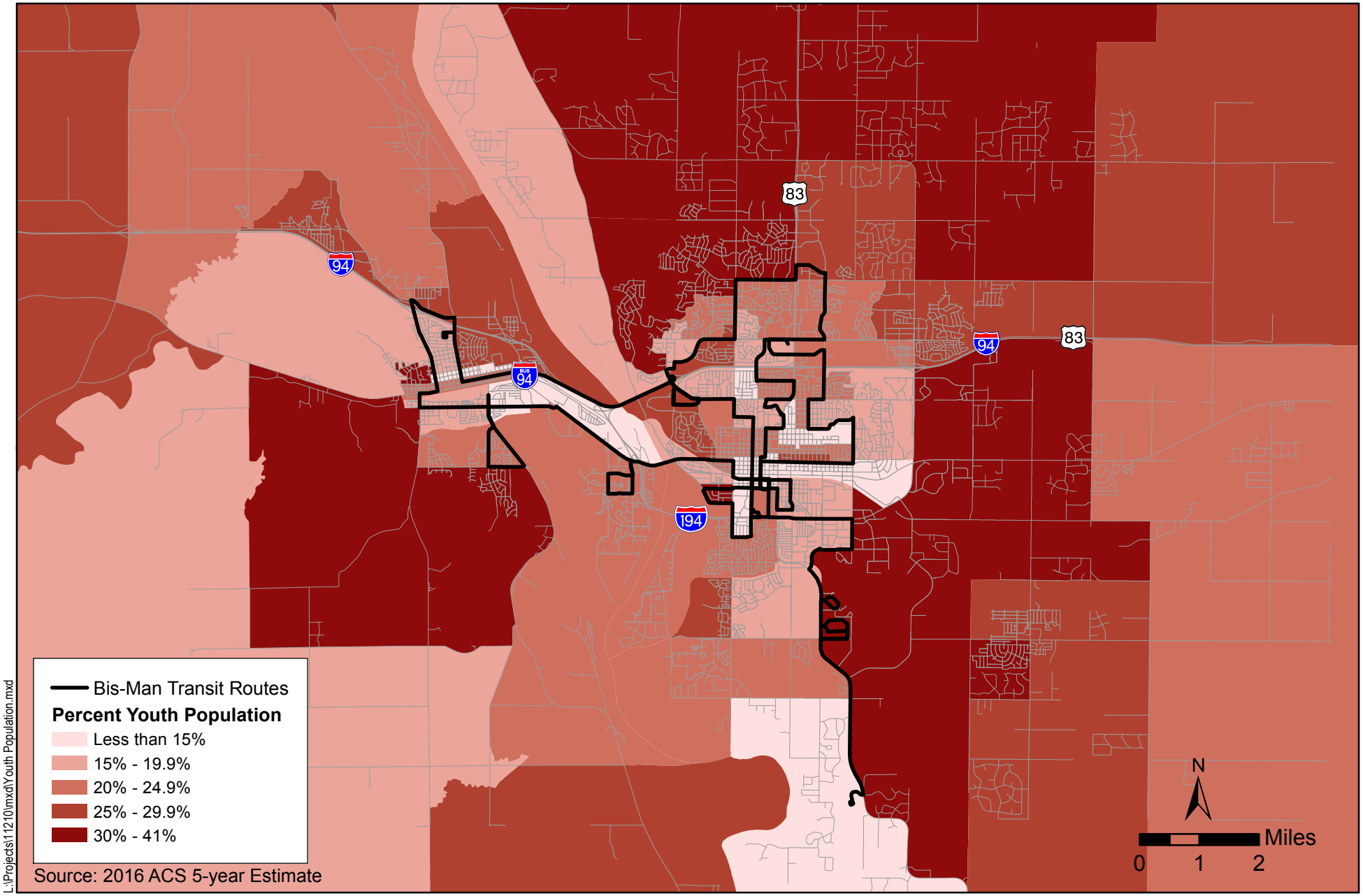
Households Below Poverty Level

Due to the relatively high cost of owning and maintaining a personal vehicle, many people with a low income are likely to use transit when it is available. According to the 2016 ACS 5-year estimates, the median household income for the Bismarck-Mandan metro area was $59,992, which was higher than the statewide median household income of $59,114. Figure 5 shows the distribution of households below poverty level[4] in the Bismarck-Mandan metro area. All areas with higher percentages (15 to 25 percent) of households below poverty level are currently within the service area for transit.

Zero Car Households

Figure 6 shows the distribution of zero vehicle households. Most of the higher zero-vehicle household density areas are along the fixed route network with an exception of Lincoln.

[4] The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty.



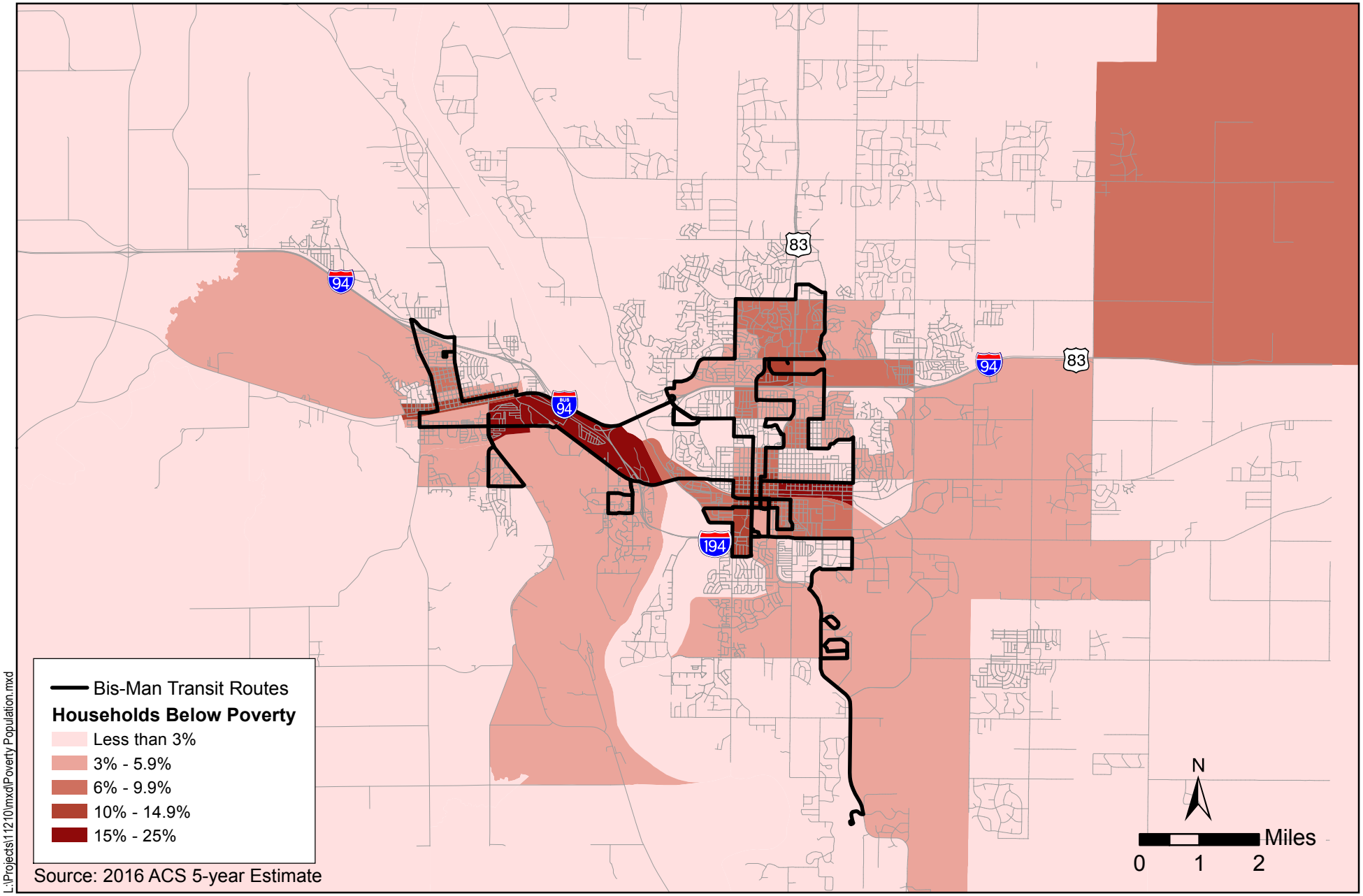
SRF Consulting Group, Inc.

Youth (18 Years and Under) Population Distribution

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 4



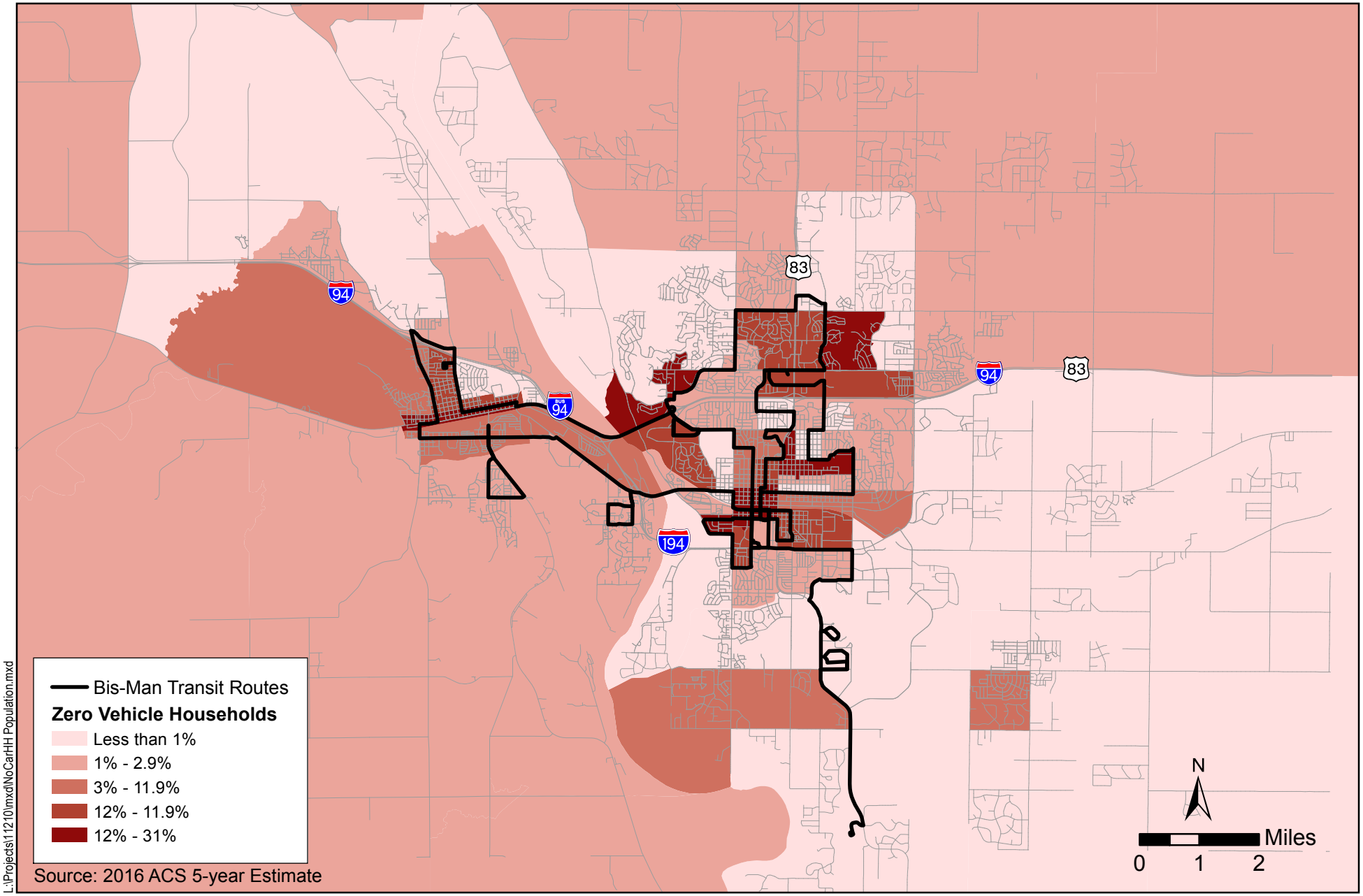
SRF Consulting Group, Inc.

Below Poverty Level Households Distribution

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 5



SRF Consulting Group, Inc.

Zero Vehicle Households Distribution

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 6

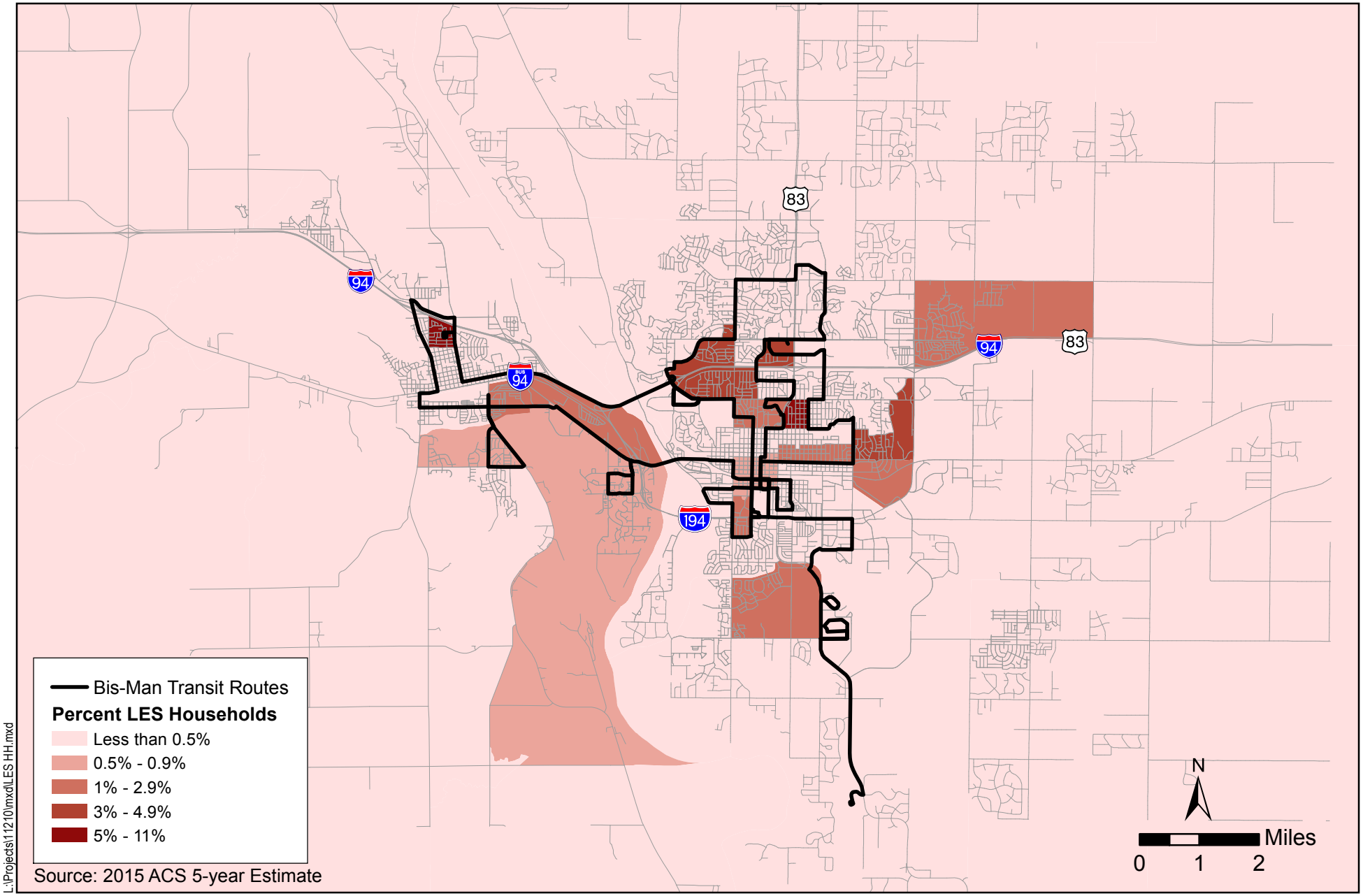
Population with Limited English Proficiency

Individuals with limited ability to read, write, speak, or understand English are considered limited English proficient (LEP). This language barrier may prevent individuals from accessing public services and income opportunities. Hence, this population group needs easy access to public transportation services to be able to open up more opportunities for employment and to encourage the overall mobility of individuals.

As shown in Figure 7, the higher (3 percent or higher) percent of Limited English Speaking households are located within the coverage area of the fixed route network, except for areas east of Centennial Road.

Disabled Population

Figure 8 shows the distribution of population with disability. Although disabled population may be eligible for using transportation through other human service agencies, public transportation is likely to be the cheapest form of transportation. Areas with 20-28 percent of disabled population are located mostly along the existing transit network.



L:\Projects\11210\mxd\LES HH.mxd

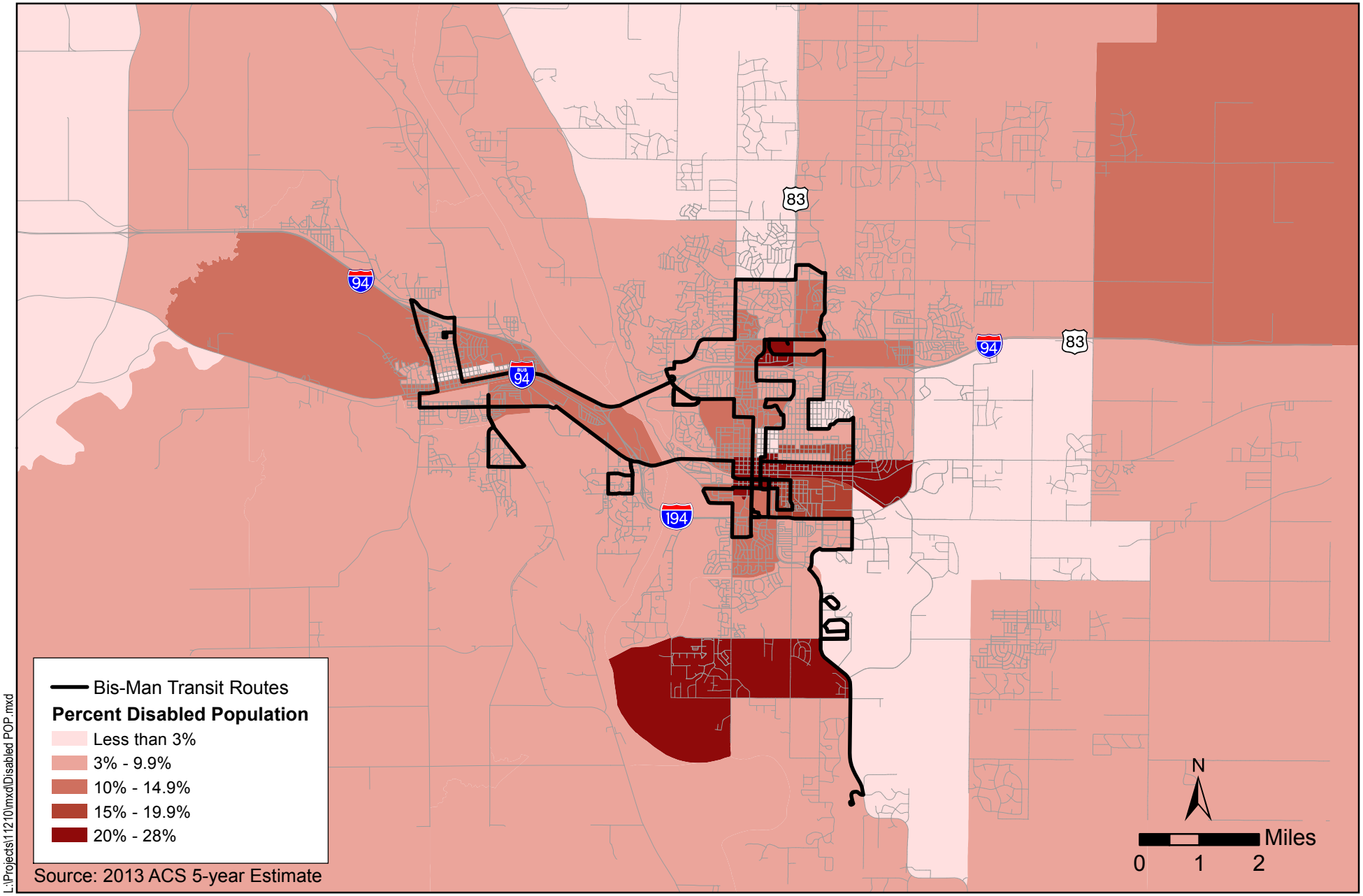
SRF Consulting Group, Inc.

Distribution of Limited English Speaking (LES) Households

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 7



SRF Consulting Group, Inc.

Distribution of Population with Disability

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 8

Transit Service Overview

This section provides a summary of the transit services offered by the Bis-Man Transit. It includes organization background and service overview including fleet inventory.

Bis-Man Transit Background

Bis-Man Transit was formed in 1987 as a non-profit organization. Bis-Man Transit started as a door-to-door, 24-hour in advance reservation system, available 24 hours per day, seven days per week. The service was available to qualified riders (either aged 60 years or older or having a certifiable disability).

Bis-Man Transit's fixed route system planning started in the year 2000. The transit proposal was approved by the Bismarck City Commission and the Metropolitan Planning Organization in 2003 and fixed-route service started in Bismarck and Mandan in May of 2004. The fixed route system was branded as Capital Area Transit (CAT) and started with five fixed routes. Currently, Bis-Man Transit runs six fixed routes throughout Bismarck and Mandan area serving transportation needs related to work, school, volunteering, shopping, socializing with family and friends, etc.

Bis-Man Transit Services Overview

The Bis-Man Transit Board oversees two distinct transit services in the Bismarck-Mandan area – a fixed route service for Bismarck and Mandan (CAT), and a paratransit service that serves riders in Bismarck, Mandan, and Lincoln. The FTA requires paratransit[5] to be provided no less than three-quarters of a mile around the fixed route service on the same days and service hours as fixed route service.

Bis-Man Transit Paratransit Service

Paratransit is a required complementary service required to be provided with fixed route operations for people that cannot, due to physical or mental condition, use fixed route service. Unlike fixed route service that has a walk element to the trip, paratransit service is a

[5] Based on U.S. Department of Transportation regulation §37.131, public transit agencies that run fixed route services must also provide the Americans with Disabilities Act (ADA) complementary paratransit services for individuals with disabilities who are unable to use accessible fixed route services. Paratransit services are characterized by vehicle that operate flexible routes or demand response service and provide origin-to-destination service. The ADA regulations require transit providers to conduct an eligibility determination to strictly limit the paratransit service to individuals who ae not able to use accessible fixed route services due to disability.

curb-to-curb service between the rider's origin and destination locations. In general, requirements for paratransit service include:

- Operates the same hours and days as fixed route service.
- Coverage extends ¾ mile from each fixed route path.
- Requires passengers to demonstrate they cannot reasonably navigate fixed route service.

Bis-Man Transit operates a paratransit service throughout Bismarck and Mandan. This service area may have areas that are outside the required distance of not less than ¾ mile (as part of receiving federal funding). Additionally, paratransit service is provided to residents in Lincoln to areas throughout Bismarck and Mandan. Except for service to/from or in Lincoln, travel is not supported outside Bismarck and Mandan as the county does not participate in funding the service.

Listed below are characteristics of paratransit service provided by Bis-Man Transit:

- Service hours of 5:30 a.m. through 12 a.m.
- Service days Sunday through Saturday.
- The service is open year-round except for six major holidays.
- People 70 years and older do not need to demonstrate limited capacity to use fixed route service.
- Riders must schedule a ride at least the day before the ride is needed.

The Bismarck-Mandan-Lincoln service locally referred to as paratransit service exceeds the technical FTA definition of paratransit service by:

- Providing a longer span of service over the day relative to fixed route service.
- Providing service on Sunday, while fixed route service is not provided.
- Allowing seniors over 70 years old to ride, without demonstrating need.

As the level of service exceeds FTA requirement, what is locally characterized as paratransit is technically a combination of paratransit and demand-response service where the demand-response service can only be used by paratransit eligible riders. Table 1 highlights the division of service into the two operating definitions.

Table 1. Characterization of Bis-Man Transit Paratransit Service

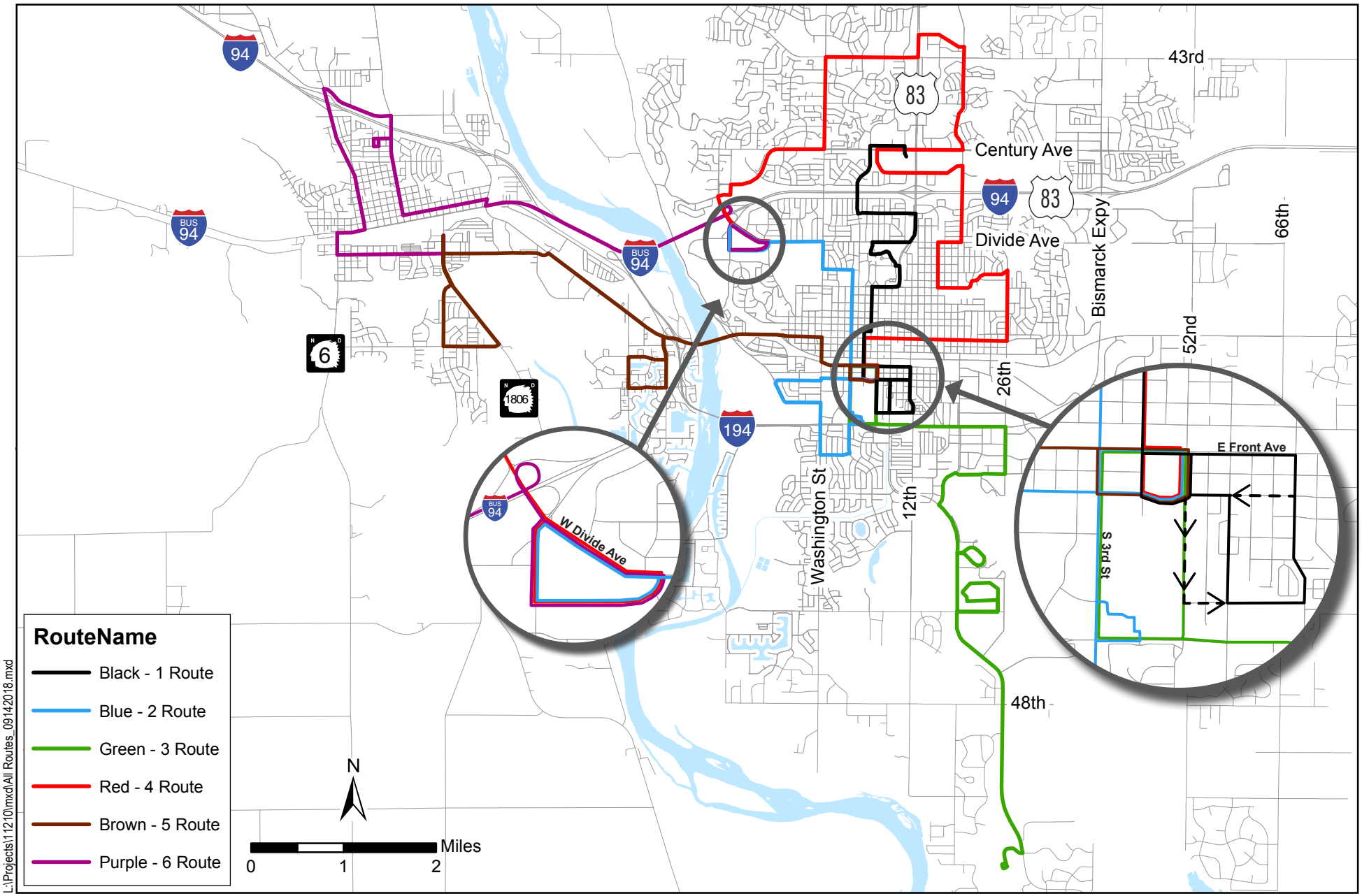
Service Characteristic	Service Definition Division	
	Paratransit	Demand Response*
Daily Hours of Service	6:30 AM to 7:00 PM Weekdays 8:00 AM to 7:00 PM Saturdays	5:30 AM to 6:30 AM Weekdays 7:00 PM to 12:00 AM Weekdays 5:30 AM to 8:00 AM Saturdays 7:00 PM to 12:00 AM Saturdays 7:30 AM to 2:30 PM Sundays
Service Days	Monday through Saturday	Sunday and Holidays (45 Hours for Holidays vary)
Age		70 years old plus

* For paratransit eligible riders only

Capital Area Transit Fixed Route Service

Figure 9 shows the current fixed route network of Bis-Man Transit. An overview of the general routing of the six fixed routes of CAT is provided below:

- **Route 1 (Black):** provides north-south service in Bismarck between the Front Avenue Transit Shelter and Gateway Mall shopping area.
- **Route 2 (Blue):** provides north-south service in Bismarck between the Kirkwood Mall, Front Avenue Transit Shelter and Bismarck State College (BSC).
- **Route 3 (Green):** provides service in southern Bismarck between the Front Avenue Transit Shelter to United Tribes Technical College and University of Mary.
- **Route 4 (Red):** provides service from downtown Bismarck (Front Avenue Transit Shelter) to east Bismarck, Walmart North, and then ending at Bismarck State College.
- **Route 5 (Brown):** provides east-west service between the Front Avenue Transit Shelter in Bismarck and central Mandan.
- **Route 6 (Purple):** provides east-west service between Bismarck and Mandan, while serving BSC and Brave Center Academy/Mandan High School.



SRF Consulting Group, Inc.

Bis-Man Transit Fixed Routes (2018)

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 9

The fixed routes operate six days per week. There is no fixed route Sunday service. The routes generally run between 6:30 am – 7:00 pm on weekdays and 8:00 am to 7:00 pm on Saturdays. Each route operates with one vehicle and provides one-hour frequencies, except Route 4 (Red) which operated with one vehicle at two hour headways. The system operates on a flag-stop system, where the bus can stop along the route to pick up passengers. In addition, there are designated stops at key locations throughout the service area including the Front Avenue Transit Shelter, Gateway Mall, BSC, and Dan's Supermarket in Mandan. A full list of bus shelters is provided in the facilities section.

The passengers are not permitted to board or exit a bus along selected higher speed/higher volume segments of:

- Bismarck Expressway: 12th Street to 26th Street
- University Drive: South of Airport Road
- 9th Street: Bismarck Expressway to Main Avenue
- 7th Street: Main Avenue to Bismarck Expressway
- Divide Avenue/State Street: 7th Street to the North Dakota Heritage Center
- Century Avenue: East of 4th Street to 14th Street
- West Divide Avenue/Tyler Parkway: I-94 to Burnt Boat Drive
- I-94: Tyler Parkway/West Divide Avenue (Bismarck) to Mandan Avenue (Mandan)
- Main Avenue: Fraine Barracks Road to 46th Avenue SE

Route 5 has the most revenue miles on weekdays, while Route 3 has the most on Saturdays – 240 miles and 220, respectively. Revenue hours are longer on weekdays, average between 11.5 and 12. Saturday revenue hours are shorter, averaging between 10 and 11 hours.

Table 2 and Table 3 show weekday and Saturday operating characteristics. In addition, Figure 10 shows the average daily boardings by route.

Table 2. Fixed Route Weekday Operating Characteristics

Route	Span of Service	Frequency Peak (min)	Revenue Miles	Revenue Hours	Passengers Per Mile	Passengers Per Hour
Route 1	7:00am – 7:00pm	60	158	12	0.44	5.75
Route 2	7:00am – 7:00pm	60	160	11.5	0.36	5.04
Route 3	7:00am – 7:00pm	60	240	12	0.17	3.33
Route 4	7:30am – 7:00pm	60	157	11.5	0.42	5.74
Route 5	6:30am – 6:30pm	60	244	12	0.27	5.42
Route 6	7:00am – 7:00pm	60	241	12	0.21	4.17
TOTAL			1,200	71	0.30	5.13

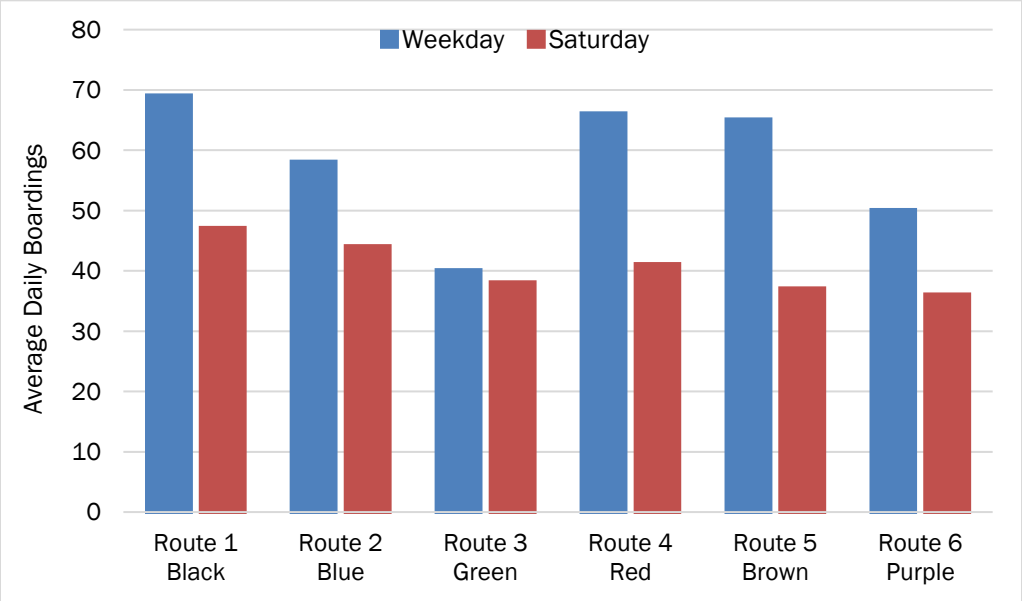
Source: Bis-Man Transit/CAT, 2018

Table 3. Fixed Route Saturday Operating Characteristics

Route	Span of Service	Frequency Peak (min)	Revenue Miles	Revenue Hours	Passengers Per Mile	Passengers Per Hour
Route 1	8:00am – 7:00pm	30	141	11	0.33	4.27
Route 2	8:00am – 7:00pm	60	140	10.5	0.31	4.19
Route 3	8:00am – 7:00pm	60	220	11	0.17	3.45
Route 4	8:30am – 7:00pm	30	94	11	0.44	3.73
Route 5	7:30am – 6:30pm	60	207	10	0.18	3.70
Route 6	8:00am – 7:00pm	30	145	11	0.25	3.27
TOTAL			947	64.5	0.27	3.97

Source: Bis-Man Transit, 2018

Figure 10. Route Level Average Daily Boardings



Source: Bis-Man Transit, 2018

Bis-Man Transit Fleet

CAT has nine buses dedicated to fixed route service. A fleet of 20 vehicles (18 "cutway" vans and two minivans) are dedicated to paratransit service. In general, the fixed route buses are larger and are heavy-duty, while Bis-Man Transit paratransit buses are medium-duty buses or include light-duty vehicles. Table 4 summarizes the characteristics of CAT's fixed route and paratransit fleet.

Bis-Man Transit Facilities

This section lists the facilities maintained by Bis-Man Transit/CAT for both the fixed route and paratransit services. Facilities include administrative offices, bus shelters, and maintenance facilities. The paratransit service does not have shelters, as riders schedule rides for curb-to-curb service. The Bis-Man Transit administrative office is located at 3750 East Rosser Avenue at the Bismarck Transit Center.

The CAT bus shelters are located only in Bismarck and Mandan. Lincoln is served by Bis-Man Transit paratransit services, and does not include CAT fixed route service. As mentioned previously, CAT provides a flag-stop service where riders can board a bus along one of the six fixed routes. Shelters have been added at major pick up points along the routes and are outlined below.

- Bismarck shelters
    - North Walmart
    - Gateway Mall
    - Arrowhead Plaza
    - Bismarck State College
    - West Central Human Service Center
    - McDonalds (Burnt Boat Drive)
    - High-rise Residential Building (S 2nd St @ E Bowen Ave)
    - South Walmart
    - United Tribes Technical College
    - 7th Street (near CHI - St. Alexius Medical Center)
- Mandan shelters
    - Liberty Heights Apartments
    - Mandan Community Center
    - Dan's Supermarket
    - 8th Avenue Southeast (near Ft. Lincoln School)
    - 1st Street Northwest & 6th Avenue Northwest

Table 4. Fleet Inventory

Service Type	Rolling Stock Number	Year	Category	Condition*
Fixed Route	401	2004	Heavy-Duty Small Bus	Adequate
Fixed Route	402	2004	Heavy-Duty Small Bus	Good
Fixed Route	403	2004	Heavy-Duty Small Bus	Decommissioned
Fixed Route	601	2006	Heavy-Duty Small Bus	Good
Fixed Route	602	2006	Heavy-Duty Small Bus	Good
Fixed Route	1001	2010	Heavy-Duty Small Bus	Good
Fixed Route	1002	2010	Heavy-Duty Small Bus	Good
Fixed Route	1003	2010	Heavy-Duty Small Bus	Good
Fixed Route	1501	2015	Heavy-Duty Large Bus	Excellent
Fixed Route	1502	2015	Heavy-Duty Large Bus	Excellent
Fixed Route	1909	2019	Heavy-Duty Large Bus	Excellent
Fixed Route	1910	2019	Heavy-Duty Large Bus	Excellent
Paratransit	53	2012	Medium-Duty Bus	Good
Paratransit	54	2012	Medium-Duty Bus	Good
Paratransit	55	2012	Medium-Duty Bus	Good
Paratransit	1701	2017	Medium-Duty Bus	Excellent
Paratransit	1702	2017	Medium-Duty Bus	Excellent
Paratransit	1703	2017	Medium-Duty Bus	Excellent
Paratransit	1704	2017	Medium-Duty Bus	Excellent
Paratransit	62	2012	Light-Duty Vans, Sedans, or Buses	Excellent
Paratransit	63	2012	Light-Duty Vans, Sedans, or Buses	Excellent
Paratransit	1801	2018	Medium-Duty Bus	Excellent
Paratransit	1802	2018	Medium-Duty Bus	Excellent
Paratransit	1803	2018	Medium-Duty Bus	Excellent
Paratransit	1804	2018	Medium-Duty Bus	Excellent
Paratransit	1901	2018	Medium-Duty Bus	Excellent
Paratransit	1902	2018	Medium-Duty Bus	Excellent
Paratransit	1903	2019	Medium-Duty Bus	Excellent
Paratransit	1904	2019	Medium-Duty Bus	Excellent
Paratransit	1905	2019	Medium-Duty Bus	Excellent
Paratransit	1906	2019	Medium-Duty Bus	Excellent
Paratransit	1907	2019	Medium-Duty Bus	Excellent
Paratransit	1908	2019	Medium-Duty Bus	Excellent

Source: Bis-Man Transit, March 2019

Fixed Route Operations Analysis

This section is intended to provide a clear understanding of how the fixed route system performs today and to lay out a roadmap for the future. The report evaluates current services and defines service standards and performance measures for the fixed-route and demand response.

Route Profiles

Route profiles (included as Appendix 1. Route Profiles) were developed for each fixed route including the route's overview, key destinations, schedule, time stamp locations, and a map of the route layout.

Operating Performance

This section provides a five-year overview of key operating characteristics of the fixed route system, as reported to the National Transit Database (NTD) and agency-reported ridership trends. Table 5 shows the annual operating statistics for CAT's fixed route service. Figure 11 through Figure 18 illustrate the data provided in Table 5.

Most performance measures have been negatively impacted by the general decline in passenger trips since 2012. This is an industry-wide trend impacting agencies across the United States. There may also be some impacts from the recent fare increase for the CAT service. Other key trends and data are summarized below:

- Passenger trips declined from a peak in 2012, although there was slight increase in 2014.
- Operating costs increased since 2012, although there was a decrease in operating costs in 2014 and 2015. A 13 percent increase occurred for 2016.
- Farebox revenue fluctuated from year to year, but 2014 saw the lowest rate between 2012 and 2016.

Key Operating Characteristics

Annual Passenger Trips

As shown in Figure 11, passenger trips have steadily declined since at least 2012. Passenger trips did increase by 2 percent between 2013 and 2014 but have decreased by 9 percent between 2014 and 2016. Overall, a decline of 11 percent has been observed from 2012 to 2016.

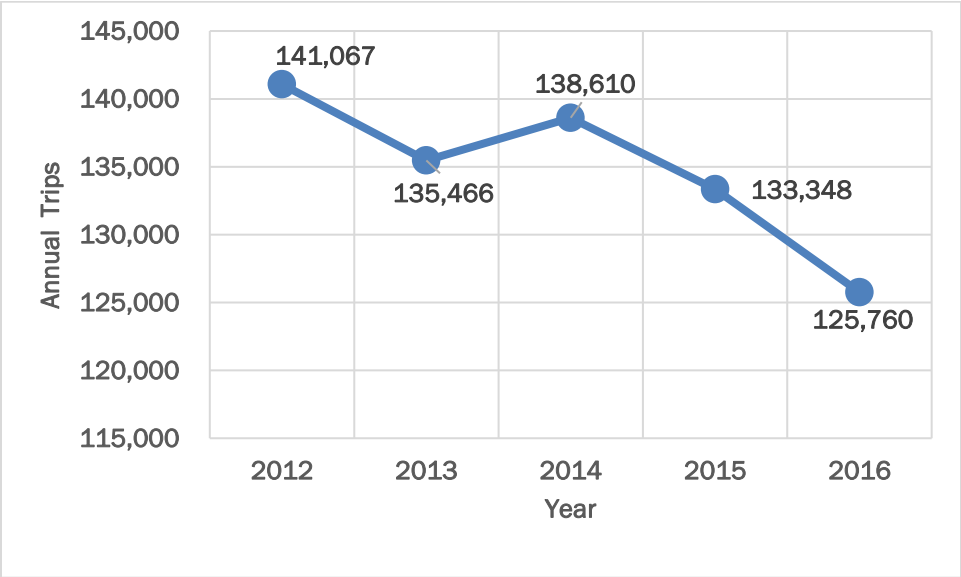
Table 5. Capital Area Transit Fixed Route Service Operating Statistics and Performance Measures

	2012	2013	2014	2015	2016
Passenger Trips	141,067	135,466	138,610	133,348	125,760
Operating Costs	$1,389,282	$1,441,080	$1,307,383	$1,210,912	$1,369,781
Farebox Revenue	$80,849	$80,305	63,352	$70,346	$75,321
Revenue Miles	302,977	300,704	304,200	305,378	306,579
Revenue Hour	19,787	19,944	19,878	19,554	19,605
Passengers per Revenue Hour	7.1	6.8	7	6.8	6.4
Passengers per Revenue Mile	0.5	0.5	0.5	0.4	0.4
Operating Costs per Passenger	$9.85	$10.64	$9.43	$9.08	$10.89
Operating Costs per Revenue Hour	$70.21	$72.26	$65.77	$61.93	$69.87
Farebox Recovery Ratio	5.80%	5.60%	4.80%	5.80%	5.50%

Source: Bis-Man Transit/CAT; National Transit Database (NTD)

Note: Operating expenses/costs reported in the NTD 2016 Profile for Bismarck-Mandan is $200,000 lower than actual expenses reported. NTD has been informed of the Profile error.

Figure 11. Annual Passenger Trips

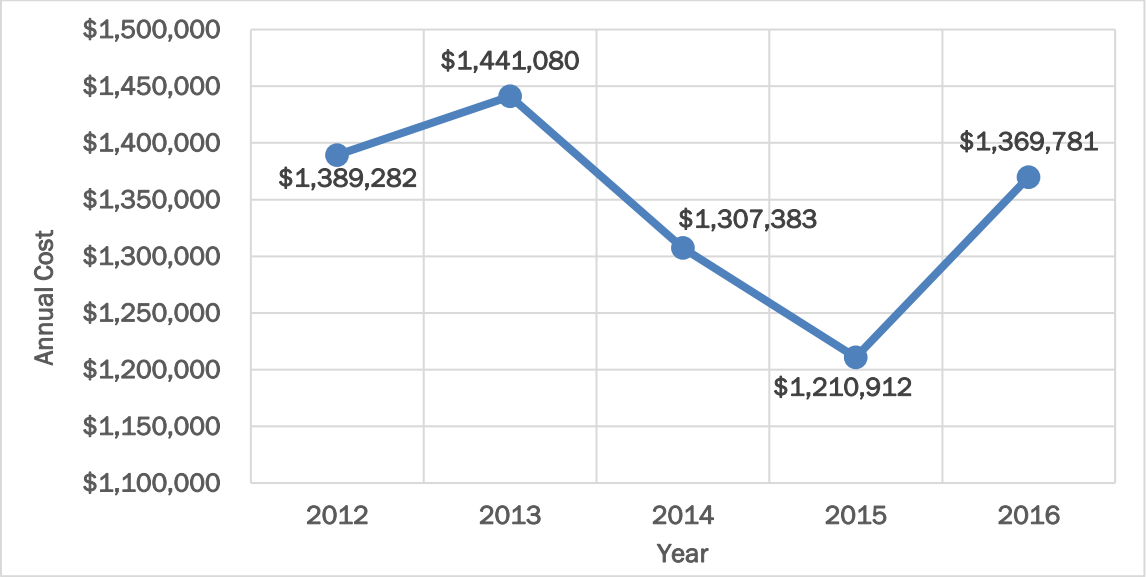


Source: Bis-Man Transit/CAT, NTD (2012)

Annual Operating Costs

As shown in Figure 12, operating costs sharply rose between 2015 and 2016.

Figure 12. Annual Operating Costs



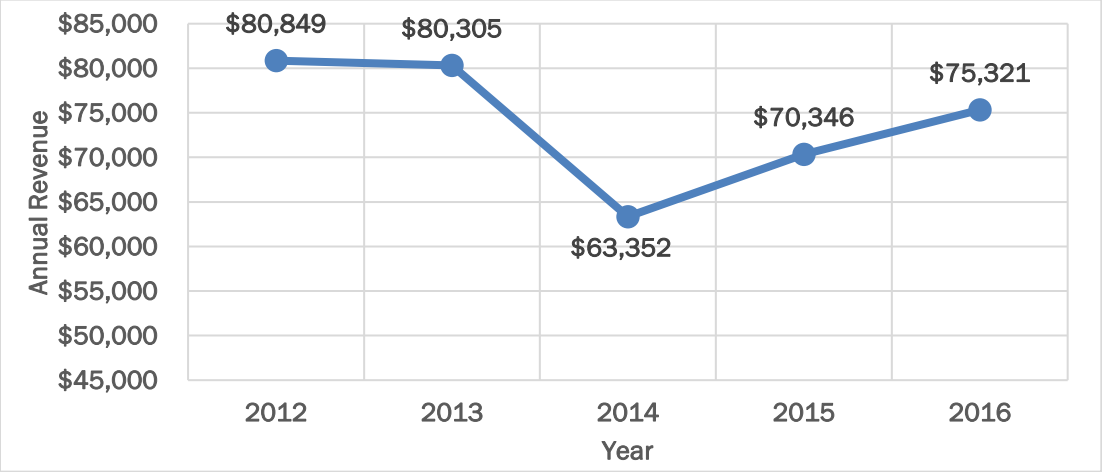
Source: NTD

Note: Operating expenses/costs reported in the NTD 2016 Profile for Bismarck-Mandan is $200,000 lower than actual expenses reported. NTD has been informed of the Profile error.

Annual Farebox Revenue

Figure 13 shows farebox revenue has decreased about $5,500 since 2012. A sharp decline occurred in 2014, but farebox revenue has steadily increased since that time.

Figure 13. Annual Farebox Revenue



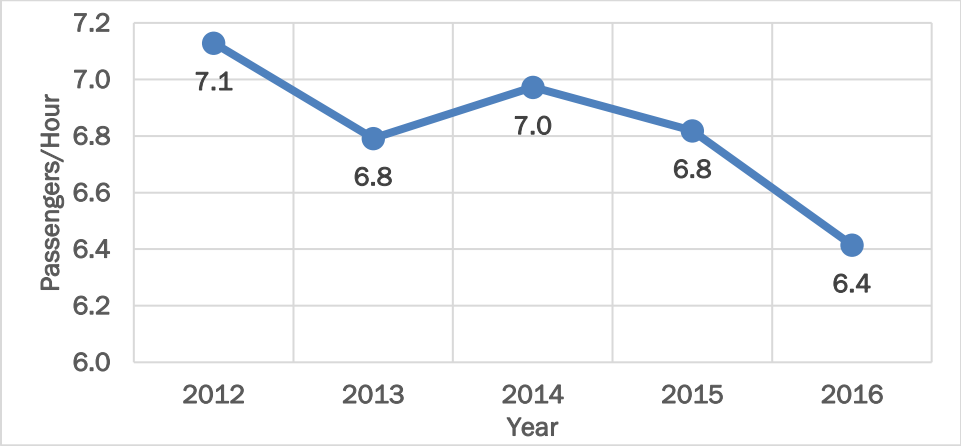
Source: NTD

Performance Indicators

Passengers per Revenue Hour

The number of passengers who are served per hour of revenue service is an indication of productivity of the service. As shown in Figure 14, the number of passengers per revenue hour has decreased since at least 2012. Despite a modest increase from 2013 to 2014, the passengers per revenue hour have decreased approximately 11 percent since 2012.

Figure 14. Passengers per Revenue Hour

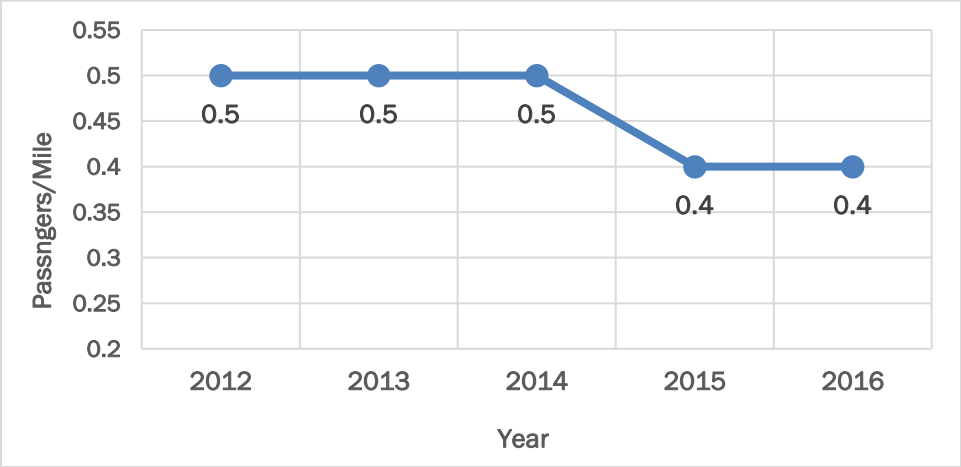


Source: NTD

Passengers per Revenue Mile

The number of passengers who are served per mile of revenue service is also an indication of productivity of the service. As shown in Figure 15, passengers per revenue mile has decreased approximately 25 percent since 2012.

