

Jefferson City Transit Development Plan Study Area Data Inventory

Prepared for



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Section 1: Introduction

1.1 Purpose of Study Area Data Inventory

Information on the transit system, its facilities, passengers, the service area and attitudes in the community was assembled for the Jefferson City Transit Development Plan. The purpose was to collect and assemble baseline data that was thorough and of sufficient detail in order to effectively develop future transit improvement alternatives.

The data in this report provide a complete foundation for the study. It summarizes transit service in Jefferson City, including fixed route and paratransit, and includes an overview of the organizational structure and history of transit in the City. This report summarizes all baseline demographic, socioeconomic, land use, transportation, and other data collected for the study. The report also summarizes the results of the assessment of existing transit facilities and includes pertinent information gathered from interviews or group meetings.

1.2 History of Transit in Jefferson City

JEFFTRAN had been a “rural system” according to FTA program guidelines because the population of the urban area was under 50,000, As a practical matter this meant that JEFFTRAN received funding from FTA’s rural program, particularly Section 5311 funding.

In the 2000 US Census the population of the Jefferson City urbanized area (UZA) was determined to be above 50,000 thus Jefferson became a small urban system. As a small urban system FTA formula funding is through FTA’s 5307 program. In addition there are a number of FTA requirements that are somewhat more stringent for urban areas. JEFFTRAN also receives capital funding from FTA.

1.3 JEFFTRAN Organization

The Jefferson City Transit Division is responsible for providing convenient, reliable, comfortable, accessible, and safe transportation for the citizens and visitors of Jefferson City. The Jefferson City Transit System operates fixed route transit service and paratransit service – Handi Wheels, for people with disabilities.

The Jefferson City Transit Division is commonly referred to as “JEFFTRAN.” JEFFTRAN is a division of the City’s Department of Community Development. Janice O. McMillan, AICP, Deputy Director for Planning and Transportation Services for the Department of Community Development has responsibility for JEFFTRAN. Richard Turner, Division Director directly responsible for JEFFTRAN operations. The Division is managed by the Division Director, Mr. Turner, two operations assistants and two dispatchers.

As a City division, JEFFTRAN is accountable to the City Council through the Department of Community Development and receives funding for capital and operations at the discretion of the City Council. JEFFTRAN receives operating assistance (FTA Section 5307) directly from the Federal Transit Administration. JEFFTRAN also receives transit operating assistance through the Missouri Department of Transportation (MoDOT) and MoDOT administers federal transit capital project grants on JEFFTRAN’s behalf.

1.4 Overview of Report

This report documents the information collected for the Jefferson City Transit Development Plan. The data includes population demographics, a description of current transit service, an inventory of the existing facilities and fleet, details from the on/off count and passenger survey, and peer agency statistics.

Section 2 provides demographic information collected for the study including census and employment data, growth forecasts, and existing and proposed trip generators and attractions.

Section 3 provides details regarding the existing fixed route service.

Section 4 gives a summary of the existing paratransit service.

Section 5 gives information compiled from the on/off count which was conducted as part of the study.

Section 6 presents an overview of the passenger survey which was conducted at the beginning of the study.

Section 7 provides information from a peer agency comparison.

Section 2: Demographics

This section is a compilation of the demographic data assembled for the Transit Development Plan. The data includes population demographics, employment data, growth forecasts and a list of existing and proposed transit trip generators.

2.1 Population Demographics (Census Data)

Census 2000 block group data was compiled from various data fields for the study area. The following sections describe each of the census data categories.

Population Density

Population density is measured in terms of people per square mile. Generally, the higher the density, the better it is for transit. Figure 1 shows the higher density areas in darker shades while sparsely populated areas are in lighter shades. As seen, the densest parts of the urban area are towards its core. For the most part, current routes serve high density areas. However, some routes serve lower density areas of the community.

Housing Density

Figure 2 shows housing density per square mile. Similar to the population density display, the denser the housing units per square mile, the more favorable are the conditions to generating transit ridership.

The current system does a good job in serving areas with high housing densities.

Senior Citizen Population

Figure 3 shows the locations of people who are 65 years of age and older. Typically, these senior citizens can be a good market for transit to serve. The figure shows in the darkest shades those areas that are above this average. The current route structure serves some areas with high percentage of senior citizens well while other areas are not served as well.

Youth Population

Figure 4 shows the locations of people who are between 10 and 15 years of age. Youth data was compiled for viewing although it is not typically used as a transit indicator. The figure shows that the darkest shades are outside the transit service area. Several of the school trippers do provide service to areas with higher concentrations of youth.

Household Income and Poverty Status

Among the most important factors in determining transit need are household income and poverty status. For most communities, the most common reason for using transit is the lack of a private vehicle. Automobile ownership and household income have an inverse relationship with transit usage; automobile ownership is often used as a surrogate measure of income.

Identifying low income areas can help determine where service is needed. Figure 5 and Figure 6 respectively show "low income" and "below poverty level" populations. The locations with the high concentrations of low income or below poverty level households are in darker shades. All of the routes serve these low income areas well.

Vehicle Availability

Figure 7 shows the percentage of housing units with no vehicle available. These "automobile-less" housing units are good markets because transit serves people with no other means of travel. The three darkest shades in the figure show areas of the community above average concentrations of housing units without vehicles. The areas with the most housing units without

vehicles tend to be concentrated in the core of each city. Most of the current routes serve this core area.

Disability

Figure 8 shows the locations of people with disabilities.¹ This data was compiled for viewing although it is not typically used as a transit indicator. The areas with higher concentrations of persons with disabilities within the urbanized area are being served well by the current transit routes.

Summary

In general, current routes serve the areas of the community most in need of transit. The elderly and low income areas (including housing units without vehicles) generally are served by the current route structure. Therefore, from a demographic perspective JEFFTRAN is generally well positioned.

¹ The Census asked if the individual had a physical, mental, or emotional condition lasting 6 months or more that made it difficult to perform certain activities. The four activity categories were: (a) learning, remembering, or concentrating (mental disability); (b) dressing, bathing, or getting around inside the home (self-care disability); (c) going outside the home alone to shop or visit a doctor's office (going outside the home disability); and (d) working at a job or business (employment disability). Individuals were classified as having a disability if any of the following three conditions were true: (1) they were 5 years old and over and had a response of "yes" to a sensory, physical, mental or self-care disability; (2) they were 16 years old and over and had a response of "yes" to going outside the home disability; or (3) they were 16 to 64 years old and had a response of "yes" to employment disability.

