Bonneville Metropolitan Planning Area

Short-Range Transit Plan 2007-2012

Prepared for

Bonneville Metropolitan Planning Organization

LSC TRANSPORTATION CONSULTANTS, INC.

BMPO Short-Range Transit Plan

Final Report

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Chapter I

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER I

Introduction

The Bonneville Metropolitan Planning Organization (BMPO) contracted with LSC Transportation Consultants, Inc. to prepare a Short-Range Transit Plan for the public transportation services operated by the Targhee Regional Public Transit Authority (TRPTA). The plan focuses on the necessary steps to implement new or enhanced transit service.

This report presents the results of the transit system and operational analysis. The LSC team and the stakeholders committee have reviewed several transit managerial and service alternatives. The report presents the results of the planning process as the preferred recommendations. The report also reviews the goals and objectives that were introduced in Technical Memoranda #1 and #2.

PURPOSE OF THE STUDY

The purpose of this study was to analyze and recommend strategies for transit services in the BMPO area which will affect the delivery of public transportation services over the next five years. This final product of the study includes the updated goals and objectives, the identification of transportation issues, a profile of the existing transit services and ridership, a service evaluation, the development of performance indicators, a marketing/communications plan, a financial plan, a review of the management and organizational structure, and an implementation plan.

REPORT CONTENTS

Chapter II of this report provides a summary of the community demographics and economics. Chapter III presents a review of the existing transit services that PTA and CART provide. Chapter IV evaluates the transit services provided by PTA and CART with route profiles and route analysis, based on such performance measures as the number of passengers per mile, number of passengers per hour, and cost per passenger. Chapter V presents the transit demand estimates and needs, based on demand-response and fixed-route transit modeling. Chapter V also includes an analysis of the community areas that possess the greatest transit need. Chapter VI presents the results of the on-board passenger interviews that were conducted by the BMPO staff and analyzed by the LSC team. Chapter VII presents the mission statement, goals, and objectives. Chapter VIII presents a review of the existing and alternative managerial and organizational structures. The administrative, operational (including dispatching), and maintenance procedures are also reviewed in Chapter VIII.

Chapter IX describes the transit service alternatives. Three alternatives are presented, along with their estimated costs. Route maps are presented which depict the transit service areas and transit generators (such as social service agencies, governmental facilities, schools, and retail centers). The capital needs (such as buses, facilities, bus shelters, and benches) for the new transit service are assessed in Chapter X. Chapter XI discusses the financial alternatives that will be necessary to transition from the existing transit service to the new transit service. Chapter XI also discusses the potential funding sources for the new transit service. Chapter XII presents the preferred transit service plan including route structures, costs, levels of service, and draft schedules. Chapter XIII presents the implementation plan, management plan, and marketing plan for the development of the preferred transit service plan.

PROJECT TEAM

An initial “kick-off meeting” was held in Idaho Falls on March 7, 2006. The meeting was attended by key stakeholders from the BMPO, TRPTA, Idaho Transportation Department, Idaho Commission for the Blind and Visually Impaired, Health and Welfare, and other local agencies within the study area that have transportation concerns for the community. This project team met to discuss the study goals and priorities, as well as a timeline for completion of the final study. The team also discussed the local stakeholders who would be critical in completing the transit study for the area.

Several other stakeholders committee meetings were held during the planning process for the Short-Range Transit Plan. The LSC team also conducted several public meetings in April and June 2006, and made presentations to the TRPTA Board. The final public meeting was held on August 9, 2006 to present the results of the Short-Range Transit Plan. Two meetings were also held with the bus drivers in March and June 2006 in order to obtain their input on the planning process and the transit service alternatives.

PUBLIC INVOLVEMENT

Throughout the planning process, public involvement is key to the success of the Short-Range Transit Plan for the community. At critical points during the planning process, public meetings were announced and held where citizen participation was openly welcomed and appreciated. Four public open houses were conducted in April and June 2006. In August 2006, the LSC team held one formal public meeting to present the study results.

The open houses offered members of the community an opportunity to provide public input regarding the transportation issues that should be addressed as part of the Short-Range Transit Plan. Community residents were asked to comment on the existing and future transit services in the Bonneville metropolitan planning area. The public was given the opportunity to state which transportation services and other alternatives they think are necessary in order to address the identified transportation issues and meet the established goals.

In additional to the formal meetings, the BMPO staff conducted onboard (bus) interviews with the PTA system's passengers. This was done in order to obtain public input on the concerns and issues that the passengers face in riding the transit service.

SUMMARY OF THE ISSUES

During the March 2006 meeting, the LSC team briefed the stakeholders committee on the study process to be undertaken over the five-month period. The major issues and concerns regarding public transportation were discussed at the meeting.

Following are summaries of the major public transportation issues:

1. Transportation to and from places of employment throughout the Bonneville metropolitan area (study area).
2. Mobility of the elderly and disabled to medical appointments, work, and shopping.
3. Student transportation to and from educational institutions, after-school programs, and the Head Start program.
4. Access to work, medical, and shopping locations for the low-income popu-ation due to the lack of private vehicles.
5. Short-term funding alternatives for the transit service.
6. Sustainable long-term funding for the transit service.
7. Implementation of existing transit service and of new service in the short term.
8. Maintenance of the transit service over the long term.
9. Regional service that links Idaho Falls with communities outside the study area.
10. Level of capital investment in vehicles and infrastructure (new transit transfer station, benches, bus stops, and bus facility).
11. Public education on the transit service in the study area, in order to promote the transit system as a benefit to the community for the community leaders (City Council) and general public.
12. Service area has gaps and does not cover the needs of the transit-dependent.
13. Service hours and levels of service are not effective to meet the needs of the transit-dependent or the community as a whole.
14. Merger of PTA and CART, and how these two systems can operate as an integrated transit network.
15. Land use policies do not currently include transit service in the development process.

Chapter II

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER II
Community Conditions

COMMUNITY DESCRIPTION

Study Area Location

As shown in Figures II-1 and II-2, the Bonneville Metropolitan Planning Organization (BMPO) is located in the southeast area of Idaho in Bonneville County on the Idaho/Wyoming border. Since the BMPO urbanized boundaries do not closely coincide with the US Census blocks, the study area for this analysis includes all of the US Census block groups that are partly or wholly covered by the Bonneville metropolitan area, as shown in Figure II-2. The Bonneville metropolitan area has 86,579 individuals (based on the BMPO's 2005 estimates). The area includes Idaho Falls, which lies in the valley along the Snake River approximately 50 miles north of Pocatello and approximately 100 miles southwest of the Yellowstone and Grand Teton National Parks. Other towns within the study area include Ammon and Iona.

Transportation System Overview

Highways

The major north/south highway access to the study area is provided by Interstate 15, which provides access to Pocatello and the Fort Hall Indian Reservation to the south and towns such as Roberts, Dubois, and Spencer to the north. The major east/west access to the area is provided by US Highways 20 and 26. US Highway 20 connects the area to the Idaho National Laboratory on the west. US Highway 26 runs northeast, connecting Idaho Falls to Rexburg and the Yellowstone National Park in Wyoming.

Railroad

The Union Pacific Railroad traverses the Idaho Falls area. The rail line runs along Interstate 15 north of Idaho Falls and along US Highway 26 south of Idaho Falls. This railroad provides freight service to Idaho Falls.

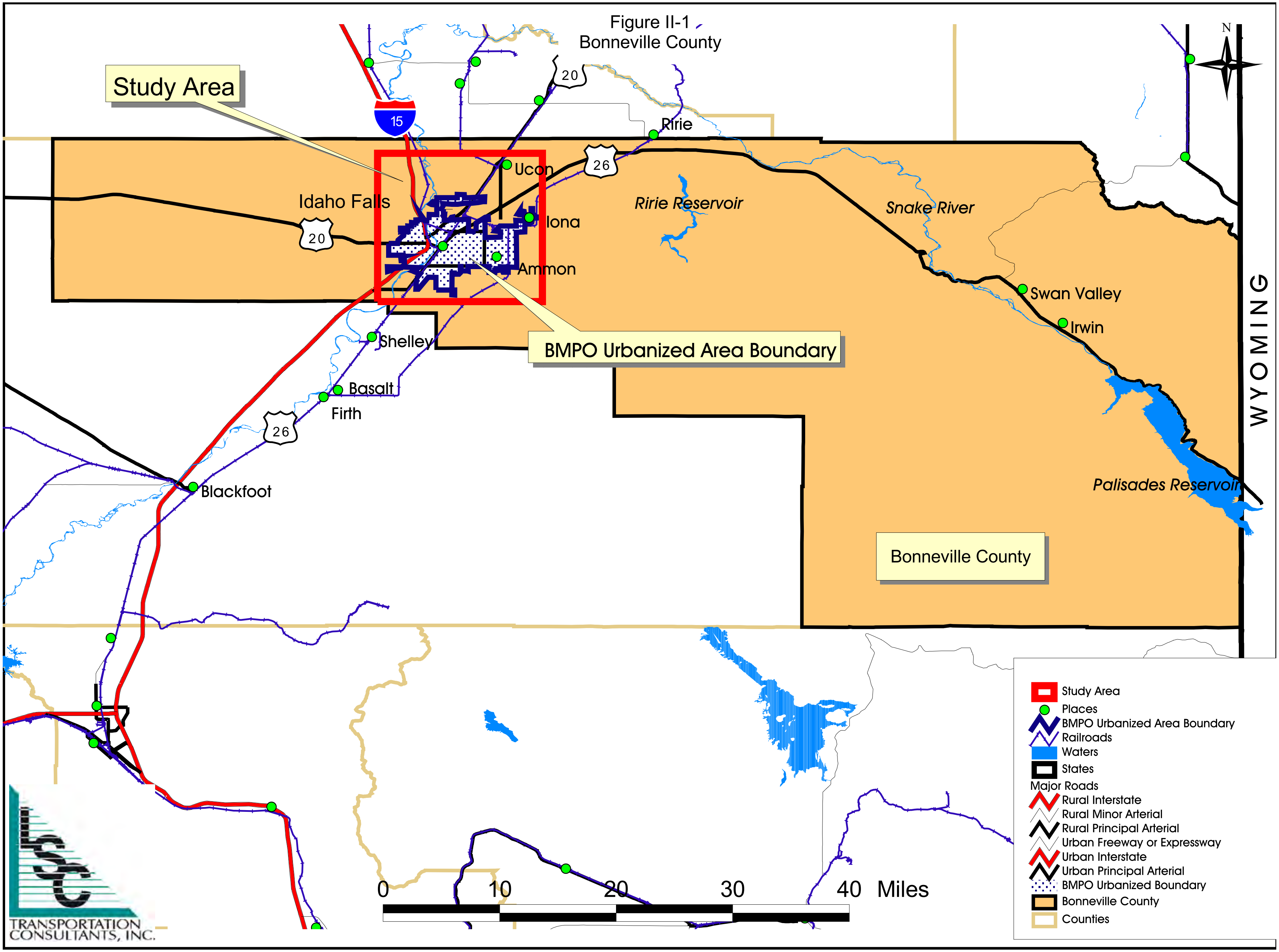
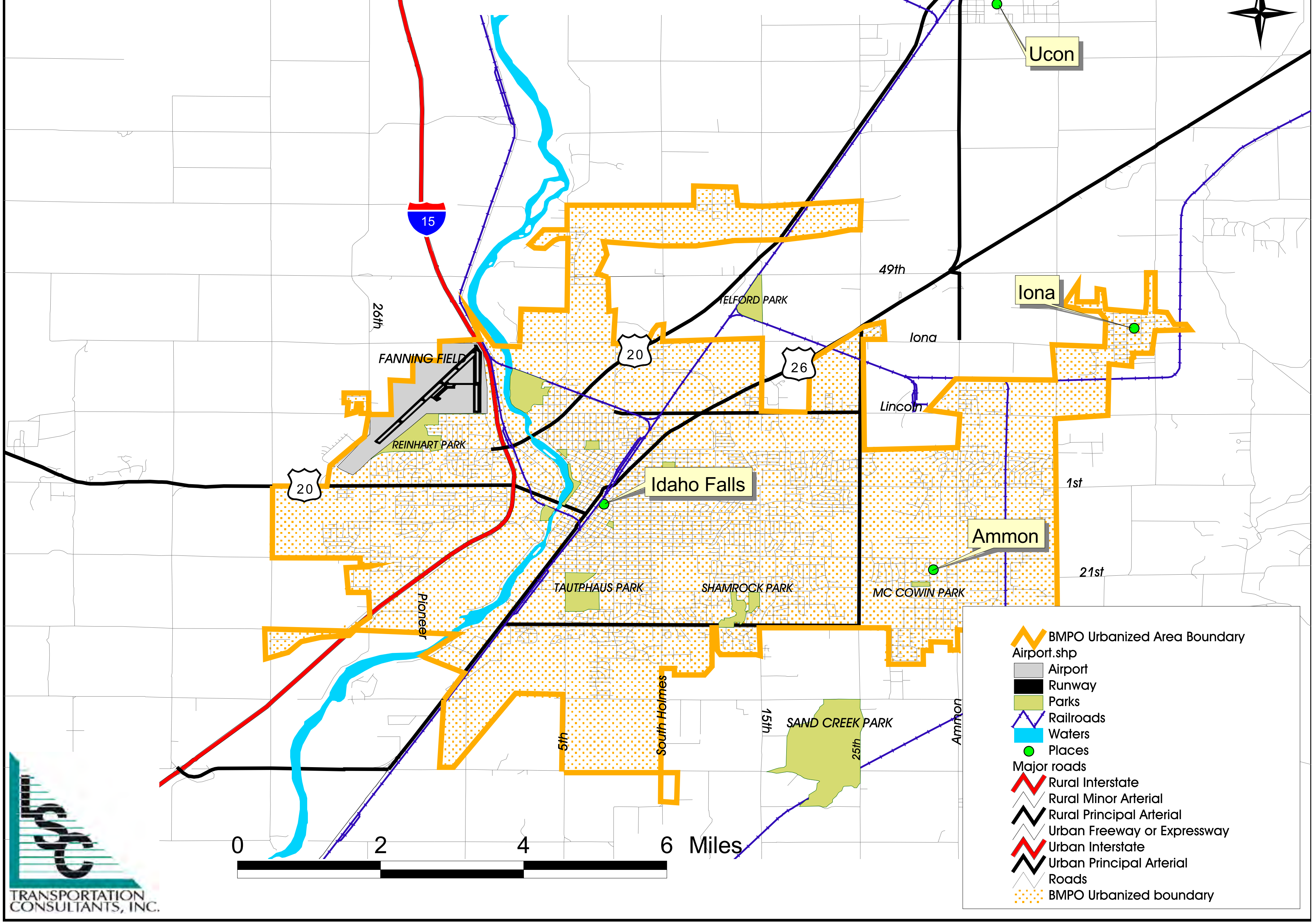


Figure II-1
Bonneville County

Figure II-2
Study Area



Airports

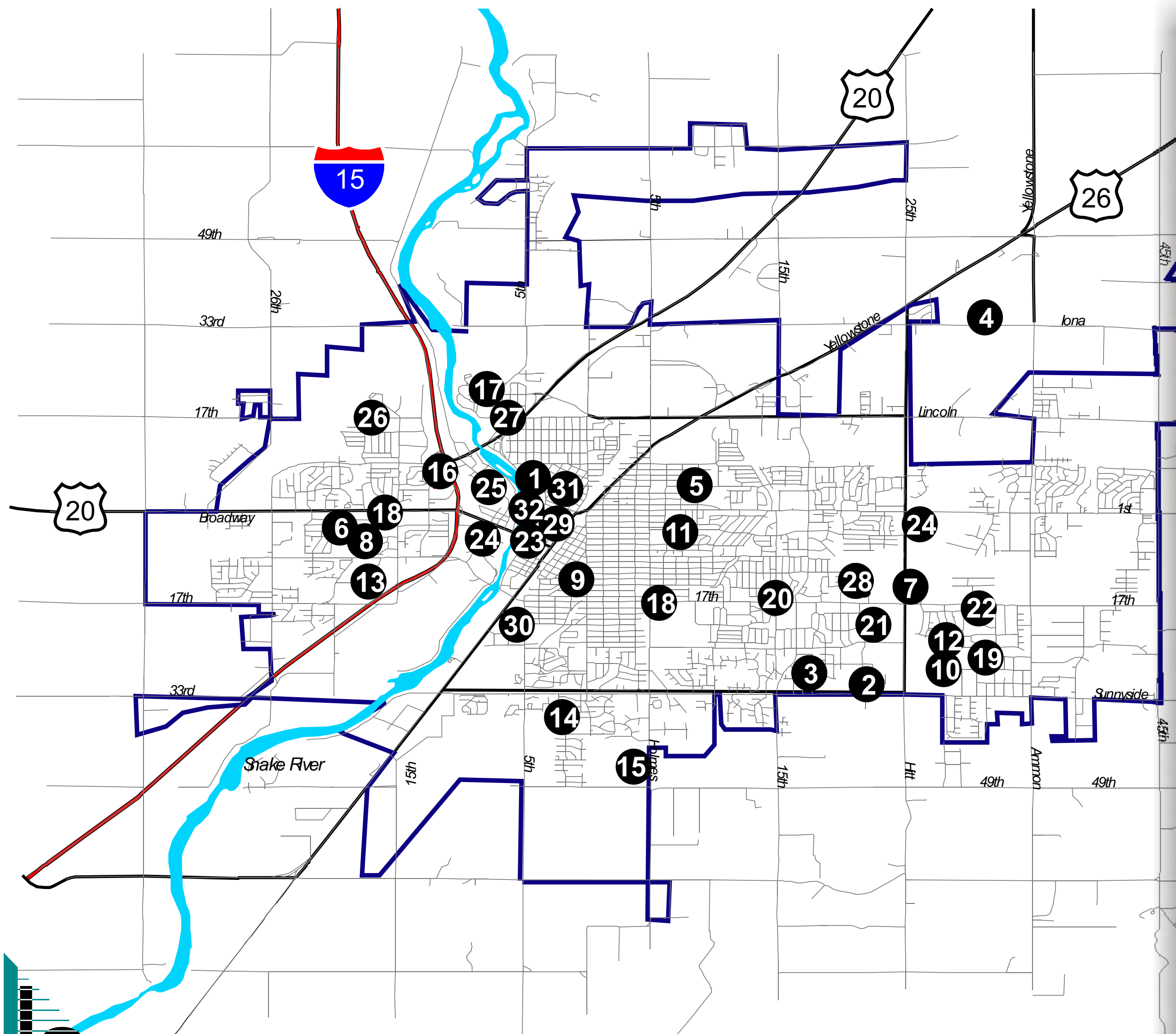
The Idaho Falls Regional Airport lies two miles northwest of downtown Idaho Falls along Interstate 15. The commercial airlines serving the airport include SkyWest, United, Horizon, Northwest, and Allegiant Airlines. The airport has a 9,000-foot runway. There are 15 flights per day, not including the charter flights which offer frequent daily service to Salt Lake City, Boise, and Minneapolis and weekly flights to Las Vegas.

Major Activity Centers

The major activity centers are important in terms of land use, trip generation rates, and their ability to be served by public transit. The study area's major activity centers are mainly concentrated around downtown Idaho Falls, as shown in Figure II-3. The major activity centers of Idaho Falls include the Grand Teton Mall, schools and universities (such as the Idaho Falls School District #91, Bonneville Joint School District #93, University Place, Idaho Falls Center for Higher Education, and Eastern Idaho Technical College), and medical facilities (such as the Eastern Idaho Regional Medical Center and Mountain View Hospital).

Figure II-3

Activity Centers and Major Employers



Medical Facilities

1. District 7 Health Department
2. Eastern Idaho Regional Medical Center
3. Mountain View Hospital

Schools and Universities

4. Bonneville High School
5. Clair E. Gale Jr. High
6. Eagle Rock Jr. High
7. Eastern Idaho Tech College
8. Ethel Boyes Elementary School
9. Hawthorne Elementary School
10. Hillcrest High School
11. Idaho Falls School District #91
12. Sand Creek Jr. High School
13. Skyline High School
14. Sunnyside Elementary School
15. Taylorview Jr. High School
16. Templeview Elementary School
17. University Place

Shopping

18. Albertsons
19. Ammon Town Center
20. Big Lots
21. Grand Teton Mall/Regional Shopping Area
22. K-Mart Stores
23. Melaleuca, Inc.
24. Wal-Mart Super Center

Major Employers

25. Bechtel BWXT Idaho
26. Center Partners
27. Idaho National Laboratory

Social Service Agencies

28. Head Start of Eastern Idaho
29. East Idaho Community Action Partnership
30. Senior Citizens Community Center

Government

31. City and County Building
32. Idaho Falls Public Library

TRANSPORTATION CONSULTANTS, INC.

Major Employers

Table II-1 and Figure II-3 show the largest public and private employers in the Idaho Falls area. The Idaho National Laboratory is the largest employer in the area with approximately 7,500 employees, followed by Bechtel BWXT Idaho (a research and management service) with approximately 2,500 employees.

Table II-1
Major Employers in Idaho Falls

Name of the Employer	Number of Employees
Idaho National Laboratory	7,500
Bechtel BWXT Idaho	2,500
Idaho Falls School District #91	1,700
Eastern Idaho Regional Medical Center	1,311
Melaleuca, Inc.	1,300
Bonneville Joint School District #93	850
City of Idaho Falls	750
Center Partners	600
Wal-Mart	450
Bonneville County	450
Albertsons, Inc.	350

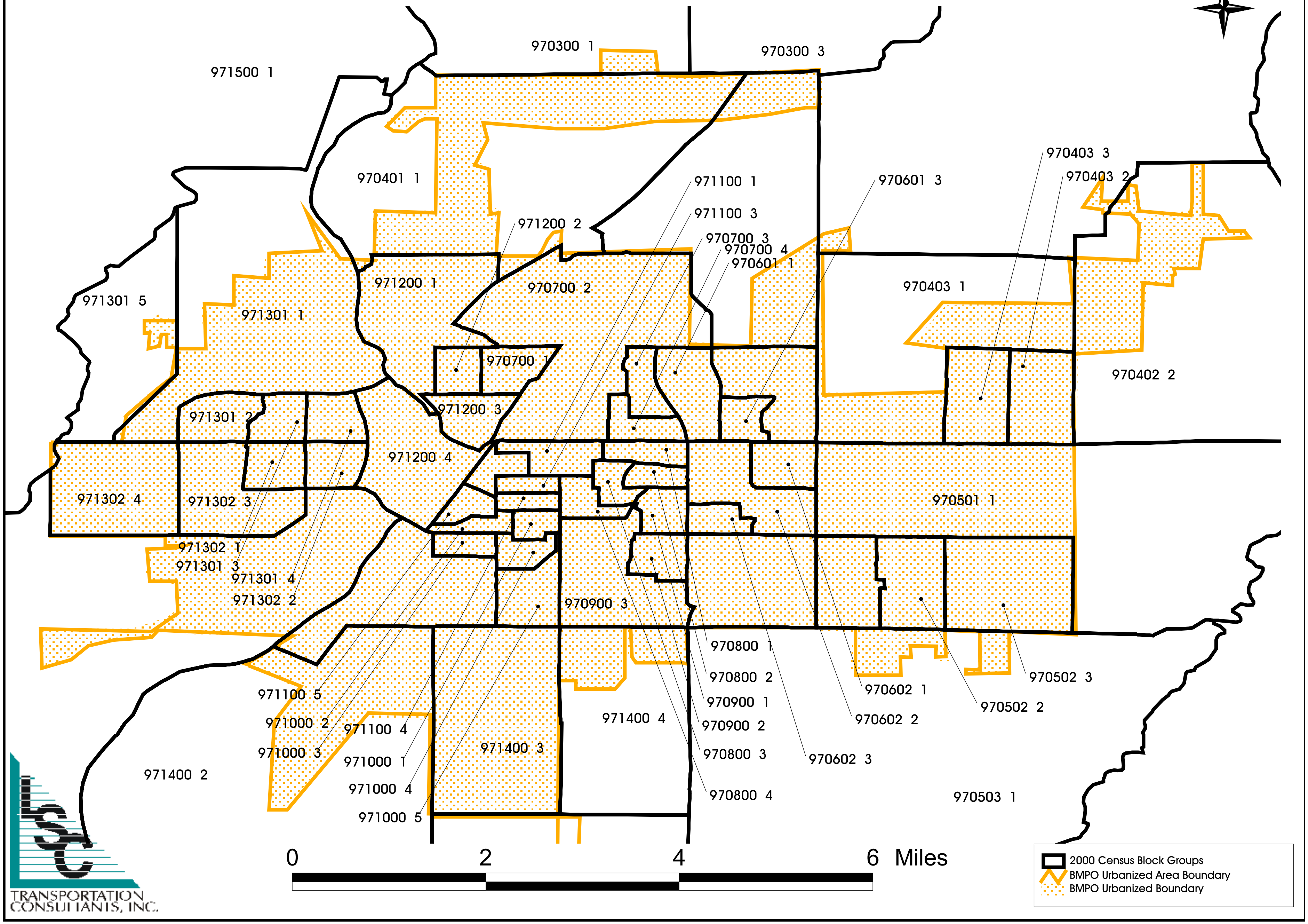
Source: Idaho Commerce and Labor, Greater Idaho Falls Chamber of Commerce, LSC, 2006.

STUDY AREA DEMOGRAPHICS

1990-2005 Population

The population of the Idaho Falls urban area was reported to be 65,121 individuals based on the 1990 US Census. According to the 2000 US Census, the population of the Idaho Falls urban area was 74,606 individuals, which reflects a population increase of approximately 14.5 percent from 1990. In comparison, the State of Idaho had a population increase of approximately 28.5 percent between 1990 and 2000. The estimated 2005 population of the Idaho Falls urban area is 86,579 individuals (a nine percent increase from the year 2000), while the State of Idaho 2004 population is estimated at 1,395,140 individuals (an eight percent increase from the year 2000). Figure II-4 shows the Idaho Falls urban area US Census block groups.

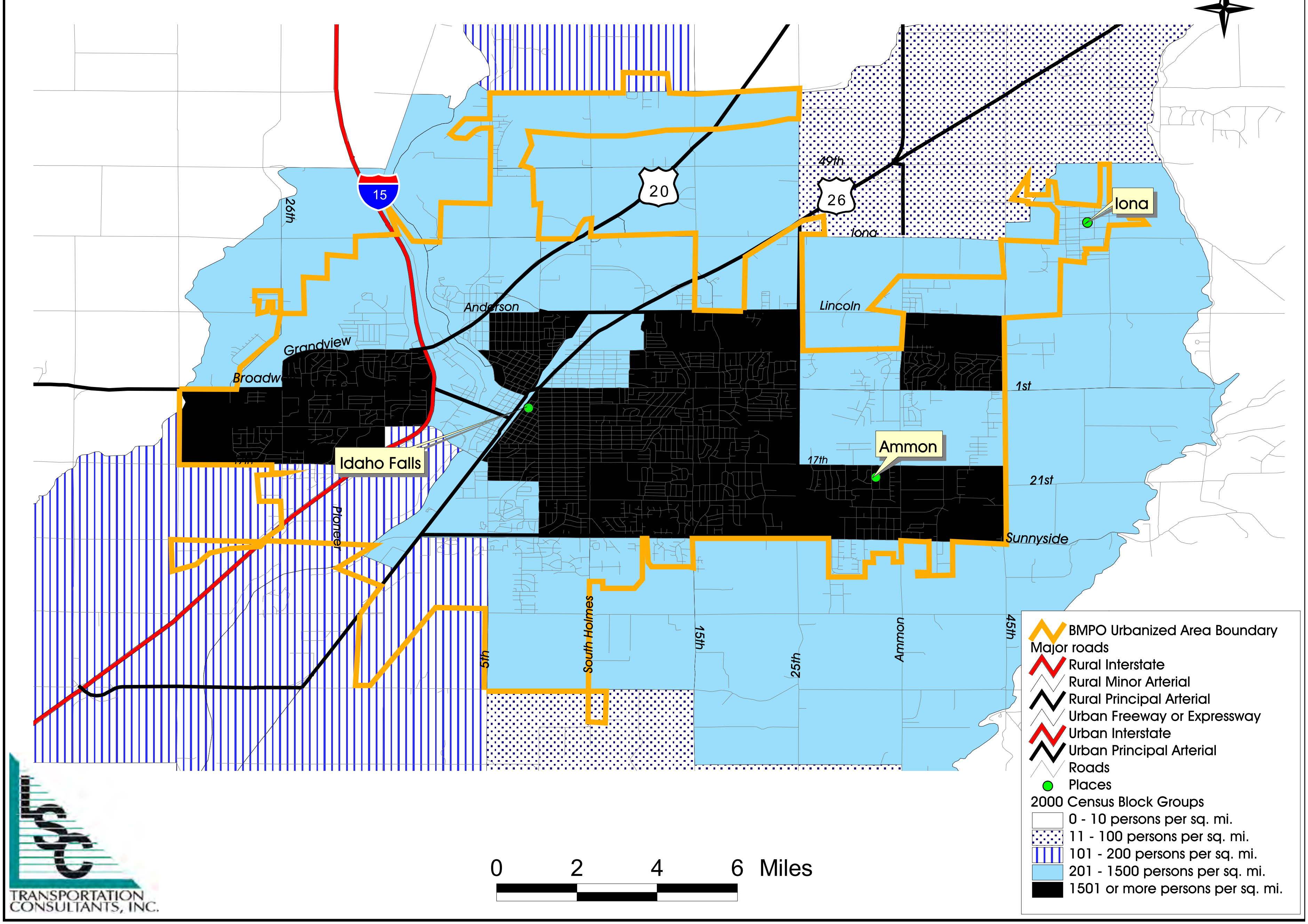
Figure II-4
Census Block Groups



Population Density and Distribution

Figure II-5 shows the year 2005 estimated population density for the Idaho Falls urban area by block group boundaries. The largest population pockets within Idaho Falls are intermittently located along East 17th Street and West Broadway Street (major retail and commercial activity centers), East 1st Street, and between US Highways 20 and 26 south of Anderson Street. This is followed by areas in downtown Idaho Falls east of Lincoln Road south to Sunnyside Road and west of Grandview Drive to West 17th Street.

Figure II-5
2005 Estimated Population Density



Population Projections

Table II-2 and Figure II-6 show the population projections through the year 2020 for the Idaho Falls urban area. It is anticipated that the population will increase 1.9 percent every year until 2020, at which time the population is projected to be 103,510 individuals. Figure II-7 illustrates the projected population density for the year 2020, based on the year 2000 US Census block group boundaries.

Possible growth areas include the areas extending beyond the urbanized boundaries, primarily to the southern and eastern sections of the urbanized area.

Table II-2
Population Projections

Year	BMPO Urbanized Area Populations	Percent Growth
1990	65,121	
2000	74,606	14.50%
2005	86,579	8.64%
2010	91,266	5.41%
2020	103,510	13.42%

Source: US Bureau of the Census and Idaho Power 2002 Economic Forecast, Bonneville MPO 2005, LSC 2006.

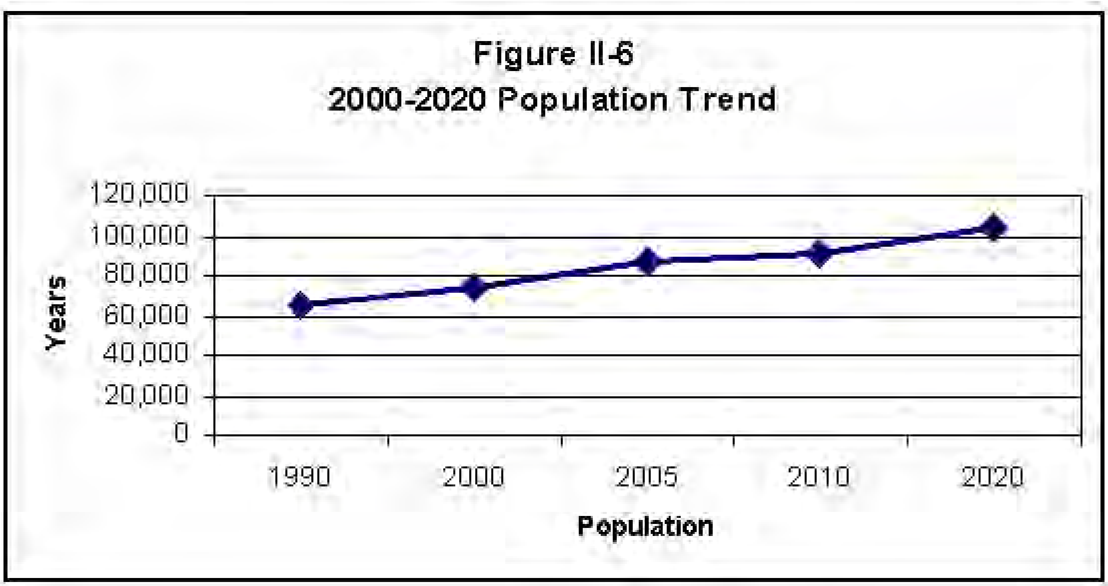
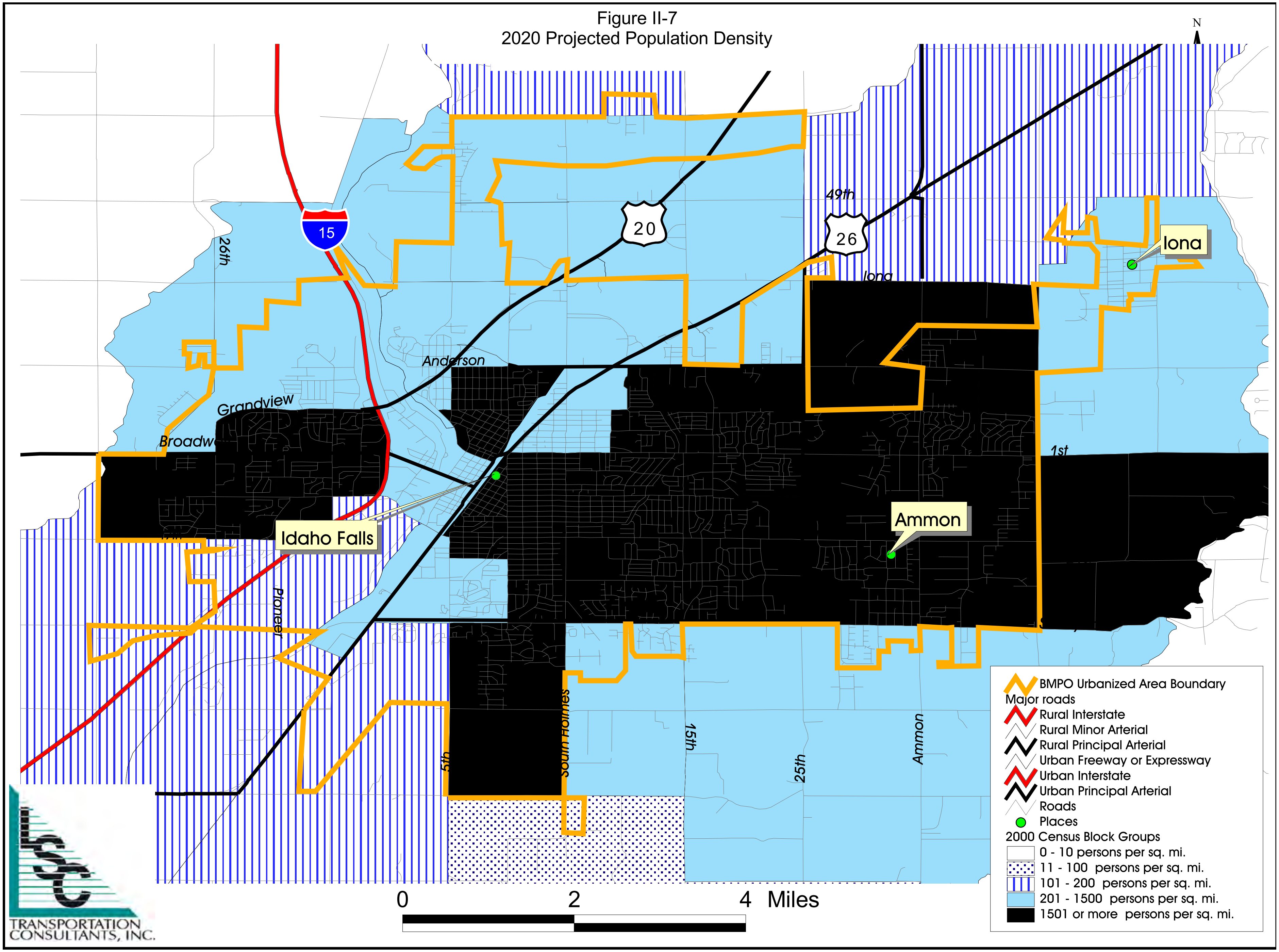


Figure II-7
2020 Projected Population Density



General Population Statistics

Table II-3 provides the 2005 countywide population estimates and other general population information by US Census block groups. The population is slightly weighted toward females. The gender ratio for the area is approximately 98.3 males per 100 females.

Table II-3
2005 Estimated General Population for BMPO Urbanized Area

Census Tract	Census Block Group	Land Area sq. ml.	Total Population 2005	2005 Population By Gender	
				Male	Female
970200	3	16.8	1,177	606	571
970300	1	14.7	1,776	886	890
970401	1	4.9	1,456	755	701
970401	2	3.2	720	394	326
970402	1	8.7	765	397	368
970402	2	5.2	2,134	1,073	1,061
970403	1	3.0	3,516	1,876	1,640
970403	2	0.5	2,337	1,104	1,233
970403	3	0.5	2,061	1,003	1,058
970501	1	5.4	6,250	2,840	3,410
970502	1	0.5	1,111	614	497
970502	2	0.5	1,542	761	781
970502	3	1.0	1,822	942	880
970503	1	10.3	2,895	1,461	1,434
970601	1	0.4	650	317	333
970601	2	0.6	1,149	485	664
970601	3	0.2	1,036	511	525
970602	1	0.3	1,787	925	862
970602	2	0.6	2,636	1,179	1,457
970602	3	0.2	983	447	536
970603	1	1.0	1,986	976	1,010
970700	1	0.2	1,225	607	618
970700	2	2.4	2,113	1,154	959
970700	3	0.2	1,178	551	627
970700	4	0.2	1,011	438	573
970800	1	0.2	923	445	478
970800	2	0.1	1,036	443	593
970800	3	0.1	895	422	473
970800	4	0.2	835	409	426
970900	1	0.2	1,087	549	538
970900	2	0.2	1,155	517	638
970900	3	0.9	2,838	1,412	1,426
971000	1	0.1	660	357	303
971000	2	0.1	637	315	322
971000	3	0.1	745	390	355
971000	4	0.1	814	423	391
971000	5	0.3	1,298	614	684
971000	6	1.2	938	505	433
971100	1	0.2	872	435	437
971100	2	0.1	941	493	448
971100	3	0.1	561	235	326
971100	4	0.1	626	323	303
971100	5	0.1	824	417	407
971200	1	1.1	815	411	404
971200	2	0.2	1,084	544	540
971200	3	0.3	1,926	997	929
971200	4	0.9	758	458	300
971301	1	3.7	1,408	696	712
971301	2	0.3	1,841	907	934
971301	3	0.2	1,078	510	568
971301	4	0.2	983	504	479
971301	5	1.4	743	404	339
971302	1	0.2	968	496	472
971302	2	0.2	928	442	486
971302	3	0.7	1,854	972	882
971302	4	1.0	1,774	887	887
971400	1	13.0	1,757	953	804
971400	2	10.0	1,360	629	731
971400	3	2.0	2,679	1,358	1,321
971400	4	2.0	1,622	749	873
		123	***86,579***	***42,921***	***43,658***

Source: 2000 US Census of Poulation and Housing

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Transit-Dependent Population Characteristics

This section provides information on individuals considered by the transportation profession to be dependent upon public transit. In general these population characteristics preclude most such individuals from driving, leaving carpooling and public transit as the only other motorized forms of transportation available.

The four types of limitations which preclude individuals from driving are: (1) physical limitations, (2) financial limitations, (3) legal limitations, and (4) self-imposed limitations. Physical limitations may include everything from permanent disabilities (such as frailty due to age, blindness, paralysis, or developmental disabilities) to temporary disabilities (such as acute illnesses and head injuries). Financial limitations essentially include those individuals unable to purchase or rent their own vehicles. Legal limitations refer to such limitations as individuals who are too young to drive (generally under age 16). Self-imposed limitations refer to those individuals who choose not to own or drive a vehicle (some or all of the time) for reasons other than those listed in the first three categories.

The US Census is generally capable of providing information about the first three categories of limitation. The fourth category of limitation is currently recognized as representing a relatively small proportion of transit ridership. Table II-4 presents the 2005 estimated population of the Idaho Falls urban area for the elderly population, mobility-limited population, below-poverty population, zero-vehicle households, and youth population. These data are important to the various methods of demand estimation.

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Table II-4
2005 Estimated General Population Characteristics
BMPO Urbanized Area

Census Tract	Census Block Group	Area Description	Land Area sq. ml.	Total Population 2005	Total Number of Households 2005	Zero-Vehicle Households 2005		Total Number of Youth Aged 0-15 2005		Total Number of Elderly 60 & Over 2005		Mobility-Limited Population 2005		Below-Poverty Population 2005	
				#	#	#	%	#	%	#	%	#	%	#	%
970200	3	Outer South Metro Idaho Falls	16.8	1,177	399	0	0.0%	168	14.3%	239	20.3%	69	5.9%	112	9.5%
970300	1	Northern Outer Metro Idaho Falls	14.7	1,776	529	13	2.5%	602	33.9%	246	13.8%	89	5.0%	130	7.3%
970401	1	University Idaho at Idaho Falls	4.9	1,456	440	8	1.7%	419	28.8%	137	9.4%	9	0.6%	0	0.0%
970401	2	Telford Park	3.2	720	301	0	0.0%	223	31.0%	100	14.0%	4	0.5%	221	30.7%
970402	1	North of Bonneville High School	8.7	765	283	18	6.5%	196	25.6%	90	11.7%	33	4.4%	169	22.1%
970402	2	Town of Iona	5.2	2,134	646	14	2.2%	597	28.0%	399	18.7%	109	5.1%	175	8.2%
970403	1	North Woodruff Ave Area	3.0	3,516	995	24	2.4%	1,095	31.1%	465	13.2%	81	2.3%	266	7.6%
970403	2	South of Lincoln and west of 45th	0.5	2,337	633	22	3.4%	944	40.4%	16	0.7%	24	1.0%	148	6.3%
970403	3	Upland Area	0.5	2,061	686	27	4.0%	620	30.1%	151	7.3%	137	6.6%	486	23.6%
970501	1	Center Ammon	5.4	6,250	1,841	22	1.2%	2,335	37.4%	855	13.7%	195	3.1%	589	9.4%
970502	1	Southwest Ammon Area	0.5	1,111	338	16	4.8%	383	34.5%	149	13.4%	47	4.3%	98	8.8%
970502	2	Southern Ammon	0.5	1,542	474	46	9.6%	414	26.8%	186	12.0%	75	4.9%	40	2.6%
970502	3	Southeast Ammon	1.0	1,822	526	16	3.1%	458	25.1%	115	6.3%	107	5.9%	43	2.3%
970503	1	Sand Creek Park	10.3	2,895	914	13	1.4%	941	32.5%	347	12.0%	142	4.9%	156	5.4%
970601	1	Northeastern Idaho Falls	0.4	650	241	0	0.0%	141	21.7%	142	21.8%	20	3.0%	46	7.0%
970601	2	Idaho Falls, North Hitt Area	0.6	1,149	342	8	2.2%	360	31.3%	147	12.8%	46	4.0%	46	4.0%
970601	3	Idaho Falls, Kearney St Area	0.2	1,036	385	0	0.0%	275	26.5%	137	13.3%	42	4.1%	49	4.8%
970602	1	Idaho Falls	0.3	1,787	603	23	3.8%	533	29.8%	149	8.3%	66	3.7%	168	9.4%
970602	2	West Central Idaho Falls	0.6	2,636	1,064	77	7.3%	645	24.5%	469	17.8%	191	7.3%	692	26.3%
970602	3	Idaho Falls, Eastside	0.2	983	482	32	6.5%	236	24.0%	237	24.1%	33	3.3%	133	13.5%
970603	1	Idaho Falls, Eastern Idaho Regional Medical Center	1.0	1,986	682	9	1.3%	353	17.8%	362	18.2%	78	3.9%	68	3.4%
970700	1	Idaho Falls, North side	0.2	1,225	448	27	6.1%	265	21.6%	269	22.0%	61	5.0%	150	12.2%
970700	2	Idaho Falls, Between US Highways 20 and 26, N. Good Samaritan Ctr	2.4	2,113	830	111	13.3%	499	23.6%	294	13.9%	145	6.9%	474	22.4%
970700	3	Idaho Falls, North central	0.2	1,178	375	18	4.9%	350	29.7%	176	14.9%	142	12.1%	207	17.5%
970700	4	Idaho Falls, Clair E Gale Junior High School	0.2	1,011	383	68	17.9%	237	23.5%	216	21.4%	43	4.2%	143	14.1%
970800	1	Idaho Falls, South Central	0.2	923	356	13	3.7%	244	26.5%	280	30.3%	39	4.3%	37	4.0%
970800	2	Idaho Falls, South Central	0.1	1,036	490	149	30.4%	325	31.4%	267	25.8%	180	17.4%	282	27.2%
970800	3	Idaho Falls, South Central	0.1	895	349	13	3.7%	158	17.7%	186	20.8%	70	7.9%	101	11.3%
970800	4	Idaho Falls, South Central	0.2	835	322	5	1.7%	146	17.5%	133	15.9%	63	7.6%	87	10.4%
970900	1	Idaho Falls, Central	0.2	1,087	388	13	3.4%	236	21.7%	209	19.2%	45	4.2%	87	8.0%
970900	2	Idaho Falls, Ross Stores Inc	0.2	1,155	451	8	1.7%	241	20.8%	257	22.2%	62	5.4%	108	9.3%
970900	3	Idaho Falls, Albertsons	0.9	2,838	914	9	1.0%	903	31.8%	378	13.3%	55	2.0%	20	0.7%
971000	1	Idaho Falls, Central	0.1	660	274	24	8.7%	173	26.3%	110	16.7%	41	6.2%	36	5.5%
971000	2	Idaho Falls, Hawthorne School	0.1	637	274	27	9.9%	137	21.5%	100	15.7%	64	10.0%	18	2.8%
971000	3	Idaho Falls, Central	0.1	745	311	15	4.9%	136	18.3%	193	25.9%	48	6.4%	143	19.2%
971000	4	Idaho Falls, Central	0.1	814	299	0	0.0%	216	26.5%	109	13.4%	54	6.6%	30	3.7%
971000	5	Idaho Falls, Central	0.3	1,298	462	0	0.0%	354	27.3%	305	23.5%	28	2.1%	36	2.7%
971000	6	Idaho Falls, Central	1.2	938	337	18	5.5%	177	18.9%	114	12.2%	50	5.3%	136	14.5%
971100	1	Idaho Falls, Idaho Falls School District #91	0.2	872	341	68	20.1%	177	20.3%	142	16.3%	57	6.5%	229	26.2%
971100	2	Idaho Falls, Melaleuca Inc	0.1	941	414	14	3.4%	283	30.1%	72	7.7%	49	5.2%	180	19.2%
971100	3	Idaho Falls, Outer Downtown	0.1	561	259	8	2.9%	111	19.8%	126	22.5%	47	8.3%	90	16.1%
971100	4	Idaho Falls, Outer Downtown	0.1	626	265	16	6.1%	135	21.5%	98	15.6%	20	3.1%	29	4.7%
971100	5	Idaho Falls, Outer Downtown	0.1	824	375	40	10.7%	177	21.4%	70	8.4%	34	4.2%	230	27.9%
971200	1	Idaho Falls; University Place; Idaho National Lab	1.1	815	309	0	0.0%	216	26.5%	82	10.1%	15	1.9%	57	7.0%
971200	2	Idaho Falls, Downtown	0.2	1,084	352	18	5.3%	294	27.1%	141	13.0%	43	4.0%	57	5.3%
971200	3	Idaho Falls, Downtown	0.3	1,926	821	116	14.2%	482	25.0%	271	14.1%	203	10.6%	402	20.9%
971200	4	Idaho Falls, Bechtel BWXT Idaho	0.9	758	362	91	25.2%	141	18.6%	95	12.5%	14	1.8%	249	32.8%
971301	1	Idaho Falls, Fanning Field Airport	3.7	1,408	511	34	6.6%	442	31.4%	123	8.7%	23	1.6%	37	2.7%
971301	2	Idaho Falls, West	0.3	1,841	602	10	1.6%	532	28.9%	179	9.7%	49	2.7%	192	10.4%
971301	3	Idaho Falls, West	0.2	1,078	450	21	4.6%	249	23.1%	183	17.0%	81	7.5%	175	16.2%
971301	4	Idaho Falls, West	0.2	983	434	0	0.0%	217	22.1%	271	27.5%	48	4.9%	95	9.6%
971301	5	Idaho Falls, West	1.4	743	225	0	0.0%	242	32.6%	49	6.6%	19	2.5%	0	0.0%
971302	1	Idaho Falls, Eagle Rock Jr HS, Ethel Boyes HS	0.2	968	317	4	1.4%	184	19.0%	172	17.7%	28	2.8%	44	4.6%
971302	2	Idaho Falls, Southwest	0.2	928	376	40	10.7%	294	31.7%	139	15.0%	14	1.5%	179	19.3%
971302	3	Idaho Falls, Skyline HS, Gethsemane Christian School	0.7	1,854	568	0	0.0%	615	33.2%	111	6.0%	42	2.3%	15	0.8%
971302	4	Idaho Falls, Southwest	1.0	1,774	538	13	2.4%	562	31.7%	71	4.0%	42	2.4%	58	3.3%
971400	1	Iona	13.0	1,757	568	11	1.9%	541	30.8%	107	6.1%	62	3.5%	82	4.7%
971400	2	Iona	10.0	1,360	502	61	12.1%	407	29.9%	212	15.6%	46	3.4%	210	15.4%
971400	3	Sunnyside Elementary HS, Taylor View Junior HS	2.0	2,679	759	0	0.0%	942	35.2%	161	6.0%	55	2.0%	59	2.2%
971400	4	Iona	2.0	1,622	512	0	0.0%	546	33.6%	308	19.0%	48	3.0%	21	1.3%
			123	***86,579***	***29,922***	***1,472***	***4.9%***	***24,524***	***27.5%***	***11,916***	***13.8%***	***3,826***	***4.4%***	***8,619***	***10.3%***

Source: 2000 US Census of Poulation and Housing

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Elderly Population

The elderly population represents a significant number of the transit-dependent population, compared to any other transit-dependent market segment. The elderly population represents approximately 13.8 percent of the total population in the Idaho Falls urban area. As shown in Table II-4 and Figure II-8, the highest densities of elderly residents are located in the downtown area of Idaho Falls, followed by the areas extending east and west from the Idaho Falls core. Significant percentages of elderly residents live east of US Highway 26 along East 17th Street and East 1st Street, and west of Interstate 15 along Broadway Street and the area between US Highways 20 and 26 south of Anderson Street.

Mobility-Limited Population

The mobility-limited population also represents a large portion of the transit-dependent population. Nationwide, approximately 10 percent of the population has some form of mobility impairment, although this is typically much lower in rural areas and small communities. This holds true in the Idaho Falls urban area, where approximately 4.4 percent of the population have some type of mobility limitation. As shown in Figure II-9, the highest densities of the mobility-limited population in the Idaho Falls area are located in the area west of St. Clair Road and 9th Street and an area south of 1st Street, north of 17th Street, west of Hitt and east of Yellowstone.

Low-Income Population

The low-income population tends to depend on transit to a greater extent than individuals with a higher level of disposable income. Based on the 2000 US Census, the average per-capita income for Bonneville County was $18,857. This is higher than the Idaho state average of $17,841.

The portion of the population living below the poverty level within the Idaho Falls urban area is approximately ten percent. As shown in Figure II-10, the highest densities of the below-poverty population are located in downtown Idaho Falls; along East 17th Street, East 1st Street, and West Broadway Street; and the area between US Highway 20 and 26 south of Anderson Street.

Figure II-8
2005 Estimated Density of Elderly Individuals (60 Years and Older)

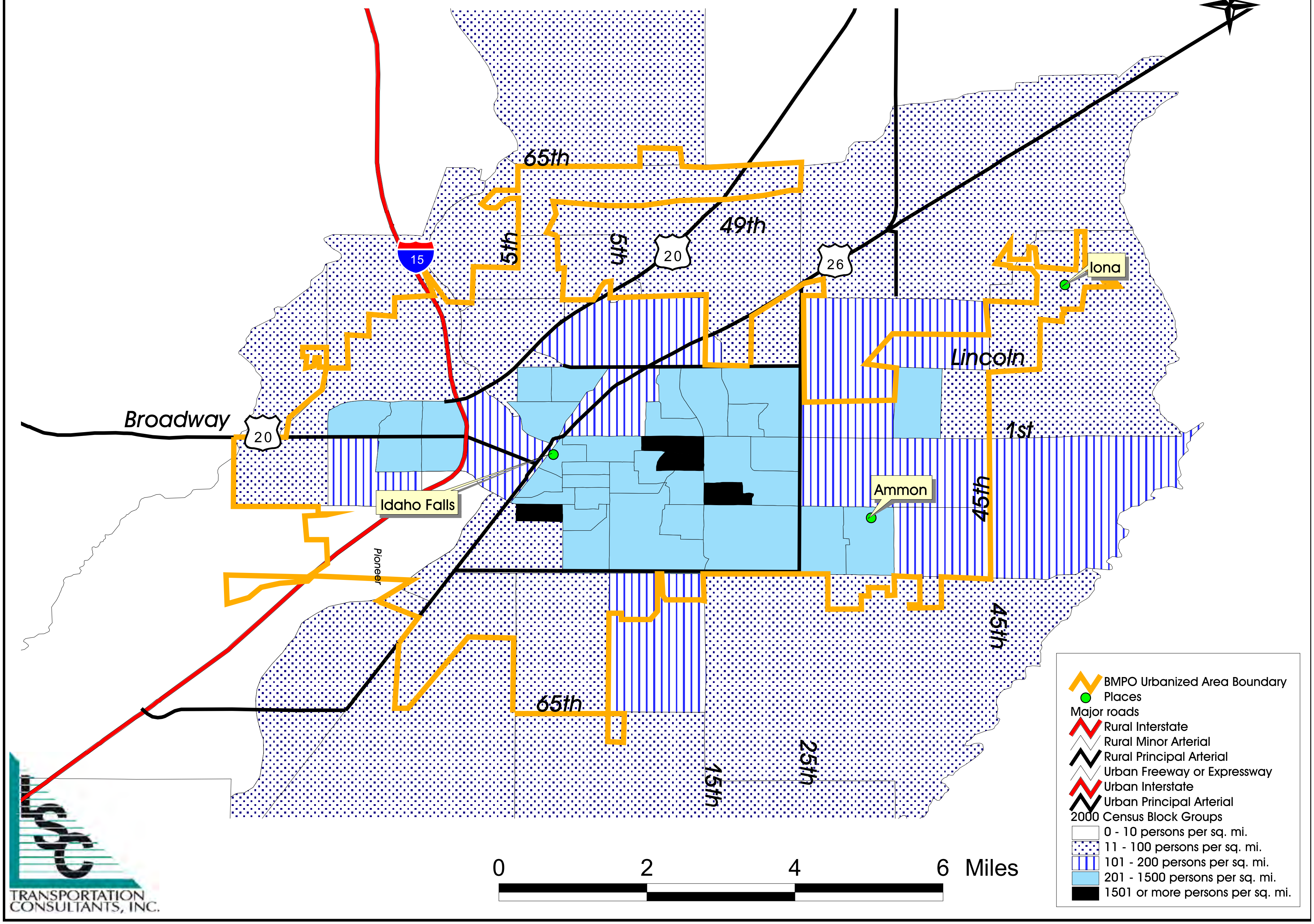


Figure II-9
2005 Estimated Density of Mobility-Limited Individuals

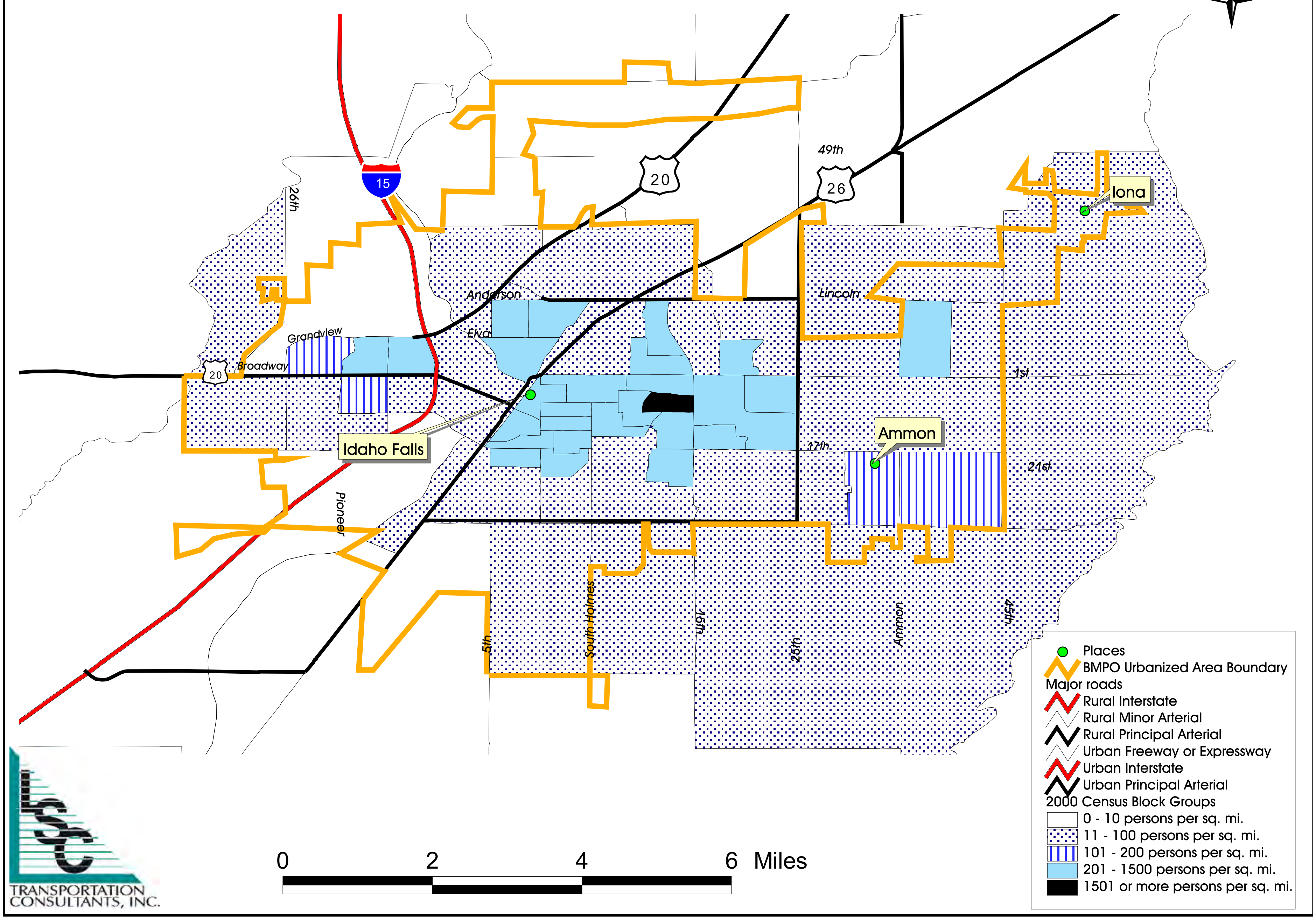
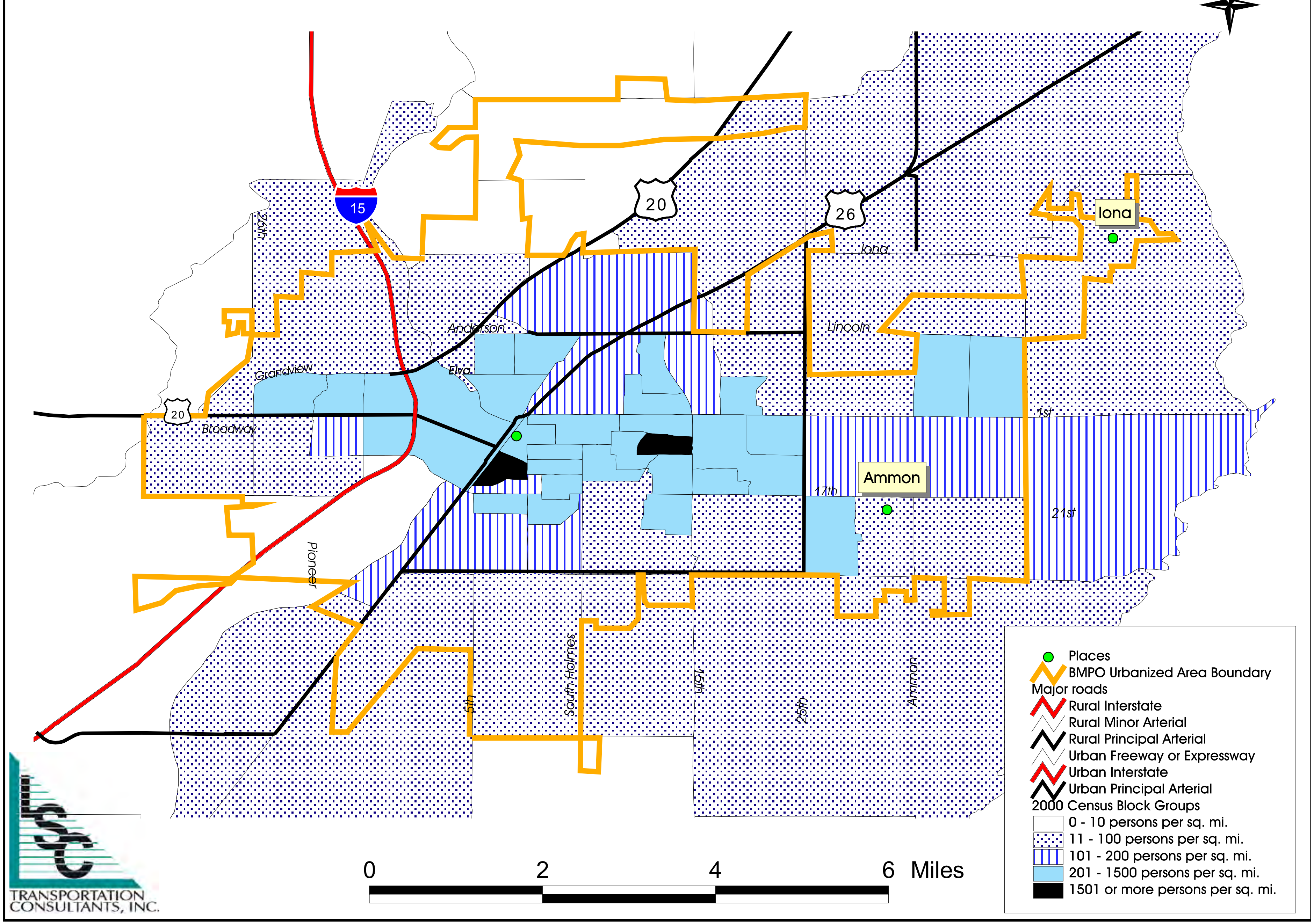


Figure II-10
2005 Estimated Density of Low-Income Individuals



Zero-Vehicle Households

Individuals who do not own or have access to a private vehicle are also considered transit-dependent. An estimated 5.2 percent of the households (1,472 individuals) within the Idaho Falls urban area had no vehicle available for use in 2004. As shown in Figure II-11, the highest densities of the zero-vehicle households are located near 9th Street and St. Clair Road, Yellowstone and 17th Street, 1st Street and Holmes Avenue, and south of Elva and west of North Yellowstone.

Youth Population

The youth population between zero and 15 years of age is shown in Table II-4. As shown in Figure II-12, the highest densities of the youth population are located along East 17th Street and East 1st Street, west of Interstate 15 along Broadway Street, and the area between US Highway 20 and 26 south of West Elva Street.

Figure II-11
2005 Estimated Density of Zero-Vehicle Households

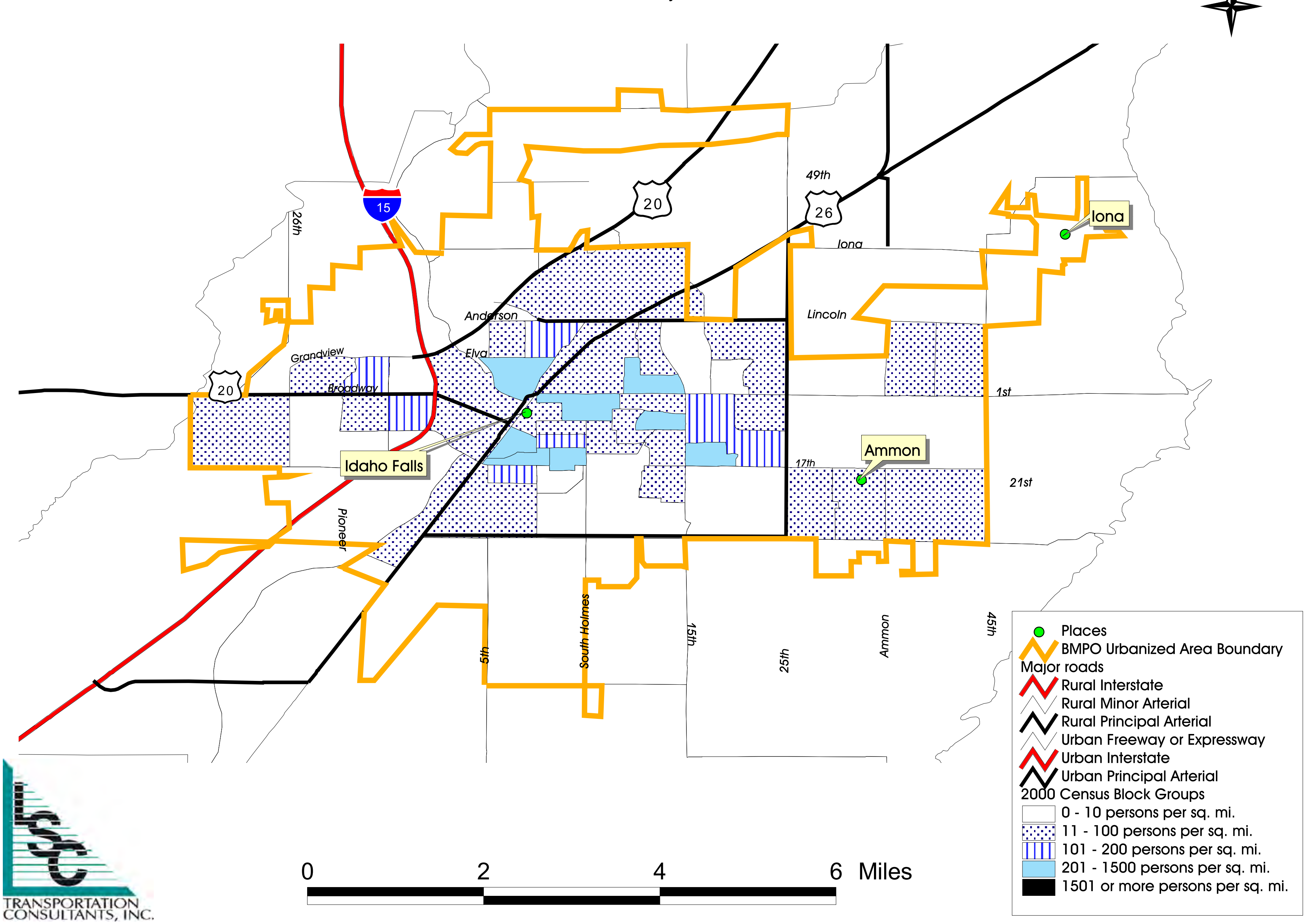
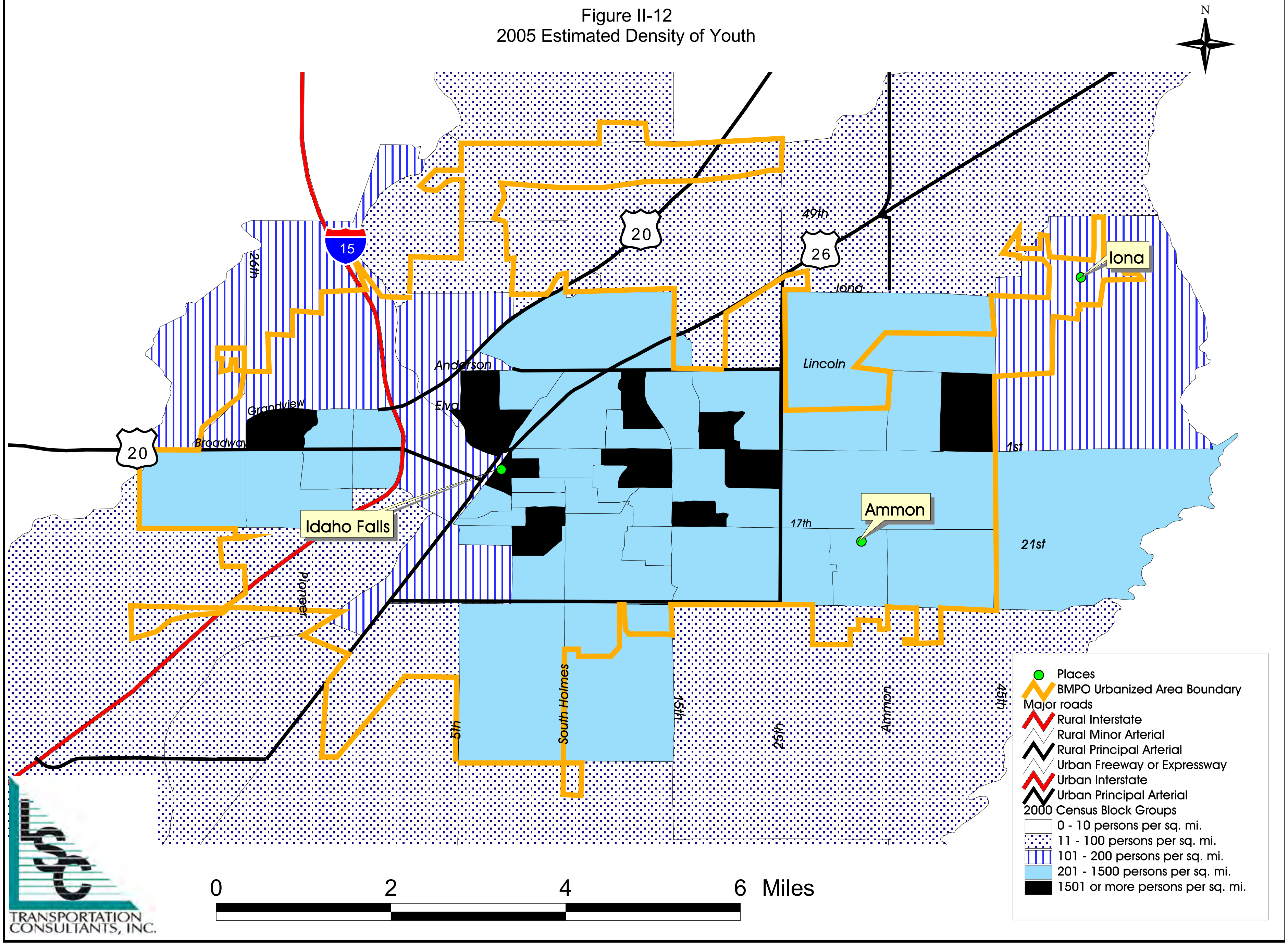


Figure II-12
2005 Estimated Density of Youth



ECONOMY

Table II-5 shows the available information regarding the Bonneville County employment by sector for 2003. Based on the number of employees, Bonneville County is dominated by retail and wholesale trade, accounting for 22 percent of the total wage and salary jobs. This is followed by the professional and business sector, with 17 percent of the employment. Currently, Bonneville County has a civilian labor force of 42,790 individuals with approximately 1,500 individuals unemployed.