Figure 15. Passengers per Revenue Mile

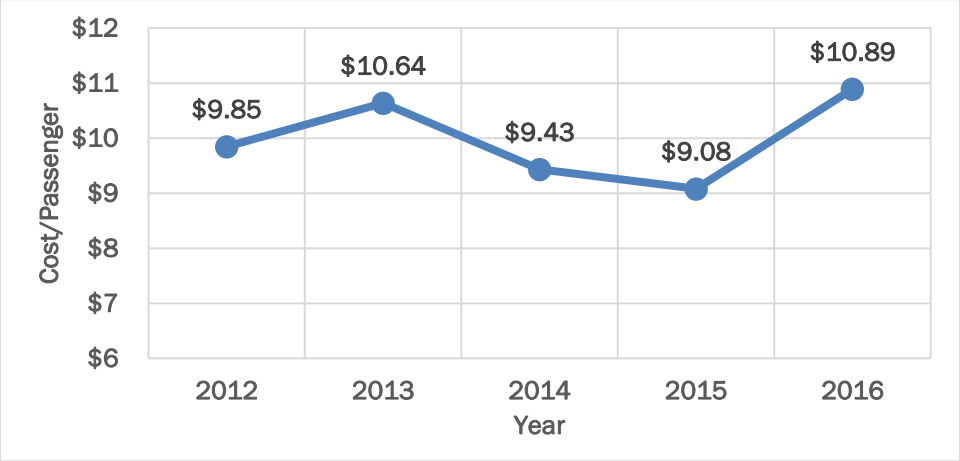


Source: NTD

Cost per Passenger

Operating costs per passenger is an indication of cost-effectiveness of the service operations. A higher operating cost per passenger ratio indicates the service is less cost-effective. As shown in Figure 16, operating costs per passenger have increased approximately $1.00 since 2012. Despite decreases from 2013 to 2015, an increase to a reported high between 2015 and 2016 represents an overall increase in average cost per passenger in the past five years.

Figure 16. Cost per Passenger



Source: NTD

Cost per Revenue Hour

Cost per revenue hour is a measure of the level of efficiency at which an organization can operate. As the cost per revenue hour increases, it would be an indicator of decreasing efficiency. Figure 17, documents the Bis-Man Transit's fixed route service cost per revenue hour. Over the 2012 to 2016 period, costs were relatively stable (2012 and 2016 figures are within about one percent). Intermediate years, however, showed an initial declining cost per revenue hours (a positive) followed by at 13 percent increase between 2015 and 2016.

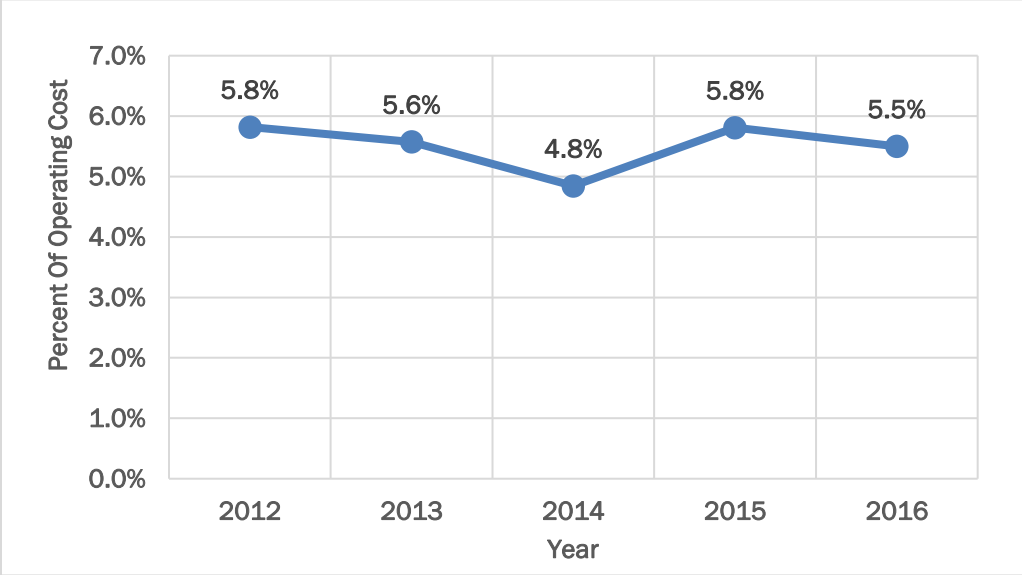
Farebox Recovery Ratio

The farebox recovery ratio indicates the percentage of a service's operating costs that are being covered by the fares paid by passengers. The higher the ratio or percentage, the greater the proportion of operating costs being paid for by passenger fares. As shown in Figure 18, a decrease of 0.3 percent occurred between 2015 and 2016 while there was an increase of 1 percent between 2014 and 2015.

Figure 17. Cost per Revenue Hour

Source: NTD

Figure 18. Farebox Recovery Ratio



Source: NTD

On-time Performance

On-time performance data for CAT fixed routes was collected in July and December of 2017, for route timepoints, as shown in Table 6. Route 1 had the best on-time performance average, with an on-time rate of 68 percent. The system average was slightly lower at 66 percent. In general, buses that were not on-time were early as opposed to late. CAT has recently adjusted scheduled timepoints to address some of the issues with on-time performance. CAT staff has reported improvements to on-time performance with some routes operating at 85% on time or better.

Table 6. Fixed Route Service On-Time Performance

	Jul-17			Dec-17			Average		
Route	On-Time	Early	Late	On-Time	Early	Late	On-Time	Early	Late
Route 1	71.5%	26.8%	1.7%	64.5%	14.6%	20.9%	68.0%	20.7%	11.3%
Route 2	60.5%	34.8%	4.8%	66.6%	25.9%	7.6%	63.5%	30.4%	6.2%
Route 3	57.5%	34.9%	7.7%	69.9%	19.3%	10.8%	63.7%	27.1%	9.3%
Route 4	70.1%	24.4%	5.5%	63.8%	23.9%	12.3%	67.0%	24.2%	8.9%
Route 5	67.5%	30.9%	1.6%	65.3%	26.7%	8.0%	66.4%	28.8%	4.8%
Route 6	61.9%	35.0%	3.1%	71.6%	19.9%	8.5%	66.7%	27.5%	5.8%
System Average	64.7%	31.4%	3.9%	67.3%	21.5%	11.1%	66.0%	26.5%	7.5%

Source: Bis-Man Transit/CAT (July, December 2017)

Paratransit System Operations Analysis

Bis-Man Transit's paratransit service provides door-to-door transportation for riders with disabilities or riders over 70 years of age. The ridership for this service has continually been greater than the CAT fixed route ridership.

Operating Performance

This section provides a five-year overview of key operating characteristics of the paratransit system, as reported to the National Transit Database (NTD).Table 7 shows the annual operating statistics for Bis-Man Transit's paratransit service. Figure 19 - Figure 25 illustrate the data provided in Table 7.

Table 7. Operating Characteristics and Performance Measures for Paratransit

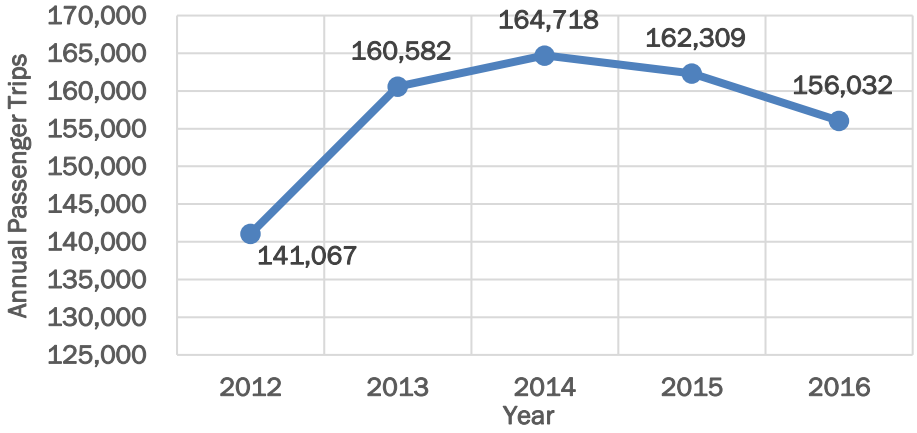
	2012	2013	2014	2015	2016
Passenger Trips	141,067	160,582	164,718	162,309	156,032
Operating Costs	$1,879,491	$1,985,166	$1,970,462	$1,991,994	$1,884,282
Farebox Revenue	$379,869	$371,660	$377,992	$412,473	$422,903
Revenue Miles	623,172	628,858	487,812	639,759	619,449
Revenue Hours	44,507	44,488	36,596	47,025	43,851
Average Fleet Age	5	6	6	7	5
Passengers per Revenue Hour	3.2	3.6	4.5	3.5	3.6
Passengers per Revenue Mile	0.23	0.26	0.34	0.25	0.25
Operating Costs per Passenger	$13.32	$12.36	$11.96	$12.27	$12.08
Operating Costs per Revenue Hour	$42.23	$44.62	$53.84	$42.36	$42.97
Farebox Recovery Ratio	20.2%	18.7%	19.2%	20.7%	22.4%

Key Operating Characteristics

Annual Passenger Trips

Figure 19 shows the trend of annual passenger trips since 2012. The passenger trips increased sharply between 2012 and 2013 by about 14 percent and the ridership in 2014 was the highest in the past five years (6 percent higher than 2016 ridership). The decline in annual ridership observed is consistent with a national trend observed over the period. Nationally, transit ridership in the last three to four years has seen a drop in ridership of approximately 5 percent[6]; which is essentially identical to the condition observed in Bismarck-Mandan.

Figure 19. Annual Passenger Trips for Paratransit



Source: National Transit Database

Since fixed route service was initiated in the mid-1990s, paratransit ridership has exceeded fixed route ridership. Since 2013, the number of paratransit riders has been at the minimum 16 percent greater than the number of fixed route riders. In addition, between 2016 and 2017 there was a dip in paratransit riders. Although the service dipped from 2016 to 2017, the percent paratransit riders comprised of the total was 33 percent higher than the fixed route system. Table 8 highlights historical ridership over the 2013 to 2017 period. To carry the number of passengers requesting trips, Bis-Man Transit puts 15 to 16 buses on the street, while fixed route operates the system with six buses.

[6] 2017 National Transit Summary and Trend – 2017. National Transit Database, Office of Budget and Policy

Table 8. Annual Ridership: Paratransit versus Fixed Route

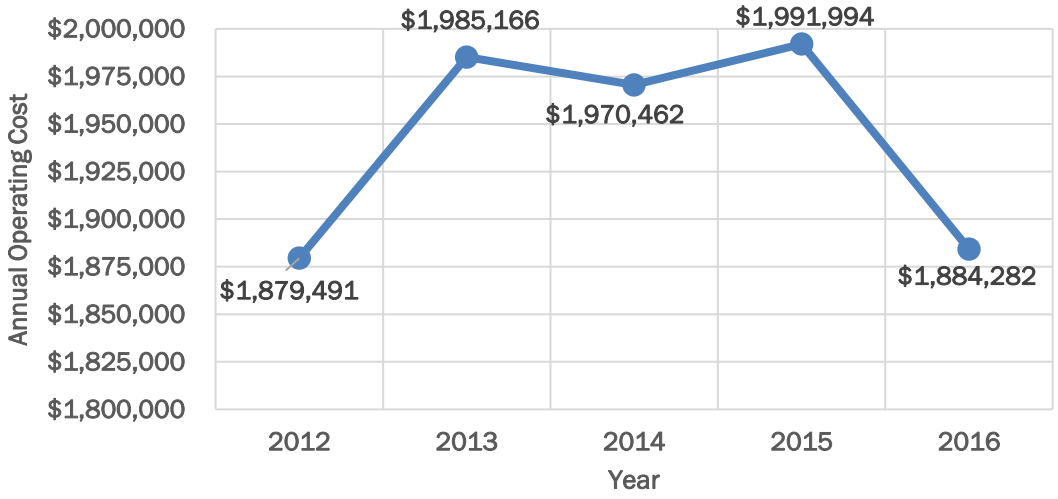
Year	Paratransit Ridership	Fixed Route Ridership	Percent Difference
2013	160,582	135,466	16%
2014	164,718	138,610	16%
2015	162,309	133,348	18%
2016	156,032	125,760	19%
2017	147,332	98,646	33%

Source: Bis-Man Transit/CAT, 2018

Annual Operating Cost

Figure 20 shows the annual operating costs' trend over the period of 2012-2016. A sharp increase of about 6 percent occurred between 2012 and 2013 while costs went down by 5 percent between 2015 and 2016.

Figure 20. Annual Operating Costs for Paratransit

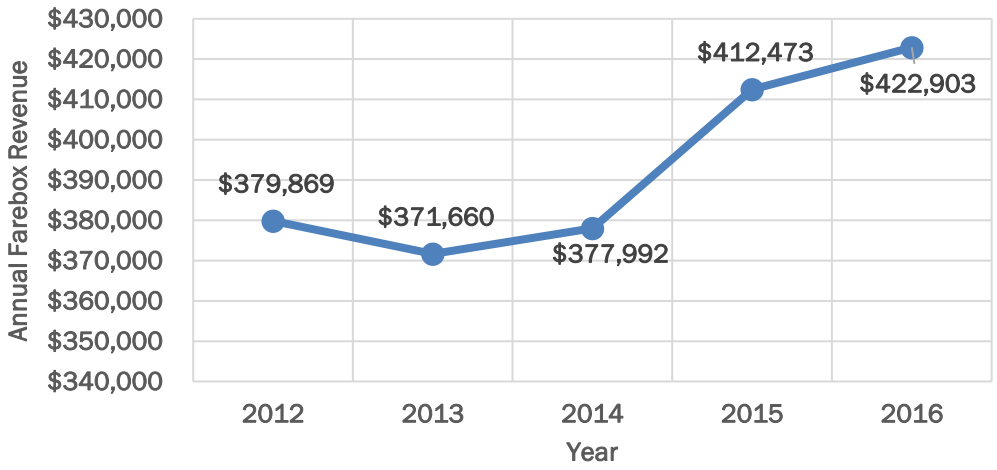


Source: National Transit Database

Annual Farebox Revenue

Figure 21 shows the annual farebox revenue for the period of 2012 to 2016. Since 2012, the farebox revenue has increased by 11 percent. Analysis of the potential reasons for increasing farebox revenue was not completed.

Figure 21. Annual Farebox Revenue for Paratransit



Source: NTD

Performance Indicators

Passengers per Revenue Hour

Figure 22 shows that the passengers per revenue hour peaked in 2014 due to the highest ridership in the period of 2012-2016. Moreover, revenue hours for 2014 were also the lowest in that period. The typical metropolitan area goal is to carry at least three passengers per hour when accounting for deadhead.

Passengers per Revenue Mile

As shown in Table 7, the passengers per revenue mile were consistent at 0.25 in the analysis period of 2012 through 2016. The highest passengers per revenue mile were in the year 2014 (with the highest ridership) and lowest revenue miles.

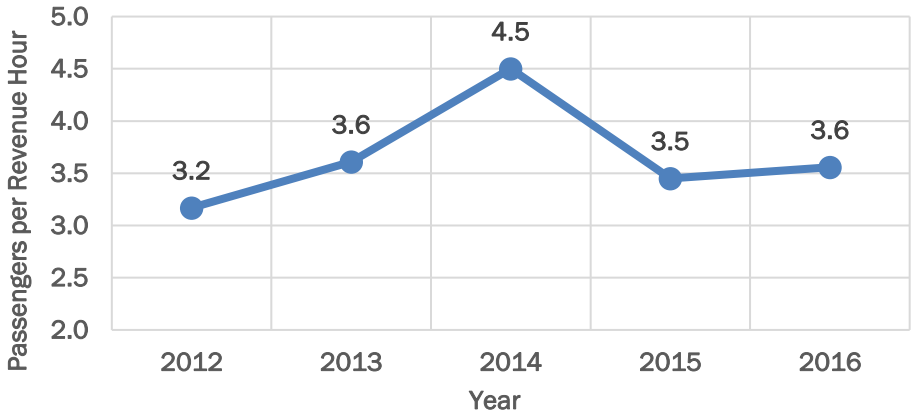
Costs per Passenger

As shown in Figure 23, the operating costs per passenger have declined since 2012. The lowest value was in the year 2014 due to the highest ridership in the period.

Costs per Revenue Hour

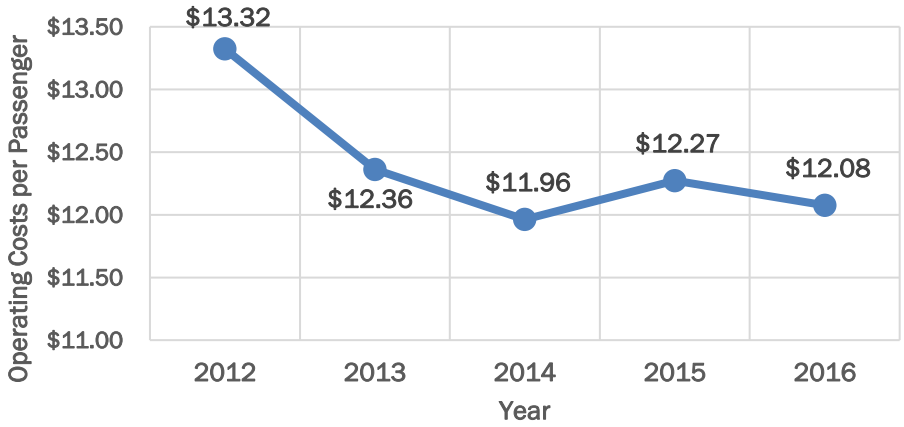
Figure 1 shows the costs per revenue hour over the analysis period of 2012 through 2016. The year 2014 had the highest costs per revenue hour due to the lowest number of revenue hours.

Figure 22. Passengers per Revenue Hour (2012-2016)



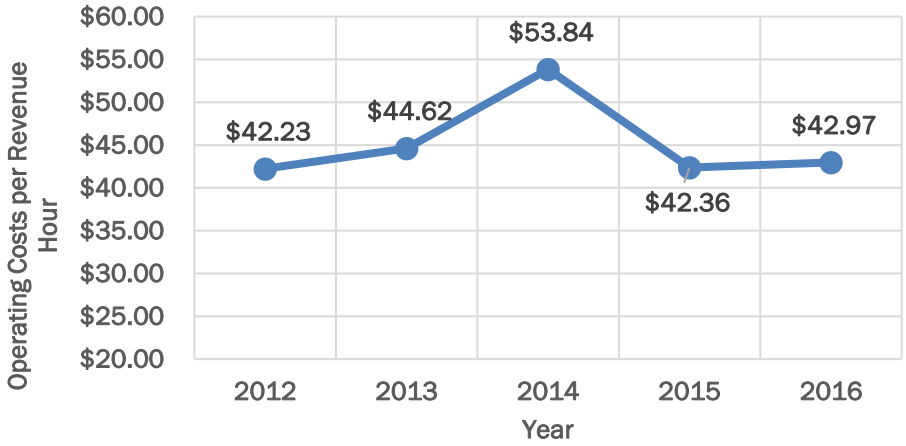
Source: National Transit Database

Figure 23. Costs per Passenger for Paratransit



Source: National Transit Database

Figure 24. Costs per Revenue Hour

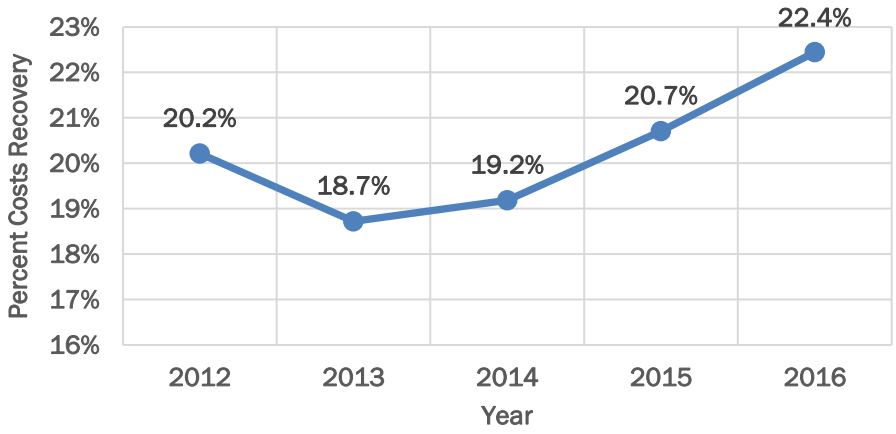


Source: National Transit Database

Farebox Recovery Ratio

The farebox recovery ratio indicates the percentage of a service's operating costs that are being covered by the fares paid by passengers. The higher the ratio or percentage, the greater the proportion of operating costs being paid for by passenger fares. As shown in Figure 25, a decrease of 7 percent occurred between 2012 and 2013, which combined with ridership and cost changes, suggests 2012 to 2013 was a transitional year. Since 2013, there has been a trend of increasing fare box recovery for the system.

Figure 25. Farebox Recovery Ratio for Paratransit



Source: National Transit Database

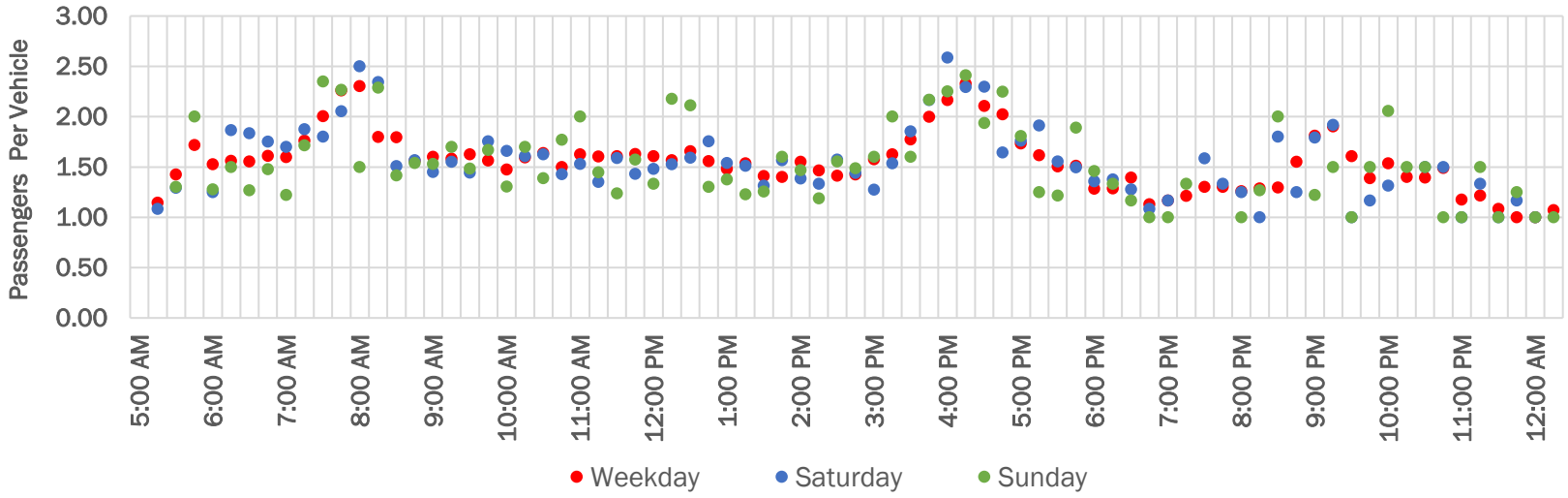
Passenger Load Assessment

The number of passengers on-board a vehicle at any one time (passenger load) is a measure typically used to help define service efficiency. The goal is not to maximize the number of people per trip, but rather to find a logical balance between the number of people being carried and meeting the desired on-time performance and rider comfort for their on-board duration. Figure 26 displays the average passenger load for April 2018 using data obtained from Bis-Man Transit. Displayed is the average passenger load observed across the paratransit fleet for every 15-minute period of the weekday, Saturday, and Sunday service days for the month. The typical metropolitan area goal is to carry at least one passenger in each 15-minute period a vehicle is operating, which equates to three or so passengers per hour when accounting for deadhead.

The following are the findings of the review:

- Most weekday and weekend service hours exceed the desired threshold of more than one passenger in a 15-minute period.
- Early morning hours (7:00 AM to 8:00 AM), late afternoon (4:00 PM to 5:00 PM) and evening (8:30 PM to 10:00 PM) average more than two people per vehicle over a 15-minute period. These loads approach the reasonable capacity for a vehicle when balancing cost of service and passenger comfort.
- While Sunday overall ridership is lower, Bis-Man Transit does a good job of balancing the number of vehicles on the road. This is reflected in average passenger loads on Sunday that are relatively consistent with weekday loads.

Figure 26. Paratransit Average Passenger Per Vehicle by 15-Minute Periods (April 2018)



Source: Bis-Man Transit Paratransit Ride Log (April 2018)

Peer Comparison

Compared to peer communities, based on population and development density, Bis-Man Transit provides a high number of paratransit trips from both an absolute number and a ratio of fixed route trips. Table 9 documents the comparison of Bismarck-Mandan paratransit/Demand Response service to regional communities that have been used in other planning efforts as peer communities. Relative to the peers, the following observations are provided:

- Bis-Man Transit provides more trips annually than any of the other peers. Paratransit ridership in Bismarck-Manda-Lincoln, expressed as the number of trips per capita, reflects a substantially higher level of use compared to Midwestern peers. While Rapid City also has a per capita ridership greater than 1.0 passengers, all the other peer communities had an annual (2016) ridership of substantially less than one per capita
- The annual operating cost of paratransit in Bismarck-Mandan ($1,884,300 in 2016) is exceeded by only Sioux Falls, South Dakota ($3,570,100), a metro area with a population almost 40 percent higher than Bismarck, Mandan, and Lincoln. Relative to the annual cost of fixed route service, Rapid City and Bismarck-Mandan-Lincoln are the only peers where paratransit annual operating expenditures exceed fixed route expenditures.
- Operating cost per trip per passenger for Bismarck is the lowest among the peers. Expressed in terms of cost per capita, expenditures in Bismarck-Mandan-Lincoln are approximately $20, which is closer to the highest expenditure level (Sioux Falls) than it is to the lowest (Fargo-Moorhead).
- Except for Sioux Falls, Bis-Man Transit has the largest in-service fleet among the peer communities.

Table 9. 2016 Paratransit Service Parameters – Bis-Man Transit and Peers

Peer City	Service Area Population	Operating Cost	Ridership	Operating Cost Per Capita	Ridership Per Capita	Operating Cost Per Passenger
Billings, MT	109,100	$1,260,090	49,407	$11.55	0.5	$25.50
Fargo/Moorhead	134,100	$1,326,546	52,373	$9.89	0.4	$25.33
Grand Forks	61,300	$1,229,085	48,363	$20.05	0.8	$25.41
Rapid City	68,000	$1,107,993	87,280	$16.30	1.3	$12.69
Sioux Falls	130,400	$3,570,132	113,377	$27.38	0.9	$31.49
Bis-Man Transit	**94,700**	**$1,884,282**	**156,032**	**$19.89**	**1.6**	**$12.08**

Table 10 outlines key recent observable characteristics of the paratransit service. The service typically runs extended hours each day (starting as early as 5:30 AM and ending as late as

12:00 AM). Moreover, the service is provided seven days a week (unlike fixed route which does not operate on Sundays).

Table 10. Paratransit Service Hours and Miles Performance

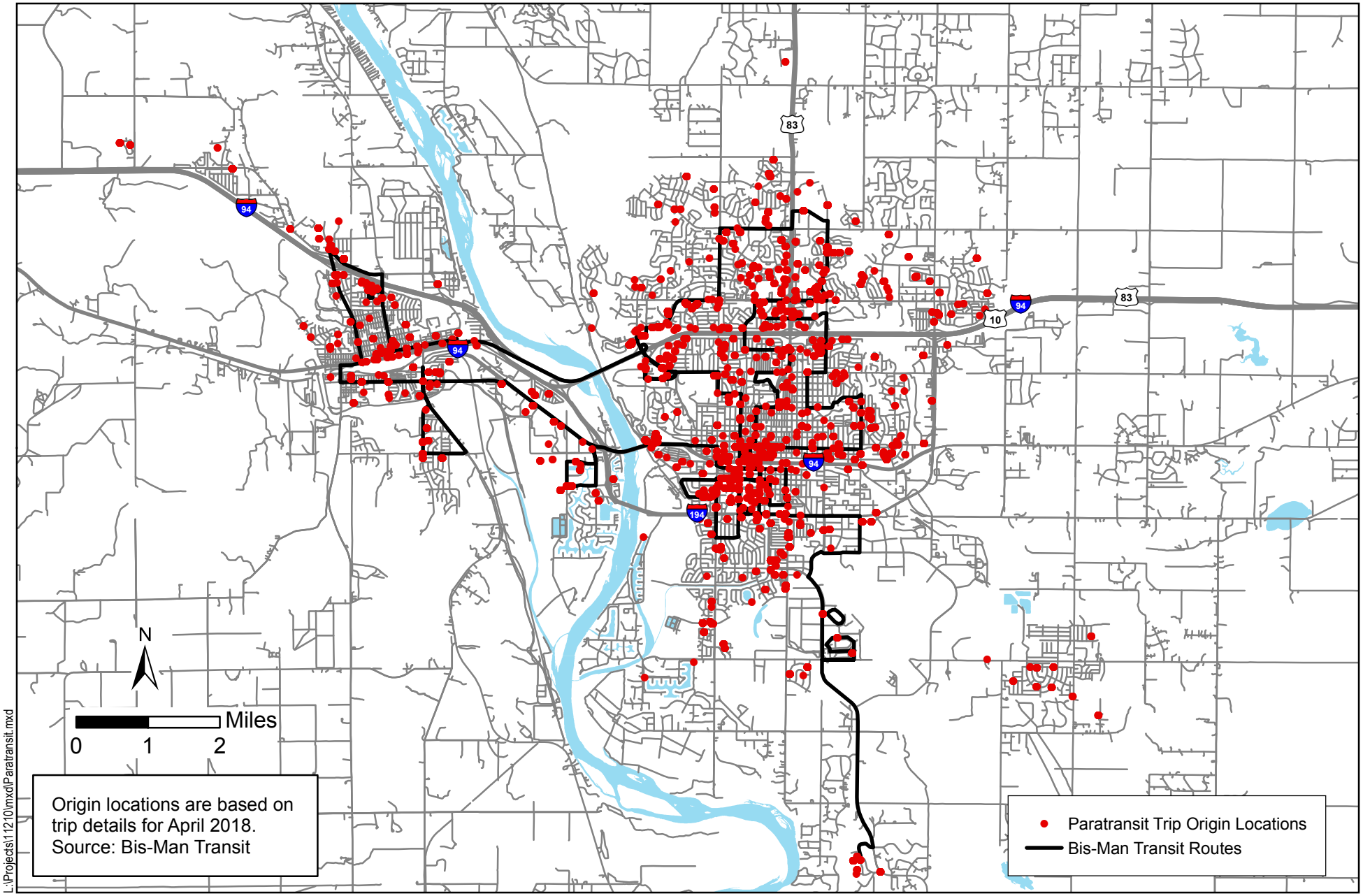
	April 2018			May 2018		
	Weekday (Average)	Saturday (Average)	Sunday (Average)	Weekday (Average)	Saturday (Average)	Sunday (Average)
Vehicles in Operation	15	9	5	14	10	4
Total Service Miles	2,201.34	998.43	481.91	2,059.29	1,017.83	425.27
Total Revenue Miles	1,963.50	879.24	430.10	1,818.89	842.75	384.42
Deadhead Miles	237.84	119.19	51.82	240.40	175.08	40.85
Total Service Hours	152.84	76.63	35.43	146.81	81.32	34.69
Total Revenue Hours	138.16	66.41	32.30	131.58	69.35	31.78
Deadhead Hours	14.68	10.23	3.13	15.22	11.97	2.91

Source: Bis-Man Transit from Ecolane report.

Key Trends in Paratransit Operations Data

The key trends and data about paratransit observed in April and May of 2018 are summarized as follows:

- Total revenue miles were the greatest during the weekdays (averaging between 1,800 and 2,000)
- Deadhead miles (travel time without anyone on board) were the greatest on weekdays and lowest on Sundays. Approximately 240 deadhead miles were observed each week in April and May.
- Deadhead hours were also the greatest during the week and lowest on Sundays. Approximately 15 deadhead hours were observed each week in April and May.
- In April of 2018, a total of 10,467 were taken on paratransit, out of which 1,272 (12 percent) occurred outside the fixed-route hours of 7 a.m. to 7 p.m. In addition, 1,257 (12 percent) trips were taken by senior (70 years or older) riders who were not certified with a disability. Out of the 1,257 non-certified senior trips, 112 trips were made outside the fixed route service hours. Though a portion of senior riders may also qualify for paratransit through a disability a maximum of 11 percent of the paratransit trips can be potentially made on fixed route network.
- As shown in Figure 27 and Figure 28, the trip origins and destinations of April 2018 paratransit trips are mostly near the Bis-Man fixed routes except some locations south of I-194 and in Lincoln.



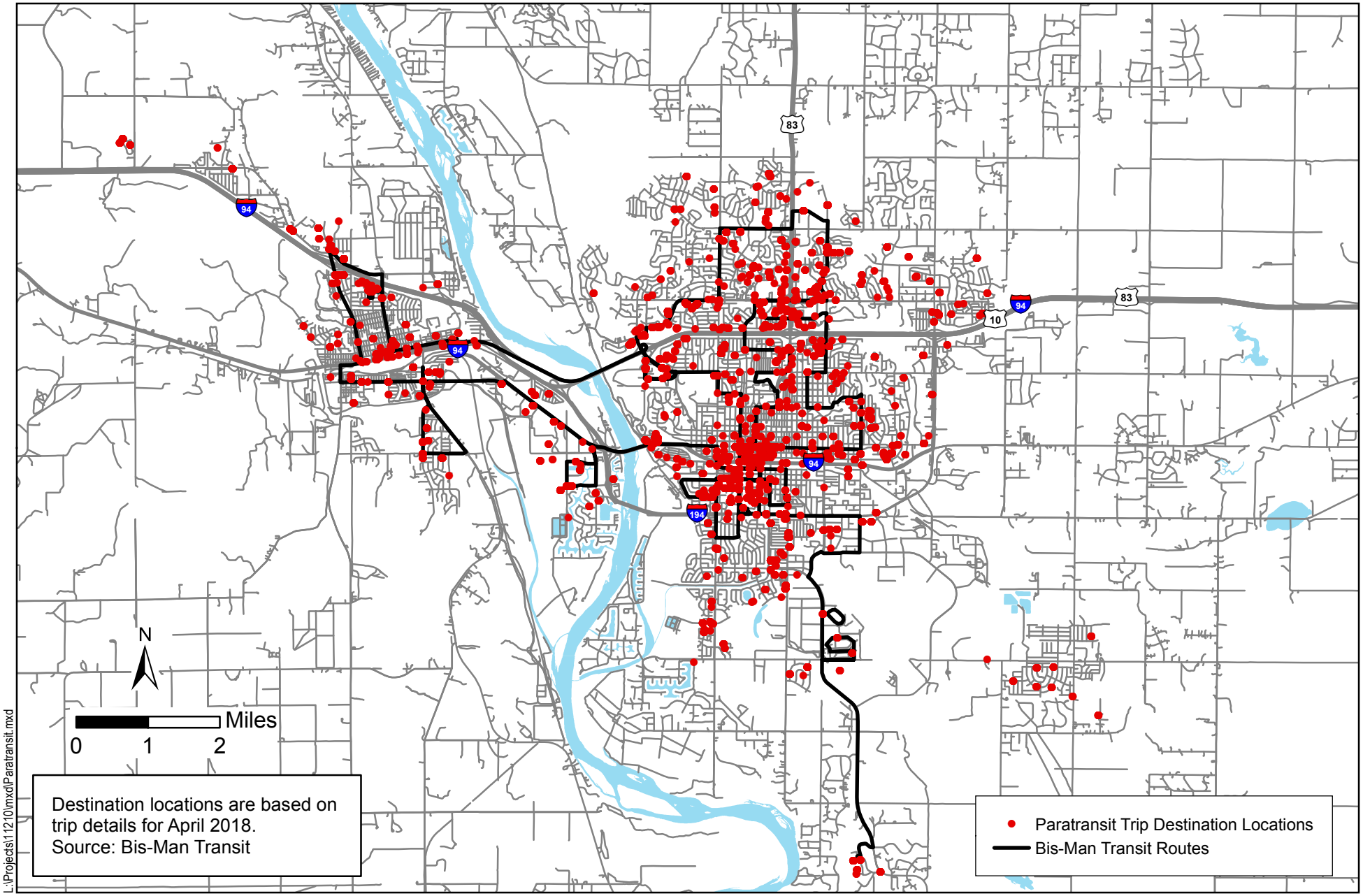
SRF Consulting Group, Inc.

Bis-Man Paratransit Trip Origins

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 27



SRF Consulting Group, Inc.

Bis-Man Paratransit Trip Destinations

Bis-Man Transit
Transit Development Plan

Note: Bis-Man Transit Fixed Routes are shown as of June 2018

Figure 28

Community Engagement

There were 3 main engagement efforts conducted as part of the Bis-Man TDP outreach plan: community survey, public meetings and personal interviews with stakeholders. The following sub-sections summarize the information gathered during each engagement effort.

Community Survey

This section includes the summary of the community survey prepared by SRF Consulting Group, Inc. on behalf of Bis-Man Transit. The outreach efforts were conducted by the staff from Bis-Man Transit, Bismarck-Mandan MPO and SRF Consulting on multiple dates and locations in the Bismarck-Mandan metro area.

The community survey consisted of questions about Bis-Man Transit's service and suggestions for improvement. The survey is an important part of the customer engagement efforts for developing a TDP for Bis-Man Transit. The survey was designed in both online and paper format for maximum outreach.

Survey Instrument and Schedule

Two online survey instruments were designed to include 5 common questions and 2 outreach specific questions.

The first outreach effort was conducted at the North Dakota Transportation Expo held at the Bismarck Exhibition Center on May 12th, 2018 where Bis-Man region residents were handed out cards with online survey link and QR code (Appendix 2. Community Survey Summary Report includes the survey instrument). Additionally, responses were also collected using a paper survey instrument (including 5 questions, as included in Appendix 2. Community Survey Summary Report). The first outreach generated 108 responses. The second outreach effort on May 19th at the Touch-a Truck event in Mandan used an online survey and generated 26 survey responses (Appendix 2. Community Survey Summary Report includes the survey instrument). Table 11 summarizes the survey outreach schedule.

Table 11. Outreach Schedule and Response Rate for Community Survey

Dates	Venue	Format	Responses
May 12	ND Transportation Expo, Bismarck	Online and Paper	108
May 19	Touch-a-Truck Event, Mandan	Online	26

Survey Findings

Transit User

The first question of the survey asked the respondents if they were a transit user. Based on both online and paper surveys out of 129 responses to the question, 25 percent were transit users.

Riding Frequency

When survey respondents marked themselves as transit users, the online survey instrument asked them a follow-up question about their frequency of use. Most respondents skipped this question and only 7 answered. Hence, answers to this question were not deemed appropriate to draw inferences for the population.

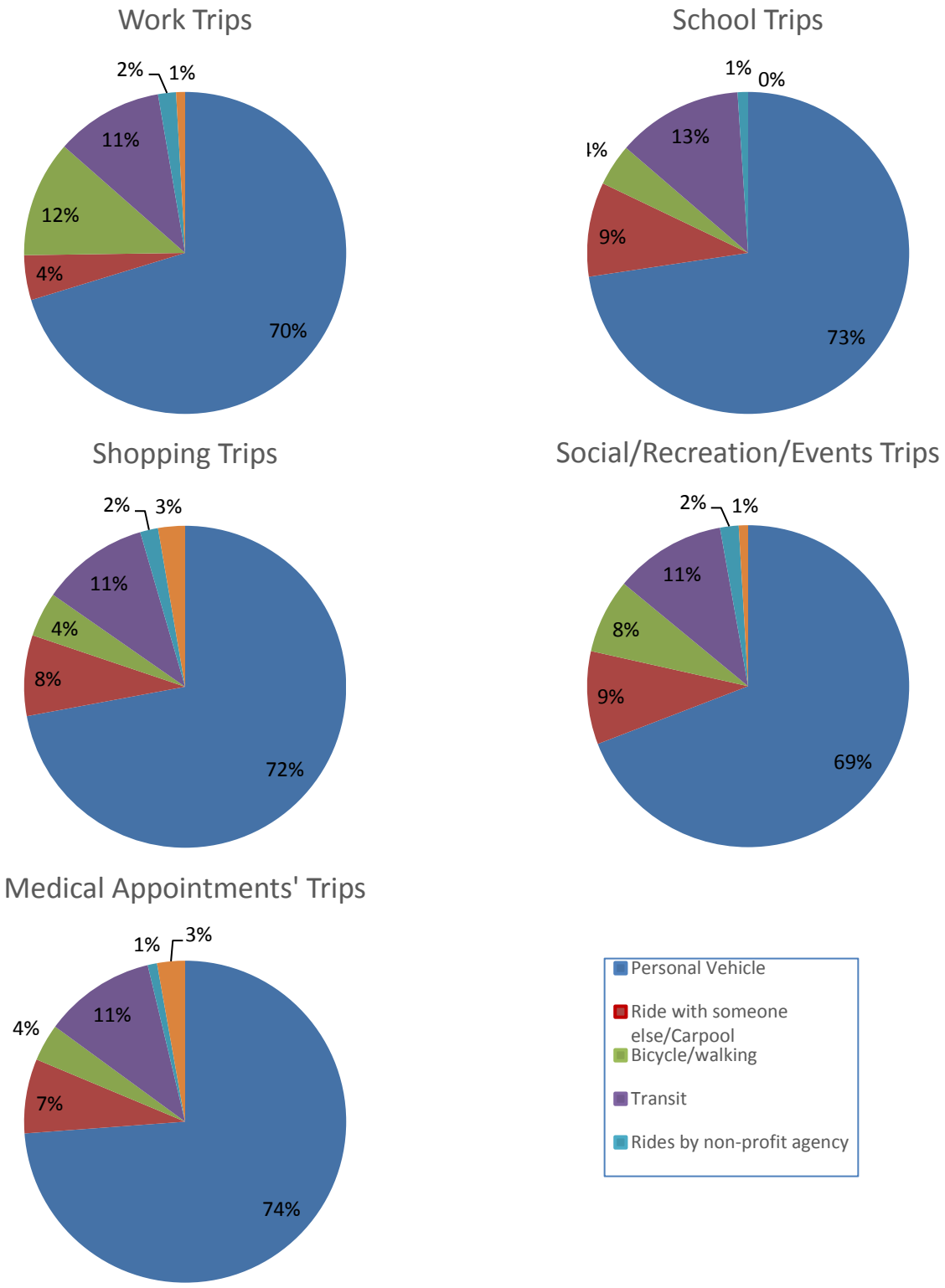
Bis-Man Transit and Capital Area Transit (CAT) Relationship

During the first outreach effort, it was generally observed that some community members were confused about the relationship between Bis-Man Transit and CAT. Hence, the survey instrument was revised before second outreach to include a question about the relationship between CAT and Bis-Man Transit. About 92 percent respondents (out of 24) of the question indicated that 'Bis-Man Transit and CAT are two parts of one public transportation system' while only 8 percent said, 'they are not related and operate separately'.

Primary Mode of Transportation

As shown in Figure 29, the primary mode of transportation is "personal vehicle" for about 70 percent of the trips. The share of "riding with others" mode is more for non-work trips while "transit" mode share is maximum for school or training trips.

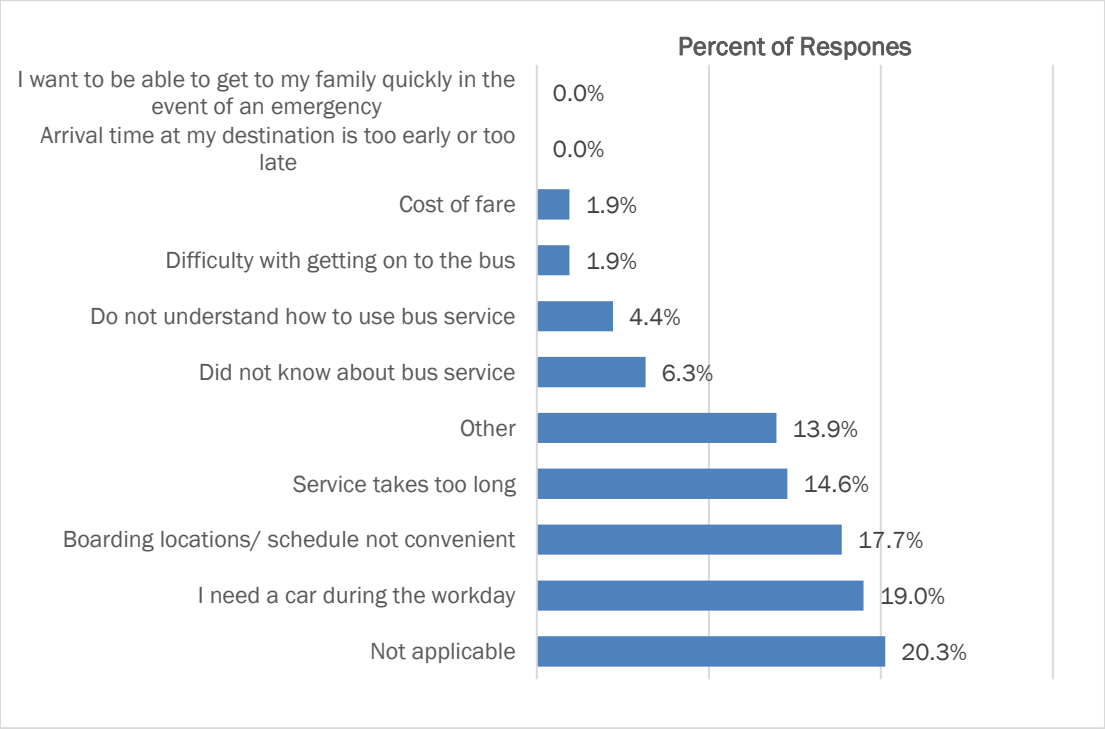
Figure 29. Primary Mode of Transportation by Trip Purpose



Barriers to Taking Transit

Two main barriers that were indicated by respondents were 'I need a car during the workday' and 'Boarding locations/schedule not convenient'. As shown in Figure 30, about 20 percent respondents indicated 'not applicable' as the barrier, with most of these respondents being non-riders. The question also included open-ended response section (list of open-ended responses is included as Appendix 2. Community Survey Summary Report).

Figure 30. Barriers to Taking Transit



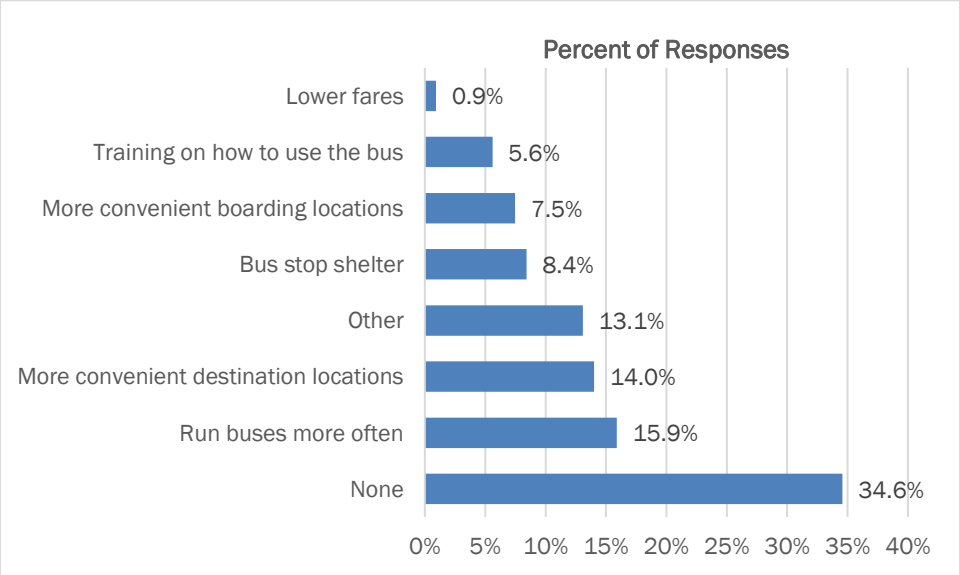
Transit Improvements

As shown in Figure 31, most respondents did not suggest any improvement to the existing service. Close to 15 percent of the respondents, indicated improvements were needed to 'more convenient destination locations' and 'buses running more often'. The question also included an open-ended response section (included as Appendix 2. Community Survey Summary Report).

Vehicle Availability

About 25 percent of the respondents lived in households with no vehicles, however, only a marginal share of these respondents were current transit users.

Figure 31. Transit Improvement Suggestions



Public Meetings

Three series of public meetings were held between July 2018 and February 2019. The public meetings were held on July 10-12, 2018, November 7-8, 2018 and January 29-30, 2019. These three series of public meetings provided an opportunity for the public to learn about the study and provide input regarding transit service and needs.

Information about meeting formats is outlined below:

- Meeting 1 – Transit Development Plan Overview and Current System Input. As this was the first real face-to-face discussion with the public, a presentation of the purpose and format for conducting the transit plan was provided. The presentation was followed with gathering input regarding what attendees believe transit service does well and where improvement is needed. Attendees were also give the opportunity to identify locations in the regional they would like to travel on transit but cannot.

- Meeting 2 – Alternatives. The second round of meetings were conducted as open houses, providing attendees opportunity to talk with staff at length about the range of ideas being reviewed to address issues with current service or opportunities for enhancement. Displays of each alternative being reviewed were provided for discussion. Attendees were also asked to "vote their preference" as to which of the alternatives were most important to them. Everyone was given a "bank" of coins reflecting a potential budget that would not allow all alternatives to be implemented. Results in the voting were incorporated into the selection of alternatives.

- Meeting 3 – Preliminary Recommendations. The meetings started with a presentation of how the preliminary recommendations were developed and concluded with a review of the proposed actions for a future scenario of continuing the current funding and a

scenario of enhanced funding. Displays of the alternatives were provided for discussion following the presentation.