Figure 1: Population Density

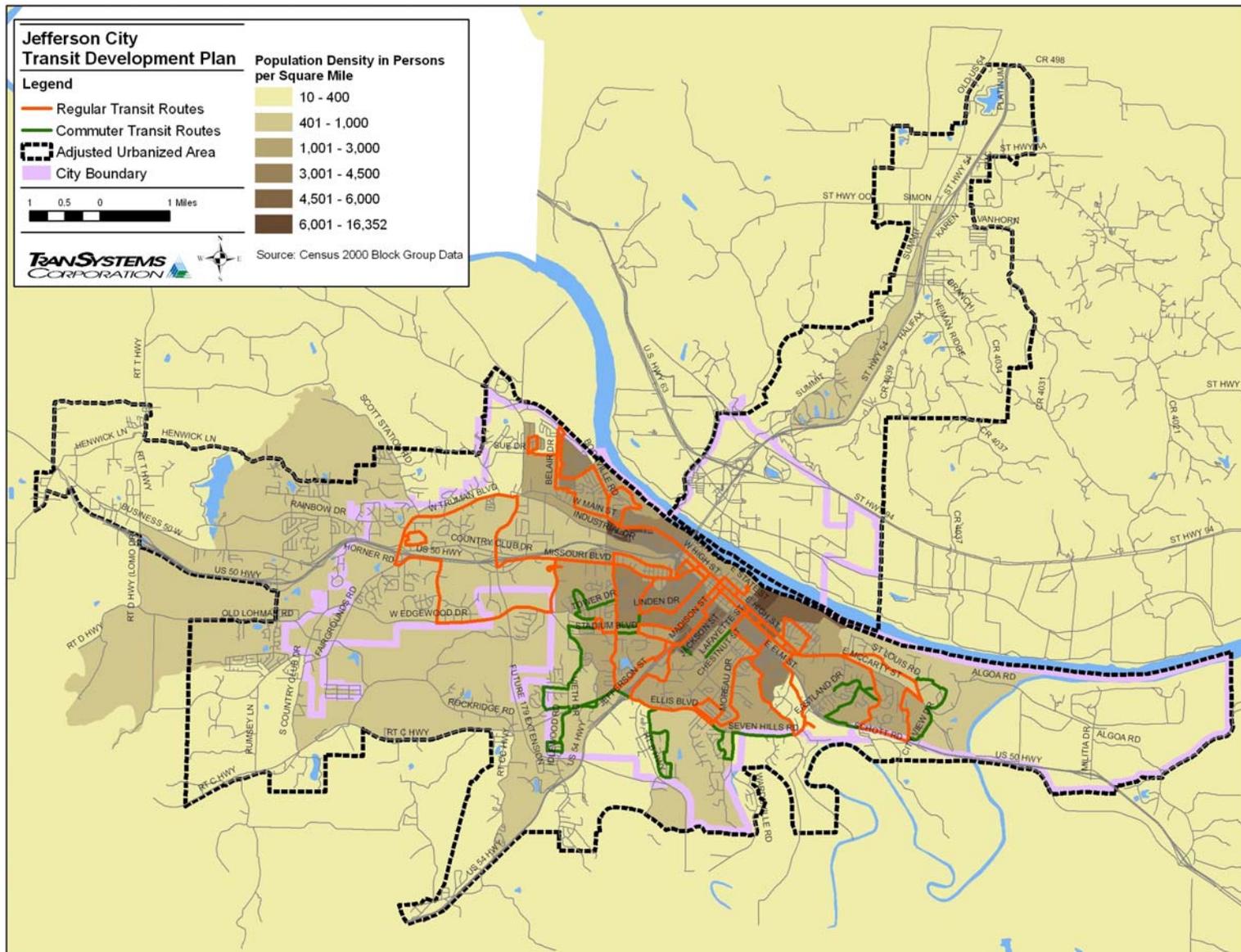


Figure 2: Housing Unit Density

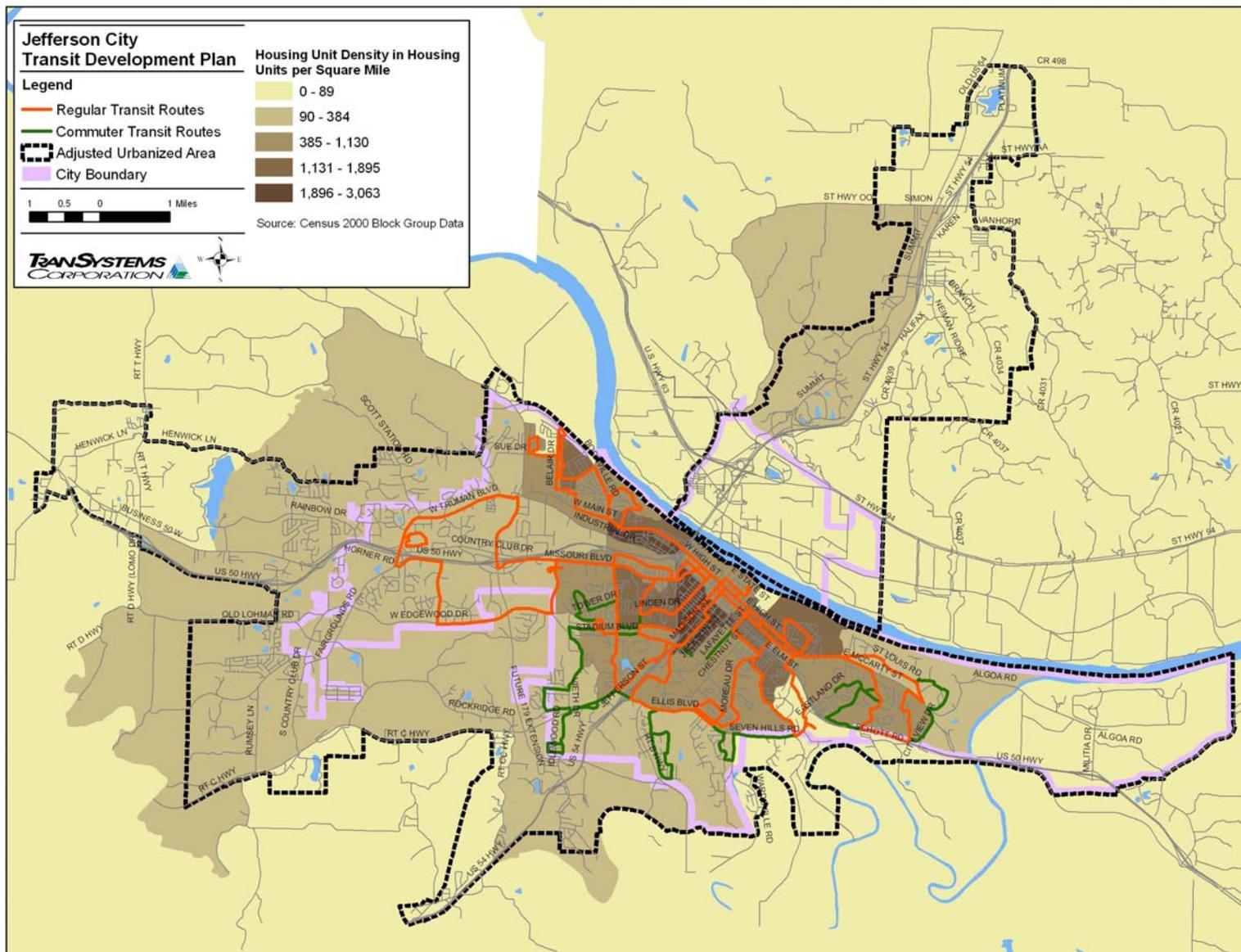


Figure 3: Percentage of Population Age 65 and Older

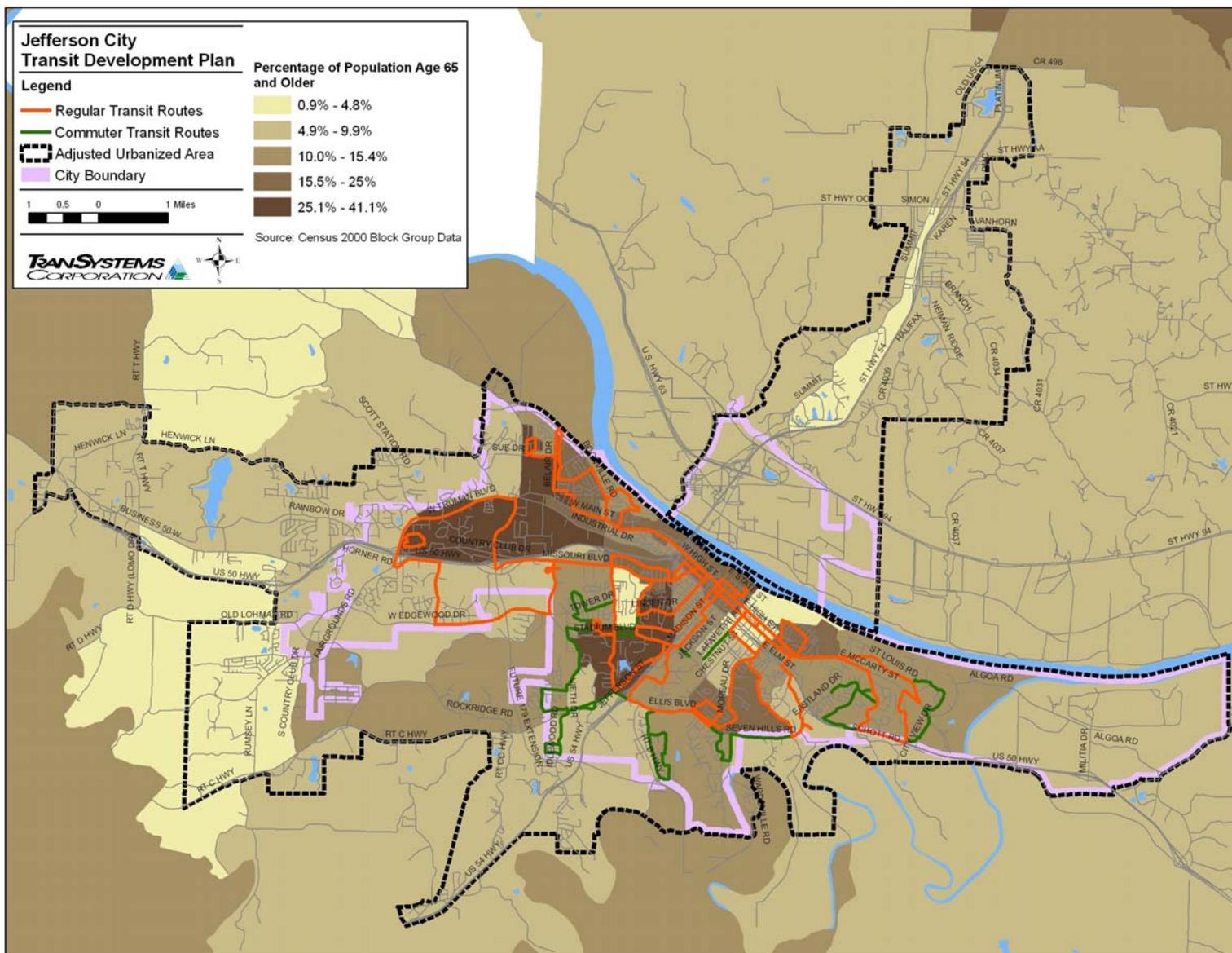


Figure 4: Percentage of Population Age 10 to 15

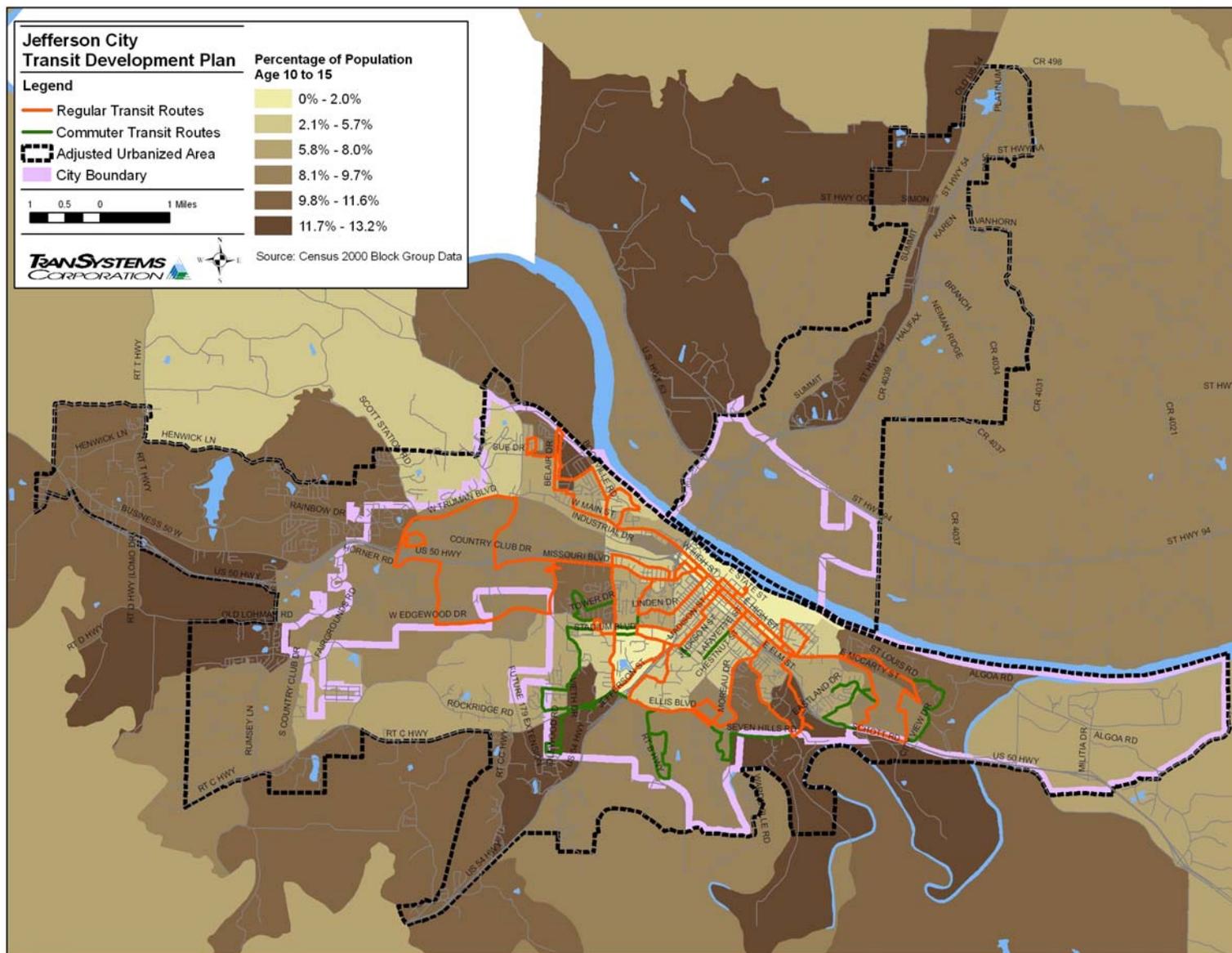


Figure 5: Median Household Income

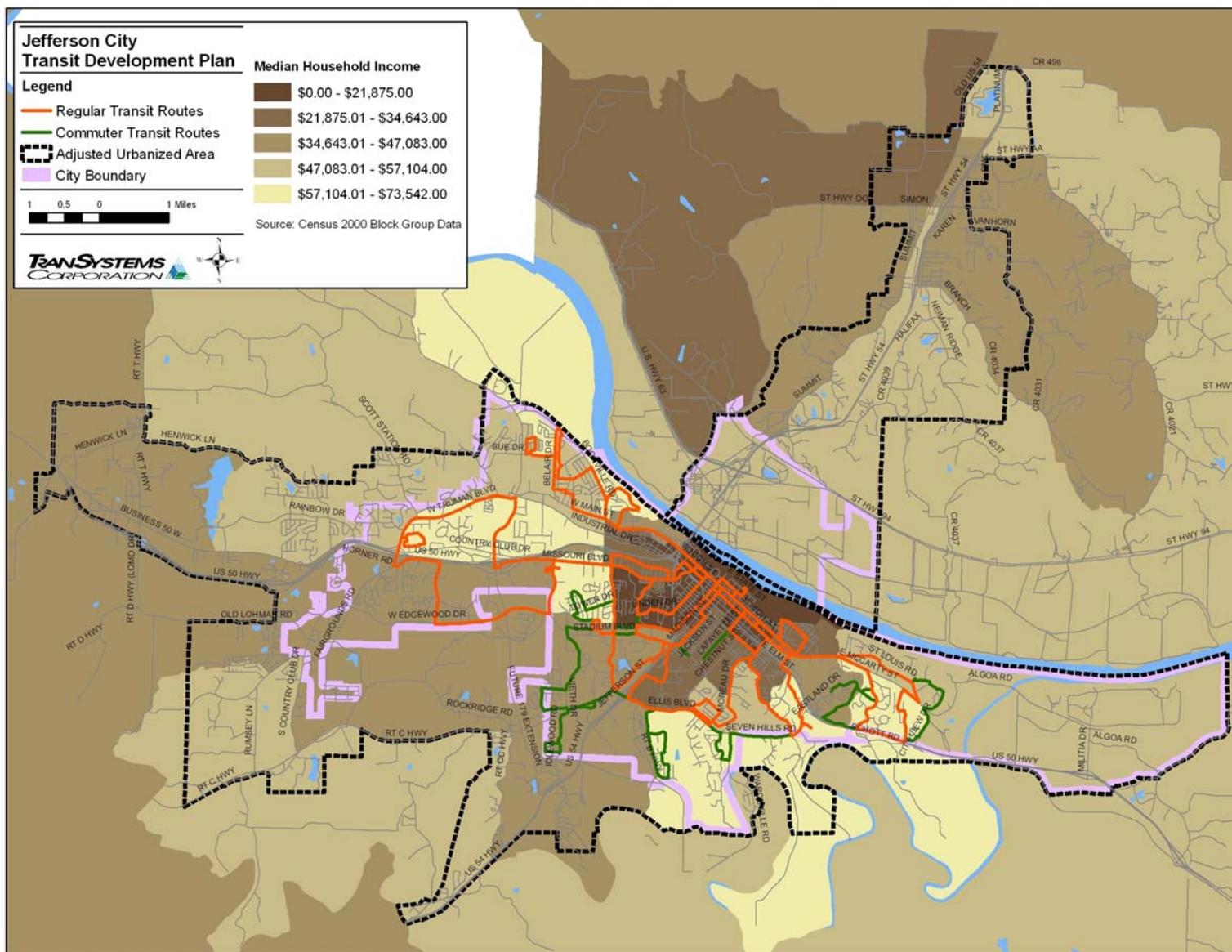


Figure 6: Percentage of Population below Poverty Level

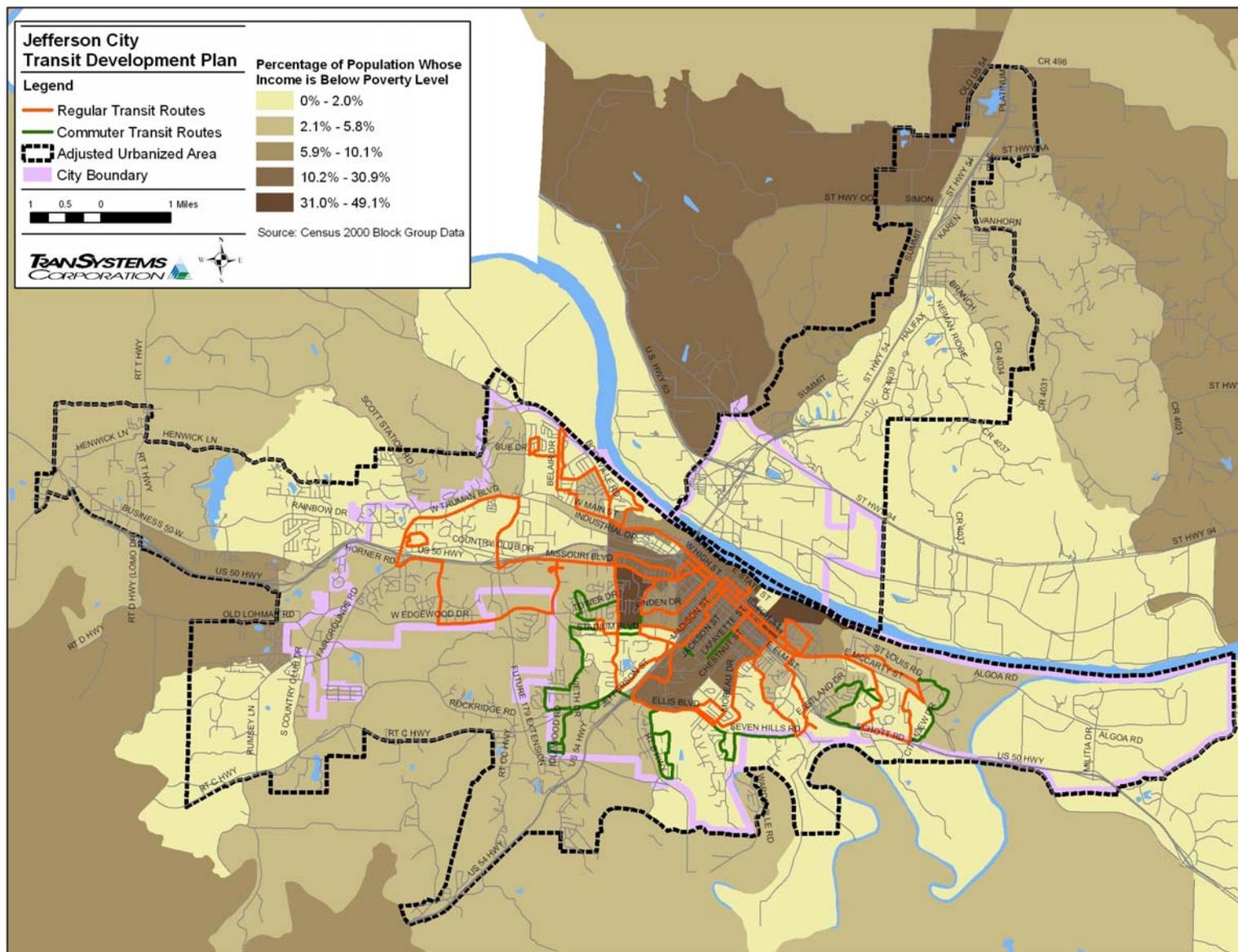


Figure 7: No Vehicle Available

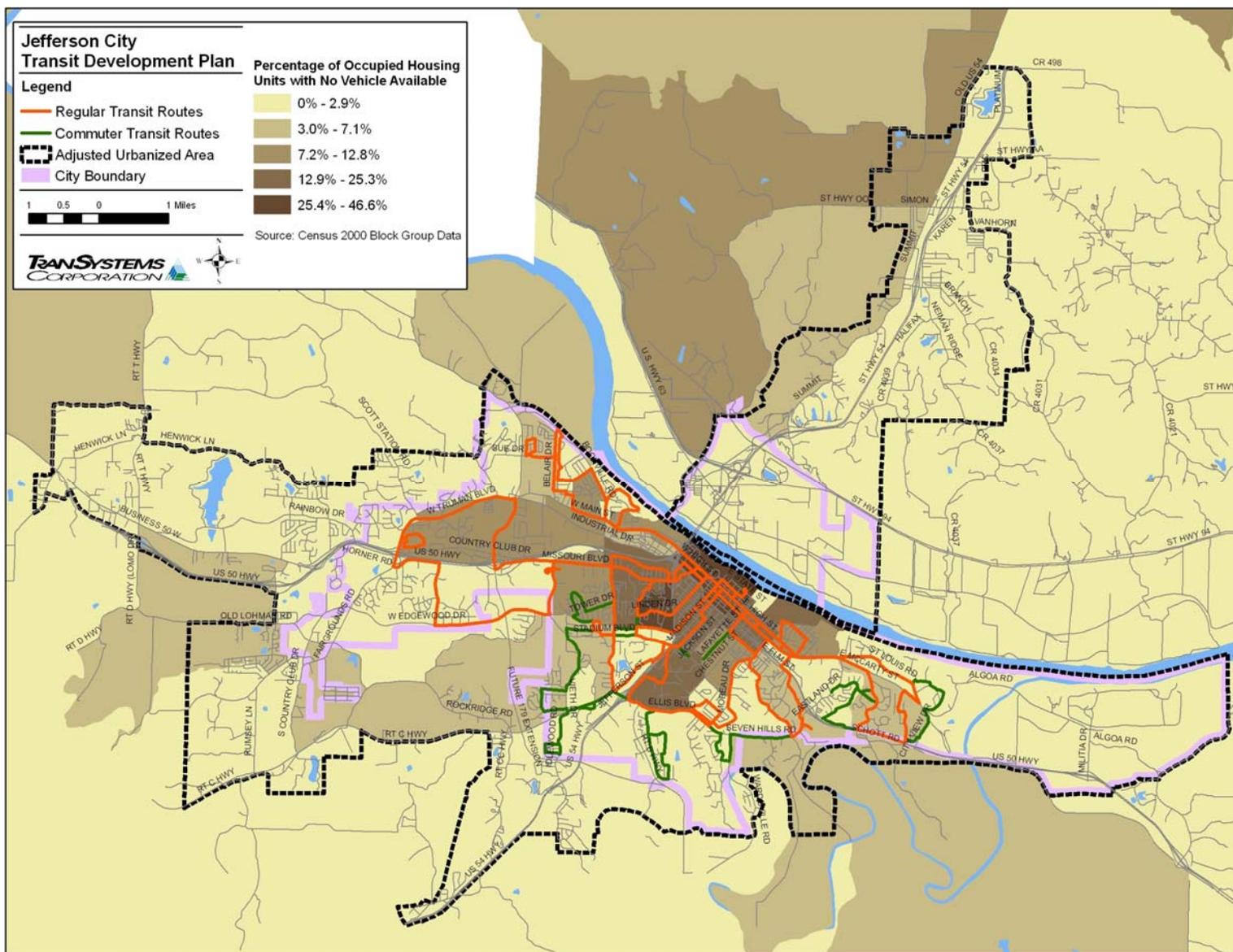
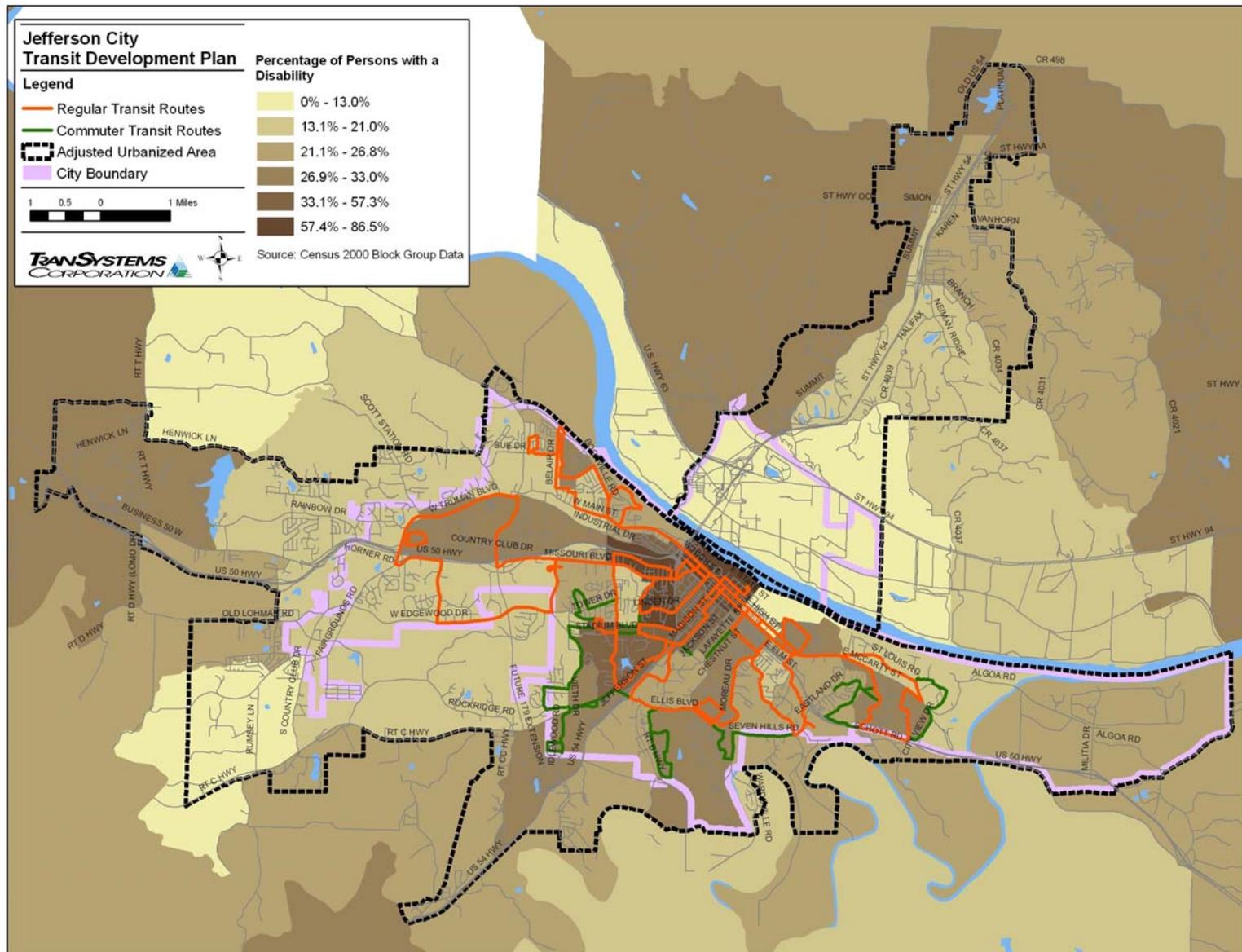


Figure 8: Percentage of Persons with a Disability



2.2 Employment

Employment data provided by City staff was compiled by census block group and mapped as shown in Figure 9.

2.3 Growth Forecasts

Population projection data was provided by the city and is shown in Table 1.