Table II-5
2003 Employment by Sector - Bonneville

Sector	Bonneville County	Bonneville County %
Construction	3,084	7.2%
Manufacturing	2,386	5.6%
Retail and Wholesale Trade	9,402	22.0%
Transportation	1,287	3.0%
Information	830	1.9%
Financial Activities	1,707	4.0%
Professional and Business Services	7,357	17.2%
Educational and Health Services	5,434	12.7%
Leisure and Hospitality	4,074	9.5%
Other Services	1,881	4.4%
Government	5,348	12.5%

Source: Idaho Commerce and Labor, LSC, 2006.

A growing population increases the demand for housing, goods, and services which then leads to the creation of jobs in retail and wholesale trade. Consumer demand should also increase with higher incomes and wages in the area. This will improve the purchasing power of the whole area. The increase in income may create a greater demand on the transportation system within the area.

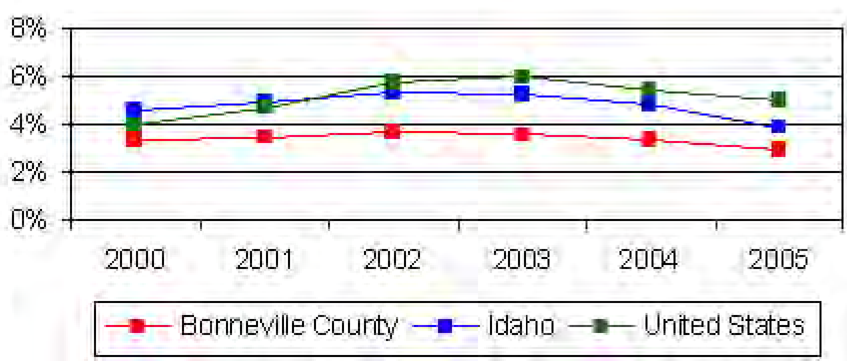
Table II-6 and Figure II-13 show the unemployment rate comparisons between the Idaho Falls urban area, the State of Idaho, and the nation during the period between the years 2000 and 2005. The unemployment rate in Bonneville County has consistently been lower than the national and state rates. The low unemployment rate is partially due to the large number of residents employed by the Idaho National Laboratory, which is one of the major employers in the Idaho Falls area and the State of Idaho. After reaching a peak unemployment rate of 3.7 percent in the year 2002, the Bonneville County unemployment rate has dropped each year until it was 2.9 percent in the year 2005.

Table II-6
Comparison of Unemployment Rates

Year	Bonneville County	Idaho	United States
2000	3.40%	4.60%	4.00%
2001	3.50%	4.90%	4.70%
2002	3.70%	5.40%	5.80%
2003	3.60%	5.30%	6.00%
2004	3.40%	4.80%	5.50%
2005	2.90%	3.90%	5.10%

Source: Idaho Commerce and Labor, 2006.

Figure II-13
Unemployment Rates



TRAVEL PATTERNS

The 2000 US Census yields information useful to this study regarding the residents' means of transportation to and from work. Table II-7 shows the number of individuals in the Idaho Falls urban area workforce and their modes of travel to and from work. The data was tabulated for employees 16 years of age and older who were at work when the US Census questionnaire was completed.

The majority of Idaho Falls and Bonneville County residents drive alone to work (approximately 78 percent). Carpooling accounts for 10 percent. Those who take public transportation to and from work (including taxi cabs) account for 5.6 percent. Table II-7 also shows comparative percentages of transportation modes for Idaho Falls, Bonneville County, and the State of Idaho. According to the 2000 US Census, the employed population that uses public transportation in the Idaho Falls urban area is 1.06 percent. The mean travel time to work is 18.7 minutes, which is slightly lower than the Idaho state average of 20 minutes.

Table II-7
Mode of Transportation

	Idaho Falls	Idaho Falls %	Bonneville County	Idaho State %
Drove Alone	20,588	77.9%	77.6%	77.02%
Carpool	2,636	10.0%	10.0%	12.32%
Public Transportation (incl. Taxicab)	1,485	5.6%	5.6%	1.06%
Motorcycle	17	0.1%	0.0%	0.11%
Bicycle	82	0.3%	0.3%	0.66%
Walk	532	2.0%	1.9%	3.49%
Other	75	0.3%	0.2%	0.64%
Work at Home	1,005	3.8%	4.4%	4.71%
Average Travel Time (mins)	**18.7**			**20**

Source: 2000 Census.

As shown in Table II-8, the county-to-county commute patterns indicate that a large percentage of the workforce (33,693 employees, or approximately 90 percent) live and work within the Idaho Falls urban area. This can be attributed to the major employers in the area, such as the Idaho National Laboratory and Bechtel BWXT Idaho. A small percentage of the Idaho Falls urban area residents work in the adjoining counties of Bingham County (1,037 employees, or three percent), Jefferson County (971 employees, or three percent), Butte County (471 employees), Madison County (394 employees), and Bannock County (313 employees).

Table II-8
County-to-County Worker Flow Patterns in Bonneville County

County of Work	Bonneville County Residents	
	#	%
Bonneville County, ID	33,963	90%
Bingham County, ID	1,037	3%
Jefferson County, ID	971	3%
Butte County, ID	477	1%
Madison County, ID	394	1%
Bannock County, ID	313	1%

Source: 2000 US Census of County-to-County worker flow files.

SUMMARY

Chapter II has presented the local socioeconomic and community background information with which the transit service alternatives are examined and identified later in this document. The most current and up-to-date data were used and presented. The transit service alternatives were based upon these data, as well as the demand estimates presented in Chapter V.

Chapter III

TRANSPORTATION CONSULTANTS, INC.

CHAPTER III

Existing Transportation Resources

INTRODUCTION

Chapter III provides an overview of the various public, private, and nonprofit transportation providers within the study area. Not all of the providers reviewed are “transit agencies” in the traditional sense of the word. Rather, the various providers are entities that provide some type of passenger transportation service. The services provided by these agencies are presented in the discussion that follows. After this project was started, TRPA and CART merged into one agency/transit provider. Later in this report, LSC uses the TRPTA performance measures as the standard.

TARGHEE REGIONAL PUBLIC TRANSPORTATION AUTHORITY

Targhee Regional Public Transportation Authority (TRPTA)—commonly known as PTA—primarily serves the incorporated areas of Idaho Falls. TRPTA is financed through local government sources—including the City of Ammon, Bonneville County, the City of Idaho Falls, and the City of Iona—and the Federal Transit Administration (FTA).

The TRPTA transit office, bus storage, and maintenance facility are located at 1810 West Broadway on the west side of Idaho Falls. TRPTA has recently merged with Community and Rural Transportation (CART)—a nonprofit organization—to serve Idaho Falls and its surrounding areas.

Description of Transportation Services

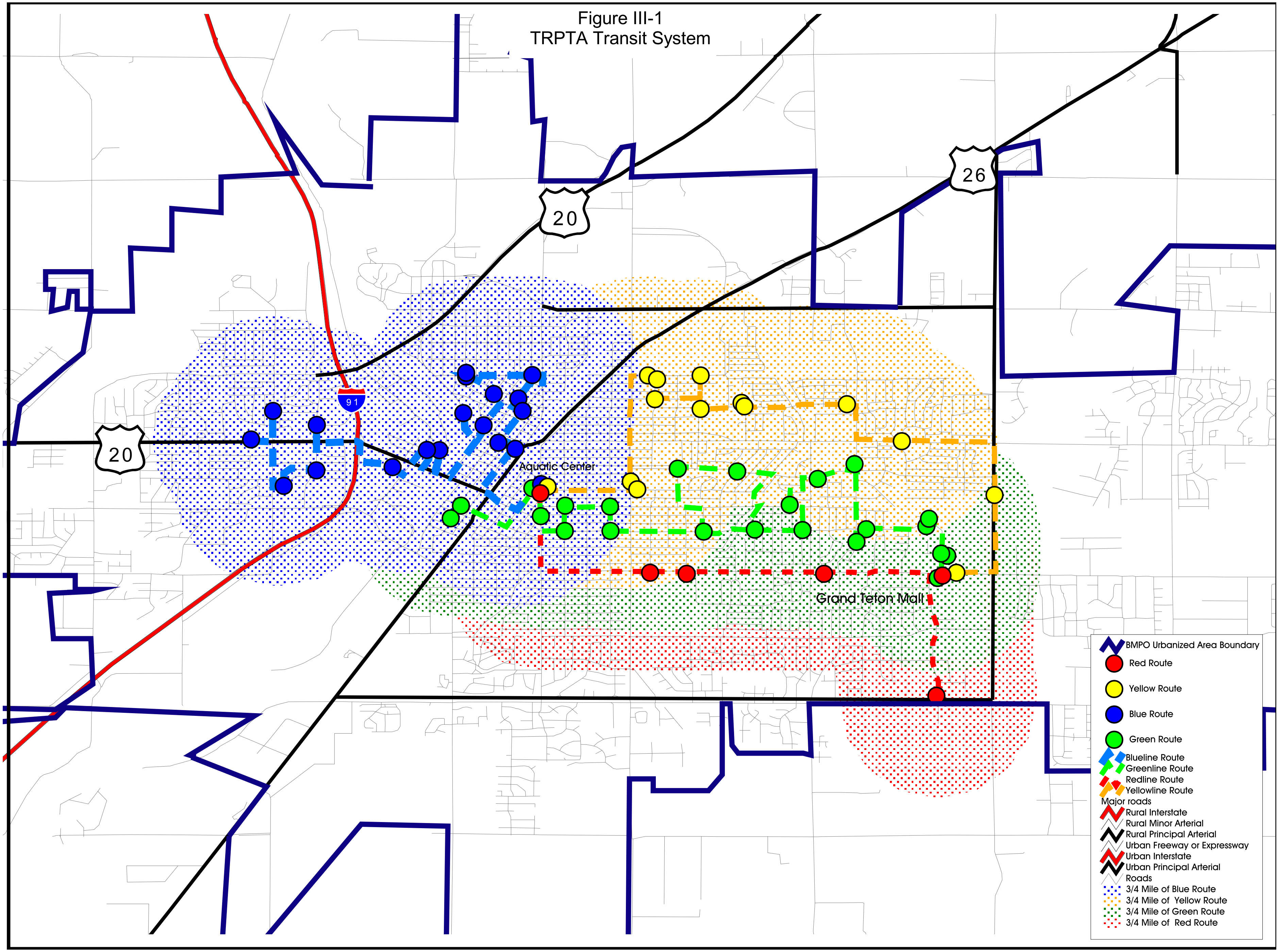
TRPTA provides checkpoint bus service. TRPTA has designated stops, but does not have a fixed path established between checkpoints, allowing the vehicles to provide demand-response service. Service within three-quarters of a mile from a route requires at least a prior day reservation. Some trips can be done in real time, so that the vehicles can be scheduled to deviate from their routes for the requested pick-up and drop-off. Service to or from any point other than a checkpoint stop requires prior day scheduling.

A regional transit authority was voted in by Bonneville County residents in 1994; however, TRPTA did not begin service for several years. The service was contracted out to CART. In 2002, TRPTA began operating its own buses. Figure III-1 shows the four routes that make up the TRPTA transit service area—the Blue, Green, Yellow, and Red Routes. As shown, these routes deviate three-quarters of a mile from a route to pick up pre-scheduled requests. There are no eligibility requirements for riding TRPTA, and the service is provided to anyone who requests a ride.

Transit service operates five days a week. However, this service does not normally operate on holidays. The hours of operation are from Monday to Friday from 7:00 a.m. to 6:00 p.m. The TRPTA office is open from Monday to Friday from 8:00 a.m. to 4:00 p.m.

Monthly passes may be purchased by contacting the TRPTA office located at 1810 West Broadway, Idaho Falls, Idaho, (208) 535-0356 or by going online to trpta@ida.net.

Figure III-1
TRPTA Transit System



Fares

TRPTA's current fare structure is shown in Table III-1. The regular passenger fare is $1.25 for a one-way trip. Children under five years of age ride free. Elderly, disabled, and student passengers receive a discounted rate of $0.60 for a one-way trip. Student passengers are required to carry their identification cards to get the discounted rate.

TRPTA also sells monthly passes and punch cards. Monthly passes are available to the general public at a cost of $35. Discounted monthly passes and 10-ride punch cards are available for elderly, disabled, and student passengers at $17.50 and $6, respectively.

Table III-1
Fares for TRPTA Transit

General Public	$1.25 per ride
Seniors (60 years and older)	$0.60 per ride
Students	$0.60 per ride
Disabled	$0.60 per ride
Children 5 years and under	Free
Monthly Pass	$34.00
Discount Monthly Pass	$17.50
10-Ride Punch Card	$12.50
10-Ride Punch Card Discounted	$6.00

Note: Monthly passes and punch cards are also available

Source: PTA Transit, 2006.

Public Transit Service

TRPTA provides transit service for the residents of Idaho Falls at the following major locations. This list does not include all TRPTA service locations—only the major stops, listed in alphabetical order:

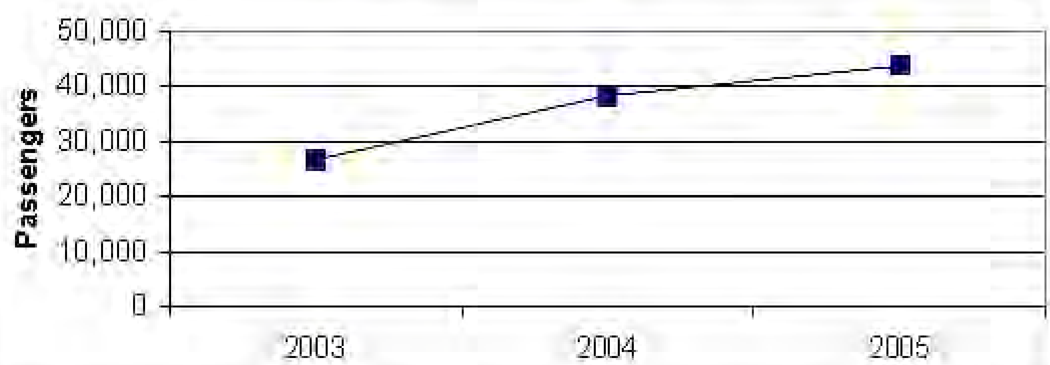
1. Albertsons
2. Aquatic Center
3. District 7 Health Offices
4. EIRMC Hospital
5. Grand Teton Mall
6. Idaho Falls Library
7. Idaho State Building
8. Shopko
9. Social Security Offices
10. Smith's Food
11. Wal-Mart

Ridership Patterns

Ridership Trends

Figure III-2 shows the ridership trends for TRPTA since the year 2003. As shown in the figure, the ridership increased from 2003 to 2004 by approximately 42 percent, and then further increased by 16 percent from 2004 to 2005. The ridership in FY 2004-2005 was 43,816 annual passenger-trips.

Figure III-2
TRPTA Ridership Trend 2003-2005



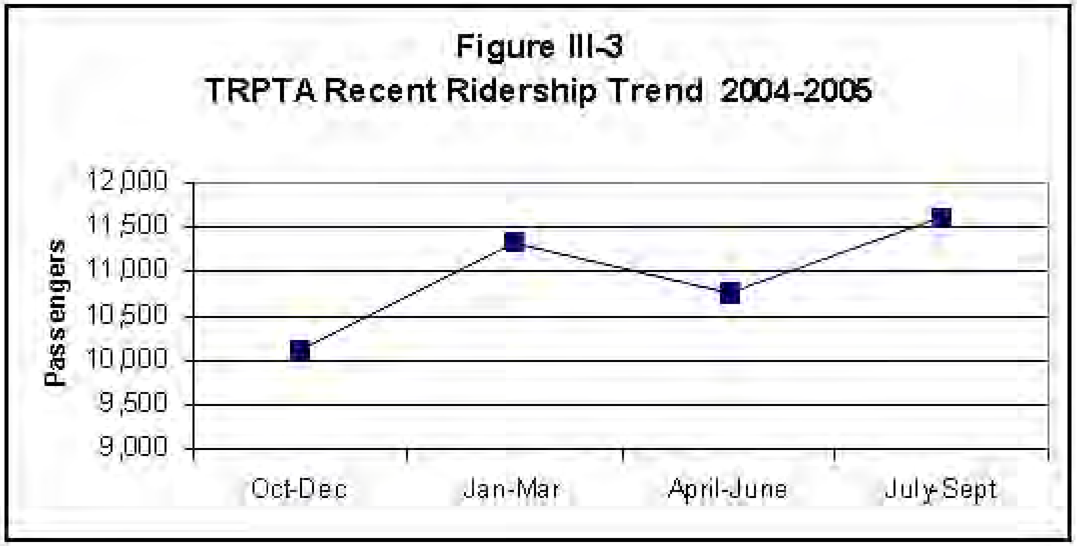
Recent Trends

Annual ridership for FY 2004 to 2005 is shown in Table III-2 and Figure III-3. The fourth quarter (July through September) had the highest ridership with 11,608 annual passengers, closely followed by the second quarter (January through March) with 11,328 passengers. The first quarter (October-December) had the lowest ridership with 10,125 passengers.

Table III-2
TRPTA Ridership Variation

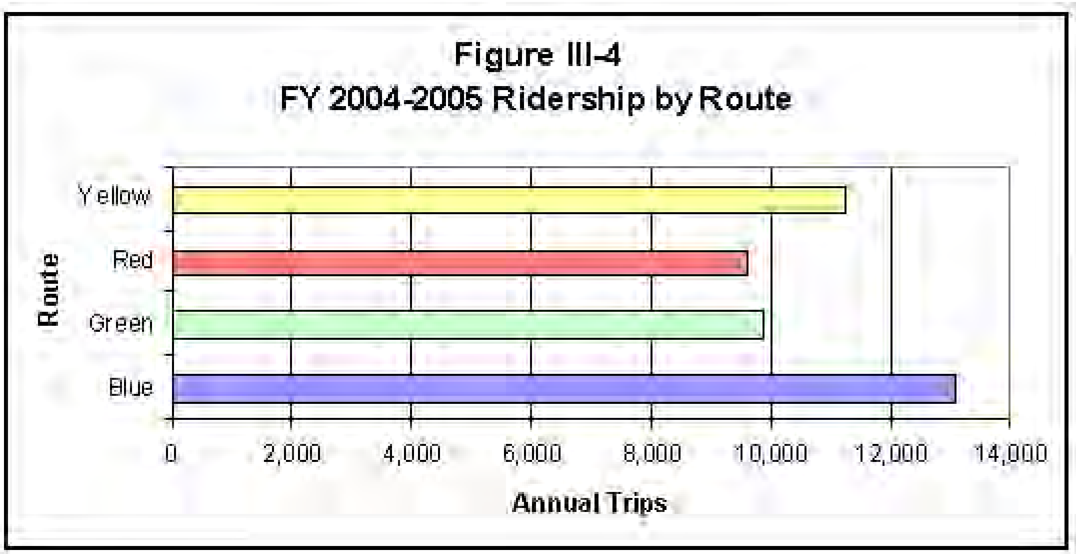
FY 2005		
1st Quarter	Oct-Dec	10,125
2nd Quarter	Jan-Mar	11,328
3rd Quarter	April-June	10,755
4th Quarter	July-Sept	11,608
TOTAL		***43,816***

Source: TRPTA, 2006.



Ridership by Route

Ridership for each of the TRPTA routes is presented in Figure III-4. The Blue Route has the most riders with approximately 13,058 passengers (30 percent of the ridership using this service). The Yellow Route carries the second highest ridership by route with nearly 11,267 passengers (approximately 26 percent of the total ridership).



Ridership by Market Segment

TRPTA currently tracks the different types of passengers. The highest percentage of riders are disabled patrons, at approximately 39 percent of the overall transit riders for TRPTA. This is followed by elderly and regular riders that represent approximately 25 and 23 percent, respectively, of the total ridership. Student patrons comprise the smallest market segment with an average of 13 percent of the total ridership.

Table III-3 shows the percentage of total ridership by the different categories.

Table III-3
TRPTA Market Segments

Type of Rider	2004-2005 % of Ridership
Regular	23%
Elderly	25%
Student	13%
Disabled	39%
Total	***100 %***

Source: TRPTA, 2006.

Figure III-5 shows the distribution of riders by the TRPTA's four routes. As shown in the figure, the highest percentages of regular riders are on the Green Route, senior riders are on the Red Route, student riders are on the Blue Route, and disabled riders are on the Yellow Route. This shows that each route serves one type of market segment more than another. This is due to the different destinations along each route.

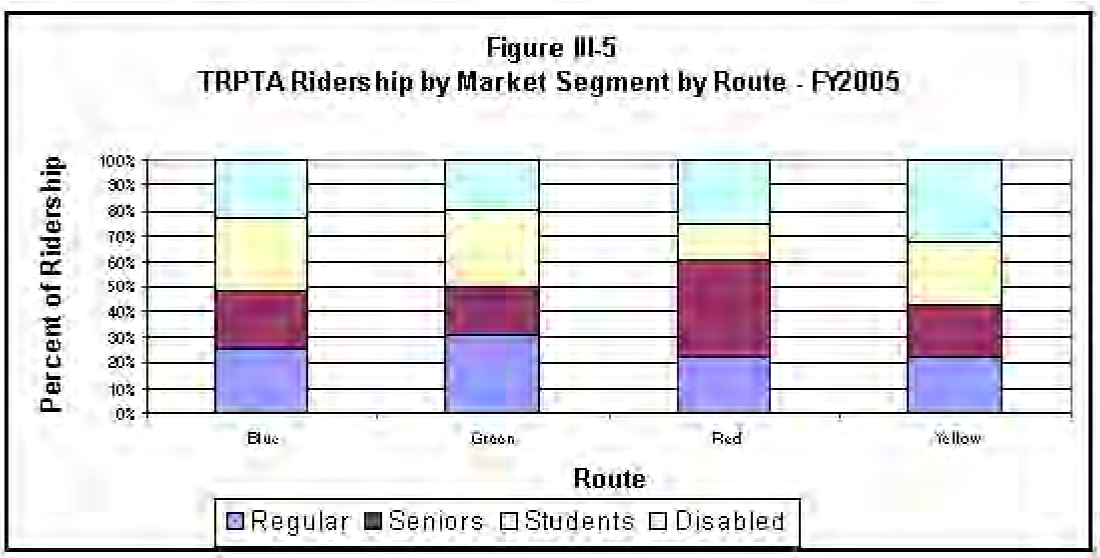


Figure III-5
TRPTA Ridership by Market Segment by Route - FY2005

Ridership by Day of the Week

Ridership by day of the week is shown in Table III-4. Ridership is the highest on Monday with a daily average of 203 passengers (approximately 23 percent of the ridership) followed by Friday with 193 passengers daily (approximately 22 percent of the ridership).

Table III-4
Day of the Week

Day of the Week	Daily Average	2005 % of Ridership
Monday	203	23%
Tuesday	160	18%
Wednesday	165	18%
Thursday	173	19%
Friday	193	22%
	894	

Note: The data was based on ridership of April-May 2005

Source: TRPTA, 2006; LSC, 2006.

Staff

Due to the merger between TRPTA and CART, the total number of employees is 55, of which 35 are full-time positions and 20 are part-time positions.

Employees within the **Idaho Falls area** fit under four main categories—administration, operating, maintenance, and facility.

❑ Administration category includes:
  - Executive director— (1)
  - Personnel clerk—CART (1)
  - Medicaid clerk—CART (1)
  - Bookkeeper—CART (1)

❑ Operating category includes:
  - Operating manager - TRPTA and CART (2)
  - Dispatcher—TRPTA (2)
  - Drivers (15) – 6 full-time drivers of CART and 9 part-time drivers of TRPTA

❑ Maintenance category includes:
  - Maintenance clerk—TRPTA and CART (1)
  - Mechanic (2)—2 full-time mechanics of TRPTA and CART
  - Driver/part-time mechanic—TRPTA (1)
  - Bus washer—CART (1)

❑ Facility category includes:
  - Custodian (1) (part-time)—CART

Employees for the **rural services** of CART in Rexburg, Driggs, and Salmon are:

- Site managers (3) – 1 site manager each in Rexburg, Driggs, and Salmon,
- Drivers (12) – 3 full-time drivers and 3 part-time drivers in Rexburg; 2 full-time drivers in Driggs; and 2 full-time drivers and 2 part-time drivers in Salmon
- Driver/part-time mechanic in Salmon (1)

Employees for **intercity services** are:

- Drivers (6) – 3 full-time drivers for Rexburg/Driggs; 2 part-time drivers for Rexburg/Driggs; and a full-time driver for Salmon.

The CART staff include two **ticket agents:**

- 1 full-time ticket agent and 1 part-time agent

The bus drivers are required to possess a commercial driver's license with passenger endorsement and an Idaho Falls Public Conveyance Operator license. Drivers receive 20 hours or more of safety and security training, first aid instruction, and passenger assistance training on the job.

Both part-time and full-time drivers get paid the same rate, starting at $8.50 per hour. Only full-time employees receive benefits. Part-time employees may receive reduced employee benefits in accordance with the number of hours per week they are scheduled to work and the policies adopted by the Board of Directors. Any employee working 20 hours per week receives retirement benefits. Vacation and holiday pay is based on the number of hours the employee works per week.

Vehicle Fleet

TRPTA currently has six vehicles for passenger transportation. The vehicle inventory for passenger transit is shown in Table III-5. All of the buses are body-on-chassis, equipped with lifts, and are ADA-accessible. The buses have a vehicle-life based on the FTA guidelines of approximately four years or 100,000-150,000 miles. Five of the TRPTA vehicles will need to be replaced in the next two years. This is a significant part of the TRPTA fleet.

Table III-5
TRPTA Vehicle Fleet Inventory

Type	Make	Model Year	Wheel-chair	Estimated Replacement Year
8-passenger cutaway	Goshin	2002	3	2006
8-passenger cutaway	Goshin	2002	3	2007
8-passenger cutaway	Goshin	2002	3	2006
8-passenger cutaway	Goshin	2002	3	2006
8-passenger cutaway	Goshin	2002	3	2006
8-passenger cutaway	Gerardin	2000	2	2009

Source: TRPTA, as of July 2005.

Financial Status

Revenues

The revenue required to operate and support TRPTA comes from a variety of funding sources. The total revenue is $351,174. The funding sources for FY 2004-2005 are shown in Table III-6. The number following each of the funding sources represents the percentage of total revenue. As indicated in Table III-6, the system's largest resource is from FTA grants which was $162,748. The local share from different government sources—including the City of Ammon, Bonneville County, City of Idaho Falls, and the City of Iona—for operating expenses was approximately $100,700 in FY 2005.

The farebox revenue—which includes Medicaid—collected for the same period was $18,818. This equates to a farebox recovery ratio of six percent. The average fare collected per passenger-trip was $0.43.

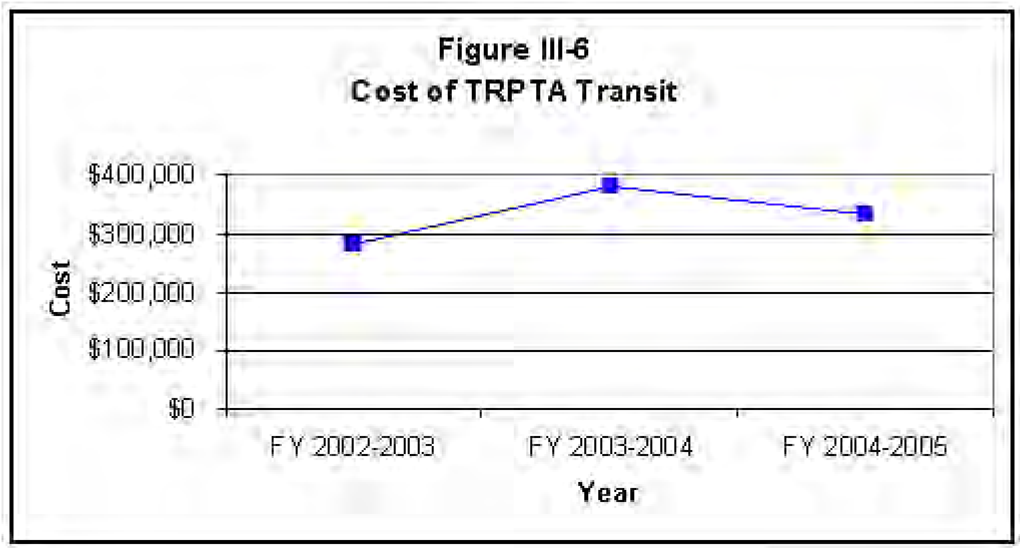
Table III-6
TRPTA FY2004-2005 Operating Budgeted Revenues

	Budgeted Revenues	Percentage of Budget
Local Share- Government	$100,700	29%
Federal Grant	$162,748	46%
Advertising	$890	0%
Agency Contract Services	$3,676	1%
Community Development Block Grants	$3,233	1%
Donations/ Grants	$2,561	1%
Lease Income	$51,390	15%
Farebox Revenue (incl. Medicaid)	$18,818	5%
Interest	$7,129	2%
Other	$30	0%
Total	**$351,174**	100%

Source: TRPTA Transit, 2006.

Expenses

The other half of the total equation is, of course, expenditures. Total expenditures for the 2004 to 2005 fiscal year were $332,999. The primary expenses for TRPTA (and all other transit agencies across the United States) are salaries and benefits. Figure III-6 presents the trend of expenses over three years starting from FY 2002-03. The percent increase from FY 2002-03 to FY 2003-04 is approximately 34 percent. However, there is a decrease in cost observed in FY 2004-05 by approximately 12 percent. The TRPTA operating costs for the 2004 to 2005 fiscal year are shown in the following section, which presents the cost allocation model.



Cost Allocation Model

The financial, ridership, and service information can be used to develop internal evaluation tools for TRPTA. A cost allocation model provides base information against which the current operations can be judged. In addition, the model is useful for estimating the cost ramifications of any proposed service alternative. The TRPTA cost allocation model is shown in Table III-7.

Cost information from the 2004 to 2005 fiscal year was used to develop a two-factor cost allocation model of the current TRPTA operations. In order to develop such a model, each cost line item is allocated to one of three service variables—hours, miles, and fixed costs. Fixed costs are those cost that are identified/defined as being constant. These costs do not increase or decrease based on the level of service. This is a valid assumption for the short term, although fixed costs could change over the long term (more than one or two years). Examples of the cost allocation methodology include allocating fuel costs to vehicle-miles and allocating operator salaries to vehicle-hours. The total costs allocated to each variable are then divided by the total quantity (i.e., total revenue-miles or hours) to determine a cost rate for each variable.

Table III-7 TRPTA Transit FY 2004-2005 Cost Allocation Model				
PROPOSED ACCOUNT	**Budget FY 05**	**Vehicle-Hours**	**Vehicle-Miles**	**Fixed Cost**
Admin. Salaries/Wages/Benefits	$71,454			$71,454
Op. Salaries/Wages/Benefits	$169,247	$169,247		
Vehicle Supplies	$83,489		$83,489	
Office Expenses	$8,809			$8,809
TOTAL OPERATING COSTS	**$332,999**	**$169,247**	**$83,489**	**$80,263**
Service Variable Quantities		veh-hrs	veh-mls	Fixed-Cost
Used for Planning Purposes		11,440	143,515	Factor
		$14.79	$0.58	1.32
Note: Vehicle-hours and vehicle-miles are assumed based on the hours of operation and the route distance.				
TRPTA Transit, 2006.				

The allocation of costs for TRPTA's 2004 to 2005 fiscal year operations yields the following cost equation for existing bus operations:

Total Cost = $80,263 + ($0.58 x Revenue-Miles) + ($14.79 x Revenue-Hours)

Incremental costs such as the extension of service hours or service routes/areas are evaluated considering only the mileage and hourly costs:

Incremental Costs = ($0.58 x Revenue-Miles) + ($14.79 x Revenue-Hours)

Performance Measures

Operating effectiveness and financial efficiency of the transit system are two important factors to the success of the system. The operating effectiveness is the ability of the transit service to generate ridership. Financial efficiency is the ability of the transit system to provide service and serve passenger-trips in a cost-efficient manner. Table III-8 presents the systemwide characteristics for the 2004 to 2005 fiscal year.

Table III-8 2004-2005 System Performance	
Characteristic	
Operating budget	$332,999
Fare revenue	$18,818
Ridership	43,816
Vehicle-miles	143,515
Vehicle-hours	11,440
Operating Effectiveness	
Passenger/mile	0.31
Passenger/hour	3.83
Financial Efficiency	
Cost/passenger	$7.60
Cost/hour	$29.11
Source: TRPTA 2004-2005, LSC 2006.	

CART SERVICES

Community and Rural Transportation (CART)—a nonprofit organization—provides transportation to the Eastern Idaho area counties of Bonneville, Jefferson, Bingham, Lemhi, Madison, and Teton, as well as Ravalli County in Montana. CART is financed through Medicaid and Federal Transit Administration (FTA) funds. FTA funds include Federal 5311-rural, Federal 5311(f)-intercity program, and PTA Section 5310-specialized transit funds.

CART's main headquarters were originally located at 850 Denver Street in Idaho Falls and have now moved into the TRPTA office located at 1820 West Broadway Street. They have satellite offices in Rexburg, Driggs, and Salmon. CART existed at the beginning of this planning process. However, the organization no longer exists as of the completion of this document.

Description of Transportation Services

CART provides transportation services to the elderly, persons with disabilities, low-income persons, and the general public. This service has been in operation since 1978 and began with the need to serve elderly, low-income, and disadvantaged persons. Figure III-7 shows the routes that make up the CART transit service area. The types of services available are listed below:

- Door-to-door (demand-response) bus service
- Intercity routes
- Charter services

Door-to-Door (Demand-Response) Bus Service

This door-to-door service operates Monday through Friday in Idaho Falls, Driggs, Rexburg, and Salmon. The hours of operation and the fares vary by the cities in which the service operates. In Idaho Falls and Salmon, the service is from 7:00 a.m. to 4:30 p.m. and the cost is $3.00 each way. In Driggs, the service is from 7:00 a.m. to 4:00 p.m. and the cost is $1.50 each way, while in Rexburg the service is from 7:00 a.m. to 5:00 p.m. and the cost is $3.00 each way. This service is open to the general public for various purposes such as shopping, medical, social, and other activities. Advance reservations are required at least 24 hours before the desired trip. When a customer calls up to schedule a pick-up, the dispatcher lists customer information such as pick-up address, drop-off address, and the time that the passenger needs to be picked up. A daily subscription service is also available for persons who need transportation on a daily basis.

Table III-9
CART Service Pricing

Area	Time of Service	Price per Trip
Idaho Falls and Salmon	7:00 a.m. to 4:30 p.m.	$3.00
Drigg	7:00 a.m. to 4:00 p.m.	$1.50
Rexburg	7:00 a.m. to 5:00 p.m.	$3.00

Source: CART, 2005.

Intercity Service Routes

These routes serve the cities of Idaho Falls, Arco, Mackay, Challis, Salmon, Shelley, Ucon, Rigby, Roberts, Rexburg, St. Anthony, Driggs, and Tetonia, as well as Hamilton and Missoula in Montana. The four intercity routes are listed below:

- ***Idaho Falls to Rexburg/Rexburg to Idaho Falls*** - This service is offered Monday through Friday at 8:00 a.m., 11:30 a.m., 3:00 p.m., and 5:00 p.m. from Idaho Falls and at 9:00 a.m., 1:30 p.m., 4:00 p.m., and 6:00 p.m. from Rexburg. The fare for this service is $5.00 for each one-way trip.

- ***Idaho Falls to Salmon via Mackay/Salmon to Idaho Falls via Mackay*** - This service is provided every Tuesday at 7:00 a.m. and 4:00 p.m. from Idaho Falls and at 6:30 a.m. and 3:30 p.m. from Salmon. Advance reservations are required to use this service. The fare for this service is $25.00 for each one-way trip. Flag stops are also available along the route at Arco, Mackay, or Challis.

- ***Salmon to Missoula/Missoula to Salmon*** - This service is provided every Wednesday and Friday at 6:30 a.m. from Salmon and from Missoula at 3:00 p.m. on Wednesdays and 12:30 p.m. on Fridays. Advance reservations are required for this service. The cost of this service is $35.00 for a one-way trip.

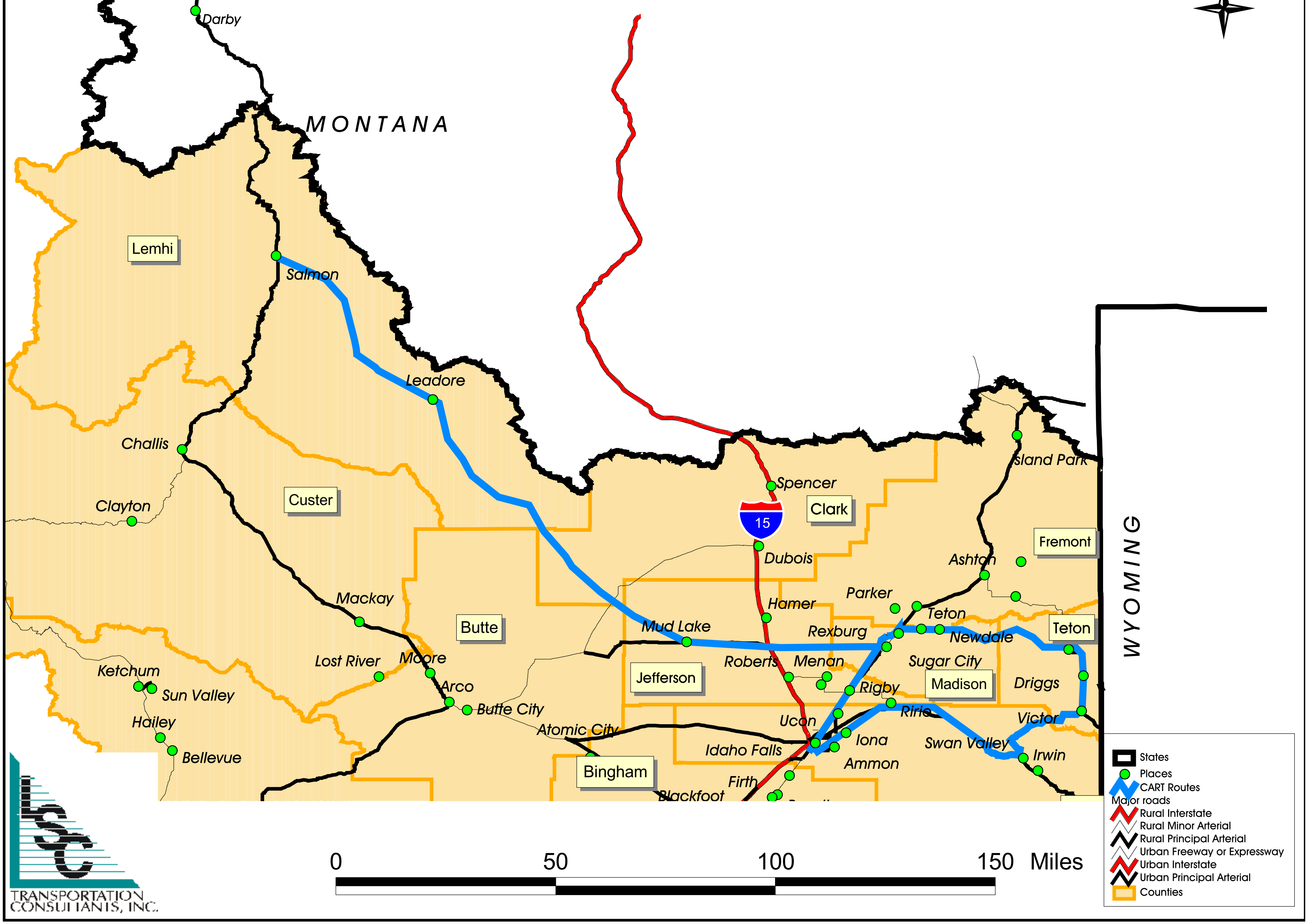
Charter Services

Before the transfer, CART provided charter services to disabled and senior groups and organizations in Idaho Falls, Rexburg, Driggs, and Salmon, seven days per week as long as it did not interfere with transportation services provided during normal operating hours. CART provided the bus and driver, and the charge was based on the number of hours that the bus was used. With the transfer of assets to TRPTA, TRPTA cannot provide charter services under the FTA regulations (49 CFR Pact 684).

Medicaid Services

CART provides transportation and billing services for patrons that are on Medicaid. Advance approval of at least 24 hours is required.

Figure III-7
CART Transit Service Area



Ridership Patterns

Ridership

The ridership of CART in FY 2004-2005 was 80,021 annual passenger-trips.

Ridership by Market Segment

Table III-10 shows the percentage of total ridership by the different categories. The highest percentage of riders are disabled riders, with an average of 61 percent of the total ridership, followed by children with an average of 18 percent of the total ridership.

Table III-10
CART Market Segments

Type of Rider	2004-2005 % of Ridership
Regular	11%
Elderly	10%
Children	18%
Disabled	61%
Total	***100%***

Source: CART,2006.

Vehicle Fleet

CART currently has 25 vehicles for passenger transportation. The vehicle inventory for passenger transit is shown in Table III-11. Seven of these vehicles, highlighted in the table, were transferred to TRPTA as of March 1, 2006.

Type	Make	Model Year	Capacity	Lift	Wheel-chair	Number of Vehicles
14- Passenger Bus	Ford	1990	16	Y	2	1
7- Passenger Van	Ford	1990	8	Y	1	1
9- Passenger Van	Ford	1991	10	Y	1	1
7- Passenger Van	Ford	1991	8	Y	1	1
20- Passenger Bus	Ford	1992	21	Y	1	1
18- Passenger Bus	Ford	1992	20	Y	2	1
14- Passenger Bus	Ford	1992	17	Y	3	1
7- Passenger Van	Chevy	1993	7	N	n/a	1
8- Passenger Van	Ford	1994	9	Y	1	1
24- Passenger Bus	Ford	1995	24	N	n/a	1
16- Passenger Bus	Ford	1995	19	Y	3	1
20- Passenger Bus	Ford	1995	23	Y	3	1
22- Passenger Bus	Ford	1995	24	Y	2	1
10- Passenger Van	GMC Van	1996	10	N	n/a	1
13- Passenger Van	GMC Van	1996	13	N	n/a	1
14- Passenger Bus	Ford	1997	15	Y	1	1
12- Passenger Bus	Ford	1997	14	Y	2	1
16- Passenger Bus	Chevy	2000	17	Y	1	2
16- Passenger Bus	Chevy	2001	18	Y	2	1
12- Passenger Van	Chevy	2001	12	N	n/a	1
16- Passenger Bus	Ford	2002	18	Y	2	1
14- Passenger Bus	Ford	2005	17	Y	3	1
14- Passenger Bus	Ford	2005	16	Y	2	2
						25

Table III-11
CART Vehicle Fleet Inventory

Note: Highlighted vehicles were transferred to TRPTA as of March 1, 2006.
Source: CART, 2006

Financial Status

Revenues and Expenses

The revenue required to operate and support CART comes from a variety of funding sources. The total revenue source is $256,000 (urban area). The funding sources are shown in Table III-12. The number following each of the funding sources represents the percentage of total revenue. As indicated in Table III-12, the system's largest resource is from Medicaid which was $177,979 (urban area). In the 2005 to 2006 fiscal year, CART received no grants. The farebox and special services revenue collected for the same period was $54,270.

The other half of the total equation is, of course, expenditures. Total expenditures for the 2004 to 2005 fiscal year were $278,000 (urban). Based on the information provided by CART, there is about a $21,600 (urban) deficit. At this time, LSC continues to examine the deficit by working with CART staff. The deficit, if real, could be a major reason for the merge between TRPTA and CART.

Table III-12
CART FY2005-2006 Budgeted Revenues

	Budgeted Revenues	Percentage of Budget
Local Government	$0	0%
Medicaid	$177,979	69%
Headstart	$12,985	5%
Agency Service	$54,270	21%
Advertising	$0	0%
Lease Income	$0	0%
Special Groups	$11,101	4%
FTA Grant 5307-urban	$0	0%
FTA Grant 5311-rural	$0	0%
FTA Grant 5311(f)- intercity	$0	0%
Total	**$256,335**	**100%**

Source: CART Transit, 2006

Cost Allocation Model

The financial, ridership, and service information can be used to develop internal evaluation tools for CART. A cost allocation model provides base information against which the current operations can be judged. In addition, the model is useful for estimating the cost ramifications of any proposed service alternative. The CART cost allocation model is shown in Table III-13. Note that the cost allocation model is based on the budget amount and not the actual expenditures as it was the most current and up-to-date information that was available.

Table III-13 CART FY 2006 Cost Allocation Model				
PROPOSED ACCOUNT	**Budget FY 06**	**Vehicle-Hours**	**Vehicle-Miles**	**Fixed Cost**
Admin. Salaries/Wages/Benefits	$102,370			$102,370
Op. Salaries/Wages/Benefits	$121,712	$121,712		
Vehicle Supplies	$52,593		$52,593	
Office Expenses	$1,324			$1,324
TOTAL OPERATING COSTS	**$277,999**	$121,712	$52,593	$103,694
Service Variable Quantities		veh-hrs	veh-mls	Fixed-Cost
Used for Planning Purposes		10,200	91,800	Factor
		$11.93	**$0.57**	**1.59**
CART, 2006.				

Cost information from FY 2006 was used to develop a two-factor cost allocation model of the current CART operations. In order to develop such a model, each cost line item is allocated to one of two service variables—hours and miles. In addition, fixed costs are identified as being constant. This is a valid assumption for the short term, although fixed costs could change over the long term (more than one or two years). Examples of the cost allocation methodology include allocating fuel costs to vehicle-miles and allocating operator salaries to vehicle-hours. The total costs allocated to each variable are then divided by the total quantity (i.e., total revenue-miles or hours) to determine a cost rate for each variable.

The allocation of costs for CART's 2006 fiscal year operations yields the following cost equation for the existing bus operations:

Total Cost = $103,694 + ($.57 x Revenue-Miles) + ($11.93 x Revenue-Hours)

Incremental costs such as the extension of service hours or service routes/areas are evaluated considering only the mileage and hourly costs:

Incremental Costs = ($.57 x Revenue-Miles) + ($11.93 x Revenue-Hours)

Performance Measures

Operating effectiveness and financial efficiency of the transit system are two important factors to the success of the system. The operating effectiveness is the ability of the transit service to generate ridership. Financial efficiency is the ability of the transit system to provide service and serve passenger-trips in a cost-efficient manner. Table III-14 presents the systemwide characteristics for FY 2006.

Table III-14
System Performance

Characteristic	
Operating budget	$277,999
Fare revenue/contract	$54,270
Ridership	38,250
Vehicle-miles	91,800
Vehicle-hours	10,200
Operating Effectiveness	
Passenger/mile	0.42
Passenger/hour	3.75
Financial Efficiency	
Cost/passenger	$7.27
Cost/hour	$27.25

Source: CART 2006, LSC 2006.

OTHER TRANSPORTATION PROVIDERS AND RESOURCES

There are several transportation providers in the Idaho Falls Region. Providers that provide transportation for elderly (along with their location) are listed below. Some of these agencies have contracts with Medicaid to meet the needs of their clients.

- A-1 Transportation – St. Anthony, Idaho.
- ABC Transportation – 1935 Bittern, Idaho Falls.
- Always in Time – 3454 Summit Run, Idaho Falls.
- Ashton Senior Citizens is located at 522 Main Street in Ashton. The service provides transportation for seniors to congregate at meal sites and for medical purposes.
- Busy Bee Transportation, Inc. – 239 West 17th Street, Idaho Falls.
- Clark County Senior Citizens is located in Dubois. The service provides limited transportation to seniors for meals and medical purposes.
- Eagle Rock Transportation – 4105 North Haroldsen Drive, Idaho Falls.
- Easyway Taxi Service – 3630 Hidden Haven, Ammon.

- First Choice Transportation – 2310 South Woodruff, Idaho Falls.
- Leadore Transportation, Inc. provides transportation services to the South Lemhi Senior Center. This transportation provider is located in Salmon.
- Lost River Area Transit is a public transit provider in Lost River Valley, Custer and Butte Counties and provides transportation to the elderly and disabled within the area and to Idaho Falls. This agency is based in Mackay. Transportation services are available Monday through Friday, except holidays from 8:00 a.m. to 5:00 p.m.

- Mackay Senior Citizens is located at 301 Cedar in Mackay. The service provides limited transportation to the seniors for meals and medical purposes.
- Reliable Transportation – 4105 North Haroldsen Drive, Idaho Falls.
- Retired Senior Volunteer Program (RSVP) is located at 357 Constitution Way in Idaho Falls. The service provides seniors with transportation for medical appointments.
- Salt Lake Express provides a scheduled service from Idaho Falls to Pocatello with in-between service to Blackfoot, and from Idaho Falls to Rexburg with in-between service to Rigby. Both routes operate seven days a week. The bus departs Idaho Falls to go to Pocatello at 2:45 a.m., 5:45 a.m., 7:15 a.m., 8:45 a.m., 10:15 a.m., 11:45 a.m., 2:45 p.m., and 5:15 p.m. The fares range from $15 to $19 one-way trip/$30 round-trip, depending on the time of day the trip is made.

  The bus departs Idaho Falls to go to Rexburg at 2:10 a.m., 1:40 p.m., 3:40 p.m., 5:10 p.m., 6:40 p.m., 8:10 p.m., 9:40 p.m., and 11:40 p.m. The fares cost $10 one-way trip/$20-$24 round-trip, depending on the time of day the trip is made.

  The Salt Lake Express stops in Idaho Falls at Taylor's Crossing (900 Pancheri) and Fairfield Inn (1293 West Broadway).
- SOS Transportation – 1135 9th Street, Idaho Falls.
- South Fremont Senior Citizens is located at 110 West Main in St. Anthony. The service provides seniors with transportation for meals and medical purposes.
- South Lemhi Senior Citizens is located in Salmon, Idaho.
- Teton Stage is located in Idaho Falls.
- Teton Transportation– 204 5th Street, Idaho Falls.
- WM Cobbley Senior Citizens is located in Challis, Idaho.

Chapter IV

TRANSPORTATION
CONSULTANTS, INC.

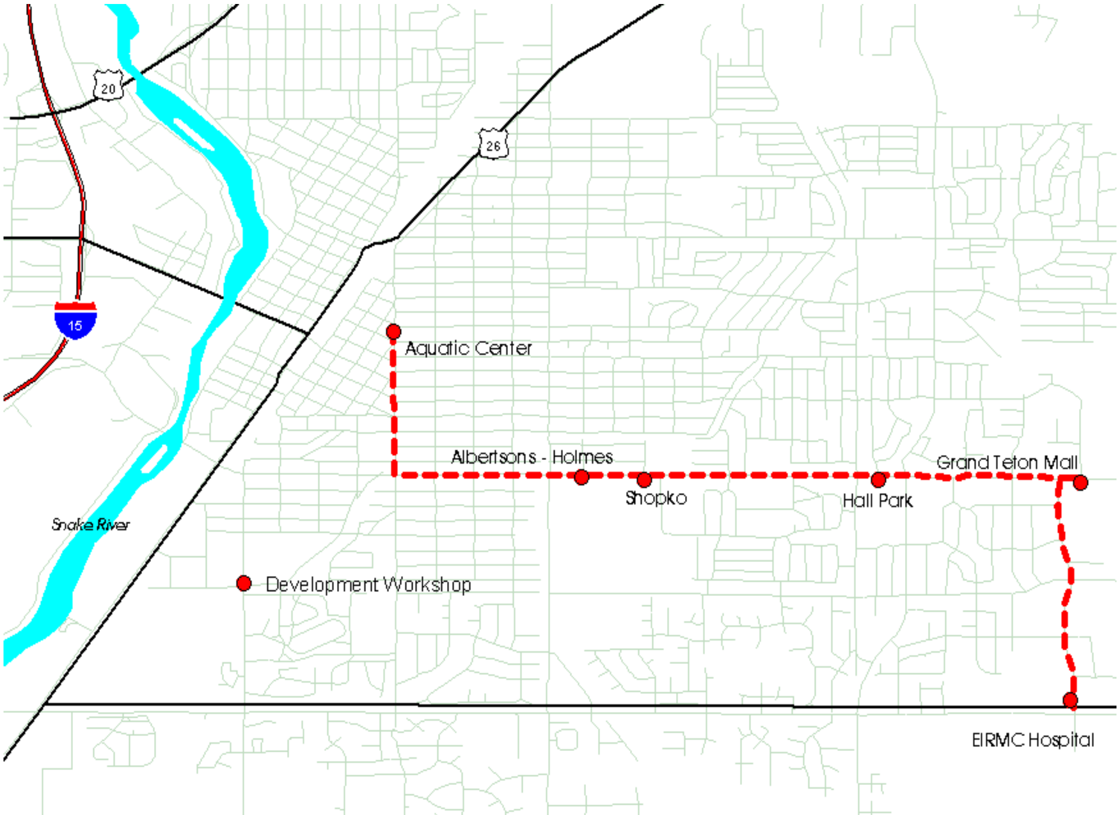
CHAPTER IV
Route Analysis

Chapter IV includes an evaluation of the existing route transit system operating in the TRPTA and CART service area. The following routes were evaluated: Blue, Red, Yellow, and Green. The demand-response and rural services that CART currently provides are detailed in the section following the route profiles.

ROUTE PROFILES

A profile of each of the above four routes is provided on the following pages. Each route profile contains the annual boardings, transit generators, passengers per hour, annual cost per route, cost per passenger, and annual revenue-hours based upon the calendar year 2005 data.

Red Route
Route Profile



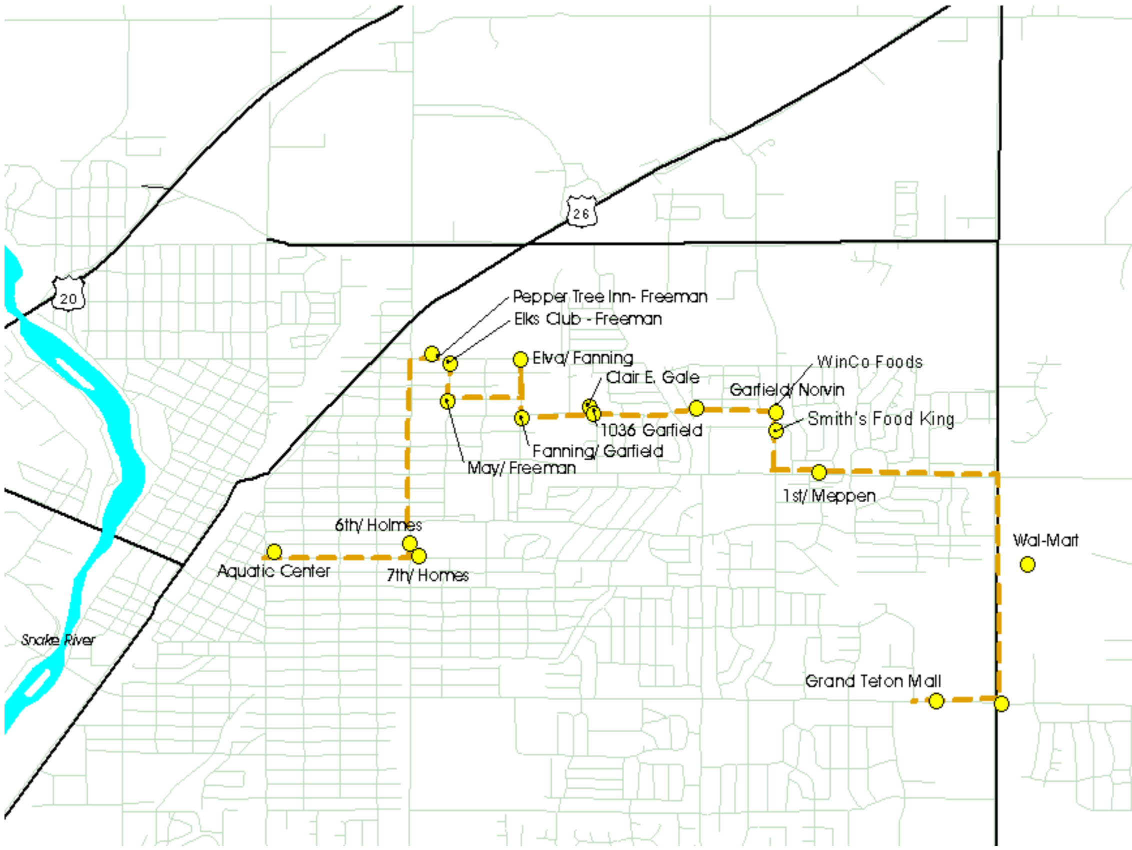
Performance Characteristics

Total Annual Boardings:	9,591
Passengers per Hour:	3.35
Passengers per Mile:	.35
Annual Cost of Route:	$76,476
Cost per Passenger:	$7.97

Key Destinations Served:

- Aquatic Center
- EIRMC Hospital
- Grand Teton Mall
- Hall Park
- Shopko
- Albertsons
- Development Workshop, Inc.

Yellow Route
Route Profile



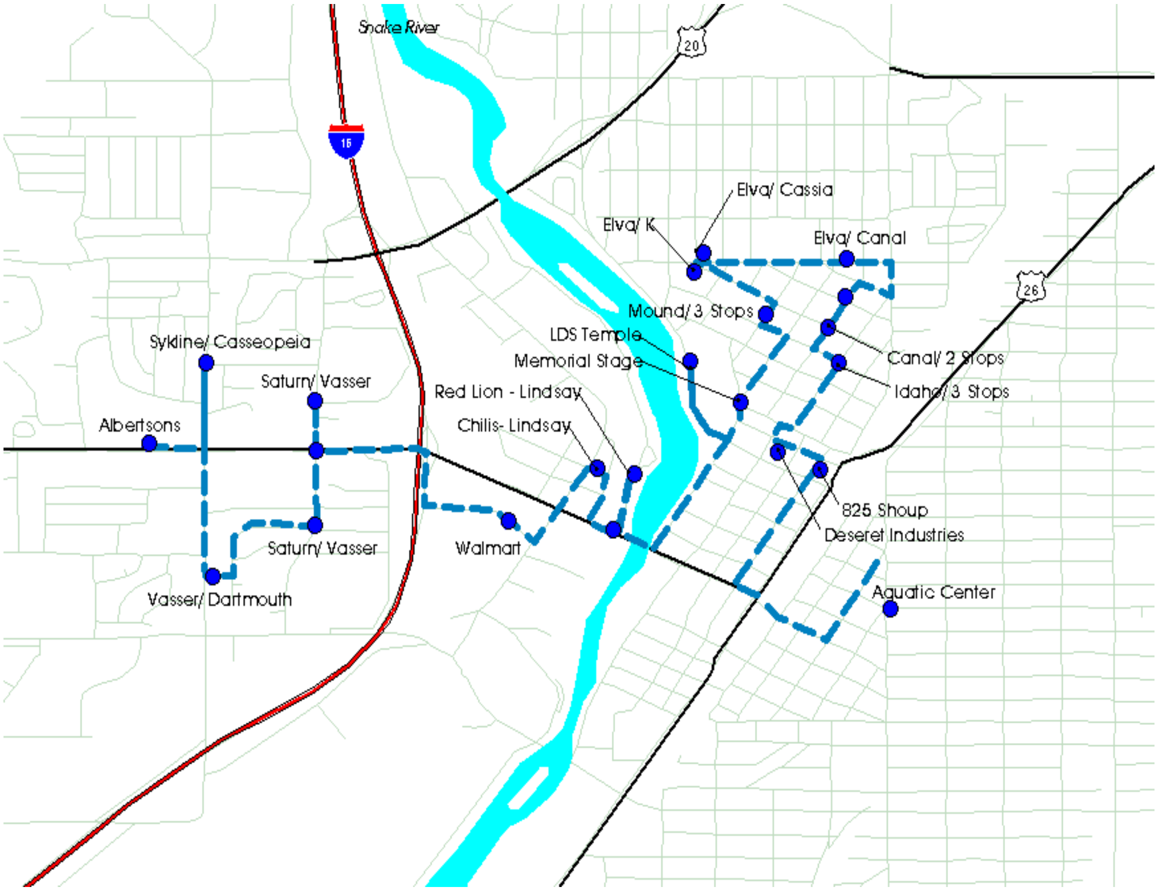
Performance Characteristics

Total Annual Boardings:	11,267	Annual Cost of Route:	$89,629
Passengers per Hour:	3.94	Cost per Passenger:	$7.96
Passengers per Mile:	.25		

Key Destinations Served:

- Aquatic Center
- Transitions (520 Lomax Street)
- WinCo Foods
- Smith's Food King
- Elk's Club

Blue Route
Route Profile



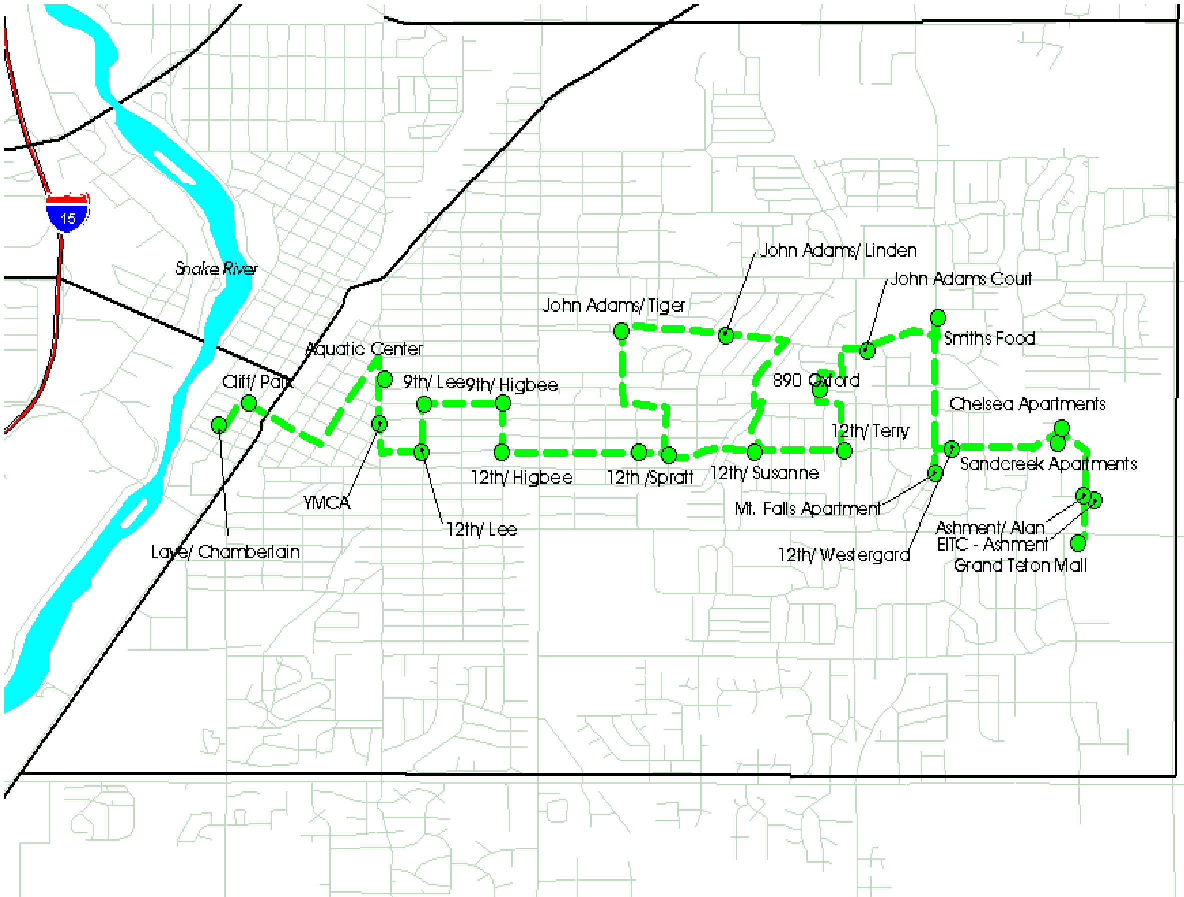
Performance Characteristics

Total Annual Boardings:	13,058	Annual Cost of Route:	$76,695
Passengers per Hour:	4.57	Cost per Passenger:	$5.87
Passengers per Mile:	.48		

Key Destinations Served:

- Aquatic Center
- Wal-Mart
- Albertsons
- Deseret Industries

Green Route
Route Profile



Performance Characteristics

Total Annual Boardings:	9,900	Annual Cost of Route:	$90,199
Passengers per Hour:	3.46	Cost per Passenger:	$9.11
Passengers per Mile:	.22		

Key Destinations Served:

- Downtown
- Grand Teton Mall
- Smiths Food
- YMCA
- Aquatic Center
- John Adams Court
- Higbee

COST PER PASSENGER

Table IV-1 presents the cost per passenger for each route. The most efficient route is the Blue Route with a $5.87 cost per passenger. The least efficient route is the Green Route with a $9.11 cost per passenger. This information was used in the analysis of the transit service alternatives as part of the next phase of the planning process.

Table IV-1
System Performance

Route	Total Route Ridership	Avg. Trips Per Month	Revenue-Hours	Pass. Per Hour	Revenue-Miles	Pass. Per Mile	Total Operating Cost*	Cost Per Pass.*
Blue Route	13,058	1,088	2,860	4.57	27,327	0.48	$76,695	$5.87
Green Route	9,900	825	2,860	3.46	44,945	0.22	$90,199	$9.11
Red Route	9,591	799	2,860	3.35	27,041	0.35	$76,476	$7.97
Yellow Route	11,267	939	2,860	3.94	44,201	0.25	$89,629	$7.96
Total	**43,816**	**3,651**	**11,440**		**143,515**		**$332,999**	
Average				**3.83**		**0.33**		**$7.73**
Urban Demand-Response	44,393	3,699	14,790	3.00	44,393	0.55	$872,293	$19.65
Rural Service	35,628	2,969	11,870	3.00	35,628	0.55	$700,075	$19.65
Total	**80,021**	**6,668**	**26,660**		**80,021**		**$1,572,368**	
Average				**3.00**		**0.55**		**$19.65**
Grand Total	**123,837**	**10,320**	**38,100**		**223,536**		**$1,905,367**	
Average				**3.42**		**0.44**		**$13.69**

Source: TRPTA Transit and CART, 2006

OPERATIONAL EFFICIENCY ANALYSIS

The overall result of the operational efficiency analysis is that the TRPTA route service operates 3.83 trips per hour at a cost of $7.73 per passenger. The number of trips per hour is lower than the national average for route service. This causes the cost per passenger to be higher than the national trends. The TRPTA route service should be about $6.00 or less per passenger. Though the TRPTA route service performs well, it is not efficient in serving the community. The LSC team, along with the TRPTA staff and the stakeholders committee, developed alternative route structures to improve the overall performance of the service based on the information in this chapter.

DEMAND-RESPONSE AND RURAL SERVICE ANALYSIS

As presented in Table IV-1, LSC has included information from CART transit services. Note that the information from CART was not complete, so the LSC team used the information presented in Chapter II to evaluate the performance of the CART service. The information that CART did not provide at this time was a breakdown of the revenue-hours and miles by service type.

Based on the available information, CART seems to be operating at the national standards on a passenger-per-hour basis. However, the overall cost per passenger is on the high side when compared to Butte, Montana; Helena, Montana; Great Falls, Montana; and Casper, Wyoming. The cost for demand-response service in these communities ranges from $6.46 in Butte to $16.38 in Casper.

ORIGIN AND DESTINATION ANALYSIS

This section presents four maps that detail the origins and destinations of the trips that both TRPTA and CART serve on an average day. The information presented on the maps is based on the transit manifest of the two providers. LSC used the maps and the underlying data to assess the transit service alternatives that were developed in the next planning phase.

TRPTA Origin and Destination Analysis

The results of the origin and destination analysis for TRPTA are presented in Figure IV-1 (origin) and Figure IV-2 (destination). The major origins and destinations are the Aquatic Center, Senior Center, Desert Industries, Bush Elementary School, Great Teton Mall, Clair E. Gale Junior High, and Center Partners. Note that both the Great Teton Mall and Aquatic Center are transit transfer locations. Therefore, many of the trips at these two locations are actually transferring to other routes, and so these two locations may not be the actual origin or final destination.

The origins for the TRPTA service are spread across the study area. The destinations for the TRPTA service are more centralized in certain locations including the downtown area, Great Teton Mall, hospital, and Senior Center. This is primarily due to the structure of the route service. The route service picks up individuals along a route or path and links them to other locations along that route or to a major destination. In summary, the TRPTA service is moving individuals from residential areas to locations of commercial and social service uses.