Three public meetings were held during each series of public meetings, two in Bismarck and one in Mandan. All meeting times were setup during Bis-Man fixed route service hours. At all meetings, the accommodation for disabilities and/or language assistance was provided, when requested in advance. In addition, due to cold weather forecast during the third series of public meetings, a pre-recorded presentation video was made available on the plan website.

Summary of public meetings is included as Appendix 3. Summary of Public Meetings' Feedback.

Stakeholder Interviews

Several stakeholder interviews were held as part of the engagement plan. Synthesis of the interviews is included as Appendix 4. Summary of Stakeholder Interviews.

Mission, Goals and Objectives

Bis-Man Transit held Strategic planning meeting on November 14, 2015 to identify priorities and strategic goals for Bis-Man Transit. This chapter includes a summary of the identified goals and objectives.

Mission

"To provide high quality, reliable, convenient and safe public transit services in an efficient manner."

Goals and Objectives

Goal 1. Develop and implement comprehensive marketing plan.

Strategic Priority – Marketing
Objective 1: Evaluate use of technology to reach target markets.
Objective 2: Explore additional advertisement revenue streams.
Objective 3: Evaluate and recommend changes to brand identity.
Objective 4: Provide marketing activities to reach transit dependent communities, including non-technology users[7].

Goal 2. Design and implement a plan to improve operational efficiency of Paratransit.

Strategic Priority – Paratransit
Objective 1: Develop an action plan with timelines to achieve a balanced operating budget relative to revenue.
Objective 2: Implement the action plan.

Goal 3. Demonstrate effective and efficient use of staffing resources.

Strategic Priority – Human Resources
Objective 1: Evaluate staffing needs.
Objective 2: Develop organizational structure based on needs.
Objective 3: Develop policies and procedures.
Objective 4: Develop a succession plan.

[7] Non-technology users include riders with no or limited access to the online marketing portals, social media and websites.

Goal 4. BMT shall operate safe, ethical and compliant transportation system, fostering a culture of transparency and accountability, while adhering to federal/state/local regulations.

Strategic Priority – Compliance
Objective: Update policies and procedures
Objective: Adhere to federal/state/local regulations
Objective: Develop training for staff
Objective: Enhance safety training

Goal 5. Position BMT to be financially sound, to grow the system and to provide a valuable service to the community.

Strategic Priority – Fiscal Oversight
Objective 1: Develop and operate within budget.
Objective 2: Long-term Bus Replacement Plan
Objective 3: Cash reserves
Objective 4: Maximize advertising
Objective 5: Investment policy
Objective 6: Contract Management policy
Objective 7: Leverage industry and professional association memberships

Goal 6. Review and recommend fixed route system changes to achieve simplicity and efficiency.

Strategic Priority – Fixed Routes
Objective 1: Initiate task force to establish a hub.
Objective 2: Design and implement a plan to increase fixed rides.

Transit Service Plans – Immediate and Future

Recommendations for revisions to the current transit operating plan (defined based on the days, hours, routes, etc.) have been organized into the following:

- Immediate/Near Term Changes: These represent minor changes to the current route paths to address input received from riders, persons attending public meetings, and discussions with drivers. Change included in the list would represent a "revenue neutral" plan, which would not result in a measurable increase/decrease in the current operating parameters. The changes represent minor adjustments to address spot locations where access is poor or limited, where drivers have difficulty making turns, where service redundancies are present or where it is possible to get a route closer to a trip generator.
- One to Six Years Out: Recommendations for the system through the bulk of the six-year planning period have been organized into two alternate paths that are based on funding conditions. The alternate paths address conditions likely to exist if the current revenue and expenditures programs are followed or if additional revenue for transit operations is identified.

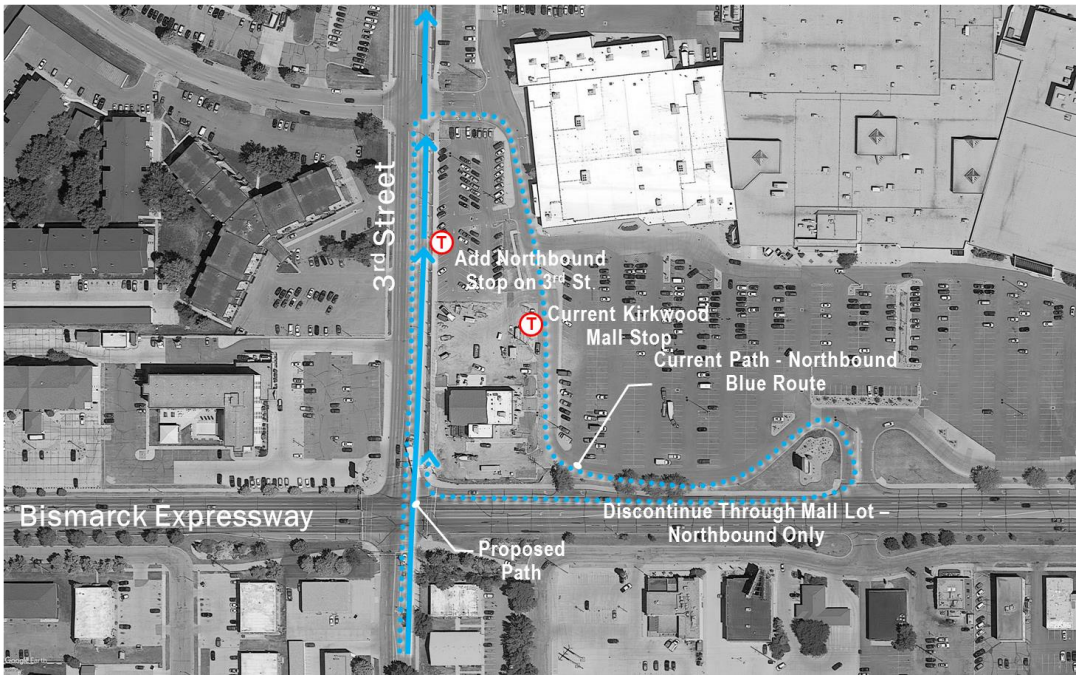
Immediate/Near Term

Minor changes to the current six route fixed route network were developed based on input received at public meetings, a community survey and discussions with drivers. This concept focuses on incorporating changes into the current operating plan without making significant revisions to the schedule, driver blocks and only minor changes to any route. Figure 32 and Figure 33 display the recommended immediate/near term recommended changes to the current fixed route network. Changes are outlined below:

- Brown Route (ND 1806-19th Street SE-8th Avenue SE Double Loop): Currently, the Brown Route covers the ND 1806-19th Street SE-8th Avenue SE loop twice per run. The time between trips through the loop is approximately 13 minutes. The proposed change is to travel through the loop only in the eastbound direction, which would connect people shopping at Dan's Supermarket with more direct access to their home with groceries.
- Brown Route 46th Avenue SE-McKenzie Drive-40th Avenue SE-21st Street SE loop. Run time along the route can be reduced, without substantially changing access to key stops by eliminating the 21st Street SE segment and running the route on 40th Avenue SE from 21st Street SE to Memorial Highway. Apartment buildings and employment stops along the route would have consistent walk access with the change, while run time would be slightly reduced.

- Blue Route: Proposed change eliminates several difficult movements required to get in and out of Kirkwood Mall. The change, displayed in Figure 32, affects only northbound travel, by eliminating the pull into the mall property. Buses would stop on 3rd Street adjacent to the current Kirkwood Mall stop, letting people off or boarding them at the curb. By eliminating the pull into and circulate through the mall parking lot maneuver, several minutes of travel time covering a very limited area could be avoided. Passengers would have less than 100 feet of additional walk distance and would not need to cross additional drive isles relative to the onsite stop.

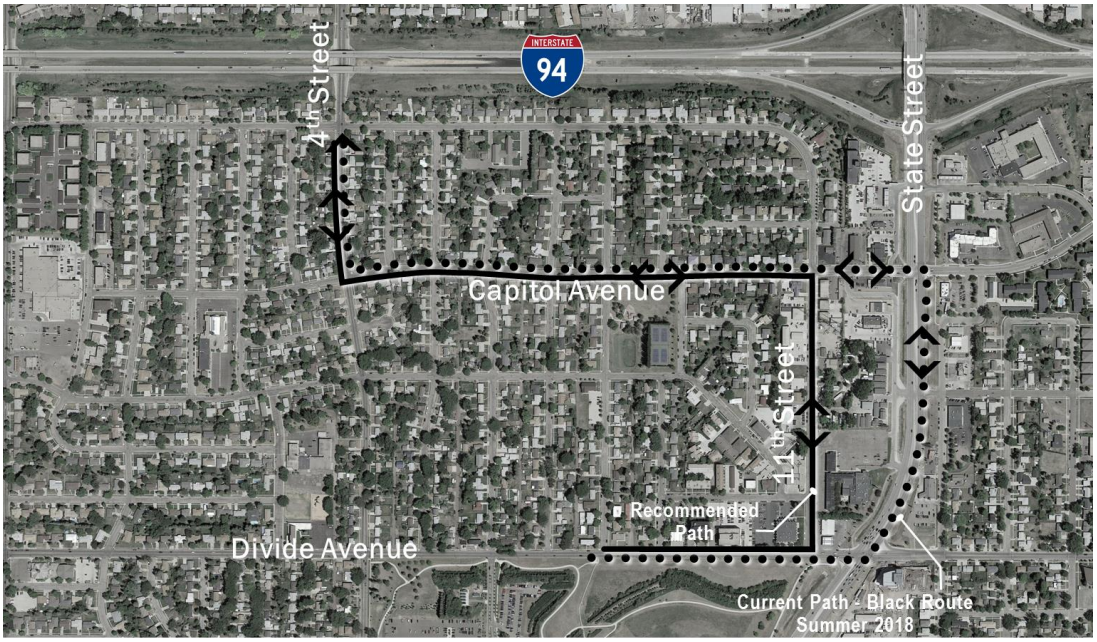
Figure 32. Northbound Blue Route Modification at Kirkwood Mall



- Black Route: The segment of the route on State Street from Divide Avenue to Capitol Avenue is designated as a No Stop area. As part of the transit plan update, a set of No Stop segment guidelines were developed, which would include this segment. As the State Street running segment is unproductive relative to boarding activity, the recommendation is to move the north-south segment of the Black Route to 11th Street between Divide Avenue and Capitol Avenue. Eleventh Street provides more direct access to several apartment buildings and office space that would likely improve the productivity of the segment.

  There may be concern about eastbound queues at Divide Avenue/State Street impacting the ability for a transit vehicle to make the left on to 11th Street. If the left turn becomes an issue, it is suggested the route be moved to 8th Street. Figure 33 displays recommended changes to the Black Route.

Figure 33. Recommended Immediate Term Black Route Modification



One to Six Year Recommendations

Through review of the historical annual revenue and combined annual operating cost and cyclical capital costs, it has been concluded the current condition of costs outpacing revenue is not a viable scenario moving forward. Over the last three years capital reserves have been used, in part, to fund service. Capital reserve funds have been used to offset declining revenue from key sources. Since 2017, approximately $500,000 per year were required from the capital reserves to fund service and capital improvements. The need to use funds from the capital reserve is due to:

- Variability in Federal Funding: Operating grants, determined by formula or competition, received for fixed route and paratransit service has fluctuates year-to-year. A significant element of the variation is whether system performance meets the thresholds of the Small Transit Intensive Cities (STIC) program. This program awards metropolitan areas of less than 200,000 population when service levels and/or performance meets or surpasses levels observed in the year for metropolitan areas of 200,000 to one million in population. Bismarck-Mandan typically competes for funding in two of the six categories, with revenue miles and revenue hours per capita being very close to the program threshold. Slight declines in either relative to the averages for larger metros can result in large swings in federal funding.

- Reduced State Funding: Since 2016 operating funding from the State of North Dakota has declined by approximately $150,000. State transit funds are allocated from the Highway Tax Distribution Fund and account for 1.5 percent of the entire fund. The tax fund is variable each biennium and in the last several years has been lower than the

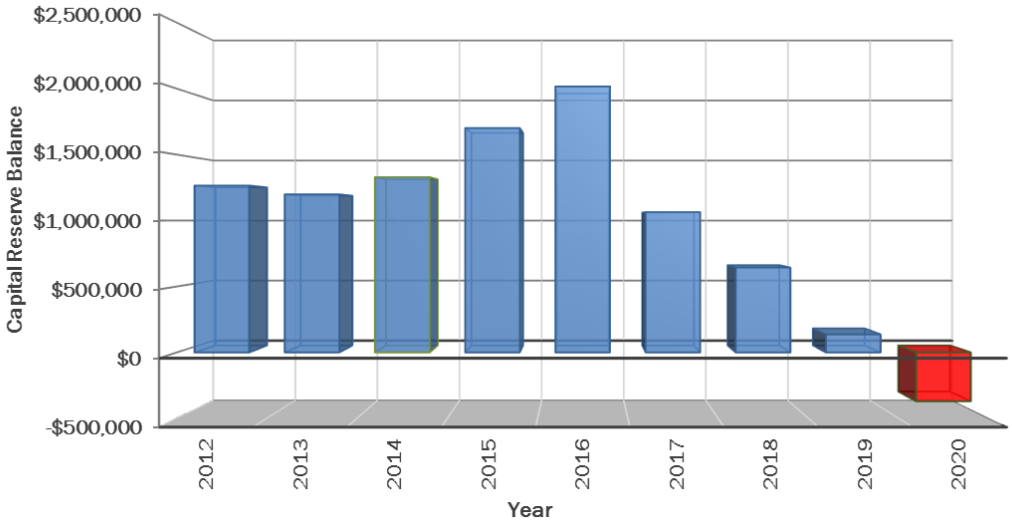
2012 to 2015 period tax fund. The reduction in the Highway Tax Distribution Fund results in a reduction in the funds allocated to communities for transit service.

The cumulative impact of these substantial differneces in funding is approximately 11 percent of the annual operating budget from 2016 through 2018, which is more than the amount that can be absorbed by any organization without considering or making service changes. In 2017, Bis-Man Transit made changes to fixed route miles and paratransit eligibility directed at reducing operating costs. The changes resulted in narrowing the revenue-to-expenditure gap from where it would have been, however, an annual negative balance of approximately $500,000 remains. This negative revenue condition directly influences the need to consider two paths for the future.

Two Possible Paths

Alternate future transit conditions in Bismarck-Mandan reflect whether the $500,000 operating deficit can be closed and whether additional operating funding can be located. If added funding cannot be found, by the end of 2020 the capital reserve fund will be depleted, which will require almost immediate action to reduce costs. Understanding the immediate negative revenue condition and the impacts on the capital reserve fund, Bis-Man Transit can take more deliberate steps to eliminate the revenue-to-expenditure gap. Figure 34 displays the reserve fund balance since 2012 and a projected deficit in 2020.

Figure 34. Historical and 2020 Projected Capital Reserve Balance



Alternatives for the future funding discussed throughout the TDP update are:

- No change in operations and funding: Continuing along the current path where annual operating costs exceed cumulative revenue and use of capital reserve funds to make up the deficit will exhaust the reserve fund sometime in 2020. As the reserve fund is intended to be the repository for funding significant purchases such as new vehicles or

other facility maintenance/repairs, depleting it not only removes a short-term source of funding to address an operating deficit, but it substantially impacts Bis-Man Transit's ability to maintain an acceptable state of good repair in the fleet and facilities.

This path will likely lead to the need to reduce costs by reducing service for fixed route, paratransit or a combination of both services to address the operating cost deficit. A path that results in the need to reduce fixed route and/or paratransit service is not the preferred path, however, identifying a series of options in the event added funding cannot be identified is the responsible action.

- Increase operating revenue: Relative to identified peers, Bis-Man Transit's cost of providing service measured using cost per revenue hour or cost per revenue mile is competitive. Comparing the dollars allocated to service on a per capita basis to the peers, it can be concluded that Bismarck and Mandan are investing less in service than most of the peers. Additionally, separating fixed route investment from paratransit investment it is observed that operating funds allocated to fixed route service are lower than most of the peers and operating funding for paratransit is higher than any of the peers. There is no formula or performance measure of how much a community should be allocating to each service. Once a community understands the level of investment, however, it can then make service decisions based on community values and perception of the benefits derived.

  Increasing operating revenue to a point beyond where the current annual operations deficit is eliminated, will allow the community to consider improvements to service for residents and workers who cannot or chose not to drive. This is the preferred path of proposed through this update of the transit development plan.

Service Concepts by Funding Path

Alternate fixed route and paratransit service changes, reflective of the two funding paths, were developed through the following:

- Analysis of the current conditions to focus changes to either lower producing elements of the system and/or to the most productive portions. If service reductions need to be implemented, it is important to try to minimize the overall system impacts by focusing on lower productivity areas. It is emphasized that decisions will not be made based solely on productivity but will also consider the population being served and alternatives available to them.

- Population being impacted in a positive or negative manner due to the change concept.

- Input provided by system users and non-users through public information meetings, discussion with staff and community leaders, and recommendations from the Transit Board.

- Review of the location of known travel activity generators (current and anticipated).

- Expectations of potential funding availability into the future.

This section describes service change options considered to support either of the future funding paths. With the information from this section, decision-makers will have critical inputs for decisions whether they are:

1. To reduce service as no funding increase is feasible, or
2. To increase funding and allow service expansion.

Service Reductions to Address Operating Deficit

Working with staff, options for service reductions that would reduce annual operating costs were identified and reviewed. Throughout discussions all participants viewed the identified options as having negative impacts on current users and the utility of the system to attract new patrons and support development within the community. Service reduction options are documented in Table 12.

Reducing service on either the fixed route network or for paratransit reduces the hours and/or miles of service provided, which can jeopardize the ability to compete for approximately $520,000 in federal funding awarded through the Small Transit Intensive Cities (STIC) program. While Bismarck-Mandan have been able to meet the award criteria in two categories for 2019, the margin over the threshold is small. A reduction in service substantial enough to close the operating deficit gap will jeopardize meeting the added funding qualification threshold in one or both categories, which impacts federal funding.

Due to the possibility of losing substantial federal funding, the service reduction recommendations should be considered as part of a more comprehensive funding plan. Small changes to service, such as reducing late night paratransit by one or two hours-which is a low-productivity period, could be a cost reduction element that complements a plan that focuses on increasing revenue and does not jeopardize competitive federal funding.

Service Enhancements If Added Operating Funding is Available

The need for transit service in Bismarck and Mandan has been identified by community leaders, residents, business owners, employers, human service agencies, and a list of other groups. While the need and desire for service has been universally expressed, there is still the need to provide the financial support to provide service that meets the community's needs.

Current service provides a baseline level of mobility for persons who cannot or chose not to drive. However, the one-hour to two-hour frequency and ending the service day by 7:00 PM does not provide travel options for persons working retail or second shift jobs or travel on Sundays.

Table 12. Fixed Route and Paratransit Service Reduction Options

Option	Description	Annual Operating Cost Reduction	Impacts
Convert Purple and Brown Routes to 120-Minute Frequency	• System changes implemented in 2017 added frequency (from 120-minutes to 60-minutes) to service in Mandan and Mandan-Bismarck connections. • Routes maintained as currently laid out. • Change schedule to 120-minute headway • Same bus provides service on each route – Supports interlining.	$235,000	Ridership on the combined routes will will likely decline approximately 40%. Estimated annual revenue miles decrease – 72,400 Estimated annual revenue hour decrease – 3,580 Decrease in revenue miles impacts one of two STIC categories ($260,000 in 2019) Fare Income Reduction Estimate - $6,000
Eliminate >70 Years Age Qualifier for Paratransit	• Persons 70 year or older do not need to complete the full paratransit certification process to be able to use the service. • Age is not an FTA qualifier for paratransit use. • The option is to eliminate the qualifier.	$196,000 The estimate reflects the current estimate of all trips by persons using the >70 years old qualifier and not completing the certification process. The amount reflects the maximum but it is anticipated that some riders would certify. Likely estimate is closer to $100,000.	Approximately 14 percent of paratransit riders use the >70 years qualifier option. Approximately 17,000 trips per year. It is likely a percentage of this population would certify for paratransit. Estimated annul revenue miles decrease – 36,465 Estimated annual revenue hour decrease – 2,600 Decrease in revenue miles impacts one of two STIC categories ($260,000 in 2019) Fare Income Reduction Estimate - $25,500
Reduce Paratransit Hours	• Eliminate paratransit service from 7:00 PM to Midnight on weekdays and Saturdays. • Brings paratransit hours more in line with fixed route hours. • Retain early morning (5:30 AM to 7:00 AM) paratransit service.	Weekday period: $88,500 Saturday: $13,900	Approximately 6% of paratransit ridership occurs from 7:00 PM to midnight. Approximately 8,700 trips per year. Estimated annul revenue miles decrease – 37,325 Estimated annual revenue hour decrease – 2,660 Decrease in revenue miles impacts one of two STIC categories ($260,000 in 2019) Fare Income Reduction Estimate - $26,100

The following pages outline service enhancements that would provide a system that better supports travel needs in the region. Each of the ideas are presented separately and include an estimate of annual operating cost and capital cost, as appropriate. They are presented individually as they can be mixed together in separate ways to create a range of benefits to the community. The likelihood of identifying funding to implement all options is small. (Appendix 5. Additional Service Concepts includes four additional concepts reviewed, but not included in the list of higher priority concepts/ideas for implementation if added funding can be found).

Each page describing an option provides the following critical information:

- Description of the option.
- Maps of the coverage, as appropriate.
- List of key benefits and challenges.
- Estimate of annual operating cost and initial capital cost.

The options are not presented in any order of preference or priority.

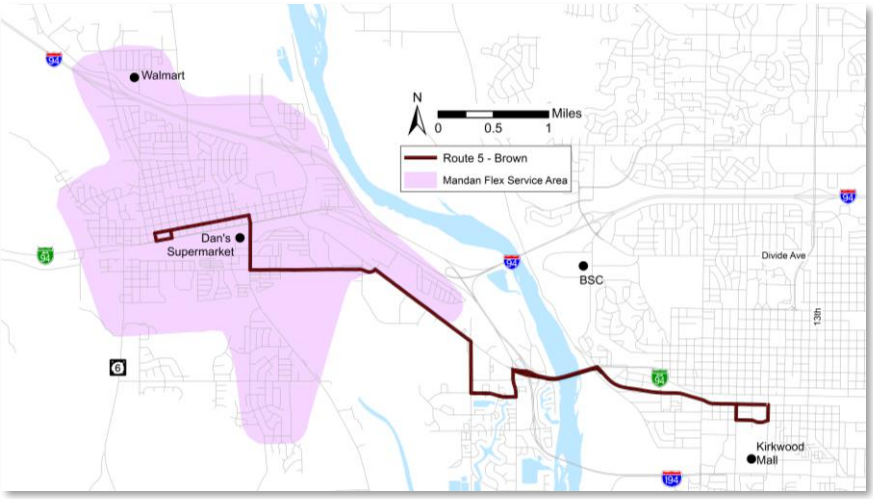
Mandan Flex Route

Annual Operating Cost Increment	
Revenue Neutral to Current	
Flex Route Alone	$212,900

Description

- Discontinue the Purple Route.
- Add a flexible (flex) route transit service within Mandan. The flex service is a call ahead/curb-to-curb transit service which provides transit service to the general public:
- Within a defined service area,
- Has a schedule (designated check-points at Mandan Walmart and Mandan Dan's Supermarket),
- Vehicle Needs: 1 paratransit-type vehicle
- Without a fixed transit route trajectory.
- Riders in flex zone can connect to Bismarck Downtown Transit Hub using Brown Route with a one-hour frequency (proposed transfer point at Dan's supermarket).
- No change in paratransit service to Bismarck.
- Consolidation of Mandan Flex Service and the Mandan-Mandan Paratransit trips

Mandan Flex Service and Brown Route



Potential Benefits and Challenges

Benefits	Challenges
• Provides service to higher density, lower income area (3.7 square miles of service area) • Curb-to-curb service • Connects directly to Blue Route • Mixed use of public transit and paratransit within the flex service area	• Cost

Northwest Bismarck Flex Route

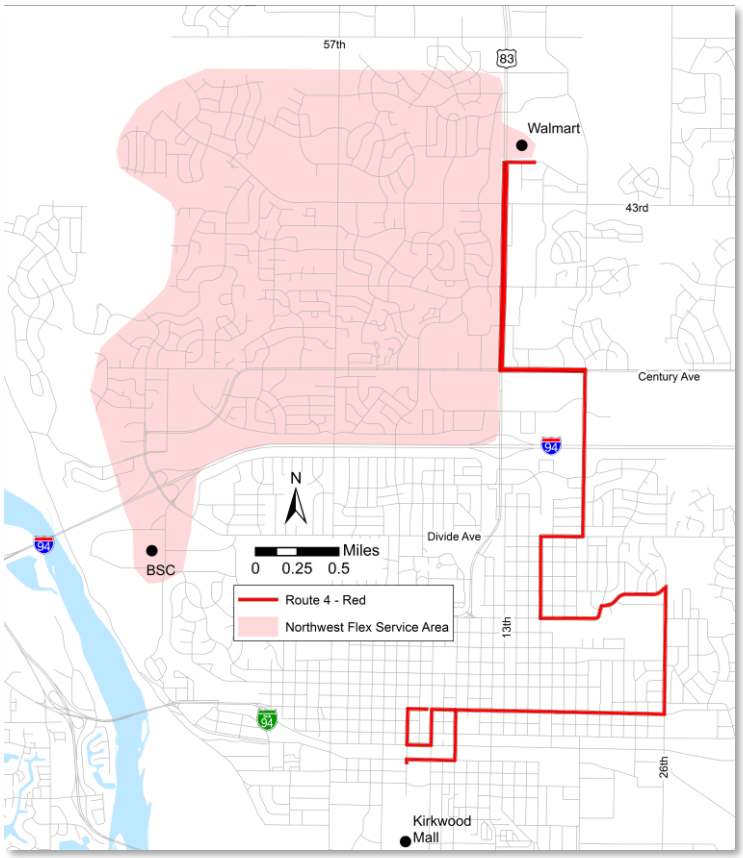
Annual Operating Cost Increment

$212,900

Description

- Discontinue west portion of Red Route (west of US Hwy 83).
- Add a flexible (flex) route transit service in northwest Bismarck. The flex service is a call ahead/curb-to-curb transit service which provides transit service to general public:
  - Within a defined service area,
  - Has a schedule (designated check-points at Walmart North and BSC),
  - Without a fixed transit route trajectory.
- Riders in flex zone can connect to Front Ave Transfer Center using Red Route with a one-hour frequency (proposed transfer point at Walmart North).
- No change in paratransit service in the area.
- Consolidation of Northwest Flex Service and Paratransit within the northwest flex service area.
- Vehicle needs: 1 paratransit-type vehicle

Northwest Flex Service and Red Route



Potential Benefits and Challenges

Benefits	Challenges
• Provides service to higher density, lower income area (3.7 square miles of service area) • Curb-to-curb service • Connects directly to Blue Route • Mixed use of public transit and paratransit within the flex service area	• Cost

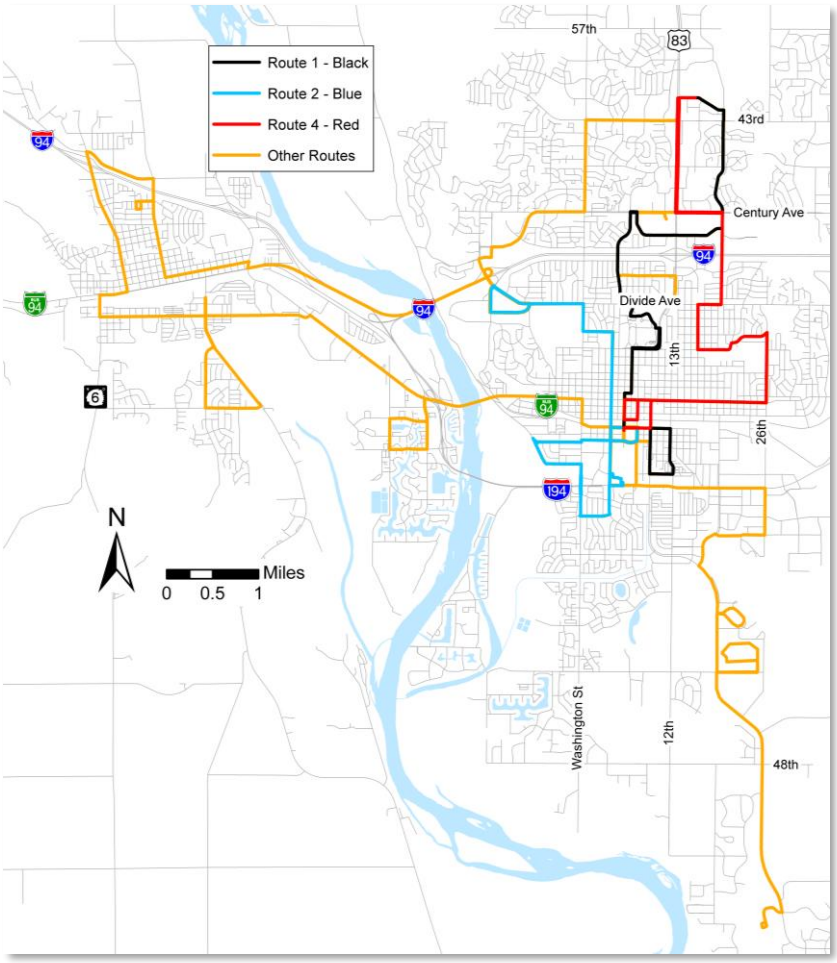
Strengthen the Core - Enhance Service Frequency

Annual Operating Cost Increment	
Upgrade 1 Route All Day	$170,300
Upgrade 2 Routes All Day	$340,600
Upgrade 3 Routes All Day	$510,900
Upgrade All 3 in AM/PM Peaks Only	$170,300

Description

- Core routes, Blue and Black, upgrade to 30-minute frequency on weekdays.
- Red Route upgrades to 60-minute frequency on weekdays.
- New vehicle requirement: 3 fixed-route buses (one for each route)
- Vehicle needs: Each Route Improvement – Add 1 bus to fleet
- AM Peak – 7 AM to 9 AM
- PM Peak – 4 PM to 7 PM

Service Frequency Improvements



Potential Benefits and Challenges

Benefits	Challenges
• Frequency improvement results in more utility and mobility for the riders. • Improves transit experience for riders by reducing the implicit fear of missing the preferred bus (since the next bus available in 30-60 minutes).	• Cost • The system may need additional capacity to accommodate increase in ridership to improved frequency.

Transit Center

Convenience and comfort are two of the most critical determinants of successful transit. Both characteristics extend beyond the on-board travel portion of a trip. Waiting areas and well-designed transfer locations are also critical to improving convenience and comfort. The current transfer hub along Front Avenue, does not support either of these characteristics.

Current Transfer Hub Location – Front Avenue

The transit development plan published in 2012 and the Downtown Bismarck Subarea Plan (2013) document the benefits of a downtown transit center and possible locations. The downtown plan location on Front Avenue between 5th Street and 6th Street provided opportunity to bring together fixed route transit service, taxis and ride hailing services, and multi-use trails into an integrated center.

Based on the current route network, a multimodal center at the transit hub location identified in the downtown plan provides a substantial benefit to transit riders. The downtown plan concept included a parking structure to replace the building on the western portion of the identified site. The inclusion of the structure is an important part of a financial plan for a transit center.

Bismarck Downtown Plan Transit Hub Concept (2013)

A 12 Bus Bays (40')
B Center Platform & Building
C CAT/Bis-Man Parking
D Taxi
E Rail Trail
F Rail Trail Ramp
G Stair to Underpass

Source: 2013 Downtown Bismarck Subarea Plan, City of Bismarck and Bismarck-Mandan MPO

It is unlikely that Bis-Man Transit would have the capital funding to construct a platform on the parcel within the early part of the six-year planning horizon. Thus, the concept for a center consistent with the downtown plan concept is included in the longer-term period, giving Bis-Man Transit and the city an opportunity to determine other uses on the site and locate capital funding.

Designated Fixed Route Stops

Properly spaced designated stops help improve overall reliability of the fixed route service as passenger are in defined location and stops are not bunched together as can occur with flag stops. Fixed bus stops allow a transit agency to better provide riders with information about the system, including:

- Schedules
- Route maps
- Information on all route serving the stops

This information is particularly helpful for attracting new riders to the system by making the network more user friendly.

In the near term, a study is recommended to develop design guidelines for helping staff to determine locations of stops, the level of stop amenities for each location, and the bus stop geometry. Developing stop geometrics is critical to ensure adequate room for buses to maneuver in and out of traffic is provided. The design guidelines should fully integrate ADA guidelines.

Capital Improvement Item Cost Estimate

As part of the TDP, estimates of the costs associated with replacing the fleet to maintain an acceptable state of good repair and other non-budgeted items. The capital projects list does not include vehicles required to support system expansion or enhancement included in the plan. Those costs are summarized with the alternatives discussion. Table 13 summarizes general capital investments.

Table 13. Six Year Annual Capital Investment Plan

Item	Period						Total
	2020	2021	2022	2023	2024	2025	
Vehicle Replacement							
Fixed Route Buses							
Total		$365,000	$365,000	$365,000	$365,000	$365,000	$1,825,000
Local Match Needed		$73,000	$73,000	$73,000	$73,000	$73,000	$365,000
Paratransit							
Total	$78,000	$156,000	$156,000	$156,000	$156,000	$156,000	$858,000
Local Match Needed	$15,600	$31,200	$31,200	$31,200	$31,200	$31,200	$171,600
Bus Stop Signage							
Total			$7,500	$7,500	$7,500	$7,500	$30,000
Local Match Needed			$1,500	$1,500	$1,500	$1,500	$6,000
Front Avenue Transit Center							
Total				$300,000	$1,225,000	$1,225,000	$2,750,000
Local Match Needed				$60,000	$245,000	$245,000	$550,000
Total Capital Need for Year	**$78,000**	**$521,000**	**$528,500**	**$828,500**	**$1,753,500**	**$1,753,500**	**$5,463,000**
Local Match Needed for Year	**$15,600**	**$104,200**	**$105,700**	**$165,700**	**$350,700**	**$350,700**	**$1,092,600**

Note: Figures in the table represent estimates of total capital costs. Federal grants would be requested for these improvements, which would typically fund 80 percent of the cost, with 20 percent being local responsibility.

Input on Service Change (Reduction/Enhancement) Options

The range of options for both future paths were presented at the third round of public information meetings in January 2019 and were the focus of a community input survey available from January 30 through February 22, 2019. Table 14 highlights responses/input received through the outreach efforts.

Table 14. Public - Community Leader – Staff Input on Service Options

Group	Service Reduction Option Comments	Service Enhancement Option Comments
Public Input Meeting Attendees	Do not reduce the level of paratransit service provided. Riders rely on the service for a majority of their trips.	Do not mix paratransit riders and proposed flex route general public riders.
Online Survey Input		Online survey had limited responses and each respondent was asked to rank the seven (prioritized and additional) service enhancement options. The average rank for 'Strengthening the core – Enhance Service Frequency' was highest. Average rank for 'South Bismarck Flex Route' was the lowest. Open-ended comments included improvements to fixed route without reducing paratransit and reducing walk/bike distance to bus-stops.
Bis-Man Transit Board	Revise the text referring to paratransit. Revise references to declines in federal funding. Adjust hours in references to paratransit relative to demand response. Revise potential cost savings from service reduction concepts.	
Bismarck City Commission	Do not reduce hours of paratransit service. Do not change 70+ year old paratransit use guideline.	
Mandan City Commission		Provide documentation of the likely operating funding request to close the gap to be requested from Mandan.
MPO Policy Board	Wil not support changing paratransit hours. Need to support employment What are benchmarks for useful life? Was bus capacity/size reviewed?	
MPO Technical Advisory Committee	No specific comments received.	

Additionally, the options and input received through the engagement process were reviewed with Transit Board members, City Commissioners from Bismarck and Mandan and the MPO Policy Board and Technical Advisory Committee. Input received from county commissioners from Burleigh and Morton Counties is also provided in the table.

Funding the Transit Plan

Avoiding a future that has reduced fixed route and/or paratransit services requires locating and accessing additional funds. Earlier chapters of the transit plan demonstrate that Bis-Man Transit's operating costs per revenue mile or hour are very competitive with peer systems. Thus, finding and eliminating expenditure inefficiencies will not yield large enough financial benefit to avoid service reductions or the need for increased funding. Additionally, recent experience in Bismarck and Mandan is that federal and state transit funding levels are stagnant at best; leaving local sources as the best option for addressing funding shortfalls.

During the transit planning process, several options for generating operations revenue were identified and discussed. Acceptable sources are those generating consistent funding each year, which reduces reliance on competitive federal and/or state grants. Bis-Man Transit continuously looks for grant opportunities. However, grants are much more logical and viable sources for capital improvements than for day-to-day operations.

Table 15 documents the range of alternative funding and enhanced funding sources reviewed as part of the transit plan. The table highlights the following for each:

- Potential Annual Yield: Yield equates to how well a funding opportunity can pay for an improvement alternative, as previously discussed. For example, adding a route or adding frequency to a route costs about $220,000 per year in operating costs. The low level of yield reflects an amount less than $220,000. Moderate yield reflects an amount approximately equal to the cost of implementing one of the improvements. High yield represents a level where two of the alternatives could be funded.
- Equity: Equity is a measure of the balance between who benefits from and who pays for the improvement. A high measure of equity assumes people benefitting are responsible for most of the cost burden. A low measure of equity would reflect an alternative where most of the burden is shouldered by people not directly benefitting.
- Ease of Implementation: This category is a measure of how easy or difficult it could be to implement a funding change. Alternatives that require referenda votes or changes in legislation are generally very difficult to implement. Those requiring support from the Commission are generally easier as long as there is a logical argument for the change

While there are secondary factors to discuss as a community reviews concepts to enhance revenue, the key points of the discussion are:

- How much revenue will the concept generate relative to the need.
- Are those benefiting from the service/improvement paying a fair share of the cost?
- Can the concept get enough support from residents and decision-makers to be implemented?

Table 15. Alternate Local Operating Revenue Concepts

Funding Enhancement Option	Evaluation Criteria		
	Yield	Equity	Ease of Implementation
Property Tax – Add to the current mill levy	Bismarck – Moderate Mandan - Low	Moderate	Low – Little/No support for increasing property taxes
Local Option Sales Tax	High	Moderate	Moderate
Utility Fees – Electricity/Gas/Water/ Communications	Low	Low	Moderate
Community Group/ Private Partnerships	Low	High	Moderate
Concepts Below: Not Supported for Transit in Century Code			
Transit Service Area Fee	Low-Moderate	High	Low – State action required
Parking Fees – Apply to public structures and/or a fee per space for new development	Low	Low-Moderate	Moderate – Fees might be dedicated to structure maintenance.
Uber/Lyft/Taxi Fees	Low	Low	High
Local Option Gas Tax	Moderate – Only one commodity; tempers yield	Low-Moderate	Moderate
Special Assessments on Property	Low	Low	Low – Perceived similar to property tax. Little/No support.
Wheel Tax – Fee on vehicle registrations in Bismarck or Mandan	Moderate-High	Moderate	Low – State action required.

Of the alternatives described in Table 15, a preferred alternative summary comparison relative to these three points is provided:

- Local Option Sales Tax: This option generally provides the greatest yield opportunity and more communities are seeing it as a politically palatable option. This has been especially true in regional centers like Bismarck and Mandan, as it can be argued that a portion of the burden is placed on people coming from outside the region, which

lowers the overall burden on full time residents. The concept has, however, been identified as a moderately regressive tax as lower income groups generally spend a greater portion of their income on good and services that collect sales tax.

- Wheel Tax: Of the options in the list, a wheel tax has the potential to generate enough revenue to allow implementation of many of the alternatives. While not used in North Dakota, many of the states in the region employ the concept to generate funds for transportation improvements, including South Dakota and Nebraska. While the alternative would need action by the state legislature, it could be a very favorable option to generate funding without placing a substantial burden on any group. With average vehicle ownership at approximately two per household for the region, a tax of $5 to $10 per vehicle could generate between $500,000 to $750,000 per year.
- Ride Hailing Service (Uber/Lyft) Fee: More and more communities are looking to ride hailing services as partners in providing service and sources of added revenue. From an ease of implementation perspective, this alternative is generally well-supported by local governments as a source of income. However, for communities the size of Bismarck and Mandan, the amount of funding that can be generated needs to be weighed against benefits provided. An estimate of the potential yield is likely less than $50,000.

Technology and Marketing

Bis-Man Transit recently upgraded their transit system technology. Updates include an automatic vehicle location (AVL) and computer aided dispatch (CAD) system, a traveler information system (RouteShout 2.0), and a scheduling and dispatching software (Ecolane) for their paratransit and demand-response service.

Real Time Transit Information

A CAD/AVL system provides real-time bus arrival information to passengers at specific stops along a route. Real-time information can help increase ridership by reducing customer anxiety, enhancing perceived service reliability, and presenting a more "modern" image of public transit, particularly among discretionary riders that could choose other means of transportation.

Traveler Information System

Bis-Man Transit uses Routematch as their traveler information system, which includes a mobile device application (RouteShout 2.0) and transit vehicle hardware for visual and audio travel information while on-board the vehicle. Android and Apple users can use RouteShout 2.0 to get a prompt heads-up about the real-time bus schedule, minimizing idle wait times. The mobile app can also be used to locate bus routes near the user.

Scheduling and Dispatching Software

Bis-Man Transit uses Ecolane, an automated real-time scheduling and dispatching software, for their demand-response and paratransit service. The software provides a logic-based schedule optimization for demand-response scheduling and dispatch. In addition, the software is capable of flex and fixed-route schedule lookup (with GTFS integration) which is likely to be helpful if flex services are added to Bis-Man Transit. The proposed flex service is expected to be consolidated with paratransit and demand-response service within the service area. Hence, Ecolane's capability to work with flexible route schedules makes it easier to accommodate additional dispatching and scheduling needs.

Fareboxes

An easily understood, convenient and hassle-free fare collection system is important for transit customers. Currently, Bis-Man Transit riders have a range of ways to pay their fare and ticketing options. Bis-Man Transit accepts cash fares for both fixed route and paratransit trips. In late 2018, the mobile pay option (using the Token Transit application) was added as an option, giving riders the opportunity to buy a one-way fare, a round trip fare or a multi-day pass. A key marketing tool for mobile pay is the ability of an individual

or an agency to send a single or multiple ride pass to another person. In many communities, this option is marketed to human services agencies and parents as a convenient way of buying a trip, or series of trips, for a rider without access to a bank account.

Riders show their mobile device to the driver who records the trip. While farebox add-ons are available to automate the mobile pay option, at this time the option is not cost-effective.

Bis-Man Transit Mobile Pay Posters and Mobile Device Ad

In addition to paying cash and mobile pay, riders have the option of purchasing a one-day or 30-day pass.

Autonomous Vehicles in Public Transit[8]

With recent research on Autonomous Vehicles (AV) and advances in technology, the following sub-section intends to explain the current state of the AV technology and how it is likely to affect the public transportation industry in the future. The information provided better informs the transit agency about the possible technology changes that can occur in infrastructure and transportation planning.

Technology Overview

"Autonomous vehicles are vehicles that are capable of intelligent motion and action without requiring either a guide to follow or teleporter control."[9] Although AVs can be used for undersea, space, air, water and land transportation, this section[7] is focused on land-based autonomous vehicles specifically used for public transportation purposes.

In recent times, autonomous vehicles (AVs) are considered one of the major technological advancement in the transportation sector. Advanced safety features in automobiles

---

[8] Majority of the content of this section is created using various online sources and the detailed literature review included in the Autonomous Vehicle Policy Guide for Public Transportation in Florida MPO's, Fall 2017 Studio Team, Florida State University. Available through APA, Florida Chapter.

[9] Lozano-Perez, T. (2012). *Autonomous robot vehicles*. Springer Science & Business Media.

significantly evolved between 2000 and 2010. These safety features include electronic stability control, blind spot detection, forward collision warning and lane departure warning. Since 2010, auto manufacturers have added several advanced driver assistance features to automobiles like rearview video systems, automatic emergency braking, rear cross traffic alert and lane centering assist.

Driverless vehicle technology awareness and public interest has increased since 2016 but there are some shifts in consumer sentiments based on crashes involving autonomous vehicles[10]. However, the partial automation safety features like lane keeping assist, adaptive cruise control, traffic jam assist and self-park, have been popular among the consumers with the consideration that such features help create better drivers. By a combination of software and hardware (sensors, cameras and radar) support, auto manufacturers are able to help drivers identify safety risks and provide warnings to avoid potential crashes. Hence, these smart technologies are helping to save lives and prevent injuries[11].

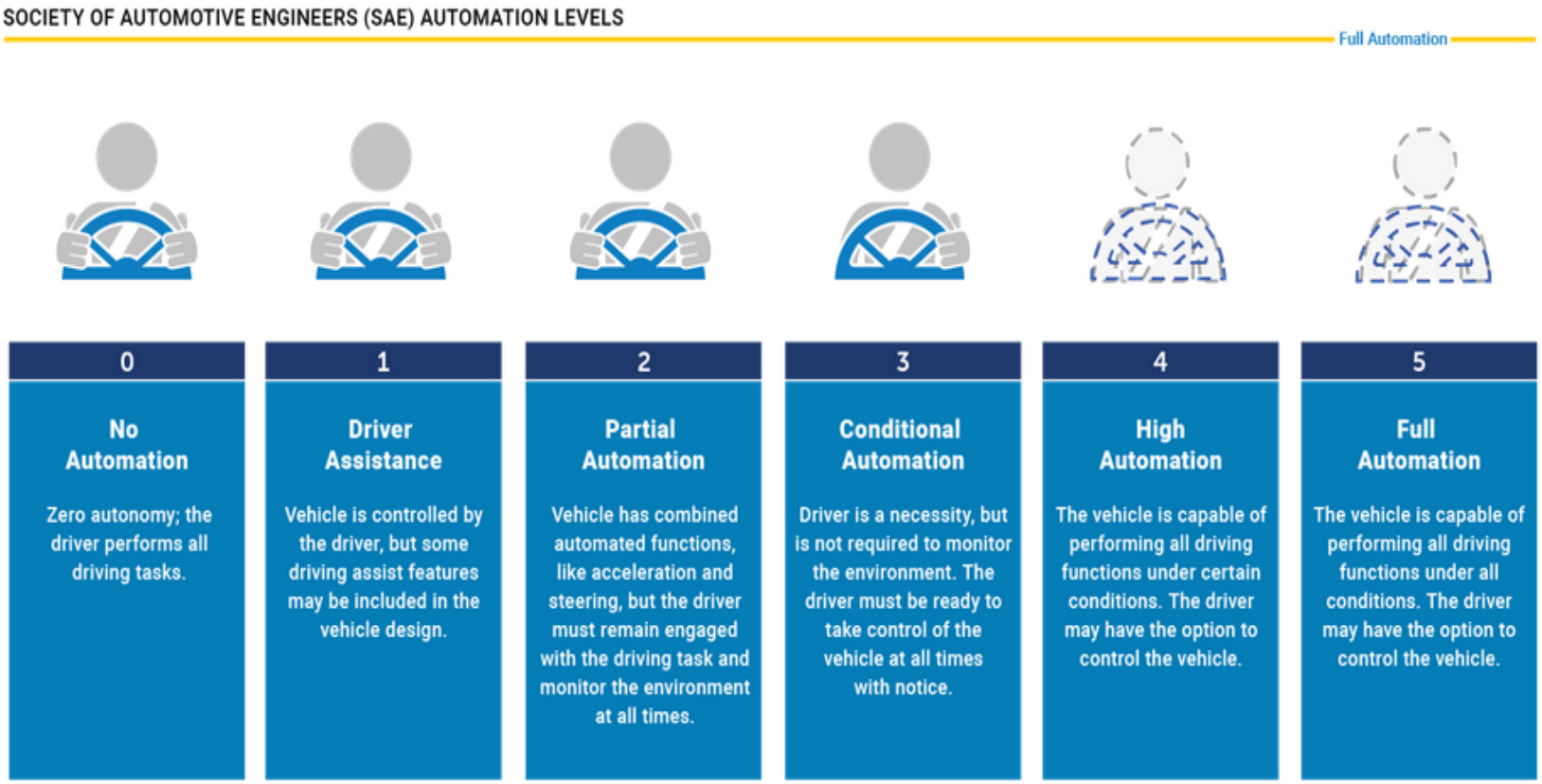
There are six levels of autonomous driving[12] as defined by the Society of Automotive Engineers (as shown in Figure 35).

Benefits[13]

- Safety: Since 94 percent of all crashes are due to human error, the safety benefits of AVs are paramount.
- Economic and Societal Benefits: Eliminating human-error crashes will get rid of the lost workplace productivity, loss of life and decreased quality of life due to injury.
- Efficiency and Convenience: Smooth traffic flow and reduced traffic congestion
- Mobility: For people who cannot drive due to disability or age-related factors, AVs can significantly improve their mobility allowing people to age-in-place and improve livability of communities.

[10] https://www.researchgate.net/publication/299745930_Societal_and_Individual_Acceptance_of_Autonomous_Driving & https://electronics360.globalspec.com/article/12572/consumer-acceptance-of-self-driving-cars-declining-report
[11] https://www.ucsusa.org/clean-vehicles/how-self-driving-cars-work#.XCos6TBKipo
[12] https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#issue-road-self-driving
[13] https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#issue-road-self-driving

Figure 35. AV Automation Levels



Challenges[12]

Other than the most common challenge of societal acceptance and perception associated with any new technology, challenges associated with AVs include costs, safety (AV and human driver), system failures, ethics, liability and legal considerations, security, data privacy and travel and infrastructure issues. Additionally, as implementation of the concept will require years, if not decades for a substantial integration, regulatory and policy documents need to account for mixing autonomous and human driven vehicles in urban and rural environments. Since the AVs use machine learning and artificial intelligence as their learning methods while functioning, they are continuously collecting data from their surroundings, which presents challenges associated with algorithm robustness, data privacy and security.

The North Dakota legislature has been debating the AV concept for the last two sessions, with the primary outcome being direction to conduct a study regarding potential autonomous vehicle regulations. The study will form the basis for anticipated future legislation regarding introduction of automated vehicles.

AVs in Public Transit

The previous section covered the general benefits and challenges of AVs, however it is also important to assess the benefits and challenges associated with AVs in public transit. Wilmot and Greenword (2016)[14] state that public transit, dedicated freeway lanes and parking are ways to introduce the AV technology in a fixed setting. The following sub-sections explain the various factors associated with AVs in public transit.

Mobility

AVs in public transportation is likely to significantly improve the mobility of people by gradually improving the accessibility for riders. Starting with short, closed-loop applications, expanding to on-demand branched-routing applications, then robo-vehicle go-anywhere networks (taxis, vans, mini-buses), AVs allow better access than traditional public transportation systems.