Table 1: Population Projections

	Projected population change [†]				
	2000	2005	2010	2020	2030
Holts Summit	2,935	3,001	3,749	4,683	5,850
Lake Mykee	326	336	348	370	392
St Martins	1,023	1,073	1,335	1,701	2,166
Jefferson City	39,636	42,072	45,193	50,919	57,370
Cole County*	71,397	75,680	80,179	90,041	101,116

*Includes populations of all Cole County cities.

[†]Base year is U.S. Census 2000 data. Projections provided by the city based on current annual growth rates.

2.4 Existing and Proposed Trip Generators and Attractions

The study team generated a list of existing land uses that could generate transit demand within the study area. City staff expanded this list to include the land uses shown in Table 2. The list also shows which locations are already being served by transit.

Figure 9: Employment Density

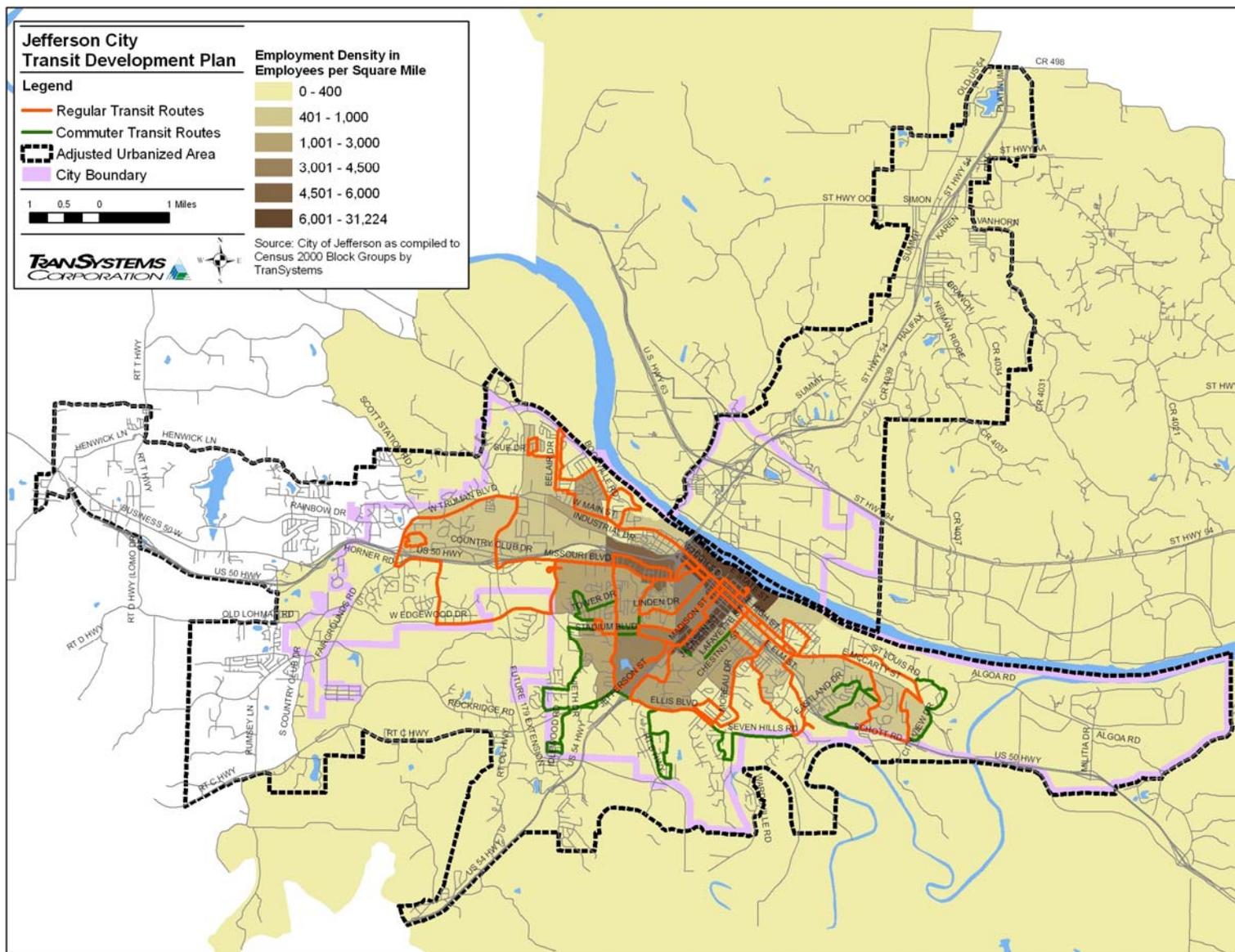


Table 2: List of Possible Transit Generators

Type	Name	Address	Probable traffic generation scale			Current Transit Service
			Large	Medium	Small	
Shopping Malls	Capital Mall	3600 Country Club Dr.	X			X
	Kmart	2304 Missouri Blvd.		X		X
	Target	735 W. Stadium Blvd.		X		X
	Wildwood Crossings	3535 Missouri Blvd.		X		X
	Jefferson Shopping center	1406 Missouri Blvd.		X		X
	Mart Shopping Center	2305 Missouri Blvd.		X		X
	Wal-Mart	724 W. Stadium Blvd.	X			X
Groceries	Gerbes Family Shopping Center East	1226 E. McCarty St.	X			X
	Gerbes Family Shopping Center West	2805 W. Truman	X			X
	Gerbes Super Store	2101 Schotthill Woods Dr.	X			X
	Mosers	2411 Missouri Blvd.		X		X
	Rainbow Market	4404 Rainbow Dr.		X		
	Schnucks Supermarkets	1801 Missouri Blvd.	X			X
	Schulte's Fresh Foods	1904 Southwest Blvd.	X			X
	Hy Vee	3721 West Truman Blvd.	X			X
	Wal-Mart	724 W. Stadium Blvd.	X			X
	Hospitals & Medical Centers	Capital Region Medical Center	1125 Madison St.	X		
Capital Region Medical Center		1500 Southwest Boulevard			X	X
Capital Health Network		1411 Southwest Blvd.	X			X
Central Medical Park-Surgical Center		1705 Christy Dr.		X		X
St. Mary's Health Center		100 St. Mary's Medical Plz	X			X
Jefferson City Medical Group		1241 W. Stadium Blvd.	X			X
Cole County Health		1616 Industrial Dr.			X	
Cole County Health		398 Dix Rd			X	
Schools Elementary	Administration	315 E. Dunklin			X	X
	Belair Elementary Home	701 Belair Drive			X	X
	Cedar Hill Elementary	1510 Veith Dr.			X	
	East Elementary	1229 E. Mccarty St.			X	X
	Lawson Elementary	1105 Fairgrounds Road			X	
	Moreau Heights Elementary	1410 Hough Park			X	X
	South Elementary	707 Linden Drive			X	X
	Southwest Elementary	812 St. Mary's Blvd.			X	X
	Thorpe Gordon Elementary	1101 Jackson			X	
	West Elementary	100 Dix Road			X	X
Schools Middle	Lewis and Clark Middle School	325 Lewis and Clark Drive			X	
	Thomas Jefferson Middle School	1201 Fairgrounds Rd			X	
	Simonsen 9th Grade Center	501 E. Miller St.			X	X
Schools High	Jefferson City High School	609 Union Street			X	
	Helias High School	1305 Swift's Highway			X	X
Other Schools	Nichols Career Center	605 Union Street			X	
	Special Larning Center	1115 Fairgrounds Road			X	
	H. Kenneth Kirchner State School	1403 Riverside Drive			X	
	Adult Basic Education	214 E. Miller			X	X
	Trinity Lutheran	812 Stadium Blvd.			X	X
	St. Peters School	314 W. High St.			X	X
	Immaculate Conception School	1208 E. McCarty St.			X	X
	St. Joseph Cathedral	2303 West Main St			X	X
	Montessori School	900 Moreau Dr.			X	X

Table Continues/

/Table Continued

Type	Name	Address	Probable traffic generation			Currently Served by Transit
			Large	Medium	Small	
Trade/Industrial	Immanuel Honey Creek Learning Center	8231 Tanner Bridge Rd.			X	
Universities and Colleges	Columbia College	3314 Emerald Ln		X		X
	Lincoln University	820 Chestnut St.	X			X
	William Woods University	3405 W. Truman Blvd.		X		X
	Metro Business College	1407 Southwest Blvd.		X		X
	Merrell University of Beauty Arts and Science	1101 Southwest Boulevard			X	X
Government Offices	City Hall	320 E. McCarty			X	X
	State Capital Building				X	X
	State Office Building	301 W. High St.			X	X
	Cole County Courthouse	301 E. High St.			X	X
	MO Dept. of Transportation	105 W. Capitol Ave.			X	X
	MO Dept. of Social Services	221 W. High St.			X	X
	MO Dept. of Mental Health	1706 E. Elm St.			X	X
	MO Dept. of Labor	3315 W. Truman Blvd.			X	X
	MO Dept. of Agriculture	1616 Missouri Blvd.			X	X
	MO Dept. of Conservation	2901 W Truman Blvd.			X	X
	MO Dept. of Natural Resources	1101 Riverside Drive			X	
	MO Dept. of Natural Resources	1738 E Elm			X	X
	MO Dept. of Natural Resources	205 Jefferson St.			X	X
	MO Dept. of Natural Resources	2710 W. Main St.			X	
	Alcohol & Drug abuse	1706 E. Elm St.			X	X
	Rehab Services for the Blind, Family Support	615 Howerton Ct.			X	X
	Rehab Services for the Blind	210C E. High St.			X	X
	Center for Local Public Health Services	912 Wildwood			X	X
	Center for Developmental Disabilities	1706 E. Elm St.			X	X
	Employment Security	421 E. Dunklin St.			X	
	Health & Senior Services	912 Wildwood			X	X
	State Patrol HQ	1510 E. Elm			X	X
Prisons	Algoa Correctional Center	8501 Fenceline Road			X	
	Jefferson City Correctional Center	8200 Fenceline Road			X	
Social Services	Salvation Army Thrift Store	718 Michigan Avenue			X	X
	Hospice Thrift Shop	601 E. High St.			X	X
	Samaritan Center	1310 E. McCarty St.			X	X
	The Salvation Army	927 Jefferson St.			X	X
	Capital Projects, Inc. Sheltered Workshop	2001 E. McCarty St.			X	X
	Jefferson City Day Care	1002 Myrtle Ave.			X	X
	Headstart	605 Cherry St.			X	X
	Special Learning Center	1115 Fairgrounds Rd.			X	
	Agape House	810 E. High			X	X
	Human Development Corporation	230 West Dunklin			X	X
	Missouri Division of Employment Security	421 E. Dunklin			X	
	Missouri Division of Vocational Rehabilitation	1500 A Southridge Dr.			X	X
	Advent Enterprises	204D Metro Dr.			X	X
	Capital Region Resident Clinic	1111 Madison			X	X
	Senior Nutrition Center	1310 Linden Drive			X	X
	Senior Nutrition Center	12 Jackson St.			X	X
	Westminster Heritage	1012 Linden Way			X	X
	Goodwill Store	1806 Missouri Blvd.			X	X
	Boys & Girls Clubs	727 E. Elm			X	X
	New Horizons Community Services	2013 William St.			X	
	Cole County Special Services	1908 Boggs Cr. Rd.			X	

Table Continues/

/Table Continued

Type	Name	Address	Probable traffic generation			Currently Served by Transit
			Large	Medium	Small	
Retirement Facilities - Nursing and Assisted Living Homes	Heisinger Home	1002 W. Main St.		X		X
	Jefferson City Manor Care Center	1720 Veith Dr.		X		
	Maplewood Residential Center	1827 Crader Dr.		X		X
	Oak Tree Villas	3108 W. Truman Blvd.		X		X
	Oak View Skilled Care	1221 Southgate Ln		X		X
	Rayford-Jane House	616 Clark Ave.		X		X
	St. Josephs Home for the Aged	1306 W. Main		X		X
	Westbrook Terrace	3335 N. Ten Mile Dr.		X		
	Summit Villa	229 Karen Dr.			X	
Bus and Train Centers	Amtrak	101 Jefferson St.			X	X
	Jefferson City Transit	820 E. Miller			X	X
Parks	Memorial Park	111 Memorial Park Drive			X	X
	Binder Park	5840 Rainbow Dr.			X	
	North Jefferson City Recreation Area	Cedar City			X	
	Ellis Porter/Riverside Park	300 Ellis Porter Dr.			X	
	McClung Park	930 McClung Park Drive			X	
	McKay Park	1700 Southridge Drive			X	X
	Washington Park	800 to 1200 blocks of Missouri Boulevard			X	X
Residential	Dulle Towers	10 Jackson St.			X	X
	Hyder Apartments	1310 Linden Dr			X	X
	Cole County Residential Services, Inc.	1908 Boggs Creek Road			X	
	Villa Marie	1030 Edmunds			X	X
		1010 Linden			X	X
		1022 Linden			X	X
	1210 Linden			X	X	
Group Homes	Emmaus House	713 Washington			X	X
		2015 E. McCarty			X	X
		1800 Tanner Bridge Rd.			X	
	Harmony House	901 Swifts Highway			X	X
		374 Eastwood Dr.			X	X
	614 Delaware			X	X	
Apartment Complexes	Broadmoor	505 Ellis Blvd.			X	X
	Capital City Apts.	522 E. Elm			X	X
	Colonial West	2111-B Dalton Dr.			X	X
	Cedar Ridge	4904 Charm Ridge Dr.			X	
	Deville Southwest	839 Southwest Blvd.			X	X
	Hidden Oaks	839 Southwest Blvd.			X	X
	Jefferson Heights	1505 Jefferson Heights			X	X
	Jefferson West	810 Wildwood Dr.			X	X
	Senate Court	556 A Senate Ct.			X	X
	Southern Hills	4627 Shepard Hills Rd.			X	
	Summit Apts.	10931 Evergreen Dr.			X	
	Timberline	2219 Dix Rd.			X	
	Warwick Village	2610 Jennifer Dr.			X	X
	Washington Terrace	320 Washington			X	X
	Weathered Rock	833 Weathered Rock			X	
	Wymore	319 Washington			X	X
Villa Panorama	900 Southwest Blvd.			X	X	
Holts Summit	Callaway Villa	211 W. Simon			X	
	Raintree	215 Northstar Dr			X	
Schools at Holts Summit	North Elementary	285 South Summit Drive			X	
	Callaway Hills Elementary	2715 State Road AA			X	

Section 3: Existing Fixed Route Service

JEFFTRAN currently operates seven regular fixed routes, four commuter school tripper routes and two state shuttle routes that provide transportation for state employees from state parking lots.

3.1 Current Fixed Route Structure

The seven fixed routes are shown in Figure 10. Figures 11 and 12 show the tripper routes and shuttle routes respectively. An existing transfer site is centrally located within the downtown area. Six of the seven fixed routes converge at the transfer location at the same time, as the routes operate on a “pulse scheduling system.” A “pulse” operation has all routes “meeting” at a common point at the same time. Most of the routes operate in a “loop” pattern, with vehicles traversing a route in either a clockwise or counterclockwise direction. The Missouri Boulevard and Capital Mall routes actually operate as a single route. The current route structure has been in place for approximately ten years.

3.2 Schedules

Fixed route service is available from 6:45 AM to 5:45 PM Monday through Friday except holidays. The JEFFTRAN fixed routes operate on a “pulse” system with all routes except the Capital Mall route converging at the downtown transfer location at the same time on either 30 or 60 minute intervals. During peak periods all routes operate every 30 minutes. During the midday, only the Southwest route continues to operate every 30 minutes. Other routes operate every 60 minutes during the midday. A bus operating along the High Street East and High Street West routes alternates between routes during the midday. Similarly a bus operating on the Renn Addition and Business 50 East routes alternates between these two routes during the midday. Route schedules for the regular fixed routes are shown in Table 3.

The commuter school tripper routes operate one trip per day on school days. The Southside Morning Route is the only commuter school tripper route that operates in the morning. The other three commuter school tripper routes operate in the afternoon. The shuttle routes operate from state parking lots to state office buildings. The shuttles operate between 7:00 a.m. and 5:30 p.m. with the Truman shuttle operating every 7 ½ minutes and the East Side Shuttle operating every 10 minutes.