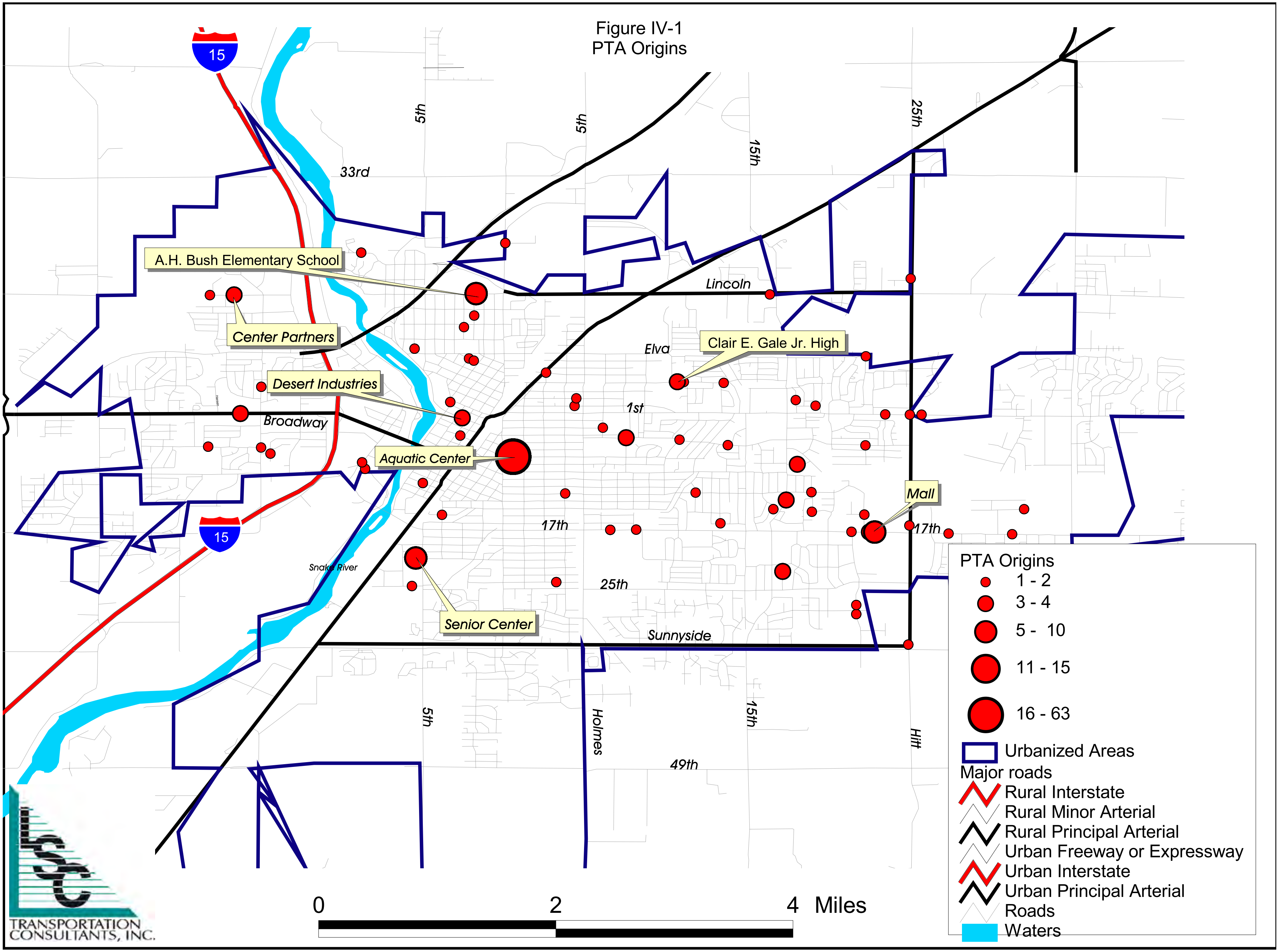


Figure IV-1
PTA Origins
15
15
33rd
5th
5th
15th
25th
A.H. Bush Elementary School
Center Partners
Desert Industries
Lincoln
Elva
Clair E. Gale Jr. High
1st
Broadway
Aquatic Center
Mall
17th
17th
Snake River
25th
Senior Center
Sunnyside
5th
Holmes
15th
Hitt
49th
0
2
4 Miles
PTA Origins
1 - 2
3 - 4
5 - 10
11 - 15
16 - 63
Urbanized Areas
Major roads
Rural Interstate
Rural Minor Arterial
Rural Principal Arterial
Urban Freeway or Expressway
Urban Interstate
Urban Principal Arterial
Roads
Waters
LSC
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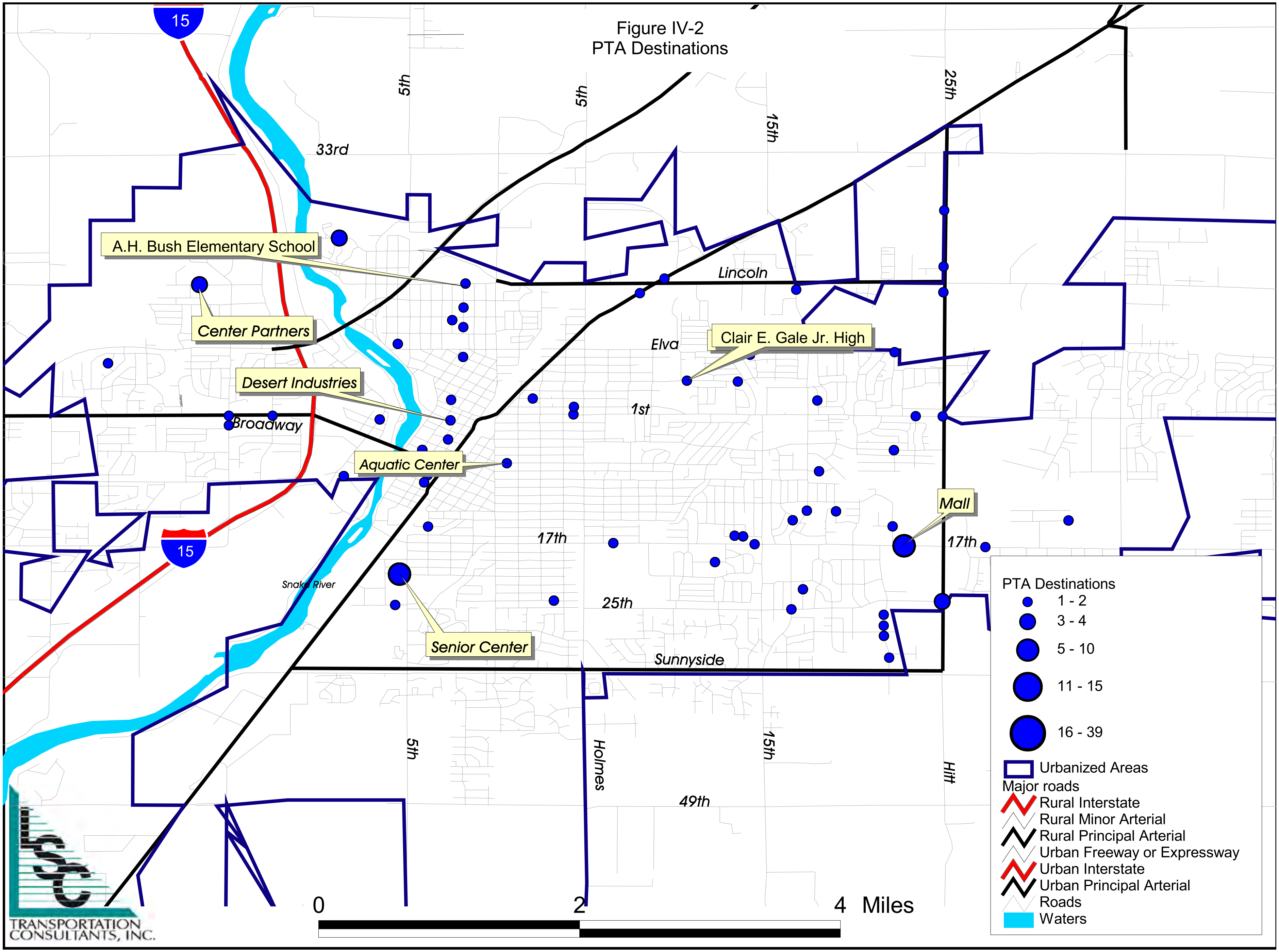


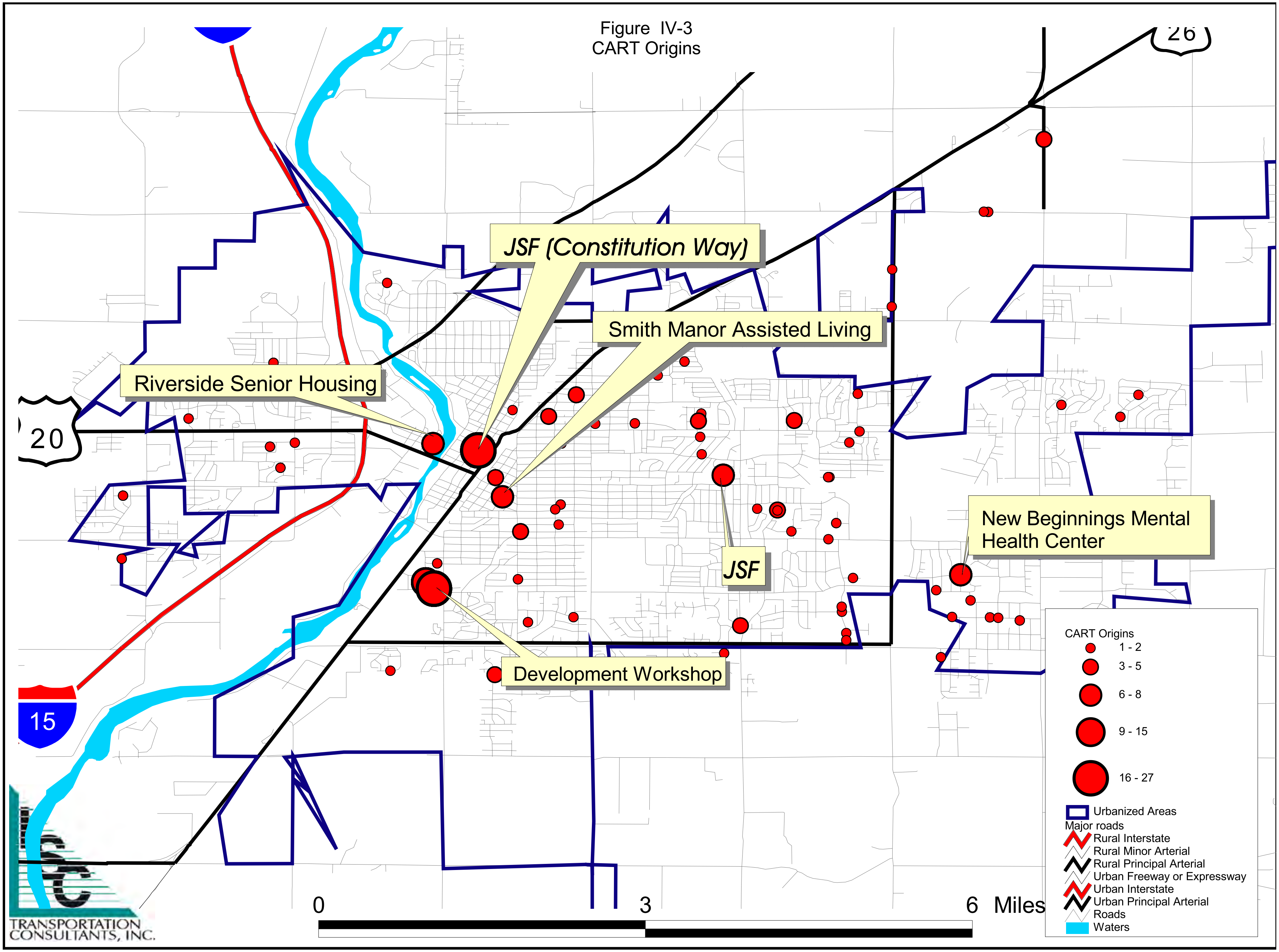
Figure IV-2
PTA Destinations

CART Origin and Destination Analysis

LSC also analyzed the origins and destinations for the CART service in the study area. The results are presented on Figure IV-3 (origins) and Figure IV-4 (destinations). The major origins and destinations for the CART service are the Riverside Senior Housing, Developmental Workshop, Smith Manor Assisted Living, downtown area, hospital area, Joshua D. Smith Foundation, and New Beginning Care Facility.

The CART distribution of trips, origins, and destinations are very similar to each other. This could be due to the operation of door-to-door service. Door-to-door service picks up one to three individuals and links them to particular locations. The main result is that the CART major destinations are the downtown area, Senior Center, and hospital area in the southeast section of Idaho Falls. This pattern and concentration of locations may allow for a fixed-route service to carry these trips in a more economical manner than demand-response service.

Figure IV-3
CART Origins



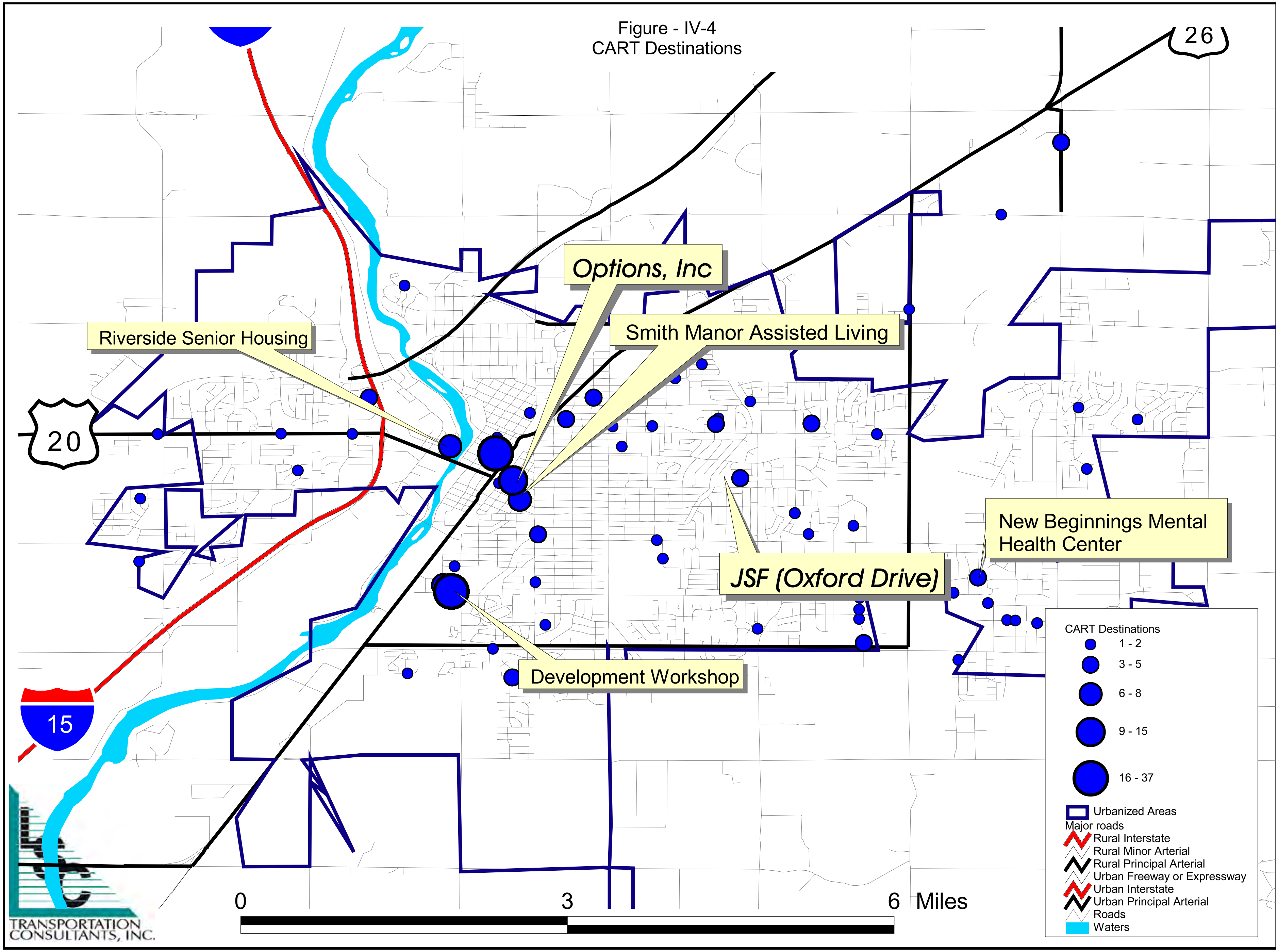


Figure - IV-4
CART Destinations

SUMMARY

The LSC team has determined that there were several areas that needed to be examined in the next phase of the planning process, including the cost per passenger and the running times of each route. The LSC team developed alternatives and recommendations to improve these issues.

Based on the available information, the transit system is operating well overall, but has many areas that could be improved. These areas range from rescheduling routes to restructuring routes in order to improve the operational functions of the transit system. Based on the route analysis, it was determined that the TRPTA route service has the same number of passengers per hour as that of a demand-response system. In order to operate efficiently with fixed routes, the TRPTA route service would need six to eight passengers per revenue-hour. Several routes would need restructuring in order to obtain this level of efficiency.

Chapter V

TRANSPORTATION CONSULTANTS, INC.

CHAPTER V

Transit Needs Assessment

INTRODUCTION

A key step in developing and evaluating transit plans is a careful analysis of the mobility needs of various segments of the population and the potential ridership of transit services. Transit demand analysis is the basic determination of the demand for public transportation in a given area. There are several factors that affect demand, not all of which can be forecast. However, as demand estimation is an important task in developing any transportation plan, several methods of estimation have been developed in the transit field. The analysis by the LSC team makes extensive use of the demographic data and trends discussed previously.

Chapter V presents an analysis of the demand for the Idaho Falls urban area transit services based on the standard estimation techniques. The transit demand identified in Chapter V was used to develop and evaluate the various transit service alternatives. Several methods were used to estimate the maximum Idaho Falls area transit demand including: the Fixed-Route Model, the ADA Paratransit Model, the Rural Transit Demand Methodology, the Greatest Transit Needs Analysis, and Ridership Trends.

FIXED-ROUTE MODEL

In order to analyze whether the existing transit service is meeting the community's needs based on the type of service, LSC created a fixed-route demand model. In fixed-route service, the vehicles operate on a fixed timetable. This is normally done along major roadways in the community that link the residents who need transit to the major transit destinations. In fixed-route service, every section of the service area receives generally the same type of service.

The LSC team created a fixed-route model based a several assumptions in order to create a basis to compare the existing service to a new fixed-route service. The assumptions included the headways, the destinations of the route structure throughout the community, and the access to the transit routes. Based on these assumptions, the LSC team generated the estimated demand for a new fixed-route service. The existing service was based on 60-minute headways for all routes, a 500- to 1,000-foot walking distance to a route, and partial transit coverage of the community. The new fixed-route service was assumed to have 30-minute headways, an average walking distance of 500 feet to a route, and transit access for 100 percent of all households.

The model for the existing service generated 173 daily trips (44,000 annual trips) is presented in Table V-1. This model does not include those trips that would need to ride the demand-response service due to the FTA's ADA requirements. As presented in Table V-2, the model for the new service resulted in a trip rate of 1,129 daily trips and 287,908 annual trips. This is an increase of 652 percent. The LSC team then applied the model to the year 2010 projected demographics. The result was that the number of daily trips increased to 1,185 and the annual trips increased to 302,245 as presented in Table V-3.

Table V-1

Existing Fixed-Route Model - Idaho Falls - 2005

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with		% of Hhlds with Transit Access	Hhlds Served by Transit		Basic Transit Trip Rates		Walk Distance (ft)	Walk Factor		Walk Headway (min)	Headway Factor		Daily Transit Trips		Daily Trip # of
			0 Auto	1 Auto		0 Auto	1 Auto	0 Auto	1 Auto		0 Auto	1 Auto		0 Auto	1 Auto	0 Auto	1 Auto	
970200	3	399	0	54	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970300	1	529	13	78	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970401	1	440	8	24	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970401	2	301	0	141	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970402	1	283	18	73	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970402	2	646	14	79	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970403	1	995	24	139	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970403	2	633	22	136	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970403	3	686	27	202	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970501	1	1,841	22	206	15%	3	31	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	1
970502	1	338	16	49	50%	8	24	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	0	1
970502	2	474	46	97	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970502	3	526	16	52	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970503	1	914	13	144	15%	2	22	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
970601	1	241	0	70	50%	0	35	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	1
970601	2	342	8	105	75%	6	79	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	2
970601	3	385	0	120	100%	0	120	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
970602	1	603	23	237	100%	23	237	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	4	6
970602	2	1,064	77	426	100%	77	426	0.11	0.02	500	1.25	1.2	60	0.6	0.85	6	7	13
970602	3	482	32	196	100%	32	196	0.11	0.02	500	1.25	1.2	60	0.6	0.85	3	3	6
970603	1	682	9	137	100%	9	137	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970700	1	448	27	165	100%	27	165	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	3	5
970700	2	830	111	464	50%	55	232	0.11	0.02	500	1.25	1.2	60	0.6	0.85	5	4	8
970700	3	375	18	88	100%	18	88	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	1	3
970700	4	383	68	153	100%	68	153	0.11	0.02	500	1.25	1.2	60	0.6	0.85	6	2	8
970800	1	356	13	80	100%	13	80	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	1	2
970800	2	490	149	223	100%	149	223	0.11	0.02	500	1.25	1.2	60	0.6	0.85	12	3	16
970800	3	349	13	101	100%	13	101	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970800	4	322	5	114	100%	5	114	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
970900	1	388	13	113	100%	13	113	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970900	2	451	8	98	100%	8	98	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	1	2
970900	3	914	9	122	100%	9	122	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
971000	1	274	24	142	100%	24	142	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	2	4
971000	2	274	27	123	100%	27	123	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	2	4
971000	3	311	15	123	100%	15	123	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
971000	4	299	0	106	100%	0	106	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
971000	5	462	0	99	100%	0	99	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
971000	6	337	18	97	15%	3	15	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971100	1	341	68	135	100%	68	135	0.11	0.02	500	1.25	1.2	60	0.6	0.85	6	2	8
971100	2	414	14	222	100%	14	222	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	3	5
971100	3	259	8	144	100%	8	144	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
971100	4	265	16	80	100%	16	80	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	1	3
971100	5	375	40	191	100%	40	191	0.11	0.02	500	1.25	1.2	60	0.6	0.85	3	3	6
971200	1	309	0	100	50%	0	50	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	1
971200	2	352	18	129	100%	18	129	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	2	4
971200	3	821	116	444	100%	116	444	0.11	0.02	500	1.25	1.2	60	0.6	0.85	10	7	16
971200	4	362	91	202	100%	91	202	0.11	0.02	500	1.25	1.2	60	0.6	0.85	8	3	11
971301	1	511	34	108	15%	5	16	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	1
971301	2	602	10	186	50%	5	93	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	2
971301	3	450	21	151	100%	21	151	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	2	4
971301	4	434	0	218	100%	0	218	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	3	3
971301	5	225	0	52	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971302	1	317	4	101	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971302	2	376	40	189	100%	40	189	0.11	0.02	500	1.25	1.2	60	0.6	0.85	3	3	6
971302	3	568	0	28	15%	0	4	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971302	4	538	13	90	0%	0	0	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	0	0
971400	1	568	11	81	15%	2	12	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971400	2	502	61	93	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971400	3	759	0	10	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971400	4	512	0	36	0%	0	0	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
Subtotal		29,922	1,472	8,168		1,052	5,684								Estimated Weekday Ridership			173

Source: LSC, 2005.

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Table V-2

Fixed-Route Demand Model - Idaho Falls - 2005

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	399	0	54	100%	0	54	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	4	4
970300	1	529	13	78	100%	13	78	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	10
970401	1	440	8	24	100%	8	24	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	2	5
970401	2	301	0	141	100%	0	141	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	10	10
970402	1	283	18	73	100%	18	73	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	5	12
970402	2	646	14	79	100%	14	79	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
970403	1	995	24	139	100%	24	139	0.21	0.04	500	1.25	1.2	30	1.4	1.5	9	10	19
970403	2	633	22	136	100%	22	136	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	10	18
970403	3	686	27	202	100%	27	202	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	15	25
970501	1	1,841	22	206	100%	22	206	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	15	23
970502	1	338	16	49	100%	16	49	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	4	10
970502	2	474	46	97	100%	46	97	0.21	0.04	500	1.25	1.2	30	1.4	1.5	17	7	24
970502	3	526	16	52	100%	16	52	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	4	10
970503	1	914	13	144	100%	13	144	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	10	15
970601	1	241	0	70	100%	0	70	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	5	5
970601	2	342	8	105	100%	8	105	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	8	10
970601	3	385	0	120	100%	0	120	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	9	9
970602	1	603	23	237	100%	23	237	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	17	25
970602	2	1,064	77	426	100%	77	426	0.21	0.04	500	1.25	1.2	30	1.4	1.5	28	31	59
970602	3	482	32	196	100%	32	196	0.21	0.04	500	1.25	1.2	30	1.4	1.5	12	14	26
970603	1	682	9	137	100%	9	137	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	10	13
970700	1	448	27	165	100%	27	165	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	12	22
970700	2	830	111	464	100%	111	464	0.21	0.04	500	1.25	1.2	30	1.4	1.5	41	33	74
970700	3	375	18	88	100%	18	88	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	6	13
970700	4	383	68	153	100%	68	153	0.21	0.04	500	1.25	1.2	30	1.4	1.5	25	11	36
970800	1	356	13	80	100%	13	80	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
970800	2	490	149	223	100%	149	223	0.21	0.04	500	1.25	1.2	30	1.4	1.5	55	16	71
970800	3	349	13	101	100%	13	101	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	7	12
970800	4	322	5	114	100%	5	114	0.21	0.04	500	1.25	1.2	30	1.4	1.5	2	8	10
970900	1	388	13	113	100%	13	113	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	8	13
970900	2	451	8	98	100%	8	98	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	7	10
970900	3	914	9	122	100%	9	122	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	9	12
971000	1	274	24	142	100%	24	142	0.21	0.04	500	1.25	1.2	30	1.4	1.5	9	10	19
971000	2	274	27	123	100%	27	123	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	9	19
971000	3	311	15	123	100%	15	123	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	9	14
971000	4	299	0	106	100%	0	106	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	8	8
971000	5	462	0	99	100%	0	99	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	7	7
971000	6	337	18	97	100%	18	97	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	7	14
971100	1	341	68	135	100%	68	135	0.21	0.04	500	1.25	1.2	30	1.4	1.5	25	10	35
971100	2	414	14	222	100%	14	222	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	16	21
971100	3	259	8	144	100%	8	144	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	10	13
971100	4	265	16	80	100%	16	80	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	6	12
971100	5	375	40	191	100%	40	191	0.21	0.04	500	1.25	1.2	30	1.4	1.5	15	14	29
971200	1	309	0	100	100%	0	100	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	7	7
971200	2	352	18	129	100%	18	129	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	9	16
971200	3	821	116	444	100%	116	444	0.21	0.04	500	1.25	1.2	30	1.4	1.5	43	32	75
971200	4	362	91	202	100%	91	202	0.21	0.04	500	1.25	1.2	30	1.4	1.5	34	15	48
971301	1	511	34	108	100%	34	108	0.21	0.04	500	1.25	1.2	30	1.4	1.5	12	8	20
971301	2	602	10	186	100%	10	186	0.21	0.04	500	1.25	1.2	30	1.4	1.5	4	13	17
971301	3	450	21	151	100%	21	151	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	11	18
971301	4	434	0	218	100%	0	218	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	16	16
971301	5	225	0	52	100%	0	52	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	4	4
971302	1	317	4	101	100%	4	101	0.21	0.04	500	1.25	1.2	30	1.4	1.5	2	7	9
971302	2	376	40	189	100%	40	189	0.21	0.04	500	1.25	1.2	30	1.4	1.5	15	14	28
971302	3	568	0	28	100%	0	28	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	2	2
971302	4	538	13	90	100%	13	90	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
971400	1	568	11	81	100%	11	81	0.21	0.04	500	1.25	1.2	30	1.4	1.5	4	6	10
971400	2	502	61	93	100%	61	93	0.21	0.04	500	1.25	1.2	30	1.4	1.5	22	7	29
971400	3	759	0	10	100%	0	10	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	1	1
971400	4	512	0	36	100%	0	36	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	3	3
Subtotal		29,922	1,472	8,168		1,472	8,168								Estimated Weekday Ridership			1,129
Source: LSC, 2005.															Annual Ridership (255 days)			287,908

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Table V-3
Fixed-Route Demand Model - Idaho Falls - 2010

Census Tract	Block Group	Total # of Hhlds 2010	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	455	0	57	100%	0	57	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	4	4
970300	1	604	14	82	100%	14	82	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
970401	1	502	8	25	100%	8	25	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	2	5
970401	2	343	0	148	100%	0	148	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	11	11
970402	1	322	19	76	100%	19	76	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	6	13
970402	2	737	15	83	100%	15	83	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
970403	1	1,135	25	146	100%	25	146	0.21	0.04	500	1.25	1.2	30	1.4	1.5	9	11	20
970403	2	722	23	143	100%	23	143	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	10	19
970403	3	782	29	212	100%	29	212	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	15	26
970501	1	2,100	23	217	100%	23	217	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	16	24
970502	1	386	17	51	100%	17	51	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	4	10
970502	2	540	48	102	100%	48	102	0.21	0.04	500	1.25	1.2	30	1.4	1.5	18	7	25
970502	3	600	17	55	100%	17	55	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	4	10
970503	1	1,042	14	152	100%	14	152	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	11	16
970601	1	275	0	73	100%	0	73	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	5	5
970601	2	390	8	111	100%	8	111	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	8	11
970601	3	439	0	125	100%	0	125	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	9	9
970602	1	688	24	249	100%	24	249	0.21	0.04	500	1.25	1.2	30	1.4	1.5	9	18	27
970602	2	1,213	81	447	100%	81	447	0.21	0.04	500	1.25	1.2	30	1.4	1.5	30	32	62
970602	3	549	33	205	100%	33	205	0.21	0.04	500	1.25	1.2	30	1.4	1.5	12	15	27
970603	1	778	9	144	100%	9	144	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	10	14
970700	1	511	29	173	100%	29	173	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	12	23
970700	2	947	116	487	100%	116	487	0.21	0.04	500	1.25	1.2	30	1.4	1.5	43	35	78
970700	3	428	19	92	100%	19	92	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	7	14
970700	4	437	72	161	100%	72	161	0.21	0.04	500	1.25	1.2	30	1.4	1.5	26	12	38
970800	1	406	14	84	100%	14	84	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	6	11
970800	2	559	156	234	100%	156	234	0.21	0.04	500	1.25	1.2	30	1.4	1.5	57	17	74
970800	3	399	14	106	100%	14	106	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	8	13
970800	4	367	6	120	100%	6	120	0.21	0.04	500	1.25	1.2	30	1.4	1.5	2	9	11
970900	1	443	14	119	100%	14	119	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	9	14
970900	2	514	8	103	100%	8	103	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	7	10
970900	3	1,042	9	128	100%	9	128	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	9	13
971000	1	312	25	149	100%	25	149	0.21	0.04	500	1.25	1.2	30	1.4	1.5	9	11	20
971000	2	312	29	129	100%	29	129	0.21	0.04	500	1.25	1.2	30	1.4	1.5	10	9	20
971000	3	355	16	129	100%	16	129	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	9	15
971000	4	341	0	112	100%	0	112	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	8	8
971000	5	527	0	104	100%	0	104	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	7	7
971000	6	384	19	102	100%	19	102	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	7	14
971100	1	389	72	141	100%	72	141	0.21	0.04	500	1.25	1.2	30	1.4	1.5	26	10	37
971100	2	472	15	233	100%	15	233	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	17	22
971100	3	295	8	152	100%	8	152	0.21	0.04	500	1.25	1.2	30	1.4	1.5	3	11	14
971100	4	302	17	84	100%	17	84	0.21	0.04	500	1.25	1.2	30	1.4	1.5	6	6	12
971100	5	428	42	201	100%	42	201	0.21	0.04	500	1.25	1.2	30	1.4	1.5	16	14	30
971200	1	352	0	105	100%	0	105	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	8	8
971200	2	401	19	136	100%	19	136	0.21	0.04	500	1.25	1.2	30	1.4	1.5	7	10	17
971200	3	936	122	466	100%	122	466	0.21	0.04	500	1.25	1.2	30	1.4	1.5	45	34	78
971200	4	413	96	212	100%	96	212	0.21	0.04	500	1.25	1.2	30	1.4	1.5	35	15	50
971301	1	583	35	113	100%	35	113	0.21	0.04	500	1.25	1.2	30	1.4	1.5	13	8	21
971301	2	686	10	195	100%	10	195	0.21	0.04	500	1.25	1.2	30	1.4	1.5	4	14	18
971301	3	513	22	159	100%	22	159	0.21	0.04	500	1.25	1.2	30	1.4	1.5	8	11	19
971301	4	495	0	229	100%	0	229	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	17	17
971301	5	257	0	55	100%	0	55	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	4	4
971302	1	362	5	106	100%	5	106	0.21	0.04	500	1.25	1.2	30	1.4	1.5	2	8	9
971302	2	429	42	198	100%	42	198	0.21	0.04	500	1.25	1.2	30	1.4	1.5	16	14	30
971302	3	647	0	30	100%	0	30	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	2	2
971302	4	613	14	95	100%	14	95	0.21	0.04	500	1.25	1.2	30	1.4	1.5	5	7	12
971400	1	647	11	86	100%	11	86	0.21	0.04	500	1.25	1.2	30	1.4	1.5	4	6	10
971400	2	573	64	98	100%	64	98	0.21	0.04	500	1.25	1.2	30	1.4	1.5	23	7	31
971400	3	865	0	10	100%	0	10	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	1	1
971400	4	583	0	38	100%	0	38	0.21	0.04	500	1.25	1.2	30	1.4	1.5	0	3	3
Subtotal		34,126	1,545	8,574		1,545	8,574								Estimated Weekday Ridership			1,185
Source: LSC, 2005.															Annual Ridership (255 days)			302,245

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ADA PARATRANSIT MODEL

The LSC team prepared demand estimates for the demand-response ridership based on a methodology developed by the Federal Transit Administration (FTA). Factors used in this methodology included demographics, eligibility criteria, service area, availability of other services, socioeconomic characteristics, service characteristics, and fares. The methodology does not include program-related trips. However, the program trip estimates are discussed later in Chapter V.

Paratransit trips are frequently designated as:

- *Program-related:* Program-related trips occur only to support specific programs. The demand is directly related to the number of participants in the program.
- *Non-program-related trips:* Non-program trips are represented most by those individuals traveling for work, school, or other personal reasons.

Low and high demand estimates were produced with this methodology and are shown in Table V-4. The demand estimates were calculated by US Census block group and show the current demand for paratransit services in the Idaho Falls urban area. The annual trips for certified paratransit population ranges from approximately 25,000 to 55,000 annual trips for the base year 2004. When the model is applied to the year 2010 projected demographics, the range is 28,700 to 63,100 as presented in Table V-5.

Combined Fixed-Route and ADA Paratransit Models

As presented in Tables V-1 through V-5, the existing level of service has 331 combined trips per day and approximately 84,000 combined annual trips. This is based on the average low and high range of trips from the ADA paratransit model. The combined results show that the new service would have an estimated 1,287 combined daily trips and 328,200 combined annual trips. In 2010, the number of trips would increase to 1,400 combined daily trips and 365,100 combined annual trips. Based on the Fixed-Route and ADA Paratransit Models, the existing system serves an estimated 46 percent of the urban demand.

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Table V-4

2005 Estimated Paratransit Demand - Idaho Falls Urban Area

Census Tract	Census Block Group	Area Description	Total 2005 Population	% of Mobility Limited Population 2005 Est.	Mobility-Limited Population	ADA Eligibility Factor	Estimate of ADA Eligible Population	Certification Factor	Estimate of Certified Population	Trip Rates (1) per Eligible Person Per Month		Eligible Population Annual Trips		Certified Population Annual Trips	
										Low	High	Low	High	Low	High
970200	3	Outer South Metro Idaho Falls	1,177	5.72%	67	60.0%	40	0.2825	19	2.0	4.4	970	2,134	457	1,005
970300	1	Northern Outer Metro Idaho Falls	1,776	4.89%	87	60.0%	52	0.2825	25	2.0	4.4	1,252	2,753	589	1,296
970401	1	University Idaho at Idaho Falls	1,456	0.52%	8	60.0%	5	0.2825	2	2.0	4.4	110	241	52	113
970401	2	Telford Park	720	0.60%	4	60.0%	3	0.2825	1	2.0	4.4	63	138	29	65
970402	1	North of Bonneville High School	765	4.54%	35	60.0%	21	0.2825	10	2.0	4.4	501	1,101	236	519
970402	2	Town of Iona	2,134	4.43%	95	60.0%	57	0.2825	27	2.0	4.4	1,361	2,994	641	1,410
970403	1	North Woodruff Ave Area	3,516	1.33%	47	60.0%	28	0.2825	13	2.0	4.4	673	1,480	317	697
970403	2	South of Lincoln and west of 45th	2,337	0.79%	18	60.0%	11	0.2825	5	2.0	4.4	266	585	125	275
970403	3	Upland Area	2,061	6.33%	130	60.0%	78	0.2825	37	2.0	4.4	1,877	4,130	884	1,945
970501	1	Center Ammon	6,250	1.34%	84	60.0%	50	0.2825	24	2.0	4.4	1,205	2,650	567	1,248
970502	1	Southwest Ammon Area	1,111	4.60%	51	60.0%	31	0.2825	14	2.0	4.4	735	1,618	346	762
970502	2	Southern Ammon	1,542	5.28%	81	60.0%	49	0.2825	23	2.0	4.4	1,173	2,581	552	1,215
970502	3	Southeast Ammon	1,822	4.47%	81	60.0%	49	0.2825	23	2.0	4.4	1,173	2,581	552	1,215
970503	1	Sand Creek Park	2,895	3.83%	111	60.0%	66	0.2825	31	2.0	4.4	1,596	3,511	751	1,653
970601	1	Northeastern Idaho Falls	650	3.18%	21	60.0%	12	0.2825	6	2.0	4.4	297	654	140	308
970601	2	Idaho Falls, North Hitt Area	1,149	4.16%	48	60.0%	29	0.2825	14	2.0	4.4	688	1,514	324	713
970601	3	Idaho Falls, Kearney St Area	1,036	4.40%	46	60.0%	27	0.2825	13	2.0	4.4	657	1,446	309	681
970602	1	Idaho Falls	1,787	4.07%	73	60.0%	44	0.2825	21	2.0	4.4	1,048	2,306	494	1,086
970602	2	West Central Idaho Falls	2,636	6.55%	173	60.0%	104	0.2825	49	2.0	4.4	2,487	5,472	1,171	2,577
970602	3	Idaho Falls, East side	983	3.76%	37	60.0%	22	0.2825	10	2.0	4.4	532	1,170	250	551
970603	1	Idaho Falls, Eastern Idaho Regional Medical Center	1,986	4.27%	85	60.0%	51	0.2825	24	2.0	4.4	1,220	2,685	575	1,264
970700	1	Idaho Falls, North side	1,225	5.59%	68	60.0%	41	0.2825	19	2.0	4.4	986	2,168	464	1,021
970700	2	Idaho Falls, Between US Highways 20 and 26, N Good Samaritan Ctr	2,113	7.25%	153	60.0%	92	0.2825	43	2.0	4.4	2,206	4,853	1,039	2,285
970700	3	Idaho Falls, North central	1,178	12.91%	152	60.0%	91	0.2825	43	2.0	4.4	2,190	4,818	1,031	2,269
970700	4	Idaho Falls, Clair E Gale Junior High School	1,011	4.51%	46	60.0%	27	0.2825	13	2.0	4.4	657	1,446	309	681
970800	1	Idaho Falls, South central	923	4.83%	45	60.0%	27	0.2825	13	2.0	4.4	641	1,411	302	664
970800	2	Idaho Falls, South central	1,036	16.78%	174	60.0%	104	0.2825	49	2.0	4.4	2,503	5,507	1,179	2,593
970800	3	Idaho Falls, South central	895	9.23%	83	60.0%	50	0.2825	23	2.0	4.4	1,189	2,616	560	1,232
970800	4	Idaho Falls, South central	835	7.68%	64	60.0%	38	0.2825	18	2.0	4.4	923	2,031	435	956
970900	1	Idaho Falls, Central	1,087	4.40%	48	60.0%	29	0.2825	14	2.0	4.4	688	1,514	324	713
970900	2	Idaho Falls, Ross Stores Inc	1,155	6.21%	72	60.0%	43	0.2825	20	2.0	4.4	1,033	2,272	486	1,070
970900	3	Idaho Falls, Albertsons	2,838	1.99%	56	60.0%	34	0.2825	16	2.0	4.4	814	1,790	383	843
971000	1	Idaho Falls, Central	660	6.75%	45	60.0%	27	0.2825	13	2.0	4.4	641	1,411	302	664
971000	2	Idaho Falls, Hawthorne School	637	10.92%	70	60.0%	42	0.2825	20	2.0	4.4	1,001	2,203	471	1,037
971000	3	Idaho Falls, Central	745	6.85%	51	60.0%	31	0.2825	14	2.0	4.4	735	1,618	346	762
971000	4	Idaho Falls, Central	814	7.07%	58	60.0%	35	0.2825	16	2.0	4.4	829	1,824	390	859
971000	5	Idaho Falls, Central	1,298	2.34%	30	60.0%	18	0.2825	9	2.0	4.4	438	964	206	454
971000	6	Idaho Falls, Central	938	5.68%	53	60.0%	32	0.2825	15	2.0	4.4	767	1,686	361	794
971100	1	Idaho Falls, Idaho Falls School District #91	872	6.73%	59	60.0%	35	0.2825	17	2.0	4.4	845	1,859	398	875
971100	2	Idaho Falls, Melaleuca Inc	941	6.12%	58	60.0%	35	0.2825	16	2.0	4.4	829	1,824	390	859
971100	3	Idaho Falls, Outer Downtown	561	9.30%	52	60.0%	31	0.2825	15	2.0	4.4	751	1,652	354	778
971100	4	Idaho Falls, Outer Downtown	626	3.47%	22	60.0%	13	0.2825	6	2.0	4.4	313	688	147	324
971100	5	Idaho Falls, Outer Downtown	824	4.35%	36	60.0%	22	0.2825	10	2.0	4.4	516	1,136	243	535
971200	1	Idaho Falls; University Place; Idaho National Lab	815	1.87%	15	60.0%	9	0.2825	4	2.0	4.4	219	482	103	227
971200	2	Idaho Falls, Downtown	1,084	4.31%	47	60.0%	28	0.2825	13	2.0	4.4	673	1,480	317	697
971200	3	Idaho Falls, Downtown	1,926	11.28%	217	60.0%	130	0.2825	61	2.0	4.4	3,129	6,884	1,473	3,241
971200	4	Idaho Falls, Bechtel BWXT Idaho	758	2.01%	15	60.0%	9	0.2825	4	2.0	4.4	219	482	103	227
971301	1	Idaho Falls, Fanning Field Airport	1,408	1.77%	25	60.0%	15	0.2825	7	2.0	4.4	360	792	169	373
971301	2	Idaho Falls, West	1,841	2.71%	50	60.0%	30	0.2825	14	2.0	4.4	720	1,583	339	745
971301	3	Idaho Falls, West	1,078	8.16%	88	60.0%	53	0.2825	25	2.0	4.4	1,267	2,788	597	1,313
971301	4	Idaho Falls, West	983	5.30%	52	60.0%	31	0.2825	15	2.0	4.4	751	1,652	354	778
971301	5	Idaho Falls, West	743	2.05%	15	60.0%	9	0.2825	4	2.0	4.4	219	482	103	227
971302	1	Idaho Falls, Eagle Rock Jr HS, Ethel Boyes HS	968	2.81%	27	60.0%	16	0.2825	8	2.0	4.4	391	860	184	405
971302	2	Idaho Falls, Southwest	928	1.40%	13	60.0%	8	0.2825	4	2.0	4.4	188	413	88	194
971302	3	Idaho Falls, Skyline HS, Gethsemane Christian School	1,854	1.76%	33	60.0%	20	0.2825	9	2.0	4.4	469	1,033	221	486
971302	4	Idaho Falls, Southwest	1,774	2.69%	48	60.0%	29	0.2825	14	2.0	4.4	688	1,514	324	713
971400	1	Southwest	1,757	3.71%	65	60.0%	39	0.2825	18	2.0	4.4	939	2,065	442	972
971400	2	Southwest	1,360	3.67%	50	60.0%	30	0.2825	14	2.0	4.4	720	1,583	339	745
971400	3	Sunnyside Elementary HS, Taylor View Junior HS	2,679	1.50%	40	60.0%	24	0.2825	11	2.0	4.4	579	1,273	273	600
971400	4	Southern	1,622	2.14%	35	60.0%	21	0.2825	10	2.0	4.4	501	1,101	236	519
Total			***86,579***	***4%***	***3,709***		***2,225***		***1,048***			***53,410***	***117,502***	***25,147***	***55,324***
													Daily	**99**	**217**
													Annual Avg		**40,235**

(1) Source: Survey of 7 "exemplary" paratransit operators. Crain, Et al. "Working Paper 6: Service Needs Analysis, San Francisco Bay Area Regional Paratransit Plan," Jan. 199(

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Table V-5

2010 Estimated Paratransit Demand - Idaho Falls Urban Area

Census Tract	Census Block Group	Area Description	Total 2005 Population	% of Mobility Limited Population 2010 Est.	Mobility Limited Population	ADA Eligibility Factor	Estimate of ADA Eligible Population	Certification Factor	Estimate of Certified Population	Trip Rates (1) per Eligible Person Per Month		Eligible Population Annual Trips		Certified Population Annual Trips	
										Low	High	Low	High	Low	High
970200	3	Outer South Metro Idaho Falls	1,342	5.72%	77	60.0%	46	0.2825	22	2.0	4.4	1,106	2,434	521	1,146
970300	1	Northern Outer Metro Idaho Falls	2,026	4.89%	99	60.0%	59	0.2825	28	2.0	4.4	1,427	3,140	672	1,479
970401	1	University Idaho at Idaho Falls	1,661	0.52%	9	60.0%	5	0.2825	2	2.0	4.4	125	275	59	129
970401	2	Telford Park	821	0.60%	5	60.0%	3	0.2825	1	2.0	4.4	71	157	34	74
970402	1	North of Bonneville High School	872	4.54%	40	60.0%	24	0.2825	11	2.0	4.4	571	1,256	269	591
970402	2	Town of Iona	2,434	4.43%	108	60.0%	65	0.2825	30	2.0	4.4	1,552	3,415	731	1,608
970403	1	North Woodruff Ave Area	4,010	1.33%	53	60.0%	32	0.2825	15	2.0	4.4	767	1,688	361	795
970403	2	South of Lincoln and west of 45th	2,665	0.79%	21	60.0%	13	0.2825	6	2.0	4.4	303	667	143	314
970403	3	Upland Area	2,351	6.33%	149	60.0%	89	0.2825	42	2.0	4.4	2,141	4,710	1,008	2,218
970501	1	Center Ammon	7,128	1.34%	95	60.0%	57	0.2825	27	2.0	4.4	1,374	3,022	647	1,423
970502	1	Southwest Ammon Area	1,267	4.60%	58	60.0%	35	0.2825	16	2.0	4.4	839	1,845	395	869
970502	2	Southern Ammon	1,759	5.28%	93	60.0%	56	0.2825	26	2.0	4.4	1,338	2,944	630	1,386
970502	3	Southeast Ammon	2,078	4.47%	93	60.0%	56	0.2825	26	2.0	4.4	1,338	2,944	630	1,386
970503	1	Sand Creek Park	3,302	3.83%	126	60.0%	76	0.2825	36	2.0	4.4	1,820	4,004	857	1,885
970601	1	Northeastern Idaho Falls	741	3.18%	24	60.0%	14	0.2825	7	2.0	4.4	339	746	160	351
970601	2	Idaho Falls, North Hitt Area	1,310	4.16%	55	60.0%	33	0.2825	15	2.0	4.4	785	1,727	370	813
970601	3	Idaho Falls, Kearney St Area	1,182	4.40%	52	60.0%	31	0.2825	15	2.0	4.4	749	1,649	353	776
970602	1	Idaho Falls	2,038	4.07%	83	60.0%	50	0.2825	23	2.0	4.4	1,195	2,630	563	1,238
970602	2	West Central Idaho Falls	3,006	6.55%	197	60.0%	118	0.2825	56	2.0	4.4	2,837	6,241	1,336	2,939
970602	3	Idaho Falls, Eastside	1,121	3.76%	42	60.0%	25	0.2825	12	2.0	4.4	607	1,335	286	628
970603	1	Idaho Falls, Eastern Idaho Regional Medical Center	2,265	4.27%	97	60.0%	58	0.2825	27	2.0	4.4	1,392	3,062	655	1,442
970700	1	Idaho Falls, North side	1,397	5.59%	78	60.0%	47	0.2825	22	2.0	4.4	1,124	2,473	529	1,164
970700	2	Idaho Falls, Between US Highways 20 and 26, N Good Samaritan Ctr	2,410	7.25%	175	60.0%	105	0.2825	49	2.0	4.4	2,516	5,535	1,185	2,606
970700	3	Idaho Falls, North central	1,344	12.91%	173	60.0%	104	0.2825	49	2.0	4.4	2,498	5,495	1,176	2,587
970700	4	Idaho Falls, Clair E Gale Junior High School	1,153	4.51%	52	60.0%	31	0.2825	15	2.0	4.4	749	1,649	353	776
970800	1	Idaho Falls, South central	1,053	4.83%	51	60.0%	30	0.2825	14	2.0	4.4	732	1,609	344	758
970800	2	Idaho Falls, South central	1,182	16.78%	198	60.0%	119	0.2825	56	2.0	4.4	2,855	6,281	1,344	2,957
970800	3	Idaho Falls, South central	1,021	9.23%	94	60.0%	57	0.2825	27	2.0	4.4	1,356	2,983	638	1,405
970800	4	Idaho Falls, South central	952	7.68%	73	60.0%	44	0.2825	21	2.0	4.4	1,053	2,316	496	1,090
970900	1	Idaho Falls, Central	1,240	4.40%	55	60.0%	33	0.2825	15	2.0	4.4	785	1,727	370	813
970900	2	Idaho Falls, Ross Stores Inc	1,317	6.21%	82	60.0%	49	0.2825	23	2.0	4.4	1,178	2,591	554	1,220
970900	3	Idaho Falls, Albertsons	3,237	1.99%	64	60.0%	39	0.2825	18	2.0	4.4	928	2,041	437	961
971000	1	Idaho Falls, Central	753	6.75%	51	60.0%	30	0.2825	14	2.0	4.4	732	1,609	344	758
971000	2	Idaho Falls, Hawthorne School	726	10.92%	79	60.0%	48	0.2825	22	2.0	4.4	1,142	2,512	538	1,183
971000	3	Idaho Falls, Central	850	6.85%	58	60.0%	35	0.2825	16	2.0	4.4	839	1,845	395	869
971000	4	Idaho Falls, Central	928	7.07%	66	60.0%	39	0.2825	19	2.0	4.4	946	2,080	445	980
971000	5	Idaho Falls, Central	1,480	2.34%	35	60.0%	21	0.2825	10	2.0	4.4	500	1,099	235	517
971000	6	Idaho Falls, Central	1,070	5.68%	61	60.0%	36	0.2825	17	2.0	4.4	874	1,923	412	906
971100	1	Idaho Falls, Idaho Falls School District #91	995	6.73%	67	60.0%	40	0.2825	19	2.0	4.4	963	2,120	454	998
971100	2	Idaho Falls, Melaleuca Inc	1,073	6.12%	66	60.0%	39	0.2825	19	2.0	4.4	946	2,080	445	980
971100	3	Idaho Falls, Outer Downtown	640	9.30%	59	60.0%	36	0.2825	17	2.0	4.4	856	1,884	403	887
971100	4	Idaho Falls, Outer Downtown	714	3.47%	25	60.0%	15	0.2825	7	2.0	4.4	357	785	168	370
971100	5	Idaho Falls, Outer Downtown	940	4.35%	41	60.0%	25	0.2825	12	2.0	4.4	589	1,295	277	610
971200	1	Idaho Falls; University Place; Idaho National Lab	930	1.87%	17	60.0%	10	0.2825	5	2.0	4.4	250	550	118	259
971200	2	Idaho Falls, Downtown	1,236	4.31%	53	60.0%	32	0.2825	15	2.0	4.4	767	1,688	361	795
971200	3	Idaho Falls, Downtown	2,197	11.28%	248	60.0%	149	0.2825	70	2.0	4.4	3,568	7,851	1,680	3,696
971200	4	Idaho Falls, Bechtel BWXT Idaho	864	2.01%	17	60.0%	10	0.2825	5	2.0	4.4	250	550	118	259
971301	1	Idaho Falls, Fanning Field Airport	1,606	1.77%	28	60.0%	17	0.2825	8	2.0	4.4	410	903	193	425
971301	2	Idaho Falls, West	2,100	2.71%	57	60.0%	34	0.2825	16	2.0	4.4	821	1,806	386	850
971301	3	Idaho Falls, West	1,229	8.16%	100	60.0%	60	0.2825	28	2.0	4.4	1,445	3,180	680	1,497
971301	4	Idaho Falls, West	1,121	5.30%	59	60.0%	36	0.2825	17	2.0	4.4	856	1,884	403	887
971301	5	Idaho Falls, West	847	2.05%	17	60.0%	10	0.2825	5	2.0	4.4	250	550	118	259
971302	1	Idaho Falls, Eagle Rock Jr HS, Ethel Boyes HS	1,104	2.81%	31	60.0%	19	0.2825	9	2.0	4.4	446	981	210	462
971302	2	Idaho Falls, Southwest	1,058	1.40%	15	60.0%	9	0.2825	4	2.0	4.4	214	471	101	222
971302	3	Idaho Falls, Skyline HS, Gethsemane Christian School	2,114	1.76%	37	60.0%	22	0.2825	11	2.0	4.4	535	1,178	252	554
971302	4	Idaho Falls, Southwest	2,023	2.69%	55	60.0%	33	0.2825	15	2.0	4.4	785	1,727	370	813
971400	1	Southwest	2,004	3.71%	74	60.0%	45	0.2825	21	2.0	4.4	1,071	2,355	504	1,109
971400	2	Southwest	1,551	3.67%	57	60.0%	34	0.2825	16	2.0	4.4	821	1,806	386	850
971400	3	Sunnyside Elementary HS, Taylor View Junior HS	3,055	1.50%	46	60.0%	28	0.2825	13	2.0	4.4	660	1,452	311	684
971400	4	Southern	1,850	2.14%	40	60.0%	24	0.2825	11	2.0	4.4	571	1,256	269	591
Total			***98,743***	***4%***	***4,230***		***2,538***		***1,195***			**60,914**	**134,011**	**28,680**	**63,097**
													Daily	**112**	**247**
													Annual Avg		**45,888**

(1) Source: Survey of 7 "exemplary" paratransit operators. Crain, Et al. "Working Paper 6: Service Needs Analysis, San Francisco Bay Area Regional Paratransit Plan," Jan. 1990

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RURAL TRANSIT DEMAND METHODOLOGY

An important source of information and the most recent research regarding the demand for transit services in rural areas and for elderly or disabled population is the Transit Cooperative Research Program (TCRP) Project A-3: Rural Transit Demand Estimation Techniques. This study, completed by SG Associates, Inc. and LSC Transportation Consultants, Inc., represents the first substantial research into the demand for transit service in rural areas and small communities since the early 1980s. The TCRP study presents a series of formulas relating the number of participants in various types of programs in 185 transit agencies across the United States. The TCRP analytical technique uses a logit model approach to the estimation of transit demand, similar to that commonly used in urban transportation models. The model incorporates an exponential equation which relates the service quantity and the area demographics.

The TCRP analysis procedure considers transit demand in two major categories:

- *"Program demand"* which is generated by transit ridership to and from specific social service programs, and
- *"Non-program demand"* which is generated by the other mobility needs of the elderly, disabled, and general public (including youth and tourists). Examples of non-program trips may include shopping, employment, and medical trips.

Non-Program Demand

As with any other product or service, the demand for transit services is a function of the level of supply provided. In order to use the TCRP methodology to identify a feasible maximum demand, it is necessary to assume a high supply level measured in vehicle-miles per square mile per year. The high supply level is the upper-bound "density" of similar rural services provided in the United States. The assessment of demand for the rural areas, therefore, could be considered to be the maximum potential ridership if a high level of rural service were made available throughout the rural area. The TCRP methodology is based on the permanent population. Therefore, the TCRP methodology is a good demand analysis technique to use for the rural area.

A reasonable **maximum** level of service for the rural areas around Idaho Falls would be to serve every portion with four round-trips (eight one-way trips) daily

Monday through Friday. This equates to approximately 2,400 vehicle-miles of transit service per square-mile per year. This is at the upper range of observed rural systems.

2004 Existing Demand Estimates

Applying the feasible maximum service density to the population in the rural study area (that includes the rural areas of Bonneville County and the entire counties of Jefferson, Lemhi, Madison, and Teton) yields the 2004 estimated transit demand for the elderly, disabled, and general (including youth and tourist) populations. The 2004 transit demand estimates are shown in Table V-6.

The rural study area's 2004 potential demand for elderly transit service is 467,900 annual trips. Disabled demand is 69,300 annual trips. The general public demand is 63,980 annual trips. Using the TCRP methodology, the rural area's 2004 total estimated demand is about 601,200 annual trips. The total estimated annual demand would be desired by the elderly, disabled, and general public if a very high level of transit service could be provided. The number of existing non-program trips is approximately 40,000 for FY 2005, which equates to about 6.6 percent of the non-program annual demand for Bonneville County.

2010 Demand Estimates

Table V-7 shows the demand estimates for 2010, based on the TCRP methodology. The rural study area's total non-program demand for 2010 is estimated to be 1.04 million annual one-way passenger trips. The actual ridership for FY 2005 was approximately 40,000 annual non-program trips. The transit demand is projected to increase by 32,500 annual trips between 2004 and 2010. This is an increase of five percent over five years. The existing level of service for non-program trips is very low and is unsuitable to meet the needs of the rural area study region at the present time.

Table V-6
2004 Estimated Non-Program Transit Demand using the TCRP Method

Census Tract	Census Block Group	Estimated Annual Passenger-Trip Demand					Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
		Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total Annual Demand	#	%	
Bonneville County (Rural)									
970100	1	1,370	280	1,650	280	1,930	8	0.3%	0.0
970100	2	610	210	820	210	1,030	4	0.2%	0.0
970200	1	570	180	750	30	780	3	0.1%	0.1
970200	2	370	0	370	0	370	1	0.1%	0.0
970300	2	1,200	490	1,690	800	2,490	10	0.4%	1.4
970300	3	640	0	640	440	1,080	4	0.2%	0.5
970300	4	870	310	1,180	430	1,610	6	0.3%	0.3
971500	1	310	80	390	610	1,000	4	0.2%	0.0
971500	2	950	180	1,130	380	1,510	6	0.3%	0.0
Jefferson County, Idaho	Whole County	139,350	25,250	164,600	10,140	174,740	685	29.1%	0.6
Lemhi County, Idaho	Whole County	85,120	15,890	101,010	6,060	107,070	420	17.8%	0.1
Madison County, Idaho	Whole County	192,170	21,790	213,960	40,640	254,600	998	42.3%	2.1
Teton County, Idaho	Whole County	44,360	4,660	49,020	3,960	52,980	208	8.8%	0.5
Totals		**467,890**	**69,320**	**537,210**	**63,980**	**601,190**	**2,358**	**100%**	

Source: LSC, 2006, 2000 US Census, Montana Census and Economic Center, Department of Commerce, 2006.

Table V-7
2010 Estimated Public Transit Demand using the TCRP Method

Census Tract	Census Block Group	Estimated Annual Passenger-Trip Demand					Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
		Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total Annual Demand	#	%	
970100	1	1,450	300	1,750	300	2,050	8	0.3%	0.0
970100	2	650	220	870	220	1,090	4	0.2%	0.0
970200	1	600	190	790	30	820	3	0.1%	0.1
970200	2	390	0	390	0	390	2	0.1%	0.0
970300	2	1,270	520	1,790	840	2,630	10	0.4%	1.4
970300	3	680	0	680	460	1,140	4	0.2%	0.5
970300	4	920	330	1,250	450	1,700	7	0.3%	0.3
971500	1	320	80	400	640	1,040	4	0.2%	0.0
971500	2	1,000	190	1,190	400	1,590	6	0.3%	0.0
Jefferson County, Idaho	Whole County	146,890	26,610	173,500	10,690	184,190	722	29.1%	0.7
Lemhi County, Idaho	Whole County	89,720	16,750	106,470	6,390	112,860	443	17.8%	0.1
Madison County, Idaho	Whole County	202,570	22,970	225,540	42,840	268,380	1,052	42.3%	2.2
Teton County, Idaho	Whole County	46,760	4,910	51,670	4,170	55,840	219	8.8%	0.5
Totals		**493,220**	**73,070**	**566,290**	**67,430**	**633,720**	**2,485**	**100.0%**	

Source: LSC, 2006, 2000 US Census, Montana Census and Economic Center, Department of Commerce, 2006.

Program Demand

The methodology for forecasting the transit demand for program-related trips involves determining the number of participants in each program and applying a trip rate per participant using the TCRP methodology. The available program data include the following programs: Developmentally Disabled, Head Start, job training, mental health services, sheltered work, nursing homes, and Senior Nutrition. LSC used the US Census data in the model presented in Appendix A, which shows the TCRP trip rates applied to each program. The existing program demand estimates are presented in Table V-8. Using the participant numbers for each program, the existing program trip demand is approximately 456,000 annual trips.

Table V-8
Rural County Estimated Program-Related Transit Demand

Program Type	Estimated # of Participants	Annual One-Way Trips
Developmental Services		
Adult	190 pp	80,016
Case Management	731 pp	28,665
Pre-school -- 3 to 5 yrs (est.)	4 pp	999
Job Training (est.)	62 clients -	8,479
Mental Health Services (est.)	310 clients -	107,518
Case Management (est.)	638 clients -	4,054
Nursing Home	316 pp	3,775
Senior Nutrition (est.)	795 pp	208,989
Sheltered Workshop* (est.)	35 pp	13,426
Group Home	pp	
TOTAL PROGRAM TRIPS		**455,921**

Source: Demand estimates based on the methodology presented in "TCRP Report 3: Workbook for Estimating Demand for Rural Passenger Transportation," and 2000 US Census Bureau.

**Note: Est. = Best Estimation Technique used from 2000 US Census Bureau.*

Summary of TCRP Methodology

When combining the program demand estimates and non-program demand estimates using the TCRP methodology, the rural area's total existing transit demand is approximately 1,057,111 annual trips.

601,190 non-program trips + 455,921 program trips =

1,057,111 TOTAL Annual Transit Demand

Assuming approximately 40,000 annual trips were provided, only three percent of the community's transit need is being met, based on the TCRP methodology. Table V-9 summarizes this information.

Table V-9
2004 Transit Demand Summary
(TCRP Methodology)

Methodology	Elderly/ Disabled	General Public	Program	Total Demand	Trips Provided	Unmet Need
TCRP	537,210	63,980	455,921	1,057,111	40,000	96%

LSC, 2005.

GREATEST TRANSIT NEED ANALYSIS

The "greatest transit need" is defined as those areas in the urban area of Idaho Falls with the highest percentage of zero-vehicle households and elderly, disabled, and below-poverty populations. This information was used in the development of a transit service plan and the identification of appropriate transit service district boundaries.

Methodology

The US Census data were used to calculate the greatest transit need. The categories used for the calculation were zero-vehicle households and elderly, disabled, and below-poverty populations. Using these categories, the LSC team developed a "transit need index" to determine the greatest transit need. The percentage of the population for each US Census tract within each category was calculated, placed in numerical order, and divided into six segments. Six segments were chosen in order to reflect a reasonable range. Each segment contained an approximately equal number of US Census tracts in order to provide equal representation.

The US Census tract in the segment with the lowest percentage was given a score of 1. The US Census tract in the segment with the next lowest percentage was given a score of 2. This process continued for the remainder of the US Census tracts. The US Census tract in the segment with the highest percentage was given a score of 6. This scoring was completed for each of the categories (zero-vehicle households and elderly, disabled, and below-poverty populations). After each US Census tract was scored for the four categories, the four scores were added up to achieve an overall score. Table V-10 presents the ranked scores for each US Census tract in the urban area. The scores range from 5 (lowest need) to 24 (highest need).

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Table V-10

2005 Greatest Transit Need Scores by Census Block Group

Census Tract	Census Block Group	Area Description	Land Area (sq.ml.)	Zero-Vehicle Hhlds #	Zero-Vehicle Hhlds %	Zero-Vehicle Hhlds rank	Total # of Hhlds #	Total Number of Elderly 60 & over #	Total Number of Elderly 60 & over %	Total Number of Elderly 60 & over rank	Mobility-Limited Population #	Mobility-Limited Population %	Mobility-Limited Population rank	Below-Poverty Population #	Below-Poverty Population %	Below-Poverty Population rank	Overall Score (6-24)	Final (1-6)	Total Population (Persons) #
970200	3	Outer South Metro Idaho Falls	16.8	0	0.0%	1	399	239	20.3%	5	69	5.9%	5	112	9.5%	4	15	3	1,177
970300	1	Northern Outer Metro Idaho Falls	14.7	13	2.5%	3	529	246	13.8%	4	89	5.0%	5	130	7.3%	4	16	4	1,776
970401	1	University Idaho at Idaho Falls	4.9	8	1.7%	2	440	137	9.4%	3	9	0.6%	1	0	0.0%	1	7	1	1,456
970401	2	Telford Park	3.2	0	0.0%	1	301	100	14.0%	4	4	0.5%	1	221	30.7%	6	12	2	720
970402	1	North of Bonneville High School	8.7	18	6.5%	5	283	90	11.7%	3	33	4.4%	4	169	22.1%	6	18	4	765
970402	2	Town of Iona	5.2	14	2.2%	3	646	399	18.7%	5	109	5.1%	5	175	8.2%	4	17	4	2,134
970403	1	North Woodruff Ave Area	3.0	24	2.4%	3	995	465	13.2%	4	81	2.3%	2	266	7.6%	4	13	3	3,516
970403	2	South of Lincoln and west of 45th	0.5	22	3.4%	3	633	16	0.7%	1	24	1.0%	1	148	6.3%	3	8	1	2,337
970403	3	Upland Area	0.5	27	4.0%	4	686	151	7.3%	2	137	6.6%	5	486	23.6%	6	17	4	2,061
970501	1	Center Ammon	5.4	22	1.2%	2	1,841	855	13.7%	4	195	3.1%	3	589	9.4%	4	13	3	6,250
970502	1	Southwest Ammon Area	0.5	16	4.8%	4	338	149	13.4%	4	47	4.3%	4	98	8.8%	4	16	4	1,111
970502	2	Southern Ammon	0.5	46	9.6%	5	474	186	12.0%	3	75	4.9%	4	40	2.6%	2	14	3	1,542
970502	3	Southeast Ammon	1.0	16	3.1%	3	526	115	6.3%	2	107	5.9%	5	43	2.3%	2	12	2	1,822
970503	1	Sand Creek Park	10.3	13	1.4%	2	914	347	12.0%	3	142	4.9%	4	156	5.4%	3	12	2	2,895
970601	1	Northeastern Idaho Falls	0.4	0	0.0%	1	241	142	21.8%	5	20	3.0%	3	46	7.0%	4	13	3	650
970601	2	Idaho Falls, North Hitt Area	0.6	8	2.2%	3	342	147	12.8%	3	46	4.0%	4	46	4.0%	3	13	3	1,149
970601	3	Idaho Falls, Kearney St Area	0.2	0	0.0%	1	385	137	13.3%	4	42	4.1%	4	49	4.8%	3	12	2	1,036
970602	1	Idaho Falls	0.3	23	3.8%	4	603	149	8.3%	2	66	3.7%	3	168	9.4%	4	13	3	1,787
970602	2	West Central Idaho Falls	0.6	77	7.3%	5	1,064	469	17.8%	5	191	7.3%	6	692	26.3%	6	22	6	2,636
970602	3	Idaho Falls, Eastside	0.2	32	6.5%	5	482	237	24.1%	6	33	3.3%	3	133	13.5%	5	19	4	983
970603	1	Idaho Falls, Eastern Idaho Regional Medical Center	1.0	9	1.3%	2	682	362	18.2%	5	78	3.9%	3	68	3.4%	2	12	2	1,986
970700	1	Idaho Falls, North side	0.2	27	6.1%	5	448	269	22.0%	6	61	5.0%	5	150	12.2%	5	21	6	1,225
970700	2	Idaho Falls, Between US Highways 20 and 26, N. Good Samaritan Ctr	2.4	111	13.3%	6	830	294	13.9%	4	145	6.9%	5	474	22.4%	6	21	6	2,113
970700	3	Idaho Falls, North central	0.2	18	4.9%	4	375	176	14.9%	4	142	12.1%	6	207	17.5%	5	19	4	1,178
970700	4	Idaho Falls, Clair E Gale Junior High School	0.2	68	17.9%	6	383	216	21.4%	5	43	4.2%	4	143	14.1%	5	20	5	1,011
970800	1	Idaho Falls, South Central	0.2	13	3.7%	4	356	280	30.3%	6	39	4.3%	4	37	4.0%	3	17	4	923
970800	2	Idaho Falls, South Central	0.1	149	30.4%	6	490	267	25.8%	6	180	17.4%	6	282	27.2%	6	24	6	1,036
970800	3	Idaho Falls, South Central	0.1	13	3.7%	4	349	186	20.8%	5	70	7.9%	6	101	11.3%	5	20	5	895
970800	4	Idaho Falls, South Central	0.2	5	1.7%	2	322	133	15.9%	4	63	7.6%	6	87	10.4%	5	17	4	835
970900	1	Idaho Falls, Central	0.2	13	3.4%	3	388	209	19.2%	5	45	4.2%	4	87	8.0%	4	16	4	1,087
970900	2	Idaho Falls, Ross Stores Inc	0.2	8	1.7%	2	451	257	22.2%	6	62	5.4%	5	108	9.3%	4	17	4	1,155
970900	3	Idaho Falls, Albertsons	0.9	9	1.0%	2	914	378	13.3%	4	55	2.0%	2	20	0.7%	1	9	1	2,838
971000	1	Idaho Falls, Central	0.1	24	8.7%	5	274	110	16.7%	5	41	6.2%	5	36	5.5%	3	18	4	660
971000	2	Idaho Falls, Hawthorne School	0.1	27	9.9%	5	274	100	15.7%	4	64	10.0%	6	18	2.8%	2	17	4	637
971000	3	Idaho Falls, Central	0.1	15	4.9%	4	311	193	25.9%	6	48	6.4%	5	143	19.2%	5	20	5	745
971000	4	Idaho Falls, Central	0.1	0	0.0%	1	299	109	13.4%	4	54	6.6%	5	30	3.7%	2	12	2	814
971000	5	Idaho Falls, Central	0.3	0	0.0%	1	462	305	23.5%	6	28	2.1%	2	36	2.7%	2	11	2	1,298
971000	6	Idaho Falls, Central	1.2	18	5.5%	5	337	114	12.2%	3	50	5.3%	5	136	14.5%	5	18	4	938
971100	1	Idaho Falls, Idaho Falls School District #91	0.2	68	20.1%	6	341	142	16.3%	5	57	6.5%	5	229	26.2%	6	22	6	872
971100	2	Idaho Falls, Melaleuca Inc	0.1	14	3.4%	3	414	72	7.7%	2	49	5.2%	5	180	19.2%	5	15	3	941
971100	3	Idaho Falls, Outer Downtown	0.1	8	2.9%	3	259	126	22.5%	6	47	8.3%	6	90	16.1%	5	20	5	561
971100	4	Idaho Falls, Outer Downtown	0.1	16	6.1%	5	265	98	15.6%	4	20	3.1%	3	29	4.7%	3	15	3	626
971100	5	Idaho Falls, Outer Downtown	0.1	40	10.7%	6	375	70	8.4%	2	34	4.2%	4	230	27.9%	6	18	4	824
971200	1	Idaho Falls; University Place; Idaho National Lab	1.1	0	0.0%	1	309	82	10.1%	3	15	1.9%	1	57	7.0%	4	9	1	815
971200	2	Idaho Falls, Downtown	0.2	18	5.3%	5	352	141	13.0%	4	43	4.0%	4	57	5.3%	3	16	4	1,084
971200	3	Idaho Falls, Downtown	0.3	116	14.2%	6	821	271	14.1%	4	203	10.6%	6	402	20.9%	6	22	6	1,926
971200	4	Idaho Falls, Bechtel BWXT Idaho	0.9	91	25.2%	6	362	95	12.5%	3	14	1.8%	1	249	32.8%	6	16	4	758
971301	1	Idaho Falls, Fanning Field Airport	3.7	34	6.6%	5	511	123	8.7%	2	23	1.6%	1	37	2.7%	2	10	2	1,408
971301	2	Idaho Falls, West	0.3	10	1.6%	2	602	179	9.7%	3	49	2.7%	2	192	10.4%	5	12	2	1,841
971301	3	Idaho Falls, West	0.2	21	4.6%	4	450	183	17.0%	5	81	7.5%	6	175	16.2%	5	20	5	1,078
971301	4	Idaho Falls, West	0.2	0	0.0%	1	434	271	27.5%	6	48	4.9%	4	95	9.6%	4	15	3	983
971301	5	Idaho Falls, West	1.4	0	0.0%	1	225	49	6.6%	2	19	2.5%	2	0	0.0%	1	6	1	743
971302	1	Idaho Falls, Eagle Rock Jr HS, Ethel Boyes HS	0.2	4	1.4%	2	317	172	17.7%	5	28	2.8%	2	44	4.6%	3	12	2	968
971302	2	Idaho Falls, Southwest	0.2	40	10.7%	6	376	139	15.0%	4	14	1.5%	1	179	19.3%	5	16	4	928
971302	3	Idaho Falls, Skyline HS, Gethsemane Christian School	0.7	0	0.0%	1	568	111	6.0%	2	42	2.3%	2	15	0.8%	1	6	1	1,854
971302	4	Idaho Falls, Southwest	1.0	13	2.4%	3	538	71	4.0%	1	42	2.4%	2	58	3.3%	2	8	1	1,774
971400	1	Iona	13.0	11	1.9%	2	568	107	6.1%	2	62	3.5%	3	82	4.7%	3	10	2	1,757
971400	2	Iona	10.0	61	12.1%	6	502	212	15.6%	4	46	3.4%	3	210	15.4%	5	18	4	1,360
971400	3	Sunnyside Elementary HS, Taylor View Junior HS	2.0	0	0.0%	1	759	161	6.0%	2	55	2.0%	2	59	2.2%	2	7	1	2,679
971400	4	Iona	2.0	0	0.0%	1	512	308	19.0%	5	48	3.0%	3	21	1.3%	2	11	2	1,622
Idaho Falls Urban Area Total:				***1,472***	***4.92%***		***29,922***	***11,916***	***13.8%***		***3,826***	***4.4%***		***8,619***	***10.0%***				***86,579***

Source: US Census Bureau and LSC, 2005.