Workforce Considerations and Labor Agreements

The adoption of AVs in public transportation vehicles at partial, conditional or high automation levels is likely to require the drivers to possess a wider-ranging skill-set than traditional drivers. The driver duties could include supervising passenger transfer; operating the vehicle to and from storage locations or maintenance depot; and the detection and management of emergency situations. However, to make transition to AVs, labor unions

---

[14] Wilmot, C. Greensword, M. (2016) Louisiana Transportation Research Center – Investigation into legislative action needed to accommodate the future safe operation of autonomous vehicles in the state of Louisiana. Louisiana Transportation Research Center. Url: https://www.ltrc.lsu.edu/pdf/2016/FR%20571.pdf

will need to be involved to account for changes in job duties for staff using autonomous technology. To some extent, the public transit employee federal protection laws provide for the preservation of jobs and will be critically important to review before AV technology adoption (Gettman et al., 2017)[15].

Land-use

Heinrichs (2016)[16] states that autonomous transit systems may change the urban fabric differently than autonomous private cars. Anderson et al (2016)[17] suggests that the adoption of autonomous vehicles for public transit could lead to urban centers being denser, thus decreasing the amount of space used to park vehicles. Fully autonomous vehicles could potentially drop off passengers into urban cores and then drive to satellite parking areas.

ADA Compliance

ADA compliance is usually taken care of by bus operators. The current design for AVs is accommodating to ADA individuals but cannot guarantee smooth operations if the rider is unable to understand the instructions. However, other than fully autonomous vehicles with no likely presence of human, human drivers on-board the vehicle can assist with ADA compliance.

Funding Constraints and Liability

Major challenges include funding constraints, liability of transit agencies, and the general acceptance of the new technology by industry professionals, system operators and the public.

Planning and Partnerships

Long range transit planning and regional planning/coordination must consider future AV technology deployment and favorable infrastructure and land-use decisions for the same. Moreover, due to the many challenges facing local transit authorities within their respective MPOs - from decreasing ridership to funding - it will be imperative to have P3s, or public-private partnerships, for adopting the AV technology. Partnerships can start with addressing first mile – last mile connectivity and fixed route gap coverage issues. The

---

[15] Gettman, D. Lott, J.S. Goodwin, G. Harrington, T. (2017) Impacts of Laws and Regulations on CV and AV Technology Introduction in Transit Operations. National Cooperative Highway Research Program; Transportation Research Board; National Academies of Sciences, Engineering, and Medicine

[16] Heinrichs, Dirk (2015). Autonomous Driving: Technical, Legal and Social Aspects. Ladenburg, Germany: SpringerOpen. 213-231. Available from https://link.springer.com/book/10.1007/978-3-662-48847-8

[17] Anderson, J. Karla, N. Stanley, K.D. Sorenson, P. Samaras, C. Oluwatola, O. (2016) Autonomous Vehicle Technology: A Guide for Policymakers. Rand Corporation. Available from: https://www.rand.org/pubs/research_reports/RR443-2.html

NCHRP report created the following suggestions for transit agencies (Gettman et al., 2017)[18].

- Develop or revise long-range plans to consider changes in definitions and language
- Identify opportunities and threats posed by AV
- Identify potential strategies for managing the changes
- High frequency BRT
- First/last mile applications
- Conventional fixed route system
- Public Input
- Explore partnership options

Safety and Compliance

The National Highway Traffic Safety Administration (NHSTA) has been given the responsibility to address the following concerns regarding the safe and agreeable adoption of AVs[19].

- Setting Federal Motor Vehicle Safety Standards (FMVSSs) for new motor vehicles and motor vehicle equipment (with which manufacturers must certify compliance before they sell their vehicles)
- Enforcing compliance with FMVSSs
- Investigating and managing the recall and remedy of noncompliance and safety- related motor vehicle defects nationwide
- Communicating with and educating the public about motor vehicle safety issues

State governments are responsible for addressing the following concerns:

- Licensing human drivers and registering motor vehicles in their jurisdictions
- Enacting and enforcing traffic laws and regulations
- Conducting safety inspections, where States choose to do so

---

[18] Gettman, D. Lott, J.S. Goodwin, G. Harrington, T. (2017) Impacts of Laws and Regulations on CV and AV Technology Introduction in Transit Operations. National Cooperative Highway Research Program; Transportation Research Board; National Academies ofSciences, Engineering, and Medicine

[19] NHSTA, Automated Driving Systems 2.0: A Vision for Safety

- Regulating motor vehicle insurance and liability

Funding and Acquiring AVs

Funding Options through NHSTA include

- Emerging technology and autonomous vehicle testing and pilot programs
- Advanced Transportation Congestion Management Technologies development (ATCMTD)
- Fixing America's Surface Transportation (FAST) Act

Here are some key findings for transit agencies looking to add AVs to their fleet:

- Retrofitting is a financially viable option compared to buying a new autonomous bus or shuttle.
- An electric bus will be necessary for compatibility and economic efficiency to transition to an autonomous bus.
- Retrofitting is done mainly for freight semi-trucks, but bus manufacturing companies are applying this to buses.
- Fully automated buses are nearing the end of real world testing and will be on the market soon.
- Autonomous buses will be very expensive to buy or lease.
- Shuttles have about a 12-person capacity with an average max speed of 25 MPH and have undergone more extensive testing than buses.
- Shuttles are currently estimated at $250,000 to lease.

Short term and Long-term Strategies for Adopting AVs

Most leading car manufacturers plan on releasing self-driving car models by 2021[20] and Transportation Network Companies (TNCs) like Uber, Lyft, Via, Chariot and Waymo are already using driverless taxis in their fleet (just with drivers in them). Table 16 shows the short-term and long-term strategies.

Table 16. Short-term and Long-Term Strategies for Adoption of AV Technology

Short-term Strategies	Long-term Strategies
• Establish an AV testing bed within jurisdiction(s) • Choose the type of transit to be deployed • Decide the level of automation that should be tested • Select a vendor • Decide whether to buy or lease vehicles • Secure funding • Conduct public participation initiative to establish buy-in and educate the public • Set up a system of payment • Ensure that state and federal safety regulations are met • Designate an agency to license vehicles and establish this procedure	• Update infrastructure • Make sure that all vehicles/ stations/ operators/ etc. are ADA compliant • Have a workforce development plan for loss of bus driver jobs • Designate a lead agency/ stakeholder group to handle questions and decisions that arise • Develop an emergency action plan for potential cyber security breach • Incentivize development around AV service area

Marketing Strategies

Short and long-term marketing strategies have been identified not only to increase community awareness for transit service, but to increase use. These initiatives are aimed to promote transit service by engaging the community in ways to encourage use of the system. Since limited budget is available for marketing efforts, a menu of strategies is provided to allow choices to take advantage of partnership opportunities or additional funding that may become available.

Short-Term Marketing Strategies

Immediate, focused short-term marketing efforts can re-energize any brand. In coordination with recommended service changes, some short-term marketing strategies are presented below. These strategies are recommended to be implemented to support service changes to Bis-Man Transit as well as improve the visibility of the service within the community as a way to increase potential ridership.

[20] https://www.just-auto.com/analysis/all-those-in-favour-of-avs-say-ai_id182611.aspx

Tagline Marketing Campaign

Within the service area there is a divided perception that paratransit and fixed route service are operated by entirely different organizations. When fixed route service was implemented in 2004, it was branded as Capitol Area Transit (CAT) as a means of building a brand. That brand building has worked, but in the process the connectivity between fixed route and paratransit has been somewhat lost. Bis-Man Transit should engage in developing a new or modified tagline line that retains the identify of both services, however, ensures that users and non-users understand both are operated by one agency and in a coordinated manner. Essentially, you cannot have one without the other.

Bus Stop Information and Amenities

An opportunity for Bis-Man Transit for expanding information is to distribute the Rider Guide and Route Map brochure to more locations, including shelters. It is suggested that a six-month campaign of distribution and monitoring, noting how many brochures are actually taken at each location, be completed. Tracking should be done to note percentage completion of this effort so that this can be communicated to stakeholders.

Flag stops are the most prolific type of bus stop in the system; however, flag stops often do not contain information on which routes or served by the service. Updating key flag stops to include easy to access information on routes served, sources for obtaining real time bus information via mobile phones, and customer service numbers will enhance the visibility and ease of use of the service for both existing and potential riders.

Website and Mobile Application Improvement

Internet and technology focused marketing are essential to the growth of any business. A website is the face of a company or agency and is the first place many people look for information on services offered. Bis-Man Transit has an active website and social media

Sample Smartphone Transit Applications

Source: Dallas Area Regional Transit

accounts, as well as a mobile application to track bus locations. Table 17 highlights key statistics for activity on www.bismantransit.com.

One capability recommended to add to each is the ability to purchase tickets and/or passes for using the system (both fixed route and paratransit). This feature will allow Bis-Man Transit to offer alternative payment options, but may require farebox upgrades. Mobile fare payment has the advantage of speeding up the fare collection on the buses to allow for faster travel times and improved reliability. The smart phone payment is designed to complement the cash fare system and offer options to riders.

Table 17. Bis-Man Transit Website Activity Statistics (October 2018-January 2019)

Descriptor	Activity Level
Monthly Visitors	1,400
Average Page Views	2.7 Per Visit
Average Session Time	2:30 Minutes
10 Most Viewed Pages (Percent of total viewed pages)	Home Page – 21.2% Routes/Schedules – 20.9% Black Route – 4.99% Red Route – 4.81% Procurement – 3.48% Purple Route – 3.10% Schedules – 3.05%

Long-Term Marketing Strategies

Long-term marketing strategies are meant to consistently remind the customer about a brand and entice them to continue purchase those services. The following long-term marketing strategies are recommended for Bis-Man Transit to maintain and expand their ridership base into the future.

Partnerships with Local Businesses

Partnerships with local businesses have been commonly used by transit systems to promote transit ridership. For example, businesses could partner with Bis-Man Transit to advertise and provide discounts for customers that use transit to get to the store. Businesses can provide their employees with bus passes to commute to and from work as a benefit of employment. Local businesses can also purchase advertising space on the Bis-Man Transit website, on vehicles (which is done today through wraps), at bus stops, or at a future transit center. Developing strong relationships with the local business community can not only help to maintain current ridership, but attract new riders by offering incentives to use the transit system. It is recommended to approach and discuss developing partnerships with the local business community on an ongoing basis.

Community Outreach Activities

Community outreach is a good way to increase the visibility of a business. For a transit agency, it is a way to increase awareness of the services provided and potentially attract new ridership. The relationships that drivers have built with their riders is a vital component of community outreach. In addition to continued excellent customer service, it is recommended that Bis-Man Transit continues to participate in and organize community outreach events to promote the brand. The following ideas have been used for potential community outreach activities:

- Providing maps and schedules at community gatherings is an inexpensive way to advertise.
- Organize 'Free Ride Days' where all rides are fare free for one day. This type of outreach program will encourage new riders to try the system at no cost and may result in return customers. Developing partnerships with local businesses could result in a sponsorship of a 'Free Ride Day' that could benefit Bis-Man Transit as well as the local economy.
- Organize a 'Stuff the Bus' event. 'Stuff the Bus' is an event where the community is encouraged to deliver donated, non-perishable items to a bus in a specific location on a specific day. The items collected will then be delivered to a local charity of choice and is a good way to engage the community with the local transit system. Bis-Mn Transit could opt to give a free ride pass to people who make donations as a way to encourage participation and attract new riders. Community outreach events should be scheduled in conjunction with other community activities or celebrations. Engaging in community activities will improve the awareness of services provided by Bis-Man Transit.

Educational Campaigns

One of the findings in reaching out to stakeholders that may not currently ride the bus service is that often their exposure to the service was established early on by parents or through other means of being exposed as young children to the public transit system. An idea for exposing children to service could include holding a contest for designing a bus wrap. Small education-related awards or incentives could be provided to the winning group.

Campaigns used in other communities include educational outreach campaigns by working with city, county, and state agency partners on "Take Your Child to Work Day", "Mobility Week" and/or "design your bus shelter contest" types of campaigns.

Steps to Implementation

Some primary next steps are provided and summarized below.

Establishing a Budget and Schedule

This task can be conducted in the near-term and should be updated annually as budgets are established for the year ahead. Tasks to include/consider are:

- Pricing out proposed strategies identified above and identify a prioritized list that best suits local needs.
- Establishing a proposed marketing budget (typically at least 1 percent of operating budget) over the next five years.
- Review Transit Development Plan strategies and identify additional marketing needed to coordinate with planned improvements.
- Develop a schedule for implementation of strategies and identify key steps and milestones for implementation.
- Develop a set of performance measures for the marketing campaign, such as the number of pieces of information distributed, website visits, outreach presentations made, etc.

Identify Marketing Staff

This step includes internal identification of internal staff as well as external partners for marketing. Key steps include:

- Identify the main point of contact internally for different tasks that will be performed in carrying out the marketing plan for the year.
- Allocating time dedication needed for performing tasks to understand staff resource hours needed on a month to month, quarterly and annual basis.
- Identify gaps in resources to understand what skills and staff time dedication is needed.
- Coordinate with Bismarck State College, United Tribes Technical College and University of Mary to establish internship programs that could bring cost-effective labor and creativity to marketing tasks.

Appendices

Appendix 1. Route Profiles

Appendix 2. Community Survey Summary Report

Appendix 3. Summary of Public Meetings' Feedback

Appendix 4. Summary of Stakeholder Interviews

Appendix 5. Additional Service Concepts

Appendix 6. Additional Written Comments

Appendix 7. Additional End-of-Study Deliverables

Appendix 1. Route Profiles

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

Appendix 1. Route Profiles

Route 1 Black

This route operates north-south and serves the city of Bismarck. The route provides one hour frequencies and runs between 7:00 am and 6:55 pm. Access to major travel destinations include, downtown Bismarck, the State Capitol building, the Bismarck Veteran's Memorial Library, and the Front Avenue Transit Shelter. It travels past North Central Park, the North Dakota Heritage Center, and through downtown Bismarck, among other locations in central Bismarck. Route 1 travels approximately 7.3 miles in one direction and uses one bus.

Key Destinations (see Figure 1)

A. Front Avenue Transit Shelter
B. Cashwise Foods
C. Library (Bismarck Veterans Memorial)
D. Capitol Building
E. Gateway Mall

Route Schedule

Table 1 provides a schedule for Route 1, including timepoint locations along the route. The only designated stops are located at Front Avenue Transit Shelter and Gateway Mall.

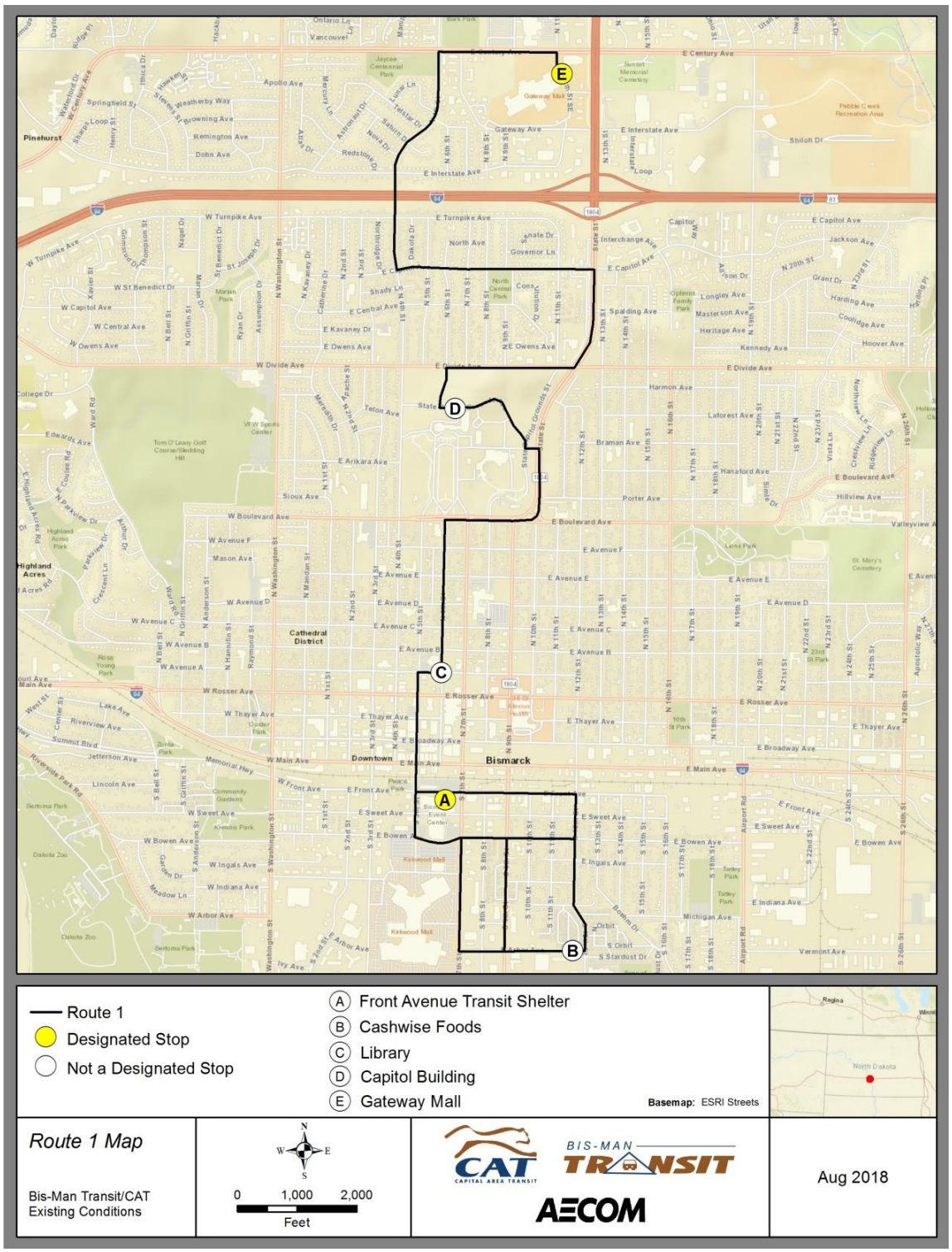
Table 1. Route 1 Timepoint Locations

Front Avenue Transit Shelter*	Cashwise Foods	Library	Capital Building	Gateway Mall*	Gateway Mall*	Capitol Building	Library	Cashwise Foods	Front Avenue Transit Shelter*
:00	:02	:10	:13	:25	:30	:40	:44	:52	:55

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 1. Route 1 Layout



Source: AECOM, August 2018

Route 2 Blue

This route mainly runs north-south and serves the city of Bismarck. Route 2 has one hour headways and runs between 7:00 am and 6:30 pm. This route mainly provides service between the Bismarck State College in western Bismarck and the Kirkwood Mall area in southern Bismarck. It travels past noteworthy landmarks such as the Tom O'Leary Golf Course, Riverside Park/Dakota Zoo, and the YMCA, among other sites. Route 2 travels approximately 7.75 miles one direction and uses one bus.

Key Destinations (see Figure 3)

A. Front Avenue Transit Shelter
B. Dan's South
C. Bowen & 2nd
D. Arrowhead Plaza
E. Bismarck State College

Route Schedule

Table 2 provides a schedule for Route 2, including timepoint locations along the route. The only designated stops are located at Front Avenue Transit Shelter and Bismarck State College.

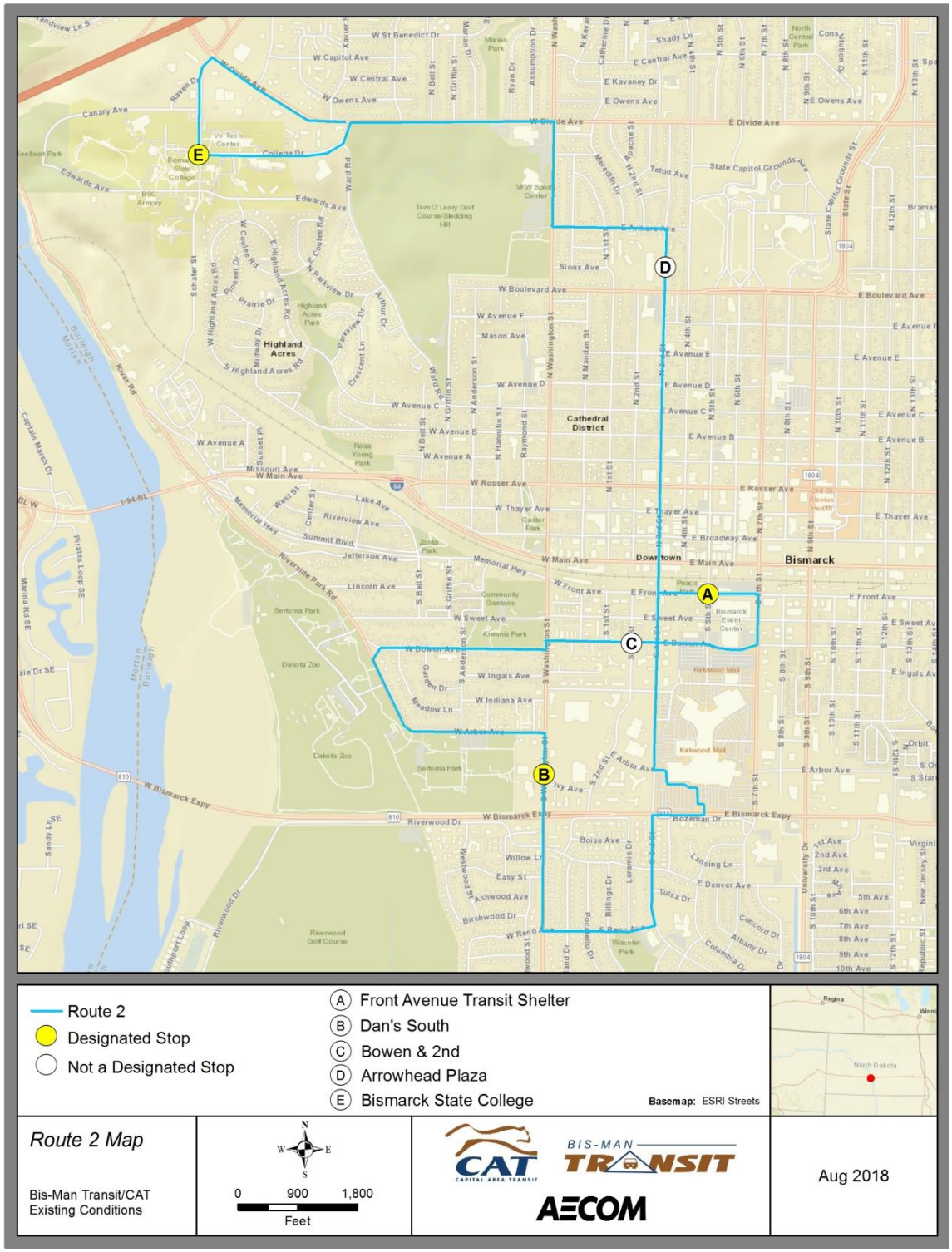
Table 2. Route 2 Timepoint Locations

Front Avenue Transit Shelter*	Dan's South	Bowen & 2nd	Arrowhead Plaza	Bismarck State College*	Bismarck State College*	Arrowhead Plaza	Bowen & 2nd	Dan's South	Front Avenue Transit Shelter*
:00	:07	:11	:18	:25	:30	:37	:44	:47	:55

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 2. Route 2 Layout



Source: AECOM, August 2018

Route 3 Green

Route 3 serves southern Bismarck and operates with one hour headways between 7:00 am and 6:55 pm. This route provides access to the Kirkwood Mall area, the south Bismarck Walmart, and the United Tribes Technical College area in far south Bismarck. It mainly travels along Bismarck Expressway and University Drive (North Dakota Highway 1804) from the southern edges of downtown Bismarck and the Bismarck National Airport. Bismarck Route 3 travels approximately 16.6 miles one direction and uses one vehicle.

Key Destinations (see Figure 3)

A. Front Avenue transit shelter
B. Cashwise
C. Airport Terminal
D. United Tribes Technical College (UTCC) Wellness Center
E. University of Mary

Route Schedule

Table 3 provides a schedule for Route 3, including timepoint locations along the route. The only designated stop is located at the Front Avenue Transit Shelter.

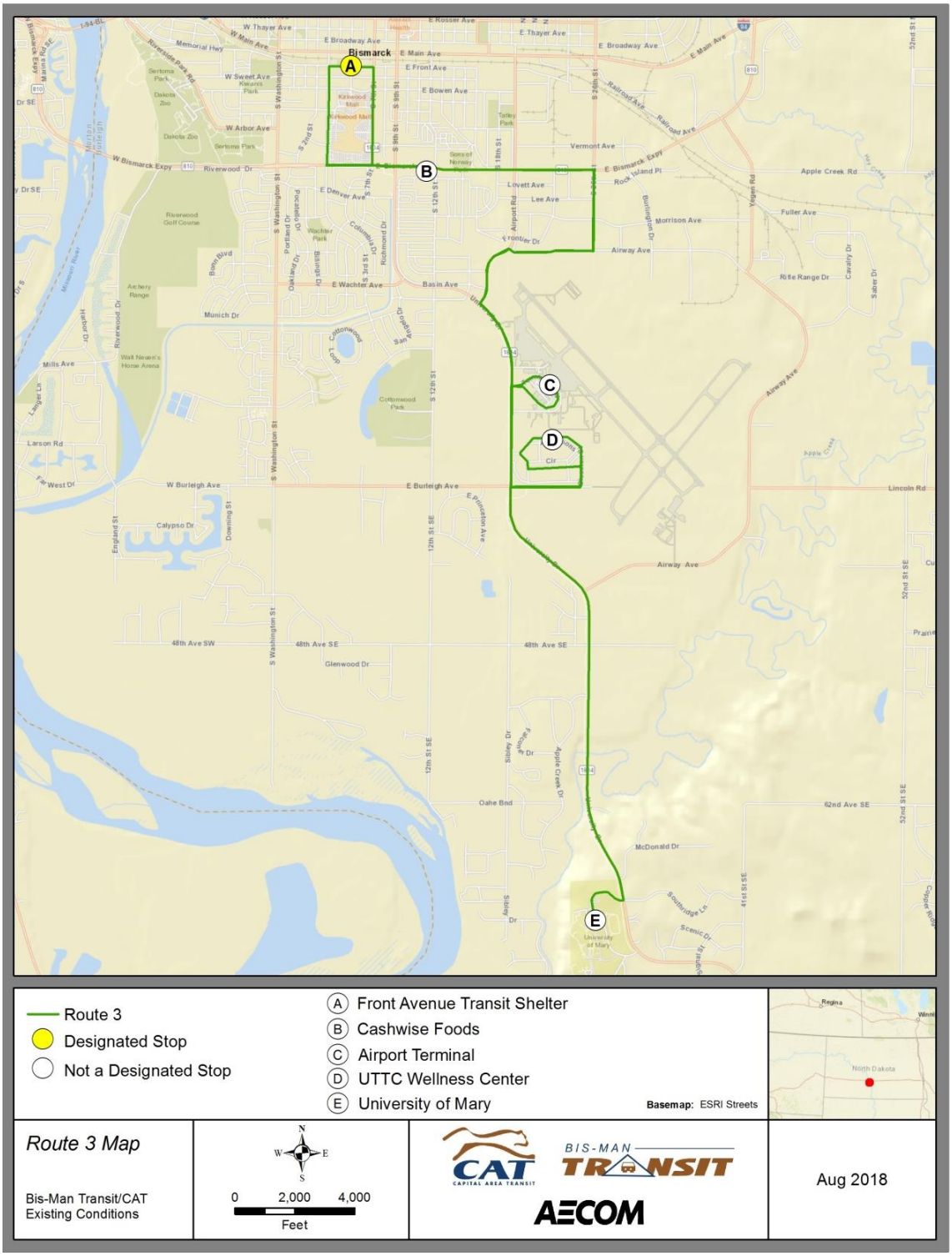
Table 3. Route 3 Timepoint Locations

Front Avenue Transit Shelter*	Cashwise	Airport Terminal	UTTC Wellness Center	U-Mary Main Campus	U-Mary Main Campus	UTTC Wellness Center	Airport Terminal	Cashwise	Front Avenue Transit Shelter*
:00	:02	:13	:16	:25	:30	:36	:39	:50	:55

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 3. Route 3 Layout



Source: AECOM, August 2018

Route 4 - Red

Route 4 serves the central and northern sections of the city of Bismarck. The route operates with two hour headways and runs between 7:30 am and 6:25 pm. This route travels approximately 14.6 miles one direction.

Key Destinations (see Figure 4)

A. Bismarck State College
B. Pinehurst Shopping Center
C. Social Security Building
D. Super Walmart
E. Gateway Mall
F. Shiloh Christian School
G. Simle School
H. 25th and Rosser
I. Front Avenue Transit Shelter

Route Schedule

Table 4 provides a schedule for Route 4, including timepoint locations along the route. The only designated stops are located at Bismarck State College, Front Avenue Transit Shelter and Gateway Mall. Route 4 travels generally northbound and southbound within one hour in one direction.

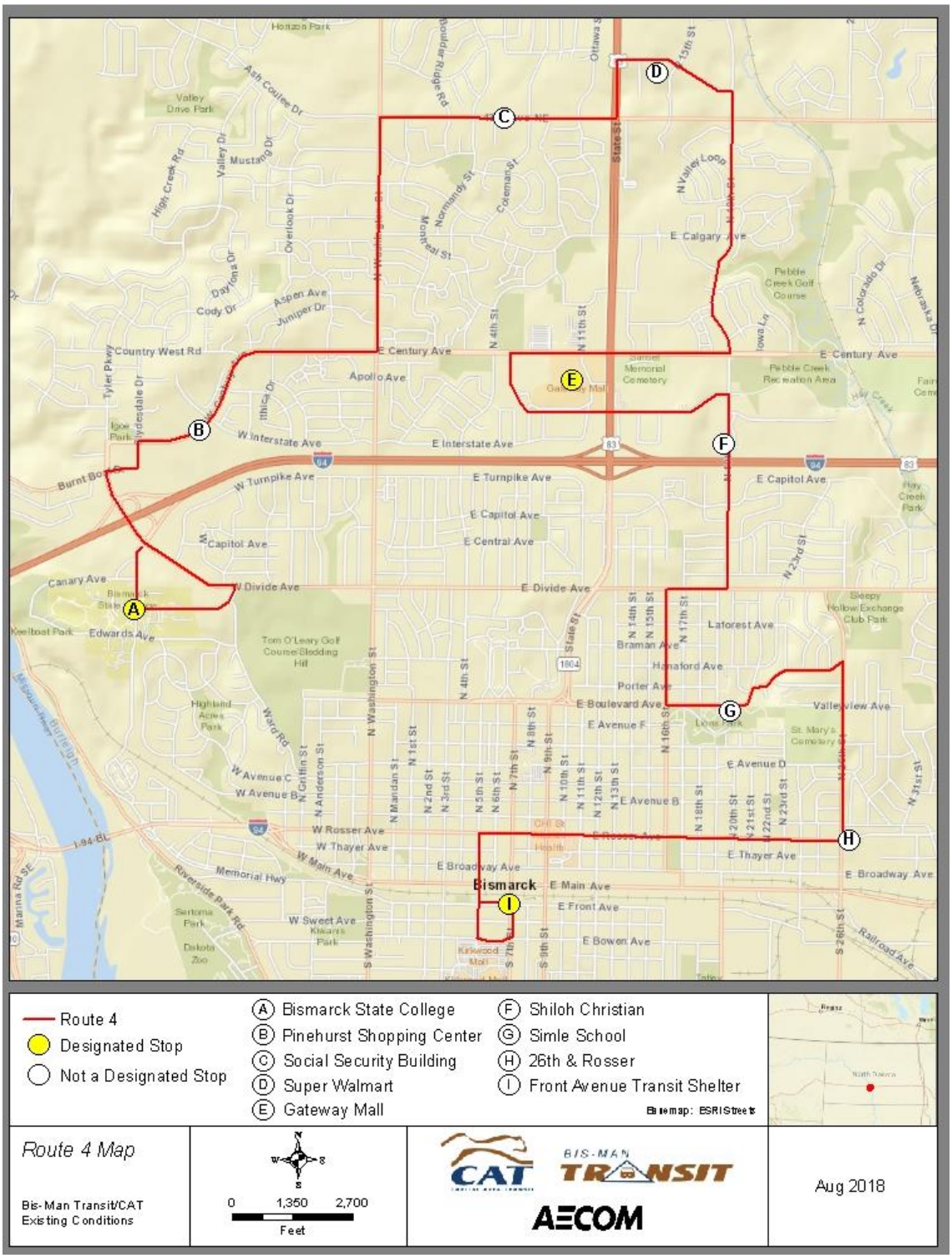
Table 4. Route 4 Timepoint Locations

Southbound									
Bismarck State College*	Pinehurst Shopping	Social Security Building	Super Walmart	Gateway Mall*	Gateway Mall*	Shiloh Christian	Simle School	26th & Rosser	Front Avenue*
:30	:33	:38	:41	:55	:00	:05	:09	:13	:25
Northbound									
Front Avenue*	26th & Rosser	Simle School	Shiloh Christian	Gateway Mall*	Gateway Mall*	Super Walmart	Social Security Building	Pinehurst Shopping	Bismarck State College*
:30	:38	:42	:46	:55	:00	:06	:09	:14	:25

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 4. Route 4 Layout



Source: AECOM, August 2018

Route 5 Brown

Route 5 mainly runs east-west and serves both the city of Bismarck and the south side of the city of Mandan. The route provides one hour headways and runs between 6:30 am and 6:25 pm. This route travels approximately 10.9 miles one direction and uses one bus. This route travels past sites such as the Rosa Young Park and Mandan's Rodeo Days/Dacotach Centennial Park.

Key Destinations (see Figure 5)

A. Dan's Supermarket
B. Ft. Lincoln School
C. Midway Lanes
D. Bank of North Dakota
E. Front Avenue Transit Shelter

Route Schedule

Table 5 provides a schedule for Route 5, including timepoint locations along the route. The only designated stop is located at Front Avenue Transit Shelter.

Table 5. Route 5 Timepoint Locations

Dan's Supermarket*	Ft. Lincoln School	Midway Lanes	Bank of ND	Front Avenue Transit Shelter*	Front Avenue Transit Shelter*	Bank of ND	Midway Lanes	Ft. Lincoln School	Dan's Supermarket*
:30	:34	:42	:48	:55	:00	:06	:16	:24	:25

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 5. Route 5 Layout

Source: AECOM, August 2018

Route 6 Purple

Route 6 operates east-west and serves both the city of Bismarck and the north side of the city of Mandan. The route provides one hour headways and runs between 7:00 am and 6:55 pm. This route travels approximately 10.7 miles one direction and uses one bus.

Key Destinations (see Figure 6)

A. Dan's Supermarket (Dan's)
B. Brave Center/Mandan High School
C. Walmart
D. Sanford East Clinic
E. Bismarck State College

Route Schedule

Table 6 provides a schedule for Route 6, including timepoint locations along the route. The only designated stops are located at Bismarck State College and Dan's in Mandan.

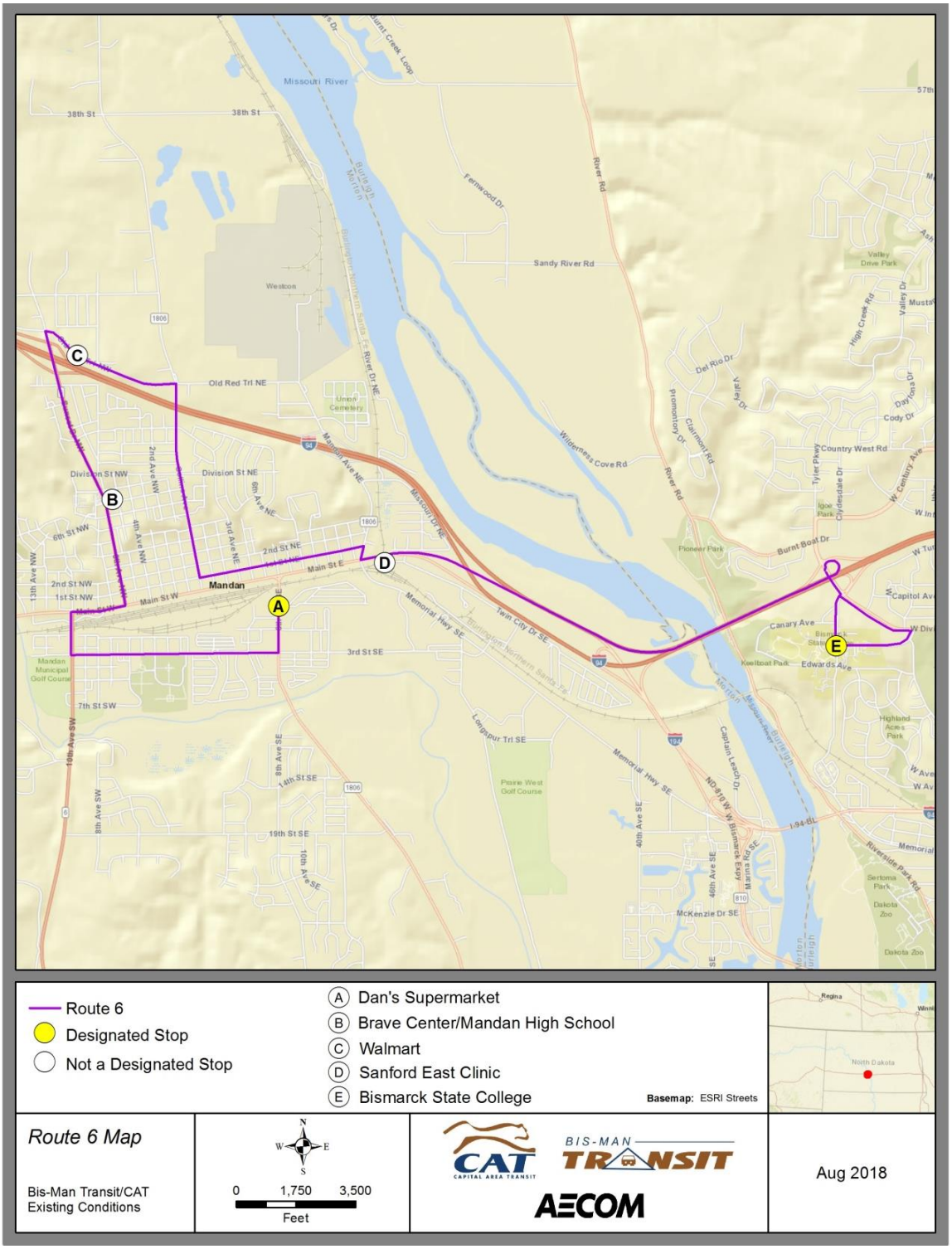
Table 6. Route 6 Timepoint Locations

Dan's *	Brave Center/ Mandan HS	Walmart	Sanford East Clinic	Bismarck State College*	Bismarck State College*	Sanford East Clinic	Walmart	Brave Center/ Mandan HS	Dan's*
:00	:08	:11	:20	:25	:30	:36	:45	:48	:55

**Designated Stop*

Source: Bis-Man Transit/CAT

Figure 6. Route 6 Layout



Source: AECOM, August 2018

INTENTIONALLY BLANK PAGE

Appendix 2. Community Survey Summary Report

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

September 2018

SRF No. 11210

Table of Contents

Introduction **1**

Survey Design **2**

Survey Instrument 2

Survey Schedule 2

Survey Findings **3**

Transit User 3

Riding Frequency 3

Bis-Man Transit and Capital Area Transit (CAT) Relationship 3

Primary Mode of Transportation 3

Barriers to Taking Transit 5

Transit Improvements 5

Vehicle Availability 6

Appendices **7**

Appendix A. Online Survey Instrument – Expo Outreach

Appendix B. Paper Survey Instrument – Expo Outreach

Appendix C. Outreach 2: Online Survey Instrument

Appendix D. Barriers to Taking Transit – Open-ended Responses

Appendix E. Transit Improvements - Open-ended Responses

H:\Projects\11000\11210\TP\Community Survey\Appendix 2. Community Survey Summary.docx

Introduction

This survey summary report includes the summary of the community survey prepared by SRF Consulting Group, Inc. on behalf of Bis-Man Transit. The outreach efforts were conducted by the staff from Bis-man Transit, Bismarck-Mandan MPO and SRF Consulting on multiple dates and locations in the Bismarck Metro area.

The community survey consisted of questions about Bis-Man Transit's service and suggestions for improvement. The survey is a part of the customer engagement efforts for developing a Transit Development Plan (TDP) for Bis-Man Transit.

The survey was designed in both online and paper format for maximum outreach.

Survey Design

Survey Instrument

Two online survey instruments were designed to include 5 common questions and 2 outreach specific questions.

The first outreach effort was conducted at the North Dakota Transportation Expo held at the Bismarck Exhibition Center where Bis-Man region residents were handed out cards with an online survey link and QR code (Appendix A includes the survey instrument). Additionally, responses were also collected using a paper survey instrument (including 5 questions, as included in Appendix B). The first outreach generated 108 responses. The second outreach effort on May 19th used an online survey and generated 26 survey responses (Appendix C includes the survey instrument).

Survey Schedule

The survey outreach was conducted on the following dates and venues as shown in Table 1:

Table 1. Schedule for Community Survey

Dates	Venue	Format	Responses
May 12	ND Transportation Expo, Bismarck	Online and Paper	108
May 19	Touch-a-Truck Event, Mandan	Online	26

Survey Findings

Transit User

The first question of the survey asked the respondents if they were a transit user. Based on both online and paper surveys out of 129 responses to the question, 25 percent were transit users.

Riding Frequency

When survey respondents marked themselves as transit users, the online survey instrument asked them a follow-up question about their frequency of use. Most respondents skipped this question and only 7 answered. Hence, answers to this question were not deemed appropriate to draw inferences for the population.

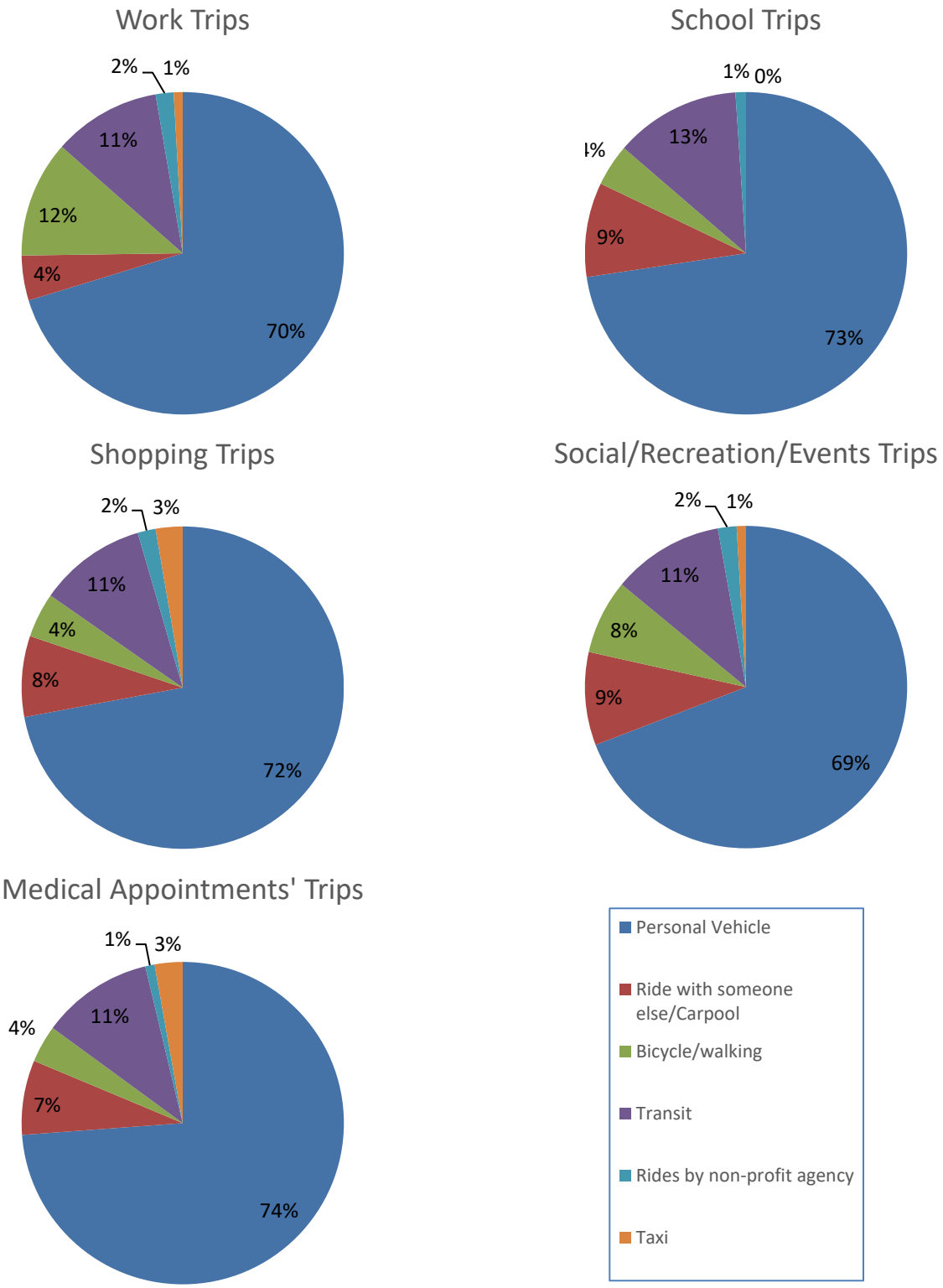
Bis-Man Transit and Capital Area Transit (CAT) Relationship

During the first outreach effort, it was generally observed that some community members were confused about the relationship between Bis-Man Transit and CAT. Hence, the survey instrument was revised before second outreach to include a question asking about the relationship between CAT and Bis-Man Transit. About 92 percent respondents (out of 24) of the question indicated that 'Bis-Man Transit and CAT are two parts of one public transportation system' while only 8 percent said, 'they are not related and operate separately'.

Primary Mode of Transportation

As shown in Figure 1, the primary mode of transportation is "personal vehicle" for about 70 percent of the trips. The share of "riding with others" mode is more for non-work trips while "transit" mode share is maximum for school or training trips.

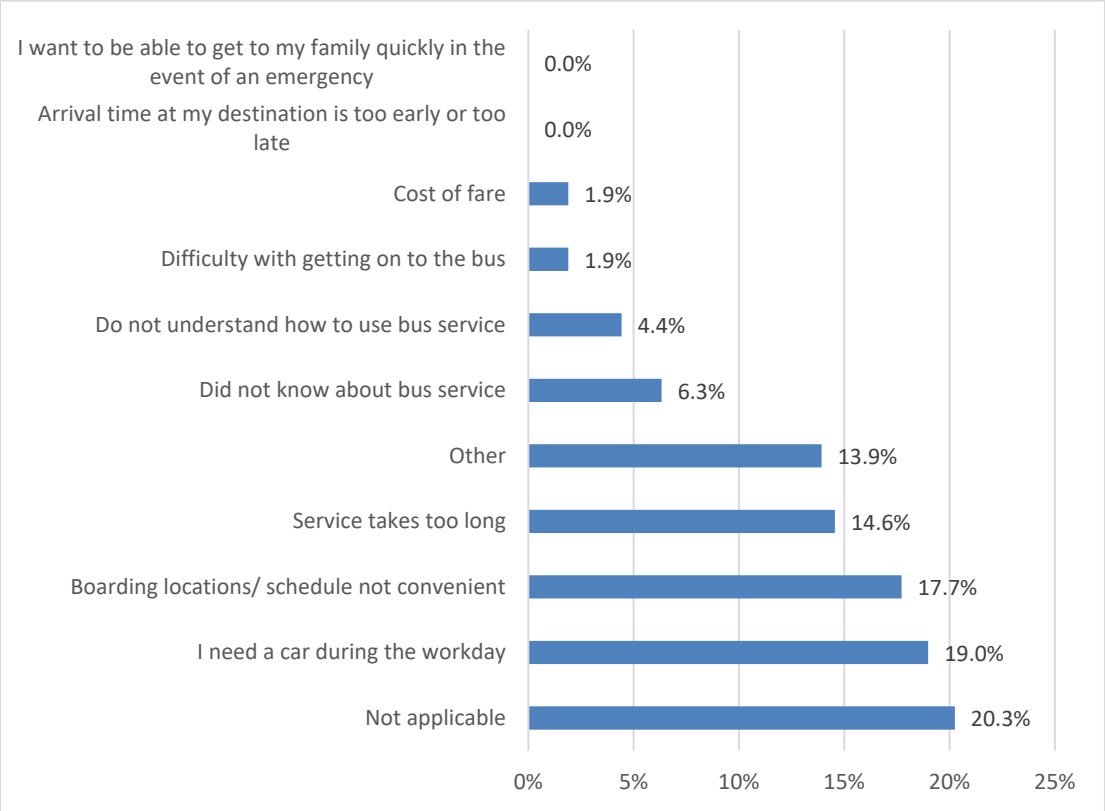
Figure 1. Primary Mode of Transportation by Trip Purpose



Barriers to Taking Transit

Two main barriers that were indicated by respondents were 'I need a car during the workday' and 'Boarding locations/schedule not convenient'. As shown in Figure 2, about 20 percent respondents indicated 'not applicable' as the barrier, with most of these respondents being non-riders. The question also included open-ended response section (list of open-ended responses is included as Appendix D).

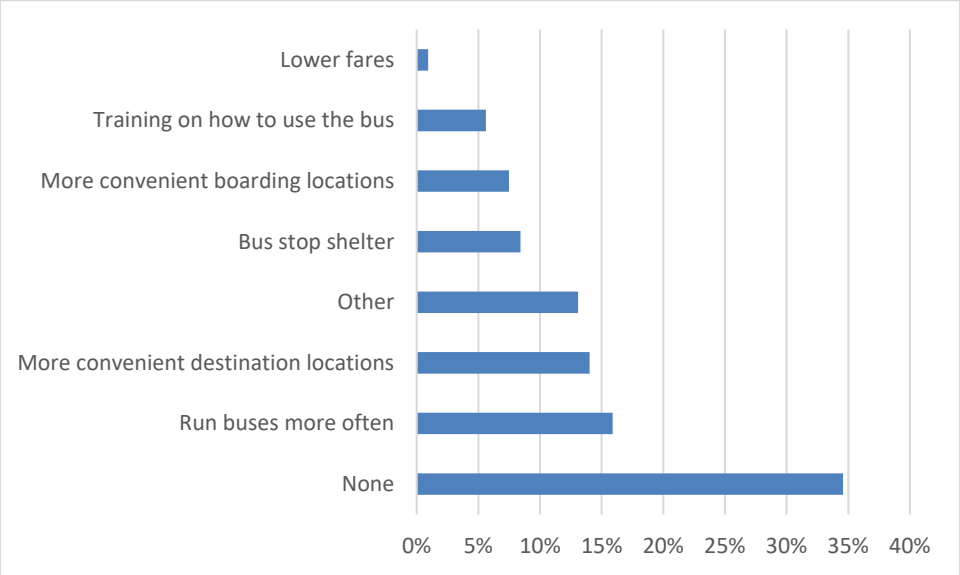
Figure 2. Barriers to Taking Transit



Transit Improvements

As shown in Figure 3, most respondents did not suggest any improvement to the existing service. Close to 15 percent of respondents, indicated improvements were needed for 'more convenient destination locations' and 'buses running more often'. The question also included an open-ended response section (included as Appendix E).