Figure 10: Regular Transit Routes

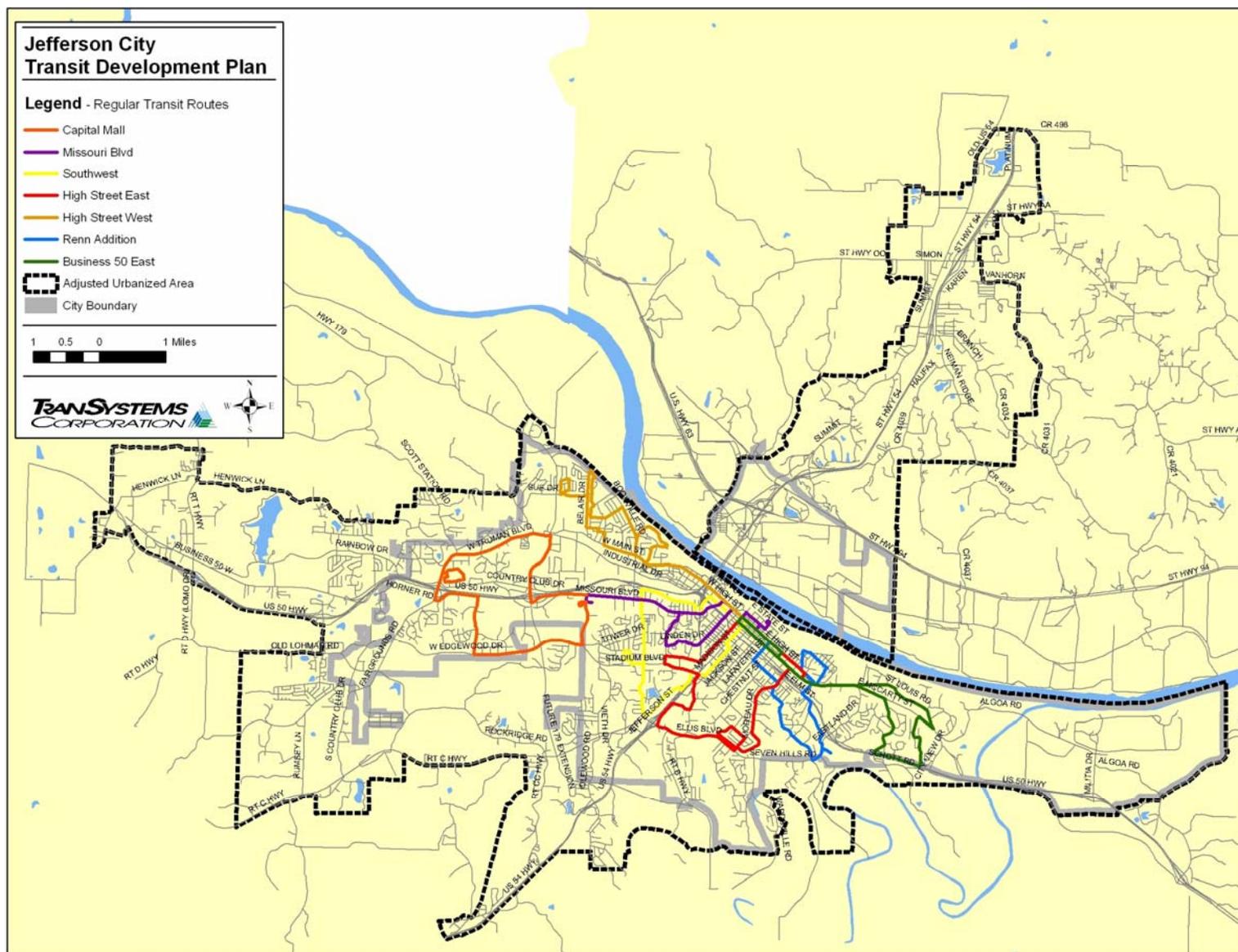


Figure 11: Commuter School Tripper Routes

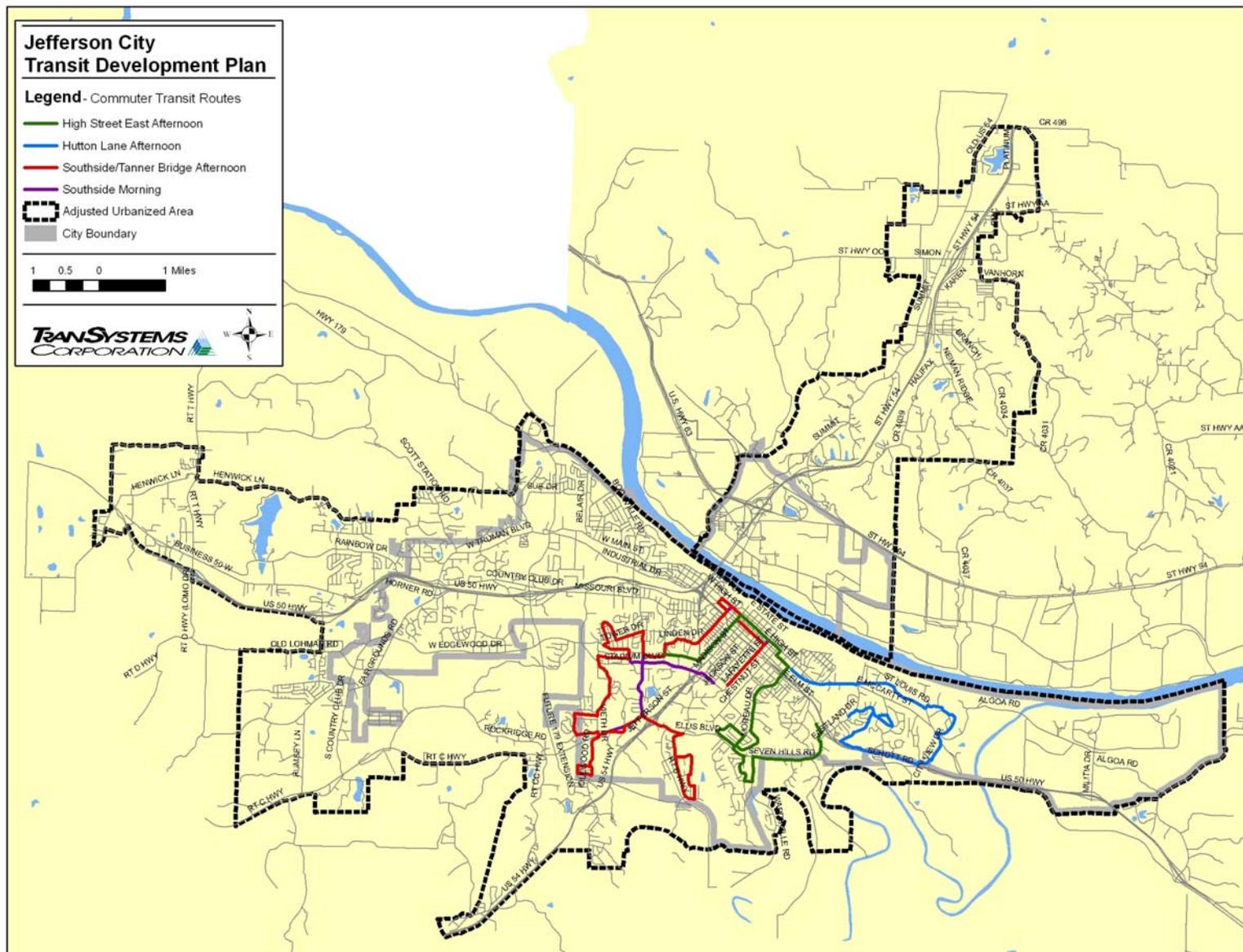


Table 3: Route Schedules

Capital Mall					Missouri Boulevard						Southwest				
1	2	3	4	5	1	2	3	4	5	2	1	2	3	4	1
Wal-mart	W. Edgewood & Stadium	Wildwood & Knipp Dr.	Capital Mall	Gerbes West	Hamilton & Dulle Towers	Transfer Point (High & Jefferson) Depart	Hyder Apts	Kmart	Target	Transfer Point (High & Jefferson) Arrive	Transfer Point (High & Jefferson) Depart	Southridge & Ellis Blvd	Buehrie & Edgewood ¹	St. Mary's Hospital	Transfer Point (High & Jefferson) Arrive
---	---	---	6:50 AM	6:55 AM	6:41 AM	6:45 AM	6:50 AM	7:00 AM	7:01 AM	7:10 AM	6:45 AM	6:55 AM	7:00 AM	7:08 AM	7:10 AM
7:03 AM		7:12 AM	7:20 AM	7:23 AM	7:11 AM	7:15 AM	7:20 AM	7:30 AM	7:31 AM	7:40 AM	7:15 AM	7:25 AM	7:30 AM	7:38 AM	7:40 AM
7:33 AM		7:42 AM	7:50 AM	7:55 AM	7:41 AM	7:45 AM	7:50 AM	8:00 AM	8:01 AM	8:10 AM	7:45 AM	7:55 AM	8:00 AM	8:08 AM	8:10 AM
8:03 AM	8:07 AM	8:12 AM	8:20 AM	8:23 AM	8:11 AM	8:15 AM	8:20 AM	8:30 AM	8:31 AM	9:10 AM	8:15 AM	8:25 AM	8:30 AM	8:38 AM	8:40 AM
8:33 AM	8:37 AM	8:42 AM	8:50 AM	8:55 AM	9:11 AM	9:15 AM	9:20 AM	9:30 AM	9:31 AM	10:10 AM	8:45 AM	8:55 AM	---	9:08 AM	9:10 AM
9:33 AM	9:37 AM	9:42 AM	9:50 AM	9:55 AM	10:11 AM	10:15 AM	10:20 AM	10:30 AM	10:31 AM	11:10 AM	9:15 AM	9:25 AM	---	9:38 AM	9:40 AM
10:33 AM	10:37 AM	10:42 AM	10:50 AM	10:55 AM	11:11 AM	11:15 AM	11:20 AM	11:30 AM	11:31 AM	12:10 PM	9:45 AM	9:55 AM	---	10:08 AM	10:10 AM
11:33 AM	11:37 AM	11:42 AM	11:50 AM	11:55 AM	12:11 PM	12:15 PM	12:20 PM	12:30 PM	12:31 PM	1:10 PM	10:15 AM	10:25 AM	---	10:38 AM	10:40 AM
12:33 PM	12:37 PM	12:42 PM	12:50 PM	12:55 PM	1:11 PM	1:15 PM	1:20 PM	1:30 PM	1:31 PM	2:10 PM	10:45 AM	10:55 AM	---	11:08 AM	11:10 AM
1:33 PM	1:37 PM	1:42 PM	1:50 PM	1:55 PM	2:11 PM	2:15 PM	2:20 PM	2:30 PM	2:31 PM	2:40 PM	11:15 AM	11:25 AM	---	11:38 AM	11:40 AM
2:33 PM	2:37 PM	2:42 PM	2:50 PM	2:55 PM	2:41 PM	2:45 PM	2:50 PM	3:00 PM	3:01 PM	3:10 PM	11:45 AM	11:55 AM	---	12:08 PM	12:10 PM
3:03 PM	3:07 PM	3:12 PM	3:50 PM	3:23 PM	3:11 PM	3:15 PM	3:20 PM	3:30 PM	3:31 PM	3:40 PM	12:15 PM	12:25 PM	---	12:38 PM	12:40 PM
3:33 PM	3:37 PM	3:42 PM	4:50 PM	3:55 PM	3:41 PM	3:45 PM	3:50 PM	4:00 PM	4:01 PM	4:10 PM	12:45 PM	12:55 PM	---	1:08 PM	1:10 PM
4:03 PM	4:07 PM	4:12 PM	5:50 PM	4:23 PM	4:11 PM	4:15 PM	4:20 PM	4:30 PM	4:31 PM	4:40 PM	1:15 PM	1:25 PM	---	1:38 PM	1:40 PM
4:33 PM	4:37 PM	4:42 PM	6:50 PM	4:55 PM	4:41 PM	4:50 PM	4:50 PM	5:00 PM	5:01 PM	5:10 PM	1:45 PM	1:55 PM	---	2:08 PM	2:10 PM
5:03 PM	5:07 PM	5:12 PM	7:50 PM	5:23 PM	5:11 PM	5:20 PM	5:20 PM	5:30 PM	---	---	2:15 PM	2:25 PM	---	2:38 PM	2:40 PM
											2:45 PM	2:55 PM	---	3:08 PM	3:10 PM
											3:15 PM	3:25 PM	3:30 PM	3:38 PM	3:40 PM
											3:45 PM	3:55 PM	---	4:08 PM	4:10 PM
											4:15 PM	4:25 PM	---	4:38 PM	4:40 PM
											4:50 PM	4:55 PM	---	5:08 PM	5:10 PM
											5:20 PM	5:25 PM	5:30 PM	---	---

¹An on bus passenger may request this loop at any time.

Table Continues/

/Table Continued

High Street East					High Street West					Renn Addition				Business 50 East		
Transfer Point (High & Jefferson) Depa 1	Gerbes East 2	Hough Park & Ellis Blvd 3	Mytle & Swifts Hwy 4	Transfer Point (High & Jefferson) Arrive 1	Transfer Point (High & Jefferson) Depa 1	Ihler & Lola 2	Belmont & Norris Dr. 3	Hayselton Dr. 4	Transfer Point (High & Jefferson) Arrive 1	Transfer Point (High & Jefferson) Depa 1	Gerbes Superstore 2	Hough & Lincoln St 3	Transfer Point (High & Jefferson) Arrive 1	Transfer Point (High & Jefferson) Depa 1	McCarty & Brookdale 2	Transfer Point (High & Jefferson) Arrive 1
6:45 AM	6:50 AM	6:56 AM	7:08 AM	7:10 AM	6:45 AM	6:55 AM	7:00 AM	7:05 AM	7:10 AM	6:45 AM	6:55 AM	7:05 AM	7:10 AM	6:45 AM	7:00 AM	7:10 AM
7:15 AM	7:20 AM	7:26 AM		7:40 AM	7:15 AM		7:30 AM	7:35 AM	7:40 AM	7:15 AM	7:25 AM	7:35 AM	7:40 AM	7:15 AM	7:30 AM	7:40 AM
7:45 AM	7:50 AM	7:56 AM	8:08 AM	8:10 AM	7:45 AM	7:57 AM	8:00 AM	8:05 AM ⁴	8:10 AM	7:45 AM	7:55 AM	8:05 AM	8:10 AM	7:45 AM	8:00 AM	8:10 AM
8:15 AM	8:20 AM	8:26 AM	8:38 AM	8:40 AM	8:15 AM		8:30 AM	8:35 AM ⁴	8:40 AM	8:15 AM	8:25 AM	8:35 AM	8:40 AM	8:15 AM	8:30 AM	8:40 AM
9:15 AM	9:20 AM	9:26 AM	9:38 AM	9:40 AM	8:45 AM		9:00 AM	9:05 AM ⁴	9:10 AM	8:45 AM	8:55 AM	9:05 AM	9:10 AM	9:15 AM	9:30 AM	9:40 AM
10:15 AM	10:20 AM	10:26 AM	10:38 AM	10:40 AM	9:45 AM		10:00 AM	10:05 AM ⁴	10:10 AM	9:45 AM	9:55 AM	10:05 AM	10:10 AM	10:15 AM	10:30 AM	10:40 AM
11:15 AM	11:20 AM	11:26 AM	11:38 AM	11:40 AM	10:45 AM		11:00 AM	11:05 AM ⁴	11:10 AM	10:45 AM	10:55 AM	11:05 AM	11:10 AM	11:15 AM	11:30 AM	11:40 AM
12:15 PM	12:20 PM	12:26 PM	12:38 PM	12:40 PM	11:45 AM		12:00 PM	12:05 AM ⁴	12:10 PM	11:45 AM	11:55 AM	12:05 PM	12:10 PM	12:15 PM	12:30 PM	12:40 PM
1:15 PM	1:20 PM	1:26 PM	1:38 PM	1:40 PM	12:45 PM		1:00 PM	1:05 AM ⁴	1:10 PM	12:45 PM	12:55 PM	1:05 PM	1:10 PM	1:15 PM	1:30 PM	1:40 PM
2:15 PM	2:20 PM	2:26 PM	2:38 PM	2:40 PM	1:45 PM		2:00 PM	2:05 AM ⁴	2:10 PM	1:45 PM	1:55 PM	2:05 PM	2:10 PM	2:15 PM	2:30 PM	2:40 PM
3:15 PM	3:20 PM	3:26 PM	3:38 PM	3:40 PM	2:45 PM		3:00 PM	3:05 AM ⁴	3:10 PM	2:45 PM	2:55 PM	3:05 PM	3:10 PM	3:15 PM	3:30 PM	3:40 PM
3:45 PM	3:50 PM	3:56 PM	4:08 PM	4:10 PM	3:15 PM	3:27 PM ³	3:30 PM	3:35 AM ⁴	3:40 PM	3:15 PM	3:25 PM	3:35 PM	3:40 PM	3:45 PM	4:00 PM	4:10 PM
4:15 PM	4:20 PM	4:26 PM	4:38 PM	4:40 PM	3:45 PM		4:00 PM	4:05 AM ⁴	4:10 PM	3:45 PM	3:55 PM	4:05 PM	4:10 PM	4:15 PM	4:30 PM	4:40 PM
4:50 PM	4:50 PM	4:56 PM	5:08 PM	5:10 PM	4:15 PM	4:27 PM	4:30 PM	4:35 AM ⁴	4:40 PM	4:15 PM	4:25 PM	4:35 PM	4:40 PM	4:50 PM	5:00 PM	5:10 PM
5:20 PM	5:20 PM	5:26 PM	---	---	5:20 PM		5:30 PM	5:05 AM ⁴	5:10 PM	5:20 PM	5:25 PM	5:05 PM	5:10 PM	5:20 PM	5:30 PM	---

⁴The High Street East bus departs from Senior High at 3:07 PM on school days only and from High & Jefferson at 2:45 PM during the summer months & school holidays.

³The High Street regular route bus runs the Ihler & Lola loop at 3:27 PM only by request in the summer.

⁴The High Street West Bus will not run Hayselton Drive at these times unless requested an hour in advance by calling 634-6477 or by asking the driver when boarding

3.3 Running Time Check

A running time check was conducted on June 6, 2005 at the Jefferson & High transfer location to assess tight running times. The time check showed that buses arrive up to 6 minutes late resulting in up to 11 minute late departures. Table 4 shows the results of the time check.

Table 4: Time Check Summary

Route	Observations
Missouri Boulevard/Capital Mall	Buses arrive between 2 to 6 minutes late. Buses depart between 5 to 11 minutes late.
Southwest Boulevard	Buses arrive between 0 and 4 minutes late. Buses depart between 0 and 10 minutes late.
High Street East	Buses arrive between 0 and 3 minutes late. Buses depart between 1 and 9 minutes late.
High Street West	Buses arrive between 0 and 3 minutes late. Buses depart between 1 and 11 minutes late.
Business 50	Buses arrive between 0 and 3 minutes late. Buses depart between 0 and 9 minutes late.
Renn Addition	Buses arrive between 0 and 3 minutes late. Buses depart between 2 and 6 minutes late.

Due to the operation of JEFFTRAN regular routes on the pulse system, the late arrival of a single bus or several buses may require some of the other buses that may have arrived on time (or at least earlier) to wait for the buses that have transfers for them. A maximum wait time of 5 minutes has been set. The result, however, can be a ripple effect that may worsen throughout the shift depending on circumstances. The Missouri Boulevard/Capital Mall route has the worst departure time record from 5 to 6 minutes late on average, which occurs twice daily. However, this bus route makes two passes by the transfer location inbound and passengers transferring from the route (except those boarding at the Dulle & Hamilton Towers) are able to catch transfers to other routes by alighting at the transfer location at the first pass.

3.4 Transfers

A transfer count was conducted on Wednesday, July 13th to assess transfer activity between the routes. JEFFTRAN operators were asked to collect transfer slips received that day in a pre-labeled envelope that was provided. For operators who drove on more than one route, a separate envelope was provided for each route. Also, for midday routes that flip-flop between High Street East and High Street West, between Renn Addition and Business 50, and for the Missouri Boulevard and Capital Mall routes, separate envelopes were provided so that transfers could be counted by route.

Drivers were asked to properly punch transfer slips to indicate the origin route. Envelopes were then returned at the end of the day. The data was then tabulated to determine the amount of transfer activity.

Transfer information is important in the development of service alternatives to ensure that existing riders are not inconvenienced by a recommended change. Table 5 shows the transfer count summary.