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Results

Figure V-1 presents the Idaho Falls area US Census tracts with the greatest transit need, along with the transit need index. Six US Census tracts were determined to have the greatest transit need. Table V-11 presents information on these six tracts. The greatest transit need is mainly located in the central area of Idaho Falls within US Census tract 970602/block group 2 and US Census tract 970700/block groups 1 and 2. There is also one area of greatest transit need within US Census tract 970800/block group 2. The main areas of the greatest transit need are north of North 49th Street on the east side, the Grand Teton Mall area, the north-central section, and south of downtown along US Highway 26.

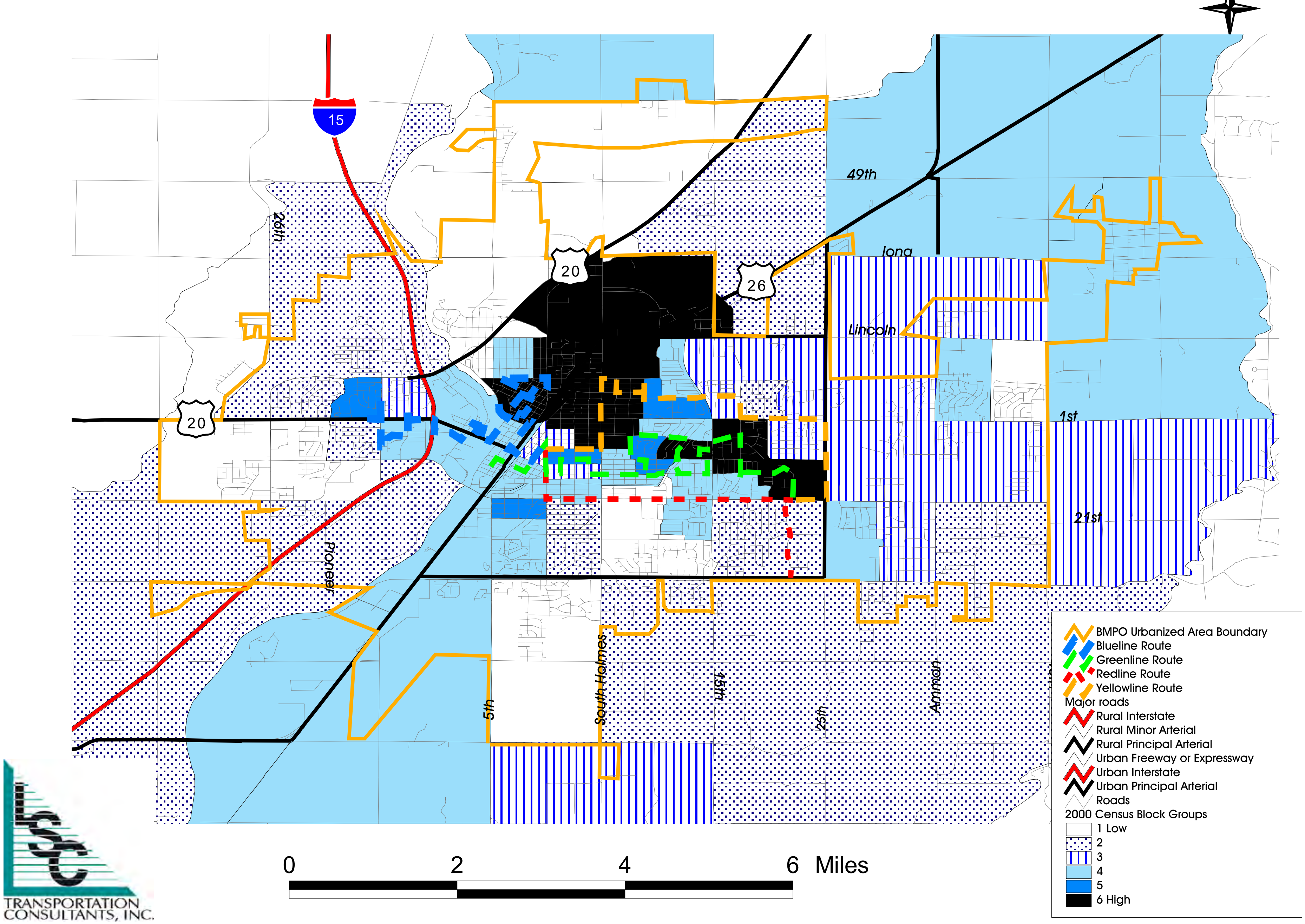
Table V-11
Census Block Groups with Greatest Transit Need

Census Tract	Census Block Group	Description	Overall Score	Final Ranking
970602	2	Idaho Falls, Grand Teton Mall	22	6
970700	1	Idaho Falls, South of Anderson North of Downtown	21	6
970700	2	Idaho Falls, Between US Highways 20 and 26, N Good Samaritan Ctr	21	6
970800	2	Idaho Falls, East of 15th E, along 9th Street	24	6
971100	1	Idaho Falls, Idaho Falls School District #91	22	6
971200	3	Idaho Falls, North End of Downtown	22	6

LSC, 2006.

By identifying those areas with a high need for public transportation, LSC was able to uncover a pattern for the areas with the highest propensity to utilize transit services. Figure V-1 was used to ensure that the areas with a high transit need would be adequately served. Those US Census tracts not scoring in the highest category, but still having a high score, could still be considered a high priority for transit service.

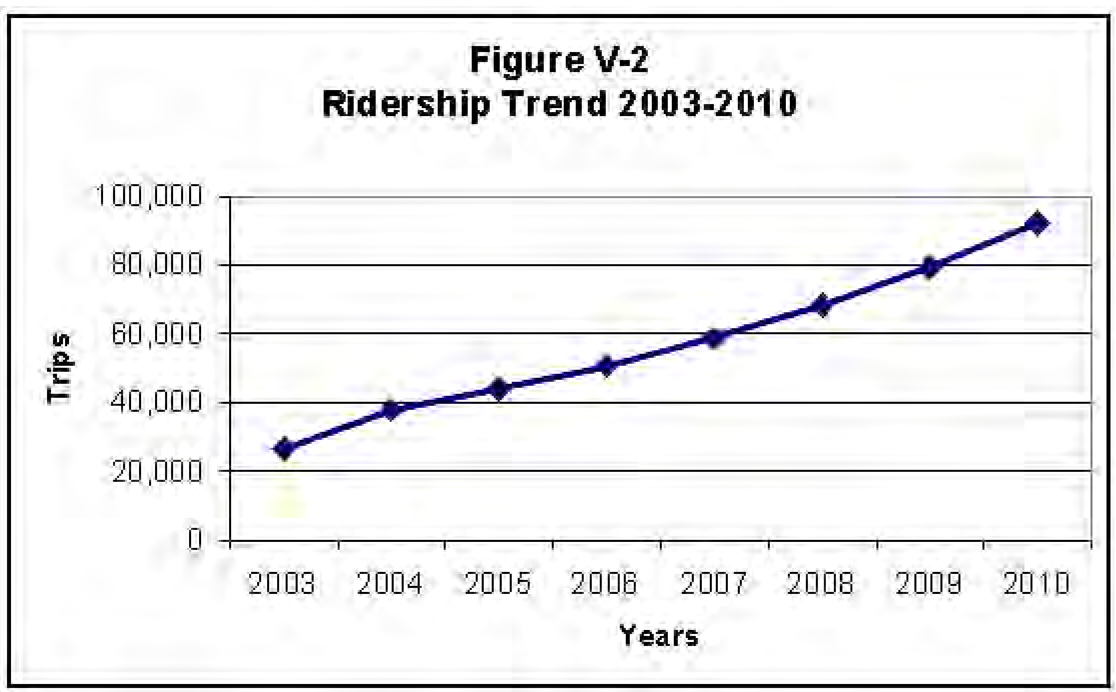
Figure V-1
Greatest Transit Need Index



RIDERSHIP TRENDS

Another approach to looking at short-term transit demand is to evaluate the recent ridership trends. This approach is valid in areas where there are existing transit services, such as in the City of Idaho Falls. The ridership trends for the transit services were presented in Chapter III and are presented again below. Since the LSC team did not receive any trend information from CART, the LSC team used the ridership trends for the TRPTA route service rather than the CART service. Figure V-2 shows the ridership trends and ridership projections (based on the ridership trends). Note that this analysis is based on the existing ridership and is projected to the year 2010. Also note that the ridership trends and projections do not estimate the transit need within the study area.

As shown in Figure V-2, the transit ridership is expected to experience a high increase in the future based on the recent trends and the forecasted population growth from Chapter II. Much of the transit demand pertains to the increase in the elderly population within the study area. The TRPTA transit ridership is estimated at approximately 43,000 annual trips for 2005 and 92,000 annual trips for 2010.



SUMMARY

Chapter V has presented the methodologies for estimating the public transportation service demand within the Idaho Falls area. The methodologies included the Fixed-Route Model, ADA Paratransit Model, Rural Transit Demand Methodology, Greatest Transit Needs Analysis, and Ridership Trends. The LSC team used this information to develop and evaluate the various transit service alternatives for meeting the City of Idaho Falls transit needs presented in Chapter IX.

Chapter VI

TRANSPORTATION
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CHAPTER VI
Onboard Interview Results

INTRODUCTION

Chapter VI presents the results of the onboard interviews for TRPTA. The interview data included such information as: trip characteristics, general transportation information and concerns, and perceptions of the quality of service. The interviews were not conducted to be statistically based, but to obtain opinions on transit issues and perceptions of the transit system (particularly the existing TRPTA system). The interviews were designed as a part of the public involvement process. The questions used in the interviews are presented in Appendix B.

TRPTA ONBOARD INTERVIEWS

The TRPTA onboard interviews were conducted by the BMPO staff during the week of April 17 through 21, 2006. The BMPO staff conducted 40 interviews on the TRPTA buses. The average daily ridership for the TRPTA system is about 170 passengers. Therefore, about 23 percent of the total daily ridership was interviewed. Note that this interview process was not designed to be a statistical analysis of the transit riders, but to provide general input into the public involvement process. The responses from the usable TRPTA onboard interviews (questionnaires) were entered into a spreadsheet for analysis. Following are the key results of the onboard interviews.

Note that interview questions four and five did not provide responses that could be analyzed. Therefore, the LSC team has not included the information from questions four and five in the interview analysis.

Trip Purpose

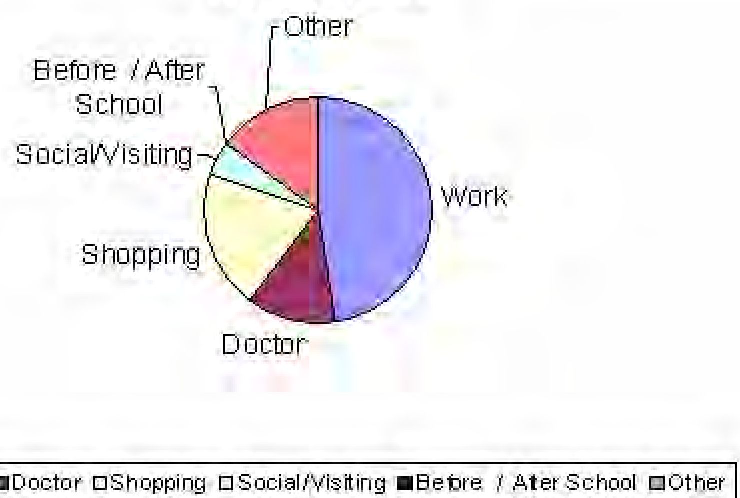
The passengers were asked the purpose of their transit system trip. As shown on Table VI-1 and Figure VI-1, the highest response was to go to work at 48 percent. The second highest response was to go shopping at 20 percent.

Table VI-I
Trip Purpose

	Score	Frequency	Percentage
Work	1	19	48%
Doctor	2	5	13%
Shopping	3	8	20%
Social/Visiting	4	2	5%
Before / After School	5	0	0%
Other	6	6	15%
	Total Surveys	40	

Source: LSC, 2006.

Figure VI-1
Trip Purpose

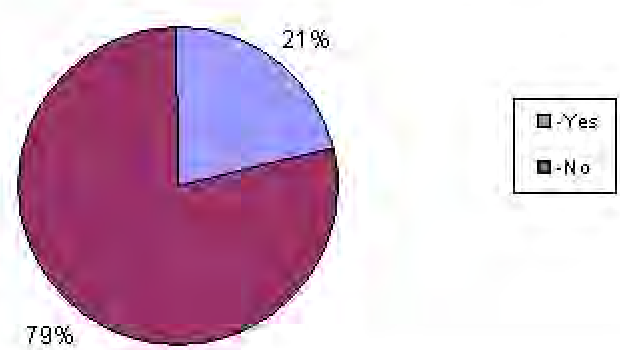


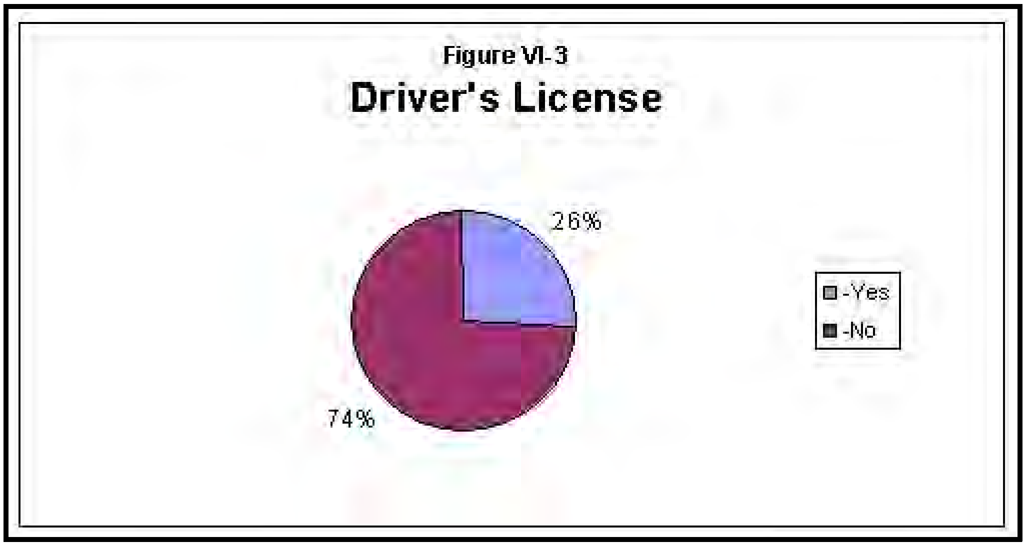
Vehicle Availability

The passengers were asked to indicate their vehicle availability and ability to drive (driver's license), as these factors play key roles in the demand for public transportation. This comparison provides an indication of the number of choice riders compared to those who are transit-dependent.

As shown in Figure VI-2, approximately 79 percent of the respondents did not have a vehicle available, while only 21 percent of the respondents had a vehicle available. About 74 percent of the respondents did not possess a driver's license, while 26 percent possessed a driver's license, as presented in Figure IV-3. Therefore, the majority of the respondents for the TRPTA service are transit-dependent.

Figure VI-2
Vehicle Availability





Perceptions

The passengers were asked to rate the quality of service provided by TRPTA. The possible responses were poor, fair, good, very good, and don't know. Each category was given a numerical value from one to four, and the average response was then calculated for each attribute. An average score of three or higher would indicate positive perceptions for that particular attribute. The responses are shown on Table VI-2.

Table VI- 2
TRPTA Service Rating

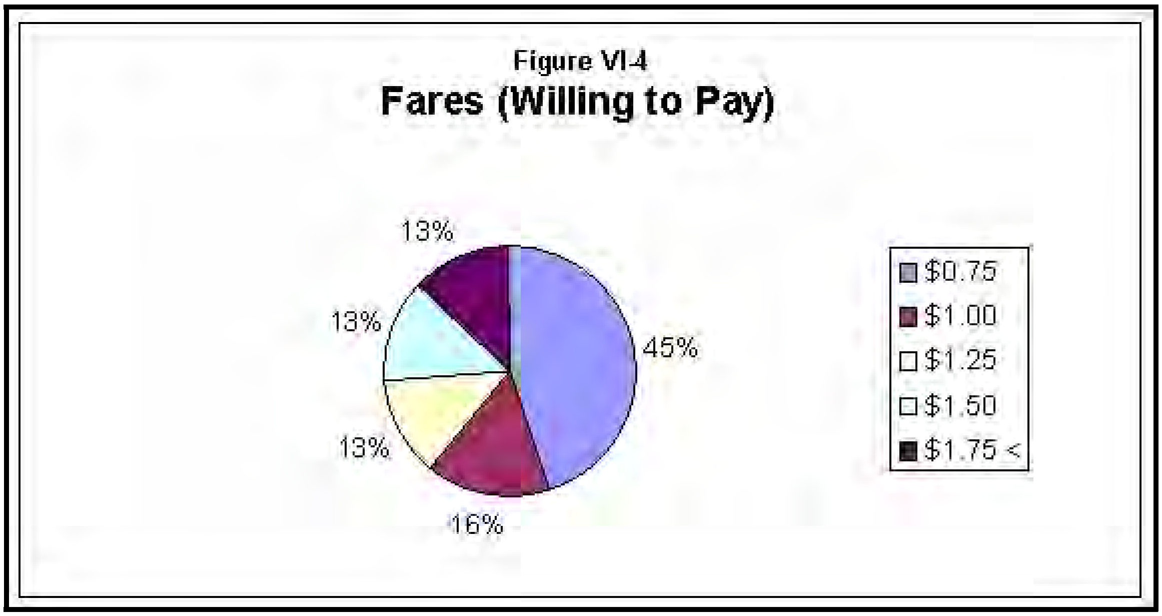
	Rating
Timeliness	3.0
Cleanliness of Buses	4.3
Schedule Reliability	3.0
Driver Courtesy	4.4
Fares	4.1
Overall Service Quality	3.0
Average	**3.6**

Source: LSC, 2006.

The respondents gave the highest scores to driver courtesy and cleanliness of the buses. The respondents gave the lowest scores to timeliness, schedule reliability, and overall service quality. This means that while the overall perception of TRPTA service is low (poor to fair), the view of how the service is conducted is high (good to very good).

Fares

The passengers were asked if the existing fare was a fair price. As shown on Figure VI-4, 45 percent of the respondents would like to pay less than the existing base fare of $.75. The remaining fares of $1.00, $1.25, $1.50, and $1.75 or more had very similar responses, ranging from 13 percent to 16 percent.



Operating Hours

The passengers were asked to indicate if TRPTA operated late enough. About 53 percent of the respondents said that the service operates late enough, while 48 percent said that the service does not operate late enough. Note that all of the checkpoint routes operate until 6:00 p.m.

The passengers were also asked if they preferred additional morning or evening transit service hours. As shown on Figure VI-5, about 72 percent of the respondents said that they would prefer additional evening hours. Note that only 25 of the 40 respondents answered this question. The results show that additional evening service is more important for work and shopping trips than additional morning service.

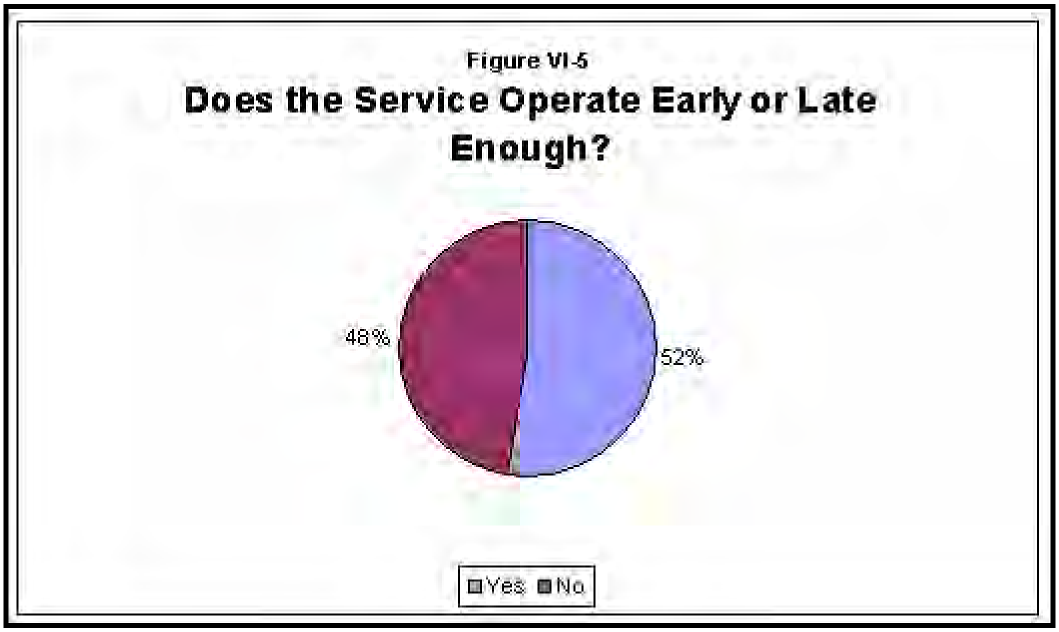


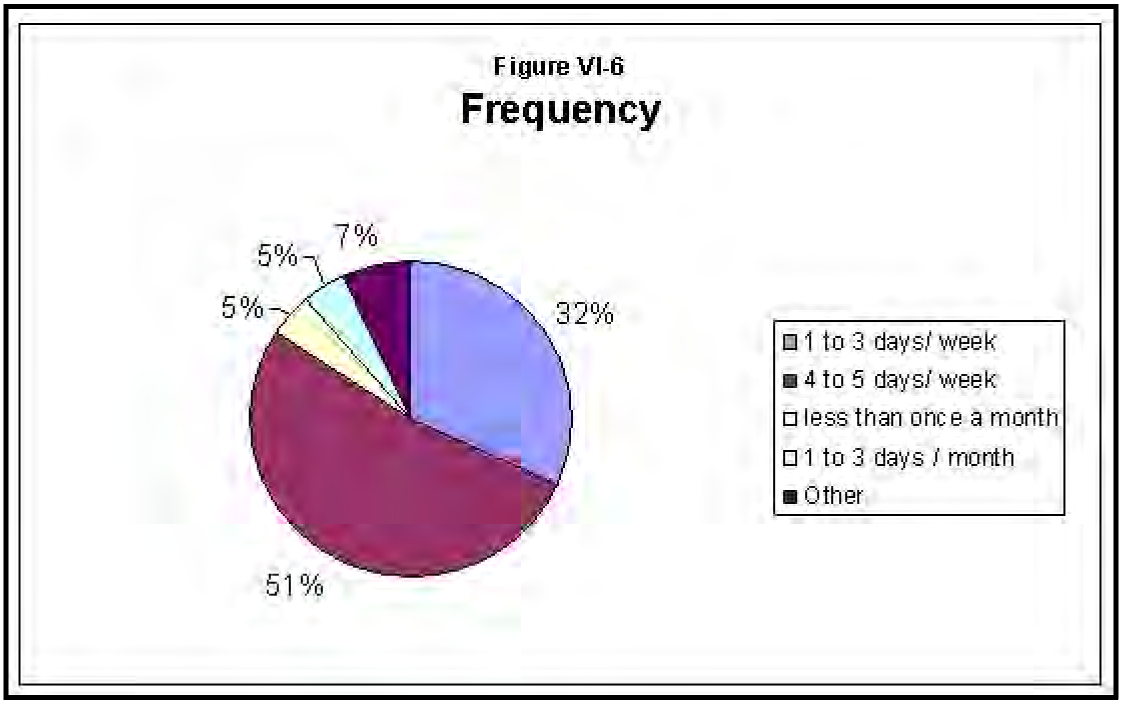
Figure VI-5
Does the Service Operate Early or Late Enough?

Ridership Frequency

The passengers were asked to indicate how often they ride TRPTA during the typical week. As shown on Table VI-3 and Figure VI-6, approximately 52 percent of the respondents used TRPTA at least five days per week, while 32 percent used the transit service one to three days per week.

Table VI-3
Frequency

	Score	Frequency	Percentage
1 to 3 days/ week	1	14	32%
4 to 5 days/ week	2	23	52%
less than once a month	3	2	5%
1 to 3 days / month	4	2	5%
Other	5	3	7%
Total		44	



SUMMARY OF RESULTS

The transit riders interviewed in this process were the traditional transit-dependent users for the Idaho Falls community size. The transit riders generally use the system to travel to work and shopping, have no vehicle, and have no driver's license. They generally use the transit service four to five times per week. The transit riders generally think the transit service is good and meets their general needs. However, they also believe that the transit service should operate additional evening hours and have lower fares.

In addition to the survey information above, individual comments in the interview and in public meetings show that transit service on the weekend is important to respondents.

Chapter VII

TRANSPORTATION
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CHAPTER VII
Goals and Objectives

LSC and the Stakeholder Committee developed a set of goals and objectives to guide the present and future transit operations and the expansion of the transit services in the study area. Many transit issues and goals were identified through the March 7, 2006 Stakeholder Committee meeting, public meeting, and contacts with other key stakeholders in the study area. LSC has refined the goals and developed several specific objectives for the goals. The goals were used to develop and evaluate the transit service alternatives, projects, and programs for the next five years (short term) and 20 years (long range).

TRANSIT VISION

In developing the Short-Range Transit Plan, it is necessary to recognize the goals and objectives of public transportation as they determine the direction to be taken in the plan. The goals and objectives, along with the corresponding performance standards, provide the specific direction for implementation of the transit service.

The vision for transit service in the study area consists of a mission statement, a set of five action goals, and objectives for each goal. The mission statement, goals, and objectives typically form a hierarchical structure with the mission statement being the most general. Goals support the achievement of the mission, and objectives support the goals.

Mission Statement

The mission statement establishes the overall direction of an agency and enumerates the most generalized set of actions to be achieved by an agency. The mission statement for transit service in the study area is as follows:

Mission Statement
The mission of TRPTA is to provide quality, safe, dependable, and courteous transit service to residents and visitors of the Bonneville metropolitan area by developing a transit system that allows for mobility and access to all regions of the Bonneville metropolitan area.

Goals and Objectives

For planning purposes, a goal is defined as a purpose or need that should be attained in order to address a transportation issue. An objective is a specific method or activity that is designed to achieve an identified goal. Based on meetings with the Stakeholder Committee and the public, the LSC team formulated the goals and objectives for the transportation system serving the cities of Idaho Falls, Ammon, Iona, Rigby, Rexburg, Salmon, and Ashton and the Bonneville metropolitan area. The goals and objectives have been reviewed by the Stakeholder Committee and transit staff, and changes were made where appropriate.

Goal #1: Maintain the existing ridership base while attracting new riders

Objective 1.a: Continue to serve the City of Idaho Falls as well as the surrounding rural areas, human services agencies, and medical centers.

Objective 1.b: Improve and expand the TRPTA transit service to the following locations: major employment centers, schools, medical centers, colleges, educational institutions, shopping centers, local recreational areas and parks, and nursing homes.

Objective 1.c: Expand the transit service to include routes and regional connectors to the communities of Ammon, Iona, Rexburg, Ashton, Pocatello, Rigby, and Bonneville County.

Objective 1.d: Maintain the existing level of ridership by continuing to serve the elderly, disabled, those who cannot drive, and those who cannot afford a vehicle.

Objective 1.e: Work with the Bonneville metropolitan area's cities and counties and the Idaho Department of Transportation to develop a series of park-and-ride lots throughout Bonneville County and the surrounding areas, in order to serve the major employment centers (such as downtown Idaho Falls) and tourist locations. Initiate regional service from the park-and-ride lots to the urban and tourist locations.

Objective 1.f: Develop regional service to the major employment and activity centers within the Bonneville metropolitan area.

Objective 1.g: Expand and develop the transit service for students, after school programs, and child care programs.

Goal #2: Continue to provide for the economic sustainability of the transit system

Objective 2.a: Develop a cost allocation system to determine the proportionate share of local funding to be contributed by each local government.

Objective 2.b: Establish a capital and vehicle replacement fund, and allocate local contributions on an annual basis to this savings account. The account should be sufficient to provide the local match funds required to obtain federal grants for the replacement of vehicles and new capital facilities.

Objective 2.c: Invest in smart card technology and new fare boxes.

Objective 2.d: Pursue Federal Transit Administration (FTA) Sections 5307, 5309, and 5311 funding as well as state funding for the operation of transit service in urban and non-urbanized areas.

Objective 2.e: Seek out and apply for grants which may be available for capital or operating support.

Goal #3: TRPTA will provide high quality, customer-oriented service

Objective 3.a: Distribute a rider survey once a year in order to obtain input from the system users on the adequacy of TRPTA's services and any unmet needs.

Objective 3.b: All of the fixed routes in the urban areas should operate on a 30-minute headway during the peak hours and a 60-minute headway during the off-peak hours.

Objective 3.c: The fixed routes in the rural areas should operate on a 90- to 120-minute headway.

Objective 3.d: The fixed routes should be no longer than 45 minutes in travel time from the beginning of the route to the last stop on the outbound direction of the route.

Objective 3.e: Fixed and regional routes should operate on time 95 percent of the time and should arrive no later than five minutes past the scheduled arrival time at each stop along the route.

Objective 3.f: Paratransit service should operate within 15 minutes (plus or minus) of the scheduled arrival time.

Objective 3.g: The fixed and regional routes should operate on the most direct routes between stops and the final destination.

Objective 3.h: Paratransit service should be provided within three-quarters of a mile from the fixed routes according to the ADA minimum requirement.

Objective 3.i: The transit service should operate on a minimum of five days per week in areas with the greatest transit needs, with the eventual growth in transit service on the weekends.

Objective 3.j: Annual training should be provided for all TRPTA employees. This training should include safe driver, medical emergencies, sentivity cases, and general operations on a transit vehicle. All training should be continued based on FTA and national guidelines.

Objective 3.k: The operating policies manual should be reviewed and updated every three years. The initial starting point of the policy review should be based on the year the operational manual and or policy manual was first developed.

Objective 3.l: The weekday transit service hours should be increased in order to cover shift workers and evening hours.

Goal #4: TRPTA will provide efficient, effective, and safe services

Objective 4.a: The urban fixed routes should operate at an average productivity of seven passengers per service-hour. The individual routes should maintain a productivity of at least five passengers per service-hour. Those routes which do not meet the minimum standard should be reviewed annually for service changes.

Objective 4.b: The regional routes should maintain a minimum productivity of five passengers per service-hour.

Objective 4.c: TRPTA should provide transit service to 90 percent of the population in the areas with the greatest transit needs.

Objective 4.d: TRPTA should operate with fewer than 2.5 preventable accidents per 100,000 vehicle-miles.

Objective 4.e: TRPTA should coordinate the transit service with the other transportation providers in order to meet regional transportation needs. A transportation broker service should be created for medical trips.

Goal #5: Promote the services provided by TRPTA

Objective 5.a: Use every opportunity to promote the transit service including, but not limited to, the following ideas:

- Display the telephone number for rides prominently on all fleet vehicles.

- Provide information on the TRPTA, City of Idaho Falls, Idaho Falls Job Services, and District Health Department websites.
- List TRPTA in the regional telephone directory.
- Post flyers with the telephone number and hours of operation at various locations (such as stores, Chamber of Commerce, and motels) within the service area.
- Place regular public service announcements with the newspaper, radio, and television.
- Offer reduced fares to attract ridership during slower times of the day, week, or year.
- Run periodic special promotions, such as summer passes for children or holiday season fares for shoppers.
- Operate special event service to promote the transit service and aid in the reduction of congestion during community events.

Objective 5.b: Develop a public education program on the benefits of transit services and the need to maintain and improve the overall transportation system in the Bonneville metropolitan area.

Chapter VIII

TRANSPORTATION
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CHAPTER VIII

Review of Management and Organizational Structure

INTRODUCTION

The purpose of this chapter is to review the organizational structure, operational procedures, maintenance procedures, and administrative procedures. Of particular interest, this chapter focuses on what needs to be done administratively to prepare the Targhee Regional Public Transit Authority (TRPTA) for the enhanced service described further on in this study.

ORGANIZATIONAL STRUCTURE

Before the first transit passenger can be served, before the first bus can be purchased, and before the first dollar of funding can be generated, an institutional structure must be developed to manage and operate the transit service. The identification of a cost-effective and geographically appropriate institutional form for the provision of transit is thus a key element in the improvement of public transportation services. Obviously, TRPTA has an existing organizational structure; however, the purpose of this section is to describe possible organizational structures TRPTA may wish to investigate.

TRPTA operates its public transit service using a combination of FTA grants, contracts with other entities, passenger fares, and local government financial support. The present organizational structure has managed to support the provision of public transit service over the years and should be able to operate the system into the future.

The current structure does reflect an ongoing long-term commitment to the provision of transit service, but does not provide a dedicated long-term funding source. Transit Authority organizational structures in Idaho do not have the regulatory authority to seek a dedicated tax. It is difficult to rationally plan for the long-term provision of transit service. The amount of service to be provided from one year to another is not known until the funding sources are determined. Therefore, it may be time for TRPTA to consider an organizational structure that can obtain a dedicated funding source.

An important objective of this study is to present recommendations for an institutional framework and a financing plan for public transit which are acceptable to the parties involved and which can be realistically implemented. With this goal in mind, the following discussion presents an analysis of the most appropriate alternatives and a basis for decision-making.

Criteria for Institutional Structures

Transit services throughout the United States have a variety of organizational homes, from independent agencies (such as Huntington, West Virginia; Aspen, Colorado; and Crested Butte, Colorado) to transit districts (such as the Dawson County Transit District, Montana and Utah Transit Authority) to departments of a municipal government (such as Pocatello, Idaho) to departments of county government (such as Summit County, Colorado) to nonprofit agencies (such as Casper, Wyoming).

Based upon the history of transit organizations serving scattered urban areas and areas with low population densities, the following criteria should guide the selection of the institution for managing and operating improved transportation services within the BMPO planning area.

The institutional structure should be an entity:

- whose structure is legitimate.
- whose policy-making actions are authorized and defensible.
- which can limit the exposure of the participants to suits and claims of liability.
- which can be responsive to the complete policy-making and management needs of the transit organization.
- which has the political and financial support to endure more than one year at a time.

- which can annually perform proactive planning to improve the system, and can effectively identify and implement improvements regularly and easily.
- which has a full-time management/coordinator position that deals with all operational and administrative issues for transit, and works to improve the visibility of transit within the community through an aggressive marketing program.

Alternatives for the Targhee Regional Public Transit Authority

Department of Local Government

The advantage to a department of local (city or county) government organizational structure is that a local government system has the broadest possible tax base. The disadvantages of a local government-operated system are that transit may not be a high priority) and there may be little long-term stability in transit service funding.

Regional Public Transit Authority

Regional public transportation authorities are complex organizations. The organizational structure is determined in part by statute and in part by the intergovernmental agreement creating the district. There is considerable flexibility in designing an organization that has the support of the member governments and the public. One significant advantage of the regional public transportation authority is the capability to bring several municipalities and counties together in funding and operating a transit system. The regional public transportation authority must be approved by the local residents, which requires a significant grassroots public education effort to rally support for public transportation.

TRPTA's current organizational structure is a regional public transportation authority. The organizational structure has worked well in the past few years. The existing system has all but one of the general elements of a regional public transportation authority—the ability to levy a tax in order to cover the operating costs of the transit system. TRPTA's board should consider joining together with other regional transit authorities in Idaho to petition the State to allow regional public transportation authorities to obtain voter approval in order to apply a levy. A significant grassroots public education effort would need to be conducted in order to obtain voter approval of TRPTA creating a tax.

Intergovernmental Transit Agency

An intergovernmental transit agency is the last alternative presented for the Targhee Regional Public Transportation Authority. The intergovernmental agency could be formed by the City of Idaho Falls, Bonneville County, and other communities in the study area. The governing board would have equal representation from each entity. This type of agency has been successfully implemented in other locations. If provided with strong and long-term intergovernmental funding agreements, the intergovernmental transit agency structure provides stability and helps ensure the continuation of transit service within the community. This structure would replace the existing public transportation authority.

Organizational Structure Summary

Table VIII-1 ranks each institutional alternative according to four factors: legal capability, revenue generation capacity, administrative impacts, and political acceptability. Legal capability refers to the existence of statutory authority. Revenue generation capacity refers to the capability of funding sources to generate adequate funding levels relative to the projected subsidy requirements. Administrative impacts refer to the level of effort involved in implementing a funding mechanism and the ability to provide coordinated service throughout the TRPTA Region. Political acceptability refers to the likelihood of a given funding mechanism to be accepted by the public and the local elected officials.

Table VIII-1
Institutional Alternatives Comparison Matrix

Institutional Alternative	Legal Capability	Revenue Generation Capacity	Admin. Impacts	Political Acceptability
Local Govt. Department	■	■	□	□
Regional Transportation Authority	■	□	■	⊡
Intergovernmental Agency	■	⊡	⊡	⊡

Legend: ■ = strong/acceptable
⊡ = moderate/satisfactory
□ = weak/unacceptable

Source: LSC, 2006.

The first column (legal capability) in Table VIII-1 shows that all of the alternatives are permitted legally, with each alternative having the same authority to engage in certain activities related to revenue generation. The second column (revenue generation capacity) indicates that there is a range from strong to weak of the alternatives' abilities to generate funding under existing state law. The third column (administrative impacts) reflects that there would be various administrative impacts to providing transit under a new framework. A regional transportation authority is rated as the most acceptable because it is the existing system for TRPTA and that this alternative scored highest in both legal and administrative capabilities. An intergovernmental transit agency is rated as having moderate administrative impact, while a department of the county is rated the weakest. All of the alternatives are rated as having moderate or weak political acceptability, including the existing regional transportation authority. Based on the above information, the existing organizational structure is the best in order to serve the transit systems needs.

ADMINISTRATIVE STRUCTURE

For a short time, one of TRPTA's board members was the General Manager (did not handle day-to-day operations). Now there is an Executive Director/General

Manager. There was a short time when there were two transit managers (one who oversaw the fixed-route service and one who oversaw the rural transit system) and two dispatchers. This is no longer the case. The Planning Team recommends the following job descriptions for each position.

Transit General Manager (Reports to TRPTA Board)

1. Develops and administers operational policies and procedures; enforces compliance with rules and regulations.
2. Develops, administers, and monitors the transit budget to include overseeing and approving purchasing procedures.
3. Researches and resolves complaints and problems; develops customer surveys to determine customer satisfaction.
4. Represents TRPTA at meetings and on committees for transportation; provides administrative and technical support for the Transit Advisory Committee.
5. Supervises staff to include: assigning and reviewing work, ensuring staff are properly trained, evaluating performance, approving time off, handling disciplinary actions, and making hiring and termination recommendations.
6. Is TRPTA's liaison on transit matters with the Idaho Department of Transportation and the Federal Transit Administration.
7. Prepares transit reports; researches and applies for local, state, and federal funding.
8. Actively promotes public transportation within the community and develops marketing strategies to increase ridership and positive public perception.
9. Develops transit goals and objectives; develops short- and long-range plans.
10. Performs contract management to include: negotiating contracts, preparing contracts, and making or receiving payments.
11. Develops Annual Report on transit operations.

Transit Manager (Reports to Transit General Manager)

1. Supervises and coordinates daily transit operations to include: coordinating usage of vehicles, developing methods of operation to meet the public demand for service, monitoring and assigning work of staff, and completing performance evaluations.
2. Assists in the development and administers operational policies and procedures; enforces compliance with rules and regulations.
3. Researches and resolves complaints and problems concerning transit operations.

4. Participates in meetings and serves on committees for transportation/transit issues.
5. Assists in preparing the transit budget and tracks the budget.
6. Assists in the development of reports and oversees data collection.
7. Participates in purchasing materials and supplies.
8. Performs other duties of a similar nature or level.

Lead Dispatcher (Reports to Transit Manager)

1. Assigns and monitors work; provides employee training on proper methods and procedures.
2. Coordinates the repair and maintenance of fleet vehicles by development of work orders, scheduling and monitoring work, service schedules, and tracking expenditures.
3. Orders and picks up supplies and other materials.
4. Completes and maintains required reports which include updating databases, coding and tracking expenditures, and informing supervisor of daily divisional activities.
5. Conducts daily road supervision and responds to vehicle accidents involving transit vehicles.

The existing administrative budget should be able to cover these positions since there are no additional administrative positions recommended. The new administrative structure will also establish a clear chain of command.

DISPATCHING AND SCHEDULING

TRPTA operates a Flex Zone service in which four fixed routes have been established that can "flex" within three-quarters of a mile of the fixed route to pick up passengers. Passengers that are picked up off the fixed route must call in to reserve a time to be picked up. A schedule is then developed using Microsoft Excel that shows the time, date, pick-up location, destination, name of the customer, the customer's phone number, and columns that the driver needs to fill out to show if the customer rode the trip or if they cancelled. This system has become so successful that TRPTA is finding it difficult to operate all the trip requests.

TRPTA may wish to look into the purchase of a computer software and hardware system for scheduling and dispatching paratransit trips. This computerized system would replace the existing manual system currently in place and would make scheduling and dispatching much easier, as well as more efficient and effective. This type of system may help in allowing TRPTA to better facilitate the requests for service with which they are now having difficulty.

Urban transit systems receiving formula funds, such as TRPTA, are required to report data to the National Transit Database (NTD). Urban systems have to report the following:

- Total Annual Revenue
- Sources of Revenue
- Total Annual Operating Costs
- Total Annual Capital Costs
- Fleet Size, Type, and Facilities
- Revenue Vehicle Mileage
- Ridership

Most of these data can be collected using the computerized dispatching software, thereby eliminating time-consuming manual input of data. The software can also be programmed to place these data into report formats.

Other high tech advancements to aid flex routing, demand-response, and para-transit service are the Mobile Data Terminal (MDT), Automatic Vehicle Locator (AVL), and the Global Positioning Satellite (GPS) system. Once dispatch develops the automated schedule, a manifest is transmitted to the MDT onboard each van. The MDT video screen continuously updates and reviews, as necessary, the pick-up and delivery points for the day, and guides the driver with a visual map that also broadcasts directions using the GPS.

The MDT also provides continuous electronic updates to each driver's route, such as reporting a bus out of service that means additional pick-ups for other vehicles, a customer cancellation, or a delay. It allows drivers and dispatchers to interact quickly and efficiently to provide effective public transportation service.

The AVL is a GPS-based system that picks up signals every second via a satellite beam, records the bus's location and speed at one-minute intervals, and simultaneously communicates the information to operations so dispatchers can optimize efficiency when they have to adjust daily schedules. A great advantage of this technology is the ability for customers to make "real time" reservations.

Safety and security can be enhanced with a surveillance and motion indicator system. The system consists of surveillance cameras and microphones, with continuous loop recordings for both the outside and inside of the van, along with a G-force indicator system that provides an integrated record of events to dispatch. This record of events can be downloaded through a wireless local area network each time the bus drives into the vehicle maintenance facility.

The G-force indicator flags the feed from the surveillance cameras whenever the driver pushes a button, and/or the feed from the system kicks in automatically because the van's motion exceeds a prescribed force level. Automatic flags include braking too hard, taking a corner too fast, a collision, or accelerated speed. The driver also may push the flag button to record a customer interaction. All recorded activity inside and outside the vehicle can be set up for timely replay that can enhance coaching and training for drivers or create evidence for customer or employee issues.

MAINTENANCE PROCEDURES

The Planning Team is quite impressed with the current maintenance performed on the TRPTA fleet and sees no need to change the current procedures. The Planning Team has reviewed work orders of maintenance performed on the fleet and find them to meet industry standards for labor and materials costs. The Planning Team has also reviewed the TRPTA Fleet Maintenance Plan and has found it informative and in-depth. At this time we recommend no significant changes to the existing procedures.

RECOMMENDATIONS

As previously mentioned, the regional transportation authority has political advantages such as coordinating multiple agencies into a single agency, and disadvantages related to the strong powers. At this time, LSC Transportation Consultants, Inc. recommends that TRPTA remain with the existing organizational structure of a regional transportation authority. The regional transportation authority organizational structure would aid in TRPTA's plans to expand to regional service. It is also recommended that TRPTA work with other regional transit authorities in the State of Idaho to allow those authorities to be able to levy a tax (with voter approval) that would allow for a stable funding source for the authorities.

It is also recommended that TRPTA adopt the administrative structure described earlier in this chapter. This administrative structure would fill one of the key criteria of a successful institutional structure and allow for the transit operation to grow in an orderly, supervised manner.

Chapter IX

LSC TRANSPORTATION CONSULTANTS, INC.

CHAPTER IX

Service Alternatives

INTRODUCTION

The basis for any transit plan is the careful consideration of the realistic transit service alternatives. Capital requirements, financial plans, and management options can then be developed to support the planned transit services. Each transit service alternative must be evaluated using the locally-established goals and objectives. Only the alternatives that support the mission statement of public transportation and the corresponding goals and objectives should be considered for implementation. In order to evaluate the alternatives, a review of the different types of transit services needs to be conducted. The following sections detail the difference types of transit services that could be implemented in the study area.

TYPES OF TRANSIT SERVICE

The term "transit service" encompasses a wide range of alternatives. Traditionally, people think of transit service as buses operating on a strict schedule. A number of other transit service alternatives exist, such as demand-response service and commuter transportation.

Fixed-Route Service

Fixed-route transit service fits the popular description of a bus system, with transit vehicles operating on specified routes and following set schedules. Specific transit stops are typically identified for the locations where passengers will be picked up and dropped off. Routes are usually laid out in either a radial or grid pattern.

Fixed-Route Service

Radial Route Structure

In a radial route structure, all of the routes originate from a common point and extend to outlying areas. The central location serves as a transfer point and is frequently located at a destination with high transit activity. In many communities, this is the central business district or downtown area.

Grid Route Structure

In a grid route structure, all of the routes function along a two-way direction (either north/south or east/west). The routes are normally spaced at equal distances if the roadway structure permits. This structure has no center transfer location. The transfers are conducted at the intersections of the routes. This type of service is mainly used in urban areas where the population density is greater and equally distributed across the area.

Suburban Service Route Structure

In suburban areas, fixed-route service may be provided between major communities with connections to local services that operate within the communities. In many urban and suburban areas, this type of service will be either express or limited express routes. In rural areas, commuter service will be used to link rural communities together or link rural areas with urban areas.

Hybrid Route Structure

A hybrid route structure combines the elements of the radial, grid, and suburban service route structures into an single interconnecting network. The hybrid route structure has transit vehicles that operate in different methods. The first are vehicles that operate on a fixed-route function in the grid or radial structure. These vehicles stop at every transit stop along a fixed route. The function of this tier of service is to collect transit riders along the route. The next tier of the hybrid network is the transit buses that function for regional service. These vehicles will have transit stops at major destination points in one community or only one stop in each community. The function of the regional service route structure is to move transit riders quickly across a community or region. The hybrid type of service is many times called a hop, skip, and jump system. The main purpose of the hybrid service structure is to allow transit users to travel more like individuals in automobiles.

Summary

Fixed-route service is particularly convenient for passengers without disabilities. Research has shown that fixed-route passengers are willing to walk up to one-quarter mile to reach the bus stop. Therefore, a fixed-route service pattern may be efficiently laid out with the routes having one-half mile spacing. However, those individuals with mobility impairments may have difficulty in accessing the fixed-route system.

The advantages of fixed-route service are that it can be provided at a relatively low cost on a per passenger-trip basis, schedule reliability is high since the buses do not deviate from their routes, service does not require advance reservations, and service is easy to understand.

Fixed-route transit service is seldom attractive for individuals with automobiles in smaller communities and rural areas. A private automobile offers flexibility compared to the rigid schedule of a fixed-route system. The need to walk even a few hundred feet to a transit stop, wait for a vehicle, and the comparatively slow travel time can discourage individuals from using a transit system. Where there are significant congestion issues or limited parking availability, fixed-route service becomes a more attractive alternative. The low cost of transit as compared to owning and operating a private automobile can also be attractive, especially for working couples who may be able to use the bus rather than own two vehicles.

However, fixed-route operations lack the flexibility to meet the needs of passengers with any special requirements in low density areas. The Americans With Disabilities Act requires that communities with fixed-route transit service also provide complementary paratransit service that operates, at a minimum, in a three-quarter mile radius of each fixed route. Paratransit service is typically much more costly to operate than fixed-route service because of the characteristics of the service. Fixed routes are established to meet the highest demand travel patterns, while paratransit service must serve many origins and destinations in a dispersed pattern.

Service Routes

One concept which is being implemented in some communities as an alternative to traditional fixed-route or demand-response service is the service route. A service route is essentially a fixed-route specifically designed to serve the elderly and disabled. Typically, a service route winds through residential neighborhoods with high concentrations of elderly and disabled persons in a pattern that passes within a block or two of all houses. It also directly serves important destinations, such as senior centers and commercial areas. The service provides a higher in-vehicle travel time and a longer wait for the bus than would normally be acceptable to the general public. The Bus (operating in Butte, Montana) and MET (in Billings, Montana) provide successful service routes to their local residents.

Flexible-Route Service

Another alternative is flexible routes such as route deviation, flex routes, or checkpoint service. With flexible routes, vehicle dispatching and scheduling must be done carefully to ensure that vehicles are available to serve the designated stops at the scheduled times. To provide a reasonable amount of flexibility, a lenient definition of on-time performance is typically used. A reasonable policy for flexible-route service is a 10 to 15-minute window at each designated stop. Flexible-route service is used to expand the potential service area and is commonly used in low density areas. The following sections detail the different types of flexible-route service that are commonly used.

Demand-Response Service in small communities

Route Deviation

With route deviation, transit vehicles follow a specific route, but leave the route to serve demand-response origins and destinations. The vehicles are required to return to the designated route within one block of the point of deviation to ensure that all of the intersections along the route are served. The passengers on the bus may have a longer travel time than for fixed-route service and the service reliability is lower. However, the ADA-mandated complementary paratransit service is not necessary, since the bus can deviate from the route to pick up disabled passengers. Those costumers that need the bus to deviate will need to make an advance reservation with the transit service up to 24 hours ahead of time. Advance reservations are needed so that the vehicles can be scheduled for pick-up and drop-off along the scheduled run.

Flex Route

Flex route is very similar to deviation service in that the transit vehicle follows a specific route, but leaves the route to serve demand-response origins and destinations. The difference is that, in the flex-route service, the vehicle must only return to the route before the next transit stop. The distance between transit stops will determine the size of the deviation that the vehicle could make. For flex-route service, the demand-response rider must make advance reservations. The ADA-mandated complementary paratransit service is not necessary since the bus can deviate from the route to pick up disabled passengers.

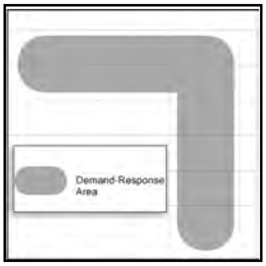
Checkpoint Service

Under checkpoint service, the vehicles make periodic scheduled stops at centers of activity (such as program sites, shopping areas, or residential communities). The specific routes are not established between checkpoints, thereby allowing the vehicles to provide demand-response service and alleviate the need for the ADA-complementary paratransit service. Riders are picked up, typically at a reduced fare, at the checkpoints and are taken either to another checkpoint or to a demand-response specific destination. Service between the checkpoints does not require advance reservations. However, service from any other location on a demand-response basis requires advance reservations so that the vehicles can be scheduled for pick-up and drop-off. Checkpoint service offers an advantage over route deviation because there is no specified route for the vehicles to use. Checkpoint service requires only that the vehicle arrive at the next checkpoint within the designated time window.

Checkpoint Service

Demand-Response Service

Demand-response service, frequently termed dial-a-ride, is characterized as door-to-door transit service scheduled by a dispatcher. With demand-response service, advance reservations are typically required, although some immediate requests may be filled if time permits and if the service is particularly needed. CART service in the urban area operates as a demand-response system.



Demand-Response Service

The concept of demand-response service was originally developed in the early 1970s as an alternate form of public transportation for the general public. The original efforts proved to be more expensive than envisioned and did not attract the ridership that was forecast. As a result, demand-response service has been used in the United States almost exclusively for elderly and disabled passengers. However, many communities are beginning to recognize the advantages of demand-response service for low density areas with low levels of transit demand. Improved technology has led to improvements in dispatching and scheduling, which has increased the efficiency of demand-response service and allows for real-time dispatching.

TRANSIT ALTERNATIVES

Maintain Status Quo

A good starting point for the evaluation of service alternatives is the consideration of the status quo. The status quo alternative involves no change in the service that is provided by TRPTA. The status quo alternative is a viable option which may be appropriate when the current service meets the community's needs and satisfies the goals and objectives for public transportation services.

The existing checkpoint and demand-response services operate up to nine vehicles per day. The annual cost is estimated at $1.03 million for 24,190 total revenue-hours, which equates to an average revenue-hour cost of $42.80. The estimated total number of annual passengers is 82,066, which equates to a $12.62 cost per passenger.

The number of trips served by TRPTA has continued to increase over the past four years. This trip increase normally causes an increase in the overall cost of the service when the system is based on demand-response service. Demand-response services does not create an economy of scale. Therefore, the cost of every additional trip is equal to the cost of any other trip. If the cost of a trip is $12.62, the overall cost increases by $12,620 if the system adds 1,000 more trips.

Table IX-1 presents the estimated demand model for the existing service. The results show that there is a very low level of service, with 67,500 to 82,000 annual trips. The largest single factor that could be expected to impact the City of Idaho Falls over the next 10-year planning period is population growth, which will result in an increase in the demand for transit service.

Based on the information in Chapters II through VIII, the status quo alternative would not meet the needs, goals, and objectives of the community. Further, the status quo alternative may not aid the TRPTA in the development of a secure funding source. The existing service is very expensive and inefficient when compared to other transit systems.

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Table IX-1

Existing Fixed-Route Model - Idaho Falls - 2005

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	399	0	56	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970300	1	529	13	80	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	1	440	9	29	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	2	301	0	121	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970402	1	283	18	70	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970402	2	646	16	92	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	1	995	41	240	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	2	633	28	177	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	3	686	29	212	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970501	1	1,841	51	482	15%	8	72	0.11	0.02	1,000	1	1.1	60	0.6	0.85	1	1	2
970502	1	338	15	45	50%	8	23	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	0	1
970502	2	474	42	89	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970502	3	526	21	68	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970503	1	914	17	185	15%	3	28	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	1	1
970601	1	241	0	66	50%	0	33	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	1
970601	2	342	7	101	75%	5	76	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
970601	3	385	0	111	100%	0	111	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
970602	1	603	21	215	100%	21	215	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	4	6
970602	2	1,064	85	471	100%	85	471	0.11	0.02	500	1.25	1.2	60	0.6	0.85	7	10	17
970602	3	482	28	173	100%	28	173	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	4	6
970603	1	682	8	127	100%	8	127	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	3	3
970700	1	448	24	148	100%	24	148	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	3	5
970700	2	830	105	439	50%	52	219	0.11	0.02	500	1.25	1.2	60	0.6	0.85	4	4	9
970700	3	375	17	82	100%	17	82	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970700	4	383	64	143	100%	64	143	0.11	0.02	500	1.25	1.2	60	0.6	0.85	5	3	8
970800	1	356	12	71	100%	12	71	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	1	2
970800	2	490	154	231	100%	154	231	0.11	0.02	500	1.25	1.2	60	0.6	0.85	13	5	17
970800	3	349	11	86	100%	11	86	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970800	4	322	5	113	100%	5	113	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	3
970900	1	388	12	107	100%	12	107	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
970900	2	451	7	85	100%	7	85	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	2
970900	3	914	9	119	100%	9	119	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	3
971000	1	274	22	131	100%	22	131	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	3	4
971000	2	274	25	112	100%	25	112	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	2	4
971000	3	311	14	115	100%	14	115	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	4
971000	4	299	0	99	100%	0	99	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
971000	5	462	0	90	100%	0	90	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
971000	6	337	17	90	15%	3	14	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971100	1	341	66	131	100%	66	131	0.11	0.02	500	1.25	1.2	60	0.6	0.85	5	3	8
971100	2	414	12	189	100%	12	189	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	4	5
971100	3	259	7	129	100%	7	129	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	3	3
971100	4	265	15	72	100%	15	72	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	1	3
971100	5	375	38	183	100%	38	183	0.11	0.02	500	1.25	1.2	60	0.6	0.85	3	4	7
971200	1	309	0	101	50%	0	50	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	1	1
971200	2	352	17	120	100%	17	120	0.11	0.02	500	1.25	1.2	60	0.6	0.85	1	2	4
971200	3	821	109	416	100%	109	416	0.11	0.02	500	1.25	1.2	60	0.6	0.85	9	8	17
971200	4	362	84	186	100%	84	186	0.11	0.02	500	1.25	1.2	60	0.6	0.85	7	4	11
971301	1	511	31	97	15%	5	15	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	1
971301	2	602	10	183	50%	5	92	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	2	2
971301	3	450	19	139	100%	19	139	0.11	0.02	500	1.25	1.2	60	0.6	0.85	2	3	4
971301	4	434	0	200	100%	0	200	0.11	0.02	500	1.25	1.2	60	0.6	0.85	0	4	4
971301	5	225	0	64	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	1	317	4	102	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	2	376	42	200	100%	42	200	0.11	0.02	500	1.25	1.2	60	0.6	0.85	4	4	8
971302	3	568	0	37	15%	0	5	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971302	4	538	11	79	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	1	568	10	77	15%	2	12	0.11	0.02	1,000	1	1.1	60	0.6	0.85	0	0	0
971400	2	502	56	86	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	3	759	0	13	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	4	512	0	50	0%	0	0	0.11	0.02	2,500	0.4	0.5	60	0.6	0.85	0	0	0
Subtotal		29,927	1,480	8,326		1,017	5,432											

Estimated Weekday Ridership 194

Demand Response 99

Total Daily Ridership 293

Source: LSC, 2005.

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Alternative I: Restructured Hub-and-Spoke System

The restructured hub-and-spoke system with paratransit service would improve service to those areas of greatest transit demand within the existing budget. Table IX-2 presents the details of Alternative I. Figure IX-1 presents the proposed route structure of Alternative I.

The objective of Alternative I is to improve the system and service by linking the routes at central locations and regulated times (60-minute headways). The routes would be aligned to function in conjunction with each other, in order to increase mobility and access throughout the service area. Paratransit (demand-response) service would operate three-quarters of a mile from the routes for those individual who are ADA eligible.

Alternative I moves the existing system from the checkpoint and demand-response services to a more urban transit system with fixed routes and a central hub to transfer from route to route. The hub would be located at the Aquatic Center near the downtown area. Six routes in the system would link at the hub and then travel outward through the city to connect with the major transit destinations. The system would operate 11 hours per day. LSC has also included in Table IX-2 the additional cost of evening, Saturday, and peak-hour service.

Blue Route

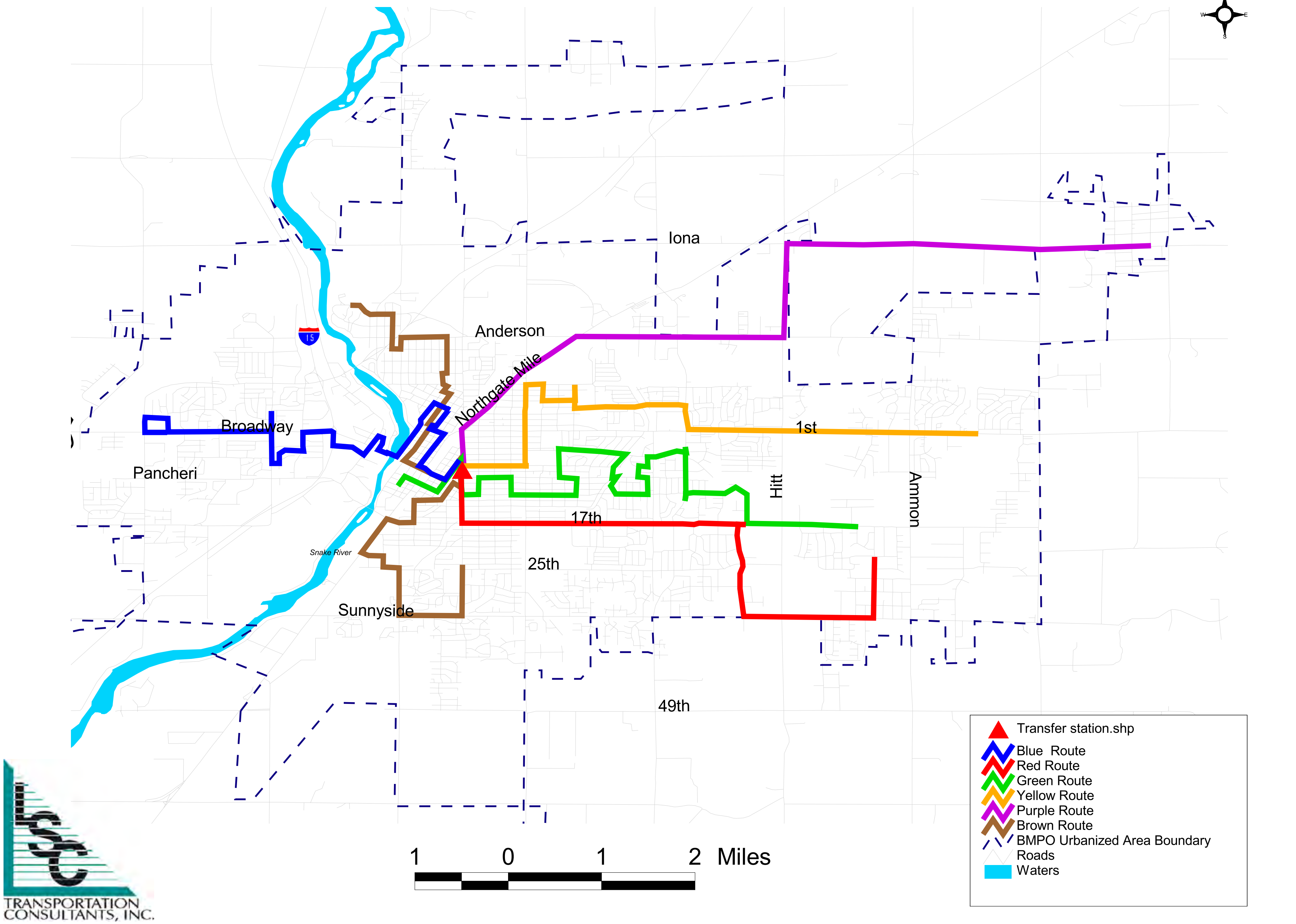
The Blue Route would operate from downtown west to Bellin along Elm, loop north through downtown to Memorial, run south to Broadway, and cross the river to the west side of the city. The bus would deviate twice off of Broadway and end at Bellin. The bus would return to the transfer station via the reverse route. The Blue Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Blue Route is $82,700 with about 16,046 passengers annually.

Table IX-2

Alternative I – Restructure Hub-and-Spoke

Route	Buses Peak Time	Buses Off-Peak	One-Way Distance	Two-Way Distance	Speed	Travel Time (min)	Peak Headways (min)	Off-Peak/ Weekend Headways (min)	Peak Revenue-Hours	Off-Peak Revenue-Hours	Hourly Cost	Peak Time (4hrs)	Off- Peak Time (8 hrs)	Daily Cost	Weekends (day)	Annual Cost
Blue Route		1	6	12	14	54	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Red Route		1	6	11	14	48	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Green Route		1	8	15	16	57	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Yellow Route		1	6	12	13	53	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Purple Route		1	7	14	16	54	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Brown Route		1	7	14	15	56	0	60	0	11	$29.48	$0.00	$324	$324	$0	$82,679
Paratransit		3			10				0	33	$29.48	$0.00	$973	$973	$0	$248,037
Total	0	9											**$2,918**	**$2,918**	**$0**	**$744,112**
Evening Service		9				54		60		27	$29.48		$796	$796		$202,940
Saturday Service		9				54		60		99	$29.48		$2,918		$2,918	$151,740
Peak-Hour Service		6					27		24	0	$29.48	$707.41		$707		$180,391
Grand Total																**$1,279,182**

Figure IX-1
Restructured Hub and Spoke



Red Route

The Red Route would operate from the Aquatic Center transfer station, travel south along South Boulevard to 17th Street to Channing, turn south to Sunnyside, and then run north on Midway. The bus would return to the transfer station via the reverse route. The Red Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Red Route is $82,700 with about 15,700 passengers annually.

Green Route

The Green Route would operate from downtown along Chamberlain, travel along Maple and Ridge to the Aquatic Center transfer station, run east on 9th Street, travel along John Adams and 12th Street, turn south to Woodruff, run along 12th Street and 17th Street, and end at Kmart. The bus would return to the transfer station via the reverse route. The Green Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Green Route is $82,700 with about 25,400 passengers annually.

Yellow Route

The Yellow Route would operate from the Aquatic Center transfer station, travel east along 7th Street to Holmes, turn north to Garfield, run east and then south, and use 1st Street to travel east to Crimson. The bus would return to the transfer station via the reverse route. The Yellow Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Yellow Route is $82,700 with 19,634 passengers annually.

Purple Route

The Purple Route would operate from the Aquatic Center transfer station, travel north along South Boulevard to Northgate Mile, turn east on Lincoln to 25th Street, run north on Iona to the City of Iona (only to Iona and not the Ammon area), and end at Edwards Theater. The bus would return to the transfer station via the reverse route. The Purple Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Purple Route is $82,700 with about 8,160 passengers annually.

Brown Route

The Brown Route would operate from University Place, run east on Anderson, turn south on Bear into the downtown area, continue south on Capital to Elm, travel to the Aquatic Center transfer station, turn south on South Boulevard to 13th Street, run south on Yellowstone to Rollandet, travel east on Sunnyside, and then turn north to South Boulevard. The bus would return to University Place via the reverse route. The Brown Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Brown Route is $82,700 with about 16,731 passengers annually.

Paratransit Service

The paratransit service would cover three-quarters of a mile from all routes (for ADA-eligible individuals) and the areas of the city that the fixed routes do not reach (for all individuals, with priority given to ADA-eligible individuals). The annual cost of the paratransit service is estimated at $248,000 with 8,400 total annual hours of operation and 25,000 total annual trips.

Estimated Demand and Evaluation

Table IX-3 presents the transit demand model that the LSC staff used to estimate the level of service and the number of trips that could be served with Alternative I. The results show that, on an average weekday, Alternative I would generate from 400 to 497 trips. This equates to 127,000 trips per year, based on 255 days of service. Compared to the other alternatives, Alternative I has the second highest trip production. Alternative I would generate a higher level of service at a lower cost per passenger than the existing service.

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Table IX-3

Alternative 1 (Restructure) - Fixed-Route Model - Idaho Falls

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	399	0	56	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970300	1	529	13	80	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	1	440	9	29	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	2	301	0	121	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970402	1	283	18	70	25%	4	17	0.22	0.04	1,500	0.75	1	60	0.6	0.85	0	1	1
970402	2	646	16	92	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	1	995	41	240	50%	21	120	0.22	0.04	1,000	1	1.1	60	0.6	0.85	3	4	7
970403	2	633	28	177	15%	4	27	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	1
970403	3	686	29	212	75%	21	159	0.22	0.04	1,000	1	1.1	60	0.6	0.85	3	6	9
970501	1	1,841	51	482	20%	10	96	0.22	0.04	1,000	1	1.1	60	0.6	0.85	1	4	5
970502	1	338	15	45	50%	8	23	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	1	2
970502	2	474	42	89	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970502	3	526	21	68	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970503	1	914	17	185	15%	3	28	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	1
970601	1	241	0	66	50%	0	33	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	1	1
970601	2	342	7	101	75%	5	76	0.22	0.04	1,000	1	1.1	60	0.6	0.85	1	3	4
970601	3	385	0	111	100%	0	111	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	5	5
970602	1	603	21	215	100%	21	215	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	9	12
970602	2	1,064	85	471	100%	85	471	0.22	0.04	500	1.25	1.2	60	0.6	0.85	14	19	33
970602	3	482	28	173	100%	28	173	0.22	0.04	500	1.25	1.2	60	0.6	0.85	5	7	12
970603	1	682	8	127	100%	8	127	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
970700	1	448	24	148	100%	24	148	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	6	10
970700	2	830	105	439	50%	52	219	0.22	0.04	1,500	0.75	1	60	0.6	0.85	5	7	13
970700	3	375	17	82	100%	17	82	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	3	6
970700	4	383	64	143	100%	64	143	0.22	0.04	500	1.25	1.2	60	0.6	0.85	11	6	16
970800	1	356	12	71	100%	12	71	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	3	5
970800	2	490	154	231	100%	154	231	0.22	0.04	500	1.25	1.2	60	0.6	0.85	25	9	35
970800	3	349	11	86	100%	11	86	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	4	5
970800	4	322	5	113	100%	5	113	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	5
970900	1	388	12	107	100%	12	107	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	4	6
970900	2	451	7	85	100%	7	85	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	3	5
970900	3	914	9	119	100%	9	119	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
971000	1	274	22	131	100%	22	131	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	5	9
971000	2	274	25	112	100%	25	112	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	5	9
971000	3	311	14	115	100%	14	115	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	5	7
971000	4	299	0	99	100%	0	99	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	4	4
971000	5	462	0	90	100%	0	90	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	4	4
971000	6	337	17	90	15%	3	14	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971100	1	341	66	131	100%	66	131	0.22	0.04	500	1.25	1.2	60	0.6	0.85	11	5	16
971100	2	414	12	189	100%	12	189	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	8	10
971100	3	259	7	129	100%	7	129	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
971100	4	265	15	72	100%	15	72	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	3	5
971100	5	375	38	183	100%	38	183	0.22	0.04	500	1.25	1.2	60	0.6	0.85	6	7	14
971200	1	309	0	101	50%	0	50	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	2	2
971200	2	352	17	120	100%	17	120	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	5	8
971200	3	821	109	416	100%	109	416	0.22	0.04	500	1.25	1.2	60	0.6	0.85	18	17	35
971200	4	362	84	186	100%	84	186	0.22	0.04	500	1.25	1.2	60	0.6	0.85	14	8	21
971301	1	511	31	97	15%	5	15	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971301	2	602	10	183	50%	5	92	0.22	0.04	1,500	0.75	1	60	0.6	0.85	0	3	4
971301	3	450	19	139	100%	19	139	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	6	9
971301	4	434	0	200	100%	0	200	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	8	8
971301	5	225	0	64	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	1	317	4	102	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	2	376	42	200	100%	42	200	0.22	0.04	500	1.25	1.2	60	0.6	0.85	7	8	15
971302	3	568	0	37	15%	0	5	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	0	0	0
971302	4	538	11	79	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	1	568	10	77	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	2	502	56	86	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	3	759	0	13	15%	0	2	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	0	0	0
971400	4	512	0	50	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
Subtotal		29,927	1,480	8,326		1,069	5,770								Estimated Weekday Ridership			398
															Demand Response			99
															Total Daily Ridership			497

Source: LSC, 2006.