Figure 3. Transit Improvement Suggestions



Vehicle Availability

About 25 percent of the respondents lived in households with no vehicles, however, only a marginal share of these respondents were current transit users.

Appendices

Appendix A. Online Survey Instrument – Expo Outreach

Appendix B. Paper Survey Instrument – Expo Outreach

Appendix C. Outreach 2: Online Survey Instrument

Appendix D. Barriers to Taking Transit – Open-ended Responses

Appendix E. Transit Improvements – Open-ended Responses

Community Survey Summary Appendix A. Online Survey Instrument – Expo Outreach

BIS-MAN Transit Development Plan (Expo Outreach)

Community Survey

* 1. Do you ride Transit?

- ◯ Yes
- ◯ No

BIS-MAN Transit Development Plan (Expo Outreach)

Community Survey

2. If you ride, how often do you ride the bus?

- ◯ Once a week or more
- ◯ More than once a month
- ◯ Once a month
- ◯ Not applicable

BIS-MAN Transit Development Plan (Expo Outreach)

Community Survey

3. Check your **primary** mode of the transportation for each trip purpose.

	Personal Vehicle	Ride with someone else/Carpool	Bicycle/walking	Transit	Rides by non-profit agency	Taxi
Work	◯	◯	◯	◯	◯	◯
School/Training	◯	◯	◯	◯	◯	◯
Shopping	◯	◯	◯	◯	◯	◯
Social/recreation/events	◯	◯	◯	◯	◯	◯
Medical appointments	◯	◯	◯	◯	◯	◯

Other (please specify)

BIS-MAN Transit Development Plan (Expo Outreach)

Community Survey

4. Please describe any barriers you may have to taking the bus (check all that apply).

- [ ] Did not know about bus service
- [ ] Do not understand how to use bus service
- [ ] Service takes too long
- [ ] Boarding locations/ schedule not convenient
- [ ] Cost of fare
- [ ] I need a car during the workday
- [ ] Difficulty with getting on to the bus
- [ ] Not applicable

Other (please specify)

BIS-MAN Transit Development Plan (Expo Outreach)

Community Survey

5. What single improvement to transit service would make you start riding transit or ride more frequently?

- ( ) Run buses more often
- ( ) More convenient boarding locations
- ( ) More convenient destination locations
- ( ) Bus stop shelter
- ( ) Lower fares
- ( ) Training on how to use the bus
- ( ) None

Other (please specify)

6. Does your household own one or more vehicles?

- ◯ Yes
- ◯ No

Community Survey Summary Appendix B. Paper Survey Instrument – Expo Outreach

Community Survey

1. Are there locations you would like to go but cannot due to the lack of transportation)?

☐ Yes ☐ No

If yes, list some locations

2. Have you used Bis-Man Transit services?

☐ Yes ☐ No

Which type of service do you use?

☐ Fixed Route ☐ Both

☐ Paratransit (Disability) ☐ Paratransit (Senior)

3. What is your primary mode of transportation to work?

Drive Own Vehicle	Ride with Someone/ Carpool	Bike/Walk	Transit	Other
☐	☐	☐	☐	☐

4. What is your primary mode of transportation to school/training?

Drive Own Vehicle	Ride with Someone/ Carpool	Bike/Walk	Transit	Other
☐	☐	☐	☐	☐

5. What is your primary mode of transportation to social/recreation events?

Drive Own Vehicle	Ride with Someone/ Carpool	Bike/Walk	Transit	Other
☐	☐	☐	☐	☐

6. What is your primary mode of transportation to medical appointments?

Drive Own Vehicle	Ride with Someone/ Carpool	Bike/Walk	Transit	Other
☐	☐	☐	☐	☐

6. Please describe any barriers you may have to taking the bus (check all that apply):

☐ Did not know about bus service
☐ Do not understand how to use bus service
☐ Service takes too long
☐ Boarding locations/schedule not convenient
☐ Cost of fare is too high
☐ I need/want a car during the day
☐ Difficulty getting to bus
☐ Other

7. What is the **single most** important improvement that you would make to bus service?

☐ Run buses more often
☐ More convenient boarding locations
☐ More convenient destination locations
☐ Bus stop shelter
☐ Lower fares
☐ Training on how to use the bus
☐ None
☐ Other _____

8. Does your household own one or more vehicles?

☐ Yes ☐ No

9. What is the Zip Code of your home? _____

Community Survey

Bis-Man Transit is updating their transit plan and gathering input from the community about your travel and use of bus services. Both fixed route and paratransit service are included in the transit plan update.

We are asking residents to complete a survey of your travel and your and experience using bus service.

Taking the survey is voluntary and your individual responses will be kept confidential.

Instructions

1. Please complete the survey questionnaire.
2. Return the survey to the organizer that distributed it or mail it to:

   Rachel Drewlow
   Transportation Planner
   Bismarck-Mandan MPO
   221 North 5th Street
   Bismarck, ND 58506

3. Or take a picture/scan the survey and send it to Rachel Drewlow at:

   RDrewlow@bismarcknd.gov

Thank for helping Bis-Man Transit

Community Survey

Bis-Man Transit is updating their transit plan and gathering input from the community about your travel and use of bus services. Both fixed route and paratransit service are included in the transit plan update.

We are asking residents to complete a survey of your travel and your and experience using bus service.

Taking the survey is voluntary and your individual responses will be kept confidential.

Instructions

1. Please complete the survey questionnaire.
2. Return the survey to the organizer that distributed it or mail it to:

   Rachel Drewlow
   Transportation Planner
   Bismarck-Mandan MPO
   221 North 5th Street
   Bismarck, ND 58506

3. Or take a picture/scan the survey and send it to Rachel Drewlow at:

   RDrewlow@bismarcknd.gov

Thank for helping Bis-Man Transit

Community Survey

Bis-Man Transit is updating their transit plan and gathering input from the community about your travel and use of bus services. Both fixed route and paratransit service are included in the transit plan update.

We are asking residents to complete a survey of your travel and your and experience using bus service.

Taking the survey is voluntary and your individual responses will be kept confidential.

Instructions

1. Please complete the survey questionnaire.
2. Return the survey to the organizer that distributed it or mail it to:

   Rachel Drewlow
   Transportation Planner
   Bismarck-Mandan MPO
   221 North 5th Street
   Bismarck, ND 58506

3. Or take a picture/scan the survey and send it to Rachel Drewlow at:

   RDrewlow@bismarcknd.gov

Thank for helping Bis-Man Transit

Community Survey Summary Appendix C. Outreach 2: Online Survey Instrument.

BIS-MAN Transit Development Plan

Community Survey

1. Do you ride Transit?

- ◯ Yes
- ◯ No

BIS-MAN Transit Development Plan

Community Survey

2. How are Bis-Man Transit and CAT related?

- ◯ They are not related and operate separately.
- ◯ They are two parts of one public transportation system.

BIS-MAN Transit Development Plan

Community Survey

3. Check your **primary** mode of the transportation for each trip purpose.

	Personal Vehicle	Ride with someone else/Carpool	Bicycle/walking	Transit	Rides by non-profit agency	Taxi
Work	◯	◯	◯	◯	◯	◯
School/Training	◯	◯	◯	◯	◯	◯
Shopping	◯	◯	◯	◯	◯	◯
Social/recreation/events	◯	◯	◯	◯	◯	◯
Medical appointments	◯	◯	◯	◯	◯	◯

Other (please specify)

BIS-MAN Transit Development Plan

4. Please describe any barriers you may have to taking the bus (check all that apply).

- [ ] Did not know about bus service
- [ ] Do not understand how to use bus service
- [ ] Service takes too long
- [ ] Boarding locations/ schedule not convenient
- [ ] Cost of fare
- [ ] I need/want a car during the day
- [ ] Difficulty with getting on to the bus
- [ ] Not applicable

Other (please specify)

Community Survey

5. What single improvement to transit service would make you start riding transit or ride more frequently?

- ( ) Run buses more often
- ( ) More convenient boarding locations
- ( ) More convenient destination locations
- ( ) Bus stop shelter
- ( ) Lower fares
- ( ) Training on how to use the bus
- ( ) None

Other (please specify)

BIS-MAN Transit Development Plan

6. Does your household own one or more vehicles?

- ◯ Yes
- ◯ No

Community Survey Summary Appendix D. Barriers to Taking Transit – Open-ended Responses

Not sure
live outside of Bismarck
live outside of city limit
The routes need to be redone
It takes too long to get where I need to go. There aren't enough transfer points.
The routes don't help me get where I need to go without walking miles and spending hours getting a simple errand done. The routes should go back to the way they were before the current ones. This system is a mess!
Not available on Sundays
I used to take the bus all the time... until they decided to up & change the routes & now I have a problem w/the new routes!
If your referring to the cat I would have to change busses for work and walk a distance every day
Fix the type in your guys bus route maps with a more readable font, then what is displayed.
Difficulty getting on the bus in white population areas. Why doesn't the bus run late during the summer so people can go home from work? The sun is still out.
Specific Drivers
Have personal vehicle
language barriers
Do not live here
Have to pick kids up after work
Live outside of bus routes
Not available where I live.
From small rural town
Out of town
Live outside of town
Not enough routes

Community Survey Summary Appendix E. Transit Improvements – Open-ended Responses

Make paratransit ride and wait times shorter
Returning to the way things used to ne
Having better routes would help the most
Hire a director who actually knows how to operate a public transportation system. Put out a survey that actually gets to the meat of the problem with our current transportation system. This one is a joke. BTW. Make the survey accessible for the population who it is meant to target.
better seating
Sunday bus routes
The only way I would ride the bus again is if it went back to the old routes before it changed about a year ago. I had those routes memorized & I understood them no problem. Not anymore.
fix the font used in your rout maps to Helvetica or Arial, font choices for the past two bus routes suck and so does some of the layout. I have seen other bus route maps from other cities, and they are not piss poor looking like Bismarck's cats route map guide.
earlier in am later in pm
Choosing one is out of the question. There is no choosing between safety and racial discrimination. You removed all shelters making boarding hazardous. You removed destinations from any part of town that has a majority white population segregating people of ethnicity from whites. Statistically, if you are of ethnicity you live on the south side of town. It takes 3 hours and 30 min for me to get from my home to the richer white part of town on the bus. You are legally segregating colored (with lack of less racial term) folk from the white parts of town. You made it dangerous to catch the bus. You made it impossible for people to get to work. If I want to go to work I have to ride the bus for 3 hours 30 min then walk a mile one way.
Long Hours
don't know schedule or locations
Routes for my needs
If service extended to Lincoln.

Appendix 3. Summary of Public Meetings' Feedback

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

Bismarck-Mandan Metropolitan Planning Organization

TRANSIT DEVELOPMENT PLAN

Public Meeting 1 Summary

July 10-12, 2018

SRF

In association with:
AECOM

Public Meeting Notice

BISMARCK-MANDAN AREA TRANSIT DEVELOPMENT PLAN PUBLIC INFORMATION MEETING

YOUR INPUT IS REQUESTED

The first series of public meetings is being held to provide an opportunity for the public to learn about the study and provide input regarding transit service and needs.

The meeting will begin with a presentation about the project at 10 minutes after the start time.

PURPOSE OF THE TRANSIT PLAN

The purpose of the plan is to:

- Work with residents and community leaders to understand strengths and weaknesses of the current Bis-Man Transit system.
- Identify desirable changes to the system to better serve current customers and potential users.
- Prepare a plan of vehicle, facility, and service concepts to meet need and can be funded today and into the future.

WHEN AND WHERE

Tuesday, July 10, 2018 from 5:00-6:30 pm.
Mandan City Hall
Veterans Conference Room
205 2nd Avenue NW, Mandan, ND 58554

Wednesday, July 11, 2018 from 10:30 am-Noon
Bismarck Public Library, Room A
515 North 5th Street, Bismarck, ND 58501

Thursday, July 12, 2018 from 5:00-6:30 pm.
City/County Building
Bismarck City Commission Room
221 North 5th Street, Bismarck, ND 58501

Feedback can also be submitted through the plan website at https://www.transitplanbisman.com or by calling (701) 595-0526.

To request accommodations for disabilities and/or language assistance, contact Title VI/ADA Coordinator at (701) 355-1332, or email mpo@bismarcknd.gov, TTY users may access Relay North Dakota at 711 or 1-800-366-6888, at least five (5) days in advance of the meeting.

Meeting Sign-in Sheets

Meeting Sign-In

Date: JULY 10, 2018 Purpose: MANDAN PM #1

Name	E-mail Address	Phone
Laura Evenrud	levenrud@hitinc.org	667-8632
Rachel Drewlow	rdrewlow@bismarcknd.gov	355-1852
Glenn Laninger	laningergl@gmail.com	391-7036
Helen Baumgartner	helenb@minco.net	663-8878
Royce Schaffer	royceschaffer@gmail.com	777-3696
Lisa Kourajian	LKourajian@hitinc.org	667-8626
Gary Schumacher	Gary.S@TAXI9000.com	220-7050
Shanda Miller	shandas.bisman@midconetwork.com	258 6817
Roy Rickert	royr.bisman@midconetwork.com	256-6817

Meeting Sign-In

Date: July 11, 2018 Purpose: PM #1 (Bismarck Library)

Name	E-mail Address	Phone
~~Lee Red Horse~~	Cam Conn Emp @hotmail.com	701 319 9577
Vicki L. Laraway	vickig@dakotacil.com	701-222-3636
Randee Saier	randeesaier@yahoo.com	701-214-2671
Jeannie Pedersen	jeanniep@dakotacil.org ~~engzerbunny@hotmail.com~~	701-222-3636
Jillian Schaible	jillian_schaible@hotmail.com	
Wendy Link	wlink@enablend.org	255-2851 ext 112
Mary Robinson	maryr@dakotacil.org	222 3634
Nancy Guy	nguy@bismarcknd.org	226.0037
Julie Wald	juliew@suppsys.com	255-6503
Ashley Toth	ashley.toth@anncenter.org	751-3732
Rachel Drewlow		

Meeting Sign-In

Date: July 11 2018 Purpose: Transit Dev't Plan Meeting #1

Name	E-mail Address	Phone
Susan Dingle	susandingle.973@gmail.com suzsai2@hotmail.com	701-214-9348
Shantell Meidinger	smeiding@nd.gov	701.328.2950
Allen Morris		701-
Roy Rickert		
Deidre Hughes		
Shanda Miller		

Meeting Sign-In

Date: JULY 12, 2018 Purpose: BISMARCK PM #1 - COMM RM

Name	E-mail Address	Phone
Scott Harmstead	sharmstead@srfconsulting.com	354.2405
Trevor Hannett	trevorstwins@icloud.com	955.0000
Roxane Romanick	romanick@bis.midco.net	391.7421
nancy guy	nguy@bismarcknd.gov	
Shanda Miller		
Roy Rickert		
Albert Perez		
JOAN MILLNER		255-4316
Rachel Drewlow		

Meeting Sign-In

Date: July 12 2018 Purpose: Bismarck PM #1 - Comm Rm

Name	E-mail Address	Phone
Josh Askvig	jaskvig@aarp.org	701-355-3642

Meeting Presentation

Bismarck-Mandan Metropolitan Planning Organization

TRANSIT DEVELOPMENT PLAN

July 10-12, 2018

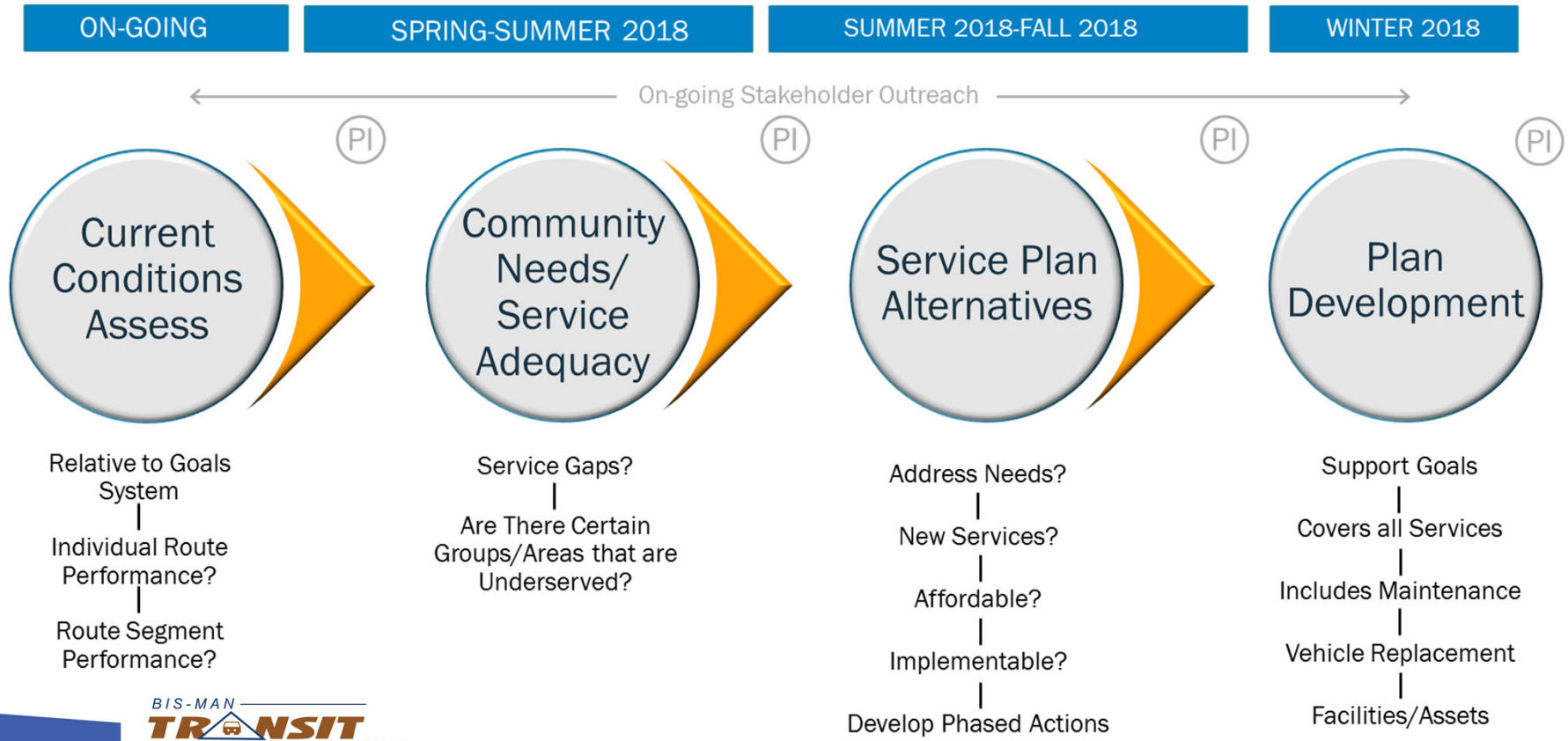
SRF

In association with:
AECOM

Meeting Agenda

- Overview of the Transit Plan Process
- How People Can Participate
- Schedule
- Input:
  - What Are Things Bis-Man Transit Does Well?
  - What Are Things that need to be Worked On?

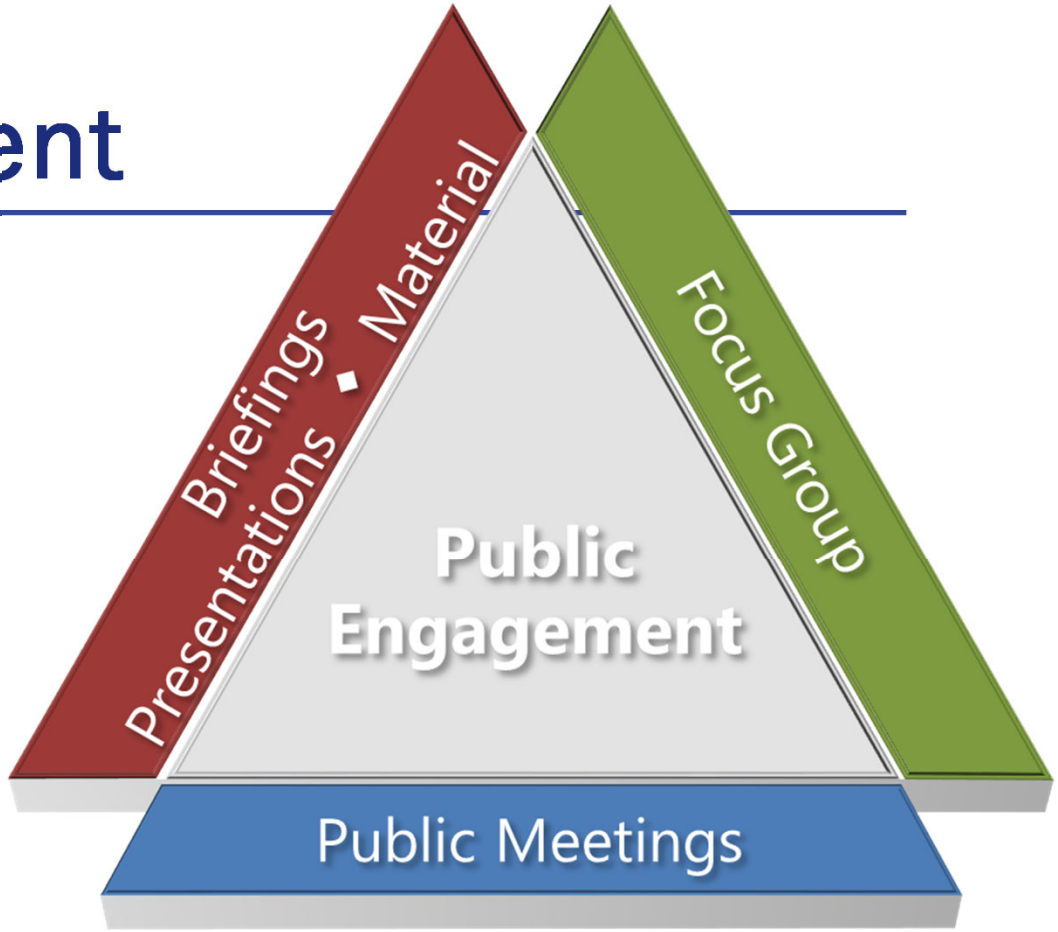
Operational Alternatives Development /Analysis



Final Plan Elements

- Potential Service Changes
- Capital Improvements
- Implementation Schedule:
  - Detailed for First 1-2 Years
  - More General 3-6 Years

Public Engagement



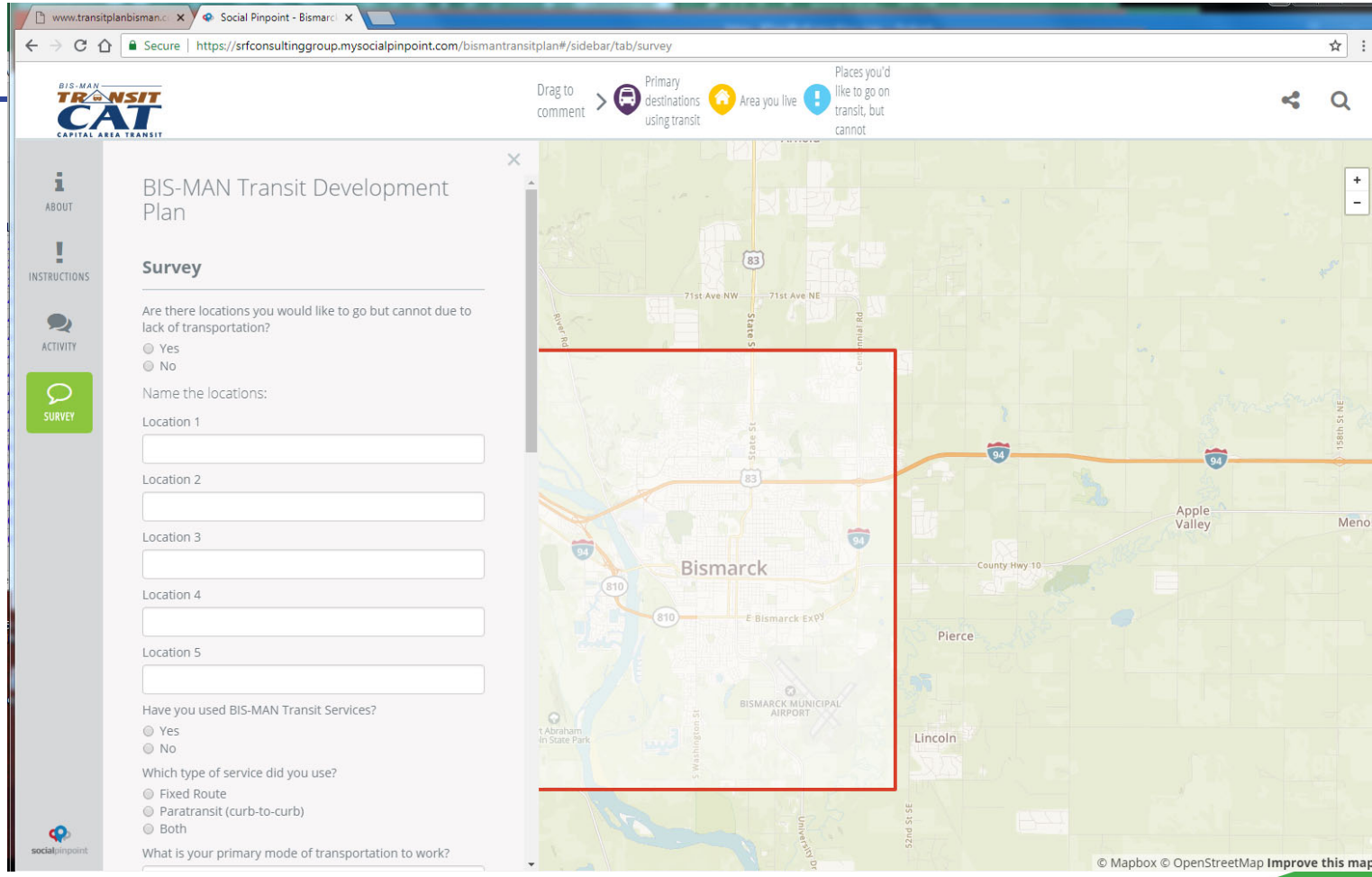
- On-line Community Surveys
- On-line Engagement

Community Engagement

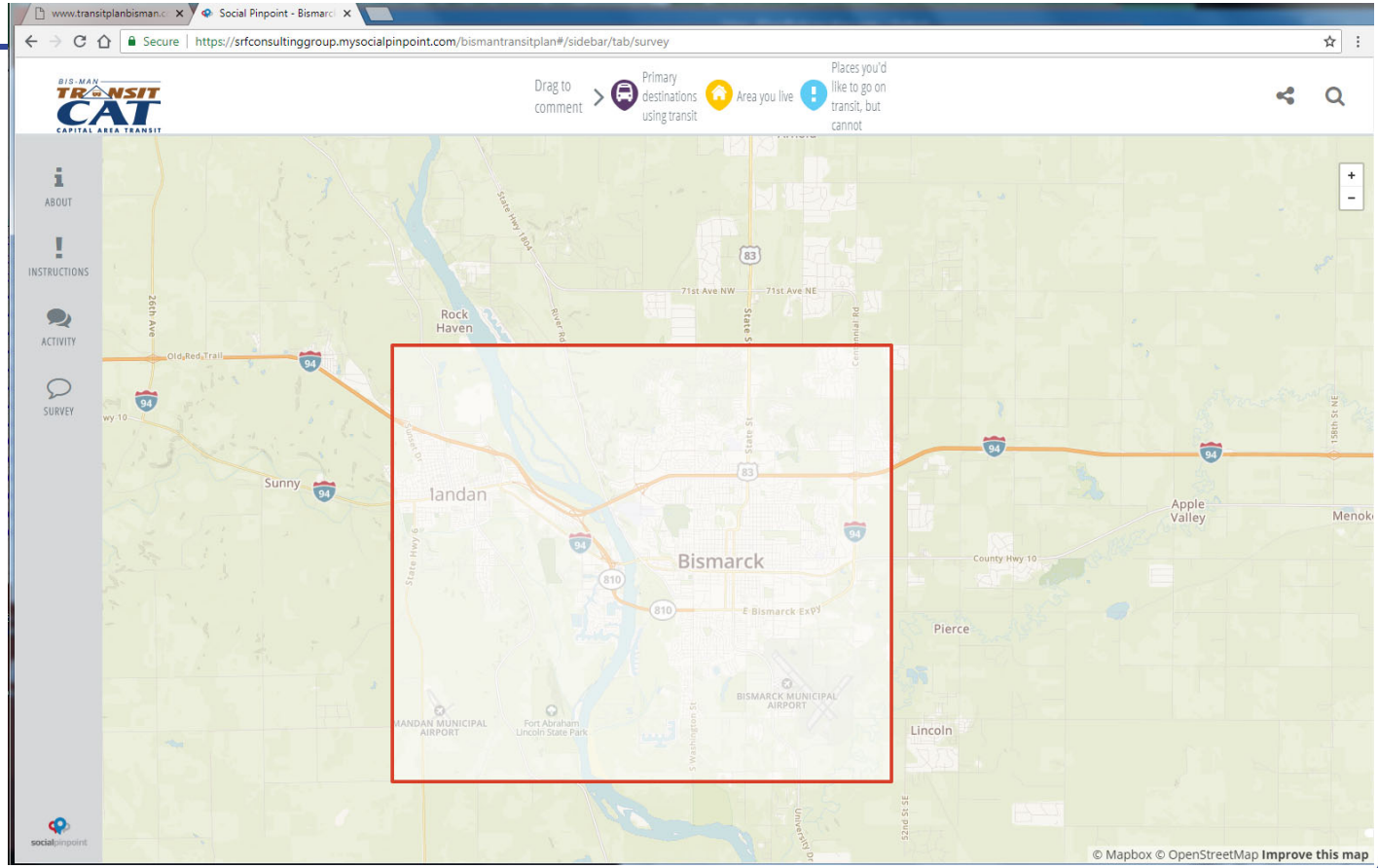
- Community Survey:
  - Travel Patterns
  - Transit Use
  - Would You Ride If…?

www.transitplanbisman.com

Survey


Social Pinpoint - Bismarck
https://srfconsultinggroup.mysocialpinpoint.com/bismantransitplan#/sidebar/tab/survey
BIS-MAN TRANSIT CAT
CAPITAL AREA TRANSIT
Drag to comment
Primary destinations using transit
Area you live
Places you'd like to go on transit, but cannot
ABOUT
INSTRUCTIONS
ACTIVITY
SURVEY
BIS-MAN Transit Development Plan
Survey
Are there locations you would like to go but cannot due to lack of transportation?
Yes
No
Name the locations:
Location 1
Location 2
Location 3
Location 4
Location 5
Have you used BIS-MAN Transit Services?
Yes
No
Which type of service did you use?
Fixed Route
Paratransit (curb-to-curb)
Both
What is your primary mode of transportation to work?
Bismarck
Apple Valley
Pierce
Lincoln
© Mapbox © OpenStreetMap Improve this map

Survey


Secure | https://srfconsultinggroup.mysocialpinpoint.com/bismantransitplan#/sidebar/tab/survey
BIS-MAN TRANSIT CAT CAPITAL AREA TRANSIT
Drag to comment
Primary destinations using transit
Area you live
Places you'd like to go on transit, but cannot
ABOUT
INSTRUCTIONS
ACTIVITY
SURVEY
Rock Haven
Sunny
Bismarck
Apple Valley
Pierce
Lincoln
© Mapbox © OpenStreetMap Improve this map

Local Understanding

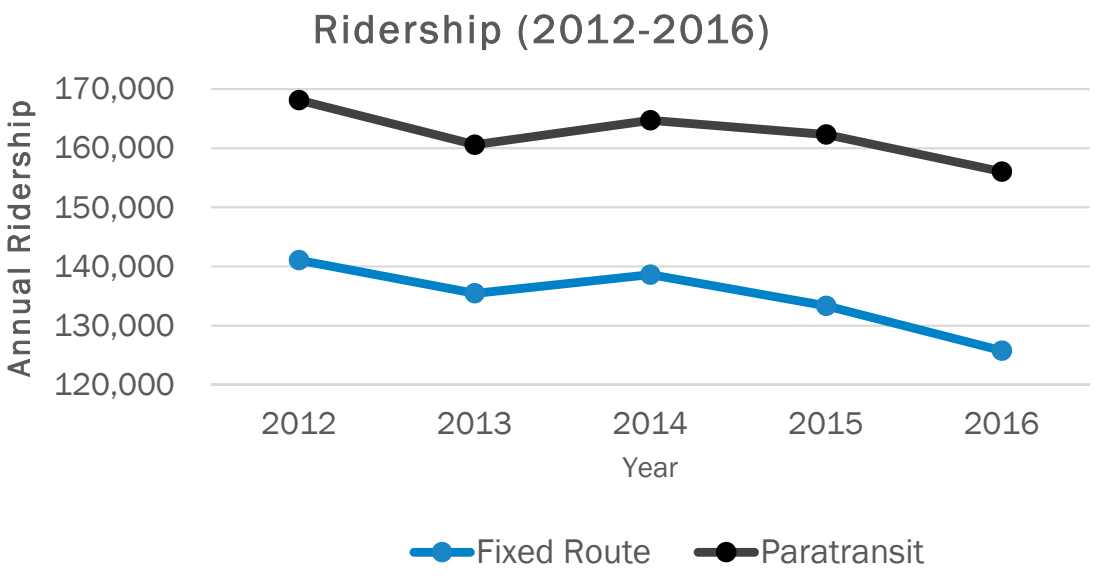
2016 RIDERSHIP STATISTICS

125K

Fixed Route Riders

156K

Paratransit Riders



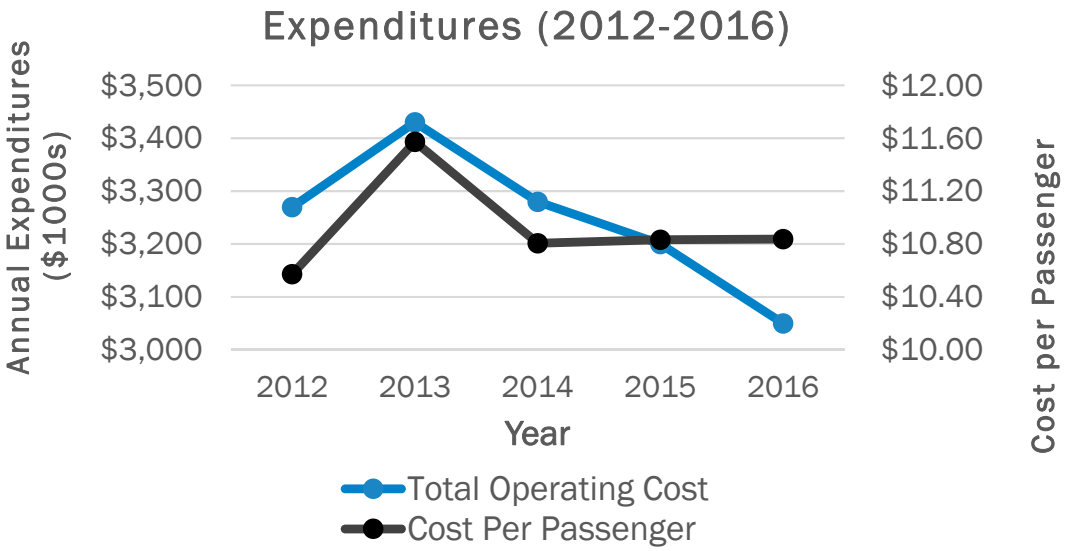
SRF

BIS-MAN TRANSIT CAT CAPITAL AREA TRANSIT

Bismarck-Mandan Metropolitan Planning Organization

Local Understanding

- Funding and Financing:



SRF
TRANSIT CAT CAPITAL AREA TRANSIT
Bismarck-Mandan Metropolitan Planning Organization

Your Input

- What do you Like about Bis-Man Transit?
- What are Things Bis-Man Transit Needs to Work on?
- Where Would You Like to go on Transit, But Cannot?

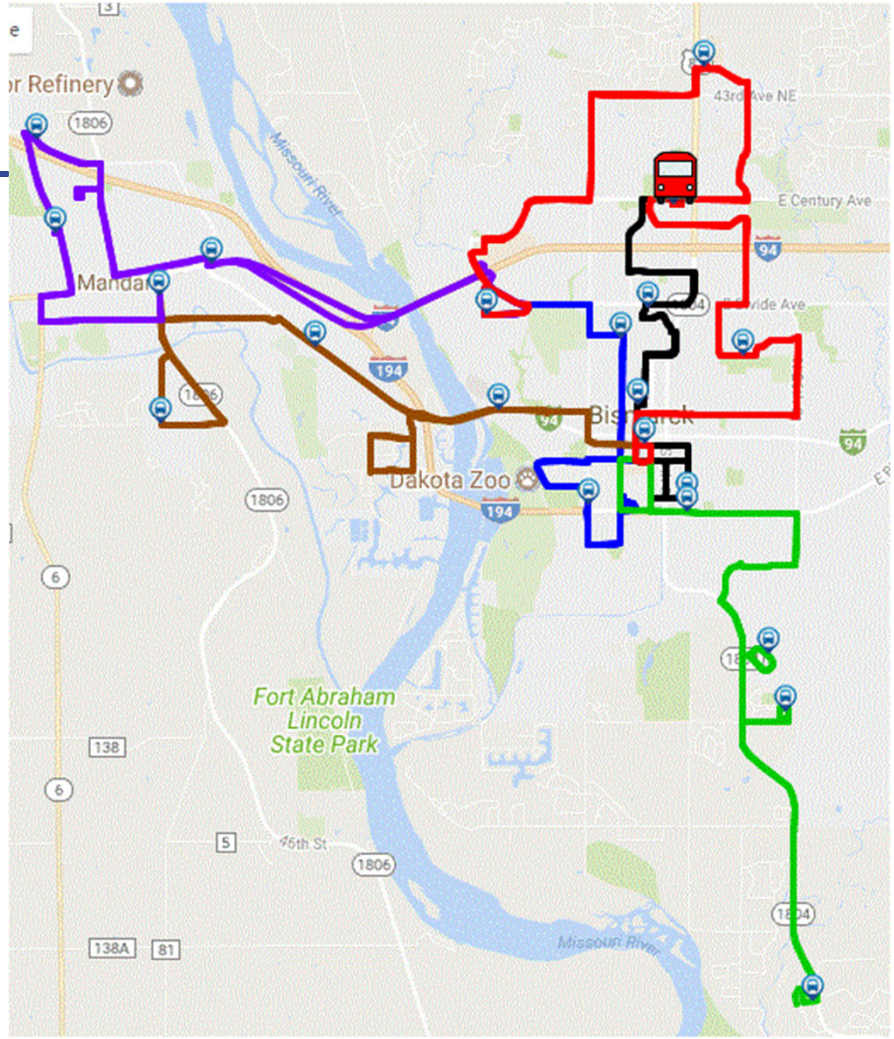
Understanding

System Strengths

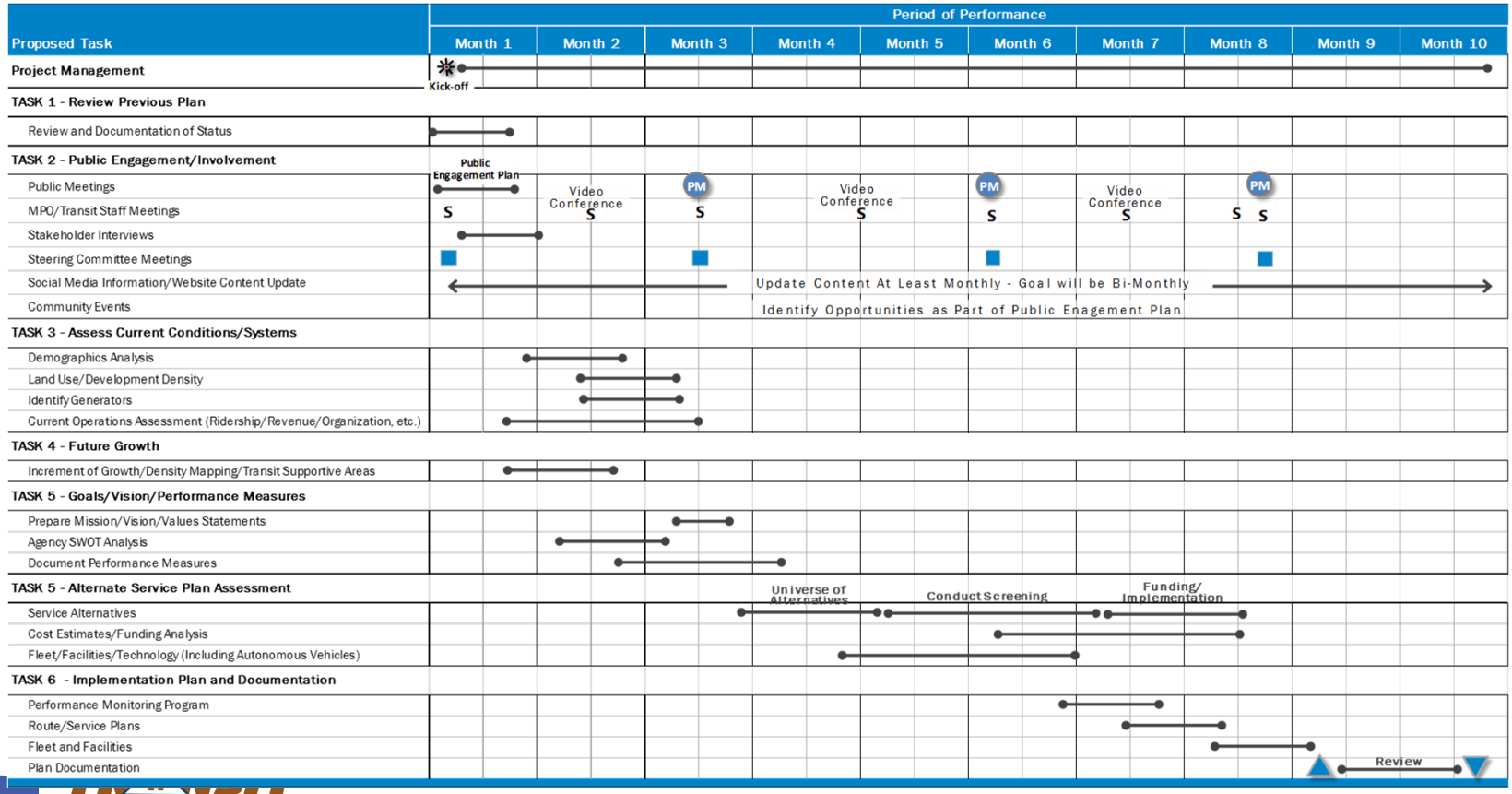
- Good Coverage
- Convenient Access to Information (Technology)

System Weaknesses

- Financial Security
- Many 60 Minute Routes
- Daily Span of Service
- No Sunday Service



Schedule


Period of Performance
Proposed Task
Month 1
Month 2
Month 3
Month 4
Month 5
Month 6
Month 7
Month 8
Month 9
Month 10
Project Management
Kick-off
TASK 1 - Review Previous Plan
Review and Documentation of Status
TASK 2 - Public Engagement/Involvement
Public Engagement Plan
Public Meetings
MPO/Transit Staff Meetings
Stakeholder Interviews
Steering Committee Meetings
Social Media Information/Website Content Update
Community Events
Video Conference
PM
S
Update Content At Least Monthly - Goal will be Bi-Monthly
Identify Opportunities as Part of Public Enagement Plan
TASK 3 - Assess Current Conditions/Systems
Demographics Analysis
Land Use/Development Density
Identify Generators
Current Operations Assessment (Ridership/Revenue/Organization, etc.)
TASK 4 - Future Growth
Increment of Growth/Density Mapping/Transit Supportive Areas
TASK 5 - Goals/Vision/Performance Measures
Prepare Mission/Vision/Values Statements
Agency SWOT Analysis
Document Performance Measures
TASK 5 - Alternate Service Plan Assessment
Universe of Alternatives
Conduct Screening
Funding/ Implementation
Service Alternatives
Cost Estimates/Funding Analysis
Fleet/Facilities/Technology (Including Autonomous Vehicles)
TASK 6 - Implementation Plan and Documentation
Performance Monitoring Program
Route/Service Plans
Fleet and Facilities
Plan Documentation
Review

Two More Meetings This Week

Wednesday, July 11, 2018 from 10:30 am-Noon
Bismarck Public Library, Room A
515 North 5th Street, Bismarck, ND 58501

Thursday, July 12, 2018 from 5:00-6:30 pm.
City/County Building
Bismarck City Commission Room
221 North 5th Street, Bismarck, ND 58501

INTENTIONALLY BLANK PAGE

Comments Received

Bismarck-Mandan Area MPO Area

Transit Development Plan

July 2018

Please record your comments, questions and/or thoughts regarding the current range of Bis-Man Transit Services. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below.

JEANNE PEDERSEN

Name | Email Address | City | State

Comments, Ideas, & Concerns

Flexibility on ~~pick~~ changes TO DUK SCHEDULES IN GETTING PICKED UP/DROPPED OFF. MY ORIGINAL TRIP IF MY SCHEDULE CHANGES - I ADD TO UD ~~IF~~ CAN NOT BE CHANGED.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

OTHER SERVICE LOCATIONS

BIS. LIBRARY

Expand on your OTHERS in the space provided below.

ACCESSIBLE SHELTERS

SINGLE TRANSFER CENTER

Provide more safe, accessible stops – going to Dan's South from Washington is not that safe
crossing 23rd & State for the bus isn't safe
– trying to flag down a bus from behind parked cars doesn't work well

Have CAT run til like 9pm Mon-Sat.

Bismarck-Mandan Metropolitan Planning Organization

TRANSIT DEVELOPMENT PLAN

Public Meeting 2 Summary

November 7 and 8, 2018

SRF

In association with:
AECOM

Public Meeting Notice

BISMARCK-MANDAN AREA TRANSIT DEVELOPMENT PLAN PUBLIC INFORMATION MEETINGS

YOUR INPUT IS REQUESTED

The second series of public meetings is being held to provide an opportunity for the public to provide input regarding potential improvements to transit service in the metro area.

Meetings will be open houses with consultant and Bis-Man Transit ready to discuss potential options.

PURPOSE OF THE TRANSIT PLAN

The purpose of the plan is to:

- Work with residents and community leaders to understand strengths and weaknesses of the current Bis-Man Transit system.
- Identify desirable changes to the system to better serve current customers and potential users.
- Prepare a plan of vehicle, facility, and service concepts to meet need and can be funded today and into the future.

WHEN AND WHERE

Wednesday, November 7, 2018 from 5:00-6:30 pm.
Mandan City Hall
Commission Room
205 2nd Avenue NW, Mandan, ND 58554

Thursday, November 8, 2018 from 10:00-11:30 am
Bismarck Veterans Memorial Library
515 North 5th Street, Bismarck, ND 58501

Thursday, November 8, 2018 from 5:00-6:30 pm.
Bismarck Veterans Memorial Library
515 North 5th Street, Bismarck, ND 58501

Feedback can also be submitted through the plan website at https://www.transitplanbisman.com or by calling (701) 354-2400.

To request accommodations for disabilities and/or language assistance, contact Title VI/ADA Coordinator at (701) 355-1332, or email mpo@bismarcknd.gov, TTY users may access Relay North Dakota at 711 or 1-800-366-6888, at least five (5) days in advance of the meeting.

Steering Committee Sign-in Sheet (11-8-2018)

Meeting Sign-In

Date: 11-8-18 Purpose: TDP Steering Committee Meeting

Name	E-mail Address	Phone
Rachel Drewlow	rdrewlow@bismarcknd.gov	701-355-1852
Roy Rickert	royr.bisman@midcontinentnetwork.com	701-258-6817
Laura Evenrud	levenrud@hitinc.org	701-516-4948
Will Hutchings	whutchings@bismarcknd.gov	701-355-1850
Kate Hertzog	Kate@downtownbismarck.com	701-223-1958
John Van Dyke	John.VanDyke@cityofmandan.com	(208) 501-3133

Meeting Sign-in Sheets

Meeting Sign-In

Date: Nov 7, 2018 Purpose: PUBLIC MEET 2 MANDAN

Name	E-mail Address	Phone
Dale Hautzmann	ddemand3@bis.midco.net	663-3223
Glen Laing	laingergl@gmail.com 4607 McKenzie Dr SE	391-7036
Helen Baumgardner	helenb@midco.net	663-8878
Rachel Drewlow	rdrewlow@bismarcknd.gov	355-1852
Roy Rickert	royr.bismarn@midconetwork.com	258-6817
John Van Dyke		

Meeting Sign-In

Date: Nov 8, 2018 Purpose: TDP PM #2 Bismarck AM.

Name	E-mail Address	Phone
Katrina Kraft	none	400-7914
Roger Ehrlich	Roger@dakotatel.net	222-3638
Jeannie Berberger	Jeannie@dakotatel.net	222-3636
Mike Connelly	mandwconnelly@msn.com	400-1839
Shanda Miller	Shandas.bismar@midconetwork.com	258-6817
Jan Curre	janice.curre@bationexpresstransit.com	202-4489
Deidre Hughes	deidreh.bismar@midconetwork.com	258 6817
Steve Saunders	ssaunders@bismarcknd.gov	355-1848
Rachel Drewlow	rdrewlow@bismarcknd.gov	355-1852
Mike Chaussee	mchaussee@aarp.org	390-0161
Rose Scharen	Rider-every@A/	323 5799

Meeting Sign-In

Date: Nov 8, 2018 Purpose: PM #2 Bismarck AM

Name	E-mail Address	Phone
Melina Kessler	mnggsymie@yahoo	516-6647

Meeting Sign-In

Date: Nov 8 Purpose: PM #2 BAS UB PM

Name	E-mail Address	Phone
Randee Sailer	randeesailer@yahoo.com	701214267 1
Rachel Drewlow	rdrewlow@bismarcknd.gov	701-355-1852
Gary Schumacher	Gary.S@TAK2000.com	
Trevor Vannett		955-0008
BEN EKERETH	ben.ekreth@hotmail.com	
Mone Ben	N. 6th St, Bismarck ND	785-813-6020
Jann Peter	205 EAST ARBor B.S	
Will Hutchings	405 N 1ST BIS	701-355-1850

Meeting Sign-In

Date: Nov 09 Purpose: PM#2 BIS LIB PM

Name	E-mail Address	Phone
Jillian Schaible		
Chelsi Collins	Chelsicollinsshap@gmail.com	
Susan Dingle	suzsaid@hotmail.com	
Andrea L Fohlich	andreafrohlich82@gmail.com	
Andy K. Rost		
Darcy Andahl		
Ross Degenstein	rossd.construction.tech@gmail.com	701 203 5362

Meeting Displays/Boards

Mandan Public Meeting
11/07/2018

MANDAN
11/7

Which of the Options are Most Important to You?