Table 5: Transfer Count Summary

Receiving Route	Issuing Route											Total Rcvd	
	High Street W	High Street E	MO Blvd Mall	Ellis S.W.	Renn Addition	Business 50 E	Tripper			High Street W/E	Multiple		Unknown
High Street W	2	-	3	-	1	3	-			-	-	-	9
High Street E	5	-	24	4	2	-	-			2	1	1	39
MO Blvd Mall	9	-	-	3	17	5	-			4	4	-	42
Ellis S.W.	7	-	17	-	3	7	-			3	-	-	37
Renn Addition	2	-	4	11	-	5	-			7	-	-	29
Business 50 E	-	-	7	1	5	-	-			-	3	-	16
Tripper													-
Total Issues	25	-	55	19	28	20	-			16	8	1	172

Source: Transfer data as compiled by TranSystems.

The data show a lot of transfer activity between all the routes with the most activity on the Missouri Boulevard and the least transfers to or from the High Street West route.

Section 4: Existing Paratransit Service

In addition to fixed route service, JEFFTRAN also provides a complementary curb-to-curb paratransit service called "Handi Wheels." Complementary paratransit is a transportation service required by the Americans with Disabilities Act (ADA) of 1990 for individuals with disabilities who are unable to use fixed-route transportation systems.

Handi Wheels services operate within the boundaries of Jefferson City, and all eligible residents can use the service. Handi Wheels provides service beyond that which is required by ADA because the service area is larger than required. Trips can be scheduled Monday through Friday by contacting the Handi Wheels office. The service operates from 6:45 AM to 5:45 PM weekdays, the same hours as JEFFTRAN fixed route service.

Handi Wheels currently has eight vehicles, six operating vehicles and two spares, and six drivers dedicated to the Handi Wheels service. The service uses modified Ford E-450 chassis mini-buses. All vehicles are equipped with wheelchair lifts and are ADA compliant.

Handi Wheels carries about 200 to 220 passenger trips per day. Passengers rate the service very high in all performance areas.

Handi Wheels is funded by a mix of sources, including passenger fares, local funding and FTA funding.

Section 5: Passenger Count

5.1 Introduction

A complete passenger count was conducted on every route in the system for a typical weekday. A bus stop list was prepared from data provided by JEFFTRAN. The study team trained checkers and organized the passenger count. The objective of the count was to understand how bus riders use the current system and to determine where boardings and alightings occur. Using the passenger count, areas with no activity or with minimal activity were identified to determine if the optimal route is being used.

5.2 Data and Maps

Maps were developed from the on/off survey to show the outbound and inbound portion of each route to identify those areas with limited activity. Figures 13 through 26 show the total daily on/off count maps.

Overall, the fixed routes have daily ridership of approximately 800. Individual route ridership is shown in Table 6. The Missouri Boulevard route has the highest ridership.

Table 6: Fixed Route Daily Ridership

Route	Ridership
Capital Mall	90
Missouri Blvd	220
Southwest	120
High Street East	120
High Street West	80
Renn Addition	120
Business 50	60
Total	810

The Truman Shuttle averages about 160 passengers per day and the Eastside Shuttle averages more than 400 passengers per day.