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Capital Needs

The first infrastructure required to implement Alternative I would be the installation of transit stops throughout the community. The number and spacing of the transit stops would vary based on density. In more dense areas, the spacing between the transit stops would be 800 to 1,200 feet. In less dense urban areas, the transit stops would be spaced up to 2,500 feet apart. Based on the linear miles of the fixed routes and an average of 1,200 feet between the transit stops, the estimated number of total transit stops is about 300 for the urban area (with 150 outbound and 150 inbound transit stops).

A transfer station would need to be developed at the Aquatic Center. The transfer station would need to hold six buses at one time. The transfer station would also need to have a shelter; lighting; signage; and improved sidewalks, curbs, and gutters.

Since Alternative I uses the existing number of vehicles, there would be no need to expand the fleet size. There may be a need to increase the fleet size if the preferred peak-hour service is included in the implementation of the transit service, as this would increase the number of operating vehicles from 9 to 15. With spare vehicles, the total urban fleet would need to be 18 to 20 vehicles.

Advantages and Disadvantages

The major advantage of Alternative I is that the route structure would be similar to the existing service. Therefore, it would take less time to implement the new service and educate the transit users about the new service compared to the other alternatives. Alternative I would decrease many of the physical and perceived barriers to using the transit service by creating fixed routes, installing transit stops, and increasing the service area of the transit system.

The major disadvantage of Alternative I is that, in order to cross the community, the transit users would need to transfer at the Aquatic Center. This increases the amount of time that the transit users have to travel, and decreases the mobility of the transit users. The other major disadvantage of Alternative I is that there is no north/south route structure. The transit users must travel east/west and transfer in order to travel north/south. The last disadvantage is that this alternative is less flexible in terms of expansion than the other alternatives, in that all routes need to meet at the single transfer point. This limits the range and area that the system can effectively cover.

As summarized in Table IX-10 (at the end of Chapter IX), Alternative I would result in the following estimates:

- $5.86 cost per passenger
- $744,112 annual cost
- 5.0 passengers per hour (average for entire system)
- 126,900 annual passengers

Alternative II: Multi-Hub System

Alternative II's multi-hub system is based on three transfer stations located at the TRPTA administrative and transit center facility, Aquatic Center, and Grand Teton Mall. Six fixed routes would interconnect at the three transfer stations. Figure IX-2 presents the proposed route structure of Alternative II.

As presented in Table IX-4, to provide a basis of analysis comparison, Alternative II is designed to have a 60-minute headway and the same amount of revenue-hours as the existing service. Demand-response service is also included in order to cover the ADA requirement. Alternative II would operate 11 hours per day. LSC has also included in Table IX-4 the additional costs of evening, Saturday, and peak-hour service.

Central Route

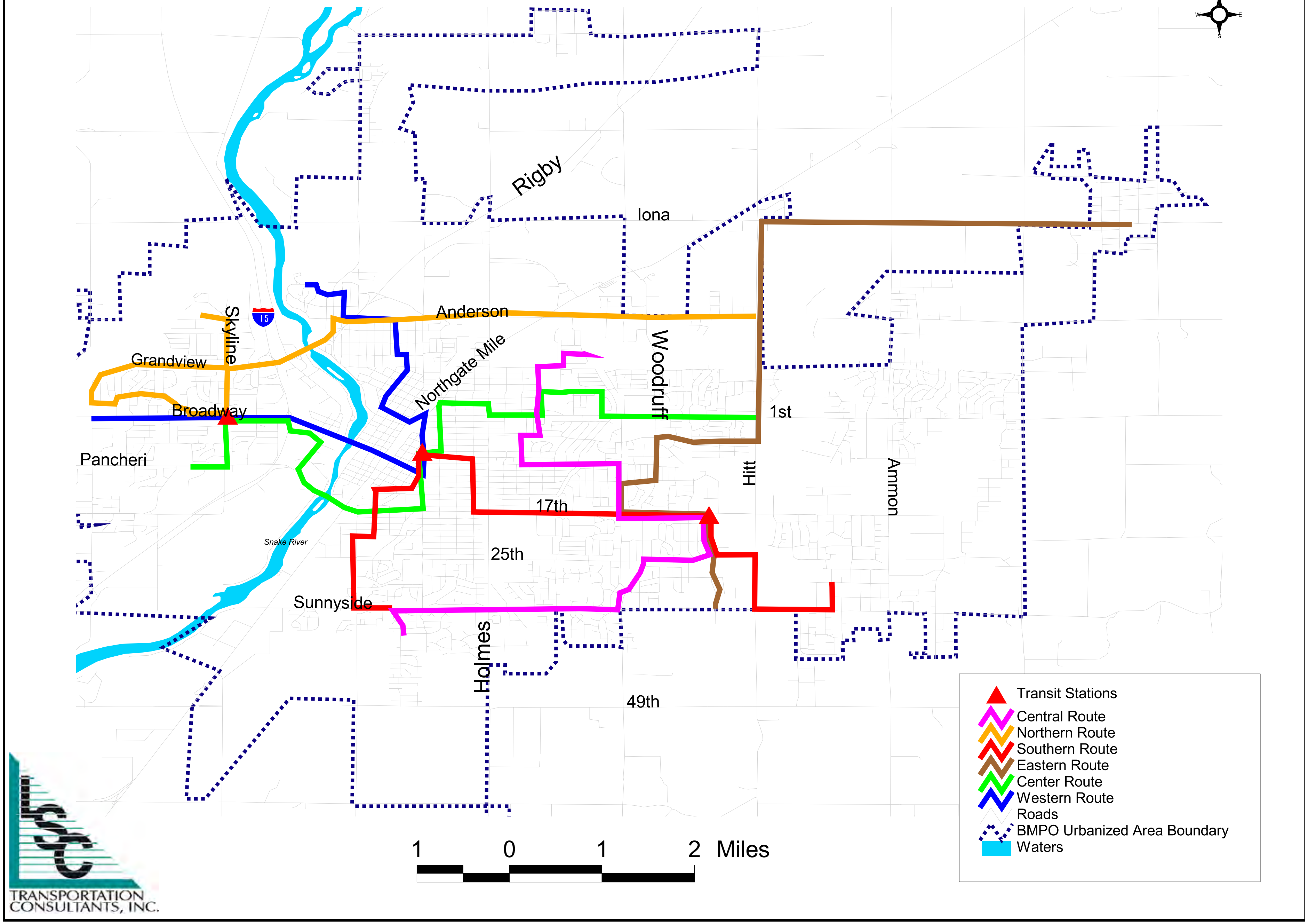
The Central Route would start at the Good Samaritan Center, travel south to 9th Street, run east to 15th Street, turn south to 17th Street, travel south on Channing to the Grand Teton Mall transfer station, run along 25th Street to Sunnyside, and travel east to the Sunnyside Elementary School. The bus would return to the Good Samaritan Center via the reverse route. The Central Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Central Route is $82,700 with about 19,000 passengers annually.

Table IX-4

Alternative II – Multi-Hub

Route	Buses Peak Time	Buses Off-Peak	One-Way Distance	Two-Way Distance	Speed	Travel Time (min)	Peak Headways (min)	Off-Peak/ Weekend Headways (min)	Peak Revenue-Hours	Off-Peak Revenue-Hours	Hourly Cost	Peak Time (4hrs)	Off-Peak Time (12 hrs)	Daily Cost	Weekends (day)	Annual Cost
Central Route		1	7	14	15	56	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Northern Route		1	8	16	16	59	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Southern Route		1	7	14	15	57	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Eastern Route		1	8	17	18	56	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Center Route		1	7	15	16	55	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Western Route		1	6	11	13	53	0	60	0	11	$29.48	$0	$324	$324	$0	$82,679
Paratransit		3			10				0	33	$29.48	$0	$973	$973	$0	$248,037
Total	**0**	**9**											**$2,918**	**$2,918**	**$0**	**$744,112**
Evening Service		9				56		60		27	$29.48		$796	$796	$0	$202,940
Saturday Service		9				56		60		99	$29.48		$2,918		$2,918	$151,740
Peak-Hour Service		6					28		30	0	$29.48	$884.27		$884		$225,488
Grand Total																**$1,324,280**

Figure IX-2
Multi-Hub System



Northern Route

The Northern Route would start at the Center Partners/Airport, travel along Grandview/Bellin to the TRPTA transit facility on Broadway, turn north along Skyline to US Highway 20, and run east along Anderson to Hitt. The bus would return to the Center Partners/Airport via the reverse route. The Northern Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Northern Route is $82,700 with about 5,400 passengers annually.

Southern Route

The Southern Route would start on Sunnyside, travel west to 5th Street, turn north along Rollandet, travel along Curtis, use Corner and South Boulevard to reach the Aquatic Center transfer station, run east along 8th Street, turn onto Higbee and 17th Street to reach Channing, travel to the Grand Teton Mall, continue west along 25th Street to Hitt and Sunnyside, and end at Western. The bus would return to Sunnyside via the reverse route. The Southern Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Southern Route is $82,700 with about 19,100 passengers annually.

Eastern Route

The Eastern Route would start in the City of Iona, use Iona Road to reach the Bonneville High School, travel along Hitt to John Adams, turn south along Woodruff to 12th Street, run along 15th Street and 17th Street traveling east, turn south on Channing to the Grand Teton Mall transfer station, and run along Channing to the Regional Medical Center. The bus would return to the City of Iona via the reverse route. The Eastern Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Eastern Route is $82,700 with about 9,230 passengers annually.

Center Route

The Center Route would start on Pancheri, travel to Skyline, turn north to the TRPTA transit facility, run along Broadway and Pancheri, cross the river to South Boulevard, travel north to the Aquatic Center transfer station, run along Lee and Gladstone to 1st Street, turn onto Garfield, travel to 1st Street again, and turn east to Hitt. The bus would return to Pancheri via the reverse route. The Center Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Center Route is $82,700 with about 26,120 passengers annually.

Western Route

The Western Route would start at Bellin, travel along Broadway to the TRPTA transit facility, follow Broadway across the river, cross Yellowstone Highway and continue on Elm to South Boulevard, turn north to the Aquatic Center transfer station, travel north along G Street to Sage, run along Sage to Bannock, turn east to Anderson and Elmore, continue west to Science Center Drive and University Place. The bus would return to Bellin via the reverse route. The Western Route would operate one bus 255 days per year on a 60-minute headway. The estimated annual cost of the Western Route is $82,700 with about 18,100 passengers annually.

Paratransit Service

The paratransit service would cover three-quarters of a mile from all routes (for ADA-eligible individuals) and the areas of the city that the fixed routes do not reach (for all individuals, with priority given to ADA-eligible individuals). The annual cost of the paratransit service is estimated at $248,000 with 8,400 total annual operating hours and 25,000 total annual trips.

Fixed-Route Model and Evaluation

Table IX-5 presents the fixed-route model that the LSC staff used to estimate the level of service and the number of trips that could be served with Alternative II. The results show that, on an average weekday, Alternative II would generate 400 to 478 trips. This equates to 122,000 trips per year, based on 255 days of service. Compared to the other alternatives, Alternative II would produce the lowest level of trip production per revenue-hour, and would be most expensive alternative on a per-passenger basis.

Table IX-5

Alternative II (Multi-Hub) Fixed-Route Model - Idaho Falls- 2004

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	399	0	56	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970300	1	529	13	80	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	1	440	9	29	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970401	2	301	0	121	15%	0	18	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	0	0	0
970402	1	283	18	70	10%	2	7	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	0	0	0
970402	2	646	16	92	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	1	995	41	240	10%	4	24	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	1
970403	2	633	28	177	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970403	3	686	29	212	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970501	1	1,841	51	482	10%	5	48	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	1	1
970502	1	338	15	45	50%	8	23	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	1	1	1
970502	2	474	42	89	25%	11	22	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	1	1	1
970502	3	526	21	68	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
970503	1	914	17	185	15%	3	28	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	0	1	1
970601	1	241	0	66	50%	0	33	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	1	1
970601	2	342	7	101	75%	5	76	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	3	4
970601	3	385	0	111	100%	0	111	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	5	5
970602	1	603	21	215	100%	21	215	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	9	12
970602	2	1,064	85	471	100%	85	471	0.22	0.04	500	1.25	1.2	60	0.6	0.85	14	19	33
970602	3	482	28	173	100%	28	173	0.22	0.04	500	1.25	1.2	60	0.6	0.85	5	7	12
970603	1	682	8	127	100%	8	127	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
970700	1	448	24	148	100%	24	148	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	6	10
970700	2	830	105	439	40%	42	175	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	3	4	8
970700	3	375	17	82	100%	17	82	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	3	6
970700	4	383	64	143	100%	64	143	0.22	0.04	500	1.25	1.2	60	0.6	0.85	11	6	16
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970800	2	490	154	231	100%	154	231	0.22	0.04	500	1.25	1.2	60	0.6	0.85	25	9	35
970800	3	349	11	86	100%	11	86	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	4	5
970800	4	322	5	113	100%	5	113	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	5
970900	1	388	12	107	100%	12	107	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	4	6
970900	2	451	7	85	100%	7	85	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	3	5
970900	3	914	9	119	100%	9	119	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
971000	1	274	22	131	100%	22	131	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	5	9
971000	2	274	25	112	100%	25	112	0.22	0.04	500	1.25	1.2	60	0.6	0.85	4	5	9
971000	3	311	14	115	100%	14	115	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	5	7
971000	4	299	0	99	100%	0	99	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	4	4
971000	5	462	0	90	100%	0	90	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	4	4
971000	6	337	17	90	75%	13	68	0.22	0.04	2,000	0.55	0.75	60	0.6	0.85	1	2	3
971100	1	341	66	131	100%	66	131	0.22	0.04	500	1.25	1.2	60	0.6	0.85	11	5	16
971100	2	414	12	189	100%	12	189	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	8	10
971100	3	259	7	129	100%	7	129	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	5	6
971100	4	265	15	72	100%	15	72	0.22	0.04	500	1.25	1.2	60	0.6	0.85	2	3	5
971100	5	375	38	183	100%	38	183	0.22	0.04	500	1.25	1.2	60	0.6	0.85	6	7	14
971200	1	309	0	101	50%	0	50	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	2	2
971200	2	352	17	120	100%	17	120	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	5	8
971200	3	821	109	416	100%	109	416	0.22	0.04	500	1.25	1.2	60	0.6	0.85	18	17	35
971200	4	362	84	186	100%	84	186	0.22	0.04	500	1.25	1.2	60	0.6	0.85	14	8	21
971301	1	511	31	97	15%	5	15	0.22	0.04	1,000	1	1.1	60	0.6	0.85	1	1	1
971301	2	602	10	183	50%	5	92	0.22	0.04	500	1.25	1.2	60	0.6	0.85	1	4	5
971301	3	450	19	139	100%	19	139	0.22	0.04	500	1.25	1.2	60	0.6	0.85	3	6	9
971301	4	434	0	200	100%	0	200	0.22	0.04	500	1.25	1.2	60	0.6	0.85	0	8	8
971301	5	225	0	64	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	1	317	4	102	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971302	2	376	42	200	100%	42	200	0.22	0.04	500	1.25	1.2	60	0.6	0.85	7	8	15
971302	3	568	0	37	75%	0	27	0.22	0.04	1,000	1	1.1	60	0.6	0.85	0	1	1
971302	4	538	11	79	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	1	568	10	77	15%	2	12	0.22	0.04	1,000	1	1.1	60	0.6	0.85	0	0	1
971400	2	502	56	86	0%	0	0	0.22	0.04	2,500	0.4	0.5	60	0.6	0.85	0	0	0
971400	3	759	0	13	50%	0	7	0.22	0.04	1,500	0.75	1	60	0.6	0.85	0	0	0
971400	4	512	0	50	25%	0	12	0.22	0.04	1,500	0.75	1	60	0.6	0.85	0	0	0
Subtotal		29,927	1,480	8,326		1,031	5,531								Estimated Weekday Ridership			380
															Demand Response			99
															Total Daily Ridership			479

Source: LSC, 2005.

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Capital Needs

The first infrastructure required in order to implement Alternative II would be the installation of transit stops throughout the community. The number and spacing of the transit stops would vary based on density. In more dense areas, the spacing between the transit stops would be 800 to 1,200 feet. In less dense urban areas, the transit stop would be spaced up to 2,500 feet apart. Based on the linear miles of the fixed routes and an average of 1,200 feet between the transit stops, the estimated number of total transit stops is about 300 for the urban area (with 150 outbound and 150 inbound transit stops).

Transfer stations would need to be developed at the Aquatic Center and Grand Teton Mall. The transfer stations would need to hold four buses at one time. The transfer stations would also need to have shelters, lighting, signage, and improved sidewalks, curbs, and gutters.

Since Alternative II would use the existing number of vehicles, there would be no need to expand the fleet size. There may be a need to increase the fleet size if the preferred peak-hour service is included in the implementation of the service. This would increase the number of operating vehicles from 9 to 15. With spare vehicles, the total urban fleet would need to be 18 to 20 vehicles.

Advantages and Disadvantages

The major advantage of Alternative II is that it would increase the mobility and access of the transit users through more direct trips. Another advantage is that Alternative II would allow for north/south travel. The last advantage is at this alternative is more flexible in terms of expansion than Alternatives I. With multiple transfer points, the route structure of this alternative can be adjusted and new routes can be added more effectively than in Alternative I.

The major disadvantage of Alternative II is that the transit users may need to transfer twice in order to reach their destinations. Another disadvantage of Alternative II is that a public education program would need to be created in order to inform the transit users of the new service.

As presented in Table IX-10 (at the end of Chapter IX), Alternative II would result in the following estimates:

- $6.10 cost per passenger
- $744,112 annual cost
- 4.8 passengers per hour
- 122,000 annual passengers

Alternative III: Hybrid System

Alternative III would consist of a hybrid system with three transfer stations, two mainline (jump) routes, and seven flexible one-way loops. The transfer stations would be located at the TRPTA administrative and transit center facility, Aquatic Center, and Grand Teton Mall. The seven flexible one-way loops and two mainline routes would interconnect at the three transfer stations. The loop routes would function similar to the existing checkpoint service in that the loop routes would deviate from the routes up to three-quarters of a mile to pick up or drop off passengers based on pre-scheduled requests. The mainline routes would function as local limited express routes with increased travel speeds in that the mainline routes would serve just a few transit stops and the three transfer stations. Figure IX-3 presents the proposed route structure of Alternative III.

As presented in Table IX-6, Alternative III is designed to have a 30-minute headway. The system would operate 11 hours per day. Since the buses would deviate from the routes up to three-quarters of a mile, the ADA requirement is covered. Therefore, there is no need for a demand-response service. LSC has also included in Table IX-6 the additional costs of evening, Saturday, and peak-hour service. Peak-hour service would have 15-minute headways.

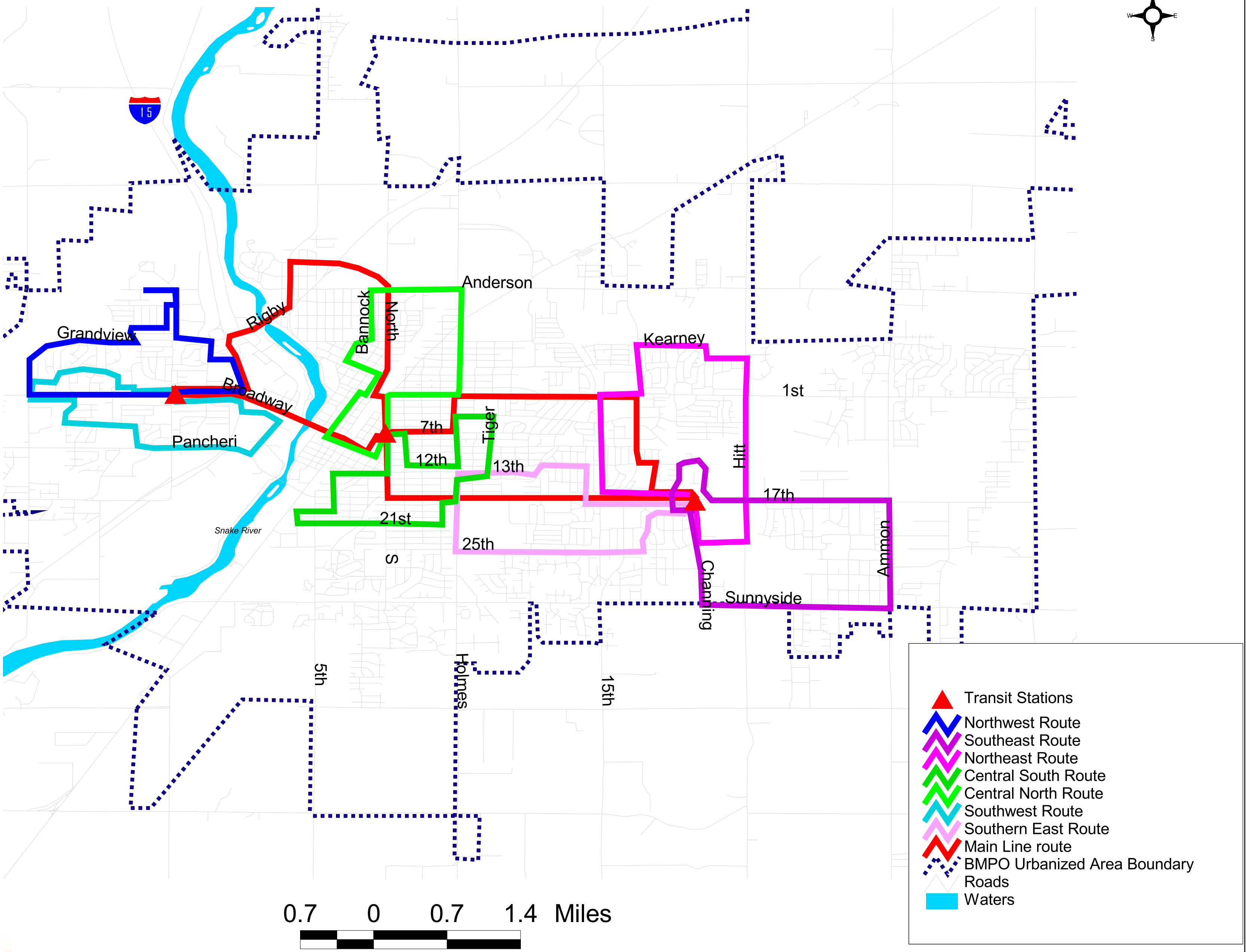
<u>Southeast Loop</u>

The Southeast Loop would start at the Grand Teton Mall transfer station, travel along 17th Street to Ammon, turn south to Sunnyside, run north on Channing, and return to the Grand Teton Mall transfer station. The Southeast Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Southeast Loop is $82,600 with about 14,000 passengers annually.

Table IX-6
Alternative III – Hybrid

Route	Buses Peak Time	Buses Off-Peak	One-Way Distance	Two-Way Distance	Speed	Travel Time (min)	Peak Headways (min)	Off-Peak/ Weekend Headways (min)	Peak Revenue-Hours	Off-Peak Revenue-Hours	Hourly Cost	Peak Time (4hrs)	Off-Peak Time (11hrs)	Daily Cost	Weekends (day)	Annual Cost
Southeast Route		1	5	5	11	26	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Northwest Route		1	5	5	11	28	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Southern East Route		1	6	6	12	28	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Northeast Route		1	6	6	12	28	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Central South Route		1	5	5	11	29	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Central North Route		1	5	5	11	27	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Southwest Route		1	4.6	5	10	28	0	30	0	11	$29.48	$0	$324	$324	$0	$82,679
Main Lines		2	11.09	11	22	30	0	30	0	22	$29.48	$0	$648	$648	$0	$165,358
Total	**0**	**9**											**$2,918**	**$2,918**	**$0**	**$744,112**
Evening Service		9				28		30	0	27	$29.48		$796	$796	$0	$202,940
Saturday Service		9				28		30		99	$29.48		$2,918		$2,918	$151,740
Peak-Hour Service		9					14		15	0	$29.48	$442.13		$442		$112,744
Grand Total																**$1,211,536**

Figure IX-3
Hybrid System



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Northeast Loop

The Northeast Loop would start at the TRPTA transit facility, travel west on Broadway, turn north to Grandview, use Skyline to travel north to the Airport, run along Skyline, turn east onto Broadway just before Utah, and return to the TRPTA transit facility. The Northeast Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Northeast Loop is $82,600 with about 26,900 passengers annually.

Southern East Loop

The Southern East Loop would start at the Grand Teton Mall transfer station, travel west along 25th Street to Holmes, turn north to 13th Street, run along 17th Street, and return to the Grand Teton Mall transfer station. The Southern East Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Southern East Loop is $82,600 with about 29,260 passengers annually.

Northern East Loop

The Northern East Loop would start at the Grand Teton Mall transfer station, travel west along 17th Street to 15th Street, turn north to Kearney, travel east to Hitt, run south to 24th Street and Channing, and return to the Grand Teton Mall transfer station. The Northern East Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Northern East Loop is $82,600 with about 29,760 passengers annually.

Central South Loop

The Central South Loop would start at the Aquatic Center transfer station, travel to 12th Street, run along Tiger and 21st Street, turn onto S Boulevard, and return to the Aquatic Center transfer station. The Central South Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Central South Loop is $82,600 with about 29,350 passengers annually.

Central North Loop

The Central North Loop would start at the Aquatic Center transfer station, travel to Bannock, turn east on Anderson, run along Holmes, travel south to 1st Street, turn onto S Boulevard, and return to the Aquatic Center transfer station. The Central North Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Central North Loop is $82,600 with about 27,970 passengers annually.

Southwest Loop

The Southwest Loop would start at the TRPTA transit facility, run along Broadway, turn west to Grandview, travel south to Pancheri, run north to Broadway, and return to the TRPTA transit facility. The Southwest Loop would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of the Southwest Loop is $82,600 with about 23,134 passengers annually.

Mainline Route 1

Mainline Route 1 would start at the TRPTA transit facility, run along Broadway, travel to the Aquatic Center transfer station, turn onto 17th Street, travel to the Grand Teton Mall transfer station, and return to the TRPTA transfer facility via the reverse route. Mainline Route 1 would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of Mainline Route 1 is 82,700. There is no estimated ridership on Mainline Route 1, since the function of this route is to carry individuals between the transfer stations. Therefore, the ridership is already included in the loop routes.

Mainline Route 2

Mainline Route 2 would operate along a more northern alignment. Mainline Route 2 would start at the TRPTA transit facility, travel north to the University Place, run south along North Boulevard, travel to the Aquatic Center transfer station, turn onto 7th Street and 1st Street, run east to 15th Street, turn back onto 17th Street, travel to the Grand Teton Mall transfer station, and return to the TRPTA transit facility via the reverse route. Mainline Route 2 would operate one bus 255 days per year on a 30-minute headway. The estimated annual cost of Mainline Route 2 is $82,700. There is no estimated ridership on Mainline Route 2 since the function of this route is to carry individuals between the transfer stations. Therefore, the ridership is already included in the loop routes.

Fixed-Route Model and Evaluation

Table IX-7 presents the fixed-route model that the LSC staff used to estimate the level of service and the number of trips that could be served with Alternative III. The results show that, on an average weekday, Alternative III would generate a range from 707 to 910 trips. This equates to 180,400 trips per year, based on 255 days of service. Compared to the other alternatives, Alternative III would produce the highest level of trip production (7.1 passengers per hour) with the lowest cost per passenger ($4.12). Therefore, Alternative III provides the best service based on the quantitative data.

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Table IX-7

Alternative III (Hybrid) Fixed-Route Model - Idaho Falls- 2004

Census Tract	Block Group	Total # of Hhlds 2005	# of Hhlds with 0 Auto	# of Hhlds with 1 Auto	% of Hhlds with Transit Access	Hhlds Served by Transit 0 Auto	Hhlds Served by Transit 1 Auto	Basic Transit Trip Rates 0 Auto	Basic Transit Trip Rates 1 Auto	Walk Distance (ft)	Walk Factor 0 Auto	Walk Factor 1 Auto	Headway (min)	Headway Factor 0 Auto	Headway Factor 1 Auto	Daily Transit Trips 0 Auto	Daily Transit Trips 1 Auto	Daily Trip # of
970200	3	399	0	56	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970300	1	529	13	80	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970401	1	440	9	29	10%	1	3	0.22	0.04	1,500	0.75	1	30	1.4	1.5	0	0	0
970401	2	301	0	121	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970402	1	283	18	70	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970402	2	646	16	92	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970403	1	995	41	240	25%	10	60	0.22	0.04	1,000	1	1.1	30	1.4	1.5	3	4	7
970403	2	633	28	177	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970403	3	686	29	212	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970501	1	1,841	51	482	25%	13	121	0.22	0.04	1,500	0.75	1	30	1.4	1.5	3	7	10
970502	1	338	15	45	100%	15	45	0.22	0.04	1,500	0.75	1	30	1.4	1.5	3	3	6
970502	2	474	42	89	100%	42	89	0.22	0.04	1,500	0.75	1	30	1.4	1.5	10	5	15
970502	3	526	21	68	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
970503	1	914	17	185	15%	3	28	0.22	0.04	1,000	1	1.1	30	1.4	1.5	1	2	3
970601	1	241	0	66	50%	0	33	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	2	2
970601	2	342	7	101	100%	7	101	0.22	0.04	500	1.25	1.2	30	1.4	1.5	3	7	10
970601	3	385	0	111	100%	0	111	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	8	8
970602	1	603	21	215	100%	21	215	0.22	0.04	500	1.25	1.2	30	1.4	1.5	8	15	23
970602	2	1,064	85	471	100%	85	471	0.22	0.04	500	1.25	1.2	30	1.4	1.5	33	34	67
970602	3	482	28	173	100%	28	173	0.22	0.04	500	1.25	1.2	30	1.4	1.5	11	12	23
970603	1	682	8	127	100%	8	127	0.22	0.04	500	1.25	1.2	30	1.4	1.5	3	9	12
970700	1	448	24	148	100%	24	148	0.22	0.04	500	1.25	1.2	30	1.4	1.5	9	11	20
970700	2	830	105	439	50%	52	219	0.22	0.04	500	1.25	1.2	30	1.4	1.5	20	16	36
970700	3	375	17	82	100%	17	82	0.22	0.04	500	1.25	1.2	30	1.4	1.5	7	6	13
970700	4	383	64	143	100%	64	143	0.22	0.04	500	1.25	1.2	30	1.4	1.5	25	10	35
970800	1	356	12	71	100%	12	71	0.22	0.04	500	1.25	1.2	30	1.4	1.5	4	5	10
970800	2	490	154	231	100%	154	231	0.22	0.04	500	1.25	1.2	30	1.4	1.5	59	17	76
970800	3	349	11	86	100%	11	86	0.22	0.04	500	1.25	1.2	30	1.4	1.5	4	6	10
970800	4	322	5	113	100%	5	113	0.22	0.04	500	1.25	1.2	30	1.4	1.5	2	8	10
970900	1	388	12	107	100%	12	107	0.22	0.04	500	1.25	1.2	30	1.4	1.5	5	8	12
970900	2	451	7	85	100%	7	85	0.22	0.04	500	1.25	1.2	30	1.4	1.5	3	6	9
970900	3	914	9	119	100%	9	119	0.22	0.04	500	1.25	1.2	30	1.4	1.5	3	9	12
971000	1	274	22	131	100%	22	131	0.22	0.04	500	1.25	1.2	30	1.4	1.5	8	9	18
971000	2	274	25	112	100%	25	112	0.22	0.04	500	1.25	1.2	30	1.4	1.5	10	8	18
971000	3	311	14	115	100%	14	115	0.22	0.04	500	1.25	1.2	30	1.4	1.5	5	8	14
971000	4	299	0	99	100%	0	99	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	7	7
971000	5	462	0	90	100%	0	90	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	6	6
971000	6	337	17	90	25%	4	23	0.22	0.04	500	1.25	1.2	30	1.4	1.5	2	2	3
971100	1	341	66	131	100%	66	131	0.22	0.04	500	1.25	1.2	30	1.4	1.5	26	9	35
971100	2	414	12	189	100%	12	189	0.22	0.04	500	1.25	1.2	30	1.4	1.5	5	14	18
971100	3	259	7	129	100%	7	129	0.22	0.04	500	1.25	1.2	30	1.4	1.5	3	9	12
971100	4	265	15	72	100%	15	72	0.22	0.04	500	1.25	1.2	30	1.4	1.5	6	5	11
971100	5	375	38	183	100%	38	183	0.22	0.04	500	1.25	1.2	30	1.4	1.5	15	13	28
971200	1	309	0	101	50%	0	50	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	4	4
971200	2	352	17	120	100%	17	120	0.22	0.04	500	1.25	1.2	30	1.4	1.5	7	9	15
971200	3	821	109	416	100%	109	416	0.22	0.04	500	1.25	1.2	30	1.4	1.5	42	30	72
971200	4	362	84	186	100%	84	186	0.22	0.04	500	1.25	1.2	30	1.4	1.5	32	13	46
971301	1	511	31	97	15%	5	15	0.22	0.04	500	1.25	1.2	30	1.4	1.5	2	1	3
971301	2	602	10	183	50%	5	92	0.22	0.04	500	1.25	1.2	30	1.4	1.5	2	7	8
971301	3	450	19	139	100%	19	139	0.22	0.04	500	1.25	1.2	30	1.4	1.5	7	10	17
971301	4	434	0	200	100%	0	200	0.22	0.04	500	1.25	1.2	30	1.4	1.5	0	14	14
971301	5	225	0	64	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
971302	1	317	4	102	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
971302	2	376	42	200	100%	42	200	0.22	0.04	1,000	1	1.1	30	1.4	1.5	13	13	26
971302	3	568	0	37	100%	0	37	0.22	0.04	1,000	1	1.1	30	1.4	1.5	0	2	2
971302	4	538	11	79	20%	2	16	0.22	0.04	1,000	1	1.1	30	1.4	1.5	1	1	2
971400	1	568	10	77	15%	2	12	0.22	0.04	1,000	1	1.1	30	1.4	1.5	0	1	1
971400	2	502	56	86	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
971400	3	759	0	13	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
971400	4	512	0	50	0%	0	0	0.22	0.04	2,500	0.4	0.5	30	1.4	1.5	0	0	0
Subtotal		29,927	1,480	8,326		1,089	5,736								Estimated Weekday Ridership			812
															Demand Response			99
															Total Daily Ridership			910

Source: LSC, 2005.

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Another service option for Alternative III would be to increase the headway from 30 minutes to 60 minutes. The revenue-hours could then be shifted to allow for evening and Saturday service. With this adjustment in revenue-hours, the total cost of the service would remain about the same. As shown in Table IX-8, the LSC staff shifted the revenue-hours by interlining three of the loop routes and operating only one of the mainline routes. The loop routes would operate on a 60-minute headway during the off-peak periods, while the mainline route would operate on a 30-minute headway.

The shifting of the revenue-hours could also be used to increase the overall time of operation per day. The transit service could start at 6:30 a.m. and run until 9:00 p.m. with peak service hours for two hours during the morning and two hours during the afternoon. Saturday service could be implemented with a total of 99 revenue-hours. The shift in revenue-hours could also be used to expand the service area of the transit system by creating three loop routes or demand-response zones in the areas not being served. The estimated annual increase in cost would be $16,000.

Capital Needs

The first infrastructure required in order to implement Alternative III would be the installation of transit stops throughout the community. The number and spacing of the transit stop would vary based on density. In more dense areas, the spacing between the transit stops would be 800 to 1,200 feet. In less dense urban areas, the transit stops would be spaced up to 2,500 feet apart. Based on the linear miles of the fixed routes and an average of 1,200 feet between the transit stops, the estimated number of total transit stops is about 300 (with 150 outbound and 150 inbound transit stops).

Several of the existing transit stops would need to be improved. These transit stops are located at the University Place and the three major employment and shopping areas along the mainline routes. The improved transit stops would need to have shelters, bus pullouts, and sidewalks.

Table IX-8
Alternative III – Hybrid (Service Hour Shifted)

Route	Buses Peak Time	Buses	One-Way Distance	Two-Way Distance	Speed	Travel Time (min)	Peak Headways (min)	Off-Peak/ Weekend Headways (min)	Peak Revenue-Hours	Off-Peak Revenue-Hours	Hourly Cost	Peak Time (4hrs)	Off-Peak Time (7 hrs)	Daily Cost	Weekends (day)	Annual Cost
Southeast Route		1	5	5	11	26	26	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Northwest Route		1	5	5	11	28	28	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Southern East Route		1	6	6	12	28	28	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Northeast Route		1	6	6	12	28	28	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Central South Route		1	5	5	11	29	29	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Central North Route		1	5	5	11	27	27	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Southwest Route		1	4.6	5	10	28	28	30	4	5	$29.48	$118	$147	$265	$324	$84,507
Main Lines		2	5.5	11	22	30	30	30	8	10	$29.48	$236	$295	$531	$648	$169,013
Total	**0**	**9**											**$1,326**	**$2,388**	**$2,918**	**$760,559**

Transfer stations would need to be developed at the Aquatic Center and Grand Teton Mall. The transfer stations would need to hold four buses at one time. The transfer stations would also need to have shelters, lighting, signage, kiosks, bus pullouts, and improved sidewalks, curbs, and gutters.

Since Alternative III uses the existing number of vehicles, there would be no need to expand the fleet size. There may be a need to increase the fleet size if the preferred peak-hour service is included in the implementation of the transit service. This would increase the number of operating vehicles from 9 to 18. With spare vehicles, the total urban fleet would need to be 22 vehicles.

Advantages and Disadvantages

The major advantage of Alternative III is that it would increase the mobility and access of the transit user by reducing the headway from 60 to 30 minutes. This would reduce the overall travel time that the transit users would need to cross the community. Another advantage of Alternative III is that separate paratransit service would not be necessary. The loop buses would deviate from their routes up to three-quarters of a mile to pick up or drop off a passenger based on prescheduled requests, thereby meeting the ADA requirement. The last advantage is that this alternative is more flexible in terms of expansion than the other two alternatives. With multiple transfer points and jump routes, the route structure of this alternative can be adjusted and new routes can be added more effectively then the other alternatives.

The major disadvantage of Alternative III is that the transit users may need to transfer twice in order to reach their destinations. Another disadvantage of Alternative III is that a public education program would need to be created in order to inform the transit users about the new service.

As summarized in Table IX-10 (at the end of Chapter IX), Alternative III would result in the following estimates:

- $4.12 cost per passenger
- $744,112 annual cost

- 7.1 passengers per hour
- 180,400 annual passengers

Commuter Service

Based on the goals and objectives in Chapter VII and the comments from the Stakeholders Committee, the LSC team has developed commuter (intercity) transit service options. The commuter service options are designed to link the Idaho Falls urban area with the overall region. The commuter service is designed to operate out of the new TRPTA transit facility, and would function in connection with any of the alternatives detailed above. Figure IX-4 presents the proposed route structure of the commuter service.

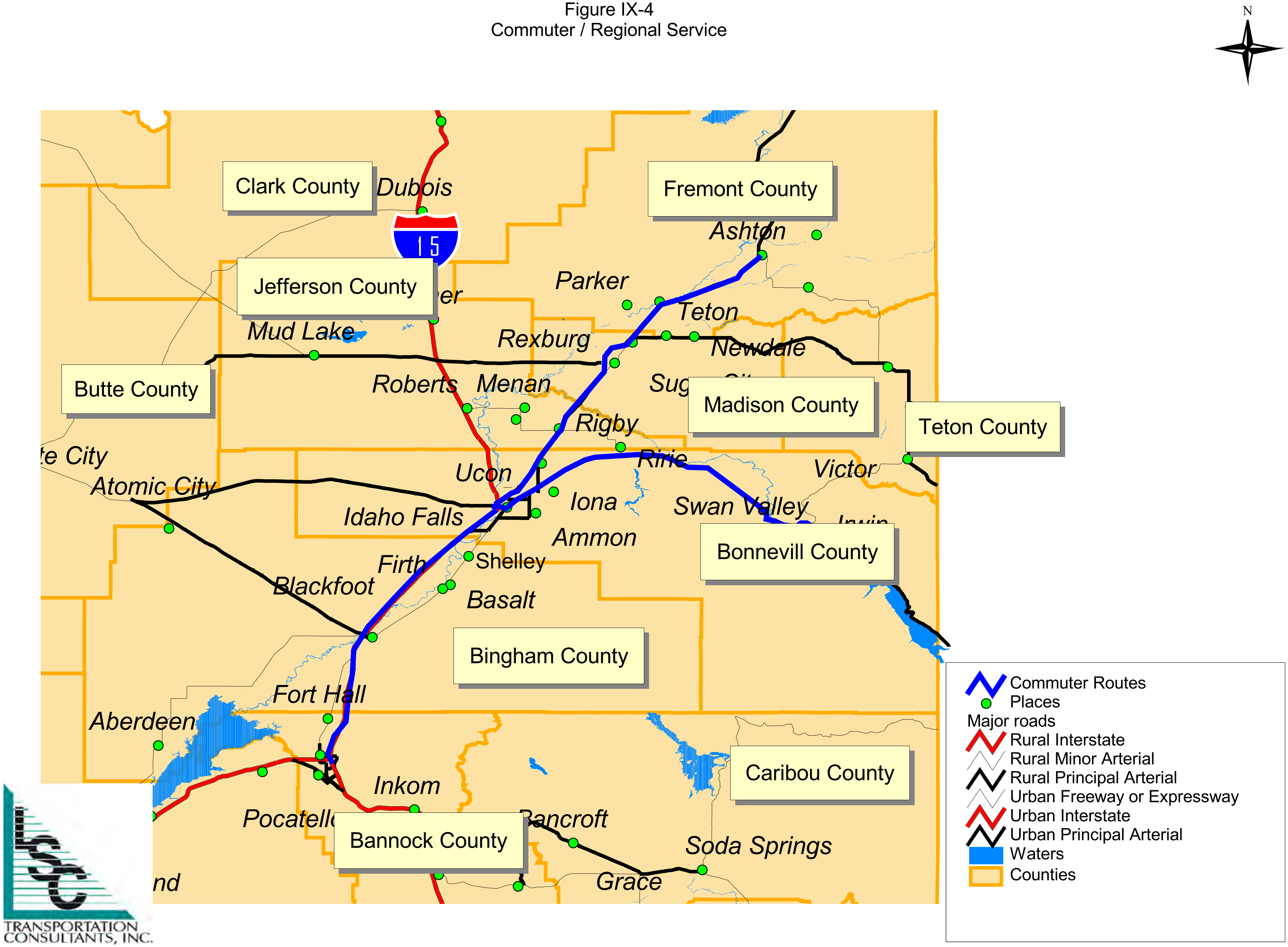
The commuter services to Ashton and Irwin are based on the existing number of revenue-hours that TRPTA and CART use for intercity service. The commuter service for tourists to access areas such as Yellowstone Park and for commuters to Pocatello are new services and would increase the existing level of revenue-hours.

TRPTA would initially need to work with the Idaho Department of Transportation to create park-and-rides lots for the commuter service. At first, the park-and-ride lots could be shared lots. As the demand for the commuter service increases, traditional park-and-ride lots could be constructed in each of the communities that the commuter routes service. The cost of a traditional park-and-ride lot could range from $1 million to 2 million for construction, depending on the cost of the land and the amenities at the lot.

Ashton Route

The Ashton Route would operate as an express commuter service between the TRPTA transit facility in Idaho Falls and Ashton, with several stops. The Ashton Route would operate one bus in the morning and evening for five revenue-hours daily. The total annual revenue-hours would be 1,173 based on 255 days of operation. The estimated cost of the Ashton Route is $34,600 annually based on $30 per revenue-hour. LSC has estimated two passenger per revenue-hour with 1,830 total annual passengers and an $18.89 cost per passenger.

Figure IX-4
Commuter / Regional Service



Irwin Route

The Irwin Route would operate as an express commuter service between the TRPTA transit facility in Idaho Falls and Irwin, with several stops. The Irwin Route would operate one bus in the morning and evening for five revenue-hours daily. The total annual revenue-hours would be 1,173 based on 255 days of operation. The estimated cost of the Irwin Route is $34,600 annually based on $30 per revenue-hour. LSC has estimated two passengers per revenue-hour with 1,326 total annual passengers and a $22.67 cost per passenger.

Pocatello Route

The Pocatello Route would operate as an express commuter service between the TRPTA transit facility in Idaho Falls and Pocatello, with stops only in Idaho Falls and Pocatello. The Pocatello Route would operate one bus in the morning and evening for five revenue-hours daily. The total annual revenue-hours would be 1,173 based on 255 days of operation. The estimated cost of the Pocatello Route is $34,600 annually based on $30 per revenue-hour. LSC has estimated two passengers per revenue-hour with 1,530 total annual passengers and a $19.65 cost per passenger.

Tourist Route

The Tourist Route would operate during midday. The Tourist Route would be designed to move tourists from the Idaho Falls Airport and hotels to Yellowstone Park and other tourist locations in Idaho, Wyoming, and Montana. In order for the Tourist Route to function, significant coordination between the different public and regional private transportation providers would need to be developed. There is funding at the federal level that can aid in the operation of this type of service. Under federal regulations, however, the public transportation providers cannot compete against the private transportation providers. Therefore, coordination will be necessary to meet the needs of the transit users. The LSC team has developed the basic miles, revenue-hours, and costs based on midday operations for four hours per bus per day. There are an estimated 3,000 total annual revenue-hours with an estimated annual cost of $90,200. Based on two passengers per revenue-hour, the estimated annual ridership is 6,100.

Rideshare Broker Program

In the rideshare broker program, TRPTA would become the primary broker for ridesharing with the various transportation providers throughout the Bonneville Metropolitan Planning Area. The rideshare broker program would include carpools, vanpools, and Medicaid trips. The different transportation agencies would work together through the broker (TRPTA) to provide improved and efficient transit service in the region.

TRPTA would need to begin discussions with other transportation agencies, stakeholders, and private transportation firms throughout the Bonneville Metropolitan Planning Area in order to develop a coalition that would coordinate the transportation information and resources. TRPTA, as the lead agency and broker for the planning area, would coordinate and manage the operations of the rideshare broker program for all of the transportation agencies within the coalition.

The rideshare broker program creates a central system that links all of the transportation providers through a computerized network. An individual who wants to use the rideshare broker program for transportation would call TRPTA in order to schedule the trip. TRPTA would then distribute the trip to the next available transportation provider depending on the origin and destination locations, time of trip, and nearest vehicle. TRPTA could dispatch a private transportation provider or allocate the trip to the TRPTA transit system. The fare structures for each of the transportation providers would remain the same.

To become an effective rideshare broker, TRPTA would need to purchase a rideshare software package and establish a toll-free number for the residents within the Bonneville Metropolitan Planning Area. Two sets of costs are associated with the rideshare broker program: capital costs and operations/maintenance costs. Grants and federal funding are available for administering rideshare programs under the SAFETEA-LU.

In terms of capital costs, the rideshare software package could range from $10,000 to $250,000. A rideshare software program that operates within a common database would be the least expensive. LSC estimated $10,000 annually for operations and software support. The maintenance costs of the system could range from $1,000 to $10,000 annually, depending on the program and maintenance agreements.

Operations and maintenance costs would include the staff salaries and the cost for long-distance calls. Assuming eight staff hours per weekday (or 40 hours per week) would be required to operate and maintain the rideshare database, the staff cost would be approximately $340 per week (at $8.50 per hour) or $17,680 per year. Long-distance costs for a toll-free number can be conservatively estimated at $0.20 per minute. Assuming one-third of the staff hours are spent with long-distance calls, the long-distance costs would be $32 per day or approximately $8,000 per year. The total annual operating and maintenance costs would be approximately $35,800.

LSC conservatively estimated 38,700 persons employed in the Bonneville Metropolitan Planning Area. If half of one percent of those employees participated in the rideshare broker program, the result would be approximately 296,000 one-way rides shared per year (which equates to 1,160 individuals with two work trips per day on 255 work days). The cost would be $0.152 per one-way trip (based upon the $35,800 annual cost for 296,000 annual one-way trips).

SUMMARY

Chapter IX has provided information on various transit service alternatives for Idaho Falls. The alternatives include: the current system, a restructured hub-and-spoke system, a multi-hub system, a hybrid system, commuter service, and a rideshare broker program.

Table IX-9 is a comparison of the alternatives based on the estimated travel time that it would take for transit users to travel between their origins and destinations. As presented in Table IX-9, Alternative III scored the best in all but one of the travel scenarios. Based on the average speed of the bus in each of the alternatives, LSC estimated the travel time it would take to get to several different locations throughout the study area. Penalties (in terms of time) were given when the rider had to walk a long distance to or from the transit stop. The alternative with the lowest time in each of the travel scenarios was ranked with the best score. The scores ranged from 1 (best) to 3 (worst). Table IX-10 provides a comparison of the transit service alternatives.

The information from Chapter IX was used in the selection of the preferred transit service alternatives, which is refined in the implementation plan of this document.

Table IX-9
Travel Time Analysis

Senior Center to Mall

Alternative	Distance	Travel Time	# of Transfers	Speed (mph)	Walking Factor (min)	Score
Alternative I	5	21.43	1	14	0	4
Alternative II	4.23	16.92	0	15	0	2
Alternative III	4.22	15.65	1	11/22	0	1

College to Mall

Alternative	Distance	Travel Time	# of Transfers	Speed (mph)	Walking Factor (min)	Score
Alternative I	5.78	24.77	1	14	0	3
Alternative II	5.55	22.20	1	15	0	2
Alternative III	5.82	15.87	1	22	0	1

Downtown to Wal-Mart

Alternative	Distance	Travel Time	# of Transfers	Speed (mph)	Walking Factor (min)	Score
Alternative I	4.75	33.56	1	14	13.2	4
Alternative II	4.34	27.36	0	15	10	3
Alternative III	4.22	20.35	2	11/22	0	1

Albertsons to Regional Medical Center

Alternative	Distance	Travel Time	# of Transfers	Speed (mph)	Walking Factor (min)	Score
Alternative I	8.9	38.14	1	14	0	4
Alternative II	5.77	23.08	2	15	0	2
Alternative III	4.22	18.63	2	11/22	0	1

Good Samaritan to Sunnyside Elementary School

Alternative	Distance	Travel Time	# of Transfers	Speed (mph)	Walking Factor (min)	Score
Alternative I	5	27.03	1	14	5.6	2
Alternative II	6.56	26.24	0	15	0	1
Alternative III	5.94	38.00	1	11	5.6	3

Source: LSC, 2006.

Table IX-10
Service Alternatives - Cost Estimates

Options		# of Veh. (Peak	# of Veh.	Total Daily Vehicle-Miles	Total Daily Vehicle-Hours	Total Annual Vehicle-Miles	Total Annual Vehicle-Hours	Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost ($) per Pass.
Status Quo (Urban Services)	6:30 am - 6:00 pm		*9*	923	85	235,315	21,640	255	82,066	3.8	$610,998	$7.45
Restructure Alternative												
Blue Route	7:00 am - 6:00 pm	1	1	154	11	39,270	2,805	255	16,046	5.7	$82,679	$5.15
Red Route	7:00 am - 6:00 pm	1	1	154	11	39,270	2,805	255	15,682	5.6	$82,679	$5.27
Green Route	7:00 am - 6:00 pm	1	1	176	11	44,880	2,805	255	25,399	9.1	$82,679	$3.26
Yellow Route	7:00 am - 6:00 pm	1	1	143	11	36,465	2,805	255	19,634	7.0	$82,679	$4.21
Purple Route	7:00 am - 6:00 pm	1	1	176	11	44,880	2,805	255	8,160	2.9	$82,679	$10.13
Brown Route	7:00 am - 6:00 pm	1	1	165	11	42,075	2,805	255	16,731	6.0	$82,679	$4.94
Paratransit	7:00 am - 6:00 pm	3	3	363	33	92,565	8,415	255	25,245	3.0	$248,037	$9.83
Total/Avg		9	9	1331	99	339,405	25245		126,898	5.0	$744,112	$5.86
Multi-Hub Alternative												
Central Route	7:00 am - 6:00 pm	1	1	165	11	42,075	2,805	255	19,016	6.8	$82,679	$4.35
Northern Route	7:00 am - 6:00 pm	1	1	176	11	44,880	2,805	255	5,355	1.9	$82,679	$15.44
Southern Route	7:00 am - 6:00 pm	1	1	165	11	42,075	2,805	255	19,115	6.8	$82,679	$4.33
Eastern Route	7:00 am - 6:00 pm	1	1	198	11	50,490	2,805	255	9,231	3.3	$82,679	$8.96
Center Route	7:00 am - 6:00 pm	1	1	176	11	44,880	2,805	255	26,123	9.3	$82,679	$3.16
Western Route	7:00 am - 6:00 pm	1	1	143	11	36,465	2,805	255	18,100	6.5	$82,679	$4.57
Paratransit	7:00 am - 6:00 pm	3	3	363	33	92,565	8,415	255	24,990	3.0	$248,037	25,245
Total/Avg		**9**	**9**	**1,386**	**99**	**353,430**	**25,245**		**121,930**	**4.8**	**$744,112**	**$6.10**
Hybrid Alternative												
Southeast Route	7:00 am - 6:00 pm	1	1	121	11	30,855	2,805	255	14,025	5.0	$82,679	$5.90
Northwest Route	7:00 am - 6:00 pm	1	1	121	11	30,855	2,805	255	26,947	9.6	$82,679	$3.07
Southern East Route	7:00 am - 6:00 pm	1	1	132	11	33,660	2,805	255	29,261	10.4	$82,679	$2.83
Northeast Route	7:00 am - 6:00 pm	1	1	132	11	33,660	2,805	255	29,761	10.6	$82,679	$2.78
Central South Route	7:00 am - 6:00 pm	1	1	121	11	30,855	2,805	255	29,347	10.5	$82,679	$2.82
Central North Route	7:00 am - 6:00 pm	1	1	121	11	30,855	2,805	255	27,970	10.0	$82,679	$2.96
Southwest Route	7:00 am - 6:00 pm	1	1	110	11	28,050	2,805	255	23,134	8.2	$82,679	$3.57
Main Lines	7:00 am - 6:00 pm	2	2	484	22	123,420	5,610	255		0.0	$165,358	
Total/Avg		**9**	**9**	**1,342**	**99**	**342,210**	**25,245**		**180,446**	**7.1**	**$744,112**	**$4.12**
Intercity Commuter Service (Ashton)	Peak Hours	1	0	212	5	54,060	1,173	255	1,830	1.6	$34,575	$18.89
Intercity Commuter Service (Irwin)	Peak Hours	1	0	188	4	47,940	1,020	255	1,326	1.3	$30,065	$22.67
Intercity Commuter Service (Pocatello)	Peak Hours	1	0	188	4	47,940	1,020	255	1,530	1.5	$30,065	$19.65
Intercity Tourist Trips	Off-Peak Hours	0	3	540	12	137,700	3,060	255	6,120	2.0	$90,195	$14.74
Rideshare - Broker Program									296,055		$35,758	$0.12

Note: Costs based on TRPTA 2005 costs.

Chapter X

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER X

Capital Needs

INTRODUCTION

There are many capital items required to provide transit services in any area. The first section of Chapter X includes the capital items required for public transit service such as vehicles, office facilities, passenger amenities, administrative computer programs, bicycle and pedestrian facilities, and advanced public transportation system technologies. The second section of Chapter X provides an evaluation of the funding alternatives for transit services within the study area. One of the principal challenges facing any transit service is developing a funding system that supports capital investment (buses, maintenance facility, etc.) and provides a stable source of revenue for operations and maintenance.

VEHICLES

The TRPTA fleet includes buses from the years 2000 through 2002. The CART, Inc. fleet includes buses from the years 1990 to 2005. The buses have an average vehicle-life of approximately four years or 100,000 to 150,000 miles, according to the Federal Transit Administration (FTA) guidelines. Several of the vehicles will require replacement in the short-term years. The following text presents information regarding alternative fuel vehicles which are used across the United States. This information may apply to the City of Idaho Falls in the future.

Alternative Fuels

To reduce pollution from mobile sources, the national Clean Air Act Amendments of 1990 encouraged the use of clean fuels such as methanol, ethanol, and natural gas derivatives (including compressed natural gas, liquefied natural gas, and liquefied petroleum gas). In order to develop a working concept of the different alternative fuels, their advantages and disadvantages, and their potential application for TRPTA, the following review of the relatively common alternative fuels has been prepared.

Methanol

Most of the methanol used commercially within the United States is manufactured from natural gas, making it economical to utilize. The tailpipe emissions of methanol are generally considered to be about half as reactive as an equal mass of emissions from gasoline or diesel fuel, promoting its use to reduce urban ozone in urban areas (such as Los Angeles). By volume, methanol has slightly more than half the energy content of diesel fuel and slightly more than half the energy content of gasoline. Due to the above characteristics, a methanol engine will consume slightly more than twice the volume of fuel per mile of service as compared to a diesel engine.

In the past few years, the transit authorities in Los Angeles and Seattle have retired their methanol programs due to the fuel's highly corrosive properties. After spending $102 million on methanol buses since 1989, Los Angeles County transit officials declared their methanol anti-pollution program a failure because the buses are prone to costly mechanical repairs. Officials of the Seattle metro transit agency eliminated their methanol demonstration program after a trial period of five years. The program's test results indicated that severe engine malfunctions were experienced on the buses at 60,000 and 70,000 miles, largely attributed to the corrosive nature of the fuel.

Ethanol

While not as corrosive as methanol, the major use of ethanol is currently limited as an octane additive and oxygenate for gasoline. According to the *Information Update* (Detroit Diesel Corporation, February 1992), the cost of ethanol is almost twice as much as that of methanol, making its use limited as a motor vehicle fuel. Aside from the fuel's economic drawbacks, ethanol has many benefits. Ethanol produces lower carbon monoxide emission rates than gasoline, has a higher energy density than methanol, and has a lower toxicity than either methanol or gasoline.

Compressed Natural Gas

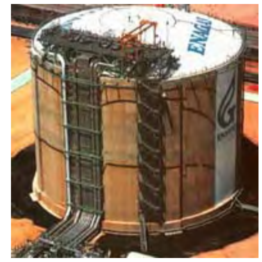
The strength of compressed natural gas (CNG) as an alternative fuel for transit buses is that it is generally less expensive per unit of energy than gasoline or diesel fuels. CNG fuel also has the potential to reduce the oxides of nitrogen (Nox) emissions, reactive organic hydrocarbons, particulate matter concentrations, and carbon monoxide concentrations by as much as 90 percent (per the Transportation Research Board, Transit Cooperative Research Program, 1993). The advantages of a CNG bus include no visible pollution and quieter operation. Over the last several years, CNG has become the alternative fuel of choice in the country's transit systems.

Historically, the weakness of CNG fuel is its difficult storage requirements. CNG is typically stored in high pressure cylinders under maximum pressures. The high weight, volume, and cost of the storage tanks have been a barrier to its commercialization as an alternative fuel. The recent development of lighter aluminum tanks, however, has reduced this disadvantage to some degree.

The main problem with CNG is primarily associated with the moisture in the compressed fuel freezing during the fueling process, since the approximate time to fill a bus may be three hours. Other problems that have been encountered nationally include the quality of local CNG supplies, limited testing of altitude effects on CNG, and limited CNG testing in extreme temperatures.

TRPTA would face additional costs for vehicles and facilities in order to convert to an entire CNG fleet. CNG vehicles typically cost $30,000 to $35,000 more than diesel-powered equivalent buses. In addition, a CNG refueling facility with an adequate capacity to fuel a substantial portion of the current fleet would cost between $600,000 and $1,000,000. Additional costs would be incurred to upgrade the maintenance facilities with the required safety features and to provide emergency response equipment and training.

Liquefied Natural Gas


LNG Storage Tank

Liquefied natural gas (LNG) has only recently received attention as an alternative fuel. The potential advantages of the fuel lie in its economic considerations, since the fuel processing costs are much less than that of the other gaseous fuels. LNG also has a greater potential to reduce the Nox emissions and the hydrocarbon emissions when compared to diesel and gasoline fuels. Currently, the biggest obstacles facing LNG are the lack of availability and its storage and handling facility requirements.

Liquefied Petroleum Gas

The advantages and disadvantages of liquefied petroleum gas (LPG) are similar to those of natural gas. The advantage of LPG is that gasoline engines can be easily converted due to its high heating and high octane characteristics. LPG is also well established in its transit fleet applications. According to the *Alternative Transportation Fuel in the United States* (R.F. Webb Corporation, June 1989), approximately 350,000 LPG transit vehicles were in operation in the United States. In 1995, the Department of Transportation estimated over 750,000 LPG transit vehicles would be in operation by the year 2000. The main disadvantage of LPG is the lower engine performance of transit vehicles using the fuel. According to the above citation, the conversion of an engine from gasoline to LPG will usually cause a 10 to 15 percent power loss.

Diesel Fuel

Diesel-fueled engines have traditionally dominated the transit vehicle marketplace due to diesel fuel's efficiency and durability. From an air quality perspective, diesel engines have very low tailpipe emissions of carbon monoxide and other organic gases. The concern from an air quality perspective, however, has been the diesel emission rates of the oxides of nitrogen emissions (Nox) emissions and particulate matter. Due to increasing environmental pressure to reduce the above emissions, the Environmental Protection Agency and American Public Transit Association have developed stringent regulations. The Clean Air Act Amendments (CAAA) permit the use of clean diesel in urban buses provided that the clean diesel engines meet the particulate matter standards imposed by the CAAA.

In partial response to the 1990 CAAA's recommendations for cleaner burning fuels and the continued development of the previously mentioned alternative fuels, the traditional diesel fuel engine has made great strides toward developing cleaner burning particulate traps and improved catalytic converter technology. Diesel engine manufacturers have been successful in lowering the Nox and particulate tailpipe emissions by employing the above-mentioned techniques, while still maintaining diesel fuel's economy.

Barring conversion to alternative fuels, a number of steps can be taken to substantially reduce the air quality impacts of diesel-fueled transit buses. Various transit systems have been successful in reducing the particulate emissions through the application of "clean diesel" technology. The utilization of a low-sulphur fuel has proven to reduce the average annual particulate emissions of a transit coach from 935 pounds to 260-300 pounds, which is roughly a 70 percent reduction. In addition, installation of an electronically-controlled fuel injection system and specially-designed transmission has dropped emission levels by 120 pounds of particulate matter annually, for a total emissions reduction of 87 percent.

This technology could be appropriate for TRPTA, if funding allows. Without funding assistance, TRPTA could still have a greater impact on local air quality through the purchase of new diesel equipment with "clean diesel" standards. In pursuing this route, TRPTA would eliminate the worst-polluting vehicles from the existing fleet. The next viable step is other cleaner fuels.

Bio-Diesel

Bio-diesel is a clean-burning alternative fuel made from the domestic renewable resources of vegetable oil and animal fat. Bio-fuel consists of the mono-alkyl esters that are derived from vegetable oils or animal fats which conform to the ASTM-D-6751 specifications for use in diesel engines. This fuel is then mixed with diesel to reduce the amount of pollution that the vehicle normally produces. At this time, there are 14 companies producing a capacity of 200 million gallons of bio-diesel.

The pollution reduction depends on the amount of bio-fuel that is mixed in with the diesel. The amount of carbon monoxide (CO) is reduced by 12 percent when the mixture is 20 percent bio-fuel and 80 percent diesel. The maximum amount of CO reduction is 48 percent with 100 percent bio-fuel. The disadvantage of bio-diesel is that it increases the production of Nox by 2 to 10 percent, depending on the mix of bio-fuel to diesel.

One advantage of bio-diesel is that the fuel can be used in the existing TRPTA bus fleet with a small amount of engine adjustment at a low cost. There are several grant sources through the FTA and Department of Agriculture to aid in funding bio-diesel conversions, such as the Clean Fuel Program and Congestion Mitigation Air Quality Program.

Tax Credits

On July 29, 2005, Congress passed the first comprehensive energy legislation HR 6 (P.L. 109-58) which includes a number of provisions for alternative fuel vehicles. The credit for purchasing a fuel cell vehicle is determined by a base credit amount that depends on the vehicle's weight. For fuel-cell powered vehicles weighing less than 8, 500 pounds, the base credit will be $8,000 while heavier vehicles will get bigger credits.

Bicycle Racks on Buses

The concept of bicycle racks on public buses has gained widespread acceptance and popularity in recent years, particularly in smaller transit systems. Bicycle racks are utilized as an inducement to increase transit ridership as well as to encourage non-motorized forms of transportation. A reasonable cost for a two-position, front-mounted bicycle rack is approximately $1,000 to $1,500 per vehicle. This cost could be reduced if a local bicycling store could be recruited to provide the rack at a reduced cost.

The Los Angeles County Metropolitan Transportation Authority, for example, uses stainless steel racks that hold two bicycles each. The Central Contra Costa Transit

Authority of Concord, California; Summit County Transit (Summit Stage), Colorado; and Mountain Metro Transit of Colorado Springs, Colorado are currently providing front-mounted bicycle racks on their entire fleet. MET Transit in Billings, Montana has installed bicycle racks with a very positive response from the community.

The most common type of bicycle rack is placed on the front of the vehicle (so the driver can watch the loading and unloading) and has space for two or four bikes. These racks are available on a “first-come/first-served” basis and are provided with a notice indicating that the passenger is liable for all damages. Passengers must be able to load and unload their bicycles on their own. Bicycles fitted with child seats are typically prohibited from utilizing the racks as the seat could block the bus’s turn signals.

The initiation of bicycle racks on transit buses could be a good opportunity for a promotional campaign for the environmentally-friendly citizens of Idaho Falls. The only drawback to bicycle racks is the additional time necessary for loading and unloading the bicycles. Operational problems associated with use of the bicycle racks can be minimized through the development and distribution of a pamphlet regarding the correct use of the rack.

TRPTA currently has bicycle racks installed on their buses. TRPTA will need to continue to purchase replacement bicycle racks, as well as bicycle racks for any additional vehicles. An important benefit of adding bicycle racks to the transit fleet is that the transit system is able to expand the service range without increasing the operational costs.

For fixed-route transit systems, bicycle parking at certain transit locations may need to be provided at accessible and convenient locations. The cost to install bicycle racks (for parking two bicycles) would be approximately $150 to $300 and would vary depending on the type and design. Some transit agencies like the City of San Luis Obispo, California have installed bicycle racks for little or no cost by allowing individuals to donate bicycle racks to the city for public use. The donated bicycle rack is then installed with a dedicated plaque from the donor.

PASSENGER AMENITIES

The “street furniture” (shelters, benches, lighting, etc.) provided by the transit system is a key determinant of the system’s attractiveness to both passengers and community residents. In addition, the “street furniture” increases the physical presence of the transit system within the community. Bus benches and shelters can play a large role in improving the overall image of a transit system and in improving the convenience of transit as a travel mode. More importantly, shelters are vital to those waiting for buses in harsh weather conditions, especially true in Idaho Falls.

Adequate shelters and benches are particularly important in attracting ridership among the non-transit-dependent population (those that have cars available as an alternative to the bus for their trips). Preference should be given to locations with a high proportion of elderly or disabled passengers and areas with a high number of daily boardings. Lighting and safety issues are equally important. Lighting could range from overhead street lighting to a low-power light to illuminate the passenger waiting area.

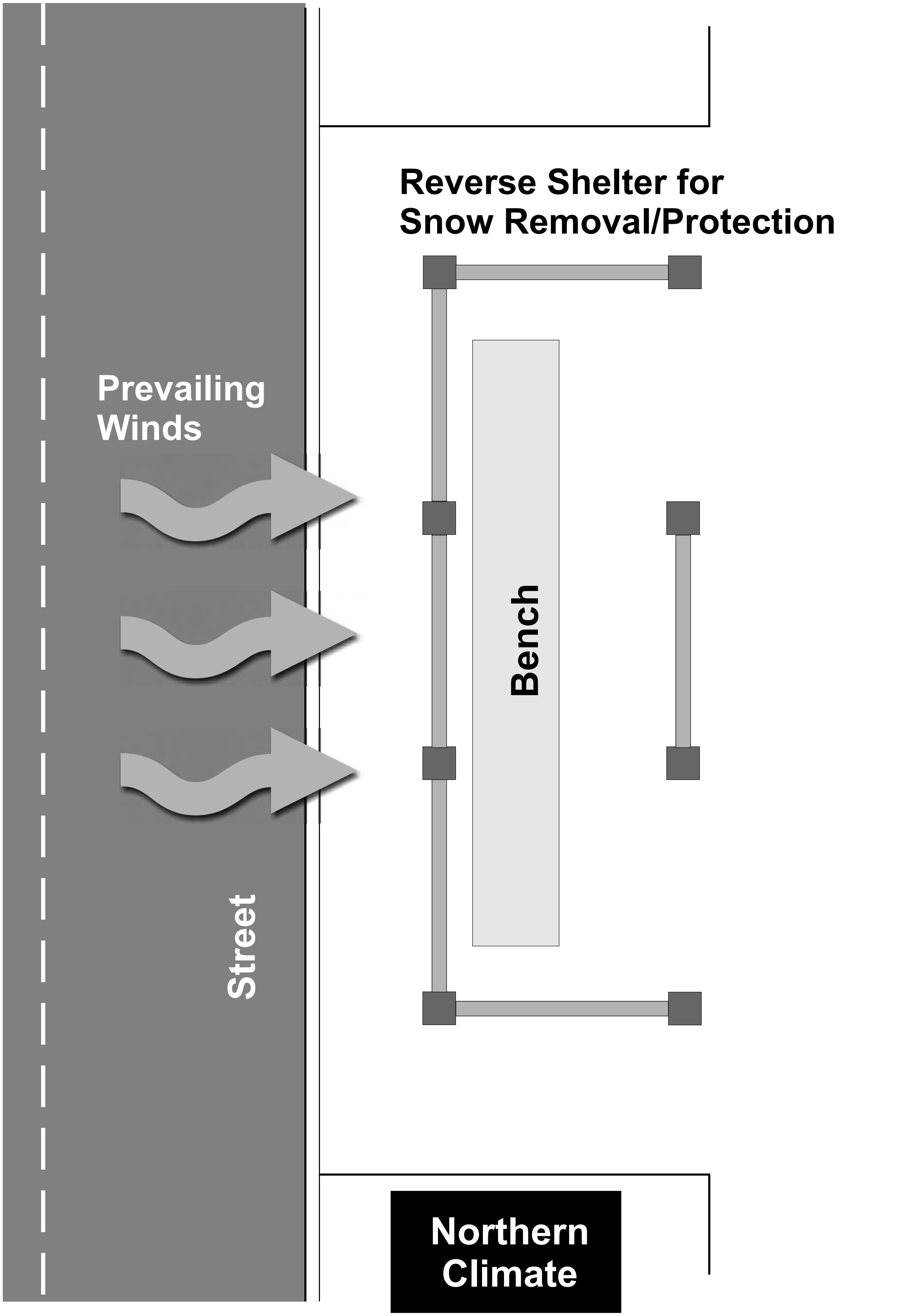
The cost of modern glass and steel shelters averages approximately $8,000 to $15,000 depending on type, size, and design. The maintenance and repair of vandalism to bus benches and shelters is a very minor cost. Modern benches and shelters are very durable and resistant to vandalism. Many transit agencies have even had benches provided by advertising firms at no cost to the transit agency.

Within Idaho Falls, there are no passenger transit shelters. Unlike major fixed-route transit systems, a checkpoint and demand-response system (like Idaho Falls has) offers no bus shelters because passengers are picked up at their place of residence and dropped off at their requested locations. Additional shelters, transfer stations, kiosks, and benches may be needed if the transit service in Idaho Falls moves from a checkpoint and demand-response system to a fixed-route system or a hybrid system.