- Displays highlight the key expansion proposals that would require investing more funds into operations and/or vehicles.
- Total cost of the proposals/ideas exceeds the estimate of additional dollars likely available.

- Please provide input on your preference of where funds should be allocated:
  - Place Dots on Your Preferred
  - You Do Not have Enough Dots for All

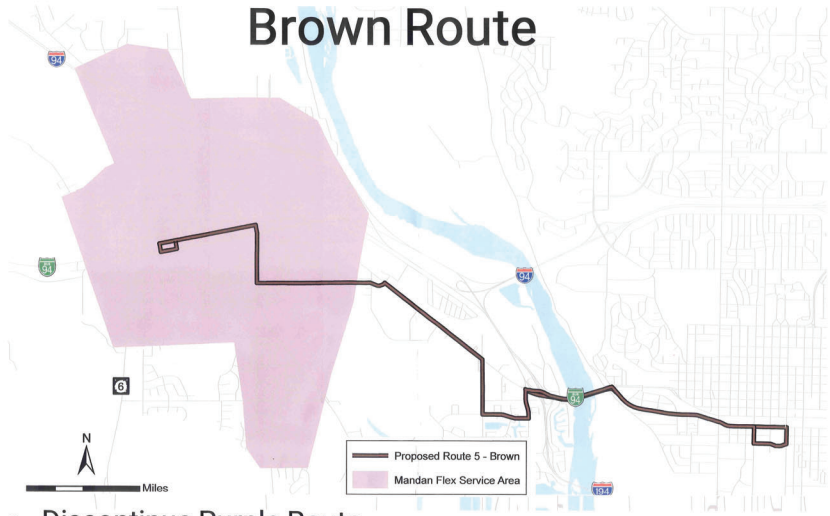
– Highest Priority

– Second Highest Priority

– Third Highest Priority

– Fourth Highest Priority

Mandan Flex-Connect to Bismarck Via Brown Route



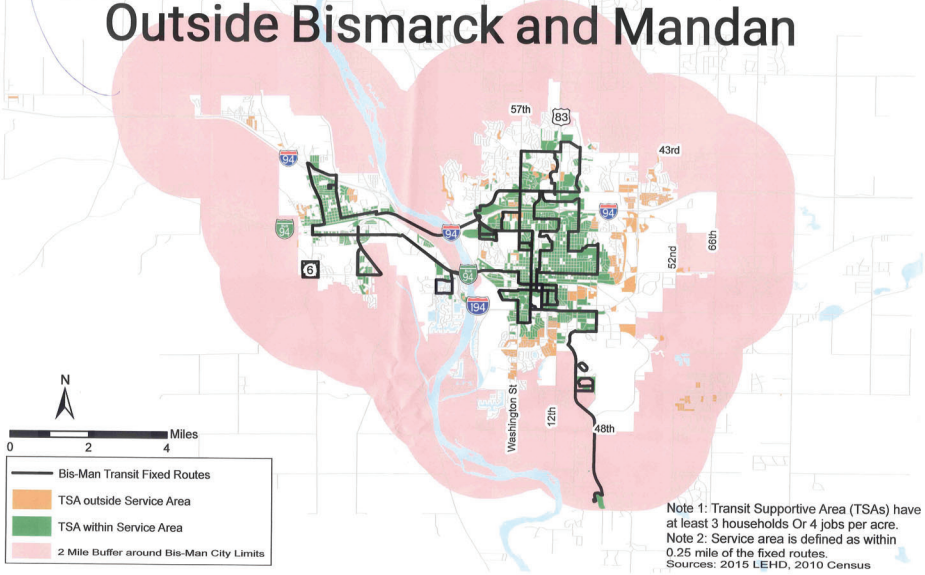
- Discontinue Purple Route
- Within Mandan – Call Ahead/Curb-to-Curb
- Paratransit to/from Bismarck – No Change
- Paratransit in Mandan – Mix with General Public Flex
- Walmart Every 60 Minutes
- Connect to Brown Route – Dan's Supermarket
- Hourly Service to/from Bismarck Downtown Transit Hub (Via Brown Route)

Benefits	Challenges
Serves all major activity centers including Walmart, Dan's, and Sanford East Clinic	Eliminates direct connection to Bismarck State College
Extends bus service to parts of Mandan not currently served by the Purple Route	
Connects directly to the Brown Route	
Curb to curb service	

Will this impact the defined Service area?
- If so, Bismarck will lose density

MANDAN
11/7

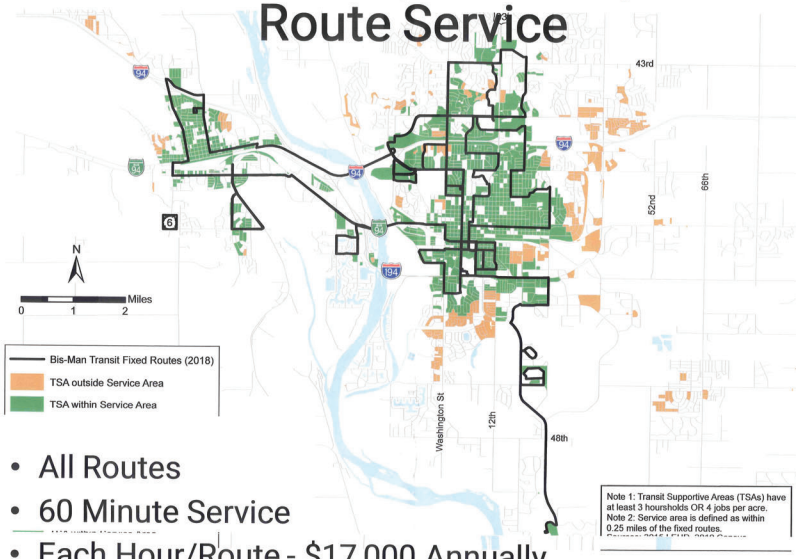
Extend Demand-Response/Paratransit Outside Bismarck and Mandan



- 2 Miles of City Limits (Is this Far Enough?)
- $125,000 Annual Operating Cost
- Monday – Saturday Service
- Same Hours as Current Fixed Route
- Curb-to-Curb Service

Benefits	Challenges
Provides Access to People Relying on Bismarck and Mandan Services	Cost
Reinstates Service Previously Provided	Requires Funding from Counties (Is there a Willingness?)

Extend Weekday/Saturday Fixed Route Service



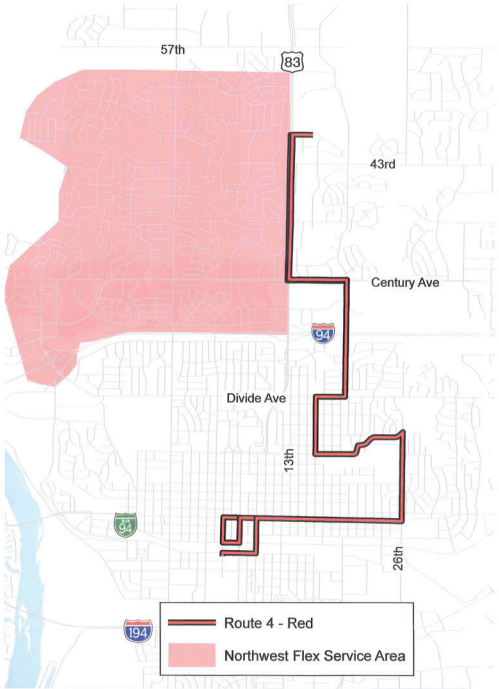
- All Routes
- 60 Minute Service
- Each Hour/Route - $17,000 Annually
- 3 Hours Minimum for Retail ($306,000)
- 4 Hours Preferred for Retail ($408,000)

Benefits	Challenges
Supports People Working on Sundays	Cost
Support Sunday Retail Trips	Likely Lower Demand Relative to Saturday – Same Cost
Supports Sunday Social Trips	
Already Operating Paratransit Most Hours – Limited New Cost	

MANDAN 11/7

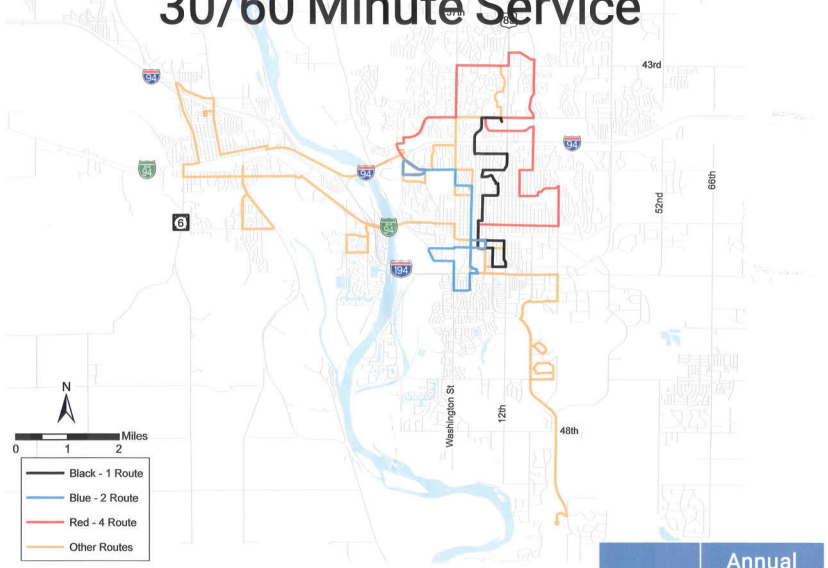
Red 60 Minute and Flex

- "East" Portion of Red – Same Route
- Front Avenue Transfer Center and Walmart North
- 60 Minute Frequency
- Set Designated stops
- "West" Portion – Flex:
  - North Walmart Every 60 Minutes
  - BSC Every 60 Minutes
  - Curb-to-Curb Inside "Flex Zone"



Benefits	Challenges
More direct trips from downtown to the capital and Walmart	Eliminates direct connection to Bismarck State College
Dramatic Improvement to 2 hour service	Cannot 'flag" bus at any location
Still connects with all routes – Through Walmart/BSC/Transit Hub	Small capital cost for bus stop signs ($7,000)
More of north	
Curb-to-curb in Flex	

Add Fixed Route Frequency 30/60 Minute Service



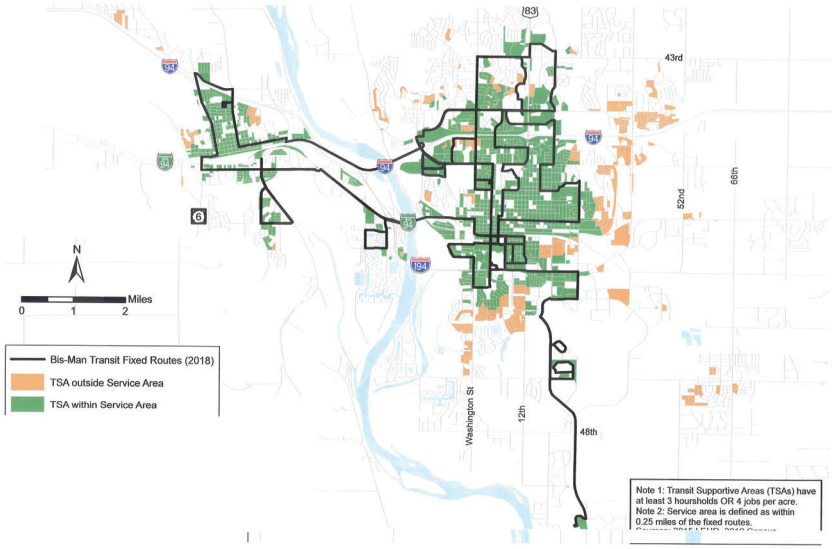
- Core Route (Blue-Black) 30 Minute
- Red: 60 Minute
- Weekdays Only
- $18,300 Annually for Each Hour Per Route
- Each Route Needs 1 Bus

Daily Hours	Annual Operating Cost
4	$220,000
6	$330,000
8	$439,000
All Day	$659,000

Benefits	Challenges
Frequency Results in Use – More Mobility	Cost
Reduces Risk to User – If Miss Preferred Bus	Double Frequency: +35% Ridership (Typically) Is this Acceptable?

MANDAN 1/7

Add Sunday Fixed Route Service

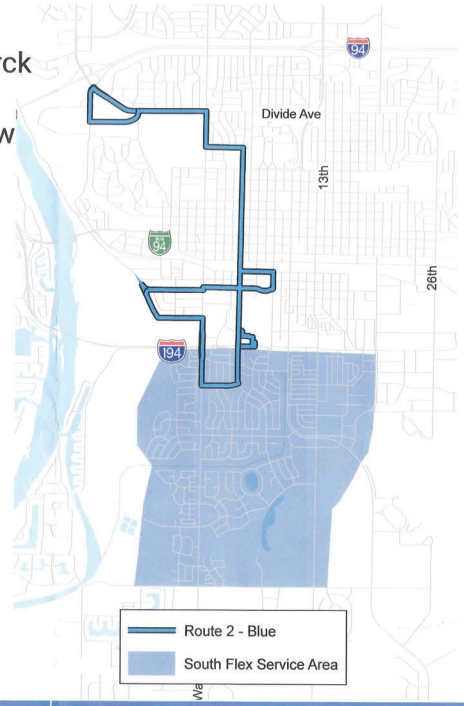


- Full Fixed Route and Paratransit
- 9:00 AM to 6:00 PM
- $180,000 Annual Cost (Each Sunday = $30,000)

Benefits	Challenges
Supports People Working on Sundays	Cost
Support Sunday Retail Trips	Likely Lower Demand Relative to Saturday – Same Cost
Supports Sunday Social Trips	
Already Operating Paratransit Most Hours – Limited New Cost	

NEW Blue Flex Zone

- Create New "South" Bismarck Flex
- Adds Transit Service to New Area:
  - Connects with Blue Route Every 60 Minutes.
  - Access to Kirkwood Mall
  - Curb-to-Curb Inside "Flex Zone"
- Run Fixed Route Service Hours:
  - 7 AM – 7 PM Weekdays
  - 8 AM – 7 PM Sat.
- One Bus Required (Paratransit Size)
- $206,000 Annual Cost
- Mix Paratransit/General Public in Zone Only



Benefits	Challenges
Provides Service to Higher Density, Lower Income area (2.5 Square Miles)	Cost
Curb to curb service (Mix Public Transit and Paratransit in Zone)	

Bismarck Morning Public Meeting
11/08/2018

Which of the Options are Most Important to You?

- Displays highlight the key expansion proposals that would require investing more funds into operations and/or vehicles.
- Total cost of the proposals/ideas exceeds the estimate of additional dollars likely available.

- Please provide input on your preference of where funds should be allocated:
  - Place Dots on Your Preferred
  - You Do Not have Enough Dots for All

– Highest Priority

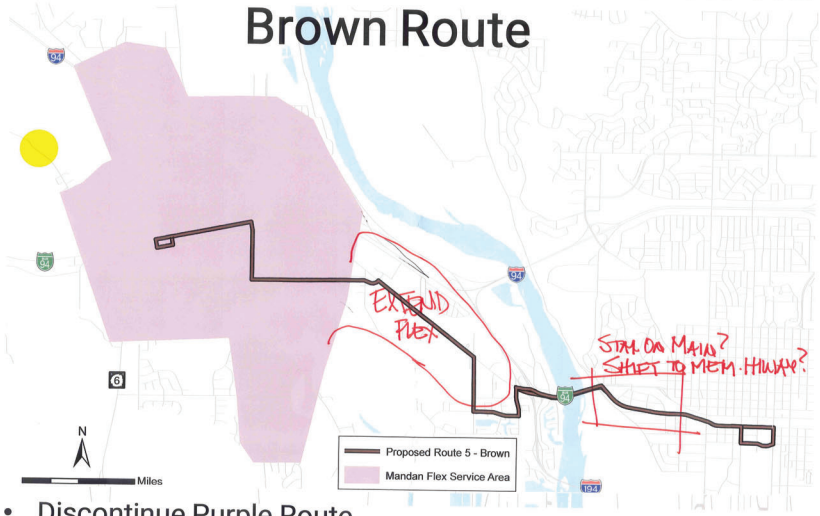
– Second Highest Priority

– Third Highest Priority

– Fourth Highest Priority

B15 11/8 AM

Mandan Flex-Connect to Bismarck Via Brown Route

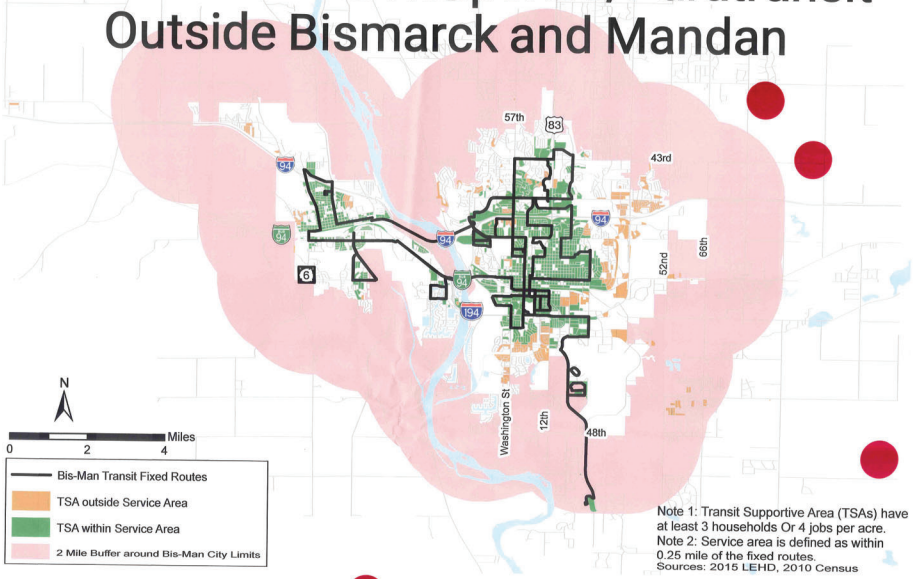


- Discontinue Purple Route
- Within Mandan – Call Ahead/Curb-to-Curb
- Paratransit to/from Bismarck – No Change
- Paratransit in Mandan – Mix with General Public Flex
- Walmart Every 60 Minutes
- Connect to Brown Route – Dan's Supermarket
- Hourly Service to/from Bismarck Downtown Transit Hub (Via Brown Route)

Benefits	Challenges
Serves all major activity centers including Walmart, Dan's, and Sanford East Clinic	Eliminates direct connection to Bismarck State College
Extends bus service to parts of Mandan not currently served by the Purple Route	
Connects directly to the Brown Route	
Curb to curb service	

BIS 11/8 AM

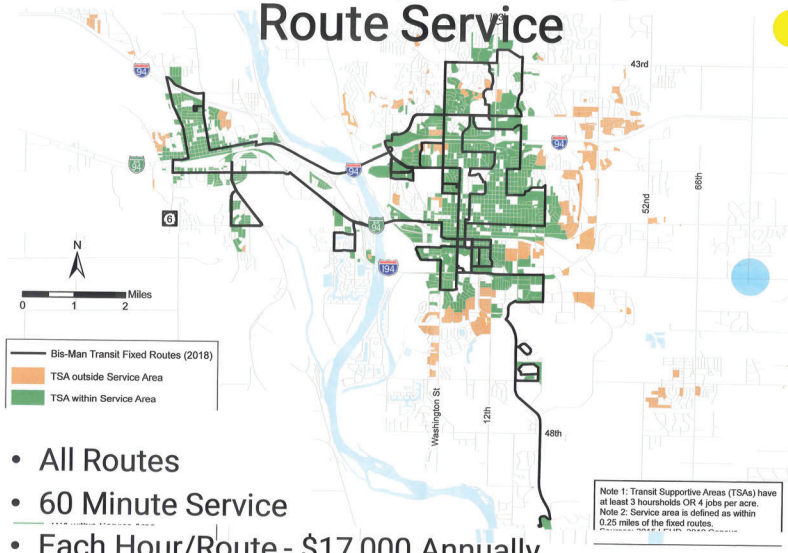
Extend Demand-Response/Paratransit Outside Bismarck and Mandan



- 2 Miles of City Limits (Is this Far Enough?)
- $125,000 Annual Operating Cost
- Monday – Saturday Service
- Same Hours as Current Fixed Route
- Curb-to-Curb Service

Benefits	Challenges
Provides Access to People Relying on Bismarck and Mandan Services	Cost
Reinstates Service Previously Provided	Requires Funding from Counties (Is there a Willingness?)

Extend Weekday/Saturday Fixed Route Service



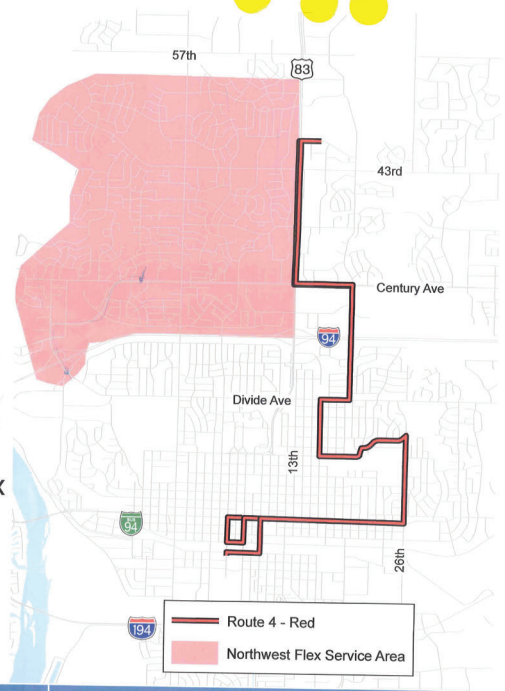
- All Routes
- 60 Minute Service
- Each Hour/Route - $17,000 Annually
- 3 Hours Minimum for Retail ($306,000)
- 4 Hours Preferred for Retail ($408,000)

Benefits	Challenges
Supports People Working on Later into Evening (Weekdays and Saturday)	Cost
Provides After Work Trip Opportunities	Likely Lower Demand Relative to Earlier Hours – Same Cost
Already Operating Paratransit Most Hours – L New Cost	

BS 11/8 AM

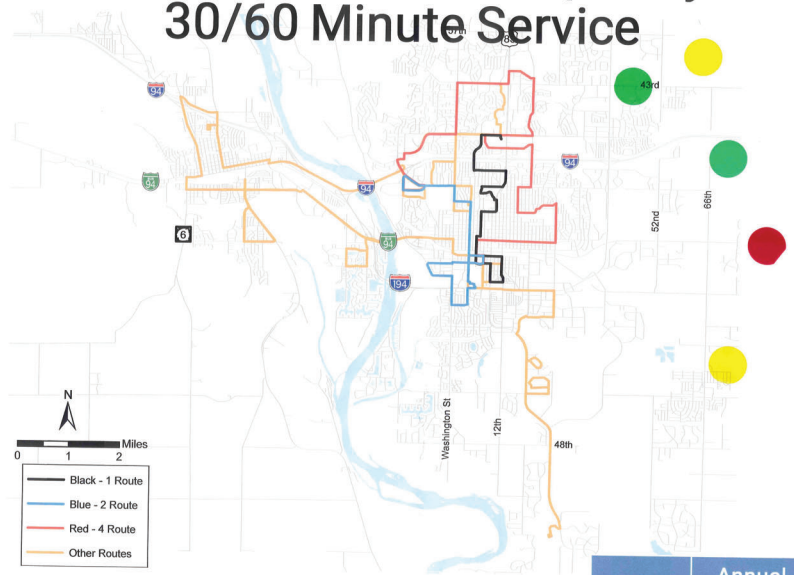
Red 60 Minute and Flex

- "East" Portion of Red – Same Route
- Front Avenue Transfer Center and Walmart North
- 60 Minute Frequency
- Set Designated stops
- "West" Portion – Flex:
  - North Walmart Every 60 Minutes
  - BSC Every 60 Minutes
  - Curb-to-Curb Inside "Flex Zone"



Benefits	Challenges
More direct trips from downtown to the capital and Walmart	Eliminates direct connection to Bismarck State College
Dramatic Improvement to 2 hour service	Cannot 'flag" bus at any location
Still connects with all routes – Through Walmart/BSC/Transit Hub	Small capital cost for bus stop signs ($7,000)
More of north	
Curb-to-curb in Flex	

Add Fixed Route Frequency 30/60 Minute Service



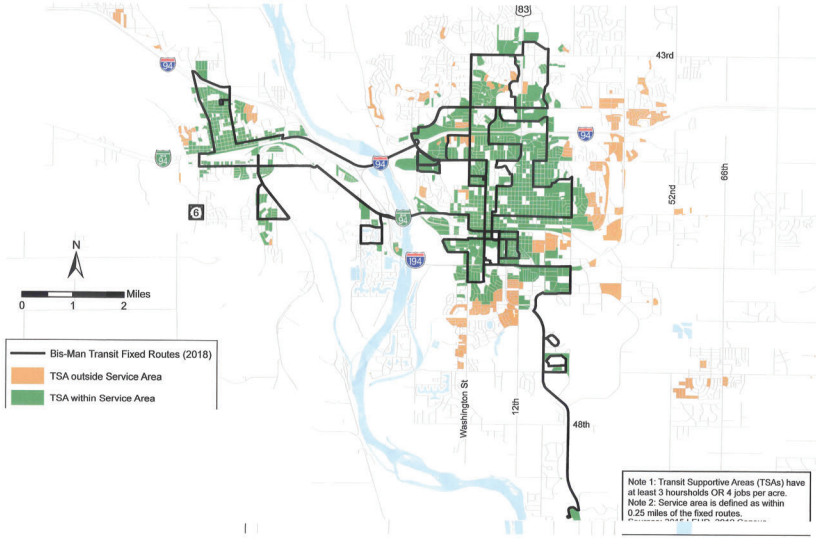
- Core Route (Blue-Black) 30 Minute
- Red: 60 Minute
- Weekdays Only
- $18,300 Annually for Each Hour Per Route
- Each Route Needs 1 Bus

Daily Hours	Annual Operating Cost
4	$220,000
6	$330,000
8	$439,000
All Day	$659,000

Benefits	Challenges
Frequency Results in Use – More Mobility	Cost
Reduces Risk to User – If Miss Preferred Bus	Double Frequency: +35% Ridership (Typically) Is this Acceptable?

BIS 11/8 AM

Add Sunday Fixed Route Service

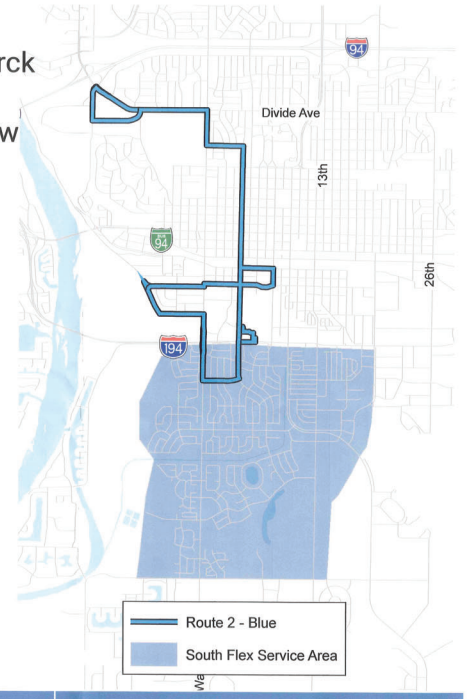


- Full Fixed Route and Paratransit
- 9:00 AM to 6:00 PM
- $180,000 Annual Cost (Each Sunday = $30,000)

Benefits	Challenges
Supports People Working on Sundays	Cost
Support Sunday Retail Trips	Likely Lower Demand Relative to Saturday – Same Cost
Supports Sunday Social Trips	
Already Operating Paratransit Most Hours – Limited New Cost	

NEW Blue Flex Zone

- Create New "South" Bismarck Flex
- Adds Transit Service to New Area:
  - Connects with Blue Route Every 60 Minutes.
  - Access to Kirkwood Mall
  - Curb-to-Curb Inside "Flex Zone"
- Run Fixed Route Service Hours:
  - 7 AM – 7 PM Weekdays
  - 8 AM – 7 PM Sat.
- One Bus Required (Paratransit Size)
- $206,000 Annual Cost
- Mix Paratransit/General Public in Zone Only



Benefits	Challenges
Provides Service to Higher Density, Lower Income area (2.5 Square Miles)	Cost
Curb to curb service (Mix Public Transit and Paratransit in Zone)	

Bismarck Evening Public Meeting
11/08/2018

Which of the Options are Most Important to You?

- Displays highlight the key expansion proposals that would require investing more funds into operations and/or vehicles.
- Total cost of the proposals/ideas exceeds the estimate of additional dollars likely available.

- Please provide input on your preference of where funds should be allocated:
  - Place Dots on Your Preferred
  - You Do Not have Enough Dots for All

– Highest Priority

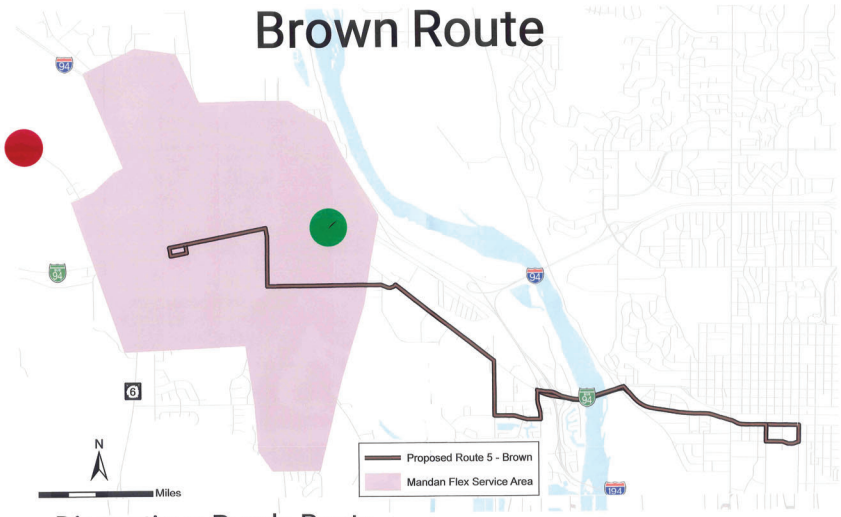
– Second Highest Priority

– Third Highest Priority

– Fourth Highest Priority

PB15 11/8 PM

Mandan Flex-Connect to Bismarck Via Brown Route

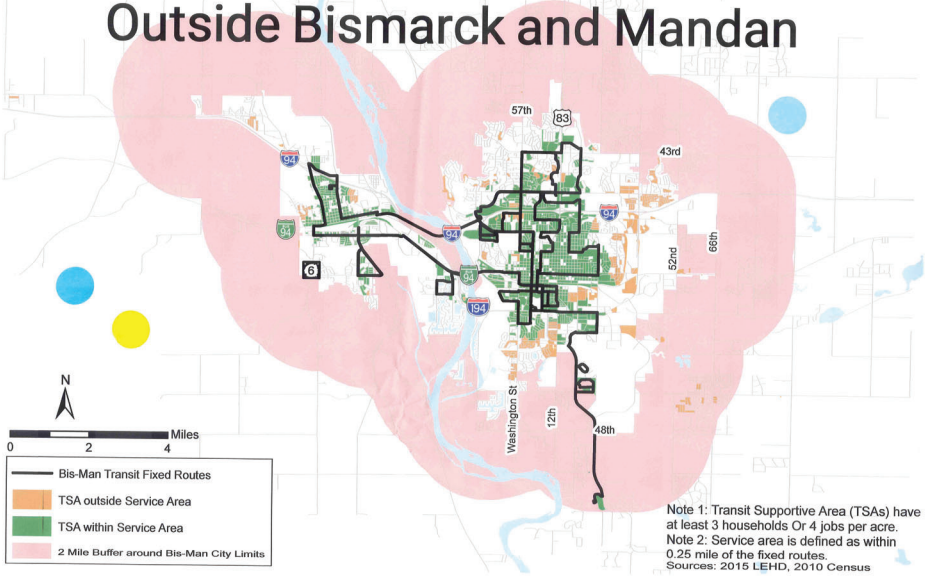


- Discontinue Purple Route
- Within Mandan – Call Ahead/Curb-to-Curb
- Paratransit to/from Bismarck – No Change
- Paratransit in Mandan – Mix with General Public Flex
- Walmart Every 60 Minutes
- Connect to Brown Route – Dan's Supermarket
- Hourly Service to/from Bismarck Downtown Transit Hub (Via Brown Route)

Benefits	Challenges
Serves all major activity centers including Walmart, Dan's, and Sanford East Clinic	Eliminates direct connection to Bismarck State College
Extends bus service to parts of Mandan not currently served by the Purple Route	
Connects directly to the Brown Route	
Curb to curb service	

BIS 11/8 PM

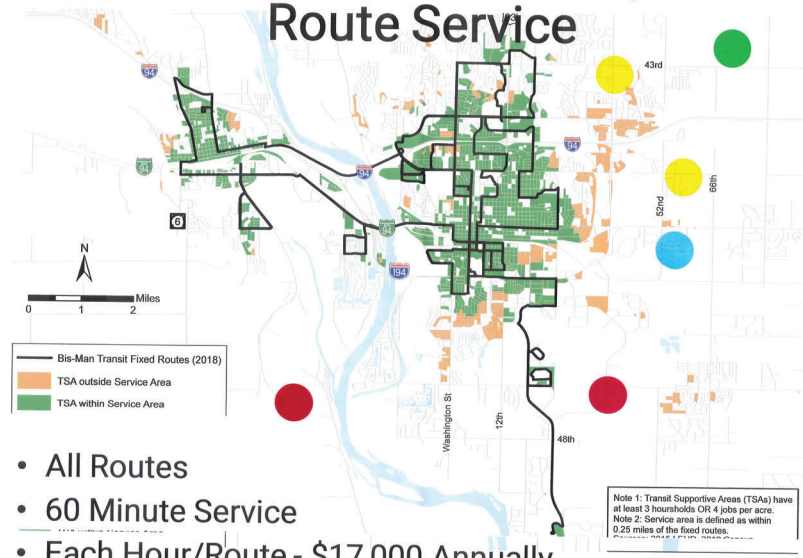
Extend Demand-Response/Paratransit Outside Bismarck and Mandan



- 2 Miles of City Limits (Is this Far Enough?)
- $125,000 Annual Operating Cost
- Monday – Saturday Service
- Same Hours as Current Fixed Route
- Curb-to-Curb Service

Benefits	Challenges
Provides Access to People Relying on Bismarck and Mandan Services	Cost
Reinstates Service Previously Provided	Requires Funding from Counties (Is there a Willingness?)

Extend Weekday/Saturday Fixed Route Service



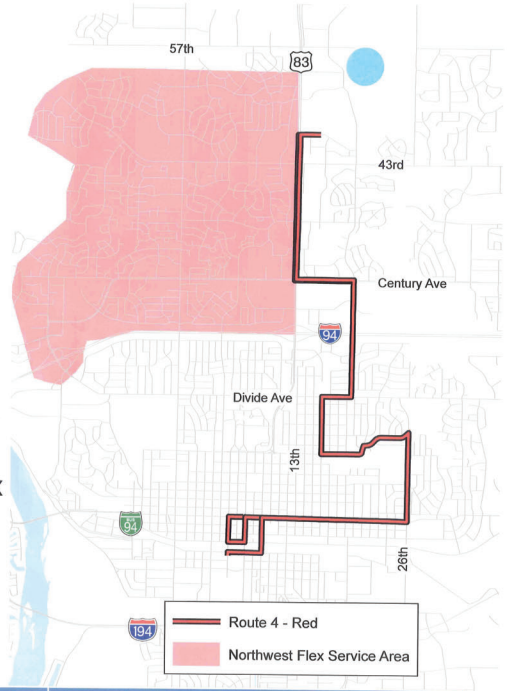
- All Routes
- 60 Minute Service
- Each Hour/Route - $17,000 Annually
- 3 Hours Minimum for Retail ($306,000)
- 4 Hours Preferred for Retail ($408,000)

Benefits	Challenges
Supports People Working on Later into Evening (Weekdays and Saturday)	Cost
Provides After Work Trip Opportunities	Likely Lower Demand Relative to Earlier Hours – Same Cost
Already Operating Paratransit Most Hours – L New Cost	

BIS 11/2 PM

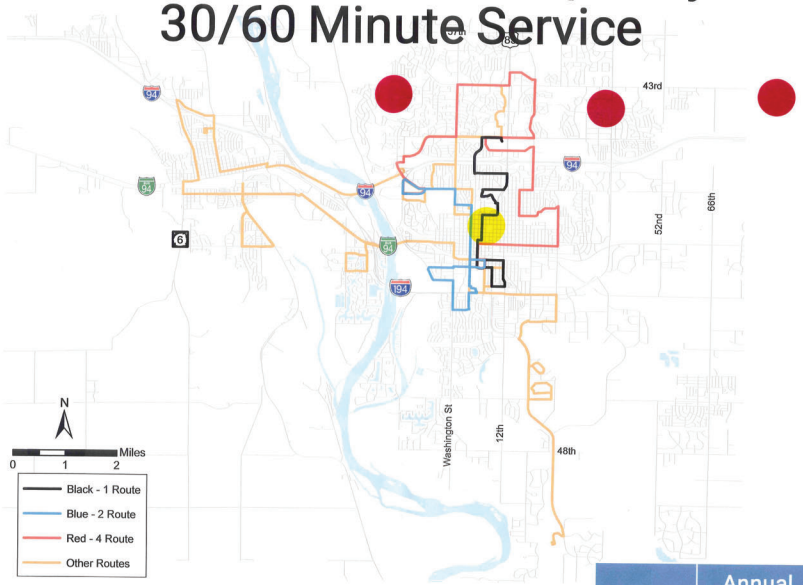
Red 60 Minute and Flex

- "East" Portion of Red – Same Route
- Front Avenue Transfer Center and Walmart North
- 60 Minute Frequency
- Set Designated stops
- "West" Portion – Flex:
  - North Walmart Every 60 Minutes
  - BSC Every 60 Minutes
  - Curb-to-Curb Inside "Flex Zone"



Benefits	Challenges
More direct trips from downtown to the capital and Walmart	Eliminates direct connection to Bismarck State College
Dramatic Improvement to 2 hour service	Cannot 'flag" bus at any location
Still connects with all routes – Through Walmart/BSC/Transit Hub	Small capital cost for bus stop signs ($7,000)
More of north	
Curb-to-curb in Flex	

Add Fixed Route Frequency 30/60 Minute Service



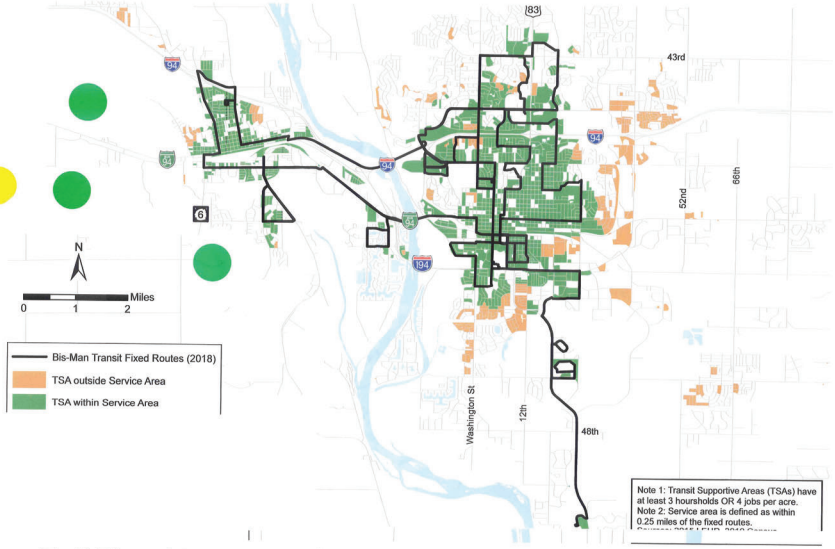
- Core Route (Blue-Black) 30 Minute
- Red: 60 Minute
- Weekdays Only
- $18,300 Annually for Each Hour Per Route
- Each Route Needs 1 Bus

Daily Hours	Annual Operating Cost
4	$220,000
6	$330,000
8	$439,000
All Day	$659,000

Benefits	Challenges
Frequency Results in Use – More Mobility	Cost
Reduces Risk to User – If Miss Preferred Bus	Double Frequency: +35% Ridership (Typically) Is this Acceptable?

BIS 1/18 PM

Add Sunday Fixed Route Service

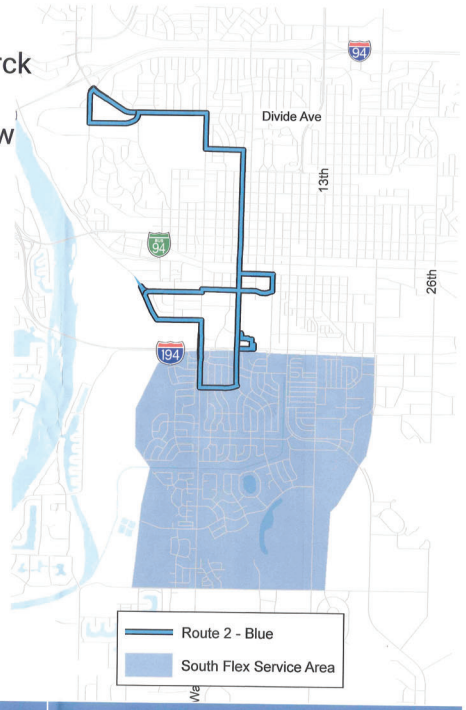


- Full Fixed Route and Paratransit
- 9:00 AM to 6:00 PM
- $180,000 Annual Cost (Each Sunday = $30,000)

Benefits	Challenges
Supports People Working on Sundays	Cost
Support Sunday Retail Trips	Likely Lower Demand Relative to Saturday – Same Cost
Supports Sunday Social Trips	
Already Operating Paratransit Most Hours – Limited New Cost	

NEW Blue Flex Zone

- Create New "South" Bismarck Flex
- Adds Transit Service to New Area:
  - Connects with Blue Route Every 60 Minutes.
  - Access to Kirkwood Mall
  - Curb-to-Curb Inside "Flex Zone"
- Run Fixed Route Service Hours:
  - 7 AM – 7 PM Weekdays
  - 8 AM – 7 PM Sat.
- One Bus Required (Paratransit Size)
- $206,000 Annual Cost
- Mix Paratransit/General Public in Zone Only



Benefits	Challenges
Provides Service to Higher Density, Lower Income area (2.5 Square Miles)	Cost
Curb to curb service (Mix Public Transit and Paratransit in Zone)	

Comments Received

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

November 2018

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit concepts/ideas displayed at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Helen Baumgartner - helenb@mixco.net - Mandan

Name | Email Address | City | State

Comments, Ideas, & Concerns

The proposed purple + partial red routes becoming flex routes + connecting with the brown route @ the proposed manner would increase the length of time it takes to get from 402 12th Ave NW in Mandan to St Gabriels Community in Bismarck at 4580 Coleman St. It takes longer to get there + the transfers are increased.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

November 2018

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit concepts/ideas displayed at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
		Bismarck Library	

Comments, Ideas, & Concerns

Keep Brown Route at Washington & Rosser

> Continue on the back or attach additional sheets

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

November 2018

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit concepts/ideas displayed at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name | Email Address | City | State

Comments, Ideas, & Concerns

This event is benifical to cat consumers only not paratransit riders!!
~~Paratransit riders~~ we Cheksi Collins

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

November 2018

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit concepts/ideas displayed at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Jillian Schaible

Name | Email Address | City | State

Comments, Ideas, & Concerns

As a Paratransit rider, my opinion doesn't matter.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

November 2018

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit concepts/ideas displayed at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Ross Degenstein rossd.construction.tech@gmail.com

Name Email Address City BIS ND State

Comments, Ideas, & Concerns

No bus after 7:00PM in Bismarck and Minot. No bus after 10:00PM in Grand Forks. No bus after 11:15PM in Fargo.

Ross wants longer hours on the fixed route. ~~From~~ untill 9 or 10 pm, leaving from Walmart North.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

PIM 2 Additional Material

Table 1

Summary of Public Input on Alternatives Priorities

Alternative	Preference by Meeting											
	Mandan				Bismarck Morning				Bismarck Evening			
	Highest	2nd	3rd	4th	Highest	2nd	3rd	4th	Highest	2nd	3rd	4th
Mandan Flex - Brown Connection	4	1	0	1	4	1	2	2	2	0	0	2
Extend Service Limits Outside City Limits	0	0	0	0	4	0	0	0	0	1	0	2
Extend Weekday/Saturday Hours	1	0	2	0	0	1	3	3	2	2	1	2
Red Route - 60 Minute Flex	0	2	1	2	0	4	0	0	1	1	2	0
Add 30/60 Minute Frequency	1	3	1	0	1	3	0	2	3	2	0	0
Add Sunday Service	0	0	0	3	0	0	0	0	0	1	0	4
Add New Blue Flex	0	0	2	0	0	0	4	2	0	0	1	0

Identifying Need for Change

Route Performance

Current Route is Under-performing:
- Service – Who has Service Relative to Need?
- Economic – What is Ridership?
- Financial – How Much is Spent per Ride?

Fill Gaps

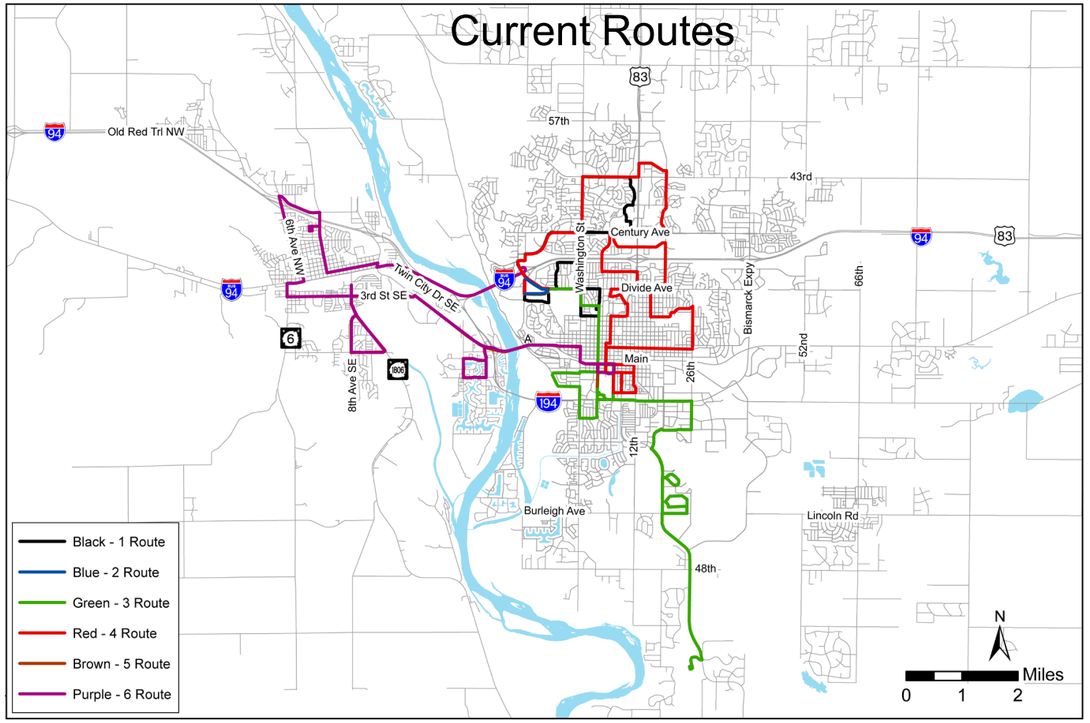
Identify Transit Supportive Areas without Service
Transit Dependent Relative to Service

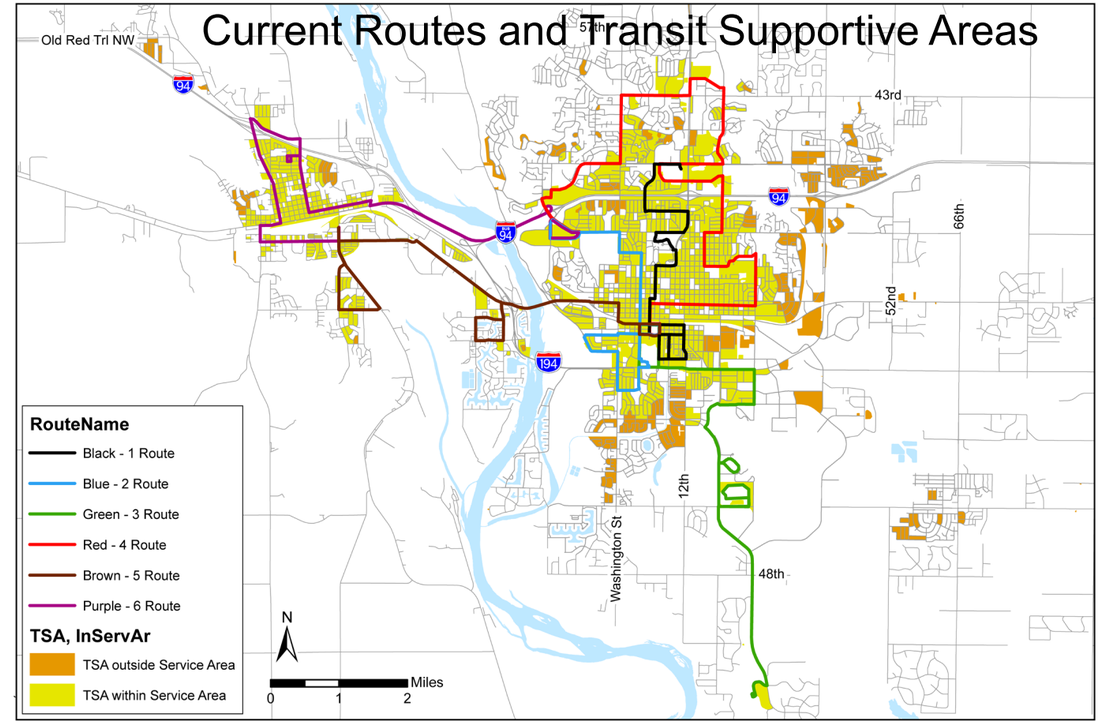
Segment Performance

Riders Per Revenue Hour

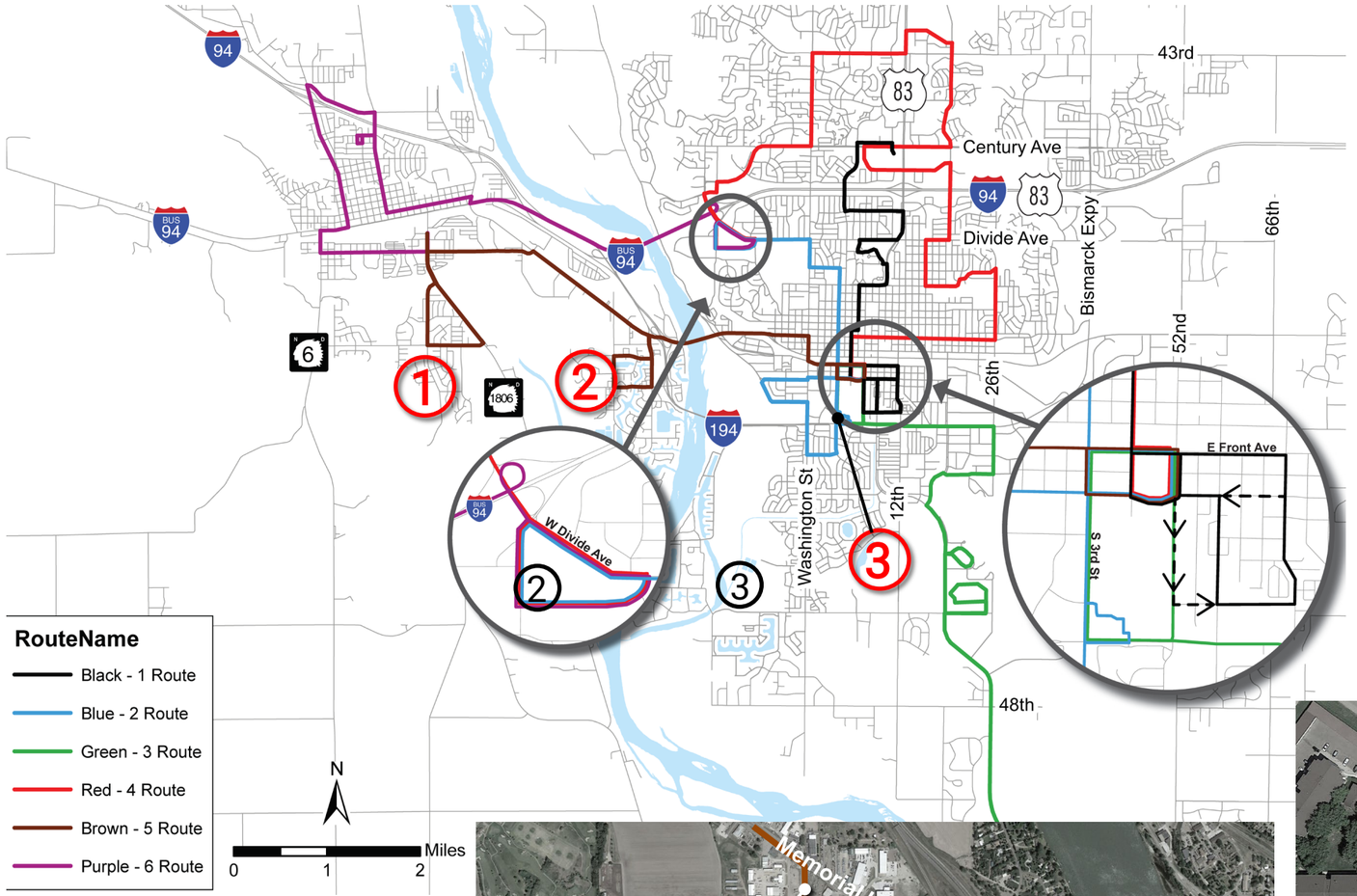
Redundancy

Are Competing Routes Reducing Performance?