Figure 13: Capital Mall Outbound On/Off

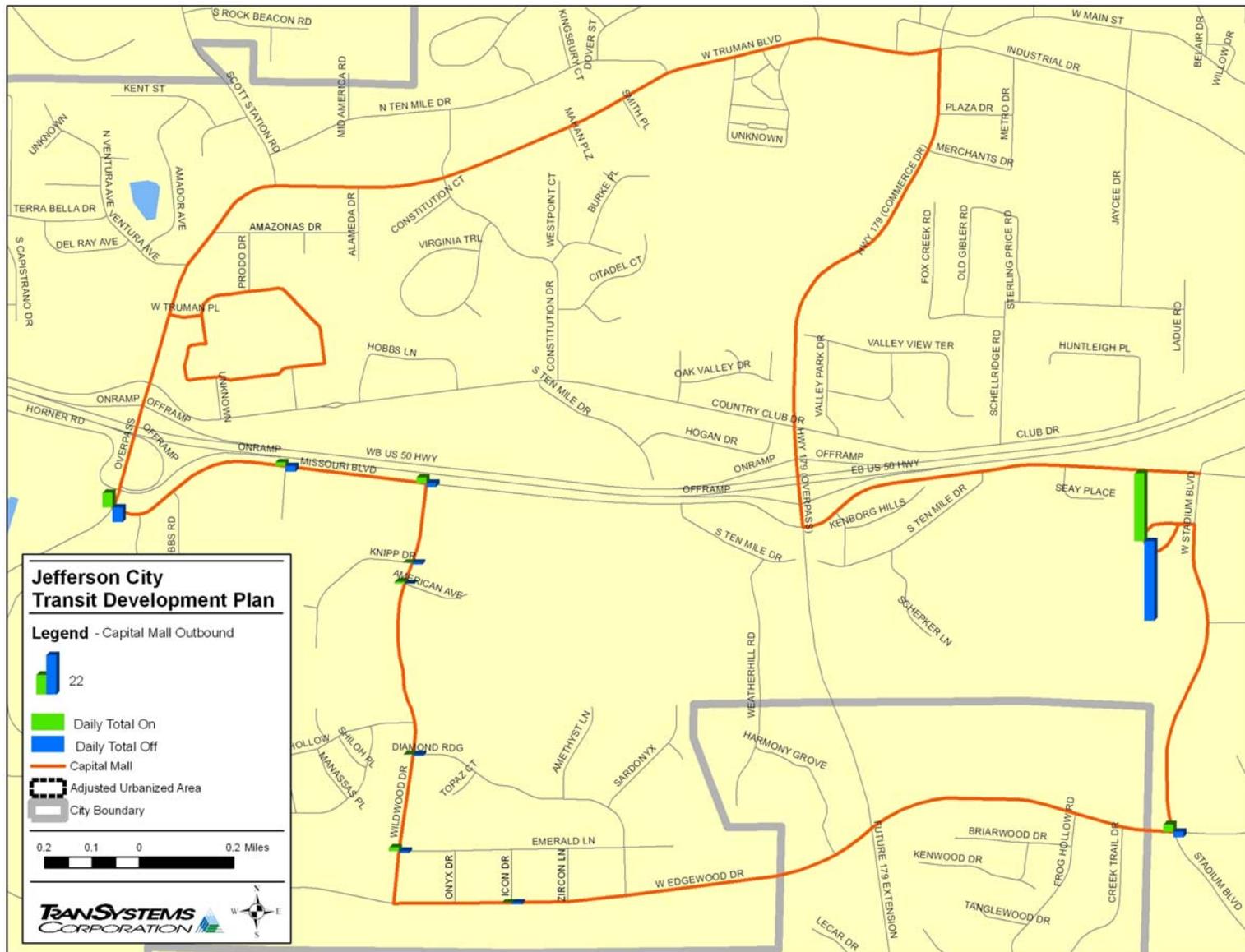


Figure 14: Capital Mall Inbound On/Off

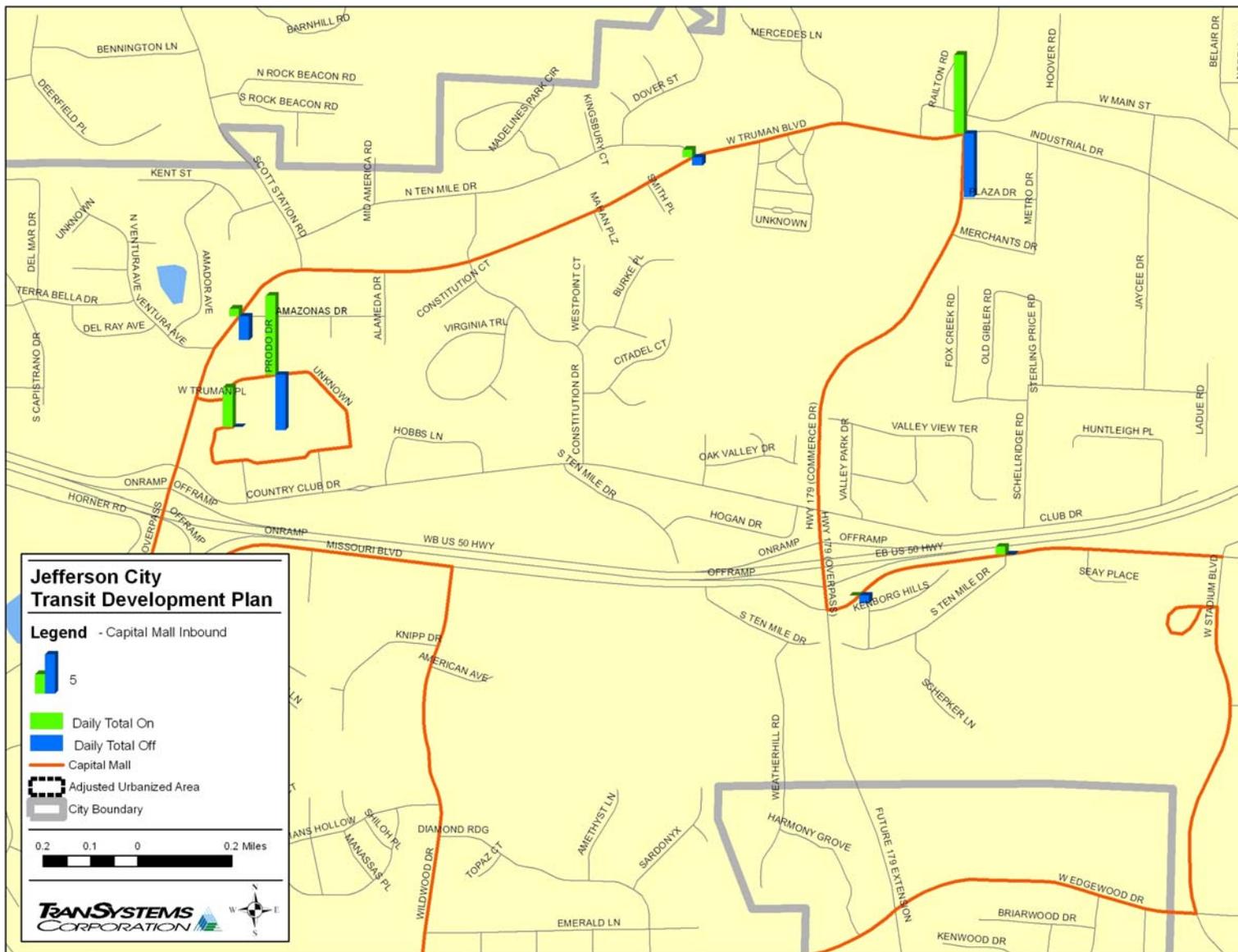


Figure 15: Missouri Boulevard Outbound On/Off

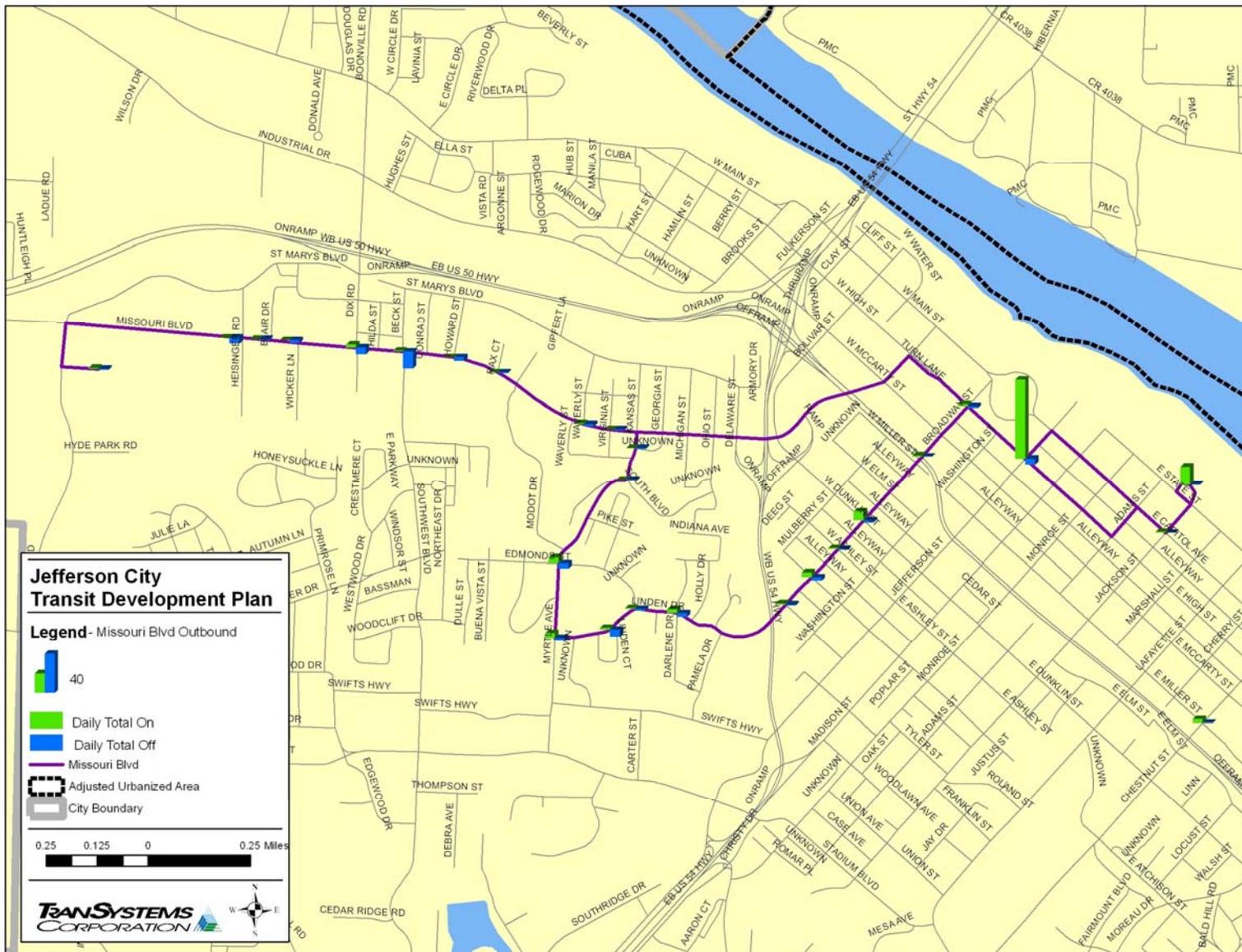


Figure 16: Missouri Boulevard Inbound On/Off

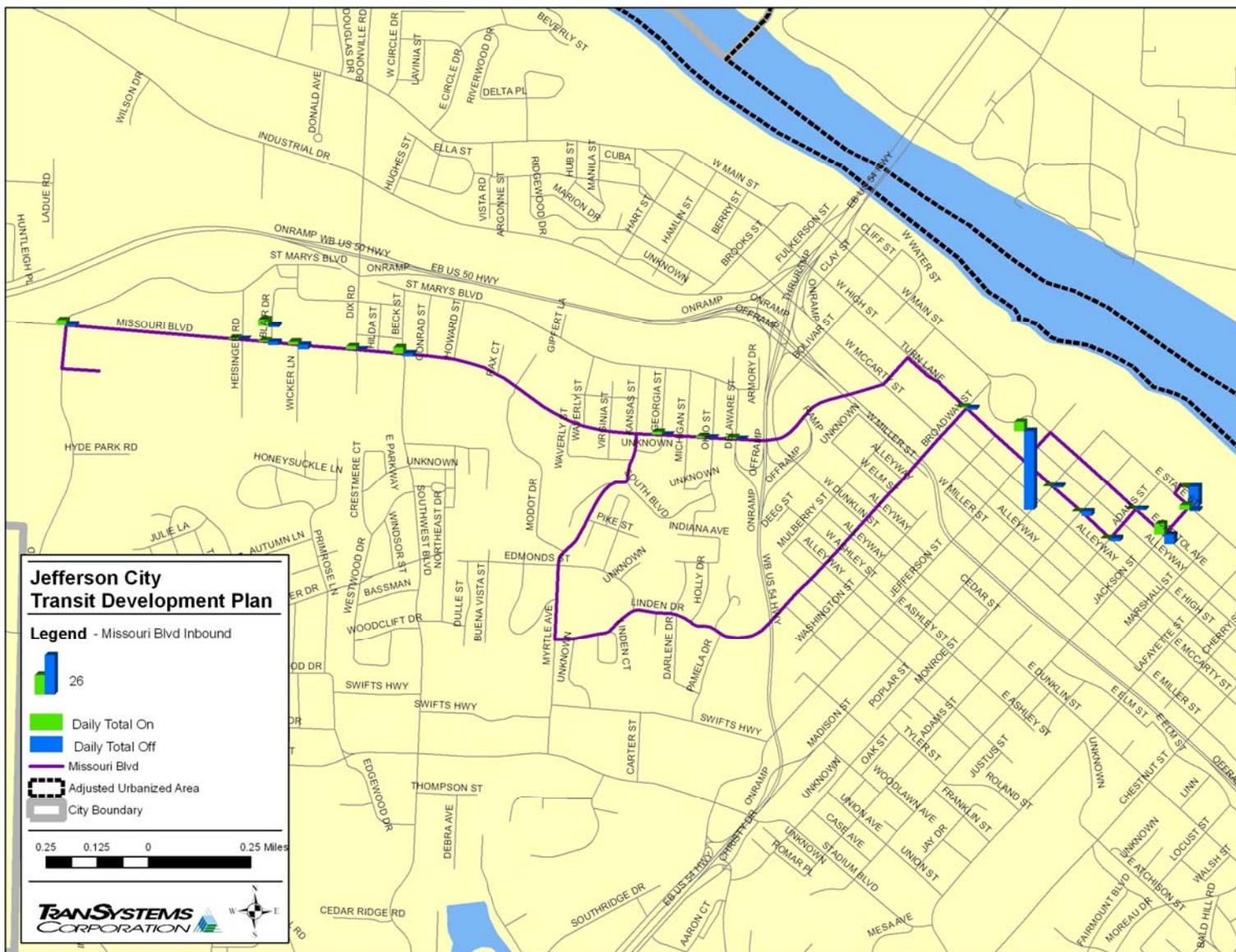


Figure 17: Southwest Outbound On/Off

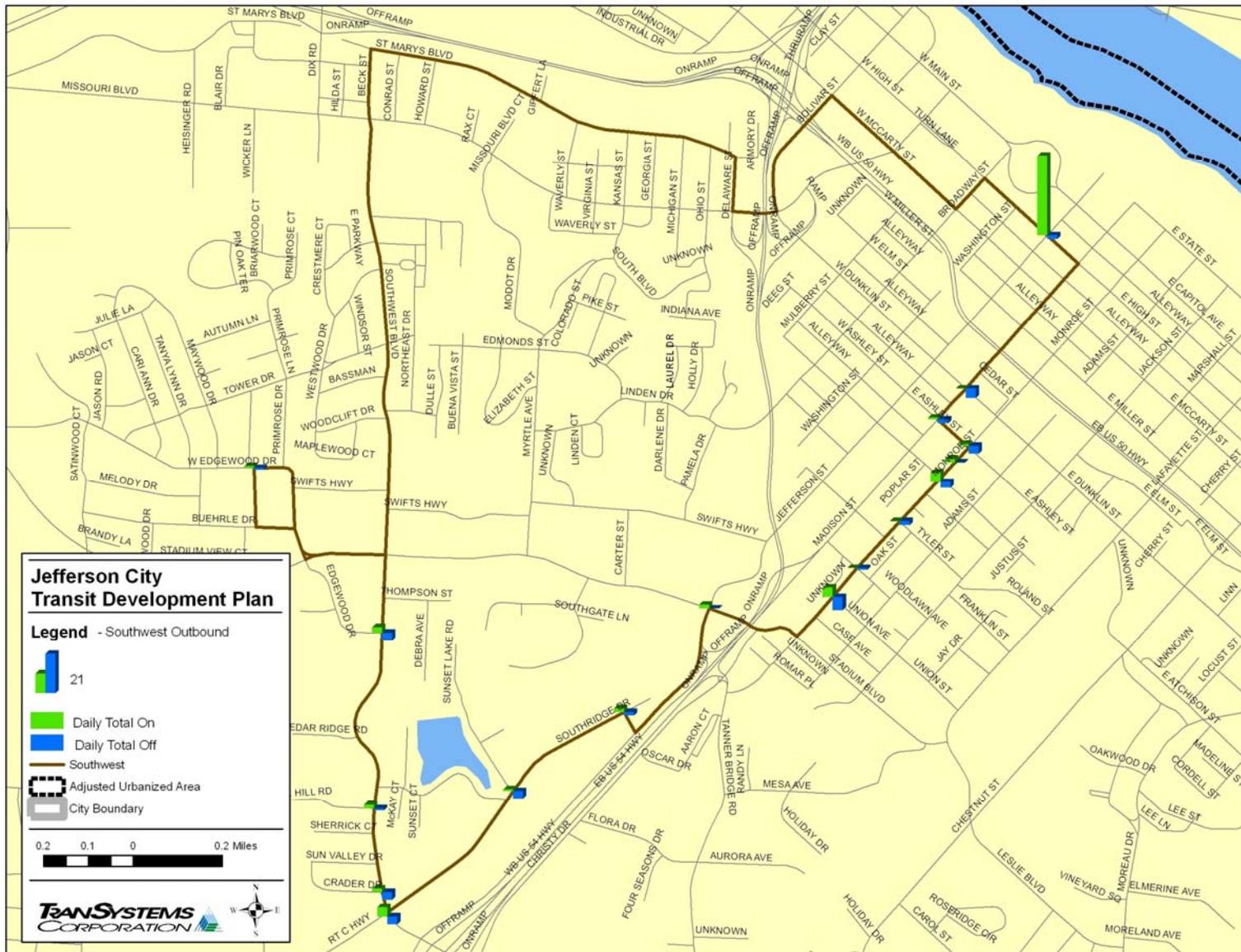


Figure 18: Southwest Inbound On/Off

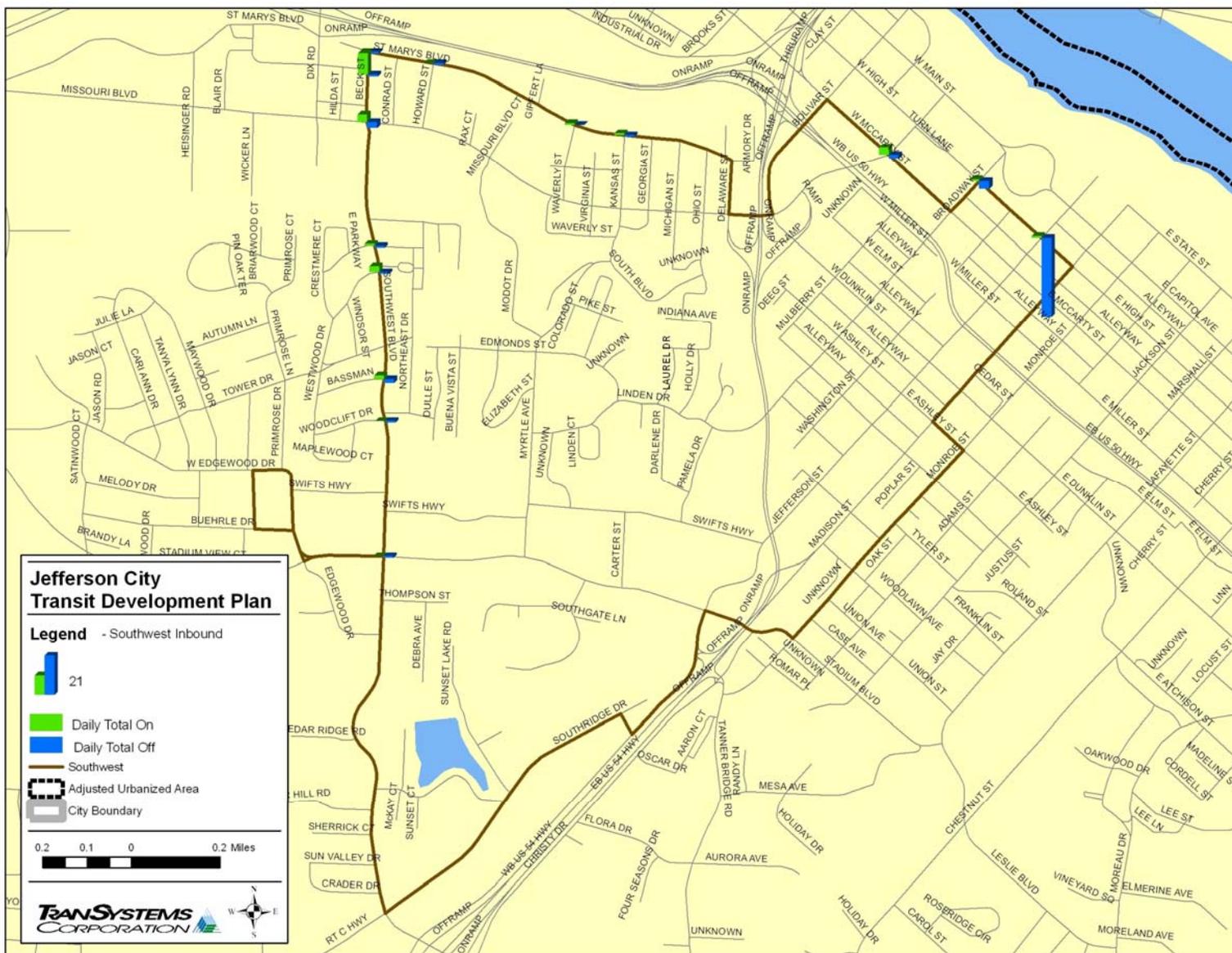


Figure 19: High Street East Outbound On/Off

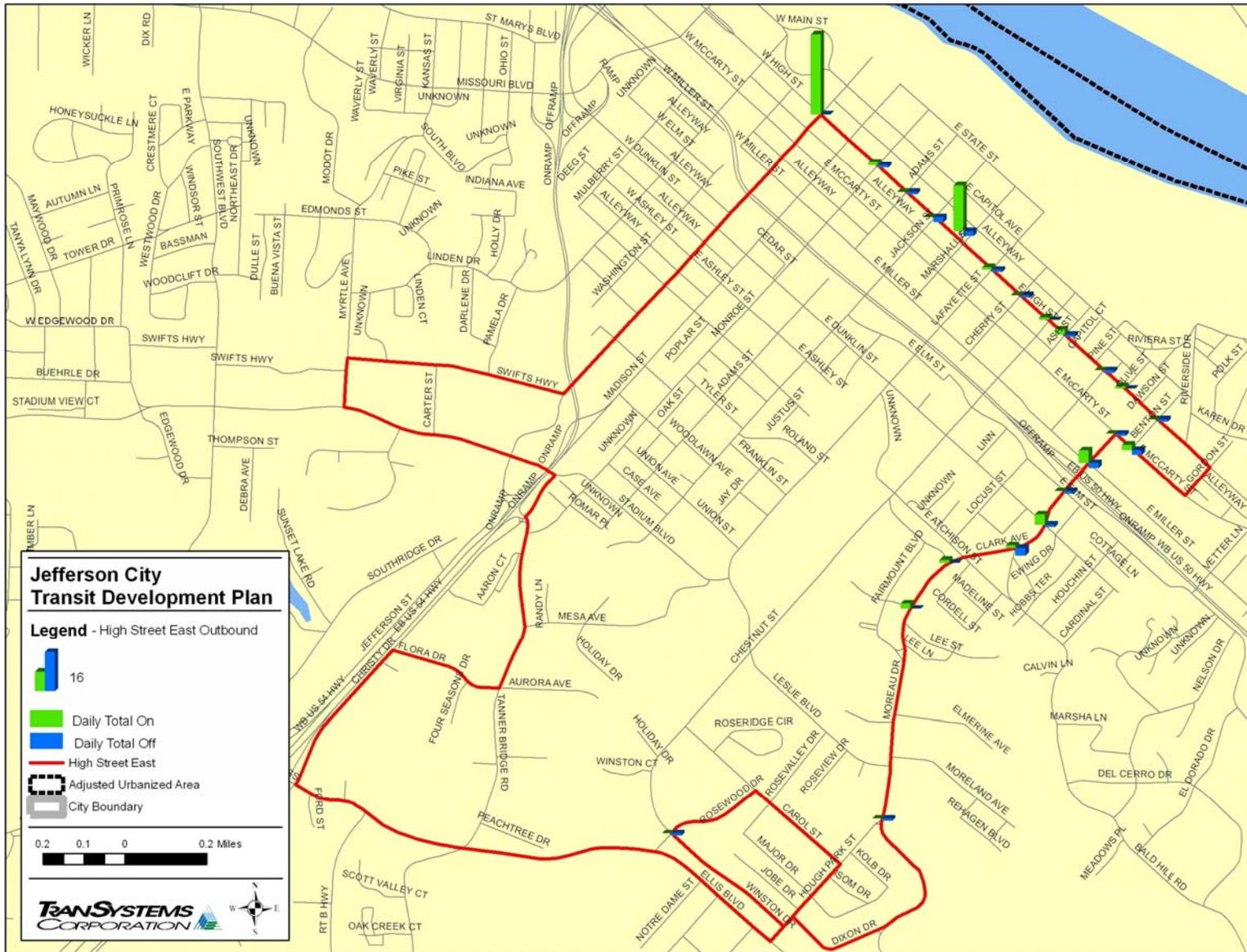


Figure 20: High Street East Inbound On/Off

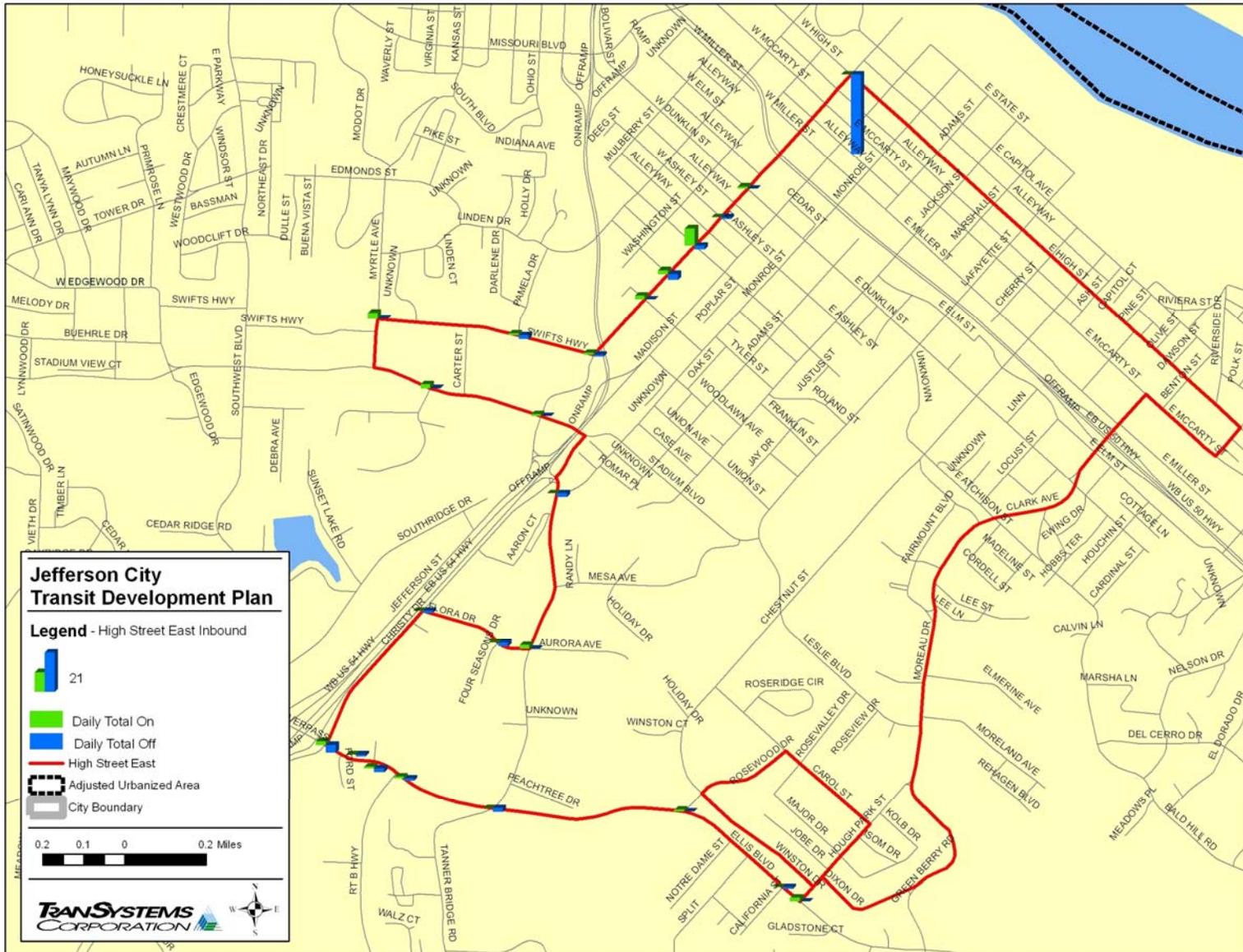


Figure 21: High Street West Outbound On/Off

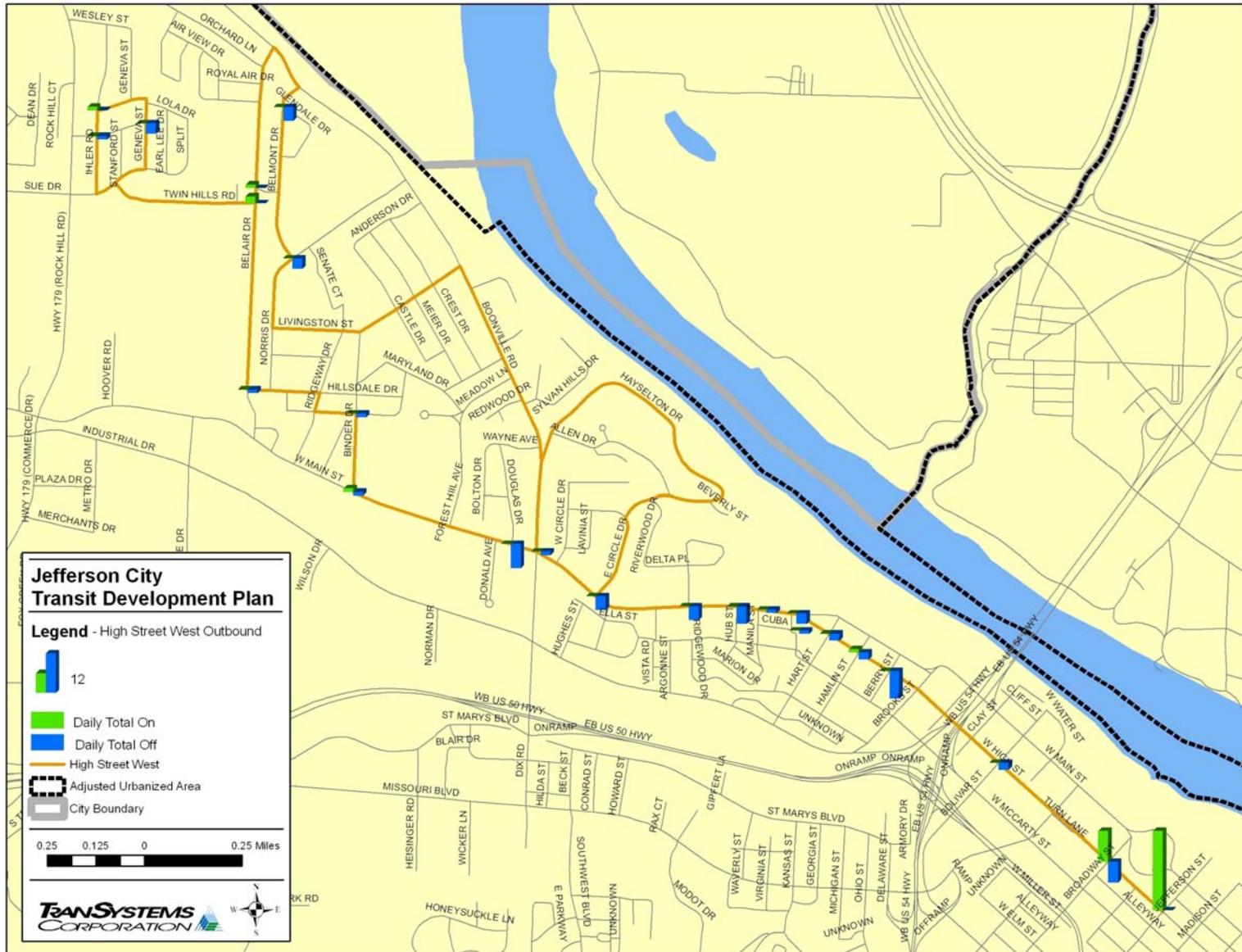


Figure 22: High Street West Inbound On/Off

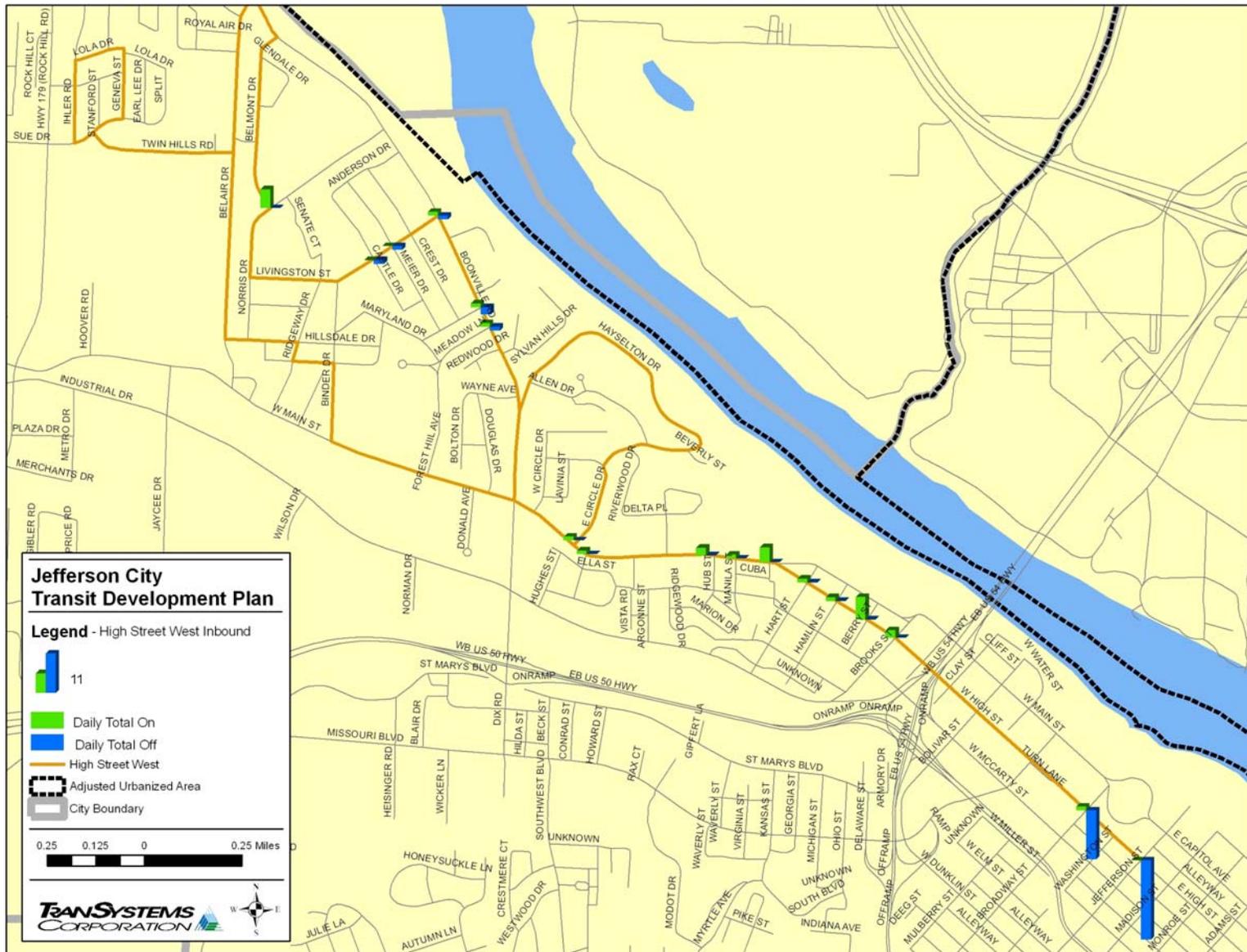