Another important aspect is the orientation of bus shelters, especially in extreme climates. Information about orientation and design of bus shelters is taken from TCRP Report 19, "*Guidelines for the location and Design of Bus Stops.*" This report recommends that in cold temperatures with few trees, bus shelters should not face east or west. Figure X-1 shows a bus shelter design for cold climates.

As shown in Figure X-1, solid panels should be used to reduce and prevent direct wind. The shelters need to have four sides and two openings. The panels need to be clear in order in allow for safety and visibility. Other suggestions include trees to reduce heat in the summer and wind in the winter and to provide shade for patrons waiting at a bus stop. Technology such as misters or evaporating towers could be used to make passengers more comfortable. The only disadvantage with incorporating such technology is that it has higher installation and maintenance costs.

Figure X-1
Bus Shelter Design for Cold Climates



VEHICLE MAINTENANCE AND STORAGE FACILITY

To conduct proper preventative maintenance procedures, adequate facilities are required. Currently, the buses are stored inside two on-site storage buildings. These facilities currently accommodate adequate parts storage, meet safety requirements, and provide the necessary equipment, facilities, and room for maintenance activities. The total size of the storage facilities is 20,000 square feet. TRPTA also has a maintenance building with several bays for repair and one bay for washing the buses. TRPTA is in the process of updating these facilities to meet operational functional issues of safety and capacity needs.

TRPTA uses the Aquatic Center near downtown as a transfer center. A more formal transfer station may need to be constructed at the Aquatic Center. The land adjacent to the Aquatic Center is owned by the school district, and the building on the lot is used for storage. The lot also contains an older empty parking lot that is located between the old school and the Aquatic Center. This area could be used as a transfer station for the new transit service. A transfer station costs much less than a traditional transit center. The cost of a transfer station ranges from $50,000 to $500,000 depending on the number of passenger shelters, roadway implementations, and passenger amenities.

TRPTA's existing administrative building, which is on the same land as the maintenance and storage facilities, is in need of replacement. The new administrative building is currently under design. Preliminary designs show that the building could be 150 feet long and 30 feet wide, for a total of 4,500 square feet. The building would include offices for the TRPTA/CART, Inc. staff, offices for the BMPO, and a lobby for customers of the transit service and regional/nation bus service (long haulers).

The new administrative building will need to have certain minimum standards:

- Administrative employee office space.
- Drivers and mechanics room, which would serve as both a locker area and lunchroom.
- Radio/dispatching area, with space for the AVL/real-time dispatching equipment and personnel.

- Multipurpose room, which would be used as a training and meeting room.
- Bulk storage space.
- Parts storage space (including tires).
- Transit vehicle parking.
- Employee and visitor vehicle parking.
- Bus service island, with a service lane including a bus washing facility.
- Public restrooms

A transit administration facility is one of the most costly capital assets that any small transit agency develops. The cost of the facility ranges from several hundred thousand to millions of dollars depending on the size, function, and amenities of the building. Storing the buses inside, which in Idaho is very beneficial to long-term maintenance, increases the cost of the facility.

The cost of the land for the new facility was $1.17 million. TRPTA used FTA funding of $936,000 (80 percent) and Doug and Heber Andrus donated the 20 percent local match. The cost of updating the existing facilities on the land and the new administrative and transfer facility is estimated at $1.2 million. The funding is a mix from federal grants programs 5307 and 5311.

At this time, LSC recommends that whatever transit system is implemented in Idaho Falls, TRPTA continue with the design and construction of the new facilities. Note that the structure of the transit system could impact the design of the facility. The facilities will need to be completed in the next three years. The facility should be able to house approximately 15 fixed-route buses, six paratransit buses, and 20 to 23 intercity and rural vehicles (currently owned by CART, Inc.). The maintenance facility will need a minimum of three bays.

ADMINISTRATIVE CAPITAL NEEDS

The existing transit office is a small building that does not meet the needs of TRPTA or the compounding effects of the additional CART, Inc. staff. The existing facility is not adequate for the operation of the transit service. As stated above, TRPTA is currently in the design stage of the development of new administrative offices. The new facility plans should include sufficient space for administration and scheduling/dispatch duties.

Other administrative capital needs include updating computer hardware and software as needed. TRPTA currently updates their computer hardware and software as needed. Scheduling and dispatching software for the transit service is another future technological move for the transit services. The software has a price range from $5,000 to over $50,000 depending on the type of system. Each company prices the software differently (by trips per day, number of workstations, or number of vehicles). An adequate cost for TRPTA would be approximately $20,000 to $40,000 for the software. This can be funded with FTA grants on a 80/20 split.

TRPTA should provide updates to the Idaho Department of Transportation public transportation division and the City of Idaho Falls web page as needed. General information, hours of operation, fares, and other graphical information (such as maps of the system and service areas) should be provided. These updates could be obtained through a bottom on the state and city web pages that links to the TRPTA web site. The state already has this link, but the link is down several layers and is not easy to locate.

BICYCLE AND PEDESTRIAN FACILITIES

At one or both ends of their transit trips, virtually all transit passengers also travel on foot or bicycle. A key element of a successful transit system, therefore, is a convenient system of sidewalks and bikeways accessing the transit stops. TRPTA should work with the local jurisdictions to review the construction plans and scheduling priorities for pedestrian and bicycle improvements so that these plans coordinate with the transit passengers' needs.

ADVANCED PUBLIC TRANSPORTATION SYSTEM TECHNOLOGIES

A key consideration in long-term planning is the impact of technological improvements that could benefit transit services. In recent years, technological research and development programs have been incorporated into the Intelligent Transportation System (ITS) concept. The application element of ITS for public transportation is known as Advanced Public Transportation Systems (APTS). TRPTA should look for future technologies beyond the timeframe of this study.

Most of the APTS developments have come from the military and financial arenas. One such military development is the use of Global Positioning Satellites (GPS) to determine the exact location of an object through triangulation, radio frequencies, and computers. The same concepts used to track nuclear warheads and submarines and spy on other countries can be employed for other purposes, including improving transportation systems. Likewise from the financial arena, the same principles used in credit/debit cards and building security systems can be applied to the transportation field. These technologies can be utilized to monitor the individuals using the transit service by noting where they board and alight, debiting their fares from bank accounts, or charging their fares to the appropriate human service agency.

Several key conditions have evolved to make APTS applications more attractive. Technology has progressed to the point that the applications are finding their way into the general market. The cutting edge applications of yesterday are now relatively commonplace. Currently, APTS applications are being used in many western states and are realistic options for TRPTA.

Automated vehicle location (AVL) systems employ one of several means of determining the location of a vehicle. By monitoring the historical locations and demands of the vehicles, transit planners can better refine schedules and networks to optimize the workload of vehicles. Logical links to the AVL systems are real-time ride-matching and on-demand dispatching through sophisticated matching and scheduling programs. These systems function by examining where vehicles are, where the vehicles are heading, and how full the vehicles are at the time a ride request call is received. Through a series of decision trees, the computer matches the ride request to a vehicle and dispatches the ride order to the driver or, if no capacity exists on the vehicle, schedules the ride request to be filled by the first available vehicle. Providing transportation services in this flexible format may have significant and fundamental impacts on how demand-response and fixed-route services are provided.

The Regional Transportation District in Denver, Colorado has implemented an AVL system for 833 fixed-route buses and 66 supervisor vehicles at an estimated cost of $10,400,000. The Dallas, Texas rapid transit system is installing an AVL system for a total of 844 buses, 216 commuter coaches, 245 demand-response vans, and 300 supervisor vehicles. Similar systems are being developed in Milwaukee, Wisconsin and Baltimore, Maryland. The Baltimore system will include signal preference for buses running behind schedule. In small transit systems (such as Colorado Springs, Colorado), AVL units are being added to vehicles for the fixed-route and paratransit services.

The existence of real-time dispatching and ride-matching systems creates the need for linking the public to the service. The smart traveler system concept provides a quick link by phone, kiosk, or computer to the service dispatching system. A caller would request a ride. The system would examine vehicle availability in response to the ride request, and inform the caller where and when the rider would be met. The system may also suggest other mode choices available to the caller. The entire transaction need take only a few minutes. If an acceptable match cannot be made, the system may offer to fill the request with a taxi ride.

As an element of AVL technology, ridership data and monitoring can also be included in the database. This allows for improved tracking of ridership information such as trip purpose, origin, and destination. The information could then be used to analyze the effectiveness and efficiency of transit services over time.

These new technologies may seem quite advanced for Idaho Falls. However, these developments are realistically the wave of the future for transportation systems. Such technological advancements improve transit efficiency, quality of service, and service for all types of public transportation in urban and rural areas. All infrastructure development in the short term needs to be designed with the above technologies in mind.

SUMMARY OF CAPITAL NEEDS

Various capital needs should be taken into consideration when providing public transit services. The capital items required for public transit services include vehicles, transit office and vehicle facilities, passenger amenities (such as shelters and benches), administrative computer programs and web pages, bicycle and pedestrian facilities, and advanced public transportation system technologies. The capital needs identified above should be considered when developing a more coordinated and efficient public transit system within the study area.

Chapter XI

TRANSPORTATION CONSULTANTS, INC.

CHAPTER XI
Financial Alternatives

FUNDING SOURCES

Successful transit systems are strategic about funding and attempt to develop funding bases that enable them to operate reliably and efficiently within a set of clear goals and objectives according to both long-range and short-range plans. Potential strategies for funding the transit services in the Idaho Falls area are described below.

CAPITAL FUNDING

The transit system for this area will require capital funding for bus fleet procurement and for bus stops and shelters. The following strategies for funding capital development should be considered.

- Federal funding (along with any state matching funds) should be maximized, both within the existing Federal Transit Administration (FTA) Sections 5307, 5309, and 5311 programs and through pursuit of discretionary grants from the FTA channels and direct Congressional earmarked funding. Small transit systems often underachieve their potential for federal grant assistance because they assume they cannot compete in that arena. Close coordination with the Idaho Department of Transportation will help the transit systems be aware of funding opportunities and compete for funding.

- In general, the best use of federal discretionary grant funding is for capital needs since this is a highly speculative source of money that requires extensive political effort at a level that is feasible only as a one-time or occasional undertaking.

- Planning for capital facilities should take into account long-range system development needs. Many transit systems outgrow their facilities quickly and face costly relocation and expansion needs because of inadequate space or other constraints.

- The transit financial management system should include specific provisions for fleet replacement and other capital investments. A sinking fund for capital replacement should be established, and some amount of money from local funding sources should be set aside annually based upon a recapitalization plan. Note that buses and certain other capital facilities purchased with federal participation (80 percent under SAFETEA-LU) are also eligible for federal participation for replacement costs once the buses and facilities reach maturity (as defined in the FTA rules).

OPERATIONS AND MAINTENANCE FUNDING

Over time, the primary financial requirement of a local or regional transit system will be funding the routine operations and maintenance (including daily transit service, vehicle maintenance, and system administration). Labor represents about 60 to 75 percent of the costs for running a transit system, with the majority of that amount going to drivers' salaries. The following strategies for funding operations and maintenance should be considered.

- Reliance on general fund appropriations from local governments should be avoided, if possible. It is common for local and regional transit agencies in many states, including Idaho, to be dependent upon the annual appropriations from their constituent towns, cities, and counties. As a practical matter, such appropriations mean that it will not be possible to forecast future funding levels given the exigencies of local government funding. A transit agency that relies upon such appropriations will be unable to undertake capital planning and will continually face potential service cutbacks. This, in turn, makes it difficult or impossible for the transit agency to enter into partnership arrangements with other agencies or private entities. Transit agencies, like highway agencies, require that most or all of their operations and maintenance funding come from dedicated sources so that they can undertake responsible planning and offer reliable, consistent service.

- It may be necessary to collect fares as part of the transit system funding, but this is not an ideal source of revenue. Due to the realities of a transportation system's cost and financing structure, it is generally not possible to recoup more than 10 to 20 percent of operations and maintenance costs from the farebox revenues within rural areas. Fare collection itself incurs costs for farebox maintenance, cash management, and auditing. Fare collection slows down vehicle boarding and increases the operating costs by increasing the time required to run each route. Finally, fare collection deters ridership.

- Operations and maintenance funding mechanisms should be designed to anticipate transit system growth. Successful rural and small urban transit systems around the United States are experiencing annual growth in ridership. It is important to be able to respond to such growth by increasing the service levels to meet the demand. This means that the ideal funding sources for operations and maintenance are those that have the flexibility to be increased or expanded as demand grows. Such flexibility will, in most cases, require voter approval. The important consideration is that the need for growth has been anticipated, and the potential for larger budgets is not precluded by the choice of a source of funding.

OVERALL SERVICE FUNDING CONSIDERATIONS

There are also a few overarching considerations in developing a coherent transit system funding strategy including :

- Issues of funding and service equity are of paramount importance in designing a strategy for future funding. Informal systems based upon annual appropriations, as well as systems without specific accounting for the distribution of costs and benefits, struggle with the local elected bodies to find acceptable allocations of cost responsibility. This can become a significant barrier to transit system establishment and, later, to system growth.

- The strongest regional transit systems are those that make extensive use of partnerships. Examples include partnerships with private companies, national parks, other major public facilities, and adjacent jurisdictions. Partnership arrangements enable a transit system to broaden its base of beneficiaries, expand its funding source alternatives, achieve better governance, and improve public support.

POTENTIAL LOCAL AND REGIONAL FUNDING SOURCES

In Idaho, statutory municipalities and counties have the power to fund transit according to a state statute. At this time there is no state statute that allows any transportation or transit authority the ability to levy a local option sales tax. The transit authorities are dependent on donations of funding from the local government entities. There is one exception and that is resort communities such as Sun Valley. The State of Idaho also has no state law that allows local governments to levy an option tax (sales, hotel tax, etc.) except for Sun Valley. The principal funding sources for local and regional transit systems in Idaho are described below. LSC has also included in this list of funding options the method used in other states to fund transit.

General Fund Appropriations

Counties and municipalities may appropriate funds for transit operations, maintenance, and capital needs. Money to be appropriated generally comes from local property taxes and sales taxes. Competition for such funding is high and local governments generally do not have the capacity to undertake major new annual funding responsibilities for transit. Combined, TRPTA and CART, Inc. currently receive approximately $233,500 from this funding source.

Advertising

One modest but important source of funding for many transit agencies is on-vehicle advertising. The largest portion of this potential is for exterior advertising, rather than interior “bus card” advertising. The potential funds generated by advertising placed within the vehicles are comparatively low. Advertising on bus shelters has also been used to pay for the cost of providing the shelter. Some systems have used full bus “wraps” as a means of generating significant revenue.

Voluntary Assessments

The voluntary assessments alternative requires each participating governmental entity and private business to contribute to the funding of the transit system on a year-to-year basis. This alternative is common with transit agencies that provide regional service rather than service limited to a single jurisdiction. The main advantage of voluntary assessment funding is that it does not require voter approval. However, the funding is not steady and may be discontinued at any time.

Private Support

Financial support from private industries could assist in providing adequate transportation services in the Idaho Falls area. The major employers in the Idaho Falls area are potential sources of revenue. Firms may be willing to help support the cost of alternative fuel vehicles or the operating costs for employee transportation.

Transportation Impact Fees

Traditional methods of funding the transportation improvements required by new development raises questions of equity. Sales taxes and property taxes are applied to both existing residents and new residents attracted by the development. However, existing residents then inadvertently pay for the public services required by the new residents. As a means of correcting this inequity, many communities nationwide (faced with strong growth pressures) have implemented development impact fee programs that place a fee upon new developments equal to the costs imposed on the community.

Previous work by LSC indicates that the levy of impact fees on real estate development has become a commonplace tool in many regions to ensure that the costs associated with a development do not fall entirely upon the existing residents. Impact fees have been used primarily for highways and roadways, followed by water and sewer projects. A program specifically for mass transit has been established in San Francisco. However, this is not a likely source for transit funding in rural Idaho. At this time, there is no state-enabling law that would allow the local government or TRPTA to levy this type of tax.

A number of administrative and long-term considerations must be addressed:

- It is necessary to legally ensure that the use on which the fees are computed would not change in the future based on a new use with a higher impact fee by placing a note restricting the use on the plat recorded in public records.
- The fee program should be reviewed annually.
- The validity of the program, and its acceptability to the community, is increased if a time limit is placed on the spending of collected funds.
- TIF funds need to be strictly segregated from other funds.
- The imposition of a TIF program could constrain capital funding sources developed in the future, as a new source may result in a double payment.
- TIF fees should be collected at the time that a building permit is issued.

Hotel Bed Tax

The appropriate use of lodging taxes (occupancy taxes) has long been the subject of debate. Historically, the bulk of lodging taxes are used for marketing and promotion efforts for conferences and general tourism. In other areas, such as resorts, the lodging tax is an important element of the local transit funding formula. A lodging tax can be considered a specialized sales tax placed only upon lodging bills. As such, it shares many of the advantages and disadvantages of a sales tax. Taxation of this type has been used successfully in Park City, Utah; Sun Valley, Idaho; Telluride, Colorado; and Durango, Colorado. A lodging tax creates inequities between different classes of visitors as it is only paid by overnight visitors. The day visitors (particularly prevalent in the summer) and condominium/second home owners, who may use the transit system as much as the lodging guests, do not contribute to this transit funding source. At this time, the only community that can levy this type of tax is Sun Valley.

Sales Tax

A sales tax could be held with funds to go to transit services. Sales tax is the financial base for many transit services in the western United States. The required level of sales tax would depend upon the service alternatives chosen. One advantage is that sales tax revenues are relatively stable and can be forecast with a high degree of confidence. In addition, sales tax can be collected efficiently, and it allows the community to generate revenues from visitors in the area.

This source would require legislative approval and a vote of the people to implement. In addition, a sales tax increase could be seen as inequitable to residents not served by transit. This disadvantage could be offset by the fact that sales taxes could be rebated to incorporated areas not served by transit. Transit services, moreover, would face competition from other services which may seek to gain financial support through sales taxes. As stated in the first part of this section, TRPTA and the other transportation authorities do not have the legal authority to levy a tax at this time. If such a state statute is passed, a sales tax is the most effective method to fund transit over the long term.

Local College Funding

A strategy successfully applied in several similar cities to generate transit revenues from campus communities is to levy a student activity fee for transit services or an established amount from the college general fund. An activity fee would have to be approved by a majority of students and would be applied each semester or quarter of school.

FEDERAL TRANSIT FUNDING SOURCES

Through the SAFETEA-LU, the federal government has substantially increased the transit funding levels for small urban and rural areas. In addition, changes in program requirements have provided increased flexibility regarding the use of federal funds. Following are discussions of the federal transit funding programs available for which Idaho Falls urban area is eligible.

In addition, there are two newer funding categories: New Freedoms funding and the FTA Section 5340 program. The New Freedoms Program is designed to provide public transportation services to disabled individuals beyond what is required by the Americans with Disabilities Act of 1990. FTA Section 5340 is designed to accommodate the growth factor and high density factor and consists of two components. The first component (50 percent) of the funds are apportioned based on the state population forecast of 15 years from the most recent US Census. That amount is then distributed to rural and urban populations within those states. The second component (50 percent) funds are apportioned to states with population densities above 370 persons per square mile. That amount is then distributed to only urbanized populations within those state. This new funding under Section 5340 is included in the 5307 and 5311 funding totals.

FTA Sections 5307/5340 – Public Transportation for Urbanized Areas

This program (49 USC 5307 and 5340) makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the US Department of Commerce - Bureau of the Census. The amount of allocation is based on a formula for those areas with over 200,000 population. In areas with less than 200,000 population, the allocation is set by the governors.

Eligible purposes include the planning, engineering design, and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention, security equipment, and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. All preventive maintenance and some Americans with Disabilities Act-complementary paratransit service costs are considered capital costs.

For urbanized areas with a population of 200,000 or more, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive federal funds. For urbanized areas under 200,000 in population, the funds are apportioned to the governor of each state for distribution. A few areas under 200,000 in population have been designated as transportation management areas and receive apportionments directly.

For urbanized areas with populations of 200,000 or more, operating assistance is not an eligible expense. In these areas, at least one percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access, and enhanced access for persons with disabilities. In those areas with a population of less than 200,000, 50 percent of the funding allocated by the governor can be used in operations. For every dollar the agency uses in operation, the amount available for capital expenditures is reduced. The total funding available through 5307 and 5340 is estimated at $6.3 million in fiscal year 2007 and $6.88 million in fiscal year 2008. The total amount of funding over the years of SAFETEA-LU is estimated at $26.6 million.

FTA Section 5309 – Capital Improvement Grants

The FTA Section 5309 program (capital improvement grants) is split into three categories: new starts, fixed guideway modernization, and transit vehicles and facilities. These funds were formerly apportioned directly by the FTA. For several years, however, Congress has earmarked these funds directly. There is no indication that this trend toward earmarking the funds will change. The Idaho Falls area is eligible for this program and in recent fiscal years, smaller urban and rural areas have received a greater share of these funds than in previous years. There could be an impact to any additional funding from 5309 in the short term since TRPTA has received earmark funding for the new transit facility. In the long term (four to ten years), TRPTA could expect additional 5309 funding for capital.

FTA Section 5310 – Capital for Elderly and Disabled Transportation

FTA funds are also potentially available through the Section 5310 program which provides capital for elderly and disabled transportation. These funds are largely for vehicles and may be used to replace existing vehicle. TRPTA is not eligible for these funds, but other small nonprofit entities in the area are eligible for this funding.

FTA Section 5311 – Public Transportation for Rural Areas

FTA funding for rural areas is currently provided through the Section 5311 program. A 20 percent local match is required for capital expenditures, and a 50 percent local match is required for operating expenditures. These funds are segmented into “apportioned” and “discretionary” programs. The bulk of the funds are apportioned directly to rural counties based upon population levels. This program has historically been the source of FTA funds for many rural areas within Idaho.

Under SAFETEA-LU, Idaho has seen an increase in nonurbanized areas (Sections 5311 and 5340) funding, which is estimated to be $5.07 million in fiscal year 2007. CART, Inc. currently receives about $486,000 in funding for rural and intercity public transportation service. This does not cover the cost of the urban demand-response service that CART, Inc. provides. The total amount of funding over the years of SAFETEA-LU is estimated at $21.2 million.

FTA Section 5312 – Research, Development, Demonstration, and Training Projects

The FTA Section 5312 program provides funding for research, development, demonstration, and training projects. The Secretary of Transportation may provide grants or contracts that will help reduce urban transportation needs, improve mass transportation service, or help mass transportation service meet the total urban transportation needs at a minimum cost. The Secretary of Transportation may also provide grants to nonprofit institutions of higher learning to conduct research and investigation into the theoretical or practical problems of urban transportation and to train individuals to conduct further research or obtain employment in an organization that plans, builds, operates, or manages an urban transportation system. The grants may be provided to state and local governmental authorities for projects that will use innovative techniques and methods in managing and providing mass transportation.

FTA Section 5317 – New Freedoms Program

This program funding is for meeting the transportation needs of persons with disabilities that go beyond those required by the American with Disabilities Act. The funding is for capital and operating costs. The funding levels are based on a formula calculated according to the population of persons with disabilities. The allocation of this funding is 60 percent to areas with over 200,000 population, 20 percent for urban areas with less than 200,000 population, and 20 percent for rural areas. The funding allocation can be transferred between urban and rural areas. This funding can be matched with certain federal programs like Health and Human Services. The level of funding in SAFETEA-LU for the New Freedoms Program for the State of Idaho is $310,000 in fiscal year 2007.

FTA Section 5319 – Bicycle Facilities

The FTA Section 5319 program provides funds for improved bicycle access to mass transportation facilities or for bicycle shelters and parking facilities in or around mass transportation facilities. The FTA Section 5319 program provides funding for 90 percent of the project cost, with some exceptions. The installation of equipment for transporting bicycles on mass transportation vehicles is a capital project that is eligible for assistance under the FTA Section 5309 and 5311 programs.

Transit Benefit Program

The transit benefit program is a provision within the Internal Revenue Code (IRC) that permits an employer to pay for an employee's cost to travel to work in other than a single-occupancy vehicle. The program is designed to improve air quality, reduce traffic congestion, and conserve energy by encouraging employees to commute by means other than single-occupancy motor vehicles. Under Section 132 of the Internal Revenue Code, employers can provide up to $105 per month to those employees who commute to work by transit or vanpool. A vanpool vehicle must have a seating capacity of at least six adults, not including the driver, to qualify under this rule. The employer can deduct these costs as business expenses. Employees do not report the subsidy as income for tax purposes since the subsidy is considered a qualified transportation fringe benefit.

Under TEA-21 and SAFETEA-LU, the transit benefit program has become more flexible. Prior to TEA-21, the transit benefit program could only be provided in addition to the employee's base salary. With TEA-21 and SAFETEA-LU, the transit benefit program may be provided as before or can be provided in lieu of salary. In addition, the program may be provided as a cash-out option for employer-paid parking for employees. To summarize, the transit benefit program may not necessarily reduce an employer's payroll costs. Rather, it enables employers to provide additional benefits for employees without increasing the total payroll expenses.

Job Access and Reverse Commute Program

The job access and reverse commute (JARC) program, funded through TEA-21 and SAFETEA-LU, has an emphasis on using funds to provide transportation within rural areas that currently have little or no transit service. The list of eligible applicants includes states, metropolitan planning organizations, counties, and public transit agencies, among others. A 50 percent non-Department of Transportation match is required, but other federal funds may be used as part of the match. FTA gives a high priority to applications that address the transportation needs of areas that are unserved or underserved by public transportation. Idaho is estimated to receive $663,000 in fiscal year 2007 and $718,000 in fiscal year 2008 from the JARC program. The total funding over the years of SAFETEA-LU is estimated at $2.7 million.

Transportation and Community System Preservation Program

The transportation and community system preservation program is funded by the Federal Highway Administration to provide discretionary grants for developing strategic transportation plans for local governments and communities. The goal of the program is to promote livable neighborhoods. Grant funds may be used to improve the safety and efficiency of the transportation system, reduce adverse environmental impacts caused by transportation, and encourage economic development through access to jobs, services, and centers of trade.

OTHER FEDERAL FUNDS

A wide variety of other federal funding programs provide support for transportation programs. Some of these are currently being utilized in the area and others can be explored further including the following:

Surface Transportation Program (STP)

The funds from this program may be spent on any road that is functionally classified as a Collector or Arterial for urban streets or as a Major Collector or Arterial for rural areas. The type of projects may range from rehabilitation to new construction. These funds may also be used for transit capital projects, vehicles, and bus terminal facilities. The City of Idaho Falls could be eligible for this source of funding.

Older Americans Act

Through the Administration on Aging's Title III-B program, funds are awarded on a formula basis to state and area agencies on aging for the purpose of providing supportive services for older persons, including the operation of multipurpose senior centers. Many area agencies on aging use these funds to help meet the transportation needs of older persons.

Department of Commerce, Economic Development Administration

Grants support capital facilities in economically-distressed areas, including transportation facilities and infrastructure improvements. Funds also are available for planning and adjustment assistance in communities experiencing severe economic deterioration. Public bodies and private nonprofit organizations are eligible applicants.

Supportive Housing for Persons with Disabilities

The Department of Housing and Urban Development, Office of Housing program helps private nonprofit entities provide housing and necessary supportive services for low-income persons with disabilities. Transportation is among the supportive services that may be funded through this program.

Supportive Housing Program

The Supportive Housing Program provides a broad range of assistance for housing and related services for homeless persons. Transportation to link supportive housing residents with other necessary services may be funded. State and local governments, private nonprofit agencies, and community mental health associations are eligible to apply.

Office of Public Housing, Public Housing Drug Elimination Program

The Public Housing Drug Elimination Program (DEP) provides grants to reduce drug-related crime and criminal activities in and around public housing developments. Funds may be used to support transportation activities or services to reduce the incidence of drug-related crime and other criminal activities. Public and Native American housing authorities are eligible applicants.

Resident Opportunities and Self-Sufficiency Program

Known as ROSS, this program links public housing residents to needed services by providing grants for supportive services, resident empowerment activities, and activities that assist residents in becoming economically self-sufficient. Transportation-related activities and services are allowable uses of this program's funds.

Department of Justice Weed and Seed Program

This program seeks to combat violent crime through a multi-faceted approach of crime prevention and community improvement strategies, including the improvement of facilities and services (such as those related to transportation) in high-crime areas. Much of Weed and Seed's activity is the provision of training and technical assistance to areas seeking to implement these strategies. In addition, the program funds local efforts being carried out by coalitions of community groups, local governments, and US Attorneys' offices.

Senior Community Service Employment Program

This program, authorized by Title V of the Older Americans Act, provides formula grants to states and grants to national nonprofit organizations for subsidized employment and related services for low-income elders. Transportation is among the services provided through this program.

Workforce Investment Pilot and Demonstration Programs

This is a program of demonstrations and innovations in providing job training services. Particular emphases are to initiate pilot projects operating in more than one state and to serve groups with particular labor market disadvantages. Transportation services that are part of these projects can be supported.

Workforce Investment Act Programs

The Workforce Investment Act (WIA) provides funding to state and local workforce development agencies for a variety of youth, adult, and dislocated worker employment and training services. States may use these funds to help provide transportation to training programs for program participants. State employment and training agencies receive these funds, which then are passed on to area workforce development boards, which allocate program resources according to local workforce development plans.

Veterans' Employment and Training Service, Homeless Veterans' Reintegration Project

This is a program of discretionary grants to local public and private nonprofit organizations to provide employment and training services that help urban and rural homeless veterans re-enter the workforce. Funds may be used to provide transportation, outreach, and other support services.

Department of Education, Federal TRIO Programs

TRIO is a program of outreach and support targeted to help disadvantaged students progress from middle school to college. TRIO's Student Support Services program provides supportive services to disadvantaged college students with the goal of helping these students successfully complete their studies. Grants are awarded to institutions of higher education, which then may provide a broad range of supportive services (including services to help students with disabilities overcome transportation or other access barriers) to eligible students.

Vocational Rehabilitation Grants

Vocational rehabilitation funds are distributed to state rehabilitation agencies on a formula basis to provide a full range of rehabilitative services. Funds may be used for transportation to these services.

Centers for Independent Living

This program provides support to local nonprofit centers for independent living, enabling them to provide training, counseling, advocacy, and supportive services to individuals with significant disabilities. Transportation services are provided through this program. These funds are only awarded to local nonprofit centers.

Temporary Assistance for Needy Families

States receive these formula grants, known as TANF, to provide cash assistance, work opportunities, and necessary support services for needy families with children. States may choose to spend some of their TANF funds on transportation and related services needed by program beneficiaries.

Head Start

Head Start is a program of comprehensive services for economically-disadvantaged preschool children. Funds are distributed to local public and nonprofit agencies to provide child development and education services, as well as supportive services such as transportation. Head Start funds are used to provide transportation services, acquire vehicles, and provide technical assistance to local Head Start centers. CART, Inc. presently receives about $14,000 from Head Start for transportation service. If this funding is under a contract with Head Start for transportation service, it can be used as local match on FTA funding, in effect doubling the $14,000 to about $28,000.

Developmental Disabilities Basic Support and Advocacy Grants

This program provides formula grants to state agencies serving the developmentally-disabled for the purpose of enabling persons with developmental disabilities to become fully integrated into their communities. Funds are used to support the activities of state developmental disabilities planning councils, and to provide a variety of support services, including transportation.

Social Services Block Grants

Also known as Title XX, this program provides formula funds to state welfare agencies to provide social services, including transportation services, that help individuals reduce welfare dependency, achieve self-sufficiency, or forestall unnecessary use of institutional care. Since the advent of welfare reform in 1996, there has been a decline in federal support for this program.

Community Health Centers

This program supports primary health care centers in medically-underserved areas, migrant communities, public housing sites, and at organizations providing medical care to homeless persons. Funds may be used to provide transportation services as necessary to provide health care services. Private nonprofit and public health agencies are eligible applicants.

Rural Health Outreach and Research

Funds are provided for demonstration grants to expand or enhance the availability of health services in rural areas, and for applied research in the field of rural health services. Transportation services that improve the availability of rural health care can be funded through this program. Public agencies and private nonprofits are eligible applicants.

Medicaid

Medicaid is a program of medical assistance for qualified low-income persons and persons with disabilities. Under this program, states are required to arrange for transportation of beneficiaries to and from medical care. Individual states determine how transportation costs are to be paid and which transportation providers are eligible program participants. CART, Inc. currently receives about $489,500 from Medicaid for transportation service. If this funding is under a contract with Health and Human Service for transportation service, it can be used as local match on FTA funding, in effect doubling the $489,500 to about $979,000.

Corporation For National Service, National Senior Service Corps

The National Senior Service Corps provides volunteer and community service opportunities for older persons through three programs: the Foster Grandparent Program, the Retired Senior Volunteer Program, and the Senior Companion Program. In each of these, program funds may be used to support the transportation needs of program participants.

FUNDING SUMMARY

Experience with transit systems across the nation underscores the critical importance of dependable (preferably dedicated) sources of funding if the long-term viability of transit service is to be assured. Transit agencies that are dependent upon annual appropriations and informal agreements have suffered from reduced ridership (because passengers are not sure if service will be provided from one year to the next), high driver turnover (contributing to low morale and a resulting high accident rate), and inhibited investment in both vehicles and facilities. Such transit agencies that have experienced these types of issues include those in Teton County, Wyoming and Prowers County (SEATS), Colorado.

The advantages of financial stability indicate that a mix of revenue sources is prudent. The availability of multiple revenue sources helps to avoid large swings in available funds which can lead to detrimental reductions in service. As the benefits of transit service extend over more than one segment of the community, dependence upon more than one revenue source helps to ensure that costs and benefits are equitably allocated.

State funding in Idaho is currently a limited source of revenue for transit. Federal funds are also limited, although the current trend is an annual increase. A strong local transit funding source is needed to allow the many plans and proposals for transportation improvements to reach implementation with an assurance of on-going operating funding. Though all of the options regarding local funding have drawbacks and restrictions, it is clear that a hybrid of these alternatives will be necessary if the short-term and long-range goals of the transit system and the community are to be met.

Chapter XII

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER XII

Preferred Transit Service

INTRODUCTION

Chapter XII reviews the details of the preferred transit service alternative including the levels of service, route schedules, operating costs, and capital needs. The preferred transit service plan would be developed in four phases, each of which would increase the level of service. The four phases were created in order to facilitate the coordination and development of transit service in the study area.

PREFERRED TRANSIT SERVICE ALTERNATIVE

At the June 2006 meeting, the stakeholders agreed that the Alternative III concept (hybrid system) should be the preferred transit service. Alternative III includes seven flex routes and one jump route. The LSC team worked with the stakeholders and the drivers to develop the preferred transit service plan, including the following adjustments to Alternative III:

- The adjustment of the route structure for each of the flex loop routes, based on the LSC test drive of each route conducted in June 2006.
- The adjustment of only having one jump route instead of two, based on the jump routes' running times during the LSC test drive conducted in June 2006.
- The addition of phases to the implementation of the recommended transit service plan.
- Adjust the preferred plan to reflect peak-hour service and off-peak-hour service.

SERVICE PLAN

The proposed service changes for TRPTA over the next six years (2007 to 2012) include: restructuring the current system to a hybrid system with seven flex routes and one jump route, decreasing headways, expanding weekday service hours, adding Saturday service, creating commuter service, developing a broker program for the region, and expanding the service area. The financial details are shown in Table XIII-2 (at the end of Chapter XIII). The following sections detail the transit service that will be implemented in each phase. Table XII-I presents the level of service for the four phases of the preferred transit service plan.

Table XII-1
Preferred Service – Hybrid

Route	Number of Buses	Ave. One-Way Distance	Ave. Two-Way Distance	Speed	Travel Time (min)	Peak Headways (min)	Off-Peak/ Weekend Headways (min)	Revenue-Hours	Hourly Cost	Off-Peak Time	Daily Cost	Weekends (day)	Annual Cost (2006)
Phase I													
Blue Route A/B	2	5	5	13	22	0	30	15	$ 29.48	$ 442.13	$ 442.13	$ 0.00	$ 112,744.17
Green Route A/B	2	5	5	13	21	0	30	15	$ 29.48	$ 442.13	$ 442.13	$ 0.00	$ 112,744.17
Purple Route	1	5	5	13	22	0	30	8	$ 29.48	$ 235.80	$ 235.80	$ 0.00	$ 60,130.22
Yellow Route A/B	2	5	5	13	24	0	30	15	$ 29.48	$ 442.13	$ 442.13	$ 0.00	$ 112,744.17
Jump Route	2	8	8	22	23	30	30	15	$ 29.48	$ 442.13	$ 442.13	$ 0.00	$ 112,744.17
Demand Response								28	$ 29.48	$ 825.32	$ 825.32	$ 0.00	$ 210,455.78
Subtotal	**9**									**$ 2,004.34**	**$ 2,004.34**	**$ 0.00**	**$ 721,562.69**
Phase II													
Evening Service	9			13	23	30	30	27	$ 29.48	$ 795.84	$ 795.84		**$ 202,939.51**
Commuter Service	2							9	$ 29.48	$ 265.28	$ 265.28		**$ 67,646.50**
Subtotal	11												**$ 270,586.01**
Phase III (Future)													
Saturday Service	9			13	23	30	30	68	$ 29.48	$ 2,004.34		$ 2,004.34	**$ 104,225.72**
Subtotal	9												**$ 104,225.72**
Phase IV													
Expanded Service	3			13		30		33	$ 29.48		$ 972.69		**$ 248,037.17**
Commuter Service	1							4	$ 29.48	$ 117.90	$ 117.90		**$ 30,065.11**
Subtotal	4												
Grand Total (No Inflation)													**$ 1,719,223.32**

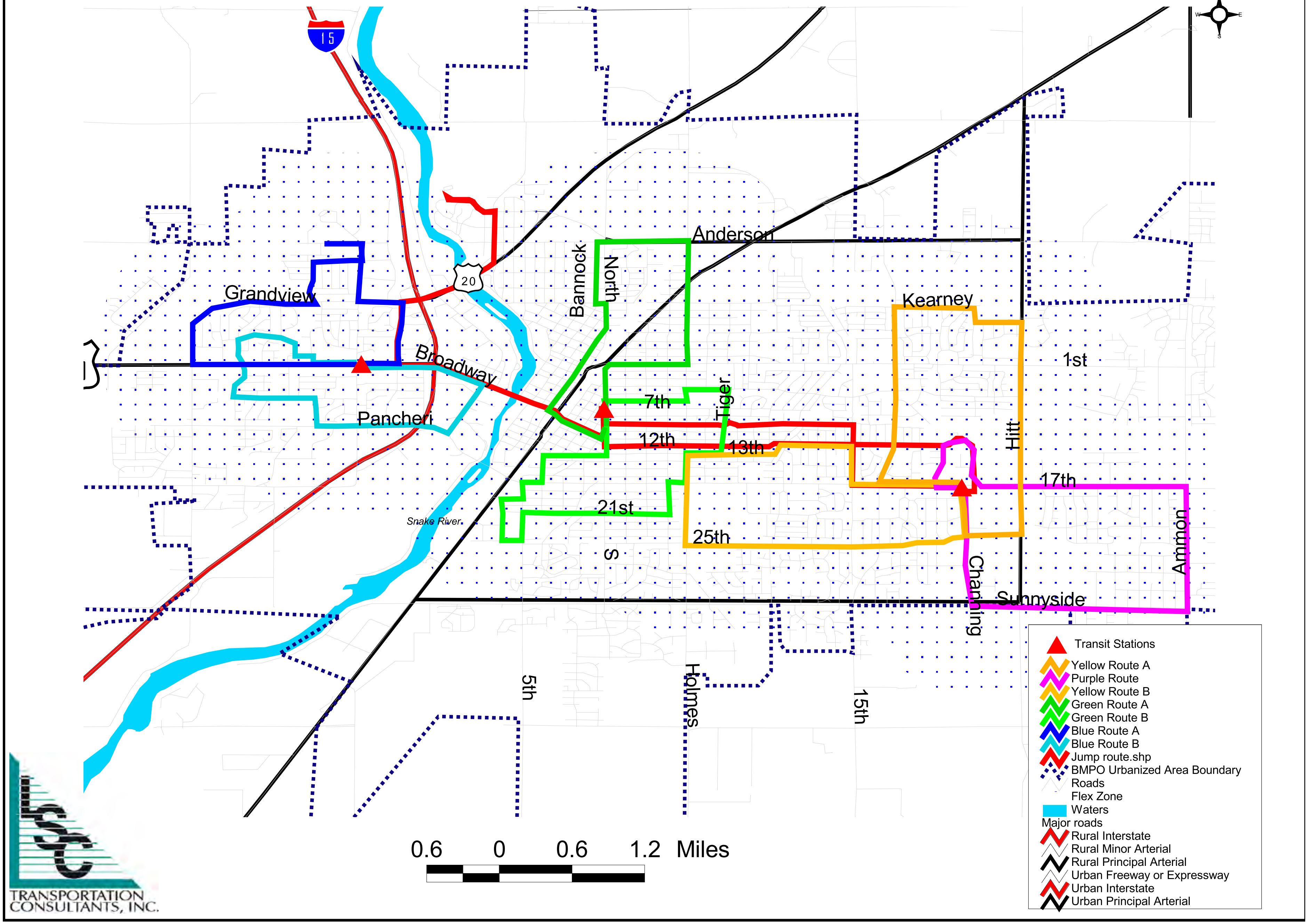
Phase I - Hybrid System (Years 2009 to 2010)

The first service recommendation is for TRPTA to restructure the existing service into a hybrid system with flex routes. In this system, as first presented in Chapter IX, the routes interconnect at three major transfer points: the new transit facility on Broadway, the Aquatic Center, and the Grand Teton Mall area. The critical element of this system is that the buses operate on a 30-minute pulse (headway) in peak time and in off-peak time the system will operate on a 60-minute headway. The buses would meet at the transfer points at the same times, thereby allowing the transit users to easily transfer between routes. The route structure is presented on Figure XII-1. Depending on time allowances, the flex loop routes would deviate from the routes up to three-fourths of a mile. Therefore, there is no need for a demand-response service since the route deviation meets the ADA requirements. During off-peak times, five of the vehicles would operate demand-response service.

The second element of the hybrid system would be the jump route, which would link the three transfer stations together. The jump route would operate similarly to a limited express service on a 30-minute headway during peak time and 60-minute in off-peak times.

The preferred transit service is designed to operate for 99 revenue-hours per day, for a total of 25,245 revenue-hours per year. The following sections detail the preferred transit service routes, with adjustments per the stakeholders' comments and the LSC test drive of the routes.

Figure XII-1
Preferred Service Plan



Blue A Route

Table XII-2 details the draft schedule for the Blue A Route. The route would start at the TRPTA transit facility, travel west on Broadway, turn north to Grandview, use Washburn to travel north to Olympia Street, turn south on Skyline, travel east on Grandview, run south on Crestmont, travel west on Broadway, and return to the TRPTA transit facility. The route is designed to be inter-lined with the buses that operate the jump route.

The Blue A Route would operate one bus on a 30/60-minute headway 255 days per year. The estimated annual cost of the route is $56,400.

Table XII-2
Draft Blue A Route

Runs	New Transit Facility	Broadway/ North Bellin	Olympia/ Skyway	Crestmont/ Saturn Ctr	New Transit Facility
1	06:30 AM	06:34 AM	06:43 AM	06:48 AM	06:52 AM
2	07:00 AM	07:04 AM	07:13 AM	07:18 AM	07:22 AM
3	07:30 AM	07:34 AM	07:43 AM	07:48 AM	07:52 AM
4	08:00 AM	08:04 AM	08:13 AM	08:18 AM	08:22 AM
5	09:00 AM	09:04 AM	09:13 AM	09:18 AM	09:22 AM
6	10:00 AM	10:04 AM	10:13 AM	10:18 AM	10:22 AM
7	11:00 AM	11:04 AM	11:13 AM	11:18 AM	11:22 AM
8	12:00 PM	12:04 PM	12:13 PM	12:18 PM	12:22 PM
9	01:00 PM	01:04 PM	01:13 PM	01:18 PM	01:22 PM
10	02:00 PM	02:04 PM	02:13 PM	02:18 PM	02:22 PM
11	03:00 PM	03:04 PM	03:13 PM	03:18 PM	03:22 PM
12	03:37 PM	03:41 PM	03:50 PM	03:55 PM	03:59 PM
13	04:07 PM	04:11 PM	04:20 PM	04:25 PM	04:29 PM
14	04:37 PM	04:41 PM	04:50 PM	04:55 PM	04:59 PM
15	05:07 PM	05:11 PM	05:20 PM	05:25 PM	05:29 PM
16	05:37 PM	05:41 PM	05:50 PM	05:55 PM	05:59 PM

Source: LSC, 2006.

Blue B Route

Table XII-3 details the draft schedule for the Blue B Route. The route would start at the TRPTA transit facility, run along Hansen to Storer Street, travel to Evans Avenue, turn south on Buckboard Street across Broadway to Troy Avenue, run south to Brentwood, run east to Westhill, travel south to Pancheri, run east along Pancheri, travel to South Utah Avenue, turn north to Broadway, and return west to the TRPTA transit facility. The route is designed to be inter-lined with the buses that operate the jump route.

The Blue B Route would operate one bus on a 30/60-minute headway 255 days per year. The estimated annual cost of the route is $56,400.

Table XII-3
Draft Blue B Route

Runs	New Transit Facility	Broadway/ Buckboard	Troy/ Brentwood	S. Utah/ Broadway	New Transit Facility
1	06:30 AM	06:35 AM	06:37 AM	06:45 AM	06:53 AM
2	07:00 AM	07:05 AM	07:07 AM	07:15 AM	07:23 AM
3	07:30 AM	07:35 AM	07:37 AM	07:45 AM	07:53 AM
4	08:00 AM	08:05 AM	08:07 AM	08:15 AM	08:23 AM
5	08:30 AM	08:35 AM	08:37 AM	08:45 AM	08:53 AM
6	09:30 AM	09:35 AM	09:37 AM	09:45 AM	09:53 AM
7	10:30 AM	10:35 AM	10:37 AM	10:45 AM	10:53 AM
8	11:30 AM	11:35 AM	11:37 AM	11:45 AM	11:53 AM
9	12:30 PM	12:35 PM	12:37 PM	12:45 PM	12:53 PM
10	01:30 PM	01:35 PM	01:37 PM	01:45 PM	01:53 PM
11	02:30 PM	02:35 PM	02:37 PM	02:45 PM	02:53 PM
	Break				
15	03:37 PM	03:42 PM	03:44 PM	03:52 PM	04:00 PM
16	04:07 PM	04:12 PM	04:14 PM	04:22 PM	04:30 PM
17	04:37 PM	04:42 PM	04:44 PM	04:52 PM	05:00 PM
18	05:07 PM	05:12 PM	05:14 PM	05:22 PM	05:30 PM
19	05:37 PM	05:42 PM	05:44 PM	05:52 PM	06:00 PM

Source: LSC, 2006.

Green A Route

Table XII-4 details the draft schedule for the Green A Route. The route would start at the Aquatic Center transfer station, travel south on North Placer to Elm and Broadway, turn north to Park Avenue, run along Idaho Avenue to Elva Street, travel north on Ada Avenue, turn east on Anderson Street, run south on Holmes Avenue, travel west on 1st Street to South Boulevard, and return to the Aquatic Center transfer station. The route is designed to be inter-lined with the bus that operates on the Green B Route.

The Green A Route would operate one bus on a 30/60-minute headway 255 days per year. The estimated annual cost of the route is $56,400.

Table XII-4
Draft Green A Route

Runs	Aquatic Center	Broadway/ Shoup	Ada/ Anderson	Holmes/ 1st	Aquatic Center
1	06:37 AM	06:41 AM	06:49 AM	06:58 AM	07:03 AM
2	07:07 AM	07:11 AM	07:19 AM	07:28 AM	07:33 AM
3	07:37 AM	07:41 AM	07:49 AM	07:58 AM	08:03 AM
4	08:07 AM	08:11 AM	08:19 AM	08:28 AM	08:33 AM
5	08:37 AM	08:41 AM	08:49 AM	08:58 AM	09:03 AM
6	09:37 AM	09:41 AM	09:49 AM	09:58 AM	10:03 AM
7	10:37 AM	10:41 AM	10:49 AM	10:58 AM	11:03 AM
8	11:37 AM	11:41 AM	11:49 AM	11:58 AM	12:03 PM
9	12:37 PM	12:41 PM	12:49 PM	12:58 PM	01:03 PM
10	01:37 PM	01:41 PM	01:49 PM	01:58 PM	02:03 PM
11	02:37 PM	02:41 PM	02:49 PM	02:58 PM	03:03 PM
12	03:37 PM	03:41 PM	03:49 PM	03:58 PM	04:03 PM
13	04:07 PM	04:11 PM	04:19 PM	04:28 PM	04:33 PM
14	04:37 PM	04:41 PM	04:49 PM	04:58 PM	05:03 PM
15	05:07 PM	05:11 PM	05:19 PM	05:28 PM	05:33 PM
16	05:37 PM	05:41 PM	05:49 PM	05:58 PM	06:03 PM

Source: LSC, 2006.

Green B Route

Table XII-5 details the draft schedule for the Green B Route. The route would start at the Aquatic Center transfer station, travel south along South Boulevard, travel west on 13th Street to Curtis Avenue, travel to 17th Street, run west to Rollandet Avenue, travel south to 19th Street, travel south on Lesslie Avenue around Rollandet, run back north along Rollandet Avenue, turn east on 21st Street to Higbee Avenue, travel north to 17th Street, travel east to Holmes Avenue, run east on 13th Street to Taylor Avenue, travel around the Idaho Falls High School, run west along 6th Street to South Boulevard, and return to the Aquatic Center transfer station. The route is designed to be inter-lined with the bus that operates on the Green A Route.

The Green B Route would operate one bus on a 30/60-minute headway 255 days per year. The estimated annual cost of the route is $56,400.

Table XII-5
Draft Green B Route

Runs	Aquatic Center	Senior Center	Holmes/ E. 17th	Idaho Falls HS	Aquatic Center
1	06:37 AM	06:44 AM	06:54 AM	06:59 AM	07:04 AM
2	07:07 AM	07:14 AM	07:24 AM	07:29 AM	07:34 AM
3	07:37 AM	07:44 AM	07:54 AM	07:59 AM	08:04 AM
4	08:07 AM	08:14 AM	08:24 AM	08:29 AM	08:34 AM
5	08:37 AM	08:44 AM	08:54 AM	08:59 AM	09:04 AM
6	09:37 AM	09:44 AM	09:54 AM	09:59 AM	10:04 AM
7	10:07 AM	10:14 AM	10:24 AM	10:29 AM	10:34 AM
8	11:07 AM	11:14 AM	11:24 AM	11:29 AM	11:34 AM
9	12:07 PM	12:14 PM	12:24 PM	12:29 PM	12:34 PM
10	01:07 PM	01:14 PM	01:24 PM	01:29 PM	01:34 PM
11	02:07 PM	02:14 PM	02:24 PM	02:29 PM	02:34 PM
12	03:07 PM	03:14 PM	03:24 PM	03:29 PM	03:34 PM
13	04:07 PM	04:14 PM	04:24 PM	04:29 PM	04:34 PM
15	04:37 PM	05:44 PM	05:54 PM	05:59 PM	06:04 PM
16	05:07 PM	05:14 PM	05:24 PM	05:29 PM	05:34 PM
17	05:37 PM	05:44 PM	05:54 PM	05:59 PM	06:04 PM

Source: LSC, 2006.

Yellow A Route

Table XII-6 details the draft schedule for the Yellow A Route. The route would start at the Grand Teton Mall transfer station, travel south along Channing Way to 25th Street, turn east to Hitt Road, run north along Hitt Road to Mesa Street, travel west to Davidson Drive, turn north to Kearney Street, run south on Woodruff Avenue to John Adams Parkway, travel west to St. Clair Road, travel south to 17th Street, and return east to the Grand Teton Mall transfer station. The route is designed to be inter-lined with the buses that operate the jump route.

The Yellow A route would operate one bus on a 30/60-minute headway 255 days per year. The estimated annual cost of the route is $56,400.

Table XII-6
Draft Yellow A Route

Runs	Mall	EITC	Woodruff/ Kearney	17th/ St Clair	Mall
1	06:50 AM	06:56 AM	07:05 AM	07:12 AM	07:14 AM
2	07:20 AM	07:26 AM	07:35 AM	07:42 AM	07:44 AM
3	07:50 AM	07:56 AM	08:05 AM	08:12 AM	08:14 AM
4	08:20 AM	08:26 AM	08:35 AM	08:42 AM	08:44 AM
5	08:50 AM	08:56 AM	09:05 AM	09:12 AM	09:14 AM
6	09:50 AM	09:56 AM	10:05 AM	10:12 AM	10:14 AM
7	10:50 AM	10:56 AM	11:05 AM	11:12 AM	11:14 AM
8	11:50 AM	11:56 AM	12:05 PM	12:12 PM	12:14 PM
9	12:50 PM	12:56 PM	01:05 PM	01:12 PM	01:14 PM
10	01:50 PM	01:56 PM	02:05 PM	02:12 PM	02:14 PM
11	02:50 PM	02:56 PM	03:05 PM	03:12 PM	03:14 PM
12	03:50 PM	03:56 PM	04:05 PM	04:12 PM	04:14 PM
13	04:20 PM	04:26 PM	04:35 PM	04:42 PM	04:44 PM
14	04:50 PM	04:56 PM	05:05 PM	05:12 PM	05:14 PM
15	05:20 PM	05:26 PM	05:35 PM	05:42 PM	05:44 PM
16	05:50 PM	05:56 PM	06:05 PM	06:12 PM	06:14 PM

Source: LSC, 2006.

Yellow B Route

Table XII-7 details the draft schedule for the Yellow B Route. The route would start at the Grand Teton Mall transfer station, travel west along 25th Street to Holmes, travel north to 13th Street, run along 12th Street, travel east to Terry Drive, travel south to 17th Street, and return to the Grand Teton Mall transfer station. The route is designed to inter-line with Yellow A Route.

The Yellow B Route would operate one bus on a 30/60-minute headway in peak hours 255 days per year. The estimated annual cost of the route is $56,400

Table XII-7
Draft Yellow B Route

Runs	Mall	Holmes/ 25th	12th/West Bonneville Dr	17th/ St. Clair	Mall
1	06:50 AM	07:01 AM	07:08 AM	07:12 AM	07:16 AM
2	07:20 AM	07:31 AM	07:38 AM	07:42 AM	07:46 AM
3	07:50 AM	08:01 AM	08:08 AM	08:12 AM	08:16 AM
4	08:20 AM	08:31 AM	08:38 AM	08:42 AM	08:46 AM
5	08:50 AM	09:01 AM	09:08 AM	09:12 AM	09:16 AM
6	09:50 AM	10:01 AM	10:08 AM	10:12 AM	10:16 AM
7	10:50 AM	11:01 AM	11:08 AM	11:12 AM	11:16 AM
8	11:50 AM	12:01 PM	12:08 PM	12:12 PM	12:16 PM
9	12:50 PM	01:01 PM	01:08 PM	01:12 PM	01:16 PM
10	01:50 PM	02:01 PM	02:08 PM	02:12 PM	02:16 PM
11	02:50 PM	03:01 PM	03:08 PM	03:12 PM	03:16 PM
12	03:50 PM	04:01 PM	04:08 PM	04:12 PM	04:16 PM
13	04:20 PM	04:31 PM	04:38 PM	04:42 PM	04:46 PM
14	04:50 PM	05:01 PM	05:08 PM	05:12 PM	05:16 PM
15	05:20 PM	05:31 PM	05:38 PM	05:42 PM	05:46 PM
16	05:50 PM	06:01 PM	06:08 PM	06:12 PM	06:16 PM

Source: LSC, 2006.

Purple Route

Table XII-8 details the draft schedule for the Purple B Route. The route would start at the Grand Teton Mall transfer station, travel south along Channing Way to Sunnyside, run east to Ammon Road, travel north to 17th Street, travel west to Ashment Street, run north to 12th Street, turn south on Hoopes Avenue back to 17th Street, and return to the Grand Teton Mall transfer station. The route is designed to be inter-lined with the buses that operate the jump route.

The Purple route would operate one bus on a 30/60-minute headway 255 days per year. The bus that used to operate this route will operate demand-response service in the off-peak hours. The estimated annual cost of the route is $60,130.

Table XII-8
Draft Purple Route

Runs	Mall	EID Medical Center	Ammon / Rawson	12th / Hoopes Ave	Mall
1	06:50 AM	06:54 AM	07:03 AM	07:14 AM	07:17 AM
2	07:20 AM	07:24 AM	07:33 AM	07:44 AM	07:47 AM
3	07:50 AM	07:54 AM	08:03 AM	08:14 AM	08:17 AM
4	08:20 AM	08:24 AM	08:33 AM	08:44 AM	08:47 AM
5	03:20 PM	03:24 PM	03:33 PM	03:44 PM	03:47 PM
6	03:50 PM	03:54 PM	04:03 PM	04:14 PM	04:17 PM
7	04:20 PM	04:24 PM	04:33 PM	04:44 PM	04:47 PM
8	04:50 PM	04:54 PM	05:03 PM	05:14 PM	05:17 PM
9	05:20 PM	05:24 PM	05:33 PM	05:44 PM	05:47 PM

Source: LSC, 2006.

Jump Route

Table XII-9 details the draft schedule for the Jump Route. The route would service six stops. The route would start at the TRPTA transit facility, stop in downtown at Broadway and Capital, travel to the Aquatic Center transfer station, stop at 9th Street and Division, run to the Grand Teton Mall transfer station, stop at 12th Street and Division, travel back to the Aquatic Center transfer station, stop again in downtown at Broadway and Capital, run back to the TRPTA transit facility, stop at University Place, and return to the TRPTA transfer facility. The route is designed to be interlined with the Blue A, Blue B, Yellow A, and Yellow B Routes.

The Jump Route would operate two buses on a 30/60-minute headway for 15 revenue-hours 255 days per year. The estimated annual cost of the route is $112,700.

Table XII-9
Draft Jump Route

Run	University Place	Transit Fac	Broadway/ Capital	Aquatic Center	9th/ Division	Mall	Mall	12th/ Division	Aquatic Center	Broadway/ Capital	Transit Fac	University Place
1							**06:52 AM**	**06:58 PM**	**07:02 AM**	**07:05 AM**	**07:09 AM**	**07:17 AM**
2	06:52 AM	07:00 AM	07:04 AM	07:07 AM	07:11 AM	07:17 AM	07:20 AM	07:26 PM	07:30 AM	07:33 AM	07:37 AM	07:45 AM
3	**07:22 AM**	**07:30 AM**	**07:34 AM**	**07:37 AM**	**07:41 AM**	**07:47 AM**	**07:50 AM**	**07:56 PM**	**08:00 AM**	**08:03 AM**	**08:07 AM**	**08:15 AM**
4	07:52 AM	08:00 AM	08:04 AM	08:07 AM	08:11 AM	08:17 AM	08:20 AM	08:26 PM	08:30 AM	08:33 AM	08:37 AM	08:45 AM
5	**08:22 AM**	**08:30 AM**	**08:34 AM**	**08:37 AM**	**08:41 AM**	**08:47 AM**	**08:50 AM**	**08:56 PM**	**09:00 AM**	**09:03 AM**	**09:07 AM**	**09:15 AM**
6	08:52 AM	09:00 AM	09:04 AM	09:07 AM	09:11 AM	09:17 AM	09:20 AM	09:26 PM	09:30 AM	09:33 AM	09:37 AM	09:45 AM
7	**09:22 AM**	**09:30 AM**	**09:34 AM**	**09:37 AM**	**09:41 AM**	**09:47 AM**	**09:50 AM**	**09:56 PM**	**10:00 AM**	**10:03 AM**	**10:07 AM**	**10:15 AM**
8	09:52 AM	10:00 AM	10:04 AM	10:07 AM	10:11 AM	10:17 AM	10:20 AM	10:26 PM	10:30 AM	10:33 AM	10:37 AM	10:45 AM
9	**10:22 AM**	**10:30 AM**	**10:34 AM**	**10:37 AM**	**10:41 AM**	**10:47 AM**	**10:50 AM**	**10:56 PM**	**11:00 AM**	**11:03 AM**	**11:07 AM**	**11:15 AM**
10	10:52 AM	11:00 AM	11:04 AM	11:07 AM	11:11 AM	11:17 AM	11:20 AM	11:26 PM	11:30 AM	11:33 AM	11:37 AM	11:45 AM
11	**11:22 AM**	**11:30 AM**	**11:34 AM**	**11:37 AM**	**11:41 AM**	**11:47 AM**	**11:50 AM**	**11:56 PM**	**12:00 PM**	**12:03 PM**	**12:07 PM**	**12:15 PM**
12	11:52 AM	12:00 PM	12:04 PM	12:07 PM	12:11 PM	12:17 PM	12:20 PM	12:26 AM	12:30 PM	12:33 PM	12:37 PM	12:45 PM
13	**12:22 PM**	**12:30 PM**	**12:34 PM**	**12:37 PM**	**12:41 PM**	**12:47 PM**	**12:50 PM**	**12:56 AM**	**01:00 PM**	**01:03 PM**	**01:07 PM**	**01:15 PM**
14	12:52 PM	01:00 PM	01:04 PM	01:07 PM	01:11 PM	01:17 PM	01:20 PM	01:26 AM	01:30 PM	01:33 PM	01:37 PM	01:45 PM
15	**01:22 PM**	**01:30 PM**	**01:34 PM**	**01:37 PM**	**01:41 PM**	**01:47 PM**	**01:50 PM**	**01:56 AM**	**02:00 PM**	**02:03 PM**	**02:07 PM**	**02:15 PM**
16	01:52 PM	02:00 PM	02:04 PM	02:07 PM	02:11 PM	02:17 PM	02:20 PM	02:26 AM	02:30 PM	02:33 PM	02:37 PM	02:45 PM
17	**02:22 PM**	**02:30 PM**	**02:34 PM**	**02:37 PM**	**02:41 PM**	**02:47 PM**	**02:50 PM**	**02:56 AM**	**03:00 PM**	**03:03 PM**	**03:07 PM**	**03:15 PM**
18	02:52 PM	03:00 PM	03:04 PM	03:07 PM	03:11 PM	03:17 PM	03:20 PM	03:26 AM	03:30 PM	03:33 PM	03:37 PM	03:45 PM
19	**03:22 PM**	**03:30 PM**	**03:34 PM**	**03:37 PM**	**03:41 PM**	**03:47 PM**	**03:50 PM**	**03:56 AM**	**04:00 PM**	**04:03 PM**	**04:07 PM**	**04:15 PM**
20	03:52 PM	04:00 PM	04:04 PM	04:07 PM	04:11 PM	04:17 PM	04:20 PM	04:26 AM	04:30 PM	04:33 PM	04:37 PM	04:45 PM
21	**04:22 PM**	**04:30 PM**	**04:34 PM**	**04:37 PM**	**04:41 PM**	**04:47 PM**	**04:50 PM**	**04:56 AM**	**05:00 PM**	**05:03 PM**	**05:07 PM**	**05:15 PM**
22	04:52 PM	05:00 PM	05:04 PM	05:07 PM	05:11 PM	05:17 PM	05:20 PM	05:26 AM	05:30 PM	05:33 PM	05:37 PM	05:45 PM
23	**05:22 PM**	**05:30 PM**	**05:34 PM**	**05:37 PM**	**05:41 PM**	**05:47 PM**						

Source: LSC 2006

Inter-lining

The Blue A, Blue B, Yellow A, Yellow B, and Jump Routes are inter-lined in order to reduce the number of transfers that individual riders would need to make in order to get across the city. Table XII-10 presents the draft inter-lining schedule for each of the nine buses in the preferred transit system plan.

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Table XII-10

Inter-lining Bus Schedule

	Bus Number															
Time	**1**	**Time**	**2**	**Time**	**3**	**4**	**Time**	**5**	**Time**	**6**	**Time**	**7**	**Time**	**8**	**Time**	**9**
06:30 AM	Blue A	06:30 AM	Blue B	06:37 AM	Green A	Green B	06:50 AM	Purple	06:50 AM	Yellow A	06:50 AM	Yellow B	06:52 AM	Jump (Unv-Fac)	06:52 AM	Jump (Mall-Fac)
07:00 AM	Jump (Fac-Mall)	07:00 AM	Blue B	07:07 AM	Green B	Green A	07:20 AM	Purple	07:20 AM	Yellow A	07:20 AM	Jump (Mall-Fac)	07:00 AM	Blue A	07:30 AM	Blue B
07:20 AM	Yellow B	07:30 AM	Jump (Fac - Mall)	07:37 AM	Green A	Green B	07:50 AM	Purple	07:50 AM	Jump (Mall-Fac)	08:00 AM	Blue A	07:30 PM	Blue A	08:00 AM	Blue B
07:50 AM	Yellow B	07:50 AM	Yellow A	08:07 AM	Green B	Green A	08:20 AM	Purple	08:30 AM	Blue B	08:30 AM	Blue A	08:00 AM	Jump (Fac-Mall)	08:30 AM	Jump (Fac-Mall)
08:20 AM	Jump (Mall- Fac)	08:20 AM	Yellow A	08:37 AM	Green A	Green B	08:50 AM	Purple	09:00 AM	Blue B	09:00 AM	Jump (Fac-Mall)	08:20 AM	Yellow B	08:50 AM	Yellow A
09:00 AM	Blue B	Demand Response	DR	09:07 AM	Green B	DR		DR	09:00 AM	Jump (Fac-Mall)		DR	08:50 AM	Yellow B		DR
09:30 AM	Blue A		DR	09:37 AM	Green A	DR		DR	09:20 AM	Yellow B		DR	09:20 AM	Jump (Mall - Fac)		DR
10:00 AM	Jump (Fac-Mall)		DR	10:07 AM	Green B	DR		DR	09:50 AM	Yellow A		DR	10:00 AM	Blue B		DR
10:20 AM	Yellow B		DR	10:37 AM	Green A	DR		DR	10:20 AM	Jump (Mall-Fac)		DR	10:30 AM	Blue A		DR
10:50 AM	Yellow A		DR	11:07 AM	Green B	DR		DR	11:00 AM	Blue A		DR	11:00 AM	Jump (Fac-Mall)		DR
11:20 AM	Jump (Mall- Fac)		DR	11:37 AM	Green A	DR		DR	12:00 PM	Blue B		DR	11:20 AM	Yellow B		DR
12:00 PM	Blue B		DR	12:07 PM	Green B	DR		DR	01:00 PM	Jump (Fac-Mall)		DR	11:50 AM	Yellow A		DR
12:30 PM	Blue A		DR	12:37 PM	Green A	DR		DR	12:50 PM	Yellow A		DR	12:20 PM	Jump (Mall - Fac)		DR
01:00 PM	Jump (Fac-Mall)		DR	01:07 PM	Green B	DR		DR	01:20 PM	Yellow A		DR	01:00 PM	Blue B		DR
01:20 PM	Yellow B		DR		**Break**	DR		DR				DR	01:30 PM	Blue A		DR
01:50 PM	Yellow A		DR	02:07 PM	Green A	DR		DR	02:20 PM	Yellow A		DR	02:00 PM	Jump (Fac-Mall)		DR
02:20 PM	Jump (Mall- Fac)		DR	02:37 PM	Green B	DR		DR	02:50 PM	Jump (Mall-Fac)		DR	02:20 PM	Yellow B		DR
03:00 PM	Blue B		DR	03:07 PM	Green A	DR		DR	03:37 PM	Blue B		DR	02:50 PM	Yellow A	03:37 PM	Jump (Fac-Mall)
03:30 PM	Blue A	03:20 PM	Yellow A	03:37 PM	Green B	Green A	03:50 PM	Purple	04:07 PM	Blue B	03:20 PM	Yellow B	03:20 PM	Jump (Mall - Fac)	03:50 PM	Yellow A
04:00 PM	Jump (Fac-Mall)	03:50 PM	Jump (Mall - Fac)	04:07 PM	Green A	Green B	04:20 PM	Purple	04:30 PM	Jump (Fac-Mall)	03:50 PM	Yellow B	04:07 PM	Blue A	04:20 PM	Yellow A
04:20 PM	Yellow B	04:37 PM	Blue B	04:37 PM	Green B	Green A	04:50 PM	Purple	04:50 PM	Yellow A	04:20 PM	Jump (Mall - Fac)	04:37 PM	Blue A	04:50 PM	Jump (Mall-Fac)
04:50 PM	Yellow B	05:07 PM	Blue B	05:07 PM	Green A	Green B	05:20 PM	Purple	05:20 PM	Yellow A	05:07 PM	Blue A	05:07 PM	Jump (Fac-Mall)	05:37 PM	Blue B
05:20 PM	Jump (Mall - Un)	05:30 PM	Jump (Fac-Mall)	05:37 PM	Green B	Green A	05:50 PM	Purple	05:50 PM	Yellow A	05:37 PM	Blue A	05:20 PM	Yellow B		
													05:50 PM	Yellow B		

Source: LSC 2006

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Demand-Response Service

During the off-peak time, TRPTA will use five of the fleet buses to operate a demand-response/ADA paratransit service within the metro area. The estimated revenue-hours of this service is 28 per day. During peak times of the day these buses will operate on the preferred system. These revenue-hours have been included in the operations of the individual routes (above). The estimated annual cost of this service is $210,500.

Summary

TRPTA should continue to focus on stable transit-user markets, such as the elderly and disabled. It would be difficult for transit to become a competitor of the automobile in the near future, since the automobile continues to play a key role in the region (particularly in developments with low density).

The annual cost for existing transit service in the year 2007 is approximately $701,800. The annual cost for the increased transit service is approximately $22,000 in the year 2009. Therefore, with the restructuring of the service, the annual cost would be approximately $766,400 (including inflation). By using federal transit funding, the local annual cost would only be 50 percent (less farebox revenue) of the $766,400 (which equates to approximately $340,000). Local funding could be generated from intergovernmental agreements, contracts, and local business agreements.

The estimated total annual cost of Phase I transit service is $721,600 (without inflation). The estimated annual ridership is 180,400 passengers. This equates to a $3.99 cost per passenger. Following is a summary of the estimated additional costs and passengers for Phase I transit service:

- $3.99 cost per passenger
- $721,600 annual cost
- 7.1 passengers per hour
- 180,400 annual passengers

It is estimated that nine vehicles would be needed to operate the Phase I transit service during peak hours. TRPTA presently has the fleet capacity to operate the preferred transit service plan. No additional vehicle purchases would be needed in order to implement the preferred transit service plan.

TRPTA would need to install bus stops along each of the flex loop routes (for a total of 154 bus stops) and five bus stops for the jump route. TRPTA would also need to develop transfer stations at the Aquatic Center and the Grand Teton Mall. Additional details on the capital needs are presented in Chapter XIII.