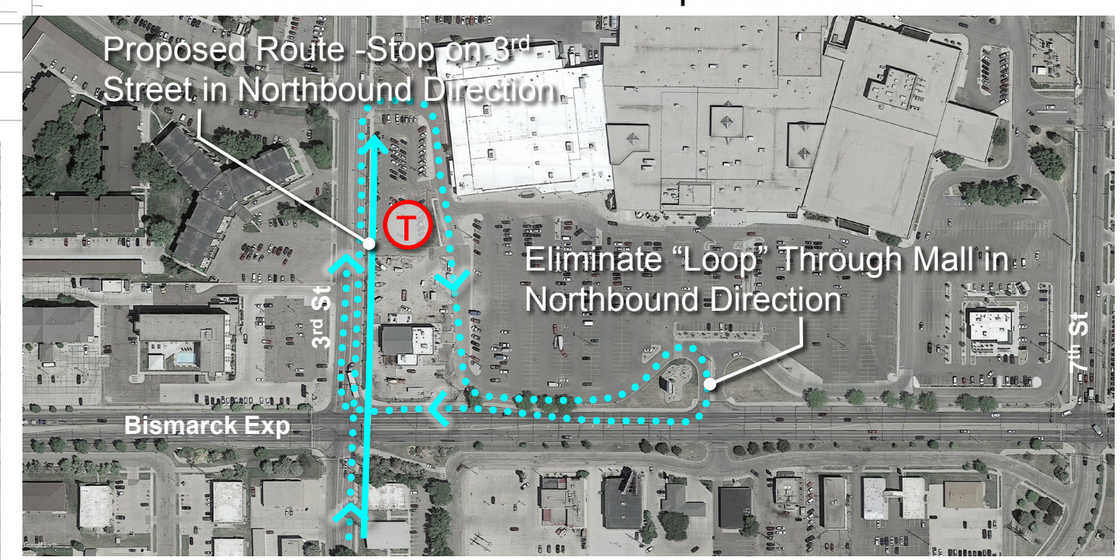


No Cost Safety/Efficiency Changes



1. Brown Route - Go through 1806-19th Ave-6th St Loop Once Per Trip (Currently Twice)
   From Bismarck Direction – Stop at Dan's First
2. Brown Route - 46th Ave-McKenzie-40th Ave-21st St Loop – Modify Route to use 19th Street
3. Change Blue Route NORTHBOUND Circulation In/Out of Kirkwood Mall

Kirkwood Mall – Current and Proposed Travel Pattern



Bismarck-Mandan Metropolitan Planning Organization

TRANSIT DEVELOPMENT PLAN

Public Meeting 3 Summary

January 29-30, 2019

SRF

In association with:
AECOM

Public Meeting Notice

BISMARCK-MANDAN AREA TRANSIT DEVELOPMENT PLAN PUBLIC INFORMATION MEETINGS

YOUR INPUT IS REQUESTED

The third, and final, series of public meetings is being held to gather input regarding potential improvements to transit service in the metro area.

Meetings will include a presentation on preliminary recommendations of service and opportunity to talk one-on-one with consultant and Bis-Man Transit staff.

PURPOSE OF THE TRANSIT PLAN

The purpose of the plan is to:

- Work with residents and community leaders to understand strengths and weaknesses of the current Bis-Man Transit system.
- Identify desirable changes to the system to better serve current customers and potential users.
- Prepare a plan of vehicle, facility, and service concepts to meet need and can be funded today and into the future.

WHEN AND WHERE

Tuesday, January 29, 2019 from 10:00-11:30 am
Bismarck Veterans Memorial Library
Room A
515 North 5th Street, Bismarck, ND 58501

Tuesday, January 29, 2019 from 4:00-5:30 pm
Bismarck Veterans Memorial Library
Room A
515 North 5th Street, Bismarck, ND 58501

Wednesday, January 30, 2019 from 5:00-6:30 pm
Mandan City Hall
Commission Room
205 2nd Avenue NW, Mandan, ND 58554

Feedback can also be submitted through the plan website at https://www.transitplanbisman.com or by calling (701) 354-2400.

To request accommodations for disabilities and/or language assistance, contact Title VI/ADA Coordinator at (701) 355-1332, or email mpo@bismarcknd.gov, TTY users may access Relay North Dakota at 711 or 1-800-366-6888, at least five (5) days in advance of the meeting.

Bismarck·Mandan

METROPOLITAN PLANNING ORGANIZATION

NEWS RELEASE

For Immediate Release:
January 28, 2019

For More Information, Media Contact:
Rachel Drewlow, Transportation Planner
Phone: 701-355-1852

Alternative participation options offered for Transit Development Plan public meetings

BISMARCK, N.D. – Alternative participation options are being offered for the Bismarck-Mandan Transit Development Plan public meetings January 29 and January 30 due to the extremely cold weather and suspension of Transit services anticipated on these dates. The scheduled meeting January 29 will continue to take place in Bismarck at 10:00-11:30 AM, and again at 4:00-5:30 PM, at the Bismarck Veterans Memorial Library Room A, 515 North 5th Street, Bismarck, ND. The January 30 scheduled meeting will take place in Mandan, from 5:00-6:30 PM, at the Mandan City Hall Commission Room, 205 2nd Avenue NW, Mandan, ND.

Material from the public meetings will be made available online for individuals who are unable to attend in person. Material includes a pre-recorded version of the 20-minute presentation, an interactive community survey of revised service options, meeting displays, and the official comment form. Online information will also be accompanied by a "Frequently Asked Questions" sheet which will strive to extend the discussion from the in-person meetings. Please look for these materials on the homepage of the project site at www.transitplanbisman.com. Online materials will be available until February 15, 2019.

Feedback may be submitted through the www.transitplanbisman.com or by calling 701-354-2400. Public comments from the online and in-person meetings will be collected until Friday, February 15, 2019.

The Bismarck-Mandan MPO, Bis-Man Transit, and the consulting team at SRF and AECOM urge you to use caution while traveling in the extreme cold. We warmly welcome your participation in the final public meetings, whether in-person or online.

To request accommodations for disabilities and/or language assistance contact the Title VI/ADA Coordinator, via email: mpo@bismarcknd.gov or call 701-355-1332. TTY users may access Relay North Dakota at 711 or 1-800-366-6888. Requests must be received at least (5) five days in advance of the meeting.

###

Meeting Sign-in Sheets

SIGN-IN SHEET

(Rev. 03-2012)

Bismarck-Mandan
METROPOLITAN PLANNING ORGANIZATION

Meeting Location	Meeting Type	Meeting Date
Bismarck Veterans Library - RM A 10:00 AM	PIM #3	1-29-19
Project Number: 2018 TDP		PCN
Project Description		

Name (Please print)	Title/Representing		
Rachel Drewlow	MPO		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Peggy Netzer	Director of Client Services		
Address: 1100 E Blvd Ave			
City: Bismarck	State: ND	Zip code: 58501	Email: peggyn@ruthmeiers.org

Name (Please print)	Title/Representing		
Elizabeth Garfield	Case manager		
Address: 1100 E. Blvd Ave.			
City: Bismarck	State: ND	Zip code: 58501	Email: elizabethg@ruthmeiers.org

Name (Please print)	Title/Representing		
Susan Dingle	self-bus rider		
Address: 700 N Mandan ST			
City: Bismarck	State: ND	Zip code: 58501	Email: suzsaide@hotmail.com

Name (Please print)	Title/Representing		
KATHLEEN JONES	Co Comm		
Address: 4380 WILLOWOOD ST			
City: BISMARCK	State: ND	Zip code: 58503	Email: KATHNOMEC@MIDCO.NET

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

SIGN-IN SHEET

(Rev. 03-2012)

Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

Meeting Location	Meeting Type	Meeting Date
Bismarck Veterans Library-RM A 4:00pm	PIM #3	1-29-19
Project Number		**PCN**
Project Description 2018 TDP		

Name (Please print)	Title/Representing		
Ross Degenstein			
Address 114 N. 3rd St 314			
City BISMARCK	State ND	Zip code 58501	Email rossd.construction.tech@gmail.com

Name (Please print)	Title/Representing		
Mike Chaussee			
Address 710 W. Turnpike Ave			
City Bismarck	State ND	Zip code 58501	Email mchaussee@garp.org

Name (Please print)	Title/Representing		
Steve Saunders	MPO		
Address			
City Bismarck	State	Zip code	Email

Name (Please print)	Title/Representing		
Rachel Drewlow	MPO		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

SIGN-IN SHEET

(Rev. 03-2012)

Bismarck-Mandan
METROPOLITAN PLANNING ORGANIZATION

Meeting Location	Meeting Type	Meeting Date
Mandan Commission Room	PIM #3	1-30-19
Project Number		PCN
Project Description: 2018 TDP		

Name (Please print)	Title/Representing		
Rachel Drewlow	MPO		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Glenn Lauinger			
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Arlin Polsfut			
Address: 809 1st Ave NW			
City: mandan	State: ND	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Name (Please print)	Title/Representing		
Address			
City	State	Zip code	Email

Meeting Presentation

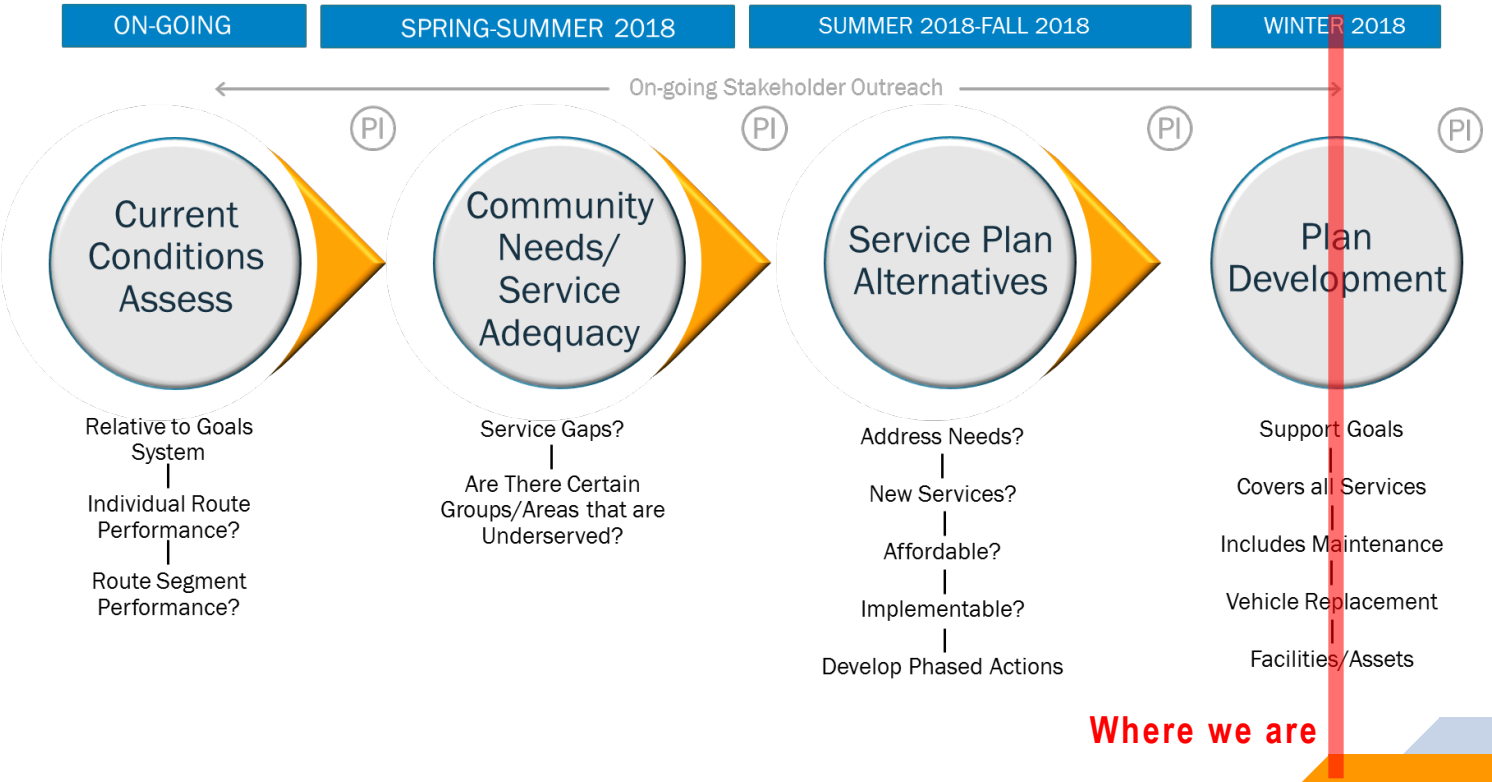
INTENTIONALLY BLANK PAGE

Public Meeting 3 – Preliminary Recommendations

- January 2019

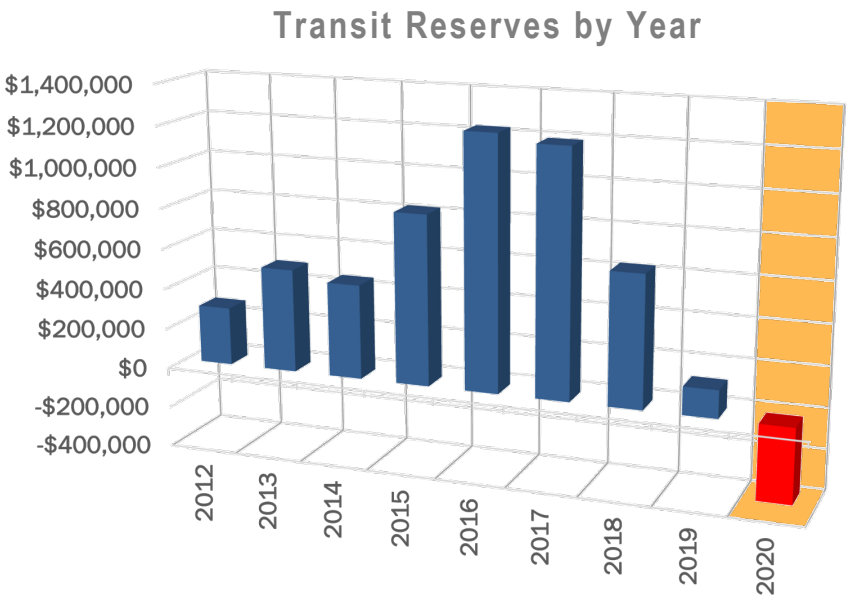
SRF AECOM

TDP Steps


ON-GOING
SPRING-SUMMER 2018
SUMMER 2018-FALL 2018
WINTER 2018
On-going Stakeholder Outreach
PI
PI
PI
PI
Current Conditions Assess
Community Needs/ Service Adequacy
Service Plan Alternatives
Plan Development
Relative to Goals System
Individual Route Performance?
Route Segment Performance?
Service Gaps?
Are There Certain Groups/Areas that are Underserved?
Address Needs?
New Services?
Affordable?
Implementable?
Develop Phased Actions
Support Goals
Covers all Services
Includes Maintenance
Vehicle Replacement
Facilities/Assets
Where we are

Bismarck-Mandan Area Primary Challenge

- Negative Financial Condition:
  - All Public Transit is Subsidized
  - Locally:
    - Expenditures are Outpacing Available Subsidy
  - Choices:
    - Increase Revenue
    - Decrease Spending
    - Combination of Both

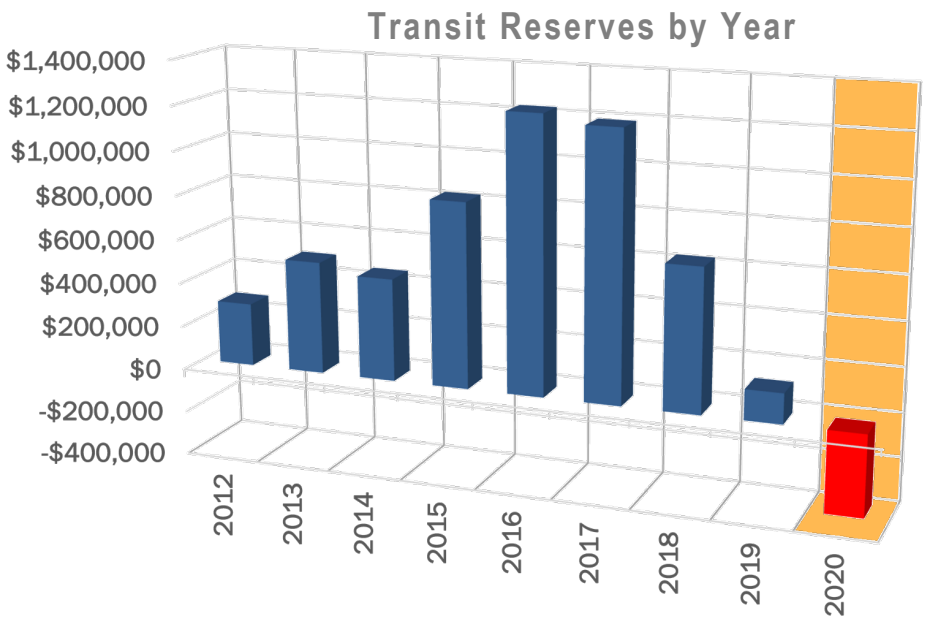


Financial Conditions

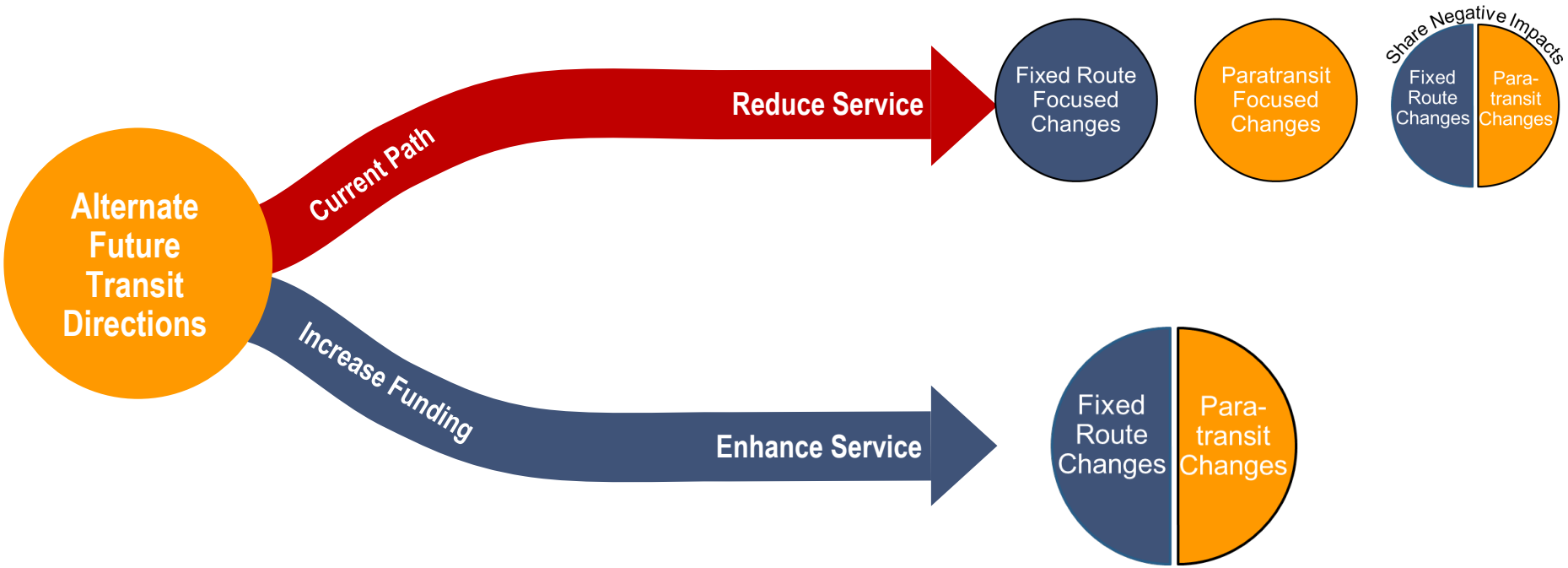
- Currently – Costs are about $500,000 more than Revenue
- Cannot Continue Path without Reducing Service
- Amount Represents 11% of Annual Cost

What Has Changed?

- All Full Time Drivers:
  - Higher Hourly Wage
  - Benefits
  - Reduced Turnover/Improved Safety
- Less State Funding: $150,000
- Less Federal Funding: $350,000
- Fewer Local Partners: $39,500



Alternate Future Transit Paths



Investment by Service

- Fixed Route: Bismarck-Mandan – Funds at much Lower Level than Most Peers
- Paratransit: Bismarck-Mandan – Funds at Higher Level than All Peers

Peer City	Annual Operating Cost	Service Area Pop	Operating Investment / Capita		
			Fixed Route	Paratransit	Total
Bis-Man	**$3,762,436**	**81,955**	**$19.66**	**$26.25**	**$45.91**
Billings	$4,808,660	114,773	$30.47	$11.42	$41.89
Fargo/Moorhead	$9,695,692	176,676	$45.95	$8.93	$54.88
Grand Forks	$3,559,686	61,270	$35.13	$22.97	$58.10
Rapid City	$2,039,711	81,251	$12.28	$12.83	$25.11
Sioux Falls	$7,905,674	156,777	$28.98	$21.44	$50.42

SRF AECOM

Funding is Needed – Status Quo or Expand

Recommended Actions if No New Funding

No Added Funding – Will Need to Make Hard Choices

Weekdays:

- Reduce/Eliminate Early AM Service
- Reduce/Eliminate Night Service

Weekends:

- Reduce/Eliminate Early AM Service (Saturday)
- Reduce/Eliminate Night Service (Saturday)
- Reduce/Eliminate Sunday Service

Recommended Cost Cutting Actions

- Convert Purple-Brown into 2 Hour Route ($235,000)
- Eliminate Senior Qualification for Paratransit:
  - $196,100 (Likely over-stated as some passengers will certify for paratransit)
- Eliminate Evening Paratransit
  - Weekdays: $86,900 Annually
  - Saturday: $13,900 Annually

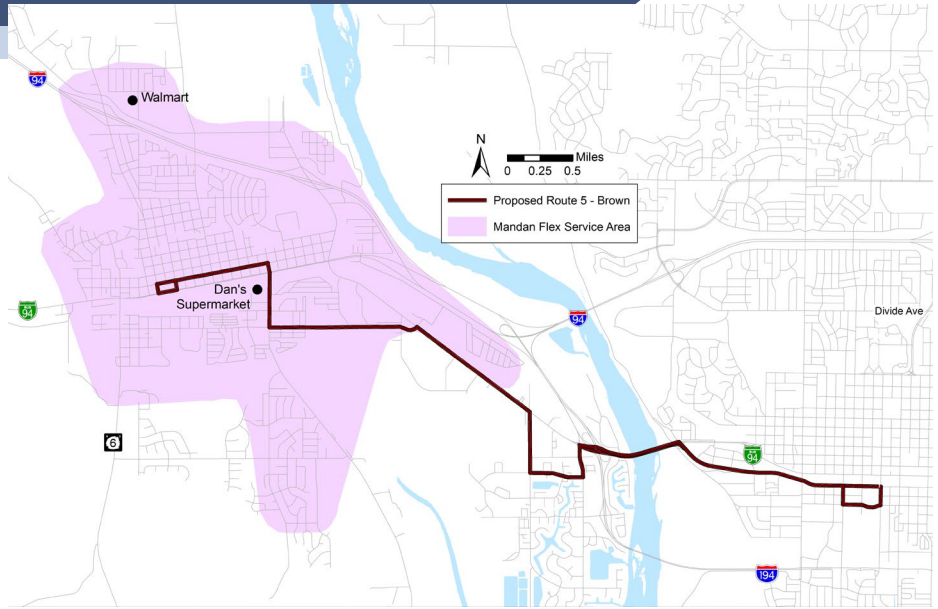
Added Revenue Option - New Service

Overview – If Can Increase Revenue

- Keep Current Paratransit Level of Service:
  - Days of the Week
  - Hours of the Day
- Implement Service Improvements:
  - Add Frequency
  - Add Coverage

Mandan Flex Route

- Discontinue Purple Route
- Within Mandan – Call Ahead/Curb-to-Curb
- Paratransit to/from Bismarck – No Change
- Paratransit in Mandan – Mix with General Public Flex
- Walmart Every 60 Minutes
- Connect to Brown Route – Dan's Supermarket
- Hourly Service to/from Bismarck Downtown Transit Hub (Via Brown Route)

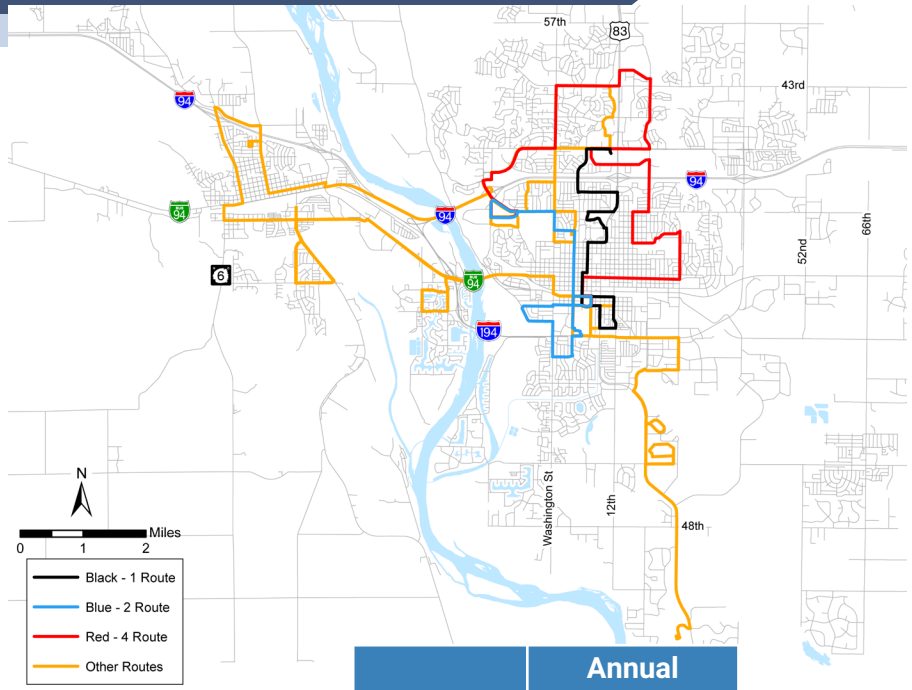


Benefits	Challenges
Serves all major activity centers including Walmart, Dan's, and Sanford East Clinic	Eliminates direct connection to Bismarck State College
Extends bus service to parts of Mandan not currently served by the Purple Route	
Connects directly to the Brown Route	
Curb to curb service	Cost – Cost Neutral Relative to Current

SRF AECOM

Core Improvements - Bismarck

- Core of Region Routes:
  - Blue and Black: Improve to 30 Minutes
  - Red: Improve to 60 Minutes
- Weekdays Only
- Each Route Needs 1 Bus



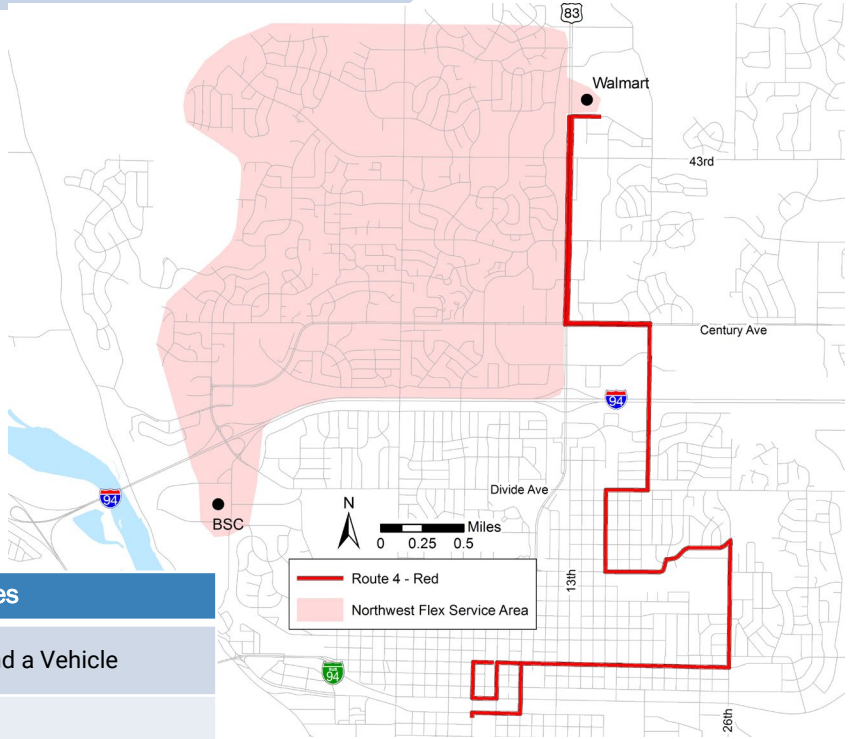
Benefits	Challenges
Frequency Results in Use – More Mobility	Cost
Reduces Risk to User – If Miss Preferred Bus	Double Frequency: +35% Ridership (Typically) Is this Acceptable?

Number Routes	Annual Operating Cost
1	$220,000
2	$440,000
3	$660,000

SRF AECOM

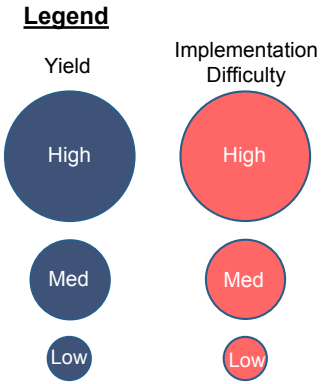
Core Improvements - Bismarck

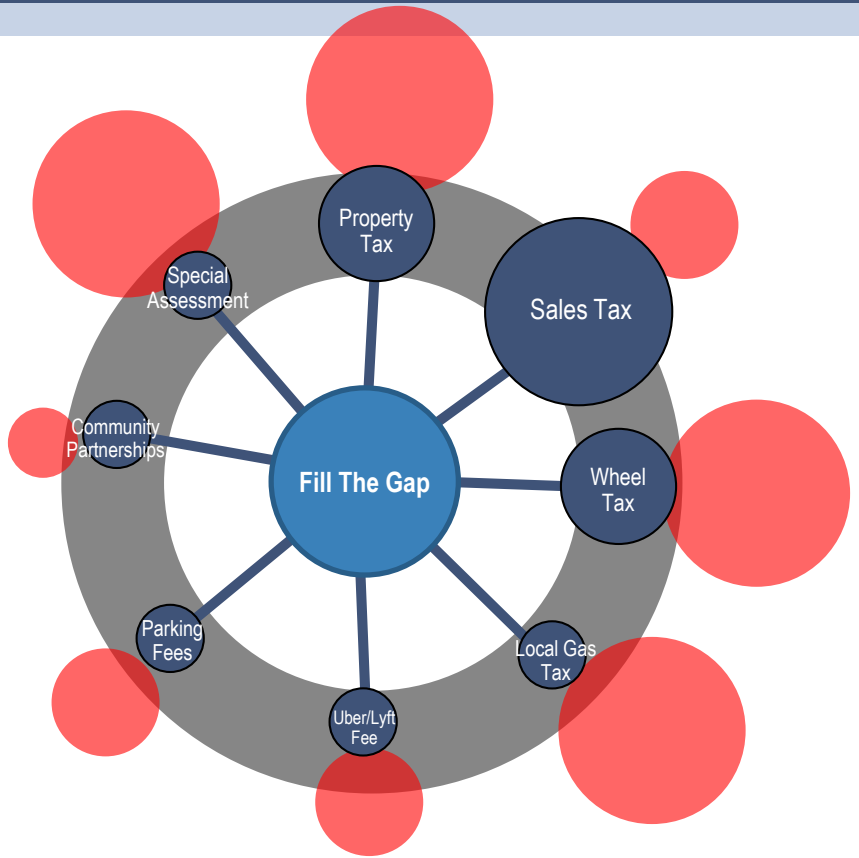
- Red: 60 Minute + Flex Route
- Time Points:
  - Walmart
  - Dan's
  - Bismarck State College
- Cost is Similar to 60 Minute Fixed Route Frequency
- Add a Bus (Paratransit Size)



Benefits	Challenges
Frequency Results in Use – More Mobility	Cost - +220,000 Per Year and a Vehicle
More Coverage in NW Bismarck at Lower Cost Per Square Mile of Coverage (Relative to Fixed Route)	

Funding Sources – Yield / Implementation Difficulty





Engagement Opportunities

- Community Events (Example: Touch A Truck)
- Public Meetings (2 Rounds)
- Community Survey on Needs
- Steering Committee (City/County Staff)
- Website (www.transitplanbisman.com)

Next Steps

- Refine Ideas/Concepts Based on Input Received
- Develop Budget/Capital Plan Assumptions
- Draft Document:
  - February
- Approval in April 2019

Contact Information

- Send Comments to:

  Bill Troe, SRF Project Manager
  btroe@srfconsulting.com
  701-354-2400

- Visit the Plan Website:
  www.transitplanbisman.com

Comments with be Accepted Until

February 15, 2019 at 4:00 PM

Comments on Each Service Idea can be provided through the Website

SRF AECOM

Questions/ Discussion

Thanks

INTENTIONALLY BLANK PAGE

Comments Received

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website - www.transitplanbisman.com

Name	Email Address	City	State
Jeannie Pedersen	engzerbenny@hotmail.com	Bismarck	ND

Comments, Ideas, & Concerns

Learning that they want to stop Transit rides at 7pm will effect me & others very much. As a quadriplegic & working full time Transit is my form of transportation. I do work some evenings every month & attend meetings or work shops with out Transit I couldn't do any of these, plus any social activities. I can't take Taxi to every thing because of the cost. Can't take Lift or Uber because there not accessable for I am a wheelchair user.
Please don't let them take away are independence away from us. I just want to be like every one else as a tax paying citizen.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
Deland DeCoteau		Bismarck	ND

Comments, Ideas, & Concerns

Stopping transit at 7:00 pm would affect my life. It would limit my ability to involve in community activities - I wouldn't be able to attend social/rec functions, go out to dinner with friends, attend Movies. I would miss meetings, limit time visiting family would not be able to attend a concert or similar type of activity or to function as other persons without dissabilities. I have night blindness and need assistance with getting around after dark - Transportation Maybe a better system would be more effective at retaining drivers and consistency

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
Rebecca Horne		Bismarck	ND

Comments, Ideas, & Concerns

Stoping Transit at 7:00 pm would NOT be fair to anyone who Rides transit. Why would you want to make Someone who already has a hard time getting out of there house feel like they Should not even try just because you want to shut the doors every night at transit @ 7. I am one of these peope who do need to take transit to get around and before you say well take the cab well I can't be cause of my disability. You are willing to take peoples freedom away. What about people who work and need a ride home after 7 then what? How are they going to get home? What if Someone who can't drive want's to go out for dinner and a movie then they would have to be done by 6:30 pm and thats not fair for the people who have friends that want to met after work and can't or don't have the equipment to help there friend get where they need to met. Transit was ment to help people better there lifes not not make us more home bound than we already are.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
Diane McKiernan	None	Mandan	ND

Comments, Ideas, & Concerns

Transit is my only means of transportation that I can afford and getting to Doctor appts & social activities that are at night would be impossible for me if I didn't have transit. Social activities at night are are good for me to get out & interact with other people which is a definitate asset for my mental & emotional health. I'm also contemplating some church & civic volunteering that I would also have to have transit in the night past 7pm. If my days are busy & need transit at night to do my shopping, I cannot always depend on being done by 7pm. I also know people that work til 9pm & need transit to get home.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
Allen Morris		Bismarck	ND

Comments, Ideas, & Concerns

Things I wouldn't be able to do is too Many- but I would like to list a few.

ANY social interaction after 7:00 would be taken away.

Movies
Baseball
Shopping
dining out
Meeting friends

Its like taking away a privilage in life for those of us who need it. I am 50 and was VERY INDEPENDENT. Its gone - this is a way to feel I am being discriminated. Life is short.

> Continue on the back or attach additional sheets

You can e-mail the study project manager at **btroe@srfconsulting.com**

Bismarck-Mandan Area Transit Plan

Public Meeting Comment Sheet

January 2019

Please record your comments, questions and/or thoughts regarding the Bis-Man Transit preliminary recommendations discussed and included in displays at the public meeting. Please return your completed form to one of the consultant staff.

You may also send your comments in an email to btroe@srfconsulting.com

Please provide your name and email address in the space provided below. More information can be found on the website – www.transitplanbisman.com

Name	Email Address	City	State
Randee Sailer	randeesailer@yahoo.com	Bismarck	ND

Comments, Ideas, & Concerns

Concerns of stopping transit @ 7pm. I do work certain nights til 8:30pm. Much of that money I'd earn for that evening job would just be used on a cab then. & evening activities, like at Event center. Cab would cost, the cost of that, to get home.

On a idea, I seen on a chart about yearly money on how money is getting lower & lower to where this year its going in debt, My idea is look back 10-15 years ago when the money chart was high. Go back to the system it was 10-15 years ago. Maybe then the money would be good instead of being in debt.

> *Continue on the back or attach additional sheets*

You can e-mail the study project manager at **btroe@srfconsulting.com**

From:	Bill Troe
To:	Helen Baumgartner
Cc:	Rachel A. Drewlow; Roy Rickert
Subject:	RE: BisMan Transit Presentation Comments
Date:	Friday, February 8, 2019 9:59:24 AM

Helen:
Please see below our responses to your inquiry. Please let me know if I need to add more information.

Comment #1: Yes, it is likely that the Purple and Brown would be run with the same bus. So, they would connect at the same time at Dan's.

Comment #2: For your trip the concept is more complex. The primary benefit of the concept is to improve intra-Mandan travel options and we believe it does a good job of that without being complex. While the concept remains a part of our recommendations, implementation would occur only in the event that added funding is available from the City of Mandan/Mandan residents and businesses. Within the foreseeable future, increasing the transit investment from Mandan is unlikely. Thus, while we see benefit to the concept for most folks in Mandan, implementation is not likely.

Comment #3: One fare would be collected for the entire one-way trip you described. Transfers would be requested for each leg. I will readily admit that the trip you describe will be more complex and take more time than the current (assuming you time it, which I am assuming you have down pat). We believe more trips will be more convenient, but your trip will be more complex and take longer. This alternative also requires more funding allocated to the Red Route, which will be difficult to obtain. Additionally, the alternate to retain the Red Route and move it to a 60 frequency is also still in the recommendations. This alternative would also require an increase in funding of an amount similar to the Flex concept. Of the strengthen the core alternatives (converting the Blue and/or Black to 30 minute service), changing the Red Route to either a 60 minute route or to the flex concept would be the last of the three. Finding funding to do all three will be difficult.

Please let me know if I have been incomplete in this response.

Bill Troe
Principal

11422 Miracle Hills Drive | Suite 315
Omaha, NE 68154
Phone: 402-513-2158 | Mobile: 402-350-7783
www.srfconsulting.com

-----Original Message-----
From: Helen Baumgartner [redacted]
Sent: Wednesday, January 30, 2019 3:54 PM
To: Bill Troe <BTroe@srfconsulting.com>
Subject: BisMan Transit Presentation Comments

Hi Bill,
I just watched your presentation on the Transit plan BisMan.com website as I don't feel like venturing out in this cold weather.
My comments/concerns are:
1. If the Purple/Brown route are combines into a two hour route, I would hope the route would be what it was prior to being split into two routes. That one route was more efficient than the two current Mandan routes ever have been.

2. It appears to me that my concerns I expressed to you at the last public meeting have not been taken into consideration regarding getting from NW Mandan to NE Bismarck. Using the proposed "Flex Route" would take more than double the time and more transfers than it takes me using the current routes. It seems to me, this new type of transportation is way more complicated and inconvenient than what we currently have.
3. If I use the flex route to get from my house to Dans to catch the bus to get to Bismarck, then have to use the flex route to get from north WalMart to St. Gabriels in NE Bismarck, do I have to pay Paratransit fees for both uses of the flex route to get to my final destination? Do I have to pay Paratransit fees at all when I am just trying to get to the fixed route bus? If there are ANY paratransit costs, what is my motivation to use the fixed route system when it will take me way longer to get where I am going and make more transfers?
These are the questions I have for now. I'm sure your reply would bring more discussion to resolve my concerns. I can be reached at 701-663-8878 or helenb@midco.net Thank you for listening.
Helen Baumgartner

Helen

INTENTIONALLY BLANK PAGE

Appendix 4. Summary of Stakeholder Interviews

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

Appendix 4. Summary of Stakeholder Interviews

An initial step in gathering information about the current range of service was to discuss with a range of staff a series of questions regarding:

- Bis-Man Transit Strengths/Things that are done well.
- Bis-Man Transit Weaknesses/Things that need to be Worked on.
- What are critical opportunities on the horizon for Bis-Man Transit?

The table below documents input received regarding each of the question areas.

Summary of Bis-Man Transit Staff Input

Question	Response Summary
What Are Bis-Man Transit Strengths?	On-time performance for both paratransit and fixed route service. Drivers/staff take time to know riders (most are daily users). Customer service is strong. Training – National Express is really promoting training. Door-to-door service is appreciated as many paratransit users have mobility issues. Paratransit service span. Tenure of staff – Helps with understanding what works and does not. Dispatching software – Great improvement. Willingness to try new things. Just having the service – Some people are very grateful for even a limited level. Mandan level of service – Better than with 2 hour frequency. Maintenance.
What are Bis-Man Transit Weaknesses?	Route changes impacted ridership. Customers do not know routes yet. Routes are too long. Misunderstanding of paratransit concept by many – It is not a replacement for taxi service. Short on staffing. People are wearing too many hats sometimes. Paratransit on-time performance (both pick-ups and drop-offs). Limited coverage of the community/Many gap areas. Low population density – Does not allow for competitive performance measures. Lack of Sunday service (7:30 to 2:30 is needed). Seasonal ridership/use of Green Route (college being in session or not impacts). Lack of service in some areas (northeast Bismarck), particularly when there is residential. Need more signage along routes. Low frequency, particularly on Red Route.

Question	Response Summary
	Not adequate recovery time – Purple and Brown going to Bismarck Lacking restrooms along routes that drivers can use. There are too many tight turns for the 35 foot buses. Time points need to be adjusted – Early in some places/Late in others. Limited fixed route hours and days. Need more empathy for people in town when making decisions. Examples – curb-to-curb service relative to door-to-doors or add holiday hours. Low on-time performance. No stop zones impact ridership/service use. Need more driver communication – Policies/Changes. No service outside Bismarck and Mandan. Being able to get enough operators due to pay limits.
What are Opportunities that Need to be Acted On?	New Dan's Supermarket (Centennial Road) – Need to make sure it is served. Providing service to Bis-Man Transit office. Improves access to ticketing. More service into the evening. Legacy High School (Centennial/Calgary) – Should serve. State Street – Reduce no-stop will provide access to users. Growth occurring in northeast Bismarck – No service in the area. Mobile home development Burleigh Avenue/South Washington Street. Main Street in Mandan. Partnerships – There are many opportunities in town. Need time to develop, Develop a transit center. Marketing and brand recognition.

From:	Bill Troe
To:	Ben Ehreth
Cc:	Rachel A. Drewlow
Subject:	RE: Comments Regarding Bis-Man Transit
Date:	Friday, November 9, 2018 4:49:47 PM

Thanks Ben, I will work through these and thanks for planning on sending the contact.

I am copying Rachel on my reply.

Bill Troe
Principal

11422 Miracle Hills Drive | Suite 315
Omaha, NE 68154
Phone: 402-513-2158 | Mobile: 402-350-7783
www.srfconsulting.com

From: Ben Ehreth [redacted]
Sent: Friday, November 09, 2018 4:46 PM
To: Bill Troe <BTroe@srfconsulting.com>
Cc: royr.bisman@midconetwork.com; Steve Saunders <ssaunders@bismarcknd.gov>
Subject: Comments Regarding Bis-Man Transit

Hello Bill,

Please find following and consider my comments related to the Bis-Man Transit Development Plan. These comments were initially provided in large part for the Strengths, Weakness, Opportunities and Threats exercise that your firm facilitiated with the Bis-Man Transit Board but I was not able to participate and I don't know if you ever recieved the comments. Regardless they reflect my concerns and comments that I would respectfully asked be considered as part of the current Transit Development Plan effort.

1. What do you see as Bis-Man Transit's strengths?

What does Bis-Man Transit do well, considering:

• *Service - Bis-Man Transit has made a renewed commitment to safety and operational performance of the public transportation system in the Bismarck-Mandan area. Not only are we now actually tracking key safety and performance measures there are financial penalties to the operations contractor for not meeting these safety and operational performance measures. The administrative and operations staff appear to have begun to implement a much stronger culture of safety within the Bis-Man Transit Organization*

• Organization - The organizational structure/relationship between the City of Bismarck, Bis-Man Transit, and the operations provider has both strengths and weaknesses. The strengths are that we have a current board structure that is comprised of a good representation of different experiences and perspectives related to public transportation. We have also instituted a rider committee which will offer a rider perspective related to the service Bis-Man Transit provides.

• Staff - The Bis-Man Transit staff is extremely knowledgeable about public transportation and associated federal requirements. They are open to trying new ideas and very committed to implement necessary work items. They are very dedicated. Over the past few years there have been some very difficult conversations, decisions, and tasks which have needed to be accomplished often with unrealistic time expectations and the staff continues to come through. There were some very challenging times that we have had to go through over the past few years and it would have been even more difficult without the highly committed staff that we have.

2. What do you see as Bis-Man Transit's weaknesses?

Question Modifiers: What are the missing service pieces? Are there people that are unserved/underserved by Bis-Man Transit that could stand to benefit from transit improvements? Are there parts of the organization that could be improved?