Figure 23: Renn Addition Outbound On/Off

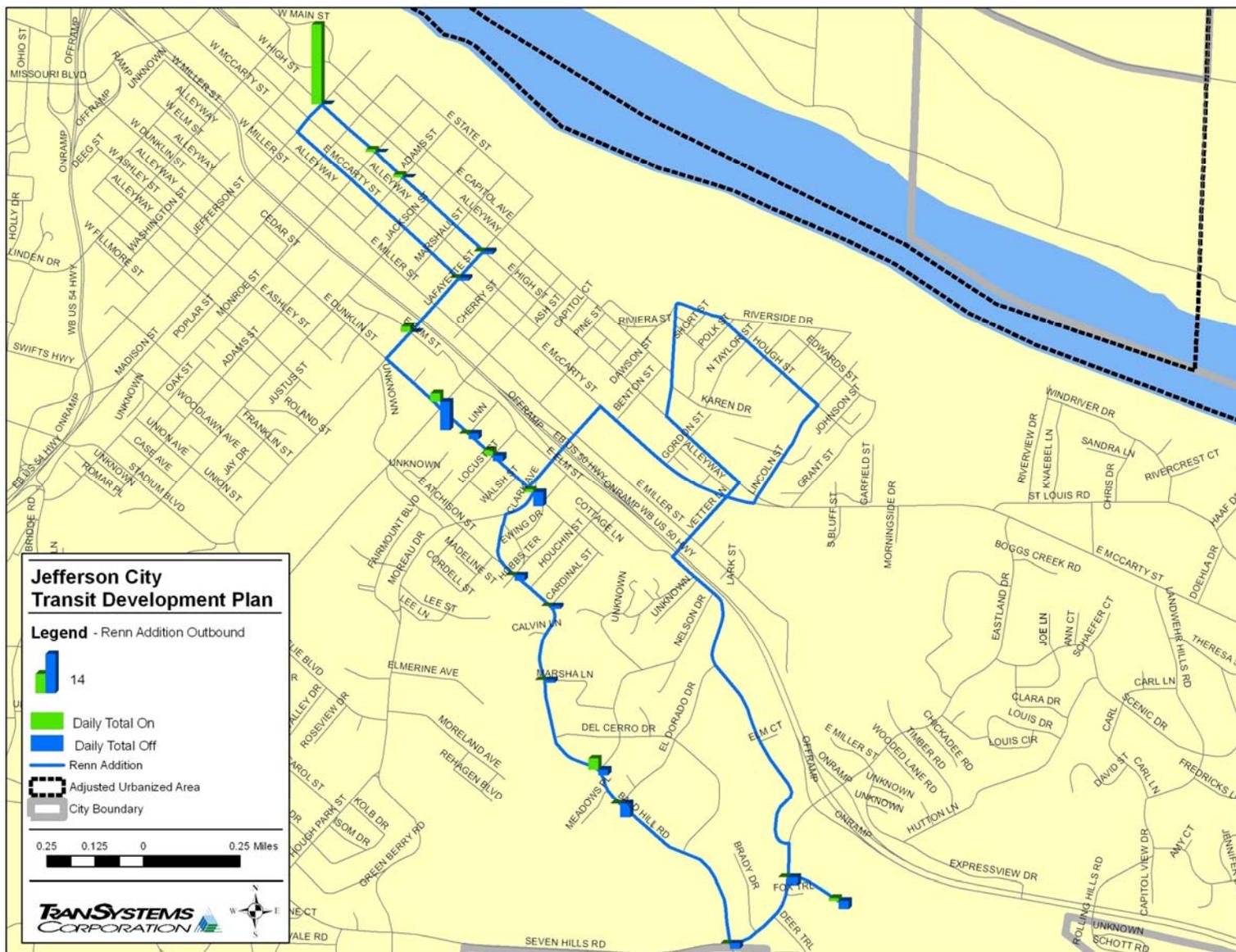


Figure 24: Renn Addition Inbound On/Off

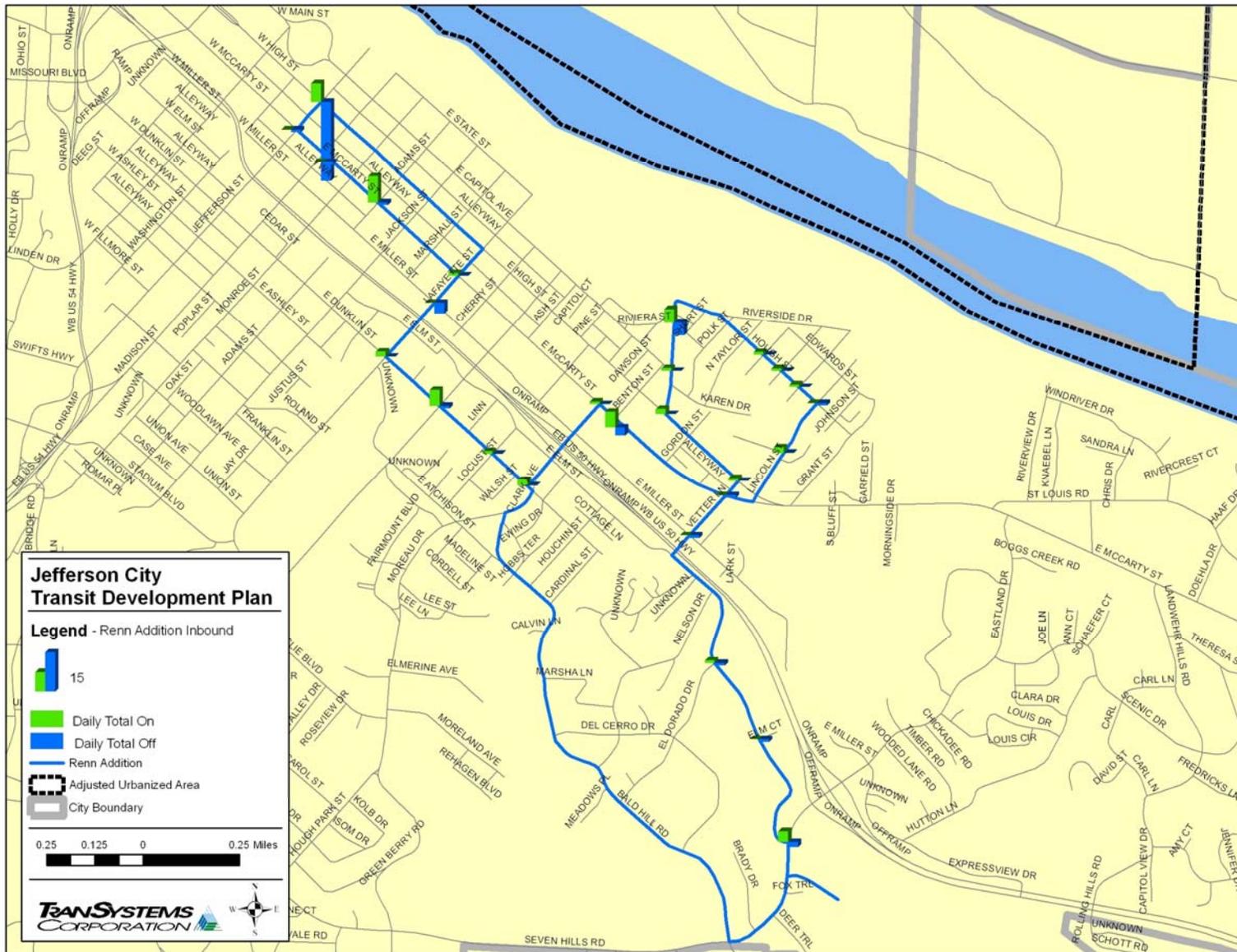


Figure 25: Business 50 East Outbound On/Off

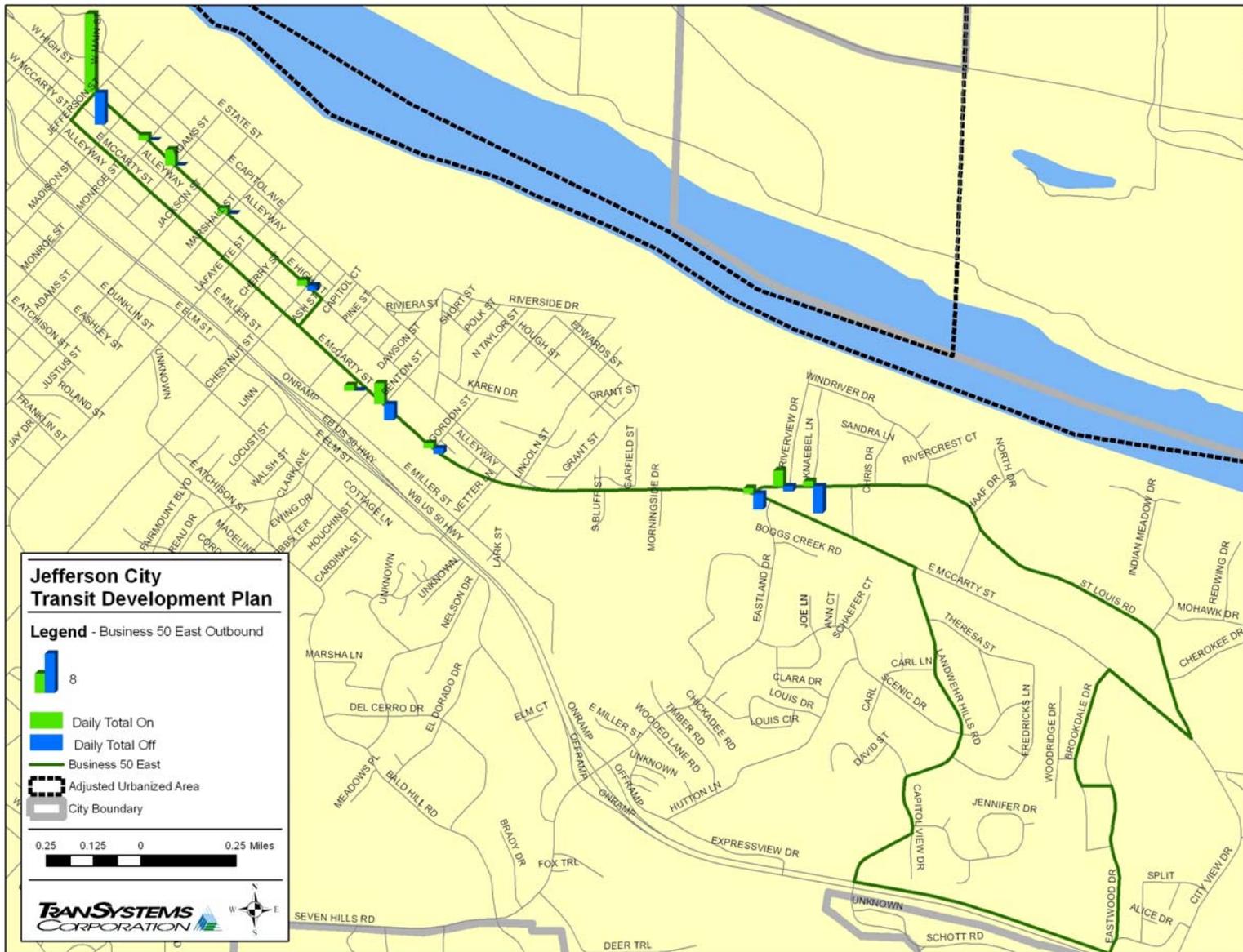
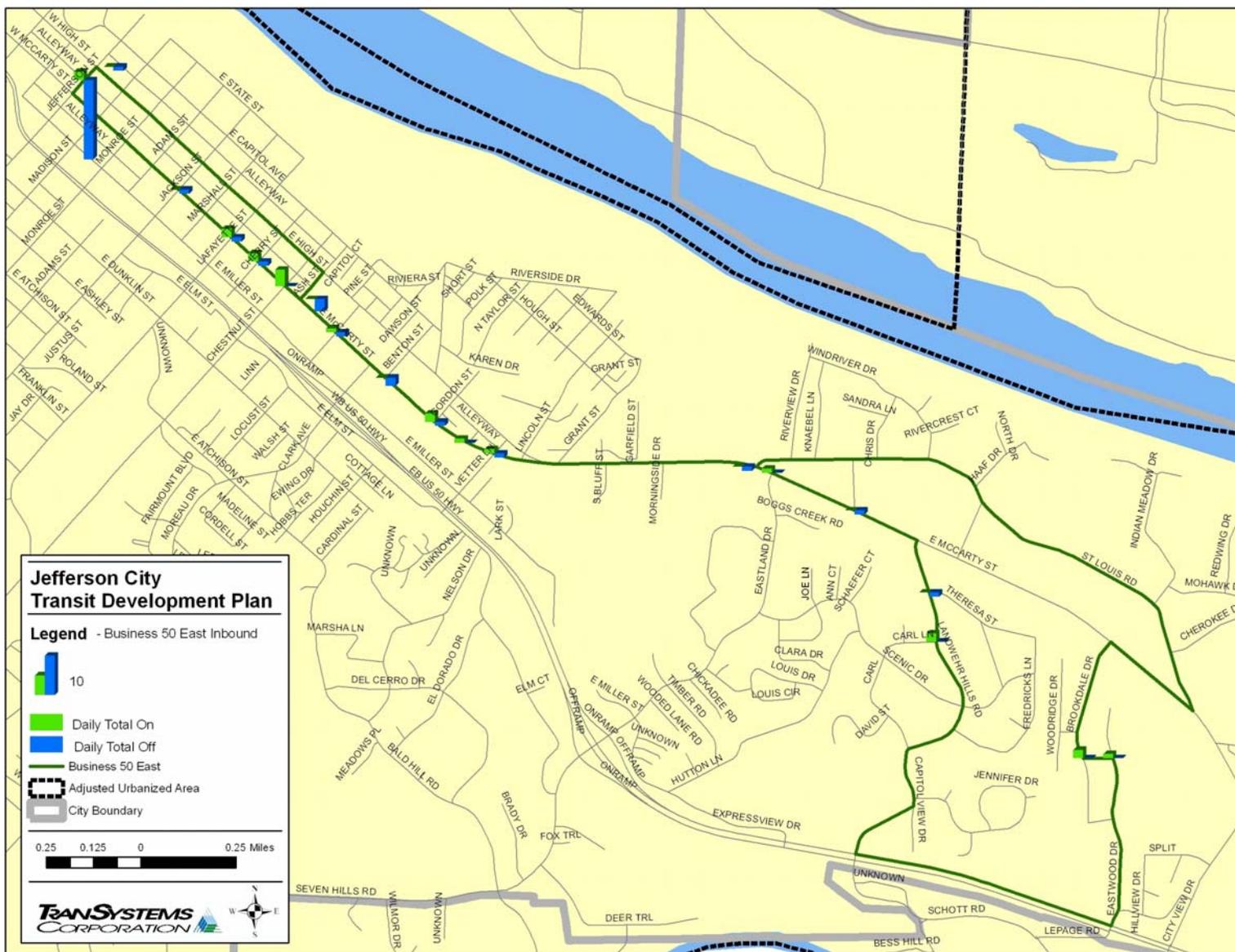


Figure 26: Business 50 East Inbound On/Off



5.3 Ridership Trends

Data shows a growth in ridership on most routes for the past five years except the Business 50 East route and most of the commuter school tripper routes which show a slight decline. The largest ridership increases were on the Missouri Blvd/Capital Mall route and the Truman Shuttle. The Eastside Shuttle was put into operation in March of 2005 and has been getting more than 400 riders per day. Table 7 shows the ridership history. The data is also represented in Figure 27.