Limited System Implementation

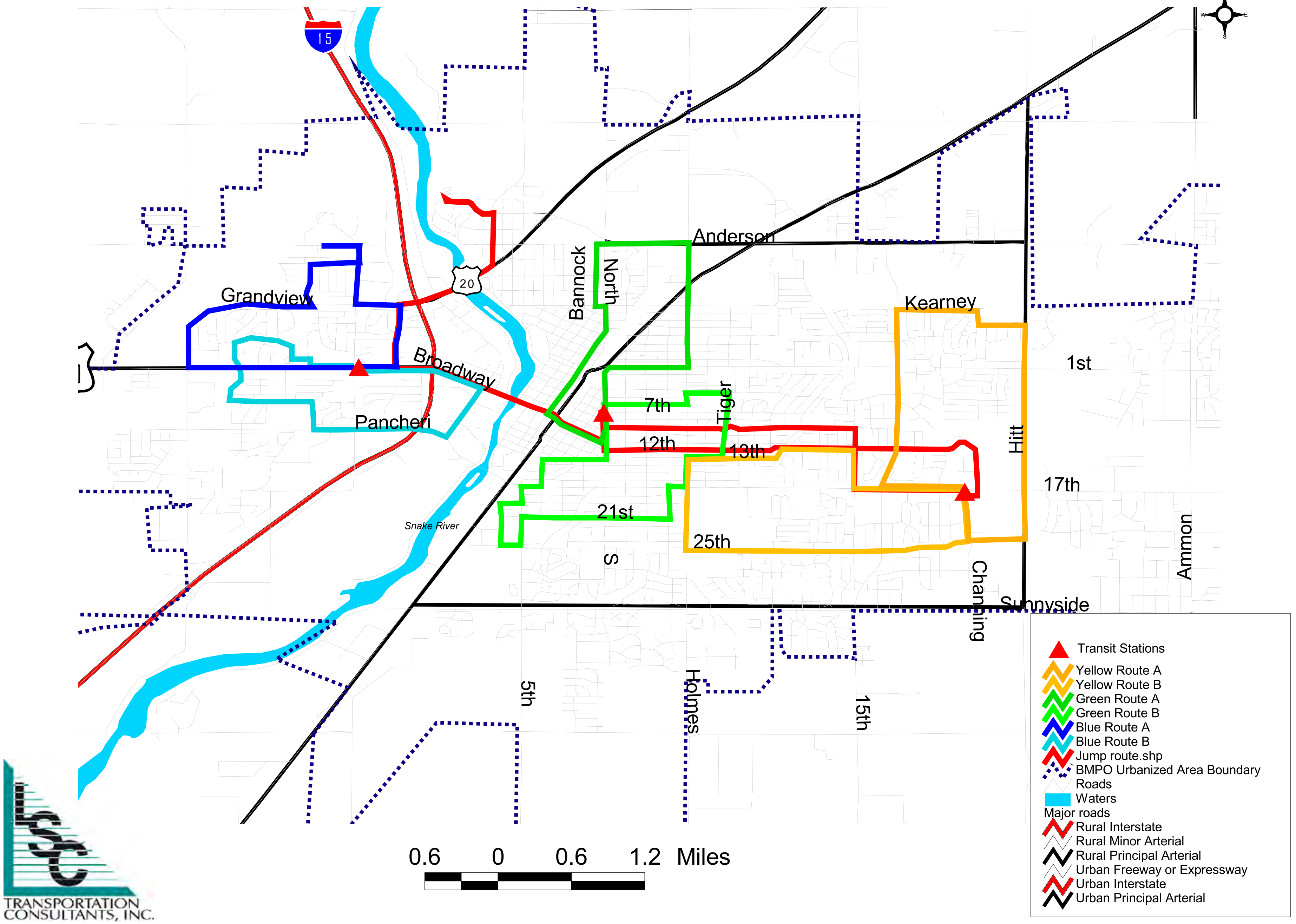
The preferred transit service plan could also be operated on a 60-minute headway for all of the flex loop routes and the jump route. The adjustment to 60-minute headways would decrease the overall revenue-hours to 11,220 per day for the hybrid system. The current demand-response service could remain for Phase I of the planning horizon in order to allow the riders to learn the new system. With the demand-response service totaling about 10,200 revenue-hours per day, the total annual operating hours would be 21,400. The routes would be the same except for the Purple Route, which would not be operating in Phase I. In addition, the Blue A Route would inter-line with the Purple Route, rather than the Yellow B Route. This is presented in Figure XII-2.

Rideshare Program

As presented in Chapter IX, it is recommended that TRPTA implement a rideshare program that would include carpools, vanpools, and Medicaid trips. Details on the rideshare program are presented in Chapter IX. The following is a summary of the cost and operations of the rideshare program.

To become an effective rideshare broker, TRPTA would need to purchase a rideshare software package and establish a toll-free number for residents within the Bonneville Metropolitan Planning Area. Two sets of costs are associated with the rideshare broker program: capital costs and operating/maintenance costs. Grants and federal funding are available for administering rideshare programs under SAFETEA-LU.

Figure XII-2
Preferred Service Plan with 60 minute headways



In terms of capital costs, the rideshare software package could range from $10,000 to $250,000. A rideshare software program that operates within a common database would be the least expensive. LSC estimated an annual cost of $10,000 for operations and software support. The maintenance costs of the system could range from $1,000 to $10,000 annually, depending on the program and maintenance agreements.

Operating and maintenance costs would include staff salaries and the cost for long-distance calls. Assuming eight staff hours per weekday (or 40 hours per week) would be required to operate and maintain the rideshare database, the staff cost would be approximately $340 per week (at $8.50 per hour) or $17,680 per year. Long-distance costs for a toll-free number can be conservatively estimated at $0.20 per minute. Assuming one-third of the staff hours are spent with long-distance calls, the long-distance costs would be $32 per day or approximately $8,000 per year. The total annual operating and maintenance costs would be approximately $35,800.

LSC conservatively estimated 38,700 persons employed in the Bonneville Metropolitan Planning Area. If half of one percent of those employees participated in the rideshare program, the result would be approximately 296,000 one-way rides shared per year (which equates to 1,160 persons with two work trips per day 255 work days). The cost would be $0.152 per one-way trip, based upon the $35,800 annual cost for 296,000 annual one-way trips.

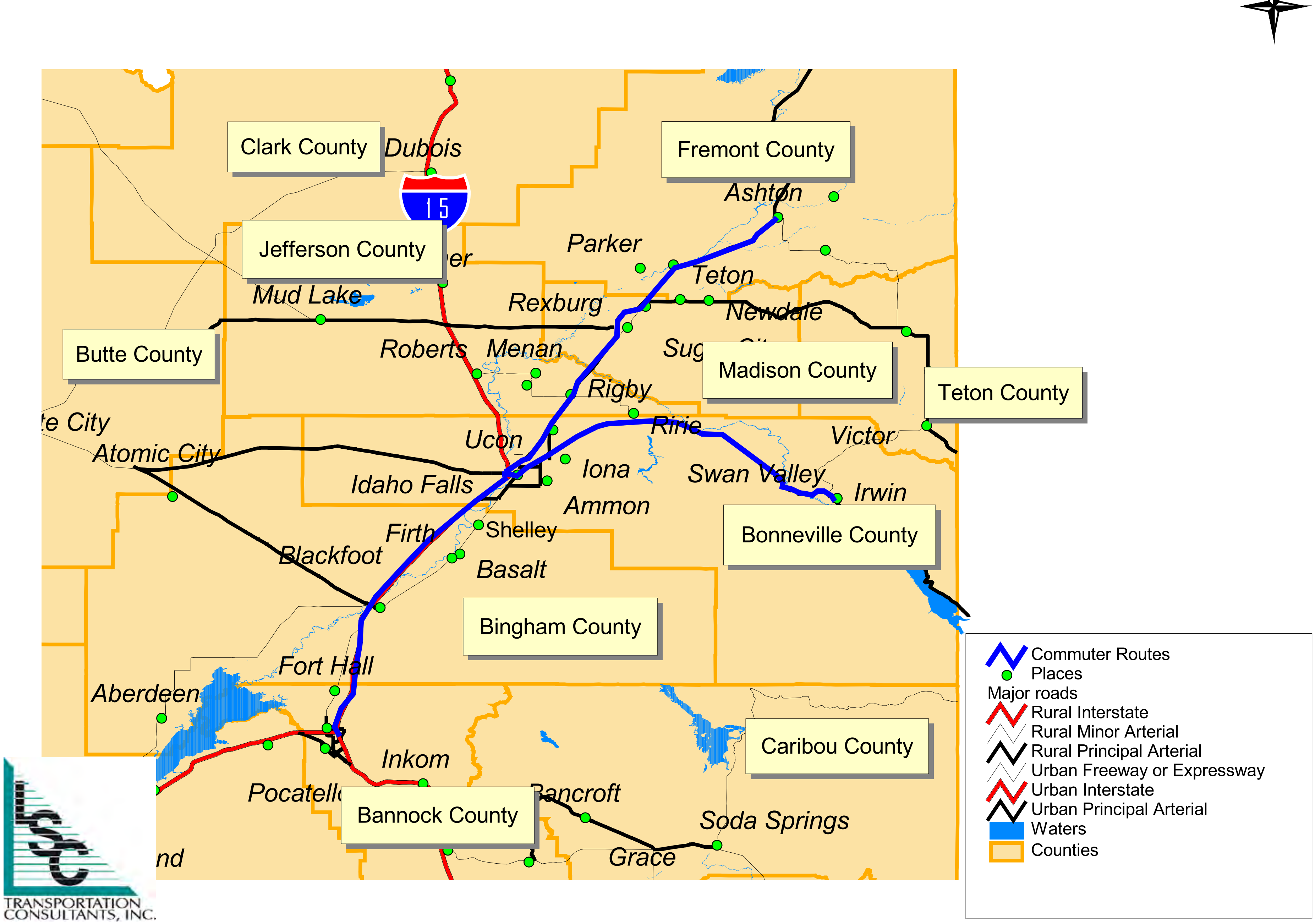
Phase II - Service Expansion (Years 2010 to 2011)

Phase II would include the addition of evening transit service to the hybrid system and the start of commuter service. The capital costs of Phase II are detailed in Chapter XIII.

The evening transit service would expand the daily operating hours from 6:00 to 9:00 p.m. Monday through Friday. This will add an additional 27 revenue-hours per day, for a total of 6,885 revenue-hours per year. The estimate baseline annual cost of the service is $203,000 based on 30-minute headways. The overall cost could be reduced to $101,000 by operating the evening transit service on 60-minute headways. No additional fleet vehicles would be needed for the evening transit service.

As presented in Chapter IX, the commuter service would operate two regional routes to link the rural communities with Idaho Falls. The commuter service is designed to operate during the morning and evening peak hours for nine daily revenue-hours, or 2,295 annual revenue-hours. Figure XII-3 presents the draft route structure of the commuter service. Based on the estimated number of riders, the commuter service could start with vanpools. As the number of riders increases, traditional transit buses could be implemented. Note that the overall costs are based on having traditional transit buses. If the commuter service was operated as a vanpool as part of the rideshare program, the operating cost would be a part of the rideshare program costs. One additional vehicle would be needed for the commuter service.

Figure XII-3
Commuter / Regional Service



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Phase III - Weekend Service (Years 2011 to 2012)

Phase III would include Saturday transit service for the hybrid system. The Saturday transit service would operate with seven flex loop routes and one jump route from 7:00 a.m. to 6:00 p.m. on 30-minute headways, for a total of 99 revenue-hours per day. The annual overall operating cost of the Saturday transit service would be $108,800. No additional fleet vehicles would be needed to implement the Saturday transit service. Phase III implementation would not require any additional capital investment or purchases above those identified in Phases I and II. The draft schedules for the Saturday transit service would be the same as the tables presented above for the Phase I routes.

The Saturday transit service could be reduced to 60-minute headways in order to reduce the annual overall operating cost to $75,850. With 60-minute headways, the number of vehicles would decrease to five and the total revenue-hours would decrease to 55 hours per day.

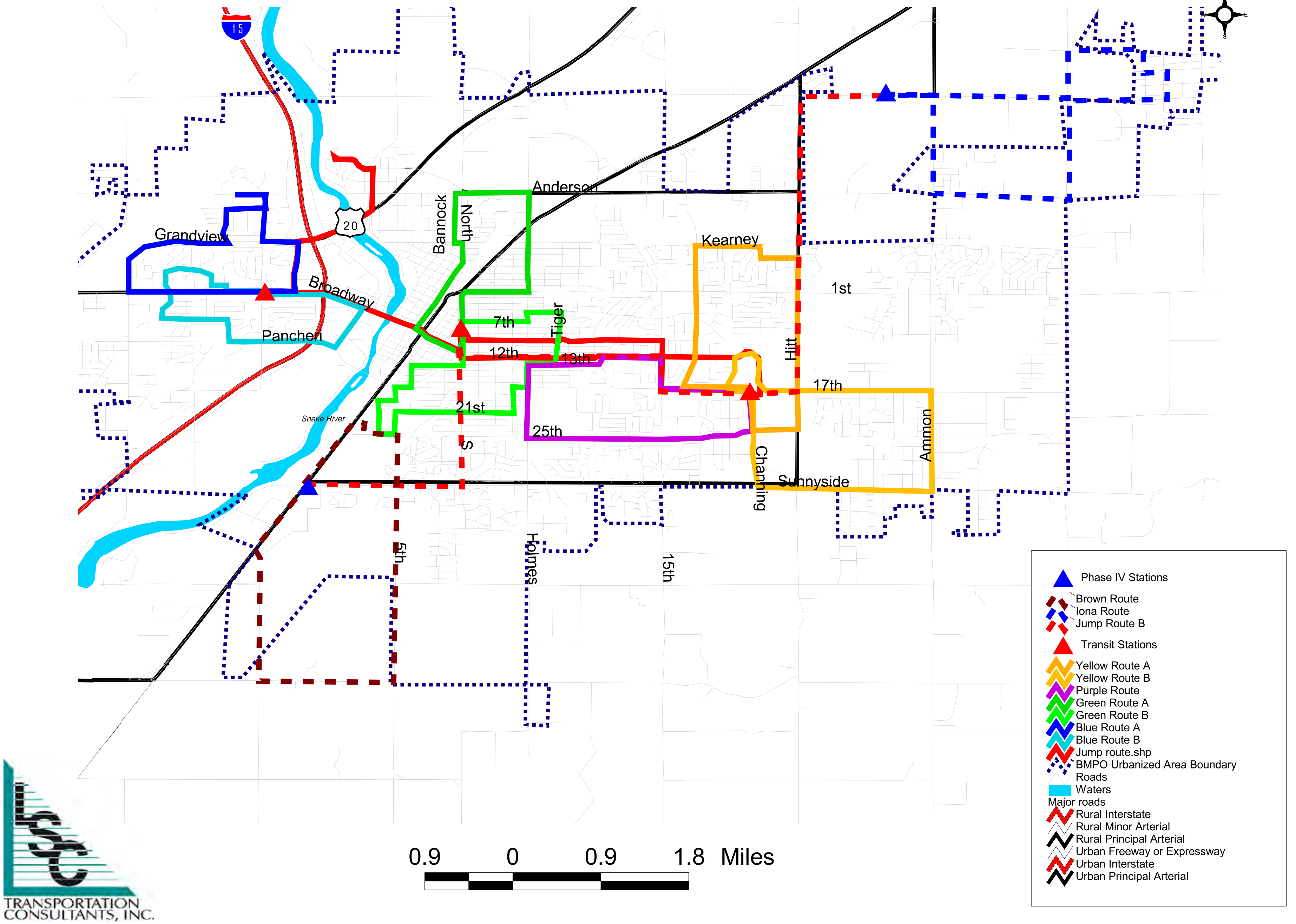
Phase IV- Service Area Expansion (Years 2012 to 2015)

Phase IV would expand the service area of the hybrid system and would add commuter service to the City of Pocatello.

Figure XII-4 shows the expanded service areas. Two flex loop routes and one jump route would be added to the hybrid system. The first flex loop route would service the Iona area. The second flex loop route would service the South Yellowstone Highway area. These two flex loop routes would be inter-lined with a jump route, which would link into the Phase I routes at the Aquatic Center and Grand Teton Mall transfer stations. The three new routes would operate on 45-minute headways for 33 daily revenue-hours, or 8,415 annual revenue-hours. The estimated annual baseline cost (without inflation) would be $248,000. In order to implement the expanded service areas of Phase IV, four additional fleet vehicles would be needed (three operational vehicles plus one spare vehicle). Two new transfer stations would need to be installed: one near Bonneville High School and one near the City Campground on South Yellowstone Highway. Bus stops would also need to be installed along the new flex loop routes.

The commuter service would operate from the City of Pocatello to the Idaho Falls transit facility once in the morning, and would return to the City of Pocatello once in the afternoon. The additional commuter service would operate for an estimated four daily revenue-hours, or 1,020 total annual revenue-hours. The total baseline annual cost (without inflation) is estimated at $30,065. No additional fleet vehicles would be needed in order to implement the commuter service to the City of Pocatello.

Figure XII-4
Expansion Service Plan



Chapter XIII

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CHAPTER XIII

Transit Implementation Plan (2007 - 2012)

INTRODUCTION

LSC has prepared the following Transit Implementation Plan in order to identify the steps to be taken within the next six years, as well as the long-term actions to meet the future transportation needs. Chapter XIII includes a timeline which illustrates the projects and programs that could be implemented over the planning horizon (next six years). Also discussed are the implementation steps and financial requirements for the development and installation of the preferred transit service plan.

ORGANIZATIONAL PLAN

TRPTA, under the direction of the TRPTA Board, should continue to operate the general public transportation service. TRPTA has the legal and financial capabilities to ensure the stability of public transportation services within the community. If additional funding is developed through coordination and intergovernmental agreements, the preferred transit service plan detailed in Chapter XII could be implemented.

IMPLEMENTATION PLAN

Preferred Transit Service Plan

Details on the preferred transit service plan were presented in Chapter XII. The proposed transit service improvements for TRPTA over the next six years include the creation of: nine flex loop routes that link together with two jump routes at the transit facility, the Aquatic Center and Grand Teton Mall transfer stations, three regional commuter service routes, and a rideshare program that includes a carpool/vanpool broker program.

The implementation of the preferred transit service plan is broken into four phases. Each subsequent phase would increase the overall level of service. The phases were developed so as to give TRPTA the time to coordinate operations and funding for these new transit services. The following is a breakdown of the four implementation phases. Until the following is implemented, the existing route and fare structure can be adjusted according to the maps presented in Appendix D.

Phase I Implementation (Years 2008 to 2009)

Phase I would increase the operating cost by $22,000 over the existing operating cost of $744,600, for a total operating cost of $766,600. Phase I covers the cost of the implementation of the hybrid system as detailed in Chapter XII.

The preferred transit service plan would continue to focus on stable transit-user markets, such as the elderly and disabled. It would be difficult for transit to become a competitor of the automobile in the near future since the automobile continues to play a key role in the Bonneville metropolitan planning/study area, particularly in developments with low density.

Benefits

- The residents of the study area would obtain increased connectivity and mobility.

Timing

- The planning for the new transit service should be completed in the year 2007, and the implementation of the transit service should begin in the year 2008 or 2009, depending on funding.
- TRPTA should apply for additional FTA 5307 funding.
- TRPTA should work with Medicaid to use the Medicaid transportation funding as the local match for FTA 5307 funding, per the new SAFETEA-LU guidelines.
- Intergovernmental agreements would need to be created between TRPTA and other governmental entities and agencies throughout the study area. It is recommended that the intergovernmental agreements last for at least three years in order to give the new transit service a base upon which to develop the other phases of the preferred transit service plan.

Responsibility

- TRPTA would be responsible for planning and implementing the preferred transit service plan for the study area.

- TRPTA should train the drivers on the operations of the new transit service.
- TRPTA should develop an education program for the new transit service at least three months before the service changes are implemented. This would include public meetings to inform the public and allow for public comments.
- TRPTA should conduct test runs of the proposed routes and make any necessary changes to the schedules.
- The TRPTA Board would need to approve any funding grants or inter-governmental agreements for the new transit service.

Implementation Steps

- TRPTA should educate the public about the new transit service and how to use the new service.
- TRPTA should apply for the appropriate operating funding for the new transit service.
- TRPTA should work with the local government entities and agencies in order to secure additional funding.
- TRPTA should create a logo for the new transit service.
- TRPTA should print and distribute copies of the new transit service schedules and brochures throughout the service area.
- TRPTA should advertise the new transit service with the local newspaper, radio, and television stations.
- TRPTA should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.
- TRPTA should install 40 bus stops along the flex loop routes.
- TRPTA should develop and construct two new transfer stations: one at the Aquatic Center and one at the Grand Teton Mall.

Rideshare Program

One of the short-term transit service recommendations is the development of a rideshare program through coordination with the major employers and the human service agency providers. A rideshare program would allow the transportation providers to create an economy of scale. The rideshare program involves a call center where trips are routed to the transportation provider that can best serve the individual trip. The call center would also function as the central location for carpooling and vanpooling for the region. The estimated cost of the rideshare program is $36,800 in the year 2009 (including inflation).

Benefits

- The residents of the study area would have transportation that provides increased integration and mobility throughout the region.

Timing

- The rideshare program should be implemented in fiscal year 2008 to 2009, depending upon the availability of local match funding and whether the coordination needed to start the rideshare program has been completed.

Responsibility

- TRPTA would be responsible for planning and coordinating the rideshare program for the study area.

Implementation Steps

- TRPTA should develop a coordination committee to develop the rideshare program and represent all of the participants within the service area. A kick-off meeting should be held one year before the program begins.
- Federal and/or state funding should be identified.
- Quarterly meetings should be conducted in order to maintain communication and provide aid regarding program adjustments.

Phase II Implementation (Year 2010)

Phase II would implement the evening transit service and commuter service. The annual operating cost of the evening transit service is estimated at $228,400. The annual operating cost of the commuter service is estimated at $111,500. Phase II would increase the total annual operating cost of the transit service to $1.1 million.

Benefits

- The residents of the study area would obtain increased connectivity and mobility through links between the City of Idaho Falls and the rural communities in the Bonneville County area.

Timing

- The evening transit service and commuter service should be implemented in the years 2010 to 2011.
- The planning of the new transit service should be completed in the year 2009, and the implementation of the service should begin in the year 2010 depending on funding.
- TRPTA should apply for additional FTA 5307 funding.

- TRPTA should work with Medicaid to use the Medicaid transportation funding as the local match for FTA 5307 funding, per the new SAFETEA-LU guidelines.
- Intergovernmental agreements should be created between TRPTA and other governmental entities and agencies throughout the study area. It is recommended that the intergovernmental agreements last for at least three years in order to give the new transit service a base upon which to develop the other phases of the preferred transit service plan.

Responsibility

- TRPTA would be responsible for planning and implementing Phase II for the study area.
- TRPTA should train the drivers on the operations of the new transit service.
- TRPTA should develop an education program for the new transit service at least three months before changes to the service are implemented. This would include public meetings to inform the public and allow for public comments.
- TRPTA should conduct test runs of the proposed commuter routes and making any necessary changes to the schedules.
- The TRPTA Board would need to approve any funding grants or intergovernmental agreements for the new transit service.

Implementation Steps

- TRPTA should educate the public about the new transit service and how to use the new service.
- TRPTA should apply for the appropriate operating funding for the new transit service.
- TRPTA should work with the local government entities and agencies in order to secure additional funding.
- TRPTA should print and distribute copies of the new transit service schedules and brochures throughout the service area.
- TRPTA should advertise the new transit service with the local newspaper, radio, and television stations.
- TRPTA should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.
- TRPTA should install an additional 60 bus stops along the flex loop routes, for a total of 120 bus stops in the transit service area.

Phase III Implementation (Year 2011)

Phase III would include the implementation of Saturday transit service. The Saturday transit service would increase the operating cost by $176,000 for a total operating cost of $1.4 million (including inflation). In Phase III, TRPTA would need to develop three-year intergovernmental agreements with the local governments, educational institutions, and human service agencies in order to cover the local match funding needed for implementation of the new transit service.

Benefits

- The residents of the study area would obtain increased connectivity and mobility by having Saturday transit service.

Timing

- The planning of the new transit service should be completed in the year 2010, and implementation of the service should begin in the year 2011, depending on funding.
- TRPTA should apply for additional FTA 5307 funding.
- TRPTA should work with Medicaid to use the Medicaid transportation funding as the local match for FTA 5307 funding, per the new SAFETEA-LU guidelines.
- Intergovernmental agreements should be created between TRPTA and other governmental entities and agencies throughout the study area. It is recommended that the intergovernmental agreements last for at least three years in order to give the new transit service a base upon which to develop the other phases of the preferred transit service plan.

Responsibility

- TRPTA would be responsible for planning and implementing Phase III for the study area.
- TRPTA should train the drivers on the operations of the new transit service.
- TRPTA should develop an education program for the new transit service at least three months before changes to the service are implemented. This would include public meetings to inform the public and allow for public comments.
- The TRPTA Board would need to approve any funding grants or intergovernmental agreements for the new transit service.

Implementation Steps

- TRPTA should educate the public about the new transit service.
- TRPTA should apply for the appropriate operating funding for the new transit service.
- TRPTA should work with the local government entities and agencies in order to secure additional funding.
- TRPTA should print and distribute copies of the new transit service schedules.

- TRPTA should advertise the new transit service with the local newspaper, radio, and television stations.
- TRPTA should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.
- TRPTA should install an additional 34 bus stops along the flex loop routes, for a total of 154 bus stops in the transit service area.

Phase IV Implementation (Year 2012)

Phase IV would include the implementation of an expanded service area and additional commuter service. The expanded service area would increase the operating cost by $296,169. The additional commuter service would increase the operating cost by $37,000. Therefore, the total annual operating of the transit service would be $1.7 million (including inflation). In Phase IV, TRPTA would need to develop three-year intergovernmental agreements with the local governments, educational institutions, and human service agencies in order to cover the local match funding needed for implementation of Phase IV.

Benefits

- The residents of the study area would obtain increased connectivity and mobility through an expanded service area and additional commuter service.

Timing

- The planning of the new transit service should be completed in the year 2011, and implementation of the service should begin in the year 2012 depending on funding.
- TRPTA should apply for additional FTA 5307 funding.
- TRPTA should work with Medicaid to use the Medicaid transportation funding as the local match for FTA 5307 funding, per the new SAFETEA-LU guidelines.
- Intergovernmental agreements should be created between TRPTA and other governmental entities and agencies throughout the study area. It is recommended that the intergovernmental agreements last for at least three years in order to give the new transit service a base upon which to develop the other phases of the preferred transit service plan.

Responsibility

- TRPTA would be responsible for planning and implementing Phase IV for the study area.
- TRPTA should train the drivers on the operations of the new transit services.

- TRPTA should develop an education program for the new transit service at least three months before changes to the service are implemented. This would include public meetings to inform the public and allow for public comments.
- The TRPTA Board would need to approve any funding grants or intergovernmental agreements for the new transit service.

Implementation Steps

- TRPTA should educate the public about the new transit service.
- TRPTA should apply for the appropriate operating funding for the new transit service.
- TRPTA should work with the local government entities and agencies in order to secure additional funding.
- TRPTA should print and distribute copies of the new transit service schedules.
- TRPTA should advertise the new transit service with the local newspaper, radio, and television stations.
- TRPTA should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.

CAPITAL PLAN

Bus Stops and Shelters

In order to improve the flex loop route service, bus stops and shelters should be installed at key locations. The bus stops and shelters would allow the public to easily identify the transit pick-up locations and the routes that serve that location. Bus stops and shelters would reduce the barriers to using the transit system and would increase the public profile of the transit service.

Based on the recommended hybrid system, LSC recommends that a bus stop/ shelter be placed about every 1,200 feet along each of the seven flex routes. The bus stops and shelters should be placed at key locations such as the major employment, shopping, and medical destinations. Bus shelters should also be placed at locations where there is an identified high number of riders with no building (shelter) already near the bus stop. LSC estimates a total of 154 bus stops and shelters.

Each bus stop should include a sign on a pole. On the pole, there should be a carousel that displays the schedule and route that serves the location. Each bus stop should also have a concrete pad (for the transit users to stand on), bench, and shelter structure. Bus stop diagrams are presented in Appendix C.

The cost is estimated at $1,200 to $1,500 for each bus stop and $10,000 for each shelter. LSC has estimated that TRPTA could implement about $50,000 worth of bus stops and shelters per year. The installation of the bus stops and shelters would be completed in about five to seven years.

New and Replacement Vehicles

LSC recommends that TRPTA replace 18 vehicles over the short term (the next six years). In the short term, the total cost is estimated at $1.2 million. The funding breakdown is about $960,000 in federal funding and $240,000 in local match funding. Details on the recommendations for vehicle replacement purchases are shown in Table XIII-1.

During the same time period, TRPTA would need to purchase five additional vehicles for the implementation of the new transit service. The total estimated cost of the five vehicles is $381,500, with about $305,200 in federal funding and $76,300 in local match funding.

The total local match funding needed for the replacement and new vehicles would be about $316,000 over the next six years, or an average of $52,600 per year. The cost of the vehicles are shown in the year of delivery and implementation.

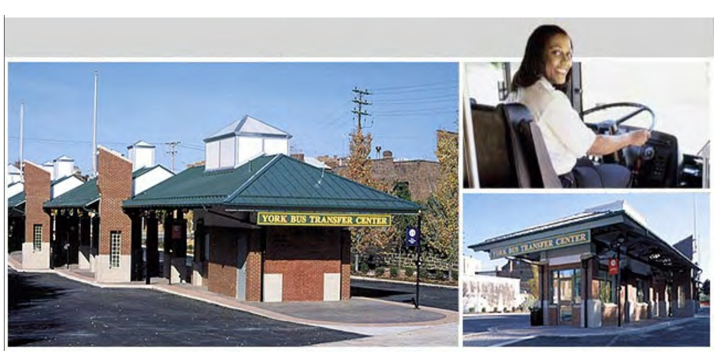
Table XIII-1
Vehicle Replacement (6-Year Plan)

	2007	2008	2009	2010	2011	2012
Replacement Buses						
Replacement Body-on-chassis	8	2	2	2	2	2
New Buses						
New Body-on-chassis				1		4
Source: LSC, 2006.						

Transit Facilities

A major capital investment would be the development of a new transit facility at the location of the existing transit facility. The new facility would include an administrative office, passenger waiting area, and transfer station for the transit services. The cost of the transit facility is estimated at $1,000,000 for a small office area (including a dispatch room) and a transfer station. The transit facility would need to be planned and designed in the year 2006 in order for construction to begin in the year 2007. The transit facility could be completed by the end of the year 2008.

In addition to the new transit facility, TRPTA would need to construct two new transfer stations: one at the Aquatic Center and one at the Grand Teton Mall. The estimated cost of the two new transfer stations is $150,000 each, for a total of $300,000 in Phase I. Each transfer station should include a concrete pad, benches, shelter, kiosk, information center, bus pullouts, and outside waiting area.



Park-and-Ride Lots

LSC has recommended that TRPTA (in cooperation with the Idaho Department of Transportation, county governments, and local communities) implement shared park-and-ride lots for the regional commuter service in the short term. For the long term (25 years), LSC recommends the implementation of formal park-and-ride lots to replace the shared/informal park-and-ride lots. The formal park-and-ride lots should be implemented based on the success of the regional commuter service.

Funding for the formal park-and-ride lots could be obtained from CMAQ funding. Depending upon the commitment of the state, the local communities may not need to fund the construction of the park-and-ride lots. The local agencies would already be committed to the regional commuter service through intergovernmental agreements that support the operations of the transit service.

Administrative and Maintenance

The administrative and maintenance capital includes the purchase of office equipment, hardware, software, dispatching software, radios, and maintenance equipment. LSC has estimated a total administrative and maintenance cost of $50,000 over the next six years, with about $40,000 in federal funding and $10,000 in local match funding. This includes the cost of new dispatching computer software at an estimated $20,000 purchase cost and an estimated $1,000 maintenance cost per year.

FUNDING PLAN

The following section presents the proposed financial plan for the next six years. Table XIII-2 presents the expenditures and revenues for TRPTA over the years 2007 through 2012, with the assumption of an annual three percent inflation rate.

LSC recommends that TRPTA continue to apply for federal funding (such as TANF) in order to support public transportation services in the study area. Federal funding is expected to remain relatively stable over the next few years.

TRPTA should also continue to work toward establishing new revenue sources. Additional funds may be generated by pursuing grants from agencies and foundations other than the Idaho Department of Transportation or FTA.

LSC recommends that, in the short term, TRPTA apply for FTA 5307, intercity, TANF, and Medicaid funding. Under the new SAFETEA-LU rules, both TANF and Medicaid funding can be used as local match for transit operational funding. This type of funding should be used as the local match for Phases I through IV.

Federal funding is available for 50 percent of the operating costs for general public transportation services less farebox return. The remaining operating costs should be divided among the local government entities and local agencies depending on the intergovernmental agreements and contract services. The Transit Implementation Plan anticipates $706,000 in operational costs in fiscal year 2007 to 2008 and $886,457 in fiscal year 2008 to 2009, with an increase in each of the following years based on the implementation of the additional three phases.

Benefits

- Local funding displays a level of commitment on the part of the local governments and citizens.
- Local match funding is needed to help secure the matching federal funds.
- The funding helps to provide a service needed by the local citizens.

Timing

- TRPTA should immediately begin the process of obtaining funds from the local government entities and agencies within the study area.
- The local communities' budgetary offices should be prepared to incorporate local transit funding when the transit budget is presented for the fiscal year 2008 to 2009 budget cycle.

Responsibilities

- TRPTA would be responsible for presenting the initial funding information to the local agencies and governmental bodies, and for building support for local transit funding.
- TRPTA would be responsible for developing the transit budget and presenting the budget to the local governments and the TRPTA Board.

- The TRPTA Board members should assist in presentations to the local agencies and governments.
- The TRPTA Board members should assist in educating the public on the benefits of the new transit service in order to obtain political support for the development of the intergovernmental agreements.

Implementation Steps

- TRPTA should meet with local agencies and government officials to present the need for local transit funding.
- TRPTA should prepare the detailed transit operating budget for approval by the TRPTA Board.
- TRPTA should present the approved transit budget to local agencies and local governments.
- Local governments would need to agree to provide funding for the transit service in an intergovernmental agreement for one to three years in duration (preferably three years).
- A grassroots group should be created and should meet every month. The grassroots group should develop public education programs regarding the benefits of supporting the intergovernmental agreements and the level of local commitment to transit service.

Table XIII-2

Transit Plan, 2007-2012 (assumed 3% inflation)

	2007	2008	Phase I 2009	Phase II 2010	Phase III 2011	Phase IV 2012	Total
EXPENSES							
OPERATING							
TRPTA Existing Service Level	$ 701,818	$ 722,873	$ 744,559	$ 766,896	$ 789,903	$ 813,600	$ 4,539,649
SERVICE CHANGES							
Hybrid System	$ 0	$ 0	$ 21,855	$ 22,510	$ 23,185	$ 23,881	$ 91,431
Evening Service (6:00 pm to 9:00 pm)	$ 0	$ 0	$ 0	$ 228,410	$ 235,262	$ 242,320	$ 705,992
Saturday Service	$ 0	$ 0	$ 0	$ 0	$ 175,908	$ 181,185	$ 357,093
Expanded Service Area	$ 0	$ 0	$ 0	$ 0	$ 0	$ 296,169	$ 296,169
Rideshare Program	$ 0	$ 0	$ 36,831	$ 37,936	$ 39,074	$ 40,246	$ 154,087
Commuter Services	$ 0	$ 0	$ 0	$ 111,543	$ 114,889	$ 155,472	$ 381,904
Marketing Program	$ 5,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 65,000
Subtotal	**$ 706,818**	**$ 742,873**	**$ 813,245**	**$ 1,177,295**	**$ 1,388,222**	**$ 1,762,874**	**$ 6,591,327**
CAPITAL							
Replacement Vehicles	$ 520,000	$ 137,917	$ 142,055	$ 146,316	$ 150,706	$ 155,227	$ 1,252,220
New Vehicles (Additional)	$ 0	$ 0	$ 0	$ 73,158	$ 0	$ 310,454	$ 383,612
Transit Stop Improvements 154 (over 5 years)	$ 0	$ 0	$ 56,000	$ 57,680	$ 59,410	$ 61,193	$ 234,283
Tranfer Station (two-AC, Mall)(Phase IV stations)	$ 0	$ 0	$ 150,000	$ 75,000	$ 0	$ 300,000	$ 525,000
Transit Facility	$ 1,170,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,170,000
Office / Adminstration / Maintenance Eq.	$ 15,000	$ 15,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 50,000
							$ 0
Subtotal	**$ 1,705,000**	**$ 152,917**	**$ 353,055**	**$ 357,154**	**$ 215,116**	**$ 831,873**	**$ 3,615,115**
TOTAL EXPENSES	**$ 2,411,818**	**$ 895,790**	**$ 1,166,299**	**$ 1,534,449**	**$ 1,603,338**	**$ 2,594,747**	**$ 10,206,442**
REVENUES							
FTA 5307 Program (operating)	$ 306,603	$ 317,131	$ 357,316	$ 539,342	$ 644,805	$ 832,131	$ 2,997,327
FTA 5307 Program (operating Intercity)	$ 0	$ 0	$ 0	$ 55,772	$ 57,445	$ 77,736	$ 190,952
Medicaid	$ 100,000	$ 103,000	$ 106,090	$ 109,273	$ 112,551	$ 115,927	$ 646,841
TANF / HeadStart	$ 75,000	$ 77,250	$ 79,568	$ 81,955	$ 84,413	$ 86,946	$ 485,131
State Gant	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Subtotal	**$ 481,603**	**$ 497,381**	**$ 542,974**	**$ 786,340**	**$ 899,214**	**$ 1,112,740**	**$ 4,320,251**
FTA 5307 Program (capital)	$ 428,000	$ 122,334	$ 282,444	$ 285,723	$ 172,093	$ 665,498	$ 1,956,092
FTA 5307 Program (New Facility)	$ 936,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 936,000
FTA 5311 Program (capital)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Subtotal	**$ 1,364,000**	**$ 122,334**	**$ 282,444**	**$ 285,723**	**$ 172,093**	**$ 665,498**	**$ 2,892,092**
Local Revenues							
Local Match for Capital	$ 341,000	$ 30,583	$ 70,611	$ 71,431	$ 43,023	$ 166,375	$ 723,023
Advertising	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 6,000
Local (City/Fares/Contracts)	$ 88,612	$ 88,612	$ 88,612	$ 88,612	$ 88,612	$ 88,612	$ 531,672
Local Match for Operating	$ 135,603	$ 155,881	$ 180,659	$ 301,343	$ 399,396	$ 560,522	$ 1,733,404
Subtotal	**$ 566,215**	**$ 276,076**	**$ 340,882**	**$ 462,386**	**$ 532,031**	**$ 816,509**	**$ 2,994,099**
TOTAL REVENUES	**$ 2,411,818**	**$ 895,790**	**$ 1,166,299**	**$ 1,534,449**	**$ 1,603,338**	**$ 2,594,747**	**$ 10,206,442**

Source: LSC, 2006.

ADMINISTRATIVE STRUCTURE

The Planning Team developed the proposed organization chart which is presented in Figure XIII-1. The following section detail the functions of the positions listed in the organization chart.

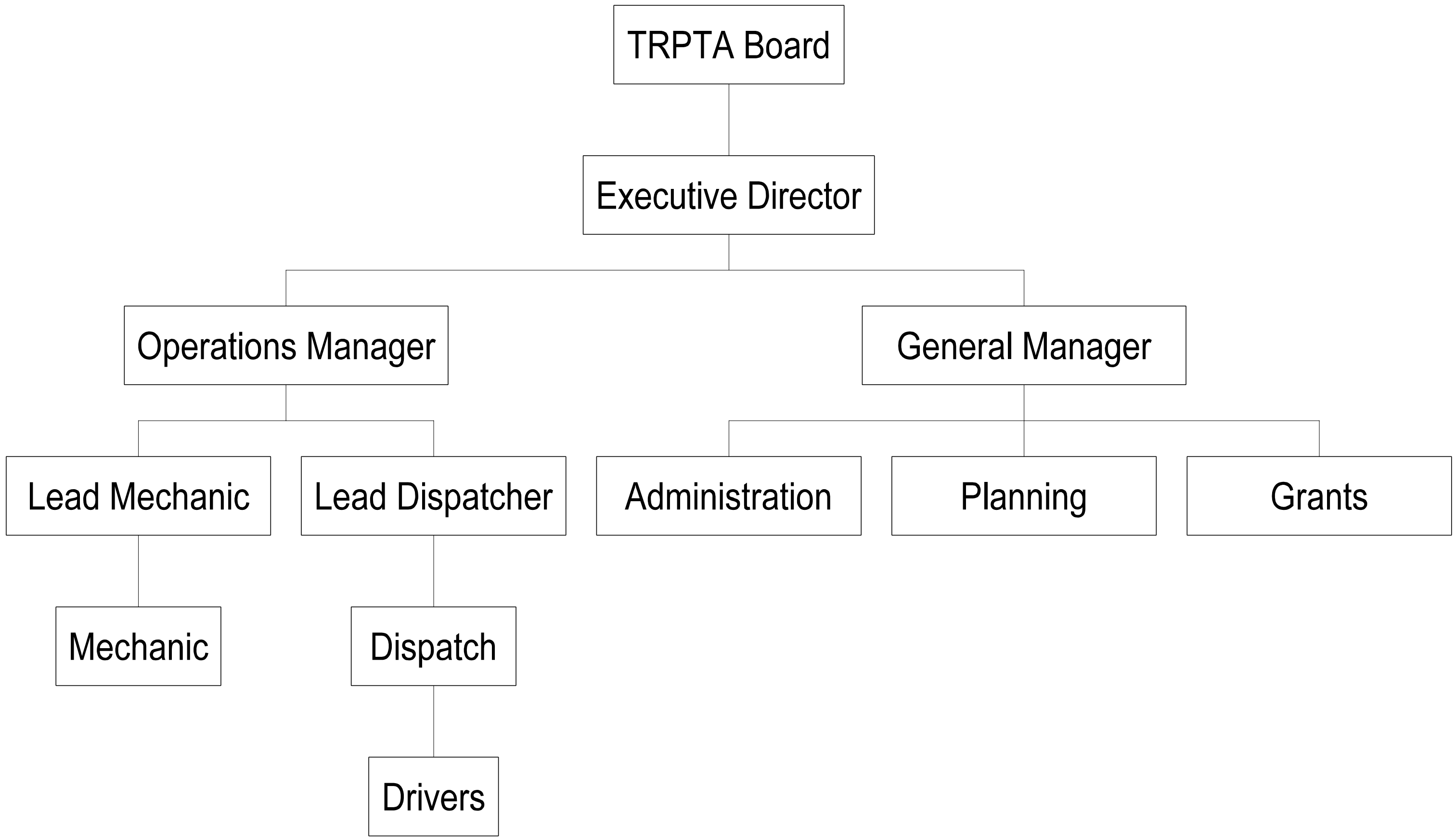
Executive Director

The Executive Director can perform many of the duties that the General Manager performs. However, in a regional transit format such as TRPTA, an Executive Director can manage many of the political activities that can arise from a multi-jurisdictional transit authority. The planning team proposes that the Executive Director's position for TRPTA be responsible for the long-range growth and financial security of the organization. The Executive Director's duties would be:

1. Work closely with the TRPTA Board in developing the long-range vision for the agency as well as developing agency goals and objectives.
2. Provide technical support to the TRPTA Board. Be able to assist the Board in understanding how a public transit system operates, be well versed in new technological innovations for transit, be knowledgeable about transit funding sources and how TRPTA may obtain additional funding.
3. Be the public relations "face" for TRPTA. The agency needs a consistent public relations policy with the Executive Director in charge of the policy. The Executive Director should be available to the press and the public.
4. Assist the Board in developing the policy by which TRPTA conducts its business.
5. Conduct annual retreats with the Board to evaluate the agency's mission statement, goals and objectives, and performance standards.
6. Work with local and state governmental agencies to promote public transportation and educate them on the benefits of transit.
7. Supervise management staff to include: assigning and reviewing work, ensuring management staff are properly trained, evaluating performance, approving time off, handling disciplinary actions, and making hiring and termination recommendations.

Figure XIII-1

Organization Chart



Transit General Manager (Reports to Executive Director)

1. Develop and administer operational policies and procedures; enforce compliance with rules and regulations.
2. Develop, administer, and monitor the transit budget to include overseeing and approving purchasing procedures.
3. Research and resolve complaints and problems; develop customer surveys to determine customer satisfaction.
4. Represent TRPTA at meetings and on committees for transportation; provide administrative and technical support for the Transit Advisory Committee.
5. Supervise staff to include: assigning and reviewing work, ensuring staff are properly trained, evaluating performance, approving time off, handling disciplinary actions, and making hiring and termination recommendations.
6. Serve as TRPTA's liaison on transit matters with the Idaho Department of Transportation and the Federal Transit Administration.
7. Prepare transit reports; research and apply for local, state, and federal funding.
8. Actively promote public transportation within the community and develop marketing strategies to increase ridership and positive public perception.
9. Develop transit goals and objectives; develop short- and long-range plans.
10. Perform contract management to include: negotiating contracts, preparing contracts, and making or receiving payments.
11. Develop Annual Report on transit operations.

Transit Operations Manager (Reports to Executive Director)

1. Supervise and coordinate daily transit operations to include: coordinating usage of vehicles, developing methods of operation to meet the public demand for service, monitoring and assigning work of staff, and completing performance evaluations.
2. Assist in the development and administer operational policies and procedures; enforce compliance with rules and regulations.
3. Research and resolve complaints and problems concerning transit operations.
4. Participate in meetings and serve on committees for transportation/transit issues.
5. Assist in preparing the transit budget and track the budget.
6. Assist in the development of reports and oversee data collection.
7. Participate in purchasing materials and supplies.
8. Perform other duties of a similar nature or level.

Lead Dispatcher (Reports to Transit Operations Manager)

1. Assign and monitor work; provide employee training on proper methods and procedures.
2. Coordinate the repair and maintenance of fleet vehicles by development of work orders, scheduling and monitoring work, service schedules, and tracking expenditures.
3. Order and pick up supplies and other materials.
4. Complete and maintain required reports to include: updating databases, coding and tracking expenditures, and informing supervisor of daily divisional activities.
5. Conduct daily road supervision and respond to vehicle accidents involving transit vehicles.

The existing administrative budget should be able to cover these positions since there are no additional administrative positions recommended. The new administrative structure will also establish a clear chain of command.

DISPATCHING AND SCHEDULING

TRPTA operates a Flex Zone service in which four fixed routes have been established that can “flex” within three-quarters of a mile of the fixed route to pick up passengers. Passengers that are picked up off the fixed route must call in to reserve a time to be picked up. A schedule is then developed using Microsoft Excel that shows the time, date, pick-up location, destination, name of the customer, the customer’s phone number, and columns that the driver fills out to show if the customer rode the trip or if they cancelled. This system has become so successful that TRPTA is finding it difficult to operate all the trip requests. The rural transit service has a separate dispatcher and a separate dispatch procedure that is done principally by hand.

It is recommended that TRPTA combine these two dispatch functions and employ the use of a new computer software and hardware system for scheduling and dispatching paratransit and rural trips. This computerized system would replace the existing manual system currently in place and would make scheduling and dispatching much easier, as well as more efficient and effective. This type of system may help in allowing TRPTA to better facilitate the requests for service with which they are now having difficulty.

The Federal Transit Administration (FTA) has instituted the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) which will greatly enhance the federal government's involvement in small urban transit systems. Under this new legislation, small urban transit systems receiving formula funds, such as TRPTA, are now required to report data to the National Transit Database (NTD). Urban systems have to report the following:

- Total annual revenue
- Sources of revenue
- Total annual operating costs
- Total annual capital costs
- Fleet size, type, and facilities
- Revenue vehicle mileage
- Ridership

Most of these data can be collected using the computerized dispatching software, thereby eliminating time-consuming manual input of data. The software can also be programmed to place these data into report formats.

Other high tech advancements to aid flex routing, demand-response, and para-transit service are the Mobile Data Terminal (MDT), Automatic Vehicle Locator (AVL), and the Global Positioning Satellite (GPS) system. Once dispatch develops the automated schedule, a manifest is transmitted to the MDT on board each van. The MDT video screen continuously updates and reviews, as necessary, the pick-up and delivery points for the day, and guides the driver with a visual map that also broadcasts directions using the GPS.

The MDT also provides continuous electronic updates to each driver's route, such as reporting a bus out of service that means additional pick-ups for other vehicles, a customer cancellation, or a delay. It allows drivers and dispatchers to interact quickly and efficiently to provide effective public transportation service.

The AVL is a GPS-based system that picks up signals every second via a satellite beam, records the bus's location and speed at one-minute intervals, and simultaneously communicates the information to operations so dispatchers can optimize efficiency when they have to adjust daily schedules. A great advantage of this technology is the ability for customers to make "real time" reservations.

Safety and security can be enhanced with a surveillance and motion indicator system. The system consists of surveillance cameras and microphones, with continuous loop recordings for both the outside and inside of the van, along with a G-force indicator system that provides an integrated record of events to dispatch. This record of events can be downloaded through a wireless local area network each time the bus drives into the vehicle maintenance facility.

The G-force indicator flags the feed from the surveillance cameras whenever the driver pushes a button, and/or the feed from the system kicks in automatically because the van's motion exceeds a prescribed force level. Automatic flags include braking too hard, taking a corner too fast, a collision, or accelerated speed. The driver also may push the flag button to record a customer interaction. All recorded activity inside and outside the vehicle can be set up for timely replay that can enhance coaching and training for drivers or create evidence for customer or employee issues.

The planning team recommends that TRPTA combine their fixed route and rural transit dispatch offices and begin gathering funds to purchase, at minimum, computerized reservation and dispatch software to provide a more efficient and cost effective dispatch structure. As the system grows, other items listed above should be incorporated into the service.

MARKETING AND PERFORMANCE MEASURES PLAN

This section outlines several effective preliminary marketing strategies that could be used by the TRPTA. These strategies represent "best practices" from across the nation. They are taken from the *Transit Cooperative Research Program, Report 50: A Handbook of Proven Marketing Strategies for Public Transit*, sponsored by the Federal Transit Administration and the Transportation Research Board. This TCRP report discusses national examples of effective marketing campaigns along with program results and a time line for implementation.

Marketing in the broadest context should be viewed as a management philosophy focusing on identifying and satisfying customers' wants and needs. The basic premise of successful marketing is providing the right product (or service), offering it at the right price, and adequately promoting or communicating the existence and appropriateness of the product or service to potential customers. Unfortunately, for too many people the word "marketing" is associated only with advertising and promotional efforts that accompany "selling" the product or service to a customer. Instead, such promotional efforts are only a part of an overall marketing process. Without a properly designed and developed product or service offered at the right price, the expenditure of promotional funds is often ill-advised.

The following sections outline some of these strategies appropriate for investigation by TRPTA.

What constitutes an effective strategy?

One of the first questions to ask when designing a marketing strategy or plan is, "What is an effective marketing strategy?" While there may not be one correct answer to this question, it can at least lead to a discussion on effective strategies.

An effective marketing strategy *should at a minimum*:

1. Become a strategy under the transit agency's goals and objectives for service;
2. Be clearly and concisely presented and able to be implemented in the sense that something is produced or attained through the strategy;
3. Be able to be measured by some performance measure or data element;

4. Cost-effective in the sense that there is a benefit from the strategy and it is not implemented just for the sake of having a marketing campaign, one which may not even work;
5. Be flexible in respect to service changes and market segment changes, but be focused enough to convey a message about specific information; and finally,
6. It should accurately represent the transit service as a whole.

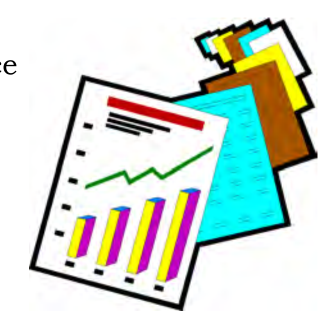
Although there are many other definitions of what a marketing strategy *should be,* it should be something that is a comprehensive part of the agency's overall goal of providing safe and efficient transit service. It *should not be* something that is forgotten or discarded, even if there are no funding dollars available to support a comprehensive marketing strategy. Many strategies only take some initiative, fore-sight, and dedication to make and implement the strategy. The strategies should support the goals and objectives in a clear and concise way.

How do you measure the success?

It can be very easy to measure the success of a transit agency's performance. Many times it comes down to two points:

- ✓ Operating effectiveness
- ✓ Operating efficiency

Measures of effectiveness can be tested with performance factors such as:



- Passenger-trips per mile
- Passenger-trips per hour
- Passenger-trips per capita

Measures of efficiency can be tested using the following measures:

- Cost per passenger-trip
- Cost per hour
- Cost per mile
- Cost per capita

LSC recommends that TRPTA staff work with its TRPTA Board to develop performance standards using the measures stated above that will be used to "grade" the service. Performance standards should be realistic and obtainable. TRPTA staff could provide current data to the TRPTA Board as a reference point.

Measures of marketing success can be measured using performance measures such as the ones discussed above, as well as through measures from passenger perceptions. Many times, *the* measure of marketing success is an increase in ridership. Other such measures of success include the following:

- Revenue generation
- Farebox recovery
- Ongoing passenger perception surveys from onboard surveys, telephone surveys, focus groups, or mailings. This should be done on a regular basis.

Preliminary Marketing Steps

One of the primary steps in determining how to tailor a marketing program to your agency is to determine how TRPTA is perceived. One of the best ways to determine public perceptions is to ask questions of users, non-users, and your agency as a whole. Ask yourself the following questions:

- Do you have a marketing team of business leaders, customers, key representatives, government officials, etc. who meet regularly to discuss marketing efforts, or service efforts?
- Do you talk to your customers on a regular basis?
- Do have an open submission policy or openly accept new service ideas from persons outside your direct organization?
- Do you regularly survey passengers to determine if their needs are being met?
- Do you regularly meet with drivers to discuss how to better improve the overall service to patrons?
- Do drivers discuss feedback they get from customers with each other or with supervisors and key leadership?
- If you asked customers what they would change about the system, do you have any idea what they would say?
- If you asked customers how they heard about the service for the first time, do you think they could tell you?

- If you sampled the general community population, would they be able to tell you anything about TRPTA service—how much it costs, where it goes, how to use it?
- Would local businesses, clubs, organizations, etc. donate to your organization?
- How would customers rank service on a scale of 1 to 10? Would you be surprised by their responses?

These are the key questions that need to be addressed as you continue to improve and market TRPTA as *the* public transportation provider in the region. Many agencies are shocked when they evaluate themselves in regard to the above questions. Marketing often is a key to raising the perceptions about a service.

Effective Strategies

National Examples

The following presents marketing examples from across the United States, along with the strategy's effectiveness at meeting the respective agency's goals. The strategies are not categorized or presented in any particular order. They are presented as a basis for discussion and to present how others campaign for transit ridership.

Transit Brochure Distribution – Rural Transit

Rural Transit in Bloomington, Indiana informs customers and potential riders of services through brochure distribution. The brochures are easy to read and informative. They are distributed to businesses and agencies along the rural transit routes. The implementation time for this program was one year with the objective of increasing awareness of Rural Transit's services. The agency reported the successes of the program were an increased public awareness of transit services in the area, increased working relationships with local businesses and agencies, and increased ridership.

The RRTA Senior Game – Red Rose Transit Authority

Red Rose Transit Authority (RRTA) in Lancaster, Pennsylvania conducted a six-week-long frequent rider promotion for senior citizens age 65 and over. The RRTA Senior Game cards were distributed by operators and punched each time a senior used the system. A card was entered into drawings for prizes after four rides. Weekly drawings were held with small prizes awarded. The agency advertised with a mailing to the local senior citizen groups, ads in senior citizen publications, and interior bus ads. The objective of the "game" is to get new seniors to try the bus system as well as to reward current patrons. Implementation time is two to three weeks per year. Ridership for the RRTA was noted as increasing, and feedback from seniors was very positive.

Flyers Distributed on the Virginia Tech Campus

Blacksburg Transit in Blacksburg, Virginia posts single-page flyers throughout the college campus promoting its paratransit service. The flyers are placed in and around major buildings. The objective is to increase awareness of the agency's paratransit service on campus. Within two months after the strategy was implemented, calls to the agency for information and applications for service increased by 350 percent.

The Transit Connection – Connecting the Worker to the Workplace

The Triangle Transit Authority in Research Triangle Park, North Carolina held job fairs that focused on the importance of public transit options for the workplace. The objective of the job fairs was to bring employers and potential employees together for mutual benefit. Education of both segments was another objective. While this project took considerable funding and time spent organizing the job fair, the TTA sees this strategy as a huge success and is now asked to make presentations to different groups on welfare-to-work issues and is represented on several area agency boards for work-related transportation issues.

Get On Board – Erie Metropolitan Transit Authority

The Erie Metropolitan Transit Authority (EMTA) conducts a transit awareness program called "Get On Board." The agency holds awareness assemblies in each of the local elementary schools. Coloring books and other materials are distributed to the children and education lessons are given to teachers. The main objective is to educate schoolchildren on the value and use of the transit system. EMTA spends money primarily on copying and stickers. Free advertising is garnered on a local radio station with other prizes donated from local advertisers on the station. In the first year of implementation, 10 of 14 schools were involved, and working relationships with sponsors continues to grow.

Other Approaches

Recent research has cataloged marketing efforts that have helped transit systems around the country increase their public exposure and their ridership, and some of these successful initiatives may be useful for the Targhee Regional Public Transit Authority. Many systems have found print advertising (e.g., newspapers, flyers, and direct mail) to be the most effective use of advertising dollars. Examples of successful marketing strategies are listed below.

- *Volunteers to assist potential riders.* Under this program, a volunteer is used to explain the workings of the transit system to the potential patron and to accompany the person on a round-trip ride. Such programs have resulted in a newfound independence for residents, particularly elderly persons and persons with disabilities, who are now able to travel throughout the community without relying on friends and family to provide them with mobility.

- *Publish transit schedules and service hours in the newspaper.* Publication of the transit schedule and basic information about the system in the local newspaper twice a year would be a cost-effective way to ensure that the residents of the communities are familiar with the transit service. The newspaper may agree to print the schedule as a public service. Alternatively, some systems have covered the cost of such an initiative through a reciprocal agreement to carry advertising for the newspaper on the buses.

- *Direct mail program.* If new areas or services are added to the transit system, it may be advantageous to institute a direct mail campaign to households in the new areas. Such a campaign will ensure that residents of the neighborhoods know about the service. It would be useful to include coupons in the mailing to encourage residents to make their first transit trip.

- *Shopping center underwriting.* Some transit systems have developed arrangements with shopping centers that provide coupons for riders. These coupons would provide an incentive for riders and would be beneficial to the transit system and the shopping center.

While each of the listed marketing strategies may or may not be effective, they can all be modified in some way to fit TRPTA's needs. The goal of marketing is to increase awareness, support, and ultimately, ridership for the system.

Marketing to Business

Marketing techniques to reach businesses should receive its own attention. An excellent resource is the *TCRP – Report 51: A Guidebook for Marketing Transit Services to Business,* sponsored by the Federal Transit Administration and Transportation Research Board. Much of what is documented in this section is taken from that report as well as LSC's varied experience across the United States. This guidebook states a very important point worth mentioning right away: "No matter who makes up the target market, understanding what the customer wants is the first step toward meeting those needs." This statement translates into every aspect of a transit system, not just the marketing program.

Many times, local businesses are unaware that general public transit service even exists. In many cases, local businesses do not know about tax benefits and other incentives available through the use of employee transportation. Likely, it can be provided through a brief summary of those benefits to the employers by a spokesman for TRPTA. It is then up to TRPTA to respond to those business needs, such as getting employees to and from work. For example, subscription employee routes could provide a needed service to businesses. This could be in the form of vanpools, buspools, fixed-route intercity service, etc.

Once a service is proposed to be offered, support for that service must come in terms of commitment and participation. This is not only financial support, but may require the business participating to promote the service to employees.

Effective programs across the United States have employed such innovative ideas as public-private profit sharing, where revenues are shared with the business after operating costs have been recouped.

How do you begin such a daunting task? There are many ways to approach a business to determine if a market exists and what form of transportation is appropriate for that business:

1. Direct Mailings – inform businesses of existing service and benefits.
2. Site-Based Sales – informal visits with employers and employees to determine needs and possible solutions.
3. Chamber of Commerce – an excellent means to communicate with businesses in the community. TRPTA may wish to join the Chamber and have senior management get involved in Chamber activities.
4. Telemarketing – businesses can be contacted during business hours and be "pitched" information.
5. Word of Mouth – it is possible that an existing employee uses transit and can spread the benefits of transportation to fellow employees and employers.
6. Decision Makers – obviously having the ear of local decision-makers and business leaders is an effective way to promote the service.

There are a variety of ways to market transit to businesses in a community. The first thing you have to do, or be willing to do, is offer a *convenient, cost-effective service.* Cost, convenience, and reliability are the important things to remember in any transit system and must be the priority of the transit agency. If this is concentrated on, marketing will come much more easily.

TRPTA Preliminary Transit Marketing Strategies

The best marketing that can be done is to provide services that the people want. Enhancing service is an element of marketing because it provides a desirable service to those who will use it. In order to provide good service, it is essential to have information which may be used by management for evaluation of the service and continuous improvement of that service. TRPTA must maintain a customer orientation in every part of the plan. Promotional activities have been identified that could enhance the overall implementation and marketing efforts. The following represent realistic efforts that could be done under a limited budget.

Human Interest Stories

TRPTA should work with the local newspaper to provide periodic human interest stories. Human interest stories can be used to reinforce the benefits of transit service for the community. Examples of good stories would be individuals who are able to work or attend school because of the availability of public transportation. Another example is someone with a disability who is able to make a contribution in the community because of public transportation or who is able to obtain medical treatment because of the coordinated efforts between the TRPTA and social service agencies.

TRPTA should also make use of news advisories for any significant event or accomplishment of any employee. The most cost-effective way to reach large groups of the general population is via the news media. A system should be developed to disseminate news advisories to the media announcing new schedules, fares, services, community involvement activities, outstanding employees, safety record, major management changes, awards, etc. It is important to keep in mind, however, that the media should not be overwhelmed with too much information that is not meaningful and that might otherwise dilute the attention paid to more important communications. TRPTA should use the media in the beginning to talk about the new service change.

Vehicle Logo Design/Bus Wrap

A vehicle logo should be designed that is both distinctive and attractive. The logo should convey the message that this is a transit bus or a transit stop. It should be colorful, easy to read, and reproducible. Additionally, bus wraps offer an attractive alternative to paint schemes. Many times the cost of a bus wrap can be offset by advertising a local business or the community college. Additionally, a “Design a Bus Wrap” contest could be sponsored throughout the region. Recently, a high school student in Tempe, Arizona won the 2004 Valley Metro “Design a Bus Wrap” contest.

TRPTA should contact a local business or agency that may be willing to pay for the bus wrap. Bus wraps have a wide range of prices depending on the design, amount of the vehicle to wrap, geographical location, and type of vehicle. Vendors have stated that a three-year wrap for a body-on-chassis vehicle can run between $7,000 and $15,000. Many smaller agencies are just not financially capable of having this done to vehicles. However, there may be a local business or other agency that may be willing to cover the cost of design, materials, and installation.

Passenger Information

Passenger information is a broad topic of discussion. One main element of passenger information appropriate for TRPTA is a new brochure and flyer program. Passenger brochures should describe the services and include detailed information on the transit system without providing irrelevant information. The brochures should include service hours, destinations/service area, phone numbers, fare information, etc. The brochure should also describe how to request a pick-up and drop-off. The brochure should be attractive, informative and bilingual (English and Spanish) if there is a large Hispanic population in the community.

Another element of passenger information should include posters and signs. Posters and signs should be prepared which may be displayed in businesses, at places of employment, hospitals, and community bulletin boards.

Local Advertisement

Local advertising in media is a very effective means of advertising and promoting transit services. Local television time is usually cost-prohibitive for most agencies. Radio, newspaper, internet and others usually provide a cost-effective means of communicating with the public. Many times a local paper or radio station will donate ad costs for the agency.

Local advertisement also means working with local businesses and agencies to advertise on the buses, at bus stops, etc. Many times this can be a revenue generating initiative.

Guidelines for Preparing Radio and Newspaper Stories or Releases

It is important to remember that local people read local papers. Several written communication strategies may be used to "sell" the transit system. These should be considered if not already being used—yellow pages, directories, classified ads, newspapers, event flyers, referral flyers, and promotional flyers. What follows are brief guidelines for preparing news advertisements or releases. These guides are general rules of thumb for news releases and advertisements.

- Determine the goal: Why are we releasing this news story? Does it help to promote service? Does it reach our markets effectively? What market are we trying to reach with the advertisement or story? Determination of the overall goal of a news release or advertisement may help to assess if it is worth the cost to place the advertisement versus what the return may be. Overall, will anything be gained from the release or advertisement?
- What is needed? A determination of the objectives is necessary to assess how much is needed to convey the message. It is unlikely that one or two lines of text will suffice for releasing information in local papers about service changes or improvements. Having several "eyes" read and critique the piece will help to know if the message is being conveyed as intended.
- When writing a release, follow this simple strategy: *Don't* forget about the primary goals; *don't* go overboard; *don't* use empty useless statements; and *don't* forget to be accurate.
- Read, re-read, and then read it again. Have someone else read and check the advertisement and/or release.

Public Relations and Service Announcements

Public relations and service announcements are activities by which TRPTA can be "sold," without having to incur the costs associated with paid advertisement. Public relations is vitally important to any company, but especially to transit systems because of the dependence of the system upon the public to sustain it financially. The fact that the system must provide dependable, convenient, and timely service to the public is fundamental. Without this element of efficiency, no amount of public relations, advertising, or other marketing strategies will be effective. TRPTA staff should develop service announcements describing the new service change. This is a cost-effective way of spreading the word over the airwaves.

Monitoring Program

Monitoring of service should begin immediately. Data collection is essential to evaluate the service performance and to determine if changes should be made in the service delivery. This section provides information on data collection, databases, and standard reports that should be prepared. While TRPTA staff currently collect some of this information, detailed information such as passenger boardings and alightings by stop would greatly enhance the amount of analysis which could be performed for future service changes.

Data to Be Collected

Data to be collected fall into three basic categories—ridership data, on-time performance, and financial.

Ridership

Passenger boarding data should be collected continually. There is a trade-off between data collection efforts and the value of information. It is just as easy to collect too much data as it is to collect insufficient data.

MDTs in use

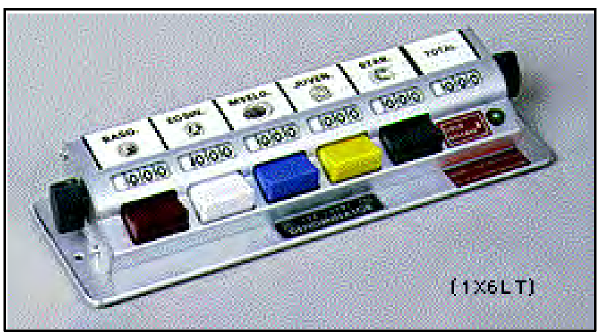
Passenger boardings should be recorded daily by route, fare category, and by trip. One goal all transit agencies should strive for is the implementation of Intelligent Transportation Systems, such as mobile data terminals (MDT). Mobile data terminals include features such as recording each passenger by fare category as they board. This capability should be programmed into the software as it is implemented. Mobile data terminals also allow both data and voice communication between operator and dispatcher. It is similar to having an alphanumeric pager on the dashboard. Several successful agencies across the United States implementing MDTs include

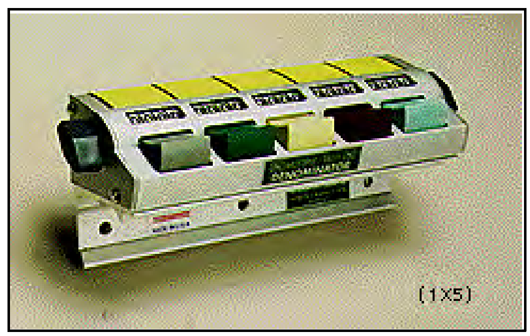
Central Ohio Transit Authority, Colorado Springs Transit, Tri-Met - Oregon, Milwaukee County Transit System, Ann Arbor Transportation Authority, and Montgomery County Transportation Authority.

Passenger boarding data can also be collected using tally boards on the buses. Two sample counters are shown in Figure XIII-2. Sufficient buttons are required to record passengers in each fare category. A driver's log sheet should then be used to record the passenger counts at the end of each trip. The drivers do not need to calculate the number of passengers for that trip, but record the running total by fare category. As data are entered, the calculation of passengers on each trip can be made. An effective approach is to prepare the driver's log sheet for each of the driver's runs. This will provide preprinted route and trip information, and the driver will need only to record the date and the passenger count data.

Figure XIII-2

Manual Passenger Boarding Counters





Twice each year, a full boarding and alighting count should be completed. If passenger boardings are counted using the MDTs and integrated with Automatic Vehicle Location (AVL), the data can be recorded automatically. If it must be done manually, this is a more intense effort and will require the use of additional personnel. Passenger counts are recorded for passengers boarding and alighting by stop for a full day. This information records the passenger activity at individual stops and is useful in determining if stops are appropriately placed and what amenities should be provided. If a stop has little or no activity, it would not warrant a bench or shelter, and may not even be appropriate as a designated stop.

Data collection forms should be prepared for each route showing the stops and providing space to record the passenger counts. An example used for an existing system is provided. Similar sheets should be prepared in advance for the boarding and alighting data collection.

Provide Comment Cards and Boxes

LSC recommends that TRPTA provide comment cards and comment boxes on each transit vehicle so that passengers have an opportunity to provide input regarding the transit system.

Time: ______________ am / pm

Sample Route

# of carryover passengers: ______________

ID	Bus Stop	ON	OFF	W/CH ON	W/CH OFF
34	Frisco Station				
46	Summit Boulevard @ School Road				
89	Main St @ 6th				
94	Granite Street				
50	Ophir Mountain Village				
21	County Commons				
95	Hwy 9 @ Farmer's Korner				
74	Hwy 9 @ Tiger Run				
97	Hwy 9 @ Vienna Townhomes				
13	Hwy 9 @ Breckenridge Rec. Ctr				
18	Park Ave. @ City Market				
6	Park Ave. @ 4 O'Clock Road				
110	Breckenridge Station				
110	Breckenridge Station				
108	Park Ave. @ River Mountain Lodge				
18	Park Ave. @ City Market				
98	Hwy 9 @ Breck Inn				
97	Hwy 9 @ Vienna Townhomes				
74	Hwy 9 @ Tiger Run				
95	Hwy 9 @ Farmer's Korner				
50	Ophir Mountain Village				
21	County Commons				
109	Summit Co Comm. Ctr				
94	Granite Street				
89	Main St @ 6th				
46	Summit Boulevard @ School Road				
34	Frisco Station				

EXTRAS

IMPLEMENTATION TIME LINE

Figure XIII-3 presents a time line of the information from Table XIII-2. LSC has also included the planning phase for each recommended project and program in order to aid in development. The planning phase is conducted the year before implementation. LSC recommends that TRPTA evaluate each project or program after implementation. For each phase of the implementation plan, LSC has included the planning and coordination of intergovernmental agreements and public education.

The planning for the Phase I elements should be conducted in the years 2006 to 2008, with implementation in the years 2009 and 2010, and with feedback in the year 2011. Included in the Phase I timeframe is the start of the new hybrid system (including seven flex routes, one jump route, and the rideshare program), replacement of vehicles, installation of bus stops and shelters, development of two new transfer stations, and the creation of the new transit facility.

The planning for the Phase II elements should begin in the year 2009 at the latest, with implementation in the year 2010 and feedback in the year 2012. Phase II includes the start of evening transit service and commuter service, purchase of new and replacement vehicles, and installation of bus stops and shelters.

The planning for the Phase III elements should begin in the year 2010 at the latest, with implementation in the year 2011 and feedback in the year 2012. Phase III includes the start of Saturday transit service, the purchase of replacement vehicles, and the last phase of bus stop and shelter installations.

The planning for the Phase IV elements should begin in the year 2011, with implementation in the year 2012 or 2013 (depending on funding and coordination with transit services in the City of Pocatello). Phase IV includes the start of two additional flex routes, one jump route, and one commuter route. Phase IV also includes the development of two additional transfer stations and the purchase of new vehicles.

The time line is designed to implement the preferred transit service plan over the next six years. This timeframe allows those agencies and government bodies that are dedicating funding the transit system, the time to shift their funding.