- *The most significant issue I believe facing Bis-Man Transit is the loss of trust and relationships from key partners in the Bismarck-Mandan area. Given the financial challenges dealt with over the past few years a variety of service change proposals were provided. Unfortunately I believe we made a tactical error in how we rolled those service changes out. We reacted much faster than I believe our customers and elected officials were comfortable with. Given the financial projections it is highly understandable and very understandable to those closely associated with Bis-Man Transit why we had to act with the speed we did but it ended up causing much more damage to key relationships. We proposed a solution before our customers, elected leaders, and service providers even new there was a problem. We need to spend a significant amount of time and resources in trying to rebuild key relationships with customers, service providers, and elected officials. Efforts have been made in this regard like having a Bismarck City Commission liason and the development of a rider committee but more needs to be done. In my opinion this is the organizations highest priority because if we don't have the trust of our customers, service providers, and elected leaders we will have an extremely difficult time implementing any further changes to move to a more financially sustainable model of operations.*
- *As has been identified in our current Transit Development plan we have an unsustainable model for providing service. The public transportation system in Bismarck and Mandan started with a door to door system followed many years later by a fixed route system. The development of the system coupled with customer expectations has lead to a model that is more heavily invested in the Paratransit system then the fixed route system which financially does not appear to be sustainable. Improvements to the fixed route system and an associated shift in customers from Paratransit to the Fixed Route system will be difficult without the shift in funding balance which has proven to be a significant challenge based on customer and elected official feedback to various proposals.*
- *The current fixed route structure is not convenient for anyone. I have come to the conclusion that we can not longer try to be everything to everyone. Given our current financial challenges I think we need to focus service (including fixed route) to those who need it most. In other words focusing on locations that have a propensity depend on transit service (areas with lack of car in household, concentrations of poverty, hard to park areas like college campuses and high concentrations of employment). We need to focus on making the fixed route*

system as convenient as possible for captive riders or those who need it the most and that likely means discontinuing service in suburban style portions of Bismarck and Mandan and highly increasing headways to focus on the places where captive riders live and where they are most likely to need to go.

- *The much if not most of the fleet is beyond it's useful life. Given the financial unsustainability of our current model of operations it is difficult to sustain a fleet with a predictable replacement schedule and so we are dependent on grants which are uncertain which we cannot depend on receiving. (This may no longer be a concern given recent grant awards and the use of the funds intended to go toward replacement buses)*
- *The lack of a central climate control hub is not only a convenience issue to customers it is more importantly a safety issue. Currently fixed route customers are subject to extreme heat and cold having to weight at our central hub.*

3. What are current and future opportunities available to Bis-Man Transit?

Question Modifiers: What are EXTERNAL Factors Bis-Man Transit Can Take Advantage? What are INTERNAL Factors Bis-Man Transit Can Take Advantage?

- *Autonomous vehicle technology presents both an opportunity and a threat to public transportation in general. In the long term autonomous technology we may not have the expense associated with drivers and the service could potentially operate 24 hours a day 7 days a week. In the shorter term communities are exploring microtransit options or portions of communities like low density suburban style portions of communities that could be served by an Uber style on demand public transportation service to get customers to the nearest fixed route system.*
- *There is renewed interest in the Downtowns of Bismarck and Mandan which are also the highest concentrations of employment in the area and the hardest to park areas. We should leverage this interst in downtowns with the service we provide to support and further fuel the development of these areas providing much higher frequency headways that actually make taking the fixed route system convenient.*
- *Generational change may bring much more interest in modes of travel beyond the privately owned automobile. To take advantage of this potential we will have to provide a service that is much more convenient to use and that means much higher frequency headways. As previously stated we can't increase headways all over the service area unless we get more funding, buses, and drivers so we may need to consider cutting service from existing areas to make it highly convenient to the areas that need it the most. If individuals are interested and committed to living a car free or car light lifestyle the availability and convenience of public transportation service may influence their decision to locate in these areas. In other words right now we are trying to be everything to everyone and in turn the fixed route service is convenient to no one. However if we focus resources to select areas to offer higher frequency headways it may not only help those who need it the most but these areas may also attract individuals who make a choice to take public transportation.*
- *There could be much potential in creating better linkages from downtown Bismarck to the state capital. Both areas have high concentrations of employment and both are hard to park areas. Much higher frequency headway service at least at key times of day could enhance ridership.*
- *Getting all colleges on a pass could be an opportunity to provide a service to students who may not have a car access parts the community.*

4. What are the key threats Bis-Man Transit is currently or will likely face that impact providing the desired services?

Question Modifiers: What are EXTERNAL Factors/ Conditions Bis-Man Transit Needs to Consider? What are INTERNAL Factors to Address? What are the barriers to taking advantage of some of the opportunities in the last question?

- *The most immediate threat to public transportation for the Bismarck-Mandan area is the continued lack of sustainability and diminishing funding opportunities (loss of federal and state funding sources) to sustain public transportation.*
- *Another immediate threat is the lack of understanding from customers, service providers, and elected officials on why service changes have been proposed and why more are likely needed. This relates to the damaged relationships that have been created and need to be rebuilt however the lack of understanding and trust poses a significant threat in making any further changes to enhance service to the public transportation customers in the Bismarck-Mandan area.*
- *As noted earlier autonomous technology and the associated business model shift from private automobile ownership to shared mobility (mobility as a service) poses a longer term threat to the viability of public transportation in areas the size of the Bismarck-Mandan service area. There are not significant issues of congestion in the service area so if the model of mobility as a service takes off transportation may become significantly less expensive than it is today so on demand transportation served by Uber style fleet vehicles may become virtually free or at least cheaper than what we are charging for public transportation currently in the Bismarck-Mandan area. Strong consideration should be given to what the actual role of public transportation will be in the future in the Bismarck-Mandan area.*

The Ruth Miers contact will be forthcomming.

Please let me know if you have any questions.

Thanks,

Ben

INTENTIONALLY BLANK PAGE

Appendix 5. Additional Service Concepts

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

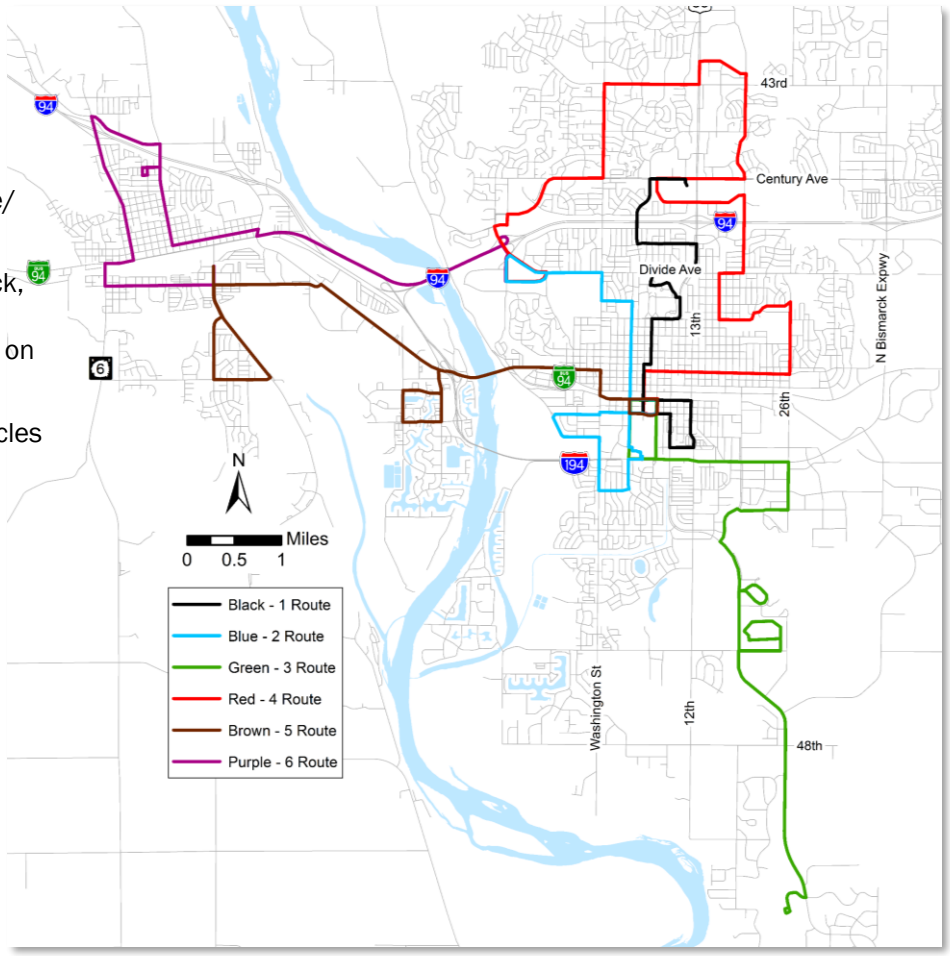
Service Span/Hours Extension

Annual Operating Cost	
Add 3 Hours Per Day	$306,000
Add 4 Hours Per Day	$408,000

Description

- Extend weekday and Saturday service hours beyond 7 PM by three to four hours.
- Three hours – Supports travel to/from many service jobs.
- Four hours - Supports travel to/from most service jobs.
- Apply to all routes (Black/Blue/Red/Purple/Brown/Green).
- 60-minutes frequency for Black, Blue, Brown, Green, Purple routes. 120 minute frequency on Red Route.
- Vehicle needs: No added vehicles

Service Span Improvements



Potential Benefits and Challenges

Benefits	Challenges
• Support transit use by people working through the evenings on weekdays and Saturdays. • Provide additional after-work trip opportunities for riders. • Currently operating paratransit service beyond 7 p.m. – Limited additional or new cost	• Cost • Likely lower demand relative to current service hours of 7 a.m.- 7 p.m. while the cost per hour is equal.

Fixed Route Service On Sunday

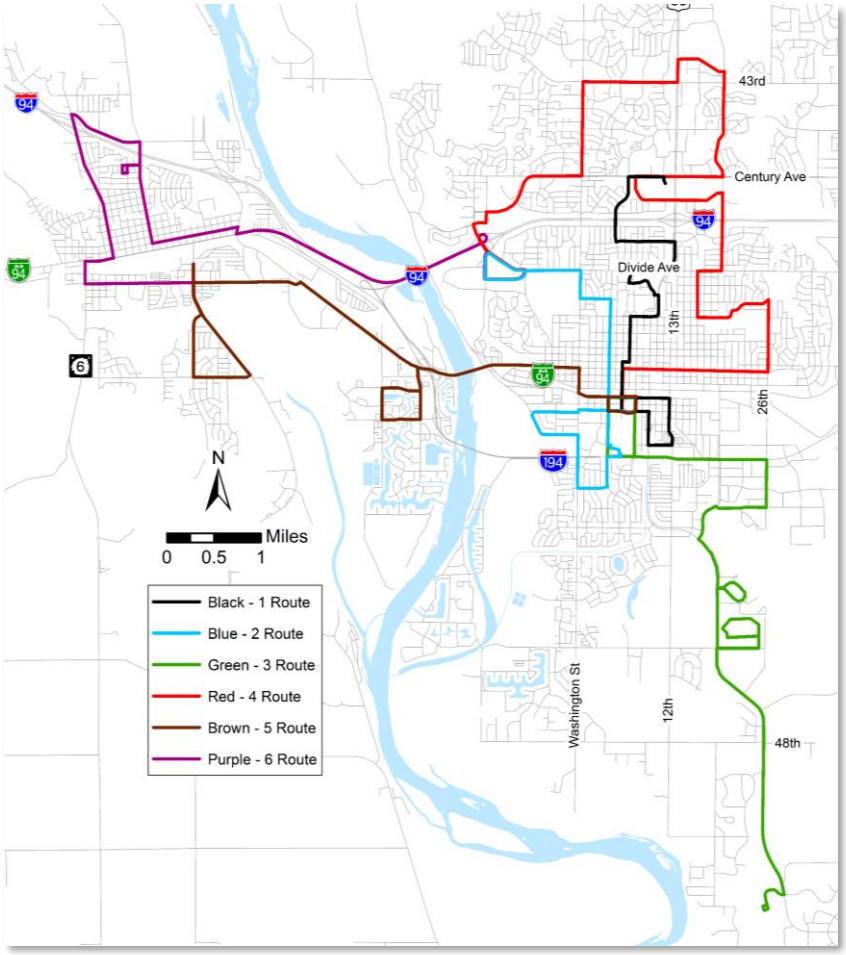
Annual Operating Cost

$180,000

Description

- Provide fixed route service on Sundays (9:00 AM to 6:00 PM)
- Extend paratransit from 2:30 PM to 6:00 PM
- Vehicle needs: No added vehicles

Fixed Route Service Routes - Sunday



Potential Benefits and Challenges

Benefits	Challenges
• Support transit use by people working on Sundays. • Support transit use by people making shopping/retail and social trips on Sundays.	• Cost • Likely lower demand relative to weekday an/or Saturday service.

South Bismarck Flex Route

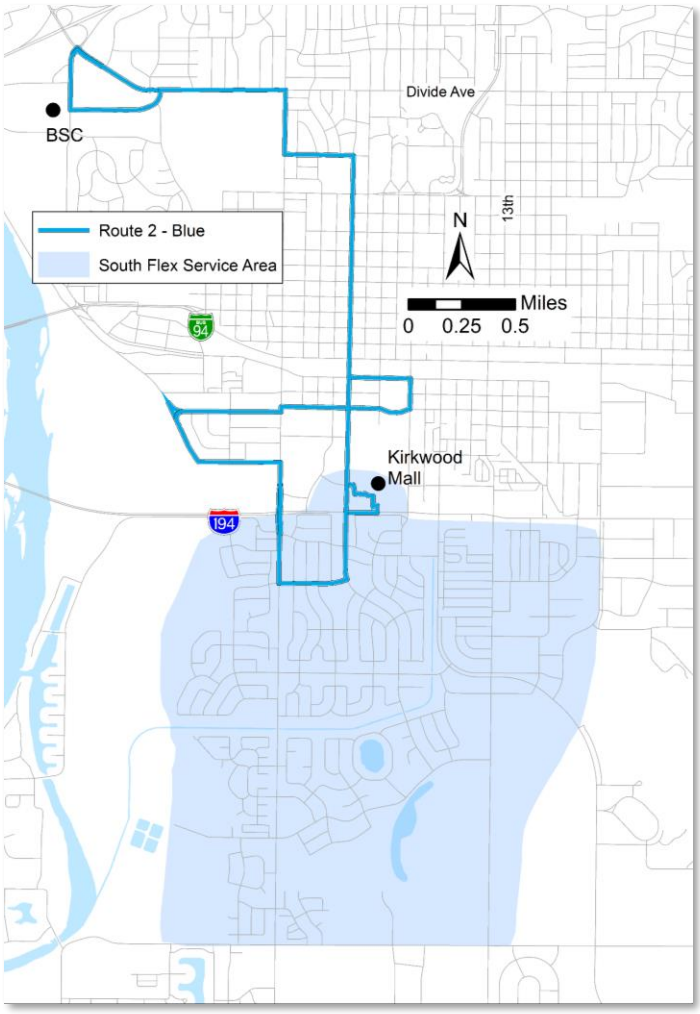
Annual Operating Cost

$206,000

Description

- Add a flexible (flex) route transit service in southern Bismarck. The flex service is a call ahead/curb-to-curb transit service which provides transit service to general public:
  - Within a defined service area,
  - Has a schedule (designated time check-points are marked on the map),
  - Without a fixed transit route trajectory.
- Riders in flex zone can connect to Blue Route with a one-hour frequency (proposed transfer point at Kirkwood Mall).
- No change in paratransit service in the area.
- Consolidation of South Flex Service and Paratransit within the south flex service area.
- Vehicle Requirement: 1 paratransit-type vehicle

South Flex Service and Blue Route



Potential Benefits and Challenges

Benefits	Challenges
• Provides service to higher density, lower income area (3.7 square miles of service area) • Curb-to-curb service • Connects directly to Blue Route • Mixed use of public transit and paratransit within the flex service area	• Cost.

Demand-Response/Paratransit Service Extended to County

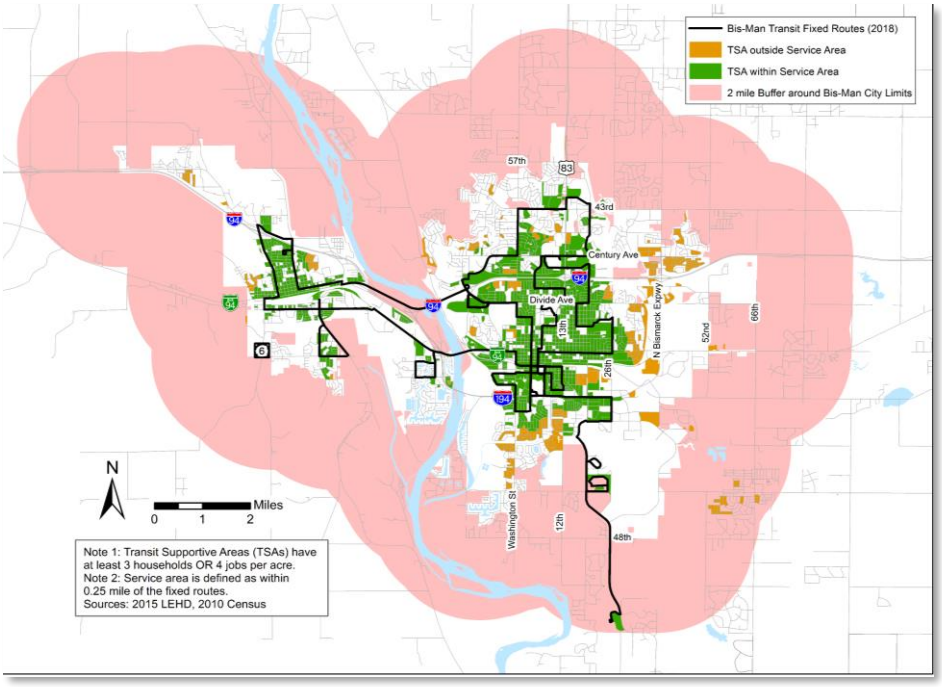
Annual Operating Cost

$125,000

Description

- Extend the service area of demand-response and paratransit service 2 miles beyond the existing service area of Bismarck-Mandan city limits.
- Service days of Monday – Saturday.
- Service hours – 7 a.m. – 7 p.m. (same as existing service hours)
- Curb-to-curb service.
- Vehicle needs: 2 paratransit-type vehicles

Demand-Response/Paratransit Extended to County



Potential Benefits and Challenges

Benefits	Challenges
• Provide access to people relying on Bis-man Transit Services for their transportation needs. • Reinstates transit service previously provided	• Cost. • Requires additional funding from the counties.

INTENTIONALLY BLANK PAGE

Appendix 6. Additional Written Comments

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

From: Bill Troe <BTroe@srfconsulting.com>
Sent: Tuesday, February 19, 2019 9:07 AM
To: Rachel A. Drewlow
Subject: Call From Gary Schumaker (Sp)

Rachel:
Gary called me yesterday afternoon to discuss the TDP recommendations/findings.
Below are the key points he made:

- Glad extended the comment period.
- He did not see "anything at all" regarding fixed route service. Based on his comments, I believe he expected a "blow it up" concept and he did not see it. I explained the bulk of our support was in increasing frequency along the route structure, not blowing it up.
- Transit Center? He expected to see information on the transit center. I will agree with him here. There is still support and somewhat of an opportunity for the center at the old public health space. We should include the concept in the previous TDP as there is no real reason to change it. This will enhance the need to correct the deficit spending condition as there is no money for a transit center and I suspect the center is a lower priority than bus replacements (which will be competing for capital grants).
- Adding a transit center and 30 minute routes would double or quadruple ridership.
- The plan gives the Transit Board what it wants, which is to reduce paratransit service (in his opinion).
- City and County Commissions will not support the plan.
- It is a sin to not include changes to the fixed route system.
- Gary believes by moving the transit pulse point to near the library that a 30 minute route system can be provided with current resources. He contends the "south routes" take about 20 minutes to run and the "north routes" about 40 minutes. So, by moving the transit center to north of the heart of downtown, you cold balance it out. From the library area to the North Walmart is about 3.7 miles along a direct route along State Street. You would need to average about 14-15 MPH on this route to make the 30 minutes. That does not leave much time for boarding/alighting time and State Street is not the route to support use.
- Gary is on board with the idea that routes need to be 30 minutes, but there is a difference of opinion as to whether more resources are needed.
- Drivers need to be more involved in the route selection process.

Bill Troe
Principal

11422 Miracle Hills Drive | Suite 315
Omaha, NE 68154
Phone: 402-513-2158 | Mobile: 402-350-7783
www.srfconsulting.com

From: Rachel A. Drewlow
To: Roy Rickert - Bis-Man Transit (rrickert@bismantransit.com); Deidre Hughes
Subject: FW: Bismarck Mandan Transit Plan Comments
Date: Tuesday, February 12, 2019 9:24:00 AM

Rachel Drewlow
Transportation Planner
Bismarck-Mandan Metropolitan Planning Organization
221 North 5th Street
PO Box 5503
Bismarck ND 58506-5503
Office: 701-355-1852
Fax: 701-222-6450
Website: www.bismarcknd.gov
MPO Facebook: https://www.facebook.com/BismarckMandanMPO
Facebook: www.facebook.com/bismarcknd.gov | Twitter: www.twitter.com/BismarckNDGov

Disclaimer: The Bismarck-Mandan Metropolitan Planning Organization is an entity comprised of five jurisdictions including: Bismarck, Lincoln, Mandan, and portions of Burleigh and Morton counties. This e-mail, including attachments, is covered by the Electronic Communications Privacy Act, 18 U.S.C. 2510 et seq., may be confidential, or may contain confidential material. It is intended for use only by the person(s) to whom it is directed. If you are not the intended recipient and/or received it in error, you should (1) reply by e-mail to the sender; (2) delete this e-mail, including deletion of all associated text files from all storage locations including individual and network storage devices; and (3) refrain from disseminating or copying this communication. The media in which any electronic data files are transmitted can deteriorate over time and under various conditions. The Bismarck-Mandan Metropolitan Planning Organization does not warrant the accuracy of any information contained in electronic data files transmitted by e-mail.

From: Bill Troe <BTroe@srfconsulting.com>
Sent: Monday, February 11, 2019 3:26 PM
To: Rachel A. Drewlow <rdrewlow@bismarcknd.gov>
Subject: FW: Bismarck Mandan Transit Plan Comments

Bill Troe
Principal
SRF
11422 Miracle Hills Drive | Suite 315
Omaha, NE 68154
Phone: 402-513-2158 | Mobile: 402-350-7783
www.srfconsulting.com

From: Susan Dingle [redacted]
Sent: Monday, February 11, 2019 1:30 PM
To: Bill Troe <BTroe@srfconsulting.com>; Susan Dingle [redacted]
Subject: Bismarck Mandan Transit Plan Comments

Susan Dingle

[redacted]

[redacted]

Email:[redacted]

February 11, 2019

Bill Troe

SRF Project Manager

btroe@srfconsulting.com

RE: Bisman Transit Development Plan

Dear Bill Troe:

As the sage observed, it takes more time to make things short. Let me try this again and not burden you with my longer, earlier draft.

Here are my preferences on public transportation in Bismarck-Mandan:

Fixed-route bus travel needs to be reliable, on time, as does Paratransit. **Almost nothing else matters**. In my experience with Bis-Man Transit, largely, the fixed-route buses are. Don't mess this up with "Flex" Paratransit-like offerings. *Paratransit is not as reliable*, from what regular users tell me. If lack of reliability is any indication, at a CTAG [Citizen Transportation Advisory Group] meeting two meetings back, two members of the board who use Paratransit were let off 10 minutes late for the CTAG meeting, where we discuss rider experience with fixed-route and Paratransit service. People who need transportation to get to work on time cannot depend on Paratransit to do it and will be written up and eventually lose their jobs for constantly being tardy if they try to continue relying on it. I am arguing from one case I observed and numerous others I have heard about from people I consider to be reliable sources, who are regular users. Make Paratransit more reliable!

Don't mess up and discontinue routes that are working and that receive decent numbers of riders.

We were shown ridership numbers from October 2018 and November 2018 at the January 2019 CTAG meeting (this board meets quarterly, with the next scheduled meeting in April). Here are totals, by route:

October 2018		November 2018	
Route	# of Riders	Route	# of Riders
Purple	1880	Black	1702
Red	1763	Red	1651
Black	1738	Blue	1346
Blue	1555	Purple	1314
Green	1276	Brown	1196

Brown	1226	Green	1100
UMary	220	UMary	193

As you can see, even with a 2-hour cycle, the Red Route does pretty well. The way to improve it would be simply to **make the Red Route a one-hour route instead of a two-hour route**. If one more bus is needed, whether it's for the Flex option or the one-our option, go for the one-hour option. It's more straightforward, and it doesn't make the rider do extra work to get on the bus and go!, which is what riders want to do.

Mandan Routes

Note, too, the Purple route has more riders *both* months than the Brown route, so why the discussion about discontinuing the Purple route? If there is a goal of asking the city of Mandan for more monetary support for the bus service, I think it would be more helpful to maintain the current level of service, not diminish it, and not to make it harder to use. If there really reliably will be Paratransit buses stationed and waiting at one or more timing stops on whatever-color route is maintained for Mandan, *and* they will get people to their destinations on time, that *might* be a good thing. But what hasn't been dealt with is, How much will it cost riders? Paratransit is $3.00 each way, twice what fixed-route service is—by design and perhaps by regulation for federally obtained fund sharing. Will Mandan and other flex riders be penalized basically for living in the wrong part of town or needing to go to the wrong part of town because they have to pay more to travel to their destinations? This is unhelpful and "bad optics."

Greater Frequency: 30-minute routes

"Another bus will come along" doesn't mean the same thing for 30-minute intervals as it does for 15- or 20-minute intervals. I have used buses in one or more cities where at rush hours many routes had 15- or 20-minute intervals between buses. For one, more buses ran during these times because buses were full and there still were people wishing to board the bus. That is not generally the case in Bismarck and Mandan. A "pretty full bus" has maybe 6 to 12 people on it, and there are perhaps a total of 23 to 30-some seats available—people here like to have a margin of space around them though they will bunch up when more people need seats. On 30-minute intervals, riders largely are figuring on being able to get to the bus stop later than they would have to under the 60-minute schedule. They are not allowing for being unable to catch their intended bus and then needing to wait a little shy of 30 minutes for a later one. **The bus needs to be on time and to be reliable, whether it comes every 60 minutes or every 30 minutes**.

It might be helpful to have buses run every 30 minutes during what passes for "rush hour." That would be something like the times from 7:00 a.m. to 9:00 a.m., 11:00 a.m. to 1:30 p.m., and 4:00 p.m. to 5:30 or 6:00 p.m. The rest of the time, one-hour service would be fine.

Paratransit

I am much less knowledgeable about Paratransit, since my information largely is second- or third-hand. However, I get feedback from Paratransit riders and from supervisors whose staffers include one or more Paratransit riders. Speaking with those I know from various community interactions, my impression is that using the option of returning Paratransit service to its previous service boundaries would be greatly appreciated.

No doubt, I can find more to say, but these are the most important issues to me.

Note that University of Mary will be the site of an announcement on February 12 at 10:00 a.m. about the Green Route. Here is a link to the announcement:
https://www.bismarcknd.gov/AgendaCenter/ViewFile/Agenda/_02122019-518

Very best wishes,

Susan Dingle

From:	Bill Troe
To:	Lise Ketterling
Cc:	Rachel A. Drewlow; Roy Rickert
Subject:	RE: New Message From www.transitplanbisman.com - Leave your comments
Date:	Wednesday, April 17, 2019 1:43:51 PM

Thank you for your input. The ideas included in the transit development plan, which included looking reducing paratransit hours, are ideas looked to to reduce costs. Bis-Man Transit is in a difficult situation of a budget that does not cover the level of service being provided. Discussion of service cuts were intended to provide a list of ways of balancing the budget so more people could understand the significance of service cuts. We understand the pain that service cuts will create and have increased efforts to request more funding for the purposes of not needing to make service cuts.

I will include your comments in the final review. I also invite you to let the commissioners know the importance of transit service as we continue the task of requesting additional funding.

Thanks.

Bill Troe
Principal

11422 Miracle Hills Drive | Suite 315
Omaha, NE 68154
Phone: 402-513-2158 | Mobile: 402-350-7783
www.srfconsulting.com

-----Original Message-----
From: Lise Ketterling [mailto:mail@transitplanbisman.com]
Sent: Wednesday, April 17, 2019 1:15 PM
To: Bill Troe <BTroe@srfconsulting.com>
Subject: New Message From www.transitplanbisman.com - Leave your comments

My daughter rides the Bis-man Transit. I am concerned that people who work past 7pm might lose there jobs. I would think you would want to help people with disabilities keep independent as possible. People with disabilities need to have a chance at working, a social life, and everyday things like the rest of the population does. People that don't drive are very dependent on your transportation system.

Most of the riders can not afford to pay for taxi.
I hope you look at what this will do to the people that ride your system now. They will suffer if you make this change.

Thank you,

Lise Ketterling

Lise Ketterling
[redacted]

From:	Roy Rickert
To:	"Bill Troe"
Cc:	Rachel A. Drewlow
Subject:	Board Comments
Date:	Friday, April 5, 2019 3:33:24 PM
Attachments:	image002.png image003.png image004.png image005.png transit development plans comments from board.xlsx Glenns calculations Recommendations.xlsx

---

Good afternoon Bill,

I have attached the comments from the Board along with calculations that one of the members ran. Please let me know if you need me to submit these via the website as well or if you need anything else. The Board did say that they were not prepared to accept the study without addressing these issues first.

Roy

Roy Rickert

Executive Director

Bis-Man Transit Board

p: 701.258.6817 m: 701.800.3175

f: 701.258.6752

a: 3750 E. Rosser Ave
Bismarck, ND 58501

w: bismantransit.com e: rrickert@bismantransit.com

Transit Development Plan - April 2019 - Public Comment

Table 1. Characterization of Bis-Man Transit Paratransit Service

Under Department of Transportation (DOT) Americans with Disabilities Act (ADA) regulations at 47 C.F.R. Section 37.131(e), complementary paratransit service must be available during the same days and hours the fixed route service operates. As indicated in Table 2, Fixed Route Weekday Operating Characteristics and Table 3, Fixed Route Saturday Operating Characteristics, the weekday span of service is from 6:30 AM thru 7:00PM and the Saturday span of service is from 8:00 AM to 7:00 PM.

I believe service definition division for paratransit is incorrect. I believe it should be as follows:

6:30 AM to 7:00 PM Weekdays
8:00 AM to 7:00 PM Saturdays

I believe the service definition division for demand response is incorrect. I believe it should be as follows:

5:30 AM to 6:30 AM Weekdays, 7:00 PM to 12:00 AM Weekdays
5:30 AM to 8:00 AM Saturdays, 7:00 PM to 12:00AM Saturday
7:30 AM to 2:30 PM Sundays, 45 Holiday Hours, 70 years old plus

Adjust times in tables 1-3

The statement on **page 53** that operating grants, determined by formula or competition, received for fixed rout and paratransit service has declined approximately $350,000.00 since 2016, is incorrect. Listed below is a schedule of federal 5307 funding:

FY 2015 Funding	$1,588,000	
FY 2016 Funding	$1,231,377	Decrease of $356,623
FY 2017 Funding	$1,630,907	Increase of $399,530
FY 2018 Funding	$1,480,118	Decrease of $150,789
FY 2019 Funding	$1,820,264	Increase of $340,146

Clarify that there have been a couple years of decreases and a couple of increases but STIC awards fluctuate based on multiple factors. (Dates)

The federal 5307 funding is $232,264 higher than it was for FY 2015 & $588,887 higher than it was for FY 2016.

I disagree with the statement on **page 56** that the cumulative impact of the options listed above would close most, if not all of the revenue to operating gap. If the recommendations were enacted, the deficit would be increased by about $144,000 not reduced. I have attached my computations. Implementing the recommendations would result in the loss of $523,823 of STIC funding. I believe there would also be a decrease in fares of about $58,000.00. I believe the cost reductions would be about $437,000 and the lost revenue would be about $581,000.00. In my opinion, transit would be about $144,000.00 worse off financially by implementing the service reduction recommendations.

Please review and adjust comments/calculations as necessary

Attached is a summary of my calculations.

Glenn Lauinger, CPA(Retired)

Page 17: add to 'coverage extends **at least** 3/4 mile...

Page 63, Table 13: add footnote informing that figures are total amounts and that the local matching funds would equal 20%.

Increase cost of Demand Response (premium service)?

BIS-MAN TRANSIT SERVICE REDUCTION ANALYSIS:

	TDP Projected Cost Reduction	My Projected Cost Reduction	Estimated Decrease In Vehicle Revenue Hours	Estimated Decrease In Vehicle Revenue Miles	Estimated Lost Fares
Discontinue Purple Mandan Route	$235,000	$235,000	3,640 (a)	74,204 (b)	$6,000 (g)
Eliminate 70 Plus Age Qualifier - Para	$196,000	$100,000	2,833 (c)	85,000 (d)	$25,500 (h)
Reduced Paratransit Service Hours	$102,400	$102,400	2,900 (e)	87,000 (f)	$26,100 (i)
	$533,400	$437,400	9,373	246,204	$57,600
Lost STIC Funding					$523,823 (j)

Estimated Lost Revenue	$581,423
Estimated Cost Reductions	($437,400)
Increased Deficit	$144,023

(a) (12 hours per day X 5 days per week X 52 weeks = 3,120 hours) + (10 hours per day X 52 days = 520 hours) Total = 3,640 hours (see page 21 TDP)

(b) (244 miles per day X 5 days per week X 52 weeks = 63,440 miles) = (207 miles per day X 52 days = 10,764 miles) = Total = 74,204 miles (see page 21 TDP)

(c) (17,000 trips X 50% non-ADA = 8,500 trips at 20 minutes per trip = 170,000 minutes / 60 = 2,833 hours) (See page 57 TDP)

(d) (8,500 trips at 10 miles per trip = 85,000 miles) I am estimating the average trip to be about 10 miles. Is likely more?

(e) (8,700 trips at 20 minutes per trip = 174,000 minutes / 60 = 2,900 hours) (see page 57 TDP)

(f) (8,700 trips at 10 miles per trip = 87,000 miles)

(g) (2018 fixed route fares $78,618 / 6 routes = $13,103 per route) Likely some Brown route users would use the Purple route.

(h) (8,500 trips at $3.00 per trip = $25,500.00)

(i) (8,700 trips at $3.00 per trip = $26,100.00)

(j) 2019 STIC Performance Data:

Vehicle Revenue Hours Per Capita Benchmark	0.74	Vehicle Revenue Miles Per Capita Benchmark	11.63
Bis-Mandan Transit Stats	0.84	Bis-Mandan Transit Stats	12.08
Amount Received for Surpassing the Benchmark	$261,911	Amount Received for Surpassing the Benchmark	$261,911

As we are so close to achieving the benchmark, I believe a reduction in hours of about 9,300 and a reduction in miles of about 246,000 would result in the loss of $ 523,823 in STIC Funding. 2010 Census Urbanized Area Population for Bismarck 81,955.

Appendix 7. Additional End of Study Deliverables

Bis-Man Transit Development Plan

Prepared for: Bis-Man Transit

Prepared by:

SRF

SRF No. 11210

Financial Summary Newsletter

BISMARCK-MANDAN AREA TRANSIT DEVELOPMENT PLAN

April 2019

The Transit Development Plan is a guiding document for future reference and recommendations, not requirements for actions.

CURRENT OPERATING COST RELATIVE TO FUNDING

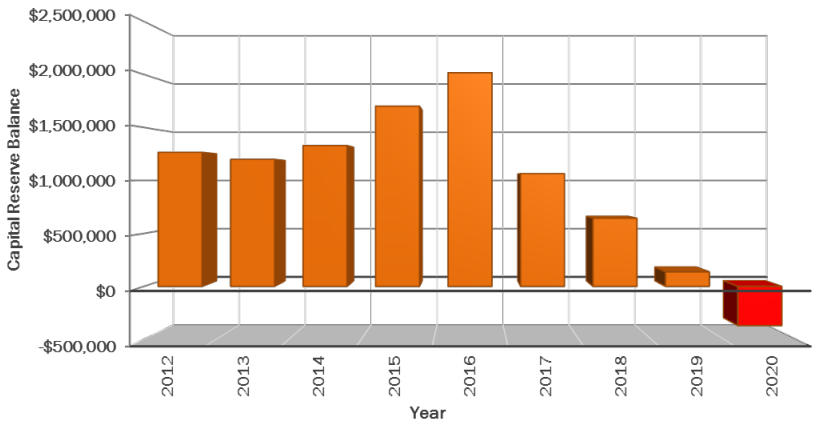
A critical challenge for Bis-Man Transit to maintain or improve current service is finding operating and capital improvement funding. For 2019-2020, annual operating costs are estimated to be approximately $230,000 more than operating revenue from federal, state and local sources. Over the last two years, a similar situation has been observed.

The Bis-Man Transit Board has authorized use of reserve funds to offset the deficit. While this provides for a short-term relief, it cannot be a general practice as the reserve fund is limited.

CLOSING THE FUNDING GAP

A challenge of this update to the Transit Development Plan is identifying ideas for closing the operating deficit that has occurred over the last several years. When operating costs exceed planned revenue the responsible practice is to look for acceptable operating cost reduction ideas. In the case of transit, lowering operating costs is typically accomplished through reducing the amount of service provided. Cost savings would come from fewer employees needed to provide service or employees working fewer hours.

Reserve Fund Balance – 2012 to 2020 (Estimate)



Alternatives Reviewed for Reducing Service Costs

As reducing costs generally requires reducing service to persons that have few travel options, none of the options are ideal. Through the plan update, the following potential cost reduction alternatives were evaluated:

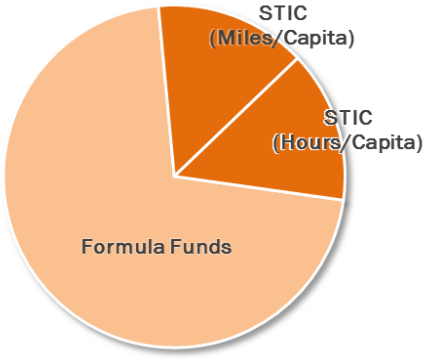
- Reduce the level of fixed route service costs – To reduce fixed route costs an option was to convert the Brown and Purple Routes from 60-minute routes to 120-minute routes. The resulting frequency would be similar to pre-2017 times.
- Reduce paratransit service costs – Options for reducing paratransit costs included:
  - Eliminate the 70-years of age criterion for using paratransit.
  - Reduce evening paratransit hours.

While each of the options contribute to closing the gap, none of them eliminate the gap.

The STIC Dilemma

All public transit agencies receive federal funding to support operating and capital investment. The Federal Transit Administration (FTA) has a program referred to as STIC (stick), which stands for Small Transit Intensive Cities. STIC targets additional funding to communities like Bismarck-Mandan that provide a higher level of transit service than most communities. Funding is based on six separate tests with each category providing the potential for about $260,000 in ADDITIONAL federal funding. Each year, Bismarck-Mandan is competitive in two of the categories that are based on the miles and hours of service provided. Service in Bismarck-Mandan does not always surpass the threshold for funding in both categories, but over the last several years at least one category has been met.

Federal Funding – Formula Relative to Competitive Award



Reducing service on either the fixed route network or for paratransit reduces the hours and/or miles of service provided, which can jeopardize the ability to compete for up to about $520,000 in funding. While Bismarck-Mandan have been able to meet the award criteria in two categories for 2019, the margin over the threshold is small. A reduction in service substantial enough to close the operating deficit gap will jeopardize meeting the added funding qualification threshold in one or both categories, which impacts federal funding. Which leads to the dilemma - Reducing service to save operating costs, likely results in the loss of federal funding that could leave as large a gap as is present today. The result of making cuts and losing STIC funding is less service for those in need and a continued gap between operating funding and operating costs.

PROPOSED PLAN

Reserve fund dollars have been used to support both capital improvements and to fill the operating cost-to-funding gap. Each year capital improvements are needed to maintain the condition of the investments, however, Bis-Man Transit and the City of Bismarck can adjust the timing of some future purchases such as replacement buses and other vehicles. While this practice would increase maintenance costs, if the delay of some replacements is kept to a short period, transfers from the reserve fund can be reduced temporaily.

The longer term recommendation is to request added funding for transit that would be used to support annual operating costs. Presently, the local investment in transit service compared to many North Dakota and nearby cities is lower on a per person basis. The attached table displays a comparison of communities in the region and it shows the investment per capita in Bismarck-Mandan is lower than most. For the 2019-2020 budget period, proposed operating costs exceed revenue by approximately $230,000. If the added funding can be provided for the current period and going forward, draws from the reserve fund for operations can be greatly reduced or eliminated as a practice (which is Bis-Man Transit's goal). The requested transit investment increase would equal approximately $3 per person in the metro area.

Annual Operating Cost Comparison to Others

Peer Location	Annual Operating Cost (2016)	Metro Area Population	Operating Investment / Capita		
			Fixed Route	Paratransit	Total
Bis-Man	**$3,762,400**	**81,955**	**$19.66**	**$26.25**	**$45.91**
Billings	$4,808,660	114,773	$30.47	$11.42	$41.89
Fargo/Moorhead	$9,695,692	176,676	$45.95	$8.93	$54.88
Grand Forks	$3,559,686	61,270	$35.13	$22.97	$58.10
Rapid City	$2,039,711	81,251	$12.28	$12.83	$25.11
Sioux Falls	$7,905,674	156,777	$28.98	$21.44	$50.42

For more information about the transit plan see the website **www.transitplanbisman.com** or contact Bill Troe at btroe@srfconsulting.com

On-Board Survey Template

2020 Rider Survey

BIS-MAN TRANSIT

CAT CAPITAL AREA TRANSIT

To help improve our system, we are asking transit riders to complete this survey about how you use the system and perceive our services.

This is a voluntary survey. If you agree to take the survey, please answer all the questions and return the form today to the surveyor or to the bus driver on your next trip.

If you would like to be entered into a drawing for one of four $25 gift cards or one of four 31-day passes, please provide your contact information in the box at the end.

The following questions are about the trip you are making now. Example of a trip:

Thanks for your help!

1. Where are you coming from?

- ○ Medical Appointment/ Hospital Visit
- ○ Home
- ○ Work
- ○ College or University
- ○ School (K-12)
- ○ Personal/Social/Recreational Visit
- ○ Shopping
- ○ Other

2. What is the address OR cross streets of the place you are coming from?

Address

Direction (N, S, E, W)

OR

Cross Street 1 Cross Street 2

Zip Code Name of Place/Landmark

3. How did you get to the bus stop to board the bus?

- ○ Walk/Wheelchair/ Other Device
- ○ Bicycle
- ○ Drive
- ○ Rode with someone else who parked near the bus stop
- ○ Drop off by someone/Uber/taxi/ rideshare

4. Where did you board the bus?

Cross Street 1 Cross Street 2

Name of Place/Landmark

5. Will you transfer to another bus?

- ○ Yes
- ○ No

6. Enter the transfer bus route numbers

Bus Route #1

Bus Route #2

Bus Route #3

7. Where are you going?

- ○ Medical Appointment/ Hospital Visit
- ○ Home
- ○ Work
- ○ College or University
- ○ School (K-12)
- ○ Personal/Social/Recreational Visit
- ○ Shopping
- ○ Other

8. What is the address OR cross street of the place you are going?

Address

Direction (N, S, E, W)

OR

Cross Street 1 Cross Street 2

Zip Code Name of Place/Landmark

9. Where will you get off the bus?

Cross Street 1 Cross Street 2

Name of Place/Landmark

10. How will you get to your final destination after you get off the bus?

- ○ Walk/Wheelchair/ Other Device
- ○ Bicycle
- ○ Drive
- ○ Ride with someone else who parked near the bus stop
- ○ Pick up by someone/Uber/taxi/ rideshare

11. How many working vehicles (cars,trucks, and motorcycles) are available in your household?

○ 0 ○ 1 ○ 2 ○ 3 or more

12. Could you have used one of these vehicles to make THIS TRIP today?

○ Yes ○ No

13. Including yourself, how many people live in your household?

○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 or more

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

- ○ Less than $12,000
- ○ $12,000 - $24,999
- ○ $25,000 - $34,999
- ○ $35,000 - $49,999
- ○ $50,000 - $74,999
- ○ $75,000 or more
- ○ Do not know/Prefer not to answer

15. What is your age?

- ○ 17 or under
- ○ 18 - 24 years
- ○ 25 - 34 years
- ○ 35 - 54 years
- ○ 55 - 64 years
- ○ 65 years and over

16. What is your gender?

○ Male ○ Female

17. What is your race or ethnicity?

- ○ Black/ African American
- ○ White/ Non-Hispanic
- ○ Hispanic/ Latino(a)
- ○ Asian
- ○ American Indian
- ○ Other

18. How long have you been riding?

- ○ Less than 6 months
- ○ 6 - 12 months
- ○ 1 - 2 years
- ○ 3 - 5 years
- ○ More than 5 years

19. How often do you ride Citilink?

- ○ 5 or more days per week
- ○ 3 - 4 days per week
- ○ 1 or 2 days per week
- ○ 1 or 2 days per month
- ○ Less than once per month
- ○ This is my first time

20. How do you usually pay your fare? (mark one box)

Cash Fare	Single Ride Ticket	All Day Pass	10 Ride Card	31 Day Pass	Token Transit (Mobile Ticket)
○	○	○	○	○	○

21. Do you use your smart phone to access the following services? (check all that apply)

- ○ Web site
- ○ Route Shout
- ○ Route Watch
- ○ Token Transit

22. Do you agree or disagree with the following statements:

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Citilink takes me where I need to go	○	○	○	○	○
Schedule information is easily accessible	○	○	○	○	○
Citilink is available when I need to go	○	○	○	○	○
I feel safe riding Citilink	○	○	○	○	○
Buses are clean	○	○	○	○	○
Buses are on-time	○	○	○	○	○
Drivers are helpful and friendly	○	○	○	○	○
Transfer within the Citilink bus system is easy	○	○	○	○	○
Citilink bus stops are easily accessible for pedestrians/bicyclists	○	○	○	○	○

23. Are there specific locations within Ft. Wayne and New Haven where you would like to go, but Citilink doesn't serve?

○ **Yes, (please specify below)** ○ **No**

24. How would you prefer to get news and service updates:

- ○ Web site
- ○ Text Alerts
- ○ Social Media
- ○ Postings at Central Station

25. If you would like to be entered into a drawing for one of four $25 gift cards or one of four 31-day passes, please provide your contact information.

Phone Number

Email

2020 Rider Survey

BIS-MAN TRANSIT

CAT CAPITAL AREA TRANSIT

To help improve our system, we are asking transit riders to complete this survey about how you use the system and perceive our services.

This is a voluntary survey. If you agree to take the survey, please answer all the questions and return the form today to the surveyor or to the bus driver on your next trip.

If you would like to be entered into a drawing for one of four $25 gift cards or one of four 31-day passes, please provide your contact information in the box at the end.

The following questions are about the trip you are making now. Example of a trip:

Thanks for your help!

1. Where are you coming from?

- ○ Medical Appointment/ Hospital Visit
- ○ Home
- ○ Work
- ○ College or University
- ○ School (K-12)
- ○ Personal/Social/Recreational Visit
- ○ Shopping
- ○ Other

2. What is the address OR cross streets of the place you are coming from?

Address

Direction (N, S, E, W)

OR

Cross Street 1 Cross Street 2

Zip Code Name of Place/Landmark

3. How did you get to the bus stop to board the bus?

- ○ Walk/Wheelchair/ Other Device
- ○ Bicycle
- ○ Drive
- ○ Rode with someone else who parked near the bus stop
- ○ Drop off by someone/Uber/taxi/ rideshare

4. Where did you board the bus?

Cross Street 1 Cross Street 2

Name of Place/Landmark

5. Will you transfer to another bus?

- ○ Yes
- ○ No

6. Enter the transfer bus route numbers

Bus Route #1

Bus Route #2

Bus Route #3

7. Where are you going?

- ○ Medical Appointment/ Hospital Visit
- ○ Home
- ○ Work
- ○ College or University
- ○ School (K-12)
- ○ Personal/Social/Recreational Visit
- ○ Shopping
- ○ Other

8. What is the address OR cross street of the place you are going?

Address

Direction (N, S, E, W)

OR

Cross Street 1 Cross Street 2

Zip Code Name of Place/Landmark

9. Where will you get off the bus?

Cross Street 1 Cross Street 2

Name of Place/Landmark

10. How will you get to your final destination after you get off the bus?

- ○ Walk/Wheelchair/ Other Device
- ○ Bicycle
- ○ Drive
- ○ Ride with someone else who parked near the bus stop
- ○ Pick up by someone/Uber/taxi/ rideshare

11. How many working vehicles (cars,trucks, and motorcycles) are available in your household?

○ 0 ○ 1 ○ 2 ○ 3 or more

12. Could you have used one of these vehicles to make THIS TRIP today?

○ Yes ○ No

13. Including yourself, how many people live in your household?

○ 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 or more

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

- ○ Less than $12,000
- ○ $12,000 - $24,999
- ○ $25,000 - $34,999
- ○ $35,000 - $49,999
- ○ $50,000 - $74,999
- ○ $75,000 or more
- ○ Do not know/Prefer not to answer

15. What is your age?

- ○ 17 or under
- ○ 18 - 24 years
- ○ 25 - 34 years
- ○ 35 - 54 years
- ○ 55 - 64 years
- ○ 65 years and over

16. What is your gender?

○ Male ○ Female

17. What is your race or ethnicity?

- ○ Black/ African American
- ○ White/ Non-Hispanic
- ○ Hispanic/ Latino(a)
- ○ Asian
- ○ American Indian
- ○ Other

18. How long have you been riding?

- ○ Less than 6 months
- ○ 6 - 12 months
- ○ 1 - 2 years
- ○ 3 - 5 years
- ○ More than 5 years

19. How often do you ride Citilink?

- ○ 5 or more days per week
- ○ 3 - 4 days per week
- ○ 1 or 2 days per week
- ○ 1 or 2 days per month
- ○ Less than once per month
- ○ This is my first time

20. How do you usually pay your fare? (mark one box)

Cash Fare	Single Ride Ticket	All Day Pass	10 Ride Card	31 Day Pass	Token Transit (Mobile Ticket)
○	○	○	○	○	○

21. Do you use your smart phone to access the following services? (check all that apply)

- ○ Web site
- ○ Route Shout
- ○ Route Watch
- ○ Token Transit

22. Do you agree or disagree with the following statements:

	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
Citilink takes me where I need to go	○	○	○	○	○
Schedule information is easily accessible	○	○	○	○	○
Citilink is available when I need to go	○	○	○	○	○
I feel safe riding Citilink	○	○	○	○	○
Buses are clean	○	○	○	○	○
Buses are on-time	○	○	○	○	○
Drivers are helpful and friendly	○	○	○	○	○
Transfer within the Citilink bus system is easy	○	○	○	○	○
Citilink bus stops are easily accessible for pedestrians/bicyclists	○	○	○	○	○

23. Are there specific locations within Ft. Wayne and New Haven where you would like to go, but Citilink doesn't serve?

○ **Yes, (please specify below)** ○ **No**

24. How would you prefer to get news and service updates:

- ○ Web site
- ○ Text Alerts
- ○ Social Media
- ○ Postings at Central Station

25. If you would like to be entered into a drawing for one of four $25 gift cards or one of four 31-day passes, please provide your contact information.

Phone Number

Email