Table 7: Daily Ridership History

	2000	2001	2002	2003	2004	2005
Missouri Blvd/Capital Mall*	288	301	325	306	336	429
Southwest	123	130	120	119	127	128
High Street East	110	113	110	116	113	122
High Street West	89	92	100	99	84	97
Renn Addition	76	76	73	86	97	106
Business 50 East	87	76	69	63	57	53
Handi-Wheels	177	181	181	196	201	206
Hutton Lane Commuter	27	21	20	19	16	17
Tanner Bridge Commuter	12	8	2	0.1	---	---
Southside Commuter	35	36	31	27	25	19
High Street East Commuter	30	40	34	31	30	33
High Street West Commuter**	---	---	---	2	---	---
Truman Shuttle	188	137	145	176	174	218
Eastside Shuttle	---	---	---	---	---	400
System Total	1,241	1,212	1,208	1,242	1,259	1,829

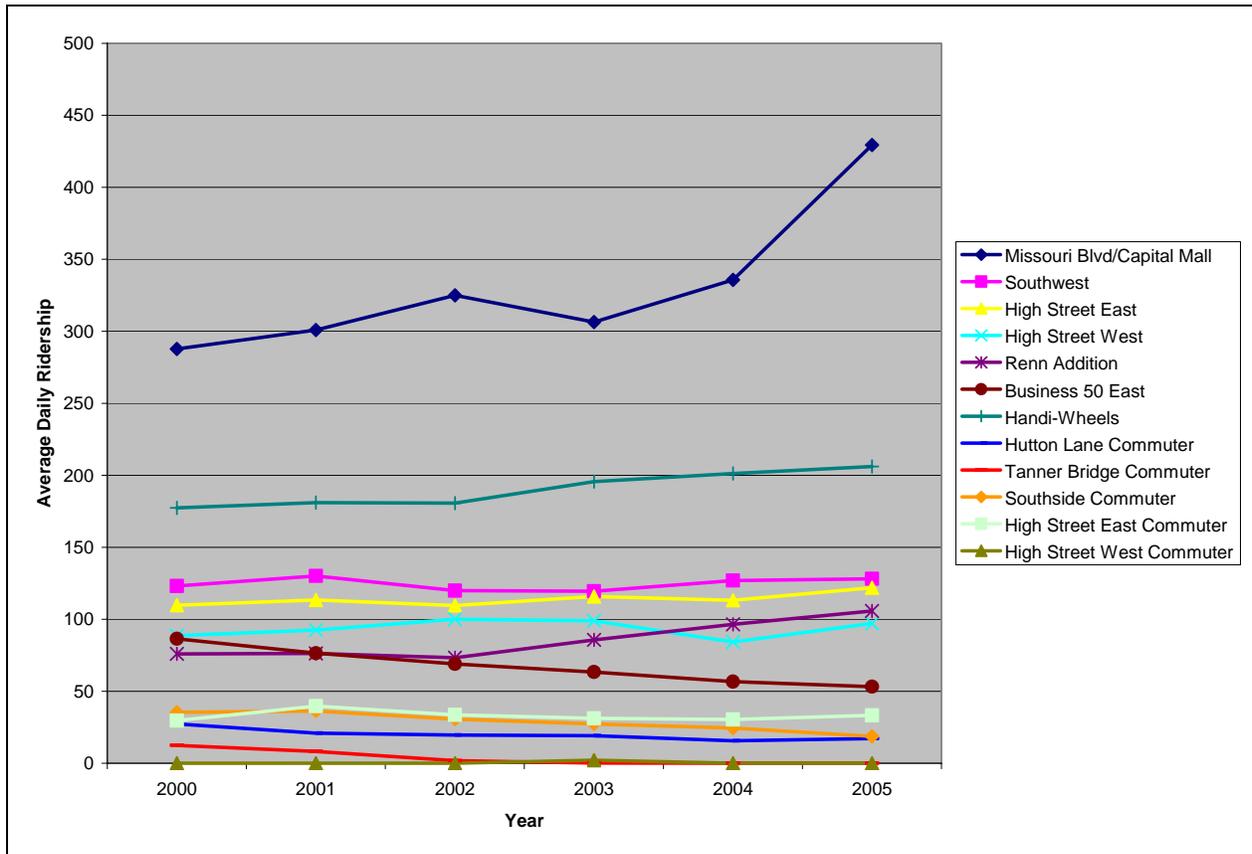
Source: JEFFTRAN ridership data as compiled by TranSystems.

Note: Year is from November 1 through October 31 except for 2005 which is from November 1 to May 31.

*JEFFTRAN ridership records combine Missouri Boulevard and Capital Mall routes.

**High Street West Commuter Route was incorporated into High Street West regular route.

Figure 27: Daily Ridership Trends



Section 6: Passenger Survey

6.1 Purpose and Methodology

ETC Institute conducted a transit passenger survey for Jefferson City, Missouri during April 2005. The purpose of the survey was to gather input for current riders to help improve the quality of public transportation services in the community.

The survey was distributed by bus drivers to passengers on each of the City's seven fixed routes. A total of 297 transit surveys were completed. The overall results of the survey have a precision of at least +/-4% at the 95% level of confidence.

This section summarizes the complete 2005 Jefferson City Transit Passenger Survey report which contains:

- An executive summary of the methodology and major findings
- Charts depicting the results of selected questions on the survey
- Tabular data that shows the results for all questions on the survey
- A copy of the survey instrument.

6.2 Characteristics of Transit Passengers

Transit passengers in Jefferson City as observed through the on-board survey include the following characteristics:

- Only 25% of those surveyed had a car or other vehicle that they could have used to make their trip.
- 56% of the respondents lived in zip code 65101; 39% lived in zip code 65109.
- 21% of those surveyed were under age 25; 16% were age 55 or older.
- 46% were male; 54% were female.
- More than 60% of those surveyed had annual household incomes under \$20,000; only 2% had annual household incomes of \$75,000 or more.
- 52% of those surveyed indicated that they use public transportation in Jefferson City at least five days per week.

6.3 Major Findings

Perceptions of the Overall Quality of Public Transportation in Jefferson City. The overall quality of public transportation services in Jefferson City was rated highly by persons currently using the service. More than three-fourths (82%) of those surveyed rated the overall quality of public transportation service in Jefferson City as either "excellent" or "good"; only three percent (3%) of the respondents rated the quality of public transportation services as "poor" (see Figure 28).

Service Characteristics Rated Best. The service characteristics that were rated best (based on the percentage of respondents who were "very satisfied" or "satisfied") were:

- Courtesy of drivers
- Feeling of safety using bus
- Bus fees

Service Characteristics Rated Worst. The service characteristics that received the lowest ratings (based on the percentage of respondents who were "very satisfied" or "satisfied") were:

- The hours bus service is offered
- Availability of bus shelters
- Availability of bus service on weekdays

Other Findings

- The top three reasons respondents were using public transportation services in Jefferson City were: to get to/from work (51%), to conduct personal business (27%), and to go shopping (26%).
- The top three items that would encourage current riders to use public transportation services more often were: having more service offered on weekends (66%), having service offered later in the evening (54%), and providing more frequent service (35%). Figure 29 shows the suggested improvements.
- 84% of those surveyed thought they would still be using public transportation services in Jefferson City in 12 months.
- Bus drivers were the top source of information about public transportation services for current users.
- 62% of those surveyed indicated that a bus stop was located within one block of their home.

The study team was also noted that approximately 51% of those surveyed were using transit to get to work. In addition, approximately twenty-five percent of the transit riders ride by choice. These results are illustrated in Figures 30 and 31

Figure 28: Transit Survey System Rating

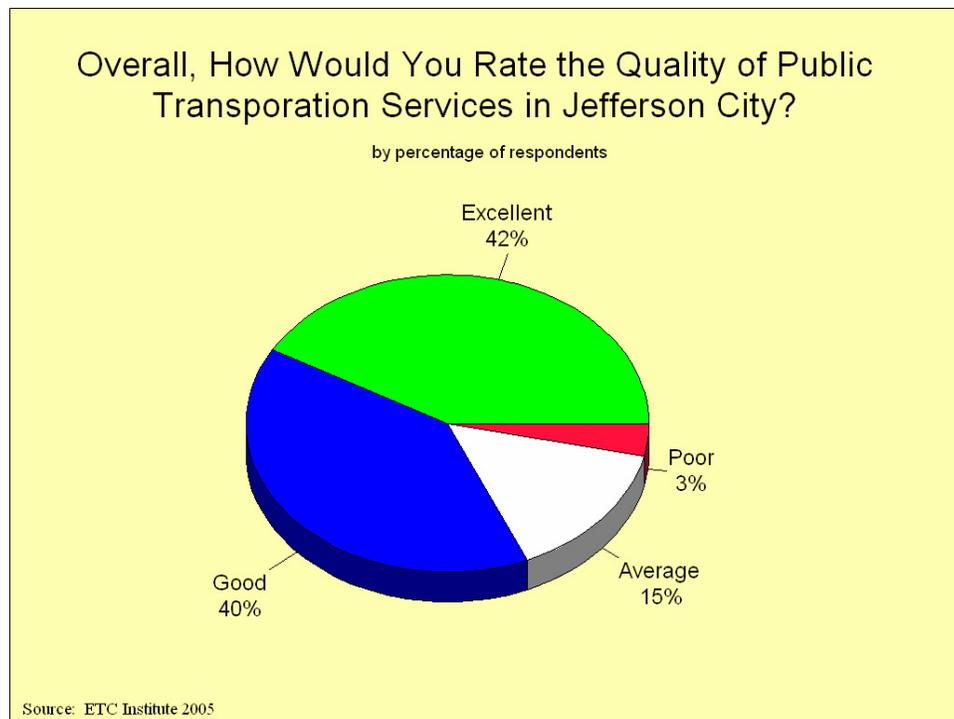


Figure 29: Transit Survey Suggested Improvements

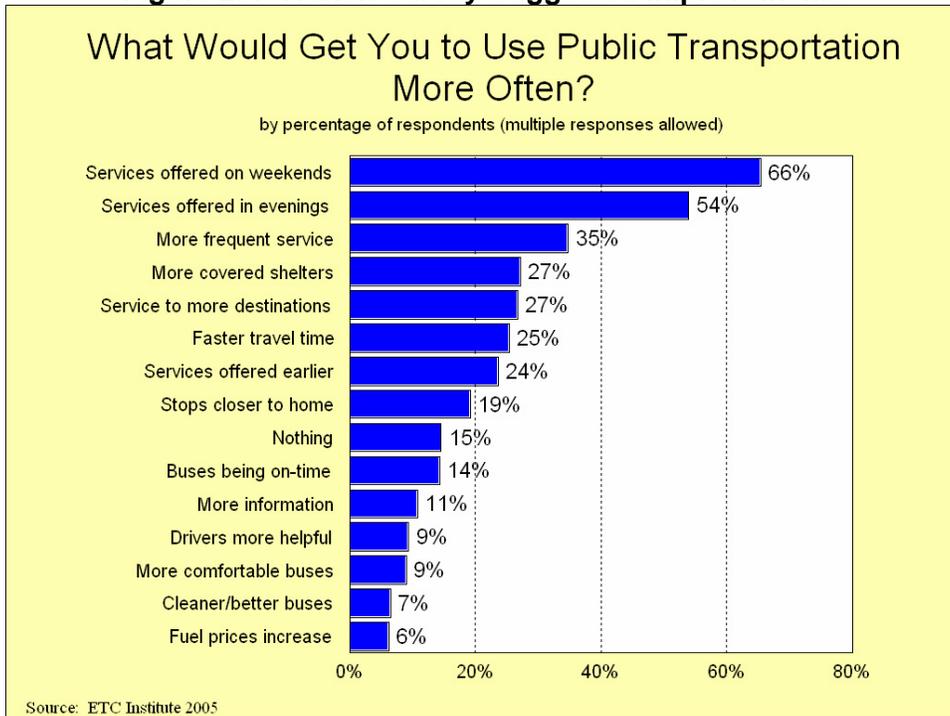


Figure 30: Trip Purpose

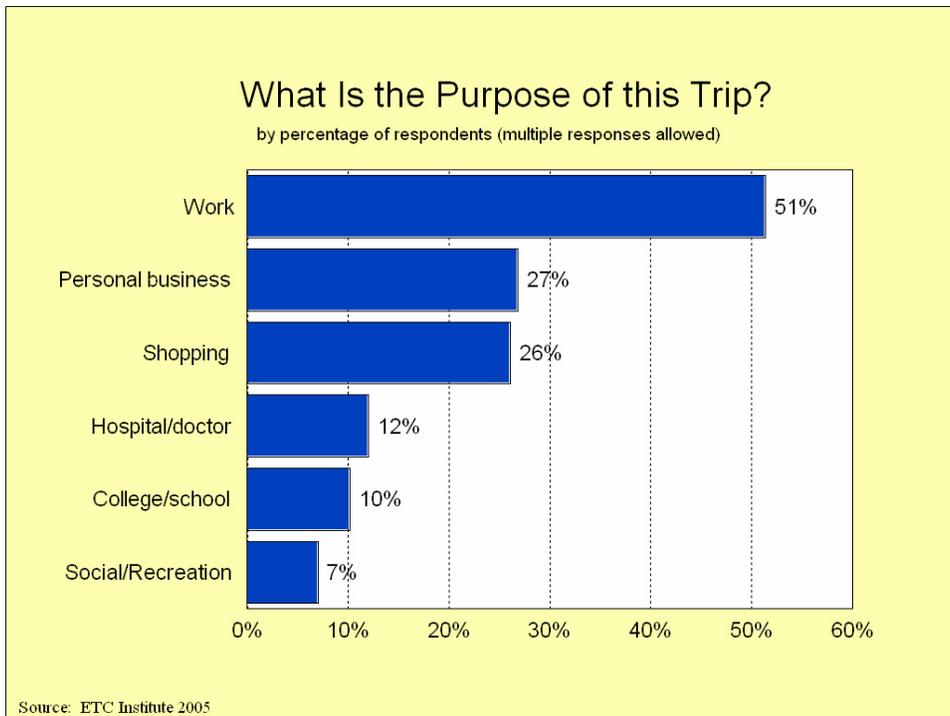


Figure 31: Proportion of Transit Dependent to Choice Riders



Section 7: Peer Agencies

7.1 Purpose

A peer review was conducted to see how the level of transit service in Jefferson City compares to the level of transit service in similar cities within the region and across the country. JEFFTRAN was compared to peer agencies in terms of urban area population, size of transit system, operating cost, service and productivity. The peer review was conducted to establish a benchmark to determine if services in Jefferson City compare favorably to other transit operations. The agencies included as peers were selected in part based on the level of service provided.

Table 8: Regional Peer Agency System Comparison

City	Population of Urbanized Area (2000)	Service Level (Annual Vehicle Revenue Miles)	Weekday Ridership	Peak Vehicles	Operating Expenses ¹	Revenue Miles per Capita	Ridership per Capita
Columbia, MO	98,779	420,508	1,850	9	\$1,841,087	4.3	4.8
Springfield, MO	215,004	1,062,195	5,400	20	\$5,417,941	4.9	6.4
St. Joseph, MO	77,231	771,824	1,300	18	\$3,033,091	10.0	4.3
Topeka, KS	142,411	833,922	4,800	23	\$3,107,037	5.9	8.6
Jefferson City, MO	53,714	382,983	1,200	11	\$1,600,000	7.1	5.7

¹Peer agencies statistics only includes fixed route bus costs.

JEFFTRAN compares favorably with transit systems in other similar cities in Missouri and Kansas. JEFFTRAN ranks high in terms of service miles per capita, an indication that the level of service provided in Jefferson City is reasonable from the perspective of other similar cities. The per capita ridership statistic is about average for systems within the peer group.

Table 9: National Peer Agency System Comparison

City	Population of Urbanized Area (2000)	Service Level (Annual Vehicle Revenue Miles)	Annual Unlinked Trips	Peak Vehicles	Operating Expenses ¹	Revenue Miles per Capita	Ridership per Capita
Dubuque, IA	65,251	341,980	1,800	8	\$1,363,770	5.2	7.0
Jackson, TN	65,086	557,541	1,800	8	\$1,478,594	8.6	7.1
Middletown, OH	94,355	212,650	700	4	\$648,356	2.3	1.9
Oshkosh, WI	71,070	575,478	3,500	13	\$2,277,064	8.1	12.6
Pocatello, ID	62,498	259,913	1,700	8	\$674,151	4.2	6.9
Port Arthur, TX	114,656	246,067	500	6	\$1,097,757	2.1	1.1
Rapid City, SD	66,780	162,397	600	4	\$475,752	2.4	2.3
Jefferson City	53,714	382,983	1,200	11	\$1,600,000	7.1	5.7

¹Peer agencies statistics only includes fixed route bus costs.

Table 9 compares Jefferson City with a broader peer group. Again, the conclusions are about the same as for the Regional peer group comparison. Transit service levels in Jefferson City are similar to the levels in this peer group, and the riders per capita statistic in Jefferson City is in the middle of the peer group.