Figure XIII-3
Short-Term Plan Timeline

Project / Program	2006	2007	2008	2009	2010	2011	2012
Service Changes							
Hybrid Service			Planning	Implementation/Construction	Operations	Feedback	
Rideshare Program			Planning	Implementation/Construction	Operations	Feedback	
Commuter Service			Planning	Implementation/Construction	Operations	Feedback	Implementation/Construction
Evening Service				Planning	Implementation/Construction	Operations	Feedback
Saturday Service					Planning	Implementation/Construction	Feedback
Expanded Service Area						Planning	Implementation/Construction
Outreach							
Intergovernmental Agreements	Planning	Implementation/Construction	Planning	Implementation/Construction	Planning	Implementation/Construction	
Public Education Program		Planning	Implementation/Construction			Planning	Implementation/Construction
Capital							
Replacement Vehicles		★	★	★	★	★	★
New Vehicles (Additional)				★		★	
Transit Stop Improvements				□	□	□	□
Transfer Stations			Planning	Implementation/Construction		Planning	Implementation/Construction
Transit Facility	Planning	Implementation/Construction					
Park & Ride Lots					Planning	Planning	Implementation/Construction

LEGEND
- Planning (blue)
- Implementation/Construction (green)
- Operations (red)
- Feedback (gray)
- ★ Replacement Vehicles
- □ Bus Stops

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Appendix A: TCRP Trip Rates

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APPENDIX A

Recommended Methodology for Estimating Annual Program-Related Rural Passenger Transportation Demand
(From TCRP Report 3)

D= Annual One-Way Person-Trips

<u>Program Type</u>

Developmental Services: Adult

Participants < 25; D = 358 x Number of Participants

Participants > = 25; D = 430 x Number of Participants - 1,686

Developmental Services: Case Management

D = 39.2 x Number of Participants

Developmental Services: Pre-School

D = 224 x Number of Participants

Group Home

Participants < 10; D = 2.05 x Number of Participants x Days of Operation
or, if the number of days of operation is not known,
D = 615 x Number of Participants

Participants > = 10; D = (1.42 x number of Participants + 5.94) x Days of Operation
or, if the number of days of operation is not known,
D = 291 x Number of Participants + 3,760

Headstart

D = 263 x Number of Participants

Headstart: Home Base

D = 0.16 x Number of Participants x Days of Operation
or, if the number of days of operation is not known,
D = 30.5 x Number of Participants

TABLE 1, continued

Recommended Methodology for Estimating Annual Program-Related Rural Passenger Transportation Demand

(from TRCP Report 3)

D = Annual One-Way Person-Trips

Program Type

Headstart: Other

D = 1.86 x Number of Participants

Job Training

D = 137 x Number of Participants

Mental Health Services

D = 347 x Number of Participants

Mental Health Services: Case Management

D = 6.35 x Number of Participants

Nursing Home

Participants < 50;	D = 9.10 x Number of Participants
Participants > = 50;	D = 12.5 x Number of Participants - 173

Senior Nutrition

D = 248 x Number of Participants

Shelter Workshop

D = 1.58 x Number of Participants x Days of Operation
or, if the number of days of operation is not known,
D = 384 x Number of Participants

TABLE 2

Recommended Methodology for Estimating Annual Non-Program-Related Rural Passenger Transportation Demand

(from TRCP Report 3)

$$D = R_e E\left(\frac{1}{1 + k_e e^{-U_e}}\right) + R_m M\left(\frac{1}{1 + k_m e^{-U_m}}\right) + R_p P\left(\frac{1}{1 + k_p e^{-U_p}}\right)$$

where:

D = annual demand for Non-Program-Related passenger transportation.
(One-Way Trips Per Year)

R_e = 1,200

R_m = 1,200

R_p = 1,200

E = number of persons age sixty or over.

M = number of mobility-limited persons age sixteen to sixty-four.

P = number of persons, age sixty-four or less, in families with incomes below the poverty level. The definition of the poverty level is that used for the 1990 U.S. Census.

$k_e = e^{6.38}$

$k_m = e^{6.41}$

$k_p = e^{6.63}$

$$U_e = 0.000510 \times \frac{\text{Annual Vehicle-Miles Available to Elderly Market}}{\text{Area of the County}}$$

$$U_m = 0.000400 \times \frac{\text{Annual Vehicle-Miles Available to Mobility-Limited Market}}{\text{Area of the County}}$$

$$U_p = 0.000490 \times \frac{\text{Annual Vehicle-Miles Available to Low-Income Market}}{\text{Area of the County}}$$

Appendix B: Interview Questions

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Appendix B

1. For what purpose do you use the service?

- Work
- Doctor
- Shopping
- Social/Visiting
- Before / After School

2. What should be the hours of operation?

3. Does the service operate early or late enough?

- Yes

- No

3a. Should we add hours in the morning or evening

4. What do think should be the days of operation?

5. To what cities and communities should the bus go?

- Cities

- Communities

6. How do you rate the present bus service?

(on the scale of 1 (best) to 5 (worst))

- Timeliness
- Cleanliness
- Drivers Courtesy
- Fares
- Reliability
- Overall Service Quality

7. How much would you be willing to pay?

$0.75
$1.00
$1.25
$1.50

more than $1.75 or more

8. Do you have a Driver's License?

-Yes
-No

9. Do you have a Vehicle available?

Appendix C: Transit Land Use Standards

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Appendix C: Transit Land Use Standards

INTRODUCTION

Land use planning is a critical element in the function of any transportation system—whether it involves automobiles, buses, bicycles, or pedestrians. While land use planning is often associated with governmental entities, land use planning should more appropriately be viewed as the process of setting goals and pursuing these goals in order to achieve certain ends from the use of parcels of land. Private developers, for example, often use such words as “access” and “amenities” to describe the manner in which they want their parcels of land to relate with the transportation system.

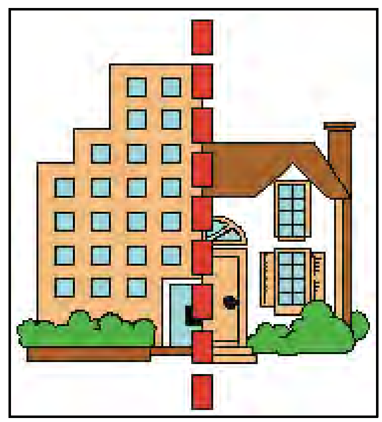
The goal of land use planning as it relates to transportation is to make sure the supply of transportation (the number and size of roads, the frequency of transit service, etc.) is adequate in order to meet the demand (the number of people going from one point to another). Without having a “plan” or a knowledge of what to expect from any given parcel of land, it is very difficult to achieve the balance where supply meets demand. Since governments are being pushed by citizens to be more efficient and frugal with taxpayer money, there is seldom excess supply. Thus, unplanned development results in congestion and more accidents. These conditions compromise all modes of travel, creating a situation where people’s preferred mode of travel (automobile) and many of the alternatives (transit, bicycling, and walking) all fail at the same time.

When combining land use planning and transit, many people remember only the transit advocate’s point of view—which is more buses, fewer cars. In some cases, this point of view may be appropriate, but it is not the only point of view. The cost-conscious taxpayer should consider the argument that land use planning can help minimize the cost of providing essential public transit service. In addition, public transit can play a role in preserving the character of a historic downtown area or reduce the need for costly parking structures.

In the study area, changes in residential development and commercial businesses have occurred outside the city limits. Residential subdivisions are located on the outskirts of town, and commercial development is sprawling to the edge of town. At the end of this appendix, LSC has included two transit-friendly checklists that should be distributed to the Planning Departments in the cities of Idaho Falls, Ammon, and Iona as well as Bonneville County. The checklists should also be given to other municipal planning departments and any other entity reviewing or submitting plans within the TRPTA service area. The checklists suggest particular enhancements to the existing county and municipal zoning and land use planning.

DESIGN STRATEGIES

In recent years, there has been a strong interest in the planning profession regarding the strategies by which rural and urban development can be shaped to maximize the efficiency of alternate transportation modes (particularly transit). This field of study has taken on different names in various parts of the United States.



On the east coast, this field of study is commonly referred to as the "Neo-Traditional Neighborhood Development" (TND) movement. The movement has been championed by academics such as Andreas Duany and Elizabeth Plater-Zyberk. It is evidenced in such places as the new town of Seaside, Florida and the extensive Kentlands development near Washington, DC.

In the west, this field of study has typically been labeled "Transit Oriented Design" (TOD). The leading figure in this field is Peter Calthorpe, who has been instrumental in the development of the extensive Laguna West project on the southern edge of the Sacramento, California metropolitan area. There are a number of similarly planned new towns in the San Diego, California; San Francisco, California; Portland, Oregon; and Seattle, Washington metropolitan areas.

There are a number of common design strategies that have been identified through this field of planning research. A key element in the design strategies presented below is an acceptance that automobile use will remain a key part of the transportation system. To that end, the strategies do not strive to eliminate all automobile traffic. Rather, the goal is to make transit and other alternative transportation modes as attractive as possible. The design strategies are discussed below.

Cluster Land Use Densities Close to Major Transit Stops

A vital rule of thumb in transit planning is that the potential for transit ridership drops off dramatically with increased distance from the nearest transit stop. Research consistently shows that the number of people willing to use transit drops dramatically beyond a one-quarter mile walking distance to the bus stop (7.5-minute walk at two miles per hour). It therefore follows that the more trip origins and destinations that can be concentrated within approximately one-quarter mile of a major transit stop, the greater the potential for transit usage. Within the constraints of the real estate market and local housing preferences, therefore, is a benefit in developing zoning classifications and transit services in tandem to ensure that the greatest number of dwelling units, employment opportunities, and institutional/commercial centers are located near major transit stops.

The Calthorpe school of planners has dubbed this land use cluster a "pedestrian pocket." The leading proponent defines this term to mean "a simple cluster of housing, retail space, and offices within a quarter-mile walking radius of a transit system" (*The Pedestrian Pocket Book: A New Suburban Design Strategy*, Kelbaugh, Doug, ed. New York: Princeton Architectural Press, 1989).

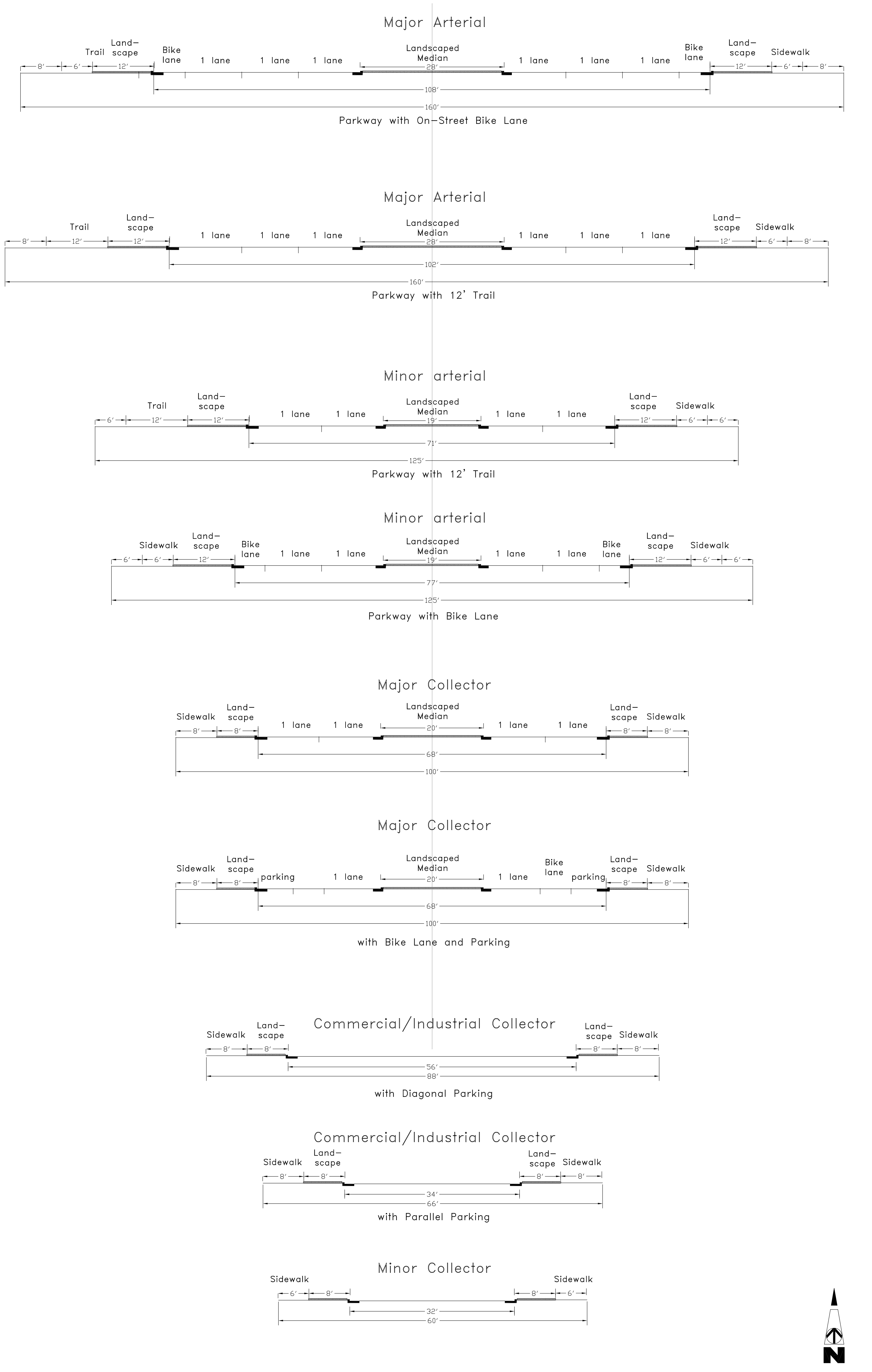
Other characteristics of a "pedestrian pocket" include a residential density of approximately 12 dwelling units per acre, and a commercial development with a 0.25 floor area to property area ratio. Other studies have found that the recommended minimum densities of development to support public transportation are seven dwelling units per acre for residential developments, and a 1.0 floor area to property area ratio for commercial and office development *(Guidelines for Transit-Sensitive Suburban Land Use Design,* US DOT, p.42, 1991).

Surrounding "Secondary Area" Should Be Developed

The surrounding "secondary area" should include those land uses within a one-mile radius from the transit center. This area should contain more automobile-oriented uses, such as lower density residential (but still at least six dwelling units per acre), highway commercial uses, schools, and public facilities. Residents in these areas help to support the retail center in the "pedestrian pocket," and are also conveniently located with respect to drop-off or bicycle access to the transit center. Street networks should be designed to allow access to the transit center without traveling on an arterial street.

Street Network Should Be Developed to Allow Efficient Transit Service

In order to reduce traffic volumes near residences and avoid the potential for "cut through" traffic, land use and traffic planners in the period since roughly World War II have commonly designed residential areas with a curvilinear disconnected street system in suburban areas. While a bus can be routed along the curvilinear collector or arterial street close to the residences within a subdivision, the walking distance may be excessive because there is no direct access. Connected streets should be provided to permit bus routes into residential neighborhoods. In addition, streets which will be designated as bus routes must have adequate turning radii at the intersections. Bus turnouts should be designed with a pavement composition that resists damage by buses. Bus turnouts should also be placed in locations that minimize traffic flow interruptions (especially at intersections) and maximize pedestrian access. The following cross sections are examples of streets that allow for transit service.



Typical Cross Sections

Figure 1

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Convenient Pedestrian and Bicycle Connections to Transit Stops

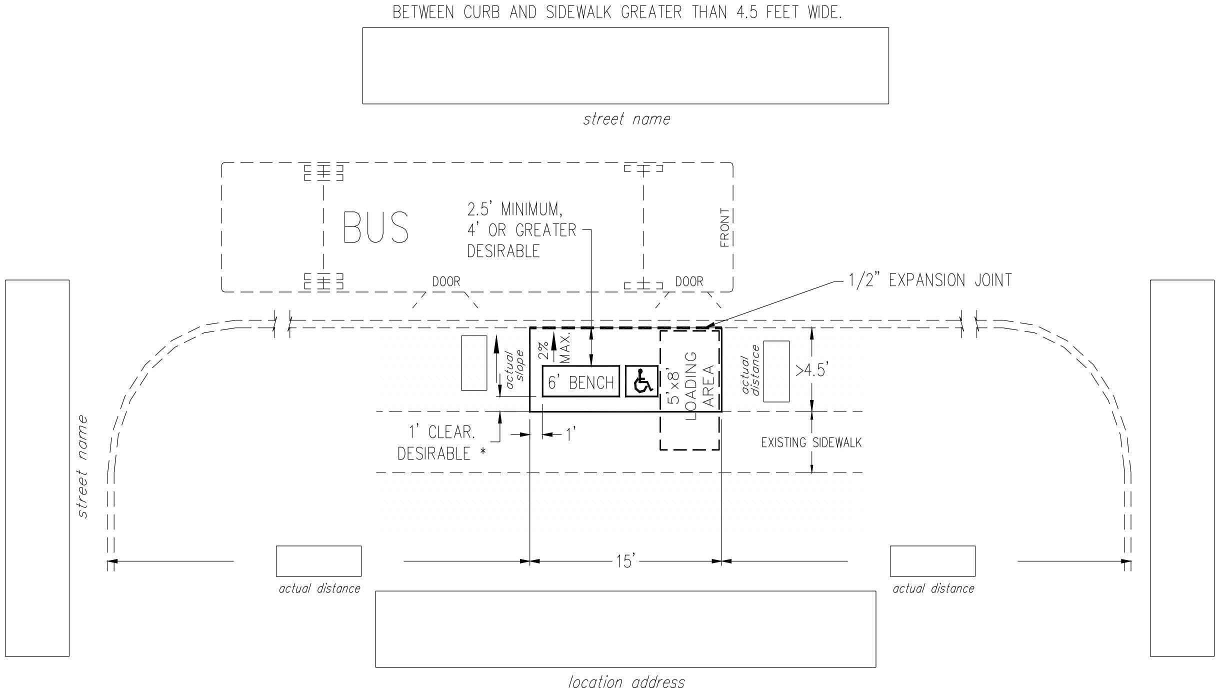
A key strategy in the TOD design is to ensure that transit passengers can quickly access a bus stop from their trip origin or destination. This strategy recognizes the fact that transit patrons are pedestrians as soon as they leave the bus. To this end, special emphasis is placed upon providing direct and attractive pedestrian and bicycle ways between residential and employment areas and the transit stops, often including pedestrian paths linking cul-de-sacs with nearby transit stops on collector and arterial streets.

Bus shelters should be placed approximately four to five feet from the curb edge and should be located where there is efficient pedestrian access and/or neighborhood commercial nodes. When possible, bus shelters and turnouts should not be sited on major arterials with high travel speeds. Instead, a nearby collector should be utilized. The diagrams detail the layout of bus facilities for fixed-route service.

Figure 2

Typical Bus Bench Placement

FOR BUS STOPS WITH DETACHED SIDEWALKS AND AN AREA
BETWEEN CURB AND SIDEWALK GREATER THAN 4.5 FEET WIDE.



* IF EXISTING SIDEWALK IS ALSO A BIKE TRAIL, THEN A 3' CLEARANCE MUST BE PROVIDED

ALL NEW SIDEWALK AND BENCH PADS SHALL BE A MINIMUM OF 4" THICK, 4000psi CONCRETE.

BETWEEN EDGE OF SIDEWALK AND BENCH.

ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

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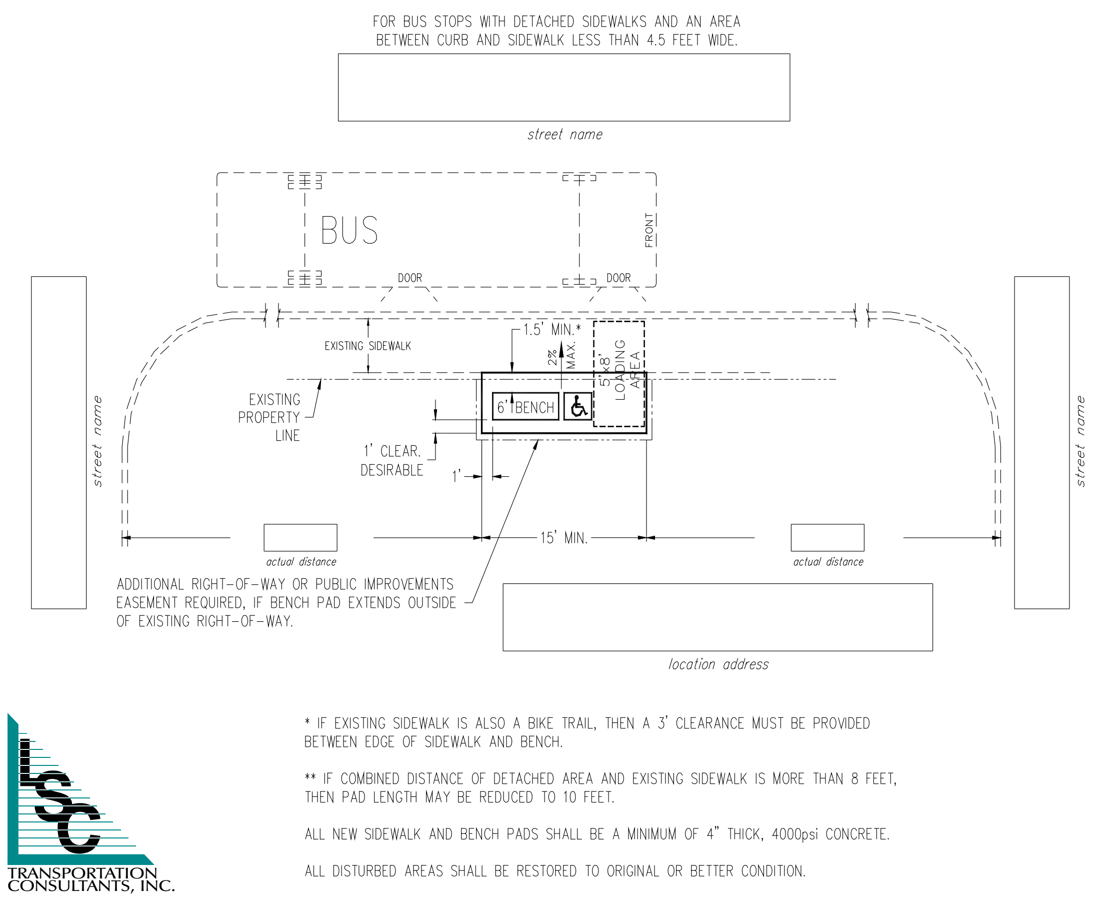
Figure 3

Typical Bus Bench Placement



* IF EXISTING SIDEWALK IS ALSO A BIKE TRAIL, THEN A 3' CLEARANCE MUST BE PROVIDED BETWEEN EDGE OF SIDEWALK AND BENCH.

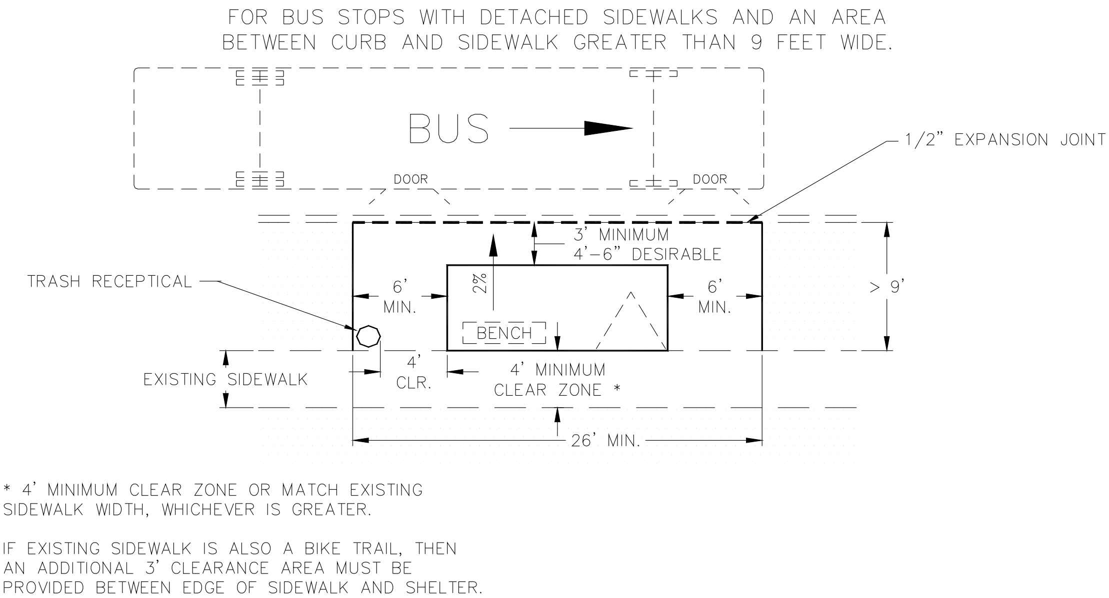
** IF COMBINED DISTANCE OF DETACHED AREA AND EXISTING SIDEWALK IS MORE THAN 8 FEET, THEN PAD LENGTH MAY BE REDUCED TO 10 FEET.

ALL NEW SIDEWALK AND BENCH PADS SHALL BE A MINIMUM OF 4" THICK, 4000psi CONCRETE.

ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

Figure 4

Typical Bus Shelter General Notes



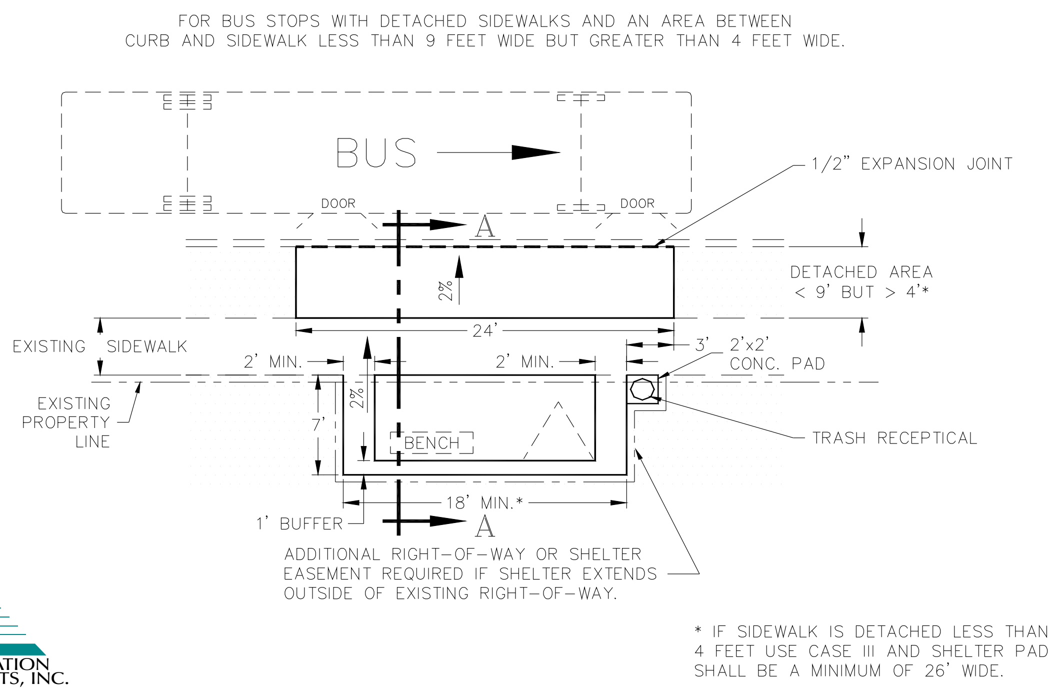


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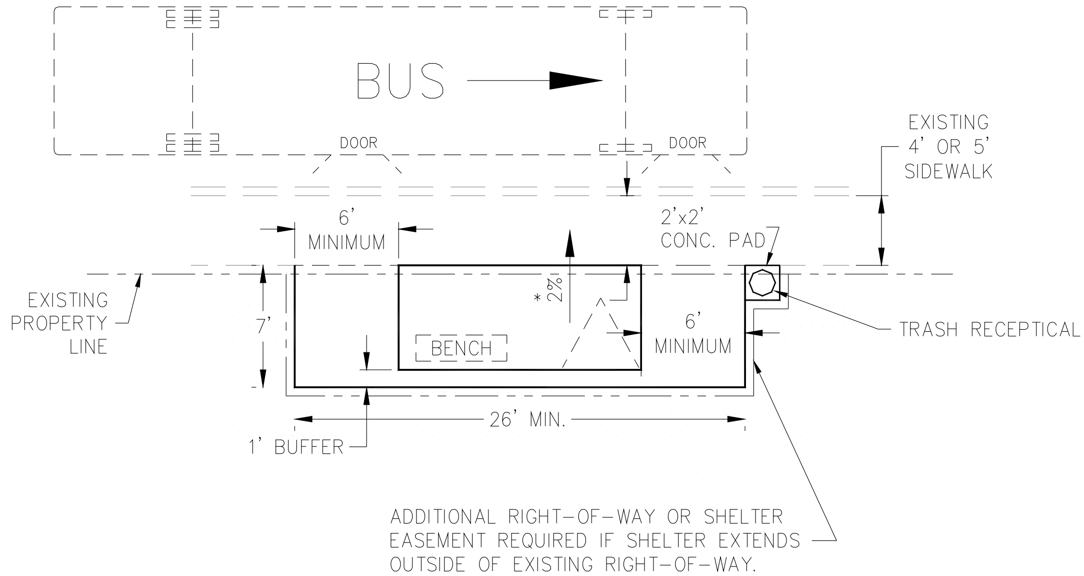
Figure 5

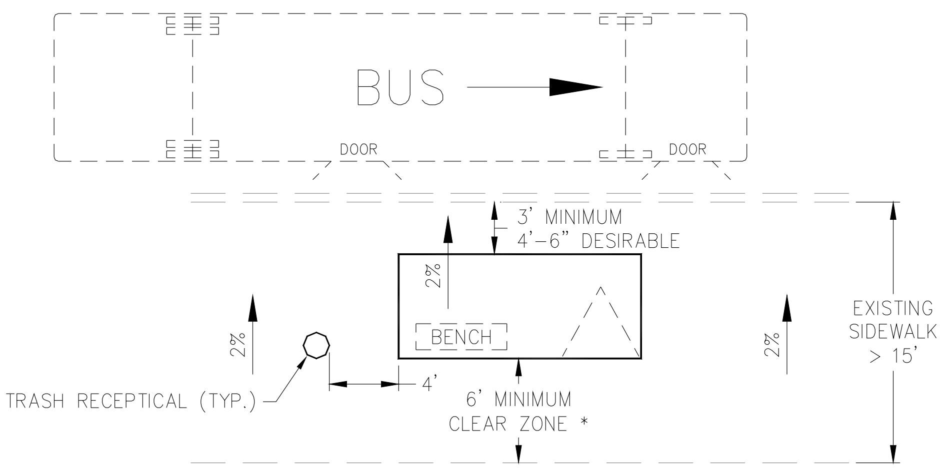
Typical Bus Shelter General Notes

FOR BUS SIOPS WIIH AIIACHED SIDEWALKS.



* MATCH EXISTING SIDEWALK WIDTH.

FOR BUS STOPS WIIH AIIACHED SIDEWALKS MORE IHAN 15 FEEI WIDE



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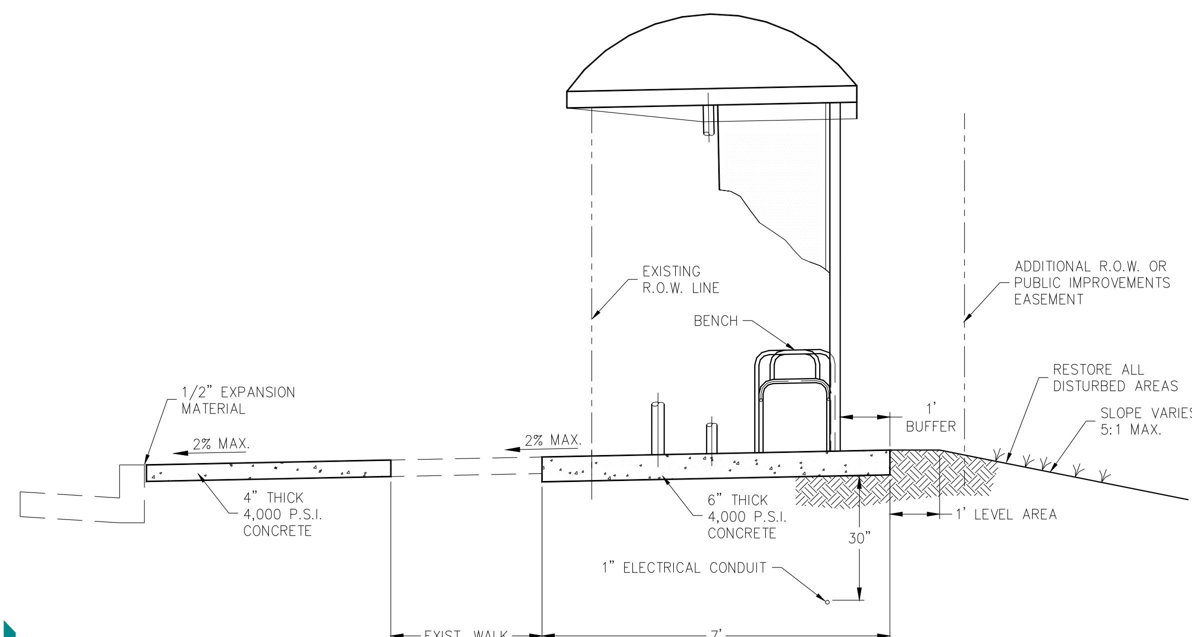
* PROVIDED THAT THE SIDEWALK IS NOT ALSO A BIKE LANE OR TRAIL, IN WHICH CASE THE SIDEWALK MAY NOT BE OBSTRUCTED AND THE SHELTER WILL NEED TO BE LOCATED BEHIND THE BACK OF SIDEWALK.

Figure 6

Typical Bus Shelter General Notes



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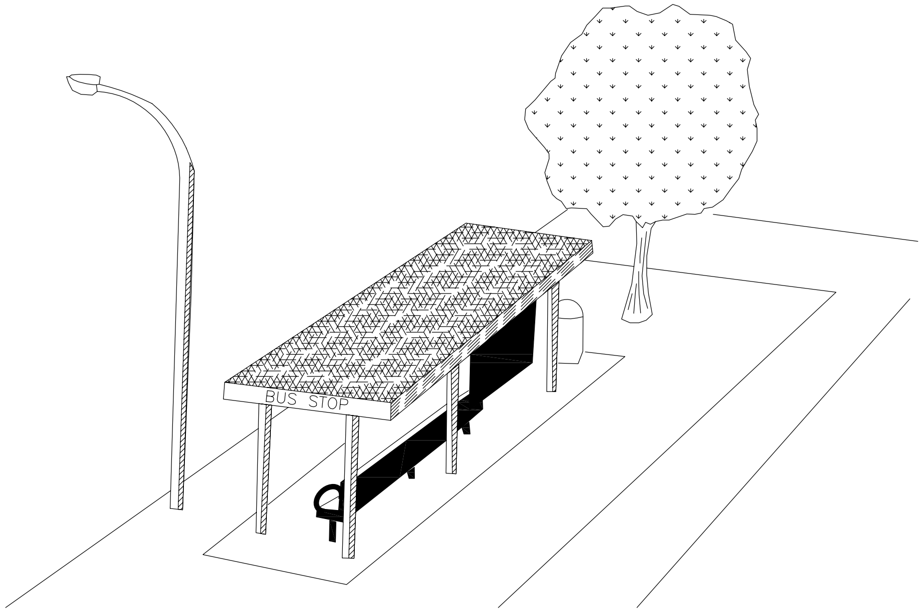
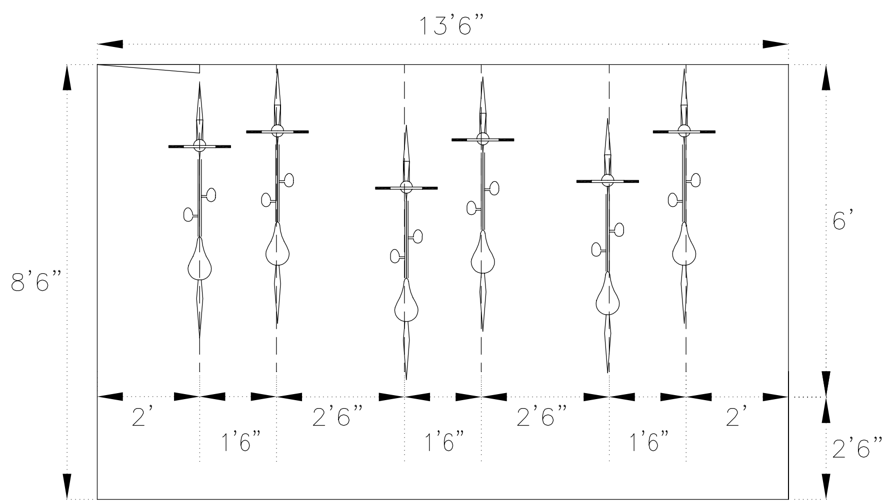


EXAMPLE OF COORDINATING BUS STOP LOCATION WITH AN EXISTING STREET LIGHT

SOURCE: TCRP REPORT 19, *GUIDELINES FOR THE LOCATION AND DESIGN OF BUS STOP8*



RECOMMENDED SPACE FOR PARKING SIX BICYCLES

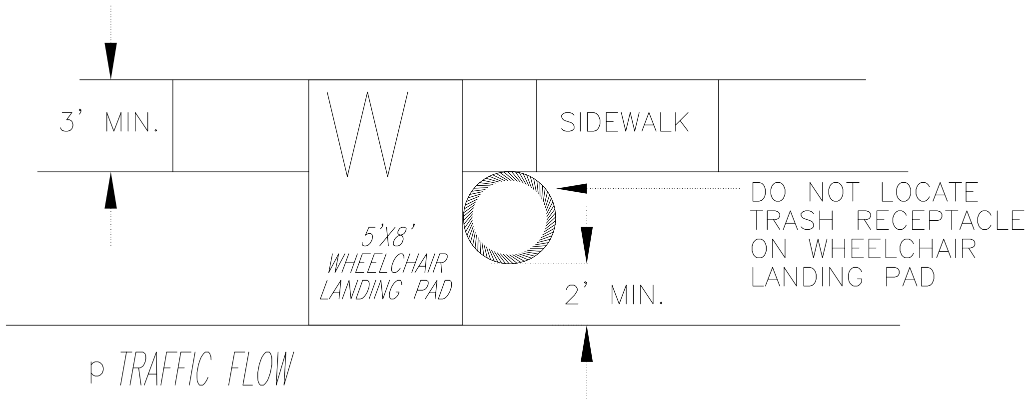
LSC INC.

FIGURE NO. 7

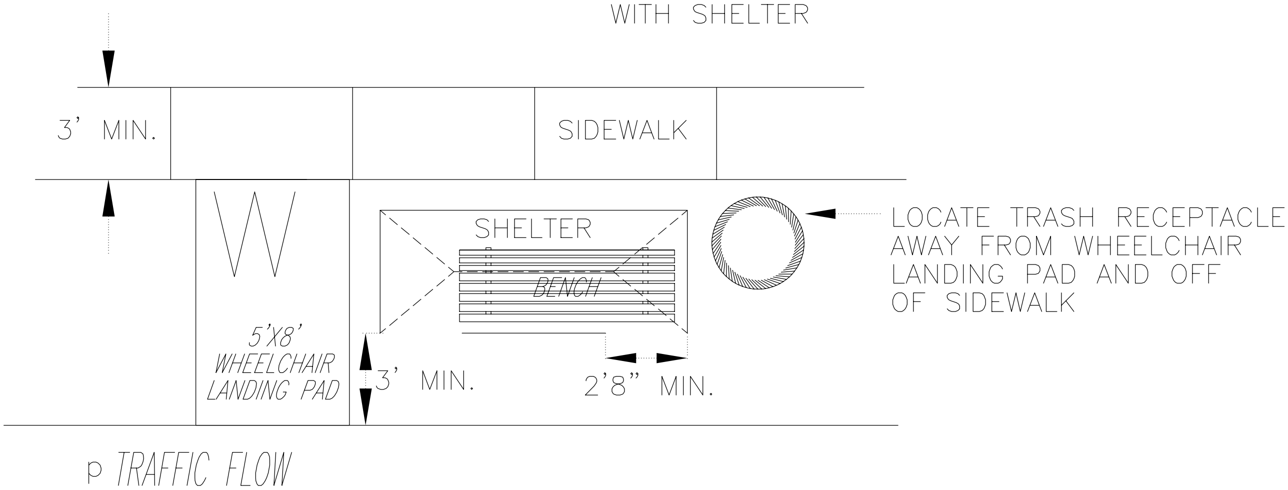
BUS STOP COORDINATION WITH STREET LIGHTS & RECOMMENDED SPACE FOR BICYCLE PARKING

TRTPA TRANSIT IMPROVEMENT STANDARDS

WITHOUT SHELTER/WITH OR WITHOUT BENCH



WITH SHELTER



RECOMMENDED TRASH RECEPTACLE PLACEMENT

SOURCE: TCRP REPORT 19, *GUIDELINES FOR THE LOCATION AND DESIGN OF BUS STOPS*

FIGURE NO. 8

RECOMMENDED TRASH RECEPTACLE PLACEMENT

TRTPA TRANSIT IMPROVEMENT STANDARDS

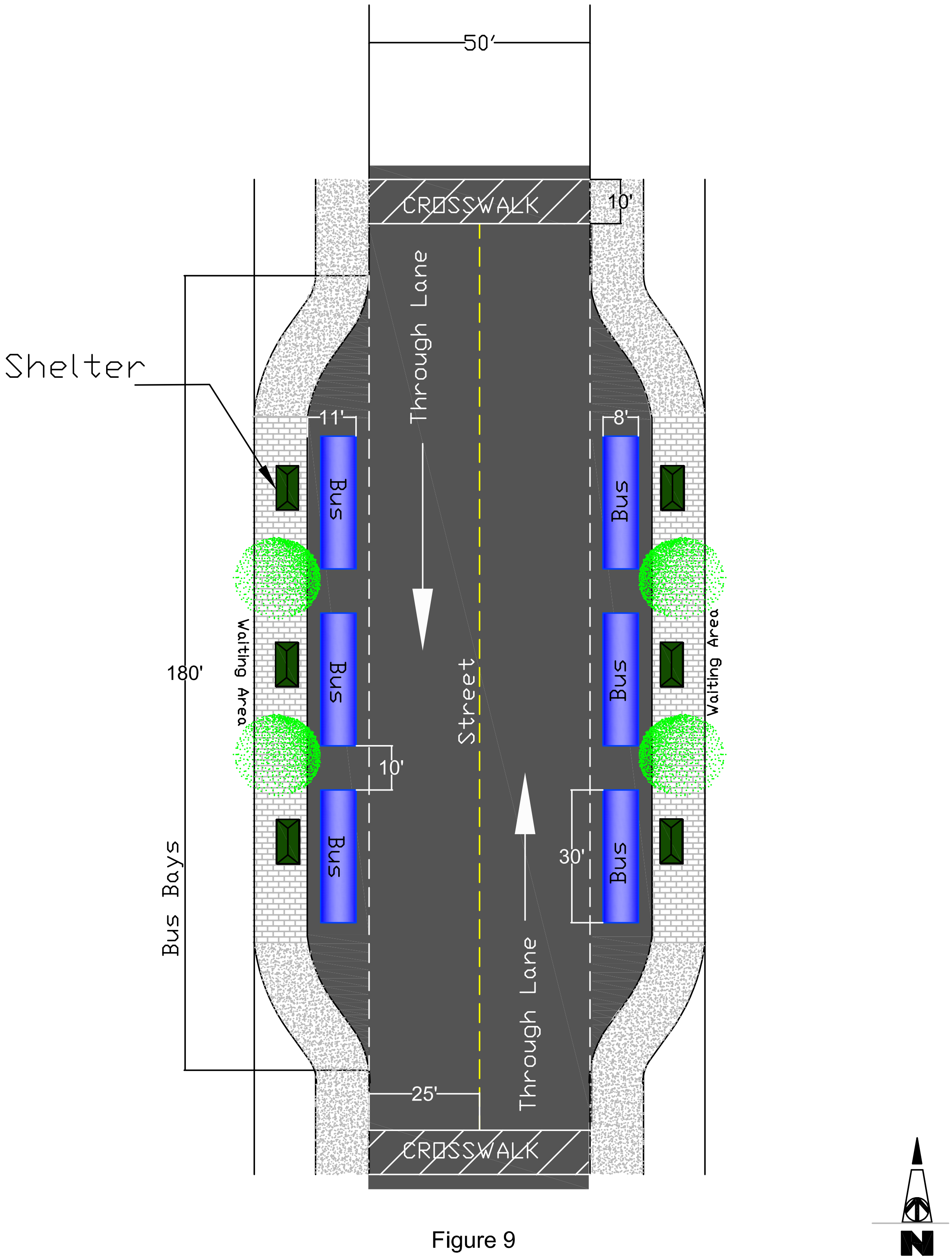


Figure 9
TRTPA TRANSIT IMPROVEMENT STANDARDS

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Site Design That Serves Both Automobile and Transit Users

A quick drive to the closest Wal-Mart or another other big box retailer shows the result of current commercial site design practices. Automobile drivers are provided with a relatively short walk to the front door after parking. The transit passenger is typically dropped off at the street edge, enduring a long walk to and across the parking lot unprotected from the weather. Current site design of this type rewards automobile use and penalizes transit use. By redesigning and clustering the commercial uses near major intersections, however, both automobile and transit users could be provided with convenient walking access to the site. In addition, the clusters formed by this site plan would encourage increased walking between buildings for meals, business, errands, etc.

Convenient transit access may take the form of setbacks and parking standards. In addition to minimum setbacks, local ordinances should specify the allowable maximum setbacks adjacent to the public transportation corridors. The location of parking facilities within the public transportation corridor should also be addressed. Local ordinances should require that parking be provided at the rear or possibly at the side of the building. The front of the building should be oriented to the street, with a specific allowable maximum setback that is close to the street and oriented to public transportation and pedestrians.

Buildings, especially commercial and institutional ones, should be constructed to provide access for transit vehicles. Common examples of such buildings are hospitals and hotels. The access that is needed consists of overhead clearance and pull-through driveways. Without these, the transit vehicle must either stop further from the front door of such buildings or be at risk of backing out of dead-end driveways. Poor vehicle access also contributes to a loss of efficiency.

Park-and-ride facilities should provide an adequate number of bus berths, easy pedestrian access from the parking lots, and a separation of bus and automobile traffic flows.

Mixed Land Uses

Traditionally, zoning districts have been formed to keep differing land uses as far removed from each other as possible in an effort to eliminate any potential for negative spillover impacts. The end result, however, has created communities where alternative modes of transportation are very difficult to use. Carefully planned mixed land uses, including neighborhood-serving commercial and restaurant space, reduces automobile use while providing increased opportunities for transit and pedestrian activity.

Also under the rubric of mixed land uses is the concept of "joint development." In many cases, the wholesale mixing of land uses is difficult to achieve, either politically or because of existing development. Joint development is a concept which states that businesses and transit agencies can benefit by providing a combination of services and amenities that generate customers for both. These types of arrangements usually occur at bus stops or transit stations/centers. The level of activity at these locations can vary from small (with the provision of newspaper boxes, public telephones, and a cash machine) to extensive retail and service areas (serving both transit users, employees, and shoppers) with large multiple use projects directly tied into the transit systems.

APPLICATION TO TRPTA SERVICE AREA

Existing government policies may work for or against transit development and ridership. Existing zoning may disallow the mixed land uses, building designs, and densities more suitable for generating transit ridership and for attracting developers' interests. In addition, public zoning and building provisions may impede the design of convenient connections between development projects and access points. Standards for setbacks and buffering, parking standards, restrictions on building heights, and density limits must be addressed in order to work toward supporting transit-friendly and pedestrian-friendly designs. The existing codes for the cities within TRPTA's service area do not aid in the creation of transit-friendly developments.

Actions To Be Addressed

Land use planning and design has a strong relationship with transportation demand and travel patterns. They play an important role in determining the viability of public transportation and the feasibility of serving portions of the community. Recognizing this important relationship, below is a list of recommended enhancements to the existing county and municipal zoning and land use planning. These enhancements positively impact land use decisions on transportation needs within the local area and support a transit-friendly community.

1. Provide comfortable transit facilities. Make bus stops and bus waiting areas attractive through high-quality design/construction and pedestrian amenities such as lighting, seating, and weather protection.

2. Adopt transit-oriented development design guidelines. Each transit patron is a pedestrian as soon as the individual leaves the bus, so the pedestrian facilities should be emphasized. There should be a relatively small setback from the transit corridor. City and county ordinances should specify a maximum setback within the public transportation corridor. City and county ordinances should require that parking be provided at the rear or side of buildings. The front of the buildings should be oriented to the street with maximum setbacks which are close to the street and oriented to public transportation and pedestrians.

3. Recognize transit-friendly planning and design by sponsoring an annual awards program.

4. Incorporate pedestrian-friendly design guidelines in the street design manuals for all new developments. Pedestrian access (paths, trails, or sidewalks) should be provided in the proximity of bus stops to residential developments. Bus stops and sidewalks should connect with other walkways or paths in order to provide easy access to the residential and commercial development.

5. Provide incentives such as density bonuses or reduced parking requirements for developers who design pedestrian-friendly projects.

6. Promote a complete network of sidewalks throughout the cities within the TRPTA service area. Require all public and private development projects in the cities and counties within the area to include sidewalks on both sides of the roads, except for freeways.

7. Focus new development in the urban areas or town centers.

8. Encourage in-fill and redevelopment by designating underdeveloped or declining neighborhoods for public investment.

9. Promote mixed-use development in redevelopment areas.

10. In regional transportation planning processes, prioritize new and maintenance road projects based upon how well they serve in-fill development and include transit-friendly infrastructure (bicycle lanes, sidewalks, bus pullouts, bus pads, and bus stops).

Appendix C

Land Use Checklist to Support Transit

CHECKLIST FOR ALL REVIEW PROJECTS. This transit checklist should be used to evaluate the accessibility of a development to public transportation by the City and County Planning and Zoning Departments/Boards. Development plans can be critiqued by answering the questions on the following checklist. These questions are designed to receive a YES response if the development will accommodate transit vehicles and provides access to public transportation. If a YES response is not received, the Planning and Zoning Department/Board should further review the appropriate area and provide reasonable transit-friendly recommendations for the project.

Do the roads within and around the development incorporate the following features to make the development accessible by public transportation?

Intersection radii for driveway and intersections designed for a 53-foot outside turning radius.
Roadway grades that are 3% or less.
Roadway pavement should be constructed to handle vehicles with loads of 20,000 lbs. per axle.
Bus loading pads should be designed with a minimum 8-inch portland cement concrete jointed reinforced pavement and a 4-inch sub-base of stabilized granular material.
Lane widths of 12 feet.
Curb heights of 6 inches or higher.

Are residential developments designed with a central collector street that provides access for transit vehicles?

Have bus stop locations near the development been identified by TRPTA?

Are paved passenger waiting areas provided at all near-side corners of collector and arterial street intersections?

Are passenger amenities (shelters, benches, adequate lighting, bicycle facilities, and landscaping) provided at bus stops?

Are transit stops located within one-quarter mile (one-half mile in low density developments) or less of all buildings within the development?

Have bus turnouts, berths, turnarounds, and/or park-and-ride facilities been incorporated into appropriate roadway or development designs?

Do pedestrian walkways provide a direct path from building entrances to transit stops?

Are pedestrian walkways and bicycle routes located along the development's perimeter streets? Do they lead directly to building entrances?

Are walkways, curbs, bus stops, building entrances, parking areas, and transit facilities designed for the mobility limited?

Do office and industrial developments over 25,000 square feet have lobbies designed with passenger waiting areas?

Are retail, office, and industrial buildings located within 150 feet from transit service?

Is adequate lighting provided at bus stops and passenger waiting areas, and along pedestrian walkways?

Are 5% of the parking spaces near the primary building entrance from the parking lot designed for vanpool/carpool vehicles?

Do parking spaces for the mobility-limited conform to ADA regulations?

Are parking spaces for the mobility-limited located adjacent to the primary building entrance from the parking lot?

US DOT, Guidelines for Transit Sensitive Suburban Land Use Design, July 1991.

Good Practices for Transit-Supportive Development

FTA, Transit Supportive Development in the United States, 1993

Land Use

- Mix transit-compatible land uses on single sites and near transit stops. Mixes may take the form of first-floor retail with office and residential above, or it may involve integrating housing, office, retail, industrial, and recreational uses over a larger area.

- Encourage densities that can support transit. Some generally agreed-upon thresholds are:

  Residential Densities
  - At least 7 units per acre is necessary to support bus service every 30 minutes;
  - At about 30 units per acre, bus service every 10 minutes becomes possible.

  Employment Densities
  - The threshold for employee-based high level of local bus service (10 to 15 minutes) is approximately 50-60 employees per acre when the total employment base is 10,000 or more, 30 to 60 minute level of service is based on 10 to 20 employees per acre;
  - Floor-to-area ratios (FAR) should exceed 2 to justify frequent service.

- Site high-density development close to transit stops and routes. Densities should gradually decline with distance from the stops, and non-transit compatible density (low density) should be located away from transit stops.

- Situate new developments along transit routes in existing urban or suburban activity centers. These centers should be mixed-use and transit-oriented in nature (or they should be gradually converted if they are not).

- One-quarter mile is usually the maximum distance that a person will walk to a transit stop. Thus, new developments should be located within one-quarter mile of a transit stop, and preferable much closer where possible.

- Increasing FAR will improve the demand and need for transit. Example: a FAR of 1 for a lot of 20,000 square feet means that the building needs to be 20,000 square feet of floor space. If the building is 50 percent of the lot, the building is 10,000 square feet with only 10,000 square feet for parking. The higher the FAR reduces the space for parking, hence increasing the need for transit services.

Site Design

- Minimize the distance between a main building entrance and the nearest transit stop. There should be a direct, paved pedestrian route from the stop to the entry.

- Retail and office buildings should be located near the roadway (i.e., setbacks should be minimized) with parking in the back or on the side.

- Pedestrian-oriented retail uses should be located along the roadway.

- Grid or modified grid street patterns are preferred to cul-de-sac or curvilinear streets. Street systems should have clear functional hierarchy including local, collector, and arterial streets.

- Connect neighborhoods and transit stops with direct pedestrian walkways. Where soundwalls surround a neighborhood, the wall surface should be staggered to create entrance/exit points. In the case of a cul-de-sac, walkway easements should be used to shorten the distance to nearby bus stops.

- Configure streets to allow for through and efficient movement of buses. Avoid cul-de-sacs, branch roads, and excessive circling.

- Abundant free parking should be discouraged. Walking distances from parking facilities to buildings should be no closer than the nearest transit facilities.

- All buildings should be oriented toward transit stops. Front and rear lot setbacks should be modest.

- Non-connected, adjacent development parcels should be linked by new roadways when possible.

Pedestrian and Transit Facilities

- All geometrics on roads serving a development should be designed to accommodate transit. Special attention should be given to turning radii, road widths, and pavement depths where future bus routes are expected.

- To encourage walking, there should be generous landscaping, paved walkways, and safe street crossings.

- Link all buildings and transit stops with continuous sidewalks. Sidewalks should abut all roadways.

- Bicycle racks, lockers, and showers should be made available at work sites.

- Transit shelters and other transit stop facilities (i.e., route information stands, trash cans, and benches) should be appropriately sited.

- Locate bus stops at least every one-quarter mile. Also locate new developments within one-quarter mile of bus stops. Often one-quarter mile is treated as the maximum walking distance to a transit stop, although the more realistic 500 to 1,000-foot maximum walk for bus transit is sometimes used.

- All buildings, walkways and transit facilities should be accessible.

- Give transit passenger safety and security a high priority.

Appendix D: Adjusted Routes and Fare Structure

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Figure D-1
Yellow Route Adjustment

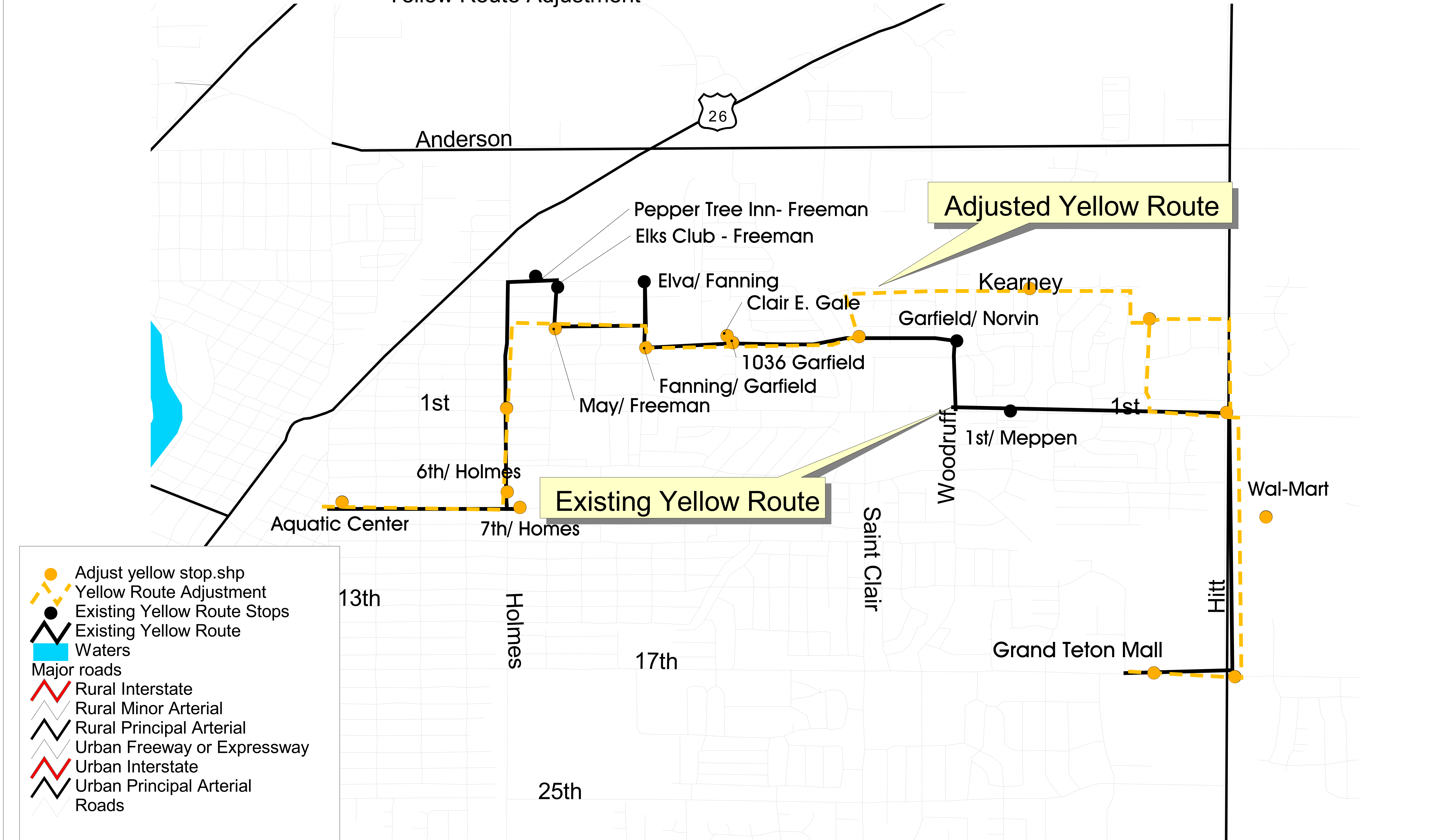


Figure D-2
Green Route Adjustment

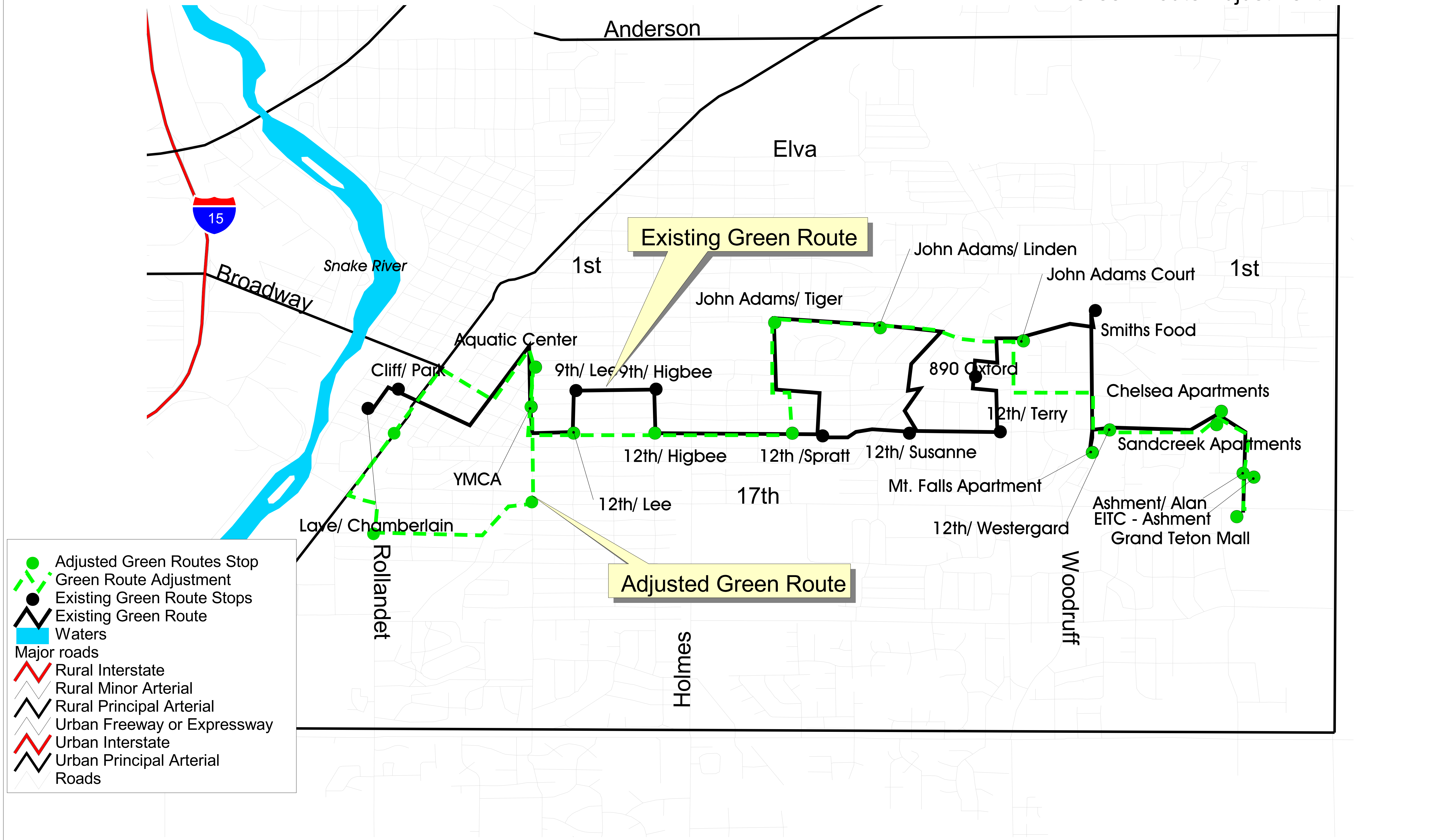
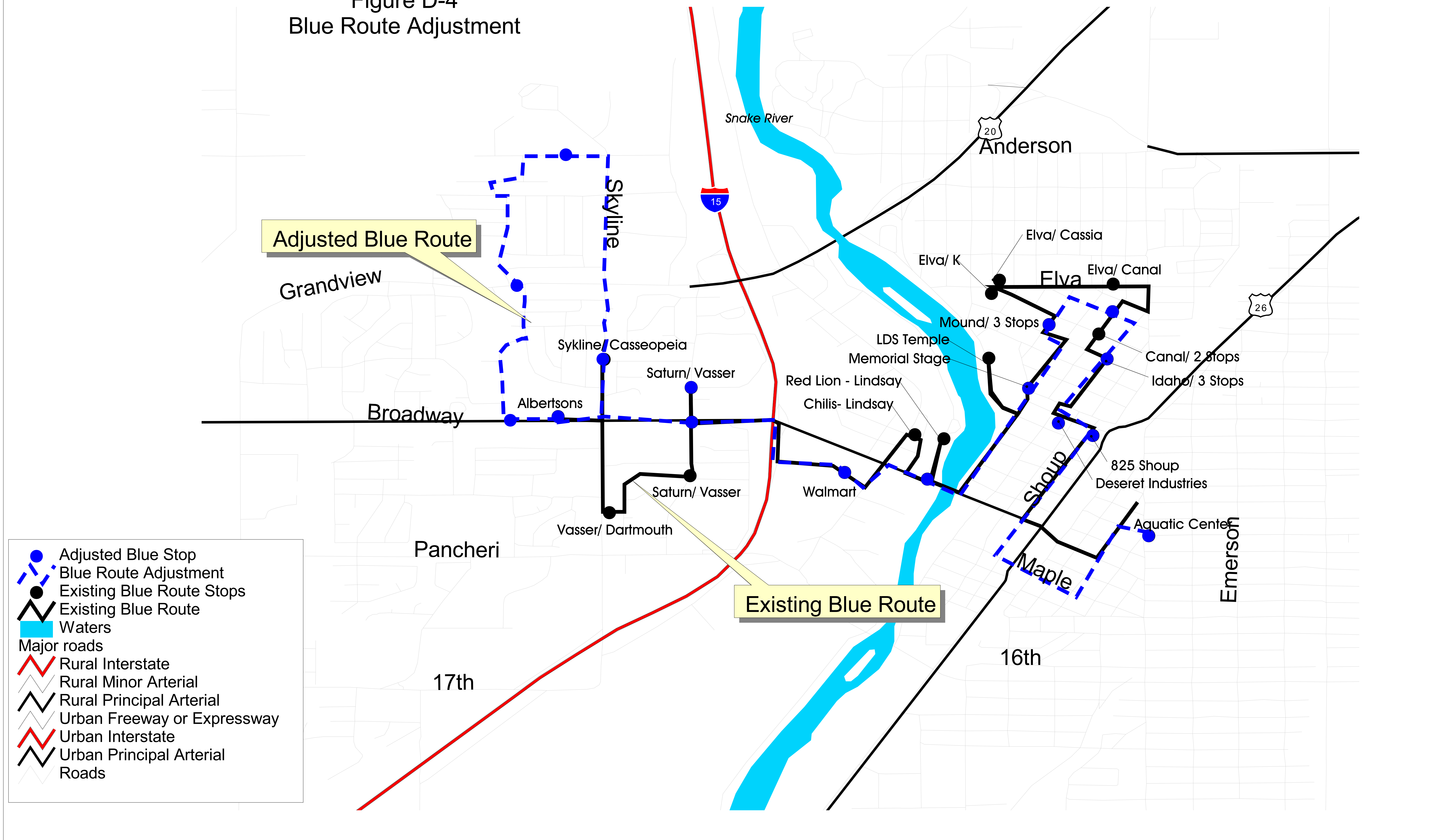
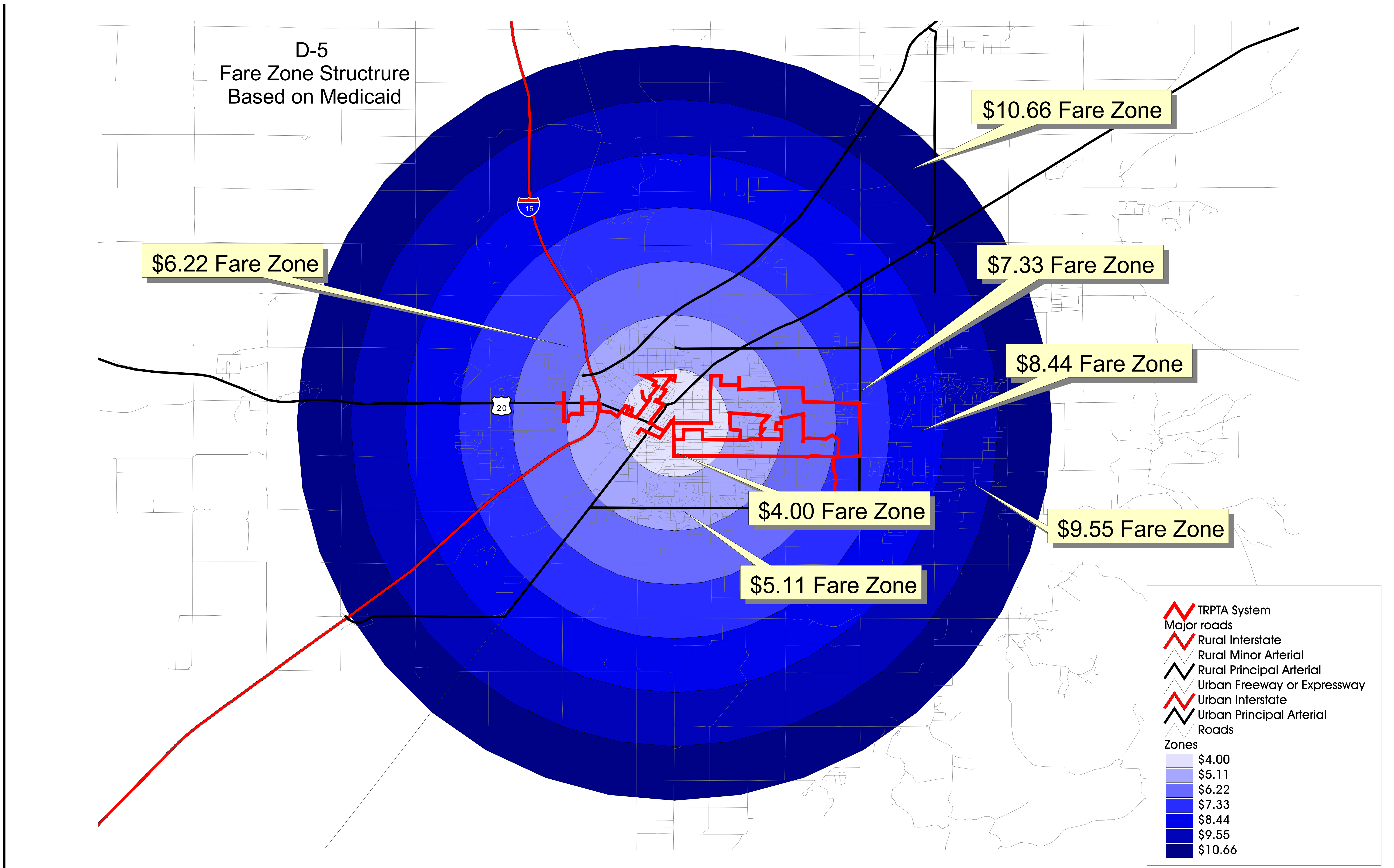


Figure D-3
Red Route Adjustment

Figure D-4
Blue Route Adjustment




D-5
Fare Zone Structrure
Based on Medicaid
$10.66 Fare Zone
$6.22 Fare Zone
$7.33 Fare Zone
$8.44 Fare Zone
$4.00 Fare Zone
$9.55 Fare Zone
$5.11 Fare Zone
15
20
TRPTA System
Major roads
Rural Interstate
Rural Minor Arterial
Rural Principal Arterial
Urban Freeway or Expressway
Urban Interstate
Urban Principal Arterial
Roads
Zones
$4.00
$5.11
$6.22
$7.33
$8.44
$9.55
$10.66

D-6
Example Fare Zone Structrure